APPENDIX A

GEOTECHNICAL CORE LOGS AND ORIENTED CORE DATA

HOLE	GT07-01	Osisko Project		07-1221-0028		Azimuth	45		Dip	-60																		
																											Hardness and Weathering	
Run #	From	To	Interval	Rock type	Recovery	TCR (%)	RQD	RQD	SCR	SCR	Fracture/0.25m													Fracts/run	Fracts/m	Jn	Strength	Weath
	m	m			m		m	%	m	%																		
1	12.08	15.00	2.92	AGR	2.22	76	2.11	72	2.25	101	0	0	0	0	0	2	1	0	0	0	0	0		3	1.03	2.0	R4/R5	1
2	15.00	18.00	3.00	AGR	2.90	97	2.50	83	2.20	76	1	1	0	1	1	1	0	0	1	0	0	0		6	2.00	4.0	R4/R5	1
3	18.00	21.00	3.00	AGR	3.09	103	3.07	102	2.68	87	1	2	0	0	1	0	1	0	0	0	2	0		7	2.33	4.0	R4/R5	1
4	21.00	24.00	3.00	AGR	3.06	102	3.06	102	3.01	98	0	0	1	1	0	1	0	0	1	0	0	0		4	1.33	3.0	R4/R5	1
5	24.00	27.00	3.00	AGR	2.95	98	2.60	87	2.56	87	0	0	1	1	0	0	0	0	0	0	0	0		2	0.67	2.0	R4/R5	1
6	27.00	30.00	3.00	AGR	2.95	98	2.60	87	2.56	87	1	2	0	0	0	0	0	0	0	0	0	2		5	1.67	4.0	R4/R5	1
7	30.00	33.00	3.00	AGP	3.00	100	2.90	97	2.84	95	0	0	0	0	0	1	2	0	0	0	0	0		3	1.00	2.0	R4/R5	1
8	33.00	36.00	3.00	AGP	3.00	100	2.87	96	2.94	98	1	1	0	0	0	2	1	0	0	0	0	0		5	1.67	4.0	R4/R5	1
9	36.00	39.00	3.00	CGR	3.00	100	3.00	100	2.58	86	0	0	0	0	0	0	0	0	0	2	0	0		2	0.67	2.0	R4/R5	2
10	39.00	42.00	3.00	CGR	3.00	100	2.29	76	1.84	61	0	0	0	1	0	0	0	2	1	1	1	1		7	2.33	4.0	R4/R5	2
11	42.00	45.00	3.00	AGR	3.02	101	1.80	60	1.44	48	0	0	1	3	0	0	0	1	1	1	0	0		7	2.33	3.0	R4/R5	1
12	45.00	48.00	3.00	AGR	3.00	100	2.84	95	2.65	88	0	0	0	0	1	1	1	2	0	0	0	0		5	1.67	3.0	R4/R5	1
13	48.00	51.00	3.00	AGR	3.00	100	2.56	85	2.27	76	2	0	2	1	1	1	1	0	0	2	2	0		12	4.00	6.0	R4/R5	1
14	51.00	54.00	3.00	AGP	3.00	100	2.29	76	2.22	74	1	0	0	1	1	3	2	0	0	0	0	0		8	2.67	6.0	R4/R5	1
15	54.00	57.00	3.00	AGR	3.00	100	2.74	91	2.25	75	2	0	0	0	0	0	0	0	1	1	1	1		6	2.00	6.0	R4/R5	1
16	57.00	60.00	3.00	AGR	3.00	100	2.09	70	1.80	60	1	2	1	2	1	0	0	0	1	1	2	1		12	4.00	4.0	R4/R5	1
17	60.00	63.00	3.00	AGR	3.00	100	2.40	80	2.29	76	1	0	1	2	0	1	0	3	0	1	1	1		11	3.67	6.0	R4/R5	1
18	63.00	66.00	3.00	AGR	3.00	100	1.62	54	1.81	60	0	0	0	0	2	0	0	0	0	0	0	0		2	0.67	2.0	R4/R5	1
19	66.00	69.00	3.00	AGR	2.83	94	2.83	94	2.73	96	0	0	0	0	0	0	0	1	0	1	0	1		3	1.00	3.0	R4/R5	1
20	69.00	72.00	3.00	AGR	3.10	103	2.95	98	2.92	94	1	0	0	0	0	0	0	2	1	0	0	0		4	1.33	3.0	R4/R5	1
21	72.00	75.00	3.00	AGP	2.40	80	1.82	61	1.56	65	0	0	1	0	0	0	3	2	0	0	0	0		6	2.00	3.0	R4/R5	1
22	75.00	78.00	3.00	AGR	2.97	99	2.80	93	2.77	93	1	0	0	0	1	1	1	0	0	0	0	0		4	1.33	3.0	R4/R5	1
23	78.00	81.00	3.00	AGR	3.00	100	2.70	90	2.50	83	0	2	2	0	0	0	2	0	0	0	0	1		7	2.33	4.0	R4/R5	1
24	81.00	84.00	3.00	SGR	3.03	101	3.03	101	3.00	99	0	0	1	0	2	0	0	0	0	0	0	0		3	1.00	3.0	R4/R5	2
25	84.00	87.00	3.00	SGR	3.00	100	2.95	98	2.90	97	0	1	0	0	0	1	0	0	2	0	0	0		4	1.33	3.0	R5	2
26	87.00	90.00	3.00	SGR	3.00	100	2.75	92	2.60	87	1	0	0	2	0	0	1	2	3	0	0	0		9	3.00	9.0	R5	2
27	90.00	93.00	3.00	SGP	3.00	100	2.84	95	2.80	93	0	0	0	0	2	2	0	0	1	0	0	0		5	1.67	6.0	R5	2
28	93.00	96.00	3.00	SGR	3.00	100	2.98	99	2.37	79	0	0	0	0	0	2	2	0	0	0	1	1		6	2.00	3.0	R5	2
29	96.00	99.00	3.00	SGR	2.96	99	2.70	90	2.18	74	2	0	0	2	0	0	4	2	3	2	4	2		21	7.00	3.0	R5	2
30	99.00	102.00	3.00	SGP	2.89	96	1.72	57	1.56	54	4	4	1	2	3	1	0	1	0	1	2	1		20	6.67	3.0	R5	2
31	102.00	105.00	3.00	SGR	3.12	104	2.48	83	1.94	62	3	0	2	2	1	0	0	1	1	0	1	0		11	3.67	4.0	R5	2
32	105.00	108.00	3.00	SGR	3.13	104	2.86	95	2.84	91	1	2	0	0	0	0	0	0	1	0	0	0		4	1.33	2.0	R5	2
33	108.00	111.00	3.00	SGR	3.12	104	3.07	102	2.99	96	2	0	0	0	0	0	0	0	0	1	0	0		3	1.00	4.0	R5	2
34	111.00	114.00	3.00	SGR	2.94	98	2.94	98	2.68	91	0	1	1	0	0	0	2	1	0	1	0	0		6	2.00	4.0	R5	2
35	114.00	117.00	3.00	SGR	3.02	101	2.79	93	2.61	86	0	0	2	0	2	1	1	2	0	0	0	0		8	2.67	6.0	R5	2
36	117.00	120.00	3.00	SGR	3.06	102	3.06	102	3.03	99	0	0	1	0	0	1	0	1	0	0	0	0		3	1.00	3.0	R5	2
37	120.00	123.00	3.00	SGR	3.03	101	2.83	94	2.12	70	1	2	1	2	1	1	0	0	1	1	0	1		11	3.67	9.0	R5	2
38	123.00	126.00	3.00	SGR	3.00	100	2.88	96	2.57	86	0	2	1	0	0	0	0	1	0	2	1	0		7	2.33	6.0	R5	2
39	126.00	129.00	3.00	SGR	3.00	100	1.90	63	1.46	49	1	1	1	2	2	1	1	1	2	2	1	0		15	5.00	4.0	R5	2

HOLE	GT07-01	Osisko Project		07-1221-0028		Azimuth	45		Dip	-60																		
																											Hardness and Weathering	
Run #	From	To	Interval	Rock type	Recovery	TCR (%)	RQD	RQD	SCR	SCR	Fracture/0.25m												Fracts/run	Fracts/m	Jn	Strength	Weath
	m	m			m		m	%	m	%																	
40	129.00	132.00	3.00	SGR	3.05	102	2.09	70	2.21	72	1	0	1	1	3	2	0	0	1	0	0	0	9	3.00	6.0	R5	2
41	132.00	135.00	3.00	SGR	2.99	100	2.89	96	2.78	93	0	0	1	0	0	0	0	1	1	0	0	1	4	1.33	3.0	R5	2
42	135.00	138.00	3.00	SGR	2.99	100	2.58	86	2.27	76	2	0	0	0	1	1	1	0	2	2	1	1	11	3.67	6.0	R5	2
43	138.00	141.00	3.00	SGR	2.98	99	2.98	99	2.21	74	0	1	0	2	0	1	1	1	1	0	0	1	8	2.67	6.0	R5	2
44	141.00	144.00	3.00	SGR	3.06	102	3.06	102	2.68	88	1	1	0	1	1	1	0	0	0	0	0	0	5	1.67	6.0	R5	2
45	144.00	147.00	3.00	SGR	2.99	100	2.50	83	2.33	78	0	1	1	0	0	0	0	0	0	1	1	1	5	1.67	4.0	R5	2
46	147.00	150.00	3.00	SGR	3.01	100	2.82	94	2.79	93	0	0	2	0	0	0	0	0	1	0	0	0	3	1.00	3.0	R5	2
47	150.00	153.00	3.00	SGR	2.96	99	2.96	99	2.77	94	0	1	1	1	0	0	0	0	0	0	1	0	4	1.33	3.0	R5	2
48	153.00	156.00	3.00	AGR	3.04	101	3.04	101	2.73	90	0	0	0	0	0	0	1	1	0	2	0	0	4	1.33	4.0	R5	1
49	156.00	159.00	3.00	AGR	3.00	100	2.94	98	2.77	92	0	0	0	1	0	0	2	0	0	1	0	0	4	1.33	6.0	R5	1
50	159.00	162.00	3.00	AGR	3.07	102	2.89	96	2.80	91	2	0	2	1	1	1	0	1	0	0	0	0	8	2.67	4.0	R5	1
51	162.00	165.00	3.00	AGR	2.88	96	2.50	83	2.29	80	0	0	0	1	1	0	1	3	0	1	2	1	10	3.33	4.0	R5/R4	2
52	165.00	168.00	3.00	AGR	1.61	54	1.28	43	1.01	63	1	1	1	0	1	0	2	2	1	0	1	1	11	3.67	3.0	R2/R4	2
53	168.00	171.00	3.00	AGR	0.86	29	0.00	0	0.00	0	0	0	0	0	1	1	0	0	0	1	0	1	4	1.33	4.0	R4	2
54	171.00	174.00	3.00	SGR	1.28	43	1.26	42	1.14	89	2	0	0	0	0	0	0	0	0	0	0	0	2	0.67	2.0	R5	2

HOLE GT07-01	Osisko Project	07-1221-0028			Azimuth	180 Dip -70
	Joint Descriptions					
Rock Type	Depth	Type	alpha	beta	Jr	Ja	Comments
	m		(°)	(°)			
AGR	13.3	JN	75	220	1.5	1	
AGR	13.42	JN	75	240	1.5	1	
AGR	13.68	JN	65	275	1.5	1	
AGR	15.23	JN	49	30	1.5	1	
AGR	15.56	JN	53	340	1.5	1	
AGR	15.97	JN	50		1.5	3	
AGR	16.21	JN	51		1.5	1	
AGR	16.49	JN	50		1.5	1	
AGR	17.05	JN	47		1.5	1	
AGR	17.5	18Br mec					
AGR	18.05	JN	50		1.5	1	
AGR	18.29	JN	52		3	2	
AGR	18.48	JN	52		1.5	2	
AGR	19.05	JN	59		1.5	1	
AGR	19.6	JN	16		1.5	1	
AGR	20.56	JN	20	315	1	1	
AGR	20.63	JN	70	110	1	2	
AGR	21.56	JN	16	128	1.5	2	
AGR	21.94	JN	70	120	1.5	1	
AGR	22.28	JN	72	94	1.5	2	
AGR	23.25	JN	75	120	3	1	
AGR	24.56	JN	31	165	1	2	micas
AGR	24.86	JN	31	160	1.5	2	micas
AGR	26.33	mec					
AGR	27.23	FO	37	78	1.5	2	Su
AGR	27.33	FO	29	84	3	2	Su
AGR	27.33	JN	84	84	1.5	2	Su
AGR	27.44	FO	22	90	3	2	
AGR	29.76	FO	18	285	1.5	3	
AGR	29.9	FO	20	110	1.5	3	Ca
AGR	29.96	FO	15	260	1.5	3	Ca
AGP	31.3	JN	84	290	1.5	1	
AGP	31.61	JN	84	290	1.5	2	Su
AGP	31.68	JN	60	330	1.5	1	
AGP	33.11	JN	90		1.5	1	
AGP	33.31	JN	74	118	1.5	1	
AGP	34.36	JN	85	280	1.5	1	
AGP	34.43	JN	83	5	1.5	1	
AGP	34.54	JN	86	145	1.5	1	
CGR	38.38	FO	22	70	1.5	3	
CGR	38.48	FO16	60	2	2	3	Su
CGR	39.93	Vn	28	255	1.5	1	
CGR	40.77	Vn	35	40	1.5	1	
CGR	40.77	Vn	18	40	1.5	3	Ca
CGR	40.95	FO	27	60	1.5	4	
CGR	41.12	FO	29	190	1.5	3	
CGR	41.26	FO	25	180	3	3	
CGR	41.31	FO	4	0	1	4	Tc
CGR	41.7	FO	30	158	1	3	
AGR	42.59	JN	56		1.5	1	orientation douteuse
AGR	42.88	JN	6		1.5	3	Sand
AGR	42.89	JN	65	0	1.5	1	
AGR	43.83	JN	0		1.5	2	Sa
AGR	44.02	JN	47	80	3	1	
AGR	46.2	JN	53	65	3	1	
AGR	46.43	JN	52	64	1.5	1	
AGR	46.57	JN	58	78	1.5	1	
AGR	46.77	JN	28	124	1	4	Tc
AGR	46.9	JN	41	38	3	1	

HOLE GT07-01	Osisko Project		07-1221-0028		Azimuth	180 Dip -70
	Joint Descriptions					
Rock Type	Depth	Type	alpha	beta	Jr	Ja	Comments
	m		(°)	(°)			
AGR	48.17	JN	56		3	1	
AGR	48.21	JN	53		1.5	1	
AGR	48.71	FO	4		3	2	Ca,Su
AGR	48.71	JN	58		1	3	Silt
AGR	48.76	JN	45		1.5	3	
AGR	49.23	JN	64		1.5	1	
AGR	49.47	JN	49		1.5	1	
AGR	49.7	JN	63		1.5	1	
AGR	50.27	JN	64		1.5	1	
AGR	50.35	JN	57		4	1	
AGR	50.5	JN	39		1.5	1	
AGR	50.59	JN	74		3	1	
AGR	50.75	JN	45		1.5	1	
AGP	51	JN	40		1.5	3	Silt
AGP	51.9	JN	36		1.5	3	Silt
AGP	52.07	JN	33		1.5	1	
AGP	52.27	JN	30		4	1	Irregular
AGP	52.38	FO	14		1	4	
AGP	53.32	JN	74		1.5	1	
AGP	53.6	JN	66		1.5	1	
AGP	53.7	JN	82		1.5	1	
AGR	54.03	JN	44		1.5	1	
AGR	54.12	JN	54		3	1	
AGR	56.21	JN	7		1	4	Tc
AGR	56.32	JN	81		1.5	1	
AGR	56.68	JN	33		1.5	2	Alt black
AGR	56.86	JN	27		1.5	2	Su
AGR	57.13	JN	30		1.5	1	
AGR	57.33	JN	51		1.5	1	
AGR	57.46	FO	5		1	4	Tc
AGR	57.55	JN	80		1.5	3	Silt
AGR	57.89	JN	7		0.5	4	Tc
AGR	57.89	JN	47		3	2	
AGR	58.08	JN	61		1.5	1	
AGR	58.7	JN	54		1.5	3	
AGR	59.25	JN	54		1.5	1	
AGR	59.45	JN	43		1.5	1	
AGR	59.57	JN	49		1.5	2	Ca
AGR	59.63	JN	18		1	4	
AGR	59.77	JN	41		1.5	1	
AGR	60.2	JN	81		4	1	
AGR	60.72	JN	35		1.5	1	
AGR	60.8	JN	16		1.5	1	
AGR	60.92	JN	37		1.5	2	Ca,Su
AGR	61.49	FO	31		1.5	1	
AGR	61.82	mec					
AGR	61.88	FO	5		1	4	Tc
AGR	61.96	JN	76		1.5	1	
AGR	62.44	JN	16		3	1	
AGR	62.63	JN	33		1.5	2	
AGR	62.77	FO	24		1	2	
AGR	64	JN	74		1	3	micas
AGR	64.07	VN	64	0	1.5	1	Diff = 0
AGR	67.88	JN	90		1.5	1	
AGR	68.41	JN	54	270	3	3	
AGR	68.7	JN	55	258	3	1	
AGR	69.04	JN	57	0	1.5	1	
AGR	70.79	Cont	54	174			contact veine de quatrz
AGR	70.92	JN	38	174			

HOLE GT07-01	Osisko Project		07-1221-0028		Azimuth	180 Dip -70
	Joint Descriptions					
Rock Type	Depth	Type	alpha	beta	Jr	Ja	Comments
	m		(°)	(°)			
AGR	71.06	mec					Diff = 0
AGP	72.67	JN	6	10	1	2	Ca
AGP	73.57	JN	36	160	1.5	3	micas
AGP	73.66	JN	69	40	1.5	1	
AGP	73.75	JN	56	0	1.5	1	
AGP	73.85	JN	64	92	1.5	1	
AGP	73.8	core	lost		and	Br	Impossible to be confirmed
AGR	75.14	JN	54		1	3	Sand
AGR	76.1	JN	40	50	1.5	1	
AGR	76.46	JN	55	30	1.5	1	
AGR	76.61	JN	57	109	3	1	Diff = 6
AGR	78.26	JN	53	5	1.5	1	
AGR	78.43	JN	42	164	1.5	1	
AGR	78.72	JN	78	110	1.5	2	Su
AGR	78.62	FO	8	166	1.5	3	Su
AGR	79.53	FO	5	0	1.5	3	Su,Sand,Ca
AGR	79.71	JN	61	138	3	1	
AGR	80.97	VN	22	168	1.5	4	Tc Diff = 8
SGR	81.61	JN	67	67	1.5	3	micas
SGR	82.12	JN	58	148	1.5	3	micas, sand
SGR	82.24	JN	45	327	3	1	Diff = 0
SGR	84.35	VN	85	292	1.5	1	
SGR	85.42	JN	53	302	2	4	
SGR	86.04	JN	28	248	1.5	2	Ca
SGR	86.13	JN	45	312	1.5	4	Tc Diff = 142
SGR	87.2	JN	58	22	3	1	
SGR	87.38	JN	56	122	1.5	1	
SGR	87.76	JN	58	264	1	4	Tc
SGR	87.76	JN	43	264	2	4	Tc
SGR	88.57	JN	35	270	1	3	Ca
SGR	88.76	JN	38	36	3	2	Ca
SGR	88.83	JN	41	254	1	3	Ca
SGR	89.07	JN	44	220	1	3	
SGR	89.16	JN	43	222	2	3	micas
SGR	89.19	JN	45	242	2	4	Tc, Diff = 0 Pas de nouvelle mesure
SGP	90	JN	50	348	1.5	2	Ca,Su retirer 0.3m au profondeur
SGP	91	JN	74	284	3	1	
SGP	91.12	VN	58	184	1.5	1	
SGP	91.34	FO	79	130	1.5	2	Su
SGP	91.45	JN	42	0	3	1	
SGP	92.11	JN	28	112	1.5	1	Diff = 18 Pas de nouvelle mesure
SGR	94.29	FO	16	180	1.5	1	
SGR	94.42	JN	40	145	1.5	1	
SGR	94.56	JN	54	144	1.5	1	
SGR	94.6	JN	44	110	1.5	2	Su
SGR	95.68	JN	52	300	1.5	1	
SGR	95.92	JN	52	122	1.5	2	Ca
SGR	96.18	JN	5	115	1.5	2	Su,Ca
SGR	96.18	JN	49	115	1.5	3	Ca
SGR	96.85	JN	70	140	1.5	2	Su,Ca
SGR	96.94	JN	55	140	1.5	3	Su
SGR	97.57	JN	57	124	1.5	2	Ca,Su
SGR	97.64	JN	56	122	1.5	2	Ca,Su
SGR	97.72	JN	54	120	1.5	2	Ca,Su
SGR	97.75	JN	48	118	1.5	2	Ca,Su
SGR	97.77	JN	62	110	1.5	2	Ca,Su
SGR	97.94	JN	42	135	1.5	1	
SGR	98.12	JN	56	120	1.5	2	

HOLE GT07-01	Osisko Project		07-1221-0028		Azimuth	180 Dip -70
	Joint Descriptions					
Rock Type	Depth	Type	alpha	beta	Jr	Ja	Comments
	m		(°)	(°)			
SGR	98.17	JN	55	100	1.5	3	Silt
SGR	98.24	JN	45	108	1.5	3	Sand
SGR	98.35	JN	42	105	1.5	3	Silt
SGR	98.46	JN	60		3	3	Su
SGR	98.57	JN	46		1.5	2	Su,Ca
SGR	98.6	JN	50		1.5	3	Sand,Ca
SGR	98.68	JN	49		1.5	3	Silt
SGR	98.73	JN	50		1.5	3	Sand
SGR	98.8	JN	47		1.5	3	Contact, Sand
SGR	98.91	VN	63		1.5	3	
SGP	99	JN	37		1.5	1	
SGP	99.01	JN	42		1.5	2	Su, Ca
SGP	99.13	JN	48		1.5	1	Diff = 0
SGP	99.18	JN	54	335	1.5	1	Sand
SGP	99.26	JN	54	332	1.5	3	Ca,Su
SGP	99.3	JN	54	335	1.5	2	
SGP	99.35	JN	52	335	1.5	2	Silt
SGP	99.39	JN	54		1.5	3	Silt
SGP	99.6	mec					
SGP	99.84	JN	55		1.5	2	Su,Ca
SGP	99.89	mec					
SGP	100.02	JN	47		1.5	2	
SGP	100.15	JN	50		1.5	3	Sand
SGP	100.22	JN	9		1	4	Sand
SGP	100.4	JN	29		1	2	
SGP	100.76	JN	34	15	1.5	1	
SGP	101.45	JN	25	345	1.5	3	
SGP	101.71	JN	5	346	1	1	
SGP	101.73	JN	47	345	1	2	Ca,Su
SGP	101.91	JN	53	355	1	1	Diff = 0
SGR	102.06	JN	45	355	1	2	Ca,Su
SGR	102.19	JN	0	350	1.5	3	
SGR	102.2	JN	47	355	1.5	2	Ca
SGR	102.37	mec					
SGR	102.53	JN	53	360	1.5	2	Su
SGR	102.7	JN	45	355	1.5	4	Tc, gras
SGR	102.85	JN	15	15	3	4	Tc, gras
SGR	102.85	JN	38	15	1.5	4	gras
SGR	103.06	JN	47	0	3	2	Su
SGR	103.58	mec					
SGR	103.92	JN	43	220	1.5	3	
SGR	104.11	JN	80	330	1	2	Su,Ca
SGR	104.55	JN	62	355	1.5	3	Sand
SGR	105.14	JN	48	350	3	3	Su
SGR	105.28	JN	88	270	1	2	Su
SGR	105.41	JN	64	315	1.5	3	Su
SGR	107.19	VN	48	0	1.5	3	Silt
SGR	108.04	JN	56	350	1	3	Silt
SGR	108.08	JN	56	345	1.5	2	Su Diff = 0
SGR	110.37	JN	66	215	1.5	1	Diff = 0
SGR	111.5	VN	77	6	1.5	2	contact
SGR	111.7	JN	50	350	1.5	2	Su
SGR	112.56	JN	45	180	1.5	3	Silt
SGR	112.67	JN	78	110	1.5	1	
SGR	112.94	JN	55	350	1.5	3	Ca,Su,Sand
SGR	113.26	JN	46	350	1.5	3	Confirmed to 0
SGR	114.52	JN	33	215	1	2	
SGR	114.71	JN	49	336	1.5	1	
SGR	115.06	JN	39	335	1.5	3	Sand

HOLE GT07-01	Osisko Project		07-1221-0028			Azimuth	180 Dip -70
	Joint Descriptions						
Rock Type	Depth	Type	alpha	beta	Jr	Ja	Comments
	m		(°)	(°)			
SGR	115.09	JN	36	108	1.5	1	
SGR	115.47	JN	44	330	1.5	3	Sand
SGR	115.72	JN	52	5	1.5	1	
SGR	115.77	JN	56	178	1.5	3	Ca,Su,Sand
SGR	115	JN	53	340	1.5	2	Diff = 14 pas de chrono Ca,Su
SGR	117.71	VN	9	10	1.5	1	
SGR	118.5	JN	57	4	1.5	2	
SGR	118.85	JN	69	30	3	1	Diff = 0
SGR	120.17	JN	51	314	4	2	
SGR	120.27	JN	63	45	1	2	micas
SGR	120.4	JN	53	163	2	4	Tc
SGR	120.63	mec					
SGR	120.77	JN	39	170	1	10	Cl
SGR	120.95	JN	44	320	4	2	
SGR	121.1	JN	48	160	1	3	Silt,Sand
SGR	121.4	JN	58	80	1.5	2	micas
SGR	122	JN	9	164	1	4	Tc
SGR	122.41	JN	0	345	1	4	Tc
SGR	122.91	JN	33	75	1.5	1	Diff = 0 pas de marque
SGR	123.17	mec					
SGR	123.4	JN	99	60	1.5	1	
SGR	123.5	JN	18	260	3	2	Su
SGR	123.57	JN	38	60	1	1	
SGR	124.99	JN	13	170	1.5	3	Silt,Su
SGR	125.34	JN	28	180	1	1	vein, silt
SGR	125.45	cont	58	30	2	3	silt
SGR	125.56	JN	46	285	1.5	3	run continue
SGR	126.16	JN	28	260	1.5	1	vein
SGR	126.32	JN	28	240	1.5	3	silt, Ca,Su
SGR	126.51	JN	26		1	4	Tc
SGR	126.79	JN	59		1	4	Tc
SGR	126.95	JN	34		1	6	comme de la cire
SGR	127.01	JN	34		1.5	1	
SGR	127.02	JN	56		3	1	
SGR	127.33	JN	53		1	3	silt
SGR	127.63	JN	16		1	3	silt
SGR	127.83	VN	37	250	1.5	6	silt
SGR	128	JN	40	260	1.5	4	Tc
SGR	128.15	JN	9	20	1	2	Tc
SGR	128.32	JN	18	20	0.5	4	Tc
SGR	128.37	JN	35	310	1.5	1	
SGR	128.69	JN	38	290	1.5	2	Diff = 0 marqué
SGR	129.18	JN	44	270	1.5	3	
SGR	129.71	JN	58	280	1.5	3	silt
SGR	129.94	JN	55	20	1	4	Tc
SGR	130.04	JN	37	6	2	4	Diff = 0 Silt
SGR	130.13	JN	43	100	1.5	2	130m ou confirmed
SGR	130.22	JN	44	105	1	4	less 5º error
SGR	130.26	JN	62	62	1.5	1	
SGR	130.38	JN	16	215	1.5	2	
SGR	131.11	JN	14	225	1.5	2	silt,Su
SGR	132.22	mec					
SGR	132.65	JN	63	150	1.5	2	Su
SGR	133.91	JN	83	60	1	2	Su
SGR	134.2	JN	70	150	1.5	2	micas
SGR	134.93	JN	46	140	1	2	black
SGR	135.01	JN	21	140	1.5	1	
SGR	135.11	JN	46	145	1.5	4	Tc
SGR	136.04	JN	55	175	1.5	1	

HOLE GT07-01	Osisko Project		07-1221-0028			Azimuth	180 Dip -70
	Joint Descriptions						
Rock Type	Depth	Type	alpha	beta	Jr	Ja	Comments
	m		(°)	(°)			
SGR	136.46	JN	42	0	1.5	1	
SGR	136.67	FO	23	105	1.5	1	
SGR	137	JN	27	268	1.5	2	Su, Ca
SGR	137.12	JN	38	265	1.5	3	Silt,Ca,Su
SGR	137.38	FO	5	124	1.5	1	
SGR	137.46	JN	72	285	1.5	3	Silt
SGR	137.7	JN	54	100	1.5	1	
SGR	137.86	JN	13	330	1.5	1	pas de marque
SGR	138.48	FO	22	100	1.5	2	Ca, Oxy
SGR	138.8	JN	42	0	4	1	Su
SGR	138.9	JN	37	0	1.5	2	
SGR	139.1	mec					Ca, Su
SGR	139.37	JN	54	250	4	2	
SGR	139.51	JN	38	110	1.5	2	Ca
SGR	139.78	JN	67	285	1.5	3	Silt
SGR	140.04	JN	47	165	1.5	1	
SGR	140.83	JN	28	10	3	2	Diff = 32 Su
SGR	141.23	JN	34	60	1.5	1	
SGR	141.5	JN	39	195	1.5	1	
SGR	141.9	JN	30	205	1.5	2	Su
SGR	142	JN	47	75	1.5	1	
SGR	142.31	JN	33	235	3	2	Diff = 0 nouvelle marque Su
SGR	144.27	JN	55				Vein
SGR	144.53	JN	55				Su
SGR	146.35	JN	48				Su
SGR	146.51	JN	36				Su
SGR	146.88	JN	29				Alt
SGR	144.88	145	Br mec	cri perdu			Diff = 0 nouvelle marque
SGR	147.64	JN	42	170	1.5	1	Vein
SGR	147.8	JN	68	190	1.5	1	Vein
SGR	149.21	contact	68	270	1.5	1	Diff = 4°
SGR	150.29	JN	67	330	1	1	
SGR	150.72	JN	58	345	1.5	1	
SGR	150.86	JN	37	100	1.5	1	
SGR	152.67	JN	63	320	1.5	1	Diff = 0
AGR	154.7	JN	mec				
AGR	154.89	JN	38	55	1.5	2	Ca
AGR	155.4	JN	72	320	1.5	1	
AGR	155.48	FO	21	120	1.5	1	
AGR	156.86	JN	53	102	1	4	Tc
AGR	157.53	JN	43	140	1.5	1	
AGR	157.58	JN	47	0	1.5	1	
AGR	158.15	mec					
AGR	158.47	FO	40	350	1.5	1	Diff = 0
AGR	159.15	JN	33	0	1.5	1	
AGR	159.18	JN	62	170	3	1	
AGR	159.63	JN	48	210	1.5	2	
AGR	155.75	JN	72	0	1.5	1	
AGR	159.77	JN	84	70	1.5	1	
AGR	160.15	FO	43	130	1.5	1	
AGR	160.36	JN	78	270	3	1	
AGR	159.85	JN	80	90	1.5	1	Diff = 0
AGR	162.79	JN	19	230	1.5	1	
AGR	163.08	JN	66	60	1.5	1	Su
AGR	163.74	JN	55	225	1.5	2	Su
AGR	163.78	JN	55	240	3	2	
AGR	163.84	JN	45	330	1.5	1	Ca, Sn
AGR	163.99	JN	45	240	1.5	3	Ca, Sn
AGR	164.32	JN	54	255	1.5	2	

HOLE GT07-01	Osisko Project		07-1221-0028		Azimuth	180 Dip -70
	Joint Descriptions					
Rock Type	Depth	Type	alpha	beta	Jr	Ja	Comments
	m		(°)	(°)			
AGR	164.35	mec					
AGR	164.63	JN	18	170	1	4	Tc
AGR	164.7	JN	57	70	1	4	Tc
AGR	164.77	JN	49	220	1.5	3	Silt,Su, Diff = 0
AGR	165.11	JN	13	90	1.5	2	Su,Ca
AGR	165.36	JN	51	170	1.5	2	
AGR	165.59	FO	13	180	1	4	Tc
AGR	166	JN	55	230	1	2	Su
AGR	166.55	FO	25	30	1	3	Silt
AGR	166.74	FO	27	8	1.5	3	Sand
AGR	166.82	FO	40	340	1.5	1	
AGR	166.95	FO	27	20	1.5	1	
AGR	167.18	contact	13		1	6	Cl
AGR	167.7	JN	47		2	3	Sand
AGR	166.95		18	20			
AGR	167,4-169 Many fail FO parallel core				1.5	3 to 6	
SGR	169	FO	5	270		3	Sand
SGR	169.32	JN	34		1.5	3	Su,Ca,Silt
SGR	170.47	JN	22		1.5	4	Tc
SGR	170.84	JN	42		1.5	0	
SGR							
SGR	171.02	JN	32		1	3	Sand
SGR	171.75	JN	36	195	1.5	2	Ca
SGR	171.83	mec					

HOLE GT07-02		Osisko Project			07-1221-0028		Azimuth	45	Dip	-60															Hardness and Weathering		
Run #	From	To	Interval	Rock type	Recovery	TCR (%)	RQD	RQD	SCR	SCR	Fracture/0.25m														Fracts/run	Fracts/m	Jn	Strength	Weath
	m	m			m		m	%	m	%																			
1	0.00	11.00	11.00		OVB																								
2	11.00	12.00	1.00								1	0	2	0															
3	12.00	15.00	3.00	AGR	2.93	98	2.55	85	1.79	61	0	1	1	1	2	3	2	0	0	0	3	1	14	4.67	6.0	R5	W1.0
4	15.00	18.00	3.00	AGR	3.00	100	1.58	53	1.25	42	0	1	1	1	0	1	3	0	1	0	0	1	9	3.00	4.0	R4	W1.0
5	18.00	21.00	3.00	AGR	3.02	101	2.84	95	2.30	76	1	1	1	0	1	1	1	0	0	2	0	2	10	3.33	4.0	R5	W1.0
6	21.00	24.00	3.00	AGR	2.99	100	2.00	67	1.63	55	0	0	1	1	1	0	3	0	1	1	2	3	13	4.33	6.0	R5	W1.0
7	24.00	27.00	3.00	AGR	3.10	103	2.88	96	2.54	82	0	2	2	0	0	1	1	1	2	0	0	0	9	3.00	4.0	R5	W1.0
8	27.00	30.00	3.00	AGR	3.09	103	2.60	87	2.33	75	2	1	1	2	0	0	0	1	1	1	1	0	10	3.33	6.0	R5	W1.0
9	30.00	33.00	3.00	AGR	2.99	100	2.00	67	1.63	55	0	3	2	1	0	2	25	0	0	25	25	1	84	28.00	15.0	R5	W1.0
10	33.00	36.00	3.00	AGR	2.92	97	2.69	90	2.44	84	2	3	0	1	1	0	0	0	2	0	1	0	10	3.33	9.0	R5	W1.0
11	36.00	39.00	3.00	AGR	3.07	102	3.07	102	3.04	99	0	0	0	1	0	0	0	0	0	0	0	0	1	0.33	0.5		
12	39.00	42.00	3.00	AGR	2.95	98	2.10	70	1.88	64	0	1	0	0	1	1	2	2	2	1	2	1	13	4.33	12.0		
13	42.00	45.00	3.00	AGR	3.08	103	2.50	83	2.49	81	0	1	3	1	2	1	1	0	0	0	0	0	9	3.00	15.0	R4	W1.0
14	45.00	48.00	3.00	AGR	3.02	101	1.99	66	2.09	69	0	1	1	3	1	2	2	0	1	2	0	2	15	5.00	9.0	R4	W1.0
15	48.00	51.00	3.00	AGR	3.00	100	1.15	38	1.45	48	25	25	25	1	1	1	2	25	1	25	25	25	181	60.33	4.0		
16	51.00	54.00	3.00	AGR	2.80	93	2.00	67	2.05	73	0	1	0	0	2	1	25	25	0	1	25	25	105	35.00	4.0		W1.0
17	54.00	57.00	3.00	AGR	3.00	100	2.23	74	2.25	75	0	1	1	1	1	2	4	1	1	0	25	0	37	12.33	4.0	R4	W1.0
18	57.00	60.00	3.00	CGR	3.00	100	1.84	61	2.14	71	1	3	1	0	2	2	3	3	2	1	0	0	18	6.00	9.0	R4	W1.0
19	60.00	63.00	3.00	SGR	3.05	102	2.05	68	2.13	70	1	1	1	1	2	2	3	1	1	1	1	2	17	5.67	6.0	R4	W1.0
20	63.00	66.00	3.00	CGR	2.92	97	1.85	62	1.55	53	1	1	2	4	6	0	0	2	3	3	2	0	24	8.00	15.0	R4	W1.0
21	66.00	69.00	3.00	AGR	3.01	100	2.15	72	2.42	80	1	0	1	0	4	2	2	2	1	1	2	0	16	5.33	6.0	R5	W1.0
22	69.00	72.00	3.00	CGR	2.97	99	2.97	99	2.73	92	0	0	2	0	1	2	1	1	0	0	0	0	7	2.33	6.0	R5	W1.0
23	72.00	75.00	3.00	CGR	3.02	101	2.90	97	2.44	81	1	1	1	2	1	0	2	1	0	1	2	1	13	4.33	6.0	R5	W1.0
24	75.00	78.00	3.00	CPO	3.01	100	2.93	98	2.78	92	0	0	2	0	0	1	0	1	0	0	1	0	5	1.67	2.0		
25	78.00	81.00	3.00	CPO	2.97	99	2.79	93	2.51	85	0	0	0	2	2	2	0	0	0	1	1	0	8	2.67	3.0	R5	W1.0
26	81.00	84.00	3.00	CPO	2.89	96	1.86	62	1.63	56	0	2	3	0	2	2	1	1	2	0	0	0	13	4.33	3.0	R5	W1.0
27	84.00	87.00	3.00	CPO	2.85	95	2.66	89	2.46	86	0	1	0	1	0	1	2	0	1	1	2	0	9	3.00	9.0	R5	W1.0
28	87.00	90.00	3.00	CPO	3.18	106	2.90	97	2.74	86	0	1	0	1	1	0	0	2	1	2	0	0	8	2.67	6.0	R5	W1.0
29	90.00	93.00	3.00	SPO	3.06	102	3.06	102	2.83	92	0	1	0	2	2	0	0	0	0	0	1	1	7	2.33	3.0	R5	W1.0
30	93.00	96.00	3.00	CPO	2.85	95	2.47	82	2.23	78	2	1	2	1	1	0	0	1	0	3	0	0	11	3.67	6.0	R4	W1.0
31	96.00	99.00	3.00	CPO	2.86	95	2.40	80	2.26	79	1	1	2	2	4	0	0	2	2	1	1	0	16	5.33	9.0	R5	W1.0
32	99.00	102.00	3.00	CPO	3.12	104	2.90	97	2.33	75	1	1	2	1	2	1	2	2	2	0	3	2	19	6.33	9.0	R4	W1.0
33	102.00	105.00	3.00	CPO	3.01	100	2.66	89	2.37	79	1	2	2	0	2	1	0	1	1	2	0	0	12	4.00	9.0	R4	W1.0
34	105.00	108.00	3.00	CPO	3.06	102	2.56	85	2.09	68	0	2	0	3	1	1	0	1	0	1	1	1	11	3.67	4.0	R4	W1.0
35	108.00	111.00	3.00	APO	3.05	102	2.67	89	2.58	85	0	1	0	1	3	1	1	1	2	1	0	2	13	4.33	6.0	R4	W1.0
36	111.00	114.00	3.00	APO	3.00	100	2.63	88	2.62	87	1	1	1	2	2	1	0	0	0	0	0	0	8	2.67	6.0	R5	W1.0
37	114.00	117.00	3.00	APO	3.03	101	2.68	89	2.39	79	1	2	0	0	1	0	0	1	1	1	2	0	9	3.00	9.0	R5	W1.0
38	117.00	120.00	3.00	CPO	3.07	102	2.79	93	2.55	83	0	1	0	0	1	3	2	1	1	0	1	1	11	3.67	9.0	R5	W1.0
39	120.00	123.00	3.00	CPO	2.89	96	2.65	88	2.52	87	1	0	0	1	2	0	1	0	0	1	1	0	7	2.33	6.0	R5	W1.0
40	123.00	126.00	3.00	CPO	3.02	101	1.56	52	1.82	60	2	5	3	25	0	1	2	3	3	1	1	1	47	15.67	9.0		

HOLE GT07-02		Osisko Project			07-1221-0028		Azimuth	45	Dip	-60															Hardness and Weathering		
Run #	From	To	Interval	Rock type	Recovery	TCR (%)	RQD	RQD	SCR	SCR	Fracture/0.25m														Fracts/run	Fracts/m	Jn	Strength	Weath
	m	m			m		m	%	m	%																			
41	126.00	129.00	3.00	CPO	3.02	101	1.70	57	1.96	65	0	1	1	2	1	2	3	2	1	1	3	0	17	5.67	9.0	R4	W1.0
42	129.00	132.00	3.00	AGR	2.85	95	50.00	1667	0.92	32	3	25	25	25	25	25	25	25	0	4	25	25	232	77.33	10.0	R4	W1.0
43	132.00	135.00	3.00	CPO	2.93	98	1.04	35	0.87	30	2	3	2	0	25	25	25	25	25	25	25	25	207	69.00	15.0	R4	W1.0
44	135.00	138.00	3.00	AGR	2.96	99	2.07	69	2.08	70	0	2	2	2	2	3	3	3	2	2	0	0	21	7.00	6.0	R5	W1.0
45	138.00	141.00	3.00	AGR	3.07	102	2.42	81	2.05	67	0	1	3	3	3	2	2	0	1	1	0	0	16	5.33	3.0	R5	W1.0
46	141.00	144.00	3.00	AGR	3.00	100	2.67	89	2.80	93	1	1	0	2	4	0	0	0	0	0	0	0	8	2.67	3.0	R5	W1.0
47	144.00	147.00	3.00	AGR	3.08	103	3.08	103	2.89	94	0	0	0	1	0	1	0	0	0	0	0	0	2	0.67	3.0		
48	147.00	150.00	3.00	AGR	3.12	104	2.80	93	2.57	82	0	0	0	0	0	0	0	0	0	1	1	2	4	1.33	4.0	R5	W1.0
49	150.00	153.00	3.00	AGR	3.08	103	2.39	80	2.11	69	1	1	2	0	2	0	2	1	2	2	1	1	15	5.00	6.0	R5	W1.0
50	153.00	156.00	3.00	AGR	2.95	98	2.05	68	2.17	74	1	1	0	1	1	2	2	1	1	2	3	1	16	5.33	4.0		
51	156.00	159.00	3.00	AGR	3.03	101	2.87	96	2.59	85	1	1	1	1	1	1	1	1	1	0	2	0	11	3.67	4.0		
52	159.00	162.00	3.00	AGR	2.99	100	2.58	86	2.79	93	1	0	2	0	1	1	1	0	0	1	1	0	8	2.67	4.0	R5	W1.0
53	162.00	165.00	3.00	AGR	3.01	100	2.82	94	2.76	92	0	0	1	1	1	2	25	0	1	0	1	0	32	10.67	3.0	R5	W1.0
54	165.00	168.00	3.00	AGR	3.00	100	3.00	100	2.80	93	1	1	1	1	1	0	0	0	0	0	0	0	5	1.67	2.0	R5	W1.0
55	168.00	171.00	3.00	AGR	2.95	98	2.54	85	2.40	81	0	0	0	0	2	1	0	1	2	0	2	0	8	2.67	4.0		
56	171.00	174.00	3.00	AGR	3.01	100	3.01	100	3.01	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.5	R5	W1.0
57	174.00	177.00	3.00	AGR	3.02	101	3.02	101	2.80	93	0	0	0	0	0	0	0	0	0	1	0	1	2	0.67	2.0	R5	W1.0
58	177.00	180.00	3.00	AGR	2.90	97	2.37	79	2.17	75	2	3	4	2	1	2	0	0	1	1	1	0	17	5.67	6.0	R5	W1.0
59	180.00	183.00	3.00	CPO	3.05	102	2.74	91	2.45	80	0	1	1	2	0	2	3	0	3	1	1	0	14	4.67	9.0		
60	183.00	186.00	3.00	CPO	2.86	95	2.46	82	2.30	80	1	0	0	2	2	2	2	0	0	1	0	0	10	3.33	4.0		
61	186.00	189.00	3.00	AGR	3.09	103	2.73	91	2.37	77	2	0	2	1	1	1	0	0	2	1	0	2	12	4.00	4.0		
62	189.00	192.00	3.00	CPO	3.06	102	2.70	90	2.10	69	2	3	2	2	1	1	1	1	0	1	0	0	14	4.67	6.0	R5	W1.0
63	192.00	195.00	3.00	CPO	3.01	100	2.61	87	1.88	62	2	1	1	1	2	1	0	1	1	0	0	0	10	3.33	6.0		
64	195.00	198.00	3.00	AGR	3.00	100	2.36	79	2.33	78	0	0	1	0	2	1	3	2	2	1	0	0	12	4.00	3.0	R5	W1.0
65	198.00	201.00	3.00	CPO	2.99	100	2.90	97	2.76	92	1	0	1	0	1	0	0	0	0	1	0	0	4	1.33	4.0	R5	W1.0
66	201.00	204.00	3.00	AGR	3.00	100	3.00	100	2.74	91	0	0	0	0	0	0	0	0	0	1	1	0	2	0.67	2.0	R5	W1.0
67	204.00	207.00	3.00	AGR	3.01	100	3.00	100	2.93	97	0	0	0	0	0	0	0	1	0	1	0	0	2	0.67	2.0	R5	W1.0
68	207.00	210.00	3.00	AGR	3.00	100	2.95	98	2.88	96	0	1	0	0	0	1	0	0	0	0	1	0	3	1.00	3.0	R5	W1.0
69	210.00	213.00	3.00	AGR	3.00	100	2.92	97	2.95	98	0	0	0	0	0	0	0	1	0	0	2	0	3	1.00	3.0	R5	W1.0
70	213.00	216.00	3.00	AGR	2.98	99	2.84	95	2.32	78	0	0	0	0	1	1	2	1	2	0	2	1	10	3.33	3.0	R5	W1.0
71	216.00	219.00	3.00	AGR	2.91	97	2.86	95	2.25	77	1	0	0	0	2	1	2	1	2	1	2	0	12	4.00	3.0	R4	W1.0
72	219.00	222.00	3.00	AGR	2.89	96	2.80	93	2.28	79	0	1	0	0	0	0	1	1	1	0	0	0	4	1.33	4.0	R5	W1.0
73	222.00	225.00	3.00	AGR	2.99	100	2.92	97	2.48	83	0	0	2	0	0	2	0	0	3	0	1	1	9	3.00	3.0	R5	W1.0
74	225.00	228.00	3.00	AGR	3.03	101	2.86	95	2.56	84	0	0	0	0	2	3	0	1	0	1	0	0	7	2.33	3.0	R5	W1.0
75	228.00	231.00	3.00	AGR	2.97	99	2.97	99	2.35	79	0	0	1	1	1	1	0	0	0	0	2	1	7	2.33	4.0	R5	W1.0
76	231.00	234.00	3.00	AGR	3.10	103	2.99	100	2.45	79	0	0	1	2	2	0	0	1	0	1	0	1	8	2.67	9.0	R5	W1.0
77	234.00	237.00	3.00	AGR	2.77	92	2.62	87	2.32	84	0	1	0	0	0	0	0	0	4	1	0	0	6	2.00	6.0	R5	W1.0
78	237.00	240.00	3.00	AGR	3.02	101	3.00	100	2.26	75	0	0	1	1	0	0	0	0	0	1	1	25	29	9.67	3.0	R5	W1.0
79	240.00	243.00	3.00	AGR	3.00	100	2.82	94	2.45	82	0	0	1	0	3	0	0	0	0	1	1	0	6	2.00	3.0	R5	W1.0
80	243.00	246.00	3.00	AGR	3.10	103	3.10	103	3.06	99	0	0	0	0	0	0	2	1	0	0	0	0	3	1.00	2.0	R5	W1.0

HOLE GT07-02		Osisko Project			07-1221-0028		Azimuth	45	Dip	-60															Hardness and Weathering		
Run #	From	To	Interval	Rock type	Recovery	TCR (%)	RQD	RQD	SCR	SCR	Fracture/0.25m												Fracts/run	Fracts/m	Jn	Strength	Weath
	m	m			m		m	%	m	%																	
81	246.00	249.00	3.00	AGR	3.14	105	2.79	93	2.80	89	1	2	1	1	0	0	0	0	1	0	0	1	7	2.33	6.0	R5	W1.0
82	249.00	252.00	3.00	AGR	3.10	103	3.10	103	3.05	98	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.5	R5	W1.0
83	252.00	255.00	3.00	AGR	3.05	102	3.05	102	2.89	95	0	0	0	1	1	1	0	1	0	1	0	1	6	2.00	2.0	R5	W1.0
84	255.00	258.00	3.00	AGR	3.01	100	3.01	100	2.90	96	1	0	0	1	0	0	1	0	0	0	0	0	3	1.00	3.0	R5	W1.0
85	258.00	261.00	3.00	AGR	3.01	100	3.01	100	2.95	98	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.5	R5	W1.0
86	261.00	264.00	3.00	AGR	3.01	100	3.01	100	3.01	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.5	R5	W1.0
87	264.00	267.00	3.00	AGR	2.98	99	2.94	98	2.81	94	0	0	0	1	0	0	1	0	0	0	0	0	2	0.67	2.0	R5	W1.0
88	267.00	270.00	3.00	AGR	3.03	101	2.92	97	2.28	75	1	1	0	1	0	0	0	0	0	1	0	0	4	1.33	3.0	R5	W1.0
89	270.00	273.00	3.00	AGR	3.01	100	3.01	100	2.81	93	0	0	1	0	1	0	0	1	0	2	0	0	5	1.67	3.0	R5	W1.0
90	273.00	276.00	3.00	AGR	3.01	100	2.85	95	2.62	87	0	0	1	0	0	1	1	2	1	1	1	0	8	2.67	4.0	R5	W1.0
91	276.00	279.00	3.00	AGR	2.98	99	2.88	96	2.84	95	0	1	1	2	0	0	0	0	0	0	0	0	4	1.33	0.5	R5	W1.0
92	279.00	282.00	3.00	AGR	2.95	98	2.95	98	2.29	78	0	2	0	0	0	0	0	0	0	0	0	0	2	0.67	2.0	R5	W1.0

HOLE GT07-02		Osisko Project		07-1221-0028		Azimuth	180	Dip	-70			
	Joint Descriptions											
Rock Type	Depth	Type	alpha	beta	Shape	Roughness	Infill Type	Infill Thickness	Jr	Ja	Jcon	Comments
	m		(°)	(°)								
AGR	11.07	JN	22		UN	SM			2	1	20	
AGR	11.6	JN	30		PL	SM	M		1	4	12	
AGR	11.64	JN	30		UN	SM	M		1	4	12	
AGR	12.36	JN	55	285	PL	SR			1	1	12	
AGR	12.77	JN	35	170	UR	RO	Ca		3	2	20	
AGR	12.97	JN	34	180	UN	RO	Py		3	2	20	
AGR	13.08	JN	52	240	PL	SR	Ca		1	2	12	
AGR	13.12	JN	35	85	PL	SR	Ca		1	2	12	
AGR	13.26	JN	58	270	ST	SR	Ca		2	2	20	
AGR	13.38	VN	68	85	IR	RO	Qz	50mm	3	2	20	
AGR	13.49	JN	20	165	PL	SM	Ca		2	1	20	
AGR	13.58	JN	28	245	CU	SR			1	1	12	
AGR	13.68	JN	54	245	PL	RO	Py		1.5	2	20	
AGR	14.56	JN	36	240	ST	SM	Py		2	2	20	
AGR	14.59	JN	10	180	UN	RO	Ca		2	2	20	
AGR	14.6	JN	62	335	UN	SR	Ca		3	2	20	
AGR	14.91	JN	36	250	UN	SR	Py		2	2	20	
AGR	15.31	JN	37	245	PL	SM			1	1	12	
AGR	15,70à15,95	BC										
AGR	15.63	JN	40	240	ST	SM			2	1	20	
AGR	15.96	JN	68	0	IR	RO			3	1	20	
AGR	16,02à16,20	BC										
AGR	16.29	JN	36		IR	RO	Ca		3	2	20	
AGR	16.4	JN	52		UN	RO	Ca		3	2	20	
AGR	16,45à16,66	BC										
AGR	16.45	JN	20		PL	SM	Ca		1	2	12	
AGR	16,66à17,06	BC										
AGR	17.14	JN	24		UN	SM	Ca		2	2	20	
AGR	17.8	JN	23						1	2	12	
AGR	18.18	JN	44	235	PL	RO	Ca		1.5	2	20	
AGR	18.37	JN	53	210	UN	RO	Ca,Qz		3	2	20	
AGR	18.65	VN	44	320	UN	RO	Qz	170mm	3	2	20	
AGR	19.09	JN	58	170	PL	RO			1.5	1	20	
AGR	19.34	JN	39	190	UN	RO			3	1	20	
AGR	19.7	JN	58	330	PL	RO	Ca		1.5	2	20	
AGR	20.29	JN	28	330	PL	RO	Ca		1.5	2	20	
AGR	20.35	JN	23	320	CU	RO	Ca		3	2	20	
AGR	20.83	JN	16	330	UN	RO	Ca		3	2	20	
AGR	20.86	JN	52	80	PL	SR	Ca		1	1	12	
AGR	21.63	JN	37	75	UN	RO			3	1	20	
AGR	21.8	JN	39	270	UN	RO			3	1	20	
AGR	22	JN	36	250	UN	SR	Cl		2	3	20	
AGR	22,17à22,38	BC										
AGR	22.62	JN	25		PL	SM	Ep,He		1	2	12	
AGR	22.64	JN	25		PL	SM	Ep,He		1	2	12	
AGR	22.67	JN	58	60	IR	RO	Ep,He		3	2	20	
AGR	23.24	JN	22	230	IR	RO	Qz		3	2	20	
AGR	23.44	JN	25	220	UN	RO	Feldspath,Ep		3	2	20	
AGR	23.6	JN	49	150	PL	RO	Qz		3	2	20	
AGR	23.69	JN	50	320	IR	RO	Feldspath		3	1	20	
AGR	23.77	JN	65	80	PL	RO			1.5	1	20	
AGR	23.82	JN	60	150	PL	RO	Ca		1.5	2	20	
AGR	23.85	JN	51	10	PL	RO			1.5	1	20	
AGR	24.45	JN	25	210	IR	SR	Ca		2	2	20	
AGR	24.48	JN	52	300	PL	RO	Ca,Ep	1mm	1.5	2	20	
AGR	24.54	JN	46	280	PL	SR	Ca		1	2	12	
AGR	24.68	JN	56	70	PL	RO			1.5	1	20	
AGR	25.36	JN	44	220	UN	SR			3	1	20	
AGR	25.61	JN	36	180	PL	RO			1.5	1	20	
AGR	25.93	JN	55	165	PL	RO	Ca		1.5	2	20	
AGR	26.09	JN	55	150	PL	RO	Ca		1.5	2	20	
AGR	26.23	JN	21	330	UN	SR	Ca		2	2	20	
AGR	27	JN	45	245	PL	SR	Ca,Sr		1	2	12	
AGR	27.24	JN	62	110	PL	RO	Ca		1.5	2	20	
AGR	27.3	JN	33	240	UN	RO	Ca		3	2	20	
AGR	27.75	JN	19	230	UN	RO	CaSr,Cl		3	3	20	
AGR	27.86	JN	19	230	UN	RO	Ca,Cl		3	3	20	
AGR	27.92	JN	24	330	PL	SR	Py,Ca		1	1	12	
AGR	28.81	JN	28	320	UN	SR	Ca		2	2	20	
AGR	29.27	JN	71	245	ST	SR			2	1	20	
AGR	29.4	JN	71	240	UN	RO			3	1	20	
AGR	29.71	JN	31	330	PL	SM	Ca,M		1	4	12	
AGR	30.35	JN	46	30	ST	RO			3	1	20	
AGR	30.4	JN	62	240	CU	SM	Ca		2	2	20	
AGR	30.48	JN	67	315	UN	RO	Ca		3	2	20	
AGR	30.52	JN	63	70	UN	RO			3	1	20	
AGR	30.64	JN	33	60	PL	SR			1	1	12	
AGR	30.88	JN	20		UN	RO	Ca,M	1 mm	3	4	20	
AGR	31.32	JN	25		UN	RO	Ca		3	2	20	
AGR	31.35	JN	42		PL	RO	Ca,Cl		1.5	3	20	
AGR	31,46à31,76	BC										
AGR	32.29	JN	55		PL	SM	Ca,Cl		1	4	12	
AGR	32,31à32,57	BC										
AGR	32.88	JN	45	110	PL	RO			2	1	20	
AGR	33.1	JN	46	200	UN	RO			3	1	20	
AGR	33.23	JN	45	200	IR	RO	Ca		3	2	20	
AGR	33.27	JN	50	200	UN	RO	Ca,Sr		3	2	20	
AGR	33.35	JN	66	300	UN	RO	Ca,Cl		3	3	20	
AGR	33.46	JN	50	290	CU	SR,			2	1	20	
AGR	33.81	JN	54	140	PL	RO	Ca		1.5	2	20	
AGR	34.12	JN	43	50	UN	RO	Ca		3	2	20	

HOLE GT07-02		Osisko Project		07-1221-0028		Azimuth	180	Dip	-70			
	Joint Descriptions											
Rock Type	Depth	Type	alpha	beta	Shape	Roughness	Infill Type	Infill Thickness	Jr	Ja	Jcon	Comments
	m		(°)	(°)								
AGR	35.01	VN	61	110	PL	RO	Qz,Ca	2mm	1.5	2	20	
AGR	35.14	JN	40	60	PL	RO			1.5	1	20	
AGR	35.65	JN	22	60	UN	RO			3	1	20	
AGR	36.81	JN	69	80	PL	RO	Ca		1.5	2	20	
AGR	39.31	JN	27	25	PL	RO			1.5	2	20	
AGR	40.19	JN	22	40	PL	RO	Ca	<1mm	1.5	2	20	
AGR	40.3	JN	60	100	PL	RO	Ca	<1mm	1.5	2	20	
AGR	40.71	JN	18	300	PL	RO	Ca	<1mm	1.5	2	20	
AGR	40.74	JN	56		PL	RO	Ca	<1mm	1.5	2	20	
AGR	40.77	JN	53		PL	RO	Ca	<1mm	1.5	2	20	
AGR	40.89	JN	32	140	PL	RO	Ca	<1mm	1.5	2	20	
AGR	41.03	JN	41	200	PL	RO	Ca	<1mm	1.5	2	20	
AGR	41.25	JN	53	110	IR	RO	Ca	<1mm	3	2	20	
AGR	41.42	JN	25	230	UN	RO	Ca	<1mm	3	2	20	
AGR	41.53	JN	35	320	PL	RO			1.5	1	20	
AGR	41.58	JN	63	240	PL	RO	Ca,Fe	<1mm	1.5	2	20	
AGR	41.88	JN	47		PL	RO	Ca,Fe	<1mm	1.5	2	20	
AGR	42.38	JN	45		PL	RO	Ca	<1mm	1.5	2	20	
AGR	42.53	JN	46		PL	RO	Ca	<1mm	1.5	2	20	
AGR	42.63	JN	35		PL	RO	Ca	<1mm	1.5	2	20	
AGR	42.75	JN	48		UN	RO	Ca	<1mm	3	2	20	
AGR	42.96	JN	34		PL	RO	Ca	<1mm	1.5	2	20	
AGR	43.02	JN	70		PL	SR	Ca	<1mm	1	2	12	
AGR	43.04	JN	70		PL	RO	Ca	<1mm	1.5	2	20	
AGR	43.5	JN	20	290	PL	RO	Ca	<1mm	1.5	2	20	
AGR	43.56	JN	77	270	UN	RO	Ca,Qz	<1mm	3	2	20	
AGR	44.44	JN	25	340	PL	RO	Ca	<1mm	1.5	2	20	
AGR	45.44	JN	30	150	UN	RO	Ca	<1mm	3	2	20	
AGR	45.55	VN	30	150	PL	RO	Ca	2 mm	1.5	2	12	
AGR	45.78	JN	22	290	CU	RO	Ca	<1mm	3	2	20	
AGR	45.86	JN	57	190	UN	RO	Ca	<1mm	3	2	20	
AGR	45.98	JN	32	270	UN	RO	Ca	<1mm	3	2	20	
AGR	46.23	JN	46	260	PL	SR	Ca	<1mm	1	2	12	
AGR	46.34	JN	38	270	PL	RO	Ca,Cl	<1mm	1.5	2	20	
AGR	46.47	JN	58	270	PL	RO	Ca	<1mm	1.5	2	20	
AGR	46.61	JN	25	180	PL	RO	Ca,Cl	<1mm	1.5	2	20	
AGR	46.71	JN	35	180	CU	RO	Ca	<1mm	3	2	20	
AGR	47.05	JN	30	170	PL	RO	Ca	<1mm	1.5	2	20	
AGR	47.3	JN	48	0	PL	SR	Ca	<1mm	1.5	2	20	
AGR	47.42	JN	45	180	PL	SR	Ca	<1mm	1	2	12	
AGR	47.83	JN	45	210	PL	RO			1.5	2	20	
AGR	47.94	JN	18	0	UN	RO	Ca	<1mm	3	2	20	
AGR	48,05 à 48,18	Bc										
AGR	48,35 à 48,66	BC										
AGR	48.86	JN	76		PL	RO	Ca	<1mm	1.5	2	20	
AGR	49.1	JN	75		PL	RO	Ca	<1mm	1.5	2	20	
AGR	49.36	JN	62		PL	RO	Ca	<1mm	1.5	2	20	
AGR	49.6	JN	46		ST	RO	Ca	<1mm	3	2	20	
AGR	49.66	JN	43		CU	SR	Ca	<1mm	3	2	20	
AGR	49,82 à 50,07	BC										
AGR	51.26	JN	31		UN	SR	Ca	<1mm	2	2	20	
AGR	51,4 à51,44	BC										
AGR	51.44	JN	38		PL	SR	Ca	<1mm	1	2	12	
AGR	52.05	JN	26		PL	RO	Ca	<1mm	1.5	2	20	
AGR	52.2	JN	51		UN	SR	Ca	<1mm	2	2	20	
AGR	52.38	JN	50	40	PL	RO	Ca	<1mm	1.5	2	20	
AGR	52.64	JN	40		PL	RO	Ca,Cl	<1mm	1	3	12	
AGR	52,75 à 52,95	BC										
AGR	53.28	JN	66	120	PL	RO	Ca	<1mm	1.5	2	20	
AGR	53,7 à 53,81	BC										
AGR	54.33	JN	57		ST	RO			3	1	20	
AGR	54.47	JN	63		PL	RO	Ca	<1mm	1.5	2	20	
AGR	54.7	JN	47		PL	RO	Ca	<1mm	1.5	2	20	
AGR	54.87	JN	30		UN	RO	Ca	<1mm	3	2	20	
AGR	55.2	JN	45		PL	SR,	Ca	<1mm	1	2	12	
AGR	55.33	JN	63		PL	SR	Ca	<1mm	1	2	12	
AGR	55.47	JN	60		PL	RO	Ca	<1mm	1.5	2	20	
AGR	55.59	JN	35		PL	RO	Ca,Cl	<1mm	1	4	12	
AGR	55.61	JN	50		UN	RO	Ca,Cl	<1mm	1	3	12	
AGR	55.66	JN	65		PL	RO	Ca	<1mm	1.5	2	20	
AGR	55.69	JN	46		PL	RO	Ca	<1mm	1.5	2	20	
AGR	56	JN	30		PL	RO	Ca	<1mm	3	2	20	
AGR	56.05	JN	42		IR	RO	Ca	<1mm	3	2	20	
AGR	56,54 à 56,7	BC										
AGR	57.23	JN	26		UN	RO			3	1	20	
AGR	57.29	JN	42		UN	RO	Ca	<1mm	3	2	20	
AGR	57.32	JN	67		UN	SR	Ca	<1mm	2	2	20	
AGR	57.48	JN	45		PL	RO	Ca,Fe	<1mm	1.5	2	20	
AGR	57.35	JN	75		PL	RO	Ca	<1mm	1.5	2	20	
AGR	58.05	JN	75		PL	RO	Ca	<1mm	1.5	2	20	
AGR	58.24	JN	52		PL	RO	Ca	<1mm	1.5	2	20	
AGR	58.29	JN	74		PL	RO	Ca	<1mm	1.5	2	20	
AGR	58.39	JN	75		UN	SR	Ca	<1mm	1.5	2	20	
AGR	58.54	JN	67		PL	RO	Ca	<1mm	1	3	12	
AGR	58.64	JN	65		IR	SR	Ca	<1mm	2	2	20	
CGR	58.71	JN	67	240	IR	SR	Ca,M	<1mm	1	3	12	
CGR	58.81	JN	47	310	PL	RO	Ca	<1mm	1.5	2	20	
CGR	58.9	JN	75	300	UN	RO		<1mm	3	1	20	
CGR	59	JN	55	310	CU	RO	Ca,M	<1mm	1	3	12	
CGR	59.14	JN	45	220	PL	RO	Ca,Ch	<1mm	1.5	2	20	
CGR	59.21	JN	43	250	CU	RO	Ca	<1mm	3	2	20	
CGR	59.49	VN	20	120			Qz	1mm	1.5	2	20	

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	Joint Descriptions											
Rock Type	Depth	Type	alpha	beta	Shape	Roughness	Infill Type	Infill Thickness	Jr	Ja	Jcon	Comments
	m		(°)	(°)								
CGR	60.16	JN	80	50	PL	SM			1	1	12	
CGR	60.42	JN	70	210	UN	SR	Ca	1mm	2	2	20	
CGR	60.59	JN	45	80	CU	RO	Ca	<1mm	3	2	20	
CGR	60.94	JN	53	90	CU	SR	Ca	<1mm	2	2	20	
CGR	61.08	JN	58	230	PL	RO	,Ca	<1mm	1.5	2	20	
CGR	61.12	JN	77	150	CU	RO			3	1	20	
CGR	61.32	JN	60	40	ST	SR			2	1	20	
CGR	61.43	JN	42	140	UN	RO	Ca,Cl	<1mm	1	4	12	
CGR	61,54 à 61,64	BC										
CGR	61.73	JN	50		PL	RO	Ca	<1mm	1.5	2	20	
CGR	61.86	JN	60		PL	SR	Ca	<1mm	1	2	12	
CGR	62.12	JN	30		PL	RO	Ca	<1mm	1.5	2	20	
SGR	62.46	JN	70	140	PL	SM			1	1	12	
SGR	62.73	JN	75	180	PL	SR	Ca	<1mm	1	1	12	
SGR	62.87	JN	40	300	CU	RO	Ca,M	<1mm	1	4	12	
SGR	62.97	JN	40	300	PL	RO	Ca,M	<1mm	1	4	12	
SGR	63.21	JN	21	320	UN	RO	Ca		3	2	20	
CGR	63.34	JN	64	330	PL	RO	Ca		1.5	2	20	
CGR	63.58	JN	75	350	UN	RO	Ca		3	2	20	
CGR	63.66	JN	59	345	PL	RO	Ca,Cl,Qz		1.5	4	20	
CGR	63.8	JN	51	270	PL	RO			3	2	20	
CGR	63.9	JN	56	165	PL	RO	Ca		1.5	2	20	
CGR	63.93	JN	54	300	UN	RO	Ca		3	2	20	
CGR	63.99	JN	30	325	UN	RO	Ca		3	2	20	
CGR	64.09	JN	57	150	UN	RO	Ca,Cl		3	3	20	
CGR	64.11	JN	28	300	UN	RO	Ca,Cl		3	3	20	
CGR	64.12	JN	67	180	UN	SR	Ca,Cl		2	3	20	
CGR	64.18	JN	65	230	PL	SR	Ca,Cl		1	3	12	
CGR	64.2	JN	27	310	UN	RO	Ca	2mm	3	2	20	
CGR	64.21	JN	45	50	ST	RO	Ca		3	2	20	
CGR	64,3à64,5	BC										
CGR	64.9	JN	48	200	PL	RO	Ca		1.5	2	20	
CGR	64.96	JN	64	220	PL	RO	Ca		1.5	2	20	
CGR	65.04	JN	74	100	UN	RO	Ca	<1mm	3	4	20	
CGR	65.06	JN	65	310	UN	RO	Ca,Sr		3	3	20	
CGR	65.25	JN	56	145	PL	SR	Ca,Sr		1	3	20	
CGR	65.39	JN	34	210	UN	RO			3	2	20	
CGR	65.45	JN	42	250	PL	RO	Ca		1.5	2	20	
CGR	65.49	JN	75	195	PL	SR	Ca		1	2	12	
CGR	65.62	JN	52	180	UN	RO			3	2	20	
CGR	65.74	JN	15	320	UN	RO	Ca,Cl,He		3	2	20	
CGR	66.2	JN	79	240	UN	SR	Ca		2	2	20	
CGR	66.57	JN	78	225	PL	SR	Ca		1	2	12	
CGR	67.01	JN	78	170	PL	SL	Ca,Ep,He		1	2	12	
CGR	67.07	JN	74	180	UN	SR	Ca		2	2	20	
CGR	67.21	JN	70	200	UN	RO	Ca		3	2	20	
AGR	67.25	JN	68	90	PL	SR	Ca		1	2	12	
AGR	67.39	JN	68	160	UN	RO	Ca		3	2	20	
AGR	67.5	JN	25	180	IR	RO			3	1	20	
AGR	67.53	JN	76	150	PL	SR	Ca,Sr		1	2	12	
AGR	67.7	JN	79	135	PL	RO	Ca,Sr		1.5	2	20	
AGR	67.8	JN	90	105	IR	RO	Ca		3	2	20	
AGR	67.99	JN	15	100	UN	RO	Ca		3	2	20	
AGR	68.18	JN	49	160	UN	SR	Ca		2	2	20	
AGR	68.36	JN	74	180	PL	SR	Ca		1	2	12	
AGR	68.6	JN	61	180	UN	SR	Ca		2	2	20	
AGR	68.69	JN	67	150	PL	SR	Ca		1	2	12	
CGR	69.54	JN	48	310	UN	SR	Ca,Py		2	2	20	
CGR	69.65	VN	39	260	PL	SM	Ch,Sr,Qz	50mm	1	2	12	
CGR	70	JN	68	170	PL	RO	Ca		1.5	2	20	
CGR	70.3	JN	75	50	UN	SR	Ca,Qz		2	2	20	
CGR	70.45	JN	79	45	UN	SR	Ca,Py		2	2	20	
CGR	70.67	JN	41	220	PL	SR	Ca		1	2	12	
CGR	70.85	JN	43	280	UN	RO	Ca		3	2	20	
CGR	72.24	JN	76	195	UN	SR			2	1	20	
CGR	72.41	JN	80	120	PL	SR			1	1	12	
CGR	72.66	JN	67	160	PL	SR	Ca		3	2	20	
CGR	72.82	JN	19	20	UN	RO	Ca,Py		3	2	20	
CGR	72.97	JN	60	265	IR	RO			3	1	20	
CGR	73.14	JN	54	160	UN	RO	Py,Ca		3	2	20	
CGR	73.59	JN	38	75	UN	SR	Ca		3	2	20	
CGR	73.65	JN	48	180	UN	RO	Ca		3	2	20	
CGR	73.9	JN	50	160	PL	SM	Ca		1	1	12	
CGR	74.39	JN	55	145	CU	RO	Ca		3	2	20	
CGR	74.54	JN	43	180	UN	SR	Ca		2	2	20	
CGR	74.59	JN	54	170	CU	SR	Ca		2	2	20	
CGR	74.78	JN	55	170	PL	RO	Ca		3	2	20	
CPO	75.57	JN	59	210	ST	RO			3	1	20	
CPO	75.65	JN	40	160	UN	SR	Ca		2	2	20	
CPO	76.45	JN	47	170	PL	SR	Ca		1	2	12	
CPO	76.94	JN	43	170	PL	SR	Ca		1	2	12	
CPO	77.79	JN	45	220	UN	SR	Ca		2	2	20	
CPO	78.78	JN	35	260	PL	SR			1	1	12	
CPO	78.97	JN	29	260	UN	RO	Ca,He,Ep		3	2	20	
CPO	79.11	JN	55	110	PL	RO	Ca,He		1.5	2	20	
CPO	79.25	JN	53	240	UN	RO	Ca		3	2	20	
CPO	79.32	JN	52	270	UN	RO	Ca		3	2	20	
CPO	79.39	JN	30	258	UN	RO	Ca		3	2	20	
CPO	80.3	JN	34	220	IR	RO			3	1	20	
CPO	80.51	JN	52	160	UN	SR	Ca		2	2	20	
CPO	81.31	JN	31	120	ST	RO	Ca		3	2	20	

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	Joint Descriptions											
Rock Type	Depth	Type	alpha	beta	Shape	Roughness	Infill Type	Infill Thickness	Jr	Ja	Jcon	Comments
	m		(°)	(°)								
CPO	81.42	JN	75	260	IR	RO	Ca		3	2	20	
CPO	81.51	JN	58		PL	RO	Ca		1.5	2	20	
CPO	81.54	JN	59		PL	RO	Ca		1.5	2	20	
CPO	81.59	JN	58		PL	RO	Ca		1.5	2	20	
CPO	81,7à82	BC										
CPO	82.12	JN	55		PL	RO	Ca		1.5	2	20	
CPO	82.24	JN	62		UN	RO	Ca		3	2	20	
CPO	82.31	JN	51		PL	RO	Ca		1.5	2	20	
CPO	82.48	JN	57		PL	RO			1.5	1	20	
CPO	82.65	JN	51		UN	RO	Ca,Py		3	2	20	
CPO	82.97	JN	24		UN	RO	Ch,Ep,He		3	2	20	
CPO	83.01	JN	52		PL	RO			3	1	20	
CPO	83.09	JN	46		UN	RO			3	1	20	
CPO	84.34	JN	53	335	PL	SM	Ca		1.5	1	12	
CPO	84.9	JN	70	350	PL	SR	Ca		1.5	1	12	
CPO	85.4	JN	72	220	PL	RO			1.5	1	20	
CPO	85.53	JN	80	230	PL	RO			1.5	1	20	
CPO	85.71	JN	70	280	PL	RO			1.5	1	20	
CPO	86.14	JN	54	300	PL	RO			1.5	1	20	
CPO	86.32	JN	52	180	PL	RO			1.5	1	20	
CPO	86.57	JN	30	224	PL	RO	Ca	<1mm	1.5	2	20	
CPO	86.66	JN	35	350	PL	RO			1.5	1	20	
CPO	86.98	JN	47	260	PL	RO			1.5	1	20	
CPO	87.49	JN	65	240	UN	RO			3	1	20	
CPO	87.96	JN	76	80	CU	RO			3	1	20	
CPO	88.26	JN	83		UN	RO			3	1	20	
CPO	88.81	JN	34	135	PL	RO			1.5	1	20	
CPO	88.98	JN	58	280	UN	RO	Ca		3	2	20	
CPO	89.18	JN	52	300	PL	SR	Ca		1	2	12	
CPO	89.3	JN	33	240	PL	SR	Ca		1	2	12	
CPO	89.39	JN	37	210	PL	SR	Ca		1	2	12	
CPO	90.47	JN	43	130	IR	RO	Py,Ca		3	2	20	
CPO	90.76	JN	55	270	UN	RO	Py,Ca		3	2	20	
SPO	90.89	JN	28	140	UN	RO	Qz		3	2	20	
SPO	91.01	JN	47	120	PL	RO	Ca,Qz		1.5	2	20	
SPO	91.21	JN	52	125	PL	RO	Ca		1.5	2	20	
SPO	92.64	JN	34	250	UN	RO	Ca,Ep,He		3	2	20	
SPO	92.97	VN	63	150	UN	RO	Qz		3	2	20	
CPO	93.13	VN	22	270	PL	SM	Qz		1	2	12	
CPO	93.25	JN	32	280	UN	SR	Qz,Ch		2	2	20	
CPO	93.3	JN	73	150	UN	RO	Ca		3	2	20	
CPO	93.52	JN	48	270	UN	RO	Ca		3	2	20	
CPO	93.71	JN	54	240	UN	SR	Ca		2	2	20	
CPO	93.82	JN	40	250	PL	SR			1	1	12	
CPO	94.25	JN	35	350	ST	RO			3	1	20	
CPO	94.85	JN	51	255	PL	RO	Ca		2	2	20	
CPO	95.33	JN	29	250	PL	RO	Ca		2	2	20	
CPO	95.4	JN	40	110	UN	RO	Ca		3	2	20	
CPO	95.45	JN	54	110	UN	RO	Ca		3	2	20	
CPO	96.16	JN	38	110	PL	SR	Ca		1	2	12	
CPO	96.45	JN	31	135	UN	SR	Ca		1	2	20	
CPO	96.56	JN	44	300	PL	RO	Ca		1.5	2	20	
CPO	96.64	JN	77	120	CU	RO	Ca		3	2	20	
CPO	96.76	JN	45	230	CU	RO	Ca		3	2	20	
CPO	96.95	JN	54	210	IR	RO	Qz,Ca,He,Ep		3	2	20	
CPO	97.01	JN	47	120	PL	RO			3	1	20	
CPO	97.09	JN	55	320	UN	RO	Ca		3	2	20	
CPO	97.13	JN	43	160	UN	RO	Ca		3	2	20	
CPO	97.21	JN	48	340	UN	RO			3	1	20	
CPO	97.82	JN	47	0	PL	RO	Qz,He,Ep		1.5	2	20	
CPO	97.96	JN	64	340	ST	RO	Qz,He		3	2	20	
CPO	98.15	JN	63	150	UN	RO			3	1	20	
CPO	98.18	JN	50	350	UN	RO	Qz		3	2	20	
CPO	98.38	JN	75	230	CU	RO	Qz,Ca		3	1	20	
CPO	98.53	JN	73	130	PL	RO	Qz,Ca		1.5	2	20	
CPO	99.1	JN	34	310	CU	RO	Ca		3	2	20	
CPO	99.34	JN	42	285	UN	RO	He,Ca		3	2	20	
CPO	99.58	JN	32	310	UN	SR	He,Ep		2	2	20	
CPO	99.71	JN	52	180	PL	RO	He		1.5	2	20	
CPO	99.87	JN	64	280	PL	RO			1.5	1	20	
CPO	100.16	JN	55	75	CU	RO			3	1	20	
CPO	100.22	JN	29	300	PL	RO	He		1.5	2	20	
CPO	100.33	JN	45	320	PL	RO	Qz,He		1.5	2	20	
CPO	100.56	JN	30	340	CU	RO			3	1	20	
CPO	100.72	JN	50	180	CU	RO	Ca		3	2	20	
CPO	100.81	JN	55	160	UN	RO	Qz,He		3	2	20	
CPO	100.97	JN	55	190	PL	RO	Py		3	4	20	
CPO	101.14	JN	54	250	PL	RO	He,Ep,Qz		1.5	2	20	
CPO	101.25	JN	71	10	CU	RO			3	2	20	
CPO	101.52	JN	53	350	CU	RO	He,Qz		3	2	20	
CPO	101.53	JN	79	220	PL	RO	He,Qz		3	2	20	
CPO	101.69	VN	38	275	PL	RO	Qz	30mm	3	2	20	
CPO	101.82	JN			CU	RO			3	1	20	
CPO	101.9	JN	56	315	IR	RO	Qz		3	2	20	
CPO	102.24	JN	35	240	CU	RO	He,Ca		3	2	20	
CPO	102.3	JN	60	280	PL	RO	He,Ca		1.2	2	20	
CPO	102.34	JN	44	270	PL	RO	He		1.5	2	20	
CPO	102.51	JN	50	314	PL	RO	He,Qz		1	2	12	
CPO	102.74	JN	50	254	PL	RO	Qz,Ca		1.5	2	20	
CPO	103.03	JN	43	240	UN	RO	Qz,Fe		3	2	20	
CPO	103.22	JN	55	210	PL	RO	Qz,Fe		1.5	2	20	

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	Joint Descriptions											
Rock Type	Depth	Type	alpha	beta	Shape	Roughness	Infill Type	Infill Thickness	Jr	Ja	Jcon	Comments
	m		(°)	(°)								
CPO	103.32	JN	47	270	PL	SR	Ep,Qz		1	1	12	
CPO	103.88	JN	50	260	PL	SR	Ca,He,Qz		1	2	12	
CPO	104	JN	35	130	PL	RO	Ca		1.5	2	20	
CPO	104.16	JN	20	290	IR	RO	Ca,M		1	3	12	
CPO	104.39	JN	70	320	IR	RO	Ca,Qz		3	2	20	
CPO	105.34	JN	42	300	PL	RO	Ca,Qz		1.5	2	20	
CPO	105.5	JN	35	280	PL	RO	Qz,He,Ca		1.5	2	20	
CPO	105.82	JN	25	280	CU	RO	He,Ca		3	1	20	
CPO	105.84	JN	62	120	PL	RO	He,Ca		1.5	2	20	
CPO	105.9	JN	53	250	PL	SR	Ca		1	2	12	
CPO	106.16	JN	57	320	PL	RO	He,Ca		1.5	2	20	
CPO	106.27	JN	43	374	PL	RO	He,Ca		1.5	2	20	
CPO	106.86	JN	68	320	UN	SR	He,Ca		2	2	20	
CPO	107.34	JN	36	310	PL	RO	Ca		3	2	20	
CPO	107.51	JN	48	300	PL	RO	Ca,Bt		1.5	2	20	
CPO	107.94	JN	24	70	IR	RO	Ca,He		3	2	20	
CPO	108.31	JN	45		PL	RO	Ca		1.5	2	20	
CPO	108.94	JN	74		PL	RO	He		1.5	2	20	
CPO	109	JN	42		PL	SR	Ch,Fe,Qz		1	2	12	
CPO	109.08	JN	80		IR	RO			3	1	20	
CPO	109.2	JN	62		UN	RO	He,Qz		3	2	20	
CPO	109.3	JN	60		PL	RO	He,Sr		1.5	2	20	
CPO	109.6	JN	67		UN	RO	He,Sr		3	2	20	
CPO	109.99	JN	68		PL	RO	He		1.5	2	20	
APO	110.04	JN	38	260	CU	SR	He		2	2	20	
APO	110.2	JN	35	320	CU	RO	He		3	2	20	
APO	110.26	JN	45	310	PL	RO	He		1.5	2	20	
APO	110.84	JN	45	314	CU	RO	He		3	2	20	
APO	110.89	JN	53	150	PL	RO	He		1.5	2	20	
APO	111.2	JN	38	270	PL	RO	Sr,Qz		1.5	2	20	
APO	111.31	JN	40	270	PL	SR	Ch		1	2	12	
APO	111.7	JN	37	270	PL	SR	Ch,Ca		1	2	12	
APO	111.82	JN	44		PL	RO	Ca		1.5	2	20	
APO	111.87	JN	89		PL	RO			1.5	1	20	
APO	112.17	JN	56		PL	RO			1.5	1	20	
APO	112.25	JN	70	130	PL	RO			1.5	1	2	
APO	112.3	JN	80	270	PL	RO			1.5	1	20	
APO	114.07	JN	41	250	PL	RO	Ca,Ch,He		1.5	3	20	
APO	114.27	JN	40	260	Pl	SR	Ch		1	2	12	
APO	114.46	JN	38	302	CU	RO			3	1	20	
APO	115.05	JN	44	270	PL	RO	Qz,Sr,Ch		1.5	2	20	
APO	115.94	JN	15	130	PL	RO	Ca,Sr,Ch		1.5	2	20	
APO	116.11	JN	25		PL	RO	Ca		1.5	2	20	
CPO	116.49	JN	48	30	UN	RO	Qz		3	2	20	
CPO	116.65	JN	38	270	PL	SM	Ca		1	3	12	
CPO	116.67	JN	58	290	PL	RO			1.5	1	20	
CPO	117.43	JN	90		IR	RO	Qz		3	2	20	
CPO	118.09	JN	63	120	CU	RO	Ca		3	2	20	
CPO	118.26	JN	50	346	UN	RO	Ca,Sr		3	2	20	
CPO	118.41	JN	53	112	PL	RO	Ca		1.5	2	20	
CPO	118.5	JN	44	120	PL	RO	Ca,Qz		1.5	2	20	
CPO	118.55	JN	50	164	UN	RO	Qz,Ca		3	1	20	
CPO	118.68	JN	47	314	PL	RO	Qz,Ca		1.5	2	20	
CPO	118.89	JN	42	170	ST	RO	Qz		3	2	20	
CPO	119.09	JN	63	210	UN	RO	Qz		3	2	20	
CPO	119.8	JN	65	200	PL	RO	Qz		1.5	2	20	
CPO	119.9	JN	38	310	PL	RO	He,Ca,Ch		1.5	2	20	
CPO	120.28	JN	60	330	PL	RO			1.5	2	20	
CPO	120.91	JN	32	350	UN	RO			3	1	20	
CPO	121	JN	54	30	CU	SR			2	1	20	
CPO	121.06	JN	45	342	UN	SR			2	1	20	
CPO	121.6	JN	50	210	CU	SR	He		2	2	20	
CPO	122.3	JN	67	270	CU	RO			3	1	20	
CPO	122.65	JN	35	330	UN	RO	He,Sr		3	2	20	
CPO	123.05	JN	47	300	PL	RO	He,Ca		1.5	2	20	
CPO	123.21	JN	90		IR	SR	He,Qz		2	2	20	
CPO	123.3	JN	47		PL	RO	He,Ca		3	2	20	
CPO	123.37	JN	50		PL	RO	He,Ca		3	2	20	
CPO	123.42	JN	60		PL	RO	Sr,Ca		1.5	2	20	
CPO	123.47	JN	66		PL	RO	Sr,Ca		1.5	2	20	
CPO	123.5	JN	55		PL	RO	Sr,Ca		2	2	20	
CPO	123.57	JN	55		IR	RO	Sr,He		3	2	20	
CPO	123.66	JN	48		PL	RO	He,Ca		1.5	2	20	
CPO	123.69	JN	53		PL	SR	Ca		1.5	2	12	
CPO	123.84	JN	40		IR	SR			2	1	20	
CPO	23,98 à 124,1	BC										
CPO	124.44	JN	55	350	PL	SR	Ch,Ca		1	2	12	
CPO	124.55	JN	80		IR	RO	He,Ch,Qz		3	2	20	
CPO	124.64	JN	46	240	IR	RO	Qz,He		3	3	20	
CPO	124.83	JN	40	60	PL	SR	Ca,He		1	2	20	
CPO	124.89	JN	30	60	PL	SR			1	1	12	
CPO	124.95	JN	47	80	PL	SR	Ca		1	2	12	
CPO	125	JN	54	290	PL	RO			1.5	1	12	
CPO	125.1	JN	45	120	PL	RO	He,Qz		1.5	2	20	
CPO	125.2	JN	58	30	PL	SR	He		2	2	20	
CPO	125.46	JN	40		PL	RO	He		1.5	3	20	
CPO	125.52	JN	48	290	PL	RO	He		1.5	2	20	
CPO	125.9	JN	55	160	PL	RO	He		1.5	2	20	
CPO	126.45	JN	40	270	PL	SR	He,Qz,Ca		1	2	12	
CPO	126.56	JN	43	190	PL	RO	Ca		1.5	2	20	
CPO	126.65	JN	72	150	IR	RO	He,Ca		3	2	20	

HOLE GT07-02		Osisko Project		07-1221-0028		Azimuth	180	Dip	-70			
	Joint Descriptions											
Rock Type	Depth	Type	alpha	beta	Shape	Roughness	Infill Type	Infill Thickness	Jr	Ja	Jcon	Comments
	m		(°)	(°)								
CPO	126.76	JN	32	320	PL	RO	Fe,Ca,Qz		1.5	2	20	
CPO	126.98	JN	67	70	UN	RO			2	2	20	
CPO	27,1 à 127,28	BC										
CPO	127.4	JN	45		PL	SR	He,Fe,Ca		1	2	12	
CPO	127.6	JN	20		PL	SR			1	1	12	
CPO	127.63	JN	63		PL	RO			1.5	1	20	
CPO	127.75	JN	66		PL	RO	Ca		1.5	2	20	
CPO	127.82	JN	52		PL	RO	He		1.5	2	20	
CPO	127.88	JN	64		IR	RO	Qz,Ca		3	2	20	
CPO	128	JN	50		PL	RO	He,Ca		1.5	2	20	
CPO	128.43	JN	73		UN	RO	He,Ca		3	2	20	
CPO	128.56	JN	46		UN	SR	Ca		2	2	20	
CPO	128.59	JN	48		CU	SR	Ca		2	2	20	
CPO	128,70 à 129	BC										
CPO	129.13	JN	58		PL	RO			1.5	1	20	
CPO	129.17	JN	62		PL	RO			1.5	1	20	
CPO	129.23	JN	63		PL	RO			1.5	1	20	
CPO	129,29à129,3	BC										
CPO	129.38	JN	62		PL	RO			1.5	1	20	
CPO	129.48	JN	58		ST	RO			3	1	20	
CPO	129,55à12978	BC										
CPO	129.7	JN	60		PL	RO			1.5	1	20	
CPO	129.75	JN	56		PL	RO			1.5	1	20	
CPO	29,85à130,87	BC										
CPO	129.86	JN	57		PL	RO	Ca		1.5	2	20	
CPO	131.28	JN	55		PL	SM	Ca,Cl		1	3	20	
CPO	131.37	JN	52		PL	SM			1	1	12	
CPO	131.41	JN	53		PL	SR	Ca		1	2	12	
CPO	131.48	JN	43		PL	SR			1	1	12	
CPO	131.53	JN	56		ST	SM			2	1	20	
CPO	131,55à132	BC										
CPO	132.11	JN	50		PL	SR			1	1	12	
CPO	132.18	JN	54		PL	SR			1	1	12	
CPO	132.3	JN	33		CU	RO			3	1	20	
CPO	132.39	JN	24		UN	RO	Ca		3	2	20	
CPO	132.5	JN	50		UN	RO			3	1	20	
CPO	132.56	JN	57		UN	RO			3	1	20	
CPO	132.71	JN	46		ST	RO			3	1	20	
CPO	33,06à133,89	BC										
CPO	133.08	JN	15		PL	SR	Ca		1	2	12	
CPO	34,10à134,30	BC										
CPO	34,51à134,75	BC										
CPO	134.75	JN	36	160	PL	RO	Ca		1.5	1	20	
CPO	134.91	JN	33	185	UN	RO	Ca		3	2	20	
CPO	134.96	JN	43	155	UN	SR	Ca,Cl		2	2	20	
CPO	135.31	JN	40	220	PL	SR			1	1	20	
CPO	135.42	JN	40	200	PL	RO			1.5	1	20	
CPO	135.58	JN	54	165	PL	RO	Ca		1.5	2	20	
CPO	135.75	JN	75	205	UN	RO	Ca		3	2	20	
CPO	135.84	JN	41	250	PL	RO	Ca		1.5	2	20	
CPO	135.93	JN	51	260	UN	RO	Ca		3	2	20	
CPO	136.02	JN	45	250	PL	RO	Ca		3	2	20	
CPO	136.17	JN	43	240	CU	RO	Ca		3	2	20	
CPO	136.27	JN	43	260	ST	RO	Py,Ca		3	2	20	
CPO	136.4	JN	79	220	PL	RO	Ca		1.5	2	20	
CPO	136.42	JN	80	20	PL	RO			1.5	1	20	
AGR	136.65	JN	57	250	CU	RO			3	1	20	
AGR	136.69	JN	60	250	PL	RO	Ca		1.5	1	20	
AGR	136.72	JN	53	230	PL	RO	Ca		1.5	2	20	
AGR	136.78	JN	63	250	CU	RO			3	1	20	
AGR	136.86	JN	66	300	CU	RO			3	1	20	
AGR	136.91	JN	49	240	ST	RO			3	1	20	
AGR	137	JN	49	250	PL	RO	Ca		1.5	2	20	
AGR	137.22	JN	63	260	PL	RO			1	1	20	
AGR	137.31	JN	49	190	PL	RO			1.5	1	20	
AGR	137.4	JN	64	210	PL	RO			1.5	1	20	
AGR	138.27	JN	49	170	PL	RO	Ca		1.5	2	20	
AGR	138.4	JN	21	140	UN	RO	Ca		2	2	20	
AGR	138.53	JN	45	190	UN	SM			2	1	20	
AGR	138.63	JN	41	200	UN	SR	Ca		2	2	20	
AGR	138.67	JN	37	300	PL	RO	Ca		1.5	2	20	
AGR	138.77	JN	48	150	PL	SR			1	1	20	
AGR	138.85	JN	59	155	PL	RO			1.5	1	20	
AGR	138.94	JN	39	180	PL	RO			1.5	1	20	
AGR	139	JN	52	200	PL	RO			1.5	1	20	
AGR	139.04	JN	33	280	PL	RO	Ca		1.5	2	20	
AGR	139.15	JN	28	300	ST	RO	Ca,Cl		3	3	20	
AGR	139.26	JN	46	170	CU	RO			3	1	20	
AGR	139.32	JN	29	270	PL	SM	Ca		1	2	12	
AGR	139.61	JN	27	120	IR	RO			3	1	20	
AGR	139.71	JN	62	120	UN	RO	Ca		3	2	20	
AGR	140.03	JN	53	140	UN	RO	Py		3	2	20	
AGR	140.32	JN	45	180	UN	RO	Ca		3	2	20	
AGR	141.26	JN	48	100	UN	SR			2	1	20	
AGR	141.27	JN	45	180	UN	SM			2	1	20	
AGR	141.81	JN	75	100	CU	RO			2	1	20	
AGR	141.98	JN	58	150	PL	SR	Ca		1	2	12	
AGR	142.04	JN	48	180	UN	RO	Ca		3	2	20	
AGR	142.12	JN	58	110	PL	RO			1.5	1	20	
AGR	142.14	JN	44	140	UN	RO			3	1	20	
AGR	142.24	JN	56	150	IR	RO	Ca		3	2	20	

HOLE GT07-02		Osisko Project		07-1221-0028		Azimuth	180	Dip	-70			
	Joint Descriptions											
Rock Type	Depth	Type	alpha	beta	Shape	Roughness	Infill Type	Infill Thickness	Jr	Ja	Jcon	Comments
	m		(°)	(°)								
AGR	144.96	JN	60	165	CU	RO			3	1	20	
AGR	145.47	JN	58	220	ST	RO			3	1	20	
AGR	146.99	JN	16	270	PL	SM	Ca		2	2	12	
AGR	149.4	JN	34	210	PL	SR			1	1	12	
AGR	149.7	JN	14	270	UN	SR	Ch,Fe,Ca		2	2	20	
AGR	149.86	JN	22	280	PL	RO	Tc,Ca		1	4	6	
AGR	149.94	JN	48	330	PL	SR	M,Ca		1	3	12	
AGR	150.25	JN	55		IR	RO	He		3	2	20	
AGR	150.45	JN	75		IR	RO	Ca		3	2	20	
AGR	150.61	JN	53		CU	SR	Ep		2	2	20	
AGR	150.65	JN	76		PL	RO	Ep,Ca		1.5	2	20	
AGR	151.08	JN	68		PL	SR	Ca		1	2	12	
AGR	151.25	JN	47		UN	RO			3	1	20	
AGR	151.6	JN	32		UN	SR			2	1	20	
AGR	151.74	JN	20		PL	SR	Ca,He		1	2	12	
AGR	151.92	JN	58		UN	SR	Ca,He		1	2	12	
AGR	152.15	JN	20		UN	RO	Ca,M		1	3	12	
AGR	152.17	JN	55		PL	SM			1	1	12	
AGR	152.28	JN	45		PL	RO	He		1.5	3	20	
AGR	152.4	JN	55		PL	RO	He		1.5	3	20	
AGR	152.69	JN	45		PL	RO	Ca,He		1.5	2	20	
AGR	153.17	JN	71		PL	SM	Ca		1	2	12	
AGR	153.43	JN	42		PL	SR	Ca		1	2	12	
AGR	153.88	JN	50		PL	SR	Ca		1	2	12	
AGR	154.16	JN	50		PL	SR	Ca		1	2	12	
AGR	154.33	JN	54		PL	SR	Ca		1	2	12	
AGR	154.38	JN	53		PL	SM			1	2	12	
AGR	154.68	JN	63		UN	SM			2	1	20	
AGR	154.78	JN	47		PL	SR			1	1	12	
AGR	154.96	JN	40		PL	SR			1	1	12	
AGR	155.22	JN	45		PL	SR	Ca		1	2	12	
AGR	155.3	JN	55		UN	SR	Ca		2	2	20	
AGR	155.4	JN	20		UN	RO	Tc,Ca		3	4	12	
AGR	155.58	JN	58		PL	SR	Tc		1	4	12	
AGR	155.65	JN	56		PL	SR			1	1	12	
AGR	155.71	JN	64		PL	SR			1	1	12	
AGR	155.79	JN	55		PL	SM			1	1	12	
AGR	156.14	JN	48		PL	SR			1	1	12	
AGR	156.3	JN	53		PL	SM	Ca		1	2	12	
AGR	156.73	JN	53		PL	RO	Ca		1.5	2	20	
AGR	156.9	JN	52		PL	SR	Ca		1	2	12	
AGR	157.21	JN	60		PL	SR	Ca		1	2	12	
AGR	157.37	JN	60		PL	SR	Tc		1	1	12	
AGR	157.63	JN	62		PL	SR	Fe,Ca		1	2	12	
AGR	157.77	JN	65	150	UN	SR	Ca,Fe		2	2	20	
AGR	159.25	JN	66	192	PL	SM			1	1	12	
AGR	159.31	FO	37	330	PL	RO			1.5	1	20	
AGR	159.44	JN	40	10	PL	SM			1	1	12	
AGR	159.55	FO	56	320	PL	SR			1	1	12	
AGR	159.61	FO	58	100	PL	SM			1	1	12	
AGR	159.74	JN	60	200	PL	SM			1	1	12	
AGR	160.3	JN	42	0	PL	SM			1.5	2	20	
AGR	160.72	JN	54	0	IR	RO	Fe		3	2	20	
AGR	161.31	JN	90		IR	RO	Qz		3	2	20	
AGR	162.52	JN	75	220	PL	SM	Ca,Fe		1	2	12	
AGR	162.93	JN	55	190	PL	SR	He		1	2	12	
AGR	163.07	JN	75	300	UN	SR	Ca		2	2	20	
AGR	136.26	JN	58	190	PL	SR	Ca		1	2	12	
AGR	63,3 à 163,37	SH	Broken rock									
AGR	164.21	JN	78	222	UN	SR	Fe		2	2	20	
AGR	164.65	JN	76	202	UN	SM	Fe		2	2	20	
AGR	165.19	JN	63	242	PL	SM			1	1	12	
AGR	165.33	JN	75	282	PL	RO			1.5	1	20	
AGR	165.62	JN	20	102	PL	SR	Fe		1	2	12	
AGR	165.82	JN	55	222	PL	SR	He		1	2	12	
AGR	166.11	JN	72	262	PL	SM	Ca		1	2	12	
AGR	169.14	JN	70	132	PL	SM	Fe		1	2	12	
AGR	169.21	JN	70	162	PL	SM			1	1	12	
AGR	169.33	JN	22	2	CU	RO			3	1	20	
AGR	169.89	JN	63	42	PL	SM	Fe		1	2	12	
AGR	170.15	JN	68	62	ST	SR	Fe		2	2	20	
AGR	170.21	JN	63	52	PL	SR	Fe		1	2	12	
AGR	170.57	JN	15	356	PL	SM	Ch		1	2	12	
AGR	170.62	JN	60	62	PL	SR	Fe,Qz		1	2	12	
AGR	176.27	JN	27	286	PL	SM	Ca,Fe	<1mm	1	2	12	
AGR	176.85	JN	16	342	IR	SM	Ep		2	2	20	
AGR	177.11	JN	42	348	UN	SR	Qz,Py	<1mm	2	1	20	
AGR	177.25	VN	15	270	PL	SM	Qz	25mm	1	1	12	
AGR	177.31	VN	69	220	IR	RO	Qz,Py	20mm	2	1	20	
AGR	177.35	VN	76	142	IR	RO	Qz,Ca	20mm	3	1	20	
AGR	177.48	JN	15		IR	SM	Ep	<1mm	1	2	12	
AGR	177.53	JN	58	216	IR	SM	Tc	<1mm	1	2	12	
AGR	177.58	JN	72	228	IR	SM	Tc	<1mm	2	2	12	
AGR	177.61	Roll on rock										
AGR	177.67	JN	68	252	PL	PO			0.5	1	12	
AGR	177.88	JN	83	258	PL	PO			0.5	1	12	
AGR	177.99	JN	85	248	PL	SR			1	1	12	
AGR	178.02	JN	75	252	PL	SM			1	1	12	
AGR	178.26	JN	74	244	PL	SM			1	1	12	
AGR	178.4	JN	68	244	PL	SM			1	1	12	
AGR	179.16	JN	28	314	PL	SM	Ca,Py		1	2	12	

HOLE GT07-02		Osisko Project		07-1221-0028		Azimuth	180	Dip	-70			
	Joint Descriptions											
Rock Type	Depth	Type	alpha	beta	Shape	Roughness	Infill Type	Infill Thickness	Jr	Ja	Jcon	Comments
	m		(°)	(°)								
AGR	79,44 à 179,45		BC									
AGR	79,45 à 179,47											
AGR	179.45	JN	43		UN	SM			1	1	12	
AGR	179.54	JN	74	200	PL	SR			1	1	12	
AGR	180.41	JN	56	300	PL	SM			1	1	12	
AGR	180.48	JN	58	320	UN	SM	Sa,Ep	<1mm	1	1	12	
AGR	180.65	JN	63	142	ST	SM			1	4	12	
AGR	180.81	JN	76	178	IR	SM			1	1	20	
AGR	180.85	JN	62	128	PL	SM	Ca,Py		1	1	12	
AGR	181.45	JN	44	300	PL	SM	Sa,trace		1	2	12	
AGR	181.47	JN	35	294	PL	SM	Cl	<1mm	1	4	12	
AGR	181.6	JN	48	304	PL	PO	Ca	<1mm	1	3	12	
AGR	181.67	JN	50	165	PL	SR			1.5	3	6	
AGR	181.74	JN	45	318	PL	SM	Ca	<1mm	1	1	12	
CPO	182.15	JN	54	315	ST	RO			1.5	1	20	
CPO	182.19	JN	53	285	UN	SM			1.5	1	20	
CPO	182.22	JN	8	252	ST	SM	Ca		1.5	2	20	
CPO	182.36	JN	44	248	PL	SM	Ep,Ca		1	2	12	
CPO	182.7	JN	81	292	ST	RO	Qz	35mm	3	1	20	
CPO	183	VN	9		PL	SM	Cl,Ca	<1mm	4	2	12	
CPO	183.23	JN	65	30	PL	SR	Tc,Py		2	1	12	
CPO	183.82	JN	13	75	UN	PO	Ca,Ep	<1mm	1.5	2	20	
CPO	183.96	JN	61	278	PL	RO			1.5	1	12	
CPO	184.05	JN	40	60	CU	SM	Ca,Py	<1mm	2	2	20	
CPO	184.22	JN	44	256	UN	SM	Ca,He	<1mm	2	2	20	
CPO	184.42	JN	42	305	PL	SR			1	1	12	
CPO	184.43	JN	45		CU	SM			2	1	20	
CPO	184.62	JN	76	315	PL	SR			1	1	12	
CPO	184.71	JN	24	288	PL	SM	Cl,Ca,He	<1mm	1	3	12	
CPO	185.53	JN	32	258	PL	SM	Ca,He		1	2	12	
CPO	186.07	JN	14	280	UN	SM	Ca,Ep	<1mm	2	2	20	
CPO	186.14	JN	16	302	PL	SM	Ca,Ep	<1mm	1	2	12	
CPO	186.53	JN	45	345	PL	SM			1	1	12	
CPO	186.76	JN	52	304	ST	SM	Ca,Ep	<1mm	2	2	20	
AGR	186.84	JN	89	30	PL	SM	Py		1	1	12	
AGR	187.1	JN	78	38	PL	SM	Py		1	1	12	
AGR	187.47	JN	32	10	PL	SM	Ca,Ep		1	2	12	
AGR	188.12	JN	64	340	PL	SM			1	1	12	
AGR	188.24	JN	22	110	PL	PO	Ca	<1mm	0.5	1	12	
CPO	188.34	JN	50	175	PL	SR	Ca		1	2	12	
CPO	188.83	JN	22	324	PL	SR			1	1	12	
CPO	188.86	JN	45	322	PL	SR	He		1	2	12	
CPO	189.03	JN	42	320	PL	SM	Py		1	1	12	
CPO	189.22	JN	29	312	PL	SM	Ca		1	2	12	
CPO	189.38	JN	18	305	CU	SM			1.5	1	20	
CPO	189.43	JN	73	162	PL	SM			1	1	12	
CPO	189.49	JN	77	155	PL	SM	He		1	2	12	
CPO	189.54	JN	78	176	PL	SM			1	1	12	
CPO	189.73	JN	24	302	PL	RO			1.5	1	20	
CPO	189.77	JN	30	300	CU	RO			3	1	20	
CPO	190	JN	38	330	PL	SR	Ca,Ep		1	2	12	
CPO	190.48	JN	40	290	UN	RO			3	1	20	
CPO	190.65	JN	25	285	UN	SR	Ca		2	2	20	
CPO	190.95	JN	59	290	PL	SR	Ca		1	2	12	
CPO	191.38	JN	8	300	PL	SM	He,Ep,Ca		1	2	12	
CPO	192.1	JN	45	240	UN	RO	Ep,Ca,Py		3	2	20	
CPO	192.52	JN	14	300	UN	SR	Ca,Ep,Py		2	2	20	
CPO	192.59	JN	39	295	PL	SM	Ep,He,Chl		2	4	12	
CPO	192.75	JN	29	298	CU	SR	Ca		2	2	20	
CPO	192.9	JN	52	320	PL	SR	Ca		1	2	12	
CPO	193.16	JN	24	310	PL	SR	Ca		1	2	12	
CPO	193.26	JN	45	200	PL	SR	Ca		1	2	12	
CPO	193.35	JN	37	285	PL	SR	Ca		1	2	12	
CPO	193.76	JN	12	315	UN	RO			3	1	20	
CPO	194.01	JN	31	345	PL	SR	Ca		1	2	12	
CPO	194.72	JN	40	0	PL	SR	Qz,Fe		1	2	12	
CPO	196	JN	70	310	PL	RO			1.5	1	20	
CPO	196.05	JN	44	310	PL	SR	Qz	7mm	1	1	12	
CPO	196.5	VN	60	250	IR	RO	Ca		3	2	20	
AGR	196.59	JN	52	250	PL	RO	Ca		1.5	2	20	
AGR	196.68	JN	56	270	PL	RO	Ca		1.5	2	20	
AGR	196.74	JN	55	240	PL	SR	Ca		1.5	2	20	
AGR	196.8	JN	55	220	ST	SR	Ca,M		2	2	20	
AGR	196.83	JN	52	180	PL	SR	Ca		1	2	20	
AGR	198.03	JN	52	250	PL	SR	Ca,Fe	<1mm	1	4	12	
AGR	198.06	JN	55	190	PL	RO			1.5	1	20	
AGR	198.14	JN	22	042	PL	RO	Ca	<1mm	1.5	2	20	
AGR	198.32	JN	27	300	ST	RO	M,Ca		3	3	12	
AGR	198.55	JN	60		PL	SR	Ca		1	2	12	
AGR	199.24	JN	44		CU	RO	Qz,Ca		3	2	20	
AGR	200.4	JN	58	300	PL	RO	Ca		1.5	2	20	
AGR	203.31	JN	50	270	PL	SR	Ch,Ca,Fe		1	2	12	
AGR	203.68	JN	25	340	PL	SR	Ch,Ca,Fe		1	2	12	
AGR	205.96	JN	55		PL	SR	Ca		1	2	12	
AGR	206.28	JN	60		PL	SR	Ca,Fe		1	2	12	
AGR	207.41	JN	60		PL	SR	Ca,Fe		1	2	12	
AGR	208.46	JN	28		UN	SR	Ca,Fe		2	2	20	
AGR	209.66	JN	58		PL	SR	Ca		1	2	12	
AGR	211.75	JN	68		UN	SR	Ca,Qz		2	2	20	
AGR	212.56	JN	44		PL	SR	Ca		1	2	12	
AGR	212.6	JN	40		PL	RO	Ca,Qz		1.5	2	20	

HOLE GT07-02		Osisko Project		07-1221-0028		Azimuth	180	Dip	-70			
	Joint Descriptions											
Rock Type	Depth	Type	alpha	beta	Shape	Roughness	Infill Type	Infill Thickness	Jr	Ja	Jcon	Comments
	m		(°)	(°)								
AGR	214.06	JN	61		ST	SR	Ca		2	2	20	
AGR	214.46	JN	58		PL	SR	Ca		1	2	12	
AGR	214.56	JN	47		PL	SR			1	1	12	
AGR	214.69	JN	55		PL	SM			1	1	12	
AGR	214.76	JN	60		PL	SR	Ca		1	2	12	
AGR	215.11	JN	54		PL	SR	Fe		1	2	12	
AGR	215.21	JN	50		PL	SM	Fe		1	2	12	
AGR	215.57	JN	54		PL	SM	Fe		1	2	12	
AGR	215.7	JN	58		PL	SM			1	1	12	
AGR	215.88	JN	48		PL	SR	Fe		1	2	12	
AGR	216.18	JN	20		UN	SR			3	1	20	
AGR	217.19	JN	56		PL	SR	Fe		1	2	12	
AGR	217.2	JN	50		PL	RO	Fe,Ca		3	2	20	
AGR	217.45	JN	44	120	IR	RO	Qz	10mm	3	2	20	
AGR	217.65	VN	50	180	ST	SR	Ca		2	2	20	
AGR	217.7	JN	55	170	PL	SR	Ca,Fe		1	2	12	
AGR	217.88	JN	53	150	PL	SR	Ca		1	2	12	
AGR	218	JN	50	164	PL	SR	Ca,Py		1	2	12	
AGR	218.15	JN	55	150	PL	SR	Ca,Cl		1	4	12	
AGR	218.45	JN	28	170	PL	SR	Ca,Cl		1	4	12	
AGR	218.58	JN	28	020	PL	SR	Py		1	2	12	
AGR	218.64	JN	45	170	PL	RO	Ca,Ep		1.5	2	20	
AGR	219.47	JN	26	030	UN	SR	Ca,Cl,Py		2	3	20	
AGR	220.52	JN	51	190	PL	SR	Ca,Py		1	2	12	
AGR	220.84	JN	58	210	PL	SR	Ca,Py		1	2	12	
AGR	221.14	JN	5	300	UN	SM	Ca,Cl	4mm	2	4	20	
AGR	221.62	JN	60	165	PL	SR	Ca		1	2	12	
AGR	221.66	JN	20	300	PL	SR	Ca		1	2	12	
AGR	222.52	JN	60	150	UN	SM	PL,Ca		2	2	20	
AGR	222.75	JN	47	115	PL	SM	Ca		1	2	12	
AGR	223.35	JN	52	210	PL	RO	M		1.5	4	20	
AGR	223.41	JN	49	100	PL	SM	Py,Ca		1	2	12	
AGR	224	JN	55	180	PL	SM	Ca		1	2	12	
AGR	224.05	JN	10	280	PL	SR	Ca		1	2	12	
AGR	224.25	JN	57	180	PL	SR	Ca		1	2	12	
AGR	224.57	JN	55	155	PL	SR	Py,Ca		1	2	12	
AGR	224.78	JN	54	185	PL	SR	Py,Ca		1	2	12	
AGR	226.05	JN	59	170	ST	RO	Py		3	2	20	
AGR	226.15	JN	55	180	PL	RO	Py,Ca		1.5	2	20	
AGR	226.35	JN	50	120	PL	RO	Ca		1.5	2	20	
AGR	226.39	JN	43	180	CU	SM	Ca		2	2	20	
AGR	226.42	JN	52	180	PL	RO	Qz,Py		1.5	2	20	
AGR	226.99	VN	12	300	PL	SR	Ca		1	2	12	
AGR	227.48	JN	62	60	CU	RO	Py		3	2	20	
AGR	228.64	JN	13	300	PL	SM	Ca,Cl		1	3	12	
AGR	228.68	JN	57	170	PL	SM	Ca,Cl		1	3	12	
AGR	229.23	JN	25	0	PL	RO	Py		1.5	2	20	
AGR	229.35	JN	62	170	PL	SR	Py		1	2	12	
AGR	230.72	JN	13	150	PL	SR	Py		1	2	12	
AGR	230.72	JN	62	150	CU	RO	Py		3	2	20	
AGR	230.92	JN	54	180	PL	SR	Py		1	2	12	
AGR	231.61	JN	55	180	PL	SR	Py		1	2	12	
AGR	231.8	JN	15	0	UN	SR	Ca		2	2	20	
AGR	231.86	JN	14	300	PL	SR	Ca,Py		1	2	12	
AGR	232.19	JN	67	170	PL	SR	Py		1	2	12	
AGR	232.21	JN	21	20	PL	SR	Py		1	2	12	
AGR	232.9	JN	31	358	PL	RO	Ca		1.5	2	12	
AGR	233.5	JN	19	310	PL	SR	Ca		1	2	12	
AGR	233.78	JN	18	15	CU	RO			3	1	20	
AGR	234.3	JN	56	10	CU	RO			1	1	20	
AGR	236.02	JN	69	130	PL	SR			1	1	12	
AGR	236.15	JN	12	15	UN	SR	Ca,Py		2	2	20	
AGR	236.19	JN	21	315	PL	SR	Ca		1	2	12	
AGR	236.21	JN	70	105	PL	SR	Py		1	2	12	
AGR	236.46	JN	19	320	PL	SM	M	<1mm	1	4	12	
AGR	237.06	JN	52	240	PL	SM	Ca		1	2	12	
AGR	237.92	JN	15	120	PL	SM	Ca		1	2	12	
AGR	239.35	JN	26	20	UN	RO			3	1	20	
AGR	239.57	JN	34	40	UN	RO	Ca		3	2	20	
AGR	240.55	JN	13	210	UN	SM	Ca		2	3	20	
AGR	241.11	JN	14	260	UN	SM	Ca,Py		2	2	20	
AGR	241.14	JN	40	20	PL	SM	Py		1	2	12	
AGR	241.24	JN	19	290	PL	SM	Ca		1	2	12	
AGR	242.53	JN	14	300	UN	SR	Py,Ca		2	2	20	
AGR	242.79	JN	73	100	PL	SR			1.5	1	12	
AGR	244.59	JN	65	15	PL	RO	Qz	<1mm	1.5	2	20	
AGR	244.75	JN	61	120	PL	RO			1.5	1	20	
AGR	244.87	JN	69	120	PL	SR			1	1	20	
AGR	246.09	JN	60	190	PL	SR	Sr		1	2	12	
AGR	246.24	JN	50	150	PL	SR	Fe,Ca		1	2	12	
AGR	246.3	JN	70	170	PL	SR			1	1	12	
AGR	246.31	JN	44	150	PL	RO	Ca		1.5	2	20	
AGR	246,4 à 246,42	JN	BC									
AGR	246.6	BC	25	340	UN	RO	Ca,Fe,Ch		3	2	20	
AGR	246.95	JN	76	300	ST	SR	Sr		2	2	20	
AGR	251.3	JN	40	300	PL	RO	Fe		1.5	2	20	
AGR	252.89	JN	52	160	PL	SR			1	1	12	
AGR	253.09	JN	66	160	PL	SM			1	1	12	
AGR	253.47	JN	66	150	PL	SR			1	1	12	
AGR	253.98	JN	68	160	PL	SR			1	1	12	
AGR	254.34	JN	68	160	PL	SR			1	1	12	

HOLE GT07-02	Osisko Project		07-1221-0028		Azimuth	180	Dip	-70			
	Joint Descriptions										
Rock Type	Depth	Type	alpha	beta	Shape	Roughness	Infill Type	Infill Thickness	Jr	Ja	Jcon	Comments
	m		(°)	(°)								
AGR	254.93	JN	58	152	PL	SR	Fe		1	2	12	
AGR	255.11	JN	67	166	PL	SR			1	1	12	
AGR	255.8	JN	53	190	PL	SR			1	1	12	
AGR	256.56	JN	50	150	PL	SR			1	1	12	
AGR	258.6	JN	45	120	IR	RO			3	1	20	
AGR	259.8	JN	35	380	UN	RO			3	1	20	
AGR	264.88	JN	22	284	PL	RO	Ch		1.5	2	20	
AGR	265.63	JN	36	340	PL	RO	Qz		1.5	2	20	
CGR	267.04	JN	75	50	PL	RO			1.5	1	20	
CGR	267.31	JN	56	30	PL	SR			1	1	12	
CGR	267.8	JN	30	310	CU	SR	Ca		2	2	20	
AGR	269.26	JN	20	350	CU	SR			2	1	20	
AGR	270.7	JN	63	140	PL	SM			1	1	12	
AGR	271.25	JN	60	140	PL	RO			1.5	1	20	
AGR	271.8	JN	64	150	PI	SR	Ca		1	2	12	
AGR	272.26	JN	68	140	PL	SM	Fe		1	2	12	
AGR	272.46	JN	24	320	PL	SM	Ca		1	2	12	
AGR	273.72	JN	67	170	PL	SR			1	1	12	
AGR	274.51	JN	68	180	PL	SR			1	1	12	
AGR	274.75	JN	68	160	PL	SR			1	1	12	
AGR	274.9	JN	25	320	PL	SR			1	1	12	
AGR	274.99	JN	70	0	CU	RO			3	1	20	
AGR	275.25	JN	68	160	PL	RO	Fe		1.5	2	20	
AGR	275.36	JN	30	330	PL	RO			1.5	2	20	
AGR	275.74	JN	20	0	UN	RO	Ca		3	2	20	
AGR	276.43	JN	26	0	CU	SR			2	1	20	
AGR	276.7	JN	26	20	CU	SR			1.5	1	20	
AGR	276.9	JN	76	170	ST	RO			3	1	20	
AGR	276.99	JN	71	170	PL	RO			1.5	1	20	
AGR	281.36	JN	30	280	PL	SR	Ca,Fe		1	2	12	
AGR	281.44	JN	75	200	UN	RO			3	1	20	

Hole GT07-03	Osisko Project			07-1221-0028		Azimuth	180	Dip	-60													Hardness and Weathering		
Run #	From	To	Interval	Rock type	Recovery	TCR (%)	RQD	RQD	SCR	SCR	Fracture/0.25m											Fracts/run	Fracts/m	Jn	Strength	Weath
	m	m			m		m	%	m	%	1	2	3	4	5	6	7	8	9	10	11	12					
0	0.00	2.00	2.00	AGR	0.00	0	0.00	0																		
1	2.00	3.00	1.00	AGR	1.00	100	0.17	17	0.40	40	0	1	1	0	0	0	0	0	0	0	0	0	2	2.00	2.0	R5	1
2	3.00	6.00	3.00	AGR	3.02	101	1.45	48	2.12	70	0	2	1	0	0	1	3	1	0	1	0	0	9	3.00	6.0	R5	1
3	6.00	9.00	3.00	AGR	2.98	99	2.87	96	2.69	90	1	1	0	0	1	2	0	0	0	0	0	0	5	1.67	3.0	R5	1
4	9.00	12.00	3.00	AGR	2.51	84	2.34	78	1.24	49	0	0	1	0	0	1	0	1	2	2	0	0	7	2.33	3.0	R5	1
5	12.00	15.00	3.00	AGR	2.83	94	2.13	71	1.99	70	1	0	1	2	2	0	0	1	1	2	4	1	15	5.00	4.0	R5	1
6	15.00	18.00	3.00	AGR	3.00	100	2.53	84	2.25	75	0	1	3	0	0	1	1	1	1	3	1	1	13	4.33	4.0	R5	1
7	18.00	21.00	3.00	AGR	3.00	100	2.60	87	1.80	60	2	1	1	2	1	3	1	0	2	2	3	2	20	6.67	6.0	R5	1
8	21.00	24.00	3.00	AGR	3.51	117	2.52	84	2.39	68	0	0	1	0	0	1	2	1	1	0	1	2	9	3.00	3.0	R5	1
9	24.00	27.00	3.00	AGR	3.14	105	2.6	87	2.53	81	0	0	0	2	1	1	1	0	0	1	1	0	7	2.33	9.0	R5	1
10	27.00	30.00	3.00	AGR	2.93	98	2.72	91	2.83	97	0	0	2	1	1	1	1	0	0	1	1	0	8	2.67	4.0	R5	1
11	30.00	33.00	3.00	AGR	3.03	101	3.03	101	2.83	93	1	0	0	0	0	0	1	0	0	1	0	1	4	1.33	2.0	R5	1
12	33.00	36.00	3.00	AGR	1.88	63	1.37	46	1.19	63	1	1	1	0	1	3	1	3	2	2	10	3	28	9.33	9.0	R5	1
13	36.00	39.00	3.00	AGR	2.70	90	2.67	89	2.63	97	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	3.0	R5	1
14	39.00	42.00	3.00	AGR	3.05	102	2.71	90	2.47	81	0	2	1	2	2	0	1	0	0	2	0	0	10	3.33	4.0	R5	1
15	42.00	45.00	3.00	AGR	3.00	100	2.72	91	2.54	85	1	1	0	0	0	0	0	2	2	1	1	0	8	2.67	4.0	R5	1
16	45.00	48.00	3.00	AGR	3.03	101	3.03	101	2.75	91	1	0	0	0	0	0	1	0	1	1	1	0	5	1.67	4.0	R5	1
17	48.00	51.00	3.00	AGR	2.95	98	2.95	98	2.50	85	0	1	1	1	1	1	0	0	0	0	0	0	5	1.67	4.0	R5	1
18	51.00	54.00	3.00	AGR	3.03	101	2.78	93	2.59	85	1	0	0	1	0	0	0	3	3	3	2	0	13	4.33	4.0	R5	1
19	54.00	57.00	3.00	AGR	2.98	99	2.93	98	2.60	87	1	0	0	0	1	1	0	1	0	0	2	0	6	2.00	4.0	R5	1
20	57.00	60.00	3.00	AGR	3.10	103	3.10	103	2.65	85	0	1	1	0	2	0	1	0	0	1	0	0	6	2.00	6.0	R5	1
21	60.00	63.00	3.00	AGR	2.97	99	2.79	93	2.56	86	0	1	1	0	1	0	0	0	0	0	1	0	4	1.33	3.0	R5	1
22	63.00	66.00	3.00	AGR	3.03	101	3.03	101	2.73	90	0	0	0	0	0	0	1	0	1	0	2	1	5	1.67	4.0	R5	1
23	66.00	69.00	3.00	AGR	2.95	98	2.75	92	2.52	85	0	0	1	1	1	1	0	0	0	0	1	1	6	2.00	6.0	R5	1
24	69.00	72.00	3.00	AGR	2.95	98	2.75	92	2.57	87	0	1	0	0	0	1	1	0	Br	1	1	2	7	2.33	4.0	R5	1
25	72.00	75.00	3.00	AGR	3.00	100	2.96	99	2.85	95	1	0	0	0	0	0	0	1	1	0	1	1	5	1.67	6.0	R5	1
26	75.00	78.00	3.00	AGR	1.95	65	1.59	53	1.49	76	1	0	0	2	1	0	1	2	0	0	0	0	7	2.33	6.0	R5	1
27	78.00	81.00	3.00	AGR	1.56	52	0.95	32	0.98	63	0	1	0	0	0	0	0	0	0	0	3	3	7	2.33	6.0	R5	1
28	81.00	84.00	3.00	AGR	3.03	101	3.03	101	2.55	84	2	2	25	1	0	1	0	0	0	1	0	0	32	10.67	3.0	R5	1
29	84.00	87.00	3.00	AGR	2.94	98	2.67	89	2.43	83	0	0	0	0	2	1	0	1	1	0	2	0	7	2.33	6.0	R5	1
30	87.00	90.00	3.00	AGR	1.40	47	1.35	45	1.29	92	0	1	1	0	1	10	10	0	0	0	0	0	23	7.67	4.0	R5	1
31	90.00	93.00	3.00	AGR	3.06	102	2.84	95	2.71	89	0	0	0	3	0	0	0	0	0	0	1	0	4	1.33	2.0	R5	1
32	93.00	96.00	3.00	AGR	3.01	100	3.01	100	2.88	96	0	0	0	0	0	0	0	1	0	0	1	0	2	0.67	2.0	R5	1
33	96.00	99.00	3.00	AGR	3.02	101	3.02	101	2.90	96	0	0	0	0	0	0	0	1	1	0	0	1	3	1.00	2.0	R5	1
34	99.00	102.00	3.00	AGR	2.96	99	2.72	91	2.39	81	0	0	1	1	2	1	1	1	0	1	25	25	58	19.33	2.0	R5	1
35	102.00	105.00	3.00	AGR	3.00	100	2.93	98	2.73	91	0	0	1	0	1	1	0	0	1	0	1	25	30	10.00	4.0	R5	1
36	105.00	108.00	3.00	AGR	2.62	87	2.30	77	1.82	69	0	2	1	0	1	0	0	0	0	1	1	0	6	2.00	4.0	R5	1
37	108.00	111.00	3.00	AGR	3.12	104	3.12	104	3.00	96	0	1	0	0	3	3	2	1	0	1	1	0	12	4.00	4.0	R5	1
38	111.00	114.00	3.00	AGR	3.12	104	3.12	104	3.00	96	0	0	0	0	0	0	0	1	0	0	1	0	2	0.67	4.0	R5	1
39	114.00	117.00	3.00	AGR	1.98	66	1.70	57	1.05	53	0	2	1	1	2	2	2	0	1	0	1	0	12	4.00	6.0	R5	1

Hole GT07-03		Osisko Project			07-1221-0028		Azimuth	180	Dip	-60													Hardness and Weathering		
Run #	From	To	Interval	Rock type	Recovery	TCR (%)	RQD	RQD	SCR	SCR	Fracture/0.25m												Fracts/run	Fracts/m	Jn	Strength	Weath
	m	m			m		m	%	m	%	1	2	3	4	5	6	7	8	9	10	11	12					
40	117.00	120.00	3.00	AGR	1.56	52	1.48	49	1.34	86	0	0	0	0	1	1	1	1	0	0	1	1	6	2.00	6.0	R5	1
41	120.00	123.00	3.00	AGR	1.42	47	1.12	37	1.07	75	0	0	0	0	0	1	1	0	0	0	0	3	5	1.67	4.0	R5	1
42	123.00	126.00	3.00	AGR	3.00	100	2.77	92	2.40	80	25	25	1	0	1	0	0	0	0	0	1	1	54	18.00	4.0	R5	1
43	126.00	129.00	3.00	AGR	3.03	101	2.84	95	2.32	77	0	1	1	0	2	1	1	0	2	1	0	0	9	3.00	6.0	R5	1
44	129.00	132.00	3.00	AGR	2.98	99	2.98	99	2.77	93	0	0	0	0	0	0	1	0	0	0	0	0	1	0.33	4.0	R5	1
45	132.00	135.00	3.00	AGR	2.98	99	2.98	99	2.65	89	0	0	2	1	0	0	0	1	0	0	0	1	5	1.67	4.0	R5	1
46	135.00	138.00	3.00	AGR	3.05	102	2.97	99	2.85	93	1	0	0	0	1	0	1	1	0	2	0	0	6	2.00	4.0	R5	1
47	138.00	141.00	3.00	AGR	2.85	95	2.78	93	2.46	86	0	0	0	0	0	1	1	1	1	1	0	0	5	1.67	4.0	R5	1
48	141.00	144.00	3.00	AGR	2.99	100	2.46	82	2.00	67	0	1	0	0	3	2	2	0	0	0	0	0	8	2.67	4.0	R5	1
49	144.00	147.00	3.00	AGR	3.04	101	2.94	98	2.59	85	1	0	0	0	0	0	2	0	0	1	2	0	6	2.00	4.0	R5	1
50	147.00	150.00	3.00	AGR	3.00	100	3.00	100	2.88	96	0	0	0	0	0	0	0	2	1	2	0	1	6	2.00	6.0	R5	1
51	150.00	153.00	3.00	AGR	3.00	100	2.83	94	2.21	74	1	0	0	1	0	0	2	2	0	1	1	0	8	2.67	4.0	R5	1
52	153.00	156.00	3.00	AGR	1.72	57	1.65	55	1.55	90	0	1	1	0	0	0	3	1	0	0	0	0	6	2.00	4.0	R5	1
53	156.00	159.00	3.00	AGR	3.11	104	2.97	99	2.44	78	0	1	1	2	0	2	2	2	0	1	1	2	14	4.67	6.0	R5	1
54	159.00	162.00	3.00	AGR	2.35	78	1.96	65	1.08	46	1	0	1	1	1	1	1	1	1	1	1	2	12	4.00	6.0	R5	1
55	162.00	165.00	3.00	AGR	3.12	104	2.66	89	2.48	79	1	1	0	1	1	0	1	3	1	1	1	1	12	4.00	6.0	R5	1
56	165.00	168.00	3.00	AGR	3.12	104	2.95	98	2.69	86	0	1	1	1	1	2	1	1	1	0	1	1	11	3.67	6.0	R5	1
57	168.00	171.00	3.00	AGR	3.12	104	3.00	100	2.36	76	1	0	1	1	0	0	1	1	1	1	0	0	7	2.33	3.0	R5	1
58	171.00	174.00	3.00	AGR	1.88	63	1.54	51	1.17	62	0	1	1	0	2	0	1	0	0	0	1	1	7	2.33	6.0	R5	1
59	174.00	177.00	3.00	AGR	3.00	100	2.92	97	2.73	91	1	0	1	1	0	0	0	0	0	0	1	0	4	1.33	4.0	R5	1
60	177.00	180.00	3.00	AGR	3.05	102	3.05	102	2.74	90	0	0	0	0	0	0	0	0	1	0	1	1	3	1.00	3.0	R5	1
61	180.00	183.00	3.00	AGR	2.97	99	2.97	99	2.82	95	1	0	0	0	1	1	0	1	1	0	0	0	5	1.67	3.0	R5	1
62	183.00	186.00	3.00	AGR	3.01	100	3.01	100	3.01	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	3.0	R5	1
63	186.00	189.00	3.00	AGR	2.98	99	2.98	99	2.83	95	0	0	0	0	0	0	0	0	1	1	1	0	3	1.00	3.0	R5	1
64	189.00	192.00	3.00	AGR	3.02	101	3.02	101	3.00	99	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	2.0	R5	1
65	192.00	195.00	3.00	AGR	2.96	99	2.96	99	2.89	98	0	1	0	0	0	0	0	0	0	1	0	1	3	1.00	2.0	R5	1
66	195.00	198.00	3.00	AGR	2.96	99	2.96	99	2.89	98	0	1	0	0	0	0	0	0	0	0	0	1	2	0.67	2.0	R5	1
67	198.00	201.00	3.00	AGR	2.60	87	1.50	50	1.31	50	0	0	0	1	0	0	1	0	0	0	0	0	2	0.67	4.0	R5	1
68	201.00	204.00	3.00	AGR	3.06	102	3.06	102	2.89	94	0	0	1	1	0	1	0	0	0	0	1	0	4	1.33	2.0	R5	1
69	204.00	207.00	3.00	AGR	2.85	95	2.85	95	2.85	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	2.0	R5	1
70	207.00	210.00	3.00	AGR	3.07	102	3.07	102	3.06	100	1	0	0	1	0	0	0	0	0	0	0	0	2	0.67	2.0	R5	1
71	210.00	213.00	3.00	AGR	2.19	73	2.19	73	2.19	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.5	R5	1
72	213.00	216.00	3.00	AGR	3.10	103	3.10	103	3.09	100	0	1	0	0	1	0	0	0	0	0	0	0	2	0.67	2.0	R5	1
73	216.00	219.00	3.00	AGR	3.01	100	3.01	100	2.58	86	0	0	0	0	0	0	1	1	0	0	0	0	2	0.67	2.0	R5	1
74	219.00	222.00	3.00	AGR	3.02	101	3.04	101	3.04	101	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	2.0	R5	1
75	222.00	225.00	3.00	AGR	2.91	97	2.91	97	2.66	91	0	0	0	0	0	0	0	0	0	0	1	0	1	0.33	0.5	R5	1
76	225.00	228.00	3.00	CGB	3.04	101	3.00	100	2.61	86	1	2	0	2	0	1	1	0	0	0	2	0	9	3.00	6.0	R4.5	1

HOLE GT07-3	Osisko Project		07-1221-0028	Azimuth	180	Dip	-70
	Joint Descriptions						
Rock Type	Depth	Type	alpha	beta	Jr	Ja	Jcon	Comments
	m		(°)	(°)				
AGR	2.46	JN	25		1.5	2	20	PL,RO,Qz
AGR	2.63	JN	69		1.5	2	20	PL,RO,alt
AGR	3.99	JN	25		1	2	12	PL,SM, oxy
AGR	3.50	JN	64		1	2	12	PL,SM, oxy
AGR	3.63	JN	71		1.5	2	20	PL,RO,oxy
AGR	4.42	JN	49		1.5	2	20	PL,RO,oxy
AGR	4.51	JN	28		6	4	20	UN,VR
AGR	4.67	JN	0		1.5	3	20	UN,RO,M, oxy
AGR	4,70-4,98		core Br		1.5	3	25	UN,RO
AGR	4.98	JN	7	326	1	3	12	PL.SM,M, oxy
AGR	5.37	JN	102	340	1.5	1	12	PL.SM
AGR	7.21	JN	47	0	1.5	2	20	PL,RO,alt
AGR	7.49	JN	44	345	1.5	2	20	PL,RO,oxy
AGR	8.14	JN	30	210	3	2	20	UN,RO,oxy
AGR	8.22	JN	61	340	1.5	2	20	PL,RO,alt
AGR	9.67	JN	30	180	1	2	12	PL.SM Cireux
AGR	10.80	JN	0	115	1.5	2	20	PL,RO,oxy
AGR	11.00	JN	17	342	1	2	12	PL,SM,oxy, alt
AGR	11.10	JN	17	345	1	2	12	PL,SM,oxy, alt
AGR	11.48	JN	17	230	1	2	12	PL,SM,alt
AGR	10.34							
AGR	12.00							
AGR	12.63	FO	41	220	1.5	2	20	PL,RO,
AGR	12.76	JN	55	045	1.5	3	20	PL,RO,M
AGR	12,88-13,15		Br					
AGR	13.20	JN	15		1	4	12	PL,SM,Tc
AGR	13.85	JN	30	140	1	4	12	PL,SM,Tc
AGR	14.10	JN	57	160	1	2	12	PL,SM,alt
AGR	14.37	JN	19	015	1.5	2	20	PL,RO,oxy
AGR	14.30	JN	61		1.5	2	20	PL,RO,alt
AGR	14.53	JN	50		1.5	2	20	PL,RO,oxy
AGR	14.58	JN	16		2	4	20	UN,RO,Tc
AGR	14.62	JN	27		1.5	3	20	UN,RO,M
AGR	14.65	JN	26		1	4	12	PL,SM,Tc
AGR	14.82	JN	28		1	3	12	PL,SM,M
AGR	15.19	JN	35	045	1	3	12	PL,SM,M
AGR	15.38	JN	27		1	4	12	PL,SM,Tc
AGR	15.58	JN	54		1.5	2	20	PL,RO,
AGR	15.67	FO	23		1.5	4	20	PL,RO,Tc
AGR	15.81	JN	063	340	1.5	1	20	PL,RO,vein
AGR	16.99	JN	022	330	2	2	20	UN,RO
AGR	16.70	JN	78	345	1	2	12	PL,SM
AGR	17.45	JN	60	000	1.5	3	20	PL,RO,Sa
AGR	17.58	JN	24	180	2	4	20	UN,RO,Tc
AGR	18.05	JN	58	350	1.5	3	20	PL,RO,Sa
AGR	18.22	JN	22	210	1	4	12	PL,SM,Tc
AGR	18.32	JN	62	335	1.5	2	12	UN,SM,Ca
AGR	18.64	mec						Sa, Ca
AGR	18.80	JN	56	000	1.5	3	20	PL,RO
AGR	18.97	mec	42		1.5	1	20	PL,RO
AGR	19.25	mec	50		1.5	1	20	PL,RO
AGR	19.30	JN	46	000	1.5	2	20	PL,RO
AGR	19.63	JN	23	124	1.5	1	20	PL,RO
AGR	20.07	JN	49	342	1.5	1	20	PL,RO
AGR	20.13	JN	62	198	1	4	12	PL,SM,Tc
AGR	20.16	JN	28	345	1	4	12	PL,SM,Tc
AGR	20.34	JN	33	150	1	3	12	PL,SM,alt
AGR	20.44	JN	56	158	1.5	1	20	PL,RO
AGR	20,7-21	Br						
AGR	20.64	JN	12	110	2	3	20	UN,RO,M
AGR	20.63	JN	63	328	1.5	3	20	PL,RO,M
AGR	21.00	JN	54		1.5	3	20	PL, RO
AGR	21.38	JN	44		1	2	20	PL, RO

HOLE GT07-3	Osisko Project		07-1221-0028	Azimuth	180	Dip	-70
	Joint Descriptions						
Rock Type	Depth	Type	alpha	beta	Jr	Ja	Jcon	Comments
	m		(°)	(°)				
AGR	21.53	JN	16		1	2	20	PL,RO,Ca,Feld, 1mm
AGR	21.58	JN	77	000	1	2	12	PL,SM
AGR	21.63	JN	60	050	3			
AGR	21.85	JN	40	332	1.5	1	20	PL, RO,
AGR	21.95	JN	39	340				
AGR	22.23	JN	53	182	1.5	1	20	PL, RO,
AGR	22.36	JN	40	320				
AGR	22.38	JN	43	300			20	ST, VR, Ca trace
AGR	22.44	JN	50	165	1.5	0.75	20	PL, RO
AGR	22.50	JN	38				20	PL, RO
AGR	22.56	mec						
AGR	22.64	JN	55			0.75	12	PL, SM, Ca, Feld, < 1 mm
AGR	22.73	JN	46			0.75	12	PL, SM
AGR	22.93	JN	34			0.75	12	ST, RO
AGR	23.07	JN	12			1	12	PL, SM, M, < 1 mm
AGR	23.05	JN	34			0.75	20	IR, RO
AGR	23.16	JN	59			0.75	12	PL, SM
AGR	23.33	VN	57			0.75	20	PL, RO, Qz, 25 mm
AGR	23.50	JN	84			0.75	20	ST, VR, Ca, traCUe, < 1 mm
AGR	24.76	JN	46			1	12	CU, SM
AGR	25.39	JN	56			1	12	PL, SM, Ca trace, < 1 mm
AGR	25.63	JN	54			0.75	20	UN, RO, Ca, Feld, < 1 mm
AGR	25.70	JN	46			1	12	ST, RO, Ca trace, < 1 mm
AGR	25.82	JN	36			1	20	PL, RO, Ca trace, < 1 mm
AGR	25.83	JN	50			1.75	20	IR, RO
AGR	26.18	VN	50					Qz 50 mm
AGR	26.53	JN	76	330	3	0.75	20	PL, RO
AGR	27.86	JN	54	60	3	1	20	ST, VR, M, < 1 mm
AGR	27.91	JN	70	170	1.5	0.75	20	PL, RO
AGR	28.24	JN	25	190	3	0.75	20	UN, RO, Qz 2 mm
AGR	28.40	JN	19				20	PL, RO, Ca trace, < 1 mm from 28.40 to 28.57 = Fractured (Fault)
AGR	28.57	FLT	65	060	1.5	4	20	PL, RO, Ch, Ca, 1 mm
AGR	29.28	JN	84	280	3	0.75	20	PL, VR
AGR	29.70	JN	10	050	1	1	12	PL, SM, Ch
AGR	30.09		36	180	3	2	20	PL,VR, Qtz, 2 mm
AGR	31.63	JN	37	198	3	0.75	20	ST, VR
AGR	32.32	VN	40	170	3	0.75	20	IR, VR, Qz, 50 mm
AGR	32.81	JN	28	240	3	2	20	PL, RO, Ca < 1 mm
AGR	33.04	JN	60	156	3	2	20	IR, VR, Ca < 1 mm
AGR	33.33	JN	65	140	1.5	1	20	PL, RO
AGR	33.71	JN	48	280	1.5	2	12	PL, SM, Ca, < 1 mm
AGR	34.10	JN	38	74	3	2	20	IR, RO, Ca < 1 mm from 34 to 36 m m= mec broken
AGR	34.30	JN	56		3	1	20	IR, RO
AGR	34.57	FO	31		3	2	20	IR, RO
AGR	34.45	JN	25		1.5	1	20	ST, VR, Ep, Ca, Fe, 2 mm
AGR	34.70	JN	24		3	3	20	PL, RO, Ep, 2 mm
AGR	34.88	JN	48		1.5	3	20	UN, VR, 2 mm
AGR	34.86	JN	45		1.5	2	20	UN, VR, 2 mm
AGR	35.00	JN	22		1.5	1	20	PL, VR, SM, 3 mm
AGR	35.09	JN	55		1.5	2	20	PL, VR, He, Ep, 1 mm
AGR	35.39	JN	40		1.5	1	20	PL, RO, Ep
AGR	35.41	CL	25		1.5	2	20	IR, VR, Ep, He
AGR	35.64	JN	19		1.5	1	20	PL, RO, Ca trace
AGR	35.80	JN	15		1.5	1	12	PL, SM
AGR	36.12	JN	35		1.5	2	20	PL, RO, Ca
AGR	36.43	JN	77		3	2	20	PL, VR, Ca
AGR	36.49	JN	50		1.5	1	20	PL, VR
AGR	36.64	JN	60		3	1	12	ST, RO
AGR	36.88	JN	67		3	1	20	UN, RO
AGR	36.91		68		1.5	1	20	PL, RO
AGR	39.42	VN	67		3	2	20	IR, RO, Qtz

HOLE GT07-3		Osisko Project		07-1221-0028	Azimuth	180	Dip	-70
	Joint Descriptions							
Rock Type	Depth	Type	alpha	beta	Jr	Ja	Jcon	Comments
	m		(°)	(°)				
AGR	39.48	JN	68		3	2	20	IR, RO, Qtz
AGR	39.65	JN	40		2	1	12	UN, SM
AGR	39.79	JN	45		3	1	20	IR, RO
AGR	39.83	JN	46		3	1	20	IR, RO, Ca
AGR	40.07	JN	39		1.5	1	20	PL, RO, Ca
AGR	40.08	JN	52		1.5	2	20	PL, RO
AGR	40.63	JN	36		1.5	2	20	PL, VR, Ca, < 1 mm
AGR	41.47	JN	59		3	3	20	IR, RO, Ca, sand, 2 mm
AGR	41.49	JN	60		1	2	12	PL, SM, Ca, < 1 mm
AGR	42.10	JN	10		2	0.15	20	UN, RO
AGR	42.43	JN	24		3	2	20	IR, VR, Ca, < 1 mm
AGR	43.76	JN	51		3	2	20	IR, RO, Ca, < 1 mm
AGR	43.84	JN	50		3	2	20	PL, VR, Ca, < 1 mm
AGR	44.12	JN	50		3	1	20	IR, RO
AGR	44.17	JN	43		3	1	20	IR, RO
AGR	44.47	JN	40		2	2	12	IR, SM, Ep, < 1 mm
AGR	44.52	JN	45		2	1	12	UN, SM
AGR	45.19	JN	47		1	1	12	PL, SM
AGR	46.74	JN	24		3	2	20	IR, RO, Ca, < 1 mm
AGR	47.04	JN	22		0.5	2	12	PL, PO, Ep/Ca, < 1 mm
AGR	47.43	JN	62		3	1	20	CU, RO
AGR	47.54	JN	61		3	1	20	IR, RO
AGR	48.32	JN	58	207	3	2	20	CU, RO, Ca, < 1 mm
AGR	48.72	JN	15	027	1	1	12	PL, SM
AGR	48.79	JN	27	282	3	2	20	IR, RO, Ca, < 1 mm
AGR	49.10	JN	58	162	3	2	20	IR, RO, Ca, < 1 mm
AGR	49.27	JN	25	302	3	1	20	CU, RO, Qtz, < 1 mm
AGR	51.10	FO	19	044	1	0.25	12	PL, PO
AGR	51.88	FO	22	055	2	0.25	12	ST, PO
AGR	52.85	JN	68	175	3	2	20	UN, RO, Ca, 1 mm
AGR	52.86	JN	69	175	3	2	20	UN, RO, Ca, 1 mm
AGR	52.96	JN	70	135	3	2	20	UN, RO, Ca, 1 mm
AGR	52.97	JN	70	137	3	2	20	UN, RO, Ca, 1 mm
AGR	53.13	Faille	70	330	1		20	PL, VR, M, < 1 mm
AGR	53.60	JN	77	190	2	1	12	PL, SM,
AGR	53.80	JN	70	120	1.5	1	12	IR, SM
AGR	53.31	JN	76	260	2	1.5	20	PL, RO, Ca
AGR	53.94	JN	66	255	3	1.5	12	ST, SM, Ca
AGR	53.42	JN	75	225	3	3	20	PL, RO
AGR	53.54	JN	63	175	1	2	20	PL, RO, Qz
AGR	53.61	JN	60	200	1	1	12	PL, SM, Qz
AGR	54.23	JN	55	195	1	2	12	PL, SM, Ca 4 mm
AGR	55.19	JN	35	180	1	0.75	12	PL, SM
AGR	55.29	JN	40	185	2	2	12	ST, SM, Ca, < 1 mm
AGR	55.80	FO	30	315	3	2	20	CU, VR, Ca, < 1 mm
AGR	56.63	FO	22	325	2	2	20	PL, VR, Ca, < 1 mm
AGR	56.65	JN	50	180	2	2	20	PL, VR, Ca, < 1 mm
AGR	57.37	VN	32	192	3	2	20	IR, VR, Qtz
AGR	57.71	FO	36	395	3	2	20	CU, RO, Fe/Ca, < 1 mm
AGR	58.12	FO	19	005	2	2	12	IR, SM, Fe, < 1 mm
AGR	58.25	FO	25	170	2	1	12	CU, SM
AGR	58.50	JN	17	210	3	2	20	IR, VR, Qz, < 1 mm
AGR	59.34	JN	44	210	3	2	20	CU, RO, Ca, < 1 mm
AGR	60.26	VN	25		3	2	20	UN, RO, Ca, < 1 mm
AGR	60.55	FO	9	045	1	2	12	PL, SM, Ca, < 1 mm
AGR	61.16	JN	69	185	3	2	12	IR,SM,Ca, < 1 mm
AGR	62.65	VN	53	120	3	2	20	IR, RO, Qz
AGR	64.66	JN	44	055	1.5	2	20	PL, VR, Qz, Ca, < 1 mm
AGR	65.08	JN	80	006	3	1	20	CU, RO
AGR	65.68	FO	12	030	3	2	20	IR, RO, Ca, < 1 mm
AGR	65.72	JN	51	200	1.5	2	20	PL, RO, Ca, < 1 mm
AGR	65.83	JN	35	310	3	2	20	IR, RO, Ca, < 1 mm

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	Joint Descriptions						
Rock Type	Depth	Type	alpha	beta	Jr	Ja	Jcon	Comments
	m		(°)	(°)				
AGR	66.65	JN	43	300	3	2	20	IR, VR, Ca
AGR	66.92	FO	15	045	2	1	12	CU, SM
AGR	67.01	JN	45	206	3	2	20	CU, RO, Ca, < 1 mm
AGR	67.40	JN	57	184	3	2	20	IR, RO, Ca, < 1 mm
AGR	68.63	JN	10	200	3	2	20	IR, RO, Ca, < 1 mm
AGR	68.90	JN	25	320	1.5	2	20	PL, VR, Ca, < 1 mm
AGR	69.50	JN	25	220	2	2	12	UN, SM, Ca
AGR	70.33	JN	48	210	1.5	2	20	PL, RO, Ca
AGR	70.51	JN	50	210	1.5	2	20	PL, RO
AGR	71.26	VN	56	170	1.5	1	20	PL, VR
AGR	71.63	JN	39	340	3	2	20	UN, RO, Ca, < 1 mm
AGR	71.81	JN	50		3	1	20	IR, RO Qz vein
AGR	71.88	FO	26	042	3	1	20	UN, RO
AGR	72.21	JN	56	205	3	2	20	CU, RO, Ca
AGR	73.87	VN	70	230	3	0.75	20	IR, VR
AGR	74.19	JN	80	255	3	0.75	20	IR, RO
AGR	74.56	JN	80	350	3	0.75	20	CU, RO
AGR	74.81	JN	66	235	3	2	20	ST, RO, Ca
AGR	75.20	JN	65		3	1	20	IR, RO
AGR	75.50	JN	33		3	2	20	IR, RO, Ca
AGR	75.92	JN	26		2	2	12	CU, SM, Ca, 1 mm
AGR	76.26	JN	65		3	2	20	IR, RO, Ca
AGR	76.75	JN	30		3	2	20	IR, RO, Ca, 1 mm
AGR	76.86	JN	18		1	2	20	PL, SM, Ca, 1 mm
AGR	76.95	JN	26		3	1	20	IR, RO
AGR	79.50	JN	44	355	2	2	12	IR, SM, Ca, 1 mm
AGR	80.64	FO	43	010	2	0.75	12	CU, PO, Tc
AGR	80.68	JN	55	350	0.5	0.75	12	PL, PO, Tc
AGR	80.73	JN	55	120	1	0.75	12	PL, SM
AGR	80.80	JN	35		2	1	12	IR, SM
AGR	80.85	JN	30		2	1	12	IR, SM, Tc
AGR	80.91	JN	60		2	1	12	IR, SM, Tc
AGR	81.08	JN	35		0.5	1	12	PL, PO, Tc
AGR	81.24	JN	53		1.5	2	20	PL, RO, Ca
AGR	81.35	JN	37		2	2	12	UN, SM, Ca
AGR	81.42	JN	41		1.5	2	12	PL, SM, Ca
AGR	81.66	JN	45		1.5	2	20	PL, RO, Ca, < 1 mm 81,42 to 81,60 m = broken
AGR	81.93	JN	41		2	2	12	UN, SM, Ca, < 1 mm
AGR	82.32	JN	9		3	1	20	IR, RO, Ca
AGR	83.46	VN	63		1.5	1	20	PL, VR, Qz
AGR	85.07	JN	27	20	1.5	2	20	PL, RO, Ca, < 1 mm
AGR	85.22	JN	40	004	3	1	20	CU, RO
AGR	85.31	JN	45	350	1.5	1	20	PL, RO
AGR	85.95	FO	40	000	1	1	12	PL, SM
AGR	86.20	JN	45	345	3	1	20	CU, RO
AGR	86.56	FO	24	030	1.5	1	20	PL, RO
AGR	86.66	JN	38	010	1.5	2	20	PL, RO, Ca, < 1 mm
AGR	87.40	FO	7		2	2	12	UN, SM, Ca, < 1 mm
AGR	87.62	JN	25		2	1.5	12	IR, SM, Ca, tROès peUN
AGR	88.10	JN	15		1	2	12	PL, SM, Ca tache
AGR	88.71	JN	25		3	1	20	UN, RO broken from 88.47 to 88,70 m
AGR	90.79	JN	34		3	1	20	IR, RO
AGR	90.85	JN	40		3	1	20	IR, RO
AGR	90.99	JN	48		3	1	20	IR, RO
AGR	92.71	JN	36		3	1	20	IR, RO
AGR	94.84	JN	35		3	1	20	PL, VR
AGR	95.74	JN	37		3	1	20	IR, VR
AGR	97.80	JN	53		2	2	20	PL, RO, Ca, < 1 mm
AGR	98.06	JN	40		3	2	20	CU, RO, Ca, < 1 mm
AGR	98.76	JN	47		1.5	2	20	PL, RO, Ca, < 1 mm
AGR	99.62	JN	45		3	1	20	PL, RO, Ca, < 1 mm
AGR	99.83	JN	63		3	1	20	IR, RO

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	Joint Descriptions						
Rock Type	Depth	Type	alpha	beta	Jr	Ja	Jcon	Comments
	m		(°)	(°)				
AGR	100.05	JN	37		3	1	20	IR, RO
AGR	100.16	JN	55		3	1	20	IR, RO
AGR	100.48	JN	50		1.5	1	20	PL, RO
AGR	100.71	JN	36		1	2	12	PL, SM, < 1 mm
AGR	100.99	JN	26		2	2	20	CU, PO, Ca, < 1 mm
AGR	101.26	JN	54		3	1	20	IR, RO broken from 101,54 to 107,98 p 25º
AGR	102.67	JN	29		3	1	20	UN, RO
AGR	103.04	JN	37		1.5	1	20	PL, RO
AGR	103.47	JN	40		2	1	12	UN, SM
AGR	104.12	JN	25		2	1	20	PL, SM broken from 104,85 to 105 m
AGR	104.50	JN	44		0.5	1	12	PL,P
AGR	104.50	JN	40		1.5	1	12	UN,P
AGR	104.56	JN	48		1	1	12	PL, SM
AGR	104.98	JN	44		0.5	1	12	PL, PO, Tc
AGR	104.98	JN	40				12	UN, PO, Tc
AGR	105.27	JN	30		2	2	12	CU, PO, Tc, < 1 mm
AGR	105.41	JN	52		1	1	12	PL, SM
AGR	105.71	JN	67		3	1	20	UN, VR
AGR	106.02	JN	90		3	1	20	CU, RO
AGR	107.40	FO	27		1	2	12	SM, Ca
AGR	107.76	JN	20		2	1	12	UN, PO, Tc
AGR	108.47	JN	33		3	1	20	UN, RO
AGR	109.00	JN	33		2	2	12	UN,SM,Ca
AGR	109.12	FO	23		2	2	12	UN,SM,Ca
AGR	109.21	JN	63		3	1	20	IR, RO
AGR	109.27	JN	35		1.5	2	12	PL,SM,Ca<1mm
AGR	109.29	JN	50		2	2	12	IR, SM,Ca
AGR	109.48	FO	20		2	1	12	UN,PO,Tc
AGR	109.55	FO	25		0.5	3	12	PL, PO,M, 2mm
AGR	109.70	JN	50		3	0.75	20	UN,RO
AGR	109.98	JN	46		1.5	1	20	PL, VR
AGR	110.35	JN	37		2	1	12	IR,SM
AGR	110.62	JN	18		2	2	12	UN,PO,Ca,<1mm
AGR	112.93	JN	21		1	2	12	CU,SM,Ca ,<1mm
AGR	113.74	JN	88		3	1	20	IR,RO
AGR	114.38	JN	55	270	1.5	2	20	PL,RO,Ca
AGR	114.43	JN	60	085	3	2	20	ST, RO,Ca
AGR	114.67	JN	50	280	3	2	20	CU,RO,Ca
AGR	114.97	JN	65	285	1.5	1	20	PL,RO
AGR	115.07	JN	68	140	1.5	2	20	PL,RO,Ca,<1mm
AGR	115.09	JN	5	260	2	2	12	UN,SM,Ca,<1mm
AGR	115.29	JN	29	270	1.5	2	20	PL,RO,Ca
AGR	115.46	JN	90		3	1	20	CU, RO
AGR	115.67	JN	21	160	2	2	12	UN, SM,Ca,<1mm
AGR	115.72	JN	40	270	1.5	2	12	PL,SM,Ca, <1mm
AGR	116.21	JN	22	050	2	3	12	UN,SM,Ca, 2mm
AGR	116.54	JN	39	315	1	2	12	PL,SM,Ca, <1mm
AGR	118.18	JN	23	045	1	3	12	PL,SM,M, 2mm
AGR	118.32	JN	75	358	3	1	20	IR,RO
AGR	118.51	JN	15	050	2	1	12	UN, SM
AGR	118.94	JN	65	220	1.5	2	20	PL, RO,Ca
AGR	119.54	JN	36	330	1	2	12	PL,SM,Ca,<1mm
AGR	119.82	JN	59	350	3	3	20	UN,RO,M,<1mm
AGR	121.30	JN	17	320	2	2	12	IR,SM,Ca
AGR	121.74	VN	64	260	3	1	20	IR,VR,Qz
AGR	122.77	JN	27	270	1.5	1	12	UN,PO
AGR	122.83	JN	41	280	1.5	1	20	PL,RO
AGR	122.99	JN	12	120	2	3	12	IR,SM,Ca, 2mm
AGR	123.43	JN	40	300	3	1	20	CU,RO broken from 123 to 123,40m
AGR	123.72	JN	55	300	1.5	1	20	PL,VR
AGR	124.09	JN	68	320	1.5	1	20	PL,RO

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	Joint Descriptions							
Rock Type	Depth	Type	alpha	beta	Jr	Ja	Jcon	Comments
	m		(°)	(°)				
AGR	125.51	JN	52	135	3	1	20	UN,RO,M,<1mm
AGR	125.95	JN	20	080	3	1	12	ST,RO
AGR	126.44	FO	29	075	1.5	1	20	PL,RO clay traces in the plane
AGR	126.78	JN	28	350	3	1	20	UN,RO
AGR	127.09	JN	20	110	1.5	1	20	PL,RO
AGR	127.13	JN	47	280	3	1	20	UN,RO
AGR	127.36	JN	45	025	1.5	1	12	PL,RO
AGR	127.57	JN	31	355	2	1	20	UN,SM
AGR	128.03	VN	71	180	1.5	2	20	PL,RO
AGR	128.07	VN	65	210	2	1	20	PL,VR
AGR	128.26	FO	55	075	2	1	12	UN,SM
AGR	130.66	JN	16	085	3	1	20	UN,RO
AGR	132.55	JN	28	020	2	1	20	PL,VR
AGR	132.72	JN	80	320	3	1	20	IR,RO
AGR	132.90	JN	90		3	1	20	IR,VR
AGR	133.92	JN	54	190	3	1	20	CU,RO
AGR	134.16	JN	44	355	2	1	20	PL,VR
AGR	134.77	JN	68	270	3	1	20	CU,RO
AGR	135.23	JN	29	210	3	1	20	UN,VR
AGR	136.23	JN	52	200	1	2	12	PL,SM, <1mm
AGR	136.69	JN	69	220	1.5	1	20	PL,RO
AGR	136.90	JN	21	000	3	2	20	ST,RO
AGR	137.28	JN	37	035	3	1	12	ST,RO
AGR	137.33	JN	60	260	1	1	12	PL,SM
AGR	139.31	JN	30	180	1.5	2	20	PL,VR,Ca,<1mm
AGR	139.73	JN	55	280	3	1	20	CU,VR
AGR	139.81	JN	64	340	3	1	20	CU,RO
AGR	140.16	JN	46	240	3	1	20	UN,RO
AGR	140.45	JN	20	335	1	2	12	PL,SM,Ca,<1mm
AGR	141.37	JN	80	090	1.5	1	20	PL,VR
AGR	142.00	FO	25		5	3	12	CU,SM,Ca,<1mm
AGR	142.14	FO	23		1	3	12	PL,SM,Ca,<1mm
AGR	142.20	FO	23		1	3	12	PL,SM,Ca,<1mm
AGR	142.34	FO	20		1	3	12	PL,SM,Ca,<1mm
AGR	142.37	JN	55		3	1	20	IR,SR
AGR	142.50	CO	19		2	2	12	UN,SM,Ca,<1mm
AGR	142.54	JN	69		3	1	20	CU,RO
AGR	144.63	JN	60	210	3	1	20	UN,RO
AGR	145.63	FO	15	020	1	2	12	PL,SM,Ca<1mm
AGR	145.66	FO	16	020	1	2	12	PL,SM,Ca<1mm
AGR	146.48	JN	75	315	3	1	20	IR,RO
AGR	146.52	FO	16	030	1	2	12	PL,SM,Ca,<1mm
AGR	146.67	JN	60	225	3	1	20	CU,RO
AGR	148.84	JN	59	300	1.5	2	20	UN,RO,M,<1mm
AGR	148.98	JN	60	010	3	2	20	IR,RO,Ca,<1mm mechanical
AGR	149.10	JN	63	080	3	2	20	IR,RO,Ca,<1mm
AGR	149.49	FO	15	020	1	2	12	PL,SM,Ca
AGR	149.46	JN	80	190	3	1	12	ST,RO,Tc
AGR	149.85	FO	15	025	1	2	12	PL,SM,Ca,<1mm
AGR	150.22	FO	14	030	1	2	12	PL,SM,Ca,<1mm
AGR	150.88	FO	16	030	1	2	12	PL,SM,Ca,<1mm
AGR	151.56	FO	14	027	1	2	12	PL,SM,Ca/Fe,<1mm
AGR	151.67	JN	66	230	3	1	12	ST,RO
AGR	151.94	JN	34	300	1.5	1	20	PL,RO
AGR	151.98	JN	84	320	3	1	20	IR,RO
AGR	152.28	FO	13	030	1	3	12	ST,SM,Ca/M, 2mm
AGR	152.60	FO	14	035	1	2	12	PL,SM,Ca,1mm
AGR	153.32	JN	46	010	1.5	1	20	PL,RO
AGR	153.64	JN	64	350	1.5	1	20	PL,RO
AGR	154.67	JN	60	330	1.5	1	20	PL,RO
AGR	154.70	JN	40	030	3	1	20	UN,RO
AGR	154.72	JN	65	325	3	1	20	CU,RO
AGR	154.80	JN	68	270	3	1	20	IR,RO
AGR	156.36	JN	40	180	3	1	20	CU,RO

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	Joint Descriptions						
Rock Type	Depth	Type	alpha	beta	Jr	Ja	Jcon	Comments
	m		(°)	(°)				
AGR	156.53	JN	85	115	3	1	20	IR,VR
AGR	156.80	JN	15	210	3	2	20	IR,RO
AGR	156.85	JN	75	270	3	1	20	IR,RO
AGR	157.31	JN	20	350	1.5	2	20	PL,RO,Ca<1mm
AGR	157.40	JN	45	074	1.5	1	20	PL,RO
AGR	157.61	JN	32	330	1	2	12	PL,SM,Ca,1mm
AGR	157.73	JN	19	035	1	2	12	PL,SM,Ca/M,1mm
AGR	157.81	JN	44	295	1.5	2	20	PL,RO,Ca,<1mm
AGR	157.92	JN	70	310	1.5	1	20	PL,VR
AGR	158.36	FO	16	025	1	2	12	PL,SM,Ca,<1mm
AGR	158.71	JN	35	189	2	2	12	UN,SM,Ca,<1mm
AGR	158.87	JN	34	198	1.5	2	20	PL,RO,Ca,<1mm
AGR	158.92	JN	32	205	1.5	2	20	PL,RO,Ca,<1mm
AGR	159.15	JN	20	050	1	2	12	PL,SM,Ca,<1mm
AGR	159.75	FO	15	030	1.5	2	12	P,RO,Ca,<1mm
AGR	159.99	JN	16	045	2	2	12	UN,SM,Ca,<1mm
AGR	160.19	JN	15	232	2	2	12	ST,SM,Ca,<1mm
AGR	160.47	JN	26	044	2	2	12	ST,SM,Ca,<1mm
AGR	160.75	JN	17	036	1	2	12	PL,SM,Ca,<1mm
AGR	160.96	JN	83	312	3	1	20	IR,VR
AGR	161.13	FO	16	040	1	2	12	PL,SM,Ca,<1mm
AGR	161.35	JN	82	302	3	2	20	IR,VR
AGR	161.61	JN	58	200	3	2	20	CU,RO,Ca,<1mm
AGR	161.80	JN	62	165	3	2	20	PL,RO,Ca,<1mm
AGR	161.98	JN	54	165	2	2	20	PL,VR,Ca,<1mm
AGR	162.09	JN	26	014	2	2	12	UN,SM,Ca,<1mm
AGR	162.45	JN	35	040	2	2	20	PL,VR,Ca,<1mm
AGR	162.83	JN	55	082	3	2	20	UN,VR,Qz,<1mm
AGR	163.10	VN	55	026	1.5	3	20	PL,RO,Ca/Qz,2mm
AGR	163.71	JN	41	180	1.5	2	20	PL,RO,Fe/Ca,<1mm
AGR	163.77	JN	42	178	1.5	2	20	PL,RO,Fe/Ca,<1mm
AGR	163.88	JN	30	320	3	2	20	CU,RO,Ca,<1mm
AGR	163.93	JN	82	102	3	1	20	UN,RO
AGR	164.02	JN	60	076	2	1	20	PL,VR
AGR	164.28	JN	58	030	1.5	2	20	PL,RO,Ca
AGR	164.53	JN	87	034	1.5	2	20	PL,RO,Sr
AGR	164.87	JN	60	032	1.5	2	20	PL,RO,Fe
AGR	165.33	JN	40	080	3	2	20	ST,VR,Sr,<1mm
AGR	165.67	VN	27	066	3	3	20	IR,VR,Qz/Ca
AGR	165.93	JN	67	040	1.5	1	20	PL,VR,Qz
AGR	166.23	VN	53	305	3	2	20	IR,VR,Qz/SR
AGR	166.37	JN	70	068	1.5	2	20	PL,RO,Ca
AGR	166.41	JN	71	062	3	2	20	UN,RO,He
AGR	166.59	VN	60	064	3	2	20	IR,RO,EP
AGR	166.89	JN	45	063	3	2	20	UN,RO,Ca
AGR	167.16	VN	35	110	3	4	20	PL,RO,Bi,10mm
AGR	167.58	JN	76	300	1.5	2	20	PL,VR,Fe,<1mm
AGR	167.95	JN	46	324	3	2	20	IR,RO,Fe,<1mm
AGR	168.19	JN	54	044	3	2	12	ST,RO,Ca,<1mm
AGR	168.74	JN	14	350	2	2	12	UN,SM,Ca,<1mm
AGR	168.94	JN	32	222	1.5	1	20	PL,RO
AGR	169.54	JN	40	222	3	1	12	ST,RO
AGR	169.83	JN	30	345	2	2	12	UN,SM,Ca,<1mm
AGR	170.25	JN	47	015	1.5	2	20	PL,RO,Ca
AGR	170.30	JN	39	172	1.5	2	20	PL,RO,Ca
AGR	171.42	JN	32	180	3	2	20	UN,RO,Ca,<1mm
AGR	171.78	JN	30	244	3	2	20	CU,RO,Ca,1mm
AGR	172.02	JN	17	5	3	2	12	UN,SM,Ca,<1mm
AGR	172.19	JN	55	210	3	1	20	UN,RO
AGR	172.52	JN	14	14	2	2	12	IR,SM,Ca,<1mm
AGR	173.73	JN	66	290	1.5	1	20	PL,RO
AGR	173.99	JN	30	060	2	2	12	IR,SM,Ca,<1mm
AGR	174.12	JN	60	180	3	2	20	UN,RO,Ca,<1mm
AGR	174.51	JN	80	042	2	1	12	IR,SM

HOLE GT07-3		Osisko Project		07-1221-0028	Azimuth	180	Dip	-70
	Joint Descriptions							
Rock Type	Depth	Type	alpha	beta	Jr	Ja	Jcon	Comments
	m		(°)	(°)				
AGR	174.98	JN	37	185	1.5	1	20	PL,RO
AGR	176.65	JN	34	180	1.5	1	20	PL,RO
AGR	179.15	JN	50		1.5	1	20	PL,RO
AGR	179.59	JN	61		1.5	1	20	PL,RO
AGR	179.93	JN	19		2	2	12	UN,SM,Ca,<1mm
AGR	180.16	JN	18		2	2	12	UN,SM,Ca,<1mm
AGR	181.19	JN	52		3	2	20	UN,RO,Ca,<1mm
AGR	181.38	VN	90		2	1	20	PL,VR,Qz
AGR	181.85	JN	54		1.5	2	20	PL,RO,Ca,<1mm
AGR	182.08	JN	60		3	1	20	CU,VR
AGR	188.08	JN	73		1.5	2	20	PL,RO,Ca,<1mm
AGR	188.33	JN	20		1.5	2	20	PL,RO,Ca<1mm
AGR	188.73	JN	21		1.5	2	20	PL,RO,Ca,<1mm
AGR	192.26	JN	40	160	2	1	12	PL,SM
AGR	194.33	JN	49	230	1.5	1	20	PL,RO
AGR	194.87	JN	42	280	1	2	12	PL,SM,Ca,<1mm
AGR	195.28	JN	75	094	3	1	20	PL,RO,Qz
AGR	197.96	JN	42	262	1	1	12	CU,SM,Ca,<1mm
AGR	198.76	JN	10	210	1	2	12	PL,SM,Ca
AGR	200.70	JN	58	120	2	1	12	PL,SM Broken from 199,36 to 200,26 m
AGR	202.54	JN	90		1.5	1	20	IR,RO
AGR	202.83	JN	66	134	1.5	1	20	PL,VR
AGR	203.42	JN	75	185	2	1	20	PL,VR
AGR	204.73	JN	57	066	1	1	20	PL,VR
AGR	207.24	JN	40		2	1	20	UN,VR
AGR	207.95	CO	39	024	3	3	20	UN,RO,Ca/Ch
AGR	213.46	VN	40	300	1.5	2	20	PL,RO,Qz,3mm
AGR	214.08	FO	9	044	2	1	20	ST,VR,Ca
AGR	218.68	FO	15	158	1	2	12	PL,SM,Ca
AGR	218.91	FO	14	030	2	3	12	ST,SM,Ca
AGR	224.70	JN	14	032	2	2	12	PL,SM,Ca
CGR	225.20	JN	67	270	3	2	20	UN,RO,Ca
CGR	225.53	CO	15	120	3	2	20	UN,RO,Ca,<1mm
CGR	225.56	JN	47	150	3	2	20	UN,RO,Ca
CGR	225.86	JN	24	310	3	2	20	IR,RO,Ca
CGR	225.90	JN	75	134	3	2	20	UN,RO,Ca
CGR	226.47	JN	63		3	2	20	IR,RO,Ca
CGR	226.71	JN	64	030	1.5	2	20	PL,RO,Ca
CGR	227.66	JN	23	225	2	2	12	IR,SM,Ca
CGR	227.80	JN	19	240	2	2	12	UN,SM,Ca
CGR	227.93	JN	40	235	2	2	20	IR,RO,Ca
CGR	228.16	JN	31	250	2	2	20	CU,RO,Ca

HOLE GT07-4	Osisko Project		07-1221-0028		Azimuth	180	Dip	-70																		Harness and Weathering		
Run #	From	To	Interval	Rock type	Recovery	TCR (%)	RQD	RQD	SCR	SCR	Fracture/0.25m													Fracts/run	Fracts/m	Jn	Strength	Weath
	m	m			m		m	%	m	%	1	2	3	4	5	6	7	8	9	10	11	12					
0	0.00	3.00	3.00		0.00	0.00	0.00	0																				
1	3.00	6.00	3.00		2.23	74.33	Very mechanically fractured																	0	0.00	4.0	R5	1
2	6.00	9.00	3.00	REMGB	1.20	40.00	7.70	257	0.73	61	2	1	0	0	Mec broken									3	0.33	4.0	R4	1
3	9.00	12.00	3.00	BRGR	2.60	86.67	2.81	94	1.57	60	3	2	1	3	1	0	2	2	1	1	25	25	66	5.50	6.0	R4	2
4	12.00	15.00	3.00	SGR	2.90	96.67	0.60	20			2	1	0	25	2	25	25	1	25	5	1	2	114	7.60	4.0	R5	1
5	15.00	18.00	3.00	SGR	2.97	99.00	1.53	51	2.11	71	1	2	1	1	1	2	1	2	0	1	1	0	13	0.72	4.0	R4	1
6	18.00	21.00	3.00	SGR	2.90	96.67	1.36	45	1.89	65	0	1	25	0	0	1	1	7	1	0	1	0	37	1.76	4.0	R4	1
7	21.00	24.00	3.00	CGR	3.05	101.67	1.75	58	2.16	71	1	2	1	2	1	25	0	2	1	1	1	2	39	1.63	4.0	R5	1
8	24.00	27.00	3.00	CGR	3.00	100.00	2.33	78	2.65	88	0	3	2	1	0	0	0	0	2	1	0	0	9	0.33	4.0	R5	1
9	27.00	30.00	3.00	CGR	2.98	99.33	2.16	72	2.16	72	2	0	1	1	1	2	2	1	2	2	2	2	18	0.60	4.0	R5	1
10	30.00	33.00	3.00	AGR	3.10	103.33	1.82	61	2.42	78	1	1	0	2	2	2	1	3	2	0	3	25	42	1.27	6.0	R4	1
11	33.00	36.00	3.00	AGR	3.00	100.00	1.63	54	1.85	62	2	2	2	2	2	3	4	3	0	0	1	2	23	0.64	6.0	R5	1
12	36.00	39.00	3.00	AGR	3.00	100.00	1.87	62	1.50	50	0	1	0	2	1	1	25	2	3	2	0	0	37	0.95	6.0	R5	1
13	39.00	42.00	3.00	CGR	2.80	93.33	1.24	41	1.53	55	1	2	1	1	2	1	4	2	1	25	1	2	43	1.02	6.0	R5	
14	42.00	45.00	3.00	AGR	2.22	74.00	1.68	56	1.66	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	3.0	R5	
15	45.00	48.00	3.00	AGR	3.05	101.67	3.05	102	2.80	92	0	0	0	0	1	0	0	0	1	1	0	1	4	0.08	3.0	R5	1
16	48.00	51.00	3.00	AGR	3.15	105.00	2.07	69	2.24	71	0	1	0	1	2	25	1	2	25	1	1	0	59	1.16	6.0	R5	1
17	51.00	54.00	3.00	AGR	2.94	98.00	2.82	94	2.53	86	0	1	1	0	0	0	0	1	1	2	0	0	6	0.11	4.0	R5	1
18	54.00	57.00	3.00	SCH	3.05	101.67	1.68	56	2.27	74	2	3	25	4	25	3	2	3	1	0	0	1	69	1.21	6.0	R5	
19	57.00	60.00	3.00	AGR	2.97	99.00	2.50	83	2.22	75	0	1	1	25	1	1	0	0	2	1	1	0	33	0.55	4.0	R5	
20	60.00	63.00	3.00	AGR	3.00	100.00	2.26	75	2.26	75	1	2	6	2	1	1	0	0	1	0	4	2	20	0.32	4.0	R5	1
21	63.00	66.00	3.00	AGR	2.99	99.67	2.28	76	1.80	60	2	1	1	1	3	1	2	1	1	3	0	0	16	0.24	6.0	R5	
22	66.00	69.00	3.00	AGR	3.05	101.67	2.51	84	2.27	74	1	1	1	4	0	0	2	2	0	2	3	0	16	0.23	6.0	R4	1
23	69.00	72.00	3.00	AGR	3.05	101.67	2.69	90	2.57	84	0	1	0	0	0	2	0	2	0	2	1	0	8	0.11	5.0	R5	1
24	72.00	75.00	3.00	AGR	2.92	97.33	2.58	86	2.56	88	0	2	1	0	1	1	0	0	3	1	1	0	10	0.13	6.0	R5	1
25	75.00	78.00	3.00	AGR	3.05	101.67	2.97	99	2.64	87	0	2	0	2	0	1	1	2	0	0	0	1	9	0.12	6.0	R5	1
26	78.00	81.00	3.00	AGR	3.00	100.00	2.57	86	2.62	87	0	0	1	0	0	2	0	1	1	1	0	2	8	0.10	6.0	R5	1
27	81.00	84.00	3.00	AGR	2.98	99.33	2.61	87	2.32	78	1	0	0	2	2	0	2	3	3	1	2	1	17	0.20	6.0	R5	1
28	84.00	87.00	3.00	AGR	3.03	101.00	2.60	87	2.45	81	1	2	2	0	25	0	2	0	0	2	0	0	34	0.39	4.0	R4	1
29	87.00	90.00	3.00	AGR	3.02	100.67	2.67	89	2.60	86	1	1	1	0	1	2	0	0	1	1	0	0	8	0.09	3.0	R4	1
30	90.00	93.00	3.00	AGR	2.98	99.33	2.65	88	2.71	91	0	1	0	0	0	1	4	0	0	0	1	0	7	0.08	3.0	R5	1
31	93.00	96.00	3.00	AGR	3.03	101.00	2.95	98	2.96	98	0	0	0	0	1	0	1	0	0	0	0	0	2	0.02	6.0		
32	96.00	99.00	3.00	AGR	3.03	101.00	2.93	98	2.70	89	0	1	0	0	0	0	0	2	1	0	0	3	7	0.07	3.0		
33	99.00	102.00	3.00	AGR	2.95	98.33	2.81	94	2.60	88	0	1	1	3	0	0	1	1	1	0	0	0	8	0.08	6.0	R4	1
34	102.00	105.00	3.00	AGR	3.02	100.67	2.16	72	2.26	75	0	0	2	1	25	25	1	1	1	1	0	0	57	0.54	4.0	R5	1
35	105.00	108.00	3.00	AGR	3.05	101.67	2.86	95	2.75	90	0	0	3	0	0	0	0	0	1	1	0	0	5	0.05	3.0	R4	1
36	108.00	111.00	3.00	AGR	2.98	99.33	2.72	91	2.69	90	0	0	0	0	0	0	1	1	0	0	1	2	5	0.05	3.0	R5	1
37	111.00	114.00	3.00	AGR	2.96	98.67	2.96	99	2.93	99	0	0	0	0	0	0	0	0	0	0	1	0	1	0.01	2.0	R4	1
38	114.00	117.00	3.00	AGR	3.02	100.67	2.81	94	2.78	92	0	3	0	0	1	1	0	0	0	0	0	0	5	0.04	3.0	R4	1

HOLE GT07-4	Osisko Project	07-1221-0028	Azimuth	180	Dip	-70																									
																														Harness and Weathering	
Run #	From	To	Interval	Rock type	Recovery	TCR (%)	RQD	RQD	SCR	SCR	Fracture/0.25m													Fracts/run	Fracts/m	Jn		Strength	Weath
	m	m			m		m	%	m	%	1	2	3	4	5	6	7	8	9	10	11	12						
39	117.00	120.00	3.00	AGR	2.97	99.00	2.71	90	2.58	87	1	0	0	1	1	1	0	1	0	1	2	2	10	0.08	4.0		R4	1
40	120.00	123.00	3.00	AGR	3.00	100.00	2.27	76	1.88	63	2	1	1	1	0	1	1	2	2	3	0	0	14	0.11	9.0		R4	1
41	123.00	126.00	3.00	AGR	3.00	100.00	2.97	99	2.48	83	0	1	0	0	0	0	1	0	0	0	0	0	2	0.02	3.0		R4	1
42	126.00	129.00	3.00	AGR	3.02	100.67	2.66	89	2.59	86	2	0	1	2	1	1	1	0	0	1	0	1	10	0.08	4.0		R5	1
43	129.00	132.00	3.00	AGR	3.02	100.67	2.98	99	2.73	90	0	2	0	1	0	0	0	1	0	0	0	0	4	0.03	3.0			
44	132.00	135.00	3.00	AGR	2.97	99.00	2.97	99	2.95	99	0	0	1	0	0	0	0	0	0	0	0	0	1	0.01	2.0		R5	1
45	135.00	138.00	3.00	AGR	2.97	99.00	2.97	99	2.94	99	0	0	0	0	0	0	1	0	0	0	0	0	1	0.01	2.0		R5	1
46	138.00	141.00	3.00	AGR	3.01	100.33	3.01	100	2.95	98	0	0	1	0	0	0	0	0	0	0	0	0	1	0.01	0.5		R5	1
47	141.00	144.00	3.00	AGR	3.00	100.00	2.96	99	2.88	96	0	1	0	0	0	1	2	0	0	0	0	0	4	0.03	4.0		R5	1
48	144.00	147.00	3.00	AGR	2.97	99.00	2.66	89	2.82	95	1	2	0	0	2	1	0	0	0	0	0	0	6	0.04	4.0		R5	1
49	147.00	150.00	3.00	AGR	3.03	101.00	2.87	96	2.56	84	0	0	1	0	1	1	0	0	1	2	1	3	10	0.07	4.0		R5	1
50	150.00	153.00	3.00	AGR	2.96	98.67	2.80	93	2.81	95	0	1	0	0	0	0	0	1	1	0	0	0	3	0.02	2.0		R5	1
51	153.00	156.00	3.00	AGR	2.98	99.33	2.70	90	2.48	83	0	2	0	0	0	0	1	1	0	2	1	0	7	0.04	4.0		R5	1
52	156.00	159.00	3.00	AGR	3.01	100.33	2.74	91	2.82	94	0	1	4	0	0	0	0	0	0	1	0	0	6	0.04	3.0		R5	1
53	159.00	162.00	3.00	AGR	2.99	99.67	2.80	93	2.67	89	1	2	1	0	0	0	1	1	0	0	0	0	6	0.04	6.0		R5	1
54	162.00	165.00	3.00	AGR	3.03	101.00	3.03	101	2.95	97	0	0	0	1	1	0	0	1	0	1	0	0	4	0.02	2.0		R5	1
55	165.00	168.00	3.00	AGR	2.98	99.33	2.78	93	2.68	90	0	1	0	1	0	2	0	0	2	1	0	1	8	0.05	6.0		R5	1
56	168.00	171.00	3.00	AGR	3.06	102.00	3.00	100	2.99	98	1	0	1	0	0	0	1	0	0	1	0	0	4	0.02	2.0		R5	1
57	171.00	174.00	3.00	AGR	2.98	99.33	2.96	99	2.84	95	0	1	0	2	0	0	1	1	0	0	0	0	5	0.03	3.0		R4	1
58	174.00	177.00	3.00	AGR	3.00	100.00	2.97	99	2.76	92	0	1	0	1	1	0	0	0	1	0	1	0	5	0.03	3.0		R4	1
59	177.00	180.00	3.00	AGR	2.96	98.67	2.67	89	2.55	86	0	1	0	2	2	0	0	1	0	0	0	1	7	0.04	3.0		R4	1
60	180.00	183.00	3.00	AGR	3.06	102.00	3.06	102	2.87	94	0	0	0	0	1	1	0	0	0	0	0	0	2	0.01	2.0		R4	1
61	183.00	186.00	3.00	AGR	3.00	100.00	3.00	100	2.90	97	0	0	1	0	1	0	0	0	0	0	0	0	2	0.01	2.0		R4	1
62	186.00	189.00	3.00	AGR	3.00	100.00	3.00	100	2.55	85	0	0	1	1	0	1	0	1	0	0	0	1	5	0.03	6.0		R4	1
63	189.00	192.00	3.00	AGR	2.99	99.67	2.73	91	2.40	80	0	1	1	1	1	0	3	3	0	0	1	0	11	0.06	4.0		R5	1
64	192.00	195.00	3.00	AGR	3.00	100.00	2.86	95	2.76	92	1	0	0	0	0	3	0	0	0	0	1	1	6	0.03	4.0		R5	1
65	195.00	198.00	3.00	AGR	3.01	100.33	3.01	100	2.67	89	0	0	1	0	1	0	1	0	0	0	1	0	4	0.02	6.0		R5	1
66	198.00	201.00	3.00	AGR	2.96	98.67	2.50	83	2.27	77	1	0	3	1	1	2	10	1	0	1	1	0	21	0.10	6.0		R5	1
67	201.00	204.00	3.00	AGR	3.01	100.33	2.79	93	2.51	83	0	0	0	0	0	0	1	0	0	1	1	0	3	0.01	3.0		R5	1
68	204.00	207.00	3.00	AGR	2.99	99.67	2.84	95	2.29	77	0	0	1	0	1	1	1	1	1	2	3	1	12	0.06	2.0		R5	1
69	207.00	210.00	3.00	AGR	3.01	100.33	3.01	100	2.53	84	0	1	1	0	0	2	1	0	1	0	0	0	6	0.03	4.0		R5	1
70	210.00	213.00	3.00	AGR	2.99	99.67	2.79	93	2.71	91	0	0	0	0	1	0	0	0	0	0	2	2	5	0.02	4.0		R4	1
71	213.00	216.00	3.00	AGR	3.04	101.33	2.73	91	2.23	73	1	0	1	1	1	3	1	2	0	1	2	2	15	0.07	6.0		R5	1
72	216.00	219.00	3.00	AGR	3.01	100.33	2.60	87	2.31	77	0	1	2	0	2	1	0	1	0	10	3	1	21	0.10	6.0		R5	1
73	219.00	222.00	3.00	AGR	3.02	100.67	3.00	100	2.84	94	0	1	0	0	1	0	0	0	0	0	0	0	2	0.01	2.0		R5	1
74	222.00	225.00	3.00	AGR	2.97	99.00	2.89	96	2.83	95	0	0	0	0	0	0	1	0	0	0	1	0	2	0.01	3.0		R5	1
75	225.00	228.00	3.00	AGR	3.00	100.00	3.00	100	2.62	87	0	0	0	0	1	0	1	2	0	1	1	0	6	0.03	4.0		R4	1
76	228.00	231.00	3.00	AGR	2.99	99.67	2.81	94	2.61	87	1	1	2	0	2	0	0	0	1	1	0	0	8	0.03	4.0		R5	1
77	231.00	234.00	3.00	AGR	3.01	100.33	2.81	94	2.33	77	0	0	1	2	2	1	2	0	1	2	2	1	14	0.06	3.0		R5	1

HOLE GT07-4	Osisko Project		07-1221-0028		Azimuth	180	Dip	-70																			
																									Harness and Weathering		
Run #	From	To	Interval	Rock type	Recovery	TCR (%)	RQD	RQD	SCR	SCR	Fracture/0.25m													Fracts/run	Fracts/m	Jn	Strength	Weath
	m	m			m		m	%	m	%	1	2	3	4	5	6	7	8	9	10	11	12					
78	234.00	237.00	3.00	AGR	3.02	100.67	2.78	93	2.51	83	2	1	0	0	1	1	1	1	3	0	0	0	10	0.04	6.0	R5	1
79	237.00	240.00	3.00	AGR	3.10	103.33	2.90	97	2.88	93	1	1	1	0	0	0	0	1	0	1	1	0	6	0.03	4.0	R5	1
80	240.00	243.00	3.00	AGR	3.08	102.67	2.88	96	2.84	92	0	1	0	0	0	0	1	2	0	1	1	1	7	0.03	2.0	R5	1
81	243.00	246.00	3.00	AGR	3.06	102.00	2.86	95	2.65	87	0	0	0	0	0	1	1	1	2	1	2	0	8	0.03	3.0	R5	1
82	246.00	249.00	3.00	SCH	2.90	96.67	2.03	68	2.23	77	0	0	1	0	2	1	2	1	2	1	1	2	13	0.05	3.0	R5	1
83	249.00	252.00	3.00	AGR	3.10	103.33	2.96	99	2.95	95	0	0	0	0	0	1	1	0	1	1	1	0	5	0.02	4.0	R5	1
84	252.00	255.00	3.00	AGR	2.89	96.33	2.60	87	2.62	91	1	0	0	1	1	0	0	0	2	0	0	0	5	0.02	3.0	R5	1
85	255.00	258.00	3.00	AGR	3.00	100.00	2.87	96	2.6	87	1	1	0	1	0	1	0	1	1	0	0	1	7	0.03	4.0	R5	1
86	258.00	261.00	3.00	AGR	3.05	101.67	3.05	102	2.87	94	0	0	0	0	1	0	0	0	0	0	1	0	2	0.01	4.0	R4	1
87	261.00	264.00	3.00	AGR	2.97	99.00	2.97	99	2.84	96	0	0	0	1	0	1	1	0	0	1	0	0	4	0.02	4.0	R4	1
88	264.00	267.00	3.00	AGR	2.99	99.67	2.96	99	2.77	93	1	1	1	0	1	0	0	0	0	0	1	1	6	0.02	6.0	R5	1
89	267.00	270.00	3.00	AGR	2.99	99.67	2.90	97	2.75	92	0	0	1	0	0	0	1	1	0	0	0	0	3	0.01	2.0	R5	1
90	270.00	273.00	3.00	AGR	3.04	101.33	3.04	101	2.95	97	0	0	1	0	0	0	1	0	0	0	0	0	2	0.01	2.0	R5	1
91	273.00	276.00	3.00	AGR	2.96	98.67	2.74	91	2.26	76	0	2	0	3	0	0	4	0	0	0	0	0	9	0.03	9.0	R4	1
92	276.00	279.00	3.00	AGR	3.00	100.00	2.45	82	2.14	71	0	1	2	0	10	3	2	0	1	1	0	1	21	0.08	9.0	R5	1
93	279.00	282.00	3.00	AGR	3.02	100.67	2.54	85			3	0	2	1	2	2	0	1	0	0	1	0	12	0.04	6.0	R4	1
94	282.00	285.00	3.00	AGR	3.00	100.00	2.85	95	2.78	93	0	0	0	0	0	0	0	0	2	2	0	0	4	0.01	3.0	R5	1
95	285.00	288.00	3.00	AGR	3.00	100.00	3.00	100	2.94	98	0	1	0	0	0	0	0	0	0	0	0	0	1	0.00	0.5	R5	1
96	288.00	291.00	3.00	AGR	3.00	100.00	3.00	100	2.68	89	0	1	0	1	0	1	1	0	1	0	0	0	5	0.02	4.0	R5	1
97	291.00	294.00	3.00	AGR	2.80	93.33	2.70	90	2.2	79	0	0	0	0	1	0	0	0	2	0	0	1	4	0.01	2.0	R5	1
98	294.00	297.00	3.00	AGR	3.02	100.67	2.86	95	2.77	92	0	0	0	0	0	2	2	0	1	1	1	0	7	0.02	6.0	R5	1
99	297.00	300.00	3.00	AGR	3.05	101.67	3.04	101	2.91	95	0	1	0	0	0	1	1	0	0	1	0	0	4	0.01	3.0	R5	1
100	300.00	303.00	3.00	AGR	3.02	100.67	2.94	98	2.62	87	0	1	1	0	1	1	0	0	2	1	0	0	7	0.02	9.0	R5	1
101	303.00	306.00	3.00	AGR	3.00	100.00	3.00	100	2.92	97	0	0	0	1	0	0	0	1	0	0	0	1	3	0.01	3.0	R5	1
102	306.00	309.00	3.00	AGR	2.95	98.33	2.88	96	2.63	89	1	1	2	0	0	1	0	0	0	0	0	2	7	0.02	3.0	R5	1
103	309.00	312.00	3.00	AGR	3.09	103.00	2.80	93	2.7	87	1	0	0	0	0	0	0	0	1	1	1	1	5	0.02	4.0	R5	1
104	312.00	315.00	3.00	AGR	3.00	100.00	3.00	100	2.87	96	0	1	1	1	0	0	0	0	0	0	0	0	3	0.01	3.0	R5	1
105	315.00	318.00	3.00	AGR	3.04	101.33	2.84	95	2.65	87	0	0	2	2	0	1	0	0	0	0	0	1	6	0.02	3.0	R5	1
106	318.00	321.00	3.00	AGR	2.98	99.33	2.93	98	2.79	94	2	1	0	0	0	0	0	0	0	1	0	1	5	0.02	4.0	R5	1
107	321.00	324.00	3.00	AGR	3.02	100.67	2.89	96	2.54	84	0	1	0	1	0	0	0	1	0	0	3	1	7	0.02	3.0	R5	1
108	324.00	327.00	3.00	AGR	2.99	99.67	2.99	100	2.53	85	0	0	0	0	1	1	0	0	1	0	2	1	6	0.02	4.0	R5	1
109	327.00	330.00	3.00	AGR	3.01	100.33	2.47	82	2.25	75	0	1	0	1	1	2	0	1	2	2	0	1	11	0.03	4.0	R5	1
110	330.00	333.00	3.00	CGR	3.00	100.00	2.97	99	2.76	92	0	0	0	2	0	0	2	0	0	0	0	0	4	0.01	3.0	R5	1
111	333.00	336.00	3.00	AGR	3.03	101.00	2.90	97	2.68	88	1	2	0	1	0	0	0	0	1	0	0	0	5	0.01	3.0	R5	1
112	336.00	339.00	3.00	AGR	2.98	99.33	2.98	99	2.66	89	1	0	0	0	1	0	0	0	0	0	2	1	5	0.01	3.0	R5	1
113	339.00	342.00	3.00	AGR	3.02	100.67	2.99	100	2.84	94	0	0	0	0	2	1	0	0	0	1	0	0	4	0.01	4.0	R5	1
114	342.00	345.00	3.00	AGR	3.00	100.00	2.83	94	2.48	83	2	0	0	1	0	0	0	0	2	0	0	1	6	0.0	4.0	R5	1
115	345.00	348.00	3.00	CGR	2.99	99.67	2.99	100	2.94	98	0	0	0	0	1	0	0	0	0	0	0	0	1	0.0	2.0	R5	1
116	348.00	351.00	3.00	AGR	3.00	100.00	2.82	94	2.61	87	1	2	0	0	0	0	2	0	0	1	0	0	6	0.0	3.0	R5	1
117	351.00	354.00	3.00	AGR	2.97	99.00	2.85	95	2.44	82	1	0	0	0	2	1	0	0	2	0	0	0	6	0.0	6.0	R5	1
118	354.00	357.00	3.00	SCH	3.06	102.0	2.91	97	2.70	88	0	2	0	1	0	2	1	2	2	0	1	0	11	0.0	6.0	R5	1
119	357.00	360.00	3.00	AGR	2.89	96.33	1.42	47	1.60	55	0	4	1	2	1	3	1	2	4	2	1	3	24	0.1	9.0	R5	1

HOLE GT07-4	Osisko Project	07-1221-0028	Azimuth	180	Dip	-70																								
																													Harness and Weathering	
Run #	From	To	Interval	Rock type	Recovery	TCR (%)	RQD	RQD	SCR	SCR	Fracture/0.25m													Fracts/run	Fracts/m	Jn		Strength	Weath
	m	m			m		m	%	m	%	1	2	3	4	5	6	7	8	9	10	11	12						
120	360.00	363.00	3.00	AGR	3.00	100.0	1.00	33	1.70	57	2	2	4	1	2	3	6	1	1	6	0	0	28	0.1	9.0		R5	1
121	363.00	366.00	3.00	AGR	2.99	99.7	2.99	100	2.83	95	0	1	0	0	0	1	0	0	0	0	1	0	3	0.0	3.0		R5	1
122	366.00	369.00	3.00	AGR	2.92	97.3	2.60	87	2.54	87	0	0	0	0	1	0	1	0	2	3	0	0	7	0.0	6.0		R5	1

HOLE GT07-4		Osisko Project		07-1221-0028		Azimuth	180	Dip	-70			
	Joint Descriptions											
Rock Type	Depth	Type	alpha	beta	Shape	Roughness	Infill Type	Infill Thickness	Jr	Ja	Jcon	Comments
	m		(°)	(°)								
REMGR	3.26	JN	40		IR	VR			3	0.75	20	
REMGR	3.26	JN	72		PL	RO			3	0.75	20	
REMGR	3.37	JN	56		PL	RO			1.5	1	20	
REMGR	5.05											
REMGR	5.17	JN	19		IR	VR			3	0.75	20	
REMGR	5.37	JN	40	168	PL	RO			1.5	0.75	20	
REMGR		Broken			Br							
REMGR	8.46	JN	28		PL	RO	Qz,		3	2	20	
REMGR	8.5	JN	50		CU	RO			3	1	20	
REMGR	8.64	JN	28		PL	RO			3	1	20	
REMGR	8.83	JN	29	280	PL	RO			3	1	20	
REMGR	9.15	JN	56	40	UN	RO		>1mm	3	2	20	
REMGR	9.21	JN	54		PL	RO			1.5	1	20	
REMGR	9.25	JN	58		PL	RO		> 1mm	1.5	1	20	
REMGR	9.34	JN	65		ST	VR		> 1mm	1.5	1	20	
REMGR	9.43	JN	73		PL	VR			1.5	1	20	
REMGR	9.6	JN	72		PL	RO			1.5	1	20	
REMGR	9,20-9,33	BC										
REMGR	9.92	VN	66	190	ST	VR	Qz	5 mm	3	2	20	
REMGR	10.21	JN	48	006	PL	RO	Ca	< 1 mm	3	2	20	
BRGR	10.51	JN	33	350	PL	RO	Qz		3	2	20	
BRGR	10.71	JN	71	090	PL	RO	Qz	< 1 mm	3	1	20	
BRGR	10.76	UN	52	015	PL	RO	Qz		3	1	20	
BRGR	10.90	?	68	120	ST	RO	Qz		3	2	20	
BRGR	11.00	JN	23	168	PL	RO	He, Ep	< 1 mm	1.5	2	20	
SGR	11.39	JN	24	000	PL	SM			2	2	12	
SGR	11,53-12	BC										
SGR	12.10	JN	85		PL	RO	He	< 1 mm	1.5	2	20	
SGR	12.21	JN	72		PL	RO	He	< 1 mm	3	2	20	
SGR	12.43	JN	20		PL	SM	Ca, Ep		2	2	12	
SGR	12.61	JN	10		PL	SM	Ep, He		1	2	12	
SGR	12,43-12,80	BC										
SGR	12.90	JN	24		PL	SM	He	< 1 mm	2	3	12	
SGR	13.00	JN	68		ST	RO	He+M	1 mm	3	3	20	
SGR	13.17	JN	62		ST	RO	He+M	1 mm	3	3	20	
SGR	13,36-13,50	Br										
SGR	13,58-14,26	Br										
SGR	13.90	JN	44		UN	RO	Ca	1 mm	3	3	20	
SGR	14.10											
SGR	14,10-14,33	Br										
SGR	14.33	JN	33	000	PL	RO	Qz		3	3	20	
SGR	14.44	VN	48	326	PL	RO	Ca	7 mm	3	3	20	
SGR	14.47	JN	45	138	PL	RO	Ca	7 mm	3	3	20	
SGR	14.49	JN	38	338	ST	RO			3	3	20	
SGR	14.63	JN	48	348	ST	RO	Ca	< 1 mm	3	3	20	
SGR	14.76	JN	38	336	PL	SM	Ca	< 1 mm	3	3	12	
SGR	14.80	JN	58	218	ST	RO			3	3	20	
SGR	15.03	JN	79	280	PL	RO	Qz		1.5	3	20	
SGR	15.28	VN	33	010	PL	RO	Qz		1.5	1.5	20	
SGR	15.29	JN	41	170	PL	RO			1.5	1.5	20	
SGR	15.35	JN	59	154	PL	RO	Qz		1.5	1.5	20	
SGR	15.68	JN	67	274	PL	RO	Ca	< 1 mm	3	1.5	20	
SGR	15.76	JN	67	090	ST	VR			3	3	20	
SGR	16.13	JN	79	330	IR	VR			1.5	3	20	
SGR	16.33	JN	46	200	PL	RO	Ca		1.5	1.5	20	
SGR	16.44	JN	62	250	PL	RO	Ca		1.5	1.5	20	
SGR	16.60	JN	50	220	PL	RO	Ca		1.5	1.5	20	
SGR	16.73	JN	50	250	PL	RO	Ca		1.5	1.5	20	
SGR	16.76	JN	52	250	ST	VR	Ca		1.5	1.5	20	
SGR	16.98	JN	64	240	PL	RO	Ca		1	1.5	20	
SGR	17.30	JN	012	345	PL,	SM	Ca, He, Ep		1.0	1	12	
SGR	17.60	JN	012	350	PL	SM	Ca, He, Ep		2	1	12	
SGR	18.46	JN	20		PL	RO	Ca		1.5	1	20	
SGR	18,10-18,80	Br										
SGR	19.36	JN			PL	SM			2	2	12	
SGR	19.63	JN	82	090	PL	RO	Ca		1.5	1.5	20	
SGR	19.76	JN	40	270	IR	VR	Ca		3	3	20	
SGR	19.78	JN	42	322	PL	RO	Ca	< 1 mm	1.5	1	20	
SGR	19.86	JN	84	280	PL	RO	Ca		1.5	2	20	
SGR	19.82	JN	78	110	PL	RO	Ca		1.5	2	20	
SGR	19.84	JN	74	300	PL	RO	Ca		3	2	20	
SGR	19.89	JN	71	340	PL,	RO	Ca	1 mm	1.5	2	20	
SGR	19.96	JN	53	092	PL	RO			1.5	1	20	
SGR	20.07	JN	64	180	ST	VR	Qz		3	1	20	
SGR	20.67	JN	35	180	PL	VR			1.5	1	20	
CGR	21.19	JN	28	110	PL	SM	Ca,Tc		1	2	12	
CGR	21.26	JN	24	120	PL	SM	Ep		2	1	12	
CGR	21.43	JN	80		ST	RO	Ca		1.5	2	20	
CGR	21.72	JN	65		ST	VR	Ca		2	2	20	
CGR	21.77	JN	75		IR	RO	Ca		3	2	20	
CGR	21.90	JN	27		PL	RO			1.5	2	20	
CGR	22.20	JN	22		PL	RO	Ca		1.5	2	20	
CGR	22,2-22,60		Broken									
CGR	22.81	JN	30	185	PL	RO	Ca		1.5	2	20	
CGR	22.87	JN	43	194	PL	SM	Ca, Ep		1	2	12	
CGR	23.20	JN	33	180	PL	RO			1.5	1	20	
CGR	23.25	JN	45	110	ST	VR			3	1.75	20	
CGR	23.70	JN	40	022	PL	RO	Ca		3	2	20	
CGR	23.75	JN	28	104	PL	RO			1.5	1	20	
CGR	23.90	JN	75	274	PL	RO			3	1	20	
CGR	24.28	JN	60		PL	RO			1.5	1	20	
CGR	24.40	JN	40		PL	RO			3	0.75	20	
CGR	24.46	JN	35		ST	VR			3	0.75	20	
CGR	24.53	JN	58		PL	RO			1.5	1	20	
CGR	24.69	JN	52		PL	SM	Ca		1	2	12	

HOLE GT07-4		Osisko Project		07-1221-0028		Azimuth	180	Dip	-70			
	Joint Descriptions											
Rock Type	Depth	Type	alpha	beta	Shape	Roughness	Infill Type	Infill Thickness	Jr	Ja	Jcon	Comments
	m		(°)	(°)								
CGR	24.80	JN	38	205	PL	RO	Ca	< 1 mm	3	1	20	
CGR	26.17	JN	25	094	PL	RO			3	1	20	
CGR	26.23	JN	25	090	PL	RO			3	0.75	20	
CGR	26.50	JN	80	180	PL	RO	Ca	< 1 mm	3	1	20	
CGR	27.09	JN	42	360	PL	RO			3	1	20	
CGR	27.19	JN	40	074	PL	RO			3	0.75	20	
CGR	27.72	JN	67	150	PL	RO			3	1	20	
CGR	27.94	JN	76	100	PL	RO	Ca		3	1	20	
CGR	28.17	JN	63		PL	RO	Ca, Ep		3	2	20	
CGR	28.34	JN	64		PL	RO			3	1	12	
CGR	28.46	JN	86		PL	RO	Ca		3	2	12	
CGR	28.50	JN	57		PL	RO	Ca	< 1 mm	1.5	2	20	
CGR	28,60-28,69	UN	Broken									
CGR	28.80	JN	69	024	PL	RO	Ca	< 1 mm	3	2	20	
CGR	29.07	JN	82	200	ST	RO	Ca		3	1	20	
CGR	29.02	JN	72	230	PL	RO	Ca		3	1	20	
CGR	29.34	JN	56	194	PL	SM			2	1	12	
CGR	29.44	JN	65	280	PL	RO	Ca		3	2	20	
CGR	29.56	JN	20		PL	VR			1.5	1	20	
CGR	29.70	JN	70	300	PL	RO	Ca		3	2	20	
CGR	29.87	JN	72	290	PL	RO			1.5	1	20	
AGR	29.93	JN	31	080	IR	VR	Ca		3	2	20	
AGR	30.16	JN	85		PL	SM			2.0	1	12	
AGR	30.29	JN	70		PL	SM			1	1	12	
AGR	30.74	VN	63		PL	RO	Qz	4 mm	1.5	2	20	
AGR	30.80	JN	67		PL	SM			1	1	12	
AGR	31.00	VN	63		IR	RO	Qz	2 mm	3	2	20	
AGR	31.08	JN	58		IR	RO			1.5	1	20	
AGR	31.32	JN	48		PL	SM			1	2	12	
AGR	31.45	JN	60		PL	RO			1.5	1	20	
AGR	31.68	JN	75		PL	RO			2	1	20	
AGR	31.82	JN	77		PL	RO			1.5	1	20	
AGR	31.88	JN	76		PL	RO	Ca, Ep		1.5	2	20	
AGR	31.97	JN	70		PL	SM			1	1	12	
AGR	32.14	JN	50		PL	RO			1.5	1	20	
AGR	32.18	JN	68		PL	SM			1	1	12	
AGR	32.27	JN	71		ST	VR	Qz	2mm	3	1	20	
AGR	32.60	JN	42		IR	VR			1.5	1	20	
AGR	32.68	JN	60		ST	VR			3	1	20	
AGR	32.74	JN	46		PL	SM	Ca		1	1	12	
AGR	32.84	JN	40		PL	RO			1.5	1	20	
AGR	32,87 to 33	Br										
AGR	33.00	JN	35		PL	RO			1.5	1	20	
AGR	33.05	JN	50		PL	SM			1	1	12	
AGR	33.22	JN	72		PL	RO			1.5	1	20	
AGR	33.28	JN	70		PL	SM			1	1	12	
AGR	33.48	JN	48		PL	RO	Qz		1.5	1	20	
AGR	33.50	VN	62	200	IR	VR	Qz		3	2	20	
AGR	33.58	JN	85		PL	VR	Ca		1.5	2	20	
AGR	33.78	JN	30	180	PL	RO	Ca		1.5	2	20	
AGR	33.92	JN	64	210	CU	RO			3	1	20	
AGR	34.18	JN	32	010	PL	RO	Ca		1.5	2	20	
AGR	34.22	JN	59	030	CU	SM			2	1	12	
AGR	34.29	JN	35	355	IR	SM	Ca		2	2	12	
AGR	34.35	JN	33	000	UN	SM			2	1	12	
AGR	34.42	JN	34	015	PL	SM	Ca	<1 mm	1	2	12	
AGR	34.53	JN	30		PL	SM	Ca		1	2	12	
AGR	34.56	JN	33		PL	SM	Ca		1	2	12	
AGR	34.60	JN	5		PL	RO			1.5	1	20	
AGR	34.62	JN	63		PL	RO			1.5	1	20	
AGR	34.76	JN	67		UN	RO			3	1	20	
AGR	34.88	JN	62		ST	RO		<1 mm	3	2	20	
AGR	34.98	JN	58		PL	RO	Ca		1.5	2	20	
AGR	35.59	JN	64		IR	RO	Ca	<1 mm	3	2	20	
AGR	35.86	VN	73	225	PL	RO	Qz	36mm	1.5	1	20	
AGR	35.96	JN	30	020	CU	SM			2	1	12	
AGR	36.34	JN	57	000	PL	SM			1	1	12	
AGR	36.77	JN	22	270	IR	RO	Ca	<1 mm	3	2	20	
AGR	36.93	JN	33	345	PL	RO			1.5	1	20	
AGR	37.05	JN	38	000	PL	RO			1.5	1	20	
AGR	37.31	JN	19	340	UN	SM	Ca	<1 mm	2	2	12	
AGR	37.41	VN	68	240	ST	RO	Qz,Ep	34 mm	3	1	20	
AGR	37,54 to 37,72	FR			Br							
AGR	37.72	FR	35		PL	SM		1mm	1	3	12	
AGR	37.79	FR	32		ST	RO	Ca	2mm	3	3	20	
AGR	37.85	JN	32		PL	SM	Ca		1	2	12	
AGR	38.08	JN	14		ST	RO	Ca		3	2	20	
AGR	38.18	JN	35		UN	RO	Ca		3	2	20	
AGR	38.31	JN	19		PL	RO			1.5	1	20	
AGR	38.42	JN	23	000	PL	SM	Ca		1	2	12	
AGR	39.18	JN	22	115	PL	RO	Ca		1.5	2	20	
AGR	39.35	JN	70	090	CU	RO	Py		3	1	20	
AGR	39.46	JN	45	075	PL	RO			1.5	1	20	
AGR	39.53	JN	55	020	PL	SM			1	1	12	
AGR	39.96	VN	76	290	IR	RO	Qz		3	1	20	
AGR	40.10	JN	32	065	PL	SM	Ca		1	2	12	
AGR	40.24	JN	21	330	PL	RO	Ca		1.5	2	20	
AGR	40.47	JN	15		PL	SM	Ca		1	2	12	
AGR	40.56	JN	38		PL	RO	Ca		1.5	2	20	
AGR	40.63	FO	73		PL	RO	Ca		1.5	2	20	
AGR	40.70	FO	57		PL	SM	Ca		1	2	12	
AGR	40.74	FO	70		PL	RO	Ca		1.5	2	20	
AGR	40.77	FO	62		PL	RO	Ca		1.5	2	20	
AGR	40.87	FO	58		PL	RO	Ca		1.5	2	20	

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	Joint Descriptions											
Rock Type	Depth	Type	alpha	beta	Shape	Roughness	Infill Type	Infill Thickness	Jr	Ja	Jcon	Comments
	m		(°)	(°)								
AGR	41.10	VN	27		PL	RO	Qz	27 mm	1.5	1	20	
AGR	41,28 to 41,60	Br			Br							
AGR	41.74	JN	75		PL	RO	Ca		1.5	2	20	
AGR	41.77	JN	84		PL	RO	Ca		1.5	2	20	
AGR	41.88	JN	45		PL	SM	Ca		1	2	12	
AGR	42.00	JN										
AGR	42 à 43,43	JN	Problem of sand in the hole.		Bc							
AGR	43.43	JN	62		PL	SM	Ca		1	2	12	
AGR	43.80	JN	45		PL	RO			1	1	20	
AGR	44.43	JN	52		PL	SM			1	1	12	
AGR	44.45	JN	47		PL	SM			1	1	12	
AGR	46.22	JN	64	300	PL	RO			1.5	1	20	
AGR	47.21	VN	40	000	PL	SM	Qz	4mm	1	1	12	
AGR	47.49	JN	67	010	CU	RO			1.5	1	12	
AGR	47.98	JN	23	260	ST	VR	Ca		3	2	20	
AGR	48.47	JN	55	000	UN	VR			3	1	20 -12	
AGR	48.75	JN	30	000	PL	RO	Ca		1.5	2		
AGR	48.78	VN	80	030	IR	RO	Qz		3	1	20	
AGR	49.05	JN	40	000	PL	SM			1	1	12	
AGR	49.10	JN	38	000	PL	SM	Ca		1	2	12	
AGR	49.21	JN	40		PL	SM			1	1	12	
AGR	49.30	JN	38		CU	RO			3	1	20	
AGR	49.32	JN	37		PL	SM			1	1	12	
AGR	49,38 to 49,5	Br										
AGR	49,5 to 49,67	VN	40		IR	VR	Qz	170 mm	3	1	20	
AGR	49.76	JN	70	280	IR	VR	Ca	<1 mm	3	2	20	
AGR	49,93 to 50,0	FR	34		PL	SM	Ca		1	2	12	
AGR	50.29	JN	15	110	UN	RO			1.5	1	20	
AGR	50.68	VN	74	000	UN	RO	Qz	30 mm	3	2	20	
AGR	51.44	JN	23	010	UN	SM	Ca		2	2	20	
AGR	51.62	VN	76	190	PL	RO	Qz		1.5	1	20	
AGR	51.75	JN	65	045	PL	RO	Ca	1mm	1.5	2	20	
AGR	52.80	JN	43	040	UN	RO	Py		3	1	20	
SCH	53.06	JN	35	004	PL	SM	Ca	<1 mm	1	2	12	
SCH	53.24	FO	34	004	PL	RO	Ca	1mm	1.5	2	20	
SCH	53.30	JN	39	012	PL	SM	Ca		1	2	12	
AGR	54.19	JN	70	045	PL	RO			1.5	1	25	
SCH	54.23	JN	74	070	PL	SM	Ca		1	2	12	
SCH	54.31	JN	33	336	ST	RO	Ca		1.5	2	20	
SCH	54.38	JN	72	110	PL	RO			1.5	2	20	
AGR	54.46	JN	82	090	CU	SM			2	2	20	
AGR	54.53	JN	80	020	PL	RO	Ca		1.5	2	20	
AGR	54.55	JN	80	118	PL		Ca		2	2	20	
#N/A	54,6 to 54,69	m	Perte orientation									
SCH	54.80	JN	58	075	PL	RO	Ca		1.5	2	20	
SCH	54.89	JN	64	060	PL	RO	Ca		1.5	2	20	
SCH	54.93	JN	64	062	PL	SM	Ca		1	2	12	
SCH	54.98	JN	65	040	UN	SM			2	2	12	
SCH	55.02	JN	60	014	UN	SM			2	2	12	
SCH	55,10 to 55,22	Br										
SCH	55.22	JN	32	010	PL	SM	Ca		1	2	12	
SCH	55.26	JN	46	010	PL	SM	Ca		1	2	20	
SCH	55.34	JN	51	010	UN	SM	Ca		1	2	12	
SCH	55.49	JN	74	036	PL	RO			1.5	1	20	
SCH	55.56	JN	62	032	PL	SM	Ca		1	2	20	
SCH	55.66	JN	75	020	ST	RO	Ca		2	2	20	
SCH	55.76	JN	64	010	PL	SM	Ca		1	2	20	
SCH	55.81	VN	62	320	PL	RO	Qz,Ca	11 mm	1.5	1	20	
SCH	55.97	JN	69	025	CU	RO	Ca		3	2	25	
SCH	56.11	JN	55	215	UN	RO	Ca		3	2	25	
SCH	56.80	JN	67	020	PL	RO			1.5	2	20	
AGR	57.41	JN	21	008	PL	SM	Ca		1	2	12	
AGR	57.66	JN	26	035	UN	SM	Ca,Qz	3mm	2	2	20	
AGR	57,66 à 57,84	Br										
AGR	57.84	JN	57				Ca		3	2	25	
AGR	58.03	JN	26	014	PL	RO	Ca,He		1.5	1	20	
AGR	58.11	JN	47	040	PL	SM	Ca		1	1	20	
AGR	58.35	m										
AGR	59.03	m										
AGR	59.12	FR	42	028	IR	RO			3	1	20	
AGR	59.17	JN	76	320	PL	VR			1.5	1	20	
AGR	59.28	JN	77	050	PL	RO	Ca		1.5	2	20	
AGR	59.54	VN	33	40	PL	RO	Qz	40mm	1.5	2	25	
AGR	60.15	JN	39	035	PL	PO			0.5	1	12	
AGR	60.25	VN	52	350	PL		Qz,Ca	11mm	3	2	12	
AGR	60.31	JN	65	290	PL	SM	Ca		1	2	12	
AGR	60.58	JN	41	045	PL	PO	Ca	1mm	0.5	2	12	
AGR	60.54	JN	43	060	PL	SM	Ca		1	2	12	
AGR	60.58	JN	46	045	IR	RO			3	2	20	
AGR	60.61	JN	49	010	IR	RO			3	1	20	
AGR	60.68	JN	50	355	PL	SM			1	1	12	
AGR	60.71	JN	35	330	PL	SM			1	1	12	
AGR	60.80	JN	52	310	PL	RO			1.5	1	20	
AGR	60.98	VN	68	300	PL	RO	Qz	4mm	1.5	1	20	
AGR	61.22	JN	59	090	CU	RO			3	1	20	
AGR	61.31	JN	75	90	PL	RO			1.5	1	20	
AGR	62.07	JN	44	062	PL	SM			1	2	12	
AGR	62.57	JN	65	230	ST	RO			3	1	20	
AGR	62.61	JN	51	060	PL	RO			1.5	2	20	
AGR	62.72	VN	40	095	PL	SM	Qz	4mm	1	1	12	

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	Joint Descriptions											
Rock Type	Depth	Type	alpha	beta	Shape	Roughness	Infill Type	Infill Thickness	Jr	Ja	Jcon	Comments
	m		(°)	(°)								
AGR	62.72	JN	35	095	PL	SM			1	1	12	
AGR	62.90	JN	54	060	PL	RO	Ca		1.5	2	20	
AGR	62.92	JN	41	345	PL	SM			1	1	12	
AGR	63.15	JN	34	355	PL	PO			0.5	1	12	
AGR	63.25	JN	73	350	CU	SM			2	1	12	
AGR	63.32	VN	40	000	PL	SM	Qz,Ep	3mm	1	2	12	
AGR	63.63	JN	45	105	PL	RO			1.5	1	20	
AGR	63.85	JN	63	080	UN	RO	Ca		3	2	20	
AGR	64.05	JN	41	015	PL	SM	Ca		1	2	12	
AGR	64.14	VN	41	350	PL	SM	Ca		1	2	12	
AGR	64.18	VN	80	020	UN	RO	Qz,He	6 mm	3	2	20	
AGR	64.46	JN	30	065	IR	RO	Ca, He		1.5	2	20	
AGR	64.51	VN	36	020	CU	SM	Qz,He	2mm	2	2	12	
AGR	64.65	JN	25	350	UN	SM			1	1	12	
AGR	64.97	JN	16	058	PL	SM			1	1	12	
AGR	65.24	JN	60	330	PL	RO	Qz		1.5	1	20	
AGR	65.40	JN	53	342	PL	RO	He		1.5	1	20	
AGR	65.42	JN	22	025	IR	VR	Ca		3	1	20	
AGR	65.47	JN	49	355	PL	RO			1.5	1	20	
AGR	65.56	JN	29	075	ST	VR			3	2	20	
AGR	66.17	JN	34	050	PL	SM			1	1	12	
AGR	66.35	JN	78	350	PL	SM			1	1	12	
AGR	66.59	JN	62	078	UN	RO	Ca		3	2	20	
AGR	66.78	JN	52	350	PL	RO	Ca		1.5	2	20	
AGR	66.80	JN	49	005	PL	RO	Ca		1.5	2	20	
AGR	66.83	JN	57	350	PL	RO	Ca		1.5	2	20	
AGR	66.96	JN	18	052	PL	RO	Ca		1.5	2	20	
AGR	67.60	JN	65	012	PL	SM			1	1	12	
AGR	67.74	JN	69	010	PL	RO			1.5	1	20	
AGR	67.78	JN	72	350	PL	SM			1	1	12	
AGR	67.82	JN	66	310	CU	RO	Ca		3	2	20	
AGR	68.31	JN	62	010	ST	RO	He,Ca		3	2	20	
AGR	68.46	JN	70	170	IR	VR			3	1	20	
AGR	68.52	JN	62	300	PL	VR	Ca,Ep		1.5	2	20	
AGR	68.58	JN	61	320	CU	VR	Ca		3	2	20	
AGR	68.64	JN	57	300	PL	RO	Ca		1.5	2	20	
AGR	69.41	JN	58	215	CU	SM	Ca		2	2	12	
AGR	70.08	JN	40	345	UN	RO			3	1	20	
AGR	70.28	JN	50	295	CU	RO			3	1	20	
AGR	70.35	JN	60	305	PL	RO			1.5	1	20	
AGR	70.76	JN	22	335	PL	SM	Ca		1	2	12	
AGR	70.86	JN	59	005	PL	SM	Ca		1	2	12	
AGR	71.30	JN	59	010	PL	SM	Ep		1	2	12	
AGR	71.32	JN	36	260	PL	SM	Ca		1	2	12	
AGR	71.55	JN	51	045	PL	SM	Ep		1	2	12	
AGR	72.38	JN	31	085	UN	RO			3	1	20	
AGR	72.40	JN	68	090	IR	RO	Ca,Ep		3	2	20	
AGR	72.65	JN	72	275	PL	RO			1.5	1	20	
AGR	73.12	JN	81	170	CU	RO			3	1	20	
AGR	73.23	m										
AGR	73.40	JN	36	112	UN	RO			3	1	20	
AGR	74.06	JN	71	040	PL	RO			1.5	1	20	
AGR	74.08	JN	42	030	PL	SM			1	1	12	
AGR	74.18	JN	64	050	PL	RO			1.5	1	12	
AGR	74.29	VN	55	330	PL	SM	Qz		1	1	12	
AGR	74.43	JN	44	025	PL	RO			1.5	1	12	
AGR	74.55	JN	77	315	PL	RO			1.5	1	12	
AGR	75.36	JN	78	230	IR	VR	Qz,Py		3	1	20	
AGR	75.37	JN	52	094	PL	RO			1.5	1	20	
AGR	75.78	m										
AGR	75.94	JN	38	000	PL	SM			1	1	12	
AGR	75.94	JN	46	000	PL	SM			1	1	12	
AGR	76.30	JN	55	028	PL	SM			1	1	12	
AGR	76.55	JN	50	032	PL	RO			1.5	1	12	
AGR	76.83	JN	55	015	ST	SM			2	1	12	
AGR	76.96	JN	45	088	PL	RO			1.5	1	12	
AGR	77.79	JN	30	180	PL	SM			1	1	12	
AGR	78.72	JN	64	040	PL	SM			1	1	12	
AGR	79.25	JN	53	180	PL,	RO			1.5	1.5	12	
AGR	79.29	JN	62	300	PL	RO			1.5	1.5	12	
AGR	79.43	JN	80	330	IR	RO			3	3	20	
AGR	79.80	JN	70	230	PL	VR			1.5	1	20	
AGR	80.03	JN	50	040	PL	SM			1	1	12	
AGR	80.36	JN	30	070	ST	VR	Ca		3	2	20	
AGR	80.87	VN	80	280	PL	RO	Qz	18mm	1.5	2	20	
AGR	80.91	JN	73	070	PL	RO	Ca		1.5	2	20	
AGR	81.05	JN	59	000	PL	SM			1	1	12	
AGR	81.81	JN	40	250	IR	RO			3	1	20	
AGR	81.84	JN	60	192	PL	RO			1.5	1	12	
AGR	82.03	JN	32	060	IR	RO			3	1	20	
AGR	82.05	JN	44	250	PL	SM			1	1	12	
AGR	82.84	JN	64	020	IR	VR			3	1	20	
AGR	82.54	JN	62	070	PL	RO			1.5	1	12	
AGR	82.78	JN	48	105	PL	SM			1	1	12	
AGR	82.87	JN	66	100	PL	RO			1.5	1	20	
AGR	82.90	JN	52	120	PL,	SM			1	1	12	
AGR	83.06	JN	75	060	CU	VR			3	1	20	
AGR	83.09	JN	52	140	PL	RO	Ca		1.5	2	20	
AGR	83.24	JN	50	092	PL	SM			1	1	12	
AGR	83.40	JN	52	120	CU	RO			3	1	20	
AGR	83.57	JN	81	182	CU	RO			3	1	20	
AGR	83.74	JN	31	260	PL	SM			1	1	12	
AGR	83.98	JN	32	080	PL	PO			1	1	12	
AGR	84.00	JN	43	150	PL	RO			1.5	1	20	
SCH	84.36	JN	55	140	CU	RO			3	1	20	

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	Joint Descriptions											
Rock Type	Depth	Type	alpha	beta	Shape	Roughness	Infill Type	Infill Thickness	Jr	Ja	Jcon	Comments
	m		(°)	(°)								
SCH	84.42	JN	36	160	PL	VR			1.5	1	20	
SCH	84.52	JN	66	150	PL	RO	Ca		1.5	1	20	
SCH	84.69	JN	56	000	CU	RO			3	1	20	
SCH	85.02	JN	46	160	PL	RO			1.5	1	20	
SCH	85.07	JN	52		PL	RO			1.5	1	20	
SCH	85,07 to 85,19	Br										
AGR	85.19	JN	58	005	PL	RO			1.5	1	20	
AGR	85.51	JN	72	180	IR	RO			3	1	20	
AGR	85.73	JN	50	040	PL	SM	Ca		1	2	12	
AGR	86.40	JN	60	000	ST	VR			3	1	20	
AGR	86.46	JN	40	180	PL	VR			1.5	1	20	
AGR	87.00	m										
AGR	87.23	JN	25	000	PL	RO			1.5	2	20	
AGR	87.47	JN	76	290	PL	RO			1.5	1	20	
AGR	87.59	JN	75	290	PL	RO			1.5	1	20	
AGR	88.22	JN	76	270	PL	RO			1.5	0.75	20	
AGR	88.38	JN	88		IR	RO	Ca		1.5	2	20	
AGR	88.42	JN	71	000	PL	RO			1.5	1	20	
AGR	89.14	VN	77	080	PL	RO	Qz	1mm	1.5	2	20	
AGR	89.29	VN	18	276	PL	RO	Qz	6mm	1.5	2	20	
AGR	90.49	JN	75	200	PL	RO			1.5	0.75	20	
AGR	91.44	JN	21	338	PL	RO	Ca		1.5	2	20	
AGR	91.51	JN	66	230	UN	RO	Ca		3	2	20	
AGR	91.54	JN	57	260	PL	SM			1	1	12	
AGR	91.64	JN	60	270	PL	SM			1	1	12	
AGR	91.69	JN	54	240	PL	RO			1.5	1.5	12	
AGR	92.52	JN	61	210	PL	RO			1.5	1	12	
AGR	94.20	JN	65	180	UN	RO	Qz	80 mm	3	1	12	
AGR	94.71	JN	61	180	PL	RO			1.5	1	12	
AGR	96.36	JN	18	006	PL	RO			0.5		12	
AGR	97.76	VN	75	005	UN	RO	Qz	20mm	3	1	12	
AGR	97.79	JN	78	332	UN	SM			1.5	1	12	
AGR	98.03	VN	38	028	UN	SM	Qz	25 mm	1.5	1	12	
AGR	98.85	JN	60	235	PL	SM			1.5	1	12	
AGR	98.88	JN	68	235	PL	RO			1.5	1	20	
AGR	99.50	JN	20	330	PL	SM			1	1	12	
AGR	99.56	JN	70	220	IR	RO			2	2	20	
AGR	99.76	JN	58	340	PL	RO			1.5	1	20	
AGR	99.80	JN	67	250	PL	VR			1.5	1	20	
AGR	99.87	JN	57	200	PL	RO			1.5	1	20	
AGR	100.67	JN	52	040	PL	SM			1	1	12	
AGR	100.80	JN	43	180	PL	SM			1	1	12	
AGR	101.09	JN	62	260	PL	SM			1	1	12	
AGR	102.64	JN	52	024	PL	SM	Ca		1	1	12	
CGR	102.72	JN	52	030	PL	SM	Ca		1	2	12	
CGR	102.83	JN	50	004	PL	SM			1	1	12	
AGR	103.06	JN	65	210	PL	RO			1.5	1	20	
AGR	103,16 à 103,37	Br					Ca					
AGR	103.41	JN	37	000	PL	SM			1	1	12	
AGR	103.47	JN	37	000	PL	SM			1	1	12	
AGR	103.52	JN	43	015	PL	SM			1	1	12	
CGR	103.79	VN	42	000	PL	RO	Ca	2mm	1.5	1	20	
AGR	104.16	JN	66	190	PL	SM	Ca		1	1	12	
AGR	104.43	JN	25	074	UN	RO	Ca	1 mm	3	2	12	
AGR	105.67	JN	28	050	PL	SM	Ca	1 mm	1	2	12	
AGR	105.69	JN	65	340	UN	RO	Ca		2	2	20	
AGR	105.73	JN	56		PL	RO			1.5	1	20	
AGR	107.19	JN	35	032	PL	PO			0.5	1	20	
AGR	107.26	JN	36	230	CU	RO	Ca		3	2	20	
AGR	109.62	JN	52	206	PL	RO			1	3	20	
AGR	109.93	VN	75	372	ST	RO	Qz	2mm	3	2	20	
AGR	110.72	JN	53	028	PL	SM			1	1	12	
AGR	110.76	VN	89		CU	SM	Qz	200 mm	1.5	1	12	
AGR	110.92	JN	50	032	ST	RO	Qz		3	1	12	
AGR	113.71	JN	63	282	IR	RO	Qz	2mm	1	2	20	
AGR	114.30	m										
AGR	114.33	JN	70	310	UN	RO			3	1	20	
AGR	114.38	JN	65	240	PL	RO			1.5	1	20	
AGR	115.06	JN	25	074	UN	RO			3	1	20	
AGR	115.34	JN	56	184	PL	SM			1	1	12	
AGR	115.76	JN	55	180	PL	RO			1.5	1	20	
AGR	117.00	m										
AGR	117.76	JN	60	160	PL	SM			1.5	1	12	
AGR	118.07	JN	64	170	PL	RO			1	1	12	
AGR	118.47	JN	65	250	UN	RO			2	2	12	
AGR	118.87	JN	70		RO				3	1	20	
AGR	119.35	JN			ST	RO			3	1	20	
AGR	119.62	JN	30	70	PL	SM			1	1	12	
AGR	119.69	JN	36	010	PL	SM			1	1	20	
AGR	119.78	JN	20	352	UN	RO			2	1	20	
AGR	119.93	JN	40	062	PL	SM			1	1	12	
AGR	120.11	JN	30	044	UN	RO			2	1	20	
AGR	120.19	JN	30	060	PL	SM			1	1	12	
AGR	120.33	JN	35	046	PL	SM			1	1	12	
AGR	120.58	VN	35	000	PL	VR	Ca,Qz	18 mm	1.5	2	20	
AGR	120.85	JN	27	090	UN	SM			2	1	20	
AGR	121.39	JN	16	330	PL	SM			1	1	20	
AGR	121.74	JN	22	000	IR	RO			3	2	20	
SCH	121.84	JN	26	000	PL	RO			1.5	1	20	
SCH	121.92	JN	44	014	PL	RO	Ca		1.5	2	20	
AGR	122.09	JN	28	350	PL	SM			1.5	1	12	
AGR	122.24	JN	48	014	PL	SM	Ca		1.5	1	12	
AGR	122.34	JN	65	210	PL	SM			1	1	12	
AGR	122.38	JN	75	190	PL	RO			1.5	1	20	
AGR	122.45	JN	64	180	UN	RO			2	1	20	

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	Joint Descriptions											
Rock Type	Depth	Type	alpha	beta	Shape	Roughness	Infill Type	Infill Thickness	Jr	Ja	Jcon	Comments
	m		(°)	(°)								
AGR	123.35	JN	42	212	IR	RO			3	1	20	
AGR	124.57	VN	83		PL	RO	Qz,Ca,	30-60 mm	1.5	2	20	
AGR	126.08	JN	53	230	PL	SM			1	1	12	
AGR	126.16	JN	45	054	PL	SM			1	1	12	
AGR	126.71	JN	20	080	UN	SR	Ca		2	2	20	
AGR	126.79	JN	25	000	PL	SR	Ca		1	2	12	
AGR	126.86	JN	43	030	UN	SR	Ca,Qz		2	2	20	
AGR	127.07	JN	35	020	PL	VR			1.5	1	20	
AGR	127.33	JN	77	240	ST	RO			3	1	20	
AGR	127.52	JN	71	210	UN	SR			2	1	20	
AGR	128.25	JN	64	190	PL	SR			1.5	1	20	
AGR	128.77	JN	25	336	PL	SR			1	1	12	
AGR	129.32	JN	44		UN	RO			3	1	20	
AGR	129.40	JN	20		UN	RO			3	1	20	
AGR	129.83	JN	13		UN	SR			2	1	20	
AGR	130.79	JN	45		ST	SR	Ca		2	2	20	
AGR	133.65	VN	90		PL	SM	Qz	60mm	0.5	1	12	
AGR	136.70	JN	60	322	PL	SM			0.5	1	12	
AGR	138.69	JN	38	174	PL	SM			1		12	
AGR	141.38	JN	65	090	PL	SM			1	1	12	
AGR	142.36	JN	62	240	PL	SR			1	1	12	
AGR	142.67	JN	70	000	UN	SR			2	1	12	
AGR	142.71	JN	60	030	PL	SM			1	1	12	
AGR	144.19	JN	32	350	PL	SM			1	1	12	
AGR	144.29	JN	82	260	UN	RO			3	1	20	
AGR	144.35	JN	85	290	ST	RO			3	1	20	
AGR	145.10	JN	30	350	PL	SM			1	1	12	
AGR	145.18	JN	64	010	CU	SR			2	1	20	
AGR	145.42	JN	54	170	PL	SR	Sr	<1 mm	1	2	12	
AGR	147.77	JN	43	202	PL	VR	Ca		2	3	20	
AGR	148.11	JN	40	054	PL	RO	Sr		1.5	2	20	
AGR	148.33	JN	55	048	PL	UR			1.5	1	20	
AGR	149.23	JN	28	010	IR	RO	Ca	<1 mm	3	1	20	
AGR	149.33	JN	18	060	PL	RO			1.5	1	20	
AGR	149.37	JN	25	010	PL	RO	Ca	<1 mm	1.5	2	20	
AGR	149.69	JN	50	010	PL	RO			1.5	1	20	
AGR	149.82	JN	45	010	PL	ST			1	1	12	
AGR	149.85	JN	34	018	PL	SM	Ca	<1 mm	1	2	12	
AGR	149.94	JN	50	012	PL	SR			1	1	12	
AGR	150.33	JN	66	160	PL	SM			1	1	12	
AGR	151.95	JN	50	350	PL	VR			1.5	1	12	
AGR	152.06	JN	42	350	CU	RO			3	1	20	
AGR	153.30	JN	63	190	UN	RO			3	1	20	
AGR	153.47	JN	65	010	CU	RO			3	1	20	
AGR	154.75	JN	50	030	PL	SM			1	1	12	
AGR	154.97	JN	50	190	ST	RO	Ca		3	2	20	
AGR	155.26	JN	53	210	PL	SM	Ca	<1 mm	1	2	12	
AGR	155.41	JN	60	160	PL	SR	Ca	<1 mm	1	2	12	
AGR	155.72	JN	20	340	PL	SR	Ca	<1 mm	1	2	12	
AGR	156.47	JN	60	200	PL	SM			1	1	12	
AGR	156.51	JN	67	226	ST	SM			2	1	12	
AGR	156.60	JN	64	256	PL	SM			1	1	12	
AGR	156.66	JN	60	174	PL	IR	Ca	<1 mm	1.5	2	20	
AGR	156.71	JN	60	202	PL	RO			1.5	1	20	
AGR	158.34	VN	51	048	PL	SM	Qz		1	1	12	
AGR	159.23	JN	31		PL	SM			1	1	12	
AGR	159.28	JN	24	000	PL	PO	Ca	<1mm	0.5	2	12	
AGR	159.31	JN	48	174	PL	SM			1	1	12	
AGR	159.61	JN	69	200	CU	SM	Ca	<1mm	2	2	12	
AGR	160.66	JN	28	350	ST	RO			3	1	20	
AGR	160.93	JN	50	190	CU	SR			2	1	20	
AGR	162.17	JN	75	220	PL	SR			1	1	12	
AGR	163.22	JN	44	172	PL	SR			1	1	12	
AGR	163.78	JN	52	180	PL	RO			1.5	1	12	
AGR	164.49	JN	53	160	PL	PO	Ca	<1mm	0.5	2	12	
AGR	165.44	JN	60	180	CU	RO			3	1	20	
AGR	165.88	JN	56	186	PL	RO			1.5	1	20	
AGR	166.30	JN	48	180	PL	SR			1	1	12	
AGR	166.40	JN	15	080	PL	SR			1	1	12	
AGR	167.13	JN	40	000	IR	RO			3	1	20	
AGR	167.22	JN	40	170	PL	SM	Qz	<1mm	1	2	12	
AGR	167.44	JN	43	240	ST	RO			3	1	20	
AGR	167.81	JN	60	180	PL	RO			1.5	1	20	
AGR	168.07	JN	55	029	PL	SR			1	1	12	
AGR	168.66	VN	74	075	PL	SM	Qz	3 mm	1	2	12	
AGR	169.70	JN	65	245	ST	RO			3	1	20	
AGR	170.32	JN	61	005	PL	RO			1.5	1	20	
AGR	171.45	JN	88	160	PL	RO			1.5	1	20	
AGR	171.80	JN	75	180	PL	RO			1.5	1	20	
AGR	171.95	JN	71	200	IR	RO			3	1	20	
AGR	172.63	JN	74	090	PL	RO			1.5	1	20	
AGR	172.96	JN	86	130	PL	RO			1.5	1	20	
AGR	174.41	JN	34	070	PL	SR			1	1	12	
AGR	174.97	JN	50	120	PL	RO			1.5	1	20	
AGR	175.18	JN	28	000	PL	SM			1	1	12	
AGR	176.00	JN	30	000	PL	PO	Qz	<1mm	0.5	2	12	
AGR	176.61	JN	55	160	PL	SM			1	1	12	
AGR	177.45	JN	30	066	PL	SM	Ca	<1mm	1	1	12	
AGR	177.77	JN	22	076	PL	SM	Ca	<1mm	1	2	12	
AGR	177.97	JN	41	086	PL	SM			1	1	12	
AGR	178.00	JN	35	070	PL	SR			1	1	12	
AGR	178.22	JN	38	056	IR	RO			3	1	20	
AGR	178.80	JN	10	140	PL	RO			1.5	1	20	
AGR	179.90	JN	27	066	PL	PO	Ca	<1mm	1	2	12	
AGR	181.19	JN	30	052	PL	SR	Ca,Py	<1mm	1	2	12	

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	Joint Descriptions											
Rock Type	Depth	Type	alpha	beta	Shape	Roughness	Infill Type	Infill Thickness	Jr	Ja	Jcon	Comments
	m		(°)	(°)								
AGR	181.44	JN	33	058	PL	SR			1	1	12	
AGR	183.63	JN	50	005	UN	RO			1.5	1	20	
AGR	184.40	VN	Mec				Qz	100mm				
AGR	186.56	JN	18	012	PL	SM	Ca,Py		1	2	12	
AGR	186.98	JN	65	222	CU	RO			3	1	20	
AGR	187.36	JN	6	330	UN	SR	Ca,Py		2	2	20	
AGR	188.86	JN	24	344	PL	SR	Ca	1mm	1	2	12	
AGR	189.32	JN	15	222	UN	SR	Ca,Py		2	2	12	
AGR	189.50	JN	45	340	ST	SR	Ca		2	2	20	
SCH	189.76	JN	56	155	PL	RO	Ca		1.5	2	12	
AGR	190.16	JN	25	318	PL	SR	Ca,Tc		1	3	20	
AGR	190.56	JN	34	305	UN	SR	Ca,Tc		2	3	12	
AGR	190.59	JN	33	310	PL	RO	Ca		1.5	2	20	
AGR	190.66	JN	32	310	PL	SR	Ca		1	2	12	
AGR	190.68	JN	36	315	PL	SM	Ca		1	2	12	
AGR	190.79	JN	24	315	PL	SM	Ca	<1mm	1	2	12	
AGR	190.89	JN	28	318	UN	SR	Ca	1mm	2	2	20	
AGR	190.96	JN	32	345	UN	VR	Ca		3	2	20	
AGR	191.54	JN	28	178	IR	VR	Ca,Py		3	2	20	
AGR	192.03	JN	57	042	PL	SM			1	1	12	
AGR	193.29	JN	5	042	ST	SR	Ca	1mm	2	2	20	
AGR	193.32	JN	58	048	PL	SM			1	1	12	
AGR	193.50	VN	42	052	PL	SM	Ca	2mm	1	2	12	
AGR	194.52	JN	44	150	PL	RO			1.5	1	12	
AGR	194.78	JN	44	190	PL	RO			1.5	1	12	
AGR	195.57	JN	33	005	PL	RO	Ca	>1mm	1.5	3	20	
AGR	196.29	JN	25	090	IR	RO	Qz,Ca,Py		3	2	20	
AGR	196.55	JN	38	190	IR	RO			3	1	20	
AGR	196.67	JN	33	326	PL	SM			1	2	12	
AGR	197.67	JN	30	170	PL	RO			1.5	1	20	
AGR	198.19	JN	75	195	PL	RO	Tc	>1mm	1.5	2	12	
AGR	198.63	JN	42	035	UN	SR		<1mm	2	1	12	
AGR	198.67	JN	47	030	PL	SM	Ca		1	2	12	
AGR	198.74	JN	48	320	UN	RO	Ca		2	2	20	
AGR	198.99	JN	50	135	IR	RO	Ca		3	2	20	
AGR	199.23	JN	45	028	PL	SM	Tc		1	2	12	
AGR	199,39 à 199,43	Br	38		IR	RO	Ca		3	2	12	
AGR	199.55	FR	40	035	UN	SR		8 mm diameter	3	1	20	
AGR	199.92	JN	57	038	PL	SM	Ca		1	2	12	
AGR	200.40	JN	58	185	PL	VR	Ca		1.5	2	20	
AGR	200.54	JN	25	285	IR	RO	Ca		3	2	20	
AGR	202.53	JN	32	355	UN	SM	Ca	1mm	2	2	12	
AGR	203.30	JN	18	342	PL	VR	Py		1.5	1	20	
AGR	203.52	JN	22	070	UN	SR	Ca		2	2	20	
AGR	204.58	JN	43	338	PL	SM			1	1	12	
AGR	205.21	JN	30	330	PL	SR	Ca		1	2	12	
AGR	205.35	JN	32	328	UN	SR			2	1	20	
AGR	205.53	JN	43	340	PL	SR	Ca		1	2	20	
AGR	205.78	JN	28	335	PL	RO	Ca,Py		1.5	2	20	
AGR	206.22	JN	38	345	PL	SR			1	1	12	
AGR	206.28	JN	47	350	PL	RO			1.5	1	20	
AGR	206.39	JN	48	350	PL	RO	Py		1.5	1	20	
AGR	206.51	JN	44	345	PL	VR			1.5	1	20	
AGR	206.58	JN	34	335	UN	VR	Py		3	1	20	
AGR	206.66	JN	45	350	PL	RO			1.5	1	20	
AGR	206.86	JN	43	355	PL	SR			1	1	12	
AGR	207.29	JN	30	345	UN	SM			2	1	20	
AGR	207.67	JN	58	170	PL	VR			1.5	1	20	
AGR	208.35	JN	28	010	IR	RO	Py		3	1	20	
AGR	208.49	JN	24	355	IR	RO	Py		3	1	20	
AGR	208.72	JN	23	005	PL	SR	Ca		1	2	12	
AGR	209.17	JN	57	275	ST	VR	Ca,Py	5mm	2	2	20	
AGR	211.25	JN	35	350	UN	SM	Ca,Py	<1mm	2	2	12	
AGR	212.65	JN	39	037	PL	SM	Qz,Ep	9mm	1	2	12	
AGR	212.74	JN	70	188	PL	RO	Py		1.5	1	20	
AGR	212.82	JN	40	185	IR	VR	Py,Ca		3	2	25	
AGR	212.87	JN	43	000	UN	RO	Py,Ca		2	2	20	
AGR	213.16	JN	32	345	UN	SM	Ca,Ep		2	2	12	
AGR	213.54	JN	27	322	UN	RO	Ca,Py		2	2	20	
AGR	213.78	JN	39	345	UN	SM			2	1	12	
AGR	214.06	JN	22	264	PL	SM	CA,Py		1	2	12	
AGR	214.28	JN	65	305	UN	RO			2	1	20	
AGR	214.35	JN	35	335	UN	SM	Qz		2	1	12	
AGR	214.43	JN	85		PL	SM	Ca		1	2	12	
AGR	214.51	JN	36	008	PL	SR	Ca	>1mm	1	2	12	
AGR	214.81	JN	40	038	PL	SM	Ca,Ep		1	2	12	
AGR	214.92	JN	59	008	PL	SM			1	1	12	
AGR	215.35	JN	17	008	UN	SM			2	1	20	
AGR	215.56	JN	40	032	PL	PO	Ep		0.5	1	12	
AGR	215.65	JN	46	052	PL	SM	Ca		1	2	12	
AGR	215.76	JN	47	058	PL	PO	Ca		0.5	2	12	
AGR	215.84	JN	63	185	PL	RO	Ca		1	2	12	
AGR	216.37	JN	54	124	ST	RO	Ca		3	2	12	
AGR	216.58	JN	35	018	UN	SM	Ca		2	2	12	
SCH	216.71	JN	42	026	PL	RO	Ca		1.5	2	20	
SCH	217.13	JN	52	035	IR	RO	Ca		3	2	20	
SCH	217.23	JN	57	028	IR	RO	Ca		3	2	20	
AGR	217.52	JN	63		PL	PO	Ca		0.5	2	12	
AGR	217.87	JN	56		UN	SM			2	1	20	
AGR	218,23 to 218,33	JN	Broken mec									
AGR	218.36	JN	19		PL	SM	Ca		1	2	12	
AGR	218.53	VN	37		PL	RO	Ca	1mm	1.5	2	20	
AGR	218.59	FR	72	315	ST	RO		8 mm	2	1	20	
AGR	218.68	JN	67	020	IR	VR			3	1	20	
AGR	218.84	JN	58	340	PL	VR	Ca		1.5	2	20	

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	Joint Descriptions											
Rock Type	Depth	Type	alpha	beta	Shape	Roughness	Infill Type	Infill Thickness	Jr	Ja	Jcon	Comments
	m		(°)	(°)								
AGR	219.39	JN	38	324	UN	SM			2	1	20	
AGR	220.24	JN	27	330	PL	SM	Py		1	1	12	
AGR	223.73	JN	60	155	CU	RO	Ca,Py		3	2	20	
AGR	223.82	JN	62	345	PL	RO	Ca,Py		1.5	2	20	
AGR	224.00	JN	35	352	PL	SM	Py		1	1	12	
AGR	226.20	JN	30		ST	RO			3	1	20	
AGR	226.66	JN	73		UN	SR	Py		2	1	12	
AGR	226.79	JN	76		UN	RO			2	1	12	
AGR	226.92	JN	38		UN	SR			2	1	12	
AGR	227.44	JN	37		PL	SM			1	1	12	
AGR	227.70	JN	43		PL	SR	Ca		1	2	12	
AGR	228.19	JN	44		PL	SM			1	1	12	
AGR	228.42	JN	72		UN	SR			2	1	20	
AGR	228.76	JN	33		PL	RO			1.5	1	20	
AGR	228.85	JN	37		UN	SR	Ca		22	1	20	
AGR	229.13	JN	58		CU	RO	Py		3	1	20	
AGR	229.22	JN	55		UN	RO			2	1	20	
AGR	230.20	JN	57		PL	RO	Ca Py		1	2	12	
AGR	230.39	JN	30		IR	SR			1	1	20	
AGR	231.74	JN	52		PL	SM			1	1	12	
AGR	231.90	JN	48		PL	SM			1	1	12	
AGR	231.98	JN	48		PL	SR	Ca		1	2	12	
AGR	232.02	JN	44		PL	SR	Ca	2mm	1	2	12	
AGR	232.23	JN	35		PL	PO	Py		0.5	1	12	
AGR	232.34	JN	41		PL	SM	Py		1	1	12	
AGR	232.54	JN	77		PL	RO			1.5	1	20	
AGR	232.71	JN	42		UN	SM	Py		2	2	20	
AGR	233.01	JN	28		PL	SM	Ca		1	2	12	
AGR	233.37	JN	48		PL	SM	Ca		1	2	12	
AGR	233.47	JN	64		PL	SM			1	1	12	
AGR	233.55	JN	64		UN	RO	Qz,Py		2	1	20	
AGR	233.66	JN	44		CU	SM	Ca,Py		2	2	20	
AGR	233.75	JN	62		PL	RO	Ca		1.5	2	20	
AGR	234.12	JN	36	350	PL	SM			1	1	12	
AGR	234.23	JN	40	000	UN	SM	Ca	<1mm	2	2	12	
AGR	234.44	JN	47	356	PL	SM			1	1	12	
AGR	235.08	JN	41	010	PL	SM	Ca	<1mm	1	2	12	
AGR	235.41	JN	39	010	PL	SM			1	1	12	
AGR	235.73	JN	30	075	PL	SM	Ca,Sa	<1mm	1	3	12	
AGR	235.91	JN	29	356	PL	VR	Cl	<1mm	1.5	3	20	
AGR	236.09	JN	38	354	PL	SM			1	1	12	
AGR	236.18	JN	20	310	PL	RO	Ca	<1mm	1.5	2	20	
AGR	236.25	JN	30	000	PL	VR			1.2	1	20	
AGR	237.22	JN	38	330	PL	SM			1	1	12	
AGR	237.33	JN	58	160	PL	RO			1	1.5	12	
AGR	237.62	JN	40	070	PL	SM			1	1	12	
AGR	238.60	JN	51	180	PL	SM			1	1	12	
AGR	239.38	JN	31	010	PL	RO			1.5	1	20	
AGR	239.66	JN	50	100	IR	RO			3	1	20	
AGR	240.38	JN	34	000	PL	SM	Ca	<1mm	1	2	12	
AGR	241.70	JN	50	006	PL	SM			1	1	12	
AGR	241.80	JN	34	340	PL	SM	Ca	<1mm	1	2	12	
AGR	241.82	JN	54	000	PL	PO			0.5	1	12	
AGR	242.42	JN	67	180	UN	RO			3	1	20	
AGR	242.63	JN	35	340	UN	SM			2	1	12	
AGR	243.00	JN	46	350	PL	SM			1	1	12	
AGR	244.32	JN	34	000	PL	PO			0.5	1	12	
AGR	244.63	JN	35	358	PL	VR	Ca		1.5	2	20	
AGR	244.80	JN	30	350	CU	RO			3	1	20	
AGR	245.03	JN	55	190	PL	RO			1.5	1	20	
AGR	245.19	JN	40	010	CU	RO			3	1	20	
AGR	245.50	JN	40	010	PL	RO	Ca	<1mm	1.5	2	20	
AGR	245.56	JN	36	010	CU	RO			3	1	20	
AGR	245.63	JN	40	010	PL	SR			1	1	12	
AGR	246.33	JN	45	350	PL	SR	Ca		1.5	2	12	
AGR	247.03	JN	47	326	PL	SR	Ca	<1mm	1.5	2	12	
SCH	247.17	JN	44	350	UN	SR	Cl	<1mm	2	4	12	
SCH	247.40	JN	34	300	PL	VR	Ca	<1mm	1.5	2	20	
AGR	247.51	JN	37	350	PL	RO		<1mm	1.5	2	20	
AGR	247.53	JN	43	350	PL	SR			1	1	12	
AGR	247.99	JN	48	330	PL	VR	Cl	<1mm	1.5	4	20	
AGR	248.12	JN	35	330	PL	SM	Ca	<1mm	1	2	12	
AGR	248.17	JN	53	348	PL	SR	Ca		1	3	12	
AGR	248.37	JN	47	348	UN	SR	Ca		2	2	20	
SCH	248.57	JN	36	340	PL	SM	Ca	<1mm	1	2	12	
AGR	248.80	JN	40	280	UN	SM	Ca,Sr		2	2	12	
AGR	248.94	JN	30	334	PL	SR	Ca	<1mm	1	2	12	
AGR	250.32	JN	18		PL	SR			1	1	12	
AGR	250.73	JN	85		IR	RO			3	1	20	
AGR	251.16	JN	72		UN	RO			3	1	20	
AGR	251.49	JN	53		PL	SM	Ca	<1mm	1	2	12	
AGR	251.60	JN	44		PL	SR			1	1	12	
AGR	252.18	JN	58		PL	SR	Ca	<1mm	1	2	12	
AGR	252.89	JN	36		PL	PO	Ca	<1mm	0.5	2	12	
AGR	253.03	JN	52		PL	RO	Ca	<1mm	1.5	2	20	
AGR	254.22	JN	32		PL	VR	Ca	<1mm	1.5	2	20	
AGR	254.25	JN	46		PL	VR			1.5	1	20	
AGR	255.18	JN	48	170	ST	RO			3	1	20	
AGR	255.31	JN	35	350	PL	SR			1	1	12	
AGR	255.84	JN	55	344	PL	SM			1	1	12	
AGR	256.30	JN	18	302	UN	RO	Ca	<1mm	3	2	20	
AGR	256.87	JN	14	342	UN	RO	Ca	<1mm	3	2	20	
AGR	257.15	JN	18	290	UN	SR	Ca	<1mm	2	2	20	
AGR	257.87	JN	45	280	PL	SR			1	1	12	
AGR	259.10	JN	32		UN	SM	Ca	<1mm	2	2	20	

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	Joint Descriptions											
Rock Type	Depth	Type	alpha	beta	Shape	Roughness	Infill Type	Infill Thickness	Jr	Ja	Jcon	Comments
	m		(°)	(°)								
AGR	260.62	JN	38	265	UN	RO	Ca		2	2	20	
AGR	261.95	JN	57	015	UN	RO			2	1	20	
AGR	262.35	JN	67	290	IR	SR	Ca		2	2	20	
AGR	262.58	JN	39	310	UN	SR	Ca,Py		2	2	20	
AGR	263.27	JN	52	205	CU	SR	Ca		2	2	20	
AGR	264.13	VN	84	150	UN	RO	Qz,Ca,	94mm	2	2	20	
AGR	264.29	JN	51	015	UN	SR	Ca	1mm	2	2	20	
AGR	264.69	JN	30	280	UN	SR	Ca,Py	<1mm	2	2	12	
AGR	265.15	Br mec										
AGR	266.74	JN	38	348	UN	SR	Ca	<1mm	2	2	20	
AGR	266.76	JN	37	348	CU	SM	Ca		2	2	20	
AGR	267.71	JN	35	330	PL	SM	Py		1	2	12	
AGR	268.57	JN	42	350	PL	PO	Py		1	2	12	
AGR	268.68	JN	48	350	UN	SR			2	1	12	
AGR	268.81	JN	51	018	UN	RO			3	1	20	
AGR	270.77	JN	54	025	PL	SM	Ca,Py	1mm	1	2	12	
AGR	271.53	VN	52	010	UN	RO	Ca	47mm	3	2	20	
AGR	273.41	JN	8		UN	SM	Ca		2	2	12	
AGR	273.46	JN	50		UN	RO			3	1	20	
AGR	273.71	JN	40		PL	SR	Ca		1	2	12	
AGR	274.79	JN	22		UN	SM	Ca,Py		2	2	12	
AGR	274.94	JN	44		ST	RO	Ca	<1mm	2	2	20	
AGR	275.57	JN	28		ST	SR	Ca	<1mm	2	2	12	
AGR	275.67	JN	38		PL	RO	Ca,Py		1	2	20	
AGR	275.70	JN	56		PL	SM	Ca,Py		1	2	12	
AGR	275.73	JN	53		UN	RO	Ca,Py		2	2	20	
CGR	276.23	JN	31		IR	RO	Ca,Py		3	2	20	
CGR	276.60	JN	77		PL	SM	Ca,Py		1	2	12	
CGR	276.72	JN	40		PL	SM	Ca,Py		1	2	12	
CGR	277.00	JN	76		PL	SM	Ca,Py		1	2	12	
CGR	277.09	JN	90		UN	SM	Ca,Py		2	2	20	
CGR	277,14 à 277,24	Br mec										
CGR	277.24	JN	58		ST	RO			2	1	20	
CGR	277.31	JN	98		IR	RO	Ca,Py		3	2	20	
CGR	277.41	JN	72		PL	SR			1	1	12	
CGR	277.48	JN	79		UN	RO	Py		2	1	20	
AGR	277.56	JN	87		CU	RO			2	2	20	
AGR	277.67	JN	42		PL	SM	Ca	<1mm	1	2	12	
AGR	278.25	JN	58		PL	SM	Ca,Py		1	2	12	
AGR	278.43	JN	40		UN	SM	Ca,Py		2	2	20	
AGR	278.92	JN	26		UN	RO			3	2	20	
AGR	279.05	JN	36		PL	SM	Ca	>1mm	1	2	12	
AGR	279.08	JN	62		PL	SM			1	1	12	
AGR	279.22	JN	32		PL	SM	Ca		1	2	12	
AGR	279.56	JN	66		CU	SM			2	1	12	
AGR	279.68	JN	29		UN	RO	Ca,He		2	2	20	
AGR	279.85	JN	27		IR	VR	Ca,He	>1mm	3	2	20	
AGR	280.10	JN	43		CU	RO			2	1	20	
AGR	280.18	JN	58		ST	RO	Ca	>1mm	2	2	20	
AGR	280.31	JN	46		UN	SM	Ca,Py		2	2	12	
AGR	280.36	JN	47		PL	RO	Ca, He,Py		1.5	2	20	
SCH	280.94	JN	52		UN	RO	Ca		2	2	20	
AGR	281.75	JN	23		UN	SM	Ca		2	2	20	
AGR	284.11	JN	55		UN	RO			2	1	20	
AGR	284.19	JN	41		PL	SR			1	1	12	
AGR	284.27	JN	37		PL	SR	Ca,Py		1	2	12	
AGR	284.40	JN	62		ST	SR	Ca		2	2	20	
AGR	285.48	JN	50	345	PL	SM	Ca		1	2	12	
AGR	288.47	JN	53	0	PL	PO	Ca		0.5	2	12	
AGR	288.98	VN	60	168	UN	RO	Qz	21mm	2	1	20	
AGR	289.16	JN	34	350	PL	SM	Ca,Py	>1mm	1	2	12	
AGR	289.19	JN	40	345	PL	SM	Tc		1	2	12	
AGR	290.11	JN	53	168	CU	VR			3	1	20	
AGR	290.34	JN	47	180	PL	SR			1	1	12	
AGR	293.06	JN	56	10	IR	SM			2	1	20	
AGR	293.14	JN	68	270	PL	SM			1	1	12	
AGR	293.86	JN	42	4	UN	SR			2	1	20	
AGR	295.42	JN	47	330	PL	SR			1	1	12	
AGR	295.47	JN	45	310	UN	VR			3	1	20	
AGR	295.62	JN	49	280	PL	SR			1	1	12	
AGR	295.75	JN	61	330	PL	RO			1.5	1	20	
AGR	296.02	VN	73	150	IR	RO	Qz		3	1	20	
AGR	296.50	JN	60	328	PL	RO			1.5	1	20	
AGR	296.77	JN	50	340	PL	SR			1	1	12	
AGR	297.26	JN	44	210	PL	SM			1	1	12	
AGR	298.48	JN	32	210	IR	RO			3	1	20	
AGR	298.70	JN	50	176	PL	RO	Ca	<1mm	1.5	2	20	
AGR	299.29	JN	47	170	PL	SM			1	1	12	
AGR	300.35	JN	47	170	PL	SM			1	1	12	
AGR	300.60	VN	47	0	PL	RO	Qz	2mm	1.5	2	20	
AGR	301.24	JN	25	330	PL	SR			1	3	12	
AGR	301.26	VN	89	164	PI	VR	Qz,Ca		1.5	2	20	
AGR	302.07	JN	56	180	UN	RO			3	1	20	
AGR	302.18	JN	25	50	UN	RO			3	1	20	
AGR	302.47	JN	20	30	UN	RO			3	1	20	
AGR	303.96	JN	45	180	ST	SM			2	1	12	
AGR	304.84	JN	78	185	UN	RO			3	1	20	
AGR	305.81	JN	45	180	PL	SR			1	1	12	
AGR	306.24	JN	43	240	PL	RO			1	1	20	
AGR	306.34	JN	43	240	PL	RO			1	1	20	
SCH	306.53	JN	28	25	UN	SR	Ca		2	2	12	
SCH	306.59	JN	46	30	PL	SM	Ca		1	2	12	
AGR	307.41	JN	42	25	PL	SR	Ca		1	2	12	
AGR	308.86	JN	48	55	PL	SM	Ca		1	2	12	
AGR	308.91	JN	55	53	PL	SM	Ca		1	2	12	

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	Joint Descriptions											
Rock Type	Depth	Type	alpha	beta	Shape	Roughness	Infill Type	Infill Thickness	Jr	Ja	Jcon	Comments
	m		(°)	(°)								
AGR	310.07	VN	49	190	IR	RO	Qz	110mm	3	1	20	
AGR	311.24	JN	38	375	UN	SM	Ca		3	2	12	
AGR	311.45	JN	26	353	IR	SM	Ca		3	2	20	
AGR	311.75	JN	52	40	UN	RO	Ca		3	2	20	
AGR	312.02	JN	52	18	PL	SM	Ca		1	2	12	
AGR	312.26	JN	50	355	PL	SM	Ca,Py		1	3	12	
AGR	312.61	JN	44	185	PL	SM	Ca		1	2	12	
AGR	312.83	JN	55	10	IR	RO	Ca		3	2	20	
AGR	315.52	JN	27		UN	SM	Ca,Py		2	2	12	
AGR	315,69 à 315,89	Br	46		UN		Ca	2mm	4	4	25	
AGR	315.89	JN	45	330	PL	SM	Ca		1	2	12	
AGR	316.35	JN	48	325	PL	SM	Ca		1	2	12	
AGR	317.95	JN	42	200	PL	SR	Ca		1	2	12	
AGR	318.10	JN	75	30	UN	RO			1	1	20	
AGR	318.37	JN	38	200	PL	SM	Ca		1	2	12	
AGR	320.50	JN	50	190	PL	RO	Ca		1.5	2	20	
AGR	320.90	JN	37	305	UN	SM	Ca	<1mm	3	3	20	
AGR	321.29	JN	33	325	UN	SR	Ca		2	2	20	
AGR	321.86	JN	44	340	CU	SM	Ca		2	2	20	
AGR	322.88	JN	48	355	CU	RO	Ca		3	2	20	
AGR	323.51	JN	42	352	PL	SM	Ca		1	2	12	
AGR	323.60	JN	46	350	PL	SM	Ca		1	2	12	
AGR	323.66	JN	30	325	UN	SR	Ca		2	2	20	
AGR	323.81	JN	38	345	PL	SM	Ca		2	2	12	
AGR	325.07	JN	38	345	UN	SR			2	1	12	
AGR	325.49	JN	25	10	UN	SR	Py		2	1	20	
AGR	326.05	Br mec										
AGR	326.55	JN	52	185	PL	RO	Ca,Py		1.5	2	20	
AGR	326.67	JN	20	350	PL	SM	Ca		1	2	12	
AGR	326.82	JN	27	347	UN	SR	Ca		2	2	12	
AGR	327.31	JN	28	0	IR	RO	Ca		3	2	20	
AGR	327.90	JN	27	165	UN	RO	Ca		3	2	20	
AGR	328 to 328,27	Br,mec										
AGR	328.27	JN	18	355	UN	SR	Ca,Py		2	2	20	
AGR	328.45	JN	47	270	UN	RO	Ca		3	2	20	
AGR	328.96	JN	30	275	UN	SR	Ca,Py		2	2	12	
AGR	329.14	JN	26	280	UN	RO	Ca,Py		2	2	20	
AGR	329.20	JN	47	35	PL	SR	Ca		1	2	12	
AGR	329.39	JN	48	0	PL	SR	Ca,Qz		1	2	12	
AGR	329.49	JN	34	350	UN	SM	Ca	1mm	2	4	12	
AGR	329.77	JN	45	205	UN	SM	Ca	1mm	2	4	12	
AGR	330.80	JN	38	345	PL	SM	Ca	<1mm	1	2	12	
SCH	330.99	JN	37	340	UN	RO	Ca		3	2	20	
AGR	331.56	JN	18	25	UN	SR	Ca	2mm	3	2	20	
CGR	331.58	JN	38	8	ST	RO	Py,Ca		3	2	20	
AGR	333.21	JN	48	325	UN	SM	Py		2	1	12	
AGR	333.27	JN	37	327	PL	RO	Ca	<1mm	1.5	2	20	
AGR	333.33	JN	36	320	PL	SM	Ca		1	2	12	
AGR	333.76	JN	25	288	UN	SR			2	1	20	
AGR	335.20	VN	70	10	UN	RO	Qz,Py	2mm	3	1	20	
AGR	336.19	JN	45	195	PL	SM	Ca		1	2	12	
AGR	337.39	JN	35	175	UN	SR	Ca		2	2	12	
SCH	338.33	JN	53	12	PL	SM	Ca	1mm	1	2	12	
AGR	338.77	JN	56	32	UN	RO			3	2	20	
AGR	340.41	JN	34	210	PL	SM	Ca		1	2	12	
AGR	340.45	JN	40	340	PL	SM	Ca,Py		1	2	12	
AGR	340.59	JN	64	330	PL	SR			1	1	12	
AGR	341.46	JN	32	180	UN	RO	Py,Ca		3	2	20	
SCH	342.16	JN	64	345	UN	SR	Ca		2	2	20	
SCH	342.18	JN	62	15	PL	SM	Tc		1	2	12	
SCH	342.82	JN	65	0	UN	SM			2	1	20	
AGR	344.17	JN	34		UN	SR	Ca		2	2	20	
AGR	344.21	JN	28		PL	SR	Ca		1	2	12	
AGR	344.96	JN	17		UN	RO	Ca	<1mm	3	3	20	
CGR	346.12	JN	64		PL	RO	Ca		1.5	2	20	
AGR	348.21	JN	64		UN	RO	Ca		3	2	20	
AGR	348.30	JN	70		UN	RO	Ca		3	2	20	
AGR	348.34	JN	75		ST	RO	Ca		2	2	20	
AGR	349.71	JN	65		PL	SM	Ca		2	2	12	
AGR	349.80	JN	65		PL	SM	Ca		2	2	12	
AGR	350.36	JN	24		IR	RO			3	2	20	
AGR	351.24	JN	63		UN	SM	Ca		2	2	20	
AGR	352.07	JN	56		UN	SM	Ch,Ca		2	2	12	
AGR	352.22	JN	30		UN	SM	Ca		2	2	12	
AGR	352.45	JN	30		UN	RO	Ca,Ch,Py	<1mm	3	2	20	
AGR	353.21	JN	44		UN	RO	Ca,Py		3	2	20	
AGR	353.33	JN	52		UN	SR	Ca		2	2	20	
SCH	354.41	JN	47	200	PL	SM	Ca	<1mm	1	2	12	
SCH	354.46	JN	34	175	UN	SM	Ca	<1mm	2	2	20	
GAB	354.99	JN	46	165	UN	SR	Ca	<1mm	2	2	20	
GAB	355.25	JN	44	250	UN	SR	Ca,Cl	<1mm	2	2	20	
GAB	355.27	JN	71	160	PL	SM	Ca	<1mm	1	2	12	
GAB	355.57	JN	28	342	UN	SR	Ca	<1mm	2	2	20	
GAB	355.75	JN	55	120	IR	SR	Ca,Cl		2	2	20	
GAB	355.88	JN	26	300	PL	SR	Ca		2	2	20	
SCH	356.00	FO	51	120	CU	SM	Ca		2	2	20	
SCH	356.70	FO	61	180	UN	RO	Ca		3	2	20	
SCH	356.74	FO	57	185	UN	SM	Ca		2	2	20	
SCH	357.25	FO	40	330	CU	SR	Cl		2	4	12	
SCH	357.26	FO	58	330	CU	SR	Cl		2	4	12	
SCH	357.27	FO	50	350	CU	SR	Cl		2	4	12	
SCH	357.44	FO	53	24	PL	SR	Ca		1	2	12	
SCH	357.61	JN	38	0	PL	SR			1	1	12	
SCH	357.80	JN	75	180	PL	SR			1	1	12	
AGR	357.90	JN	70	80	UN	SR	Ca		2	2	20	

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	Joint Descriptions											
Rock Type	Depth	Type	alpha	beta	Shape	Roughness	Infill Type	Infill Thickness	Jr	Ja	Jcon	Comments
	m		(°)	(°)								
AGR	358.08	JN	40	190	IR	RO			3	1	20	
AGR	358.28	JN	35	10	PL	SR			1	1	12	
AGR	358.29	JN	60	20	PL	SM			1	1	12	
AGR	358.39	JN	37	170	PL	RO	Ca		1.5	2	20	
AGR	358.52	JN	30	170	PL	SR	Ca		1	2	12	
AGR	358.82	JN	34	356	PL	VR	Ca		1.5	2	20	
AGR	358.94	JN	67	160	IR	RO			3	1	25	
AGR	359.01	JN	54	360	PL	SM			1	1	12	
AGR	359.09	JN	54	350	PL	SM			1	1	12	
AGR	359.11	JN	35	164	PL	SR			1	1	12	
AGR	359.16	JN	58	160	ST	RO	Ca		3	2	20	
AGR	359.27	JN	50	164	ST	RO			3	1	20	
AGR	359.33	JN	52	358	PL	SM	Cl		1	4	12	
AGR	359.60	JN	31	160	PL	RO	Ca	1mm	1.5	3	20	
AGR	359.76	JN	48	0	PL	SM	Cl		1	4	12	
AGR	359.78	JN	46	4	PL	SM	Ca,Cl		1	4	12	
AGR	359.81	JN	52	358	PL	SM	Ca,Cl		1	4	12	
AGR	360.05	JN	34	150	UN	SM			3	1	20	
AGR	360.10	JN	40	180	PL	VR	Ca	<1mm	1.5	2	20	
AGR	360.45	JN	27	45	UN	SR	Ca	<1mm	2	2	20	
AGR	360.49	JN	63	160	UN	SR	Ca	<1mm	2	2	20	
AGR	360.55	JN	51	140	CU	RO	Ca	<1mm	3	2	20	
AGR	360.59	JN	50	320	ST	RO	Ca	<1mm	3	2	20	
AGR	360.60	JN	50	315	PL	SM			1	1	12	
SCH	360.72	JN	62	300	PL	SM			1	1	12	
SCH	360.80	JN	55	320	PL	SM			1	1	12	
AGR	360,85 to 361	BC mec										
AGR	361.12	JN	59		UN	RO	Ca		3	2	20	
AGR	361.33	JN	40		UN	SR			2	2	12	
AGR	361.40	JN	70		UN	RO			2	1	20	
AGR	361.43	JN	80	250	IR	SR	Ca		2	2	20	
AGR	361.51	JN	90		IR	RO			3	1	20	
AGR	361.55	JN	80	80	UN	RO			3	2	20	
AGR	361.61	JN	76	300	CU	RO	Ca		3	2	20	
AGR	361.62	JN	75	110	CU	RO	Ca		3	2	20	
AGR	361.67	JN	72	210	PL	SM			1	1	12	
AGR	361.74	JN	79	180	CU	SR	Ca		2	2	20	
AGR	361.86	JN	45	200	UN	SR	Ca		2	2	12	
AGR	362.16	JN	73	225	UN	SR	Ca		2	2	12	
AGR	362.31	JN	70	240	PL	SM			1.5	1	12	
AGR	362.33	JN	79	300	PL	SR			1.5	1	12	
CGR	362.41	JN	73	230	CU	SR	Ca		2	2	12	
CGR	362.46	JN	65	330	UN	SR			2	1	12	
CGR	362.48	JN	70	340	UN	SR	Ca		2	2	12	
CGR	362.49	JN	66	350	UN	RO	Ca		3	2	20	
AGR	363.36	JN	72	350	PL	SM			1	1	12	
CGR	364.44	VN	70	340	PL	RO	Qz,He	10mm	1.5	2	20	
AGR	365.56	JN	39	35	PL	SR	Ca	<1mm	1	2	12	
AGR	367.24	JN	32	168	PL	SR			1	1	12	
AGR	367.58	JN	56	350	UN	RO	Ca		3	2	20	
AGR	368.09	JN	45	196	UN	RO	Ca		3	2	20	
SCH	368.12	JN	40	340	UN	SM			1.5	1	12	
SCH	368.30	JN	47	340	PL	RO			1.5	1	20	
SCH	368.40	JN	38	180	PL	RO			1.5	1	20	
AGR	368.47	JN	65	290	UN	SR			2	1	20	

Hole GT07-05	Osisko Project		07-1221-0028		Azimuth	180		Dip	-70														Hardness and Weathering		
Run #	From	To	Interval	Rock type	Recovery	TCR (%)	RQD	RQD	SCR	SCR	Fracture/0.25m												Fracts/run	Fracts/m	Jn	Strength	Weath
	m	m			m		m	%	m	%																	
1	3.00	6.00	3.00	SCH	3.05	102	2.60	87	2.52	83	1	2	3	0	2	0	0	1	1	1	0	0	11	3.67	6.0	R3	
2	6.00	9.00	3.00	CGR	3.00	100	2.27	76	1.76	59	1	1	5	2	2	25	25	1	1	1	0	0	64	21.33	9.0	R4	2
3	9.00	12.00	3.00	CGR	3.03	101		0		0	1	1	1	0	1	1	2	25	1	25	0	0	58	19.33	6.0	R4	2
4	12.00	15.00	3.00	CGR	3.02	101	2.88	96	2.48	82	1	0	0	0	1	0	0	0	1	2	2	1	8	2.67	4.0	R4	1
5	15.00	18.00	3.00	CGR	2.99	100	2.99	100	2.99	100	1	0	0	0	0	0	0	0	0	0	1	0	2	0.67	0.5	R5	1
6	18.00	21.00	3.00	CGR	2.94	98	2.74	91	2.69	91	0	0	1	2	1	2	0	0	1	0	1	0	8	2.67	4.0	R5	1
7	21.00	24.00	3.00	CGR	3.03	101	2.21	74	1.96	65	1	0	0	4	0	1	2	3	1	0	0	4	16	5.33	12.0	R5	1
8	24.00	27.00	3.00	CGR	2.93	98	2.65	88	2.63	90	2	0	0	1	1	2	1	0	1	0	0	0	8	2.67	6.0	R5	1
9	27.00	30.00	3.00	CGR	3.00	100	2.70	90	2.60	87	1	1	1	1	0	1	1	0	0	0	0	0	6	2.00	6.0	R5	1
10	30.00	33.00	3.00	CGR	3.00	100	1.81	60	1.59	53	0	2	3	0	25		25	25	2	1	2	0	85	28.33	6.0	R5	1
11	33.00	36.00	3.00	SGR	3.00	100	1.33	44			1	1	1	2	2	1	0	1	1	1	1	1	13	4.33	6.0	R4	1
12	36.00	39.00	3.00	REMGR		0		0											0	2	2	0	4	1.33	BC		1
13	39.00	42.00	3.00	REMGR	2.70	90	1.26	42	1.54	57	1	1	1	1	1	25	25	25	25	1	1	1	108	36.00	BC	R4	1
14	42.00	45.00	3.00	REMGR	3.01	100	2.84	95	2.88	96	1	2	0	1	0	1	0	0	0	0	0	0	5	1.67	3.0	R4	1
15	45.00	48.00	3.00	REMGR	3.03	101	2.86	95	2.72	90	1	3	0	0	1	2	1	0	0	1	0	1	10	3.33	4.0	R4	1
16	48.00	51.00	3.00	SGR	3.00	100	2.66	89	2.58	86	0	1	2	1	1	1	1	0	1	1	0	0	9	3.00	4.0	R5	1
17	51.00	54.00	3.00	SGR	2.99	100	2.94	98	2.82	94	0	1	0	0	0	0	0	0	1	0	0	0	2	0.67	2.0	R5	1
18	54.00	57.00	3.00	CGR	2.95	98	1.72	57	1.84	62	0	2	4	4	4	0	1	1	1	4	2	0	23	7.67	4.0	R4	1
19	57.00	60.00	3.00	CGR	2.81	94	2.42	81	2.42	86	2	1	1	3	2	0	1	0	2	1	1	0	14	4.67	4.0	R4	1
20	60.00	63.00	3.00	CGR	3.09	103	2.91	97	2.69	87	0	0	0	1	2	3	1	0	0	1	1	0	9	3.00	3.0	R5	1
21	63.00	66.00	3.00	SGR	2.96	99	2.77	92	2.59	88	0	0	0	0	0	1	1	0	0	0	1	2	5	1.67	3.0	R5	1
22	66.00	69.00	3.00	CGR	3.03	101	2.85	95	2.74	90	1	2	1	0	0	2	1	0	1	0	0	0	8	2.67	6.0	R6	1
23	69.00	72.00	3.00	CGR	3.04	101	2.84	95	2.70	89	1	0	1	0	0	0	1	4	2	1	0	0	10	3.33	6.0	R5	1
24	72.00	75.00	3.00	AGR	2.89	96	2.73	91	2.39	83	0	0	1	0	1	1	1	1	3	2	1	0	11	3.67	3.0	R5	1
25	75.00	78.00	3.00	AGR	3.03	101	2.70	90	2.84	94	0	0	1	1	1	1	1	1	1	1	0	0	8	2.67	3.0	R5	1
26	78.00	81.00	3.00	AGR	2.90	97	1.50	50	1.66	57	0	1	0	0	2	3	1	25	3	1	2	0	38	12.67	4.0	R4	1
27	81.00	84.00	3.00	AGR	3.05	102	1.25	42	1.62	53	0	1	1	25	25	0	1	0	2	3	25	0	83	27.67	4.0	R4	1
28	84.00	87.00	3.00	AGR	2.90	97	2.88	96	2.30	79	1	2	0	1	0	1	1	1	1	0	1	0	9	3.00	4.0	R5	1
29	87.00	90.00	3.00	CGR	3.10	103	2.98	99	2.85	92	0	0	0	0	0	1	0	2	0	2	0	1	6	2.00	4.0	R5	1
30	90.00	93.00	3.00	CGR	3.04	101	2.70	90	2.64	87	1	0	0	0	0	0	2	1	1	2	0	1	8	2.67	4.0	R5	1
31	93.00	96.00	3.00	CGR	3.10	103	2.70	90	2.55	82	0	3	1	0	1	1	1	1	0	0	1	0	9	3.00	4.0	R5	1
32	96.00	99.00	3.00	SGR	2.97	99	2.97	99	2.94	99	0	0	0	0	1	0	0	0	0	0	0	0	1	0.33	0.5	R4	1
33	99.00	102.00	3.00	CGR	3.02	101	1.25	42	1.90	63	0	3	4	1	0	1	1	1	1	1	2	1	16	5.33	20.0	R4	1
34	102.00	105.00	3.00	CGR	3.02	101	1.13	38	1.42	47	1	2	1	0	2	1	1	1	3	1	0	0	13	4.33	6.0	R4	1
35	105.00	108.00	3.00	AGR	3.04	101	2.00	67	2.15	71	0	0	1	1	1	2	2	0	2	3	0	1	13	4.33	6.0	R4	1
36	108.00	111.00	3.00	AGR	2.99	100	2.29	76	1.77	59	0	0	0	0	1	2	2	1	2	2	2	0	12	4.00	6.0	R4	1
37	111.00	114.00	3.00	AGR	2.85	95	2.58	86	2.39	84	1	1	0	0	0	0	1	2	2	3	1	0	11	3.67	6.0	R5	1
38	114.00	117.00	3.00	AGR	3.00	100	2.40	80	2.00	67	0	1	0	0	3	2	1	0	1	3	0	0	11	3.67	6.0	R5	1
39	117.00	120.00	3.00	AGR	3.02	101	2.91	97	2.62	87	0	0	0	1	2	1	0	0	1	0	1	1	7	2.33	4.0	R5	1
40	120.00	123.00	3.00	AGR	2.92	97	2.79	93	2.40	82	0	0	0	1	1	1	1	0	1	2	0	1	8	2.67	3.0	R5	1

Hole GT07-05	Osisko Project		07-1221-0028		Azimuth	180		Dip	-70														Hardness and Weathering		
Run #	From	To	Interval	Rock type	Recovery	TCR (%)	RQD	RQD	SCR	SCR	Fracture/0.25m												Fracts/run	Fracts/m	Jn	Strength	Weath
	m	m			m		m	%	m	%																	
41	123.00	126.00	3.00	AGR	3.04	101	2.21	74	1.97	65	1	3	3	3	3	0	2	3	0	1	1	1	21	7.00	3.0	R5	1
42	126.00	129.00	3.00	AGR	3.01	100	2.92	97	2.85	95	1	0	2	0	0	1	0	0	1	1	0	0	6	2.00	4.0	R5	1
43	129.00	132.00	3.00	AGR	3.01	100	2.45	82	2.39	79	1	1	1	1	0	2	1	2	2	1	1	1	14	4.67	4.0	R5	1
44	132.00	135.00	3.00	AGR	3.10	103	2.66	89	2.49	80	1	1	1	0	0	0	1	0	1	3	1	0	9	3.00	3.0	R5	1
45	135.00	138.00	3.00	AGR	3.01	100	2.61	87	2.63	87	0	0	0	0	1	2	0	1	1	1	3	0	9	3.00	4.0	R5	1
46	138.00	141.00	3.00	AGR	3.02	101	1.82	61	2.09	69	1	1	1	3	1	2	2	0	2	1	1	3	18	6.00	4.0	R5	1
47	141.00	144.00	3.00	AGR	3.00	100	2.46	82	2.26	75	1	2	0	2	2	2	1	2	0	1	0	1	14	4.67	4.0	R5	1
48	144.00	147.00	3.00	AGR	3.02	101	2.95	98	2.90	96	0	0	0	1	0	1	1	1	2	0	0	1	7	2.33	2.0	R6	1
49	147.00	150.00	3.00	AGR	3.00	100	2.92	97	2.74	91	2	0	1	0	1	0	2	0	0	1	0	0	7	2.33	3.0	R6	1
50	150.00	153.00	3.00	AGR	2.98	99	2.90	97	2.70	91	1	0	2	0	0	1	0	1	1	0	0	1	7	2.33	6.0	R5	1
51	153.00	156.00	3.00	AGR	3.04	101	2.84	95	2.72	89	0	0	1	2	0	0	0	0	1	1	0	0	5	1.67	4.0	R5	1
52	156.00	159.00	3.00	AGR	2.99	100	2.90	97	2.75	92	1	0	0	0	0	1	0	1	1	0	1	2	7	2.33	4.0	R5	1
53	159.00	162.00	3.00	AGR	3.00	100	2.59	86	2.47	82	0	3	1	1	1	0	0	1	0	0	1	0	8	2.67	6.0	R5	1
54	162.00	165.00	3.00	AGR	3.04	101	2.77	92	2.59	85	1	2	4	0	1	1	0	0	0	0	0	0	9	3.00	4.0	R5	1
55	165.00	168.00	3.00	AGR	3.01	100	2.83	94	2.50	83	0	0	1	0	0	2	0	1	2	1	0	1	8	2.67	3.0	R5	1
56	168.00	171.00	3.00	AGR	2.80	93	2.66	89	2.22	79	1	1	0	1	1	2	3	0	1	1	2	0	13	4.33	6.0	R5	1
57	171.00	174.00	3.00	AGR	3.07	102	2.85	95	2.65	86	3	1	0	2	2	0	1	1	1	0	1	0	12	4.00	6.0	R5	1
58	174.00	177.00	3.00	AGR	3.09	103	2.80	93	2.66	86	0	0	0	0	0	1	3	0	3	0	4	0	11	3.67	3.0	R5	1
59	177.00	180.00	3.00	AGR	2.80	93	2.10	70	2.18	78	0	1	2	1	2	3	2	2	0	2	2	0	17	5.67	6.0	R5	1
60	180.00	183.00	3.00	AGR	3.07	102	2.94	98	2.81	92	0	0	0	0	1	0	0	0	0	2	0	3	6	2.00	3.0	R5	1
61	183.00	186.00	3.00	AGR	3.09	103	2.97	99	2.66	86	2	0	0	0	0	0	1	0	1	1	2	0	7	2.33	4.0	R5	1
62	186.00	189.00	3.00	AGR	3.07	102	2.63	88	2.25	73	0	0	2	1	2	0	2	2	1	2	2	0	14	4.67	6.0	R5	1
63	189.00	192.00	3.00	AGR	3.01	100	2.88	96	2.62	87	1	0	1	2	0	0	0	1	0	1	1	0	7	2.33	3.0	R5	1
64	192.00	195.00	3.00	AGR	3.04	101	3.04	101	2.98	98	0	0	0	0	1	0	0	0	1	0	0	0	2	0.67	0.5	R5	1
65	195.00	198.00	3.00	AGR	2.95	98	2.95	98	2.95	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.0	R5	1
66	198.00	201.00	3.00	AGR	3.05	102	3.05	102	3.05	100	0	0	0	2	0	0	0	0	0	0	0	0	2	0.67	0.5	R5	1
67	201.00	204.00	3.00	AGR	3.09	103	3.09	103	3.05	99	0	1	0	0	0	0	0	0	2	0	0	0	3	1.00	2.0	R5	1
68	204.00	207.00	3.00	AGR	3.05	102	2.90	97	2.73	90	0	0	0	0	2	1	0	1	0	0	0	1	5	1.67	4.0	R5	1
69	207.00	210.00	3.00	AGR	2.97	99	2.95	98	2.63	89	0	1	1	0	1	0	0	1	1	1	0	0	6	2.00	4.0	R5	1
70	210.00	213.00	3.00	AGR	3.00	100	2.99	100	2.96	99	0	0	0	1	0	0	1	1	0	0	0	0	3	1.00	3.0	R5	1
71	213.00	216.00	3.00	AGR	3.00	100	3.00	100	2.94	98	0	1	0	0	0	1	0	0	0	0	1	0	3	1.00	2.0	R4	1
72	216.00	219.00	3.00	AGR	3.00	100	2.98	99	2.89	96	0	0	0	1	0	0	0	0	1	0	0	1	3	1.00	3.0	R5	1
73	219.00	222.00	3.00	AGR	3.04	101	3.00	100	2.80	92	0	0	0	0	0	0	1	1	0	1	1	1	5	1.67	2.0	R5	1
74	222.00	225.00	3.00	AGR	3.00	100	2.80	93	2.70	90	1	0	0	0	1	0	0	1	1	0	0	2	6	2.00	3.0	R5	1
75	225.00	228.00	3.00	AGR	3.05	102	2.87	96	3.01	99	0	0	3	0	0	1	0	0	0	0	0	0	4	1.33	3.0	R5	1
76	228.00	231.00	3.00	AGR	3.01	100	2.97	99	2.83	94	1	1	0	0	0	1	0	0	0	0	0	0	3	1.00	2.0	R5	1
77	231.00	234.00	3.00	AGR	2.96	99	2.91	97	2.66	90	0	0	2	1	1	0	0	0	1	0	1	0	6	2.00	4.0	R5	1
78	234.00	237.00	3.00	AGR	2.96	99	2.47	82	2.38	80	0	2	1	1	0	0	0	0	0	1	4	25	34	11.33	4.0	R5	1
79	237.00	240.00	3.00	AGR	3.03	101	2.60	87	2.58	85	2	0	1	1	1	0	1	1	1	0	0	3	11	3.67	9.0	R5	1
80	240.00	243.00	3.00	AGR	3.03	101	3.00	100	2.80	92	0	2	0	0	0	1	0	1	0	0	1	0	5	1.67	4.0	R5	1

Hole GT07-05	Osisko Project		07-1221-0028		Azimuth	180		Dip	-70														**Hardness and Weathering**		
Run #	From	To	Interval	Rock type	Recovery	TCR (%)	RQD	RQD	SCR	SCR	Fracture/0.25m											Fracts/run	Fracts/m	Jn	Strength	Weath
	m	m			m		m	%	m	%																
81	243.00	246.00	3.00	AGR	3.01	100	2.98	99	2.94	98	1	1	1	1	2	1	3	2	3	1	1	3	20	6.67	6.0	R5	1
82	246.00	249.00	3.00	AGR	3.02	101	2.10	70	2.17	72	1	1	1	1	2	1	3	2	3	1	1	3	20	6.67	12.0	R5	1
83	249.00	252.00	3.00	AGR	3.00	100	2.90	97	2.90	97	0	0	0	2	0	0	0	0	1	0	1	0	4	1.33	3.0	R5	1
84	252.00	255.00	3.00	AGR	3.05	102	3.05	102	2.90	95	0	1	0	1	0	0	0	0	1	1	0	1	5.00	1.67	4.0	R5	1
85	255.00	258.00	3.00	AGR	2.97	99	2.90	97	2.85	96	0	2	0	0	1	0	2	1	0	0	0	0	6.00	2.00	3.0	R5	1
86	258.00	261.00	3.00	AGR	3.00	100	3.00	100	2.84	95	0	1	0	1	1	0	0	0	0		0	0	3.00	1.00	3.0	R5	1
87	261.00	264.00	3.00	AGR	2.95	98	2.95	98	2.80	95	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.5	R5	1
88	264.00	267.00	3.00	AGR	3.00	100	2.83	94	2.45	82	0	0	0	2	1	0	1	2	2	0	0	0	8.00	2.67	4.0	R5	1
89	267.00	270.00	3.00	AGR	2.88	96	2.73	91	2.87	100	0	1	0	0	1	0	0	0	0	0	1	1	4.00	1.33	3.0	R5	1
90	270.00	273.00	3.00	AGR	3.08	103	2.69	90	2.35	76	2	1	1	0	2	0	2	0	2	2	3	0	15	5.00	4.0	R5	1
91	273.00	276.00	3.00	AGR	3.10	103	2.95	98	2.73	88	1	0	0	1	1	1	2	1	0	0	1	0	8	2.67	6.0	R5	1
92	276.00	279.00	3.00	AGR	2.93	98	2.93	98	2.70	92	0	1	1	1	0	0	0	1	0	0	1	0	5	1.67	4.0	R5	1
93	279.00	282.00	3.00	AGR	3.04	101	3.04	101	3.00	99	0	1	0	0	1	0	0	0	0	0	0	0	2	0.67	0.5	R5	1
94	282.00	285.00	3.00	AGR	3.00	100	2.93	98	2.86	95	0	1	1	0	1	1	0	0	0	0	0	0	4	1.33	3.0	R5	1
95	285.00	288.00	3.00	AGR	3.03	101	2.93	98	2.77	91	0	0	0	1	1	0	3	1	1	1	0	0	8.00	2.67	4.0	R5	1
96	288.00	291.00	3.00	AGR	3.04	101	2.92	97	2.84	93	0	1	0	0	0	1	3	1	0	0	0	0	6.00	2.00	3.0	R5	1
97	291.00	294.00	3.00	AGR	2.99	100	2.88	96	2.74	92	0	1	0	1	0	0	0	0	3	0	0	0	5.00	1.67	3.0	R5	1
98	294.00	297.00	3.00	AGR	3.15	105.00	2.58	86	2.80	89	0	1	0	0	0	1	0	1	1	0	0	1	5.0	1.67	3.0	R5	1
99	297.00	300.00	3.00	AGR	0.00	0.00		0		#DIV/0!	1	1	1	1	0	0	0	0	0	0	0	0	4.0	1.33	2.0	R3	1
100	300.00	303.00	3.00	AGR	3.05	101.67	3.03	101	2.99	98	0	0	0	1	0	0	0	0	0	0	0	0	1.0	0.33	0.5	R5	1
101	303.00	306.00	3.00	AGR	2.95	98.33	2.75	92	2.76	94	0	0	0	0	0	0	3	0	1	1	1	0	6.0	2.00	3.0	R5	1
102	306.00	309.00	3.00	AGR	3.00	100.00	2.57	86	2.09	70	0	0	1	0	1	2	1	2	2	25	2	0	36.0	12.00	4.0	R5	1
103	309.00	312.00	3.00	AGR	2.96	98.67	2.80	93	2.49	84	1	1	0	0	1	1	1	1	0	0	1	1	8.0	2.67	6.0	R5	1
104	312.00	315.00	3.00	AGR	3.13	104.33	2.91	97	2.70	86	0	2	1	0	3	0	1	0	1	1	0	0	9.0	3.00	4.0	R5	1
105	315.00	318.00	3.00	AGR	3.05	101.67	3.05	102	3.09	101	0	0	0	0	0	0	0	0	0	1	1	0	2.0	0.67	0.5	R5	1
106	318.00	321.00	3.00	AGR	2.95	98.33	2.87	96	2.77	94	1	0	0	1	0	0	2	0	0	0	0	0	4.0	1.33	6.0	R5	1
107	321.00	324.00	3.00	AGR	3.07	102.33	3.05	102	2.89	94	0	0	0	1	1	1	2	1	0	0	0	0	6.0	2.00	4.0	R5	1
108	324.00	327.00	3.00	AGR	3.00	100.00	2.89	96	2.77	92	2	0	0	0	0	0	0	0	0	1	1	1	5.0	1.67	2.0	R5	1
109	327.00	330.00	3.00	AGR	2.97	99.00	2.57	86	2.52	85	0	1	0	2	3	1	0	1	0	0	0	1	9.0	3.00	6.0	R5	1
110	330.00	333.00	3.00	AGR	3.08	102.67	2.64	88	2.21	72	1	0	1	2	1	0	2	1	1	1	1	2	13.0	4.33	4.0	R5	1
111	333.00	336.00	3.00	AGR	3.06	102.0	3.1	102.0	2.44	80	1	1	0	3	1	1	0	0	0	1	0	0	8.0	2.67	6.0	R5	1
112	336.00	339.00	3.00	AGR	2.80	93.33	2.60	86.67	2.29	81.79	0	0	0	1	2	3	0	1	1	0	0	0	8	2.67	6	R5	1
113	339.00	342.00	3.00	AGR	3.07	102.33	2.65	88.33	2.29	74.59	2	3	0	1	0	2	2	2	1	0	0	1	14	4.67	6.0	R5	1
114	342.00	345.00	3.00	SPO	2.90	96.67	2.47	82.33	2.24	77.24	0	0	1	2	1	1	0	0	0	1	1	0	7	2.33	3.0	R4	1
115	345.00	348.00	3.00	AGR	2.94	98.00	2.74	91.33	2.35	79.93	1	2	1	1	2	0	1	2	2	1	0	0	13	4.33	6.0	R5	1
116	348.00	351.00	3.00	AGR	3.02	100.67	2.77	92.33	2.44	80.79	2	1	2	0	1	1	1	0	0	0	0	0	8	2.67	4.0	R5	1
117	351.00	354.00	3.00	AGR	2.98	99.33	2.84	94.67	2.66	89.26	0	0	0	1	1	0	0	0	0	1	2	0	5	1.67	3.0	R5	1
118	354.00	357.0	3.00	AGR	2.81	93.67	2.32	77.33	2.36	83.99	2	3	0	0	3	0	0	0	0	0	0	0	8	2.67	4.0	R5	1
119	357.00	360.0	3.00	AGR	3.13	104.33	2.85	95.00	2.58	82.43	1	1	3	0	1	0	1	0	2	3	1	0	13	4.33	4.0	R5	1
120	360.00	363.0	3.00	AGR	3.05	101.67	3.08	102.67	2.20	72.13	0	1	1	0	1	0	1	2	0	1	1	0	8	2.67	9.0	R5	1

Hole GT07-05	Osisko Project		07-1221-0028		Azimuth	180		Dip	-70														**Hardness and Weathering**		
Run #	From	To	Interval	Rock type	Recovery	TCR (%)	RQD	RQD	SCR	SCR	Fracture/0.25m												Fracts/run	Fracts/m	Jn	Strength	Weath
	m	m			m		m	%	m	%																	
121	363.00	366.0	3.00	AGR	3.06	102.00	3.06	102.00	2.93	95.75	0	1	0	1	0	0	0	0	0	0	1	1	4	1	3.0	R5	1
122	366.00	369.0	3.00	AGR	3.08	102.67	3.08	102.67	2.82	91.56	0	0	1	3	1	2	0	0	0	0	0	0	7	2	3.0	R5	1
123	369.00	372.0	3.00	AGR	3.01	100.33	3.01	100.33	2.86	95.02	0	0	0	0	1	1	0	0	0	0	0	0	2	1	0.5	R5	1
124	372.00	375.0	3.00	AGR	3.02	100.67	2.97	99.00	2.63	87.09	0	0	1	1	0	1	2	0	1	0	0	0	6	2	3.0	R5	1
125	375.00	378.0	3.00	AGR	3.00	100.00	2.80	93.33	2.70	90.00	0	0	0	1	0	0	2	1	0	2	2	0	8	3	3.0	R5	1
126	378.00	381.0	3.00	AGR	3.01	100.33	2.85	95.00	2.42	80.40	1	0	0	0	2	1	0	1	2	2	1	1	11	4	4.0	R5	1

HOLE GT07-05		Osisko Project		07-1221-0028		Azimuth	180	Dip	-70			
					Joint Descriptions							
Rock Type	Depth	Type	alpha	beta	Shape	Roughness	Infill Type	Infill Thickness	Jr	Ja	Jcon	Comments
	m		(°)	(°)								
SCH	3.13	JN	33		PL	SM	Ca,Ch		1	2	12	
SCH	3.43	JN	66		ST	RO	Ca		3	1	20	
SCH	3.5	FO	36		PL	SR	M	<1mm	2	1	12	
SCH	3.52	FO	36		PL	SR	M	<1mm	1	3	12	
SCH	3.6	FO	27		PL	SR	Ca,Sa	>1mm	1	2	12	
SCH	3,68 à 3,74		Roc broyée				trace M/Cl					
SCH	3.74	Vein										
SCH	4.00	FO	45		UN	SR	Ca/Mn	<1mm	3	1	12	
SCH	4.15	FO	27	14	CU	SR	Ca/Mn	<1mm	3	1	12	
AGR	4.8	JN	82	330	UN	SR	Ca		1	1	12	
AGR	5.04	JN	81	220	PL	SR			1	1	20	
AGR	5.5	JN	42	70	ST	SM	Ca	<1mm	2	2	20	
CGR	6.18	JN	84	85	UN	RO			1	3	20	
CGR	6.31	JN	48	200	PL	SM	Ca	<1mm	1	2	12	
CGR	6.53	JN	80		CU	SR	Ca	<1mm	2	2	20	
CGR	6.55	JN	83	30	UN	SR	Ca	<1mm	1	1	12	
CGR	6.61	JN	35	20	PL	SM			1	1	12	
CGR	6.68	JN	37	20	UN	SM	Ca	<1mm	2	2	20	
CGR	6.74	JN	45		UN	SR			1	2	20	
CGR	6.81	JN	65		CU	RO		<1mm	3	1	20	
CGR	6.87	JN	60		PL	SM			1	1	12	
CGR	7.02	JN	32		PL	SR			1.5	1	12	
CGR	7.24	JN	32		UN	SR	Py,Ch,Ca		2	2	20	
CGR	7.39	JN	47		UN	SR	Ch	<1mm	2	2	20	
CGR	7.58	JN	39		UN	SR	Sr	<1mm				
CGR	7.91	FO	40		UN	SM	Ca	<1mm	2	2	20	
CGR	8.25	JN	20	328	UN	SR	Ca		1	2	12	
CGR	8.32	JN	37	15	UN	RO			1	3	20	
SGR	9.15	JN	20	205	PL	RO			1	3	20	
SGR	9.45	JN	75	145	UN	SR	Ca	<1mm	2	2	20	
SGR	9.7	JN	62	15	PL	SR	Ca	<1mm	1	2	12	
SGR	10	JN	46	180	CU	RO	Ca	<1mm	3	2	20	
CGR	10.35	JN	70	350	UN	SR	Ca	<1mm	2	2	20	
CGR	10.52	JN	67	330	PL	SR	Ca	<1mm	1	2	12	
CGR	10.61	JN	86	240	ST	SR	Ca	<1mm	2	2	20	
CGR	10.81	JN	58	210	ST	RO	Ca	<1mm	3	2	20	
CGR	10.98	JN	45		PL	SR	Ca	<1mm	1	2	12	
CGR	11.06	JN	54		ST	SR	Ca	<1mm	2	2	20	
CGR	11.42	JN	57		UN	SR	Ca	<1mm	2	2	12	
CGR	12.15	JN	46	70	UN	SM			2	1	20	
CGR	13.14	JN	40	65	PL	SM	Ca		1	2	12	
CGR	14.08	FO	30	55	PL	SM			1	1	12	
CGR	14.26	FO	22	35	PL	SM			1	1	12	
CGR	14.33	JN	80	200	ST	SR			2	1	20	
CGR	14.54	FO	16	40	ST	SR			2	1	20	
CGR	14.64	JN	65	90	PL	RO	Py		1.5	1	20	
CGR	14.92	JN	71	215	PL	SM	Ca	2mm	1	3	6	
CGR	15.12	JN	68	120	IR	RO	Vn		3	1	25	
CGR	17.6	JN	74		PL	RO			1.5	1	20	
CGR	18.74	JN	79	30	PL	SR			1	1	12	
CGR	18.82	JN	75	210	PL	SR	Ca		1	2	12	
CGR	18.89	JN	76	210	UN	SR			2	1	20	
CGR	19.11	FO	37	40	PL	SR	Ca,Py	<1mm	1	2	12	
CGR	19.25	FO	38	45	UN	SR			2	1	20	
CGR	19.3	VN	40	55	UN	SR	Ca,Qz	<1mm	2	2	20	
CGR	20.12	JN	55	50	CU	RO			3	1	20	
CGR	20.23	JN	44	45	PL	SM	Ca	<1mm	1	2	12	
CGR	21.17	JN	35	52	PL	SM	Ca	<1mm	1	2	12	
CGR	21.76	JN	78	180	PL	RO			2	1	20	
CGR	21.85	JN	74	150	ST	SR			1	2	20	
CGR	21.93	JN	39	20	PL	SM	Ca	<1mm	1	2	12	
CGR	21.96	JN	83	180	CU	SR	Ca	<1mm	1	2	20	
SCH	22.42	SH	18	20	CU	SM	Ca,Cl	<1mm	2	3	12	
SCH	22.57	SH	18	30	CU	SM	Ca,Cl	<1mm	2	5	12	
SCH	22.65	FLT	15	30	UN	SM	Mn, Ca,Cl,	5 mm	1	4	6	
SCH	22.75	SH	15	30	UN	SM	Ca,Cl,	<1mm	2	3	12	
SCH	22.8	JN	42	40	UN	SM	Ca	<1mm	2	2	20	
SCH	22.93	JN	20	42	UN	SM	Ca,Cl	<1mm	2	2	20	
CGR	23.03	JN	68	10	ST	RO	Ca		3	2	20	
CGR	23.77	JN	62	120	UN	RO			3	1	20	
CGR	23.8	JN	35	30	PL	SR	Ca		1	2	12	
CGR	23.97	JN	40	40	PL	SR	Ca		1	2	12	
CGR	23.98	JN	72	40	UN	RO			3	1	20	
CGR	24.05	JN	60	30	UN	RO			3	1	20	
CGR	24.15	JN	40	35	UN	SR	Ca	<1mm	2	2	20	
CGR	24.79	JN	77	90	UN	RO			3	1	20	
CGR	25.09	JN	72	240	UN	RO			3	1	20	
CGR	25.32	JN	76	255	PL	SR	Ca		1	2	12	
CGR	25.40	JN	64	40	UN	SM	Ca		2	2	20	
CGR	25.52	JN	69	260	PL	RO	Ca	<1mm	2	2	20	

HOLE GT07-05		Osisko Project		07-1221-0028		Azimuth	180	Dip	-70			
	Joint Descriptions											
Rock Type	Depth	Type	alpha	beta	Shape	Roughness	Infill Type	Infill Thickness	Jr	Ja	Jcon	Comments
	m		(°)	(°)								
CGR	26.08	JN	74	250	PL	SM	Ca	<1mm	1	2	12	
CGR	27.11	JN	55	250	ST	RO			3	1	25	
CGR	27.49	VN	32	30	PL	SM	Qz		1	1	12	
CGR	27.66	JN	32	35	PL	SM			1	1	12	
CGR	27.95	JN	53	280	PL	RO			1.5	1	20	
CGR	28.47	JN	30	40	PL	SR	Ca		1	2	12	
CGR	28.7	JN	40	0	UN	RO			3	1	20	
CGR	30.32	JN	44	130	CU	SM	Ca	<1mm	2	2	20	
CGR	30.47	JN	36	340	PL	SM	Ca	<1mm	1	2	12	
CGR	30.52	JN	58	330	PL	SM	Ca	<1mm	1	2	12	
CGR	30.7	JN	73	90	UN	RO			3	1	20	
CGR	30.75	JN	48	310	ST	SM	Ca		2	2	20	
CGR	31.66	JN	34		PL	SM	Ca,Cl		1	2	12	
CGR	32.07	JN	16	60	ST	SM			2	1	20	
CGR	32.23	JN	72	210	IR	VR			3	1	25	
CGR	32.39	JN	54	250	UN	SR	Qz,Ca		2	2	20	
CGR	32.60	JN	39	90	UN	SM	Ca		3	1	20	
CGR	32.74	JN	42	75	UN	RO			3	1	20	
SGR	33.17	JN	53	350	UN	SR			2	1	12	
SGR	33.27	JN	41	350	PL	RO			1.5	1	2	
SGR	33.63	JN	35	30	UN	RO			3	1	20	
SGR	33.76	JN	50	30	PL	RO	Ca	<1mm	1.5	2	20	
SGR	33.78	JN	53	350	PL	RO	Ca	<1mm	1.5	2	20	
SGR	34.06	JN	45	330	PL	SR			1	1	12	
SGR	34.17	JN	60	2	PL	SR			1	1	12	
SGR	34.45	JN	longitudinal,				Ca	<1mm				
SGR	34.75	JN	57	284	PL	SR	Qz	<1mm	1	2	12	
REMGR	35.18	JN	50	350	IR	RO			3	1	20	
REMGR	35.27	JN	51	60	UN	RO			3	1	20	
REMGR	35.37	JN	63	30	PL	RO			1.5	1	20	
REMGR	35.77	JN	73	20	CU	SR			2	1	20	
REMGR	36-37	Broken Mec			Lost core							
REMGR	38.32	JN	20	0	PL	RO	Ca	1mm	1.5	2	25	
REMGR	38.34	JN	66	185	PL	SR	Ep		1	2	20	
REMGR	38.5	JN	68	180	PL	RO	Ep		1	2	20	
REMGR	38.71	JN	74	130	UN	RO	Fe		3	2	20	
REMGR	39.25	JN	66		PL	RO	Fe,Ca	<1mm	1.5	2	20	
REMGR	39.5	JN	60		IR	RO			3	1	20	
REMGR	39.58	JN	60		PL	RO	Ca,Fe		1.5	2	20	
REMGR	39.75	JN	63		IR	SR	Ca,Fe	<1mm	2	2	20	
REMGR	40 à 40,3	JN	BC									
REMGR	40.4	JN	73		UN	SR	Fe		3	2	20	
REMGR	40,4 à 41,3	BC/LC										
REMGR	41.57	JN	73	140	UN	SR	Sa	<1mm	2	2	20	
REMGR	41.77	JN	77	120	UN	SR			2	1	20	
REMGR	42.22	JN	76		UN	SR			2	1	20	
REMGR	42.28	JN	83	160	UN	SR	Ep	<1mm	2	2	20	
REMGR	42.43	JN	80	60	UN	SR			2	1	20	
REMGR	42.82	JN	38	80	ST	RO	Qz		3	2	20	
REMGR	43.35	JN	75	150	PL	RO			1.5	1	20	
REMGR	45.13	JN	60	190	PL	RO			1.5	1	20	
REMGR	45.32	JN	54	220	PL	RO			1.5	1	20	
REMGR	45.35	JN	71	130	PL	RO			1.5	1	20	
REMGR	45.48	JN	80	100	PL	RO			1.5	1	20	
REMGR	46.03	JN	40	194	PL	SR			1	1	12	
REMGR	46.26	JN	80	150	IR	SR			2	1	20	
REMGR	46.45	JN	51		PL	RO	Qz		1.5	2	20	
REMGR	47.38	JN	90		IR	RO	Qz		3	2	20	
REMGR	47.89	JN	64	330	PL	RO			1.5	1	20	
SGR	48.47	JN	46		PL	RO	Ca	<1mm	1.5	2	20	
SGR	48.65	JN	70		UN	RO	Fe		3	1	20	
SGR	48.75	JN	52		CU	RO	Ca	<1mm	3	2	12	
SGR	48.93	JN	43		PL	SR			1	1	12	
SGR	49.08	JN	85		CU	SR			2	1	20	
SGR	49.40	JN	45		ST	RO			3	1	20	
SGR	49.59	JN	20		CU	VR	Ca		3	2	25	
SGR	50.13	JN	48		PL	SR	Ca		1	2	12	
SGR	50.48	JN	58		CU	RO	Ca		3	2	20	
SGR	51.35	JN	31		CU	SR	Ca		2	2	20	
SGR	53.1	JN	32		PL	SR	Py,Ca		1	2	12	
SGR	54.42	JN	41	278	PL	SR	Ca		1	2	12	
SGR	54.5	JN	30	290	UN	SR	Ca		2	2	12	
SGR	54.53	JN	50	290	UN	SR			2	1	12	
SGR	54.58	JN	55	270	PL	RO			1.5	1	20	
SGR	54.64	JN	43	330	PL	SR	Ca		1	2	12	
SGR	54.68	JN	32	60	CU	SR	Ca		2	2	20	
SGR	54.76	JN	40	320	CU	SR	Ca		2	2	20	
SGR	54.78	JN	45	330	CU	SR	Ca		2	2	20	
SGR	54.8	JN	45	280	CU	SR	Ca		2	2	20	
SGR	54.89	JN	29		PL	SM	Ca		1	2	12	

HOLE GT07-05		Osisko Project		07-1221-0028		Azimuth	180	Dip	-70			
	Joint Descriptions											
Rock Type	Depth	Type	alpha	beta	Shape	Roughness	Infill Type	Infill Thickness	Jr	Ja	Jcon	Comments
	m		(°)	(°)								
CGR	55.02	JN	17	180	UN	SR			2	1	20	
CGR	55.05	JN	52	200	UN	SR	Ca		2	2	20	
CGR	55.14	JN	57	280	PL	RO	Ca		1.5	2	20	
CGR	55.22	JN	67	225	PL	RO	Ca		3	2	20	
CGR	55.63	JN	74		UN	RO			3	1	20	
CGR	55.79	JN	50		UN	RO			3	1	20	
CGR	56.02	JN	77	60	CU	RO			3	1	20	
CGR	56.29	JN	44	258	PL	VR			1.5	1	20	
CGR	56.31	JN	69	60	UN	RO			3	1	20	
CGR	56.36	JN	54	35	UN	RO	Ca		3	2	20	
CGR	56.4	JN	52	160	PL	SR	Ca		1	2	12	
CGR	56.6	JN	58	180	PL	SR	Ca		1	2	12	
CGR	57.05	JN	54	230	UN	RO	Ca		3	3	20	
CGR	57.25	JN	68	320	PL	SR	Ca		1	2	12	
CGR	57.3	JN	53	310	PL	SM	Ca		1	2	12	
CGR	57.71	JN	68	190	PL	RO			1.5	1	20	
CGR	57.78	JN	60	280	PL	SM	Ca		1	2	12	
CGR	57.83	JN	20	60	PL	SR			1	1	12	
CGR	57.93	JN	50	80	UN	RO			3	1	20	
CGR	58.01	JN	65	270	PL	RO			1.5	1	20	
CGR	58.23	JN	80	220	PL	SR			1	1	12	
CGR	58.74	JN	56	240	PL	RO			1.5	1	20	
CGR	59.2	JN	40	60	UN	SM			2	1.5	20	
CGR	59.24	JN	50	60	UN	SR	Ca		2	2	20	
CGR	59.28	JN	47	20	CU	SM	Ca		2	2	20	
CGR	59.42	JN	63	10	PL	RO			1.5	1	20	
CGR	60.99	JN	90		CU	RO	Ch		3	2	20	
CGR	61.08	JN	43		PL	SM	Py,He		1	2	12	
CGR	61.28	JN	60		PL	RO	Ca		1.5	2	20	
CGR	61.31	JN	59		PL	SR	Ca		1	2	12	
CGR	61.42	JN	46		PL	VR	Sa,He		1	2	20	
CGR	61.45	JN	46		PL	VR	He,Ch		1.5	2	20	
CGR	61.74	JN	38		PL	SM	Ca		1	2	12	
CGR	62.38	JN	38		PL	SM	Ca		1	2	12	
CGR	62.59	JN	62		PL	RO	Ca		1.5	2	20	
SGR	64.41	JN	54		PL	SM	Ca		1	2	12	
SGR	64.66	JN	54		UN	SM	Ca		2	2	20	
SGR	65.7	JN	34		PL	SM	Ca,Sr		1	2	12	
SGR	65.76	JN	28		UN	SM	Ca,Sr		1	2	20	
SGR	65.96	FO	22		PL	RO	Ca		1.5	2	20	
SGR	66.12	FO	35		PL	SR	Ca	<1mm	1	2	12	
SGR	66.28	FO	32		UN	SR	Ca	<1mm	2	2	20	
SGR	66.48	FO	33		PL	SR	Ca		1	2	12	
CGR	66.59	JN	74		PL	RO	Ca		1.5	2	20	
CGR	67.31	JN	65		IR	RO			3	1	25	
CGR	37.39	JN	70	60	IR	RO			3	1	25	
CGR	67.7	JN	65		IR	RO			3	1	25	
CGR	68.22	VN	66		IR	RO			3	1	25	
CGR	69.04	JN	66		PL	RO			1.5	1	20	
CGR	69.59	JN	64		PL	SR			1	1	12	
CGR	70.58	FO	52		PL	SR	Ca		1	2	12	
CGR	70.86	FO	50		PL	SR	Ca		1	2	12	
CGR	70.87	FO	56		PL	SR	Ca		1	2	12	
CGR	70.88	FO	50		PL	SR	Ca		1	2	12	
CGR	70.89	FO	50		PL	SR	Ca		1	2	12	
CGR	71.04	FO	54		PL	RO	Ca		1.5	2	20	
CGR	71.14	JN	20		CU	SR	Ca		2	2	20	
CGR	71.45	JN	46		IR	VR	Ca		3	1	25	
AGR	72.69	JN	60		IR	RO			3	1	20	
AGR	73.06	JN	64		PL	RO	Ca		1.5	2	20	
AGR	73.47	VN	44		PL	SM	Ca		1	2	12	
AGR	73.60	JN	32		PL	SM	Ca		1	2	12	
AGR	73.89	JN	55		IR	RO			3	1	20	
AGR	74.05	JN	35		PL	RO			1.5	1	20	
AGR	74.05	JN	55		PL	RO			1.5	1	20	
AGR	74.19	JN	60		IR	RO			3	1	20	
AGR	74.38	FO	25		PL	SR	Ca		1	2	12	
AGR	74.48	FO	45		CU	RO	Ca		3	2	20	
AGR	74.59	VN	72		IR	RO			3	1	20	
AGR	75.57	JN	58	170	PL	RO			1.5	1	12	
AGR	75.84	JN	68	270	PL	RO	Ca		1.5	2	12	
AGR	76.16	JN	42	40	PL	SR	Ca		1	2	12	
AGR	76.35	JN	80	300	CU	RO	Ca		3	2	20	
AGR	76.65	JN	70	160	PL	SR	Ca		1	2	12	
AGR	76.92	JN	70	160	ST	RO	Ca		3	2	20	
AGR	77.01	JN	70	120	PL	RO	Ca		1.5	2	20	
AGR	77.17	JN	70	180	IR	RO	Ca		3	2	20	
AGR	78.34	JN	70	0	PL	SR			1	1	12	
AGR	79.04	JN	55	32	PL	SM	Ca		1	2	12	
AGR	79.25	JN	15	0	UN	RO	He,Ch		3	2	20	

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						Joint Descriptions						
Rock Type	Depth	Type	alpha	beta	Shape	Roughness	Infill Type	Infill Thickness	Jr	Ja	Jcon	Comments
	m		(°)	(°)								
AGR	79.34	JN	47	20	PL	SR			1	1	12	
AGR	79.4	JN	43	40	PL	SR			1	1	12	
AGR	79.5	JN	25		IR	RO			3	1	20	
AGR	79.6	BC	80									
AGR	80.04	JN	43	30	IR	RO	Ca		3	2	20	
AGR	80.24	JN	45	310	CU	RO			3	2	20	
AGR	80.32	JN	36	40	PL	SR	Ca		1.5	2	20	
AGR	80.36	JN	58	190	PL	SR	Ca,He		1	2	12	
AGR	80.63	JN	51	50	PL	SR	Ca		1	2	12	
AGR	80.92	JN	72	0	PL	SM			1	1	12	
AGR	81.34	JN	55		PL	RO	Ca		1.5	2	20	
AGR	81.44	JN	35		CU	SR	Ca	<1mm	2	2	20	
AGR	81.51	JN	38		IR	RO	Ca,He	<1mm	3	2	20	
AGR	81.77	JN	38		UN	SR	Ca,Sr		2	2	20	
AGR	81,9 à 82	BC										
AGR	82,08 à 82	BC										
AGR	82.61	JN	60		PL	RO			1.5	1	20	
AGR	83.04	JN	30		PL	RO	Ca	<1mm	1.5	4	12	
AGR	83.14	JN	33		PL	RO	Mn	<1mm	1.5	3	12	
AGR	83.28	JN	35		PL	SR	Mn,Ca	<1mm	1	3	12	
AGR	83.4	JN	36		PL	SR	Mn,Ca	<1mm	1	3	12	
AGR	83,45 à 83	BC										
AGR	83.65	JN	26		CU	SM	Ca	<1mm	2	2	20	
AGR	84.13	JN	37	134	PL	SR	Ca	<1mm	1	2	12	
AGR	84.3	JN	57	350	CU	SR	Ca		2	2	20	
AGR	84.35	JN	69	310	PL	RO	Ca	<1mm	1.5	2	20	
AGR	84.96	JN	50	3	CU	RO	Ca,Qz,He	<1mm	3	2	20	
AGR	85.43	JN	36	140	PL	SR	Ca	<1mm	0.5	2	6	
AGR	85.6	JN	71	320	PL	RO	Ca	<1mm	1.5	2	12	
AGR	85,82 à 85	JN			IR	VR			3	2	20	
AGR	85.98	JN	42	110	PL	SR	Ca	<1mm	1	2	12	
AGR	86.14	JN	60	310	PL	RO	He,Ca		1.5	2	20	
AGR	86.74	JN	33	150	UN	SR	Ca		2	2	20	
CGR	88.98	JN	70	60	PL	RO	Ca,Qz	<1mm	1.5	2	20	
CGR	88.84	JN	68	320	PL	SR	Qz	<1mm	1	2	12	
CGR	88.90	JN	74	330	UN	RO	Ca	<1mm	3	2	20	
CGR	89.30	JN	25	150	PL	SR	Ca	<1mm	1	2	12	
CGR	89.44	JN	80	280	PL	SR	Ca		1	2	12	
CGR	89.6	JN	47	44	PL	SM			1	1	12	
CGR	90.23	JN	70	190	PL	RO			1.5	1	20	
CGR	91.62	JN	50	230	ST	RO			3	1	20	
CGR	91.71	JN	50	234	CU	RO			3	1	20	
CGR	91.97	JN	68	320	PL	RO			1.5	1	20	
CGR	92.11	JN	74	170	IR	RO	Ca,Qz	<1mm	3	2	20	
CGR	92.27	JN	65	180	PL	SR	Ca		1	2	12	
CGR	92.46	JN	33	0	UN	RO			3	1	20	
CGR	92.87	JN	60	272	PL	RO	Ca,He	<1mm	1.5	2	20	
CGR	93.3	JN	28	0	CU	SR	Ca	<1mm	2	2	20	
CGR	93.4	JN	28	342	UN	RO	Ca,Mn	<1mm	3	2	12	
CGR	93.45	JN	35	340	IR	RO	Ca,Mn	<1mm	3	3	12	
CGR	93.53	JN	38	0	IR	RO	Ca,Mn	<1mm	3	3	12	
CGR	94.25	JN	40	0	PL	SR	Ca		1	2	12	
CGR	94.33	JN	24	332	PL	VR	Ca		1.5	2	20	
CGR	94.65	JN	75	270	UN	RO	Ca		3	2	20	
CGR	94.96	JN	77	0	UN	RO			3	1	20	
CGR	95.63	JN	67	224	PL	RO	Qz	25mm	1.5	2	20	
SCR	97.13	JN	47	60	PL	SM	Ca	<1mm	1	2	12	
SCR	99.29	JN	67	210	PL	RO	Qz,Ca	<1mm	1.5	2	20	
SCR	99.31	JN	63	200	PL	RO	Qz,Ca	<1mm	1.5	2	12	
SCR	99.46	VN	78		PL	RO	Qz	10mm	3	2	20	
SCR	99.52	JN	42		PL	RO	Ca	<1mm	1.5	2	20	
SCR	99.61	JN	77		PL	RO	Ca	<1mm	1.5	2	20	
SCR	99.65	JN	66		PL	SR	Ca	<1mm	1	2	12	
SCR	99.75	JN	70		PL	SR	Ca	<1mm	1	2	12	
CGR	99.9	JN	18		PL	RO	Ca	<1mm	1	2	20	
CGR	100.3	JN	18		ST	SR	Ca		2	2	20	
CGR	100.66	JN	78		PL	RO	Ca		1.5	2	20	
CGR	100.75	JN	67		UN	SR	Ca	<1mm	2	2	20	
CGR	101.15	JN	36		UN	RO	Ca	<1mm	3	2	20	
CGR	101.44	JN	26		PL	RO	Ca,Sr		1.5	2	20	
CGR	101,6 à 10	BC										
CGR	101.8	JN	20		PL	SR	Ca		1	2	12	
CGR	102.06	JN	68		PL	RO	Qz	2mm	1.5	2	20	
CGR	102.25	JN	55		CU	SR			2	1	20	
CGR	102.34	JN	35		UN	RO	Ca	<1mm	3	2	20	
CGR	102.65	JN	24		CU	RO	Ca	<1mm	3	2	20	
CGR	103.05	JN	30		UN	RO	Ca,He	<1mm	3	2	20	
CGR	103.16	JN	35		PL	RO	Ca	<1mm	1.5	2	20	
CGR	103.5	JN	52		IR	RO	Ca	<1mm	3	2	20	
CGR	103.7	JN	18		UN	RO	Ca	<1mm	3	2	20	

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	Joint Descriptions											
Rock Type	Depth	Type	alpha	beta	Shape	Roughness	Infill Type	Infill Thickness	Jr	Ja	Jcon	Comments
	m		(°)	(°)								
CGR	3,78 à 104	BC mec?										
CGR	104.14	JN	65		PL	RO	Ca	<1mm	1.5	2	20	
CGR	104.2	JN	67		CU	SR	Ca	<1mm	2	2	20	
CGR	104,4 à 105	BC										
AGR	105.74	JN	45	150	IR	RO	Ca	<1mm	3	2	20	
AGR	105.84	JN	45	0	CU	RO	Ca,He	<1mm	3	2	20	
AGR	106.01	JN	57	40	CU	SR			2	1	20	
AGR	106.31	JN	45	20	CU	RO	Ca	<1mm	3	2	20	
AGR	106.4	JN	77	0	PL	SR	Ca	<1mm	1	2	12	
AGR	106.59	JN	26	0	UN	RO	Ca	<1mm	3	2	20	
AGR	106.62	JN	22	29	PL	RO	Ca,Mn	<1mm	1.5	3	12	
AGR	107.09	JN	60	10	UN	SR			3	1	20	
AGR	107.12	JN	55	10	CU	SR	Ca	<1mm	2	2	20	
AGR	107.26	JN	50	40	PL	SR	Ca,Mn	<1mm	1.5	2	12	
AGR	107.4	JN	40	340	PL	RO	Ca		1.5	2	20	
AGR	107,45 à 1	BC										
AGR	107.97	JN	25	155	PL	RO	Ca	<1mm	1.5	2	20	
AGR	109.2	JN	32	90	UN	SR	Ca		3	2	20	
AGR	109.31	JN	44	105	PL	RO	Ca		1.5	2	20	
AGR	109.45	JN	57	265	PL	RO	Ca	<1mm	1.5	2	20	
AGR	109.62	JN	55	265	PL	RO	Ca		1.5	2	20	
AGR	109.72	JN	45	125	PL	SM	Ca	<1mm	1	2	12	
AGR	109.89	JN	69	270	PL	RO	Ca	<1mm	1.5	2	20	
AGR	110.04	JN	46	140	PL	SR	Ca	<1mm	1	2	12	
AGR	110.25	JN	46	170	PL	RO	Ca	<1mm	1.5	2	20	
AGR	110.36	JN	55	280	PL	VR	Ca		1.5	1	20	
AGR	110.48	JN	42	105	PL	RO	Ca		1.5	2	20	
AGR	110.55	JN	55	105	PL	RO	Ca		1.5	2	20	
AGR	110.71	JN	60	320	PL	SR	Ca		1	2	12	
AGR	111.12	JN	45	160	PL	RO			1.5	1	20	
AGR	111.43	JN	39	150	UN	RO			3	1	20	
AGR	112.55	JN	55	20	IR	RO			3	1	25	
AGR	112.83	JN	44	140	CU	RO			3	1	20	
AGR	112.98	JN	60	190	PL	RO			1.5	1	20	
AGR	113.01	JN	60	240	PL	RO	Ca		1.5	2	12	
AGR	113.07	JN	57	246	UN	RO	Ca		3	2	20	
AGR	113.29	FO	40	20	UN	SR	Ca	1mm	2	2	20	
AGR	113.34	JN	62	190	PL	SM	Ca,Ep		1	2	12	
AGR	113.42	JN	43	30	UN	SM	Ca,He		2	2	12	
AGR	113.57	FO	48	15	UN	RO	Ca		3	2	20	
AGR	114.46	JN	62	190	CU	RO			3	1	20	
AGR	115	JN	45	46	PL	RO			1.5	1	20	
AGR	115.1	JN	33	45	CU	RO	Ca		3	2	20	
AGR	115.17	JN	38	205	IR	RO	Ca		3	2	20	
AGR	115.26	JN	29	200	PL	RO	Ca		1.5	2	20	
AGR	115.44	VN	90		CU	RO			3	1	20	
AGR	115.55	JN	57	100	CU	SM		20mm	2	1	20	
AGR	116	JN	60		PL	SM			1	1	12	
AGR	116.25	JN	15		UN	RO	Ca		3	2	20	
AGR	116.35	JN	62		PL	SM	Ca		1	3	12	
AGR	116.47	JN	63		PL	SR	Ca		1	3	12	
AGR	117.98	JN	45	40	PL	RO	Ca	1mm	1.5	2	20	
AGR	118.11	JN	44	40	PL	SM	Ca		1	2	12	
AGR	118.2	JN	47	170	UN	RO			3	1	20	
AGR	118.34	JN	60	60	UN	RO			3	1	20	
AGR	119.11	JN	37	80	PL	SM			1	1	12	
AGR	119.61	JN	57	180	ST	SR	Ca		2	2	20	
AGR	119.93	JN	30	110	UN	SM	Ca		2	2	20	
AGR	120.97	FO	50	25	PL	SM			1	1	12	
AGR	121.16	FO	49	25	UN	SM			2	1	20	
AGR	121.46	FO	47	30	PL	SM	Py		1	1	12	
AGR	121.58	JN	90		IR	VR	Py		3	1	25	
AGR	122.13	FO	45	40	PL	SR	Py		1	1	12	
AGR	122.28	FO	47	40	PL	SM			1	1	12	
AGR	122.34	JN	55	300	UN	VR	Ca,Qz	2mm	3	3	6	
AGR	122.84	JN	43	70	PL	SR	Ca,Sr		1	2	12	
AGR	123.07	JN	42	90	PL	SR	Ca		1	2	12	
AGR	123.26	JN	46	105	CU	SR	Ca		1	2	12	
AGR	123.33	JN	47	70	PL	PO	Cl		1	4	6	
AGR	123.41	JN	42	70	CU	SM	Ca,Cl		1	4	12	
AGR	123.51	JN	45	40	CU	SM	Cl,Ca		1	4	12	
AGR	123.64	JN	53	75	PL	SM	Cl,Ca		1	4	12	
AGR	123.75	VN	65	270	PL	SM	Cl,Ca,Qz	40mm	1	4	12	
AGR	123.79	JN	51	50	PL	SM	Ca		1	2	12	
AGR	123.88	JN	51	70	ST	SM	Ca		2	2	20	
AGR	123.95	JN	46	40	PL	PO	Ca		1	2	6	
AGR	124.05	JN	48	70	ST	SM	Ca		2	2	20	
AGR	124.12	JN	57	37	CU	SR			2	1	20	
AGR	124.21	JN	55	100	CU	SM			2	1	20	
AGR	124.67	FO	44	10	ST	SM			2	1	20	

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						Joint Descriptions						
Rock Type	Depth	Type	alpha	beta	Shape	Roughness	Infill Type	Infill Thickness	Jr	Ja	Jcon	Comments
	m		(°)	(°)								
AGR	124.71	FO	50	70	PL	SM			1	1	12	
AGR	124.83	FO	35	70	PL	SM			1	1	12	
AGR	124.99	FO	32	0	PL	PO			1	1	6	
AGR	125.36	JN	53	35	ST	SR	Py		2	1	20	
AGR	125.62	VN	53	290	CU	SM	Ca,Qz	30mm	2	2	20	
AGR	125.64	JN	55	225	CU	RO			3	1	20	
AGR	126.2	JN	37		CU	RO	Ca		3	2	20	
AGR	126.58	JN	90		UN	RO			3	1	20	
AGR	126.68	JN	79		UN	RO			3	1	20	
AGR	127.49	JN	32		PL	SR	Ca		1	2	12	
AGR	128.07	VN	68		UN	RO	Ca		3	2	20	
AGR	128.45	JN	56		CU	RO			3	2	20	
AGR	129.09	JN	34		PL	SR	Fe		1	2	12	
AGR	129.47	JN	50		PL	SM			1	1	12	
AGR	129.6	JN	45		PL	SM			1	1	12	
AGR	129.91	JN	58		PL	SR	Fe		1	2	12	
AGR	130.3	JN	58		PL	RO	Ca	<1mm	1	2	20	
AGR	130.39	JN	58		PL	SR	Ca,Fe	<1mm	0.5	2	6	
AGR	130.74	JN	51		PL	SM	Fe,Ca	<1mm	1	2	12	
AGR	130.89	JN	38		PL	RO	Ca	<1mm	1.5	2	20	
AGR	130.97	JN	55		ST	RO			3	1	20	
AGR	131.2	JN	55		PL	SR			1	1	12	
AGR	131.24	JN	50		CU	RO			3	1	20	
AGR	131.47	JN	61		PL	SR			1	1	12	
AGR	131.57	JN	60		PL	RO			1.5	1	20	
AGR	131.8	JN	22		UN	RO	Ca		3	2	20	
AGR	132.25	VN	58	280	PL	SR	Qz	5mm	1	2	20	
AGR	132.4	JN	40	70	PL	RO	Fe,Ca	<1mm	1.5	2	20	
AGR	132.64	JN	58	60	PL	SM			1	1	12	
AGR	133.61	JN	61	190	CU	RO			3	1	20	
AGR	134.07	JN	35	0	UN	RO	Ca,Qz	<1mm	3	2	20	
AGR	134.31	JN	46	14	PL	SR	Fe	<1mm	0.5	2	6	
AGR	134.39	JN	46	10	PL	SR	Fe	<1mm	1	2	12	
AGR	134.46	JN	44	10	PL	SM	Fe	<1mm	1	2	12	
AGR	134.57	JN	40	60	IR	RO	Fe		3	2	20	
AGR	135,18 à 1	VN	78		PL	SR	Qz	170mm	1	2	12	
AGR	136.14	JN	34	44	PL	RO			1.5	1	20	
AGR	136.36	JN	25	240	CU	RO			3	1	20	
AGR	136.44	VN	68	240	PL	SR	Qz	2mm	1.5	1	12	
AGR	136.87	JN	33	340	PL	RO	Ca	<1mm	1.5	2	20	
AGR	137.07	JN	64	190	PL	RO			1.5	1	20	
AGR	137.43	JN	38	350	PL	RO			1.5	1	20	
AGR	137.51	JN	44	244	PL	RO			1.5	1	20	
AGR	137.59	JN	38	346	PL	SR			1	1	20	
AGR	137.63	JN	35	0	PL	SM	Ca	<1mm	1	2	12	
AGR	138.17	JN	38	330	PL	SR			1	1	12	
AGR	138.3	JN	43	330	PL	SR	Fe	<1mm	1	2	12	
AGR	138.46	JN	78	244	PL	RO	Ca,Fe	<1mm	1.5	2	20	
AGR	138.79	JN	40	0	PL	SM	Ca	<1mm	1	2	12	
AGR	138.9	JN	76	210	PL	RO			1.5	1	20	
AGR	138.95	JN	63	160	PL	RO			1.5	1	20	
AGR	139.2	JN	35	0	UN	RO	Ca	<1mm	3	2	20	
AGR	139.3	JN	43	0	PL	RO	Ca,He	<1mm	1.5	2	20	
AGR	139.45	JN	42	0	PL	SM	Ca	<1mm	1	2	12	
AGR	139.56	JN	41	350	PL	RO		<1mm	1.5	1	20	
AGR	139.65	JN	33	0	PL	RO	Ca	<1mm	1.5	2	20	
AGR	140.11	JN	47	160	PL	SM	Ca,He		1	2	12	
AGR	140.2	JN	44	10	CU	RO	Ca		3	2	20	
AGR	140.32	JN	45	14	IR	RO	Tc,Ca	1mm	3	4	12	
AGR	140.62	JN	62	340	PL	SR	Fe	<1mm	1	2	12	
AGR	140.76	JN	67	340	PL	RO	Ca		1.5	2	20	
AGR	140.83	JN	62	340	PL	SM	Fe		1	2	12	
AGR	140.98	JN	57	0	PL	SM			1	1	12	
AGR	141.21	JN	47	344	PL	SM	Fe		1	2	12	
AGR	141.31	JN	55	340	PL	SR			1	1	12	
AGR	141.44	JN	48	0	PL	SR	Ca,Fe		1	2	12	
AGR	141.88	JN	45	0	UN	SR	Ca,Fe	<1mm	2	2	20	
AGR	141.96	JN	33	0	PL	SR	Ca	<1mm	1	2	12	
AGR	142.05	JN	56	180	PL	SR			1	1	12	
AGR	142.19	JN	51	0	PL	RO	Ca	<1mm	1.5	2	20	
AGR	142.4	JN	42	15	PL	RO	Ca,Fe	<1mm	1.5	4	12	
AGR	142.45	JN	35	0	UN	RO	Ca,Tc	<1mm	3	4	12	
AGR	142.71	JN	50	194	PL	RO	Ca		1.5	2	20	
AGR	142.78	JN	75	50	UN	RO	Ca	<1mm	3	2	20	
AGR	142.88	JN	42	44	PL	SR	Ca		1	2	12	
AGR	143.45	JN	41	40	UN	SR	Ca	<1mm	2	2	20	
AGR	143.79	JN	43	30	UN	RO	Ca	<1mm	3	2	20	
AGR	144.97	JN	70	220	PL	RO	Ca	<1mm	1.5	2	20	
AGR	145.44	JN	75	130	PL	RO	Ca	<1mm	1.5	2	20	
AGR	145.7	JN	80	180	CU	SR	Ca	<1mm	2	2	20	

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					Joint Descriptions							
Rock Type	Depth	Type	alpha	beta	Shape	Roughness	Infill Type	Infill Thickness	Jr	Ja	Jcon	Comments
	m		(°)	(°)								
AGR	145.88	JN	75	70	PL	SR	Ca	<1mm	1	2	12	
AGR	146.02	JN	85	40	PL	RO	Ca		1.5	2	20	
AGR	146.13	JN	47	0	PL	SR	Ca,Tc		1	4	12	
AGR	146.9	JN	65	20	PL	RO			1.5	1	20	
AGR	147.17	JN	52	0	PL	SR	Ca	<1mm	1	2	12	
AGR	147.2	JN	43	350	PL	SR			1	1	12	
AGR	147.65	JN	48	20	UN	SR	Ca	<1mm	2	2	20	
AGR	148.07	JN	54	10	ST	SR			2	1	20	
AGR	148.7	JN	37	20	CU	SR	Ca,Tc		3	4	20	
AGR	148.75	JN	39	40	PL	SR			1	1	12	
AGR	149.47	JN	51	0	ST	RO	Ca,Ep	<1mm	3	2	20	
AGR	149.47	JN	51	0	ST	RO	Ca,Ep	<1mm	3	2	20	
AGR	150.2	JN	57	30	PL	RO			1.5	1	20	
AGR	150.57	JN	28	300	UN	RO	Ep	<1mm	3	2	20	
AGR	150.62	JN	38	10	PL	RO	Qz,Ca	<1mm	1.5	2	20	
AGR	151.46	JN	20	0	UN	SR	Ca	<1mm	2	2	20	
AGR	151.94	VN	45	70	PL	SR	Qz,Ca	20mm	1	2	12	
AGR	152.07	JN	46	262	PL	SR	Ca,Ep	<1mm	1	2	12	
AGR	152.86	JN	60	10	PL	RO			1.5	1	20	
AGR	153.66	JN	60	210	PL	VR	Ca	<1mm	1.5	2	20	
AGR	153.78	JN	62	10	IR	RO	Mn,Ca	<1mm	3	3	12	
AGR	153.89	JN	50	30	PL	RO			1.5	2	20	
AGR	155.03	JN	20	90	CU	RO	Sr	<1mm	3	2	20	
AGR	155.48	JN	51	50	PL	RO			1.5	1	20	
AGR	156.1	JN	60	270	PL	RO			1.5	1	20	
AGR	157.48	VN	62	310	PL	RO	Qz	2mm	1.5	2	20	
CGR	157.84	JN	45	60	IR	RO	Ca	<1mm	3	2	20	
AGR	158.25	JN	36	35	CU	RO	Ca	<1mm	3	2	20	
AGR	158.66	JN	36	130	UN	RO	Ca	<1mm	3	2	20	
AGR	158.9	JN	54	0	PL	SM			1	1	12	
AGR	158.99	JN	50	180	PL	SM			1	1	12	
AGR	159.31	JN	45	40	PL	RO	Ca	<1mm	1.5	2	20	
AGR	159.46	VN	65	180	PL	RO	Qz	2mm	1.5	2	20	
AGR	159.48	JN	50	180	PL	RO			1.5	1	20	
AGR	159.71	JN	25	0	PL	SR	Ca	<1mm	1	2	12	
AGR	159.84	JN	26	0	CU	RO	Fe		3	2	20	
AGR	160.16	JN	75	0	IR	RO			3	1	20	
AGR	160.78	JN	18	70	PL	RO			3	1	20	
AGR	161.69	JN	70	20	PL	RO			1.5	1	20	
AGR	162.15	JN	15	350	CU	RO	Fe,Ca		3	2	20	
AGR	162.4	JN	36	30	PL	RO	Ca		1.5	2	20	
AGR	162.47	JN	40	0	PL	RO			1.5	1	20	
AGR	162.67	JN	48	350	PL	RO	Mn	<1mm	1	3	12	
AGR	162.69	JN	48	350	PL	RO	Mn,Ca	<1mm	1	3	12	
AGR	162.72	JN	48	0	PL	RO	Mn,Ca	<1mm	1	3	12	
AGR	162.74	JN	36	350	PL	RO	Mn,Ca	<1mm	3	1	12	
AGR	163.09	JN	76	0	PL	RO	Mn,Ca	<1mm	1.5	2	20	
AGR	163.34	JN	72	350	UN	SR	Ca		2	2	20	
AGR	164.92	JN	15	350	PL	RO	Ca	<1mm	1.5	2	20	
AGR	165.79	JN	54	320	PL	RO	Qz	1mm	1.5	2	20	
AGR	166.29	JN	52	190	PL	RO			1.5	2	20	
AGR	166.34	JN	15	10	CU	RO	Ca	<1mm	3	2	20	
AGR	166.94	JN	50	24	PL	SM	Fe,Ca	<1mm	1	2	12	
AGR	167.14	JN	53	10	PL	SR	Fe,Ca	<1mm	0.5	2	6	
AGR	167.2	JN	53	180	PL	SM	Ca	<1mm	1	2	12	
AGR	167.39	JN	50	0	PL	SM	Ca	<1mm	1	2	12	
AGR	167.99	JN	54	340	PL	SR			1	1	12	
AGR	168.29	JN	22	5	PL	SR	Ca		1	2	12	
AGR	168.44	JN	80	325	CU	SM			2	1	20	
AGR	168.91	JN	59	35	PL	SR			1	1	12	
AGR	169	JN	59	45	PL	RO			1.5	1	20	
AGR	169.37	JN	25	20	IR	RO			3	1	25	
AGR	169.46	JN	48	20	IR	RO			3	1	20	
AGR	169.59	JN	75	100	UN	RO	Ca		3	2	20	
AGR	169.66	JN	60	30	UN	RO			3	1	20	
AGR	169.72	JN	59	30	CU	RO			3	1	20	
AGR	170.08	JN	68	25	PL	SM	Py		1	1	12	
AGR	170.32	JN	60	20	UN	SR			2	1	20	
AGR	170.56	JN	29	5	PL	RO	Ca		1.5	2	20	
AGR	170.71	JN	32	60	UN	RO			3	1	20	
AGR	171.07	JN	32	355	UN	RO	Ca		3	2	20	
AGR	171.16	JN	45	5	PL	SM	Ca		1	2	12	
AGR	171.25	JN	56	50	PL	SR			1	1	12	
AGR	171.36	JN	55	280	PL	RO			1.5	1	20	
AGR	171.78	JN	64	60	ST	SR			2	1	20	
AGR	171.82	JN	69	230	PL	RO	Py		1.5	1	20	
AGR	172.14	JN	64	50	ST	SR			1	2	20	
AGR	172.16	JN	61	10	CU	SM			2	1	20	
AGR	172.61	JN	65	50	PL	SR	Py		1	1	12	
AGR	172.76	JN	62	35	PL	RO	Py		1.5	1	20	

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						Joint Descriptions						
Rock Type	Depth	Type	alpha	beta	Shape	Roughness	Infill Type	Infill Thickness	Jr	Ja	Jcon	Comments
	m		(°)	(°)								
AGR	173.02	JN	50	15	PL	RO			1.5	1	20	
AGR	173.69	VN	20	225	UN	RO	Qz		2	2	20	
AGR	175.4	JN	62	30	PL	SR	Py		2	2	20	
AGR	175.56	JN	64	0	PL	RO	Ca		1.5	2	20	
AGR	175.61	JN	60	15	PL	RO	Py		1.5	1	20	
AGR	175.73	JN	62	0	ST	SR	Ca		2	2	20	
AGR	176.05	JN	64	350	PL	SR			1	1	12	
AGR	176.2	JN	71	150	PL	RO			1.5	1	20	
AGR	176.24	JN	60	5	UN	RO			3	1	20	
AGR	176.51	JN	56	60	IR	RO			3	1	20	
AGR	176.61	JN	59	0	UN	RO			3	1	20	
AGR	176.67	JN	16	0	UN	RO	Ca		3	2	20	
AGR	176.67	JN	43	0	UN	SR			2	1	20	
AGR	177.51	JN	20	210	UN	RO	Ca		3	1	20	
AGR	177.74	JN	47	40	UN	RO			3	2	20	
AGR	177.82	JN	60	285	UN	RO	Ca		3	2	20	
AGR	177.92	JN	36	35	CU	RO	Ca		3	2	20	
AGR	178.21	JN	71	190	IR	RO	Ca		3	2	20	
AGR	178.25	JN	67	190	PL	RO			1.5	1	20	
AGR	178.32	JN	80	190	PL	RO			3	1	20	
AGR	178.41	JN	56	290	UN	RO			3	1	20	
AGR	178.46	VN	68	220	UN	RO	Qz	30mm	3	2	20	
AGR	178.58	JN	75	130	ST	SR	Qz		2	2	20	
AGR	178.7	JN	59	190	PL	SR	Ep		1.5	2	12	
AGR	178.75	JN	68	345	PL	SR			1.5	1	12	
AGR	178.87	JN	56	325	PL	RO			1	1	20	
AGR	179.37	JN	77	160	PL	RO			1.5	1	20	
AGR	179.46	JN	57	0	PL	SR			1	1	12	
AGR	179.54	JN	29	335	CU	SR	Ca		2	2	20	
AGR	179.62	JN	57	28	UN	RO	Ca		3	2	20	
AGR	181.04	VN	90		IR	RO	Qz	60mm	3	2	20	
AGR	182.27	JN	65	215	IR	SR			2	1	20	
AGR	182.42	JN	45	345	PL	SM			1	1	12	
AGR	182.82	JN	59	180	PL	SR			1	1	12	
AGR	182.83	JN	58	190	PL	RO			1.5	1	20	
AGR	182.98	JN	41	310	PL	SR	Ca		1	2	12	
AGR	183.16	JN	69	190	PL	SM			1	1	12	
AGR	183.19	JN	34	300	PL	RO	Ca		3	2	20	
AGR	184.61	JN	75	50	ST	SM			2	1	20	
AGR	184.71	JN	80	15	PL	RO			1.5	2	20	
AGR	185.22	JN	65	190	PL	RO	Ca		1.5	2	20	
AGR	185.32	JN	27	330	PL	RO	Ca		1.5	2	20	
AGR	185.62	JN	75	190	ST	RO			3	1	20	
AGR	185.72	JN	24	350	CU	SR	Ca		2	2	20	
AGR	186.51	JN	53	25	PL	SR			1	1	12	
AGR	186.57	JN	90		IR	RO			1.5	2	20	
AGR	186.98	JN	75	180	PL	RO	Ca		1.5	2	20	
AGR	187.06	JN	75	5	UN	RO	Ca		3	2	20	
AGR	187.28	JN	35	75	UN	RO	Ca		3	2	20	
AGR	187.7	JN	76	200	PL	RO	Ca		1.5	2	20	
AGR	187.72	JN	30	35	PL	SR	Ca		1	2	12	
AGR	187.78	JN	36	10	ST	SR	Ca,Cl		2	4	20	
AGR	187.84	JN	73	190	PL	RO	Ca,Cl		1.5	2	20	
AGR	188.01	JN	35	0	UN	SR	Ca	1mm	2	2	20	
AGR	188.31	JN	90	35	PL	RO	Ca		1.5	2	20	
AGR	188.42	JN	35	30	PL	RO	Ca		1.5	2	20	
AGR	188.52	JN	38	45	UN	RO	Ca,Mn	4mm	2	4	6	
AGR	188.65	JN	37	45	UN	SR	Ca,Mn		2	4	6	
AGR	189.4	JN	40	40	PL	SR	Ca,Cl		1	3	12	
AGR	189.73	JN	42	43	UN	SR	Ca,Cl		2	3	20	
AGR	189.9	JN	50	35	UN	SR	Ca,Cl		2	3	20	
AGR	189.93	JN	45	35	PL	SM	Ca,Cl		1	3	12	
AGR	189.94	JN	50	40	PL	SM	Ca,Cl		1	3	12	
AGR	190.76	JN	12	275	UN	SR	Ca,Ep		2	2	20	
AGR	191.38	JN	43	5	PL	SR	Ca		2	2	12	
AGR	191.51	VN	60	0	UN	RO	Qz		3	2	20	
AGR	193.22	JN	90		CU	RO			3	1	20	
AGR	194.15	JN	45	190	CU	SR			2	1	20	
AGR	201.38	JN	68	190	PL	SM			1	1	12	
AGR	203.17	JN	47	100	PL	RO			1.5	1	20	
AGR	203.23	JN	44	180	PL	RO	Ep	<1mm	1.5	2	20	
AGR	205.05	JN	25	280	UN	RO			3	1	20	
AGR	205.15	JN	62	180	ST	RO			3	1	20	
AGR	205.26	JN	58	180	PL	RO	Ca	<1mm	1.5	2	20	
AGR	205.82	JN	30	0	PL	RO	Ep	<1mm	3	2	20	
AGR	206.9	JN	27	280	CU	RO	Ca	<1mm	3	2	20	
AGR	207.4	JN	24	320	PL	RO	Ca	<1mm	1.5	2	20	
AGR	207.65	JN	34	30	PL	RO			1.5	2	20	
AGR	208.07	JN	68	320	PL	SM			1	1	12	
AGR	208.9	JN	60	170	PL	SR			1	1	12	

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	Joint Descriptions											
Rock Type	Depth	Type	alpha	beta	Shape	Roughness	Infill Type	Infill Thickness	Jr	Ja	Jcon	Comments
	m		(°)	(°)								
AGR	209.22	JN	17	330	UN	RO			3	1	20	
AGR	209.45	JN	18	332	CU	RO			3	1	20	
AGR	210.91	JN	56	160	CU	RO			3	1	20	
AGR	211.7	JN	57	30	UN	RO			3	1	20	
AGR	211.85	JN	70	30	PL	RO			1.5	1	20	
AGR	213.29	JN	42	40	PL	SM			1	1	12	
AGR	214.36	JN	50	70	CU	SR	Ca	<1mm	2	2	20	
AGR	215.2	JN	56	160	PL	SR	Ca		1	2	12	
AGR	216.96	JN	58	150	PL	SR	Ca	<1mm	1	2	12	
AGR	218.03	JN	50	140	PL	RO	Ca	<1mm	1.5	2	20	
AGR	218.9	JN	35	240	PL	RO	Ca,Qz	<1mm	1.5	2	20	
AGR	220.73	JN	40	8	PL	RO			1.5	1	20	
AGR	220.87	VN	50	306	PL	RO	Qz,Ep	<1mm	1.5	2	20	
AGR	221.34	JN	43	30	PL	RO			1.5	1	20	
AGR	221.71	JN	42	20	PL	SR			1	1	12	
AGR	221.9	JN	54	150	PL	SM	Ca	<1mm	1	2	12	
AGR	222.24	JN	50	30	PL	RO			1.5	1	20	
AGR	223.16	JN	35	310	CU	RO			3	1	20	
AGR	223.86	JN	70	160	IR	SM			2	1	20	
AGR	224.04	JN	30	300	PL	RO	Ca	<1mm	1.5	2	20	
AGR	224.82	VN	50	320	PL	SR	Qz	<1mm	1	2	20	
AGR	224.88	JN	47	330	PL	SR	Ca	<1mm	1	2	12	
AGR	225.01	JN	78	160	PL	RO			1.5	1	20	
AGR	225.57	JN	77	148	PL	RO	Ca		1.5	2	20	
AGR	225.72	JN	85	120	CU	SR	Ca,Bt		2	2	20	
AGR	226.36	JN	65	90	CU	SR	Ca	<1mm	2	2	20	
AGR	228.03	VN	74	300	PL	RO	Qz	18mm	2	2	20	
AGR	228.45	JN	35	50	PL	SM			2	2	12	
AGR	229.31	JN	55	180	PL	SM			1	1	12	
AGR	231.57	JN	20	330	PL	RO	Ca,Mn	<1mm	1	3	12	
AGR	231.66	JN	67	150	PL	RO			1.5	1	20	
AGR	231.84	JN	28	320	UN	SM			2	1	20	
AGR	232.2	JN	57	160	PL	RO	Ca,Fe		1.5	2	20	
AGR	233.03	JN	50	180	PL	RO			1.5	1	20	
AGR	233.61	JN	52	164	UN	RO			3	1	20	
AGR	234.3	JN	24	30	PL	SR	Ca,Mn	<1mm	1	3	12	
AGR	234.47	JN	71	320	PL	RO	Ca	<1mm	1.5	2	20	
AGR	234.58	JN	37	26	UN	RO			3	1	20	
AGR	234.79	JN	60	40	UN	SR			2	1	20	
AGR	236.48	JN	61	0	PL	RO			1.5	1	20	
AGR	236.52	JN	57	340	CU	RO			3	1	20	
AGR	236.6	JN	65	10	PL	RO			1.5	1	20	
AGR	236.63	JN	74	330	PL	RO	Ca	<1mm	1.5	2	20	
AGR	236.75	JN	42	0	PL	SM			1	1	12	
AGR	237.05	JN	40	20	CU	SR	Qz	<1mm	2	1	20	
AGR	237.19	JN	43	14	PL	RO			1.5	1	20	
AGR	237.58	JN	15	0	PL	SR	Ca	<1mm	1	2	12	
AGR	237.89	JN	61	240	CU	VR	Qz	2mm	1.5	2	20	
AGR	238.23	JN	51	170	PL	RO			1.5	2	20	
AGR	238.71	VN	80	190	PL	RO	Qz	23mm	1.5	2	20	
AGR	238.99	JN	70	150	PL	SR			1	1	12	
AGR	239.12	JN	65	150	PL	SR	Fe	<1mm	1	2	12	
AGR	239.7	JN	75	340	PL	RO			1.5	1	20	
AGR	239.84	JN	73	340	PL	RO			1.5	1	20	
AGR	239.87	JN	75	160	PL	SR	Fe	<1mm	1	1.5	12	
AGR	240.26	JN	32	340	PL	SR	Ca	<1mm	1	2	12	
AGR	240.78	JN	57	167	UN	RO			3	1	20	
AGR	241.41	JN	56	160	PL	RO	Ca	<1mm	1.5	2	20	
AGR	241.89	JN	23	332	PL	RO			1.5	1	20	
AGR	242.72	JN	58	170	CU	RO	Ca	<1mm	3	2	20	
AGR	243.15	JN	84	120	CU	RO			3	1	20	
AGR	243.43	JN	70	060	IR	SR			2	1	20	
AGR	244.79	JN	87	300	IR	RO	Ca	<1mm	3	2	20	
AGR	244.94	JN	55	290	PL	RO	Ca	<1mm	1.5	2	20	
AGR	245.13	JN	70	300	CU	RO	Ca	<1mm	3	2	20	
AGR	245.45	JN	38	130	PL	SR	Ca	<1mm	1	1	12	
AGR	245.87	JN	38	120	PL	RO	Ca,Qz	<1mm	1.5	2	20	
AGR	246.12	JN	88		IR	RO			3	1	20	
AGR	246.34	JN	38		PL	RO	Ca	<1mm	1.5	2	20	
SCH	246.72	JN	35		PL	RO	Ca	<1mm	1.5	2	20	
SCH	246.94	JN	70		PL	RO	Ca	<1mm	1.5	2	20	
SCH	247.06	JN	72		IR	RO	Ca,Qz	<1mm	3	2	20	
SCH	247.16	JN	50		PL	RO			3	1	20	
AGR	247.46	JN	36		PL	RO	Mn	<1mm	3	3	12	
AGR	247.53	JN	43		PL	RO	Mn	<1mm	3	3	12	
AGR	247.63	JN	50		PL	SR			1.5	1	12	
AGR	247.7	JN	30		PL	SR	Mn		3	3	12	
AGR	247.9	JN	30	320	PL	SR			1	1	12	
AGR	247.99	JN	82	310	PL	RO			1.5	1	20	
AGR	248.13	JN	38	330	ST	RO	Qz	<1mm	3	2	20	

HOLE GT07-05		Osisko Project		07-1221-0028		Azimuth	180	Dip	-70			
	Joint Descriptions											
Rock Type	Depth	Type	alpha	beta	Shape	Roughness	Infill Type	Infill Thickness	Jr	Ja	Jcon	Comments
	m		(°)	(°)								
AGR	248.19	JN	77	330	UN	RO			3	1	20	
AGR	248.24	JN	61	330	PL	RO			1.5	1	20	
AGR	248.26	JN	78	330	UN	RO			3	1	20	
AGR	248.67	JN	63	330	PL	RO			1.1	1	20	
AGR	248.77	JN	25	330	PL	SR			1	1	12	
AGR	248.88	JN	40	060	PL	RO			1.5	1	20	
AGR	248.91	JN	27	330	PL	SR	Ca	<1mm	1	2	12	
AGR	249.7	JN	28	350	PL	SM			1	1	12	
AGR	249.76	JN	30	000	PL	SR			1	1	12	
AGR	251.25	JN	64	180	CU	SR			2	1	20	
AGR	251.61	JN	44	030	CU	RO			3	1	20	
AGR	252.3	JN	48	170	PL	RO	Ca	<1mm	1.5	2	20	
AGR	252.81	VN					Qz?	90mm				
AGR	254.11	JN	65	180	PL	SR	Ca	<1mm	1	2	12	
AGR	254.42	JN	75	270	PL	SR			1	1	12	
AGR	254.83	JN	48	150	PL	RO			1.5	1	20	
AGR	255.41	JN	29	346	PL	SR			1	1	12	
AGR	255.49	JN	67	140	UN	RO			3	1	20	
AGR	256.18	JN	67	130	ST	RO	Ca,Sr		3	2	20	
AGR	256.51	JN	55	160	UN	RO			3	1	20	
AGR	256.74	JN	52	140	PL	RO			1.5	1	20	
AGR	256.9	JN	76	090	CU	RO			3	1	20	
AGR	258.33	JN	29	183	CU	RO			3	1	20	
AGR	258.87	JN	30	183	CU	SR			2	1	20	
AGR	259.01	JN	78	123	UN	RO			3	1	20	
AGR	262.32	JN	35	0	UN	SR			3	1	20	
AGR	263.13	JN	54	15	UN	RO			3	1	20	
AGR	264	JN	58	165	UN	RO			3	1	20	
AGR	264.8	JN	32	340	PL	SR			1	1	12	
AGR	265.22	JN	62	350	UN	RO			3	1	20	
AGR	265.67	JN	24	335	ST	SR	Ca		2	2	20	
AGR	265.86	JN	69	350	PL	RO			1.5	1	20	
AGR	265.94	JN	34	345	PL	SR			1	1	12	
AGR	266.13	JN	34	345	PL	SR			1	1	12	
AGR	266.2	JN	46	50	PL	SR			1	1	12	
AGR	267.4	JN	0		UN	RO			3	1	20	
AGR	268.15	JN	47	330	PL	RO			1.5	1	20	
AGR	267.69	JN	59	0	UN	RO			3	1	20	
AGR	269.76	JN	50	150	PL	RO			1.5	1	20	
AGR	270.16	JN	51	330	UN	RO			3	1	20	
AGR	270.21	JN	64	0	UN	RO			3	1	20	
AGR	270.49	JN	67	330	UN	RO			3	1	20	
AGR	270.59	JN	58	10	UN	RO			3	1	20	
AGR	271.02	JN	66	0	UN	RO			3	1	20	
AGR	271.23	JN	48	0	CU	RO			3	1	20	
AGR	271.53	VN	45	0	IR	RO	Mn,Qz	20mm	3	4	6	
AGR	271.64	JN	68	295	UN	RO			3	1	20	
AGR	271.87	JN	60	340	UN	RO	Qz		3	2	20	
AGR	272.08	JN	65	230	UN	RO			3	1	20	
AGR	272.18	JN	50	0	UN	RO			3	1	20	
AGR	272.28	JN	50	0	CU	RO			3	1	20	
AGR	272.42	JN	40	0	PL	RO			1.5	1	20	
AGR	272.5	JN	45	10	CU	RO			1	1	20	
AGR	272.65	JN	22	75	CU	RO			3	1	20	
AGR	272.72	JN	39	0	CU	RO			3	1	20	
AGR	273.11	JN	54	20	CU	RO			3	1	20	
AGR	273.9	JN	35	200	PL	RO			1.5	1	12	
AGR	274.23	JN	58	200	CU	RO			3	1	20	
AGR	274.36	JN	45	233	CU	RO			3	1	20	
AGR	274.53	JN	39	200	IR	RO			3	1	20	
AGR	274.61	JN	35	200	CU	RO			3	1	20	
AGR	274.79	JN	50	200	CU	RO			3	1	20	
AGR	275.71	VN	57	0	IR	RO	Qz	16mm	3	2	20	
AGR	276.47	FO	25	40	PL	SM			1	1	12	
AGR	276.68	JN	60	75	UN	RO			3	1	20	
AGR	276.98	JN	74	355	PL	SR			1	1	12	
AGR	277.92	JN	20	90	IR	RO			3	1	20	
AGR	278.52	JN	52	70	UN	SR			3	1	20	
AGR	279.54	JN	43	160	UN	RO			3	1	20	
AGR	280.05	VN	63	20	IR	RO	Qz	20mm	3	2	20	
AGR	282.4	VN	77	300	CU	RO	Qz	15mm	3	2	20	
AGR	282.64	JN	42	70	UN	SR			2	1	20	
AGR	283.23	JN	54	210	ST	RO			3	1	20	
AGR	283.27	JN	70	265	UN	RO			3	1	20	
AGR	285.91	JN	55	180	ST	SR	Ca		2	2	20	
AGR	286.22	JN	56	210	PL	RO	Ca		1.5	2	20	
AGR	286.54	JN	50	60	CU	SR	Ca		2	2	20	
AGR	286.62	JN	45	50	ST	SR	Ca		2	2	20	
AGR	286.75	JN	61	190	PL	RO	Ca		1	2	12	
AGR	287.08	JN	64	180	PL	SR	Ca		1	2	12	

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					Joint Descriptions							
Rock Type	Depth	Type	alpha	beta	Shape	Roughness	Infill Type	Infill Thickness	Jr	Ja	Jcon	Comments
	m		(°)	(°)								
AGR	287.28	JN	45	55	PL	SM	Ca		1	2	12	
AGR	288.28	JN	65	220	UN	RO			3	1	20	
AGR	289.3	JN	75	210	UN	RO			3	1	20	
AGR	289.52	JN	65	0	UN	SR			2	1	20	
AGR	289.69	JN	36	10	UN	SM			2	1	20	
AGR	289.71	JN	65	230	UN	SR			2	1	20	
AGR	289.76	JN	69	330	PL	SR			1	1	12	
AGR	291.41	JN	70	0	PL	RO			1.5	1	20	
AGR	291.85	JN	77	300	PL	RO			1.5	1	20	
AGR	293.02	JN	25	0	PL	SM			1	1	12	
AGR	293.04	JN	60	350	PL	SR			1	1	12	
AGR	293.18	JN	70	330	PL	RO			1.5	1	20	
AGR	294.5	JN	30		PL	RO			1.5	1	20	
AGR	295.19	JN	47		CU	SM			2	1	20	
AGR	295.92	JN	50		PL	RO			1.5	1	20	
AGR	297.1	JN	70		CU	RO			3	1	20	
AGR	297.34	JN	52		PL	RO	Cl		1	4	12	
AGR	297.54	JN	53	180	PL	RO			1.5	1	20	
AGR	297.76	JN	60	140	PL	RO			1.5	1	20	
AGR	300.83	JN	35	0	UN	SM			2	1	20	
AGR	304.51	JN	30	285	PL	SM			1	1	12	
AGR	304.61	JN	58	310	PL	SM			1	1	12	
AGR	304.67	JN	55	300	PL	SR			1	1	12	
AGR	305.11	JN	32	304	PL	SR			1	1	12	
AGR	305.34	JN	68	10	PL	RO			1.5	1	20	
AGR	305.71	JN	40	346	PL	RO	Qz	<1mm	1.5	2	20	
AGR	306.71	JN	25	314	PL	SR			1	1	12	
AGR	307	JN	25	320	ST	RO	Qz	<1mm	3	2	20	
AGR	307.26	JN	22	300	PL	SM	CH		1	2	20	
AGR	307.46	JN	86	60	CU	RO			3	1	20	
AGR	307.63	JN	46	350	PL	SM			1	1	12	
AGR	307.79	JN	42	10	PL	SR			1	1	12	
AGR	307.98	JN	40	280	CU	RO			3	1	20	
AGR	308.15	JN	33	0	UN	RO			3	1	20	
AGR	308.24	VN	42	30	UN	RO		21mm	2	2	20	
AGR	308,36 à 3	BC										
AGR	308.61	JN	30	0	PL	RO			1.5	1	20	
AGR	308.71	JN	40	180	PL	RO			1.5	1	20	
AGR	309.25	JN	70		UN	RO			3	1	20	
AGR	309.46	JN	20		PL	SR			1	1	12	
AGR	310.26	JN	30		CU	RO			3	1	20	
AGR	310,46 à 3	FR	90		IR	RO			2	1	20	
AGR	310.78	JN	58		CU	SR			2	1	20	
AGR	311.65	JN	28	330	PL	RO	Mn	<1mm	1	3	12	
AGR	311.85	JN	30	340	PL	SR	Mn	<1mm	1	3	12	
AGR	312.43	JN	52		PL	SM			1	1	12	
AGR	312.47	JN	32		PL	SM			1	1	12	
AGR	312.61	JN	35		PL	SM	Ca		1	2	12	
AGR	313	JN	37		PL	SR			1	1	12	
AGR	313.11	JN	28		PL	SR	Mn		1	3	12	
AGR	313.21	JN	33		PL	SR	Ca,Mn	<1mm	1	3	12	
AGR	313.58	JN	44		CU	RO			3	1	20	
AGR	314.09	JN	27		PL	SM			1	1	12	
AGR	314.46	JN	50		PL	RO	Ca	<1mm	1.5	2	20	
AGR	317.32	JN	66		UN	SR			2	1	20	
AGR	317.71	JN	23		PL	SR	Mn	<1mm	1	3	12	
AGR	318.1	JN	60	250	CU	RO			3	1	20	
AGR	318.81	JN	53	310	PL	RO			1.5	1	20	
AGR	319.84	JN	55	130	ST	SM			1.5	1	20	
AGR	319.62	JN	66	160	PL	RO			1.5	1	20	
AGR	321.83	JN	61	270	PL	RO			1.5	1	20	
AGR	322.17	JN	68	310	PL	RO	Ca		1.5	2	20	
AGR	322.33	JN	72	330	CU	RO			3	1	20	
AGR	322.61	JN	33	2	PL	RO	Cl	<1mm	1	4	12	
AGR	322.75	JN	70	194	CU	RO			3	1	20	
AGR	324.18	JN	30	40	PL	SR			1	1	12	
AGR	324.22	JN	45	54	PL	SR	Ca		1	2	12	
AGR	326.38	JN	40	50	CU	RO	Ca	<1mm	3	2	20	
AGR	326.71	JN	40	340	PL	RO	Ca	<1mm	1.5	2	20	
AGR	326.97	JN	38	30	PL	SR			1	1	12	
AGR	327.43	JN	54	330	PL	SR	Ca		1	1	12	
AGR	327.8	JN	58	330	PL	SR	Ca		1	2	12	
AGR	327.92	JN	25	310	PL	SR	Ca		1	2	12	
AGR	328	JN	35	320	PL	SR	Ca	<1mm	1	2	12	
AGR	328.04	JN	55	190	PL	RO			1.5	1	20	
AGR	328.21	JN	30	320	PL	SM	Ca	<1mm	1	2	12	
AGR	328.57	JN	52	148	PL	SR			1	1	12	
AGR	328.91	JN	48	340	PL	SM	Ca		1	2	12	
AGR	329.88	JN	20	300	UN	RO			3	1	20	
AGR	330.18	JN	28	310	PL	SR	Ca	<1mm	1	2	12	

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						Joint Descriptions						
Rock Type	Depth	Type	alpha	beta	Shape	Roughness	Infill Type	Infill Thickness	Jr	Ja	Jcon	Comments
	m		(°)	(°)								
AGR	330.66	JN	26	300	PL	SR			1	1	12	
AGR	330.8	JN	68	80	PL	RO			1.5	1	20	
AGR	330.96	JN	30	280	CU	RO	Ca	<1mm	3	2	20	
AGR	331.29	JN	35	284	PL	SR	Ca	<1mm	1	2	12	
AGR	331.52	JN	30	280	PL	SR	Cl	<1mm	1	4	12	
AGR	331.71	JN	30	270	PL	SR	Ca	<1mm	1	2	12	
AGR	331.93	JN	30	270	PL	RO			1.5	1	20	
AGR	332	JN	30	260	PL	RO			1.5	1	20	
AGR	332.25	JN	57	130	PL	SR			1	1	12	
AGR	332.64	JN	31	294	PL	SR	Cl	<1mm	1	4	12	
AGR	332.68	JN	48	300	PL	RO			1.5	1	20	
AGR	332.77	JN	35	300	PL	RO			1.5	1	20	
AGR	333	JN	27	315	CU	SM	Ca		2	2	20	
AGR	333.38	JN	72	160	CU	RO			3	1	20	
AGR	333.75	JN	21	310	PL	SR	Ca		1	2	12	
AGR	333.54	JN	26	270	CU	SR	Ca		2	2	20	
AGR	333.9	JN	43	220	UN	RO	Ca,Cl		3	4	20	
AGR	334.07	VN	69	235	PL	RO	Qz,Cl,Sr		1.5	2	20	
AGR	334.43	JN	36	305	PL	SM			1	4	12	
AGR	335.31	JN	36	290	PL	RO	Ca		3	2	20	
AGR	336.86	JN	45	300	UN	RO			3	1	20	
AGR	337.14	JN	17	295	UN	SR	Ch,Cl		2	4	20	
AGR	337.16	JN	47	290	UN	SR	Ca		2	2	20	
AGR	337.17	VN	20	90	UN	RO	Qz	25mm	3	2	20	
AGR	337.44	VN	77	190	PL	RO	Qz		1.5	2	20	
AGR	337.48	JN	20	310	UN	RO	Ca,Cl		3	4	20	
AGR	337.94	JN	26	330	CU	RO	Ca		3	2	20	
AGR	338.12	JN	28	325	IR	SR	Ca		2	2	20	
AGR	339.11	FO	23	330	PL	SM	Ca		1	2	12	
AGR	339.18	JN	64	180	PL	RO	Qz		1.5	2	20	
AGR	339.26	JN	27	340	UN	SR	Ca,Cl		2	4	20	
AGR	339.32	FO	37	310	UN	RO	Ca		3	2	20	
AGR	339.48	FO	40	330	ST	SR	Ca		3	2	20	
AGR	339.43	FO	25	325	UN	SM	Ca,Cl		2	3	20	
AGR	340.3	FO	36	330	ST	SM	Ca,Cl		2	3	20	
AGR	340.36	FO	38	330	PL	RO	Ca,Cl		1.5	3	20	
AGR	340.63	JN	62	190	PL	RO	Ca		1.5	2	20	
AGR	340.7	FO	49	345	PL	RO	Ca,Cl		1.5	2	20	
AGR	340.83	FO	37	325	PL	SR	Ca,Cl		1	1	12	
AGR	340.88	FO	28	320	PL	SR	Ca,Cl		1	3	12	
AGR	341.21	FO	37	300	PL	SR	Ca,Cl		1	3	12	
AGR	341.88	VN	43	320	UN	RO	Qz,Ca		3	2	20	
AGR	342.59	JN	45	300	UN	SR	Ca		3	2	20	
AGR	342.8	JN	28	285	PL	SM	Ca,Cl		1	3	12	
AGR	342.9	JN	37	290	UN	SM	Ca,Cl		2	3	20	
AGR	343.04	JN	46	290	PL	SM	Ca,Cl		1	3	12	
AGR	343.42	JN	60	300	UN	RO			3	1	20	
SPO	343,82 à 3	JN	BC									
SPO	344.4	JN	76	320	CU	SR	Ca		2	2	20	
SPO	344.55	JN	44	60	PL	SR	Ca,Cl		1	3	12	
SPO	345.22	JN	65	240	IR	RO	Ca,Qz		3	2	20	
SPO	345.34	JN	46	310	IR	RO	Ca,Qz		3	2	20	
SPO	345.41	JN	64	260	UN	RO	Ca,Qz		3	2	20	
SPO	345.68	JN	62	50	UN	RO			3	1	20	
SPO	345.99	JN	25	340	UN	RO	Qz,Ca		3	2	20	
SPO	346.02	JN	65	0	UN	RO			3	1	20	
SPO	346.22	JN	48	230	ST	RO	Py		3	1	20	
SPO	346.56	JN	63	240	ST	RO	Py,Ca		3	2	20	
AGR	346.81	JN	61	240	ST	SR	Ca,Cl		2	2	20	
AGR	346.92	JN	67	230	ST	SR	Ch		2	2	20	
AGR	347.13	JN	62	195	PL	RO	Ca,Cl		1.5	2	20	
AGR	347.36	JN	30	330	PL	SR	Ca,Cl		1	3	12	
AGR	347.4	JN	30	330	PL	SR	Ca,Cl		1	3	12	
SCH	348.19	DK	46	0	PL	RO	Ca		1.5	2	20	
SCH	348.21	DK	41	350	PL	RO	Ca		1.5	2	20	
AGR	348.39	FO	41	345	PL	SM	Ca		2	2	12	
AGR	348.56	FO	41	345	PL	SM	Ca,He		1	2	12	
AGR	348.64	JN	60	215	PL	RO	Ca		1.5	2	20	
AGR	349.25	JN	69	190	UN	RO	Ca		3	2	20	
AGR	349.38	JN	54	145	UN	RO	Ca,Sr		3	2	20	
AGR	349.59	JN	63	210	UN	RO	Ca		3	2	20	
AGR	351.8	JN	57	258	PL	RO			3	1	20	
AGR	352.18	VN	43	230	UN	RO	Qz	16mm	3	2	20	
AGR	353.35	JN	54	20	PL	RO	Ch,Ca		1.5	3	20	
AGR	353.65	JN	31	340	PL	SR	Ca		1	2	12	
AGR	353.2	JN	47	0	UN	SR			2	1	20	
AGR	354.06	JN	38	320	UN	RO			3	1	20	
AGR	354.16	JN	65	210	UN	RO			3	1	20	
AGR	354.3	JN	30	305	PL	SM	Ca,Cl		1	4	12	
AGR	354.42	JN	28	340	PL	SR	Cl		1	3	12	

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						Joint Descriptions						
Rock Type	Depth	Type	alpha	beta	Shape	Roughness	Infill Type	Infill Thickness	Jr	Ja	Jcon	Comments
	m		(°)	(°)								
AGR	354.5	JN	38	190	PL	SR	Cl		1	3	12	
AGR	355.03	JN	30	350	UN	RO			3	1	20	
AGR	355.06	JN	56	160	PL	RO	Ca		1.5	2	12	
AGR	355.13	JN	54	180	PL	RO	Ca		1.5	2	12	
AGR	357.51	JN	51	230	PL	RO	Py		1.5	2	20	
AGR	357.52	JN	28	320	CU	RO	Py		3	2	20	
AGR	357.6	JN	67	350	UN	RO			3	1	20	
AGR	35.12	JN	55	210	ST	SR			2	1	20	
AGR	358.69	JN	49	185	PL	RO			1.5	1	20	
AGR	359.09	FO	35	340	UN	SM	Cl		2	4	20	
AGR	359.18	FO	32	340	ST	SM	Cl		2	4	20	
AGR	359.25	FO	49	0	PL	SM	Cl,Ca		1	4	12	
SCH	359.44	FO	50	350	UN	SM	Mn,Cl		2	4	20	
SCH	359.47	FO	39	0	UN	SM	Cl,Sr		2	4	20	
SCH	359.58	DK	45	350	PL	SM	Mn,Cl		1	4	12	
AGR	360.86	JN	43	195	PL	SM			1	1	12	
AGR	360.58	JN	42	195	PL	RO			1.5	1	20	
AGR	361.16	JN	34	330	PL	RO	Ca		1.5	2	20	
AGR	361.71	JN	44	280	UN	RO	Ca		3	2	20	
AGR	361.87	JN	65	40	PL	RO	Ca		1.5	2	20	
CGR	361.99	JN	73	350	UN	RO	Ca		3	2	20	
CGR	362.49	JN	36	350	UN	RO	Ca		3	2	20	
CGR	362.72	JN	41	40	UN	RO	Ca		3	2	20	
CGR	363.34	JN	69	300	IR	RO	Ca,He		3	2	20	
AGR	363.87	JN	68	190	PL	SM	Ca		2	2	12	
AGR	365.6	JN	49	200	UN	RO	Ca		3	2	20	
AGR	365.83	JN	77	50	PL	RO	Ca,Mn,Ca		1.5	4	20	
AGR	366.61	JN	53	280	PL	RO	Ca		1.5	2	20	
AGR	366.88	FO	35	330	PL	SM	Ca		1	2	12	
AGR	366.98	JN	20	0	PL	RO	Ca		1.5	2	20	
AGR	366.98	JN	80	0	UN	RO	Ca		1.5	2	20	
AGR	367.06	JN	45	10	UN	RO	Ca		3	2	20	
AGR	367.38	JN	26	330	CU	RO	Ca		3	2	20	
AGR	367.44	VN	49	20	UN	SR	Qz,Ca	50mm	2	2	20	
AGR	370.2	JN	28	345	PL	SM	Ca		1	2	12	
AGR	370.3	JN	55	210	UN	SM	Ca		2	2	20	
AGR	372.72	JN	40	350	PL	SM			1	1	12	
AGR	373.05	JN	60	30	PL	RO			1	2	20	
SCH	373.26	JN	40	0	PL	SR			1	1	12	
SCH	373.51	JN	57	30	PL	RO			1.5	1	20	
SCH	373.57	DK	45	12	PL	SR			1	1	12	
AGR	375.02	JN	40	184	PL	RO			1.5	1	12	
AGR	375.98	JN	44	0	CU	SR,	Ca		2	2	20	
AGR	376.61	JN	40	0	PL	RO	Ca,Qz	<1mm	1.5	2	20	
AGR	376.68	JN	43	0	PL	SR	Ca,Qz	<1mm	1	2	12	
AGR	376.91	JN	36	0	CU	RO	Mn	<1mm	1	3	12	
AGR	377.33	JN	40	0	CU	SR			2	2	20	
AGR	7,45 à 377	BC										
AGR	377.58	JN	23	260	PL	SR	Mn	<1mm	1	3	12	
AGR	378.04	JN	25	240	PL	SR			1	1	12	
AGR	379	JN	43	0	PL	RO	Mn	<1mm	1	3	12	
AGR	379.1	JN	48	4	PL	SR			1	1	12	
AGR	379.28	JN	50	40	PL	SM			1	1	12	
AGR	379.8	JN	28	250	CU	RO			3	1	12	
AGR	380.17	JN	35	0	PL	RO	Qz	2mm	1.5	2	20	
AGR	380.19	JN	35	340	CU	RO	Ca,Mn	<1mm	3	3	12	
AGR	380.36	JN	42	350	PL	SM	Cl	<1mm	1	4	12	
AGR	380.49	JN	55	0	PL	RO	Cl	<1mm	1.5	4	12	

Hole CM07-1540	Osisko Project		07-1221-0028		Azimuth	180		Dip	-60															Hardness and Weathering		
Run #	From	To	Interval	Rock type	Recovery	TCR (%)	RQD	RQD	SCR	SCR	Fracture/0.25m												Fracts/run	Fracts/m	Jn	Strength	Weath
	m	m			m		m	%	m	%																	
1	3.00	5.00	2.00		2.13	107	1.53	77	2	79	0	0	1	0	0	1	1	0	0	0	0	0	3	1.50	2.0		
2	5.00	8.00	3.00	CGR	3.00	100	2.49	83	2.46	82	1	0	0	0	0	0	1	3	3	0	1	3	12	4.00	6.0	R4	2
3	8.00	11.00	3.00	CPO	2.95	98	2.66	89	2.62	89	0	1	1	1	3	1	0	1	0	1	1	0	10	3.33	6.0	R4	2
4	11.00	14.00	3.00			0		0			0	1	1	0	1	3	1	0	0	0	1	3	11	3.67	6.0	R5	2
5	14.00	17.00	3.00	CPO	3.00	100	2.05	68	2.05	68	0	0	2	1	0	3	6	3	2	1	0	4	22	7.33	6.0	R5	2
6	17.00	20.00	3.00	CPO	2.27	76	2.10	70	2.18	96	2	0	1	0	3	2	0	1	1	3	1	2	16	5.33	6.0	R5	2
7	20.00	23.00	3.00	CPO	3.17	106	2.50	83	2.54	80	1	3	3	0	2	1	1	2	1	1	2	0	17	5.67	4.0	R5	2
8	23.00	26.00	3.00	CPO	3.07	102	2.37	79	2.20	72	0	0	1	2	2	2	2	0	2	3	3	3	20	6.67	4.0	R5	2
9	26.00	29.00	3.00	CPO	3.00	100	2.66	89	2.27	76	4	1	2	1	2	1	3	0	1	0	0	3	18	6.00	6.0	R5	2
10	29.00	32.00	3.00	CPO	3.00	100	2.66	89	2.27	76	0	0	0	0	0	1	0	0	1	1	3	2	8	2.67	3.0	R5	2
11	32.00	35.00	3.00	CPO	2.98	99	2.81	94	2.52	85	2	1	2	1	2	2	0	2	2	0	2	1	17	5.67	6.0	R5	2
12	35.00	38.00	3.00	CPO	3.00	100	1.68	56	1.73	58	1	1	2	4	1	1	0	2	1	4	1	1	19	6.33	6.0	R5	2
13	38.00	41.00	3.00	CPO	2.83	94	1.68	56	1.68	59	1	0	1	0	1	1	2	1	1	2	3	2	15	5.00	6.0	R5	2
14	41.00	44.00	3.00	CPO	3.00	100	2.14	71	2.39	80	2	4	2	2	2	3	0	0	1	1	2	2	21	7.00	6.0	R5	2
15	44.00	47.00	3.00	CPO	3.08	103	2.16	72	2.23	72	2	2	1	2	4	2	1	1	2	2	3	0	22	7.33	6.0	R5	2
16	47.00	50.00	3.00	CPO	3.01	100	1.90	63	1.97	65	1	3	3	2	2	1	2	3	0	2	2	1	22	7.33	6.0	R5	2
17	50.00	53.00	3.00	CPO	3.08	103	2.30	77	2.15	70	3	2	4	1	2	1	3	3	0	3	3	1	26	8.67	9.0	R5	2
18	53.00	56.00	3.00	CPO	3.08	103	2.30	77	2.15	70	3	1	2	2	1	3	1	0	1	0	2	3	19	6.33	9.0	R5	2
19	56.00	59.00	3.00	CPO	2.98	99	1.94	65	2.15	72	0	2	2	3	2	1	2	1	2	1	2	2	20	6.67	9.0	R5	2
20	59.00	62.00	3.00	CPO	3.00	100	1.17	39	1.74	58	5	1	3	2	1	2	3	1	4	0	3	1	26	8.67	9.0	R5	2
21	62.00	65.00	3.00	CPO	3.00	100	1.49	50	1.82	61	1	1	0	3	3	0	2	3	4	3	3	1	24	8.00	6.0	R5	2
22	65.00	68.00	3.00	CPO	3.00	100	1.08	36	1.94	65	3	3	3	3	4	4	2	2	2	0	3	2	31	10.33	6.0	R5	2
23	68.00	71.00	3.00	CPO	3.00	100	1.67	56	1.80	60	0	2	2	1	3	1	0	1	2	2	2	3	19	6.33	6.0	R5	2
24	71.00	74.00	3.00	CPO	2.85	95	1.50	50	1.75	61	3	1	3	0	2	0	1	1	1	1	1	1	15	5.00	6.0	R5	2
25	74.00	77.00	3.00	CPO	3.03	101	2.02	67	2.02	67	1	1	1	2	1	1	2	2	1	1	2	1	16	5.33	4.0	R5	2
26	77.00	80.00	3.00	CPO	3.02	101	2.02	67	1.67	55	1	2	2	2	3	3	0	2	0	2	0	2	19	6.33	6.0	R5	2
27	80.00	83.00	3.00	CPO	3.00	100	1.90	63	1.55	52	1	1	2	4	1	3	2	1	1	1	2	2	21	7.00	6.0	R5	2
28	83.00	86.00	3.00	CPO	3.00	100	2.42	81	1.88	63	2	1	1	1	0	3	1	3	1	2	1	0	16	5.33	6.0	R5	2
29	86.00	89.00	3.00	CPO	3.00	100	2.52	84	1.79	60	0	2	1	1	1	2	1	0	1	0	2	3	14	4.67	6.0	R5	2
30	89.00	92.00	3.00	CPO	3.00	100	2.26	75	1.75	58	1	4	1	2	3	2	1	2	1	4	0	0	21	7.00	9.0	R5	2
31	92.00	95.00	3.00	CPO	3.06	102	2.33	78	2.00	65	0	2	2	2	3	1	3	0	1	2	2	0	18	6.00	9.0	R5	2
32	95.00	98.00	3.00	CPO	3.00	100	2.40	80	1.95	65	1	2	1	1	1	0	0	2	0	1	1	2	12	4.00	6.0	R5	2
33	98.00	101.00	3.00	BRGR	3.00	100	2.22	74	2.33	78	0	2	1	0	0	1	0	4	0	0	0	0	8	2.67	6.0	R5	2
34	101.00	104.00	3.00	CPO	3.00	100	2.65	88	2.49	83	0	3	0	1	0	3	1	0	1	0	1	2	12	4.00	9.0	R5	2
35	104.00	107.00	3.00	CPO	3.00	100	2.22	74	2.24	75	0	1	0	3	0	1	3	1	3	2	2	0	16	5.33	9.0	R5	2
36	107.00	110.00	3.00	CPO	3.00	100	2.36	79	2.36	79	1	0	3	3	2	1	0	1	1	2	0	1	15	5.00	9.0	R5	2
37	110.00	113.00	3.00	CPO	3.00	100	2.53	84	2.27	76	1	1	0	1	2	2	0	1	1	1	0	3	13	4.33	9.0	R5	2
38	113.00	116.00	3.00	CPO	3.00	100	2.92	97	1.98	66	1	2	1	1	1	1	2	1	1	0	1	1	13	4.33	9.0	R5	2
39	116.00	119.00	3.00	CPO	3.00	100	2.85	95	2.68	89	1	1	0	2	0	1	2	2	0	1	1	0	11	3.67	9.0	R5	2
40	119.00	122.00	3.00	CPO	3.00	100	2.56	85	2.24	75	1	0	0	2	1	0	1	0	1	0	1	1	8	2.67	9.0	R5	2

Hole CM07-1540	Osisko Project		07-1221-0028		Azimuth	180		Dip	-60															**Hardness and Weathering**		
Run #	From	To	Interval	Rock type	Recovery	TCR (%)	RQD	RQD	SCR	SCR	Fracture/0.25m											Fracts/run	Fracts/m	Jn	Strength	Weath
	m	m			m		m	%	m	%																
41	122.00	125.00	3.00	CPO	3.00	100	2.95	98	2.47	82	1	0	1	1	0	1	1	0	2	0	1	1	9	3.00	4.0	R5	2
42	125.00	128.00	3.00	CPO	2.10	70	1.80	60	1.65	79	0	1	0	0	1	0	0	1	1	0	0	0	4	1.33	4.0	R5	2

HOLE CM07-1540	Osisko Project	07-1221-0028	Azimuth	180	Dip -70

	Joint Descriptions							
Rock Type	Depth	Type	alpha	beta	Jr	Ja	Jcon	Comments
	m		(°)	(°)				
CGR	0.7	V	27		3	2	20	UN,RO,oxi,Tc
CGR	1.4	FR	25		3	2	20	UN,RO,oxi,Tc
CGR	1.75	JN	16		1	4	12	PL,SM, Tc
CGR	5.25	JN	20	140	1	4	12	PL,SM, Tc
CGR	6.66	JN	57	170	1	4	20	PL,RO,Tc
CGR	6.76	JN	62	125	3	4	20	UN,RO,Tc
CGR	6.86	JN	62	5	3	4	20	UN,VR,Tc
CGR	6.92	JN	60	140	2	4	20	UN,RO,Tc
CGR	7.08	JN	71	70	2	4	20	UN,RO
CGR	7.15	V	73	35	2	3	20	UN.RO
MBRH	7.2	FLT	73	35	1	1.5	12	PL.SM,Cl
MBRH	7.68	FR	79	150	1.5	2	20	PL,RO,alt
MBRH	7.87	JN	61	205	1	2	20	PL,RO,oxi
MBRH	7.9	JN	65	48	1.5	4	20	UN,RO,oxi,Tc
MBRH	7.97	JN	64	185	2	4	20	UN,RO,alt,Tc
MBRH	7.99	JN	72		2	2	12	PL.SM oxi
MBRH	8.35	JN	67		1.5	4	20	PL,RO,oxy
CPO	8.68	JN	66		1.5	2	12	PL,SM,oxy, alt
CPO	8.99	JN	37		1.5	4	12	PL,SM,oxy, alt
CPO	9	JN	51		2	4	12	PL,SM,alt
CPO	9.13	JN	75		1.5	4	12	PL,ST
CPO	9.24	JN	66		3	2	20	UN,RO
CPO	9.35	FR	45		4	4	20	IR,VR
CPO	9.92	JN	28		1.5	2	20	PL,RO
CPO	10.4	JN	33	315	1.5	2	20	PL,RO
CPO	10.74	JN	45	154	1.5	1	12	PL,SM,Tc
CPO	11.48	JN	217		1.5	2	12	PL,SM,oxi
CPO	11.65	JN	18		1.5	3	12	PL,SM,M
CPO	12.03	JN	61		2	4	20	UN,RO,Tc
CPO	12.26	JN	34		3	4	20	CU,RO,Tc
CPO	12.32	JN	46		1.5	4	20	PL,RO,Tc
CPO	12.43	JN	35		1	3	20	PL,RO,M
CPO	12.71	JN	24		4	3	20	UN,RO,M
CPO	13.7	JN	30		3	3	20	UN,VR,M
CPO	13.78	JN	33		1	3	12	PL,SM,M
CPO	13.83	JN	45		1.5	1	12	PL,SM,Tc
CPO	13.93	JN	47		1.5	3	12	PL,SM,Tc
CPO	14.62	JN	34		2	2	20	UN,RO,
CPO	14.75	JN	62		1	3	20	PL,RO,Tc
CPO	14.8	JN	55		1	2	20	PL,RO
CPO	15.29	JN	24		2	2	20	UN,RO
CPO	15.33	JN	47		1	4	12	PL,SM
CPO	15.41	JN	62		1	4	20	PL,RO
CPO	15.53	JN	10		1.5	2	12	UN,SR,Tc
CPO	15.55	JN	36		1.5	2	20	PL,RO,Sa
CPO	15.68	JN	42		1.5	2	12	PL,SM,Tc
CPO	15.71	JN	75		1.5	2	12	UN,SM,Ca
CPO	15.76	JN	64		1	4	12	PL,SR
CPO	15.87	VN	49		2	4	12	UN,SR,Tc
CPO	15.9	JN	64		1.5	2	20	PL,RO,Tc
CPO	16.06	JN	19		1.5	4	20	PL,RO
CPO	16.33	FR	53		1	4	12	PL,SM
CPO	16.76	JN	70		1.5	2	20	PL,RO
CPO	16.78	JN	49		3	3	20	CU,RO
CPO	16.8	JN	59		2	2	20	UN,RO
CPO	16.85	JN	33		1.5	4	12	PL,SM,Tc
CPO	15.56	JN	70		1	1	12	PL,SM,Tc
CPO	15.59	JN	70		1	4	20	PL,RO,Tc
CPO	16.16	JN	36		1	4	20	PL,RO,Tc
CPO	17.08	JN	60		1	4	20	PL,RO,Tc
CPO	17.18	JN	47		1.5	2	20	PL,RO

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	Joint Descriptions						
Rock Type	Depth	Type	alpha	beta	Jr	Ja	Jcon	Comments
	m		(°)	(°)				
CPO	17.56	JN	70		1	2	12	PL, SM
CPO	18.02	JN	66		1.5	1	20	PL, RO
CPO	18.17	VN	72		1.5	3	20	PL,RO,Bi
CPO	18.24	VN	67		1	3	12	PL,SM
CPO	18.28	JN	62		1	3	12	PL,SM
CPO	18.79	JN	74		1.5	2	12	PL,SM
CPO	19.2	JN	53		1	3	12	PL,SM,Tc
CPO	19.4	JN	76		2	2	12	UN,SR
CPO	19.5	JN	26		1	4	12	PL,SM,Tc
CPO	19.7	JN	41		1.5	3	20	PL, RO
CPO	19.99	JN	23		1	4	12	PL, SM
CPO	19.41	JN	51		1.5	3	12	PL, SM
CPO	19.8	JN	37		1.5	3	12	PL,SR,
CPO	19.84	JN	25		1.5	1	20	PL,RO
CPO	20.24	JN	55	315	1	1	12	PL,SM
CPO	20.3	JN	57	310	1.5	1	12	PL, SM,
CPO	20.48	JN	40	102	3	3	20	UN,VR
CPO	20.49	JN	83	140	3	2	20	UN,VR
CPO	20.56	JN	69	275	1	4	12	PL, SM,
CPO	20.66	VN	36	155	1.5	3	20	ST, VR,
CPO	20.72	VN	59	150	1.5	4	12	CU, SM,Bi
CPO	21.17	JN	45		1.5	4	12	PL, SM,
CPO	21.23	JN	48		1	4	12	PL, SM,
CPO	21.46	JN	64		1.5	3	20	ST, RO
CPO	21.51	JN	55		1	4	12	PL, SM
CPO	21.77	JN	48		3	2	20	IR, VR
CPO	21.9	JN	62		1	4	12	PL,SM
CPO	22.06	JN	34		2	3	20	CU, RO
CPO	22.42	JN	56		1	4	12	PL, SR
CPO	22.54	JN	45		1	4	12	PL, SM
CPO	22.75	JN	65		3	4	20	UN, RO
CPO	23.57	JN	73	175	1	4	12	PL, SM,Tc
CPO	23.76	JN	51	215	1.5	3	20	PL, RO,
CPO	23.93	JN	74	190	1.5	1	20	PL, VR
CPO	24	JN	47	185	1	1	12	PL, SM
CPO	24.08	JN	66	260	1.5	3	20	PL,VR
CPO	24.32	JN	20	284	1.5	2	20	ST, VR
CPO	24.4	JN	79	210	1	4	12	PL,SM, Tc
CPO	24.54	JN	52	270	1	4	12	PL,SM,Tc
CPO	22.64	JN	83		3	2	20	IR, VR
CPO	25.06	JN	33	260	4	4	20	IR, VR,Tc
CPO	25.11	JN	40	242	1	4	12	PL, SM, Tc
CPO	25.25	JN	38	225	1	3	20	IR, SR
CPO	25.38	JN	74	224	1	4	12	PL, SR,Tc
CPO	25.4	JN	61	208	1	3	12	PL, SM
CPO	25.52	JN	35	245	1	4	12	PL, SR, Tc
CPO	25.57	JN	76	270	1	4	12	PL, SR, Tc
CPO	25.73	JN	77	260	1	4	12	PL, SR,Tc
CPO	25.79	JN	49	220	4	4	20	UN, VR,Tc
CPO	26.83	JN	53	210	1	4	12	PL, SM,Tc
CPO	25.95	JN	66	42	1.5	1	20	PL, RO,Tc
CPO	26	JN	82		1.5	3	20	PL, RO, Tc
CPO	26.17	JN	78	65	4	4	20	IR, VR,
CPO	26.13	JN	71	90	1.5	3	20	PL, RO,
CPO	26.25	JN	32	136	1	4	12	PL, SM
CPO	26.47	JN	72	305	1.5	3	20	PL, RO,
CPO	26.66	JN	35	254	1	4	20	PL, VR,
CPO	26.67	JN	35	259	1	4	20	PL, RO
CPO	26.27	JN	28	268	1	4	12	PL, SM
CPO	27.01	JN	62	168	1.5	3	20	ST, RO
CPO	27.2	JN	30	15	1	1	12	PL, SR

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	Joint Descriptions						
Rock Type	Depth	Type	alpha	beta	Jr	Ja	Jcon	Comments
	m		(°)	(°)				
CPO	27.44	JN	36	258	1.5	4	20	PL, RO,Tc
CPO	27.53	JN	28	255	1.5	4	20	PL, RO,Tc
CPO	27.58	JN	34	222	1	4	12	PL, SM,Tc
CPO	27.64	JN	40	218	1.5	4	20	PL, RO,Tc
CPO	28.12	JN	60	140	4	2	20	IR, RO
CPO	28.87	JN	57	194	1.5	3	20	PL, RO
CPO	28.9	VN	34	284	1.5	4	20	PL, RO
CPO	29.95	FR	67	148	3	1	20	PL, VR,
CPO	30.38	JN	71	190	1	2	20	PL, RO
CPO	30.76	VN	73	230	3	1	20	IR, RO
CPO	31.25	JN	70	80	1.5	3	20	UN, RO
CPO	31.42	JN	70	220	1	4	12	PL, SM
CPO	31.59	FO	50	140	1.5	4	20	PL, RO
CPO	31.69	FO	57	190	1.5	4	20	PL,RO
CPO	31.71	FO	76	300	1.5	4		Mec
CPO	31.89	FO	74	210	1	4	12	PL, SM,Tc
CPO	31.93	FO	69	230	1.5	1	12	PL, SM
CPO	32.1	FO	70	270	1	4	12	PL, SM
CPO	32.22	JN	61	75	1.5	1	12	PL, SM
CPO	32.45	JN	52	315	1	2	12	PL, SR
CPO	32.52	VN	90		1.5	2	12	PL, SR, Bi
CPO	32.66	VN	74	290	3	3	20	CU, RO
CPO	32.79	VN	82	324	2	4	20	IR, RO
CPO	33.04	JN	69	310	1	2	12	PL, SM,
CPO	33.18	JN	82	86	1	4	12	PL, SM
CPO	33.34	JN	80	70	1.5	3	12	UN, SM
CPO	33.43	JN	76	30	1	4	12	PL,SM,Tc
CPO	33.58	JN	58	210	3	2	20	CU, RO
CPO	33.77	JN	38	350	1.5	4	20	PL, RO,Tc
CPO	33.82	JN	52	322	1	4	12	PL, SM
CPO	34.12	VN	75	355	1.5	2	12	PL, SM
CPO	34.21	JN	51	270	1	4	12	PL, SM,Tc
CPO	34.53	JN	84	0	1.5	1	12	UN, SM
CPO	34.63	JN	40	165	1	4	12	PL, SM,Tc
CPO	34.81	JN	46		1.5	3	12	PL, SM
CPO	35.2	JN	63	335	1.5	3	12	PL, SM
CPO	35.31	VN	38	25	1.5	1	12	IR, SM
CPO	35.51	JN	48	73	1.5	3	12	PL, SR,
CPO	35.76	JN	29	275	1.5	3	12	ST, SM, Ca
CPO	35.82	JN	67	90	3	3	20	UN, RO
CPO	35.94	JN	53	185	2	4	20	PL, RO, Tc
CPO	35.96	JN	75	165	1	4	12	PL, SM, Tc
CPO	36.1	JN	73	45	2	4	12	UN, SR, Tc
CPO	36.3	JN	60	150	1.5	2	12	PL, SM
CPO	36.79	JN	70	0	1	4	12	PL, SM,Tc
CPO	36.97	JN	57	5	1	4	12	PL, SM,Tc
CPO	37.22	JN	57	180	1	3	12	PL, SM
CPO	37.32	JN	71	355	1.5	3	20	PL, RO
CPO	37.37	JN	90		4	4	20	IR, VR,Tc
CPO	37.48	JN	69	350	3	3	20	CU, RO
CPO	37.5	JN	54	5	3	3	20	IR, VR,
CPO	37.63	JN	52	305	1.5	4	20	CU,RO
CPO	37.93	JN	58	75	1	3	12	PL, SM
CPO	35.58	JN	74	100	1.5	2	20	PL, RO
CPO	37.93	FR		75				
CPO	38.13	JN	32	50	1	3	12	PL, SM
CPO	38.54	JN	34	115	3	2	20	IR,RO,Ca
CPO	38.89	MEC						
CPO	39.12	FO	28	325	1.5	1	12	PL, SM
CPO	39.35	JN	48		1.5	2	12	PL, SM
CPO	39.54	JN	49		2	4	20	UN, RO,Tc

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	Joint Descriptions						
Rock Type	Depth	Type	alpha	beta	Jr	Ja	Jcon	Comments
	m		(°)	(°)				
CPO	39.69	JN	43		1	4	12	PL,SM, Tc
CPO	39.85	JN	49		1.5	1	12	PL, SM
CPO	40.05	JN	41		1.5	3	20	PL, RO
CPO	40.36	JN	67		1.5	3	12	CU, SM
CPO	40.49	JN	63		1.5	3	20	CU, RO
CPO	40.6	JN	30		1.5	3	12	PL, SR
CPO	40.64	JN	41		1.5	2	20	PL, RO
CPO	40.86	JN	80	205	1	4	12	PL,SM
CPO	40.88	JN	85	210	1.5	3	12	UN, SM
CPO	40.64	JN	30		1.5	3	20	PL, RO, Ca
CPO	41.06	VN	28	50	3	3	20	UN, RO
CPO	41.24	Mec						
CPO	41.27	JN	85	110	1.5	4	20	UN, RO,Tc
CPO	41.36	JN	57	120	1	4	12	PL,SM,Tc
CPO	41.46	FR	15	43	1	4	20	UN, RO,Tc
CPO	41.54	JN	78	155	1.5	2	20	UN, RO
CPO	41.58	JN	71		3	3	20	IR, VR
CPO	41.92	JN	69		1.5	3	20	PL, RO
CPO	41.97	JN	53		1.5	2	20	CU, RO
CPO	42.05	JN	65		3	4	20	UN, VR
CPO	42.25	JN	81		1.5	3	20	PL,RO
CPO	42.38	JN	71		1	4	12	PL, SM
CPO	42.67	JN	42		0.5	4	20	PL, PO
CPO	42.71	JN	66		1.5	3	20	PL, RO
CPO	43.23	JN	76		1	2	12	PL, SM
CPO	43.47	JN	58		3	4	20	UN, RO,Tc
CPO	43.54	JN	72		1	4	12	PL,SM,Tc
CPO	43.65	JN	67		1	4	12	PL,SM
CPO	43.79	JN	52		1.5	2	20	PL, RO, Tc
CPO	43.98	JN	61		1	3	20	PL, RO, Tc
CPO	41.46	JN	74	43	1	2	12	PL, SM
CPO	44	JN	83	0	1	4	12	PL, SM
CPO	44.12	JN	61	198	1.5	3	12	PL, SM
CPO	44.33	JN	27	90	1	2	12	PL, SM
CPO	44.44	JN	44	146	1.5	3	12	ST, SM
CPO	44.84	JN	16	140	1.5	3	12	ST, SM
CPO	44.65	JN	78	295	1	4	12	PL, SM,Tc
CPO	45.03	JN	71	280	1	4	12	PL, SM, Tc
CPO	45.14	JN	64	25	1.5	4	12	PL, SR,Tc
CPO	45.19	JN	72	30	1.5	4	12	PL, SM, Tc
CPO	45.25	JN	68	265	1.5	2	12	PL, SM
CPO	45.31	JN	58	125	1.5	1	12	PL, SM
CPO	45.4	JN	49	50	1	4	12	PL,SM
CPO	45.54	JN	63	175	1	4	12	PL,SM
CPO	45.95	JN	71		4	1	20	IR, VR
CPO	46.04	JN	56		4	2	20	IR, VR
CPO	46.15	JN	87		1	4	12	PL,SM,Tc
CPO	46.27	JN	72		1	4	12	PL,SM,Tc
CPO	46.35	JN	72		0.5	4	12	PL, PO, Tc
CPO	46.55	JN	68		4	3	20	UN, VR
CPO	46.62	VN	39		1.5	1	12	PL, SR
CPO	46.68	JN	72		1	4	12	PL, SM,Tc
CPO	46.93	JN	62	140	1.5	1	12	UN, SR
CPO	47.1	JN	59	80	1	4	12	PL, SM,Tc
CPO	47.26	JN	70	280	2	4	20	UN, RO,Tc
CPO	47.43	JN	78	180	1.5	3	20	UN, RO
CPO	47.46	JN	77		1	4	12	PL, SM,Tc
CPO	47.57	JN	80		1	3	12	PL, SM
CPO	47.6	JN	65		1.5	4	12	UN, SM,Tc
CPO	47.74	JN	77		2	3	20	UN, RO
CPO	47.78	JN	60		1.5	4	20	CU, RO,Tc

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	Joint Descriptions						
Rock Type	Depth	Type	alpha	beta	Jr	Ja	Jcon	Comments
	m		(°)	(°)				
CPO	47.88	JN	62		1.5	3	20	PL, RO
CPO	48.08	JN	40		1.5	1	20	PL, RO
CPO	48.44	JN	59		1.5	2	20	PL, RO
CPO	48.52	VN	80		3	1	20	IR, RO
CPO	48.68	JN	42		1	3	12	PL, SM
CPO	48.81	JN	37		1	4	12	PL, SM,Tc
CPO	48.86	JN	70		1.5	2	12	PL, SM
CPO	48.89	JN	41		2	3	20	UN, RO
CPO	49.42	JN	65		1.5	3	20	UN, RO
CPO	49.55	JN	74		1.5	2	20	UN, RO
CPO	49.71	JN	74		1.5	3	20	UN, RO,M
CPO	49.8	JN	38		0.5	2	12	PL, PO
CPO	47.9	JN	60		1	4	12	PL, SM,Tc
CPO	48.01	JN	77		1	4	12	PL, SM, Tc
CPO	49.42	JN	64		1.5	3	20	UN, RO, Tc
CPO	50	JN	74	60	1.5	3	20	CU, RO
CPO	50.18	JN	51	268	2	4	20	UN, RO,Tc
CPO	50.24	JN	56	185	3	3	20	UN, VR
CPO	50.32	JN	81	315	1	4	12	PL, SM,Tc
CPO	50.46	JN	19	302	1	4	12	PL,SM, Tc
CPO	50.52	JN	30	10	1.5	1	20	UN, RO
CPO	50.59	JN	27	275	1	3	12	PL,SM
CPO	50.69	JN	46	255	2	2	20	UN,RO
CPO	50.74	JN	78	100	2	2	20	UN,RO
CPO	50.86	JN	42	305	1	3	12	PL,SM
CPO	51.06	JN	61	315	1.5	3	20	PL,RO
CPO	51.2	VN	68	320	3	2	20	IR, VR
CPO	51.3	JN	65	70	3	3	20	UN,VR
CPO	51.54	VN	29	20	1.5	3	20	PL,RO
CPO	51.6	JN	79	320	1	3	12	PL,SM
CPO	51.75	MEC						
CPO	51.92	JN	51	340	1	3	12	PL,SM
CPO	51.95	JN	65	330	1.5	3	20	PL,RO
CPO	51.98	JN	90		1.5	4	20	PL,RO,Tc
CPO	52.26	JN	68	50	1.5	3	20	PL,RO
CPO	52.41	JN	59	320	1.5	1	20	PL,RO
CPO	52.45	JN	42	30	1.5	3	20	ST, RO
CPO	52.55	JN	76	310	1	4	12	PL,SM,Tc
CPO	52.61	JN	62	75	1	3	12	PL,SM
CPO	52.74	JN	62	330	1.5	2	20	PL,RO
CPO	52.84	JN	60	340	1.5	3	12	UN,SM
CPO	53.07	JN	40	120	1.5	3	20	PL,RO,Ca
CPO	53.12	JN	73	270	1.5	3	20	CU, RO
CPO	53.21	VN	81	270	1.5	3	12	UN, SM
CPO	53.41	JN	52		1.5	3	12	PL,SM
CPO	53.63	JN	63		1.5	3	12	UN,SM
CPO	53.68	JN	51		1	3	12	PL,SM
CPO	53.78	JN	42		2	3	20	UN,RO
CPO	53.82	JN	88		1	4	12	PL,SM,Tc
CPO	54.22	JN	80		1.5	2	12	UN, SM
CPO	54.28	JN	36		1	4	12	PL, SM
CPO	54.39	JN	56		1	4	12	PL,SM,Tc
CPO	54.42	JN	68		3	3	20	UN,RO,Tc
CPO	54.51	JN	46		1	2	12	PL,SM
CPO	55.09	JN	77		1.5	3	20	UN,VR
CPO	55.58	JN	68		1	4	12	PL,SM,Tc
CPO	55.73	JN	28		1.5	2	20	PL,RO,Tc
CPO	55.77	JN	58		3	3	20	IR,RO
CPO	55.91	JN	80		1.5	3	20	CU,RO
CPO	55.46	JN	77		2	4	20	UN,RO,Tc

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	Joint Descriptions						
Rock Type	Depth	Type	alpha	beta	Jr	Ja	Jcon	Comments
	m		(°)	(°)				
CPO	56.35	JN	78	245	1	4	12	PL,SM,Tc
CPO	56.35	JN	70	245	1	4	12	PL,SM,Tc
CPO	56.62	JN	78	110	1	4	20	ST,RO,Tc
CPO	56.88	JN	55	100	1.5	3	20	PL,RO
CPO	56.93	JN	41	60	1.5	2	20	UN,RO
CPO	56.96	JN	87	70	4	2	20	IR,VR
CPO	57.07	JN	62	120	1	3	12	PL,SM
CPO	57.13	JN	70	250	1	4	12	PL,SM,Tc
CPO	57.37	JN	63	200	1.5	2	12	UN,SM
CPO	57.55	JN	59	120	1.5	3	20	PL,RO
CPO	57.64	VN	48	150	3	3	20	UN,VR
CPO	57.82	VN	70	195	3	2	20	UN,VR
CPO	58.02	JN	53	120	1.5	1	20	UN,RO
CPO	58.11	JN	42	250	2	4	20	UN,RO,Tc
CPO	58.3	JN	35	290	1	4	12	PL,SM,Tc
CPO	58.58	JN	25	285	1	4	12	PL,SM
CPO	58.74	JN	76	270	1.5	3	20	CU,RO
CPO	58.86	JN	25	260	1	4	12	PL,SM,Tc
CPO	58.96	JN	25	230	1	4	12	PL,SM,Tc
CPO	59	JN	28	190	1	4	12	PL,SM,Tc
CPO	59	JN	53	190	1	4	12	PL,SM,Tc
CPO	56.38	JN	33	325	1.5	2	20	PL,RO
CPO	59.09	JN	75	270	2	3	20	ST,RO
CPO	59.16	JN	50	320	2	4	20	ST,RO,Tc
CPO	59.25	JN	23	115	1	3	12	PL,SM
CPO	59.5	JN	79	155	1.5	3	12	PL,SR
CPO	59.58	JN	53	165	1.5	3	12	CU,SR
CPO	59.67	JN	78	180	1	4	12	PL,SM,Tc
CPO	59.74	JN	78	170	1	4	12	PL,SM,Tc
CPO	59.92	JN	59		1	3	12	PL,SM
CPO	59.99	VN	77		3	2	20	UN,VR
CPO	60.17	JN	52		2	3	20	CU,RO
CPO	60.4	JN	57		1.5	4	20	PL,RO,Tc
CPO	60.48	JN	44		1.5	1	20	PL,RO
CPO	60.52	JN	54		1	4	12	PL,SM,Tc
CPO	60.55	JN	74		1	3	12	PL,SM
CPO	60.68	JN	39		2	3	20	UN,RO
CPO	60.86	JN	78		1.5	2	20	CU,RO
CPO	61.01	JN	81		1	2	12	PL,SM
CPO	61.07	JN	54		1.5	3	12	PL,SR
CPO	61.17	VN	48		1.5	1	12	PL,SR
CPO	61.23	JN	75		1.5	3	12	PL,SR
CPO	61.34	JN	39		1	4	12	PL,SM,Tc
CPO	61.74	JN	44		1	4	12	PL,SM,,Tc
CPO	61.61	JN	83		3	3	20	UN,VR
CPO	61.86	JN	61		1.5	3	20	IR,RO
CPO	61.61-62	JN	0		2	4	25	Br // to core
CPO	62.12	JN	43		3	2	20	UN,VR,Ca
CPO	62.48	FN	66		1.5	1	20	ST,RO
CPO	62.83	JN	48		1	3	12	PL,SM
CPO	62.89	JN	41		1	3	12	PL,SM
CPO	62.93	JN	39		2	4	20	UN,RO,Tc
CPO	63.03	JN	69		1.5	3	12	PL,SM
CPO	63.14	JN	59		1.5	3	20	ST,RO
CPO	63.15	JN	74		2	4	20	UN,RO,Tc
CPO	63.69	JN	74		3	2	20	IR,RO
CPO	63.76	JN	38		1.5	2	12	ST,SM
CPO	63.79	JN	42		1.5	3	12	PL,SM
CPO	63.91	JN	60		1	3	12	PL,SM
CPO	64.03	JN	53		1	4	12	PL,SM
CPO	64.05	JN	84		1	3	12	PL,SM

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	Joint Descriptions						
Rock Type	Depth	Type	alpha	beta	Jr	Ja	Jcon	Comments
	m		(°)	(°)				
CPO	64.07	JN	83		2	3	20	UN,RO
CPO	64.21	JN	85		1.5	3	20	CU,RO
CPO	64.31	JN	84		1	3	12	PL,SM
CPO	64.42	JN	37		2	4	20	CU,RO,Tc
CPO	64.48	JN	41		1	3	12	PL,SM
CPO	64.57	VN	30		4	1	20	IR,VR
CPO	64.61	JN	63		1.5	2	20	IR,RO
CPO	64.68	JN	32		1	4	12	PL,SM,Tc
CPO	64.82	JN	64		1.5	2	20	PL,RO
CPO	63.37	JN	48		1.5	4	12	PL,SM,Tc
CPO	65.1	JN	68		1.5	4	12	PL,SM,Tc
CPO	65.2	JN	53		1.5	3	20	PL,RO
CPO	65.29	JN	79		1	4	12	PL,SM,Tc
CPO	65.36	JN	59		1.5	2	12	PL,SM
CPO	65.46	JN	54		1.5	3	12	UN,SM
CPO	65.54	JN	37		0.5	4	12	PL,PO,Tc
CPO	65.69	JN	75		1.5	2	12	PL,RO
CPO	65.73	JN	88		1	4	12	PL,SM,Tc
CPO	65.81	JN	70		1.5	3	20	PL,RO
CPO	65.86	JN	79		1.5	3	20	PL,RO
CPO	65.91	JN	78		1.5	3	12	ST,SM
CPO	66.03	JN	60		1.5	3	12	ST,SM
CPO	66.15	JN	41		2	4	20	UN,RO,Tc
CPO	66.17	Mec						
CPO	66.35	JN	19	300	1.5	2	12	PL,SM
CPO	66.31	JN	57	266	3	3	20	IR,VR
CPO	66.4	JN	76	130	1.5	3	20	CU,RO
CPO	66.47	JN	72	255	1.5	2	20	PL,RO
CPO	66.51	JN	81	90	1	3	12	PL,SM
CPO	66.7	JN	69	280	1	3	12	PL,SM
CPO	66.88	JN	53	290	2	3	20	UN,VR
CPO	66.95	JN	69	152	1.5	3	20	UN,RO
CPO	66.01	JN	57	260	1	4	12	PL,SM
CPO	67.06	JN	82	90	1.5	2	20	PL,RO
CPO	67.14	JN	74	160	3	2	20	IR,VR
CPO	67.54	VN	67	150	1.5	2	20	CU,RO
CPO	67.59	JN	78	110	2	4	20	UN,RO
CPO	67.65	JN	84	165	1.5	3	20	PL,VR
CPO	67.85	JN	58	118	1.5	1	20	PL,RO
CPO	67.91	JN	71	210	1	3	12	PL,SM
CPO	65.25	JN	38		2	3	20	UN,RO
CPO	68.36	JN	35		2	4	20	ST,VR,Tc
CPO	68.39	JN	44		1.5	2	20	IR,VR
CPO	68.56	JN	44		1.5	1	20	PL,VR
CPO	68.66	JN	60		1.5	3	20	IR,RO
CPO	68.81	JN	78		1	4	12	PL,SM,Tc
CPO	69.1	JN	35		3	3	20	UN,VR
CPO	69.17	JN	64		1.5	2	20	IR,RO
CPO	69.22	VN	35		1.5	3	20	UN,RO
CPO	69.37	JN	62		1.5	2	20	PL,RO
CPO	69.77	JN	48	130	1.5	3	20	PL,VR,Sa
CPO	69.95	JN	51	130	1.5	2	20	IR,RO
CPO	70.12	JN	71	262	1.5	2	20	ST,RO
CPO	70.23	Mec						
CPO	70.27	FR	46	195	1.5	1	20	PL,RO
CPO	70.99	JN	57	240	1.5	2	20	ST,RO
CPO	70.69	Mec						
CPO	70.71	Mec						
CPO	70.83	VN	75	210	1.5	1	20	PL,RO
CPO	70.93	JN	60	200	1.5	2	20	UN,RO
CPO	71	JN	64	185	1.5	2	20	CU,RO

HOLE CM07-1540	Osisko Project		07-1221-0028		Azimuth	180	Dip -70
	Joint Descriptions						
Rock Type	Depth	Type	alpha	beta	Jr	Ja	Jcon	Comments
	m		(°)	(°)				
CPO	71.03	VN	46	30	1.5	1	12	UN,SM
CPO	71.05	VN	52	40	1.5	1	20	UN,RO
CPO	71.31	VN	35	175	4	1	20	IR,VR,Qz
CPO	71.52	JN	74	90	1.5	2	20	PL,RO
CPO	71.58	JN	56	325	1.5	1	12	IR,SM
CPO	71.59	JN	62	330	1.5	1	20	UN,RO
CPO	72.21	VN	75		3	1	20	IR,RO
CPO	72.23	JN	75		3	1	20	IR,RO
CPO	72.59	VN	41		1.5	3	20	PL,RO
CPO	72.93	JN	38		1.5	1	20	PL,RO
CPO	73.2	JN	57		1.5	3	20	PL,RO
CPO	73.38	JN	75		1.5	2	12	UN,SM
CPO	73.73	JN	37	240	1.5	3	12	UN,SM
CPO	73.86	JN	65	10	1.5	2	20	UN,RO
CPO	74.2	VN	51	32	1.5	3	20	PL,VR
CPO	74.09	JN	81	175	1.5	3	20	PL,RO
CPO	74.39	JN	74	100	1	4	12	PL,SM,Tc
CPO	74.55	JN	90		3	2	20	PL,RO
CPO	74.8	JN	84	55	1	3	12	PL,SM
CPO	74.94	Mec						
CPO	75.03	JN	45	350	1.5	1	20	PL,RO
CPO	75.48	JN	71		1.5	1	20	PL,RO
CPO	75.58	JN	64		1.5	2	20	PL,RO
CPO	75.7	JN	66		1.5	4	20	PL,RO,Tc
CPO	75.88	JN	72		1.5	3	20	PL,RO
CPO	76.19	JN	72		1.5	2	20	PL,RO
CPO	76.46	JN	72		1.5	2	20	PL,RO
CPO	76.65	JN	43		1	4	12	PL,SM,Tc
CPO	76.69	JN	67		1.5	3	20	PL,RO
CPO	77	JN	47		1	4	12	PL,SM,Tc
CPO	75.9	JN	70		1.5	2	20	PL,VR
CPO	77.18	JN	37	50	1.5	2	20	UN,VR
CPO	77.29	JN	23	35	3	3	20	UN,RO
CPO	77.45	JN	70	115	1	4	20	PL,RO,Tc
CPO	77.57	JN	53	295	1	4	12	ST,SM,Tc
CPO	77.64	JN	69	100	1.5	2	12	PL,SM
CPO	77.9	JN	19	220	1.5	3	12	ST,SM
CPO	77.9	JN	72	220	1.5	3	12	PL,SM
CPO	78.03	JN	54		2	4	20	UN,RO,Tc
CPO	78.1	JN	44		1.5	4	20	UN,RO,Tc
CPO	78.2	JN	42		1.5	3	20	UN,RO
CPO	78.33	JN	50		1.5	3	20	IR,RO
CPO	78.42	JN	33		1.5	3	20	UN,RO
CPO	78.77	JN	66		1	4	12	PL,SM,Tc
CPO	78.95	JN	62		1	4	12	PL,SM,Tc
CPO	79.29	JN	57		1.5	3	12	PL,SM
CPO	79.41	VN	39		1.5	1	12	PL,SM
CPO	79.9	JN	75		1	4	12	PL,SM,Tc
CPO	79.98	JN	47		1	4	12	PL,SM,Tc
CPO	80	JN	55	210	1.5	2	20	PL,RO
CPO	78.3	JN	50		1.5	3	20	PL,RO
CPO	80.15	JN	59	130	1.5	2	20	PL,RO
CPO	80.33	JN	52	222	1	4	12	PL,SM,Tc
CPO	80.56	JN	13	90	1.5	4	20	PL,RO,Tc
CPO	80.66	JN	62	225	1	4	12	PL,SM,Tc
CPO	80.78	JN	38	270	1.5	4	20	PL,RO,Tc
CPO	80.91	JN	62	205	1	2	12	PL,SM
CPO	80.93	JN	60	215	1	3	12	PL,SM
CPO	80.99	JN	62		1	3	12	PL,SM
CPO	81.08	JN	62		1.5	3	20	PL,RO
CPO	81.32	JN	46		4	2	20	UN,VR

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	Joint Descriptions						
Rock Type	Depth	Type	alpha	beta	Jr	Ja	Jcon	Comments
	m		(°)	(°)				
CPO	81.47	JN	33		1	4	12	PL,SM,Tc
CPO	81.49	FR	56		4	1	20	UN,VR
CPO	81.63	JN	38		1	2	12	PL,SM
CPO	81.7	JN	38		1	3	12	PL,SM
CPO	81.93	JN	31		1.5	3	20	PL,RO
CPO	82.08	JN	76		1.5	1	20	PL,RO
CPO	82.26	JN	32		1	2	12	PL,SM
CPO	82.52	JN	42		3	2	20	UN,VR
CPO	82.57	JN	46		1	2	12	PL,SM
CPO	82.76	JN	45		1.5	4	20	PL,RO,Tc
CPO	82.85	JN	57		1.5	4	20	PL,RO,Tc
CPO	83.12	JN	45		1.5	4	20	PL,RO,Tc
CPO	83.22	JN	50		1.5	3	20	PL,RO
CPO	83.35	JN	80		2	4	20	UN,VR,Tc
CPO	83.73	JN	35		1	3	12	PL,SM
CPO	83.85	JN	73		3	2	20	UN,VR
CPO	84.31	JN	43		1.5	2	20	PL,RO
CPO	84.44	JN	45		3	3	20	IR,VR,oxi
CPO	84.49	JN	69		1.5	2	20	PL,RO
CPO	84.53	JN	28		1.5	2	20	PL,RO,oxi
CPO	84.8	JN	78		2	2	12	UN,SR
CPO	84.82	JN	73		3	4	20	UN,VR,Tc
CPO	84.98	JN	51		1	3	12	PL,SR,M
CPO	85.13	JN	58		1.5	4	20	PL,RO,Tc
CPO	85.3	JN	31		1.5	3	20	PL,RO
CPO	85.44	JN	31		3	1	20	UN,RO
CPO	85.67	JN	70		1.5	2	20	PL,RO
CPO	86.36	VN	59	325	1.5	2	20	PL,RO
CPO	86.39	VN	59	325	1.5	3	20	PL,RO
CPO	86.64	JN	46	355	1.5	1	20	PL,RO
CPO	86.78	JN	65	205	1.5	2	20	PL,RO
CPO	87.25	JN	43	150	1.5	1	20	PL,RO
CPO	87.34	JN	49	123	1.5	3	20	PL,RO
CPO	87.47	VN	85	250	3	1	20	UN,RO
CPO	87.6	JN	39	135	1.5	1	20	PL,RO
CPO	88.24	JN	77		1.5	3	20	PL,RO
CPO	88.53	JN	27		1	4	12	PL,SM,Tc
CPO	88.64	JN	41		1.5	3	20	PL,RO,Tc
CPO	88.85	JN	76		1.5	4	20	PL,RO,Tc
CPO	88.85	JN	39		1.5	4	20	PL,RO
CPO	86.86	JN	23	150	3	2	20	UN,RO
CPO	89.13	JN	36	15	1.5	1	20	PL,RO
CPO	89.28	JN	36	325	1.5	4	20	PL,RO
CPO	89.37	Mec						
CPO	89.42	JN	40	32	1.5	1	20	PL,RO
CPO	89.46	JN	77	265	1.5	2	20	PL,RO
CPO	89.62	JN	29	5	3	1	20	UN,RO
CPO	89.9	JN	47	300	1.5	2	20	PL,RO
CPO	89.93	JN	78	45	1.5	3	20	PL,RO
CPO	90.08	JN	70	312	1	4	12	PL,SM
CPO	90.11	VN	76	312	3	3	20	UN,VR
CPO	90.21	JN	60	270	2	4	20	UN,RO,Tc
CPO	90.26	JN	60	147	1	4	12	PL,SM,Tc
CPO	90.36	JN	76	330	1.5	3	20	PL,RO
CPO	90.71	JN	32	18	1.5	3	20	PL,RO
CPO	90.77	JN	34	155	3	3	20	UN,RO
CPO	90.89	JN	70	290	1	3	12	PL,SM
CPO	91.06	JN	30	5	3	4	20	UN,RO
CPO	91.29	JN	70	290	2	2	20	UN,RO
CPO	91.38	JN	81	130	1	2	12	PL,SM
CPO	91.42	JN	80	180	1	4	12	PL,SM,Tc

HOLE CM07-1540	Osisko Project	07-1221-0028	Azimuth	180	Dip -70		
	Joint Descriptions						
Rock Type	Depth	Type	alpha	beta	Jr	Ja	Jcon	Comments
	m		(°)	(°)				
CPO	91.43	JN	84	240	1	4	12	PL,SM,Tc
CPO	92.26	JN	71	220	1	4	12	PL,SM
CPO	92.31	JN	76	235	1	2	12	PL,SM
CPO	92.53	JN	37	330	1.5	2	20	PL,RO
CPO	92.54	JN	80	245	1	3	12	PL,SM
CPO	92.66	Mec						
CPO	92.77	JN	52		3	2	20	UN,RO
CPO	92.94	JN	53		1.5	4	20	PL,RO,Tc
CPO	93.04	JN	33		1.5	2	20	PL,RO
CPO	93.16	VN	67		1	4	12	PL,SM,Tc
CPO	93.2	JN	73		4	4	20	UN,VR,Tc
CPO	93.33	JN	37		1.5	4	20	PL,RO,Tc
CPO	93.56	JN	80		1	2	12	PL,SM
CPO	93.68	JN	30		1.5	2	20	ST,RO,oxi
CPO	93.69	JN	77		1	3	12	PL,SM
CPO	94.03	JN	38		3	2	20	UN,RO,oxi
CPO	94.34	JN	37		1.5	2	20	PL,RO
CPO	94.43	JN	37		1	3	12	PL,SM
CPO	94.6	JN	44		1.5	2	12	UN,SR,oxi
CPO	93.57	JN	72		1	4	12	PL,SM,Tc
CPO	95.09	VN	72	240	1.5	2	20	UN,RO
CPO	95.36	JN	37	195	1	4	12	PL,SM,Tc
CPO	95.49	VN	50	55	1.5	1	20	PL,RO
CPO	95.72	JN	32	35	3	1	20	UN,RO
CPO	95.96	JN	15	260	1.5	3	20	PL,RO
CPO	96.06	JN	74	240	1	4	12	PL,SM
CPO	96.79	JN	30	85	1.5	2	20	PL,RO
CPO	96.8	JN	69	245	1	4	12	PL,SM,Tc
CPO	97.47	JN	38	282	1	4	12	PL,SM,Tc
CPO	97.69	JN	62	340	1	4	12	PL,SM,Tc
CPO	97.8	JN	26	40	3	2	20	UN,RO
CPO	97.99	JN	31	315	2	3	20	UN,RO
CPO	98.31	VN	38	165	1.5	2	20	PL,RO
BRGR	98.59	VN	45		1.5	2	20	PL,RO
BRGR	99.4	FO	48		3	1	20	UN,RO
BRGR	99.79	FO	63		3	1	20	UN,RO
BRGR	99.9	FO	41		1.5	3	20	PL,RO
BRGR	98.47	JN	65		1.5	1	20	PL,RO
BRGR	99.95	JN	84		1.5	3	20	PL,RO
BRGR	99.99	JN	50		4	3	20	UN,RO
CPO	101.26	JN	60		1	2	12	PL,SM
CPO	101.46	VN	72		1.5	2	20	PL,RO
CPO	101.49	VN	72		1.5	2	20	PL,RO
CPO	101.78	JN	58		1	4	12	PL,SM,Tc
CPO	102.31	JN	82		1.5	2	20	PL,RO
CPO	102.38	JN	68		1.5	3	20	PL,RO
CPO	102.48	JN	50		1.5	1	20	PL,RO
CPO	102.63	JN	43		1.5	1	20	PL,RO
CPO	103.2	JN	37		1.5	3	20	PL,RO
CPO	103.95	JN	44		1.5	1	20	PL,RO
CPO	103.6	JN	80		3	2	20	UN,RO
CPO	103.83	JN	27		1	2	12	PL,SM
CPO	104.28	JN	31		1.5	2	12	UN,SR
CPO	104.7	JN	65		3	4	20	UN,RO,Tc
CPO	104.79	JN	77		1	4	12	PL,SM,Tc
CPO	104.86	JN	25		1.5	4	20	PL,RO,Tc
CPO	104.89	JN	85		1	4	12	PL,SM,Tc
CPO	105.49	JN	62		1.5	1	20	PL,RO
CPO	105.66	JN	35		2	4	20	UN,RO,Tc
CPO	105.71	JN	73		1.5	1	20	PL,RO
CPO	105.74	JN	75		1	4	12	PL,SM,Tc

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	Joint Descriptions							
Rock Type	Depth	Type	alpha	beta	Jr	Ja	Jcon	Comments
	m		(°)	(°)				
CPO	105.99	JN	50		1.5	2	20	ST,RO,Tc
CPO	106.12	JN	60		1.5	4	20	ST,RO
CPO	106.27	JN	65		1.5	4	20	CU,RO,Tc
CPO	106.44	JN	42		1.5	1	20	CU,RO,Tc
CPO	106.65	JN	60		1	4	12	PL,SM,Tc
CPO	106.03	JN	40		1.5	4	20	PL,RO
CPO	106.05	JN	64		1	4	12	PL,SM
CPO	106.65-107	Br						Mec
CPO	107.11	JN	56		1.5	4	20	PL,RO,Tc
CPO	107.52	JN	80		1.5	4	20	PL,RO,Tc
CPO	107.57	JN	80		1.5	4	20	PL,RO,Tc
CPO	107.53	JN	28		1	4	12	PL,SM,Tc
CPO	107.98	JN	48		1.5	4	20	PL,RO,Tc
CPO	107.88	JN	51		1.5	4	20	PL,RO,M
CPO	107.98	JN	30		1.5	4	20	PL,RO,Tc
CPO	108.07	VN	78		3	3	20	UN,RO
CPO	108.23	JN	72		1	4	12	PL,SM
CPO	108.42	JN	85		1	4	12	PL,SM
CPO	109.26	JN	56		3	1	20	UN,RO
CPO	109.44	JN	26		1.5	2	20	ST,RO
CPO	109.79	JN	70		1.5	3	20	PL,RO,
CPO	108.83	JN	45		1.5	3	20	PL,RO,Sa
CPO	109.18	JN	98		1.5	3	20	ST,RO,Sa
CPO	110.09	JN	72		1.5	2	20	PL,RO,
CPO	110.29	JN	68		1.5	4	20	PL,RO,
CPO	110.98	JN	77		1.5	1	20	PL,RO,
CPO	111.13	JN	42		1	4	12	PL,SM,Tc
CPO	111.2	JN	45	45	1.5	4	12	UN,SR
CPO	111.43	JN	31	55	1.5	2	12	UN,SR
CPO	111.48	JN	33	28	1	4	12	PL,SM,Tc
CPO	111.77	JN	27	68	1	3	12	PL,SM,Sa
CPO	112.18	JN	41	130	1	4	12	PL,SM,Tc
CPO	112.49	JN	44	32	1	4	12	PL,SM,Tc
CPO	112.85	JN	38	206	1	2	12	PL,SM,oxi
CPO	112.91	JN	62	56	1	4	12	PL,SM,Tc
CPO	112.95	JN	51	86	0.5	4	12	PL,PO,Tc
CPO	113.17	JN	78	205	1	4	12	PL,SM,Tc
CPO	113.37	JN	37	15	1.5	2	12	UN,SR
CPO	113.64	JN	52	260	2	4	20	UN,RO,Tc
CPO	113.78	JN	69	90	2	4	20	UN,RO,Tc
CPO	114.13	JN	72	90	1.5	2	20	PL,RO,
CPO	114.29	JN	33	355	1.5	2	20	PL,RO,
CPO	114.62	JN	50	215	0.5	4	20	PL,PO,Tc
CPO	114.73	JN	44	30	0.5	4	20	PL,RO,Tc
CPO	114.94	JN	64	55	1.5	2	20	PL,RO,Ca
CPO	115.23	JN	72	306	1.5	2	20	PL,RO,
CPO	115.75	VN	72	95	1.5	1	20	PL,RO,
CPO	115.85	VN	82	180	1.5	1	20	PL,RO,
CPO	113.47	VN	38	305	1.5	1	20	PL,RO,
CPO	116.18	JN	75	300	1.5	2	20	PL,RO,
CPO	116.33	JN	57	130	1.5	4	20	PL,RO,Tc
CPO	116.87	JN	25	165	1.5	2	20	PL,RO,Ca
CPO	116.93	VN	75	80	1.5	2	20	PL,RO,oxi
CPO	117.37	JN	43	190	1.5	2	20	PL,RO,
CPO	117.54	JN	38		1.5	1	20	PL,RO,
CPO	117.7	VN	85		1.5	2	20	PL,RO,
CPO	117.86	JN	57		1	4	12	PL,SM,Tc
CPO	117.97	JN	62		1.5	3	12	CU,ST,M
CPO	118.44	VN	83		1.5	1	20	PL,RO,
CPO	118.67	JN	53		1.5	2	20	PL,RO,
CPO	119.1	JN	58	180	1.5	1	20	PL,RO,

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	Joint Descriptions							
Rock Type	Depth	Type	alpha	beta	Jr	Ja	Jcon	Comments
	m		(°)	(°)				
CPO	119.79	VN	73	135	3	1	20	UN,RO
CPO	119.83	JN	50	180	1.5	1	12	UN,SM
CPO	120.06	JN	20	40	1	4	12	PL,SM,Tc
CPO	120.56	JN	54		1.5	3	12	ST,SR
CPO	121.1	JN	56		1.5	2	12	PL,SR
CPO	121.62	JN	55		1	4	12	PL,SM,Tc
CPO	121.9	JN	34		1.5	2	20	PL,RO,
CPO	122.06	JN	30		1.5	2	20	PL,RO,
CPO	122.71	JN	49		1	4	12	PL,SM,Tc
CPO	122.86	JN	47		1.5	1	20	PL,RO,
CPO	123.4	JN	60		1	2	12	PL,SM
CPO	123.61	VN	67		1.5	1	12	CU,SM
CPO	124.07	JN	39		1	3	12	PL,SM
CPO	124.12	JN	38		1.5	2	20	PL,RO,
CPO	124.68	JN	43	280	1.5	2	20	PL,RO,
CPO	124.8	JN	36	155	1.5	1	20	PL,RO
CPO	125.44	JN	63	120	1	4	12	PL,SM,Tc
CPO	126.14	JN	47	195	1.5	1	20	PL,RO
CPO	126.98	JN	48	55	1.5	4	20	PL,RO,Tc
CPO	127.02	JN	44	65	0.5	4	12	PL,PO,Tc

HOLE CM07-1446	Osisko Project		07-1221-0028		Azimuth	180		Dip	-60															
Run #	From	To	Interval	Rock type	Recovery	TCR (%)	RQD	RQD	SCR	SCR	Fracture/0.25m												Fracts/run	Fracts/m	Jn
	m	m			m		m	%	m	%															
1	9.00	12.00	3.00	APO	3.00	100	1.84	61	1.57	52	0	1	2	2	2	1	2	3	0	3	4	1	21	1.75	4.0
2	12.00	15.00	3.00	AGR	3.00	100	1.56	52	2.43	81	2	1	1	0	1	3	0	2	0	1	0	3	14	0.93	9.0
3	15.00	18.00	3.00	AGR	2.96	99	1.93	64	1.73	58	1	0	1	2	1	1	2	1	3	4	3	2	21	1.17	6.0
4	18.00	21.00	3.00	CGR	2.99	100	2.73	91	2.09	70	0	1	1	2	0	3	3	1	0	4	1	1	17	0.81	4.0
5	21.00	24.00	3.00	CGR	3.00	100	2.39	80	2.17	72	1	0	3	1	2	1	4	0	2	1	0	0	15	0.63	6.0
6	24.00	27.00	3.00	CGR	3.04	101	2.28	76	2.10	69	0	0	1	0	0	0	2	0	4	2	2	4	15	0.56	6.0
7	27.00	30.00	3.00	CGR	3.01	100	2.88	96	2.71	90	3	0	0	1	0	0	0	0	1	4	4	2	15	0.50	4.0
8	30.00	33.00	3.00	AGR	2.95	98	1.71	57	1.51	51	1	4	4	2	2	2	1	2	0	2	3	4	27	0.82	9.0
9	33.00	36.00	3.00	AGR	3.00	100	2.49	83	1.95	65	3	3	2	2	3	3	3	2	1	2	2	2	28	0.78	4.0
10	36.00	39.00	3.00	CGR	3.00	100	2.85	95	2.51	84	1	1	1	0	0	1	0	1	1	1	1	2	10	0.26	4.0
11	39.00	42.00	3.00	AGR	3.04	101	3.00	100	2.52	83	1	3	1	0	2	1	0	0	0	0	0	0	8	0.19	6.0
12	42.00	45.00	3.00	SPO	3.00	100	2.80	93	2.22	74	0	1	0	2	2	1	1	1	0	0	0	1	9	0.20	6.0
13	45.00	48.00	3.00	CGR	3.02	101	2.59	86	1.82	60	0	1	2	3	4	1	1	1	2	2	2	0	19	0.40	6.0
14	48.00	51.00	3.00	SPO	3.03	101	2.83	94	2.59	85	2	0	0	0	0	0	1	0	0	1	1	1	6	0.12	6.0
15	51.00	54.00	3.00	SPO	3.04	101	2.69	90	2.05	67	0	1	2	1	1	2	1	1	3	2	2	0	16	0.30	6.0
16	54.00	57.00	3.00	SPO	3.00	100	2.38	79	1.98	66	0	0	2	2	1	1	1	1	1	2	1	1	13	0.23	4.0
17	57.00	60.00	3.00	SPO	3.04	101	1.96	65	1.93	63	2	2	1	1	1	1	2	0	0	1	3	2	16	0.27	6.0
18	60.00	63.00	3.00	SPO	3.00	100	2.67	89	2.07	69	2	0	1	3	0	2	1	3	2	1	1	2	18	0.29	4.0
19	63.00	66.00	3.00	SPO	3.00	100	2.82	94	2.52	84	2	0	1	0	1	1	2	1	0	0	1	0	9	0.14	4.0
20	66.00	69.00	3.00	CPO	2.97	99	2.56	85	2.25	76	0	0	1	1	2	1	3	0	1	0	0	1	10	0.14	4.0
21	69.00	72.00	3.00	SPO	2.91	97	2.83	94	2.51	86	0	0	1	1	0	1	1	0	0	2	0	0	6	0.08	6.0
22	72.00	75.00	3.00	CPO	3.03	101	2.99	100	2.39	79	0	1	0	0	2	1	1	1	0	2	1	0	9	0.12	6.0
23	75.00	78.00	3.00	SPO	2.98	99	2.92	97	2.46	83	1	0	1	2	0	0	1	0	0	1	0	2	8	0.10	4.0
24	78.00	81.00	3.00	CPO	2.90	97	2.81	94	2.36	81	0	1	2	1	1	0	0	1	0	1	1	0	8	0.10	15.0
25	81.00	84.00	3.00	CPO	3.00	100	2.78	93	2.03	68	1	1	1	0	2	1	1	0	1	1	3	2	14	0.17	4.0
26	84.00	87.00	3.00	CPO	2.98	99	2.15	72	1.96	66	1	3	3	2	0	2	0	3	3	1	0	0	18	0.21	6.0
27	87.00	90.00	3.00	CPO	2.99	100	2.92	97	2.53	85	0	2	1	0	1	1	2	0	0	1	0	1	9	0.10	6.0
28	90.00	93.00	3.00	SPO	3.03	101	3.03	101	2.67	88	1	1	0	1	0	0	1	0	0	0	0	1	5	0.05	3.0
29	93.00	96.00	3.00	CPO	2.93	98	2.93	98	2.65	90	1	0	0	1	0	0	0	0	1	0	0	1	4	0.04	3.0
30	96.00	99.00	3.00	CPO							1	0	0	1	0	1	0	2	0	0	1	2	8	0.08	3.0
31	99.00	102.00	3.00	CPO	2.97	99	2.89	96	2.57	87	0	1	0	0	0	0	0	1	1	0	3	0	6	0.06	2.0
32	102.00	105.00	3.00	CPO	2.96	99	2.63	88	1.98	67	0	1	1	0	1	2	1	0	1	0	1	1	9	0.09	3.0
33	105.00	108.00	3.00	CPO	2.96	99	2.86	95	2.36	80	0	2	2	1	0	0	1	0	1	0	1	0	8	0.07	6.0
34	108.00	111.00	3.00	CPO	3.01	100	2.94	98	2.72	90	1	1	1	0	2	0	1	1	1	0	0	0	8	0.07	4.0
35	111.00	114.00	3.00	SPO	2.97	99	2.97	99	2.47	83	0	0	1	0	1	0	1	0	0	0	1	1	5	0.04	3.0

Run Logging Data

HOLE CM07-1446	Osisko Project		07-1221-0028		Azimuth	180		Dip	-60															
Run #	From	To	Interval	Rock type	Recovery	TCR (%)	RQD	RQD	SCR	SCR	Fracture/0.25m												Fracts/run	Fracts/m	Jn
	m	m			m		m	%	m	%															
36	114.00	117.00	3.00	SPO	2.93	98	2.93	98	2.55	87	1	0	0	1	0	0	0	1	0	0	0	0	3	0.03	3.0
37	117.00	120.00	3.00	CPO	2.98	99	2.74	91	2.25	76	1	2	4	2	0	0	1	0	1	0	0	1	12	0.10	3.0
38	120.00	123.00	3.00	CPO	2.98	99	2.90	97	2.44	82	0	1	1	0	0	1	1	1	3	1	0	0	9	0.07	4.0
39	123.00	126.00	3.00	CPO	2.92	97	2.79	93	2.36	81	2	0	0	1	0	0	0	0	1	1	0	2	7	0.06	3.0
40	126.00	129.00	3.00	CPO	3.02	101	2.94	98	2.08	69	0	0	2	2	1	1	0	0	1	1	1	0	9	0.07	6.0
41	129.00	132.00	3.00	APO	2.98	99	2.71	90	2.20	74	1	2	3	0	2	1	2	0	2	0	0	0	13	0.10	6.0
42	132.00	135.00	3.00	APO	2.67	89	2.64	88	1.96	73	0	0	0	0	1	1	0	1	2	3	0	0	8	0.06	4.0
43	135.00	138.00	3.00	APO	2.97	99	2.97	99	2.57	87	0	1	0	0	1	1	1	0	0	0	0	0	4	0.03	4.0
44	138.00	141.00	3.00	CPO	3.02	101	2.91	97	2.55	84	2	1	0	2	1	0	0	0	0	1	1	3	11	0.08	4.0
45	141.00	144.00	3.00	SPO	2.98	99	2.90	97	2.24	75	1	1	1	1	1	1	0	0	1	1	1	1	10	0.07	4.0
46	144.00	147.00	3.00	APO	2.97	99	2.84	95	2.18	73	0	1	0	0	2	0	3	1	0	0	0	0	7	0.05	4.0
47	147.00	150.00	3.00	APO	3.02	101	3.02	101	2.48	82	0	1	1	1	0	0	2	1	0	0	1	0	7	0.05	6.0
48	150.00	153.00	3.00	APO	3.02	101	3.02	101	2.47	82	3	0	1	0	0	2	0	1	0	3	0	0	10	0.07	6.0
49	153.00	156.00	3.00	CPO	3.03	101	3.03	101	2.65	87	1	0	0	0	0	0	0	0	2	1	1	0	5	0.03	4.0
50	156.00	159.00	3.00	CPO	2.96	99	2.96	99	2.65	90	1	0	1	1	0	1	2	0	1	0	1	1	9	0.06	6.0
51	159.00	162.00	3.00	SPO	3.00	100	2.74	91	2.34	78	1	2	3	2	0	0	2	1	1	0	2	1	15	0.09	3.0
52	162.00	165.00	3.00	APO	3.00	100	3.00	100	2.37	79	1	0	1	0	1	3	1	2	1	1	1	0	12	0.07	6.0

HOLE CM07-1446	Osisko Project		07-1221-0028		Azimuth	180 Dip -70
	Joint Descriptions					
Rock Type	Depth	Type	alpha	Jr	Ja	Jcon	Comments
	m		(°)				
APO	9.28	JN	71	1	2	12	PL,SR,Ep,Ca
APO	9.51	JN	75	1	2	12	PL,SR,Ep,Ca
APO	9.73	JN	40	1	2	12	PL,SM,Ep,Ca,Fe
APO	9.76	JN	80	3	2	20	UN,RO,Ep,Fe
APO	9.94	JN	17	1	4	12	PL,SM,Tc,Ch
APO	10	JN	88	1.5	1	20	PL,RO
APO	10.2	JN	65	1	2	12	PL,SM,
APO	10 à 10,2	Br mec					
APO	10.49	JN	69	1.5	3	12	PL,RO, Fe,Ep
APO	10.63	JN	28	1	1	12	PL,SM
APO	10.72	JN	65	1	3	12	PL,SM,Fe,Ep
APO	10.84	VN	60	1	3	12	IR,RO,Qz 12mm
APO	10.87	JN	70	1	3	12	PL,SR,De,Ep oxy
APO	10.89	JN	18	1.5	2	20	PL,RO, Ep
AGR	11.4	JN	48	1	2	12	PL,SR,Ch
AGR	11.44	JN	65	1.5	2	20	ST,RO,Ch,Qz
AGR	11.5	FO	35	2	2	12	PL,RO,M
AGR	11.56	FO	26	2	2	12	PL,SR,Py,Qz
AGR	11.64	JN	58	2	1	20	UN,SM,Qz
AGR	11.71	JN	62	1	2	12	PL,SM,Ep
AGR	11.74	JN	60	1	1	12	PL,SR
AGR	11.90	JN	55	1	1	12	PL,RO
AGR	12.00	FO	33	1	1	12	PL,SM
AGR	12.16	FO	29	1	1	12	PL,SM
AGR	12.42	JN	50	1.5	1	20	ST,VR
AGR	12.55	JN	35	1	2	12	PL,SM,Ca
AGR	13.06	JN	32	1	1	12	PL,SM,Py
AGR	13.33	JN	44	1	3	12	PL,SM'Ch,Ep
AGR	13.41	FLT	56	2	4	20	UN,SM,Cl 8mm
AGR	13.50	FLT	55	2	2	12	UN,SM,Cl <1mm
AGR	13.84	JN	63	1	3	12	PL,SM,Ca,Py
AGR	13.95	VN	64	1.5	1	20	PL,R,Qz 4mm
AGR	14.44	JN	54	1	1	012	PL,SM
AGR	14.76	JN	35	1	4	12	PL,SM,Cl,Ca 1mm
AGR	14.85	JN	56	1	1	12	PL,SM,
AGR	14.92	JN	58	2	1	20	UN,SR
AGR	15.05	JN	51	1	1	12	PL,SM,Py
AGR	15.20	JN	37	2	1	12	UN,SR
AGR	15.25	JN	45	0.5	1	12	PL,PO,Py
AGR	15.54	JN	28	1	1	12	PL,SR,Py
AGR	15.79	JN	22	1	1	12	PL,SM
AGR	15.84	JN	20	3	1	20	IR,RO
AGR	16.01	FO	45	2	2	12	PL,SR,Ca,Py
AGR	16.45	JN	22	1	2	12	PL,SR,Ca
AGR	16.54	JN	60	3	1	20	UN,RO
AGR	16.66	JN	56	2	2	20	ST,SR,M
AGR	16.89	JN	54	1	1	12	PL,SR,Qz
CGR	17.09	FO	36	1	2	12	PL,SM,Ca
CGR	17.20	FO	33	1	1	12	PL,SM
CGR	17.21	JN	75	3	2	20	IR,RO,Qz,Fe
CGR	17.33	JN	64	2	1	20	UN,SM
CGR	17.36	JN	48	1	2	12	PL,S,Ep
CGR	17.41	JN	48	2	2	12	ST,SR,Ep

HOLE CM07-1446	Osisko Project		07-1221-0028		Azimuth	180 Dip -70
	Joint Descriptions					
Rock Type	Depth	Type	alpha	Jr	Ja	Jcon	Comments
	m		(°)				
CGR	17.49	JN	38	1	2	12	PL,SM,Fe,Ep
CGR	17.64	JN	48	0.5	1	12	PL,PO
CGR	17.71	JN	25	2	1	12	ST,SR,Qz,Py
CGR	17.75	JN	48	1	1	12	PL,SM
CGR	17.80	JN	36	1	1	12	PL,SM
CGR	17.94	JN	65	2	2	12	ST,RO,Ca
CGR	18.29	JN	45	1	2	12	PL,SM,Ca
CGR	18.73	FO	035	0.5	1	12	PL,PO
CGR	18.78	FO	036	1	1	12	PL,PO
CGR	18.99	JN	44	3	1	12	UN,SR
CGR	19.30	JN	44	1	2	12	PL,SM
CGR	19.33	JN	42	0.5	1	12	PL,PO,Qz
CGR	19.40	JN	32	2	2	12	PL,RO,Ca
CGR	19.55	JN	35	1	3	12	PL,SM,Ca <1mm
CGR	19.58	JN	45	1	3	12	PL,SM,Ca 1mm
CGR	19.65	FO	42	1	2	12	PL,SM,Ca
CGR	19.89	FO	42	1	2	12	PL,SM,Ca
CGR	20.29	JN	32	1	2	12	PL,SM,Ca
CGR	20.32	FO	43	1	1	12	PL,SM
CGR	20.47	JN	56	3	2	20	PL,RO,Ca
CGR	20.50	JN	56	1	2	12	PL,SM,Ca
CGR	20.62	JN	56	1	2	12	PL,SM,Ca
CGR	20.82	JN	52	3	2	20	IR,SR,Ca
CGR	21.19	FO	43	1	1	12	PL,PO
AGR	21.59	FO	44	1	1	12	PL,SM,Py
AGR	21.64	FO	45	1	3	12	PL,SM,Ch
AGR	21.67	FO	51	1	2	12	PL,SM,Ca
AGR	21.91	JN	76	2	2	12	PL,SR,Ca,Py
AGR	22.00	JN	48	2	1	12	PL,SR
AGR	22.04	JN	50	1	1	12	PL,SM
AGR	22.50	JN	44	1	1	12	PL,SM
AGR	22.54	JN	50	3	1	20	IR,RO
AGR	22.58	JN	45	1	1	12	PL,SM
AGR	22.65	FO	45	1	1	12	PL,SM
AGR	22.71	JN	58	2	1	20	CU,SM
CGR	23.20	FO	42	0.5	4	12	PL,PO,Tc
CGR	23.33	FO	45	0.5	4	12	PL,PO,Tc
CGR	23.44	FO	44	0.5	4	12	PL,PO,Tc
CGR	24.72	JN	38	2	3	20	CU,SM,Ca <1mm
CGR	25.68	JN	20	3	2	20	UN,RO,Ca
CGR	25.71	JN	56	1	1	12	PL,SM
CGR	25.93	JN	40	2	2	12	CU,SM,Ca,Py
CGR	26.02	FO	42	0.5	2	12	PL,PO
CGR	26.06	JN	60	3	2	20	UN,RO,Ca
CGR	26.14	JN	42	1.5	4	12	PL,RO,Ca,Ch,Ep
CGR	26,14 à 26,19	Br Mec					
CGR	26.19	JN	38	1	4	12	PL,SM,Ca,Ch
CGR	26.32	JN	39	0.5	4	12	PL,PO,Py,Ch
CGR	26.44	JN	48	1.5	2	12	PL,RO,Ca
CGR	26.63	JN	68	3	1	20	IR,RO
CGR	26.70	VN	33	2	1	20	UN,SR,Qz 5mm

HOLE CM07-1446	Osisko Project		07-1221-0028		Azimuth	180 Dip -70
	Joint Descriptions					
Rock Type	Depth	Type	alpha	Jr	Ja	Jcon	Comments
	m		(°)				
CGR	26.81	JN	58	3	1	20	IR,RO
CGR	26.86	JN	38	1	1	12	PL,SR
CGR	26.88	JN	79	2	1	20	UN,SR,
CGR	26.97	JN	37	1	4	12	PL,SM,Tc
CGR	27.15	JN	35	1	4	12	PL,SM,Tc,Ep,Ch
CGR	27.19	JN	34	1	4	12	PL,SR,Tc,Ep,Ch
CGR	27.22	JN	48	2	1	12	PL,SR,Py
AGR	27.93	JN	47	1	4	12	PL,SM,Ep,Tc,Ch
AGR	28.95	JN	53	2	1	12	PL,RO,Py,Qz
AGR	29.49	JN	53	1	4	12	PL,SM,Tc,Ch
AGR	29.52	JN	48	1	4	12	PL,SM,Tc,Ch
AGR	30.20	JN	38	1	1	12	Pl,SM,Py
AGR	30.26	JN	66	3	3	20	CU,RO,Ca <1mm
AGR	30.30	JN	70	2	4	12	PL,RO,Cl <1mm
AGR	30,30 à 30,47	Br Mec					
AGR	30.47	JN	66	1	2	12	PL,SM,M
AGR	30.50	JN	76	1	1	12	PL,SR,
AGR	30.53	JN	65	1	1	12	PL,SR,M
AGR	30.60	JN	67	1	1	12	PL,SM
AGR	30.64	JN	38	1	1	12	PL,SM
AGR	30.65	JN	75	2	1	12	PL,SM
AGR	30.78	FO	42	1	1	12	PL,SM
AGR	30.93	JN	30	1	4	12	PL,SM,Ch,Tc
AGR	31.00	JN	69	2	1	20	IR,SM
AGR	31.12	JN	72	1	2	12	PL,SM,Cl,Ca,Tc
AGR	31.27	JN	30	1	2	12	PL,SR,Ca,Tc
AGR	31.48	JN	34	1	3	12	PL,SM,Tc
AGR	31.65	JN	68	3	1	20	IR,RO
AGR	31.76	JN	43	0.5	1	12	PL,PO
AGR	31.87	JN	40	1	1	12	PL,SR
AGR	32.38	JN	45	1	1	12	PL,SR
AGR	32.45	JN	38	2	1	12	PL,RO
AGR	32.60	JN	29	1	2	12	PL,SM,Ca,Ch
AGR	32.67	JN	38	0.5	1	12	PL,PO
AGR	32.75	JN	66	1	1	12	PL,SR
AGR	32.82	JN	40	1	3	12	PL,SM,Cl <1mm
AGR	32.91	JN	60	2	1	12	ST,SR
AGR	32.94	JN	61	1	3	12	PL,SM,Ch
AGR	32.98	JN	64	2	3	12	UN,SM,Cl
AGR	33.09	JN	44	2	3	12	UN,SM,Cl,Ch
AGR	33.14	JN	75	2	3	12	PL,SM,Cl
AGR	33.24	JN	70	1	3	12	PL,SR,Cl,Ca
AGR	33.34	JN	49	3	4	20	UN,R,Tc,Ch
AGR	33.40	JN	54	3	1	20	PL,RO
AGR	33.44	JN	74	1.5	2	12	PL,SR,Cl
AGR	33.51	JN	67	1	3	12	PL,SM,Cl
AGR	33.61	VN	54	1	3	12	PL,RO,Qz,Cl 30mm
AGR	33.85	JN	75	1.5	1	12	PL,SM
AGR	33.96	JN	75	2	1	12	UN,SR
AGR	34.00	JN		3	2	20	IR,SR,Ca
AGR	34.14	JN	58	1	4	12	PL,SM,Ch,Tc

HOLE CM07-1446	Osisko Project		07-1221-0028		Azimuth	180 Dip -70
	Joint Descriptions					
Rock Type	Depth	Type	alpha	Jr	Ja	Jcon	Comments
	m		(°)				
AGR	34.19	JN	65	2	1	12	PL,RO,
AGR	34.26	JN	74	3	1	20	UN,RO
AGR	34.30	JN	72	2	1	20	UN,SR
AGR	34.47	JN	54	2	3	20	UN,RO,Cl
AGR	34.51	JN	37	2	8	12	PL,SM,Cl
AGR	34.56	JN	43	1	3	12	PL,SM,Tc
AGR	34.70	JN	54	3	1	20	CU,RO
AGR	34.81	JN	59	0.5	3	12	PL,PO,Ch,Tc
AGR	34.98	JN	41	1	1	12	PL,SR
CGR	35.05	JN	54	1	1	12	PL,SR
CGR	35.30	JN	48	3	1	20	UN,VR
CGR	35.38	JN	31	3	1	20	ST,RO
CGR	35.61	JN	55	1.5	2	20	PL,RO,Ca
CGR	35.73	JN	47	1	3	12	PL,SM,Cl
CGR	35.83	JN	45	1	3	12	PL,SM,Ch
CGR	35.84	JN	46	1	1	12	PL,SM
CGR	36.15	JN	56	2	1	12	UN,SM
AGR	36.65	JN	42	0.5	1	12	PL,PO
AGR	36.88	JN	85	1	1	12	PL,SR
AGR	37.30	JN	74	1.5	1	12	PL,SR
AGR	37.79	JN	55	1	2	12	PL,SM,Ca <1mm
AGR	38.20	JN	40	1	2	12	PL,SM,Ca
AGR	38,20 à 38,31	Br	65	2	2	12	PL,SM,Br = // foliation
AGR	38.31	JN	83	2	3	12	UN,SR,Tc
AGR	38.75	JN	60	1	1	12	PL,SM
AGR	38.92	JN	67	1.5	1	12	PL,SR
AGR	38.98	JN	71	1.5	3	12	PL,SR <1mm
AGR	39.25	JN	33	1	1	12	PL,SM,Qz <1mm
CGR	40.02	JN	76	3	2	20	CU,RO,Ca
CGR	40.32	JN	48	2	1	12	PL,SM
CGR	40.45	JN	43	1	2	12	PL,SM,Ca
CGR	40.58	JN	78	1	2	12	PL,SM,Ca
SPO	41.03	JN	41	3	1	20	IR,RO
SPO	41.20	JN	54	3	2	20	IR,RO,Ca
SPO	41.33	VN	83	3	1	20	ST,R,Qz 98mm
CGR	42.38	JN	48	1.5	1	12	ST,SM
CGR	42.86	JN	66	3	1	20	ST,VR
CGR	42.94	JN	68	1	2	12	PL,SM,Ca
CGR	42.98	JN	74	1	2	12	PL,SM,Ca
CGR	43.04	JN	72	1	3	12	PL,SM,Ca,Tc
CGR	43.17	JN	63	1	3	12	PL,SM,Ca,Tc
CGR	43.37	JN	16	1	4	12	UN,SM,Ca,Ch,Tc
CGR	43.73	JN	49	1	4	12	PL,SM,Ca,Ch,Tc
CGR	43.87	JN	55	3	4	20	IR,RO,Ca,Ch,Tc
CGR	44.34	JN	38	1	4	12	PL,SR,Ca,Py,Tc
CGR	44.96	JN	33	3	4	20	ST,SR,Ca,Ch,Tc
CGR	45.33	JN	72	1.5	1	12	PL,SR
CGR	45.59	JN	43	2	1	12	ST,SR
CGR	45.64	JN	84	3	2	20	UN,RO,Ca,Fe
SPO	45.90	VN	67	3	2	20	UN,RO,Ca,Qz 50mm
SPO	45.95	VN	52	3	1	20	UN,RO,Qz 80mm

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	Joint Descriptions					
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	m		(°)				
SPO	45.98	JN	38	3	3	20	UN,VR,Ca,Bt
SPO	46.10	JN	72	3	3	20	UN,RO,Ca
SPO	46.15	JN	68	3	2	20	UN,RO,Ca
SPO	46.21	JN	66	3	4	20	UN,RO,Ca,Ch
SPO	46.23	JN	63	3	4	20	IR,VR,Ch,Ca
SPO	46.44	JN	69	1	3	12	PL,SR,Ch
SPO	46.70	JN	33	1.5	3	12	PL,RO,Ca,Ch
SPO	46.87	JN	69	1	4	12	PL,SR,Ca,Ch,Ep
SPO	47.07	JN	38	1.5	4	12	PL,SR,Ca,Ch,Py
SPO	47.16	JN	57	1	3	12	PL,SM, Ch,Fe
SPO	47.32	JN	64	2	3	12	CU,SR,Ca,Ch
SPO	47.38	JN	48	1	3	12	PL,SM,Ca,Ch
SPO	47.52	JN	35	2	3	12	PL,VR,Ch
SPO	47.68	JN	42	2	3	12	ST,RO,Ch,Qz
SPO	47.69	JN	52	2	1	12	UN,SR
SPO	47,69 à 47,77	Br	52	2	3	12	Fe,Ep,Ch
SPO	48.12	JN	65	1	3	12	PL,SR,Ep,Ca,Py,Ch
SPO	48.23	FO	24	1	3	12	PL,SR,Ep,Ch,Py,Ca
SPO	49.11	JN	32	2	3	20	UN,SR,Ep,Ch,Py
SPO	49.46	JN	56	3	3	20	UN,RO,Ch,Py
SPO	49.73	JN	52	1	2	12	PL,R,Py,Ch
SPO	50.32	JN	30	1	3	12	PL,SR,Ch,Ca,Py
SPO	50.50	JN	76	2	2	20	CU,RO,Py,Ch,Ca
SPO	50.94	JN	15	2	2	20	UN,RO,Ch
SPO	51.31	JN	42	1	2	12	PL,R,Py,Ch,Ca
SPO	51.50	JN	42	1	2	12	PL,RO,Ch,Ca
SPO	51.58	VN	28	4	3	20	UN,RO,Ca,Py,Ch,Ta,Bi 5mm
SPO	51.92	JN	38	1.5	3	20	PL,RO,Ch,Ca,Py
SPO	52.25	JN	48	1	2	12	PL,SM,Ch,Ca,Py
SPO	52.43	JN	44	2	3	20	UN,SR,Ch,Ca,Tc
SPO	52.50	JN	72	2	2	20	ST,RO,Ch,Ca
SPO	52.62	JN	77	2	2	20	IR,RO,Ch,Ca
SPO	52.80	JN	28	2	2	20	UN,SR,Ch,Ca
SPO	52.91	JN	84	2	2	20	ST,RO,Ch,Ca
SPO	53.04	JN	54	2	3	20	UN,RO,Ca,Ch,Tc,Py
SPO	53.14	Br mec					
SPO	53.20	JN	22	1.5	4	12	PL,RO,Ch,Ca,Tc,Py
SPO	53.30	JN	53	1.5	4	12	PL,RO,Ch,Ca,Ta
SPO	53.40	JN	65	1	2	12	PL,SR,Ca,Ch
SPO	53.51	JN	58	3	3	20	CU,RO,Ca,Ch
SPO	53.70	JN	59	1.5	3	12	PL,RO,Ch,Ca,Py
SPO	54.54	JN	30	3	4	20	UN,RO,Ca,Ch,Tc
SPO	54.72	JN	70	1.5	4	12	PL,VR,Ca,Ch,Tc
SPO	54.84	JN	59	1.5	3	12	PL,SR,Ca,Ch
SPO	54.95	JN	66	3	3	20	CU,RO,Ca,Ch
SPO	55.15	JN	37	2	4	20	CU,SR,Ca,Ch,Tc
SPO	55.81	JN	43	1.5	3	12	PL,VR,Ca,Ch,Py
SPO	55.61	JN	54	1.5	2	12	PL,RO,Ch,Ca
SPO	55.91	JN	65	2	2	20	CU,RO,Ca,Ch
SPO	56.24	JN	52	1.5	3	12	PL,VR,Ca,Ch,Py
SPO	56.29	JN	68	1.5	2	12	PL,SR,Ca,Ch

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	Joint Descriptions					
Rock Type	Depth	Type	alpha	Jr	Ja	Jcon	Comments
	m		(°)				
SPO	56.49	JN	55	1.5	2	20	PL,VR,Ca,Ch
SPO	56.52	JN	54	2	2	20	CU,SR,Ca,Ch
SPO	56.85	JN	57	1.5	2	20	PL,RO
SPO	56.95	JN	46	1	2	12	PL,SR,Ca,Ch
SPO	57.09	JN	85	1.5	2	20	PL,VR,Ca
SPO	57.24	JN	48	1.5	3	20	PL,VR,Ca,Ch
SPO	57.30	JN	65	3	3	20	ST,RO,Ca,Ch
SPO	57.47	JN	42	1.5	3	12	PL,VR,Ca,Ch
SPO	57.62	JN	64	3	3	20	ST,RO,Ca,Ch
SPO	57.95	JN	34	1.5	4	12	PL,RO,Ca,Ch
SPO	58.15	JN	44	1.5	3	20	PL,VR,Ca,Ch,Py
SPO	58.50	JN	23	1	2	12	PL,SM,Ch,Ep
SPO	58.56	JN	42	1	3	12	PL,SM,Ch,Ca
SPO	58.63	VN	50	1	6	12	PL,SM,Ch,Ca,Bi,Qz 7mm
SPO	58.77	VN	38	1.5	6	12	PL,VR,Ch,Ca
SPO	59.48	JN	32	3	3	20	ST,VR,Ca,Ch
SPO	59.56	JN	50	1	3	12	PL,SR,Py,Ca,Ch
SPO	59.59	JN	72	1	2	12	PL,RO,Ca
SPO	59.72	JN	64	1	3	12	PL,SR,Ca,Ch
SPO	59.84	JN	50	2	3	20	ST,RO,Py,Ch,Ca
SPO	59.96	JN	38	1	3	12	PL,SM,Ch,Ca
SPO	60.00	JN	38	3	3	20	ST,RO,Ch,Ca
SPO	60.11	JN	47	1	3	12	PL,SR,Ch,Ca
SPO	60.55	JN	40	1	3	12	PL,SR,Ch,Ca
SPO	60.85	JN	57	1.5	3	12	PL,RO,Ch,Ca
SPO	60.90	JN	26	1	3	12	PL,SR,Ch,Ca,Py
SPO	60.96	JN	52	1.5	3	12	PL,RO,Ch,Ca
SPO	61.29	JN	43	1	4	12	PL,SR,Ca,Ch,He
SPO	61.49	JN	68	2	3	20	CU,SR,Ca,Ch
SPO	61.64	JN	48	1	3	12	Pl,SR,Ca,Ch,Ep
SPO	61.78	JN	72	2	3	20	ST,SM,Ca,Ch
SPO	61.80	JN	65	1.5	3	12	PL,RO,Ca,Ch
SPO	61.83	JN	55	1.5	6	12	PL,SR,Ch,Ca,Tc
SPO	62.00	JN	26	1.5	3	20	UN,SR,Ca,Ch
SPO	62.11	JN	29	3	2	20	IR,VR,Ep,Ca
SPO	62.32	JN	40	1	3	12	PL,SR,Ca,Ch
SPO	62.57	JN	50	1.5	3	12	PL,SR,Ca,Ch,Py
SPO	62.77	JN	68	1	2	12	PL,SR,Ca,Ch
SPO	62.99	JN	42	1	3	12	PL,SR,Ca,Ch
SPO	63.00	JN	40	2	3	20	ST,SR,Ch,Ep,Ca
SPO	63.17	JN	36	1	2	12	PL,SM,Ch,Py
SPO	63.75	JN	69	3	2	20	CU,RO,Ch
SPO	64.24	JN	61	3	3	20	UN,RO,Ca,Ch
SPO	64.29	JN	57	3	2	20	CU,RO,Ca
CPO	64.63	JN	72	1	3	12	PL,SR,Ca,Ch
CPO	64.66	JN	43	3	2	20	UN,VR,Ca
CPO	64.96	JN	55	1	3	12	PL,SR,Py,Ca,Ch
CPO	65.37	JN	45	1	3	12	PL,SR,Py,Ch
CPO	65.67	JN	35	3	2	20	UN,RO,Ca >1mm
CPO	66.68	JN	54	1	2	12	PL,SM'Ca,Ch
CPO	66.97	JN	58	3	2	20	IR,RO,Ca,Py
CPO	67.15	JN	59	1.5	2	20	PL,RO,Ca

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	Joint Descriptions					
Rock Type	Depth	Type	alpha	Jr	Ja	Jcon	Comments
	m		(°)				
CPO	67.24	JN	68	1.5	2	20	PL,RO,Ca
CPO	67.37	JN	79	1.5	2	12	PL,RO,Ca
SPO	67.58	JN	65	1.5	2	20	PL,RO,Ca
SPO	67.63	JN	65	3	2	20	ST,RO,Ca
SPO	67.67	JN	64	3	2	20	UN,RO,Ca
SPO	67.73	JN	73	3	2	20	UN,RO,Ca
SPO	67.90	JN	34	3	2	20	UN,RO,Ca,Qz
SPO	68.23	FLT	38	1	5	0	PL,SM,Cl
SPO	68.78	JN	76	1	2	12	PL,SR,Ca
SPO	69.51	VN	20	1	1	20	PL,SR,Ca,Ch 4-14 mm
SPO	69.83	JN	44	1	1	12	PL,SR
CPO	70.31	JN	54	2	1	20	UN,RO
CPO	70.54	JN	34	2	2	20	UN,RO,Ch,Py
CPO	71.40	JN	42	1	3	12	PL,SR,Ch,Ca
CPO	71.46	JN	82	1.5	2	20	PL,RO,Ca
CPO	72.29	JN	60	3	2	20	CU,RO,Ch,Ep,Py
CPO	73.13	JN	60	3	2	20	CU,RO,Ca
CPO	73.16	JN	72	3	2	20	ST,RO,Ca
CPO	73.46	JN	28	1	2	12	PL,SR,Ch
CPO	73.56	JN	73	1.5	2	20	PL,RO,Ca
CPO	73.80	JN	18	1.5	2	20	PL,RO,Ca, <1mm
SPO	74.11	JN	44	3	1	20	UN,RO,Qz,Bi
SPO	74.40	JN	13	2	2	20	UN,SR,Ca,Ch
SPO	74.42	JN	48	2	2	20	UN,RO,Ca,Ep
SPO	74.72	JN	75	1.5	2	20	PL,RO,Ca
SPO	75.25	JN	44	2	3	20	PL,RO,Ca,Ch,Ep
CPO	75.65	JN	64	2	2	12	PL,RO,Ca
CPO	75.88	JN	27	3	2	20	UN,RO,Ca,Qz
CPO	75.99	JN	38	1	3	12	PL,SM,Ch
CPO	76.66	JN	36	1	2	12	PL,SM,Py
CPO	77.45	JN	61	1	2	12	PL,SM,Ca
CPO	77.79	JN	65	1	2	12	PL,SM,Ch
CPO	77.84	JN	55	2	2	20	CU,SR,Py,Ch
CPO	78.29	JN	44	2	2	20	UN,SR,Ca
CPO	78.55	JN	42	2	2	20	ST,SR,Ca,Ch
CPO	78.67	JN	68	3	2	20	UN,RO,Ca,Qz
CPO	78.98	JN	38	1	2	12	PL,SM,Py,Ch
CPO	79.02	JN	61	2	3	20	UN,SM,Ca,Ch
CPO	79.97	JN	28	1.5	2	12	PL,RO,Ca,Ep
CPO	80.40	VN	78	1.5	2	12	PL,SM,Ca,Ch 25 mm
CPO	80.65	JN	84	1	2	12	PL,SM,Ca,Ch
CPO	81.03	JN	29	1.5	2	12	PL,RO,Ca
CPO	81.46	JN	35	1	2	12	PL,SM,Ep,Ch
SPO	81.55	JN	28	1	2	12	PL,SM,Ch
SPO	82.03	JN	34	1	2	12	PL,SM,Ch
SPO	82.05	JN	40	1	3	12	PL,SM,Ch,Ca,Py
SPO	82.32	JN	31	1	4	12	PL,SM,Ta,Ch
SPO	82.49	JN	56	1	3	12	PL,SM,Ca,Ch
SPO	82.67	JN	60	2	2	20	CU,SR,Ca
CPO	83.10	JN	40	3	2	20	IR,SR,Ch
CPO	83.50	JN	59	1	3	12	PL,SM,Ca,Ch
CPO	83.60	JN	41	1	4	12	PL,SM,Tc,Ca,Ch

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	Joint Descriptions					
Rock Type	Depth	Type	alpha	Jr	Ja	Jcon	Comments
	m		(°)				
CPO	83.66	JN	50	1	2	12	PL,SM,Ca,Ch
CPO	83.75	JN	64	3	2	20	CU,RO,Ca
CPO	83.87	JN	38	2	4	20	UN,SM,Ta,Ca,Ch
CPO	83.91	JN	57	1	3	12	PL,SM,Ca,Ch,Py
CPO	84.00	JN	60	1.5	2	20	PL,RO,Ca
CPO	84.30	JN	52	1	4	12	PL,SM,Ch,Ca,Tc,Py
CPO	84.39	JN	56	1	4	12	PL,SM,Ch,Ca,Tc,Py
CPO	84.50	JN	75	1.5	3	20	PL,RO,Ca,Ch,Py
CPO	84.59	JN	72	1	3	12	PL,SR,Ca,Ch,Py
CPO	84.66	JN	52	1.5	2	12	PL,RO,Ca
CPO	84.80	JN	74	3	2	20	CU,RO,Ca
CPO	84.86	JN	55	1	2	12	PL,SM,Ch,Ep
CPO	85.28	JN	64	1	2	12	PL,SR,Ca,Ch
CPO	85.39	JN	85	2	2	20	CU,SR,Ca
CPO	85.78	JN	54	3	2	20	ST,VR,Ca,Ch
CPO	85.90	JN	33	1	4	12	PL,SR,Tc,Ch,Ca
CPO	85.94	JN	41	1	3	12	PL,SM,Tc,Ch
CPO	86.00	JN	52	1	3	12	PL,SM,Tc,Ch
CPO	86.05	JN	70	2	2	20	UN,SM,Ch
CPO	86.21	JN	32	2	4	20	UN'SM,Tc,Ca,Ch
CPO	86.48	JN	32	1	2	12	PL,SR,Ca,Ch
CPO	87.40	JN	31	2	2	20	CU,SR,Ch
CPO	87.50	JN	40	1	2	12	PL,SM,Ch
CPO	87.55	JN	43	1	3	12	PL,SR,Ch,He
CPO	88.20	JN	48	2	2	20	UN,SM,Ch
CPO	88.38	JN	33	2	2	20	UN,SM,Ca,Ch,Py
CPO	88.53	JN	36	1	2	12	PL,SM,Ca,Ch
CPO	88.69	JN	64	1	2	12	PL,SR,Ca,Ch
CPO	89.40	JN	43	1	1	20	UN,SM,
CPO	89.89	JN	61	1	3	12	PL,SR,Ch,Tc
SPO	90.15	JN	76	1	2	12	PL,SR,Ca
SPO	90.44	JN	45	2	3	12	ST,SR,Ca,Ch
SPO	90.98	JN	30	1	2	12	PL,SR,Ch,Py
CPO	91.71	JN	45	1.5	2	12	ST,SM,Ch,Py
CPO	92.92	JN	29	1.5	3	12	ST,SM,Ch
CPO	93.25	JN	51	2	2	20	CU,SM,Ch,Py
CPO	93.80	JN	24	1	2	12	PL,SM,Ch
CPO	95.02	JN	74	1.5	1	12	PL,RO,Ca
CPO	95.96	JN	22	1	2	12	PL,SM,Ch
CPO	96.11	JN	62	1	2	12	PL,SM,Ca,Ch
CPO	96.86	JN	44	2	2	12	ST,SM,Ca
CPO	97.40	JN	70	3	3	20	CU,VR,Ch
CPO	97.72	JN	35	1	3	12	PL,SM,Ch,Ca
CPO	97.89	JN	20	1	3	12	PL,SM,Ca,Ch,Py
CPO	98.57	JN	74	3	2	20	IR,RO,Ca
CPO	98.91	JN	34	2	2	12	PL,RO,Ca
CPO	99.00	JN	33	1	2	12	PL,SM,Ch
CPO	99.50	FO	44	1	1	12	PL,SM,Py
CPO	100.85	FO	39	1	2	12	PL,SM,Ch
CPO	101.15	FO	34	1	2	12	PL,SM,Ch,Ca
CPO	101.52	FO	42	1	2	12	PL,SR,Ca
CPO	101.68	FO	35	1	3	12	PL,SM,Ca <1mm

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	Joint Descriptions					
Rock Type	Depth	Type	alpha	Jr	Ja	Jcon	Comments
	m		(°)				
CPO	101.72	FO	32	1	2	12	
SCH	102.48	JN	70	3	2	20	IR,RO,Ca
SCH	102.65	JN	20	1	2	12	PL,SR,Ca,Py
SCH	103.11	JN	24	2	2	20	ST,RO,Ca
SCH	103.26	JN	42	3	2	20	IR,RO,Ca,Ch
SCH	103.50	FO	24	2	2	20	UN,SM,Ca,Ch
SCH	103.60	FO	45	1	2	12	PL,SM,Ca,Ch
SCH	104.02	FO	15	1	2	12	PL,SR,Ca <1mm
CPO	104.67	FO	18	2	2	20	UN,SR,Ca,Ch
CPO	104.84	FO	17	1.5	2	12	PL,RO,Ca
CPO	105.32	JN	17	2	2	12	PL,SM,Ca,Ch
CPO	105.38	JN	89	1.5	2	20	PL,RO,Ca
CPO	105.57	JN	68	1.5	2	20	UN,SR,Ca
CPO	105.66	JN	71	2	2	20	UN,SM,Ca,Ch
CPO	105.85	JN	26	1.5	2	12	PL,RO,Ca
CPO	106.60	JN	58	2	2	20	UN,SM,Ca,Ch
CPO	107.14	JN	71	1.5	2	12	PL,RO,Ca
CPO	107.75	JN	81	1	2	12	Pl,SR,Ca
CPO	108.23	JN	54	1	2	12	ST,SM,Ca,Ch
CPO	108.28	JN	54	1	2	12	PL,SM,Ch
CPO	109.03	JN	55	1	2	12	PL,SM,Ch
CPO	109.24	JN	54	1	2	12	PL,SR,Ch
CPO	109.52	JN	61	3	1	20	IR,RO,
CPO	109.69	JN	44	2	2	20	UN,SM,Ch
CPO	109.90	JN	58	1	2	12	PL,SR,Ca,Py
SPO	110.08	JN	52	2	1	20	UN,SR,Py
SCH	111.55	JN	30	2	2	20	UN,SM,Ca,Ch,Py
SCH	112.14	JN	14	1	2	12	PL,SR,Ca
SCH	112.67	JN	24	4	1	25	UN,SR
SPO	113.65	JN	28	1.5	1	12	PL,SR,Py
SPO	113.75	JN	62	3	1	12	PL,RO
SPO	114.11	JN	30	3	2	20	UN,RO,Ca
SPO	114.91	JN	47	1.5	1	12	PL,VR,
SPO	115.34	JN	22	1	2	12	PL,SM,Ch
CPO	116.82	JN	23	1	2	12	PL,SM,Ca,Ch
CPO	117.09	JN	28	1	2	12	PL,SM,Py,Ca
CPO	117.28	JN	50	1	2	12	PL,SM,Ca
CPO	117.30	JN	27	1	2	12	PL,SM,Ca
CPO	117.44	JN	29	3	2	20	UN,RO,Ca
CPO	117.57	JN	38	3	1	20	IR,SM
CPO	117.64	JN	32	2	1	20	UN,SM
CPO	117.67	JN	49	1	2	12	PL,SM,Ca
CPO	117.72	JN	42	2	1	20	ST,RO,Qz
CPO	117.81	JN	50	1	1	12	PL,SM
CPO	117.90	JN	58	3	2	20	UN,VR,Ca
CPO	118.74	JN	76	1.5	2	12	PL,VR,Ca
CPO	119.10	JN	34	1	2	12	PL,SM,Ca
CPO	119.91	JN	44	1	1	12	PL,SR,Py
CPO	120.30	JN	68	2	2	12	ST,SR,Ca
CPO	120.66	JN	61	1.5	2	12	PL,RO,Ca
CPO	121.46	JN	23	1	2	12	PL,SM,Ca
CPO	121.61	JN	75	3	2	20	CU,RO,Py,Ca

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	Joint Descriptions					
Rock Type	Depth	Type	alpha	Jr	Ja	Jcon	Comments
	m		(°)				
CPO	121.82	JN	35	1.5	2	12	PL,R,Ch
CPO	122.01	JN	45	1	2	12	PL,SR,Ch
CPO	122.15	JN	47	1	2	12	PL,SR,Ch
CPO	122.22	JN	48	1	2	12	PL,SR,Ch,Py
CPO	122.34	JN	56	1	2	12	PL,SR,Ch,Py
CPO	123.09	JN	33	2	2	20	ST,SM,Ch
CPO	123.14	JN	31	4	2	25	PL,SM,Ch
CPO	123.93	JN	46	1	2	12	PL,SM,Ca,Py
CPO	125.24	JN	31	1	2	12	PL,SM,Ch <1mm
CPO	125.39	JN	34	2	2	20	UN,SR,Ca,Ch <1mm
CPO	125.77	JN	42	3	1	20	ST,RO
CPO	125.96	JN	37	1	3	12	PL,SM,Tc,Py,Ch
CPO	126.51	JN	70	2	1	20	ST,VR
CPO	126.53	JN	64	1.5	1	12	PL,VR
CPO	126.67	JN	69	3	1	20	UN,VR, Ca
CPO	126.84	JN	74	2	1	20	UN,SR,Ca
CPO	126.88	JN	84	1.5	1	12	PL,RO,Ca,Ch
CPO	127.08	JN	49	2	1	20	IR,RO,Ca
CPO	127.50	JN	50	1	1	12	PL,SM,
CPO	127.65	VN	26	2	1	20	UN,SR,Qz 5mm
CPO	128.12	JN	78	2	2	20	UN,VR,Ca
CPO	128.32	JN	28	1	2	12	PL,SR,Ca
CPO	128.64	VN	23	2	1	20	UN,VR,Qz 10mm
APO	129.10	JN	74	2	2	20	IR,VR,Ca
APO	129.39	JN	10	2	2	20	UN,SM,Ca,Ch <1mm
APO	129.49	JN	88	1	1	12	PL,RO
APO	129.51	JN	86	2	1	12	PL,RO
APO	129.55	JN	78	1	1	12	PL,RO
APO	129.60	JN	84	1	1	12	PL,SR
APO	130.19	JN	39	1	2	12	PL,SR,Ca
APO	130.21	JN	74	1.5	1	12	PL,RO
APO	130.28	JN	73	2	2	20	UN,SR,Ca
APO	130.59	JN	70	2	2	20	UN,VR,Ca
APO	130.71	JN	69	1	1	12	PL,SR,Ca
APO	131.08	JN	40	1	1	12	PL,SR
APO	131.11	JN	60	1.5	2	12	PL,VR,Ca,Qz,Py, 2mm
APO	133.00	JN	21	1	1	12	PL,SR
APO	133.44	JN	8	2	1	20	UN,SM,Ca2
APO	133.84	JN	16	2	3	20	UN,RO,Ch,Ca
APO	134.12	JN	9	1	3	12	PL,SM,Ch,Ca,Py
APO	134.19	JN	22	1	3	12	PL,SM,Ch,Ca
APO	134.34	JN	79	1.5	2	12	PL,RO,Ca,Ep,Ch
APO	134.48	JN	88	1	2	12	PL,RO,Ca
APO	134.50	JN	87	1	2	12	PL,VR,Ca
APO	135.43	JN	42	1.5	1	20	PL,RO
APO	135.55	JN	20	1	2	12	PL,VR,Ca
APO	136.24	JN	27	1	1	12	PL,VR
APO	136.45	JN	54	1	3	12	PL,SM,Ca,Ch
APO	136.73	JN	38	2	3	20	PL,SR,Ca,Py,Ch
CPO	138.22	JN	41	1	2	12	PL,SM,Ch
CPO	138.23	JN	39	1	2	12	PL,SM,Ch,Py
CPO	138.32	JN	64	1	3	12	PL,SM,Ch

HOLE CM07-1446	Osisko Project		07-1221-0028		Azimuth	180 Dip -70
	Joint Descriptions					
Rock Type	Depth	Type	alpha	Jr	Ja	Jcon	Comments
	m		(°)				
CPO	138.68	JN	30	1	2	12	PL,SM,Ch
CPO	138.90	JN	32	1	2	12	PL,SM,Ch
CPO	139.05	JN	53	3	3	20	UN,VR,Ca,Ch
APO	140.45	JN	34	1	3	12	PL,SM,Tc,Ch
APO	140.75	JN	28	1	3	12	PL,SM,Tc,Ch
APO	140.89	JN	29	1	3	12	PL,SM,Tc,Ch
APO	140.94	JN	44	1.5	3	12	PL,SR,Tc,Ch,Ca
APO	140.99	JN	34	1	3	12	PL,SM,Tc,Ch,Py,Ca
SPO	141.24	JN	37	1	3	12	PL,SM,Tc,Ch
SPO	141.48	JN	45	1	2	12	PL,SM,Py,Ch
SPO	141.72	JN	35	2	2	12	PL,SR,Py,Ch
SPO	141.87	JN	36	1.5	3	12	PL,RO,Py,Ch,Ca
SPO	142.02	JN	40	1.5	3	12	PL,RO,Ch,Ca
SPO	142.45	JN	25	1.5	2	12	PL,VR,Ca
APO	143.20	JN	35	1.5	3	12	PL,RO,Ca,Ch
APO	143.26	JN	40	1.5	3	12	PL,SM,Ca,Ch
APO	143.66	JN	44	1	3	12	PL,SR,Ca,Ch
APO	143.78	JN	47	2	3	20	ST,SM,Ca,Ch
APO	144.35	JN	46	3	1	20	CU,VR
APO	144.78	JN	36	3	2	20	UN,VR,Ca
APO	145.00	JN	11	1	3	12	PL,SM,Ch,Ca
APO	145.10	JN	35	1	3	12	PL,RO,Ca,Ep,Ch
APO	145.59	JN	36	1.5	2	12	PL,SR,Ch
APO	145.61	JN	36	1.5	1	12	PL,VR
APO	145.70	VN	43	1.5	2	20	ST,RO,Ca,Ch,Qz 70mm
APO	145.80	JN	54	3	2	20	UN,RO,Ca,
APO	147.37	JN	74	3	1	12	PL,RO
APO	147.75	JN	54	1	2	12	PL,SM,Ca,Ch
APO	147.98	JN	25	1	2	12	PL,SM,Ca,Ch
APO	148.58	JN	42	2	3	20	ST,SM,Tc,Ca,Ch
APO	148.72	JN	45	2	3	20	CU,SM,Tv,Ca,Ch
APO	148.93	JN	20	1	4	12	PL,SM,Tc,Ca,Ch,Py
APO	149.56	JN	38	1	4	12	PL,SM,Tc,Ca,Ch
APO	150.61	JN	48	1	2	12	PL,SR,Ca,Ch
APO	150.62	JN	42	1	3	12	PL,SM,Ta,Ca,Ch
APO	150.62	JN	47	1	2	12	PL,SM,Ca,Ch
APO	151.32	JN	38	1	2	12	PL,RO,Ca
APO	151.34	JN	80	3	2	20	UN,VR,Ca
APO	151.98	JN	58	2	3	12	PL,RO,Ca,Ch
APO	152.30	JN	57	1	2	12	PL,SR,Ca,Ch
APO	152.39	JN	23	1.5	3	12	PL,RO,Ca,Ch <1mm
APO	152.44	JN	50	1.5	2	20	CU,SM,Ca,Ch
CPO	153.23	JN	25	1	3	12	PL,SR,Ch,Tc
CPO	155.05	JN	57	3	2	20	UN,RO,Ca,Ch
CPO	155.07	JN	45	3	1	20	IR,VR,Qz
CPO	155.37	JN	55	1	1	12	PL,SM,Ch
CPO	155.67	JN	66	3	1	20	UN,RO
CPO	156.08	JN	39	3	1	20	UN,VR
CPO	156.66	JN	50	3	2	20	UN,RO,Ca,Ch
CPO	156.87	JN	53	3	2	20	IR,VR,Ca
CPO	157.32	JN	68	3	2	20	IR,VR,Ca
CPO	157.57	JN	46	3	2	20	ST,RO,Ca

HOLE CM07-1446	Osisko Project		07-1221-0028		Azimuth	180 Dip -70
	Joint Descriptions					
Rock Type	Depth	Type	alpha	Jr	Ja	Jcon	Comments
	m		(°)				
CPO	157.67	JN	30	2	1	20	UN,SR,
CPO	158.00	JN	49	1	2	12	PL,SM,Ch
CPO	158.02	JN	49	3	2	20	UN,RO,Ca
CPO	158.66	JN	44	3	1	12	PL,RO
CPO	158.81	JN	40	1	1	12	PL,SM,Py
SPO	159.05	JN	52	2	1	20	ST,SR,Ca <1mm
SPO	159.33	JN	73	3	1	20	UN,VR
SPO	159.46	JN	56	2	1	20	UN,SR
SPO	159.51	JN	77	3	1	20	UN,VR
SPO	159.59	JN	54	2	1	20	UN,SM
SPO	159.70	JN	60	1	1	12	PL,SM
SPO	159.96	JN	54	3	2	20	CU,SM,Ca,Py
SPO	159.98	JN	54	1	1	12	PL,SM
APO	160.60	JN	34	1	1	12	PL,SM
APO	160.73	JN	74	2	2	20	UN,SM,Ca,Ch
APO	160.90	JN	73	1	2	12	PL,SM,Ca,
APO	161.20	JN	38	2	1	12	PL,VR,
APO	161.55	JN	47	2	2	20	UN,SM,Ch,Ep
APO	161.59	JN	49	2	3	20	ST,SR,Ca,Tc
APO	161.92	JN	22	3	2	20	UN,Ca
APO	162.06	VN	30	1	2	12	PL,SM,Py
APO	162.68	JN	85	1	2	12	PL,SR,Ca,Ch
APO	163.10	JN	83	1	2	12	Pl,SM,Ca,Py,Ch
APO	163.26	JN	59	1	3	12	Pl,SM,Ca,Ch,Py
APO	163.38	JN	80	1	3	12	PL,SM,Ca,Tc,Ch
APO	163.46	JN	21	2	2	12	PL,VR,Ca
APO	163.64	JN	79	2	3	12	PL,SM,Ca,Ch
APO	163.77	JN	18	2	2	12	PL,VR,Ca
APO	163.82	VN	32	1	2	12	PL,SM,Ch,Qz,Ca 13mm
APO	164.22	JN	23	3	1	20	UN,VR
APO	164.34	JN	60	1	2	12	PL,SR,Ca,Ch,Py
APO	164.58	JN	60	1.5	2	12	PL,SR,Py,Ca,Ch
APO	165.00	JN	46	2	3	20	Ta,Ca,Ch 6mm

HOLE CM07-1490		0		07-1221-0028		0	0		Dip	-60																
Run #	From	To	Interval	Rock type	Recovery	TCR (%)	RQD	RQD	SCR	SCR	Fracture/0.25m												Fracts/run	Fracts/m	Jn	Strength index
	m	m			m		m	%	m	%	1	2	3	4	5	6	7	8	9	10	11	12				
1	0.00	11.50	11.50		Overburden																					
2	11.50	12.00	0.50		Broken by drill																					
3	12.00	15.00	3.00	AGR	2.90	97	1.82	61	1.60	55	10	10	10	10	3	1	1	0	0	2	2	0	49	16.33	4.0	
4	15.00	18.00	3.00	AGR	3.05	102	2.32	77	2.01	66	10	1	0	4	3	10	1	2	2	0	1	1	35	11.67		R3
5	18.00	21.00	3.00	AGR	2.96	99	2.83	94	2.53	85	1	2	0	1	1	1	0	0	1	1	1	0	9	3.00	4.0	R3
6	21.00	24.00	3.00	AGR	2.82	94	1.99	66	1.75	62	0	1	2	0	0	1	0	1	3	10	3	5	26	8.67	6.0	R3
7	24.00	27.00	3.00	AGR	3.06	102	3.06	102	2.69	88	2	0	0	1	1	0	0	0	1	0	1	0	6	2.00	4.0	R3
8	27.00	30.00	3.00	AGR	2.98	99	2.98	99	2.73	92	0	1	0	0	0	0	1	0	0	0	0	1	3	1.00		R3
9	30.00	33.00	3.00	AGR	3.03	101	3.03	101	2.79	92	0	0	0	2	0	0	1	0	0	1	0	1	5	1.67	3.0	R3
10	33.00	36.00	3.00	AGR	2.88	96	2.8	93	2.38	83	1	1	1	0	0	1	1	0	1	1	2	0	9	3.00	2.0	R3
11	36.00	39.00	3.00	AGR	2.96	99	2.96	99	2.57	87	0	1	0	1	0	0	1	0	0	1	0	0	4	1.33	3.0	R3
12	39.00	42.00	3.00	AGR	3.10	103	3.10	103	2.85	92	0	0	0	0	1	0	0	1	1	0	1	0	4	1.33		R3
13	42.00	45.00	3.00	AGR	3.03	101	3.03	101	2.86	94	1	0	0	0	2	0	0	0	0	1	0	0	4	1.33	2.0	R3
14	45.00	48.00	3.00	AGR	3.02	101	2.87	96	2.47	82	0	0	0	3	0	1	0	0	1	1	1	1	8	2.67	3.0	R3
15	48.00	51.00	3.00	AGR	2.98	99	2.89	96	2.43	82	1	2	0	0	1	0	2	0	1	0	1	2	10	3.33	4.0	R3
16	51.00	54.00	3.00	AGR	2.94	98	2.86	95	2.16	73	0	1	0	1	0	2	1	0	3	1	0	2	11	3.67	4.0	R3
17	54.00	57.00	3.00	AGR	3.05	102	2.01	67	1.38	45	3	2	3	2	2	1	2	4	2	2	3	4	30	10.00	6.0	R3
18	57.00	60.00	3.00	AGR	2.97	99	2.80	93	2.35	79	3	1	2	2	1	0	0	1	0	0	0	1	11	3.67	4.0	R3
19	60.00	63.00	3.00	AGR	3.05	102	2.70	90	1.88	62	1	0	0	0	1	2	1	4	2	0	1	1	13	4.33	6.0	R3
20	63.00	66.00	3.00	AGR	2.95	98	2.95	98	2.21	75	2	1	0	0	2	0	1	0	1	0	0	2	9	3.00	4.0	R3
21	66.00	69.00	3.00	AGR	3.02	101	3.02	101	2.95	98	1	0	1	1	0	0	0	0	0	0	0	0	3	1.00	3.0	R3
22	69.00	72.00	3.00	AGR	2.95	98	2.78	93	2.51	85	1	0	0	0	2	1	0	1	0	0	0	2	7	2.33		R3
23	72.00	75.00	3.00	AGR	2.88	96	2.77	92	1.96	68	1	0	1	1	1	0	1	2	1	10	3	1	22	7.33		R2
24	75.00	78.00	3.00	AGR	3.00	100	2.82	94	2.16	72	2	2	0	2	0	0	1	3	0	0	0	5	15	5.00		R2
25	78.00	81.00	3.00	AGR	3.00	100	1.86	62	1.52	51	10	5	10	10	1	2	0	0	1	2	0	1	42	14.00		R2
26	81.00	84.00	3.00	AGR	3.00	100	2.81	94	2.36	79	0	2	2	1	0	0	1	1	1	2	3	0	13	4.33	3.0	R2
27	84.00	87.00	3.00	AGR	3.00	100	2.81	94	2.42	81	0	0	1	0	1	2	1	0	0	1	1	1	8	2.67	3.0	R2
28	87.00	90.00	3.00	AGR	3.05	102	2.58	86	2.47	81	10	1	2	1	0	0	1	3	0	0	0	1	19	6.33	4.0	R2
29	90.00	93.00	3.00	CGR	2.90	97	2.62	87	2.16	74	1	1	3	0	0	0	2	0	1	2	4	0	14	4.67	4.0	R2
30	93.00	96.00	3.00	AGR	2.91	97	2.74	91	2.10	72	0	2	1	1	0	1	2	1	0	2	0	1	11	3.67	6.0	R2
31	96.00	99.00	3.00	AGR	3.05	102	2.95	98	2.30	75	0	0	0	2	1	1	2	0	0	2	10	1	19	6.33	4.0	R2
32	99.00	102.00	3.00	AGR	3.00	100	2.00	67	1.57	52	3	4	10	2	1	2	2	1	2	1	0	0	28	9.33	6.0	R2
33	102.00	105.00	3.00	AGR	3.00	100	2.92	97	2.52	84	2	1	0	0	1	0	0	0	0	1	0	0	5	1.67		R2
34	105.00	108.00	3.00	AGR	3.05	102	2.72	91			0	0	0	0	0	0	0	0	1	0	0	0	1	0.33		R2
35	108.00	111.00	3.00	AGR	2.93	98					0	2	1	2	0	2	1	0	5	2	10	10	35	11.67		R2
36	111.00	114.00	3.00	AGR	2.90	97	1.63	54	0.96	33	1	2	10	3	2	1	2	3	10	0	10	2	46	15.33	6.0	R2
37	114.00	117.00	3.00	AGR	3.01	100	2.66	89	2.26	75	3	2	1	0	0	1	1	1	0	2	1	0	12	4.00	3.0	R2
38	117.00	120.00	3.00	AGR	3.00	100	2.68	89	2.37	79	0	0	0	1	1	1	1	1	0	10	2	0	17	5.67	4.0	R2

HOLE CM07-1490		0		07-1221-0028		0	0		Dip	-60																
Run #	From	To	Interval	Rock type	Recovery	TCR (%)	RQD	RQD	SCR	SCR	Fracture/0.25m												Fracts/run	Fracts/m	Jn	Strength index
	m	m			m		m	%	m	%	1	2	3	4	5	6	7	8	9	10	11	12				
39	120.00	123.00	3.00	AGR	3.00	100	2.88	96	2.55	85	0	1	0	2	1	2	0	0	0	2	0	1	9	3.00	4.0	R2
40	123.00	126.00	3.00	AGR	3.02	101	2.95	98	2.74	91	0	0	1	1	0	1	0	1	1	1	1	0	7	2.33	4.0	R2
41	126.00	129.00	3.00	AGR	2.90	97	2.74	91	2.22	77	0	0	0	0	0	2	0	2	2	0	2	2	10	3.33		R2
42	129.00	132.00	3.00	AGR	2.94	98	2.40	80	1.86	63	1	1	0	2	2	3	1	2	2	10	2	1	27	9.00	4.0	R2
43	132.00	135.00	3.00	AGR	2.60	87	1.69	56	1.41	54	4	10	4	2	10	10	2	1	1	2	10	1	57	19.00	4.0	R2
44	135.00	138.00	3.00	CGR																						R3
45	138.00	141.00	3.00	CPO	2.97	99	2.97	99	2.65	89	0	2	0	1	1	0	0	0	1	0	0	0	5	1.67	4.0	R3
46	141.00	144.00	3.00	CPO	3.00	100	3.00	100	2.44	81	0	0	0	1	0	1	1	0	1	1	0	1	6	2.00	4.0	R4
47	144.00	147.00	3.00	CPO	3.27	109	3.27	109	2.34	72	1	1	1	2	0	1	1	1	1	0	0	0	9	3.00	3.0	R3
48	147.00	150.00	3.00	CGR	3.06	102	2.73	91	2.18	71	0	1	0	0	2	2	4	2	2	3	2	2	20	6.67	6.0	R2
49	150.00	153.00	3.00	AGR	2.78	93	2.70	90	1.78	64	0	1	2	1	1	0	1	2	1	2	2	3	16	5.33	4.0	R2
50	153.00	156.00	3.00	AGR	2.80	93	2.10	70	1.57	56	2	3	2	1	1	1	1	2	4	4	2	0	23	7.67		R2
51	156.00	159.00	3.00	AGR	1.50	50	1.21	40	1.04	69	2	2	0	0	1	4	10	10	broyé				29	9.67		R2
52	159.00	162.00	3.00	OPEN	2.00	67	1.72	57	1.57	79	10	10	10	3	10	10	10	0	0	0	1	1	65	21.67		R4
53	162.00	165.00	3.00	SPO	3.00	100	2.76	92	2.36	79	0	0	1	1	3	2	0	0	3	4	0	0	14	4.67	4.0	R4
54	165.00	168.00	3.00	CPO	3.00	100	2.69	90	1.80	60	3	2	1	3	0	5	10	0	1	2	2	1	30	10.00		R3
55	168.00	171.00	3.00	CPO	3.02	101	2.06	69	1.54	51	1	1	2	10	10	3	0	4	2	2	1	2	38	12.67		R3
56	171.00	174.00	3.00	CPO	2.85	95	2.07	69	1.70	60	1	10	4	10	2	1	5	3	0	1	1	2	40	13.33	4.0	R3
57	174.00	177.00	3.00	CPO	3.05	102	2.46	82	1.93	63	2	2	10	1	1	0	2	1	1	2	2	1	25	8.33	4.0	R3
58	177.00	180.00	3.00	CPO	2.92	97	2.47	82	2.08	71	2	0	0	0	1	2	2	4	2	1	5	1	20	6.67	3.0	R3
59	180.00	183.00	3.00	CPO	3.03	101	2.52	84	2.13	70	3	0	2	0	2	1	1	1	1	3	2	0	16	5.33	6.0	R3
60	183.00	186.00	3.00	CPO	2.97	99	2.57	86	2.33	78	0	4	2	1	1	0	3	2	3	1	0	0	17	5.67	4.0	R3
61	186.00	189.00	3.00	CPO	3.03	101	3.03	101	2.84	94	0	1	0	0	0	0	0	0	1	0	1	0	3	1.00	2.0	R3
62	189.00	192.00	3.00	CPO	3.00	100	3.00	100	2.64	88	0	0	0	1	1	0	0	1	1	1	1	0	6	2.00	3.0	R3
63	192.00	195.00	3.00	CPO	2.96	99	2.96	99	2.44	82	0	1	1	0	1	1	2	1	0	1	1	0	9	3.00	4.0	R2
64	195.00	198.00	3.00	CPO	3.03	101	3.03	101	2.84	94	0	0	1	0	1	1	0	0	1	1	0	0	5	1.67	2.0	R3
65	198.00	201.00	3.00	SPO	2.96	99	2.79	93	2.48	84	0	0	1	4	0	0	0	1	0	1	0	2	9	3.00	4.0	R3
66	201.00	204.00	3.00	CPO	2.97	99	2.97	99	2.69	91	0	0	0	1	1	1	2	0	1	0	1	1	8	2.67	4.0	R3
67	204.00	207.00	3.00	CPO	3.03	101	2.82	94	2.70	89	1	0	1	0	0	2	1	1	2	1	1	0	10	3.33	2.0	R3
68	207.00	210.00	3.00	CPO	2.97	99	2.97	99	2.65	89	1	0	0	0	0	1	0	0	1	0	0	1	4	1.33	3.0	R3
69	210.00	213.00	3.00	CPO	3.00	100	2.96	99	2.61	87	0	1	0	3	0	1	0	1	0	0	0	2	8	2.67	6.0	R3
70	213.00	216.00	3.00	CPO	3.04	101	2.89	96	2.63	87	10	0	1	0	2	0	0	0	0	2	1	1	17	5.67	4.0	R3
71	216.00	219.00	3.00	CPO	3.02	101	2.98	99	2.64	87	1	0	1	0	0	1	0	2	0	1	2	1	9	3.00	4.0	R3
72	219.00	222.00	3.00	CPO	2.99	100	2.78	93			0	0	0	0	2	3	0	1	1	1	1	2	11	3.67	4.0	R3
73	222.00	225.00	3.00	CPO	2.99	100	2.72	91	1.74	58	1	0	0	1	10	2	2	10	1	3	0	0	30	10.00	6.0	R2
74	225.00	228.00	3.00	AGR	3.08	103	2.83	94	2.36	77	2	3	0	2	0	1	3	0	0	0	0	1	12	4.00	6.0	R2
75	228.00	231.00	3.00	AGR	2.97	99	2.76	92	2.07	70	2	1	2	1	1	0	0	1	0	0	1	0	9	3.00	6.0	R2
76	231.00	234.00	3.00	AGR	2.87	96	2.54	85	2.31	80	0	0	1	1	2	0	1	0	0	2	1	0	8	2.67	3.0	R2

HOLE CM07-1490		0		07-1221-0028		0	0		Dip	-60																
Run #	From	To	Interval	Rock type	Recovery	TCR (%)	RQD	RQD	SCR	SCR	Fracture/0.25m												Fracts/run	Fracts/m	Jn	Strength index
	m	m			m		m	%	m	%	1	2	3	4	5	6	7	8	9	10	11	12				
77	234.00	237.00	3.00	AGR	2.82	94	2.82	94	2.43	86	0	0	0	2	0	1	0	0	2	1	0	0	6	2.00	4.0	R2
78	237.00	240.00	3.00	AGR	3.14	105	3.14	105	3.07	98	1	0	0	1	0	0	0	0	0	0	0	0	2	0.67		R2
79	240.00	243.00	3.00	AGR	3.12	104	3.03	101	2.87	92	0	0	0	0	0	0	0	0	0	0	1	2	3	1.00		R2
80	243.00	246.00	3.00	AGR	2.97	99	2.97	99	2.55	86	0	0	1	0	0	0	0	0	0	1	0	0	2	0.67	2.0	R2
81	246.00	249.00	3.00	AGR	2.92	97	2.92	97	2.54	87	0	0	1	0	1	0	0	1	0	0	1	1	5	1.67	3.0	R2
82	249.00	252.00	3.00	SCH	2.87	96	2.69	90	1.72	60	1	0	1	0	0	2	2	1	2	1	1	1	12	4.00	6.0	R2
83	252.00	255.00	3.00	AGR	3.13	104	3.13	104	2.92	93	1	0	1	1	0	0	0	1	0	1	0	1	6	2.00	3.0	R2
84	255.00	258.00	3.00	AGR	3.10	103	3.06	102	2.72	88	1	1	1	1	0	1	2	2	1	1	1	0	12	4.00	4.0	R2
85	258.00	261.00	3.00	AGR	2.96	99	2.96	99	2.82	95	0	0	1	1	0	0	1	0	0	0	0	0	3	1.00		R2
86	261.00	264.00	3.00	AGR	3.00	100	2.95	98			0	3	1	0	0	0	0	0	0	0	0	1	5	1.67	2.0	R2
87	264.00	267.00	3.00	AGR	3.07	102	2.67	89	1.55	50	0	0	0	0	2	10	10	2	3	0	0	1	28	9.33	3.0	R2
88	267.00	270.00	3.00	AGR	3.06	102	3.06	102	2.59	85	0	0	0	0	0	0	1	1	1	0	0	0	3	1.00		R2
89	270.00	273.00	3.00	AGR	2.95	98	2.95	98	2.70	92	1	0	1	0	0	2	0	1	1	0	0	0	6	2.00	2.0	R2
90	273.00	276.00	3.00	AGR	2.98	99	2.98	99	2.81	94	1	0	1	1	1	0	1	1	1	0	0	0	7	2.33	2.0	R2
91	276.00	279.00	3.00	AGR	3.02	101	3.02	101	2.81	93	0	0	1	0	0	1	0	0	0	0	0	0	2	0.67	2.0	R2
92	279.00	282.00	3.00	AGR	2.99	100	2.99	100	2.46	82	0	0	0	0	1	1	1	1	0	1	0	0	5	1.67	3.0	R2
93	282.00	285.00	3.00	AGR	2.93	98	2.93	98	2.53	86	0	0	1	2	0	0	0	2	1	0	0	2	8	2.67	2.0	R2
94	285.00	288.00	3.00	AGR	3.05	102	3.01	100	2.93	96	0	0	1	1	3	0	0	0	1	0	0	1	7	2.33	3.0	R2
95	288.00	291.00	3.00	AGR	2.99	100	2.99	100	2.71	91	1	1	0	2	1	0	0	1	1	1	0	2	10	3.33	4.0	R2
96	291.00	294.00	3.00	AGR	2.95	98	2.95	98	2.52	85	1	1	0	2	0	2	0	1	1	1	0	1	10	3.33	6.0	R2
97	294.00	297.00	3.00	AGR	3.05	102	3.05	102	2.83	93	0	1	0	0	0	1	0	1	0	1	0	0	4	1.33	4.0	R2
98	297.00	300.00	3.00	AGR	2.98	99.33	2.98	99	2.95	99	0	0	1	0	0	1	0	0	0	0	0	0	2	1	2.0	R2
99	300.00	303.00	3.00	AGR	2.92	97.33	2.92	97	2.84	97	0	0	0	0	1	0	1	1	0	1	0	0	4	1	2.0	R2
100	303.00	306.00	3.00	AGR	2.97	99.00	2.97	99	2.85	96	1	0	1	1	0	0	0	0	0	0	0	1	4	1	2.0	R2
101	306.00	309.00	3.00	AGR	3.00	100.00	3.00	100			0	0	0	0	0	0	0	1	0	1	0	0	2	1		R2
102	309.00	312.00	3.00	AGR	2.95	98.33	2.95	98	2.89	98	0	0	0	0	0	0	0	0	0	0	0	2	2	1		R2
103	312.00	315.00	3.00	AGR	3.01	100.33	3.01	100			0	0	0	0	0	0	0	1	0	0	0	0	1	0		R2
104	315.00	318.00	3.00	AGR	2.99	99.67	2.99	100	2.86	95	0	0	0	0	1	0	0	0	0	0	0	0	1	0		R2

HOLE CM07-1490		07-1221-0028		Azimuth 180 Dip -70
	Joint Descriptions			
Rock Type	Depth	Type	Jcon	Comments
	m			
	0à11.5	overburden		
	11.5à12	broken by drill		
AGR	12.5	JN	20	Broken, oxidized, washed minerals, little silt
AGR	16.5	JN	12	
AGR	19.5	JN	12	
CGR	22.50	JN	20	
AGR	25.5	JN	12	
AGR	28.5	JN	12	
AGR	31.5	JN	12	
AGR	34.5	JN	12	
AGR	37.5	JN	12	
AGR	40.5	JN	12	
AGR	43.5	JN	12	
AGR	44.5	VN	20	50mm
AGR	46.5	JN	12	
AGR	49.5	JN	12	
AGR	52.50	JN	12	
AGR	55.5	JN	12	
AGR	58.5	JN	12	
AGR	61.5	JN	12	
AGR	64.5	JN	12	
AGR	67.5	JN	20	
AGR	70.5	JN	12	
AGR	73.5	JN	12	
AGR	76.5	JN	12	
AGR	79.5	JN	12	
AGR	82.5	JN	12	
AGR	85.5	JN	12	
AGR	88.50	JN	12	
AGR	91.5	JN	12	
AGR	94.5	JN	12	
AGR	97.5	JN	12	
AGR	100.5	JN	12	
AGR	103.5	JN	12	
AGR	106.5	JN	12	
AGR	109.5	JN	12	
AGR	112.5	JN	12	
AGR	115.5	JN	12	
AGR	118.5	JN	12	
AGR	121.5	JN	12	
AGR	124.50	JN	12	
AGR	127.5	JN	12	
AGR	130.5	JN	12	
AGR	133.5	JN	12	
CPO	136.5	JN	12	
CPO	139.5	JN	12	

HOLE CM07-1490		07-1221-0028		Azimuth 180 Dip -70
	Joint Descriptions			
Rock Type	Depth	Type	Jcon	Comments
	m			
CPO	142.5	JN	12	
CPO	145.5	JN	12	
AGR	148.5	JN	12	
AGR	151.5	JN	12	
AGR	154.5	JN	12	
	157.5	JN	12	
CPO	160.5	JN	20	
CPO	163.5	JN	12	
CPO	166.5	JN	12	
SPO	169.5	JN	12	
CPO	172.5	JN	12	
CPO	175.5	JN	12	
CPO	178.5	JN	12	
CPO	181.5	JN	12	
CPO	184.50	JN	12	
CPO	187.5	JN	12	
CPO	190.5	JN	12	
CPO	193.5	JN	12	
SPO	196.5	JN	12	
CPO	199.5	JN	12	
CPO	202.50	JN	12	
CPO	205.5	JN	12	
CPO	208.50	JN	12	
CPO	211.50	JN	12	
CPO	214.5	JN	12	
CPO	217.5	JN	12	
CPO	220.50	JN	12	
AGR	223.5	JN	12	
AGR	226.5	JN	12	
AGR	229.5	JN	12	
AGR	232.5	JN	12	
AGR	235.5	JN	12	
AGR	238.5	JN	25	
AGR	241.5	JN	20	
AGR	244.5	JN	12	
AGR	247.5	JN	12	
AGR	250.5	JN	12	
AGR	253.5	JN	12	
AGR	256.5	JN	12	
AGR	259.50	JN	12	
AGR	262.5	JN	12	
AGR	265.5	JN	20	
AGR	268.50	JN	12	
AGR	271.5	JN	12	
AGR	274.5	JN	12	
AGR	277.5	JN	20	
AGR	283.5	JN	20	

HOLE CM07-1490	07-1221-0028			Azimuth 180 Dip -70
	Joint Descriptions			
Rock Type	Depth	Type	Jcon	Comments
	m			
AGR	286.5	JN	12	
AGR	289.5	JN	12	
AGR	292.5	JN	20	
AGR	295.5	JN	12	
AGR	298.5	JN	20	
AGR	301.5	JN	12	
AGR	304.50	JN	12	
AGR	307.5	JN	20	
AGR	310.5	JN	12	
AGR	313.5	JN	20	
AGR	316.5	JN	20	
AGR	319.5	JN	20	

HOLE CM07-1540			Osisko Project		07-1221-0028	300	Dip -70	#REF!	Dip	-60															
Run #	From	To	Interval	Rock type	Recovery	TCR (%)	RQD	RQD	SCR	SCR	Fracture/0.25m												Fracts/run	Fracts/m	Jn
	m	m			m		m	%	m	%															
1	0.00	1.50	1.50		Overburden																				
2	1.50	3.00	1.50		1.00	67	0.70	47	0.66	66	0	0	0	0	0	0	0	0	1	2	4	1	8	5.33	6.0
3	3.00	6.00	3.00	CPO	3.07	102	2.70	90	2.47	80	1	1	0	0	2	1	3	4	0	2	1	1	16	5.33	4.0
4	6.00	9.00	3.00	CPO	3.02	101	2.57	86	2.31	76	2	2	3	2	1	2	0	1	0	5	1	0	19	6.33	4.0
5	9.00	12.00	3.00	CPO	3.02	101	2.84	95	2.54	84	2	0	1	2	2	1	0	0	0	0	0	0	8	2.67	3.0
6	12.00	15.00	3.00	CPO	2.98	99	2.68	89	2.59	87	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	4.0
7	15.00	18.00	3.00	CPO	3.05	102	2.77	92	2.39	78	2	1	2	3	1	2	1	0	0	2	0	0	14	4.67	6.0
8	18.00	21.00	3.00	CPO	2.94	98	2.69	90	2.55	87	2	0	0	2	0	0	0	0	2	1	0	1	8	2.67	2.0
9	21.00	24.00	3.00	CPO	2.86	95	2.86	95	2.63	92	1	0	1	0	1	0	0	1	0	0	1	0	5	1.67	4.0
10	24.00	27.00	3.00	CPO	2.95	98	1.7	57	1.66	56	10	10	1	3	10	3	3	2	2	1	0	0	45	15.00	6.0
11	27.00	30.00	3.00	CPO	2.80	93	2.68	89	2.51	90	0	0	0	0	0	0	2	0	2	1	2	0	7	2.33	4.0
12	30.00	33.00	3.00	CPO	2.98	99	2.85	95	2.41	81	1	0	2	1	1	1	2	2	2	2	2	1	17	5.67	4.0
13	33.00	36.00	3.00	CPO	2.95	98	2.85	95	2.35	80	2	2	1	0	1	1	1	1	2	1	2	1	15	5.00	4.0
14	36.00	39.00	3.00	CPO	3.05	102	2.98	99	2.56	84	0	1	1	1	1	1	0	1	2	1	2	1	12	4.00	3.0
15	39.00	42.00	3.00	CPO	3.02	101	2.67	89	2.21	73	1	2	2	1	2	2	2	2	0	1	2	4	21	7.00	4.0
16	42.00	45.00	3.00	CPO	3.00	100	2.90	97	2.56	85	10	1	1	1	1	1	1	1	2	1	1	1	22	7.33	3.0
17	45.00	48.00	3.00	CPO	2.93	98	2.68	89	2.45	84	1	1	2	1	0	1	1	1	2	0	2	1	13	4.33	4.0
18	48.00	51.00	3.00	CPO	3.08	103	2.78	93	2.66	86	0	1	1	2	0	2	2	2	0	1	3	1	15	5.00	4.0
19	51.00	54.00	3.00	CPO	2.96	99	2.55	85	2.40	81	1	1	2	2	0	0	0	3	2	1	10	1	23	7.67	
20	54.00	57.00	3.00	CPO	3.01	100	2.90	97	2.54	84	0	1	1	2	0	2	1	2	0	1	2	0	12	4.00	4.0
21	57.00	60.00	3.00	CPO	2.98	99	2.61	87	2.16	72	3	1	2	2	2	2	1	1	1	2	4	3	24	8.00	6.0
22	60.00	63.00	3.00	CPO	3.03	101	2.51	84	2.25	74	1	1	4	2	3	2	0	1	3	2	1	2	22	7.33	
23	63.00	66.00	3.00	CPO	2.94	98	2.47	82	2.18	74	2	1	1	0	1	1	1	3	10	0	1	2	23	7.67	4.0
24	66.00	69.00	3.00	CPO	2.97	99	2.27	76	1.78	60	0	3	2	3	10	3	0	2	10	0	1	2	36	12.00	6.0
25	69.00	72.00	3.00	CPO	3.00	100	2.51	84	2.35	78	2	2	1	2	3	2	1	1	0	2	1	2	19	6.33	4.0
26	72.00	75.00	3.00	CPO	2.94	98	1.90	63	1.56	53	0	1	10	4	3	3	3	6	10	0	1	0	41	13.67	6.0
27	75.00	78.00	3.00	CPO	2.00	67	2.79	93	2.30	115	1	3	2	1	0	1	2	10	1	1	0	2	24	8.00	6.0
28	78.00	81.00	3.00	CPO	2.99	100	2.79	93	2.30	77	1	3	2	1	0	1	2	10	1	1	0	2	24	8.00	6.0
29	81.00	84.00	3.00	CPO	3.06	102	2.94	98	2.58	84	1	1	1	0	1	2	0	2	2	1	1	2	14	4.67	4.0
30	84.00	87.00	3.00	CPO	3.02	101	2.68	89	2.19	73	2	2	1	2	1	1	2	1	1	3	3	2	21	7.00	3.0
31	87.00	90.00	3.00	CPO	3.01	100	2.43	81	2.00	66	0	1	3	3	5	3	3	1	2	2	1	1	25	8.33	4.0
32	90.00	93.00	3.00	CPO	3.02	101	2.81	94	2.50	83	0	2	2	1	1	1	1	1	1	1	2	4	17	5.67	
33	93.00	96.00	3.00	CPO	2.96	99	2.96	99	2.40	81	0	2	1	1	0	1	1	0	1	1	0	2	10	3.33	4.0
34	96.00	99.00	3.00	CPO	2.98	99	2.65	88	2.38	80	0	2	2	1	1	0	1	2	3	0	2	1	15	5.00	
35	99.00	102.00	3.00	CPO	3.02	101	2.90	97	2.60	86	1	1	0	1	0	1	3	1	3	2	1	0	14	4.67	

HOLE CM07-1540			Osisko Project		07-1221-0028		300	Dip -70	#REF!	Dip	-60																
Run #	From	To	Interval	Rock type	Recovery	TCR (%)	RQD	RQD	SCR	SCR	Fracture/0.25m														Fracts/run	Fracts/m	Jn
	m	m			m		m	%	m	%																	
36	102.00	105.00	3.00	CPO	2.99	100	2.56	85	2.13	71	1	1	1	2	1	0	2	2	2	2	2	0	16	5.33		4.0
37	105.00	108.00	3.00	CPO	2.87	96	2.74	91	2.42	84	0	0	1	0	1	1	2	2	1	1	1	1	11	3.67		3.0
38	108.00	111.00	3.00	CPO	3.05	102	2.87	96	2.24	73	1	2	1	1	2	1	1	0	2	1	2	1	15	5.00		6.0
39	111.00	114.00	3.00	APO	2.95	98	2.45	82	2.30	78	3	1	1	1	1	0	1	2	1	0	2	3	16	5.33		6.0
40	114.00	117.00	3.00	APO	2.86	95	1.85	62	1.75	61	3	3	2	2	5	0	3	2	0	1	4	1	26	8.67		4.0
41	117.00	120.00	3.00	CPO	3.09	103	2.56	85	2.10	68	2	1	4	2	4	1	2	2	0	5	1	1	25	8.33		6.0
42	120.00	123.00	3.00	CPO	3.05	102	2.33	78	1.76	58	2	5	3	4	0	2	1	1	1	3	2	1	25	8.33		6.0
43	123.00	126.00	3.00	CPO	2.94	98	2.53	84	2.06	70	0	1	3	1	0	0	3	1	4	1	2	1	17	5.67		6.0
44	126.00	129.00	3.00	CPO	3.06	102	2.83	94	2.36	77	0	2	1	1	0	1	0	1	3	2	1	2	14	4.67		4.0
45	129.00	132.00	3.00	CPO	2.82	94	2.45	82	2.19	78	2	1	0	1	3	2	0	0	0	1	1	4	15	5.00		4.0
46	132.00	135.00	3.00	CPO	3.06	102	2.32	77	2.20	72	1	3	0	1	3	3	2	1	0	3	3	4	24	8.00		6.0
47	135.00	138.00	3.00	CPO	2.95	98	2.40	80	2.08	71	2	3	2	3	4	4	1	10	1	0	1	1	32	10.67		
48	138.00	141.00	3.00	CPO	2.99	100	2.56	85	2.17	73	0	3	3	1	2	1	1	4	3	0	2	2	22	7.33		4.0
49	141.00	144.00	3.00	CPO	2.75	92	1.72	57	1.44	52	1	1	10	2	4	3	10	2	10	2	0	2	47	15.67		
50	144.00	147.00	3.00	CPO	3.02	101	2.45	82	2.18	72	0	0	0	2	1	1	0	2	10	3	4	3	26	8.67		
51	147.00	150.00	3.00	CPO	3.03	101	2.78	93	2.28	75	0	1	1	4	2	0	1	1	1	1	1	1	14	4.67		4.0

HOLE CM07-1500		07-1221-0028		Azimuth 000 Dip -70
	Joint Descriptions			
Rock Type	Depth	Type	Jcon	Comments
	m			
CPO	2.35	JN	12	PL,SM,Py, oxidized
CPO	2.45	JN	20	UN,SR,Py oxidized
CPO	2.56	JN	20	PL,SR,Py, oxidized
CPO	2.59	JN	12	UN,SR,Cl <1mm
CPO	2.67	JN	20	UN,SM,
CPO	2.70	JN	12	PL,SM,Py, oxidized
CPO	2.74	JN	20	IR,SR,Py, oxidized
CPO	2.94	JN	20	PL,RO
CPO	3.08	JN	20	UN,SM,Ep
CPO	3.44	JN	12	PL,SR
CPO	4.03	JN	20	UN,SR,Ca
CPO	4.06	JN	20	PL,SR,Ca,Py
CPO	4.31	JN	12	PL,SM,Ca,Ep
CPO	4.46	JN	12	PL,SM
CPO	4.61	JN	12	PL,SM,Ep,Py
CPO	4.65	JN	12	PL,SM,Tc
CPO	4.70	JN	12	PL,SM,Tc <1mm
CPO	4.76	JN	12	PL,SM,Tc <1mm
CPO	4.86	JN	20	ST,SR,Tc <1mm
CPO	4.89	JN	20	UN,SR
CPO	4.98	JN	12	PL,SM,Ca,Tc <1mm
CPO	5.05	JN	20	UN,SM,Ca,Ep <1mm
CPO	5.15 à 5.17	BC	20	
CPO	5.17	JN	12	PL,SM,Ca,Ep
CPO	5.31	JN	12	PL,SR,Ca,Py
CPO	5.38	JN	12	PL,SM,Ca <1mm
CPO	5.57	JN	20	ST,RO,Cl, <1mm
CPO	5.92	JN	12	PL,SR,Ca
CPO	6.00	JN	20	PL,VR
CPO	6.08	VN	20	UN,SR,Qz 40mm
CPO	6.39	JN	12	PL,SM
CPO	6.43	VN	20	PL,RO,Qz 7mm
CPO	6.51	JN	20	PL,RO
CPO	6.54	JN	20	IR,RO
CPO	6.68	JN	20	PL,RO,Py
CPO	6.82	JN	20	PL,RO
CPO	6.91	JN	12	PL,RO
CPO	7.14	JN	12	PL,RO
CPO	7.32	JN	12	PL,SR
CPO	7.47	JN	20	UN,SR
CPO	7.90	JN	12	PL,SM
CPO	8.27	JN	20	IR,RO,Ep, weathered
CPO	8.37	JN	20	UN,SR, weathered
CPO	8.42	JN	12	PL,SR
CPO	8.45	JN	20	UN,SR, weathered
CPO	8.47	JN	20	ST,SR,Ep
CPO	8.68	JN	12	PL,PO,Ep

HOLE CM07-1500		07-1221-0028		Azimuth 000 Dip -70
	Joint Descriptions			
Rock Type	Depth	Type	Jcon	Comments
	m			
CPO	9.12	JN	12	PL,SM,Tc <1mm
CPO	9.13	JN	12	PL,SR,weathered
CPO	9.63	JN	20	UN,SM
CPO	9.81	JN	12	PL,SM
CPO	9.96	JN	20	CU,SM
CPO	10.11	JN	12	PL,S, weathered
CPO	10.18	JN	20	IR,RO
CPO	10.33	JN	12	PL,SR,Ca
CPO	10.54à10.56	BC	12	Ca
CPO	10.56	JN	20	UN,SM,Py, oxidized
CPO	12.17	JN	20	ST,SR
CPO	12.25	JN	20	ST,SR
CPO	12.32	JN	20	UN,SR
CPO	12.70	JN	20	UN,SM,Ep
CPO	12.85	JN	20	UN,SR
CPO	12.92	JN	12	PL,SM,Ca
CPO	13.04	JN	12	PL,PO
CPO	13.34	JN	12	PL,SM,Ca
CPO	13.66	JN	12	PL,SR
CPO	13.70	JN	20	IR, RO
CPO	14.15	JN	20	PL,RO,Ep
CPO	14.40	JN	20	UN,SR
CPO	14.80	VN	20	IR,VR,Qz
CPO	15.02	JN	20	UN,SR
CPO	15.24	JN	12	PL,SR,Ca
CPO	15.30	JN	12	PL,PO,Tc
CPO	15.52	JN	12	PL,SM
CPO	15.69	JN	12	PL,SM,Ep
CPO	15.76	JN	12	PL,SM
CPO	15.81	JN	12	PL,SM
CPO	15.98	JN	20	UN,RO,Ep
CPO	16.02	JN	12	PL,SM,Ep
CPO	16.27	JN	12	PL,RO,Ca
CPO	16.44	JN	20	ST,VR,Qz,micas
CPO	16.62	JN	20	PL,VR,Ca,Py
CPO	17.36	JN	20	UN,SM
CPO	17.46	JN	20	UN,SM,Ca
CPO	18.13	JN	12	PL,SR,Ca
CPO	18.20	JN	20	CU,SM,Ep
CPO	18.86	JN	12	PL,SM
CPO	20.2 à 20.25		20	PL,RO,Ca
CPO	20.33	JN	12	PL,SM,Ca,Ep
CPO	20.86	JN	12	PL,SR,Ca
CPO	21.24	JN	20	UN,SM,Ca,Py
CPO	21.59	JN	20	UN,SR
CPO	22.16	JN	12	PL,SM
CPO	22.83	JN	12	PL,SM

HOLE CM07-1500		07-1221-0028		Azimuth 000 Dip -70
	Joint Descriptions			
Rock Type	Depth	Type	Jcon	Comments
	m			
CPO	23.53	JN	20	UN,SR,Ep
CPO	24.43	JN	12	PL,SM,Tc
CPO	24.57	JN	20	IR,RO
CPO	24.78	JN	12	PL,SM,Tc
CPO	24.80	JN	20	UN,RO,Tc
CPO	25.02	JN	20	CU,SR,Tc
CPO	25.04	JN	12	PL,SR,Ca
CPO	25.11	VN	20	PL,VR,Ca,Qz
CPO	25.16à25.21	BC	20	Ca
CPO	25.33	JN	20	UN,RO,Qz,Ca
CPO	25.49	JN	12	PL,RO
CPO	25.46	JN	12	PL,RO
CPO	25.57	VN	20	CU,RO,Qz,Ca 45 mm
CPO	25.63	JN	20	PL,RO,Ep,Qz
CPO	25.71	FLT	12	PL,SR,Ca <5mm
CPO	25.87	JN	12	PL,SR,Ca
CPO	25.91	JN	12	PL,SM,Ca
CPO	26.02	JN	20	ST,RO,Ca
CPO	26.13	JN	12	PL,SM
CPO	26.30	JN	12	PL,SR,Ca
CPO	28.59	JN	12	PL,SR,Ca
CPO	28.67	JN	12	PL,RO,Ca
CPO	29.00	JN	20	UN,RO,Ca
CPO	29.21	JN	20	CU,RO,Ca
CPO	29.48	JN	20	UN,SM,Ca
CPO	29.52	JN	12	PL,SM
CPO	29.59	JN	20	UN,SM,Ca
CPO	30.20	JN	12	PL,SR,Ca
CPO	30.61	JN	20	PL,RO,Ca,oxidized
CPO	30.63	JN	20	PL,RO,Ca oxixized
CPO	30.87	JN	20	UN,SR
CPO	31.02	JN	20	UN,SR,Py
CPO	31.47	JN	20	PL,RO,Qz,Ca
CPO	31.69	VN	20	ST,RO,Qz 4mm
CPO	31.74	JN	20	UN,SR
CPO	31.77	JN	20	IR,RO,Ca 1mm
CPO	31.95à32	Mec		
CPO	32.00	JN	20	PL,RO,Ca
CPO	32.16	JN	20	PL,RO,Py
CPO	32.27	JN	20	UN,SR,Ca,Ep
CPO	32.39	VN	20	IR,RO,Qz 50mm
CPO	32.72	JN	20	UN,SR
CPO	32.72	JN	12	PL,PO
CPO	32.88	VN	20	PL,RO,Qz 4mm
CPO	33.00	JN	20	PL,RO
CPO	33.22	JN	20	PL,RO
CPO	33.39	JN	20	ST,RO

HOLE CM07-1500		07-1221-0028		Azimuth 000 Dip -70
	Joint Descriptions			
Rock Type	Depth	Type	Jcon	Comments
	m			
CPO	33.42	JN	12	PL,SR,Ca trace
CPO	33.71	JN	12	PL,SR
CPO	34.02	JN	12	PL,SR,Ca,Py
CPO	34.43	JN	12	PL,SR
CPO	34.68	JN	12	PL,SR
CPO	34.80	JN	12	PL,SR
CPO	35.11	VN	20	UN,VR,Qz,micas 10mm
CPO	35.22	JN	20	UN,RO,Ca,Py
CPO	35.29	JN	20	IR,RO,Ca
CPO	35.57	JN	20	PL,RO,Ca,Qz
CPO	35.66	JN	20	UN,RO,Ca,Qz
CPO	35.99	VN	20	UN,RO,Ca
CPO	36.44	JN	12	PL,PO
CPO	36.62	JN	20	CU,SM
CPO	36.81	JN	20	UN,SM
CPO	37.12	JN	12	PL,SM
CPO	37.42	JN	12	PL,PO
CPO	37.95	JN	12	PL,SR
CPO	38.03	JN	20	PL,RO,Ca
CPO	38.2	JN	20	PL,RO
CPO	38.33	JN	12	PL,SM
CPO	38.55	JN	12	PL,SR,Ca
CPO	38.70	JN	12	PL,SM
CPO	38.84	JN	12	PL,SR
CPO	39.5	JN	12	
CPO	42.05à42.12	Br		
CPO	43.5	JN	12	
CPO	47.5	JN	12	
CPO	49.5	JN	12	
CPO	52.5	JN	12	
CPO	53.63à53.80			Broken, very weathered and oxidized
CPO	55.5	JN	12	
CPO	57.5	JN	12	
CPO	61.5	JN	12	
CPO	64.5	JN	12	
CPO	67.5	JN	12	
CPO	68	BC		weathered joint and fragmented
CPO	70.5	JN	20	
CPO	73.5	JN	12	
CPO	74	BC	12	
CPO	76.5	JN	12	
CPO	79.5	JN	12	
CPO	79.95à80.10	BC		Broken on 20 mm
CPO	82.5	JN	12	
CPO	85.5	JN	12	
CPO	88.5	JN	12	
CPO	91.5	JN	12	

HOLE CM07-1500	07-1221-0028		Azimuth 000 Dip -70
	Joint Descriptions		
Rock Type	Depth	Type	Jcon	Comments
	m			
CPO	94.5	JN	12	
CPO	97.5	JN	12	
CPO	100.5			
CPO	103.5	JN	12	
CPO	106.5	JN	12	
APO	109.5	JN	12	
APO	112.5	JN	12	
CPO	115.5	JN	12	
CPO	118.5	JN	12	
CPO	121.5	JN	12	
CPO	124.5	JN	12	
CPO	127.5	JN	20	
CPO	130.5	JN	12	
CPO	133.5	JN	12	
CPO	136.5	JN	20	
CPO	136.75	BC		
CPO	139.5	JN		
CPO	141.75	BC		
CPO	142.5	JN	12	
CPO	145.5	JN	12	
CPO	146	BC		
CPO	148.5	JN	12	

APPENDIX B

POINT LOAD TESTING DATA

Diametral Point Load Testing Data
AGR (N = 18)

Hole Number	Depth	Lithology	Test Type	D, mm	Guage Load	De**2 (mm2)	De**2	De	Is	Fs	Is50	UCS	ISRM R
	m		(D, A, L, or S)	(Separation)	(MPa)	Complete Core	final	(mm)	(MPa)		(MPa)	(MPa)	Index
CM07-1446	15	AGR	D	47.5	20.20	2256	2256.25	47.50	8.49	0.977	8.29	149.30	5
CM07-1446	15	AGR	D	47.5	23.66	2256	2256.25	47.50	9.94	0.977	9.72	174.88	5
CM07-1446	15	AGR	D	47.5	24.00	2256	2256.25	47.50	10.08	0.977	9.85	177.37	5
CM07-1446	33	AGR	D	47.5	15.50	2256	2256.25	47.50	10.08	0.977	9.85	177.37	5
CM07-1446	33	AGR	D	47.5	19.76	2256	2256.25	47.50	6.51	0.977	6.36	114.55	5
CM07-1446	39	AGR	D	47.5	19.51	2256	2256.25	47.50	8.30	0.977	8.11	146.04	5
CM07-1446	39	AGR	D	47.5	25.74	2256	2256.25	47.50	8.20	0.977	8.01	144.20	5
CM07-1446	39	AGR	D	47.5	27.28	2256	2256.25	47.50	8.30	0.977	8.11	146.04	5
GT07-01	12	AGR	D	45.0	13.12	2256	2256.25	47.50	8.20	0.977	8.01	144.20	5
GT07-01	12	AGR	D	45.0	16.32	2256	2256.25	47.50	10.81	0.977	10.57	190.22	5
GT07-01	24	AGR	D	45.0	15.24	2256	2256.25	47.50	10.81	0.977	10.57	190.22	5
GT07-01	24	AGR	D	45.0	16.90	2256	2256.25	47.50	11.46	0.977	11.20	201.63	5
GT07-01	24	AGR	D	45.0	17.40	2025	2025.00	45.00	6.14	0.954	5.86	105.44	5
GT07-01	24	AGR	D	45.0	24.88	2025	2025.00	45.00	7.64	0.954	7.29	131.15	5
GT07-01	36	AGR	D	44.5	11.82	2025	2025.00	45.00	6.14	0.954	5.86	105.44	5
GT07-01	36	AGR	D	44.5	12.09	2025	2025.00	45.00	7.64	0.954	7.29	131.15	5
GT07-01	36	AGR	D	44.5	12.90	2025	2025.00	45.00	7.13	0.954	6.80	122.45	5
GT07-01	48	AGR	D	44.5	12.42	2025	2025.00	45.00	7.91	0.954	7.54	135.81	5
GT07-01	48	AGR	D	44.5	17.70	2025	2025.00	45.00	8.15	0.954	7.77	139.85	5
GT07-01	48	AGR	D	44.5	22.78	1980	1980.25	44.50	5.66	0.949	5.37	96.63	4
GT07-01	60	AGR	D	44.5	11.86	1980	1980.25	44.50	5.94	0.949	5.64	101.54	5
GT07-01	60	AGR	D	44.5	14.48	1980	1980.25	44.50	8.47	0.949	8.04	144.72	5
GT07-01	60	AGR	D	44.5	16.66	1980	1980.25	44.50	5.68	0.949	5.39	96.97	4
GT07-01	72	AGR	D	44.5	12.78	1980	1980.25	44.50	6.93	0.949	6.58	118.39	5
GT07-01	72	AGR	D	44.5	16.38	1980	1980.25	44.50	7.84	0.949	7.44	133.95	5
GT07-01	84	AGR	D	44.5	14.17	1980	1980.25	44.50	6.78	0.949	6.44	115.86	5
GT07-01	84	AGR	D	44.5	18.30	1980	1980.25	44.50	8.76	0.949	8.31	149.63	5
GT07-01	84	AGR	D	44.5	18.64	1980	1980.25	44.50	8.92	0.949	8.47	152.39	5
GT07-01	96	AGR	D	44.5	19.32	1980	1980.25	44.50	9.25	0.949	8.78	157.97	5
GT07-01	96	AGR	D	44.5	26.24	1980	1980.25	44.50	12.56	0.949	11.92	214.57	5
GT07-01	96	AGR	D	44.5	26.64	1980	1980.25	44.50	12.75	0.949	12.10	217.84	5
GT07-01	102	AGR	D	44.5	14.92	1980	1980.25	44.50	7.14	0.949	6.78	122.00	5
GT07-01	102	AGR	D	44.5	20.70	1980	1980.25	44.50	9.91	0.949	9.40	169.25	5
GT07-01	102	AGR	D	44.5	22.54	1980	1980.25	44.50	10.79	0.949	10.24	184.30	5
GT07-01	108	AGR	D	44.5	18.32	1980	1980.25	44.50	8.77	0.949	8.32	149.79	5
GT07-01	108	AGR	D	44.5	19.90	1980	1980.25	44.50	9.53	0.949	9.04	162.71	5
GT07-01	108	AGR	D	44.5	26.12	1980	1980.25	44.50	12.50	0.949	11.86	213.56	5
GT07-01	114	AGR	D	44.5	23.94	1980	1980.25	44.50	11.46	0.949	10.87	195.74	5
GT07-01	126	AGR	D	44.5	14.10	1980	1980.25	44.50	6.75	0.949	6.41	115.29	5
GT07-01	126	AGR	D	44.5	16.50	1980	1980.25	44.50	7.90	0.949	7.50	134.91	5
GT07-01	126	AGR	D	44.5	26.82	1980	1980.25	44.50	12.84	0.949	12.18	219.31	5
GT07-01	138	AGR	D	44.5	13.10	1980	1980.25	44.50	6.27	0.949	5.95	107.12	5
GT07-01	138	AGR	D	44.5	15.96	1980	1980.25	44.50	7.64	0.949	7.25	130.51	5
GT07-01	138	AGR	D	44.5	20.22	1980	1980.25	44.50	9.68	0.949	9.19	165.36	5

Diametral Point Load Testing Data
AGR (N = 18)

Hole Number	Depth	Lithology	Test Type	D, mm	Guage Load	De**2 (mm2)	De**2	De	Is	Fs	Is50	UCS	ISRM R
	m		(D, A, L, or S)	(Separation)	(MPa)	Complete Core	final	(mm)	(MPa)		(MPa)	(MPa)	Index
GT07-01	150	AGR	D	45.0	13.48	2025	2025.00	45.00	6.31	0.954	6.02	108.33	5
GT07-01	150	AGR	D	45.0	14.80	2025	2025.00	45.00	6.93	0.954	6.61	118.96	5
GT07-01	150	AGR	D	45.0	17.08	2025	2025.00	45.00	8.00	0.954	7.62	137.25	5
GT07-01	162	AGR	D	45.0	16.90	2025	2025.00	45.00	7.91	0.954	7.54	135.81	5
GT07-01	162	AGR	D	45.0	21.78	2025	2025.00	45.00	10.20	0.954	9.72	175.04	5
GT07-01	162	AGR	D	45.0	22.20	2025	2025.00	45.00	10.39	0.954	9.91	178.42	5
GT07-01	172	AGR	D	45.0	24.32	2025	2025.00	45.00	11.38	0.954	10.86	195.43	5
GT07-01	172	AGR	D	45.0	24.58	2025	2025.00	45.00	11.51	0.954	10.97	197.53	5
GT07-02	12	AGR	D	45.5	19.54	2070	2070.25	45.50	8.95	0.958	8.58	154.36	5
GT07-02	18	AGR	D	45.5	27.08	2070	2070.25	45.50	12.40	0.958	11.89	213.95	5
GT07-02	30	AGR	D	45.5	14.62	2070	2070.25	45.50	6.69	0.958	6.42	115.47	5
GT07-02	36	AGR	D	45.5	15.52	2070	2070.25	45.50	7.11	0.958	6.81	122.61	5
GT07-02	36	AGR	D	45.5	19.50	2070	2070.25	45.50	8.93	0.958	8.56	154.04	5
GT07-02	36	AGR	D	45.5	23.30	2070	2070.25	45.50	10.67	0.958	10.23	184.10	5
GT07-02	42	AGR	D	45.5	23.62	2070	2070.25	45.50	10.82	0.958	10.37	186.61	5
GT07-02	42	AGR	D	45.5	25.30	2070	2070.25	45.50	11.58	0.958	11.10	199.85	5
GT07-02	48	AGR	D	45.5	17.06	2070	2070.25	45.50	7.81	0.958	7.49	134.76	5
GT07-02	48	AGR	D	45.5	23.56	2070	2070.25	45.50	10.79	0.958	10.34	186.12	5
GT07-02	54	AGR	D	45.5	18.64	2070	2070.25	45.50	8.54	0.958	8.18	147.28	5
GT07-02	54	AGR	D	45.5	26.68	2070	2070.25	45.50	12.22	0.958	11.71	210.79	5
GT07-02	131	AGR	D	45.5	20.45	2070	2070.25	45.50	9.36	0.958	8.98	161.55	5
GT07-02	131	AGR	D	45.5	23.12	2070	2070.25	45.50	10.59	0.958	10.15	182.63	5
GT07-02	149	AGR	D	45.5	16.82	2070	2070.25	45.50	7.70	0.958	7.38	132.90	5
GT07-02	149	AGR	D	45.5	18.38	2070	2070.25	45.50	8.42	0.958	8.07	145.21	5
GT07-02	162	AGR	D	45.5	15.84	2070	2070.25	45.50	7.25	0.958	6.95	125.11	5
GT07-02	162	AGR	D	45.5	18.82	2070	2070.25	45.50	8.62	0.958	8.26	148.70	5
GT07-02	162	AGR	D	45.5	21.18	2070	2070.25	45.50	9.70	0.958	9.30	167.33	5
GT07-02	168	AGR	D	45.5	15.78	2070	2070.25	45.50	7.23	0.958	6.93	124.68	5
GT07-02	180	AGR	D	45.5	15.20	2070.25	2070.25	45.50	6.96	0.958	6.67	120.10	5
GT07-02	180	AGR	D	45.5	23.44	2070.25	2070.25	45.50	10.73	0.958	10.29	185.19	5
GT07-02	198	AGR	D	45.5	11.82	2070.25	2070.25	45.50	5.41	0.958	5.19	93.36	4
GT07-02	204	AGR	D	45.5	15.50	2070.25	2070.25	45.50	7.10	0.958	6.80	122.45	5
GT07-02	216	AGR	D	45.5	16.6784172	2070.25	2070.25	45.50	7.64	0.958	7.32	131.76	5
GT07-02	216	AGR	D	45.5	22.92	2070.25	2070.25	45.50	10.49	0.958	10.06	181.05	5
GT07-02	228	AGR	D	45.5	22.32	2070.25	2070.25	45.50	10.22	0.958	9.80	176.31	5
GT07-02	234	AGR	D	45.5	15.42	2070.25	2070.25	45.50	7.06	0.958	6.77	121.85	5
GT07-02	234	AGR	D	45.5	19.86	2070.25	2070.25	45.50	9.09	0.958	8.71	156.87	5
GT07-02	252	AGR	D	45.5	14.70	2070.25	2070.25	45.50	6.73	0.958	6.45	116.13	5
GT07-02	252	AGR	D	45.5	21.26	2070.25	2070.25	45.50	9.74	0.958	9.33	167.98	5
GT07-02	258	AGR	D	45.5	22.80	2070.25	2070.25	45.50	10.44	0.958	10.01	180.13	5
GT07-02	258	AGR	D	45.5	25.14	2070.25	2070.25	45.50	11.51	0.958	11.03	198.59	5
GT07-02	264	AGR	D	45.5	16.50	2070.25	2070.25	45.50	7.56	0.958	7.24	130.34	5
GT07-02	264	AGR	D	45.5	18.60	2070.25	2070.25	45.50	8.52	0.958	8.16	146.96	5

Diametral Point Load Testing Data
AGR (N = 18)

Hole Number	Depth	Lithology	Test Type	D, mm	Guage Load	De**2 (mm2)	De**2	De	Is	Fs	Is50	UCS	ISRM R
	m		(D, A, L, or S)	(Separation)	(MPa)	Complete Core	final	(mm)	(MPa)		(MPa)	(MPa)	Index
GT07-02	270	AGR	D	45.5	22.90	2070.25	2070.25	45.50	10.49	0.958	10.05	180.89	5
GT07-02	270	AGR	D	45.5	26.78	2070.25	2070.25	45.50	12.26	0.958	11.75	211.56	5
GT07-02	276	AGR	D	45.5	18.50	2070.25	2070.25	45.50	8.47	0.958	8.12	146.14	5
GT07-02	276	AGR	D	45.5	21.64	2070.25	2070.25	45.50	9.91	0.958	9.50	170.98	5
GT07-03	6	AGR	D	45.1	14.10	2034.01	2034.01	45.10	6.57	0.955	6.27	112.92	5
GT07-03	6	AGR	D	45.1	15.42	2034.01	2034.01	45.10	7.19	0.955	6.86	123.47	5
GT07-03	6	AGR	D	45.1	17.30	2034.01	2034.01	45.10	8.06	0.955	7.70	138.54	5
GT07-03	6	AGR	D	45.1	19.70	2034.01	2034.01	45.10	9.18	0.955	8.76	157.76	5
GT07-03	6	AGR	D	45.1	20.64	2034.01	2034.01	45.10	9.62	0.955	9.18	165.33	5
GT07-03	6	AGR	D	45.1	24.42	2034.01	2034.01	45.10	11.38	0.955	10.87	195.59	5
GT07-03	12.1	AGR	D	45.1	14.48	2034.01	2034.01	45.10	6.75	0.955	6.44	115.96	5
GT07-03	12.1	AGR	D	45.1	14.98	2034.01	2034.01	45.10	6.98	0.955	6.67	119.99	5
GT07-03	12.1	AGR	D	45.1	15.28	2034.01	2034.01	45.10	7.12	0.955	6.80	122.37	5
GT07-03	12.1	AGR	D	45.1	16.31	2034.01	2034.01	45.10	7.60	0.955	7.26	130.65	5
GT07-03	12.1	AGR	D	45.1	26.62	2034.01	2034.01	45.10	12.41	0.955	11.84	213.20	5
GT07-03	19.25	AGR	D	45.1	23.38	2034.01	2034.01	45.10	10.90	0.955	10.40	187.25	5
GT07-03	19.25	AGR	D	45.1	25.22	2034.01	2034.01	45.10	11.75	0.955	11.22	201.99	5
GT07-03	19.25	AGR	D	45.1	25.90	2034.01	2034.01	45.10	12.07	0.955	11.52	207.40	5
GT07-03	24.25	AGR	D	45.1	14.52	2034.01	2034.01	45.10	6.77	0.955	6.46	116.29	5
GT07-03	24.5	AGR	D	45.1	17.24	2034.01	2034.01	45.10	8.03	0.955	7.67	138.05	5
GT07-03	24.5	AGR	D	45.1	17.50	2034.01	2034.01	45.10	8.16	0.955	7.79	140.15	5
GT07-03	24.5	AGR	D	45.1	18.80	2034.01	2034.01	45.10	8.76	0.955	8.36	150.53	5
GT07-03	24.5	AGR	D	45.1	20.36	2034.01	2034.01	45.10	9.49	0.955	9.06	163.06	5
GT07-03	30.3	AGR	D	45.1	18.59	2034.01	2034.01	45.10	8.66	0.955	8.27	148.87	5
GT07-03	30.55	AGR	D	45.1	15.68	2034.01	2034.01	45.10	7.31	0.955	6.98	125.57	5
GT07-03	30.55	AGR	D	45.1	18.84	2034.01	2034.01	45.10	8.78	0.955	8.38	150.91	5
GT07-03	30.55	AGR	D	45.1	20.30	2034.01	2034.01	45.10	9.46	0.955	9.03	162.57	5
GT07-03	30.55	AGR	D	45.1	20.52	2034.01	2034.01	45.10	9.56	0.955	9.13	164.33	5
GT07-03	30.55	AGR	D	45.1	23.02	2034.01	2034.01	45.10	10.73	0.955	10.24	184.38	5
GT07-03	36.61	AGR	D	45.1	22.70	2034.01	2034.01	45.10	10.58	0.955	10.10	181.78	5
GT07-03	36.66	AGR	D	45.1	16.12	2034.01	2034.01	45.10	7.51	0.955	7.17	129.10	5
GT07-03	36.66	AGR	D	45.1	16.56	2034.01	2034.01	45.10	7.72	0.955	7.37	132.64	5
GT07-03	36.66	AGR	D	45.1	18.76	2034.01	2034.01	45.10	8.74	0.955	8.35	150.25	5
GT07-03	36.66	AGR	D	45.1	22.60	2034.01	2034.01	45.10	10.53	0.955	10.06	181.01	5
GT07-03	42.5	AGR	D	45.1	19.36	2034.01	2034.01	45.10	9.02	0.955	8.61	155.06	5
GT07-03	42.5	AGR	D	45.1	20.70	2034.01	2034.01	45.10	9.65	0.955	9.21	165.77	5
GT07-03	42.5	AGR	D	45.1	22.32	2034.01	2034.01	45.10	10.40	0.955	9.93	178.74	5
GT07-03	42.5	AGR	D	45.1	23.34	2034.01	2034.01	45.10	10.88	0.955	10.38	186.92	5
GT07-03	48	AGR	D	45.1	21.64	2034.01	2034.01	45.10	10.09	0.955	9.63	173.33	5
GT07-03	48	AGR	D	45.1	22.86	2034.01	2034.01	45.10	10.66	0.955	10.17	183.11	5
GT07-03	48	AGR	D	45.1	23.26	2034.01	2034.01	45.10	10.84	0.955	10.35	186.31	5
GT07-03	48	AGR	D	45.1	24.06	2034.01	2034.01	45.10	11.22	0.955	10.71	192.71	5
GT07-03	48	AGR	D	45.1	25.96	2034.01	2034.01	45.10	12.10	0.955	11.55	207.90	5

Diametral Point Load Testing Data
AGR (N = 18)

Hole Number	Depth	Lithology	Test Type	D, mm	Guage Load	De**2 (mm2)	De**2	De	Is	Fs	Is50	UCS	ISRM R
	m		(D, A, L, or S)	(Separation)	(MPa)	Complete Core	final	(mm)	(MPa)		(MPa)	(MPa)	Index
GT07-03	54	AGR	D	45.1	21.86	2034.01	2034.01	45.10	10.19	0.955	9.73	175.10	5
GT07-03	54.55	AGR	D	45.1	18.48	2034.01	2034.01	45.10	8.61	0.955	8.22	147.99	5
GT07-03	54.55	AGR	D	45.1	22.52	2034.01	2034.01	45.10	10.50	0.955	10.02	180.35	5
GT07-03	54.55	AGR	D	45.1	24.24	2034.01	2034.01	45.10	11.30	0.955	10.79	194.15	5
GT07-03	54.55	AGR	D	45.1	24.28	2034.01	2034.01	45.10	11.32	0.955	10.80	194.48	5
GT07-03	54.55	AGR	D	45.1	27.02	2034.01	2034.01	45.10	12.59	0.955	12.02	216.40	5
GT07-03	60	AGR	D	45.1	12.18	2034.01	2034.01	45.10	5.68	0.955	5.42	97.57	4
GT07-03	60	AGR	D	45.1	16.12	2034.01	2034.01	45.10	7.51	0.955	7.17	129.10	5
GT07-03	60	AGR	D	45.1	19.22	2034.01	2034.01	45.10	8.96	0.955	8.55	153.95	5
GT07-03	60	AGR	D	45.1	26.26	2034.01	2034.01	45.10	12.24	0.955	11.68	210.33	5
GT07-03	60	AGR	D	45.1	26.66	2034.01	2034.01	45.10	12.43	0.955	11.86	213.53	5
GT07-03	66	AGR	D	45.1	22.00	2034.01	2034.01	45.10	10.25	0.955	9.79	176.20	5
GT07-03	66.5	AGR	D	45.1	18.42	2034.01	2034.01	45.10	8.59	0.955	8.20	147.55	5
GT07-03	66.5	AGR	D	45.1	19.28	2034.01	2034.01	45.10	8.98	0.955	8.58	154.39	5
GT07-03	66.5	AGR	D	45.1	24.56	2034.01	2034.01	45.10	11.45	0.955	10.93	196.69	5
GT07-03	72	AGR	D	45.1	15.74	2034.01	2034.01	45.10	7.34	0.955	7.00	126.07	5
GT07-03	72.21	AGR	D	45.1	14.30	2034.01	2034.01	45.10	6.66	0.955	6.36	114.52	5
GT07-03	72.21	AGR	D	45.1	18.88	2034.01	2034.01	45.10	8.80	0.955	8.40	151.19	5
GT07-03	72.21	AGR	D	45.1	19.48	2034.01	2034.01	45.10	9.08	0.955	8.67	155.99	5
GT07-03	78	AGR	D	45.1	14.06	2034.01	2034.01	45.10	6.55	0.955	6.26	112.59	5
GT07-03	78	AGR	D	45.1	14.64	2034.01	2034.01	45.10	6.82	0.955	6.51	117.23	5
GT07-03	78	AGR	D	45.1	16.04	2034.01	2034.01	45.10	7.47	0.955	7.14	128.44	5
GT07-03	78	AGR	D	45.1	19.78	2034.01	2034.01	45.10	9.22	0.955	8.80	158.42	5
GT07-03	84	AGR	D	45.1	17.26	2034.01	2034.01	45.10	8.04	0.955	7.68	138.21	5
GT07-03	84	AGR	D	45.1	20.02	2034.01	2034.01	45.10	9.33	0.955	8.91	160.36	5
GT07-03	84	AGR	D	45.1	20.68	2034.01	2034.01	45.10	9.64	0.955	9.20	165.60	5
GT07-03	84	AGR	D	45.1	22.68	2034.01	2034.01	45.10	10.57	0.955	10.09	181.62	5
GT07-03	90	AGR	D	45.1	15.02	2034.01	2034.01	45.10	7.00	0.955	6.68	120.27	5
GT07-03	90	AGR	D	45.1	15.12	2034.01	2034.01	45.10	7.05	0.955	6.73	121.10	5
GT07-03	90	AGR	D	45.1	15.38	2034.01	2034.01	45.10	7.17	0.955	6.84	123.19	5
GT07-03	90	AGR	D	45.1	22.10	2034.01	2034.01	45.10	10.30	0.955	9.83	176.98	5
GT07-03	96	AGR	D	45.1	14.12	2034.01	2034.01	45.10	6.58	0.955	6.28	113.09	5
GT07-03	96	AGR	D	45.1	15.84	2034.01	2034.01	45.10	7.38	0.955	7.05	126.84	5
GT07-03	96	AGR	D	45.1	16.46	2034.01	2034.01	45.10	7.67	0.955	7.32	131.81	5
GT07-03	96	AGR	D	45.1	19.28	2034.01	2034.01	45.10	8.98	0.955	8.58	154.39	5
GT07-03	96	AGR	D	45.1	20.30	2034.01	2034.01	45.10	9.46	0.955	9.03	162.57	5
GT07-03	96	AGR	D	45.1	20.92	2034.01	2034.01	45.10	9.75	0.955	9.31	167.53	5
GT07-03	102	AGR	D	45.1	13.00	2034.01	2034.01	45.10	6.06	0.955	5.78	104.09	5
GT07-03	102	AGR	D	45.1	13.58	2034.01	2034.01	45.10	6.33	0.955	6.04	108.78	5
GT07-03	102	AGR	D	45.1	13.82	2034.01	2034.01	45.10	6.44	0.955	6.15	110.66	5
GT07-03	102	AGR	D	45.1	17.64	2034.01	2034.01	45.10	8.22	0.955	7.85	141.25	5
GT07-03	102	AGR	D	45.1	20.78	2034.01	2034.01	45.10	9.69	0.955	9.25	166.43	5
GT07-03	108	AGR	D	45.1	13.60	2034.01	2034.01	45.10	6.34	0.955	6.05	108.95	5

Diametral Point Load Testing Data
AGR (N = 18)

Hole Number	Depth	Lithology	Test Type	D, mm	Guage Load	De**2 (mm2)	De**2	De	Is	Fs	Is50	UCS	ISRM R
	m		(D, A, L, or S)	(Separation)	(MPa)	Complete Core	final	(mm)	(MPa)		(MPa)	(MPa)	Index
GT07-03	108	AGR	D	45.1	16.54	2034.01	2034.01	45.10	7.71	0.955	7.36	132.47	5
GT07-03	108	AGR	D	45.1	19.08	2034.01	2034.01	45.10	8.89	0.955	8.49	152.79	5
GT07-03	108	AGR	D	45.1	25.14	2034.01	2034.01	45.10	11.72	0.955	11.18	201.33	5
GT07-03	114	AGR	D	45.1	13.20	2034.01	2034.01	45.10	6.15	0.955	5.87	105.74	5
GT07-03	114	AGR	D	45.1	17.34	2034.01	2034.01	45.10	8.08	0.955	7.72	138.88	5
GT07-03	114	AGR	D	45.1	25.18	2034.01	2034.01	45.10	11.74	0.955	11.20	201.66	5
GT07-03	120	AGR	D	45.1	17.22	2034.01	2034.01	45.10	8.03	0.955	7.66	137.94	5
GT07-03	120	AGR	D	45.1	17.22	2034.01	2034.01	45.10	8.03	0.955	7.66	137.94	5
GT07-03	120	AGR	D	45.1	17.34	2034.01	2034.01	45.10	8.08	0.955	7.72	138.88	5
GT07-03	120	AGR	D	45.1	17.60	2034.01	2034.01	45.10	8.20	0.955	7.83	140.97	5
GT07-03	120	AGR	D	45.1	18.26	2034.01	2034.01	45.10	8.51	0.955	8.12	146.22	5
GT07-03	126	AGR	D	45.1	16.36	2034.01	2034.01	45.10	7.63	0.955	7.28	131.04	5
GT07-03	126	AGR	D	45.1	18.42	2034.01	2034.01	45.10	8.59	0.955	8.20	147.55	5
GT07-03	126	AGR	D	45.1	18.90	2034.01	2034.01	45.10	8.81	0.955	8.41	151.36	5
GT07-03	126	AGR	D	45.1	25.24	2034.01	2034.01	45.10	11.76	0.955	11.23	202.16	5
GT07-03	132	AGR	D	45.1	17.96	2034.01	2034.01	45.10	8.37	0.955	7.99	143.85	5
GT07-03	132	AGR	D	45.1	18.98	2034.01	2034.01	45.10	8.85	0.955	8.45	152.02	5
GT07-03	132	AGR	D	45.1	21.18	2034.01	2034.01	45.10	9.87	0.955	9.42	169.63	5
GT07-03	132	AGR	D	45.1	21.39	2034.01	2034.01	45.10	9.97	0.955	9.52	171.29	5
GT07-03	138	AGR	D	45.1	15.40	2034.01	2034.01	45.10	7.18	0.955	6.85	123.36	5
GT07-03	138	AGR	D	45.1	16.54	2034.01	2034.01	45.10	7.71	0.955	7.36	132.47	5
GT07-03	138	AGR	D	45.1	16.74	2034.01	2034.01	45.10	7.80	0.955	7.45	134.07	5
GT07-03	138	AGR	D	45.1	20.50	2034.01	2034.01	45.10	9.55	0.955	9.12	164.17	5
GT07-03	138	AGR	D	45.1	22.66	2034.01	2034.01	45.10	10.56	0.955	10.08	181.51	5
GT07-03	144	AGR	D	45.1	13.74	2034.01	2034.01	45.10	6.40	0.955	6.11	110.05	5
GT07-03	144	AGR	D	45.1	14.68	2034.01	2034.01	45.10	6.84	0.955	6.53	117.56	5
GT07-03	144	AGR	D	45.1	16.54	2034.01	2034.01	45.10	7.71	0.955	7.36	132.47	5
GT07-03	144	AGR	D	45.1	17.12	2034.01	2034.01	45.10	7.98	0.955	7.62	137.11	5
GT07-03	150	AGR	D	45.1	15.08	2034.01	2034.01	45.10	7.03	0.955	6.71	120.76	5
GT07-03	150	AGR	D	45.1	17.54	2034.01	2034.01	45.10	8.18	0.955	7.80	140.48	5
GT07-03	150	AGR	D	45.1	18.56	2034.01	2034.01	45.10	8.65	0.955	8.26	148.65	5
GT07-03	150	AGR	D	45.1	22.82	2034.01	2034.01	45.10	10.64	0.955	10.15	182.78	5
GT07-03	156	AGR	D	45.1	16.86	2034.01	2034.01	45.10	7.86	0.955	7.50	135.01	5
GT07-03	156	AGR	D	45.1	17.62	2034.01	2034.01	45.10	8.21	0.955	7.84	141.14	5
GT07-03	156	AGR	D	45.1	18.10	2034.01	2034.01	45.10	8.44	0.955	8.05	144.95	5
GT07-03	156	AGR	D	45.1	24.40	2034.01	2034.01	45.10	11.37	0.955	10.86	195.42	5
GT07-03	162	AGR	D	45.1	15.06	2034.01	2034.01	45.10	7.02	0.955	6.70	120.60	5
GT07-03	162	AGR	D	45.1	17.74	2034.01	2034.01	45.10	8.27	0.955	7.89	142.08	5
GT07-03	162	AGR	D	45.1	19.36	2034.01	2034.01	45.10	9.02	0.955	8.61	155.06	5
GT07-03	162	AGR	D	45.1	23.36	2034.01	2034.01	45.10	10.89	0.955	10.39	187.08	5
GT07-03	168	AGR	D	45.1	15.42	2034.01	2034.01	45.10	7.19	0.955	6.86	123.47	5
GT07-03	168	AGR	D	45.1	20.26	2034.01	2034.01	45.10	9.44	0.955	9.01	162.23	5
GT07-03	168	AGR	D	45.1	25.24	2034.01	2034.01	45.10	11.76	0.955	11.23	202.16	5

Hole Number	Depth	Lithology	Test Type	D, mm	Guage Load	De**2 (mm2)	De**2	De	Is	Fs	Is50	UCS	ISRM R
	m		(D, A, L, or S)	(Separation)	(MPa)	Complete Core	final	(mm)	(MPa)		(MPa)	(MPa)	Index
GT07-03	168	AGR	D	45.1	26.84	2034.01	2034.01	45.10	12.51	0.955	11.94	214.97	5
GT07-03	174	AGR	D	45.1	12.40	2034.01	2034.01	45.10	5.78	0.955	5.52	99.28	4
GT07-03	174	AGR	D	45.1	16.40	2034.01	2034.01	45.10	7.64	0.955	7.30	131.37	5
GT07-03	174	AGR	D	45.1	24.74	2034.01	2034.01	45.10	11.53	0.955	11.01	198.13	5
GT07-03	174	AGR	D	45.1	26.26	2034.01	2034.01	45.10	12.24	0.955	11.68	210.33	5
GT07-03	180	AGR	D	45.1	15.14	2034.01	2034.01	45.10	7.06	0.955	6.74	121.26	5
GT07-03	180	AGR	D	45.1	20.00	2034.01	2034.01	45.10	9.32	0.955	8.90	160.19	5
GT07-03	180	AGR	D	45.1	22.29	2034.01	2034.01	45.10	10.39	0.955	9.92	178.52	5
GT07-03	180	AGR	D	45.1	25.38	2034.01	2034.01	45.10	11.83	0.955	11.29	203.26	5
GT07-03	186	AGR	D	45.1	14.54	2034.01	2034.01	45.10	6.78	0.955	6.47	116.46	5
GT07-03	186	AGR	D	45.1	14.96	2034.01	2034.01	45.10	6.97	0.955	6.66	119.83	5
GT07-03	186	AGR	D	45.1	16.80	2034.01	2034.01	45.10	7.83	0.955	7.48	134.57	5
GT07-03	186	AGR	D	45.1	17.50	2034.01	2034.01	45.10	8.16	0.955	7.79	140.15	5
GT07-03	186	AGR	D	45.1	18.86	2034.01	2034.01	45.10	8.79	0.955	8.39	151.02	5
GT07-03	192	AGR	D	45.1	13.60	2034.01	2034.01	45.10	6.34	0.955	6.05	108.95	5
GT07-03	192	AGR	D	45.1	20.26	2034.01	2034.01	45.10	9.44	0.955	9.01	162.23	5
GT07-03	192	AGR	D	45.1	23.40	2034.01	2034.01	45.10	10.91	0.955	10.41	187.41	5
GT07-03	192	AGR	D	45.1	25.76	2034.01	2034.01	45.10	12.01	0.955	11.46	206.30	5
GT07-03	192	AGR	D	45.1	27.14	2034.01	2034.01	45.10	12.65	0.955	12.07	217.34	5
GT07-03	198	AGR	D	45.1	12.18	2034.01	2034.01	45.10	5.68	0.955	5.42	97.57	4
GT07-03	198	AGR	D	45.1	15.34	2034.01	2034.01	45.10	7.15	0.955	6.83	122.86	5
GT07-03	198	AGR	D	45.1	17.64	2034.01	2034.01	45.10	8.22	0.955	7.85	141.25	5
GT07-03	200.6	AGR	D	45.1	13.60	2034.01	2034.01	45.10	6.34	0.955	6.05	108.95	5
GT07-03	200.6	AGR	D	45.1	14.02	2034.01	2034.01	45.10	6.53	0.955	6.24	112.26	5
GT07-03	200.6	AGR	D	45.1	16.96	2034.01	2034.01	45.10	7.91	0.955	7.55	135.84	5
GT07-03	200.6	AGR	D	45.1	19.74	2034.01	2034.01	45.10	9.20	0.955	8.78	158.09	5
GT07-03	200.8	AGR	D	45.1	20.98	2034.01	2034.01	45.10	9.78	0.955	9.34	168.03	5
GT07-03	201	AGR	D	45.1	14.76	2034.01	2034.01	45.10	6.88	0.955	6.57	118.22	5
GT07-03	201	AGR	D	45.1	16.82	2034.01	2034.01	45.10	7.84	0.955	7.49	134.73	5
GT07-03	201.2	AGR	D	45.1	15.92	2034.01	2034.01	45.10	7.42	0.955	7.08	127.50	5
GT07-03	201.2	AGR	D	45.1	16.22	2034.01	2034.01	45.10	7.56	0.955	7.22	129.88	5
GT07-03	207.3	AGR	D	45.1	15.64	2034.01	2034.01	45.10	7.29	0.955	6.96	125.24	5
GT07-03	207.3	AGR	D	45.1	16.64	2034.01	2034.01	45.10	7.75	0.955	7.40	133.24	5
GT07-03	207.3	AGR	D	45.1	16.82	2034.01	2034.01	45.10	7.84	0.955	7.49	134.73	5
GT07-03	207.3	AGR	D	45.1	19.68	2034.01	2034.01	45.10	9.17	0.955	8.76	157.60	5
GT07-03	213	AGR	D	45.1	14.62	2034.01	2034.01	45.10	6.81	0.955	6.50	117.06	5
GT07-03	213	AGR	D	45.1	15.28	2034.01	2034.01	45.10	7.12	0.955	6.80	122.37	5
GT07-03	213	AGR	D	45.1	16.94	2034.01	2034.01	45.10	7.90	0.955	7.54	135.67	5
GT07-03	213	AGR	D	45.1	18.14	2034.01	2034.01	45.10	8.45	0.955	8.07	145.28	5
GT07-03	213	AGR	D	45.1	18.72	2034.01	2034.01	45.10	8.72	0.955	8.33	149.92	5
GT07-03	213	AGR	D	45.1	20.78	2034.01	2034.01	45.10	9.69	0.955	9.25	166.43	5
GT07-03	219	AGR	D	45.1	12.14	2034.01	2034.01	45.10	5.66	0.955	5.40	97.24	4
GT07-03	219	AGR	D	45.1	12.96	2034.01	2034.01	45.10	6.04	0.955	5.77	103.81	5

Diametral Point Load Testing Data
AGR (N = 18)

Hole Number	Depth	Lithology	Test Type	D, mm	Guage Load	De**2 (mm2)	De**2	De	Is	Fs	Is50	UCS	ISRM R
	m		(D, A, L, or S)	(Separation)	(MPa)	Complete Core	final	(mm)	(MPa)		(MPa)	(MPa)	Index
GT07-03	219	AGR	D	45.1	12.98	2034.01	2034.01	45.10	6.05	0.955	5.78	103.98	5
GT07-03	219	AGR	D	45.1	15.14	2034.01	2034.01	45.10	7.06	0.955	6.74	121.26	5
GT07-03	219	AGR	D	45.1	15.54	2034.01	2034.01	45.10	7.24	0.955	6.91	124.46	5
GT07-03	219	AGR	D	45.1	15.70	2034.01	2034.01	45.10	7.32	0.955	6.99	125.73	5
GT07-03	219	AGR	D	45.1	16.68	2034.01	2034.01	45.10	7.77	0.955	7.42	133.58	5
GT07-03	219	AGR	D	45.1	21.22	2034.01	2034.01	45.10	9.89	0.955	9.44	169.96	5
GT07-03	225	AGR	D	45.1	13.00	2034.01	2034.01	45.10	6.06	0.955	5.78	104.09	5
GT07-03	225	AGR	D	45.1	14.74	2034.01	2034.01	45.10	6.87	0.955	6.56	118.06	5
GT07-03	225	AGR	D	45.1	18.16	2034.01	2034.01	45.10	8.46	0.955	8.08	145.45	5
GT07-03	225	AGR	D	45.1	18.28	2034.01	2034.01	45.10	8.52	0.955	8.13	146.39	5
GT07-04	36	AGR	D	45.5	14.86	2070.25	2070.25	45.50	6.80	0.958	6.52	117.38	5
GT07-04	36	AGR	D	45.5	15.64	2070.25	2070.25	45.50	7.16	0.958	6.86	123.53	5
GT07-04	48	AGR	D	45.5	18.76	2070.25	2070.25	45.50	8.59	0.958	8.23	148.21	5
GT07-04	48	AGR	D	45.5	19.36	2070.25	2070.25	45.50	8.87	0.958	8.50	152.95	5
GT07-04	60	AGR	D	45.5	25.38	2070.25	2070.25	45.50	11.62	0.958	11.14	200.50	5
GT07-04	60	AGR	D	45.5	25.84	2070.25	2070.25	45.50	11.83	0.958	11.34	204.15	5
GT07-04	72	AGR	D	45.5	16.34	2070.25	2070.25	45.50	7.48	0.958	7.17	129.09	5
GT07-04	72	AGR	D	45.5	19.70	2070.25	2070.25	45.50	9.02	0.958	8.65	155.62	5
GT07-04	72	AGR	D	45.5	22.90	2070.25	2070.25	45.50	10.49	0.958	10.05	180.89	5
GT07-04	96	AGR	D	45.5	13.22	2070.25	2070.25	45.50	6.05	0.958	5.80	104.42	5
GT07-04	96	AGR	D	45.5	13.34	2070.25	2070.25	45.50	6.11	0.958	5.86	105.40	5
GT07-04	96	AGR	D	45.5	17.58	2070.25	2070.25	45.50	8.05	0.958	7.72	138.89	5
GT07-04	108	AGR	D	45.5	21.66	2070.25	2070.25	45.50	9.92	0.958	9.51	171.14	5
GT07-04	108	AGR	D	45.5	22.56	2070.25	2070.25	45.50	10.33	0.958	9.90	178.22	5
GT07-04	108	AGR	D	45.5	22.76	2070.25	2070.25	45.50	10.42	0.958	9.99	179.80	5
GT07-04	120	AGR	D	45.5	11.86	2070.25	2070.25	45.50	5.43	0.958	5.20	93.69	4
GT07-04	120	AGR	D	45.5	15.96	2070.25	2070.25	45.50	7.31	0.958	7.01	126.09	5
GT07-04	132	AGR	D	45.5	16.88	2070.25	2070.25	45.50	7.73	0.958	7.41	133.34	5
GT07-04	132	AGR	D	45.5	17.00	2070.25	2070.25	45.50	7.79	0.958	7.46	134.32	5
GT07-04	144	AGR	D	45.5	14.18	2070.25	2070.25	45.50	6.49	0.958	6.22	112.04	5
GT07-04	144	AGR	D	45.5	23.04	2070.25	2070.25	45.50	10.55	0.958	10.11	182.03	5
GT07-04	156	AGR	D	45.5	15.10	2070.25	2070.25	45.50	6.91	0.958	6.63	119.29	5
GT07-04	156	AGR	D	45.5	19.70	2070.25	2070.25	45.50	9.02	0.958	8.65	155.62	5
GT07-04	156	AGR	D	45.5	21.98	2070.25	2070.25	45.50	10.07	0.958	9.65	173.65	5
GT07-04	168	AGR	D	45.5	18.08	2070.25	2070.25	45.50	8.28	0.958	7.93	142.82	5
GT07-04	168	AGR	D	45.5	23.04	2070.25	2070.25	45.50	10.55	0.958	10.11	182.03	5
GT07-04	168	AGR	D	45.5	24.72	2070.25	2070.25	45.50	11.32	0.958	10.85	195.27	5
GT07-04	180	AGR	D	45.5	14.68	2070.25	2070.25	45.50	6.72	0.958	6.44	115.96	5
GT07-04	180	AGR	D	45.5	19.98	2070.25	2070.25	45.50	9.15	0.958	8.77	157.85	5
GT07-04	186	AGR	D	45.5	14.14	2070.25	2070.25	45.50	6.48	0.958	6.21	111.71	5
GT07-04	186	AGR	D	45.5	20.46	2070.25	2070.25	45.50	9.37	0.958	8.98	161.61	5
GT07-04	192	AGR	D	45.5	18.20	2070.25	2070.25	45.50	8.34	0.958	7.99	143.80	5
GT07-04	192	AGR	D	45.5	18.53	2070.25	2070.25	45.50	8.49	0.958	8.13	146.41	5

Diametral Point Load Testing Data
AGR (N = 18)

Hole Number	Depth	Lithology	Test Type	D, mm	Guage Load	De**2 (mm2)	De**2	De	Is	Fs	Is50	UCS	ISRM R
	m		(D, A, L, or S)	(Separation)	(MPa)	Complete Core	final	(mm)	(MPa)		(MPa)	(MPa)	Index
GT07-04	192	AGR	D	45.5	25.22	2070.25	2070.25	45.50	11.55	0.958	11.07	199.25	5
GT07-04	198	AGR	D	45.5	13.78	2070.25	2070.25	45.50	6.31	0.958	6.05	108.88	5
GT07-04	198	AGR	D	45.5	14.68	2070.25	2070.25	45.50	6.72	0.958	6.44	115.96	5
GT07-04	198	AGR	D	45.5	16.86	2070.25	2070.25	45.50	7.72	0.958	7.40	133.18	5
GT07-04	204	AGR	D	45.5	13.44	2070.25	2070.25	45.50	6.15	0.958	5.90	106.16	5
GT07-04	204	AGR	D	45.5	14.36	2070.25	2070.25	45.50	6.58	0.958	6.30	113.46	5
GT07-04	204	AGR	D	45.5	15.44	2070.25	2070.25	45.50	7.07	0.958	6.78	121.96	5
GT07-04	216	AGR	D	45.5	13.22	2070.25	2070.25	45.50	6.05	0.958	5.80	104.42	5
GT07-04	216	AGR	D	45.5	21.34	2070.25	2070.25	45.50	9.77	0.958	9.37	168.58	5
GT07-04	228	AGR	D	45.5	15.32	2070.25	2070.25	45.50	7.02	0.958	6.72	121.03	5
GT07-04	228	AGR	D	45.5	22.16	2070.25	2070.25	45.50	10.15	0.958	9.73	175.06	5
GT07-04	240	AGR	D	45.5	20.28	2070.25	2070.25	45.50	9.29	0.958	8.90	160.19	5
GT07-04	240	AGR	D	45.5	21.42	2070.25	2070.25	45.50	9.81	0.958	9.40	169.23	5
GT07-04	240	AGR	D	45.5	22.80	2070.25	2070.25	45.50	10.44	0.958	10.01	180.13	5
GT07-04	252	AGR	D	45.5	13.62	2070.25	2070.25	45.50	6.24	0.958	5.98	107.58	5
GT07-04	264	AGR	D	45.5	18.08	2070.25	2070.25	45.50	8.28	0.958	7.93	142.82	5
GT07-04	264	AGR	D	45.5	19.94	2070.25	2070.25	45.50	9.13	0.958	8.75	157.52	5
GT07-04	264	AGR	D	45.5	21.96	2070.25	2070.25	45.50	10.06	0.958	9.64	173.48	5
GT07-04	288	AGR	D	45.5	13.46	2070.25	2070.25	45.50	6.16	0.958	5.91	106.32	5
GT07-04	288	AGR	D	45.5	13.90	2070.25	2070.25	45.50	6.36	0.958	6.10	109.81	5
GT07-04	288	AGR	D	45.5	15.74	2070.25	2070.25	45.50	7.21	0.958	6.91	124.35	5
GT07-04	300	AGR	D	45.5	12.00	2070.25	2070.25	45.50	5.49	0.958	5.27	94.78	4
GT07-04	300	AGR	D	45.5	13.96	2070.25	2070.25	45.50	6.39	0.958	6.13	110.30	5
GT07-04	312	AGR	D	45.5	12.62	2070.25	2070.25	45.50	5.78	0.958	5.54	99.68	4
GT07-04	312	AGR	D	45.5	14.20	2070.25	2070.25	45.50	6.50	0.958	6.23	112.21	5
GT07-04	312	AGR	D	45.5	16.94	2070.25	2070.25	45.50	7.76	0.958	7.43	133.83	5
GT07-04	324	AGR	D	45.5	22.94	2070.25	2070.25	45.50	10.50	0.958	10.07	181.22	5
GT07-04	336	AGR	D	45.5	13.34	2070.25	2070.25	45.50	6.11	0.958	5.86	105.40	5
GT07-04	336	AGR	D	45.5	14.64	2070.25	2070.25	45.50	6.70	0.958	6.42	115.64	5
GT07-04	336	AGR	D	45.5	18.24	2070.25	2070.25	45.50	8.35	0.958	8.00	144.07	5
GT07-04	348	AGR	D	45.5	14.02	2070.25	2070.25	45.50	6.42	0.958	6.15	110.73	5
GT07-04	348	AGR	D	45.5	16.20	2070.25	2070.25	45.50	7.42	0.958	7.11	128.00	5
GT07-04	348	AGR	D	45.5	19.32	2070.25	2070.25	45.50	8.85	0.958	8.48	152.62	5
GT07-04	360	AGR	D	45.5	13.68	2070.25	2070.25	45.50	6.26	0.958	6.00	108.07	5
GT07-04	360	AGR	D	45.5	14.00	2070.25	2070.25	45.50	6.41	0.958	6.15	110.63	5
GT07-05	72	AGR	D	45.0	24.18	2025	2025.00	45.00	11.32	0.954	10.80	194.32	5
GT07-05	84	AGR	D	45.0	13.46	2025	2025.00	45.00	6.30	0.954	6.01	108.16	5
GT07-05	84	AGR	D	45.0	19.40	2025	2025.00	45.00	9.08	0.954	8.66	155.92	5
GT07-05	108	AGR	D	45.0	15.44	2025	2025.00	45.00	7.23	0.954	6.89	124.06	5
GT07-05	108	AGR	D	45.0	18.00	2025	2025.00	45.00	8.43	0.954	8.04	144.67	5
GT07-05	120	AGR	D	45.0	18.86	2025	2025.00	45.00	8.83	0.954	8.42	151.54	5
GT07-05	120	AGR	D	45.0	23.24	2025	2025.00	45.00	10.88	0.954	10.38	186.79	5
GT07-05	132	AGR	D	45.0	16.66	2025	2025.00	45.00	7.80	0.954	7.44	133.87	5

Diametral Point Load Testing Data
AGR (N = 18)

Hole Number	Depth	Lithology	Test Type	D, mm	Guage Load	De**2 (mm2)	De**2	De	Is	Fs	Is50	UCS	ISRM R
	m		(D, A, L, or S)	(Separation)	(MPa)	Complete Core	final	(mm)	(MPa)		(MPa)	(MPa)	Index
GT07-05	132	AGR	D	45.0	18.28	2025	2025.00	45.00	8.56	0.954	8.16	146.89	5
GT07-05	144	AGR	D	45.0	16.60	2025	2025.00	45.00	7.77	0.954	7.41	133.43	5
GT07-05	144	AGR	D	45.0	21.94	2025	2025.00	45.00	10.27	0.954	9.80	176.31	5
GT07-05	156	AGR	D	45.0	12.44	2025	2025.00	45.00	5.82	0.954	5.55	99.96	4
GT07-05	156	AGR	D	45.0	20.99	2025	2025.00	45.00	9.83	0.954	9.37	168.72	5
GT07-05	168	AGR	D	45.0	20.16	2025	2025.00	45.00	9.44	0.954	9.00	162.02	5
GT07-05	168	AGR	D	45.0	25.92	2025	2025.00	45.00	12.13	0.954	11.57	208.28	5
GT07-05	180	AGR	D	45.0	14.84	2025	2025.00	45.00	6.95	0.954	6.62	119.24	5
GT07-05	180	AGR	D	45.0	15.18	2025	2025.00	45.00	7.11	0.954	6.78	122.01	5
GT07-05	180	AGR	D	45.0	19.56	2025	2025.00	45.00	9.16	0.954	8.73	157.20	5
GT07-05	192	AGR	D	45.0	14.22	2025	2025.00	45.00	6.66	0.954	6.35	114.25	5
GT07-05	192	AGR	D	45.0	18.60	2025	2025.00	45.00	8.71	0.954	8.31	149.49	5
GT07-05	204	AGR	D	45.0	15.04	2025	2025.00	45.00	7.04	0.954	6.71	120.85	5
GT07-05	204	AGR	D	45.0	16.18	2025	2025.00	45.00	7.58	0.954	7.22	130.05	5
GT07-05	204	AGR	D	45.0	17.50	2025	2025.00	45.00	8.19	0.954	7.81	140.63	5
GT07-05	216	AGR	D	45.0	13.58	2025	2025.00	45.00	6.36	0.954	6.06	109.16	5
GT07-05	228	AGR	D	45.0	11.98	2025	2025.00	45.00	5.61	0.954	5.35	96.30	4
GT07-05	228	AGR	D	45.0	14.20	2025	2025.00	45.00	6.65	0.954	6.34	114.14	5
GT07-05	228	AGR	D	45.0	17.30	2025	2025.00	45.00	8.10	0.954	7.72	139.02	5
GT07-05	234	AGR	D	45.0	16.80	2025	2025.00	45.00	7.87	0.954	7.50	135.03	5
GT07-05	234	AGR	D	45.0	18.60	2025	2025.00	45.00	8.71	0.954	8.31	149.49	5
GT07-05	240	AGR	D	45.0	18.70	2025	2025.00	45.00	8.75	0.954	8.35	150.27	5
GT07-05	240	AGR	D	45.0	19.86	2025	2025.00	45.00	9.30	0.954	8.87	159.58	5
GT07-05	240	AGR	D	45.0	21.48	2025	2025.00	45.00	10.05	0.954	9.59	172.60	5
GT07-05	246	AGR	D	45.0	14.70	2025	2025.00	45.00	6.88	0.954	6.56	118.13	5
GT07-05	246	AGR	D	45.0	15.52	2025	2025.00	45.00	7.27	0.954	6.93	124.73	5
GT07-05	246	AGR	D	45.0	19.54	2025	2025.00	45.00	9.15	0.954	8.72	157.03	5
GT07-05	252	AGR	D	45.0	17.68	2025	2025.00	45.00	8.28	0.954	7.89	142.07	5
GT07-05	252	AGR	D	45.0	21.58	2025	2025.00	45.00	10.10	0.954	9.64	173.43	5
GT07-05	252	AGR	D	45.0	25.52	2025	2025.00	45.00	11.95	0.954	11.39	205.07	5
GT07-05	264	AGR	D	45.0	21.12	2025	2025.00	45.00	9.89	0.954	9.43	169.72	5
GT07-05	264	AGR	D	45.0	23.90	2025	2025.00	45.00	11.19	0.954	10.67	192.05	5
GT07-05	264	AGR	D	45.0	24.28	2025	2025.00	45.00	11.37	0.954	10.84	195.15	5
GT07-05	276	AGR	D	45.0	13.04	2025	2025.00	45.00	6.10	0.954	5.82	104.78	5
GT07-05	276	AGR	D	45.0	15.16	2025	2025.00	45.00	7.10	0.954	6.77	121.85	5
GT07-05	288	AGR	D	45.0	13.84	2025	2025.00	45.00	6.48	0.954	6.18	111.21	5
GT07-05	300	AGR	D	45.0	13.24	2025	2025.00	45.00	6.20	0.954	5.91	106.39	5
GT07-05	312	AGR	D	45.0	14.76	2025	2025.00	45.00	6.91	0.954	6.59	118.63	5
GT07-05	312	AGR	D	45.0	14.84	2025	2025.00	45.00	6.95	0.954	6.62	119.24	5
GT07-05	324	AGR	D	45.0	12.68	2025	2025.00	45.00	5.94	0.954	5.66	101.90	5
GT07-05	324	AGR	D	45.0	13.26	2025	2025.00	45.00	6.21	0.954	5.92	106.55	5
GT07-05	324	AGR	D	45.0	14.90	2025	2025.00	45.00	6.98	0.954	6.65	119.74	5
GT07-05	336	AGR	D	45.0	16.98	2025	2025.00	45.00	7.95	0.954	7.58	136.47	5

Hole Number	Depth	Lithology	Test Type	D, mm	Guage Load	De**2 (mm2)	De**2	De	Is	Fs	Is50	UCS	ISRM R
	m		(D, A, L, or S)	(Separation)	(MPa)	Complete Core	final	(mm)	(MPa)		(MPa)	(MPa)	Index
GT07-05	336	AGR	D	45.0	18.42	2025	2025.00	45.00	8.62	0.954	8.23	148.05	5
GT07-05	348	AGR	D	45.0	12.14	2025	2025.00	45.00	5.68	0.954	5.42	97.58	4
GT07-05	348	AGR	D	45.0	15.90	2025	2025.00	45.00	7.44	0.954	7.10	127.77	5
GT07-05	360	AGR	D	45.0	17.12	2025	2025.00	45.00	8.01	0.954	7.64	137.58	5
GT07-05	372	AGR	D	45.0	12.62	2025	2025.00	45.00	5.91	0.954	5.63	101.40	5
GT07-05	372	AGR	D	45.0	16.70	2025	2025.00	45.00	7.82	0.954	7.46	134.20	5
GT07-05	372	AGR	D	45.0	23.24	2025	2025.00	45.00	10.88	0.954	10.38	186.79	5

Axial Point Load Testing Data
AGR (N = 18)

Hole Number	Depth	Lithology	Test Type	D, mm	W,mm	Guage Load	De**2 (mm2)	De**2	De	Is	Fs	Is50	UCS	ISRM R
	m		(D, A, L, or S)	(Separation)	Axial and Lump Tests	(MPa)	Complete Core	final	(mm)	(MPa)		(MPa)	(MPa)	Index
CM07-1446	33	AGR	A	47.5	41	16.20	2473.325	2473.33	49.73	6.21	0.998	6.20	111.52	5
CM07-1446	33	AGR	A	47.5	40	20.60	2413	2413.00	49.12	8.09	0.992	8.03	144.53	5
CM07-1446	33	AGR	A	47.5	38	21.20	2292.35	2292.35	47.88	8.77	0.981	8.60	154.77	5
CM07-1446	39	AGR	A	47.5	42	10.60	2534	2533.65	50.34	3.97	1.003	3.98	71.59	4
GT07-01	12	AGR	A	45.0	44.5	12.14	2543	2543.18	50.43	4.53	1.004	4.54	81.78	4
GT07-01	12	AGR	A	45.0	43.5	13.78	2486.025	2486.03	49.86	5.26	0.999	5.25	94.48	4
GT07-01	24	AGR	A	45.0	36	14.42	2057.4	2057.40	45.36	6.64	0.957	6.36	114.44	5
GT07-01	24	AGR	A	45.0	41	14.60	2343.15	2343.15	48.41	5.91	0.986	5.82	104.81	5
GT07-01	24	AGR	A	45.0	37.5	15.02	2143.125	2143.13	46.29	6.64	0.966	6.42	115.49	5
GT07-01	36	AGR	A	44.5	42	12.26	2374	2373.63	48.72	4.90	0.988	4.84	87.11	4
GT07-01	36	AGR	A	44.5	43	12.86	2374	2373.63	48.72	4.90	0.988	4.84	87.11	4
GT07-01	36	AGR	A	44.5	45	13.86	2543.175	2543.18	50.43	5.17	1.004	5.19	93.35	4
GT07-01	48	AGR	A	44.5	44	22.62	2486.66	2486.66	49.87	8.62	0.999	8.61	155.05	5
GT07-01	60	AGR	A	44.5	43.5	9.24	2487	2486.66	49.87	8.62	0.999	8.61	155.05	5
GT07-01	60	AGR	A	44.5	38.5	17.76	2175.8275	2175.83	46.65	7.74	0.969	7.50	135.01	5
GT07-01	60	AGR	A	44.5	39	19.84	2204.085	2204.09	46.95	8.53	0.972	8.30	149.33	5
GT07-01	72	AGR	A	44.5	37.5	9.98	2204	2204.09	46.95	8.53	0.972	8.30	149.33	5
GT07-01	72	AGR	A	44.5	41	13.86	2317.115	2317.12	48.14	5.67	0.983	5.57	100.33	5
GT07-01	84	AGR	A	44.5	41	15.00	2317.115	2317.12	48.14	6.14	0.983	6.03	108.61	5
GT07-01	84	AGR	A	44.5	39	15.14	2204.085	2204.09	46.95	6.51	0.972	6.33	113.94	5
GT07-01	84	AGR	A	44.5	43.5	17.42	2458.4025	2458.40	49.58	6.72	0.996	6.69	120.48	5
GT07-01	96	AGR	A	44.5	39	19.18	2204.085	2204.09	46.95	8.25	0.972	8.02	144.35	5
GT07-01	96	AGR	A	44.5	39.5	20.78	2232.3425	2232.34	47.25	8.82	0.975	8.60	154.85	5
GT07-01	96	AGR	A	44.5	45	20.82	2543.175	2543.18	50.43	7.76	1.004	7.79	140.25	5
GT07-01	102	AGR	A	44.5	42.5	13.68	2401.8875	2401.89	49.01	5.40	0.991	5.35	96.31	4
GT07-01	102	AGR	A	44.5	42	13.70	2373.63	2373.63	48.72	5.47	0.988	5.41	97.35	4
GT07-01	102	AGR	A	44.5	39.5	16.00	2232.3425	2232.34	47.25	6.80	0.975	6.62	119.25	5
GT07-01	108	AGR	A	44.5	44	17.96	2486.66	2486.66	49.87	6.85	0.999	6.84	123.10	5
GT07-01	108	AGR	A	44.5	45	20.58	2543.175	2543.18	50.43	7.67	1.004	7.70	138.62	5
GT07-01	108	AGR	A	44.5	42.5	21.54	2401.8875	2401.89	49.01	8.50	0.991	8.43	151.65	5
GT07-01	114	AGR	A	44.5	37	18.64	2091.055	2091.06	45.73	8.45	0.961	8.12	146.15	5
GT07-01	114	AGR	A	44.5	37.5	19.26	2119.3125	2119.31	46.04	8.61	0.964	8.30	149.39	5
GT07-01	126	AGR	A	44.5	39	13.72	2204.085	2204.09	46.95	5.90	0.972	5.74	103.26	5
GT07-01	126	AGR	A	44.5	39	20.10	2204.085	2204.09	46.95	8.64	0.972	8.40	151.25	5
GT07-01	126	AGR	A	44.5	39	21.52	2204.085	2204.09	46.95	9.26	0.972	9.00	161.94	5
GT07-01	138	AGR	A	45.0	39	10.08	2204	2204.09	46.95	9.26	0.972	9.00	161.94	5
GT07-01	150	AGR	A	45.0	39	11.64	2204	2204.09	46.95	8.64	0.972	8.40	151.25	5
GT07-01	150	AGR	A	45.0	39	11.70	2204	2204.09	46.95	9.26	0.972	9.00	161.94	5
GT07-01	162	AGR	A	45.0	44	19.50	2514.6	2514.60	50.15	7.35	1.001	7.36	132.49	5
GT07-01	162	AGR	A	45.0	44.5	20.02	2543.175	2543.18	50.43	7.46	1.004	7.49	134.86	5
GT07-01	162	AGR	A	45.0	43	20.14	2457.45	2457.45	49.57	7.77	0.996	7.74	139.31	5
GT07-01	172	AGR	A	45.0	42	13.87	2400.3	2400.30	48.99	5.48	0.991	5.43	97.67	4
GT07-01	172	AGR	A	45.0	41.5	18.62	2371.725	2371.73	48.70	7.44	0.988	7.36	132.41	5
GT07-01	172	AGR	A	45.0	44.5	22.86	2543.175	2543.18	50.43	8.52	1.004	8.56	154.00	5
GT07-02	12	AGR	A	45.5	45	11.96	2400	2400.30	48.99	5.48	0.991	5.43	97.67	4
GT07-02	12	AGR	A	45.5	43.5	14.38	2513.6475	2513.65	50.14	5.42	1.001	5.43	97.76	4
GT07-02	18	AGR	A	45.5	43	20.44	2484.755	2484.76	49.85	7.80	0.999	7.79	140.20	5
GT07-02	24	AGR	A	45.5	44.5	22.42	2571.4325	2571.43	50.71	8.27	1.006	8.32	149.74	5
GT07-02	30	AGR	A	45.5	44.5	14.40	2571.4325	2571.43	50.71	5.31	1.006	5.34	96.19	4

Hole Number	Depth	Lithology	Test Type	D, mm	W,mm	Guage Load	De**2 (mm2)	De**2	De	Is	Fs	Is50	UCS	ISRM R
	m		(D, A, L, or S)	(Separation)	Axial and Lump Tests	(MPa)	Complete Core	final	(mm)	(MPa)		(MPa)	(MPa)	Index
GT07-02	36	AGR	A	45.5	44.5	19.52	2571.4325	2571.43	50.71	7.20	1.006	7.24	130.35	5
GT07-02	42	AGR	A	45.5	43	19.72	2484.755	2484.76	49.85	7.52	0.999	7.51	135.23	5
GT07-02	48	AGR	A	45.5	43.5	19.42	2513.6475	2513.65	50.14	7.33	1.001	7.33	132.01	5
GT07-02	48	AGR	A	45.5	43	19.52	2484.755	2484.76	49.85	7.45	0.999	7.44	133.86	5
GT07-02	54	AGR	A	45.5	44	16.34	2542.54	2542.54	50.42	6.09	1.004	6.12	110.09	5
GT07-02	54	AGR	A	45.5	43	19.96	2484.755	2484.76	49.85	7.62	0.999	7.60	136.89	5
GT07-02	131	AGR	A	45.5	43	17.18	2484.755	2484.76	49.85	6.56	0.999	6.55	117.83	5
GT07-02	131	AGR	A	45.5	42.5	18.22	2455.8625	2455.86	49.56	7.03	0.996	7.01	126.11	5
GT07-02	149	AGR	A	45.5	42.5	16.82	2455.8625	2455.86	49.56	6.49	0.996	6.47	116.42	5
GT07-02	149	AGR	A	45.5	40.5	18.38	2340.2925	2340.29	48.38	7.45	0.985	7.34	132.05	5
GT07-02	156	AGR	A	45.5	43.5	16.08	2513.6475	2513.65	50.14	6.06	1.001	6.07	109.28	5
GT07-02	156	AGR	A	45.5	43.5	18.50	2513.6475	2513.65	50.14	6.98	1.001	6.99	125.73	5
GT07-02	162	AGR	A	45.5	43	15.02	2484.755	2484.76	49.85	5.73	0.999	5.72	102.99	5
GT07-02	162	AGR	A	45.5	42.5	18.02	2455.8625	2455.86	49.56	6.96	0.996	6.93	124.73	5
GT07-02	168	AGR	A	45.5	42.5	14.16	2455.8625	2455.86	49.56	5.47	0.996	5.44	98.01	4
GT07-02	168	AGR	A	45.5	43	18.58	2484.755	2484.76	49.85	7.09	0.999	7.08	127.43	5
GT07-02	180	AGR	A	45.5	44.5	16.86	2571.4325	2571.43	50.71	6.21	1.006	6.25	112.58	5
GT07-02	198	AGR	A	45.5	36.5	11.10	2456	2455.86	49.56	6.96	0.996	6.93	124.73	5
GT07-02	198	AGR	A	45.5	36	19.40	2080.26	2080.26	45.61	8.84	0.959	8.48	152.70	5
GT07-02	204	AGR	A	45.5	44.5	18.46	2571.4325	2571.43	50.71	6.80	1.006	6.85	123.26	5
GT07-02	204	AGR	A	45.5	42	22.20	2426.97	2426.97	49.26	8.67	0.993	8.61	155.06	5
GT07-02	210	AGR	A	45.5	42	21.58	2426.97	2426.97	49.26	8.43	0.993	8.37	150.72	5
GT07-02	216	AGR	A	45.5	39.5	17.32	2282.5075	2282.51	47.78	7.19	0.980	7.05	126.86	5
GT07-02	222	AGR	A	45.5	40	17.72	2311.4	2311.40	48.08	7.27	0.983	7.14	128.53	5
GT07-02	228	AGR	A	45.5	37.5	16.84	2166.9375	2166.94	46.55	7.37	0.968	7.13	128.39	5
GT07-02	228	AGR	A	45.5	37	19.88	2138.045	2138.05	46.24	8.81	0.965	8.51	153.16	5
GT07-02	234	AGR	A	45.5	40.5	20.56	2340.2925	2340.29	48.38	8.33	0.985	8.21	147.70	5
GT07-02	240	AGR	A	45.5	43.5	22.88	2513.6475	2513.65	50.14	8.63	1.001	8.64	155.49	5
GT07-02	246	AGR	A	45.5	40	13.94	2311.4	2311.40	48.08	5.72	0.983	5.62	101.12	5
GT07-02	246	AGR	A	45.5	42.5	18.92	2455.8625	2455.86	49.56	7.30	0.996	7.27	130.93	5
GT07-02	252	AGR	A	45.5	40	12.72	2340	2340.29	48.38	8.33	0.985	8.21	147.70	5
GT07-02	252	AGR	A	45.5	43	14.92	2484.755	2484.76	49.85	5.69	0.999	5.68	102.32	5
GT07-02	258	AGR	A	45.5	42.5	17.36	2455.8625	2455.86	49.56	6.70	0.996	6.67	120.15	5
GT07-02	258	AGR	A	45.5	42	20.64	2426.97	2426.97	49.26	8.06	0.993	8.01	144.18	5
GT07-02	264	AGR	A	45.5	40.5	14.22	2340.2925	2340.29	48.38	5.76	0.985	5.67	102.13	5
GT07-02	264	AGR	A	45.5	36	16.66	2080.26	2080.26	45.61	7.59	0.959	7.28	131.10	5
GT07-02	270	AGR	A	45.5	45.5	20.24	2629.2175	2629.22	51.28	7.30	1.011	7.38	132.88	5
GT07-02	270	AGR	A	45.5	44	20.66	2542.54	2542.54	50.42	7.70	1.004	7.73	139.16	5
GT07-02	276	AGR	A	45.5	41	20.58	2369.185	2369.19	48.67	8.24	0.988	8.14	146.45	5
GT07-02	282	AGR	A	45.5	43	20.98	2484.755	2484.76	49.85	8.00	0.999	7.99	143.89	5
GT07-03	7.5	AGR	A	45.1	40	10.00	2291	2291.08	47.87	4.14	0.981	4.06	73.01	4
GT07-03	13.2	AGR	A	45.1	41	10.22	2348	2348.36	48.46	4.12	0.986	4.07	73.21	4
GT07-03	13.2	AGR	A	45.1	42	10.52	2406	2405.63	49.05	4.15	0.991	4.11	73.99	4
GT07-03	13.2	AGR	A	45.1	40.5	11.22	2320	2319.72	48.16	4.58	0.983	4.51	81.14	4
GT07-03	18	AGR	A	45.1	41	16.31	2348.357	2348.36	48.46	6.59	0.986	6.49	116.88	5
GT07-03	18	AGR	A	45.1	40.5	17.24	2319.7185	2319.72	48.16	7.04	0.983	6.93	124.68	5
GT07-03	24.5	AGR	A	45.1	41	9.92	2348	2348.36	48.46	4.01	0.986	3.95	71.09	4
GT07-03	24.5	AGR	A	45.1	41	11.90	2348	2348.36	48.46	4.80	0.986	4.74	85.26	4
GT07-03	24.5	AGR	A	45.1	40	13.76	2291.08	2291.08	47.87	5.69	0.981	5.58	100.51	5

Hole Number	Depth	Lithology	Test Type	D, mm	W,mm	Guage Load	De**2 (mm2)	De**2	De	Is	Fs	Is50	UCS	ISRM R
	m		(D, A, L, or S)	(Separation)	Axial and Lump Tests	(MPa)	Complete Core	final	(mm)	(MPa)		(MPa)	(MPa)	Index
GT07-03	30	AGR	A	45.1	40	15.96	2291.08	2291.08	47.87	6.60	0.981	6.48	116.57	5
GT07-03	30	AGR	A	45.1	39	16.20	2233.803	2233.80	47.26	6.88	0.975	6.70	120.68	5
GT07-03	30	AGR	A	45.1	41	17.36	2348.357	2348.36	48.46	7.01	0.986	6.91	124.39	5
GT07-03	36.2	AGR	A	45.1	41	12.50	2348	2348.36	48.46	5.05	0.986	4.98	89.56	4
GT07-03	36.2	AGR	A	45.1	40.5	13.68	2319.7185	2319.72	48.16	5.59	0.983	5.50	98.94	4
GT07-03	36.2	AGR	A	45.1	40.5	18.50	2319.7185	2319.72	48.16	7.56	0.983	7.43	133.80	5
GT07-03	42.5	AGR	A	45.1	41	11.66	2348	2348.36	48.46	4.71	0.986	4.64	83.53	4
GT07-03	42.5	AGR	A	45.1	41.5	12.70	2377	2377.00	48.75	5.07	0.989	5.01	90.14	4
GT07-03	42.5	AGR	A	45.1	41	13.86	2348.357	2348.36	48.46	5.59	0.986	5.52	99.29	4
GT07-03	48.2	AGR	A	45.1	43	9.68	2463	2462.91	49.63	3.73	0.997	3.71	66.84	4
GT07-03	53.9	AGR	A	45.1	41	14.50	2348.357	2348.36	48.46	5.85	0.986	5.77	103.89	5
GT07-03	53.9	AGR	A	45.1	42	21.76	2405.634	2405.63	49.05	8.58	0.991	8.50	153.02	5
GT07-03	60.8	AGR	A	45.1	40.5	10.48	2320	2319.72	48.16	4.28	0.983	4.21	75.80	4
GT07-03	60.8	AGR	A	45.1	39.5	11.28	2262	2262.44	47.57	4.73	0.978	4.62	83.19	4
GT07-03	60.8	AGR	A	45.1	40.5	11.60	2320	2319.72	48.16	4.74	0.983	4.66	83.88	4
GT07-03	66	AGR	A	45.1	41	12.66	2348	2348.36	48.46	5.11	0.986	5.04	90.70	4
GT07-03	66	AGR	A	45.1	41	13.30	2348.357	2348.36	48.46	5.37	0.986	5.29	95.29	4
GT07-03	72	AGR	A	45.1	39	9.20	2234	2233.80	47.26	3.90	0.975	3.81	68.50	4
GT07-03	72	AGR	A	45.1	41.5	9.86	2376.9955	2377.00	48.75	3.93	0.989	3.89	69.98	4
GT07-03	72	AGR	A	45.1	41	13.04	2348.357	2348.36	48.46	5.26	0.986	5.19	93.41	4
GT07-03	78	AGR	A	45.1	43.542	14.18	2493.955134	2493.96	49.94	5.39	0.999	5.39	96.99	4
GT07-03	78	AGR	A	45.1	42	14.44	2405.634	2405.63	49.05	5.69	0.991	5.64	101.53	5
GT07-03	78	AGR	A	45.1	41.5	17.18	2376.9955	2377.00	48.75	6.85	0.989	6.78	121.95	5
GT07-03	84	AGR	A	45.1	39.5	9.66	2262.4415	2262.44	47.57	4.05	0.978	3.96	71.24	4
GT07-03	84	AGR	A	45.1	39.5	12.82	2262.4415	2262.44	47.57	5.37	0.978	5.25	94.52	4
GT07-03	90	AGR	A	45.1	40.5	10.04	2319.7185	2319.72	48.16	4.10	0.983	4.03	72.61	4
GT07-03	90	AGR	A	45.1	40	16.35	2291.08	2291.08	47.87	6.76	0.981	6.63	119.39	5
GT07-03	90	AGR	A	45.1	40	17.58	2291.08	2291.08	47.87	7.27	0.981	7.13	128.40	5
GT07-03	96	AGR	A	45.1	41	11.56	2348.357	2348.36	48.46	4.67	0.986	4.60	82.84	4
GT07-03	96	AGR	A	45.1	41	12.26	2348.357	2348.36	48.46	4.95	0.986	4.88	87.83	4
GT07-03	96	AGR	A	45.1	40.5	13.52	2319.7185	2319.72	48.16	5.53	0.983	5.43	97.80	4
GT07-03	102.75	AGR	A	45.1	41	10.06	2348.357	2348.36	48.46	4.06	0.986	4.00	72.07	4
GT07-03	108.5	AGR	A	45.1	40.5	10.18	2319.7185	2319.72	48.16	4.16	0.983	4.09	73.61	4
GT07-03	113.6	AGR	A	45.1	42	9.84	2405.634	2405.63	49.05	3.88	0.991	3.84	69.19	4
GT07-03	113.6	AGR	A	45.1	42	18.40	2405.634	2405.63	49.05	7.25	0.991	7.19	129.41	5
GT07-03	113.6	AGR	A	45.1	41.5	19.44	2376.9955	2377.00	48.75	7.75	0.989	7.67	138.00	5
GT07-03	120	AGR	A	45.1	40.5	18.12	2319.7185	2319.72	48.16	7.40	0.983	7.28	131.06	5
GT07-03	120	AGR	A	45.1	36	19.15	2061.972	2061.97	45.41	8.81	0.958	8.43	151.78	5
GT07-03	120	AGR	A	45.1	41	22.18	2348.357	2348.36	48.46	8.95	0.986	8.83	158.92	5
GT07-03	126	AGR	A	45.1	45	10.60	2577.465	2577.47	50.77	3.90	1.007	3.92	70.64	4
GT07-03	126	AGR	A	45.1	44	11.52	2520.188	2520.19	50.20	4.33	1.002	4.34	78.15	4
GT07-03	126	AGR	A	45.1	41.5	11.80	2376.9955	2377.00	48.75	4.70	0.989	4.65	83.73	4
GT07-03	132	AGR	A	45.1	44	19.36	2520.188	2520.19	50.20	7.28	1.002	7.30	131.33	5
GT07-03	132	AGR	A	45.1	43	19.90	2462.911	2462.91	49.63	7.66	0.997	7.63	137.40	5
GT07-03	132	AGR	A	45.1	42.5	20.92	2434.2725	2434.27	49.34	8.15	0.994	8.10	145.76	5
GT07-03	138	AGR	A	45.1	40.5	13.04	2319.7185	2319.72	48.16	5.33	0.983	5.24	94.31	4
GT07-03	138	AGR	A	45.1	47	13.82	2692.019	2692.02	51.88	4.87	1.017	4.95	89.05	4
GT07-03	138	AGR	A	45.1	44	14.90	2520.188	2520.19	50.20	5.60	1.002	5.61	101.07	5
GT07-03	144	AGR	A	45.1	40.5	12.87	2319.7185	2319.72	48.16	5.26	0.983	5.17	93.11	4

Hole Number	Depth	Lithology	Test Type	D, mm	W,mm	Guage Load	De**2 (mm2)	De**2	De	Is	Fs	Is50	UCS	ISRM R
	m		(D, A, L, or S)	(Separation)	Axial and Lump Tests	(MPa)	Complete Core	final	(mm)	(MPa)		(MPa)	(MPa)	Index
GT07-03	150	AGR	A	45.1	40.5	9.22	2319.7185	2319.72	48.16	3.77	0.983	3.70	66.68	4
GT07-03	150	AGR	A	45.1	41	10.04	2348.357	2348.36	48.46	4.05	0.986	4.00	71.93	4
GT07-03	150	AGR	A	45.1	40	11.10	2291.08	2291.08	47.87	4.59	0.981	4.50	81.07	4
GT07-03	150	AGR	A	45.0	38	13.079354	2171.7	2171.70	46.60	5.71	0.969	5.53	99.57	4
GT07-03	156	AGR	A	45.1	39	14.49	2233.803	2233.80	47.26	6.15	0.975	5.99	107.89	5
GT07-03	156	AGR	A	45.1	42	16.16	2405.634	2405.63	49.05	6.37	0.991	6.31	113.65	5
GT07-03	156	AGR	A	45.1	41	16.74	2348.357	2348.36	48.46	6.76	0.986	6.66	119.94	5
GT07-03	162	AGR	A	45.1	40.5	17.06	2319.7185	2319.72	48.16	6.97	0.983	6.85	123.38	5
GT07-03	168	AGR	A	45.1	41	9.44	2348.357	2348.36	48.46	3.81	0.986	3.76	67.63	4
GT07-03	168	AGR	A	45.1	39.5	12.16	2262.4415	2262.44	47.57	5.10	0.978	4.98	89.69	4
GT07-03	168	AGR	A	45.1	39	14.96	2233.803	2233.80	47.26	6.35	0.975	6.19	111.43	5
GT07-03	174	AGR	A	45.1	47	18.26	2692.019	2692.02	51.88	6.43	1.017	6.54	117.67	5
GT07-03	174	AGR	A	45.1	44	21.80	2520.188	2520.19	50.20	8.20	1.002	8.22	147.88	5
GT07-03	174	AGR	A	45.1	39	22.14	2233.803	2233.80	47.26	9.40	0.975	9.16	164.89	5
GT07-03	180	AGR	A	45.1	39.5	14.80	2262.4415	2262.44	47.57	6.20	0.978	6.06	109.17	5
GT07-03	180	AGR	A	45.1	40	15.18	2291.08	2291.08	47.87	6.28	0.981	6.16	110.88	5
GT07-03	180	AGR	A	45.1	40	17.16	2291.08	2291.08	47.87	7.10	0.981	6.96	125.33	5
GT07-03	187	AGR	A	45.1	40	15.62	2291.08	2291.08	47.87	6.46	0.981	6.34	114.05	5
GT07-03	187	AGR	A	45.1	40	15.72	2291.08	2291.08	47.87	6.50	0.981	6.38	114.81	5
GT07-03	187	AGR	A	45.1	41	16.34	2348.357	2348.36	48.46	6.60	0.986	6.50	117.08	5
GT07-03	192	AGR	A	45.1	40	10.96	2291.08	2291.08	47.87	4.54	0.981	4.45	80.06	4
GT07-03	192	AGR	A	45.1	41	15.34	2348.357	2348.36	48.46	6.19	0.986	6.11	109.91	5
GT07-03	192	AGR	A	45.1	40	17.80	2291.08	2291.08	47.87	7.37	0.981	7.22	130.01	5
GT07-03	198	AGR	A	45.1	42.5	11.34	2348	2348.36	48.46	6.60	0.986	6.50	117.08	5
GT07-03	198	AGR	A	45.1	42.5	12.18	2291	2291.08	47.87	4.54	0.981	4.45	80.06	4
GT07-03	198	AGR	A	45.1	40	12.64	2348	2348.36	48.46	6.60	0.986	6.50	117.08	5
GT07-03	201	AGR	A	45.1	39.5	10.38	2291	2291.08	47.87	4.54	0.981	4.45	80.06	4
GT07-03	201	AGR	A	45.1	39.5	11.40	2348	2348.36	48.46	6.19	0.986	6.11	109.91	5
GT07-03	201	AGR	A	45.1	41	14.50	2348.357	2348.36	48.46	5.85	0.986	5.77	103.89	5
GT07-03	207	AGR	A	45.1	43	11.11	2434	2434.27	49.34	4.42	0.994	4.39	79.03	4
GT07-03	207	AGR	A	45.1	41	11.76	2434	2434.27	49.34	4.74	0.994	4.72	84.89	4
GT07-03	207	AGR	A	45.1	42	12.06	2262	2262.44	47.57	4.35	0.978	4.25	76.52	4
GT07-03	207	AGR	A	45.1	44	12.90	2463	2462.91	49.63	4.28	0.997	4.26	76.70	4
GT07-03	213	AGR	A	45.1	40	11.40	2348	2348.36	48.46	4.75	0.986	4.68	84.28	4
GT07-03	213	AGR	A	45.1	41	12.90	2520	2520.19	50.20	4.85	1.002	4.86	87.50	4
GT07-03	213	AGR	A	45.1	40	14.74	2291.08	2291.08	47.87	6.10	0.981	5.98	107.66	5
GT07-03	225	AGR	A	45.1	40	12.98	2348	2348.36	48.46	5.21	0.986	5.13	92.43	4
GT07-03	225	AGR	A	45.1	41	14.38	2348.357	2348.36	48.46	5.81	0.986	5.72	103.05	5
GT07-03	225	AGR	A	45.1	40.5	14.58	2319.7185	2319.72	48.16	5.96	0.983	5.86	105.48	5
GT07-04	36	AGR	A	45.5	46	19.44	2658.11	2658.11	51.56	6.93	1.014	7.03	126.55	5
GT07-04	36	AGR	A	45.5	46	21.34	2658.11	2658.11	51.56	7.61	1.014	7.72	138.89	5
GT07-04	36	AGR	A	45.5	44.5	22.08	2571.4325	2571.43	50.71	8.14	1.006	8.19	147.43	5
GT07-04	48	AGR	A	45.5	39	22.12	2253.615	2253.62	47.47	9.30	0.977	9.09	163.61	5
GT07-04	48	AGR	A	45.5	38.5	22.64	2224.7225	2224.72	47.17	9.65	0.974	9.40	169.17	5
GT07-04	60	AGR	A	45.5	44	17.70	2542.54	2542.54	50.42	6.60	1.004	6.62	119.24	5
GT07-04	72	AGR	A	45.5	37	11.84	2138	2138.05	46.24	5.25	0.965	5.07	91.22	4
GT07-04	72	AGR	A	45.5	37.5	16.28	2166.9375	2166.94	46.55	7.12	0.968	6.90	124.13	5
GT07-04	72	AGR	A	45.5	36	18.71	2080.26	2080.26	45.61	8.52	0.959	8.18	147.22	5
GT07-04	96	AGR	A	45.5	44.5	12.70	2571	2571.43	50.71	4.68	1.006	4.71	84.81	4

Hole Number	Depth	Lithology	Test Type	D, mm	W,mm	Guage Load	De**2 (mm2)	De**2	De	Is	Fs	Is50	UCS	ISRM R
	m		(D, A, L, or S)	(Separation)	Axial and Lump Tests	(MPa)	Complete Core	final	(mm)	(MPa)		(MPa)	(MPa)	Index
GT07-04	96	AGR	A	45.5	44	19.12	2542.54	2542.54	50.42	7.13	1.004	7.16	128.80	5
GT07-04	108	AGR	A	45.5	37	17.28	2138.045	2138.05	46.24	7.66	0.965	7.40	133.13	5
GT07-04	108	AGR	A	45.5	37.5	19.86	2166.9375	2166.94	46.55	8.69	0.968	8.41	151.42	5
GT07-04	108	AGR	A	45.5	37.5	21.78	2166.9375	2166.94	46.55	9.53	0.968	9.23	166.09	5
GT07-04	120	AGR	A	45.5	36	10.22	2080	2080.26	45.61	4.66	0.959	4.47	80.42	4
GT07-04	120	AGR	A	45.5	46	12.70	2658	2658.11	51.56	4.53	1.014	4.59	82.66	4
GT07-04	120	AGR	A	45.5	44.5	14.60	2571.4325	2571.43	50.71	5.38	1.006	5.42	97.52	4
GT07-04	132	AGR	A	45.0	36	18.80	2057.4	2057.40	45.36	8.66	0.957	8.29	149.25	5
GT07-04	132	AGR	A	45.0	39	19.44	2228.85	2228.85	47.21	8.27	0.974	8.06	145.06	5
GT07-04	132	AGR	A	45.0	37	21.18	2114.55	2114.55	45.98	9.50	0.963	9.14	164.60	5
GT07-04	144	AGR	A	45.0	42.5	12.86	2429	2428.88	49.28	5.02	0.994	4.99	89.75	4
GT07-04	144	AGR	A	45.0	44.5	20.32	2543.175	2543.18	50.43	7.57	1.004	7.60	136.86	5
GT07-04	156	AGR	A	45.0	43	13.20	2457.45	2457.45	49.57	5.09	0.996	5.07	91.33	4
GT07-04	156	AGR	A	45.0	43	21.46	2457.45	2457.45	49.57	8.28	0.996	8.25	148.46	5
GT07-04	168	AGR	A	45.0	39.5	22.18	2257.425	2257.43	47.51	9.31	0.977	9.10	163.86	5
GT07-04	168	AGR	A	45.0	38	22.60	2171.7	2171.70	46.60	9.87	0.969	9.56	172.05	5
GT07-04	180	AGR	A	45.0	45	16.94	2571.75	2571.75	50.71	6.24	1.006	6.28	113.12	5
GT07-04	180	AGR	A	45.0	44	17.76	2514.6	2514.60	50.15	6.70	1.001	6.70	120.68	5
GT07-04	180	AGR	A	45.0	44.5	19.26	2543.175	2543.18	50.43	7.18	1.004	7.21	129.71	5
GT07-04	186	AGR	A	45.0	45	14.44	2571.75	2571.75	50.71	5.32	1.006	5.36	96.41	4
GT07-04	186	AGR	A	45.0	45	18.28	2571.75	2571.75	50.71	6.74	1.006	6.78	122.05	5
GT07-04	192	AGR	A	45.0	47	9.34	2686	2686.05	51.83	3.30	1.016	3.35	60.32	4
GT07-04	192	AGR	A	45.0	44.5	18.94	2543.175	2543.18	50.43	7.06	1.004	7.09	127.57	5
GT07-04	192	AGR	A	45.0	46	19.08	2628.9	2628.90	51.27	6.88	1.011	6.96	125.24	5
GT07-04	198	AGR	A	45.0	38.5	17.96	2200.275	2200.28	46.91	7.74	0.972	7.52	135.35	5
GT07-04	198	AGR	A	45.0	37.5	19.34	2143.125	2143.13	46.29	8.55	0.966	8.26	148.74	5
GT07-04	198	AGR	A	45.0	39	21.58	2228.85	2228.85	47.21	9.18	0.974	8.94	161.01	5
GT07-04	204	AGR	A	45.0	36	18.76	2057.4	2057.40	45.36	8.64	0.957	8.27	148.93	5
GT07-04	204	AGR	A	45.0	39	18.88	2228.85	2228.85	47.21	8.03	0.974	7.82	140.84	5
GT07-04	216	AGR	A	45.0	45.5	17.86	2600.325	2600.33	50.99	6.51	1.009	6.57	118.23	5
GT07-04	228	AGR	A	45.0	45.5	13.06	2600	2600.33	50.99	4.76	1.009	4.80	86.46	4
GT07-04	228	AGR	A	45.0	43.5	14.70	2486.025	2486.03	49.86	5.61	0.999	5.60	100.77	5
GT07-04	240	AGR	A	45.0	47	12.40	2686	2686.05	51.83	4.38	1.016	4.45	80.04	4
GT07-04	252	AGR	A	45.0	38	10.88	2172	2171.70	46.60	4.75	0.969	4.60	82.82	4
GT07-04	252	AGR	A	45.0	40	11.78	2286	2286.00	47.81	4.89	0.980	4.79	86.20	4
GT07-04	252	AGR	A	45.0	40.5	13.62	2314.575	2314.58	48.11	5.58	0.983	5.48	98.67	4
GT07-04	264	AGR	A	45.0	44	18.08	2514.6	2514.60	50.15	6.82	1.001	6.82	122.84	5
GT07-04	264	AGR	A	45.0	44.5	19.94	2543.175	2543.18	50.43	7.43	1.004	7.46	134.31	5
GT07-04	264	AGR	A	45.0	42.5	21.96	2428.875	2428.88	49.28	8.57	0.994	8.52	153.28	5
GT07-04	276	AGR	A	45.0	41	9.10	2343	2343.15	48.41	3.68	0.986	3.63	65.32	4
GT07-04	276	AGR	A	45.0	42	10.06	2400	2400.30	48.99	3.97	0.991	3.94	70.86	4
GT07-04	288	AGR	A	45.0	38	11.70	2172	2171.70	46.60	5.11	0.969	4.95	89.07	4
GT07-04	288	AGR	A	45.0	39	17.16	2228.85	2228.85	47.21	7.30	0.974	7.11	128.03	5
GT07-04	288	AGR	A	45.0	39.5	21.30	2257.425	2257.43	47.51	8.94	0.977	8.74	157.34	5
GT07-04	300	AGR	A	45.0	44.5	13.52	2543.175	2543.18	50.43	5.04	1.004	5.06	91.07	4
GT07-04	300	AGR	A	45.0	45.5	18.70	2600.325	2600.33	50.99	6.82	1.009	6.88	123.80	5
GT07-04	312	AGR	A	45.0	46.5	12.74	2657	2657.48	51.55	4.55	1.014	4.61	82.95	4
GT07-04	312	AGR	A	45.0	41.5	15.24	2371.725	2371.73	48.70	6.09	0.988	6.02	108.34	5
GT07-04	312	AGR	A	45.0	43	17.74	2457.45	2457.45	49.57	6.84	0.996	6.82	122.71	5

Hole Number	Depth	Lithology	Test Type	D, mm	W,mm	Guage Load	De**2 (mm2)	De**2	De	Is	Fs	Is50	UCS	ISRM R
	m		(D, A, L, or S)	(Separation)	Axial and Lump Tests	(MPa)	Complete Core	final	(mm)	(MPa)		(MPa)	(MPa)	Index
GT07-04	324	AGR	A	45.0	37	11.74	2115	2114.55	45.98	5.26	0.963	5.07	91.25	4
GT07-04	324	AGR	A	45.0	38	15.22	2171.7	2171.70	46.60	6.64	0.969	6.44	115.84	5
GT07-04	324	AGR	A	45.0	37.5	19.32	2143.125	2143.13	46.29	8.55	0.966	8.25	148.58	5
GT07-04	336	AGR	A	45.0	36.5	14.92	2085.975	2085.98	45.67	6.78	0.960	6.51	117.18	5
GT07-04	336	AGR	A	45.0	36.5	15.72	2085.975	2085.98	45.67	7.14	0.960	6.86	123.46	5
GT07-04	336	AGR	A	45.0	37.5	19.26	2143.125	2143.13	46.29	8.52	0.966	8.23	148.11	5
GT07-04	348	AGR	A	45.0	38.5	18.42	2200.275	2200.28	46.91	7.94	0.972	7.71	138.83	5
GT07-04	348	AGR	A	45.0	36	18.54	2057.4	2057.40	45.36	8.54	0.957	8.18	147.17	5
GT07-04	348	AGR	A	45.0	36.5	20.04	2085.975	2085.98	45.67	9.11	0.960	8.75	157.41	5
GT07-05	72	AGR	A	45.0	39.5	12.44	2257	2257.43	47.51	5.22	0.977	5.10	91.89	4
GT07-05	72	AGR	A	45.0	40.5	15.42	2314.575	2314.58	48.11	6.31	0.983	6.21	111.70	5
GT07-05	72	AGR	A	45.0	39.5	17.16	2257.425	2257.43	47.51	7.21	0.977	7.04	126.78	5
GT07-05	84	AGR	A	45.0	45	9.94	2572	2571.75	50.71	3.66	1.006	3.69	66.39	4
GT07-05	84	AGR	A	45.0	44	18.70	2514.6	2514.60	50.15	7.05	1.001	7.06	127.05	5
GT07-05	84	AGR	A	45.0	45	19.82	2571.75	2571.75	50.71	7.31	1.006	7.35	132.37	5
GT07-05	108	AGR	A	45.0	44	13.42	2514.6	2514.60	50.15	5.06	1.001	5.06	91.17	4
GT07-05	108	AGR	A	45.0	43	17.96	2457.45	2457.45	49.57	6.93	0.996	6.90	124.24	5
GT07-05	108	AGR	A	45.0	44	18.54	2514.6	2514.60	50.15	6.99	1.001	7.00	125.98	5
GT07-05	120	AGR	A	45.0	36	15.66	2057.4	2057.40	45.36	7.21	0.957	6.91	124.30	5
GT07-05	120	AGR	A	45.0	38.5	21.74	2200.275	2200.28	46.91	9.37	0.972	9.10	163.82	5
GT07-05	132	AGR	A	45.0	43.5	15.84	2486.025	2486.03	49.86	6.04	0.999	6.03	108.57	5
GT07-05	144	AGR	A	45.0	34	10.16	1943	1943.10	44.08	4.96	0.945	4.68	84.33	4
GT07-05	144	AGR	A	45.0	43	13.26	2457.45	2457.45	49.57	5.11	0.996	5.10	91.71	4
GT07-05	144	AGR	A	45.0	43	16.58	2457.45	2457.45	49.57	6.40	0.996	6.37	114.70	5
GT07-05	156	AGR	A	45.0	42.5	11.88	2429	2428.88	49.28	4.64	0.994	4.61	82.92	4
GT07-05	156	AGR	A	45.0	42	12.00	2400	2400.30	48.99	4.74	0.991	4.69	84.51	4
GT07-05	168	AGR	A	45.0	43	22.88	2457.45	2457.45	49.57	8.83	0.996	8.79	158.24	5
GT07-05	180	AGR	A	45.0	43.5	15.74	2486.025	2486.03	49.86	6.00	0.999	5.99	107.91	5
GT07-05	180	AGR	A	45.0	39.5	16.84	2257.425	2257.43	47.51	7.07	0.977	6.91	124.38	5
GT07-05	180	AGR	A	45.0	44	21.56	2514.6	2514.60	50.15	8.13	1.001	8.14	146.50	5
GT07-05	192	AGR	A	45.0	40	14.20	2286	2286.00	47.81	5.89	0.980	5.77	103.91	5
GT07-05	192	AGR	A	45.0	38.5	15.52	2200.275	2200.28	46.91	6.69	0.972	6.50	116.96	5
GT07-05	192	AGR	A	45.0	39	16.76	2228.85	2228.85	47.21	7.13	0.974	6.95	125.05	5
GT07-05	204	AGR	A	45.0	42	11.16	2400	2400.30	48.99	4.41	0.991	4.37	78.63	4
GT07-05	204	AGR	A	45.0	39.5	12.28	2257	2257.43	47.51	5.16	0.977	5.04	90.71	4
GT07-05	204	AGR	A	45.0	41.5	17.12	2371.725	2371.73	48.70	6.84	0.988	6.76	121.72	5
GT07-05	216	AGR	A	45.0	45.5	15.58	2600.325	2600.33	50.99	5.68	1.009	5.73	103.16	5
GT07-05	216	AGR	A	45.0	43	16.92	2457.45	2457.45	49.57	6.53	0.996	6.50	117.03	5
GT07-05	216	AGR	A	45.0	44.5	21.30	2543.175	2543.18	50.43	7.94	1.004	7.97	143.45	5
GT07-05	228	AGR	A	45.0	44.5	12.94	2543	2543.18	50.43	4.82	1.004	4.84	87.17	4
GT07-05	228	AGR	A	45.0	44	16.68	2514.6	2514.60	50.15	6.29	1.001	6.30	113.33	5
GT07-05	228	AGR	A	45.0	42.5	17.78	2428.875	2428.88	49.28	6.94	0.994	6.90	124.12	5
GT07-05	234	AGR	A	45.0	44	13.80	2514.6	2514.60	50.15	5.20	1.001	5.21	93.79	4
GT07-05	234	AGR	A	45.0	45	18.78	2571.75	2571.75	50.71	6.92	1.006	6.97	125.41	5
GT07-05	234	AGR	A	45.0	44	18.82	2514.6	2514.60	50.15	7.10	1.001	7.11	127.90	5
GT07-05	240	AGR	A	45.0	43	9.58	2457	2457.45	49.57	3.69	0.996	3.68	66.24	4
GT07-05	240	AGR	A	45.0	43	17.36	2457.45	2457.45	49.57	6.70	0.996	6.67	120.09	5
GT07-05	240	AGR	A	45.0	44.5	21.98	2543.175	2543.18	50.43	8.19	1.004	8.23	148.05	5
GT07-05	246	AGR	A	45.0	43.5	17.26	2486.025	2486.03	49.86	6.58	0.999	6.57	118.31	5

Hole Number	Depth	Lithology	Test Type	D, mm	W,mm	Guage Load	De**2 (mm2)	De**2	De	Is	Fs	Is50	UCS	ISRM R
	m		(D, A, L, or S)	(Separation)	Axial and Lump Tests	(MPa)	Complete Core	final	(mm)	(MPa)		(MPa)	(MPa)	Index
GT07-05	246	AGR	A	45.0	44	20.36	2514.6	2514.60	50.15	7.68	1.001	7.69	138.34	5
GT07-05	246	AGR	A	45.0	43.5	21.60	2486.025	2486.03	49.86	8.24	0.999	8.23	148.08	5
GT07-05	252	AGR	A	45.0	44	14.86	2514.6	2514.60	50.15	5.60	1.001	5.61	100.96	5
GT07-05	252	AGR	A	45.0	44	19.28	2514.6	2514.60	50.15	7.27	1.001	7.28	130.99	5
GT07-05	264	AGR	A	45.0	38	17.56	2171.7	2171.70	46.60	7.67	0.969	7.43	133.68	5
GT07-05	264	AGR	A	45.0	39	19.76	2228.85	2228.85	47.21	8.40	0.974	8.19	147.43	5
GT07-05	264	AGR	A	45.0	38	20.32	2171.7	2171.70	46.60	8.87	0.969	8.59	154.68	5
GT07-05	276	AGR	A	45.0	44	16.00	2514.6	2514.60	50.15	6.03	1.001	6.04	108.74	5
GT07-05	276	AGR	A	45.0	44.5	16.14	2543.175	2543.18	50.43	6.02	1.004	6.04	108.72	5
GT07-05	276	AGR	A	45.0	45.5	16.76	2600.325	2600.33	50.99	6.11	1.009	6.16	110.97	5
GT07-05	288	AGR	A	45.0	46.5	13.78	2657.475	2657.48	51.55	4.92	1.014	4.98	89.72	4
GT07-05	288	AGR	A	45.0	44.5	15.02	2543.175	2543.18	50.43	5.60	1.004	5.62	101.15	5
GT07-05	288	AGR	A	45.0	44	15.94	2514.6	2514.60	50.15	6.01	1.001	6.02	108.31	5
GT07-05	300	AGR	A	45.0	39	9.56	2229	2228.85	47.21	4.07	0.974	3.96	71.35	4
GT07-05	300	AGR	A	45.0	37.5	10.16	2143	2143.13	46.29	4.50	0.966	4.34	78.16	4
GT07-05	312	AGR	A	45.0	36.5	9.50	2086	2085.98	45.67	4.32	0.960	4.15	74.62	4
GT07-05	312	AGR	A	45.0	38.5	12.66	2200	2200.28	46.91	5.45	0.972	5.30	95.39	4
GT07-05	312	AGR	A	45.0	41	12.68	2343	2343.15	48.41	5.13	0.986	5.06	91.00	4
GT07-05	324	AGR	A	45.0	45	13.26	2571.75	2571.75	50.71	4.89	1.006	4.92	88.54	4
GT07-05	336	AGR	A	45.0	39	10.50	2229	2228.85	47.21	4.47	0.974	4.35	78.34	4
GT07-05	336	AGR	A	45.0	44	12.90	2515	2514.60	50.15	4.86	1.001	4.87	87.65	4
GT07-05	348	AGR	A	45.0	38	12.88	2172	2171.70	46.60	5.62	0.969	5.45	98.04	4
GT07-05	348	AGR	A	45.0	38.5	13.16	2200.275	2200.28	46.91	5.67	0.972	5.51	99.19	4
GT07-05	348	AGR	A	45.0	43.5	13.46	2486.025	2486.03	49.86	5.13	0.999	5.13	92.26	4
GT07-05	360	AGR	A	45.0	41	14.02	2343.15	2343.15	48.41	5.67	0.986	5.59	100.60	5
GT07-05	360	AGR	A	45.0	43	17.90	2457.45	2457.45	49.57	6.90	0.996	6.88	123.81	5
GT07-05	372	AGR	A	45.0	44.5	11.76	2543	2543.18	50.43	4.38	1.004	4.40	79.23	4
GT07-05	372	AGR	A	45.0	42	18.66	2400.3	2400.30	48.99	7.37	0.991	7.30	131.43	5
GT07-05	372	AGR	A	45.0	45	19.08	2571.75	2571.75	50.71	7.03	1.006	7.08	127.39	5

Diametral Point Load Testing Data
CGR (N = 18)

Hole Number	Depth	Lithology	Test Type	D, mm	Guage Load	De**2 (mm2)	De**2	De	Is	Fs	Is50	UCS	ISRM R
	m		(D, A, L, or S)	(Separation)	(MPa)	Complete Core	final	(mm)	(MPa)		(MPa)	(MPa)	Index
CM07-1446	21	CGR	D	47.5	15.82	2256	2256.25	47.50	6.65	0.977	6.50	116.94	5
CM07-1446	21	CGR	D	47.5	22.40	2256	2256.25	47.50	9.41	0.977	9.20	165.55	5
CM07-1446	21	CGR	D	47.5	24.20	2256	2256.25	47.50	10.17	0.977	9.94	178.85	5
CM07-1446	27	CGR	D	47.5	18.38	2256	2256.25	47.50	10.17	0.977	9.94	178.85	5
CM07-1446	27	CGR	D	47.5	23.42	2256	2256.25	47.50	7.72	0.977	7.55	135.85	5
CM07-1446	27	CGR	D	47.5	24.16	2256	2256.25	47.50	9.84	0.977	9.62	173.09	5
CM07-1446	45	CGR	D	47.5	14.16	2256	2256.25	47.50	10.15	0.977	9.92	178.55	5
CM07-1446	45	CGR	D	47.5	16.80	2256	2256.25	47.50	9.84	0.977	9.62	173.09	5
CM07-1446	45	CGR	D	47.5	16.92	2256	2256.25	47.50	10.15	0.977	9.92	178.55	5
CM07-1540	6	CGR	D	45.5	14.86	2256	2256.25	47.50	5.95	0.977	5.81	104.66	5
CM07-1540	6	CGR	D	45.5	16.06	2256	2256.25	47.50	5.95	0.977	5.81	104.66	5
CM07-1540	6	CGR	D	45.5	16.50	2256	2256.25	47.50	7.06	0.977	6.90	124.18	5
CM07-1540	6	CGR	D	45.5	19.40	2256	2256.25	47.50	7.11	0.977	6.95	125.04	5
GT07-02	60	CGR	D	45.5	14.68	2070	2070.25	45.50	6.80	0.958	6.52	117.38	5
GT07-02	60	CGR	D	45.5	18.94	2256	2256.25	47.50	7.11	0.977	6.95	125.04	5
GT07-02	66	CGR	D	45.5	21.92	2070	2070.25	45.50	6.80	0.958	6.52	117.38	5
GT07-02	66	CGR	D	45.5	24.02	2070	2070.25	45.50	7.35	0.958	7.05	126.86	5
GT07-02	72	CGR	D	45.5	19.56	2070	2070.25	45.50	7.56	0.958	7.24	130.34	5
GT07-02	72	CGR	D	45.5	20.92	2070	2070.25	45.50	8.88	0.958	8.52	153.27	5
GT07-04	24	CGR	D	45.5	16.50	2070	2070.25	45.50	8.67	0.958	8.31	149.63	5
GT07-04	24	CGR	D	45.5	17.16	2070	2070.25	45.50	8.96	0.958	8.58	154.53	5
GT07-05	12	CGR	D	45.0	14.14	2070	2070.25	45.50	9.58	0.958	9.18	165.26	5
GT07-05	24	CGR	D	45.0	15.20	2070	2070.25	45.50	7.86	0.958	7.53	135.57	5
GT07-05	24	CGR	D	45.0	16.70	2025	2025.00	45.00	6.62	0.954	6.31	113.64	5
GT07-05	24	CGR	D	45.0	19.74	2025	2025.00	45.00	9.24	0.954	8.81	158.64	5
GT07-05	60	CGR	D	45.0	15.30	2025	2025.00	45.00	7.16	0.954	6.83	122.95	5
GT07-05	60	CGR	D	45.0	21.60	2025	2025.00	45.00	10.11	0.954	9.64	173.60	5
GT07-05	60	CGR	D	45.0	22.28	2025	2025.00	45.00	10.43	0.954	9.95	179.03	5
GT07-05	96	CGR	D	45.0	17.18	2025	2025.00	45.00	8.04	0.954	7.67	138.08	5
GT07-05	96	CGR	D	45.0	18.68	2025	2025.00	45.00	8.74	0.954	8.34	150.10	5
GT07-05	96	CGR	D	45.0	18.88	2025	2025.00	45.00	8.84	0.954	8.43	151.71	5

Axial Point Load Testing Data
CGR (N = 18)

Hole Number	Depth	Lithology	Test Type	D, mm	W,mm	Guage Load	De**2 (mm2)	De**2	De	Is	Fs	Is50	UCS	ISRM R
	m		(D, A, L, or S)	(Separation)	Axial and Lump Tests	(MPa)	Complete Core	final	(mm)	(MPa)		(MPa)	(MPa)	Index
CM07-1446	21	CGR	A	47.5	36	23.92	2172	2171.70	46.60	10.44	0.969	10.12	182.07	5
CM07-1446	21	CGR	A	47.5	38	24.22	2292	2292.35	47.88	10.02	0.981	9.82	176.82	5
CM07-1446	27	CGR	A	47.5	40.5	20.66	2443	2443.16	49.43	8.02	0.995	7.97	143.53	5
CM07-1446	27	CGR	A	47.5	41	23.68	2443	2443.16	49.43	8.02	0.995	7.97	143.53	5
CM07-1446	27	CGR	A	47.5	41.5	24.14	2473	2473.33	49.73	9.08	0.998	9.06	163.00	5
CM07-1446	45	CGR	A	47.5	38	15.36	2503	2503.49	50.03	9.14	1.000	9.14	164.58	5
CM07-1446	45	CGR	A	47.5	41	24.14	2292	2292.35	47.88	6.35	0.981	6.23	112.14	5
CM07-1540	6	CGR	A	45.5	40	13.76	2503	2503.49	50.03	9.14	1.000	9.14	164.58	5
CM07-1540	6	CGR	A	45.5	41	14.80	2292	2292.35	47.88	6.35	0.981	6.23	112.14	5
GT07-02	60	CGR	A	45.5	43	21.58	2473	2473.33	49.73	9.25	0.998	9.23	166.14	5
GT07-02	66	CGR	A	45.5	44	15.10	2473	2473.33	49.73	9.25	0.998	9.23	166.14	5
GT07-02	66	CGR	A	45.5	44	22.00	2311	2311.40	48.08	5.64	0.983	5.55	99.82	4
GT07-02	72	CGR	A	45.5	46	20.00	2369	2369.19	48.67	5.92	0.988	5.85	105.34	5
GT07-02	72	CGR	A	45.5	43	21.06	2485	2484.76	49.85	8.23	0.999	8.22	148.00	5
GT07-04	24	CGR	A	45.5	45	17.52	2369	2369.19	48.67	5.92	0.988	5.85	105.34	5
GT07-04	24	CGR	A	45.5	41	20.50	2485	2484.76	49.85	8.23	0.999	8.22	148.00	5
GT07-05	12	CGR	A	45.0	45.5	17.16	2543	2542.54	50.42	5.63	1.004	5.65	101.72	5
GT07-05	12	CGR	A	45.0	42	19.48	2543	2542.54	50.42	8.20	1.004	8.23	148.22	5
GT07-05	12	CGR	A	45.0	41	21.62	2658	2658.11	51.56	7.13	1.014	7.23	130.19	5
GT07-05	24	CGR	A	45.0	40	19.12	2600	2600.33	50.99	6.39	1.009	6.44	115.99	5
GT07-05	24	CGR	A	45.0	38.5	20.12	2400	2400.30	48.99	7.69	0.991	7.62	137.21	5
GT07-05	24	CGR	A	45.0	40.5	22.86	2343	2343.15	48.41	8.75	0.986	8.62	155.18	5
GT07-05	60	CGR	A	45.0	44	17.68	2200	2200.28	46.91	8.67	0.972	8.42	151.61	5
GT07-05	60	CGR	A	45.0	41	19.84	2315	2314.58	48.11	9.36	0.983	9.20	165.66	5
GT07-05	60	CGR	A	45.0	44	22.74	2515	2514.60	50.15	8.57	1.001	8.58	154.51	5
GT07-05	96	CGR	A	45.0	39.5	17.40	2257	2257.43	47.51	7.31	0.977	7.14	128.56	5
GT07-05	96	CGR	A	45.0	38.5	19.34	2200	2200.28	46.91	8.33	0.972	8.10	145.74	5
GT07-05	96	CGR	A	45.0	46.5	20.28	2657	2657.48	51.55	7.23	1.014	7.33	132.01	5

Diametral Point Load Testing Data
SGR (N = 24)

Hole Number	Depth	Lithology	Test Type	D, mm	Guage Load	De**2 (mm2)	De**2	De	Is	Fs	Is50	UCS	ISRM R
	m		(D, A, L, or S)	(Separation)	(MPa)	Complete Core	final	(mm)	(MPa)		(MPa)	(MPa)	Index
GT07-05	48	SGR	D	45.0	11.16	2025	2025.00	45.00	5.23	0.954	4.98	119.61	5
GT07-05	48	SGR	D	45.0	14.08	2025	2025.00	45.00	6.59	0.954	6.29	150.86	5
GT07-05	48	SGR	D	45.0	15.46	2025	2025.00	45.00	7.24	0.954	6.90	165.64	5
GT07-04	12	SGR	D	45.5	23.32	2025	2025.00	45.00	7.24	0.954	6.90	165.64	5

Axial Point Load Teting Data
SGR (N = 24)

Hole Number	Depth	Lithology	Test Type	D, mm	W,mm	Guage Load	De**2 (mm2)	De**2	De	Is	Fs	Is50	UCS	ISRM R
	m		(D, A, L, or S)	(Separation)	Axial and Lump Tests	(MPa)	Complete Core	final	(mm)	(MPa)		(MPa)	(MPa)	Index
GT07-04	12	SGR	A	45.5	44	13.68	2543	2542.54	50.42	5.10	1.004	5.12	122.87	5
GT07-05	48	SGR	A	45.0	41	10.98	2343	2343.15	48.41	4.44	0.986	4.38	105.10	5
GT07-05	48	SGR	A	45.0	42.5	11.50	2429	2428.88	49.28	4.49	0.994	4.46	107.03	5
GT07-05	48	SGR	A	45.0	41.5	14.40	2429	2428.88	49.28	4.49	0.994	4.46	107.03	5

Diametral Point Load Testing Data
REMGR (N = 24)

Hole Number	Depth	Lithology	Test Type	D, mm	Guage Load	De**2 (mm2)	De**2	De	Is	Fs	Is50	UCS	ISRM R
	m		(D, A, L, or S)	(Separation)	(MPa)	Complete Core	final	(mm)	(MPa)		(MPa)	(MPa)	Index
GT07-05	36	REMGR	D	45.0	20.60	2025	2025.00	45.00	9.64	0.954	9.20	220.75	5
GT07-05	36	REMGR	D	45.0	6.38	2025	2025.00	45.00	2.99	0.954	2.85	68.34	4
GT07-05	36	REMGR	D	45.0	5.38	2025	2025.00	45.00	2.52	0.954	2.40	57.63	4

Axial Point Load Testing Data
REMGR (N = 24)

Hole Number	Depth	Lithology	Test Type	D, mm	W,mm	Guage Load	De**2 (mm2)	De**2	De	Is	Fs	Is50	UCS	ISRM R
	m		(D, A, L, or S)	(Separation)	Axial and Lump Tests	(MPa)	Complete Core	final	(mm)	(MPa)		(MPa)	(MPa)	Index
GT07-05	36	REMGR	A	45.0	43	5.64	2457	2457.45	49.57	2.18	0.996	2.17	52.02	4
GT07-05	36	REMGR	A	45.0	43.5	5.20	2486	2486.03	49.86	1.98	0.999	1.98	47.52	3
GT07-05	36	REMGR	A	45.0	43	11.80	2457	2457.45	49.57	4.55	0.996	4.53	108.80	5

Diametral Point Load Testing Data
APO (N = 20)

Hole Number	Depth	Lithology	Test Type	D, mm	Guage Load	De**2 (mm2)	De**2	De	Is	Fs	Is50	UCS	ISRM R
	m		(D, A, L, or S)	(Separation)	(MPa)	Complete Core	final	(mm)	(MPa)		(MPa)	(MPa)	Index
CM07-1446	9	APO	D	47.5	25.60	2256	2256.25	47.50	10.76	0.977	10.51	210.22	5
CM07-1446	9	APO	D	47.5	29.00	2256	2256.25	47.50	12.18	0.977	11.91	238.13	5
CM07-1446	129	APO	D	47.5	27.34	2256	2256.25	47.50	11.49	0.977	11.22	224.49	5
CM07-1446	129	APO	D	47.5	28.46	2256	2256.25	47.50	11.49	0.977	11.22	224.49	5
CM07-1446	129	APO	D	47.5	31.78	2256	2256.25	47.50	11.96	0.977	11.69	233.71	5
CM07-1446	135	APO	D	47.5	22.00	2256	2256.25	47.50	13.35	0.977	13.05	261.00	6
CM07-1446	135	APO	D	47.5	25.06	2256	2256.25	47.50	9.24	0.977	9.03	180.66	5
CM07-1446	135	APO	D	47.5	28.20	2256	2256.25	47.50	13.35	0.977	13.05	261.00	6
CM07-1446	135	APO	D	47.5	28.84	2256	2256.25	47.50	9.24	0.977	9.03	180.66	5
CM07-1446	147	APO	D	47.5	26.64	2256	2256.25	47.50	10.53	0.977	10.29	205.80	5
CM07-1446	150	APO	D	47.5	21.04	2256	2256.25	47.50	10.53	0.977	10.29	205.80	5
CM07-1446	150	APO	D	47.5	21.80	2256	2256.25	47.50	11.85	0.977	11.58	231.56	5
CM07-1446	150	APO	D	47.5	22.09	2256	2256.25	47.50	12.12	0.977	11.84	236.83	5
CM07-1446	150	APO	D	47.5	26.84	2256	2256.25	47.50	11.19	0.977	10.94	218.77	5
CM07-1446	162	APO	D	47.5	24.90	2256	2256.25	47.50	12.12	0.977	11.84	236.83	5
CM07-1446	162	APO	D	47.5	26.22	2256	2256.25	47.50	11.19	0.977	10.94	218.77	5
CM07-1446	162	APO	D	47.5	27.78	2256	2256.25	47.50	8.84	0.977	8.64	172.79	5
CM07-1446	162	APO	D	47.5	30.58	2256	2256.25	47.50	9.16	0.977	8.95	179.02	5
GT07-02	114	APO	D	45.5	27.32	2256	2256.25	47.50	9.28	0.977	9.07	181.40	5

Axial Point Load Testing Data
APO (N = 20)

Hole Number	Depth	Lithology	Test Type	D, mm	W,mm	Guage Load	De**2 (mm2)	De**2	De	Is	Fs	Is50	UCS	ISRM R
	m		(D, A, L, or S)	(Separation)	Axial and Lump Tests	(MPa)	Complete Core	final	(mm)	(MPa)		(MPa)	(MPa)	Index
CM07-1446	9	APO	A	47.5	35.5	22.92	2142	2141.54	46.28	10.15	0.966	9.80	195.96	5
CM07-1446	9	APO	A	47.5	35.5	23.40	2142	2141.54	46.28	10.36	0.966	10.00	200.09	5
CM07-1446	129	APO	A	47.5	41	20.80	2473	2473.33	49.73	7.97	0.998	7.95	159.08	5
CM07-1446	129	APO	A	47.5	41	21.82	2473	2473.33	49.73	7.97	0.998	7.95	159.08	5
CM07-1446	129	APO	A	47.5	40.5	22.96	2473	2473.33	49.73	8.36	0.998	8.34	166.88	5
CM07-1446	135	APO	A	47.5	39	19.90	2443	2443.16	49.43	8.91	0.995	8.86	177.26	5
CM07-1446	135	APO	A	47.5	44	23.90	2353	2352.68	48.50	8.02	0.986	7.91	158.18	5
CM07-1446	135	APO	A	47.5	43	25.84	2443	2443.16	49.43	8.91	0.995	8.86	177.26	5
CM07-1446	147	APO	A	47.5	40.5	22.22	2353	2352.68	48.50	8.02	0.986	7.91	158.18	5
CM07-1446	147	APO	A	47.5	42	24.32	2654	2654.30	51.52	8.54	1.014	8.65	173.02	5
CM07-1446	150	APO	A	47.5	40	19.86	2654	2654.30	51.52	8.54	1.014	8.65	173.02	5
CM07-1446	150	APO	A	47.5	40	20.90	2594	2593.98	50.93	9.44	1.008	9.52	190.46	5
CM07-1446	162	APO	A	47.5	42	20.82	2443	2443.16	49.43	8.62	0.995	8.58	171.56	5
CM07-1446	162	APO	A	47.5	41	22.62	2534	2533.65	50.34	9.10	1.003	9.13	182.53	5
GT07-02	114	APO	A	45.5	44	24.14	2443	2443.16	49.43	8.62	0.995	8.58	171.56	5
GT07-02	114	APO	A	45.5	42	24.94	2534	2533.65	50.34	9.10	1.003	9.13	182.53	5

Diametral Point Load Testing Data
CPO (N = 20)

Hole Number	Depth	Lithology	Test Type	D, mm	Guage Load	De**2 (mm2)	De**2	De	Is	Fs	Is50	UCS	ISRM R
	m		(D, A, L, or S)	(Separation)	(MPa)	Complete Core	final	(mm)	(MPa)		(MPa)	(MPa)	Index
CM07-1446	81	CPO	D	47.5	12.14	2256	2256.25	47.50	5.10	0.977	4.99	99.70	4
CM07-1446	81	CPO	D	47.5	26.50	2256	2256.25	47.50	11.14	0.977	10.88	217.64	5
CM07-1446	81	CPO	D	47.5	26.54	2256	2256.25	47.50	11.15	0.977	10.90	217.92	5
CM07-1446	87	CPO	D	47.5	16.54	2256	2256.25	47.50	11.15	0.977	10.90	217.92	5
CM07-1446	87	CPO	D	47.5	24.66	2256	2256.25	47.50	6.95	0.977	6.79	135.82	5
CM07-1446	87	CPO	D	47.5	27.46	2256	2256.25	47.50	10.36	0.977	10.13	202.52	5
CM07-1446	93	CPO	D	47.5	12.68	2256	2256.25	47.50	11.54	0.977	11.28	225.50	5
CM07-1446	99	CPO	D	47.5	17.16	2256	2256.25	47.50	10.36	0.977	10.13	202.52	5
CM07-1446	99	CPO	D	47.5	21.26	2256	2256.25	47.50	11.54	0.977	11.28	225.50	5
CM07-1446	99	CPO	D	47.5	26.44	2256	2256.25	47.50	5.33	0.977	5.21	104.12	5
CM07-1446	99	CPO	D	47.5	27.88	2256	2256.25	47.50	5.33	0.977	5.21	104.12	5
CM07-1446	105	CPO	D	47.5	9.42	2256	2256.25	47.50	7.21	0.977	7.05	140.92	5
CM07-1446	105	CPO	D	47.5	17.24	2256	2256.25	47.50	8.93	0.977	8.73	174.61	5
CM07-1446	105	CPO	D	47.5	17.66	2256	2256.25	47.50	11.11	0.977	10.86	217.13	5
CM07-1446	117	CPO	D	47.5	8.86	2256	2256.25	47.50	8.93	0.977	8.73	174.61	5
CM07-1446	117	CPO	D	47.5	18.28	2256	2256.25	47.50	11.11	0.977	10.86	217.13	5
CM07-1446	117	CPO	D	47.5	24.96	2256	2256.25	47.50	11.72	0.977	11.45	228.96	5
CM07-1446	123	CPO	D	47.5	15.17	2256	2256.25	47.50	3.96	0.977	3.87	77.34	4
CM07-1446	123	CPO	D	47.5	20.80	2256	2256.25	47.50	7.24	0.977	7.08	141.54	5
CM07-1446	123	CPO	D	47.5	23.14	2256	2256.25	47.50	3.72	0.977	3.64	72.75	4
CM07-1446	156	CPO	D	47.5	16.70	2256	2256.25	47.50	6.37	0.977	6.23	124.56	5
CM07-1446	156	CPO	D	47.5	22.98	2256	2256.25	47.50	8.74	0.977	8.54	170.81	5
CM07-1446	156	CPO	D	47.5	27.38	2256	2256.25	47.50	7.02	0.977	6.86	137.13	5
CM07-1540	12	CPO	D	45.5	8.88	2256	2256.25	47.50	9.66	0.977	9.44	188.70	5
CM07-1540	12	CPO	D	45.5	13.84	2070	2070.25	45.50	6.34	0.958	6.07	121.46	5
CM07-1540	12	CPO	D	45.5	14.12	2070	2070.25	45.50	6.47	0.958	6.20	123.95	5
CM07-1540	12	CPO	D	45.5	21.48	2070	2070.25	45.50	9.83	0.958	9.43	188.52	5
CM07-1540	18	CPO	D	45.5	15.60	2070	2070.25	45.50	7.14	0.958	6.85	136.96	5
CM07-1540	18	CPO	D	45.5	19.10	2070	2070.25	45.50	8.75	0.958	8.38	167.64	5
CM07-1540	18	CPO	D	45.5	20.84	2070	2070.25	45.50	9.54	0.958	9.15	182.95	5
CM07-1540	18	CPO	D	45.5	22.12	2070	2070.25	45.50	10.13	0.958	9.71	194.15	5
CM07-1540	24	CPO	D	45.5	12.20	2070	2070.25	45.50	5.59	0.958	5.35	107.06	5
CM07-1540	24	CPO	D	45.5	15.00	2070	2070.25	45.50	6.87	0.958	6.58	131.69	5
CM07-1540	24	CPO	D	45.5	17.26	2070	2070.25	45.50	7.90	0.958	7.57	151.48	5
CM07-1540	24	CPO	D	45.5	20.30	2070	2070.25	45.50	9.29	0.958	8.91	178.17	5
CM07-1540	30	CPO	D	45.5	19.74	2070	2070.25	45.50	9.04	0.958	8.66	173.27	5
CM07-1540	30	CPO	D	45.5	21.44	2070	2070.25	45.50	9.82	0.958	9.41	188.22	5
CM07-1540	30	CPO	D	45.5	22.26	2070	2070.25	45.50	10.19	0.958	9.77	195.42	5
CM07-1540	30	CPO	D	45.5	23.18	2070	2070.25	45.50	10.61	0.958	10.17	203.47	5
CM07-1540	36	CPO	D	45.5	8.96	2070	2070.25	45.50	4.10	0.958	3.93	78.68	4
CM07-1540	36	CPO	D	45.5	10.70	2070	2070.25	45.50	4.90	0.958	4.70	93.93	4
CM07-1540	36	CPO	D	45.5	14.36	2070	2070.25	45.50	6.58	0.958	6.30	126.06	5
CM07-1540	36	CPO	D	45.5	18.52	2070	2070.25	45.50	8.48	0.958	8.13	162.56	5
CM07-1540	42	CPO	D	45.5	11.72	2070	2070.25	45.50	5.37	0.958	5.14	102.88	5

Diametral Point Load Testing Data
CPO (N = 20)

Hole Number	Depth	Lithology	Test Type	D, mm	Guage Load	De**2 (mm2)	De**2	De	Is	Fs	Is50	UCS	ISRM R
	m		(D, A, L, or S)	(Separation)	(MPa)	Complete Core	final	(mm)	(MPa)		(MPa)	(MPa)	Index
CM07-1540	42	CPO	D	45.5	20.20	2070	2070.25	45.50	9.25	0.958	8.87	177.33	5
CM07-1540	42	CPO	D	45.5	23.58	2070	2070.25	45.50	10.80	0.958	10.35	206.98	5
CM07-1540	42	CPO	D	45.5	24.36	2070	2070.25	45.50	11.15	0.958	10.69	213.82	5
CM07-1540	48	CPO	D	45.5	19.84	2070	2070.25	45.50	9.09	0.958	8.71	174.18	5
CM07-1540	54	CPO	D	45.5	22.78	2070	2070.25	45.50	10.43	0.958	10.00	199.96	5
CM07-1540	54	CPO	D	45.5	23.54	2070	2070.25	45.50	10.78	0.958	10.33	206.62	5
CM07-1540	54	CPO	D	45.5	23.60	2070	2070.25	45.50	10.81	0.958	10.36	207.16	5
CM07-1540	54	CPO	D	45.5	27.58	2070	2070.25	45.50	12.63	0.958	12.10	242.08	5
CM07-1540	60	CPO	D	45.5	9.84	2070	2070.25	45.50	4.51	0.958	4.32	86.36	4
CM07-1540	60	CPO	D	45.5	10.28	2070	2070.25	45.50	4.71	0.958	4.51	90.24	4
CM07-1540	60	CPO	D	45.5	11.32	2070	2070.25	45.50	5.18	0.958	4.97	99.37	4
CM07-1540	60	CPO	D	45.5	16.60	2070	2070.25	45.50	7.60	0.958	7.29	145.73	5
CM07-1540	66	CPO	D	45.5	11.52	2070	2070.25	45.50	5.28	0.958	5.06	101.13	5
CM07-1540	66	CPO	D	45.5	15.68	2070	2070.25	45.50	7.18	0.958	6.88	137.62	5
CM07-1540	66	CPO	D	45.5	22.52	2070	2070.25	45.50	10.31	0.958	9.88	197.66	5
CM07-1540	72	CPO	D	45.5	15.14	2070	2070.25	45.50	6.93	0.958	6.65	132.90	5
CM07-1540	72	CPO	D	45.5	23.52	2070	2070.25	45.50	10.77	0.958	10.32	206.44	5
CM07-1540	72	CPO	D	45.5	25.36	2070	2070.25	45.50	11.61	0.958	11.13	222.59	5
CM07-1540	78	CPO	D	45.5	18.34	2070	2070.25	45.50	8.40	0.958	8.05	160.98	5
CM07-1540	78	CPO	D	45.5	21.44	2070	2070.25	45.50	9.82	0.958	9.41	188.22	5
CM07-1540	78	CPO	D	45.5	26.80	2070	2070.25	45.50	12.27	0.958	11.76	235.24	5
CM07-1540	84	CPO	D	45.5	18.22	2070	2070.25	45.50	8.34	0.958	8.00	159.96	5
CM07-1540	84	CPO	D	45.5	21.10	2070	2070.25	45.50	9.66	0.958	9.26	185.19	5
CM07-1540	84	CPO	D	45.5	21.42	2070	2070.25	45.50	9.81	0.958	9.40	188.04	5
CM07-1540	84	CPO	D	45.5	24.66	2070	2070.25	45.50	11.29	0.958	10.82	216.48	5
CM07-1540	90	CPO	D	45.5	12.72	2070	2070.25	45.50	5.83	0.958	5.58	111.66	5
CM07-1540	90	CPO	D	45.5	25.46	2070	2070.25	45.50	11.66	0.958	11.18	223.50	5
CM07-1540	90	CPO	D	45.5	25.60	2070	2070.25	45.50	11.72	0.958	11.24	224.71	5
CM07-1540	96	CPO	D	45.5	16.74	2070	2070.25	45.50	7.67	0.958	7.35	146.94	5
CM07-1540	96	CPO	D	45.5	21.24	2070	2070.25	45.50	9.73	0.958	9.32	186.46	5
CM07-1540	96	CPO	D	45.5	24.10	2070	2070.25	45.50	11.03	0.958	10.58	211.52	5
CM07-1540	102	CPO	D	45.5	18.06	2070	2070.25	45.50	8.27	0.958	7.93	158.50	5
CM07-1540	102	CPO	D	45.5	22.66	2070	2070.25	45.50	10.38	0.958	9.95	198.93	5
CM07-1540	102	CPO	D	45.5	24.68	2070	2070.25	45.50	11.30	0.958	10.83	216.66	5
CM07-1540	108	CPO	D	45.5	9.16	2070	2070.25	45.50	4.20	0.958	4.02	80.43	4
CM07-1540	108	CPO	D	45.5	21.26	2070	2070.25	45.50	9.74	0.958	9.33	186.65	5
CM07-1540	108	CPO	D	45.5	22.28	2070	2070.25	45.50	10.20	0.958	9.78	195.54	5
CM07-1540	108	CPO	D	45.5	25.62	2070	2070.25	45.50	11.73	0.958	11.24	224.89	5
CM07-1540	111	CPO	D	45.5	15.84	2070	2070.25	45.50	7.25	0.958	6.95	139.02	5
CM07-1540	111	CPO	D	45.5	20.64	2070	2070.25	45.50	9.45	0.958	9.06	181.20	5
CM07-1540	111	CPO	D	45.5	20.64	2070	2070.25	45.50	9.45	0.958	9.06	181.20	5
CM07-1540	111	CPO	D	45.5	24.60	2070	2070.25	45.50	11.26	0.958	10.80	215.94	5
CM07-1540	117	CPO	D	45.5	21.24	2070	2070.25	45.50	9.73	0.958	9.32	186.46	5

Diametral Point Load Testing Data
CPO (N = 20)

Hole Number	Depth	Lithology	Test Type	D, mm	Guage Load	De**2 (mm2)	De**2	De	Is	Fs	Is50	UCS	ISRM R
	m		(D, A, L, or S)	(Separation)	(MPa)	Complete Core	final	(mm)	(MPa)		(MPa)	(MPa)	Index
CM07-1540	117	CPO	D	45.5	23.54	2070	2070.25	45.50	10.78	0.958	10.33	206.62	5
CM07-1540	117	CPO	D	45.5	26.78	2070	2070.25	45.50	12.26	0.958	11.75	235.06	5
CM07-1540	123	CPO	D	45.5	10.22	2070	2070.25	45.50	4.68	0.958	4.48	89.69	4
CM07-1540	123	CPO	D	45.5	10.52	2070	2070.25	45.50	4.82	0.958	4.62	92.35	4
CM07-1540	123	CPO	D	45.5	11.22	2070	2070.25	45.50	5.14	0.958	4.92	98.47	4
CM07-1540	128	CPO	D	45.5	22.44	2070	2070.25	45.50	10.28	0.958	9.85	196.99	5
CM07-1540	128	CPO	D	45.5	23.56	2070	2070.25	45.50	10.79	0.958	10.34	206.80	5
GT07-02	78	CPO	D	45.5	15.46	2070	2070.25	45.50	7.08	0.958	6.78	135.69	5
GT07-02	78	CPO	D	45.5	17.58	2070	2070.25	45.50	8.05	0.958	7.72	154.33	5
GT07-02	84	CPO	D	45.5	9.74	2070	2070.25	45.50	4.46	0.958	4.28	85.52	4
GT07-02	84	CPO	D	45.5	13.00	2070	2070.25	45.50	5.95	0.958	5.70	114.08	5
GT07-02	90	CPO	D	45.5	11.38	2070	2070.25	45.50	5.21	0.958	5.00	99.92	4
GT07-02	90	CPO	D	45.5	11.58	2070	2070.25	45.50	5.30	0.958	5.08	101.67	5
GT07-02	90	CPO	D	45.5	23.96	2070	2070.25	45.50	10.97	0.958	10.52	210.31	5
GT07-02	96	CPO	D	45.5	24.58	2070	2070.25	45.50	11.26	0.958	10.79	215.76	5
GT07-02	102	CPO	D	45.5	22.76	2070	2070.25	45.50	10.42	0.958	9.99	199.78	5
GT07-02	102	CPO	D	45.5	23.84	2070	2070.25	45.50	10.92	0.958	10.46	209.28	5
GT07-02	108	CPO	D	45.5	10.12	2070	2070.25	45.50	4.63	0.958	4.44	88.84	4
GT07-02	108	CPO	D	45.5	17.12	2070	2070.25	45.50	7.84	0.958	7.51	150.27	5
GT07-02	120	CPO	D	45.5	25.20	2070	2070.25	45.50	11.54	0.958	11.06	221.20	5
GT07-02	126	CPO	D	45.5	21.12	2070	2070.25	45.50	9.67	0.958	9.27	185.37	5
GT07-02	126	CPO	D	45.5	26.46	2070	2070.25	45.50	12.12	0.958	11.61	232.28	5
GT07-02	136	CPO	D	45.5	26.78	2070	2070.25	45.50	12.26	0.958	11.75	235.06	5
GT07-02	186	CPO	D	45.5	20.64	2070	2070.25	45.50	9.45	0.958	9.06	181.20	5
GT07-02	186	CPO	D	45.5	23.58	2070	2070.25	45.50	10.80	0.958	10.35	206.98	5
GT07-02	192	CPO	D	45.5	12.02	2070	2070.25	45.50	5.50	0.958	5.27	105.49	5
GT07-02	192	CPO	D	45.5	18.98	2070	2070.25	45.50	8.69	0.958	8.33	166.61	5

Axial Point Load Testing Data
CPO (N = 20)

Hole Number	Depth	Lithology	Test Type	D, mm	W,mm	Guage Load	De**2 (mm2)	De**2	De	Is	Fs	Is50	UCS	ISRM R
	m		(D, A, L, or S)	(Separation)	Axial and Lump Tests	(MPa)	Complete Core	final	(mm)	(MPa)		(MPa)	(MPa)	Index
CM07-1446	81	CPO	A	47.5	36	11.70	2172	2171.70	46.60	5.11	0.969	4.95	98.97	4
CM07-1446	81	CPO	A	47.5	35	23.48	2111	2111.38	45.95	10.54	0.963	10.15	202.95	5
CM07-1446	87	CPO	A	47.5	39	24.14	2353	2352.68	48.50	9.73	0.986	9.59	191.89	5
CM07-1446	87	CPO	A	47.5	40	26.30	2353	2352.68	48.50	9.73	0.986	9.59	191.89	5
CM07-1446	93	CPO	A	47.5	40	15.54	2413	2413.00	49.12	10.33	0.992	10.25	204.98	5
CM07-1446	93	CPO	A	47.5	41	24.64	2413	2413.00	49.12	6.11	0.992	6.06	121.14	5
CM07-1446	99	CPO	A	47.5	41	15.00	2473	2473.33	49.73	9.44	0.998	9.42	188.44	5
CM07-1446	99	CPO	A	47.5	40.5	22.58	2413	2413.00	49.12	6.11	0.992	6.06	121.14	5
CM07-1446	105	CPO	A	47.5	40	17.56	2473	2473.33	49.73	9.44	0.998	9.42	188.44	5
CM07-1446	117	CPO	A	47.5	41	16.90	2473	2473.33	49.73	5.75	0.998	5.74	114.73	5
CM07-1446	117	CPO	A	47.5	44	19.20	2473	2473.33	49.73	5.75	0.998	5.74	114.73	5
CM07-1446	123	CPO	A	47.5	43	15.34	2443	2443.16	49.43	8.76	0.995	8.72	174.33	5
CM07-1446	123	CPO	A	47.5	42	21.36	2413	2413.00	49.12	6.90	0.992	6.84	136.89	5
CM07-1446	123	CPO	A	47.5	42	22.08	2473	2473.33	49.73	6.48	0.998	6.46	129.23	5
CM07-1446	156	CPO	A	47.5	41	23.76	2413	2413.00	49.12	6.90	0.992	6.84	136.89	5
CM07-1446	156	CPO	A	47.5	43	25.36	2473	2473.33	49.73	6.48	0.998	6.46	129.23	5
CM07-1540	12	CPO	A	45.5	40	14.98	2654	2654.30	51.52	6.86	1.014	6.95	139.02	5
CM07-1540	18	CPO	A	45.5	43	18.08	2594	2593.98	50.93	5.61	1.008	5.65	113.06	5
CM07-1540	24	CPO	A	45.5	31	20.18	2534	2533.65	50.34	7.99	1.003	8.02	160.32	5
CM07-1540	24	CPO	A	45.5	38	21.20	2473	2473.33	49.73	9.11	0.998	9.08	181.70	5
CM07-1540	24	CPO	A	45.5	40	22.96	2485	2484.76	49.85	6.90	0.999	6.89	137.76	5
CM07-1540	30	CPO	A	45.5	42.5	17.78	1791	1791.34	42.32	10.68	0.928	9.91	198.17	5
CM07-1540	30	CPO	A	45.5	42	18.84	2311	2311.40	48.08	9.42	0.983	9.25	185.04	5
CM07-1540	30	CPO	A	45.5	41.5	20.38	2456	2455.86	49.56	6.86	0.996	6.84	136.73	5
CM07-1540	36	CPO	A	45.5	43	13.86	2485	2484.76	49.85	5.29	0.999	5.28	105.60	5
CM07-1540	36	CPO	A	45.5	41.5	18.44	2398	2398.08	48.97	7.29	0.991	7.22	144.46	5
CM07-1540	36	CPO	A	45.5	40	22.96	2311	2311.40	48.08	9.42	0.983	9.25	185.04	5
CM07-1540	42	CPO	A	45.5	37	21.28	2138	2138.05	46.24	9.43	0.965	9.11	182.16	5
CM07-1540	42	CPO	A	45.5	37	22.14	2138	2138.05	46.24	9.82	0.965	9.48	189.54	5
CM07-1540	42	CPO	A	45.5	42.5	23.92	2456	2455.86	49.56	9.23	0.996	9.20	183.91	5
CM07-1540	48	CPO	A	45.5	37	17.37	2138	2138.05	46.24	7.70	0.965	7.44	148.75	5
CM07-1540	48	CPO	A	45.5	47	18.44	2716	2715.90	52.11	6.44	1.019	6.56	131.18	5
CM07-1540	48	CPO	A	45.5	41	20.64	2369	2369.19	48.67	8.26	0.988	8.16	163.21	5
CM07-1540	54	CPO	A	45.5	40	22.38	2311	2311.40	48.08	9.18	0.983	9.02	180.37	5
CM07-1540	54	CPO	A	45.5	40	23.18	2311	2311.40	48.08	9.51	0.983	9.34	186.82	5
CM07-1540	54	CPO	A	45.5	40	24.38	2311	2311.40	48.08	10.00	0.983	9.82	196.49	5
CM07-1540	60	CPO	A	45.5	44	11.74	2543	2542.54	50.42	4.38	1.004	4.39	87.89	4
CM07-1540	60	CPO	A	45.5	42.5	20.84	2456	2455.86	49.56	8.05	0.996	8.01	160.27	5
CM07-1540	60	CPO	A	45.5	49	22.98	2831	2831.47	53.21	7.69	1.028	7.91	158.25	5
CM07-1540	66	CPO	A	45.5	45.5	11.52	2629	2629.22	51.28	4.15	1.011	4.20	84.03	4
CM07-1540	66	CPO	A	45.5	45.5	15.68	2629	2629.22	51.28	5.65	1.011	5.72	114.35	5
CM07-1540	66	CPO	A	45.5	45.5	22.52	2629	2629.22	51.28	8.12	1.011	8.21	164.24	5
CM07-1540	72	CPO	A	45.5	40	22.46	2311	2311.40	48.08	9.21	0.983	9.05	181.04	5
CM07-1540	72	CPO	A	45.5	40	22.56	2311	2311.40	48.08	9.25	0.983	9.09	181.82	5
CM07-1540	72	CPO	A	45.5	40.5	24.64	2340	2340.29	48.38	9.98	0.985	9.83	196.69	5

Axial Point Load Testing Data
CPO (N = 20)

Hole Number	Depth	Lithology	Test Type	D, mm	W,mm	Guage Load	De**2 (mm2)	De**2	De	Is	Fs	Is50	UCS	ISRM R
	m		(D, A, L, or S)	(Separation)	Axial and Lump Tests	(MPa)	Complete Core	final	(mm)	(MPa)		(MPa)	(MPa)	Index
CM07-1540	78	CPO	A	45.5	36.5	20.36	2109	2109.15	45.93	9.15	0.962	8.81	176.16	5
CM07-1540	78	CPO	A	45.5	40	23.40	2311	2311.40	48.08	9.60	0.983	9.43	188.59	5
CM07-1540	84	CPO	A	45.5	39	22.82	2254	2253.62	47.47	9.60	0.977	9.38	187.57	5
CM07-1540	84	CPO	A	45.5	34	23.44	1965	1964.69	44.32	11.31	0.947	10.71	214.29	5
CM07-1540	84	CPO	A	45.5	40	23.86	2311	2311.40	48.08	9.79	0.983	9.62	192.32	5
CM07-1540	90	CPO	A	45.5	40	16.46	2311	2311.40	48.08	6.75	0.983	6.63	132.64	5
CM07-1540	90	CPO	A	45.5	42	21.94	2427	2426.97	49.26	8.57	0.993	8.51	170.25	5
CM07-1540	90	CPO	A	45.5	42	23.76	2427	2426.97	49.26	9.28	0.993	9.22	184.38	5
CM07-1540	96	CPO	A	45.5	40.5	23.00	2340	2340.29	48.38	9.32	0.985	9.18	183.60	5
CM07-1540	96	CPO	A	45.5	34	23.58	1965	1964.69	44.32	11.38	0.947	10.78	215.55	5
CM07-1540	96	CPO	A	45.5	35	24.04	2022	2022.48	44.97	11.27	0.953	10.74	214.89	5
CM07-1540	102	CPO	A	45.5	38.5	23.30	2225	2224.72	47.17	9.93	0.974	9.67	193.41	5
CM07-1540	102	CPO	A	45.5	36	26.06	2080	2080.26	45.61	11.88	0.959	11.40	227.91	5
CM07-1540	108	CPO	A	45.5	40.5	17.64	2340	2340.29	48.38	7.14	0.985	7.04	140.78	5
CM07-1540	108	CPO	A	45.5	40	17.74	2311	2311.40	48.08	7.28	0.983	7.15	142.97	5
CM07-1540	108	CPO	A	45.5	42	23.54	2427	2426.97	49.26	9.19	0.993	9.13	182.67	5
CM07-1540	111	CPO	A	45.5	34	15.64	1965	1964.69	44.32	7.55	0.947	7.15	142.94	5
CM07-1540	111	CPO	A	45.5	38	18.02	2196	2195.83	46.86	7.78	0.971	7.56	151.14	5
CM07-1540	111	CPO	A	45.5	35	22.08	2022	2022.48	44.97	10.35	0.953	9.87	197.33	5
CM07-1540	117	CPO	A	45.5	35	19.86	2022	2022.48	44.97	9.31	0.953	8.87	177.48	5
CM07-1540	117	CPO	A	45.5	34.5	21.06	1994	1993.58	44.65	10.02	0.950	9.52	190.38	5
CM07-1540	117	CPO	A	45.5	40.5	23.14	2340	2340.29	48.38	9.37	0.985	9.23	184.70	5
CM07-1540	123	CPO	A	45.5	32.5	18.16	1878	1878.01	43.34	9.17	0.938	8.60	171.92	5
CM07-1540	123	CPO	A	45.5	37.5	19.17	2167	2166.94	46.55	8.39	0.968	8.12	162.40	5
CM07-1540	123	CPO	A	45.5	34	20.20	1965	1964.69	44.32	9.75	0.947	9.23	184.67	5
CM07-1540	128	CPO	A	45.5	37	18.70	2138	2138.05	46.24	8.29	0.965	8.00	160.08	5
CM07-1540	128	CPO	A	45.5	40.5	20.22	2340	2340.29	48.38	8.19	0.985	8.07	161.42	5
CM07-1540	128	CPO	A	45.5	40	23.36	2311.4	2311.40	48.08	9.58	0.983	9.41	188.26	5
GT07-02	78	CPO	A	45.5	42	17.18	2426.97	2426.97	49.26	6.71	0.993	6.67	133.33	5
GT07-02	78	CPO	A	45.5	43	17.48	2484.755	2484.76	49.85	6.67	0.999	6.66	133.18	5
GT07-02	84	CPO	A	45.5	42.5	15.12	2455.8625	2455.86	49.56	5.84	0.996	5.81	116.27	5
GT07-02	84	CPO	A	45.5	43.5	18.70	2513.6475	2513.65	50.14	7.05	1.001	7.06	141.21	5
GT07-02	96	CPO	A	45.5	45	19.40	2600.325	2600.33	50.99	7.07	1.009	7.14	142.72	5
GT07-02	96	CPO	A	45.5	43	24.28	2484.755	2484.76	49.85	9.26	0.999	9.25	185.04	5
GT07-02	102	CPO	A	45.5	44	13.34	2542.54	2542.54	50.42	4.97	1.004	4.99	99.87	4
GT07-02	102	CPO	A	45.5	41.5	18.60	2398.0775	2398.08	48.97	7.35	0.991	7.29	145.70	5
GT07-02	102	CPO	A	45.5	42.5	24.52	2455.8625	2455.86	49.56	9.46	0.996	9.43	188.53	5
GT07-02	102	CPO	A	45.5	42.5	25.70	2455.8625	2455.86	49.56	9.92	0.996	9.88	197.59	5
GT07-02	108	CPO	A	45.5	43	23.12	2484.755	2484.76	49.85	8.82	0.999	8.81	176.16	5
GT07-02	108	CPO	A	45.5	43	25.06	2484.755	2484.76	49.85	9.56	0.999	9.55	190.98	5
GT07-02	120	CPO	A	45.5	42	23.04	2426.97	2426.97	49.26	9.00	0.993	8.94	178.81	5
GT07-02	120	CPO	A	45.5	43	24.10	2484.755	2484.76	49.85	9.19	0.999	9.18	183.62	5
GT07-02	126	CPO	A	45.5	41.5	23.54	2398.0775	2398.08	48.97	9.31	0.991	9.22	184.37	5
GT07-02	186	CPO	A	45.5	43	18.50	2484.755	2484.76	49.85	7.06	0.999	7.05	140.96	5
GT07-02	192	CPO	A	45.5	43	12.22	2484.755	2484.76	49.85	4.66	0.999	4.65	93.10	4

Diametral Point Load Testing Data
SPO (N = 20)

Hole Number	Depth	Lithology	Test Type	D, mm	Guage Load	De**2 (mm2)	De**2	De	Is	Fs	Is50	UCS	ISRM R
	m		(D, A, L, or S)	(Separation)	(MPa)	Complete Core	final	(mm)	(MPa)		(MPa)	(MPa)	Index
CM07-1446	51	SPO	D	47.5	9.42	2256	2256.25	47.50	3.96	0.977	3.87	77.34	4
CM07-1446	51	SPO	D	47.5	17.28	2256	2256.25	47.50	7.26	0.977	7.09	141.88	5
CM07-1446	51	SPO	D	47.5	25.10	2256	2256.25	47.50	10.54	0.977	10.30	206.09	5
CM07-1446	57	SPO	D	47.5	14.14	2256	2256.25	47.50	10.54	0.977	10.30	206.09	5
CM07-1446	63	SPO	D	47.5	20.06	2256	2256.25	47.50	5.94	0.977	5.81	116.12	5
CM07-1446	63	SPO	D	47.5	20.40	2256	2256.25	47.50	8.43	0.977	8.23	164.70	5
CM07-1446	63	SPO	D	47.5	24.08	2256	2256.25	47.50	8.57	0.977	8.38	167.53	5
CM07-1446	63	SPO	D	47.5	28.52	2256	2256.25	47.50	8.43	0.977	8.23	164.70	5
CM07-1446	69	SPO	D	47.5	21.80	2256	2256.25	47.50	8.57	0.977	8.38	167.53	5
CM07-1446	69	SPO	D	47.5	29.34	2256	2256.25	47.50	10.12	0.977	9.89	197.76	5
CM07-1446	69	SPO	D	47.5	31.00	2256	2256.25	47.50	10.12	0.977	9.89	197.76	5
CM07-1446	75	SPO	D	47.5	21.96	2256	2256.25	47.50	11.98	0.977	11.71	234.17	5
CM07-1446	75	SPO	D	47.5	24.04	2256	2256.25	47.50	9.16	0.977	8.95	179.02	5
CM07-1446	75	SPO	D	47.5	27.32	2256	2256.25	47.50	12.33	0.977	12.05	240.90	5
CM07-1446	111	SPO	D	47.5	13.78	2256	2256.25	47.50	9.16	0.977	8.95	179.02	5
CM07-1446	111	SPO	D	47.5	16.04	2256	2256.25	47.50	12.33	0.977	12.05	240.90	5
CM07-1446	111	SPO	D	47.5	28.58	2256	2256.25	47.50	13.02	0.977	12.73	254.55	6
CM07-1446	111	SPO	D	47.5	29.06	2256	2256.25	47.50	9.23	0.977	9.02	180.32	5
CM07-1446	141	SPO	D	47.5	15.86	2256	2256.25	47.50	10.10	0.977	9.87	197.42	5
CM07-1446	141	SPO	D	47.5	16.36	2256	2256.25	47.50	5.79	0.977	5.66	113.18	5
CM07-1446	141	SPO	D	47.5	18.94	2256	2256.25	47.50	12.21	0.977	11.93	238.64	5
CM07-1446	141	SPO	D	47.5	19.88	2256	2256.25	47.50	6.66	0.977	6.51	130.22	5

Axial Point Load Testing Data
SPO (N = 20)

Hole Number	Depth	Lithology	Test Type	D, mm	W,mm	Guage Load	De**2 (mm2)	De**2	De	Is	Fs	Is50	UCS	ISRM R
	m		(D, A, L, or S)	(Separation)	Axial and Lump Tests	(MPa)	Complete Core	final	(mm)	(MPa)		(MPa)	(MPa)	Index
CM07-1446	51	SPO	A	47.5	40	15.86	2413	2413.00	49.12	6.23	0.992	6.18	123.61	5
CM07-1446	51	SPO	A	47.5	39.5	23.40	2383	2382.84	48.81	9.31	0.989	9.21	184.20	5
CM07-1446	57	SPO	A	47.5	39	16.98	2353	2352.68	48.50	6.84	0.986	6.75	135.00	5
CM07-1446	63	SPO	A	47.5	40	16.20	2353	2352.68	48.50	6.84	0.986	6.75	135.00	5
CM07-1446	63	SPO	A	47.5	42	16.46	2413	2413.00	49.12	6.37	0.992	6.32	126.30	5
CM07-1446	63	SPO	A	47.5	39.5	18.16	2534	2533.65	50.34	6.16	1.003	6.18	123.53	5
CM07-1446	69	SPO	A	47.5	27	16.28	2383	2382.84	48.81	7.23	0.989	7.15	142.95	5
CM07-1446	69	SPO	A	47.5	40	23.02	2534	2533.65	50.34	6.16	1.003	6.18	123.53	5
CM07-1446	69	SPO	A	47.5	38	24.14	2383	2382.84	48.81	7.23	0.989	7.15	142.95	5
CM07-1446	75	SPO	A	47.5	35	17.32	1629	1628.78	40.36	9.47	0.908	8.60	172.08	5
CM07-1446	75	SPO	A	47.5	35	22.06	1629	1628.78	40.36	9.47	0.908	8.60	172.08	5
CM07-1446	75	SPO	A	47.5	34.5	23.58	2413	2413.00	49.12	9.04	0.992	8.97	179.45	5
CM07-1446	111	SPO	A	47.5	40.5	19.10	2292	2292.35	47.88	9.98	0.981	9.79	195.79	5
CM07-1446	111	SPO	A	47.5	42.5	23.86	2111	2111.38	45.95	7.78	0.963	7.49	149.73	5
CM07-1446	141	SPO	A	47.5	41	21.60	2292	2292.35	47.88	9.98	0.981	9.79	195.79	5
CM07-1446	141	SPO	A	47.5	40	22.22	2111	2111.38	45.95	7.78	0.963	7.49	149.73	5
CM07-1446	141	SPO	A	47.5	41	24.64	2111	2111.38	45.95	9.91	0.963	9.54	190.74	5

Diametral Point Load Testing Data
SCH (N=15)

Hole Number	Depth	Lithology	Test Type	D, mm	Guage Load	De**2 (mm2)	De**2	De	Is	Fs	Is50	UCS	ISRM R
	m		(D, A, L, or S)	(Separation)	(MPa)	Complete Core	final	(mm)	(MPa)		(MPa)	(MPa)	Index
GT07-04	84	SCH	D	45.5	15.16	2070	2070.25	45.50	6.94	0.958	6.65	99.81	4
GT07-04	84	SCH	D	45.5	14.90	2070	2070.25	45.50	6.82	0.958	6.54	98.09	4
GT07-04	84	SCH	D	45.5	20.16	2070	2070.25	45.50	9.23	0.958	8.85	132.72	5

Axial Point Load Testing Data
SCH (N = 15)

Hole Number	Depth	Lithology	Test Type	D, mm	W,mm	Guage Load	De**2 (mm2)	De**2	De	Is	Fs	Is50	UCS	ISRM R
	m		(D, A, L, or S)	(Separation)	Axial and Lump Tests	(MPa)	Complete Core	final	(mm)	(MPa)		(MPa)	(MPa)	Index
GT07-04	84	SCH	A	45.5	42.5	25.92	2456	2455.86	49.56	10.00	0.996	9.96	149.47	5
GT07-04	84	SCH	A	45.5	44	24.96	2543	2542.54	50.42	9.31	1.004	9.34	140.12	5
GT07-04	84	SCH	A	45.5	49.5	9.60	2860	2860.36	53.48	3.18	1.031	3.28	49.18	3

APPENDIX C

LABORATORY TESTING DATA

DEPARTMENT OF
MINING ENGINEERING

Goodwin Hall
Queen's University
Kingston, Ontario, Canada K7L 3N6
Tel 613 533-2230
Fax 613 533-6597

February 6, 2008

Mr. Simon Beaulieu
Golder Associates Limited
9200, l'Acadie Blvd., Suite 10
Montreal, QC
H4N 2T2

Re: Your Project #07-1221-0028-2000-2300 (Osisko Project)

Dear Mr. Beaulieu:

Nine (9) sections of core were received from which seventeen (17) core samples were prepared for the purpose of conducting unconfined and confined compressive strength testing within the Rock Mechanics Laboratory of the Department of Mining Engineering, Queen's University at Kingston. All specimens were transported to Kingston and were subsequently machined and tested according to instructions received from you.

A summary of sample failure test results is tabled and included, as is a separate summary billing statement for work that has been completed.

Should you require any additional information concerning work that has been performed, please do not hesitate to contact me by telephone at (613)-545-2198 or by FAX at (613)-545-6597.

Yours sincerely,

J. F. Archibald, Ph.D., P. Eng

Results of Core Sample Failure Tests (Project #07-1221-0028-2000-2300) – Osisko

Sample Hole (depth)	#	Density (g/cm^3)	UCS (MPa)	Young's Modulus (GPa)	Poisson's ratio	σ_1 (MPa)	σ_3 (MPa)
GT07-03 (49.95-50.50)	1-1	2.73	202.6	54.430	0.18	---	---
GT07-03 (49.95-50.50)	1-2	2.75	155.4	54.132	0.19	---	---
GT07-03 (142.90-144.05)	2-1	2.70	211.4	52.890	0.23	---	---
GT07-03 (142.90-144.05)	2-2	2.69	169.4 (pf)	52.997	0.20	---	---
GT07-03 (142.90-144.05)	2-3	2.80	90.8 (pf)	51.256	0.22	---	---
GT07-03 (142.90-144.05)	2-4	2.71	78.3 (pf)	26.425	0.17	---	---
GT07-03 (179.15-179.59)	3-1	2.80	111.4	45.001	0.20	---	---
GT07-03 (179.15-179.59)	3-2	2.80	100.1	42.215	0.23	---	---
GT07-03 (221.40-222.05)	4-1	2.80	---	22.333	---	98.3 (f)	2
GT07-03 (221.40-222.05)	4-2	2.78	---	27.935	---	154.0 (f)	5
GT07-03 (221.40-222.05)	4-3	2.79	---	33.724	---	227.1	10
CM07-1540 (23.56-23.76)	5-1	2.74	37.7 (f)	20.709	0.12	---	---
CM07-1540 (70.24-70.49)	6-1	2.65	113.0	31.641	0.14	---	---
CM07-1540 (110.04-110.29)	7-1	2.62	176.8	44.687	0.18	---	---
CM07-1540 (110.30-110.52)	8-1	2.66	90.0	28.316	0.19	---	---
CM07-1540 (123.60-124.07)	9-1	2.64	191.2	43.326	0.19	---	---
CM07-1540 (123.60-124.07)	9-2	2.64	133.6	38.868	0.18	---	---

(f) - indicates failure to have occurred along pre-existing foliation surface
(pf) - indicates failure to have occurred partially along pre-existing foliation surface

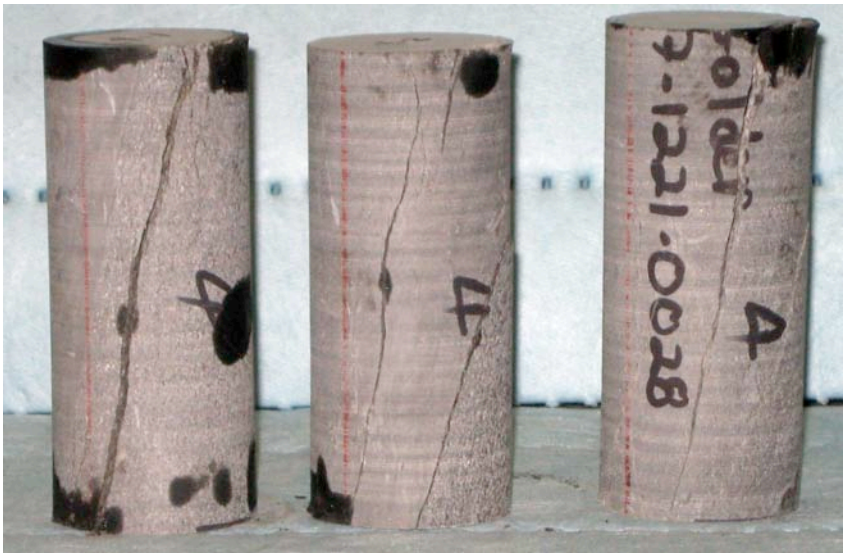
Photographs of Core Sample Materials

As-Received Core Samples

Pre-Test UCS Specimens

Post-Test UCS Specimens

Pre-Test Triaxial Confined Specimens



Post-Test Triaxial Confined Specimens

Queen's UNIVERSITY

DEPARTMENT OF
MINING ENGINEERING

Goodwin Hall
Queen's University
Kingston, Ontario, Canada K7L 3N6
Tel 613 533-2230
Fax 613 533-6597

April 21, 2008

Mr. Simon Beaulieu
Golder Associates Limited
9200, l'Acadie Blvd., Suite 10
Montreal, QC
H4N 2T2

Re: Your Project #07-1221-0028 (Osisko Project Set #2)

Dear Mr. Beaulieu:

Five (5) boxes of core were received from which sixty-six (66) core samples were prepared for the purpose of conducting unconfined and confined compressive strength testing within the Rock Mechanics Laboratory of the Department of Mining Engineering, Queen's University at Kingston. An additional 10 core lengths (9 already sheared) were shipped for the purpose of direct shear strength testing. All specimens, as received, were subsequently machined and tested according to instructions received from you.

A summary of sample failure test results is tabled and included, as is a separate summary billing statement for work that has been completed.

Should you require any additional information concerning work that has been performed, please do not hesitate to contact me by telephone at (613)-545-2198 or by FAX at (613)-545-6597.

Yours sincerely,

J. F. Archibald

J. F. Archibald, Ph.D., P. Eng

Results of Core Sample Failure Tests (Project #07-1221-0028) – Osisko Set #2

Sample Hole (depth)	#	Density (g/cm^3)	UCS (MPa)	Young's Modulus (GPa)	Poisson's ratio	σ_1 (MPa)	σ_3 (MPa)
UNCONFINED COMPRESSION							
GT-07-01 (152.30-152.70)	a	2.75	184.0	53.936	0.14	---	---
GT-07-01 (152.30-152.70)	b	2.77	152.4 (pf)	56.076	0.18	---	---
GT-07-03 (04?) (103.79-103.96)		2.72	125.0	56.343	0.14	---	---
GT-07-02 (05?) (250.20-250.50)	a	2.75	42.1 (pf)	30.145	0.22	---	---
GT-07-02 (05?) (250.20-250.50)	b	2.73	81.3	35.641	0.15	---	---
GT-07-05 (361.99-362.25)		2.70	87.9	33.466	0.20	---	---
GT-07-02 (109.32-109.60)	a	2.68	208.1	49.911	0.16	---	---
GT-07-02 (109.32-109.60)	b	2.69	207.3	48.683	0.20	---	---
GT-07-02 (114.27-114.52)		2.68	150.5	47.697	0.15	---	---
GT-07-02 (121.60-121.82)		2.68	209.0	46.569	0.15	---	---
GT-07-02 (194.22-194.52)	a	2.70	236.0	55.301	0.17	---	---
GT-07-02 (194.22-194.52)	b	2.69	147.2	43.820	0.23	---	---
GT-07-05 (246.72-246.95)		2.92	65.0 (f)	26.811	0.15	---	---
GT-07-04 (10.26-10.51)		2.60	129.2	39.975	0.17	---	---
GT-07-05 (43.08-43.32)		2.65	71.3 (f)	59.312	0.10	---	---
GT-07-05 (38.82-39.00)		2.62	118.9	44.040	0.19	---	---
GT-07-04 (9.42-9.60)		2.59	138.2	53.262	0.10	---	---
GT-07-04 (10.49-10.71)		2.55	70.6 (pf)	35.147	0.18	---	---
GT-07-04 (17.60-17.90)	a	2.71	197.5	51.780	0.16	---	---
GT-07-04 (17.60-17.90)	b	2.68	186.0	58.197	0.20	---	---
GT-07-05 (64.66-65.07)	a	2.71	167.9 (pf)	53.572	0.17	---	---
GT-07-05 (64.66-65.07)	b	2.72	219.9	53.343	0.17	---	---
GT-07-05 (64.66-65.07)	c	2.72	118.2 (pf)	46.619	0.16	---	---
GT-07-05 (98.00-98.25)		2.74	87.8 (pf)	38.691	0.13	---	---
GT-07-02 (204.88-205.25)	a	2.66	179.4	56.645	0.12	---	---
GT-07-02 (204.88-205.25)	b	2.66	187.1 (pf)	58.582	0.18	---	---
GT-07-05 (344.73-345.00)		2.69	30.6 (f)	14.705	0.29	---	---

(f) - indicates failure to have occurred along pre-existing foliation surface

(pf) - indicates failure to have occurred partially along pre-existing foliation surface

Sample Hole (depth)	#	Density (g/cm^3)	UCS (MPa)	Young's Modulus (GPa)	Poisson's ratio	σ_1 (MPa)	σ_3 (MPa)
TRIAXIAL CONFINED							
GT-07-02 (160.71-161.32)	a	2.75	---	54.920	---	444.5 (pf)	14
GT-07-02 (160.71-161.32)	b	2.77	---	56.732	---	470.7	25
GT-07-02 (160.71-161.32)	c	2.75	---	50.791	---	422.6	35
GT-07-02 (213.50-214.28)	a	2.75	---	47.640	---	196.1 (f)	14
GT-07-02 (213.50-214.28)	b	2.76	---	54.488	---	296.5 (f)	25
GT-07-02 (213.50-214.28)	c	2.75	---	51.845	---	276.2 (f)	35
GT-07-04 (01?) (135.11-135.80)	a	2.80	---	49.088	---	216.1	14
GT-07-04 (01?) (135.11-135.80)	b	2.81	---	49.332	---	261.4 (pf)	25
GT-07-04 (01?) (135.11-135.80)	c	2.81	---	51.700	---	280.5	35
GT-07-05 (01?) (363.34-363.84)	a	2.70	---	50.958	---	249.6	14
GT-07-05 (01?) (363.34-363.84)	b	2.71	---	55.254	---	271.0 (pf)	25
GT-07-05 (01?) (363.34-363.84)	c	2.69	---	51.291	---	202.5 (pf)	35
GT-07-02 (115.07-115.79)	a	2.68	---	55.153	---	396.5	14
GT-07-02 (115.07-115.79)	b	2.68	---	56.559	---	512.0	25
GT-07-02 (115.07-115.79)	c	2.68	---	58.167	---	526.0	35
GT-07-02 (115.07-115.79)	d	2.67	---	54.254	---	395.8	14
GT-07-02 (115.07-115.79)	e	2.67	---	56.106	---	468.6	25
GT-07-02 (184.78-185.54)	a	2.68	---	58.337	---	202.7	14
GT-07-02 (184.78-185.54)	b	2.68	---	57.620	---	416.9 (pf)	25
GT-07-02 (184.78-185.54)	c	2.69	---	53.877	---	310.9 (f)	35
GT-07-02 (106.86-107.27)	a	2.67	---	53.877	---	318.1	14
GT-07-02 (106.86-107.27)	b	2.67	---	54.105	---	503.7 (pf)	25
GT-07-02 (106.86-107.27)	c	2.68	---	57.081	---	544.2	35
GT-07-04 (216.71-217.13)	a	2.75	---	38.628	---	113.3 (f)	14
GT-07-04 (216.71-217.13)	b	2.76	---	43.542	---	159.4 (f)	25
GT-07-04 (216.71-217.13)	c	2.76	---	43.748	---	174.4 (f)	35
GT-07-05 (43.61-44.37)	a	2.71	---	50.863	---	224.9 (pf)	14
GT-07-05 (43.61-44.37)	b	2.69	---	64.287	---	573.3	25
GT-07-05 (43.61-44.37)	c	2.69	---	58.139	---	479.8 (pf)	35
GT-07-05 (43.61-44.37)	d	2.70	---	54.052	---	285.5	14
GT-07-05 (43.61-44.37)	e	2.70	---	56.471	---	348.1 (f)	25

(f) - indicates failure to have occurred along pre-existing foliation surface

(pf) - indicates failure to have occurred partially along pre-existing foliation surface

Sample Hole (depth)	#	Density (g/cm^3)	UCS (MPa)	Young's Modulus (GPa)	Poisson's ratio	σ_1 (MPa)	σ_3 (MPa)
TRIAXIAL CONFINED							
GT-07-01 (94.60-94.97)	a	2.66	---	56.864	---	375.1	14
GT-07-01 (94.60-94.97)	b	2.66	---	60.119	---	394.3 (pf)	25
GT-07-01 (94.60-94.97)	c	2.67	---	59.478	---	478.6 (f)	35
GT-07-01 (95.11-95.35)	a	2.68	---	62.029	---	443.2	14
GT-07-02 (91.21-92.08)	a	2.67	---	62.115	---	482.8	14
GT-07-02 (91.21-92.08)	b	2.67	---	55.095	---	423.1 (pf)	25
GT-07-02 (91.21-92.08)	c	2.67	---	53.749	---	393.2	35
GT-07-02 (91.21-92.08)	d	2.66	---	50.554	---	382.1	14
GT-07-02 (91.21-92.08)	e	2.64	---	54.156	---	576.2 (pf)	25
GT-07-02 (91.21-92.08)	f	2.70	---	60.593	---	470.1 (pf)	35

(f) - indicates failure to have occurred along pre-existing foliation surface
(pf) - indicates failure to have occurred partially along pre-existing foliation surface

DIRECT SHEAR STRENGTH TEST RESULTS

Sample # 1 GT07-04 (189.09-189.66) Bedding	Normal Stress (MPa)	Shear Stress (MPa)
	1.0	1.1
	1.9	1.6
	2.9	1.9
Residual Strength Data	3.9	2.6
	4.9	2.7
Cohesion = 0.553 MPa	5.8	3.1
Int. Friction Angle = 25.6°	6.8	3.6
	7.8	3.9
$r^2 = 0.978$	8.7	4.7
	9.7	5.2
	10.7	5.6
	11.6	6.6

Sample #2 GT07-02 (159.05-159.35) Chl. Coat	Normal Stress (MPa)	Shear Stress (MPa)
	2.8	1
	5.5	2.1
	8.3	3.5
Residual Strength Data	11.1	4.7
	13.9	7.7
Cohesion = 0.853 MPa	16.6	7.8
Int. Friction Angle = 19.4°	19.4	8.7
	22.2	9.8
$r^2 = 0.874$	24.9	7.2
	27.7	9.2
	33.2	12.2

Sample # 3 GT07-02 (165.00-165.33) Chl. Coat	Normal Stress (MPa)	Shear Stress (MPa)
	2.6	1.6
	5.3	2.2
	7.9	3.6
Residual Strength Data	10.5	5.0
	13.2	6.9
Cohesion = 0.896 MPa	15.8	6.7
Int. Friction Angle = 19.5°	18.5	7.4
	21	7.8
$r^2 = 0.949$	23.7	8.9
	26.4	10.5
	29	11.1
	31.6	11.6

Sample #4 GT07-04 (141.21-141.50) Chl. Coat	Normal Stress (MPa)	Shear Stress (MPa)
	2.6	0.8
	5.1	2.5
	7.7	3.3
Residual Strength Data	10.3	4.5
	12.9	6.1
Cohesion* = 0 MPa	23.1	11.5
Int. Friction Angle = 31.2°	25.7	14.3
	28.3	16.3
r^2 = 0.986	30.9	18.3
	15.4	7.2
* - inferred		

Sample #5 GT07-05 (213.00-213.50) Foliation	Normal Stress (MPa)	Shear Stress (MPa)
	1.9	1.2
	3.9	2.0
	5.8	3.1
Residual Strength Data	7.8	4.8
	9.7	5.0
Cohesion = 0.016 MPa	11.6	5.5
Int. Friction Angle = 27.3°	13.6	6.4
	15.5	7.5
r^2 = 0.984	17.5	8.6
	19.4	10.2
	21.3	11.3
	23.3	12.6

Sample # 6 GT07-02 (89.00-89.25) Foliation	Normal Stress (MPa)	Shear Stress (MPa)
	2.2	1.3
	4.5	4.2
	6.7	5.2
Residual Strength Data	9.0	6.7
	11.2	9.0
Cohesion = 1.290 MPa	13.5	9.5
Int. Friction Angle = 29.7°	15.7	10.0
	18.0	11.1
r^2 = 0.978	20.2	12.3
	22.4	13.4
	24.7	15.2
	26.9	17.3

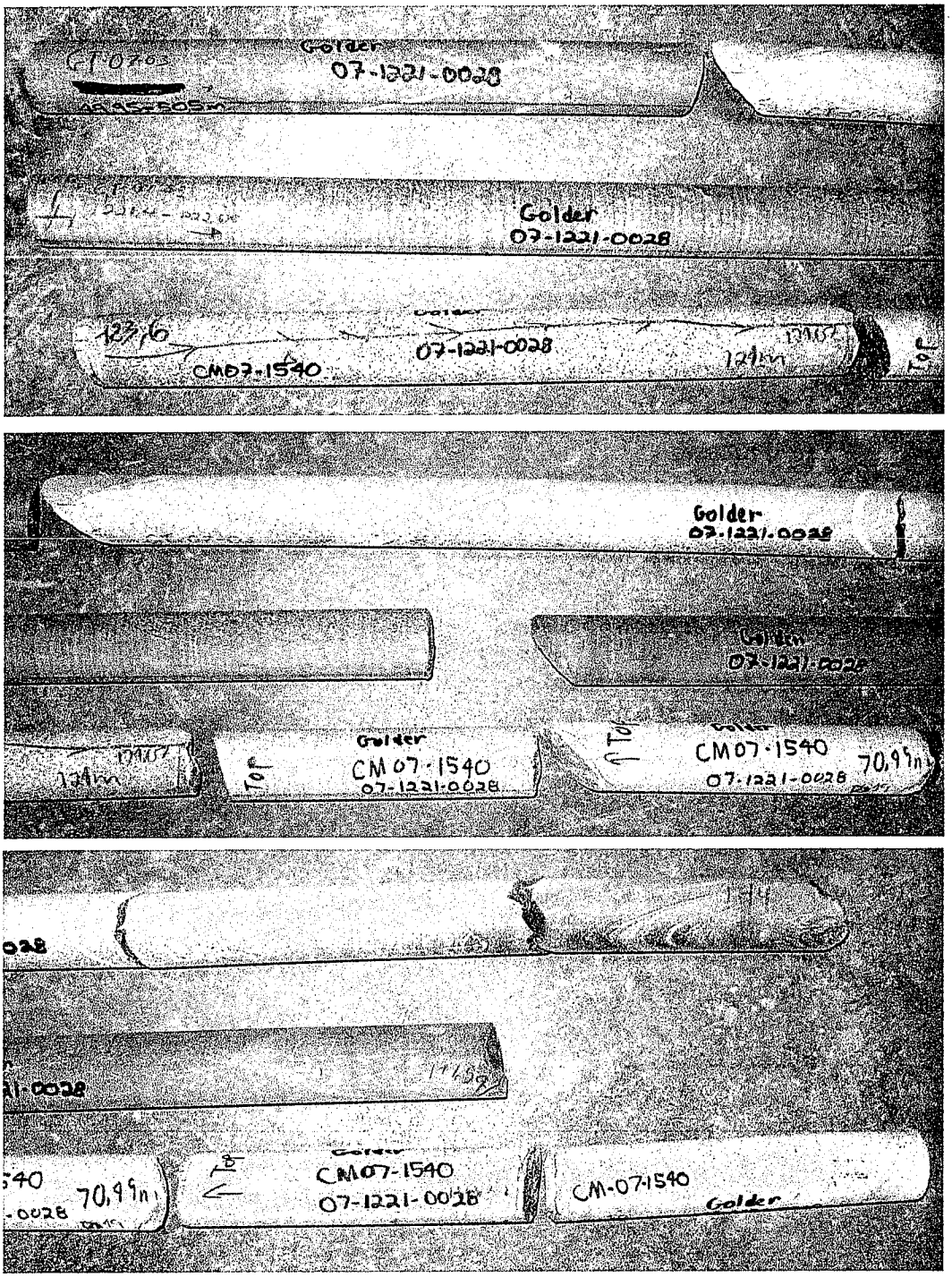
Sample #7 GT07-04 (205.09-205.33) Foliation	Normal Stress (MPa)	Shear Stress (MPa)
	1.3	0.7
	2.7	1.7
	4.0	2.6
Residual Strength Data	5.3	3.6
	6.7	4.1
Cohesion = 0.184 MPa	8.0	4.2
Int. Friction Angle = 28.1°	9.3	5.0
	10.7	5.6
r^2 = 0.982	12.0	6.4
	13.3	7.3
	14.7	8.4
	16.0	9.1

Sample #8 GT07-04 (189.09-189.66) Foliation	Normal Stress (MPa)	Shear Stress (MPa)
* - **Intact sample failure data**	1.22*	32.4*
	2.4	3.9
Residual Strength Data	4.9	6.8
	7.3	9.5
Cohesion = 0.789 MPa	9.8	13.1
Int. Friction Angle = 51.2°	12.2	14.9
	14.6	19.4
r^2 = 0.984	17.1	24.3
	22.0	26.1
	24.4	31.7

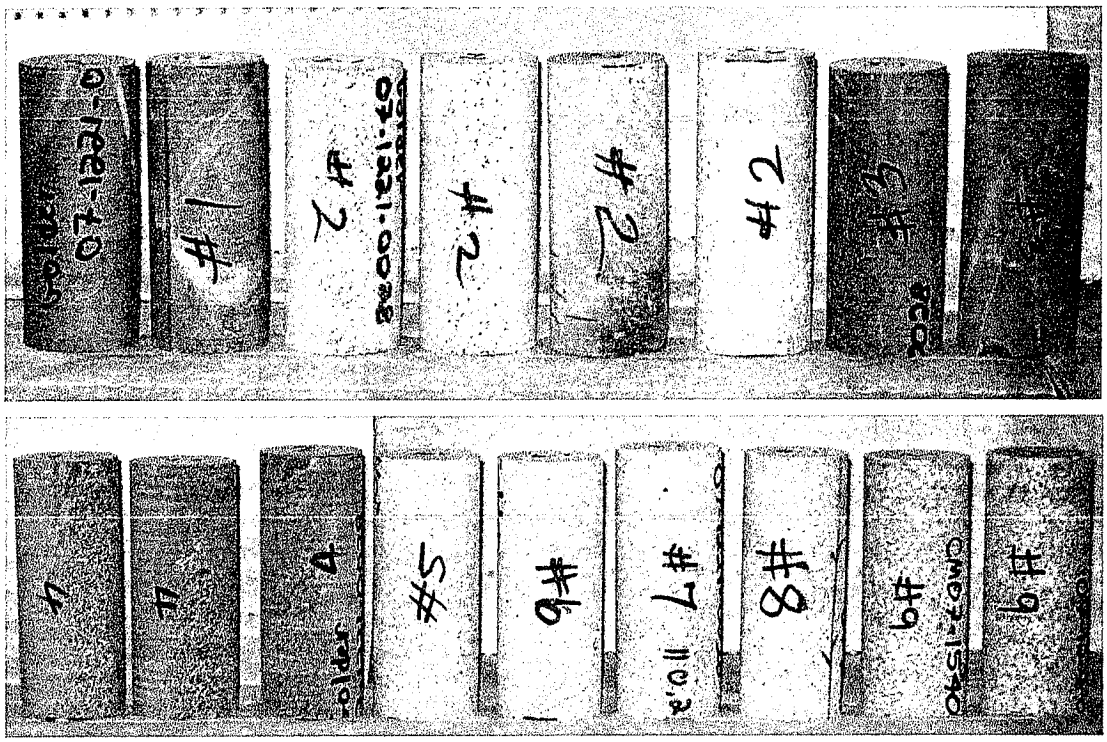
Sample #9 GT07-04 (227.55-227.99) Foliation	Normal Stress (MPa)	Shear Stress (MPa)
	1.6	0.6
	3.3	2.8
	4.9	4.3
Residual Strength Data	6.6	5.5
	8.2	5.5
Cohesion = 0.454 MPa	9.8	6.3
Int. Friction Angle = 33.6°	11.5	7.8
	13.1	9.1
r^2 = 0.980	14.8	10.4
	16.4	11.1
	18.0	12.3
	19.7	13.5

Sample #10 GT07-04 (232.00-232.33) Foliation	Normal Stress (MPa)	Shear Stress (MPa)
	1.8	0.9
	3.6	2.2
	5.5	3.1
Residual Strength Data	7.3	4.3
	9.1	4.9
Cohesion* = 0 MPa	10.9	5.9
Int. Friction Angle = 30.6°	12.7	7.2
	14.6	8.3
r^2 = 0.996	16.4	9.4
	18.2	10.8
	20.0	11.9
* - inferred		

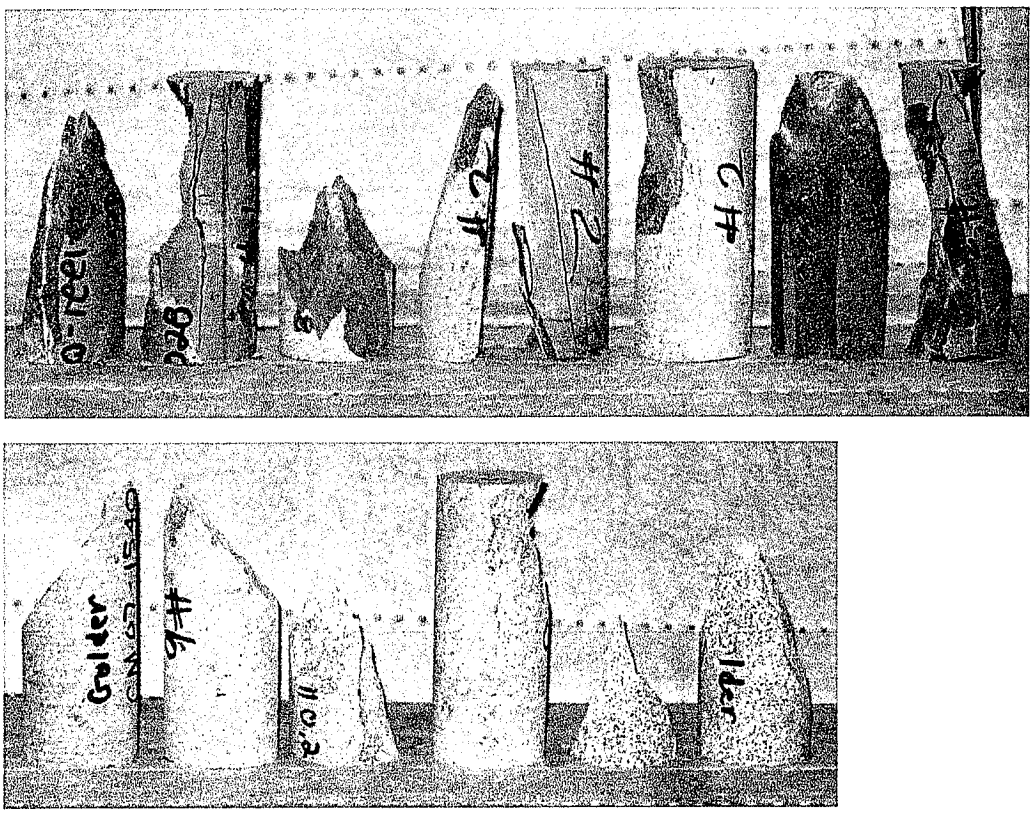
Photographs of Core Sample Materials



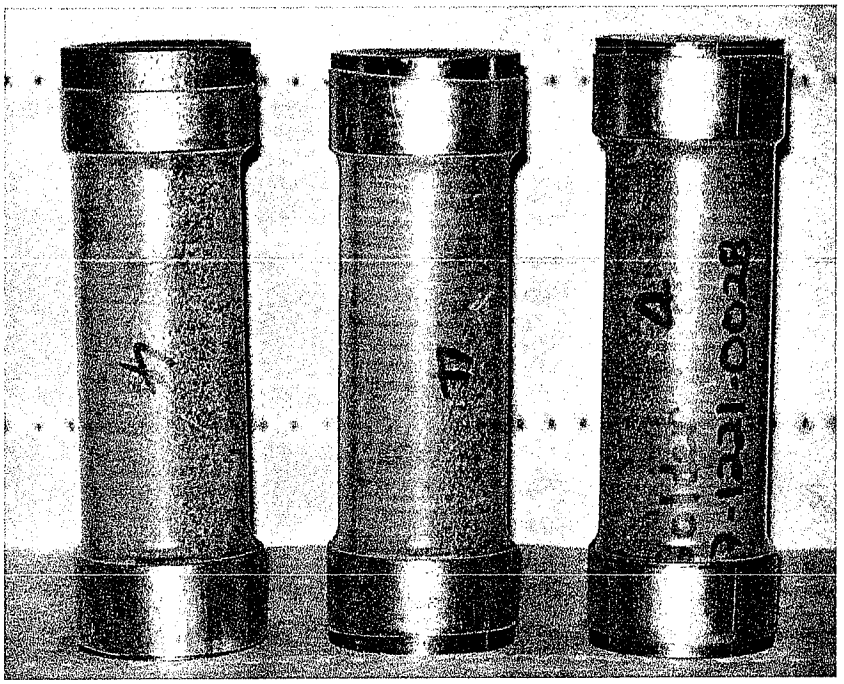
As-Received Core Samples



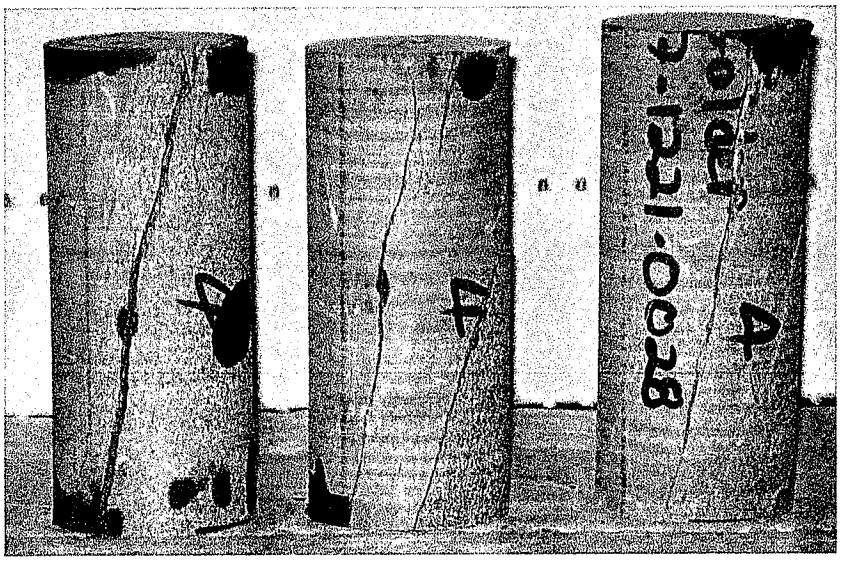
Pre-Test UCS Specimens



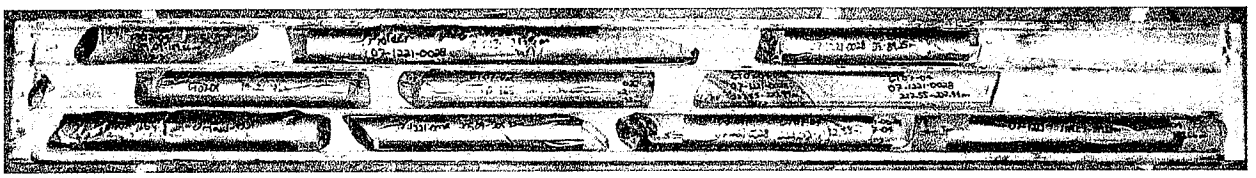
Post-Test UCS Specimens



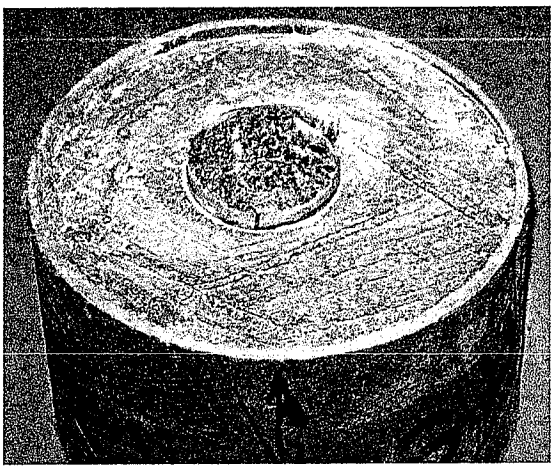
Typical Pre-Test Triaxial Confined Specimens

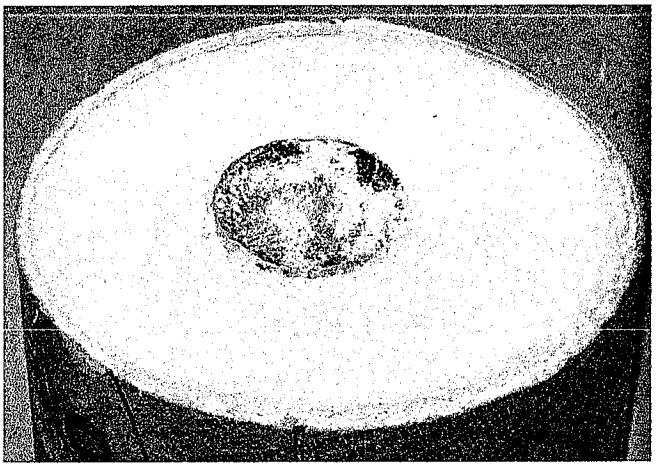


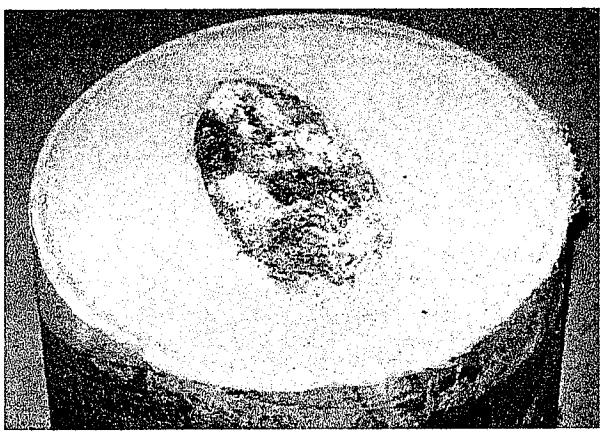
Typical Post-Test Triaxial Confined Specimens

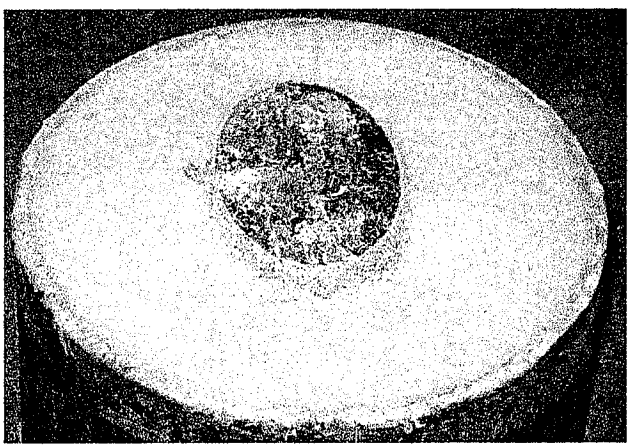


Pre-Test Direct Shear Specimens









Typical Post-Test Direct Shear Specimens

APPENDIX D

TELEVIEWER STRUCTURAL DATA

APPENDIX D.1

GOLDER TELEVIEWER REPORT

Golder Associates Ltd.

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Mississauga, Ontario, Canada L5N 5Z7
Telephone: (905) 567-4444
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REPORT FOR

GEOPHYSICAL BOREHOLE LOGGING
OPTICAL AND ACOUSTIC TELEVIEWER
MALARTIC SITE – QUEBEC, CANADA

Submitted to:
Golder Associates Ltd.
9200, Boulevard de l'Acadie
Montreal, Quebec
H4N 2T2

DISTRIBUTION:

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February 25, 2008 07-1221-0028

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1.0 INTRODUCTION

This report is to provide the results of a borehole geophysical logging programme carried out at the Malartic site in the Province of Quebec. Golder Associates Ltd. (Golder) completed this work for the Montreal, Quebec Golder office working for Osisko Exploration Ltd. as part of the pre-feasibility investigation.

Geophysical logging included data collection, processing and reporting for caliper, optical televiewer and acoustic televiewer probes. Logs were collected in boreholes CM07-1377, CM07-1446, CM07-1490 and CM07-1500 in Malartic, QC. The locations of these boreholes are shown in plan on Figure 1 and a summary of the logged intervals is provided in Table 1.

1.1 Scope

The original scope of work called for borehole geophysical logging with optical, acoustic televiewer and caliper probes according to the following list.

Borehole	Depth (m)	Dip (degree)	Dip direction (degree)
CM07-1377	124.86	45	182
CM07-1446	158.15	74	182
CM07-1490	146.05	85.5	2
CM07-1500	134.32	70	2

A complication to the logging programme was that the cable was damaged before performing measurements in the second hole. A dummy probe used to check the boreholes prior to logging became lodged in an unexpected cavity. When retrieved, the cable was kinked at several locations. At this point, the cable was checked, tested and determined to be operating correctly. After discussion with the Montreal, Quebec Golder office, it was decided to continue the field programme without replacing the cable. However, there was a intermittent error that affected recording data for measuring azimuth in the borehole.

As noted, the primary purpose of the logging was to acquire optical and acoustic televiewer logs to provide data for orientation (depth, dip and dip direction) of geological contacts, foliation and fractures that intersect the walls of the boreholes. For this Golder Associates used the OBI40 probe (optical televiewer) and the ABI40 probe (acoustic televiewer) manufactured by Advanced Logic Technology (ALT). In addition, calliper logs were acquired with the CLP-2380 probes

manufactured by Mount Sopris Instruments Co., Ltd. The draw-works (winch) and electronics (MGXII analog-to-digital interface) with a 700 metre capacity, also manufactured by Mount Sopris, were used to move the probes in the boreholes and acquire data.

Caliper logs were acquired after testing with the dummy probe. These data were acquired to measure borehole diameter for input to the processing of the acoustic and optical televiewer logs.

2.0 METHODOLOGY

The caliper and optical and acoustic televiewer tools and their application are described below.

2.1 Caliper

The caliper log (CLP-2380) represents the average borehole diameter determined by the extension of three spring-loaded arms that interact with variable pot resistors in the probe. The tool is calibrated with rings of known diameter.

The primary applications are fracture location and characterization and to indicate intervals where there are rough borehole walls or washouts: either naturally occurring or due to the circulation of drilling fluids. Caliper logs only record average borehole diameter and anomalies could represent fractures, bedding planes, drill-bit scour and solution openings. The main requirement for these logs was to provide a measure of the borehole diameter for input to accurately determine the dip and dip direction of structure mapped with the borehole televiewers. In addition, the caliper tool is typically run first in the borehole if there is a potential for tool loss – as the tool is run out of the borehole, the spring loaded arms will help to loosen any debris that could fall behind and trap a centralized probe such as the televiewer as it is being lowered in the borehole.

2.2 Optical Televiewer

The optical televiewer (ALT – OBI40) generates a scanned image of the inside of the borehole wall with detail for resolving fractures as narrow as 0.1 mm and with a radial resolution of 1 degree. The recorded data is “oriented to North” with either a 3-component fluxgate magnetometer system for vertical boreholes in a nonmagnetic host or a 3-component tilt meter system for inclined holes. The recorded data can be post processed to orient to north or to high side within the borehole. Applications for this tool include inspecting casings for defects, characterization of fractures in either air or water-filled boreholes and, in combination with traditional core logging, can be used for mineralogy and foliation studies.

A key feature of the data recorded with the tool is the ability to measure directly the dip and dip direction of planer features intersecting the borehole. For example, if a plane intersects a

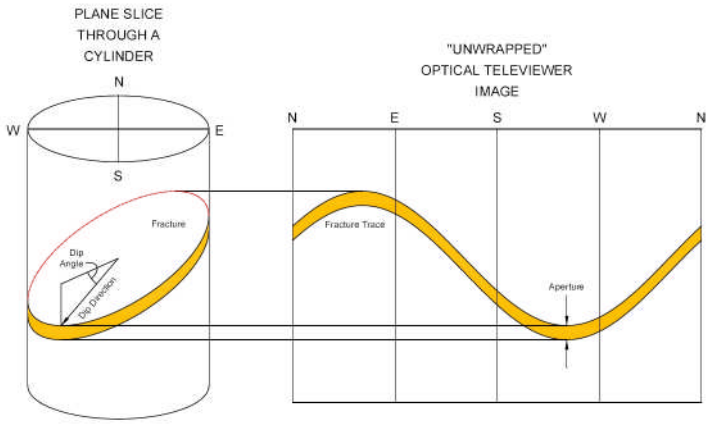
cylinder, the trace of the intersection on the unwrapped cylinder is a sinusoid. If a reference direction is also recorded, it is then possible to analyze the sinusoid to generate the dip and dip direction. Structure and tadpole plots are used to quantify the optical image logs.

2.3 Acoustic Televiewer

The acoustic televiewer (ATV), which requires a fluid-filled drill hole, produces an image of the borehole wall based on the amplitude and travel time of acoustic beams reflected from the formation wall. The produced image provide details for resolving fractures as narrow as 0.3 mm and with a radial resolution of 2.5 degrees. When an acoustic beam is transmitted, part of the energy is lost in voids or fractures, producing dark bands on the amplitude log. Travel time measurements allow a reconstruction of the borehole shape, essentially producing a three-dimensional caliper representation of the borehole. The problem of data acquisition in holes with murky drill fluid (or for holes in poor ground where mud has been used for drill support) can be overcome by use of an ATV, as the fluid does not need to be flushed prior to logging.

2.3.1 Image Orientation

Images acquired by televiewers are oriented by collecting simultaneous data from a 3-component fluxgate magnetometer and a 3-component tilt meter incorporated into the tool. Prior to interpretation, the image is rotated to a common reference direction, either magnetic north or the high-side of the borehole. Planar features which intersect the borehole wall produce sinusoidal traces in the “unwrapped” televiewer image. Using the reference direction recorded during logging, sinusoids can be analyzed to produce dip and dip directions of structural features.



Three-dimensional schematic of a fracture with aperture and the appearance of the same fracture in a televiewer image. Interpretation software allows for the calculation of dip and dip direction by fitting a sinusoid to the structure in the televiewer image.

Experience has shown that the key for quality control is ensuring the accuracy of the orientation system within the televiewer, which should be checked with a calibration device prior to logging. In the presence of magnetic materials in the drill hole, the tool's azimuth readings will be influenced by objects such as metal casings or magnetic minerals. This can be overcome by applying a correction to the magnetometer data over affected portions of the log – either by:

- orienting the image to high side in inclined holes using the inclinometer data collected by the televiewer and then using ancillary information from a borehole deviation tool (gyroscope or maxibore), which is unaffected by magnetic materials to rotate the image to north; or
- using the roll data acquired by the inclinometers to correct the magnetic roll data. The magnetic roll data can then be used to orient the image to north. Typically, this technique can be usefully applied if short sections of the borehole are affected by magnetic materials.

2.4 Processing

Processing steps for the log data collected at the Malartic site included the following:

- Importing the raw data into WellCAD – a software package designed for manipulation and presentation of geophysical log data;
- Depth corrections were then applied to account for casing stickup for the various log runs (caliper, optical televiewer and acoustic televiewer) so that all depths are related to distance in the borehole from ground surface. As part of this procedure, a check was completed to ensure that features common to both the caliper and televiewer logs matched for depth;
- The televiewer log images were aligned with the high side of the boreholes. At this point, the televiewer telemetry data were corrected over portions of the borehole clearly affected by magnetic formation in the borehole wall;
- Features on the televiewer logs were then identified and analyzed for azimuth and dip;
- Sinusoidal features on the amplitude and travel time logs were interpreted according to the following system of classification;

0 – Bottom of Casing

1 – Major Open Joints / Fractures: Continuous televiewer sinusoids with aperture greater than 0.5 cm and associated caliper or travel time anomalies.

2 – Minor Open Joint / Fracture: Continuous televiewer sinusoids with less than 0.5 cm of aperture but with associated caliper or travel time anomalies.

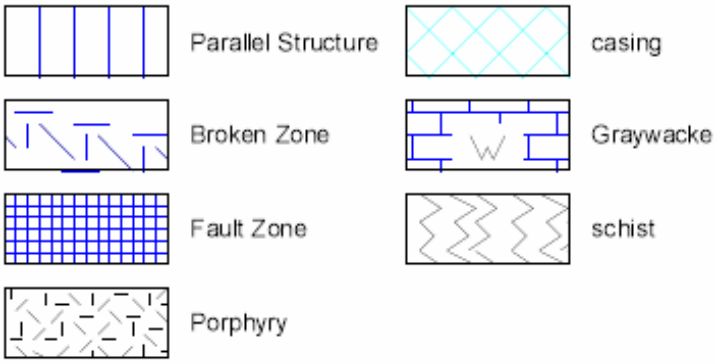
3 – Partially Open Joint / Fracture: Continuous or discontinuous televiewer sinusoid with discontinuous aperture.

4 – Filled Fracture / Joint: Continuous or discontinuous sinusoids with no aperture that are parallel or at an angle to the foliation.

5 – Bedding / Banding / Foliation: Appears as a series of parallel or sub-parallel sinusoids. These can be misinterpreted as Filled Fracture / Joint and vice-versa.

6 – Geological Contact: These are interpreted from the optical televiewer data.

- The structure features shown above and included in the logs ("Structure" column) attached to this report were digitized by hand and referenced to the "high side-oriented" borehole images. The structure data were used to provide azimuth and dip values with azimuth as deviation for magnetic north (degrees) and dip as the down angle from horizontal; and
- The final step for processing was to generate a "features" column. Zones in the boreholes where the wall rock contained multiple fractures or wide (>0.5 to 1 metres) bands of low acoustic amplitude were marked as "Broken Zone" and "Fault Zone" respectively. The areas interpreted as graywacke, schist and porphyry are marked as well.



3.0 FIELD WORK

The borehole geophysical logging was completed from October 30th to November 7th, 2007 by a geophysicist from our Cambridge, Ontario office. A summary of the boreholes and the intervals logged is provided in Table 1.

Boreholes that were logged included boreholes CM07-1377, CM07-1446, CM07-1490 and CM07-1500.

A dummy probe was deployed in each of the boreholes prior to acquiring the geophysical data. This became a requirement at the time the field work began as there was concern that cavities may exist into the boreholes. There was also concern that some of the casing in the boreholes had been removed thereby exposing unstable borehole wall conditions.

Sampling intervals for the probes were: optical televiewer – 0.0017 m, acoustic televiewer – 0.0033 m and caliper – 0.01 m. The logging speed for the optical televiewer and the acoustic televiewer was 0.5 m/min or less and logging speeds for the caliper probe was approximately 2 m/min.

4.0 RESULTS

4.1 Data Presentation

The results of the borehole geophysical logging are presented on figures and in tables as follows:

Appendices A through D:

- Plots of the geophysical log data for boreholes CM07-1377, CM07-1446, CM07-1490, and CM07-1500 are presented respectively;

- The plots are produced at a 1:75 scale and present the data recorded including tilt, azimuth, scanned images of the wall of the boreholes (optical televiewer), acoustic amplitude and travel time (as images) and caliper;
- Interpretation of the optical televiewer and acoustic televiewer images is shown as structure (sinusoids) and tadpole plots strips overlaid on the acoustic amplitude and travel time images (see Section 2.4 above). These data comprise approximately 1000 to 1500 lines per borehole and have been provided to the Montreal, Quebec Golder office electronically; and
- A "features" log is presented adjacent to the calliper curve to delineate zones in the boreholes where there is structure parallel to the borehole, the borehole walls appear to be intensely fractured or broken and there are features interpreted to be faults or shears (see Section 2.4 above), the borehole geology is interpreted as greywacke, schist or porphyry.

The structure data tables (Table 2 (CM07-1377), Table 3 (CM07-1446), Table 4 (CM07-1490) and Table 5 (CM07-1500)) provide summary records of the depth, dip, dip direction, thickness, shape and roughness estimates for all of the "Major Open Joint / Fracture", "Minor Open Joint / Fracture" and "Partially Open Joint / Fracture" features identified. Because of the damaged cable, azimuth and tilt data are not available for 3 holes. Consequently, structure data tables are oriented relative to the core axis.

4.2 Discussion

Overall, the log data quality appears to be good (except for the azimuth data of boreholes CM07-1446, CM07-1490 and CM07-1500). The true dip and dip direction of interpreted structures are not available for boreholes CM07-1446, CM07-1490 and CM07-1500 because of the damaged cable. In order to be consistent with all the boreholes, structure and tadpole data have been presented oriented relative to the core axis.

Televiewers data for all the boreholes have been collected in several portions and merged during the data processing (except for acoustic televiewer data collected in the borehole CM07-1377). The image of the borehole wall for CM07-1490 wall is represented with 4 different colours. The colour changes are due to incorrect tool initialization and do not indicate changes in the colour of the borehole wall or geology.

Boreholes CM07-1377 and CM07-1446 had already been logged by Terratech (Germany). These boreholes have been logged by Golder for comparison against Terratech's results. These results are not currently available to Golder.

5.0 CLOSURE

We trust that this report meets your needs at this time. If any questions arise, please do not hesitate to contact the undersigned.

Yours very truly,

GOLDER ASSOCIATES LTD.

Bruno Boussicault, M.Sc.
Project Geophysicist

Mark Monier-Williams, M.Sc.
Associate

MMW/BB/bb

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TABLES

Table 1: Summary Borehole Information

Borehole Number	Collar Location			Tilt *	Mine Grid Azimuth *	OTV Log Interval		ATV Log Interval		Casing	
	Easting * (m - UTM)	Northing * (m - UTM)	Elevation * (m)	(deg)	(deg)	From (m)	To (m)	From (m)	To (m)	Depth (m)	Length (m)
CM07-1377	713942.684	5334923.099	317.905	45	182	1.21	123.26	22.91	123.16	9.30	9.69
CM07-1446	714156.194	5334925.783	319.793	16	182	6.09	157.38	7.78	157.19	9.15	9.18
CM07-1490	713820.058	5334885.392	320.031	4.5	2	18.40	145.92	22.00	145.78	<13 *	<13
CM07-1500	714248.075	5334898.661	320.859	20	2	22.06	131.41	21.92	131.10	<23	<23

Notes: 1. UTM reference - NAD83, Zone UTM 17
2. *'d columns and cells indicate data obtained from Osisko Exploration Ltd. borehole survey reports.

Table 2: Structure Data (Major, minor & partially open fractures) relative to core axis - CM07-1377

Depth (m)	Dip direction (deg)	Dip (deg)	Thickness (m)	Shape	Roughness	Comment
12.93	293.14	58.60	0.003	pl	2	
13.16	284.31	30.35	0.010	pl	2	
15.09	274.08	28.32	0.011	pl	2	variable aperture
15.55	181.38	26.05	0.005	pl	2	Partially open
24.26	263.82	21.90	0.003	pl	1	partially open
24.67	19.06	26.64	0.004	pl	1	partially open
25.75	133.19	62.35	0.012	irr	4	partially open
25.89	351.26	43.42	0.004	pl-irr	3	broken zone
25.89	176.91	32.17	0.005	pl	2	broken zone, truncated
29.52	0.75	31.40	0.020	pl	1	
30.72	10.00	52.52	0.012	pl-irr	3	partially open
52.52	43.05	60.24	0.005	pl	2	partially open
52.63	173.11	44.09	0.004	pl-irr	4	partially open
54.55	1.57	0.00	0.020	pl	1	
60.73	124.15	58.75	0.006	pl	2	truncated
60.73	189.92	29.81	0.003	pl	1	partially open
60.75	127.57	59.95	0.005	pl-irr	3	truncated
61.65	164.16	64.33	0.007	pl-irr	3	partially open
61.72	170.12	40.06	0.003	pl	2	partially open
61.83	168.55	48.57	0.020	pl	2	top of fault zone
61.93	155.47	16.22	0.070	pl	2	fault zone
62.00	157.27	61.84	0.010	pl	2	bottom of fault zone
62.31	172.21	55.71	0.060	pl	2	
62.68	151.14	57.03	0.016	pl	1	variable aperture
62.79	126.56	54.23	0.010	pl	1	variable aperture
62.90	163.82	51.50	0.030	pl	2	
70.64	0.00	0.00	0.030	pl	2	truncated
70.65	13.25	67.12	0.030	pl	2	truncated
82.93	257.79	27.59	0.005	pl	2	partially open
83.01	174.20	12.21	0.003	pl	2	partially open
97.54	10.03	62.91	0.008	pl	2	partially open
105.58	162.79	25.75	0.003	pl	1	partially open
118.87	279.02	74.76	0.004	irr	5	partially open

Notes:
1. "pl" indicates planer feature - feature can easilly be fitted with a sinusoid
2. "irr" indicates irregular - feature is not planer
3. Roughness scale is qualitative with "1" being smooth and "5" being rough.

Table 3: Structure Data (Major, minor & partially open fractures) relative to core axis - CM07-1446

Depth (m)	Dip direction (deg)	Dip (deg)	Thickness (m)	Shape	Roughness	Comment
9.65	73.78	31.95	0.002	pl	1	partially open
9.65	273.50	62.53	0.005	pl-irr	3	partially open
9.66	73.78	31.95	0.002	pl	1	partially open
9.85	319.93	82.68	0.012	pl	2	variable aperture, top of fault zone
9.89	163.87	74.07	0.005	pl-irr	3	truncated, in fault zone
9.91	164.06	76.54	0.005	pl-irr	4	truncated, in fault zone
9.93	307.13	59.84	0.008	irr	4	truncated, in fault zone
9.96	114.57	67.81	0.002	pl-irr	3	truncated, in fault zone
10.04	0.53	46.15	0.003	pl	1	
10.10	80.78	41.04	0.003	pl	2	
10.13	78.64	28.09	0.005	pl	2	variable aperture, bottom of fault zone
10.69	9.89	49.85	0.008	pl	1	
11.56	123.89	43.25	0.005	pl-irr	3	partially open
11.95	180.64	70.18	0.004	pl	2	
12.22	26.37	62.60	0.030	pl	1	variable aperture, broken zone
12.93	179.82	70.54	0.003	pl-irr	3	
13.21	305.30	65.16	0.003	pl	2	top of broken zone
13.31	110.12	33.06	0.057	pl-irr	3	broken zone
13.42	127.21	47.66	0.003	pl	2	bottom of broken zone
14.62	181.27	66.88	0.007	pl	1	
17.24	190.66	55.56	0.007	pl	1	partially open
17.27	173.00	62.83	0.006	pl	1	partially open
21.48	176.03	58.00	0.008	pl	1	variable aperture
21.56	194.39	49.69	0.008	pl	1	top of broken zone
21.60	186.29	33.59	0.017	pl	2	broken zone
21.65	188.90	19.61	0.040	pl	1	bottom of broken zone
21.90	183.82	60.76	0.005	pl	1	partially open
22.41	211.54	33.97	0.002	irr	4	
30.36	35.56	49.80	0.004	pl-irr	4	variable aperture
32.26	182.16	56.52	0.004	pl	2	partially open
32.81	248.69	53.04	0.020	pl-irr	3	variable aperture, truncated
32.97	186.36	19.95	0.055	pl	2	
33.28	150.11	28.88	0.003	pl	2	variable aperture
33.38	193.99	40.23	0.005	pl	2	
33.79	0.00	0.00	0.026	irr	5	variable aperture, truncated
34.30	171.73	62.20	0.005	pl-irr	3	variable aperture
43.29	54.74	18.79	0.004	irr	4	partially open
46.93	305.48	39.75	0.007	pl	1	partially open
47.50	10.41	62.92	0.029	pl	2	
58.36	3.07	57.93	0.005	pl-irr	3	
67.70	34.35	58.47	0.014	irr	3	
68.10	26.71	64.50	0.006	pl	2	partially open
85.74	328.06	66.96	0.007	pl	1	variable aperture
97.58	184.74	0.00	0.008	pl	2	partially open
97.62	357.77	0.00	0.007	pl	2	variable aperture
107.48	303.91	21.41	0.010	pl-irr	2	partially open
107.72	331.36	55.01	0.034	pl	2	variable aperture

Notes:
1. "pl" indicates planer feature - feature can easilly be fitted with a sinusoid
2. "irr" indicates irregular - feature is not planer
3. Roughness scale is qualitative with "1" being smooth and "5" being rough.

Table 4: Structure Data (Major, minor & partially open fractures) relative to core axis - CM07-1490

Depth (m)	Dip direction (deg)	Dip (deg)	Thickness (m)	Shape	Roughness	Comment
19.52	42.19	20.72	0.005	irr	4	partially open
22.27	45.98	57.79	0.020	pl	2	
22.97	38.91	68.44	0.003	pl	2	partially open
24.04	123.18	53.10	0.023	pl	2	variable aperture
37.13	23.46	75.28	0.004	pl-irr	3	
46.56	282.24	32.14	0.006	pl	2	partially open
54.77	3.27	71.75	0.003	pl	2	partially open
61.02	34.17	17.09	0.004	pl	2	partially open
67.18	67.02	39.34	0.003	irr	4	truncated
78.42	17.14	65.46	0.015	pl	2	variable aperture
78.47	26.91	63.25	0.004	pl	2	variable aperture
78.50	19.00	65.03	0.003	pl	2	variable aperture
79.40	18.66	73.81	0.007	pl	2	partially open
83.60	141.52	32.66	0.002	pl	2	partially open
85.90	15.22	15.62	0.004	pl	1	partially open
93.24	12.33	65.92	0.004	pl	2	partially open
95.73	9.04	67.28	0.003	pl	2	partially open
109.29	13.47	77.92	0.004	pl-irr	3	partially open
112.13	14.38	60.20	0.003	pl	2	partially open
112.27	25.18	57.41	0.002	pl	2	partially open
114.00	27.11	57.54	0.003	irr	4	partially open
114.12	2.05	72.19	0.003	pl	2	partially open
114.15	12.46	66.75	0.012	pl-irr	3	variable aperture, partially open
119.89	10.89	62.38	0.003	irr	4	partially open
119.94	15.47	56.22	0.004	pl	2	variable aperture
128.52	28.40	47.50	0.004	pl	1	partially open
131.15	27.59	56.36	0.005	pl	2	partially open
131.23	32.18	49.48	0.004	pl	1	partially open
131.68	152.56	41.89	0.002	pl-irr	3	truncated
131.70	66.67	42.76	0.003	pl	2	truncated
131.87	12.78	66.92	0.005	irr	4	partially open
131.98	13.84	54.94	0.003	pl-irr	3	
132.06	23.78	56.03	0.003	irr	4	
132.29	26.33	59.73	0.002	pl-irr	2	partially open
132.50	26.29	57.47	0.003	pl	1	top of broken zone
132.82	13.28	51.31	0.174	pl	1	broken zone
132.92	99.99	63.03	0.003	pl	2	truncated
133.64	25.18	48.19	0.002	pl	2	partially open
133.84	21.63	39.87	0.004	pl	2	partially open
134.72	29.89	40.69	0.013	pl	2	
136.76	202.02	56.52	0.004	pl	2	partially open
138.92	23.12	64.33	0.003	pl	2	partially open
144.41	144.66	77.70	0.002	irr	4	partially open

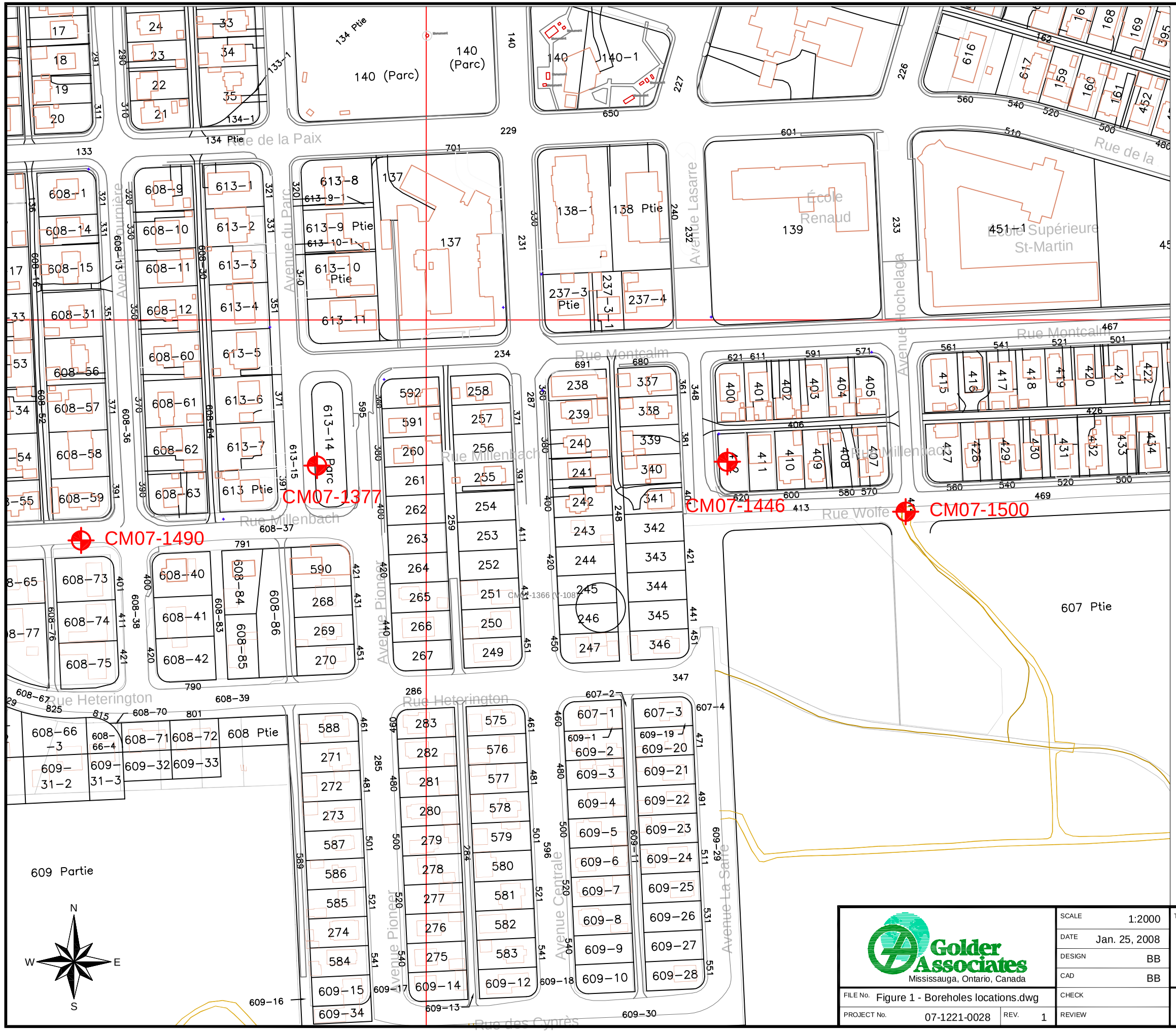
Notes:
1. "pl" indicates planer feature - feature can easilly be fitted with a sinusoid
2. "irr" indicates irregular - feature is not planer
3. Roughness scale is qualitative with "1" being smooth and "5" being rough.

Table 5: Structure Data (Major, minor & partially open fractures) relative to core axis - CM07-1500

Depth (m)	Dip direction (deg)	Dip (deg)	Thickness (m)	Shape	Roughness	Comment
23.60	92.39	8.78	0.040	irr	5	in broken zone, variable aperture
23.75	189.94	25.11	0.004	pl-irr	3	variable aperture, bottom of broken zone
25.05	231.35	34.45	0.034	pl-irr	2	top of broken zone
25.30	191.04	23.18	0.008	pl-irr	3	in broken zon
25.49	289.66	24.74	0.020	pl	1	bottom of broken zone
29.06	175.77	33.38	0.003	pl	1	partially open
39.05	205.25	10.71	0.007	pl	2	truncated
41.23	133.57	25.44	0.003	pl	1	partially open
45.06	294.84	21.90	0.002	pl	2	truncated
48.28	253.26	22.61	0.011	irr	4	partially open
48.48	266.24	27.92	0.009	irr	4	partially open
51.52	277.18	47.00	0.023	irr	4	variable aperture, truncated
53.19	104.87	22.48	0.003	pl	2	top of broken zone
53.21	120.60	10.54	0.070	pl-irr	3	variable aperture
53.23	218.56	28.53	0.010	pl-irr	3	in broken zone
53.30	135.83	19.41	0.009	pl	2	bottom of broken zone
53.32	126.44	19.53	0.005	pl	2	bottom of broken zone
53.88	170.06	16.13	0.008	pl	2	partially open
64.75	4.14	0.00	0.002	pl	1	
66.61	113.87	41.79	0.017	pl-irr	3	variable aperture
66.65	127.93	42.66	0.004	pl	2	variable aperture
68.84	3.07	25.82	0.007	irr	4	partially open
72.07	29.37	58.72	0.003	irr	4	partially open
72.56	0.00	0.00	0.002	pl	1	
73.34	133.62	12.65	0.002	pl	2	partially open
73.52	306.58	46.54	0.002	irr	4	
73.66	34.42	32.20	0.006	pl	2	partially open
74.11	292.09	37.29	0.008	pl	2	partially open
79.38	346.11	47.13	0.009	pl	1	broken zone
79.43	202.59	49.81	0.006	pl-irr	3	truncated
85.83	78.40	32.76	0.002	pl	2	
106.28	182.42	22.50	0.003	pl	1	
116.76	117.06	15.92	0.004	pl	1	
118.40	125.83	37.94	0.004	pl	1	
127.84	199.60	72.25	0.005	irr	4	partially open, truncated

Notes:
1. "pl" indicates planer feature - feature can easilly be fitted with a sinusoid
2. "irr" indicates irregular - feature is not planer
3. Roughness scale is qualitative with "1" being smooth and "5" being rough.

FIGURES



LEGEND:

CM07-1377 PROPOSED BOREHOLE LOCATION

POSITIONING OF BOREHOLES:

POINT	NORTHING	EASTING
CM07-1377	5334924	713943
CM07-1446	5334926	714157
CM07-1490	5334885	713820
CM07-1500	5334900	714245

REFERENCES:

1. BASEMAPPING PROVIDED BY CLIENT.

0 5 10 20 30 50 100
MAP SCALE: 1:2000 METERS

Golder Associates
Mississauga, Ontario, Canada

FILE No.	Figure 1 - Boreholes locations.dwg		
PROJECT No.	07-1221-0028	REV.	1

SCALE	1:2000
DATE	Jan. 25, 2008
DESIGN	BB
CAD	BB
CHECK	
REVIEW	

TITLE

Logged Boreholes Locations

Osisko Project Site
Osisko Exploration Ltd.

FIGURE 1

PLOT DATE: February 22, 2008
FILENAME: C:\Documents and Settings\bboussicault\My Documents\PROJECTS\07-1221-0028 Osisko Malartic\CAD Files\Figure 1 - Boreholes locations.dwg

APPENDIX A
WELLCAD OUTPUT – CM07-1377

GEOPHYSICAL RECORD OF BOREHOLE: CM07-1377

Osisko Project Site, Malartic, Quebec

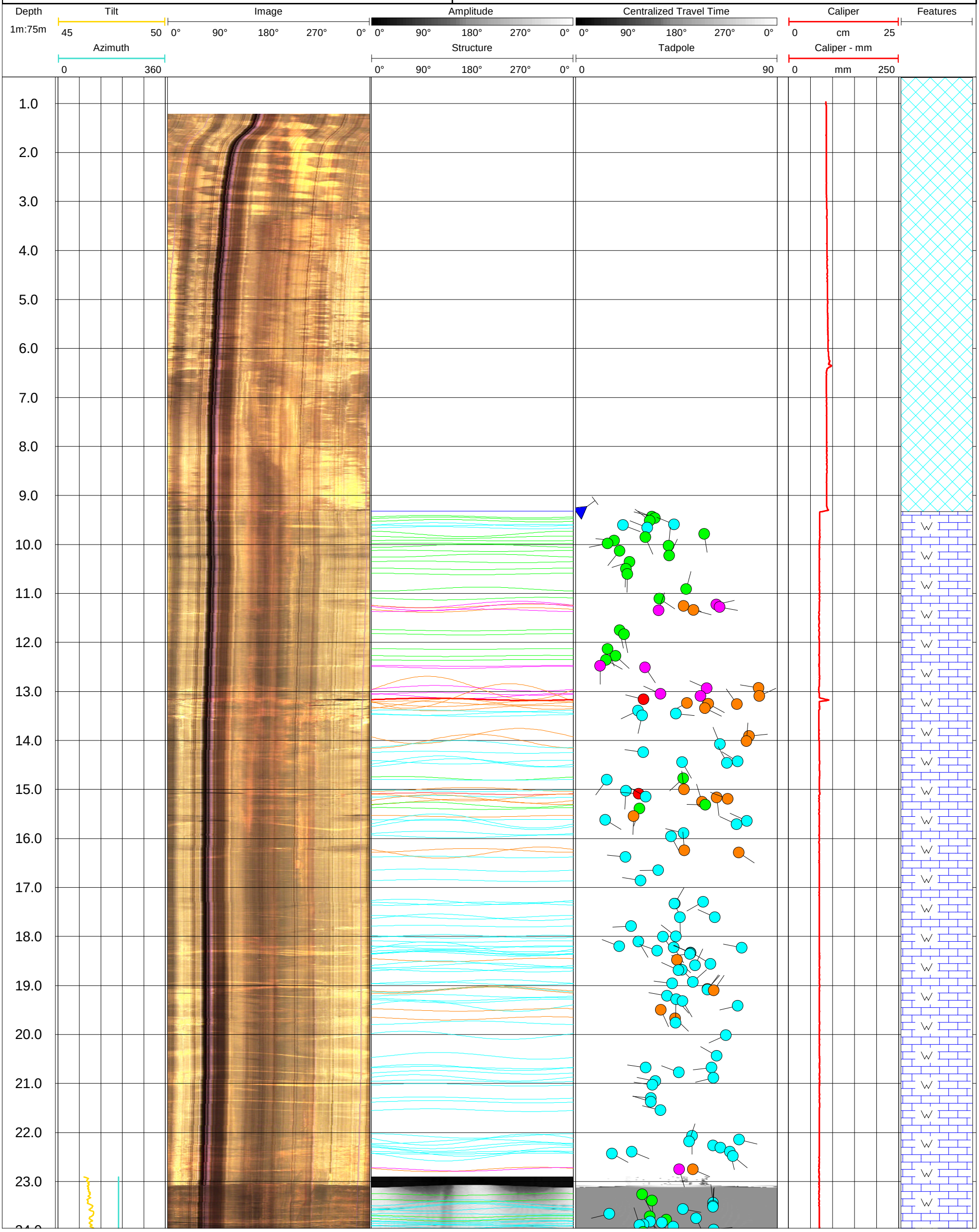
Client: Osisko Exploration Ltd.

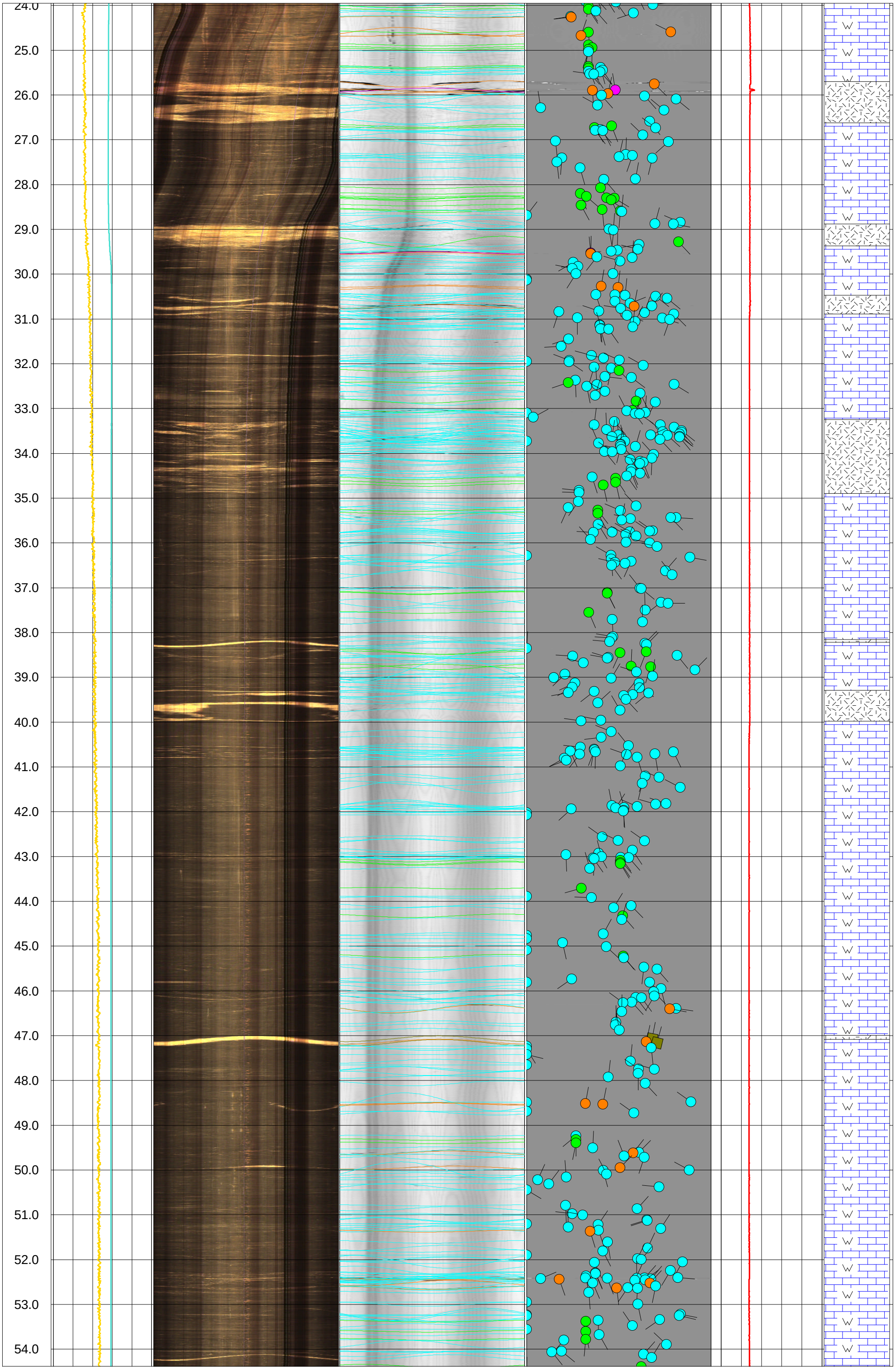
Project Number: 07-1221-0028

Date: February 2008

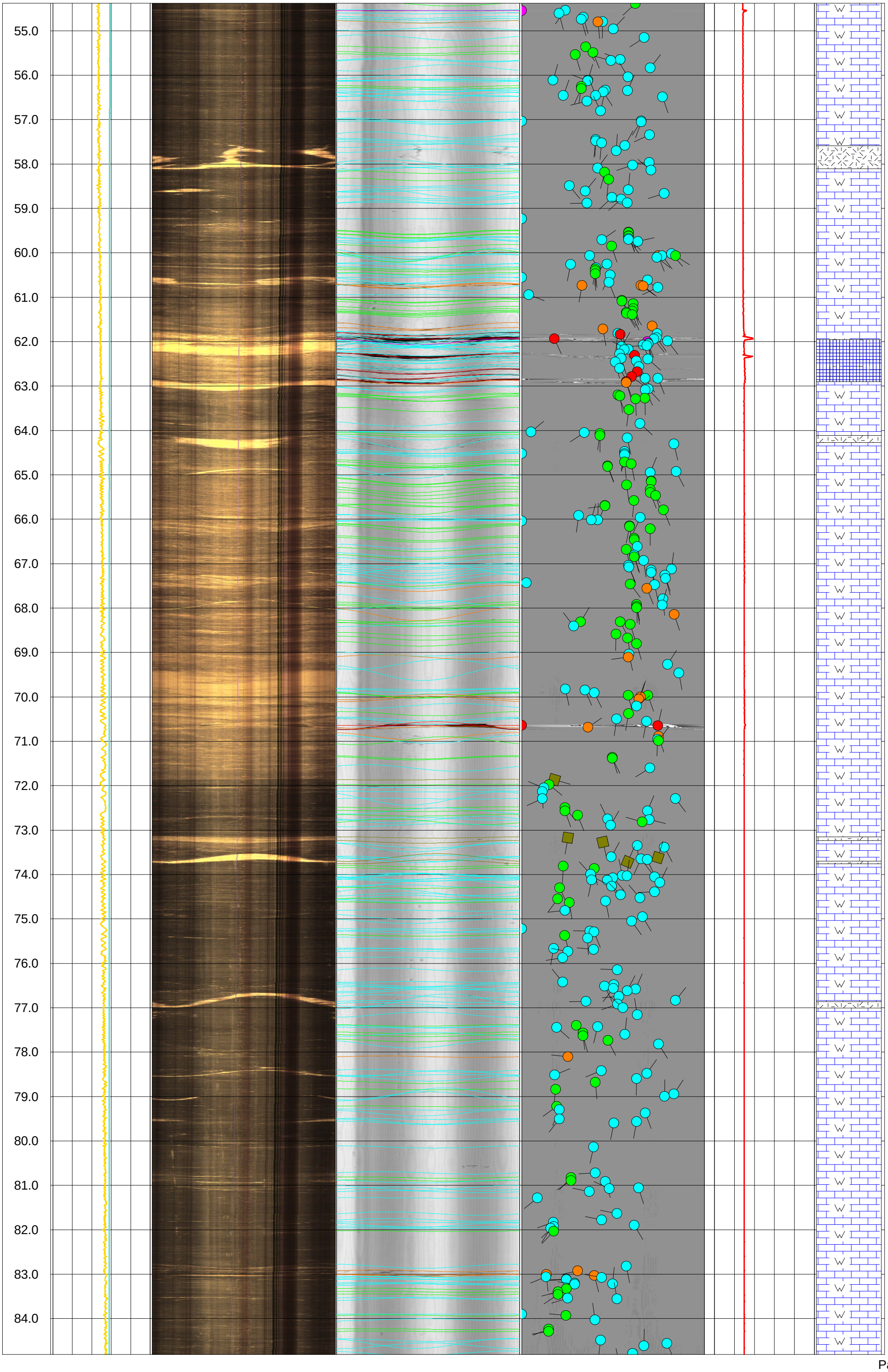
Location:	Malartic, Quebec	Depth Reference:	"0" at Ground Surface
Easting:	713,942.684 m	Core Depth Ref:	N/A
Northing:	5,334,923.099 m	Drilling Method:	Diamond Core Drilling
Elevation:	317.905 m	Borehole Diameter:	3"
Datum:	NAD83, Zone UTM 17	Drilled Depth:	129.13 m bgl
Log Date:	October 30 & 31, 2007	Casing Depth:	9.3 m bgl
Logged By:	BB	Conductor Diameter:	???

Bottom Of Casing
Minor Open Joint / Fracture
Filled Fracture / Joint
Geological Contact
Major Open Joint / Fracture
Partially Open Joint / Fracture
Bedding / Banding / Foliation
Parallel Structure
Broken Zone
Fault Zone
Porphyry
casing
Graywacke
schist

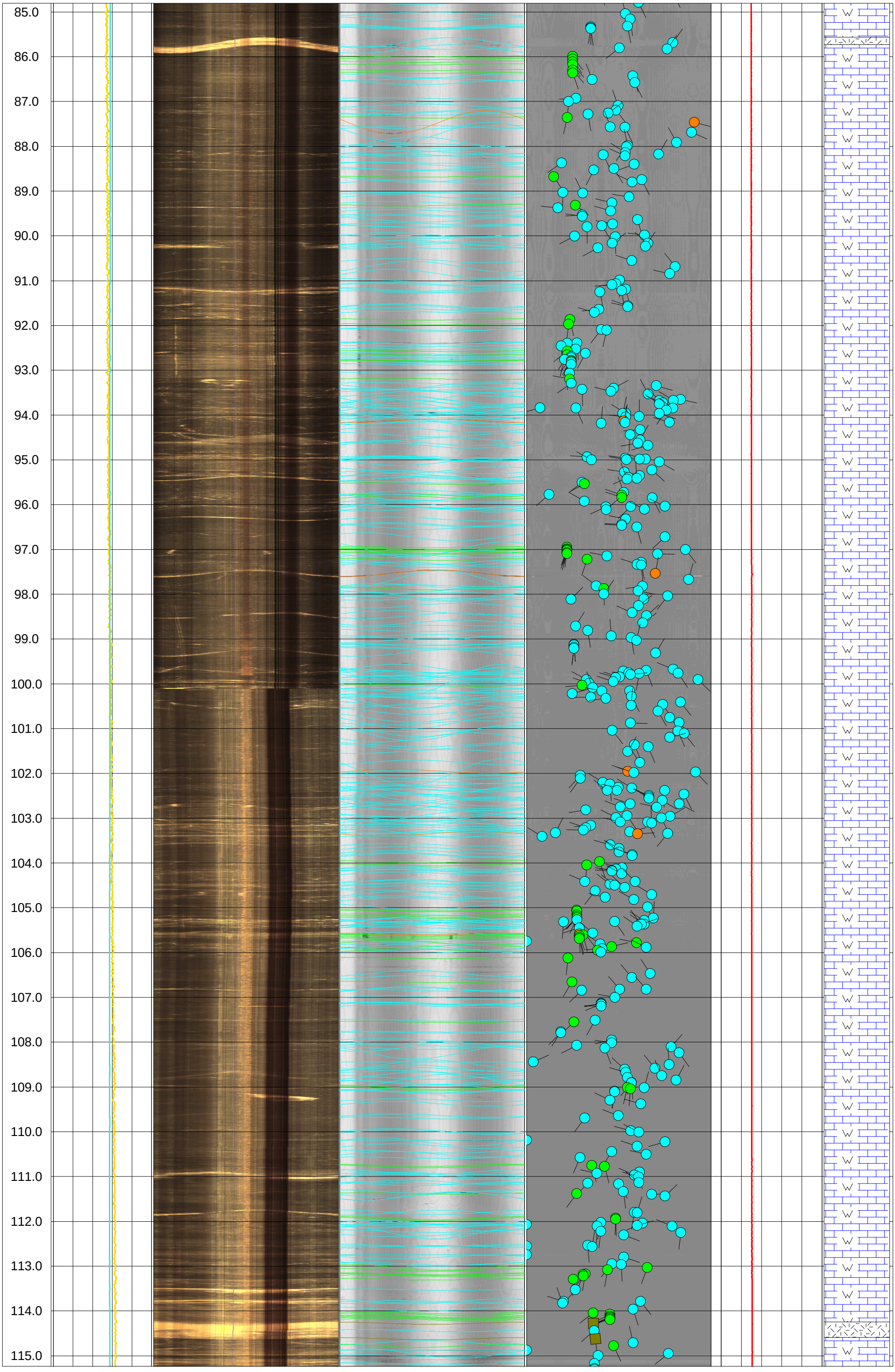




Geophysical Record of Borehole: CM07-1377



Geophysical Record of Borehole: CM07-1377



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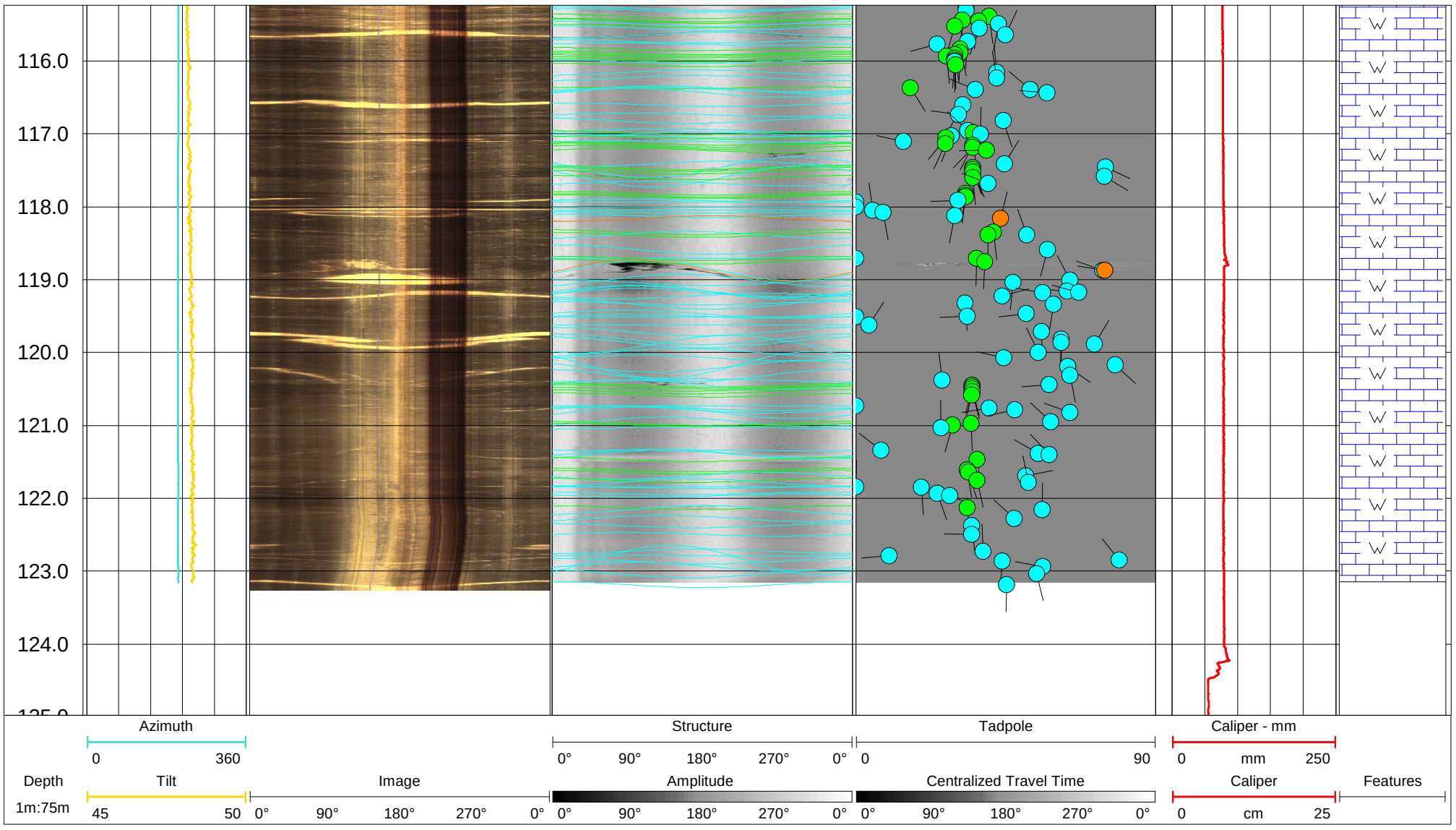


Geophysical Record of Borehole: CM07-1377

APPENDIX B
WELLCAD OUTPUT – CM07-1446

GEOPHYSICAL RECORD OF BOREHOLE: CM07-1446

Osisko Project Site, Malartic, Quebec

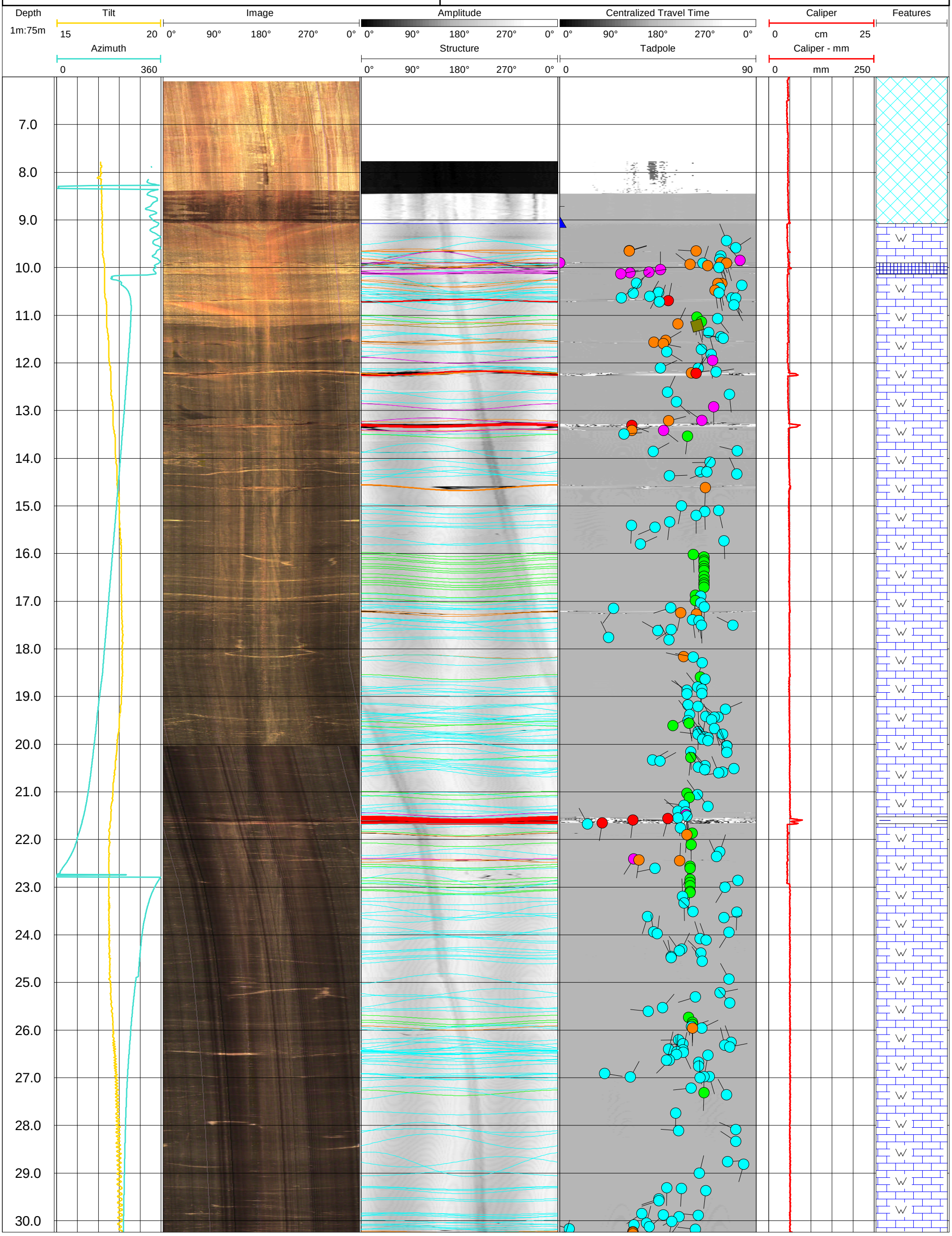
Client: Osisko Exploration Ltd.

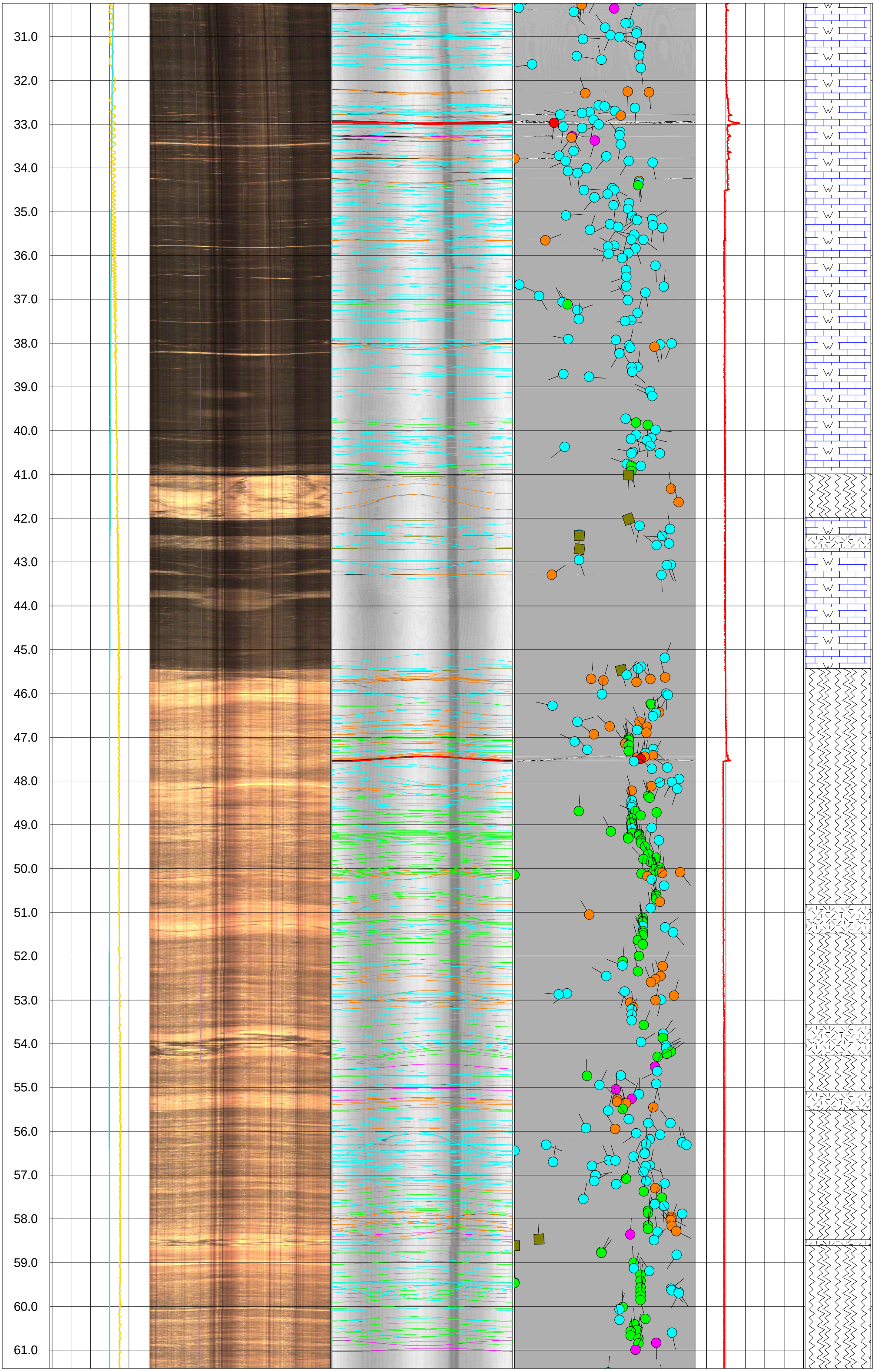
Project Number: 07-1221-0028

Date: February 2008

Location:	Malartic, Quebec	Depth Reference:	"0" at Ground
Easting:	714,156.194 m	Core Depth Ref:	???
Northing:	5,334,925.783 m	Drilling Method:	???
Elevation:	319.793 m	Borehole Diameter:	3"
Datum:	NAD83 Zone UTM 17	Drilled Depth:	165 m bgl
Log Date:	November 1 & 2, 2007	Casing Depth:	9.15 m bgl
Logged By:	BB	Conductor Diameter:	???

Bottom Of Casing
Major Open Joint / Fracture
Parallel Structure
casing
Minor Open Joint / Fracture
Partially Open Joint / Fracture
Broken Zone
Graywacke
Filled Fracture / Joint
Bedding / Banding / Foliation
Fault Zone
schist
Geological Contact
Porphyry

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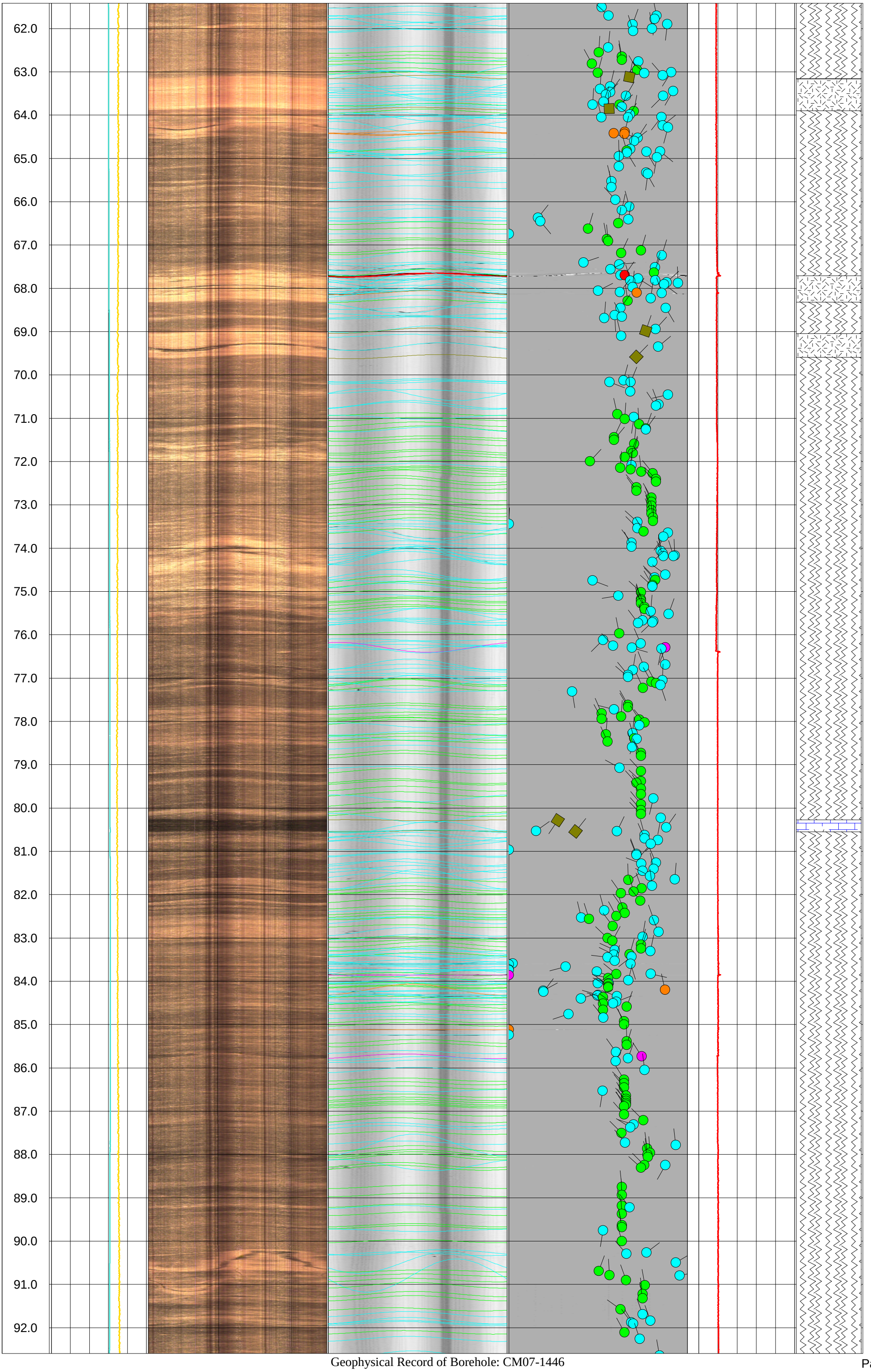
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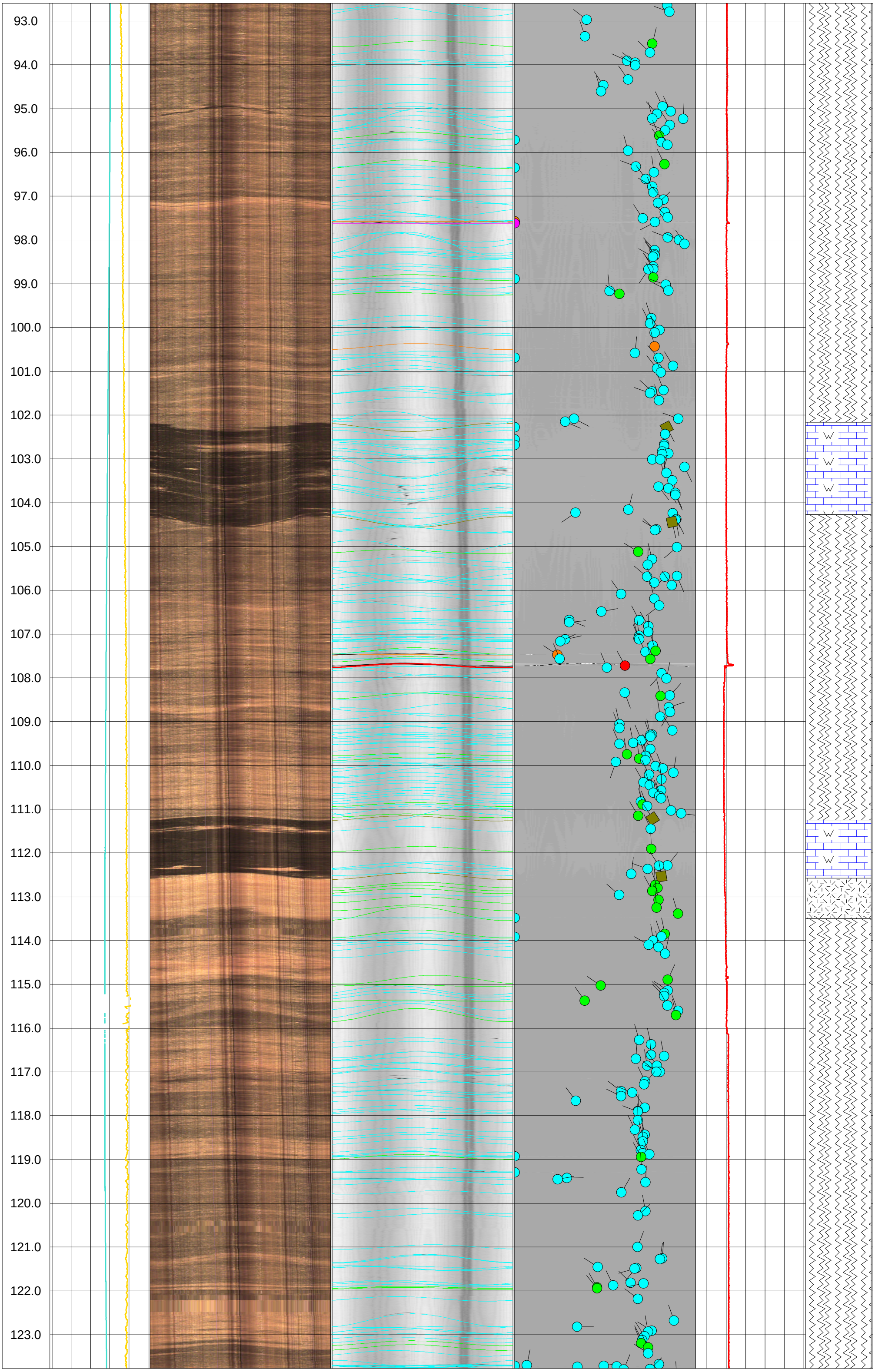
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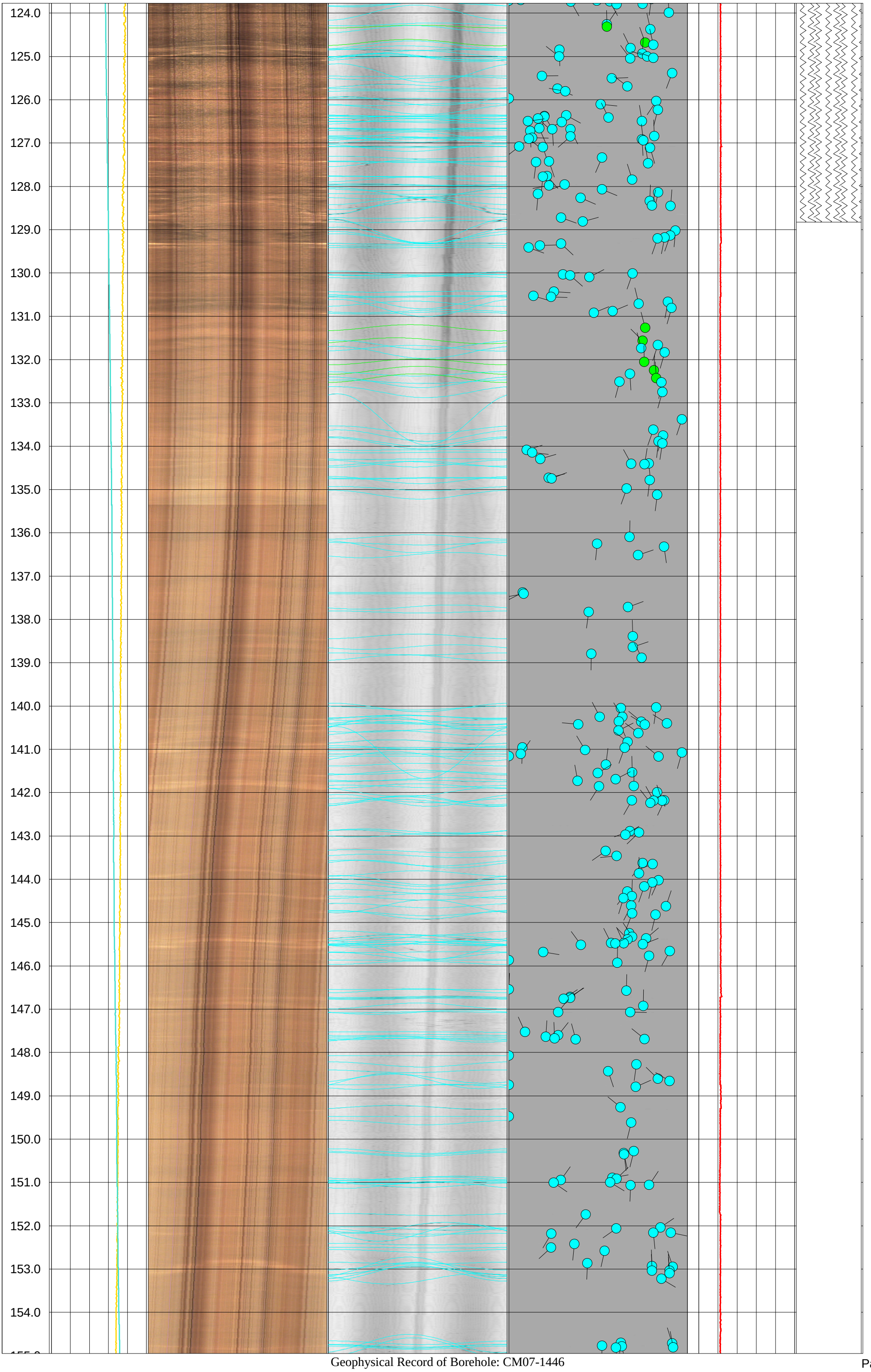
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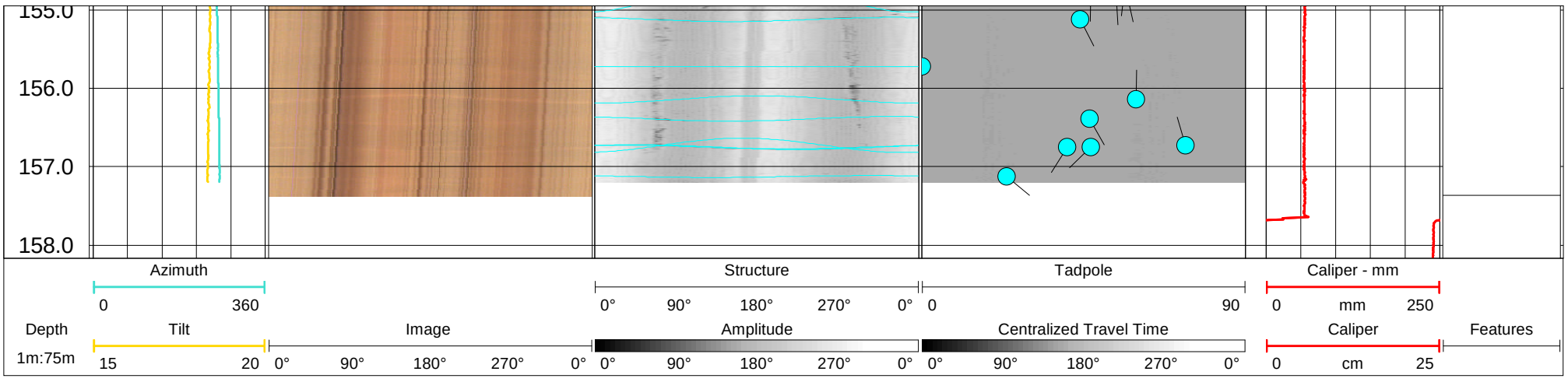
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Caliper - mm
0
mm
250
Depth
1m:75m
Tilt
15
20
Image
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90°
180°
270°
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Amplitude
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90°
180°
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0°
Centralized Travel Time
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90°
180°
270°
0°
Caliper
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cm
25
Features

APPENDIX C
WELLCAD OUTPUT – CM07-1490

GEOPHYSICAL RECORD OF BOREHOLE: CM07-1490

Osisko Project Site, Malartic, Quebec

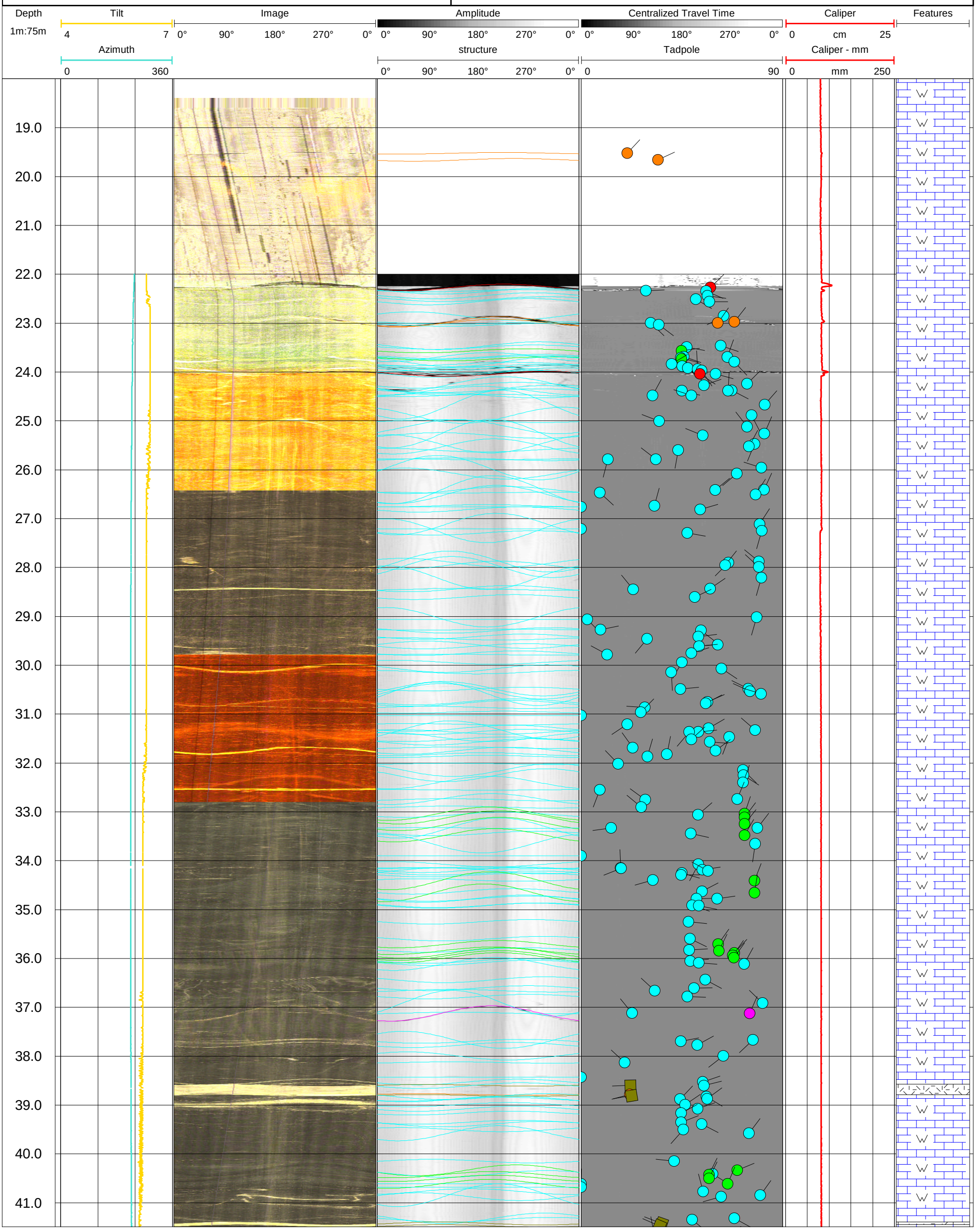
Client: Osisko Exploration Ltd.

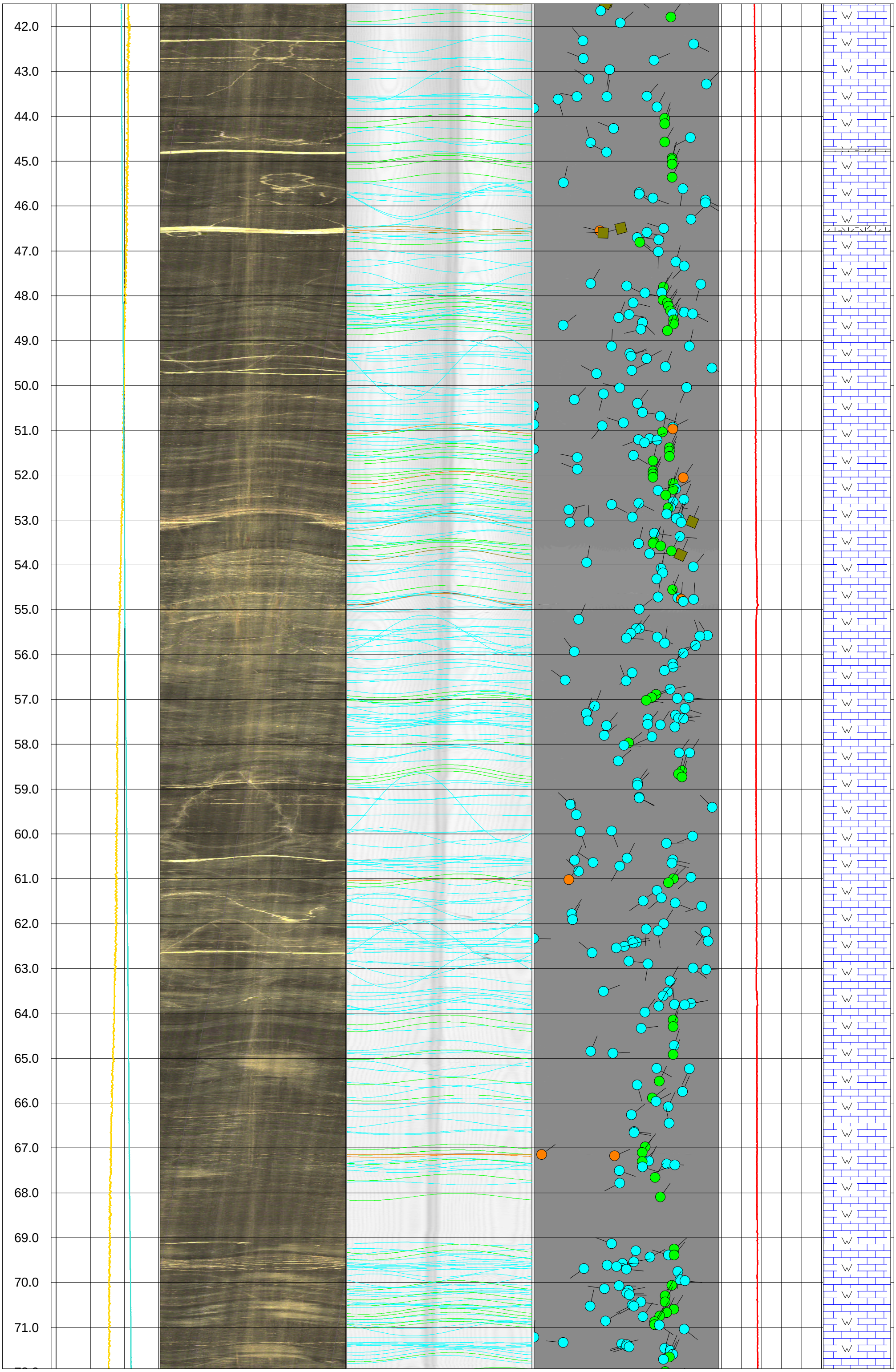
Project Number: 07-1221-0028

Date: February 2008

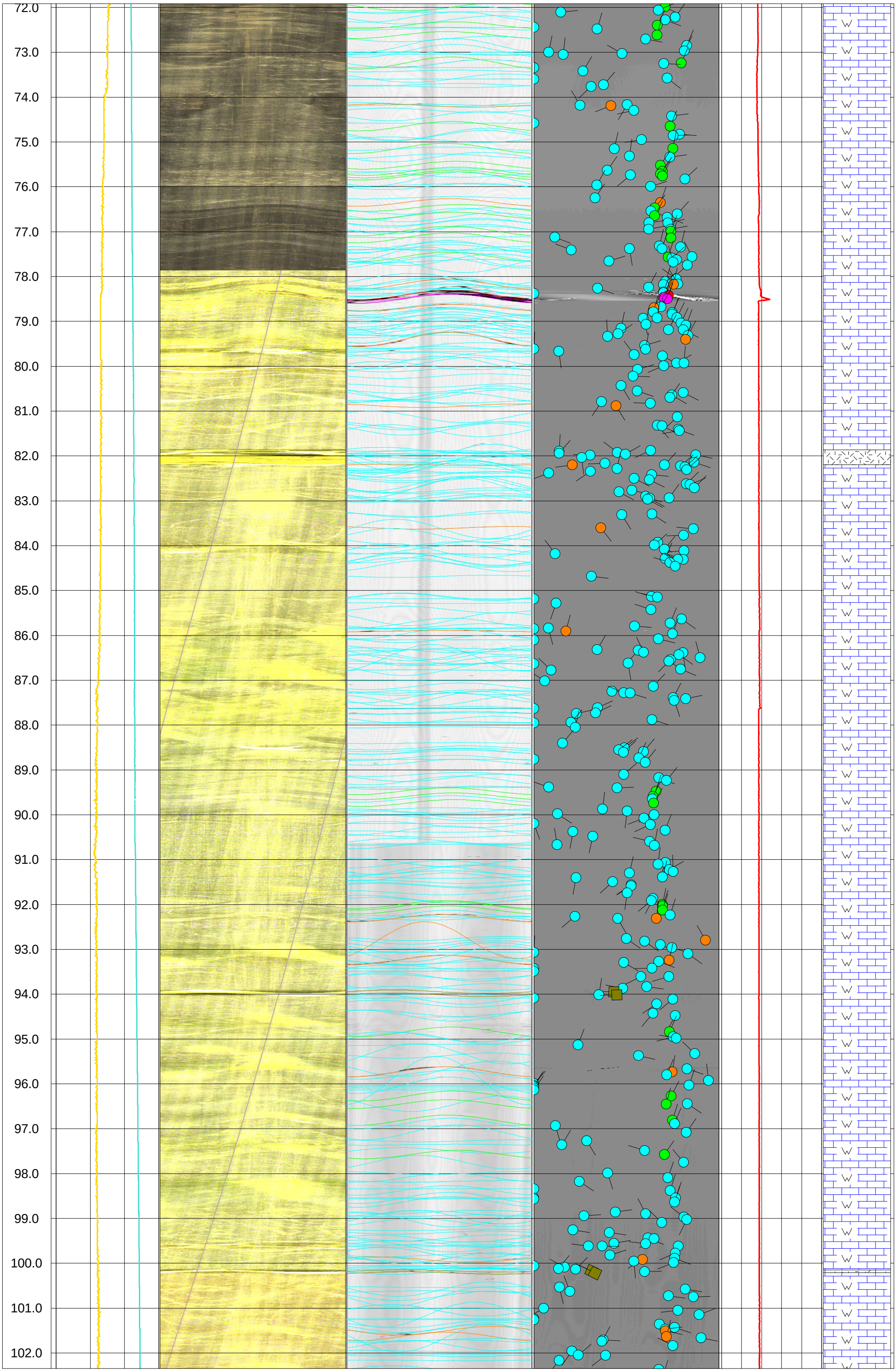
Location:	Malartic, Quebec	Depth Reference:	"0" at Ground
Easting:	713,820.058 m	Core Depth Ref:	???
Northing:	5,334,885.392 m	Drilling Method:	???
Elevation:	320.031 m	Borehole Diameter:	3"
Datum:	NAD83, Zone UTM 17	Drilled Depth:	???
Log Date:	November 5 & 6, 2007	Casing Depth:	~ 12.5 m bgl
Logged By:	BB	Conductor Diameter:	???

Major Open Joint / Fracture
Minor Open Joint / Fracture
Parallel Structure
casing
Partially Open Joint / Fracture
Filled Fracture / Joint
Broken Zone
Graywacke
Bedding / Banding / Foliation
Geological Contact
Fault Zone
schist
Porphyry





Geophysical Record of Borehole: CM07-1490



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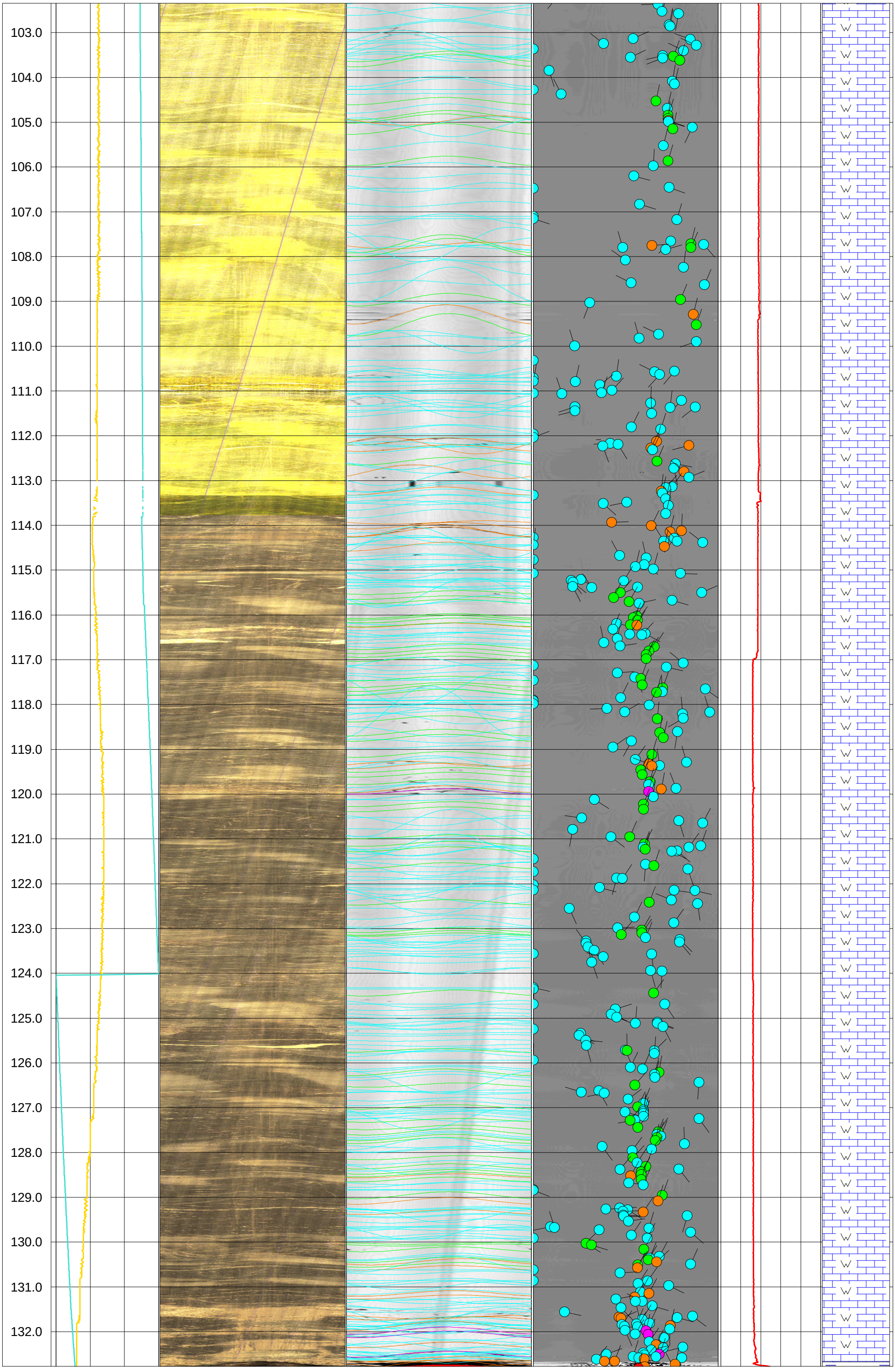
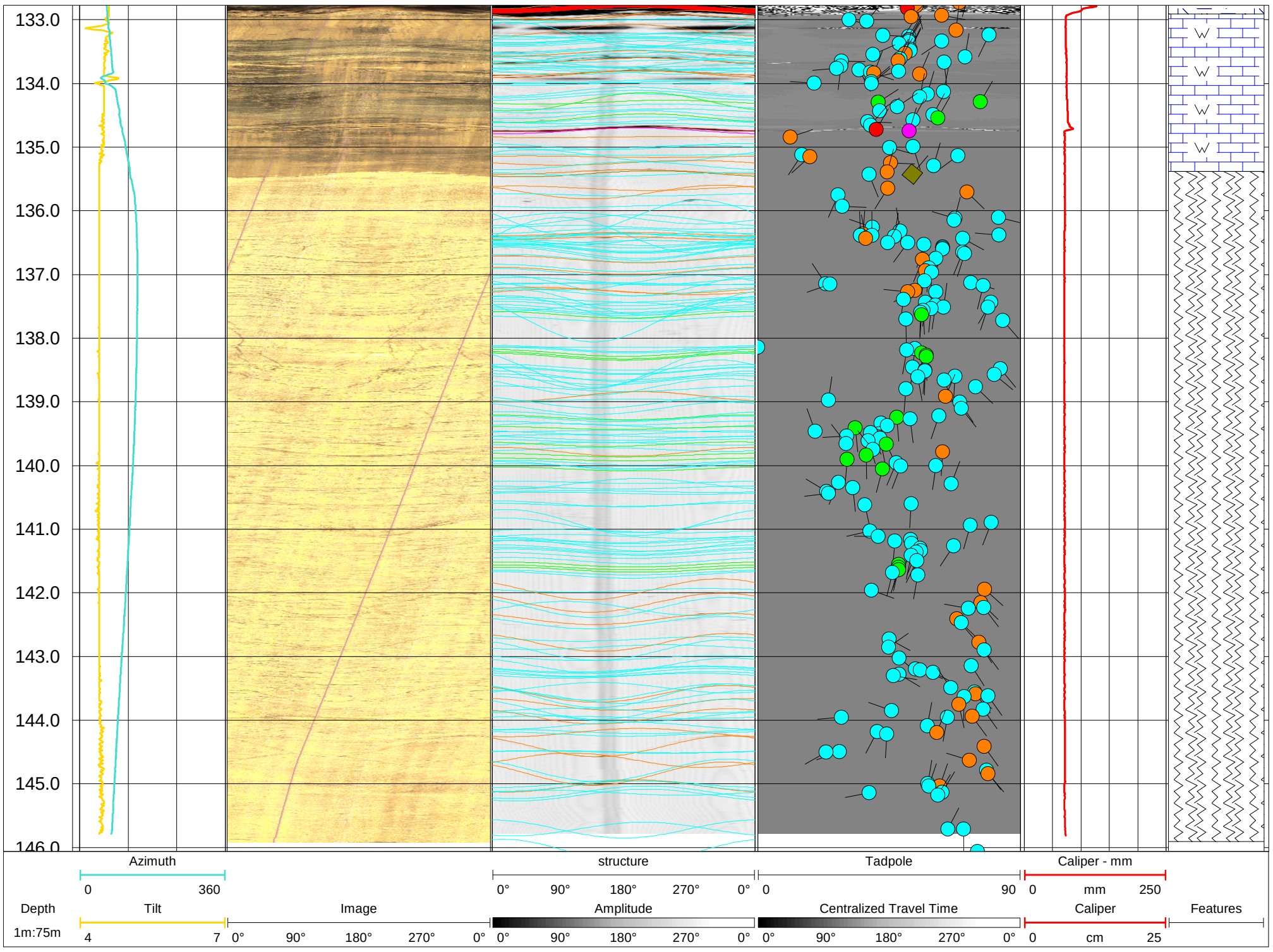


Geophysical Record of Borehole: CM07-1490



Geophysical Record of Borehole: CM07-1490

APPENDIX D
WELLCAD OUTPUT – CM07-1500

GEOPHYSICAL RECORD OF BOREHOLE: CM07-1500

Osisko Project Site, Malartic, Quebec

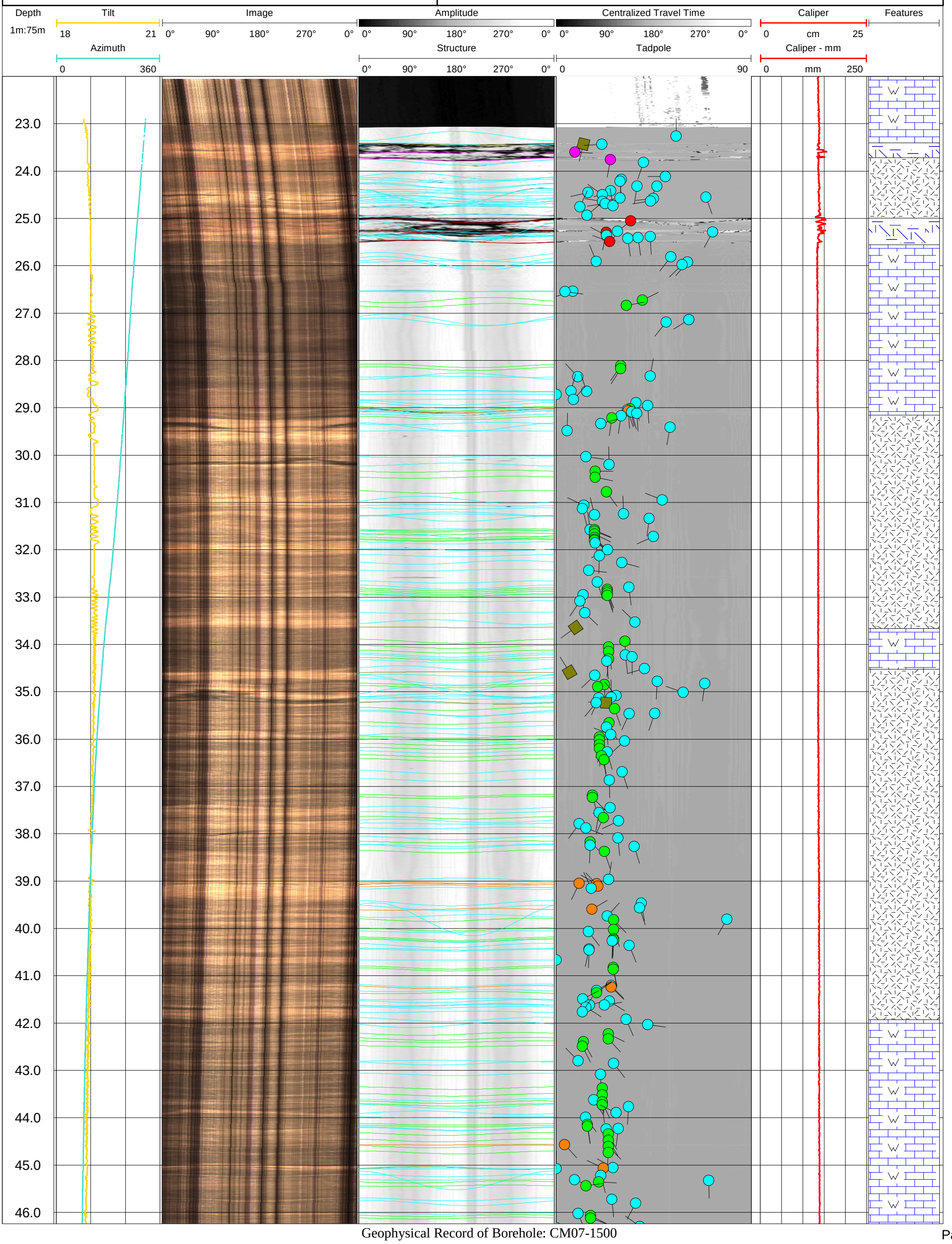
Client: Osisko Exploration Ltd.

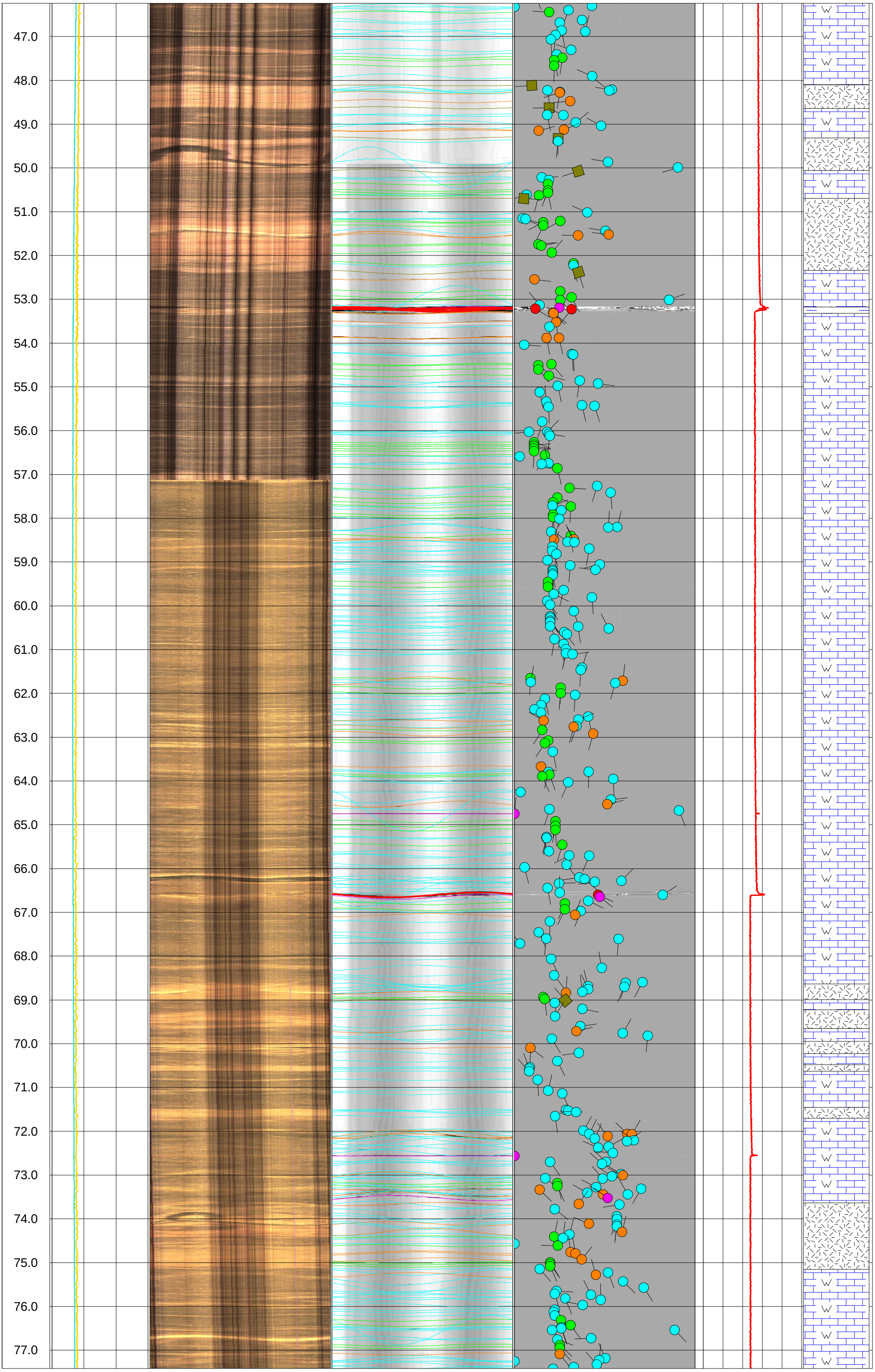
Project Number: 07-1221-0028

Date: February, 2008

Location:	Malartic, Quebec	Depth Reference:	"0" at Ground
Easting:	714,248.075 m	Core Depth Ref:	KB @ 6.0 m agl
Northing:	5,334,898.661 m	Drilling Method:	???
Elevation:	320.859 m	Borehole Diameter:	3"
Datum:	NAD83, Zone UTM 17	Drilled Depth:	???
Log Date:	November 1, 2 & 3, 2007	Casing Depth:	< 23 m bgl
Logged By:	BB	Conductor Diameter:	???

Major Open Joint / Fracture
Minor Open Joint / Fracture
Partially Open Joint / Fracture
Filled Fracture / Joint
Bedding / Banding / Foliation
Geological Contact
Parallel Structure
Broken Zone
Fault Zone
Porphyry
casing
Graywacke
schist

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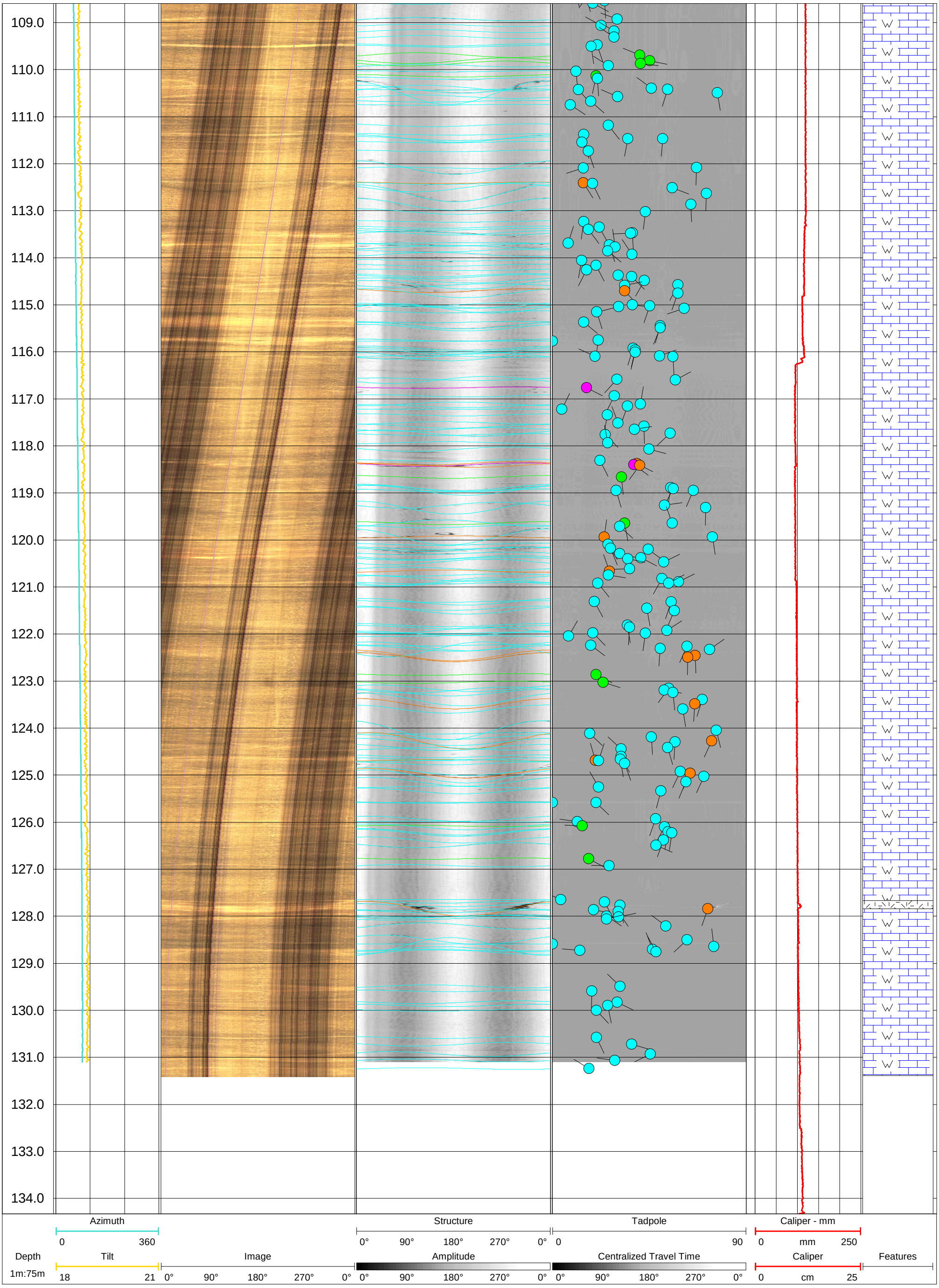
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120.0
121.0
122.0
123.0
124.0
125.0
126.0
127.0
128.0
129.0
130.0
131.0
132.0
133.0
134.0
Azimuth
0
360
Structure
0°
90°
180°
270°
0°
Tadpole
0
90
Caliper - mm
0
mm
250
Depth
1m:75m
Tilt
18
21
Image
0°
90°
180°
270°
0°
Amplitude
0°
90°
180°
270°
0°
Centralized Travel Time
0°
90°
180°
270°
0°
Caliper
0
cm
25
Features

APPENDIX D.2

STRUCTURAL DATA FROM TELEVIEWER IMAGES

Dip (°)	Dip Direction (°)	Depth (m)	Type		Dip (°)	Dip Direction (°)	Depth (m)	Type
52	4	196.83	Vein		34	312	25.33	Joint
76	13	197	Vein		53	163	26.84	Joint
65	55	198.39	Vein (Intact)		52	231	28	Joint
66	51	198.46	Vein (Intact)		28	219	28.19	Joint
59	208	200.18	Vein (Intact)		29	8	29.19	Joint
18	22	200.56	Joint		23	25	31.41	Joint
33	96	201.96	Vein (Intact)		63	14	32.92	Joint
35	357	202.55	Vein (Intact)		46	71	34.91	Vein
59	78	202.84	Vein (Intact)		28	23	35.8	Joint
62	299	203.74	Vein		65	49	36.35	Joint
40	6	204.31	Vein		75	56	36.65	Joint
20	127	204.9	Vein (Intact)		81	196	37.39	Vein
57	75	205.38	Vein		27	129	37.48	Joint
21	97	207.52	Vein		78	68	38.02	Joint
12	88	208.96	Vein		28	332	38.78	Joint
70	63	213.42	Vein		37	343	39.64	Vein
28	133	214.16	Vein		13	21	40.19	Vein
67	80	214.65	Vein		11	40	40.5	Joint
29	50	215.07	Vein (Intact)		30	30	41.4	Vein
72	313	215.7	Vein		44	24	41.71	Vein
79	325	216.25	Bedding Trace		51	342	42.41	Vein
81	317	217.43	Vein		15	7	43.6	Joint
61	78	222.03	Vein (Intact)		43	295	43.79	Joint
52	4	224.21	Vein		49	3	43.98	Joint
1	42	224.9	Vein		77	56	45.02	Joint
70	58	226.56	Vein (Intact)		57	139	45.24	Vein
68	58	228.14	Vein (Intact)		78	170	45.41	Joint
40	288	228.39	Vein		32	216	45.64	Joint
58	22	230.16	Vein (Intact)		75	69	46.35	Joint
76	37	230.91	Vein		77	68	46.61	Joint
31	72	233.03	Vein (Intact)		17	3	47.01	Vein
69	338	233.8	Foliation		72	305	48.61	Vein
75	65	235.11	Vein		69	65	49.92	Joint
23	92	238.43	Vein (Intact)		20	70	50.33	Joint
27	297	241.3	Vein		76	54	51.46	Vein
49	173	242.64	Vein		82	59	51.7	Vein
69	3	243.36	Vein (Intact)		13	142	51.86	Joint
28	83	244.35	Vein (Intact)		73	35	52.29	Vein
26	134	246.6	Vein		72	269	52.65	Vein
70	58	247.18	Vein (Intact)		65	33	53.12	Vein
70	27	248.46	Vein		82	28	53.58	Vein
77	27	249.22	Foliation		16	16	54.16	Joint
79	29	249.91	Foliation		16	29	54.32	Joint
74	40	253.91	Foliation		76	54	55.01	Joint
43	74	266.96	Vein		29	9	55.58	Vein
19	240	270.39	Joint		27	42	56.53	Vein
33	241	275.7	Vein		46	4	56.79	Vein
33	86	276.51	Vein (Intact)		24	33	57.39	Joint
41	100	277.04	Vein		22	155	57.62	Vein
49	76	280.05	Vein		58	142	59.04	Joint
6	241	288.51	Joint		40	231	59.39	Joint
25	242	294	Joint		65	164	59.88	Joint
72	61	296.35	Vein		56	142	60.07	Joint
11	60	4.64	Joint		7	308	60.24	Vein
6	323	6.64	Joint		23	25	60.29	Vein
45	95	7.22	Joint		65	66	60.74	Joint
18	11	7.41	Joint		71	49	60.94	Joint
14	281	8.4	Joint		59	285	62.04	Vein
20	5	10.06	Joint		59	80	62.43	Vein
42	283	10.35	Joint		63	305	63.27	Joint
39	310	15.97	Joint		81	182	63.44	Vein
61	90	17.5	Joint		74	160	63.92	Joint
53	332	17.91	Joint		81	44	64.26	Joint
26	347	18.75	Joint		83	184	64.39	Vein
8	38	19.5	Joint		72	175	66.38	Vein
8	251	19.62	Joint		10	114	66.79	Vein
74	69	20.66	Joint		61	31	67.33	Joint
33	53	21.04	Joint		52	122	68.52	Joint
69	210	22.93	Joint		53	324	68.78	Joint

Dip (°)	Dip Direction (°)	Depth (m)	Type		Dip (°)	Dip Direction (°)	Depth (m)	Type
32	33	69.05	Joint		4	27	110.08	Vein
20	168	69.47	Joint		34	157	110.46	Vein
17	130	69.57	Joint		65	352	110.61	Vein
19	41	71.02	Vein		67	164	110.75	Vein
67	10	71.67	Joint		37	132	111.15	Joint
9	322	71.8	Vein		57	102	111.27	Joint
18	74	72.52	Vein		84	190	112.83	Joint
57	144	72.8	Joint		26	33	113.7	Joint
53	124	73.13	Joint		29	335	114.21	Vein
3	49	73.27	Joint		43	159	114.63	Vein
80	137	74.2	Joint		57	174	114.87	Vein
53	119	74.76	Vein		36	191	115.03	Vein
68	63	75.38	Vein		66	176	115.39	Vein
65	47	75.64	Vein		31	357	115.73	Vein
42	6	76.93	Vein		17	52	116.03	Vein
42	0	78.78	Vein		37	274	116.22	Vein
64	79	79.14	Joint		14	43	116.74	Vein
66	200	80.96	Vein		13	13	116.82	Vein
40	323	81.72	Joint		15	65	117.33	Vein
21	314	81.85	Joint		19	294	117.72	Bedding
79	196	81.96	Vein		18	243	117.89	Bedding
23	12	82.19	Vein		18	276	118.09	Bedding
37	355	83.57	Joint		19	7	118.16	Bedding
39	336	83.7	Joint		18	259	118.31	Bedding
65	176	84.06	Vein		55	115	118.36	Joint
21	254	84.25	Joint		18	259	118.44	Bedding
46	132	84.44	Vein		22	306	118.49	Bedding
50	161	84.58	Vein		22	246	118.61	Bedding
54	155	84.73	Vein		22	236	118.75	Bedding
72	92	85.19	Joint		11	2	119.14	Vein
69	354	85.63	Vein		74	57	119.28	Vein
31	11	86.17	Vein		55	323	119.88	Vein
72	12	86.69	Vein		72	340	120.01	Joint
50	107	87.4	Vein		63	7	120.4	Joint
54	115	87.63	Vein		54	107	120.58	Joint
80	52	87.75	Vein		55	168	120.71	Joint
80	199	88.72	Vein		40	52	121.03	Joint
83	187	89.77	Vein		21	101	121.27	Joint
31	345	91.29	Vein		78	176	121.47	Joint
59	192	92.82	Vein		22	146	122.17	Vein
14	15	93.63	Joint		10	221	122.58	Vein
77	51	94.26	Vein		71	4	123.22	Vein
25	285	94.62	Vein		66	88	123.27	Vein
65	123	95.61	Joint		52	91	123.62	Vein
24	280	96.25	Joint		29	300	124.16	Vein
33	162	97.09	Joint		77	268	124.51	Joint
22	16	97.48	Vein		67	316	125.08	Joint
47	153	97.93	Vein		73	322	125.27	Joint
39	170	98.5	Vein		70	356	125.54	Joint
24	267	98.77	Joint		66	72	125.88	Vein
39	150	99.21	Joint		52	102	126.03	Vein
16	356	100.3	Vein		54	106	126.54	Joint
57	180	101.03	Vein		22	151	126.81	Joint
25	18	101.47	Vein		27	357	127.11	Joint
44	177	101.94	Vein		46	168	127.17	Joint
68	328	102.17	Vein		69	83	127.73	Vein
68	167	102.36	Vein		65	99	128.4	Vein
80	182	103.24	Joint		65	126	128.73	Joint
27	358	103.59	Vein		75	179	128.96	Vein
17	291	104.11	Joint		27	318	129.31	Vein
41	111	106.32	Joint		30	349	129.48	Joint
64	175	106.81	Vein		31	8	129.52	Joint
78	174	106.85	Joint		31	13	129.59	Joint
74	175	107.38	Vein		31	13	129.7	Joint
72	78	107.63	Vein		63	54	129.77	Vein
2	255	107.77	Vein		28	33	129.93	Joint
11	12	108.6	Joint		28	5	130.06	Joint
77	93	108.87	Vein		68	82	130.49	Joint
4	336	109.57	Vein		55	186	131.28	Joint

Dip (°)	Dip Direction (°)	Depth (m)	Type		Dip (°)	Dip Direction (°)	Depth (m)	Type
68	70	131.33	Vein		40	121	150.17	Joint
58	183	131.58	Vein		69	8	150.44	Joint
26	17	131.92	Vein		43	81	150.5	Joint
46	145	132.02	Vein		52	83	150.78	Joint
30	355	132.18	Vein		63	353	151.01	Joint
30	346	132.25	Vein		35	134	151.35	Joint
46	152	132.34	Vein		48	147	151.59	Joint
30	17	132.47	Joint		48	152	151.96	Joint
68	4	132.52	Vein		55	55	152.8	Joint
23	3	132.81	Joint		15	41	152.97	Joint
45	165	133.26	Joint		71	53	153.19	Joint
63	73	134.27	Joint		26	39	153.42	Joint
25	110	134.47	Joint		73	9	153.44	Vein
64	337	134.84	Joint		65	2	154.3	Vein
68	49	135.31	Vein		63	66	154.44	Vein
59	55	135.49	Vein		41	88	154.63	Joint
78	167	135.75	Vein		53	60	154.79	Joint
52	192	136.05	Vein		66	55	155.23	Joint
64	2	136.44	Vein		13	152	155.52	Joint
38	355	136.56	Vein		81	18	155.68	Vein
60	0	137.16	Vein		68	53	155.78	Vein
52	108	137.28	Joint		60	163	155.82	Vein
72	348	137.35	Vein		32	335	156.2	Vein
47	162	137.62	Vein		59	6	156.31	Vein
51	105	138.17	Vein		50	94	156.6	Vein
52	92	138.63	Vein		60	178	156.85	Joint
22	305	138.8	Joint		28	326	156.92	Joint
51	108	139.28	Joint		47	54	157.06	Joint
74	294	139.46	Joint		56	41	157.4	Joint
42	10	139.57	Joint		10	39	157.67	Joint
43	2	139.81	Joint		74	176	157.82	Joint
32	354	140.37	Vein		58	55	158.05	Joint
48	168	140.93	Vein		58	10	158.32	Vein
51	178	141	Joint		46	24	158.46	Vein
44	356	141.09	Vein		42	62	158.62	Vein
75	1	142.19	Vein		39	58	158.66	Vein
58	97	142.26	Joint		66	349	159.27	Vein
28	329	142.47	Vein		43	79	159.66	Joint
58	32	142.84	Vein		58	277	159.84	Joint
58	166	143.14	Vein		19	9	160.13	Joint
14	57	143.27	Joint		46	115	160.34	Joint
57	59	143.44	Joint		66	70	160.42	Joint
52	56	143.59	Joint		11	31	160.45	Joint
65	155	144.1	Vein		48	355	160.64	Joint
61	1	144.22	Vein		44	79	161.15	Joint
11	40	144.28	Joint		50	69	161.24	Joint
64	57	144.36	Vein		48	87	161.41	Joint
47	81	144.47	Joint		25	359	161.67	Vein
67	342	144.75	Vein		69	13	161.79	Vein
71	79	145.24	Joint		63	359	161.95	Vein
76	274	145.78	Joint		62	23	162.19	Vein
31	2	146.06	Vein		51	110	162.37	Joint
49	94	146.35	Joint		52	56	162.44	Vein
59	86	146.68	Vein		63	51	162.7	Vein
59	85	146.83	Vein		52	82	162.8	Vein
74	60	147.19	Vein		63	24	163.2	Vein
34	277	147.3	Joint		59	49	163.4	Vein
23	92	147.42	Joint		61	50	163.54	Vein
63	166	147.64	Joint		55	120	163.98	Vein
78	60	147.88	Vein		69	45	164.53	Vein
73	187	147.97	Vein		23	58	164.57	Vein
37	143	148.47	Vein		71	63	164.96	Vein
60	41	148.57	Vein		57	15	165.82	Vein
67	45	148.73	Vein		51	55	166.14	Joint
54	82	149.02	Joint		52	8	166.61	Vein
80	21	149.13	Vein		15	293	166.94	Vein
55	147	149.3	Joint		73	111	167.24	Joint
65	137	149.51	Joint		72	72	167.75	Vein
43	140	149.94	Joint		53	26	167.91	Vein

Dip (°)	Dip Direction (°)	Depth (m)	Type		Dip (°)	Dip Direction (°)	Depth (m)	Type
71	71	168.09	Vein		48	358	188.91	Vein
57	46	168.39	Joint		67	53	189.35	Vein
56	56	168.57	Vein		76	18	189.68	Vein
59	48	168.99	Vein		27	90	189.7	Joint
54	208	169.3	Joint		48	358	190.14	Vein
60	140	169.58	Joint		19	105	190.23	Vein
31	54	169.79	Vein		50	10	190.53	Vein
52	3	170.09	Vein		19	13	190.78	Joint
56	59	170.26	Vein		50	71	190.9	Joint
50	52	170.51	Vein		72	73	190.98	Vein
19	248	170.88	Joint		57	0	191.59	Vein
79	24	171.18	Vein		11	343	191.68	Joint
25	228	171.61	Unknown		7	312	192.3	Joint
69	50	171.7	Vein		78	59	192.61	Vein
42	5	171.77	Vein		25	5	192.94	Joint
13	334	172.1	Vein		63	6	193.75	Joint
56	62	172.42	Joint		82	72	194.08	Vein
30	7	172.44	Vein		25	28	194.32	Vein
61	67	172.55	Vein		66	66	194.58	Vein
62	91	173.01	Joint		36	46	194.7	Vein
20	355	173.02	Joint		58	351	195.52	Joint
68	86	173.25	Vein		65	202	195.63	Vein
11	151	173.32	Vein		47	351	195.93	Vein
64	46	173.77	Vein		72	57	196.76	Vein
48	52	173.9	Vein		55	354	196.83	Vein
73	193	174.16	Vein		77	18	197	Vein
54	153	174.36	Joint		23	87	197.61	Joint
59	53	174.62	Joint		64	61	198.1	Joint
60	55	174.75	Vein		65	53	198.39	Vein
27	358	174.93	Joint		75	18	198.91	Joint
10	25	175.12	Vein		42	351	199.67	Vein
45	108	175.27	Vein		51	70	199.72	Vein
59	54	175.45	Vein		59	4	200.1	Vein
47	11	175.52	Vein		61	207	200.18	Joint
20	352	175.65	Joint		15	13	200.54	Joint
64	66	175.96	Vein		69	322	200.92	Joint
18	359	176.04	Joint		52	354	201.12	Joint
65	188	176.13	Joint		55	188	201.47	Vein
52	355	176.3	Joint					
56	60	176.71	Vein					
52	15	176.74	Vein					
71	77	176.98	Vein					
60	11	177.56	Vein					
59	16	177.73	Joint					
84	72	178.02	Vein					
43	249	178.1	Vein					
70	58	178.61	Vein					
65	70	178.85	Vein					
27	32	179.37	Vein					
42	346	179.54	Vein					
12	273	179.74	Joint					
68	55	179.86	Vein					
56	83	180.25	Vein					
74	166	180.63	Joint					
58	68	180.74	Joint					
45	359	181.08	Vein					
33	137	181.62	Vein					
52	85	182.28	Vein					
61	69	182.66	Joint					
51	76	183.44	Vein					
22	58	183.81	Vein					
28	214	185.93	Vein					
51	358	186.3	Vein					
62	163	186.3	Vein					
44	35	186.47	Vein					
55	50	186.73	Joint					
47	10	187	Vein					
52	10	187.25	Vein					
72	318	188.55	Joint					

Dip (°)	Dip Direction (°)	Depth (m)	Type		Dip (°)	Dip Direction (°)	Depth (m)	Type
27	119	6.17	3-Joint		33	117	23.58	3-Joint
29	214	6.24	3-Joint		40	81	23.72	3-Joint
31	129	7.4	6-Vein		31	117	24.18	3-Joint
21	294	7.67	3-Joint		32	81	24.85	3-Joint
8	192	7.79	3-Joint		36	148	25.1	3-Joint
32	70	8.06	3-Joint		37	132	25.41	3-Joint
38	103	8.35	3-Joint		37	119	25.52	3-Joint
36	54	8.72	3-Joint		37	104	25.66	3-Joint
37	82	8.8	3-Joint		38	175	25.89	3-Joint
42	128	8.95	3-Joint		47	70	26.17	6-Vein
42	114	8.99	3-Joint		33	78	26.32	6-Vein
25	305	9.23	3-Joint		39	95	26.41	4-Bedding
45	76	9.29	3-Joint		39	84	26.59	4-Bedding
29	97	9.55	12-Dike		39	90	26.78	4-Bedding
32	107	9.7	4-Bedding		39	97	26.93	4-Bedding
36	109	9.8	4-Bedding		39	103	27.09	4-Bedding
44	91	9.93	4-Bedding		39	101	27.27	4-Bedding
39	78	10.01	4-Bedding		30	121	27.45	4-Bedding
49	60	10.14	4-Bedding		46	78	27.6	6-Vein
49	61	10.27	4-Bedding		32	178	27.73	6-Vein
77	44	10.56	3-Joint		29	95	27.99	6-Vein
40	93	10.79	3-Joint		29	82	28.22	6-Vein
29	134	10.88	3-Joint		31	82	28.61	3-Joint
20	303	11.1	3-Joint		22	133	28.86	3-Joint
33	124	11.3	4-Bedding		25	124	29.98	6-Vein
56	67	11.54	3-Joint		21	29	30.12	3-Joint
8	59	11.72	12-Dike		15	40	30.2	3-Joint
58	131	12.1	3-Joint		24	127	30.32	3-Joint
34	138	12.31	12-Dike		28	170	30.38	3-Joint
32	176	12.68	3-Joint		31	151	30.47	3-Joint
38	90	12.98	3-Joint		44	186	30.57	3-Joint
33	82	13.16	3-Joint		29	100	30.64	3-Joint
27	324	13.28	3-Joint		22	125	30.98	3-Joint
59	329	13.67	3-Joint		16	89	31.06	3-Joint
22	99	13.86	3-Joint		23	132	31.2	6-Vein
56	310	13.91	3-Joint		30	105	31.52	3-Joint
65	358	14.06	3-Joint		28	107	31.65	6-Vein
32	148	14.16	3-Joint		16	118	31.97	3-Joint
24	96	14.42	3-Joint		37	157	32.03	4-Bedding
30	288	14.65	3-Joint		37	149	32.23	4-Bedding
39	145	15.2	3-Joint		36	133	32.43	4-Bedding
38	133	15.5	3-Joint		36	127	32.48	4-Bedding
19	323	15.68	3-Joint		36	135	32.7	4-Bedding
37	107	15.74	3-Joint		34	156	33.13	3-Joint
35	178	15.88	4-Bedding		18	35	33.56	3-Joint
38	165	15.94	4-Bedding		28	162	33.81	3-Joint
26	176	16.1	4-Bedding		17	129	33.91	3-Joint
27	144	16.27	4-Bedding		41	186	34.09	3-Joint
22	132	16.35	4-Bedding		34	232	34.2	3-Joint
24	108	16.51	4-Bedding		44	115	34.47	3-Joint
35	88	16.64	4-Bedding		43	103	34.62	3-Joint
33	102	16.76	4-Bedding		35	116	34.83	3-Joint
30	86	16.93	4-Bedding		29	335	35.1	3-Joint
30	81	17.09	4-Bedding		24	130	35.24	3-Joint
30	107	17.31	4-Bedding		39	91	35.38	3-Joint
46	81	17.64	4-Bedding		26	104	35.44	6-Vein
41	92	18.02	4-Bedding		35	139	35.66	3-Joint
32	112	18.22	4-Bedding		19	130	35.94	3-Joint
22	93	18.99	12-Dike		24	129	36.19	3-Joint
32	118	19.53	3-Joint		27	124	36.52	3-Joint
28	103	19.71	3-Joint		36	174	36.74	3-Joint
35	126	20.2	3-Joint		28	64	36.86	3-Joint
21	142	20.42	3-Joint		46	68	37.03	3-Joint
18	137	21.51	3-Joint		39	123	37.27	3-Joint
33	118	21.76	3-Joint		38	102	37.67	3-Joint
22	150	22.12	3-Joint		36	134	37.76	3-Joint
41	140	22.44	3-Joint		19	118	38.1	4-Bedding
40	287	22.72	3-Joint		35	109	38.29	4-Bedding
29	178	23.07	3-Joint		37	95	38.35	4-Bedding

Dip (°)	Dip Direction (°)	Depth (m)	Type		Dip (°)	Dip Direction (°)	Depth (m)	Type
13	123	38.88	6-Vein		32	94	55.25	3-Joint
60	125	39.24	3-Joint		42	186	55.48	3-Joint
39	79	39.86	3-Joint		29	158	56.12	3-Joint
73	74	40.08	3-Joint		35	99	56.43	6-Vein
45	121	40.13	6-Vein		35	106	56.6	6-Vein
20	172	40.37	6-Vein		42	180	56.79	6-Vein
37	134	40.64	6-Vein		37	21	57.24	3-Joint
53	145	40.71	6-Vein		27	114	57.7	6-Vein
23	133	40.92	6-Vein		28	107	57.75	3-Joint
35	143	41.08	3-Joint		40	119	58.12	3-Joint
65	342	41.43	3-Joint		53	102	59.11	3-Joint
25	86	41.79	4-Bedding		72	203	59.32	3-Joint
32	78	41.96	4-Bedding		27	103	59.55	3-Joint
50	278	42.22	3-Joint		65	201	59.74	3-Joint
33	73	42.6	3-Joint		24	126	60.01	3-Joint
47	118	43	3-Joint		30	120	60.08	3-Joint
27	131	43.44	3-Joint		29	118	60.54	3-Joint
27	85	43.72	3-Joint		44	331	60.8	3-Joint
6	114	43.88	3-Joint		22	139	60.82	3-Joint
23	142	44.04	3-Joint		57	137	61.04	3-Joint
26	91	44.11	3-Joint		34	265	61.1	3-Joint
37	111	44.87	3-Joint		20	135	61.17	3-Joint
26	5	44.97	3-Joint		28	123	61.24	3-Joint
29	124	45.36	3-Joint		20	83	61.43	3-Joint
20	136	45.54	3-Joint		36	155	61.92	3-Joint
54	237	45.81	3-Joint		23	351	62.04	3-Joint
26	57	45.91	3-Joint		23	346	62.15	3-Joint
23	129	46.03	3-Joint		14	7	62.37	3-Joint
33	139	46.18	3-Joint		48	107	62.83	3-Joint
42	1	46.37	3-Joint		33	130	63.24	3-Joint
70	179	46.42	3-Joint		33	132	63.52	3-Joint
29	7	46.49	3-Joint		33	4	63.78	3-Joint
21	71	46.63	3-Joint		43	115	64.02	3-Joint
51	71	46.82	3-Joint		62	91	64.37	3-Joint
30	117	47.16	3-Joint		29	211	65.5	3-Joint
32	132	47.32	3-Joint		31	125	66.22	6-Vein
26	156	47.41	3-Joint		62	212	66.53	3-Joint
26	168	47.56	3-Joint		21	123	66.53	6-Vein
34	146	47.7	3-Joint		13	27	66.68	6-Vein
35	183	47.77	3-Joint		30	169	66.91	6-Vein
19	138	47.85	3-Joint		30	137	68.06	3-Joint
40	142	47.88	3-Joint		29	143	68.33	6-Vein
7	151	48.08	3-Joint		29	138	68.48	6-Vein
37	118	48.23	3-Joint		18	329	68.6	3-Joint
26	29	48.54	3-Joint		30	137	68.67	6-Vein
48	168	48.67	3-Joint		26	142	69.14	6-Vein
20	113	48.78	3-Joint		35	221	69.24	3-Joint
49	198	48.94	3-Joint		10	160	69.38	3-Joint
19	123	49.01	3-Joint		29	112	69.45	6-Vein
31	120	49.2	3-Joint		80	8	69.55	3-Joint
76	209	49.81	3-Joint		53	195	69.69	3-Joint
22	146	50.05	3-Joint		77	206	69.98	3-Joint
23	107	50.61	6-Vein		37	148	70.46	6-Vein
37	108	51.07	3-Joint		36	177	70.76	3-Joint
34	149	51.4	3-Joint		76	347	71.11	3-Joint
29	197	51.56	3-Joint		36	147	71.4	3-Joint
21	165	51.62	3-Joint		40	136	71.62	6-Vein
49	115	51.86	3-Joint		39	158	71.75	3-Joint
27	130	52.08	3-Joint		47	189	72.49	3-Joint
35	124	52.37	6-Vein		31	149	72.7	6-Vein
50	128	53	3-Joint		30	357	72.96	3-Joint
50	115	53.09	3-Joint		48	169	73.1	3-Joint
30	105	53.29	6-Vein		31	152	73.65	3-Joint
21	118	53.49	3-Joint		65	220	73.86	3-Joint
24	39	53.75	3-Joint		50	233	74.03	3-Joint
19	156	53.84	3-Joint		54	255	74.1	3-Joint
49	115	54.08	3-Joint		40	162	74.26	3-Joint
25	46	54.28	3-Joint		37	206	74.64	3-Joint
47	105	55.15	3-Joint		45	108	74.89	3-Joint

Dip (°)	Dip Direction (°)	Depth (m)	Type		Dip (°)	Dip Direction (°)	Depth (m)	Type
49	221	75.06	6-Vein		29	212	91.2	7-Vein (Intact)
56	344	75.41	3-Joint		59	240	91.72	3-Joint
24	121	75.53	3-Joint		32	181	91.83	4-Bedding
28	146	75.65	3-Joint		34	133	91.94	4-Bedding
43	166	76.16	4-Bedding		30	107	92.03	4-Bedding
45	171	76.31	4-Bedding		27	168	92.15	4-Bedding
44	161	76.63	4-Bedding		18	161	92.21	12-Dike
49	0	76.65	3-Joint		12	66	92.44	12-Dike
44	150	76.75	4-Bedding		21	186	92.62	12-Dike
51	164	76.89	3-Joint		51	170	92.85	12-Dike
43	169	76.93	3-Joint		63	184	93.49	3-Joint
34	173	77.06	4-Bedding		25	185	93.67	3-Joint
39	156	77.18	6-Vein		36	187	94.37	3-Joint
40	211	77.33	6-Vein		42	134	94.52	3-Joint
33	206	77.66	6-Vein		33	180	94.71	4-Bedding
35	172	77.76	6-Vein		34	164	94.82	4-Bedding
33	168	77.9	6-Vein		36	169	94.85	4-Bedding
51	341	77.92	3-Joint		37	221	95.08	4-Bedding
27	171	78.06	3-Joint		38	265	95.18	4-Bedding
16	193	78.13	3-Joint		33	220	95.47	4-Bedding
75	199	78.26	3-Joint		26	140	95.76	4-Bedding
41	30	78.4	3-Joint		31	173	96.12	4-Bedding
32	190	78.51	6-Vein		39	141	96.22	3-Joint
50	34	78.69	3-Joint		22	99	96.5	3-Joint
27	29	79.02	3-Joint		32	160	96.91	3-Joint
38	183	79.2	6-Vein		30	116	97.03	3-Joint
19	304	79.74	3-Joint		19	327	97.3	3-Joint
75	352	79.94	3-Joint		45	238	97.49	3-Joint
55	175	80.23	3-Joint		39	201	97.8	3-Joint
39	181	80.4	3-Joint		36	194	97.99	3-Joint
11	13	80.56	3-Joint		15	137	98.39	3-Joint
42	228	80.92	3-Joint		40	210	98.59	3-Joint
38	178	81.77	3-Joint		36	206	98.8	3-Joint
44	161	82.82	3-Joint		36	185	99.49	3-Joint
38	171	83.02	6-Vein		13	218	99.76	3-Joint
60	280	83.28	3-Joint		43	216	100.27	3-Joint
33	178	83.55	6-Vein		50	204	100.56	3-Joint
43	293	83.73	3-Joint		42	190	100.85	3-Joint
40	156	84.08	10-Contact		75	10	101.08	3-Joint
73	15	84.41	3-Joint		47	218	101.28	3-Joint
75	9	84.64	3-Joint		45	132	101.87	3-Joint
27	292	84.86	3-Joint		55	122	101.94	3-Joint
64	189	85	3-Joint		57	134	102.01	3-Joint
53	164	85.17	3-Joint		65	6	102.06	6-Vein
34	181	85.24	3-Joint		49	234	102.34	3-Joint
38	188	85.73	3-Joint		60	14	102.64	3-Joint
31	151	86.29	6-Vein		53	191	102.8	3-Joint
27	85	86.95	3-Joint		45	198	102.86	3-Joint
36	195	87.07	3-Joint		32	200	102.99	3-Joint
33	143	87.27	3-Joint		36	144	103.18	6-Vein
46	198	87.61	3-Joint		15	344	103.39	3-Joint
0	246	87.76	14-Unknown		41	148	103.51	6-Vein
0	260	87.77	14-Unknown		36	172	103.74	3-Joint
9	170	87.79	3-Joint		53	228	104.14	6-Vein
40	138	87.87	3-Joint		35	250	104.22	3-Joint
49	170	88.33	3-Joint		46	152	104.23	6-Vein
39	185	88.4	3-Joint		47	181	104.61	3-Joint
54	183	88.46	3-Joint		33	207	104.77	3-Joint
51	211	88.54	3-Joint		32	302	104.84	3-Joint
46	221	88.6	3-Joint		37	195	105.57	3-Joint
38	213	88.92	6-Vein		40	192	106.03	3-Joint
30	202	89.34	14-Unknown		26	154	106.19	3-Joint
8	205	89.42	14-Unknown		29	146	106.28	3-Joint
55	206	89.71	14-Unknown		32	167	106.51	3-Joint
56	217	89.99	6-Vein		40	309	106.84	3-Joint
22	155	90.37	11-Contact (Intact)		34	161	107.47	6-Vein
31	55	90.59	3-Joint		35	179	108.41	6-Vein
37	188	90.71	3-Joint		53	210	109.97	3-Joint
18	94	90.88	7-Vein (Intact)		42	70	110.17	3-Joint

Dip (°)	Dip Direction (°)	Depth (m)	Type		Dip (°)	Dip Direction (°)	Depth (m)	Type
38	150	110.35	6-Vein		41	222	131.88	3-Joint
48	145	110.5	3-Joint		67	212	132.14	3-Joint
31	194	110.63	3-Joint		36	194	133.04	3-Joint
49	207	111.36	6-Vein		37	163	133.98	6-Vein
25	214	111.59	6-Vein		41	204	134.17	3-Joint
56	199	111.71	6-Vein		37	174	134.42	6-Vein
46	168	112.13	6-Vein		50	146	134.67	6-Vein
54	213	112.63	3-Joint		42	322	135.04	6-Vein
45	208	112.81	3-Joint		34	185	135.34	3-Joint
20	104	113.18	3-Joint		33	174	135.39	3-Joint
36	194	113.32	3-Joint		42	172	136.06	3-Joint
73	165	113.51	3-Joint		48	159	136.19	3-Joint
32	137	113.62	3-Joint		62	205	136.81	3-Joint
41	153	113.73	3-Joint		40	162	137.84	6-Vein
36	190	113.94	6-Vein		38	173	138.49	6-Vein
41	192	114.14	6-Vein		42	163	138.58	3-Joint
46	194	114.47	6-Vein		37	163	138.67	3-Joint
48	192	114.71	6-Vein		44	171	138.72	3-Joint
52	193	115.31	3-Joint		32	197	139.12	3-Joint
48	158	115.51	6-Vein		57	187	139.26	3-Joint
35	205	115.74	3-Joint		36	172	139.47	3-Joint
60	131	115.84	3-Joint		40	173	140.1	3-Joint
34	327	115.91	3-Joint		48	191	140.16	3-Joint
27	139	116.18	3-Joint		40	185	140.25	3-Joint
4	334	116.22	3-Joint		51	183	140.34	3-Joint
25	222	116.31	3-Joint		56	192	140.78	3-Joint
39	200	116.41	3-Joint		45	150	140.98	3-Joint
38	214	116.45	3-Joint		58	171	141.15	3-Joint
36	284	116.81	3-Joint		43	148	141.77	6-Vein
39	288	117.22	3-Joint		39	188	142.3	6-Vein
24	319	117.33	3-Joint		45	152	142.46	3-Joint
22	192	117.47	3-Joint		61	269	143.04	3-Joint
39	148	117.84	3-Joint		64	271	143.53	3-Joint
24	341	117.95	3-Joint		25	164	143.65	6-Vein
35	154	118.04	6-Vein		49	223	143.78	3-Joint
31	279	118.53	6-Vein		52	199	143.85	3-Joint
44	180	118.74	6-Vein		70	226	144.36	3-Joint
47	178	118.99	6-Vein		23	14	144.52	3-Joint
31	176	119.42	4-Bedding		41	167	144.67	3-Joint
53	220	119.56	6-Vein		64	266	145.33	3-Joint
35	162	119.68	4-Bedding		38	173	145.49	3-Joint
36	138	119.83	4-Bedding		54	171	145.89	3-Joint
43	182	119.96	4-Bedding		48	186	146.26	3-Joint
57	215	120.18	6-Vein		33	166	146.74	6-Vein
50	149	120.74	4-Bedding		32	169	146.81	6-Vein
40	158	121.68	3-Joint		39	189	147.25	3-Joint
18	336	122.1	3-Joint		45	280	147.53	3-Joint
56	193	122.68	3-Joint		69	139	147.77	3-Joint
68	206	123.09	3-Joint		41	185	147.84	6-Vein
23	132	123.44	3-Joint		35	226	147.97	6-Vein
45	133	123.51	3-Joint		37	174	148.73	6-Vein
49	126	124.49	6-Vein		45	193	148.95	6-Vein
63	199	124.95	6-Vein		25	132	149.27	6-Vein
29	167	125.59	3-Joint		35	186	149.79	3-Joint
38	170	125.63	3-Joint		47	169	150.01	3-Joint
58	223	126.18	3-Joint		45	281	150.45	3-Joint
19	338	126.25	3-Joint		44	195	150.66	3-Joint
57	205	126.4	3-Joint		42	166	150.85	4-Bedding
52	172	126.58	3-Joint		49	146	151	4-Bedding
45	156	126.64	3-Joint		39	113	151.11	4-Bedding
41	179	127.94	6-Vein		34	93	151.21	4-Bedding
42	187	128.35	6-Vein		34	109	151.33	4-Bedding
29	0	128.86	3-Joint		47	119	151.51	4-Bedding
18	146	129.18	3-Joint		41	101	151.66	4-Bedding
8	302	129.35	3-Joint		43	111	151.8	4-Bedding
34	179	130.15	3-Joint		38	167	152.02	6-Vein
15	348	130.87	3-Joint		40	167	152.86	6-Vein
42	141	131.09	3-Joint		32	187	153.28	6-Vein
51	239	131.2	3-Joint		77	16	153.75	3-Joint

Dip (°)	Dip Direction (°)	Depth (m)	Type		Dip (°)	Dip Direction (°)	Depth (m)	Type
38	162	153.86	6-Vein		40	172	172.54	6-Vein
68	211	154.23	3-Joint		42	175	172.97	6-Vein
69	17	154.28	3-Joint		41	183	173.24	6-Vein
64	288	154.49	12-Dike		33	171	173.52	3-Joint
73	205	154.75	3-Joint		42	162	174.28	3-Joint
40	167	154.88	3-Joint		38	170	174.79	6-Vein
69	35	155.34	3-Joint		43	178	175.02	6-Vein
46	163	155.76	3-Joint		41	158	175.25	6-Vein
30	156	155.88	3-Joint		32	162	176.14	3-Joint
51	175	156.14	3-Joint		30	152	176.21	3-Joint
62	197	156.53	3-Joint		45	169	176.71	6-Vein
57	141	156.92	3-Joint		42	134	177.57	3-Joint
30	179	156.93	3-Joint		45	167	177.99	6-Vein
50	149	156.98	3-Joint		46	201	178.04	6-Vein
48	190	157.06	6-Vein		39	146	178.43	6-Vein
50	175	157.15	6-Vein		45	194	178.57	6-Vein
38	187	157.33	6-Vein		52	143	179.25	3-Joint
11	226	157.82	3-Joint		41	171	179.41	6-Vein
43	173	157.94	3-Joint		38	180	179.71	6-Vein
41	185	158.1	6-Vein		47	182	179.79	6-Vein
43	142	158.45	6-Vein		64	177	180	3-Joint
41	170	158.68	6-Vein		12	279	180.13	3-Joint
37	164	159.14	6-Vein		19	311	180.31	3-Joint
40	182	159.6	6-Vein		52	151	180.46	3-Joint
47	182	160.27	6-Vein		45	168	180.63	6-Vein
52	178	160.71	6-Vein		41	171	180.82	6-Vein
36	150	161.84	6-Vein		61	185	180.88	3-Joint
47	190	161.93	6-Vein		35	187	181.36	6-Vein
40	183	162.02	6-Vein					
45	187	162.32	6-Vein					
55	102	162.42	6-Vein					
36	179	162.74	6-Vein					
40	183	162.81	6-Vein					
40	172	163	3-Joint					
37	173	163.08	3-Joint					
50	175	163.21	3-Joint					
36	189	163.59	6-Vein					
49	102	163.81	6-Vein					
38	157	163.93	6-Vein					
39	179	164.07	4-Bedding					
40	157	164.21	4-Bedding					
41	152	164.3	4-Bedding					
41	180	164.38	4-Bedding					
57	201	164.5	4-Bedding					
48	200	164.59	6-Vein					
42	185	164.69	3-Joint					
41	174	165.17	6-Vein					
34	173	165.33	6-Vein					
21	284	165.61	6-Vein					
46	165	165.86	6-Vein					
44	165	166.06	3-Joint					
45	197	166.46	3-Joint					
47	167	166.66	3-Joint					
54	191	167.07	3-Joint					
50	199	167.33	3-Joint					
38	174	167.53	3-Joint					
38	179	167.76	3-Joint					
39	181	168.3	3-Joint					
38	179	168.57	6-Vein					
43	162	168.9	6-Vein					
42	173	169.04	6-Vein					
40	131	169.14	3-Joint					
36	183	169.43	6-Vein					
41	174	169.76	6-Vein					
45	173	170.12	6-Vein					
42	190	170.33	6-Vein					
43	164	170.63	6-Vein					
48	178	171.77	6-Vein					
45	175	172.21	6-Vein					

Dip (°)	Dip Direction (°)	Depth (m)	Type		Dip (°)	Dip Direction (°)	Depth (m)	Type
88	355	5.87	Joint		71	18	55.55	Vein (Intact)
2	331	12.67	Foliation (Intact)		73	25	55.73	Foliation (Intact)
2	324	13.15	Foliation (Intact)		66	29	56.61	Vein (Intact)
82	359	21.14	Joint		25	289	57.78	Vein (Intact)
88	354	21.41	Joint		54	353	58.02	Vein (Intact)
84	351	21.47	Joint		79	317	58.06	Vein (Intact)
89	5	21.71	Joint		65	45	58.19	Vein (Intact)
28	44	22.74	Vein (Intact)		46	49	58.74	Vein (Intact)
26	288	22.94	Vein		71	31	59.38	Vein (Intact)
84	359	24.07	Vein (Intact)		64	315	59.5	Vein (Intact)
85	178	24.39	Vein (Intact)		89	352	59.97	Foliation (Intact)
83	352	24.78	Foliation (Intact)		85	348	60.28	Foliation
88	169	25.91	Joint		87	351	60.51	Foliation (Intact)
61	32	26.16	Vein (Intact)		82	351	61.28	Foliation
10	12	26.41	Joint		83	347	61.78	Foliation (Intact)
89	341	26.55	Joint		69	25	62.86	Vein (Intact)
8	96	26.85	Joint		70	290	63.35	Vein (Intact)
13	23	26.87	Joint		77	303	63.63	Vein (Intact)
80	352	28.37	Foliation (Intact)		89	171	63.93	Foliation (Intact)
19	199	28.75	Joint		66	25	64.02	Vein
11	52	29.53	Joint		67	79	64.7	Vein (Intact)
84	355	29.62	Foliation (Intact)		24	342	64.88	Vein (Intact)
51	20	29.95	Vein (Intact)		53	348	65.37	Vein (Intact)
57	32	30.1	Vein (Intact)		23	327	65.49	Vein (Intact)
77	20	30.85	Vein (Intact)		72	45	65.71	Vein (Intact)
89	168	31.48	Foliation (Intact)		57	48	65.78	Vein
51	53	32.38	Foliation (Intact)		59	324	66.42	Vein (Intact)
49	52	32.75	Foliation (Intact)		71	46	66.94	Vein (Intact)
33	84	33.29	Joint		44	354	67.95	Vein (Intact)
51	60	34.96	Joint		88	19	68.32	Joint
80	171	37.68	Foliation (Intact)		33	261	68.69	Vein (Intact)
80	186	38.28	Foliation (Intact)		57	22	69.26	Foliation (Intact)
89	166	38.78	Foliation (Intact)		66	15	69.64	Vein (Intact)
82	178	39.63	Vein (Intact)		56	30	69.83	Vein (Intact)
64	348	39.85	Vein (Intact)		80	190	70.48	Vein (Intact)
87	350	40.84	Foliation (Intact)		82	176	70.66	Vein (Intact)
81	346	41.41	Foliation (Intact)		81	353	71.26	Foliation (Intact)
61	13	41.78	Vein (Intact)		31	4	71.54	Joint
66	10	42.31	Foliation (Intact)		68	69	71.88	Vein (Intact)
74	13	42.51	Vein (Intact)		77	348	72.28	Foliation (Intact)
79	182	43.26	Vein (Intact)		55	29	72.57	Foliation (Intact)
41	52	43.5	Joint		62	33	73.54	Vein
79	349	44.12	Foliation (Intact)		89	352	73.85	Vein (Intact)
3	49	44.38	Joint		32	285	73.9	Vein (Intact)
87	346	44.57	Foliation (Intact)		47	25	74.9	Joint
32	303	45.39	Vein (Intact)		79	199	75.1	Vein (Intact)
25	292	45.47	Vein (Intact)		54	59	75.62	Vein (Intact)
88	347	45.65	Foliation (Intact)		55	36	76.07	Vein (Intact)
85	169	46.46	Foliation (Intact)		62	39	76.39	Vein (Intact)
83	17	46.72	Foliation (Intact)		44	36	77.44	Vein (Intact)
67	16	46.94	Foliation (Intact)		65	17	78.36	Foliation (Intact)
53	31	47.22	Vein (Intact)		59	29	78.6	Vein (Intact)
26	280	47.49	Vein (Intact)		89	350	78.7	Vein (Intact)
65	40	48.53	Vein (Intact)		85	352	79.68	Vein (Intact)
73	317	49.07	Vein (Intact)		70	353	79.72	Vein (Intact)
56	37	49.24	Vein (Intact)		81	351	80.21	Vein (Intact)
48	39	49.43	Vein		49	35	81.03	Vein (Intact)
52	29	50.08	Vein (Intact)		89	349	81.17	Vein (Intact)
86	355	50.15	Vein (Intact)		86	353	81.28	Foliation (Intact)
85	174	50.27	Vein (Intact)		84	359	81.69	Foliation (Intact)
82	352	50.89	Foliation (Intact)		66	39	81.95	Vein (Intact)
85	189	51.16	Foliation (Intact)		31	292	82.3	Vein (Intact)
83	181	52.12	Vein (Intact)		68	33	82.7	Foliation (Intact)
86	352	52.45	Foliation (Intact)		55	48	84.34	Foliation (Intact)
54	350	53.36	Foliation		53	47	84.39	Vein (Intact)
55	333	53.65	Joint		55	42	84.61	Joint
61	357	53.73	Foliation (Intact)		53	37	84.87	Joint
81	40	55.12	Vein (Intact)		76	5	84.96	Foliation
78	26	55.43	Vein (Intact)		73	18	85.13	Vein (Intact)

Dip (°)	Dip Direction (°)	Depth (m)	Type		Dip (°)	Dip Direction (°)	Depth (m)	Type
75	0	85.19	Joint		38	291	127.13	Vein (Intact)
61	20	85.38	Foliation		82	352	128.7	Foliation (Intact)
71	355	85.57	Joint		76	358	129.17	Vein (Intact)
49	54	85.96	Vein (Intact)		74	3	129.26	Foliation (Intact)
49	37	86.18	Foliation		43	42	130.27	Vein (Intact)
53	28	86.61	Foliation		48	69	130.47	Vein (Intact)
65	11	88.82	Joint		65	42	135.31	Vein (Intact)
11	235	89	Vein (Intact)		60	24	135.55	Foliation (Intact)
24	24	89.21	Joint		72	16	135.76	Foliation (Intact)
23	38	89.36	Joint		82	357	135.89	Vein (Intact)
40	53	89.45	Foliation		70	9	136.49	Foliation
53	41	89.58	Foliation (Intact)		70	9	137.05	Foliation
89	355	89.68	Joint		69	10	137.29	Foliation (Intact)
82	178	89.72	Joint		67	15	137.54	Foliation (Intact)
72	177	90.12	Joint		67	13	137.56	Foliation (Intact)
22	29	91.21	Shear		69	12	137.75	Foliation (Intact)
77	358	93.85	Joint		80	0	138.5	Foliation (Intact)
62	18	93.91	Joint		74	0	138.71	Vein (Intact)
88	343	94.06	Joint		75	343	139.07	Vein (Intact)
78	357	94.71	Foliation (Intact)		57	13	139.24	Vein (Intact)
84	2	95.62	Joint		59	10	139.4	Foliation (Intact)
85	352	96.23	Joint		61	9	139.54	Foliation (Intact)
25	314	96.84	Vein (Intact)		79	359	139.81	Vein (Intact)
23	36	97.48	Vein (Intact)		80	7	140.85	Foliation (Intact)
27	46	97.7	Vein		69	296	140.86	Vein (Intact)
52	35	97.91	Foliation		79	356	141.63	Foliation
59	43	98	Foliation		84	3	141.71	Vein (Intact)
46	35	98.1	Foliation		79	1	141.99	Foliation
38	39	98.21	Foliation (Intact)		81	3	143.55	Vein (Intact)
41	29	98.56	Foliation (Intact)		51	24	143.66	Vein (Intact)
47	34	98.75	Foliation (Intact)		52	24	143.76	Vein (Intact)
62	21	99.22	Foliation (Intact)		53	42	143.9	Vein (Intact)
66	17	99.57	Joint		57	46	144.6	Foliation (Intact)
76	4	99.63	Vein (Intact)		78	0	145.3	Foliation (Intact)
60	333	100	Vein (Intact)		16	5	146.11	Joint
78	5	101.19	Foliation		85	2	146.58	Foliation (Intact)
68	28	101.4	Vein (Intact)		15	51	147.35	Joint
75	13	102.18	Vein (Intact)		65	9	147.87	Foliation (Intact)
59	340	102.37	Vein (Intact)		64	23	149.52	Foliation (Intact)
61	34	102.51	Vein (Intact)		77	17	150.24	Foliation (Intact)
53	22	102.92	Vein (Intact)		65	25	150.68	Vein (Intact)
81	22	103.64	Vein (Intact)		61	24	151.12	Foliation (Intact)
50	49	104.31	Vein (Intact)		17	18	152.44	Joint
45	49	104.74	Vein (Intact)		70	23	153.59	Foliation (Intact)
74	350	104.86	Vein (Intact)		25	294	153.76	Vein (Intact)
46	37	105.23	Foliation (Intact)		53	50	155.9	Vein (Intact)
52	35	105.73	Foliation		71	8	156.56	Foliation (Intact)
61	44	105.77	Vein (Intact)		49	33	157.14	Foliation (Intact)
86	3	106.14	Vein (Intact)		55	37	157.31	Foliation (Intact)
79	2	106.75	Vein (Intact)		77	321	157.79	Joint
64	1	106.99	Foliation (Intact)		74	316	157.83	Joint
80	22	109.07	Vein (Intact)		50	38	157.88	Foliation (Intact)
78	0	109.57	Foliation (Intact)		64	20	158.29	Foliation
56	57	110.1	Vein (Intact)		53	31	158.4	Foliation (Intact)
88	187	110.19	Vein (Intact)		52	37	158.56	Foliation (Intact)
62	51	111.35	Vein (Intact)		18	73	158.98	Joint
71	9	112.63	Vein (Intact)		43	29	159.08	Vein (Intact)
81	352	113.14	Foliation (Intact)		72	16	159.23	Vein (Intact)
35	86	114.99	Vein (Intact)		90	202	160.08	Vein (Intact)
83	2	115.8	Foliation (Intact)		9	30	162.82	Joint
61	16	116.88	Foliation (Intact)		47	36	163.05	Foliation (Intact)
88	345	120.7	Vein (Intact)		51	40	163.34	Vein (Intact)
84	357	121.14	Vein (Intact)		78	5	163.57	Foliation (Intact)
70	360	122.11	Foliation (Intact)		72	10	164.48	Vein (Intact)
14	329	123.04	Joint		71	12	165.31	Foliation (Intact)
79	0	123.85	Vein (Intact)		83	14	165.53	Foliation (Intact)
47	47	124.08	Vein (Intact)		66	0	166.2	Joint
77	355	125.02	Foliation (Intact)		53	55	166.44	Vein (Intact)
80	359	126.94	Vein (Intact)		71	311	166.82	Vein (Intact)

Dip (°)	Dip Direction (°)	Depth (m)	Type		Dip (°)	Dip Direction (°)	Depth (m)	Type
42	51	167.07	Vein (Intact)		44	337	202.87	Vein (Intact)
58	27	168.1	Vein (Intact)		72	2	203.93	Foliation (Intact)
59	40	168.19	Vein (Intact)		13	259	204.27	Vein (Intact)
71	38	168.32	Vein (Intact)		62	28	204.44	Vein (Intact)
47	59	168.59	Vein (Intact)		57	31	204.59	Foliation (Intact)
53	44	168.92	Vein (Intact)		57	34	205.45	Foliation (Intact)
47	31	169.51	Foliation (Intact)		66	7	205.75	Foliation (Intact)
46	26	170.04	Foliation (Intact)		65	11	206.08	Foliation (Intact)
59	18	170.49	Foliation (Intact)		52	24	206.12	Vein (Intact)
49	37	170.66	Foliation (Intact)		65	19	206.22	Vein (Intact)
50	20	170.99	Foliation (Intact)		61	46	208.21	Vein (Intact)
49	21	171.41	Foliation (Intact)		77	30	209.08	Vein (Intact)
46	27	171.55	Foliation (Intact)		17	331	209.49	Vein (Intact)
51	18	171.65	Foliation (Intact)		47	45	210.34	Vein (Intact)
62	19	171.96	Foliation (Intact)		22	298	210.45	Foliation (Intact)
63	347	172.32	Vein (Intact)		78	308	212.09	Vein (Intact)
68	19	173.37	Vein (Intact)		20	58	212.34	Vein (Intact)
86	174	173.48	Vein (Intact)		82	0	213.23	Foliation (Intact)
55	60	173.52	Vein (Intact)		77	1	214.41	Foliation (Intact)
19	268	174.2	Vein (Intact)		76	3	215.09	Foliation (Intact)
85	180	174.44	Vein (Intact)		13	321	216.92	Joint
82	356	175.29	Foliation (Intact)		74	2	217.02	Foliation (Intact)
83	356	175.8	Foliation (Intact)		76	6	217.48	Foliation (Intact)
81	187	176.26	Vein (Intact)		85	0	218.13	Foliation (Intact)
21	297	176.83	Vein (Intact)		84	350	218.33	Foliation (Intact)
88	0	179.17	Foliation (Intact)		83	351	219.09	Foliation (Intact)
76	1	179.55	Foliation (Intact)		86	173	219.17	Foliation (Intact)
54	22	179.76	Vein (Intact)		84	111	219.63	Vein (Intact)
64	19	179.89	Vein (Intact)		20	55	220.24	Vein (Intact)
69	10	179.99	Foliation (Intact)		89	191	221.36	Contact (Intact)
61	15	180.29	Foliation (Intact)		30	305	222.04	Vein (Intact)
60	13	180.52	Vein (Intact)		80	186	222.43	Vein (Intact)
79	3	181.53	Vein (Intact)		85	354	222.55	Vein (Intact)
85	358	181.65	Vein (Intact)		50	42	223.56	Vein (Intact)
81	351	181.75	Vein (Intact)		83	3	223.96	Foliation (Intact)
70	7	181.81	Foliation		19	322	224.23	Vein (Intact)
64	16	181.87	Joint		57	53	224.72	Vein (Intact)
73	14	181.91	Foliation		87	21	226.27	Foliation (Intact)
70	8	182.07	Foliation		83	348	226.94	Foliation (Intact)
9	279	182.38	Vein (Intact)		78	354	228.83	Foliation (Intact)
87	12	183.19	Vein (Intact)		57	298	229.67	Vein (Intact)
75	4	183.53	Foliation (Intact)		88	357	229.85	Vein (Intact)
74	6	183.62	Foliation (Intact)		81	355	231.36	Foliation (Intact)
75	1	184.04	Foliation (Intact)		68	61	232.72	Joint
73	12	186.65	Foliation (Intact)		81	353	233.2	Vein (Intact)
48	32	186.99	Foliation (Intact)		64	8	233.33	Joint
14	309	187.48	Vein (Intact)		66	39	234.77	Vein (Intact)
57	23	187.94	Vein (Intact)		34	314	235.08	Vein (Intact)
53	26	188.06	Vein (Intact)		84	351	235.77	Vein (Intact)
78	8	188.33	Foliation (Intact)		55	43	237.58	Vein (Intact)
66	22	189.17	Joint		89	354	238.08	Vein (Intact)
70	8	189.32	Foliation (Intact)		85	164	239	Vein (Intact)
62	36	189.67	Vein (Intact)		88	169	239.06	Vein (Intact)
63	18	189.83	Vein (Intact)		65	33	240.19	Vein (Intact)
65	19	189.88	Vein (Intact)		53	36	240.31	Vein (Intact)
77	4	190.42	Vein (Intact)		67	28	241.01	Vein (Intact)
55	27	192.43	Foliation (Intact)		56	42	241.11	Vein (Intact)
40	54	194.78	Vein (Intact)		84	359	241.64	Vein (Intact)
76	0	195.93	Foliation (Intact)		66	18	243.54	Vein (Intact)
81	358	198.07	Foliation (Intact)		82	357	244.43	Foliation (Intact)
65	45	198.53	Foliation (Intact)		84	12	245.33	Foliation (Intact)
59	35	198.71	Foliation		79	359	245.83	Foliation (Intact)
73	7	199.14	Foliation (Intact)		63	9	246.24	Vein (Intact)
65	4	199.54	Foliation (Intact)		56	34	246.33	Vein (Intact)
72	8	199.96	Foliation (Intact)		61	25	246.9	Vein (Intact)
81	193	200.93	Foliation (Intact)		67	22	247.5	Vein (Intact)
57	23	201.55	Vein (Intact)		22	320	247.62	Vein (Intact)
75	1	201.76	Foliation (Intact)		63	14	248.14	Vein (Intact)
45	335	202.55	Vein (Intact)		74	7	248.33	Foliation (Intact)

Dip (°)	Dip Direction (°)	Depth (m)	Type		Dip (°)	Dip Direction (°)	Depth (m)	Type
29	289	248.5	Vein (Intact)		78	25	299.11	Vein (Intact)
61	13	248.78	Foliation (Intact)		76	9	299.92	Foliation (Intact)
62	20	248.97	Foliation (Intact)		77	19	301.98	Foliation (Intact)
57	21	250.19	Vein (Intact)		62	15	306.83	Joint
9	328	250.29	Vein (Intact)		25	289	307.11	Vein (Intact)
61	20	251.29	Foliation (Intact)		66	20	308.18	Vein (Intact)
68	18	251.64	Foliation (Intact)		74	22	308.58	Vein (Intact)
65	16	252.43	Foliation (Intact)		75	8	308.86	Foliation (Intact)
68	28	254.14	Foliation (Intact)		16	0	311.18	Vein (Intact)
64	7	254.49	Vein (Intact)		71	30	311.79	Vein (Intact)
68	30	254.65	Vein (Intact)		72	12	312.48	Foliation (Intact)
62	26	254.97	Foliation (Intact)		22	296	313.81	Vein (Intact)
18	328	255.58	Vein (Intact)		61	27	315	Foliation (Intact)
74	19	255.96	Foliation (Intact)		64	20	318.15	Foliation (Intact)
67	24	256.12	Vein (Intact)		62	27	319.4	Foliation (Intact)
74	13	256.26	Foliation (Intact)		74	21	319.49	Vein (Intact)
18	300	257.42	Vein (Intact)		69	12	320.23	Foliation (Intact)
61	32	257.99	Foliation (Intact)		17	296	322.01	Vein (Intact)
80	2	259.05	Foliation (Intact)		57	38	322.16	Foliation (Intact)
68	12	259.5	Foliation (Intact)		12	332	322.4	Vein (Intact)
71	6	259.87	Foliation (Intact)		16	37	322.89	Vein (Intact)
66	4	260	Foliation (Intact)		17	284	323.21	Vein (Intact)
62	12	260.74	Foliation (Intact)		69	23	325.12	Joint
59	355	261.65	Vein (Intact)		56	25	325.27	Vein (Intact)
73	17	261.86	Vein (Intact)		60	23	326.6	Joint
24	347	261.97	Vein (Intact)		58	33	326.63	Joint
66	25	262.22	Vein (Intact)		71	358	328.7	Foliation (Intact)
65	23	263.34	Vein (Intact)		85	9	329.09	Foliation (Intact)
21	272	263.58	Vein (Intact)		22	325	331.02	Vein (Intact)
63	14	265.17	Foliation (Intact)		26	3	333.53	Joint
58	14	265.6	Foliation (Intact)		12	348	334.16	Joint
61	9	266.05	Foliation (Intact)		22	333	336.58	Joint
62	11	266.72	Foliation (Intact)		17	305	336.64	Joint
24	324	266.93	Vein (Intact)		6	14	336.72	Joint
80	2	268.32	Foliation (Intact)		11	351	336.76	Joint
81	5	268.7	Foliation (Intact)		66	10	338.95	Foliation (Intact)
70	9	269.64	Foliation (Intact)		67	17	340.03	Foliation (Intact)
66	7	271.11	Foliation (Intact)		56	29	340.14	Joint
68	9	271.21	Foliation (Intact)		63	8	340.56	Foliation (Intact)
61	349	273.33	Vein (Intact)		64	20	342.67	Foliation
44	6	273.63	Unknown		19	299	347.13	Vein (Intact)
67	21	276.07	Vein (Intact)		69	35	348.45	Foliation (Intact)
42	359	276.49	Joint		19	341	348.92	Vein (Intact)
65	356	277.86	Joint		65	27	349.07	Foliation (Intact)
76	14	277.95	Foliation (Intact)		59	29	349.47	Foliation (Intact)
89	166	278.84	Joint		65	29	349.59	Vein (Intact)
65	2	278.98	Foliation		58	32	350.46	Vein (Intact)
71	5	279.09	Foliation (Intact)		64	19	350.93	Foliation (Intact)
68	9	279.28	Foliation		72	25	351.09	Vein (Intact)
61	8	279.32	Foliation		75	27	351.25	Vein (Intact)
64	4	279.51	Foliation (Intact)		65	19	352.27	Foliation (Intact)
70	10	280.91	Foliation (Intact)		17	284	352.6	Vein (Intact)
71	12	281.15	Foliation (Intact)		31	355	352.75	Joint
69	16	282.11	Foliation (Intact)		25	356	352.83	Joint
65	15	283.12	Foliation (Intact)		57	1	353	Foliation (Intact)
73	12	285.83	Foliation (Intact)		66	17	353.35	Foliation (Intact)
82	8	286.56	Foliation (Intact)		69	20	356.71	Foliation (Intact)
86	196	288.14	Foliation (Intact)		74	9	357.64	Foliation (Intact)
75	16	288.48	Foliation (Intact)		13	330	358.53	Vein (Intact)
69	8	289.08	Vein (Intact)		21	340	359.5	Joint
10	12	289.62	Vein (Intact)		68	11	361.37	Foliation (Intact)
69	8	290.65	Vein (Intact)		70	19	363.54	Foliation (Intact)
88	195	292.54	Foliation (Intact)		67	13	364.25	Foliation (Intact)
70	14	293.7	Foliation (Intact)		74	19	364.43	Foliation (Intact)
75	17	297.35	Foliation (Intact)		71	12	364.71	Foliation (Intact)
50	31	298.07	Vein (Intact)		13	298	365.4	Joint
73	21	298.39	Vein (Intact)		85	191	365.95	Vein (Intact)
71	25	298.64	Foliation (Intact)		67	5	373.5	Vein (Intact)
17	339	298.94	Vein (Intact)		80	1	374.75	Foliation (Intact)

Dip (°)	Dip Direction (°)	Depth (m)	Type		Dip (°)	Dip Direction (°)	Depth (m)	Type
72	8	376.36	Foliation (Intact)					
76	357	377.62	Foliation (Intact)					
85	10	380.31	Foliation (Intact)					
11	349	383.83	Joint					
21	35	385.49	Joint					
79	3	385.87	Foliation					
78	13	386.55	Foliation (Intact)					
74	8	386.94	Foliation (Intact)					
14	293	388.3	Joint					
72	0	389.68	Joint					
79	7	390.39	Vein (Intact)					
78	9	390.65	Vein (Intact)					
71	20	390.95	Foliation (Intact)					
75	8	392	Foliation (Intact)					
73	6	392.73	Foliation (Intact)					
74	6	393.08	Foliation (Intact)					
75	8	394.1	Foliation (Intact)					
35	231	394.12	Joint					
27	4	396.32	Joint					
58	33	397.06	Vein (Intact)					
76	352	398.71	Foliation (Intact)					
72	10	399.51	Foliation (Intact)					
78	5	401.87	Foliation (Intact)					
65	10	403.72	Foliation					
73	11	407.71	Foliation (Intact)					
15	349	410.98	Joint					

Dip (°)	Dip Direction (°)	Depth (m)	Type		Dip (°)	Dip Direction (°)	Depth (m)	Type
34	42	4.48	Fault		61	47	32.5	Bedding
52	29	5.48	Bedding Trace		63	51	32.6	Bedding
25	19	5.73	Joint		61	33	32.75	Bedding
70	15	5.85	Joint		64	31	32.96	Bedding
34	267	7.54	Joint		66	48	33.16	Fault
17	55	8.27	Joint		5	235	33.48	Fault
13	348	8.33	Joint		66	39	33.9	Joint
24	57	8.73	Joint		71	46	34.23	Joint
22	39	9.7	Joint		67	24	34.58	Vein
33	50	9.86	Contact		64	347	34.79	Vein
12	350	10.03	Dike		66	346	35.1	Vein
23	25	10.24	Dike		31	47	35.4	Contact
45	1	10.42	Contact		47	40	35.9	Contact
43	55	11.27	Fault		47	37	36.15	Joint
28	89	11.48	Joint		50	41	36.67	Bedding
77	24	12.17	Vein		51	40	36.73	Bedding
45	7	12.96	Joint		52	33	36.83	Bedding
58	36	13.9	Joint		49	42	36.89	Bedding
71	33	14.05	Joint		45	4	37.04	Bedding
20	107	14.76	Fault		55	10	37.23	Bedding
13	352	15.07	Fault		61	19	37.39	Bedding
10	133	15.1	Joint		57	20	37.71	Bedding
8	245	15.24	Joint		37	57	37.98	Vein
60	38	15.62	Joint		53	33	38.29	Bedding
46	38	15.7	Joint		58	95	38.65	Vein
29	1	16	Joint		55	314	39.48	Bedding
32	27	16.2	Joint		44	312	39.59	Bedding
15	23	16.24	Joint		56	302	39.73	Bedding
63	28	16.45	Joint		46	57	40.43	Vein
73	44	17.08	Vein		34	352	41.08	Fault
73	158	17.69	Joint		61	33	41.77	Vein
21	343	17.88	Joint		21	61	42.37	Joint
4	336	18.02	Joint		68	41	42.48	Bedding
5	345	18.4	Joint		67	47	42.8	Bedding
25	12	19.05	Joint		70	55	43	Bedding
9	41	19.24	Joint		68	41	43.21	Bedding
26	338	19.52	Joint		73	54	44.23	Bedding
79	12	20.02	Contact		65	52	44.65	Vein
60	21	20.68	Joint		74	41	45.07	Vein
16	313	20.87	Joint		27	34	46.09	Fault
76	11	21.04	Fault		73	28	48.16	Bedding
4	281	21.25	Joint		73	11	48.72	Bedding
20	7	21.43	Joint		7	210	48.86	Joint
48	22	21.84	Joint		35	69	49.97	Joint
69	24	23.2	Joint		62	34	50.47	Bedding
64	31	23.33	Joint		61	27	50.53	Bedding
21	134	24.13	Joint		73	16	51.29	Joint
36	272	24.62	Vein		12	225	51.66	Joint
76	55	25.11	Joint		76	25	51.79	Bedding
30	132	25.5	Joint		69	33	52	Bedding
25	34	26.43	Vein		63	22	52.27	Bedding
57	95	27.47	Joint		72	13	52.75	Bedding
56	60	27.65	Vein		69	17	52.93	Bedding
23	288	27.89	Joint		66	11	53.09	Bedding
60	42	28.62	Vein		54	17	53.54	Bedding
45	49	28.93	Vein		36	22	54.08	Vein
58	219	29.48	Vein		64	47	54.29	Vein
16	61	29.63	Vein (Intact)		56	6	54.82	Bedding
13	230	29.8	Joint		56	44	54.93	Vein
59	36	29.8	Vein		51	11	55.18	Bedding
39	246	30.4	Joint		60	18	55.41	Bedding
56	58	30.46	Bedding		65	25	55.54	Bedding
54	64	30.56	Bedding		56	14	55.65	Bedding
3	148	30.58	Joint		6	55	55.83	Joint
58	67	30.63	Bedding		53	355	56.01	Bedding
43	47	30.83	Joint		48	9	56.22	Vein
44	66	31.54	Vein		31	354	56.58	Joint
60	43	32.1	Bedding		59	251	56.7	Joint
60	43	32.17	Bedding		56	15	56.97	Bedding

Dip (°)	Dip Direction (°)	Depth (m)	Type		Dip (°)	Dip Direction (°)	Depth (m)	Type
51	4	57.16	Bedding		63	14	72.53	Bedding
58	6	57.4	Bedding		72	10	72.8	Vein
66	45	57.63	Bedding		65	26	72.96	Vein
39	42	57.81	Joint		64	20	73.06	Vein
61	24	57.97	Bedding		74	20	73.28	Bedding
64	18	58.17	Bedding		77	1	73.94	Joint
63	17	58.26	Bedding		29	332	74.17	Joint
57	22	58.38	Bedding		15	297	74.54	Joint
36	102	58.57	Joint		71	61	75.09	Vein
55	18	59.01	Bedding		61	60	76.82	Vein
57	25	59.12	Joint		12	5	77.86	Joint
57	47	59.3	Bedding		71	72	78.72	Vein
36	10	59.57	Vein		74	66	79.31	Vein
64	13	59.71	Vein		74	56	79.53	Joint
49	233	59.88	Joint		30	36	79.81	Vein
52	243	60	Joint		22	217	80.68	Joint
65	33	60.27	Bedding		52	23	81.26	Joint
67	12	60.56	Bedding		28	152	81.64	Joint
64	22	60.74	Vein		60	82	81.69	Vein
61	234	60.9	Joint		7	19	81.8	Joint
33	159	61.26	Joint		60	45	82.1	Bedding
65	27	61.72	Bedding		56	50	82.19	Bedding
61	20	61.9	Bedding		51	58	82.4	Bedding
59	23	62.04	Vein		51	44	82.5	Bedding
60	78	62.05	Vein		57	38	82.68	Bedding
32	199	62.16	Joint		64	59	82.79	Bedding
36	225	62.2	Joint		77	34	83.12	Vein
68	30	62.2	Bedding		48	52	83.58	Vein
61	26	62.43	Bedding		78	296	84.2	Vein
50	245	62.76	Bedding		54	102	84.89	Vein
60	244	62.94	Bedding		58	92	84.99	Vein
53	237	63.12	Bedding		61	29	85.5	Bedding
57	249	63.24	Bedding		63	38	85.62	Bedding
58	242	63.52	Joint		56	59	85.95	Vein
27	0	63.52	Joint		69	43	86.2	Bedding
54	57	63.67	Vein		67	30	86.29	Bedding
70	50	63.91	Vein		28	227	88.44	Vein
6	63	63.93	Joint		24	14	88.76	Vein
63	58	64.05	Vein		77	50	90.36	Vein
19	199	64.49	Joint		44	281	90.66	Vein
71	81	64.62	Joint		8	148	91.8	Joint
18	309	64.87	Joint		34	49	92.65	Vein
60	5	65.18	Bedding		69	40	92.86	Vein
69	16	65.31	Bedding		67	68	93.6	Fault
74	14	65.46	Bedding		68	316	93.92	Vein
63	14	65.62	Bedding		77	5	94.29	Vein
58	25	65.84	Joint		62	27	95	Vein
48	17	66.34	Contact		49	3	95.55	Joint
77	17	66.58	Fault		65	68	96.87	Joint
22	225	66.99	Joint		71	43	100.34	Vein
24	226	67.14	Joint		72	39	101.1	Joint
23	207	67.28	Joint		70	39	101.19	Joint
58	47	67.43	Joint		35	63	102.87	Contact
65	15	67.75	Joint		45	328	103.37	Contact
58	42	68.02	Vein		53	46	103.74	Vein
56	45	68.06	Vein		57	51	103.98	Vein
56	39	68.11	Vein		44	354	104.4	Joint
66	9	68.52	Bedding		58	51	105.25	Vein
55	40	68.69	Vein		52	40	107.52	Bedding
54	19	68.78	Vein		45	14	107.75	Bedding
61	13	68.92	Bedding		43	64	107.99	Bedding
63	11	69.04	Bedding		12	345	108.24	Vein
57	53	69.64	Bedding		62	219	108.41	Vein
11	187	69.92	Joint		55	44	108.71	Bedding
32	26	69.96	Vein (Intact)		57	329	108.98	Bedding
57	14	70.35	Vein		50	305	109.15	Bedding
19	4	71.19	Joint		73	31	109.53	Joint
18	273	71.36	Joint		72	87	112.5	Bedding
28	263	72.09	Joint		76	90	112.81	Bedding

Dip (°)	Dip Direction (°)	Depth (m)	Type		Dip (°)	Dip Direction (°)	Depth (m)	Type
63	330	113.9	Vein		16	29	154.46	Vein
69	2	114.17	Vein		65	14	155.01	Vein
66	309	114.42	Vein		30	15	155.42	Vein
65	332	114.78	Vein		42	44	156.62	Fault
67	334	115.01	Vein		41	357	157.13	Vein
65	45	115.06	Vein		63	339	157.57	Bedding
67	54	115.42	Vein		63	342	157.7	Bedding
33	67	115.95	Vein		63	316	157.86	Bedding
77	44	116.1	Vein		37	32	158.44	Vein (Intact)
27	77	117.61	Vein		50	67	158.87	Vein
43	210	118.9	Vein		51	50	159.01	Vein
40	72	119.88	Vein		39	81	159.1	Vein
58	16	120.77	Vein		33	348	160.57	Vein
31	45	120.81	Vein		55	25	161.18	Vein
74	48	121.21	Vein		59	11	161.56	Joint
73	332	122.14	Vein		25	27	161.78	Vein
41	58	124.04	Vein		70	75	161.9	Vein
81	34	124.86	Vein		35	329	162.46	Fault
73	36	125.1	Vein		56	63	163.57	Vein
31	44	126.82	Joint		57	4	163.76	Vein
16	43	127.64	Joint		52	17	163.9	Vein
55	247	127.79	Bedding		26	15	165.25	Vein
29	18	128.54	Joint		72	279	165.54	Vein
32	353	128.75	Joint		48	87	166.7	Vein
22	271	129.41	Vein		49	6	167.23	Vein
63	26	129.51	Vein		29	25	167.7	Vein
38	40	130.11	Vein		70	40	168.33	Vein
18	36	131.31	Joint		42	56	168.58	Vein
51	44	132.29	Vein		42	48	168.65	Vein
26	337	132.7	Vein		42	49	168.77	Vein
52	24	133.06	Bedding		37	349	168.99	Vein
49	54	133.21	Bedding		21	30	169.29	Vein
53	48	133.48	Bedding		35	17	169.57	Vein
52	52	133.67	Bedding		4	332	170.37	Vein
69	52	133.92	Bedding		62	24	171.13	Vein
74	68	135.69	Vein		75	283	171.69	Vein
31	67	136.75	Vein		75	277	173.54	Vein
67	73	137.04	Vein		21	8	175.25	Joint
82	229	138.23	Vein		8	58	175.98	Joint
35	38	138.32	Vein (Intact)		26	10	176.23	Joint
45	40	138.49	Vein		40	40	176.89	Vein
34	44	139.94	Vein		26	52	178.47	Vein
34	56	140.47	Vein (Intact)		16	207	179.7	Vein
75	60	140.93	Vein		35	350	180.43	Vein
27	29	141.8	Vein		49	299	184.17	Joint
18	40	142.68	Vein (Intact)		2	358	185.51	Bedding
80	70	142.73	Vein		59	23	186.99	Vein (Intact)
36	20	142.93	Vein (Intact)		50	41	187.61	Vein (Intact)
83	299	143.45	Vein		46	52	187.86	Vein (Intact)
80	300	143.62	Vein		58	34	188.23	Vein (Intact)
74	291	143.94	Vein		63	55	188.91	Bedding
72	293	144.4	Vein		72	72	189.24	Vein (Intact)
78	296	146.48	Vein		68	66	189.77	Bedding
74	313	146.83	Vein		70	70	189.83	Bedding
28	333	148.21	Vein (Intact)		56	349	190.04	Bedding
27	27	149.13	Vein		59	7	190.11	Bedding
17	50	149.24	Vein		45	60	190.25	Vein (Intact)
80	314	149.63	Bedding		44	21	191.13	Vein (Intact)
70	205	149.67	Vein		75	27	192.27	Bedding
72	58	149.71	Vein		54	32	192.62	Vein (Intact)
7	20	149.75	Fault		49	29	192.69	Vein (Intact)
82	44	151.02	Vein		46	34	193.26	Fault
79	41	151.49	Joint		67	31	194.22	Bedding
63	344	152.11	Vein		65	43	194.3	Bedding
58	26	152.62	Vein		15	202	196.11	Joint
41	87	152.64	Vein		65	267	198.03	Vein (Intact)
79	33	152.71	Vein		83	44	198.87	Vein
25	214	153.73	Joint		42	43	200.55	Bedding
73	301	154.43	Vein		65	240	201.57	Bedding

Dip (°)	Dip Direction (°)	Depth (m)	Type		Dip (°)	Dip Direction (°)	Depth (m)	Type
68	243	201.75	Bedding		75	44	304.75	Bedding
73	53	205.41	Bedding		70	65	306.02	Vein (Intact)
33	358	208.78	Vein		60	202	306.82	Joint
58	30	210.16	Vein		50	83	307.82	Vein
26	77	212.82	Vein		37	46	307.9	Vein
37	301	213.61	Bedding		46	48	307.98	Vein
76	279	214.56	Vein		22	73	311.85	Vein
62	78	215.47	Vein		72	23	312.89	Joint
40	240	218.92	Bedding		6	30	313.94	Joint
46	65	222.07	Joint		14	43	314.05	Joint
52	60	222.16	Joint		22	0	317.07	Joint
57	61	222.23	Joint		15	95	318.89	Joint
36	12	223.86	Vein		75	64	319.61	Vein
39	49	225.18	Vein		70	44	320	Vein
64	219	227.87	Bedding		59	33	321.97	Vein (Intact)
54	359	229.41	Vein		56	34	322	Vein (Intact)
13	269	231.75	Joint		65	104	322.49	Vein
68	59	233.56	Vein		52	331	322.49	Joint
51	31	234.53	Vein (Intact)		52	116	323.3	Joint
50	23	237.15	Vein		36	353	325.77	Vein (Intact)
35	357	238.59	Vein		38	350	325.8	Vein (Intact)
17	64	239.79	Joint		19	39	326.03	Vein
7	179	244.36	Joint		20	58	326.05	Vein
61	51	245.27	Vein		25	17	327.28	Vein
54	74	245.48	Vein		82	19	327.3	Joint
50	19	251.43	Vein		39	307	328.78	Vein
53	43	252.64	Vein		17	135	328.89	Vein
61	113	253.16	Vein		37	343	329.36	Vein
66	61	254.34	Vein		55	34	329.59	Vein
72	48	257.38	Bedding		69	66	331.44	Vein (Intact)
73	55	257.49	Bedding		61	45	331.94	Vein
74	63	257.57	Bedding		55	64	332.17	Bedding
78	45	259.8	Vein		54	60	332.21	Bedding
71	55	261.95	Bedding		36	53	332.28	Bedding
80	63	262.38	Joint		31	70	332.38	Bedding
18	200	263.74	Dike		60	77	332.49	Vein
38	6	265.2	Contact		37	174	334.22	Contact
61	1	265.3	Contact		23	20	334.34	Contact
81	56	265.85	Joint		61	44	336.29	Vein
70	63	266.17	Joint		72	45	337.95	Joint
80	54	267.14	Fault		63	51	338.82	Vein
47	52	269.26	Contact		66	46	339.11	Vein
55	81	269.41	Joint		25	280	340.43	Vein
37	37	269.48	Contact (Intact)		55	318	340.69	Vein
77	21	271.23	Joint		27	328	341.53	Contact
73	4	273.34	Bedding		59	62	342	Contact
53	17	276.79	Vein		31	199	345.07	Shear
76	22	277.42	Vein		57	49	349.39	Vein
72	23	279.79	Vein		51	43	350.6	Vein
79	70	280.51	Vein					
53	28	284.02	Vein					
58	27	286.64	Vein					
60	30	287.02	Joint					
71	74	290.15	Vein					
71	74	290.45	Vein					
3	301	291.32	Contact					
11	324	291.38	Contact					
22	40	291.56	Vein (Intact)					
69	71	291.67	Bedding					
72	64	291.89	Bedding					
77	47	292.25	Bedding					
76	73	293.08	Bedding					
77	78	293.3	Bedding					
79	36	294.81	Joint					
76	50	295.26	Joint					
35	192	297.16	Contact					
24	36	297.85	Joint					
43	38	301.42	Vein					
77	44	304.66	Bedding					

Dip (°)	Dip Direction (°)	Depth (m)	Type		Dip (°)	Dip Direction (°)	Depth (m)	Type
80	52	4.44	3-Joint		57	32	48.76	4-Bedding
77	38	5.04	3-Joint		66	20	50.42	4-Bedding
80	32	5.55	3-Joint		67	22	50.58	4-Bedding
74	49	6.14	3-Joint		70	25	50.83	4-Bedding
14	334	6.47	3-Joint		50	301	51.06	6-Vein
65	51	7.24	3-Joint		78	27	51.09	6-Vein
70	45	7.35	3-Joint		58	145	51.4	6-Vein
21	303	8.27	3-Joint		74	60	51.65	6-Vein
18	22	9.67	3-Joint		69	32	51.68	6-Vein
25	322	12.84	3-Joint		52	178	51.79	6-Vein
31	22	13.61	7-Vein (Intact)		35	138	52.29	6-Vein
66	311	14.4	3-Joint		59	37	53.22	4-Bedding
11	28	17.97	3-Joint		59	31	53.43	4-Bedding
12	348	18.71	3-Joint		62	33	53.72	4-Bedding
17	344	19.37	6-Vein		68	30	55.38	4-Bedding
16	338	20.32	6-Vein		51	58	55.98	4-Bedding
77	46	20.55	6-Vein		39	300	56.76	3-Joint
14	322	20.56	6-Vein		58	17	57.88	4-Bedding
19	300	20.91	7-Vein (Intact)		58	17	58.16	4-Bedding
4	353	21.16	3-Joint		58	30	58.38	4-Bedding
10	14	21.47	3-Joint		46	28	58.77	3-Joint
16	359	22.67	3-Joint		13	86	58.84	3-Joint
15	42	23.46	3-Joint		53	74	59.09	4-Bedding
70	178	25.44	6-Vein		53	76	59.21	4-Bedding
19	1	25.44	6-Vein		53	76	59.38	4-Bedding
13	46	25.99	3-Joint		53	78	59.63	4-Bedding
22	355	26.35	6-Vein		53	59	59.94	4-Bedding
20	352	26.67	1-Fault		51	299	59.99	6-Vein
43	169	26.77	7-Vein (Intact)		29	140	60.21	3-Joint
57	64	26.97	3-Joint		20	103	60.41	3-Joint
47	50	27.24	3-Joint		45	226	60.48	3-Joint
11	318	27.58	3-Joint		38	68	60.62	4-Bedding
16	303	27.95	3-Joint		37	87	60.8	4-Bedding
7	267	28.17	6-Vein		38	66	61.37	11-Contact (Intact)
23	181	28.7	6-Vein		59	51	62.45	6-Vein
4	318	29.12	1-Fault		72	197	63.4	6-Vein
65	39	29.16	6-Vein		66	56	63.56	6-Vein
6	31	29.21	3-Joint		66	45	64.38	6-Vein
68	39	29.3	7-Vein (Intact)		71	32	65.48	6-Vein
7	71	30.65	3-Joint		36	284	65.75	6-Vein
28	346	32.76	6-Vein		53	206	66.11	6-Vein
9	35	33.16	3-Joint		66	35	66.49	6-Vein
48	335	33.34	6-Vein		62	43	66.56	6-Vein
19	319	33.88	6-Vein		62	25	68.5	4-Bedding
60	167	34.12	6-Vein		62	40	68.7	4-Bedding
19	346	34.13	1-Fault		59	39	69.11	4-Bedding
61	25	37.34	4-Bedding		59	46	69.25	4-Bedding
66	37	37.73	4-Bedding		58	34	69.49	4-Bedding
55	23	38.07	4-Bedding		62	36	69.8	4-Bedding
67	35	38.9	4-Bedding		75	173	70.14	6-Vein
71	34	39.34	4-Bedding		73	50	70.42	4-Bedding
13	329	40.28	3-Joint		58	50	70.79	4-Bedding
12	313	41.44	3-Joint		53	348	71.95	6-Vein
42	144	41.89	6-Vein		80	73	72.14	6-Vein
55	174	42.25	6-Vein		51	190	73.14	6-Vein
70	16	42.41	4-Bedding		50	32	73.17	4-Bedding
63	16	42.61	4-Bedding		56	23	73.34	4-Bedding
69	15	43.68	4-Bedding		66	35	73.59	4-Bedding
79	17	44.04	4-Bedding		22	25	74.35	6-Vein
78	20	44.17	4-Bedding		30	346	75.74	6-Vein
78	48	44.86	6-Vein		61	192	77.42	3-Joint
78	43	45.66	6-Vein		4	67	78.11	6-Vein
41	19	47	6-Vein		9	312	79.37	6-Vein
57	41	47.64	4-Bedding		51	53	80.89	6-Vein
57	22	47.77	4-Bedding		64	183	81.56	6-Vein
57	46	47.9	4-Bedding		52	21	83.26	4-Bedding
57	44	48.19	4-Bedding		52	46	83.47	4-Bedding
57	36	48.4	4-Bedding		51	50	83.7	4-Bedding
57	28	48.54	4-Bedding		57	40	84.03	4-Bedding

Dip (°)	Dip Direction (°)	Depth (m)	Type		Dip (°)	Dip Direction (°)	Depth (m)	Type
54	50	84.42	4-Bedding		14	7	145.16	6-Vein
57	42	84.77	4-Bedding		16	290	146.05	6-Vein
40	38	85.15	4-Bedding		32	10	146.14	6-Vein
42	174	86.08	3-Joint		68	35	147.41	6-Vein
28	321	88.55	3-Joint		60	31	148.05	4-Bedding
77	35	88.57	6-Vein		69	16	149.24	4-Bedding
67	66	88.64	6-Vein		56	40	149.47	12-Dike
72	38	88.83	6-Vein		44	33	150.21	6-Vein
63	67	89.19	6-Vein		22	4	150.97	6-Vein
39	181	90.82	3-Joint					
30	32	91.13	10-Contact					
78	61	91.79	6-Vein					
15	15	95.46	3-Joint					
62	43	96.53	3-Joint					
53	54	97.34	6-Vein					
67	72	97.48	6-Vein					
45	68	99.92	6-Vein					
57	45	100.58	4-Bedding					
54	38	100.7	4-Bedding					
25	107	108.79	6-Vein					
17	301	109.32	3-Joint					
53	21	111.07	3-Joint					
53	30	111.12	3-Joint					
22	3	111.68	3-Joint					
36	23	112.62	6-Vein					
77	40	113.44	3-Joint					
19	357	114.42	6-Vein					
25	290	114.98	1-Fault					
17	17	115.63	6-Vein					
59	42	115.78	3-Joint					
11	350	116.38	3-Joint					
69	38	116.76	6-Vein					
16	324	116.76	1-Fault					
64	36	117.88	6-Vein					
5	230	117.94	6-Vein					
44	174	118.42	6-Vein					
46	51	119.04	6-Vein					
10	294	119.33	3-Joint					
41	6	120.82	3-Joint					
49	31	121.01	3-Joint					
63	59	121.25	3-Joint					
63	60	121.95	3-Joint					
71	24	122.15	3-Joint					
60	42	122.19	3-Joint					
61	41	122.87	6-Vein					
50	14	123.17	6-Vein					
61	40	123.39	6-Vein					
68	50	124.08	6-Vein					
72	52	124.21	6-Vein					
20	10	124.44	3-Joint					
79	43	124.59	6-Vein					
37	45	124.82	6-Vein					
62	31	125.1	3-Joint					
53	45	125.49	3-Joint					
57	27	125.62	3-Joint					
70	38	127.43	3-Joint					
48	195	127.97	6-Vein					
62	17	128.45	3-Joint					
3	7	129.07	3-Joint					
24	14	129.77	6-Vein					
28	15	130.83	6-Vein					
50	262	130.97	6-Vein					
43	148	131.64	3-Joint					
48	17	136.82	6-Vein					
76	27	138.86	6-Vein					
45	232	139.51	6-Vein					
75	200	140.34	6-Vein					
1	337	140.97	6-Vein					
7	27	144.53	3-Joint					

Dip (°)	Dip Direction (°)	Depth (m)	Type		Dip (°)	Dip Direction (°)	Depth (m)	Type
22	79	3.19	3-Joint		35	353	23.04	4-Bedding
68	249	3.93	3-Joint		86	290	23.55	3-Joint
37	19	4.09	3-Joint		37	291	23.68	6-Vein
49	24	4.25	3-Joint		64	207	25.11	3-Joint
44	24	4.56	3-Joint		54	27	25.52	3-Joint
31	253	4.8	6-Vein		71	247	26.08	6-Vein
31	232	5.12	6-Vein		59	209	26.27	3-Joint
23	257	5.55	3-Joint		29	269	26.65	3-Joint
19	251	5.89	3-Joint		26	354	27.09	6-Vein
35	127	7.09	3-Joint		26	9	27.14	6-Vein
32	240	8.11	6-Vein		48	243	27.66	3-Joint
62	236	8.39	3-Joint		41	237	27.81	6-Vein
18	55	8.99	3-Joint		36	252	27.99	6-Vein
42	261	9.74	3-Joint		33	345	28.24	6-Vein
73	40	10.24	6-Vein		57	1	28.39	6-Vein
41	240	10.68	3-Joint		44	227	28.52	6-Vein
62	240	10.77	6-Vein		13	277	28.78	6-Vein
69	236	10.94	6-Vein		80	207	28.85	3-Joint
45	253	11.33	6-Vein		76	200	29.35	3-Joint
51	25	11.5	3-Joint		59	20	29.92	6-Vein
52	25	11.84	6-Vein		78	224	30.4	6-Vein
49	20	12.16	3-Joint		37	244	30.79	6-Vein
47	253	12.68	6-Vein		28	235	30.9	6-Vein
66	211	13.28	4-Bedding		77	52	31.81	6-Vein
39	61	13.94	3-Joint		82	236	31.91	6-Vein
64	317	14.42	3-Joint		39	300	33.17	6-Vein
64	335	14.83	6-Vein		58	13	33.46	6-Vein
72	282	15.02	6-Vein		38	8	33.81	3-Joint
30	19	15.23	6-Vein		83	212	35.69	3-Joint
73	249	15.56	6-Vein		59	25	37.16	6-Vein
79	39	16.32	6-Vein		59	25	37.3	6-Vein
62	224	16.68	6-Vein		59	22	37.41	6-Vein
56	20	17.07	6-Vein		71	22	37.63	6-Vein
56	23	17.34	6-Vein		39	249	37.83	6-Vein
56	26	17.47	6-Vein		74	25	38.5	6-Vein
66	244	17.57	6-Vein		78	213	38.66	6-Vein
43	32	17.63	6-Vein		57	265	39.13	6-Vein
61	239	17.89	6-Vein		20	332	39.89	3-Joint
23	253	18.29	12-Dike		50	31	40.5	6-Vein
7	54	18.72	3-Joint		41	347	40.74	3-Joint
42	347	19.12	6-Vein		50	354	41.19	6-Vein
48	257	19.57	6-Vein		25	311	41.38	6-Vein
51	7	19.63	6-Vein		60	16	41.72	6-Vein
63	21	19.71	6-Vein		49	3	42.1	6-Vein
34	23	19.79	6-Vein		50	3	42.33	6-Vein
35	309	19.91	6-Vein		52	358	42.53	6-Vein
34	55	20.21	3-Joint		33	345	42.96	6-Vein
68	17	20.6	6-Vein		57	14	43.19	6-Vein
45	14	20.62	6-Vein		30	348	43.44	6-Vein
48	261	20.88	6-Vein		82	320	44.64	3-Joint
56	6	20.9	6-Vein		80	60	44.85	6-Vein
68	278	21.09	6-Vein		35	349	45.1	6-Vein
64	16	21.11	6-Vein		79	31	45.4	6-Vein
50	14	21.27	4-Bedding		74	39	45.64	6-Vein
50	10	21.38	4-Bedding		26	282	45.94	3-Joint
50	15	21.54	4-Bedding		59	19	46.44	3-Joint
50	17	21.62	4-Bedding		78	44	46.54	6-Vein
76	245	21.63	6-Vein		73	50	47.41	3-Joint
50	11	21.71	4-Bedding		16	268	47.88	6-Vein
78	226	22	3-Joint		41	63	48.08	6-Vein
68	225	22.22	3-Joint		28	357	48.15	3-Joint
30	35	22.3	4-Bedding		73	42	48.42	6-Vein
33	343	22.42	4-Bedding		27	300	49.06	6-Vein
20	260	22.51	6-Vein		22	355	49.74	6-Vein
53	4	22.52	4-Bedding		78	251	50.59	3-Joint
63	16	22.57	3-Joint		39	336	51.01	6-Vein
85	291	22.62	3-Joint		84	311	51.31	6-Vein
35	0	22.77	4-Bedding		75	42	51.32	6-Vein
35	16	22.87	4-Bedding		75	50	51.69	6-Vein

Dip (°)	Dip Direction (°)	Depth (m)	Type		Dip (°)	Dip Direction (°)	Depth (m)	Type
69	39	51.82	6-Vein		41	42	89.68	6-Vein
20	339	51.87	3-Joint		42	33	90.58	6-Vein
62	40	51.95	6-Vein		42	351	91.28	6-Vein
20	281	52.41	6-Vein		47	31	91.55	6-Vein
44	347	52.48	6-Vein		56	33	91.7	6-Vein
56	57	52.71	6-Vein		78	59	92.12	6-Vein
68	54	52.86	6-Vein		42	9	92.17	3-Joint
69	54	53.09	6-Vein		66	64	93.02	3-Joint
69	47	53.39	6-Vein		15	178	93.21	3-Joint
26	1	53.97	3-Joint		22	69	93.56	6-Vein
83	308	55.23	6-Vein		22	9	93.63	6-Vein
26	323	55.56	6-Vein		15	281	93.84	3-Joint
37	321	56.2	6-Vein		27	204	94.19	6-Vein
79	301	56.46	6-Vein		27	198	94.41	3-Joint
27	277	56.71	3-Joint		60	8	94.82	6-Vein
20	333	56.84	3-Joint		23	34	94.86	6-Vein
36	272	57.08	3-Joint		35	11	95.05	6-Vein
20	352	57.42	6-Vein		15	218	95.37	3-Joint
2	47	57.75	6-Vein		71	341	95.5	6-Vein
49	68	57.92	6-Vein		76	330	95.89	6-Vein
71	47	58.17	6-Vein		51	6	96.47	6-Vein
71	18	58.52	6-Vein		29	29	96.8	6-Vein
55	43	58.72	3-Joint		17	226	97.03	3-Joint
66	26	59.03	6-Vein		16	284	98.34	6-Vein
76	12	59.35	6-Vein		8	348	98.66	6-Vein
83	19	61.7	3-Joint		16	5	98.79	6-Vein
16	22	63.06	6-Vein		22	350	99.08	6-Vein
74	57	63.31	6-Vein		29	4	99.16	6-Vein
28	282	63.7	6-Vein		38	28	99.28	6-Vein
77	47	64.19	6-Vein		55	20	99.61	6-Vein
75	46	65.71	6-Vein		73	40	99.93	6-Vein
29	359	66.23	6-Vein		25	217	100.22	14-Unknown
71	102	68.24	6-Vein		5	341	100.43	3-Joint
43	125	69.12	14-Unknown		61	2	101.08	6-Vein
72	31	69.69	14-Unknown		22	194	101.86	3-Joint
82	309	70.38	6-Vein		57	21	102.31	6-Vein
22	197	71.23	3-Joint		57	17	102.51	6-Vein
12	18	71.71	3-Joint		57	21	102.73	6-Vein
33	7	72.06	3-Joint		49	26	103.08	3-Joint
33	23	72.54	6-Vein		50	36	103.39	6-Vein
48	321	73.01	3-Joint		73	25	103.91	3-Joint
17	5	74.13	6-Vein		75	58	104.24	3-Joint
65	103	74.38	6-Vein		41	346	104.24	6-Vein
10	329	74.49	6-Vein		41	9	104.38	6-Vein
28	355	74.62	6-Vein		44	94	104.76	6-Vein
73	113	74.82	6-Vein		57	36	105.03	3-Joint
67	39	75.41	6-Vein		45	10	105.81	3-Joint
69	45	75.48	6-Vein		18	146	106.04	6-Vein
74	111	76.27	6-Vein		75	285	106.23	6-Vein
79	112	76.93	6-Vein		55	9	106.5	6-Vein
17	176	78.37	6-Vein		25	70	106.62	6-Vein
13	11	78.47	3-Joint		53	174	106.79	3-Joint
22	351	78.74	6-Vein		30	6	108.72	6-Vein
62	61	79.17	6-Vein		71	259	109.56	6-Vein
60	57	79.29	6-Vein		30	70	109.81	6-Vein
58	38	79.41	6-Vein		31	83	110.04	6-Vein
29	253	79.44	6-Vein		38	344	110.31	6-Vein
55	316	79.77	6-Vein		37	354	110.36	6-Vein
18	15	79.89	6-Vein		36	324	110.61	6-Vein
37	350	80.25	3-Joint		21	236	111.47	6-Vein
16	203	83.64	3-Joint		47	343	112.07	3-Joint
48	356	84.63	6-Vein		47	359	112.27	3-Joint
66	281	85.15	3-Joint		47	12	112.43	3-Joint
39	0	85.33	6-Vein		73	29	112.82	3-Joint
61	25	86.66	6-Vein		52	41	113.11	6-Vein
24	222	87.97	6-Vein		57	39	113.18	6-Vein
18	210	88.08	3-Joint		55	41	113.32	6-Vein
61	19	88.65	6-Vein		41	209	113.83	6-Vein
62	5	89.49	6-Vein		45	53	114.4	6-Vein

Dip (°)	Dip Direction (°)	Depth (m)	Type		Dip (°)	Dip Direction (°)	Depth (m)	Type
45	42	114.58	6-Vein		79	56	141.42	3-Joint
45	42	114.69	6-Vein		34	135	141.52	6-Vein
46	33	114.93	6-Vein		68	44	141.77	6-Vein
45	48	115.11	6-Vein		65	48	142.37	6-Vein
55	243	115.43	3-Joint		81	61	142.88	3-Joint
47	36	115.71	6-Vein		67	28	143.68	6-Vein
11	128	115.97	6-Vein		33	350	144.18	6-Vein
82	229	116.53	3-Joint		72	281	144.41	3-Joint
84	67	119.34	3-Joint		77	57	144.46	3-Joint
62	71	120.26	6-Vein		71	55	144.89	3-Joint
19	119	120.66	3-Joint		47	331	145.25	4-Bedding
12	216	121.38	3-Joint		43	293	145.58	4-Bedding
3	273	121.47	3-Joint		65	63	145.7	6-Vein
12	355	121.94	6-Vein		39	344	145.92	3-Joint
36	84	122.31	6-Vein		64	52	145.98	3-Joint
83	62	122.67	6-Vein		39	327	146.01	3-Joint
38	72	122.87	3-Joint		57	19	146.55	3-Joint
25	168	123.07	3-Joint		77	320	146.94	3-Joint
59	255	123.24	6-Vein		9	122	147.05	6-Vein
50	34	123.62	6-Vein		76	326	147.09	3-Joint
39	61	123.69	3-Joint		28	106	147.44	3-Joint
57	47	123.9	6-Vein		76	51	147.63	6-Vein
82	54	125.69	6-Vein		4	222	147.87	3-Joint
83	59	126.51	6-Vein		68	46	148.06	3-Joint
10	60	126.87	3-Joint		68	51	148.66	6-Vein
25	295	127.37	3-Joint		65	355	148.87	3-Joint
64	61	128.06	6-Vein		75	51	149.13	6-Vein
27	353	128.5	3-Joint		80	43	149.56	3-Joint
24	307	128.7	3-Joint		43	342	149.66	6-Vein
12	55	128.89	3-Joint		74	68	150.7	6-Vein
71	53	129.23	6-Vein		10	142	151.76	6-Vein
15	316	129.39	3-Joint		16	12	152.28	6-Vein
76	46	129.4	6-Vein		43	11	152.32	6-Vein
71	53	129.9	6-Vein		48	3	153.01	6-Vein
17	325	129.99	3-Joint		50	268	153.48	6-Vein
72	61	130.03	6-Vein		79	43	153.79	6-Vein
39	286	130.12	3-Joint		75	314	153.94	6-Vein
21	228	130.66	3-Joint		68	56	154.35	3-Joint
43	352	130.81	6-Vein		77	48	154.75	3-Joint
26	197	131.08	3-Joint		54	14	154.92	6-Vein
0	345	131.41	3-Joint		79	73	155.44	3-Joint
10	116	131.6	6-Vein		13	33	156.12	3-Joint
66	55	132.3	6-Vein		52	33	156.61	3-Joint
12	11	132.74	3-Joint		65	17	156.74	6-Vein
64	38	133.5	6-Vein		28	325	156.94	6-Vein
68	55	133.85	6-Vein		59	6	157.47	6-Vein
67	50	133.9	6-Vein		45	320	157.78	6-Vein
78	56	134.09	6-Vein		59	277	158.21	6-Vein
68	41	134.95	3-Joint		65	282	158.48	6-Vein
28	121	135.27	6-Vein		54	329	158.89	3-Joint
83	317	135.72	3-Joint		37	315	159.06	6-Vein
65	9	136.15	6-Vein		71	36	159.42	6-Vein
78	35	136.3	3-Joint		49	352	159.61	3-Joint
85	315	136.33	3-Joint		68	41	159.73	4-Bedding
70	61	136.58	6-Vein		44	338	159.77	3-Joint
69	33	136.9	3-Joint		68	44	159.83	4-Bedding
79	314	137.06	3-Joint		49	357	159.9	3-Joint
77	58	137.41	6-Vein		68	38	160	4-Bedding
74	53	137.63	6-Vein		49	337	160.03	3-Joint
65	44	137.92	6-Vein		12	275	160.37	3-Joint
63	46	137.98	6-Vein		56	354	160.45	4-Bedding
64	36	138.31	6-Vein		56	332	160.62	4-Bedding
67	41	138.46	6-Vein		70	60	160.73	3-Joint
66	38	138.88	6-Vein		56	350	160.74	4-Bedding
33	295	138.96	6-Vein		68	41	160.92	3-Joint
7	175	139.13	6-Vein		68	39	161.05	3-Joint
65	41	139.33	6-Vein		72	54	161.47	3-Joint
81	64	139.9	3-Joint		24	0	161.63	3-Joint
83	69	140.91	3-Joint		44	336	161.88	6-Vein

Dip (°)	Dip Direction (°)	Depth (m)	Type		Dip (°)	Dip Direction (°)	Depth (m)	Type
78	318	162.53	3-Joint		48	8	183.74	6-Vein
84	67	162.59	3-Joint		64	25	184.43	3-Joint
49	86	162.59	6-Vein		25	8	185.01	3-Joint
30	347	163.11	6-Vein		77	41	185.52	6-Vein
58	49	163.59	6-Vein		68	27	185.82	6-Vein
42	293	163.59	6-Vein		60	21	186.2	6-Vein
40	342	163.83	3-Joint		51	348	186.39	6-Vein
6	236	163.94	6-Vein		43	298	186.54	6-Vein
34	336	164.16	3-Joint		52	326	187.06	3-Joint
68	36	164.38	6-Vein		68	45	187.7	3-Joint
39	354	165.06	6-Vein		69	34	188.41	3-Joint
69	36	165.39	6-Vein		71	56	188.69	3-Joint
23	30	165.45	3-Joint		72	34	188.95	6-Vein
44	316	165.77	6-Vein		21	350	189.15	3-Joint
56	20	165.94	6-Vein		56	21	189.81	6-Vein
45	6	166.28	3-Joint		62	38	190.21	3-Joint
47	45	166.51	3-Joint		82	201	190.51	3-Joint
59	38	166.68	3-Joint		58	38	191.1	3-Joint
66	5	166.73	3-Joint		51	28	191.33	3-Joint
66	60	167.3	6-Vein		66	29	192.04	6-Vein
76	315	167.36	3-Joint		48	349	192.65	6-Vein
68	29	167.64	6-Vein		60	35	193.79	6-Vein
51	289	167.67	6-Vein		79	207	194.65	6-Vein
57	28	167.71	3-Joint		43	305	194.91	6-Vein
62	353	168.26	6-Vein		74	218	195.34	3-Joint
60	37	168.81	3-Joint		12	339	197.16	3-Joint
61	28	168.91	3-Joint		43	5	198.24	6-Vein
65	268	169.73	6-Vein		82	27	199.33	3-Joint
61	13	170.32	3-Joint		65	45	200.21	14-Unknown
55	17	170.94	3-Joint		79	33	200.79	6-Vein
71	23	171.21	3-Joint		72	29	201.47	6-Vein
72	257	171.47	3-Joint		74	43	201.87	6-Vein
71	16	171.56	3-Joint		76	46	202.77	6-Vein
43	11	171.93	6-Vein		57	36	203.11	6-Vein
40	311	172.15	6-Vein		78	34	203.25	6-Vein
67	6	172.36	6-Vein		18	350	203.42	6-Vein
61	198	172.5	6-Vein		68	48	203.77	3-Joint
58	27	172.51	6-Vein		62	58	204.22	3-Joint
61	38	172.62	6-Vein		17	335	204.32	6-Vein
68	52	174.03	3-Joint		57	54	205.32	6-Vein
57	43	174.14	3-Joint		47	350	205.58	6-Vein
51	41	174.83	3-Joint		65	83	205.89	3-Joint
82	314	175.16	6-Vein		75	101	206.42	14-Unknown
59	42	175.21	3-Joint		74	36	206.8	6-Vein
41	335	175.65	3-Joint		71	7	207.53	6-Vein
65	351	175.76	3-Joint		73	206	207.95	3-Joint
70	43	176.54	3-Joint					
41	321	176.89	6-Vein					
60	8	177.7	6-Vein					
51	2	178.62	6-Vein					
32	355	178.88	6-Vein					
47	354	178.93	6-Vein					
52	346	179.13	6-Vein					
59	42	179.43	6-Vein					
69	41	179.46	6-Vein					
72	47	179.54	6-Vein					
78	58	179.75	6-Vein					
60	13	180.25	6-Vein					
66	48	180.43	6-Vein					
44	341	180.86	6-Vein					
64	113	180.89	6-Vein					
69	46	180.93	6-Vein					
56	24	181.21	6-Vein					
64	44	181.4	6-Vein					
59	359	181.72	6-Vein					
51	337	182.61	3-Joint					
79	139	182.74	3-Joint					
52	350	183.28	3-Joint					
63	29	183.41	3-Joint					

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
46	48	9.43	Bedding / Banding / Foliation		59	94	15.71	Filled Fracture / Joint
42	52	9.46	Bedding / Banding / Foliation		53	64	15.89	Filled Fracture / Joint
33	50	9.52	Bedding / Banding / Foliation		84	340	15.96	Filled Fracture / Joint
45	63	9.59	Filled Fracture / Joint		4	138	16.24	Partially Open Joint / Fracture
55	335	9.61	Filled Fracture / Joint		80	125	16.29	Partially Open Joint / Fracture
42	47	9.65	Filled Fracture / Joint		46	31	16.38	Filled Fracture / Joint
77	171	9.79	Bedding / Banding / Foliation		55	46	16.65	Filled Fracture / Joint
74	347	9.85	Bedding / Banding / Foliation		47	40	16.86	Filled Fracture / Joint
45	24	9.92	Bedding / Banding / Foliation		84	47	17.29	Filled Fracture / Joint
49	18	9.98	Bedding / Banding / Foliation		20	282	17.33	Filled Fracture / Joint
5	312	10.03	Bedding / Banding / Foliation		86	343	17.33	Filled Fracture / Joint
61	13	10.13	Bedding / Banding / Foliation		53	84	17.6	Filled Fracture / Joint
18	289	10.23	Bedding / Banding / Foliation		88	179	17.61	Filled Fracture / Joint
55	28	10.35	Bedding / Banding / Foliation		51	32	17.79	Filled Fracture / Joint
67	0	10.5	Bedding / Banding / Foliation		36	70	18	Filled Fracture / Joint
68	0	10.6	Bedding / Banding / Foliation		79	337	18	Filled Fracture / Joint
12	253	10.91	Bedding / Banding / Foliation		70	345	18.1	Filled Fracture / Joint
71	327	11.11	Bedding / Banding / Foliation		41	28	18.2	Filled Fracture / Joint
62	282	11.22	Minor Open Joint / Fracture		84	337	18.22	Filled Fracture / Joint
71	311	11.26	Partially Open Joint / Fracture		71	86	18.23	Filled Fracture / Joint
78	294	11.27	Minor Open Joint / Fracture		44	52	18.29	Filled Fracture / Joint
73	306	11.34	Partially Open Joint / Fracture		49	72	18.33	Filled Fracture / Joint
14	310	11.34	Minor Open Joint / Fracture		46	74	18.34	Filled Fracture / Joint
64	355	11.75	Bedding / Banding / Foliation		67	57	18.36	Filled Fracture / Joint
66	355	11.83	Bedding / Banding / Foliation		81	328	18.48	Partially Open Joint / Fracture
58	353	12.13	Bedding / Banding / Foliation		48	87	18.56	Filled Fracture / Joint
58	344	12.27	Bedding / Banding / Foliation		20	255	18.59	Filled Fracture / Joint
52	344	12.36	Bedding / Banding / Foliation		83	328	18.68	Filled Fracture / Joint
56	359	12.48	Minor Open Joint / Fracture		45	66	18.69	Filled Fracture / Joint
72	342	12.5	Minor Open Joint / Fracture		36	275	18.93	Filled Fracture / Joint
77	90	12.93	Partially Open Joint / Fracture		55	56	18.96	Filled Fracture / Joint
52	80	12.93	Minor Open Joint / Fracture		35	261	19.07	Partially Open Joint / Fracture
42	55	13.05	Minor Open Joint / Fracture		31	256	19.08	Filled Fracture / Joint
80	166	13.09	Minor Open Joint / Fracture		31	249	19.1	Partially Open Joint / Fracture
67	257	13.09	Partially Open Joint / Fracture		51	54	19.21	Filled Fracture / Joint
45	43	13.16	Major Open Joint / Fracture		82	331	19.28	Filled Fracture / Joint
78	43	13.24	Partially Open Joint / Fracture		88	337	19.32	Filled Fracture / Joint
85	310	13.25	Partially Open Joint / Fracture		85	69	19.41	Filled Fracture / Joint
39	121	13.26	Partially Open Joint / Fracture		80	344	19.5	Partially Open Joint / Fracture
83	309	13.34	Partially Open Joint / Fracture		81	327	19.67	Partially Open Joint / Fracture
61	28	13.39	Filled Fracture / Joint		1	340	19.76	Filled Fracture / Joint
62	307	13.45	Filled Fracture / Joint		89	235	20.01	Filled Fracture / Joint
74	6	13.49	Filled Fracture / Joint		50	86	20.43	Filled Fracture / Joint
77	274	13.91	Partially Open Joint / Fracture		50	40	20.67	Filled Fracture / Joint
31	188	14.02	Partially Open Joint / Fracture		74	62	20.68	Filled Fracture / Joint
26	129	14.08	Filled Fracture / Joint		48	62	20.77	Filled Fracture / Joint
48	41	14.24	Filled Fracture / Joint		79	58	20.88	Filled Fracture / Joint
55	99	14.43	Filled Fracture / Joint		50	46	20.95	Filled Fracture / Joint
88	338	14.44	Filled Fracture / Joint		51	43	21.02	Filled Fracture / Joint
32	125	14.45	Filled Fracture / Joint		52	42	21.3	Filled Fracture / Joint
83	33	14.77	Bedding / Banding / Foliation		45	45	21.37	Filled Fracture / Joint
56	9	14.8	Filled Fracture / Joint		49	50	21.55	Filled Fracture / Joint
5	127	15	Partially Open Joint / Fracture		81	177	22.07	Filled Fracture / Joint
67	1	15.03	Filled Fracture / Joint		87	289	22.15	Filled Fracture / Joint
49	38	15.09	Major Open Joint / Fracture		14	257	22.18	Filled Fracture / Joint
37	47	15.14	Filled Fracture / Joint		82	301	22.26	Filled Fracture / Joint
72	173	15.16	Partially Open Joint / Fracture		88	126	22.31	Filled Fracture / Joint
59	88	15.19	Partially Open Joint / Fracture		65	164	22.39	Filled Fracture / Joint
17	124	15.25	Partially Open Joint / Fracture		59	330	22.39	Filled Fracture / Joint
66	67	15.31	Bedding / Banding / Foliation		55	340	22.43	Filled Fracture / Joint
72	9	15.39	Bedding / Banding / Foliation		78	129	22.48	Filled Fracture / Joint
71	0	15.55	Partially Open Joint / Fracture		78	310	22.75	Partially Open Joint / Fracture
52	345	15.62	Filled Fracture / Joint		88	166	22.75	Minor Open Joint / Fracture
63	97	15.64	Filled Fracture / Joint		73	344	23.26	Bedding / Banding / Foliation

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
80	356	23.39	Bedding / Banding / Foliation		77	334	27.88	Filled Fracture / Joint
15	157	23.43	Filled Fracture / Joint		78	338	28.07	Bedding / Banding / Foliation
15	191	23.49	Filled Fracture / Joint		71	348	28.2	Bedding / Banding / Foliation
14	183	23.52	Filled Fracture / Joint		68	334	28.27	Bedding / Banding / Foliation
68	306	23.56	Filled Fracture / Joint		73	324	28.29	Bedding / Banding / Foliation
51	17	23.66	Filled Fracture / Joint		75	321	28.3	Bedding / Banding / Foliation
77	346	23.72	Bedding / Banding / Foliation		85	342	28.34	Bedding / Banding / Foliation
82	158	23.75	Filled Fracture / Joint		70	345	28.46	Bedding / Banding / Foliation
82	336	23.78	Bedding / Banding / Foliation		83	354	28.56	Bedding / Banding / Foliation
73	335	23.82	Filled Fracture / Joint		87	180	28.59	Bedding / Banding / Foliation
80	338	23.84	Filled Fracture / Joint		3	273	28.6	Filled Fracture / Joint
76	1	23.88	Filled Fracture / Joint		46	358	28.68	Filled Fracture / Joint
20	21	23.89	Filled Fracture / Joint		63	92	28.84	Filled Fracture / Joint
85	335	23.92	Filled Fracture / Joint		19	219	28.87	Filled Fracture / Joint
66	285	23.98	Filled Fracture / Joint		84	288	28.88	Filled Fracture / Joint
73	342	24.03	Bedding / Banding / Foliation		86	351	28.99	Filled Fracture / Joint
73	341	24.09	Bedding / Banding / Foliation		5	322	29.01	Filled Fracture / Joint
74	336	24.12	Filled Fracture / Joint		71	134	29.28	Bedding / Banding / Foliation
76	49	24.17	Filled Fracture / Joint		72	56	29.34	Filled Fracture / Joint
53	25	24.24	Filled Fracture / Joint		57	67	29.44	Filled Fracture / Joint
52	26	24.26	Partially Open Joint / Fracture		2	344	29.46	Filled Fracture / Joint
57	91	24.59	Partially Open Joint / Fracture		7	317	29.49	Filled Fracture / Joint
76	356	24.6	Bedding / Banding / Foliation		15	356	29.52	Minor Open Joint / Fracture
22	336	24.67	Partially Open Joint / Fracture		15	7	29.54	Partially Open Joint / Fracture
76	1	24.88	Bedding / Banding / Foliation		75	19	29.61	Filled Fracture / Joint
78	359	24.95	Bedding / Banding / Foliation		6	215	29.63	Filled Fracture / Joint
76	3	24.98	Bedding / Banding / Foliation		51	59	29.7	Filled Fracture / Joint
75	7	25.03	Filled Fracture / Joint		60	20	29.74	Filled Fracture / Joint
72	339	25.36	Bedding / Banding / Foliation		52	30	29.82	Filled Fracture / Joint
81	349	25.39	Filled Fracture / Joint		46	29	29.87	Filled Fracture / Joint
75	347	25.4	Bedding / Banding / Foliation		11	296	29.99	Filled Fracture / Joint
79	338	25.44	Filled Fracture / Joint		68	11	29.99	Filled Fracture / Joint
71	337	25.47	Filled Fracture / Joint		46	358	30.11	Filled Fracture / Joint
75	333	25.48	Filled Fracture / Joint		46	358	30.13	Filled Fracture / Joint
49	40	25.53	Filled Fracture / Joint		11	331	30.27	Partially Open Joint / Fracture
75	340	25.53	Filled Fracture / Joint		5	290	30.3	Partially Open Joint / Fracture
83	137	25.75	Partially Open Joint / Fracture		79	347	30.45	Filled Fracture / Joint
6	58	25.89	Minor Open Joint / Fracture		86	338	30.46	Filled Fracture / Joint
78	356	25.89	Partially Open Joint / Fracture		4	253	30.47	Filled Fracture / Joint
11	310	25.97	Partially Open Joint / Fracture		84	133	30.49	Filled Fracture / Joint
76	334	26	Filled Fracture / Joint		80	130	30.54	Filled Fracture / Joint
85	143	26.02	Filled Fracture / Joint		87	342	30.61	Filled Fracture / Joint
76	128	26.09	Filled Fracture / Joint		50	288	30.65	Filled Fracture / Joint
40	49	26.22	Filled Fracture / Joint		33	255	30.71	Filled Fracture / Joint
39	0	26.28	Filled Fracture / Joint		9	233	30.72	Partially Open Joint / Fracture
45	98	26.34	Filled Fracture / Joint		55	57	30.76	Filled Fracture / Joint
81	145	26.58	Filled Fracture / Joint		46	47	30.82	Filled Fracture / Joint
86	344	26.69	Bedding / Banding / Foliation		61	3	30.84	Filled Fracture / Joint
76	341	26.73	Bedding / Banding / Foliation		18	237	30.86	Filled Fracture / Joint
45	91	26.73	Filled Fracture / Joint		74	133	30.89	Filled Fracture / Joint
77	335	26.77	Filled Fracture / Joint		74	310	30.92	Filled Fracture / Joint
75	338	26.78	Filled Fracture / Joint		71	357	30.97	Filled Fracture / Joint
81	342	26.8	Filled Fracture / Joint		84	296	30.98	Filled Fracture / Joint
36	89	26.89	Filled Fracture / Joint		65	197	31.01	Filled Fracture / Joint
60	356	27.03	Filled Fracture / Joint		20	259	31.05	Filled Fracture / Joint
78	224	27.04	Filled Fracture / Joint		82	355	31.13	Filled Fracture / Joint
2	228	27.33	Filled Fracture / Joint		82	353	31.15	Filled Fracture / Joint
83	193	27.35	Filled Fracture / Joint		6	220	31.18	Filled Fracture / Joint
9	281	27.38	Filled Fracture / Joint		15	40	31.21	Filled Fracture / Joint
63	359	27.4	Filled Fracture / Joint		81	348	31.22	Filled Fracture / Joint
73	190	27.41	Filled Fracture / Joint		81	335	31.23	Filled Fracture / Joint
61	356	27.49	Filled Fracture / Joint		55	22	31.44	Filled Fracture / Joint
71	351	27.63	Filled Fracture / Joint		49	20	31.61	Filled Fracture / Joint
10	231	27.87	Filled Fracture / Joint		47	42	31.81	Filled Fracture / Joint

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
51	48	31.87	Filled Fracture / Joint		89	331	34.5	Filled Fracture / Joint
46	62	31.92	Filled Fracture / Joint		77	348	34.53	Filled Fracture / Joint
42	27	31.92	Filled Fracture / Joint		85	334	34.55	Bedding / Banding / Foliation
46	358	31.95	Filled Fracture / Joint		89	348	34.65	Bedding / Banding / Foliation
60	338	31.95	Filled Fracture / Joint		83	349	34.71	Bedding / Banding / Foliation
47	79	32.04	Filled Fracture / Joint		49	32	34.83	Filled Fracture / Joint
78	7	32.08	Filled Fracture / Joint		51	31	34.87	Filled Fracture / Joint
87	5	32.1	Filled Fracture / Joint		68	12	35.07	Filled Fracture / Joint
83	328	32.15	Bedding / Banding / Foliation		32	85	35.17	Filled Fracture / Joint
60	313	32.28	Filled Fracture / Joint		65	6	35.21	Filled Fracture / Joint
84	318	32.31	Filled Fracture / Joint		76	336	35.27	Bedding / Banding / Foliation
70	357	32.37	Filled Fracture / Joint		46	62	35.28	Filled Fracture / Joint
55	21	32.42	Bedding / Banding / Foliation		78	341	35.33	Bedding / Banding / Foliation
81	122	32.46	Filled Fracture / Joint		80	282	35.43	Filled Fracture / Joint
12	5	32.47	Filled Fracture / Joint		74	135	35.43	Filled Fracture / Joint
75	352	32.5	Filled Fracture / Joint		55	63	35.46	Filled Fracture / Joint
41	53	32.62	Filled Fracture / Joint		7	274	35.49	Filled Fracture / Joint
81	156	32.66	Filled Fracture / Joint		78	339	35.58	Filled Fracture / Joint
17	324	32.7	Filled Fracture / Joint		45	88	35.73	Filled Fracture / Joint
82	159	32.83	Bedding / Banding / Foliation		45	85	35.73	Filled Fracture / Joint
74	202	32.86	Filled Fracture / Joint		43	71	35.75	Filled Fracture / Joint
88	150	33.04	Bedding / Banding / Foliation		40	59	35.76	Filled Fracture / Joint
20	85	33.05	Filled Fracture / Joint		53	39	35.77	Filled Fracture / Joint
11	191	33.09	Filled Fracture / Joint		44	67	35.81	Filled Fracture / Joint
46	358	33.09	Filled Fracture / Joint		50	71	35.85	Filled Fracture / Joint
15	250	33.11	Filled Fracture / Joint		29	41	35.92	Filled Fracture / Joint
87	316	33.11	Filled Fracture / Joint		16	268	35.98	Filled Fracture / Joint
45	354	33.19	Filled Fracture / Joint		62	71	36	Filled Fracture / Joint
82	331	33.29	Filled Fracture / Joint		63	75	36.08	Filled Fracture / Joint
14	343	33.36	Filled Fracture / Joint		40	58	36.28	Filled Fracture / Joint
75	145	33.37	Filled Fracture / Joint		46	357	36.28	Filled Fracture / Joint
75	130	33.42	Filled Fracture / Joint		89	281	36.32	Filled Fracture / Joint
7	8	33.47	Filled Fracture / Joint		88	354	36.36	Filled Fracture / Joint
74	126	33.49	Filled Fracture / Joint		85	196	36.41	Filled Fracture / Joint
45	97	33.52	Filled Fracture / Joint		52	55	36.43	Filled Fracture / Joint
69	132	33.53	Filled Fracture / Joint		51	63	36.45	Filled Fracture / Joint
72	131	33.56	Filled Fracture / Joint		83	334	36.5	Filled Fracture / Joint
4	63	33.59	Filled Fracture / Joint		39	249	36.62	Filled Fracture / Joint
53	276	33.59	Filled Fracture / Joint		39	113	36.71	Filled Fracture / Joint
78	132	33.6	Filled Fracture / Joint		30	91	37.01	Filled Fracture / Joint
76	125	33.62	Filled Fracture / Joint		89	317	37.02	Filled Fracture / Joint
8	310	33.63	Filled Fracture / Joint		83	341	37.11	Bedding / Banding / Foliation
69	136	33.64	Filled Fracture / Joint		83	340	37.12	Bedding / Banding / Foliation
52	60	33.68	Filled Fracture / Joint		82	223	37.33	Filled Fracture / Joint
78	138	33.69	Filled Fracture / Joint		75	283	37.34	Filled Fracture / Joint
46	358	33.72	Filled Fracture / Joint		11	168	37.5	Filled Fracture / Joint
9	90	33.73	Filled Fracture / Joint		75	345	37.55	Bedding / Banding / Foliation
18	42	33.77	Filled Fracture / Joint		88	356	37.71	Filled Fracture / Joint
85	329	33.79	Filled Fracture / Joint		9	173	37.76	Filled Fracture / Joint
4	283	33.81	Filled Fracture / Joint		54	52	38.09	Filled Fracture / Joint
13	246	33.85	Filled Fracture / Joint		57	49	38.12	Filled Fracture / Joint
87	187	33.85	Filled Fracture / Joint		55	49	38.2	Filled Fracture / Joint
53	59	33.91	Filled Fracture / Joint		35	265	38.24	Filled Fracture / Joint
78	334	33.96	Filled Fracture / Joint		36	263	38.27	Filled Fracture / Joint
37	61	33.96	Filled Fracture / Joint		46	357	38.35	Filled Fracture / Joint
37	98	34.02	Filled Fracture / Joint		77	195	38.43	Bedding / Banding / Foliation
71	179	34.1	Filled Fracture / Joint		89	14	38.45	Bedding / Banding / Foliation
83	186	34.14	Filled Fracture / Joint		69	136	38.51	Filled Fracture / Joint
55	71	34.18	Filled Fracture / Joint		49	28	38.53	Filled Fracture / Joint
78	159	34.19	Filled Fracture / Joint		48	52	38.56	Filled Fracture / Joint
82	153	34.22	Filled Fracture / Joint		52	49	38.57	Filled Fracture / Joint
84	160	34.36	Filled Fracture / Joint		46	36	38.67	Filled Fracture / Joint
84	161	34.41	Filled Fracture / Joint		4	204	38.75	Bedding / Banding / Foliation
26	96	34.44	Filled Fracture / Joint		74	192	38.77	Bedding / Banding / Foliation

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
52	239	38.83	Filled Fracture / Joint		88	336	43.16	Bedding / Banding / Foliation
54	68	38.88	Filled Fracture / Joint		18	23	43.27	Filled Fracture / Joint
61	13	38.93	Filled Fracture / Joint		58	28	43.71	Bedding / Banding / Foliation
15	201	38.98	Filled Fracture / Joint		46	358	43.88	Filled Fracture / Joint
47	339	39.01	Filled Fracture / Joint		53	39	43.92	Filled Fracture / Joint
22	293	39.02	Filled Fracture / Joint		88	325	44.09	Filled Fracture / Joint
59	22	39.13	Filled Fracture / Joint		22	290	44.14	Filled Fracture / Joint
85	146	39.14	Filled Fracture / Joint		86	329	44.32	Bedding / Banding / Foliation
60	20	39.22	Filled Fracture / Joint		11	276	44.4	Filled Fracture / Joint
85	313	39.23	Filled Fracture / Joint		21	304	44.73	Filled Fracture / Joint
70	24	39.31	Filled Fracture / Joint		46	358	44.76	Filled Fracture / Joint
53	23	39.34	Filled Fracture / Joint		46	358	44.83	Filled Fracture / Joint
86	219	39.35	Filled Fracture / Joint		64	354	44.92	Filled Fracture / Joint
32	273	39.39	Filled Fracture / Joint		77	329	45.01	Filled Fracture / Joint
28	280	39.41	Filled Fracture / Joint		46	358	45.09	Filled Fracture / Joint
86	326	39.49	Filled Fracture / Joint		87	330	45.23	Bedding / Banding / Foliation
32	306	39.56	Filled Fracture / Joint		86	327	45.26	Filled Fracture / Joint
21	74	39.73	Filled Fracture / Joint		76	184	45.47	Filled Fracture / Joint
50	46	39.96	Filled Fracture / Joint		79	140	45.52	Filled Fracture / Joint
49	33	39.97	Filled Fracture / Joint		61	18	45.73	Filled Fracture / Joint
45	56	40.21	Filled Fracture / Joint		84	138	45.81	Filled Fracture / Joint
59	41	40.34	Filled Fracture / Joint		46	358	45.81	Filled Fracture / Joint
28	80	40.53	Filled Fracture / Joint		68	165	45.95	Filled Fracture / Joint
49	33	40.56	Filled Fracture / Joint		81	139	46.02	Filled Fracture / Joint
79	3	40.6	Filled Fracture / Joint		76	206	46.11	Filled Fracture / Joint
78	9	40.62	Filled Fracture / Joint		86	148	46.14	Filled Fracture / Joint
66	349	40.65	Filled Fracture / Joint		83	148	46.15	Filled Fracture / Joint
80	358	40.66	Filled Fracture / Joint		89	326	46.25	Filled Fracture / Joint
65	151	40.66	Filled Fracture / Joint		38	69	46.26	Filled Fracture / Joint
70	170	40.71	Filled Fracture / Joint		84	286	46.39	Filled Fracture / Joint
68	15	40.72	Filled Fracture / Joint		82	289	46.4	Partially Open Joint / Fracture
50	64	40.72	Filled Fracture / Joint		0	309	46.46	Filled Fracture / Joint
80	164	40.78	Filled Fracture / Joint		3	352	46.7	Filled Fracture / Joint
57	17	40.81	Filled Fracture / Joint		5	310	46.76	Filled Fracture / Joint
55	20	40.85	Filled Fracture / Joint		6	70	46.87	Filled Fracture / Joint
15	280	40.98	Filled Fracture / Joint		17	216	47.07	Geological Contact
77	196	41.2	Filled Fracture / Joint		14	223	47.14	Partially Open Joint / Fracture
57	82	41.23	Filled Fracture / Joint		20	218	47.16	Geological Contact
77	189	41.37	Filled Fracture / Joint		47	358	47.23	Filled Fracture / Joint
60	95	41.46	Filled Fracture / Joint		72	172	47.27	Filled Fracture / Joint
61	83	41.82	Filled Fracture / Joint		47	358	47.29	Filled Fracture / Joint
60	77	41.84	Filled Fracture / Joint		47	358	47.42	Filled Fracture / Joint
8	47	41.86	Filled Fracture / Joint		5	227	47.57	Filled Fracture / Joint
50	72	41.88	Filled Fracture / Joint		47	358	47.65	Filled Fracture / Joint
10	87	41.9	Filled Fracture / Joint		41	80	47.74	Filled Fracture / Joint
23	288	41.92	Filled Fracture / Joint		60	76	47.75	Filled Fracture / Joint
63	16	41.94	Filled Fracture / Joint		78	178	47.84	Filled Fracture / Joint
85	177	41.97	Filled Fracture / Joint		8	326	47.92	Filled Fracture / Joint
85	174	41.98	Filled Fracture / Joint		84	142	48.06	Filled Fracture / Joint
46	358	42.02	Filled Fracture / Joint		57	106	48.48	Filled Fracture / Joint
46	358	42.07	Filled Fracture / Joint		47	358	48.48	Filled Fracture / Joint
37	52	42.56	Filled Fracture / Joint		19	343	48.52	Partially Open Joint / Fracture
45	61	42.65	Filled Fracture / Joint		12	325	48.53	Partially Open Joint / Fracture
43	83	42.65	Filled Fracture / Joint		47	358	48.69	Filled Fracture / Joint
87	151	42.86	Filled Fracture / Joint		41	76	48.73	Filled Fracture / Joint
78	341	42.93	Filled Fracture / Joint		64	18	49.24	Filled Fracture / Joint
66	357	42.95	Filled Fracture / Joint		71	358	49.31	Bedding / Banding / Foliation
14	35	43	Filled Fracture / Joint		70	3	49.39	Bedding / Banding / Foliation
87	333	43.02	Filled Fracture / Joint		14	353	49.5	Filled Fracture / Joint
88	327	43.02	Filled Fracture / Joint		35	271	49.6	Filled Fracture / Joint
75	339	43.03	Filled Fracture / Joint		28	271	49.62	Partially Open Joint / Fracture
79	359	43.05	Filled Fracture / Joint		15	82	49.69	Filled Fracture / Joint
85	330	43.08	Bedding / Banding / Foliation		77	193	49.72	Filled Fracture / Joint
87	334	43.14	Bedding / Banding / Foliation		31	286	49.95	Partially Open Joint / Fracture

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
61	100	50	Filled Fracture / Joint		43	102	53.89	Filled Fracture / Joint
83	349	50.01	Filled Fracture / Joint		59	343	54.05	Filled Fracture / Joint
19	54	50.09	Filled Fracture / Joint		57	349	54.06	Filled Fracture / Joint
27	1	50.15	Filled Fracture / Joint		34	265	54.11	Filled Fracture / Joint
42	354	50.21	Filled Fracture / Joint		28	249	54.18	Filled Fracture / Joint
38	347	50.31	Filled Fracture / Joint		88	215	54.39	Bedding / Banding / Foliation
69	72	50.37	Filled Fracture / Joint		65	12	54.53	Filled Fracture / Joint
47	358	50.45	Filled Fracture / Joint		47	358	54.55	Minor Open Joint / Fracture
66	357	50.79	Filled Fracture / Joint		65	352	54.6	Filled Fracture / Joint
32	270	50.86	Filled Fracture / Joint		76	350	54.69	Filled Fracture / Joint
48	28	50.97	Filled Fracture / Joint		75	350	54.74	Filled Fracture / Joint
48	35	51.01	Filled Fracture / Joint		87	358	54.79	Filled Fracture / Joint
79	54	51.11	Filled Fracture / Joint		84	355	54.8	Partially Open Joint / Fracture
80	54	51.13	Filled Fracture / Joint		31	287	54.96	Filled Fracture / Joint
47	358	51.2	Filled Fracture / Joint		89	225	55.15	Filled Fracture / Joint
25	309	51.22	Filled Fracture / Joint		75	341	55.36	Bedding / Banding / Foliation
26	358	51.27	Filled Fracture / Joint		80	345	55.49	Bedding / Banding / Foliation
32	244	51.3	Filled Fracture / Joint		72	350	55.54	Bedding / Banding / Foliation
81	347	51.35	Filled Fracture / Joint		49	65	55.65	Filled Fracture / Joint
77	349	51.37	Partially Open Joint / Fracture		51	57	55.67	Filled Fracture / Joint
86	352	51.6	Filled Fracture / Joint		34	252	55.84	Filled Fracture / Joint
22	245	51.74	Filled Fracture / Joint		24	90	56.04	Filled Fracture / Joint
81	341	51.8	Filled Fracture / Joint		17	328	56.11	Filled Fracture / Joint
47	358	51.9	Filled Fracture / Joint		32	350	56.11	Filled Fracture / Joint
20	256	51.98	Filled Fracture / Joint		44	44	56.13	Filled Fracture / Joint
31	265	52	Filled Fracture / Joint		76	1	56.25	Bedding / Banding / Foliation
62	210	52.04	Filled Fracture / Joint		74	10	56.3	Bedding / Banding / Foliation
78	344	52.06	Filled Fracture / Joint		87	6	56.34	Filled Fracture / Joint
68	209	52.24	Filled Fracture / Joint		18	260	56.34	Filled Fracture / Joint
78	345	52.3	Filled Fracture / Joint		82	337	56.38	Filled Fracture / Joint
79	345	52.31	Filled Fracture / Joint		17	43	56.46	Filled Fracture / Joint
76	354	52.36	Filled Fracture / Joint		28	344	56.46	Filled Fracture / Joint
82	283	52.4	Filled Fracture / Joint		65	159	56.49	Filled Fracture / Joint
73	345	52.4	Filled Fracture / Joint		61	34	56.58	Filled Fracture / Joint
34	264	52.41	Filled Fracture / Joint		19	54	56.8	Filled Fracture / Joint
84	345	52.41	Filled Fracture / Joint		79	205	57.03	Filled Fracture / Joint
6	175	52.42	Filled Fracture / Joint		47	358	57.04	Filled Fracture / Joint
44	349	52.42	Filled Fracture / Joint		75	194	57.05	Filled Fracture / Joint
34	258	52.43	Filled Fracture / Joint		87	52	57.35	Filled Fracture / Joint
62	352	52.43	Partially Open Joint / Fracture		83	359	57.45	Filled Fracture / Joint
42	271	52.45	Filled Fracture / Joint		83	1	57.48	Filled Fracture / Joint
19	259	52.46	Filled Fracture / Joint		86	1	57.52	Filled Fracture / Joint
77	345	52.52	Filled Fracture / Joint		21	267	57.58	Filled Fracture / Joint
36	261	52.52	Partially Open Joint / Fracture		2	280	57.7	Filled Fracture / Joint
70	188	52.59	Filled Fracture / Joint		73	66	57.96	Filled Fracture / Joint
88	203	52.63	Filled Fracture / Joint		77	50	58.02	Filled Fracture / Joint
88	173	52.63	Partially Open Joint / Fracture		25	303	58.09	Filled Fracture / Joint
78	181	52.64	Filled Fracture / Joint		43	94	58.13	Filled Fracture / Joint
77	356	52.73	Filled Fracture / Joint		87	7	58.18	Bedding / Banding / Foliation
47	358	52.94	Filled Fracture / Joint		89	1	58.35	Bedding / Banding / Foliation
79	168	53	Filled Fracture / Joint		66	342	58.49	Filled Fracture / Joint
87	286	53.22	Filled Fracture / Joint		7	221	58.58	Filled Fracture / Joint
47	358	53.23	Filled Fracture / Joint		28	316	58.61	Filled Fracture / Joint
89	288	53.25	Filled Fracture / Joint		88	64	58.66	Filled Fracture / Joint
47	358	53.25	Filled Fracture / Joint		82	31	58.75	Filled Fracture / Joint
84	226	53.33	Filled Fracture / Joint		85	34	58.79	Filled Fracture / Joint
82	358	53.35	Filled Fracture / Joint		61	63	58.87	Filled Fracture / Joint
76	355	53.37	Bedding / Banding / Foliation		54	41	58.88	Filled Fracture / Joint
26	86	53.47	Filled Fracture / Joint		46	0	59.23	Filled Fracture / Joint
47	358	53.55	Filled Fracture / Joint		83	159	59.53	Bedding / Banding / Foliation
75	353	53.6	Bedding / Banding / Foliation		83	160	59.55	Bedding / Banding / Foliation
79	340	53.68	Filled Fracture / Joint		82	163	59.61	Bedding / Banding / Foliation
76	0	53.78	Bedding / Banding / Foliation		82	163	59.62	Bedding / Banding / Foliation
61	11	53.8	Filled Fracture / Joint		89	325	59.68	Filled Fracture / Joint

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
87	152	59.7	Filled Fracture / Joint		80	141	63.06	Filled Fracture / Joint
38	301	59.7	Filled Fracture / Joint		75	155	63.08	Filled Fracture / Joint
60	288	59.74	Filled Fracture / Joint		87	161	63.2	Bedding / Banding / Foliation
89	347	59.85	Bedding / Banding / Foliation		84	171	63.22	Bedding / Banding / Foliation
70	138	60.02	Filled Fracture / Joint		71	177	63.28	Bedding / Banding / Foliation
68	159	60.06	Partially Open Joint / Fracture		76	176	63.29	Bedding / Banding / Foliation
73	143	60.06	Filled Fracture / Joint		80	184	63.53	Bedding / Banding / Foliation
75	339	60.06	Filled Fracture / Joint		86	139	63.84	Filled Fracture / Joint
77	123	60.07	Bedding / Banding / Foliation		44	353	64.03	Filled Fracture / Joint
82	132	60.1	Filled Fracture / Joint		68	25	64.04	Filled Fracture / Joint
76	35	60.25	Filled Fracture / Joint		85	3	64.07	Bedding / Banding / Foliation
70	5	60.26	Filled Fracture / Joint		85	358	64.11	Bedding / Banding / Foliation
83	6	60.34	Filled Fracture / Joint		81	168	64.17	Filled Fracture / Joint
83	0	60.36	Bedding / Banding / Foliation		59	162	64.3	Filled Fracture / Joint
83	357	60.4	Bedding / Banding / Foliation		82	182	64.48	Filled Fracture / Joint
83	359	60.47	Bedding / Banding / Foliation		82	187	64.52	Filled Fracture / Joint
87	18	60.5	Filled Fracture / Joint		47	358	64.52	Filled Fracture / Joint
46	0	60.55	Filled Fracture / Joint		82	186	64.55	Filled Fracture / Joint
82	140	60.61	Filled Fracture / Joint		82	173	64.71	Bedding / Banding / Foliation
87	344	60.67	Filled Fracture / Joint		79	169	64.75	Bedding / Banding / Foliation
89	315	60.73	Partially Open Joint / Fracture		87	344	64.8	Bedding / Banding / Foliation
76	5	60.73	Partially Open Joint / Fracture		87	344	64.81	Bedding / Banding / Foliation
87	136	60.75	Partially Open Joint / Fracture		61	148	64.92	Filled Fracture / Joint
88	236	60.78	Filled Fracture / Joint		24	234	64.95	Filled Fracture / Joint
48	355	60.94	Filled Fracture / Joint		71	158	65.13	Bedding / Banding / Foliation
87	158	61.07	Bedding / Banding / Foliation		72	156	65.15	Bedding / Banding / Foliation
87	158	61.08	Bedding / Banding / Foliation		81	172	65.22	Bedding / Banding / Foliation
80	164	61.15	Bedding / Banding / Foliation		77	145	65.33	Bedding / Banding / Foliation
80	164	61.26	Bedding / Banding / Foliation		72	158	65.4	Bedding / Banding / Foliation
84	152	61.31	Bedding / Banding / Foliation		68	161	65.46	Bedding / Banding / Foliation
87	152	61.34	Bedding / Banding / Foliation		77	182	65.58	Bedding / Banding / Foliation
86	156	61.36	Bedding / Banding / Foliation		86	13	65.69	Bedding / Banding / Foliation
81	161	61.39	Bedding / Banding / Foliation		63	45	65.7	Bedding / Banding / Foliation
69	163	61.65	Partially Open Joint / Fracture		66	155	65.79	Bedding / Banding / Foliation
86	352	61.72	Partially Open Joint / Fracture		75	2	65.91	Filled Fracture / Joint
85	183	61.81	Filled Fracture / Joint		77	199	65.96	Filled Fracture / Joint
76	139	61.82	Filled Fracture / Joint		10	349	66.01	Filled Fracture / Joint
84	169	61.83	Major Open Joint / Fracture		16	327	66.01	Filled Fracture / Joint
74	144	61.91	Filled Fracture / Joint		47	358	66.04	Filled Fracture / Joint
62	351	61.93	Major Open Joint / Fracture		79	172	66.15	Bedding / Banding / Foliation
76	143	61.94	Filled Fracture / Joint		79	187	66.16	Bedding / Banding / Foliation
70	139	61.98	Filled Fracture / Joint		69	178	66.22	Bedding / Banding / Foliation
73	157	62	Minor Open Joint / Fracture		77	173	66.43	Bedding / Banding / Foliation
71	166	62.04	Filled Fracture / Joint		77	170	66.46	Bedding / Banding / Foliation
70	169	62.05	Filled Fracture / Joint		76	168	66.61	Filled Fracture / Joint
75	158	62.08	Filled Fracture / Joint		81	168	66.68	Bedding / Banding / Foliation
72	66	62.09	Filled Fracture / Joint		78	166	66.81	Filled Fracture / Joint
22	273	62.11	Filled Fracture / Joint		79	162	66.85	Bedding / Banding / Foliation
47	72	62.17	Filled Fracture / Joint		73	171	66.93	Filled Fracture / Joint
3	157	62.18	Filled Fracture / Joint		82	161	67.04	Filled Fracture / Joint
84	177	62.27	Filled Fracture / Joint		82	159	67.08	Filled Fracture / Joint
77	171	62.31	Major Open Joint / Fracture		27	193	67.13	Filled Fracture / Joint
85	165	62.37	Filled Fracture / Joint		70	161	67.14	Filled Fracture / Joint
83	136	62.39	Filled Fracture / Joint		70	162	67.2	Filled Fracture / Joint
81	153	62.43	Filled Fracture / Joint		64	158	67.26	Filled Fracture / Joint
87	167	62.45	Filled Fracture / Joint		63	161	67.33	Filled Fracture / Joint
76	166	62.56	Filled Fracture / Joint		46	1	67.43	Filled Fracture / Joint
88	156	62.6	Filled Fracture / Joint		86	149	67.46	Bedding / Banding / Foliation
80	154	62.68	Major Open Joint / Fracture		68	166	67.47	Filled Fracture / Joint
87	317	62.79	Major Open Joint / Fracture		73	158	67.56	Partially Open Joint / Fracture
78	148	62.82	Filled Fracture / Joint		63	173	67.79	Filled Fracture / Joint
68	156	62.82	Filled Fracture / Joint		76	169	67.92	Bedding / Banding / Foliation
82	165	62.9	Major Open Joint / Fracture		25	213	67.94	Filled Fracture / Joint
83	161	62.92	Partially Open Joint / Fracture		76	176	67.96	Bedding / Banding / Foliation

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
76	169	67.99	Bedding / Banding / Foliation		84	336	74.13	Filled Fracture / Joint
60	157	68.14	Partially Open Joint / Fracture		29	232	74.18	Filled Fracture / Joint
87	158	68.3	Bedding / Banding / Foliation		44	61	74.26	Filled Fracture / Joint
25	323	68.31	Bedding / Banding / Foliation		64	350	74.3	Bedding / Banding / Foliation
80	164	68.37	Bedding / Banding / Foliation		75	68	74.39	Filled Fracture / Joint
30	30	68.41	Filled Fracture / Joint		32	75	74.46	Filled Fracture / Joint
86	178	68.58	Bedding / Banding / Foliation		34	93	74.53	Filled Fracture / Joint
80	171	68.67	Bedding / Banding / Foliation		62	10	74.55	Bedding / Banding / Foliation
77	164	68.8	Bedding / Banding / Foliation		88	350	74.6	Filled Fracture / Joint
80	168	69.03	Filled Fracture / Joint		70	354	74.63	Bedding / Banding / Foliation
70	55	69.1	Partially Open Joint / Fracture		52	25	74.81	Filled Fracture / Joint
36	236	69.27	Filled Fracture / Joint		78	151	74.95	Filled Fracture / Joint
55	166	69.47	Filled Fracture / Joint		84	150	75.05	Filled Fracture / Joint
68	353	69.82	Filled Fracture / Joint		47	358	75.22	Filled Fracture / Joint
76	346	69.84	Filled Fracture / Joint		55	41	75.28	Filled Fracture / Joint
80	343	69.9	Filled Fracture / Joint		81	345	75.29	Filled Fracture / Joint
81	167	69.96	Bedding / Banding / Foliation		68	352	75.38	Bedding / Banding / Foliation
72	160	69.96	Bedding / Banding / Foliation		79	357	75.43	Filled Fracture / Joint
18	235	70	Partially Open Joint / Fracture		63	1	75.66	Filled Fracture / Joint
18	240	70.05	Partially Open Joint / Fracture		53	44	75.69	Filled Fracture / Joint
41	273	70.21	Filled Fracture / Joint		47	29	75.73	Filled Fracture / Joint
80	186	70.38	Bedding / Banding / Foliation		53	24	75.88	Filled Fracture / Joint
86	184	70.49	Filled Fracture / Joint		61	55	76.14	Filled Fracture / Joint
71	188	70.55	Filled Fracture / Joint		33	21	76.42	Filled Fracture / Joint
47	358	70.64	Major Open Joint / Fracture		88	167	76.48	Filled Fracture / Joint
22	211	70.65	Major Open Joint / Fracture		85	342	76.52	Filled Fracture / Joint
37	311	70.68	Partially Open Joint / Fracture		86	24	76.56	Filled Fracture / Joint
67	160	70.89	Partially Open Joint / Fracture		20	251	76.58	Filled Fracture / Joint
65	179	70.96	Filled Fracture / Joint		20	265	76.61	Filled Fracture / Joint
36	246	70.98	Bedding / Banding / Foliation		65	53	76.75	Filled Fracture / Joint
89	166	71.36	Bedding / Banding / Foliation		43	239	76.83	Filled Fracture / Joint
88	339	71.39	Bedding / Banding / Foliation		55	38	76.85	Filled Fracture / Joint
87	227	71.6	Filled Fracture / Joint		74	44	76.92	Filled Fracture / Joint
53	338	71.86	Geological Contact		36	75	77	Filled Fracture / Joint
56	345	71.98	Bedding / Banding / Foliation		11	138	77.16	Filled Fracture / Joint
44	13	72.05	Filled Fracture / Joint		72	347	77.4	Bedding / Banding / Foliation
57	357	72.13	Filled Fracture / Joint		84	6	77.43	Filled Fracture / Joint
52	10	72.29	Filled Fracture / Joint		59	343	77.44	Filled Fracture / Joint
66	138	72.29	Filled Fracture / Joint		77	355	77.57	Bedding / Banding / Foliation
64	343	72.49	Bedding / Banding / Foliation		5	231	77.6	Filled Fracture / Joint
23	237	72.57	Filled Fracture / Joint		76	350	77.63	Bedding / Banding / Foliation
67	350	72.57	Bedding / Banding / Foliation		86	340	77.74	Bedding / Banding / Foliation
73	347	72.66	Bedding / Banding / Foliation		71	147	77.82	Filled Fracture / Joint
18	63	72.75	Filled Fracture / Joint		49	29	78.1	Partially Open Joint / Fracture
81	297	72.76	Filled Fracture / Joint		69	37	78.42	Filled Fracture / Joint
58	73	72.82	Bedding / Banding / Foliation		32	254	78.48	Filled Fracture / Joint
21	288	72.89	Filled Fracture / Joint		43	336	78.52	Filled Fracture / Joint
70	2	73.16	Geological Contact		75	179	78.59	Filled Fracture / Joint
86	349	73.26	Geological Contact		83	355	78.68	Bedding / Banding / Foliation
75	174	73.35	Filled Fracture / Joint		64	0	78.83	Bedding / Banding / Foliation
67	148	73.39	Filled Fracture / Joint		39	235	78.94	Filled Fracture / Joint
20	287	73.6	Filled Fracture / Joint		22	181	78.99	Filled Fracture / Joint
24	220	73.62	Geological Contact		58	15	79.22	Bedding / Banding / Foliation
76	199	73.65	Filled Fracture / Joint		65	6	79.3	Filled Fracture / Joint
74	155	73.66	Filled Fracture / Joint		74	160	79.37	Filled Fracture / Joint
19	262	73.71	Geological Contact		62	11	79.5	Filled Fracture / Joint
67	359	73.81	Bedding / Banding / Foliation		76	187	79.57	Filled Fracture / Joint
82	352	73.86	Bedding / Banding / Foliation		87	186	79.59	Filled Fracture / Joint
29	47	73.99	Filled Fracture / Joint		82	5	80.13	Filled Fracture / Joint
8	99	74.02	Filled Fracture / Joint		58	42	80.72	Filled Fracture / Joint
7	236	74.03	Filled Fracture / Joint		66	16	80.83	Bedding / Banding / Foliation
35	107	74.05	Filled Fracture / Joint		63	21	80.89	Bedding / Banding / Foliation
84	330	74.07	Filled Fracture / Joint		87	347	80.91	Filled Fracture / Joint
81	5	74.12	Filled Fracture / Joint		76	164	81.05	Filled Fracture / Joint

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
45	59	81.08	Filled Fracture / Joint		34	127	87.91	Filled Fracture / Joint
49	43	81.14	Filled Fracture / Joint		8	96	87.99	Filled Fracture / Joint
52	6	81.28	Filled Fracture / Joint		89	204	88.01	Filled Fracture / Joint
55	59	81.64	Filled Fracture / Joint		41	69	88.14	Filled Fracture / Joint
51	51	81.78	Filled Fracture / Joint		30	244	88.17	Filled Fracture / Joint
54	17	81.83	Filled Fracture / Joint		82	342	88.19	Filled Fracture / Joint
82	152	81.9	Filled Fracture / Joint		47	66	88.21	Filled Fracture / Joint
59	12	81.93	Filled Fracture / Joint		58	15	88.37	Filled Fracture / Joint
59	7	81.96	Filled Fracture / Joint		77	48	88.4	Filled Fracture / Joint
59	11	82.03	Bedding / Banding / Foliation		86	337	88.5	Filled Fracture / Joint
80	170	82.82	Filled Fracture / Joint		78	13	88.53	Filled Fracture / Joint
59	31	82.93	Partially Open Joint / Fracture		59	350	88.68	Bedding / Banding / Foliation
60	358	83.01	Partially Open Joint / Fracture		79	157	88.75	Filled Fracture / Joint
83	351	83.03	Partially Open Joint / Fracture		48	70	88.79	Filled Fracture / Joint
54	13	83.06	Filled Fracture / Joint		65	358	89.03	Filled Fracture / Joint
53	51	83.08	Filled Fracture / Joint		25	26	89.04	Filled Fracture / Joint
52	28	83.11	Filled Fracture / Joint		59	60	89.13	Filled Fracture / Joint
53	27	83.12	Filled Fracture / Joint		51	54	89.26	Filled Fracture / Joint
61	28	83.2	Filled Fracture / Joint		63	337	89.31	Bedding / Banding / Foliation
5	313	83.21	Filled Fracture / Joint		47	19	89.37	Filled Fracture / Joint
50	34	83.22	Filled Fracture / Joint		49	54	89.45	Filled Fracture / Joint
58	24	83.33	Bedding / Banding / Foliation		54	33	89.53	Filled Fracture / Joint
55	21	83.4	Bedding / Banding / Foliation		49	35	89.56	Filled Fracture / Joint
59	17	83.46	Bedding / Banding / Foliation		79	165	89.64	Filled Fracture / Joint
58	25	83.54	Filled Fracture / Joint		53	54	89.73	Filled Fracture / Joint
6	71	83.55	Filled Fracture / Joint		80	339	89.77	Filled Fracture / Joint
48	0	83.9	Filled Fracture / Joint		77	358	89.8	Filled Fracture / Joint
50	28	83.93	Bedding / Banding / Foliation		64	67	89.98	Filled Fracture / Joint
13	18	84.03	Filled Fracture / Joint		60	23	90.01	Filled Fracture / Joint
54	15	84.24	Bedding / Banding / Foliation		89	178	90.02	Filled Fracture / Joint
52	16	84.29	Bedding / Banding / Foliation		41	87	90.16	Filled Fracture / Joint
87	3	84.48	Filled Fracture / Joint		36	296	90.16	Filled Fracture / Joint
64	153	84.56	Filled Fracture / Joint		28	258	90.23	Filled Fracture / Joint
11	185	84.61	Filled Fracture / Joint		69	31	90.27	Filled Fracture / Joint
80	158	84.79	Filled Fracture / Joint		52	67	90.56	Filled Fracture / Joint
9	82	85.04	Filled Fracture / Joint		40	115	90.69	Filled Fracture / Joint
81	173	85.16	Filled Fracture / Joint		67	81	90.84	Filled Fracture / Joint
82	171	85.32	Filled Fracture / Joint		86	179	90.99	Filled Fracture / Joint
79	4	85.34	Filled Fracture / Joint		64	48	91.07	Filled Fracture / Joint
80	359	85.35	Filled Fracture / Joint		62	47	91.09	Filled Fracture / Joint
79	355	85.37	Filled Fracture / Joint		85	167	91.19	Filled Fracture / Joint
37	240	85.68	Filled Fracture / Joint		86	173	91.22	Filled Fracture / Joint
81	33	85.81	Filled Fracture / Joint		82	352	91.25	Filled Fracture / Joint
35	243	85.83	Filled Fracture / Joint		51	65	91.56	Filled Fracture / Joint
66	343	86	Bedding / Banding / Foliation		55	62	91.58	Filled Fracture / Joint
67	345	86.05	Bedding / Banding / Foliation		59	41	91.64	Filled Fracture / Joint
68	348	86.11	Bedding / Banding / Foliation		47	44	91.71	Filled Fracture / Joint
65	342	86.17	Bedding / Banding / Foliation		68	353	91.86	Bedding / Banding / Foliation
65	342	86.3	Bedding / Banding / Foliation		68	1	91.97	Bedding / Banding / Foliation
69	350	86.36	Bedding / Banding / Foliation		78	20	92.09	Filled Fracture / Joint
82	164	86.43	Filled Fracture / Joint		86	6	92.11	Filled Fracture / Joint
19	30	86.51	Filled Fracture / Joint		72	357	92.39	Filled Fracture / Joint
83	157	86.58	Filled Fracture / Joint		67	357	92.4	Filled Fracture / Joint
52	29	86.93	Filled Fracture / Joint		64	357	92.46	Filled Fracture / Joint
68	0	87	Filled Fracture / Joint		70	8	92.52	Filled Fracture / Joint
13	70	87.09	Filled Fracture / Joint		61	16	92.57	Bedding / Banding / Foliation
85	333	87.19	Filled Fracture / Joint		73	12	92.63	Filled Fracture / Joint
37	299	87.26	Filled Fracture / Joint		65	9	92.65	Bedding / Banding / Foliation
77	353	87.28	Filled Fracture / Joint		67	8	92.69	Filled Fracture / Joint
67	3	87.36	Bedding / Banding / Foliation		65	13	92.72	Filled Fracture / Joint
85	104	87.46	Partially Open Joint / Fracture		65	4	92.76	Filled Fracture / Joint
15	56	87.56	Filled Fracture / Joint		67	10	92.78	Bedding / Banding / Foliation
87	159	87.58	Filled Fracture / Joint		67	9	92.8	Bedding / Banding / Foliation
80	111	87.69	Filled Fracture / Joint		69	1	92.82	Filled Fracture / Joint

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
68	7	92.87	Filled Fracture / Joint		66	5	96.99	Bedding / Banding / Foliation
68	2	93.07	Filled Fracture / Joint		66	4	97	Bedding / Banding / Foliation
47	27	93.19	Bedding / Banding / Foliation		65	136	97	Filled Fracture / Joint
61	19	93.29	Filled Fracture / Joint		67	1	97.02	Bedding / Banding / Foliation
82	298	93.34	Filled Fracture / Joint		66	6	97.07	Bedding / Banding / Foliation
42	297	93.4	Filled Fracture / Joint		66	4	97.09	Bedding / Banding / Foliation
74	357	93.42	Filled Fracture / Joint		72	288	97.1	Filled Fracture / Joint
51	53	93.47	Filled Fracture / Joint		52	50	97.15	Filled Fracture / Joint
24	108	93.53	Filled Fracture / Joint		76	7	97.22	Bedding / Banding / Foliation
89	288	93.65	Filled Fracture / Joint		77	170	97.29	Filled Fracture / Joint
55	95	93.67	Filled Fracture / Joint		54	70	97.33	Filled Fracture / Joint
39	101	93.68	Filled Fracture / Joint		76	173	97.35	Filled Fracture / Joint
58	84	93.72	Filled Fracture / Joint		17	210	97.54	Partially Open Joint / Fracture
49	90	93.75	Filled Fracture / Joint		34	207	97.67	Filled Fracture / Joint
49	7	93.84	Filled Fracture / Joint		35	48	97.81	Filled Fracture / Joint
51	98	93.84	Filled Fracture / Joint		73	58	97.82	Filled Fracture / Joint
70	349	93.85	Filled Fracture / Joint		85	358	97.87	Bedding / Banding / Foliation
71	212	93.89	Filled Fracture / Joint		73	302	97.92	Filled Fracture / Joint
42	69	93.96	Filled Fracture / Joint		25	303	97.99	Filled Fracture / Joint
9	277	93.96	Filled Fracture / Joint		72	215	98.04	Filled Fracture / Joint
85	299	93.97	Filled Fracture / Joint		85	215	98.11	Filled Fracture / Joint
7	183	94.03	Filled Fracture / Joint		34	332	98.11	Filled Fracture / Joint
60	58	94.04	Filled Fracture / Joint		40	277	98.25	Filled Fracture / Joint
9	274	94.13	Partially Open Joint / Fracture		49	70	98.41	Filled Fracture / Joint
64	84	94.16	Filled Fracture / Joint		39	269	98.48	Filled Fracture / Joint
3	262	94.16	Filled Fracture / Joint		42	275	98.64	Filled Fracture / Joint
11	345	94.18	Filled Fracture / Joint		29	333	98.71	Filled Fracture / Joint
69	60	94.33	Filled Fracture / Joint		77	354	98.81	Filled Fracture / Joint
81	181	94.44	Filled Fracture / Joint		6	20	98.93	Filled Fracture / Joint
23	259	94.56	Filled Fracture / Joint		81	170	98.97	Filled Fracture / Joint
73	55	94.63	Filled Fracture / Joint		11	242	99.03	Filled Fracture / Joint
79	56	94.68	Filled Fracture / Joint		70	357	99.12	Filled Fracture / Joint
52	37	94.93	Filled Fracture / Joint		70	357	99.13	Filled Fracture / Joint
58	58	94.96	Filled Fracture / Joint		70	1	99.18	Filled Fracture / Joint
58	72	94.98	Filled Fracture / Joint		70	1	99.21	Filled Fracture / Joint
62	65	94.99	Filled Fracture / Joint		29	248	99.31	Filled Fracture / Joint
57	60	94.99	Filled Fracture / Joint		61	89	99.67	Filled Fracture / Joint
40	44	95	Filled Fracture / Joint		76	160	99.7	Filled Fracture / Joint
87	126	95.04	Filled Fracture / Joint		89	201	99.71	Filled Fracture / Joint
83	137	95.22	Filled Fracture / Joint		62	58	99.76	Filled Fracture / Joint
58	58	95.27	Filled Fracture / Joint		66	143	99.76	Filled Fracture / Joint
57	69	95.35	Filled Fracture / Joint		77	186	99.77	Filled Fracture / Joint
77	44	95.39	Filled Fracture / Joint		61	297	99.79	Filled Fracture / Joint
6	156	95.42	Filled Fracture / Joint		51	59	99.85	Filled Fracture / Joint
15	87	95.43	Filled Fracture / Joint		50	57	99.86	Filled Fracture / Joint
67	21	95.51	Filled Fracture / Joint		64	125	99.91	Filled Fracture / Joint
64	26	95.53	Bedding / Banding / Foliation		40	40	99.91	Filled Fracture / Joint
14	81	95.73	Filled Fracture / Joint		48	56	99.95	Filled Fracture / Joint
55	9	95.77	Filled Fracture / Joint		45	41	99.99	Filled Fracture / Joint
49	61	95.79	Bedding / Banding / Foliation		54	32	100.03	Bedding / Banding / Foliation
50	61	95.84	Bedding / Banding / Foliation		19	32	100.09	Filled Fracture / Joint
75	154	95.85	Filled Fracture / Joint		82	178	100.16	Filled Fracture / Joint
39	38	95.92	Filled Fracture / Joint		51	47	100.16	Filled Fracture / Joint
56	87	96.03	Filled Fracture / Joint		45	328	100.22	Filled Fracture / Joint
88	32	96.04	Filled Fracture / Joint		85	157	100.28	Filled Fracture / Joint
70	36	96.05	Filled Fracture / Joint		55	38	100.29	Filled Fracture / Joint
50	77	96.1	Filled Fracture / Joint		61	44	100.32	Filled Fracture / Joint
33	300	96.11	Filled Fracture / Joint		66	138	100.41	Filled Fracture / Joint
56	60	96.32	Filled Fracture / Joint		72	146	100.46	Filled Fracture / Joint
60	54	96.44	Filled Fracture / Joint		4	221	100.48	Filled Fracture / Joint
60	55	96.46	Filled Fracture / Joint		73	151	100.61	Filled Fracture / Joint
79	166	96.5	Filled Fracture / Joint		72	140	100.75	Filled Fracture / Joint
77	222	96.72	Filled Fracture / Joint		70	134	100.86	Filled Fracture / Joint
67	3	96.95	Bedding / Banding / Foliation		65	300	100.87	Filled Fracture / Joint

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
83	334	101.04	Filled Fracture / Joint		50	50	104.76	Filled Fracture / Joint
62	153	101.05	Filled Fracture / Joint		44	74	104.82	Filled Fracture / Joint
65	137	101.1	Filled Fracture / Joint		75	160	104.98	Filled Fracture / Joint
66	275	101.19	Filled Fracture / Joint		72	2	105.05	Bedding / Banding / Foliation
82	161	101.36	Filled Fracture / Joint		72	1	105.08	Bedding / Banding / Foliation
75	159	101.4	Filled Fracture / Joint		69	13	105.15	Bedding / Banding / Foliation
22	275	101.51	Filled Fracture / Joint		67	16	105.19	Bedding / Banding / Foliation
27	94	101.75	Filled Fracture / Joint		70	9	105.22	Bedding / Banding / Foliation
49	66	101.96	Partially Open Joint / Fracture		14	189	105.23	Filled Fracture / Joint
63	129	101.97	Filled Fracture / Joint		64	20	105.27	Filled Fracture / Joint
53	68	101.98	Filled Fracture / Joint		46	81	105.29	Filled Fracture / Joint
69	17	102.05	Filled Fracture / Joint		85	336	105.31	Filled Fracture / Joint
70	15	102.11	Filled Fracture / Joint		65	0	105.31	Filled Fracture / Joint
38	53	102.2	Filled Fracture / Joint		28	93	105.36	Filled Fracture / Joint
88	356	102.24	Filled Fracture / Joint		44	82	105.36	Filled Fracture / Joint
55	56	102.31	Filled Fracture / Joint		55	286	105.37	Filled Fracture / Joint
43	73	102.33	Filled Fracture / Joint		41	79	105.41	Filled Fracture / Joint
57	54	102.38	Filled Fracture / Joint		59	28	105.45	Filled Fracture / Joint
35	57	102.38	Filled Fracture / Joint		33	45	105.57	Filled Fracture / Joint
64	181	102.38	Filled Fracture / Joint		72	351	105.58	Partially Open Joint / Fracture
60	149	102.46	Filled Fracture / Joint		74	352	105.61	Bedding / Banding / Foliation
54	78	102.49	Filled Fracture / Joint		73	358	105.62	Bedding / Banding / Foliation
49	82	102.53	Filled Fracture / Joint		72	352	105.66	Bedding / Banding / Foliation
47	84	102.55	Filled Fracture / Joint		72	353	105.69	Bedding / Banding / Foliation
85	127	102.61	Filled Fracture / Joint		47	359	105.75	Filled Fracture / Joint
82	118	102.68	Filled Fracture / Joint		59	66	105.78	Bedding / Banding / Foliation
52	66	102.68	Filled Fracture / Joint		37	51	105.81	Filled Fracture / Joint
48	62	102.75	Filled Fracture / Joint		51	304	105.86	Bedding / Banding / Foliation
63	76	102.75	Filled Fracture / Joint		50	79	105.88	Filled Fracture / Joint
57	33	102.81	Filled Fracture / Joint		58	43	105.91	Filled Fracture / Joint
88	153	102.94	Filled Fracture / Joint		27	47	105.95	Bedding / Banding / Foliation
55	264	102.96	Filled Fracture / Joint		57	43	105.99	Filled Fracture / Joint
43	61	102.98	Filled Fracture / Joint		67	1	106.12	Bedding / Banding / Foliation
70	154	103	Filled Fracture / Joint		29	104	106.47	Filled Fracture / Joint
76	156	103.09	Filled Fracture / Joint		29	82	106.56	Filled Fracture / Joint
53	59	103.09	Filled Fracture / Joint		67	10	106.66	Bedding / Banding / Foliation
13	171	103.11	Filled Fracture / Joint		28	70	106.82	Filled Fracture / Joint
57	37	103.16	Filled Fracture / Joint		33	93	106.82	Filled Fracture / Joint
45	39	103.21	Filled Fracture / Joint		68	19	106.84	Filled Fracture / Joint
52	34	103.26	Filled Fracture / Joint		54	54	107	Filled Fracture / Joint
55	293	103.3	Filled Fracture / Joint		63	39	107.13	Filled Fracture / Joint
35	348	103.32	Filled Fracture / Joint		61	41	107.14	Filled Fracture / Joint
73	217	103.34	Filled Fracture / Joint		67	35	107.15	Filled Fracture / Joint
64	295	103.35	Partially Open Joint / Fracture		56	44	107.19	Filled Fracture / Joint
44	8	103.4	Filled Fracture / Joint		78	15	107.51	Filled Fracture / Joint
49	54	103.6	Filled Fracture / Joint		65	17	107.55	Bedding / Banding / Foliation
42	64	103.68	Filled Fracture / Joint		62	8	107.76	Filled Fracture / Joint
37	67	103.75	Filled Fracture / Joint		60	12	107.79	Filled Fracture / Joint
52	68	103.81	Filled Fracture / Joint		66	43	107.95	Filled Fracture / Joint
48	70	103.84	Filled Fracture / Joint		54	52	108.01	Filled Fracture / Joint
81	347	103.97	Bedding / Banding / Foliation		61	23	108.07	Filled Fracture / Joint
77	1	104.05	Bedding / Banding / Foliation		41	249	108.1	Filled Fracture / Joint
54	59	104.1	Filled Fracture / Joint		84	345	108.14	Filled Fracture / Joint
60	51	104.14	Filled Fracture / Joint		66	141	108.24	Filled Fracture / Joint
54	53	104.16	Filled Fracture / Joint		46	354	108.44	Filled Fracture / Joint
58	50	104.18	Filled Fracture / Joint		21	172	108.5	Filled Fracture / Joint
44	65	104.24	Filled Fracture / Joint		35	101	108.58	Filled Fracture / Joint
34	82	104.41	Filled Fracture / Joint		35	72	108.6	Filled Fracture / Joint
43	39	104.41	Filled Fracture / Joint		52	63	108.67	Filled Fracture / Joint
36	59	104.47	Filled Fracture / Joint		26	125	108.75	Filled Fracture / Joint
36	63	104.5	Filled Fracture / Joint		82	178	108.78	Filled Fracture / Joint
34	73	104.55	Filled Fracture / Joint		35	231	108.85	Filled Fracture / Joint
76	19	104.62	Filled Fracture / Joint		81	174	108.9	Filled Fracture / Joint
48	85	104.7	Filled Fracture / Joint		88	208	108.91	Filled Fracture / Joint

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
83	189	109.01	Bedding / Banding / Foliation		71	34	114.14	Bedding / Banding / Foliation
15	235	109.02	Filled Fracture / Joint		71	34	114.17	Bedding / Banding / Foliation
81	182	109.04	Bedding / Banding / Foliation		66	39	114.19	Bedding / Banding / Foliation
89	184	109.1	Filled Fracture / Joint		80	354	114.27	Geological Contact
89	184	109.11	Filled Fracture / Joint		72	21	114.44	Filled Fracture / Joint
44	56	109.29	Filled Fracture / Joint		81	352	114.62	Geological Contact
56	70	109.38	Filled Fracture / Joint		10	108	114.71	Filled Fracture / Joint
48	61	109.64	Filled Fracture / Joint		87	338	114.77	Bedding / Banding / Foliation
72	17	109.69	Filled Fracture / Joint		47	355	114.87	Filled Fracture / Joint
55	65	109.98	Filled Fracture / Joint		78	223	114.95	Filled Fracture / Joint
48	75	110.01	Filled Fracture / Joint		81	2	115	Filled Fracture / Joint
47	359	110.19	Filled Fracture / Joint		80	3	115.18	Filled Fracture / Joint
86	62	110.23	Filled Fracture / Joint		78	8	115.28	Filled Fracture / Joint
54	70	110.32	Filled Fracture / Joint		80	1	115.3	Filled Fracture / Joint
84	20	110.44	Filled Fracture / Joint		87	350	115.39	Bedding / Banding / Foliation
60	72	110.5	Filled Fracture / Joint		79	356	115.44	Bedding / Banding / Foliation
72	10	110.58	Filled Fracture / Joint		84	0	115.45	Bedding / Banding / Foliation
78	351	110.75	Bedding / Banding / Foliation		89	181	115.49	Filled Fracture / Joint
85	350	110.77	Bedding / Banding / Foliation		76	6	115.52	Bedding / Banding / Foliation
77	172	110.9	Filled Fracture / Joint		83	10	115.55	Filled Fracture / Joint
49	45	110.93	Filled Fracture / Joint		18	286	115.64	Filled Fracture / Joint
49	71	110.97	Filled Fracture / Joint		81	1	115.73	Filled Fracture / Joint
55	70	111.01	Filled Fracture / Joint		57	27	115.77	Filled Fracture / Joint
38	82	111.13	Filled Fracture / Joint		78	352	115.83	Bedding / Banding / Foliation
71	20	111.15	Filled Fracture / Joint		79	359	115.89	Bedding / Banding / Foliation
88	338	111.16	Filled Fracture / Joint		77	354	115.91	Bedding / Banding / Foliation
85	173	111.34	Filled Fracture / Joint		75	356	115.94	Bedding / Banding / Foliation
68	14	111.38	Bedding / Banding / Foliation		77	358	115.96	Bedding / Banding / Foliation
69	290	111.39	Filled Fracture / Joint		77	1	115.99	Bedding / Banding / Foliation
43	257	111.44	Filled Fracture / Joint		77	357	116.01	Filled Fracture / Joint
80	187	111.8	Filled Fracture / Joint		78	359	116.05	Bedding / Banding / Foliation
14	249	111.81	Filled Fracture / Joint		6	29	116.16	Filled Fracture / Joint
88	181	111.93	Bedding / Banding / Foliation		8	42	116.23	Filled Fracture / Joint
88	178	111.95	Bedding / Banding / Foliation		62	349	116.37	Bedding / Banding / Foliation
83	5	112.02	Filled Fracture / Joint		37	79	116.39	Filled Fracture / Joint
82	50	112.04	Filled Fracture / Joint		44	49	116.39	Filled Fracture / Joint
47	359	112.07	Filled Fracture / Joint		65	66	116.44	Filled Fracture / Joint
55	289	112.09	Filled Fracture / Joint		77	14	116.6	Filled Fracture / Joint
60	90	112.11	Filled Fracture / Joint		50	39	116.74	Filled Fracture / Joint
82	1	112.11	Filled Fracture / Joint		89	165	116.82	Filled Fracture / Joint
83	3	112.22	Filled Fracture / Joint		33	47	116.95	Filled Fracture / Joint
57	186	112.25	Filled Fracture / Joint		83	356	116.98	Bedding / Banding / Foliation
75	314	112.3	Filled Fracture / Joint		10	354	117	Filled Fracture / Joint
77	353	112.53	Filled Fracture / Joint		75	8	117.03	Filled Fracture / Joint
47	355	112.55	Filled Fracture / Joint		70	16	117.05	Bedding / Banding / Foliation
16	337	112.57	Filled Fracture / Joint		46	18	117.1	Filled Fracture / Joint
47	355	112.74	Filled Fracture / Joint		73	10	117.13	Bedding / Banding / Foliation
73	308	112.79	Filled Fracture / Joint		80	14	117.15	Bedding / Banding / Foliation
82	20	112.94	Filled Fracture / Joint		76	23	117.19	Bedding / Banding / Foliation
86	173	112.96	Filled Fracture / Joint		59	46	117.22	Bedding / Banding / Foliation
75	192	113.03	Bedding / Banding / Foliation		22	288	117.41	Filled Fracture / Joint
86	1	113.09	Bedding / Banding / Foliation		82	116	117.45	Filled Fracture / Joint
76	0	113.17	Bedding / Banding / Foliation		82	349	117.46	Bedding / Banding / Foliation
74	4	113.19	Bedding / Banding / Foliation		81	346	117.48	Bedding / Banding / Foliation
71	12	113.22	Bedding / Banding / Foliation		80	344	117.53	Bedding / Banding / Foliation
70	356	113.29	Bedding / Banding / Foliation		79	121	117.58	Filled Fracture / Joint
67	11	113.53	Filled Fracture / Joint		83	355	117.6	Bedding / Banding / Foliation
44	20	113.78	Filled Fracture / Joint		45	54	117.68	Filled Fracture / Joint
84	144	113.79	Filled Fracture / Joint		80	3	117.81	Bedding / Banding / Foliation
31	6	113.82	Filled Fracture / Joint		80	2	117.84	Bedding / Banding / Foliation
81	161	113.96	Filled Fracture / Joint		79	10	117.86	Bedding / Banding / Foliation
70	22	114.04	Bedding / Banding / Foliation		55	37	117.91	Filled Fracture / Joint
73	32	114.07	Bedding / Banding / Foliation		47	358	117.93	Filled Fracture / Joint
73	32	114.12	Bedding / Banding / Foliation		47	358	118	Filled Fracture / Joint

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
42	359	118.04	Filled Fracture / Joint		33	73	122.27	Filled Fracture / Joint
56	357	118.08	Filled Fracture / Joint		81	355	122.37	Filled Fracture / Joint
77	4	118.12	Filled Fracture / Joint		55	42	122.49	Filled Fracture / Joint
10	297	118.16	Partially Open Joint / Fracture		9	4	122.73	Filled Fracture / Joint
89	354	118.34	Bedding / Banding / Foliation		48	12	122.79	Filled Fracture / Joint
15	95	118.38	Filled Fracture / Joint		46	121	122.85	Filled Fracture / Joint
87	358	118.38	Bedding / Banding / Foliation		88	181	122.86	Filled Fracture / Joint
75	191	118.58	Filled Fracture / Joint		60	67	122.94	Filled Fracture / Joint
48	359	118.71	Filled Fracture / Joint		79	167	123.03	Filled Fracture / Joint
84	359	118.71	Bedding / Banding / Foliation		87	178	123.18	Filled Fracture / Joint
86	0	118.75	Bedding / Banding / Foliation					
65	90	118.87	Filled Fracture / Joint					
73	83	118.87	Partially Open Joint / Fracture					
27	118	119.01	Filled Fracture / Joint					
84	183	119.04	Filled Fracture / Joint					
69	71	119.16	Filled Fracture / Joint					
64	81	119.18	Filled Fracture / Joint					
61	68	119.18	Filled Fracture / Joint					
52	301	119.23	Filled Fracture / Joint					
80	357	119.32	Filled Fracture / Joint					
72	186	119.33	Filled Fracture / Joint					
68	55	119.46	Filled Fracture / Joint					
56	40	119.5	Filled Fracture / Joint					
48	359	119.51	Filled Fracture / Joint					
44	356	119.62	Filled Fracture / Joint					
76	179	119.71	Filled Fracture / Joint					
70	179	119.82	Filled Fracture / Joint					
70	180	119.86	Filled Fracture / Joint					
35	237	119.88	Filled Fracture / Joint					
20	100	120	Filled Fracture / Joint					
53	57	120.07	Filled Fracture / Joint					
69	128	120.17	Filled Fracture / Joint					
85	131	120.19	Filled Fracture / Joint					
68	168	120.31	Filled Fracture / Joint					
22	7	120.38	Filled Fracture / Joint					
71	62	120.44	Filled Fracture / Joint					
82	4	120.45	Bedding / Banding / Foliation					
82	7	120.47	Bedding / Banding / Foliation					
82	350	120.5	Bedding / Banding / Foliation					
82	350	120.54	Bedding / Banding / Foliation					
82	7	120.58	Bedding / Banding / Foliation					
48	359	120.73	Filled Fracture / Joint					
64	44	120.76	Filled Fracture / Joint					
70	49	120.78	Filled Fracture / Joint					
58	82	120.82	Filled Fracture / Joint					
37	90	120.95	Filled Fracture / Joint					
82	358	120.97	Bedding / Banding / Foliation					
76	7	121	Bedding / Banding / Foliation					
22	0	121.03	Filled Fracture / Joint					
43	8	121.34	Filled Fracture / Joint					
46	76	121.38	Filled Fracture / Joint					
34	92	121.4	Filled Fracture / Joint					
84	354	121.47	Bedding / Banding / Foliation					
80	353	121.61	Bedding / Banding / Foliation					
79	349	121.64	Bedding / Banding / Foliation					
57	293	121.69	Filled Fracture / Joint					
83	350	121.75	Bedding / Banding / Foliation					
9	115	121.79	Filled Fracture / Joint					
47	358	121.84	Filled Fracture / Joint					
66	357	121.85	Filled Fracture / Joint					
70	350	121.93	Filled Fracture / Joint					
61	328	121.97	Filled Fracture / Joint					
80	355	122.13	Bedding / Banding / Foliation					
8	186	122.16	Filled Fracture / Joint					

Dip (°)	Dip Direction (°)	Depth (m)	Type		Dip (°)	Dip Direction (°)	Depth (m)	Type	
20	303	3.05	3-Joint		34	307	18.71	3-Joint	
41	47	3.87	6-Vein		52	1	18.85	6-Vein	
16	309	4	6-Vein		50	182	19.05	6-Vein	
57	224	4.25	3-Joint		66	267	19.41	6-Vein	
85	129	4.41	3-Joint		56	12	19.6	6-Vein	
18	270	4.65	3-Joint		13	216	19.74	6-Vein	
56	5	4.72	3-Joint		46	339	19.79	6-Vein	
81	315	5.16	3-Joint		17	306	19.99	6-Vein	
57	6	5.52	6-Vein		47	247	20.18	6-Vein	
49	8	5.72	6-Vein		70	324	20.41	6-Vein	
30	224	5.93	6-Vein		78	305	20.64	6-Vein	
32	241	6.22	6-Vein		74	313	20.69	6-Vein	
53	0	6.75	6-Vein		54	231	20.72	6-Vein	
31	237	6.91	6-Vein		84	311	20.74	6-Vein	
42	47	7.1	6-Vein		41	236	20.88	6-Vein	
76	7	7.59	6-Vein		36	66	21.45	6-Vein	
51	9	7.93	3-Joint		79	311	21.51	6-Vein	
87	323	8.11	6-Vein		83	308	21.61	6-Vein	
87	311	8.33	6-Vein		21	135	21.94	6-Vein	
71	332	8.67	6-Vein		62	342	22.23	6-Vein	
52	3	8.83	6-Vein		50	359	22.32	6-Vein	
54	358	9.06	4-Bedding		49	356	22.59	3-Joint	
52	7	9.13	4-Bedding		58	0	22.7	3-Joint	
54	358	9.36	4-Bedding		83	286	22.72	6-Vein	
55	355	9.52	4-Bedding		50	357	22.91	6-Vein	
52	5	9.6	4-Bedding		40	60	23.49	3-Joint	
52	5	9.65	4-Bedding		84	259	23.56	3-Joint	
43	9	9.81	3-Joint		5	304	23.73	3-Joint	
36	245	10.07	6-Vein		44	242	23.97	6-Vein	
78	286	10.12	6-Vein		32	255	24.39	3-Joint	
67	195	10.13	3-Joint		60	359	24.88	14-Unknown	
44	357	10.42	6-Vein		60	1	25.01	14-Unknown	
56	8	10.71	6-Vein		61	356	25.3	14-Unknown	
78	303	10.97	6-Vein		58	352	25.46	3-Joint	
46	50	11.32	6-Vein		58	351	25.56	3-Joint	
53	8	11.87	6-Vein		35	59	25.84	6-Vein	
57	357	12.12	4-Bedding		70	233	26.22	6-Vein	
58	352	12.26	4-Bedding		56	276	26.51	6-Vein	
57	355	12.38	4-Bedding		44	97	26.65	6-Vein	
53	259	12.59	6-Vein		45	249	27.01	6-Vein	
71	312	12.88	6-Vein		42	26	27.34	6-Vein	
79	300	12.92	6-Vein		48	348	27.59	14-Unknown	
84	284	13.09	6-Vein		49	346	27.73	14-Unknown	
43	42	13.51	6-Vein		48	348	27.81	14-Unknown	
19	270	13.72	6-Vein		48	348	27.9	14-Unknown	
57	48	13.73	6-Vein		65	7	28.58	14-Unknown	
72	314	13.87	6-Vein		51	12	28.84	3-Joint	
21	268	14.07	3-Joint		71	340	29.09	3-Joint	
57	351	14.42	6-Vein		85	269	29.4	14-Unknown	
46	55	14.85	6-Vein		77	338	29.82	14-Unknown	
54	353	15.1	6-Vein		68	343	30.04	14-Unknown	
49	9	15.28	14-Unknown		56	37	30.52	6-Vein	
54	351	15.41	14-Unknown		58	359	30.99	14-Unknown	
54	350	15.49	14-Unknown		65	321	31.3	14-Unknown	
23	163	15.7	14-Unknown		69	338	31.56	14-Unknown	
54	0	16.24	6-Vein		54	292	31.77	14-Unknown	
39	225	16.34	6-Vein		69	291	31.88	3-Joint	
54	1	16.53	3-Joint		46	11	32.27	6-Vein	
9	343	16.74	6-Vein		64	2	32.4	6-Vein	
49	355	16.97	3-Joint		52	353	32.57	6-Vein	
81	296	17.13	6-Vein		51	358	32.74	6-Vein	
22	122	17.25	6-Vein		49	37	32.96	3-Joint	
68	290	17.53	6-Vein		64	352	33.19	3-Joint	
67	309	17.59	6-Vein		56	358	33.36	6-Vein	
18	230	17.86	3-Joint		59	29	33.49	6-Vein	
7	324	18.09	3-Joint		54	2	33.82	6-Vein	
50	247	18.13	6-Vein		39	338	34.53	3-Joint	
52	6	18.36	6-Vein		58	330	34.67	3-Joint	
57	300	18.57	6-Vein		54	68	35.58	6-Vein	

Dip (°)	Dip Direction (°)	Depth (m)	Type		Dip (°)	Dip Direction (°)	Depth (m)	Type	
64	309	35.6	3-Joint		56	1	62.78	14-Unknown	
55	76	35.99	6-Vein		59	349	62.88	14-Unknown	
58	59	36.02	6-Vein		62	331	62.95	14-Unknown	
50	97	36.5	6-Vein		25	209	64.52	6-Vein	
83	255	36.78	6-Vein		67	28	64.78	6-Vein	
33	215	37.29	6-Vein		71	247	64.89	6-Vein	
33	214	37.29	6-Vein		53	52	65.16	6-Vein	
33	216	37.4	6-Vein		88	93	65.36	3-Joint	
39	112	37.62	6-Vein		4	202	67.23	6-Vein	
52	231	38.51	6-Vein		50	228	67.63	6-Vein	
49	3	38.66	6-Vein		20	224	67.75	3-Joint	
29	213	38.95	3-Joint		52	39	68.57	3-Joint	
27	333	39.32	3-Joint		31	231	68.66	3-Joint	
75	30	40.53	6-Vein		59	353	68.8	3-Joint	
24	236	41.07	6-Vein		32	255	69.27	3-Joint	
18	247	41.13	3-Joint		85	347	69.43	3-Joint	
34	252	41.36	6-Vein		61	352	69.63	6-Vein	
26	142	42.01	6-Vein		20	295	69.82	6-Vein	
73	324	42.61	6-Vein		83	295	69.93	6-Vein	
44	69	43.98	6-Vein		34	251	70.28	6-Vein	
49	63	44.71	6-Vein		85	150	70.54	6-Vein	
52	220	45.18	3-Joint		10	290	71.17	6-Vein	
72	199	45.4	3-Joint		53	38	71.41	6-Vein	
41	286	45.84	6-Vein		62	188	71.56	6-Vein	
67	304	46.65	3-Joint		13	306	72.27	6-Vein	
19	264	47.02	6-Vein		33	279	72.44	6-Vein	
47	5	48.25	6-Vein		34	238	72.6	6-Vein	
48	354	48.62	6-Vein		42	280	74.25	6-Vein	
61	23	48.78	3-Joint		30	225	74.45	3-Joint	
60	356	49.2	3-Joint		87	279	74.7	3-Joint	
59	359	49.63	6-Vein		56	347	75.08	3-Joint	
76	322	50.11	3-Joint		39	233	75.97	3-Joint	
60	315	50.5	3-Joint		87	106	76.11	3-Joint	
70	339	50.73	3-Joint		32	158	76.44	3-Joint	
83	296	51.4	3-Joint		46	5	76.99	6-Vein	
41	102	51.87	3-Joint		30	253	77.56	6-Vein	
84	124	51.9	3-Joint		81	302	77.88	6-Vein	
82	14	52.02	3-Joint		30	228	78.15	6-Vein	
47	10	52.76	6-Vein		67	4	78.56	3-Joint	
55	307	52.93	6-Vein		78	230	79.38	3-Joint	
56	309	53.04	6-Vein		56	2	79.89	3-Joint	
69	2	53.9	3-Joint		44	43	80.02	3-Joint	
78	0	54.12	3-Joint		83	297	80.14	3-Joint	
57	9	54.54	3-Joint		72	306	81.85	6-Vein	
50	57	54.92	3-Joint		70	295	81.96	6-Vein	
69	295	55.14	3-Joint		67	313	82.96	6-Vein	
36	27	55.42	3-Joint		78	32	83.5	3-Joint	
62	173	55.93	6-Vein		61	240	83.65	3-Joint	
8	233	56.26	3-Joint		7	234	83.79	6-Vein	
41	248	56.44	3-Joint		53	163	84.26	6-Vein	
43	59	56.58	3-Joint		82	307	85.59	6-Vein	
49	332	56.99	3-Joint		71	27	86.5	6-Vein	
45	156	57.23	3-Joint		57	298	86.68	6-Vein	
46	177	57.5	3-Joint		80	316	86.86	6-Vein	
41	24	58.73	6-Vein		50	18	87.65	3-Joint	
58	182	59.11	3-Joint		57	346	88.61	3-Joint	
58	333	59.74	14-Unknown		56	12	89.11	3-Joint	
53	355	59.92	14-Unknown		59	7	89.31	3-Joint	
47	325	60.1	6-Vein		71	24	90.58	3-Joint	
47	306	60.13	6-Vein		22	274	91.6	3-Joint	
41	236	60.21	3-Joint		28	303	91.97	3-Joint	
50	48	60.88	3-Joint		24	204	93.46	6-Vein	
57	349	61.65	3-Joint		53	343	94.83	3-Joint	
56	352	61.83	3-Joint		6	268	94.86	6-Vein	
54	357	62.06	3-Joint		41	55	95.5	6-Vein	
53	2	62.14	3-Joint		33	230	95.82	6-Vein	
55	355	62.24	3-Joint		65	279	96.41	6-Vein	
60	346	62.53	14-Unknown		69	330	96.87	3-Joint	
59	351	62.67	14-Unknown		61	235	97.37	6-Vein	

Dip (°)	Dip Direction (°)	Depth (m)	Type		Dip (°)	Dip Direction (°)	Depth (m)	Type	
52	346	97.71	6-Vein		67	337	120.1	3-Joint	
37	199	97.83	6-Vein		42	84	120.59	6-Vein	
59	210	98.34	6-Vein		33	49	120.92	6-Vein	
67	352	98.68	6-Vein		59	19	121.32	6-Vein	
37	40	98.76	6-Vein		40	45	121.34	6-Vein	
68	332	98.98	6-Vein		19	230	121.62	6-Vein	
33	13	99.08	6-Vein		50	355	121.88	14-Unknown	
50	241	100.15	6-Vein		48	2	122.04	14-Unknown	
69	325	100.25	6-Vein		50	354	122.17	14-Unknown	
75	9	100.48	6-Vein		49	358	122.3	14-Unknown	
62	3	100.85	6-Vein		51	349	122.55	14-Unknown	
72	236	101.27	6-Vein		50	353	122.76	14-Unknown	
51	22	101.73	6-Vein		37	213	122.98	6-Vein	
83	38	102.37	6-Vein		36	155	123.45	3-Joint	
63	222	102.71	6-Vein		47	1	124	3-Joint	
47	28	102.98	3-Joint		32	52	124.93	6-Vein	
39	1	103.18	6-Vein		51	355	125.22	14-Unknown	
32	49	103.42	3-Joint		42	19	125.51	14-Unknown	
10	86	103.45	3-Joint		6	273	125.96	6-Vein	
15	35	103.71	6-Vein		10	41	126.16	6-Vein	
33	39	105.48	6-Vein		7	220	126.21	6-Vein	
41	51	106.19	6-Vein		51	354	126.45	3-Joint	
87	334	106.79	3-Joint		46	52	127.37	3-Joint	
29	296	106.81	6-Vein		48	9	127.44	14-Unknown	
44	249	106.93	6-Vein		49	8	127.52	14-Unknown	
37	13	108.17	6-Vein		51	2	127.57	14-Unknown	
44	1	108.48	14-Unknown		50	3	127.89	14-Unknown	
39	15	108.73	14-Unknown		35	263	128.51	6-Vein	
42	5	108.86	14-Unknown		63	33	128.75	6-Vein	
40	11	109.15	14-Unknown		23	250	128.75	6-Vein	
42	7	109.26	3-Joint		78	325	128.93	6-Vein	
19	225	109.85	6-Vein		49	356	129.55	14-Unknown	
34	332	109.94	6-Vein		52	343	129.87	14-Unknown	
26	172	110.21	6-Vein		51	3	130.07	6-Vein	
16	213	110.86	6-Vein		55	350	130.33	6-Vein	
64	170	111.18	6-Vein		54	351	130.44	6-Vein	
64	318	111.74	3-Joint		50	344	130.73	4-Bedding	
78	27	111.76	6-Vein		50	340	130.9	4-Bedding	
39	68	111.93	6-Vein		47	355	131.14	4-Bedding	
39	65	112.04	6-Vein		48	350	131.27	4-Bedding	
52	29	112.25	6-Vein		49	348	131.32	4-Bedding	
58	12	112.46	14-Unknown		48	349	131.39	4-Bedding	
46	4	112.61	14-Unknown		54	349	131.48	6-Vein	
43	13	112.82	14-Unknown		47	356	131.71	4-Bedding	
47	2	112.93	14-Unknown		54	0	132.16	14-Unknown	
50	349	113.12	14-Unknown		54	0	132.52	14-Unknown	
69	308	113.19	3-Joint		52	95	132.91	7-Vein (Intact)	
64	311	113.25	3-Joint		53	358	133.09	7-Vein (Intact)	
54	355	113.53	14-Unknown		50	354	133.57	7-Vein (Intact)	
54	353	113.64	14-Unknown		54	11	133.93	14-Unknown	
54	353	113.77	14-Unknown		51	350	134.47	14-Unknown	
54	353	113.82	14-Unknown		53	343	134.58	14-Unknown	
54	354	113.93	14-Unknown		53	342	134.71	14-Unknown	
54	354	114	14-Unknown		43	16	134.82	14-Unknown	
55	352	114.22	14-Unknown		51	350	134.89	14-Unknown	
55	351	114.29	6-Vein		42	43	135.14	6-Vein	
38	37	115.92	6-Vein		83	359	135.58	3-Joint	
41	32	116.13	6-Vein		7	65	136.04	6-Vein	
41	32	116.34	6-Vein		6	291	136.7	6-Vein	
12	194	116.46	6-Vein		66	311	136.89	6-Vein	
54	349	117.05	14-Unknown		46	24	137.26	6-Vein	
56	343	117.14	14-Unknown		43	287	137.74	6-Vein	
55	344	117.28	14-Unknown		50	73	138.36	6-Vein	
57	337	117.68	14-Unknown		10	231	138.68	6-Vein	
49	169	117.82	6-Vein		22	257	138.85	6-Vein	
49	171	117.85	6-Vein		36	13	139.18	6-Vein	
55	343	118.37	6-Vein		15	47	139.48	6-Vein	
57	311	118.79	6-Vein		56	350	140.46	4-Bedding	
71	341	119.48	3-Joint		57	342	140.51	4-Bedding	

Dip (°)	Dip Direction (°)	Depth (m)	Type		Dip (°)	Dip Direction (°)	Depth (m)	Type	
57	346	140.58	4-Bedding		6	129	157.08	6-Vein	
55	354	140.83	4-Bedding		24	78	157.94	3-Joint	
38	160	140.96	6-Vein		40	34	158.18	6-Vein	
62	357	141.28	6-Vein		43	53	158.55	6-Vein	
42	1	141.53	4-Bedding		52	343	159.25	3-Joint	
46	349	141.7	4-Bedding		41	48	159.46	3-Joint	
47	350	141.93	6-Vein		66	4	159.81	3-Joint	
46	345	142.09	4-Bedding		48	1	160.24	3-Joint	
50	353	142.18	6-Vein		49	333	160.45	3-Joint	
53	8	143.27	6-Vein		53	333	160.7	3-Joint	
70	350	143.42	3-Joint		40	312	160.83	6-Vein	
12	151	143.45	6-Vein		73	342	161.69	3-Joint	
75	336	144.07	3-Joint		57	331	161.78	3-Joint	
69	0	144.33	6-Vein		55	350	161.95	3-Joint	
59	85	145.37	6-Vein		65	330	162.45	3-Joint	
39	244	145.86	6-Vein		42	55	162.5	3-Joint	
40	48	145.92	6-Vein		70	322	162.65	3-Joint	
14	53	145.99	6-Vein		36	60	162.97	3-Joint	
70	354	146.72	6-Vein		38	6	163.17	3-Joint	
69	355	146.89	3-Joint		53	1	163.61	3-Joint	
50	325	146.98	6-Vein		51	356	164.94	6-Vein	
44	23	147.44	6-Vein		53	345	165.04	6-Vein	
18	45	147.67	6-Vein		53	347	165.15	6-Vein	
21	19	147.91	6-Vein		63	355	165.53	3-Joint	
52	357	147.99	4-Bedding		47	342	165.69	4-Bedding	
48	14	148.05	4-Bedding		48	341	165.79	4-Bedding	
46	352	148.31	4-Bedding		47	346	165.9	4-Bedding	
47	350	148.42	4-Bedding		48	341	166.03	4-Bedding	
47	352	148.57	4-Bedding		48	342	166.19	4-Bedding	
46	354	148.74	4-Bedding		89	296	166.36	3-Joint	
44	2	148.77	3-Joint		48	340	166.44	4-Bedding	
48	344	148.83	3-Joint		40	47	166.51	6-Vein	
43	17	149.37	4-Bedding		49	329	166.72	3-Joint	
50	357	149.47	4-Bedding		62	359	166.96	4-Bedding	
54	339	149.56	4-Bedding		60	4	167.1	4-Bedding	
48	3	149.65	4-Bedding		58	12	167.36	4-Bedding	
51	351	149.71	4-Bedding		51	356	167.98	3-Joint	
50	357	149.91	4-Bedding		52	335	168.29	4-Bedding	
67	358	150.37	4-Bedding		51	343	168.47	4-Bedding	
53	348	150.52	3-Joint		52	342	168.57	4-Bedding	
46	352	150.79	6-Vein		51	344	168.66	4-Bedding	
50	345	150.97	6-Vein		52	339	168.87	4-Bedding	
49	351	151.2	4-Bedding		52	335	168.98	4-Bedding	
48	355	151.35	4-Bedding		52	336	169.08	4-Bedding	
50	348	151.49	4-Bedding		51	345	169.37	4-Bedding	
50	346	151.59	4-Bedding		52	342	169.57	4-Bedding	
47	359	151.91	4-Bedding		66	351	169.73	3-Joint	
34	82	152.2	6-Vein		51	349	169.81	4-Bedding	
50	344	152.22	4-Bedding		50	351	169.95	4-Bedding	
35	37	152.55	6-Vein		52	341	170.02	4-Bedding	
39	29	152.68	6-Vein		51	350	170.13	4-Bedding	
42	17	152.87	6-Vein		51	346	170.26	4-Bedding	
41	26	153.09	6-Vein		50	352	170.41	4-Bedding	
63	40	153.46	3-Joint		51	346	170.61	4-Bedding	
13	298	153.75	3-Joint		50	354	170.77	4-Bedding	
25	351	153.97	3-Joint		52	343	170.99	4-Bedding	
51	353	154.05	6-Vein		52	341	171.24	4-Bedding	
38	48	154.17	6-Vein		53	322	171.42	4-Bedding	
51	342	154.37	3-Joint		52	339	171.55	4-Bedding	
48	62	154.57	6-Vein		49	357	171.76	4-Bedding	
46	347	154.81	3-Joint		34	96	172.32	6-Vein	
49	58	154.82	6-Vein		8	340	172.8	6-Vein	
35	33	155.13	6-Vein		44	49	172.96	6-Vein	
42	259	155.53	3-Joint		35	116	173.25	6-Vein	
46	353	156.1	3-Joint		72	346	174.23	6-Vein	
48	348	156.4	6-Vein		54	340	174.32	6-Vein	
46	356	156.7	6-Vein		52	348	174.71	11-Contact (Intact)	
47	339	156.86	3-Joint		62	238	174.98	3-Joint	
40	40	156.99	6-Vein		51	248	175.42	3-Joint	

Dip (°)	Dip Direction (°)	Depth (m)	Type		Dip (°)	Dip Direction (°)	Depth (m)	Type	
39	340	175.5	6-Vein		87	359	195.55	6-Vein	
49	149	175.55	6-Vein		27	96	195.58	3-Joint	
44	119	176.07	3-Joint		33	99	195.69	4-Bedding	
50	133	176.63	3-Joint		35	123	195.85	4-Bedding	
22	173	176.83	3-Joint		32	107	196.02	4-Bedding	
83	134	177.04	3-Joint		33	102	196.15	4-Bedding	
43	196	177.41	6-Vein		42	107	196.22	4-Bedding	
51	205	177.55	6-Vein		44	96	196.43	4-Bedding	
50	250	177.72	6-Vein		41	111	196.76	4-Bedding	
56	232	178.32	6-Vein		41	109	197.03	6-Vein	
45	235	179.13	6-Vein		29	204	197.24	6-Vein	
85	118	179.25	3-Joint		41	145	197.51	6-Vein	
31	110	179.55	3-Joint		29	105	197.74	6-Vein	
56	137	180.08	3-Joint		34	122	197.82	6-Vein	
42	133	180.51	3-Joint		41	117	198.47	6-Vein	
44	252	181.45	3-Joint		25	119	198.73	6-Vein	
37	114	181.76	6-Vein		63	351	199.13	3-Joint	
45	186	181.86	3-Joint		23	97	199.47	3-Joint	
46	349	182.26	11-Contact (Intact)		28	113	199.62	3-Joint	
41	54	182.41	6-Vein		44	120	199.99	3-Joint	
64	304	182.71	6-Vein		35	116	200.18	3-Joint	
79	281	182.81	6-Vein		15	169	200.53	6-Vein	
71	303	183.17	6-Vein		28	245	200.75	6-Vein	
40	38	183.33	6-Vein		48	262	201.11	3-Joint	
73	278	183.55	6-Vein		35	283	201.18	3-Joint	
72	291	183.9	6-Vein		48	128	201.32	3-Joint	
53	27	184.14	6-Vein		10	253	201.38	6-Vein	
75	274	184.7	6-Vein		89	312	201.49	6-Vein	
88	280	185.02	6-Vein		36	163	201.52	6-Vein	
56	339	185.24	6-Vein		24	147	201.63	6-Vein	
47	350	185.45	6-Vein		26	151	201.7	3-Joint	
44	142	186.17	6-Vein		31	139	201.91	3-Joint	
20	58	186.35	6-Vein		34	117	202.23	3-Joint	
21	79	186.98	6-Vein		26	112	202.9	6-Vein	
63	356	187.5	6-Vein		42	109	203.07	6-Vein	
74	326	187.82	6-Vein		30	288	203.25	6-Vein	
44	26	188.44	6-Vein		31	116	203.54	6-Vein	
66	341	188.62	3-Joint		44	139	203.86	6-Vein	
44	0	188.9	3-Joint		18	155	204.14	3-Joint	
25	112	189.09	3-Joint		34	128	204.51	3-Joint	
43	22	189.35	6-Vein		4	220	204.62	3-Joint	
44	334	189.74	6-Vein		32	132	204.79	3-Joint	
69	359	189.87	6-Vein		38	151	204.92	3-Joint	
8	180	189.87	6-Vein		32	103	205.58	6-Vein	
51	347	190.06	6-Vein		45	132	205.69	3-Joint	
62	344	190.42	6-Vein		37	107	206.04	3-Joint	
34	173	190.64	6-Vein		22	131	206.2	3-Joint	
19	350	191.14	10-Contact		26	129	206.32	6-Vein	
43	205	191.56	10-Contact		30	104	206.71	6-Vein	
55	4	192.26	10-Contact		27	143	206.95	6-Vein	
29	158	192.59	3-Joint		31	148	207.06	6-Vein	
19	189	192.67	3-Joint		44	263	207.34	3-Joint	
34	165	193.1	6-Vein		23	141	207.4	6-Vein	
23	153	193.34	4-Bedding		27	90	207.72	6-Vein	
23	163	193.42	4-Bedding		34	96	208.02	6-Vein	
82	28	193.43	3-Joint		25	133	208.3	6-Vein	
23	153	193.51	4-Bedding		59	358	208.46	3-Joint	
16	170	193.62	4-Bedding		10	150	208.63	3-Joint	
11	188	193.76	4-Bedding		24	143	208.8	3-Joint	
27	251	194.01	6-Vein		30	152	208.93	3-Joint	
42	276	194.01	3-Joint		26	80	209.05	3-Joint	
44	300	194.21	3-Joint		27	146	209.62	3-Joint	
30	165	194.33	3-Joint		22	135	209.64	3-Joint	
56	126	194.59	3-Joint		35	122	209.85	3-Joint	
24	104	194.72	6-Vein		41	119	209.91	3-Joint	
35	149	194.82	3-Joint		32	107	210.31	6-Vein	
24	112	194.92	3-Joint		33	118	210.89	6-Vein	
61	3	195.19	3-Joint		41	125	211.35	6-Vein	
78	0	195.25	3-Joint		30	104	211.63	6-Vein	

Dip (°)	Dip Direction (°)	Depth (m)	Type		Dip (°)	Dip Direction (°)	Depth (m)	Type	
31	118	211.82	6-Vein		23	125	232.73	3-Joint	
14	115	212	6-Vein		75	325	233.53	3-Joint	
34	116	212.32	6-Vein		70	20	233.72	3-Joint	
32	139	212.57	6-Vein		34	89	233.84	6-Vein	
28	143	212.63	6-Vein		55	117	234.16	3-Joint	
70	88	213.41	3-Joint		72	27	234.82	3-Joint	
33	128	213.89	3-Joint		36	131	235.02	3-Joint	
43	126	214.2	3-Joint		74	25	235.41	3-Joint	
35	129	214.4	3-Joint		54	29	235.82	3-Joint	
42	132	214.85	3-Joint		37	152	235.96	6-Vein	
26	119	215.21	3-Joint		50	151	236.34	3-Joint	
31	102	215.58	3-Joint		42	134	236.79	6-Vein	
43	105	215.77	3-Joint		40	95	237.4	3-Joint	
43	126	215.98	3-Joint		32	136	237.85	6-Vein	
31	95	216.21	6-Vein		34	136	238.02	3-Joint	
29	222	216.65	3-Joint		21	129	238.32	6-Vein	
29	186	216.74	3-Joint		31	108	238.65	3-Joint	
23	66	217.09	6-Vein		37	122	238.93	3-Joint	
16	122	217.3	6-Vein		49	7	239.08	3-Joint	
37	147	217.76	3-Joint		36	14	239.45	3-Joint	
31	109	218.16	3-Joint		45	121	239.55	3-Joint	
39	131	218.83	3-Joint		41	19	239.65	3-Joint	
34	128	219.13	3-Joint		36	136	240.24	3-Joint	
40	150	219.32	3-Joint		36	125	240.55	3-Joint	
26	309	219.6	6-Vein		37	123	240.65	3-Joint	
13	103	219.77	3-Joint		36	133	241.18	6-Vein	
39	140	219.92	3-Joint		33	131	242.17	3-Joint	
38	150	220.39	3-Joint		19	104	242.36	6-Vein	
35	130	220.54	3-Joint		44	262	242.72	6-Vein	
40	138	220.75	3-Joint		30	136	242.84	6-Vein	
37	141	221.73	3-Joint		24	124	243.08	6-Vein	
31	146	222.02	3-Joint		65	306	243.21	3-Joint	
22	264	222.11	3-Joint		9	212	243.27	6-Vein	
44	261	222.26	3-Joint		37	65	243.45	12-Dike	
82	318	222.46	3-Joint		46	44	243.75	12-Dike	
46	268	222.72	3-Joint		28	149	244	3-Joint	
31	90	222.89	6-Vein		28	139	244.16	3-Joint	
33	139	223.06	6-Vein		50	117	244.61	6-Vein	
33	133	223.62	3-Joint		14	163	244.85	3-Joint	
27	136	224.16	3-Joint		38	158	245.25	3-Joint	
24	125	224.42	3-Joint		42	145	246.2	6-Vein	
7	38	224.97	3-Joint		46	92	246.42	3-Joint	
49	281	225.09	6-Vein		56	346	246.65	6-Vein	
25	162	225.2	6-Vein		55	90	246.74	3-Joint	
36	146	225.27	6-Vein						
40	111	225.66	6-Vein						
41	96	225.75	6-Vein						
29	143	225.84	6-Vein						
32	141	226.03	3-Joint						
32	134	226.6	3-Joint						
25	97	226.7	3-Joint						
28	133	227.28	6-Vein						
29	134	227.43	6-Vein						
81	310	227.62	3-Joint						
81	301	227.95	3-Joint						
18	175	228.18	3-Joint						
26	144	228.4	3-Joint						
27	118	228.75	3-Joint						
27	121	229.24	3-Joint						
46	128	229.37	3-Joint						
36	94	229.63	3-Joint						
28	131	229.99	3-Joint						
32	129	230.28	6-Vein						
32	122	230.45	6-Vein						
77	13	230.86	3-Joint						
30	127	230.89	6-Vein						
75	24	231.21	3-Joint						
35	107	231.82	3-Joint						
49	277	232.1	3-Joint						

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
59	156	9.44	Filled Fracture / Joint		50	225	14.28	Filled Fracture / Joint
71	240	9.58	Filled Fracture / Joint		74	63	14.29	Filled Fracture / Joint
31	283	9.65	Partially Open Joint / Fracture		65	154	14.33	Filled Fracture / Joint
62	84	9.65	Partially Open Joint / Fracture		51	282	14.37	Filled Fracture / Joint
31	283	9.66	Partially Open Joint / Fracture		84	1	14.62	Partially Open Joint / Fracture
89	160	9.76	Filled Fracture / Joint		73	8	15	Filled Fracture / Joint
89	162	9.83	Filled Fracture / Joint		89	167	15.09	Filled Fracture / Joint
69	137	9.85	Minor Open Joint / Fracture		84	359	15.12	Filled Fracture / Joint
88	165	9.89	Partially Open Joint / Fracture		80	0	15.2	Filled Fracture / Joint
17	0	9.9	Minor Open Joint / Fracture		68	5	15.34	Filled Fracture / Joint
86	165	9.91	Partially Open Joint / Fracture		50	1	15.41	Filled Fracture / Joint
48	202	9.91	Filled Fracture / Joint		52	53	15.45	Filled Fracture / Joint
50	116	9.93	Partially Open Joint / Fracture		86	178	15.73	Filled Fracture / Joint
76	300	9.96	Partially Open Joint / Fracture		33	271	15.8	Filled Fracture / Joint
89	340	9.99	Filled Fracture / Joint		79	358	16.02	Bedding / Banding / Foliation
28	181	10.04	Minor Open Joint / Fracture		83	5	16.08	Bedding / Banding / Foliation
41	282	10.1	Minor Open Joint / Fracture		83	4	16.14	Bedding / Banding / Foliation
33	288	10.11	Minor Open Joint / Fracture		83	7	16.17	Bedding / Banding / Foliation
29	292	10.13	Minor Open Joint / Fracture		83	6	16.27	Bedding / Banding / Foliation
27	259	10.33	Filled Fracture / Joint		83	8	16.32	Bedding / Banding / Foliation
87	184	10.34	Partially Open Joint / Fracture		83	8	16.36	Bedding / Banding / Foliation
88	331	10.34	Partially Open Joint / Fracture		83	5	16.48	Bedding / Banding / Foliation
80	210	10.37	Filled Fracture / Joint		83	8	16.55	Bedding / Banding / Foliation
88	169	10.43	Filled Fracture / Joint		83	12	16.62	Bedding / Banding / Foliation
88	352	10.48	Partially Open Joint / Fracture		83	12	16.66	Bedding / Banding / Foliation
61	22	10.52	Filled Fracture / Joint		83	8	16.71	Bedding / Banding / Foliation
89	170	10.53	Filled Fracture / Joint		80	3	16.88	Bedding / Banding / Foliation
21	239	10.54	Filled Fracture / Joint		82	1	16.9	Filled Fracture / Joint
27	227	10.6	Filled Fracture / Joint		80	3	16.99	Bedding / Banding / Foliation
21	268	10.63	Filled Fracture / Joint		82	2	17.04	Filled Fracture / Joint
86	147	10.64	Filled Fracture / Joint		84	1	17.13	Filled Fracture / Joint
81	167	10.64	Filled Fracture / Joint		58	61	17.14	Filled Fracture / Joint
32	194	10.69	Major Open Joint / Fracture		40	23	17.16	Filled Fracture / Joint
29	210	10.72	Filled Fracture / Joint		73	9	17.24	Partially Open Joint / Fracture
84	152	10.79	Filled Fracture / Joint		80	354	17.27	Partially Open Joint / Fracture
80	2	11.04	Bedding / Banding / Foliation		78	353	17.39	Filled Fracture / Joint
86	324	11.07	Filled Fracture / Joint		81	354	17.41	Filled Fracture / Joint
82	357	11.14	Bedding / Banding / Foliation		71	113	17.5	Filled Fracture / Joint
38	213	11.18	Partially Open Joint / Fracture		83	0	17.51	Filled Fracture / Joint
80	345	11.21	Geological Contact		62	47	17.6	Filled Fracture / Joint
85	346	11.37	Filled Fracture / Joint		38	102	17.62	Filled Fracture / Joint
72	91	11.45	Filled Fracture / Joint		9	105	17.76	Filled Fracture / Joint
72	94	11.48	Filled Fracture / Joint		35	139	17.81	Filled Fracture / Joint
42	257	11.52	Partially Open Joint / Fracture		54	91	18.16	Partially Open Joint / Fracture
54	316	11.56	Partially Open Joint / Fracture		59	91	18.17	Filled Fracture / Joint
53	296	11.59	Partially Open Joint / Fracture		82	17	18.29	Filled Fracture / Joint
82	357	11.71	Filled Fracture / Joint		82	0	18.6	Bedding / Banding / Foliation
59	311	11.77	Filled Fracture / Joint		84	355	18.64	Filled Fracture / Joint
58	125	11.82	Filled Fracture / Joint		49	135	18.8	Filled Fracture / Joint
88	1	11.95	Minor Open Joint / Fracture		83	6	18.85	Filled Fracture / Joint
41	264	12.1	Filled Fracture / Joint		50	111	18.87	Filled Fracture / Joint
49	225	12.11	Filled Fracture / Joint		83	4	18.94	Filled Fracture / Joint
69	267	12.19	Filled Fracture / Joint		46	127	18.94	Filled Fracture / Joint
59	273	12.21	Partially Open Joint / Fracture		76	6	19.18	Filled Fracture / Joint
46	213	12.22	Major Open Joint / Fracture		81	358	19.21	Filled Fracture / Joint
33	215	12.62	Filled Fracture / Joint		69	252	19.27	Filled Fracture / Joint
84	174	12.66	Filled Fracture / Joint		46	133	19.38	Filled Fracture / Joint
66	319	12.82	Filled Fracture / Joint		84	9	19.42	Filled Fracture / Joint
88	0	12.93	Minor Open Joint / Fracture		62	122	19.43	Filled Fracture / Joint
55	117	13.21	Minor Open Joint / Fracture		88	6	19.43	Filled Fracture / Joint
47	271	13.22	Partially Open Joint / Fracture		53	150	19.49	Filled Fracture / Joint
42	310	13.31	Major Open Joint / Fracture		76	348	19.51	Filled Fracture / Joint
34	288	13.41	Partially Open Joint / Fracture		77	352	19.56	Bedding / Banding / Foliation
59	317	13.42	Minor Open Joint / Fracture		45	257	19.61	Bedding / Banding / Foliation
32	295	13.5	Filled Fracture / Joint		88	344	19.67	Filled Fracture / Joint
76	6	13.54	Bedding / Banding / Foliation		81	1	19.74	Filled Fracture / Joint
77	101	13.85	Filled Fracture / Joint		87	182	19.79	Filled Fracture / Joint
37	262	13.86	Filled Fracture / Joint		62	88	19.8	Filled Fracture / Joint
70	83	14.09	Filled Fracture / Joint		52	139	19.84	Filled Fracture / Joint

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
53	141	19.87	Filled Fracture / Joint		64	138	25.43	Filled Fracture / Joint
50	142	19.9	Filled Fracture / Joint		34	236	25.53	Filled Fracture / Joint
53	140	19.93	Filled Fracture / Joint		42	75	25.6	Filled Fracture / Joint
59	157	20.03	Filled Fracture / Joint		77	358	25.73	Bedding / Banding / Foliation
60	150	20.04	Filled Fracture / Joint		79	0	25.84	Bedding / Banding / Foliation
78	359	20.16	Filled Fracture / Joint		79	0	25.89	Bedding / Banding / Foliation
61	146	20.18	Filled Fracture / Joint		55	261	25.92	Filled Fracture / Joint
78	4	20.28	Bedding / Banding / Foliation		58	253	25.95	Filled Fracture / Joint
36	260	20.33	Filled Fracture / Joint		79	0	25.96	Partially Open Joint / Fracture
40	260	20.36	Filled Fracture / Joint		56	77	26.2	Filled Fracture / Joint
53	133	20.45	Filled Fracture / Joint		61	158	26.25	Filled Fracture / Joint
48	141	20.48	Filled Fracture / Joint		59	76	26.29	Filled Fracture / Joint
80	87	20.51	Filled Fracture / Joint		58	164	26.31	Filled Fracture / Joint
51	140	20.54	Filled Fracture / Joint		74	262	26.35	Filled Fracture / Joint
78	77	20.59	Filled Fracture / Joint		32	199	26.4	Filled Fracture / Joint
56	155	20.6	Filled Fracture / Joint		38	197	26.42	Filled Fracture / Joint
76	0	21.03	Bedding / Banding / Foliation		35	184	26.45	Filled Fracture / Joint
49	138	21.06	Filled Fracture / Joint		73	338	26.47	Filled Fracture / Joint
77	0	21.12	Bedding / Banding / Foliation		35	177	26.51	Filled Fracture / Joint
56	86	21.29	Filled Fracture / Joint		85	9	26.53	Filled Fracture / Joint
53	138	21.31	Filled Fracture / Joint		64	37	26.63	Filled Fracture / Joint
43	117	21.41	Filled Fracture / Joint		31	204	26.63	Filled Fracture / Joint
75	355	21.42	Filled Fracture / Joint		81	352	26.67	Filled Fracture / Joint
76	356	21.48	Minor Open Joint / Fracture		81	352	26.76	Filled Fracture / Joint
76	353	21.51	Filled Fracture / Joint		29	314	26.91	Filled Fracture / Joint
72	355	21.55	Filled Fracture / Joint		86	344	26.98	Filled Fracture / Joint
67	12	21.56	Major Open Joint / Fracture		84	0	26.98	Filled Fracture / Joint
51	4	21.6	Major Open Joint / Fracture		18	234	26.99	Filled Fracture / Joint
37	5	21.65	Major Open Joint / Fracture		46	178	27	Filled Fracture / Joint
9	42	21.68	Filled Fracture / Joint		63	76	27.22	Filled Fracture / Joint
41	227	21.76	Filled Fracture / Joint		84	1	27.32	Bedding / Banding / Foliation
78	3	21.87	Bedding / Banding / Foliation		60	148	27.36	Filled Fracture / Joint
76	3	21.9	Partially Open Joint / Fracture		71	0	27.75	Filled Fracture / Joint
78	0	22.11	Bedding / Banding / Foliation		73	110	28.08	Filled Fracture / Joint
56	201	22.26	Filled Fracture / Joint		55	82	28.11	Filled Fracture / Joint
55	154	22.35	Filled Fracture / Joint		70	121	28.33	Filled Fracture / Joint
50	22	22.41	Minor Open Joint / Fracture		76	270	28.77	Filled Fracture / Joint
54	5	22.44	Partially Open Joint / Fracture		78	196	28.82	Filled Fracture / Joint
36	182	22.45	Partially Open Joint / Fracture		46	197	29	Filled Fracture / Joint
77	15	22.56	Bedding / Banding / Foliation		67	1	29.31	Filled Fracture / Joint
76	20	22.6	Bedding / Banding / Foliation		74	2	29.32	Filled Fracture / Joint
49	63	22.61	Filled Fracture / Joint		85	6	29.37	Filled Fracture / Joint
77	357	22.84	Bedding / Banding / Foliation		53	58	29.54	Filled Fracture / Joint
84	81	22.86	Filled Fracture / Joint		53	58	29.58	Filled Fracture / Joint
77	9	22.91	Bedding / Banding / Foliation		49	42	29.85	Filled Fracture / Joint
77	12	22.97	Bedding / Banding / Foliation		60	39	29.88	Filled Fracture / Joint
88	210	23	Filled Fracture / Joint		63	86	29.89	Filled Fracture / Joint
77	7	23.09	Bedding / Banding / Foliation		64	53	29.92	Filled Fracture / Joint
77	7	23.11	Bedding / Banding / Foliation		69	9	30.01	Filled Fracture / Joint
38	178	23.19	Filled Fracture / Joint		22	205	30.06	Filled Fracture / Joint
75	359	23.33	Filled Fracture / Joint		52	359	30.09	Filled Fracture / Joint
49	124	23.51	Filled Fracture / Joint		57	22	30.13	Filled Fracture / Joint
80	182	23.53	Filled Fracture / Joint		17	15	30.17	Filled Fracture / Joint
57	13	23.62	Filled Fracture / Joint		61	88	30.18	Filled Fracture / Joint
74	269	23.64	Filled Fracture / Joint		51	4	30.23	Partially Open Joint / Fracture
25	166	23.94	Filled Fracture / Joint		51	9	30.25	Partially Open Joint / Fracture
86	211	23.95	Filled Fracture / Joint		51	5	30.28	Partially Open Joint / Fracture
26	190	23.98	Filled Fracture / Joint		16	358	30.35	Filled Fracture / Joint
47	159	24.09	Filled Fracture / Joint		36	229	30.36	Minor Open Joint / Fracture
50	156	24.11	Filled Fracture / Joint		45	334	30.43	Filled Fracture / Joint
40	213	24.3	Filled Fracture / Joint		39	203	30.69	Filled Fracture / Joint
40	134	24.33	Filled Fracture / Joint		73	359	30.7	Filled Fracture / Joint
52	126	24.38	Filled Fracture / Joint		31	130	30.8	Filled Fracture / Joint
35	145	24.46	Filled Fracture / Joint		65	72	30.88	Filled Fracture / Joint
33	166	24.48	Filled Fracture / Joint		79	354	30.93	Filled Fracture / Joint
50	139	24.56	Filled Fracture / Joint		65	19	30.97	Filled Fracture / Joint
61	149	24.93	Filled Fracture / Joint		64	315	31.01	Filled Fracture / Joint
70	265	25.22	Filled Fracture / Joint		37	293	31.06	Filled Fracture / Joint
68	65	25.31	Filled Fracture / Joint		57	101	31.23	Filled Fracture / Joint

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
80	352	31.24	Filled Fracture / Joint		88	358	36.23	Filled Fracture / Joint
80	3	31.43	Filled Fracture / Joint		37	189	36.34	Filled Fracture / Joint
37	303	31.45	Filled Fracture / Joint		63	62	36.49	Filled Fracture / Joint
25	161	31.53	Filled Fracture / Joint		19	353	36.67	Filled Fracture / Joint
21	25	31.64	Filled Fracture / Joint		63	61	36.71	Filled Fracture / Joint
81	354	31.71	Filled Fracture / Joint		56	186	36.71	Filled Fracture / Joint
74	2	32.26	Partially Open Joint / Fracture		83	352	36.85	Filled Fracture / Joint
85	354	32.27	Partially Open Joint / Fracture		29	348	36.92	Filled Fracture / Joint
18	147	32.3	Partially Open Joint / Fracture		42	137	37.02	Filled Fracture / Joint
46	292	32.57	Filled Fracture / Joint		10	111	37.07	Filled Fracture / Joint
26	181	32.6	Filled Fracture / Joint		14	109	37.12	Bedding / Banding / Foliation
78	357	32.63	Filled Fracture / Joint		30	283	37.25	Filled Fracture / Joint
55	67	32.7	Filled Fracture / Joint		44	201	37.31	Filled Fracture / Joint
44	58	32.72	Filled Fracture / Joint		13	188	37.45	Filled Fracture / Joint
35	72	32.75	Filled Fracture / Joint		62	73	37.48	Filled Fracture / Joint
25	63	32.78	Filled Fracture / Joint		58	285	37.5	Filled Fracture / Joint
61	58	32.81	Partially Open Joint / Fracture		28	66	37.91	Filled Fracture / Joint
57	5	32.9	Filled Fracture / Joint		69	1	37.93	Filled Fracture / Joint
38	3	32.97	Major Open Joint / Fracture		84	201	38.01	Filled Fracture / Joint
51	53	33.01	Filled Fracture / Joint		88	175	38.03	Filled Fracture / Joint
42	4	33.06	Filled Fracture / Joint		39	198	38.05	Filled Fracture / Joint
50	20	33.09	Filled Fracture / Joint		87	346	38.08	Partially Open Joint / Fracture
71	357	33.18	Filled Fracture / Joint		63	67	38.11	Filled Fracture / Joint
38	132	33.25	Filled Fracture / Joint		68	26	38.24	Filled Fracture / Joint
45	340	33.28	Minor Open Joint / Fracture		43	190	38.55	Filled Fracture / Joint
44	25	33.31	Partially Open Joint / Fracture		43	142	38.55	Filled Fracture / Joint
58	11	33.38	Minor Open Joint / Fracture		71	317	38.66	Filled Fracture / Joint
71	8	33.47	Filled Fracture / Joint		34	42	38.71	Filled Fracture / Joint
47	12	33.62	Filled Fracture / Joint		42	296	38.77	Filled Fracture / Joint
25	60	33.72	Filled Fracture / Joint		61	106	39.09	Filled Fracture / Joint
60	31	33.73	Filled Fracture / Joint		62	106	39.21	Filled Fracture / Joint
18	0	33.79	Partially Open Joint / Fracture		59	287	39.73	Filled Fracture / Joint
73	27	33.84	Filled Fracture / Joint		79	0	39.82	Bedding / Banding / Foliation
36	42	33.84	Filled Fracture / Joint		84	2	39.87	Bedding / Banding / Foliation
87	352	33.88	Filled Fracture / Joint		73	282	39.98	Filled Fracture / Joint
41	62	34	Filled Fracture / Joint		78	348	40.09	Filled Fracture / Joint
44	352	34.07	Filled Fracture / Joint		73	289	40.17	Filled Fracture / Joint
49	356	34.12	Filled Fracture / Joint		65	297	40.19	Filled Fracture / Joint
80	353	34.3	Partially Open Joint / Fracture		84	357	40.22	Filled Fracture / Joint
80	354	34.33	Filled Fracture / Joint		62	102	40.35	Filled Fracture / Joint
79	353	34.4	Bedding / Banding / Foliation		39	32	40.37	Filled Fracture / Joint
58	308	34.46	Filled Fracture / Joint		57	88	40.48	Filled Fracture / Joint
66	342	34.51	Filled Fracture / Joint		63	116	40.52	Filled Fracture / Joint
37	292	34.51	Filled Fracture / Joint		55	269	40.52	Filled Fracture / Joint
57	47	34.6	Filled Fracture / Joint		51	97	40.76	Filled Fracture / Joint
55	30	34.67	Filled Fracture / Joint		76	357	40.8	Bedding / Banding / Foliation
74	341	34.8	Filled Fracture / Joint		56	106	40.81	Filled Fracture / Joint
67	355	34.85	Filled Fracture / Joint		76	350	40.92	Bedding / Banding / Foliation
74	6	34.94	Filled Fracture / Joint		75	2	41.01	Geological Contact
30	300	35.09	Filled Fracture / Joint		59	174	41.32	Partially Open Joint / Fracture
61	285	35.1	Filled Fracture / Joint		64	161	41.64	Partially Open Joint / Fracture
60	246	35.17	Filled Fracture / Joint		74	344	42.01	Geological Contact
71	51	35.17	Filled Fracture / Joint		80	11	42.17	Filled Fracture / Joint
73	44	35.19	Filled Fracture / Joint		59	172	42.25	Filled Fracture / Joint
57	52	35.28	Filled Fracture / Joint		51	3	42.37	Filled Fracture / Joint
87	5	35.31	Filled Fracture / Joint		51	3	42.4	Geological Contact
67	28	35.35	Filled Fracture / Joint		75	84	42.41	Filled Fracture / Joint
87	174	35.37	Filled Fracture / Joint		62	142	42.58	Filled Fracture / Joint
21	213	35.42	Filled Fracture / Joint		60	122	42.62	Filled Fracture / Joint
57	90	35.53	Filled Fracture / Joint		50	6	42.7	Geological Contact
76	312	35.64	Filled Fracture / Joint		50	347	42.95	Filled Fracture / Joint
51	106	35.64	Filled Fracture / Joint		84	164	43.06	Filled Fracture / Joint
19	311	35.65	Partially Open Joint / Fracture		86	158	43.07	Filled Fracture / Joint
43	103	35.77	Filled Fracture / Joint		16	296	43.29	Partially Open Joint / Fracture
63	18	35.8	Filled Fracture / Joint		88	178	43.3	Filled Fracture / Joint
77	343	35.84	Filled Fracture / Joint		58	207	45.19	Filled Fracture / Joint
52	98	35.95	Filled Fracture / Joint		78	327	45.39	Filled Fracture / Joint
43	93	35.96	Filled Fracture / Joint		80	1	45.44	Filled Fracture / Joint
36	197	36.06	Filled Fracture / Joint		71	350	45.47	Geological Contact

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
42	228	45.58	Filled Fracture / Joint		46	186	49.5	Bedding / Banding / Foliation
57	166	45.63	Partially Open Joint / Fracture		50	150	49.67	Bedding / Banding / Foliation
20	193	45.67	Partially Open Joint / Fracture		53	157	49.75	Bedding / Banding / Foliation
49	169	45.68	Partially Open Joint / Fracture		51	130	49.79	Bedding / Banding / Foliation
27	206	45.7	Partially Open Joint / Fracture		50	162	49.85	Bedding / Banding / Foliation
42	183	45.74	Partially Open Joint / Fracture		53	184	49.98	Bedding / Banding / Foliation
86	179	46.01	Filled Fracture / Joint		51	171	50.02	Bedding / Banding / Foliation
25	188	46.02	Filled Fracture / Joint		55	154	50.05	Bedding / Banding / Foliation
87	209	46.04	Filled Fracture / Joint		55	158	50.08	Bedding / Banding / Foliation
57	241	46.25	Bedding / Banding / Foliation		82	143	50.08	Partially Open Joint / Fracture
23	57	46.28	Filled Fracture / Joint		55	189	50.1	Partially Open Joint / Fracture
54	174	46.44	Partially Open Joint / Fracture		45	189	50.12	Bedding / Banding / Foliation
52	172	46.45	Filled Fracture / Joint		49	189	50.14	Bedding / Banding / Foliation
53	147	46.53	Filled Fracture / Joint		18	2	50.15	Bedding / Banding / Foliation
31	286	46.65	Filled Fracture / Joint		48	186	50.17	Partially Open Joint / Fracture
45	153	46.65	Partially Open Joint / Fracture		57	241	50.25	Filled Fracture / Joint
37	115	46.76	Partially Open Joint / Fracture		89	39	50.39	Filled Fracture / Joint
47	170	46.76	Partially Open Joint / Fracture		52	172	50.6	Bedding / Banding / Foliation
49	125	46.84	Filled Fracture / Joint		52	180	50.63	Bedding / Banding / Foliation
50	143	46.9	Partially Open Joint / Fracture		52	168	50.69	Bedding / Banding / Foliation
32	103	46.93	Partially Open Joint / Fracture		56	147	50.76	Partially Open Joint / Fracture
38	171	47.01	Bedding / Banding / Foliation		49	172	50.9	Filled Fracture / Joint
38	165	47.04	Bedding / Banding / Foliation		23	130	51.05	Partially Open Joint / Fracture
39	155	47.07	Bedding / Banding / Foliation		45	169	51.13	Bedding / Banding / Foliation
26	85	47.1	Filled Fracture / Joint		45	170	51.19	Bedding / Banding / Foliation
41	136	47.14	Partially Open Joint / Fracture		45	170	51.21	Bedding / Banding / Foliation
38	166	47.18	Bedding / Banding / Foliation		45	170	51.23	Bedding / Banding / Foliation
82	319	47.28	Filled Fracture / Joint		45	178	51.32	Filled Fracture / Joint
24	117	47.29	Filled Fracture / Joint		64	240	51.35	Filled Fracture / Joint
38	166	47.31	Bedding / Banding / Foliation		47	151	51.43	Bedding / Banding / Foliation
46	174	47.36	Filled Fracture / Joint		86	141	51.46	Filled Fracture / Joint
53	215	47.41	Partially Open Joint / Fracture		47	151	51.47	Bedding / Banding / Foliation
46	193	47.45	Partially Open Joint / Fracture		46	161	51.53	Bedding / Banding / Foliation
42	190	47.47	Partially Open Joint / Fracture		43	163	51.64	Bedding / Banding / Foliation
44	195	47.5	Major Open Joint / Fracture		46	162	51.73	Bedding / Banding / Foliation
41	181	47.55	Filled Fracture / Joint		46	162	51.74	Bedding / Banding / Foliation
66	120	47.69	Filled Fracture / Joint		45	154	52	Bedding / Banding / Foliation
57	125	47.72	Filled Fracture / Joint		35	189	52.12	Bedding / Banding / Foliation
85	230	47.96	Filled Fracture / Joint		48	100	52.22	Filled Fracture / Joint
84	209	48.02	Filled Fracture / Joint		57	208	52.23	Partially Open Joint / Fracture
89	200	48.04	Filled Fracture / Joint		43	168	52.35	Bedding / Banding / Foliation
61	253	48.12	Partially Open Joint / Fracture		39	103	52.45	Filled Fracture / Joint
81	198	48.18	Filled Fracture / Joint		55	162	52.46	Partially Open Joint / Fracture
40	161	48.22	Partially Open Joint / Fracture		52	169	52.53	Partially Open Joint / Fracture
49	160	48.35	Bedding / Banding / Foliation		51	157	52.6	Partially Open Joint / Fracture
49	166	48.39	Bedding / Banding / Foliation		72	13	52.8	Filled Fracture / Joint
40	164	48.45	Filled Fracture / Joint		39	36	52.85	Filled Fracture / Joint
40	167	48.55	Filled Fracture / Joint		26	58	52.87	Filled Fracture / Joint
40	161	48.6	Filled Fracture / Joint		62	199	52.91	Partially Open Joint / Fracture
13	190	48.69	Bedding / Banding / Foliation		88	193	53	Filled Fracture / Joint
55	102	48.69	Bedding / Banding / Foliation		52	194	53.01	Partially Open Joint / Fracture
89	3	48.72	Bedding / Banding / Foliation		46	122	53.07	Partially Open Joint / Fracture
45	164	48.79	Bedding / Banding / Foliation		41	175	53.18	Partially Open Joint / Fracture
41	158	48.86	Bedding / Banding / Foliation		40	183	53.21	Filled Fracture / Joint
40	193	48.96	Bedding / Banding / Foliation		41	205	53.34	Filled Fracture / Joint
40	162	48.97	Bedding / Banding / Foliation		40	193	53.46	Filled Fracture / Joint
86	11	49.07	Filled Fracture / Joint		47	209	53.58	Bedding / Banding / Foliation
40	166	49.09	Filled Fracture / Joint		59	220	53.78	Filled Fracture / Joint
32	143	49.16	Bedding / Banding / Foliation		63	239	53.87	Bedding / Banding / Foliation
40	168	49.19	Bedding / Banding / Foliation		54	249	53.96	Filled Fracture / Joint
44	163	49.21	Bedding / Banding / Foliation		67	250	54.05	Filled Fracture / Joint
45	156	49.23	Bedding / Banding / Foliation		68	252	54.09	Filled Fracture / Joint
44	168	49.25	Bedding / Banding / Foliation		68	241	54.18	Bedding / Banding / Foliation
38	174	49.28	Bedding / Banding / Foliation		63	231	54.23	Bedding / Banding / Foliation
38	172	49.31	Bedding / Banding / Foliation		63	251	54.3	Bedding / Banding / Foliation
44	184	49.34	Bedding / Banding / Foliation		54	213	54.53	Minor Open Joint / Fracture
89	187	49.35	Filled Fracture / Joint		79	62	54.63	Filled Fracture / Joint
44	175	49.37	Bedding / Banding / Foliation		64	314	54.73	Filled Fracture / Joint
44	180	49.41	Bedding / Banding / Foliation		18	178	54.73	Bedding / Banding / Foliation

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
88	352	54.91	Filled Fracture / Joint		44	191	59.41	Bedding / Banding / Foliation
26	222	54.95	Filled Fracture / Joint		18	2	59.45	Filled Fracture / Joint
32	187	55.05	Minor Open Joint / Fracture		18	2	59.47	Bedding / Banding / Foliation
43	185	55.15	Filled Fracture / Joint		44	189	59.57	Bedding / Banding / Foliation
41	209	55.26	Minor Open Joint / Fracture		67	238	59.6	Filled Fracture / Joint
39	124	55.27	Partially Open Joint / Fracture		88	139	59.63	Filled Fracture / Joint
33	166	55.33	Partially Open Joint / Fracture		45	195	59.67	Bedding / Banding / Foliation
38	161	55.36	Partially Open Joint / Fracture		82	148	59.67	Filled Fracture / Joint
51	196	55.45	Partially Open Joint / Fracture		81	208	59.7	Filled Fracture / Joint
35	186	55.49	Bedding / Banding / Foliation		44	192	59.76	Bedding / Banding / Foliation
29	201	55.53	Filled Fracture / Joint		44	187	59.86	Bedding / Banding / Foliation
42	137	55.72	Filled Fracture / Joint		35	180	60.02	Bedding / Banding / Foliation
63	141	55.81	Filled Fracture / Joint		35	206	60.07	Filled Fracture / Joint
49	201	55.82	Filled Fracture / Joint		47	162	60.28	Bedding / Banding / Foliation
20	136	55.93	Filled Fracture / Joint		34	164	60.31	Filled Fracture / Joint
35	139	55.95	Partially Open Joint / Fracture		41	178	60.41	Bedding / Banding / Foliation
72	50	56.04	Filled Fracture / Joint		43	196	60.54	Bedding / Banding / Foliation
58	141	56.07	Filled Fracture / Joint		39	188	60.57	Bedding / Banding / Foliation
84	25	56.18	Filled Fracture / Joint		83	171	60.6	Filled Fracture / Joint
65	170	56.26	Filled Fracture / Joint		40	196	60.67	Bedding / Banding / Foliation
47	184	56.29	Filled Fracture / Joint		44	198	60.73	Bedding / Banding / Foliation
28	329	56.31	Filled Fracture / Joint		89	1	60.83	Minor Open Joint / Fracture
68	167	56.31	Filled Fracture / Joint		44	199	60.84	Bedding / Banding / Foliation
18	2	56.44	Filled Fracture / Joint		44	216	60.99	Minor Open Joint / Fracture
47	194	56.49	Filled Fracture / Joint		28	187	61.5	Filled Fracture / Joint
47	194	56.52	Filled Fracture / Joint		39	120	61.7	Filled Fracture / Joint
43	213	56.58	Filled Fracture / Joint		56	169	61.71	Filled Fracture / Joint
30	150	56.66	Filled Fracture / Joint		88	187	61.77	Filled Fracture / Joint
33	159	56.67	Filled Fracture / Joint		81	188	61.9	Filled Fracture / Joint
2	254	56.7	Filled Fracture / Joint		45	208	61.91	Filled Fracture / Joint
49	196	56.78	Filled Fracture / Joint		54	173	62.01	Filled Fracture / Joint
35	275	56.79	Filled Fracture / Joint		45	161	62.05	Filled Fracture / Joint
72	298	56.8	Filled Fracture / Joint		31	191	62.44	Filled Fracture / Joint
48	148	56.93	Filled Fracture / Joint		27	188	62.55	Bedding / Banding / Foliation
40	284	57.01	Filled Fracture / Joint		39	168	62.65	Bedding / Banding / Foliation
37	197	57.08	Bedding / Banding / Foliation		39	169	62.73	Bedding / Banding / Foliation
50	145	57.13	Filled Fracture / Joint		79	39	62.76	Filled Fracture / Joint
34	267	57.14	Filled Fracture / Joint		27	139	62.81	Bedding / Banding / Foliation
57	162	57.2	Filled Fracture / Joint		49	146	62.96	Bedding / Banding / Foliation
38	239	57.21	Filled Fracture / Joint		82	213	63.01	Filled Fracture / Joint
52	165	57.3	Partially Open Joint / Fracture		27	206	63.02	Bedding / Banding / Foliation
46	190	57.37	Bedding / Banding / Foliation		56	129	63.03	Filled Fracture / Joint
55	179	57.52	Bedding / Banding / Foliation		64	137	63.08	Filled Fracture / Joint
16	205	57.55	Filled Fracture / Joint		42	197	63.12	Geological Contact
52	190	57.66	Bedding / Banding / Foliation		33	202	63.34	Filled Fracture / Joint
82	316	57.66	Filled Fracture / Joint		27	187	63.4	Filled Fracture / Joint
87	185	57.71	Filled Fracture / Joint		81	212	63.45	Filled Fracture / Joint
48	192	57.82	Bedding / Banding / Foliation		37	232	63.47	Filled Fracture / Joint
49	198	57.86	Bedding / Banding / Foliation		38	245	63.52	Filled Fracture / Joint
78	189	57.88	Filled Fracture / Joint		89	226	63.55	Filled Fracture / Joint
63	146	57.96	Partially Open Joint / Fracture		43	220	63.56	Filled Fracture / Joint
86	300	58	Partially Open Joint / Fracture		30	209	63.69	Filled Fracture / Joint
60	205	58.02	Partially Open Joint / Fracture		46	248	63.76	Bedding / Banding / Foliation
48	194	58.16	Bedding / Banding / Foliation		24	188	63.76	Filled Fracture / Joint
64	137	58.16	Partially Open Joint / Fracture		39	206	63.81	Filled Fracture / Joint
48	184	58.23	Bedding / Banding / Foliation		32	178	63.85	Geological Contact
88	299	58.28	Partially Open Joint / Fracture		45	195	63.91	Bedding / Banding / Foliation
53	172	58.3	Filled Fracture / Joint		51	118	63.98	Filled Fracture / Joint
39	186	58.36	Minor Open Joint / Fracture		88	219	64.04	Filled Fracture / Joint
5	8	58.47	Geological Contact		45	222	64.05	Filled Fracture / Joint
57	235	58.49	Filled Fracture / Joint		28	165	64.05	Filled Fracture / Joint
18	2	58.61	Geological Contact		66	239	64.24	Filled Fracture / Joint
28	223	58.76	Bedding / Banding / Foliation		81	196	64.28	Filled Fracture / Joint
30	237	58.78	Bedding / Banding / Foliation		40	200	64.39	Partially Open Joint / Fracture
83	216	58.82	Filled Fracture / Joint		61	304	64.41	Partially Open Joint / Fracture
41	177	59	Bedding / Banding / Foliation		65	298	64.43	Partially Open Joint / Fracture
42	205	59.13	Filled Fracture / Joint		50	220	64.52	Filled Fracture / Joint
52	144	59.19	Filled Fracture / Joint		53	242	64.6	Filled Fracture / Joint
44	179	59.28	Bedding / Banding / Foliation		43	192	64.78	Filled Fracture / Joint

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
42	161	64.82	Bedding / Banding / Foliation		40	233	71.5	Bedding / Banding / Foliation
88	312	64.83	Filled Fracture / Joint		45	189	71.59	Bedding / Banding / Foliation
85	333	64.85	Filled Fracture / Joint		45	210	71.76	Bedding / Banding / Foliation
75	334	64.87	Filled Fracture / Joint		45	203	71.81	Bedding / Banding / Foliation
37	180	64.95	Filled Fracture / Joint		49	247	71.9	Bedding / Banding / Foliation
87	190	64.97	Filled Fracture / Joint		29	244	71.99	Bedding / Banding / Foliation
37	184	65.18	Filled Fracture / Joint		43	185	72.09	Filled Fracture / Joint
85	333	65.33	Filled Fracture / Joint		38	188	72.14	Bedding / Banding / Foliation
88	8	65.36	Filled Fracture / Joint		43	184	72.18	Bedding / Banding / Foliation
34	162	65.53	Filled Fracture / Joint		48	174	72.23	Bedding / Banding / Foliation
33	170	65.67	Filled Fracture / Joint		58	138	72.27	Bedding / Banding / Foliation
41	127	65.96	Filled Fracture / Joint		61	132	72.41	Bedding / Banding / Foliation
43	162	66.11	Filled Fracture / Joint		61	131	72.47	Bedding / Banding / Foliation
39	197	66.2	Filled Fracture / Joint		51	134	72.59	Bedding / Banding / Foliation
11	306	66.36	Filled Fracture / Joint		50	139	72.67	Bedding / Banding / Foliation
42	195	66.4	Filled Fracture / Joint		56	148	72.83	Bedding / Banding / Foliation
32	342	66.45	Filled Fracture / Joint		55	156	72.93	Bedding / Banding / Foliation
37	193	66.49	Bedding / Banding / Foliation		55	153	73.02	Bedding / Banding / Foliation
23	210	66.62	Bedding / Banding / Foliation		55	158	73.13	Bedding / Banding / Foliation
18	1	66.74	Filled Fracture / Joint		55	156	73.2	Bedding / Banding / Foliation
31	167	66.86	Bedding / Banding / Foliation		54	173	73.29	Bedding / Banding / Foliation
32	174	66.91	Bedding / Banding / Foliation		54	184	73.38	Bedding / Banding / Foliation
49	200	67.13	Bedding / Banding / Foliation		53	125	73.4	Filled Fracture / Joint
40	214	67.19	Bedding / Banding / Foliation		18	1	73.44	Filled Fracture / Joint
59	201	67.24	Filled Fracture / Joint		52	129	73.54	Filled Fracture / Joint
35	277	67.4	Filled Fracture / Joint		52	145	73.62	Bedding / Banding / Foliation
55	278	67.45	Filled Fracture / Joint		84	217	73.64	Filled Fracture / Joint
56	204	67.51	Filled Fracture / Joint		86	216	73.73	Filled Fracture / Joint
45	262	67.56	Filled Fracture / Joint		48	137	73.87	Filled Fracture / Joint
56	206	67.63	Bedding / Banding / Foliation		46	149	73.97	Filled Fracture / Joint
67	314	67.69	Filled Fracture / Joint		58	174	74.06	Filled Fracture / Joint
44	225	67.7	Major Open Joint / Fracture		60	164	74.12	Filled Fracture / Joint
75	308	67.77	Filled Fracture / Joint		65	180	74.17	Filled Fracture / Joint
78	288	67.82	Filled Fracture / Joint		61	156	74.18	Filled Fracture / Joint
43	162	67.83	Filled Fracture / Joint		65	163	74.19	Filled Fracture / Joint
67	233	67.86	Filled Fracture / Joint		60	234	74.32	Filled Fracture / Joint
67	180	67.87	Filled Fracture / Joint		68	124	74.61	Filled Fracture / Joint
89	310	67.9	Filled Fracture / Joint		60	133	74.68	Filled Fracture / Joint
44	188	67.97	Filled Fracture / Joint		61	134	74.73	Bedding / Banding / Foliation
39	264	68.06	Filled Fracture / Joint		51	308	74.75	Filled Fracture / Joint
42	230	68.09	Filled Fracture / Joint		57	146	74.85	Bedding / Banding / Foliation
48	214	68.1	Partially Open Joint / Fracture		60	128	74.88	Filled Fracture / Joint
60	161	68.11	Filled Fracture / Joint		55	126	75.01	Bedding / Banding / Foliation
53	191	68.22	Filled Fracture / Joint		59	72	75.1	Filled Fracture / Joint
41	173	68.29	Bedding / Banding / Foliation		49	163	75.18	Bedding / Banding / Foliation
85	151	68.46	Filled Fracture / Joint		49	161	75.21	Bedding / Banding / Foliation
42	228	68.46	Filled Fracture / Joint		49	158	75.27	Bedding / Banding / Foliation
71	359	68.62	Filled Fracture / Joint		53	146	75.36	Bedding / Banding / Foliation
41	146	68.65	Filled Fracture / Joint		51	163	75.4	Bedding / Banding / Foliation
30	188	68.68	Filled Fracture / Joint		53	188	75.46	Filled Fracture / Joint
61	229	68.94	Filled Fracture / Joint		63	204	75.52	Filled Fracture / Joint
52	204	68.98	Geological Contact		49	166	75.67	Filled Fracture / Joint
39	164	69.09	Filled Fracture / Joint		85	46	75.68	Filled Fracture / Joint
64	237	69.35	Filled Fracture / Joint		55	156	75.71	Filled Fracture / Joint
52	234	69.57	Geological Contact		51	138	75.73	Filled Fracture / Joint
40	202	70.12	Filled Fracture / Joint		37	167	75.97	Bedding / Banding / Foliation
58	303	70.16	Filled Fracture / Joint		61	38	76.12	Filled Fracture / Joint
44	210	70.17	Filled Fracture / Joint		50	154	76.2	Filled Fracture / Joint
43	175	70.38	Filled Fracture / Joint		40	125	76.25	Filled Fracture / Joint
84	77	70.46	Filled Fracture / Joint		84	202	76.29	Minor Open Joint / Fracture
58	158	70.68	Filled Fracture / Joint		68	295	76.3	Filled Fracture / Joint
59	143	70.71	Filled Fracture / Joint		85	193	76.32	Filled Fracture / Joint
37	164	70.91	Bedding / Banding / Foliation		61	163	76.69	Filled Fracture / Joint
81	8	70.98	Filled Fracture / Joint		51	157	76.74	Filled Fracture / Joint
40	186	71.02	Bedding / Banding / Foliation		44	193	76.82	Filled Fracture / Joint
47	178	71.13	Bedding / Banding / Foliation		47	132	76.93	Filled Fracture / Joint
52	205	71.23	Bedding / Banding / Foliation		49	121	76.97	Filled Fracture / Joint
54	222	71.26	Filled Fracture / Joint		59	184	77.05	Filled Fracture / Joint
37	216	71.43	Bedding / Banding / Foliation		56	147	77.08	Bedding / Banding / Foliation

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
58	150	77.12	Bedding / Banding / Foliation		49	206	83.25	Bedding / Banding / Foliation
86	163	77.16	Filled Fracture / Joint		48	102	83.28	Filled Fracture / Joint
51	152	77.23	Bedding / Banding / Foliation		53	195	83.3	Filled Fracture / Joint
49	355	77.31	Filled Fracture / Joint		43	203	83.38	Bedding / Banding / Foliation
44	144	77.62	Bedding / Banding / Foliation		46	103	83.38	Filled Fracture / Joint
45	144	77.67	Bedding / Banding / Foliation		73	48	83.43	Filled Fracture / Joint
50	92	77.72	Filled Fracture / Joint		50	83	83.45	Filled Fracture / Joint
30	148	77.81	Bedding / Banding / Foliation		36	206	83.53	Filled Fracture / Joint
38	186	77.89	Bedding / Banding / Foliation		16	6	83.59	Filled Fracture / Joint
31	141	77.94	Bedding / Banding / Foliation		78	346	83.6	Filled Fracture / Joint
51	142	77.96	Bedding / Banding / Foliation		18	2	83.61	Filled Fracture / Joint
54	136	78.03	Bedding / Banding / Foliation		37	52	83.66	Filled Fracture / Joint
81	28	78.09	Filled Fracture / Joint		18	2	83.73	Filled Fracture / Joint
44	188	78.27	Filled Fracture / Joint		18	2	83.74	Filled Fracture / Joint
30	189	78.3	Bedding / Banding / Foliation		52	305	83.78	Filled Fracture / Joint
45	162	78.39	Bedding / Banding / Foliation		76	289	83.83	Filled Fracture / Joint
81	23	78.4	Filled Fracture / Joint		43	119	83.84	Bedding / Banding / Foliation
33	148	78.46	Bedding / Banding / Foliation		18	2	83.85	Minor Open Joint / Fracture
44	162	78.6	Filled Fracture / Joint		48	89	83.92	Bedding / Banding / Foliation
51	147	78.72	Bedding / Banding / Foliation		42	200	83.98	Filled Fracture / Joint
50	150	78.8	Bedding / Banding / Foliation		49	86	84.05	Filled Fracture / Joint
49	107	79.07	Filled Fracture / Joint		36	256	84.05	Filled Fracture / Joint
53	132	79.15	Bedding / Banding / Foliation		46	96	84.06	Bedding / Banding / Foliation
55	127	79.38	Bedding / Banding / Foliation		40	116	84.12	Bedding / Banding / Foliation
51	131	79.42	Bedding / Banding / Foliation		41	110	84.14	Bedding / Banding / Foliation
51	144	79.55	Bedding / Banding / Foliation		61	169	84.2	Partially Open Joint / Fracture
52	137	79.68	Bedding / Banding / Foliation		17	303	84.22	Filled Fracture / Joint
89	194	79.78	Filled Fracture / Joint		11	292	84.24	Filled Fracture / Joint
53	135	79.92	Bedding / Banding / Foliation		42	89	84.32	Filled Fracture / Joint
53	133	80.05	Bedding / Banding / Foliation		41	271	84.33	Filled Fracture / Joint
54	129	80.14	Bedding / Banding / Foliation		50	98	84.35	Filled Fracture / Joint
85	191	80.22	Filled Fracture / Joint		45	90	84.36	Bedding / Banding / Foliation
41	22	80.28	Geological Contact		35	281	84.4	Filled Fracture / Joint
64	221	80.45	Filled Fracture / Joint		49	265	84.47	Filled Fracture / Joint
15	313	80.52	Filled Fracture / Joint		43	113	84.51	Filled Fracture / Joint
22	247	80.53	Geological Contact		39	109	84.52	Bedding / Banding / Foliation
38	216	80.53	Filled Fracture / Joint		42	208	84.58	Bedding / Banding / Foliation
50	164	80.63	Filled Fracture / Joint		31	149	84.66	Bedding / Banding / Foliation
52	154	80.7	Filled Fracture / Joint		39	51	84.76	Filled Fracture / Joint
87	48	80.74	Filled Fracture / Joint		34	130	84.84	Filled Fracture / Joint
85	40	80.83	Filled Fracture / Joint		42	145	84.92	Bedding / Banding / Foliation
18	1	80.96	Filled Fracture / Joint		41	154	84.99	Bedding / Banding / Foliation
47	156	81.06	Filled Fracture / Joint		18	2	85.12	Partially Open Joint / Fracture
47	155	81.08	Filled Fracture / Joint		18	2	85.24	Filled Fracture / Joint
57	156	81.26	Filled Fracture / Joint		41	180	85.39	Bedding / Banding / Foliation
61	104	81.28	Filled Fracture / Joint		42	203	85.47	Bedding / Banding / Foliation
55	168	81.4	Filled Fracture / Joint		40	136	85.64	Filled Fracture / Joint
78	51	81.45	Filled Fracture / Joint		51	144	85.74	Minor Open Joint / Fracture
63	112	81.57	Filled Fracture / Joint		43	207	85.78	Filled Fracture / Joint
65	187	81.64	Filled Fracture / Joint		38	219	85.84	Filled Fracture / Joint
42	179	81.66	Bedding / Banding / Foliation		50	175	86.05	Filled Fracture / Joint
54	174	81.8	Filled Fracture / Joint		43	142	86.27	Bedding / Banding / Foliation
50	158	81.86	Bedding / Banding / Foliation		46	126	86.36	Bedding / Banding / Foliation
45	164	81.93	Bedding / Banding / Foliation		44	134	86.45	Bedding / Banding / Foliation
42	136	81.96	Bedding / Banding / Foliation		65	9	86.53	Filled Fracture / Joint
52	135	82.14	Bedding / Banding / Foliation		44	138	86.64	Bedding / Banding / Foliation
43	137	82.3	Bedding / Banding / Foliation		43	145	86.71	Bedding / Banding / Foliation
30	160	82.37	Filled Fracture / Joint		45	134	86.76	Bedding / Banding / Foliation
41	156	82.42	Bedding / Banding / Foliation		44	143	86.81	Bedding / Banding / Foliation
38	144	82.49	Bedding / Banding / Foliation		45	134	86.85	Bedding / Banding / Foliation
19	157	82.53	Filled Fracture / Joint		42	146	86.89	Bedding / Banding / Foliation
23	155	82.56	Bedding / Banding / Foliation		45	132	87.07	Bedding / Banding / Foliation
56	159	82.59	Filled Fracture / Joint		55	130	87.21	Bedding / Banding / Foliation
38	133	82.73	Bedding / Banding / Foliation		58	100	87.31	Filled Fracture / Joint
58	156	82.86	Filled Fracture / Joint		52	114	87.38	Filled Fracture / Joint
49	193	82.98	Filled Fracture / Joint		45	126	87.51	Bedding / Banding / Foliation
38	120	83	Bedding / Banding / Foliation		45	132	87.73	Filled Fracture / Joint
37	221	83.06	Bedding / Banding / Foliation		66	175	87.78	Filled Fracture / Joint
49	202	83.16	Bedding / Banding / Foliation		51	173	87.86	Bedding / Banding / Foliation

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
53	177	87.96	Bedding / Banding / Foliation		79	60	97.59	Filled Fracture / Joint
51	173	88.01	Bedding / Banding / Foliation		18	2	97.62	Minor Open Joint / Fracture
52	165	88.06	Bedding / Banding / Foliation		70	108	97.94	Filled Fracture / Joint
85	211	88.24	Filled Fracture / Joint		74	113	98	Filled Fracture / Joint
56	130	88.25	Bedding / Banding / Foliation		69	148	98.1	Filled Fracture / Joint
55	126	88.31	Bedding / Banding / Foliation		56	134	98.24	Filled Fracture / Joint
38	175	88.75	Bedding / Banding / Foliation		55	142	98.32	Filled Fracture / Joint
38	179	88.94	Bedding / Banding / Foliation		55	143	98.36	Filled Fracture / Joint
39	162	89.18	Bedding / Banding / Foliation		60	115	98.39	Filled Fracture / Joint
47	135	89.22	Filled Fracture / Joint		54	140	98.61	Filled Fracture / Joint
38	178	89.37	Bedding / Banding / Foliation		53	147	98.67	Filled Fracture / Joint
39	167	89.63	Bedding / Banding / Foliation		82	33	98.67	Filled Fracture / Joint
39	168	89.68	Bedding / Banding / Foliation		53	151	98.86	Bedding / Banding / Foliation
65	9	89.75	Filled Fracture / Joint		18	2	98.89	Filled Fracture / Joint
39	162	90	Bedding / Banding / Foliation		69	106	99.02	Filled Fracture / Joint
59	243	90.27	Filled Fracture / Joint		68	115	99.16	Filled Fracture / Joint
46	132	90.29	Filled Fracture / Joint		29	175	99.17	Filled Fracture / Joint
75	245	90.5	Filled Fracture / Joint		44	110	99.23	Bedding / Banding / Foliation
28	211	90.69	Bedding / Banding / Foliation		50	161	99.79	Filled Fracture / Joint
32	178	90.79	Bedding / Banding / Foliation		51	151	99.9	Filled Fracture / Joint
82	262	90.79	Filled Fracture / Joint		57	144	100.06	Filled Fracture / Joint
42	158	90.9	Bedding / Banding / Foliation		51	169	100.12	Filled Fracture / Joint
50	170	91.02	Bedding / Banding / Foliation		52	166	100.44	Partially Open Joint / Fracture
49	173	91.23	Bedding / Banding / Foliation		41	189	100.58	Filled Fracture / Joint
49	171	91.32	Bedding / Banding / Foliation		18	2	100.69	Filled Fracture / Joint
47	115	91.57	Bedding / Banding / Foliation		58	136	100.7	Filled Fracture / Joint
50	158	91.68	Filled Fracture / Joint		63	148	100.88	Filled Fracture / Joint
54	160	91.83	Filled Fracture / Joint		57	138	100.93	Filled Fracture / Joint
47	137	91.87	Filled Fracture / Joint		55	160	101.03	Filled Fracture / Joint
47	144	91.9	Filled Fracture / Joint		57	159	101.43	Filled Fracture / Joint
42	145	92.11	Bedding / Banding / Foliation		56	128	101.46	Filled Fracture / Joint
48	160	92.25	Filled Fracture / Joint		62	104	101.5	Filled Fracture / Joint
58	171	92.64	Filled Fracture / Joint		54	165	101.66	Filled Fracture / Joint
71	107	92.79	Filled Fracture / Joint		41	320	102.08	Filled Fracture / Joint
28	103	92.97	Filled Fracture / Joint		75	109	102.08	Filled Fracture / Joint
18	148	93.35	Filled Fracture / Joint		36	320	102.15	Filled Fracture / Joint
50	199	93.52	Bedding / Banding / Foliation		87	155	102.28	Geological Contact
55	128	93.72	Filled Fracture / Joint		18	2	102.28	Filled Fracture / Joint
50	104	93.9	Filled Fracture / Joint		86	182	102.43	Filled Fracture / Joint
49	120	93.96	Filled Fracture / Joint		18	2	102.56	Filled Fracture / Joint
51	114	94.01	Filled Fracture / Joint		87	183	102.67	Filled Fracture / Joint
42	137	94.34	Filled Fracture / Joint		18	2	102.68	Filled Fracture / Joint
30	133	94.47	Filled Fracture / Joint		87	179	102.7	Filled Fracture / Joint
26	154	94.6	Filled Fracture / Joint		88	172	102.83	Filled Fracture / Joint
57	152	94.95	Filled Fracture / Joint		85	199	102.87	Filled Fracture / Joint
61	154	95.07	Filled Fracture / Joint		88	172	102.9	Filled Fracture / Joint
57	135	95.12	Filled Fracture / Joint		65	265	103.01	Filled Fracture / Joint
50	165	95.23	Filled Fracture / Joint		89	169	103.02	Filled Fracture / Joint
65	184	95.24	Filled Fracture / Joint		78	155	103.19	Filled Fracture / Joint
62	145	95.38	Filled Fracture / Joint		87	158	103.32	Filled Fracture / Joint
68	108	95.5	Filled Fracture / Joint		84	163	103.49	Filled Fracture / Joint
55	154	95.62	Bedding / Banding / Foliation		86	326	103.63	Filled Fracture / Joint
18	2	95.71	Filled Fracture / Joint		87	155	103.68	Filled Fracture / Joint
58	141	95.77	Filled Fracture / Joint		83	159	103.78	Filled Fracture / Joint
60	149	95.82	Filled Fracture / Joint		83	159	103.82	Filled Fracture / Joint
38	162	95.97	Filled Fracture / Joint		39	202	104.16	Filled Fracture / Joint
58	152	96.27	Bedding / Banding / Foliation		43	40	104.23	Filled Fracture / Joint
55	101	96.32	Filled Fracture / Joint		84	156	104.24	Filled Fracture / Joint
18	2	96.36	Filled Fracture / Joint		83	156	104.37	Filled Fracture / Joint
51	172	96.46	Filled Fracture / Joint		81	171	104.39	Filled Fracture / Joint
51	139	96.61	Filled Fracture / Joint		83	171	104.44	Geological Contact
60	115	96.78	Filled Fracture / Joint		62	117	104.61	Filled Fracture / Joint
52	157	96.92	Filled Fracture / Joint		57	131	104.63	Filled Fracture / Joint
61	135	97.08	Filled Fracture / Joint		87	232	105.02	Filled Fracture / Joint
59	236	97.15	Filled Fracture / Joint		53	114	105.12	Bedding / Banding / Foliation
87	48	97.37	Filled Fracture / Joint		50	167	105.29	Filled Fracture / Joint
63	131	97.48	Filled Fracture / Joint		47	184	105.42	Filled Fracture / Joint
49	141	97.51	Filled Fracture / Joint		82	160	105.67	Filled Fracture / Joint
18	2	97.58	Partially Open Joint / Fracture		55	125	105.69	Filled Fracture / Joint

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
88	42	105.69	Filled Fracture / Joint		56	144	112.29	Filled Fracture / Joint
53	151	105.82	Filled Fracture / Joint		61	103	112.37	Filled Fracture / Joint
63	145	105.89	Filled Fracture / Joint		39	191	112.48	Filled Fracture / Joint
39	136	106.09	Filled Fracture / Joint		55	170	112.53	Geological Contact
51	166	106.19	Filled Fracture / Joint		51	179	112.73	Bedding / Banding / Foliation
83	52	106.35	Filled Fracture / Joint		53	159	112.8	Bedding / Banding / Foliation
43	282	106.49	Filled Fracture / Joint		52	149	112.87	Bedding / Banding / Foliation
37	318	106.68	Filled Fracture / Joint		41	119	112.96	Filled Fracture / Joint
46	148	106.69	Filled Fracture / Joint		53	167	113.07	Bedding / Banding / Foliation
31	300	106.73	Filled Fracture / Joint		52	176	113.25	Bedding / Banding / Foliation
51	147	106.82	Filled Fracture / Joint		63	163	113.38	Bedding / Banding / Foliation
48	182	106.95	Filled Fracture / Joint		18	2	113.48	Filled Fracture / Joint
43	173	107.04	Filled Fracture / Joint		56	169	113.85	Bedding / Banding / Foliation
44	162	107.1	Filled Fracture / Joint		55	161	113.91	Filled Fracture / Joint
45	155	107.12	Filled Fracture / Joint		18	2	113.92	Filled Fracture / Joint
27	297	107.12	Filled Fracture / Joint		50	171	114	Filled Fracture / Joint
22	293	107.16	Filled Fracture / Joint		58	113	114.09	Filled Fracture / Joint
50	179	107.27	Filled Fracture / Joint		53	171	114.15	Filled Fracture / Joint
52	162	107.38	Bedding / Banding / Foliation		57	196	114.3	Filled Fracture / Joint
48	150	107.41	Filled Fracture / Joint		59	210	114.89	Bedding / Banding / Foliation
18	74	107.48	Partially Open Joint / Fracture		35	106	115.03	Bedding / Banding / Foliation
8	109	107.57	Filled Fracture / Joint		66	121	115.14	Filled Fracture / Joint
49	170	107.58	Bedding / Banding / Foliation		62	130	115.2	Filled Fracture / Joint
39	144	107.72	Major Open Joint / Fracture		62	132	115.27	Filled Fracture / Joint
29	149	107.76	Filled Fracture / Joint		21	123	115.38	Bedding / Banding / Foliation
87	41	107.9	Filled Fracture / Joint		60	150	115.48	Filled Fracture / Joint
57	195	108.02	Filled Fracture / Joint		64	159	115.61	Filled Fracture / Joint
72	345	108.34	Filled Fracture / Joint		62	169	115.7	Bedding / Banding / Foliation
64	229	108.4	Filled Fracture / Joint		44	162	116.27	Filled Fracture / Joint
54	167	108.41	Bedding / Banding / Foliation		50	167	116.37	Filled Fracture / Joint
71	258	108.68	Filled Fracture / Joint		49	177	116.61	Filled Fracture / Joint
86	212	108.78	Filled Fracture / Joint		56	169	116.64	Filled Fracture / Joint
54	172	108.89	Filled Fracture / Joint		41	186	116.7	Filled Fracture / Joint
34	165	109.06	Filled Fracture / Joint		47	172	116.86	Filled Fracture / Joint
35	153	109.15	Filled Fracture / Joint		56	142	116.86	Filled Fracture / Joint
63	146	109.2	Filled Fracture / Joint		65	110	117	Filled Fracture / Joint
83	36	109.3	Filled Fracture / Joint		59	125	117	Filled Fracture / Joint
49	167	109.3	Filled Fracture / Joint		48	152	117.22	Filled Fracture / Joint
50	159	109.34	Filled Fracture / Joint		51	230	117.28	Filled Fracture / Joint
46	153	109.43	Filled Fracture / Joint		43	117	117.44	Filled Fracture / Joint
41	167	109.48	Filled Fracture / Joint		53	103	117.47	Filled Fracture / Joint
35	150	109.51	Filled Fracture / Joint		47	104	117.55	Filled Fracture / Joint
51	150	109.62	Filled Fracture / Joint		18	114	117.66	Filled Fracture / Joint
38	168	109.75	Bedding / Banding / Foliation		49	143	117.82	Filled Fracture / Joint
48	158	109.79	Filled Fracture / Joint		42	187	117.9	Filled Fracture / Joint
43	174	109.84	Bedding / Banding / Foliation		56	102	117.91	Filled Fracture / Joint
46	179	109.88	Filled Fracture / Joint		42	181	118.1	Filled Fracture / Joint
68	18	109.92	Filled Fracture / Joint		43	150	118.32	Filled Fracture / Joint
53	154	110.01	Filled Fracture / Joint		46	167	118.44	Filled Fracture / Joint
56	157	110.07	Filled Fracture / Joint		46	166	118.48	Filled Fracture / Joint
60	193	110.17	Filled Fracture / Joint		45	180	118.59	Filled Fracture / Joint
50	151	110.21	Filled Fracture / Joint		46	151	118.78	Filled Fracture / Joint
55	173	110.32	Filled Fracture / Joint		46	156	118.86	Filled Fracture / Joint
48	146	110.39	Filled Fracture / Joint		50	157	118.88	Filled Fracture / Joint
49	162	110.45	Filled Fracture / Joint		18	2	118.93	Filled Fracture / Joint
54	183	110.58	Filled Fracture / Joint		47	148	118.95	Bedding / Banding / Foliation
50	172	110.63	Filled Fracture / Joint		44	179	119.23	Filled Fracture / Joint
54	162	110.7	Filled Fracture / Joint		18	2	119.29	Filled Fracture / Joint
55	161	110.75	Filled Fracture / Joint		31	305	119.42	Filled Fracture / Joint
44	177	110.83	Filled Fracture / Joint		25	305	119.45	Filled Fracture / Joint
45	165	110.9	Bedding / Banding / Foliation		46	186	119.52	Filled Fracture / Joint
49	157	110.93	Filled Fracture / Joint		38	223	119.75	Filled Fracture / Joint
60	165	111.03	Filled Fracture / Joint		47	170	120.18	Filled Fracture / Joint
85	280	111.1	Filled Fracture / Joint		50	240	120.28	Filled Fracture / Joint
46	143	111.15	Bedding / Banding / Foliation		44	210	121	Filled Fracture / Joint
54	142	111.21	Geological Contact		55	187	121.26	Filled Fracture / Joint
51	154	111.45	Filled Fracture / Joint		54	193	121.27	Filled Fracture / Joint
49	179	111.91	Bedding / Banding / Foliation		34	103	121.45	Filled Fracture / Joint
62	224	112.28	Filled Fracture / Joint		75	38	121.47	Filled Fracture / Joint

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
66	68	121.5	Filled Fracture / Joint		38	352	127.43	Filled Fracture / Joint
46	125	121.81	Filled Fracture / Joint		32	5	127.44	Filled Fracture / Joint
69	73	121.83	Filled Fracture / Joint		52	172	127.47	Filled Fracture / Joint
33	146	121.87	Filled Fracture / Joint		35	339	127.76	Filled Fracture / Joint
26	135	121.92	Bedding / Banding / Foliation		35	5	127.78	Filled Fracture / Joint
28	122	121.94	Bedding / Banding / Foliation		44	160	127.84	Filled Fracture / Joint
51	119	122.18	Filled Fracture / Joint		38	48	127.96	Filled Fracture / Joint
62	160	122.68	Filled Fracture / Joint		29	46	127.98	Filled Fracture / Joint
35	299	122.82	Filled Fracture / Joint		56	307	128.07	Filled Fracture / Joint
59	116	122.91	Filled Fracture / Joint		86	194	128.14	Filled Fracture / Joint
48	170	122.94	Filled Fracture / Joint		33	4	128.18	Filled Fracture / Joint
49	143	123.03	Filled Fracture / Joint		46	313	128.27	Filled Fracture / Joint
47	148	123.13	Filled Fracture / Joint		52	185	128.34	Filled Fracture / Joint
46	154	123.19	Bedding / Banding / Foliation		54	197	128.45	Filled Fracture / Joint
49	152	123.29	Bedding / Banding / Foliation		63	187	128.45	Filled Fracture / Joint
57	117	123.42	Filled Fracture / Joint		36	317	128.72	Filled Fracture / Joint
89	189	123.68	Filled Fracture / Joint		36	282	128.81	Filled Fracture / Joint
12	356	123.7	Filled Fracture / Joint		77	186	129.02	Filled Fracture / Joint
44	280	123.71	Filled Fracture / Joint		81	202	129.13	Filled Fracture / Joint
18	2	123.71	Filled Fracture / Joint		83	193	129.18	Filled Fracture / Joint
67	338	123.73	Filled Fracture / Joint		87	201	129.2	Filled Fracture / Joint
48	341	123.73	Filled Fracture / Joint		41	332	129.33	Filled Fracture / Joint
55	235	123.79	Filled Fracture / Joint		23	319	129.37	Filled Fracture / Joint
37	212	123.8	Filled Fracture / Joint		23	338	129.41	Filled Fracture / Joint
62	178	123.99	Filled Fracture / Joint		79	19	130.01	Filled Fracture / Joint
35	229	124.26	Filled Fracture / Joint		30	298	130.04	Filled Fracture / Joint
31	182	124.31	Bedding / Banding / Foliation		44	328	130.06	Filled Fracture / Joint
53	168	124.37	Filled Fracture / Joint		35	268	130.1	Filled Fracture / Joint
51	159	124.68	Bedding / Banding / Foliation		29	310	130.43	Filled Fracture / Joint
54	168	124.73	Filled Fracture / Joint		24	332	130.53	Filled Fracture / Joint
45	151	124.81	Filled Fracture / Joint		28	312	130.55	Filled Fracture / Joint
44	1	124.84	Filled Fracture / Joint		81	192	130.66	Filled Fracture / Joint
48	186	124.94	Filled Fracture / Joint		47	165	130.71	Filled Fracture / Joint
19	86	125	Filled Fracture / Joint		80	197	130.81	Filled Fracture / Joint
64	104	125	Filled Fracture / Joint		47	264	130.89	Filled Fracture / Joint
67	107	125.03	Filled Fracture / Joint		39	271	130.92	Filled Fracture / Joint
47	137	125.05	Filled Fracture / Joint		51	164	131.26	Bedding / Banding / Foliation
80	202	125.38	Filled Fracture / Joint		55	130	131.56	Bedding / Banding / Foliation
24	318	125.45	Filled Fracture / Joint		87	200	131.67	Filled Fracture / Joint
53	283	125.5	Filled Fracture / Joint		49	165	131.74	Filled Fracture / Joint
49	119	125.69	Filled Fracture / Joint		83	198	131.84	Filled Fracture / Joint
35	321	125.75	Filled Fracture / Joint		49	181	132.05	Bedding / Banding / Foliation
30	70	125.8	Filled Fracture / Joint		54	184	132.25	Bedding / Banding / Foliation
18	2	125.97	Filled Fracture / Joint		79	358	132.33	Filled Fracture / Joint
89	214	126.03	Filled Fracture / Joint		55	178	132.43	Bedding / Banding / Foliation
50	293	126.11	Filled Fracture / Joint		74	14	132.51	Filled Fracture / Joint
86	196	126.23	Filled Fracture / Joint		84	190	132.53	Filled Fracture / Joint
40	321	126.36	Filled Fracture / Joint		84	198	132.75	Filled Fracture / Joint
35	346	126.37	Filled Fracture / Joint		75	201	133.38	Filled Fracture / Joint
36	9	126.39	Filled Fracture / Joint		89	200	133.62	Filled Fracture / Joint
34	145	126.41	Filled Fracture / Joint		84	200	133.75	Filled Fracture / Joint
30	340	126.44	Filled Fracture / Joint		86	188	133.89	Filled Fracture / Joint
19	332	126.5	Filled Fracture / Joint		84	191	133.93	Filled Fracture / Joint
48	172	126.5	Filled Fracture / Joint		18	333	134.08	Filled Fracture / Joint
37	44	126.52	Filled Fracture / Joint		22	330	134.14	Filled Fracture / Joint
33	351	126.66	Filled Fracture / Joint		20	314	134.3	Filled Fracture / Joint
40	0	126.68	Filled Fracture / Joint		89	357	134.4	Filled Fracture / Joint
48	344	126.68	Filled Fracture / Joint		45	148	134.41	Filled Fracture / Joint
29	1	126.72	Filled Fracture / Joint		50	194	134.41	Filled Fracture / Joint
54	179	126.84	Filled Fracture / Joint		23	306	134.73	Filled Fracture / Joint
45	35	126.85	Filled Fracture / Joint		22	298	134.75	Filled Fracture / Joint
21	329	126.88	Filled Fracture / Joint		89	8	134.79	Filled Fracture / Joint
26	344	126.9	Filled Fracture / Joint		77	20	134.98	Filled Fracture / Joint
85	359	126.92	Filled Fracture / Joint		86	188	135.12	Filled Fracture / Joint
49	175	126.94	Filled Fracture / Joint		42	183	136.1	Filled Fracture / Joint
22	13	127.08	Filled Fracture / Joint		63	7	136.25	Filled Fracture / Joint
35	353	127.09	Filled Fracture / Joint		83	175	136.32	Filled Fracture / Joint
89	346	127.11	Filled Fracture / Joint		60	263	136.52	Filled Fracture / Joint
64	21	127.33	Filled Fracture / Joint		22	19	137.38	Filled Fracture / Joint

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
21	23	137.4	Filled Fracture / Joint		18	3	145.87	Filled Fracture / Joint
55	264	137.72	Filled Fracture / Joint		36	184	145.92	Filled Fracture / Joint
58	8	137.83	Filled Fracture / Joint		18	3	146.54	Filled Fracture / Joint
44	180	138.39	Filled Fracture / Joint		40	185	146.57	Filled Fracture / Joint
58	264	138.64	Filled Fracture / Joint		25	274	146.71	Filled Fracture / Joint
60	2	138.8	Filled Fracture / Joint		24	271	146.74	Filled Fracture / Joint
50	151	138.88	Filled Fracture / Joint		22	279	146.76	Filled Fracture / Joint
87	189	140.03	Filled Fracture / Joint		49	184	146.92	Filled Fracture / Joint
74	355	140.05	Filled Fracture / Joint		63	284	147.06	Filled Fracture / Joint
30	142	140.25	Filled Fracture / Joint		15	269	147.07	Filled Fracture / Joint
42	141	140.25	Filled Fracture / Joint		11	20	147.52	Filled Fracture / Joint
72	342	140.35	Filled Fracture / Joint		15	268	147.6	Filled Fracture / Joint
55	124	140.36	Filled Fracture / Joint		1	270	147.64	Filled Fracture / Joint
70	120	140.4	Filled Fracture / Joint		4	173	147.68	Filled Fracture / Joint
37	72	140.42	Filled Fracture / Joint		57	126	147.69	Filled Fracture / Joint
59	116	140.43	Filled Fracture / Joint		16	153	147.7	Filled Fracture / Joint
48	259	140.56	Filled Fracture / Joint		18	3	148.08	Filled Fracture / Joint
55	121	140.63	Filled Fracture / Joint		82	10	148.27	Filled Fracture / Joint
50	118	140.83	Filled Fracture / Joint		67	348	148.43	Filled Fracture / Joint
25	3	140.96	Filled Fracture / Joint		62	131	148.6	Filled Fracture / Joint
76	20	140.96	Filled Fracture / Joint		71	120	148.66	Filled Fracture / Joint
24	131	141.01	Filled Fracture / Joint		18	2	148.75	Filled Fracture / Joint
74	199	141.07	Filled Fracture / Joint		58	259	148.79	Filled Fracture / Joint
13	347	141.11	Filled Fracture / Joint		46	119	149.27	Filled Fracture / Joint
18	2	141.16	Filled Fracture / Joint		18	2	149.47	Filled Fracture / Joint
64	126	141.17	Filled Fracture / Joint		79	14	149.62	Filled Fracture / Joint
30	193	141.35	Filled Fracture / Joint		81	14	150.27	Filled Fracture / Joint
43	181	141.54	Filled Fracture / Joint		76	351	150.32	Filled Fracture / Joint
37	260	141.55	Filled Fracture / Joint		76	356	150.35	Filled Fracture / Joint
47	260	141.69	Filled Fracture / Joint		51	277	150.89	Filled Fracture / Joint
16	162	141.73	Filled Fracture / Joint		43	241	150.92	Filled Fracture / Joint
44	183	141.85	Filled Fracture / Joint		15	260	150.95	Filled Fracture / Joint
61	28	141.85	Filled Fracture / Joint		61	313	151	Filled Fracture / Joint
88	154	141.99	Filled Fracture / Joint		36	329	151	Filled Fracture / Joint
84	206	142.17	Filled Fracture / Joint		55	221	151.06	Filled Fracture / Joint
78	28	142.18	Filled Fracture / Joint		80	4	151.07	Filled Fracture / Joint
59	162	142.18	Filled Fracture / Joint		54	29	151.74	Filled Fracture / Joint
56	150	142.18	Filled Fracture / Joint		66	243	152.04	Filled Fracture / Joint
57	139	142.23	Filled Fracture / Joint		66	49	152.06	Filled Fracture / Joint
68	65	142.89	Filled Fracture / Joint		85	286	152.16	Filled Fracture / Joint
79	45	142.92	Filled Fracture / Joint		88	177	152.16	Filled Fracture / Joint
50	252	142.98	Filled Fracture / Joint		38	20	152.18	Filled Fracture / Joint
60	47	143.34	Filled Fracture / Joint		51	6	152.42	Filled Fracture / Joint
58	75	143.46	Filled Fracture / Joint		36	29	152.5	Filled Fracture / Joint
82	38	143.63	Filled Fracture / Joint		66	12	152.58	Filled Fracture / Joint
79	67	143.65	Filled Fracture / Joint		58	4	152.87	Filled Fracture / Joint
47	183	143.86	Filled Fracture / Joint		53	180	152.93	Filled Fracture / Joint
87	205	144.03	Filled Fracture / Joint		65	163	152.95	Filled Fracture / Joint
89	194	144.08	Filled Fracture / Joint		62	178	153.04	Filled Fracture / Joint
85	20	144.16	Filled Fracture / Joint		53	180	153.04	Filled Fracture / Joint
75	35	144.28	Filled Fracture / Joint		62	178	153.1	Filled Fracture / Joint
43	183	144.39	Filled Fracture / Joint		87	306	153.23	Filled Fracture / Joint
75	17	144.43	Filled Fracture / Joint		75	8	154.7	Filled Fracture / Joint
78	26	144.61	Filled Fracture / Joint		64	163	154.72	Filled Fracture / Joint
61	203	144.62	Filled Fracture / Joint		65	2	154.77	Filled Fracture / Joint
79	21	144.79	Filled Fracture / Joint		75	351	154.79	Filled Fracture / Joint
87	195	144.82	Filled Fracture / Joint		64	172	154.81	Filled Fracture / Joint
78	21	145.25	Filled Fracture / Joint		72	359	154.82	Filled Fracture / Joint
47	141	145.33	Filled Fracture / Joint		61	341	155.12	Filled Fracture / Joint
58	240	145.37	Filled Fracture / Joint		18	2	155.73	Filled Fracture / Joint
47	129	145.39	Filled Fracture / Joint		41	183	156.15	Filled Fracture / Joint
35	146	145.47	Filled Fracture / Joint		63	338	156.39	Filled Fracture / Joint
41	151	145.48	Filled Fracture / Joint		55	164	156.73	Filled Fracture / Joint
47	260	145.49	Filled Fracture / Joint		61	39	156.75	Filled Fracture / Joint
62	260	145.5	Filled Fracture / Joint		57	26	156.75	Filled Fracture / Joint
23	123	145.52	Filled Fracture / Joint		37	332	157.12	Filled Fracture / Joint
82	213	145.66	Filled Fracture / Joint					
26	322	145.68	Filled Fracture / Joint					
88	17	145.77	Filled Fracture / Joint					

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
18	58	19.52	Partially Open Joint / Fracture		11	111	29.27	Filled Fracture / Joint
33	74	19.66	Partially Open Joint / Fracture		58	129	29.28	Filled Fracture / Joint
55	49	22.27	Major Open Joint / Fracture		53	88	29.41	Filled Fracture / Joint
31	97	22.34	Filled Fracture / Joint		33	210	29.46	Filled Fracture / Joint
60	116	22.34	Filled Fracture / Joint		59	264	29.58	Filled Fracture / Joint
59	101	22.44	Filled Fracture / Joint		54	89	29.61	Filled Fracture / Joint
55	123	22.51	Filled Fracture / Joint		49	77	29.75	Filled Fracture / Joint
59	93	22.56	Filled Fracture / Joint		8	268	29.79	Filled Fracture / Joint
64	239	22.85	Filled Fracture / Joint		49	205	29.94	Filled Fracture / Joint
65	41	22.97	Partially Open Joint / Fracture		67	125	30.07	Filled Fracture / Joint
36	137	22.99	Filled Fracture / Joint		46	175	30.14	Filled Fracture / Joint
57	37	23	Partially Open Joint / Fracture		70	295	30.48	Filled Fracture / Joint
39	130	23.04	Filled Fracture / Joint		46	90	30.49	Filled Fracture / Joint
65	110	23.46	Filled Fracture / Joint		71	293	30.53	Filled Fracture / Joint
50	104	23.49	Filled Fracture / Joint		76	285	30.58	Filled Fracture / Joint
46	87	23.57	Bedding / Banding / Foliation		55	71	30.75	Filled Fracture / Joint
49	112	23.68	Filled Fracture / Joint		54	66	30.78	Filled Fracture / Joint
60	21	23.7	Filled Fracture / Joint		26	262	30.86	Filled Fracture / Joint
47	108	23.7	Filled Fracture / Joint		24	56	30.96	Filled Fracture / Joint
49	127	23.73	Bedding / Banding / Foliation		6	163	31.03	Filled Fracture / Joint
73	137	23.79	Filled Fracture / Joint		23	222	31.2	Filled Fracture / Joint
39	65	23.84	Filled Fracture / Joint		55	64	31.29	Filled Fracture / Joint
49	125	23.88	Filled Fracture / Joint		72	310	31.33	Filled Fracture / Joint
52	133	23.91	Filled Fracture / Joint		53	88	31.36	Filled Fracture / Joint
46	358	23.94	Filled Fracture / Joint		51	215	31.37	Filled Fracture / Joint
59	147	23.97	Filled Fracture / Joint		71	198	31.47	Filled Fracture / Joint
63	107	24.04	Filled Fracture / Joint		46	52	31.51	Filled Fracture / Joint
57	125	24.04	Major Open Joint / Fracture		59	97	31.57	Filled Fracture / Joint
71	46	24.24	Filled Fracture / Joint		17	318	31.68	Filled Fracture / Joint
55	75	24.27	Filled Fracture / Joint		57	56	31.75	Filled Fracture / Joint
71	118	24.38	Filled Fracture / Joint		32	15	31.82	Filled Fracture / Joint
60	5	24.38	Filled Fracture / Joint		24	23	31.87	Filled Fracture / Joint
48	107	24.38	Filled Fracture / Joint		11	302	32.02	Filled Fracture / Joint
46	283	24.48	Filled Fracture / Joint		77	135	32.14	Filled Fracture / Joint
28	36	24.48	Filled Fracture / Joint		77	123	32.25	Filled Fracture / Joint
79	42	24.67	Filled Fracture / Joint		67	20	32.4	Filled Fracture / Joint
81	152	24.88	Filled Fracture / Joint		13	185	32.55	Filled Fracture / Joint
31	284	25.01	Filled Fracture / Joint		64	24	32.74	Filled Fracture / Joint
68	321	25.11	Filled Fracture / Joint		24	297	32.75	Filled Fracture / Joint
77	24	25.26	Filled Fracture / Joint		22	301	32.9	Filled Fracture / Joint
50	288	25.3	Filled Fracture / Joint		68	19	33.04	Bedding / Banding / Foliation
82	200	25.47	Filled Fracture / Joint		49	53	33.06	Filled Fracture / Joint
70	29	25.52	Filled Fracture / Joint		69	38	33.11	Bedding / Banding / Foliation
49	186	25.59	Filled Fracture / Joint		69	40	33.24	Bedding / Banding / Foliation
17	184	25.78	Filled Fracture / Joint		14	236	33.33	Filled Fracture / Joint
28	301	25.79	Filled Fracture / Joint		75	38	33.33	Filled Fracture / Joint
77	287	25.96	Filled Fracture / Joint		52	106	33.44	Filled Fracture / Joint
72	227	26.08	Filled Fracture / Joint		68	31	33.48	Bedding / Banding / Foliation
76	25	26.41	Filled Fracture / Joint		83	187	33.65	Filled Fracture / Joint
57	54	26.42	Filled Fracture / Joint		6	164	33.9	Filled Fracture / Joint
14	145	26.47	Filled Fracture / Joint		57	204	34.07	Filled Fracture / Joint
73	34	26.5	Filled Fracture / Joint		11	6	34.15	Filled Fracture / Joint
27	20	26.74	Filled Fracture / Joint		19	230	34.15	Filled Fracture / Joint
6	164	26.76	Filled Fracture / Joint		55	85	34.19	Filled Fracture / Joint
53	78	26.81	Filled Fracture / Joint		52	295	34.2	Filled Fracture / Joint
75	34	27.11	Filled Fracture / Joint		48	110	34.25	Filled Fracture / Joint
6	164	27.21	Filled Fracture / Joint		46	95	34.29	Filled Fracture / Joint
86	195	27.25	Filled Fracture / Joint		32	244	34.4	Filled Fracture / Joint
50	104	27.29	Filled Fracture / Joint		72	22	34.41	Bedding / Banding / Foliation
74	308	27.88	Filled Fracture / Joint		53	66	34.63	Filled Fracture / Joint
69	223	27.9	Filled Fracture / Joint		71	10	34.66	Bedding / Banding / Foliation
60	40	27.95	Filled Fracture / Joint		53	93	34.78	Filled Fracture / Joint
74	311	27.99	Filled Fracture / Joint		61	85	34.78	Filled Fracture / Joint
86	195	28.21	Filled Fracture / Joint		53	112	34.91	Filled Fracture / Joint
55	59	28.43	Filled Fracture / Joint		55	105	34.92	Filled Fracture / Joint
17	312	28.45	Filled Fracture / Joint		50	99	35.25	Filled Fracture / Joint
50	70	28.61	Filled Fracture / Joint		53	118	35.59	Filled Fracture / Joint
83	195	29.02	Filled Fracture / Joint		57	38	35.71	Bedding / Banding / Foliation
8	154	29.06	Filled Fracture / Joint		50	91	35.83	Filled Fracture / Joint

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
57	28	35.84	Bedding / Banding / Foliation		77	241	44.47	Filled Fracture / Joint
65	45	35.89	Bedding / Banding / Foliation		59	33	44.57	Bedding / Banding / Foliation
64	38	35.94	Bedding / Banding / Foliation		21	345	44.59	Filled Fracture / Joint
64	38	35.99	Bedding / Banding / Foliation		31	289	44.8	Filled Fracture / Joint
50	89	36.05	Filled Fracture / Joint		62	16	44.93	Bedding / Banding / Foliation
55	98	36.09	Filled Fracture / Joint		61	11	44.97	Bedding / Banding / Foliation
68	30	36.11	Filled Fracture / Joint		63	27	45.07	Bedding / Banding / Foliation
60	120	36.44	Filled Fracture / Joint		62	26	45.36	Bedding / Banding / Foliation
52	93	36.61	Filled Fracture / Joint		9	31	45.48	Filled Fracture / Joint
27	306	36.66	Filled Fracture / Joint		78	187	45.62	Filled Fracture / Joint
49	96	36.78	Filled Fracture / Joint		55	119	45.71	Filled Fracture / Joint
75	314	36.92	Filled Fracture / Joint		56	126	45.74	Filled Fracture / Joint
17	314	37.12	Filled Fracture / Joint		61	111	45.82	Filled Fracture / Joint
70	24	37.13	Minor Open Joint / Fracture		87	114	45.87	Filled Fracture / Joint
79	225	37.67	Filled Fracture / Joint		88	121	45.93	Filled Fracture / Joint
45	85	37.69	Filled Fracture / Joint		74	47	46.3	Filled Fracture / Joint
51	66	37.77	Filled Fracture / Joint		42	249	46.49	Geological Contact
65	229	38	Filled Fracture / Joint		59	284	46.5	Filled Fracture / Joint
14	300	38.13	Filled Fracture / Joint		29	272	46.56	Partially Open Joint / Fracture
6	161	38.43	Filled Fracture / Joint		58	105	46.59	Filled Fracture / Joint
54	75	38.53	Filled Fracture / Joint		31	262	46.6	Geological Contact
21	252	38.6	Geological Contact		55	130	46.7	Filled Fracture / Joint
55	80	38.6	Filled Fracture / Joint		58	276	46.75	Filled Fracture / Joint
22	240	38.79	Partially Open Joint / Fracture		56	128	46.81	Bedding / Banding / Foliation
22	244	38.81	Geological Contact		66	179	47.02	Filled Fracture / Joint
60	123	38.83	Filled Fracture / Joint		64	16	47.24	Filled Fracture / Joint
54	57	38.87	Filled Fracture / Joint		76	220	47.34	Filled Fracture / Joint
41	49	38.88	Filled Fracture / Joint		24	41	47.73	Filled Fracture / Joint
45	61	38.99	Filled Fracture / Joint		86	194	47.74	Filled Fracture / Joint
52	75	39.08	Filled Fracture / Joint		49	118	47.78	Filled Fracture / Joint
43	67	39.16	Filled Fracture / Joint		59	33	47.8	Bedding / Banding / Foliation
44	75	39.35	Filled Fracture / Joint		57	25	47.93	Filled Fracture / Joint
58	119	39.39	Filled Fracture / Joint		57	105	47.94	Filled Fracture / Joint
49	217	39.5	Filled Fracture / Joint		58	32	48.1	Bedding / Banding / Foliation
71	37	39.58	Filled Fracture / Joint		61	37	48.16	Bedding / Banding / Foliation
39	269	40.15	Filled Fracture / Joint		51	106	48.16	Filled Fracture / Joint
69	70	40.34	Bedding / Banding / Foliation		61	32	48.23	Bedding / Banding / Foliation
63	123	40.41	Filled Fracture / Joint		63	41	48.34	Bedding / Banding / Foliation
52	29	40.42	Bedding / Banding / Foliation		76	100	48.37	Filled Fracture / Joint
52	29	40.5	Bedding / Banding / Foliation		63	24	48.4	Filled Fracture / Joint
6	161	40.61	Filled Fracture / Joint		81	117	48.41	Filled Fracture / Joint
60	23	40.61	Bedding / Banding / Foliation		49	103	48.42	Filled Fracture / Joint
6	161	40.68	Filled Fracture / Joint		36	26	48.49	Filled Fracture / Joint
48	345	40.77	Filled Fracture / Joint		63	22	48.54	Bedding / Banding / Foliation
76	37	40.85	Filled Fracture / Joint		58	135	48.6	Filled Fracture / Joint
62	251	40.87	Filled Fracture / Joint		63	27	48.63	Bedding / Banding / Foliation
73	119	41.32	Filled Fracture / Joint		13	75	48.66	Filled Fracture / Joint
54	131	41.35	Filled Fracture / Joint		51	252	48.75	Filled Fracture / Joint
32	284	41.42	Geological Contact		60	22	48.78	Bedding / Banding / Foliation
31	285	41.48	Geological Contact		70	14	49.12	Filled Fracture / Joint
26	351	41.65	Filled Fracture / Joint		32	6	49.12	Filled Fracture / Joint
63	37	41.79	Bedding / Banding / Foliation		47	84	49.29	Filled Fracture / Joint
40	55	41.92	Filled Fracture / Joint		46	69	49.35	Filled Fracture / Joint
18	315	42.32	Filled Fracture / Joint		54	65	49.4	Filled Fracture / Joint
82	116	42.39	Filled Fracture / Joint		59	25	49.58	Filled Fracture / Joint
20	279	42.71	Filled Fracture / Joint		89	294	49.62	Filled Fracture / Joint
58	69	42.75	Filled Fracture / Joint		47	69	49.66	Filled Fracture / Joint
42	184	42.96	Filled Fracture / Joint		26	290	49.74	Filled Fracture / Joint
22	295	43.17	Filled Fracture / Joint		78	202	50.05	Filled Fracture / Joint
81	46	43.28	Filled Fracture / Joint		38	278	50.05	Filled Fracture / Joint
52	45	43.56	Filled Fracture / Joint		39	189	50.19	Filled Fracture / Joint
30	14	43.56	Filled Fracture / Joint		17	60	50.32	Filled Fracture / Joint
18	265	43.56	Filled Fracture / Joint		47	42	50.4	Filled Fracture / Joint
18	162	43.62	Filled Fracture / Joint		6	159	50.46	Filled Fracture / Joint
55	30	43.79	Filled Fracture / Joint		55	100	50.6	Filled Fracture / Joint
6	160	43.83	Filled Fracture / Joint		65	111	50.69	Filled Fracture / Joint
58	20	44.05	Bedding / Banding / Foliation		40	282	50.84	Filled Fracture / Joint
58	20	44.17	Bedding / Banding / Foliation		6	159	50.87	Filled Fracture / Joint
35	285	44.27	Filled Fracture / Joint		36	211	50.9	Filled Fracture / Joint

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
67	65	50.93	Filled Fracture / Joint		77	255	55.8	Filled Fracture / Joint
62	16	50.97	Partially Open Joint / Fracture		13	316	55.94	Filled Fracture / Joint
57	13	51.03	Bedding / Banding / Foliation		71	55	55.97	Filled Fracture / Joint
56	73	51.19	Filled Fracture / Joint		65	45	56.2	Filled Fracture / Joint
51	244	51.21	Filled Fracture / Joint		63	28	56.28	Filled Fracture / Joint
60	241	51.22	Filled Fracture / Joint		64	78	56.36	Filled Fracture / Joint
55	85	51.28	Filled Fracture / Joint		50	221	56.41	Filled Fracture / Joint
61	26	51.39	Bedding / Banding / Foliation		10	289	56.57	Filled Fracture / Joint
6	159	51.42	Filled Fracture / Joint		38	339	56.59	Filled Fracture / Joint
61	28	51.46	Bedding / Banding / Foliation		67	81	56.77	Filled Fracture / Joint
53	123	51.56	Filled Fracture / Joint		59	70	56.89	Bedding / Banding / Foliation
61	24	51.58	Bedding / Banding / Foliation		57	71	56.96	Bedding / Banding / Foliation
18	265	51.6	Filled Fracture / Joint		78	95	56.96	Filled Fracture / Joint
53	15	51.68	Bedding / Banding / Foliation		72	101	56.98	Filled Fracture / Joint
17	277	51.87	Filled Fracture / Joint		57	99	57.02	Bedding / Banding / Foliation
54	31	51.92	Bedding / Banding / Foliation		25	29	57.15	Filled Fracture / Joint
54	28	51.98	Bedding / Banding / Foliation		77	108	57.2	Filled Fracture / Joint
54	28	52.05	Bedding / Banding / Foliation		21	28	57.32	Filled Fracture / Joint
69	36	52.06	Partially Open Joint / Fracture		71	94	57.35	Filled Fracture / Joint
63	20	52.19	Bedding / Banding / Foliation		73	101	57.42	Filled Fracture / Joint
68	63	52.31	Filled Fracture / Joint		74	83	57.43	Filled Fracture / Joint
62	8	52.32	Bedding / Banding / Foliation		61	175	57.43	Filled Fracture / Joint
61	78	52.34	Filled Fracture / Joint		22	32	57.48	Filled Fracture / Joint
59	21	52.45	Bedding / Banding / Foliation		52	42	57.56	Filled Fracture / Joint
68	25	52.55	Filled Fracture / Joint		58	35	57.57	Filled Fracture / Joint
63	22	52.6	Filled Fracture / Joint		32	47	57.59	Filled Fracture / Joint
55	118	52.63	Filled Fracture / Joint		65	38	57.62	Filled Fracture / Joint
42	121	52.66	Filled Fracture / Joint		32	58	57.8	Filled Fracture / Joint
68	95	52.72	Filled Fracture / Joint		57	242	57.83	Filled Fracture / Joint
61	29	52.73	Bedding / Banding / Foliation		44	56	57.97	Bedding / Banding / Foliation
18	91	52.77	Filled Fracture / Joint		46	97	58.02	Filled Fracture / Joint
60	30	52.87	Filled Fracture / Joint		67	37	58.19	Filled Fracture / Joint
44	37	52.93	Filled Fracture / Joint		72	35	58.19	Filled Fracture / Joint
66	25	52.95	Filled Fracture / Joint		39	56	58.37	Filled Fracture / Joint
64	24	52.97	Filled Fracture / Joint		67	18	58.59	Bedding / Banding / Foliation
72	24	53.04	Geological Contact		65	17	58.66	Bedding / Banding / Foliation
21	3	53.05	Filled Fracture / Joint		67	17	58.73	Bedding / Banding / Foliation
66	6	53.06	Filled Fracture / Joint		47	39	58.86	Filled Fracture / Joint
14	41	53.06	Filled Fracture / Joint		48	47	58.91	Filled Fracture / Joint
61	100	53.3	Filled Fracture / Joint		56	122	59.18	Filled Fracture / Joint
73	96	53.37	Filled Fracture / Joint		55	118	59.2	Filled Fracture / Joint
54	26	53.49	Bedding / Banding / Foliation		12	302	59.34	Filled Fracture / Joint
53	26	53.52	Bedding / Banding / Foliation		81	316	59.4	Filled Fracture / Joint
46	17	53.52	Filled Fracture / Joint		14	355	59.57	Filled Fracture / Joint
56	12	53.58	Bedding / Banding / Foliation		43	158	59.93	Filled Fracture / Joint
62	29	53.7	Bedding / Banding / Foliation		28	160	59.95	Filled Fracture / Joint
58	92	53.75	Filled Fracture / Joint		77	246	60.05	Filled Fracture / Joint
67	26	53.78	Geological Contact		66	91	60.21	Filled Fracture / Joint
20	16	53.94	Filled Fracture / Joint		41	30	60.54	Filled Fracture / Joint
74	40	54.04	Filled Fracture / Joint		71	104	60.58	Filled Fracture / Joint
56	14	54.08	Filled Fracture / Joint		16	41	60.58	Filled Fracture / Joint
57	2	54.18	Filled Fracture / Joint		24	296	60.64	Filled Fracture / Joint
54	10	54.32	Filled Fracture / Joint		70	105	60.65	Filled Fracture / Joint
63	24	54.55	Bedding / Banding / Foliation		45	204	60.72	Filled Fracture / Joint
55	9	54.72	Filled Fracture / Joint		16	306	60.83	Filled Fracture / Joint
64	346	54.74	Filled Fracture / Joint		78	227	60.97	Filled Fracture / Joint
66	4	54.77	Partially Open Joint / Fracture		65	47	61	Bedding / Banding / Foliation
72	4	54.77	Filled Fracture / Joint		14	53	61.02	Partially Open Joint / Fracture
67	317	54.82	Filled Fracture / Joint		62	37	61.09	Bedding / Banding / Foliation
49	56	54.99	Filled Fracture / Joint		61	233	61.26	Filled Fracture / Joint
18	36	55.22	Filled Fracture / Joint		64	227	61.43	Filled Fracture / Joint
48	41	55.42	Filled Fracture / Joint		54	230	61.49	Filled Fracture / Joint
53	103	55.42	Filled Fracture / Joint		73	112	61.54	Filled Fracture / Joint
44	45	55.53	Filled Fracture / Joint		81	250	61.61	Filled Fracture / Joint
78	329	55.58	Filled Fracture / Joint		15	51	61.78	Filled Fracture / Joint
74	342	55.59	Filled Fracture / Joint		15	40	61.91	Filled Fracture / Joint
64	114	55.61	Filled Fracture / Joint		59	35	62	Filled Fracture / Joint
47	97	55.63	Filled Fracture / Joint		60	181	62.12	Filled Fracture / Joint
58	9	55.75	Filled Fracture / Joint		66	172	62.16	Filled Fracture / Joint

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
86	214	62.17	Filled Fracture / Joint		64	35	70.06	Bedding / Banding / Foliation
5	157	62.34	Filled Fracture / Joint		44	96	70.07	Filled Fracture / Joint
49	87	62.38	Filled Fracture / Joint		31	271	70.14	Filled Fracture / Joint
79	306	62.39	Filled Fracture / Joint		47	85	70.18	Filled Fracture / Joint
51	231	62.41	Filled Fracture / Joint		47	94	70.23	Filled Fracture / Joint
50	87	62.43	Filled Fracture / Joint		49	95	70.28	Filled Fracture / Joint
45	81	62.5	Filled Fracture / Joint		60	29	70.3	Bedding / Banding / Foliation
41	84	62.54	Filled Fracture / Joint		55	102	70.43	Filled Fracture / Joint
23	303	62.64	Filled Fracture / Joint		60	28	70.44	Bedding / Banding / Foliation
49	99	62.84	Filled Fracture / Joint		48	239	70.51	Filled Fracture / Joint
60	187	62.9	Filled Fracture / Joint		49	237	70.53	Filled Fracture / Joint
82	126	62.99	Filled Fracture / Joint		22	20	70.53	Filled Fracture / Joint
85	87	63.02	Filled Fracture / Joint		64	35	70.6	Bedding / Banding / Foliation
62	31	63.28	Filled Fracture / Joint		60	28	70.67	Bedding / Banding / Foliation
34	77	63.51	Filled Fracture / Joint		58	34	70.74	Bedding / Banding / Foliation
61	35	63.52	Filled Fracture / Joint		50	38	70.77	Filled Fracture / Joint
60	41	63.61	Filled Fracture / Joint		34	67	70.86	Filled Fracture / Joint
77	80	63.78	Filled Fracture / Joint		55	34	70.88	Bedding / Banding / Foliation
62	355	63.8	Filled Fracture / Joint		55	34	70.94	Bedding / Banding / Foliation
74	80	63.81	Filled Fracture / Joint		66	126	70.95	Filled Fracture / Joint
57	31	63.84	Filled Fracture / Joint		78	128	71.04	Filled Fracture / Joint
51	41	63.98	Filled Fracture / Joint		5	156	71.22	Filled Fracture / Joint
63	22	64.15	Bedding / Banding / Foliation		12	251	71.34	Filled Fracture / Joint
63	19	64.3	Bedding / Banding / Foliation		44	82	71.37	Filled Fracture / Joint
54	87	64.34	Filled Fracture / Joint		44	248	71.39	Filled Fracture / Joint
63	19	64.72	Filled Fracture / Joint		44	248	71.41	Filled Fracture / Joint
23	31	64.85	Filled Fracture / Joint		45	248	71.44	Filled Fracture / Joint
40	93	64.89	Filled Fracture / Joint		59	18	71.47	Filled Fracture / Joint
63	25	64.92	Bedding / Banding / Foliation		62	25	71.52	Filled Fracture / Joint
64	120	65.23	Filled Fracture / Joint		63	24	71.6	Filled Fracture / Joint
79	203	65.24	Filled Fracture / Joint		62	26	71.67	Bedding / Banding / Foliation
57	28	65.51	Bedding / Banding / Foliation		58	15	71.71	Filled Fracture / Joint
56	163	65.6	Filled Fracture / Joint		68	119	71.98	Bedding / Banding / Foliation
68	25	65.75	Filled Fracture / Joint		60	70	72.06	Filled Fracture / Joint
56	56	65.88	Bedding / Banding / Foliation		16	104	72.1	Filled Fracture / Joint
59	64	65.96	Filled Fracture / Joint		65	37	72.22	Filled Fracture / Joint
61	27	66.08	Filled Fracture / Joint		68	112	72.27	Filled Fracture / Joint
46	56	66.26	Filled Fracture / Joint		56	29	72.4	Bedding / Banding / Foliation
60	349	66.45	Filled Fracture / Joint		5	156	72.45	Filled Fracture / Joint
51	99	66.64	Filled Fracture / Joint		26	23	72.48	Filled Fracture / Joint
52	102	66.66	Filled Fracture / Joint		55	17	72.62	Bedding / Banding / Foliation
51	42	66.98	Bedding / Banding / Foliation		57	102	72.71	Filled Fracture / Joint
49	39	67.1	Bedding / Banding / Foliation		70	25	72.85	Filled Fracture / Joint
6	120	67.15	Partially Open Joint / Fracture		69	29	72.96	Filled Fracture / Joint
39	74	67.18	Partially Open Joint / Fracture		4	64	72.99	Filled Fracture / Joint
52	30	67.29	Filled Fracture / Joint		38	295	73.03	Filled Fracture / Joint
51	53	67.3	Bedding / Banding / Foliation		9	24	73.05	Filled Fracture / Joint
67	94	67.35	Filled Fracture / Joint		67	24	73.24	Bedding / Banding / Foliation
68	248	67.38	Filled Fracture / Joint		65	94	73.25	Filled Fracture / Joint
56	110	67.43	Filled Fracture / Joint		5	156	73.35	Filled Fracture / Joint
45	113	67.51	Filled Fracture / Joint		21	43	73.42	Filled Fracture / Joint
55	32	67.66	Bedding / Banding / Foliation		70	128	73.58	Filled Fracture / Joint
42	236	67.78	Filled Fracture / Joint		5	155	73.6	Filled Fracture / Joint
58	37	68.09	Bedding / Banding / Foliation		31	49	73.72	Filled Fracture / Joint
33	285	69.13	Filled Fracture / Joint		30	216	73.76	Filled Fracture / Joint
66	50	69.25	Bedding / Banding / Foliation		48	206	74.16	Filled Fracture / Joint
53	209	69.29	Filled Fracture / Joint		16	329	74.19	Filled Fracture / Joint
61	284	69.39	Filled Fracture / Joint		37	241	74.19	Partially Open Joint / Fracture
65	41	69.39	Bedding / Banding / Foliation		47	253	74.3	Filled Fracture / Joint
56	66	69.43	Filled Fracture / Joint		68	84	74.42	Filled Fracture / Joint
50	84	69.54	Filled Fracture / Joint		5	155	74.58	Filled Fracture / Joint
45	94	69.58	Filled Fracture / Joint		62	24	74.65	Bedding / Banding / Foliation
37	91	69.61	Filled Fracture / Joint		73	95	74.83	Filled Fracture / Joint
41	84	69.65	Filled Fracture / Joint		70	89	74.86	Filled Fracture / Joint
26	223	69.69	Filled Fracture / Joint		50	257	74.95	Filled Fracture / Joint
48	100	69.7	Filled Fracture / Joint		63	13	75.14	Bedding / Banding / Foliation
75	179	69.75	Filled Fracture / Joint		34	17	75.15	Filled Fracture / Joint
72	230	69.94	Filled Fracture / Joint		41	10	75.31	Filled Fracture / Joint
76	97	69.96	Filled Fracture / Joint		67	84	75.34	Filled Fracture / Joint

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
58	36	75.52	Bedding / Banding / Foliation		17	166	79.67	Filled Fracture / Joint
33	43	75.63	Filled Fracture / Joint		43	322	79.74	Filled Fracture / Joint
59	36	75.65	Bedding / Banding / Foliation		67	119	79.77	Filled Fracture / Joint
58	36	75.71	Bedding / Banding / Foliation		69	63	79.93	Filled Fracture / Joint
48	224	75.73	Filled Fracture / Joint		68	5	79.93	Filled Fracture / Joint
59	29	75.76	Bedding / Banding / Foliation		63	244	79.99	Filled Fracture / Joint
71	48	75.83	Filled Fracture / Joint		51	78	80.07	Filled Fracture / Joint
27	37	75.96	Filled Fracture / Joint		51	95	80.22	Filled Fracture / Joint
57	76	75.99	Filled Fracture / Joint		48	148	80.43	Filled Fracture / Joint
27	43	76.25	Filled Fracture / Joint		54	111	80.55	Filled Fracture / Joint
57	22	76.35	Partially Open Joint / Fracture		77	117	80.59	Filled Fracture / Joint
56	42	76.47	Bedding / Banding / Foliation		71	122	80.64	Filled Fracture / Joint
61	112	76.54	Filled Fracture / Joint		63	37	80.7	Filled Fracture / Joint
67	45	76.6	Filled Fracture / Joint		36	206	80.79	Filled Fracture / Joint
55	32	76.64	Bedding / Banding / Foliation		54	268	80.83	Filled Fracture / Joint
69	111	76.68	Filled Fracture / Joint		45	149	80.88	Partially Open Joint / Fracture
58	86	76.8	Filled Fracture / Joint		71	224	81.12	Filled Fracture / Joint
66	81	76.8	Filled Fracture / Joint		65	140	81.32	Filled Fracture / Joint
68	81	76.94	Filled Fracture / Joint		66	117	81.33	Filled Fracture / Joint
57	83	76.94	Filled Fracture / Joint		74	111	81.4	Filled Fracture / Joint
62	22	76.99	Bedding / Banding / Foliation		69	258	81.43	Filled Fracture / Joint
14	126	77.12	Filled Fracture / Joint		56	241	81.88	Filled Fracture / Joint
62	23	77.14	Bedding / Banding / Foliation		7	23	81.89	Filled Fracture / Joint
56	15	77.32	Filled Fracture / Joint		35	304	81.92	Filled Fracture / Joint
67	15	77.34	Filled Fracture / Joint		11	68	81.94	Filled Fracture / Joint
58	19	77.37	Filled Fracture / Joint		44	66	81.96	Filled Fracture / Joint
52	169	77.38	Filled Fracture / Joint		82	101	81.98	Filled Fracture / Joint
14	275	77.41	Filled Fracture / Joint		25	261	81.98	Filled Fracture / Joint
71	333	77.56	Filled Fracture / Joint		28	170	82.03	Filled Fracture / Joint
61	19	77.56	Bedding / Banding / Foliation		81	108	82.14	Filled Fracture / Joint
65	50	77.59	Filled Fracture / Joint		32	260	82.16	Filled Fracture / Joint
73	111	77.63	Filled Fracture / Joint		17	245	82.2	Partially Open Joint / Fracture
37	79	77.65	Filled Fracture / Joint		61	45	82.2	Filled Fracture / Joint
62	344	77.68	Filled Fracture / Joint		70	50	82.22	Filled Fracture / Joint
76	227	77.74	Filled Fracture / Joint		72	49	82.25	Filled Fracture / Joint
64	305	78.05	Filled Fracture / Joint		36	15	82.28	Filled Fracture / Joint
59	19	78.11	Filled Fracture / Joint		72	48	82.31	Filled Fracture / Joint
64	328	78.17	Filled Fracture / Joint		28	224	82.34	Filled Fracture / Joint
63	14	78.17	Partially Open Joint / Fracture		8	209	82.38	Filled Fracture / Joint
61	49	78.18	Filled Fracture / Joint		60	98	82.42	Filled Fracture / Joint
52	30	78.24	Filled Fracture / Joint		53	118	82.5	Filled Fracture / Joint
35	113	78.26	Filled Fracture / Joint		60	117	82.53	Filled Fracture / Joint
59	22	78.35	Filled Fracture / Joint		72	47	82.62	Filled Fracture / Joint
60	36	78.36	Filled Fracture / Joint		76	69	82.64	Filled Fracture / Joint
5	155	78.38	Filled Fracture / Joint		76	44	82.71	Filled Fracture / Joint
61	19	78.42	Major Open Joint / Fracture		51	107	82.76	Filled Fracture / Joint
59	29	78.47	Minor Open Joint / Fracture		46	121	82.8	Filled Fracture / Joint
60	21	78.5	Minor Open Joint / Fracture		58	111	82.9	Filled Fracture / Joint
58	31	78.68	Filled Fracture / Joint		63	38	82.94	Filled Fracture / Joint
55	30	78.7	Partially Open Joint / Fracture		61	121	82.94	Filled Fracture / Joint
53	19	78.79	Filled Fracture / Joint		60	120	82.96	Filled Fracture / Joint
63	26	78.8	Filled Fracture / Joint		62	123	83.29	Filled Fracture / Joint
63	23	78.84	Filled Fracture / Joint		48	148	83.31	Filled Fracture / Joint
66	27	78.91	Filled Fracture / Joint		38	143	83.6	Partially Open Joint / Fracture
55	11	78.92	Filled Fracture / Joint		74	274	83.63	Filled Fracture / Joint
58	163	78.93	Filled Fracture / Joint		70	267	83.77	Filled Fracture / Joint
67	27	79.04	Filled Fracture / Joint		65	126	83.93	Filled Fracture / Joint
49	11	79.06	Filled Fracture / Joint		57	51	83.99	Filled Fracture / Joint
70	22	79.09	Filled Fracture / Joint		61	41	84.08	Filled Fracture / Joint
38	15	79.15	Filled Fracture / Joint		71	264	84.11	Filled Fracture / Joint
62	29	79.18	Filled Fracture / Joint		4	309	84.18	Filled Fracture / Joint
77	117	79.19	Filled Fracture / Joint		60	26	84.29	Filled Fracture / Joint
40	62	79.28	Filled Fracture / Joint		68	287	84.31	Filled Fracture / Joint
71	28	79.32	Filled Fracture / Joint		65	290	84.31	Filled Fracture / Joint
30	0	79.33	Filled Fracture / Joint		62	285	84.38	Filled Fracture / Joint
69	19	79.4	Partially Open Joint / Fracture		63	322	84.46	Filled Fracture / Joint
54	77	79.54	Filled Fracture / Joint		31	104	84.68	Filled Fracture / Joint
5	153	79.61	Filled Fracture / Joint		53	283	85.13	Filled Fracture / Joint
49	12	79.62	Filled Fracture / Joint		56	279	85.15	Filled Fracture / Joint

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
5	155	85.18	Filled Fracture / Joint		54	12	90.68	Filled Fracture / Joint
15	184	85.28	Filled Fracture / Joint		68	197	91.06	Filled Fracture / Joint
53	285	85.43	Filled Fracture / Joint		55	8	91.11	Filled Fracture / Joint
76	124	85.63	Filled Fracture / Joint		65	62	91.22	Filled Fracture / Joint
62	24	85.73	Filled Fracture / Joint		62	359	91.27	Filled Fracture / Joint
51	97	85.79	Filled Fracture / Joint		42	16	91.3	Filled Fracture / Joint
12	160	85.83	Filled Fracture / Joint		58	17	91.38	Filled Fracture / Joint
5	154	85.86	Filled Fracture / Joint		25	183	91.4	Filled Fracture / Joint
11	32	85.9	Partially Open Joint / Fracture		40	221	91.49	Filled Fracture / Joint
63	22	85.96	Filled Fracture / Joint		48	230	91.56	Filled Fracture / Joint
64	105	86.08	Filled Fracture / Joint		48	233	91.58	Filled Fracture / Joint
5	154	86.1	Filled Fracture / Joint		50	185	91.74	Filled Fracture / Joint
28	38	86.32	Filled Fracture / Joint		61	204	91.87	Filled Fracture / Joint
53	217	86.33	Filled Fracture / Joint		58	227	91.91	Filled Fracture / Joint
47	335	86.38	Filled Fracture / Joint		58	13	92	Bedding / Banding / Foliation
77	171	86.38	Filled Fracture / Joint		58	22	92.03	Bedding / Banding / Foliation
75	125	86.43	Filled Fracture / Joint		58	20	92.13	Bedding / Banding / Foliation
75	345	86.5	Filled Fracture / Joint		62	19	92.23	Filled Fracture / Joint
68	222	86.54	Filled Fracture / Joint		22	216	92.27	Filled Fracture / Joint
70	124	86.58	Filled Fracture / Joint		46	150	92.31	Filled Fracture / Joint
51	169	86.62	Filled Fracture / Joint		55	9	92.31	Partially Open Joint / Fracture
5	154	86.63	Filled Fracture / Joint		50	126	92.76	Filled Fracture / Joint
75	113	86.75	Filled Fracture / Joint		77	330	92.8	Partially Open Joint / Fracture
3	280	86.77	Filled Fracture / Joint		58	127	92.82	Filled Fracture / Joint
3	223	87.02	Filled Fracture / Joint		65	113	92.9	Filled Fracture / Joint
56	46	87.13	Filled Fracture / Joint		70	107	92.96	Filled Fracture / Joint
40	96	87.25	Filled Fracture / Joint		5	153	93.07	Filled Fracture / Joint
39	287	87.28	Filled Fracture / Joint		80	126	93.1	Filled Fracture / Joint
50	110	87.29	Filled Fracture / Joint		61	14	93.24	Partially Open Joint / Fracture
64	29	87.39	Filled Fracture / Joint		64	112	93.27	Filled Fracture / Joint
75	80	87.41	Filled Fracture / Joint		48	122	93.29	Filled Fracture / Joint
73	160	87.45	Filled Fracture / Joint		55	265	93.42	Filled Fracture / Joint
31	74	87.61	Filled Fracture / Joint		5	153	93.43	Filled Fracture / Joint
5	154	87.63	Filled Fracture / Joint		5	153	93.49	Filled Fracture / Joint
30	75	87.72	Filled Fracture / Joint		52	239	93.61	Filled Fracture / Joint
22	91	87.75	Filled Fracture / Joint		64	251	93.61	Filled Fracture / Joint
61	109	87.88	Filled Fracture / Joint		58	100	93.83	Filled Fracture / Joint
16	59	87.94	Filled Fracture / Joint		40	276	93.87	Filled Fracture / Joint
5	154	87.95	Filled Fracture / Joint		36	263	93.95	Geological Contact
16	24	88.05	Filled Fracture / Joint		27	14	94.01	Filled Fracture / Joint
12	63	88.4	Filled Fracture / Joint		38	261	94.01	Geological Contact
43	58	88.51	Filled Fracture / Joint		5	153	94.08	Filled Fracture / Joint
40	59	88.55	Filled Fracture / Joint		69	228	94.11	Filled Fracture / Joint
51	44	88.59	Filled Fracture / Joint		60	233	94.22	Filled Fracture / Joint
42	53	88.6	Filled Fracture / Joint		60	217	94.43	Filled Fracture / Joint
47	28	88.73	Filled Fracture / Joint		72	206	94.48	Filled Fracture / Joint
5	154	88.76	Filled Fracture / Joint		62	25	94.84	Bedding / Banding / Foliation
52	42	88.83	Filled Fracture / Joint		66	253	94.95	Filled Fracture / Joint
42	54	89.1	Filled Fracture / Joint		66	278	94.98	Filled Fracture / Joint
64	112	89.18	Filled Fracture / Joint		18	33	95.13	Filled Fracture / Joint
62	40	89.24	Filled Fracture / Joint		73	313	95.32	Filled Fracture / Joint
5	238	89.39	Filled Fracture / Joint		54	105	95.37	Filled Fracture / Joint
43	92	89.4	Filled Fracture / Joint		78	108	95.66	Filled Fracture / Joint
55	18	89.48	Bedding / Banding / Foliation		62	10	95.73	Partially Open Joint / Fracture
54	29	89.59	Bedding / Banding / Foliation		61	24	95.79	Filled Fracture / Joint
53	24	89.64	Filled Fracture / Joint		79	354	95.92	Filled Fracture / Joint
55	32	89.74	Bedding / Banding / Foliation		5	153	96	Filled Fracture / Joint
28	11	89.88	Filled Fracture / Joint		71	20	96.03	Filled Fracture / Joint
50	184	89.91	Filled Fracture / Joint		5	153	96.04	Filled Fracture / Joint
16	132	89.98	Filled Fracture / Joint		5	153	96.05	Filled Fracture / Joint
58	241	90	Filled Fracture / Joint		5	153	96.09	Filled Fracture / Joint
53	245	90.08	Filled Fracture / Joint		5	153	96.13	Filled Fracture / Joint
5	154	90.19	Filled Fracture / Joint		63	29	96.27	Bedding / Banding / Foliation
56	242	90.21	Filled Fracture / Joint		79	123	96.44	Filled Fracture / Joint
60	23	90.34	Filled Fracture / Joint		60	17	96.45	Bedding / Banding / Foliation
23	182	90.38	Filled Fracture / Joint		63	18	96.81	Bedding / Banding / Foliation
33	186	90.48	Filled Fracture / Joint		64	24	96.88	Filled Fracture / Joint
52	280	90.59	Filled Fracture / Joint		16	160	96.93	Filled Fracture / Joint
6	7	90.67	Filled Fracture / Joint		71	36	97.08	Filled Fracture / Joint

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
31	149	97.27	Filled Fracture / Joint		62	11	102.85	Filled Fracture / Joint
11	53	97.36	Filled Fracture / Joint		49	70	103.13	Filled Fracture / Joint
50	283	97.48	Filled Fracture / Joint		72	289	103.14	Filled Fracture / Joint
60	36	97.57	Bedding / Banding / Foliation		29	303	103.24	Filled Fracture / Joint
67	319	97.75	Filled Fracture / Joint		75	294	103.29	Filled Fracture / Joint
41	161	97.99	Filled Fracture / Joint		5	152	103.36	Filled Fracture / Joint
61	22	98.09	Filled Fracture / Joint		68	295	103.4	Filled Fracture / Joint
27	128	98.18	Filled Fracture / Joint		61	254	103.52	Filled Fracture / Joint
5	153	98.34	Filled Fracture / Joint		64	22	103.53	Bedding / Banding / Foliation
62	19	98.37	Filled Fracture / Joint		47	69	103.55	Filled Fracture / Joint
65	21	98.54	Filled Fracture / Joint		62	246	103.57	Filled Fracture / Joint
5	153	98.55	Filled Fracture / Joint		67	18	103.62	Bedding / Banding / Foliation
5	153	98.57	Filled Fracture / Joint		13	158	103.84	Filled Fracture / Joint
64	21	98.63	Filled Fracture / Joint		63	10	104.09	Filled Fracture / Joint
41	87	98.85	Filled Fracture / Joint		64	15	104.15	Filled Fracture / Joint
48	333	98.89	Filled Fracture / Joint		5	152	104.27	Filled Fracture / Joint
27	96	98.94	Filled Fracture / Joint		8	334	104.37	Filled Fracture / Joint
68	306	98.97	Filled Fracture / Joint		55	13	104.52	Bedding / Banding / Foliation
77	204	99.02	Filled Fracture / Joint		61	14	104.69	Filled Fracture / Joint
56	313	99.09	Filled Fracture / Joint		61	20	104.84	Bedding / Banding / Foliation
22	109	99.25	Filled Fracture / Joint		61	7	104.92	Bedding / Banding / Foliation
40	102	99.31	Filled Fracture / Joint		69	109	104.96	Partially Open Joint / Fracture
59	114	99.43	Filled Fracture / Joint		69	107	104.99	Filled Fracture / Joint
59	234	99.45	Filled Fracture / Joint		80	204	105.11	Filled Fracture / Joint
40	85	99.55	Filled Fracture / Joint		63	14	105.15	Bedding / Banding / Foliation
51	273	99.56	Filled Fracture / Joint		59	15	105.52	Filled Fracture / Joint
73	204	99.61	Filled Fracture / Joint		61	18	105.87	Bedding / Banding / Foliation
36	97	99.62	Filled Fracture / Joint		53	5	105.97	Filled Fracture / Joint
23	266	99.62	Filled Fracture / Joint		52	107	106.2	Filled Fracture / Joint
68	244	99.78	Filled Fracture / Joint		70	110	106.45	Filled Fracture / Joint
38	79	99.82	Filled Fracture / Joint		5	152	106.47	Filled Fracture / Joint
72	112	99.88	Filled Fracture / Joint		55	109	106.83	Filled Fracture / Joint
53	235	99.91	Partially Open Joint / Fracture		5	151	107.1	Filled Fracture / Joint
53	173	99.95	Filled Fracture / Joint		5	151	107.15	Filled Fracture / Joint
67	246	99.98	Filled Fracture / Joint		66	18	107.17	Filled Fracture / Joint
5	153	100.06	Filled Fracture / Joint		68	222	107.65	Filled Fracture / Joint
10	281	100.09	Filled Fracture / Joint		72	14	107.72	Bedding / Banding / Foliation
11	66	100.12	Filled Fracture / Joint		88	139	107.73	Filled Fracture / Joint
19	60	100.13	Filled Fracture / Joint		60	88	107.75	Partially Open Joint / Fracture
23	287	100.17	Geological Contact		38	345	107.8	Filled Fracture / Joint
56	92	100.18	Filled Fracture / Joint		73	24	107.8	Bedding / Banding / Foliation
25	289	100.22	Geological Contact		65	75	107.85	Filled Fracture / Joint
17	162	100.53	Filled Fracture / Joint		40	302	108.07	Filled Fracture / Joint
77	99	100.57	Filled Fracture / Joint		68	7	108.24	Filled Fracture / Joint
12	342	100.62	Filled Fracture / Joint		43	292	108.59	Filled Fracture / Joint
68	99	100.72	Filled Fracture / Joint		80	24	108.63	Filled Fracture / Joint
80	89	100.75	Filled Fracture / Joint		68	24	108.96	Bedding / Banding / Foliation
7	192	101.01	Filled Fracture / Joint		31	193	109.03	Filled Fracture / Joint
68	262	101.05	Filled Fracture / Joint		73	14	109.29	Partially Open Joint / Fracture
80	69	101.14	Filled Fracture / Joint		75	20	109.52	Bedding / Banding / Foliation
5	152	101.23	Filled Fracture / Joint		56	293	109.73	Filled Fracture / Joint
5	152	101.26	Filled Fracture / Joint		46	346	109.82	Filled Fracture / Joint
64	103	101.36	Filled Fracture / Joint		78	250	109.9	Filled Fracture / Joint
72	109	101.43	Filled Fracture / Joint		14	347	110	Filled Fracture / Joint
65	85	101.47	Filled Fracture / Joint		5	151	110.32	Filled Fracture / Joint
67	104	101.5	Partially Open Joint / Fracture		71	217	110.56	Filled Fracture / Joint
60	15	101.63	Partially Open Joint / Fracture		54	293	110.57	Filled Fracture / Joint
84	101	101.66	Filled Fracture / Joint		63	218	110.63	Filled Fracture / Joint
36	99	101.71	Filled Fracture / Joint		36	12	110.67	Filled Fracture / Joint
30	36	101.74	Filled Fracture / Joint		5	151	110.71	Filled Fracture / Joint
63	295	101.84	Filled Fracture / Joint		5	151	110.78	Filled Fracture / Joint
21	202	101.96	Filled Fracture / Joint		16	24	110.79	Filled Fracture / Joint
21	64	102.05	Filled Fracture / Joint		31	60	110.86	Filled Fracture / Joint
36	225	102.05	Filled Fracture / Joint		36	49	110.99	Filled Fracture / Joint
15	199	102.16	Filled Fracture / Joint		29	26	111.04	Filled Fracture / Joint
58	266	102.36	Filled Fracture / Joint		5	151	111.05	Filled Fracture / Joint
58	20	102.53	Filled Fracture / Joint		8	348	111.06	Filled Fracture / Joint
75	188	102.58	Filled Fracture / Joint		74	221	111.21	Filled Fracture / Joint
61	12	102.82	Filled Fracture / Joint		52	4	111.27	Filled Fracture / Joint

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
20	237	111.35	Filled Fracture / Joint		35	27	116.32	Filled Fracture / Joint
79	230	111.36	Filled Fracture / Joint		58	119	116.42	Filled Fracture / Joint
62	8	111.37	Filled Fracture / Joint		44	35	116.43	Filled Fracture / Joint
19	240	111.44	Filled Fracture / Joint		51	46	116.45	Filled Fracture / Joint
52	1	111.5	Filled Fracture / Joint		37	15	116.53	Filled Fracture / Joint
44	30	111.8	Filled Fracture / Joint		29	351	116.62	Filled Fracture / Joint
58	19	111.85	Filled Fracture / Joint		44	87	116.69	Filled Fracture / Joint
5	151	111.96	Filled Fracture / Joint		56	35	116.7	Bedding / Banding / Foliation
5	151	112.03	Filled Fracture / Joint		54	37	116.8	Bedding / Banding / Foliation
56	16	112.13	Partially Open Joint / Fracture		52	31	116.88	Bedding / Banding / Foliation
35	261	112.17	Filled Fracture / Joint		51	25	116.98	Bedding / Banding / Foliation
46	148	112.19	Filled Fracture / Joint		68	309	117.08	Filled Fracture / Joint
74	254	112.22	Partially Open Joint / Fracture		5	152	117.13	Filled Fracture / Joint
39	159	112.23	Filled Fracture / Joint		68	103	117.16	Filled Fracture / Joint
54	28	112.27	Partially Open Joint / Fracture		43	90	117.3	Filled Fracture / Joint
55	28	112.31	Filled Fracture / Joint		54	153	117.39	Filled Fracture / Joint
57	26	112.57	Bedding / Banding / Foliation		48	23	117.42	Bedding / Banding / Foliation
72	101	112.63	Filled Fracture / Joint		5	152	117.46	Filled Fracture / Joint
73	166	112.73	Filled Fracture / Joint		49	25	117.56	Bedding / Banding / Foliation
68	311	112.8	Partially Open Joint / Fracture		59	22	117.63	Bedding / Banding / Foliation
76	69	112.93	Filled Fracture / Joint		88	125	117.65	Filled Fracture / Joint
65	36	113.14	Filled Fracture / Joint		58	358	117.72	Filled Fracture / Joint
62	44	113.16	Filled Fracture / Joint		56	17	117.73	Bedding / Banding / Foliation
58	7	113.23	Partially Open Joint / Fracture		39	30	117.85	Filled Fracture / Joint
58	13	113.28	Filled Fracture / Joint		5	152	117.9	Filled Fracture / Joint
5	153	113.32	Filled Fracture / Joint		5	152	117.92	Filled Fracture / Joint
60	15	113.4	Filled Fracture / Joint		5	152	117.98	Filled Fracture / Joint
44	254	113.48	Filled Fracture / Joint		53	27	118.01	Filled Fracture / Joint
39	134	113.51	Filled Fracture / Joint		33	261	118.09	Filled Fracture / Joint
61	11	113.56	Filled Fracture / Joint		44	65	118.16	Filled Fracture / Joint
60	15	113.74	Filled Fracture / Joint		80	343	118.17	Filled Fracture / Joint
40	93	113.93	Partially Open Joint / Fracture		67	356	118.21	Filled Fracture / Joint
54	30	114	Partially Open Joint / Fracture		73	238	118.31	Filled Fracture / Joint
67	3	114.12	Partially Open Joint / Fracture		56	8	118.32	Bedding / Banding / Foliation
62	14	114.15	Partially Open Joint / Fracture		74	187	118.6	Filled Fracture / Joint
5	153	114.27	Filled Fracture / Joint		57	9	118.63	Bedding / Banding / Foliation
71	213	114.29	Filled Fracture / Joint		59	14	118.74	Bedding / Banding / Foliation
58	329	114.35	Filled Fracture / Joint		50	204	118.81	Filled Fracture / Joint
64	318	114.36	Filled Fracture / Joint		38	61	118.95	Filled Fracture / Joint
77	308	114.38	Filled Fracture / Joint		54	19	119.11	Bedding / Banding / Foliation
5	153	114.43	Filled Fracture / Joint		47	38	119.23	Filled Fracture / Joint
59	14	114.47	Partially Open Joint / Fracture		69	345	119.29	Filled Fracture / Joint
36	332	114.67	Filled Fracture / Joint		52	288	119.33	Partially Open Joint / Fracture
49	348	114.73	Filled Fracture / Joint		56	353	119.36	Filled Fracture / Joint
5	153	114.77	Filled Fracture / Joint		53	10	119.37	Partially Open Joint / Fracture
58	126	114.88	Filled Fracture / Joint		49	31	119.46	Bedding / Banding / Foliation
45	16	114.92	Filled Fracture / Joint		49	26	119.56	Bedding / Banding / Foliation
54	17	114.97	Filled Fracture / Joint		54	29	119.73	Bedding / Banding / Foliation
5	153	115.07	Filled Fracture / Joint		52	20	119.79	Filled Fracture / Joint
74	92	115.07	Filled Fracture / Joint		64	339	119.87	Filled Fracture / Joint
27	124	115.21	Filled Fracture / Joint		58	12	119.89	Partially Open Joint / Fracture
23	144	115.23	Filled Fracture / Joint		52	17	119.94	Minor Open Joint / Fracture
41	35	115.23	Filled Fracture / Joint		54	6	120.06	Filled Fracture / Joint
24	133	115.26	Filled Fracture / Joint		34	125	120.12	Filled Fracture / Joint
24	152	115.36	Filled Fracture / Joint		50	23	120.23	Bedding / Banding / Foliation
50	244	115.38	Filled Fracture / Joint		50	25	120.34	Bedding / Banding / Foliation
23	324	115.39	Filled Fracture / Joint		21	267	120.53	Filled Fracture / Joint
40	46	115.5	Bedding / Banding / Foliation		76	162	120.59	Filled Fracture / Joint
82	66	115.5	Filled Fracture / Joint		79	28	120.65	Filled Fracture / Joint
36	32	115.61	Bedding / Banding / Foliation		23	182	120.78	Filled Fracture / Joint
71	107	115.67	Filled Fracture / Joint		42	129	120.95	Filled Fracture / Joint
43	33	115.71	Bedding / Banding / Foliation		43	28	120.95	Bedding / Banding / Foliation
53	81	115.74	Filled Fracture / Joint		51	30	121.11	Bedding / Banding / Foliation
47	32	116.02	Bedding / Banding / Foliation		78	20	121.15	Filled Fracture / Joint
45	30	116.06	Bedding / Banding / Foliation		50	24	121.18	Filled Fracture / Joint
48	39	116.12	Bedding / Banding / Foliation		73	36	121.19	Filled Fracture / Joint
44	105	116.19	Filled Fracture / Joint		50	18	121.23	Bedding / Banding / Foliation
44	31	116.22	Bedding / Banding / Foliation		74	130	121.27	Filled Fracture / Joint
47	33	116.23	Partially Open Joint / Fracture		71	118	121.28	Filled Fracture / Joint

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
5	153	121.45	Filled Fracture / Joint		48	29	126.98	Bedding / Banding / Foliation
59	182	121.56	Filled Fracture / Joint		50	10	127.05	Filled Fracture / Joint
55	20	121.6	Bedding / Banding / Foliation		50	10	127.09	Filled Fracture / Joint
80	160	121.67	Filled Fracture / Joint		48	107	127.1	Filled Fracture / Joint
5	152	121.74	Filled Fracture / Joint		50	18	127.12	Filled Fracture / Joint
44	191	121.88	Filled Fracture / Joint		50	23	127.19	Filled Fracture / Joint
41	38	121.88	Filled Fracture / Joint		85	143	127.24	Filled Fracture / Joint
5	152	122.02	Filled Fracture / Joint		48	255	127.27	Filled Fracture / Joint
35	109	122.08	Filled Fracture / Joint		45	42	127.29	Bedding / Banding / Foliation
5	152	122.14	Filled Fracture / Joint		49	43	127.44	Bedding / Banding / Foliation
71	98	122.15	Filled Fracture / Joint		58	36	127.54	Bedding / Banding / Foliation
82	104	122.15	Filled Fracture / Joint		57	24	127.59	Filled Fracture / Joint
63	290	122.36	Filled Fracture / Joint		59	24	127.64	Filled Fracture / Joint
53	23	122.42	Bedding / Banding / Foliation		57	26	127.66	Bedding / Banding / Foliation
84	171	122.45	Filled Fracture / Joint		56	15	127.73	Bedding / Banding / Foliation
22	154	122.55	Filled Fracture / Joint		69	358	127.81	Filled Fracture / Joint
46	29	122.75	Filled Fracture / Joint		38	144	127.87	Filled Fracture / Joint
66	36	122.88	Filled Fracture / Joint		55	41	127.93	Filled Fracture / Joint
43	93	122.98	Filled Fracture / Joint		46	40	127.96	Filled Fracture / Joint
50	33	123.04	Bedding / Banding / Foliation		47	47	128.12	Bedding / Banding / Foliation
50	38	123.1	Bedding / Banding / Foliation		48	36	128.23	Filled Fracture / Joint
41	44	123.14	Bedding / Banding / Foliation		51	23	128.31	Bedding / Banding / Foliation
51	24	123.2	Filled Fracture / Joint		75	141	128.37	Filled Fracture / Joint
76	135	123.24	Filled Fracture / Joint		40	44	128.38	Filled Fracture / Joint
30	163	123.28	Filled Fracture / Joint		50	34	128.43	Bedding / Banding / Foliation
76	140	123.3	Filled Fracture / Joint		49	29	128.49	Bedding / Banding / Foliation
20	323	123.33	Filled Fracture / Joint		45	32	128.52	Partially Open Joint / Fracture
31	155	123.41	Filled Fracture / Joint		49	19	128.61	Bedding / Banding / Foliation
34	146	123.49	Filled Fracture / Joint		49	100	128.68	Filled Fracture / Joint
5	152	123.56	Filled Fracture / Joint		50	26	128.72	Filled Fracture / Joint
62	172	123.57	Filled Fracture / Joint		4	151	128.82	Filled Fracture / Joint
30	277	123.63	Filled Fracture / Joint		4	151	128.84	Filled Fracture / Joint
33	159	123.75	Filled Fracture / Joint		59	21	128.96	Bedding / Banding / Foliation
62	163	123.94	Filled Fracture / Joint		57	19	129.08	Partially Open Joint / Fracture
67	182	123.96	Filled Fracture / Joint		44	92	129.24	Filled Fracture / Joint
5	152	124.32	Filled Fracture / Joint		37	94	129.26	Filled Fracture / Joint
5	152	124.35	Filled Fracture / Joint		50	124	129.28	Filled Fracture / Joint
56	39	124.44	Bedding / Banding / Foliation		46	92	129.32	Filled Fracture / Joint
68	146	124.68	Filled Fracture / Joint		51	37	129.33	Partially Open Joint / Fracture
4	152	124.69	Filled Fracture / Joint		46	96	129.4	Filled Fracture / Joint
41	78	124.8	Filled Fracture / Joint		78	194	129.41	Filled Fracture / Joint
41	116	124.92	Filled Fracture / Joint		46	94	129.42	Filled Fracture / Joint
44	114	124.98	Filled Fracture / Joint		48	85	129.53	Filled Fracture / Joint
64	110	125.09	Filled Fracture / Joint		8	226	129.66	Filled Fracture / Joint
63	109	125.11	Filled Fracture / Joint		5	353	129.67	Filled Fracture / Joint
45	7	125.12	Filled Fracture / Joint		53	18	129.69	Filled Fracture / Joint
67	152	125.19	Filled Fracture / Joint		33	218	129.72	Filled Fracture / Joint
4	152	125.24	Filled Fracture / Joint		81	130	129.78	Filled Fracture / Joint
27	132	125.34	Filled Fracture / Joint		45	38	129.85	Filled Fracture / Joint
26	117	125.39	Filled Fracture / Joint		4	151	129.91	Filled Fracture / Joint
28	102	125.5	Filled Fracture / Joint		52	29	129.92	Filled Fracture / Joint
30	163	125.61	Filled Fracture / Joint		29	125	130.02	Bedding / Banding / Foliation
49	155	125.71	Filled Fracture / Joint		31	111	130.07	Bedding / Banding / Foliation
41	1	125.72	Bedding / Banding / Foliation		51	32	130.16	Bedding / Banding / Foliation
57	49	125.73	Filled Fracture / Joint		58	30	130.32	Filled Fracture / Joint
55	6	125.79	Filled Fracture / Joint		53	25	130.36	Filled Fracture / Joint
4	152	125.94	Filled Fracture / Joint		53	33	130.4	Bedding / Banding / Foliation
44	30	126.1	Filled Fracture / Joint		59	49	130.44	Partially Open Joint / Fracture
50	26	126.14	Filled Fracture / Joint		73	25	130.49	Filled Fracture / Joint
57	11	126.21	Bedding / Banding / Foliation		49	38	130.5	Bedding / Banding / Foliation
55	15	126.25	Filled Fracture / Joint		48	30	130.58	Partially Open Joint / Fracture
55	15	126.32	Filled Fracture / Joint		4	150	130.62	Filled Fracture / Joint
84	183	126.43	Filled Fracture / Joint		44	90	130.68	Filled Fracture / Joint
47	45	126.49	Bedding / Banding / Foliation		4	150	130.86	Filled Fracture / Joint
36	150	126.62	Filled Fracture / Joint		53	38	130.86	Filled Fracture / Joint
20	278	126.65	Filled Fracture / Joint		49	37	130.93	Filled Fracture / Joint
33	252	126.67	Filled Fracture / Joint		69	117	130.97	Filled Fracture / Joint
45	57	126.81	Filled Fracture / Joint		50	32	131.12	Filled Fracture / Joint
50	25	126.9	Filled Fracture / Joint		53	30	131.15	Partially Open Joint / Fracture

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
47	35	131.23	Partially Open Joint / Fracture		47	250	133.81	Filled Fracture / Joint
42	84	131.27	Filled Fracture / Joint		42	111	133.82	Filled Fracture / Joint
49	294	131.32	Filled Fracture / Joint		37	26	133.84	Partially Open Joint / Fracture
54	164	131.33	Filled Fracture / Joint		53	26	133.85	Partially Open Joint / Fracture
61	107	131.43	Filled Fracture / Joint		38	55	133.97	Filled Fracture / Joint
47	136	131.46	Filled Fracture / Joint		17	261	134	Filled Fracture / Joint
18	112	131.56	Filled Fracture / Joint		38	56	134	Filled Fracture / Joint
81	126	131.66	Filled Fracture / Joint		60	13	134.13	Filled Fracture / Joint
46	152	131.68	Partially Open Joint / Fracture		55	18	134.17	Filled Fracture / Joint
73	105	131.68	Filled Fracture / Joint		52	13	134.21	Filled Fracture / Joint
43	71	131.7	Partially Open Joint / Fracture		74	30	134.29	Bedding / Banding / Foliation
50	34	131.72	Filled Fracture / Joint		41	63	134.29	Bedding / Banding / Foliation
54	28	131.81	Filled Fracture / Joint		47	60	134.36	Filled Fracture / Joint
47	26	131.83	Filled Fracture / Joint		41	62	134.43	Filled Fracture / Joint
41	39	131.84	Filled Fracture / Joint		57	31	134.49	Filled Fracture / Joint
63	14	131.87	Partially Open Joint / Fracture		59	31	134.54	Bedding / Banding / Foliation
47	99	131.88	Filled Fracture / Joint		51	32	134.57	Filled Fracture / Joint
48	33	131.89	Filled Fracture / Joint		40	96	134.6	Filled Fracture / Joint
70	179	131.94	Filled Fracture / Joint		37	46	134.65	Filled Fracture / Joint
49	155	131.97	Filled Fracture / Joint		38	34	134.72	Major Open Joint / Fracture
51	16	131.98	Minor Open Joint / Fracture		48	20	134.74	Minor Open Joint / Fracture
47	34	132.05	Filled Fracture / Joint		12	91	134.84	Partially Open Joint / Fracture
53	26	132.06	Minor Open Joint / Fracture		57	161	134.99	Filled Fracture / Joint
64	224	132.13	Filled Fracture / Joint		48	107	135.01	Filled Fracture / Joint
54	37	132.22	Filled Fracture / Joint		17	200	135.12	Filled Fracture / Joint
57	28	132.29	Partially Open Joint / Fracture		69	232	135.13	Filled Fracture / Joint
71	255	132.34	Filled Fracture / Joint		19	214	135.15	Partially Open Joint / Fracture
67	152	132.36	Filled Fracture / Joint		48	95	135.24	Partially Open Joint / Fracture
58	79	132.41	Filled Fracture / Joint		57	18	135.29	Filled Fracture / Joint
58	142	132.47	Filled Fracture / Joint		41	19	135.39	Partially Open Joint / Fracture
58	22	132.5	Minor Open Joint / Fracture		51	43	135.42	Geological Contact
36	76	132.5	Filled Fracture / Joint		42	156	135.42	Filled Fracture / Joint
57	102	132.52	Filled Fracture / Joint		46	208	135.65	Partially Open Joint / Fracture
45	21	132.55	Filled Fracture / Joint		76	133	135.7	Partially Open Joint / Fracture
59	53	132.56	Filled Fracture / Joint		30	196	135.75	Filled Fracture / Joint
75	194	132.59	Filled Fracture / Joint		31	97	135.93	Filled Fracture / Joint
54	104	132.59	Filled Fracture / Joint		85	103	136.1	Filled Fracture / Joint
52	44	132.61	Partially Open Joint / Fracture		64	285	136.12	Filled Fracture / Joint
29	46	132.62	Filled Fracture / Joint		64	17	136.15	Filled Fracture / Joint
38	125	132.66	Partially Open Joint / Fracture		35	285	136.26	Filled Fracture / Joint
36	24	132.66	Partially Open Joint / Fracture		44	352	136.32	Filled Fracture / Joint
65	13	132.72	Partially Open Joint / Fracture		32	8	136.37	Partially Open Joint / Fracture
58	163	132.78	Partially Open Joint / Fracture		80	274	136.38	Filled Fracture / Joint
48	16	132.82	Major Open Joint / Fracture		31	2	136.39	Filled Fracture / Joint
66	101	132.93	Partially Open Joint / Fracture		35	3	136.39	Filled Fracture / Joint
51	50	132.95	Partially Open Joint / Fracture		43	12	136.4	Filled Fracture / Joint
34	108	133	Filled Fracture / Joint		74	119	136.43	Filled Fracture / Joint
36	46	133.02	Filled Fracture / Joint		32	352	136.44	Partially Open Joint / Fracture
64	7	133.16	Partially Open Joint / Fracture		42	33	136.5	Filled Fracture / Joint
81	204	133.24	Filled Fracture / Joint		53	212	136.5	Filled Fracture / Joint
45	95	133.24	Filled Fracture / Joint		60	194	136.53	Filled Fracture / Joint
49	34	133.26	Filled Fracture / Joint		66	194	136.57	Filled Fracture / Joint
49	33	133.31	Filled Fracture / Joint		66	194	136.58	Filled Fracture / Joint
49	33	133.32	Filled Fracture / Joint		66	194	136.6	Filled Fracture / Joint
63	234	133.34	Filled Fracture / Joint		73	200	136.65	Filled Fracture / Joint
49	34	133.34	Filled Fracture / Joint		74	195	136.67	Filled Fracture / Joint
46	36	133.37	Filled Fracture / Joint		63	199	136.75	Filled Fracture / Joint
49	28	133.46	Filled Fracture / Joint		59	199	136.76	Partially Open Joint / Fracture
49	29	133.48	Filled Fracture / Joint		62	182	136.9	Filled Fracture / Joint
47	18	133.53	Partially Open Joint / Fracture		61	186	136.94	Partially Open Joint / Fracture
40	71	133.55	Filled Fracture / Joint		63	180	136.97	Filled Fracture / Joint
67	9	133.58	Filled Fracture / Joint		58	214	137.1	Filled Fracture / Joint
46	35	133.61	Filled Fracture / Joint		76	104	137.13	Filled Fracture / Joint
45	28	133.64	Partially Open Joint / Fracture		18	326	137.15	Filled Fracture / Joint
31	97	133.65	Filled Fracture / Joint		24	241	137.15	Filled Fracture / Joint
68	172	133.67	Filled Fracture / Joint		80	193	137.17	Filled Fracture / Joint
32	181	133.73	Filled Fracture / Joint		53	238	137.25	Partially Open Joint / Fracture
25	257	133.76	Filled Fracture / Joint		48	272	137.27	Partially Open Joint / Fracture
39	151	133.78	Filled Fracture / Joint		64	191	137.27	Filled Fracture / Joint

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
53	185	137.39	Filled Fracture / Joint		58	197	141.34	Filled Fracture / Joint
61	185	137.44	Filled Fracture / Joint		57	198	141.36	Filled Fracture / Joint
82	209	137.44	Filled Fracture / Joint		56	188	141.41	Filled Fracture / Joint
64	186	137.48	Filled Fracture / Joint		57	203	141.49	Filled Fracture / Joint
81	197	137.51	Filled Fracture / Joint		51	190	141.55	Bedding / Banding / Foliation
60	9	137.51	Filled Fracture / Joint		51	189	141.6	Bedding / Banding / Foliation
63	184	137.53	Filled Fracture / Joint		51	195	141.64	Bedding / Banding / Foliation
60	175	137.57	Filled Fracture / Joint		49	190	141.69	Filled Fracture / Joint
59	179	137.6	Filled Fracture / Joint		58	187	141.72	Filled Fracture / Joint
60	181	137.63	Bedding / Banding / Foliation		82	131	141.94	Partially Open Joint / Fracture
54	177	137.7	Filled Fracture / Joint		42	112	141.96	Filled Fracture / Joint
88	139	137.72	Filled Fracture / Joint		80	133	142.15	Partially Open Joint / Fracture
4	149	138.14	Filled Fracture / Joint		82	141	142.23	Filled Fracture / Joint
57	184	138.16	Filled Fracture / Joint		69	278	142.24	Filled Fracture / Joint
54	187	138.19	Filled Fracture / Joint		72	139	142.41	Partially Open Joint / Fracture
60	178	138.24	Bedding / Banding / Foliation		74	133	142.47	Filled Fracture / Joint
61	180	138.27	Bedding / Banding / Foliation		49	120	142.72	Filled Fracture / Joint
61	177	138.3	Bedding / Banding / Foliation		80	147	142.78	Partially Open Joint / Fracture
56	183	138.46	Filled Fracture / Joint		44	59	142.85	Filled Fracture / Joint
87	139	138.48	Filled Fracture / Joint		82	143	142.89	Filled Fracture / Joint
61	182	138.5	Filled Fracture / Joint		52	130	143.02	Filled Fracture / Joint
61	179	138.52	Filled Fracture / Joint		77	147	143.15	Filled Fracture / Joint
85	129	138.57	Filled Fracture / Joint		57	111	143.2	Filled Fracture / Joint
71	182	138.6	Filled Fracture / Joint		59	111	143.21	Filled Fracture / Joint
59	168	138.61	Filled Fracture / Joint		63	118	143.25	Filled Fracture / Joint
68	157	138.66	Filled Fracture / Joint		52	122	143.28	Filled Fracture / Joint
79	134	138.77	Filled Fracture / Joint		49	102	143.3	Filled Fracture / Joint
54	182	138.8	Filled Fracture / Joint		61	325	143.49	Filled Fracture / Joint
61	25	138.92	Partially Open Joint / Fracture		78	134	143.56	Filled Fracture / Joint
20	15	138.98	Filled Fracture / Joint		79	142	143.59	Partially Open Joint / Fracture
73	145	139.01	Filled Fracture / Joint		83	144	143.62	Filled Fracture / Joint
74	141	139.1	Filled Fracture / Joint		74	180	143.64	Filled Fracture / Joint
65	196	139.22	Filled Fracture / Joint		73	166	143.76	Partially Open Joint / Fracture
51	174	139.24	Bedding / Banding / Foliation		81	144	143.83	Filled Fracture / Joint
56	171	139.27	Filled Fracture / Joint		42	286	143.85	Filled Fracture / Joint
46	173	139.33	Filled Fracture / Joint		78	143	143.94	Partially Open Joint / Fracture
42	257	139.37	Filled Fracture / Joint		68	188	143.96	Filled Fracture / Joint
37	171	139.41	Bedding / Banding / Foliation		27	257	143.96	Filled Fracture / Joint
15	343	139.46	Filled Fracture / Joint		54	12	144.09	Filled Fracture / Joint
43	153	139.48	Filled Fracture / Joint		43	203	144.18	Filled Fracture / Joint
28	259	139.54	Filled Fracture / Joint		58	23	144.19	Partially Open Joint / Fracture
46	167	139.57	Filled Fracture / Joint		48	180	144.22	Filled Fracture / Joint
42	161	139.61	Filled Fracture / Joint		82	144	144.41	Partially Open Joint / Fracture
25	322	139.66	Filled Fracture / Joint		27	241	144.49	Filled Fracture / Joint
48	153	139.67	Bedding / Banding / Foliation		23	229	144.5	Filled Fracture / Joint
34	320	139.75	Filled Fracture / Joint		69	286	144.63	Partially Open Joint / Fracture
67	181	139.79	Partially Open Joint / Fracture		83	143	144.79	Filled Fracture / Joint
41	176	139.84	Bedding / Banding / Foliation		83	138	144.84	Partially Open Joint / Fracture
34	180	139.91	Bedding / Banding / Foliation		54	10	145	Filled Fracture / Joint
50	199	139.96	Filled Fracture / Joint		59	20	145.03	Partially Open Joint / Fracture
64	186	140	Filled Fracture / Joint		55	20	145.04	Filled Fracture / Joint
51	197	140.01	Filled Fracture / Joint		61	33	145.13	Filled Fracture / Joint
46	191	140.05	Bedding / Banding / Foliation		36	252	145.14	Filled Fracture / Joint
30	197	140.26	Filled Fracture / Joint		59	33	145.18	Filled Fracture / Joint
63	23	140.29	Filled Fracture / Joint		62	29	145.71	Filled Fracture / Joint
36	171	140.34	Filled Fracture / Joint		74	178	145.71	Filled Fracture / Joint
19	295	140.41	Filled Fracture / Joint		78	193	146.07	Filled Fracture / Joint
22	254	140.44	Filled Fracture / Joint					
56	180	140.6	Filled Fracture / Joint					
41	165	140.62	Filled Fracture / Joint					
83	199	140.9	Filled Fracture / Joint					
76	194	140.94	Filled Fracture / Joint					
37	252	141.03	Filled Fracture / Joint					
39	265	141.11	Filled Fracture / Joint					
56	171	141.17	Filled Fracture / Joint					
50	181	141.19	Filled Fracture / Joint					
56	192	141.22	Filled Fracture / Joint					
69	211	141.26	Filled Fracture / Joint					
59	184	141.3	Filled Fracture / Joint					

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
36	357	23.26	Filled Fracture / Joint		30	173	31.13	Filled Fracture / Joint
31	182	23.43	Geological Contact		12	355	31.24	Filled Fracture / Joint
28	225	23.43	Filled Fracture / Joint		4	247	31.27	Filled Fracture / Joint
21	152	23.6	Minor Open Joint / Fracture		61	184	31.34	Filled Fracture / Joint
43	183	23.75	Minor Open Joint / Fracture		3	212	31.58	Filled Fracture / Joint
58	191	23.81	Filled Fracture / Joint		30	146	31.58	Bedding / Banding / Foliation
52	252	24.11	Filled Fracture / Joint		30	145	31.61	Bedding / Banding / Foliation
49	179	24.18	Filled Fracture / Joint		31	147	31.67	Bedding / Banding / Foliation
48	173	24.21	Filled Fracture / Joint		54	232	31.72	Filled Fracture / Joint
63	197	24.32	Filled Fracture / Joint		33	156	31.74	Bedding / Banding / Foliation
56	183	24.32	Filled Fracture / Joint		33	155	31.78	Bedding / Banding / Foliation
35	220	24.42	Filled Fracture / Joint		33	155	31.8	Bedding / Banding / Foliation
26	211	24.46	Filled Fracture / Joint		36	173	31.85	Filled Fracture / Joint
18	247	24.5	Filled Fracture / Joint		36	217	32	Filled Fracture / Joint
87	158	24.55	Filled Fracture / Joint		39	180	32.13	Filled Fracture / Joint
37	229	24.56	Filled Fracture / Joint		39	129	32.26	Filled Fracture / Joint
49	244	24.58	Filled Fracture / Joint		25	142	32.43	Filled Fracture / Joint
49	241	24.63	Filled Fracture / Joint		37	170	32.68	Filled Fracture / Joint
25	232	24.64	Filled Fracture / Joint		52	175	32.79	Filled Fracture / Joint
31	224	24.69	Filled Fracture / Joint		42	168	32.84	Bedding / Banding / Foliation
7	328	24.73	Filled Fracture / Joint		41	167	32.88	Bedding / Banding / Foliation
10	149	24.75	Filled Fracture / Joint		42	168	32.91	Bedding / Banding / Foliation
14	128	24.93	Filled Fracture / Joint		31	179	32.95	Filled Fracture / Joint
48	213	25.05	Major Open Joint / Fracture		42	168	32.96	Bedding / Banding / Foliation
38	223	25.27	Filled Fracture / Joint		28	192	33.09	Filled Fracture / Joint
89	204	25.28	Filled Fracture / Joint		29	160	33.33	Filled Fracture / Joint
41	183	25.3	Major Open Joint / Fracture		26	287	33.52	Filled Fracture / Joint
22	246	25.36	Filled Fracture / Joint		25	197	33.64	Geological Contact
62	173	25.38	Filled Fracture / Joint		50	178	33.94	Bedding / Banding / Foliation
56	171	25.41	Filled Fracture / Joint		43	176	34.05	Bedding / Banding / Foliation
52	171	25.42	Filled Fracture / Joint		43	174	34.15	Bedding / Banding / Foliation
25	244	25.49	Major Open Joint / Fracture		50	175	34.22	Filled Fracture / Joint
68	211	25.81	Filled Fracture / Joint		54	179	34.27	Filled Fracture / Joint
6	256	25.91	Filled Fracture / Joint		43	182	34.31	Bedding / Banding / Foliation
75	215	25.93	Filled Fracture / Joint		42	177	34.35	Filled Fracture / Joint
72	219	25.98	Filled Fracture / Joint		48	237	34.51	Filled Fracture / Joint
22	199	26.53	Filled Fracture / Joint		13	193	34.58	Geological Contact
19	167	26.54	Filled Fracture / Joint		33	203	34.65	Filled Fracture / Joint
34	88	26.73	Bedding / Banding / Foliation		65	182	34.78	Filled Fracture / Joint
34	109	26.84	Bedding / Banding / Foliation		87	186	34.82	Filled Fracture / Joint
72	231	27.14	Filled Fracture / Joint		41	178	34.84	Bedding / Banding / Foliation
66	211	27.19	Filled Fracture / Joint		38	176	34.89	Bedding / Banding / Foliation
46	203	28.12	Bedding / Banding / Foliation		54	277	35.01	Filled Fracture / Joint
46	201	28.17	Bedding / Banding / Foliation		17	279	35.08	Filled Fracture / Joint
24	16	28.33	Filled Fracture / Joint		6	1	35.12	Filled Fracture / Joint
13	210	28.35	Filled Fracture / Joint		37	192	35.13	Filled Fracture / Joint
12	171	28.65	Filled Fracture / Joint		29	234	35.23	Geological Contact
6	218	28.65	Filled Fracture / Joint		35	200	35.23	Filled Fracture / Joint
19	180	28.72	Filled Fracture / Joint		45	168	35.36	Bedding / Banding / Foliation
13	157	28.82	Filled Fracture / Joint		63	195	35.46	Filled Fracture / Joint
55	172	28.89	Filled Fracture / Joint		51	196	35.46	Filled Fracture / Joint
61	177	28.95	Filled Fracture / Joint		42	164	35.66	Bedding / Banding / Foliation
52	169	29.02	Bedding / Banding / Foliation		42	177	35.75	Filled Fracture / Joint
51	166	29.04	Filled Fracture / Joint		25	249	35.9	Filled Fracture / Joint
52	177	29.06	Partially Open Joint / Fracture		38	169	35.96	Bedding / Banding / Foliation
53	169	29.09	Filled Fracture / Joint		38	186	36.02	Bedding / Banding / Foliation
56	176	29.11	Filled Fracture / Joint		46	212	36.04	Filled Fracture / Joint
48	185	29.17	Filled Fracture / Joint		39	182	36.12	Bedding / Banding / Foliation
44	184	29.21	Bedding / Banding / Foliation		39	179	36.2	Bedding / Banding / Foliation
23	122	29.33	Filled Fracture / Joint		42	170	36.27	Filled Fracture / Joint
71	188	29.41	Filled Fracture / Joint		39	171	36.36	Bedding / Banding / Foliation
13	179	29.49	Filled Fracture / Joint		41	176	36.43	Bedding / Banding / Foliation
24	145	30.03	Filled Fracture / Joint		48	167	36.69	Filled Fracture / Joint
5	355	30.19	Filled Fracture / Joint		43	179	36.87	Filled Fracture / Joint
25	135	30.34	Bedding / Banding / Foliation		35	172	37.19	Bedding / Banding / Foliation
28	140	30.47	Bedding / Banding / Foliation		32	157	37.23	Bedding / Banding / Foliation
40	158	30.77	Bedding / Banding / Foliation		35	223	37.45	Filled Fracture / Joint
44	274	30.95	Filled Fracture / Joint		38	185	37.55	Filled Fracture / Joint
17	221	31.06	Filled Fracture / Joint		39	193	37.66	Bedding / Banding / Foliation

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
40	222	37.73	Filled Fracture / Joint		39	171	45.22	Filled Fracture / Joint
28	193	37.78	Filled Fracture / Joint		23	159	45.31	Filled Fracture / Joint
27	150	37.88	Filled Fracture / Joint		89	178	45.32	Filled Fracture / Joint
47	176	38.09	Filled Fracture / Joint		27	134	45.35	Bedding / Banding / Foliation
32	158	38.17	Bedding / Banding / Foliation		21	140	45.44	Bedding / Banding / Foliation
34	180	38.24	Filled Fracture / Joint		44	176	45.73	Filled Fracture / Joint
54	167	38.27	Filled Fracture / Joint		54	199	45.81	Filled Fracture / Joint
40	169	38.37	Bedding / Banding / Foliation		28	171	46.02	Filled Fracture / Joint
6	35	38.97	Filled Fracture / Joint		29	150	46.06	Bedding / Banding / Foliation
29	189	39.05	Partially Open Joint / Fracture		28	147	46.12	Bedding / Banding / Foliation
19	240	39.05	Partially Open Joint / Fracture		30	280	46.3	Filled Fracture / Joint
13	251	39.11	Partially Open Joint / Fracture		19	180	46.33	Filled Fracture / Joint
7	238	39.15	Filled Fracture / Joint		45	193	46.4	Filled Fracture / Joint
58	172	39.47	Filled Fracture / Joint		24	225	46.45	Bedding / Banding / Foliation
56	166	39.57	Filled Fracture / Joint		52	167	46.62	Filled Fracture / Joint
17	125	39.59	Partially Open Joint / Fracture		41	183	46.68	Filled Fracture / Joint
15	93	39.74	Filled Fracture / Joint		42	175	46.86	Filled Fracture / Joint
84	28	39.8	Filled Fracture / Joint		17	25	46.89	Filled Fracture / Joint
42	152	39.82	Bedding / Banding / Foliation		39	183	46.96	Filled Fracture / Joint
44	168	40.02	Bedding / Banding / Foliation		37	179	47.07	Filled Fracture / Joint
32	162	40.07	Filled Fracture / Joint		27	254	47.31	Filled Fracture / Joint
45	181	40.22	Bedding / Banding / Foliation		40	186	47.41	Filled Fracture / Joint
45	183	40.25	Bedding / Banding / Foliation		42	185	47.48	Bedding / Banding / Foliation
44	178	40.26	Filled Fracture / Joint		38	174	47.54	Bedding / Banding / Foliation
51	163	40.36	Filled Fracture / Joint		38	181	47.67	Bedding / Banding / Foliation
34	185	40.44	Filled Fracture / Joint		35	269	47.91	Filled Fracture / Joint
34	180	40.45	Filled Fracture / Joint		21	205	48.12	Geological Contact
19	180	40.67	Filled Fracture / Joint		49	261	48.21	Filled Fracture / Joint
45	173	40.83	Bedding / Banding / Foliation		35	176	48.23	Filled Fracture / Joint
45	171	40.86	Bedding / Banding / Foliation		37	290	48.24	Filled Fracture / Joint
41	152	41.21	Filled Fracture / Joint		41	186	48.26	Filled Fracture / Joint
40	151	41.23	Partially Open Joint / Fracture		33	223	48.28	Partially Open Joint / Fracture
18	119	41.31	Filled Fracture / Joint		34	236	48.48	Partially Open Joint / Fracture
16	116	41.36	Bedding / Banding / Foliation		25	224	48.62	Geological Contact
17	140	41.49	Filled Fracture / Joint		35	175	48.79	Filled Fracture / Joint
37	144	41.54	Filled Fracture / Joint		22	252	48.8	Filled Fracture / Joint
20	134	41.62	Filled Fracture / Joint		23	87	48.96	Filled Fracture / Joint
26	122	41.62	Filled Fracture / Joint		37	278	49.04	Filled Fracture / Joint
28	154	41.66	Filled Fracture / Joint		24	110	49.13	Partially Open Joint / Fracture
11	142	41.76	Filled Fracture / Joint		19	143	49.15	Partially Open Joint / Fracture
50	163	41.92	Filled Fracture / Joint		40	181	49.33	Geological Contact
47	115	42.03	Filled Fracture / Joint		40	183	49.39	Filled Fracture / Joint
36	141	42.23	Bedding / Banding / Foliation		46	262	49.87	Filled Fracture / Joint
40	154	42.33	Bedding / Banding / Foliation		87	252	49.99	Filled Fracture / Joint
30	167	42.39	Bedding / Banding / Foliation		41	229	50.07	Geological Contact
30	169	42.49	Bedding / Banding / Foliation		22	143	50.21	Filled Fracture / Joint
13	211	42.79	Filled Fracture / Joint		35	191	50.28	Filled Fracture / Joint
43	155	42.85	Filled Fracture / Joint		35	186	50.36	Bedding / Banding / Foliation
39	177	43.08	Filled Fracture / Joint		35	190	50.52	Bedding / Banding / Foliation
40	180	43.38	Bedding / Banding / Foliation		35	175	50.56	Bedding / Banding / Foliation
40	176	43.52	Bedding / Banding / Foliation		21	197	50.61	Filled Fracture / Joint
34	163	43.62	Filled Fracture / Joint		31	187	50.63	Bedding / Banding / Foliation
39	166	43.67	Bedding / Banding / Foliation		19	166	50.7	Geological Contact
40	176	43.73	Bedding / Banding / Foliation		33	266	51.02	Filled Fracture / Joint
52	181	43.76	Filled Fracture / Joint		20	170	51.15	Filled Fracture / Joint
25	256	43.9	Filled Fracture / Joint		21	165	51.17	Filled Fracture / Joint
30	164	43.99	Filled Fracture / Joint		35	217	51.21	Bedding / Banding / Foliation
33	176	44.14	Bedding / Banding / Foliation		28	208	51.24	Bedding / Banding / Foliation
33	175	44.18	Bedding / Banding / Foliation		32	192	51.32	Bedding / Banding / Foliation
47	183	44.23	Filled Fracture / Joint		45	261	51.43	Filled Fracture / Joint
41	184	44.24	Filled Fracture / Joint		47	260	51.52	Partially Open Joint / Fracture
41	162	44.34	Bedding / Banding / Foliation		36	244	51.54	Partially Open Joint / Fracture
41	160	44.48	Bedding / Banding / Foliation		21	146	51.74	Bedding / Banding / Foliation
22	172	44.57	Partially Open Joint / Fracture		21	141	51.77	Bedding / Banding / Foliation
39	153	44.61	Bedding / Banding / Foliation		12	111	51.93	Bedding / Banding / Foliation
43	181	44.73	Bedding / Banding / Foliation		48	177	52.18	Bedding / Banding / Foliation
23	258	45.05	Filled Fracture / Joint		48	172	52.22	Filled Fracture / Joint
21	245	45.06	Partially Open Joint / Fracture		50	169	52.38	Geological Contact
19	180	45.08	Filled Fracture / Joint		21	152	52.54	Partially Open Joint / Fracture

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
40	173	52.82	Bedding / Banding / Foliation		46	183	59.08	Filled Fracture / Joint
45	162	52.96	Bedding / Banding / Foliation		38	180	59.18	Filled Fracture / Joint
71	74	53.01	Filled Fracture / Joint		41	255	59.18	Filled Fracture / Joint
38	156	53.02	Bedding / Banding / Foliation		38	176	59.21	Filled Fracture / Joint
11	226	53.13	Filled Fracture / Joint		38	180	59.26	Filled Fracture / Joint
31	136	53.19	Minor Open Joint / Fracture		38	183	59.29	Filled Fracture / Joint
25	159	53.21	Major Open Joint / Fracture		34	168	59.46	Bedding / Banding / Foliation
43	206	53.23	Major Open Joint / Fracture		35	175	59.56	Bedding / Banding / Foliation
34	156	53.3	Partially Open Joint / Fracture		43	189	59.64	Filled Fracture / Joint
33	151	53.32	Partially Open Joint / Fracture		32	146	59.73	Filled Fracture / Joint
38	177	53.53	Partially Open Joint / Fracture		57	177	59.81	Filled Fracture / Joint
35	180	53.63	Filled Fracture / Joint		33	163	59.89	Filled Fracture / Joint
34	176	53.88	Partially Open Joint / Fracture		35	167	59.98	Filled Fracture / Joint
40	173	53.89	Partially Open Joint / Fracture		48	169	60.13	Filled Fracture / Joint
19	165	54.04	Filled Fracture / Joint		35	168	60.24	Filled Fracture / Joint
46	177	54.25	Filled Fracture / Joint		35	166	60.27	Filled Fracture / Joint
47	178	54.26	Filled Fracture / Joint		35	163	60.34	Filled Fracture / Joint
34	158	54.48	Bedding / Banding / Foliation		34	160	60.37	Filled Fracture / Joint
27	159	54.5	Bedding / Banding / Foliation		35	168	60.46	Filled Fracture / Joint
28	164	54.61	Bedding / Banding / Foliation		50	175	60.48	Filled Fracture / Joint
27	142	54.74	Bedding / Banding / Foliation		30	321	60.52	Filled Fracture / Joint
50	187	54.86	Filled Fracture / Joint		41	157	60.6	Filled Fracture / Joint
46	115	54.93	Filled Fracture / Joint		43	200	60.64	Filled Fracture / Joint
39	173	54.98	Filled Fracture / Joint		38	185	60.76	Filled Fracture / Joint
30	175	55.12	Filled Fracture / Joint		43	181	60.88	Filled Fracture / Joint
2	208	55.33	Filled Fracture / Joint		44	186	61	Filled Fracture / Joint
51	171	55.42	Filled Fracture / Joint		44	188	61.08	Filled Fracture / Joint
57	168	55.44	Filled Fracture / Joint		32	116	61.1	Filled Fracture / Joint
35	179	55.46	Filled Fracture / Joint		16	36	61.41	Filled Fracture / Joint
32	187	55.8	Filled Fracture / Joint		52	182	61.47	Filled Fracture / Joint
13	121	56.03	Filled Fracture / Joint		27	182	61.65	Bedding / Banding / Foliation
20	200	56.03	Filled Fracture / Joint		35	11	61.71	Partially Open Joint / Fracture
27	140	56.07	Filled Fracture / Joint		10	173	61.75	Filled Fracture / Joint
36	183	56.12	Filled Fracture / Joint		68	194	61.77	Filled Fracture / Joint
23	156	56.27	Bedding / Banding / Foliation		42	181	61.87	Bedding / Banding / Foliation
20	151	56.32	Bedding / Banding / Foliation		42	183	62	Bedding / Banding / Foliation
22	153	56.36	Bedding / Banding / Foliation		49	182	62.04	Filled Fracture / Joint
21	152	56.41	Bedding / Banding / Foliation		34	175	62.13	Filled Fracture / Joint
28	180	56.47	Bedding / Banding / Foliation		32	181	62.27	Filled Fracture / Joint
33	193	56.56	Bedding / Banding / Foliation		28	170	62.36	Filled Fracture / Joint
18	188	56.59	Filled Fracture / Joint		31	173	62.44	Filled Fracture / Joint
4	237	56.75	Filled Fracture / Joint		55	172	62.53	Filled Fracture / Joint
27	151	56.76	Filled Fracture / Joint		29	101	62.59	Filled Fracture / Joint
40	173	56.86	Bedding / Banding / Foliation		17	229	62.62	Partially Open Joint / Fracture
59	192	57.26	Filled Fracture / Joint		49	192	62.75	Filled Fracture / Joint
33	124	57.31	Bedding / Banding / Foliation		48	191	62.77	Partially Open Joint / Fracture
66	176	57.41	Filled Fracture / Joint		31	194	62.84	Bedding / Banding / Foliation
33	141	57.53	Bedding / Banding / Foliation		57	193	62.92	Partially Open Joint / Fracture
37	165	57.64	Bedding / Banding / Foliation		35	176	63.08	Bedding / Banding / Foliation
21	122	57.71	Filled Fracture / Joint		32	196	63.14	Bedding / Banding / Foliation
47	182	57.73	Bedding / Banding / Foliation		37	174	63.34	Filled Fracture / Joint
42	185	57.82	Filled Fracture / Joint		25	149	63.67	Partially Open Joint / Fracture
38	177	57.92	Bedding / Banding / Foliation		56	181	63.79	Filled Fracture / Joint
38	182	57.98	Bedding / Banding / Foliation		35	187	63.79	Filled Fracture / Joint
41	187	58.01	Filled Fracture / Joint		35	170	63.85	Bedding / Banding / Foliation
33	19	58.2	Filled Fracture / Joint		32	170	63.9	Bedding / Banding / Foliation
27	5	58.21	Filled Fracture / Joint		68	179	63.95	Filled Fracture / Joint
37	182	58.3	Filled Fracture / Joint		44	195	64.03	Filled Fracture / Joint
47	175	58.4	Bedding / Banding / Foliation		17	190	64.25	Filled Fracture / Joint
15	299	58.48	Partially Open Joint / Fracture		48	100	64.43	Filled Fracture / Joint
38	178	58.48	Partially Open Joint / Fracture		44	96	64.53	Partially Open Joint / Fracture
20	266	58.54	Filled Fracture / Joint		36	189	64.64	Filled Fracture / Joint
15	303	58.54	Filled Fracture / Joint		80	338	64.67	Filled Fracture / Joint
7	101	58.65	Filled Fracture / Joint		19	181	64.75	Minor Open Joint / Fracture
56	187	58.7	Filled Fracture / Joint		39	185	64.92	Bedding / Banding / Foliation
37	170	58.74	Filled Fracture / Joint		39	186	65.02	Bedding / Banding / Foliation
39	183	58.81	Filled Fracture / Joint		39	178	65.12	Bedding / Banding / Foliation
35	174	58.96	Filled Fracture / Joint		34	187	65.28	Filled Fracture / Joint
49	241	59.06	Filled Fracture / Joint		35	185	65.3	Filled Fracture / Joint

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
42	190	65.46	Bedding / Banding / Foliation		37	270	72.37	Filled Fracture / Joint
8	246	65.61	Filled Fracture / Joint		49	259	72.5	Filled Fracture / Joint
39	221	65.7	Filled Fracture / Joint		19	180	72.56	Minor Open Joint / Fracture
55	197	65.71	Filled Fracture / Joint		35	294	72.7	Filled Fracture / Joint
42	157	65.91	Filled Fracture / Joint		35	161	72.7	Filled Fracture / Joint
24	177	65.97	Filled Fracture / Joint		33	293	72.74	Filled Fracture / Joint
39	238	66.21	Filled Fracture / Joint		45	285	72.98	Filled Fracture / Joint
49	146	66.24	Filled Fracture / Joint		47	281	73.01	Partially Open Joint / Fracture
41	57	66.28	Filled Fracture / Joint		40	286	73.03	Filled Fracture / Joint
46	243	66.3	Filled Fracture / Joint		30	155	73.08	Filled Fracture / Joint
28	128	66.34	Filled Fracture / Joint		31	300	73.09	Filled Fracture / Joint
35	175	66.45	Filled Fracture / Joint		40	172	73.18	Bedding / Banding / Foliation
3	355	66.55	Filled Fracture / Joint		39	165	73.25	Bedding / Banding / Foliation
64	63	66.6	Filled Fracture / Joint		35	273	73.28	Filled Fracture / Joint
51	130	66.61	Major Open Joint / Fracture		79	207	73.32	Filled Fracture / Joint
55	140	66.65	Minor Open Joint / Fracture		29	161	73.34	Partially Open Joint / Fracture
47	133	66.74	Filled Fracture / Joint		31	270	73.4	Filled Fracture / Joint
43	194	66.8	Bedding / Banding / Foliation		36	282	73.44	Partially Open Joint / Fracture
43	196	66.93	Bedding / Banding / Foliation		40	321	73.44	Filled Fracture / Joint
51	194	66.97	Filled Fracture / Joint		37	287	73.52	Minor Open Joint / Fracture
13	43	67.06	Partially Open Joint / Fracture		19	65	73.66	Partially Open Joint / Fracture
36	181	67.21	Filled Fracture / Joint		57	248	73.68	Filled Fracture / Joint
30	171	67.45	Filled Fracture / Joint		34	151	73.78	Filled Fracture / Joint
34	182	67.6	Filled Fracture / Joint		69	188	73.94	Filled Fracture / Joint
70	183	67.6	Filled Fracture / Joint		69	195	74	Filled Fracture / Joint
16	186	67.71	Filled Fracture / Joint		34	265	74.11	Partially Open Joint / Fracture
36	167	68.06	Filled Fracture / Joint		70	185	74.13	Filled Fracture / Joint
24	344	68.26	Filled Fracture / Joint		69	186	74.17	Filled Fracture / Joint
36	159	68.44	Filled Fracture / Joint		35	19	74.3	Partially Open Joint / Fracture
80	205	68.6	Filled Fracture / Joint		10	40	74.36	Filled Fracture / Joint
73	195	68.61	Filled Fracture / Joint		3	82	74.41	Bedding / Banding / Foliation
18	334	68.69	Filled Fracture / Joint		5	30	74.44	Filled Fracture / Joint
72	200	68.7	Filled Fracture / Joint		19	180	74.57	Filled Fracture / Joint
20	315	68.75	Filled Fracture / Joint		28	231	74.61	Bedding / Banding / Foliation
15	344	68.81	Filled Fracture / Joint		9	340	74.76	Partially Open Joint / Fracture
6	11	68.84	Partially Open Joint / Fracture		12	336	74.79	Partially Open Joint / Fracture
27	150	68.93	Bedding / Banding / Foliation		21	68	74.93	Partially Open Joint / Fracture
34	176	68.98	Bedding / Banding / Foliation		35	163	74.99	Bedding / Banding / Foliation
16	272	69.01	Geological Contact		35	162	75.04	Bedding / Banding / Foliation
39	176	69.07	Filled Fracture / Joint		36	167	75.08	Bedding / Banding / Foliation
41	123	69.2	Filled Fracture / Joint		29	162	75.14	Filled Fracture / Joint
9	95	69.38	Filled Fracture / Joint		64	163	75.22	Filled Fracture / Joint
35	110	69.6	Filled Fracture / Joint		22	333	75.28	Partially Open Joint / Fracture
31	107	69.72	Partially Open Joint / Fracture		68	140	75.43	Filled Fracture / Joint
38	40	69.76	Filled Fracture / Joint		80	149	75.57	Filled Fracture / Joint
85	184	69.82	Filled Fracture / Joint		28	132	75.65	Filled Fracture / Joint
36	163	69.89	Filled Fracture / Joint		38	170	75.72	Filled Fracture / Joint
24	164	70.1	Partially Open Joint / Fracture		22	315	75.74	Filled Fracture / Joint
39	236	70.21	Filled Fracture / Joint		43	166	75.82	Filled Fracture / Joint
39	165	70.39	Filled Fracture / Joint		24	359	75.85	Filled Fracture / Joint
11	178	70.54	Filled Fracture / Joint		35	253	75.97	Filled Fracture / Joint
12	191	70.57	Filled Fracture / Joint		36	157	76.07	Filled Fracture / Joint
14	200	70.63	Filled Fracture / Joint		36	160	76.12	Filled Fracture / Joint
30	178	70.83	Filled Fracture / Joint		34	150	76.21	Filled Fracture / Joint
4	124	71.07	Filled Fracture / Joint		37	146	76.32	Bedding / Banding / Foliation
41	165	71.14	Filled Fracture / Joint		44	156	76.43	Bedding / Banding / Foliation
33	127	71.52	Filled Fracture / Joint		41	168	76.48	Filled Fracture / Joint
37	225	71.53	Filled Fracture / Joint		41	169	76.51	Filled Fracture / Joint
34	243	71.56	Filled Fracture / Joint		35	157	76.54	Filled Fracture / Joint
39	175	71.65	Filled Fracture / Joint		86	316	76.54	Filled Fracture / Joint
20	55	71.99	Filled Fracture / Joint		42	247	76.73	Filled Fracture / Joint
44	302	72.06	Partially Open Joint / Fracture		32	141	76.76	Filled Fracture / Joint
21	45	72.06	Filled Fracture / Joint		37	153	76.88	Bedding / Banding / Foliation
42	38	72.07	Partially Open Joint / Fracture		38	156	76.94	Bedding / Banding / Foliation
32	306	72.11	Partially Open Joint / Fracture		39	158	77.09	Partially Open Joint / Fracture
23	40	72.16	Filled Fracture / Joint		28	326	77.18	Filled Fracture / Joint
49	294	72.21	Filled Fracture / Joint		23	10	77.23	Filled Fracture / Joint
47	69	72.23	Filled Fracture / Joint		19	181	77.25	Filled Fracture / Joint
40	78	72.35	Filled Fracture / Joint		28	299	77.33	Filled Fracture / Joint

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
47	162	77.39	Filled Fracture / Joint		50	164	85.18	Filled Fracture / Joint
34	154	77.42	Filled Fracture / Joint		75	201	85.29	Filled Fracture / Joint
71	199	77.69	Filled Fracture / Joint		28	155	85.33	Filled Fracture / Joint
34	166	77.87	Filled Fracture / Joint		28	156	85.45	Filled Fracture / Joint
31	154	77.9	Bedding / Banding / Foliation		43	94	85.7	Filled Fracture / Joint
30	163	78.04	Filled Fracture / Joint		82	319	85.73	Filled Fracture / Joint
59	123	78.24	Bedding / Banding / Foliation		33	108	85.83	Minor Open Joint / Fracture
31	157	78.25	Filled Fracture / Joint		51	134	86.05	Partially Open Joint / Fracture
52	233	78.39	Filled Fracture / Joint		33	86	86.11	Filled Fracture / Joint
31	156	78.53	Filled Fracture / Joint		38	76	86.17	Filled Fracture / Joint
26	151	78.59	Filled Fracture / Joint		37	135	86.3	Partially Open Joint / Fracture
46	173	78.69	Filled Fracture / Joint		73	222	86.32	Filled Fracture / Joint
46	173	78.7	Filled Fracture / Joint		39	140	86.32	Partially Open Joint / Fracture
58	252	78.73	Partially Open Joint / Fracture		21	109	86.35	Partially Open Joint / Fracture
27	148	78.75	Filled Fracture / Joint		19	181	86.58	Filled Fracture / Joint
26	173	78.96	Bedding / Banding / Foliation		36	70	86.65	Filled Fracture / Joint
22	324	79.09	Geological Contact		44	186	86.76	Partially Open Joint / Fracture
27	306	79.24	Filled Fracture / Joint		61	194	86.8	Partially Open Joint / Fracture
28	339	79.38	Major Open Joint / Fracture		32	158	86.94	Partially Open Joint / Fracture
67	199	79.43	Partially Open Joint / Fracture		25	151	87.01	Filled Fracture / Joint
27	344	79.56	Geological Contact		67	205	87.11	Filled Fracture / Joint
38	228	79.79	Bedding / Banding / Foliation		33	95	87.27	Filled Fracture / Joint
40	218	79.85	Bedding / Banding / Foliation		78	192	87.33	Partially Open Joint / Fracture
59	197	79.92	Filled Fracture / Joint		19	138	87.5	Filled Fracture / Joint
10	248	80.05	Filled Fracture / Joint		24	138	87.57	Filled Fracture / Joint
73	265	80.28	Partially Open Joint / Fracture		66	179	87.65	Filled Fracture / Joint
24	230	80.29	Bedding / Banding / Foliation		58	202	87.69	Filled Fracture / Joint
21	189	80.39	Filled Fracture / Joint		44	77	87.75	Filled Fracture / Joint
17	180	80.45	Filled Fracture / Joint		19	143	87.87	Bedding / Banding / Foliation
27	70	80.54	Filled Fracture / Joint		72	179	87.92	Filled Fracture / Joint
16	221	80.56	Filled Fracture / Joint		21	146	87.92	Bedding / Banding / Foliation
20	255	80.73	Partially Open Joint / Fracture		33	154	88.05	Filled Fracture / Joint
20	37	80.83	Partially Open Joint / Fracture		29	25	88.07	Partially Open Joint / Fracture
73	178	80.86	Filled Fracture / Joint		57	201	88.33	Filled Fracture / Joint
77	163	80.87	Filled Fracture / Joint		17	184	88.34	Filled Fracture / Joint
6	90	80.92	Partially Open Joint / Fracture		53	200	88.56	Bedding / Banding / Foliation
38	237	81.01	Filled Fracture / Joint		56	206	88.74	Filled Fracture / Joint
28	153	81.38	Filled Fracture / Joint		37	187	88.91	Bedding / Banding / Foliation
88	173	81.43	Filled Fracture / Joint		36	163	89.06	Filled Fracture / Joint
22	115	81.43	Partially Open Joint / Fracture		37	167	89.12	Filled Fracture / Joint
89	181	81.46	Filled Fracture / Joint		59	183	89.29	Filled Fracture / Joint
47	157	81.59	Filled Fracture / Joint		54	189	89.44	Filled Fracture / Joint
6	329	81.66	Filled Fracture / Joint		53	184	89.5	Filled Fracture / Joint
51	266	81.7	Partially Open Joint / Fracture		34	167	89.55	Filled Fracture / Joint
64	120	81.91	Filled Fracture / Joint		44	178	89.75	Filled Fracture / Joint
88	175	81.93	Filled Fracture / Joint		30	144	89.91	Filled Fracture / Joint
62	123	81.97	Filled Fracture / Joint		40	182	90	Filled Fracture / Joint
33	165	82.18	Filled Fracture / Joint		24	180	90.07	Filled Fracture / Joint
36	160	82.34	Filled Fracture / Joint		18	186	90.13	Filled Fracture / Joint
24	118	82.57	Filled Fracture / Joint		36	176	90.21	Filled Fracture / Joint
54	208	82.73	Filled Fracture / Joint		32	162	90.27	Filled Fracture / Joint
51	224	83.04	Filled Fracture / Joint		23	137	90.44	Filled Fracture / Joint
52	218	83.26	Filled Fracture / Joint		40	156	90.79	Filled Fracture / Joint
48	231	83.29	Filled Fracture / Joint		40	97	90.92	Bedding / Banding / Foliation
49	230	83.49	Filled Fracture / Joint		45	94	90.99	Bedding / Banding / Foliation
52	227	83.52	Filled Fracture / Joint		65	202	91.08	Filled Fracture / Joint
35	143	83.66	Filled Fracture / Joint		32	160	91.26	Filled Fracture / Joint
45	130	83.97	Filled Fracture / Joint		54	167	91.32	Filled Fracture / Joint
60	184	84	Filled Fracture / Joint		20	309	91.47	Filled Fracture / Joint
37	214	84.2	Filled Fracture / Joint		37	157	91.48	Filled Fracture / Joint
36	136	84.32	Filled Fracture / Joint		68	131	91.72	Filled Fracture / Joint
52	88	84.44	Filled Fracture / Joint		30	153	91.73	Filled Fracture / Joint
36	168	84.46	Filled Fracture / Joint		34	146	91.78	Bedding / Banding / Foliation
78	167	84.73	Filled Fracture / Joint		35	151	91.84	Bedding / Banding / Foliation
38	167	84.76	Filled Fracture / Joint		34	146	91.93	Bedding / Banding / Foliation
88	180	84.78	Filled Fracture / Joint		38	137	92.11	Filled Fracture / Joint
33	155	85.03	Filled Fracture / Joint		72	184	92.31	Filled Fracture / Joint
42	182	85.07	Filled Fracture / Joint		14	266	92.47	Filled Fracture / Joint
43	161	85.13	Filled Fracture / Joint		64	190	92.5	Filled Fracture / Joint

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
33	145	92.71	Bedding / Banding / Foliation		26	114	101.73	Bedding / Banding / Foliation
57	276	92.72	Filled Fracture / Joint		26	109	101.86	Bedding / Banding / Foliation
36	154	92.86	Bedding / Banding / Foliation		74	191	101.99	Filled Fracture / Joint
36	154	92.98	Filled Fracture / Joint		24	152	102.02	Bedding / Banding / Foliation
16	254	93.04	Filled Fracture / Joint		75	186	102.06	Filled Fracture / Joint
29	156	93.14	Filled Fracture / Joint		36	127	102.16	Bedding / Banding / Foliation
40	252	93.3	Filled Fracture / Joint		34	120	102.27	Bedding / Banding / Foliation
34	173	93.38	Filled Fracture / Joint		27	152	102.37	Bedding / Banding / Foliation
64	193	93.44	Filled Fracture / Joint		81	183	102.37	Filled Fracture / Joint
30	157	93.6	Filled Fracture / Joint		33	168	102.4	Filled Fracture / Joint
29	154	93.66	Bedding / Banding / Foliation		33	115	102.66	Bedding / Banding / Foliation
36	164	93.86	Filled Fracture / Joint		31	126	102.68	Bedding / Banding / Foliation
32	157	94.01	Filled Fracture / Joint		38	133	102.8	Bedding / Banding / Foliation
40	174	94.12	Bedding / Banding / Foliation		39	138	102.87	Bedding / Banding / Foliation
32	176	94.32	Filled Fracture / Joint		89	0	103.12	Filled Fracture / Joint
33	173	94.61	Filled Fracture / Joint		36	121	103.14	Filled Fracture / Joint
27	294	94.67	Filled Fracture / Joint		51	178	103.16	Filled Fracture / Joint
42	88	94.69	Filled Fracture / Joint		74	179	103.17	Filled Fracture / Joint
43	91	94.71	Filled Fracture / Joint		33	127	103.36	Bedding / Banding / Foliation
42	176	94.98	Filled Fracture / Joint		34	132	103.51	Bedding / Banding / Foliation
85	347	95.13	Filled Fracture / Joint		33	186	103.67	Bedding / Banding / Foliation
32	244	95.33	Bedding / Banding / Foliation		76	185	103.81	Filled Fracture / Joint
30	112	95.51	Filled Fracture / Joint		31	308	104.1	Filled Fracture / Joint
73	210	95.58	Filled Fracture / Joint		28	180	104.22	Filled Fracture / Joint
44	164	95.75	Filled Fracture / Joint		38	174	104.33	Filled Fracture / Joint
34	173	95.83	Filled Fracture / Joint		18	200	104.55	Filled Fracture / Joint
29	142	96.02	Filled Fracture / Joint		33	159	104.74	Bedding / Banding / Foliation
43	184	96.1	Filled Fracture / Joint		49	74	104.85	Filled Fracture / Joint
31	158	96.48	Bedding / Banding / Foliation		45	129	105.09	Filled Fracture / Joint
31	156	96.58	Bedding / Banding / Foliation		45	129	105.15	Bedding / Banding / Foliation
29	162	96.76	Bedding / Banding / Foliation		40	154	105.22	Bedding / Banding / Foliation
45	187	96.88	Filled Fracture / Joint		68	227	105.35	Bedding / Banding / Foliation
39	153	96.96	Filled Fracture / Joint		44	145	105.36	Bedding / Banding / Foliation
31	138	97.36	Bedding / Banding / Foliation		78	219	105.43	Filled Fracture / Joint
38	236	97.49	Partially Open Joint / Fracture		30	113	105.63	Bedding / Banding / Foliation
34	132	97.55	Filled Fracture / Joint		12	46	105.67	Bedding / Banding / Foliation
33	144	97.73	Bedding / Banding / Foliation		45	158	105.74	Bedding / Banding / Foliation
38	169	97.83	Bedding / Banding / Foliation		44	184	105.99	Filled Fracture / Joint
34	148	97.89	Bedding / Banding / Foliation		49	24	106.14	Filled Fracture / Joint
31	157	98.07	Filled Fracture / Joint		39	245	106.2	Filled Fracture / Joint
27	128	98.14	Bedding / Banding / Foliation		35	176	106.23	Filled Fracture / Joint
30	134	98.2	Bedding / Banding / Foliation		41	183	106.28	Minor Open Joint / Fracture
34	157	98.37	Filled Fracture / Joint		44	179	106.33	Bedding / Banding / Foliation
41	167	98.46	Bedding / Banding / Foliation		34	141	106.4	Filled Fracture / Joint
33	247	98.53	Bedding / Banding / Foliation		77	186	106.46	Filled Fracture / Joint
15	205	98.59	Filled Fracture / Joint		34	152	106.49	Filled Fracture / Joint
40	154	98.63	Filled Fracture / Joint		23	152	106.5	Filled Fracture / Joint
36	172	98.78	Filled Fracture / Joint		58	210	106.51	Filled Fracture / Joint
35	161	98.9	Filled Fracture / Joint		36	173	106.75	Filled Fracture / Joint
36	174	99	Filled Fracture / Joint		61	179	106.9	Filled Fracture / Joint
42	144	99.32	Bedding / Banding / Foliation		16	253	107.05	Filled Fracture / Joint
30	167	99.49	Filled Fracture / Joint		19	255	107.07	Filled Fracture / Joint
34	204	99.62	Filled Fracture / Joint		19	246	107.47	Filled Fracture / Joint
78	182	99.73	Filled Fracture / Joint		19	181	107.6	Minor Open Joint / Fracture
31	163	99.78	Filled Fracture / Joint		25	302	107.61	Filled Fracture / Joint
32	168	100.09	Filled Fracture / Joint		89	351	107.7	Filled Fracture / Joint
39	304	100.26	Filled Fracture / Joint		21	326	107.72	Filled Fracture / Joint
37	163	100.27	Filled Fracture / Joint		65	171	107.77	Filled Fracture / Joint
28	168	100.36	Filled Fracture / Joint		32	170	108.02	Filled Fracture / Joint
38	316	100.45	Filled Fracture / Joint		36	261	108.05	Filled Fracture / Joint
41	170	100.75	Filled Fracture / Joint		33	172	108.06	Filled Fracture / Joint
35	152	100.94	Filled Fracture / Joint		29	175	108.33	Filled Fracture / Joint
29	166	101.04	Filled Fracture / Joint		34	198	108.36	Filled Fracture / Joint
39	169	101.19	Filled Fracture / Joint		34	173	108.41	Filled Fracture / Joint
42	144	101.28	Bedding / Banding / Foliation		43	178	108.53	Filled Fracture / Joint
42	178	101.45	Bedding / Banding / Foliation		32	148	108.59	Filled Fracture / Joint
36	165	101.48	Filled Fracture / Joint		29	256	108.93	Filled Fracture / Joint
26	116	101.57	Bedding / Banding / Foliation		21	250	109.06	Filled Fracture / Joint
19	181	101.57	Filled Fracture / Joint		24	264	109.18	Filled Fracture / Joint

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
23	266	109.31	Filled Fracture / Joint		29	152	116.76	Minor Open Joint / Fracture
39	170	109.47	Filled Fracture / Joint		46	199	116.93	Filled Fracture / Joint
37	178	109.5	Filled Fracture / Joint		22	18	117.11	Filled Fracture / Joint
36	271	109.69	Bedding / Banding / Foliation		53	195	117.15	Filled Fracture / Joint
51	119	109.81	Bedding / Banding / Foliation		15	174	117.22	Filled Fracture / Joint
46	117	109.87	Bedding / Banding / Foliation		44	188	117.34	Filled Fracture / Joint
22	261	109.91	Filled Fracture / Joint		13	318	117.51	Filled Fracture / Joint
29	179	110.04	Filled Fracture / Joint		61	180	117.58	Filled Fracture / Joint
39	188	110.13	Bedding / Banding / Foliation		39	106	117.65	Filled Fracture / Joint
40	180	110.19	Filled Fracture / Joint		68	221	117.73	Filled Fracture / Joint
37	289	110.39	Filled Fracture / Joint		40	154	117.76	Filled Fracture / Joint
72	195	110.42	Filled Fracture / Joint		7	328	117.93	Filled Fracture / Joint
29	165	110.43	Filled Fracture / Joint		52	122	118.06	Filled Fracture / Joint
84	352	110.49	Filled Fracture / Joint		39	166	118.3	Filled Fracture / Joint
28	261	110.57	Filled Fracture / Joint		50	134	118.38	Partially Open Joint / Fracture
33	156	110.67	Filled Fracture / Joint		51	142	118.4	Minor Open Joint / Fracture
24	164	110.75	Filled Fracture / Joint		56	209	118.41	Partially Open Joint / Fracture
42	158	111.18	Filled Fracture / Joint		51	178	118.66	Bedding / Banding / Foliation
33	180	111.38	Filled Fracture / Joint		73	189	118.89	Filled Fracture / Joint
53	188	111.47	Filled Fracture / Joint		73	205	118.91	Filled Fracture / Joint
70	185	111.47	Filled Fracture / Joint		83	203	118.95	Filled Fracture / Joint
32	171	111.54	Filled Fracture / Joint		48	171	118.95	Filled Fracture / Joint
35	172	111.73	Filled Fracture / Joint		51	99	119.26	Filled Fracture / Joint
85	183	112.08	Filled Fracture / Joint		89	2	119.31	Filled Fracture / Joint
26	213	112.09	Filled Fracture / Joint		52	175	119.64	Bedding / Banding / Foliation
32	167	112.4	Partially Open Joint / Fracture		38	335	119.65	Filled Fracture / Joint
36	168	112.42	Filled Fracture / Joint		46	149	119.71	Filled Fracture / Joint
63	122	112.51	Filled Fracture / Joint		86	353	119.93	Filled Fracture / Joint
89	3	112.63	Filled Fracture / Joint		6	37	119.93	Partially Open Joint / Fracture
83	179	112.87	Filled Fracture / Joint		43	162	120.09	Filled Fracture / Joint
62	187	113.02	Filled Fracture / Joint		45	167	120.18	Filled Fracture / Joint
33	185	113.23	Filled Fracture / Joint		57	139	120.2	Filled Fracture / Joint
39	164	113.35	Filled Fracture / Joint		39	129	120.29	Filled Fracture / Joint
33	163	113.4	Filled Fracture / Joint		51	133	120.37	Filled Fracture / Joint
56	179	113.47	Filled Fracture / Joint		42	125	120.4	Filled Fracture / Joint
40	247	113.48	Filled Fracture / Joint		45	81	120.47	Filled Fracture / Joint
12	171	113.69	Filled Fracture / Joint		40	246	120.61	Filled Fracture / Joint
45	171	113.72	Filled Fracture / Joint		10	309	120.66	Partially Open Joint / Fracture
10	342	113.77	Filled Fracture / Joint		34	131	120.75	Filled Fracture / Joint
40	150	113.85	Filled Fracture / Joint		68	206	120.82	Filled Fracture / Joint
23	305	113.93	Filled Fracture / Joint		52	78	120.88	Filled Fracture / Joint
32	186	114.05	Filled Fracture / Joint		47	78	120.92	Filled Fracture / Joint
38	167	114.16	Filled Fracture / Joint		37	160	120.92	Filled Fracture / Joint
33	194	114.26	Filled Fracture / Joint		37	166	121.31	Filled Fracture / Joint
46	153	114.37	Filled Fracture / Joint		73	196	121.31	Filled Fracture / Joint
51	149	114.4	Filled Fracture / Joint		62	174	121.45	Filled Fracture / Joint
59	204	114.48	Filled Fracture / Joint		74	201	121.5	Filled Fracture / Joint
75	204	114.57	Filled Fracture / Joint		53	175	121.81	Filled Fracture / Joint
34	109	114.59	Filled Fracture / Joint		54	184	121.86	Filled Fracture / Joint
49	152	114.7	Partially Open Joint / Fracture		45	74	121.93	Filled Fracture / Joint
76	198	114.75	Filled Fracture / Joint		35	158	121.97	Filled Fracture / Joint
43	120	115	Filled Fracture / Joint		62	187	121.98	Filled Fracture / Joint
63	196	115.02	Filled Fracture / Joint		12	164	122.04	Filled Fracture / Joint
39	232	115.04	Filled Fracture / Joint		32	154	122.23	Filled Fracture / Joint
68	245	115.07	Filled Fracture / Joint		80	203	122.26	Filled Fracture / Joint
39	172	115.15	Filled Fracture / Joint		69	185	122.31	Filled Fracture / Joint
30	159	115.37	Filled Fracture / Joint		62	63	122.33	Filled Fracture / Joint
68	195	115.44	Filled Fracture / Joint		85	179	122.46	Partially Open Joint / Fracture
68	199	115.48	Filled Fracture / Joint		81	182	122.49	Partially Open Joint / Fracture
40	185	115.75	Filled Fracture / Joint		33	147	122.86	Bedding / Banding / Foliation
19	182	115.77	Filled Fracture / Joint		34	138	123.02	Bedding / Banding / Foliation
55	194	115.92	Filled Fracture / Joint		70	212	123.15	Filled Fracture / Joint
57	191	115.96	Filled Fracture / Joint		57	114	123.19	Filled Fracture / Joint
57	192	116.01	Filled Fracture / Joint		75	177	123.24	Filled Fracture / Joint
45	89	116.09	Filled Fracture / Joint		87	198	123.4	Filled Fracture / Joint
20	243	116.1	Filled Fracture / Joint		85	184	123.48	Partially Open Joint / Fracture
74	179	116.1	Filled Fracture / Joint		79	173	123.6	Filled Fracture / Joint
45	209	116.59	Filled Fracture / Joint		85	348	124.05	Filled Fracture / Joint
50	77	116.6	Filled Fracture / Joint		33	158	124.11	Filled Fracture / Joint

Dip (°)	Dip Dir (°)	Depth (m)	Type		Dip (°)	Dip Dir (°)	Depth (m)	Type
65	179	124.19	Filled Fracture / Joint					
88	25	124.27	Partially Open Joint / Fracture					
76	184	124.3	Filled Fracture / Joint					
71	167	124.41	Filled Fracture / Joint					
23	281	124.44	Filled Fracture / Joint					
49	162	124.6	Filled Fracture / Joint					
50	176	124.66	Filled Fracture / Joint					
5	274	124.68	Partially Open Joint / Fracture					
6	79	124.69	Filled Fracture / Joint					
51	168	124.75	Filled Fracture / Joint					
76	203	124.92	Filled Fracture / Joint					
81	203	124.96	Partially Open Joint / Fracture					
87	204	125.03	Filled Fracture / Joint					
79	202	125.14	Filled Fracture / Joint					
10	271	125.25	Filled Fracture / Joint					
68	193	125.34	Filled Fracture / Joint					
19	182	125.58	Filled Fracture / Joint					
36	156	125.59	Filled Fracture / Joint					
66	197	125.92	Filled Fracture / Joint					
20	216	125.98	Filled Fracture / Joint					
23	220	126.08	Bedding / Banding / Foliation					
69	204	126.1	Filled Fracture / Joint					
72	190	126.21	Filled Fracture / Joint					
74	188	126.22	Filled Fracture / Joint					
69	197	126.38	Filled Fracture / Joint					
57	128	126.49	Filled Fracture / Joint					
30	151	126.78	Bedding / Banding / Foliation					
31	239	126.92	Filled Fracture / Joint					
17	193	127.65	Filled Fracture / Joint					
41	165	127.69	Filled Fracture / Joint					
50	174	127.76	Filled Fracture / Joint					
89	20	127.84	Partially Open Joint / Fracture					
29	140	127.87	Filled Fracture / Joint					
47	158	127.9	Filled Fracture / Joint					
38	147	128	Filled Fracture / Joint					
32	112	128.01	Filled Fracture / Joint					
27	117	128.06	Filled Fracture / Joint					
43	294	128.2	Filled Fracture / Joint					
76	223	128.5	Filled Fracture / Joint					
19	182	128.59	Filled Fracture / Joint					
56	354	128.64	Filled Fracture / Joint					
29	330	128.7	Filled Fracture / Joint					
21	218	128.72	Filled Fracture / Joint					
32	321	128.75	Filled Fracture / Joint					
22	282	129.49	Filled Fracture / Joint					
37	182	129.59	Filled Fracture / Joint					
41	138	129.83	Filled Fracture / Joint					
44	175	129.9	Filled Fracture / Joint					
36	158	130	Filled Fracture / Joint					
38	167	130.58	Filled Fracture / Joint					
45	127	130.72	Filled Fracture / Joint					
55	232	130.93	Filled Fracture / Joint					
31	247	131.06	Filled Fracture / Joint					
17	238	131.23	Filled Fracture / Joint					

APPENDIX E

UNDERGROUND MAPPING STRUCTURAL DATA

Dip (°)	Dip Direction (°)	Type	Easting	Northing	Level	Mine
90	179	joint	3710	5355	1	CM
80	12	fault	3710	5360	1	CM
20	207	fault	3710	5360	1	CM
70	33	fault	3720	5365	1	CM
75	30	joint	3735	5370	1	CM
90	182	vein	3745	5375	1	CM
20	223	fault	3750	5380	1	CM
90	172	joint	3755	5380	1	CM
80	16	fault	3765	5385	1	CM
75	27	fault	3775	5395	1	CM
90	115	joint	3800	5400	1	CM
90	186	joint	3800	5400	1	CM
90	212	joint	3825	5415	1	CM
44	50	fault	3840	5425	1	CM
85	194	joint	3840	5470	1	CM
90	212	joint	3855	5400	1	CM
90	220		3855	5425	1	CM
36	34	fault	3860	5405	1	CM
90	237	joint	3860	5430	1	CM
50	160	fault	3885	5380	1	CM
90	175	joint	3885	5305	1	CM
85	0	joint	3885	5380	1	CM
75	24	joint	3885	5315	1	CM
70	24	joint	3885	5320	1	CM
80	10	joint	3885	5365	1	CM
85	5	joint	3885	5370	1	CM
48	15	joint	3885	5395	1	CM
85	180	joint	3885	5400	1	CM
82	182	joint	3885	5385	1	CM
90	215	joint	3885	5325	1	CM
70	16	fault	3890	5440	1	CM
62	273	joint	3900	5415	1	CM
70	29	joint	3900	5405	1	CM
70	18	joint	3900	5400	1	CM
90	195	joint	3900	5310	1	CM
90	187	joint	3900	5405	1	CM
90	176	joint	3915	5390	1	CM
80	3	joint	3920	5370	1	CM
75	44	joint	3920	5360	1	CM
90	197	joint	3920	5380	1	CM
90	195	joint	3920	5375	1	CM
90	195	joint	3920	5375	1	CM
90	217	joint	3930	5360	1	CM
80	44	joint	3935	5350	1	CM
80	356	joint	3970	5330	1	CM
80	22	joint	3970	5335	1	CM
80	357	joint	4000	5315	1	CM
80	12	joint	4000	5320	1	CM
80	18	joint	4020	5310	1	CM
80	6	joint	4050	5300	1	CM
70	156	joint	4200		2	CM
53	153	joint	4200		2	CM
75	173	joint	4200		2	CM
75	172	joint	4200		2	CM
70	165	joint	4200		2	CM
35	177	joint	4200		2	CM
40	151	joint	4200		2	CM
75	131	vein	4200		2	CM
55	138	joint	4200		2	CM
55	145	joint	4200		2	CM
45	133	joint	4200		2	CM
55	174	joint	4200		2	CM
80	125	joint	4200		2	CM
45	156	vein	4200		2	CM
50	174	joint	4200		2	CM
55	185	fault	4200		2	CM
60	183	joint	4200		2	CM

Dip (°)	Dip Direction (°)	Type	Easting	Northing	Level	Mine
75	250	vein	4200		2	CM
65	261	vein	4200		2	CM
75	53	joint	4230		2	CM
2	210	joint	4260		2	CM
8	0	joint	4300		2	CM
24	180	fault	4300		2	CM
90	171	joint	3515	5775	3	CM
76	14	joint	3515	5775	3	CM
20	339	joint	3525	5760	3	CM
90	172	joint	3530	5740	3	CM
90	174	joint	3530	5745	3	CM
90	178	joint	3530	5750	3	CM
77	288	joint	3550	5725	3	CM
50	295	joint	3550	5725	3	CM
90	175	joint	3550	5725	3	CM
90	173	joint	3550	5725	3	CM
79	297	joint	3555	5720	3	CM
90	174	joint	3555	5715	3	CM
30	348	joint	3565	5715	3	CM
60	180	joint	3575	5700	3	CM
35	347	joint	3600	5675	3	CM
90	160	joint	3600	5665	3	CM
90	162	joint	3600	5675	3	CM
90	161	joint	3600	5675	3	CM
90	174	joint	3615	5650	3	CM
90	169	joint	3625	5640	3	CM
85	299	joint	3675	5600	3	CM
90	163	joint	3675	5600	3	CM
90	159	joint	3675	5600	3	CM
90	171	joint	3675	5600	3	CM
90	174	joint	3675	5610	3	CM
17	357	vein?	3680	5680	3	CM
90	171	joint	3680	5680	3	CM
90	166	joint	3680	5680	3	CM
90	164	joint	3700	5580	3	CM
25	338	joint	3720	5575	3	CM
33	358	joint	3725	5560	3	CM
85	296	joint	3750	5540	3	CM
63	174	joint	3750	5530	3	CM
85	4	joint	3765	5525	3	CM
85	351	joint	3775	5515	3	CM
13	331	joint	3775	5525	3	CM
85	8	joint	3775	5525	3	CM
70	252	joint	3800	5500	3	CM
70	247	joint	3815	5500	3	CM
50	159	joint	3825	5475	3	CM
75	168	joint	3825	5485	3	CM
90	170	joint	3825	5475	3	CM
74	79	joint	3825	5500	3	CM
56	162	joint	3835	5475	3	CM
65	170	joint	3840	5465	3	CM
50	316	joint	3850	5465	3	CM
55	161	joint	3850	5460	3	CM
90	170	joint	3850	5460	3	CM
90	159	joint	3850	5550	3	CM
40	158	joint	3860	5450	3	CM
75	310	joint	3865	5440	3	CM
60	165	joint	3865	5440	3	CM
90	162	joint	3875	5425	3	CM
17	350	joint	3900	5410	3	CM
72	154	joint	3900	5410	3	CM
55	182	joint	3910	5400	3	CM
63	164	joint	3925	5400	3	CM
48	0	joint	3925	5400	3	CM
73	15	joint	3925	5400	3	CM
65	351	joint	4210	7200	3	CM
66	357	vein	4270	7185	3	CM

Dip (°)	Dip Direction (°)	Type	Easting	Northing	Level	Mine
50	84	joint	4270	7185	3	CM
80	349	joint	4290	7180	3	CM
65	342	joint	4290	7180	3	CM
72	151	joint	4310	7175	3	CM
15	130	joint	4325	7180	3	CM
60	349	joint	4340	7170	3	CM
54	145	joint	4360	7165	3	CM
30	135	joint	4435	7150	3	CM
73	347	joint	4450	7155	3	CM
70	334	fault	4470	7150	3	CM
67	345	fault	4470	7150	3	CM
70	341	fault	4475	7150	3	CM
28	161	joint	4500	7140	3	CM
80	246	vein	3530	7485	4	CM
80	261	vein	3540	7470	4	CM
45	240	vein	3545	7480	4	CM
34	170	vein	3550	7480	4	CM
45	259	vein	3550	7480	4	CM
58	263	vein	3555	7480	4	CM
65	259	vein	3560	7480	4	CM
60	258	vein	3560	7480	4	CM
40	166	joint	3565	7480	4	CM
30	165	joint	3565	7480	4	CM
60	252	vein	3580	7485	4	CM
55	252	vein	3590	7485	4	CM
75	252	vein	3590	7480	4	CM
85	257	vein	3590	7480	4	CM
35	159	joint	3600	7485	4	CM
65	175	joint	3600	7495	4	CM
70	175	joint	3600	7495	4	CM
70	242	vein	3600	7485	4	CM
50	160	joint	3610	7490	4	CM
50	160	joint	3610	7490	4	CM
75	246	joint	3655	7500	4	CM
50	160	joint	3660	7500	4	CM
80	250	joint	3665	7500	4	CM
35	145		3700	7500	4	CM
40	145		3700	7500	4	CM
45	151		3700	7510	4	CM
30	150	joint	3710	7510	4	CM
30	98	fault	4000	7160	4	CM
36	72	joint	4070	7150	4	CM
30	270	joint	4100	7140	4	CM
25	80	fault	4100	7145	4	CM
21	270	fault	4110	7140	4	CM
30	96	joint	4135	7140	4	CM
35	93	joint	4135	7140	4	CM
90	176	joint	4150	7140	4	CM
25	239	vein	4160	7140	4	CM
80	306	joint	4245	7125	4	CM
83	322	joint	4265	7125	4	CM
10	330	joint	4284	7120	4	CM
70	315	joint	4300	7120	4	CM
45	270	joint	4550	7080	4	CM
60	226	fault	4580	7080	4	CM
35	233	fault	4585	7080	4	CM
80	59	fault	4590	7080	4	CM
53	205	fault	4600	7080	4	CM
60	270	joint	4705	7070	4	CM
45	92	joint	4730	7070	4	CM
45	87	joint	4740	7070	4	CM
55	182	joint	4790	7050	4	CM
29	185	joint	400	6985	5	CM
25	76	joint	492	6875	5	CM
70	94	joint	1810	6660	5	CM
70	112	joint	1815	6660	5	CM
70	78	joint	1830	6660	5	CM

Dip (°)	Dip Direction (°)	Type	Easting	Northing	Level	Mine
90	220	joint	1860	6660	5	CM
70	201	joint	1870	6600	5	CM
90	218	joint	1870	6660	5	CM
78	238	joint	1880	6600	5	CM
85	221	joint	1885	6660	5	CM
45	117	joint	1890	6660	5	CM
45	117	joint	1895	6660	5	CM
90	136	joint	1905	6600	5	CM
45	270	joint	1905	6660	5	CM
83	94	joint	1910	6600	5	CM
45	97	joint	1910	6660	5	CM
10	70	joint	1920	6660	5	CM
88	206	joint	1920	6600	5	CM
45	93	joint	1930	6660	5	CM
45	86	joint	1930	6660	5	CM
80	137	joint	1935	6600	5	CM
90	242	joint	1935	6660	5	CM
45	93	joint	1945	6660	5	CM
90	223	joint	1945	6660	5	CM
70	92	joint	1950	6660	5	CM
70	85	joint	1950	6660	5	CM
45	62	joint	1955	6660	5	CM
30	91	joint	1960	6660	5	CM
75	202	joint	1965	6600	5	CM
72	85	joint	1970	6600	5	CM
40	81	joint	1970	6660	5	CM
45	89	joint	1980	6660	5	CM
45	84	joint	1980	6660	5	CM
90	60	joint	1990	6675	5	CM
90	57	joint	1995	6675	5	CM
45	147	joint	2000	6675	5	CM
90	64	joint	2000	6675	5	CM
90	144	joint	2005	6600	5	CM
80	180	joint	2015	6605	5	CM
75	344	joint	2020	6630	5	CM
90	157	joint	2020	6670	5	CM
90	161	joint	2020	6650	5	CM
40	84	joint	2020	6650	5	CM
25	255	joint	2020	6680	5	CM
90	191	joint	2020	6605	5	CM
75	165	joint	2025	6655	5	CM
70	150	joint	2025	6645	5	CM
85	177	joint	2025	6595	5	CM
90	148	joint	2025	6645	5	CM
75	218	joint	2025	6660	5	CM
90	207	joint	2025	6620	5	CM
90	197	joint	2025	6615	5	CM
90	191	joint	2025	6620	5	CM
80	340	joint	2030	6685	5	CM
85	188	joint	2030	6690	5	CM
85	219	joint	2040	6695	5	CM
85	221	joint	2040	6700	5	CM
85	227	joint	2045	6705	5	CM
85	226	joint	2050	6705	5	CM
50	334	joint	2055	6705	5	CM
40	151	joint	2055	6710	5	CM
40	50	vein	2555	7565	5	CM
59	122	joint	2560	7560	5	CM
40	60	vein	2560	7565	5	CM
68	242	vein	2560	7560	5	CM
40	245	vein	2570	7565	5	CM
63	146	vein	2580	7615	5	CM
58	171	vein	2580	7605	5	CM
42	152	vein	2580	7600	5	CM
40	167	vein	2580	7590	5	CM
45	124	joint	2580	7560	5	CM
50	203	vein	2580	7665	5	CM

Dip (°)	Dip Direction (°)	Type	Easting	Northing	Level	Mine
40	238	vein	2580	7665	5	CM
40	195	vein	2580	7650	5	CM
30	201	vein	2580	7635	5	CM
47	201	vein	2580	7625	5	CM
42	239	vein	2580	7610	5	CM
38	125	joint	2585	7575	5	CM
20	270	vein	2585	7585	5	CM
60	236	vein	2595	7560	5	CM
50	115	joint	2600	7560	5	CM
58	250	vein	2605	7560	5	CM
62	250	vein	2615	7555	5	CM
58	250	vein	2625	7555	5	CM
61	251	vein	2645	7555	5	CM
51	79	vein	2650	7555	5	CM
46	84	vein	2665	7550	5	CM
55	266	vein	2665	7570	5	CM
6	254	vein	2670	7550	5	CM
16	223	vein	2675	7570	5	CM
53	75	vein	2680	7550	5	CM
57	264	vein	2690	7550	5	CM
40	237	vein	2720	7540	5	CM
55	259	vein	2725	7550	5	CM
55	104	joint	2735	7530	5	CM
60	70	vein	2740	7545	5	CM
30	223	vein	2745	7545	5	CM
65	247	vein	2745	7545	5	CM
68	230	vein	2755	7545	5	CM
50	70	vein	2760	7545	5	CM
62	87	vein	2780	7540	5	CM
60	76	joint	2795	7540	5	CM
60	234	vein	2800	7540	5	CM
90	96	joint	2820	7540	5	CM
90	97	joint	2825	7540	5	CM
70	45	joint	2830	7540	5	CM
65	262	joint	2858	7560	5	CM
70	96	joint	2965	7390	5	CM
70	93	joint	2980	7390	5	CM
67	88	joint	3020	7390	5	CM
85	11	joint	3060	7390	5	CM
60	100	joint	3065	7390	5	CM
70	87	joint	3090	7390	5	CM
67	89	joint	3095	7390	5	CM
70	85	joint	3105	7390	5	CM
45	144	joint	3115	7390	5	CM
57	120	joint	3140	7390	5	CM
70	131	joint	3180	7390	5	CM
70	131	joint	3180	7390	5	CM
70	131	joint	3180	7390	5	CM
19	166	joint	3225	7380	5	CM
65	150	joint	3230	7385	5	CM
59	162	joint	3230	7390	5	CM
60	153	joint	3285	7380	5	CM
20	300	vein	3340	7360	5	CM
45	283	vein	3350	7360	5	CM
69	92	joint	3350	7355	5	CM
70	247	joint	3405	7340	5	CM
40	141	vein	3415	7335	5	CM
42	140		3420	7335	5	CM
38	120		3425	7330	5	CM
46	131	vein	3425	7320	5	CM
46	149	vein	3440	7295	5	CM
35	163	vein	3455	7265	5	CM
60	116	vein	3500	7195	5	CM
50	154	vein	3500	7190	5	CM
62	120	joint	3525	7160	5	CM
51	170	joint	3570	7140	5	CM
56	144	vein	3580	7130	5	CM

Dip (°)	Dip Direction (°)	Type	Easting	Northing	Level	Mine
80	245	vein	3590	7130	5	CM
80	326	vein	3595	7130	5	CM
60	115	vein	3600	7125	5	CM
45	217	vein	3605	7125	5	CM
72	226	vein	3640	7110	5	CM
47	134	vein	3650	7110	5	CM
18	114	joint	3655	7105	5	CM
50	121	vein	3660	7105	5	CM
18	115	vein	3660	7105	5	CM
40	191		3660	7130	5	CM
50	121	vein	3665	7105	5	CM
30	152	joint	3670	7100	5	CM
30	151	vein	3670	7100	5	CM
70	145	joint	3685	7100	5	CM
78	139	vein	3685	7095	5	CM
48	150	vein	3710	7085	5	CM
45	153	vein	3715	7085	5	CM
60	210	joint	3730	7080	5	CM
80	16	joint	3760	7075	5	CM
83	30	joint	3770	7070	5	CM
84	35	joint	3790	7070	5	CM
50	35	joint	3800	7070	5	CM
42	180		3805	7100	5	CM
55	214	joint	3830	7075	5	CM
55	225	joint	3845	7075	5	CM
38	222	joint	3850	7075	5	CM
80	83	joint	3890	7070	5	CM
85	212	joint	3900	7075	5	CM
45	83	joint	3915	7070	5	CM
30	51	joint	3945	7070	5	CM
70	217	joint	3960	7060	5	CM
35	71	joint	4030	7015	5	CM
85	15	joint	4050	6880	5	CM
5	258	joint	4090	7000	5	CM
17	253	joint	4095	7005	5	CM
19	258	vein	4100	7000	5	CM
70	95	joint	4110	7000	5	CM
75	106	joint	4115	7000	5	CM
75	97	joint	4140	6990	5	CM
28	66	joint	4150	6990	5	CM
60	79	joint	4160	6990	5	CM
90	108	joint	4175	6985	5	CM
74	18	joint	4180	6980	5	CM
73	19	joint	4200	6980	5	CM
50	150	joint	4205	6980	5	CM
73	27	joint	4215	6975	5	CM
73	24	joint	4225	6975	5	CM
60	196	joint	4225	6975	5	CM
70	14	joint	4260	6965	5	CM
80	15	joint	4270	6965	5	CM
10	282	joint	4600	6900	5	CM
45	150	fault	4615	6895	5	CM
45	322		4635	6890	5	CM
20	35	joint	4640	6890	5	CM
85	150	joint	4665	6885	5	CM
30	198	joint	4665	6885	5	CM
75	232	joint	4665	6885	5	CM
45	140	fault	4680	6880	5	CM
25	190	fault	4785	6890	5	CM
59	175	joint	4830	6985	5	CM
46	195	fault	4830	6885	5	CM
32	194	joint	4960	6870	5	CM
30	192	joint	4960	6870	5	CM
73	22	joint	5015	6865	5	CM
50	121		5020	6940	5	CM
25	208	joint	5030	6865	5	CM
63	270		5030	6940	5	CM

Dip (°)	Dip Direction (°)	Type	Easting	Northing	Level	Mine
27	124		5040	6940	5	CM
38	168	fault	5045	6860	5	CM
45	122		5050	6940	5	CM
35	248		5060	6940	5	CM
58	270		5060	6940	5	CM
50	166	joint	5065	6860	5	CM
50	25	joint	5070	6890	5	CM
50	24	joint	5070	6895	5	CM
53	270		5070	6900	5	CM
45	270		5070	6940	5	CM
50	35	vein	5085	6940	5	CM
45	40		5095	6940	5	CM
60	205	joint	5095	6860	5	CM
56	175	joint	5100	6860	5	CM
50	225		5100	6940	5	CM
35	235	vein	5165	6875	5	CM
30	278	joint	2310	7580	6	CM
62	48	joint	2310	7581	6	CM
48	254	joint	2310	7600	6	CM
90	195	vein	2315	7600	6	CM
90	185	vein	2315	7600	6	CM
65	6	joint	2320	7560	6	CM
45	150	vein	2330	7585	6	CM
40	173	vein	2370	7590	6	CM
43	185	vein	2460	7615	6	CM
60	312	joint	2490	7670	6	CM
28	169	vein	2490	7615	6	CM
37	170	vein	2490	7610	6	CM
60	138	joint	2495	7610	6	CM
48	253	vein	2495	7630	6	CM
35	230	vein	2495	7610	6	CM
44	197	vein	2495	7590	6	CM
33	169	vein	2500	7670	6	CM
50	246	vein	2505	7585	6	CM
45	172	vein	2530	7575	6	CM
66	165	joint	2530	7660	6	CM
38	186	vein	2530	7580	6	CM
25	284	vein	2540	7570	6	CM
50	246	vein	2540	7555	6	CM
52	120	vein	2550	7570	6	CM
35	235	vein	2550	7660	6	CM
20	260	vein	2560	7565	6	CM
37	195	vein	2560	7570	6	CM
54	259	vein	2560	7600	6	CM
20	283	vein	2565	7660	6	CM
60	255	vein	2565	7565	6	CM
80	33	vein	2570	7650	6	CM
50	248	vein	2570	7600	6	CM
40	191	vein	2570	7640	6	CM
45	241	vein	2575	7565	6	CM
55	202	vein	2575	7650	6	CM
33	252	vein	2580	7615	6	CM
60	253	vein	2585	7560	6	CM
50	246	vein	2585	7620	6	CM
54	246	vein	2585	7620	6	CM
20	246	vein	2590	7560	6	CM
52	240	vein	2595	7620	6	CM
35	239		2595	7620	6	CM
50	190	vein	2595	7630	6	CM
45	220	vein	2595	7645	6	CM
55	220	vein	2595	7645	6	CM
45	258	vein	2595	7660	6	CM
85	175	fault	2600	7665	6	CM
30	263	vein	2610	7555	6	CM
40	230	vein	2620	7625	6	CM
40	188	vein	2625	7550	6	CM
40	200	vein	2625	7600	6	CM

Dip (°)	Dip Direction (°)	Type	Easting	Northing	Level	Mine
40	256	vein	2630	7595	6	CM
44	140	vein	2635	7575	6	CM
30	254	vein	2635	7570	6	CM
50	119	fault	2645	7550	6	CM
53	131	joint	2650	7545	6	CM
40	132	joint	2757	7635	6	CM
40	230	vein	2858	7635	6	CM
40	114	joint	4500	6919	6	CM
27	139	joint	4512	6915	6	CM
55	99	joint	4520	6923	6	CM
30	139	joint	4526	6916	6	CM
50	95	joint	4533	6916	6	CM
29	146	joint	4561	6912	6	CM
33	145	joint	4578	6912	6	CM
50	95	joint	4593	6905	6	CM
31	145	joint	4598	6908	6	CM
50	77	joint	4603	6903	6	CM
32	133	joint	4612	6900	6	CM
20	71	joint	4614	6903	6	CM
33	133	joint	4620	6900	6	CM
34	120	joint	4652	6891	6	CM
80	269	joint	4668	6889	6	CM
33	135	joint	4670	6892	6	CM
70	288	joint	4673	6894	6	CM
47	111	joint	4676	6890	6	CM
30	134	joint	4681	6890	6	CM
34	140	joint	4686	6891	6	CM
41	110	joint	4691	6888	6	CM
33	145	joint	4706	6886	6	CM
33	136	joint	4715	6885	6	CM
50	126	vein	4745	6876	6	CM
23	128	joint	4746	6882	6	CM
40	138	joint	4765	6875	6	CM
10	323	joint	4769	6875	6	CM
45	137	joint	4777	6874	6	CM
45	136	joint	4777	6872	6	CM
80	170		4791	6878	6	CM
80	170		4793	6874	6	CM
52	172		4793	6868	6	CM
30	162		4808	6865	6	CM
39	158	vein	4817	6975	6	CM
55	95	vein	4817	6941	6	CM
20	174		4818	6878	6	CM
35	146	vein	4818	6962	6	CM
35	158	vein	4819	6966	6	CM
60	345	fault	4822	6887	6	CM
70	204	vein	4822	6908	6	CM
15	170		4826	6871	6	CM
50	179	vein	4827	6908	6	CM
80	255		4828	6863	6	CM
80	14		4842	6862	6	CM
80	163	joint	4900	6865	6	CM
80	306	vein	4900		6	CM
45	140	joint	4913	6862	6	CM
44	141		4921	6859	6	CM
42	132		4936	6858	6	CM
41	99		4941	6866	6	CM
48	58		4953	6863	6	CM
40	290	vein	4966	6800	6	CM
78	132		4971	6859	6	CM
35	93		4985	6861	6	CM
30	238	vein	4990	6800	6	CM
15	182	vein	5000	6832	6	CM
80	196	vein	5000	6837	6	CM
62	186	joint	5002	6858	6	CM
30	210	joint	5003	6845	6	CM
84	28	joint	5009	6859	6	CM

Dip (°)	Dip Direction (°)	Type	Easting	Northing	Level	Mine
30	55	vein	5014	6861	6	CM
58	27	joint	5025	6861	6	CM
50	254	vein	5029	6800	6	CM
30	251	vein	5032	6800	6	CM
60	272	vein	5036	6800	6	CM
42	87	vein	5040	6861	6	CM
60	80	vein	5046	6800	6	CM
55	205	joint	5054	6857	6	CM
50	65	joint	5090	6865	6	CM
45	79		5092	6860	6	CM
46	63		5096	6863	6	CM
38	232		5108	6862	6	CM
80	36		5118	6863	6	CM
51	243		5133	6860	6	CM
27	138	joint	340	6900	7	CM
48	338		2215	7450	7	CM
37	123		2220	7445	7	CM
40	118		2230	7410	7	CM
25	242		2230	7415	7	CM
48	102		2250	7470	7	CM
63	195		2260	7450	7	CM
80	218	fault	2305	7435	7	CM
75	97		2310	7420	7	CM
36	142		2330	7420	7	CM
30	105		2330	7420	7	CM
40	189	vein	2330	7575	7	CM
39	195	vein	2330	7595	7	CM
82	166		2350	7560	7	CM
65	190	fault	2355	7420	7	CM
42	145		2360	7540	7	CM
43	155	vein	2370	7545	7	CM
40	168	vein	2370	7540	7	CM
72	187		2370	7410	7	CM
40	133		2380	7560	7	CM
55	336	joint	2385	7425	7	CM
44	133	joint	2385	7435	7	CM
58	355	joint	2400	7520	7	CM
38	194	fault	2410	7460	7	CM
58	307	vein	2415	7510	7	CM
45	132	joint	2435	7490	7	CM
30	172	vein	2440	7500	7	CM
40	244	vein	2480	7550	7	CM
20	142	vein	2490	7530	7	CM
62	165	joint	2490	7565	7	CM
25	235	vein	2490	7565	7	CM
40	355	joint	2500	7580	7	CM
40	350	joint	2500	7575	7	CM
40	130		2500	7530	7	CM
40	165	vein	2500	7575	7	CM
50	153	joint	2500	7575	7	CM
15	246	vein	2500	7530	7	CM
38	252	vein	2510	7580	7	CM
12	230	vein	2530	7530	7	CM
80	315		2540	7530	7	CM
12	264	vein	2540	7530	7	CM
45	263	vein	2560	7530	7	CM
35	277	vein	2585	7530	7	CM
40	313	vein	2600	7530	7	CM
53	238	vein	2600	7530	7	CM
20	264	vein	2630	7530	7	CM
65	282	vein	2640	7530	7	CM
45	257	vein	2640	7530	7	CM
55	280	vein	2675	7530	7	CM
65	123	vein	2690	7530	7	CM
35	274	vein	2700	7530	7	CM
68	154	joint	2700	7530	7	CM
35	311	vein	2710	7530	7	CM

Dip (°)	Dip Direction (°)	Type	Easting	Northing	Level	Mine
52	275	vein	2715	7530	7	CM
35	155	vein	2715	7530	7	CM
56	272	vein	2725	7530	7	CM
50	260	vein	2735	7530	7	CM
20	127	vein	2745	7530	7	CM
48	150	vein	2750	7530	7	CM
50	257	vein	2760	7530	7	CM
47	132	joint	2770	7530	7	CM
67	200		2805	7190	7	CM
45	170	joint	2930	7140	7	CM
60	110	vein	3000	6945	7	CM
35	134	joint	3000	6960	7	CM
55	120	joint	3000	7025	7	CM
80	114	joint	3000	7050	7	CM
80	114	joint	3000	7060	7	CM
80	113	joint	3000	7070	7	CM
45	215		3000	7095	7	CM
24	185	fault	3000	6980	7	CM
90	185	joint	3000	7075	7	CM
50	138		3030	7090	7	CM
25	150		3040	7080	7	CM
55	200	fault	3055	7085	7	CM
35	197	fault	3070	7080	7	CM
80	200	vein	3070	7075	7	CM
43	193	fault	3125	7065	7	CM
35	158	fault	3140	7065	7	CM
50	135	vein	3140	7070	7	CM
65	203	fault	3175	7055	7	CM
50	158		3185	7045	7	CM
10	174	fault	3200	7005	7	CM
22	164	fault	3200	6960	7	CM
67	168	fault	3200	6895	7	CM
70	178	joint	3200	6855	7	CM
65	177	joint	3200	6840	7	CM
80	57	fault	3200	6870	7	CM
50	197	fault	3200	7030	7	CM
82	200	vein	3200	6940	7	CM
80	186	joint	3200	6885	7	CM
70	187	joint	3200	6875	7	CM
90	214	joint	3200	6760	7	CM
80	225	fault	3280	6995	7	CM
60	192	fault	3330	6965	7	CM
80	200	joint	3365	6950	7	CM
77	203	fault	3390	6935	7	CM
23	68	joint	3400	6900	7	CM
20	208	joint	3400	6880	7	CM
80	207		3400	6875	7	CM
80	196	joint	3400	6835	7	CM
73	197	joint	3400	6810	7	CM
75	215	joint	3400	6800	7	CM
67	205	joint	3400	6795	7	CM
10	79	joint	3415	6920	7	CM
80	351	joint	3455	6890	7	CM
70	191	fault	3470	6870	7	CM
50	208	fault	3500	6870	7	CM
85	37	joint	3520	6840	7	CM
90	180	joint	3530	6840	7	CM
75	32	joint	3540	6820	7	CM
84	25	vein	3540	6825	7	CM
73	29	joint	3550	6810	7	CM
30	119	vein	2185	7620	8	CM
60	140	vein	2250	7640	8	CM
20	120		2270	7640	8	CM
40	186		2275	7645	8	CM
50	228	vein	2285	7645	8	CM
30	215	vein	2290	7645	8	CM
50	122	joint	2295	7600	8	CM

Dip (°)	Dip Direction (°)	Type	Easting	Northing	Level	Mine
37	180	vein	2300	7675	8	CM
35	153	vein	2300	7625	8	CM
20	175	vein	2300	7630	8	CM
25	169	joint	2300	7635	8	CM
35	154	vein	2300	7645	8	CM
37	170	vein	2300	7660	8	CM
37	165	vein	2300	7650	8	CM
35	185	vein	2300	7630	8	CM
55	115	joint	2305	7595	8	CM
45	176	joint	2310	7590	8	CM
30	2	joint	2310	7580	8	CM
45	347	joint	2320	7655	8	CM
67	180	vein	2340	7545	8	CM
22	183	joint	2340	7550	8	CM
40	140	joint	2360	7535	8	CM
50	141	joint	2365	7530	8	CM
44	328	vein	2375	7525	8	CM
35	205	vein	2380	7665	8	CM
37	237	vein	2390	7665	8	CM
45	330	joint	2400	7480	8	CM
90	270	joint	2405	7665	8	CM
39	298	joint	2415	7460	8	CM
45	119	joint	2415	7480	8	CM
35	175	joint	2415	7670	8	CM
28	2	joint	2415	7665	8	CM
40	275	joint	2425	7665	8	CM
40	272	joint	2425	7665	8	CM
39	123	joint	2425	7450	8	CM
34	134	vein	2430	7435	8	CM
10	133	vein	2445	7430	8	CM
45	180	vein	2450	7630	8	CM
45	180	vein	2450	7625	8	CM
45	180	vein	2450	7620	8	CM
39	180	vein	2450	7620	8	CM
42	131	joint	2450	7430	8	CM
30	152		2450	7650	8	CM
45	170	vein	2450	7645	8	CM
45	177	vein	2450	7635	8	CM
40	95	fault	2450	7630	8	CM
45	180	vein	2450	7610	8	CM
45	249	joint	2450	7670	8	CM
15	181	vein	2450	7620	8	CM
40	122	joint	2455	7420	8	CM
30	317	joint	2460	7670	8	CM
90	143	joint	2460	7415	8	CM
90	139	joint	2465	7415	8	CM
33	176	joint	2475	7665	8	CM
25	171	joint	2500	7670	8	CM
40	148	joint	2500	7665	8	CM
70	297	joint	2510	7665	8	CM
45	172	joint	2525	7670	8	CM
45	175	joint	2535	7670	8	CM
65	180	joint	2545	7665	8	CM
45	164	joint	2564	7660	8	CM
45	145	joint	2575	7655	8	CM
45	176	joint	2580	7655	8	CM
45	176	joint	2585	7650	8	CM
10	132	joint	2590	7645	8	CM
40	141	joint	2595	7645	8	CM
45	140	joint	2600	7640	8	CM
86	198		2600	7645	8	CM
20	131	joint	2620	7630	8	CM
45	179	joint	2630	7630	8	CM
45	184	joint	2640	7625	8	CM
90	204	joint	2650	7615	8	CM
45	97	joint	2655	7615	8	CM
58	196	joint	2660	7620	8	CM

Dip (°)	Dip Direction (°)	Type	Easting	Northing	Level	Mine
30	125	vein	2995	6890	8	CM
20	142	joint	2995	6750	8	CM
45	138	vein	2995	6745	8	CM
23	143	fault	2995	6735	8	CM
42	71	vein	2995	6875	8	CM
35	220	joint	2995	6750	8	CM
44	235	joint	2995	6745	8	CM
90	220	joint	2995	6805	8	CM
25	113	vein	3000	6860	8	CM
22	115	vein	3010	6855	8	CM
22	120	vein	3015	6855	8	CM
30	118	vein	3030	6855	8	CM
30	118	vein	3035	6855	8	CM
40	220	vein	3060	6855	8	CM
35	45	joint	3065	6850	8	CM
70	80	fault	3075	6855	8	CM
35	80	vein	3080	6855	8	CM
90	260	joint	3085	6850	8	CM
90	259	joint	3085	6850	8	CM
90	256	joint	3085	6850	8	CM
35	84	joint	3090	6850	8	CM
45	84	joint	3090	6850	8	CM
40	74	joint	3100	6845	8	CM
30	72	joint	3160	6850	8	CM
75	74	joint	3175	6850	8	CM
80	229	joint	3200	6850	8	CM
75	270	joint	3201	6850	8	CM
70	120	joint	3250	6840	8	CM
67	110	joint	3250	6835	8	CM
70	112	joint	3250	6825	8	CM
86	182	joint	3250	6840	8	CM
86	192	joint	3250	6825	8	CM
90	183	joint	3250	6840	8	CM
90	182	joint	3250	6840	8	CM
63	103	joint	3300	6830	8	CM
71	35	joint	3300	6830	8	CM
70	70	joint	3300	6775	8	CM
70	120	joint	3310	6860	8	CM
80	48	joint	3340	6860	8	CM
30	82	joint	3380	6860	8	CM
70	224	fault	3380	6860	8	CM
30	212	vein	3555	6770	8	CM
3	121	vein	6045	6855	8	CM
60	14	joint	315	6585	9	CM
35	131	joint	2920	6935	9	CM
60	84	joint	2935	6920	9	CM
35	140	joint	2940	6915	9	CM
55	100	joint	2945	6915	9	CM
46	133	joint	2945	6910	9	CM
45	106	joint	2955	6900	9	CM
47	106	joint	2960	6895	9	CM
40	118	joint	2960	6890	9	CM
60	345	fault	2965	6890	9	CM
40	118		2975	6875	9	CM
60	83	fault	2975	6880	9	CM
31	92		2985	6860	9	CM
60	86	joint	2985	6880	9	CM
31	114	vein	2990	6870	9	CM
38	128	joint	2990	6860	9	CM
38	127	joint	2990	6860	9	CM
31	113		2990	6865	9	CM
55	221	joint	2995	6895	9	CM
45	175	joint	3000	6588	9	CM
45	175	joint	3000	6855	9	CM
55	53	vein	3000	6870	9	CM
55	220	fault	3000	6895	9	CM
30	270		3010	6845	9	CM

Dip (°)	Dip Direction (°)	Type	Easting	Northing	Level	Mine
45	140		3015	6840	9	CM
15	334	joint	3020	6825	9	CM
45	308	joint	3025	6815	9	CM
40	156	joint	3025	6815	9	CM
30	320	joint	3030	6795	9	CM
60	305	joint	3035	6790	9	CM
25	95	joint	3035	6790	9	CM
15	107	joint	3035	6790	9	CM
15	84	joint	3035	6780	9	CM
3	121	joint	3040	6750	9	CM
15	106	joint	3040	6770	9	CM
35	294	joint	3045	6750	9	CM
45	68	joint	3045	6760	9	CM
50	85	joint	3045	6810	9	CM
60	94	joint	3055	6735	9	CM
25	90		3065	6800	9	CM
30	354	joint	3065	6730	9	CM
60	125	joint	3065	6715	9	CM
15	141	joint	3065	6790	9	CM
20	143	joint	3070	6710	9	CM
14	140	joint	3070	6785	9	CM
25	130	joint	3075	6695	9	CM
25	127	joint	3075	6700	9	CM
45	83	joint	3075	6680	9	CM
45	93	joint	3080	6670	9	CM
16	96	joint	3080	6800	9	CM
30	171	joint	3090	6650	9	CM
30	145	joint	3090	6665	9	CM
90	115	joint	3095	6800	9	CM
80	194	joint	3100	6620	9	CM
45	90	joint	3120	6590	9	CM
30	60	vein	3135	6585	9	CM
57	66		3145	6800	9	CM
23	91	joint	3160	6800	9	CM
40	63	joint	3160	6800	9	CM
25	88		3170	6805	9	CM
25	270		3180	6805	9	CM
60	81	joint	3180	6850	9	CM
25	92		3185	6805	9	CM
60	20	joint	3190	6580	9	CM
35	3	joint	3195	6805	9	CM
75	181	joint	3200	6810	9	CM
25	270		3205	6805	9	CM
25	93		3210	6805	9	CM
55	182	joint	3220	6810	9	CM
26	118	joint	3225	6800	9	CM
70	0	joint	3230	6850	9	CM
26	115	joint	3235	6800	9	CM
25	96	joint	3250	6800	9	CM
44	270	joint	3275	6800	9	CM
42	92	joint	3290	6800	9	CM
75	98	joint	3295	6800	9	CM
44	291	joint	3310	6800	9	CM
50	90	joint	3315	6800	9	CM
50	85	joint	3320	6800	9	CM
53	25	joint	3330	6810	9	CM
60	75	joint	3375	6800	9	CM
40	83	joint	3380	6800	9	CM
90	195	joint	3380	6805	9	CM
54	86	joint	3390	6800	9	CM
70	40	vein	3415	6580	9	CM
75	155	fault	3420	6850	9	CM
30	128		3420	6800	9	CM
63	245	joint	3420	6800	9	CM
53	256	joint	3440	6805	9	CM
70	174	fault	3445	6585	9	CM
35	70		3460	6815	9	CM

Dip (°)	Dip Direction (°)	Type	Easting	Northing	Level	Mine
70	235		3460	6815	9	CM
30	155	joint	3465	682	9	CM
75	100	joint	3475	6820	9	CM
65	230	joint	3475	6820	9	CM
10	123	vein	3485	6820	9	CM
75	233	joint	3485	6820	9	CM
55	197	fault	3500	6575	9	CM
20	152	joint	3505	6835	9	CM
6	270	joint	3505	6830	9	CM
65	262	joint	3510	6830	9	CM
15	125	joint	3515	6830	9	CM
75	305	vein	3520	6830	9	CM
50	110	joint	3525	6830	9	CM
55	200	fault	3530	6580	9	CM
35	104	joint	3540	6835	9	CM
90	226	joint	3545	6835	9	CM
15	79	vein	3555	6840	9	CM
65	259	vein	3555	6840	9	CM
50	97	joint	3570	6845	9	CM
35	125	joint	3585	6845	9	CM
40	35	joint	3660	6560	9	CM
90	198	joint	3860	6360	9	CM
80	150	fault	3870	6350	9	CM
90	156	fault	3900	6334	9	CM
90	180	joint	3900	6340	9	CM
60	0	joint	3905	6335	9	CM
90	180	joint	3905	6330	9	CM
90	205	fault	3920	6335	9	CM
80	67	fault	3930	6340	9	CM
80	203	fault	3935	6340	9	CM
90	200	joint	3935	6330	9	CM
90	200	joint	3935	6335	9	CM
75	101	fault	3940	6340	9	CM
90	200	joint	3970	6335	9	CM
80	200	joint	4000	6340	9	CM
30	207	fault	4030	6340	9	CM
90	189	joint	4045	6335	9	CM
31	93	joint	4055	6340	9	CM
15	96	joint	4070	6335	9	CM
90	180	joint	4070	6335	9	CM
15	274	joint	4075	6335	9	CM
33	93	joint	4080	6335	9	CM
28	270	joint	4095	6340	9	CM
90	180	joint	4100	6340	9	CM
90	101	joint	4105	6335	9	CM
30	287	joint	4120	6335	9	CM
55	320	joint	4125	6320	9	CM
68	169	fault	4125	6270	9	CM
40	158	fault	4125	6290	9	CM
45	175	joint	4125	6295	9	CM
80	173	joint	4125	6315	9	CM
85	173	joint	4125	6320	9	CM
80	173	joint	4125	6330	9	CM
83	104	joint	4125	6335	9	CM
80	180	joint	4125	6310	9	CM
80	187	joint	4125	6260	9	CM
80	181	joint	4125	6275	9	CM
80	186	joint	4125	6285	9	CM
80	181	joint	4125	6315	9	CM
90	191	joint	4125	6285	9	CM
90	184	joint	4125	6305	9	CM
90	96	joint	4130	6335	9	CM
80	180	joint	4140	6340	9	CM
75	290	fault	4155	6340	9	CM
35	287	joint	4160	6340	9	CM
90	97	vein	4170	6340	9	CM
68	170	vein	4180	6340	9	CM

Dip (°)	Dip Direction (°)	Type	Easting	Northing	Level	Mine
90	111	joint	4180	6340	9	CM
90	174	joint	4230	6340	9	CM
35	270	joint	4235	6335	9	CM
90	180	joint	4250	6335	9	CM
90	139	joint	1385	1310	350	Sladen
80	155		1415	1295	350	Sladen
82	172	joint	1430	1260	350	Sladen
80	180	fault	1475	1260	350	Sladen
68	35	joint	1500	1295	350	Sladen
75	35	joint	1500	1295	350	Sladen
50	182		1500	1285	350	Sladen
5	138		1580	1280	350	Sladen
80	358		1585	1290	350	Sladen
80	141	joint	1600	1300	350	Sladen
80	154		1600	1285	350	Sladen
80	146		1620	1285	350	Sladen
78	185		1650	1280	350	Sladen
80	346		1665	1290	350	Sladen
40	262		1675	1280	350	Sladen
55	184	joint	1700	1275	350	Sladen
78	181	joint	1365	1225	525	Sladen
85	7	joint	1375	1210	525	Sladen
75	183	joint	1420	1225	525	Sladen
90	176	joint	1440		525	Sladen
60	30	Contact	205	1150	725	Sladen
68	158	Contact	225	1140	725	Sladen
63	165	Contact	250	1160	725	Sladen
80	185	Contact	300	1160	725	Sladen
45	196	Contact	355	1135	725	Sladen
80	190	Contact	355	1150	725	Sladen
90	186	joint	355	1155	725	Sladen
85	13	joint	390	1150	725	Sladen
63	172	Fault	455	1150	725	Sladen
68	186	Fault	500	1150	725	Sladen
68	194	Fault	600	1130	725	Sladen
64	174	Contact	670	1210	725	Sladen
37	167		675	1200	725	Sladen
53	185		675	1190	725	Sladen
45	212	Contact	675	1185	725	Sladen
65	164		680	1230	725	Sladen
47	170		680	1200	725	Sladen
60	185		680	1260	725	Sladen
50	220	Contact	680	1180	725	Sladen
57	170		700	1250	725	Sladen
60	167		700	1230	725	Sladen
58	186		720	1240	725	Sladen
62	190	Contact	720	1210	725	Sladen
55	175		735	1230	725	Sladen
50	172		745	1170	725	Sladen
60	168		750	1220	725	Sladen
50	165		750	1180	725	Sladen
60	164		750	1175	725	Sladen
65	195		765	1175	725	Sladen
65	166		770	1210	725	Sladen
50	165		770	1165	725	Sladen
50	172		775	1160	725	Sladen
65	182	Contact	775	1185	725	Sladen
70	181	Contact	795	1175	725	Sladen
58	161		800	1200	725	Sladen
63	164		800	1190	725	Sladen
57	170		800	1175	725	Sladen
58	168		805	1150	725	Sladen
58	163		805	1160	725	Sladen
65	180	Contact	805	1175	725	Sladen
65	180	Contact	830	1180	725	Sladen
70	152		835	1175	725	Sladen
55	154		850	1170	725	Sladen

Dip (°)	Dip Direction (°)	Type	Easting	Northing	Level	Mine
80	340	joint	1015	1200	725	Sladen
90	171	joint	1015	1210	725	Sladen
80	6	joint	1050	1210	725	Sladen
75	352	joint	1060	1215	725	Sladen
70	350	joint	1095	1230	725	Sladen
70	142	joint	1100	1225	725	Sladen
65	123		1110	1220	725	Sladen
60	116		1110	1205	725	Sladen
80	22	joint	1120	1210	725	Sladen
60	8	joint	1170	1200	725	Sladen
60	45	joint	1175	1200	725	Sladen
45	163	joint	1245	1190	725	Sladen
68	164	joint	1380	1175	725	Sladen
84	180	joint	1400	1185	725	Sladen
68	192	joint	1415	1175	725	Sladen
66	345	joint	1515	1190	725	Sladen
75	180	joint	230		950	Sladen
77	175	joint	260		950	Sladen
80	181	joint	325		950	Sladen
80	0	joint	335		950	Sladen
78	180	joint	375		950	Sladen
77	180	joint	400		950	Sladen
25	177	joint	440		950	Sladen
80	175	joint	465		950	Sladen
85	9	joint	500		950	Sladen
80	9	joint	525		950	Sladen
85	0	joint	600		950	Sladen
70	165	joint	640		950	Sladen
32	225		645		950	Sladen
55	145		665		950	Sladen
44	210		665		950	Sladen
55	210		665		950	Sladen
40	187		665		950	Sladen
48	140		670		950	Sladen
58	138		670		950	Sladen
58	164		670		950	Sladen
33	205		670		950	Sladen
32	222		670		950	Sladen
30	208		670		950	Sladen
30	213		670		950	Sladen
30	212		670		950	Sladen
62	152		675		950	Sladen
68	141		675		950	Sladen
64	144		675		950	Sladen
35	79		675		950	Sladen
60	180		675		950	Sladen
37	184		675		950	Sladen
50	330		680		950	Sladen
70	139		680		950	Sladen
68	146		680		950	Sladen
80	153		680		950	Sladen
40	185		680		950	Sladen
77	125		685		950	Sladen
55	131	joint	685		950	Sladen
63	170	joint	690		950	Sladen
59	132	joint	700		950	Sladen
55	131	joint	700		950	Sladen
77	163	joint	1000		950	Sladen
80	185	joint	1050		950	Sladen
80	180	joint	1125		950	Sladen
56	109	joint	1175		950	Sladen
70	159	fault	1240	1210	950	Sladen

APPENDIX F

RMR CALCULATIONS

Hole_Id	Lithology	SCR (%)	Depth (m)		Length	Core Recovery		RQD		Weathering	Strength	Fracture	JCR	RMR Ratings					
			From	To	m	m	(%)	m	(%)	Index	Index	Count	0-30	UCS	RQD	FX Freq	JCR	GWATER	Total
GT-07-01	AGR	100	12.78	15.00	2.22	2.22	100%	2.11	95%	1	4	3	20	7.8	19	27	16	10	**79.8**
GT-07-01	AGR	73	15.00	18.00	3.00	2.90	97%	2.50	83%	1	4	7	20	7.8	17	21	16	10	**71.8**
GT-07-01	AGR	89	18.00	21.00	3.00	3.09	103%	3.00	100%	1	4	7	20	7.8	20	21	16	10	**74.8**
GT-07-01	AGR	100	21.00	24.00	3.00	3.06	102%	3.00	100%	1	4	4	16	7.8	20	27	13	10	**77.8**
GT-07-01	AGR	85	24.00	27.00	3.00	2.95	98%	2.60	87%	1	4	3	16	7.8	17	27	13	10	**74.8**
GT-07-01	AGR	69	27.00	30.00	3.00	2.85	95%	2.75	92%	1	4	6	16	7.8	18	21	13	10	**69.8**
GT-07-01	AGR	95	30.00	33.00	3.00	3.00	100%	2.90	97%	1	4	3	20	7.8	19	27	16	10	**79.8**
GT-07-01	AGR	98	33.00	36.00	3.00	3.00	100%	2.87	96%	1	4	5	20	7.8	19	27	16	10	**79.8**
GT-07-01	AGR	86	36.00	39.00	3.00	3.00	100%	3.00	100%	2	4	2	16	7.8	20	30	13	10	**80.8**
GT-07-01	AGR	48	42.00	45.00	3.00	3.02	101%	1.80	60%	1	4	6	16	7.8	12	27	13	10	**69.8**
GT-07-01	AGR	88	45.00	48.00	3.00	3.00	100%	2.84	95%	1	4	5	16	7.8	18	27	13	10	**75.8**
GT-07-01	AGR	74	48.00	51.00	3.00	3.00	100%	2.56	85%	1	4	13	20	7.8	17	11.5	16	10	**62.3**
GT-07-01	AGR	74	51.00	54.00	3.00	3.00	100%	2.29	76%	1	4	8	16	7.8	15	21	13	10	**66.8**
GT-07-01	AGR	75	54.00	57.00	3.00	3.00	100%	2.74	91%	1	4	6	16	7.8	18	21	13	10	**69.8**
GT-07-01	AGR	60	57.00	60.00	3.00	3.00	100%	2.09	70%	1	4	13	20	7.8	14	11.5	16	10	**59.3**
GT-07-01	AGR	76	60.00	63.00	3.00	3.00	100%	2.40	80%	1	4	11	16	7.8	16	13.5	13	10	**60.3**
GT-07-01	AGR	60	63.00	66.00	3.00	3.00	100%	1.62	54%	1	4	2	16	7.8	11	30	13	10	**71.8**
GT-07-01	AGR	91	66.00	69.00	3.00	2.83	94%	2.83	94%	1	4	3	16	7.8	18	27	13	10	**75.8**
GT-07-01	AGR	94	69.00	72.00	3.00	3.10	103%	2.95	98%	1	4	4	20	7.8	20	27	16	10	**80.8**
GT-07-01	AGR	52	72.00	75.00	3.00	2.40	80%	1.82	61%	1	4	7	16	7.8	12	21	13	10	**63.8**
GT-07-01	AGR	92	75.00	78.00	3.00	2.97	99%	2.80	93%	1	4	3	20	7.8	18	27	16	10	**78.8**
GT-07-01	AGR	83	78.00	81.00	3.00	3.00	100%	2.70	90%	1	4	7	20	7.8	18	21	16	10	**72.8**
GT-07-01	AGR	100	81.00	84.00	3.00	3.03	101%	3.00	100%	1	3	3	16	4.5	20	30	13	10	**77.5**
GT-07-01	AGR	97	84.00	87.00	3.00	3.00	100%	2.95	98%	2	5	4	20	9.5	20	27	16	10	**82.5**
GT-07-01	AGR	87	87.00	90.00	3.00	3.00	100%	2.75	92%	2	5	10	16	9.5	18	13.5	13	10	**64**
GT-07-01	AGR	100	90.00	93.00	3.00	3.00	100%	2.84	95%	2	5	6	20	9.5	18	21	16	10	**74.5**
GT-07-01	AGR	73	96.00	99.00	3.00	2.96	99%	2.70	90%	2	5	22	20	9.5	18	8.5	16	10	**62**
GT-07-01	AGR	52	99.00	102.00	3.00	2.89	96%	1.72	57%	2	5	17	16	9.5	11	10.5	13	10	**54**
GT-07-01	AGR	65	102.00	105.00	3.00	3.12	104%	2.48	83%	2	5	14	16	9.5	16	11.5	13	10	**60**
GT-07-01	AGR	95	105.00	108.00	3.00	3.13	104%	2.86	95%	2	5	5	16	9.5	19	27	13	10	**78.5**
GT-07-01	AGR	100	108.00	111.00	3.00	3.12	104%	3.00	100%	2	5	1	20	9.5	20	30	16	10	**85.5**
GT-07-01	AGR	89	111.00	114.00	3.00	2.94	98%	2.94	98%		5	6	20	9.5	20	21	16	10	**76.5**
GT-07-01	AGR	87	114.00	117.00	3.00	3.02	101%	2.79	93%	2	5	8	20	9.5	18	21	16	10	**74.5**
GT-07-01	AGR	101	117.00	120.00	3.00	3.06	102%	3.00	100%	2	5	3	20	9.5	20	30	16	10	**85.5**
GT-07-01	AGR	71	120.00	123.00	3.00	3.03	101%	2.83	94%	2	5	11	16	9.5	18	13.5	13	10	**64**
GT-07-01	AGR	86	123.00	126.00	3.00	3.00	100%	2.88	96%	2	5	8	20	9.5	19	21	16	10	**75.5**
GT-07-01	AGR	49	126.00	129.00	3.00	3.00	100%	1.90	63%	2	5	15	16	9.5	13	10.5	13	10	**56**
GT-07-01	AGR	74	129.00	132.00	3.00	3.05	102%	2.09	70%	2	5	9	20	9.5	14	21	16	10	**70.5**
GT-07-01	AGR	93	132.00	135.00	3.00	2.99	100%	2.84	95%	2	5	7	16	9.5	18	21	13	10	**71.5**
GT-07-01	AGR	76	135.00	138.00	3.00	2.99	100%	2.58	86%	2	5	9	20	9.5	17	13.5	16	10	**66**
GT-07-01	AGR	74	138.00	141.00	3.00	2.98	99%	2.98	99%	2	5	9	16	9.5	20	13.5	13	10	**66**
GT-07-01	AGR	89	141.00	144.00	3.00	3.06	102%	3.00	100%	2	5	5	20	9.5	20	27	16	10	**82.5**
GT-07-01	AGR	78	144.00	147.00	3.00	2.99	100%	2.50	83%	2	5	6	19	9.5	17	21	15	10	**72.5**
GT-07-01	AGR	93	147.00	150.00	3.00	3.01	100%	2.82	94%	2	5	3	20	9.5	18	30	16	10	**83.5**
GT-07-01	AGR	92	150.00	153.00	3.00	2.96	99%	2.96	99%	2	5	4	20	9.5	20	27	16	10	**82.5**
GT-07-01	AGR	91	153.00	156.00	3.00	3.04	101%	3.00	100%	1	5	4	20	9.5	20	27	16	10	**82.5**
GT-07-01	AGR	92	156.00	159.00	3.00	3.00	100%	2.94	98%	1	5	5	20	9.5	20	27	16	10	**82.5**
GT-07-01	AGR	93	159.00	162.00	3.00	3.07	102%	2.89	96%	1	5	8	20	9.5	19	21	16	10	**75.5**
GT-07-01	AGR	76	162.00	165.00	3.00	2.88	96%	2.50	83%	1	5	11	20	9.5	17	13.5	16	10	**66**
GT-07-01	AGR	65	165.00	166.55	1.55	1.61	104%	1.28	83%	1	4	2	20	7.8	16	27	16	10	**76.8**
GT-07-01	AGR	43	166.55	168.00	1.45	1.56	108%	0.65	45%	1	4	9	16	7.8	9	10.5	13	10	**50.3**
GT-07-01	AGR	0	168.00	169.00	1.00	0.86	86%	0.00	0%	2	4	16	20	7.8	3	5.25	16	10	**42.05**
GT-07-01	AGR	69	169.00	171.00	2.00	2.00	100%	1.95	98%	2	4	3	20	7.8	20	27	16	10	**80.8**
GT-07-01	AGR	89	171.00	172.28	1.28	1.28	100%	1.26	98%	2	5	3	16	9.5	20	21	13	10	**73.5**
GT-07-02	AGR	61	12.00	15.00	3.00	2.93	98%	2.55	85%	1	5	14	20	9.5	17	11.5	16	10	**64**
GT-07-02	AGR	42	15.00	18.00	3.00	3.00	100%	1.58	53%	1	4	9	16	7.8	10	13.5	13	10	**54.3**

Hole_Id	Lithology	SCR (%)	Depth (m)		Length	Core Recovery		RQD		Weathering	Strength	Fracture	JCR	RMR Ratings					
			From	To	m	m	(%)	m	(%)	Index	Index	Count	0-30	UCS	RQD	FX Freq	JCR	GWATER	Total
GT-07-02	AGR	76	18.00	21.00	3.00	3.02	101%	2.84	95%	1	5	10	20	9.5	18	13.5	16	10	**67**
GT-07-02	AGR	55	21.00	24.00	3.00	2.99	100%	2.00	67%	1	5	13	20	9.5	13	11.5	16	10	**60**
GT-07-02	AGR	82	24.00	27.00	3.00	3.10	103%	2.88	96%	1	5	9	20	9.5	19	21	16	10	**75.5**
GT-07-02	AGR	75	27.00	30.00	3.00	3.09	103%	2.60	87%	1	5	10	20	9.5	17	13.5	16	10	**66**
GT-07-02	AGR	55	30.00	33.00	3.00	2.99	100%	2.00	67%	1	5	84	20	9.5	13	5	16	10	**53.5**
GT-07-02	AGR	84	33.00	36.00	3.00	2.92	97%	2.69	90%	1	5	10	20	9.5	18	13.5	16	10	**67**
GT-07-02	AGR	99	36.00	39.00	3.00	3.07	102%	3.00	100%	1	4	1	20	7.8	20	30	16	10	**83.8**
GT-07-02	AGR	64	39.00	42.00	3.00	2.95	98%	2.10	70%	1	4	13	20	7.8	14	11.5	16	10	**59.3**
GT-07-02	AGR	81	42.00	45.00	3.00	3.08	103%	2.50	83%	1	4	9	20	7.8	17	21	16	10	**71.8**
GT-07-02	AGR	69	45.00	48.00	3.00	3.02	101%	1.99	66%	1	4	15	20	7.8	13	11.5	16	10	**58.3**
GT-07-02	AGR	48	48.00	51.00	3.00	3.00	100%	1.15	38%	1	4	181	20	7.8	8	5	16	10	**46.8**
GT-07-02	AGR	73	51.00	54.00	3.00	2.80	93%	2.00	67%	1	4	105	20	7.8	13	5	16	10	**51.8**
GT-07-02	AGR	75	54.00	57.00	3.00	3.00	100%	2.23	74%	1	4	37	20	7.8	15	6.25	16	10	**55.05**
GT-07-02	AGR	80	66.00	69.00	3.00	3.01	100%	2.15	72%	1	5	16	16	9.5	14	10.5	13	10	**57**
GT-07-02	AGR	32	129.00	132.00	3.00	2.85	95%	0.50	17%	1	4	232	20	7.8	5	5	16	10	**43.8**
GT-07-02	AGR	70	135.00	138.00	3.00	2.96	99%	2.07	69%	1	5	21	20	9.5	14	8.5	16	10	**58**
GT-07-02	AGR	67	138.00	141.00	3.00	3.07	102%	2.42	81%	1	5	16	20	9.5	16	10.5	15	10	**61**
GT-07-02	AGR	93	141.00	144.00	3.00	3.00	100%	2.67	89%	1	5	8	20	9.5	18	21	16	10	**74.5**
GT-07-02	AGR	94	144.00	147.00	3.00	3.08	103%	3.00	100%	1	5	2	16	9.5	20	30	13	10	**82.5**
GT-07-02	AGR	82	147.00	150.00	3.00	3.12	104%	2.80	93%	1	5	4	12	9.5	18	27	8	10	**72.5**
GT-07-02	AGR	69	150.00	153.00	3.00	3.08	103%	2.39	80%	1	5	15	16	9.5	16	11.5	13	10	**60**
GT-07-02	AGR	74	153.00	156.00	3.00	2.95	98%	2.05	68%	1	5	16	12	9.5	14	10.5	8	10	**52**
GT-07-02	AGR	85	156.00	159.00	3.00	3.03	101%	2.87	96%	1	5	11	12	9.5	19	13.5	8	10	**60**
GT-07-02	AGR	93	159.00	162.00	3.00	2.99	100%	2.58	86%	1	5	8	16	9.5	17	21	12	10	**69.5**
GT-07-02	AGR	92	162.00	165.00	3.00	3.01	100%	2.82	94%	1	5	32	16	9.5	18	7	13	10	**57.5**
GT-07-02	AGR	93	165.00	168.00	3.00	3.00	100%	3.00	100%	1	5	5	12	9.5	20	27	8	10	**74.5**
GT-07-02	AGR	81	168.00	171.00	3.00	2.95	98%	2.54	85%	1	5	8	12	9.5	17	21	8	10	**65.5**
GT-07-02	AGR	93	174.00	177.00	3.00	3.02	101%	3.00	100%	1	5	2	16	9.5	20	30	13	10	**82.5**
GT-07-02	AGR	75	177.00	180.00	3.00	2.90	97%	2.37	79%	1	5	17	12	9.5	16	10.5	8	10	**54**
GT-07-02	AGR	77	186.00	189.00	3.00	3.09	103%	2.73	91%	1	5	12	12	9.5	18	13.5	8	10	**59**
GT-07-02	AGR	78	195.00	198.00	3.00	3.00	100%	2.36	79%	1	5	12	20	9.5	16	11.5	16	10	**63**
GT-07-02	AGR	91	201.00	204.00	3.00	3.00	100%	3.00	100%	1	5	2	12	9.5	20	30	8	10	**77.5**
GT-07-02	AGR	97	204.00	207.00	3.00	3.01	100%	3.00	100%	1	5	2	12	9.5	20	30	8	10	**77.5**
GT-07-02	AGR	96	207.00	210.00	3.00	3.00	100%	2.95	98%	1	5	3	16	9.5	20	27	13	10	**79.5**
GT-07-02	AGR	98	210.00	213.00	3.00	3.00	100%	2.92	97%	1	5	3	16	9.5	20	27	13	10	**79.5**
GT-07-02	AGR	78	213.00	216.00	3.00	2.98	99%	2.84	95%	1	5	10	12	9.5	18	13.5	8	10	**59**
GT-07-02	AGR	77	216.00	219.00	3.00	2.91	97%	2.86	95%	1	4	12	16	7.8	19	11.5	13	10	**61.3**
GT-07-02	AGR	79	219.00	222.00	3.00	2.89	96%	2.80	93%	1	5	4	16	9.5	18	27	13	10	**77.5**
GT-07-02	AGR	83	222.00	225.00	3.00	2.99	100%	2.92	97%	1	5	9	12	9.5	20	13.5	8	10	**61**
GT-07-02	AGR	84	225.00	228.00	3.00	3.03	101%	2.86	95%	1	5	7	20	9.5	19	21	16	10	**75.5**
GT-07-02	AGR	79	228.00	231.00	3.00	2.97	99%	2.97	99%	1	5	7	12	9.5	20	21	8	10	**68.5**
GT-07-02	AGR	79	231.00	234.00	3.00	3.10	103%	2.99	100%	1	5	8	12	9.5	20	21	8	10	**68.5**
GT-07-02	AGR	84	234.00	237.00	3.00	2.77	92%	2.62	87%	1	5	6	16	9.5	17	21	13	10	**70.5**
GT-07-02	AGR	75	237.00	240.00	3.00	3.02	101%	3.00	100%	1	5	29	16	9.5	20	7.5	13	10	**60**
GT-07-02	AGR	82	240.00	243.00	3.00	3.00	100%	2.82	94%	1	5	6	16	9.5	18	21	13	10	**71.5**
GT-07-02	AGR	99	243.00	246.00	3.00	3.10	103%	3.00	100%	1	5	3	20	9.5	20	30	16	10	**85.5**
GT-07-02	AGR	89	246.00	249.00	3.00	3.14	105%	2.79	93%	1	5	7	16	9.5	18	21	13	10	**71.5**
GT-07-02	AGR	98	249.00	252.00	3.00	3.10	103%	3.00	100%	1	5	0	20	9.5	20	30	16	10	**85.5**
GT-07-02	AGR	95	252.00	255.00	3.00	3.05	102%	3.00	100%	1	5	6	12	9.5	20	27	8	10	**74.5**
GT-07-02	AGR	96	255.00	258.00	3.00	3.01	100%	3.01	100%	1	5	3	12	9.5	20	30	8	10	**77.5**
GT-07-02	AGR	98	258.00	261.00	3.00	3.01	100%	3.01	100%	1	5	0	20	9.5	20	30	16	10	**85.5**
GT-07-02	AGR	100	261.00	264.00	3.00	3.01	100%	3.01	100%	1	5	0	25	9.5	20	30	20	10	**89.5**
GT-07-02	AGR	94	264.00	267.00	3.00	2.98	99%	2.94	98%	1	5	2	20	9.5	20	30	16	10	**85.5**
GT-07-02	AGR	75	267.00	270.00	3.00	3.03	101%	2.92	97%	1	5	4	20	9.5	20	27	16	10	**82.5**
GT-07-02	AGR	93	270.00	273.00	3.00	3.01	100%	3.01	100%	1	5	5	12	9.5	20	27	8	10	**74.5**
GT-07-02	AGR	87	273.00	276.00	3.00	3.01	100%	2.85	95%	1	5	8	16	9.5	19	21	13	10	**72.5**

Hole_Id	Lithology	SCR (%)	Depth (m)		Length	Core Recovery		RQD		Weathering	Strength	Fracture	JCR	RMR Ratings					
			From	To	m	m	(%)	m	(%)	Index	Index	Count	0-30	UCS	RQD	FX Freq	JCR	GWATER	Total
GT-07-02	AGR	95	276.00	279.00	3.00	2.98	99%	2.88	96%	1	5	4	20	9.5	19	27	16	10	**81.5**
GT-07-02	AGR	78	279.00	282.00	3.00	2.95	98%	2.95	98%	1	5	2	16	9.5	20	30	13	10	**82.5**
GT-07-03	AGR	40	2.00	3.00	1.00	1.00	100%	0.17	17%	1	4.6	2	20	8.5	5	21	16	10	**60.5**
GT-07-03	AGR	71	3.00	6.00	3.00	3.00	100%	1.45	48%	1	4.6	9	17	8.5	10	13.5	14	10	**56**
GT-07-03	AGR	90	6.00	9.00	3.00	3.00	100%	2.87	96%	1	4.6	5	20	8.5	19	27	16	10	**80.5**
GT-07-03	AGR	41	9.00	12.00	3.00	2.51	84%	2.34	78%	1	4.6	7	14	8.5	15	21	10	10	**64.5**
GT-07-03	AGR	66	12.00	15.00	3.00	2.83	94%	2.13	71%	1	4.6	15	17	8.5	14	10.5	13	10	**56**
GT-07-03	AGR	75	15.00	18.00	3.00	3.00	100%	2.53	84%	1	4.6	13	17	8.5	17	11.5	14	10	**61**
GT-07-03	AGR	60	18.00	21.00	3.00	3.00	100%	2.60	87%	1	4.6	20	17	8.5	17	9.5	14	10	**59**
GT-07-03	AGR	80	21.00	24.00	3.00	3.51	117%	2.52	84%	1	4.6	9	17	8.5	17	21	14	10	**70.5**
GT-07-03	AGR	84	24.00	27.00	3.00	3.07	102%	2.60	87%	1	4.6	7	17	8.5	17	21	13	10	**69.5**
GT-07-03	AGR	94	27.00	30.00	3.00	3.00	100%	2.75	92%	1	4.6	8	19	8.5	18	21	15	10	**72.5**
GT-07-03	AGR	94	30.00	33.00	3.00	4.00	133%	3.00	100%	1	4.6	4	20	8.5	20	27	16	10	**81.5**
GT-07-03	AGR	40	33.00	36.00	3.00	1.91	64%	1.37	46%	1	4.6	28	19	8.5	9	6	15	10	**48.5**
GT-07-03	AGR	88	36.00	39.00	3.00	2.75	92%	2.67	89%	1	4.6	0	19	8.5	18	30	15	10	**81.5**
GT-07-03	AGR	82	39.00	42.00	3.00	3.00	100%	2.71	90%	1	4.6	10	19	8.5	18	13.5	15	10	**65**
GT-07-03	AGR	85	42.00	45.00	3.00	3.00	100%	2.72	91%	1	4.6	8	18	8.5	18	21	15	10	**72.5**
GT-07-03	AGR	92	45.00	48.00	3.00	3.00	100%	3.00	100%	1	4.6	5	17	8.5	20	27	13	10	**78.5**
GT-07-03	AGR	83	48.00	51.00	3.00	2.98	99%	2.98	99%	1	4.6	5	18	8.5	20	27	15	10	**80.5**
GT-07-03	AGR	86	51.00	54.00	3.00	3.01	100%	2.78	93%	1	4.6	13	17	8.5	18	11.5	13	10	**61**
GT-07-03	AGR	87	54.00	57.00	3.00	3.00	100%	2.93	98%	1	4.6	6	16	8.5	20	21	13	10	**72.5**
GT-07-03	AGR	88	57.00	60.00	3.00	3.07	102%	3.00	100%	1	4.6	6	17	8.5	20	27	14	10	**79.5**
GT-07-03	AGR	85	60.00	63.00	3.00	3.00	100%	2.89	96%	1	4.6	4	16	8.5	19	27	13	10	**77.5**
GT-07-03	AGR	91	63.00	66.00	3.00	3.00	100%	3.00	100%	1	4.6	5	20	8.5	20	27	16	10	**81.5**
GT-07-03	AGR	84	66.00	69.00	3.00	2.98	99%	2.78	93%	1	4.6	6	19	8.5	18	21	15	10	**72.5**
GT-07-03	AGR	86	69.00	72.00	3.00	2.95	98%	2.75	92%	1	4.6	7	19	8.5	18	21	15	10	**72.5**
GT-07-03	AGR	95	72.00	75.00	3.00	3.00	100%	2.96	99%	1	4.6	5	20	8.5	20	27	16	10	**81.5**
GT-07-03	AGR	50	75.00	78.00	3.00	1.95	65%	1.59	53%	1	4.6	7	19	8.5	11	13.5	15	10	**58**
GT-07-03	AGR	33	78.00	81.00	3.00	1.56	52%	0.95	32%	1	4.6	7	12	8.5	7	11.5	8	10	**45**
GT-07-03	AGR	85	81.00	84.00	3.00	3.00	100%	3.00	100%	1	4.6	32	16	8.5	20	7	13	10	**58.5**
GT-07-03	AGR	81	84.00	87.00	3.00	2.97	99%	2.70	90%	1	4.6	7	19	8.5	18	21	15	10	**72.5**
GT-07-03	AGR	43	87.00	90.00	3.00	1.46	49%	1.35	45%	1	4.6	23	14	8.5	9	5.75	11	10	**44.25**
GT-07-03	AGR	90	90.00	93.00	3.00	3.00	100%	2.85	95%	1	4.6	4	20	8.5	19	27	16	10	**80.5**
GT-07-03	AGR	96	93.00	96.00	3.00	3.01	100%	3.00	100%	1	4.6	2	20	8.5	20	30	16	10	**84.5**
GT-07-03	AGR	97	96.00	99.00	3.00	3.00	100%	3.00	100%	1	4.6	3	20	8.5	20	27	16	10	**81.5**
GT-07-03	AGR	80	99.00	102.00	3.00	2.98	99%	2.74	91%	1	4.6	58	19	8.5	18	5	15	10	**56.5**
GT-07-03	AGR	91	102.00	105.00	3.00	3.00	100%	2.93	98%	1	4.6	30	15	8.5	20	7	11	10	**56.5**
GT-07-03	AGR	61	105.00	108.00	3.00	2.74	91%	2.42	81%	1	4.6	6	15	8.5	16	21	11	10	**66.5**
GT-07-03	AGR	100	108.00	111.00	3.00	3.00	100%	3.00	100%	1	4.6	12	15	8.5	20	11.5	11	10	**61**
GT-07-03	AGR	100	111.00	114.00	3.00	3.00	100%	3.00	100%	1	4.6	2	16	8.5	20	30	13	10	**81.5**
GT-07-03	AGR	35	114.00	117.00	3.00	2.10	70%	1.82	61%	1	4.6	12	17	8.5	12	10.5	13	10	**54**
GT-07-03	AGR	45	117.00	120.00	3.00	1.56	52%	1.48	49%	1	4.6	6	16	8.5	10	13.5	13	10	**55**
GT-07-03	AGR	36	120.00	123.00	3.00	1.42	47%	1.12	37%	1	4.6	5	15	8.5	8	13.5	12	10	**52**
GT-07-03	AGR	80	123.00	126.00	3.00	3.00	100%	2.77	92%	1	4.6	54	18	8.5	18	5	15	10	**56.5**
GT-07-03	AGR	77	126.00	129.00	3.00	3.01	100%	2.84	95%	1	4.6	9	18	8.5	18	21	15	10	**72.5**
GT-07-03	AGR	92	129.00	132.00	3.00	3.00	100%	2.98	99%	1	4.6	1	20	8.5	20	30	16	10	**84.5**
GT-07-03	AGR	88	132.00	135.00	3.00	3.00	100%	2.98	99%	1	4.6	5	20	8.5	20	27	16	10	**81.5**
GT-07-03	AGR	95	135.00	138.00	3.00	3.00	100%	2.97	99%	1	4.6	6	16	8.5	20	21	13	10	**72.5**
GT-07-03	AGR	82	138.00	141.00	3.00	2.88	96%	2.78	93%	1	4.6	5	18	8.5	18	27	15	10	**78.5**
GT-07-03	AGR	67	141.00	144.00	3.00	3.00	100%	2.46	82%	1	4.6	8	15	8.5	16	21	12	10	**67.5**
GT-07-03	AGR	86	144.00	147.00	3.00	3.03	101%	2.94	98%	1	4.6	6	16	8.5	20	27	13	10	**78.5**
GT-07-03	AGR	96	147.00	150.00	3.00	3.00	100%	3.00	100%	1	4.6	6	16	8.5	20	21	13	10	**72.5**
GT-07-03	AGR	74	150.00	153.00	3.00	3.00	100%	2.83	94%	1	4.6	8	14	8.5	18	21	11	10	**68.5**
GT-07-03	AGR	52	153.00	156.00	3.00	1.72	57%	1.65	55%	1	4.6	6	20	8.5	11	13.5	16	10	**59**
GT-07-03	AGR	81	156.00	159.00	3.00	3.00	100%	2.97	99%	1	4.6	14	18	8.5	20	11.5	14	10	**64**
GT-07-03	AGR	36	159.00	162.00	3.00	2.58	86%	1.96	65%	1	4.6	12	15	8.5	13	11.5	12	10	**55**

Hole_Id	Lithology	SCR (%)	Depth (m)		Length	Core Recovery		RQD		Weathering	Strength	Fracture	JCR	RMR Ratings					
			From	To	m	m	(%)	m	(%)	Index	Index	Count	0-30	UCS	RQD	FX Freq	JCR	GWATER	Total
GT-07-03	AGR	83	162.00	165.00	3.00	3.00	100%	2.66	89%	1	4.6	12	19	8.5	18	11.5	15	10	**63**
GT-07-03	AGR	90	165.00	168.00	3.00	3.12	104%	2.95	98%	1	4.6	11	20	8.5	20	13.5	16	10	**68**
GT-07-03	AGR	79	168.00	171.00	3.00	3.00	100%	3.00	100%	1	4.6	7	15	8.5	20	21	12	10	**71.5**
GT-07-03	AGR	39	171.00	174.00	3.00	2.00	67%	1.54	51%	1	4.6	7	17	8.5	10	13.5	13	10	**55**
GT-07-03	AGR	91	174.00	177.00	3.00	3.00	100%	2.97	99%	1	4.6	4	18	8.5	20	27	15	10	**80.5**
GT-07-03	AGR	91	177.00	180.00	3.00	3.02	101%	3.00	100%	1	4.6	3	17	8.5	20	30	14	10	**82.5**
GT-07-03	AGR	94	180.00	183.00	3.00	3.00	100%	2.97	99%	1	4.6	5	18	8.5	20	27	15	10	**80.5**
GT-07-03	AGR	100	183.00	186.00	3.00	3.00	100%	3.00	100%	1	4.6	0	30	8.5	20	30	25	10	**93.5**
GT-07-03	AGR	94	186.00	189.00	3.00	2.99	100%	3.00	100%	1	4.6	3	20	8.5	20	27	16	10	**81.5**
GT-07-03	AGR	100	189.00	192.00	3.00	3.00	100%	3.00	100%	1	4.6	0	30	8.5	20	30	25	10	**93.5**
GT-07-03	AGR	96	192.00	195.00	3.00	2.98	99%	2.98	99%	1	4.6	3	15	8.5	20	27	11	10	**76.5**
GT-07-03	AGR	96	195.00	198.00	3.00	2.96	99%	2.96	99%	1	4.6	2	16	8.5	20	30	13	10	**81.5**
GT-07-03	AGR	44	198.00	201.00	3.00	2.60	87%	1.50	50%	1	4.6	2	12	8.5	10	30	8	10	**66.5**
GT-07-03	AGR	96	201.00	204.00	3.00	3.00	100%	3.00	100%	1	4.6	4	20	8.5	20	27	16	10	**81.5**
GT-07-03	AGR	95	204.00	207.00	3.00	2.91	97%	2.91	97%	1	4.6	0	20	8.5	20	30	16	10	**84.5**
GT-07-03	AGR	102	207.00	210.00	3.00	3.00	100%	3.00	100%	1	4.6	2	20	8.5	20	30	16	10	**84.5**
GT-07-03	AGR	73	210.00	213.00	3.00	2.36	79%	2.36	79%	1	4.6	0	30	8.5	16	30	25	10	**89.5**
GT-07-03	AGR	103	213.00	216.00	3.00	3.00	100%	3.00	100%	1	4.6	2	20	8.5	20	30	16	10	**84.5**
GT-07-03	AGR	86	216.00	219.00	3.00	3.01	100%	3.01	100%	1	4.6	2	12	8.5	20	30	8	10	**76.5**
GT-07-03	AGR	101	219.00	222.00	3.00	3.00	100%	3.00	100%	1	4.6	0	30	8.5	20	30	25	10	**93.5**
GT-07-03	AGR	89	222.00	225.00	3.00	2.97	99%	2.95	98%	1	4.6	1	12	8.5	20	30	8	10	**76.5**
GT-07-04	AGR	81	30.00	33.00	3.00	3.10	103%	1.82	61%	1	4	42	17	7.8	12	6	14	10	**49.8**
GT-07-04	AGR	62	33.00	36.00	3.00	3.00	100%	1.63	54%	1	4	23	17	7.8	11	8.5	14	10	**51.3**
GT-07-04	AGR	50	36.00	39.00	3.00	3.00	100%	1.87	62%	1	4	37	17	7.8	12	6.25	13	10	**49.05**
GT-07-04	AGR	55	42.00	45.00	3.00	2.22	74%	1.68	56%	1	4	0	14	7.8	11	30	11	10	**69.8**
GT-07-04	AGR	93	45.00	48.00	3.00	3.05	102%	3.05	102%	1	5	4	16	9.5	20	27	13	10	**79.5**
GT-07-04	AGR	75	48.00	51.00	3.00	3.15	105%	2.07	69%	1	5	59	16	9.5	14	5	13	10	**51.5**
GT-07-04	AGR	84	51.00	54.00	3.00	2.94	98%	2.82	94%	1	5	6	18	9.5	18	21	14	10	**72.5**
GT-07-04	AGR	74	57.00	60.00	3.00	2.97	99%	2.50	83%	1	5	33	20	9.5	17	6.75	16	10	**59.25**
GT-07-04	AGR	75	60.00	63.00	3.00	3.00	100%	2.26	75%	1	5	20	16	9.5	15	9.5	12	10	**56**
GT-07-04	AGR	60	63.00	66.00	3.00	2.99	100%	2.28	76%	1	5	16	16	9.5	15	10.5	13	10	**58**
GT-07-04	AGR	76	66.00	69.00	3.00	3.05	102%	2.51	84%	1	4	16	18	7.8	17	10.5	15	10	**60.3**
GT-07-04	AGR	86	69.00	72.00	3.00	3.05	102%	2.69	90%	1	5	8	15	9.5	18	21	11	10	**69.5**
GT-07-04	AGR	85	72.00	75.00	3.00	2.92	97%	2.58	86%	1	5	10	16	9.5	17	13.5	13	10	**63**
GT-07-04	AGR	88	75.00	78.00	3.00	3.05	102%	2.97	99%	1	5	9	14	9.5	20	21	10	10	**70.5**
GT-07-04	AGR	87	78.00	81.00	3.00	3.00	100%	2.57	86%	1	5	8	16	9.5	17	21	13	10	**70.5**
GT-07-04	AGR	77	81.00	84.00	3.00	2.98	99%	2.61	87%	1	5	17	16	9.5	17	10.5	12	10	**59**
GT-07-04	AGR	82	84.00	87.00	3.00	3.03	101%	2.60	87%	1	4	34	19	7.8	17	6.75	15	10	**56.55**
GT-07-04	AGR	87	87.00	90.00	3.00	3.02	101%	2.67	89%	1	4	8	20	7.8	18	21	16	10	**72.8**
GT-07-04	AGR	90	90.00	93.00	3.00	2.98	99%	2.65	88%	1	5	7	15	9.5	18	21	12	10	**70.5**
GT-07-04	AGR	99	93.00	96.00	3.00	3.03	101%	2.95	98%	1	4	2	12	7.8	20	30	8	10	**75.8**
GT-07-04	AGR	90	96.00	99.00	3.00	3.03	101%	2.93	98%	1	4	7	13	7.8	20	21	10	10	**68.8**
GT-07-04	AGR	87	99.00	102.00	3.00	2.95	98%	2.81	94%	1	4	8	16	7.8	18	21	13	10	**69.8**
GT-07-04	AGR	75	102.00	105.00	3.00	3.02	101%	2.16	72%	1	5	57	14	9.5	14	5	10	10	**48.5**
GT-07-04	AGR	92	105.00	108.00	3.00	3.05	102%	2.86	95%	1	4	5	18	7.8	19	27	15	10	**78.8**
GT-07-04	AGR	90	108.00	111.00	3.00	2.98	99%	2.72	91%	1	5	5	15	9.5	18	27	12	10	**76.5**
GT-07-04	AGR	98	111.00	114.00	3.00	2.96	99%	2.96	99%	1	4	1	20	7.8	20	30	16	10	**83.8**
GT-07-04	AGR	93	114.00	117.00	3.00	3.02	101%	2.81	94%	1	4	5	18	7.8	18	27	15	10	**77.8**
GT-07-04	AGR	86	117.00	120.00	3.00	2.97	99%	2.71	90%	1	4	10	16	7.8	18	13.5	12	10	**61.3**
GT-07-04	AGR	63	120.00	123.00	3.00	3.00	100%	2.27	76%	1	4	14	17	7.8	15	11.5	14	10	**58.3**
GT-07-04	AGR	83	123.00	126.00	3.00	3.00	100%	2.97	99%	1	4	2	20	7.8	20	30	16	10	**83.8**
GT-07-04	AGR	86	126.00	129.00	3.00	3.02	101%	2.66	89%	1	5	10	17	9.5	18	13.5	13	10	**64**
GT-07-04	AGR	91	129.00	132.00	3.00	3.02	101%	2.98	99%	1	5	4	20	9.5	20	27	16	10	**82.5**
GT-07-04	AGR	98	132.00	135.00	3.00	2.97	99%	2.97	99%	1	5	1	12	9.5	20	30	8	10	**77.5**
GT-07-04	AGR	98	135.00	138.00	3.00	2.97	99%	2.97	99%	1	5	1	12	9.5	20	30	8	10	**77.5**
GT-07-04	AGR	98	138.00	141.00	3.00	3.01	100%	3.01	100%	1	5	1	12	9.5	20	30	8	10	**77.5**

Hole_Id	Lithology	SCR (%)	Depth (m)		Length	Core Recovery		RQD		Weathering	Strength	Fracture	JCR	RMR Ratings					
			From	To	m	m	(%)	m	(%)	Index	Index	Count	0-30	UCS	RQD	FX Freq	JCR	GWATER	Total
GT-07-04	AGR	96	141.00	144.00	3.00	3.00	100%	2.96	99%	1	5	4	12	9.5	20	27	8	10	**74.5**
GT-07-04	AGR	94	144.00	147.00	3.00	2.97	99%	2.66	89%	1	5	6	16	9.5	18	21	13	10	**71.5**
GT-07-04	AGR	85	147.00	150.00	3.00	3.03	101%	2.87	96%	1	5	10	18	9.5	19	13.5	14	10	**66**
GT-07-04	AGR	94	150.00	153.00	3.00	2.96	99%	2.80	93%	1	5	3	15	9.5	18	27	11	10	**75.5**
GT-07-04	AGR	83	153.00	156.00	3.00	2.98	99%	2.70	90%	1	5	7	15	9.5	18	21	12	10	**70.5**
GT-07-04	AGR	94	156.00	159.00	3.00	3.01	100%	2.74	91%	1	5	6	15	9.5	18	27	11	10	**75.5**
GT-07-04	AGR	89	159.00	162.00	3.00	2.99	100%	2.80	93%	1	5	6	15	9.5	18	21	11	10	**69.5**
GT-07-04	AGR	98	162.00	165.00	3.00	3.03	101%	3.03	101%	1	5	4	12	9.5	20	27	8	10	**74.5**
GT-07-04	AGR	89	165.00	168.00	3.00	2.98	99%	2.78	93%	1	5	8	17	9.5	18	21	14	10	**72.5**
GT-07-04	AGR	100	168.00	171.00	3.00	3.06	102%	3.00	100%	1	5	4	16	9.5	20	27	13	10	**79.5**
GT-07-04	AGR	95	171.00	174.00	3.00	2.98	99%	2.96	99%	1	4	5	20	7.8	20	27	16	10	**80.8**
GT-07-04	AGR	92	174.00	177.00	3.00	3.00	100%	2.97	99%	1	4	5	14	7.8	20	27	10	10	**74.8**
GT-07-04	AGR	85	177.00	180.00	3.00	2.96	99%	2.67	89%	1	4	7	14	7.8	18	21	11	10	**67.8**
GT-07-04	AGR	96	180.00	183.00	3.00	3.06	102%	3.06	102%	1	4	2	12	7.8	20	30	8	10	**75.8**
GT-07-04	AGR	97	183.00	186.00	3.00	3.00	100%	3.00	100%	1	4	2	20	7.8	20	30	16	10	**83.8**
GT-07-04	AGR	85	186.00	189.00	3.00	3.00	100%	3.00	100%	1	4	5	17	7.8	20	27	13	10	**77.8**
GT-07-04	AGR	80	189.00	192.00	3.00	2.99	100%	2.73	91%	1	5	11	16	9.5	18	13.5	13	10	**64**
GT-07-04	AGR	92	192.00	195.00	3.00	3.00	100%	2.86	95%	1	5	6	13	9.5	19	21	10	10	**69.5**
GT-07-04	AGR	89	195.00	198.00	3.00	3.01	100%	3.01	100%	1	5	4	18	9.5	20	27	15	10	**81.5**
GT-07-04	AGR	76	198.00	201.00	3.00	2.96	99%	2.50	83%	1	5	21	16	9.5	17	8.5	12	10	**57**
GT-07-04	AGR	84	201.00	204.00	3.00	3.01	100%	2.79	93%	1	5	3	17	9.5	18	30	14	10	**81.5**
GT-07-04	AGR	76	204.00	207.00	3.00	2.99	100%	2.84	95%	1	5	12	17	9.5	18	11.5	14	10	**63**
GT-07-04	AGR	84	207.00	210.00	3.00	3.01	100%	3.01	100%	1	5	6	19	9.5	20	27	15	10	**81.5**
GT-07-04	AGR	90	210.00	213.00	3.00	2.99	100%	2.79	93%	1	4	5	18	7.8	18	27	14	10	**76.8**
GT-07-04	AGR	74	213.00	216.00	3.00	3.04	101%	2.73	91%	1	5	15	14	9.5	18	11.5	10	10	**59**
GT-07-04	AGR	77	216.00	219.00	3.00	3.01	100%	2.60	87%	1	5	21	17	9.5	17	9.5	14	10	**60**
GT-07-04	AGR	95	219.00	222.00	3.00	3.02	101%	3.00	100%	1	5	2	16	9.5	20	30	13	10	**82.5**
GT-07-04	AGR	94	222.00	225.00	3.00	2.97	99%	2.89	96%	1	5	2	17	9.5	19	30	14	10	**82.5**
GT-07-04	AGR	87	225.00	228.00	3.00	3.00	100%	3.00	100%	1	4	6	13	7.8	20	21	10	10	**68.8**
GT-07-04	AGR	87	228.00	231.00	3.00	2.99	100%	2.81	94%	1	5	8	18	9.5	18	21	15	10	**73.5**
GT-07-04	AGR	78	231.00	234.00	3.00	3.01	100%	2.81	94%	1	5	14	15	9.5	18	11.5	11	10	**60**
GT-07-04	AGR	84	234.00	237.00	3.00	3.02	101%	2.78	93%	1	5	10	14	9.5	18	13.5	11	10	**62**
GT-07-04	AGR	96	237.00	240.00	3.00	3.10	103%	2.90	97%	1	5	6	15	9.5	19	27	11	10	**76.5**
GT-07-04	AGR	95	240.00	243.00	3.00	3.08	103%	2.88	96%	1	5	7	13	9.5	19	21	10	10	**69.5**
GT-07-04	AGR	88	243.00	246.00	3.00	3.06	102%	2.86	95%	1	5	8	17	9.5	19	21	14	10	**73.5**
GT-07-04	AGR	98	249.00	252.00	3.00	3.10	103%	2.96	99%	1	6	5	15	15	20	27	12	10	**84**
GT-07-04	AGR	87	252.00	255.00	3.00	2.89	96%	2.60	87%	1	5	5	17	9.5	17	27	13	10	**76.5**
GT-07-04	AGR	87	255.00	258.00	3.00	3.00	100%	2.87	96%	1	5	7	17	9.5	19	21	13	10	**72.5**
GT-07-04	AGR	96	258.00	261.00	3.00	3.05	102%	3.05	102%	1	4	2	20	7.8	20	30	16	10	**83.8**
GT-07-04	AGR	95	261.00	264.00	3.00	2.97	99%	2.97	99%	1	4	4	20	7.8	20	27	16	10	**80.8**
GT-07-04	AGR	92	264.00	267.00	3.00	2.99	100%	2.96	99%	1	5	6	18	9.5	20	21	15	10	**75.5**
GT-07-04	AGR	92	267.00	270.00	3.00	2.99	100%	2.90	97%	1	5	3	14	9.5	19	27	11	10	**76.5**
GT-07-04	AGR	98	270.00	273.00	3.00	3.04	101%	3.04	101%	1	5	2	16	9.5	20	30	13	10	**82.5**
GT-07-04	AGR	75	273.00	276.00	3.00	2.96	99%	2.74	91%	1	4	9	16	7.8	18	13.5	12	10	**61.3**
GT-07-04	AGR	71	276.00	279.00	3.00	3.00	100%	2.45	82%	1	5	21	17	9.5	16	8.5	13	10	**57**
GT-07-04	AGR	NA	279.00	282.00	3.00	3.02	101%	2.54	85%	1	4	12	17	7.8	17	13.5	13	10	**61.3**
GT-07-04	AGR	93	282.00	285.00	3.00	3.00	100%	2.85	95%	1	5	4	16	9.5	19	27	13	10	**78.5**
GT-07-04	AGR	98	285.00	288.00	3.00	3.00	100%	3.00	100%	1	5	1	12	9.5	20	30	8	10	**77.5**
GT-07-04	AGR	89	288.00	291.00	3.00	3.00	100%	3.00	100%	1	5	5	15	9.5	20	27	11	10	**77.5**
GT-07-04	AGR	73	291.00	294.00	3.00	2.80	93%	2.70	90%	1	5	4	17	9.5	18	27	14	10	**78.5**
GT-07-04	AGR	92	294.00	297.00	3.00	3.02	101%	2.86	95%	1	5	7	17	9.5	19	21	13	10	**72.5**
GT-07-04	AGR	97	297.00	300.00	3.00	3.05	102%	3.04	101%	1	5	4	16	9.5	20	27	13	10	**79.5**
GT-07-04	AGR	87	300.00	303.00	3.00	3.02	101%	2.94	98%	1	5	7	18	9.5	20	21	14	10	**74.5**
GT-07-04	AGR	97	303.00	306.00	3.00	3.00	100%	3.00	100%	1	5	3	15	9.5	20	27	11	10	**77.5**
GT-07-04	AGR	88	306.00	309.00	3.00	2.95	98%	2.88	96%	1	5	7	14	9.5	19	21	11	10	**70.5**
GT-07-04	AGR	90	309.00	312.00	3.00	3.09	103%	2.80	93%	1	5	5	18	9.5	18	27	15	10	**79.5**

Hole_Id	Lithology	SCR (%)	Depth (m)		Length	Core Recovery		RQD		Weathering	Strength	Fracture	JCR	RMR Ratings					
			From	To	m	m	(%)	m	(%)	Index	Index	Count	0-30	UCS	RQD	FX Freq	JCR	GWATER	Total
GT-07-04	AGR	96	312.00	315.00	3.00	3.00	100%	3.00	100%	1	5	3	14	9.5	20	27	11	10	**77.5**
GT-07-04	AGR	88	315.00	318.00	3.00	3.04	101%	2.84	95%	1	5	6	15	9.5	18	27	11	10	**75.5**
GT-07-04	AGR	93	318.00	321.00	3.00	2.98	99%	2.93	98%	1	5	5	20	9.5	20	27	16	10	**82.5**
GT-07-04	AGR	85	321.00	324.00	3.00	3.02	101%	2.89	96%	1	5	7	17	9.5	19	21	13	10	**72.5**
GT-07-04	AGR	84	324.00	327.00	3.00	2.99	100%	2.99	100%	1	5	6	15	9.5	20	21	12	10	**72.5**
GT-07-04	AGR	75	327.00	330.00	3.00	3.01	100%	2.47	82%	1	5	11	16	9.5	16	13.5	13	10	**62**
GT-07-04	AGR	89	333.00	336.00	3.00	3.03	101%	2.90	97%	1	5	5	17	9.5	19	27	13	10	**78.5**
GT-07-04	AGR	89	336.00	339.00	3.00	2.98	99%	2.98	99%	1	5	5	14	9.5	20	27	11	10	**77.5**
GT-07-04	AGR	95	339.00	342.00	3.00	3.02	101%	2.99	100%	1	5	4	14	9.5	20	27	11	10	**77.5**
GT-07-04	AGR	83	342.00	345.00	3.00	3.00	100%	2.83	94%	1	5	6	17	9.5	18	21	14	10	**72.5**
GT-07-04	AGR	87	348.00	351.00	3.00	3.00	100%	2.82	94%	1	5	6	17	9.5	18	21	14	10	**72.5**
GT-07-04	AGR	81	351.00	354.00	3.00	2.97	99%	2.85	95%	1	5	6	17	9.5	19	21	14	10	**73.5**
GT-07-04	AGR	53	357.00	360.00	3.00	2.89	96%	1.42	47%	1	5	24	15	9.5	10	8	11	10	**48.5**
GT-07-04	AGR	57	360.00	363.00	3.00	3.00	100%	1.00	33%	1	5	28	16	9.5	7	7.5	13	10	**47**
GT-07-04	AGR	94	363.00	366.00	3.00	2.99	100%	2.99	100%	1	5	3	15	9.5	20	27	11	10	**77.5**
GT-07-04	AGR	85	366.00	369.00	3.00	2.92	97%	2.60	87%	1	5	7	18	9.5	17	21	14	10	**71.5**
GT-07-05	AGR	80	72.00	75.00	3.00	2.89	96%	2.73	91%	1	5	11	20	9.5	18	13.5	16	10	**67**
GT-07-05	AGR	95	75.00	78.00	3.00	3.03	101%	2.70	90%	1	5	8	16	9.5	18	21	13	10	**71.5**
GT-07-05	AGR	55	78.00	81.00	3.00	2.90	97%	1.50	50%	1	4	38	16	7.8	10	6	13	10	**46.8**
GT-07-05	AGR	54	81.00	84.00	3.00	3.05	102%	1.25	42%	1	4	83	16	7.8	8	5	13	10	**43.8**
GT-07-05	AGR	77	84.00	87.00	3.00	2.90	97%	2.88	96%	1	5	9	16	9.5	19	13.5	13	10	**65**
GT-07-05	AGR	72	105.00	108.00	3.00	3.04	101%	2.00	67%	1	4	13	20	7.8	13	11.5	16	10	**58.3**
GT-07-05	AGR	59	108.00	111.00	3.00	2.99	100%	2.29	76%	1	4	12	20	7.8	15	11.5	16	10	**60.3**
GT-07-05	AGR	80	111.00	114.00	3.00	2.85	95%	2.58	86%	1	5	11	20	9.5	17	13.5	16	10	**66**
GT-07-05	AGR	67	114.00	117.00	3.00	3.00	100%	2.40	80%	1	5	11	20	9.5	16	13.5	16	10	**65**
GT-07-05	AGR	87	117.00	120.00	3.00	3.02	101%	2.91	97%	1	5	7	20	9.5	20	21	16	10	**76.5**
GT-07-05	AGR	80	120.00	123.00	3.00	2.92	97%	2.79	93%	1	5	8	12	9.5	18	21	8	10	**66.5**
GT-07-05	AGR	66	123.00	126.00	3.00	3.04	101%	2.21	74%	1	5	21	12	9.5	14	9.5	8	10	**51**
GT-07-05	AGR	95	126.00	129.00	3.00	3.01	100%	2.92	97%	1	5	6	20	9.5	20	27	16	10	**82.5**
GT-07-05	AGR	80	129.00	132.00	3.00	3.01	100%	2.45	82%	1	5	14	16	9.5	16	11.5	13	10	**60**
GT-07-05	AGR	83	132.00	135.00	3.00	3.10	103%	2.66	89%	1	5	9	16	9.5	18	21	13	10	**71.5**
GT-07-05	AGR	88	135.00	138.00	3.00	3.01	100%	2.61	87%	1	5	9	16	9.5	17	21	13	10	**70.5**
GT-07-05	AGR	70	138.00	141.00	3.00	3.02	101%	1.82	61%	1	5	18	16	9.5	12	10.5	13	10	**55**
GT-07-05	AGR	75	141.00	144.00	3.00	3.00	100%	2.46	82%	1	5	14	16	9.5	16	11.5	13	10	**60**
GT-07-05	AGR	97	144.00	147.00	3.00	3.02	101%	2.95	98%	1	6	7	20	15	20	21	16	10	**82**
GT-07-05	AGR	91	147.00	150.00	3.00	3.00	100%	2.92	97%	1	6	7	20	15	20	21	16	10	**82**
GT-07-05	AGR	90	150.00	153.00	3.00	2.98	99%	2.90	97%	1	5	7	20	9.5	19	21	16	10	**75.5**
GT-07-05	AGR	91	153.00	156.00	3.00	3.04	101%	2.84	95%	1	5	5	20	9.5	18	27	16	10	**80.5**
GT-07-05	AGR	92	156.00	159.00	3.00	2.99	100%	2.90	97%	1	5	7	20	9.5	19	21	16	10	**75.5**
GT-07-05	AGR	82	159.00	162.00	3.00	3.00	100%	2.59	86%	1	5	8	20	9.5	17	21	16	10	**73.5**
GT-07-05	AGR	86	162.00	165.00	3.00	3.04	101%	2.77	92%	1	5	9	20	9.5	18	21	16	10	**74.5**
GT-07-05	AGR	83	165.00	168.00	3.00	3.01	100%	2.83	94%	1	5	8	12	9.5	18	21	8	10	**66.5**
GT-07-05	AGR	74	168.00	171.00	3.00	2.80	93%	2.66	89%	1	5	13	20	9.5	18	11.5	16	10	**65**
GT-07-05	AGR	88	171.00	174.00	3.00	3.07	102%	2.85	95%	1	5	12	20	9.5	19	13.5	16	10	**68**
GT-07-05	AGR	89	174.00	177.00	3.00	3.09	103%	2.80	93%	1	5	11	20	9.5	18	13.5	16	10	**67**
GT-07-05	AGR	73	177.00	180.00	3.00	2.80	93%	2.10	70%	1	5	17	20	9.5	14	9.5	16	10	**59**
GT-07-05	AGR	94	180.00	183.00	3.00	3.07	102%	2.94	98%	1	5	6	16	9.5	20	27	13	10	**79.5**
GT-07-05	AGR	89	183.00	186.00	3.00	3.09	103%	2.97	99%	1	5	7	20	9.5	20	21	16	10	**76.5**
GT-07-05	AGR	75	186.00	189.00	3.00	3.07	102%	2.63	88%	1	5	14	16	9.5	17	11.5	13	10	**61**
GT-07-05	AGR	87	189.00	192.00	3.00	3.01	100%	2.88	96%	1	5	7	16	9.5	19	21	13	10	**72.5**
GT-07-05	AGR	99	192.00	195.00	3.00	3.04	101%	3.04	101%	1	5	2	20	9.5	20	30	16	10	**85.5**
GT-07-05	AGR	98	195.00	198.00	3.00	2.95	98%	2.95	98%	1	5	0	25	9.5	20	30	20	10	**89.5**
GT-07-05	AGR	102	198.00	201.00	3.00	3.05	102%	3.00	100%	1	5	0	25	9.5	20	30	20	10	**89.5**
GT-07-05	AGR	102	201.00	204.00	3.00	3.09	103%	3.00	100%	1	6	3	16	15	20	30	13	10	**88**
GT-07-05	AGR	91	204.00	207.00	3.00	3.05	102%	2.90	97%	1	5	5	20	9.5	19	27	16	10	**81.5**
GT-07-05	AGR	88	207.00	210.00	3.00	2.97	99%	2.95	98%	1	5	6	16	9.5	20	21	13	10	**73.5**

Hole_Id	Lithology	SCR (%)	Depth (m)		Length	Core Recovery		RQD		Weathering	Strength	Fracture	JCR	RMR Ratings					
			From	To	m	m	(%)	m	(%)	Index	Index	Count	0-30	UCS	RQD	FX Freq	JCR	GWATER	Total
GT-07-05	AGR	99	210.00	213.00	3.00	3.00	100%	2.99	100%	1	5	3	20	9.5	20	27	16	10	**82.5**
GT-07-05	AGR	98	213.00	216.00	3.00	3.00	100%	3.00	100%	1	4	3	12	7.8	20	27	8	10	**72.8**
GT-07-05	AGR	96	216.00	219.00	3.00	3.00	100%	2.98	99%	1	5	3	16	9.5	20	27	13	10	**79.5**
GT-07-05	AGR	93	219.00	222.00	3.00	3.04	101%	3.00	100%	1	5	5	16	9.5	20	27	13	10	**79.5**
GT-07-05	AGR	90	222.00	225.00	3.00	3.00	100%	2.80	93%	1	5	6	20	9.5	18	21	16	10	**74.5**
GT-07-05	AGR	100	225.00	228.00	3.00	3.05	102%	2.87	96%	1	5	4	20	9.5	19	27	16	10	**81.5**
GT-07-05	AGR	94	228.00	231.00	3.00	3.01	100%	2.97	99%	1	5	3	12	9.5	20	30	8	10	**77.5**
GT-07-05	AGR	89	231.00	234.00	3.00	2.96	99%	2.91	97%	1	5	6	20	9.5	20	21	16	10	**76.5**
GT-07-05	AGR	79	234.00	237.00	3.00	2.96	99%	2.47	82%	1	5	34	20	9.5	16	6.75	16	10	**58.25**
GT-07-05	AGR	86	237.00	240.00	3.00	3.03	101%	2.60	87%	1	5	11	16	9.5	17	13.5	13	10	**63**
GT-07-05	AGR	93	240.00	243.00	3.00	3.03	101%	3.00	100%	1	5	5	20	9.5	20	27	16	10	**82.5**
GT-07-05	AGR	98	243.00	246.00	3.00	3.01	100%	2.98	99%	1	5	20	20	9.5	20	9.5	16	10	**65**
GT-07-05	AGR	72	246.00	249.00	3.00	3.02	101%	2.10	70%	1	5	20	16	9.5	14	9.5	13	10	**56**
GT-07-05	AGR	97	249.00	252.00	3.00	3.00	100%	2.90	97%	1	5	4	16	9.5	19	27	13	10	**78.5**
GT-07-05	AGR	97	252.00	255.00	3.00	3.05	102%	3.00	100%	1	5	5	16	9.5	20	27	13	10	**79.5**
GT-07-05	AGR	95	255.00	258.00	3.00	2.97	99%	2.90	97%	1	5	6	20	9.5	19	21	16	10	**75.5**
GT-07-05	AGR	95	258.00	261.00	3.00	3.00	100%	3.00	100%	1	5	3	20	9.5	20	27	16	10	**82.5**
GT-07-05	AGR	93	261.00	264.00	3.00	2.95	98%	2.95	98%	1	5	0	20	9.5	20	30	16	10	**85.5**
GT-07-05	AGR	82	264.00	267.00	3.00	3.00	100%	2.83	94%	1	5	8	16	9.5	18	21	13	10	**71.5**
GT-07-05	AGR	96	267.00	270.00	3.00	2.88	96%	2.73	91%	1	5	4	20	9.5	18	27	16	10	**80.5**
GT-07-05	AGR	78	270.00	273.00	3.00	3.08	103%	2.69	90%	1	5	15	20	9.5	18	11.5	16	10	**65**
GT-07-05	AGR	91	273.00	276.00	3.00	3.10	103%	2.95	98%	1	5	8	20	9.5	20	21	16	10	**76.5**
GT-07-05	AGR	90	276.00	279.00	3.00	2.93	98%	2.93	98%	1	5	5	16	9.5	20	27	13	10	**79.5**
GT-07-05	AGR	100	279.00	282.00	3.00	3.04	101%	3.00	100%	1	5	2	20	9.5	20	30	16	10	**85.5**
GT-07-05	AGR	95	282.00	285.00	3.00	3.00	100%	2.93	98%	1	5	4	20	9.5	20	27	16	10	**82.5**
GT-07-05	AGR	92	285.00	288.00	3.00	3.03	101%	2.93	98%	1	5	8	16	9.5	20	21	13	10	**73.5**
GT-07-05	AGR	95	288.00	291.00	3.00	3.04	101%	2.92	97%	1	5	6	20	9.5	20	27	16	10	**82.5**
GT-07-05	AGR	91	291.00	294.00	3.00	2.99	100%	2.88	96%	1	5	5	16	9.5	19	27	13	10	**78.5**
GT-07-05	AGR	93	294.00	297.00	3.00	3.15	105%	2.58	86%	1	5	5	20	9.5	17	27	16	10	**79.5**
GT-07-05	AGR	100	297.00	300.00	3.00	3.00	100%	3.00	100%	1	5	4	20	9.5	20	27	16	10	**82.5**
GT-07-05	AGR	100	300.00	303.00	3.00	3.05	102%	3.03	101%	1	5	1	20	9.5	20	30	16	10	**85.5**
GT-07-05	AGR	92	303.00	306.00	3.00	2.95	98%	2.75	92%	1	5	6	12	9.5	18	21	8	10	**66.5**
GT-07-05	AGR	70	306.00	309.00	3.00	3.00	100%	2.57	86%	1	5	36	16	9.5	17	6.25	13	10	**55.75**
GT-07-05	AGR	83	309.00	312.00	3.00	2.96	99%	2.80	93%	1	5	8	16	9.5	18	21	13	10	**71.5**
GT-07-05	AGR	90	312.00	315.00	3.00	3.13	104%	2.91	97%	1	5	9	12	9.5	20	21	8	10	**68.5**
GT-07-05	AGR	103	315.00	318.00	3.00	3.05	102%	3.00	100%	1	5	2	16	9.5	20	30	13	10	**82.5**
GT-07-05	AGR	92	318.00	321.00	3.00	2.95	98%	2.87	96%	1	5	4	20	9.5	19	27	16	10	**81.5**
GT-07-05	AGR	96	321.00	324.00	3.00	3.07	102%	3.00	100%	1	5	6	20	9.5	20	27	16	10	**82.5**
GT-07-05	AGR	92	324.00	327.00	3.00	3.00	100%	2.89	96%	1	5	5	12	9.5	19	27	8	10	**73.5**
GT-07-05	AGR	84	327.00	330.00	3.00	2.97	99%	2.57	86%	1	5	9	12	9.5	17	13.5	8	10	**58**
GT-07-05	AGR	74	330.00	333.00	3.00	3.08	103%	2.64	88%	1	5	13	16	9.5	18	11.5	13	10	**62**
GT-07-05	AGR	81	333.00	336.00	3.00	3.06	102%	3.00	100%	1	5	8	20	9.5	20	21	16	10	**76.5**
GT-07-05	AGR	76	336.00	339.00	3.00	2.80	93%	2.60	87%	1	5	8	20	9.5	17	21	16	10	**73.5**
GT-07-05	AGR	76	339.00	342.00	3.00	3.07	102%	2.65	88%	1	5	14	20	9.5	18	11.5	16	10	**65**
GT-07-05	AGR	78	345.00	348.00	3.00	2.94	98%	2.74	91%	1	5	13	20	9.5	18	11.5	16	10	**65**
GT-07-05	AGR	81	348.00	351.00	3.00	3.02	101%	2.77	92%	1	5	8	20	9.5	18	21	16	10	**74.5**
GT-07-05	AGR	89	351.00	354.00	3.00	2.98	99%	2.84	95%	1	5	5	20	9.5	18	27	16	10	**80.5**
GT-07-05	AGR	79	354.00	357.00	3.00	2.81	94%	2.32	77%	1	5	8	16	9.5	15	21	13	10	**68.5**
GT-07-05	AGR	86	357.00	360.00	3.00	3.13	104%	2.85	95%	1	5	13	20	9.5	19	11.5	16	10	**66**
GT-07-05	AGR	73	360.00	363.00	3.00	3.05	102%	3.00	100%	1	5	8	20	9.5	20	21	16	10	**76.5**
GT-07-05	AGR	98	363.00	366.00	3.00	3.06	102%	3.00	100%	1	5	4	20	9.5	20	27	16	10	**82.5**
GT-07-05	AGR	94	366.00	369.00	3.00	3.08	103%	3.00	100%	1	5	7	20	9.5	20	21	16	10	**76.5**
GT-07-05	AGR	95	369.00	372.00	3.00	3.01	100%	3.01	100%	1	5	2	16	9.5	20	30	13	10	**82.5**
GT-07-05	AGR	88	372.00	375.00	3.00	3.02	101%	2.97	99%	1	5	6	16	9.5	20	27	13	10	**79.5**
GT-07-05	AGR	90	375.00	378.00	3.00	3.00	100%	2.80	93%	1	5	8	16	9.5	18	21	13	10	**71.5**
GT-07-05	AGR	81	378.00	381.00	3.00	3.01	100%	2.85	95%	1	5	11	12	9.5	19	13.5	8	10	**60**

Hole_Id	Lithology	SCR (%)	Depth (m)		Length	Core Recovery		RQD		Weathering	Strength	Fracture	JCR	RMR Ratings					
			From	To	m	m	(%)	m	(%)	Index	Index	Count	0-30	UCS	RQD	FX Freq	JCR	GWATER	Total
GT-07-01	CGR	61	39.00	42.00	3.00	3.00	100%	2.29	76%	2	4	7	20	7.8	15	21	16	10	**69.8**
GT-07-02	CGR	71	57.00	60.00	3.00	3.00	100%	1.84	61%	1	4	18	20	7.8	12	9.5	16	10	**55.3**
GT-07-02	CGR	53	63.00	66.00	3.00	2.92	97%	1.85	62%	1	4	24	20	7.8	12	8	16	10	**53.8**
GT-07-02	CGR	92	69.00	72.00	3.00	2.97	99%	2.97	99%	1	5	7	20	9.5	20	21	16	10	**76.5**
GT-07-02	CGR	81	72.00	75.00	3.00	3.02	101%	2.90	97%	1	5	13	20	9.5	19	11.5	16	10	**66**
GT-07-03	CGR	87	225.00	228.00	3.00	3.00	100%	3.00	100%	1	4.6	9	19	8.5	20	13.5	15	10	**67**
GT-07-04	CGR	72	21.00	24.00	3.00	3.05	102%	1.75	58%	1	5	39	18	9.5	12	6.25	15	10	**52.75**
GT-07-04	CGR	88	24.00	27.00	3.00	3.00	100%	2.33	78%	1	5	9	19	9.5	15	13.5	15	10	**63**
GT-07-04	CGR	72	27.00	30.00	3.00	2.98	99%	2.16	72%	1	5	18	19	9.5	14	9.5	15	10	**58**
GT-07-04	CGR	51	39.00	42.00	3.00	2.80	93%	1.24	41%	1	4	43	18	7.8	8	5.75	15	10	**46.55**
GT-07-04	CGR	92	330.00	333.00	3.00	3.00	100%	2.97	99%	1	5	4	18	9.5	20	27	15	10	**81.5**
GT-07-04	CGR	98	345.00	348.00	3.00	2.99	100%	2.99	100%	1	5	1	20	9.5	20	30	16	10	**85.5**
GT-07-05	CGR	59	6.00	9.00	3.00	3.00	100%	2.27	76%	2	4	64	16	7.8	15	5	13	10	**50.8**
GT-07-05	CGR	0	9.00	12.00	3.00	3.03	101%	2.11	70%	2	4	58	16	7.8	14	5	13	10	**49.8**
GT-07-05	CGR	83	12.00	15.00	3.00	3.02	101%	2.88	96%	1	4	8	16	7.8	19	21	13	10	**70.8**
GT-07-05	CGR	100	15.00	18.00	3.00	2.99	100%	2.99	100%	1	5	2	20	9.5	20	30	16	10	**85.5**
GT-07-05	CGR	90	18.00	21.00	3.00	2.94	98%	2.74	91%	1	5	8	16	9.5	18	21	13	10	**71.5**
GT-07-05	CGR	65	21.00	24.00	3.00	3.03	101%	2.21	74%	1	5	16	16	9.5	14	10.5	13	10	**57**
GT-07-05	CGR	88	24.00	27.00	3.00	2.93	98%	2.65	88%	1	5	8	20	9.5	18	21	16	10	**74.5**
GT-07-05	CGR	87	27.00	30.00	3.00	3.00	100%	2.70	90%	1	5	6	16	9.5	18	21	13	10	**71.5**
GT-07-05	CGR	53	30.00	33.00	3.00	3.00	100%	1.81	60%	1	5	85	20	9.5	12	5	16	10	**52.5**
GT-07-05	CGR	61	54.00	57.00	3.00	2.95	98%	1.72	57%	1	4	23	16	7.8	11	8.5	13	10	**50.3**
GT-07-05	CGR	81	57.00	60.00	3.00	2.81	94%	2.42	81%	1	4	14	16	7.8	16	11.5	13	10	**58.3**
GT-07-05	CGR	90	60.00	63.00	3.00	3.09	103%	2.91	97%	1	5	9	16	9.5	20	21	13	10	**73.5**
GT-07-05	CGR	91	66.00	69.00	3.00	3.03	101%	2.85	95%	1	6	8	20	15	19	21	16	10	**81**
GT-07-05	CGR	90	69.00	72.00	3.00	3.04	101%	2.84	95%	1	5	10	16	9.5	18	13.5	13	10	**64**
GT-07-05	CGR	95	87.00	90.00	3.00	3.10	103%	2.98	99%	1	5	6	12	9.5	20	27	8	10	**74.5**
GT-07-05	CGR	88	90.00	93.00	3.00	3.04	101%	2.70	90%	1	5	8	20	9.5	18	21	16	10	**74.5**
GT-07-05	CGR	85	93.00	96.00	3.00	3.10	103%	2.70	90%	1	5	9	12	9.5	18	21	8	10	**66.5**
GT-07-05	CGR	63	99.00	102.00	3.00	3.02	101%	1.25	42%	1	4	16	16	7.8	8	10.5	13	10	**49.3**
GT-07-05	CGR	47	102.00	105.00	3.00	3.02	101%	1.13	38%	1	4	13	20	7.8	8	11.5	16	10	**53.3**

Hole_Id	Lithology	SCR (%)	Depth (m)		Length	Core Recovery		RQD		Weathering	Strength	Fracture	JCR	RMR Ratings					
			From	To	m	m	(%)	m	(%)	Index	Index	Count	0-30	UCS	RQD	FX Freq	JCR	GWATER	Total
GT-07-01	SGR	79	93.00	96.00	3.00	3.00	100%	2.98	99%	2	5	8	20	9.5	20	21	16	10	**76.5**
GT-07-02	SGR	70	60.00	63.00	3.00	3.05	102%	2.05	68%	1	4	17	16	7.8	14	10.5	13	10	**55.3**
GT-07-04	SGR		12.00	15.00	3.00	2.90	97%	0.60	20%	1	5	114	18	9.5	5	5	15	10	**44.5**
GT-07-04	SGR	70	15.00	18.00	3.00	2.97	99%	1.53	51%	1	4	13	19	7.8	10	11.5	15	10	**54.3**
GT-07-04	SGR	63	18.00	21.00	3.00	2.90	97%	1.36	45%	1	4	37	19	7.8	9	6.25	15	10	**48.05**
GT-07-05	SGR		33.00	36.00	3.00	3.00	100%	1.32	44%	1	4	13	16	7.8	9	11.5	13	10	**51.3**
GT-07-05	SGR	86	48.00	51.00	3.00	3.00	100%	2.66	89%	1	5	9	20	9.5	18	13.5	16	10	**67**
GT-07-05	SGR	94	51.00	54.00	3.00	2.99	100%	2.94	98%	1	5	2	16	9.5	20	30	13	10	**82.5**
GT-07-05	SGR	86	63.00	66.00	3.00	2.96	99%	2.77	92%	1	5	5	16	9.5	18	27	13	10	**77.5**
GT-07-05	SGR	98	96.00	99.00	3.00	2.97	99%	2.97	99%	1	4	1	12	7.8	20	30	8	10	**75.8**

Hole_Id	Lithology	SCR (%)	Depth (m)		Length	Core Recovery		RQD		Weathering	Strength	Fracture	JCR	RMR Ratings					
			From	To	m	m	(%)	m	(%)	Index	Index	Count		UCS	RQD	FX Freq	JCR	GWATER	Total
GT-07-02	CPO	92	75.00	78.00	3.00	3.01	100%	2.93	98%	1	5	5	16	9.5	20	27	13	10	**79.5**
GT-07-02	CPO	85	78.00	81.00	3.00	2.97	99%	2.79	93%	1	5	8	20	9.5	18	21	16	10	**74.5**
GT-07-02	CPO	56	81.00	84.00	3.00	2.89	96%	1.86	62%	1	5	13	20	9.5	12	11.5	16	10	**59**
GT-07-02	CPO	86	84.00	87.00	3.00	2.85	95%	2.66	89%	1	5	9	20	9.5	18	13.5	16	10	**67**
GT-07-02	CPO	86	87.00	90.00	3.00	3.18	106%	2.90	97%	1	5	8	16	9.5	19	21	13	10	**72.5**
GT-07-02	CPO	78	93.00	96.00	3.00	2.85	95%	2.47	82%	1	4	11	20	7.8	16	13.5	16	10	**63.3**
GT-07-02	CPO	79	96.00	99.00	3.00	2.86	95%	2.40	80%	1	5	16	20	9.5	16	10.5	15	10	**61**
GT-07-02	CPO	75	99.00	102.00	3.00	3.12	104%	2.90	97%	1	4	19	20	7.8	19	9.5	16	10	**62.3**
GT-07-02	CPO	79	102.00	105.00	3.00	3.01	100%	2.66	89%	1	4	12	16	7.8	18	13.5	13	10	**62.3**
GT-07-02	CPO	68	105.00	108.00	3.00	3.06	102%	2.56	85%	1	4	11	20	7.8	17	13.5	16	10	**64.3**
GT-07-02	CPO	83	117.00	120.00	3.00	3.07	102%	2.79	93%	1	5	11	20	9.5	18	13.5	16	10	**67**
GT-07-02	CPO	87	120.00	123.00	3.00	2.89	96%	2.65	88%	1	5	7	20	9.5	18	21	16	10	**74.5**
GT-07-02	CPO	60	123.00	126.00	3.00	3.02	101%	1.56	52%	1	4	47	20	7.8	10	5.75	16	10	**49.55**
GT-07-02	CPO	65	126.00	129.00	3.00	3.02	101%	1.70	57%	1	4	17	20	7.8	11	10.5	16	10	**55.3**
GT-07-02	CPO	30	132.00	135.00	3.00	2.93	98%	1.04	35%	1	4	207	20	7.8	7	5	16	10	**45.8**
GT-07-02	CPO	80	180.00	183.00	3.00	3.05	102%	2.74	91%	1	5	14	12	9.5	18	11.5	8	10	**57**
GT-07-02	CPO	80	183.00	186.00	3.00	2.86	95%	2.46	82%	1	5	10	16	9.5	16	13.5	13	10	**62**
GT-07-02	CPO	69	189.00	192.00	3.00	3.06	102%	2.70	90%	1	5	14	16	9.5	18	11.5	13	10	**62**
GT-07-02	CPO	62	192.00	195.00	3.00	3.01	100%	2.61	87%	1	5	10	16	9.5	17	13.5	13	10	**63**
GT-07-02	CPO	92	198.00	201.00	3.00	2.99	100%	2.90	97%	1	5	4	16	9.5	19	27	13	10	**78.5**

Hole_Id	Lithology	SCR (%)	Depth (m)		Length	Core Recovery		RQD		Weathering	Strength	Fracture	JCR	RMR Ratings					
			From	To	m	m	(%)	m	(%)	Index	Index	Count	0-30	UCS	RQD	FX Freq	JCR	GWATER	Total
GT-07-04	SCH	76	54.00	57.00	3.00	3.05	102%	1.68	56%	1	5	69	19	9.5	11	5	15	10	**50.5**
GT-07-04	SCH	74	246.00	249.00	3.00	2.90	97%	2.03	68%	1	5	13	14	9.5	13	11.5	11	10	**55**
GT-07-04	SCH	90	354.00	357.00	3.00	3.06	102%	2.91	97%	1	5	11	19	9.5	20	13.5	15	10	**68**
GT-07-05	SCH	84	3.00	6.00	3.00	3.05	102%	2.60	87%	1	3	11	12	4.5	17	13.5	8	10	**53**

Hole_Id	Lithology	SCR (%)	Depth (m)		Length	Core Recovery		RQD		Strength	Fracture	JCR	RMR Ratings					
			From	To	m	m	(%)	m	(%)	Index	Count	0-30	UCS	RQD	FX Freq	JCR	GWATER	Total
CM07-1446	AGR	81	12.00	15.00	3.00	3.00	100%	1.56	52%	4	14	14	7.8	10	11.5	11	10	**50.3**
CM07-1446	AGR	58	15.00	18.00	3.00	2.96	99%	1.93	64%	4	21	14	7.8	13	8.5	10	10	**49.3**
CM07-1446	AGR	72	21.00	24.00	3.00	3.00	100%	2.39	80%	4	15	13	7.8	16	10.5	10	10	**54.3**
CM07-1446	AGR	90	27.00	30.00	3.00	3.01	100%	2.88	96%	4	15	12	7.8	19	11.5	8	10	**56.3**
CM07-1446	AGR	51	30.00	33.00	3.00	2.95	98%	1.71	57%	4	27	13	7.8	11	7.5	8	10	**44.3**
CM07-1446	AGR	65	33.00	36.00	3.00	3.00	100%	2.49	83%	4	28	15	7.8	17	7.5	11	10	**53.3**
CM07-1446	AGR	84	36.00	39.00	3.00	3.00	100%	2.85	95%	4	10	12	7.8	19	13.5	8	10	**58.3**
CM07-1490	AGR	55	12.00	15.00	3.00	2.90	97%	1.82	61%	4	49	20	4.5	12	5.75	16	10	**48.25**
CM07-1490	AGR	66	15.00	18.00	3.00	3.05	102%	2.32	77%	4	35	12	4.5	15	6.75	8	10	**44.25**
CM07-1490	AGR	85	18.00	21.00	3.00	2.96	99%	2.83	94%	4	9	12	4.5	18	13.5	8	10	**54**
CM07-1490	AGR	88	24.00	27.00	3.00	3.06	102%	3.06	102%	4	6	12	4.5	20	27	8	10	**69.5**
CM07-1490	AGR	92	27.00	30.00	3.00	2.98	99%	2.98	99%	4	3	12	4.5	20	27	8	10	**69.5**
CM07-1490	AGR	92	30.00	33.00	3.00	3.03	101%	3.03	101%	4	5	12	4.5	20	27	8	10	**69.5**
CM07-1490	AGR	83	33.00	36.00	3.00	2.88	96%	2.80	93%	4	9	12	4.5	18	13.5	8	10	**54**
CM07-1490	AGR	87	36.00	39.00	3.00	2.96	99%	2.96	99%	4	4	12	4.5	20	27	8	10	**69.5**
CM07-1490	AGR	92	39.00	42.00	3.00	3.10	103%	3.10	103%	4	4	12	4.5	20	27	8	10	**69.5**
CM07-1490	AGR	94	42.00	45.00	3.00	3.03	101%	3.03	101%	4	4	16	4.5	20	27	13	10	**74.5**
CM07-1490	AGR	82	45.00	48.00	3.00	3.02	101%	2.87	96%	4	8	12	4.5	19	21	8	10	**62.5**
CM07-1490	AGR	82	48.00	51.00	3.00	2.98	99%	2.89	96%	4	10	12	4.5	19	13.5	8	10	**55**
CM07-1490	AGR	73	51.00	54.00	3.00	2.94	98%	2.86	95%	4	11	12	4.5	19	13.5	8	10	**55**
CM07-1490	AGR	45	54.00	57.00	3.00	3.05	102%	2.01	67%	4	30	12	4.5	13	7.5	8	10	**43**
CM07-1490	AGR	79	57.00	60.00	3.00	2.97	99%	2.80	93%	4	11	12	4.5	18	13.5	8	10	**54**
CM07-1490	AGR	62	60.00	63.00	3.00	3.05	102%	2.70	90%	4	13	12	4.5	18	11.5	8	10	**52**
CM07-1490	AGR	75	63.00	66.00	3.00	2.95	98%	2.95	98%	4	9	12	4.5	20	13.5	8	10	**56**
CM07-1490	AGR	98	66.00	69.00	3.00	3.02	101%	3.02	101%	4	3	20	4.5	20	30	16	10	**80.5**
CM07-1490	AGR	85	69.00	72.00	3.00	2.95	98%	2.78	93%	4	7	12	4.5	18	21	8	10	**61.5**
CM07-1490	AGR	68	72.00	75.00	3.00	2.88	96%	2.77	92%	3	22	12	2.5	18	8.5	8	10	**47**
CM07-1490	AGR	72	75.00	78.00	3.00	3.00	100%	2.82	94%	3	15	12	2.5	18	10.5	8	10	**49**
CM07-1490	AGR	51	78.00	81.00	3.00	3.00	100%	1.86	62%	3	42	12	2.5	12	6	8	10	**38.5**
CM07-1490	AGR	79	81.00	84.00	3.00	3.00	100%	2.81	94%	3	13	12	2.5	18	11.5	8	10	**50**
CM07-1490	AGR	81	84.00	87.00	3.00	3.00	100%	2.81	94%	3	8	12	2.5	18	21	8	10	**59.5**
CM07-1490	AGR	81	87.00	90.00	3.00	3.05	102%	2.58	86%	3	19	12	2.5	17	9.5	8	10	**47**
CM07-1490	AGR	74	90.00	93.00	3.00	2.90	97%	2.62	87%	3	14	12	2.5	17	11.5	8	10	**49**
CM07-1490	AGR	72	93.00	96.00	3.00	2.91	97%	2.74	91%	3	11	12	2.5	18	13.5	8	10	**52**
CM07-1490	AGR	75	96.00	99.00	3.00	3.05	102%	2.95	98%	3	19	12	2.5	20	9.5	8	10	**50**
CM07-1490	AGR	52	99.00	102.00	3.00	3.00	100%	2.00	67%	3	28	12	2.5	13	7.5	8	10	**41**
CM07-1490	AGR	84	102.00	105.00	3.00	3.00	100%	2.92	97%	3	5	12	2.5	20	27	8	10	**67.5**
CM07-1490	AGR	0	105.00	108.00	3.00	3.05	102%	2.72	91%	3	1	12	2.5	18	30	8	10	**68.5**
CM07-1490	AGR	33	111.00	114.00	3.00	2.90	97%	1.63	54%	3	46	12	2.5	11	5.75	8	10	**37.25**
CM07-1490	AGR	75	114.00	117.00	3.00	3.01	100%	2.66	89%	3	12	12	2.5	18	13.5	8	10	**52**
CM07-1490	AGR	79	117.00	120.00	3.00	3.00	100%	2.68	89%	3	17	12	2.5	18	10.5	8	10	**49**
CM07-1490	AGR	85	120.00	123.00	3.00	3.00	100%	2.88	96%	3	9	12	2.5	19	13.5	8	10	**53**
CM07-1490	AGR	91	123.00	126.00	3.00	3.02	101%	2.95	98%	3	7	12	2.5	20	21	8	10	**61.5**
CM07-1490	AGR	77	126.00	129.00	3.00	2.90	97%	2.74	91%	3	10	12	2.5	18	13.5	8	10	**52**
CM07-1490	AGR	63	129.00	132.00	3.00	2.94	98%	2.40	80%	3	27	12	2.5	16	7.5	8	10	**44**
CM07-1490	AGR	54	132.00	135.00	3.00	2.60	87%	1.69	56%	3	57	12	2.5	11	5	8	10	**36.5**
CM07-1490	AGR	64	150.00	153.00	3.00	2.78	93%	2.70	90%	3	16	12	2.5	18	10.5	8	10	**49**
CM07-1490	AGR	56	153.00	156.00	3.00	2.80	93%	2.10	70%	3	23	12	2.5	14	8	8	10	**42.5**
CM07-1490	AGR	69	156.00	159.00	3.00	1.50	50%	1.21	40%	3	29	12	2.5	8	5.25	8	10	**33.75**
CM07-1490	AGR	58	222.00	225.00	3.00	2.99	100%	2.72	91%	3	30	12	2.5	18	7	8	10	**45.5**
CM07-1490	AGR	77	225.00	228.00	3.00	3.08	103%	2.83	94%	3	12	12	2.5	18	13.5	8	10	**52**
CM07-1490	AGR	70	228.00	231.00	3.00	2.97	99%	2.76	92%	3	9	12	2.5	18	13.5	8	10	**52**
CM07-1490	AGR	80	231.00	234.00	3.00	2.87	96%	2.54	85%	3	8	12	2.5	17	21	8	10	**58.5**
CM07-1490	AGR	86	234.00	237.00	3.00	2.82	94%	2.82	94%	3	6	12	2.5	18	21	8	10	**59.5**
CM07-1490	AGR	98	237.00	240.00	3.00	3.14	105%	3.14	105%	3	2	25	2.5	20	30	20	10	**82.5**

Hole_Id	Lithology	SCR (%)	Depth (m)		Length	Core Recovery		RQD		Strength	Fracture	JCR	RMR Ratings					
			From	To	m	m	(%)	m	(%)	Index	Count	0-30	UCS	RQD	FX Freq	JCR	GWATER	Total
CM07-1490	AGR	92	240.00	243.00	3.00	3.12	104%	3.03	101%	3	3	20	2.5	20	30	16	10	**78.5**
CM07-1490	AGR	86	243.00	246.00	3.00	2.97	99%	2.97	99%	3	2	12	2.5	20	30	8	10	**70.5**
CM07-1490	AGR	87	246.00	249.00	3.00	2.92	97%	2.92	97%	3	5	12	2.5	20	27	8	10	**67.5**
CM07-1490	AGR	60	249.00	252.00	3.00	2.87	96%	2.69	90%	3	12	12	2.5	18	11.5	8	10	**50**
CM07-1490	AGR	93	252.00	255.00	3.00	3.13	104%	3.13	104%	3	6	12	2.5	20	27	8	10	**67.5**
CM07-1490	AGR	88	255.00	258.00	3.00	3.10	103%	3.06	102%	3	12	12	2.5	20	13.5	8	10	**54**
CM07-1490	AGR	95	258.00	261.00	3.00	2.96	99%	2.96	99%	3	3	12	2.5	20	27	8	10	**67.5**
CM07-1490	AGR	0	261.00	264.00	3.00	3.00	100%	2.95	98%	3	5	12	2.5	20	27	8	10	**67.5**
CM07-1490	AGR	50	264.00	267.00	3.00	3.07	102%	2.67	89%	3	28	20	2.5	18	7.5	16	10	**54**
CM07-1490	AGR	85	267.00	270.00	3.00	3.06	102%	3.06	102%	3	3	12	2.5	20	30	8	10	**70.5**
CM07-1490	AGR	92	270.00	273.00	3.00	2.95	98%	2.95	98%	3	6	12	2.5	20	21	8	10	**61.5**
CM07-1490	AGR	94	273.00	276.00	3.00	2.98	99%	2.98	99%	3	7	12	2.5	20	21	8	10	**61.5**
CM07-1490	AGR	93	276.00	279.00	3.00	3.02	101%	3.02	101%	3	2	20	2.5	20	30	16	10	**78.5**
CM07-1490	AGR	82	279.00	282.00	3.00	2.99	100%	2.99	100%	3	5	20	2.5	20	27	16	10	**75.5**
CM07-1490	AGR	86	282.00	285.00	3.00	2.93	98%	2.93	98%	3	8	12	2.5	20	21	8	10	**61.5**
CM07-1490	AGR	96	285.00	288.00	3.00	3.05	102%	3.01	100%	3	7	12	2.5	20	21	8	10	**61.5**
CM07-1490	AGR	91	288.00	291.00	3.00	2.99	100%	2.99	100%	3	10	20	2.5	20	13.5	16	10	**62**
CM07-1490	AGR	85	291.00	294.00	3.00	2.95	98%	2.95	98%	3	10	12	2.5	20	13.5	8	10	**54**
CM07-1490	AGR	93	294.00	297.00	3.00	3.05	102%	3.05	102%	3	4	20	2.5	20	27	16	10	**75.5**
CM07-1490	AGR	99	297.00	300.00	3.00	2.98	99%	2.98	99%	3	2	12	2.5	20	30	8	10	**70.5**
CM07-1490	AGR	97	300.00	303.00	3.00	2.92	97%	2.92	97%	3	4	12	2.5	20	27	8	10	**67.5**
CM07-1490	AGR	96	303.00	306.00	3.00	2.97	99%	2.97	99%	3	4	20	2.5	20	27	16	10	**75.5**
CM07-1490	AGR	0	306.00	309.00	3.00	3.00	100%	3.00	100%	3	2	12	2.5	20	30	8	10	**70.5**
CM07-1490	AGR	98	309.00	312.00	3.00	2.95	98%	2.95	98%	3	2	20	2.5	20	30	16	10	**78.5**
CM07-1490	AGR	0	312.00	315.00	3.00	3.01	100%	3.01	100%	3	1	20	2.5	20	30	16	10	**78.5**
CM07-1490	AGR	0	315.00	318.00	3.00	2.99	100%	2.99	100%	3	1	20	2.5	20	30	16	10	**78.5**
CM07-1446	APO	52	9.00	12.00	3.00	3.00	100%	1.84	61%	4	21	14	7.8	12	8.5	10	10	**48.3**
CM07-1446	APO	74	129.00	132.00	3.00	2.98	99%	2.71	90%	4	13	14	7.8	18	11.5	11	10	**58.3**
CM07-1446	APO	73	132.00	135.00	3.00	2.67	89%	2.64	88%	4	8	14	7.8	18	21	11	10	**67.8**
CM07-1446	APO	87	135.00	138.00	3.00	2.97	99%	2.97	99%	4	4	15	7.8	20	27	12	10	**76.8**
CM07-1446	APO	73	144.00	147.00	3.00	2.97	99%	2.84	95%	4	7	16	7.8	18	21	13	10	**69.8**
CM07-1446	APO	82	147.00	150.00	3.00	3.02	101%	3.02	101%	4	7	14	7.8	20	21	11	10	**69.8**
CM07-1446	APO	82	150.00	153.00	3.00	3.02	101%	3.02	101%	4	10	14	7.8	20	13.5	10	10	**61.3**
CM07-1446	APO	79	162.00	165.00	3.00	3.00	100%	3.00	100%	4	12	13	7.8	20	11.5	10	10	**59.3**
CM07-1500	APO	73	108.00	111.00	3.00	3.05	102%	2.87	96%	4	15	12	7.8	19	11.5	8	10	**56.3**
CM07-1500	APO	78	111.00	114.00	3.00	2.95	98%	2.45	82%	4	16	12	7.8	16	10.5	8	10	**52.3**

Hole_Id	Lithology	SCR (%)	Depth (m)		Length	Core Recovery		RQD		Strength	Fracture	JCR	RMR Ratings					
			From	To	m	m	(%)	m	(%)	Index	Count	0-30	UCS	RQD	FX Freq	JCR	GWATER	Total
CM07-1446	CGR	70	18.00	21.00	3.00	2.99	100%	2.73	91%	4	17	13	7.8	18	10.5	8	10	**54.3**
CM07-1446	CGR	69	24.00	27.00	3.00	3.04	101%	2.28	76%	4	15	16	7.8	15	11.5	12	10	**56.3**
CM07-1446	CGR	83	39.00	42.00	3.00	3.04	101%	3.00	100%	4	8	16	7.8	20	21	13	10	**71.8**
CM07-1446	CGR	74	42.00	45.00	3.00	3.00	100%	2.80	93%	4	9	14	7.8	18	13.5	11	10	**60.3**
CM07-1490	CGR	62	21.00	24.00	3.00	2.82	94%	1.99	66%	4	26	20	4.5	13	7.5	16	10	**51**
CM07-1490	CGR	71	147.00	150.00	3.00	3.06	102%	2.73	91%	3	20	12	2.5	18	9.5	8	10	**48**
CM07-1540	CGR	82	5.00	8.00	3.00	3.00	100%	2.49	0.83	4	12	18	4.5	17	11.5	15	10	**58**

Hole_Id	Lithology	SCR (%)	Depth (m)		Length	Core Recovery		RQD		Strength	Fracture	JCR	RMR Ratings					
			From	To	m	m	(%)	m	(%)	Index	Count	0-30	**UCS**	**RQD**	**FX Freq**	**JCR**	**GWATER**	**Total**
CM07-1446	APO	52	9.00	12.00	3.00	3.00	100%	1.84	61%	4	21	14	7.8	12	8.5	10	10	48.3
CM07-1446	APO	74	129.00	132.00	3.00	2.98	99%	2.71	90%	4	13	14	7.8	18	11.5	11	10	58.3
CM07-1446	APO	73	132.00	135.00	3.00	2.67	89%	2.64	88%	4	8	14	7.8	18	21	11	10	67.8
CM07-1446	APO	87	135.00	138.00	3.00	2.97	99%	2.97	99%	4	4	15	7.8	20	27	12	10	76.8
CM07-1446	APO	73	144.00	147.00	3.00	2.97	99%	2.84	95%	4	7	16	7.8	18	21	13	10	69.8
CM07-1446	APO	82	147.00	150.00	3.00	3.02	101%	3.02	101%	4	7	14	7.8	20	21	11	10	69.8
CM07-1446	APO	82	150.00	153.00	3.00	3.02	101%	3.02	101%	4	10	14	7.8	20	13.5	10	10	61.3
CM07-1446	APO	79	162.00	165.00	3.00	3.00	100%	3.00	100%	4	12	13	7.8	20	11.5	10	10	59.3
CM07-1500	APO	73	108.00	111.00	3.00	3.05	102%	2.87	96%	4	15	12	7.8	19	11.5	8	10	56.3
CM07-1500	APO	78	111.00	114.00	3.00	2.95	98%	2.45	82%	4	16	12	7.8	16	10.5	8	10	52.3

Hole_Id	Lithology	SCR (%)	Depth (m)		Length	Core Recovery		RQD		Strength	Fracture	JCR	RMR Ratings					
			From	To	m	m	(%)	m	(%)	Index	Count	0-30	UCS	RQD	FX Freq	JCR	GWATER	Total
CM07-1446	CPO	76	66.00	69.00	3.00	2.97	99%	2.56	85%	4	10	16	7.8	17	13.5	13	10	61.3
CM07-1446	CPO	86	69.00	72.00	3.00	2.91	97%	2.83	94%	4	6	17	7.8	18	21	14	10	70.8
CM07-1446	CPO	79	72.00	75.00	3.00	3.03	101%	2.99	100%	4	9	19	7.8	20	21	15	10	73.8
CM07-1446	CPO	83	75.00	78.00	3.00	2.98	99%	2.92	97%	4	8	15	7.8	20	21	12	10	70.8
CM07-1446	CPO	81	78.00	81.00	3.00	2.90	97%	2.81	94%	4	8	16	7.8	18	21	13	10	69.8
CM07-1446	CPO	66	84.00	87.00	3.00	2.98	99%	2.15	72%	4	18	15	7.8	14	9.5	12	10	53.3
CM07-1446	CPO	85	87.00	90.00	3.00	2.99	100%	2.92	97%	4	9	16	7.8	20	13.5	12	10	63.3
CM07-1446	CPO	88	90.00	93.00	3.00	3.03	101%	3.03	101%	4	5	12	7.8	20	27	8	10	72.8
CM07-1446	CPO	90	93.00	96.00	3.00	2.93	98%	2.93	98%	4	4	14	7.8	20	27	11	10	75.8
CM07-1446	CPO	87	99.00	102.00	3.00	2.97	99%	2.89	96%	4	6	12	7.8	19	21	8	10	65.8
CM07-1446	CPO	80	105.00	108.00	3.00	2.96	99%	2.86	95%	4	8	16	7.8	19	21	13	10	70.8
CM07-1446	CPO	90	108.00	111.00	3.00	3.01	100%	2.94	98%	4	8	15	7.8	20	21	12	10	70.8
CM07-1446	CPO	76	117.00	120.00	3.00	2.98	99%	2.74	91%	4	12	15	7.8	18	11.5	12	10	59.3
CM07-1446	CPO	82	120.00	123.00	3.00	2.98	99%	2.90	97%	4	9	13	7.8	19	13.5	8	10	58.3
CM07-1446	CPO	81	123.00	126.00	3.00	2.92	97%	2.79	93%	4	7	17	7.8	18	21	14	10	70.8
CM07-1446	CPO	69	126.00	129.00	3.00	3.02	101%	2.94	98%	4	9	17	7.8	20	21	14	10	72.8
CM07-1446	CPO	84	138.00	141.00	3.00	3.02	101%	2.91	97%	4	11	13	7.8	20	13.5	8	10	59.3
CM07-1446	CPO	87	153.00	156.00	3.00	3.03	101%	3.03	101%	4	5	17	7.8	20	27	13	10	77.8
CM07-1446	CPO	90	156.00	159.00	3.00	2.96	99%	2.96	99%	4	9	18	7.8	20	13.5	14	10	65.3
CM07-1490	CPO	89	138.00	141.00	3.00	2.97	99%	2.97	99%	4	5	12	4.5	20	27	8	10	69.5
CM07-1490	CPO	81	141.00	144.00	3.00	3.00	100%	3.00	100%	5	6	12	7.8	20	21	8	10	66.8
CM07-1490	CPO	72	144.00	147.00	3.00	3.27	109%	3.27	109%	4	9	12	4.5	20	21	8	10	63.5
CM07-1490	CPO	79	159.00	162.00	3.00	2.00	67%	1.72	57%	5	65	20	7.8	11	5	16	10	49.8
CM07-1490	CPO	79	162.00	165.00	3.00	3.00	100%	2.76	92%	5	14	12	7.8	18	11.5	8	10	55.3
CM07-1490	CPO	60	165.00	168.00	3.00	3.00	100%	2.69	90%	4	30	12	4.5	18	7	8	10	47.5
CM07-1490	CPO	60	171.00	174.00	3.00	2.85	95%	2.07	69%	4	40	12	4.5	14	6	8	10	42.5
CM07-1490	CPO	63	174.00	177.00	3.00	3.05	102%	2.46	82%	4	25	12	4.5	16	8	8	10	46.5
CM07-1490	CPO	71	177.00	180.00	3.00	2.92	97%	2.47	82%	4	20	12	4.5	16	9.5	8	10	48
CM07-1490	CPO	70	180.00	183.00	3.00	3.03	101%	2.52	84%	4	16	12	4.5	17	10.5	8	10	50
CM07-1490	CPO	78	183.00	186.00	3.00	2.97	99%	2.57	86%	4	17	12	4.5	17	10.5	8	10	50
CM07-1490	CPO	94	186.00	189.00	3.00	3.03	101%	3.03	101%	4	3	12	4.5	20	30	8	10	72.5
CM07-1490	CPO	88	189.00	192.00	3.00	3.00	100%	3.00	100%	4	6	12	4.5	20	21	8	10	63.5
CM07-1490	CPO	82	192.00	195.00	3.00	2.96	99%	2.96	99%	2	9	12	2.5	20	13.5	8	10	54
CM07-1490	CPO	84	198.00	201.00	3.00	2.96	99%	2.79	93%	4	9	12	4.5	18	13.5	8	10	54
CM07-1490	CPO	91	201.00	204.00	3.00	2.97	99%	2.97	99%	4	8	12	4.5	20	21	8	10	63.5
CM07-1490	CPO	89	204.00	207.00	3.00	3.03	101%	2.82	94%	4	10	12	4.5	18	13.5	8	10	54
CM07-1490	CPO	89	207.00	210.00	3.00	2.97	99%	2.97	99%	4	4	12	4.5	20	27	8	10	69.5
CM07-1490	CPO	87	210.00	213.00	3.00	3.00	100%	2.96	99%	4	8	12	4.5	20	21	8	10	63.5
CM07-1490	CPO	87	213.00	216.00	3.00	3.04	101%	2.89	96%	4	17	12	4.5	19	10.5	8	10	52
CM07-1490	CPO	87	216.00	219.00	3.00	3.02	101%	2.98	99%	4	9	12	4.5	20	21	8	10	63.5
CM07-1490	CPO	0	219.00	222.00	3.00	2.99	100%	2.78	93%	4	11	12	4.5	18	13.5	8	10	54
CM07-1500	CPO	66	1.50	3.00	1.50	1.00	67%	0.70	47%	4.5	8	17	4.5	9	8	14	10	45.5
CM07-1500	CPO	80	3.00	6.00	3.00	3.07	102%	2.70	90%	4.5	16	15	4.5	18	10.5	12	10	55
CM07-1500	CPO	76	6.00	9.00	3.00	3.02	101%	2.57	86%	4.5	19	17	4.5	17	9.5	14	10	55
CM07-1500	CPO	84	9.00	12.00	3.00	3.02	101%	2.84	95%	4.5	8	15	4.5	18	21	12	10	65.5
CM07-1500	CPO	87	12.00	15.00	3.00	2.98	99%	2.68	89%	4.5	0	17	4.5	18	30	13	10	75.5
CM07-1500	CPO	78	15.00	18.00	3.00	3.05	102%	2.77	92%	4.5	14	15	4.5	18	11.5	12	10	56
CM07-1500	CPO	87	18.00	21.00	3.00	2.94	98%	2.69	90%	4.5	8	15	4.5	18	21	11	10	64.5
CM07-1500	CPO	92	21.00	24.00	3.00	2.86	95%	2.86	95%	4.5	5	17	4.5	19	27	13	10	73.5
CM07-1500	CPO	56	24.00	27.00	3.00	2.95	98%	1.70	57%	4.5	45	16	4.5	11	5.75	12	10	43.25
CM07-1500	CPO	90	27.00	30.00	3.00	2.80	93%	2.68	89%	4.5	7	17	4.5	18	21	13	10	66.5
CM07-1500	CPO	81	30.00	33.00	3.00	2.98	99%	2.85	95%	4.5	17	19	4.5	19	10.5	15	10	59
CM07-1500	CPO	80	33.00	36.00	3.00	2.95	98%	2.85	95%	4.5	15	17	4.5	19	10.5	13	10	57

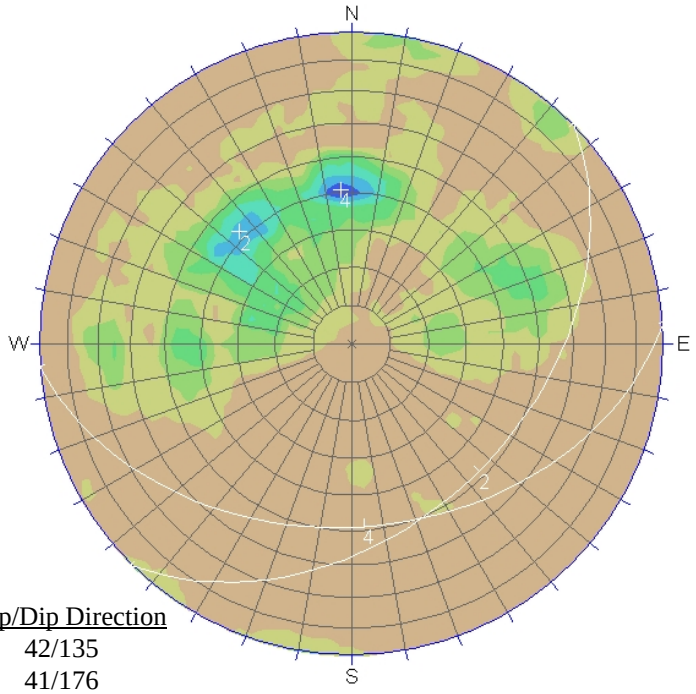
Hole_Id	Lithology	SCR (%)	Depth (m)		Length	Core Recovery		RQD		Strength	Fracture	JCR	RMR Ratings					
			From	To	m	m	(%)	m	(%)	Index	Count	0-30	UCS	RQD	FX Freq	JCR	GWATER	Total
CM07-1500	CPO	84	36.00	39.00	3.00	3.05	102%	2.98	99%	4.5	12	15	4.5	20	13.5	11	10	59
CM07-1500	CPO	73	39.00	42.00	3.00	3.02	101%	2.67	89%	4.5	21	12	4.5	18	9.5	8	10	50
CM07-1500	CPO	85	42.00	45.00	3.00	3.00	100%	2.90	97%	4.5	22	0	4.5	19	8.5	0	10	42
CM07-1500	CPO	84	45.00	48.00	3.00	2.93	98%	2.68	89%	4.5	13	12	4.5	18	11.5	8	10	52
CM07-1500	CPO	86	48.00	51.00	3.00	3.08	103%	2.78	93%	4.5	15	12	4.5	18	11.5	8	10	52
CM07-1500	CPO	81	51.00	54.00	3.00	2.96	99%	2.55	85%	4.5	23	12	4.5	17	8.5	8	10	48
CM07-1500	CPO	84	54.00	57.00	3.00	3.01	100%	2.90	97%	4.5	12	12	4.5	19	13.5	8	10	55
CM07-1500	CPO	72	57.00	60.00	3.00	2.98	99%	2.61	87%	4.5	24	12	4.5	17	8	8	10	47.5
CM07-1500	CPO	74	60.00	63.00	3.00	3.03	101%	2.51	84%	4.5	22	12	4.5	17	8.5	8	10	48
CM07-1500	CPO	74	63.00	66.00	3.00	2.94	98%	2.47	82%	4.5	23	12	4.5	16	8.5	0	10	39
CM07-1500	CPO	60	66.00	69.00	3.00	2.97	99%	2.27	76%	4.5	36	12	4.5	15	6.25	8	10	43.75
CM07-1500	CPO	78	69.00	72.00	3.00	3.00	100%	2.51	84%	4.5	19	20	4.5	17	9.5	8	10	49
CM07-1500	CPO	53	72.00	75.00	3.00	2.94	98%	1.90	63%	4.5	41	12	4.5	13	6	16	10	49.5
CM07-1500	CPO	115	75.00	78.00	3.00	2.00	67%	2.79	93%	4.5	24	12	4.5	18	6.25	8	10	46.75
CM07-1500	CPO	77	78.00	81.00	3.00	2.99	100%	2.79	93%	4.5	24	12	4.5	18	8	8	10	48.5
CM07-1500	CPO	84	81.00	84.00	3.00	3.06	102%	2.94	98%	4.5	14	12	4.5	20	11.5	8	10	54
CM07-1500	CPO	73	84.00	87.00	3.00	3.02	101%	2.68	89%	4.5	21	12	4.5	18	9.5	8	10	50
CM07-1500	CPO	66	87.00	90.00	3.00	3.01	100%	2.43	81%	4.5	25	12	4.5	16	8	8	10	46.5
CM07-1500	CPO	83	90.00	93.00	3.00	3.02	101%	2.81	94%	4.5	17	12	4.5	18	10.5	8	10	51
CM07-1500	CPO	81	93.00	96.00	3.00	2.96	99%	2.96	99%	4.5	10	12	4.5	20	13.5	8	10	56
CM07-1500	CPO	80	96.00	99.00	3.00	2.98	99%	2.65	88%	4.5	15	12	4.5	18	10.5	8	10	51
CM07-1500	CPO	71	102.00	105.00	3.00	2.99	100%	2.56	85%	4.5	16	12	4.5	17	10.5	0	10	42
CM07-1500	CPO	84	105.00	108.00	3.00	2.87	96%	2.74	91%	4.5	11	12	4.5	18	13.5	8	10	54
CM07-1500	CPO	61	114.00	117.00	3.00	2.86	95%	1.85	62%	4.5	26	12	4.5	12	7.5	8	10	42
CM07-1500	CPO	68	117.00	120.00	3.00	3.09	103%	2.56	85%	4.5	25	12	4.5	17	8	8	10	47.5
CM07-1500	CPO	58	120.00	123.00	3.00	3.05	102%	2.33	78%	4.5	25	12	4.5	15	8	8	10	45.5
CM07-1500	CPO	70	123.00	126.00	3.00	2.94	98%	2.53	84%	4.5	17	12	4.5	17	10.5	8	10	50
CM07-1500	CPO	77	126.00	129.00	3.00	3.06	102%	2.83	94%	4.5	14	20	4.5	18	11.5	8	10	52
CM07-1500	CPO	78	129.00	132.00	3.00	2.82	94%	2.45	82%	4.5	15	12	4.5	16	10.5	16	10	57
CM07-1500	CPO	72	132.00	135.00	3.00	3.06	102%	2.32	77%	4.5	24	12	4.5	15	8.5	8	10	46
CM07-1500	CPO	71	135.00	138.00	3.00	2.95	98%	2.40	80%	4.5	32	20	4.5	16	7	8	10	45.5
CM07-1500	CPO	52	141.00	144.00	3.00	2.75	92%	1.72	57%	4.5	47	12	4.5	11	5.75	0	10	31.25
CM07-1500	CPO	72	144.00	147.00	3.00	3.02	101%	2.45	82%	4.5	26	12	4.5	16	8	8	10	46.5
CM07-1500	CPO	75	147.00	150.00	3.00	3.03	101%	2.78	93%	4.5	14	12	4.5	18	11.5	8	10	52
CM07-1540	CPO	87	8.00	11.00	3.00	2.95	0.9833333	2.66	0.887	4	10	16	4.5	18	13.5	13	10	59
CM07-1540	CPO	68	14.00	17.00	3.00	3.00	1	2.05	0.683	4.5	22	17	4.5	14	8.5	13	10	50
CM07-1540	CPO	73	17.00	20.00	3.00	2.27	0.7566667	2.10	0.7	4.5	16	15	4.5	14	8.5	12	10	49
CM07-1540	CPO	85	20.00	23.00	3.00	3.17	1.0566667	2.50	0.833	4.5	17	15	4.5	17	10.5	12	10	54
CM07-1540	CPO	73	23.00	26.00	3.00	3.07	1.0233333	2.37	0.79	4.5	20	16	4.5	16	9.5	12	10	52
CM07-1540	CPO	76	26.00	29.00	3.00	3.00	1	2.66	0.887	4.5	18	18	4.5	18	9.5	15	10	57
CM07-1540	CPO	76	29.00	32.00	3.00	3.00	1	2.66	0.887	4.5	8	17	4.5	18	21	14	10	67.5
CM07-1540	CPO	84	32.00	35.00	3.00	2.98	0.9933333	2.81	0.937	4.5	17	14	4.5	18	10.5	10	10	53
CM07-1540	CPO	58	35.00	38.00	3.00	3.00	1	1.68	0.56	4.5	19	15	4.5	11	9.5	12	10	47
CM07-1540	CPO	56	38.00	41.00	3.00	2.83	0.9433333	1.68	0.56	4.5	15	15	4.5	11	10.5	12	10	48
CM07-1540	CPO	80	41.00	44.00	3.00	3.00	1	2.14	0.713	4.5	21	18	4.5	14	8.5	14	10	51
CM07-1540	CPO	74	44.00	47.00	3.00	3.08	1.0266667	2.16	0.72	4.5	22	13	4.5	14	8.5	10	10	47
CM07-1540	CPO	66	47.00	50.00	3.00	3.01	1.0033333	1.90	0.633	4.5	22	17	4.5	13	8.5	13	10	49
CM07-1540	CPO	72	50.00	53.00	3.00	3.08	1.0266667	2.30	0.767	4.5	26	17	4.5	15	8	14	10	51.5
CM07-1540	CPO	72	53.00	56.00	3.00	3.08	1.0266667	2.30	0.767	4.5	19	16	4.5	15	9.5	12	10	51
CM07-1540	CPO	72	56.00	59.00	3.00	2.98	0.9933333	1.94	0.647	4.5	20	16	4.5	13	9.5	13	10	50
CM07-1540	CPO	58	59.00	62.00	3.00	3.00	1	1.17	0.39	4.5	26	16	4.5	8	8	12	10	42.5
CM07-1540	CPO	61	62.00	65.00	3.00	3.00	1	1.49	0.497	4.5	24	16	4.5	10	8	13	10	45.5
CM07-1540	CPO	65	65.00	68.00	3.00	3.00	1	1.08	0.36	4.5	31	16	4.5	8	7	13	10	42.5

Hole_Id	Lithology	SCR (%)	Depth (m)		Length	Core Recovery		RQD		Strength	Fracture	JCR	RMR Ratings					
			From	To	m	m	(%)	m	(%)	Index	Count	0-30	UCS	RQD	FX Freq	JCR	GWATER	Total
CM07-1540	CPO	60	68.00	71.00	3.00	3.00	1	1.67	0.557	4.5	19	20	4.5	11	9.5	15	10	50
CM07-1540	CPO	58	71.00	74.00	3.00	2.85	0.95	1.50	0.5	4.5	15	18	4.5	10	10.5	14	10	49
CM07-1540	CPO	67	74.00	77.00	3.00	3.03	1.01	2.02	0.673	4.5	16	18	4.5	13	10.5	15	10	53
CM07-1540	CPO	56	77.00	80.00	3.00	3.02	1.0066667	2.02	0.673	4.5	19	16	4.5	13	9.5	12	10	49
CM07-1540	CPO	52	80.00	83.00	3.00	3.00	1	1.90	0.633	4.5	21	17	4.5	13	8.5	13	10	49
CM07-1540	CPO	63	83.00	86.00	3.00	3.00	1	2.42	0.807	4.5	16	19	4.5	16	10.5	15	10	56
CM07-1540	CPO	60	86.00	89.00	3.00	3.00	1	2.52	0.84	4.5	14	19	4.5	17	11.5	15	10	58
CM07-1540	CPO	58	89.00	92.00	3.00	3.00	1	2.26	0.753	4.5	21	18	4.5	15	8.5	14	10	52
CM07-1540	CPO	67	92.00	95.00	3.00	3.06	1.02	2.33	0.777	4.5	18	16	4.5	15	10.5	13	10	53
CM07-1540	CPO	65	95.00	98.00	3.00	3.00	1	2.40	0.8	4.5	12	17	4.5	16	11.5	13	10	55
CM07-1540	CPO	83	101.00	104.00	3.00	3.00	1	2.65	0.883	4.5	12	18	4.5	18	11.5	15	10	59
CM07-1540	CPO	75	104.00	107.00	3.00	3.00	1	2.22	0.74	4.5	16	17	4.5	15	10.5	14	10	54
CM07-1540	CPO	79	107.00	110.00	3.00	3.00	1	2.36	0.787	4.5	15	18	4.5	16	10.5	15	10	56
CM07-1540	CPO	76	110.00	113.00	3.00	3.00	1	2.53	0.843	4.5	13	14	4.5	17	11.5	10	10	53
CM07-1540	CPO	66	113.00	116.00	3.00	3.00	1	2.92	0.973	4.5	13	20	4.5	20	11.5	16	10	62
CM07-1540	CPO	89	116.00	119.00	3.00	3.00	1	2.85	0.95	4.5	11	19	4.5	19	13.5	15	10	62
CM07-1540	CPO	75	119.00	122.00	3.00	3.00	1	2.56	0.853	4.5	8	15	4.5	17	21	12	10	64.5
CM07-1540	CPO	82	122.00	125.00	3.00	3.00	1	2.95	0.983	4.5	9	16	4.5	20	13.5	13	10	61
CM07-1540	CPO	55	125.00	128.00	3.00	2.10	0.7	1.80	0.6	4.5	4	16	4.5	12	27	13	10	66.5

Hole_Id	Lithology	SCR (%)	Depth (m)		Length	Core Recovery		RQD		Strength	Fracture	JCR	RMR Ratings					
			From	To	m	m	(%)	m	(%)	Index	Count	0-30	UCS	RQD	FX Freq	JCR	GWATER	Total
CM07-1446	SPO	60	45.00	48.00	3.00	3.02	101%	2.59	86%	4	19	15	7.8	17	9.5	12	10	56.3
CM07-1446	SPO	85	48.00	51.00	3.00	3.03	101%	2.83	94%	4	6	16	7.8	18	27	13	10	75.8
CM07-1446	SPO	67	51.00	54.00	3.00	3.04	101%	2.69	90%	4	16	17	7.8	18	10.5	13	10	59.3
CM07-1446	SPO	66	54.00	57.00	3.00	3.00	100%	2.38	79%	4	13	16	7.8	16	11.5	13	10	58.3
CM07-1446	SPO	63	57.00	60.00	3.00	3.04	101%	1.96	65%	4	16	15	7.8	13	10.5	12	10	53.3
CM07-1446	SPO	69	60.00	63.00	3.00	3.00	100%	2.67	89%	4	18	14	7.8	18	9.5	11	10	56.3
CM07-1446	SPO	84	63.00	66.00	3.00	3.00	100%	2.82	94%	4	9	17	7.8	18	13.5	13	10	62.3
CM07-1446	SPO	68	81.00	84.00	3.00	3.00	100%	2.78	93%	4	14	14	7.8	18	11.5	11	10	58.3
CM07-1446	SPO	87	114.00	117.00	3.00	2.93	98%	2.93	98%	4	3	14	7.8	20	27	11	10	75.8
CM07-1446	SPO	75	141.00	144.00	3.00	2.98	99%	2.90	97%	4	10	13	7.8	19	13.5	8	10	58.3
CM07-1446	SPO	78	159.00	162.00	3.00	3.00	100%	2.74	91%	4	15	17	7.8	18	10.5	14	10	60.3
CM07-1490	SPO	51	168.00	171.00	3.00	3.02	101%	2.06	69%	4	38	12	4.5	14	6.25	8	10	42.75
CM07-1490	SPO	94	195.00	198.00	3.00	3.03	101%	3.03	101%	4	5	12	4.5	20	27	8	10	69.5

APPENDIX G

STEREONETS OF STRUCTURAL DATA BY SECTOR



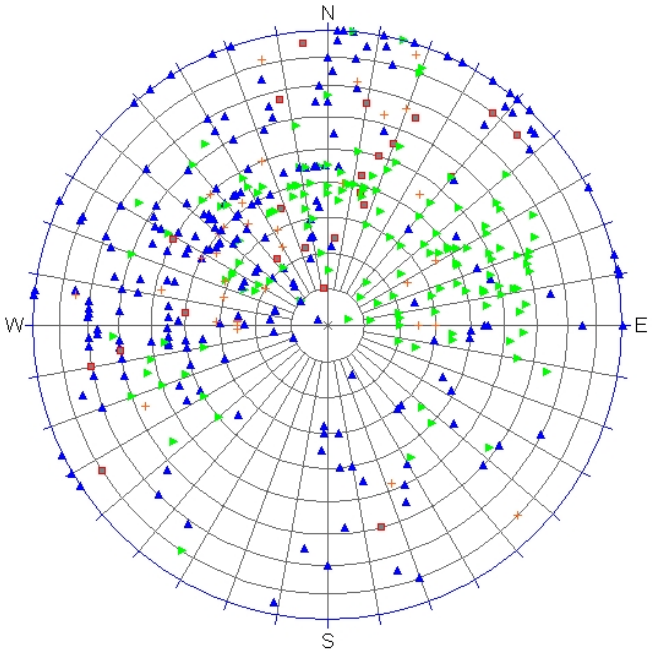
Set	Dip/Dip Direction
2	42/135
4	41/176

Schmidt
Concentrations
% of total per 1.0 % area

0.00 ~ 1.00 %
1.00 ~ 2.00 %
2.00 ~ 3.00 %
3.00 ~ 4.00 %
4.00 ~ 5.00 %
5.00 ~ 6.00 %
6.00 ~ 7.00 %
7.00 ~ 8.00 %
8.00 ~ 9.00 %
9.00 ~ 10.00 %

No Bias Correction
Max. Conc. = 7.1910%

Equal Area
Lower Hemisphere
445 Poles
445 Entries



TYPE

Fault [23]
Joint [230]
Vein [155]
[no data] [37]

Equal Area
Lower Hemisphere
445 Poles
445 Entries

Golder Associates

TITLE

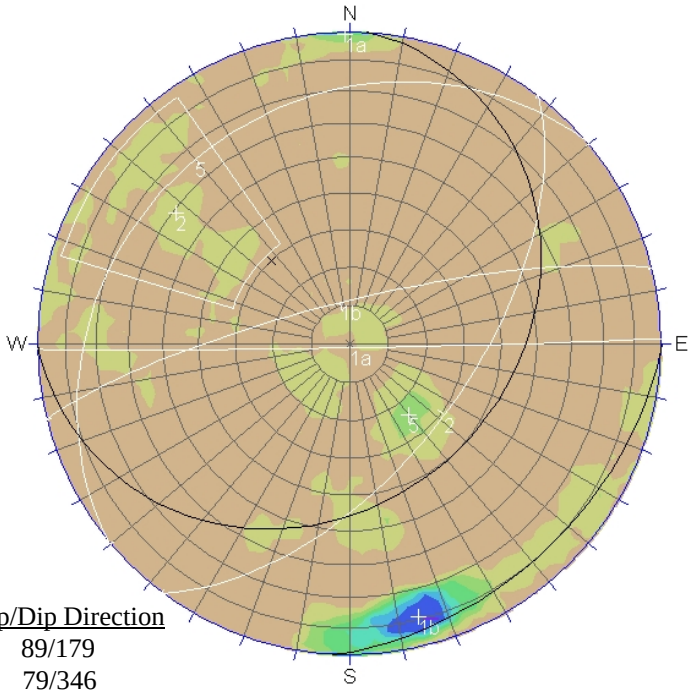
Underground Mapping Data, Northwest Sector

CLIENT/PROJECT

OSISKO

CANADIAN MALARTIC PROJECT

DRAWN	RK	DATE	04/20/08	JOB NO.	07-1221-0028
CHECKED	GM	SCALE	NA	DWG. NO. / REV. NO.	
REVIEWED	GM	FILE NO.			**APPENDIX G.1**



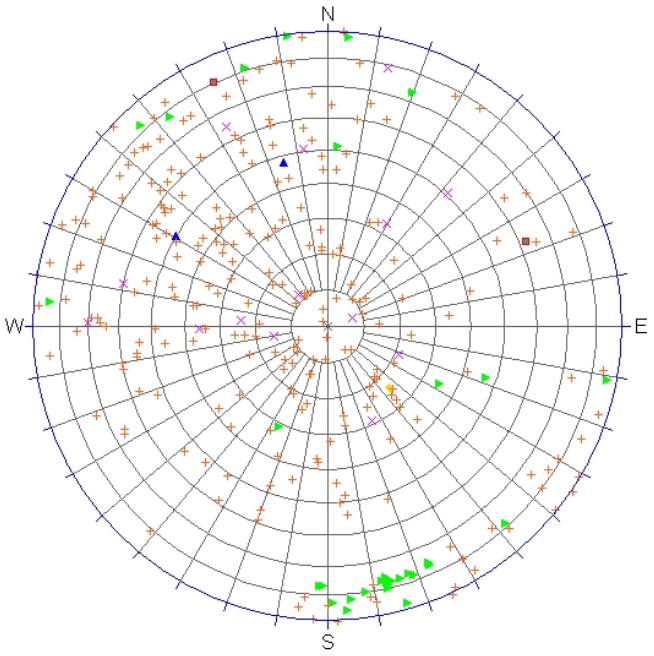
Schmidt
Concentrations
% of total per 1.0 % area

0.00 ~ 1.50 %
1.50 ~ 3.00 %
3.00 ~ 4.50 %
4.50 ~ 6.00 %
6.00 ~ 7.50 %
7.50 ~ 9.00 %
9.00 ~ 10.50 %
10.50 ~ 12.00 %
12.00 ~ 13.50 %
13.50 ~ 15.00 %

Terzaghi Correction
Min. Bias Angle = 15 deg
Max. Conc. = 10.6153%

Equal Area
Lower Hemisphere
298 Poles
298 Entries

Set	Dip/Dip Direction
1a	89/179
1b	79/346
2	59/127
5	24/320



TYPE

CO [2]
FLT [2]
FO [33]
JN [246]
VN [14]
[no data] [1]

Equal Area
Lower Hemisphere
298 Poles
298 Entries

Golder Associates

TITLE

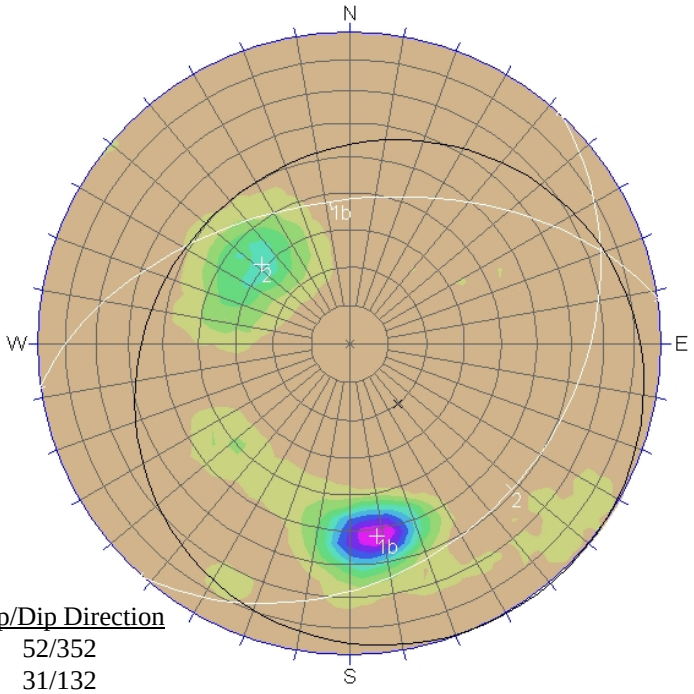
GT07-03

CLIENT/PROJECT

OSISKO

CANADIAN MALARTIC PROJECT

DRAWN	RK	DATE	04/20/08	JOB NO.	07-1221-0028
CHECKED	GM	SCALE	NA	DWG. NO. / REV. NO.	
REVIEWED	GM	FILE NO.			**APPENDIX G.1**



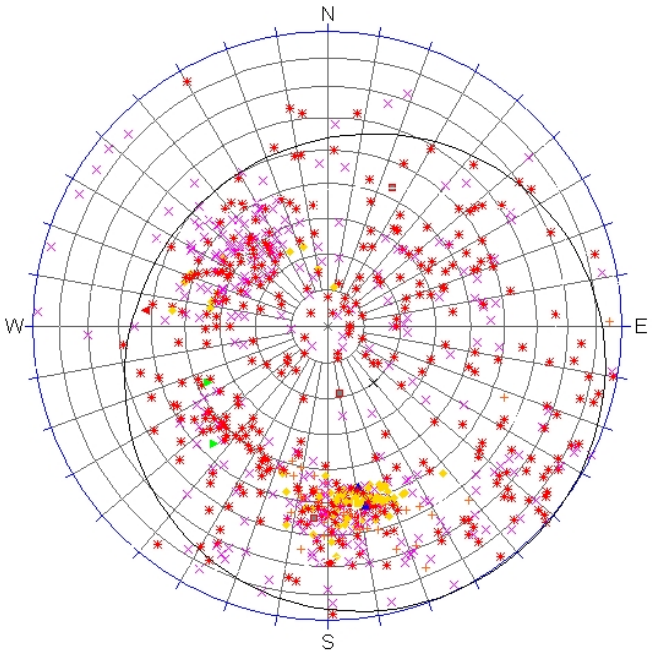
Schmidt
Concentrations
% of total per 1.0 % area

0.00 ~ 1.50 %
1.50 ~ 3.00 %
3.00 ~ 4.50 %
4.50 ~ 6.00 %
6.00 ~ 7.50 %
7.50 ~ 9.00 %
9.00 ~ 10.50 %
10.50 ~ 12.00 %
12.00 ~ 13.50 %
13.50 ~ 15.00 %

Terzaghi Correction
Min. Bias Angle = 15 deg
Max. Conc. = 13.4699%

Equal Area
Lower Hemisphere
803 Poles
803 Entries

Set	Dip/Dip Direction
1b	52/352
2	31/132



TYPE

10-Contact [3]
11-Contact (Intact) [2]
12-Dike [2]
14-Unknown [68]
3-Joint [276]
4-Bedding [85]
6-Vein [364]
7-Vein (Intact) [3]

Equal Area
Lower Hemisphere
803 Poles
803 Entries

Golder Associates

TITLE

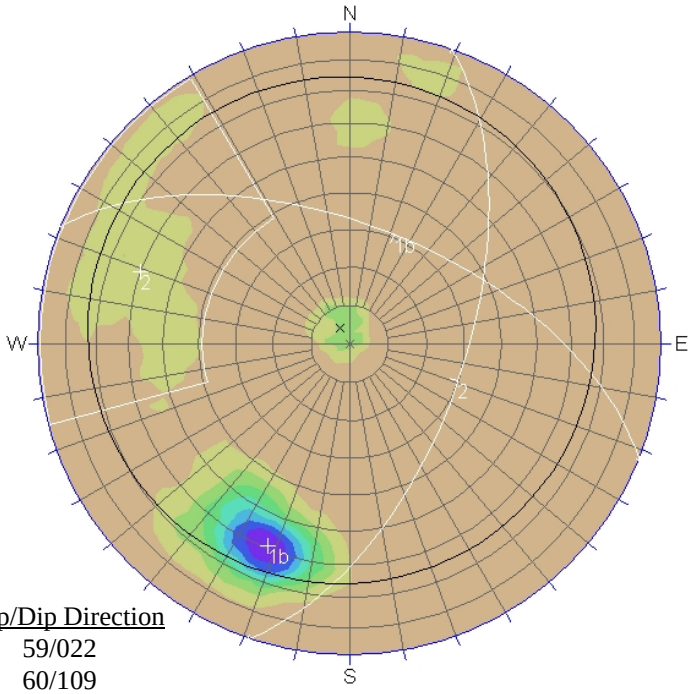
CM07-1421

CLIENT/PROJECT

OSISKO

CANADIAN MALARTIC PROJECT

DRAWN	RK	DATE	04/20/08	JOB NO.	07-1221-0028
CHECKED	GM	SCALE	NA	DWG. NO. / REV. NO.	
REVIEWED	GM	FILE NO.			**APPENDIX G.1**



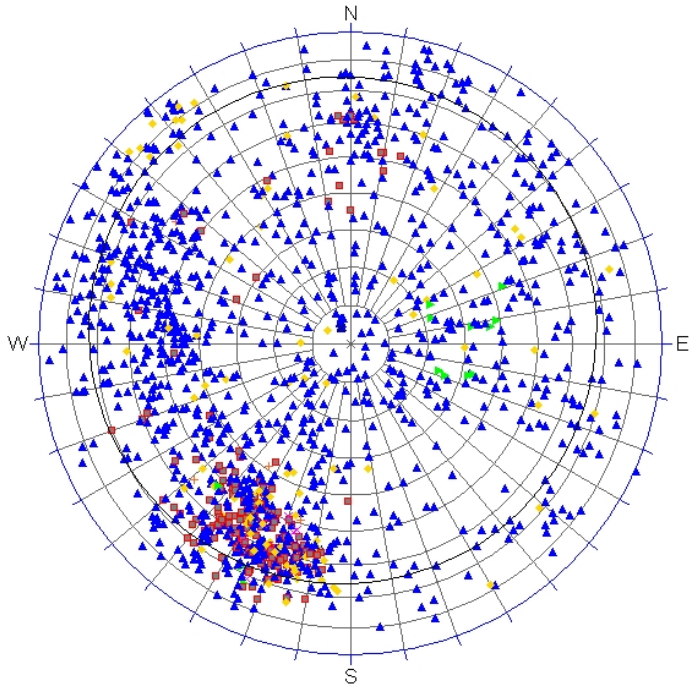
Set	Dip/Dip Direction
1b	59/022
2	60/109

Schmidt
Concentrations
% of total per 1.0 % area

	0.00 ~ 1.50 %
	1.50 ~ 3.00 %
	3.00 ~ 4.50 %
	4.50 ~ 6.00 %
	6.00 ~ 7.50 %
	7.50 ~ 9.00 %
	9.00 ~ 10.50 %
	10.50 ~ 12.00 %
	12.00 ~ 13.50 %
	13.50 ~ 15.00 %

Terzaghi Correction
Min. Bias Angle = 15 deg
Max. Conc. = 11.9581%

Equal Area
Lower Hemisphere
1506 Poles
1506 Entries



TYPE

- Bedding / Banding [188]
- Filled Fracture / [1198]
- Geological Contact [13]
- Major Open Joint / [5]
- Minor Open Joint / [8]
- Partially Open Joi [94]

Equal Area
Lower Hemisphere
1506 Poles
1506 Entries

Golder Associates

TITLE

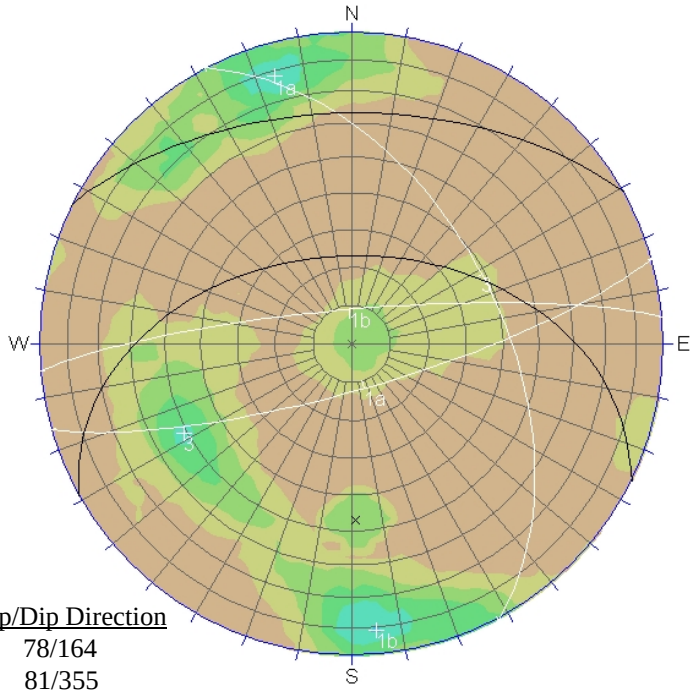
CM07-1490

CLIENT/PROJECT

OSISKO

CANADIAN MALARTIC PROJECT

DRAWN	RK	DATE	04/20/08	JOB NO.	07-1221-0028
CHECKED	GM	SCALE	NA	DWG. NO. / REV. NO.	
REVIEWED	GM	FILE NO.			**APPENDIX G.1**



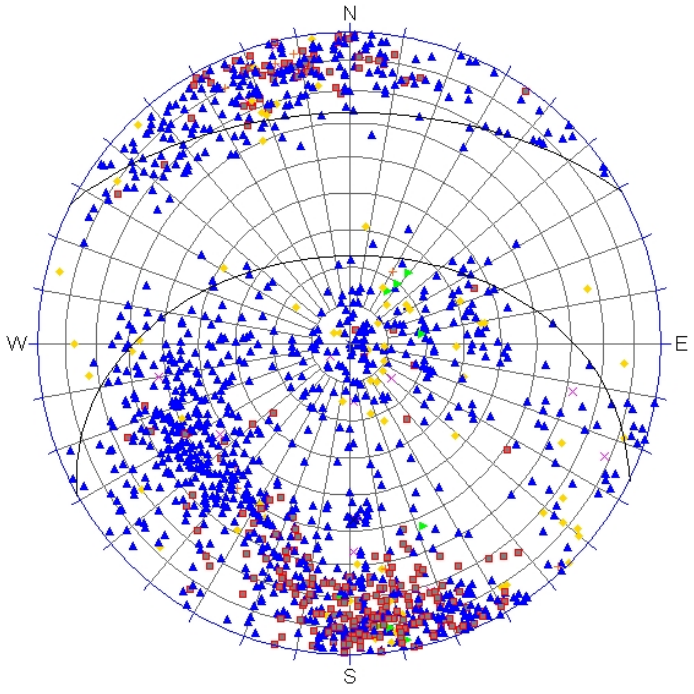
Schmidt
Concentrations
% of total per 1.0 % area

0.00 ~ 1.00 %
1.00 ~ 2.00 %
2.00 ~ 3.00 %
3.00 ~ 4.00 %
4.00 ~ 5.00 %
5.00 ~ 6.00 %
6.00 ~ 7.00 %
7.00 ~ 8.00 %
8.00 ~ 9.00 %
9.00 ~ 10.00 %

Terzaghi Correction
Min. Bias Angle = 15 deg
Max. Conc. = 5.1518%

Equal Area
Lower Hemisphere
1482 Poles
1482 Entries

Set	Dip/Dip Direction
1a	78/164
1b	81/355
3	51/062



TYPE

Bedding / Banding [276]
Filled Fracture / [1104]
Geological Contact [9]
Major Open Joint / [10]
Minor Open Joint / [13]
Partially Open Joi [70]

Equal Area
Lower Hemisphere
1482 Poles
1482 Entries

Golder Associates

TITLE

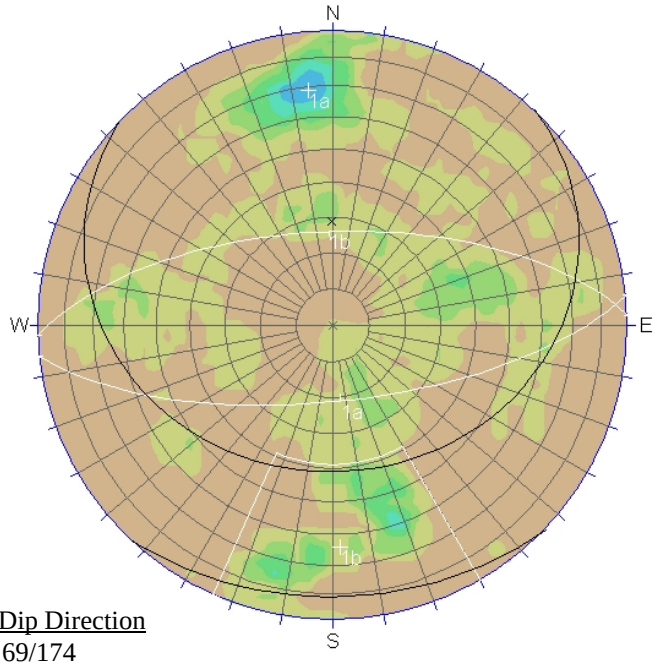
CM07-1377

CLIENT/PROJECT

OSISKO

CANADIAN MALARTIC PROJECT

DRAWN	RK	DATE	04/20/08	JOB NO.	07-1221-0028
CHECKED	GM	SCALE	NA	DWG. NO. / REV. NO.	
REVIEWED	GM	FILE NO.			**APPENDIX G.1**



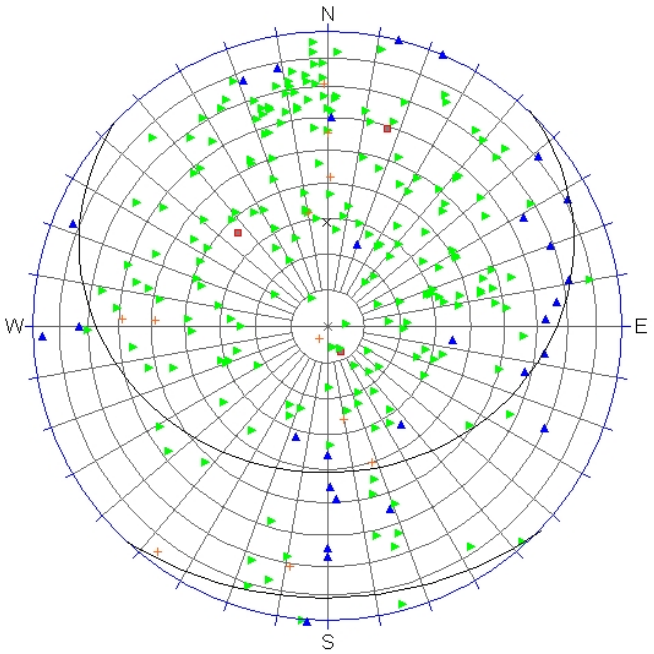
Schmidt
Concentrations
% of total per 1.0 % area

0.00 ~ 1.00 %
1.00 ~ 2.00 %
2.00 ~ 3.00 %
3.00 ~ 4.00 %
4.00 ~ 5.00 %
5.00 ~ 6.00 %
6.00 ~ 7.00 %
7.00 ~ 8.00 %
8.00 ~ 9.00 %
9.00 ~ 10.00 %

Terzaghi Correction
Min. Bias Angle = 15 deg
Max. Conc. = 5.8121%

Equal Area
Lower Hemisphere
257 Poles
257 Entries

Set	Dip/Dip Direction
1a	69/174
1b	64/358



TYPE

Contact [3]
FO [29]
JN [214]
VN [11]

Equal Area
Lower Hemisphere
257 Poles
257 Entries

Golder Associates

TITLE

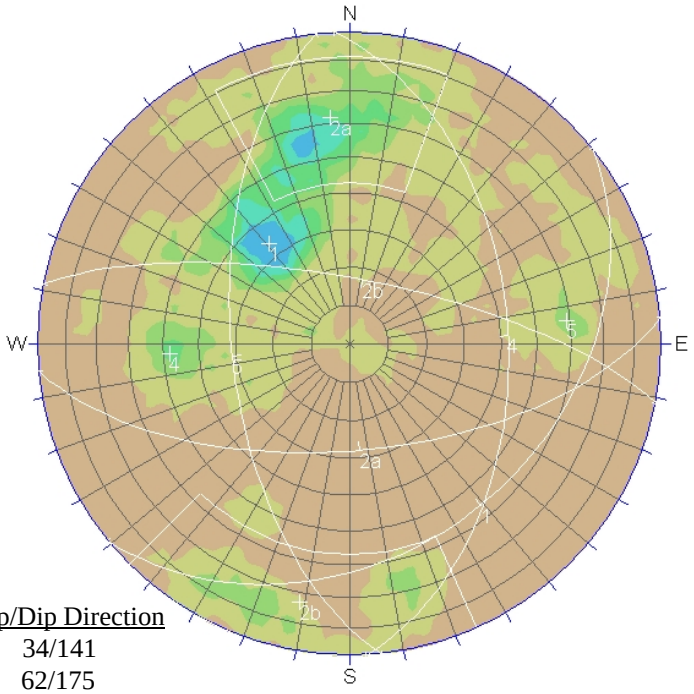
GT07-01

CLIENT/PROJECT

OSISKO

CANADIAN MALARTIC PROJECT

DRAWN	RK	DATE	04/20/08	JOB NO.	07-1221-0028
CHECKED	GM	SCALE	NA	DWG. NO. / REV. NO.	
REVIEWED	GM	FILE NO.			**APPENDIX G.1**



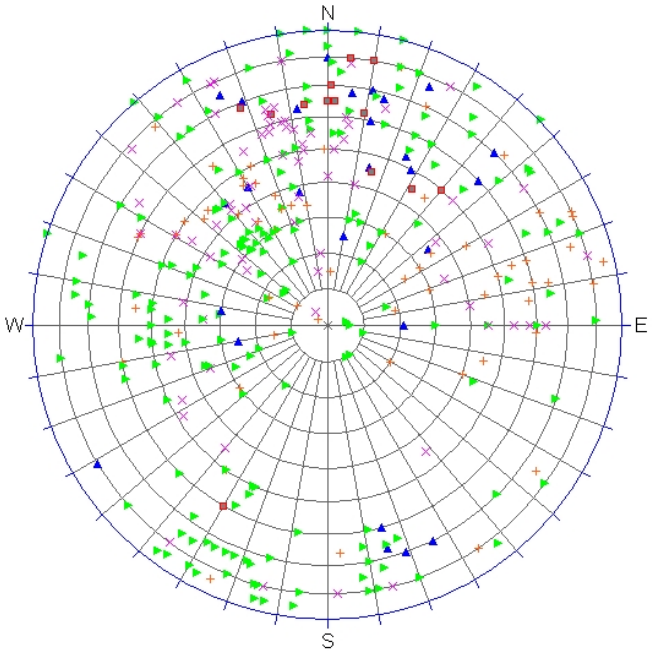
Schmidt
Concentrations
% of total per 1.0 % area

0.00 ~ 1.00 %
1.00 ~ 2.00 %
2.00 ~ 3.00 %
3.00 ~ 4.00 %
4.00 ~ 5.00 %
5.00 ~ 6.00 %
6.00 ~ 7.00 %
7.00 ~ 8.00 %
8.00 ~ 9.00 %
9.00 ~ 10.00 %

No Bias Correction
Max. Conc. = 5.9621%

Equal Area
Lower Hemisphere
369 Poles
369 Entries

Set	Dip/Dip Direction
1	34/141
2a	62/175
2b	73/011
4	48/087
5	59/264



TYPE

Contact [14]
Fault [27]
Joint [188]
Vein [64]
[no data] [76]

Equal Area
Lower Hemisphere
369 Poles
369 Entries

Golder Associates

TITLE

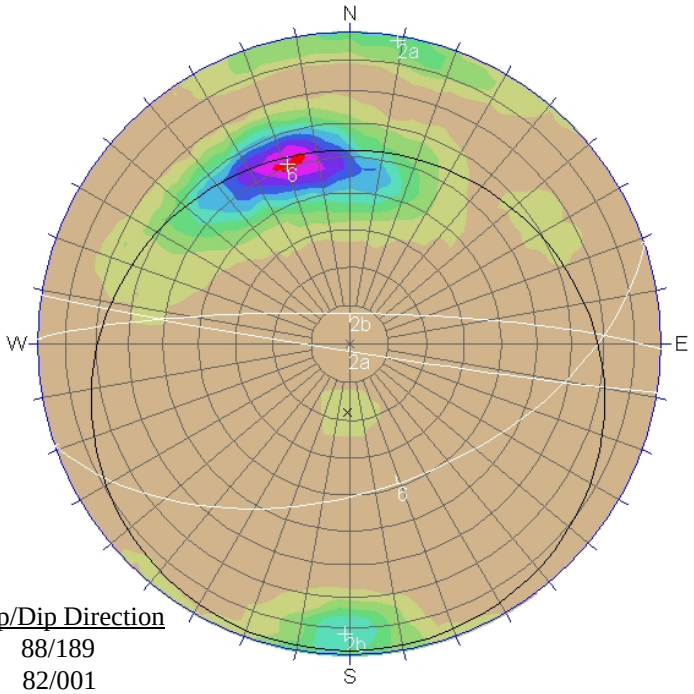
Underground Mapping Data, Northeast Sector

CLIENT/PROJECT

OSISKO

CANADIAN MALARTIC PROJECT

DRAWN	RK	DATE	04/20/08	JOB NO.	07-1221-0028
CHECKED	GM	SCALE	NA	DWG. NO. / REV. NO.	
REVIEWED	GM	FILE NO.			**APPENDIX G.2**



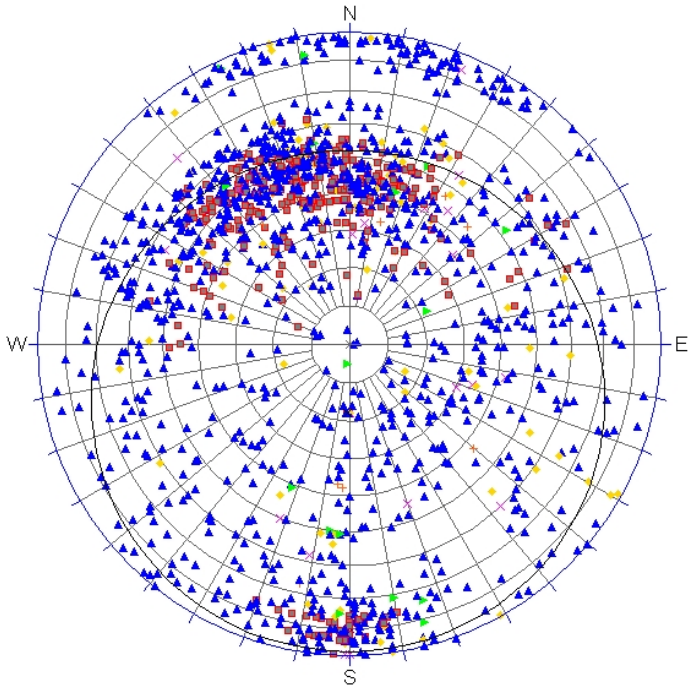
Schmidt
Concentrations
% of total per 1.0 % area

0.00 ~ 1.00 %
1.00 ~ 2.00 %
2.00 ~ 3.00 %
3.00 ~ 4.00 %
4.00 ~ 5.00 %
5.00 ~ 6.00 %
6.00 ~ 7.00 %
7.00 ~ 8.00 %
8.00 ~ 9.00 %
9.00 ~ 10.00 %

Terzaghi Correction
Min. Bias Angle = 15 deg
Max. Conc. = 9.5883%

Equal Area
Lower Hemisphere
1515 Poles
1515 Entries

Set	Dip/Dip Direction
2a	88/189
2b	82/001
6	51/161



TYPE

- Bedding / Banding [302]
- Filled Fracture / [1070]
- Geological Contact [18]
- Major Open Joint / [10]
- Minor Open Joint / [25]
- Partially Open Joi [90]

Equal Area
Lower Hemisphere
1515 Poles
1515 Entries

Golder Associates

TITLE

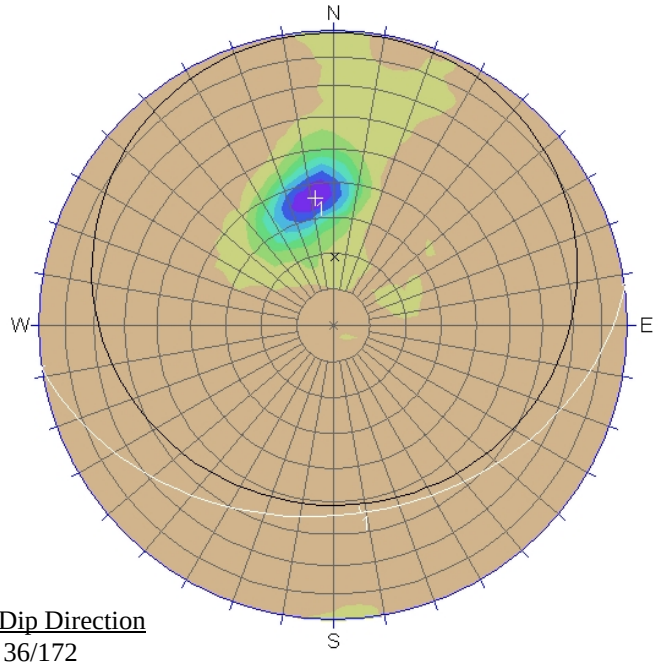
CM07-1446

CLIENT/PROJECT

OSISKO

CANADIAN MALARTIC PROJECT

DRAWN	RK	DATE	04/20/08	JOB NO.	07-1221-0028
CHECKED	GM	SCALE	NA	DWG. NO. / REV. NO.	
REVIEWED	GM	FILE NO.			**APPENDIX G.2**



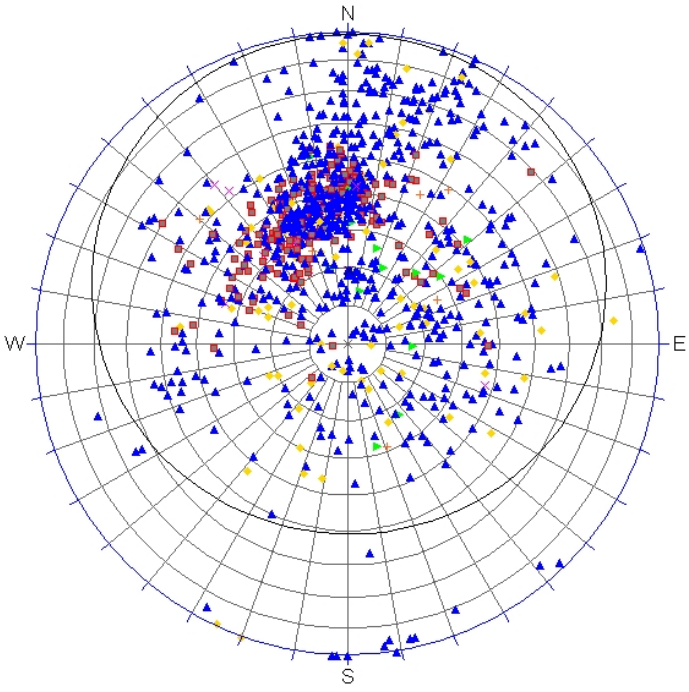
Schmidt
Concentrations
% of total per 1.0 % area

	0.00 ~ 2.00 %
	2.00 ~ 4.00 %
	4.00 ~ 6.00 %
	6.00 ~ 8.00 %
	8.00 ~ 10.00 %
	10.00 ~ 12.00 %
	12.00 ~ 14.00 %
	14.00 ~ 16.00 %
	16.00 ~ 18.00 %
	18.00 ~ 20.00 %

Terzaghi Correction
Min. Bias Angle = 15 deg
Max. Conc. = 15.5897%

Equal Area
Lower Hemisphere
1020 Poles
1020 Entries

Set	Dip/Dip Direction
1	36/172



TYPE

- Bedding / Banding [195]
- Filled Fracture / [716]
- Geological Contact [13]
- Major Open Joint / [7]
- Minor Open Joint / [12]
- Partially Open Joi [77]

Equal Area
Lower Hemisphere
1020 Poles
1020 Entries

Golder Associates

TITLE

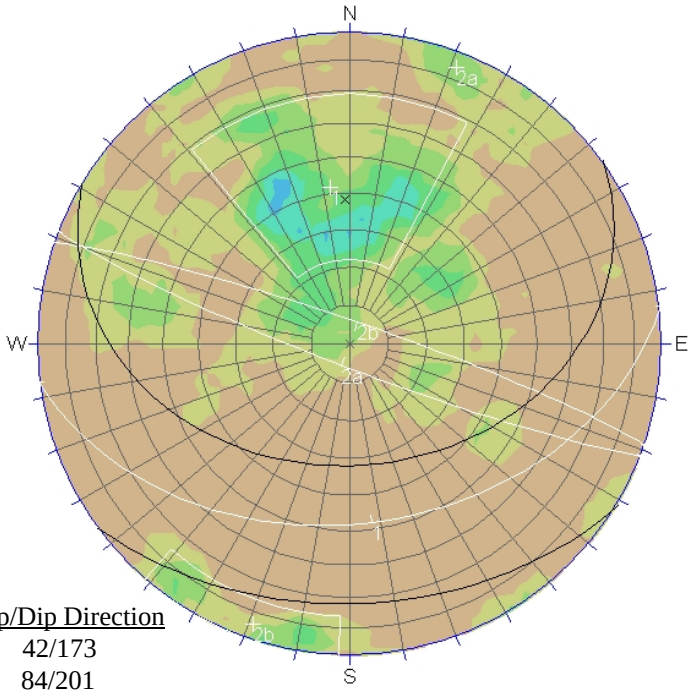
CM07-1500

CLIENT/PROJECT

OSISKO

CANADIAN MALARTIC PROJECT

DRAWN	RK	DATE	04/20/08	JOB NO.	07-1221-0028
CHECKED	GM	SCALE	NA	DWG. NO. / REV. NO.	
REVIEWED	GM	FILE NO.			**APPENDIX G.2**



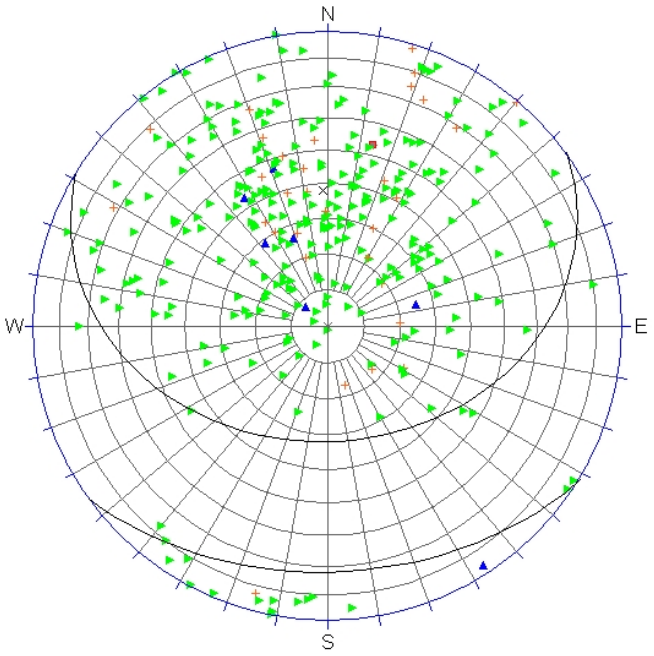
Schmidt
Concentrations
% of total per 1.0 % area

0.00 ~ 1.00 %
1.00 ~ 2.00 %
2.00 ~ 3.00 %
3.00 ~ 4.00 %
4.00 ~ 5.00 %
5.00 ~ 6.00 %
6.00 ~ 7.00 %
7.00 ~ 8.00 %
8.00 ~ 9.00 %
9.00 ~ 10.00 %

Terzaghi Correction
Min. Bias Angle = 15 deg
Max. Conc. = 5.5409%

Equal Area
Lower Hemisphere
318 Poles
318 Entries

Set	Dip/Dip Direction
1	42/173
2a	84/201
2b	84/019

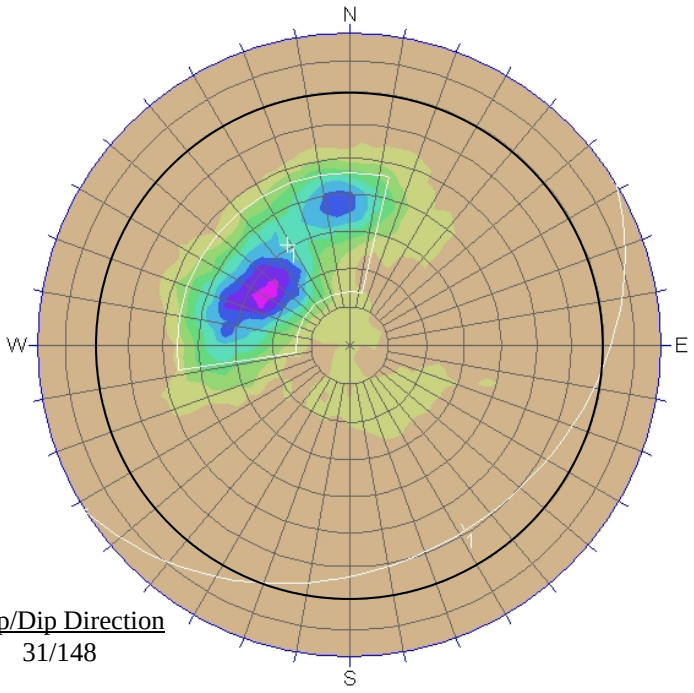


TYPE

FLT [1]
FO [7]
JN [277]
VN [33]

Equal Area
Lower Hemisphere
318 Poles
318 Entries

Golder Associates	TITLE: **CM07-1540**		
CLIENT/PROJECT: OSISKO — **CANADIAN MALARTIC PROJECT**	DRAWN: RK	DATE: 04/20/08	JOB NO.: 07-1221-0028
	CHECKED: GM	SCALE: NA	DWG. NO. / REV. NO.
	REVIEWED: GM	FILE NO.	**APPENDIX G.2**



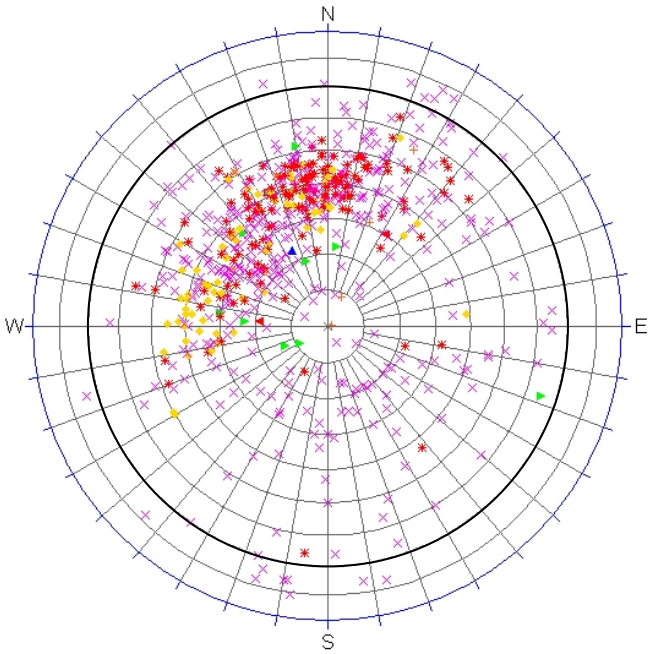
Schmidt
Concentrations
% of total per 1.0 % area

0.00 ~ 1.50 %
1.50 ~ 3.00 %
3.00 ~ 4.50 %
4.50 ~ 6.00 %
6.00 ~ 7.50 %
7.50 ~ 9.00 %
9.00 ~ 10.50 %
10.50 ~ 12.00 %
12.00 ~ 13.50 %
13.50 ~ 15.00 %

Terzaghi Correction
Min. Bias Angle = 15 deg
Max. Conc. = 12.5169%

Equal Area
Lower Hemisphere
649 Poles
649 Entries

Set	Dip/Dip Direction
1	31/148



TYPE

10-Contact [1]
11-Contact (Intact) [1]
12-Dike [9]
14-Unknown [5]
3-Joint [410]
4-Bedding [73]
6-Vein [148]
7-Vein (Intact) [2]

Equal Area
Lower Hemisphere
649 Poles
649 Entries

Golder Associates

TITLE

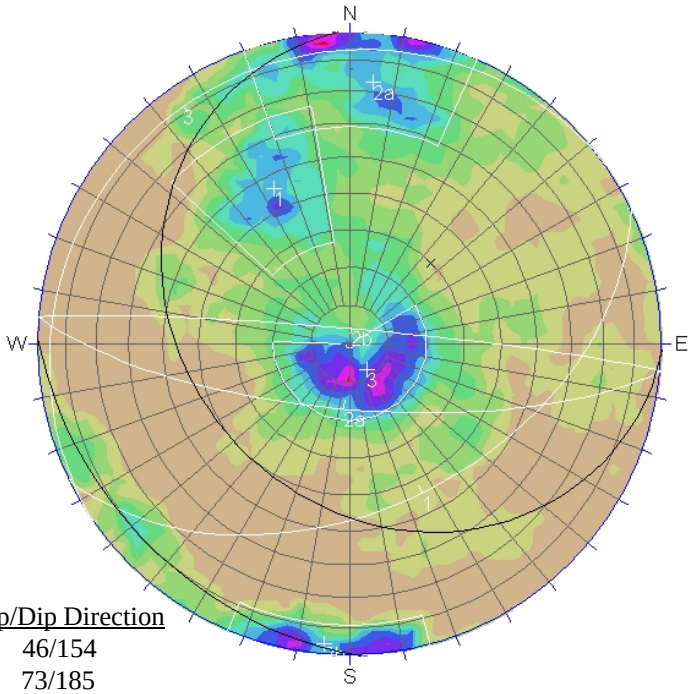
CM06-832

CLIENT/PROJECT

OSISKO

CANADIAN MALARTIC PROJECT

DRAWN	RK	DATE	04/20/08	JOB NO.	07-1221-0028
CHECKED	GM	SCALE	NA	DWG. NO. / REV. NO.	
REVIEWED	GM	FILE NO.			**APPENDIX G.2**



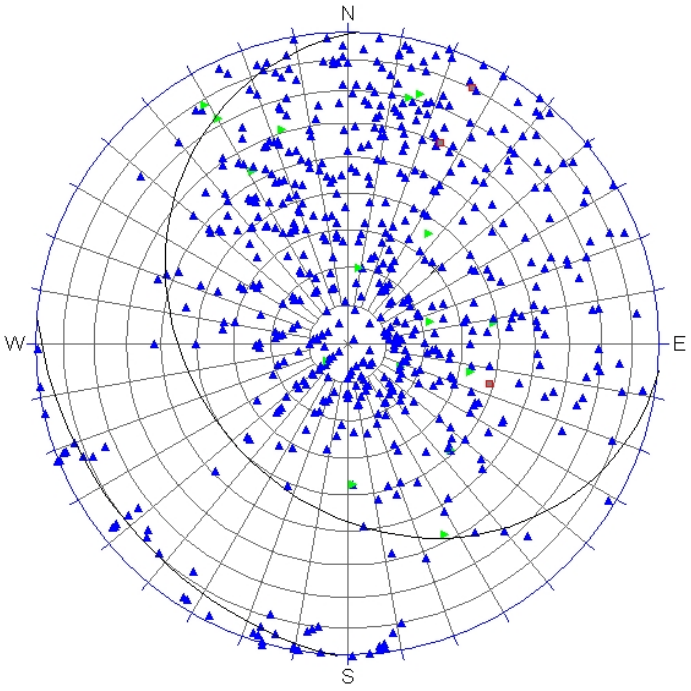
Schmidt
Concentrations
% of total per 1.0 % area

0.00 ~ 0.50 %
0.50 ~ 1.00 %
1.00 ~ 1.50 %
1.50 ~ 2.00 %
2.00 ~ 2.50 %
2.50 ~ 3.00 %
3.00 ~ 3.50 %
3.50 ~ 4.00 %
4.00 ~ 4.50 %
4.50 ~ 5.00 %

Terzaghi Correction
Min. Bias Angle = 15 deg
Max. Conc. = 4.7148%

Equal Area
Lower Hemisphere
626 Poles
626 Entries

Set	Dip/Dip Direction
1	46/154
2a	73/185
2b	86/005
3	08/325



TYPE

FO [3]
JN [607]
VN [16]

Equal Area
Lower Hemisphere
626 Poles
626 Entries

Golder Associates

TITLE

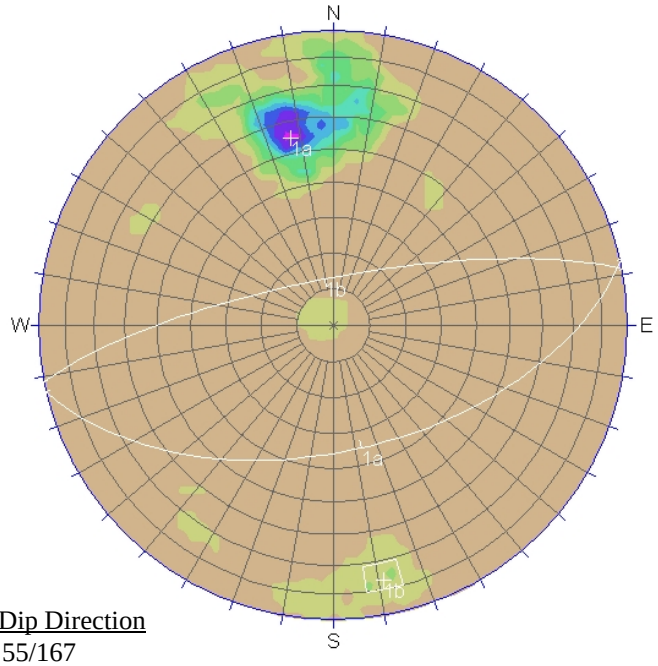
GT07-02

CLIENT/PROJECT

OSISKO

CANADIAN MALARTIC PROJECT

DRAWN	RK	DATE	04/20/08	JOB NO.	07-1221-0028
CHECKED	GM	SCALE	NA	DWG. NO. / REV. NO.	
REVIEWED	GM	FILE NO.			**APPENDIX G.2**



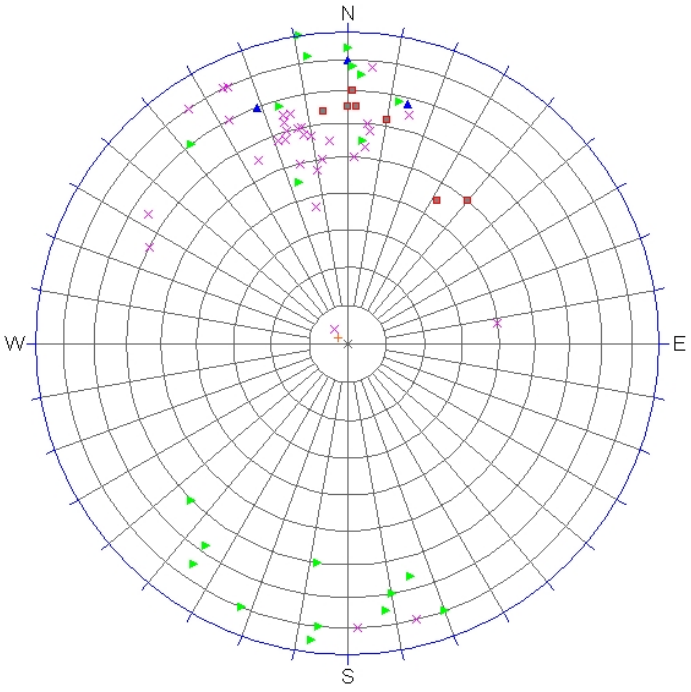
Schmidt
Concentrations
% of total per 1.0 % area

0.00 ~ 2.50 %
2.50 ~ 5.00 %
5.00 ~ 7.50 %
7.50 ~ 10.00 %
10.00 ~ 12.50 %
12.50 ~ 15.00 %
15.00 ~ 17.50 %
17.50 ~ 20.00 %
20.00 ~ 22.50 %
22.50 ~ 25.00 %

No Bias Correction
Max. Conc. = 20.5882%

Equal Area
Lower Hemisphere
68 Poles
68 Entries

Set	Dip/Dip Direction
1a	55/167
1b	77/349



TYPE

Contact [8]
Fault [3]
Joint [21]
Vein [1]
[no data] [35]

Equal Area
Lower Hemisphere
68 Poles
68 Entries

Golder Associates

TITLE

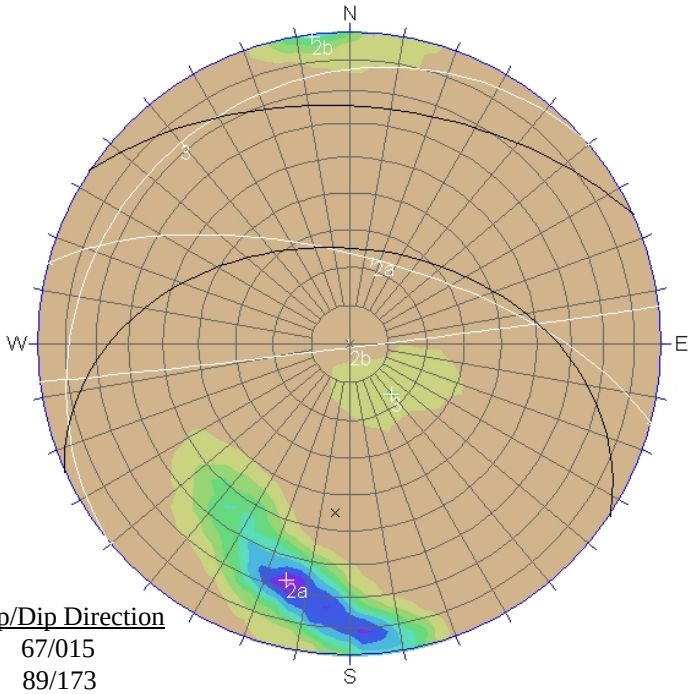
Underground Mapping Data, East Sector

CLIENT/PROJECT

OSISKO

CANADIAN MALARTIC PROJECT

DRAWN	RK	DATE	04/20/08	JOB NO.	07-1221-0028
CHECKED	GM	SCALE	NA	DWG. NO. / REV. NO.	
REVIEWED	GM	FILE NO.			**APPENDIX G.3**



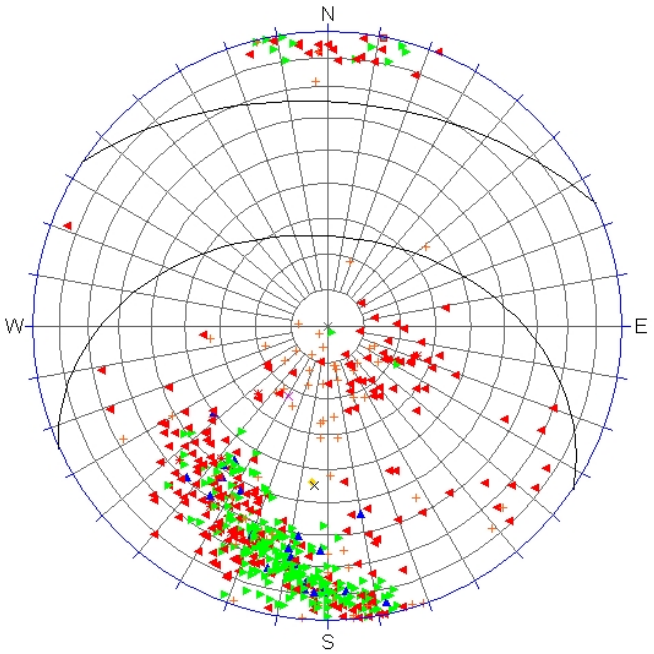
Schmidt
Concentrations
% of total per 1.0 % area

0.00 ~ 2.00 %
2.00 ~ 4.00 %
4.00 ~ 6.00 %
6.00 ~ 8.00 %
8.00 ~ 10.00 %
10.00 ~ 12.00 %
12.00 ~ 14.00 %
14.00 ~ 16.00 %
16.00 ~ 18.00 %
18.00 ~ 20.00 %

Terzaghi Correction
Min. Bias Angle = 15 deg
Max. Conc. = 16.5916%

Equal Area
Lower Hemisphere
578 Poles
578 Entries

Set	Dip/Dip Direction
2a	67/015
2b	89/173
3	17/320



TYPE

Contact (Intact) [1]
Foliation [28]
Foliation (Intact) [219]
Joint [75]
Shear [1]
Unknown [1]
Vein [6]
Vein (Intact) [247]

Equal Area
Lower Hemisphere
578 Poles
578 Entries

Golder Associates

TITLE

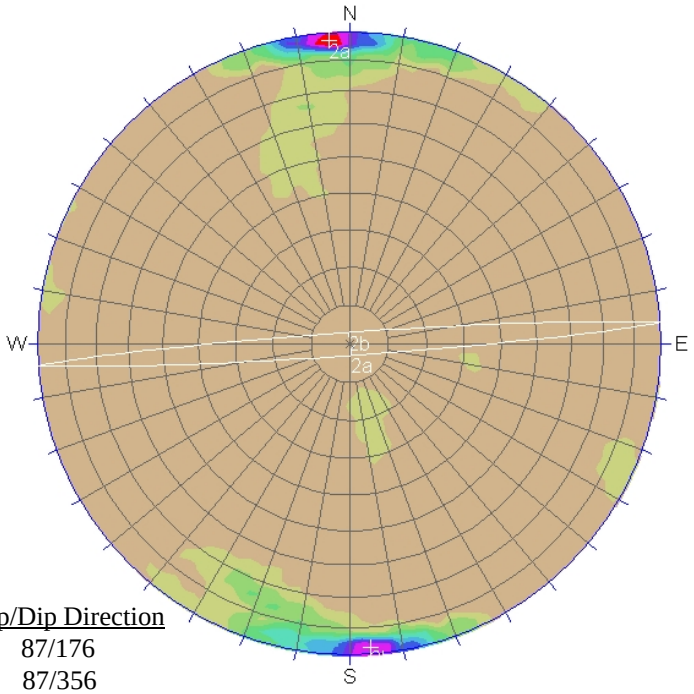
CM06-984

CLIENT/PROJECT

OSISKO

CANADIAN MALARTIC PROJECT

DRAWN	RK	DATE	04/20/08	JOB NO.	07-1221-0028
CHECKED	GM	SCALE	NA	DWG. NO. / REV. NO.	
REVIEWED	GM	FILE NO.			**APPENDIX G.3**



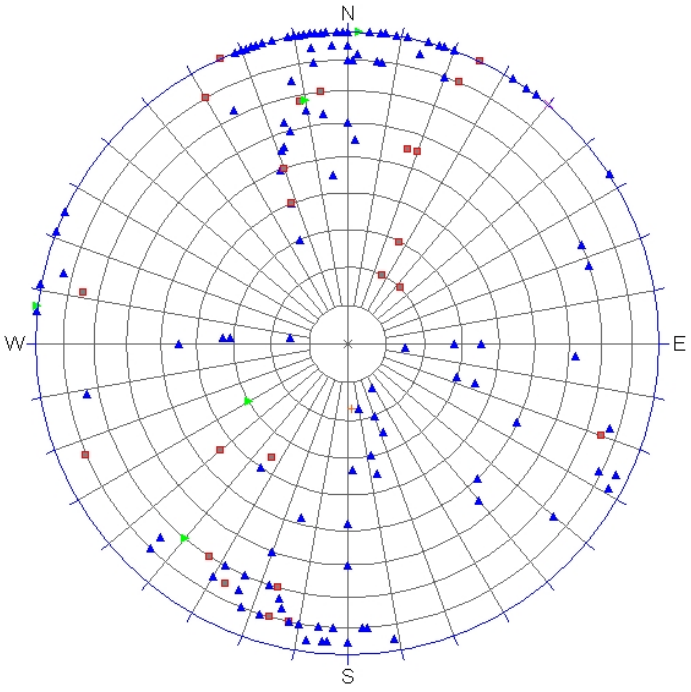
Schmidt
Concentrations
% of total per 1.0 % area

0.00 ~ 2.00 %
2.00 ~ 4.00 %
4.00 ~ 6.00 %
6.00 ~ 8.00 %
8.00 ~ 10.00 %
10.00 ~ 12.00 %
12.00 ~ 14.00 %
14.00 ~ 16.00 %
16.00 ~ 18.00 %
18.00 ~ 20.00 %

No Bias Correction
Max. Conc. = 19.4118%

Equal Area
Lower Hemisphere
170 Poles
170 Entries

Set	Dip/Dip Direction
2a	87/176
2b	87/356



TYPE

Fault [23]
Joint [140]
Vein [5]
Vein? [1]
[no data] [1]

Equal Area
Lower Hemisphere
170 Poles
170 Entries

Golder Associates

TITLE

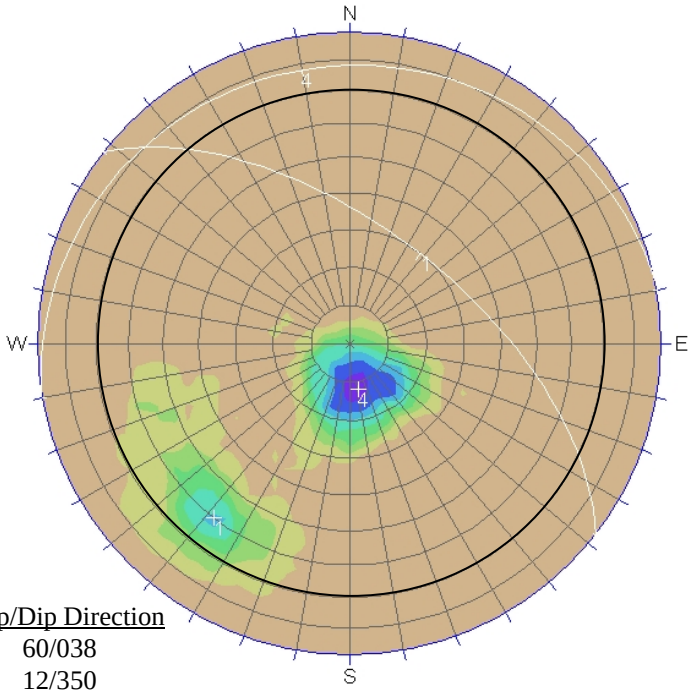
Underground Mapping Data, South Sector

CLIENT/PROJECT

OSISKO

CANADIAN MALARTIC PROJECT

DRAWN	RK	DATE	04/20/08	JOB NO.	07-1221-0028
CHECKED	GM	SCALE	NA	DWG. NO. / REV. NO.	
REVIEWED	GM	FILE NO.		**APPENDIX G.4**	



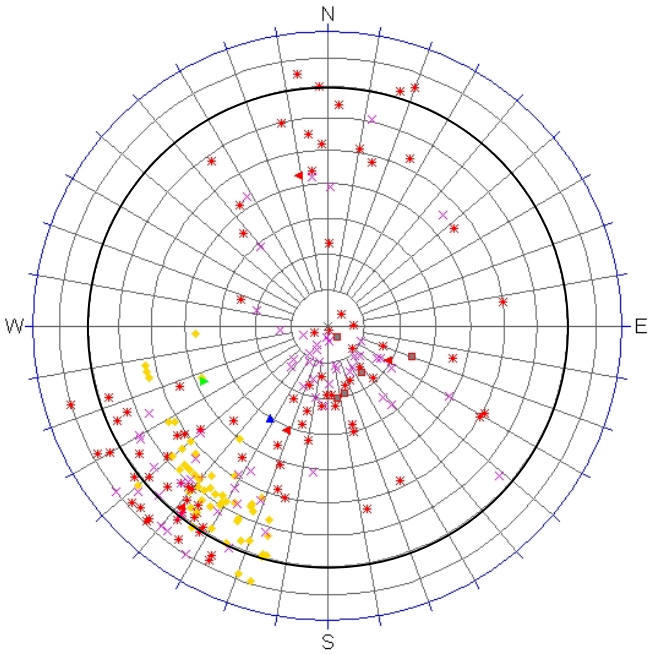
Schmidt
Concentrations
% of total per 1.0 % area

0.00 ~ 2.00 %
2.00 ~ 4.00 %
4.00 ~ 6.00 %
6.00 ~ 8.00 %
8.00 ~ 10.00 %
10.00 ~ 12.00 %
12.00 ~ 14.00 %
14.00 ~ 16.00 %
16.00 ~ 18.00 %
18.00 ~ 20.00 %

Terzaghi Correction
Min. Bias Angle = 15 deg
Max. Conc. = 15.1434%

Equal Area
Lower Hemisphere
216 Poles
216 Entries

Set	Dip/Dip Direction
1	60/038
4	12/350



TYPE

1-Fault [5]
10-Contact [1]
11-Contact (Intact) [1]
12-Dike [1]
3-Joint [62]
4-Bedding [57]
6-Vein [85]
7-Vein (Intact) [4]

Equal Area
Lower Hemisphere
216 Poles
216 Entries

Golder Associates

TITLE

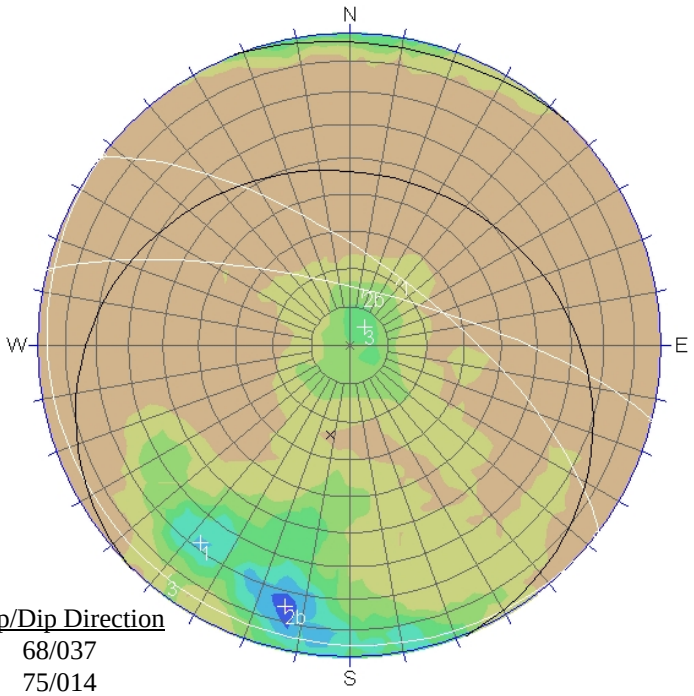
CM07-1100

CLIENT/PROJECT

OSISKO

CANADIAN MALARTIC PROJECT

DRAWN	RK	DATE	04/20/08	JOB NO.	07-1221-0028
CHECKED	GM	SCALE	NA	DWG. NO. / REV. NO.	
REVIEWED	GM	FILE NO.			**APPENDIX G.4**



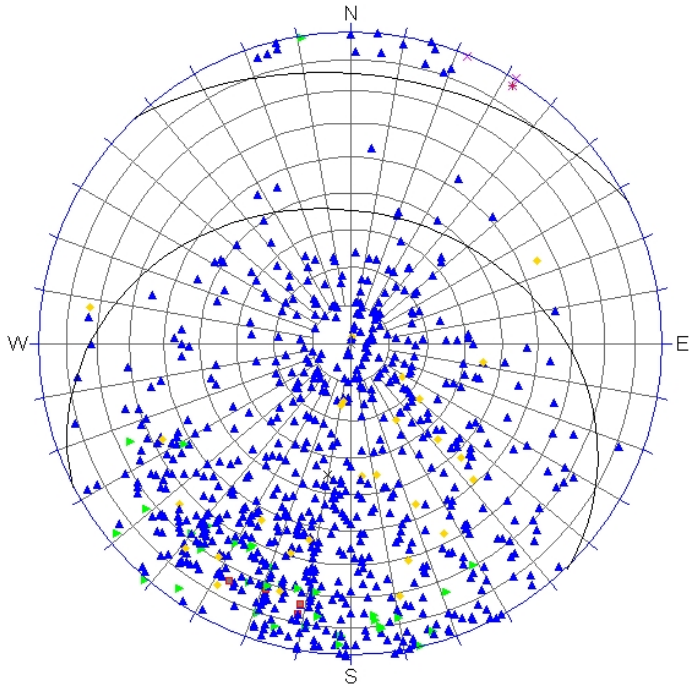
Schmidt
Concentrations
% of total per 1.0 % area

0.00 ~ 1.00 %
1.00 ~ 2.00 %
2.00 ~ 3.00 %
3.00 ~ 4.00 %
4.00 ~ 5.00 %
5.00 ~ 6.00 %
6.00 ~ 7.00 %
7.00 ~ 8.00 %
8.00 ~ 9.00 %
9.00 ~ 10.00 %

Terzaghi Correction
Min. Bias Angle = 15 deg
Max. Conc. = 7.2302%

Equal Area
Lower Hemisphere
820 Poles
820 Entries

Set	Dip/Dip Direction
1	68/037
2b	75/014
3	06/218



TYPE

DK [4]
FLT [1]
FO [36]
JN [749]
SH [3]
VN [27]

Equal Area
Lower Hemisphere
820 Poles
820 Entries

Golder Associates

TITLE

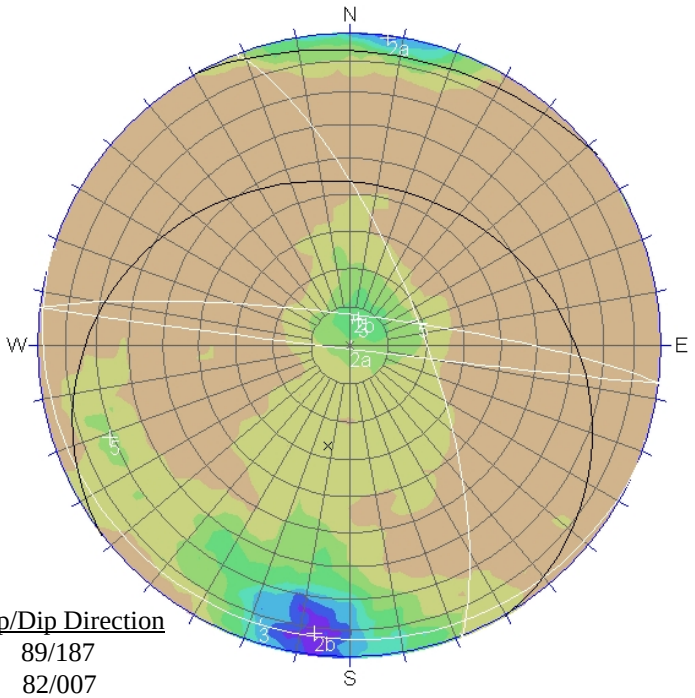
GT07-05

CLIENT/PROJECT

OSISKO

CANADIAN MALARTIC PROJECT

DRAWN	RK	DATE	04/20/08	JOB NO.	07-1221-0028
CHECKED	GM	SCALE	NA	DWG. NO. / REV. NO.	
REVIEWED	GM	FILE NO.			**APPENDIX G.4**



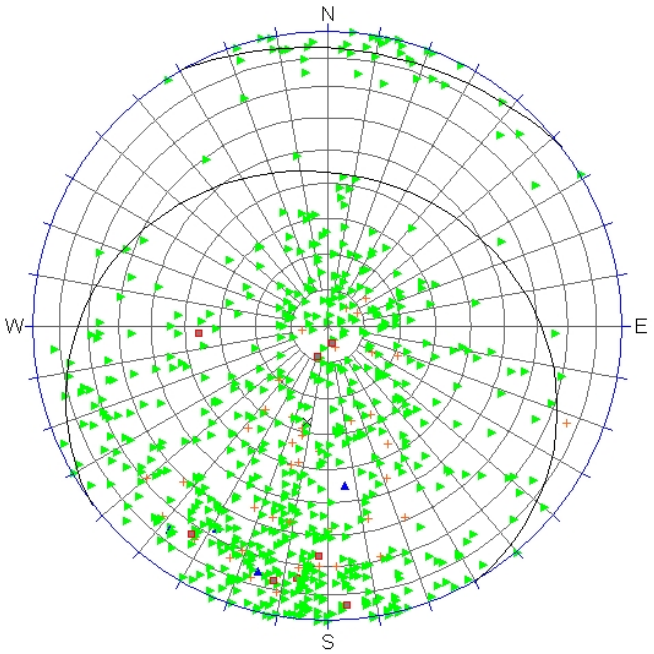
Schmidt
Concentrations
% of total per 1.0 % area

0.00 ~ 1.00 %
1.00 ~ 2.00 %
2.00 ~ 3.00 %
3.00 ~ 4.00 %
4.00 ~ 5.00 %
5.00 ~ 6.00 %
6.00 ~ 7.00 %
7.00 ~ 8.00 %
8.00 ~ 9.00 %
9.00 ~ 10.00 %

Terzaghi Correction
Min. Bias Angle = 15 deg
Max. Conc. = 7.9892%

Equal Area
Lower Hemisphere
751 Poles
751 Entries

Set	Dip/Dip Direction
2a	89/187
2b	82/007
3	07/198
5	71/069



TYPE

FO [8]
FR [4]
JN [696]
VN [43]

Equal Area
Lower Hemisphere
751 Poles
751 Entries

Golder Associates

TITLE

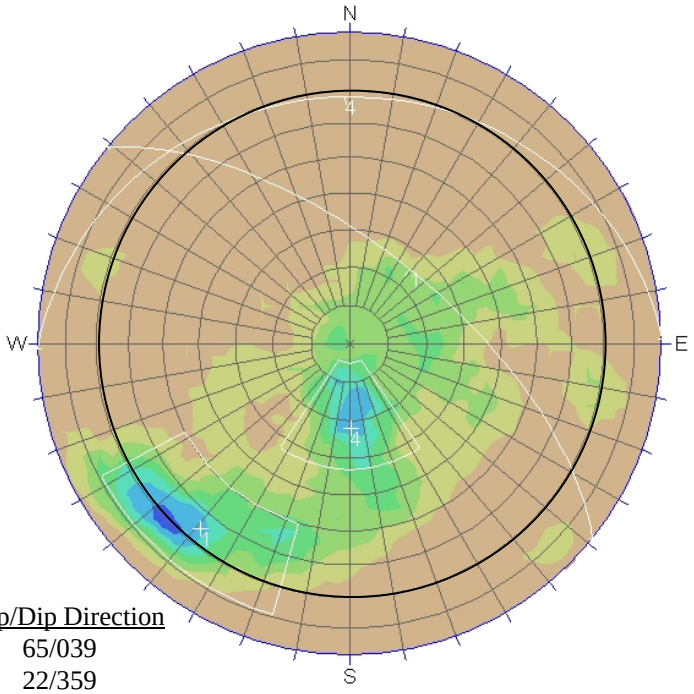
GT07-04

CLIENT/PROJECT

OSISKO

CANADIAN MALARTIC PROJECT

DRAWN	RK	DATE	04/20/08	JOB NO.	07-1221-0028
CHECKED	GM	SCALE	NA	DWG. NO. / REV. NO.	
REVIEWED	GM	FILE NO.			**APPENDIX G.4**



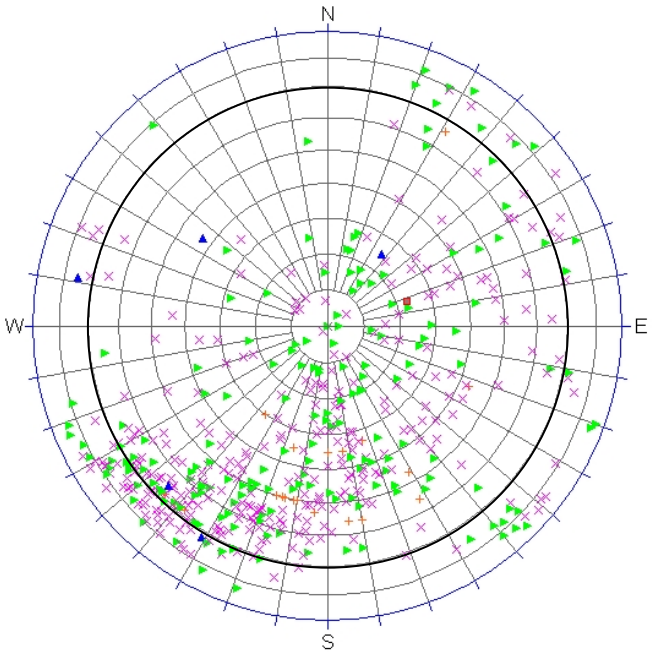
Schmidt
Concentrations
% of total per 1.0 % area

0.00 ~ 1.00 %
1.00 ~ 2.00 %
2.00 ~ 3.00 %
3.00 ~ 4.00 %
4.00 ~ 5.00 %
5.00 ~ 6.00 %
6.00 ~ 7.00 %
7.00 ~ 8.00 %
8.00 ~ 9.00 %
9.00 ~ 10.00 %

Terzaghi Correction
Min. Bias Angle = 15 deg
Max. Conc. = 7.0065%

Equal Area
Lower Hemisphere
529 Poles
529 Entries

Set	Dip/Dip Direction
1	65/039
4	22/359



TYPE

12-Dike [1]
14-Unknown [5]
3-Joint [183]
4-Bedding [20]
6-Vein [320]

Equal Area
Lower Hemisphere
529 Poles
529 Entries

Golder Associates

TITLE

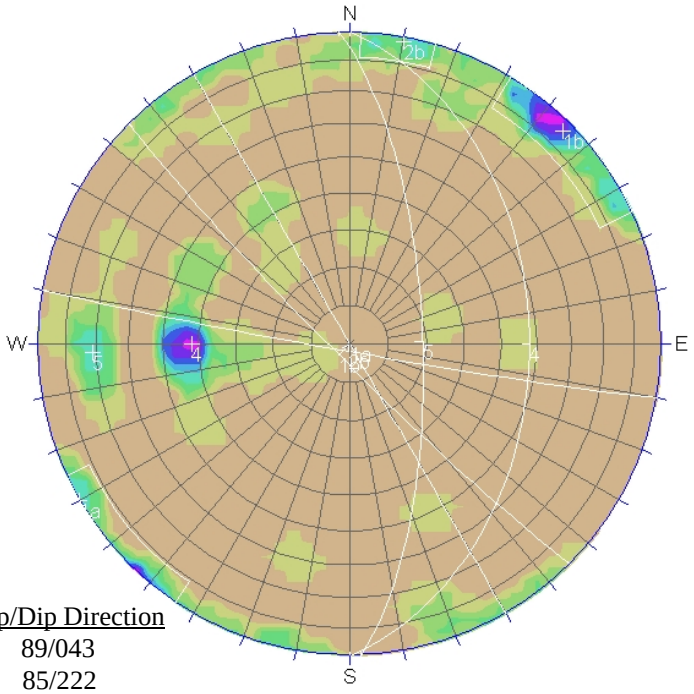
CM07-1108

CLIENT/PROJECT

OSISKO

CANADIAN MALARTIC PROJECT

DRAWN	RK	DATE	04/20/08	JOB NO.	07-1221-0028
CHECKED	GM	SCALE	NA	DWG. NO. / REV. NO.	
REVIEWED	GM	FILE NO.			**APPENDIX G.4**



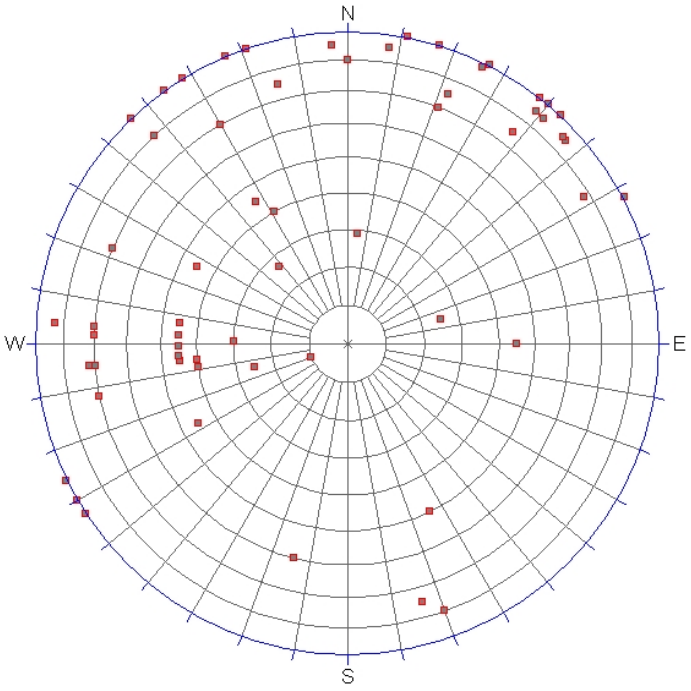
Schmidt
Concentrations
% of total per 1.0 % area

	0.00 ~ 1.50 %
	1.50 ~ 3.00 %
	3.00 ~ 4.50 %
	4.50 ~ 6.00 %
	6.00 ~ 7.50 %
	7.50 ~ 9.00 %
	9.00 ~ 10.50 %
	10.50 ~ 12.00 %
	12.00 ~ 13.50 %
	13.50 ~ 15.00 %

No Bias Correction
Max. Conc. = 12.6984%

Equal Area
Lower Hemisphere
63 Poles
63 Entries

Set	Dip/Dip Direction
1a	89/043
1b	85/222
2b	88/190
4	42/090
5	71/088



TYPE

Joint [63]

Equal Area
Lower Hemisphere
63 Poles
63 Entries

Golder Associates

TITLE

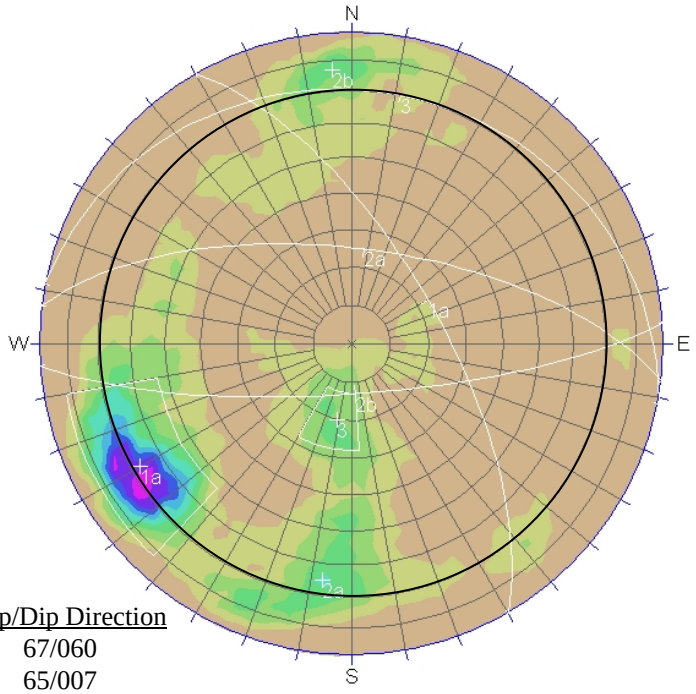
Underground Mapping Data, West Sector

CLIENT/PROJECT

OSISKO

CANADIAN MALARTIC PROJECT

DRAWN	RK	DATE	04/20/08	JOB NO.	07-1221-0028
CHECKED	GM	SCALE	NA	DWG. NO. / REV. NO.	
REVIEWED	GM	FILE NO.			**APPENDIX G.5**



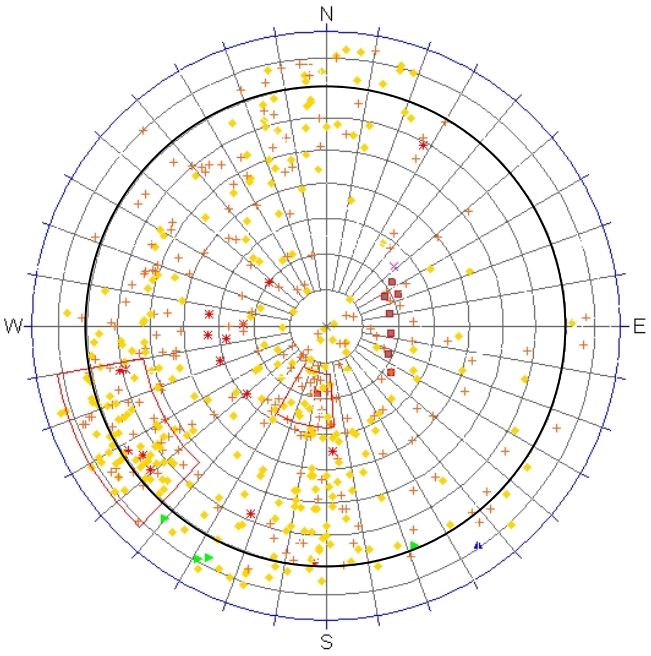
Schmidt
Concentrations
% of total per 1.0 % area

0.00 ~ 1.00 %
1.00 ~ 2.00 %
2.00 ~ 3.00 %
3.00 ~ 4.00 %
4.00 ~ 5.00 %
5.00 ~ 6.00 %
6.00 ~ 7.00 %
7.00 ~ 8.00 %
8.00 ~ 9.00 %
9.00 ~ 10.00 %

Terzaghi Correction
Min. Bias Angle = 15 deg
Max. Conc. = 8.7864%

Equal Area
Lower Hemisphere
521 Poles
521 Entries

Set	Dip/Dip Direction
1a	67/060
2a	65/007
2b	77/176
3	20/011



TYPE

Bedding [9]
Bedding Trace [1]
Foliation [4]
Joint [217]
Unknown [1]
Vein [271]
Vein (Intact) [18]

Equal Area
Lower Hemisphere
521 Poles
521 Entries

Golder Associates

TITLE

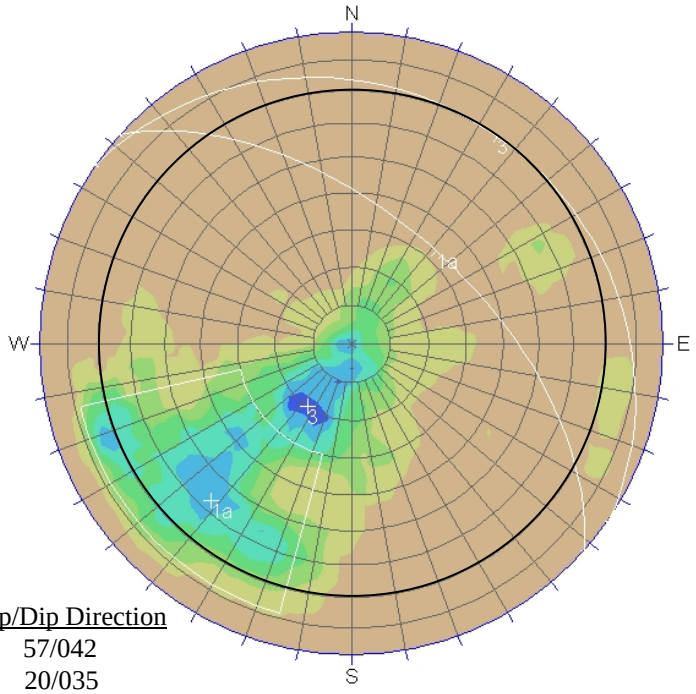
CM05-693

CLIENT/PROJECT

OSISKO

CANADIAN MALARTIC PROJECT

DRAWN	RK	DATE	04/20/08	JOB NO.	07-1221-0028
CHECKED	GM	SCALE	NA	DWG. NO. / REV. NO.	
REVIEWED	GM	FILE NO.			**APPENDIX G.5**



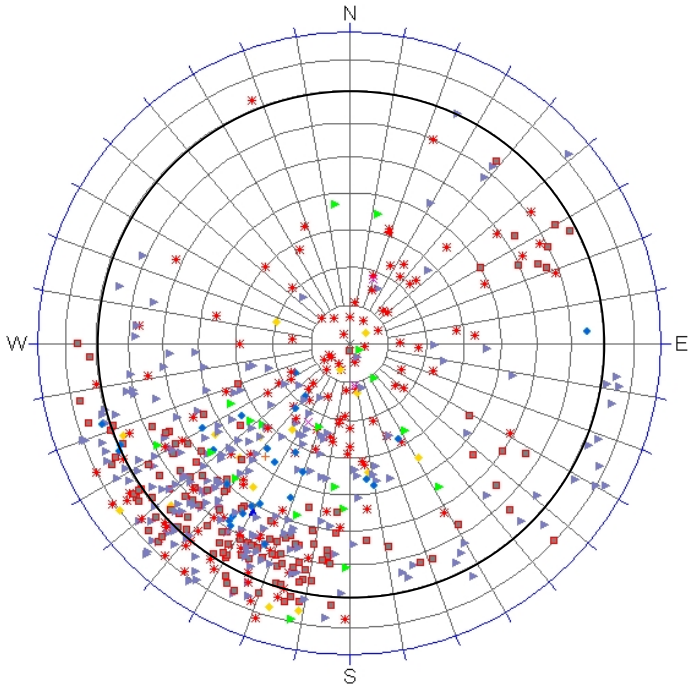
Set	Dip/Dip Direction
1a	57/042
3	20/035

Schmidt
Concentrations
% of total per 1.0 % area

0.00 ~ 1.00 %
1.00 ~ 2.00 %
2.00 ~ 3.00 %
3.00 ~ 4.00 %
4.00 ~ 5.00 %
5.00 ~ 6.00 %
6.00 ~ 7.00 %
7.00 ~ 8.00 %
8.00 ~ 9.00 %
9.00 ~ 10.00 %

Terzaghi Correction
Min. Bias Angle = 15 deg
Max. Conc. = 6.8717%

Equal Area
Lower Hemisphere
532 Poles
532 Entries



TYPE

- Bedding [133]
- Bedding Trace [1]
- Contact [18]
- Contact (Intact) [1]
- Dike [3]
- Fault [16]
- Joint [132]
- Shear [1]
- Vein [201]
- Vein (Intact) [26]

Equal Area
Lower Hemisphere
532 Poles
532 Entries

Golder Associates

TITLE

CM07-1029

CLIENT/PROJECT

OSISKO

CANADIAN MALARTIC PROJECT

DRAWN	RK	DATE	04/20/08	JOB NO.	07-1221-0028
CHECKED	GM	SCALE	NA	DWG. NO. / REV. NO.	
REVIEWED	GM	FILE NO.			**APPENDIX G.5**

APPENDIX H

QUEBEC MINING REGULATIONS

Occupational health and safety in mines, Regulation respecting, R.Q. c. S-2.1, r.19.1

Latest version available
Including the Gazette officielle of 30 April 2008

c. S-2.1, r.19.1

Regulation respecting occupational health and safety in mines

An Act respecting occupational health and safety
(R.S.Q., c. S-2.1, s. 223, 1 st par., subpars. 1, 3, 7 to 11, 14, 15, 17 to 19, 21, 41 and 42, 2 nd and 3 rd pars. and ss. 286, 294 and 310)

O.C. 213-93; O.C. 1236-98, s. 1.

DIVISION I
INTERPRETATION AND SCOPE

1. In this Regulation, the following words or expressions mean:

"ANSI": the American National Standards Institute; (*ANSI*)

"air recirculation" : the reintroduction of exhaust air from a main ventilation circuit or an auxiliary circuit in the main circuit ; (*recirculation de l'air*)

"armoured cable": any electrical cable covered with metal wires or tapes other than lead and forming an integral part of it; (*câble armé*)

"ASTM": the American Society for Testing and Materials; (*ASTM*)

"auxiliary circuit" : the path travelled by a volume of air that takes its source from an auxiliary fan supplying air to all the workers and motorized equipment on a site or an underground working, from the main ventilation circuit to its discharge from the auxiliary circuit ; (*circuit secondaire*)

"auxiliary fan": the fan that ensures air circulation in areas outside the main ventilation circuit of the mine; (*ventilateur secondaire*)

"auxiliary overwind": any safety device preventing a skip or a cage-skip assembly from rising to the rock dumping position when persons are being transported; (*interrupteur anti-déversement*)

"blasting accessory": any explosive device used for firing explosives; (*accessoire de sautage*)

"blasting agent": any explosive obtained by mixing an oxidizing agent with a carbon-containing substance in which none of the ingredients is an explosive and which cannot be detonated by a single No. 8 detonator; (*agent de sautage*)

"blasting area" : any place or space that presents a projection or blast hazard to a person or where a hazard exists because of the effects of the blasting ; (*zone de tir*)

"blasting site" : any location where explosives are present in a drill hole in preparation for blasting ; (*lieu de sautage*)

"body of water": an accumulation of water or a mixture of water and loose soil likely to become liquefied; (*nappe d'eau*)

"booster fan": the fan that supplements the principal fan in providing air circulation in an underground mine; (*ventilateur de renfort*)

"braking device" means any brake or all brakes activated independently from the energy of a hoist and capable of stopping a moving drum or friction pulley on a hoist; (*moyen de freinage*)

"bucket": any conveyance in the form of a barrel suspended from the hoisting rope and used for the transport of persons, rock and materials during shaft sinking work; (*cuffat*)

"control device": any device used to control circuits and electrical equipment such as a switch and a circuit-breaker but not an isolation switch; (*dispositif de commande*)

"conveyance": any device used to transport persons or materials in a mine shaft by means of a hoist such as a cage, a skip, a bucket or a cage-skip assembly; (*transporteur*)

"CSA": the Canadian Standards Association; (*ACNOR*)

"detector": any system of detection by radiation detecting the presence of a person or an obstacle behing a vehicle when it is backing up; (*détecteur*)

"development": work preparatory to beginning operation of an underground mine or of the extension of a deposit in such a mine; (*développement*)

"development work": shaft sinking work, excavation of ramps, drifts, cross-cuts or raises, except stope mining; (*travaux de développement*)

"embankment": land arranged in a slope around an open-pit mine; (*talus*)

"explosive": any substance fabricated, manufactured or used to produce an explosion or a detonation, such as gunpowder, blasting powder, dynamite, an explosive in solution, aqueous gelatin, a blasting agent or a blasting accessory; (*explosif*)

"fire-resistance": the fire-resistance rating within the meaning of the National Building Code of Canada 1990; (*résistance au feu*)

"free fall test": any test consisting of releasing a cage, a skip or a cage-skip assembly under maximum load permitted for the transport of persons so that the safety catches can grip the guides when the cage, skip or cage-skip assembly drops at maximum hoisting speed; (*essai par chute libre*)

"headsheave": the grooved wheel located between the hoist and the conveyance, bearing the shaft cable and deflecting it into the longitudinal axis of the shaft; (*molette*)

"hoisting apparatus": a crane, travelling crane, gantry, winch, hoist or other equipment of the same type used for the handling of material; (*appareil de levage*)

"insulated": separated from other conducting surfaces by a dielectric having sufficient resistance to the passage of current and a disruptive discharge to eliminate any risk of a shock or leakage of current; (*isolé*)

"locked coil wire rope": any smooth cylindrical single strand-cable whose external wires are contoured to fit into each other; (*câble clos*)

"loading area" : any space that includes the place of loading, drill holes loaded or being loaded and any space occupied by the material and equipment necessary for the loading ; (*zone de chargement*)

"main fan": the fan supplying an underground mine with fresh air from the atmosphere; (*ventilateur principal*)

"main ventilation circuit" : all the underground openings used to distribute fresh air from the atmosphere and to discharge foul air to the surface ; (*circuit principal de ventilation*)

"mechanical damage": any damage caused by the circulation of persons or vehicles, the falling of objects or equipment or any action by any other physical agent that affects the integrity or the operation of a grounding conductor or a telephone or signal apparatus; (*endommagement mécanique*)

"mine": the establishment, with or without a treatment or processing plant, in which exploration work is performed, except the drilling of an artesian well, or the extraction of soil or sub-soil for removing a mineral substance in order to obtain a commercial or industrial product.

The buildings, warehouses, garages and plants located at the surface in which work is performed related to the exploration for or the extraction of a mineral substance are part of a mine.

The term includes a quarry and a sand-pit but excludes a peat bog; (*mine*)

"mineral substance": any solid, liquid or gaseous natural substance present in the soil or sub-soil, including a fossilized organic substance; (*substance minérale*)

"misfire": any part or remainder of a hole containing explosives that have not completely detonated following a blast; (*raté*).

"National Building Code of Canada 1990": the National Building Code of Canada 1990, NRCC No. 32379, published by the National Research Council of Canada, with future amendments; (*Code national du bâtiment du Canada*)

"new development": preliminary work for the development of a new deposit in an active underground mine, excluding the extension of an existing deposit, or the return to operation of an underground mine that has been closed and flooded for longer than 24 months; (*nouveau développement*)

"NIST": the National Institute for Standards and Technology; (*NIST*)

"non-combustible construction": any construction in which fire safety is assured through the use of non-combustible materials for structural members and other components and that complies with subsection 3.1.5 of the National Building Code of Canada 1990; (*construction incombustible*)

"non-combustible material": any material that complies with Standard CAN4-S114-M80, Standard Method of Test for Determination of Non-Combustibility in Building Materials; (*matériau incombustible*)

"place of loading": any place where workers load drill holes ; (*(lieu de chargement*)

"protective wall": the strip of land located between the excavation of an open-pit mine and a body of water; (*paroi de protection*)

"quick release test": any test consisting of releasing the cage, skip or cage-skip assembly from a stationary position so that the safety catches can grip the guides; (*essai de dégagement rapide*)

"raise": an underground excavation inclined at more than 20Âº from the horizontal and driven upward digging; (*montage*)

"reuse of air" : the reuse of exhaust air from a main ventilation circuit or an auxiliary circuit to ventilate another ventilation circuit or an underground work station ; (*réutilisation de l'air*)

"SAE": the Society of Automotive Engineers;

"safety factor": the ratio between breaking load and working load; (*facteur de sécurité*)

"self-contained breathing apparatus": an apparatus whose source of breathable air is completely isolated from the atmosphere in which the user is located; (*appareil de protection respiratoire autonome*)

"shaft": a passage dug below ground whose longitudinal axis is at an angle of more than 20Âº from the horizontal and allowing various levels of an underground mine to be reached; (*puits*)

"sinking crosshead": any metal structure supported by the hoisting rope and used as a linking device between the bucket and the guides in the shaft and the headframe; (*curseur de fonçage*)

"surface pillar": bedrock of variable shape, mineralized or not, located above all the upper excavations of an underground mine. (*pilier de surface*)

"working face" : any surface of the working where blasting work is carried out ; (*front de taille*)

The definitions of the Canadian Electrical Code (Part One) made by Order-in-Council 141-87 dated 28 January 1987 and the amendments for Québec made by a Minister's Order dated 11 March 1987 and any subsequent Québec provision amending them also apply to this Regulation.

O.C. 213-93, s. 1; O.C. 1326-95, s. 1; O.C. 782-97, s. 1; O.C. 460-2000, s. 1; O.C. 465-2002, s. 1; O.C. 42-2004, s. 1; O.C. 119-2006, s. 1.

2. This Regulation applies to a mine.

Notwithstanding the foregoing, only sections 3 to 7, 12.1, 21 to 24, 26, 88, 100, 113, 114, 117, 118, 130 to 132, 136, 137, 140 to 142, 145 to 147, 149, 150.1, 154, 164, 168, 215 to 349, 372, 373, 375 to 383, 408 to 411, 414 to 417, 422, 425 to 429, 435, 447, 478, 481, 488, 491, 493, 494, 505, 506, 508 to 510, 512 and 538 apply to mineral substance treatment and processing mills and to buildings, warehouses, garages and plants located at the surface in which work is performed related to the exploration for or the extraction of a mineral substance.

O.C. 213-93, s. 2; O.C. 1326-95, s. 2; O.C. 460-2000, s. 2.

DIVISION II
GENERAL

§ 1. Obligations of the employer

3. The employer shall respect the standards prescribed in this Regulation.

O.C. 213-93, s. 3.

§ 2. Personal protective equipment

4. The wearing of a full body harness is required where a worker is exposed to a fall of more than 3 metres (9,8 ft.) from his working position, except where the worker is only using a means of access or exit or where he is protected by a safety net.

O.C. 213-93, s. 4; O.C. 460-2000, s. 3.

4.1. The worker must wear a safety belt with a lanyard when he is near an opening that is more than 3 metres deep (9.8 ft.) in order to prevent any fall into that opening.

O.C. 460-2000, s. 4.

5. The body harness shall:

(1) comply with CAN/CSA Standard Z259.10-M90, Full Body Harnesses;

(2) be equipped with a shock absorber that complies with CAN/CSA Standard Z259.11-M92, Shock Absorbers for Personal Fall Arrest Systems;

(3) be equipped with a lanyard that does not allow a fall of more than 1.2 metres (3.9 ft.) and complies with CAN/CSA Standard Z259.1-95, Safety Belts and Lanyards.

O.C. 213-93, s. 5; O.C. 460-2000, s. 5.

5.1. The safety belt shall:

(1) comply with CAN/CSA Standard Z259.1-95, Safety Belts and Lanyards;

(2) be equipped with a lanyard that does not allow a fall of more than 1.2 metres (3.9 ft.) and complies with the standard referred to in paragraph 1.

O.C. 460-2000, s. 6.

6. The fastening point of the lanyard of a full body harness and a safety belt shall be installed in one of the following ways:

(1) by being anchored to an element having a breaking strength of at least 18 kilonewtons (4 046,6 lbs.);

(2) by fastening it to a fall-arresting device connected to a vertical lifeline in compliance with CSA Standard Z259.2.1-98, Fall-Arresting Devices and Vertical Lifelines;

(3) by fastening it to a horizontal cable and anchoring system devised by an engineer as attested to by a plan or certification kept on the mine site and available at all times.

O.C. 213-93, s. 6; O.C. 460-2000, s. 7.

7. The vertical lifeline shall:

(1) comply with CSA Standard Z259.2.1-98, Fall-Arresting Devices and Vertical Lifelines;

(2) be used by only one person;

(3) be less than 90 metres long (295.3 ft.);

(4) be fixed to an individual anchor having a breaking strength of at least 18 kilonewtons (4 046.6 lbs.);

(5) be protected so as to prevent contact with a sharp edge.

O.C. 213-93, s. 7; O.C. 460-2000, s. 8.

8. Where work is carried out above a worker, the worker shall be protected from falling objects by means of a door, shield or shelter.

O.C. 213-93, s. 8.

9. Every person in a mine is required to wear a safety hat that complies with CSA Standard Z94.1-M1977 Industrial Protective Headwear.

Notwithstanding the foregoing, the wearing of a safety hat is not required in a lunchroom, a cab or an office.

O.C. 213-93, s. 9.

10. Every person in a mine is required to wear sight-adjusted protective glasses or a face shield complying with CAN/CSA Standard Z94.3-M1988 Industrial Eye and Face Protectors.

Notwithstanding the foregoing, the wearing of protective glasses or a face shield is not required in a lunchroom, a cab or an office.

O.C. 213-93, s. 10.

11. Every person in a mine is required to wear safety shoes that comply with Standard CAN/CSA-Z195-M92, Protective Footwear, except subsection 3.4.

In an underground mine, safety shoes shall have metatarsal protection.

O.C. 213-93, s. 11; O.C. 1326-95, s. 3.

12. Where there is a risk of contact with moving parts, every worker shall comply with the following standards:

(1) clothing shall fit closely about the body and have no loose parts;

(2) necklaces, bracelets and rings shall not be worn, other than medic-alert bracelets that shall remain attached to the wrist;

(3) long hair shall be confined within a bonnet or hat.

O.C. 213-93, s. 12.

12.1. The quality of compressed air supplied to any breathing apparatus shall comply with Standard CAN3-Z180.1-M85, Compressed Breathing Air and Systems.

O.C. 1326-95, s. 4.

13. A hoistman whose work station is underground or in the head frame of a shaft shall have available:

(1) a self-contained breathing apparatus which shall:

(a) have a regulator maintaining air pressure higher than atmospheric pressure at all times inside the facial part of the apparatus;

(b) have a connector that enables the worker to be supplied with compressed air from a cylinder as prescribed in paragraph 2;

(2) a cylinder of compressed air charged at not less than 13 800 kilopascals (2 001,5 lbs. per sq. in.), of a capacity of at least 6 cubic metres (211,9 cu. ft.) of air at normal atmospheric conditions, equipped with a compressed air supply and recharge hose that can be attached to the self-contained breathing apparatus and long enough to enable the hoistman to have access to his work station, to the circuit breaker where the latter cannot be activated from his work station or to the pinion brake where the latter has to be engaged manually.

The device mentioned in subparagraph 1 of the first paragraph shall not have an automatic shutoff device closing off or restricting the air supply in the facial part.

Operating instructions for the self-contained breathing apparatus and the cylinder as well as emergency evacuation procedures shall be posted at the hoistman's work station.

The hoistman shall receive training every 2 months in the use and maintenance of the self-contained breathing apparatus and the cylinder.

The same model of self-contained breathing apparatus shall be used in the work stations mentioned in paragraph 1.

O.C. 213-93, s. 13.

§ 3. Check-in control

14. The number and identity of the persons underground must be determined in accordance with the following procedure:

(1) before going underground, the worker shall leave his identification tag in the place designated check-in control; the tag shall bear the worker's name or identification number;

(2) after returning to the surface, the worker shall remove his identification tag from the place designated for check-in control and leave it in the place designated for check-out control;

(3) whenever a person accompanies a worker underground, that worker shall attach another tag bearing the work «visitor» to his own identification tag.

O.C. 213-93, s. 14.

§ 4. Monitoring of work stations

15. All work stations shall be checked at least once per shift.

Where raising work is done by means of a climber, at least 2 checks shall be done every 5 shifts.

When a worker is alone at his work station, the employer shall communicate with him at least every 2 hours unless that worker may be seen.

O.C. 213-93, s. 15; O.C. 1326-95, s. 6.

16. Any access to an abandoned underground working shall be closed off where the working is not in compliance with any of the standards set out in sections 28, 35, 51, 53 to 75, 85, 86, 95, 104, 120 and 398.

Signs reading «ACCÈS INTERDIT» shall be so placed at each of the closing points of the working as to be seen on the side where the working is not abandoned.

O.C. 213-93, s. 16; O.C. 460-2000, s. 9.

17. An underground mine in which work is in progress shall be equipped with the following minimum equipment:

(1) 6 units of self-contained breathing apparatus with full face pieces, a minimum utilization time of 90 minutes and a respiratory capacity of 30 litres per minute (1,06 cubic feet per minute);

(2) a flame safety lamp or a direct reading apparatus for evaluation of combustible gases and oxygen;

(3) a positive pressure oxygen therapy apparatus capable of supplying oxygen for medical use at a constant flow of at least 6 litres (0,2 cu. ft.) per minute for a duration of not less than 25 minutes;

(4) a gas detector with detection tubes according to the risks inherent in the underground mine;

(5) a basket-shaped stretcher;

(6) utility ropes.

O.C. 213-93, s. 17; O.C. 1236-98, s. 2.

§ 5. Mine rescue

17.01. At the request of the Commission de la santé et de la sécurité du travail, rescue stations, for underground mines must be organized, equipped and maintained.

O.C. 374-97, s. 10.

17.02. Each rescue station is under the control and supervision of a person appointed under the Public Service Act (R.S.Q., c. F-3.1.1) as amended. That person must ensure the maintenance of the rescue devices in the stations under his control and supervision and must give the training provided for in sections 18 to 20.

O.C. 374-97, s. 10.

18. Mine rescue in a working underground mine shall be provided by teams consisting of at least:

(1) 6 rescuers for every 50 workers or fewer working underground;

(2) 9 rescuers for at least 51 and not more than 99 workers working underground;

(3) 12 rescuers for at least 100 and not more than 149 workers working underground;

(4) 15 rescuers for at least 150 and not more than 199 workers working underground;

(5) 18 rescuers for at least 200 and not more than 249 workers working underground;

(6) 21 rescuers for at least 250 workers or more working underground;

(7) 3 substitute rescuers for the teams overall.

The rescuers shall receive at least 6 mine rescue training periods per year.

The substitute rescuers shall receive at least 4 mine rescue training periods per year.

O.C. 213-93, s. 18; O.C. 1326-95, s. 7.

19. The rescuers contemplated in section 18 shall:

(1) have been trained according to the most recent edition of the mine rescue manual of the Commission de la santé et de la sécurité du travail;

(a) in mine rescue methods;

(b) in the use and maintenance of:

(i) self-contained breathing apparatus;

(ii) fire-fighting procedures and equipment;

(2) be available for the mine rescue training prescribed in paragraph 1.

O.C. 213-93, s. 19; O.C. 1326-95, s. 8.

20. Where there are fewer than 6 workers, the workers shall be trained in the use of:

(1) self-contained breathing apparatus with full face pieces having a minimum utilization time of 90 minutes;

(2) safety lamps;

(3) oxygen therapy apparatus;

(4) gas detectors.

Moreover, at least 3 workers shall be

(1) trained in mine rescue as prescribed in section 19 according to the frequency prescribed in the second paragraph of section 18;

(2) available for such training.

O.C. 213-93, s. 20.

§ 6. First Aid

21. Every mine shall have at least one stretcher and blanket in each refuge station and lunchroom located at the surface.

O.C. 213-93, s. 21.

§ 7. Protection from dangerous or toxic substances

22. Where dangerous or toxic compounds, solutions or gases are used or generated in a mine or plant, a quantity of antidotes and washes appropriate for the treatment of poisoning or injuries caused by those compounds, solutions or gases shall be kept in a room which is unlocked and located close to the place in which these substances, solutions or gases are used.

The antidotes and washes shall be labelled. Directions for their use shall be indicated on the packaging.

If the antidotes must be administered in the form of intravenous injections by a physician or nurse, the telephone number and address of such a person shall be posted near the room where the antidotes are stored.

O.C. 213-93, s. 22.

23. Acids and cyanides shall be stored and transported in such a way as to avoid their coming into contact with each other.

O.C. 213-93, s. 23.

24. When a treatment mill ceases operation, any hazardous chemicals, such as cyanides and acids, shall be disposed of.

O.C. 213-93, s. 24.

§ 8. Notice to the Commission de la santé et de la sécurité du travail

25. Written notice of the opening of an underground mine or of new development shall be sent to the Commission at least 10 days before the beginning of work.

A copy of the notice shall be sent to the head of the mine rescue department, if there is one.

O.C. 213-93, s. 25.

25.1. A written notice shall be sent to the Commission within 24 hours

(1) of the occurrence of any of the following events:

(a) an accident or incident related to a crane, hoist, headsheave, hoisting rope, cage, skip, bucket or to the timbering of a shaft;

(b) an explosion or a fire related to a compressor, a compressed air tank or pipe;

(c) an explosion related to a boiler;

(d) an abnormal or unexpected inrush;

(e) a crack in a watertight bulkhead or dam retaining more than 23 cubic metres of water (812 cu. ft.);

(f) a fire in an underground mine, the head frame of a shaft, a hoistroom or an explosives magazine;

(g) a premature or unexpected firing provoking the ignition of explosives;

(h) an air blast or an important and unexpected ground movement;

(i) the fainting of a person due to harmful gas or oxygen deficiency;

(2) of acknowledging of the presence of a flammable gas in an underground mine.

O.C. 465-2002, s. 2.

§ 9. Minimum age of workers

26. No work may be done by a worker:

(1) who is less than 16 years of age:

(a) in an open-pit mine;

(b) in a concentrator;

(c) in a plant;

(2) who is less than 18 years of age:

(a) in an underground mine;

(b) to perform work on the working face in an open-pit mine;

(c) to use equipment that hoists or moves objects;

(3) who is less than 20 years of age:

(a) to act as a blaster, unless acting as an assistant;

(b) to act as a hoistman.

O.C. 213-93, s. 26.

§ 10. Registers

27. The registers prescribed by sections 87, 89, 103, 103.1, 108.2, 142.2, 214, 344, 345, 347, 355, 360, 366, 370, 376, 397, 412, 437 and 476.1 shall be drawn up, kept up to date, stored on the mine site and made available to members of the health and safety committee and the safety representative.

O.C. 213-93, s. 27; O.C. 1326-95, s. 9; O.C. 782-97, s. 2; O.C. 1236-98, s. 3; O.C. 42-2004, s. 2; O.C. 119-2006, s. 2.

§ 11. Training

27.1. Within 6 months following 16 May 2002, any person working underground shall

(1) undergo training in occupational health and safety in accordance with Modules I, II, III, IV, V and VII of the modular course for miners published by the Commission scolaire de l'Or-et-des-Bois; and

(2) hold an attestation to that effect issued by the Commission scolaire de l'Or-et-des-Bois.

The conditions prescribed in subparagraphs 1 and 2 of the first paragraph shall apply to a person who is hired after the expiry of the 6-month period provided for in the first paragraph; notwithstanding the preceding, that person shall receive training in occupational health and safety in accordance with Modules I, II, and III within 4 months and, in accordance with Modules IV, V and VII within 6 months of the date of hiring.

That person shall, until he meets the conditions prescribed in the first and second paragraphs, be accompanied by a person who has already received training in accordance with Module I of the course.

A person who occasionally works underground is exempted from the conditions prescribed in the first and second paragraphs; however, that person shall be accompanied by a person referred to therein.

O.C. 1326-95, s. 10; O.C. 1236-98, s. 4; O.C. 460-2000, s. 10; O.C. 465-2002, s. 3; O.C. 119-2006, s. 3.

27.2. Within 12 months after 23 March 2006, any person using underground drilling equipment shall.

(1) undergo training in occupational health and safety in accordance with Module VI of the modular course for miners published by the Commission scolaire de l'Or-et-des-Bois ; and

(2) hold an attestation to that effect issued by the Commission scolaire de l'Or-et-des-Bois.

The conditions prescribed in subparagraphs 1 and 2 of the first paragraph also apply to a person hired after the expiry of the 12-month period provided for in the first paragraph ; the person shall receive the training within 6 months of the date of hiring.

That person shall, so long as he has not undergone training in accordance with Modules I, II and III as provided in section 27.1, be accompanied by a person who has already received that training.

O.C. 119-2006, s. 4.

28. The roofs, walls and working faces of an underground working shall be drilled and scaled to keep them free of any rock likely to come loose.

Except in mines containing soluble minerals, the roofs, walls and working faces of mines shall be washed before sounding and scaling to eliminate any dust created following blasting.

O.C. 213-93, s. 28; O.C. 1236-98, s. 6.

DIVISION III
WORK ENVIRONMENT

§ 1. Ground stability

28.01. To ensure stability, an underground working shall not be undertaken without obtaining the plans and specifications of an engineer. The plans and specifications shall be:

(1) brought up to date by an engineer as work pregresses;

(2) kept on the mine site and available at all times.

O.C. 1326-95, s. 11.

28.02. Permanent monitoring and control measures shall be developed by an engineer for any non-abandoned underground working.

O.C. 1326-95, s. 11.

28.0.1. In addition to the standards provided for in section 28.01.1, excavation in a mine located in a permafrost zone may not be undertaken unless an analysis giving the anticipated effects of the excavation on the stability of the geological materials has been carried out.

O.C. 1236-98, s. 5; O.C. 460-2000, s. 11.

29. The walls of an excavation or a trench dug on the surface for the discovery or preparation of a mine shall be shored in accordance with the plans and specifications of an engineer.

The plans and specifications shall be kept on the mine site and be available at all times.

O.C. 213-93, s. 29.

30. Notwithstanding section 29, shoring is not required for:

(1) an excavation or a trench:

(a) made in solid rock;

(b) where no worker is required to descend into it;

(2) walls where there is no danger of landslides and whose slope is less than 45Âº starting at 1,2 metres (3,9 ft.) from the bottom;

(3) walls whose slope presents no danger of landslides and for which an engineer certifies that it is not necessary to provide support, because of the slope, the nature of the soil and its stability; a copy of the engineer's certification shall be kept at the mine site.

O.C. 213-93, s. 30.

31. Unless it has been done before excavation begins, the shoring of the walls shall be done as work progresses.

O.C. 213-93, s. 31.

32. The walls shall be inspected and maintained during the work so that there is never:

(1) rock or material likely to become loose;

(2) any overhanging mass.

O.C. 213-93, s. 32.

33. Where the depth of a trench or excavation exceeds 1,2 metres (3,9 ft.), no person shall:

(1) deposit materials less than 1,2 metres (3,9 ft.) from the top of the trench or excavation walls;

(2) operate or park a vehicle or machine less than 3 metres (9,8 ft.) from the top of the trench or excavation walls, unless reinforced shoring has been provided.

O.C. 213-93, s. 33; O.C. 1326-95, s. 12.

34. Shoring shall be removed from bottom to top and only in places to which workers no longer have access.

O.C. 213-93, s. 34.

35. Except where the underground workings are closed off in accordance with section 16, the roof and walls of each underground working shall be free from unstable or loose rocks.

Moreover, the travelways of workers shall be inspected daily.

O.C. 213-93, s. 35.

36. A worker sounding or scaling shall remain on sounded or scaled land, take up a stable position and ensure that there is a free space allowing a sudden retreat.

While sounding work is being carried out, no person may use, near the sounding zone, any noisy machine or tool that prevents the worker from hearing the sound of his scaling bar.

O.C. 213-93, s. 36; O.C. 782-97, s. 3; O.C. 1236-98, s. 7.

37. Scaling bars not exceeding 3,6 metres (12 ft.) shall be provided to the worker mentioned in section 36. The bars shall have a hand protector and be of such length and rigidity that the bar can be used at a 45Âº angle to the horizontal.

O.C. 213-93, s. 37; O.C. 782-97, s. 4.

38. The wall of a shaft or raise opening to the surface and excavated after 31 December 1971 shall be lined in concrete from the surface to bedrock.

O.C. 213-93, s. 38.

39. A stope shall not be closer than 6 metres (19,7 ft.) to a shaft in which persons travel or that is used for hoisting.

O.C. 213-93, s. 39.

40. Where clay, sand, gravel or other poorly consolidated mineral substance is being worked, and during the stripping of overburden:

(1) undermining is prohibited;

(2) trees and vegetation located less than 10 metres (32,8 ft.) from the rim of the tunnel faces shall be removed;

(3) mining shall be done in benches whose height shall not exceed:

(a) 3 metres (9,8 ft.), if loading is done without mechanical equipment;

(b) by more than 3 metres (9,8 ft.) the top of the boom or bucket of mechanical equipment when raised to its highest operating position, except for a sandpit operation where the slope of the tunnel face is at all points less than 45Âº from the horizontal;

(4) the parameters of the layers of soil required to calculate the critical height of the benches shall be determined and the contours of the tunnel faces and walls shall be fixed so as to secure their stability in the following cases:

(a) where signs of instability appear in the ground;

(b) heavy equipment or other overloads act on the rim of a tunnel face or wall;

(c) the land contains water or layers of clay;

(d) the width of the berm between two successive benches is less than either 8 metres (26,2 ft.) or the height of one of the benches;

(5) material on a berm shall not be allowed to accumulate if workers may be working on a lower bench near the berm.

O.C. 213-93, s. 40; O.C. 782-97, s. 5; O.C. 119-2006, s. 5.

41. Where an open-pit is in bedrock:

(1) overburden shall be removed from the upper rim of the working faces and walls so that:

(a) the cleared bench is at least 2 metres wide (6,6 ft.) at all times;

(b) the land located above that bench has a slope less than its natural embankment;

(2) undermining is prohibited;

(3) any overhang on a face or a wall shall be stoped immediately;

(4) no worker shall work on a working face or be located at a lower level in proximity to a working face or a wall, unless the working face or wall has been scaled beforehand of any rock likely to become detached therefrom;

(5) if the depth of the mine exceeds 25 metres (82 ft.), the contours of the profile of the working faces and walls shall be determined so as to ensure their stability and drilling and blasting must be controlled so that the intended profile of the faces and walls may be maintained;

(6) material on a berm shall not be allowed to accumulate if persons could be at a lower level near the berm.

O.C. 213-93, s. 41; O.C. 1326-95, s. 13.

§ 2. Travelways

42. For any development starting from 1 April 1993, there shall be clearance of at least 2 metres (6,6 ft.) above the floor of a drift.

When vehicles are travelling in the drift, there shall be clearance of at least 1,2 metres (3,9 ft.) above the bench or seat of the vehicle, and when a worker stands upright in the vehicle, the clearance shall be at least 2 metres (6,6 ft.) above the floor of the vehicle.

This section does not apply to rail car drawpoints in active worksites.

O.C. 213-93, s. 42; Erratum, 1993 G.O. 2, 2603.

43. In a drift where vehicles circulate on rails, one of the following standards shall be respected:

(1) clearance of one of the following minimum widths shall be provided for pedestrians between the wall of the drift and the farthest point of the vehicles travelling therein:

(a) when clearance is provided on both sides of the drift, 450 millimetres (17,7 in.);

(b) when clearance is provided on only one side of the drift, 600 millimetres (23,6 in.);

(2) safety bays shall be installed in the walls of the drift at intervals not exceeding 30 metres (98,4 ft.). The safety stations must be clear at all times, at least 1,5 metres (4,9 ft.) in width, 1,5 metres (4,9 ft.) in depth and 2 metres (6,6 ft.) in height, at a right angle to the wall of the drift and clearly identified by a notice inscribed on both sides with the words «BAIE DE SÉCURITÉ» in letters 102 millimetres (4 in.) high. The notice shall hang from the roof of the drift in front of the safety bay.

O.C. 213-93, s. 43.

44. In a drift where motor vehicles travel but not on rails, the width of the travelway shall exceed by at least 1,5 metres (4,9 ft.) the outside width of the vehicles that travel there. The travelway shall be at least 2 metres (6,6 ft.) wider than the outside width of the vehicles travelling there if the travelway is used by pedestrians at the same time, unless safety bays are installed in accordance with paragraph 2 of section 43.

However, this section does not apply where motor vehicles not on rails are used solely to dig a travelway.

Where the travelway to be dug shall exceed 60 metres (196,9 ft.) in length, its width shall exceed by at least 1 metre (3,3 ft.) the outside width of the motor vehicles travelling therein and safety bays shall be installed in accordance with paragraph 2 of section 43.

O.C. 213-93, s. 44.

45. Haulage roads used by motorized vehicles in an open-pit mine shall:

(1) be edged by a pile of fill or a ridge where vehicles could fall more than 3 metres (9,8 ft.). The pile of fill or the ridge shall have a height equal to at least the radius of the largest wheel of any vehicle travelling on the road. A pile of fill or a ridge is also required along the edge of dumps;

(2) be maintained by clearing or scarifying or by spreading an abrasive substance, so as to keep a non-skid surface.

O.C. 213-93, s. 45; Erratum, 1993 G.O. 2, 2603; O.C. 1326-95, s. 14.

45.1. In addition to the standards prescribed in section 45, haulage roads:

(1) constructed from 1 April 1993 and used by motorized vehicles in an open-pit mine shall have a width at least equal to:

(a) one and one-half times the width of the widest vehicles if they are single-track roads;

(b) two and one-half times the width of the vehicles if they are 2-way roads;

(2) constructed in an open-pit mine at which operations begins from 1 April 1993 and used by motorized vehicles shall have a width at least:

(a) twice the width of the widest vehicles if they are single-track roads;

(b) three times the width of the vehicles if they are 2-way roads.

O.C. 1326-95, s. 14.

45.2. Service roads used by motorized vehicles in an open-pit mine shall:

(1) be edged by a pile of fill or a ridge where vehicles could fall more than 3 metres (9,8 ft.). The pile of fill or the ridge shall have a height equal to at least the radius of the largest wheel of any vehicle travelling on the road;

(2) be off-limits to any vehicle whose width exceeds that of the driving surface;

(3) be maintained by clearing or scarifying or by spreading an abrasive substance, so as to keep a non-skid surface.

O.C. 1326-95, s. 14.

45.3. A buffer shall be installed:

(1) at any underground dumping area where motorized vehicles could fall more than 3 metres (9,8 ft.);

(2) at any place aboveground where motorized vehicles could fall into a hopper or crusher.

O.C. 1326-95, s. 14.

45.4. The buffer prescribed in section 45.3 shall:

(1) be made of wood, steel or concrete;

(2) have a height equal to at least the radius of the largest wheel of any motorized vehicle travelling in the areas where the buffer must be installed;

(3) be kept clear at all times.

O.C. 1326-95, s. 14.

§ 3. Protective installations around dangerous excavations

46. An opening to the surface of a shaft or raise that is no longer in use and is not filled in to its collar shall be closed by a slab of reinforced concrete that shall:

(1) rest on solid rock or a concrete collar;

(2) be at least 1,5 metres (4,9 ft.) in width, and have eyebolts for raising;

(3) be able to withstand a live load of 100 kilonewtons (22 481 lbs.) applied to its centre.

O.C. 213-93, s. 46.

47. An opening to the surface of a stope that is not filled in to the surface or closed by a slab in accordance with section 46 shall be surrounded by a fence made of:

(1) galvanized steel posts no less than 90 millimetres (3,5 in.) in diameter, forming its ends, corners and gates;

(2) intermediate galvanized steel posts not less than 60 millimetres (2,3 in.) in diameter and spaced at intervals not exceeding 3 metres (9,8 ft.);

(3) an upper bar of galvanized steel having a diameter of at least 45 millimetres (1,7 in.) and placed at a height of at least 2,5 metres (8,2 ft.) above the ground;

(4) a lower bar of galvanized steel having a diameter of at least 40 millimetres (1,6 in.) and placed at a height of not more than 10 centimetres (3,9 in.) above the ground;

(5) galvanized No. 9 AWG steel wire mesh, forming links of not more than 60 millimetres (2,4 in.) on a side, welded to the posts and bars at intervals not exceeding 400 millimetres (15,7 in.);

(6) 3 rows of barbed wire fixed at the top and overhanging towards the outside.

O.C. 213-93, s. 47.

48. In the rock, the fence posts mentioned in section 47 shall be driven in holes adapted to their diameter and at a depth of at least 500 millimetres (19,7 in.); in loose soil, they shall be driven to a depth of at least 1,2 metres (3,9 ft.) in holes having a diameter of at least 350 millimetres (13,8 in.) at the opening. The space around the poles shall be filled with concrete.

O.C. 213-93, s. 48.

49. Where the fence has a gate, it shall be at least equal in strength, durability and height to the fence.

O.C. 213-93, s. 49.

50. Where the embankment of an open pit mine has a height of more than 5 metres (16,4 ft.) and a slope greater than 65Âº from the horizontal, a guard rail shall be installed on its upper edge. The guard rail shall have at least:

(1) a cable at least 10 millimetres (0,4 in.) in diameter kept under tension by tension devices and placed between 1 metre (3,3 ft.) and 1,2 metres (3,9 ft.) from the ground;

(2) posts in accordance with paragraph 2 of section 47 and with section 48.

O.C. 213-93, s. 50.

51. In an underground mine, any opening more than 1,2 metres (3,9 ft.) deep shall be:

(1) surrounded by a guard rail that complies with paragraph 5 of section 66; or

(2) closed by a cover able to withstand a load at least equal to the greater of the following values:

(a) a single point load of kilonewtons (450 lbs.) applied to any point on the cover;

(b) a distributed load of 3,8 kilonewtons per square metre (79,4 lbs. per sq. ft.).

Where a motorized vehicle is likely to travel over a cover, the cover shall have a resistance at least equal to 3 times the maximum load that may be exerted by the vehicle.

O.C. 213-93, s. 51; O.C. 1326-95, s. 15.

52. Unless it is permanently enclosed, every hoisting compartment of a shaft shall have a gate at each shaft station. The gate shall:

(1) be at least 1,2 metres (3,9 ft.) in height;

(2) have less than 80 millimetres (3,1 in.) clearance between the floor and its lower edge;

(3) withstand a concentrated horizontal force of at least 1 kilonewton (224,8 lbs.) applied at any point on the gate;

(4) withstand a concentrated horizontal force of at least 100 kilonewtons (22 481 lbs.) applied at any point on the gate if a travelway can bring a vehicle right to the gate;

(5) remain closed, except when a conveyance is loaded or unloaded at the shaft station.

O.C. 213-93, s. 52.

§ 4. Ladderways, stairways and other means of access to a work place

53. Any shaft exceeding 30 metres (98,4 ft.) in depth shall be divided into 2 or more compartments, including one reserved exclusively for travel by persons using ladderways, stairways or a motorized device for the transport of persons independent of any hoisting plant.

O.C. 213-93, s. 53.

54. Where the compartment described in section 53 has a motorized device for the transport of persons, the device shall:

(1) be independent of any hoisting plant;

(2) be designed, installed, maintained and used in accordance with sections 215 to 349;

(3) be used solely for the transport of persons including the portable tools they carry with them;

(4) have a minimum capacity of 8 persons, except during the sinking of a shaft when the number of persons may be less than 8;

(5) be capable of obtaining power from at least 2 independent sources of electrical energy, one being a generator operated by a diesel-type internal combustion engine; the generator shall:

(a) have sufficient power to supply the facility and be reserved in priority to that facility ;

(b) have sufficient power to ensure the starting and operation of the hoist motor at its rated load;

(c) be checked at least once each week; the check shall include a complete cycle in the shaft, and the result of the check shall be noted in the work station register concerning hoisting equipment as prescribed by section 344;

(6) have a speed between 225 metres per minute (730 ft./min.) and 460 metres per minute (1 509 ft./min.);

(7) have a hoist installed in a room with at least one hour resistance to fire and separated from other hoists, compressors or other similar equipment by a partition with similar fire resistance.

A hoistman shall be available in the hoist room of the motorized device for transporting persons or in another hoistroom of a hoist serving the same shaft while there are persons likely to use the device.

O.C. 213-93, s. 54; O.C. 1326-95, s. 16; O.C. 460-2000, s. 12; O.C. 465-2002, s. 4.

55. Where the compartment described in section 53 is served by a motorized device for the transport of persons, it shall:

(1) except at the collar, be free of chutes or doors that could obstruct the free passage of the cage in the compartment;

(2) comply with sections 52, 392 to 395 and 397.

Section 389 does not apply to a compartment served by the device described in the first paragraph.

During the sinking of a shaft, except when a bucket is used to transport persons, a temporary landing equipped with a signal system and a signalboard in accordance with section 263 shall be installed in the compartment mentioned in the first paragraph so that persons may use temporary ladderways to reach the lower limit of the travel of the cage of the motorized device for the transport of persons. A buffer shall also be installed at the lower end of each of the guides of this cage.

O.C. 213-93, s. 55; O.C. 460-2000, s. 13; O.C. 119-2006, s. 6.

56. During shaft sinking or development work, where there is no emergency exit and the motorized device for the transport of persons described in section 53 in out of service, all persons located underground shall be evacuated except the worker responsible for repairing the device.

O.C. 213-93, s. 56.

57. Where the compartment described in section 53 is served by ladderways or stairways, it shall be separated from other compartments of the shaft by a partition or protective screen, such that those persons travelling in the compartment will not be struck by the conveyance or the counterweight or be hit by rocks that may fall in the shaft.

In shafts sunk starting from 1 April 1993, the partition or protective screen shall be made of wood at least 35 millimetres (1,4 in.c) thick or of No. 9 AWG galvanized steel wire mesh, forming links of not more than 40 millimetres (1,6 in.) on a side.

O.C. 213-93, s. 57; Erratum, 1993 G.O. 2, 2603; O.C. 1236-98, s. 8.

58. In shafts, no ladders except auxiliary ladders used in shaft sinking work may be inclined more than 80Âº from the horizontal.

O.C. 213-93, s. 58.

59. Any workplace in a shaft shall be accessible by a stairway, a rigid ladder or a motorized device for the transport of persons independent of the hoist.

When a shaft is being sunk, auxiliary ladders made of rigid sections longer than 1 metre (3,3 ft.) are permitted between the permanent ladders or the motorized device for the transport of persons and the bottom of the shaft.

O.C. 213-93, s. 59.

60. In an underground travelway inclined at 50Âº or more from the horizontal, rest landings covering the compartment served by ladders shall be installed at vertical distances not exceeding 7 metres (23 ft.), except for the openings allowing the passage of persons, which shall be 1 square metre (10,8 sq. ft.) or less in area and, for every landing built from 10 July 1997, at least 70 centimètres (27,6 in) in width.

O.C. 213-93, s. 60; O.C. 782-97, s. 6; O.C. 1236-98, s. 9.

61. In an underground travelway inclined at 65Âº or more from the horizontal, the ladders shall be placed above the entrance to the lower landings.

O.C. 213-93, s. 61.

62. In places where the ladders are off-centre or where there is a difference of inclination of more than 10Âº between 2 ladders, landings shall be installed.

O.C. 213-93, s. 62.

63. Sections 60 to 62 do not apply to a ladder used in a raise.

O.C. 213-93, s. 63.

64. A ladder landing installed after 31 December 1971 shall be horizontal.

O.C. 213-93, s. 64.

65. Stairways with railings shall be used in an underground travelway inclined at between 20Âº and 50Âº from the horizontal.

O.C. 213-93, s. 65.

66. In an open-pit mine, at least one walkway giving access to each work level shall be laid out and maintained in accordance with the following standards:

(1) stairways or ladderways shall be installed where the walkway is inclined at more than 30Âº from the horizontal and where the angle is 50Âº or greater, only ladders may be installed;

(2) the ladderways shall:

(a) be firmly fixed in place by at least 2 independent supports;

(b) be inclined at less than 70Âº from the horizontal;

(c) contain rest landings with railings at least every 6 metres (19,7 ft.);

(3) the stairways shall:

(a) have uniform steps in each flight;

(b) have non-skid steps of a depth exceeding 150 millimetres (5,9 in.);

(c) have firmly fixed railings on sides where there is a risk of falling;

(d) have a handrail on at least one side;

(4) the stairways and rest landings shall be designed and built to carry a live load of 4,8 kilonewtons per square metre (100,2 lbs. per sq. ft.);

(5) the railings shall:

(a) be at least 1 metre (3,3 ft.) in hight;

(b) be designed and built to withstand a concentrated horizontal force of at least 900 newtons (202,3 lbs.) applied to any point on the upper rail and a concentrated force of at least 450 newtons (101,2 lbs.) applied to any point on the upper rail;

(c) have an upper rail placed between 900 millimetres (35,4 in.) and 1 100 millimetres (43,3 in.) above the floor and an intermediate rail fixed midway between the upper rail and the floor.

O.C. 213-93, s. 66; O.C. 1326-95, s. 17.

67. The space between the tops of the rungs of a ladder shall be at least 250 millimetres (9,8 in.) and not more than 300 millimetres (11,8 in.), and that space may not vary by more than 13 millimetres (0,5 in.) on any one ladder or from one ladder to another on the same ladderway.

O.C. 213-93, s. 67.

68. Starting from 1 April 1993, there shall be clearance of at least 150 millimetres (5,9 in.) behind the rungs of a ladder.

O.C. 213-93, s. 68; Erratum, 1993 G.O. 2, 2603.

69. A ladder shall extend at least 1 metre (3,3 ft.) beyond its upper rest landing or failing which, fixed handles shall be installed at an equivalent height.

O.C. 213-93, s. 69.

70. A worker may not mount a ladder unless the tools he is carrying are well secured to his waist by a belt or placed in a bag carried across his shoulder.

O.C. 213-93, s. 70.

70.1. Any underground footbridge or platform higher than one metre (3.3 ft.) above the ground or floor, other than the platform referred to in section 364, shall be equipped with guardrails on sides where there is the risk of a fall.

O.C. 460-2000, s. 14.

§ 5. Emergency exits

71. Except in a place where development work is being carried out, no work may be undertaken underground without having at least 2 separate passages to the surface by which workers may evacuate the mine.

The passages shall enable workers to pass from one level of the mine to another.

Notwithstanding the foregoing, a stope may be operated with only one passage to the surface where the following conditions are satisfied:

(1) the stope is operated for sampling purposes only;

(2) no other hoisting, exploration, development or new development work is carried out simultaneously with the operation of the stope;

(3) a refuge station complying with the standards in sections 127 and 128 is installed less than 10 minutes from the work station;

(4) the refuge station is equipped with one self-contained breathing apparatus with full face piece and a minimum utilization time of 90 minutes for each worker assigned to the site and to any related haulage;

(5) the quantity of rock broken is absolutely necessary to render the sample representative of the deposit to be exploited;

(6) the timbering of the shaft and collar frame is kept wet.

O.C. 213-93, s. 71; O.C. 782-97, s. 7.

72. In an underground mine whose operation begins from 1 April 1993, the passages prescribed in section 71 shall:

(1) be at least 30 metres (98,4 ft.) apart;

(2) have a cross-section of at least 1,5 square metres (4,9 ft.) or a diameter of at least 1,5 metres (4,9 ft.), except for the openings in the rest landings of the ladderways;

(3) have exits on the surface in separate buildings built with non-combustible materials.

O.C. 213-93, s. 72; Erratum, 1993 G.O. 2, 2603; O.C. 1326-95, s. 18.

73. In an underground mine, a worker working underground shall:

(1) receive information and training about the location of the emergency exits; the exists shall be checked at least once each month;

(2) be guided by signs placed at each intersection of the travelways indicating the direction to take to reach the surface.

O.C. 213-93, s. 73.

74. Every stope shall have at least 2 access routes practicable at all times, except:

(1) stopes less than 30 metres (98,4 ft.) in length;

(2) retreat mining stopes;

(3) stopes mined by the rooms and pillars method.

O.C. 213-93, s. 74.

75. In any retreat mining stope, a telephone allowing communication with another person shall be installed as long as there are any workmen in the stope, except where remote control devices are used in the drawing of ore and where access to the stope is prohibited.

O.C. 213-93, s. 75.

75.1. Where a tunnel is used under a reserve of non-consolidated materials for the purpose of recovering those materials, the tunnel shall have at least 2 separate passages through which the workers may evacuate the work stations.

This section applies to tunnels built from 10 July 1997 and to tunnels on which extension work begins from 10 July 1997.

O.C. 782-97, s. 8.

§ 6. Underground and surface waters

76. For the purposes of the application of this Subdivision:

(1) an underground excavation is under the influence of a body of water where the excavation is less than 100 metres (328,1 ft.) from the rock contour below the body of water at its highest point;

(2) an open-pit mine is under the influence of a body of water where the width of the protective wall is less than 100 metres (328,1 ft.) from the body of water at its highest point.

O.C. 213-93, s. 76.

77. An underground excavation under the influence of a body of water may not be begun without there being obtained from an engineer plans and specifications accompanied by studies covering the folloiwng elements;

(1) a study of the surface of the site under which the surface pillars will be located;

(2) a soil distribution study;

(3) a study of the mechanical properties of the soil;

(4) a study of the mechanical properties of the rock to be excavated;

(5) a study of the hydrogeological conditions;

(6) the data necessary for a surface pillar checking and maintenance system.

The plans and specifications and the accompanying studies shall be kept at the mine site and shall be available at all times.

O.C. 213-93, s. 77.

78. The excavation of an open-pit mine less than 100 metres (328,1 ft.) from a body of water may not be undertaken without the engineer's plans and specifications accompanied by the studies prescribed by subparagraphs 4 to 6 of section 77 being obtained.

The second paragraph of section 77 applies to this section.

O.C. 213-93, s. 78.

79. Any abandoned stope under the influence of a body of water and located less than 40 metres (131,2 ft.) from the surface of the rock shall be backfilled or isolated by a dam or a bulkhead.

O.C. 213-93, s. 79.

80. The roof of a stope that has not been backfilled and is or has been mined under the influence of a body of water shall be inspected a least once each day.

The frequency of such inspections may be reduced to once per week where the stope is monitored by a visual and audible monitoring system.

O.C. 213-93, s. 80; O.C. 1326-95, s. 19.

81. The construction of a dam or bulkhead intended to hold back water or water or air under pressure underground may not be begun without the plans and specifications for the dam or bulkhead being obtained from an engineer.

The plans and specifications shall be kept at the site of the mine and be available at all times.

O.C. 213-93, s. 81.

82. Every mine shall be provided with pumping equipment capable of discharging the underground water which, if accumulated, could endanger the life of workers in the mine or in a neighbouring mine.

O.C. 213-93, s. 82.

83. If water infiltrates into fill, the fill shall be kept in place by bulkheads constructed of antirot materials and equipped with a drainage system.

O.C. 213-93, s. 83.

84. Where tailings are used for backfilling underground excavations, the water contained in such residues and leaking therefrom may not have a cyanide content higher

than 0,005 %, expressed in potassium cyanide.

O.C. 213-93, s. 84.

DIVISION IV
QUALITY OF THE WORK ENVIRONMENT

§ 1. Air Quality

85. Where, before recommencing work in an underground mine that has been abandoned or part of an underground mine located outside a ventilation circuit, the air quality must be inspected for compliance with in sections 40 and 41 of the Regulation respecting occupational health and safety (O.C. 885-2001) and its Schedule I, the workers making the check shall:

(1) work in groups of at least 2 and remain constantly in sight of each other;

(2) wear a self-contained breathing apparatus as prescribed in subparagraph 1 of the first paragraph and in the second paragraph of section 13;

(3) have measurement instruments for detecting the concentration of oxygen and any contaminant likely to be found in the mine or part of the mine.

O.C. 213-93, s. 85; O.C. 1326-95, s. 20; O.C. 885-2001, s. 381.

86. An underground mine shall be ventilated mechanically.

O.C. 213-93, s. 86.

87. The fresh air introduced underground may not be contaminated by air previously exhausted from the mine or by any other fixed source of contamination present on the mine site.

Notwithstanding the foregoing, where the fresh air introduced underground is heated directly by a flame, the following conditions shall be satisfied:

(1) the heating system shall comply with Standard CGA/CAN1 3.7-1977 Direct Gas-Fired Non-Recirculating Make-up Air Heaters;

(2) the entire installation shall comply with the Regulation respecting gas and public safety (R.R.Q., 1981, c. D-10, r. 4) as it reads at the time it is applied, as well as with CAN/CGA-B149.1-M91 Natural Gas Installation Code, where natural gas is used as fuel, or CAN/CGA-B149.2M91 Propane Installation Code, where propane is used as fuel;

(3) a combustible gas detector shall be installed to ensure the cut-off of combustible gas to the burner where the gas used as fuel could make its way into the mine;

(4) an environmental monitor shall be installed to ensure that the carbon monoxide concentration in the air exhausted by the main burners in working condition does not at any time exceed the concentration indicated in Table II of Schedule A to Standard CGA/CAN1 3.7-1977 Direct Gas-Fired Non-Recirculating Make-up Air Heaters;

(5) a carbon monoxide concentration reading shall be taken at least once weekly and shall be recorded in a register, except where it is recorded on a graph or in a computer system.

For the purposes of the first paragraph, a system that automatically shuts off the fresh air supply fan must be installed when the monitor referred to in subparagraph 4 of the second paragraph indicates that the carbon monoxide concentration exceeds 11.4 milligrams per cubic metre (10 ppm).

O.C. 213-93, s. 87; O.C. 782-97, s. 9; O.C. 119-2006, s. 7.

88. The air supplied to an underground mine shall not be contaminated by combustion fumes from the stack of any device.

O.C. 213-93, s. 88.

89. Main fans and auxiliary fans shall not recirculate air to ventilate an underground work station.

However, reuse of air in a main ventilation circuit or an auxiliary circuit is permitted under the following conditions :

(1) the concentration of carbon monoxide in the ambient air must be measured at the inlet of each circuit where air is reused ;

(2) these measurements must be taken at least once a week during mucking operations carried out with diesel equipment and each time the ventilation equipment is altered ; and

(3) when the concentration of carbon monoxide exceeds 11.4 milligrams per cubic metre (10 ppm), a response plan must be implemented to reduce and maintain the concentration below that level.

The results of those measurements must be recorded in a register.

O.C. 213-93, s. 89; O.C. 42-2004, s. 3.

90. The air intake of an auxiliary fan shall be placed so as not to reintroduce previously exhausted air into the zone served by it.

O.C. 213-93, s. 90.

91. The percentage of air recirculated by a booster fan installed underground shall be less than 25 %.

O.C. 213-93, s. 91.

92. Revoked

O.C. 213-93, s. 92; O.C. 460-2000, s. 15.

93. Fans may not be reversed for as long as workers have not been located or evacuated, unless there is a fire in the main fan or its shelter.

O.C. 213-93, s. 93.

94. A fan shall be in continuous operation when a person is within its ventilation circuit.

O.C. 213-93, s. 94.

95. No person may enter a workplace located within the ventilation circuit of a fan that has been stopped until it has been re-started and its air changed at least once in that workplace.

O.C. 213-93, s. 95.

96. After blasting, a worker may not return to his underground work station before:

(1) it and the travelway leading to it have been ventilated, in a manner meeting the requirements of section 41 of the Regulation respecting occupational health and safety;

(2) at least one change of air has been made in the work station.

O.C. 213-93, s. 96; O.C. 885-2001, s. 382.

97. Local exhaust ventilation for trapping dust emitted by a specific source is not required where the emission of dust is controlled by a system of humidification meeting the standards of Schedule I of the Regulation respecting occupational health and safety.

O.C. 213-93, s. 97; O.C. 1326-95, s. 21; O.C. 885-2001, s. 383.

98. Whenever dust is created by movement of rock, materials or mobile equipment, some means of control, such as calcium, water or foam, shall be used to reduce or prevent the emission of the dust.

O.C. 213-93, s. 98.

99. In an underground mine, no new ventilation installation or change in existing installation shall be undertaken unless plans and specifications, including, in particular, illustrations of the direction and volume of air displacement, location of fans, fire doors, doors and bulkheads used to control air circulation, have been obtained from an engineer. The plans shall be:

(1) updated no later than 1 February of each year so that the plans indicate the state of the ventilation at 31 December of the preceding year;

(2) kept on the site of the mine and be available at all times.

A copy of the plans and specifications shall be sent to the Commission where it so requests.

O.C. 213-93, s. 99.

100. Exhaust gases of an internal combustion engine installed in a building shall be exhausted to the outside of the building. The exhaust pipes shall be installed so as to prevent the return of gases to the building, their introduction into the compressor's air intake and the contamination of the air in a neighbouring building or in the underground mine.

O.C. 213-93, s. 100.

100.1. The minimum rate of ventilation of a diesel engine used in an underground mine shall be that appearing on the certificate of homologation issued by the Mining and Mineral Sciences Laboratories, MMSL-CANMET, in accordance with Standard CAN/CSA-M424.2-M90 Non-railbound Diesel-powered Machines for Use in Non-gassy Underground Mines or Standard CAN/CSA-M424.1-88 Flameproof Non-Rail-Bound Diesel-Powered Machines for Use in Gassy Underground Mines, if applicable and, in accordance with the provisions of Schedule VII, or that provided for in the United States federal certification index, according to Parts 31 and 32, Title 30, Code of Federal Regulations, Mine Safety and Health Administrative or, failing the above, shall be 5,5 cubic metres per minute per kilowatt (114,8 cu. ft. per minute per H.P.) at the engine shaft.

For the purposes of this section, CAN/CSA Standard M424.2-M90, Non-Rail-Bound Diesel-Powered Machines for Use in Non-Gassy Underground Mines and CAN/CSA Standard M424.1-88, Flameproof Non-Rail-Bound Diesel-Powered Machines for Use in Gassy Underground Coal Mines, shall apply to any diesel motor used underground notwithstanding the field of application specified in those standards.

O.C. 782-97, s. 10; O.C. 1236-98, s. 10; O.C. 460-2000, s. 16; O.C. 42-2004, s. 4.

101. An underground mine shall be supplied with fresh air from the atmosphere at a minimum rate of flow equivalent to the more demanding of the following standards:

(1) 15 cubic metres (529,7 cu. ft.) per minute for each worker underground;

(2) where equipment operated by a diesel engine is used, the rate of ventilation required to meet the requirements of section 100.1 and paragraphs 1 and 2 of section 102.

O.C. 213-93, s. 101; O.C. 782-97, s. 11.

102. When internal combustion engines are used for operating equipment in an underground mine, they shall be diesel-type engines and their use shall be subject to observance of the following conditions:

(1) the ventilation in places where such engines are used shall be sufficient to dilute the contaminants present in the exhaust gases to exposure values measured in the worker's respiratory zone; those exposure values shall be:

(a) below 0,6 milligrams of respirable combustible dust per cubic metre of air;

(b) below the exposure values provided for in Schedule I of the Regulation respecting occupational health and safety;

(1.1) the sampling and analysis protocol for respirable combustible dust shall be that of the Mining and Mineral Sciences Laboratories, MMSL-CANMET, described in Schedule VI;

(2) notwithstanding paragraph 2 of section 101, when several pieces of equipment operated by diesel engines are used simultaneously in one ventilation circuit, the volume of fresh air shall be:

(a) for motors certified under Part 31 and Part 32 of Title 30, Code of Federal Regulations, Mine Safety and Health Administration, and for non-certified motors, 100 % of the flow given for the most demanding unit in terms of ventilation, 75 % of the flow given for the second unit and 50 % of the flow given for any additional unit, up to a minimum of 2.7 cubic metres per minute per kilowatt (71 cu. ft. per minute per HP) at the engine shaft;

(b) for motors certified under CAN/CSA Standard M424.2-M90, Non-Rail-Bound Diesel-Powered Machines for Use in Non-Gassy Underground Mines or under CAN/CSA Standard M424.1-88, Flameproof Non-Rail-Bound Diesel-Powered Machines for Use in Gassy Underground Coal Mines, and, in accordance with the provisions of Schedule VII, 100 % of the flow given for each motor used in the ventilation circuit;

(c) equal to or greater than the total of the fresh air flow prescribed in subparagraph *a* or *b*, as the case may be, when the diesel engines referred to therein are used simultaneously;

(3) *(deleted)*;

(3.1) the addition of an additive to the diesel fuel must not result in the flash point of the fuel being lower than 37.8 °Celsius (100 °Fahrenheit) ;

(4) the sulphur content of the diesel fuel shall be less than 0.05 %;

(5) the engine may not constantly emit black smoke;

(6) every diesel engine shall be fitted with a device for purifying or diluting exhaust gases;

(7) the injection pump of a diesel engine and its governor shall be sealed;

(8) a manual or controlled shut-off valve shall be placed on the fuel line between the tank and the engine;

(9) the terminals of the electric storage battery shall be insulated by a non-conducting material;

(10) the electrical installation of a diesel engine shall have a master switch making it possible to shut off the current at the battery outlet.

For the purposes of subparagraph *b* of paragraph 2, CAN/CSA Standard M424.2-M90, Non-Rail-Bound Diesel-Powered Machines for Use in Non-Gassy Underground Mines, and CAN/CSA Standard M424.1-88, Flameproof Non-Rail-Bound Diesel-Powered Machines for Use in Gassy Underground Coal Mines, apply to any diesel engine used underground notwithstanding the area of application specified in those standards.

O.C. 213-93, s. 102; O.C. 1326-95, s. 22; O.C. 782-97, s. 12; O.C. 460-2000, s. 17; O.C. 885-2001, s. 383; O.C. 42-2004, s. 5; O.C. 119-2006, s. 8.

103. At least once each week, the flow of air in cubic metres per minute supplying a zone affected by the operation of an underground diesel engine shall be measured and entered in the register of the work station concerning diesel engines.

O.C. 213-93, s. 103; O.C. 782-97, s. 13.

103.1. The measurements evaluating the respirable combustible dust exposure values provided for in section 102 shall be taken:

(1) at least once every 6 months;

(2) following any alteration likely to affect the quality of the air;

(3) the strategy for sampling such dust must be applied in accordance with the common practices of industrial hygiene summarized in the Guide d'échantillonnage des contaminants de l'air en milieu de travail published by the Institut de recherche Robert-Sauvé en santé et en sécurité du travail, as it reads at the time it applies.

O.C. 782-97, s. 14; O.C. 465-2002, s. 5.

103.2. Any underground equipment powered by a diesel engine shall be stopped if the following occurs:

(1) the concentration of carbon monoxide in the undiluted exhaust gases of the engine exceeds 750 parts per million for haulage, clearing or service equipment ;

(2) its use becomes dangerous due to a defect in the engine.

O.C. 1236-98, s. 11; O.C. 119-2006, s. 9.

103.3. The concentration of carbon monoxide in the undiluted exhaust gases of underground diesel engines shall be measured when the engines are first put into operation and thereafter at least every 300 hours of operation or at least every 6 months, whichever event occurs first.

The results of these measurements shall be entered in the register provided for in section 103.

O.C. 1236-98, s. 11.

104. The ventilation flow at any underground work station shall generate an air speed in a travelway of at least 15 metres (49,2 ft.) per minute or shall be equivalent to 50 cubic metres (1 765,7 cu. ft.) per minute per worker at a work station.

O.C. 213-93, s. 104.

104.1. In a raise:

(1) notwithstanding section 104, the ventilation flow in the work station shall supply at least 5 changes of air per hour;

(2) ventilation shall be supplied by means of a compressed air pipe that is:

(a) less than 6,1 metres (20 ft.) from the heading;

(b) equipped with a muffler;

(c) directed towards the heading;

(d) independent of any compressed air pipe supplying a drill or other pneumatic tool.

O.C. 782-97, s. 15.

105. In an underground mine, any diesel engine in the zone affected by the shutting-off of a fan shall be stopped within 15 minutes.

O.C. 213-93, s. 105.

106. No blasting may be done in a zone when the fan serving it is not operational.

O.C. 213-93, s. 106.

107. The air flow control devices for ventilating a raise shall be:

(1) designed so that a minimum ventilation of 5 changes of air per hour is maintained in the work station at all times;

(2) placed outside and less than 10 metres (32,8 ft.) from the raise.

O.C. 213-93, s. 107; O.C. 782-97, s. 16.

§ 2. Lighting

108. The wearing of a miner's lamp connected to a charged battery is obligatory for any person who is underground.

However, the wearing of such lamp is not required in the locations set forth in section 109, provided that the lamp is within the person's reach.

O.C. 213-93, s. 108; O.C. 782-97, s. 17.

108.1. A miner's lamp used underground shall yield a level of illumination of at least 1500 lux at 1,2 metres (4 ft.) from the light source.

Notwithstanding the foregoing, if the ground to be evaluated is more than 3,6 metres (12 ft.) from the miner's lamp, auxiliary lighting shall also be installed.

O.C. 782-97, s. 18.

108.2. In an underground mine, measures shall be developed to evaluate and maintain miners' lamps.

The results of tests on such lamps shall be entered in the register concerning miners' lamps.

O.C. 782-97, s. 18.

109. Fixed lighting yielding a level of illumination of at least 50 lux shall be installed:

(1) in each shaft station of a shaft in use;

(2) in an underground crushing room;

(3) in a room or area underground containing electrical equipment;

(4) in an underground refuge station.

O.C. 213-93, s. 109.

110. The level of illumination shall be measured using a light meter corrected for incident light.

O.C. 213-93, s. 110.

§ 3. Sanitary standards

111. An underground mine shall be equipped at each level used by workers as access to a stope or a working face with at least one sanitary convenience for each group of 30 or fewer workers.

O.C. 213-93, s. 111.

112. A sanitary convenience shall:

(1) be located in a compartment sheltered from view; the compartment shall have a door that can be locked from the inside, toilet paper placed in a holder and a clothes hook;

(2) have a plastic seat;

(3) be heated and lighted, where it is located near a lunch room.

O.C. 213-93, s. 112.

113. A dryhouse shall be provided for each sex and shall be equipped with:

(1) individual lockers for clean clothes and hooks for hanging up work clothes; each worker shall have a seat opposite the locker with clearance of at least 600 millimetres (23,6 in.) from the locker;

(2) a system capable of drying work clothes before the beginning of the next shift on which they will be used;

(3) hot and cold showers, with one shower per group of 10 or fewer workers ending a shift at the same time, except those installed before 1 April 1993;

(4) washbasins, soap, hand dryers or towels;

(5) at least one sanitary convenience for each group of 30 or fewer workers;

(6) an airlock at each door leading directly to the outside.

O.C. 213-93, s. 113; Erratum, 1993 G.O. 2, 2603.

114. A dryhouse shall be kept at a minimum temperature of 22Âº Celsius (71,6Âº Fahrenheit) and have a minimum illumination of 250 lux, measured in accordance with section 110.

O.C. 213-93, s. 114.

115. An underground lunchroom shall:

(1) be located more than 20 metres (65,6 ft.) from any inflammable substances or explosives magazine;

(2) be provided with a source of drinking water;

(3) have at least one washbasin provided with soap or another cleaning material and towels or a hand dryer;

(4) have at least one washbasin with hot water and cold water provided with soap or another cleaning material and towels or a hand dryer, where the lunchroom is installed starting from 1 April 1993.

O.C. 213-93, s. 115; Erratum, 1993 G.O. 2, 2603.

DIVISION V
SAFETY MEASURES TO PREVENT CERTAIN EVENTS

§ 1. General

116. No person may light or feed a fire underground.

O.C. 213-93, s. 116.

117. Safety procedures in case of fire, infiltration, flood, landslide or other event of a similar nature shall be prepared for every underground mine. The procedures shall include the following elements:

(1) the obligations of the worker who discovers such an event;

(2) the organization of rescue operations;

(3) the persons to be informed and methods of contacting them;

(4) procedures for activating the alarm system;

(5) the organization of the evacuation of the mine;

(6) monitoring of persons brought to the surface in an evacuation and tasks of persons designated to do the monitoring;

(7) persons designated to draw up the list of persons still underground as evacuation takes place;

(8) a list of the persons responsible for seeing to the operation of the installations necessary for rescue of the workers, in particular, hoists, fans, compressors, electrical substations and the control and monitoring equipment for the substations powering the hoists, fans, and compressors;

(9) persons assigned to contact outside institutions that may be needed during operations and the method of contacting them;

(10) persons responsible for guiding persons from outside, including physicians, ambulances and rescue teams;

(11) the organization of gathering information relating to the rescue of persons;

(12) the methods used to see that such procedures are known and thoroughly understood by the persons involved.

O.C. 213-93, s. 117; O.C. 1326-95, s. 23.

118. The procedures prescribed by section 117 shall be reviewed at least annually.

The procedures prescribed in paragraph 3 of that section and the text of any revision shall be posted in the dryhouse, shaft buildings, landings, lunchrooms and safety stations.

Only a summary of the procedures prescribed in paragraphs 1 and 5 of section 117 and the text of any revision shall be posted in the locations listed in the second paragraph.

O.C. 213-93, s. 118.

119. Where an event described in section 117 occurs, it is prohibited to make changes in the ventilation system as long as there are people in the mine who have not been located or evacuated, unless there is a fire in a main fan or its shelter.

O.C. 213-93, s. 119.

§ 2. Alarm system

120. In an underground mine an alarm system shall be installed. The system shall comply with the following standards:

(1) it must be protected against weather at all times;

(2) it may be activated at all times;

(3) it is at all times capable of warning all underground workers of the necessity of evacuating the mine.

O.C. 213-93, s. 120.

121. No stench warning system may be installed in a building covering an opening that is normally used for the entrance or exit of an underground mine.

O.C. 213-93, s. 121.

122. The procedure for activating the alarm system prescribed in section 120 shall be posted in the locations where the alarm may be activated.

O.C. 213-93, s. 122.

§ 3. Evacuation drill

123. An evacuation drill to check the effectiveness and operation of the alarm system shall be carried out at least once a year and shall be conducted in alternance with all the different work shifts.

The drill shall be carried out during the work shift when the greatest number of workers are present and no later than 2 hours before the end of the shift.

O.C. 213-93, s. 123.

124. The evacuation drill prescribed by section 123 shall be the subject of a report containing the following information:

(1) the date of the drill;

(2) the times of the beginning and end of the shift during which the alarm system was activated;

(3) the exact time at which the alert was given;

(4) the name and title of the person who gave the alert;

(5) the place from which the alert was given;

(6) the name and position of the person who activated the alarm system;

(7) the exact time at which the alarm system was activated;

(8) the exact time and place at which the last worker was located;

(9) the number of workers who were underground;

(10) where applicable, the work place of each worker not alerted by the alarm system.

The report must be forwarded to the mine's health and safety committee, the Commission de la santé et de la sécurité du travail and the mine rescue department.

O.C. 213-93, s. 124; O.C. 42-2004, s. 6.

124.1. When a worker has not been reached following the evacuation drill described in section 123, corrective measures must be taken to remedy the situation, and they must be followed up to prevent a recurrence of the situation.

O.C. 42-2004, s. 7.

125. Where a stench alarm system was used for the evacuation drill, the odor shall have dissipated from all work places before the workers return to them.

O.C. 213-93, s. 125.

§ 4. Refuge stations

126. On any working underground level from which it is not possible to reach a refuge station or the surface within 30 minutes after the alarm system has been activated, a refuge station complying with sections 127 and 128 shall be installed on that level.

On any underground level being developed or any level of an underground mine whose operation begins starting from 1 April 1993 from which it is not possible to reach a refuge station or the surface within 20 minutes after the alarm system has been activated, a refuge complying with sections 127 and 128 shall be installed on that level.

O.C. 213-93, s. 126; Erratum, 1993 G.O. 2, 2603; O.C. 1326-95, s. 24.

127. A refuge station shall

(1) be constructed with non-combustible materials and have a fire resistance of at least one hour;

(2) be identified by notices posted approximately 20 metres (65,6 ft.) from the station;

(3) provide an area of at least 1 square metre (10,8 sq. ft.) per worker needing to seek refuge there;

(4) be constructed so that it is airtight against smoke when the door is closed;

(5) be connected to the surface by a means of voice communication;

(6) have a source of drinking water;

(7) be connected to a line that has a muffler capable of providing a continuous supply of compressed air from the surface and that has a single air flow control valve located inside the refuge station ;

(7.1) not be supplied with air by a backup compressor located underground ;

(8) have sealant to seal any leak;

(9) have a notice board on which are posted a plan of the level, the air supply circuit of the mine and the rescue procedures.

O.C. 213-93, s. 127; O.C. 1326-95, s. 25; O.C. 119-2006, s. 10.

128. A refuge station installed starting from 1 April 1993, in addition to having the characteristics prescribed by section 127, shall:

(1) be located more than 60 metres (196,9 ft.) from an inflammable substances or explosives magazine;

(2) have a minimum height of 2 metres (6,6 ft.).

O.C. 213-93, s. 128; Erratum, 1993 G.O. 2, 2603.

§ 5. Extinguishing equipment

129. A shaft station, at the surface or underground, shall have a fire hose equipped with a nozzle and connected to a system that can supply at least 450 litres (99 gallons) of water per minute under a pressure of at least 700 kilopascals (101,5 lbs. per sq. in.).

In a salt mine, a powder extinguishing system having a rated capacity of at least 9 kilograms (20 lbs.) shall be available at each shaft station. Where the shaft house is constructed with combustible materials, the rated capacity of the system at the surface station shall be at least 113 kilograms (250 lbs.).

O.C. 213-93, s. 129; O.C. 1236-98, s. 12.

130. At least one portable extinguisher having a minimum capacity of 4 kilograms (8,8 lbs.) shall be available in each of the following locations:

(1) the building covering an opening to the surface of an underground mine;

(2) the crushing room;

(3) the pumping room;

(4) the battery charging station;

(5) the room or enclosure for underground transformers;

(6) the garage or workshop;

(7) the mobile arc welding or welding torch unit;

(8) the combustible liquids and grease depot ;

(9) the diesel or electric motor;

(10) the fuel distribution station;

(11) the vehicle transporting explosives;

(12) the hoistroom;

(13) the shaft station;

(14) the lunchroom and the refuge station;

(15) the combustible material warehouse ; and

(16) the raise climber.

O.C. 213-93, s. 130; O.C. 42-2004, s. 8; O.C. 119-2006, s. 11.

131. The choice of portable extinguisher to be used in case of a fire shall be made according to the types of fire as set out in the table in Schedule I.

O.C. 213-93, s. 131.

132. A portable extinguisher not designed to fight Class C fires may not be placed in an area containing electrical equipment.

O.C. 213-93, s. 132.

133. In an underground mine, an automatic extinguishing system shall be installed:

(1) on any motorized vehicle powered by a diesel engine or electric motor, on tires or tracks, manufactured after 1 April 1993 and any remote-controlled vehicle not equipped with a release device on the remote control, containing more than 100 litres (22 gallons) of hydraulic fluid other than a fluid in accordance with CSA Standard CAN/CSA-M423-M87-Fire Resistant Hydraulic Fluids;

(2) in a depot containing more than 1,000 litres (220.0 gallons) of combustible liquids and grease ;

(3) on any raise climber powered by a diesel engine or electric motor ; in the case of a diesel engine, the hydraulic fluid used for the climber must comply with the standard referred to in paragraph 1 ;

(4) on every motorized vehicle used to transport combustible liquids in a portable tank, as defined in NFPA 30-1996, Flammable and Combustible Liquids Code ;

(5) on every motorized vehicle used in the supply of depots or the loading of explosives underground ;

(6) at portable combustible liquid supply stations with an electric pumping system, unless the system is explosion-proof.

For the purposes of this section «automatic extinguishing system» means a system that is activated when exposed to heat.

O.C. 213-93, s. 133; Erratum, 1993 G.O. 2, 2603; O.C. 42-2004, s. 9; O.C. 119-2006, s. 12.

134. In an underground mine, a semi-automatic extinguishing system shall be installed:

(1) on the vehicles mentioned in paragraph 1 of section 133 manufactured before 1 April 1993, this installation shall be carried out not later than one year after 1 April 1993;

(2) in a depot containing between 101 and 1,000 litres (between 22.2 and 220.0 gallons) of combustible liquids and grease.

For the purposes of this section, «semi-automatic extinguishing system» means a system that is activated manually.

O.C. 213-93, s. 134; Erratum, 1993 G.O. 2, 2603; O.C. 465-2002, s. 6; O.C. 119-2006, s. 13.

135. The extinguishing systems prescribed by sections 133 and 134 shall be designed and installed so that they may be activated manually at an easily accessible place.

O.C. 213-93, s. 135.

136. The condition of the portable extinguishers, fire hoses and the automatic or semi-automatic extinguishing systems shall be checked at least once a month.

O.C. 213-93, s. 136.

137. A label showing the date of the latest check and the initials of the worker who made it shall be attached to an extinguisher, fire hose in service and an automatic or semi-automatic extinguishing system.

O.C. 213-93, s. 137.

§ 6. Fire doors

138. A fire door must be installed

(1) in a drift leading to a shaft as soon as the travelway is 100 metres (328.1 feet) from a shaft station such that it is isolated from the other parts of the mine in case of fire ; and

(2) at every access to a garage designed in accordance with the mine engineering plans and built after 23 March 2006.

The door must

(1) be built of fireproof materials or covered with steel sheet on both sides ;

(2) be free of any obstruction ;

(3) have an automatic closing device in the case of a garage referred to in subparagraph 2 of the first paragraph ; and

(4) contain a small door for the circulation or evacuation of persons or have such a door alongside it.

For the purposes of this section, “garage” means the place where maintenance and mechanical repair are performed on the main mobile equipment, such as boom drills and scoop trams.

O.C. 213-93, s. 138; O.C. 119-2006, s. 14.

§ 7. Protection of the surface openings of an underground mine

139. A structure containing or surrounding a fan providing ventilation underground shall be fireproof.

O.C. 213-93, s. 139.

140. A building erected starting from 1 April 1993 shall be at least 12 metres (39,4 ft.) away from a building covering the surface opening to the surface of an underground mine, unless the building covering the opening and the building to be erected are constructed with non-combustible materials.

O.C. 213-93, s. 140; Erratum, 1993 G.O. 2, 2603; O.C. 1326-95, s. 27.

141. A building may form an integral part of a building covering the surface opening of an underground mine provided that:

(1) deleted;

(2) each part of the integrated building is of non-combustible construction and each part of the building covering the surface opening of the underground mine is constructed with non-combustible materials;

(3) the part of the building covering the surface opening of the underground mine is separated from the rest of the building by a wall having a fire resistance of at least one hour and is constructed with non-combustible materials.

O.C. 213-93, s. 141; O.C. 1326-95, s. 28.

142. It is prohibited to install an internal combustion engine, an apparatus under pressure, a combustion heating apparatus, a repair workshop, a warehouse or have an office in a building covering a surface opening of an underground mine. This prohibition does not apply to:

(1) a building that is an integral part of a building covering the opening, subject to section 145;

(2) the grinding of drill bits when sinking a shaft;

(3) the storage of wood required for shaft sinking work where the wood is placed to thaw in the building covering the shaft.

(4) the heating systems provided for in sections 87 and 142.1.

O.C. 213-93, s. 142; O.C. 782-97, s. 19; O.C. 465-2002, s. 7.

142.1. A stationary natural gas or propane heating system may not be used to heat a building covering an opening to the surface of an underground mine, except where the following conditions are satisfied:

(1) the heating unit is certified by a recognized body such as the Canadian Standards Association (CSA), the Canadian Gas Association (CGA), the Canadian Underwriters' Association (CUA) or a similar body;

(2) the entire installation complies with the Regulation respecting gas and public safety (c. D-10, r. 4) as it reads at the time it is applied, as well as with CAN/CGA-B149.1-M91 Natural Gas Installation Code, where natural gas is used as fuel, or CAN/CGA-B149.2-M91 Propane Installation Code, where propane is used as fuel;

(3) where the fuel is propane, a combustible gas detector is installed to ensure the cut-off of fuel to the heating apparatus if propane gas should accumulate inside the building;

(4) the heating apparatus is installed in such a manner that the distance between it and any explosive is never less than 4 metres (13,1 ft.).

O.C. 782-97, s. 20.

142.2. Every gas-fired heating system shall be inspected at least once each week while in service and shall be checked at least once each year, prior to the period when heating is required, by a person holding a certificate referred to in section 17 or 32, as applicable, of the Regulation respecting gas and public safety.

The results of those inspections and checks shall be entered in a register.

O.C. 782-97, s. 20.

143. The exterior of a building covering a surface opening of an underground mine shall be constructed with non-combustible materials.

O.C. 213-93, s. 143; O.C. 1326-95, s. 29.

144. If a mine hoist is installed over a shaft, the structure supporting and sheltering it shall be constructed with non-combustible materials.

O.C. 213-93, s. 144; O.C. 1326-95, s. 30.

145. If is prohibited to install an internal combustion engine other than a diesel engine at a distance of less than:

(1) 23 metres (75,5 ft.) from the building sheltering a hoist;

(2) 30 metres (98,4 ft.) from a surface opening of an underground mine or a building covering such an opening.

O.C. 213-93, s. 145.

146. Starting from 1 April 1993, it is prohibited to install a diesel engine or boiler at a distance of less than:

(1) 15 metres (49,2 ft.) from a surface opening of an underground mine used as an air exhaust;

(2) 25 metres (82 ft.) from a surface opening of an underground mine used as an air intake;

(3) 15 metres (49,2 ft.) from a building covering a surface opening of an underground mine.

O.C. 213-93, s. 146; Erratum, 1993 G.O. 2, 2603.

147. Starting from 1 April 1993, it is forbidden to install a diesel engine or a compressor in a room containing a hoist.

O.C. 213-93, s. 147; Erratum, 1993 G.O. 2, 2603; O.C. 1326-95, s. 31.

147.1. From 2 November 1995, where a room containing a hoist is an integral part of a building, the room shall have a fire resistance of at least one hour and shall be constructed with non-combustible materials.

O.C. 1326-95, s. 32.

148. An oil heating installation for the air in an underground mine shall be:

(1) equipped with tanks located at a lower level than the burners;

(2) in accordance with CSA Standard B139-1976 Installation Code for Oil Burning Equipment, and its supplement entitled Supplement No. 1 to Standard B139-1976, Installation Code for Oil Burning Equipment, CSA B139S1-1982.

O.C. 213-93, s. 148.

§ 8. Combustible and inflammable substances

149. Underground, in a building covering a surface opening of an underground mine and in a room containing a hoist, combustible wastes shall be enclosed in a metal container having a rigid cover attached to the container and arranged so that it closes by gravity.

O.C. 213-93, s. 149; O.C. 1326-95, s. 33.

150. The container mentioned in section 149 shall be emptied at least once a week, and its contents transported to the surface, except for solid wastes which may be buried in a fill.

O.C. 213-93, s. 150; O.C. 460-2000, s. 18.

150.1. No person shall allow any oil, grease or other combustible substance to accumulate in a hoist pit.

O.C. 1326-95, s. 34.

151. It is prohibited to accumulate unused combustible substances underground or inside a building covering a surface opening of an underground mine or less than 15 metres (49,2 ft.) from such an outlet or building.

O.C. 213-93, s. 151.

151.1. When more than 10 tires or more than 2,000 kilograms (4,409 pounds) of other combustible materials, such as conveyor belts or ventilation ducts, are stored underground in the same location, the tires or materials must be stored in a depot or enclosure that

(1) is identified ;

(2) has a fire hose or fire extinguishing system ; and

(3) is located at least 15 metres (49.2 feet) from any place where welding or cutting work is carried out.

In addition, no person may park an unsupervised motorized vehicle less than 15 metres (49.2 feet) from a depot or enclosure referred to in the first paragraph or carry out repair or maintenance work inside the depot or enclosure.

O.C. 119-2006, s. 15.

152. Accumulating or storing an inflammable substance in a building covering a surface opening of an underground mine is prohibited, except if stored in an buried tank.

O.C. 213-93, s. 152.

153. It is prohibited to store or use propane underground.

O.C. 213-93, s. 153.

154. It is prohibited to store combustible or inflammable substances less than 30 metres (98,4 ft.) from a surface opening of an underground mine or a building covering such an opening except if they are stored in a buried tank.

A sump having a capacity at least equal to that of the tank shall be installed beneath the tank to absorb any leakage from the storage facility.

O.C. 213-93, s. 154.

155. Lubricating oil and grease stored underground shall be kept in a depot:

(1) so identified;

(2) built of fireproof materials;

(3) separated from any travelway such that motorized vehicles cannot strike the tank or the pipes connected to it;

(4) sheltered from any source of heat greater than 50Âº Celsius (122Âº Fahrenheit);

(5) located outside the zone between a shaft and a fire door;

(6) at least 10 metres (32,8 ft.) away from another depot for inflammable or combustible substances or substances that could react with the oil or grease;

(7) having a smooth floor without grooves in which oil could accumulate;

(8) provided with pans to be used when transferring oil and grease to contain any spillage.

O.C. 213-93, s. 155.

156. The quantity of oil and grease stored in an underground depot may not exceed 7 days requirements.

O.C. 213-93, s. 156.

156.1. The quantity of diesel fuel stored in a depot located underground may not exceed 7 days' fuel requirements, but without exceeding 9,000 litres (1,980 gallons).

O.C. 119-2006, s. 16.

157. Underground, containers of oil or grease shall be returned to the depot not later than the end of each shift, except quantities of up to 23 litres (5,1 gallons) used to lubricate tools.

O.C. 213-93, s. 157.

158. If plastic containers are used underground to carry oil or grease needed for the lubrication of tools used by workers in stopes or in workings under development, the containers shall comply with CSA Standard B376-M1980 Portable Containers for Gasoline and Other Petroleum Fuels.

O.C. 213-93, s. 158; O.C. 1326-95, s. 35.

159. It is prohibited to bring lubricating oil or grease into a lunchroom or refuge station located underground.

O.C. 213-93, s. 159.

160. Every fuel supply system must be

(1) equipped with an anti-siphon device and a flow controller in order to prevent tank overflow ; and

(2) designed so that the fuel is never supplied by gravity feed.

O.C. 213-93, s. 160; O.C. 42-2004, s. 10.

161. A fuel nozzle used to disperse fuel to a vehicle shall be of the automatic shut-off type and shall not have a latch-open device.

O.C. 213-93, s. 161.

162. If the fuel is piped underground, the fill pipe located on the surface and supplying the fuel line shall be padlocked and identified by a sign indicating that it is a fill pipe for an underground fuel tank.

O.C. 213-93, s. 162.

163. A fuel line supplying an underground tank shall:

(1) be physically distinguishable from other piping;

(2) contain fuel only while the tank is being filled;

(3) be of steel.

O.C. 213-93, s. 163.

164. It is forbidden to transfer fuel:

(1) in a shaft station or in the zone between a shaft and a fire door;

(2) at a distance of less than 15 metres (49,2 ft.) from an explosives magazine or a depot for cylinders of combustible gas;

(3) in the enclosed area around stationary underground fuel tank.

O.C. 213-93, s. 164.

165. A stationary underground fuel tank shall be:

(1) separated from any travelway and out of reach of motorized vehicles so that they may not strike the tank or pipes connected to it;

(2) equipped with a device for monitoring the fuel level that makes it impossible to convey fuel from the surface when the tank is full;

(3) installed so that any fuel that may escape from the tank is held in a sump having a capacity at least equal to that of the tank;

(4) located at least 60 metres (196,9 ft.) from a shaft, a landing, an explosives magazine, an emergency exit, a transformer room or enclosure, a lunchroom or a refuge station, unless it was installed before 1 April 1993.

O.C. 213-93, s. 165; Erratum, 1993 G.O. 2, 2603.

§ 9. Welding and cutting

166. Cylinders of oxygen or acetylene shall be brought to the surface when empty.

O.C. 213-93, s. 166.

166.1. Where cylinders of oxygen or combustible gas used for cutting or welding underground are set in a place not readily accessible to the worker using a welding torch, a second worker shall constantly monitor the cylinder control devices.

O.C. 1326-95, s. 36.

167. It is prohibited to use a gasoline-fired welding torch underground.

O.C. 213-93, s. 167.

168. The oxygen supply hose and the combustible gas supply hose of a welding torch shall be equipped with at least one nonreturn gas device and at least one nonreturn flame device. Those devices must be installed according to the instructions of the manufacturer.

O.C. 213-93, s. 168; O.C. 465-2002, s. 8.

169. Before welding torch or electric arc work is begun:

(1) combustible materials near the place of work shall be removed, sprinkled or protected from flames and hot particles;

(2) hoses, gas cylinders and welding or cutting apparatus shall be protected from flames and hot particles;

(3) welding or cutting apparatus shall be inspected to detect leakage.

O.C. 213-93, s. 169.

170. Before a worker leaves the place where welding torch or electric arc work was carried out, the following standards shall be repeated:

(1) any hot particles or sources of heat that could cause a fire shall be eliminated;

(2) the timbering and combustible materials shall be sprayed when the ambient temperature is above the freezing point and there is no electrical equipment; otherwise there shall be no risk of fire.

O.C. 213-93, s. 170.

170.1. In addition to complying with the standards referred to in Division XXVII of the Regulation respecting occupational health and safety, welding and oxygen cutting must comply with chapter 10 of CSA Standard W117.2-94, Safety in Welding, Cutting and Allied Processes, except section 10.10 of the standard.

O.C. 119-2006, s. 17.

§ 10. Methane in an underground mine

171. In any part of an underground mine in which methane is present, possession of matches, cigarette lighters, cigarettes or other potential sources of heat is forbidden.

O.C. 213-93, s. 171.

172. Where a release of methane is detected, and its concentration is unknown:

(1) all sources of ignition shall be eliminated;

(2) electrical equipment shall be disconnected;

(3) the premises affected shall be evacuated except for the worker responsible for measuring the concentration of methane.

O.C. 213-93, s. 172.

173. Where work is carried out in the presence of methane, the following standards shall be respected:

(1) the concentration of the gas in the workplaces affected shall be measured at least once every 2 hours and kept at less than 1 %;

(2) the electrical equipment and engines used in such places shall be designed to function in a firedamp atmosphere.

O.C. 213-93, s. 173.

174. A motorized vehicle shall be equipped with a sound warning device to be used when approaching pedestrians and corners and, in the case of a locomotive, before moving under its own power.

O.C. 213-93, s. 174.

DIVISION VI
MOTORIZED VEHICLES

§ 1. Accessories on a motorized vehicle

174.01. Any non-railbound motorized vehicle powered by a diesel engine, manufactured from 10 July 1997 and used in an underground mine shall comply with Standard CAN/CSA-M-424.2-M90 Non-railbound Diesel-powered Machines for Use in Non-gassy Underground Mines.

O.C. 782-97, s. 21.

174.02. Any motorized vehicle powered by a diesel engine or electric motor must be maintained to prevent accumulation of oil, grease or other combustible materials.

O.C. 42-2004, s. 11.

175. The following motorized vehicles shall be equipped with an automatic back-up sound warning device:

(1) trucks having a rated load capacity of 5 000 kilograms (11 000 lbs.) or more;

(2) wheeled loaders, except scoop-tram loaders used underground, having a rated load capacity of 2 250 kilograms (4 960,3 lbs.) or more;

(3) graders and wheeled bulldozers.

The sound warning device must be set off automatically activated when reverse gear is engaged or must be activated by a detector.

For the purposes of this section, «rated load capacity» means the load established by the manufacturer as being the load that a truck may carry in its body or on its flatbed and, in the case of a loader, the load that it may carry in its bucket.

O.C. 213-93, s. 175; O.C. 1326-95, s. 37.

176. Except when used exclusively in zones or buildings having a minimum lighting level of 50 lux, a motorized vehicle shall have at least one headlight in front and a light in the rear.

O.C. 213-93, s. 176.

177. A motorized vehicle designed to operate forwards and backwards, such as a scoop-tram, shall have at least one headlight in the front and one in the rear.

O.C. 213-93, s. 177.

178. If a train moves one or more cars, the unit at the tail end shall be equipped with a rear light.

O.C. 213-93, s. 178.

179. Except for vehicle on rails, a motorized vehicle used underground or on the surface at night shall have lights or reflectors indicating its width in the direction in which it is moving.

A motorized vehicle designed to operate forwards and backwards, such as a scoop-tram, shall be equipped with lights or reflectors for both directions.

O.C. 213-93, s. 179.

180. A motorized vehicle used on the surface shall have rearview mirrors.

O.C. 213-93, s. 180.

181. A trailbound motorized vehicle shall have service brakes capable of stopping the vehicle and keeping it stationary independent of its dynamic brake.

O.C. 213-93, s. 181; O.C. 782-97, s. 22.

181.1. A non-railbound motorized vehicle shall:

(1) have service brakes capable of stopping the vehicle and keeping it stationary when it carries the maximum load for which it was designed on the steepest slope on which it may be required to travel;

(2) have a parking brake that:

(a) is mechanically operated;

(b) is capable of keeping the vehicle stationary when loaded;

(i) on a slope of 15 % in the case of a vehicle used on the surface;

(ii) on a slope of 20 % in the case of a vehicle used underground;

(c) when applied, is capable of maintaining its power despite contraction of the brake parts, depletion of the power source, or any leakage.

For the purposes of this section, «service brakes» means any type of main system used to stop a vehicle and keep it stationary without the assistance of any deceleration device or dynamic braking.

O.C. 782-97, s. 23.

182. The wheels of a motorized vehicle whose payload is greater than 2 300 kilograms (5 070,5 lbs.) shall be blocked by chocks or other means preventing any movement of the vehicle on a slope when the driver leaves it or when it is being serviced.

O.C. 213-93, s. 182.

183. The following motorized vehicles manufactured starting from 1 April 1993 and used exclusively in an open pit mine shall be equipped with a protective rollover structure in accordance with CSA Standard B352-M1980 Rollover Protective Structures (ROPS) for Agricultural, Construction, Earthmoving, Forestry, Industrial and Mining Machines and its Schedule A:

(1) industrial tractors, self-propelled graders, tractors, skidders, tracked bulldozers, tracked loaders, wheeled bulldozers and wheeled loaders having a mass greater than 700 kilograms (1 543,2 lbs.);

(2) compactors and compressor-rollers having a mass greater than 2 700 kilograms (5 952,4 lbs.);

(3) wheeled farm tractors having an engine with a power greater than 15 kilowatts (20,1 H.P.).

The design, manufacturing or installation of a protective structure is deemed to be made in accordance with Chapter 6 of the standard provided for in the first paragraph, if it is subject to an attestation signed and sealed by an engineer according to which the design, manufacturing or installation of the structure corresponds to the standard provided for in Chapter 6.

For the motorized vehicles referred to in the first paragraph that were manufactured before 1 April 1993, section 278 of the Regulation respecting occupational health and safety applies.

O.C. 213-93, s. 183; Erratum, 1993 G.O. 2, 2603; O.C. 465-2002, s. 9; O.C. 119-2006, s. 18.

184. Haulage trucks used on the surface and manufactured starting from 1 April 1993, having a mass greater than 17 000 kilograms (37 478 lbs.) shall be equipped with a rollover protective structure in accordance with SAE Standard J1040-APR88 Performance Criteria for Rollover Protective Structures (ROPS) for Construction, Earthmoving, Forestry and Mining Machines.

O.C. 213-93, s. 184; Erratum, 1993 G.O. 2, 2603; O.C. 1326-95, s. 38.

185. For any underground mine and for any new development and its subsequent operation, motorized vehicles manufactured from 1 April 1993 must be protected against falling objects by a protective structure complying with ISO Standard 3449 :1992, Earth-moving machinery Â¿ Falling-object protective structures Â¿ Laboratory tests and performance requirements (FOPS).

The design, manufacturing or installation of a protective structure is deemed carried out in accordance with the standard referred to in the first paragraph if an engineer has issued a signed and sealed certificate certifying that the design, manufacturing or installation of the structure complies with the standards referred to in the first and third paragraphs.

The first paragraph does not apply to motorized vehicles manufactured from 1 April 1993 if those vehicles comply, as of 12 February 2004, with SAE Standard J231-JAN81, Minimum Performance Criteria for Falling Object Protective Structure (FOPS).

O.C. 213-93, s. 185; Erratum, 1993 G.O. 2, 2603; O.C. 42-2004, s. 12.

186. All motorized vehicles designed initially to support a protective structure and used underground for the working of a deposit where the travelways comply with the second paragraph of section 42 shall be protected from falling objects by a protective structure complying with the standard prescribed by section 185.

O.C. 213-93, s. 186.

187. The cab of motorized vehicles covered by sections 183 and 184 shall comply with SAE Standard J397-APR88 Deflection Limiting Volume — ROPS/FOPS Laboratory Evaluation.

O.C. 213-93, s. 187.

188. Any alteration to the structure, chassis, cab, or rollover or falling object protective structure of a motorized vehicle must comply with the standards referred to in sections 183 to 187, SAE Standard J674A (1976), Safety Glazing Materials - Motor Vehicles, and for rigid plastic materials, ANSI Standard Z26.1-1977, Safety Code for Safety Glazing Materials for Glazing Motor Vehicles Operating on Land Highways.

Any alteration to the structure, chassis, cab or protective structure is deemed carried out in accordance with the standards referred to in the first paragraph if an engineer has issued a signed and sealed certificate certifying that the alteration of the structure, chassis, cab or structure complies with the standards.

O.C. 213-93, s. 188; O.C. 42-2004, s. 13.

189. A motorized vehicle equipped with a rearmounted winch for pulling materials shall be equipped with a protective screen complying with SAE Standard J1084-APR80 Operator Protective Structure Performance Criteria for Certain Forestry Equipment.

The screen shall have a permanently attached plate:

(1) indicating the name and address of the manufacturer;

(2) identifying the standard prescribed by the first paragraph.

O.C. 213-93, s. 189.

190. The driver of a motorized vehicle equipped with a rollover protective structure shall wear a safety belt complying with Schedule A to CSA Standard B352-M1980 Rollover Protective Structures (ROPS) for Agricultural, Construction, Earthmoving, Forestry, Industrial and Mining Machines.

O.C. 213-93, s. 190.

§ 2. Use of a motorized vehicle

191. The units of a moving train used underground shall be coupled together.

O.C. 213-93, s. 191.

192. A motorized vehicle may not be put in self-propelled motion unless a driver is at the controls of the vehicle or unless its operation depends on an automatic control system or a remote control system.

Such systems shall be designed so that an electrical or mechanical defect in the system causes the vehicle to stop immediately.

O.C. 213-93, s. 192.

193. Underground, a motorized vehicle shall not be left stopped unsupervised unless the controls of the vehicle are in the parking position and the brakes are applied.Where such a vehicle is powered by electicity, the driving motors shall be disconnected from their power source.

O.C. 213-93, s. 193; O.C. 1326-95, s. 39.

193.1. While a truck is being loaded at a stockpile or working face, the driver shall remain inside the cab of the truck or outside the loading zone.

O.C. 1236-98, s. 13.

§ 3. Transport of workers

194. In every motorized vehicle used for the transport of workers, each worker shall have a seat or bench that is attached to the vehicle, unless the vehicle is equipped with devices enabling standing workers to keep their balance during the trip.

O.C. 213-93, s. 194; O.C. 1326-95, s. 40.

195. Entering or leaving a motorized vehicle shall be permitted only when it is fully stopped and the access devices provided for this purpose are used.

O.C. 213-93, s. 195.

196. A motorized vehicle used for the transport of workers shall be:

(1) equipped with handles and foot-steps to enable passengers to get in or out;

(2) equipped with a device enabling passengers to communicate with the driver where his cab is separated from the passenger compartment;

(3) free of objects projecting inside the vehicle that could be dangerous for the driver or the passengers;

(4) deleted;

(5) covered by a roof having a minimum inside height above the floor of at least 2 metres (6,6 ft.) for vehicles so fitted starting from 1 April 1993, except those used in an underground mine;

(6) provided with side walls having a minimum height of 1,2 metres (3,9 ft.) above the floor;

(7) equipped with a heating system when it is used on the surface.

Subparagraph 5 of the first paragraph does not apply to vehicles such as cabs, automobiles or panel trucks inside which workers are not required to move about. In such vehicles, each worker shall have a seat or bench.

O.C. 213-93, s. 196; Erratum, 1993 G.O. 2, 2603; O.C. 1326-95, s. 41.

197. The seat or bench of a motorized vehicle used for the transport of workers shall have:

(1) a minimum width of 460 millimetres (18,1 in.) per place;

(2) a height of between 380 millimetres (15 in.) and 480 millimetres (18,9 in.) above the floor;

(3) a minimum depth of 300 millimetres (11,8 in.);

(4) a back rising at least 500 millimetres (19,7 in.) above the level of the seat or bench, unless it rests against the slatted sides or the walls of the vehicle.

O.C. 213-93, s. 197.

198. Between the rows of seats or benches of a motorized vehicle used for the transport of workers, there shall be a passage having a minimum width of 600 millimetres (23,6 in.) if they are face to face, and 300 millimetres (11,8 in.) in all other cases.

O.C. 213-93, s. 198.

199. Revoked.

O.C. 213-93, s. 199; O.C. 1326-95, s. 42.

200. A mine car used for the transport of workers shall:

(1) comply with paragraphs 1 and 3 of section 196;

(2) have seats or benches attached to it and complying with the standards provided for in sections 197 and 198;

(3) have a guard rail with a minimum height of 900 millimetres (35,4 in.) above the floor for its entire perimeter;

(4) have a roof.

O.C. 213-93, s. 200; O.C. 1326-95, s. 43.

200.1. No person shall, unless authorized by the employer or his representative, board mechanical haulage equipment or a locomotive used in an underground mine, except workers transported in mine cars that comply with section 200.

O.C. 1326-95, s. 44.

201. Only hand tools may be transported with workers in a mine car for passengers.

O.C. 213-93, s. 201.

202. It is prohibited to transport a dangerous substance within the meaning of section 1 of the Act respecting occupational health and safety (R.S.Q., c. S-2.1) in a motorized vehicle used for the transport of workers unless the substance is transported in a closed container and outside the compartment occupied by the driver of the vehicle and the passengers.

O.C. 213-93, s. 202.

203. Any cutting tool transported in the driver's cab or in the passenger compartment shall be placed in a closed container or protected by a sheath covering the cutting blade.

O.C. 213-93, s. 203.

204. Any bulk materials transported in the passenger compartment shall be retained by partitions or placed in a closed container.

O.C. 213-93, s. 204.

205. In an underground mine where workers travel mainly on ramps, motorized vehicles shall be provided to transport workers where the vertical distance to reach the place of work underground is more than 100 metres (328,1 ft.).

O.C. 213-93, s. 205.

206. It is prohibited to use the bucket of a loader to transport a worker.

O.C. 213-93, s. 206.

207. It is prohibited to use the bucket of a loader to raise a worker during scaling, drilling, timbering or loading explosives.

O.C. 213-93, s. 207.

208. Where a worker is raised by means of the bucket of a loader, for work other than that mentioned in section 207, the following standards shall be respected:

(1) an anti-skid detachable floor anchored to the bucket shall be installed;

(2) the bucket shall be equipped with a mechanism or other means of protection preventing its floor from approaching nearer than 2 metres (6,6 ft.) to any obstacle located above it;

(3) a valve preventing the sudden descent of the bucket shall be installed;

(4) an anti-dumping locking system shall be installed on the bucket;

(5) the loader shall be equipped with a device preventing the bucket from being raised without the secondary brake being applied;

(6) the lifting operations may be carried out only when the loader's axles are in a horizontal position;

(7) an operator shall be at the controls of the loader, unless it is equipped with a double control from the bucket;

(8) the worker shall be attached by means of a lanyard complying with sections 5.1 and 6.

O.C. 213-93, s. 208; O.C. 460-2000, s. 19.

§ 4. Signaller

209. In every truck loading or unloading area where there is a signaller directing the movements of motorized vehicles:

(1) the vehicles may not move in the truck loading or unloading area until they have received a signal from the signaller to do so;

(2) only one signaller may be allowed in each truck loading or unloading area;

(3) no other person may circulate on foot in such area without prior permission from the signaller;

(4) the signaller may not allow anyone to circulate on foot in that area unless he has stopped all the vehicles circulating in the area;

(5) the signaller shall wear an orange vest with reflective strips.

O.C. 213-93, s. 209.

§ 5. Remote controlled equipment

210. Remote controlled equipment used in a mine shall be:

(1) equipped with a selector device making it possible to choose the method of controlling the equipment, either manual or remote;

(2) used within the operator's sight, except where a robot system is used, in which case access to the work site where the robot system is used shall be barricaded and under camera surveillance;

(3) identifiable by means of a sign placed at the entrance to the site.

O.C. 213-93, s. 210.

210.1. Notwithstanding paragraph 2 of section 210, rail-bound equipment may be used where it is only partly visible to the operator provided that measures be taken to meet one of the following conditions:

(1) no one, with the exception of those persons whose presence is required to operate the equipment, may enter the area where the equipment is moving;

(2) the remote control shall be equipped with a device that will stop the equipment as soon as any person enters the area where the equipment is moving.

O.C. 460-2000, s. 20.

211. The remote control of a piece of equipment mentioned in section 210 shall:

(1) be equipped with a device stopping the engine of the equipment and applying the brakes when it reaches an inclination of 45Âº from the horizontal;

(2) except for a digital remote control with single encoding, answer to a frequency assigned to it so that it can only operate one piece of remote controlled equipment;

(3) be equipped with a device stopping the equipment when it approaches to within less than 3 metres (9,8 ft.) of the remote control, in the case of a drill, or to within less than 10 metres (32,8 ft.), in the case of all other equipment, except where the operator and nearby workers are in a wall recess or on a raised platform;

(4) be equipped with an emergency switch making it possible to stop the engine and apply the brakes of the remote controlled equipment. Such a switch shall be red and operate when pressed;

(5) be disconnected and locket by a safety device when it is not in use.

For the purposes of the application of paragraph 2, the elements making it possible to select a frequency shall be sealed.

Subparagraph 3 of the first paragraph does not apply to rail-bound equipment, in which case the equipment operator shall remain outside the track.

O.C. 213-93, s. 211; O.C. 1326-95, s. 45; O.C. 460-2000, s. 21; O.C. 465-2002, s. 10.

212. No remote control shall be capable of firing a detonator.

O.C. 213-93, s. 212.

213. Except for a digital remote control with single encoding, where remote controlled equipment is used in contiguous mining operations, each employer shall choose a frequency such that one remote control cannot operate a piece of equipment in the other contiguous operation.

O.C. 213-93, s. 213; O.C. 465-2002, s. 11.

214. Any particulars respecting a remote control, such as brand, model, serial number, frequency used, the name of the person responsible for adjustments or maintenance, and any other relevant particulars shall be entered in the register of the work station respecting the remote control of equipment.

O.C. 213-93, s. 214.

§ 6. All terrain-vehicles

214.1. The use of all-terrain vehicles in an underground mine is permitted only under the following conditions:

(1) it is mounted on at least 4 wheels;

(2) it is equipped with a rotating light placed at least 2 metres (6.6 ft.) off the ground;

(3) it is equipped with a fixed closed box for the transportation of tools and small material;

(4) it is prohibited to install a winch on the vehicle;

(5) it may not be used to transport personnel;

(6) the driver has the skill and knowledge required to safely use the vehicle; and

(7) the driver shall wear the following pieces of individual protective equipment:

(a) a motorcycle or snowmobile protective helmet conforming to the standards provided for in the Regulation respecting protective helmets for persons riding motorcycles, mopeds or snowmobiles and for their passengers (O.C. 1015-95); and

(b) flexible leather gloves or gloves made of a material that ensures a good grip on the handles and controls of the vehicle.

For the purposes of this section, "`all-terrain vehicle" means a pleasure vehicle designed for driving elsewhere than on public highways and having a net mass not exceeding 450 kilograms (990 lb.).

O.C. 465-2002, s. 12.

DIVISION VII
HOISTING PLANT

§ 1. General

215. The operator of a hoist used for the transport of persons shall have a medical certificate issued by a physician within 12 months before he commences his duties certifying that he has been examined and that he does not have any physical or mental handicaps or any deficiency in sight or hearing which, in the exercise of his duties, could endanger the safety of the persons transported.

The certificate shall be renewed not later than 12 months after its issue date and annually thereafter.

O.C. 213-93, s. 215.

216. A hoist may not be installed without first obtaining from an engineer plans and specifications indicating the total load to be suspended, the maximum out of balance and, for a drum hoist, the maximum load permitted for each drum and the maximum number of layers of rope that can be wound on each drum.

The plans and specifications shall be kept on the mine site and shall be available at all times.

A copy of the plans specifications shall be sent to the Commission where it so requests.

O.C. 213-93, s. 216.

217. The safety circuit of a hoist may not be supplied by a voltage of more than 120 volts.

O.C. 213-93, s. 217.

218. No alteration intended to increase the hoisting capacity of any hoist may be undertaken without a prior certificate from an engineer certifying the reliability of the hoist. The certificate shall be kept on the mine site.

O.C. 213-93, s. 218.

219. Before a hoist is put into service for the first time, the main shaft of the hoist, the axes of the control devices, the drums, the brake rods and any other important part that could affect the safe operation of the hoist shall be checked by some form of non-destructive testing, such as ultrasound, X-ray or magnetic particle testing.

O.C. 213-93, s. 219.

220. The bolts and the various elements of which the hoisting plant is composed whose working loose constitutes a possible danger shall be kept in place by means of locking devices, in particular by locking pins, self-locking nuts and counterscrews.

O.C. 213-93, s. 220.

221. Before a hoist or an altered hoist is used for the first time to raise or lower persons, the registers prescribed by sections 344, 345, 347 and 397, and the tests and inspections of safety devices prescribed by sections 222, 302 and 326 shall be checked. The results of the tests and inspections shall be entered in the register of the work station concerning the hoisting equipment prescribed in section 344.

O.C. 213-93, s. 221.

222. Where a hoist is used, the conditions and operation of the entire hoisting plant, in particular, the brakes, the safety devices required in this Regulation, the interlocks, the clutches, the depth indicators, the signal system, the sheaves, the conveyances, the counterweights and the loading and unloading devices shall be checked at least once each week.

O.C. 213-93, s. 222; O.C. 465-2002, s. 13.

223. The results of the checks prescribed by section 222 shall be entered in the register of the work station concerning the hoisting equipment prescribed in section 344.

O.C. 213-93, s. 223.

224. Where a hoist is not used for one week, the checks prescribed by section 222 shall be made before the hoist is used for the transport of workers.

O.C. 213-93, s. 224.

225. At the beginning of his shift and before transporting persons, materials or equipment, the hoistman shall check that each braking device required in section 250 can stop and hold the maximum load suspended from the corresponding drum by trying each braking device according to a procedure established by an engineer or a body specializing in the field. He shall not disengage the hoist clutch before carrying out the tests.

The testing procedure shall be available at the hoistman's work station.

O.C. 213-93, s. 225; O.C. 639-2000, s. 1; O.C. 465-2002, s. 14; O.C. 119-2006, s. 19.

226. Where a pinion brake is used to meet the requirements of sections 233 and 250, it shall be tested in accordance with section 225, and if there is more than one, they shall be tested simultaneously.

O.C. 213-93, s. 226.

227. The operation of the overwind, auxiliary overwind, and upper and lower limit of travel switches shall be checked every day that the hoist is in use and the results of these checks shall be entered in the register of the work station concerning the operator of the hoist prescribed in section 347.

O.C. 213-93, s. 227; O.C. 1326-95, s. 46.

228. As long as there is a person underground, the hoistman shall remain at his work station or be near enough to be able to hear the hoist signal system or the bell of a telephone located inside the building housing the hoist or inside the shaft building, unless there is another mechanical means of transport to the surface available to such a person.

O.C. 213-93, s. 228; O.C. 1326-95, s. 47; O.C. 119-2006, s. 20.

§ 2. Compressed air or steam hoisting plant

229. A compressed air or steam hoisting plant shall have:

(1) a gauge that can be read by the operator when he is at the controls of the hoist and that continuously indicates the feed pressure;

(2) an overwind limit switch, controlled directly by the conveyance or the counterweight;

(3) an underwind limit switch;

(4) a manual intake cut-off valve;

(5) a manual exhaust cut-off valve.

O.C. 213-93, s. 229.

230. The switches prescribed by paragraphs 2 and 3 of section 229 shall activate an exhaust throttle governor which shall immobilize the hoist before the conveyance,

counterweight or rope attachments reach the sheave or any other obstacle in the shaft or headframe.

Notwithstanding the foregoing, during shaft sinking working, the lower limit of travel shall be adjusted to allow the conveyance to reach the bottom of the shaft but the length of cable that can be unwound after the conveyance has reached the bottom of the shaft shall be less than twice the circumference of the drum of the hoist.

O.C. 213-93, s. 230.

231. The speed of a compressed air or steam hoist may not exceed 2,5 metres (8,2 ft.) per second.

O.C. 213-93, s. 231.

§ 3. Electrical hoisting plant

232. An electrical hoisting plant shall be equipped with:

(1) a red manually operated emergency switch to cut off power from the hoist installed within the operator's reach when he is at the controls of the hoist and at any other place from which the hoist can be controlled;

(2) an overwind limit switch controlled directly by the conveyance or the counterweight;

(3) an upper and lower limit travel switch;

(4) an automatic overspeed protective device adjusted to the speed determined in subparagraph *a* of paragraph 1 of section 241 and of section 242;

(5) a manually operated backout device which, in the closed position, permits return to the overwind or underwind protection position;

(6) an amperemeter that the operator can read when he is at the controls of the hoist and continuously indicating the voltage of the engine of the hoist;

(7) protective devices against low voltages, overloads and short circuits;

(8) a limit switch for the braking mechanism;

(9) an instrument indicating the speed of the conveyance.

O.C. 213-93, s. 232; O.C. 1326-95, s. 48; O.C. 465-2002, s. 15.

233. An electric hoist shall be installed such that the power supply to the engine of the hoist is cut off, and the braking force necessary to immobilize the hoist is automatically applied:

(1) when the emergency switch is in the open position;

(2) when the conveyance or the counterweight travels beyond an overwind or upper and lower limit travel switch before the conveyance, the counterweight or the cable attachments can reach the headsheave or any other obstacle in the shaft or the headframe; however, during shaft sinking, the lower limit of travel shall be regulated to enable the hoist to reach the bottom of the shaft, but the length of rope that can be unwound after the hoist has reached the bottom of the shaft shall be less than twice the circumference of the hoist drum;

(3) when there is an interruption in electrical power supply to the hoist;

(4) when the automatic overspeed protective device is activated;

(5) when there is a preset drop in voltage;

(6) when there is a power overload exceeding by a preset percentage the power required for normal hoisting operations;

(7) when there is a short circuit in the electrical system of the hoist;

(8) before any part of the control mechanism of a brake reaches its limit of travel while the brake is being applied.

O.C. 213-93, s. 233; O.C. 1326-95, s. 49.

234. During the sinking of a shaft, the automatic overspeed protective device of an electrical hoist shall be adjusted so that the speed of the hoist is reduced to less than 30 % of the normal operating speed when the bucket is at the lower chair level and less than 3 metres (9,8 ft.) per second between the lower chair and the bottom of the shaft.

O.C. 213-93, s. 234.

235. Where an electrical hoist transports persons in a skip or a cage-skip assembly, an auxiliary overwind device shall be installed and operated. This device shall be adjusted so as to stop the conveyance before it reaches the dumping position.

Where the auxiliary overwind device is not automatically activated by the hoistman's signal system, it shall be installed so that the safety circuit opens when the hoistman operates the signal system.

If the auxiliary overwind device is automatically operated by the answering 3 bells of the hoistman, the circuit shall be designed so that the auxiliary overwind device does not fail if there is a defect in a relay coil.

O.C. 213-93, s. 235.

§ 4. Friction hoist

236. On a friction hoist a device shall be installed to synchronize the safety devices mentioned in paragraphs 3 and 4 of section 232 and sections 235, 241, 243 and 244 with the position of the conveyance.

O.C. 213-93, s. 236.

237. A friction hoist shall have a device causing application of the braking devices and stopping the hoist when:

(1) slipping produces a difference in speed of 2 metres (6,6 ft.) per second or more between the pulley and a rope;

(2) the loop of a tail rope rises one metre (3,3 ft.) or more;

(3) a hoist or a counterweight traverses 25 % of the upper retarding zone at its full rated speed.

O.C. 213-93, s. 237; O.C. 465-2002, s. 16.

237.1. Section 237 shall apply to a hoist controlled by a programmable electronic system, except for paragraphs 1 and 2.

O.C. 465-2002, s. 17.

238. The level of the water and the accumulated debris at the bottom of a shaft shall be constantly maintained at more than one metre (3,3 ft.) below the loop of a tail rope.

O.C. 213-93, s. 238.

239. In a shaft or a headframe served by a friction hoist, a retarding device shall be installed above the upper limit of travel and below the lower limit of travel of the conveyance and the counterweight, if any.

These devices shall brake and stop the conveyance and the counterweight, if any, before overwinding or before the underwind clearance below the lower limit of travel has been covered for its whole distance.

O.C. 213-93, s. 239.

240. Where persons are transported by means of a multirope friction hoist, the hoisting compartments shall have safety catches at the upper limit of travel. The catches shall hold the cage, the skip and the counterweight at full load if the hoisting rope should break.

O.C. 213-93, s. 240.

§ 5. Speed of hoists

241. Each drum or friction pulley of a hoist whose rope speed is 4 metres (13,1 ft.) per second or more shall be equipped with:

(1) safety devices, automatically controlled by the drum or the friction pulley and causing the driving power to the hoist motor to be cut off and the automatic application of the brakes to the drum or to the friction pulley either:

(a) before the speed of the cable reaches 120 % of the maximum operating speed; or

(b) when the conveyance or the counterweight moves beyond the preset upper and lower limits in the shaft or the headframe prescribed in paragraphs 2 and 3 of section 232;

(2) a sound warning device automatically informing the hoistman that the speed of the conveyance or the counterweight is approaching the speed limit for that part of the shaft or the headframe.

O.C. 213-93, s. 241; O.C. 1326-95, s. 50.

242. When transporting persons, a conveyance shall travel at a speed of less than 8 metres (26.2 ft.) per second.

A greater speed that does not exceed the rated speed of the conveyance is permitted for the transportation of persons if

(1) alignment tests are carried out on the shaft guides with a decelerometer and recorded at intervals not exceeding 6 months ; an alignment test is also required following any incident damaging the shaft structure ; and

(2) the results of the tests performed at the speed referred to in the second paragraph with a load corresponding to the maximum number of persons permitted in the conveyance show a deceleration lower than 0.5 G in the vertical, lateral and longitudinal axes.

Where the rated speed of the conveyance is greater than 8 metres (26.2 feet) per second, a speed limiting device must be installed to be activated automatically when the hoistman responds to a 3-bell signal.

O.C. 213-93, s. 242; O.C. 460-2000, s. 22; O.C. 119-2006, s. 21.

§ 6. Depth indicator and warning device

243. A hoist shall have a depth indicator continuously showing the hoistman the position of the conveyance and the counterweight in the shaft and the headframe. In case the electrical supply breaks down, that indicator shall show the position of the conveyance and the counterweight for at least 1 hour and return to the value corresponding to the return current.

O.C. 213-93, s. 243; O.C. 465-2002, s. 18.

244. Where the depth of a shaft exceeds 100 metres (328,1 ft.), a sound warning device shall inform the hoistman that the conveyance is approaching a deceleration zone.

O.C. 213-93, s. 244.

§ 7. Brakes

245. The brakes of a hoist shall operate independently from the energy that powers the machine and be designed to allow them to be tested separately.

The brake controls shall be arranged so that they can be activated by the hoistman directly from his hoist post.

O.C. 213-93, s. 245.

246. Where a hoist shall be equipped with a braking device on the pinion shaft in accordance with the standards prescribed in sections 233 and 250, the braking device shall be capable of stopping and holding any drum or friction pulley bearing its maximum load.

O.C. 213-93, s. 246; O.C. 465-2002, s. 19.

247. A loss of fluid pressure in a hydraulic or pneumatic braking system may not cause the brakes of the hoist to become loose or impede their application.

O.C. 213-93, s. 247.

248. The emergency braking system of a hoist used for the transport of persons may not produce any deceleration greater than 7,5 metres (24,6 ft.) per second squared.

In the case of a hoist installed starting from 1 April 1993, the deceleration shall be less than 5 metres (16,4 ft.) per second squared if it occurs at a speed greater than 3 metres (9,8 ft.) per second and shall be less than 7,5 metres (24,6 ft.) per second squared if it occurs at a speed of 3 metres (9,8 ft.) or less per second.

O.C. 213-93, s. 248; Erratum, 1993 G.O. 2, 2603.

249. The emergency braking system of a hoist shall be designed so that the emergency brakes cannot be locked in the release position following opening of the safety circuit of the hoist, unless the service brakes exert their total force. It shall not be possible to close the safety circuit if the services brakes are not fully applied.

O.C. 213-93, s. 249; O.C. 1326-95, s. 51.

250. Where a hoist is used to transport persons, materials or equipment or during shaft sinking work, it shall have at least 2 separate braking devices that are activated by independent systems.

However, a machine with 2 drums, even if not equipped with a pinion brake, may be used single drum:

(1) to bring up persons if a break prevents the balanced use of the hoist and there is no other mechanical means of evacuating those persons;

(2) during shaft inspections or maintenance work; the persons may then remain in or on the conveyance suspended from the fixed or clutched drum when changing balance;

(3) to transport material during shaft maintenance work.

For the purposes of the first paragraph, a throttle controlled exhaust of a compressed air or steam hoist is considered to be a second means of braking.

O.C. 213-93, s. 250; O.C. 1326-95, s. 52; O.C. 465-2002, s. 20; O.C. 119-2006, s. 22.

251. The braking devices and clutch of a drum hoist shall be interlocked mechanically such that it is impossible to unclutch a drum unless the brakes of the drum are applied and kept on until the clutch of the drum is fully engaged. They shall also have a locking mechanism preventing the disengagement of any clutch from starting until the braking devices have been applied on both drums.

O.C. 213-93, s. 251; O.C. 465-2002, s. 21.

252. On a drum hoist, a belt-type friction clutch is prohibited unless its action is neutralized by a locking mechanism between the drive part and the driven part.

O.C. 213-93, s. 252.

§ 8. Automatically or semi-automatically controlled hoists

253. A device for selecting manual, automatic or semi-automatic controls shall be installed in the same place as the manual controls.

The programmable monitoring electronic system may only be connected to a communication network that is required for its own operation.

If changes to the programming or operating parameters must be made from a distance, safety measures must be set up to ensure that those changes show a level of safety equivalent to that provided for if such measures were made within sight of the hoist.

O.C. 213-93, s. 253; O.C. 465-2002, s. 22.

254. Where a hoist can be controlled from control panels located in shaft stations or in a conveyance, the control selection device shall be designed so that it can be operated only when the conveyance is stopped at a shaft station and only from that place.

O.C. 213-93, s. 254.

255. Devices for semi-automatic installations installed in shaft stations for the purpose of determining the destination of the conveyances and for starting up a hoist shall be designed so that they can be operated only at the station where the conveyance is stopped, unless the installation was designed for the use of a call device in the conveyance.

O.C. 213-93, s. 255; O.C. 1326-95, s. 53.

256. Except during the operation to align a hoist with the floor of a shaft station:

(1) the devices installed in the shaft stations for starting up a hoist shall be designed so that they can be operated only when the gate of the shaft is closed at the level where the conveyance is stopped;

(2) there shall be a minimal delay of 5 seconds between the operation of any shaft station device to initiate hoist motion and the actual motion.

O.C. 213-93, s. 256.

257. A device installed in a shaft station and used to control the start-up of the hoist shall be located so that it can be operated from the inside of a conveyance stopped at the shaft station.

O.C. 213-93, s. 257.

258. A device installed in a shaft station and used to adjust the level of a conveyance with the floor of a shaft station shall be located so that it cannot be operated from the inside of a conveyance.

O.C. 213-93, s. 258.

259. Except for the operation consisting of adjusting the level of a cage with the floor of a shaft station, the devices installed in a cage for the purpose of controlling the start-up of the hoist shall be designed so that they can be operated only when the cage doors are closed.

O.C. 213-93, s. 259.

260. If an emergency stop occurs during automatic or semi-automatic hoisting, an alarm signal shall sound and the hoist shall be operated only manually until the defect has been corrected. Thereafter, at least one complete cycle of descending and rising shall be made manually with the hoist.

O.C. 213-93, s. 260.

260.1. Where a hoist is controlled by a programmable electronic system, a continuous alternate supply source shall be provided to ensure the operation of the control in case the electrical supply breaks down, in order to adjust the deceleration until the hoist comes to a complete stop. The operation of that alternate supply source shall self-check itself.

O.C. 465-2002, s. 23.

261. Whenever a hoist is controlled automatically or semi-automatically, a hoistman shall be present at the manual controls of the hoist for at least one complete cycle of descending and rising.

O.C. 213-93, s. 261.

262. Whenever a 9-bell danger signal is given, a hoistman shall go to the manual controls of the hoist and shall be ready to take over the manual control when the conveyance tender asks him to do so.

O.C. 213-93, s. 262.

§ 9. Signal and communications systems

263. A signal system allowing communication between the hoistroom and any shaft station or level where the conveyances can stop shall be installed for each hoisting compartment. Signals issued by means of such a system shall comply with the signal codes prescribed in sections 269 and 277 and shall be different:

(1) from the other ambient signals;

(2) from one hoist to another, where there is more than one hoist the shaft.

During inspections or shaft maintenance work, a radiotelephone communication system may be used where:

(1) the provisions of sections 264 to 280 are complied with;

(2) the system operates throughout the shaft;

(3) a signal device linked to the system provided for in the first paragraph is available to workers in the shaft.

O.C. 213-93, s. 263; O.C. 1326-95, s. 54; O.C. 1236-98, s. 14.

264. Only authorized workers may issue the signals prescribed in section 263.

The names of the workers mentioned in the first paragraph shall be entered on a list. The list shall be posted as updated at the workstation of the hoistman.

This section does not apply to shaft sinking work.

O.C. 213-93, s. 264.

265. The signal system prescribed in section 263 shall allow the hoistman to respond to the person giving the signal by repeating it.

O.C. 213-93, s. 265.

266. The hoistman shall return all signals before raising or lowering persons or equipment.

O.C. 213-93, s. 266.

267. In shaft sinking operation, signals shall be visible to workers at the bottom of the shaft.

O.C. 213-93, s. 267.

267.1. A voice communication system must be established in shaft sinking operations in accordance with a specific procedure for the use of auxiliary hoists to move heavy equipment used at the bottom of the shaft, such as a work platform, a clamshell or a boom drill. This procedure must also require that the hoistman repeat the instructions.

This communication system must be separate from the system referred to in the second paragraph of section 263.

O.C. 42-2004, s. 14.

268. When signals are issued from a conveyance, the signalling device shall be within the reach of the conveyance tender.

Where signals are given by means of a rope, its length may not exceed:

(1) 25 metres (82 ft.) for shaft sinking operation;

(2) 50 metres (164 ft.) for shaft inspection.

O.C. 213-93, s. 268.

269. The signal code prescribed by Schedule II shall be used for moving a conveyance in any underground mine using a hoist.

O.C. 213-93, s. 269; O.C. 42-2004, s. 15.

270. Strokes on the bell shall be given at regular intervals.

O.C. 213-93, s. 270.

271. When persons are raised or lowered by means of a hoist, the signals shall be given in the following order:

(1) warning signal;

(2) destination signal;

(3) executive signal.

O.C. 213-93, s. 271.

272. The hoistman shall wait at least 3 seconds before starting up the conveyance after receiving an execution signal whenever the transport of persons is involved. If it is not possible to act within one minute of the reception of a complete signal, he shall operate the hoist only after receiving a complete signal again.

O.C. 213-93, s. 272.

273. When the hoistman receives a 3-bell signal, he may not respond until he has applied the service brakes of the hoist. He shall then remain at the hoist control.

However, in the event of shaft maintenance work and in other circumstances requiring a lengthy stop, the hoistman may leave the hoist control after having received a 3-bell signal under the following conditions:

(1) if the hoist power supply is turned off; and

(2) the hoistman remains inside the room housing the hoist control.

O.C. 213-93, s. 273; O.C. 1236-98, s. 15.

274. When the hoistman receives a 5-bell signal, he may perform any operation with the conveyance.

O.C. 213-93, s. 274.

275. The 9-bell alarm signal may be used only in case of accident, fire, infiltration, flood, landslide or other event of a similar nature. The destination signal for the level on which the danger exists shall be given after the alarm signal. These signals shall be given by telephone or by the conveyance calling device.

However, where these communication systems cannot be installed, the signal system mentioned in section 263 may be used.

O.C. 213-93, s. 275.

276. After receiving an execution signal, the hoistman may not interrupt the requested operation after having begun unless he receives a stop signal or the operation could endanger the health and safety of the workers in the conveyance.

O.C. 213-93, s. 276.

277. The destination signals added to the signal code prescribed in section 269 shall comply with Schedule III.

O.C. 213-93, s. 277.

278. The destination signals of the intermediate levels or sublevels or shaft stations that are secondary stops owing to their location between the level shaft stations set at nearly uniform intervals for operating purposes shall be determined by using the destination signal of the shaft station at the main level located immediately above, followed by the signal corresponding to the number assigned to each sublevel.

O.C. 213-93, s. 278.

279. The numbering of each level shall be independent from one shaft to the next, and the number assigned to each level of a particular shaft shall correspond to the order actually occupied by that level in relation to the other levels of the shaft starting from its outlet.

O.C. 213-93, s. 279.

280. The signal codes prescribed in sections 269 and 277 shall be posted at the work station of the hoistman and at each shaft station or other level where such signals may be given or received.

O.C. 213-93, s. 280.

281. Where a hoist is used in an open pit mine and the conveyance is not visible to the hoistman, a signal system shall be installed to direct the operations of the hoist.

O.C. 213-93, s. 281.

282. In a shaft where a conveyance calling system is installed, it may not be connected to the hoistroom.

O.C. 213-93, s. 282.

283. A telephone connecting the surface to all the shaft stations and other levels used, including the loading hoppers, shall be installed in each underground mine.

The telephone bell may not be used as a conveyance calling device.

During shaft sinking work, the telephone shall be extended to the blasting set.

A telephone connection jack for the mine rescue teams shall be installed near each telephone station.

O.C. 213-93, s. 283.

§ 10. Ropes

284. Each hoisting rope, a tail rope, a rubbing rope or a guide rope in service shall be accompanied by a manufacturer's certificate giving the following particulars:

(1) manufacturer's name;

(2) the serial number of the coil or reel containing the rope before its installation;

(3) its date of manufacture;

(4) its diameter and circumference in millimetres;

(5) its mass in kilograms per metre;

(6) the type of construction;

(7) the number of strands;

(8) the number of wires per strand;

(9) the class of core;

(10) the brand name of its interior lubricant;

(11) the diameter of the wires in millimetres;

(12) the results of a torsion test on its wires taken individually;

(13) the breaking load of the steel of which its wires are made, in kilograms per square millimetre;

(14) its length in metres.

O.C. 213-93, s. 284; O.C. 1326-95, s. 55.

285. The certificate prescribed in section 284 shall be accompanied by a report on the breaking test of a rope specimen conducted by a laboratory specializing in breaking tests and independent of the rope manufacturer, and a copy of the documents shall be kept on the mine site.

O.C. 213-93, s. 285.

286. A rope specimen used in a breaking test shall:

(1) be at least 2,5 metres (8,2 ft.) in length;

(2) be fastened at both ends;

(3) be removed from above the attachment of the conveyance or the counterweight if the rope is in use.

O.C. 213-93, s. 286.

287. When a breaking test is performed on a rope manufactured in a continuous operation, a rope specimen removed from between 2 ropes may be used to test the 2 ropes.

O.C. 213-93, s. 287.

288. When new, a hoisting rope installed on a drum hoist shall have a safety factor that meets the following minimum requirements:

(1) subject to paragraph 2, at least 8,5 at the end of the rope attached to the counterweight or conveyance and having a service load consisting of the mass of the conveyance added to the maximum mass that can be transported in it;

(2) at least 7,5 at the end of the rope attached to the counterweight or to the skip and having a service load consisting of the mass of the skip added to the maximum mass than can be weighed;

(3) at least 5,0 at the headsheave when the conveyance or counterweight is at the lower limit of travel in the shaft, the service load then consisting of the mass of the counterweight or conveyance added to the maximum mass that can be transported in it and the mass of the part of the rope located between the headsheave and the conveyance.

O.C. 213-93, s. 288; O.C. 1236-98, s. 16.

288.1. Despite section 288, the minimum safety factor of a new hoisting rope installed on a drum hoist used in a vertical shaft is determined according to the following formula :

minimum safety factor = 25,000/4,000 + L

(L being the maximum length of rope in metres suspended below the head sheave where the conveyance is at the lower limit of travel).

In such a case, the following standards must also be met :

(1) the drum hoist must comply with SABS Standard 0294 :2000, Code of Practice for the Performance, Operation, Testing and Maintenance of Drum Winders relating to Rope Safety, subject to the adaptation guide of South African Standard SABS0294 :2000 in accordance with the Mine Occupational Health and Safety Regulation published by the Mining and Mineral Sciences Laboratories, MMSL-CANMET ; and

(2) the hoisting rope must be used, maintained and checked in accordance with SABS Standard 0293 :1996, Code of Practice for the Condition Assessment of Steel Wire Ropes on Mine Winders, subject to the adaptation guide of South African standard SABS0293 :1996 in accordance with the Mine Occupational Health and Safety Regulation published by the Mining and Mineral Sciences Laboratories, MMSL-CANMET.

However, the minimum safety factor of a new hoisting rope shall not be reduced to less than 4,0 at the head sheave during the 2 years following 12 February 2004.

O.C. 639-2000, s. 2; O.C. 42-2004, s. 16.

289. A hoisting rope installed on a friction hoist shall have a safety factor when new of at least 5,5, or, as calculated according to the following formula, taking the highest possible value:

Safety factor = 9,5 - 0,00246 L

(L being the maximum length in metres of rope suspended below the pulley).

O.C. 213-93, s. 289.

290. The safety factor for a multirope friction hoist shall be calculated by the breaking load of the weakest hoisting rope multiplied by the number of ropes and divided by the sum of the masses of the conveyance, the attachments, the ropes suspended in the shaft compartment and the maximum mass that can be transported in the conveyance.

O.C. 213-93, s. 290.

291. The safety factor when new of a tail rope shall be at least 7.

O.C. 213-93, s. 291.

292. The safety factor when new of a guide rope and a rubbing rope shall be at least 5.

O.C. 213-93, s. 292.

293. A hoisting rope or a tail rope shall be withdrawn from service when:

(1) during a breaking test, the stretch of a rope specimen has been reduced to less than 60 % of its stretch recorded during its breaking test when new;

(2) the number of broken wires in a segment of rope equal to the length of one lay of the rope is more than 5 % of the total number of wires in the rope;

(3) in the case of a hoisting rope, the breaking load or the loss of cross-section at any point is at least 10 % less than its condition when new, unless the damaged part of the rope can be entirely removed and the remainder of the rope meets the requirements of this section;

(4) in the case of a tail rope, an electromagnetic examination indicates a loss of cross-section of 12 % or more at any point for a deformed rope and 25 % for an undeformed rope;

(5) the loss of torsion strength exceeds 85%, unless an independent specialized enterprise performs electromagnetic inspections at intervals the enterprise determines and the inspections are documented.

O.C. 213-93, s. 293; O.C. 119-2006, s. 23.

294. A guide rope or a rubbing rope shall be withdrawn from service when an electromagnetic examination indicates a loss of resistance of 25 % or more at any point of the rope.

O.C. 213-93, s. 294.

295. A hoisting rope of a drum hoist shall:

(1) be subjected to a breaking test during the first 12 months after it is put into service and subsequently at intervals not exceeding 6 months; however, where a breaking test reveals a loss of resistance of more than 6 %, that interval shall be reduced to 3 months. Six months after its installation, the part of the rope forming the attachment to the conveyance or counterweight must be cut and discarded;

(2) be subjected to an electromagnetic examination at intervals not exceeding 6 months. Where an electromagnetic examination reveals a loss of cross-section of more than 6 %, that interval shall be reduced to 3 months;

(3) where it is used during shaft sinking work, be subjected to a breaking test at intervals not exceeding 6 months; however, where a breaking test reveals a loss of resistance of more than 6 %, that interval shall be reduced to 3 months.

Subparagraph 3 of the first paragraph applies to the hoisting rope of a friction hoist.

O.C. 213-93, s. 295; O.C. 465-2002, s. 24.

295.1. Notwithstanding subparagraph 1 of the first paragraph of section 295, where the expected life of a hoisting rope of a drum hoist is less than 15 months, the rope shall undergo an electromagnetic examination at intervals not exceeding 3 months and a breaking test at intervals not exceeding 6 months after it is put into service.

For the purposes of this section, the expected life of a hoisting rope of a new installation of a drum hoist or of a change in such a hoist that may affect the life of the rope is considered to be less than 15 months.

O.C. 465-2002, s. 25.

296. A tail rope shall be subjected to an electromagnetic examination during the first 12 months after it is put into service and at intervals not exceeding 6 months

thereafter.

Where an electromagnetic examination reveals a loss of cross-section of more than 8 %, that interval shall be reduced to 3 months.

O.C. 213-93, s. 296.

297. A guide rope and a rubbing rope shall be subjected to an electromagnetic examination during the first 12 months after being put into service and at intervals not exceeding 6 months thereafter.

Where an electromagnetic examination reveals a loss of cross-section of more than 15 %, that interval shall be reduced to 3 months.

O.C. 213-93, s. 297.

298. A hoisting rope of a drum hoist shall be fixed to the drum in accordance with the manufacturer's instructions, and at least 3 complete turns of the rope shall remain on the drum when the conveyance or the counterweight is at the lowest level it can reach in the shaft.

O.C. 213-93, s. 298.

299. In the clamped rope attachments between the hoisting rope and the conveyance or the counterweight, these attachments shall be made in accordance with the specifications in Schedule V. The length of the thimble shall be at least 12 times the diameter of the rope and its width shall be at least 8 times the diameter of the rope.

O.C. 213-93, s. 299; O.C. 1326-95, s. 56.

300. Where «U» clamps are used, the «U» part of the clamp shall be located on the dead end of the rope.

O.C. 213-93, s. 300.

301. The suspension gear between a conveyance or a counterweight and a hoisting rope or a tail rope, and the attachment devices between a cage and a skip shall have a static safety factor of at least 10 when new.

O.C. 213-93, s. 301.

302. After a rope is installed and cut and before operation of the hoist is resumed, the following standards shall be respected:

(1) 2 complete descending and rising cycles shall be performed with an empty conveyance;

(2) the tightening torque of the clamps and the absence of slipping in the attachment shall be checked;

(3) 2 complete descending and rising cycles shall be performed while the conveyance is carrying its maximum load of materials; before those 2 cycles are carried out, the use of the hoist to lower a conveyance tender is authorized;

(4) the checks prescribed in paragraph 2 shall be carried out a second time.

O.C. 213-93, s. 302.

303. A spliced rope may not be used as a hoisting rope, tail rope, guide rope or rubbing rope.

O.C. 213-93, s. 303.

304. A hoisting rope may not be reversed.

O.C. 213-93, s. 304.

304.1. Where hoisting ropes and tail ropes are stored for more than 5 years after their date of manufacture, they shall be subjected to non-destructive testing prior to being installed.

O.C. 1326-95, s. 58.

304.2. Any used rope that is used as a hoisting rope or tail rope in a mine shall be subjected to a non-destructive test prior to being reinstalled and shall be accompanied by the manufacturer's certificate and by all the reports on non-destructive tests and breaking tests carried out in the period prior to the rope's most recent withdrawal from service, and by the information prescribed in sections 345 and 346.

O.C. 1326-95, s. 58.

305. Any hoisting rope or tail rope and their attachments shall be:

(1) examined visually at least once per day of use in order to detect any visible deterioration;

(2) examined at least once a week in order to ensure that the rope is lubricated, to detect any deterioration, including the part of the rope that normally rests on the drum and its attachment to the drum and its attachment to the conveyance or the counterweight;

(3) examined at least once per month at intervals not exceeding 45 days; for this purpose, the rope shall be cleaned at cross-over points and at least every 100 metres (328,1 ft.); at all such points, the diameter of the rope shall be measured and its surface examined to detect broken wires or other defects.

O.C. 213-93, s. 305.

306. Every hoisting rope of a drum hoist and every tail rope of a friction hoist shall be lubricated at least once per month.

O.C. 213-93, s. 306.

307. The results of the examinations and measurements prescribed in section 305 and the lubrications prescribed in section 306 shall be entered in the register of the work station concerning the hoisting equipment prescribed in section 344.

O.C. 213-93, s. 307.

308. During shaft sinking, the bucket may not be attached under a cage or a skip.

O.C. 213-93, s. 308.

309. In any winding layer superimposed on a drum, the rope shall rise gradually from one layer to another and shall wind without cutting down between the turns of the previous winding.

O.C. 213-93, s. 309.

310. No rope of a friction hoist shall slide on the pulley when the hoist is stopped or started.

O.C. 213-93, s. 310.

§ 11. Diameter of drums, pulleys and headsheaves

311. The installation of a drum hoist or an alteration made to such a hoist to increase the maximum suspended load may only be carried out where:

(1) the drum used with more than one layer of rope and with a diameter exceeding 1 550 millimetres (61 in.) is equipped with grooving fitting the rope; however, during shaft sinking work, preparatory work or temporary work is in progress, the use of a plain drum hoist is authorized;

(2) the winding of the rope on the drum does not exceed 3 layers of superimposed turns when the drum is plain or there is spiral grooving and does not exceed 4 layers of superimposed turns when the grooving is parallel;

(3) the diameter of the drum complies with the standards prescribed in the following table when shaft sinking work, preparatory work or temporary work is in progress;

Diameter of rope		Minimum diameter of drum in	
millimetres	(inches)	millimetres	(inches)
16	(0.6)	760	(29.9)
19	(0.7)	910	(35.8)
22	(0.9)	1 070	(42.1)
26	(1.0)	1 220	(48.0)
29	(1.1)	1 520	(59.8)
32	(1.3)	1 830	(72.0)
35	(1.4)	2 080	(81.9)
38	(1.5)	2 290	(90.2)
41	(1.6)	2 440	(96.1)
44	(1.7)	2 540	(100.0)
48	(1.9)	2 790	(109.8)
51	(2.0)	3 050	(120.1);

(4) the diameter of the drum complies with the standards prescribed in the following table for work other than work mentioned in paragraph 3:

Diameter of rope		Minimum diameter of drum in	
millimetres	(inches)	millimetres	(inches)
16	(0.6)	910	(35.8)
19	(0.7)	1 070	(42.1)
22	(0.9)	1 220	(48.0)
26	(1.0)	1 520	(59.8)
29	(1.1)	1 830	(72.0)
32	(1.3)	2 440	(96.1)
35	(1.4)	2 740	(107.9)
38	(1.5)	3 050	(120.1)
41	(1.6)	3 300	(129.9)
44	(1.7)	3 560	(140.2)
48	(1.9)	3 810	(150.0)
51	(2.0)	4 060	(159.8).

Subparagraph 2 of the first paragraph does not apply to shaft sinking work, where the maximum number of layers of rope shall be such that the distance between the flanges of the rope drum and the last layer of rope is at least twice the diameter of the rope.

O.C. 213-93, s. 311; O.C. 1326-95, s. 59.

312. The diameter of the pulley of the friction hoist may not be less than 80 times the diameter of the hoisting rope except when a locked-coil wire rope is used, in which case the diameter of the pulley may not be less than 100 times the diameter of the locked-coil wire rope.

O.C. 213-93, s. 312.

313. The diameter of a headsheave and a deflection sheave shall comply with the standards prescribed for the drums in the table in paragraphs 3 and 4 of section 311.

O.C. 213-93, s. 313.

314. The radius of curvature of the bottom of the groove of a headsheave and a deflection sheave shall be at least 5 % greater than the rated radius of the rope.

O.C. 213-93, s. 314.

§ 12. Conveyances

315. A conveyance may not be used for the first time without a certificate of strength being obtained from an engineer, containing the following particulars:

(1) the maximum mass that can be transported in the conveyance;

(2) the maximum mass that can be suspended below it, in the case of a cage.

The certificate shall be kept on the mine site.

O.C. 213-93, s. 315.

316. Except for shaft sinking work and subject to section 317, where the depth of a vertical shaft exceeds 60 metres (196,9 ft.), it shall be equipped with a cage for raising and lowering workers at each change of shift. The cage shall meet the standards set out in sections 323 to 325, have metal side walls with doors and be independent from any motorized device for the transport of persons described in section 53.

O.C. 213-93, s. 316; O.C. 460-2000, s. 23.

317. If, owing to an accident or a breakdown, the workers working underground are brought to the surface in a skip, the rate of ascent of the skip may not exceed 5 metres (16,4 ft.) per second, and the switch for the upper range of travel or the auxiliary overwind device, whichever applies, shall be adjusted so as to prevent the skip from reaching the dumping point.

O.C. 213-93, s. 317.

318. Where, during sinking a vertical shaft, the depth of the shaft exceeds 50 metres (164,0 ft.), a bucket and a sinking crosshead shall be used.

O.C. 213-93, s. 318.

319. A sinking crosshead shall:

(1) have a safety device designed to hold back the bucket when the sinking crosshead is stuck;

(2) be designed to prevent the bucket connected to it from swinging;

(3) when it is used to raise or lower persons, be equipped with a protective roof made of sheet steel having a thickness of at least 4 millimetres (0,2 in.) or a material having equivalent strength;

(4) designed so that the opening of its lower part is circular to enable the bucket to fit into it.

O.C. 213-93, s. 319.

320. In a compartment of a shaft where a sinking crosshead is used, a device causing the hoist to stop automatically shall be installed less than 50 metres (164,0 ft.) from the upper stopper. The device shall be adjusted so that it is operated by the safety arm of the sinking crosshead if it does not return to its interlocked position after leaving the upper chair.

In a compartment of a shaft where a sinking crosshead and a bucket are used, a device autmatically causing the hoist to stop shall be installed in case the bucket leaves the upper chair level in the descending direction without being accompanied by the crosshead. This device shall be designed to cause the hoist to stop automatically when the bucket descends to less than 3 metres (9,8 ft.) from the chair engaging position and the dump door does not protrude into the hoisting compartment.

O.C. 213-93, s. 320.

321. A luminous signal shall be installed to indicate to the hoistman whether the upper chair is in chairing position or not.

O.C. 213-93, s. 321.

322. A sinking crosshead shall be held by a least 2 chairs on the lower section of the timbering.

O.C. 213-93, s. 322.

323. It is prohibited to transport a person in a cage or a skip travelling in a vertical shaft or one inclined more than 60 degrees from the horizontal unless the cage or the skip:

(1) moves on guides;

(2) is equipped with safety catches designed to immobilize the cage or the skip operating at the maximum load permitted for the transport of persons, in case of the breaking of the hoisting rope;

(3) is equipped with a protective roof made of sheet steel having a thickness of at least 4 millimetres (0,2 in.) or a material of equivalent strength.

Notwithstanding the foregoing, paragraph 2 does not apply to a skip when it is used for inspections and maintenance work in a shaft or of a skip or cage of a friction hoist.

O.C. 213-93, s. 323.

324. The doors of a cage shall be:

(1) closed during the transport of workers;

(2) equipped with a device preventing them from opening accidentally;

(3) designed so that the cage is completely closed when the doors are shut.

O.C. 213-93, s. 324.

325. The doors of a cage shall be installed so that no part of them can protrude into the shaft.

O.C. 213-93, s. 325.

326. Before using a newly installed cage, a skip or a skip-cage combination intended for transport of persons or one whose safety catches or mass has been altered, a free-fall test shall be carried out. The following data concerning the test shall be noted and kept on the mine site:

(1) the maximum speed at which the conveyance travelled during the test;

(2) the mass of the conveyance;

(3) the load contained in the conveyance;

(4) the total distance of the conveyance's fall;

(5) the distance travelled by the conveyance after the safety catches engage.

Where the cage, skip or cage-skip assembly that the employer wishes to use is similar to a cage, a skip or a cage-skip assembly already tested in accordance with the first paragraph, a quick release test is sufficient.

O.C. 213-93, s. 326.

327. Where the equipment mentioned in section 326 is used daily, the safety catches and the devices operating them shall be examined at least once every 24 hours to ensure that the catches are clean and sharp and that the devices are correctly adjusted and operate freely.

If the equipment is not used every 24 hours, the examinations shall be made before it is used for the transport of persons.

The results of the examinations shall be noted in the register of the work station concerning the hoisting equipment prescribed in section 344.

O.C. 213-93, s. 327.

328. At least once every 3 months, the safety catches shall undergo a quick release test.

O.C. 213-93, s. 328.

329. The data relative to the quick release test, including that relative to the total distance the conveyance falls and the distance travelled by the conveyance after the safety catches engage, shall be noted in the register of the work station concerning the hoisting equipment prescribed in section 344.

O.C. 213-93, s. 329.

330. Where a skip equipped with a tipper tub or a door protruding out of the shaft compartment leaves its dumping point while the locking mechanism of its unloading device is not locked, a switch installed under the dumping point of the skip shall suppress the driving power of the hoist and cause it to brake.

O.C. 213-93, s. 330.

331. The number of persons permitted in a conveyance may not exceed the smaller of the following whole numbers:

(1) the number obtained by multiplying the area in square metres of the floor of the conveyance by;

(a) 5,25, where the surface of the floor is 1,86 square metres (20 sq. ft.) or less;

(b) 6,25, where the surface of the floor is greater than 1,86 square metres (20 sq. ft.) but less than 4,64 square metres (50 sq. ft.);

(c) 7,1, where the surface of the floor is 4,64 square metres (50 sq. ft.) or more;

(2) the number obtained by dividing by 80 the number corresponding to 85 % of the maximum load in kilograms that could be suspended from the hoisting rope when materials are being transported.

O.C. 213-93, s. 331; O.C. 1326-95, s. 60; O.C. 119-2006, s. 24.

332. A notice indicating the maximum number of persons it is permitted to transport and the maximum mass of material to be loaded into a conveyance shall be posted on the gate of each hoisting compartment at the top station.

O.C. 213-93, s. 332; O.C. 1326-95, s. 61.

333. It is prohibited to transport a person simultaneously with rails, drill steel, pipes, scaling bars, rock bolts, or other objects of that nature in a skip or bucket, except where such objects are transported by means of a cage, in which case a maximum of 2 workers may be transported simultaneously with these objects if the cage is completely closed and the objects are fixed.

O.C. 213-93, s. 333.

334. A worker may carry with him portable tools or manually transportable materials in a conveyance provided that the dangerous parts of such articles are fitted with sheaths, protectors or other items of the same kind.

O.C. 213-93, s. 334.

335. Rails, drills, pipes, scaling bars, rock bolts or other objects of the same kind shall be fixed in place by a chain, rope, sling or belt when they are transported in a conveyance.

O.C. 213-93, s. 335.

336. Subject to sections 333, 334 and 432, the simultaneous transport of persons and equipment in the same hoist is prohibited.

O.C. 213-93, s. 336.

337. It is prohibited to give the signal to raise or lower a bucket in a shaft without making sure that the bucket has ceased swinging.

O.C. 213-93, s. 337.

338. A person transported by means of a bucket shall remain inside it.

O.C. 213-93, s. 338.

339. During shaft sinking work, the conveyance used for the transport of persons to the site where blasting took place shall be immobilized 25 metres (82,0 ft.) above the site of the blasting.

From this level, a descent of such a conveyance may be made only following signals sent from the conveyance and at a speed not exceeding 2 metres per second (380 ft. per minute).

After blasting, only those persons required for examining the shaft may be transported in the conveyance.

O.C. 213-93, s. 339.

340. During shaft sinking work, the conveyance may not be lowered directly to the bottom of the shaft but shall be held at least 5 metres (16,4 ft.) above the bottom until the signal for descent is given.

O.C. 213-93, s. 340.

341. Where hoisting has been interrupted in a shaft for longer than 2 hours or repairs have been carried out on the hoist or in the hoisting compartments, no person may be lowered or raised before the conveyance has made a complete lowering and raising cycle in the part of the shaft served by this hoist and the lowering and raising cycles so completed shall be noted in the register of the work station concerning each hoist prescribed in section 347.

O.C. 213-93, s. 341.

342. Subject to section 250, no person may remain inside or on a conveyance or maintain, repair or alter a conveyance in a shaft or its headframe, unless the drum or the friction pulley of the hoist is retained by at least 2 separate methods of braking or the conveyance is supported by means independent of the hoist.

O.C. 213-93, s. 342.

343. Any worker shall have completed at least 160 hours of practical training with a hoistman before using a hoist for the first time for raising or lowering workers or for sinking a shaft.

O.C. 213-93, s. 343.

§ 13. Registers

344. The register for the work station concerning each hoisting equipment used in a mine shall contain the following entries:

(1) the report of each inspection or maintenance prescribed by sections 54, 221, 222, 305 and 327 to 329;

(2) the report of any breakdown or accident to the hoist, the ropes, a conveyance or any other part of the hoisting plant and the corrective measures taken;

(3) the dates on which the ropes were greased;

(4) the signatures of the workers who made the entries prescribed in paragraphs 1 to 3 as well as that of the employer or his representative.

O.C. 213-93, s. 344; O.C. 1326-95, s. 62.

345. For each hoisting rope or tail rope used in a mine, the data required by sections 284 and 285, with the following additional particulars, shall be entered in the register of the work station concerning ropes:

(1) date of purchase;

(2) date of installation in its present place;

(3) identification of the shaft and the compartment in which it is in service;

(4) the mass of the conveyance or the counterweight intended to be suspended from it;

(5) the maximum mass intended to be transported in the conveyance;

(6) the mass of the maximum length of rope in service below the headsheave;

(7) its static safety factor.

O.C. 213-93, s. 345; O.C. 1326-95, s. 63.

346. In addition to the entries required under section 345, a record of the hoisting rope or tail rope mentioning the following information shall be entered in the register prescribed by that section:

(1) the date on which it was first installed;

(2) the dates of any cuttings and the results of the checks prescribed in section 302;

(3) the dates and a summary of all the breaking tests or non-destructive tests of the rope or of its wires taken separately;

(4) the date and reason for its withdrawal from service;

(5) the manner in which it was disposed of when withdrawn from service;

(6) the nature and date of any rope accident occurring while it was in service.

O.C. 213-93, s. 346.

347. The register of the work station of the operator of a hoist used in a mine shall contain the following entries for each hoist:

(1) the report on the operation of the hoist, including the brakes, the clutches, the interlocking devices between the brakes and the clutches, the position indicators and the other devices related to safe operation of the hoist;

(2) a report on the operation of the signal system, with a record of all the signals received by the hoistman whose correctness he questioned;

(3) any special instructions received concerning the safety of persons; these instructions shall be signed by the operator and by the person who gave such instructions;

(4) the report on the operation of the overwind, auxiliary overwind and the upper and lower limits of travel devices; if the daily tests required for such devices are performed by the hoistman on the preceding shift, the hoistman coming on duty shall certify by his signature that he has examined the entries of the hoistman who performed the tests;

(5) the report on any failure related to the functioning or operation of the hoist or its devices;

(6) the report on all the lowering and raising cycles required under sections 260, 302 and 341;

(7) the notices given to the hoistman on duty in the next shift relating to the operation of the hoist.

O.C. 213-93, s. 347; O.C. 1326-95, s. 64.

348. All the entries prescribed by section 347 shall be read and countersigned by the hoist operation on the next shift.

O.C. 213-93, s. 348.

349. The entries prescribed by section 347 shall be noted and signed by all the hoistmen for the duration of their shift on each hoist. The time and duration of their shifts shall be noted and the entries noted during the preceding 24 hours shall be read and countersigned each day by the employer or his representative.

O.C. 213-93, s. 349.

DIVISION VIII
VARIOUS INSTALLATIONS

§ 1. General

350. Each frog of a track shall be closed by a wedge of wood or metal.

O.C. 213-93, s. 350.

350.1. Where the boom of an excavator used to sink a shaft is left in the raised position, it shall be locked by means of at least 2 separate devices that are not part of the hydraulic or pneumatic system.

O.C. 1326-95, s. 65.

351. The path of a counterweight shall be surrounded by a casing or otherwise isolated so as to avoid any possible contact of the counterweight with a worker.

O.C. 213-93, s. 351.

§ 2. Hoisting plant

352. An overhead travelling crane on rails for general use, except a single beam travelling crane, shall comply with CSA B167-1964 Standard General Purpose Electric Overhead Travelling Cranes.

O.C. 213-93, s. 352.

353. It is prohibited to step onto the track of a travelling crane or carry out work thereon unless one of the following conditions is met:

(1) the main switch of the travelling crane is padlocked in the open position by the person who is to go onto the track, in order to avoid any accidental start-up of the travelling crane;

(2) the operator of the travelling crane is informed of the presence of a worker and the travelling crane cannot approach closer to him than 3 metres (9,8 ft.).

O.C. 213-93, s. 353; O.C. 1326-95, s. 66.

354. A travelling crane shall have a sound warning device that shall be used by the operator to warn workers to distance themselves from suspended loads.

O.C. 213-93, s. 354.

355. A travelling crane and its related equipment shall be inspected at least once each month.

A report of the inspection signed by the worker who made it shall be kept in the register of the work station concerning travelling cranes on the mine site.

O.C. 213-93, s. 355.

356. Any raise climber shall be equipped with:

(1) at least 2 independent braking systems, each one capable of stopping and holding the lift with the rated load;

(2) bumpers at each end of the track;

(3) a voice communication system connecting the raise climber cab with its access level;

(4) the tools required for putting it back on the rails if derailed;

(5) lanyards for each worker on it;

(6) deleted;

(7) a wooden chest or a cloth bag used exclusively for transporting detonators and microconnectors;

(8) an automatic speed governor that can keep the lift at a constant speed of descent;

(9) a rating plate;

(10) a protective roof complying with the manufacturer's specifications or offering equivalent or greater safety; the roof shall be installed so that it protects workers against falling rocks likely to become detached from the working face and the walls of the raise, except during drilling and loading of explosives into the work face.

O.C. 213-93, s. 356; O.C. 460-2000, s. 24.

357. The braking systems and the control devices of a raise climber shall be tested at the beginning of each shift before the climber travels in the raise.

O.C. 213-93, s. 357.

358. The drive shafts of a raise climber shall receive an ultrasound or X-ray examination before being put into service and subsequently at intervals not exceeding 4 000 hours of use. When one of these examinations detects a crack in a drive shaft, the shaft shall be replaced.

O.C. 213-93, s. 358.

359. A raise climber shall be inspected at least once a week.

O.C. 213-93, s. 359.

360. A report of the weekly inspections, maintenance and repairs of a raise climber signed by the worker who performed them and countersigned by the employer shall be kept in a register concerning the raise climbers on the mine site.

O.C. 213-93, s. 360.

361. A motorized device making it possible to reach a raise climber in an emergency shall be operational in the raise within 4 hours.

O.C. 213-93, s. 361; O.C. 1236-98, s. 17; O.C. 460-2000, s. 25.

362. It is prohibited to transport any person outside the cage of a raise climber except to inspect the walls of the raise and the dismantling of the installation, in which case a roof complying with section 393 shall be installed.

O.C. 213-93, s. 362.

363. It is prohibited to do any work with a raise climber unless at least 2 workers are present.

O.C. 213-93, s. 363.

364. The platform of a raise climber shall be designed so that the space between it and the walls surrounding it does not exceed 150 millimetres (5,9 in.).

O.C. 213-93, s. 364.

365. It is prohibited to leave a raise climber by any means other than a motorized device when the distance between the climber and the place of access to the raise exceeds 90 metres (295,3 ft.).

O.C. 213-93, s. 365.

366. In a raise excavated using a raise climber, weekly boring and scaling work on the walls shall be done on its whole length.

The results of this work, the date on which it was done and the names of the workers designated to do it shall be noted in the register of the work station concerning raise climbers.

O.C. 213-93, s. 366.

367. Any passenger elevator, freight elevator, dumbwaiter and platform hoisting tower shall comply with the Regulation respecting elevators, dumbwaiters, escalators and moving walks for handicapped persons (O.C. 1009-88 [S-3, r. 1.1]).

O.C. 213-93, s. 367.

368. When a load shall be moved by means of a hoisting apparatus, the operator of the equipment shall act only in accordance with the signals received from the loading and unloading area. These signals shall be transmitted by gestures or a telecommunications system when the signaller is out of sight of the operator.

O.C. 213-93, s. 368.

369. The operator of a hoisting apparatus may not transport loads above a person and may not leave his equipment unsupervised when a load is suspended from it.

O.C. 213-93, s. 369.

370. A crane and its related equipment shall be inspected at least once a month.

A report of the inspection signed by the worker who made it shall be kept in the register of the work station concerning cranes on the mine site.

O.C. 213-93, s. 370.

§ 3. Conveyors

371. It is prohibited to climb on a conveyor or to hold oneself on the structure supporting it unless the controls of the motor are padlocked in the open position.

O.C. 213-93, s. 371.

372. It is prohibited to clean or inspect a component of a moving conveyor unless the process used does not require any handling that may cause a worker to come into contact with a moving element.

O.C. 213-93, s. 372; O.C. 460-2000, s. 26.

373. Every conveyor shall:

(1) have head, return, drive and tension rollers that are protected by a device extending at least 0,9 metres (3 ft) beyond each recessed point;

(2) be equipped with a device that prevents any object or materials from falling, where the conveyor is installed above a place where workers move about;

(3) be equipped with a footwalk and guardrail where it is installed more than 2 metres (6,5 ft.) above ground level or floor level, except where the conveyor can be accessed by means of an elevating platform or other mechanical means that complies with section 208 or 401;

(4) be equipped with a protective rail on the sides alongside which the workers move about;

(5) be equipped, where the workers may access the conveyor while it is in operation, with an emergency shut-down device along its full length between the head pulley and the return pulley; release of the shut-down device shall not restart the conveyor;

(6) be equipped, where it is self-starting or remote starting or is partially invisible from the operator's controls and has accessible moveable parts, with a lighting device or an auditory device that signals the conveyor's start-up to the workers;

(7) in the case of a bucket conveyor, be surrounded by an unbroken protective barrier reaching the full height of the conveyor and have doors or panels for maintenance work, inspections or repairs; the opening of one of those doors or panels shall automatically stop the conveyor.

O.C. 213-93, s. 373; O.C. 1326-95, s. 67; O.C. 119-2006, s. 25.

374. In addition to the standards prescribed in sections 371 to 373, any conveyor used in a mine shall:

(1) be equipped with a device such as a differential movement detector causing the motor to stop when there is a slippage between the conveyor belt and the traction pulley;

(2) be equipped with guide rollers to maintain the alignment of the conveyor belt or a switch causing the motor to stop if the belt is misaligned;

(3) if it is less than 30 metres (98,4 ft.) long, be provided with a firefighting sprinkler system complying with NFPA Standard 15-1985 Water Spray Fixed Systems for Fire Protection;

(4) if it is 30 metres (98,4 ft.) long or longer, be provided with a firefighting sprinkler system in accordance with the standard cited in subparagraph 3:

(a) for a distance of 15 metres (49,2 ft.) from each of the ends if the conveyor belt complies with CSA Standard CAN-M422-M87 Fire Performance and Antistatic Requirements for Conveyor Belting and also for a distance of 15 metres (49,2 ft.) on each side of the drive pulley, if the drive pulley is not located at one end of the conveyor;

(b) for its entire length if contrary to subparagraph *a*; in such case, the conveyor shall be under the supervision of a worker while it is in operation.

The conveyors used in mines containing soluble minerals may be equipped with a firefighting sprinkler system as prescribed in subparagraphs 3 and 4 of the first paragraph or with a foam or powder extinguishing system.

O.C. 213-93, s. 374; O.C. 782-97, s. 24; O.C. 1236-98, s. 18.

§ 4. Pressure vessels

375. The intercoolers and discharge coolers and the intake and relief valves of an air compressor shall be examined and cleaned at least once during every 12 months of use, and a report on the examination and cleaning shall be prepared and kept at the mine site.

O.C. 213-93, s. 375.

376. A compressor shall be equipped with a thermometer with a visual indicator located on the high pressure vent side. The normal operating temperature shall be indicated by a red mark on the thermometer scale. A thermometer reading shall be made at least every 4 hours of compressor operation and shall be noted in the register of the work station concerning the compressors.

O.C. 213-93, s. 376.

377. Sections 375 and 376 do not apply to the following compressors:

(1) a compressor that operates individually whose flow does not exceed 8 cubic metres (282,5 cu.ft.) of air per minute;

(2) a compressor using a lubricant other than oil in its cylinders;

(3) a portable compressor.

O.C. 213-93, s. 377.

378. An air compressor shall be protected by at least one safety valve placed so that it cannot be isolated from the compressor by a shut-off.

O.C. 213-93, s. 378; O.C. 1326-95, s. 68.

379. Every safety valve on a compressor whose air flow exceeds 8 cubic metres (282,5 cu. ft.) per minute and every safety valve on a compressed air tank fed by a compressor whose air flow exceeds 8 cubic metres (282,5 cu ft.) per minute shall be tested at least once per 5 days of use.

Valves located outside a building shall be tested at least once per day of use between 1 December and 31 March and at least once per 5 days of use between 1 April and 30 November.

Non-functioning valves shall be repaired or replaced.

O.C. 213-93, s. 379; O.C. 1326-95, s. 69.

380. The safety valve of a compressor or a compressed air tank shall be calibrated and sealed with lead. The pressure setting and rated capacity shall be stamped on it.

O.C. 213-93, s. 380; O.C. 1326-95, s. 70.

381. A compressed air tank shall be equipped with a relief valve at its lowest point.

Where the volume of the compressed air tank is greater than 1,5 cubic metres (53 cu. ft.), the tank shall be drained at least once every 24 hours of use.

O.C. 213-93, s. 381; O.C. 1326-95, s. 71.

382. A compressed air tank having a volume greater than 1,5 cubic metres (53 cu. ft.) shall be cleaned of any accumulation of oil or other combustible substances at least once every 12 months of use.

O.C. 213-93, s. 382; O.C. 1326-95, s. 72.

383. A compressed air tank installed starting from 1 April 1993 shall be equipped with a safety fuse when the safety valve is placed on a connecting pipe equipped with a nonreturn valve between the safety valve and the tank.

O.C. 213-93, s. 383; Erratum, 1993 G.O. 2, 2603.

384. Before disconnecting a valve or a section of lines on pressure vessels, the feedline shall be shut off and the pressure reduced to zero.

O.C. 213-93, s. 384.

385. Any compressed air line or hydraulic line operating under pressure of more than 200 kilopascals (29,0 lbs. per sq. in.) shall:

(1) if it is metallic, be placed so that it is sheltered from any shock that might be caused by the equipment or by motorized vehicles;

(2) if it is flexible and has an interior diameter of more than 30 millimetres (1,2 in.), be equipped with collars connected by a steel cable 5 millimetres (0,2 in.) in diameter or an equivalent safety chain or a self-locking device to prevent whiplash.

O.C. 213-93, s. 385.

386. Where an operator works less than 3 metres (9,8 ft.) from a coupler and from lines having a fluid pressure in excess of 10 000 kilopascals (1 450,3 lbs. per sq. in.), they shall be equipped with a non-drilled guard to prevent whiplash and squirting.

O.C. 213-93, s. 386.

DIVISION IX
SPECIAL PROVISIONS FOR CERTAIN TYPES OF WORK

§ 1. Arrangement of shafts and protection of workers

386.1. Every shaft shall be timbered and, during shaft sinking work, the timbering shall be maintained to within 15 metres (49,2 ft.) of the bottom of the shaft.

O.C. 1326-95, s. 73.

387. Except during the sinking of a shaft, any hoist compartment used for transportation of materials or equipment shall be partitioned off at the entrance to the shaft and at each shaft station in service, except the side where the materials or equipment are loaded or unloaded. The partition shall:

(1) have a height above the floor of the shaft station at least equal to the height of the conveyance plus 2 metres (6,6 ft.);

(2) extend at least 2 metres (6,6 ft.) below the floor.

However, a partition built starting from 1 April 1993 shall:

(1) be in wood at least 35 millimetres (1,4 in.) thick or a metal lattice made of No. 9 AWG galvanized steel wire mesh and forming links a maximum of 40 millimetres (1,6 in.) on a side;

(2) have a high above the floor at least equal to the lower of the following heights:

(a) the height of the conveyance plus 2 metres (6,6 ft.);

(b) 7 metres (23,0 ft.);

(3) extend at least 2 metres (6,6 ft.) below the floor.

O.C. 213-93, s. 387; Erratum, 1993 G.O. 2, 2603; O.C. 1236-98, s. 19; O.C. 119-2006, s. 26.

388. The hoistman shall be alerted when a door or a loading chute:

(1) is not obstructing the free passage of a conveyance in a shaft, by means of 2 identical green lights connected in parallel or by a permanent visual signal on a screen;

(2) is obstructing the free passage of a conveyance in a shaft by means of 2 identical red lights connected in parallel or by a permanent visual signal on a screen;

A device shall automatically stop the hoist before the conveyance can come into contact with a door or a loading chute obstructing the shaft.

O.C. 213-93, s. 388; O.C. 465-2002, s. 26.

389. Where a hoisting plant in addition to that used for sinking is operated in a shaft, the workers assigned to shaft sinking shall be protected by:

(1) a partition dividing the parts of the shaft used for hoisting so as to prevent any object failling from one part to another;

(2) a partition resistant to the impact of the heaviest piece of material likely to be hoisted or transproted falling from the upper limit of travel of the piece.

O.C. 213-93, s. 389.

390. During shaft sinking work:

(1) the dump door into which the contents of the conveyance are discharged shall be designed so as to prevent any fall of rock or other objects into the shaft during the unloading operation;

(2) at least one safety door shall be installed in a vertical shaft or one inclined at more than 80Âº from the horizontal; the door shall:

(a) be located below the level of the floor in each station where material and equipment necessary for sinking the shaft is loaded or unloaded;

(b) remain closed and cover the shaft when objects are loaded or unloaded from a conveyance, except when the conveyance is unloaded in accordance with paragraph 1;

(c) be held, when it is open, so that it cannot accidentally project into a hoisting compartment of a shaft;

(d) be controlled by lever that cannot be operated by gravity;

(3) it is prohibited to suspend a load from a hook not equipped with a safety latch.

O.C. 213-93, s. 390.

391. Where a chain is used in a shaft to suspend a conveyance or a work platform, the chain shall:

(1) be of alloyed heat-treated steel and bear the letter «A» on each link to so indicate;

(2) have a safety factor of at least 10 after taking into consideration its possible inclination;

(3) be checked at least once a month and be discarded if:

(a) the chain or any part thereof has stretched by 3 % or more of its length;

(b) a link is worn in one place through 10 % or more of its diameter;

(c) a link is cracked, misshapen or damaged.

O.C. 213-93, s. 391.

392. Where work is carried out in a compartment of a shaft or a headframe:

(1) the hoistman shall be previously informed and shall cease all hoisting and transport operations non-essential to the work in that compartment;

(2) the non-essential extraction and transport operations shall cease in the portion of the shaft located above the workers unless the compartment in which the work is carried out is separated by a partition from the other compartments of the shaft or the headframe, in which case the hoisting and the transport may be continued in these other compartments.

O.C. 213-93, s. 392.

393. A steel roof at least 4 millimetres (0,2 in.) in thickness or one providing equivalent strength shall protect any worker on the top of a conveyance. In the case of a sinking crosshead, the roof shall be supported by the crosshead and not by the hoisting rope.

O.C. 213-93, s. 393; O.C. 782-97, s. 25.

394. The wearing of a safety belt and a lanyard connected to the hoisting rope in compliance with CAN/CSA Standard Z259.1-95, Safety Belts and Lanyards, is compulsory for any worker on the roof of a moving conveyance. In this case, the length of the lanyard may not allow the worker to go beyond the edge of the top of the conveyance.

Notwithstanding the foregoing, where the conveyance is a sinking crosshead, the lanyard shall be attached to an element that is part of the crosshead and not to the hoisting rope.

In addition, the fastening point of the lanyard shall comply with section 6.

O.C. 213-93, s. 394; O.C. 782-97, s. 26; O.C. 460-2000, s. 27.

395. In each shaft in which a hoist is used, a weekly check of the hoist compartments and a detailed monthly inspection of the guides and their mountings, the timbering and the walls of the shaft shall be made.

In each shaft in which a compartment with ladderways or stairways is used as provided for in section 53, a monthly inspection shall be made of the compartment, ladderways and stairways.

O.C. 213-93, s. 395; O.C. 1326-95, s. 74.

396. When an object falls into a shaft:

(1) hoisting operations shall cease immediately;

(2) the parts of the shaft and hoisting rope that could be damaged by the fall of an object shall be inspected;

(3) any breakage that might endanger the safety of workers shall be repaired before hoisting operations resume.

O.C. 213-93, s. 396.

397. The results of the checks or inspections prescribed by sections 395 and 396 shall be entered in the register of the work station concerning the shafts.

O.C. 213-93, s. 397.

§ 2. Work in a raise

398. Except where a mechanical device eliminating the need for ladders is used, any raise inclined at more than 50 degrees from the horizontal and driven for a distance of more than 10 metres (32.8 ft.) shall be divided into at least 2 compartments, one of which shall be used for a travelway, be equipped with ladders in accordance with sections 67 and 68 and be separated from the other compartments by a partition, a protective grate or by another similar protective separation in order to prevent workers moving in the compartment from being hit by rocks or other matter coming from another compartment.

The timbering may never be more than 5 metres (16.4 ft.) from the active heading and before each blast, the upper opening of the compartment containing the ladders shall be closed and covered to prevent any rocks from falling into that compartment during the blast.

O.C. 213-93, s. 398; O.C. 782-97, s. 27; O.C. 460-2000, s. 28.

§ 3. Work on the accumulation of broken rock

399. No worker shall stand on broken rock likely to be drawn unless measures to prevent workers being caught by the drawing of ore have been taken.

O.C. 213-93, s. 399.

400. In stopes developed by the shrinkage method:

(1) the workers in the stope shall be informed before each drawing;

(2) no person shall be in the area affected by the drawing;

(3) any hang up shall be detected before the end of the shift and be eliminated before access to the affected area is again permitted.

O.C. 213-93, s. 400.

§ 4. Work in an open pit mine

401. It is forbidden to cause a person to work at a face or at a wall of an open pit mine unless the work is carried out from one of the following places:

(1) a berm;

(2) fixed or mobile scaffolding complying with Subdivision 3.9 of the Safety Code for the construction industry (c. S-2.1, r. 6) as amended:

(3) a hoisting apparatus and a platform that comply with section 3.10.7 of the Safety Code for the construction industry and with any future amendment thereof;

(4) an aerial basket complying with section 3.10.8 of the Safety Code for the construction industry and with any future amendment thereof;

(5) an elevating work platform complying with one of the following standards:

(a) Elevating Rolling Work Platforms, CSA CAN 3 - B 354.1 - M-82;

(b) Self-Propelled Elevating Work Platforms for Use on Paved/Slab Surfaces, CSA CAN 3 - B 354-2 - M-82;

(c) Self-Propelled Elevating Work Platforms for Use, as «Off-Slab Units» CSA CAN 3 - B 354 3 - M-82;

(d) Boom-Type Elevating Work Platforms, CSA CAN 3 - B 354.4 - M-82.

O.C. 213-93, s. 401; O.C. 1326-95, s. 75.

401.1. Notwithstanding section 401, the rappeling technique for accessing a working face or wall may be used where the methods provided for in section 401 are not technically feasible or constitute a hazard.

Where that technique is used:

(1) a worker at a working face or wall shall be protected against falls by a fall-arresting device, which shall:

(a) be independent of the rappelling system;

(b) be a Type 1, Class A self-retracting life line or fall arrester and comply with CSA Standard Z259.2-M1979 Fall-Arresting Devices, Personnel Lowering Devices and Life Lines;

(c) be connected to the fall arrest attachment ring which identified for fall arrest on the safety harness;

(2) the life line shall:

(a) comply with CSA Standard Z259.2-M1979 Fall-Arresting Devices, Personnel Lowering Devices and Life Lines;

(b) be of a diameter and construction in accordance with the recommendations of the manufacturer of the fall-arresting device;

(c) be less than 90 metres (300 feet) in length;

(3) the rope of the rappelling system shall:

(a) be made of synthetic fibre;

(b) have a breaking strength of at least 40 kilonewtons (9000 pounds);

(c) be long enough to reach a safe landing;

(d) not be extended by attaching other ropes;

(e) be less than 90 metres (300 feet) in length;

(4) the rope of the rappelling system or life line shall be fixed to 2 anchors each having a breaking strength of at least 18 kilonewtons (4000 pounds). The anchors for the rope of the rappelling system shall be independent of the anchors of the life line;

(5) except where protected by a sheath, the rope of a rappelling system or life line shall never come into contact with any sharp edge;

(6) the carabiners, lowering devices and other rappelling hardware shall be made from drop-forged steel or a material of equivalent quality and shall have a breaking strentgh of at least 22 kilonewtons (5000 pounds);

(7) a worker shall use a Group AD or AP safety harness complying with the CAN/CSA Standard Z259.10-M90 Full Body Harnesses;

(8) no person shall descend a working face or wall where wind velocity is greater than 50 kilometres/hour (31 miles/hour);

(9) no person shall be at the working face or wall during a thunder storn or heavy rain;

(10) following a thunder storn or heavy rain, a worker shall wait at least 1 hour before descending a working face or wall;

(11) a means for emergency evacuation shall:

(a) be available to workers at a working face or wall;

(b) be independent of the rappelling system and the fall-arresting device;

(c) allow for fast and safe evacuation of a worker in difficulty on a working face or wall;

(12) all damaged material connected with the use of the rappelling technique shall be discarded;

(13) as long as a worker is at a working face or wall, a person having been trained in the rappelling technique shall be present beyond the working face or wall and shall be located in such a way as to see the worker and be able to watch over him and communicate with him. Where he is unable to communicate by speaking directly to the worker, a radiotelephone communication system shall be used;

(14) no worker shall use the rappelling technique to access a working face or wall unless he has the skills, knowledge and training required for the working method developed by his employer, in accordance with paragraph 3 of section 78 of the Act respecting occupational health and safety.

O.C. 1326-95, s. 76.

DIVISION X
HANDLING AND USE OF EXPLOSIVES

§ 1. General

402. (Revoked).

O.C. 213-93, s. 402; O.C. 1236-98, s. 21; O.C. 42-2004, s. 17.

403. Only explosives or a set of explosives producing Class I fumes, in accordance with the classification of the Department of Energy, Mines and Resources of Canada, published in the Supplement to the *Gazette of Canada*, Part I dated 30 March 1991, and entitled «Explosives and Blasting Accessories and Associated Products» may be used in an underground mine unless:

(1) the mine is evacuated before the blast;

(2) the air quality of the mine satisfies the standards of section 41 of the Regulation respecting occupational health and safety before allowing workers access to it;

Furthermore, explosives of a type other than that producing Class I fumes may be used during work to control the overbreak of the walls of underground openings.

Notwithstanding the foregoing, it is prohibited to use dynamite when its temperature is equal to or below its freezing point.

O.C. 213-93, s. 403; O.C. 885-2001, s. 382.

404. No explosive may be used if its original wrapping does not bear, legibly printed or marked, the following information:

(1) the word «EXPLOSIFS»;

(2) the familiar name of the explosive;

(3) the date of manufacture;

(4) for dynamite, its freezing point;

(5) for underground mines, the class of the blasting fumes.

O.C. 213-93, s. 404.

404.1. Portable tanks used to transport, store or load water-based bulk explosives must

(1) be constructed in such manner that the surfaces in contact with the explosives are of a material that will not react with the explosives ;

(2) be used only to transport the explosives ;

(3) be identified on all sides by the word “EXPLOSIFS” in letters at least 102 millimetres (4 inches) high ;

(4) except while loading, have hatches and valves closed and locked at all times ; and

(5) have a maximum capacity of 1,500 kilograms (3,307 pounds) of explosives.

O.C. 119-2006, s. 28.

405. It is prohibited to use a safety fuse.

O.C. 213-93, s. 405.

406. The explosives with the oldest manufacturing date shall be used first.

O.C. 213-93, s. 406.

407. Explosives showing signs of deterioration may not be used but shall be destroyed immediately, using the method prescribed by the manufacturer.

O.C. 213-93, s. 407.

408. No one may smoke or bring a flame or any other substance or material that would increase the risks of explosion or fire:

(1) into an explosives magazine;

(2) within 8 metres (26,2 ft.) of an explosive.

O.C. 213-93, s. 408.

408.1. Except for the loading of mine holes, detonators and micro-connectors may not be placed near other types of explosives nor in the same container.

O.C. 1236-98, s. 22.

409. For opening explosives packaging, only tools not causing sparks may be used.

O.C. 213-93, s. 409; O.C. 465-2002, s. 27.

410. The wrappings of empty explosives packaging shall be destroyed, except reusable wrappings considered to contain explosives ; the wrappings must be returned to an explosives magazine.

O.C. 213-93, s. 410; O.C. 119-2006, s. 29.

411. Where it is foreseen that the blasting work will be stopped or interrupted for longer than 3 months, all explosives shall be destroyed according to the specifications of the manufacturer or be returned to the supplier.

O.C. 213-93, s. 411.

412. For any open-pit mine, each primary blast shall be entered in a register of the work station concerning primary blasting under the signature of the blaster in charge of the blast. This register shall contain the following entries:

(1) the date, time and place of the blast;

(2) the location, depth and number of holes blasted;

(3) the mass of explosives, the depth of the stemming used and the ignition delay used, for each hole;

(4) an evaluation of the mass of the explosives used per ton of rock broken;

(5) dangerous situations such as misfires and the damage caused by fly-rocks.

O.C. 213-93, s. 412.

413. When blasting is carried out in contiguous operations and there is danger for workers, the employers shall agree on a blasting timetable.

O.C. 213-93, s. 413.

§ 2. Storage of explosives

414. Inside an explosives magazine, explosives shall be kept in their original packaging.

Detonators and microconnectors may be kept in cases installed for that purpose, provided that the cases are identified by means of the name and characteristic of the product they contain.

O.C. 213-93, s. 414; O.C. 1326-95, s. 77.

415. Subject to the second paragraph of section 418 and section 423, explosives located underground or on the surface shall be under the supervision of a worker designated for that purpose and stored in magazines that:

(1) are used solely for that purpose;

(2) have inside surfaces covered so that no iron or steel is exposed and that no particle of a rough body of iron, steel or a similar substance can become detached or come into contact with the explosives contained in the magazine; however, in underground explosives magazines, the metal parts required for support of the walls of an excavation may be left exposed;

(3) have a smooth and easy-to-clean floor ;

(4) should there be any nitroglycerine present, have their shelves and floor treated with a neutralizing product when contaminated by explosive substances, according to the method prescribed by the manufacturer ;

(5) are clearly identified by notices bearing the word «EXPLOSIFS» in letters 102 millimetres (4,0 in.) high, placed on the 4 walls of the magazine, on the surface; underground, similar notices shall be placed approximately 20 metres (65,6 ft.) from both sides of the magazine.

O.C. 213-93, s. 415; O.C. 465-2002, s. 28.

415.1. Underground, vehicles or pumping equipment used to load bulk explosives must be parked in a storage site that must

(1) be used solely for that purpose ;

(2) be located at least 60 metres (196.9 feet) from the places referred to in paragraph 2 of section 423 ;

(3) be identified as provided in paragraph 5 of section 415 ; and

(4) be laid out so that no other vehicle may collide with the vehicles or equipment.

In addition, where the vehicles and equipment referred to in the first paragraph are motorized, they may contain only explosives residues, unless the site has an automatic fire extinguishing system.

For the purposes of this section, “explosives residues” means a quantity of 25 kilograms (55 pounds) or less.

O.C. 119-2006, s. 30.

416. An explosives magazine on the surface shall:

(1) be located in accordance with the table of distances in Schedule IV;

(2) be placed farther from an overhead electric power line than the distance between the supports of the line located near the magazine; however, where the distance between the supports of the line is greater than 55 places metres (180,4 ft.), the magazine shall be placed from that line at the greater of the following distances:

(a) 55 metres (180,4 ft.);

(b) the vertical distance between the magazine and the top of the support closest to the magazine;

(3) be grounded if it is built of metal;

(4) be protected by a lightning rod if it is not built of metal;

(5) be located in an area cleared of wood or other combustible material within a radius of at least 15 metres (49,2 ft.) around the magazine.

O.C. 213-93, s. 416; O.C. 1326-95, s. 78.

417. Notwithstanding section 415, a box may be used to store explosives on the surface on the following conditions:

(1) the quantity of explosives stored shall not exceed 75 kilograms (165,3 lbs.);

(2) the box shall be red and the word «EXPLOSIFS» shall be printed on all 4 sides and on the cover, in white letters at least 102 millimetres (4 in.) high.

O.C. 213-93, s. 417; O.C. 1326-95, s. 79; O.C. 1236-98, s. 23; O.C. 465-2002, s. 29.

418. Where explosives are stored underground, they shall be stored in a magazine constituted of at least one chamber:

(1) having a steel door at least 6 millimetres (0,23 in.) thick and opening only towards the outside of the chamber where the magazine is built starting from 1 April 1993;

(2) mechanically or naturally ventilated by air intakes at least 0,06 square metre (93,0 sq.in.) in area located at the top and bottom of the chamber; the intakes shall be capable of providing at least one change of air per hour and shall be provided with a spark arrester;

(3) whose openings, other than those mentioned in paragraphs 1 and 2, shall be closed by a concrete wall or concrete block wall at least 300 millimetres (11,8 in.) thick;

(4) whose walls shall be lined so as to prevent any rock from coming loose.

However, explosives used underground may be stored in a recess:

(1) excavated in a rocky wall whose floor is located at least 1 metre (3,3 ft.) from the floor and roof at the most 2,5 metres (8,2 ft.) of the floor of the travelway;

(2) with a wooden floor;

(3) with at least one wooden door;

(4) where the quantity of explosives is not more than 250 kilograms (551,1 lbs.)

(5) located in accordance with section 424, with the exception of subparagraph *c* of paragraph 1; in which case, the distance between the recess and a working face shall be:

(a) at least 60 metres (196,8 ft.) measured in a straight line from the recess to the working face; or

(b) at least 60 metres (196,8 ft.) according to the opening the distance between the recess and the working face of which is the shortest, on condition that the thickness of the rock between those 2 points is at least 15 metres (49,2 ft.);

(6) identifiable in accordance with paragraph 5 of section 415 in respect of underground storage.

O.C. 213-93, s. 418; Erratum, 1993 G.O. 2, 2603; O.C. 1326-95, s. 80; O.C. 1236-98, s. 24; O.C. 42-2004, s. 18.

418.1. Notwithstanding subparagraph 5 of the second paragraph of section 418, during the sinking of a shaft and the ensuing development work, the recess may be at a minimum distance of 10 metres (32.8 ft.) from the shaft and the working face until the progress of the work allows compliance with the requirements of subparagraph 5 of the second paragraph of section 418, in which case the quantity of explosives stored in the recess may never exceed the quantity required for one shift.Â´.

O.C. 460-2000, s. 29.

418.2. Despite subparagraph 4 of the second paragraph of section 418, when crushing work is carried out with a stationary crusher, the explosives required for the work may be stored in a recess if the quantity of explosives does not exceed 25 kilograms (55,1 lb.) ; the provisions of subparagraph 6 of the second paragraph of section 418 do not apply to those explosives.

O.C. 42-2004, s. 19.

418.3. Despite section 415 and the second paragraph of section 418, explosives used for a raise carried out by a raise climber may be temporarily stored in a container secured to the basket of the climber under the following conditions :

(1) the raise exceeds 100 metres (328,1 ft.) from its opening ;

(2) the quantity of explosives never exceeds the quantity required for one shift ; however, this quantity must never exceed 100 kilograms (220,5 lb.) ;

(3) the explosives used do not contain nitroglycerine ;

(4) the container used is designed and constructed according to the plans and specifications of an engineer and it must be designed for a fire resistance rating of at least 30 minutes ; and

(5) the electric squibs or detonators are placed in a separate closed container lined with an electric insulation material.

O.C. 42-2004, s. 19.

419. Where an explosives magazine is constituted of several chambers, they shall be separated from each other by solid rock at least 6 metres (19,7 ft.) thick.

O.C. 213-93, s. 419.

420. The entire length of a borehole opening into a chamber of an explosives magazine shall be sealed with cement.

O.C. 213-93, s. 420.

421. In each explosives magazine constructed starting from 1 April 1993 whose chamber contains more than 2 500 kilograms (5 511,5 lbs.) of explosives, there shall be a compression relief chamber:

(1) located directly opposite the chamber containing the explosives;

(2) whose cross-section is of the same dimension as that of the chamber containing the explosives;

(3) whose central longitudinal axis is the same as that of the chamber containing the explosives;

(4) having a depth of at least 3 metres (9,8 ft.).

O.C. 213-93, s. 421; Erratum, 1993 G.O. 2, 2603.

422. An explosives magazine on the surface shall be closed by a door kept locked.

O.C. 213-93, s. 422.

423. Notwithstanding section 418, when blasting work requires that the explosives be loaded without interruption during more than one shift, the explosives may be stored outside of the explosives magazine or recess and near the place of loading of the explosives provided that:

(1) the quantity of explosives so stored does not exceed the quantity that can be loaded for the shifts planned on the workday schedule;

(2) the storage site is located at least 60 metres (196,9 ft.) from a shaft, a hoistroom, a safety station, an explosives or inflammable substances magazine or a room of transformers using an inflammable liquid insulator; the minimum distance is 15 metres (49,2 ft.) for other types of transformers;

(3) the place of loading is identified by notices bearing the word “LOADING” in light-reflecting paint on both sides in letters at least 102 millimetres (4,0 in.) high and by at least one flashing red light installed at no less than 8 metres (26.2 ft.) from the site where explosives are stored;

(4) access to the loading area is closed in the absence of attendants assigned to that task by safety devices such as a barrier or a guardrail, so as to prevent any contact between explosives and a motorized vehicle; and

(5) only authorized workers have access to the loading area.

O.C. 213-93, s. 423; O.C. 465-2002, s. 30.

424. An explosives magazine in an underground mine shall be located:

(1) at least 60 metres (196,9 ft.) from:

(a) a shaft;

(b) a hoistroom;

(c) a working face;

(d) a refuge station;

(e) a transformer room using an inflammable liquid insulator; the minimum distance shall be 15 metres (49,2 ft.) for other types of transformers;

(f) another explosives magazine;

(g) an combustible liquids and grease depot set up from 12 February 2004 containing over 1,000 litres (220 gal.) of combustible liquids and grease ; the minimum distance must be 30 metres (98,4 ft.) for a depot containing between 101 and 1,000 litres (between 22,2 and 220 gal.) of combustible liquids and grease ;

(2) at least 15 metres (49.2 feet) from a main travelway for off-track motorized vehicles in the case of a magazine installed on or after 23 March 2006 ;

(3) such that it is impossible for a vehicle to collide with the explosives ; and

(4) subject to paragraphs 1 and 2, according to the plans and specifications of an engineer in the case of a magazine installed on or after 23 March 2006.

No person may park a motorized vehicle in front of an explosives magazine, except to allow explosives to be transferred without interruption.

O.C. 213-93, s. 424; O.C. 460-2000, s. 30; O.C. 42-2004, s. 20; O.C. 119-2006, s. 31.

425. The distribution of electricity in explosives magazines shall comply with the following standards:

(1) the maximum voltage of lighting circuits may not exceed 150 volts to the ground;

(2) the conductors shall be installed in a rigid conduit with screwed and watertight joints or in an armoured moisture-proof cable;

(3) the lighting fixtures shall be dustproof;

(4) the protective devices and control devices shall be installed in a cabinet placed outside the magazine;

(5) the lighting circuit overload protection shall not exceed 10 amperes;

(6) the circuits shall be open before the fixtures are opened to change the bulbs;

(7) the metal parts shall be interconnected and permanently grounded.

O.C. 213-93, s. 425.

426. Subject to section 418.3, detonators and microconnectors shall not be stored or kept within 8 metres (26,2 ft.) of other types of explosives or brought into a magazine or place where such explosives are stored.

O.C. 213-93, s. 426; O.C. 42-2004, s. 21.

427. An explosives magazine shall be heated only by hot air. The capacity of the fan shall allow at least one change of air per hour. The heating element shall be located outside the magazine and the temperature of the hot air at its point of entry into the magazine shall be below 50Âº Celsius (122Âº Fahrenheit).

O.C. 213-93, s. 427.

428. A weekly inspection of all explosives magazines, boxes and recesses shall be made to check their conformity with this Division. A written report of the check shall be made and kept on the mine site.

O.C. 213-93, s. 428.

§ 3. Transportation of explosives

429. During transportation of explosives on the surface:

(1) every motorized vehicle used for such transportation shall:

(a) bear the word «EXPLOSIFS» in reflective paint, in letters at least 150 millimetres (5,9 in.) high on a contrasting background, in the front, in the rear and on both sides of the vehicle, or be equipped with a flashing red light visible from all sides of the vehicle; the markings shall be removed or covered and the flashing light extinguished when the vehicle is not transporting explosives;

(b) have all the metal parts that could come into contact with the packaging of the explosives covered with wood, cloth or leather;

(2) no object or material may be transported in or on a vehicle transporting explosives except tools used for blasting on condition that they are in a compartment separated from the explosives;

(3) no motorized vehicle may be loaded to more than 80 % capacity, or in the case of a motorized vehicle which transports solely blasting agents, 100 % of the lesser of:

(a) its maximum load;

(b) the vehicle's tire rating.

(4) the part of the motorized vehicle in which the explosives are transported shall be enclosed with side walls and explosives may not be stacked higher than those walls;

(5) it is prohibited to transport detonators and detonating relays in the same vehicle with other explosives unless:

(a) the number of detonators, added to the number of microconnectors, does not exceed 5 000;

(b) the detonators and detonating relays are in a closed compartment, separated from the other explosives by a wooden partition having a thickness of at least 150 millimetres (5,9 in.) or the equivalent; the partition shall be at least 150 millimetres (5,9 in.) above the highest level reached by the stacking of explosives;

(6) a motorized vehicle containing explosives may not be left unattended;

(7) the engine of a motorized vehicle may not be left running during the loading and unloading of explosives, except during the unloading of explosives in bulk;

(8) only workers assigned to the handling of explosives may travel in a motorized vehicle transporting explosives;

(9) it is prohibited to smoke in a vehicle transporting explosives;

(10) it is prohibited to refuel a vehicle loaded with explosives except where the distance to be travelled with the explosives is greater than the range allowed by the capacity of the vehicle's fuel tank; in such case, the vehicle shall nevertheless be refuelled before the explosives are loaded.

O.C. 213-93, s. 429.

430. Before loading explosives into a shaft conveyance, the person in charge of transportation shall inform the hoistman and the deckman, if any, of that intention, except if a video-surveillance camera allows the hoistman to follow the loading.

O.C. 213-93, s. 430; O.C. 465-2002, s. 31.

431. Explosives may not be transported in a shaft conveyance with other materials.

O.C. 213-93, s. 431.

432. Only workers assigned to the handling of explosives in a shaft conveyance may ride in a shaft conveyance with explosives ; the explosives load must be secured so that it will not hit the workers or fall on them.

O.C. 213-93, s. 432; O.C. 42-2004, s. 22.

433. In a shaft conveyance, explosives and blasting accessories shall be placed in separate closed containers made of wood or other non-sparking material and used exclusively for that purpose.

O.C. 213-93, s. 433; O.C. 42-2004, s. 23.

434. Where explosives are transported in a motorized vehicle underground, the provisions of section 429 apply, except subparagraph *a* of paragraph 1.

Moreover, transportation of explosives shall take place under the following conditions:

(1) the vehicle shall be equipped with a flashing red light, visible from all sides and not interfering with the driver's view;

(2) the speed of the vehicle shall be limited to half the speed normally used for the transportation of other materials;

(3) not more than 3 000 kilograms (6 614 lbs.) of explosives may be transported;

(4) in the case of transportation of explosives in a motorized vehicle on rails:

(a) every car containing explosives shall be separated from the locomotive by an empty car or a spacing bar of equivalent length;

(b) where the locomotive is a trolley locomotive, every car transporting explosives shall be entirely closed;

(c) explosives may not be transported on a locomotive.

O.C. 213-93, s. 434; O.C. 42-2004, s. 24.

435. The transportation of explosives to their destination shall be made without delay and without detours.

O.C. 213-93, s. 435.

436. It is prohibited to transport detonators and detonating relays manually at the same time as other types of explosives unless they are in separate containers.

O.C. 213-93, s. 436.

§ 4. Drilling

437. Before drilling on a working face of an underground mine, it shall be

(1) fully washed with water under a pressure of at least 200 kilopascals (29 lbs. per sq. in.), except in mines containing soluble minerals;

(2) examined to detect misfires, cut-off holes and remnants of drill holes;

(3) in the case of the floor of a site where drilling is carried out,

(a) washed in accordance with paragraph 1 or fully cleaned with compressed air ; and

(b) examined in accordance with paragraph 2 and the observations must be recorded in a register.

O.C. 213-93, s. 437; O.C. 42-2004, s. 25.

438. When the working face has been examined in accordance with section 437, all remnants of drill holes shall be marked in one of the following ways:

(1) by a circle in paint or crayon of a colour contrasting with the rock;

(2) by inserting a stick into the holes.

O.C. 213-93, s. 438.

439. It is forbidden to drill at a distance of less than:

(1) 150 millimetres (5,9 in.) from a hole that has been loaded and blasted or the remnants of such a hole;

(2) 1,5 metres (4,9 ft.) from a hole containing explosives following a misfire;

(3) 1,5 metres (4,9 ft.) from blasted rock that might conceal a misfire;

(4) 5 metres (16,4 ft.) from any loaded hole or any place where explosives are loaded; however, if the drilling and the loading are carried out alternately, the drilling of a drill hole may be carried out at a distance of less than 5 metres (16,4 ft.) if the specific conditions of an open-pit mine require it and the following conditions are met:

(a) only cartridged explosives may be used;

(b) drill holes may be drilled only in parallel and their alignment shall be checked so that the margin of error does not exceed 3 degrees;

(c) the minimum distance shall be 1,2 metres (3,9 ft.) from any hole loaded with explosives or 20 % of the depth of the holes, whichever is greater; no hole may be drilled to a depth of more than 12 metres (39,4 ft.), or more than 15 metres (49,2 ft.) for holes with a diameter of 102 millimetres (4 in.) or more, except where an engineer certifies, before drilling begins, that deeper holes may be drilled without any danger; the engineer's cartification shall be sent to the Commission de la santé et de la sécurité du travail;

(c.1) if the holes have a depth of 6 metres (19,7 ft.) or more, the first drilling rod shall be replaced by a guide tube;

(d) loaded holes shall be marked by stakes that are red or carry a red ribbon.

(5) the distance stipulated, in the case of a frozen cut, in any of the following situations:

(a) 300 millimetres (12 in.) from the frozen cut, where it is 460 millimetres (18 in.) deep or less;

(b) a distance equal to the depth of the frozen cut, where it is more than 460 millimetres (18 in.) but less than 915 millimetres (36 in.) deep;

(c) 915 millimetres (36 in.) from the frozen cut, where it is more than 915 millimetres (36 in.) deep.

For the purposes of clauses *a*, *b* and *c* of subparagraph 5 of the first paragraph, the prescribed minimum distance for drilling holes shall be measured from a circle marking the outside edge of the frozen cut and the holes shall be drilled parallel to the cut. In the cases of clauses *b* and *c* of the said subparagraph, the drill holes shall not be deeper than the frozen cut.

For the purposes of subparagraph 5 of the first paragraph, "frozen cut" means the first holes blasted in a round that did not break the rock as expected but rather fractured and compacted it and where explosives are not detected

O.C. 213-93, s. 439; O.C. 1236-98, s. 25; O.C. 460-2000, s. 31.

440. Notwithstanding section 439, holes may be drilled at distances less than those prescribed by that section provided that the drilling is carried out by a remote control device, under supervision, and that the drilling zone is evacuated.

O.C. 213-93, s. 440.

441. A drill hole to be loaded with explosives shall be of a diameter sufficiently large so that the load or the loading hose can pass freely to the bottom of the hole.

O.C. 213-93, s. 441.

442. Drilling and loading of explosives may not be carried out simultaneously within 8 metres (26,2 ft.) from each other.

O.C. 213-93, s. 442.

443. Before drilling the last round of a rock mass located between 2 underground workings, the working towards which the working face is moving shall be washed and examined and the bottoms of drill holes shall be marked in accordance with section 438.

If the provisions of subparagraph *b* of paragraph 3 of section 437 cannot apply and if the working towards which the working face is moving is inaccessible, drilling must be carried out by means of a remote control device under supervision and the drilling area must be evacuated.

O.C. 213-93, s. 443; O.C. 42-2004, s. 26.

443.1. To drill a drill hole or a round in a cemented rock fill,

(1) the controls of the drill must have a protective screen designed or manufactured according to the plans and specifications of an engineer ; and

(2) the operator must remain at the controls of the drill for the duration of the drilling.

O.C. 119-2006, s. 33.

444. Diamond drill holes, unless they are intended for blasting, shall be indicated on the mine level plans.

O.C. 213-93, s. 444.

445. When a working face is moving towards a diamond drill hole, access to each point of intersection of the hole with another working shall be blocked off or protected when blasting is done within 5 metres (16,4 ft.) of the hole.

O.C. 213-93, s. 445.

446. Starting from 1 April 1993, each diamond drill hole and each point of intersection of such a hole with a working shall be installed in one of the following ways:

(1) they shall be cemented for a minimum length of 5 metres (16,4 ft.) after the intersection or after the drilling is completed;

(2) they shall be covered with a metal plate at least 12 millimetres (0,5 in.) thick, anchored by 4 rock bolts at least 1,5 metres (4,9 ft.) long; the plate shall be identified by the letters T.F. and have a pulling resistance of at least 10 metric tons (22 045,9 lbs.); or

(3) they shall be blocked with a rock bolt having a pulling resistance of at least 10 metric tons (22 045,9 lbs.).

This section does not apply to a diamond drill hole intended for blasting or a hole used for draining a mine.

O.C. 213-93, s. 446; Erratum, 1993 G.O. 2, 2603.

§ 5. Loading of explosives

447. Explosives may not be brought to the loading area before being ready to load them, and explosives not used when loading has been completed shall be returned to an explosives magazine or a recess for an underground mine or to a box for an open-pit mine.

O.C. 213-93, s. 447; O.C. 42-2004, s. 27.

448. Only the workers and equipment required for loading and blasting may be in a loading area while the explosives are being loaded in the holes until the blasting has been completed; during the loading operation, no other equipment may come into contact with the loaded portion of the drill holes.

O.C. 213-93, s. 448; O.C. 119-2006, s. 34.

448.1. During any interval between loading and blasting, the explosives used must retain their inherent properties until the blasting.

O.C. 119-2006, s. 35.

449. A motorized vehicle may not be driven, parked or stopped over loaded drill holes unless:

(1) the detonator wires and explosives are completely inserted under the collar of the holes;

(2) the collar of the holes is covered with sand or rock dust;

(3) a signaller supervises the movements of the vehicle to see that its wheels or tracks do not pass directly over the holes so protected.

O.C. 213-93, s. 449; O.C. 119-2006, s. 36.

449.1. Except where the conditions prescribed in paragraphs 1 and 2 of section 449 are complied with, when an electrical apparatus, such as a shovel or drill, is used near a loaded hole, the distance between the trailing cable and the hole loaded with explosives shall not be less than 3 metres (9,8 ft).

O.C. 1236-98, s. 26.

449.2. No motorized vehicle may be driven, parked or stopped under loaded drill holes in the roof of an underground working unless

(1) the detonator wires and explosives are completely inserted in the holes ; and

(2) the collar of the holes is capped.

O.C. 119-2006, s. 37.

450. In case of a storm or blizzard in the area where an electrically-fired blast is being prepared on the surface, within a shaft or an adit, and if electrical detonators and detonating relays have been placed in or connected to loaded or partially loaded holes, the blasting area shall be evacuated by all workers who might be exposed to the risk of an accident in case of a premature explosion caused by lightning or a blizzard. The unused detonators and detonating relays shall be returned to the explosives magazine, and access to the blasting area shall be guarded until there is no further risk of a storm or blizzard.

O.C. 213-93, s. 450.

451. A primer cartridge shall be prepared only at the time a drill hole is primed.

O.C. 213-93, s. 451.

452. It is forbidden to use iron or steel tools in a drill hole containing explosives or during the loading of explosives.

O.C. 213-93, s. 452.

453. Subject to section 454, the verification of a drill hole, the clearing of obstructions and any corrections shall take place before the hole is loaded.

O.C. 213-93, s. 453.

454. Where loading of explosives is carried out progressively, the cleaning of obstructions from a blocked hole is permitted, provided that subparagraph *c* of paragraph 4 of section 439 is respected.

O.C. 213-93, s. 454.

455. Where detonating cord is used, the following conditions shall be satisfied:

(1) it is prohibited to place spliced cord ends in a drill hole;

(2) all drill holes must be loaded and workers and equipment not required must be evacuated from the blasting area before the primer detonators are connected to the main fuse or shock tubes.

O.C. 213-93, s. 455; O.C. 119-2006, s. 39.

456. When explosives in bulk and in cartridge form are loaded pneumatically:

(1) only semiconductor hoses manufactured for that purpose may be used;

(2) the loading equipment may not be grounded by connecting it to piping, a rail or other continuous conductors;

(3) the grounding shall be performed according to the manufacturer's specifications;

(4) if electric primers are used:

(a) no plastic or other non-conducting liner may be used in the hole;

(b) the loading equipment shall be grounded if the primer is placed in the drill hole before or during loading.

O.C. 213-93, s. 456.

457. Where electrical blasting takes place:

(1) no bare junctions in the detonator lead wires and blasting lines may come into contact with each other or with anyting else;

(2) where balanced circuits are necessary, each circuit shall be checked before blasting, using a blasting galvanometer;

(3) the entire circuit shall be checked in accordance with paragraph 2 before connecting the detonator circuits to the blasting line;

(4) the blasting line shall be short-circuited when the detonator wires are interconnected and connected to the conductors of the blasting line;

(5) the short circuit prescribed by paragraph 4 may not be opened until the workmen have reached shelter;

(6) the worker who interrupts the short circuit prescribed by paragraph 4 shall be sheltered from any projection of a premature explosion;

(7) the blasting line shall be disconnected from the blasting machine and short-circuited immediately after firing, and where a blasting switch is used, it shall be locked immediately after firing;

(8) where electrical detonators are used:

(a) the detonator wires may not be shortened;

(b) the detonator wires may not be thrown to untangle them;

(c) radio transmitters and cellular telephones with a wattage of more than 600 milliwatts shall be turned off within a radius of 20 metres (65,6 ft.) of the blasting area.

O.C. 213-93, s. 457; O.C. 460-2000, s. 32.

458. The blasting line shall be connected to the power source only after evacuation of the blasting area and immediately before blasting. The blasting line shall be disconnected and short-circuited immediately after blasting.

O.C. 213-93, s. 458.

459. A blasting machine shall:

(1) be tested to check its capacity before each blast requiring the blasting machine to operate at full capacity;

(2) bear an inscription clearly indicating its capacity;

(3) be used strictly within the limits of its capacity.

O.C. 213-93, s. 459.

460. A blasting line shall:

(1) be distinguished from other cables and wires by its color or the presence of a rib on the outer sheath;

(2) be used only for blasting;

(3) be constituted for its entire length of 2 conductors isolated from each other and from the ground;

(4) be arranged so as not to come into contact with:

(a) an electrical power line or communication line;

(b) a metal pipe, rail or other conductive equipment;

(5) be disconnected from the main circuit when it enters a location such as a tunnel, a sub-level or an abandoned sector of the mine.

O.C. 213-93, s. 460; O.C. 42-2004, s. 28.

461. Where a common source of electric power is used to set off explosive charges at more than one work site, the following standards shall be respected:

(1) the short circuit of the main blasting line may not be interrupted before blasting;

(2) a 3-position switch shall be provided for each firing circuit; the switch shall be locked either in the short-circuit position or in the closed position, making it possible to:

(a) short-circuit the circuit;

(b) power the circuit;

(c) test the circuit;

(3) the blasting lines and blasting switches shall be identified with a tag and the switches shall bear an inscription allowing them to be identified.

O.C. 213-93, s. 461.

462. Where explosive charges are fired by means of an electric power system:

(1) the electrical circuit shall be:

(a) isolated and not grounded;

(b) used only for blasting;

(2) the blasting switch shall be designed so that:

(a) the switch mechanism automatically returns to the open position by gravity;

(b) the conductors leading to the charges are automatically short-circuited when the switch is in the open position;

(c) the energized switch terminals are enclosed in a fixed metal box;

(d) the box in which the firing conductors and the short-circuiting device are placed is provided with a door and a closing device designed so that the door can be closed only when the switch is in the open position; this door shall be kept locked except at firing time; the key shall be accessible only to the person in charge of blasting;

(3) a disconnecting device with overcurrent protection shall be installed between the source of power and the blasting switch; a horizontal protective gap against lightning of at least 1,5 metres (4,9 ft.) shall be provided between the disconnecting device and the blasting switch, and the gap may be closed only at the time of firing;

(4) the voltage of the firing device shall not exceed 220 volts.

O.C. 213-93, s. 462; O.C. 1326-95, s. 81.

§ 6. Firing

463. When blasting on the surface:

(1) a warning before a primary blast shall be given by means of a siren between 3 and 5 minutes before blasting and a second warning given 1 minute before blasting;

(2) following the blast, a sound signal giving workers permission to return to their places of work shall be given;

(3) where a worker must remain in the blasting area, the worker must be provided with a shelter that protects against fly-rock ; the location, design or construction of the shelter must be certified by a certificate signed and sealed by an engineer.

O.C. 213-93, s. 463; O.C. 42-2004, s. 29.

464. Before firing, all access routes and approaches to the blasting area must be closed using identified barricades or be guarded to prevent any unexpected arrival of persons in the blasting area.

O.C. 213-93, s. 464; O.C. 119-2006, s. 41.

465. Before firing underground,

(1) a warning must be given in the blasting area by an audible, visual or vocal signal and workers not assigned to the firing must be evacuated from that area ; and

(2) when a worker must remain in the blasting area, the worker must be provided with a shelter that protects against fly-rock ; the location, design or construction of the shelter must be certified by a certificate signed and sealed by an engineer.

O.C. 213-93, s. 465; O.C. 42-2004, s. 30.

466. The excavation toward which the working face is moving shall be considered as being in the blasting zone when the distance between the bottom of the deepest drill hole and the wall of this excavation is less than 5 metres (16,4 ft.) or when the thickness of the rock mass is less than twice the length of the deepest drill hole if that hole is more than 5 metres (16,4 ft.) deep. In such cases, sections 464 and 465 apply.

O.C. 213-93, s. 466.

§ 7. Waiting period

467. No person may leave a shelter to return to a blasting area before 10 minutes have elapsed since the closing of the firing circuit, where the firing has been done by electric detonators and the explosion has been heard.

Where no explosion has been heard following the firing and a defect in the electrical circuit has been observed, the circuit shall be repaired after the blaster has seen personally that the blasting line wires are short-circuited and disconnected from the power source and, where a firing switch is used, it shall be in the open position and

the door of the box shall be locked.

O.C. 213-93, s. 467.

§ 8. Misfires

468. Work in a heading or in the sinking of a shaft may not be abandoned or stopped before:

(1) the material broken at the time of firing of the last shot have been removed from the heading and the bottom of the shaft;

(2) any working face or bottom of the shaft has been examined to detect the presence of explosives or blasting agents in the misfires or in cut-off holes.

O.C. 213-93, s. 468.

469. Any explosive charge that has misfired may not be extracted, but shall be fired again during the same shift. However, except for dynamite, other types of explosives may be withdrawn by washing them with water, or if they are loaded in holes under water, by blowing air into them. Packaged aqueous gelatins may be withdrawn by hooking them with an instrument in accordance with section 473.

O.C. 213-93, s. 469.

470. Subject to section 469, if a misfire has not been fired before the end of a shift, the employer shall be informed by the worker of the situation and of the location of the hole. The necessary steps shall then be taken to remedy the situation.

O.C. 213-93, s. 470.

471. A drill hole loaded with nitro-carbonitrate shall be entirely washed before repriming it with a new primer.

O.C. 213-93, s. 471.

472. The unstemming of a drill hole is prohibited where it was sealed by a self-tightening device.

O.C. 213-93, s. 472.

473. The components of the instruments used for unstemming and penetrating into a drill hole shall be of non-ferrous materials.

O.C. 213-93, s. 473.

474. During the unstemming, repriming and firing operations of a drill hole or misfire, workers who are not assigned to such operations shall be sent to a shelter.

O.C. 213-93, s. 474.

475. Where dynamite has been used:

(1) it is forbidden to unstem a drill hole unless a tamping plug having a thickness of 100 millimetres (3,9 in.) is first placed between the explosive charge and the stemming at the time the drill hole is loaded;

(2) the tamping plug shall consist of paper or any other solid non-ferrous material, brightly-coloured and contrasting with the color of the packaging of the explosive and the stemming used;

(3) during unstemming of a drill hole, the tamping plug and the explosives shall not be subjected to stress or shock;

(4) the unstemming of a drill hole shall be stopped when the tamping plug is reached; a primer shall then be placed on the contact of the tamping plug, and the hole shall be restemmed.

O.C. 213-93, s. 475.

DIVISION XI
ELECTRICITY

§ 1. General

476. Subject to paragraph 3 of section 109, paragraphs 4 and 5 of section 130, sections 131 and 132, paragraph 2 of section 172, section 217, sections 232 to 235, section 416, paragraph 2 of section 423, subparagraph *e* of paragraph 1 of section 424, section 425, and sections 457 to 462, the electrical equipment installed in a mine shall comply with the Canadian Electrical Code (Part I) made by Order in Council 141-87 dated 28 January 1987 and the Québec amendments thereto made by Minister's Order dated 11 March 1987, and any later provisions amending it, as well as with Standard CAN3-M421-M85 Use of Electricity in Mines.

O.C. 213-93, s. 476.

476.1. Electrical equipment having a voltage of 440 volts or more, such as stations, substations or control panels of motorized equipment, must be maintained under a preventive maintenance program specific to the establishment that includes periodic inspections in accordance with the manufacturer's instructions, if any.

The inspection results must be recorded in a register.

O.C. 119-2006, s. 43.

477. The control devices shall be padlocked in the open position to prevent the electrical equipment from being energized while work is being done on it. The padlocks shall be placed and removed only by the persons carrying out the work on the electrical equipment and each person working on it shall install his own personal padlock.

The tags warning that work is being done on the electrical equipment that could come into contact with energized equipment shall be made of insulating material.

O.C. 213-93, s. 477.

478. The surface of the walls where the control equipment cabinets are installed shall be covered with non-combustible materials and an air space of at least 10 millimetres (0,4 in.) shall be left behind the cabinets.

O.C. 213-93, s. 478.

479. A warning sign shall be posted at the entrance of a transformer room conveying the following information:

(1) the words «DANGER… V», the highest voltage being written between the 2 words, all in characters at least 25 millimetres (1,0 in.) in height;

(2) the measures to be taken in case of an electrical fire;

(3) the first aid to be given to persons suffering from an electric shock.

O.C. 213-93, s. 479.

480. Every uninsulated energized conductor less than 2,5 metres (8,2 ft.) above the floor or the ground shall be protected by a barrier or a shield. The floor or the

ground shall be covered with a non-conductive material such as a rubber mat.

O.C. 213-93, s. 480.

§ 2. Protection against lightning

481. All metal non-energized parts of a lightning arrester shall be grounded by means of a grounding network with a ground resistance of 6 ohms or less.

O.C. 213-93, s. 481.

482. A lightning arrester installed on a circuit having a voltage exceeding 7 500 volts or on which maintenance work shall be done shall be designed so that it can be disconnected from energized conductors.

O.C. 213-93, s. 482.

483. Metal pipes, rails, metal cables and other continuous conductors located on the surface not forming part of the electrical system and penetrating into an underground mine shall be protected on the surface against overvoltages caused by lightning by means of a grounding network having a ground resistance of 6 ohms or less.

O.C. 213-93, s. 483.

484. Headframes shall be protected by lightning rods, or where their structure is of metal, they shall be grounded by means of a grounding network having a ground resistance of 6 ohms or less.

O.C. 213-93, s. 484.

§ 3. Transformer rooms

485. All transformers shall be kept inside a room with a door that is to be kept locked, unless they are inside a locked box that prevents any contact with a live component.

A transformer room installed after 1 April 1993 in which there are exposed live components shall be separated from the control panel section by a non-combustible partition.

O.C. 213-93, s. 485; Erratum, 1993 G.O. 2, 2603; O.C. 1236-98, s. 27.

486. No transformer room in an underground mine may be less than 15 metres (49,2 ft.) from the timbering of a shaft measuring the distance along the longitudinal axis of the travelways. In addition, there shall be at least 4,5 metres (14,8 ft.) of rock between a transformer and a shaft.

O.C. 213-93, s. 486.

487. A transformer filled with inflammable liquid and located underground shall be installed in a chamber of fireresistant construction and located at least 15 metres (49,2 ft.) from a stope.

O.C. 213-93, s. 487.

488. A transformer room shall be equipped with a pan having sufficient capacity to hold any liquid that could escape from all the transformers located in the room.

O.C. 213-93, s. 488.

489. A transformer having Class B or C insulation or filled with non-inflammable dielectric liquid shall be separated from a stope by fencing or a room built entirely of non-combustible materials.

For the application of this section, «Class B insulation» means insulation that provides protection at least equal to that of mica, asbestos, fibreglass wool or any other similar inorganic material bonded by organic substances, and «Class C insulation» means insulation that provides protection at least equal to that of mica, porcelain, glass, quartz or any other similar inorganic material.

O.C. 213-93, s. 489.

490. A transformer of the dry type, naturally cooled and having Class A insulation, may not be installed underground.

For the application of this section, «Class A insulation» means insulation providing protection at least equal to that of one of the following materials:

(1) cotton, silk, paper or any other similar organic material impregnated in dielectric liquid or immersed in such liquid;

(2) molded or laminated materials containing cellulose, phenol resins or other resin with similar properties;

(3) films and foils of cellulose acetate or any other byproduct of cellulose with similar properties;

(4) varnishes and enamels applied to conductors.

O.C. 213-93, s. 490.

491. Where the ventilation of a transformer room is provided by air intakes, fire dampers controlled from outside the room and a fire door shall be installed.

O.C. 213-93, s. 491.

492. A transformer room or enclosure may not be used for storage, and only the equipment required for the operation or safety of the transformer installations may be located in a transformer room or enclosure.

O.C. 213-93, s. 492.

493. In a transformer room or enclosure, an electric motor, a transformer, starting apparatus or any other similar electrical apparatus shall be mounted on a non-combustible stand. Combustible or inflammable substances may not be stored inside or within 1 metre (3,3 ft.) of the room, enclosure or cabinet containing the electrical apparatus.

O.C. 213-93, s. 493.

§ 4. Switchboards

494. A switchboard shall be built of non-combustible materials and fixed in the vertical position on a metal frame.

O.C. 213-93, s. 494.

495. The highest point of the control levers and the visible contacts of the disconnecting devices shall be located less than 2 metres (6,6 ft.) from a floor or a work platform.

O.C. 213-93, s. 495.

496. A switchboard installed underground shall be located in a location:

(1) separated from travelways;

(2) having its floor installed so that water cannot accumulate on it;

(3) at least 3,5 metres (11,5 ft.) from the timbering of a shaft.

O.C. 213-93, s. 496.

§ 5. Wiring

497. Except for a flexible cord supplying portable apparatus, a cable supplying the signal system and a blasting cable, any conductor or cable shall satisfy the following requirements:

(1) a conductor or a cable suspended in a shaft or in a drill hole inclined more than 45Â° from the horizontal and carrying power at or over 150 volts to ground shall be armoured; the armour shall be of steel wire or the cable shall be covered with interlocked metal armour and designed so that the inner sheath cannot slide in the armour;

(2) a conductor or a cable installed underground transmitting power at or over 150 volts to ground shall be armoured or shall be in a rigid metal conduit, a flexible conduit or a metal electric tube;

(3) a conductor or a cable transmitting power at or not over 150 volts to ground shall be in a metal conduit or a sheath of a material that is flameproof;

(4) conductors in a light conduit or an AC type cable may not be used;

(5) a conductor shall not be smaller than No. 12 AWG.

O.C. 213-93, s. 497.

498. The non-magnetic metal sheaths of single-wire cables shall be:

(1) electrically interconnected and grounded at intervals not exceeding 30 metres (98,4 ft.);

(2) grounded only at the supply point and thereafter isolated from ground and from each other.

O.C. 213-93, s. 498.

499. The lead sheath and the armour of a polyphase cable shall be:

(1) electrically interconnected throughout their length;

(2) electrically connected at both ends of the cable and to non-current-carrying parts of the electrical equipment or machines to which they are connected;

(3) grounded to the ground network by a connection having an electrical conductivity that is at least that of the metallic armour;

(4) protected against corrosion, if they are exposed to it.

O.C. 213-93, s. 499.

500. The ends of a cable having a lead sheath shall have watertight couplings to prevent infiltration of water into the cable.

O.C. 213-93, s. 500.

501. A junction box joining cables that carry energy at a voltage above 300 volts may not be installed in a shaft or within 3,5 metres (11,5 ft.) of a shaft or on the timbering of a shaft station or a headframe.

Such a box shall be watertight when installed in a shaft for repairing or extending a cable.

O.C. 213-93, s. 501.

502. A junction box referred to in the first paragraph of section 501 shall be installed in a room separated from any shaft station.

O.C. 213-93, s. 502.

503. Conductors of different voltages may not be placed in the same raceway or armouring, unless each conductor is insulated for the highest voltage used by means of sheaths, or in the case of a raceway, by means of insulating partitions.

O.C. 213-93, s. 503.

504. Conducting cables supplying mobile electrical equipment at a voltage of more than 300 volts, including grounding conductors, shall meet CSA Standard C-22.2 NÂº96M1989 Portable Power Cables, and the following specifications:

(1) the cable-filling material shall be rubber or any other synthetic material with similar properties;

(2) each phase conductor shall be of a gauge equal to or larger than No. 8 AWG;

(3) the grouding conductors shall be uninsulated or shall be covered with a semi-conducting insulation or shall have a total conductance equal to or greater than 60 % of that of the largest phase conductor; each grounding conductor shall be equal to or larger than No. 8 AWG;

(4) where the insulated monitoring conductor in a cable supplying energy to a single piece of equipment is supplied to it by a separate power source, the energy supplying the equipment shall be disconnected when the conductors of the separate energy source are cut or when a grounding conductor is broken.

O.C. 213-93, s. 504.

505. Each trailing cable shall be attached mechanically to mobile electrical equipment supplied by it in order to prevent any strain on the terminals or the disconnecting device of the trailing cable. Trailing cables shall be disconnected from their power source when the electrical energy is not being used.

O.C. 213-93, s. 505.

506. Cable couplers on circuits operating at voltages higher than 300 volts shall be:

(1) of a type designed for the cables on which they are used;

(2) of a design and dimensions suitable for the worst conditions under which they are used;

(3) equipped with covering, hoods or seals to cover the unprotected ends when they are disconnected;

(4) equipped with cable clamps and gaskets on the joints to prevent any infiltration of water;

(5) designed so that they comply with one of the following requirements designed to prevent accidental disconnection when they are energized:

(a) special tools shall be used to separate the sections;

(b) the sections shall be held together by a padlock;

(c) a control circuit shall be included and shall trip the cable circuit breaker to de-energize the phase terminals before separating them.

O.C. 213-93, s. 506.

§ 6. Protection and control devices

507. The protection and control devices shall:

(1) be placed, labelled or marked so as to identify the circuits or the electrical equipment protected or controlled by them;

(2) indicate their opening and closing positions, when manually operated;

(3) be installed so that they cannot be closed by gravity.

O.C. 213-93, s. 507.

508. The covers of the boxes of disconnecting devices shall:

(1) be designed so that they can be opened without using tools;

(2) have windows of a transparent shatterproof material that allow the contacts of the devices to be seen.

O.C. 213-93, s. 508.

509. Instruments indicating the presence of ground leaks shall be installed on an ungrounded distribution network whose voltage exceeds 300 volts.

O.C. 213-93, s. 509.

510. Ground leak protection devices to automatically isolate a defective circuit shall be installed on a neutral grounded distribution network whose voltage exceeds 300 volts.

O.C. 213-93, s. 510.

511. A switch or an outlet shall be placed at the connection points of temporary wiring or of a flexible cord with a permanent circuit.

O.C. 213-93, s. 511.

512. A disconnecting device shall be installed on the surface on each electrical energy supply circuit going underground.

O.C. 213-93, s. 512.

513. Non-conductive partitions shall be installed between circuits where more than one set of single-pole disconnecting devices are mounted side by side.

O.C. 213-93, s. 513.

514. The blades of a knife switch shall be maintained so that they remain aligned with the fixed part of the contact in order to ensure their closing with a single continuous motion.

O.C. 213-93, s. 514.

515. In a circuit whose voltage exceeds 300 volts to ground, a disconnecting switch with visible air-break contacts shall be connected between a control device and the source of electric power, unless the control device makes a visible air-break on each phase of the cirucit.

For the purposes of this section, «visible break» means that the separation between the fixed and mobile current-carrying parts of a switch or a disconnecting break than can be visually checked.

O.C. 213-93, s. 515.

516. Each box of drawout type equipment that is supplied by a voltage exceeding 300 volts to ground shall bear a notice indicating that the equipment must be drawn out before working on its associated electric circuit.

O.C. 213-93, s. 516.

517. Where sequence interlocking systems are used, double voltage relays with partitions or the equivalent shall be installed to eliminate contacts that could still be energized in a contactor in the open position, unless the relays are grouped in a separate box.

O.C. 213-93, s. 517.

518. The circuit of a motor shall be equipped with a disconnecting device for disconnecting all the conductors that are not grounded and that are connected to protective and control devices, except if several motors are operating together and depend upon a single disconnecting device.

O.C. 213-93, s. 518.

519. A switch or an equivalent disconnecting device and an overload protection device shall be installed at the supply point of each trailing cable supplying a piece of mobile electrical equipment.

O.C. 213-93, s. 519.

520. A disconnecting device shall be installed on the end of each trailing cable connected to a piece of mobile electrical equipment.

O.C. 213-93, s. 520.

521. Each plug receptacle operating at over 300 volts shall have a disconnecting device placed less than 1 metre (3,3 ft.) from the receptacle. This device shall be used to de-energize the receptacle before a plug is connected or disconnected.

O.C. 213-93, s. 521.

522. Overcurrent protection devices such as fuses and circuit breakers shall be installed on both ends of the cables of a battery charger.

O.C. 213-93, s. 522.

§ 7. Grounding

523. The link between electrical equipment installed underground and the surface grounding network shall be completed or replaced by a copper conductor when the cabling is not made with cables containing one or more grounding conductors.

O.C. 213-93, s. 523.

524. The resistance of a grounding network may not exceed 6 ohms.

O.C. 213-93, s. 524.

525. A grounding conductor shall be protected by means of a non-metallic covering when it is exposed to mechanical damage. This covering may be metallic if the conductor is connected electrically to both ends of the protective covering.

O.C. 213-93, s. 525.

526. A grounding conductor may not be connected to the grounding network before the contact has been cleaned of rust, scale and paint.

This contact shall be made by means of welded, screwed, bolted or pressure terminals, clamps or grounding straps protected against any deterioration.

O.C. 213-93, s. 526.

527. The ground of a network supplying mobile electrical equipment on the surface shall be separate and placed at least 20 metres (65,6 ft.) from any other ground.

The conductor linking this ground to the network supplying the mobile electrical equipment shall be insulated.

O.C. 213-93, s. 527.

§ 8. Telephone and signalling apparatus

528. Telephone or signalling apparatus used underground or in a headframe shall be of a type designed to operate in a damp site and shall be resistant to mechanical damage, and when placed in a box, the box shall be non-combustible.

O.C. 213-93, s. 528.

529. Except for boxes with a pull cord used by the conveyance attendant to send signals, no telephone or signalling apparatus may be fixed to the timbering of a shaft.

O.C. 213-93, s. 529.

530. Contacts in signal boxes shall be mounted horizontally or so as to prevent accidental closing of a circuit by gravity.

O.C. 213-93, s. 530.

531. Telephone cables and signalling cables may not come into contact with each other or with other conductors or electrical equipment. Separate armoured cables shall be used in the shafts for telephone and signal systems.

O.C. 213-93, s. 531.

§ 9. Trolleys

532. The breaking strength of a trolley wire may not be less than that of a hard-drawn No. O AWG copper conductor.

O.C. 213-93, s. 532.

533. A trolley wire shall be supported by insulated hangers, solidly attached to the roof or ceiling and may not zigzag. In travelways the clearance between a trolley wire and the roof or ceiling shall be at least 75 millimetres (3,0 in.) when the trolley passes through.

O.C. 213-93, s. 533.

534. A trolley wire shall be located at least 2,5 metres (8,2 ft.) above the track, or the rated voltage may not exceed 300 volts, and it shall be protected in accordance with section 535.

O.C. 213-93, s. 534.

535. The protective device for a trolley wire shall be made of insulating material. The device shall extend at least 75 millimetres (3,0 in.) beyond the lowest point of the trolley wire and may not be further than 225 millimetres (8,9 in.) from it.

O.C. 213-93, s. 535.

536. The tracks, in a trolley transport system, are used for current return shall be electrically bonded by linkages at the switches, the frogs and other openings in order to provide electricaly continuity for the rails. In addition, cross bonding shall be installed between the 2 rails at not more than 60 metre (196,9 ft.) intervals.

O.C. 213-93, s. 536.

§ 10. Plan of electrical network

537. Diagrams to scale, updated at intervals not exceeding 12 months shall contain the following information:

(1) the location of any fixed electrical equipment;

(2) the paths of the fixed supply conductors and the grounding networks;

(3) the power of the electrical conductors and of the electrical equipment on a single-line diagram.

The diagrams shall be kept on the mine site.

O.C. 213-93, s. 537.

DIVISION XII
FINAL

538. The provisions of Regulations made under the Act respecting occupational health and safety, and Regulations maintained in force under sections 286, 294, 300 and 310 of that Act which apply to an establishment and any subsequent provisions amending them apply to a mine except to the extent they are amended or replaced by this Regulation.

O.C. 213-93, s. 538; O.C. 1326-95, s. 82; O.C. 782-97, s. 28.

539. Omitted.

O.C. 213-93, s. 539.

540. Amendment integrated into c. S-2.1, r. 6, s. 8.6.2.

O.C. 213-93, s. 540.

541. Amendment integrated into c. S-2.1, r. 13, s. 3.

O.C. 213-93, s. 541.

542. Amendment integrated into c. S-2.1, r. 15, s. 23.

O.C. 213-93, s. 542.

543. Amendment integrated into c. S-2.1, r. 15, s. 24.

O.C. 213-93, s. 543.

544. Amendment integrated into c. S-2.1, r. 15, s. 25.

O.C. 213-93, s. 544.

545. Amendment integrated into c. S-2.1, r. 15, s. 26.

O.C. 213-93, s. 545.

546. Amendment integrated into c. S-2.1, r. 15, s. 28.

O.C. 213-93, s. 546.

547. Amendment integrated into c. S-2.1, r. 15, s. 63.

O.C. 213-93, s. 547.

548. Amendment integrated into c. S-2.1, r. 15, s. 65.

O.C. 213-93, s. 548.

549. Amendment integrated into c. S-2.1, r. 15, s. 71.

O.C. 213-93, s. 549.

550. Omitted.

O.C. 213-93, s. 550; Erratum, 1993 G.O. 2, 2603 and 2769.

SCHEDULE I

(s. 131)

Types of fire	Types of Extinguishers according to Class of Fire
<EMPH TYPE = "GRAS">- Fire of ordinary combustible matter	
(wood, garbage, paper, textile, other similar material)	A
<EMPH TYPE = "GRAS">- Fire of inflammable liquids	
(solvent, gasoline, grease, oil, paint and other similar inflammable liquids)	B
<EMPH TYPE = "GRAS">- Fire in electrical equipment	
(electrical apparatus, switch, conductor, board, outlet and other similar electrical equipment)	C
<EMPH TYPE = "GRAS">- Fire of combustible metal	
(magnesium, potassium, sodium, titanium).	D

O.C. 213-93, Sch. I.

SCHEDULE II

(s. 269)

SIGNALS CODE

<EMPH TYPE = "GRAS">Signal	Meaning	Type of signal
1 bell.....	Stop immediately if the hoist is in motion.....	Executive
1 bell following a	Hoist.....	Executive

destination signal.....			
3 bells - pause - 3 bells - pause - 1 bell	Hoist slowly.....	Executive	
2 bells following a destination signal.....	Lower.....	Executive	
3 bells - pause - 3 bells - pause - 2 bells.....	Lower slowly.....	Executive	
1 bell - pause - 2 bells.....	Chairing and Unchairing.....	Executive	
3 bells.....	Men about to ascend or descend hoisting conveyance.....	Cautionary	
5 bells.....	Release signal.....	Cautionary	
9 bells.....	Danger signal.....	Cautionary	
SHAFT SINKING/BUCKET			
3 bells - pause - 1 bell.....	Hoist.....	Executive, between the bottom of the shaft and the lower chair	
3 bells - pause - 2 bells.....	Lower.....	Executive, between the lower chair and the bottom of the shaft.	

O.C. 213-93, Sch. II; O.C. 42-2004, s. 31.

SCHEDULE III

(s. 277)

DESTINATION SIGNALS

The following destination signals shall indicate the stations on the different levels of each shaft of an underground mine and they shall be used concurrently with the other signals required by the Regulation. In addition, the signals must also serve as destination signals for the lower chair level towards which the workers are descending during the sinking of a shaft :

<EMPH TYPE = "GRAS">Levels	Signals
Upper landing or skip unloading landing	2 bells - pause - 1 bell
Shaft opening	2 bells - pause - 2 bells
1st level	2 bells - pause - 3 bells
2nd level	2 bells - pause - 4 bells
3rd level	2 bells - pause - 5 bells
4th level	4 bells - pause - 1 bell
5th level	4 bells - pause - 2 bells
6th level	4 bells - pause - 3 bells
7th level	4 bells - pause - 4 bells
8th level	4 bells - pause - 5 bells
9th level	5 bells - pause - 1 bell
10th level	5 bells - pause - 2 bells
11th level	5 bells - pause - 3 bells
12th level	5 bells - pause - 4 bells
13th level	5 bells - pause - 5 bells
14th level	6 bells - pause - 1 bell
15th level	6 bells - pause - 2 bells
16th level	6 bells - pause - 3 bells
17th level	6 bells - pause - 4 bells
18th level	6 bells - pause - 5 bells

The signals for the lower levels shall follow this progression as the depth increases, unless there are 29 levels or more, in which case the series beginning with the number 9 shall not be used. Consequently, the signal for the 29 th level is: 10 bells — pause — 1 bell, and the following signals shall continue in that progression.

O.C. 213-93, Sch. III; O.C. 42-2004, s. 32.

SCHEDULE IV

(s. 416)

TABLE OF DISTANCES IN TERMS OF QUANTITIES OF EXPLOSIVES CONTAINED IN THE MAGAZINE

<EMPH TYPE = "GRAS">Quantity of explosives in:	<EMPH TYPE = "GRAS">Distance separating the explosives magazine from:				<EMPH TYPE = "GRAS">Quantity of explosives in:
	<EMPH TYPE = "GRAS">(1)	<EMPH TYPE = "GRAS">(2)		<EMPH TYPE = "GRAS">(3)	
<EMPH TYPE = "GRAS">k					<EMPH TYPE = "GRAS">k
<EMPH TYPE = "GRAS">i					<EMPH TYPE = "GRAS">i

```
|   <EMPH TYPE = "GRAS">l   |           |   |           |     |          |   |       |   <EMPH TYPE = "GRAS">l   |          |
|   <EMPH TYPE = "GRAS">o   |     <EMPH TYPE = "GRAS">(p      | <EMPH TYPE = "GRAS">m |          |  <EMPH TYPE = "GRAS">m  |          | <EMPH TYPE =
|   <EMPH TYPE = "GRAS">g   |      <EMPH TYPE = "GRAS">o      | <EMPH TYPE = "GRAS">e |          |  <EMPH TYPE = "GRAS">e  |          | <EMPH TYPE =
|   <EMPH TYPE = "GRAS">r   |      <EMPH TYPE = "GRAS">u      | <EMPH TYPE = "GRAS">t |   <EMPH TYPE = "GRAS">(f    |  <EMPH TYPE = "GRAS">t  |    <
|   <EMPH TYPE = "GRAS">a   |      <EMPH TYPE = "GRAS">n      | <EMPH TYPE = "GRAS">r |    <EMPH TYPE = "GRAS">e    |  <EMPH TYPE = "GRAS">r  |
|   <EMPH TYPE = "GRAS">m   |      <EMPH TYPE = "GRAS">d      | <EMPH TYPE = "GRAS">e |    <EMPH TYPE = "GRAS">e    |  <EMPH TYPE = "GRAS">e  |
|   <EMPH TYPE = "GRAS">s   |      <EMPH TYPE = "GRAS">s)     | <EMPH TYPE = "GRAS">s |    <EMPH TYPE = "GRAS">t)   |  <EMPH TYPE = "GRAS">s  |
```

50	(110.2)	23	(75.5)	23	(75.5)	9	(29.5)	50	(110.2)
100	(220.5)	23	(75.5)	32	(105.0)	11	(36.1)	100	(220.5)
200	(440.9)	26	(85.3)	52	(170.6)	14	(45.9)	200	(440.9)
250	(551.1)	30	(98.4)	60	(196.9)	15	(49.2)	250	(551.1)
300	(661.4)	34	(111.5)	68	(223.1)	16	(52.5)	300	(661.4)
400	(881.8)	41	(134.5)	82	(269.0)	18	(59.1)	400	(881.8)
500	(1 102.3)	47	(154.2)	94	(308.4)	19	(62.3)	500	(1 102.3)
600	(1 322.8)	53	(173.9)	105	(344.5)	20	(65.6)	600	(1 322.8)
800	(1 763.7)	65	(213.3)	130	(426.5)	23	(75.5)	800	(1 763.7)
1 000	(2 204.6)	75	(246.1)	150	(492.1)	24	(78.7)	1 000	(2 204.6)
1 500	(3 306.9)	100	(328.1)	200	(656.2)	27	(88.6)	1 500	(3 306.9)
2 000	(4 409.2)	120	(393.7)	240	(787.4)	30	(98.4)	2 000	(4 409.2)
2 500	(5 511.5)	135	(442.9)	270	(885.8)	32	(105.0)	2 500	(5 511.5)
3 000	(6 613.8)	150	(492.1)	300	(984.3)	34	(111.5)	3 000	(6 613.8)
4 000	(8 818.3)	175	(574.1)	350	(1 148.3)	38	(124.7)	4 000	(8 818.3)
5 000	(11 022.9)	190	(623.4)	380	(1 246.7)	41	(134.5)	5 000	(11 022.9)
6 000	(13 227.5)	200	(656.2)	400	(1 312.3)	44	(144.4)	6 000	(13 227.5)
7 000	(15 432.1)	210	(689.0)	420	(1 378.0)	46	(150.9)	7 000	(15 432.1)
10 000	(22 045.9)	240	(787.4)	480	(1 574.8)	52	(170.6)	10 000	(22 045.9)
15 000	(33 068.8)	270	(885.8)	540	(1 771.7)	59	(193.6)	15 000	(33 068.8)
20 000	(44 091.7)	300	(984.3)	600	(1 968.5)	66	(216.5)	20 000	(44 091.7)
25 000	(55 114.6)	320	(1 049.9)	640	(2 099.7)	70	(229.7)	25 000	(55 114.6)
30 000	(66 137.6)	340	(1 115.5)	680	(2 231.0)	74	(242.8)	30 000	(66 137.6)
40 000	(88 183.4)	380	(1 246.7)	760	(2 493.4)	82	(269.0)	40 000	(88 183.4)
50 000	(110 229.3)	410	(1 345.1)	820	(2 690.3)	88	(288.7)	50 000	(110 229.3)
75 000	(165 343.9)	470	(1 542.0)	940	(3 084.0)	100	(328.1)	75 000	(165 343.9)
100 000	(220 458.6)	525	(1 722.4)	1 050	(3 444.9)	110	(360.9)	100 000	(220 458.6)
125 000	(275 573.2)	558	(1 830.7)	1 115	(3 658.1)	120	(393.7)	125 000	(275 573.2)
150 000	(330 687.8)	588	(1 911.0)	1 175	(3 855.0)	128	(419.9)	150 000	(330 687.8)

EXPLANATION OF DISTANCE COLUMNS

(1) Any outside assembly place or any water or land communications way, except a way leading to the explosives magazine;

(2) Any building or explosives magazine not referred to in paragraph 3;

(3) Any other explosives magazine separated by a mound of earth or equivalent substance that is as high as the edge of the roof of the explosives magazine and at least one metre (3.3 ft.) wide at the top so as to form a shield between each magazine. (Column 3 applies only to the distance between explosives magazines).

Note: For the purposes of calculating the distance, 1,300 detonators or 150 detonating relays are equivalent to 1 kilogram (2,2 lbs.) of explosives.

O.C. 213-93, Sch. IV; O.C. 460-2000, s. 33.

SCHEDULE V

(s. 299)

INSTALLATION OF WIRE CLAMP WITH U-BOLT AND BASE PLATE

<EMPH TYPE = "GRAS">Cable <EMPH TYPE = "GRAS">diameter	<EMPH TYPE = "GRAS">Number of <EMPH TYPE = "GRAS">clamps	<EMPH TYPE = "GRAS">Space between <EMPH TYPE = "GRAS">the clamps	<EMPH TYPE = "GRAS">Tightening torque <EMPH TYPE = "GRAS">No. 1 clamp	<EMPH TYPE = "GRAS">Tightening torque <EMPH TYPE = "GRAS">(1 lbs. - ft.) <EMPH TYPE = "GRAS">No. 2 clamp +
<EMPH TYPE = "MIN">3/4"	7	5"	55	65
<EMPH TYPE = "MIN">7/8"	7	6 <EMPH TYPE = "MIN">1/2"	100	120
1"	7	7"	100	120
1 - <EMPH TYPE = "MIN">1/8"	8	9"	100	120
1 - <EMPH TYPE = "MIN">1/4"	8	10"	150	180
1 - <EMPH TYPE = "MIN">3/8"	8	10"	150	180
1 - <EMPH TYPE = "MIN">1/2"	9	10 <EMPH TYPE = "MIN">1/2"	150	240
1 - <EMPH TYPE = "MIN">5/8"	9	10 <EMPH TYPE = "MIN">1/2"	150	270
1 - <EMPH TYPE = "MIN">3/4"	9	10 <EMPH TYPE = "MIN">1/2"	150	300
1 - <EMPH TYPE = "MIN">7/8"				
2"	9	12"	200	375
2 - <EMPH TYPE = "MIN">1/16"				

2 - <EMPH TYPE = "MIN">1/2"	10	12"	200	375

O.C. 213-93, Sch. V.

SCHEDULE VI

(s. 102)

SAMPLING AND ANALYSIS PROTOCOL FOR RESPIRABLE COMBUSTIBLE DUST (RCD)

1. **Principle underlying the protocol**

A sample of respirable dust is taken on a silver membrane filter (0,8-micrometre pores, 25 millimetres in diameter). Once the sampling is completed, the filter is weighed and then placed in a furnace at 400 degrees Celsius for at least 1,5 hours. That temperature and the catalytic action of the silver membrane filter combine to eliminate carbon-based substances. That loss in mass is therefore equivalent to the quantity of respirable combustible dust.

2. **Precision and accuracy**

CONCENTRATION RANGE (RCD): 0,04 to 3,0 milligrams per cubic metre (1000-litre sample).

ACCURACY: <10 % (pure diesel dust samples).

PRECISION: ±0,04 milligrams (on gravimetric analysis only).

3. **Interference**

Carbon-based mineral dust (coal, graphite).

Some sulphide mineral dusts.

4. **Equipment**

Personal sampler: 10-millimetre Dorr-Oliver nylon cyclone. Silver membrane filter 25 millimetres in diameter with 0,8-micrometre pores. Three-piece plastic cassette with backup pad.

Personal sampling pump. Flexible plastic tube to connect the pump to the cassette.

Flowmeter.

Furnace equipped with automatic temperature control system. Fire-proof glass or stainless steel plates for filters.

Electrobalance (0,01-milligram readability).

5. **Sampling**

The flow of the sampling pump shall be calibrated at 1,7 litres per minute using the flowmeter. When using a cyclone, the flow must be fixed at 1,7 litres per minute under the actual temperature and pressure conditions of the sampling site. Calibration of the flow is done with the entire sampling device (pump, tube, cyclone, filter cassette).

The sampling flow shall be measured at the end of sampling and the difference compared to the initial flow shall be less than 5 %.

The sampling volume shall range from 400 to 1 000 litres.

Sampling shall focus on the total duration of the shift.

Once the sampling is completed, the cassette shall be plugged and sent to the laboratory for analysis.

6. **Analysis**

Using tweezers, the filter shall be withdrawn from the cassette case making sure not to touch the dust deposit. The filters to be analyzed shall be placed in the same clean room as the balance for an acclimatization period of at least 2 hours.

After that period, each filter shall be weighed at least twice. If the difference between the 2 readings is 0,03 milligrams or more, a third reading is required. The mass of the filter is the average of the masses that differ by 0,02 milligrams or less.

The filters shall be placed on heating plates, which shall then be inserted into the furnace. The position of the filters shall be carefully recorded using a diagram on which each filter is identified and its position in relation to the others indicated (identification marks on filters may burn off during the heating process).

The furnace shall be heated to 400 degrees Celsius. A timer equipped with an audible alarm may be used to indicate the end of the heating period, which shall be at least 1,5 hours at a temperature of 400 degrees Celsius.

At the end of the heating process, samples shall be removed from the furnace. They may be removed from the plates if it can be done safely. Otherwise, it is recommended to wait until the plates have cooled. Filters may sometimes tend to adhere to the plate. A scalpel balde inserted between the filter and the surface while holding the filter with tweezers usually frees the filter without damaging it.

Fitters shall then be placed in the same place as the balance for 2 hours. Filters shall be re-weighed as described in the second paragraph.

The mass of respirable combustible dust is the difference between the final mass obtained pursuant to the sixth paragraph and the initial mass obtained pursuant to the second paragraph.

7. **Quality control**

The accuracy of the fumance temperature reading shall be periodically verified by using an independent electronic thermometer.

The balance shall be calibrated at the beginning of each weighting session using the manufacturer's directions for internal calibration. Thereafter, every 3 months or more if needed, the accuracy of the balance shall be checked using NIST Class S weights. Every year, the balance shall be cleaned and its accuracy checked again using ANSI/ASTM Class 1 weights.

The calibration of flowmeters shall be done by a laboratory which shall file certificates demonstrating that the calibration procedures comply with NIST Standards.

Analytical and sampling blanks shall be analyzed at the same time as the other samples. The loss in mass of analytical blanks should never exceed 0,04 milligrams and that loss in mass shall be applied as a correction factor.

O.C. 782-97, s. 29; O.C. 465-2002, s. 32.

SCHEDULE VII

(ss. 100.1 and 102)

MINIMUM VENTILATION RATE (CANMET CERTIFICATION

The minimum ventilation rate of a diesel engine used in an underground mine shall be the higher of the values calculated in accordance with the following methods:

(a) the rate required to dilute contaminants in the exhaust gases in accordance with CAN/CSA Standard M424.2M90, Non-Rail-Bound Diesel-Powered Machines for Use in Non-Gassy Underground Mines or CAN/CSA Standard M424.1-88, Flameproof Non-Rail-Bound Diesel-Powered Machines for Use in Gassy Underground Coal Mines, as the case may be;

(b) lthe rate required to dilute the predominant contaminant to a concentration equal to the value of the denominator, which represents the contaminant, where the value calculated in accordance with paragraph a is insufficient to dilute the combustion emissions indicated in the equation below to concentrations lower than the respective individual value of the denominator in that equation for each of the contaminants.

Equation:

$$EQI = \frac{CO}{50} + \frac{NO}{25} + \frac{RCD}{2} + 1.5\left[\frac{SO_2}{3} + \frac{RCD}{2}\right] + 1.2\left[\frac{NO_2}{3} + \frac{RCD}{2}\right]$$

O.C. 460-2000, s. 34.

O.C. 213-93, 1993 G.O. 2, 1757, 2603 and 2769
O.C. 1326-95, 1995 G.O. 2, 2984
O.C. 374-97, 1997 G.O. 2, 1420
O.C. 782-97, 1997 G.O. 2, 2744
O.C. 1236-98, 1998 G.O. 2, 4049
O.C. 460-2000, 2000 G.O. 2, 2009
O.C. 639-2000, 2000 G.O. 2, 2536
O.C. 885-2001, 2001 G.O. 2, 3888
O.C. 465-2002, 2002 G.O. 2, 2283
O.C. 42-2004, 2004 G.O. 2, 821
O.C. 119-2006, 2006 G.O. 2, 1066