7

ABMINCO N.L.
CLEVELAND MINE

HOLE No.: 1312 REF No 18555

CATEGORY U/G Expl

GENERAL DATA

Objective: R Sect. RLO

Area of Operation: 18-19 Expo. Drive

Location: R Sec R.L 100m,

Collar R.L.: 101·003 m

Co-ordinates: 15595·994 N, 11007·745 E.

Bearing of Hole: 135° 12' 05" (132)

Angle of Hole: -34° 38' 31" (-34)

Final Depth: 310·30 m

Drilling Commenced: 3/8/78

Completed: ~~[illegible]~~ 30/8/78

Logged by: H. [illegible] & D. Simpson

DRILLING DATA

Drilled by: A.D.D.

Non Coring:

Drilling Rig: F30 Air

Coring: BQ

Driller(s): M. Weller, G. Archer, R. Lawson, L Thompson

Core Recovery:

HOLE SURVEYS

HOLE No.: 1312

NWPS 24164

23 387

HOLE No.: 1312

SAMPLE DATA

SHEET No.: 1

LENS	SAMPLE No.	ROCK TYPE	Σ	INTERVAL From	INTERVAL To	Length (L)	Assays (A) % Snt	% Sns	% Cu	% S	SPECIFIC GRAVITY ~~Product (A×L)~~ ~~P. Snt~~ DRY	~~P. Sns~~ WET	~~P. Cu~~	S.G.
	222841	LODE		77.45	78.35	0.90	1.64	0.07	0.22	9.5	1432	995		3.28
	222842	SHALE		78.35	79.07	0.72	0.09	0.03	0.04	0.58	1002	653		2.87
	3	LODE		79.07	80.12	1.05	2.47	0.10	017	6.70	1487	1010		3.12
	4	LODE		80.12	81.05	0.93	2.41	0.21	028	11.2	1406	988		3.36
	5	LODE		81.05	82.99	0.94	2.16	0.07	0.15	5.7	1402	956		3.14
	6	LODE		82.99	83.70	0.71	3.32	0.06	0.16	6.3	1067	740		3.24
	7	SHALE		82.70	83.28	0.58	0.15	0.02	0.07	0.75	691	444		2.80
	8	LODE		83.28	84.42	1.14	1.08	0.07	0.19	8.8	1727½	1164		3.0
	9	LODE		84.42	85.47	1.05	1.17	0.08	0.17	8.1	1841	1237½		3.05
	222850	LODE		85.47	86.47	1.00	1.03	0.06	0.08	4.7	1654	1108		3.03
	51	SHALE		86.47	87.07	0.60	0.11	0.02	0.02	0.24	440	286		2.86
	52	LODE		87.07	87.84	0.77	0.54	0.15	0.33	13.40	1238	874		3.40
	53	SHALE		87.84	88.07	0.23	0.10	0.02	0.02	0.31	332	216½		2.87
	54	LODE		88.07	89.09	1.02	1.48	0.07	0.15	2.30	1591	1052½		2.95
HENRY'S WEST				77.45	89.09	11.64	1.32	0.03	0.16					
HENRY	55	LODE		105.76	107.01	1.25	1.35	0.03	0.24	9.60	2218	1522		3.19
	56	SHALE (MINOR LODE)		107.01	107.84	0.83	.43	0.03	0.14	3.6	1096	733		3.0
	222857	LODE		107.84	109.08	1.24	2.06	0.09	0.24	11.2	1625	1115		3.1

N.W.P.S.

HOLE No.: 1312 R.D.H.

SAMPLE DATA

SHEET No.: 1

LENS	SAMPLE No.	ROCK TYPE	Σ	INTERVAL From	INTERVAL To	Length (L)	Assays (A) % Snt	% Sns	% Cu	% S	SPECIFIC GRAVITY ~~Product (A×L)~~ P. Snt DRY	P. Sns WET	~~P. Cu~~	S.G.
	222841	* LODE		77.45	78.35	0.90	1.54	0.07	0.22	9.5	1432	995		3.28
	222842	* SHALE		78.35	79.07	0.72	0.09	0.03	0.04	0.08	1002	653		2.87
	3	* LODE		79.07	80.12	1.05	2.47	0.10	0.17	6.70	1487	1010		3.12
	4	* LODE		80.12	81.05	0.93	2.41	0.21	0.28	11.2	1406	988		3.36
	5	* LODE		81.05	81.99	0.94	2.16	0.07	0.15	5.7	1402	956		3.14
	6	* LODE		81.99	82.70	0.71	3.32	0.06	0.16	6.3	1067	740		3.24
	7	* SHALE		82.70	83.28	0.58	0.15	0.02	0.07	0.75	691	444		2.80
	8	* LODE		83.28	84.52	1.24	1.08	0.07	0.14	5.2	1727½	1164		3.07
	9	* LODE		84.52	85.47	1.05	1.17	0.08	0.17	8.1	1841	1237½		3.05
	222850	* LODE		85.47	86.47	1.00	1.03	0.06	0.08	4.7	1654	1108		3.03
	51	* SHALE		86.47	87.07	0.60	0.11	0.02	0.02	0.24	440	286		2.86
	52	* LODE		87.07	87.84	0.77	0.54	0.15	0.32	13.40	1238	874		3.40
	53	* SHALE		87.84	88.07	0.23	0.10	0.02	0.02	0.31	332	216½		2.87
	54	* LODE		88.07	89.09	1.02	1.48	0.07	0.15	2.30	1591	1052½		2.95
	55	* LODE		105.76	107.01	1.25	1.35	0.03	0.24	9.60	2218	1522		3.19
	56	SHALE (minor LODE)		107.01	107.84	0.83	0.43	0.03	0.14	3.6	1096	733		3.02
	222857	* LODE		107.84	109.08	1.24	2.06	0.09	0.24	11.2	1625	1115		3.19

HOLE No.: 1312

SAMPLE DATA

SHEET No.: 2

LENS	SAMPLE No.	ROCK TYPE	Σ	INTERVAL From	INTERVAL To	Length (L)	Assays (A) % Snt	% Sns	% Cu	%S	SPECIFIC GRAVITY ~~Product (A x L)~~ ~~P. Snt~~ DRY	~~P. Sns~~ WET	~~P. Cu~~	S.G
Hanks	222858	* LODE		109.08	110.14	1.06	1.12	0.04	0.25	11.2	1597	1083		3.11
"	59	*THIN SHALE		110.14	111.24	0.90	0.24	0.03	0.04	0.39	1601	1026		2.78
[illegible]			Σ	[illegible]	[illegible]									
Hall's	60*	* LODE		148.72	149.03	0.31	1.20	0.03	0.04	0.32	462	300		2.85
Hall's	61	LODE (Minor shale)		150.30	151.30	1.00	0.34	0.03	0.04	1.39	1417	936		2.95
"	62	LODE		151.30	152.20	0.90	0.17	0.04	0.06	2.80	1291	838		2.85
Hall's	63	LODE		156.12	157.47	1.35	1.28	0.02	0.30	10.60	22¼	1543		3.30
"	64	LODE		157.47	158.81	1.34	.73	0.05	0.04	1.72	2020	1345½		2.99
"	65	LODE		158.81	160.09	1.28	.74	0.07	0.07	3.00	1965	1299		2.95
"	66	LODE		160.09	161.20	1.11	.32	0.09	0.04	0.58	1585	1037½		2.89
"	67	CHERT/SHALE		161.20	162.73	1.53	.06	0.02	0.02	0.15	2077½	1336		2.85
"	68	LODE		162.73	163.90	1.17	.39	0.08	0.04	0.65	1515	983		2.85
"	69	SHALE/CHERT		163.90	165.65	1.75	.04	0.02	0.01	0.16	1962	1252		2.76
"	2228 70	LODE		165.65	166.70	1.05	1.97	0.04	0.05	2.10	1430	970		3.11
"	71	LODE		166.70	167.74	1.04	0.64	0.05	0.05	2.10	1477½	1007		3.14
"	72	LODE		167.74	168.82	1.08	0.53	0.04	0.04	0.78	1343	899		3.02

* NOT FOR METALLURGICAL TESTING.

N.W.P.S.

93 290

HOLE No.: 1312

SAMPLE DATA

SHEET No.: 2

LENS	SAMPLE No.	ROCK TYPE	Σ	INTERVAL From	INTERVAL To	Length (L)	Assays (A) % Snt	% Sns	% Cu	% S	SPECIFIC GRAVITY ~~P. Snt~~ DRY	~~P. Sns~~ WET	~~P. Cu~~	S G
Henry's	222858	* LODE		109.08	110.14	1.06	1.12	0.04	0.25	11.2	1597	1083		3.11
"	59	* MIN SHALE		110.14	111.24	0.90	0.24	0.03	0.04	0.39	1601	1026		2.78
Halls	60*	* LODE		148.72	149.03	0.31	1.20	0.03	0.04	0.32	462	300		2.85
Halls	61	LODE (Mine Shale)		150.30	151.30	1.00	0.34	0.03	0.04	1.34	1417	936		2.95
"	62	LODE		151.30	152.20	0.90	0.17	0.04	0.06	2.80	1291	838		2.85
Hall's	63	LODE		156.12	157.47	1.35	1.28	0.02	0.30	10.60	2214	1543		3.30
"	64	LODE		157.47	158.81	1.34	.73	0.05	0.04	1.72	2020	1345½		2.99
"	65	LODE		158.81	160.09	1.28	.74	0.07	0.07	3.00	1965	1299		2.95
"	66	LODE		160.59	161.20	1.11	.32	0.09	0.04	0.58	1585	1037½		2.89
"	67	CHERT/SHALE		161.20	162.73	1.53	.06	0.02	0.02	0.15	2077½	1336		2.85
"	68	LODE		162.73	163.90	1.17	.39	0.08	0.04	0.65	1515	983		2.85
"	69	SHALE/CHERT		163.90	165.65	1.75	.04	0.02	0.01	0.16	1962	1252		2.76
"	2228 70	LODE		165.65	166.70	1.05	1.97	0.04	0.05	2.10	1430	970		3.11
"	71	LODE		166.70	167.74	1.04	0.64	0.05	0.05	2.10	1477½	1007		3.14
"	72	LODE		167.74	168.82	1.08	0.53	0.04	0.04	0.78	1343	899		3.02

* NOT FOR METALLURGICAL TESTING

HOLE No.: 1312

SAMPLE DATA

SHEET No.: 3

LENS	SAMPLE No.	ROCK TYPE	Σ	INTERVAL From	INTERVAL To	Length (L)	Assays (A) % Snt	% Sns	% Cu	% S	SPECIFIC GRAVITY ~~Product (A x L)~~ ~~P. Snt DRY~~	~~P. Sns WET~~	~~P. Cu~~	S.G
	2228 73	LODE		168.82	169.76	0.94	0.59	003	0.05	1.81	1340	899		3.04
"	74	LODE		169.76	170.67	0.91	0.54	0.03	0.06	1.00	1409	968		3.20
"	75	LODE		170.67	171.50	0.83	0.55	0.05	0.06	1.99	1298	882		3.12
"	76	SHALE/LODE		171.50	172.37	0.87	0.32	0.03	0.08	2.70	1176	792		3.06
"	77	" "		172.37	173.13	0.82	0.12	0.04	0.10	4.10	1134	759½		3.03
"	78	" "		173.13	174.00	0.87	0.14	0.04	0.04	0.51	1112	717		2.82
"	79	" "		174.00	174.93	0.93	0.39	0.05	0.07	1.03	972	635		2.88
"	2228 80	SHALE/CHERT		174.93	175.77	0.84	0.09	0.03	0.03	0.17	1359½	885		2.85
"	81	LODE (MINOR SHALE)		175.77	176.77	1.00	1.04	0.05	0.08	3.30	1549½	1021		2.92
"	82	LODE		176.77	177.75	0.98	0.59	0.04	0.09	4.10	1537	1024		3.00
"	83	LODE		177.75	178.83	1.08	0.45	0.05	0.08	1.36	1355	914½		3.08
"	84	LODE		178.83	179.89	1.06	0.60	0.04	0.09	3.70	1556	1027½		2.9
"	85	LODE		179.89	180.89	1.00	0.82	0.04	0.15	5.00	1210½	818		3.08
"	86	LODE		180.89	182.00	1.11	0.60	0.03	0.15	3.20	1323	888		3.04
"	87	CHERT/LODE/SHALE		182.00	183.04	1.04	0.16	0.03	0.08	0.98	1237	813		2.92
"	88	SHALE/LODE		183.04	184.00	0.96	0.13	0.02	0.08	0.60	1055	693		2.91
Halls	2228 89	LODE		193.65	195.04	1.59	0.49	0.03	0.20	5.80	1688	1107		2.9

N.W.P.S.

HOLE No.: 1312

SAMPLE DATA

SHEET No.: 3

LENS	SAMPLE No.	ROCK TYPE	Σ	INTERVAL From	INTERVAL To	Length (L)	Assays (A) % Snt	% Sns	% Cu	%S	SPECIFIC ~~Product (A x L)~~ GRAVITY ~~P. Snt~~ DRY	~~P. Sns~~ WET	~~P. Cu~~	S.G
Hallc	2228 73	LODE		168 82	169.76	0.94	0.59	0.03	0.05	1.81	1340	899		3.04
"	74	LODE		169.76	170.67	0.91	0.54	0.03	0.06	1.00	1409	968		3.20
"	75	LODE		170.67	171.50	0.83	0.55	0.05	0.06	1.94	1298	882		3.12
"	76	SHALE/LODE		171.50	172.37	0.87	0.32	0.03	0.08	2.70	1176	792		3.06
"	77	" "		172.37	173.13	0.82	0.12	0.04	0.10	4.10	1134	759½		3.03
"	78	" "		173.13	174.00	0.87	0.14	0.04	0.04	0.91	1112	717		2.82
"	79	" "		174.00	174.93	0.93	0.34	0.05	0.07	1.53	972	635		2.88
"	2228 80	SHALE/CHERT		174.93	175.77	0.84	0.09	0.03	0.03	0.17	1359½	885		2.87
"	81	LODE (MINOR SHALE)		175.77	176.77	1.00	1.04	0.05	0.08	3.30	1549½	1021		2.93
"	82	LODE		176.77	177.75	0.98	0.59	0.04	0.09	4.10	1537	1024		3.00
"	83	LODE		177.75	178.83	1.08	0.45	0.05	0.08	1.36	1355	914½		3.08
"	84	LODE		178.83	179.89	1.06	0.60	0.04	0.09	3.70	1556	1027½		2.94
"	85	LODE		179.89	180.89	1.00	0.82	0.04	0.15	5.00	1210½	818		3.08
"	86	LODE		180.89	182.00	1.11	0.60	0.03	0.15	3.20	1323	888		3.04
"	87	CHERT/LODE/SHALE		182.00	183.04	1.04	0.16	0.03	0.08	0.98	1237	813		2.92
"	88	SHALE/LODE		183.04	184.00	0.96	0.13	0.02	0.08	0.10	1055	693		2.91
Hallc	2228 89	LODE		193.65	195.24	1.59	0.44	0.03	0.20	5.60	1688	1107		2.91

HOLE No.: 1312

SAMPLE DATA

SHEET No.: 4

LENS	SAMPLE No.	ROCK TYPE	Σ	INTERVAL From	INTERVAL To	Length (L)	Assays (A) % Snt	% Sns	% Cu	%S	SPECIFIC Product (A x L) P. Snt DRY	P. Sns WET	P. Cu	GRAVITY S.G.
Walls	2228 90	LODE		195.04	196.26	1.22	0.39	0.04	0.18	3.30	1624	1070		2.93
"	2228 91	SHALE		196.26	197.30	1.04	0.09	0.03	0.02	0.14	1012	662		2.89
"	92	LODE		197.30	198.27	0.97	0.23	0.04	0.09	2.70	1175½	777½		2.95
"	93	LODE		198.27	199.25	0.98	0.27	0.05	0.14	5.60	1276	858½		3.06
"	94	LODE		199.25	200.29	1.04	0.31	0.05	0.09	3.40	1225	827		3.08
"	95	SHALE		200.29	201.12	0.83	0.04	0.03	0.02	0.05	825	533		2.83
"	96	MIN SHALE		201.12	202.32	1.20	0.17	0.03	0.03	0.60	158 1½	1028		2.86
"	97	SHALE		202.32	203.00	0.68	0.03	0.02	0.04	0.16	1022	665		2.86
"	98	LODE		203.00	203.93	0.93	0.31	0.04	0.12	3.00	1155	779½		3.08
"	2228 99	LODE		203.93	204.90	0.97	0.27	0.03	0.08	2.50	1450½	970		3.02
"	222900	CHERT		204.90	205.70	0.80	0.04	0.03	0.03	0.14	847	546		2.81
"	222901	LODE		205.70	206.09	0.39	0.20	0.04	0.05	0.74	460	293		2.75
"	222902	CHERT		206.09	207.19	1.10	0.02	0.02	0.02	0.14	1308	848		2.84
"	03	LODE		207.19	207.59	0.40	0.21	0.04	0.23	3.20	477	316		2.96
"	04	CHERT		207.59	207.89	0.30	0.04	0.02	0.02	0.13	300	192½		2.7
"	05	LODE		207.89	208.79	0.90	0.24	0.04	0.06	1.86	1426½	947		2.9
"	06	LODE		208.79	209.89	1.10	0.07	0.05	0.10	4.10	1601½	1061		2.91
"	07	LODE		209.89	210.96	1.07	0.35	0.06	0.17	6.20	1601	1064½		2.98

N.W.P.S.

99 994

HOLE No.: 1312

SAMPLE DATA

SHEET No.: 4

LENS	SAMPLE No.	ROCK TYPE	Σ	INTERVAL From	INTERVAL To	Length (L)	Assays (A) % Snt	% Sns	% Cu	%S	SPECIFIC Product (A x L) P. Snt DRY	P. Sns WET	P. Cu	GRAVITY S.G
Halls	222890	LODE		195.04	196.26	1.22	0.39	0.04	0.18	3.30	1624	1070		2.93
"	222891	SHALE		196.26	197.30	1.04	0.09	0.03	0.02	0.14	1012	662		2.84
"	92	LODE		197.30	198.27	0.97	0.23	0.04	0.09	2.70	1175½	777½		2.95
"	93	LODE		198.27	199.25	0.98	0.27	0.05	0.14	5.60	1276	858½		3.06
"	94	LODE		199.25	200.29	1.04	0.31	0.05	0.09	3.40	1225	827		3.08
"	95	SHALE		200.29	201.12	0.83	0.04	0.03	0.02	0.05	825	533		2.83
"	96	MIN SHALE		201.12	202.32	1.20	0.17	0.03	0.03	0.60	158 1/2	1028		2.86
"	97	SHALE		202.32	203.00	0.68	0.03	0.02	0.04	0.16	1022	665		2.86
"	98	LODE		203.00	203.93	0.93	0.31	0.04	0.12	3.00	1155	779½		3.08
"	222899	LODE		203.93	204.90	0.97	0.27	0.03	0.08	2.50	1450½	970		3.02
"	222900	CHERT		204.90	205.70	0.80	0.04	0.03	0.03	0.14	847	546		2.81
"	222901	LODE		205.70	206.09	0.39	0.20	0.14	0.05	1.74	460	293		2.75
"	222902	CHERT		206.09	207.19	1.10	0.02	0.02	0.02	0.14	1308	848		2.84
"	03	LODE		207.19	207.59	0.40	0.21	0.04	0.23	3.20	477	316		2.96
"	04	CHERT		207.59	207.89	0.30	0.04	0.02	0.02	0.13	300	192½		2.79
"	05	LODE		207.89	208.79	0.90	0.24	0.04	0.06	1.86	1426½	947		2.97
"	06	LODE		208.79	209.89	1.10	0.07	0.05	0.10	4.10	1601½	1061		2.96
"	07	LODE		209.89	210.96	1.07	0.25	0.06	0.17	6.20	1601	1064½		2.98

SHEET No.: 5

HOLE No.: 1312

SAMPLE DATA

LENS	SAMPLE No.	ROCK TYPE	Σ	INTERVAL From	INTERVAL To	Length (L)	Assays (A) % Snt	% Sns	% Cu	c/s	SPECIFIC GRAVITY P. Snt DRY	P. Sns WET	P. Cu	S.G
Halls	2229 08	LODE		210·96	212·12	1·16	0 23	0·05	0·13	5·10	1856	1223		2·93
	09	LODE		212·12	213·36	1·24	0·22	0·06	0·23	10·70	1758	1192		3·11
	10	LODE/CHERT		213·36	214·27	0·91	0·17	0·02	0·04	1·52	1364	894		2·90
	11	" "		214·27	215·10	0·83	0·11	0·02	0·16	3·80	1430½	953		3·00
	12	LODE		215·10	215·91	0·71	0·13	0·03	0·31	10·10	1134	775½		3·16
Halls	13	LODE		240·00	241·07	1·07	0·10	0·02	0·16	4·00	1677½	1097½		2·89
	14	LODE		241·07	242·25	1·18	0·24	0·02	0·04	7·00	1689	1120		2·97
	15	LODE		242·25	243·40	1·15	1·20	0·03	0·04	4·80	1869	1232		2·93
			Σ	77·45	88·61	11·64	1·39	0·08	0·16	6·25				
			Σ	165·76	171·24	5·29	1·14	0·05	0·19	7·78				

HOLE No.: 1312

SAMPLE DATA

SHEET No.: 5

LENS	SAMPLE No.	ROCK TYPE	Σ	INTERVAL From	INTERVAL To	Length (L)	Assays (A) % Snt	% Sns	% Cu	% S	SPECIFIC GRAVITY ~~Product (A x L)~~ ~~P. Snt DRY~~	~~P. Sns WET~~	~~P. Cu~~	S.G
Halls	2229 08	LODE		210.96	212.12	1.16	0.23	0.05	0.13	5.60	1856	1223		2.93
"	09	LODE		212.12	213.36	1.24	0.22	0.06	0.23	10.70	1758	1192		3.11
"	10	LODE/CHERT		213.36	214.32	0.96	0.17	0.02	0.04	1.52	1364	894		2.90
"	11	" "		214.32	215.10	0.83	0.11	0.02	0.16	3.80	1430½	953		3.00
"	12	LODE		215.10	215.81	0.71	0.13	0.03	0.31	10.10	1134	775/2		3.16
HALLS C				193.65	215.81	22.16	0.21	0.02	0.08					
Halls	13	LODE		240.00	241.07	1.07	0.10	0.02	0.16	4.00	1677½	1097½		2.89
	14	LODE		241.07	242.25	1.18	0.24	0.02	0.04	7.00	1689	1120		2.9
	15	LODE		242.25	243.40	1.15	1.20	0.03	0.04	4.80	1869	1232		2.93
HALLS D				240.0	243.40	3.40	0.52	0.02	0.08					
			Σ	77.45	88.09	11.64	1.39	0.08	0.16	6.25				
			Σ	105.76	111.24	5.28	1.14	0.05	0.19	7.78				

N.W.P.S.

HOLE No.: C1312

SAMPLE DATA

SHEET No.:

LENS	SAMPLE No.	ROCK TYPE	Σ	INTERVAL From	INTERVAL To	Length (L)	Assays (A) % Snt	Assays (A) % Sns	Assays (A) % Cu	Assays (A) % S	Product (A x L) P. Snt	Product (A x L) P. Sns	Product (A x L) P. Cu
HENRY'S			Σ	77.45	88.09	11.64	1.39	0.08	0.16	6.25			
Henry's			Σ	105.76	111.24	5.28	1.14	0.05	0.19	7.78			
Henry's			Σ	77.45	111.24	33.59	0.67	0.04	0.09	3.39			
A			Σ	148.72	152.20	3.48	0.25	0.02	0.03	1.15			
B			Σ	156.12	184.00	27.88	0.53	0.04	0.08	2.24			
C			Σ	193.64	215.81	22.36	0.21	0.02	0.08	3.46			
D			Σ	240.00	243.46	3.40	0.52	0.02	0.08	5.31			
A,B,C			Σ	148.72	215.81	67.28	0.30	0.03	0.07	2.14			
A,B,C,D			Σ	148.72	243.46	94.87	0.23	0.02	0.05	1.71			

N.W.P.S.

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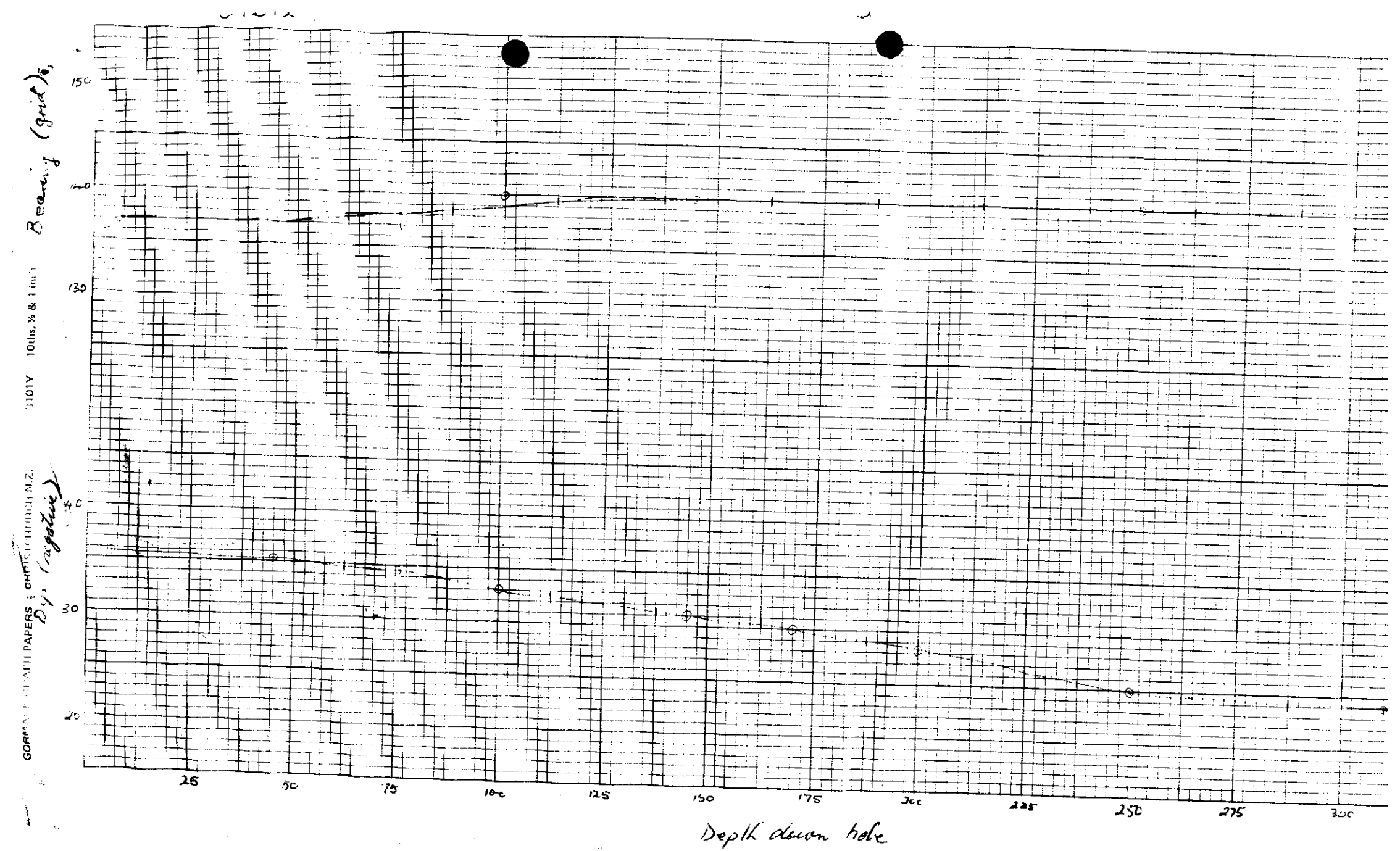
HOLE No.: C1312

SAMPLE DATA

SHEET No.: .....

LENS	SAMPLE No.	ROCK TYPE	Σ	INTERVAL From	INTERVAL To	Length (L)	Assays (A) % Snt	Assays (A) % Sns	Assays (A) % Cu	Assays (A) % S	Product (A x L) P. Snt	Product (A x L) P. Sns	Product (A x L) P. Cu	
HENRY'S			Σ	77.45	88.09	11.64	1.39	0.08	0.16	6.25				
[illegible]			Σ	105.76	111.24	5.28	1.14	0.05	0.19	1.78				
[illegible]			Σ	77.45	111.24	33.59	0.67	0.04	0.09	3.39				
M			Σ	148.72	152.20	3.48	0.25	0.02	0.03	1.15				
B			Σ	156.12	184.00	27.88	0.53	0.04	0.08	2.24				
C			Σ	190.54	213.21	22.36	0.21	0.02	0.08	0.46				
D			Σ	240.00	243.46	3.40	0.52	0.02	0.08	0.31				
[illegible]			Σ	148.72	215.21	67.28	0.30	0.03	0.07	2.14				
[illegible]			Σ	148.72	243.46	94.87	0.23	0.02	0.05	1.71				


Bearing (grid)
150
140
130
40
30
20
Dip (negative)
25
50
75
100
125
150
175
200
225
250
275
300
Depth down hole

ABMINCO N.L. - Cleveland Mine

Hole No. 1312

Sheet No.

DIAMOND DRILL HOLE DATA

PROGRAM DATA				SURVEY DATA				INTERPOLATED DATA		
			(+) (-)	Instrument Type	Depth	Dip	Azimuth	Depth	Dip	Azimuth
1	Attitude	—		Survey	ϕ	-34	135	12·5	35·5	137
2	Hole No.	1312		Camera	~~6~~ 6	-35·75	137 (141)	37·5	35 1/4	137
3	Down Hole Interval	25			~~40~~ 40	-35·25	137 (141)	62·5	34 3/4	137 3/4
4	Collar Co-ords.	15618·530	N		77	-34·75	137 (141)	87·5	34	138 1/2
5		10996·566	E		100	-33	140 (144)	112·5	32 1/2	139 1/2
6	Collar R.L.	101·003			140	-31	140 (144)	137·5	31 1/2	139 3/4
7	Halls Sect. R Intersect Point	15651·316	N		170	-30	— (133)	162·5	30 1/2	140
8		10960·637	E		200	-28 1/4	— (136)	187·5	29	140
9	Battery Sect. AH Intersect. Point	15117·54	N		250	-25	140 (144)	212·5	27 1/2	140
10		10730·20	E		310	-24	140 1/2 (144 1/2)	237·5	25 3/4	140
11	Start Plot (Depth)	ϕ	ϕ = Collar					262·5	24 1/2	140
								287·5	24 1/4	140 1/4
								~~312·5~~	24	140 1/2

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DIAMOND DRILL LOG

Hole N° 1312 Page N° 1

Feature : Bedding, Foliation, Fragment - size & shape; Shearing, Fault, Vein (c carbonate, q quartz)

Mineralization : Trace 1-5%; Common 5-15%; Abundant 15-60%; Massive <60%

CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	TRACE	COMMON	ABUNDANT	MASSIVE	DEPTH m	MINERALIZATION
0.00		SANDSTONE (Minor Chaotic shale).							
0.35		Predominantly medium to coarse grained sst with minor shale interbeds and chaotic sst shale.						1.66	2mm, qtz carb vein ± slickensides minor fault 55°.
3.06		The sst is mid grey in colour but variations to tan grey, straw grey (possibly due to carbonate content) are common.						4.76	qtz vein.
1.70		Carbonate content variable, mid grey sst shows positive acid test reaction.						7.70	qtz vein, minor carb, py, chl carbonate.
0.50		Streaky chloritized shale stringers are variable in extent. minor patchy chlorite.						9.80	qtz vein
0.74		Fine grained shale ± sst clasts. 9.86 - 10.38.						13.19	1cm qtz, carb, py minor vein 53°
1.38		Chaotic sst/sh 18.90 - 21.40. Minor erratic thin carbonate veinlets. Minor vuggy carbonate segregations.						14.50	Fault? - minor 80°.
0.65								14.57	qtz, py, minor carb vein 40°
0.03								15.16	- possible related fault 35°
1.43	10								
3.11									
1.41									
3.06									
		sst more massive - mid grey. minor pale alteration. and chaotic shale.						19.21	deg. qtz, carb. - 75°.
3.09	20								
		Minor lithic, coarse grained feldspathic sst 28.00 - 31.15							
2.56		sst appears to be coarser grained							
2.97		Becomes bleached to a pale tan colour from 24.90 - 25.78.						28.54	qtz vein.
								27.86	qtz vein.
3.03	30							30.33	qtz vein - vuggy ± carb.
1.34								31.48	qtz carb vein ± chl py.
2.06									
0.90									
1.45	35.78	Contact not well defined.							
		ISOCLEA(?) - disrupted ser'd qtz carbonate with sst clasts, irregular sulphide veins.							chl, py, sph, occas qtz carb veinlets 10°
0.55	37.07								
		SST/SHALE Chaotic, bleached disrupted shale/sst - sst appears as irregular blebby clasts							contact gradational.
2.58	38.80								
		SANDSTONE (Minor interbedded shale)							
	40	From 38.80 - 47.00 the sst is massive medium grained, occasionally fine grained - mid grey in colour. Abundant fine disseminated carbonate. Minor thin, upto 10cm shale bands. - Shale 40.74 - 40.59. Thin erratic carbonate veinlets. sst becomes bleached towards 47.00 and slightly chaotic							
3.04									minor sph. segregations and disseminations.
3.15									
1.03									
2.29									
		From 47.00 - 51.39 the sst is intensely bleached., minor irregular shale							
2.60	50								

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DIAMOND DRILL LOG

Hole Nº 1312 Page Nº 2

Feature: Bedding · Foliation · Fragment - size & shape · Shearing · Fault · Vein (c carbonate, q quartz)

Mineralization: Trace 1-5% · Common 5-15% · Abundant 15-60% · Massive <60%

CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	TRACE	COMMON	ABUNDANT	MASSIVE	DEPTH m	MINERALIZATION
2.27 1.26 2.85	57.41	Medium grained locally coarse grained sst - generally mid grey in colour - some patchy bleaching coarse grained mid grey sst has abundant carbonate. Contact sharp 70°						50.70	fuggy, qtz, carb vein FAULT(?) 75°
	57.81	SHALE - f.g. tan coloured, sdy. 30°							
0.93 1.37 1.98 1.25 2.58 0.59 0.80 0.72 2.27 2.59 2.96	60 70 75 76.80	SANDSTONE (Minor shale Massive mid grey medium grained sst. Locally minor interbedded shale bands. Generally abundant interstitial carbonate - locally deficient. Disseminated chlorite in matrix gives sst a greenish grey colour. Vuggy carbonate segregations, some filled c̄ cpy. Becomes more massive and uniform from 63.00. Carbonate veining sporadic in occurrence. Minor tourmaline alteration c̄ patchy sulphides (cpy). Shale bands generally to 10cm in width c̄ irregular contact boundaries. Contact not well defined - sst c̄ irregular shale leads to shale c̄ sst.						66.70 66.82 67.43 73.40	qtz vein c̄ cpy, carb. Carb vein c̄ qtz. 30cm qtz, carb, fluor. vein 40° qtz, clay, carb vein 65° - fuggy fault?
	77.45	SHALE Fine g. massive purplish grey c̄ abundant carbonate spots.							
2.95	78.35	LODE 20% sulphides - generally f.g. dissem to patchy & veining. qtz, fine, irregular chlorite c̄ minor tourm. spotty carbonate.							po, 10%, py, 7%, cpy 3%, trace coss qtz, 35%, carb 20%, chl, 20% tour 5%
	79.07	SHALE Finely carbonate spotted fine grained greyish green shale. thin clayey bands.							
3.06	80 82.70	LODE 25% sulphides - mainly fine grained aggregates - patchy clots, irregular veinlets and fine disseminations. In a qtz, chlorite, carbonate host c̄ minor fluorite, tourmaline - The qtz is closely associated c̄ patchy to blebby chlorite - fine carbonate - interstitial to spotty carbonate. Minor fine grained clots of tourmaline. Some banded up to 10cm shaley interbeds.							po 15%, py, 8%, cpy 2% trace f.g. spotty coss. qtz 35%, chl 30%, carb 15% tourm 5%.
	83.25	CHERT - f.g. siliceous cherty shale, grey brown to grey.							Rare thin carbonate veinlets.
1.95	85	LODE 15% sulphides, predominantly po, py - occurring as fine grained patchy aggregates, elongate veinlets, generally crosscutting - vuggy infill - fine disseminations and clusters							po 7%, py 7%, cpy 1% trace coss. qtz, 30%, chl, 30%, carb 20% fluorite 3%, tour 2%

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DIAMOND DRILL LOG

Hole No 1312 Page No 3

Feature : Bedding, Foliation, Fragment - size & shape, Shearing, Fault, Vein (c carbonate, q quartz)

Mineralization :

Trace	1-5%
Common	5-15%
Abundant	15-60%
Massive	<60%

CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	TRACE	COMMON	ABUNDANT	MASSIVE	DEPTH m	MINERALIZATION
0.75 1.11	86.47	Patchy to veiny & clotty carbonate c qtz / chlorite blebs and aggregates - fine spotty carb. & fluorite - minor disseminated tourm. - Contact 55°							
0.29 0.23	87.01	SHALE - fine grained, partially altered brown to greenish grey shale							
1.42	87.84	LODE 30% sulphides - predom. patchy to banded po c f.i. aggs of py in qtz, chl carbonate c minor fluor & tourm.							po - 20%, py 9%, cpy 1%, fluor 1%, qtz, 28, chl, 30, carb 10%, tour 1%
	88.07	SHALE - well bedded shale - 70°							
	89.07	LODE 10% sulphides, patchy cpy, veiny and dissem po & py - in carb, chl c qtz minor fluor tourm host.							py 5%, po 3%, cpy 2% - carb 30%, qtz, 15, chl 40%, tour 3% fluor 2%
1.86 1.09 3.09 0.49	90 95.12	SHALE Fine grained variably siliceous greyish brown to mid grey - fine carbonate spotting developed, locally well bedded 75°. Becomes a pinky mauve grey and very well bedded 60° to C.A. Becomes siliceous proximal to chert. Contact gradational, not well defined.							
0.40 0.90 0.49 0.64 0.41 2.13 3.15	100 104.48	CHERT Initially mottled patchy chert with tonal variations from tan to grey and purple grey - fine grained massive, rarely moderately well bedded. 50°. From 99.25 the chert is predom. pale tan to whitish grey - generally well bedded c fine scale fracture cracks common. From 102.80 to 104.48 the chert is once again mottled greenish grey to purple - generally well bedded. Uniform 50°. Becomes gradational c silicified shale towards 104.48.							
3.22	105 105.76	SHALE Fine grained well bedded greyish brown shale. 45° - becomes altered to a greenish colour c secondary qtz crystallization from 105.31							
	107.01	LODE. 20% sulphides - predominantly po occurring as f.g. aggregates - sometimes banded patches and pinlets - minor patchy to veiny py, cpy, chl, carb, qtz groundmass, minor fluorite							po, 15% py, 3%, cpy 2% qtz 15%, carb 25%, chl 25% 3% fluorite.
	107.37	SHALE - f.g. well bedded brownish to grey shale							bed'g c. 40°
	107.52	LODE - as above							
	107.84	SHALE - f.g. moderately well bedded shale 45°							
3.05	110	LODE 35% sulphides - predom. po occurring as f.g. banded layers - irregular patchy to veiny aggregates and fine disseminations. Minor patchy to subrounded py, cpy. Qtz, chlorite and carb appear to give a banded texture - minor clumps of carb and chl.							
2.85	110.14	MIN SHALE Patchy to disseminated sulphides in an altered locally siliceous qtz, carb, chl, shale							2% sulphide, predom po minor cpy, py.
1.38 0.75 1.06 1.22	111.14 116.65	CHERT. Fine grained massive chaotic and fractured chert. Tonal variation from off white to purple grey to mottled grey purple - occasionally moderately well bedded. Contact gradational. Fine scale fractures common.							
1.50 0.40 2.07	120	SHALE Fine grained initially siliceous, dark grey to purple grey shale - massive, bedding not developed. Becomes carbonate veined towards contact.							

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DIAMOND DRILL LOG

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Hole No 1312 Page No 4

Feature: Bedding; Foliation; Fragment - size & shape; Shearing; Fault; Vein (c carbonate, q quartz)

Mineralization: Trace 1-5%; Common 5-15%; Abundant 15-60%; Massive <60%

CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	TRACE	COMMON	ABUNDANT	MASSIVE	DEPTH m	MINERALIZATION
	120.66	Contact sharp 35° to C.A.							
	120.91	BASALT - brownish to green f.g. Vb							
0.75	122.45	TUFFS - fine grained brownish tuff shales and brownish green lithic tuffs c Vb fragments							
3.02 / 2.97 / 3.00	130 / 132.2	BASALT Massive fine grained olive green Vb. Fine carbonate spotting occurs locally, as do rounded chlorite filled amygdules. Minor carbonate segregations and veinlets. Irregular elongate chlorite filled fractures or veinlets 131.00 - 132.00 contact sharp 45°. Rare magnetite in Vb., little [illegible] or reddening							
3.05	134.75	SHALE Fine grained massive dark, brown shale locally siliceous - minor chert and rounded cherty clasts. Minor carbonate veining. Contact erratic							
	135.70	SST - M.g. mid grey massive poorly bedded							Thin chlorite filled fractures
3.03	138.97	SHALE Fine grained massive dark brown shale - as above. Fine carbonate spotting common. Minor subrounded sst. clasts. Contact sharp 45°							
2.98	139.81	SST/SHALE - Interbedded f.g. dark brown shale and m.g. mid grey sst.							
	140 / 141.26	SST. - Massive m.g. mid grey sst. Thin irregular chlorite veinlets.	F(?)						Possible faulted contact, bedded 45.
3.07 / 1.39	145.10	SHALE - As previous sections - massive dark brown fine grained - not bedded. Initially sandy content, having a coarser texture, then massive f.g. Contact irregular ≈ 40°							
3.15		SST - m.g. massive sst. - mid grey.							
	148.72	SHALE As above - f.g. dark brown massive shale - locally siliceous - minor sst. bands, becomes altered over last 10cm. minor fine carbonate spots. Contact 35°							
2.99	149.05	LODE - qtz, carb, chlorite, tour, fluorite, sph, po, cpy							minor upto 2% po, sph, cass.
	150	SHALE - As above f.g. dark brown shale Contact 45°.							
	150.3 / 151.05	LODE 5% sulphides po, py in a patchy chlorite carbonate, qtz, tourmaline fluorite host.							4% po, 2% py - 35% chl, 30% qtz. 1% tour, 10% fluor. 20% carb.
	151.31	SHALE - f.g. brown massive shale.							
2.91	152.2	LODE upto 5% sulphides predominantly py in a irregular patchy mass of carbonate [illegible] in f.g. chlorite, qtz c minor fluorite							py 3%, po 1%, - chl 40%, carb 30%, qtz 20%, fluor 3%, tour 2%
2.20	154.50	SHALE Massive fine grained dark greyish brown poorly bedded shale. Minor irregular cherty clasts. Rare carbonate veining. Contact 35°	F(?)					154.03	Patchy and veiny irregular po - 1%. 2cm vein - qtz, carb chl c 35° minor py, po - possible fault slickensides
	155 / 156.12	CHERT. Fine grained dark brown, locally mottled buff to brown to off white. Bedding variably disrupted, as are fine scale fractures. Bedding 70°. Contact irregular							
2.70 / 3.03	160	LODE From 156.12 - 157.47 there is 35% sulphides - mainly po c minor py, chpy. occurring as fine grained irregular aggregates, spotty dissem, elongate veinlets with random orientation. The host is chlorite rich with patchy interstitial qtz, fluorite and carbonate rounded carbonate clots are common Minor spotty tourmaline From 157.47 - 161.20							156.12 - 157.47 30% po, 3% chpy, 2% py. chl 30%, carb 20%, qtz 10% tour 3%, fluor 2%. 157.47 - 161.20 po 2%, py 3% chl 50% qtz 20%, carb 25%, tour 3%, fluor 2%.

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DIAMOND DRILL LOG

Hole No 1312   Page No 5

Feature: Bedding; Foliation; Fragment - size & shape; Shearing; Fault; Vein (c carbonate, q quartz)

Mineralization: Trace 1-5%; Common 5-15%; Abundant 15-60%; Massive <60%

CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	TRACE	COMMON	ABUNDANT	MASSIVE	DEPTH m	MINERALIZATION
	161.20	upto 5% sulphides occur occurring as fine disseminations, rounded to subhedral clots. rare veinlets. occasional banding of chlorite / carbonate							
	161.70	CHERT - f.g. dark brown to tan chert & silic. shale.							
3.01	162.73	SHALE - fine grained massive greyish brown shale, poorly bedded - chloritized ? [illegible]							
	163.80	LODE - 3% visible sulphides, subhedral to patchy & subrounded py, in a fine grained chlorite, qtz, carbonate, minor tour & fluorite.							py 3% - chl 50% qtz 20% carb 25%, tour 1%, fluor 1%.
	164.52	SHALE - Massive fine grained greyish brown shale. bed'g 45°							
2.47	165.65	CHERT - fine grained dark brown/ black chert - massive - may be highly silic. shale - rare bed'g. 70°							
3.14	171	LODE - 5% sulphides - patchy to veiny po - fine grained occasionally banded fine grained aggregates of cpy - minor patchy to subrounded py. Fine grained chlorite and qtz / carbonate locally with a banded appearance. Patchy clusters of carbonate - qtz carb. chlorite (stilpnomelane), veins and bands - clots of tourmaline. Spotty carbonate and fluorite. Minor thin crisscross veinlets - siliceous cherty clasts. Some highly altered banded chloritic shale interbeds.							po 3%, cpy 2%, less 1% py. chl 45%, carb 30%, qtz 15% 3% tour 2% fluorite.
3.06	171.50								
	171.78	SHALE - highly altered chloritic shale f.g.							minor remnant bed'g 75°.
	172.13	LODE - 20% sulphides - cpy, po, chl, carb.							50% chl. 15% po, 30% carb, 5% cpy.
	172.73	SHALE - altered chloritic shale - greenish in colour - remnant bed'g. 68°.							
	173.13	LODE - po, cpy, py - chlorite, qtz, carb, tour.							chl, 50% carb, po 10%, cpy 5%, qtz 5%
	173.81	CHERT / SHALE - f.g. brownish tan shale c̄ altered greenish chloritic shale - bed'g 60°							
	174.09	LODE - chl, carb, py, po, cpy - 1% sulphides							
3.08	174.55	SHALE - Altered chloritic f.g. shale, bed'g 65°.							
	175	LODE - chl, qtz, carb, tour. po, py - cpy, 5% sulphides							
	174.93	SHALE / CHERT - fine grained chloritic altered shale & f.g. brownish grey chert.							minor py clots.
	175.77								
	176.12	LODE - carb. chl, py, po, qtz, tour. fluorite							20% sulphides predom po.
	176.26	SHALE - grey to brownish grey f.g. shale.							
3.13		LODE - 20% sulphides occurring as fine grained patchy to banded & veiny aggregates of po. Irregular clots of py, pseudo veinlets. Patchy and veiny cpy - occasionally within po. Chlorite predominates as fine grains - rarely fine plates. Carbonate as irregular pale colour patches - occasionally banded, & spotty - subrounded fluorite - spotty to patchy fine grained tourmaline. Secondary banded cherty zones - Minor barren altered shale & cherty zones.							15% po, 3% py, 2% cpy. 05% chl, 30% carb, 10% qtz, 3% tour, 2% fluor.
	180								
3.04	182.0								
	182.47	SHALE / CHERT - Altered shaly & chert - f.g.							
	182.50	LODE - po, py, cpy, chl, qtz, carb.							
	182.62	CHERT - f.g. [illegible] chert.							
2.74	183.26	LODE - qtz, carb, chl, po, cpy - tour fluor.							20% sulphides - predom po.
	183.88	SHALE - f.g. siliceous grey / black shale							
	184.0	LODE - po, chl, qtz, carb.							1% sulphides
0.77	185	SHALE - Fine grained massive poorly bedded							

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DIAMOND DRILL LOG

Hole No 1312 | Page No 6

Feature: Bedding — Foliation — Fragment - size & shape — Shearing — Fault — Vein (c carbonate, q quartz)

Mineralization: Trace 1-5% | Common 5-15% | Abundant 15-60% | Massive <60%

CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	TRACE	COMMON	ABUNDANT	MASSIVE	DEPTH m	MINERALIZATION
2.99 1.55 0.75	190.55	, dark grey to grey brown in colour. Locally fine carbonate spotting developed. Contact not well defined - core broken - shales become more siliceous							
0.66 0.82	193.65	CHERTY SHALE Massive fine grained dark brown highly silicified shales (cherty shales. Thin carbonate veinlets, contact 30°							
3.25	195 196.26	LODE 25% sulphides, irregular patchy sometimes veiny po, fine grained cpy and minor py. Fine grained green chlorite and patchy to introductive carbonate clots, occasionally banded - minor banded cherty zones - patchy tour. contact 68°							20% po, 3% cpy, 2% py. chl 40% carb 30%, qtz 3%, tour 2%.
0.37	197.30	SHALE Altered chloritic fine grained siliceous shale - minor cherty bands. contact not well defined							
2.92	200 200.29	LODE 15% sulphides - patchy fine grained po aggregates, thin stringer veinlets and fine disseminations. cpy occurs within po and as discrete clusters. Patchy irregular py. Host rock is chlorite rich f.g. with closely associated patchy to spotty carbonate - minor qtz, tourmaline and fluorite - contact sharp. 60°							
	201.12	SHALE - siliceous f.g. grey to greyish brown massive shale - minor chert.							
3.07	202.32	ALTERED FLOW SHALE - fine grained intensely chloritized shale - minor patchy po, bed of chert present. contact not defined							less 1% sulphides
	203.00	SHALE - fine grained dark brown shale locally siliceous - cherty shale - contact 60°							
2.61	204.90 205	LODE 10% sulphides - euhedral to subrounded py - patchy, irregular, veiny po fine grained - minor small patches cpy - fine grained chlorite mass with patchy irregular carbonate, minor qtz, tour.							7% po, 2% py, 1% cpy. chl 50%, carb 35% qtz 4%, tour 1%.
	205.70	CHERT fine grained massive dark brown black chert, minor shale. contact 70°							
	206.09	LODE - chl, carb, po, py, qtz. - 5% sulphides							
2.78	207.14	CHERT Fine grained highly silicified cherty shale - greyish brown in colour locally pinky white, common fine side cracks							
	207.59	LODE - patchy po, chlorite + patchy carbonate							upto 5% po - chl 50% carb 45%
	207.89	CHERT - f.g. mottled brown broken bdg. 60°							
3.16 3.07	210 213.46	LODE 25% sulphides variably distributed, some sections are barren, other sub-massive over 15cm intervals. Veiny to patchy, locally disseminated fine grained po. Subrounded and patchy cpy, generally within po - minor rounded py. Banding occurs in less sulphide areas. Fine grained masses of chlorite with patchy to banded and spotty carbonate - minor blebs and thin bands of tour - fine quartz & fluorite							22% po 2% cpy, 1% py. chl 40%, carb 30% qtz, 4%, tour 1%.
	213.61	CHERT - altered greyish green to brownish.							
	213.80	LODE - broken							4% sulphides
	214.06	CHERT/SHALE - alt shale & massive chert.							
	214.22	LODE							10% sulphides.
	214.40	CHERT							
	214.83	LODE po, cpy, chl, qtz, carb.							15% sulphides po, cpy
	215	CHERT - fine grained slightly altered.							

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DIAMOND DRILL LOG

Hole Nº 1312 Page Nº 7

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Feature: Bedding, Foliation, Fragment - size & shape, Shearing, Fault, Vein (c carbonate, q quartz)

Mineralization: Trace 1-5%, Common 5-15%, Abundant 15-60%, Massive <60%

CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	TRACE	COMMON	ABUNDANT	MASSIVE	DEPTH m	MINERALIZATION
1.83	215.10	LODE - 25% sulphides po, cpy, chl, carb [illegible]							23% po, 2% cpy - 50% chl 25% carb
1.51	215.81 / 216.17	CHERT - Massive fine grained mottled pinkish brown to dark brown chert. Locally highly silicified shale - bed'g 60°							
2.72 / 3.21 / 2.83 / 0.52	225 / 227.34	SHALE Massive fine grained dark brown poorly bedded shale - locally siliceous. Fine scale carbonate spotting developed. Very minor thin erratic carbonate veinlets. Rare irregular cherty clasts. Contact sharp 40°.						227.3	Carb vein c̄ [illegible]
2.85	229.75	SANDSTONE - medium grained massive mid grey - poorly bedded sst. Fine disseminated carb. common. Contact 40°							
0.25 / 2.73 / 3.04 / 2.92	235 / 240.00	SHALE Fine grained massive poorly bedded shale - dark brown in colour. Local development of fine carbonate spots. Becomes a mottled patchy lighter brown shale from 233.60 - Irregular sst clasts common 234.97 - 235.00. Minor mid grey sst interbeds. 237.67 - 237.77, 238.13 - 238.43. Shales becomes siliceous and approach cherty characteristics. Thin 3cm highly silicified cherty shale close to contact		F				235.4	Healed fault - 1cm wide, qtz carb, chl, py. 60°
3.05 / 1.46	243.40	LODE 20% sulphides irregular veining f.g. po - patches and disseminations. Irregular cpy - and clusters within po. Fine chl matrix with patchy to spotty and erratic carbonate minor qtz.							23% po 2% cpy 35% chl, 30% carb, 10% qtz.
3.09 / 3.15 / 3.05 / 1.83 / 0.25 0.16 0.43	246 / 255	SHALE Monotonous sequence of massive fine grained brown to dark brown shales. Bedding not developed. Minor thin - upto 10cm chert bands. Fine scale carbonate veining generally of an erratic nature.							
0.92	257.1	Tuff. Dark green coarse tuff locally with fragments up 2cms.							locally thin quartz carbonate veins up to [illegible]
1.30 / 1.04 / 0.48 / x 43 / 3.00	258.4 / 265	Shale Pale grey to green massive to bedded shale, locally tuffaceous. Where developed core-bedding angle ~ 30-40°							

256.20
257.35
258.60
259.80
260.35
262.60

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DIAMOND DRILL LOG

Hole No C1312 Page No 8

Feature: Bedding — Foliation — Fragment - size & shape — Shearing — Fault — Vein (c carbonate, q quartz)

Mineralization: Trace 1-5% · Common 5-15% · Abundant 15-60% · Massive <60%

Interval	CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	MINERALIZATION
265.70 – 268.80	2.80	266.2 – 268.8	Basalt Fine grained dark green basalt locally small quartz carbonate veins. Shaly intervals at start, brecciated at end		
268.80 – 270.45	2.62	268.8 – 272.0	Shale Banded shale with minor cherty bands. Shale possibly havd? (tuffaceous component). Core is broken - poor [illegible] 270.6		qtz-fluor vein @ 270.6
270.45 – 271.35	0.80				
271.35 – 272.30	1.04				
272.30 – 274.35	1.90	272.0 – 280.2	Shale Fine grained massive dark grey shale. Occasional quartz-carbonate-sulphide veinlets		
274.35 – 276.35	2.00	275			
276.35 – 277	1.70				
277 – 279.95	2.03				
279.95 – 281.20	1.26	280.2 – 280.6	Lode weakly devel. [illegible] py-po tr cpy		qtz 50 carb 40 py 10 tr cpy
281.20 – 281.60	0.40	280.6 – 293.35	Shale. Fine grained massive dark grey shale - locally bedded especially laminated end of section. Core bedding angles generally 50-60°		
		285			
		293.35 – 298.0	Shale Dark brown massive shale occasionally with disseminated pyrite cubes up to 1mm.		Tr. py <1%
		295			
		298.0 – 302.80	Shales and tuffs Interbedded sequence of shales and greenish tuffs - some areas slumped and chaotic		
		302.80 – 310.30	Basalt Fine grained dark green basalt - massive and small occasional qtz - carb - chlor veins.		Tr py - po - cpy in veins
		305			
310.30		310.30			

310.30 m = E.O.H

Logged A. Eadie & D. Simpson

October 1978

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