SWASTIKA L
P.O. BOX
ANALYTICAL

010

Certificate of Analysis

Certificate No. 53147-A Date: April 12 1982

Received Mar.18/82 40 Samples of Split core

Submitted by Utah Mines Ltd., Timmins, Ontario Samples per: Mr. H. Newsome

Project No. A-365

SAMPLE NO.	ARSENIC PPM	SAMPLE NO.	ARSENIC PPM
C-29001	< 1	C-29021	< 1
29002	< 1	29022	2
29003	< 1	29023	< 1
29004	< 1	29024	1
29005	< 1	29025	< 1
29006	< 1	29026	1
29007	< 1	29027	1
29008	< 1	29028	< 1
29009	< 1	29029	1
29010	< 1	29030	< 1
29011	< 1	29031	7
29012	< 1	29032	42
29013	< 1	29033	1100
29014	< 1	29034	34
29015	< 1	29035	40
29016	< 1	29036	28
29017	< 1	29037	42
29018	< 1	29038	39
29019	< 1	29039	41
29020	< 1	29040	250

Per G. Lebel

G. Lebel - Manager

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SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0
TELEPHONE: (705) 642-3244
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Certificate of Analysis

Certificate No. 53147-A Date: April 12 1982

Received Mar.18/82 40 Samples of Split core

Submitted by Utah Mines Ltd., Timmins, Ontario Samples per: Mr. H. Newsome

Project No. A-365

SAMPLE NO.	ARSENIC PPM	SAMPLE NO.	ARSENIC PPM
-82-01 C-29001	< 1	C-29021	< 1
29002	< 1	29022	2
29003	< 1	29023	< 1
29004	< 1	29024	1
29005	< 1	29025	< 1
29006	< 1	29026	1
29007	< 1	29027	1
29008	< 1	29028	< 1
29009	< 1	29029	1
29010	< 1	29030	< 1
29011	< 1	29031	7
29012	< 1	29032	42
29013	< 1	29033	1100 X
29014	< 1	29034	34
29015	< 1	29035	40
29016	< 1	29036	28
29017	< 1	29037	42
29018	< 1	29038	39
29019	< 1	29039	41
29020	< 1	29040	250

Per G. Lebel - Manager

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Certificate of Analysis

29001 - 29040

Certificate No. 53147 Date: March 24 1982

Received Mar.18/82 40 Samples of Split core

Submitted by Utah Mines Ltd., Timmins, Ontario Att'n: Mr. H. Newsome

Project Code - A-365

SAMPLE NO.	GOLD Oz./ton	SILVER Oz./ton	COPPER %	NICKEL %	LEAD %	ZINC %
C-29001	Nil	Nil	0.01	0.005	0.01	0.02
29002	Nil	Nil	0.01	0.005	0.01	0.02
29003	Nil	Nil	0.01	0.005	0.01	0.01
29004	Nil	Nil	0.01	0.005	0.01	0.01
29005	Nil	Nil	0.01	0.005	0.01	0.01
29006	Nil	Nil	0.01	0.005	0.01	0.01
29007	Nil	Nil	0.01	0.005	0.01	0.01
29008	Nil	Nil	0.01	0.005	0.01	0.02
29009	Nil	Nil	0.01	0.005	0.01	0.02
29010	Nil	Nil	0.02	0.005	0.01	0.03
29011	Nil	Nil	0.01	0.005	0.01	0.02
29012	Nil	Nil	0.01	0.005	0.01	0.02
29013	Nil	Nil	0.01	0.005	0.01	0.01
29014	Nil	Nil	0.01	0.01	0.01	0.01
29015	Nil	Nil	0.01	0.01	0.01	0.01
29016	Nil	Nil	0.01	0.01	0.01	0.01
29017	Nil	Nil	None	0.01	0.01	0.02
29018	Nil	Nil	0.04	0.01	0.01	0.03
29019	Nil	Nil	0.01	0.01	0.01	0.02
29020	Nil	Nil	0.01	0.01	0.01	0.02
29021	Nil	Nil	0.01	0.01	0.01	0.02

Cont'd.....

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Per G. Lebel

G. Lebel - Manager

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Certificate No. 53147 Date: March 24 1982

Received Mar. 18/82 40 Samples of Split Core

Submitted by Utah Mines Ltd., Timmins, Ontario Att'n: Mr. H. Newsome

Project Code - A-365

SAMPLE NO.	GOLD Oz./ton	SILVER Oz./ton	COPPER %	NICKEL %	LEAD %	ZINC %	
C-29022	Nil	Nil	0.01	0.01	0.01	0.03	
29023	Nil	Nil	0.01	0.01	0.01	0.01	
29024	Nil	Nil	0.01	0.01	0.01	0.02	
29025	Nil	Nil	0.01	0.01	0.01	0.02	
29026	Nil	Nil	0.01	0.01	0.01	0.03	
29027	Nil	Nil	0.01	0.01	0.01	0.03	
29028	Nil	Nil	0.01	0.01	0.01	0.10	
29029	Nil	Nil	0.005	0.01	0.01	0.04	
29030	Nil	Nil	0.01	0.01	0.01	0.01	
29031	Nil	0.02	0.03	0.01	0.01	0.21	x 7
29032	Nil	0.01	0.02	0.01	0.01	0.29	x 42
te streak. x 29033	Nil	0.02	0.03	0.02	0.01	0.24	x 1100
29034	Nil	Nil	0.01	0.08	0.01	0.01	
29034	Nil	Nil	0.01	0.08	0.01	0.01	
29035	Nil	Nil	0.01	0.08	0.01	0.01	
29037	Nil	Nil	0.02	0.09	0.01	0.01	
29038	Nil	Nil	0.01	0.08	0.01	0.01	
29039	Nil	Nil	0.01	0.09	0.01	0.01	
29040	Nil	Nil	0.01	0.08	0.01	0.01	

NOTE: Arsenic to follow

Per G. Lebel
G. Lebel - Manager

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Certificate No. 53151-A Date: April 1 1982

Received Mar.18/82 1 Sample of Split core

Submitted by Utah Mines Ltd., Timmins, Ontario Samples per: Mr. H. Newsome

Acct. A-365

SAMPLE NO.	PLATINUM Oz./ton	PALLADIUM Oz./ton	
29074	< 0.001	< 0.0005	X

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Per G. Lebel

G. Lebel - Manager

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Certificate of Analysis

29041 - 29074

Certificate No. 53151 Date: March 26 1982

Received Mar.18/82 34 Samples of Split core

Submitted by Utah Mines Limited, Timmins, Ontario Samples per: Mr. H. Newsome

Project Code A-365

SAMPLE NO.	GOLD Oz./ton	SILVER Oz./ton	COPPER %	NICKEL %	LEAD %	ZINC %	
29041	Nil	Nil	0.005	0.09	0.01	0.01	X 123
29042	Nil	0.01	0.03	0.02	0.01	0.10	X 132
29043	Nil	0.01	0.03	0.02	0.005	0.06	X
29044	Nil	Nil	0.005	0.02	0.01	0.02	
29045	Nil	Nil	None	0.09	0.01	0.01	X
29046	Nil	Nil	None	0.10	0.01	0.01	X
29047	Nil	Nil	None	0.10	0.01	0.01	X
29048	Nil	Nil	None	0.10	0.01	0.01	
29049	Nil	Nil	None	0.10	0.005	0.01	X
29050	Nil	Nil	None	0.10	0.005	0.01	
29051	Nil	Nil	None	0.10	0.01	0.01	116
29052	Nil	Nil	None	0.10	0.005	0.01	132
29053	Nil	Nil	None	0.10	0.005	0.005	150
29054	Nil	Nil	None	0.10	0.01	0.01	153
29055	Nil	Nil	0.005	0.16	0.005	0.005	97
29056	Nil	Nil	None	0.25	0.005	0.005	X
29057	Nil	Nil	None	0.22	0.005	0.005	X
29058	Nil	Nil	0.01	0.20	0.005	0.005	X
29059	Nil	Nil	None	0.23	0.005	0.005	X 90
29060	Nil	Nil	None	0.23	0.005	0.005	X 103

Note break ←

Cont'd.....

Per G. Lebel

G. Lebel - Manager

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SWASTIKA LABORATORIES LIMITED

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Certificate No. 53151 Date: March 26 1982

Received Mar.18/82 34 Samples of Split core

Submitted by Utah Mines Limited, Timmins, Ontario Samples per: Mr. H. Newsome

Project Code A-365

SAMPLE NO.	GOLD Oz./ton	SILVER Oz./ton	COPPER %	NICKEL %	LEAD %	ZINC %
29061	Nil	Nil	None	0.21	0.005	0.005
29062	Nil	Nil	None	0.22	0.005	0.005
29063	Nil	Nil	None	0.22	0.005	0.005
29064	Nil	Nil	None	0.23	0.005	0.005
29065	Nil	Nil	None	0.23	0.005	0.005
29066	Nil	Nil	None	0.22	0.005	0.005
29067	Nil	Nil	None	0.17	0.01	None
29068	Nil	Nil	None	0.20	0.005	None
29069	Nil	Nil	None	0.19	0.005	None
29070	Nil	Nil	None	0.19	0.005	None
29071	Nil	Nil	None	0.19	0.005	None
29072	Nil	Nil	0.005	0.17	0.005	None
29073	Nil	Nil	0.005	0.20	0.005	None
29074	Nil	Nil	None	0.20	0.005	0.005

NOTE: Arsenic, Platinum, Palladium, and Chromium results to follow.

Per G. Lebel

G. Lebel - Manager

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Certificate of Analysis

29041 - 29074

Certificate No. 53151 Date: March 26 1982

Received Mar.18/82 34 Samples of Split core

Submitted by Utah Mines Limited, Timmins, Ontario Samples per: Mr. H. Newsome

Project Code A-365

SAMPLE NO.	GOLD Oz./ton	SILVER Oz./ton	COPPER %	NICKEL %	LEAD %	ZINC %	
29041	Nil	Nil	0.005	0.09	0.01	0.01	
29042	Nil	0.01	0.03	0.02	0.01	0.10	X
29043	Nil	0.01	0.03	0.02	0.005	0.06	X
29044	Nil	Nil	0.005	0.02	0.01	0.02	
29045	Nil	Nil	None	0.09	0.01	0.01	
29046	Nil	Nil	None	0.10	0.01	0.01	
29047	Nil	Nil	None	0.10	0.01	0.01	
29048	Nil	Nil	None	0.10	0.01	0.01	
29049	Nil	Nil	None	0.10	0.005	0.01	
29050	Nil	Nil	None	0.10	0.005	0.01	
29051	Nil	Nil	None	0.10	0.01	0.01	
29052	Nil	Nil	None	0.10	0.005	0.01	
29053	Nil	Nil	None	0.10	0.005	0.005	
29054	Nil	Nil	None	0.10	0.01	0.01	
29055	Nil	Nil	0.005	0.16	0.005	0.005	
29056	Nil	Nil	None	0.25	0.005	0.005	X
29057	Nil	Nil	None	0.22	0.005	0.005	X
29058	Nil	Nil	0.01	0.20	0.005	0.005	X
29059	Nil	Nil	None	0.23	0.005	0.005	X
29060	Nil	Nil	None	0.23	0.005	0.005	X

Cont'd.....

Per G. Lebel

G. Lebel - Manager

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SWASTIKA LABORATORIES LIMITED

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Certificate No. 53151 Date: March 26 1982

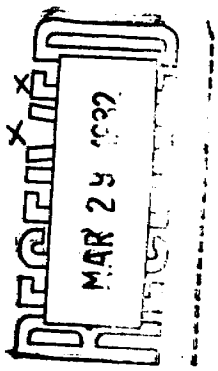
Received Mar.18/82 34 Samples of Split core

Submitted by Utah Mines Limited, Timmins, Ontario Samples per: Mr. H. Newsome

Project Code A-365

SAMPLE NO.	GOLD Oz./ton	SILVER Oz./ton	COPPER %	NICKEL %	LEAD %	ZINC %	
29061	Nil	Nil	None	0.21	0.005	0.005	X
29062	Nil	Nil	None	0.22	0.005	0.005	X
29063	Nil	Nil	None	0.22	0.005	0.005	X
29064	Nil	Nil	None	0.23	0.005	0.005	X
29065	Nil	Nil	None	0.23	0.005	0.005	X
29066	Nil	Nil	None	0.22	0.005	0.005	X
29067	Nil	Nil	None	0.17	0.01	None	
29068	Nil	Nil	None	0.20	0.005	None	X
29069	Nil	Nil	None	0.19	0.005	None	
29070	Nil	Nil	None	0.19	0.005	None	
29071	Nil	Nil	None	0.19	0.005	None	
29072	Nil	Nil	0.005	0.17	0.005	None	
29073	Nil	Nil	0.005	0.20	0.005	None	X
29074	Nil	Nil	None	0.20	0.005	0.005	X

NOTE: Arsenic, Platinum, Palladium, and Chromium results to follow.



Per G. Lebel

G. Lebel - Manager

ESTABLISHED 1928

SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0
TELEPHONE: (705) 642-3244
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Certificate of Analysis

Certificate No. 53151-B Date: April 16 1982

Received Mar.18/82 34 Samples of split core

Submitted by Utah Mines Limited, Timmins, Ontario Samples per: Mr. H. Newsome

Project No. A-365

SAMPLE NO.	ARSENIC PPM	SAMPLE NO.	ARSENIC PPM
29041	123 +	29061	52
29042	132 +	29062	43
29043	20	29063	40
29044	13	29064	27
29045	100 +	29065	18
29046	97 +	29066	15
29047	127 +	29067	12
29048	150 +	29068	18
29049	113 +	29069	24
29050	123 +	29070	15
29051	116 +	29071	21
29052	132 +	29072	20
29053	150 +	29073	30
29054	153 +	29074	52
29055	97 +		
29056	57		
29057	56		
29058	59		
29059	90 +		
29060	103 +		

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Per G. Lebel
G. Lebel - Manager

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Certificate of Analysis

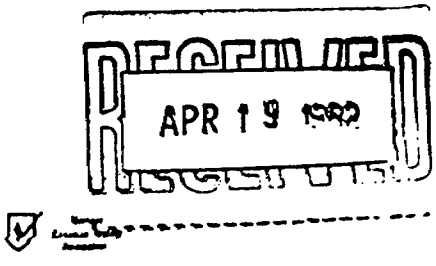
Certificate No. 53182-A Date: April 16 1982

Received Mar.24/82 12 Samples of split core

Submitted by Utah Mines Limited, Timmins, Ontario Samples per: Mr. H. Newsome

Project No. A-365

SAMPLE NO.	PALLADIUM Oz./ton
29082	Nil
29088	Nil
29097	Nil
29098	Nil
29100	Nil
29107	Nil
29130	0.001
29131	0.001
29132	0.001
29133	0.001
29134	0.001
29143	Nil



Per G. Lebel - Manager

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Certificate of Analysis

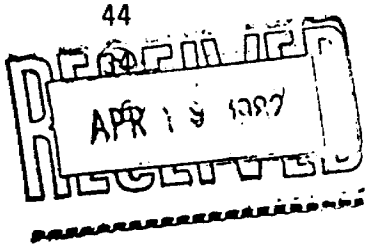
Certificate No. 53182-B Date: April 16 1982

Received March 24/82 69 Samples of split core

Submitted by Utah Mines Limited, Timmins, Ontario Samples per: Mr. H. Newsome

Project No. A-365

SAMPLE NO.	ARSENIC PPM	SAMPLE NO.	ARSENIC PPM	SAMPLE NO.	ARSENIC PPM
29075	38	29099	23	29123	3
29076	57	29100	27	29124	3
29077	49	29101	43	29125	4
29078	32	29102	39	29126	4
29079	56	29103	60	29127	6
29080	51	29104	95	29128	5
29081	16	29105	24	29129	3
29082	70	29106	51	29130	3
29083	115	29107	33	29131	5
29084	102	29108	52	29132	3
29085	57	29109	48	29133	3
29086	118	29110	57	29134	1
29087	83	29111	35	29135	4
29088	144	29112	45	29136	1
29089	73	29113	31	29137	< 1
29090	45	29114	21	29138	< 1
29091	102	29115	6	29139	< 1
29092	67	29116	14	29140	< 1
29093	83	29117	12	29141	1
29094	41	29118	3	29142	35
29095	45	29119	4	29143	3
29096	44	29120	4		
29097		29121	2		
29098		29122	1		



Per G. Lebel

G. Lebel - Manager

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P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0
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Certificate of Analysis

Certificate No. 53182 Date: April 2 1982

Received Mar.24/82 69 Samples of Split core

Submitted by Utah Mines Ltd., Timmins, Ontario Samples per: Mr. H. Newsome

Project No. A-365

SAMPLE NO.	GOLD Oz./ton	SILVER Oz./ton	COPPER %	NICKEL %	LEAD %	ZINC %
29075	Nil	Nil	0.005	0.15	0.01	0.005
29076	Nil	Nil	0.01	0.18	0.01	0.005
29077	Nil	Nil	None	0.18	0.005	0.005
29078	Nil	Nil	None	0.21	0.005	0.005
29079	Nil	Nil	0.01	0.19	0.005	0.005
29080	Nil	Nil	0.005	0.20	0.005	0.005
29081	Nil	Nil	0.005	0.19	0.005	0.005
29082	Nil	Nil	None	0.18	0.005	0.005
29083	Nil	Nil	None	0.20	0.005	0.005
29084	Nil	Nil	None	0.17	0.005	0.005
29085	Nil	Nil	0.005	0.15	0.005	0.005
29086	Nil	Nil	None	0.16	0.005	0.005
29087	Nil	Nil	None	0.11	0.01	0.005
29088	Nil	Nil	None	0.17	0.005	0.005
29089	Nil	Nil	None	0.16	0.005	0.005
29090	Nil	Nil	None	0.10	0.005	0.005
29091	Nil	Nil	None	0.16	0.005	0.005
29092	Nil	Nil	None	0.16	0.005	0.005
29093	Nil	Nil	0.01	0.14	0.005	0.005

Cont'd.....

Per G. Lebel

G. Lebel - Manager

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SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0
TELEPHONE: (705) 642-3244
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Certificate of Analysis

Certificate No. 53182 Date: April 2 1982

Received Mar.24/82 69 Samples of Split core

Submitted by Utah Mines Ltd., Timmins, Ontario Samples per: Mr. H. Newsome

Project No. A-365

SAMPLE NO.	GOLD Oz./ton	SILVER Oz./ton	COPPER %	NICKEL %	LEAD %	ZINC %
29094	Nil	Nil	0.01	0.12	0.005	0.005
29095	Nil	Nil	0.05	0.08	0.01	0.005
29096	Nil	Nil	None	0.14	0.005	0.005
29097	Nil	Nil	None	0.16	0.005	0.005
29098	Nil	Nil	None	0.12	0.005	0.005
29099	Nil	Nil	None	0.14	0.005	0.005
29100	Nil	Nil	0.005	0.11	0.005	0.005
29101	Nil	Nil	0.005	0.11	0.005	0.005
29102	Nil	Nil	0.01	0.11	0.005	0.005
29103	Nil	Nil	None	0.10	0.01	0.005
29104	Nil	Nil	0.01	0.11	0.005	0.005
29105	Nil	Nil	None	0.12	0.01	0.005
29106	Nil	Nil	None	0.13	0.01	0.005
29107	Nil	Nil	None	0.13	0.01	0.005
29108	Nil	Nil	None	0.12	0.01	0.005
29109	Nil	Nil	0.01	0.11	0.01	0.005
29110	Nil	Nil	None	0.13	0.01	0.005
29111	Nil	Nil	None	0.14	0.005	0.005
29112	Nil	Nil	None	0.12	0.01	0.005
29113	Nil	Nil	None	0.12	0.005	0.005

Cont'd.....

Per G. Lebel

G. Lebel - Manager

SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0
TELEPHONE: (705) 642-3244
ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

Certificate of Analysis

Certificate No. 53182 Date: April 2 1982

Received Mar.24/82 69 Samples of Split core

Submitted by Utah Mines Ltd., Timmins, Ontario Samples per: Mr. H. Newsome

Project No. A-365

SAMPLE NO.	GOLD Oz./ton	SILVER Oz./ton	COPPER %	NICKEL %	LEAD %	ZINC %
29114	Nil	Nil	None	0.09	0.005	0.005
29115	Nil	Nil	None	0.07	0.01	0.005
29116	Nil	Nil	0.005	0.08	0.01	0.005
29117	Nil	Nil	None	0.06	0.01	0.005
29118	Nil	Nil	None	0.07	0.01	0.005
29119	Nil	Nil	None	0.06	0.005	0.005
29120	Nil	Nil	0.005	0.16	0.01	0.005
29121	Nil	Nil	0.005	0.09	0.01	0.01
29122	Nil	Nil	0.005	0.09	0.01	0.005
29123	Nil	Nil	0.01	0.09	0.01	0.01
29124	Nil	Trace	0.02	0.09	0.01	0.01
29125	Nil	Nil	0.01	0.10	0.01	0.005
29126	Nil	Nil	0.01	0.10	0.01	0.005
29127	Nil	Nil	None	0.10	0.01	0.005
29128	Nil	Nil	0.005	0.09	0.01	0.005
29129	Nil	Nil	0.005	0.08	0.005	0.01
29130	Nil	Nil	0.005	0.10	0.01	0.005
29131	Nil	Nil	0.005	0.09	0.005	0.005
29132	Nil	Nil	0.005	0.07	0.01	0.005

Cont'd.....

Per G. Lebel

G. Lebel - Manager

SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0
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Certificate of Analysis

Certificate No. 53182 Date: April 2 1982

Received Mar.24/82 69 Samples of Split core

Submitted by Utah Mines Limited, Timmins, Ontario Samples per: Mr. H. Newsome

Project No. A-365

SAMPLE NO.	GOLD Oz./ton	SILVER Oz./ton	COPPER %	NICKEL %	LEAD %	ZINC %
29133	Nil	Nil	0.005	0.10	0.01	0.005
29134	Nil	Nil	None	0.11	0.005	0.005
29135	Nil	Nil	None	0.11	0.005	0.005
29136	Nil	Nil	None	0.11	0.005	0.005
29137	Nil	Nil	None	0.12	0.005	0.005
29138	Nil	Nil	None	0.08	0.005	0.005
29139	Nil	Nil	None	0.10	0.005	0.005
29140	Nil	Nil	None	0.11	0.005	0.005
29141	Nil	Nil	None	0.16	0.005	0.005
29142	Nil	Nil	None	0.15	0.005	0.005
29143	Nil	Nil	None	0.15	0.005	0.005

Per G. Lebel

G. Lebel - Manager

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Certificate No. 53182 Date: April 2 1982

Received Mar.24/82 69 Samples of Split core

Submitted by Utah Mines Limited, Timmins, Ontario Samples per: Mr. H. Newsome

Project No. A-365

SAMPLE NO.	GOLD Oz./ton	SILVER Oz./ton	COPPER %	NICKEL %	LEAD %	ZINC %	As	Pd
29133	Nil	Nil	0.005	0.10	0.01	0.005	—	0.001
29134	Nil	Nil	None	0.11	0.005	0.005	—	0.001
29135	Nil	Nil	None	0.11	0.005	0.005		
29136	Nil	Nil	None	0.11	0.005	0.005		
29137	Nil	Nil	None	0.12	0.005	0.005		
29138	Nil	Nil	None	0.08	0.005	0.005		
29139	Nil	Nil	None	0.10	0.005	0.005		
29140	Nil	Nil	None	0.11	0.005	0.005		
29141	Nil	Nil	None	0.16	0.005	0.005		
29142	Nil	Nil	None	0.15	0.005	0.005		
29143	Nil	Nil	None	0.15	0.005	0.005		

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Per G. Lebel

G. Lebel - Manager

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Certificate No. 53182 Date: April 2 1982

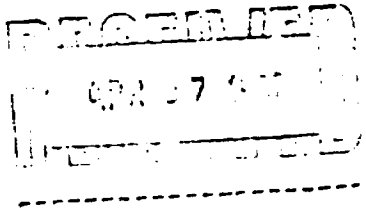
Received Mar.24/82 69 Samples of Split core

Submitted by Utah Mines Ltd., Timmins, Ontario Samples per: Mr. H. Newsome

Project No. A-365

SAMPLE NO.	GOLD Oz./ton	SILVER Oz./ton	COPPER %	NICKEL %	LEAD %	ZINC %	
29114	Nil	Nil	None	0.09	0.005	0.005	
29115	Nil	Nil	None	0.07	0.01	0.005	
29116	Nil	Nil	0.005	0.08	0.01	0.005	
29117	Nil	Nil	None	0.06	0.01	0.005	
29118	Nil	Nil	None	0.07	0.01	0.005	
29119	Nil	Nil	None	0.06	0.005	0.005	
29120	Nil	Nil	0.005	0.16	0.01	0.005	
29121	Nil	Nil	0.005	0.09	0.01	0.01	
29122	Nil	Nil	0.005	0.09	0.01	0.005	
29123	Nil	Nil	0.01	0.09	0.01	0.01	
29124	Nil	Trace	0.02	0.09	0.01	0.01	
29125	Nil	Nil	0.01	0.10	0.01	0.005	
29126	Nil	Nil	0.01	0.10	0.01	0.005	
29127	Nil	Nil	None	0.10	0.01	0.005	
29128	Nil	Nil	0.005	0.09	0.01	0.005	Pd.
29129	Nil	Nil	0.005	0.08	0.005	0.01	
29130	Nil	Nil	0.005	0.10	0.01	0.005	- 0.001
29131	Nil	Nil	0.005	0.09	0.005	0.005	- 0.001
29132	Nil	Nil	0.005	0.07	0.01	0.005	- 0.001

Cont'd.....



Per G. Lebel

G. Lebel - Manager

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Certificate No. 53182 Date: April 2 1982

Received Mar. 24/82 69 Samples of Split core

Submitted by Utah Mines Ltd., Timmins, Ontario Samples per: Mr. H. Newsome

Project No. A-365

SAMPLE NO.	GOLD Oz./ton	SILVER Oz./ton	COPPER %	NICKEL %	LEAD %	ZINC %
29094	Nil	Nil	0.01	0.12	0.005	0.005
29095	Nil	Nil	0.05	0.08	0.01	0.005
29096	Nil	Nil	None	0.14	0.005	0.005
29097	Nil	Nil	None	0.16	0.005	0.005
29098	Nil	Nil	None	0.12	0.005	0.005
29099	Nil	Nil	None	0.14	0.005	0.005
29100	Nil	Nil	0.005	0.11	0.005	0.005
29101	Nil	Nil	0.005	0.11	0.005	0.005
29102	Nil	Nil	0.01	0.11	0.005	0.005
29103	Nil	Nil	None	0.10	0.01	0.005
29104	Nil	Nil	0.01	0.11	0.005	0.005
29105	Nil	Nil	None	0.12	0.01	0.005
29106	Nil	Nil	None	0.13	0.01	0.005
29107	Nil	Nil	None	0.13	0.01	0.005
29108	Nil	Nil	None	0.12	0.01	0.005
29109	Nil	Nil	0.01	0.11	0.01	0.005
29110	Nil	Nil	None	0.13	0.01	0.005
29111	Nil	Nil	None	0.14	0.005	0.005
29112	Nil	Nil	None	0.12	0.01	0.005
29113	Nil	Nil	None	0.12	0.005	0.005

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Per G. Lebel

G. Lebel - Manager

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Certificate of Analysis

29075 - 29143

Certificate No. 53182 Date: April 2 1982

Received Mar.24/82 69 Samples of Split core

Submitted by Utah Mines Ltd., Timmins, Ontario Samples per: Mr. H. Newsome

Project No. A-365

SAMPLE NO.	GOLD Oz./ton	SILVER Oz./ton	COPPER %	NICKEL %	LEAD %	ZINC %		
29075	Nil	Nil	0.005	0.15	0.01	0.005		
29076	Nil	Nil	0.01	0.18	0.01	0.005		
29077	Nil	Nil	None	0.18	0.005	0.005		
29078	Nil	Nil	None	0.21	0.005	0.005	x	
29079	Nil	Nil	0.01	0.19	0.005	0.005		
29080	Nil	Nil	0.005	0.20	0.005	0.005	x	
29081	Nil	Nil	0.005	0.19	0.005	0.005		
29082	Nil	Nil	None	0.18	0.005	0.005	70	y
29083	Nil	Nil	None	0.20	0.005	0.005	115	y
29084	Nil	Nil	None	0.17	0.005	0.005	102	x
29085	Nil	Nil	0.005	0.15	0.005	0.005		
29086	Nil	Nil	None	0.16	0.005	0.005	118	x
29087	Nil	Nil	None	0.11	0.01	0.005	83	y
29088	Nil	Nil	None	0.17	0.005	0.005	144	x
29089	Nil	Nil	None	0.16	0.005	0.005	73	x
29090	Nil	Nil	None	0.10	0.005	0.005		
29091	Nil	Nil	None	0.16	0.005	0.005	102	x
29092	Nil	Nil	None	0.16	0.005	0.005		
29093	Nil	Nil	0.01	0.14	0.005	0.005		

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Per G. Lebel

G. Lebel - Manager

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Certificate of Analysis

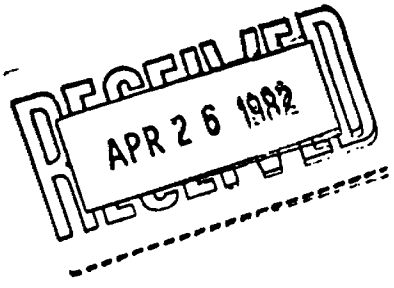
Certificate No. 53199-A Date: April 23 1982

Received Mar.29/82 74 Samples of split core

Submitted by Utah Mines Limited, Timmins, Ontario Samples per: Mr. H. Newsome

Project No. A-365

SAMPLE NO.	ARSENIC PPM
29204	1
29205	12
29206	2
29207	3
29208	2
29209	1
29210	< 1
29211	1
29212	< 1
29213	< 1
29214	4
29215	17
29216	22
29217	7



Per G. Lebel
G. Lebel - Manager

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Certificate No. 53199-A Date: April 23 1982

Received Mar.29/82 74 Samples of split core

Submitted by Utah Mines Limited, Timmins, Ontario Samples per: Mr. H. Newsome

Project No. A-365

SAMPLE NO.	ARSENIC PPM	SAMPLE NO.	ARSENIC PPM	SAMPLE NO.	ARSENIC PPM
29144	< 1	29164	< 1	29184	7
29145	7	29165	< 1	29185	11
29146	22	29166	< 1	29186	15
29147	25	29167	< 1	29187	19
29148	26	29168	2	29188	4
29149	37	29169	3	29189	1
29150	14	29170	2	29190	2
29151	33	29171	2	29191	< 1
29152	13	29172	< 1	29192	1
29153	6	29173	9	29193	2
29154	17	29174	13	29194	1
29155	9	29175	18	29195	2
29156	8	29176	6	29196	5
29157	12	29177	7	29197	13
29158	14	29178	< 1	29198	15
29159	< 1	29179	1	29199	10
29160	< 1	29180	< 1	29200	10
29161	< 1	29181	7	29201	10
29162	2.	29182	14	29202	15
29163	< 1	29183	41	29203	10

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Per G. Lebel

G. Lebel - Manager

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Certificate No. 53199 Date: April 8 1982

Received Mar.29/82 74 Samples of Split core

Submitted by Utah Mines Ltd., Timmins, Ontario Samples per: Mr. H. Newsome

Project A-365

SAMPLE NO.	GOLD Oz./ton	SILVER Oz./ton	SAMPLE NO.	GOLD Oz./ton	SILVER Oz./ton
29182	Nil	Trace	29200	Nil	Trace
29183	Nil	Trace	29201	0.002	Nil
29184	Nil	Trace	29202	Nil	Nil
29185	Nil	Trace	29203	0.001	Nil
29186	Nil	Trace	29204	Nil	Trace
29187	Nil	Trace	29205	Nil	Trace
29188	Nil	Trace	29206	Nil	Trace
29189	Nil	Trace	29207	Nil	Trace
29190	Nil	Trace	29208	Nil	Nil
29191	Nil	Nil	29209	Nil	Trace
29192	Nil	Nil	29210	Nil	Trace
29193	Nil	Nil	29211	Nil	Trace
29194	Nil	Nil	29212	Nil	Trace
29195	Nil	Trace	29213	Nil	Trace
29196	Nil	Nil	29214	Nil	Nil
29197	Nil	Nil	29215	Nil	Nil
29198	Nil	Nil	29216	Nil	Nil
29199	Nil	Nil	29217	Nil	Nil

NOTE: Arsenic results to follow.

Per G. Lebel

G. Lebel - Manager

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Certificate of Analysis

29144 - 29217

Certificate No. 53199 Date: April 8 1982

Received Mar.29/82 74 Samples of Split core

Submitted by Utah Mines Ltd., Timmins, Ontario Samples per: Mr. H. Newsome

Project A-365

SAMPLE NO.	GOLD Oz./ton	SILVER Oz./ton	SAMPLE NO.	GOLD Oz./ton	SILVER Oz./ton
29144	Nil	Trace	29163	Nil	Nil
29145	Nil	Nil	29164	Nil	Nil
29146	Nil	Nil	29165	Nil	Nil
29147	Nil	Trace	29166	Nil	Nil
29148	Nil	Trace	29167	Nil	Nil
29149	Nil	Nil	29168	Nil	Nil
29150	Nil	Trace	29169	0.002	Nil
29151	Nil	Nil	29170	Nil	Nil
29152	Nil	Nil	29171	Nil	Nil
29153	Nil	Trace	29172	Nil	Nil
29154	Nil	Trace	29173	Nil	Nil
29155	Nil	Trace	29174	0.001	Nil
29156	Nil	Trace	29175	Nil	Trace
29157	Nil	Trace	29176	0.001	Nil
29158	Nil	Nil	29177	0.002	Nil
29159	Nil	Trace	29178	Nil	Nil
29160	Nil	Nil	29179	Nil	Nil
29161	Nil	Nil	29180	Nil	Nil
29162	Nil	Nil	29181	Nil	Trace

Cont'd.....

Per G. Lebel

G. Lebel - Manager

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Certificate No. 53199 Date: April 8 1982

Received Mar.29/82 74 Samples of Split core

Submitted by Utah Mines Ltd., Timmins, Ontario Samples per: Mr. H. Newsome

Project A-365

SAMPLE NO.	GOLD Oz./ton	SILVER Oz./ton	SAMPLE NO.	GOLD Oz./ton	SILVER Oz./ton
29144	Nil	Trace	29163	Nil	Nil
29145	Nil	Nil	29164	Nil	Nil
29146	Nil	Nil	29165	Nil	Nil
29147	Nil	Trace	29166	Nil	Nil
29148	Nil	Trace	29167	Nil	Nil
29149	Nil	Nil	29168	Nil	Nil
29150	Nil	Trace	29169	0.002	Nil
29151	Nil	Nil	29170	Nil	Nil
29152	Nil	Nil	29171	Nil	Nil
29153	Nil	Trace	29172	Nil	Nil
29154	Nil	Trace	29173	Nil	Nil
29155	Nil	Trace	29174	0.001	Nil
29156	Nil	Trace	29175	Nil	Trace
29157	Nil	Trace	29176	0.001	Nil
29158	Nil	Nil	29177	0.002	Nil
29159	Nil	Trace	29178	Nil	Nil
29160	Nil	Nil	29179	Nil	Nil
29161	Nil	Nil	29180	Nil	Nil
29162	Nil	Nil	29181	Nil	Trace

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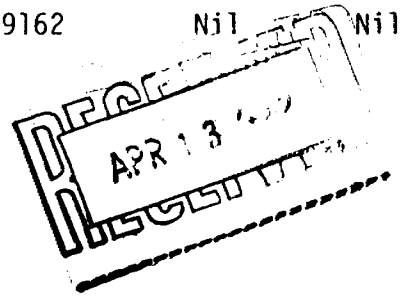

Per G. Lebel

G. Lebel - Manager

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Certificate No. 53199 Date: April 8 1982

Received Mar.29/82 74 Samples of Split core

Submitted by Utah Mines Ltd., Timmins, Ontario Samples per: Mr. H. Newsome

Project A-365

SAMPLE NO.	GOLD Oz./ton	SILVER Oz./ton	SAMPLE NO.	GOLD Oz./ton	SILVER Oz./ton
29182	Nil	Trace	29200	Nil	Trace
29183	Nil	Trace	29201	0.002	Nil
29184	Nil	Trace	29202	Nil	Nil
29185	Nil	Trace	29203	0.001	Nil
29186	Nil	Trace	29204	Nil	Trace
29187	Nil	Trace	29205	Nil	Trace
29188	Nil	Trace	29206	Nil	Trace
29189	Nil	Trace	29207	Nil	Trace
29190	Nil	Trace	29208	Nil	Nil
29191	Nil	Nil	29209	Nil	Trace
29192	Nil	Nil	29210	Nil	Trace
29193	Nil	Nil	29211	Nil	Trace
29194	Nil	Nil	29212	Nil	Trace
29195	Nil	Trace	29213	Nil	Trace
29196	Nil	Nil	29214	Nil	Nil
29197	Nil	Nil	29215	Nil	Nil
29198	Nil	Nil	29216	Nil	Nil
29199	Nil	Nil	29217	Nil	Nil

NOTE: Arsenic results to follow.

Per G. Lebel

G. Lebel - Manager

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Certificate of Analysis

Certificate No. 53212 Date: April 6 1982

Received Apr.1/82 11 Samples of Split core

Submitted by Utah Mines Limited, Timmins, Ontario Samples Per: Mr. J. Newsome

Project # A-365

SAMPLE NO.	GOLD Oz./ton	SILVER Oz./ton	COPPER %	NICKEL %	LEAD %	ZINC %	
29242	0.001	Nil	0.01	0.04	0.01	0.01	X
29243	Nil	Nil	0.01	0.04	0.01	0.01	
29244	Nil	Nil	0.01	0.04	0.01	0.01	
29245	Nil	Nil	0.01	0.02	0.01	0.01	
29246	Nil	Nil	0.005	0.02	0.01	0.005	
29247	Nil	Nil	0.005	0.03	0.01	0.01	
29248	Nil	Nil	None	0.02	0.01	0.005	
29249	0.001	Nil	0.01	0.02	0.01	0.005	X
29250	Nil	Nil	0.01	0.01	0.01	0.005	
29251	Nil	Nil	0.005	0.005	0.01	0.01	
29252	Nil	Nil	None	0.005	0.005	0.01	

NOTE: Arsenic results to follow.

Per G. Lebel

G. Lebel - Manager

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Certificate of Analysis

Certificate No. 53212 Date: April 6 1982

Received Apr.1/82 11 Samples of Split core

Submitted by Utah Mines Limited, Timmins, Ontario Samples Per: Mr. J. Newsome

Project # A-365

SAMPLE NO.	GOLD Oz./ton	SILVER Oz./ton	COPPER %	NICKEL %	LEAD %	ZINC %
29242	0.001	Nil	0.01	0.04	0.01	0.01
29243	Nil	Nil	0.01	0.04	0.01	0.01
29244	Nil	Nil	0.01	0.04	0.01	0.01
29245	Nil	Nil	0.01	0.02	0.01	0.01
29246	Nil	Nil	0.005	0.02	0.01	0.005
29247	Nil	Nil	0.005	0.03	0.01	0.01
29248	Nil	Nil	None	0.02	0.01	0.005
29249	0.001	Nil	0.01	0.02	0.01	0.005
29250	Nil	Nil	0.01	0.01	0.01	0.005
29251	Nil	Nil	0.005	0.005	0.01	0.01
29252	Nil	Nil	None	0.005	0.005	0.01

NOTE: Arsenic results to follow.

Per G. Lebel

G. Lebel - Manager

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Certificate of Analysis

Certificate No. 53213-A Date: April 22 1982

Received Apr.1/82 45 Samples of Split core

Submitted by Utah Mines Ltd., Timmins, Ontario Samples per: J.W. Newsome

SAMPLE NO.	ARSENIC PPM	SAMPLE NO.	ARSENIC PPM	SAMPLE NO.	ARSENIC PPM
29218	5	29240	4	29271	110
29219	4	29241	9	29272	21
29220	14	29253	2	29273	5
29223	4	29254	< 1	29274	20
29224	6	29255	< 1	29275	33
29225	6	29256	6		
29226	5	29257	1		
29227	4	29258	< 1		
29228	4	29259	< 1		
29229	13	29260	10		
29230	14	29261	2		
29231	12	29262	2		
29232	3	29263	1		
29233	4	29264	11		
29234	2	29265	20		
29235	3	29266	93		
29236	1	29267	213		
29237	21	29268	413		
29238	< 1	29269	11		
29239	4	29270	13		

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Per G. Lebel - Manager

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Certificate of Analysis

Certificate No. 53213 Date: April 8 1982

Received Apr. 1/82 47 Samples of Split core

Submitted by Utah Mines Ltd., Timmins, Ontario Samples per: J. Newsome

Project No. A-365

SAMPLE NO.	GOLD Oz./ton	SILVER Oz./ton
29265	Nil	0.01 +
29266	Nil	Trace
29267	Nil	0.02 +
29268	Nil	0.02 +
29269	Nil	Nil
29270	Nil	Nil
29271	Nil	Trace
29272	Nil	Nil
29273	Nil	Nil
29274	Nil	Nil
29275	Nil	Nil

NOTE: Arsenic, and chromium results to follow.

Per G. Lebel

G. Lebel - Manager

SWASTIKA LABORATORIES LIMITED

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Certificate of Analysis

29218 - 29275

Certificate No. 53213 Date: April 8 1982

Received Apr.1/82 47 Samples of Split core

Submitted by Utah Mines Ltd., Timmins, Ontario Samples per: J. Newsome

Project No. A-365

SAMPLE NO.	GOLD Oz./ton	SILVER Oz./ton	SAMPLE NO.	GOLD Oz./ton	SILVER Oz./ton
29218	Nil	Nil	29236	Nil	Nil
29219	Nil	Nil	29237	Nil	Nil
29220	Nil	Nil	29238	Nil	Nil
29221	Nil	Nil	29239	Nil	Nil
29222	Nil	Nil	29240	Nil	Nil
29223	Nil	Nil	29241	Nil	Nil
29224	Nil	Nil	29253	Nil	Nil
29225	Nil	Nil	29254	Nil	Nil
29226	Nil	Nil	29255	Nil	Nil
29227	Nil	Nil	29256	Nil	0.01 *
29228	Nil	Nil	29257	Nil	Nil
29229	Nil	Nil	29258	Nil	Nil
29230	Nil	Nil	29259	Nil	Nil
29231	0.001	Nil *	29260	Nil	Nil
29232	Nil	Nil	29261	Nil	Nil
29233	Nil	Nil	29262	Nil	Nil
29234	Nil	Nil	29263	Nil	Nil
29235	Nil	Nil	29264	Nil	Nil

NEXT PAGE →

Cont'd.....

Per G. Lebel
G. Lebel - Manager

ESTABLISHED 1928

SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0
TELEPHONE: (705) 642-3244
ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

Certificate of Analysis

Certificate No. 53213 Date: April 8 1982

Received Apr.1/82 47 Samples of Split core

Submitted by Utah Mines Ltd., Timmins, Ontario Samples per: J. Newsome

Project No. A-365

SAMPLE NO.	GOLD Oz./ton	SILVER Oz./ton	SAMPLE NO.	GOLD Oz./ton	SILVER Oz./ton
29218	Nil	Nil	29236	Nil	Nil
29219	Nil	Nil	29237	Nil	Nil
29220	Nil	Nil	29238	Nil	Nil
29221	Nil	Nil	29239	Nil	Nil
29222	Nil	Nil	29240	Nil	Nil
29223	Nil	Nil	29241	Nil	Nil
29224	Nil	Nil	29253	Nil	Nil
29225	Nil	Nil	29254	Nil	Nil
29226	Nil	Nil	29255	Nil	Nil
29227	Nil	Nil	29256	Nil	0.01
29228	Nil	Nil	29257	Nil	Nil
29229	Nil	Nil	29258	Nil	Nil
29230	Nil	Nil	29259	Nil	Nil
29231	0.001	Nil	29260	Nil	Nil
29232	Nil	Nil	29261	Nil	Nil
29233	Nil	Nil	29262	Nil	Nil
29234	Nil	Nil	29263	Nil	Nil
29235	Nil	Nil	29264	Nil	Nil

Cont'd.....

Per G. Lebel
G. Lebel - Manager

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Certificate No. 53213 Date: April 8 1982

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Submitted by Utah Mines Ltd., Timmins, Ontario Samples per: J. Newsome

Project No. A-365

SAMPLE NO.	GOLD Oz./ton	SILVER Oz./ton
29265	Nil	0.01
29266	Nil	Trace
29267	Nil	0.02
29268	Nil	0.02
29269	Nil	Nil
29270	Nil	Nil
29271	Nil	Trace
29272	Nil	Nil
29273	Nil	Nil
29274	Nil	Nil
29275	Nil	Nil

NOTE: Arsenic, and chromium results to follow.

Per G. Lebel

G. Lebel - Manager

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Certificate of Analysis

29276 - 29320

Certificate No. 53239 Date: April 19 1982

Received Apr.12/82 45 Samples of Split core

Submitted by Utah Mines Ltd., Timmins, Ontario Samples per: Mr. H. Newsome

Project No. A-365

SAMPLE NO.	GOLD Oz./ton	SILVER Oz./ton	COPPER %	NICKEL %	ZINC %
29276	Nil	Nil	0.01	0.01	0.02
29277	Nil	Nil	0.01	0.01	0.01
29278	Nil	Nil	0.01	0.02	0.02
29279	Nil	Nil	0.01	0.01	0.02
29280	Nil	Nil	0.01	0.01	0.02
29281	Nil	Nil	0.01	0.02	0.02
29282	Nil	Nil	0.01	0.01	0.02
29283	Nil	Nil	0.01	0.02	0.02
29284	Nil	Nil	0.01	0.01	0.01
29285	Nil	Nil	0.01	0.01	0.01
29286	Nil	Nil	0.01	0.01	0.01
29287	Nil	Nil	0.005	0.01	0.01
29288	Nil	Nil	0.01	0.005	0.02
29289	Nil	Nil	0.005	0.005	0.01
29290	Nil	Nil	0.01	0.01	0.01
29291	Nil	Nil	0.005	0.005	0.01

Cont'd.....

Per G. Lebel

G. Lebel - Manager

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Certificate No. 53239 Date: April 19 1982

Received Apr. 12/82 45 Samples of Split core

Submitted by Utah Mines Ltd., Timmins, Ontario Samples per: Mr. H. Newsome

Project No. A-365

SAMPLE NO.	GOLD Oz./ton	SILVER Oz./ton	COPPER %	NICKEL %	ZINC %
29292	Nil	Nil	0.005	0.005	0.01
29293	Nil	Nil	0.005	0.01	0.01
29294	Nil	Nil	0.01	0.01	0.01
29295	Nil	Nil	0.01	0.01	0.01
29296	Nil	Nil	0.01	0.02	0.01
29297	Nil	Nil	0.01	0.03	0.01
29298	Nil	Nil	0.01	0.04	0.01
29299	Nil	Nil	0.005	0.06	0.01
29300	Nil	Nil	0.01	0.01	0.005
29301	Nil	Nil	0.005	0.01	0.005
29302	Nil	Nil	0.005	0.01	0.005
29303	Nil	Nil	0.01	0.02	0.005
29304	Nil	Nil	0.01	0.01	0.005
29305	Nil	Nil	0.01	0.02	0.005
29306	Nil	Nil	0.005	0.07	0.005
29307	Nil	Nil	None	0.10	None

Cont'd.....

Per G. Lebel - Manager

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Certificate of Analysis

Certificate No. 53239 Date: April 19 1982

Received Apr.12/82 45 Samples of Split core

Submitted by Utah Mines Ltd., Timmins, Ontario Samples per: Mr. H. Newsome

Project No. A-365

SAMPLE NO.	GOLD Oz./ton	SILVER Oz./ton	COPPER %	NICKEL %	ZINC %
29308	Nil	Nil	None	0.11	None
29309	Nil	Nil	None	0.11	None
29310	Nil	Nil	0.005	0.09	None
29311	Nil	Nil	0.01	0.14	0.005
29312	Nil	Nil	0.005	0.20	0.005
29313	Nil	Nil	None	0.20	0.005
29314	Nil	Nil	0.005	0.17	0.005
29315	Nil	Nil	None	0.16	0.005
29316	Nil	Nil	None	0.12	None
29317	Nil	Nil	None	0.12	None
29318	Nil	Nil	None	0.20	0.005
29319	Nil	Nil	None	0.22	0.005
29320	Nil	Nil	None	0.15	0.005

Per G. Lebel - Manager

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Certificate of Analysis

Certificate No. 53244 Date: April 20 1982

Received Apr.14/82 34 Samples of split core

Submitted by Utah Mines Limited, Timmins, Ontario Samples per: Mr. J.W. Newsome

SAMPLE NO.	GOLD Oz./ton	SILVER Oz./ton	COPPER %	NICKEL %	ZINC %
29321	0.005	Trace	None	0.16	0.005
29322	Nil	Nil	None	0.15	0.005
29323	Nil	Nil	None	0.19	None
29324	Nil	Nil	None	0.19	None
29325	Nil	Nil	None	0.17	None
29326	Nil	Nil	0.005	0.17	None
29327	Nil	Nil	0.005	0.17	None
29328	Nil	Nil	None	0.16	None
29329	Nil	Nil	None	0.15	None
29330	0.006	Nil	0.005	0.16	None
29331	Nil	Nil			
29332	Nil	Nil			
29333	Nil	Nil			
29334	Nil	Nil			
29335	Nil	Nil			
29336	Nil	Nil			
29337	Nil	Nil			
29338	Nil	Nil			

Cont'd...

RECEIVED APR 22 1982

Per G. Lebel

G. Lebel - Manager

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SWASTIKA LABORATORIES LIMITED

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TELEPHONE: (705) 642-3244
ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

Certificate of Analysis

Certificate No. 53244 Date: April 20 1982

Received Apr. 14/82 34 Samples of Split core

Submitted by Utah Mines Limited, Timmins, Ontario Samples per: Mr. J. W. Newsome

SAMPLE NO.	GOLD Oz./ton	SILVER Oz./ton
29339	Nil	Nil
29340	Nil	Nil
29341	Nil	Nil
29342	Nil	Nil
29343	Nil	Nil
29344	Nil	Nil
29345	Nil	Nil
29346	Nil	Nil
29347	Nil	Nil
29348	Nil	Nil
29349	Nil	Nil
29350	Nil	Nil
29351	Nil	Nil
29352	Nil	Nil
29353	Nil	Nil
29354	0.100	0.44 x

Per G. Lebel

G. Lebel - Manager

SWASTIKA LABORATORIES LIMITED

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TELEPHONE: (705) 642-3244
ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

Certificate of Analysis

Certificate No. 53267 Date: April 30 1982

Received 28 Samples of new pulp prepared from reject

Submitted by Utah Mines Ltd., Timmins, Ontario Per: Mr. H. Newsome

SAMPLE NO.	GOLD Oz./ton	SILVER Oz./ton	SAMPLE NO.	GOLD Oz./ton	SILVER Oz./ton
29244	Nil	Nil	29342	Nil	Nil
29245	Nil	Nil	29343	Nil	Nil
29246	Nil	Nil	29344	Nil	Nil
29247	Nil	Nil	29345	Nil	Nil
29248	Nil	Nil	29346	Nil	Nil
29249	Nil	Nil	29347	Nil	Nil
29250	Nil	Nil	29348	Nil	Nil
29251	Nil	Nil	29349	Nil	Nil
29331	Nil	Nil	29350	Nil	Nil
29332	Nil	Nil			
29333	Nil	Nil			
29334	Nil	Nil			
29335	Nil	Nil			
29336	Nil	Nil			
29337	Nil	Nil			
29338	Nil	Nil			
29339	Nil	Nil			
29340	Nil	Nil			
29341	Nil	Nil			

Per G. Lebel - Manager

ESTABLISHED 1928

HOLE NO. JL-82-02 | PROJECT: JIM'S LAKE (A-365) | PAGE NO: 1 OF 23

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: MARCH 12/82 | REF. TO CLAIM CORNER: C.P. #1 : 609701

COORDINATES: 8'E of 164865 on L-88E N. E. | DATE FINISHED: MARCH 23/82 | SCALE: 1" = 10' (605' on 63° bearing)

INCLINATION: -55° | BEARING: 0° | TOTAL DEPTH: 1503' | LOGGED BY: J. W. Newsome

COMMENTS: -55° @ 0' -46° @ 863' -54° @ 213' -40° @ 1187' -53° @ 567' -39° @ 1503'

AVE CORE REC'Y / HOLE ~100%

SECTION	ALTERATION: CHLORITE	ALTERATION: SERPENTINE	ALTERATION: CARBONATE	ALTERATION: TALC/SERICITE	FRACTURING	MINERAL	GEOLOGY	DESCRIPTIVE GEOLOGY	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED	
180'								0'-181' • OVERBURDEN				BQ				
190'	MODERATE	STRONG	MODERATE	MODERATE		Py		181'-248' COARSE CUMULATE ULTRAMAFIC • DUNITE • dark green coarse grained (2-5mm) cumulate dunite composed dominantly of serpentinized olivine + minor pyroxene ± very minor feldspar + abundant (≈10%) accessory magnetite • massive with no schistosity = strongly magnetic • minor chlorite along with strong serpentine alteration • minor calcite alteration restricted mainly to fracture infills • minor fractures (hairline → 1" wide, generally 1-2 mm wide) generally 3"-8" apart ranging from 45°-80° to core axis + infilled with calcite + serpentine (chrysotile) ± minor quartz ("bull" qtz) • sections with greater degree of fracturing + infilling split for assay • trace smears of pyrite along fracture surfaces. • also magnesite fracture infills common ± possibly mistaken in some places as quartz.	Tr to Nil	173.6'	100				Tr. to Nil Py	
200'										203.4'	100					
210'						Py				213.3'	100		208'	100		29180
220'						Py				223.1'	100		214' 221' 222'	100		29181
											100		227' 228.5'	100		29182

HOLE NO. JL-82-02 | PROJECT: JIM'S LAKE (A-365) | PAGE NO: 2 OF 23

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: MARCH 12/82 | REF. TO CLAIM CORNER:

COORDINATES: 8'E of 16+86S on L-88E N. E. | DATE FINISHED: MARCH 23/82 | SCALE: 1" = 10'

INCLINATION: -55° | BEARING: 0° | TOTAL DEPTH: 1503' | LOGGED BY: J. W. NEWSOME

COMMENTS:

AVE CORE REC'Y / HOLE ~100 %

DESCRIPTIVE GEOLOGY

ALTERATION: CARBONATE | SERPENTINE | TALC/SERICITE

FRACTURING | MINERAL | GEOLOGY

SECTION | % SULPHIDES | DRILLING INTERVAL | % CORE RECOVERED | CORE SIZE | SAMPLE INTERVAL | % REC'Y. SAMP. INT. | ESTIMATED

230'

181'-248' COARSE CUMULATE ULTRAMAFIC : DUNITE

- for description see page 1

Tr. | 233' | BQ | Tr. py

100

242.8'

248'-511' SERPENTINIZED ULTRAMAFIC : DUNITE / PERIDOTITE (?)

Dark green-purplish black highly serpentinized ULTRAMAFIC • dominantly serpentine + abundant chlorite alteration • moderate to strong calcite + abun. talc alteration associated with fracture infillings & veins. • strongly magnetic (up to 10% magnetite) • possibly originally a cumulate (remnant cumulate texture apparent in places • relatively highly fractured • very irregular & cross-cutting from parallel to 90° to core axis, but dominantly between 30°-60° • fractures range from hairline to 1" wide (generally 2-5 mm) and are pervasively infilled with calcite ± minor quartz + serpentine (chrysolite) + talc, ± trace pyrite smeared along fracture surfaces. • fractures are generally ¼"-3" apart, but range from < 2mm to 1' apart.

- calcite fracture infilling decreases rapidly after 348', giving way primarily to an increase in magnesite + chrysolite + talc + antigorite.
- very highly fractured sects. from 248'-272' & 339'-348',
- core sampled through sections displaying abundant amount of fracture infilling material (up to 20% by volume of sample interval)
- very weak schistosity in places from 40°-60° to core axis.

100

252.6'

100

262.5'

100

273.3'

100

282.4'

100

250' | 100 | 29183

253.5'

257' | 100 | 29184

263.5'

267'

100 | 29185

272'

278' | 100 | 29186

281'

288' | 100 | 29187

289'

HOLE NO. JL-82-02 | PROJECT: JIM'S LAKE (A-365) | PAGE NO: 3 OF 23

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: MARCH 12/82 | REF. TO CLAIM CORNER:

COORDINATES: 88' of 164+86S on L-88E N. E. | DATE FINISHED: MARCH 23/82 | SCALE: 1" = 10'

INCLINATION: -55° | BEARING: 0° | TOTAL DEPTH: 1503' | LOGGED BY: J. W. NEWSOME

SECTION	ALTERATION: CHLORITE	ALTERATION: SERICITE	ALTERATION: CARBONATE	ALTERATION: SILICIFICATION	FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE ~100%	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED	
290'	MODERATE TO STRONG	STRONG	MODERATE	MODERATE		Py		DESCRIPTIVE GEOLOGY		Tr	292'		BQ	293'		Tr. Py.	
								248'-511' SERPENTINIZED ULTRAMAFIC: DUNITE/PERIDOTITE (?)							100		29188
								· for description see page 2.						295'			
300'												100					
								· 5' sample intervals taken as representative of rock & not necessarily sections of abundant or above average fracture infillings.			301.9'						
												100					
310'											311.7'						
												100					
320'											321.5'			321'			
															100		29189
												100		325'			
330'								· possibly remnant cumulate text from 331'-341'			331.4'			330'			
															100		29190
												100		335'			
														339'			
340'											341.2'				100		29191
												100		343'			29192
															100		
														348'			

HOLE NO. JL-82-02

CASING COLLAR ELEV.: 8' E. of 16+865 on L-88E

GROUND ELEV.:

COORDINATES: N. E.

INCLINATION: -55°

BEARING: 0°

PROJECT: JIM'S LAKE (A-365)

DATE STARTED: MARCH 12/82

DATE FINISHED: MARCH 23/82

TOTAL DEPTH: 1503'

REF. TO CLAIM CORNER:

SCALE: 1" = 10'

LOGGED BY: J. W. NEWSOME

COMMENTS:

AVE CORE REC'Y / HOLE ~100 %

SECTION: 350' – 410'

ALTERATION: CHLORITE: MODERATE TO STRONG; SERPENTINE: STRONG; CARBONATE: WEAK; TALC/SERICITE: MODERATE

MINERAL: Py

DESCRIPTIVE GEOLOGY

<u>248'-511'</u> <u>SERPENTINIZED ULTRAMAFIC : DUNITE / PERIDOTITE (?)</u>

· for description see page 2.

after 390' · more massive with strong serpentine & chlorite alteration & less fracturing · generally 2mm - hairline, but up to 1" wide · vary from subparallel to 80° to core axis, but generally 50-60° to core axis (many hairline fractures sub // to 50° to c.a.) · range from 1" - 1' apart (generally ~6" apart) & infilled with serpentine (chrysotile) + talc ± quartz ("bull" qtz.) - (minor) + magnesite + antigorite

% SULPHIDES: Tr.

CORE SIZE: BQ

ESTIMATED: Tr. py.

DRILLING INTERVAL	% CORE RECOVERED
351.1' – 361'	100
361' – 370.8'	100
370.8' – 380.6'	100
380.6' – 390.4'	100
390.4' – 400.3'	100
400.3' –	100

SAMPLE INTERVAL	% REC'Y SAMP. INT.	
354' – 359'	100	29193
375' – 380'	100	29194
385' – 389'	100	29195
408.5' –		29196

HOLE NO. JL-82-02

CASING COLLAR ELEV.: GROUND ELEV.:

COORDINATES: 8'E of 16+86S on L-88E N. E.

INCLINATION: -55° BEARING: 0°

PROJECT: JIM'S LAKE (A-365)

DATE STARTED: MARCH 12/82

DATE FINISHED: MARCH 23/82

TOTAL DEPTH: 1503'

REF. TO CLAIM CORNER:

SCALE: 1" = 10'

LOGGED BY: J. W. NEWSOME

COMMENTS:

AVE CORE REC'Y / HOLE: ~100 %

SECTION	ALTERATION: CHLORITE	SERPENTINE	CARBONATE	TALC/SERICITE	FRACTURING	MINERAL	GEOLOGY	DESCRIPTIVE GEOLOGY	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED	
410'	MODERATE TO STRONG	STRONG	WEAK	MODERATE		Py		248'-511' SERPENTINIZED ULTRAMAFIC : DUNITE/PERIDOTITE (?)	Tr.	410.1'	100	BQ	410.1'–411.5'	100	Tr. Py.	29196
								· for description, see pages 2 & 4		419.9'						
420'											100		421'–426'	100		29197
										429.8'			426.5'–429'	100		29198
430'						Py					100		432.5'–434'	100		29199
440'										439.6'	100					
450'										449.5'	100		448'–449.5'	100		29200
460'						Py				459.5'	100					

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: MARCH 14/82 | REF. TO CLAIM CORNER:

COORDINATES: 8'E of 16+865 on L-88E N. E. | DATE FINISHED: MARCH 23/82 | SCALE: 1" = 10'

INCLINATION: -55° | BEARING: 0° | TOTAL DEPTH: 1503' | LOGGED BY: J. W. NEWSOME

SECTION	ALTERATION: HYDROX.	ALTERATION: SERPENTINE	ALTERATION: CARBONATE	ALTERATION: MAGNETITE/GRAPHITE	FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE ~100%	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED	
470'	MODERATE TO STRONG	STRONG	WEAK	MODERATE				DESCRIPTIVE GEOLOGY									
						Py		248'-511' SERPENTINIZED ULTRAMAFIC : 'DUNITE/PERIDOTITE (?)		Tr			BQ	479'		Tr. Py.	
								• for description, see pages 2 & 4.				100			100		29201
														475.5'			
														477.5'			
											479'				100		29202
480'														479'			
												100					
											488.9'			489'			
490'															100		29203
												100		493.5'			
														496'			
						Py									100		29204
											498.7'			498.5'			
500'														502'			
												100			100		29205
											508.5'			507'			
510'										Tr						Tr. Py	
												100					
											518.4'						
						Py											
520'														523.5'			
												100			100		29206
											528.2'			528'			
															100		29207

• dark green - purple/bluish/black • coarse grained cumulates (2-5mm) • highly serpentinized & chloritized (waxy) • composed dominantly of serpentinized olivine + pyroxene + abundant accessory magnetite (up to 10%) interstitial between olivine grains & as 'wisps' • strongly magnetic • massive with no apparent schistosity • highly fractured • generally hairline to 2mm, but up to 3" wide of fracture infillings • vary from 1mm to 6" apart, generally ≤ 1" apart & random to X-cutting orientation from sub-parallel to 80° to core axis (fractures ≥ 2mm wide generally vary from 40°-70° to core axis) • in places, rock is virtually 'shattered' • fractures are dominantly infilled with calcite + chrysotile (+ other serpentine minerals) + talc + minor chlorite ± very minor quartz (hairline → 2mm fractures generally calcic chrysotile infills) • also common & pervasive along fracture surfaces is an unidentified

cont.-

HOLE NO. JL-82-02 | PROJECT: JIM'S LAKE (A-365) | PAGE NO: 7 OF 23

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: MARCH 12/82 | REF. TO CLAIM CORNER:

COORDINATES: 8'E of 16+86 S on L-88E N. E. | DATE FINISHED: MARCH 23/82 | SCALE: 1" = 10'

INCLINATION: -55° | BEARING: 0° | TOTAL DEPTH: 1503' | LOGGED BY: J. W. NEWSOME

COMMENTS:

AVE CORE REC'Y / HOLE ~100%

DESCRIPTIVE GEOLOGY

511'-630' COARSE CUMULATE ULTRAMAFIC : DUNITE (cont.-)

medium dull blue mineral / alteration product • amorphous ± no crystal structure (serpentine?)

• sample intervals of more pervasive fractured sections with ≥ 10% of rock represented by fracture infillings or 5' sample intervals indicative of overall rock type.

• abundant fracture infillings (≥ 50% of rock sample interval) of calcite - chrysotile - talc @ 528'-530.5' & 598'-602'

SECTION	ALTERATION: SERPENTINE	ALTERATION: MAGNETITE	ALTERATION: CARBONATE	ALTERATION: TALC/SERICITE	FRACTURING	MINERAL	GEOLOGY	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED
530'	STRONG	STRONG	MODERATE	MODERATE		Py		Tr.			BQ	531	100	Tr. Py.
540'									538.5'	100		536'	100	29208
550'						Py			547.9'	100		538'		
560'						Py			557.8'	100		552.5'	100	29209
570'						Py			567.6'	100		557.5'		
580'									578.5'	100		562'	100	29210
									587.3'			567'		
												577'	100	29211
												578.5'		
												596'		
													100	29212

HOLE NO. JZ-82-02 | PROJECT: JIM'S LAKE (A-365) | PAGE NO: 8 OF 23

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: MARCH 12/82 | REF. TO CLAIM CORNER:

COORDINATES: 8'E. of 16+86S on L-88E N. E. | DATE FINISHED: MARCH 23/82 | SCALE: 1"=10'

INCLINATION: -55° | BEARING: 0° | TOTAL DEPTH: 1503' | LOGGED BY: J. W. Newsome

COMMENTS:

AVE CORE REC'Y / HOLE ~100 %

DESCRIPTIVE GEOLOGY

511'-630' COARSE CUMULATE ULTRAMAFIC : DUNITE

• for description see pages 6 & 7

630'-635' FINE CUMULATE ULTRAMAFIC : DUNITE / PERIDOTITE (?)

• gradational contacts • highly fractured & very strong serpentine & chlorite alteration • weak to moderate schistosity @ ~30° to core axis • more pronounced toward 635' • increase in chlorite + talc/sericite alteration toward 635'. possibly due to increase in feldspar content & corresponding decrease in serpentine • rounded 'blebs' of dom. magnetite up to ¼" in diameter • moderate to strongly magnetic • very highly fractured (almost intraclastic) • hair-line - 2 mm wide & infilled with talc - calcite + minor chl. & serp. + tr. py. + magnesite.

635'-642' CHLORITIZED ANDESITE (TUFF)

• above grades into highly chloritized & schistose (45°-55° to core axis) very fine grained medium green andesite with moderate sericite alteration • minor calcite alteration assoc'd with quartz fracture infillings dominantly parallel to schistosity, 1mm - 2" wide (gen. < ¼") @ 1"-6" apart ± trace cubic pyrite • very minor fractures subparallel to core axis infilled with calcite.

642'-687' DIORITE

SECTION	ALTERATION: SERPENTINE	ALTERATION: CARBONATE	ALTERATION: TALC/SERICITE	FRACTURING	MINERAL	GEOLOGY	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED	
590'	STRONG	MODERATE	MODERATE				Tr.			BQ	591'	100	Tr. Py	29212
								597.1'	100		598'			
600'					Py							100		29213
									100		602'			
								607'						
610'									100					
					Py			616.8'			618.5'			
620'									100			100		29214
											623'			
								626.3'			628'			
630'	STRONG	MODERATE TO WEAK	MODERATE				Tr.		100			100	Tr. Py	29215
					Py						633'			
								636.6'			637'			
640'									100			100		29216
								646.4'			642'			

HOLE NO. JL-82-02 | PROJECT: JIM'S LAKE (A-365) | PAGE NO: 9 OF 23

CASING COLLAR ELEV.: 8'E. of 16+86 S | GROUND ELEV.: | DATE STARTED: MARCH 12/82 | REF. TO CLAIM CORNER:

COORDINATES: on L-88E | N. | E. | DATE FINISHED: MARCH 23/82 | SCALE: 1" = 10'

INCLINATION: -55° | BEARING: 0° | TOTAL DEPTH: 1503' | LOGGED BY:: J.W. NEWSOME

ALTERATION: CHLORITE | SERICITE | CARBONATE | SILICIFICATION | FRACTURING | MINERAL | GEOLOGY

COMMENTS:

AVE CORE REC'Y / HOLE ~100 %

DESCRIPTIVE GEOLOGY

642'-687' DIORITE

• massive (no shearing or schistosity) fine grain (<1 mm) ophitic diorite • gradational contacts (probably a concordant sill) • chloritized mafics ± very minor free quartz (possibly borderline to gabbro) • cut by minor quartz ± minor calcite veins (1mm - 2" wide, gen. < ½") @ 20°-50° to core axis & 6" - 1' apart with trace pyrite ± trace chalcopyrite along vein margins.

687'-704' ANDESITE TUFF - (BASALT ?)

• very fine grained ash-to-fine crystal tuff • medium green & highly chloritized with weak to moderate sericite alteration • gradational contacts • more massive near contacts with prominant schistosity (60° to core axis) produced in central portions of section • tr. to 1% pyrite throughout (cubic) with quartz veins 2mm - 1" wide from parallel to core axis to generally parallel to schistosity • mostly 'bull' quartz with tr-1% pyrite along vein margins. • veins 1-6" apart & comprise < 10% of rock by volume. • possibly close to a basalt in composition

704'-745' DIORITE / GABBRO (?)

• gradational contacts • alternating coarse (<5mm) to fine (<1mm) grained ophitic diorite - to - gabbro • comp. dom. of 40% feldspar & 60% chloritized mafics • massive with no apparent schistosity • tr. py. (cubic) + po. + vy min. tr. cpy throughout section, but generally assoc'd with coarser grained sections • minor quartz - calcite veins cross-cutting core axis from 2mm - 1" wide & 1'-2' apart. • non-magnetic. -cont.-

SECTION	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED	
650'	Tr-1%		100	BQ	651'	100	Tr-1% py.	29217
		656.2'			656'			
660'			100					
		666'						
670'			100		676'	100	Tr py + cpy.	29218
		675.9'						
680'			100		681'			
		685.7'						
690'			100		694.5'	100	Tr-1% py	29219
		695.6'						
700'			100		699'	100	Tr-1% py.	29220
		705.4'			704'			
			100					

HOLE NO.: JL-82-02 | PROJECT: JIM'S LAKE (A-365) | PAGE NO: 10 OF 23

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: MARCH 12/82 | REF. TO CLAIM CORNER:

COORDINATES: 8'E of 16+86S on L-88E N. E. | DATE FINISHED: MARCH 23/82 | SCALE: 1" = 10'

INCLINATION: -55° | BEARING: 0° | TOTAL DEPTH: 1503' | LOGGED BY: T.W. NEWSOME

COMMENTS:

AVE CORE REC'Y / HOLE ~100 %

DESCRIPTIVE GEOLOGY

704'-745' DIORITE / GABBRO (?) -cont.-

- from 721.5-727.5 • weak to moderate schistosity ~65° to core axis
- possibly tuffaceous ? • includes 8" qtz. ('bull') + calc. vein between 723' & 724' with tr. cubic py. • other minor qtz-calc. veins cross-cutting core axis & schistosity.
- 734'-736' • 1" qtz-calc. vn. sub// to c.a. & tr.-1% py near vein margin.

745'-872' CHLORITIZED ANDESITE / BASALT

• fine grained light-medium green highly chloritized andesite (to basalt) • dominantly chloritized andesite. • very schistose (40°-60°, generally ~50° to core axis) to massive in parts with little or no schistosity (massive sections may approach shallow intrusive diorite-to-gabbro) • section probably composed dominantly of andesitic ash to fine crystal tuff.
• minor sections of very weak sericite alteration where schistosity more pronounced. • calcite alteration weak & only assoc'd with fractures as infillings along with quartz (barren to tr py along margins) • fractures are minor & occur randomly generally sub parallel to parallel to schistosity and more rarely sub parallel to core axis • vary from hairline to 1" wide & 2" to 2' apart • infilled with calcite & quartz ± minor hematite staining (fracture infills comprise 5-10% of total section) • tr. py. cubes throughout section. • sample intervals taken where fracture infills ≥10% of section &/or where percentage of pyrite approaches or slightly exceeds 1% of section.

SECTION	ALTERATION: CHLORITE	ALTERATION: SERICITE	ALTERATION: CARBONATE	ALTERATION: SILICIFICATION	FRACTURING	MINERAL	GEOLOGY	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED
710'	MODERATE	NIL	NIL TO WEAK	NIL				Tr. to 1%	715.3'	100	BQ	723'		
720'									725.1'	100		727'	100	Tr.-1% PY + P° 29221
730'									734.9'	100		736'	100	Tr.-1% PY 29222
740'									744.8'	100				
750'	MODERATE TO STRONG	NIL	WEAK	NIL TO WEAK					754.6'	100		756'	100	Tr.-1% PY 29223
760'									764.5'	100		761' 766'	100	Tr.-1% PY 29224

HOLE NO.: JL-82-02 | PROJECT: JIM's LAKE (A-365) | PAGE NO: 11 OF 23

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: MARCH 12/82 | REF. TO CLAIM CORNER:

COORDINATES: 8'E. of 16+86S on L-88E N. E. | DATE FINISHED: MARCH 23/82 | SCALE: 1"=10'

INCLINATION: -55° | BEARING: 0° | TOTAL DEPTH: 1503' | LOGGED BY: J.W. NEWSOME

COMMENTS:

AVE CORE REC'Y / HOLE ~100%

DESCRIPTIVE GEOLOGY

745'-872' CHLORITIZED ANDESITE / BASALT

* for description see page 10

SECTION	ALTERATION: CHLORITE	ALTERATION: SERPENTINE	ALTERATION: CARBONATE	ALTERATION: SERICITE/TALC	FRACTURING	MINERAL	GEOLOGY	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED	
770'	STRONG	NIL	WEAK	WEAK				Tr-3%	774.3'	100	BQ	772.5'			
												773'	100	1% PY	29225
780'										100					
						Py			784.2'						
790'										100		789.5'			
									794.0'			792.5'	100	1% PY	29226
						Py				100					
800'									803.8'			802'			
												804'	100	1% PY	29227
													100	1% PY	29228
810'						Py			813.7'	100		809'			
												818.5'			
820'									823.5'	100			100	1% PY	29229
										100		823.5'			

HOLE NO. JL-82-02 | PROJECT: JIM'S LAKE (A-365) | PAGE NO: 12 OF 23

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: MARCH 12/82 | REF. TO CLAIM CORNER:

COORDINATES: 8' E. of 16+86 S on L-88E N. E. | DATE FINISHED: MARCH 23/82 | SCALE: 1" = 10'

INCLINATION: -55° | BEARING: 0° | TOTAL DEPTH: 1503' | LOGGED BY:: J. W. NEWSOME

ALTERATION: CHLORITE (STRONG) | SERICITE (WEAK) | CARBONATE (WEAK) | SILICIFICATION (NIL) | FRACTURING | MINERAL | GEOLOGY

COMMENTS:

AVE CORE REC'Y / HOLE ~100 %

DESCRIPTIVE GEOLOGY

SECTION	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED	
830'				BQ	831.5'			
	Tr-1%	833.4'	100		833.5'	100	1-2% py	29230
						100		29231
840'			100		835.5'			
		843.3						
850'			100					
		853.1'						
860'			100					
		862.9'						
			100					
870'	Tr-2% py	872.7'						
			100		878'			
880'		882.6'				100	1-2% py	29232
					883'			
			100		887'			
						100	1% py	29233

745'-872' CHLORITIZED ANDESITE/BASALT

· for description see page 10

872'-1130' CHLORITIZED ANDESITE (TUFF)

· light-medium green fine grained highly chloritized andesite ash to fine crystal tuff. · minor sericite alteration (restricted) ± weak to moderate calcite alteration within groundmass as well as associated with quartz veins ± fracture infillings. · well pronounced schistosity generally 40°-50° to core axis. · non-magnetic · after 980', schistosity varies from ~60°-70° to core axis · tr. cubic pyrite throughout section · py. increases to ~2% in more calcareous sections · minor quartz-calcite veins ranging from hairline to 2" wide (gen. < ½") ± 1" to 2' apart (gen. well spaced) randomly oriented from subparallel to 90° to core axis. · very weak association of vein orientation to schistosity. · generally fracture infillings dominantly of calcite ± quartz. · very minor fractures · generally widely spaced (>6") ± subparallel to schistosity ± thin (<2 mm wide). - cont. -

HOLE NO. JL-82-02 | PROJECT: JIM'S LAKE (A-365) | PAGE NO: 13 OF 23

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: MARCH 12/82 | REF. TO CLAIM CORNER:

COORDINATES: 8'E. of 16+86 S on L-88E N. E. | DATE FINISHED: MARCH 29/82 | SCALE: 1" = 10'

INCLINATION: -55° | BEARING: 0° | TOTAL DEPTH: 1503' | LOGGED BY: T.W. NEWSOME

COMMENTS:

AVE CORE REC'Y / HOLE ~100 %

DESCRIPTIVE GEOLOGY

872'-1130' CHLORITIZED ANDESITE (TUFF) - cont.-

· sample intervals taken where amount of sulphides (pyrite) ranges from 1-2% for 5' sections representative of section in general.

SECTION	ALTERATION: CHLORITE	ALTERATION: SERICITE	ALTERATION: CARBONATE	ALTERATION: SILICIFICATION	FRACTURING	MINERAL	GEOLOGY	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED	
890'	STRONG	NIL	MODERATE	WEAK				Tr-2%	892.4'		BQ	892.5'	100	1% py	29233
900'						py			902.3'	100		901'			
												905.5'	100	1-2% py	29234
910'									912.1'	100		910'	100	1-2% py	29235
												914.5'	100	1-2% py	29236
920'						py			922'	100					
												924'	100	1% py	29237
930'									931.8'	100		925'			
												932'	100	2% py	29238
940'						py			941.6'	100		939'			

HOLE NO. JL-82-02 | PROJECT: JIM'S LAKE (A-365) | PAGE NO: 14 OF 23

CASING COLLAR ELEV.: 5'E. of N+85 | GROUND ELEV.: | DATE STARTED: MARCH 12/82 | REF. TO CLAIM CORNER:

COORDINATES: on L-88E N. E. | DATE FINISHED: MARCH 23/82 | SCALE: 1" = 10'

INCLINATION: -55° | BEARING: 0° | TOTAL DEPTH: 1503' | LOGGED BY: J.W. NEWCOME

COMMENTS: | AVE CORE REC'Y / HOLE ~100%

DESCRIPTIVE GEOLOGY

872-1130' CHLORITIZED ANDESITE (TUFF)

· for description, see pages 12 & 13.

· prior to 987' · slightly siliceous chloritized fine andesite crystal tuff with thin (<2mm) quartz 'veins' 2"-6" apart parallel to schistosity (~70° to core axis) · trace cubic pyrite throughout

987'-996.5' (80x 43 + 44) · moderately siliceous fine grained chloritized andesite (possibly dacitic) tuff. with flecks of fuchsite throughout (up to 30% of composition) + trace to 1% cubic pyrite throughout section. · hairline to 2" wide white (with gray margins) quartz veins approx. 3"-6" apart cross-cutting to subparallel to core axis. · also minor thin (<1mm wide) quartz veinlets parallel to schistosity (~70° to core axis) & <1" apart (possibly reflects more siliceous nature of section) · section also includes very fine grained alteration mineral · pale yellow in colour · possibly sericite?

996.5'-1003' · rock is still moderately siliceous with up to 1% pyrite cubes disseminated throughout, but lacking fuchsite mineralization.

· after 1003' · grades slowly into very fine grained chloritized andesite tuff with trace disseminated pyrite cubes, possibly closer to basalt.

· N.B. · a dacitic crystal tuff with fuchsite concordant with schistosity.

SECTION	ALTERATION: CHLORITE	ALTERATION: CARBONATE	ALTERATION: SERICITE	ALTERATION: EPIDOTE	FRACTURING	MINERAL	GEOLOGY	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED	
950'	STRONG	MODERATE TO WEAK	NIL TO WEAK	NIL TO WEAK		Py		Tr-2%	951.5'	100	BQ	950'	100	1% py	29239
960'									961.3'			957'	100	Tr-1% py	29240
970'						Py			971.2'			962'	100	2% py	29241
980'						Py			981'			972'	100	Tr-1% py	29242
990'						Py			990.9'			977'	100		29243
1000'						Py			1000.7'			981.5'	100		29244
												986.5'	100	1% py	29245
												989'	100		29246
												991'	100		29247
												993.5'	100		29248
												996'	100		29249
												998.5'	100		29250
												1000.5'	100	Tr-1% py	29251
												1003'	100		29252

COORDINATES: 8'E. of 16+865 on L-88E N. E.
INCLINATION: -55° BEARING: 0°
DATE FINISHED: MARCH 23/82
TOTAL DEPTH: 1503'
REF. TO CLAIM CORNER:
SCALE: 1" = 10'
LOGGED BY: J. W. NEWSOME

COMMENTS:

AVE CORE REC'Y / HOLE ~100 %

DESCRIPTIVE GEOLOGY

872'-1130' CHLORITIZED ANDESITE (TUFF)

- borderline to basalt
- for description, see pages 12 & 13.

- after 1010' - quartz veins in range of 1-2" wide are rare (10-20' apart) - most vein & fracture infillings are calcite ± quartz & 6"-1' apart on average. - also less calcite alteration in groundmass. - sample intervals taken where quartz-calc. veins comprise ~10% of rock or greater or where pyrite ≥ 1%
- minor hematite staining on fractures
- 1008'-1018' - moderately magnetic with very fine grained magnetite (up to 2%) disseminated throughout.
- 1030'-1032' - relatively siliceous section (alternating silic-chl. 'bands' // to schistosity @ ~70° to c.a.) ≥ ~2% pyrite cubes dissem. in 'bands'.

N.B. - from 1010'-1030', rock is rel. dense, f.g. & dark green - may be much closer to a basalt in composition rather than andesite. - in parts, also may be more of a flow unit rather than a tuff.

SECTION	ALTERATION: ARGILLITE	ALTERATION: CHLORITE	ALTERATION: SERICITE	ALTERATION: EPIDOTE	FRACTURING	MINERAL	GEOLOGY	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED	
1010'	STRONG	WEAK	NIL TO WEAK	NIL TO WEAK		Py		Tr-1%	1010.5'		BQ	1009.5'			29252
										100		1015'			
												1018'	100	1% Py	29253
1020'									1020.4'			1020.5'	100	"	29254
													100	"	29255
												1031.5'			
										100		1029'			
1030'									1030.6'				100	2% Py	29256
												1033'			
										100					
1040'						Py			1040.1'						
										100					
												1048'			
1050'									1049.9'				100	1% Py	29257
												1052.5'			
										100					
1060'									1059.8'						
										100		1066.5'			
													100	1% Py	29258
									1068.6'			1068'			

COORDINATES: 8'E. of 16+865 on L-88E N. E.
INCLINATION: −55° BEARING: 0°
DATE FINISHED: MARCH 23/82
TOTAL DEPTH: 1503'
SCALE: 1" = 10'
LOGGED BY: J.W. Newsome

COMMENTS:

AVE CORE REC'Y / HOLE ~100 %

DESCRIPTIVE GEOLOGY

872'-1130' CHLORITIZED ANDESITE (TUFF)

- for description, see pages 12, 13, & 15.

- after 1080' - schistosity is dominantly @ 70°-80° to core axis and varying from weak to strong.

- 1091'-1093.5' - slightly silicified section of fine crystal tuff containing up to 2% dissem. pyrite cubes + minor quartz veining.

- 1094.5-1095.5' - 1" wide qtz-calc. vein sub// to core axis.

1104'-1108' - appears intrusive with very weak to no schistosity

1122'-1127' - minor calc-qtz. vns - typical rock section with trace dissem. py. cubes.

N.B. - whole unit from 872'-1130' (particularly after 1010') may range from andesite to basalt ? tuffs to flows - more massive sections may in fact be dioritic/gabbroic flows.

SECTION	ALTERATION: CHLORITE	ALTERATION: CARBONATE	ALTERATION: SERICITE	ALTERATION: SILICA	FRACTURING	MINERAL	GEOLOGY	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED	
1070	STRONG	WEAK	NIL TO WEAK	NIL TO WEAK		Py		Tr.-1%	1078.4'	100	BQ	1072'	100	Tr Py	29259
1080									1088.3'	100		1073'			
1090									1099.1'	100		1091'	100	2% Py	29260
						Py						1093.5'			
												1094.5'	100	Tr. Py	29261
1100									1109'	100		1095.5'			
1110						Py			1118.8'	100					
1120									1128.7'	100		1122'	100	Tr. Py	29262
												1127'			

CASING COLLAR ELEV.: GROUND ELEV.: DATE STARTED: MARCH 12/82 REF. TO CLAIM CORNER:

COORDINATES: 8' E. of 16+86 S on L-88 E N. E. DATE FINISHED: MARCH 23/82 SCALE: 1" = 10'

INCLINATION: -55° BEARING: 0° TOTAL DEPTH: 1503' LOGGED BY:: J. W. NEWSOME

SECTION	ALTERATION: CHLORITE	ALTERATION: CARBONATE	ALTERATION: SERICITE	ALTERATION: SILICIFIED	FRACTURING	MINERAL	GEOLOGY
1130'	WEAK	MODERATE	WEAK	MODERATE			
1140'	WEAK → NIL	MODERATE	NIL	NIL			
1150'							
1160'		MODERATE					
1170'	NIL		NIL	NIL			
1180'							

COMMENTS:

AVE CORE REC'Y / HOLE ~100%

DESCRIPTIVE GEOLOGY

1130'-1138' • ALTERED MAFIC - INTERMEDIATE VOLCANIC.

• gradual decrease in chlorite alteration with corresponding increase in minor sericite + moderate carbonate alteration ≠ silicification • very fine grained greenish-grey sugary textured andesite → dacite • weak to moderate effervescence with 10% HCl. / weak schistosity @ ≈70° to core axis. (silic'd and. or gradual change to dac.) • minor thin calc. vns (≤2mm) // to sch'ty ± min. calc. vns X-cutting sch'ty • 1-2% vy. f. disseм. py. cubes throughout. (Argillitic Andesite ??)

1138'-1157' • GRAPHITE WITH SULPHIDES. (10-12%) (BOXES 51-54)

• black graphite (schistose ± sch'ty ~70° to c.a.) interlayered with minor amounts of grey dense carbonaceous-graphitic schist (1146-1147.5' ≠ 1149.5-1150.5') • abun. hairline-2mm. calc. ± qtz. vn'lets < ¼" apart // to sch'ty. • 10%-12% sulphides occurring as individual disseм. py. cubes (v.f.g.) to amorphous oblong blebs up to 1" in diameter • sulphides approx. 9%-10% py., 1%-2% po. ≠ tr.-1% cpy. • sulphides more prom. assocd with calc.-qtz. fract. infills + vn'lets.

1157'-1167.5' Carbonaceous - GRAPHITIC SCHIST

• grey carbonaceous-graphite schist (~70° to c.a) ± min. calc. vn'lets // sch'ty ± 8-10% f.g. disseм py. cubes ≠ 'wisps' of py. along fracts // sch'ty • tr.-1% po+cpy • dom. all py.

1167.5'-1170' • GRAPHITE WITH SULPHIDES (~10%)

• as graphite unit above.

% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED	
1-2%			BQ	1130'			
		100		1134'	100	1-2% py	29263
				1138'	100	"	29264
10-12%	1138.5'	100				9-10% py 1-2% po. Tr.-1% cpy	
				1143.5'	100		29265
		100					
	1148.3'			1148.5'	100		29266
		100		1153.5'	100		29267
8-10%	1158.1'			1158'	100		29268
		100		1163'		8-9% py Tr.-1% po+cpy	29269
	1168'				100		
				1168'	100		29270
10%		100					
				1172.5'	100	8-9% py Tr.-1% po+cpy	29271
	1177.8'						
				1177'	100		29272
		100					
				1181.5'	100		29273
	1187.7'			1186'	100		29274
5%						5% py	29275

HOLE NO. JL-82-02 | PROJECT: JIM'S LAKE (A-365) | PAGE NO: 18 OF 23

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: MARCH 12/82 | REF. TO CLAIM CORNER:

COORDINATES: 8'E. of 16+86S on L-88E N. E. | DATE FINISHED: MARCH 23/82 | SCALE: 1" = 10'

INCLINATION: -55° | BEARING: 0° | TOTAL DEPTH:: 1503' | LOGGED BY:: T. W. Newsome

COMMENTS:

AVE CORE REC'Y / HOLE ~100%

DESCRIPTIVE GEOLOGY

1170'-1186' CARBONACEOUS - GRAPHITIC SCHIST

• grey-greenish (minor chl.-ser. altn & wk. silic'n) dom. carbonaceous-graphite schist with minor calc. vn'lets // sch'ty (~70° to c.a.) ± 8-10% py. as dissem. & cubes & 'wisps' along fracture infillings • tr. po. & cpy.

1186'-1189.5' GRAPHITE

• highly fractured (cataclastic) black graphite ± fracture infillings (~40%) of calc. ± qtz. • 2-5% py • cubes to amorph. blebs • assocd with qtz. fract. infillings • tr. po.

1189.5'-1231' FRAGMENTED CARB.-GRAPH. SCHIST → CHLORITIZED ANDESITE

• fragmented carbonaceous graphitic schist • grey-greenish sugary texture slowly grades into f. grained fragmented chloritized andesite (with weak calc. altn) • very weak schistosity in places from 70°-90° to core axis. • fragments are 'welded' together by calc.-graphite infillings bearing 5-2% pyrite cubes to amorphous 'stringers' or 'wisps' • 80% of fracts. are // to sub // to sch'ty. • in places, and. appears intrusive • massive & f.g. with no sch'ty • (possibly shallow diorite intrusive sills or concord. dykes?) • calc-graph. fract. infills X-cut 'massive' 'diorite-like' sections (1210'-1213') • pyrite min'n decreases down section

1231'-1250' CHLORITIZED ANDESITE TUFF

Highly chloritized f.g. andesitic ash to fine crystal tuff with minor calcite altn within groundmass as well as hairline → 2mm fracture infillings • minor fracts. gen // to sch'ty (~70° to c.a.) with minor barren qtz. vns (< 5% of rock) gen X-cutting & 2mm-2" wide & 1'-3' apart.

SECTION	ALTERATION: CHLORITE	CARBONATE	SERICITE	SILICIFICATION	FRACTURING	MINERAL	GEOLOGY
1190'	MODERATE TO STRONG	MODERATE TO WEAK	WEAK TO NIL	WEAK TO NIL			
1200'							
1210'							
1220'							
1230'							
1240'							

% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED	
5-2%	1170'	100	BQ	1190.5'	100	5% PY	29275
				1195'	100	5-2% PY	29276
				1200'	100		29277
	1207.4'	100		1205'	100	4-2% PY	29278
				1210'	100		29279
	1213.5'	100		1215'	100	3-2% PY	29280
				1220'	100		29281
	1227.1'	100		1225'	100	2% PY	29282
				1231'	100		29283
	1236.9'	100		1239'	100		29284
	1246.8'	100		1239'			

HOLE NO. JL-82-02 | PROJECT: JIM'S LAKE (A-365) | PAGE NO: 19 OF 23

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: March 12/82 | REF. TO CLAIM CORNER:

COORDINATES: 8'E. of 16+86S L-88E. N. E. | DATE FINISHED: March 23/82 | SCALE: 1" = 10'

INCLINATION: -55° | BEARING: 0° | TOTAL DEPTH: 1503' | LOGGED BY: J.W. Newsome

SECTION	ALTERATION: ENRICHMENT	ALTERATION: CARBONATE	ALTERATION: SERICITE	ALTERATION: SILICIFIED	FRACTURING	MINERAL	GEOLOGY
1250'	MODERATE	WEAK	NIL	NIL			
1260'							
1270'							
1280'	STRONG	MODERATE	NIL	NIL			
1290'							
1300'	STRONG	STRONG	STRONG	STRONG			

COMMENTS:

AVE CORE REC'Y / HOLE ~100 %

DESCRIPTIVE GEOLOGY

1250'-1276' ANDESITE-BASALT TUFFS & DIORITE-GABBRO 'FLOWS'

• green f.g. slightly schistose (~80° to c.a.) to massive & moderately chloritized. • schistose sections resembling ash-crystal tuffs grade into massive ophitic sections of diorite-gabbro comp. (dia-gab. 'interflows'?) • more massive ophitic texture composes ~80% of section. • vy. minor qtz-calc. vns • gen. <1mm wide to 2" & 6"-2' apart X-cutting e.a. @ 30°-90° (<5% un. material) + vy. min. tr. py cubes dissem. throughout. • 1263'-1268' • typical of section

1276'-1302' CHLORITIZED ANDESITIC-BASALT TUFF

• f.g. to vy f.g. green chloritized andesitic-basalt ash to fine crystal tuff • weak to strong sch'ty @ ~85°-90° to core axis • minor qtz-calc. veins (<1mm-¼" wide) randomly oriented from // to sch'ty to // to core axis & vuggy infills of calc. along min. fracts. gen // to core axis. • tr-1% po+py dissem. throughout • 1282'-1286' typical of section.

1302'-1316' Chloritized Andesite-BASALT TUFF & SILICIFIED SEGMENTS

• chloritized andesite to basalt ash to fine crystal tuff & mod→strong calc. alt'n (in groundmass & fracts.) & mod.→strong schistosity ~70° to core axis. • abun. (up to 60%) qtz.-calc. vns. up to 2" wide // to sub // to sch'ty with 3-5% dissem. py+po stringers & blebs. • 307.5-310' & 312-314.5 • highly fractured silicified zones • cont-

% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED	
Tr.	1254.6'	100	BQ				
	1266.8'	100		1263'	100	tr. py	29285
		100		1268'			
Tr	1276.3'	100		1282'	100		29286
	1286.2'			1288'			
	1296'	100		1296.5'	100	Tr. py	29287
Tr.		100		1301'			
Tr-1%	1303.5'			1303.5'	100	1% py	29288
3-5%	1305.5'			1307'	100	3-5% py+po+tr cpy	29289
3-5%				1307.5'	100		29290
5-8%		100		1310'	100	5-8% py+po+tr cpy	29291
5-8%							

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: MARCH 12/82 | REF. TO CLAIM CORNER:

COORDINATES: 8' E. of 16+86 S on L-88E N. E. | DATE FINISHED: MARCH 23/82 | SCALE: 1" = 10'

INCLINATION: -55° | BEARING: 0° | TOTAL DEPTH: 1503' | LOGGED BY: J. W. NEWSOME

COMMENTS:

AVE CORE REC'Y / HOLE: ~100%

SECTION	ALTERATION: CHLORITE	CARBONATE	SERICITE	SILICIFIED	FRACTURING	MINERAL	GEOLOGY	DESCRIPTIVE GEOLOGY	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED	
1310'	STRONG	STRONG	NIL	STRONG		Py		**1302'-1316' CHLORITIZED ANDESITE - BASALT TUFF ± SILICIFIED ZONES.**			100	BQ	1310'-1312'	100		29292
								• dominantly qtz (70%) + calc ± chl. (20%) & up to 10% py + po + tr. cpy. as stringers, blobs & interstit. network fract. infills. (Fragmented & silicified crystal tuff.)		1315.1			1312'-1314.5'	100		29293
													1314.5'-1316'	100		29294
1320'	TO MODERATE	WEAK	NIL	NIL					Tr.		100					
						Py		**1316'-1350' DIORITE (+ MINOR GABBRO)**		1325.5			1324'-1329'	100	Tr. py.	29295
								• coarse grained (2-3 mm) ophitic diorite to gabbro (70% diorite) • massive ≈ chloritized medics & minor xenoliths of ash tuff (and. → bas.) tr. py-po. throughout section • vy. minor random barren qtz. vns (≤1" wide) & 3'-6' apart. • 1324'-1329' - typical sample of section.								
1330'											100					
										1336.4						
1340'								**1350'-1386' BASALTIC ANDESITE ASH TUFF.**			100					
								• highly chloritized f. grained basaltic andesite ash tuff. • strong schistosity @ ~70° to core axis • minor hairline fractures // to sub // to sch'ty infilled ≈ calcite. • random 'bull' quartz-calcite veins up to 2" wide generally 3'-5' apart • mod. calcite alt'n in groundmass. • trace dissem.'d pyrite cubes throughout section. (1372-1376.5' - typical sample of section).		1345.2						
1350'	STRONG	MODERATE	NIL	NIL							100					
						Py				1355.1						
1360'											100					
										1364.9	100					

HOLE NO. JL-82-02
CASING COLLAR ELEV.: 8'E. of 16+86S on L-88E
GROUND ELEV.:
COORDINATES: N. E.
INCLINATION: -55°
BEARING: 0°

PROJECT: JIM'S LAKE (A-365)
DATE STARTED: MARCH 12/82
DATE FINISHED: MARCH 23/82
TOTAL DEPTH: 1503'

REF. TO CLAIM CORNER:
SCALE: 1" = 10'
LOGGED BY: J. W. NEWSOME

COMMENTS:

AVE CORE REC'Y / HOLE: ~100%

ALTERATION (1370'–1425'): CHLORITE: STRONG; CARBONATE: MODERATE, then WEAK; SERICITE: NIL; SILICIFIED: NIL

SECTION: 1370 – 1380 – 1390 – 1400 – 1410 – 1420

MINERAL: Py

DESCRIPTIVE GEOLOGY

1350'-1386' BASALTIC-ANDESITE ASH TUFF

- for description, see page 20

1386'-1425.5' CHLORITIZED BASALT/GABBRO (FLOW?)

- highly chloritized, massive & dense dark green with vy. weak schistosity (~80° to c.a.) produced in places (minor) - fine to medium grained - in places displays ophitic texture. - possibly basalt (flow?) or shallow intrusive or 'flow' of gabbro - very minor fracts randomly oriented & infilled with calcite ± vy. minor quartz.
- Nil to trace dissem.'d cubic pyrite. (1405.5'-1410 typical section sample).

1425.5'-1445' DIORITE

- medium grained ophitic texture with chloritized mafics - massive.
- light green - very minor fracts. infilled with calcite - sharp contact @ 1425.5, but gradational @ 1445' - possibly a sill or concordant dyke. - vy. minor trace dissem. pyrite.

% Sulphides	Drilling Interval	% Core Recovered	Core Size	Sample Interval	% Rec'y Samp. Int.	Estimated	
Tr.	1374.7	100	BQ	1372–1376.5	100	Tr. py	29296
		100					
Tr. to Nil	1384.5	100					
	1394.9	100					
	1404.3	100		1405.5–1410	100	Tr. py.	29297
	1414.1	100					
	1424.8	100					

CASING COLLAR ELEV.: GROUND ELEV.:
COORDINATES: 8'E of 16+86 S on L-88E N. E.
INCLINATION: -55° BEARING: 0°

DATE STARTED: MARCH 12/82
DATE FINISHED: MARCH 23/82
TOTAL DEPTH: 1503'

REF. TO CLAIM CORNER:
SCALE: 1" = 10'
LOGGED BY: J. W. NEWSOME

COMMENTS:

AVE CORE REC'Y / HOLE ~100 %

DESCRIPTIVE GEOLOGY

1425.5'-1445' DIORITE

• For description, see page 21

1445'-1503' CHLORITIZED BASALT-ANDESITE TUFF

• highly chloritized fine grained dark green dominantly basalt + minor andesite ash to fine crystal tuff. • weak calcite alt'n + weak sericite alt'n near bottom of section. • vy. minor fracts gen. // to schistosity (~70° to core axis) + infilled with calcite ± minor barren quartz. • Trace - 1% diseminated pyrite cubes up to 2 mm wide throughout section 1453.5'-1458' + 1482.5'-1487' sample intervals typical of section.

SECTION	ALTERATION: CHLORITE	ALTERATION: CARBONATE	ALTERATION: SERICITE	ALTERATION: SILICIFICATION	FRACTURING	MINERAL	GEOLOGY	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED	
1430'	STRONG	WEAK	NIL	NIL	/	Py		Nil to Tr.	1433.5'	100	BQ				
1440'		WEAK TO MODERATE			/	Py			1443.5'	100					
1450'					/	Py		Tr. to 1%	1453.5'	100		1453.5'		1% Py	29298
1460'			NIL TO WEAK		/	Py			1463.5'	100		1458'			
1470'					/	Py			1473.5'	100					
1480'					/	Py			1483'	100		1482.5'	100	Tr. Py	29299
												1487'			

CASING COLLAR ELEV.: 8' E. of 16+86 S on L-88E

COORDINATES: N. E.

INCLINATION: -55°

GROUND ELEV.:

BEARING:

DATE STARTED: MARCH 12/82

DATE FINISHED: MARCH 23/82

TOTAL DEPTH: 1503'

REF. TO CLAIM CORNER:

SCALE: 1" = 10'

LOGGED BY: J.W. NEWSOME

COMMENTS:

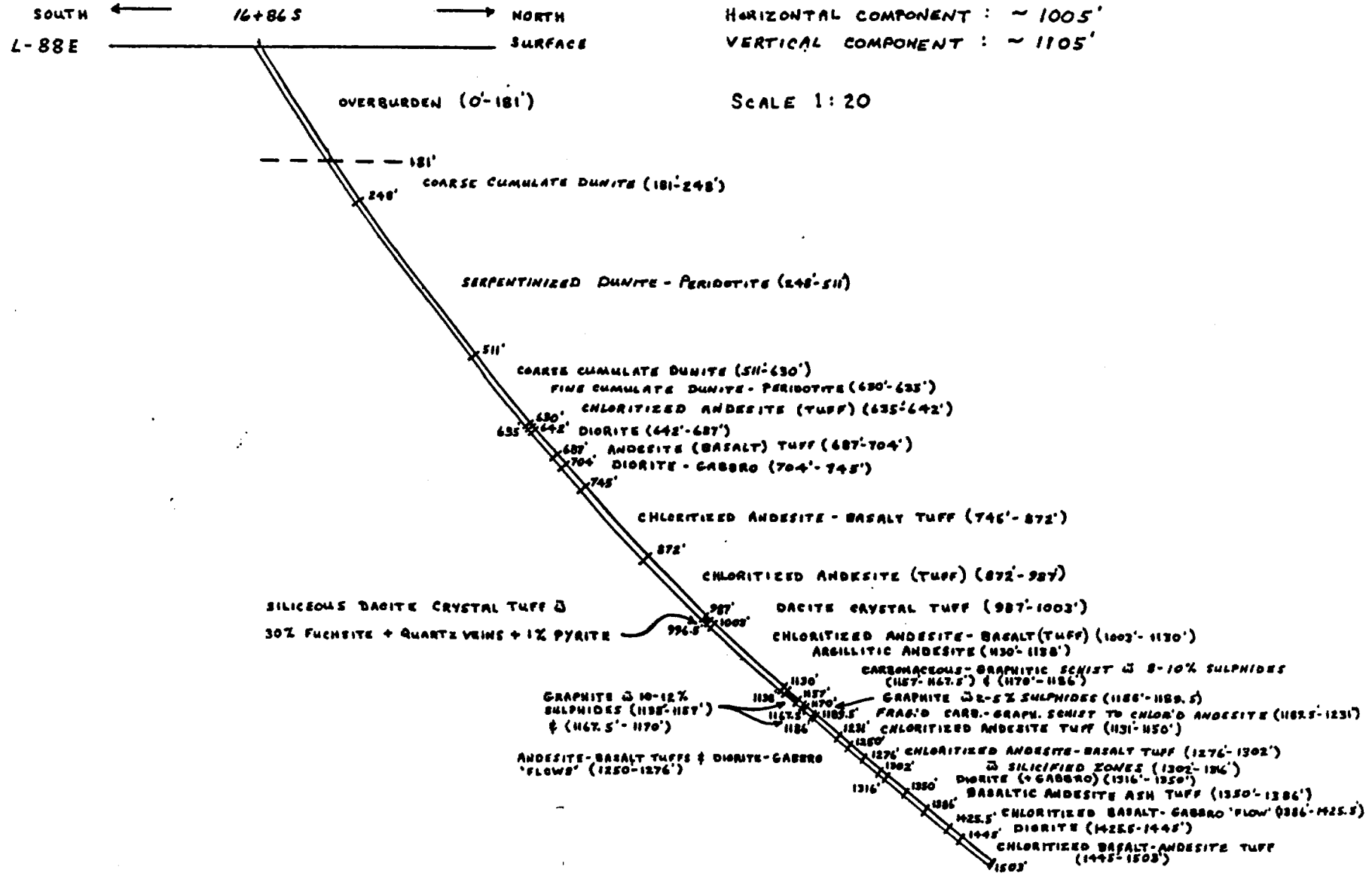
AVE CORE REC'Y / HOLE: ~100%

SECTION	ALTERATION: CHLORITE	CARBONATE	SERICITE	SILICIFIED	FRACTURING	MINERAL	GEOLOGY	DESCRIPTIVE GEOLOGY	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED
1490–1500	STRONG	WEAK	NIL TO WEAK	NIL		Py		1445' - 1503' CHLORITIZED BASALT - ANDESITE TUFF · for description see page 22		1492.5 1502.6	100 100	BQ			
								1502.6' · END of HOLE 120 Samples split & assayed.							

D. D. HOLE JL-82-02

LOCATION : 605' from C.P. #1 of 609701 on 63° B
INCLINATION : -55°
AZIMUTH : 0°
TOTAL DEPTH : ~1503'
HORIZONTAL COMPONENT : ~1005'
VERTICAL COMPONENT : ~1105'

SCALE 1:20



HOLE NO. JL-82-03 | PROJECT: JIM'S LAKE (A-365) | PAGE NO: 1 OF 15

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: MARCH 24/82 | REF. TO CLAIM CORNER: CP #1 : 609706 (510' on 32° bearing)

COORDINATES: 30' E of 1+105 on L-84E N. E. | DATE FINISHED: MARCH 31/82 | SCALE: 1" = 10'

INCLINATION: -55° | BEARING: 0° | TOTAL DEPTH: 1122' | LOGGED BY:: J.W. Newsome

COMMENTS: -55° @ 0' -54° @ 915' -57° @ 285' -54° @ 1122' -55½° @ 571'

AVE CORE REC'Y / HOLE ~99%

SECTION	ALTERATION: HALO-ARGIL	ALTERATION: SERICITE	ALTERATION: CHLORITE	ALTERATION: SILICIFICATION	FRACTURING	MINERAL	GEOLOGY	DESCRIPTIVE GEOLOGY	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED
								0'-243' OVERBURDEN		243'					
250'	MODERATE	WEAK	WEAK	NIL		py		243'-265' WEATHERED DIORITE - GABBRO. • blocky core • highly weathered (almost regolithic) m.-c. grained diorite to gabbro • highly chloritized.	Tr.	265.7	50	BQ			
260'								265'-384' (MELA) DIORITE TO GABBRO. Light to medium green, medium to coarse grained ophitic diorite (mela-diorite) to gabbro • mafics chloritized with little to no free silica in groundmass • tr. pyrite (cubes) throughout : non-magnetic. • massive for most part w a weak schistosity produced within chloritized mafics after 344' @ ~50° to core axis. • random fractures from // to ⊥ to core axis throughout • generally hairline to <2mm wide & infilled with calc. + chl. ± minor quartz. • also random quartz-calcite veins up to 2" wide generally 2'-10' apart. • greater amount of calcite infilled fractures within last 8'-10' of section near 384' • also minor xenoliths of olivine basalt within this section.		275.6	100				
270'										285.9	100				
280'						py				289.0			289.0		
290'								289'-291.5' • finer grained w more chl alt'n & qtz-calc. vns (20%) @ ~70°-90° to core axis.		291.5	100		291.5	100	Tr. py 29300
										295.3	100				

HOLE NO. JL-82-03 | PROJECT: JIM'S LAKE (1-365) | PAGE NO: 2 OF 15

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: MARCH 24/82 | REF. TO CLAIM CORNER:

COORDINATES: 30' E. of 1+10 S on L-84E N. E. | DATE FINISHED: MARCH 31/82 | SCALE: 1" = 10'

INCLINATION: -55° | BEARING: 0° | TOTAL DEPTH: 1122' | LOGGED BY: J. W. Newsame

SECTION	ALTERATION: CHLORITE	ALTERATION: CARBONATE	ALTERATION: SERICITE	FRACTURING	MINERAL	GEOLOGY	COMMENTS: / DESCRIPTIVE GEOLOGY	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED
300'	MODERATE	WEAK	NIL		Py		AVE CORE REC'Y / HOLE ~99 %	Tr.		100	BQ	303'		
							265-384' (MELA) DIORITE TO GABBRO. • for description see page 1		305.1			305.5'	100	Tr. Py. 29301
310'							302'-305.5' • 2" gtz.-calc. vn. sub // to c.a. + min. gtz-calc. vns (random) + tr. py. (disseminated cubes)		315'	100				
320'									324.8'	100				
330'					Py				334.7'	100				
340'							339'-343.5' • two 2" gtz.-calc. vns @ 60° & 10° to c.a. & ~1' apart + min. chl. & tr. py.		344.5	100		339' 343.5'	100	Tr. Py 29302
350'					Py		348'-350' min. gtz-calc. & chl. vns up to ½" wide • random orientation & tr. py. - 1% py.					348'		
							350.5'-352' • chl. alt'd section & 2" wide gtz-calc. vn. @ 350.5' • min. tr. py. throughout & min. (<5%) fuchsite // to chl. & weak sch'ty @ ~50° to c.a.		354.3'	100		350 350.5 352'	100 100	Tr. Py. 29303 Tr. Py. 29304
										100				

HOLE NO: JL-82-03 | PROJECT: JIM'S LAKE (A-365) | PAGE NO: 3 OF 15

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: MARCH 24/82 | REF. TO CLAIM CORNER:

COORDINATES: 30'E. of 1+10S on L-84E N. E. | DATE FINISHED: MARCH 31/82 | SCALE: 1" = 10'

INCLINATION: -55° | BEARING: 0° | TOTAL DEPTH: 1122' | LOGGED BY: J. W. NEWSOME

ALTERATION: CHLORITE | CARBONATE | SERICITE | K-FELDSPAR | FRACTURING | MINERAL | GEOLOGY

COMMENTS:

AVE CORE REC'Y / HOLE ~ 99%

DESCRIPTIVE GEOLOGY

265'-384' (MELA) DIORITE TO GABBRO

• for description see page 1

374'-379' • sample typical of section & calc. fract. infille & tr. py.

384'-425' PICRITE

• massive fine-medium grained dark green highly chloritized picrite • comp. dominantly of olivine + pyroxene + lesser amounts of f'spar. • minor f'spar pheno. 'clusters' for first 3' • relatively fractured (hairline to ≤ 2 mm wide & random orientation) • generally 2"-3" apart & infilled with calcite. • nil to vy. minor trace disem. py. • minor barren quartz-calc. veins cutting core axis from 70°-90° (gen. 5'-10' apart) & up to 3" wide • non-magnetic, • no schistosity to vy. vy. weak in places @ 40°-60° to core axis.

SECTION	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED
360'	Tr.		100	BQ			
		364.2'					
370'			100				
		374'			374'		
						100	Tr. py. 29305
380'			100		379'		
		383.4'					
390'	NIL TO Tr.		100				
		393.7'					
400'			100				
		403.6'					
410'			100				
		413.4'					
			100				

HOLE NO. JL-82-0
CASING COLLAR ELEV.:
GROUND ELEV.:
COORDINATES: 30° E. of 14+05 on L-84E N. E.
INCLINATION: -55° BEARING: 0°

PROJECT: JIM'S LAKE (A-365)
DATE STARTED: MARCH 24/82
DATE FINISHED: MARCH 31/82
TOTAL DEPTH: 1122'

REF. TO CLAIM CORNER:
SCALE: 1" = 10'
LOGGED BY: J. W. Newsome

COMMENTS:

AVE CORE REC'Y / HOLE ~ 99 %

DESCRIPTIVE GEOLOGY

425'-453.5' PICRITE TO PERIDOTITE

• Picrite slowly grades into peridotite downsection • strong chl. alt'n gives way to serp. alt'n. • becomes slightly magnetic toward 453.5' • less fract'd • gen. parallel to moderate schistosity @ ~30° to core axis. • no quartz veining • fracts. gen hairline to 2mm wide & infilled with calcite + magnesite + minor antigorite • tr. py. 'smeared' along fracts. • minor cumulate texture in places.

453.5'-625' INTERLAYERED PERIDOTITE & DUNITE CUMULATES

• interlayered serpentinized peridotite & dunite (dunite dark green = little to no f'spar) • course cumulate texture from massive (dominantly within dunite layers) to moderately schistose (dominantly within peridotite sections) @ ~65°-85° to core axis. • cumulate crystals dom. comp of serp'd olivine in dunite & serpent'd & chl'd olivine & feldspars in peridotite. • cumulate grains 'stretched' in schistose segments.
• dunite sections also have a purplish-greenish hue caused by cumulate grains of magnetite • both dunite & peridotite strongly magnetic (>10% magnetite), with strong serpentine & chlorite alt'n. • relatively highly fractured (gen < 1" apart) & random orientation • gen. hairline to 2 mm wide,

Section	Chlorite	Carbonate	Serpentine	Talc	Mineral
420'–470'	STRONG TO MODERATE	WEAK	NIL → MODERATE TO STRONG	NIL → NIL; NIL TO WEAK	Py

% Sulphides	Drilling interval	% Core recovered	Core size
NIL TO TR.	423.2'	100	BQ
TR.	433.1'	100	
	442.9'	100	
	452.8'	95	
TR.	462.6'	100	
	472.5'	99	
		100	

Sample interval	% Rec'y samp. int.	Estimated	
461'–465.5'	100	Tr. py.	29306

HOLE NO. JL-82-03
CASING COLLAR ELEV.: GROUND ELEV.:
COORDINATES: 30' E. of 1+10 S on L-84 E N. E.
INCLINATION: -55° BEARING: 0°

PROJECT: JIM'S LAKE (A-365)
DATE STARTED: MARCH 24/82
DATE FINISHED: MARCH 31/82
TOTAL DEPTH: 1122'

REF. TO CLAIM CORNER:
SCALE: 1" = 10'
LOGGED BY:: J.W. Newsome

COMMENTS:

AVE CORE REC'Y / HOLE ~ 99 %

SECTION	ALTERATION: ANTHOPH.	ALTERATION: CARBONATE	ALTERATION: SERPENTINE	ALTERATION: talc	FRACTURING	MINERAL	GEOLOGY
480'	MODERATE TO STRONG	TRACE TO MODERATE	STRONG	WEAK			
490'						P_4	
500'							
510'						P_4	
520'							
530'						P_4	

DESCRIPTIVE GEOLOGY

453.5'-625' INTERLAYERED PERIDOTITE & DUNITE CUMULATES -cont.-

with fracts. up to 2" wide, gen 10°-20° to core axis. • fractures infilled with magnesite + antigorite. ± minor chl. ± minor talc. • no calcite or quartz. • tr. py. 'smeared' along fracts. & dissem'd throughout.

• 453.5-476 • gradational between peridotite & dunite.

461-465.5' • yellowish-brown rust interstit. & along magnesite fracts. infills. • sericite alt'n (?) • also in cumulate grains for 6" from 473.0' to 473.5'

• 476'-511' • dunite section, after 511. dom. peridotite with minor dunite sections, also increase in fract. infills of magnesite ± antigorite

• 520'-525' = abundant magnesite-antigorite fract. infills.

531.5'-536' • abundant magnesite-antigorite fract. infills

% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED	
Tr.	482.3'		BQ				
	492.2'	100					
	502'	100					
	511.5'	100					
	521.7'	100		520'			
				525'	100	Tr. Py	29307
	531.5'	100		531.5'			
	536'	100		536'	100	Tr. Py	29308

HOLE NO. JL-82-03 | PROJECT: JIM'S LAKE (A-365) | PAGE NO: 6 OF 15

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: MARCH 24/82 | REF. TO CLAIM CORNER:

COORDINATES: 30' E. of 1+10 S. on L-84 E N. E. | DATE FINISHED: MARCH 31/82 | SCALE: 1" = 10'

INCLINATION: -55° | BEARING: 0° | TOTAL DEPTH: 1122' | LOGGED BY: T. W. Nourse

ALTERATION: CHLORITE — MODERATE TO STRONG; CARBONATE — WEAK TO MODERATE; SERPENTINE — STRONG; TALC — WEAK TO MODERATE

AVE CORE REC'Y / HOLE ~ 99 %

COMMENTS:

DESCRIPTIVE GEOLOGY

453.5' - 625' INTERLAYERED PERIDOTITE & DUNITE CUMULATE

- For description, see pages 4 & 5.
- 511' - 625' - dominantly all fine to coarse cumulate peridotite - very strongly serpentinized & chloritized & magnetic. - abundant fract. infills of magnesite - serpentine (antigorite) & talc.
- 551' - 556' - typical sample section
- 561.5' - 566' - abundant very large crystals of serpentine (antigorite) - up to ¼" long & random orientation - resembles a 'Van Gogh' painting technique. & abundant talc alt'n.
- 578' - 594' fine grained highly schistose (70° to // to core axis) & more chlorite alt'n - possibly closer to picrite - moderately magnetic
- 588' - 590' & 591.5' - 593' abun. stks.- magnesite vns up to 6" wide X-cutting core axis & vy. min. tr. py

SECTION	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED
540'	Nil to Tr	541.4'		BQ			
			100		551'	100	29309
550'		551.2'					
			100		556'		
560'		561.1'					
			100				
570'		570.9'					
			100				
580'		580.7'					
			100		588'		
590'		590.5'				100	Tr. Py. 29310
			100		593'		

HOLE NO. JL-82-03.
CASING COLLAR ELEV.: GROUND ELEV.:
COORDINATES: 30' E. of 1+10S on L-84E N. E.
INCLINATION: -55° BEARING: 0°

PROJECT: JIM'S LAKE (A-365)
DATE STARTED: MARCH 24/82
DATE FINISHED: MARCH 31/82
TOTAL DEPTH: 1122'

PAGE NO: 7 OF 15
REF. TO CLAIM CORNER:
SCALE: 1" = 10'
LOGGED BY: J.W. NEWSOME

SECTION	ALTERATION: CHLORITE	CARBONATE	SERPENTINE	TALC	FRACTURING	MINERAL	GEOLOGY	COMMENTS / DESCRIPTIVE GEOLOGY	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED
600'–630'	MODERATE TO STRONG	WEAK TO MODERATE	STRONG	WEAK TO MODERATE		Py			NIL TO Tr.	600.4' – 610.3' – 620.1' – 630' – 639.8' – 649.6'	100 / 100 / 100 / 100 / 100 / 100 / 100	BQ	627' – 632'	100	
630'–650'	STRONG – MODERATE TO STR...					Py			NIL to Tr.						

AVE CORE REC'Y / HOLE: ~99%

DESCRIPTIVE GEOLOGY

453.5'-625' INTERLAYED PERIDOTITE & DUNITE (MINOR) CUMULATE

- For description see pages 4, 5 & 6.

625'-645' PERIDOTITE TO PICRITE.

- f. grained dark green moderately schistose (30°-60° to c.a.), highly chloritized & serpentinized peridotite grading to picrite(?) · very gradational contacts · moderately fract'd with infill of magnesite + serpentine (antigorite) · vy. min. trace dissem. py.

· 627-632' · typical sample section of rock type.

645'-679' PERIDOTITE

- highly serpentinized ; moderately to strongly chloritized f.g. massive to fine to coarse cumulate peridotite · varies from cumulate texture to massive hypidiomorphic granular · vy. weak schistosity (~30° to c.a.) produced in vy. minor occurrences · moderately fract'd (2-6" spacing) gen. hairline - 2 mm wide · random orientation · infilled c magnesite · serpentine (antigorite) & minor talc. · Nil to trace dissem. py.
- moderately to strongly magnetic.

29311

HOLE NO: JL-82-03 | PROJECT: JIM'S LAKE (A-365) | PAGE NO: 8 OF 15

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: MARCH 24/82 | REF. TO CLAIM CORNER:

COORDINATES: 30' E. of 1+10 S on L-84E N. E. | DATE FINISHED: MARCH 31/82 | SCALE: 1" = 10'

INCLINATION: -55° | BEARING: 0° | TOTAL DEPTH: 1122' | LOGGED BY: J. W. NEWSOME

ALTERATION: CHLORITE | CARBONATE | SERPENTINE | TALC

FRACTURING | MINERAL | GEOLOGY

COMMENTS:

AVE CORE REC'Y / HOLE ~99%

DESCRIPTIVE GEOLOGY

SECTION	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED
660'	Nil to Tr.		100	BQ			
		663.3'					
670'			100				
		679.2'					
680'	Tr. to 1%		100				
		689'					
690'			100		694.5'		Tr-1% py 29312
		698.5'				100	
700'			100		699.5' 704'		
	Nil to Tr.	708.7'				100	Tr-1% py 29313
710'			100		709'		

645'-679' PERIDOTITE

- for description see page 7.

679'-705' SERPENTINITE (DUNITE?)

- very dark green - purplish black serpentinite - remnant cumulate texture in places - may originally have been dunite. - highly fractured (≤1" apart) with random orientation - generally hairline to ≤2 mm wide, but up to 2" ± infilled with magnesite + serpentine (antigorite) ± talc. - strongly magnetic - tr.-1% dissem. py throughout ± 'smeared' along fractures.
- sharp contact @ 679, but gradational @ 705'

694.5'-699.5' ± 704-709' - sample intervals representative of unit.

705'-741' PERIDOTITE

- as previously described on page 7.

HOLE NO. JL-82-03
CASING COLLAR ELEV.: 30' E. of 1+10S
COORDINATES: on L-84E N. E.
GROUND ELEV.:
INCLINATION: -55° BEARING: 0°

PROJECT: JIM'S LAKE (A-365)
DATE STARTED: MARCH 24/82
DATE FINISHED: MARCH 31/82
TOTAL DEPTH: 1122'

REF. TO CLAIM CORNER:
SCALE: 1" = 10'
LOGGED BY:: J.W. Newrame

AVE CORE REC'Y / HOLE ~99 %

COMMENTS:

DESCRIPTIVE GEOLOGY

SECTION	ALTERATION: SILICIFICATION	ALTERATION: CARBONATE	ALTERATION: SERPENTINE	ALTERATION: TALC/CHLORITE	FRACTURING	MINERAL	GEOLOGY	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED
720'	MODERATE TO STRONG	WEAK TO MODERATE	STRONG	WEAK TO MODERATE		py		NIL to Tr.	728.9'	100	BQ			
730'									738.2'	100				
740'	STRONG		WEAK TO MODERATE			py		NIL	748.1'	100		741' 749'	100	29314
750'									757.9'	100				
760'									767.8'	100				
770'									777.6'	100				

705'-741' PERIDOTITE

• for description see page 7.

741'-815' HIGHLY ALTERED MAFIC-ULTRAMAFIC (PICRITE-BASALT TUFF ?)

• light to medium green highly chloritized with weak to moderate serpentine ± sericitic alt'n. • appears to be tuffaceous (fine to coarse crystal tuff) • also has a sugary siliceous looking texture, but a hardness < 3 • almost talcish, but slightly harder. • weak to moderately magnetic. with very small magnetite crystals disseminated throughout. • non-calcareous, magnesite is dominant carbonate mineral generally restricted to discontinuous boudinaged veins ± fracture infillings, along with chl. ± serp. (antigorite) • moderately fractured with fractures randomly oriented to sub // to schistosity, generally hairline to < 2 mm wide ± infilled with above mentioned minerals. • weak to moderate schistosity produced from 50° to sub // to core axis • highly variable, but approaches sub // to core axis downsections • gradational contacts ± nil to very minor tr. py. (possibly fairly abundant talc alt'n as well).
741'-749' • slight sericite alt'n = reddish-brown tinge.

HOLE NO. JL-82-03
CASING COLLAR ELEV.: GROUND ELEV.:
COORDINATES: 30' E. of 14105 on L-84E N. E.
INCLINATION: -55° BEARING: 0°

PROJECT: JIM'S LAKE (A-365)
DATE STARTED: MARCH 24/82
DATE FINISHED: MARCH 31/82
TOTAL DEPTH: 1122'

PAGE NO: 10 OF 15
REF. TO CLAIM CORNER:
SCALE: 1" = 10'
LOGGED BY:: J.W. NEWSOME

COMMENTS:

AVE CORE REC'Y / HOLE ~ 99 %

SECTION	ALTERATION: CHLORITE	ALTERATION: CARBONATE	ALTERATION: SERPENTINE	ALTERATION: TALC/SILICIFICATION	FRACTURING	MINERAL	GEOLOGY	DESCRIPTIVE GEOLOGY	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED
780'	STRONG	MODERATE	JEAN TO MODERATE	WEAK TO MODERATE		NIL		**741'-815' HIGHLY ALTERED MAFIC-ULTRAMAFIC (PICRITE-BASALT TUFF?)** • for description, see page 9 800'-805' Sample representative of rock type.	NIL	787.5'	100	BQ			
790'										797.3'	100				
800'										807.1'	100		800' 805'	100	29315
810'								**815'-852' HIGHLY ALTERED ULTRAMAFIC (PICRITE-PERIDOTITE?)** • gradational contacts • similar to above • in part resembles a crystal tuff, other places possible remnant cumulate texture • highly chloritized & serpentinized with a light green mineral (chlorite or antigorite?) • definitely not Fuchsite. • very abundant throughout. • weakly to moderately magnetic with very fine magnetite crystals dissem. throughout • highly fract'd gen. // to sub // to core axis (same orientation as weak schistosity • changes to ~ 45° to core axis by 850') • hairline to 2 mm wide, but up to 1" + infilled with magnesite + antigorite ± talc & chl. • Nil to tr. dissem. py.	NIL to Tr.	817'	100				
820'						Py				826.8'	100				
830'								831'-835.5' 838.5'-843.5' 848'-853' } Sample intervals representative with abundant fract. infills		836.7'	100		831' 835.5'	100	Tr. Py	29316

COORDINATES: [illegible] N. E. OR L-84E

INCLINATION: -55° BEARING: 0°

DATE FINISHED: MARCH 31/82

TOTAL DEPTH: 1122'

SCALE: 1" = 10'

LOGGED BY: J. W. NEWSOME

COMMENTS:

AVE CORE REC'Y / HOLE ~ 99%

SECTION	ALTERATION: CHLORITE	CARBONATE	SERPENTINE	TALC/SERICITE	FRACTURING	MINERAL	GEOLOGY
840' – 878'	STRONG ↓ WEAK	MODERATE TO STRONG I MODERATE	STRONG	WEAK TO MODERATE		Py	
878' – 900'	MODERATE					Py	

DESCRIPTIVE GEOLOGY

815'-852' · HIGHLY ALTERED ULTRAMAFIC (PICRITE - PERIDOTITE ?)

· For description, see page 10.

852'-880' SERPENTINITE (DUNITE ?)

very dark green to purplish black f. grained to fine (remnant) cumulate serpentinite (possibly originally a dunite) · moderately magnetic.

· highly fractured (random from 90° to // to core axis) · gen. hairline to 2 mm wide (up to 1") & infilled with magnesite + serpentine (antigorite) ± talc. · tr-1% dissem. py. throughout, more concentrated along fractures.

867'-872' · sample representative of rock type.

880'-918' PERIDOTITE.

· highly serpent'd & moderately chl'd. · f.g. hypidiomorphic granular to cumulate texture · varies between the two. · moderately to strongly magnetic = fine grained dissem. magnetite throughout. · moderately fractured · random 90° to // to core axis · gen. hairline · 2 mm wide but up to 2" & infilled with magnesite + serpentine (antigorite) ± chl. ± talc · tr. py. dissem. throughout. · gradational contacts above & below.

910'-915' · sample representative of rock type.

% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATE	
Nil to Tr.	–846.5	100	BQ	–843.5	100	Tr. py.	29317
	–856.3	100		848'–852'	100		29318
Tr. to 1%	–866.2	100					
	–876'	100		867'–872'	100	Tr.-1% py.	29319
Nil to Tr.	–885.9	100					
	–895.7	100					
		100	↓				

HOLE NO. JL-82-03 | PROJECT: JIM'S LAKE (A-365) | PAGE NO: 12 OF 15

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: MARCH 24/82 | REF. TO CLAIM CORNER:

COORDINATES: 30'E. of 1+05 on L-84E N. E. | DATE FINISHED: MARCH 31/82 | SCALE: 1" = 10'

INCLINATION: -55° | BEARING: 0° | TOTAL DEPTH: 1122' | LOGGED BY: J. W. Newsome

ALTERATION: CHLORITE | CARBONATE | SERPENTINE | TALC

FRACTURING | MINERAL | GEOLOGY

COMMENTS: | AVE CORE REC'Y / HOLE ~99%

DESCRIPTIVE GEOLOGY

SECTION	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED	
900'	Nil to Tr.	905.7'	100	BQ				
910'		915.4'	100		910'	100	Tr. py	29320
920'	Tr. to 1%	925.2'	100		915'			
930'		935.1'	100		935'	100	Tr.-1% py	29321
940'		944.9'	100		940'			
950'		954.8'	100		949'	100	Tr.-1% py	29322
					954'	100	Tr.-1% py	29323

880'-918' PERIDOTITE

see page 11 for description

918'-1045' SERPENTINIZED DUNITE CUMULATE.

- dark green-purplish black highly serpentinized coarse (to minor fine) cumulate dunite • gradational contacts above & below for 5-10' • strongly magnetic with magnetite & tr-1% py. interstitial between olivine cumulate grains • mafics chloritized • dom. serp'd olivine • generally massive with vy. vy. weak schistosity (~50° to c.a) produced in restricted sections. • moderately fractured • hairline to 2 mm wide, with minor fracts ≥ ¼" - random & X-cutting from // to 90° to c.a. • vary from < ¼" apart to 2', but gen. 1"-3" apart. • infilled with magnesite + serpentine (antigorite) • (possibly brucite) & talc.

946.5-956 • olivine cumulate grains replaced by light green coloured alt'n mineral (similar colour to Puksite) • either chlorite or serpentine • interstitial infills of chl'd mafics + magnetite + tr. py.

HOLE NO. JL-82-03 | PROJECT: JIM'S LAKE (A-365) | PAGE NO: 13 OF 15

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: MARCH 24/82 | REF. TO CLAIM CORNER:

COORDINATES: 30' E. of 1+05 on L-8+E N. E. | DATE FINISHED: MARCH 31/82 | SCALE: 1" = 10'

INCLINATION: -55° | BEARING: 0° | TOTAL DEPTH: 1122' | LOGGED BY: T. J. Newsome

SECTION	ALTERATION: CHLORITE	ALTERATION: CARBONATE	ALTERATION: SERPENTINE	ALTERATION: TALC	FRACTURING	MINERAL	GEOLOGY	COMMENTS: / DESCRIPTIVE GEOLOGY	AVE CORE REC'Y / HOLE ~99%	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED	
960'	MODERATE	MODERATE	STRONG	WEAK TO MODERATE				918'-1045' SERPENTINIZED DUNITE CUMULATE		Tr. to 1%	946'	100	BQ				
								· for description see page 12.									
970'						Py					971.5'	100					
980'											981.3'	100					
990'						Py		988'-993' · sample interval typical of section			991.1'	100		988' 993'	100	Tr-1% Py	29324
1000'											1001'	100					
1010'						Py		1007.5'-1012.5' sample interval typical of section			1012.8'	100		1007.5' 1012.5'	100	Tr.-1% Py	29325

HOLE NO. JL-82-03
CASING COLLAR ELEV.: 30'E. of 10105 GROUND ELEV.:
COORDINATES: on L-846 N. E.
INCLINATION: -55° BEARING:

PROJECT: JIM'S LAKE (A-365)
DATE STARTED: MARCH 24/82
DATE FINISHED: MARCH 31/82
TOTAL DEPTH: 1122'

REF. TO CLAIM CORNER:
SCALE: 1" = 10'
LOGGED BY:: J.W Newsome

AVE CORE REC'Y / HOLE ~ 99%

COMMENTS:

DESCRIPTIVE GEOLOGY

918'-1045' SERPENTINIZED DUNITE CUMULATE

- for description see page 12

1032'-1037' abundant antigorite - magnesite - talc veining.

1045'-1122' SERPENTIZED PERIDOTITE

- medium to dark green, fine to coarse cumulate to hypidiomorphic (granular) serpentinized peridotite - moderately magnetic - very minor to weak schistosity in places gen. ~80° to core axis. - moderately fractured (<1"-6" apart & hairline to gen < 2 mm wide) - randomly oriented from // to 90° to core axis, & infilled with antigorite + magnesite + talc + other serpentine minerals. - tr-1% py. dissem. throughout, but more concentrated along fracture planes.

SECTION	ALTERATION: CHLORITE	ALTERATION: CARBONATE	ALTERATION: SERPENTINE	ALTERATION: TALC	FRACTURING	MINERAL	GEOLOGY	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT	ESTIMATED	
1020'	MODERATE	MODERATE	STRONG	TRACE TO MODERATE		Py		Tr. to 1%	1023.7'	100	BQ				
1030'									1033.5'	100		1032'	100	Tr Py	29326
1040'						Py			1043.4'	100		1037'			
1050'	MODERATE TO STRONG	MODERATE	STRONG	MODERATE		Py		Tr. to 1%	1053.2'	100		1043.5'	100	Tr-1% Py	29327
1060'									1063'	100		1051'	100	Tr. py.	29328
1070'									1072.9'	100		1055'			
												1060'			

HOLE NO. JL-82-03 | PROJECT: JIM'S LAKE (A-365) | PAGE NO: 15 OF 15

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: MARCH 24/82 | REF. TO CLAIM CORNER:

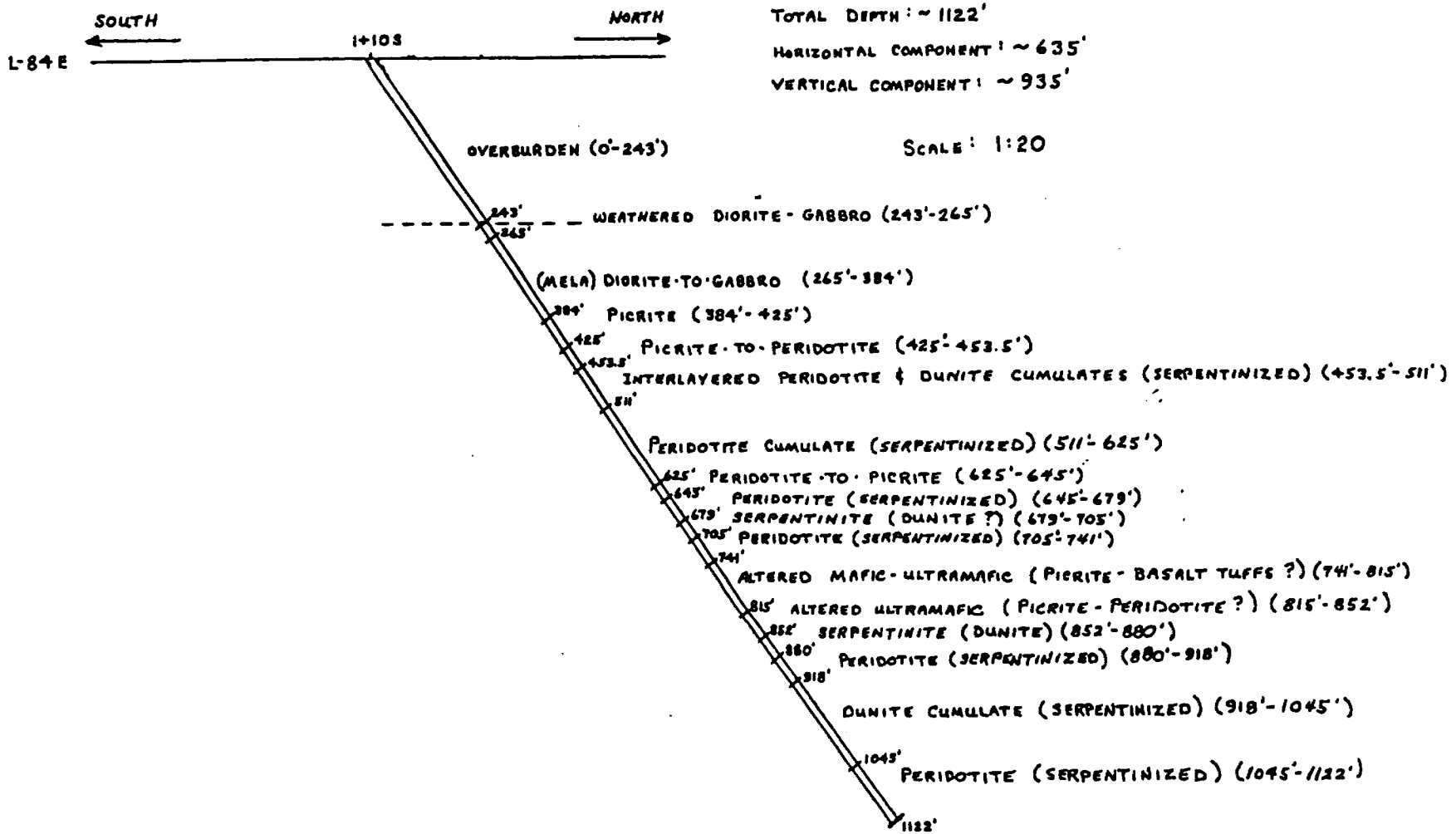
COORDINATES: 30' E. of 1+10 S on L-84 E. N. E. | DATE FINISHED: MARCH 31/82 | SCALE: 1" = 10'

INCLINATION: -55° | BEARING: 0° | TOTAL DEPTH: 1122' | LOGGED BY: F. W. NEWSOME

SECTION	ALTERATION: CHLORITE	ALTERATION: CARBONATE	ALTERATION: SERPENTINE	ALTERATION: TALC	FRACTURING	MINERAL	GEOLOGY	COMMENTS: / DESCRIPTIVE GEOLOGY	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED
								AVE CORE REC'Y / HOLE ~99 %							
1060'	MODERATE TO STRONG	MODERATE	STRONG	MODERATE				1045'-1122' SERPENTINIZED PERIDOTITE	Tr. to 1%	1082.7'		BQ			
								See description see page 14					1084'	100	29329
1090'								1084'-1089' • sample interval typical of section.		1092.6'	100		1089'		
1100'										1102.4'	100				
1110'								• after 1112' • increase in serpentine alt'n, • more olivine rich with coarse cumulate texture - approaching dunite.		1112.3'	100		1113'		
								1113'-1118' • sample interval typical of rock-type.					1118'	100	Tr. py 29330
1120'										1122.1'					
								1122' END OF HOLE							
								31 SAMPLES SPLIT FOR ASSAY							

D.D. Hole JL-82-03

Location: 510' on 32° bearing from #1 claim post [redacted] 609706
Inclination: -55°
Azimuth: 0°
Total Depth: ~1122'
Horizontal Component: ~635'
Vertical Component: ~935'



CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: APRIL 1/82 | REF. TO CLAIM CORNER:

COORDINATES: 11+50 S on L-88E | N. | E. | DATE FINISHED: APRIL 7/82 | SCALE: 1" = 10'

INCLINATION: -55° | BEARING: 0° | TOTAL DEPTH: 558' | LOGGED BY: J. W. NEWSOME

COMMENTS:
-55° @ 0'
-55° @

AVE CORE REC'Y / HOLE ~100%

SECTION	ALTERATION: CHLORITE	ALTERATION: CARBONATE	ALTERATION: SERICITE	ALTERATION: SILICIFIED	FRACTURING	MINERAL	GEOLOGY	DESCRIPTIVE GEOLOGY	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED	
								0'-361' OVERBURDEN					361'			
370'	STRONG → STRONG → STRONG	MODERATE → WEAK → WEAK	WEAK → MODERATE TO STRONG → STRONG	NIL → MODERATE TO STRONG → NIL		py		361'-378' ANDESITE CRYSTAL & ASH TUFF 361'-365' • andesite crystal tuff • gtz.-calc. vnr ⊥ to core axis ≠ 4-6" wide for first foot ≠ 2° va. @ 363' ⊃ tr. cubic pyrite ≠ tr. fuchsite • first in evidence @ 363', but minorly pervasive from 363'-365' ⊃ tr. cubic pyrite • abun. chl. alt'n ± minor sericite ≠ calcite alt'n. • other vy. minor gtz.-calc. vnr ≤ ⅛" wide • strong schistosity @ ~50° to c.a. 365'-378' • andesite ash tuff • strongly chl'd ⊃ weak ser. alt'n ≠ mod. calc. alt'n in groundmass ≠ in vnr. • minor random calc. ± gtz. vnr • gen. hairline, but up to ⅛" wide • 6"-2' apart (gen. ~1-2') • wk. schty @ ~50° to c.a. • tr. py. throughout • no fuchsite • gradational contact from 377'-379'	Tr-1%	370.8'	100	BQ	361' 363.5' 365.5' 368' 370.5' 373' 375.5' 378' 380.5' 383' 385.5' 388' 390.5' 393' 395.5' 398' 400.5' 403' 405.5' 408' 410'	100	Tr-1% py	29331
380'						py		378'-401' DACITE OR SILICIFIED ANDESITE ASH TO CRYSTAL TUFF • gradational contacts • grey-green, highly siliceous dacite or silicified andesite ash to minor crystal tuff. • weak to moderate schistosity from 30°-40° to core axis (approaches 40° down section) • minor amounts (≤10%) fuchsite // schistosity throughout along ⊃ 3-5% dissem. cubic to blebs pyrite • amount of py. approaches 10% in places. • cut by gtz.-calc. vnr // to sub // to X-cutting core axis • random • range from hairline to 1" wide ≠ gen 6"-2' apart (gen. >1' apart) • more fuchsite along margins of veins ± along with pyrite. • tr. galena within gtz. vnr as well. • mod. sericite alt'n. becoming locally strong in places • gtz vnr are greyish-white • brecciated zone from 391'-392' ± ≥10% py. • last occurrence of fuchsite @ 401' accid ± gtz.-calc. vn.	3-5%	380.6'					3-5% py	29338
390'						py			10%	390.4'					10% py	29343
						py			3-5%						3-5% py	29344
400'						py			1-3%	400.3'					1-3% py	29347
						py			1%						1% py	29348
						py			Tr-1%						Tr-1% py	29349
						py										29350

HOLE NO.: JL-82-04 | PROJECT: JIMS LAKE (A-36?) | PAGE NO: 2 OF 4

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: APRIL 1/82 | REF. TO CLAIM CORNER:

COORDINATES: 11+50 S on L-88E N. E. | DATE FINISHED: APRIL 7/82 | SCALE: 1" = 10'

INCLINATION: -55° | BEARING: 0° | TOTAL DEPTH: 558' | LOGGED BY: J W Newsome

COMMENTS:

AVE CORE REC'Y / HOLE: ~100%

SECTION	ALTERATION: CHLORITE	CARBONATE	SERICITE	SILICIFIED	FRACTURING	MINERAL	GEOLOGY	DESCRIPTIVE GEOLOGY	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED	
410'	STRONG	MODERATE TO STRONG	WEAK TO NIL	NIL		Py		**401'-432' ANDESITE (TO BASALT) TUFF** · gradational contacts · dark green fine crystal tuff · highly chloritized & calcareous andesite · grades to andesite-to-basalt ash tuff down section · becomes progressively less calcareous · schistosity varies from strong to weak from ~20° to c.a. @ 405' to ~50° to core axis by 425' · minor random fractures from sub // to ⊥ to core axis · hairline → ≤2mm wide & 6"-2' apart · infilled with calcite + hematite staining ± very minor qtz. (most qtz. veining restricted between 402.5'-405') · Tr. to 1% dissem. cubic pyrite throughout & minor 'wisps' along fractures.	Tr.-1%	410'	100	BQ	410'-414'	100	Tr.-1% Py	29351
420'										420'	100					
430'	MODERATE	WEAK	NIL	NIL						429.8'						
						Py		**432'-443' DIORITE to GABBRO** · gradational contacts · med. grained ophitic diorite to gabbro cut by minor fracture infillings of calcite + hematite ± very minor serpentine (antigorite) · tr. dissem. py. cubes throughout. 433'-437.5' · sample interval typical of section.	Tr.		100		433'-437.5'	100	Tr. Py	29352
440'	↓ STRONG									439.7'	100					
								443'-530' ANDESITE TO BASALT (TUFF) · dark green highly chloritized andesite to basalt ash-to-minor-crystal tuff · weak to moderate schistosity @ ~50° to core axis (ave.) · minor sectors appear intrusive & ophitic texture. · minor fracts. sub // to cross-cutting schistocity. · fracts. gen. hairline → 5mm wide & 6"-2' apart · infilled with calcite ± hematite stain ± very minor quartz. · tr. dissem. py. cubes throughout. · gradational contacts with intrusive-looking sections.								
450'										449.5'	100					
460'										459.3'	100					
						Py			↓	469.2'		↓				

HOLE NO. JL-82-04 | PROJECT: JIM'S LAKE (A-365) | PAGE NO: 3 OF 4

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: APRIL 1/82 | REF. TO CLAIM CORNER:

COORDINATES: N+50S on L-68E N. E. | DATE FINISHED: APRIL 7/82 | SCALE: 1" = 10'

INCLINATION: -55° | BEARING: 0° | TOTAL DEPTH: 558' | LOGGED BY: J. W. NEWSOME

SECTION	ALTERATION: CHLORITE	ALTERATION: CARBONATE	ALTERATION: SERICITE	ALTERATION: SILICIFIED	FRACTURING	MINERAL	GEOLOGY	COMMENTS: / DESCRIPTIVE GEOLOGY	AVE CORE REC'Y / HOLE ~100%	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED
470'	STRONG	WEAK	NIL	NIL				443'-530' ANDESITE TO BASALT (TUFF)		Tr.			BQ			
						P_y		* For description see page 2.				100				
480'											479'					
												100				
											488.5'					
490'																
						P_y						100				
											498.7'					
500'																
												100				
											508.6'					
510'																
												100				
						P_y		518.5'-520' - abun. gtz. (bull) - calc. vns up to 6" wide X-cutting core axis @ ~80°			518.4'			518.5'			
520'															520'	100	Tr. Py	29353
								529'-530' - ½" gtz-vn. @ 5-10% disem. (cubic) pyrite within tuff along vein margins.				100				
								29354 — 0.1g Au/ton, 0.4g Ag.			528.2'					
										5%				529'	100	5% Py	29354

HOLE NO. JL-82-04

CASING COLLAR ELEV.: GROUND ELEV.:

COORDINATES: 11+50 S on L-88 E N. E.

INCLINATION: -55° BEARING: 0°

PROJECT: JIM'S LAKE (A-365)

DATE STARTED: APRIL 1/82

DATE FINISHED: APRIL 7/82

TOTAL DEPTH: 558'

PAGE NO: 4 OF 4

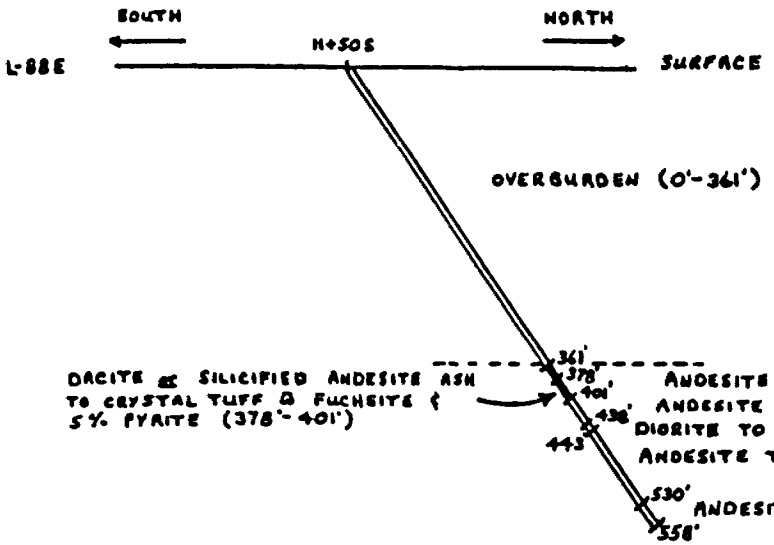
REF. TO CLAIM CORNER:

SCALE: 1" = 10'

LOGGED BY: J. W. NEWSOME

SECTION	ALTERATION: STRONG	ALTERATION: MEDIUM	ALTERATION: WEAK	ALTERATION: NIL	FRACTURING	MINERAL	GEOLOGY	COMMENTS: / DESCRIPTIVE GEOLOGY	AVE. CORE REC'Y / HOLE ~100%	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED
530'	STRONG	MEDIUM	WEAK	NIL		P		**530'-558' ANDESITE ASH TUFF** highly chloritized dark-medium green fine grained andesite ash tuff • schistose @ ~50° to core axis. • minor fractures infilled with calcite (gen. hairline - 2mm wide @ 6"-2' apart) • tr. disseminated py. (cubes) throughout.		Tr.	5381	100	BQ			
540'												100				
											5479					
550'												100				
								558' END OF HOLE 24 samples split for assay.								

D.D. Hole JL-82-04



LOCATION:

INCLINATION: -55°

AZIMUTH: 0°

TOTAL DEPTH: 558'

HORIZONTAL COMPONENT: 320'

VERTICAL COMPONENT: 457'

SCALE: 1:20

HOLE NO. JL-82-01 | PROJECT: JIM'S LAKE A-365 | PAGE NO: 1 OF 21

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: FEBRUARY 27/82 | REF. TO CLAIM CORNER: C.P. 1 : 610398 (137' @ 67° bearing)

COORDINATES: 84' west of 24+S on L88E on 248° bearing N. E. | DATE FINISHED: MARCH 11/82 | SCALE: 1" = 10'

INCLINATION: -55° | BEARING: 0° | TOTAL DEPTH: 1503' | LOGGED BY: J. W. NEWSOME

COMMENTS: -55° @ 0' · -55° @ 310' · -50° @ 646' · -48° @ 961' · -44° @ 1312' · -42° @ 1503' · EXCELLANT CORE RECOVERY

AVE CORE REC'Y / HOLE: ~100 %

NOTE: MOST VEINS LOGGED AS QUARTZ W/ ULTRAMAFICS ARE ACTUALLY MAGNESITE ± ANTIGORITE

SECTION	ALTERATION: CHLORITE	SERPENTINE	CARBONATE	EPIDOTE	FRACTURING	MINERAL	GEOLOGY	DESCRIPTIVE GEOLOGY	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED	

0'-299' OVERBURDEN

Good basal till above bedrock > 25' thick

Drilling interval: to 299'

299'-420' OLIVINE BASALT

Section 300'–350'. Alteration: Chlorite – Moderate; Serpentine – Weak to Moderate; Carbonate – Moderate; Epidote – Weak. Mineral: Py. Sulphides: Tr. to 1%. Core size: BQ.

Rel. dense dk. green f.g. (<1 mm), slig. to mod. schistose vy. mafic volc. rock • composed dom. of olivine - pyroxene - feldspar with varying degrees of chlorite, serpentine & calcite alteration commonly displayed on schistosity planes. Sch'ty varies 35°-70° to core axis (gen. 50°) • vy. slig. magnetic • Fractures gen. hairline to 'patches' ≥ 2", dom. // to sub // to sch'ty & X-cutting to lesser extent • vary 1"-6" apart (gen. 2"-4") & infilled dom. with calc. - serp. & to lesser extent epid. & vy. min. qtz. Minor py (tr. - 1%) throughout section as v.f.g. amorph. to □'ic blebs & wisps // to sch'ty, (gen < 2 mm in diameter) & also assoc. with calc. fract. infills. Increase in chl - calc. alt'n down - sect. & calc. fract. infills.

310'-311' - ang. serp. wisps sub // to sch'ty

314'-315' - min. epid - calc. stringers. // sch'ty

319.5' - qtz. vn. sub // sch'ty (< 2 mm wide) c min. py along fract.

320' - min. py □'s (<1%)

321' - epid. alt'n for 6"

322' - fract. fill. c calc (2 mm) // sch'ty c <1 mm py □'s (<1% py)

325-327' calc. vns ≈ 3" apart // sch'ty · hairline to < 2 mm.

330' - 2 mm barren qtz. vn // sch'ty

330'-338' - min. x-cutting calc. vns.

334' - 4 mm qtz - calc. vn. c <1% py x-cutting sch'ty

334'-339' hairline fracts // to sub // sch'ty c calc - serp. - epid.

339.5'-340' - 6" fract. zone c calc. & hem. on fract. · hairline X-cutting sch'ty

345'-347' - calc. - epid. fract infills · 6"-1' apart · hairline to ½" patches X-cutting & // sch'ty

347'-350' - more serp. on fract. // sch'ty.

Drilling interval	% Core recovered
299'-302'	100
302'-312'	100
312'-321'	100
321'-331'	100
331'-341'	100
341'-	100

Sample interval	% Rec'y samp. int.	Estimated	Sample no.
324'-325'	100	2% py	29001
328'-331'	100	1% py	29002

HOLE NO. JL-82-01		PROJECT: JIM'S LAKE A-365	PAGE NO: 2 OF 21
CASING COLLAR ELEV.:	GROUND ELEV.:	DATE STARTED: FEBRUARY 27/82	REF. TO CLAIM CORNER: #1 post 610398 (137' @ 67°)
COORDINATES: 84' from 298 on L 88E on 298° bearing N.	E.	DATE FINISHED: MARCH 11/82	SCALE: 1" = 10'
INCLINATION: -55°	BEARING: 0°	TOTAL DEPTH: 1503'	LOGGED BY: J.W. NEWSOME

AVE CORE REC'Y / HOLE: ~100%

ALTERATION (350'–410'): CHLORITE – MODERATE → STRONG (from ~390'); SERPENTINE – MODERATE → STRONG → MODERATE; CARBONATE – MODERATE → STRONG (from ~390'); EPIDOTE – WEAK

CORE SIZE: BQ

DESCRIPTIVE GEOLOGY

SECTION	DESCRIPTIVE GEOLOGY	% SULPHIDES
350'	OLIVINE BASALT - cont.	
	- 352' • < 2 mm calc vn & py wisps & blebs · dissem. & v.f.g.	1%
		Tr.
	- 354' • 4 mm calc-qtz-serp. vn. // sch'ty	
	- 355'-356' • calc ± py veinlets < 2 mm • wispy // sch'ty @ 3"-4" apart	1%
	- 356'-362' • rel. dense c sch'ty @ 35°-50° & wk to mod. c hairline to < 1 mm fract // sch'ty & gen. infilled c calc + epid + serp.	Tr.
360'	- 362'-367' • more fract // sch'ty c serp-calc. along fracts. • hairline to < 1 mm • tr. py as blebs & wisps // sch'ty · v.f.g. amorph to □'s.	Tr.
		Tr.
	- 376'-372' - slig. c.g. (≤ 1 mm) c abun. calc. wisps gen. < 2 mm wide & calc. stringers // to sub // to sch'ty • tr. py □'s & v.f.g.	
370'	- 372'-373' • blocky • more mylonized & chl'z'd. • shear zone c trace py.	Tr.
	- 373'-376' • rel. dense, f.g. & wk sch'ty c calc-serp-min. epid. on fracts. // sch'ty.	
	- py wisps @ 374'	2%
	- qtz.-calc vn. @ 375' • ½" wide X-cutg sch'ty c ~ 2% py & tr. cpy.	Tr.
	- X-cutg calc. vn (5 mm) @ 376'	
	- 377'-378' • coarser grained (≤ 1 mm) c f. (< 1 mm) X-cutg calc. vns & more calc. alt'n.	
380'	- 378'-390' • gen. f.g. (< 1 mm) with sporadic (3"-6" apart) calc-epid.-serp. 'patches' & X-cutg vns from hairline to ½" wide c tr. py blebs & wisps • v.f.g. & □'s	Tr.
	- 390'-392' • patchy calc-min. qtz. & epid.-serp. vns. hairline to > 1" wide with ~ 2% py & min. po. & tr. cpy. occuring as v.f.g. blebs & wisp/vns (fract. infills) sub // to X-cutting sch'ty	
		Tr
390'	- 392'-400' • abun. chl. alt'n & abun. calc-epid-min. qtz. & serp. fract. infills - stringers & wisps sub // to sch'ty & X-cutting • patches up to 4" long • also contain 1-2% v.f.g. py wisps & blebs.	2%
	- 400'-410' • as above • 401'-404' • min. fract. infills of calc. & 1-2% py & po.	Tr.
400'	- 406' • 2 thin (< 1 mm) py. fract. infills // sch'ty.	2%
	- calc.-min. epid & min qtz. with 1% to 2% py fract. infills // sch'ty up to 2" wide @ 407', 408' & 408.5'	Tr.
		2%

DRILLING INTERVAL	% CORE RECOVERED
351'–361'	100%
361'–371'	100%
371'–381'	99%
381'–391'	100%
391'–401'	100%
401'–410'	100%

SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED	SAMPLE NO.
374–375.5	100	Tr. cpy	29003
390–392	100	Tr. cpy + 2% py & po	29004
393	100	1-2% py	29005
–395	100	1-2% py	29006
401–404	100	1-2% py + po	29007
408–409	100	1-2% py	29008

HOLE NO. JL-82-01
CASING COLLAR ELEV.: GROUND ELEV.:
COORDINATES: 84' from 24S on L-8BE on 248° bearing N. E.
INCLINATION: -55° BEARING: 0°

PROJECT: JIM'S LAKE (A-365)
DATE STARTED: FEBRUARY 27/82
DATE FINISHED: MARCH 11/82
TOTAL DEPTH: 1503'

REF. TO CLAIM CORNER: #1 post 610398 (137' @ 67°)
SCALE: 1" = 10'
LOGGED BY: J. W. NEWSOME

SECTION: 410'–469'

ALTERATION: CHLORITE: MODERATE ↓ STRONG; SERPENTINE: MODERATE ↓ WEAK ↓ NIL; CARBONATE: MODERATE ↓ STRONG; EPIDOTE: WEAK ↓ WEAK TO NIL

COMMENTS:

AVE CORE REC'Y / HOLE: ~100%

DESCRIPTIVE GEOLOGY

410'-420' • fairly dense & f.g. (<1mm) c mod → strong chl & calc. alt'n. • numerous (3"-6" apart) calc. vns & fract. infills // to sub// to sch'ty to min. X-cutting • wispy up to 1" wide c vy. min. qtz & epid & tr. to 2% py + po & vy min. tr. cpy.

420'-420.8' • 6" calc-epid-min. qtz. fract. infill sub // to X-cutting sch'ty c ~20% py + po & 1-2% cpy • mod. mag.

420'-454' BASALTIC ANDESITE (FLOW OR TUFF?)

• gradual transition from mafic-olivine-rich Olivine basalt through Andesitic basalt @ 423' finally to basaltic andesite @ 429' • more schistose & f.g. (<1mm) with strong chl. & calc. alt'n & less serp. • Sch'ty varies from 30°-40° to core axis • increase in calc. vning & fracts sub// to sch'ty, includes felspar phenos

423' - 3" calc.-serp.-py. wisps sub // to sch'ty (~3% py & min. po)

424'-429' • abun. calc-chl. - min. serp. & qtz. fract. infills with 3-5% v.f.g. dissem py & tr. cpy. • fracts. hairline - 3", sub // sch'ty & 2"-6" apart.

429' • after 429' intro. of individ. (1-2mm) to sub-equant clusters of feldspar phenos ≥ 1" in diameter • up to 20% by volume • most prom. after 435' to 477'

433.5'-435' abun. calc. vns 1/8"-1/2" wide • // to sub // to sch'ty c 2% dissem vy. f.g. py.

435'-446' • chlzd & v.f.g. c large pheno. clusters of f'spar c min. react. rims • calc. alt'n c fract. infills // to sub // sch'ty • gen. hairline → 1/4" wide & 2"-6" apart. • v.f.g. dissem. po & py (1%) + tr. cpy throughout sect. - greater assoc. c calc. vns.

446' • 1st appearance of graph. 'splinters' & infills along hairline fracts sub // to X-cutting sch'ty • irreg. spaced • increase down sect. • py + po + tr. cpy & graph in fract. @ 446.5' + min. calc. vns to 449' c tr - 1% po & py.

451' • abun. calc. fract. infills sub// sch'ty for 6" c min. graph + 2-3% po + py.

454'-492' AMYGDULOIDAL ANDESITE OR CRYSTAL TUFF

• highly chlzd c strong calc. alt'n • v.f.g. (<1mm) • mod. to strong sch'ty gen. 40° to core axis • amyg. infilled c calc. & minor qtz • stretched & elong. along sch'ty • gen. 2mm-5mm in length • most prom. from 477'-487' • also poss. crys'l tuff with f'spar phenos alt'd to calc. + ~10% qtz. frags (<2mm & spherical) • most prob. a X'stal tuff • also includes individ. to clusters of f'spar phenos • not as abun. as between 435'-477' • rel. fract. • hairline to ~1/2" & 1"-6" apart • infilled c calc, graph & min qtz + 1-2% py & po + tr cpy & poss. min. sph.

454'-456.5' - abun. sub // to X-cutting calc. vns. up to 1" wide c v.f.g. po & py (2-3%) + Tr cpy. & poss. min. sph & min graph.

459'-461.5' - abun. calc. vns & min. qtz. & graph • sub // to X-cutting sch'ty • hairline → 1" c 2-3% po & py & tr. cpy.

463'-468' • qtz-calc-graph vns ~6"-8" apart up to 1" wide • // to sub // to sch'ty c 1-2% po + py + Tr. cpy.

% SULPHIDES (downhole): 1%, Tr., 2-3%, Tr, 20%, Tn, 3%, 3%, Tr., 1%, 2%, 1%, Tr., 1%, Tr., 1%, Tr., 2-3%

DRILLING INTERVAL: 420, 430', 439.5', 449', 459', 469'

% CORE RECOVERED: 100 in each interval

CORE SIZE: BQ

SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED	SAMPLE NO.
418.5'–419.5'	100	2-3% py + po + Tr. cpy	29009
420'–420.8'	100	20% py + po + 1-2% cpy	29010
423'–424'	100	3% py + po	29011
424'–429'	100	3% py + Tr. cpy	29012
430.8'–433.5'	100	1% py + Tr. cpy	29013
433.5'–435'	100	2% py + po	29014
440'–445'	100	1% po + py + Tr. cpy	29015
446.5'–449'	100	1% po + py + Tr. cpy	29016
451.5'–452.5'	100	2-3% po + py	29017
454'–456.5'	100		29018
459'–461.5'	100		29019
463'–468'	100		29020

HOLE NO. JL-82-01 | PROJECT: JIM'S LAKE (A-365) | PAGE NO: 4 OF 21

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: FEBRUARY 27/82 | REF. TO CLAIM CORNER: #1 post 610378 (137° @ 67')

COORDINATES: 84' from 24S on L-88E on 248° bearing N. E. | DATE FINISHED: MARCH 11/82 | SCALE: 1" = 10'

INCLINATION: -55° | BEARING: 0° | TOTAL DEPTH: 1503' | LOGGED BY: J. W. NEWSOME

COMMENTS:

AVE CORE REC'Y / HOLE ~100%

DESCRIPTIVE GEOLOGY

471'-472' • 1½" calc-graph vn. sub // sch'ty ± 4-5% py + po
473.5' • 2" calc.-graph vn. ± 4-5% po+py
476'-478' • X-cutting to sub // calc. vn. (1"-2") + 2"-4" apart • @ 477.5', 2" graph. vn sub // sch'ty ± 4-5% v.f.g. dissem. py+po
• abun. 5 spar clusters phenos from 471'-475'
• abun. spherical to elongated calc. ± qtz. 'eyes' or crystals @ 477'-487'
479'-486' • random sub // to X-cutting calc. ± graph. vn. 'lets along hairline → 2" fracts @ 2"-6" apart ± 1-2% py + po.
486'-492' • numerous fracts. infilled ± calc. + graph + 2-3% py+po + tr. cpy., ~ ¼" apart from 489'-492' • dom. hairline ± graph + py. sub // sch'ty.

492'-499' ANDESITE LAPILLI TUFF or FLOW BRECCIA

• cataclastic • deformed stretched frags. <1 mm → 1" // sch'ty • gradational boundaries with highly fract'd and sections • highly chl'z'd ± calc. alt'n. • calc. ± graph. interstit. between frags. ± 10-20% sulphides • dom. py + po ± 1-2% cpy ± tr. sphal. as stringers ± blebs between frags. • abun. slickenslide • minor X-cutting calc. vns.

499'-515.5' ANDESITE TUFF

• v.f.g. (<1mm) • abun. chl± calc. alt'n ± sch'ty fairly consist. @ 50°-60° to core axis
• fracts. 2"-6" apart, // to sub// to minor X-cutting infilled ± calc. ± graph. + 2-5% py + po. + tr. cpy. • minor calc. phenos. in places.

515.5'-529.5' GRAPHITE WITH SULPHIDES

• 90% graph. interlayered ± 10% grey/green. v.f.g. ash tuff or argillite • highly contorted ± convoluted. • abun. stringers ± blebs of v.f.g. py + po (15-20% of graph. volume) + minor cpy (1-2%) ± tr. sphal • slig. mag. due to po. ± possibly vy. tr. pent.
• numerous thin (<3mm) late stage calc. vns. // to sub // to X-cutting sch'ty.
• sch'ty gen. ~ 50° to core axis (varies 30°-70°)

SECTION	CHLORITE	SERICITE	CARBONATE	SILICIFICATION	FRACTURING	MINERAL	GEOLOGY	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED	
470'	STRONG	NIL	STRONG	NIL				4%			BQ	471'			
								4%				473.2'	100	4% py + po.	29021
								Tr.		100		474'	100		29022
								4%				476'			
480'								Tr.	479'			478'	100	4% py + po	29023
								4% ↓ 2%				479'			
												483'	100	10-20% po + py + 1-2% cpy	29024
								2% ↓ 2%		100		486'	100		29025
								↓ 3%				489'	100		29026
490'									489'			492'	100		29027
								3% ↓ 10% ±				496'	100		29028
								20%		100		499'	100		29029
								↓	498'						
500'								2% to 5%				505.5'			
										100			100	2-5% po + py + tr. cpy	29030
									508'			510'			
												515.5'			
510'	MODERATE		STRONG					15% To 20%	518'	100		520'	100	15-20% po + py + 1-2% cpy + tr. sph.	29031
												525'	100		29032
520'										100					
									528'			529.5'	100		29033
								2%							

HOLE NO. JL-82-01 | PROJECT: JIM'S LAKE (A-365) | PAGE NO: 5 OF 21

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: FEBRUARY 27 / 82 | REF. TO CLAIM CORNER: #1 post 610398 (137' @ 67°)

COORDINATES: 84'@ 248° from 245 on L-888 N. E. | DATE FINISHED: MARCH 11 / 82 | SCALE: 1" = 10'

INCLINATION: -55° | BEARING: 0° | TOTAL DEPTH: 1503' | LOGGED BY: J.W. NEWSOME

ALTERATION: CHLORITE | SERICITE | CARBONATE | TALC | FRACTURING | MINERAL | GEOLOGY

COMMENTS:

AVE CORE REC'Y / HOLE ~100%

DESCRIPTIVE GEOLOGY

529.5'-540' INTERBEDDED GRAPHITE & ARGILLITIC TUFF

- Dark grey-green argillite or ash tuff interbanded with thin layers (< ½") graph. ~ 70° to core axis • mod. sch'ose & stringers & blebs of py + po + tr. cpy from ½"-6" apart • 10-12% sulphides, 40% graph & 50% argillite. • highly fract. & slickenslide along sch'ty + X-cutting • fracts hairline → < ½" wide & min. serp. + calc.

540'-559' OLIVINE TO PICRITE BASALT (Grading to Ultramafic) • possibly INTRUSIVE.

- gradational contact with aforementioned unit with decrease in fract. & sch'ty • v.f.g (<1mm) with mod. to strong chl'n's • dom. comp. of olivine & pyroxene & lesser amounts f'spar. Fine cumulate-like texture • dense & vy. weak sch'ty & weak to non-magnetic • minor x-cutting to sub // fracts infilled & calc. • 6"-2' apart & tr. py & cpy.
- @ 544.5 to 546.5' • aphanitic & highly chl'n'd. & fract. zone & minor gtz-calc. veinlets & calc.-chl.-serp. slickenslide & py-po. stringers & blebs (2%) & tr. cpy

559'-730' ULTRAMAFIC - PERIDOTITE (?)

- dark green-purplish black f.g. (<1mm) • no primary structures evident. • gradational with above unit. • dom. comp. of calcic f'spar - olivine - pyroxene • highly altd with chl. & serp. • abun. calc-serp. - minor talc fract. infills with tr. to 1% py & cpy on slickenslide surfaces. • fracts are sub // to core axis to random orientation gen. hairline, but up to ½" wide & gen. < ½" apart & abun. serp-calc. infilling. • light green mineral assoc. & fracts • serp or chl. or possibly talc. (fuchsite doubtful • mod. to strongly mag. • increases after 565'
- whole core is split due to abun. fract. infills of calc-serp. = tr.-1% py + cpy.

SECTION	ALTERATION: CHLORITE	SERICITE	CARBONATE	TALC	FRACTURING	MINERAL	GEOLOGY
530'	MODERATE → STRONG	NIL & WEAK → MODERATE & STRONG	MODERATE → MODERATE TO STRONG	NIL → WEAK			
540'							
550'							
560'							
570'							
580'							

% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED	
10% to 12% →	538'	100	BQ	529.5'			
Tr.				534'	100	10-12% py + po + tr. cpy.	29042
Tr.		100		540'	100		29043
2%	548'			544.5			
Tr.				546.5	100	2% py + po + tr. cpy.	29044
•		100					
Tr.	557.5'						
•				563.5'			
Tr. to 1% →	567'	100		568.5'	100	Tr.-1% py + cpy	29034
				573.5'	100		29035
	577'			578'	100		29036
		100		583'	100		29037
	587'			588'	100		29038

HOLE NO. JL-82-01 | PROJECT: JIM'S LAKE (A-365) | PAGE NO: 6 OF 21

CASING COLLAR ELEV.: 84'@ 248° from 24 S | GROUND ELEV.: | DATE STARTED: FEBRUARY 27/82 | REF. TO CLAIM CORNER: #1 post 610378 (137' @ 67°)

COORDINATES: on L-885 N. E. | DATE FINISHED: MARCH 11/82 | SCALE: 1" = 10'

INCLINATION: -55° | BEARING: 0° | TOTAL DEPTH: 1503' | LOGGED BY: J. W. NEWSOME

COMMENTS:

AVE CORE REC'Y / HOLE ~100%

DESCRIPTIVE GEOLOGY

559'-730' ULTRAMAFIC - PERIDOTITE (?)

- dark green to purplish-black f.g. (<1mm) = no primary structure = fairly dense & massive = strong chl. & serp. alt'n. of dom. olivine-pyroxene-calc.-rich f'spar. = vy. weak sch'ty. = strongly magnetic. = pervasive fracturing throughout = gen. hairline, but up to ¼" = infilled with calc.-serp.-chl. & minor talc. + 'smears' of tr.-1% py. & cpy. - abun. slickenslide on fract. surfaces. = fracts. gen. < ¼" apart, sub // to random orientation to core axis. = after 590' - less calc. in fract. infills = gives way to gtz. = after 605' = all fract. infills dom. gtz-serp-chl = sub // to random & hairline - ½" wide
- vy. pervasive random fract. after 619.5' & strongly magnetic & abun. serp.-gtz-chl-min. calc. on hairline slickenslide fracts & flecks py-po-cpy (<1%)
- increase in talc alt'n from 627'-633' (core slightly blocky)
- 637.5'-646' = abun. irreg. gtz.-calc.-serp. vns & tr. py & arsenopy. running sub // to wk. foln @ ~60° to core axis = spaced approx. 6"-1' apart ranging from hairline to 1" wide 'patches' X-cut by younger hairline - 2mm gtz. vns. @ ~ ⊥ (90°) to older vn. system ('ladder' vns?) = vns. - 1"-6" apart & dom. gtz. = little calc.
- after 646' = random irreg. gtz-serp vns & up to 2% py & mag. crystals = gen. 6"-3' apart & hairline - 1" wide & // to sub // to core axis. = X-cut by hairline - 2mm // ing ladder? gtz. vns from 2"-1' apart. = vns. comprise ~10% of rock
- rock is dk. green-blackish, f.g. massive & dense = mod. to strong mag. & vy. wk. to nil sch'ty. = wk. to mod. calc. alt'n & mod. to strong chl & serp. alt'n (gen. moderate) & random irreg. fracts.

SECTION	ALTERATION: CHLORITE	SERPENTINE	CARBONATE	TALC	FRACTURING	MINERAL	GEOLOGY	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED	
590'	STRONG	STRONG	MODERATE	WEAK		Py		Tr. to 1%			BQ	592.5	100	Tr. to 1% py + cpy	29039
									597'	100		597'	100		29040
600'												601.5	100		29041
						Py				100					
									607'			606.5	100		29045
610'												611.5	100		29046
										100					
									616.5'			616.5	100		29047
620'						Py									
										99		621.5'	100		29048
												624'	100		29049
									626'			628'	100		29050
630'										98		630.5	100		29051
												633'	100		29052
									636'			637'	100		29053
640'						Py				100		642'	100		29054
									646'			642.4'	100		29055
															29056

HOLE NO. JL-82-01 | PROJECT: JIM'S LAKE (A-365) | PAGE NO: 7 OF 21

CASING COLLAR ELEV.: BF @ 248° from 245 | GROUND ELEV.: | DATE STARTED: FEBRUARY 27/82 | REF. TO CLAIM CORNER: #1 post 610398 (137' @ 67°)

COORDINATES: on L-88E N. E. | DATE FINISHED: MARCH 11/82 | SCALE: 1" = 10'

INCLINATION: -55° | BEARING: 0° | TOTAL DEPTH: 1503' | LOGGED BY: J.W. Newsome

COMMENTS:

AVE CORE REC'Y / HOLE ~100%

DESCRIPTIVE GEOLOGY

559'-730'

ULTRAMAFIC - PERIDOTITE (?) - cont -

dark green - blackish f.g. (< 1mm) dense ± massive comp. dom. of olivine - pyroxene - lesser calc. f'spar. • mod. to strong chl. ± serp. alt'n ± wk. to mod. calc. alt'n • irreg. fract. pervasive ± infills of dom. serp. + qtz. + min. calc. ± chl. • tr - 2% py smeared along fracts • amorph. to prismatic crystals. • fracts. vary from gen. 2"-6" apart ± sub // to X-cut core axis. • gen. hairline to 1" wide. • 2nd generation of qtz vns • 'ladder' vns • gen. close to 90° to initial qtz-serp. vn. system • hairline - 2 mm wide ± 2"-1' apart • mod - strong magnetic. • qtz. vns compose ~ 10% of rock. • vy. wk. to non-existent sch'ty. • slickenslide along fracts ± serp.

• @ 705' • fracts @ 55° to core axis // to vy poorly developed sch'ty. ± X-cutting hairline fracts ± 'ladder' qtz. vns ~ 90° to core axis.

SECTION	ALTERATION: CHLORITE	ALTERATION: SERPENTINE	ALTERATION: CARBONATE	ALTERATION: TALC	FRACTURING	MINERAL	GEOLOGY	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED	
650'	MODERATE TO STRONG	MODERATE TO STRONG	WEAK TO MODERATE	WEAK		Py		Tr. to 1%	656'	100	BQ	652.2	100	Tr. to 1% py-cpy	29056
660'						Py			665.8'	100		664.8	100		29057
670'						Py			675.7'	100		674.8	100		29058
680'						Py			685.3'	100		679.4	100		29059
690'						Py			695.4'	100		685.4	100		29060
700'									705.2'	100		690' 697.2' 701.1' 703' 706'	100 100 100		29061 29062 29063
										100			100		29064

HOLE NO. JL-82-01 | PROJECT: JIM'S LAKE (A-365) | PAGE NO: 8 OF 21

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: FEBRUARY 27/82 | REF. TO CLAIM CORNER: "I post 610398 (137° @ 67°)

COORDINATES: 84'@248° from 24S on L-88E N. E. | DATE FINISHED: MARCH 11/82 | SCALE: 1" = 10'

INCLINATION: -55° | BEARING: 0° | TOTAL DEPTH: 1503' | LOGGED BY: J.W. NEWSOME

SECTION	ALTERATION: CHLORITE	ALTERATION: SERICITE	ALTERATION: CARBONATE	ALTERATION: TALC	FRACTURING	MINERAL	GEOLOGY	COMMENTS: / DESCRIPTIVE GEOLOGY	AVE CORE REC'Y / HOLE ~100%	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED	
710'	MODERATE TO STRONG	MODERATE TO STRONG	WEAK TO MODERATE	NIL TO WEAK		py		559'-730' ULTRAMAFIC - PERIDOTITE (?) - cont.-		Tr to 1%	715'	100	BQ	711'	100		29064
								• for description, see page 7.						716.2'			
								710'-715' • increase in serp-qtz. vns. • gen. sub // sch'ty ± 1% py • sch'ty v. wk @ ~60° to core axis						718.5'	100	1% py	29065
720'								721'-723' • as above				100		721.6'			
								725'-728' • as above.			724.9'			724.6'	100	1% py	29066
								730'-775' FINE CUMULATE ULTRAMAFIC • PERIDOTITE/DUNITE									
730'						py		• dk green f.g cumulate text. (< 1-2 mm) comp. dom. of olivine • minor pyrox. & min f'sper. • mod. to strong chl. & serp. alt'n. • moderately magnetic • random irreg. fract. infilled ± serp. + qtz ± min talc. & tr.-1% py • fracts hairline - 1" wide • gen. < 5 mm • some vns sub // to core axis = fracts gen. 2"-6" apart. • qtz-serp. vns. gen. comp. 10% of whole rock. • min. podiform mag. crystals @ 736' & progressively more serp'n after 755' = weak to no sch'ty						729.8'			
												100		732.4'	100	1% py	29067
											734.7'						
														736.3'			
														737.5'	100		29068
740'						py		740'-742' } 744.5'-745.5' } 748'-749.5' } qtz.-serp. vns ± ~1% py X-cutting to sub // to core axis (<5% of rock)				100		737.7'	100	1% py	29069
														743'			
											744.5'			744.1'	100	Tr. py	29070
								757.5'-760' } 762'-764' } increase in qtz-serp. vns. up to 20% of rock • hairline vns to ≈1" wide • gen sub // to core axis to X-cutting & randomly spaced (2"-6" apart)						749.6'			
750'						py						100		751.5'	100	Tr. py	29071
											754.4'						
														758.6'			
760'												100		760.9'	100	Tr py	29072
											764.5'			764'			
														766.9'	100	Tr py	29073
												98		768'			
															100	1% py	29074

HOLE NO. JL-82-01 | PROJECT: JIM'S LAKE (A-365) | PAGE NO: 9 OF 21

CASING COLLAR ELEV.: 84' @ 248' from 245 | GROUND ELEV.: | DATE STARTED: FEBRUARY 27/82 | REF. TO CLAIM CORNER: "I post 610398 (137' @ 45°)

COORDINATES: on L-88E N. E. | DATE FINISHED: MARCH 11/82 | SCALE: 1" = 10'

INCLINATION: -55° | BEARING: 0° | TOTAL DEPTH: 1503' | LOGGED BY: J. W. NEWSOME

SECTION	ALTERATION: CHLORITE	ALTERATION: SERPENTINE	ALTERATION: CARBONATE	ALTERATION: TALC	FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE ~100%	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED	
770'	MODERATE TO STRONG	MODERATE TO STRONG	WEAK	WEAK				DESCRIPTIVE GEOLOGY		Tr to 1%	774.1	98	BQ	773'	100	1% py	29074
														777.9	100	1% py	29075
780'												100		782'			
											783.8			783.5	100	Tr. cpy	29076
														787.7			
790'												100		790.7	100	1% py	29077
														791.6			
										2%	793.7			793.7	100	2% py	29078
										Tr to 1%				796.2			
														797.4	100	Tr. cpy	29079
800'												100		799.2			
														800.3	100	Tr. py	29080
											803.6						
810'												100		809'			
														810.5	100		29081
											813.4			813.6	100		29082
														815.9' 816.9'	100		29083
820'												100		819.9'			
														820.9'	100		29084
											823.3						
														825.7'			
												100		826.4	100		29085

730'-775' F.G. CUMULATE ULTRAMAFIC · PERIDOTITE/DUNITE

· see description on page 8

· 767'-775' · blocky core · strong serp ± chl. alt'n ± gtz. vns/stringers & ~1% py smeared on serp. · wk. to mod. sch'ty sub // to 60° to core axis ± //'ing thin gtz. vns. · min. talc alt'n as well.

775'-859' COARSE CUMULATE ULTRAMAFIC · DUNITE

· Dark. mid green (depending on degree of serp'n) with purplish hue (oxid magnetite) coarse grained (2-5mm) cumulate text. comp. dom. of olivine ± serp'd rims ± min. pyrox. & Calc'spar ± abun. access. mag. interstit. between ol. grains ± chl. ± serp. ± tr. py. · dom. all ol.-serp.-mag. (strongly mag'c ± magnetite 5-10%) · vy dense ± minor fracts. sub// to cross cutting fabric axis · hairline to 2" wide ± irreg. ± infilled ± gtz. ± serp. + tr. py. · minor high fract. areas ± more gtz.-serp. vns described below.

775'-776' · hi. fract. ± gtz.-serp.-chl. infills up to 1" wide ± sub // to 60° to core axis.
781.5'-783.5' · hairline to 1" gtz.-serp. vns. gen. 60° to core axis to X-cutting ± tr. py-cpy. · fracts 1"-4" apart
787.5'-790' · // gtz. vns gen. < 5 mm wide ± 2"-4" apart ~80° to core axis
792'-793.5' · thin (2mm) gtz. vns. // core axis ± 2% py
796'-797' · fract. gtz.-serp.-chl. infills sub // to core axis ± tr. py-cpy
798.5'-801.6' · min. 5mm. gtz. vns X-cutting core axis in dense c.g. ol-serp. cumm.
808.5'-809.5' hairline gtz.-serp. vn. // core axis ± tr. py.
810-813.5' · gtz.-serp. vn. up to ½" wide // core axis ± slickenslide ± tr. py.
814'-815.5' · hairline gtz.-serp. vns sub // to core axis ± min. talc ± tr. py.
819.5'-820.5' · as above.
825'-827' · hi. fract. X-cutting to sub // to core axis ± abun. gtz.-serp. infills up to ½" wide ± tr.-1% py.

HOLE NO. JL-82-01 | PROJECT: JIM'S LAKE (A-365) | PAGE NO: 10 OF 21

CASING COLLAR ELEV.: 84' @ 248° from 245 GROUND ELEV.: | DATE STARTED: FEBRUARY 27/82 | REF. TO CLAIM CORNER: #1 post C10378 (137'@ 67°)

COORDINATES: on L-88E N. E. | DATE FINISHED: MARCH 11/82 | SCALE: 1" = 10'

INCLINATION: -55° BEARING: 0° | TOTAL DEPTH: 1503' | LOGGED BY: F.W. NEWSOME

ALTERATION: CHLORITE | SERPENTINE | CARBONATE | TALC | FRACTURING | MINERAL | GEOLOGY

COMMENTS:

AVE CORE REC'Y / HOLE ~100%

DESCRIPTIVE GEOLOGY

775'-853' C.G. CUMULATE ULTRAMAFIC - DUNITE

- see description on page 9

834'-835.5' - random hairline - ½" gtz-serp fract. infille ~ 1"-2" apart ± tr. py.
836'-837' - 6"-8" barren gtz. vn.
842'-843.5' - min. x-cutting gtz. vns. (< 5mm wide)
848'-850' - hi. fract. ± gtz-serp. vns up to ½" wide sub // to core axis ± talc-chl alt'n & tr. py.

853'-881' FINE GRAINED CUMULATE ULTRAMAFIC - DUNITE.

- Finer grained (≤ 2mm) equivalent to C.G. Cumulate Dunite - some cum. grains comp. of magnetite - strongly magnetic - also greater overall degree of serpentinization - abun. gtz.-serp.-min. chl. vns. in places as detailed below:

853.5'-855' - 1" gtz vn. x cutting core axis @ ~60°
866-867.5' - min. 2mm-1" gtz.-serp. vns @ 30°-80° to core axis - 6" apart ± tr. py.
868'-869' - hi. fract. infille of gtz-serp up to 1" wide ± tr. py - up to 30°-60° to core axis
874'-876.5' } hi. fract. ± infills of gtz.-serp-chl. up to 1" wide & // to core axis
876.5'-879' } ± tr. py & tr-1% cpy. in blebs up to 2mm.
879'-881.5' - min. random thin gtz. vns. 20°-40° to core axis.

881'-1064' COARSE GRAIN CUMULATE ULTRAMAFIC - DUNITE

- coarse grain (2-5 mm) cumulate text. comp. dom of olivine + serp. + accessory mag. up to 15% - minor pyroxenes & little or no f'spar evident. strongly mag & mod. chl alt'n. - strong to vy. strong serpentinized & wk to no schisty - minor talc - dom. clay fracts. - wk to mod. irreg. fracts gen. sub // to 50° to core axis & hairline ≥ 1" wide infilled ± serp. (chrysotile) & gtz + min. chl & talc & tr. py. - gtz. dom white 'bull' gtz. - magnetite occurs interstit. between ol. grains & also as cum blebs. - colour gen. dk. green (to light) with purplish hue. - areas of abun. gtz. vns. outlined below: - gen. vy. massive & dense rock.

882'-883' - hi. serp'd ± hairline serp.-gtz. vns // core axis
887'-888' - 3" gtz-serp. vn. @ 50° to core axis

SECTION	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED	
830'	Tr. to 1%	833.1'	100	BQ	834.6'			
					836.4'	100	Tr. Py	29086
					838'	100		29087
840'			100		839'	100	Tr. Py	29088
		843'			842'			
					844.2'	100		29089
			100		848.5'			
850'					850'	100	Tr. Py	29090
		852.8'			853.9'			
					854.8'	100		29091
			100					
860'		862.6'						
					866'			
					867.5'	100	Tr. Py.	29092
			100		868'	100	Tr. Py.	29093
870'					869'			
		872.5'						
					874'			
					876.5'	100	Tr.-1%	29094
			100		879'	100	Py + Cpy	29095
880'					881.5'	100	"	29096
		882.3'			882			
					883'	100		29097
			100		887'			
					888'	100		29098

HOLE NO. JL-82-01 | PROJECT: Jim's Lake (A-365) | PAGE NO: 11 OF 21

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: February 27/82 | REF. TO CLAIM CORNER: #1 post 610398 (137' @ 67°)

COORDINATES: 84' @ 248° from 245 on L-88E N. E. | DATE FINISHED: March 11/82 | SCALE: 1" = 10'

INCLINATION: -55° | BEARING: 0° | TOTAL DEPTH: 1503' | LOGGED BY: J.W. Newsome

COMMENTS:

AVE CORE REC'Y / HOLE ~100 %

SECTION	ALTERATION: CHLORITE	SERPENTINE	CARBONATE	TALC	FRACTURING	MINERAL	GEOLOGY	DESCRIPTIVE GEOLOGY	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED	
890	MODERATE	STRONG	NIL	NIL TO WEAK		py		881'-1064' · Coarse Grained Cumulate Ultramafic - DUNITE - for description see page 10.	Tr.	892.2'	100	BQ	894'			
								894'-895' · 1" gtz. vn. ± serp.-chl. ± talc + tr. py. · sub // to core axis (c.a.)					895.2'	100	Tr. py.	29099
900								902'-903.5' · 1½" gtz-serp.-talc vn. ± vy. min. tr. py · 10° to c.a.			100					
								905'-907.5' · gtz-serp (chrysotile) vns. 5mm-2" wide @ 6" apart X-cutting to sub // to c.a.		902'			902'			
					X	py		913'-914' · 2" gtz. serp.-talc vn. ~30° to c.a.					903.5'	100		29100
								921.8'-926' · } hi. fract. section gtz-serp-talc vns up to 2" wide					905'			
910								926-930.5' · } // to sub // to c.a. ± tr. py. ± cpy.			100		907.5'	100		29101
								936.5'-938' · min. thin (< 5mm) gtz-serp.-talc vns 30°-50° to c.a. @ 2"-3" apart.		911.8'			913'			
								939'-941' · min. gtz-serp. vns ≤ ¼" wide @ 50°-70° to c.a. @ 6" apart.					918.2'	100		29102
920						py		942'-945' · rel. hi. fract. sect. · gtz-serp. vns up to 1" wide // to sub // to c.a.			100					
						py		946'-951' · rel. hi. fract. ± thin gtz-serp. vns sub // to c.a.		921.7'			921.8'			
													926'	100	Tr. py + cpy	29103
											100					
930													930.5'	100	"	29104
										931.5'						
											100		936.5'			
													938'	100	Tr. py.	29105
940													939'			
													941'	100		29106
										941.4'			942'			
														100		29107
											100		945'			
													946.5'			
														100		29108

HOLE NO. JL-82-01 | PROJECT: JIM'S LAKE (A-365) | PAGE NO: 12 OF 21

CASING COLLAR ELEV.: 84' @ 248° from 245 | GROUND ELEV.: | DATE STARTED: FEBRUARY 27/82 | REF. TO CLAIM CORNER: "I post 610398 (137' @ 67°)

COORDINATES: on L-88E N. E. | DATE FINISHED: MARCH 11/82 | SCALE: 1" = 10'

INCLINATION: -55° | BEARING: 0° | TOTAL DEPTH: 1503' | LOGGED BY: J. W. NEWSOME

SECTION	ALTERATION: CHLORITE	ALTERATION: SERPENTINE	ALTERATION: CARBONATE	ALTERATION: TALC	FRACTURING	MINERAL	GEOLOGY
950'	MODERATE	STRONG	NIL	NIL TO WEAK			
960'							
970'							
980'							
990'							
1000'							

COMMENTS:

AVE CORE REC'Y / HOLE ~100 %

DESCRIPTIVE GEOLOGY

881' - 1064' COARSE GRAINED CUMULATE ULTRAMAFIC : DUNITE

for description see page 10.

956' - 957' - 2" gtz. - serp. - talc vn. @ ~10° to core axis

967.5' - 972' - rel. fract'd + gtz - serp vns up to 1" @ 70° - 10° to core axis

972' - 975' - min. thin (<2mm) gtz vns ~6" apart & 70° to core axis

976.5' - 981' - 3" 'bull' gtz. vn + other min. gtz - serp. vns @ 30° - 50°/core axis.

983.5' - 985' - rel. fract'd + random gtz. - serp. (~15% of rock by vol.)

- after 985' - rock is vy dense & massive & uniform coarse olivine/serp cumulate + abun. magnetite (10-15%) & strongly serpent'z'd. + minor gtz - serp. vns.

995' - 995.8' - 3" gtz - serp. vn. @ ~60° to core axis.

% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED	
Nil to Tr.	951.2'	100	BQ	951'		Nil to Tr.	29108
	961'	100		956' - 957'	100		29109
	970.9'	100		967.5' - 972'	100		29110
	980.7'	100		972' - 975'	100		29111
	990.6'	100		976.5' - 981'	100		29112
	1000.4'	100		983.5' - 985'	100		29113
				995' - 995.8'	100		29114

HOLE NO. JL-82-01 | PROJECT: JIM'S LAKE (A-365) | PAGE NO: 13 OF 21

CASING COLLAR ELEV.: 84' @ 248° from 245 | GROUND ELEV.: | DATE STARTED: FEBRUARY 27/82 | REF. TO CLAIM CORNER: #1 post 610378

COORDINATES: on L-88E N. E. | DATE FINISHED: MARCH 11/82 | SCALE: 1" = 10' (137' @ 67°)

INCLINATION: -55° | BEARING: 0° | TOTAL DEPTH: 1503' | LOGGED BY: J.W. NEWSOME

COMMENTS:

AVE CORE REC'Y / HOLE ≈100 %

DESCRIPTIVE GEOLOGY

881'-1064' COARSE GRAINED CUMULATE ULTRAMAFIC - DUNITE

- dark-light green coarse (2-5 mm) olivine-serpentine cumulate ± abun. accessory magnetite (10-15%) interstit. ? as cumulate crystals - minor pyroxenes ? no f'spar evident - strong serp. alteration - dense, massive ? uniform ± minor fracturing (gen. sub // to core axis) ± minor 'bull' gtz.-serp. ± talc vns. ± tr. py.

1014.5'-1015' - 2" gtz-serp-talc vn @ ~50° to c.a.

1022.5'-1023' - 2° gtz-serp. vn. @ ~45° to c.a.

1029.5'-1030' - 2" gtz-serp-talc vn @ ~40° to c.a.

1052.5'-1053' - 1° gtz-serp. vn ~ 70°/core axis.

1064'-1118.5' FINE GRAINED CUMULATE ULTRAMAFIC - DUNITE.

- gradational contact from massive ? uniform c.g. cumulate dunite to dark green-purplish black f.g. cumulate - dom. comp. of serp'd olivine + min. pyrox. ± min. calc f'spar in places + vy. abun. access. mag. (10-20%) - vy. magic ? vy. strong serp'd. - highly fract'd sections ± x-cutting hairline → 1" fracts. @ ± 3" apart // sub // to 90° to core axis. - infilled ± serp. (chrysotile) + gtz. ± min talc ± tr. py smeared along slickenslide surfaces - vy. usk. sch'ty from 50°-80° to c.a. - some sects vy. massive ± little or no cumulate text. - hi. fract. zones ± serp-gtz. infills ? vns as follows:

1064'-1067' - hi. fract'd (cataclastic) ± fracts. sub // to core axis (10°-20°) ± gtz.-serp. ± talc ? chl. infills ? blebs of magnetite.

SECTION	ALTERATION: CHLORITE	ALTERATION: SERPENTINE	ALTERATION: CARBONATE	ALTERATION: TALC	FRACTURING	MINERAL	GEOLOGY	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED	
1010'	MODERATE	STRONG	NIL	NIL TO WEAK				Tr.	1010.2'		BQ			Tr. py.	
										100		1014.5'-1015'	100		29115
1020'									1020.1'						
										100		1022.5'-1023'			29116
1030'									1029.9'			1029.5'-1030'	100		29117
										100					
1040'									1039.8'						
										100					
1050'									1049.6'			1052.5'-1053'	100		29118
										100					
1060'									1059.3'			1064'			
										100		1067'	100		29119
									1067.3'						

HOLE NO. JL-82-01 | PROJECT: JIM'S LAKE (A-365) | PAGE NO: 14 OF 21

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: FEBRUARY 27/82 | REF. TO CLAIM CORNER: #1 post 610398

COORDINATES: 84' @ 248° from 245 on L-88E N. E. | DATE FINISHED: MARCH 11/82 | SCALE: 1"=10' (137' @ 67°)

INCLINATION: -55° | BEARING: 0° | TOTAL DEPTH: 1503' | LOGGED BY: J.W. Newsome

SECTION	ALTERATION: CHLORITE	ALTERATION: SERPENTINE	ALTERATION: CARBONATE	ALTERATION: TALC	FRACTURING	MINERAL	GEOLOGY	COMMENTS: / DESCRIPTIVE GEOLOGY	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED	
1070'	MODERATE	STRONG	NIL	WEAK		py		AVE CORE REC'Y / HOLE ≈100 %	Tr.			BQ	1070.5'		Tr. py	
								1064'-1118.5' F.G. cumulate Ultramafic - Dunite. - see description page 13			100		1077.5'	100		29120
								1070.5'-1077.5' - stockwork of x-cutting hairline fract. infills of serp.-qtz. from 1/4" < 1/16" apart.		1079.1'			1079'			
1080'								1079'-1084' } hi. fract. & seap'd section = serp.-qtz. vns up to 1" wide sub // to 1084'-1090' } c.a. ± 3"-6" apart.			100		1084'	100		29121
											100					
								- after 1089' - vy. f.g. & massive = little or no cumulate text & highly serp'd.		1089'			1090'	100		29122
1090'													1091.5'			
								1091.5'-1093.5' - random qtz-serp. vns @ 30°-60° to c.a., ≤ 5mm wide & 4"-6" apart.			100		1093.5'	100		29123
								1096'-1096.5' - as above.					1096'			29124
								1101'-1103.3' - random x-cutting qtz.-serp. vns. @ 30°-60° to c.a., ≤ 5mm & 6" apart		1098.8'			1096.5'			
1100'								1108'-1111.5' } x-cutting ≤ 5mm wide qtz-serp vns 6"-1' apart from 10°-80° to c.a.			100		1101'	100		29125
								1111.5'-1113' }					1103.5'			
								1114.5'-1119' } random qtz-serp vns up to ½" wide, 2"-6" apart & sub// to x-cutting core axis.			100					
								1119'-1122' }					1108'			
1110'								1118.5'-1238.5' Fine-Coarse Grained Cumulate Ultramafic (Dunite/Peridotite)		1108.6'			1111.5'	100		29126
								- slow gradual gradational contact with increase in calcic feldspar phenos up to 2mm. & 10-15% of rock (in places) - otherwise - comp. as rock as before - borderline between peridotite & dunite - highly mag.c & serp'd. - random hairline to 1" fract infills of serp.(chrysotile)# qtz. x-cutting to sub // to core axis			100		1115'	100		29127
													1114.5'			
										1118.5'			1119'	100		29128
1120'								1124'-1126' - min. random qtz-serp vns 3"-6" apart & x-cutting c.a.					1123'	100		29129
								1129.5'-1136' - qtz-serp. vns // to sub // core axis (≤ 5mm wide) to x-cutting core axis.			100		1126'			
										1128.3'			N26'	100		29130
													1129.5'			

HOLE NO. JL-82-01
CASING COLLAR ELEV.: 84' @ 245° from 245 GROUND ELEV.:
COORDINATES: on L-88E N. E.
INCLINATION: -55° BEARING: 0°

PROJECT: JIM'S LAKE (A-365)
DATE STARTED: FEBRUARY 27/82
DATE FINISHED: MARCH 11/82
TOTAL DEPTH: 1503'

REF. TO CLAIM CORNER: "Ipost 610398 (137' @ 67°)
SCALE: 1" = 10'
LOGGED BY: J.W. NEWSOME

SECTION	ALTERATION: CHLORITE	ALTERATION: SERICITE	ALTERATION: CARBONATE	ALTERATION: TALC/SERPENTINE	FRACTURING	MINERAL	GEOLOGY
1130'	MODERATE	STRONG	NIL	RARE			
1140'						Py	
1150'						Py	
1160'						Py	
1170'							
1180'							

COMMENTS:

AVE CORE REC'Y / HOLE ≈100 %

DESCRIPTIVE GEOLOGY

1118.5'-1238.5' FINE → COARSE CUMULATE ULTRAMAFIC : DUNITE - PERIDOTITE.
- for description see page 14

1141'-1142' - gtz-serp.-talc vns up to ½" wide ≈ 1"-2" apart ∦ 30°-60° to c.a.
1146'-1150' - random gtz-serp ± talc vns up to 1" wide ≈ 3"-6" apart ∦ x-cutting c.a.
- after 1150' - gen. f.g. (<1mm) ∦ massive ± little cumulate text. ∦ pervasive hairline fracts sub // c.a. ± serp. ± gtz.
1162'-1163.5' - min serp-gtz. vns sub // to c.a. ∦ hairline - ½" wide
1166-1166.5' - 2" gtz.-serp-talc vn. @ 45° to c.a.
- after 1188' - gradual decrease in degree of serp't'n with corresponding increase in amount of talc/sericite alt'n. - abun. assoc. with gtz. veining - but also pervasive in groundmass (possibly more peridotite than dunite) - random fracts. infilled ± gtz-serp-talc/ser. ∦ chl. ∦ mod. to strongly magnetic - slightly schistose ± sch'ty @ ~60° to core axis (varies 40°-70° to c.a.) - sections of more pervasive fract'ing ∦ vning as follows:

% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED	
Nil to Tr.			BQ	N29.5		Nil To Tr. Py	
		100		N36'	100		29131
	1138.2'			1141'			
		100		1142'	100		29132
	N48'			1146'			
					100		29133
		100		1150'			
	1157.8'						
		100		1162'	100		29134
	1167.7'			1163.5' N66'	100		29135
		100		1166.5'			
	1177.5'						
		100					
	1187.4'						

HOLE NO. JL-82-01
CASING COLLAR ELEV.: 84' @ 248° from 245 on L-88E
GROUND ELEV.:
COORDINATES: N. E.
INCLINATION: -55°
BEARING: 0°

PROJECT: JIM'S LAKE (A-365)
DATE STARTED: FEBRUARY 27/82
DATE FINISHED: MARCH 11/82
TOTAL DEPTH: 1503'

REF. TO CLAIM CORNER: #1 post 610398 (137' @ 67°)
SCALE: 1" = 10'
LOGGED BY: J. W. NEWSOME

SECTION	ALTERATION: CHLORITE	SERPENTINE	CARBONATE	TALC	FRACTURING	MINERAL	GEOLOGY
1190'–1250'	MODERATE	MODERATE TO STRONG → STRONG	NIL	WEAK TO MODERATE → WEAK		Py	

COMMENTS:

AVE CORE REC'Y / HOLE: ~100 %

DESCRIPTIVE GEOLOGY

1118.5'-1238.5' · F.-G. Cumulate Ultramafic: Peridotite - Dunite.

- for description · see pages 14 & 15

1192.5'-1194' · thin qtz-serp-talc vns < 5 mm wide ~50° to c.a.

1195.5'-1197' · minor random qtz-serp-talc vns.

1199.5'-1201' · erra. qtz-serp-talc vn(s) sub // to c.a.

1202'-1204' · min. qtz-serp-talc vns ~6" apart & sub // to c.a.

1206'-1207.5' · q.-s.-t. vns 60°-80° to c.a. & 1"-2" apart.

1213-1214.5' · sub //'ing thin qtz-serp-talc vns @ ~60° to core axis (// wk. sch'ty) & ~1" apart.

1215'-1220', 1220'-1225', 1225'-1230', 1232'-1236.5' } hi. alt'd section c serp-talc-chl ± ser. alt'n assoc. c qtz. vns as well as groundmass · vns // sch'ty @ ~60° to core axis c tr. py. & mag. x'stals & ~1"-3" apart.

1238.5'-1306' C. G. Cumulate Ultramafic · Dunite

- gradational contacts · from 1238 to 1278, gradual decrease in d'spar content from peridotite/dunite rock type to dunite · after 1278, increase in serp't'n. · c.g. olivine cumulates (2-5 mm) · alt'd in varying degrees to serp. + abun. access. mag. · strongly mag'c. · gen. massive in appearance with varying degrees of fract. · gen. sub // to 80° to core axis & infilled with qtz & serp + tr. py (in parts) · weak sch'ty c stretched olivine x'stals ~ 40°-60° to core axis.

1239'-1244', 1244'-1249', 1249'-1254' } random qtz-serp. vns varying from 1 mm - 2" wide from 30°-80° to core axis (X-cutting in part), from 1"-6" apart (gen. 1"-2") c tr. py + cpy.

- olivine 'clusters' up to ½" in diameter from 1251'-1252'

% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED	Sample No.
Tr.		100	BQ	1193.5'–1195'	100	Tr. py.	29136
	1197.2'			1195.5'–1197'	100		29137
				1199.5'–1201'	100		29138
		100		1202'–1204'	100		29139
	1207'			1206'–1207.5'	100		29140
		100		1213'–1214.5'	100		29141
	1216.9'			1215'–1220'	100		29142
		100		1220'–1225'	100		29143
	1226.7'			1225'–1230'	100		29144
		100		1232'–1236.5'	100		29145
	1236.6'	100		1239'–1244'	100	Tr py + cpy	29146
	1246.4'			1244'–1249'	100		29147

HOLE NO. JL-82-01 | PROJECT: JIM'S LAKE (A-365) | PAGE NO: 17 OF 21

CASING COLLAR ELEV.: 84'@ 248' from 245 | GROUND ELEV.: | DATE STARTED: FEBRUARY 27/82 | REF. TO CLAIM CORNER: #1 post 610398 (137'@ 67°)

COORDINATES: on L-886 N. E. | DATE FINISHED: MARCH 11/82 | SCALE: 1" = 10'

INCLINATION: -55° | BEARING: 0° | TOTAL DEPTH: 1503' | LOGGED BY: J.W. NEWSOME

SECTION	ALTERATION: CHLORITE	ALTERATION: SERPENTINE	ALTERATION: CARBONATE	ALTERATION: TALC/SILICIFICATION	FRACTURING	MINERAL	GEOLOGY
1250'	MODERATE	STRONG	NIL	WEAK TO NIL		Py	
1260'							
1270'						Py	
1280'						Py	
1290'						Py	
1300'						Py	

COMMENTS:

AVE CORE REC'Y / HOLE ~100 %

DESCRIPTIVE GEOLOGY

1238.5'-1306' C.G. CUMULATE ULTRAMAFIC : DUNITE

for description see page 16

1266'-1267.5' • mm. gtz-serp. vns sub // to c.a.

1269'-1270' • 3" gtz.-serp-talc vn. @ 80° to c.a.

1289.5'-1291' • two 3" gtz.-serp-talc vns ≈ 4" apart ∦ ~40° to c.a.

1291'-1295' • long gtz-serp. vns sub // to c.a. ∦ up to ½" wide

1299'-1301' • // gtz-serp. stringers ~ < ¼" apart ∦ 45° to sub // to core axis

1301'-1306' • as above, but spaced farther apart.

1306'-1330' ULTRAMAFIC → MAFIC : PERIDOTITE → OLIVINE BASALT

• gradational contacts • fg. groundmass & dom. olivine-pyroxene-minor f'spar + accessory magnetite (≈5%) ± phenos of f'spar x'stals to clusters up to 5mm in diameter = mod. mag'c. • mod. to strong chl. ∦ serp. alt'n. • no sch'ty to weak sch'ty after 1325' @ 40° to c.a. • grading from peridt → basalt with increase in chl. alt'n after 1325' • random hairline → 2mm. fracts gen. sub // to X-cutting core axis ∦ infilled ± gtz-serp-chl.

• sheared from 1327'-1330' @ 45° to c.a. ± abun. chl-serp. alt'n.

% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED	
Tr.	1254'	100	BQ	1254'	100	Tr. py	29148
	1264'	100		1266'	100		29149
				1268.5'			
	1274'	100		1269'	100		29150
				1270'			
	1284'	100		1289.5'	100		29151
				1291'	100		29152
	1294'	100		1295'			
				1299'	100		29153
	1304'	100		1301'	100		29154
				1305'			

HOLE NO. JL-82-01 | PROJECT: JIM'S LAKE (A-365) | PAGE NO: 18 OF 21

CASING COLLAR ELEV.: 84 @ 248° from 245 | GROUND ELEV.: | DATE STARTED: FEBRUARY 27/82 | REF. TO CLAIM CORNER: #1 post 610398 (137' @ 67°)

COORDINATES: on L-88E N. E. | DATE FINISHED: MARCH 11/82 | SCALE: 1" = 10'

INCLINATION: -55° | BEARING: 0° | TOTAL DEPTH:: 1503' | LOGGED BY:: J.W. NEWSOME

ALTERATION: CHLORITE | SERICITE | CARBONATE | TALC/SILICIFICATION | FRACTURING | MINERAL | GEOLOGY

COMMENTS:

AVE CORE REC'Y / HOLE ~100%

DESCRIPTIVE GEOLOGY

SECTION	CHLORITE	SERICITE	CARBONATE	TALC/SILICIFICATION
1310'	MODERATE TO STRONG → STRONG	STRONG TO MODERATE → MODERATE TO NIL	NIL → WEAK TO MODERATE	WEAK TO MODERATE → MODERATE TO STRONG

1306'-1330' ULTRAMAFIC → MAFIC : PERIDOTITE → BASALT.

for description see page 17

1310'-1311' · gtz-serp-chl vn ¼" wide sub // to c.a. ± min //ing stringers

1315.5'-1316.5' · 2" gtz-serp ± chl. vn. @ 45° to c.a.

1319'-1320' · min thin (<2mm) gtz-serp. vns X-cutting c.a.

1320.5'-1321.5' · as above · up to 5mm wide ∠ ~60° to c.a.

1330'-1337' CHLORITIZED ANDESITE

· f.g. light green chl'd andesite ± mod. talc-ser-calc altn · mod. sch'ty @ ~60° to c.a. ± min. calc ± gtz vns // sch'ty to // c.a. · gen. hairline - 2mm wide · min fracts // sch'ty · tr. py. ∅'s throughout sect. · non-mag.

1337'-1345' · M.G. CHLORITIZED CUMULATE ULTRAMAFIC · DUNITE ?

· m.g. (2-3 mm). med. green cumulate · dom all divine · massive ± no sch'ty · abun chl. ± serp. (chrysotile) altn · min. random hairline → 2mm fracts. @ 20°-90° to core axis ∠ infilled ± calc-talc-cryol.

1345'-1503' CHLORITIZED ANDESITE

· highly chl'd and. ± mod. ser/talc altn ∠ mod. to strong calc. altn. · mod. to strong sch'ty @ 50°-60° to core axis - approaches 90° to c.a. by 1460' · minor 'massive' sects. ± increase in py/po content · gen. light green ∠ non-mag. throughout · tr - 1% py ∅'s ∠ blebs up to 2mm wide throughout, more abun. as indicated below · min. fracts. gen // sch'ty ∠ infilled ± calc ± gtz. · gtz-calc. vns up to 6" wide X-cutting sch'ty outlined as follows:

1346'-1347' · gtz-calc vns up to 1" wide ∠ 6"-1' apart ∠ 60°-80° to core axis

1348'-1349.5' · hi. fract along sch'ty @ 60° ± abun. calc-chl-ser/talc ± gtz // vns.

1351.5'-1352.5' · 2" gtz-calc X-cutting c.a. ∠ sch'ty

· abun. py/po sect. from 1352'-1357' · rel. massive ± wk. sch'ty

1358'-1363' · min. gtz-calc. vns // sch'ty ∠ 1% py ∅'s throughout sect. · vns 3"-6" apart.

% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED	
Tr.	1315.5'	100	BQ	1310'		Tr. PY	29155
				1311'	100		
				1315.5'			
				1316.5'	100		29156
		100		1319'			
				1320.5'	100		29157
				1321.5'	100		29158
	1325.5'						
Tr-1%		100				Tr-1% PY	
	1344'						
		100		1346'	100		29159
				1347'			
				1348'	100		29160
				1349.5'			
		100		1351.5'			
				1352.5'	100		29161
	1358'						
Tr-1%				1358'		Tr-1% PY	
		100			100		29162
	1363'			1363'			
		100					

HOLE NO. JL-82-01 | PROJECT: JIM'S LAKE (A-365) | PAGE NO: 19 OF 21

CASING COLLAR ELEV.: 84' @ 298° from 293 GROUND ELEV.: | DATE STARTED: FEBRUARY 27/82 | REF. TO CLAIM CORNER: "I post 610398 (137' @ 67°)

COORDINATES: on L-88E N. E. | DATE FINISHED: MARCH 11/82 | SCALE: 1" = 10'

INCLINATION: -55° BEARING: 0° | TOTAL DEPTH: 1503' | LOGGED BY: J. W. NEWSOME

SECTION	ALTERATION: ANHYDRITE	ALTERATION: SERPENTINE	ALTERATION: CARBONATE	ALTERATION: SILICIFICATION/TALC	FRACTURING	MINERAL	GEOLOGY	COMMENTS: / DESCRIPTIVE GEOLOGY	AVE CORE REC'Y / HOLE ~100%	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED	
1370	STRONG	WEAK TO NIL	STRONG	MODERATE		Py		**1345'-1503' · CHLORITIZED ANDESITE** · for description see page 18		Tr-1%	1374.3'	100	BQ	1374'	100	Tr-1% Py + min cpy	29163
1380								1374'-1376' · 2" qtz-calc. vn. X-cutting c.a. @ ~70° to sub// to sch'ty (~60°) ± tr. py + min. qtz-calc. vnlts (<2mm) sub// to sch'ty.			1384.2'	100		1376'			
1390						Py		1392'-1392.5' · 2" qtz.-calc. vn. X-cutting core axis @ ~80°			1394'	100		1392' / 1392.5'	100		29164
1400						Py		1400'-1405' · min. qtz-calc vnlts up to 2" wide x-cutting sch'ty (50°-60° to c.a) · random ± 1'-2' apart ± tr. py-cpy.			1408.8'	100		1400'	100		29165
1410						Py		1408'-1410' ± qtz-calc. vnlts up to 1" wide x-cutting sch'ty (~60°) ± tr-1% py throughout section			1413.7'	100		1405' / 1408' / 1410'	100		29166
1420						Py		1415'-1419' · qtz.-serp. vnlts ± ¼" wide // sch'ty ± 2'-6' apart.			1423.5'	100		1415' / 1419'	100		29167
								1422'-1425' · 6" bull qtz + calc. vn. @ 1423' ± min. qtz. calc. vnlts on either side + tr. py.						1422' / 1425'			
								1425'-1430' · random qtz-calc. vnlts up to 2" wide gen. x-cutting sch'ty + tr. py throughout & along vn. margins.				100		1425' / 1430'	100		29168 / 29169

HOLE NO. JL-81-01 | PROJECT: JIM'S LAKE (A-365) | PAGE NO: 20 OF 21

CASING COLLAR ELEV.: 84'@248° from 245 | GROUND ELEV.: | DATE STARTED: FEBRUARY 27/82 | REF. TO CLAIM CORNER: "1 post 610378 (137' @ 67°)

COORDINATES: on L-68E N. E. | DATE FINISHED: MARCH 4/82 | SCALE: 1" = 10'

INCLINATION: -55° | BEARING: 0° | TOTAL DEPTH: 1503' | LOGGED BY: J.W. NEWSOME

SECTION	ALTERATION: CHLORITE	ALTERATION: SERPENTINE	ALTERATION: CARBONATE	ALTERATION: SERICITE/CLAY	FRACTURING	MINERAL	GEOLOGY
1430'	STRONG	NIL	STRONG	MODERATE		py	
1440'			WEAK			py	
1450'						py	
1460'						py	
1470'						py	
1480'			STRONG				

COMMENTS:

AVE CORE REC'Y / HOLE ~100%

DESCRIPTIVE GEOLOGY

1345'-1503' CHLORITIZED ANDESITE

· for description see page 18

1430'-1435' · random gtz.-calc. vns up to 2" wide X-cutting sch'ty @ 1:8" apart + tr. py throughout

1438'-1441' } · thin calc ± gtz vns // to sub// to sch'ty @ 3:6" apart = tr-1% py
1441-1444.5' } throughout · sch'ty @ ~60°-70° to c.a.

· after 1460'. sch'ty ~ 90° to c.a. · appears to be an ash to crystal tuff with crystals greatly stretched along sch'ty = highly chl'z'd.

1459'-1482.5' · after 1465' to 1482' · sect. is slig. silic'd = min. calc. alt'n. · includes grey-white gtz. ± calc vns up to 1" wide @ 2:6" apart gen. 90° to core axis (// to sub// sch'ty) · py □'s & blebs throughout section ranging from 1-5%

1485.5'-1487' · min. gtz-calc. vns 2:6" apart, gen. // sch'ty (90° to c.a.) = 2-3% py □'s throughout section.

% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED	
				1430'			
Tr-1%	1433.4	100	BQ	1435'	100	Tr-1% py	29170
				1438'			
		100			100		29171
	1443.2			1441'	100		29172
				1444.5'			
		100					
	1453'						
		100		1459'			
	1468.9				100	Tr-1% py	29173
				1465'			
1-5%		100		1467.5'	100	1-5% py	29174
	1478.3			1472.5'			
					100		29175
		100		1477.5'			
					100		29176
	1481.6			1482.5'			
				1485.5'			
2-3%		100			100	2-3% py	29177
				1487'			

HOLE NO. JL-82-01

CASING COLLAR ELEV.: 84' @ 248° from 245

GROUND ELEV.:

COORDINATES: on L-88E N. E.

INCLINATION: -55°

BEARING: 0°

PROJECT: JIM'S LAKE (A-365)

DATE STARTED: FEBRUARY 27/82

DATE FINISHED: MARCH 11/82

TOTAL DEPTH: 1503'

REF. TO CLAIM CORNER: #1 post 610398 (137' @ 67°)

SCALE: 1" = 10'

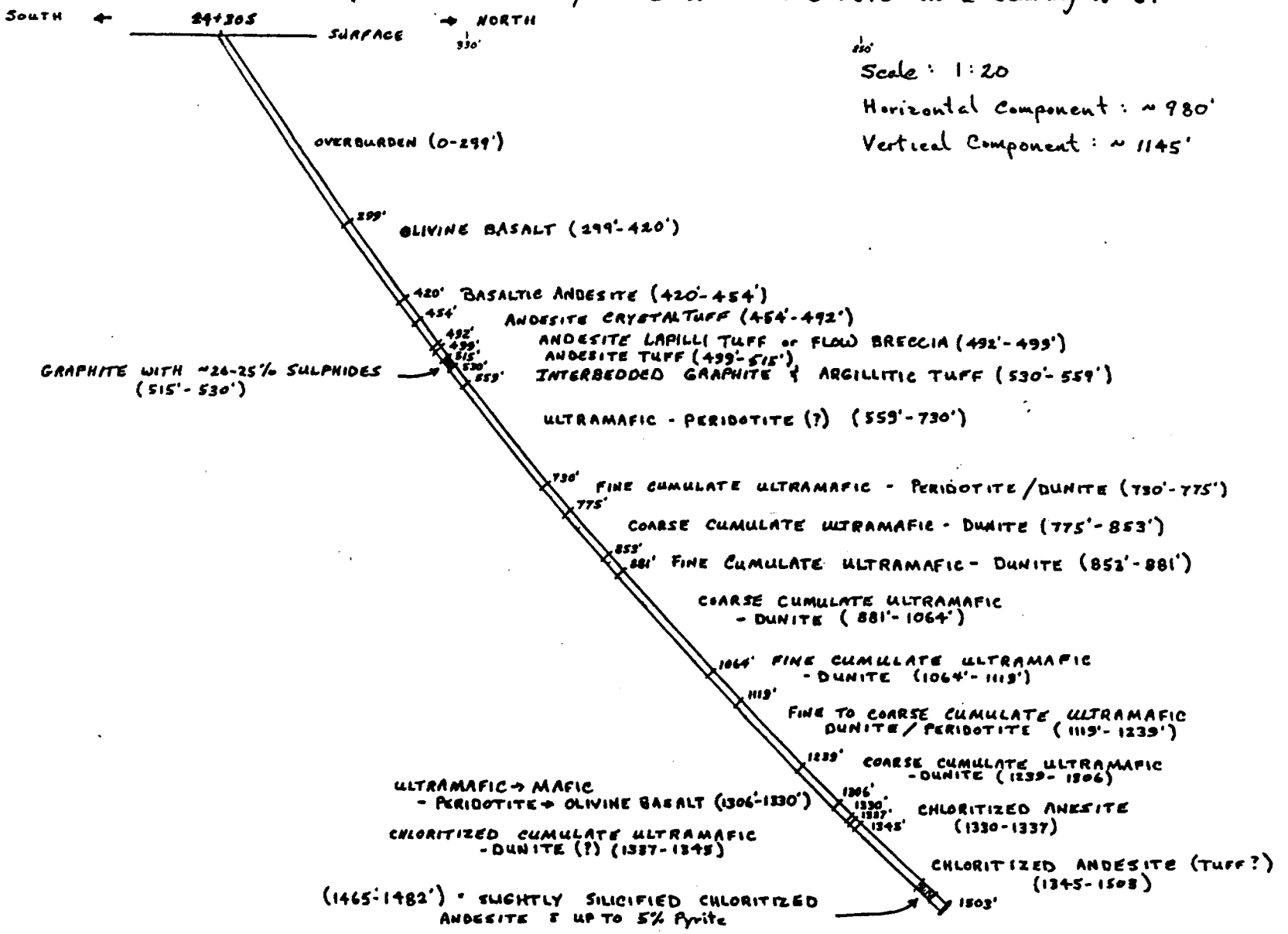
LOGGED BY: J. W. NEWSOME

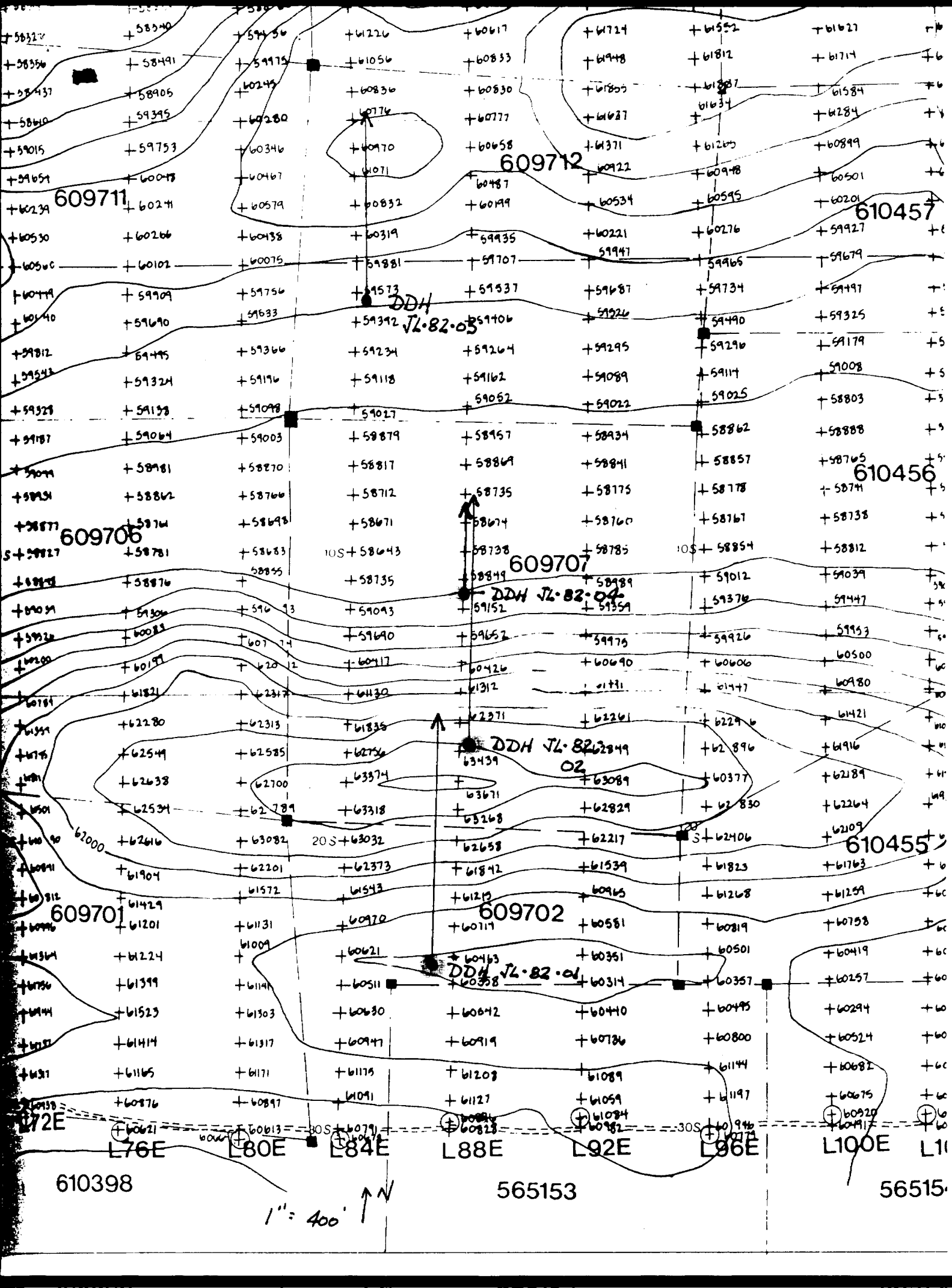
AVE CORE REC'Y / HOLE: ~100%

SECTION	ALTERATION: CHLORITE	SERPENTINE	CARBONATE	SERICITE/TALC	FRACTURING	MINERAL	GEOLOGY	DESCRIPTIVE GEOLOGY	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED	
1490'	STRONG	NIL	STRONG	MODERATE		Py		1345'-1503' CHLORITIZED ANDESITE • for description see page 18 & 20	Tr-1%	1492.7	100		1492.5-1493.5	100	2-3% Py	29178
						Py		1492.5'-1493.5' } min. qtz-calc vns gen. 3-6" apart & // sch'ty = 1497.5'-1498' } 2-3% py throughout sections			100		1497.5-1498'	100	2-3% Py	29179
1500'																
								1502.6' END OF HOLE • 179 samples split for assay.								

D.D. Hole JL-82-01

"collared @ -55°, 137' from claim post #1 of claim 610998 on a bearing of 67°




609711
609712
610457
609706
609707
610456
609701
609702
610455
DDH JL-82-03
DDH JL-82-04
DDH JL-82-02
DDH JL-82-01
62000
L72E
L76E
L80E
L84E
L88E
L92E
L96E
L100E
610398
565153
1" = 400'
N

Ontario Geochemical and Expenditures) Note: — Only days credits calculated in the

Landadmin (file 2.610883) W8308.249 The Mining Act

42A16SW0068 2.5794 MOODY

900

Type of Survey(s)
GEOCHEMICAL (ASSAY RESULTS OF DIAMOND DRILL

Claim Holder
UTAH MINES LTD.

Address
1238 RIVERSIDE DRIVE, TIMMINS, ONTARIO

2.5794

Survey Company
SWASTIKA LABORATORIES LIMITED

Date of Survey (from & to)
01 Day | 01 Mo. | 82 Yr. | 01 Day | 05 Mo. | 82 Yr.

Total Miles of line Cut
—

Name and Address of Author (of Geo-Technical report)

Credits Requested per Each Claim in Columns at right

		Days per Claim
Special Provisions For first survey: Enter 40 days. (This includes line cutting) For each additional survey: using the same grid: Enter 20 days (for each)	Geophysical	
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Man Days Complete reverse side and enter total(s) here	Geophysical	Days per Claim
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	Days per Claim
	Magnetometer	
	Radiometric	

RECEIVED
SEP 1 1983
MINING LANDS SECTION

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
L	610884	13
	610889	40
	610892	40
	610897	40
	610898	40
	610899	40
	610900	40
	610901	40
	610902	40
	610903	40
	610904	40
	610905	40
	610906	40
	610907	40
	610908	40
	610909	40
	610910	40
	610911	40
	610912	40
	610913	40
	610890	40
	610891	40

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.

LARDER LAKE MINING DIV.
RECEIVED
AUG 31 1983
AM 7 8 9 10 11 12 1 2 3 4 5 6 PM

Total number of mining claims covered by this report of work. 22

Expenditures (excludes power stripping)

Type of Work Performed
ASSAY RESULTS, JDH CORE

Performed on Claim(s)
609712, 609702, 609707

Calculation of Expenditure Days Credits

Total Expenditures: $12,800.10 ÷ 15 = Total Days Credits: 863

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
863	AUG 31 1983	
	Date Approved as Recorded	Branch Director
	84.2.17	

Date	Recorded Holder or Agent (Signature)
August 25, 83	D. McIvor.

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying
DUNCAN McIVOR, 1238 RIVERSIDE DR., TIMMINS, ONT.

Date Certified	Certified by (Signature)
August 25, 83	Duncan McIvor.

Ministry of Natural Resources
Ontario

Geotechnical Report Approval

File 2.5794

Mining Lands Comments

You wished to see this again.

☐ To: Geophysics

Comments

☐ Approved ☐ Wish to see again with corrections	Date	Signature

☑ To: Geology - Expenditures Mr. C. Kustra.

Comments

☑ Approved ☐ Wish to see again with corrections	Date Feb/14/84	Signature C Kustra

☐ To: Geochemistry

Comments

L.D.

☐ Approved ☐ Wish to see again with corrections	Date	Signature

☐ To: Mining Lands Section, Room 6462, Whitney Block. (Tel: 5-1380)

1593 (81/10)

2.5794

UTAH MINES LTD.

MINERAL EXPLORATION
1238 RIVERSIDE DR., TIMMINS, ONTARIO P4R 1A4
(705) 264-7221

January 9, 1984

Mr. E.F. Anderson
Director, Land Management Branch
Whitney Block
Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3

Dear Mr. Anderson;

As per your letter, (enclosed, Dec.12, 1983), please find enclosed, in duplicate, maps outlining the location of the drill holes in question, and maps outlining the location of the property on which they were drilled. Note please that on my original 'Report of Work' form filed last August for the assay data, I indicated that you already had maps outlining these hole locations, which were enclosed with the original filing of the drill hole logs. The omission was a conscious effort to reduce your 'paper jam'. However, in light of the results, all future work being filed will contain the appropriate maps, regardless of their redundant nature.

Yours Truly
Duncan McIvor

Duncan F. McIvor
Geologist/Timmins

Encl/3

DFM/ps

December 12, 1983 2.5794

Utah Mines Limited
1238 Riverside Drive
Timmins, Ontario
P4R 1A4

Attention: Duncan McIvor

Dear Sir:

RE: Assaying submitted on Mining Claims L 610884 et al in the Township of Moody, Galna, Knox and Kers

---

Please provide:

a) a map outlining the location of drill holes, including claim lines and claim numbers and other topographical features

b) a key map outlining the location of the property with respect to township boundaries, established reference lines or points or topographic features. This map should be inserted in one corner of the above map or inserted separately in the report.

For further information, please contact Mr. F.W. Matthews at (416)965-1380.

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone:(416)965-1380

M. Anderson:mc

cc: Mining Recorder
Kirkland Lake, Ontario

Encl.

Ministry of Natural Resources
Ontario

Geotechnical Report Approval

File 2.5794

Sept 15

Mining Lands Comments

[ ]To: Geophysics

Comments

[ ]Approved [ ]Wish to see again with corrections | Date | Signature

[X]To: Geology - Expenditures C. Kusha

Comments

need key map showing location of property and a map showing location of drill holes

[ ]Approved [✓]Wish to see again with corrections | Date Oct 25/83 | Signature C Kusha

[ ]To: Geochemistry

Comments

[ ]Approved [ ]Wish to see again with corrections | Date | Signature

[ ]To: Mining Lands Section, Room 6462, Whitney Block. (Tel: 5-1380)

1593 (81/10)

248

2.5794

1983 09 14

Mr. George J. Koleszar
Mining Recorder
Ministry of Natural Resources
4 Government Road East
P.O. Box 984
Kirkland Lake, Ontario
P2N 1A2

Dear Sir:

We have received data for Assaying submitted under Section 77(19) of The Mining Act R.S.O. 1980 for mining claims L 610884 et al in the Townships of Moody, Galna, Knox and Kerrs.

This material will be examined and assessed and a statement of assessment work credits will be issued.

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone:(416)965-1380

A. Barr:mc

cc: Utah Mines Ltd
1238 Riverside Drive
Timmins, Ontario
P4R 1A4
Attention: Duncan McIvor

5703

SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0 TELEPHONE: (705) 642-3244

SOLD TO

Utah Mines Limited
1238 Riverside Drive
Timmins, Ontario
P4R 1A4

Att'n: Mr. L. Godbout

SHIP TO

DATE	SHIPPED VIA	FED LICENCE NO	PROV LICENCE NO	YOUR ORDER NO	OUR ORDER NO	TERMS	SALESMAN
Apr.13/82				A-365		Net 30 days	

QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
40	As Assays PPM Cert. No. 53147-A Apr.12/82	$ 5.00	$ 200.00
	Bus charges - Y077702 Y077703 Y065952 Y065953 Y074590 X048741 Y065884		83.80

RECEIVED
SEP 13 1983
MINING LANDS SECTION

J.W. Newsome
A-365

TOTAL ..... $ 283.80

MOORE BUSINESS FORMS 3 7060E

FACTURE / INVOICE

ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS
ESTABLISHED 1928

Ontario Northland BPX Serv.

Ontario Northland TRANSPORTATION COMMISSION

Y065953

DESTINATION STATION [illegible] PROV. [illegible]

CONSIGNEE [illegible]

STREET ADDRESS

NO. OF PIECES 3 PKG. BOX ENV. SACK BGGE. CTN. OTHER

CONTENTS

SHIPPER'S NAME [illegible]

STREET ADDRESS

ORIGIN CITY & PROV. [illegible]

PHONE

FORWARDING AGENT

TIME AM PM

MONTH 7 DAY 29 YEAR 82

CHARGE ACCOUNT | ACTUAL WEIGHT 120 LBS. | TARIFF WEIGHT LBS. | DECLARED VALUE $ | MAX VALUE CANNOT EXCEED $50.00

RECEIVED AT DESTINATION STATION DATE TIME AM PM

RECEIVED IN GOOD ORDER UNLESS SPECIFIED X [signature]

COMPANY	TO		
		EXPRESS CHARGES	$ 10.91
		CHARGES ADVANCED	$ 1.10
		PICKUP CHARGES	$
		DELIVERY CHARGES	$
		VALUE CHARGES	$
		TOTAL TO COLLECT	$ 12.01

LIABILITY LIMITED TO $50.00 UNLESS GREATER VALUE DECLARED AND EXCESS CHARGE PAID.
SHIPPER'S SIGNATURE

NO. DATE AMOUNT

(NON-NEGOTIABLE) EXPRESS RECEIPT

PULL HERE

5. CONSIGNEE'S RECEIPT **COLLECT**

LIABILITY LIMITED TO $50.00 FOR LOSS OR DAMAGE HOWSOEVER OCCASIONED UNLESS A GREATER VALUE DECLARED AND EXPRESS AND OTHER CHARGES PAID FOR AT THE TIME OF SHIPPING. EXP.

Ontario Northland BPX Ser

Ontario Northland TRANSPORTATION COMMISSION

Y 074590

DESTINATION STATION [illegible] PROV.

CONSIGNEE LRB

STREET ADDRESS

NO. OF PIECES 5 PKG. BOX ENV. SACK BGGE. CTN. OTHER

CONTENTS

SHIPPER'S NAME UTAH MINES

STREET ADDRESS

ORIGIN CITY & PROV [illegible]

PHONE

FORWARDING AGENT

TIME AM PM

MONTH 8 DAY 18 YEAR 82

CHARGE ACCOUNT | ACTUAL WEIGHT 130 LBS | TARIFF WEIGHT LBS | DECLARED VALUE $ | MAX VALUE CANNOT EXCEED $50.00

RECEIVED AT DESTINATION STATION DATE TIME AM PM

RECEIVED IN GOOD ORDER UNLESS SPECIFIED X

COMPANY	TO		
		EXPRESS CHARGES	$ 14.90
		CHARGES ADVANCED	$
		PICKUP CHARGES	$
		DELIVERY CHARGES	$
		VALUE CHARGES	$ 1.56
		TOTAL TO COLLECT	$ 16.46

LIABILITY LIMITED TO $50.00 UNLESS GREATER VALUE DECLARED AND EXCESS CHARGE PAID.
SHIPPER'S SIGNATURE

NO. DATE AMOUNT

4. DELIVERY RECEIPT **COLLECT**

LIABILITY LIMITED TO $50.00 FOR LOSS OR DAMAGE HOWSOEVER OCCASIONED UNLESS A GREATER VALUE DECLARED AND EXPRESS AND OTHER CHARGES PAID FOR AT THE TIME OF SHIPPING. E

Ontario Northland BPX Service

Ontario Northland TRANSPORTATION COMMISSION

X048741

DESTINATION STATION Timmins Ont PROV

CONSIGNEE Utah mines Ltd

STREET ADDRESS C/O Bus Stn

NO. OF PIECES 1 PKG BOX ENV SACK BGGE CTN. OTHER

CONTENTS

SHIPPER'S NAME [illegible]

STREET ADDRESS [illegible] Ont

ORIGIN CITY & PROV

PHONE 264-7221

FORWARDING AGENT

TIME 5 PM

MONTH 3 DAY 30 YEAR 82

CHARGE ACCOUNT | ACTUAL WEIGHT LBS | TARIFF WEIGHT LBS | DECLARED VALUE $ | MAX VALUE ACCEPTED $500.00

RECEIVED AT DESTINATION STATION DATE TIME AM PM

RECEIVED IN GOOD ORDER UNLESS SPECIFIED

COMPANY	TO		
		EXPRESS CHARGES	$ 5.35
		CHARGES ADVANCED	$
		PICKUP CHARGES	$
		DELIVERY CHARGES	$
		VALUE CHARGES	$
		TOTAL PREPAID	$ 5.35

LIABILITY LIMITED TO $50.00 UNLESS GREATER VALUE DECLARED AND EXCESS CHARGE PAID
SHIPPER'S SIGNATURE
X

NO DATE AMOUNT

NON-NEGOTIABLE EXPRESS RECEIPT

1. SHIPPER'S RECEIPT **PREPAID**

LIABILITY LIMITED TO $50.00 FOR LOSS OR DAMAGE HOWSOEVER OCCASIONED UNLESS A GREATER VALUE DECLARED AND EXPRESS AND OTHER CHARGES PAID FOR AT THE TIME OF SHIPPING. EXP.1

~~065~~	063266 5703	04 13 82	283.80	.00	283.60

TOTALS	283.80	.00	283.80

INQUIRIES: UTAH MINES LTD.
1050 WEST PENDER ST
EXPLORATION DEPT
VANCOUVER, B C V6E 3S7 (604) 683-6921

037437 37437

063266 04-22-82 ******283.80

****
SWASTIKA LABORATORIES LTD
P.O. BOX 10
SWASTIKA, ONTARIO
P0K1T0

NON-NEGOTIABLE

⑈037437⑈ ⑆00010⑈010⑆92⑈03117⑈

A-65 025 $200.00
A365 006 83.80
$283.80

5744

SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0 TELEPHONE: (705) 642-3244

SOLD TO

Utah Mines Limited
1238 Riverside Drive
Timmins, Ontario
P4R 1A4

SHIP TO

DATE	SHIPPED VIA	FED. LICENCE NO.	PROV. LICENCE NO.	YOUR ORDER NO.	OUR ORDER NO.	TERMS	SALESMAN
Apr. 23/82				A-365		Net 30 days	

QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
74	As Assays PPM Cert. No. 53199-A H. Newsome	$ 5.00	$ 370.00
11	As Aasays PPM Cert. No. 53212-A	5.75	63.25
45	As Assays PPM Cert. No. 53213-A	5.75	258.75
		TOTAL	$ 692.00

F.W. Newsome
A-365

MOORE BUSINESS FORMS 3 7060E

ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

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Timmins, Ontario
P4R 1A4
Att'n: Mr. L. Godbout

SHIP TO

DATE	SHIPPED VIA	FED. LICENCE NO.	PROV. LICENCE NO.	YOUR ORDER NO.	OUR ORDER NO.	TERMS	SALESMAN
Apr.22/82				A-365		Net 30 days	

QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
34	Au Ag Assays	$ 16.00	$ 544.00
10	Cu Ni Zn Assays	17.25	172.50
34	Sample Handling	2.75	93.50
	Cert. No. 53244 Apr.20/82 J.W. Newsome		

J.W. Newsome
A-365

TOTAL ..... $ 810.00

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FACTURE / INVOICE

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1238 Riverside Drive
Timmins, Ontario
P4R 1A4
Att'n: Mr. L. Godbout

SHIP TO

DATE	SHIPPED VIA	FED LICENCE NO	PROV LICENCE NO	YOUR ORDER NO	OUR ORDER NO	TERMS	SALESMAN
Apr.16/82				A-365		Net 30 days	

QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
12	Geochem Pd assays Cert. No. 53182-A Apr.16/82	$ 8.00	$ 96.00
	J. W. Nguthame A. 365		
	TOTAL		$ 96.00

MOORE BUSINESS FORMS 3 7060E

ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

FACTURE / INVOICE

ESTABLISHED 1928

37546

84	063266 5729	04 16 82	96.00	.00	96.00
	5741	04 22 82	810.00	.00	810.00
	5744	04 23 82	692.00	.00	692.00

TOTALS	1,598.00	.00	1,598.00

INQUIRIES: UTAH MINES LTD.
1050 WEST PENDER ST
EXPLORATION DEPT
VANCOUVER, B C V6E 3S7 (604) 683-6921

037546 37546

063266 05-03-82 ****1,598.00

****
SWASTIKA LABORATORIES LTD
P.O. BOX 10
SWASTIKA, ONTARIO
P0K1T0

NON-NEGOTIABLE

⑈037546⑈ ⑆00010⑆010⑆92⑆03117⑈

5734

SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0 TELEPHONE: (705) 642-3244

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Utah Mines Limited
1238 Riverside Drive
Timmins, Ontario
P4R 1A4
Att'n: Mr. L. Godbout

SHIP TO SAME

DATE	SHIPPED VIA	FED. LICENCE NO	PROV. LICENCE NO	YOUR ORDER NO	OUR ORDER NO	TERMS	SALESMAN
Apr.19/82				A-365		Net 30 days	

QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
45	Au Assays	$ 8.00	$ 360.00
45	Ag Cu Ni Zn Assays	25.25	1136.25
45	Sample Handling	2.75	123.75
	Cert. No. 53239 Apr.19/82 H. Newsome		
	J.W. Newsome A-365		
	TOTAL.....		$ 1620.00

MOORE BUSINESS FORMS 3 7060E

ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

FACTURE / INVOICE

ESTABLISHED 1928

5733

SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0 TELEPHONE: (705) 642-3244

SOLD TO

Utah Mines Limited
1238 Riverside Drive
Timmins, Ontario
P4R 1A4

Att'n: Mr. L. Godbout

SHIP TO

DATE	SHIPPED VIA	FED. LICENCE NO	PROV. LICENCE NO	YOUR ORDER NO	OUR ORDER NO	TERMS	SALESMAN
Apr.19/82				A-365		Net 30 days	

QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
69	As Assays PPM Cert. No. 53182-B Apr.16/82 H. Newsome	$ 5.00	$ 345.00
	J. W. Newsome A-365		
	TOTAL		$ 345.00

MOORE BUSINESS FORMS 3 7060E

ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

FACTURE / INVOICE

ESTABLISHED 1928

CTA

37590

845	063266	5733	04 19 82	345.00	.00	345.00
		5734	04 19 82	1,620.00	.00	1,620.00

	TOTALS	1,965.00	.00 1,965.00

INQUIRIES: UTAH MINES LTD.
1050 WEST PENDER ST
EXPLORATION DEPT
VANCOUVER, B C V6E 3S7 (604) 683-6921

037590 37590

063266 05-04-82 ****1,965.00

****
SWASTIKA LABORATORIES LTD
P.O. BOX 10
SWASTIKA, ONTARIO
POK1TO

[illegible]

A365 025

5767

SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0 TELEPHONE: (705) 642-3244

SOLD TO

Utah Mines Limited
1238 Riverside Drive
Timmins, Ontario
P4R 1A4

SHIP TO

DATE	SHIPPED VIA	FED LICENCE NO	PROV LICENCE NO	YOUR ORDER NO	OUR ORDER NO	TERMS	SALESMAN
May 4/82						Net 30 days	

QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
28	Au Ag Assays	$16.00	$ 448.00
28	Sample Handling	2.75	77.00
	Cert. No. 53267 Apr.30/82 H. Newsome		
	Bus charges -- Y066071 Y066072 Y066105		45.00
	J. W. Newsome A. 365		
	TOTAL		$ 570.00

MOORE BUSINESS FORMS 3 7060E

ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

FACTURE / INVOICE

ESTABLISHED 1928

37750

45	063266 5767	05 04 82	570.00	.00	570.00

TOTALS	570.00	.00	570.00

INQUIRIES: UTAH MINES LTD. EXPLORATION DEPT
1050 WEST PENDER ST VANCOUVER, B C V6E 3S7 (604) 683-6921

037750 37750

063266 05-20-82 ******570.00

****
SWASTIKA LABORATORIES LTD
P.O. BOX 10
SWASTIKA, ONTARIO

POKITO

NON-NEGOTIABLE

"037750" :000010=010:92=03117"

5726

SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0 TELEPHONE: (705) 642-3244

SOLD TO

Utah Mines Limited
1238 Riverside Dr.
Timmins, Ontario
P4R 1A4

SHIP TO

DATE	SHIPPED VIA	FED. LICENCE NO	PROV. LICENCE NO	YOUR ORDER NO	OUR ORDER NO	TERMS	SALESMAN
Apr.15/82				A-365		Net 30 days	

QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
34	As Assays PPM Cert. No. 53151-A Apr.13/82 H. Newsome	$ 5.00	$ 170.00

J. W. Newsome
A-365
(May 13)

TOTAL ..... $ 170.00

MOORE BUSINESS FORMS 3 7060E

ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

FACTURE / INVOICE

ESTABLISHED 1928

5699

SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0 TELEPHONE: (705) 642-3244

SOLD TO

Utah Mines Limited
1238 Riverside Dr.
Timmins, Ontario
P4R 1A4
Att'n: Mr. L. Godbout

SHIP TO

DATE	SHIPPED VIA	FED. LICENCE NO.	PROV. LICENCE NO.	YOUR ORDER NO.	OUR ORDER NO.	TERMS	SALESMAN
Apr.8/82				A-365		Net 30 days	

QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
74	Au Ag Assays	$ 14.50	$ 1073.00
74	Sample Handling	2.50	185.00
	Cert. No. 53199		
11	Au Assays	8.00	88.00
11	Ag Cu Ni Pb Zn Assays	31.00	341.00
11	Sample Handling	2.75	30.25
	Cert. No. 53212 Apr.6/82		
47	Au Ag Assays	16.00	752.00
47	Sample Handling	2.75	129.25
	Cert. No. 53213 Apr.8/82		
	TOTAL		$ 2598.50

RECEIVED
APR 13 1982

J.W.N
A.365

MOORE BUSINESS FORMS 3 7060E

ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

FACTURE / INVOICE

ESTABLISHED 1928

5669

SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0 TELEPHONE: (705) 642-3244

SOLD TO

Utah Mines Limited
1238 Riverside Drive
Timmins, Ontario
P4R 1A4
Att'n: Mr. L. Godbout

SHIP TO

DATE	SHIPPED VIA	FED LICENCE NO	PROV LICENCE NO	YOUR ORDER NO	OUR ORDER NO	TERMS	SALESMAN
Apr.5/82				A-365		Net 30 days	

QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
1	S.Q. Pt Pd Assay Cert. No. 53151-A Apr.1/82 H. Newsome	$ 38.00	$ 38.00
69	Au Assays	7.25	500.25
69	Ag Cu Ni Pb Zn Assays	29.25	2018.25
69	Sample Handling Cert. No. 53182 Apr.2/82 H. Newsome	2.50	172.50
	TOTAL		$ 2729.00

RECEIVED APR 3 1982

J. W. N.
A 365

MOORE BUSINESS FORMS 3 7060E

ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

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845	063266	5669	04 05 82	2,729.00	.00	2,729.00
		5699	04 08 82	2,598.50	.00	2,598.50
		5726	04 15 82	170.00	.00	170.00

	TOTALS	5,497.50	.00 5,497.50

INQUIRIES: UTAH MINES LTD.
EXPLORATION DEPT
1050 WEST PENDER ST
VANCOUVER, B C V6E 3S7 (604) 683-6921

037490 37490

063266 04-27-82 ****5,497.50

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SWASTIKA LABORATORIES LTD
P.O. BOX 10
SWASTIKA, ONTARIO

POKITO

NONNEGOTIABLE

"037490" :000010=010:92=03117"

A365 025

5655

SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0 TELEPHONE: (705) 642-3244

SOLD TO

Utah Mines Limited
1238 Riverside Dr.
Timmins, Ontario
P4R 1A4

SHIP TO

DATE	SHIPPED VIA	FED. LICENCE NO	PROV. LICENCE NO	YOUR ORDER NO	OUR ORDER NO	TERMS	SALESMAN
Mar.26/82				A-365		Net 30 days	

QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
40	Au Assays	$ 7.25	$ 290.00
40	Ag Cu Ni Pb Zn Assays	29.25	1170.00
40	Sample Handling	2.50	100.00
	Cert. No. 53147 Mar.24/82		
34	Au Assays	7.25	246.50
34	Ag Cu Ni Pb Zn Assays	29.25	994.50
34	Sample Handling	2.50	85.00
	Cert. No. 53151 Mar.26/82		
	J. W. Newsome		
	A-365		
	TOTAL		$ 2886.00

MOORE BUSINESS FORMS 3 7060E

ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

FACTURE / INVOICE

ESTABLISHED 1928

~~845~~	063266	5638	03 23 82	32.50	.00	32.50
		5655	03 26 82	2,886.00	.00	2,886.00
		5656	03 26 82	1,273.00	.00	1,273.00
		5680	04 05 82	804.00	.00	804.00

TOTALS	4,995.50	.00	4,995.50

INQUIRIES: UTAH MINES LTD.
1050 WEST PENDER ST
EXPLORATION DEPT
VANCOUVER, B C V6E 3S7 (604) 683-6921

037402 37402

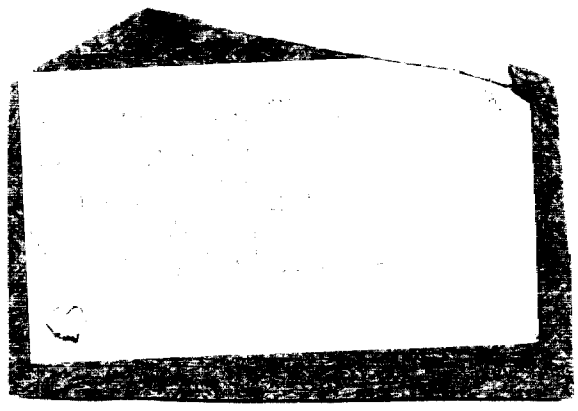
063266 04-20-82 ****4,995.50

****
SWASTIKA LABORATORIES LTD
P.O. BOX 10
SWASTIKA, ONTARIO
P0K1T0

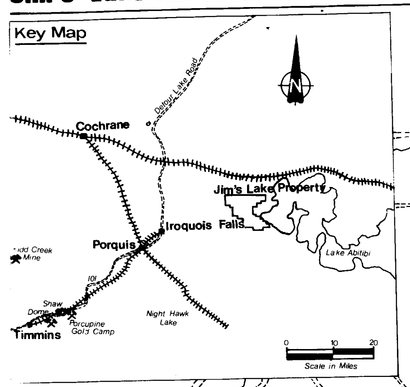
NON-NEGOTIABLE

⑈037402⑈ ⑆00010⑉010⑆92⑉03⑊⑊7⑈

A365 025



Jim's Lake Assessment Work Location Map



Bingle Road

Utah Camp Site

Trail Lake

North Grid

Base Line

DROPPED, 1983

DROPPED, 1983

Jim's

Dokis River

DROPPED, 1983

Camp Three Bay

Camp Three Bay Lake

Lake Abitibi

Moody Township

Galna Township

Base Line

South East Grid

Abitibi River

Knox Township

Kerrs Township

Abitibi River

Abitibi River

Abitibi River

0 1/4 1/2 3/4
Scale in Miles