

COMINCO LTD.

EXPLORATION

NTS: 9205E

WESTERN DISTRICT

ASSESSMENT REPORT

on

DIAMOND DRILLING

TK 3 to TK 6, TK 8, TK 30 to 33, TK 35, TK 61, TK 62

MINERAL CLAIMS AT FISH LAKE

RECORD NO'S.

30883 to 86, 30888, 30910 to 13, 30915, 30991-42

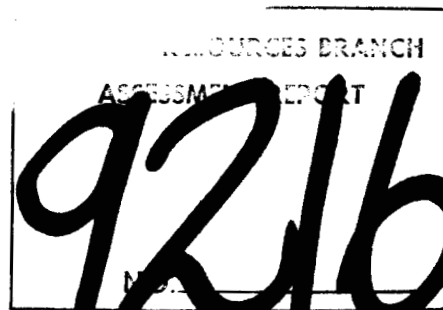
CLINTON MINING DIVISION

LATITUDE: 51° 28'; LONGITUDE: 123° 37'

OWNERS/OPERATOR: Bethlehem Copper Corporation  
2100 - 1055 W. Hastings Street, Vancouver

Cominco Ltd.  
700 - 409 Granville Street., Vancouver

WORK DATES: January 16 - March 26, 1981



MAY 1981

A. PAUWELS

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\* \* \*

Appendix I - Author's Qualification

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\* \* \*

Figure 1: Fish Lake - Location - 1:10,000,000	In Text
2: Fish Lake - Location - 1: 50,000	In Pocket
3: Drill Hole - Location - 1: 2,500	In Pocket
4: Drill Hole - Location - 1: 2,500	In Pocket

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CLINTON MINING DIVISION

LATITUDE: 51<sup>0</sup> 28'; LONGITUDE: 123<sup>0</sup> 37'

I. INTRODUCTION

The Fish Lake property is located 90 miles southwest of Williams Lake, B.C. (see Figure 1, 2). The area is accessible by gravel road via Hanceville to the Davidson bridge on Taseko River. From the Davidson bridge, a 18 km rough gravel road reaches Fish Lake. The property is situated on the Fraser Plateau 10 miles east of the edge of the Coast Mountains. Topography on the claims is gentle and elevation averages 1,450 m above sea level.

II. HISTORY

The history of the property goes back to 1935, when prospector Vic Calep located small gold bearing outcrops 1 miles north of Fish Lake.

In 1962 - 1964, Phelps Dodge staked the Fish Lake area and did extensive geochemical surveys and drilling. Low grade copper-gold mineralization was found in the valley of Fish Creek, 1 miles northwest of Fish Lake. Taseko Mines acquired the area in 1967 and did some additional drilling and geophysical surveys.

In 1973 - 1974, Quintana Minerals optioned the property from Taseko Mines and drilled approximately 20,000' in the area of low grade copper-gold mineralized. Quintana located several tens of millions of tons grading 0.25% Cu and 0.014 oz/t Au.

In 1979 an agreement was reached between Bethlehem Copper Corporation and Taseko Mines. In 1979 and 1980 2,264 m of percussion drilling was completed in 33 holes east of the zone drilled by Quintana minerals. In 1981 Bethlehem drilled 8,691.2 m (31 holes) in the area drilled by Quintana Minerals. The purpose of the drilling programme was to measure the extend of the low grade

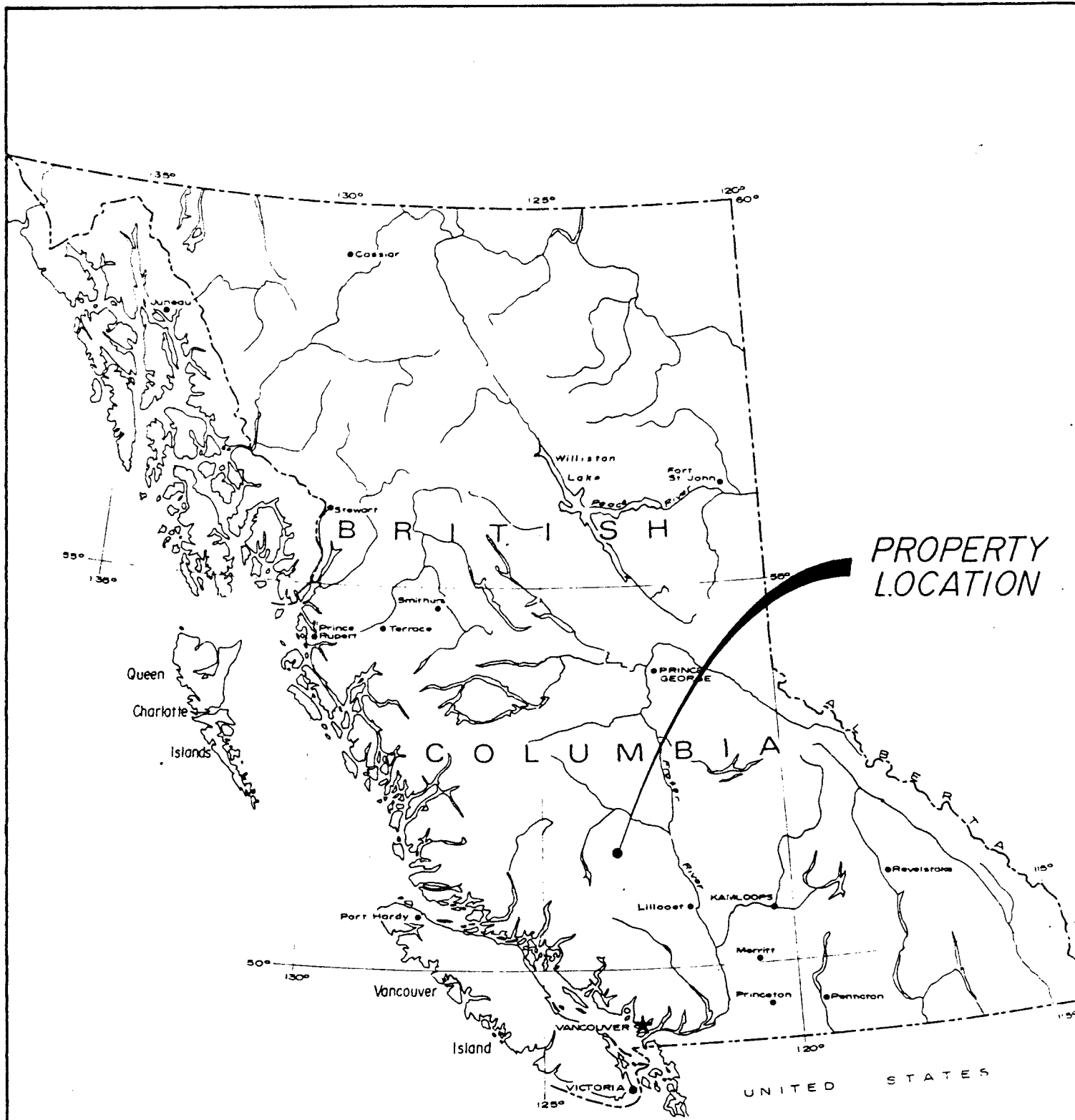
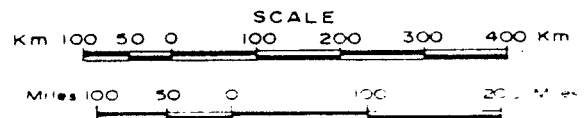


FIGURE 1  
 FISH LAKE PROPERTY  
 CLINTON M.D.  
 92 0-5/E



2.

copper-gold mineralization to a vertical depth of 300 m at 100 m centers. A smaller amount of drilling (923.8 m, seven holes) was done to test the Gold mineralization originally located in 1935 east of the low grade Cu-Au mineralization.

### III. DRILLING

Drilling in 1981 (16 January - 26 March) was done with two machines, a Longyear 38 and a Longyear 44 by J.T. Thomas drilling Ltd. of Smithers, B.C. All drill core was NQ size. Most drill holes were inclined 60° to the north. Sperrysun tests were done in most holes to measure the actual dip and direction. Six holes (labelled Q81- ) were deepenings of vertical holes drilled by Quintana Minerals in 1973 - 1974. Seven holes were done over the gold bearing zones. These holes were drilled at -45° to the southwest and northwest.

The drill holes were logged by Ms. N. Wilson, B.Sc., Geologist, Mr. R. Simpson, B.Sc., Geologist and A.M. Pauwels, B.Sc., Geologist. The core logging and drill programme was supervised by A. Pauwels.

All core was split and assayed for Au, Ag (fire assays) and Cu by Cantest Laboration of 1650 Pandora Street, Vancouver, B.C. Some of the core was also assayed for molybdenum, arsenic and mercury.

All drill core is stored on the property, 1 mile northwest of Fish Lake, on steel racks.

Drill hole data and description of the core are recorded on the drill log data sheets in Appendix II.

Drill hole locations and claims are on Figures 3 and 4.

#### a) Expenditures

The total drilling cost as per invoices by J.T. Thomas drilling is: \$989,710.82


$$\frac{\$989,710.83}{9,616.52\text{m}} = 102.92 \text{ \$/meter}$$

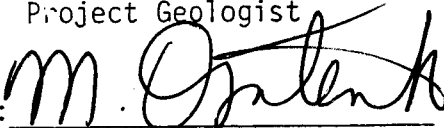
#### b) Cost Distribution Per Claim

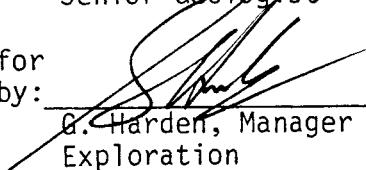
The following table indicates amounts drilled per claim. Holes located in more than one claim were proportioned to each claim according to the dip.

Claim location were obtained from surveys done by McElhanney and Associates in 1980 and 1981.

<u>Claim Name</u>	<u>Holes</u> * Indicates part of hole	<u>Total Meters</u>	<u>\$ at 102.92./m</u>
TK3	FL81-15*,20,30*	270.32	27,823.50
TK4	FL81-3*,5,7,15*,20 FL81-23,24,30*		
	Q81-14	2,087.27	214,838.52
TK5	FL81-10*,12,13*,18	779.22	80,203.56
TK6	FL81-1,3*,4,6 FL81-8*,9,10*,13*		
	FL81-15,17,18 Q81-2,8,12	2,944.85	303,107.52
TK8	FL8-8*,13*		
	Q81-13	402.19	41,396.61
TK31	FL81-7	52.26	5,379.01
TK33	FL81-2,9,11,14* FL81-16*,19,31		
	Q81-9	1,895.06	195,054.7
TK35	FL81-14*,16*	260.52	26,808.6
TK30)	FL81-21,22,25	923.85	95,090.03
TK32)			
TK61)			
TK62)			
FL3 )			

Report by:   
A. Pauwels  
Project Geologist

Endorsed by:   
M.J. Osatenko  
Senior Geologist

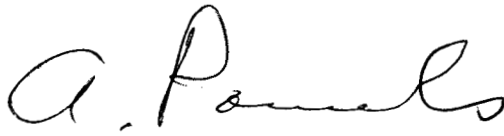
Approved for  
Release by:   
G. Harden, Manager  
Exploration  
Western District

APPENDIX I

AUTHOR'S QUALIFICATIONS

Andre M. Pauwels, 4900 Mariposa Court, Richmond, B.C. hereby declare's that I:

1. Graduated from State University of Ghent, Belgium with a B.Sc., Geology in July, 1970.
2. Have been engaged in mineral exploration as a geologist:
  - in Ontario from September, 1970 till April, 1972 with Union Minière Explorations and Mining Corporation Limited.
  - in British Columbia and Yukon Territories since May, 1972 till December, 1980 with Union Minière Exploration and Mining Corporation Limited.
  - with Bethlehem Copper Corporation from January till May 1, 1981.
  - presently with Cominco Limited since May 1, 1981.
3. Was engaged from 1970 till present in numerous geochemical, geophysical and drilling programmes for mineral explorations in Ontario, British Columbia and the Yukon Territories.
4. Am a fellow of the Geological Association of Canada and member of the Association of exploration geochemist.



A.M. Pauwels  
Geologist

Dated this 28 day of May, 1981,  
at Vancouver, British Columbia.

APPENDIX II





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COPPER  
CORPORATION

## GENERAL DRILL HOLE LOG

Latitude: 9,939.2	Hole No. Q81-2
Departure: 10,146.0	Commenced: Jan 24/81
Elevation: 1,245.7	Completed: Jan. 25/81
Length: 227.69 m	Logged by: NJW
Overburden:	Sheet No. <u>1</u> of <u>1</u>
Az. Dip: <u>90°</u>	Claim: <u>TKG</u>

Contractor: J. T. Thomas

Drill Type: L 44 W/L

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOV
	Cp	Py	Other	OXIDE	EP	CL	MS	KN	BI	OTHER		Cu	Au	Ag	Mo		
This hole is a deepening of Q74-2.											209.09 <sub>10</sub> 212.09 FL 0165						
209.09-211.78 m. Fault Gouge. Rock is ground pebbles with flour.											212.09 <sub>10</sub> 215.09 FL 0166	0.24	.009	.06			
Some kaolin.											215.09 <sub>10</sub> 218.09 FL 0167	0.21	.010	.06			
211.78-223.39 m. Silicified Diorite. Rock is pale grey to red, fine-grained											218.09 <sub>10</sub> 221.09 FL 0168	0.25	.014	.04			
with chlorite (after biotite) blebs. Some disseminated pyrite. Some chalco blebs in quartz veinlets at 30° to vca. Some shears subparallel to vca. Gypsum veinlets infrequent at 80° to vca. Carbonate in some veinlets & in gouge. Some gypsum towards base at 40° to vca.	x	x									221.09 <sub>10</sub> 223.39 FL 0169	0.28	.009	.03			
											223.39 <sub>10</sub> 226.39 FL 0170	0.42	.024	.05			
											226.39 <sub>10</sub> 227.69 FL 0171	0.31	.016	.05			
											to						
											to						
223.39-227.69 m. Andesite. Pale green grading downwards to darker green. Hematite on fractures and disseminated throughout core after pyrite. Occasional clots of biotite.					hem		M		W		to						
											to						
											to						
											to						
227.69 m. End of Hole. 380 ft of NQ rods left in hole.											to						
											to						
No Sperry-Sun Test.											to						

MD



BETHLEHEM  
COPPER  
CORPORATION

GENERAL DRILL HOLE LOG

Latitude: 10,056.28	Hole No. FL81-1
Departure: 10,198.72	Commenced: Jan. 16/81
Elevation: 1,446.9	Completed: Jan. 21/81
Length: 352.65	Logged by: N. Wilson
Overburden: 33.5m	Sheet No. 1 of 9

Contractor: J. T. THOMAS

Drill Type: Longyear 44

Core Size: NQ

Az. 000° Dip: 60°

Claim: TK6,

GENERAL DESCRIPTION (GEOLOGY)	MINERALIZATION ALTERATION										HOLE DEPTH TAG NO.	ASSAYS %					% RECOV
	SULPHIDES			ALTERATION								Cu	Au	Ag	Mo		
	Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI	OTHER							
33.5m - 54.4 Diorite											33.5 to 36.0	.51	.028	.04			
33.5m - 40.7m Moderately altered and bleached rock. Numerous hairline veinlets. Silica influx. Occasional hematite on fractures. Some pyrite on fractures. Core broken, Occ-vugs.	X	X		hem.		X	X	X	X		0001FL 36.0 to 39.0 0002FL	.37	.020	.03			
37.48m - 4cm pyrite vein.										veinlets 20-40° to vca.	42.0 to 45.0 0003FL	.43	.024	.03			84
40.7m - 54.4m											45.0 to 48.0 0005 FL	.38	.021	.05			
Similar to above but not ubiquitously bleached. Bleached envelopes along fractures decreasing with depth. Silicification decreases and chlorite decreases. Fs are still kaolinized and pyrite is on most fractures. Occasional relict feldspar with diffuse borders. Occasional pyrite-filled fractures parallel to vca.	X	X		hem.		X		X	X	veinlets 20°	48.0 to 51.0 0006FL 51.0 to 54.0 0007FL 54.0 to 57.0 0008FL	.26	.010	.02			
54.4m-56.4m Feldspar Porphyry Feldspars vary from almost sharp to ghosts. Some pyrite on fractures. Lower contact brecciated.											57.0 to 60.0 0009FL	.29	.013	.02			
56.4m-61.4m Diorite as 40.7-54.4m Breccia 57m - 57.2m											60.0 to 63.0 0010FL 63.0 to 66.0 0011FL	.23	.017	.03			100
60.1-60.4 silicified zone. Biotite on fractures.				occ. hem		X				veinlets 20°	66.0 to 69.0 0012FL	.27	.020	.01			
											to						
											to						

mb





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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-1
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by:
Overburden:	Sheet No. 3 of 9
Az. Dip:	Claim:

Contractor:	Drill Type:	Core Size:
-------------	-------------	------------

GENERAL DESCRIPTION (GEOLOGY)	MINERALIZATION								HOLE DEPTH TAG NO.	ASSAYS					% RECOV		
	Cp	Py	Other	OXIDE	EP	CL	MS	K <sub>2</sub>		BI	OTHER	Cu	Au	Ag		Mo	
Much secondary biotite. Core quite broken. Carbonate on fractures.	X	X							X		96 to 99 FL0022	.29	.021	.01			100.59- 105.77
109.3-110.40 Silicified zone. Bleached numerous randomly oriented quartz veinlets. Disseminated pyrite altered to hematite. Pyrite in quartz influx is coarsely crystalline.											99 to 102 FL0023	.19	.015	.01			85%
110.40-137.70 Altered Diorite. Alternately chloritized and silicified (bleached). Fractures frequent in bleached zones but much less sulfide present. Pyrite much more fine grained. Feldspars altered. Moderate quartz veining.											102 to 105 FL0024	.21	.016	.01			105.77- 110.2
											105 to 108 FL0025	.38	.026	.03			73%
											108 to 111 FL0026	.21	.011	.01			110.2 120.09
									X		111 to 114 FL0027	.26	.017	.02			81%
	X	X									114 to 117 FL0028	.17	.010	.03			
									X		117 to 120 FL0029	.25	.019	.04	.002		120.09- 131.33
											120 to 123 FL0030	.41	.020	.06	.003		92%
											123 to 126 FL0031	.19	.011	.07	.022		
											126 to 129 FL0032	.28	.029	.08	.002		131.33- 142.09
137.70-174.0m Chloritized Diorite. Reasonably fresh, infrequent veining. Seam of chalco 137.70 and frequent to 138.70. Occasional bleached envelope around fractures. Feldspars fuzzy but hard.	XX	X				X			X		129 to 132 FL0033	.17	.007	.07	.001		88%
											132 to 135 FL0034	.26	.019	.04	.002		142.09 151.85
											135 to 138 FL0035	.57	.031	.14	.011		80%



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-1
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by:
Overburden:	Sheet No. 4 of 9
Az. Dip:	Claim:

Contractor: Drill Type: Core Size:

GENERAL DESCRIPTION (GEOLOGY)	MINERALIZATION								HOLE DEPTH TAG NO.	ASSAYS					% RECOV	
	Cp	Py	Other	OXIDE	EP	CL	MS	K <sub>2</sub>		BI	OTHER					
Chalco Seam lcm 70° to vca at 142.36m. Moly on shears	X	X	MoS <sub>2</sub>			X		X	X		138 to 141 FL0036	.26	.014	.05	.001	157.85- 162.86
147.9-156.68 Kspar alteration, occasional hematite.											141 to 144 FL0037	.22	.017	.05	.001	86%
150-157 bleached, kaolinized, silica influx.											144 to 147 FL0038	.29	.016	.05	.001	
Infrequent quartz veining with coarse pyrite.											147 to 150 FL0039	.26	.021	.10	.004	
172.4 2 cm quartz vein at 40° to vca. Some fractures are open, and some veins have vugs.											150 to 153 FL0040	.21	.015	.04		162.86- 174.48
174.0m-183.0m Bleached Diorite. Kaolinized and silicified. Disseminated pyrite is new hematite. Fractures 20°-40° to vca. Occasionally K-spar envelope.	X	X									153 to 156 FL0041	.25	.014	.04		99%
May be QS hornfels zone.											156 to 159 FL0042	.23	.012	.04		
183.0-191.77m Dark Green Altered Diorite. Fine grained kaolinized feldspars Occasional bleached envelope around fracture. Hematite on occasional fracture. Fine grained pyrite on some fractures. Carbonate veinlets. Not much chalcopyrite. Inclusions as at 187.74m. Veinlets subparallel to vca.											159 to 162 FL0043	.18	.016	.04		174.98- 180.22
											Fractures 20°- 40°					
											162 to 165 FL0044	.20	.017	.03		94%
											165 to 168 FL0045	.24	.025	.04		
											168 to 171 FL0046	.41	.028	.03	.006	180.22- 189.68
						X		X	X		171 to 174 FL0047	.23	.012	.03	.004	80%
	X	X									174 to 177 FL0048	.18	.014	.05	.001	
											177 to 180 FL0049	.22	.016	.05	.001	



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-1
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by:
Overburden:	Sheet No. 5 of 9
Az. Dip:	Claim:

Contractor:

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	MINERALIZATION								HOLE DEPTH TAG NO.	ASSAYS					% RECOV	
	Cp	Py	Other	OXIDE	EP	CL	MS	KP		BI	OTHER					
191.77-195.26 Bleached Zone Contact with above gradational over 10cm. Some brecciation at top of interval. Shears with quartz and molybdenum 20° and 40° to vca. Multiple quartz veining. Pyrite veinlets mostly 80° to vca. Some calcite veins with gypsum cores. Hematite disseminated throughout. Chalco blebs and stringers. Bottom contact irregular, but approx. 20° to vca.										180 to 183 FL0050	.20	.012	.03			187.68- 200.80 100%
										183 to 186 FL0051	.16	.010	.04			
										186 to 189 FL0052	.25	.024	.04			
										189 to 192 FL0053	.26	.020	.05	.001		
	X	X	MoS <sub>2</sub>	Hem.		X	X			192 to 195 FL0054	.32	.020	.05	.001		
195.26-199.54m. Fine grained, dark-green andesite. Gypsum veinlets at 60° to vca and subparallel. Gypsum cuts quartz and pyrite.										195 to 198 FL0055	.24	.018	.04			
										198 to 199.54 FL0056	.25	.019	.06			
199.54-205.6 Bleached Zone. Similar to 191.77-195.26. Poor recovery. Section is sheared with molybdenite on faces.							X			199.54 to 202.54 FL 0057	.17	.013	.05			
Kaolinized. Occasional quartz veins which are at approximately 20° to vca. A few veinlets subparallel to vca.	X	X	MoS <sub>2</sub>	Hem.		X	X			202.54 to 205.6 FL 0058	.18	.014	.04			200.80- 211.40 87%
										to						
										to						
										to						
										to						
										to						



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-1
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by:
Overburden:	Sheet No. <u>6</u> of <u>9</u>
Az. Dip:	Claim:

Contractor:	Drill Type:	Core Size:	Az.	Dip:	Claim:											
GENERAL DESCRIPTION (GEOLOGY)	MINERALIZATION							HOLE DEPTH TAG NO.	ASSAYS					% RECOVER		
	Cp	Py	Other	OXIDE	EP	CL	MS		K <sub>2</sub>	BI	OTHER	Cu	Au		Ag	Mo
205.6-215.98 Fine grained, dark green Andesite. Gypsum veinlets as above. Pyrite veins 85° to vca, and 20° to vca Bottom contact is across an irregular quartz veinlet.	X	X				X				gypsum	205.6 <sub>10</sub> 208.6 FL0059	.15	.011	.09		211.4- 220.8
											208.6 <sub>10</sub> 211.6 FL0060	.17	.015	.09		94%
											211.8 <sub>10</sub> 214.6 FL0061	.19	.015	.08		
215.98-250.11 Bleached Zone Alteration not as intense as previous sections. Hematite disseminated throughout core. Quartz veinlets at 20° to vca. Grades in and out from bleached to green on a scale of about 30-50 cms. Sharp contact at 220.62 of green above bleached. Occasional gypsum veinlets. K-spar at 228.0	X	X					X	X		gypsum	214.6 <sub>10</sub> 215.98 FL0062	.21	.019	.04		
											215.98 <sub>10</sub> 218.98 FL0063	.28	.018	.07	<.001	222.8- 234.17
											218.98 <sub>10</sub> 221.98 FL0064	.26	.024	.06	<.001	100%
											221.98 <sub>10</sub> 224.98 FL0065	.34	.032	.05	<.001	
236,237.2 Brecciated and sheared, Moly on shears. Several irregular chalco seams.											224.98 <sub>10</sub> 228.0 FL0066	.26	.021	.06	<.001	234.17- 245.54
241-241.4 Alteration along fractures give breccia appearance.											228 <sub>10</sub> 231 FL0067	.35	.029	.09	.005	
250.11-292.8m Andesite Dark green, fine grained, lots of secondary biotite. Gypsum veinlets at 20° to vca. Biotite/chlorite along veinlets. Occasional weakly altered sections. Hematite on fractures. Pyrite veinlets 20° to vca.			MoS <sub>2</sub>								231 <sub>10</sub> 234 FL0068	.19	.020	.05	.003	
											234 <sub>10</sub> 237 FL0069	.25	.024	.05	.010	245.54- 256.56
	X	X								hem.	237 <sub>10</sub> 240 FL0070	.19	.011	.05		91%
											240 <sub>10</sub> 243 FL0071	.26	.020	.12		
											243 <sub>10</sub> 246 FL0072	.29	.024	.09		



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CORPORATION

## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-1
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 7 of 9
Az. Dip:	Claim:

Contractor: J. T. Thomas      Drill Type:      Core Size:

GENERAL DESCRIPTION (GEOLOGY)	MINERALIZATION										HOLE DEPTH TAG NO.	ASSAYS				% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KP	BI	OTHER						
At 255.85, gypsum veinlet at 85° to vca cuts pyrite veinlet. At 256.42, pyrite cuts											246 to 249 FL 0073	.24	.023	.06	256.46- 267.96	
gypsum. Hematite veinlets at 70° to vca at 258.66 m.	x	x	Hem						x	gypsum	249 to 250.11 FL 0074	.39	.019	.07	93%	
10 cm seam of pyrite at 70° to vca with offshoot ~ parallel to vca at 267.6 m. Occasional											250.11 to 253.11 FL 0075	.30	.028	.08		
altered section as 292.8 m-294.32 m. Bleached zone. Quartz veinlets mostly 40° to 60° to											253.11 to 256.11 FL 0076	.20	.015	.05	267.96- 279.48	
vca. Several stages. Not much pyrite or chalco visible. Some hematite. Rare gypsum veinlets.											256.11 to 259.11 FL 0077	.27	.010	.05	95%	
	x	x	Hem						x	gypsum	259.11 to 262.11 FL 0078	.24	.016	.05		
294.32-306.6 m. Andesite-Diorite.											262.11 to 265.11 FL 0079	.34	.017	.05		
Dark green. Biotite well developed. Rock grades from fine-grained volcanic-looking, to		x							x	gypsum	265.11 to 268.11 FL 0080	.15	.002	.04	279.48- 290.96	
porphyritic diorite. Feldspars are kaolinized											268.11 to 271.11 FL 0081	.23	.020	.05	94%	
Pyrite veinlets subparallel to core and 20° to vca. The 20° ones have chalco in the centre											271.11 to 274.11 FL 0082	.26	.025	.05	290.96- 302.67	
with quartz. At 297.36 m, a subparallel pyrite											274.11 to 277.11 FL 0083	.20	.019	.02	96%	
cuts across a gypsum veinlet, and has mineralized the gypsum. Becoming more porphyry and less											277.11 to 280.11 FL 0084	.23	.016	.03	302.67- 314.02	
andesite with depth.											280.11 to 283.11 FL 0085	.27	.024	.02	93%	
											283.11 to 286.11 FL 0086	.17	.016	.03		





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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-1
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 8 of 9
Az. Dip:	Claim:

Contractor: J. T. Thomas      Drill Type:      Core Size:

GENERAL DESCRIPTION (GEOLOGY)	MINERALIZATION										HOLE DEPTH TAG NO.	ASSAYS				% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI	OTHER						
306.6-308.26 Felsite Dike. Pale pink, fine-grained with quartz and feldspar phenocrysts. Two 8 cm inclusions of diorite at 306.97 and 307.2 m. Two only gypsum veinlets - one subparallel to vca and one at 80° to vca. Top contact is diffuse chill zone over 30 cms. Bottom contact is sharp. A not quite coincident but parallel fracture is at 70° to vca.											286.11 <sub>to</sub> 289.11 FL 0087	.26	.020	.03	314.02- 352.52	
	289.11 <sub>to</sub> 292.8 FL 0088	.42	.026	.05							292.8 <sub>to</sub> 294.32 FL 0089	.31	.013	.04	352.52- 336.92	
	294.32 <sub>to</sub> 297.32 FL 0090	.23	.015	.03							297.32 <sub>to</sub> 300.32 FL 0091	.26	.020	.03		
	300.32 <sub>to</sub> 303.32 FL 0092	.31	.024	.04							303.32 <sub>to</sub> 306.6 FL 0093	.24	.012	.03		
	306.6 <sub>to</sub> 308.26 FL 0094	.03	.002	.03							308.26 <sub>to</sub> 311.26 FL 0095	.20	.018	.06		
	311.26 <sub>to</sub> 314.26 FL 0096	.23	.012	.04							314.26 <sub>to</sub> 317.26 FL 0097	.21	.013	.03		
	317.26 <sub>to</sub> 320.26 FL 0098	.25	.012	.04							320.26 <sub>to</sub> 323.26 FL 0099	.21	.014	.03		
	323.26 <sub>to</sub> 326.26 FL 0100	.26	.018	.03												
	308.26-335.56 Diorite. Good feldspar phenocrysts Not completely kaolinized. Some sections are a pale pink, but show the same porphyry texture as the darker sections. There doesn't appear to be a change in veining or mineralization. Veinlets are mostly subparallel and at 70° to vca.		x		Hem					gypsum						
	335.56-338.60 Bleached Zone. Relict porphyry texture visible in places. Occasional shears with MOS <sub>2</sub> .															





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## GENERAL DRILL HOLE LOG

Property: Fish Lake		Latitude: 10,134.68	Hole No. FL-81-2
Area:		Departure: 10,501.80	Commenced: Jan. 22/81
Purpose:		Elevation: 1,492.4	Completed: Jan. 26/81
Contractor: J. T. Thomas		Length: 352.35 m	Logged by: R.G.S.
Drill Type: L 38 Super W/L		Overburden: 13.10 m	Sheet No. 1 of 14
Core Size: NQ		Az. 0° (N) Dip: -60°	Claim: TK 33

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI	OTHER		Cu	Au	Ag	Mo		
0- 13.10 Overburden											to						
QUARTZ-PLAGIOCLASE PORPHYRY 13.10-24.70											13.10 to 16.00						
Crowded porphyry texture 40-50% plagioclase phenocrysts 2-5 mm, strongly sericitized.	x	x		He(Mk)				S	M		0623	0.20	.011	.03		90	
10-15% mafic phenos 3-5 mm completely altered to SER & CARB; 3% rounded to subangular qz eye phenos 2-5 mm; Fine-grained groundmass appears silicified and sericitized.		x		He				S	M		16.00 to 19.00						
13.10- 16.76 Strongly fractured and limonite - stained; several minor shears with clay gouge @ 25-35°, Py mainly in str 25-35° w/ minor Cp.		x						S		few QZ str w/ Py	19.00 to 22.00						
16.76- 24.7 Moderate to strong SER-QZ-CARB alteration strongly fractured, few Py str.	x	x						S		few QZ & CA str w/ Py, Cp	22.00 to 25.00						
19.00 Fault gouge - poor recovery											0626	0.23	.010	.03		90	
20.42- 21.00 Py str common @ 20° to 90°										22.45 Qz str @ 70°	to						
25.00 Shear w/ minor gouge @ 50°	x	x						M	M	M	25.00 to 28.00						
PLAGIOCLASE PORPHYRY 24.70-108.95											0627	0.34	.015	.05		99	
No distinct contact but simply absence of QZ phenocrysts and slight reduction in phenocryst size, mafic pheno altered to Cl & SER										2 cm @ 45°	to						
24.7 Local sections of Bi alteration giving ground-mass a darker color.										27.90 QZ vlt 2 cm offset by later CA str	to						
25.40- 25.45 Dyklet of similar rock - contact sharp @ 90° containing Py str.											to						

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## GENERAL DRILL HOLE LOG

Property: Fish Lake			Latitude:		Hole No. FL-81-2	
Area:			Departure:		Commenced:	
Purpose:			Elevation:		Completed:	
Contractor:			Length:		Logged by: R.G.S.	
Drill Type:			Overburden:		Sheet No. 2 of 14	
Core Size:			Az. Dip:		Claim:	

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION						HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER	
	Cp	Py	Other	OXIDE	EP	CL	MS	K <sub>2</sub>	BI		OTHER	Cu	Au	Ag	Mo		
28.4 Shear @ 25°	x	xx		(He)				S		M	28.1-28.45 Py-	28.00 <sub>to</sub> 31.00					
28 - 31.2 Spotty secondary BI alteration											Ca vltcs 1-2 cm	0628	0.18	.010	.02		97
32.7- 33.1 Fine gr secondary BI in groundmass, Dis Cp blebs.											@ 25° w/ QZ- SER alt <sup>n</sup>	to					
	x	x		(He)				M	S	M	Ca & Py-Ca strcs	31.00 <sub>to</sub> 34.00					
				replacing Py locally							common	0629	0.18	.010	.02		98
				"				S		W	CA, Py-Cp strcs	34.00 <sub>to</sub> 37.00					
38.50- 41.00 Strongly fractured, few sections w/ BI alt											v. common	0630	0.15	.007	.01		98
38.55- 38.70 Shear zone @ 60-70°, gouge healed w/ QZ-CA-Py-Cp	xx	xx		"				S		M	Strong CA-QZ -Py-Cp veining	37.00 <sub>to</sub> 40.00					
40.00- 40.50 Shear w/ 1-2 cm gouge subparallel to vert. core axis												0631	0.16	.009	.02		96
												to					
41.00- 50.2 Rock becoming darker green in color due to increasing SER-CARB-CL alteration; strongly fractured; QZ-SER alteration envelopes present around sulphide vltcs & strcs. Original texture is generally obscured by alteration.	x	x						M	S		Carb alt	40.00 <sub>to</sub> 43.00					
											CA strcs common	0632	0.14	.007	.01		97
											41.80 Cp str @ 40° w/ QZ-SER alt <sup>n</sup> envelope	to					
	xx	xx						S	S		44.20-Cp-QZ vlt	43.00 <sub>to</sub> 46.00					
											QZ, CA & Py-Cp strcs common	0633	0.20	.012	.03		98
											Few Py-QZ vltcs	to					
	xx	xx						S	S		46.15 QZ-Py vlt	46.00 <sub>to</sub> 49.00					
											5 cm @ 20°	0634					98



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# GENERAL DRILL HOLE LOG

Latitude:	Notes No. FL-81-2
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: R.G.S.
Overburden:	Sheet No. 3 of 14
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Drill Type:

Core Size:

Az. Dip:

Claim:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION						HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	K	BI		OTHER	Cu	Au	Ag	Mo	
50.20-51.10 Bleached colour as before due to strong QZ-SER alt <sup>n</sup>										46.35 Qz-Cp vlt @ 50°	3 cm to					
51.10-53.3 Mod-dk green SER-CARB-CL alt <sup>n</sup> (pervasive)	x	x		(He)		M	S	M		CA & QZ strcs	49.00 to 52.00					
53.3-54.0 Bleached - SER-KA alt <sup>n</sup>										CARB alt <sup>n</sup>	0635	0.20	.009	.03		98
54.0 - Med-dk green groundmass	x	x		(He)		M	S	M		CARB alt <sup>n</sup>	52.00 to 55.00					
59.65 Shear @ 40° w/ minor gouge										53.7 QZ-Py-Cp vlt @ 60°	0636	0.19	.010	.02		98
59.8-60.85 QZ-CA-Py vltcs common from 20°-80°	x	x		(He)						CA strcs common	55.00 to 58.00					
										58.45-2 Cp vltcs	0637	0.18	.007	.01		98
63.5-65.2 Bleached zone, Py-Cp strcs common										cm @ 50° & 60°	to					
65.2-65.5 Dk green											to					
65.5-70.7 Pale coloured, pervasive KA-SER alt <sup>n</sup>	x	x				M	S			CA-QZ-Py strcs & vltcs common	58.0 to 61.0					
67.0-69.80 Dark red, fine gr. He replacing Py dis and in stringers; moderate fracturing	x	x		(He)		M	S	M		CA strcs common	61.0 to 64.0	0.23	.015	.03		98
										64.15 CA-QZ-Py-Cl	0639	0.23	.011	.03		98
	x	xx					S	M		vlt	64.0 to 67.0					
70.70-82.85 Darker green colour, spotty BI alt <sup>n</sup> pervasive CL-SER-CARB alt <sup>n</sup> , strongly fractured core. Dis Py & Cp - shears and fractures sub-parallel to core - few Cp & Py strcs and vltcs	x			He often			S	S		65.7- CA & QZ -CA strcs & vltcs common, often vuggy 5-10°	to					
				Py						CA, He strcs common	67.0 to 70.0					
	x	x				M	M	M			0641	0.20	.009	.02		99
	x	x								Few CA & Py strcs	70.0 to 73.0					
											0642	0.18	.008	.02		97
	x	x				M	M	M		75.7 Cp vlt 1.5 cm @ 40°	73.0 to 76.0	0.17	.008	.04		98
	x	x		(He)		M	M	M		79.0 vuggy QZ-CA Cp vlt	76.0 to 79.0	0.12	.007	.03		98
79.65 Falut gouge (10 cm) of CA, Py & Cp										Py str along fracture paralleling core	to					





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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL-81-2
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: R.G.S.
Overburden:	Sheet No. 5 of 14
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER	
	Cp	Py	Other	OXIDE	EP	CL	MS	KN	BI	OTHER		Cu	Au	Ag	Mo			
100.0-100.7 Strong SER-QZ alteration with strongly dis Py and Cp	xx	xx									CA, QZ strs common	100.0 to 103.0 0652	0.16	.009	.02			100
100.7 - Shear @ 60° w/ slickensides												to						
100.7-108.95 Pale coloured SER-KA alt <sup>II</sup> weak fracturing. Few Py & Cp str.	x	x									QZ-CA str & vlt v. irregular and discontinuous	103.0 to 106.0 0653	0.19	.010	.01			100
QUARTZ-PLAGIOCLASE PORPHYRY 108.95-135.25 30-40% plagioclase phenocrysts 3-5 mm												to						
2-3% rounded to subangular QZ eye phenocrysts	x	x									106.4 QZ-Py-Cp vlt	106.0 to 109.0 0654	0.17	.009	.03			100
2-4 mm - contact sharp and irregular Mafics have been completely altered to SER-CL and appear to be absent in sections.											irregular CA & QZ str common	to						
108.95-115.3 Pale grey, aphanitic groundmass Plag phenos largely altered to SER-KA	x	x									CL-CA-QZ str & vlt common	109.0 to 112.0 0655	0.27	.015	.05			100
109.05 Cp str @ 45°												to						
115.6 Shear @ 80° w/ 4 cm clay gouge	x	x									CA, CL & QZ str	112.0 to 115.0 0656	0.13	.006	.03	.002		100
115.3 Increased CL content, plag phenos completely altered to soft green material; SER & CARB (?) Groundmass is stained orange to brown locally due to fine gr. He.	x	(x)		(He)		S	S				few minor Py, Cp str	to						
											CA, CL, QZ str minor Cp, Py str	115.0 to 118.0 0657	0.34	.020	.06			100
117.8-118.4 Discontinuous microstringers of CL @ 40°												to						
119.75-120.30 Felsite dyke (?) - white aphanitic w/ widely-spaced plag phenos; upper contact sharp @ 40°	x	(x)						S	S		119.15-119.75 Cp & Py dis and in str; few QZ CA str	118.0 to 121.0 0658	0.11	.007	.02			99



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## GENERAL DRILL HOLE LOG

GENERAL DESCRIPTION (GEOLOGY)		SULPHIDES MINERALIZATION ALTERATION										HOLE DEPTH		ASSAYS %					% RECOVERED		
		Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI	OTHER	TAG NO.	Cu	Au	Ag	Mo					
121.0-130.3 Rock becoming strongly altered in sections; weakly to mod. fractured		x	x						M	S			QZ str & vlts	121.0 to 124.0							
													Few Cp-CA-QZ-CL vlts; CA str common	0659 to	0.19	.011	.02				100
		x	x						M	S			125.9-2 parallel QZ-CA-Cp vlts @ 50° several others @ 45°, 50°	124.0 to 127.0	0.18	.007	.02				100
130.3-135.25 Secondary BI present in str and as dark fine-grained dissem. aggregates occasionally dendritic in form. Pervasive sericite-carbonate alteration		xx	xx						W	S	M	W	Cp-QZ-CA vlts & str subpar to core. Minor Mo in QZ vlts	127.0 to 130.0	0.16	.006	.03	.005	Mo		99
		x	xx						W	S	M		CARB alt <sup>n</sup> 130.95-131.25 few Cp & QZ vlts @ 60°	130 to 133	0.23	.009	.03	.008	Mo		100
PLAGIOCLASE PORPHYRY 135.25-283.3 contact sharp and irregular, QZ-PLAG PPY appears less crystalline near contact.		x	xx	(Mo)					S		M		QZ-CA-Py-Cp str & vlts @ 20-45° w/ minor Mo	133 to 135.25	0.25	.011	.03	.008	Mo		100
135.25- Texture obscured by alteration, plag phenos 2-3 mm altered to SER or KA; 2ndary BI as stringers and dark, fine-grained aggregates dis throughout some sections - weak fracturing		x	xx	Sp, (Mo)					S		M-	S	QZ vlts @ 70° + Mo, Py, QZ-CA-Cp vlts @ 5° 25°, 60°, 70°	135.25 to 138.0	0.17	.009	.03	.023	Mo		100
137.9 QZ vlt carrying SP and bordered by Cp (@ 55°) cut by later QZ-CA-vlt - vuggy @ 20°		x	xx	Mo					S		S		CA str common	138 to 141							
													Py QZ-CA-Cp-Mo vlts @ 20° & 50°	0665 to	0.37	.017	.09	.027	Mo		100

Latitude:	Hole No. FL-81-2
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: R.C.S.
Overburden:	Sheet No. 6 of 14
Az. Dip:	Claim:

Contractor: J. T. Thomas      Drill Type:      Core Size:





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## GENERAL DRILL HOLE LOG

GENERAL DESCRIPTION (GEOLOGY)		SULPHIDES		MINERALIZATION ALTERATION						HOLE DEPTH TAG NO.	ASSAYS %					% RECOV		
		Cp	Py	Other	OXIDE	EP	CL	MS	KA		BI	OTHER	Cu	Au	Ag		Mo	
142.6	QZ-CA-Cp-Sp-Ga vlt, 1 cm @ ~45°	x	xx	Sp, Ga Mo					S	S	CA, QZ, Py strs + Cp few QZ-Cp (Mo) strs fine gr dis Cp & Sp locally	141 to 144 0666	0.43	.019	.09	.005	Mo	100
144-149.5	Strong SER-BI and QZ-SER alteration, splotches of coarse, greenish SER occur locally.	x	x	(Sp) (Mo)					S	S	Few QZ-CA-Cp+ Sp + Mo vlets.	144 to 147 0667	0.20	.016	.04	.002	Mo	100
149.5-170.25	Strong fracturing, med-coarse gr. Py + Cp common on fracture surfaces, few Cp-Py -QZ strs; shears @ 30° common w/ minor gouge Pervasive SER-BI alt <sup>n</sup> giving dark grey-green colour	x	x	(Sp)					S	S	QZ-Py + Sp strs & vlt fairly common. Few CA strs 30°, 50°	147 to 150 0668	0.38	.019	.03			100
167.7-168.3	Py str paralleling core	x	xx						S	S	QZ-Py + Cp strs @ 20°, 60°	150 to 153 0669	0.24	.011	.07			97
		(x)	xx	(Sp)					S	S	Few QZ strs	153 to 156 0670	0.21	.010	.06			98
		xx	xx	(Sp)					S	S	Few Cp-Py, QZ & CA strs	156 to 159 0671	0.34	.016	.09			98
		xx	xx						M	S	QZ-Py strs @ 55° 121.6 QZ-CA strs	159 to 162 0672	0.38	.016	.09			97
170.25-171	Rock becomes bleached in color - less secondary BI, feldspars altered to SER-KA; mod -strong facturing, minor shears common @ 20-40°	x	x						M	S	@ 10° / Thin CA strs com; few Py strs Py, QZ & CA strs Cp	162 to 165 0673 165 to 168 0674	0.31	.015	.05			98
		x	x						S	M	Py-QZ-CA strs @ 0°, 60°, 75°, Cp	168 to 171 0675	0.26	.014	.04			97
													0.24	.012	.04			98

Latitude:	Hole No. FL-81-2
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: R.G.S.
Overburden:	Sheet No. 7 of 14
Az.	Dip:
Core Size:	Claim:

Contractor: J. T. Thomas

Drill Type:



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# GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL-81-2
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: R.G.S
Overburden:	Sheet No. 8 of 14
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake  
Area:  
Purpose:

Drill Type:  
Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOV		
	Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI	OTHER		Cu	Au	Ag	Mo				
171.1 Cp-CA-QZ vlt - 1 cm @ 70° cut by QZ-Py vlt subparalleling core which runs into a shear zone.	x	xx							S	M	S	QZ, CA strs + Py	171 to 174 0676	0.34	.015	.05			98
171.6-171.9 Several minor shears @ 70-80° w/ strong silicification of adjacent rock - minor Py-Cp	(x)	xx							M	M	S	QZ-Py strs & vlts common @ 60°	174 to 177 0677	0.19	.010	.03			98
173 Several parallel shears @ 30-40° w/ massive Py min <sup>n</sup> for 8 cm.																			
173.7-174.7 Bleached section; SER-KA alt <sup>n</sup>	x	x							M	M	S	QZ-Py vlts & strs @ 40°	177 to 180 0678	0.35	.015	.04	.003		98
174.7-177.50 Mafics alt to CL & SER, dark green groundmass, feldspars sericitized; strong fracturing.												few CA strs							
177.50-180.2 Secondary BI occurring mainly as thin stringers in bleached section.	x	x							M	S		Few QZ & CA strs	180 to 183 0679	0.31	.015	.04	.003	Mo	98
178.6 Irregular massive Py vlts @ 10-20° (1 cm)												@ 60°							
180.2 Greenish groundmass - pervasive CL-SER alt <sup>n</sup> , strong fracturing	x	xx	Mo						M	S		QZ-Py (+ Mo) strs	183 to 186 0680	0.41	.022	.09	.061	Mo	97
183.6 QZ-Py-Mo vlt 1.5 cm @ 40°												& vlts @ 40° & 20°							
184.7 QZ-Py vlt, 2.5 cm @ 40°																			
191.05 Minor shear w/ gouge @ 30°	x	xx							M	S		Few Py vlts, QZ & CA strs	186 to 189 0681	0.48	.026	.09	.009	Mo	98
191.15 Py str @ 60° cutting QZ-Py str @ 20°												Few Cp strs & dis Cp							
Strong shearing and fracturing	x	x										Thin CA & QZ common @ 30°	189 to 192 0682	0.25	.013	.07	.006		98



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# GENERAL DRILL HOLE LOG

Latitude:	Map No. FL-81-2
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: R.G.S.
Overburden:	Sheet No. 9 of 14
Az. Dip:	Claim:

Contractor: J. T. Thomas

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOV		
	Cp	Py	Other	OXIDE	EP	CL	MS	K <sup>n</sup>	BI	OTHER		Cu	Au	Ag	Mo				
194.2 Shear zone @ 35° w/ coarse Py in gouge	x	xx					M	M		W	Py & QZ-Py vlt & str common	192 to 195 0683	0.29	.015	.05		97		
Strong shearing and fracturing to 210.62 w/ Py in gouge and along fractures	x	xx					M	M		M	QZ Py str @ 30°	195 to 198 0684	0.31	.020	.04		97		
203.1 Gouge zone @ 30° (5 cm) w/ coarse Py, Massive Cp & Py for 2-3 cm above shear.	x	xx					M	M		M	Py, QZ & CA str	198 to 201 0685	0.31	.018	.04		95		
206.9-208 Bleached section with mod fracturing	x	x							W	S	M	W	"	204 to 207 0687	0.24	.014	.03		97
208-210.62 Dark green, highly fractured & broken as before.	(x)	x					M	M		M	Few QZ & QZ-Py vlt QZ, CA & Py	207 to 210 0688	0.28	.012	.03		98		
210.4-210.6 Shear zones w/ gouge @ 50°	x	x					M	M			strs/ QZ-CA + Py	210 to 213							
210.62-221.7 Weak fracturing dark green to pale grey green plag: ppy, pervasive CL-SER alt <sup>n</sup> weakly dis py locally w/ traces of Cp - Gypsum veining present	x	x					M	M			modly @ 40° CAL-GY str @ 50°	213 to 216 0690	0.34	.015	.04		99		
212.6 Shear zone @ 60° w/ 8-10 cm gouge											70° com, few @ 20-40°	to	0.30	.013	.05		100		
221.6 Cp & Py in silicified section 5x5 cm	x	x					S	M			CA & GY str com @ 35° & 50°	216 to 219 0691	0.19	.010	.01		100		
221.7-227.35 Pale coloured plag PPy, QZ-SER alt <sup>n</sup> GY veining absent	x	x					S	M			few QZ-Py str	to							
											GY & CA str com few minor QZ-Py strs	219 to 222 0692	0.28	.012	.02		100		



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# GENERAL DRILL HOLE LOG

Latitude:	Mo's No. FL-81-2
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: R.G.S.
Overburden:	Sheet No. 10 of 14
Az. Dip:	Claim:

Contractor: J. T. Thomas

Drill Type:

Core Size:

Az. Dip:

Claim:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER	
	Cp	Py	Other	OXIDE	EP	CL	MS	KN	BI	OTHER		Cu	Au	Ag	Mo			
223.4 QZ vein 7-10 cm @ 40° containing massive Py	x	xx					M	S			QZ, CA & QZ-Py vlt & str; 40°	222 to 225 0693	0.32	.015	.03		100	
225.35-225.55 No recovery-ground core	x	x	Mo				M	S			QZ-CA-flaky SER	225 to 228 0694	0.42	.023	.05	.019	Mo	93
226.3 QZ vlt-1 cm @ 25° containing minor Cp & Mo											strs common	0694						
227.35-238.3 Darker green colour due to more CL v. weak fracturing											few QZ vlt; few Gy str 30-40°	to						
230.2 QZ-Py vlt @ 45° cut by GY str	x	x					S	S			GY str common	228 to 231 0695	0.38	.020	.03		100	
231.3 QZ vein, 18 cm @ 80° w/ few Py blebs							S	S			Few CA, QZ, Py str	0695						
Porphyritic flows & minor pyroclastics (?)	x										GY str @ 65° & 5-10°	231 to 234 0696	0.29	.014	.02		100	
238.3-240.6 Strong to intense CL-SER alteration with a few narrow brecciated sections (pyroclastics?)	x	x					S	S			Abundant GY str	234 to 237 0697	0.27	.011	.03		100	
240.6-242.4 Pale green, fine-grained, weakly ppytic; 2ndary BI disseminated throughout	(x)	x					S	S			GY & CA str	237 to 238.3 0698	0.39	.018	.10			
242.4-244.5 Becomes darker green colour due to chloritization of groundmass. Laths of mafics (CL) common	x	x					S	S			common, few Py str	to						
(242.3 Minor shear @ 30°)							S	S	M		CA, GY & QZ-Py str & vlt	238.3 to 240.6 0699	0.42	.022	.11		100	
QUARTZ PLAGIOCLASE PORPHYRY 244.5-249.00 Contact sharp but poorly defined											CA, GY str	240.6 to 243 0700	0.01	.002	.01		100	
244.5-249.00 Bleached QZ-SER & weak 2ndary BI alt obscuring texture - 2-3%. QZ eyes present - no sulphides							S		W		CA, GY str	243 to 244.5 0701	0.01	.002	.01		100	
							S		W		CA str	244.5 to 247 0702	0.01	.003	.01		100	
												to						



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# GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL-81-2
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: R.G.S.
Overburden:	Sheet No. 11 of 14
Az. Dip:	Claim:

Contractor: J. T. Thomas

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION						HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER		
	Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI		OTHER	Cu	Au	Ag	Mo			
PLAGIOCLASE PORPHYRY/QUARTZ - PLAGIOCLASE PPY INTERFINGERING (249 - 255.7)									S	W	CA strcs & few QZ strcs	247 to 250 0703	<0.01	.002	.01			100
249.0-250.5 Plag PPY - QZ-SER 2nd BI												to						
250.5-251.5 QZ-Plag PPY (mainly)												to						
251.5-251.88 Plag PPY									S	W	"	250 to 253 0704	<0.01	.002	.01			100
251.88-252.2 QZ-Plag PPY												to						
252.2-253.3 P-PPY; 253.3-253.65 Q P PPY												to						
253.65-253.98 P-PPY; 253.98-254.85 Q-P-PPY												to						
254.8-255.7 P-PPY									S	W	"	253 to 255.7 0705	<0.01	.002	.01			100
METAMORPHOSED VOLCANIC FLOWS 255.7-267												to						
Contacts sharp and irregular, chilled margin for approx 15 cm on ppy side		x							S	S	CA, GY & QZ strcs common	255.7 to 258 0706	<0.01	.002	.02			99
255.7-257.6 Highly altered QZ-SER-CL strong fracturing QZ veining												to						
257.6-267 Variably DIORITIZED ANDESITE FLOWS - Dark green, strong CL & sec BI alt <sup>H</sup> of groundmass and fine-grained sections - feldspar phenos altered to SER & CARB; dis Py + Cp locally	x	x							S	S	S Abundant GY strcs few QZ-Py strcs	258 to 261 0707	0.34	.016	.04			100
Weak to moderate fracturing	x	x							S	S	S Abundant GY strcs	261 to 264 0708	0.32	.016	.03			100
QUARTZ-PLAG PORPHYRY 267 - 269.05 Contact at shear, fine-gr. chilled margin strong 2ndary BI alt <sup>H</sup>	x	x									Few QZ vlts & Py strcs/GY strcs few QZ vlts & Py strcs	264 to 267 0709	0.64	.022	.06			100
ANDESITE - WEAKLY PORPHYRITIC 269.05 Contact sharp @ 40°	x								S	S	GY strcs, few QZ & Py strcs	267 to 269 0710	0.30	.013	.04			
269.05 Pale green aphanitic with 5% plag phenos 1-3 mm, 5-10% mafic as 2-5 mm long laths alt												to						



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# GENERAL DRILL HOLE LOG

Latitude:	Note No. FL-81-2
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: R.G.S.
Overburden:	Sheet No. 12 of 14
Az. Dip:	Claim:

Contractor: J. T. Thomas

Drill Type:

Core Size:

Az. Dip:

Claim:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION										HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER				
	Cp	Py	Other	OXIDE	EP	CL	MS	KN	BI	OTHER		Cu	Au	Ag	Mo						
to CL.							S	M				GY, CA strs common @ 45°	269	to	272	0.02	.002	.02			100
276.15-278.5 Bleached section, BI replaces mafics rather than CL, strong QZ-SER alteration							S	M				Few GY strs, CA strs common	272	to	275	0.01	.002	.01			100
278.5-281.6 Green as before w/ CL replacing mafic laths							M	S		W		QZ & CA strs common	275	to	278	0.01	.003	.01			100
281.6-283 Bleached section							S	M				CA strs	278	to	281	0.01	.002	.01			100
QZ-SER-BI alt <sup>n</sup>										S		CA, QZ strs	281	to	283	0.01	.002	.01			100
QUARTZ-PLAG PPY 283 - 287.9										S		few GY strs	283	to	286	0.01	.002	.01			100
Contact sharp @ 35°												CA, QZ strs	283	to	286	0.01	.002	.01			100
283-287.9 Strong QZ-SER alt <sup>n</sup> , Plag phenos stained pale pink, QZ eyes have dark, irregular rims, lt. grey colour.																					
PLAG PPY 287.9 - 291.6										S		QZ & CA strs	286	to	289	0.01	.003	.01			100
Slightly darker grey in colour, sharp contact																					
QZ-SER alt <sup>n</sup> , weakly ppytic																					
289.4-290.2 Fault zone w/ healed gouge @ 35° - silicified w/ Py & CA-CL alt <sup>n</sup>		x					M	S				"	289	to	291.6	0.15	.007	.01			100
290.95-291.05 Fault zone q/ healed gouge QZ-CA-CL -Py																					
QUARTZ-FELDSPAR PPY (?) 291.6-321.6	(x)	x					S	S		M		Strong QZ-CA veining, Few Py strs & QZ-Py vltcs	291.6	to	294	0.20	.011	.02			100
Contact sharp @ 35° (shear w/ slickensides)																					
291.6 Strongly altered QZ-SER-CARB-CL																					
294.2 QZ vlt 8 cm @ 30° w/ Py																					



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# GENERAL DRILL HOLE LOG

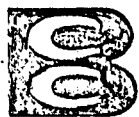
Latitude:	Mo's No. FL-81-2
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: R.G.S.
Overburden:	Sheet No. 13 of 14
Az. Dip:	Claim:

Contractor: J. T. Thomas

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION						HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER		
	Cp	Py	Other	OXIDE	EP	CL	MS	KN	BI		OTHER	Cu	Au	Ag	Mo			
294-321.6 Disseminated Py and Cp locally	(x)	x				S	S				QZ, CA, Py strs	294 to 297						
296.8 QZ vein, 10 cm @ 35°											& vltz	0720	0.19	.011	.03			100
	x	x				S	S				GY strs common	297 to 300						
Original Rock texture largely obscured by intense CL-SER-CARB alteration, Py occurs in stringers and as disseminations locally.	x	x				S	S				GY, CA, Py strs	300 to 303	0.30	.018	.03			100
	x	x				S	S				"	0722	0.17	.009	.02			100
											"	303 to 306						
											"	0723	0.20	.012	.01			100
	x	x				S	S				GY, CA, CL strs	306 to 309						
321.6-321.87 Andesite dyke - fine-grained, pale grey-green - sharp irregular contacts	x	x				S	S				QZ + Py strs & vltz	0724	0.24	.014	.03			100
321.87-322.95 QZ-Plag PPY as before intense CL-SER alteration.	x	x				S	S				CA, GY strs	309 to 312						
											common	0725	0.30	.016	.03			100
	x	x				S	S				"	312 to 315						
322.95-323.4 Plag ppytic andesite - pale green aphanitic groundmass contacts sharp and irregular	x	x				S	S				"	0726	0.23	.012	.02			100
	x	x				S	S				"	315 to 318						
											"	0727	0.27	.013	.02			100
323.4-325.3 Dark green, intensely altered andesite		x				S	S				GY, CA strs	318 to 321						
											few Py strs	0728	0.17	.009	.01			100
QUARTZ-PLAGIOCLASE PORPHYRY 325.3 - End	x	x				S	S				QZ, GY, CA, Py strs	321 to 324						
Contact sharp and irregular											"	0729	0.25	.014	.03			100
40% Plag phenos 3-5 mm altered to SER-CARB	x	x				S	S				"	324 to 325.3						
Qz eyes present; Pervasive SER-QZ alt <sup>n</sup>											"	0730	0.20	.012	.01			100
Weak fracturing	x	x				M	S				GY, CA, QZ-Py + Cp strs common	325.3 to 328						
325.5 QZ-Py vlr - 1 cm @ 40°											"	0731	0.19	.010	.01			100
327.7 QZ-Py-Cp strs @ 45° & 20°	x	x				M	S				GY, CA, QZ-Py strs	328 to 331						
(45° crosscutting 20°)											"	0732	0.16	.009	.02			100
						M	S				GY, CA, QZ strs	331 to 334						
											few Py strs	0733	0.10	.005	.02			100



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# GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL-81-2
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: R.G.S.
Overburden:	Sheet No. 14 of 14
Az. Dip:	Claim:

Contractor: J. T. Thomas

Drill Type:

Core Size:

Claim:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION						HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER		
	Cp	Py	Other	OXIDE	EP	CL	MS	KN	BI		OTHER	Cu	Au	Ag	Mo			
	x	x					M	S			GY strcs common, few QZ-Py strcs	334 to 337 0734	0.15	.008	.02			100
	x	x					M	S			"	337 to 340 0735	0.19	.009	.02			100
	x	x					M	S			"	340 to 343 0736	0.14	.008	.02			100
349.9-352.35 Intense alteration (QZ-SER-CL) obscuring texture	x	x					M	S			GY strcs common QZ-Py strcs & vltcs	343 to 346 0737	0.16	.009	.03			100
	x	x					M	S			GY strcs common few Py strcs	346 to 349 0738	0.20	.010	.04			100
	x	x					M	S			"	349 to 351 0739	0.19	.008	.03			100
352.35 End of Hole	x	x					M	S			"	351 to 352.35 0740	0.22	.012	.04			100
Sperry-Sun Tests												to						
@ 31.40 m -59° N 4° W												to						
@ 189.02 m -59° N 4° W												to						
@ 344.51 m -59° N 1° W												to						
												to						
												to						
												to						
												to						





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## GENERAL DRILL HOLE LOG

Property: Fish Lake		Latitude: 9,950.70	Hole No. FL81-3
Area:		Departure: 10,402.71	Commenced: Jan. 26/81
Purpose:		Elevation: 1,464.3	Completed: Jan. 30/81
Drill Type: L 44 W/L		Length: 352.65 m	Logged by: NJW
Core Size: NQ		Overburden: 15.62 m	Sheet No. 1 of 8
Contractor: J. T. Thomas		Az. 000° Dip: -60°	Claim: TK6, TK4

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI	OTHER		Cu	Au	Ag	Mo		
0B-65 m. Andesite. Intensely fractured. Not much weathering. Strong biotite alteration. Much biotite is now chlorite. Some pyrite stringers. Much of the core is crumble.									S		15.62 to 18 FL 0741	0.28	.013	.03		27.5-	
											18 to 21 FL 0742	0.27	.012	.03			
											21 to 24 FL 0743	0.16	.010	.02			
27.5-280.4 Fault Gouge. Coarse pyrite on fractures.											24 to 27 FL 0744	0.13	.009	.01		27.5- 37.19	
34.50-35.40 Fault Gouge. Occasional hematite on fractures. Pyrite veinlets at 20° to vca & 40°.											27 to 30 FL 0745	0.28	.014	.02		80%	
54.8 m. Quartz-sericite alteration. Becomes pale grey around 63.5									M W		30 to 33 FL 0746	0.16	.009	.01			
											33 to 36 FL 0747	0.14	.008	.01		37.19- 46.0	
65-95.10 m Grades slowly from andesite to fine-grained diorite with small feldspar phenocrysts. Some secondary biotite clots. Coarse-grained pyrite on fractures and with quartz at 85° to vca. Also some quartz stringers subparallel to vca.		x									36 to 39 FL 0748	0.13	.007	.01		80- 46.0	
											39 to 42 FL 0749	0.24	.015	.02		56.21	
											42 to 45 FL 0750	0.15	.009	.02			
									M M		45 to 48 FL 0751	0.19	.011	.02		56.21- 65.65	
											48 to 51 FL 0752	0.15	.010	.02		80%	
											51 to 54 FL 0753	0.21	.010	.03		65.65- 75.21	
											54 to 57 FL 0754	0.20	.012	.02		79%	



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-3
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 2 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION						HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER	
	Cp	Py	Other	OXIDE	EP	CL	MS	KI	BI		OTHER	Cu	Au	Ag	Mo		
Biotite clots often have pyrite centres. Pyrite vein at 40° to vca offset by fracture at 10° to vca. Some disseminated hematite. Quartz-sericite envelopes on fractures.		x							M		57 to 60 FL 0755	0.20	.013	.03			75.21- 85.33
											60 to 63 FL 0756	0.35	.017	.04			80%
											63 to 65 FL 0757	0.40	.019	.04			
95.10-98.7 m. Breccia. Fragments of diorite and andesite and buff tuff with quartz and biotite alteration. Open spaces. Fragments angular. Zone appears to run subparallel to core axis. No sulfides in influx. Pyrite in fragments.									M		65 to 68 FL 0758	0.35	.018	.04			
											68 to 71 FL 0759	0.23	.014	.03			85.33- 96.06
											71 to 74 FL 0760	0.25	.015	.03			88%
											74 to 77 FL 0761	0.20	.010	.02			
98.7-119.95 m. Quartz Feldspar Porphyry. Quartz eyes are irregular & black-rimmed. Sericitic alteration is pervasive with qtz- ser around veinlets. Veinlets have envelopes up to 3 cms around. Disseminated hematite.									S		77 to 80 FL 0762	0.17	.009	.01			96.06- 106.09
											80 to 83 FL 0763	0.32	.018	.03			82%
											83 to 86 FL 0764	0.17	.009	.01			
Pyrite stringers with chalco. Oldest - subparallel to 10° to vca. - 40° to vca. Youngest - 80° to vca.											86 to 89 FL 0765	0.12	.007	.02			
	x	x									89 to 92 FL 0766	0.16	.009	.02			
Core is vuggy - biotite altered to chlorite.											92 to 95 FL 0767	0.23	.012	.02			
											95 to 98 FL 0768	0.24	.014	.07			



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## GENERAL DRILL HOLE LOG

Property: Fish Lake

Area:

Purpose:

Latitude:

Hole No. FL81-3

Departure:

Commenced:

Elevation:

Completed:

Length:

Logged by: NJW

Overburden:

Sheet No. 3 of 8

Contractor: J. T. Thomas

Drill Type:

Core Size:

Az.

Dip:

Claim:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVERED
	Cp	Py	Other	OXIDE	EP	CL	MS	KZ	BI	OTHER		Cu	Au	Ag	Mo		
119.95-136.7 Bleached Diorite											98 to 101					106.09-	
Quartz-sericite alteration; especially around veinlets.											FL 0769	0.35	.017	.06		114.64	
Chalco veinlet at 40° to vca.	x	x		hem			M				101 to 104					85%	
Quartz eyes very infrequent. Sericite pervasive. Most veinlets & fractures at 60° to vca.											FL 0770	0.31	.016	.05			
											104 to 107					114.64-	
											FL 0771	0.32	.017	.04		124.97	
											107 to 110					85%	
											FL 0772	0.24	.014	.04			
136.7-143.95 m. Breccia Zone.											110 to 113					124.97-	
Tectonic breccia. Bleached diorite fragments with quartz influx. Appears to be subparallel to vca.											FL 0773	0.27	.016	.05		134.70	
											113 to 117					80%	
											FL 0774	0.25	.011	.03			
											117 to 120					134.70-	
											FL 0775	0.23	.012	.03		145.79	
											120 to 123					91%	
143.95-157 Feldspar Porphyry											FL 0776	0.29	.013	.03			
145.8 -147 Breccia, not as intense as above.											123 to 126					145.79-	
Alternating bleached and pale grey-green in color. Same phenocrysts & veins. Mostly gradational color changes - some sharp across fractures. Sericite becomes weak.											FL 0777	0.40	.018	.03		157.12	
											126 to 129					93%	
											FL 0778	0.40	.025	.07			
											129 to 132						
											FL 0779	0.18	.010	.03			
											132 to 135						
											FL 0780	0.21	.011	.03			
											135 to 138						
											FL 0781	0.28	.012	.03			
											138 to 141						
											FL 0782	0.14	.009	.01			



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-3
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: N.T.W.
Overburden:	Sheet No. 4 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Drill Type:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS%					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KZ	BI	OTHER		Cu	Au	Ag	Mo		
157-191 Quartz Feldspar Porphyry								M			141 to 144					157.12-	
Feldspars range from small and sharp											FL 0783	0.16	.010	.01		168.18	
but altered, to large & diffuse. Pyrite	x	x									144 to 147					91%	
with chalco stringers at 10° to vca,											FL 0784	0.20	.012	.02			
subparallel, and 85°. Subparallel											147 to 150					168.18-	
appears latest. Qtz-sericite envelopes									W		FL 0785	0.31	.019	.03		179.51	
around pyrite & chalco veinlets. Occasional											150 to 153					93%	
fracture controlled biotite.											FL 0786	0.31	.016	.04			
187.65-190.0 m. Breccia Zone. Fragments											153 to 156					179.51-	
in quartz. Some vugs with qtz crystals.											FL 0787	0.21	.012	.03		190.65	
											156 to 159					92%	
191-228 Feldspar Porphyry											FL 0788	0.60	.021	.10			
Grades occasionally to fine-grained											159 to 162						
andesite to bleached porphyry.											FL 0789	0.16	.009	.03			
198.21 First gypsum											162 to 165					190.65-	
200.43 Offset quartz vein at 40°											FL 0790	0.18	.010	.04		202.06	
by fracture at 10°.											165 to 168					94%	
											FL 0791	0.17	.010	.02			
											168 to 171						
											FL 0792	0.18	.010	.03			
											171 to 174						
											FL 0793	0.25	.014	.03			
											174 to 177						
											FL 0794	0.28	.014	.04			
											177 to 180						
											FL 0795	0.28	.015	.02			
											180 to 183						
											FL 0796	0.20	.010	.01			



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-3
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 5 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Drill Type:

Core Size:

Core Size:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS%					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	K <sub>2</sub>	BI	OTHER		Cu	Au	Ag	Mo		
203-206 Andesite											183 to 186					202.06-	
211.4 Jasper in quartz vein with coarse pyrite at 85° to vca.											FL 0797	0.26	.012	.01		213.43	
Some biotite altered to chlorite.	x	x							W	W	186 to 189					94%	
216.09-219 Pale pink altered, silicified. Strong biotite alteration - fracture controlled. 30% quartz influx with fragments. Appears to be at 40° to vca. Dis hematite.										S	FL 0798	0.14	.008	.01		213.43- 224.77	
											189 to 192						
											FL 0799	0.30	.017	.02		224.77	
											192 to 195					93%	
											FL 0800	0.28	.015	.02			
											195 to 198						
											FL 0801	0.33	.019	.02			
228-283.33 Bleached Diorite. Dis hematite gives spotted appearance. Some biotite. Mostly sericitic alteration. Most veinlets at 85° to vca. All cut & offset by subparallel ones. Occasional calcite in centre of quartz veins.											198 to 201					224.77-	
											FL 0802	0.23	.012	.02		236.89	
											201 to 204					96%	
									M		FL 0803	0.28	.015	.04			
											204 to 207						
											FL 0804	0.25	.014	.02			
											207 to 210						
											FL 0805	0.26	.014	.02			
											210 to 213						
											FL 0806	0.27	.015	.04			
											213 to 216						
											FL 0807	0.26	.015	.03			
											216 to 219						
											FL 0808	0.19	.010	.03			
											219 to 222						
											FL 0809	0.38	.018	.04			
											222 to 225						
											FL 0810	0.37	.018	.03			



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-3
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 6 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Drill Type:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION						HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER		
	Cp	Py	Other	OXIDE	EP	CL	MS	KZ	BI		OTHER	Cu	Au	Ag	Mo			
Mineralization in this unit has definitely improved.	xx	x		hem					M		carbonate	225 to 228 FL 0811	0.30	.016	.03			236.39- 247.44
247.5-251 Rock is intensely fractured with minor alteration along fractures. Not much chalco visible.											gypsum	228 to 231 FL 0812	0.31	.016	.04			91%
Sericitic alteration.									M			231 to 234 FL 0813	0.42	.021	.04			
Sericitic alteration becomes blebby.												234 to 237 FL 0814	0.20	.012	.03			247.44- 258.85
278 - 5 cm coarsely xtalline calcite vein. Relict feldspars have all but disappeared. May be a tuffaceous unit or intensely sericitized.									S		carbonate	237 to 240 FL 0815	0.28	.014	.05			94%
279.7 - 3 cm fault gouge at 40° to vca.											gypsum	240 to 243 FL 0816	0.34	.018	.03			258.85- 270.36
												243 to 246 FL 0817	0.48	.026	.03			96%
												246 to 249 FL 0818	0.34	.017	.04			
												249 to 252 FL 0819	0.39	.018	.05			270.36- 282.03
												252 to 255 FL 0820	0.27	.015	.09			96%
												255 to 258 FL 0821	0.30	.014	.03			
												258 to 261 FL 0822	0.29	.014	.09			
												261 to 264 FL 0823	0.31	.017	.10			
												264 to 267 FL 0824	0.26	.015	.06			



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-3
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 7 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES		MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS%				% RECOVER	
	Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI		OTHER	Cu	Au	Ag		Mo
283.33-295.5 m. Quartz Feldspar Porphyry.											267 to 270					282.03-
Quartz phenos fairly uncommon.											FL 0825	0.43	.020	.05		293.53
Feldspars totally kaolinized.											270 to 273					96%
283.6-288 Reddish color in core due to dis hematite. Contact with above unit is diffuse across a quartz vein. Sericitic alteration around veinlets. Grades from pale grey to pale green.											FL 0826	0.41	.019	.05		
											273 to 276					293.53-
											FL 0827	0.47	.021	.05		304.87
											276 to 279					93%
											FL 0828	0.57	.027	.10		
											279 to 282					
											FL 0829	0.40	.022	.09		
295.5-305 Altered Rock. Fine-grained dark grey, very sericitized. Dis. hematite give red-brown appearance in clots. Contact with above is sharp at 70° to vca. Veins at 60° to vca. Not too much sulfide.											282 to 285					
											FL 0830	0.25	.014	.04		
											285 to 288					304.87-
											FL 0831	0.19	.010	.02		316.3
											288 to 291					94%
											FL 0832	0.15	.009	.02		
											291 to 294					
											FL 0833	0.20	.012	.03		
											294 to 297					316.3-
											FL 0834	0.24	.013	.02		327.75
											297 to 300					94%
											FL 0835	0.39	.021	.03		
											300 to 303					
											FL 0836	0.54	.026	.05		
											303 to 306					
											FL 0837	0.47	.024	.09		
											306 to 309					
											FL 0838	0.27	.015	.02		



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. <u>FL81-3</u>
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: <u>NJW</u>
Overburden:	Sheet No. <u>8</u> of <u>8</u>
Az. Dip:	Claim:

Contractor: J. T. Thomas      Drill Type: \_\_\_\_\_      Core Size: \_\_\_\_\_

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION										HOLE DEPTH TAG NO.	ASSAYS %					RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	Kf	BI	OTHER		Cu	Au	Ag	Mo	%	
327-352.65 m. Andesite. Fine-grained, dark grey-green rock. Spotted with pervasive secondary biotite. Gypsum veinlets at 80° & subparallel to vca.											M Gypsum	309 to 312 FL 0839	0.34	.016	.03		327.75- 339.72
338.3 m - 339. Fault gouge with pyrite. Parallel to vca. Occasional speck chalco.	x		x									312 to 315 FL 0840	0.32	.015	.02		94%
352.65 End of Hole. Casing pulled. Water flowing from hole.												315 to 318 FL 0841	0.39	.022	.09		
												318 to 321 FL 0842	0.31	.016	.03		
												321 to 324 FL 0843	0.40	.019	.04		339.22- 350.72
												324 to 327 FL 0844	0.45	.024	.03		
												327 to 330 FL 0845	0.28	.016	.03		
Sperry-Sun Tests												330 to 333 FL 0846	0.47	.025	.03		
@ 30.49 -58° N 2° E												333 to 336 FL 0847	0.32	.016	.02		
@ 182.93 -61° N 4° W												336 to 339 FL 0848	0.34	.018	.05		
@ 347.56 -62° N 2° E												339 to 342 FL 0849	0.27	.015	.03		
												342 to 345 FL 0850	0.32	.016	.03		
												345 to 348 FL 0851	0.32	.017	.04		
												348 to 351 FL 0852	0.31	.015	.03		

351 352.65  
FL 0853 0.27 .013 .03





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# GENERAL DRILL HOLE LOG

Latitude: 10,101.39	Hole No. FL81-4
Departure: 10,299.19	Commenced: Jan. 27/81
Elevation: 1,464.0	Completed: Feb. 1/81
Length: 352.04	Logged by: NJW
Overburden: 12.19	Sheet No. 1 of 11
Az. 000° Dip: -60°	Claim: TKG

Contractor: J. T. Thomas

Drill Type: Super 38 W/L

Core Size: NQ

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION								HOLE DEPTH TAG NO.	ASSAYS %					% RECOV
	Cp	Py	Other	OXIDE	EP	CL	MS	KY		BI	OTHER	Cu	Au	Ag	
0- 12.19 Overburden										12.19 <sub>10</sub> 14.90					
12.19-14.90 Andesite? Green black, weathered rock.										FL 0172	0.20	.014	.03		
Fine-grained with occasional feldspar phenocryst still visible. Large biotite clots.									S	14.90 <sub>10</sub> 17.90					
Malachite on fractures and disseminated throughout core. Rust on veinlets. Quartz veinlets at 40° to vca.										FL 0173	0.28	.015	.03		
										17.90 <sub>10</sub> 20.90					
										FL 0174	0.34	.018	.04	.001	
										20.90 <sub>10</sub> 22.76					
										FL 0175	0.35	.017	.04	.002	
										22.76 <sub>10</sub> 26.0					
14.90- 18.49 Diorite Feldspar Porphyry									malachite	FL 0176	0.39	.022	.03		
Feldspars are small and well kaolinized. Core is rusty about 3 cms around fractures. Some malachite in quartz.										to					
										to					
										to					
18.49- 22.76 Altered Diorite. Hematite disseminated in top metre. Fracture controlled and some pervasive secondary biotite.										to					22.54-32.75
Limonite decreases to just on the fracture faces. Biotite gives mottled & semi-dendritic appearance to core.								lim		to					84%
22.76- 26.0 Felsite Dike? Pale pink, quartz eyes rare, feldspars kaolinized. No biotite alteration contact above ground. Lower contact sharp but irregular at about 60° to vca.										to					
										to					
										to					

22



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# GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL 81-4
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 2 of 11
Az. Dip:	Claim:

Contractor: J. T. Thomas      Drill Type:      Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION								HOLE DEPTH TAG NO.	ASSAYS %					RECOV
	Cp	Py	Other	OXIDE	EP	CL	MS	KA		BI	OTHER	Cu	Au	Ag	
26.0- 32.45 Biotitized Diorite. Same spotty and dendritic appearance as 18.49-22.76 m.										26.0 to 29.0 FL 0177	0.32	.020	.05		
Pyrite in quartz veinlets and disseminated	x	x						M	S	29.0 to 32.0 FL 0178	0.25	.018	.04		32.75-43.22
Some fractures are leached. Carbonate stringers at 20° to vca.										32.0 to 35.0 FL 0179	0.25	.014	.04	.001	86%
28.15 m. 2 cm fault gouge at 40° to vca.										35.0 to 38.0 FL 0180	0.20	.014	.07		
28.55 m. Brecciated quartz vein has fine-grained pyrite with arsenopyrite.										38.0 to 41.0 FL 0181	0.29	.018	.10		
28.75-29.10 Fault gouge at 20° to vca.										41.0 to 44.0 FL 0182	0.18	.012	.03		
Some veinlets have sericitic envelopes. Biotite becomes blotchy towards base. Some chloritization.								M		44.0 to 47.0 FL 0183	0.36	.019	.06		
29.10 Fracture-controlled biotite decreases										47.0 to 50.0 FL 0184	0.32	.018	.05		
32.45- 79.88 Quartz Feldspar Porphyry										50.0 to 53.0 FL 0185	0.18	.008	.03		
Quartz eyes fairly uncommon. Feldspars vary from 4 mm to 1 mm. Kaolinized veinlets have qtz sericite envelopes. Sections of dark green porphyry as at 39.6-40.0, 42.3-42.5.										53.0 to 56.0 FL 0186	0.28	.015	.06		43.22-53.45
Some disseminated hematite. Quartz eyes become more frequent, and up to 5 mm across.															84%



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# GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-4
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 3 of 11
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	Kf	BI	OTHER		Cu	Au	Ag	Mo		
62.22 3 cutting pyrite veinlets - 1 at 60° is offset by one at 70° from the other side (i.e. about 80° apart). 1 at 20° is cut by one parallel to the 70° veinlet above.		x									56.0 to 59.0 FL 0187	0.22	.013	.06	.001	53.45-64.24	
											59.0 to 62.0 FL 0188	0.30	.018	.05	.001	89%	
62.70 Barren qtz at 85° to vca cut by pyrite subparallel to vca.											62.0 to 65.0 FL 0189	0.34	.016	.07			
Some qtz veinlets have moly tinge but nothing visible.											65.0 to 68.0 FL 0190	0.38	.020	.11		64.24-75.51	
Kaolinization is intense after 69 m. At 72.3 core is essentially quartz grains held together by kaolin. Below 74.9 m feldspars are sericitized.											68.0 to 71.0 FL 0191	0.30	.014	.06		93%	
											71.0 to 74.0 FL 0192	0.24	.012	.04			
		x									74.0 to 77.0 FL 0193	0.26	.014	.03		75.51-86.75	
79.88-91.65 m. Contact with above porphyry is 2 cm fault gouge at 60° to vca.											77.0 to 79.88 FL 0194	0.27	.013	.05		92%	
											79.88 to 82.88 FL 0195	0.32	.016	.06			
Rock is pale grey-pink, mostly aphanitic. Occasional relic feldspars. Quartz-sericite envelopes around some veinlets. Most qtz-pyrite veinlets at 70° to vca. Near top, some greenish sections where feldspars are visible. Some biotite on unmineralized fractures. Rock is hard.											82.88 to 85.88 FL 0196	0.49	.022	.07		86.75-97.12	
											85.88 to 88.88 FL 0197	0.15	.010	.02		87%	
											88.88 to 91.65 FL 0198	0.23	.012	.05			
											to						
											to						



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# GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-4
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 4 of 11
Az. Dip:	Claim:

Property: Fish Lake
Area:
Purpose:
Drill Type:
Core Size:

Contractor: J.T. Thomas

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION						HOLE DEPTH TAG NO.	ASSAYS %				% RECOVER	
	Cp	Py	Other	OXIDE	EP	CL	MS	KF	BI		OTHER	Cu	Au	Ag		Mo
91.65-107.43 m. Quartz-Feldspar Porphyry. Rock is pale pink-grey with large (up to 5 mm) diffuse feldspars. Quartz eyes are small and vary from 1 mm to 3 mm. Contact with above unit is textural change.									M		91.65 <sub>0</sub> 94.65 <sub>1</sub> FL 0199	0.38	.028	.06		97.12-108.21
91.80 - 1 cm fault gouge at 90° to vca.											94.65 <sub>10</sub> 97.65 <sub>11</sub> FL 0200	0.29	.015	.05		91%
Quartz-sericite envelopes around veinlets with pyrite and fine-grained chalco. Veinlets have vugs.	x	x								qtz veinlets 40° & 85°	97.65 <sub>10</sub> 100.65 <sub>11</sub> FL 0201	0.29	.012	.05		
Weak biotite along some fractures. Occasional stringer subparallel to vca.											100.65 <sub>10</sub> 103.65 <sub>11</sub> FL 0202	0.29	.012	.03		
Pyrite stringer at 10° to vca is offset 1.5 cms by stringer at 85° to vca. Both have chalco blebs.									M		103.65 <sub>10</sub> 106.65 <sub>11</sub> FL 0203	0.16	.010	.03		
105.68 - 1 cm fault gouge at 30° to vca. Feldspars are sericitized towards base.											106.65 <sub>10</sub> 107.43 <sub>11</sub> FL 0204	0.23	.015	.03		
Bottom contact is sharp, partly fault at 10° (some offset) and partly across an 8 mm quartz vein at 85° to vca.											to					
Coarse pyrite on fractures and in quartz veins.											to					
											to					



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# GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-4
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 5 of 11
Az. Dip:	Claim:

Contractor: J. T. Thomas

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					RECO
	Cp	Py	Other	OXIDE	EP	CL	MS	K	BI	OTHER		Cu	Au	Ag	Mo		
107.43-137.17 m. Altered Andesite. Pale to dark green, fine-grained to micro-porphyrritic. Veining increases with qtz-sericite envelopes. More chalco in veinlets and stringers. Pyrite disseminated in core often has biotite around it. Biotite doesn't always have pyrite. Sometimes biotite follows fractures. Carbonate blebs and hairline fractures throughout core. Some intervals are slightly bleached. Many veinlets subparallel to vca.	x	x							M	M		107.43 <sub>to</sub> 110.43 FL 0205	0.31	.020	.05	.005	108.21- 117.92
												110.43 <sub>to</sub> 113.43 FL 0206	0.25	.014	.04	.001	86%
												113.43 <sub>to</sub> 116.43 FL 0207	0.54	.025	.06		
												116.43 <sub>to</sub> 119.43 FL 0208	0.26	.016	.04		
												119.43 <sub>to</sub> 122.43 FL 0209	0.30	.017	.04		
												122.43 <sub>to</sub> 125.43 FL 0210	0.27	.016	.08		
116.79-117.12 m. Intense biotitization.												125.43 <sub>to</sub> 128.43 FL 0211	0.40	.027	.06		117.92- 127.7
117.92-119 m. Fault gouge w/ moly			MoS <sub>2</sub>									128.43 <sub>to</sub> 131.43 FL 0212	0.26	.015	.02		80%
125.18 m. Quartz vein with pyrite, sphalerite speck galena, and chalco runs subparallel to vca for 60 cms.	x	x	sph, ga						M	M		131.43 <sub>to</sub> 134.43 FL 0213	0.28	.015	.02		
126.19-126.59 m. Refractured breccia kaolinized. Qtz-sericite along fractures. Quartz influx.												134.43 <sub>to</sub> 137.17 FL 0214	0.36	.022	.04		127.7- 138.72
												137.17 <sub>to</sub> 140.14 FL 0215	0.24	.016	.03		91%
Some of the more pale sections may be tuffaceous.												to					
137.17-138.9 m. Pyroclastic Unit. Fine frags at top becoming coarser downwards. Many fragments are rounded - from alteration?												to					
												to					



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-4
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 6 of 11
Az. Dip:	Claim:

Contractor: J. T. Thomas

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %				% RECOVER			
	Cp	Py	Other	OXIDE	EP	CL	MS		K <sub>2</sub>	BI	OTHER	Cu		Au	Ag	Mo
138.9-179 m. Andesite									M		140.14 <sub>0</sub> 143.14 <sub>0</sub>					138.72-147.51
Top 1.8 m has fracture-controlled biotite.											FL 0216	0.20	.012	.02		
May be tuffaceous unit. Most of section is dark green, fine-grained with biotite clots.											143.14 <sub>0</sub> 146.14 <sub>0</sub>					72%
Core is well fractured, but not much veining.		x									FL 0217	0.26	.014	.02		
Some hematite on fractures.											146.14 <sub>0</sub> 149.14 <sub>0</sub>					
144.8-145.3 m. Pale yellow tuffaceous section increase in veinlets & biotite along veinlets.											FL 0218	0.19	.012	.01		
											149.14 <sub>0</sub> 152.14 <sub>0</sub>					147.51-155.7
											FL 0219	0.31	.018	.03		
											152.14 <sub>0</sub> 155.14 <sub>0</sub>					63%
									M		FL 0220	0.21	.012	.02		
147-155 Core very broken & crumbly. Numerous sections of sheared & gouge rock. Hematite on shears. Occasional fine-grained pyrite on fractures. Not much sulphide.											155.14 <sub>0</sub> 158.14 <sub>0</sub>					
											FL 0221	0.16	.009	.02		
		x									158.14 <sub>0</sub> 161.14 <sub>0</sub>					155.7-165.27
											FL 0222	0.24	.016	.06		
152.9 Vuggy quartz vein.											161.14 <sub>0</sub> 164.14 <sub>0</sub>					79%
Hairline carbonate stringers											FL 0223	0.27	.017	.09		
160.93-166.77 Contact metamorphosed with intense biotite - fractures and pervasive.	x	x							S		164.14 <sub>0</sub> 167.14 <sub>0</sub>					165.27-174.33
Pyrite disseminated & in veinlets. Chalco in blebs. Most of core is brecciated & rehealed.											FL 0224	0.24	.014	.09		
Calcite blebs in dark green matrix veinlets are latest event. Green maybe chlorite or actinolite. Pyrite vein 2 cms at 40° to vca. Grades back into less altered andesite.											167.14 <sub>0</sub> 170.14 <sub>0</sub>					75%
											FL 0225	0.21	.013	.03		
											170.14 <sub>0</sub> 173.14 <sub>0</sub>					
											FL 0226	0.27	.016	.03		
											173.14 <sub>0</sub> 176.14 <sub>0</sub>					
											FL 0227	0.32	.018	.05		
		x							M	few QZ + Py strrs	176.14 <sub>0</sub> 179.14 <sub>0</sub>					
											FL 0228	0.25	.014	.04		
179-182.3 Pale grey matrix									W	QZ & QZ-Py vlts & strrs, some QZ	179.14 <sub>0</sub> 182.14 <sub>0</sub>					
											FL 0229	0.30	.016	.06		

flooding



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# GENERAL DRILL HOLE LOG

Latitude:	No. No. FL81-4
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: RGS
Overburden:	Sheet No. 7 of 11
Az. Dip:	Claim:

Contractor: J. T. Thomas

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION						HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI		OTHER	Cu	Au	Ag	Mo	
Vuggy veinlets subparallel to vca. QZ & Py.	x	x								QZ, CA strcs	182.14 <sub>0</sub> 185.14					174.33-178.6
182.3 Andesite, slightly plagioclase ppytic w/ green fine-gr. matrix. Thin QZ and CA stringers are common, ZE on some fractures (red)	x	x									FL 0230	0.25	.014	.04		
184.6 Coarse grained Cp in vuggy QZ str @ 75°	x	x	Sp	He (blk)						190.8 Massive Py	185.14 <sub>0</sub> 188.14					70%
185.62 Healed fault breccia - QZ flooding 5 cm @ 55°										-QZ veining @ 55° w/ Sp; QZ-Py strcs & vlts @ 55°	FL 0231	0.24	.018	.04		
185.75 3 cm gouge @ 55° w/ Py on border, strong QZ flooding and 2ndary BI alteration to											FL 0232	0.26	.016	.08		87% 184.71-185.62
186.5-188.8 Dark green feldspar ppytic andesite as before - CA & GY strcs abundant, pervasive BI alt <sup>n</sup> . Widely spaced QZ-Cp-Py strcs at 55° w/ accompanying QZ-SER alt <sup>n</sup> envelopes	x	x		He (blk)		M	M			GY, CA, CL, QZ strcs. -Py vlts & strcs Thin black & red He strcs	188.14 <sub>0</sub> 191.14					No rec. (tube did not work) 185.62-
188.8-194.9 Pale grey-brown, fine-grained to slightly porphyritic, altered and silicified w/ QZ flooding locally, CA, CL & QZ strcs are common; black, fine-gr. HE is well disseminated	x	x		He		M	M			CA & GY strcs com. He strcs locally, few QZ-CP strcs @ 75°	191.14 <sub>0</sub> 194.14					189-206.14
191.7-192.2 QZ flooding w/ dis Cp & black He	x	x					S			GY, CA strcs common	194.14 <sub>0</sub> 197.14					100%
193.4-193.8 White-QZ flooding w/ dis black He surrounding Cp grains										com. He strcs locally, few QZ-CP strcs @ 75°	FL 0234	0.26	.016	.04		
193.85-194.1 QZ-Py vlts @ 55° cut by QZ-Py strcs @ 10-20° in turn cut by CA and GY strcs.	x	x					S	M		GY, CA strcs common	197.14 <sub>0</sub> 200.14					100%
194.9-220.25 Dark green, metamorphased andesite, weak, fracturing, silicified										com. QZ-Py strcs @ 55°	FL 0235	0.24	.016	.05		
202.6 QZ vlt 3 cm @ 55° w/ Cp										GY & QZ (Py-Cp) strcs com. QZ sulphide strcs have QZ-SER alt <sup>n</sup> envelopes	200.14 <sub>0</sub> 203.14					
206.12 QZ-Py vlt 3-8 cm @ 60-70° cut by GY vlt at similar orientation	x	x					S			GY & QZ strcs com CP-He strcs	FL 0236	0.35	.018	.06		
206.2 2ndary BI strcs										Few py strcs	203.14 <sub>0</sub> 206.14					
											FL 0237	0.31	.015	.06		







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# GENERAL DRILL HOLE LOG

Latitude:	Mo's No. FL81-4
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: RGS
Overburden:	Sheet No. 9 of 11
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Drill Type:

Core Size:

Az. Dip:

Claim:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION						HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER	
	Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI		OTHER	Cu	Au	Ag	Mo		
242.9 Py-QZ-GY vlt 3 cm @ 20°	x	x					M	S			QZ-Py strs & vlts com, Gy strs	241 to 244 FL 0250	0.37	.018	.05		
252-252.5 QZ-CA-CL-Py str paralleling core	x	x					M	S			QZ-Py, GY & CA-CL strs	244 to 247 FL 0251	0.30	.015	.04		241-283
253.75-254.13 QZ vlts adjacent to shears w/ Py, Cp and minor Mo, 50°-70°	x	x					M	S			QZ, QZ-Py + Cp & GY strs & vlts	247 to 250 FL 0252	0.29	.012	.03		100%
260.55 Two mutually intersecting QZ-Py-Cp vlts. both @ 35°	x	x	Mo				S	S			QZ-Py (Cp, Mo) & GY strs & vlts	253 to 256 FL 0254	0.27	.016	.03		
	(x)	x					M	S			QZ + Py & GY strs	256 to 259 FL 0255	0.21	.014	.03		
270.95 QZ-Cp vlt - 1 cm @ 30°	(x)	x					M	S			QZ + Py, Cp strs & vlts, GY strs	259 to 262 FL 0256	0.31	.016	.03		
	x	(x)					S	S			GY & QZ strs	262 to 265 FL 0257	0.27	.012	.02		
274.7 QZ-Cp str w/ QZ-SER alt <sup>n</sup> envelope	x	x					M	S			" few QZ-Py strs	265 to 268 FL 0258	0.26	.014	.02		
	x	x					M	S			QZ-Py (Cp) vlts GY strs	268 to 271 FL 0259	0.19	.014	.01		
277 Meta volcanics - strongly silicified contact is shear @ 25°	x	x					M	S	W		QZ, GY, CA-CL QZ-Py (Cp) strs	271 to 274 FL 0260	0.17	.010	.02		
277-281.3 Andesite - fine to med grained, dark green to pale grey-brown, extensively veined with QZ & GY stringers	x	x					M	S	W		QZ, GY, BI strs few QZ-Py strs	274 to 277 FL 0261	0.21	.010	.01		
277.55-277.65 Pale grey tuffaceous section w/ sharp, irregular contacts	x	x					M	M			QZ & GY strs com few QZ-Py + Cp strs	277 to 280 FL 0262	0.24	.012	.02		
278.88-279.02 Tuff layer as before, scattered	x	x					S	M	M		"	280 to 283 FL 0263	0.27	.015	.03		



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# GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-4
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: RGS
Overburden:	Sheet No. 10 of 11
Az. Dip:	Claim:

Property: Fish Lake
Area:
Purpose:
Drill Type:
Core Size:

Contractor: J. T. Thomas

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI	OTHER		Cu	Au	Ag	Mo		
quartz phenocrysts 3-5 mm, contacts irregular	x	x				S	M	S		QZ, CA, GY str	283 to 286						
281.3-309.5 Dark green to greenish black. meta-andesite, strong 2ndary BI alteration largely silicified										Py + Cp str w/ -SER alt <sup>n</sup> envelopes	QZ FL 0264 to	0.14	.009	.02		283- 821	
(285.4-286 Some plag. phenocryst development)	(x)	x				S	M	S		QZ, GY, CA str	286 to 289					100%	
297.2-298.5 Py-QZ stringers w/ QZ-SER alt <sup>n</sup> envelopes run parallel to core	x	xx				S	M	S		QZ-Py (+Cp) str Abundant GY str	FL 0265 289 to 292	0.23	.014	.03			
	x	xx				S	M	S		QZ, Py (Cp) str strs common	FL 0266 292 to 295 FL 0267	0.17	.010	.02			
309.5-313.3 Pale grey to green, highly altered follows porphyritic rocks QZ-SER-CL-BI alt <sup>n</sup> ; plag. phenos average 2-3 mm	x	xx				S	M	S		GY, QZ (+Py) str abundant	295 to 298 FL 0268	0.27	.016	.04			
	x	x				S	M	S		"	298 to 301 FL 0269	0.29	.018	.05			
313.3-315.6 Pale grey, highly silicified, secondary BI veining from 315	x	x				S	M	S		"	301 to 304 FL 0270	0.23	.014	.03			
	x	x				S	M	S		"	304 to 307 FL 0271	0.31	.017	.04			
315.6 Pale to dark green, strongly altered porphyritic volcanic, phenocrysts 4-5 mm totally altered to dark green CL & SER (315.95 Thin jasperoid-Py str @ 10 <sup>0</sup> ) Highly silicified sections common	x	x				S	M	S		" 309.55 Py vlt @ 30 <sup>0</sup>	307 to 310 FL 0272	0.41	.020	.06			
	x	x				M	S	S		GY, QZ str, vlt Py-QZ (+CP) str	310 to 313 FL 0273	0.36	.020	.07			
316 Jasper - Py stringer @ 10 <sup>0</sup>	x	x				W	S	M		QZ & GY str QZ-Py str	313 to 316 FL 0274	0.21	.010	.04			
	x	x				M	S	M		"	316 to 319 FL 0275	0.28	.012	.02			
	x	x				M	S	W		"	319 to 321 FL 0276	0.38	.018	.04			



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# GENERAL DRILL HOLE LOG

Latitude:	Ho'e No. FL81-4
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: RGS/NJW
Overburden:	Sheet No. 11 of 11
Az. Dip:	Claim:

Contractor: J. T. Thomas

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION					HOLE DEPTH TAG NO.	ASSAYS %					% RECOV	
	Cp	Py	Other	OXIDE	EP	CL	MS	KF		BI	OTHER	Cu	Au	Ag		Mo
Strongly silicified meta-andesites & volcanic porphyries, variable chlorite and secondary BI alteration, sulphide stringers have QZ-SER alt <sup>n</sup> envelopes	x	x				M	S			GY & QZ-Py strs common	321 to 324 FL 0277	0.28	.015	.04		
	x	x				M	S			"	324 to 327 FL 0278	0.28	.014	.07		
Gypsum veinlets at 40° - 1/metre Carbonate veinlet at 30° with gypsum core.	x	x				M	S		M	GY strs, QZ strs & vlts + Py com.	327 to 330 FL 0279	0.28	.015	.05		
	x	x				M	S		M	GY, QZ & QZ-Py strs & vlts common	330 to 333 FL 0280	0.20	.011	.04		
Fracture controlled biotite & disseminated clots.	x	x				M	S		M	"	333 to 336 FL 0281	0.21	.010	.02		
Silicification extends to bottom of hole. Chalco stringer at 346 m at 10° to vca.	xx	x									336 to 339 FL 0282	0.27	.014	.02		
	x	x									339 to 342 FL 0283	0.17	.009	.01		
352.04 End of Hole Casing pulled.	x	x									342 to 345 FL 0284	0.30	.012	.02		
	x	x									345 to 348 FL 0285	0.41	.018	.03		
Sperry-Sun Tests 352 m. 58° dip N 7° E 97.5 m 58° dip N 5° W	x	x									348 to 351 FL 0286	0.26	.015	.02		
	x	x									351 to 352.04 FL 0287	0.31	.016	.02		
											to					
											to					
											to					



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## GENERAL DRILL HOLE LOG

Latitude: 9,901.83	Hole No. FL81-5
Departure: 10,500.58	Commenced: Jan 31/81
Elevation: 1,478.6	Completed: Feb. 6/81
Length: 352.65	Logged by: NJW
Overburden: 58.52	Sheet No. 1 of 7
Az. 000° Dip: -60°	Claim: TK4

Contractor: J. T. Thomas

Drill Type: L 44 W/L

Core Size: NQ

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS%				% RECOVER		
	Cp	Py	Other	OXIDE	EP	CL	MS		KA	BI	OTHER	Cu		Au	Ag
0-58.52 Overburden										58.52 to 61.52					58.52-70.95
										FL 0288	0.07	.002	.02		
58.62-129 m. Feldspar Porphyry										61.52 to 64.52					40%
Rock is very broken-up and altered. Dark green, vuggy. Pyrite blebs surrounded by chlorite completely kaolinized. Pyrite coated fractures at 60° to vca. Difficult to take measurements due to extremely broken core. Quartz-sericite veinlets at 80° to vca.	x	xx				S	M	S		64.52 to 67.52	0.09	.002	.01		70.95-81.64
										FL 0290	0.12	.003	.01		
										67.52 to 70.52					70%
										FL 0291	0.06	.002	.01		
										70.52 to 73.52					
										FL 0292	0.07	.002	.01		
										73.52 to 76.52					81.64-91.43
										FL 0293	0.08	.002	.01		
84.85-85.80 m. Vuggy pyrite vein parallel to vca.										76.52 to 79.52					80%
										FL 0294	0.06	.005	.01		
86.0-86.4 m. Pyrite vein. Maybe same as above or another vein. Hematite on fractures. Biotite alteration decreases with depth.										79.52 to 82.52					
										FL 0295	0.07	.005	.01		
									M	82.52 to 85.52					91.43-100.28
										FL 0296	0.32	.014	.03		
Magnetite on fracture with pyrite at 100.4 m at 70° to vca. Still some quartz sericite and disseminated pyrite.										85.52 to 88.52					69%
										FL 0297	0.10	.011	.02		
										88.52 to 91.52					
										FL 0298	0.04	.003	.01		
Pyrite veinlet at 85° offset by one at 15° to vca.										91.52 to 94.52					100.28-109.83
										FL 0299	0.06	.003	.01		
Below 109 m disseminated pyrite without associated biotite.										94.52 to 97.52					79%
										FL 0300	0.05	.003	.02		
										97.52 to 100.52					109.83-119.26
										FL 0301	0.13	.007	.03		

78%



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-5
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 2 of 7
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Drill Type:

Core Size:

Core Size:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION										HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI	OTHER		Cu	Au	Ag	Mo		
129-137.5 m. Bleached Diorite.												100.52 <sub>10</sub> 103.52					19.26-30.07
Top contact is sheared and broken core.												FL 0302	0.06	.004	.02		
Appears to be same phenocrysts as previous unit, but pale grey color. Some moly on shears. Quartz-sericite envelopes around veinlets. Weak biotite alteration on fractures.		x	MoS <sub>2</sub>					M	M			103.52 <sub>10</sub> 106.52					80%
Quartz-pyrite veinlets subparallel to vca. Coarse pyrite, vuggy.										W		106.52 <sub>10</sub> 109.52					30.07-43.18
												FL 0303	0.07	.003	.02		
												109.52 <sub>10</sub> 112.52					
												FL 0304	0.08	.003	.02		
												112.52 <sub>10</sub> 115.52					
												FL 0305	0.08	.002	.01		
												115.52 <sub>10</sub> 118.52					
137.5 Feldspar porphyry. As before bleached section.												FL 0306	0.07	.004	.03		
												118.52 <sub>10</sub> 121.52					
												FL 0307	0.07	.004	.02		
												121.52 <sub>10</sub> 124.52					
												FL 0308	0.08	.005	.01		
												124.52 <sub>10</sub> 127.52					
												FL 0309	0.07	.003	.01		
												127.52 <sub>10</sub> 129					
												FL 0310	0.05	.004	.01		
												129 to 132					
												FL 0311	0.03	.003	.01		
												132 to 135					
												FL 0312	0.10	.005	.01		
												135 to 137.5					
												FL 0313	0.20	.009	.01		
												137.5 to 140.5					
												FL 0314	0.10	.005	.01		
												FL 0315	0.09	.005	.01		



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-5
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 3 of 7
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Drill Type:

Core Size:

Az. Dip:

Claim:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS%					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KN	BI	OTHER		Cu	Au	Ag	Mo		
Core is very broken-up & ground. Average 3 foot runs.											140.5 to 143.5 FL 0316	0.08	.004	.01			40-50%
Fine-grained pyrite on fractures. Occasional vuggy quartz veins.		x							M		143.5 to 146.5 FL 0317	0.06	.004	.01			
154.9 m. Quartz-sericite with chalco at 40° to vca.	x										146.5 to 149.5 FL 0318	0.09	.004	.01			
Occasional short (10 cm) aphanitic sections.											149.5 to 152.5 FL 0319	0.05	.003	.01			
177.5 10 cms fault gouge											152.5 to 155.5 FL 0320	0.14	.005	.01			
											155.5 to 158.5 FL 0321	0.14	.006	.01			
											158.5 to 161.5 FL 0322	0.08	.005	.01			
											161.5 to 164.5 FL 0323	0.10	.006	.01			
											164.5 to 167.5 FL 0324	0.09	.005	.01			
											167.5 to 170.5 FL 0325	0.05	.003	.01			
											170.5 to 173.5 FL 0326	0.06	.004	.01			
											173.5 to 176.5 FL 0327	0.08	.004	.02			
											176.5 to 179.5 FL 0328	0.09	.005	.03			
											179.5 to 182.5 FL 0329	0.10	.006	.02			



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-5
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 4 of 7
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS%				% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KZ	BI	OTHER		Cu	Au	Ag	Mo	
195.26-195.66 Fault Gouge.											182.5 to 185.5					201.4-
After gouge, rock becomes quite competent.											FL 0330	0.17	.010	.01		210.7
Still sericite & kaolin.											185.5 to 188.5					74%
199.54 Pyrite vein 10" to vca. Still no quartz eyes. Occasional hematite on fractures.	x	x		hem							FL 0331	0.12	.008	.01		
Occasional calcite stringers.											188.5 to 191.5					
Sulfides occur on fracture faces - finely crystalline or smeared.											FL 0332	0.19	.011	.01		
											191.5 to 194.5					210.7-
											FL 0333	0.17	.009	.01		224.03
											194.5 to 197.5					60%
											FL 0334	0.27	.015	.03		
											197.5 to 200.5					
											FL 0335	0.28	.016	.02		
											200.5 to 203.5					
											FL 0336	0.25	.014	.02		
											203.5 to 206.5					
											FL 0337	0.24	.012	.01		
											206.5 to 209.5					
											FL 0338	0.18	.009	.01		
											209.5 to 212.5					
											FL 0339	0.20	.012	.01		
											212.5 to 215.5					
											FL 0340	0.26	.014	.03		
											215.5 to 218.5					
											FL 0341	0.19	.009	.02		
											218.5 to 221.5					
											FL 0342	0.26	.012	.04		
											221.5 to 224.5					
											FL 0343	0.13	.006	.02		



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-5
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 5 of 7
Az. Dip:	Claim:

Contractor: J. T. Thomas

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	K <sub>2</sub>	BI	OTHER		Cu	Au	Ag	Mo		
227 - Andesite. Fine-grained, dark green. Contact is 30 cms fault gouge. Some disseminated pyrite, mostly veins at 20 & 60° to vca. Weak disseminated biotite. Rock is very competent and recovery has improved greatly.											224.5 to 227 FL 0344	0.13	.007	.01			
234.66 m. Pyrite vein at 40° offset by 2 cms by qtz-py-gyp vein at 10° to vca. Normal offset fault.	x	x									227 to 230 FL 0345	0.20	.012	.02			224.03- 234.06
Moderate sericite alteration around veinlets.	x	x									230 to 233 FL 0346	0.10	.006	.04			84%
Some sections slightly bleached, some have tiny feldspars developed.											233 to 236 FL 0347	0.12	.008	.01			
Few sulfides above 250. Increase below.											236 to 239 FL 0348	0.14	.008	.01			
258.17 2 - 40 cm quartz-pyrite veinlet subparallel to vca.											239 to 242 FL 0349	0.10	.006	.01			239.88- 251.87
											242 to 245 FL 0350	0.17	.009	.02			94%
											245 to 248 FL 0351	0.17	.009	.03			
											248 to 251 FL 0352	0.12	.007	.06			251.87- 262.75
											251 to 254 FL 0353	0.17	.009	.01			94%
											254 to 257 FL 0354	0.19	.011	.01			
											257 to 260 FL 0355	0.27	.015	.02			262.75- 274.18
											260 to 263 FL 0356	0.25	.014	.04			94%
											263 to 266 FL 0357	0.26	.015	.02			





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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. <b>FL81-5</b>
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: <b>NJW</b>
Overburden:	Sheet No. <u>6</u> of <u>7</u>
Az. Dip:	Claim:

Contractor: **J. T. Thomas**

Property: **Fish Lake**

Area:

Purpose:

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS%					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KP	BI	OTHER		Cu	Au	Ag	Mo		
285-290 m. Porphyritic. Contacts both gradational	x	x									266 to 269 FL 0358	0.28	.017	.02		274.18- 285.5	
309.98 m. Gorgeous chalco & pyrite vein. Irregular subparallel to core. Sericite & disseminated pyrite.	xx	x									269 to 272 FL 0359	0.24	.012	.02		94%	
313.03 m. Small magnetite clots with biotite.				mag							272 to 275 FL 0360	0.23	.013	.01			
											275 to 278 FL 0361	0.18	.010	.02		285.6- 297.26	
											278 to 281 FL 0362	0.30	.018	.05		96%	
											281 to 284 FL 0363	0.31	.016	.06			
											284 to 287 FL 0364	0.19	.011	.01		297.26- 314.13	
											287 to 290 FL 0365	0.15	.010	.02		93%	
											290 to 293 FL 0366	0.29	.015	.02			
											293 to 296 FL 0367	0.37	.018	.07			
											296 to 299 FL 0368	0.32	.015	.06			
											299 to 302 FL 0369	0.46	.026	.06			
											302 to 305 FL 0370	0.31	.014	.02			
											305 to 308 FL 0371	0.32	.018	.03			



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-5
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 7 of 7
Az. Dip:	Claim:

Contractor: J. T. Thomas

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION						HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI		OTHER	Cu	Au	Ag	Mo	
Pyrite veinlet at 30° offset by gypsum 10° to vca. Pervasive sericite, more intense around fractures.	x	x		hem				M		W	308 to 311 FL 0372	0.51	.024	.04		314.13- 325.62
											311 to 314 FL 0373	0.19	.011	.01		95%
325-325.7 m. Fault Gouge. 346.96-348.93 Fault Gouge. Rebrecciated quartz											314 to 317 FL 0374	0.24	.013	.04		
with intense biotite. Some disseminated hematite.				hem						S	317 to 320 FL 0375	0.16	.008	.01		325.62- 336.60
											320 to 323 FL 0376	0.21	.009	.01		91%
Zeolites? 351.4 m											323 to 326 FL 0377	0.29	.016	.03		
352.65 End of Hole Casing left in hole.											326 to 329 FL 0378	0.18	.009	.02		336.60- 347.63
											329 to 332 FL 0379	0.15	.009	.01		91%
											332 to 335 FL 0380	0.27	.013	.03		
<u>Sperry Sun Tests</u>											335 to 338 FL 0381	0.34	.019	.07		
@ 67.07 m -59.5° N 12° E											338 to 341 FL 0382	0.21	.009	.02		
@ 182.93 m -61° N 5° E											341 to 344 FL 0383	0.24	.013	.02		
@ 350.61 m -61.5° N 5° E											344 to 347 FL 0384	0.27	.014	.04		
											347 to 350 FL 0385	0.20	.011	.01		
											350 to 352.65 FL 0386	0.26	.014	.02		



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## GENERAL DRILL HOLE LOG

Latitude: 10,201.88	Hole No. FL81-6
Departure: 10,210.80	Commenced: Feb. 1, 1981
Elevation: 1,461.3	Completed: Feb. 7, 1981
Length: 351.74	Logged by: NJW
Overburden: 27.43	Sheet No. 1 of 8
Az. 0 Dip: -60°	Claim: TK 6

Contractor: J. T. Thomas

Drill Type: L Super 38 W/L

Core Size: NQ

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION						HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI		OTHER	Cu	Au	Ag	Mo	
0-27.43 Overburden											27.43 to 30 FL 0854	0.20	.012	.01		27.43-37.79
27.43-32 Weathered Quartz-Feldspar Porphyry. Core is rusty, feldspars are stained. Quartz eyes are not common.								W	W		30 to 32 FL 0855	0.26	.016	.02		80%
											32 to 35 FL 0856	0.10	.006	.01		37.79-48.39
32-42.5 m. Post Mineral Dike. Pale green, fine-grained matrix with feldspar phenocrysts and amphiboles. Occasional quartz veinlet at 15° to vca. 34.60-35.05 Fault gouge, some pyrite.											35 to 38 FL 0857	0.04	.003	.01		87%
											38 to 41 FL 0858	0.02	.002	.01		
											41 to 42.5 FL 0859	0.01	.002	.01		
									W		42.5 to 45.5 FL 0860	0.09	.006	.01		
Chill margin at both contacts. Lower contact is broken-up but looks like sharp at 60° to vca.											45.5 to 48.5 FL 0861	0.19	.010	.01		
											48.5 to 51.5 FL 0862	0.15	.009	.01		
42.5-58 m. Quartz-Feldspar Porphyry. Feldspars are sericitized. Quartz eyes are uncommon. Carbonate veins with pyrite are generally irregular. Quartz w/ pyrite at 70° to vca.											51.5 to 54.5 FL 0863	0.24	.013	.03		
											54.5 to 57.5 FL 0864	0.28	.015	.02		
											57.5 to 60.5 FL 0865	0.27	.014	.04		48.39-57.84
47.5-48.0 Strong 2ndary biotite. Not too much chalco.		x						M	S	S	60.5 to 63.5 FL 0866	0.48	.022	.04		78%
48.2-49.4 m. Coarsely crystalline calcite vein with sphalerite, pyrite	x	x	sphalerite								63.5 to 66.5 FL 0867	0.38	.019	.04		

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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-6
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 2 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Drill Type:

Core Size:

Az. Dip:

Claim:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS%					% RECOVERED
	Cp	Py	Other	OXIDE	EP	CL	MS	KN	BI	OTHER		Cu	Au	Ag	Mo		
58.0-150 Kingsvale Volcanics. Pyroclastics at top about 70 cms thick. Grades into tuff-pale orange. Some secondary biotite developed in clots and along fractures.											66.5 <sub>0</sub> 69.5						57.84-67.27
											FL 0868	0.45	.020	.04			
											69.5 <sub>10</sub> 72.5						78%
	x	x									FL 0869	0.47	.021	.05	.002		
									M		72.5 <sub>10</sub> 75.5						
Sericite around fractures.											FL 0870	0.46	.020	.05	.003		
Pyrite vein at 20° to vca at 73.75 m.											75.5 <sub>10</sub> 78.5						67.27-
Numerous fractures & veinlets at 85° to vca.											FL 0871	0.35	.017	.05	.002		77.08
											78.5 <sub>10</sub> 81.5						81%
Occasional MoS <sub>2</sub> on shears.			MoS <sub>2</sub>								FL 0872	0.28	.012	.02	.001		
84.27-85.17 m Q-FP. Top contact irregular.											81.5 <sub>10</sub> 84.5						
Bottom contact at 60° to vca. Sharp, but quartz veinlets continuous across contact.											FL 0873	0.37	.017	.03	.002		
85.5-88.87 Tectonic Breccia. Quartz influx. Some open space filling by layers. Gouged.									M		84.5 <sub>10</sub> 87.5						77.08-
											FL 0874	0.19	.009	.03	.001		88.07
Pyrite, chalco & moly in gouge.	x	x	MoS <sub>2</sub>						S		87.5 <sub>10</sub> 90.5						90%
Zeolites? 88.9, 94-94.50, 97-97.10											FL 0875	0.30	.016	.04			
Spotty development of biotite											90.5 <sub>10</sub> 93.5						
											FL 0876	0.18	.010	.02			
											93.5 <sub>10</sub> 96.5						
Rocks are generally at pale grey-green to buff with occasional darker green sections.											FL 0877	0.51	.027	.04			88.07-
											96.5 <sub>10</sub> 99.5						98.96
											FL 0878	0.40	.020	.04			91%
											99.5 <sub>10</sub> 102.5						
											FL 0879	0.42	.023	.06	.003		
											102.5 <sub>10</sub> 105.5						98.96-
											FL 0880	0.21	.014	.05	.001		109.71
											105.5 <sub>10</sub> 108.5						91%
											FL 0881	0.15	.010	.04	.001		



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-6
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 3 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI	OTHER		Cu	Au	Ag	Mo		
110-120 Core very broken. Some vuggy quartz veins.	x	x		hem					M	M	108.5 to 111.5 FL 0882	0.19	.009	.03		109.71- 119.38	
121-126 Intense 2ndary biotite. May be tectonic breccia. Pyrite, chalco & moly.											111.5 to 114.5 FL 0883	0.17	.010	.03		80%	
Biotite drops to spotty after 128.5 m. Still sericite around fractures and veins.	x	x	MoS <sub>2</sub>							S	114.5 to 117.5 FL 0884	0.25	.014	.04			
126.29 Chalco stringer at 40° to vca. 133 onwards - core is very broken. Dark green andesite. Less alteration than above.											117.5 to 120.5 FL 0885	0.18	.011	.04	.003	119.38- 129.65	
Pyrite-chalco veinlets at 60 & 85° to vca. Hematite on fractures.	x	x		hem							120.5 to 123.5 FL 0886	0.21	.012	.07	.001	84%	
148.5 - rock becomes porphyritic.											123.5 to 126.5 FL 0887	0.23	.013	.09	.001		
											126.5 to 129.5 FL 0888	0.41	.024	.10	.001	129.65- 139.90	
											129.5 to 132.5 FL 0889	0.28	.020	.07		80%	
											132.5 to 135.5 FL 0890	0.30	.015	.05			
											135.5 to 138.5 FL 0891	0.36	.018	.05		139.90- 149.96	
											138.5 to 141.5 FL 0892	0.20	.018	.03		80%	
											141.5 to 144.5 FL 0893	0.23	.018	.03			
											144.5 to 147.5 FL 0894	0.30	.021	.03			
											147.5 to 150.5 FL 0895	0.28	.020	.03			





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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-6
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 5 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KT	BI	OTHER		Cu	Au	Ag	Mo		
175-210 Bleached Andesite.	x	x	MoS <sub>2</sub>								187 to 190					181.10-	
Fine-grained, pale grey-pink. Contact with above is broken, but appears sharp at 85° to vca. Some shears w/ MoS <sub>2</sub> . Weak sericite around veinlets.											FL 0910	0.24	.015	.04	.002	191.27	
									W		190 to 193					83%	
											FL 0911	0.29	.015	.05	.001		
											193 to 196						
											FL 0912	0.20	.013	.05	.001		
Quartz-sericite increases after 180 m. First gypsum 186.8 m. Chalco stringers at 85° to vca. Occasional 10 cms sections of feldspar phenocrysts poorly developed.									M		196 to 199					191.27-	
										gypsum	FL 0913	0.19	.012	.05	.001	202.59	
											199 to 202					93%	
											FL 0914	0.16	.011	.04	.001		
Rock is fairly well silicified. Some disseminated as well as fracture-controlled biotite. Pyrite veinlets at 30° cutoff by quartz, veinlet at 30° - off ~20°. Fractures subparallel to vca cut by some at 60° to vca. 201 - could be altered crowded feldspar porphyry.											202 to 205					202.59-	
											FL 0915	0.23	.012	.05	.001	213.23	
											205 to 208					93%	
											FL 0916	0.19	.010	.04	.001		
											208 to 211						
											FL 0917	0.18	.010	.04	.001		
											211 to 214					213.23-	
											FL 0918	0.31	.016	.06	.007	224.41	
											214 to 217					93%	
											FL 0919	0.21	.009	.06	.001		
											217 to 220						
											FL 0920	0.23	.013	.05	.001		
210-223.6 m. Altered Crowded Fs Porphyry.											220 to 223.6						
Pale grey-green. Biotite is partly fracture and partly pervasive. Qtz-ser around veins. Much of unit has reddish color - fine-grained hematite? Bottom contact sheared & very sharp at 70° to vca.									M		FL 0921	0.21	.013	.06	.001		
											223.6 to 226.6						
											FL 0922	0.01	.002	.03			
											226.6 to 228.9						
											FL 0923	0.02	.003	.03			



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-6
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 6 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES		MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %				% RECOVER	
	Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI		OTHER	Cu	Au	Ag		Mo
223.6-228.9 QFP Post Mineral Dike. Pale pink-green with irregular feldspar clots and quartz eyes. No sulfides & very few fractures. Becomes dark green in centre and pale on other side. Bottom contact sharp at 40° to vca.											228.9 to 231.9 FL 0924	0.16	.009	.04		224.41- 235.18
228.12-228.30 Calcite vein.											231.9 to 234.9 FL 0925	0.15	.009	.03		90%
228.9-235.3 m. Altered porphyry as before dike. Q-Ser around veins. Bleached.	x	x	MoS <sub>2</sub>					M	W		234.9 to 237.9 FL 0926	0.07	.003	.04		235.18- 246.45
235.3-257.5 m. Quartz Feldspar Porphyry. Grades from bleached unit above into dark green andesite - porphyry. Feldspars are sericitized. Gypsum veins frequent (4 / metre) at 80° & subparallel. Hematite disseminated in some veins.	x	x		hem				M		gypsum	237.9 to 240.9 FL 0927	0.09	.005	.03		93%
Quartz-sericite around py-chalco veins. Fault gouge 20 cms at 252.91 m. Quartz eyes become more abundant.	x	x									240.9 to 243.9 FL 0928	0.13	.008	.03		
257.5-258.2 Fault Gouge											243.9 to 246.9 FL 0929	0.17	.010	.03		246.45- 257.48
											246.9 to 249.9 FL 0930	0.12	.010	.03		91%
											249.9 to 252.9 FL 0931	0.13	.008	.03		
											252.9 to 255.9 FL 0932	0.15	.008	.03		257.48- 268.08
											255.9 to 258.2 FL 0933	0.15	.009	.02		87%
											258.2 to 261.2 FL 0934	0.15	.009	.02		
											261.2 to 264.2 FL 0935	0.20	.012	.03		
											264.2 to 267.2 FL 0936	0.14	.008	.02		
											267.2 to 270.2 FL 0937	0.14	.008	.02		





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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-6
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 7 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Drill Type:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS%					% RECOV.
	Cp	Py	Other	OXIDE	EP	CL	MS	KN	BI	OTHER		Cu	Au	Ag	Mo		
258.2-287.6 Silicified, bleached rock. Patchy biotite development. Pink gypsum veins at 40° to vca. Occasional q-ser around fracs and veinlets. Not much sulfide to 269. 273.5 m. Fault gouge 3 cms at 15° to vca.	x	x								W	270.2 <sub>10</sub> 273.2 FL 0938	0.08	.004	.02		268.08- 277.67	
											273.2 <sub>10</sub> 276.2 FL 0939	0.12	.007	.01		74%	
											276.2 <sub>10</sub> 279.2 FL 0940	0.09	.006	.01			
											279.2 <sub>10</sub> 282.2 FL 0941	0.10	.006	.01		277.67- 286.46	
											282.2 <sub>10</sub> 285.2 FL 0942	0.10	.006	.02		72%	
											285.2 <sub>10</sub> 287.6 FL 0943	0.13	.007	.02			
287.6-308.58 Dark green, fine-grained andesite. Frequent gypsum veins 3/metre at 60° to vca.										gypsum	287.6 <sub>10</sub> 290.6 FL 0944	0.21	.012	.02		286.46- 297.84	
	x	x									290.6 <sub>10</sub> 293.6 FL 0945	0.11	.007	.02		94%	
											293.6 <sub>10</sub> 296.6 FL 0946	0.17	.011	.02			
											296.6 <sub>10</sub> 299.6 FL 0947	0.09	.007	.01		297.84- 309.39	
											299.6 <sub>10</sub> 302.6 FL 0948	0.20	.009	.01		95%	
											302.6 <sub>10</sub> 305.6 FL 0949	0.12	.006	.01			
											305.6 <sub>10</sub> 308.6 FL 0950	0.15	.002	.01			
											308.6 <sub>10</sub> 311.6 FL 0951	0.02	.002	.01			



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-6
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 8 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Drill Type:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES		MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOV
	Cp	Py	Other	OXIDE	EP	CL	MS	KZ	BI		OTHER	Cu	Au	Ag	Mo	
308.58-311.46 QFP. Pale green, rounded quartz eyes. Hairline carbonate veinlets at 60° to vca. Post mineral dike. Bottom contact sharp at 60° to vca.											311.6 to 314.6 FL 0952	0.15	.008	.01		309.39-320.51
											314.6 to 317.6 FL 0953	0.14	.008	.01		91%
											317.6 to 320.6 FL 0954	0.01	.002	.01		
311.46-351.74 m. Andesite as before. Carbonate veinlets at 60° to vca.											320.6 to 323.6 FL 0955	0.11	.005	.01		
Still qtz-sericite envelopes around py-cp veinlets. Occasional hematite clot.	x	x		hem							323.6 to 326.6 FL 0956	0.11	.006	.01		320.51-331.93
Occasional short (20 cm) bleached section.											326.6 to 329.6 FL 0957	0.19	.011	.01		94%
											329.6 to 332.6 FL 0958	0.15	.009	.01		
											332.6 to 335.6 FL 0959	0.16	.009	.01		331.93-343.07
351.74 End of Hole. 90 feet casing left in hole.											335.6 to 338.6 FL 0960	0.16	.009	.01		91%
											338.6 to 341.6 FL 0961	0.24	.013	.01		343.07-351.74
<u>Sperry Sun Tests</u>											341.6 to 344.6 FL 0962	0.15	.010	.01		95%
@ 33.54 m 58.5° N 4° W											344.6 to 347.6 FL 0963	0.12	.009	.01		
@ 182.93 m 58.0° Due North											347.6 to 350.6 FL 0964	0.11	.007	.02		
@ 341.46 m 57.0° N 11° E											350.6 to 351.76 FL 0965	0.26	.013	.03		



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# GENERAL DRILL HOLE LOG

Latitude: 9,923.64	Hole No. FL81-7
Departure: 10,597.80	Commenced: Feb. 7/81
Elevation: 1,475.6	Completed: Feb. 12/81
Length: 351.13 m	Logged by: NJW
Overburden:	Sheet No. 1 of 8
Az. 0 Dip: 60°	Claim: TK 31, TK 4

Contractor: J. T. Thomas

Drill Type: 44

Core Size: NQ

Core Size: NQ

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %				% RECOVERY
	Cp	Py	Other	OXIDE	EP	CL	MS	KN	BI	OTHER		Cu	Au	Ag	Mo	
0 - 57.91 m Overburden 190' casing. Casing broken off 20' down.											57.91 to 61 FL 0387	0.05	.003	.01		57.91-70.91
57.91-136.85 Crowded Feldspar Porphyry Core is very broken-up - poor recovery. Pyrite blebs surrounded by biotite. Not much Py on fractures 70 down - coarse Py on fracs. occ. sericite alteration		x								M	61 to 64 FL 0388	0.03	.002	.02		60%
		x									64 to 67 FL 0389	0.03	.002	.02		
		x							W		67 to 70 FL 0390	0.02	.002	<.01		70.91-82.10
			hem								70 to 73 FL 0391	0.06	.004	.02		60%
occ. hematite on fracs. occ. magnetite on fractures and with biotite.			mag								73 to 76 FL 0392	0.03	.003	.01		
Fractures at 40° & subparallel to vca. Broken nature makes measuring difficult.											76 to 79 FL 0393	0.03	<.002	.02		86.87-96.50
											79 to 82 FL 0394	0.02	.002	.02		68%
											82 to 85 FL 0395	0.01	<.002	.02		96.50-107.27
											85 to 88 FL 0396	0.02	<.002	.01		70%
											88 to 91 FL 0397	0.03	.002	.01		
											91 to 94 FL 0398	0.02	.002	.01		
											94 to 97 FL 0399	0.01	<.002	<.01		
											97 to 100 FL 0400	0.02	<.002	<.01		

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# GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-7
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 2 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas      Drill Type: 44      Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %				% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI	OTHER		Cu	Au	Ag	Mo	
Recovery improves with depth. Pyrite fractures at 40° to vca. Problem: When core breaks along fractures, coarse pyrite falls to bottom of box - some probably is not recovered.		x									100 to 103 FL 0401	0.03	.002	<.01		107.27- 118.97
											103 to 106 FL 0402	0.02	.003	<.01		90%
											106 to 109 FL 0403	0.01	<.002	.03		
123.75-124.36 Fault gouge, vuggy 127 - becomes mostly fine-grained andesite											109 to 112 FL 0404	0.01	<.002	.06		118.97- 126.72
Disseminated pyrite with biotite around. Carbonate coating on fractures.		x							W		112 to 115 FL 0405	0.03	.002	.03		64%
136.85-178.5 Q-Feldspar Porphyry											115 to 118 FL 0406	0.06	.004	.03		
Dark green, fairly hard rock with diffuse feldspars. Core still very broken, but better recovery.		x									118 to 121 FL 0407	0.04	.003	.05		126.72- 137.20
Disseminated pyrite and on fractures											121 to 124 FL 0408	0.01	<.002	.04		86%
137.0-137.8 m Pale green post-mineral dike. Quartz Feldspar Porphyry. Below dike core is weathered, kaolinized, and broken. Rock is rotted away in places except for qtz grains.											124 to 127 FL 0409	0.02	.003	.06		
											127 to 130 FL 0410	0.03	.002	.04		137.20- 148.29
											130 to 133 FL 0411	0.03	.002	.04		91%
											133 to 136 FL 0412	0.04	.002	.04		148.29- 157.26
											136 to 139 FL 0413	0.03	.002	.05		75%
											139 to 142 FL 0414	0.03	.003	.04		



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## GENERAL DRILL HOLE LOG

Latitude:	Note No. FL81-7
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. <u>3</u> of <u>8</u>
Az. Dip:	Claim:

Contractor: J. T. Thomas

Drill Type:

Core Size:

Az. Dip:

Claim:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION						HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER	
	Cp	Py	Other	OXIDE	EP	CL	MS	KN	BI		OTHER	Cu	Au	Ag	Mo		
Fractures with pyrite at 60° to vca.		x						M	M		142 to 145					157.26	
											FL 0415	0.02	.004	.05		166.36	
164.42-165.42 Pyrite veinlet parallel to core axis.											145 to 148					79%	
Vuggy with quartz. Four v-cutting veinlets at 60°.											FL 0416	0.01	.002	.05			
174.68 Rocks become competent, may be silicified by dike below. Rocks are spotted with py & biotite dots.											148 to 151						
											FL 0417	0.03	.003	.04			
											151 to 154					166.36	
											FL 0418	0.04	.003	.03		176.58	
											154 to 157					85%	
178.5-185.6 Post Mineral Dike Quartz & Feldspar phenocrysts. Rock is pale pink grading down to green. Top contact is about 15° to vca, and bottom is about 60° to vca. A few hairline quartz veinlets.											FL 0419	0.03	.003	.04			
											157 to 160						
											FL 0420	0.03	.005	.04			
											160 to 163						
											FL 0421	0.05	.004	.03			
											163 to 166						
											FL 0422	0.03	.004	.04			
											166 to 169						
											FL 0423	0.05	.005	.04			
											169 to 172						
											FL 0424	0.04	.002	.03			
											172 to 175						
											FL 0425	0.06	.003	.03			
											175 to 178						
											FL 0426	0.08	.004	.03			
											178 to 181						
											FL 0427	0.01	.002	.03			
											181 to 184						
											FL 0428	0.01	.002	.04			



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# GENERAL DRILL HOLE LOG

Latitude:	Mo's No. FL81-7
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 4 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI	OTHER		Cu	Au	Ag	Mo		
185.6-192.38 Altered Andesite? Rock is medium gray, medium grained. Some secondary biotite gives spotted appearance. Sericite alteration around fractures.		x									184 to 185.6 FL 0429	0.01	.002	.03		176.58-187.75	
Fracs at 60° to vca. Some py veinlets at at 10° to vca. Contact with before fairly sharp at about 85° to vca.											185.6 to 188.6 FL 0430	0.15	.008	.05		92%	
											188.6 to 191.6 FL 0431	0.12	.007	.04			
											191.6 to 194.6 FL 0432	0.07	.004	.03			
192.38 Feldspar Porphyry Dark green with 1 mm feldspars. Pyrite and chalco increases. Veinlets at 40° to vca, ~ 8/m. Feldspars form 60% of rock, kaolinized.	x	x									194.6 to 197.6 FL 0433	0.05	.003	.03		187.75-197.43	
											197.6 to 200.6 FL 0434	0.14	.006	.05		80%	
203.35 Clear gypsum veinlets - irregular. Pyrite & chalco finely disseminated throughout core. Q-Ser alteration. Some andesite sections i.e. few or no phenos.											200.6 to 203.6 FL 0435	0.09	.003	.04			
											203.6 to 206.6 FL 0436	0.16	.006	.06		197.43-208.67	
											206.6 to 209.6 FL 0437	0.10	.006	.05		92%	
											209.6 to 212.6 FL 0438	0.12	.008	.04			
											212.6 to 215.6 FL 0439	0.10	.002	.03		208.67-220.06	
											215.6 to 218.6 FL 0440	0.08	.005	.03		94%	
											218.6 to 221.6 FL 0441	0.09	.005	.04		220.06-231.56	
											221.6 to 224.6 FL 0442	0.13	.006	.05		95%	



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# GENERAL DRILL HOLE LOG

Latitude:	Mo. No. FL81-7
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 5 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KN	BI	OTHER		Cu	Au	Ag	Mo		
234.35-236.10 Post mineral dike. Both contacts sheared at 30° to vca. Dark green QPP.											224.6 <sub>10</sub> 227.6					231.56-242.5	
247.44-249.76 Post mineral dike. Top contact sharp at 85°. Top of dike is green grading to pale pink towards base. Bottom contact sheared at 20° to vca.											FL 0443	0.15	.010	.04		95%	
											227.6 <sub>10</sub> 230.6						
											FL 0444	0.09	.009	.04			
											230.6 <sub>10</sub> 233.6						
											FL 0445	0.06	.002	.02			
											233.6 <sub>10</sub> 234.35					242.5-253.59	
											FL 0446	0.08	.004	.03			
											234.5 <sub>10</sub> 236.10					92%	
											FL 0447	0.01	.002	.03			
254.59 2 cm quartz vein 40° to vca. Chalco, pyrite, and sphalerite in qtz.	x	x	sph								236.10 <sub>10</sub> 239.10						
											FL 0448	0.07	.006	.03			
											239.10 <sub>10</sub> 242.10					253.59-265.23	
											FL 0449	0.08	.008	.04			
257.5 1.5 cm quartz vein at 30° to vca. Pyrite, chalco and minor sphalerite. Outside lined with gypsum.	x	x	sph								242.10 <sub>10</sub> 245.10					96%	
											FL 0450	0.08	.007	.01			
											245.10 <sub>10</sub> 247.44						
											FL 0451	0.10	.004	.01			
											247.44 <sub>10</sub> 249.76						
261.68-262.28 Post mineral dike.											FL 0452	0.01	.002	.01			
262.82-263.89 PMP - top contact at 10° to vca. Gypsum veins in both subparallel to vca.											249.76 <sub>10</sub> 252.76						
											FL 0453	0.17	.009	.02			
											252.76 <sub>10</sub> 255.76						
											FL 0454	0.37	.027	.04			
											255.76 <sub>10</sub> 258.76						
											FL 0455	0.14	.022	.02			
											258.76 <sub>10</sub> 261.76						
											FL 0456	0.13	.014	.02			



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-7
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. <u>6</u> of <u>8</u>
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake  
Area:  
Purpose:  
Drill Type: Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %				% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	Kf	BI	OTHER		Cu	Au	Ag	Mo	
266.8-267.25 Py-cl-cp-qtz vein 2 cm wide parallel to vca.	x	x									261.76 <sub>0</sub> 264.76 <sub>6</sub> FL 0457	0.04	0.002	.01		265.23- 276.77
282.0-282.45 Breccia. Fragments are jasperized, Biotite clots between.											264.76 <sub>0</sub> 267.76 <sub>6</sub> FL 0458	0.19	.010	.01		95%
298.6-300 Porphyry grades into dark green from pale grey.											267.76 <sub>0</sub> 270.76 <sub>6</sub> FL 0459	0.16	.007	.01		
300-305 Pale grey											270.76 <sub>0</sub> 273.76 <sub>6</sub> FL 0460	0.17	.016	.01		276.77- 288.13
305-313 Dark green - some fine-grained sections	x	x									273.76 <sub>0</sub> 276.76 <sub>6</sub> FL 0461	0.18	.009	.02		93%
313 Pale grey											276.76 <sub>0</sub> 279.76 <sub>6</sub> FL 0462	0.09	.005	.01		
											279.76 <sub>0</sub> 282.76 <sub>6</sub> FL 0463	0.16	.009	.01		288.13- 299.42
											282.76 <sub>0</sub> 285.76 <sub>6</sub> FL 0464	0.26	.012	.04		93%
											285.76 <sub>0</sub> 288.76 <sub>6</sub> FL 0465	0.16	.010	.01		
											288.76 <sub>0</sub> 291.76 <sub>6</sub> FL 0466	0.16	.009	.01		299.42- 310.94
											291.76 <sub>0</sub> 294.76 <sub>6</sub> FL 0467	0.15	.008	.02		95%
											294.76 <sub>0</sub> 297.76 <sub>6</sub> FL 0468	0.24	.015	.02		
											297.76 <sub>0</sub> 300.76 <sub>6</sub> FL 0469	0.06	.004	.02		310.94- 322.17
											300.76 <sub>0</sub> 303.76 <sub>6</sub> FL 0470	0.14	.005	.02		92%





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# GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-7
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 7 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas  
Property: Fish Lake  
Area:  
Purpose:  
Drill Type:  
Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES		MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %				% RECOVER			
	Cp	Py	Other	OXIDE	EP	CL	MS	KN	BI		OTHER	Cu	Au	Ag		Mo		
325-329 Dark Green	x	x						M	M		303.76 FL 0471	306.76	0.13	.005	.02			322.17- 333.55
329-334 Pale Grey											306.76 FL 0472	309.76	0.20	.009	.03			94%
334-335 Dark Green											309.76 FL 0473	312.76	0.16	.006	.03			
335-338 Pale Grey											312.76 FL 0474	315.76	0.19	.008	.03			333.55- 345.35
338-339 Dark Green											315.76 FL 0475	318.76	0.07	.005	.01			97%
339-347.5 m Pale grey 343.6 Quartz vein with pyrite, chalco, galena and sphalerite; 3 cms wide at 20° to vca.											318.76 FL 0476	321.76	0.17	.005	.03			345.35- 351.13
											321.76 FL 0477	324.76	0.10	.004	.02			95%
347.5-351.13 Dark green. Chalco visible to end of hole.	x	x									324.76 FL 0478	327.76	0.10	.004	.03			
											327.76 FL 0479	330.76	0.06	.003	.03			
351.13 m End of Hole. 190' of NQ casing left in hole.											330.76 FL 0480	333.76	0.10	.004	.02			
											333.76 FL 0481	336.76	0.12	.005	.03			
											336.76 FL 0482	339.76	0.14	.005	.03			
											339.76 FL 0483	342.76	0.08	.004	.02			
											342.76 FL 0484	345.76	0.15	.010	.03			





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## GENERAL DRILL HOLE LOG

Latitude: 10,301.19	Hole No. FL81-8
Departure: 10,099.45	Commenced: Feb. 7/81
Elevation: 1,451.0	Completed: Feb. 11/81
Length:	Logged by: NJW
Overburden:	Sheet No. 1 of 8
Az. 0 Dip. -60°	Claim: TK6, TK8

Contractor: J. T. Thomas

Drill Type: 38

Core Size: NQ

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER		
	Cp	Py	Other	OXIDE	EP	CL	MS		KN	BI	OTHER	Cu	Au		Ag	Mo
0-30.48 Overburden Casing to 100' (30.48 m)										30.48 to 33 FL 0966	0.34	.018	.04			30.48- 41.24
30.48-62.0 m. Bleached Feldspar Porphyry. Pale grey, silicified rocks. Occasional sections where ghost feldspars are visible. Moderate pervasive biotite and disseminated hematite. Qtz-ser envelopes around pyrite veinlets. Py veinlets at 15° to vca, 40° to vca, and 85° to vca.	x	x		Hem			M	M		33 to 36 FL 0967	0.20	.011	.03			88%
42-47 Dark green, more andesitic veining & alteration continue. Biotite becomes more intense towards base. Swirly. Magnetite in biotite clots along frac occ.										36 to 39 FL 0968	0.27	.015	.03			41.24- 51.51
62.0-73.95 m. Quartz-Feldspar Porphyry. Top contact is irregular subparallel to vca. Rock is pale pink to pale green in places. Few fractures, no sulfides. Post mineral.										39 to 42 FL 0969	0.21	.014	.02			84%
71.3-72.6 m. Inclusion of altered andesite ? Contacts at 68° to vca.										42 to 45 FL 0970	0.23	.013	.02			
										45 to 48 FL 0971	0.23	.015	.03			51.51- 62.26
				mag						48 to 51 FL 0972	0.25	.013	.03			88%
										51 to 54 FL 0973	0.29	.016	.03			
										54 to 57 FL 0974	0.30	.015	.04			62.26- 67.78
										57 to 60 FL 0975	0.31	.016	.03			94%
										60 to 62 FL 0976	0.21	.011	.02			67.78- 78.45
										62 to 65 FL 0977	0.03	.002	.02			88%
										65 to 68 FL 0978	0.02	.002	.01			
										68 to 71 FL 0979	0.01	.002	.01			



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-8
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 2 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	MINERALIZATION							HOLE DEPTH TAG NO.	ASSAYS %				% RECOVER		
	Cp	Py	Other	OXIDE	EP	CL	MS		KZ	BI	OTHER	Cu		Pb	Zn
73.95 - Altered Andesite. Silicified, pink-orange tinge in places - sericite with hem? Fracture-controlled biotite.							M		71 to 73.95 FL 0980						78.45- 88.63
									73.95 to 77 FL 0981	0.08	.003	.02			84%
82.06-83.40 Dike - QFP. Top contact irregular. Bottom sharp at 40° to vca. Pyrite along contact and disseminated above & below for 3 cms. Veining & silicification increase with depth. Well mineralized. Carbonate veins & hairline fractures.									77 to 80 FL 0982	0.24	.013	.03			
									80 to 82.06 FL 0983	0.24	.016	.02			
									82.06 to 83.40 FL 0984	0.12	.010	.02			
	x	x							83.40 to 86.40 FL 0985	0.10	.004	.01			88.63- 99.25
									86.40 to 89.40 FL 0986	0.21	.006	.02			80%
									89.40 to 92.4 FL 0987	0.34	.011	.03			
									92.4 to 95.4 FL 0988	0.32	.014	.03			
									95.4 to 98.4 FL 0989	0.18	.008	.01			99.26- 110.63
									98.4 to 101.4 FL 0990	0.21	.006	.03			94%
									101.4 to 104.4 FL 0991	0.24	.008	.02			
									104.4 to 107.4 FL 0992	0.14	.005	.01			
									107.4 to 110.4 FL 0993	0.20	.009	.01			
										0.15	.008	.02			



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-8
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 3 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas      Drill Type:      Core Size:

GENERAL DESCRIPTION (GEOLOGY)	MINERALIZATION										HOLE DEPTH TAG NO.	ASSAYS					% RECOVER	
	Cp	Py	Other	OXIDE	EP	CL	MS	KF	BI	OTHER		Ag	Pb	Cu	Zn			
120-121.1 Carbonate vein subparallel to vca with chalco & pyrite.	x	x										110.4 to 113.4 FL 0994	0.17	.011	.02			110.63-121.80
Occasionally relict feldspars visible. May be a diorite as well which has been intensely altered.												113.4 to 116.4 FL 0995	0.17	.010	.03			92%
												116.4 to 119.4 FL 0996	0.19	.011	.02			121.80-132.77
124.25-124.80 Fault Gouge								S	W	carbonate		119.4 to 122.4 FL 0997	0.18	.011	.03			90%
131.17-138.27 QFP Dike Contact w/ above fractured at 85° to vca. Rock is pale pink.												122.4 to 125.4 FL 0998	0.20	.010	.03			
												125.4 to 128.4 FL 0999	0.13	.008	.02			
138.27- Altered Andesite. Similar to above dike. Not as altered. Dark green.												128.4 to 131.4 FL 1000	0.20	.009	.02			132.77-143.63
								W	M	gypsum		131.4 to 134.4 FL 1001	0.08	.003	.03			80%
142.8-143 Gypsum. Several colours; several stages of influx?												134.4 to 137.4 FL 1002	0.01	.002	.03			143.63-154.86
												137.4 to 140.4 FL 1003	0.10	.004	.02			90%
												140.4 to 143.4 FL 1004	0.17	.009	.02			
												143.4 to 147.4 FL 1005	0.19	.009	.02			
												147.4 to 150.4 FL 1006	0.19	.007	.02			
												150.4 to 153.4 FL 1007	0.19	.006	.02			



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-8
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 4 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas      Drill Type:      Core Size:

GENERAL DESCRIPTION (GEOLOGY)	MINERALIZATION								HOLE DEPTH TAG NO.	ASSAYS %				% RECOVER	
	Cp	Py	Other	OXIDE	EP	CL	MS	KP		BI	OTHER	Ag	Pb		Zn
159.29-160.68 m. Carbonate Vein with pyrite & chalco.	x	x								153.4 to 157.4 FL 1008	0.18	.005	.02		154.86-166.14
163 - downwards - bleached to 170.										157.4 to 160.4 FL 1009	0.08	.004	.04		93%
174.35 Quartz-pyrite vein at 80° to vca offset 10 cms by fracture w/ pyrite subparallel to vca.										160.4 to 163.4 FL 1010	0.16	.005	.05		
185.9 - tectonic breccia 6 cms with carbonate influx and orange sphalerite.										163.4 to 166.4 FL 1011	0.09	.003	.01		
										166.4 to 169.4 FL 1012	0.13	.005	.02		166.14-177.59
189.3-189.6 Fault Gouge										169.4 to 172.4 FL 1013	0.12	.005	.01		94%
189.86-195.22 QFP Dike Top contact sheared at 75° to vca. Bottom contact sharp at 85° to vca.										172.4 to 175.4 FL 1014	0.10	.004	.02		
										175.4 to 178.4 FL 1015	0.12	.004	.01		177.59-189.23
										178.4 to 181.4 FL 1016	0.12	.003	.01		96%
										181.4 to 184.4 FL 1017	0.15	.004	.01		
										184.4 to 187.4 FL 1018	0.12	.003	.01		189.23-200.02
										187.4 to 190.4 FL 1019	0.08	.002	.02		89%
										190.4 to 193.4 FL 1020	0.01	.002	.01		
										193.4 to 196.4 FL 1021	0.03	.002	.01		



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-8
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 5 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas      Drill Type:      Core Size:

GENERAL DESCRIPTION (GEOLOGY)	MINERALIZATION										HOLE DEPTH TAG NO.	ASSAYS %					% RECOV
	Sulfides			Oxides								Cu	Pb	Zn	Ag		
	Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI	OTHER							
195.22 Altered Andesite.												196.4 to 199.4					200.02-
Sulfide content decreasing. Gypsum veinlets	x	x								W	W	FL 1022	0.08	.002	.01		211.48
6/metre. Blotchy chlorite & magnetite.												199.4 to 202.4					94%
esp. 212-218. Hematite on fractures.												FL 1023	0.13	.004	.02		
Magnetite veinlets at 50° - 1/box												202.4 to 205.4					
												FL 1024	0.13	.005	.01		
												205.4 to 208.4					211.48-
												FL 1025	0.08	.005	.03		222.4
												208.4 to 211.4					90%
												FL 1026	0.10	.003	.02		
												211.4 to 214.4					
												FL 1027	0.14	.004	.01		222.4-
												214.4 to 217.4					233.73
												FL 1028	0.21	.008	.01		93%
												217.4 to 220.4					
												FL 1029	0.14	.006	.01		
												220.4 to 223.4					233.73-
												FL 1030	0.15	.008	.01		245.28
												223.4 to 226.4					95%
												FL 1031	0.13	.006	.01		
												226.4 to 229.4					
												FL 1032	0.16	.007	.01		
												229.4 to 232.4					245.28-
												FL 1033	0.08	.003	.01		256.92
												232.4 to 235.4					96%
												FL 1034	0.09	.005	.01		
												235.4 to 238.4					
												FL 1035	0.06	.002	.01		



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-8
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 6 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	MINERALIZATION										HOLE DEPTH		ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI	OTHER	TAG NO.	g	Ag	g	g	g		
Py-gyp vein at 20° to vca at 246.38 m		x						M		W	gypsum	238.4 to 241.4					256.92-268.09	
												FL 1036	0.09	0.006	0.01			
272.96-280.34 m Post Mineral Dike.												241.4 to 244.4					88%	
												FL 1037	0.06	0.002	0.01			
Hb, Fs, porphyry. Top contact gradational.												244.4 to 247.4						
Bottom contact sharp, irregular, subparallel to core for 2 m. No veins.												FL 1038	0.09	0.006	0.01			
												247.4 to 250.4					268.09-278.02	
												FL 1039	0.05	0.002	0.01			
												250.4 to 253.4					85%	
280.34 Altered Andesite.												FL 1040	0.04	0.002	0.02			
Silicified and sericitized.												253.4 to 256.4						
284.7-285.7 Q-Py-Chl-Hem vein parallel to core axis.												FL 1041	0.03	0.002	0.01			
												256.4 to 259.4						
												FL 1042	0.06	0.002	0.01			
												259.4 to 262.4					278.02-289.04	
												FL 1043	0.07	0.002	0.01			
												262.4 to 265.4					91%	
												FL 1044	0.06	0.002	0.01			
												265.4 to 268.4						
												FL 1045	0.01	0.002	0.01			
												268.4 to 271.4						
												FL 1046	0.02	0.002	0.01			
												271.4 to 274.4						
												FL 1047	0.03	0.002	0.01			
												274.4 to 277.4						
												FL 1048	0.01	0.002	0.01			
												277.4 to 280.4						
												FL 1049	0.02	0.002	0.01			





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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-8
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 7 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	MINERALIZATION										HOLE DEPTH		ASSAYS					RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI	OTHER	TAG NO.	Fe	Cu	Ag	Au	g		
Veining & sulfides increasing with depth. Multiple carbonate veinlets.	x	x								gypsum	280.4 <sub>o</sub> 283.4 FL 1050	0.04	0.002	0.01			289.04- 300.53	
306-308 Silicified with pyrite & chlorite blebs.											283.4 <sub>o</sub> 286.4 FL 1051	0.06	0.002	0.01			95%	
											286.4 <sub>o</sub> 289.4 FL 1052	0.02	0.002	0.01				
											289.4 <sub>o</sub> 292.4 FL 1053	0.01	0.002	0.01			300.53- 312.24	
											292.4 <sub>o</sub> 295.4 FL 1054	0.09	0.002	0.01			99%	
											295.4 <sub>o</sub> 298.4 FL 1055	0.10	0.002	0.01			312.24- 323.8	
											298.4 <sub>o</sub> 301.4 FL 1056	0.05	0.002	0.01			95%	
318.22-320.79 QFhb porphyry. Top contact is sharp at 90° to vca. First 10 cms is foliated. Bottom contact is more irregular.											301.4 <sub>o</sub> 304.4 FL 1057	0.03	0.002	0.01				
Some pyrite on fractures, some carbonate veinlets.											304.4 <sub>o</sub> 307.4 FL 1058	0.01	0.002	0.01			323.8- 335.26	
											307.4 <sub>o</sub> 310.4 FL 1059	0.01	0.002	0.01			94%	
320.79-334.39 m. Altered Andesite. Silicified with py-chlorite clots. Disseminated chalco & occasionally in veinlets.	x	x									310.4 <sub>o</sub> 313.4 FL 1060	0.01	0.002	0.01				
											313.4 <sub>o</sub> 316.4 FL 1061	0.01	0.002	0.01				
											316.4 <sub>o</sub> 319.4 FL 1062	0.01	0.002	0.01				
											319.4 <sub>o</sub> 322.4 FL 1063	0.01	0.002	0.01				



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# GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-8
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 8 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Drill Type:

Core Size:

Az. Dip:

Claim:

GENERAL DESCRIPTION (GEOLOGY)	MINERALIZATION										HOLE DEPTH TAG NO.	ASSAYS					% RECOVERED
	Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI	OTHER		Cu	Pb	Zn	Ag		
334.39-337.82 m. Dike. Feldspar-Hb Porphyry Top contact is brecciated and sheared.												322.40 to 325.4 FL 1064	0.03	0.002	0.01		335.26- 346.25
												325.4 to 328.4 FL 1065	0.02	0.002	0.01		91%
337.82-352.35 Top 2 metres is silicified & chloritized. "Snowflake" pyrite - pyrite grown along minifractures. Sample for thin section. Grades into clotty chlorite. Veinlets of carbonate & hairline fractures. Alteration drops markedly toward bottom of hole.	x	x										328.4 to 331.4 FL 1066	0.03	0.002	0.01		
												331.4 to 334.4 FL 1067	0.03	0.002	0.01		346.25- 352.35
										carbonate		334.4 to 337.4 FL 1068	0.01	0.002	0.01		96%
												337.4 to 340.4 FL 1069	0.02	0.003	0.01		
												340.4 to 343.4 FL 1070	0.03	0.003	0.01		
352.35 End of Hole												343.4 to 346.4 FL 1071	0.08	0.004	0.01		
100' NQ casing left in hole.												346.4 to 349.4 FL 1072	0.04	0.002	0.01		
												349.4 to 352.35 FL 1073	0.09	0.004	0.01		
Sperry Sun Tests												to					
@ 39.63 m 62.0° N 11° E												to					
@ 182.93 m 62.5° N 5° W												to					
@ 341.46 m 63.5° N 3° E												to					
												to					



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## GENERAL DRILL HOLE LOG

Latitude: 10,211.3 Hole No. Q81-8  
 Departure: 10,414.0 Commenced: Jan. 17/81  
 Elevation: 1,364.6 Completed: Jan. 19/81  
 Length: 122.53-305.41 m Logged by: NJW  
 Overburden: Sheer No. 1 of 5  
 Az. Dip: -90° Claim: TK 6

Contractor: J. T. Thomas

Drill Type: L3 Super 38

Core Size: NQ

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER		
	Cp	Py	Other	OXIDE	EP	CL	MS		KF	BI	OTHER	Cu	Au		Ag	Mo
This hole is an extension of Q74-8, and starts at 122.53 m (402 ft.)											122.53 to 125	0.29	0.014	0.05		122.53-133.19
											125 to 128	0.33	0.019	0.04		88%
122.53-134.5 m. Altered diorite	x	x					x	x	x		128 to 131	0.35	0.018	0.05		
Rock is pale grey fine-grained											131 to 134	0.36	0.018	0.06		
Fractures are healed with quartz and pyrite-chalcopyrite. Pervasive secondary biotite-											134 to 137	0.16	0.008	0.02		133.19-
Occasional bleached envelope around fracture.									Fractures 40°		137 to 140	0.07	0.002	0.06	0.003	91%
Some vugs. Starting at 127.8 down - K-spar?									to vca		140 to 143	0.42	0.018	0.12	0.008	
Some fractures subparallel to vca.											143 to 146	0.21	0.017	0.04	0.009	
											146 to 149	0.39	0.024	0.09	0.001	
134.50-140.78 m Felsite Dike?											149 to 152	0.23	0.02	0.06	0.002	144.25-
Very fine-grained, light to dark grey micro-porphry. No mineralization; no alteration;											to					154.17
very few fractures. Chill margin top and																
bottom contact.																
140.78-150.03 Altered diorite as 122.53-134.50																82%
140.78-141.28 5% pyrite with molybdenite. Also																
142.34-142.85 m.																
148.8 - hematite after pyrite.																
150.03-161.3 Altered diorite. Rock is intensely																
altered and quite shattered. Extensive kaolinization									x x multiple fractures							

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## GENERAL DRILL HOLE LOG

GENERAL DESCRIPTION (GEOLOGY)		SULPHIDES MINERALIZATION								HOLE DEPTH		ASSAYS %					% RECOVER
		Cp	Py	Other	OXIDE	EP	CL	MS	K	BI	OTHER	TAG NO.	Cu	Au	Ag	Mo	
Chalcopyrite follows fractures & forms clots and veinlets. Molybdenite occurs with quartz on shears.		x	x	MoS <sub>2</sub>					x	x		152 to 155 FL 0511	0.26	0.012	0.06	0.004	154.17- 163.29
											155 to 158 FL 0512	0.28	0.012	0.06	0.008	75%	
161.3-169.47 Altered diorite. Fairly competent dark green fine-grained.		x	x	MoS <sub>2</sub>					x	x	158 to 161 FL 0513	0.33	0.016	0.05	0.004		
Molybdenite in shear zones. Chlorite is pervasive. 2% pyrite.											161 to 164 FL 0514	0.27	0.013	0.05	0.009		
168.05 Veinlet of pink gypsum 40° to vca											164 to 167 FL 0515	0.40	0.023	0.07	0.009	163.29- 173.25	
											167 to 170 FL 0516	0.50	0.035	0.07	0.009	82%	
169.47-171.4 Shattered zone. Some gypsum between fragments. Lots of biotite and chlorite.											170 to 173 FL 0517	0.37	0.020	0.06	0.005		
											173 to 176 FL 0518	0.38	0.018	0.06			
171.4-236.5 Altered diorite. Similar to 161.3-169.47 m. Less pyrite. Gypsum veinlets ~8/metre 80° to vca. Occasional hematite after pyrite.		x	x								Gypsum 80° to vca	176 to 179 FL 0519	0.42	0.018	0.06		173.25- 184.4
											179 to 182 FL 0520	0.41	0.018	0.06		92%	
											182 to 185 FL 0521	0.49	0.024	0.08			
Few specks galena(?) at 187.64 m. 198.33-198.53 m 5% disseminated pyrite with 1 cm pyrite veinlet at 30° to vca.											185 to 188 FL 0522	0.46	0.038	0.14		184.4- 190.02	
											188 to 191 FL 0523	0.28	0.023	0.10		92%	
											191 to 194 FL 0524	0.28	0.021	0.09			



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. Q81-8
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 3 of 5
Az. Dip:	Claim:

Contractor: J. T. Thomas

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION								HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER	
	Cp	Py	Other	OXIDE	EP	CL	MS	KA		BI	OTHER	Cu	Av	Ag		Mo
Frequency of gypsum veinlets decreasing.	x	x							x	Gypsum 60 to 80° to vca.	194 to 197 FL 0525	0.29	0.028	0.14		190.02-201.34
212.2-212.5 brecciated											197 to 200 FL 0526	0.27	0.014	0.04		93%
216.89-218.11 Ca-carbonate & gypsum & chalcopyrite vein parallel to vca.	x										200 to 203 FL 0527	0.24	0.014	0.06		
											203 to 206 FL 0528	0.30	0.015	0.04		201.34-212.87
218.50-219.10 m brecciated											206 to 209 FL 0529	0.37	0.033	0.06	0.008	95%
220.86-221.16 carbonate-gypsum chalc vein parallel to vca.	x										209 to 212 FL 0530	0.28	0.025	0.05	0.008	212.87-224.23
Biotite developed 230-232.											212 to 215 FL 0531	0.43	0.02	0.06	0.012	93%
236.50-239.38 Biotite Feldspar Porphyry Dike. Minor alteration of bi-chlorite											215 to 218 FL 0532	0.26	0.012	0.06	0.008	
Occasional gypsum vein.											218 to 221 FL 0533	0.31	0.016	0.05	0.004	224.23-235.69
Both contacts brecciated. Very little pyrite no chalco.											221 to 224 FL 0534	0.37	0.018	0.06	0.007	94%
239.38-279.4 Dark grey-green altered diorite, fine-grained with biotite and chlorite clots.											224 to 227 FL 0535	0.24	0.013	0.04		
Gypsum veinlets 4 per metre. Occasional moly on fractures as at 242.0 m. Some pyrite on fractures and some dissemination.	x	x	MoS <sub>2</sub>								227 to 230 FL 0536	0.32	0.016	0.08		235.69-246.96
											230 to 233 FL 0537	0.35	0.017	0.09		93%
											233 to 236 FL 0538	0.28	0.012	0.05		



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## GENERAL DRILL HOLE LOG

Property: Fish Lake		Latitude:	Hole No. Q81-8
Area:		Departure:	Commenced:
Purpose:		Elevation:	Completed:
Drill Type:		Length:	Logged by: NJW
Core Size:		Overburden:	Sheet No. 4 of 5
Contractor: J. T. Thomas		Az. Dip:	Claim:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION								HOLE DEPTH TAG NO.	ASSAYS %					% RECOV	
	Cp	Py	Other	OXIDE	EP	CL	MS	KA		BI	OTHER	Cu	Au	Ag		Mo
246.96-247.39 m shear zone. Rocks are becoming more sheared, some silicification, less gypsum to 258 m. Become solid & kaolinized after 258 m.	x	x	MoS <sub>2</sub>					x	x	Gypsum	236 to 239 FL 0539	0.05	0.002	0.02		246.96- 258.34
267.6-269 m Kspar developed											239 to 242 FL 0540	0.26	0.012	0.04		94%
279.4-283.99 Biotite Feldspar Porphyry Dike											242 to 245 FL 0541	0.31	0.027	0.06	0.010	258.34- 264.09
Top contact has chilled margin grading over 20 cms to porphyry dike. Bottom contact is sharp - may be fault or shear. Occasional gypsum veinlets in dike.											245 to 248 FL 0542	0.18	0.007	0.004	0.001	95%
Amphiboles are now chlorite											248 to 251 FL 0543	0.11	0.006	0.08	<0.001	
Fault at base is 70° to vca, but contact is 90° to vca.											251 to 254 FL 0544	0.19	0.010	0.05	<0.001	264.09- 275.54
Fault is post dike.											254 to 257 FL 0545	0.11	0.006	0.04		94%
											257 to 260 FL 0546	0.14	0.007	0.04		
											260 to 263 FL 0547	0.14	0.006	0.04		
											263 to 266 FL 0548	0.14	0.010	0.05		
											266 to 269 FL 0549	0.24	0.012	0.08		
											269 to 272 FL 0550	0.13	0.006	0.06		
											272 to 275 FL 0551	0.21	0.010	0.06		
											275 to 278 FL 0552	0.18	0.009	0.04		



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. Q81-8
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NIW
Overburden:	Sheet No. 5 of 5
Az. Dip:	Claim:

Contractor: J. T. Thomas

Drill Type:

Core Size:

Az. Dip:

Claim:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION								HOLE DEPTH TAG NO.	ASSAYS %				% RECOVER	
	Cp	Py	Other	OXIDE	EP	CL	MS	KA		BI	OTHER	Cu	Au		Ag
283.99-294.81 Altered Diorite Top is fine-grained, dark green with chlorite clots. Some pyrite.										278 to 281 FL 0553	0.08	0.003	0.02		
286.5-293.0 m Brecciated kaolinized. Multiple shears & fracture orientations. Pyrite stringers parallel to vca.		x								281 to 284 FL 0554	0.04	0.002	0.04		
293.0-294.81 m. Fine-grained green (?) diorite. Fractures about 20° to vca.										284 to 287 FL 0555	0.17	0.005	0.07		
										287 to 290 FL 0556	0.35	0.014	0.07		
										290 to 293 FL 0557	0.25	0.012	0.05		
283.99-297.73 Porphyry dike. Chill margin about 20 cms at top. Contact sharp, 80° to vca. Phenocrysts are/were feldspar and amphibole. 30 cm chill margin at base. Contact sharp 30° to vca. Gypsum at base in globby veinlet.										293 to 296 FL 0558	0.19	0.009	0.06		
										296 to 299 FL 0559	0.21	0.012	0.09		
										299 to 302 FL 0560	0.23	0.014	0.05		
										302 to 305.4 FL 0561	0.08	0.002	0.02		
297.73-303.49 Altered Andesite? Fine-grained, kaolinized & chloritized. 10 cm grade zone at base.										to					
										to					
303.49-305.41 Porphyry Dike. Feldspar-amphibole dike.										to					
										to					
End of Hole. Sperry Sun Test at 305.41 m. Dip -87° Asimuth 295°. N 65° W										to					



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## GENERAL DRILL HOLE LOG

Property: Fish Lake		Latitude: 10,134.4	Hole No. Q81-9
Area: Taseko		Departure: 10,494.9	Commenced: Jan. 20/81
Purpose: Test mineralization in central zone.		Elevation: 1,369.1	Completed: Jan. 22/81
Drill Type: Super 38 Longyear		Length: 304.8 m	Logged by: NJW
Core Size: NQ		Overburden:	Sheet No. 1 of 5
Contractor: J. T. Thomas		Az. Dip: -90°	Claim: TK 33

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION								HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER	
	Cp	Py	Other	OXIDE	EP	CL	MS	KA		BI	OTHER	Cu	Au	Ag		Mo
This hole is a deepening of Q74-9.										124.05 <sub>0</sub> 127.05 <sub>0</sub>						124.05-135.08
124.05-143 Diorite. Alternately green and bleached. Green part is chloritized and feldspars are kaolinized. Pyrite veinlets at 40° to 50° to vca. Bleached sections are weakly altered (kaolinized) with disseminated hematite after pyrite. 125.55 m Veinlet with 1 cm biotite envelope at 40° to vca. Blebs of chalco.	x	x		hem		x		x		127.05 <sub>0</sub> 130.05 <sub>0</sub>	0.20	0.012	0.04			91%
136.68-137 m Broken-up quartz vein about 20° to vca.										130.05 <sub>0</sub> 133.05 <sub>0</sub>	0.13	0.006	0.01			135.08-146.28
138.7-143.0 Fault gouge with pebbles 1 cm wide Irregular but mostly parallel to vca. Some chalco, pyrite and molybdenite.	x	x	MoS <sub>2</sub>							133.05 <sub>0</sub> 136.05 <sub>0</sub>	0.13	0.004	0.02	0.004		92%
143.0-169.21 Slightly Bleached Diorite Similar to bleached intervals above. Some K-spar. Hematite on fractures and occasionally disseminated. 147.98 pyrite blebs in quartz vein have been broken up and cemented with quartz	x	x								136.05 <sub>0</sub> 139.05 <sub>0</sub>	0.23	0.018	0.09	0.006		146.28-157.5
										139.05 <sub>0</sub> 142.05 <sub>0</sub>	0.25	0.010	0.07	0.007		92%
										142.05 <sub>0</sub> 145.05 <sub>0</sub>	0.10	0.004	0.05	0.004		
										145.05 <sub>0</sub> 148.05 <sub>0</sub>	0.16	0.010	0.06	0.005		
										148.05 <sub>0</sub> 151.05 <sub>0</sub>	0.25	0.013	0.06	0.007		
										151.05 <sub>0</sub> 154.05 <sub>0</sub>	0.21	0.012	0.06	0.008		
										154.05 <sub>0</sub> 157.05 <sub>0</sub>	0.25	0.014	0.07	0.015		
										157.05 <sub>0</sub> 160.05 <sub>0</sub>	0.18	0.015	0.06	0.006		
										160.05 <sub>0</sub> 163.05 <sub>0</sub>	0.16	0.013	0.04	0.005		
										163.05 <sub>0</sub> 166.05 <sub>0</sub>	0.30	0.018	0.10	0.008		





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## GENERAL DRILL HOLE LOG

Property: Fish Lake		Latitude:	Hole No. Q81-9	
Area:		Departure:	Commenced:	
Purpose:		Elevation:	Completed:	
Drill Type:		Length:	Logged by: NJW	
Contractor: J. T. Thomas		Overburden:	Sheet No. 2 of 5	
Core Size:		Az. Dip:	Claim:	

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION								HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER	
	Cp	Py	Other	OXIDE	EP	CL	MS	KA		BI	OTHER	Cu	Au	Ag		Mo
Alteration increases slightly with depth.										166.05 <sub>10</sub> 169.05						157.5-
Irregular quartz veinlets with chalco & moly in centre, approx 40° to vca. Feldspars to 157 are still visible but quite diffuse. Porphyry is fairly crowded, 1-2 mm phenos.										FL 0576	0.13	0.009	0.04			169.21
										169.05 <sub>10</sub> 172.05						96%
										FL 0577	0.23	0.015	0.06			
169.21-198.21 Diorite										172.05 <sub>10</sub> 175.05						169.21-
Contact is gradational textural change. Rocks are kaolinized and quite soft. Not much pyrite or chalco. Some moly on shears. Veining is frequent. Feldspars are up to 7 mm across (average 5 mm). Pale grey to pale pink matrix with large white phenos give a spotted appearance. Veinlets are fairly consistently 40° to vca.	x	x	MoS <sub>2</sub>					x	Gypsum	175.05 <sub>10</sub> 178.05	0.21	0.015	0.06			180.32
										FL 0579	0.21	0.015	0.06			91%
										178.05 <sub>10</sub> 181.05						
										FL 0580	0.15	0.010	0.05			
										181.05 <sub>10</sub> 184.05						
										FL 0581	0.15	0.009	0.05	0.006		
										184.05 <sub>10</sub> 187.05						180.32-
										FL 0582	0.19	0.008	0.07	0.016		191.11
181.12 Gypsum veinlet at 85° to vca. Rocks are quite homogenous.										187.05 <sub>10</sub> 190.05						89%
										FL 0583	0.17	0.009	0.05	0.021		
193.60-194.81 m K-spar?										190.05 <sub>10</sub> 193.05						191.11-
195.43 Sphalerite, galena & pyrite in quartz vein 10° to vca occurs in several other hairline veinlets over the next metre.										FL 0584	0.19	0.010	0.09	0.008		202.69
										193.05 <sub>10</sub> 196.05						95%
										FL 0585	0.64	0.033	0.14	0.014		
										196.05 <sub>10</sub> 198.43						
										FL 0586	0.45	0.026	0.11	0.009		
										198.43 <sub>10</sub> 201.43						
										FL 0587	0.24	0.010	0.06	0.009		
										10						
198.43-213 Diorite. Smaller feldspar phenocrysts as before previous unit. Chalco is in quartz veins										10						



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## GENERAL DRILL HOLE LOG

GENERAL DESCRIPTION (GEOLOGY)		SULPHIDES MINERALIZATION								HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER	
		Cp	Py	Other	OXIDE	EP	CL	MS	KN		BI	OTHER	Cu	Au	Ag		Mo
201.43-201.63 Chalco blebs & disseminated throughout core. From 203.3 down, carbonate on fractures.		xx	x	sph. ga. MoS <sub>2</sub>					x	x	CaCO <sub>2</sub>	201.43 <sub>10</sub> 204.43 FL 0588	0.36	.014	.07	0.031	202.69- 213.77
												204.43 <sub>10</sub> 207.43 FL 0589	0.28	.013	.06	0.009	91%
209.8-212.8 K-spar alteration. Most veinlets are at 40° to vca. Occasional gypsum veinlets.											207.43 <sub>10</sub> 210.43 FL 0590	0.30	.014	.07	0.014		
												210.43 <sub>10</sub> 213.43 FL 0591	0.29	.012	.07	0.006	
213-225.8 Biotitized Diorite. Core is dark grey. Secondary biotite on all fractures. Also felted blebs throughout.											213.43 <sub>10</sub> 216.43 FL 0592	0.24	.012	.06		213.77- 225.24	
												216.43 <sub>10</sub> 219.43 FL 0593	0.31	.018	.08		94%
215.6-216.3 K-spar alteration. Occasional carbonate and gypsum veinlets. Most veinlets at 40° to vca. Hematite in some veinlets. Coarse feldspar crystals.											219.43 <sub>10</sub> 222.43 FL 0594	0.21	.010	.05			
												222.43 <sub>10</sub> 225.43 FL 0595	0.30	.016	.07		225.24- 236.83
225.84-231.42 Crowded Diorite Porphyry. Small phenocrysts.											225.43 <sub>10</sub> 228.43 FL 0596	0.26	.020	.08		95%	
												228.43 <sub>10</sub> 231.43 FL 0597	0.19	.005	.05		
231.42-252.5 Coarse phenocryst Diorite. Occasional short (20 cm) sections of crowded green diorite.											231.43 <sub>10</sub> 234.43 FL 0598	0.23	.010	.06		236.83- 247.19	
												234.43 <sub>10</sub> 237.43 FL 0599	0.28	.014	.07	0.008	85%
											237.43 <sub>10</sub> 240.43 FL 0600	0.24	.012	.06	0.007	247.19- 258.17	
												240.43 <sub>10</sub> 243.43 FL 0601	0.18	.004	.05	0.006	91%



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## GENERAL DRILL HOLE LOG

Property: Fish Lake		Latitude:	Mo. No. 081-9
Area:		Departure:	Commenced:
Purpose:		Elevation:	Completed:
Contractor: J. T. Thomas		Length:	Logged by: NJW
Drill Type:		Overburden:	Sheet No. 4 of 5
Core Size:		Az. Dip:	Claim:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION								HOLE DEPTH TAG NO.	ASSAYS %				% RECOVER		
	Cp	Py	Other	OXIDE	EP	CL	MS	KA		BI	OTHER	Cu	Au		Ag	Mo
252.5-279.23 Bleached Diorite.	xx	x	MoS <sub>2</sub>					x		Gypsum	243.43 <sub>to</sub> 246.43					258.17-269.23
Pervasive kaolinization. Not many quartz veins. Mostly shears with moly. Gypsum occurs in clots.											FL 0602	0.20	.012	.04	0.008	
264.5-275 K-spar. Most fractures at about 40° to vca.											246.43 <sub>to</sub> 249.43					91%
											FL 0603	0.20	.009	.05	0.008	
											249.43 <sub>to</sub> 252.43					
											FL 0604	0.30	.015	.09	0.024	
279.23-288 Fault(?) or Breccia zone. Bits of altered diorite cemented with clays and pyrite chalco, and moly. Matrix has carbonate.	x	x	MoS <sub>2</sub>							Carbonate	252.43 <sub>to</sub> 255.43	0.30	.014	.05		269.23-280.36
											FL 0605	0.27	.010	.04		92%
											258.43 <sub>to</sub> 261.43					
											FL 0607	0.31	.013	.04		
											261.43 <sub>to</sub> 264.43					280.36
											FL 0608	0.31	.019	.05	0.012	291.86
											264.43 <sub>to</sub> 267.43					95%
											FL 0609	0.44	.024	.13	0.007	
											267.43 <sub>to</sub> 270.43					
											FL 0610	0.31	.018	.06	0.015	
											270.43 <sub>to</sub> 273.43					
											FL 0611	0.35	.017	.07	0.032	
											273.43 <sub>to</sub> 276.43					
											FL 0612	0.27	.011	.04	.006	
											276.43 <sub>to</sub> 279.43					
											FL 0613	0.39	.019	.09	.006	
											279.43 <sub>to</sub> 282.43					
											FL 0614	0.27	.012	.05	.008	
											282.43 <sub>to</sub> 285.43					
											FL 0615	0.35	.018	.05	.008	





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## GENERAL DRILL HOLE LOG

Latitude: 10,202.63	Hole No. FL81-9
Departure: 10,301.13	Commenced: Feb. 14/81
Elevation: 1,470.8	Completed: Feb. 18/81
Length: 352.35	Logged by: A. Pauwels
Overburden: 12.2 m	Sheet No. 1 of 11
Az. 0 Dip: -60	Claim: Tk 33, Tk 6

Contractor: J. T. Thomas Drilling Limited

Drill Type: Longyear 38

Core Size: NQ

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI	OTHER		Cu	Au	Ag	Mo		
12.2-18.2										qz vein	12.2 to 15.2						12.2-
Surficial weathering to 17.08 m.	x	x									1134	0.19	.013	.02			17.08
Gray to white quartz feldspar porphyry medium to coarse-grained.			hem								15.2 to 18.2						90%
											1135	0.23	.016	.02			
											18.2 to 21.2						17.08-
50% Feldspars (kaolinized, sericitized) up to 3 mm, also 1 to 5% quartz eyes (clear).											1136	0.18	.012	.03			23.18
											21.2 to 24.2						99%
											1137	0.10	.008	.03			
Numerous 1mm to 2 cm quartz veins with silicified zones around. Quartz veins contain py >> cpy.											24.2 to 27.2						23.18-
Groundmass consist of quartz, sericite, minor hematite.											1138	0.20	.016	.02			32.33
											27.2 to 30.2						100%
											1139	0.15	.011	.02			
18.2-42.5 Fsp. Porphyry	x	x	hem					S			30.2 to 33.2						
Similar texture as above but no quartz eyes and little or no quartz in groundmass.											1140	0.12	.009	.02			
											33.2 to 36.2						
											1141	0.16	.007	.02			
											36.2 to 39.2						
											1142	0.15	.006	.02			
Abundant qz-carb-py veining with coarse crystalline py. Sericitization around these veins Trace of cpy.											to						
At 25.3 QF Porphyry as above.	x	x	hem								to						
Texture and mineralogy changes with alteration.											to						
Large py-qz (chlor, carb) veinlets. + 5% of rock minor cpy visible.											to						
Secondary biotite wisps 27.2-28.											to						

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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-9
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: AMP
Overburden:	Sheet No. 4 of 11
Az. Dip:	Claim:

Contractor: J. T. Thomas

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION						HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KN	BI		OTHER	Cu	Au	Ag	Mo	
More massive pyrite; 15 cm with carb/qz at 78.15-76.3 5 cm at 86.4 30 cm at 85.8-86.1 Original andesite texture totally disappears after 76 m. All core bleached and altered as before.	x	xxx		hem		x	x	x	x		93.2 to 96.2					75.03-84.20
										silicification	1161	0.29	.002	.02		
										near veins of	96.2 to 99.2					98%
										qz-carb	1162	0.24	.013	.02		
											99.2 to 102.2					84.20-93.20
											1163	0.23	.009	.02		
											102.2 to 105.2					100%
											1164	0.18	.009	.01		
Possible small porphyry dyke (silicified) at (60 cm) 82.1 m.											105.2 to 108.2					93.20-96.40
											1165	0.23	.014	.03		
											108.2 to 111.2					90%
Massive Py & cp stringers zone with qz/carb at 87 - 87.6 91.8 - 92.2	x	x									1166	0.21	.015	.02		
											to					
											to					
93.3-102 Fine-grained Andesite vein alteration only. Bleached zone 96.8-98.2. Silicification & qz veinlets at 98.1-2. Subparallel swirls and patches of secondary biotite. Broken core from 99 to 102.6. Py in vein & along fractures	x	x				x			x		to					
										qz vein at 120°	to					
											to					
											to					
Mostly coarse, 5% chalcopyrite occasionally visible. From 102 on - bleaching increase again.						x	x	x	x		to					
											to					





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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-9
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: AMP
Overburden:	Sheet No. 5 of 11
Az. Dip:	Claim:

Contractor: J. T. Thomas

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KN	BI	OTHER		Cu	Au	Ag	Mo		
102-111.6 95% Altered (so far as texture) Andesite, bleached, secondary biotite in subparallel patches. Large irreg. carbonate veins at 106.5. Complex qz vein & vein breccia along caxis from 107.9-108.8(minor py, cpy and arsenop?)	x	x						x	x	x		111.2 to 114.2 1167	0.32	.002	.05		96.40- 99.43
												114.2 to 117.2 1168	0.31	.042	.16		98%
												117.2 to 120.2 1169	0.45	.022	.02		99.43- 102.48
												120.2 to 123.2 1170	0.36	.018	.04		100%
111.6-112.2 Altered medium-grained FP dyke.												123.2 to 126.2 1171	0.36	.016	.04		102.48- 105.53
112.2-126.1 Altered (100%) Andesite Bleached as before but marked increase of veining to 25% of rock mass. Mostly networks of HL quartz veinlets, some 1 to 2 mm quartz veinlets with py and rare cpy. Some thick parallel sets of carbo-py (coarse) veinlets. At 114.7, py-sp-gal-qz vein. 30 cm fault gouge at 113.6	x	x										126.2 to 129.2 1172	0.34	.012	.03		100%
										abundant quartz vl.		129.2 to 132.2 1173	0.36	.015	.03		
								x	x	x		132.2 to 135.2 1174	0.37	.003	.03		105.53- 117.42
												135.2 to 138.2 1175	0.26	.017	.03		99%
												138.2 to 141.2 1176	0.35	.018	.03		117.42- 129.32
126.1-133.6 Fine-grained diorite Colour change from bleak to pale green over 5 cm, possibly through development of secondary biotite/chlorite. Veining density markedly decreases core vein broken-up 130-133.6 Py dissem 2% - some cpy	x	x						x	x	x		141.2 to 144.2 1177	0.35	.019	.03		
												144.2 to 147.2 1178	0.26	.013	.02		
												147.2 to 150.2 1179	0.23	.013	.02		
												150.2 to 153.2 1180	0.27	.016	.03		



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. <b>FL81-9</b>
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: <b>AMP, NJW</b>
Overburden:	Sheet No. <u>6</u> of <u>11</u>
Az. Dip:	Claim:

Contractor: **J. T. Thomas**

Property: **Fish Lake**

Area:

Purpose:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOV
	Cp	Py	Other	OXIDE	EP	CL	MS	KN	BI	OTHER		Cu	Au	Ag	Mo		
133.6-142.2 Altered, bleached and veined (100%) Andesite as before 126.1 Up to 10% py from 134.2-134.8 Large carbo vein at 135.8 In other sections, most py is in qz vein and in chlorite seluage vlets. Relic bedding - 137, chert horiz 58° to ca 139.1 grading 55-60° to ca	x	x				x	x	x	x			153.2 to 156.2 1181	0.26	.012	.03		129.32- 133.30
												156.2 to 159.2 1182	0.23	.012	.03		95%
												159.2 to 162.2 1183	0.35	.015	.03		133.30- 139.80
												162.2 to 165.2 1184 FL	0.28	.017	.05		100%
												165.2 to 168.2 1185	0.17	.012	.09		139.80- 150.35
												168.2 to 171.2 1186 FL	0.24	.015	.02		87%
142.2-143.1 Fault zone. Post mineral alteration fault as alteration markedly diff foll.												171.2 to 174.2 1187 FL	0.14	.008	.03		150.35- 160.81
												174.2 to 177.2 1188 FL	0.21	.012	.03		86%
143.1-148 Bleached medium-grained (Andesite?) Much less intense veining predominantly qz v. 2-4 mm. Veining increases with depth		x							x	x		to					
												to					
												to					
148-164.3 Pale yellow-gray - maybe a tuff. Finely disseminated magnetite and hematite. Core is quite broken, with clays on many faces.												to					
												to					
159.65-159.8 qtz vein with inclusions of host at 40° to vca.												to					
												to					



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-9
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 7 of 11
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI	OTHER		Cu	Au	Ag	Mo		
164.3-172 Feldspar Porphyry											177.2 to 180.2					160.81-	
Feldspars are sericitized. Dissem pyrite. Fs diffuse. Rock is pale grey. Core badly broken. Contact appears gradational, but is shattered.	x	x							S		FL 1189	0.21	.013	.02		170.12	
											180.2 to 183.2					77%	
											FL 1190	0.15	.008	.03			
											183.2 to 186.2						
											FL 1191	0.14	.007	.03			
											186.2 to 189.2					170.12-	
172-173.6 Grey-brown groundmass with quartz eyes and quartz influx. Both contacts shattered. Post mineral dike?											FL 1192	0.12	.006	.02		179.28	
											189.2 to 192.2					76%	
											FL 1193	0.10	.009	.02			
											192.2 to 195.2						
											FL 1194	0.18	.011	.03			
173.6-198.05 m. Fs porphyry as before. Chloritized, kaolin on fractures. Vuggy. Qtz-py veinlet at 186.64 at 50° to vca with q-ser env. 191 - gypsum veinlets start. Porphyry becomes more bleached near contact with andesite below.			x								195.2 to 198.2					179.28-	
											FL 1195	0.15	.009	.03		188.46	
									S	W	198.2 to 201.2					76%	
											FL 1196	0.34	.020	.04			
											201.2 to 204.2					188.46-	
											FL 1197	0.31	.018	.04		199.05	
											204.2 to 207.2					89%	
											FL 1198	0.26	.016	.03			
198.05 - Andesite.											207.2 to 210.2					199.05-	
Dark green, medium-grained andesite	xx	x									FL 1199	0.23	.011	.03		210.38	
Amount of chalco in veinlets increases in this unit.											210.2 to 213.2					94%	
											FL 1200	0.19	.009	.03			
207.5-211 Bleached andesite.											213.2 to 216.2					210.38-	
											FL 1201	0.27	.014	.02		221.53	
											216.2 to 219.2					92%	
											FL 1202	0.30	.012	.03			



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-9
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. <u>8</u> of <u>11</u>
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOV
	Cp	Py	Other	OXIDE	EP	CL	MS	Kf	BI	OTHER		Cu	Au	Ag	Mo		
220.0-221 Breccia. Quartz frags & andesite frags in biotite-kaolin matrix.										S	219.2 to 222.2 FL 1203	0.20	.008	.03		221.53- 232.54	
221-263.62 Very altered andesite. Mostly clay-carbonate. Some disseminated magnetite.										S	222.2 to 225.2 FL 1204	0.17	.010	.03		91%	
224.13-225.4 Coarse-grained quartz-feldspar porphyry. Has gypsum veins and some biotite hairline fractures. No sulfides - probably post mineral dike.	x	x		mag						S	225.2 to 228.2 FL 1205	0.31	.014	.03			
227.4-230.5 Kspar? alteration										S	228.2 to 231.2 FL 1206	0.26	.012	.01		232.54- 243.35	
238-242.2 Kspar? alteration											231.2 to 234.2 FL 1207	0.19	.011	.01		89%	
253.5-259 Kspar? alteration											234.2 to 237.2 FL 1208	0.16	.010	.03			
258.5-258.7 Coarse calcite vein at 40° to vca. No sulfides.											237.2 to 240.2 FL 1209	0.25	.011	.03		243.35- 254.76	
261.65-261.93 - Pale green quartz vein with silicified andesite fragments.											240.2 to 243.2 FL 1210	0.15	.009	.01		94%	
262.19-262.53 Coarse calcite vein with nodular pyrite w/ chalc. Top contact has much biotite.											243.2 to 246.2 FL 1211	0.19	.009	.02		254.76- 265.81	
263.62- Dark green andesite. Locally coarse fs phenos over 10 cms. Sericitized.											246.2 to 249.2 FL 1212	0.15	.008	.02		91%	
											249.2 to 252.2 FL 1213	0.19	.010	.01			
											252.2 to 255.2 FL 1214	0.12	.007	.01			
											255.2 to 258.2 FL 1215	0.16	.010	.02			
											258.2 to 261.2 FL 1216	0.20	.010	.02			



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-9
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 9 of 11
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOV
	Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI	OTHER		Cu	Au	Ag	Mo		
May be diorite or dike down to 270.55 - altered & phenos not continuous or distinct, but cut out altogether after 270.55. Gypsum veinlets. 303.7 - 10 cms fault gouge. Much disseminated magnetite.		x							M	M	W	261.2 to 264.2 FL 1217	0.07	.003	.01		265.81- 277.15
												264.2 to 267.2 FL 1218	0.08	.004	.01		93%
												267.2 to 270.2 FL 1219	0.17	.009	.03		
												270.2 to 273.2 FL 1220	0.25	.011	.06		277.15- 288.48
												273.2 to 276.2 FL 1221	0.23	.010	.02		95%
												276.2 to 279.2 FL 1222	0.15	.008	.01		
												279.2 to 282.2 FL 1223	0.21	.011	.02		288.48- 299.89
												282.2 to 285.2 FL 1224	0.16	.008	.02		94%
												285.2 to 288.2 FL 1225	0.25	.013	.01		
												288.2 to 291.2 FL 1226	0.27	.012	.02		299.89- 311.16
												291.2 to 294.2 FL 1227	0.28	.013	.03		93%
												294.2 to 297.2 FL 1228	0.14	.009	.04		
												297.2 to 300.2 FL 1229	0.28	.013	.02		
												300.2 to 303.2 FL 1230	0.14	.008	.01		



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## GENERAL DRILL HOLE LOG

Contractor: J. T. Thomas		Drill Type:		Core Size:		Az. Dip:		Claim:	
Property: Fish Lake		Area:		Purpose:		Latitude:		Hole No. FL81-9	
Elevation:		Length:		Overburden:		Departure:		Commenced:	
Completed:		Logged by: NJW		Sheet No. 10 of 11					

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS%					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KZ	BI	OTHER		Cu	Au	Ag	Mo		
333.0 m. - 10 cms fault gouge. Pyrite, gypsum, biotite, kaolin											303.2 to 306.2 FL 1231	0.25	.013	.02			311.16- 322.44
Fine-grained, pale yellow/buff - tuffaceous unit? 336.4-348.6 m. Not much sulfide.		x								gypsum	306.2 to 309.2 FL 1232	0.14	.010	.03			93%
											309.2 to 312.2 FL 1233	0.24	.012	.03			
											312.2 to 315.2 FL 1234	0.15	.009	.01			322.44- 333.80
											315.2 to 318.2 FL 1235	0.16	.010	.01			93%
											318.2 to 321.2 FL 1236	0.15	.008	.01			333.80- 345.82
											321.2 to 324.2 FL 1237	0.07	.004	.01			95%
											324.2 to 327.2 FL 1238	0.09	.006	.02			
											327.2 to 330.2 FL 1239	0.10	.006	.02			
											330.2 to 333.2 FL 1240	0.07	.004	.01			
											333.2 to 336.2 FL 1241	0.13	.009	.03			
											336.2 to 339.2 FL 1242	0.07	.004	.01			
											339.2 to 342.2 FL 1243	0.08	.005	.01			
											342.2 to 345.2 FL 1244	0.09	.004	.01			



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### GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-9
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 11 of 11
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Drill Type:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	K <sub>2</sub>	BI	OTHER		Cu	Au	Ag	Mo		
Magnetite increases towards bottom of hole.											345.2 to 348.2						345.82-352.85
352.35 End of Hole.											FL 1245	0.12	.005	.02			
											348.2 to 351.2						96%
40' NQ casing left in hole.											FL 1246	0.07	.004	.01			
											351.2 to 352.35						
											FL 1247	0.09	.005	.02			
											to E.O.H.						
											to						
Sperry-Sun Tests											to						
@ 30.49 m -60.0° N 1° W											to						
@ 182.93 m -60.5° Due North											to						
@ 341.46 m -60.0° N 5° E											to						
											to						
											to						
											to						
64 boxes											to						
											to						
											to						
											to						
											to						



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# GENERAL DRILL HOLE LOG

Property: FISH LAKE		Latitude: 9,871.91	Hole No. FL 81-10
Area:		Departure: 10,000.69	Commenced: Feb. 15/81.
Purpose:		Elevation: 1,448.1	Completed: Feb. 19/81
Drill Type: L44W/L		Length: 352.65	Logged by: NJW
Core Size: NQ		Overburden: 54.86m	Sheet No. 1 of
Contractor:		Az. 000° Dip: 60°	Claim: TKG, TK5

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION								HOLE DEPTH TAG NO.	ASSAYS %					% RECOV	
	Cp	Py	Other	OXIDE	EP	CL	MS	KA		BI	OTHER	Cu	Au	Ag		Mo
0-54.86 Overburden										59.44 to 62.44	.16	.008	.03			59.44-67.57
54.86-59.44 blocky ground-tricone.										62.44 to 65.44	.12	.007	.03			67%
59.44-95.2m Andesite										2573FL						
Dark green, fine to medium grained. Core is badly broken. Many fracture faces have pyrite on them. Also some barren quartz veinlets.										65.44 to 68.44	.13	.010	.03			67.57-75.90
Also frequent smears of hematite. Pyrite becomes more coarse-grained after 75m. Core is still badly broken and pebbly.			X							68.44 to 71.44	.16	.014	.02			68%
										2575FL						
										71.44 to 74.44	.16	.007	.03			75.90-83.92
										2576FL						
87 - down - Hematite on every fracture. Pyrite on top.	X	X								74.44 to 77.44	.10	.005	.01			66%
										2577FL						
										77.44 to 80.44	.13	.005	.02			83.92-91.90
										2578FL						
95.2-104.3m Feldspar Porphyry										80.44 to 83.44	.14	.006	.02			66%
Feldspars are diffuse and well altered. Hematite decreases markedly. Top contact is gradational.	X	X					S	S		2579FL						
Core still badly broken. Bottom contact also gradational:										83.44 to 86.44	.16	.005	.03			
										2580FL						
										86.44 to 89.44	.10	.004	.01			91.90-99.26
										2581FL						
										89.44 to 92.44	.09	.003	.01			66%
										2582FL						
										92.44 to 95.44	.11	.005	.01			99.26-108.21
										2583FL						
										95.44 to 98.44	.12	.004	.01			74%
										2584FL						
										98.44 to 101.44	.14	.006	.01			
										2585FL						

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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL 81-10
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by:
Overburden:	Sheet No. 3 of _____
Az. Dip:	Claim:

Contractor:	Drill Type:	Core Size:
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GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION										HOLE DEPTH TAG NO.	ASSAYS %					% RECOV		
	Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI	OTHER		Cu	Au	Ag	Mo				
160.5 Andesite.	X	X										143.44 to 146.44	.01	<.002	<.01			152.90 - 163.38	
Contact with porphyry is gradational and bleached. Andesite is broken up again Qz-Sericite envelopes around veins.												2600 FL						86%	
												146.44 to 149.44	<.01	<.002	.01				
									M	W	M	2601 FL							
165.73-8cms fault gouge at 40° to vca. Hematite on fractures. Magnetite disseminated throughout core.					hem.							149.44 to 152.44	<.01	.002	<.01			163.38 - 170.27	
					mag.							2602 FL						60%	
												152.44 to 155.44	<.01	<.002	.01				
												2603 FL							
												155.44 to 158.44	<.01	<.002	<.01			170.27 - 177.80	
												2604 FL						62%	
												158.44 to 161.44	.14	.005	.01				
												2605 FL							
												161.44 to 164.44	.28	.009	.02			177.80 - 186.06	
												2606 FL						68%	
												164.44 to 167.44	.12	.008	.02				
												2607 FL							
												167.44 to 170.44	.09	.003	<.01			186.06 - 195.70	
												2608 FL						80%	
												170.44 to 173.44	.29	.012	.04				
												2609 FL							
												173.44 to 176.44	.14	.006	.02				
												2610 FL							
												176.44 to 179.44	.18	.007	.04				
												2611 FL							
												179.44 to 182.44	.15	.006	.02				
												2612 FL							
												182.44 to 185.44	.19	.007	.03				
												2613 FL							



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-10
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by:
Overburden:	Sheet No. 4 of 7
Az. Dip:	Claim:

Contractor:	Drill Type:	Core Size:
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GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION								HOLE DEPTH TAG NO.	ASSAYS%					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KZ		BI	OTHER	Cu	Au	Ag	
201.39-228.63 Qfp										186.44 to 188.44 2614FL	.34	.019	.03		195.7- 205.9 84%
Dark green - phenos irregular. No sulfides. Some veining. Carbonate on fractures. Gypsum veins. Some sections more fine phenos than others. Hematite on fracture and magnetite veinlets and associated with quartz. Quartz eyes gradually fade out by 215m.				hem						188.44 to 191.44 2615FL	.27	.012	.02		
221.3-222.8m bleached zone.				mag						191.44 to 194.44 2616FL	.19	.007	.02		
226 - several well rounded and baked enoliths.										194.44 to 197.44 2617FL	.23	.013	.02		205.9- 216.82 90%
Gypsum veining most common. Occasional pyrite. Rare chalc.									W	197.44 to 200.44 2618FL	.18	.007	.03		
228.63 - Andesite.										200.44 to 203.44 2619FL	.06	.003	.01		
First 2m bleached. Microporphyry in places. Sulfides increase.										203.44 to 206.44 2620FL	.01	.002	.02		216.82- 228.04 92%
										206.44 to 209.44 2621FL	.01	.002	.01		
										209.44 to 212.44 2622FL	.12	.005	.02		
										212.44 to 215.44 2623FL	.23	.011	.03		228.04 233.73 94%
	X	X								215.44 to 218.44 2624FL	.29	.015	.03		
										218.44 to 221.44 2625FL	.24	.010	.03		233.73- 244.44 88%
										221.44 to 224.44 2626FL	.24	.010	.05		
										224.44 to 227.44 2627FL	.15	.007	.02		



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-10
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. <u>5</u> of <u>7</u>
Az. Dip:	Claim:

Contractor:

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS%					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI	OTHER		Cu	Au	Ag	Mo		
238.82-239.1m. Fault Gouge. Kaolin, chlorite, pyrite.											227.44 <sub>to</sub> 230.44 2628FL	.14	.005	.03		244.44- 254.87 86%	
250.5m 4cm fault gouge.	X	X									230.44 <sub>to</sub> 233.44 2629FL	.16	.009	.02			
255.0-255.45 fault gouge parallel to vca.											233.44 <sub>to</sub> 236.44 2630FL	.14	.006	.03			
264.3m irregular late stage coarse calcite.																	
261-265m occasional porphyritic sections. Small (2mm) diffuse feldspars. Become more coarse with depth.											236.44 <sub>to</sub> 239.44 2631FL	.25	.012	.04		254.87 265.56 88%	
261-265m occasional porphyritic sections. Small (2mm) diffuse feldspars. Become more coarse with depth.											239.44 <sub>to</sub> 242.44 2632FL	.24	.020	.03			
265- m. Feldspar Porphyry. Grey green matrix with up to 7mm diffuse sericitized feldspars.											242.44 <sub>to</sub> 245.44 2633FL	.42	.030	.04		265.56- 276.27 88%	
											245.44 <sub>to</sub> 248.44 2634FL	.36	.017	.03			
											248.44 <sub>to</sub> 251.44 2635FL	.35	.014	.03			
											251.44 <sub>to</sub> 254.44 2636FL	.30	.012	.03			
											254.44 <sub>to</sub> 257.44 2637FL	.23	.014	.02		276.27- 287.67 94%	
											257.44 <sub>to</sub> 260.44 2638FL	.23	.012	.03			
											260.44 <sub>to</sub> 263.44 2639FL	.35	.017	.03		287.67 298.65 90%	
											263.44 <sub>to</sub> 266.44 2640FL	.34	.028	.03			
											266.44 <sub>to</sub> 269.44 2641FL	.17	.021	.02			



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GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-10
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 6 of 7
Az. Dip:	Claim:

Contractor:

Drill Type:

Core Size:

Az. Dip:

Claim:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOV
	Cp	Py	Other	OXIDE	EP	CL	MS	KN	BI	OTHER		Cu	Au	Ag	Mo		
296.09-296.91 Fault Gouge with chalcopryrite and quartz influx. Kaolin. Bottom contact at 40° to vca.	XX	X									269.44 <sub>o</sub> 272.44 2642FL	.17	.007	.01		298.65-309.98 93%	
308.2 - 2cms fault gouge at 30° to vca. Pyrite-Kaolin with gypsum edge.											272.44 <sub>o</sub> 275.44 2643FL	.18	.010	.02			
Occasional bleached sections.											275.44 <sub>o</sub> 278.44 2644FL	.14	.007	.02			
318.44 quartz vein with chalco & molybdenite.											278.44 <sub>o</sub> 281.44 2645FL	.15	.009	.02		309.98-321.7 96%	
319- Hb-Fs Dike.											281.44 <sub>o</sub> 281.44 2646FL	.10	.009	.02			
Irregular contact, subparallel to vca. Chill margin pale gray for 30 cms grading to dark green. Few sulphides.	XX		MOS <sub>2</sub>								284.44 <sub>o</sub> 287.44 2647FL	.29	.012	.02			
											287.44 <sub>o</sub> 290.44 2648FL	.01	.002	.01			
											290.44 <sub>o</sub> 293.44 2649FL	.23	.011	.03			
											293.44 <sub>o</sub> 296.44 2650FL	.30	.023	.04			
											296.44 <sub>o</sub> 299.44 2651FL	.41	.038	.05			
											299.44 <sub>o</sub> 302.44 2652FL	.16	.008	.01			
											302.44 <sub>o</sub> 305.44 2653FL	.12	.010	.01			
											305.44 <sub>o</sub> 308.44 2654FL	.09	.005	.01			
											308.44 <sub>o</sub> 311.44 2655FL	.18	.012	.03			



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-10
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 7 of 7
Az. Dip:	Claim:

Contractor:

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION					HOLE DEPTH TAG NO.	ASSAYS %				% RECOV.			
	Cp	Py	Other	OXIDE	EP	CL	MS	K <sub>2</sub>		BI	OTHER	Cu	Au		Ag	Mo	
326.0 - 352.65 Quartz-Feldspar Porphyry. Well altered. Feldspars are diffuse and soft. Quartz eyes have irregular runs. Some silicification around veinlets. Py-clcp veinlets quite common. Moly in late quartz vein at 339.9m alternately bleached and dark green.	X	X		hem mag			S	S			311.44 to 314.44 2656FL	.16	.009	.01	✓	321.7- 333.10 94%	
											314.44 to 317.44 2657FL	.08	.006	.04	✓		
			MoS <sub>2</sub>								317.44 to 320.44 2658FL	.12	.002	.01	✓		
352.65m End of hole.											320.44 to 323.44 2659FL	.01	<.002	.01		333.10- 344.24 92%	
NQ casing left in hole.											323.44 to 326.44 2660FL	.06	<.002	.01			
											326.44 to 329.44 2661FL	.30	.028	.07			
											329.44 to 332.44 2662FL	.18	.015	.03			
											332.44 to 335.44 2663FL	.08	.004	.01			
											335.44 to 338.44 2664FL	.12	.007	.02			
											338.44 to 341.44 2665FL	.12	.008	.03	✓	344.24- 352.65 92%	
											341.44 to 344.44 2666FL	.19	.009	.03	✓		
											344.44 to 347.44 2667FL	.14	.007	.02	✓		
											347.44 to 350.44 2668FL	.12	.009	.01			
											350.44 to 352.65 2669FL	.18	.008	.02			



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## GENERAL DRILL HOLE LOG

Latitude: 10,297.96 Hole No. FL81-11  
 Departure: 10,400.79 Commenced: Feb. 19/81  
 Elevation: 1,484.1 Completed: Feb. 23/81  
 Length: 352.35 m Logged by: NJW  
 Overburden: 15.24 m Sheet No. 1 of 8  
 Az. 0 Dip: -60° Claim: TK 33

Contractor: J. T. Thomas

Drill Type: 38

Core Size: NQ

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION										HOLE DEPTH TAG NO.	ASSAYS%					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI	OTHER		Cu	Au	Ag	Mo		
0-15.24 Overburden											15.24 to 18 FL 2670	0.23	.014	.05		15.24-26.70	
15.24 - Feldspar Porphyry Feldspars are small (<3 mm) and altered. Some biotite on fractures. Surface weathering down to 20 m.											18 to 21 FL 2671	0.19	.006	.01		94%	
* Rusty fractures down to Some bleaching & sericitization.		x		lim							21 to 24 FL 2672	0.21	.014	.02		26.70-37.39	
30.39-39.38 QFP post mineral dike. Dark green. Contacts sharp at 40° to vca. Pyrite coarse on fractures at 51 m. Rocks are broken up 50-58 m.				hem				M	M	W	24 to 27 FL 2673	0.16	.010	.01		88%	
											27 to 30 FL 2674	0.20	.014	.02			
											30 to 33 FL 2675	0.21	.013	.01		37.39-48.18	
											33 to 36 FL 2676	0.28	.016	.02		89%	
											36 to 39 FL 2677	0.19	.012	.01			
											39 to 42 FL 2678	0.17	.010	.01		48.18-56.69	
											42 to 45 FL 2679	0.17	.010	.01		70%	
											45 to 48 FL 2680	0.25	.014	.02		56.69-66.94	
											48 to 51 FL 2681	0.25	.014	.01		84%	
											51 to 54 FL 2682	0.36	.018	.01		66.94-75.75	
											54 to 57 FL 2683	0.31	.015	.01		73%	



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-11
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 2 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake  
Area:  
Purpose:  
Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS%					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI	OTHER		Cu	Au	Ag	Mo		
80.5-81.4 Fault Gouge	x	x		hem							57 to 60					75.75-	
100-105 Phenocrysts become less frequent. Some bleaching. Veining is weak.				mag				W	M	W	FL 2684	0.34	.015	.01		85.52	
											60 to 63					80%	
											FL 2685	0.27	.013	.02			
											63 to 66						
105 - Andesite.											FL 2686	0.21	.011	.02			
Dark green, fine-grained. Occasional, short porphyritic sections. Minor bleached zones. Veining and alteration weak. Magnetite disseminated throughout core.											66 to 69					85.52-	
											FL 2687	0.23	.012	.01		96.11	
											69 to 72					87%	
											FL 2688	0.22	.013	.02			
											72 to 75						
											FL 2689	0.19	.011	.02			
											75 to 78					96.11-	
											FL 2690	0.24	.012	.01		106.66	
											78 to 81					87%	
											FL 2691	0.27	.013	.03			
											81 to 84						
											FL 2692	0.32	.022	.06			
											84 to 87					106.66-	
											FL 2693	0.31	.026	.02		114.79	
											87 to 90					67%	
											FL 2694	0.19	.016	.01			
											90 to 93						
											FL 2695	0.24	.024	.02			
											93 to 96						
											FL 2696	0.16	.010	.02			
											96 to 99						
											FL 2697	0.16	.010	.01			







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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-11
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 4 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KZ	BI	OTHER		Cu	Au	Ag	Mo		
147.6-148.73 Fault Gouge. Top contact sharp at 30° to vca. Bottom contact grades into dike. Has rounded pebbles.											141 to 144 FL 2712	0.09	.010	.03	.002	145.7- 156.46	
148.73-149.44 Fine-grained, pale grey-pink dike. Looks like the chilled margin only as seen in other holes.											144 to 147 FL 2713	0.08	.011	.01	.005	88%	
149.44-151.31 m. Fault gouge. Top contact grades down from dike. Mainly silica grains in clay. Bottom contact sharp at 65° to vca.											147 to 150 FL 2714	0.05	.007	.01	.003		
Below fault gouge, core is broken-up.											150 to 153 FL 2715	0.07	.007	.01	.002	156.46- 167.65	
162-163.5 Dike-porphry contact runs down core.											153 to 156 FL 2716	0.09	.010	.01	.002	92%	
163.5-164.46 Post Mineral Dike. Pale grey-pink with diffuse feldspars. Bottom contact is sharp, irregular at about 90° to vca.											156 to 159 FL 2717	0.13		.05	.002		
164.46-171.9 Andesite Dark green, fine-grained. Much irregular quartz influx.											159 to 162 FL 2718	0.10	.014	.02	.002	167.65- 177.99	
											162 to 165 FL 2719	0.06	.007	.01	.003	85%	
											165 to 168 FL 2720	0.06	.014	.01	.002		
											168 to 171 FL 2721	0.19	.010	.01	.003		
											171 to 174 FL 2722	0.03	.002	.01	.002		
											174 to 177 FL 2723	0.01	.002	.01	.001		
											177 to 180 FL 2724	0.01	.002	.01	.001		
											180 to 183 FL 2725	0.01	.002	.01	.001		



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-11
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 5 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KT	BI	OTHER		Cu	Au	Ag	Mo		
171.9-187.79 QFP Post Mineral Dike. Pale grey-pink, fine-grained with occasional quartz eyes and rounded feldspars.											183 to 186 FL 2726	0.01	.002	.01	.001	177.99- 188.89	
182.4-187.79 Dark green with hb phenos. Maybe second dike.											186 to 189 FL 2727	0.04	.003	.01	.002	90%	
187.79-212 Andesite. Dark green, fine-grained, weakly veined & altered at top. Gypsum veining starts. Few sulfide veinlets - 3 or so per metre.	x	x		mag				W	W	gypsum	189 to 192 FL 2728	0.04	.008	.01	.003		
203.5-206 Chlorite clots.											192 to 195 FL 2729	0.15	.009	.01	.004		
211-211.6 Ground core - kaolinized may be fault zone.											195 to 198 FL 2730	0.15	.009	.01	.004	188.89- 199.81	
212-222.4 QFP. Matrix sericitized. Some kaolin. Some chlorite clots. Rock is pale grey, soft, & core is quite broken. Some vugs, some disseminated pyrite.											198 to 201 FL 2731	0.15	.006	.02	.007	90%	
222.4-226 Post Mineral QFP Dike. Pink on edges, green middle. Bottom contact sheared & gouged.											201 to 204 FL 2732	0.20	.018	.02	.006		
											204 to 207 FL 2733	0.24	.010	.01	.006	199.81- 211.96	
											207 to 210 FL 2734	0.12	.006	.01	.007	99%	
											210 to 213 FL 2735	0.27	.015	.01	.006		
											213 to 216 FL 2736	0.14	.007	.01	.003	211.96- 221.86	
											216 to 219 FL 2737	0.09	.004	.02	.002	81%	
											219 to 222 FL 2738	0.09	.003	.02	.001	221.86- 232.62	
											222 to 225 FL 2739	0.05	.002	.02	.001	89%	



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## GENERAL DRILL HOLE LOG

Property: Fish Lake

Area:

Purpose:

Latitude:

Departure:

Elevation:

Length:

Overburden:

Az.

Dip:

Hole No. FL81-11

Commenced:

Completed:

Logged by: NIW

Sheet No. 6 of 8

Claim:

Contractor: J. T. Thomas

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER		
	Cp	Py	Other	OXIDE	EP	CL	MS		KA	BI	OTHER	Cu	Au		Ag	Mo
226-234.2 m. QFP. Kaolinized.							M	M			225 to 228 FL 2740	0.06	<.002	.02	.002	232.62- 243.03
234.2-239.4 m. Post Mineral QFP dike. Top contact sharp (irregular) at 40° to vca. Pink chills on end to green in centre. Bottom contact sharp sheared at 85° to vca. May be more than one dike.											228 to 231 FL 2741	0.12	.007	.03	.004	86%
											231 to 234 FL 2742	0.06	.004	.02	.002	
											234 to 237 FL 2743	<0.01	<.002	.02	.002	243.03- 253.13
											237 to 240 FL 2744	0.02	<.002	.02	.001	83%
239.4-244.7 m. QFP.											240 to 243 FL 2745	0.08	.007	.03	.003	
241.8-242.01 Fault gouge. Vuggy quartz veins.							M	M			243 to 246 FL 2746	0.09	<.002	.03	.003	253.13- 263.87
244.7-246.3 Post Mineral Dike. Top contact broken-up. Bottom sharp at 85° to vca.											246 to 249 FL 2747	0.24	.014	.03	.005	88%
											249 to 252 FL 2748	0.24	.010	.04	.004	
246.3-259.68 Altered Andesite Pale grey, fine-grained. Sericitized.					hem		M	M			252 to 255 FL 2749	0.31	.025	.05	.008	
249.8-249.9 Fault gouge											255 to 258 FL 2750	0.36	.024	.04	.008	
249.9-250.3 m. Kspar alteration.											258 to 261 FL 2751	0.12	.012	.03	.003	
259.68-262.5 m. Post Mineral QFP Dike. Top contact irregular. Bottom contact sheared at 85° to vca.											261 to 264 FL 2752	0.04	.002	.03	.002	
											264 to 267 FL 2753	0.09	.025	.04	.004	



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-11
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 7 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Drill Type:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES		MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KN	BI		OTHER	Cu	Au	Ag	Mo	
262.5-272 m. Altered Andesite. Sulfides uncommon.	x	x									267 to 270 FL 2754	0.09	.009	.02	.004	263.87- 274.91
272-281.7 m. Post Mineral Dike. QFP with chlorite. Top contact sharp at 70° to vca. Andesite shattered above contact. Bottom contact shattered & irregular.											270 to 273 FL 2755	0.01	<.002	.03	.003	91%
281.7 Altered Andesite Pale grey, spotty (py with chlorite around.) Some silicification. Veining minor.											273 to 276 FL 2756	<.01	<.002	.02	.001	274.91- 286.40
287-295 Coarse pyrite on fractures. Rocks are broken-up.											276 to 279 FL 2757	0.01	<.002	<.01	.001	279 to 282 FL 2758
295-305 Chlorite-rich core. Not as much pyrite.											282 to 285 FL 2759	0.01	<.002	<.01	.001	286.40- 291.02
307.5-311.5 Highly silicified or maybe acid volcanic section.											285 to 288 FL 2760	0.04	<.002	.01	.002	288 to 291 FL 2761
311.5-312.2 Quartz vein parallel to vca with pyrite & chalco.	x	x									288 to 291 FL 2761	0.06	.006	.01	.001	291 to 294 FL 2762
											291 to 294 FL 2762	0.03	.002	<.01	.002	291.02- 295.00
											294 to 297 FL 2763	0.01	<.002	<.01	.002	297 to 300 FL 2764
											297 to 300 FL 2764	0.01	<.002	.01	.002	300 to 303 FL 2765
											300 to 303 FL 2765	0.03	.003	.02	.001	303 to 306 FL 2766
											303 to 306 FL 2766	0.04	<.002	.01	.001	295.00- 306.02
											306 to 309 FL 2767	0.02	<.002	<.01	.001	306.02- 317.12
											306 to 309 FL 2767	0.01	<.002	.02	.001	91%



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-11
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 8 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake  
Area:  
Purpose:

Core Size:  
Az. Dip: Claim:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION						HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KN	BI		OTHER	Cu	Au	Ag	Mo	
317.2-318 Quartz-chlorite vein parallel to vca.		x									309 to 312 FL 2768	0.01	<.002	.01	.003	317.12-318.64
319-319.5 Qtz-pyrite vein parallel to vca.											312 to 315 FL 2769	0.01	<.002	.02	.002	95%
321.6-323.5 Pale grey with green spots - chlorite blebs.											315 to 318 FL 2770	0.02	.004	<.01	.003	324.64-339.79
327-331 Brown with light green spots. Probably altered feldspars.											318 to 321 FL 2771	0.02	<.002	.02	.002	92%
328.6 Pyrite-gypsum vein parallel to core cut by gypsum at 60° to core axis.											321 to 324 FL 2772	0.01	<.002	.02	.002	
Lots of disseminated pyrite.		x									324 to 327 FL 2773	0.01	<.002	.02	.003	339.79-351.22
334.1-335.5 Very dark andesite with disseminated pyrite.			x								327 to 330 FL 2774	0.01	.002	.01	.002	94%
335.5-352.35 Bleached.											330 to 333 FL 2775	0.05	.003	.01	.001	
352.35 End of Hole.											333 to 336 FL 2776	0.05	.006	.02	.002	
NQ casing left in hole.											336 to 339 FL 2777	0.01	.001	.02	.001	
Sperry-Sun Tests											339 to 342 FL 2778	0.05	.002	.02	.002	
@ 30.49 m -58.0° N 4° E											342 to 345 FL 2779	0.01	.002	.02	.001	
@ 182.93 m -59.0° N 2° E											345 to 348 FL 2780	0.01	<.002	.02	.001	
@ 344.51 m -59.0° N 3° E											348 to 351 FL 2781	0.02	<.002	.01	.001	

351 352.35  
FL 2782 0.02 .002 .02 .003



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## GENERAL DRILL HOLE LOG

Property: Fish Lake		Latitude: 10,022.0	Hole No. Q81-12
Area:		Departure: 10,133.9	Commenced: Jan. 22/81
Purpose:		Elevation: 1,293.4	Completed: Jan. 24/81
Drill Type: L 44 W/L		Length: 305.41 m	Logged by: NJW
Core Size: NQ		Overburden:	Sheet No. 1 of 4
Contractor: J. T. Thomas		Az. Dip: -90°	Claim: TK6

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION								HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER	
	Cp	Py	Other	OXIDE	EP	CL	MS	KA		BI	OTHER	Cu	Au	Ag		Mo
This is a deepening of Q73-12 from 504'.										152.5 to 155.5 FL 0110						152.5- 163.52
152.5-158.80 Diorite. Dark green, coarse feldspar porphyry. Fairly fresh. Gypsum veinlets about 90° to vca.		x						x	Gypsum	155.5 to 158.8 FL 0111	0.47	.022	.06	.002		91%
										158.8 to 161.8 FL 0112	0.34	.017	.08	.001		163.52- 167.89
158.8-163.7 Fault Gouge. Broken bits of diorite cemented by kaolin and rock flour. Some moly.		x	MoS <sub>2</sub>							* 161.8 to 163.7 FL 0113	0.39	.018	.06	.002		84%
										163.7 to 166.7 FL 0114	0.31	.015	.07	.002		167.89- 178.79
163.7-210.9 Andesite. Dark grey, fine-grained with biotite clots. 3 angles quartz veinlets latest - parallel to vca middle - 40° to vca early - 90° to vca										166.7 to 169.7 FL 0115	0.31	.015	.05			90%
The parallel ones are occasionally cut by a 40°.										169.7 to 172.7 FL 0116	0.32	.017	.05			
Fault gouge 166.69-167.09 m. Some pyrite. Contacts fairly sharp at 30° to vca.										172.7 to 175.7 FL 0117	0.28	.014	.04			
										175.7 to 178.7 FL 0118	0.42	.019	.06			
										178.7 to 181.7 FL 0119	0.26	.012	.04			
167.79 Quartz vein 3 cms wide with gypsum centre. Occasional bright bloody-orange patch in veins as at 168.36 which may be zeolites. Also very dark patches as at 169.24 which are weakly magnetic.										181.7 to 184.7 FL 0120	0.37	.020	.06			
										184.7 to 187.7 FL 0121	0.28	.014	.002	.002		
										187.7 to 190.7 FL 0122	0.26	.014	.05	.002		
										190.7 to 193.7 FL 0123	0.27	.016	.06	.001		

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## GENERAL DRILL HOLE LOG

Property: Fish Lake		Latitude:	Hole No. Q81-12
Area:		Departure:	Commenced:
Purpose:		Elevation:	Completed:
Drill Type:		Length:	Logged by: NJW
Core Size:		Overburden:	Sheet No. 2 of 4
Contractor: J. T. Thomas		Az. Dip:	Claim:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER		
	Cp	Py	Other	OXIDE	EP	CL	MS		K	BI	OTHER	Cu	Au		Ag	Mo
Short (20 cm) occasional porphyritic sections as at 172.21-172.45 m. Hematite on occasional fracture. Orange zeolites at 182 m.										193.7 to 196.7 FL 0124	0.32	.021	.04			178.79- 189.69
				hem							196.7 to 199.7 FL 0125	0.25	.017	.03		
Occasional chalco blebs & stringers. Pyrite with quartz at 20° to vca. 192.7 - veinlet with biotite envelope	x	x							x	199.7 to 202.7 FL 0126	0.26	.018	.04			
											202.7 to 205.7 FL 0127	0.31	.018	.04		
195.7 - chalco veinlet at 30° cut by a stringer subparallel to vca and by barren quartz at 20° to vca. Ground core at 193.86 m.										205.7 to 208.7 FL 0128	0.41	.020	.06			90%
											208.7 to 211.7 FL 0129	0.21	.019	.03		
Short (20 cm) bleached sections around quartz veins. 208.45-208.55 Pale green dike. Contacts sharp and parallel at 45° to vca. Quartz phenos.										211.7 to 214.7 FL 0130	0.17	.012	.03			95%
									*	214.7 to 215.49 FL 0131	0.21	.013	.05			212.2 - 222.54
210.15 2 cm fault gouge. Contacts sharp at 20° to vca.										215.49 to 218.49 FL 0132	0.06	.003	.02			85%
									*	218.49 to 220.9 FL 0133	0.01	<.002	.01			
210.9-215.49 Diorite. Dark green, fine-grained with small (1-2 mm) feldspar phenocrysts. Feldspars are kaolinized. Not many fractures or mineralization.										220.9 to 223.9 FL 0134	0.01	<.002	.02			
											223.9 to 226.9 FL 0135	0.01	<.002	.02		
215.49-220.9 Post mineral felsite dike which has altered the diorite on either side. Unit is beige in centre to pale grey to pale green to										226.9 to 229.9 FL 0136	0.03	<.002	.02			
											229.9 to 232.9 FL 0137	0.07	.003	.02		





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## GENERAL DRILL HOLE LOG

Property: Fish Lake		Latitude:	Hole No. Q81-12
Area:		Departure:	Commenced:
Purpose:		Elevation:	Completed:
Drill Type:		Length:	Logged by: NJW
Core Size:		Overburden:	Sheet No. <u>3</u> of <u>4</u>
Contractor: J. T. Thomas		Az. Dip:	Claim:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER		
	Cp	Py	Other	OXIDE	EP	CL	MS		K	BI	OTHER	Cu	Au		Ag	Mo
dark green diorite. Few fractures. No veins										232.9 to 235.9 FL 0138	0.12	.009	.03			222.54- 232.71
220.9-245.68 Diorite. Dark green, fine-grained Feldspars small and very rare quartz phenos. Some pale green sections.		x		hem				x	x	Gypsum 235.9 to 238.9 FL 0139	0.16	.011	.04			84%
										238.9 to 241.9 FL 0140	0.14	.007	.03			
										241.9 to 244.2 FL 0141	0.11	.009	.03			232.71- 243.51
245.68-289.4 Diorite. Feldspars are larger and more diffuse than previous unit. Chalco stringers are irregular, but subparallel to vca. Short sections of finer feldspars. Biotite increases with depth. Gradational contact.	x	x		hem				x	x	Gypsum * 244.2 to 245.68 FL 0142	0.18	.011	.03			83% 243.51-
										245.68 to 248.68 FL 0143	0.21	.010	.03			254.33 89%
										248.68 to 251.68 FL 0144	0.19	.012	.03			
										251.68 to 254.68 FL 0145	0.18	.011	.03			254.33- 265.52
										254.68 to 257.68 FL 0146	0.13	.010	.04			92%
										* 257.68 to 261.68 FL 0147	0.18	.012	.05			265.52- 276.52
										261.68 to 264.68 FL 0148	0.15	.012	.05			92%
										264.68 to 267.68 FL 0149	0.15	.011	.05			276.56- 287.55
										267.68 to 270.68 FL 0150	0.15	.009	.05			91%
										to						



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. 081-12
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 4 of 4
Az. Dip:	Claim:

Contractor: J. T. Thomas

Drill Type:

Core Size:

Claim:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOV	
	Cp	Py	Other	OXIDE	EP	CL	MS		KI	BI	OTHER	Cu	Au		Ag
289.4-291.19 Pale Grey-Pink Feldspar Porphyry. Looks similar to surrounding diorite except color. Small flecks of disseminated pyrite. Contacts gradational.		x		hem				x	gypsum	270.68 <sub>10</sub> 273.68 FL 0151	0.20	.015	.05		
										273.68 <sub>10</sub> 276.68 FL 0152	0.35	.018	.06		287.55- 298.74
										276.68 <sub>10</sub> 279.68 FL 0153	0.16	.007	.04		92%
291.19-296.01 Dark green diorite. Large and small feldspar phenos. Grades into bleached rock again.										279.68 <sub>10</sub> 282.68 FL 0154	0.34	.016	.06		298.74- 305.41
										282.68 <sub>10</sub> 285.68 FL 0155	0.19	.012	.04		93%
296.01-299.10 As 289.4-291.19 m										285.68 <sub>10</sub> 288.68 FL 0156	0.20	.010	.04		
299.10-305.41 Andesite grades down into diorite into bleached diorite. Pyrite veinlets 20° to vca.										288.68 <sub>10</sub> 289.40 FL 0157	0.13	.008	.03		
										289.40 <sub>10</sub> 291.19 FL 0158	0.42	.018	.06		
305.41 End of Hole Quintana casing left in hole.										291.19 <sub>10</sub> 294.19 FL 0159	0.21	.009	.03		
										294.19 <sub>10</sub> 296.01 FL 0160	0.01	.002	.02		
Sperry-Sun Test										296.01 <sub>10</sub> 299.01 FL 0161	0.01	.002	.01		
@ 305.49 m -88° N 23.5° W										299.01 <sub>10</sub> 300.01 FL 0162	0.24	.014	.03		
										300.01 <sub>10</sub> 303.01 FL 0163	0.20	.008	.03		
										303.01 <sub>10</sub> 305.41 FL 0164	0.18	.008	.03		



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## GENERAL DRILL HOLE LOG

Latitude: 9,898.54	Hole No. FL81-12
Departure: 9,900.94	Commenced: Feb. 20/81
Elevation: 1,464.5	Completed: Feb. 23/81
Length: 322.17	Logged by: AMP
Overburden: 18.28	Sheet No. 1 of 8
Az. 0° Dip: -90°	Claim: TK5

Contractor: J. T. Thomas

Drill Type: Longyear 44

Core Size: NQ

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %				% RECOVER		
	Cp	Py	Other	OXIDE	EP	CL	MS		KY	BI	OTHER	Cu		Au	Ag
Overburden to 18.28 m									carbonate in	18.28 to 21.28					18.28-
18.28-26.21 Post Mineral Dyke									veins	FL 1251	.01	.051	.20	.004	29.56
Grey to green, medium-grained feldspar porphyry greying									veinlets	21.28 to 24.28					96%
towards bottom; chilled contact, no mineralization.									hairline	FL 1252	.01	.021	.09	.003	
26.21-42.1 Fine-grained to medium grained andesite grades into bleached white, altered sparse thin veinlets of magnetite in the green andesite.									cracks	24.28 to 27.28					29.56-
										FL 1253	.01	.016	.09	.003	37.49
										27.28 to 30.28					?
										FL 1254	.08	.015	.07	.004	
										30.28 to 33.28					
										FL 1255	.07	.059	.09	.004	
										33.28 to 36.28					
Hematite in the bleached andesite.		x							hem	FL 1256	.04	.014	.05	.001	
Coarse pyrite (5%) in veinlets and disseminated chlorite and carbonate veinlets.									mag	36.28 to 39.28					
										FL 1257	.05	.011	.05	.001	
										39.28 to 42.28					
Magnetite also disseminated in small blebs locally to 5% of core.										FL 1258	.05	.009	.04	.003	
										42.28 to 45.28					
Local silicification at 61.8, minor chalcopyrite in very fine disseminations.		x								FL 1259	.05	.006	.04	.003	
Core becomes broken from 30 m.										45.28 to 48.28					
										FL 1260	.05	.008	.03	.001	
										48.28 to 51.28					
Bleached sections at 28 - 30										FL 1261	.05	.008	.02	.001	
38.30 - 39.70										51.28 to 54.28					
										FL 1262	.07	.005	.02	.003	
Surficial weathering to 30 m.										54.28 to 57.28					
										FL 1263	.05	.007	.03	.002	
42.1-60 Bleached Andesite		x							hem	57.28 to 60.28					
Transitional for 5 cm.										FL 1264	.05	.007	.03	.002	

KW.



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# GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-12
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: AMP
Overburden:	Sheet No. 2 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION								HOLE DEPTH TAG NO.	ASSAYS %					% RECOV	
	Cp	Py	Other	OXIDE	EP	CL	MS	KN		BI	OTHER	Cu	Au	Ag		Mo
Texture: 5-10% feldspar phenocrysts in grey groundmass (could be intrusive), 5% relic mafics. Veining consists of carbonate, qz-py-chlorite, hematite. These veins are superimposed or "bleaching". Pyrite is in veins and disseminated. Fault and slicken-sides at 48.21 m. Qz vein with sericite envelope with internal hem-pyrite at 52.8 (2 cm wide). Relict agglomerate texture at 57.4?		x		hem				x	x		60.28 <sub>o</sub> 63.28					37.49-
											FL 1265	.05	.007	.04	.002	46.50
											63.28 <sub>o</sub> 66.28					90%
											FL 1266	.04	.006	.02	.001	
											66.28 <sub>o</sub> 69.28					
											FL 1267	.04	.002	.02	.001	
											69.28 <sub>o</sub> 72.28					46.50-
											FL 1268	.06	.003	.02	.002	56.99
											72.28 <sub>o</sub> 75.28					97%
											FL 1269	.04	.005	.03	.003	
											75.28 <sub>o</sub> 78.28					56.99-
											FL 1270	.10	.005	.03	.003	68.58
											78.28 <sub>o</sub> 81.28					97%
											FL 1271	.06	.002	.03	.002	
60-89 Partly bleached andesite. Pervasive bleaching diminishes, part of the core is green coloured. Hematite in veinlets and disseminated in bleached sections. Magnetite in dark green sections. Gypsum at 55. Carbonate/mag veinlets cut by vuggy quartz vein.		x		hem mag				x	x	x	81.28 <sub>o</sub> 84.28					68.58-
											FL 1272	.10	.006	.03	.002	77.72
											84.28 <sub>o</sub> 87.28					95%
											FL 1273	.09	.004	.02	.003	
											87.28 <sub>o</sub> 90.28					
											FL 1274	.07	.002	.02	.001	
											90.28 <sub>o</sub> 93.28					
											FL 1275	.07	.003	.05	.003	
											93.28 <sub>o</sub> 95.28					
											FL 1276	.08	.004	.05	.002	
											to					
											to					





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## GENERAL DRILL HOLE LOG

Latitude:	Notes No. FL81-12
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: AMP
Overburden:	Sheet No. 4 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI	OTHER		Cu	Au	Ag	Mo		
124.75-127 Medium-grained feldspar porphyry, bleached as before.		x		mag			x	x			138.28 <sub>0</sub> 141.28 <sub>0</sub> FL 1291	.05	.002	.01	.001	111.15- 117.28	
Mag & hem at 126.90, contact 30° to core axis.				hem							141.28 <sub>0</sub> 144.28 <sub>0</sub> FL 1292	.10	.005	.01	.006	90%	
127-127.80 Fine-grained andesite; carbo- hem-py veins.		x						x		gypsum	144.28 <sub>0</sub> 147.28 <sub>0</sub> FL 1293	.09	.006	.02	.002	117.28- 130.76	
127.80-128.8 Fine to medium feldspar porphyry, contact as before.		x					x	x			147.28 <sub>0</sub> 150.28 <sub>0</sub> FL 1294	.04	.002	.01	.003	100%	
128.8-158.50 Fine-grained to medium-grained dark green andesite. Coarse pyrite on fractures. Minor chalcopyrite est. 0.15% Cu; Py-5%.				mag							150.28 <sub>0</sub> 153.28 <sub>0</sub> FL 1295	.10	.005	.01	.001	130.76- 136.55	
	x	x					x				153.28 <sub>0</sub> 156.28 <sub>0</sub> FL 1296	.07	.004	.01	.002	95%	
											156.28 <sub>0</sub> 159.28 <sub>0</sub> FL 1297	.10	.006	.01	.001	136.55- 141.42	
Core is very broken along fractures. Density of fracture 1/5 cm to 1/cm.											159.28 <sub>0</sub> 162.28 <sub>0</sub> FL 1298	.10	.020	.03	.004	80%	
Fractures are pyrite-(hem)-chlorite. Sometimes siliceous groundmass.											162.28 <sub>0</sub> 165.28 <sub>0</sub> FL 1299	.10	.007	.03	.003	141.42- 147.66	
Carbonate (propylitic alt.) Thin carbo veinlets. Pyrite also disseminated. Magnetite disseminated.											165.28 <sub>0</sub> 168.28 <sub>0</sub> FL 1300	.13	.007	.03	.003	90%	
158.50-184.7 Fine-grained green andesite, Locally very siliceous. No more chloritic fractures. First appearance of regularly spaced gypsum veins.		x								gypsum	168.28 <sub>0</sub> 171.28 <sub>0</sub> FL 1301	.11	.018	.04	.003	147.66- 158.50	
											171.28 <sub>0</sub> 174.28 <sub>0</sub> FL 1302	.10	.006	.02	.007	85%	
											174.28 <sub>0</sub> 177.28 <sub>0</sub> FL 1303	.14	.005	.02	.003		
											177.28 <sub>0</sub> 180.28 <sub>0</sub> FL 1304	.09	.007	.02	.003		



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-12
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: AMP
Overburden:	Sheet No. 5 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH		ASSAYS %					RECOVER %
	Cp	Py	Other	OXIDE	EP	CL	MS	Kf	BI	OTHER	TAG NO.	Cu	Au	Ag	Mo			
Pyrite to 5% in veins with carbonate, chlorite and gypsum. Veins take less than 3% of core. Vague relic agglom. textures visible. Magnetite in veinlets and disseminated (qz-vlts).	x	x		hem		x				gypsum	180.28 183.28 FL 1305	.14	.007	.02	.004	158.50- 169.70 100%		
184.7-192.2 Medium to fine-grained andesite with bleached sections. Some bleached sections have 1 cm wide sharp boundaries, others are developed as 5 cm wide rims around py-gypsum veinlets.	x	x		hem		x	x			gypsum	186.28 189.28 189.28 192.28 FL 1308	.09	.003	.02	.002	169.70- 178.90 100%		
Hematite in bleached sections. Minor chalcopryrite; est. 0.1% Cu. Bleached.				mag							192.28 195.28 195.28 198.28 201.28 204.28 207.28 210.28 213.28 FL 1309 FL 1310 FL 1311 FL 1312 FL 1313 FL 1314	.17	.007	.02	.005	178.90- 197.60 100%		
192.2-227.2 Medium-grained white altered? feldspar porphyry (porph. andesite). Some white feldspar ghosts. Hematite disseminated and in vlts. Siliceous groundmass and fine sericite gypsum veins and quartz veins. Colour varies from white to light green. Green predominates from 205 on. Gypsum-py vein at 199.5. Very sparse chalcopryrite.	x	x		hem		x	x			quartz v. gypsum	216.28 219.28 219.28 222.28 FL 1315 FL 1316 FL 1317 FL 1318	.16	.005	.02	.007			



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-12
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: AMP
Overburden:	Sheet No. <u>6</u> of <u>8</u>
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake  
Area:  
Purpose:  
Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER	
	Cp	Py	Other	OXIDE	EP	CL	MS	KF	BI	OTHER		Cu	Au	Ag	Mo			
227.2-239 Fine-grained andesite, green.	x	x		mag			x				gypsum	222.28	225.28					241.00-252.00
Relic amygdaloidal												FL 1319	.14	.008	.02	.004		100%
Test at 230.												225.28	228.28					
Veins carbonate, gypsum												FL 1320	.20	.008	.02	.005		
Disseminated py.												228.28	231.28					252.00-261.21
239.9 -												FL 1321	.19	.013	.02	.012		
Medium to coarse-grained	x	x						x			gypsum	231.28	234.28	.28	.013	.02	.006	100%
feldspar porphyry, minor											quartz veins	234.28	237.28					
bleaching in short patches.												FL 1323	.24	.010	.03	.004		
Contact with andesites is chilled.												237.28	240.28					
Chill zone totally sericitized and some fine-grained xeno's of andesite near												FL 1324	.22	.019	.02	.004		
contact. Contact at 45° to core axis.												240.28	243.28					
As intensely veined as andesite. No disseminated py, only in veinlets.				mag								FL 1325	.21	.011	.04	.005		
Less than 1% py, minor disseminated magnetite. Trace of chalcopryrite.												243.28	246.28					
Groundmass is siliceous, pinkish tinge. Approx 10% chloritized mafics												FL 1326	.16	.007	.03	.004		
5% feldspars.												246.28	249.28					
Better diss. chalco at 271 (~0.4%)												FL 1327	.18	.006	.02	.005		
Gypsum, py veins cut gypsum veins.												249.28	252.28					
												FL 1328	.18	.007	.02	.010		
												252.28	255.28					
												FL 1329	.18	.006	.03	.014		
												255.28	258.28					
												FL 1330	.19	.008	.02	.010		
												258.28	261.28					
												FL 1331	.11	.018	.02	.004		
												261.28	264.28					
												FL 1332	.11	.006	.02	.005		





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## GENERAL DRILL HOLE LOG

Latitude:	None No. FL81-12
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: AMP
Overburden:	Sheet No. 7 of 8
Az. Dip:	Claim:

Property: Fish Lake  
Area:  
Purpose:  
Contractor: J. T. Thomas  
Drill Type:  
Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOV
	Cp	Py	Other	OXIDE	EP	CL	MS	KI	BI	OTHER		Cu	Au	Ag	Mo		
Amount of feldspars increases and becomes coarse-grained up to 50% feldspars.											264.28 to 267.28 FL 1333	.13	.009	.05	.006	285.60- 294.70	
Bleached section from 300.1-302.3. Quartz veins.		x						x		gypsum	267.28 to 270.28 FL 1334	.16	.009	.02	.007	99%	
Quartz vein with chalcopyrite and molybdenite at 306.93 at 309, 309.6, 310, 310.8, 310.9.	x		MoS <sub>2</sub>								270.28 to 273.28 FL 1335	.11	.005	.03	.008		
											273.28 to 276.28 FL 1336	.12	.006	.02	.010	294.70- 299.70	
											276.28 to 279.28 FL 1337	.13	.006	.02	.006	100%	
											279.28 to 282.28 FL 1338	.13	.008	.02	.006	299.70- 316.07	
											282.28 to 285.28 FL 1339	.11	.008	.02	.005	100%	
											285.28 to 288.28 FL 1340	.09	.006	.03	.004		
											288.28 to 291.28 FL 1341	.14	.007	.04	.006		
											291.28 to 294.28 FL 1342	.13	.006	.02	.005		
											294.28 to 297.28 FL 1343	.11	.005	.05	.004		
											297.28 to 300.28 FL 1344	.18	.006	.05	.004		
											300.28 to 303.28 FL 1345	.09	.004	.03	.011		
											303.28 to 306.28 FL 1346	.11	.005	.02	.004		





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## GENERAL DRILL HOLE LOG

Latitude: 10,049.28	Hole No. FL81-13
Departure: 9,899.40	Commenced: Feb. 24/81
Elevation: 1,448.5	Completed: Feb. 27/81
Length: 352.65	Logged by: NJW
Overburden: 33.53	Sheet No. 1 of 8
Az. 0	Dip: -60°
Claim: TK 5, 6, 8	

Contractor: J. T. Thomas

Drill Type: 44

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION								HOLE DEPTH TAG NO.	ASSAYS%					% RECOV
	Cp	Py	Other	OXIDE	EP	CL	MS	KA		BI	OTHER	Cu	Au	Ag	
33.53 Overburden No limonite.										33.53 to 36 FL 1352	0.07	.008	.02	.001	33.53-44.51
33.53-65 m. Feldspar Porphyry. Feldspars are sericitized. Rock is pale grey, fine-grained.	x	x								36 to 39 FL 1353	0.11	.008	.02	.001	90%
35.7-35.9 Quartz vein - no sulfides. Torn off clasts included.										39 to 42 FL 1354	0.11	.010	.02	.001	44.51-55.58
40.24-40.54 Fault gouge. Pebbles and pyrite muse in core. Blocked tube.										42 to 45 FL 1355	0.09	.006	.02	.002	91%
Some disseminated hematite in core.										45 to 48 FL 1356	0.13	.007	.02	.004	
40.9- zedites?										48 to 51 FL 1357	0.17	.012	.03	.002	55.58-66.14
Alteration & veining increases with depth.										51 to 54 FL 1358	0.07	.004	.03	.002	87%
Quartz eyes developed in some areas.										54 to 57 FL 1359	0.13	.006	.03	.002	
65 m - Quartz Feldspar Porphyry. Same as above, but quartz eyes up to 5 mm and common.										57 to 60 FL 1360	0.09	.006	.02	.002	66.14-77.10
										60 to 63 FL 1361	0.09	.006	.01	.001	90%
										63 to 66 FL 1362	0.12	.006	.01	.001	77.10-87.28
										66 to 69 FL 1363	0.16	.007	.01	.002	84%
										69 to 72 FL 1364	0.09	.006	.02	.002	
										72 to 75 FL 1365	0.08	.007	.01	.001	



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-13
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. <u>2</u> of <u>8</u>
Az. Dip:	Claim:

Contractor: J. T. Thomas  
Drill Type: \_\_\_\_\_ Core Size: \_\_\_\_\_

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION					HOLE DEPTH TAG NO.	ASSAYS %					% RECOV		
	Cp	Py	Other	OXIDE	EP	CL	MS	KN		BI	OTHER	Cu	Au	Ag		Mo	
99.4-95 Swirly biotite. Moly on shears.	x	x	MoS <sub>2</sub>	hem				M	M	M							87.28- 98.09
											75 to 78 FL 1366	0.14	.006	.01	.001		
											78 to 81 FL 1367	0.11	.005	.01	.001		89%
											81 to 84 FL 1368	0.08	.004	.01	.001		
											84 to 87 FL 1369	0.08	.003	.02	.001		98.09- 108.91
											87 to 90 FL 1370	0.14	.006	.05	.002		89%
											90 to 93 FL 1371	0.13	.010	.04	.001		
											93 to 96 FL 1372	0.15	.007	.05	.001		
											96 to 99 FL 1373	0.08	.005	.02	.002		108.91- 118.33
											99 to 102 FL 1374	0.09	.004	.01	.002		77%
											102 to 105 FL 1375	0.07	.004	.01	.002		
											105 to 108 FL 1376	0.08	.005	.01	.002		
											108 to 111 FL 1377	0.11	.004	.02	.002		
											111 to 114 FL 1378	0.10	.005	.02	.004		
											114 to 117 FL 1379	0.07	.004	.02	.001		



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-13
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 3 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas  
 Property: Fish Lake  
 Area:  
 Purpose:  
 Drill Type:  
 Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER	
	Cp	Py	Other	OXIDE	EP	CL	MS		KA	BI	OTHER	Cu	Au		Ag
Alternately bleached and green sections. Some places quartz eyes common, some not so common. Sulfides uncommon.		x							117 to 120 FL 1380	0.10	.004	.01	.002		118.83- 128.80
May be some altered dikes in here but not distinguishable from host porphyry.									120 to 123 FL 1381	0.16	.007	.02	.002		86%
135-135.6 A few altered hornblendes. Clay on fractures. Core is very broken-up 138-155 m.									123 to 126 FL 1382	0.04	.002	.03	.008		
154.3 First gypsum.							M		126 to 129 FL 1383	0.05	.004	.01	.008		128.80- 138.25
161.8- Andesite									129 to 132 FL 1384	0.04	.003	.02	.009		78%
Last two metres of porphyry has inclusions of andesite which are cooked. Contact is gradational.									132 to 135 FL 1385	0.05	.011	.02	.010		
167-168.8 m. Pyrite vein runs down core.									135 to 138 FL 1386	0.06	.008	.01	.006		138.25- 147.35
									138 to 141 FL 1387	0.05	.003	.01	.008		75%
									141 to 144 FL 1388	0.07	.006	.01	.007		
									144 to 147 FL 1389	0.09	.007	.01	.008		147.35- 158.25
									147 to 150 FL 1390	0.09	.009	.01	.007		90%
									150 to 153 FL 1391	0.11	.011	.05	.007		
									153 to 156 FL 1392	0.14	.009	.01	.008		158.25- 169.77
									156 to 159 FL 1393	0.14	.011	.01	.008		95%



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-13
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 4 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas

Drill Type: 44

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	K2	BI	OTHER		Cu	Au	Ag	Mo		
169.171.4 Quartz Feldspar Porphyry 171.4-177.6 m. Intensely veined. Several stages of late quartz veins & several pyrite & chalco veinlets.	x	x		hem							159 to 162 FL 1394	0.13	.013	.01	006	169.77- 181.26	
											162 to 165 FL 1395	0.24	.016	.01	006	94%	
											165 to 168 FL 1396	0.26	.022	.01	007		
177.6 m-195 Quartz Feldspar Porphyry. Feldspars are sericitized. Some kaolin on fractures.									M	W	168 to 171 FL 1397	0.17	.011	.01	009	181.26- 192.47	
											171 to 174 FL 1398	0.18	.012	.01	009	92%	
195-213.2 m. Andesite. Dark green, fine-grained. Much secondary biotite & magnetite. Well veined, but not much alteration around veins. Not much sulfide.	x	x		mag						S	174 to 177 FL 1399	0.18	.012	.01	011		
											177 to 180 FL 1400	0.09	.006	.01	011	192.47- 203.94	
											180 to 183 FL 1401	0.08	.006	.01	011	94%	
											183 to 186 FL 1402	0.07	.004	.01	010		
213.2 - Quartz Feldspar Porphyry. Feldspars are altered. Lots of gypsum veins. Some pyrite veinlets with occasional blebs of chalco.	x	x									186 to 189 FL 1403	0.09	.005	.01	014	203.94- 214.58	
											189 to 192 FL 1404	0.10	.004	.02	011	88%	
											192 to 195 FL 1405	0.07	.005	.02	012		
											195 to 198 FL 1406	0.10	.009	.01	009		
											198 to 201 FL 1407	0.16	.011	.01	012		



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-13
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 5 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas  
Drill Type: Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES		MINERALIZATION ALTERATION						HOLE DEPTH TAG NO.	ASSAYS %					RECOVER %
	Cp	Py Other	OXIDE	EP	CL	MS	K <sub>2</sub>	BI		OTHER	Cu	Au	Ag	Mo	
215.6-260 Andesite.		x						M W M	gypsum & carbonate	201 to 204 FL 1408	0.21	.016	.02	.011	214.58-227.01
218.5-218.7 QFP as before.								M W							
233 - 3 cm qtz-gypsum-pyrite vein at 30° to vca.										204 to 207 FL 1409	0.14	.012	.02	.013	100%
233.5 - 4 cm qtz-py vein at 30° to vca.										207 to 210 FL 1410	0.16	.013	.01	.013	
Magnetite vein at 244.5 at 90° to vca.			mag							210 to 213 FL 1411	0.17	.013	.01	.011	227.01-238.18
										213 to 216 FL 1412	0.14	.012	.01	.010	92%
260-266 QFP as before.										216 to 219 FL 1413	0.14	.012	.02	.011	
266 - Andesite as before.										219 to 222 FL 1414	0.10	.010	.01	.008	238.18-249.62
Occasional porphyritic sections.										222 to 225 FL 1415	0.25	.010	.01	.012	94%
Feldspars are small, diffuse, and uncommon.										225 to 228 FL 1416	0.18	.009	.02	.008	
										228 to 231 FL 1417	0.24	.013	.01	.009	249.62-261.21
										231 to 234 FL 1418	0.12	.013	.02	.009	95%
										234 to 237 FL 1419	0.10	.010	.01	.010	261.21-272.84
										237 to 240 FL 1420	0.08	.008	.01	.014	96%
										240 to 243 FL 1421	0.10	.010	.01	.009	



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-13
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 6 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas  
Property: Fish Lake  
Area:  
Purpose:  
Drill Type:  
Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION						HOLE DEPTH TAG NO.	ASSAYS %					RECOVER %		
	Cp	Py	Other	OXIDE	FP	CL	MS	KY	BI		OTHER	Cu	Au	Ag	Mo			
This hole must be drilling down the contact between andesite and porphyry as these two rock types are interbanded, and contacts are gradational. Generally 4 x as much andesite as porphyry.											243 to 246						272.84- 283.65	
	FL 1422	0.16	.015	.02	.011											89%		
	246 to 249										FL 1423	0.19	.020	.01	.011			
	FL 1424	0.12	.012	.01	.012													
	252 to 255										FL 1425	0.16	.014	.01	.009			283.65- 295.17
295-307 Dark green andesite. Few sulfides.											255 to 258						95%	
	FL 1426	0.12	.012	.02	.015													
	258 to 261										FL 1427	0.15	.012	.01	.008			
	261 to 264										FL 1428	0.26	.020	.01	.011			295.17- 306.64
	FL 1429	0.33	.020	.01	.009												94%	
											267 to 270							
	FL 1430	0.14	.008	.01	.009													
	270 to 273										FL 1431	0.22	.020	.01	.013			306.64- 317.69
	273 to 276										FL 1432	0.15	.013	.01	.014			91%
	FL 1433	0.10	.012	.01	.012													
											279 to 282							
	FL 1434	0.10	.013	.01	.010													
	282 to 285										FL 1435	0.15	.012	.01	.014			





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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-13
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 7 of 8
Az. Dip:	Claim:

Property: Fish Lake

Area:

Purpose:

Contractor: J. T. Thomas

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION						HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KN	BI		OTHER	Cu	Au	Ag	Mo	
313.13-314.70 m. Hb-Fs Dike. Post mineral.											285 to 288 FL 1436	0.09	.011	.02	.009	317.69- 328.87
314.7-342.5 Andesite as before.											288 to 291 FL 1437	0.10	.006	.01	.010	97%
342.5-352.65 QFP altered.											291 to 294 FL 1438	0.13	.008	.01	.013	
352.65 End of Hole											294 to 297 FL 1439	0.11	.008	.01	.011	328.87- 340.27
NQ casing left in hole.											297 to 300 FL 1440	0.14	.007	.01	.011	94%
Sperry-Sun Tests											300 to 303 FL 1441	0.08	.007	.01	.014	
@ 45.72 m -62° N 5° E											303 to 306 FL 1442	0.14	.004	.01	.011	340.27- 351.02
@ 182.88 m -62° N 5° E											306 to 309 FL 1443	0.18	.009	.01	.009	88%
@ 341.38 m -63° N 5° E											309 to 312 FL 1444	0.11	.005	.01	.012	
											312 to 315 FL 1445	0.07	.004	.01	.012	
											315 to 318 FL 1446	0.18	.013	.01	.011	
											318 to 321 FL 1447	0.13	.004	.01	.010	
											321 to 324 FL 1448	0.18	.009	.01	.011	
											324 to 327 FL 1449	0.17	.002	.01	.012	





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## GENERAL DRILL HOLE LOG

Latitude: 10,329.4	Hole No. Q81-13
Departure: 10,037.1	Commenced: Feb. 12/81
Elevation: 1,323.2	Completed: Feb. 14/81
Length: 306.6	Logged by: AMP
Overburden:	Sheet No. 1 of 8
Az. 0 Dip: 90°	Claim: Tk 8

Contractor: J. T. Thomas

Drill Type: Longyear 38

Core Size: NQ

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION								HOLE DEPTH TAG NO.	ASSAYS%					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KA		BI	OTHER	Cu	Au	Ag	
0-123.75 Hole 13-13 Quintana										123.75 to 126.75					
123.75-152.80										FL 1074	0.15	.007	.01	.003	
										126.75 to 129.75					79.1%
Dark green, fine-grained basic										FL 1075	0.10	.005	.01	.003	
to intermediate volcanics (Hbl-fsp)										129.75 to 132.75					133.10-
altered to grey-white in 2 to 20 cm										FL 1076	0.10	.005	.01	.003	145.38
sections for approx. 30% of length.										132.75 to 135.75					97.5%
Alteration is along veins, veinwalls										FL 1077	0.10	.004	.02		
or in irregularly bounded patches.										135.75 to 138.75					
Veining consists of carb, carb-py, open	x	x	MoS <sub>2</sub>	hem		x	x		gypsum	FL 1078	0.12	.005	.01		
fractures with MoS <sub>2</sub> , py-chlor, hem.										138.75 to 141.75					
Also small parts of white										FL 1079	0.16	.007	.01		
feldspar porphyry, medium to fine-										141.75 to 144.75					
grained; in some instances this										FL 1080	0.20	.010	.01		
white porph. grades through a										144.75 to 147.75					
white-green fsp. porphyry zone into andesite										FL 1081	0.12	.007	.01		
Some altered and crystallized andesite;										to					
veining intensity independant of										to					
rock alteration.										to					
Cpy fairly disseminated not seen in										to					
veinlets.										to					
White alteration consists of										to					
fsp. phenos and fine white groundmass										to					
(ser?). Green (chlorite) rimmed										to					
alteration veinlets present at 133										to					
carbonate nature breccia alteration;										to					
intensity increases with depth.										to					

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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. Q81-13
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: AMP
Overburden:	Sheet No. 2 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Drill Type:

Core Size:

Az. Dip:

Claim:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECON
	Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI	OTHER		Cu	Au	Ag	Mo		
Latest veins are massive py-carb vl. (Kspar?) at 140.70-143.30	x	x									147.75 to 150.75 FL 1082	0.19	.008	.01			
Thick 1 cm carb veinlet at and gypsum veinlets.											150.75 to 153.75 FL 1083	0.13	.006	.01			
At 145 - hem-cpy-carb veinlet.											153.75 to 156.75 FL 1084	0.05	.003	.01			
145-on Increasing alteration of vv reaching over 50% of rock.											to						
Py content to 5%											to						
Est. 0.15% Cy 123.75-152											to						
Brecciation and darkening near dyke contact.											to						
152.80 Dyke: contacts up 145° ca/subpar. 156.05 down 130°									x	x	to						
White grey, porphyry texture, no mafics Kaolinized spar pheons 23-30. Fine groundmass, minimal carbo veining becomes somewhat greener in center.											to						
No mineralization (Post Mineral Dyke)											to						
152.80-160.50 95% Altered Andesite	x	x							x	x	to						
Pale white with darker vein & vein seluages. Vein subparallel											to						
py, carbonate, minor qz. Some sparse open fractures with black crossing ~30° to ca.											to						



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. Q81-13
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: AMP
Overburden:	Sheet No. 3 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION										HOLE DEPTH		ASSAYS %					RECOVERED %
	Cp	Py	Other	OXIDE	EP	CL	MS	KY	BI	OTHER	TAG NO.		Cu	Au	Ag	Mo		
5% finely disseminated py with minor chalco.											carbonate	56.75 to 159.75						145.38-157.48
											gypsum	FL 1085	0.43	.024	.03			
												59.75 to 162.75						97.6%
Alteration rapidly fades at end.												FL 1086	0.12	.006	.02			
												62.75 to 165.75						157.48-169.46
160.50-167.85 Dark green fine-grained andesite.		x										FL 1087	0.13	.006	.01			
Alteration confined to vein and vein selvages(+ 5% of rock).											gypsum	65.75 to 168.75						98%
Magnetite veinlets 160.75-163.												FL 1088	0.16	.008	.01			
1 to 2 mm gypsum vlets.												68.75 to 171.75						157.48-169.88
Py-carbonate veinlets (1 mm)												FL 1089	0.12	.006	.02			
Py carb v. cuts magnetite veinlets												71.75 to 174.75						99%
												FL 1090	0.12	.007	.01			
												74.75 to 177.75						169.88-179.03
167.85-170 Former rapidly grades into white altered volcanics.	x	x									carbonate	77.75 to 180.75						100%
Thick carbo vein at 168.5											in rock & vein	FL 1092	0.19	.009	.01			
Massive py veins and smears at 10 cm angles to ca.											gypsum	80.75 to 183.75						
Hematite veinlets.												FL 1093	0.12	.008	.01			
Approx. 3-5% py; tr of chalcopryrite												83.75 to 186.75						
												FL 1094	0.16	.009	.02			
												to						
170-172.25 Green fine-grained andesite vein alteration only, magnetite veinlets confined to less altered andesite.												to						
												to						
172.25-174.45 Altered zone. White to grey carbonate-sericite.												to						



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GENERAL DRILL HOLE LOG

Latitude:	Hole No. Q81-13
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: AMP
Overburden:	Sheet No. 4 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas      Drill Type:      Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS%					% RECOV			
	Cp	Py	Other	OXIDE	EP	CL	MS		KA	BI	OTHER	Cu	Au		Ag	Mo	
White clear carbo veinlets		x		hem				x	x		gypsum	183.75 <sub>0</sub> 186.75					179.03-
Mottled wispy patches of chlorite. Py veinlets. Some parts have appearance of brecciated altered diorite porphyry.												FL 1094	0.16	.009	.02		191.23
												186.75 <sub>0</sub> 189.75					97%
												FL 1095	0.17	.010	.01		
												189.75 <sub>0</sub> 192.75					
												FL 1096	0.15	.009	.01		
												192.75 <sub>0</sub> 195.75					
174.45-176.4											gypsum	FL 1097	0.15	.008	.01		
Dark green fine-grained andesite, vein alteration only (carbonate, carbonate-py cpy, gypsum)	x	x		mag				x		x		195.75 <sub>0</sub> 198.75					
Some veins run dark, secondary biotite (15% vein)											qz veinlet with cpy	FL 1098	0.16	.009	.01		
												198.75 <sub>0</sub> 201.75					
												FL 1099	0.17	.010	.01		
												201.75 <sub>0</sub> 204.75					
												FL 1100	0.23	.014	.02		
176.4-177.2	x	x		hem				x	x	x	carbo gypsum	to					
Andesite 80%, altered to grey-white fine-grained rock.												to					
177.2-179.50	x	x		mag							"	to					
Green andesite only vein altered magnetite in veinlets. (10-15%) minor												to					
179.5-181.10											gypsum	to					
Altered, white andesite												to					
181.10-181.20											"	to					
Dark green andesite												to					
											"	to					



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# GENERAL DRILL HOLE LOG

Latitude:	Hole No. Q81-13
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: AMP
Overburden:	Sheet No. 5 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION						HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER	
	Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI		OTHER	Cu	Au	Ag	Mo		
Core continues to alternate from veined andesite to grey altered andesite. Listed are sections over 90% altered.		x					x	x			gypsum	204.75	207.75				191.23-203.43
											"	FL 1101	0.16	.008	.01		
											"	207.75	210.75				97%
											"	FL 1102	0.37	.019	.02		
											"	210.75	213.75				203.43-215.02
187.4-189.6 Altered white.	x	x									gypsum	FL 1103	0.19	.009	.01		
189.6-193.80 Green veined andesite.											"	213.75	216.75				98%
193.80-194.45 Bleached zone 5-10% magnetite in schlieren and patches, cut by gypsum and carbo-py veinlets.		x									"	FL 1104	0.19	.011	.01		
											"	216.75	219.75				215.02-224.08
											"	FL 1105	0.10	.007	.01		
194.45-205.20 Green veined andesite. Carbonate-py-chl veinlets. Gypsum. Thin carbo veinlets. Thin hairline mag veinlets. 2-5% disseminated py. Heavy 3-5% magnetite (199-201). Small cloudy areas of silicification.		x					x				gypsum	to					100%
											"	to					
											"	to					
											"	to					
											"	to					
											"	to					
205.20-206.48 Bleached andesite. Hematite in clots and vlets.	x	x						x			gypsum	to					
											"	to					
206.48-215.40 Green veined andesite. Trace of cpy. Magnetite in vlets.	x	x									"	to					
											"	to					
											"	to					



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. Q81-13
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: AMP
Overburden:	Sheet No. <u>6</u> of <u>8</u>
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER		
	Cp	Py	Other	OXIDE	EP	CL	MS		KZ	BI	OTHER	Cu	Au		Ag	Mo
215.40-217.30 - Altered Andesite. Nests (1-2 mm) of secondary chlorite are well developed. Clots have also hematite (~30% of rock). Py in veinlets only.		x		hem		x			x	gypsum	219.75 <sub>to</sub> 222.75 FL 1106	0.28	.012	.01		
											222.75 <sub>to</sub> 225.75 FL 1107	0.30	.017	.01		
											225.75 <sub>to</sub> 228.75 FL 1108	0.30	.017	.02		
217.30-218.20 Bleached altered andesite. 2 cm hem-carbonate veinlet at 217.65 Lots of fine-grained hematite. A few veinlets of magnetite.		x		hem		x	x	x		gypsum	228.75 <sub>to</sub> 231.75 FL 1109	0.17	.009	.01		
				mag							231.75 <sub>to</sub> 234.75 FL 1110	0.26	.015	.01		
											to					
218.20-225 Green andesite, vein alteration only. Latest veinlets are massive pyrite- carbonate veinlets 1/3 to 2 cm wide. Also chlorite-coated slickensides. Veining direction predominantly 30-40° to core axis. Patches of secondary biotite start developing. Very sparse chalcopyrite. Hematite well disseminated locally to 5% of rock, (at	x	x		hem mag						gypsum	to					
											to					
											to					
											to					
											to					
											to					
											to					
225-250 - Andesite Continuous zone of secondary diorite- chlorite.											to					







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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. Q81-13
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: AMP
Overburden:	Sheet No. 8 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION								HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER	
	Cp	Py	Other	OXIDE	EP	CL	MS	KY		BI	OTHER	Cu	Au	Ag		Mo
261-306.62 Fine-grained veined andesite 2-5%. Py mostly in veinlets. Small zones with some secondary biotite patches. Some large carbonate-py-mag zones.		x		mag						gypsum	261.75 <sub>0</sub> 264.75 <sub>5</sub>					240.6-258.03
											FL 1120	0.28	.014	.02		
											264.75 <sub>0</sub> 267.75 <sub>5</sub>					98%
						x				x	FL 1121	0.30	.014	.03		
											267.75 <sub>0</sub> 270.75 <sub>5</sub>					258.03-270.05
											FL 1122	0.21	.009	.02		
Most veins carbonate. Mag-cpy-carb vein at 282.75.	x	x									270.75 <sub>0</sub> 273.75 <sub>5</sub>					99%
											FL 1123	0.15	.008	.01		
Thin magnetite veinlets throughout. Clay alteration on slickensides near 282.5-9.											273.75 <sub>0</sub> 276.75 <sub>5</sub>					270.05-282.25
											FL 1124	0.12	.007	.01		
At 288.4 slickensides with black coating.											276.75 <sub>0</sub> 279.75 <sub>5</sub>					99%
											FL 1125	0.12	.007	.01	.003	
White coarse carbo vein (9 cm) at Chlorite on carbonate fractures.											279.75 <sub>0</sub> 282.75 <sub>5</sub>					
											FL 1126	0.13	.008	.02	.005	
											282.75 <sub>0</sub> 285.75 <sub>5</sub>					282.25-294.93
											FL 1127	0.18	.008	.02	.007	
											285.75 <sub>0</sub> 288.75 <sub>5</sub>					99%
											FL 1128	0.18	.009	.02	.003	
											288.75 <sub>0</sub> 291.75 <sub>5</sub>					294.93-303.62
											FL 1129	0.12	.006	.01	.002	
Carbonate quartz coarse pyrite vein at 140° to core axis, at											291.75 <sub>0</sub> 294.75 <sub>5</sub>					97%
											FL 1130	0.13	.007	.01		
											294.75 <sub>0</sub> 297.75 <sub>5</sub>					
											FL 1131	0.18	.010	.01		
306.62 End of Hole											297.75 <sub>0</sub> 300.75 <sub>5</sub>					
Sperry-Sun test lost.											FL 1132	0.23	.012	.02		
											300.75 <sub>0</sub> 303.75 <sub>5</sub>					
											FL 1133	0.09	.005	.01		
											303.75 <sub>0</sub> 306.62 <sub>5</sub>					
											FL 1134	0.09	.006	.01		



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## GENERAL DRILL HOLE LOG

Latitude: 9,835.6	Hole No. Q81-14
Departure: 10,271.3	Commenced: Feb 13/81
Elevation: 1,364.4	Completed: Feb 14/81
Length: 306.93 m	Logged by: NJW
Overburden:	Sheet No. 1 of 6
Az. 0 Dip: 90°	Claim: TK4

Contractor: J. T. Thomas

Drill Type: L 44 W/L

Core Size: NQ

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION								HOLE DEPTH TAG NO.	ASSAYS%					% RECOVER	
	Cp	Py	Other	OXIDE	EP	CL	MS	KF		BI	OTHER	Cu	Au	Ag		Mo
This hole is a deepening of Q73-14 from 307'.										93.75 <sub>10</sub> 96.75						93.75-105.77
										FL 2501	0.12	.006	.02			
										96.75 <sub>10</sub> 99.75						60%
93.75-116 m. Feldspar Porphyry		x								FL 2502	0.13	.007	.01			
Dark green, fine-grained groundmass. Diffuse feldspar phenos which are altered. Minor disseminated pyrite. Core is very broken, with pyrite on almost every face - generally fine-grained and not a lot. Not many veins i.e. 111.5 m. Some vugs & weathering.										99.75 <sub>10</sub> 102.75						105.77-116.79
										FL 2503	0.16	.009	.01			
										102.75 <sub>10</sub> 105.75						80%
										FL 2504	0.18	.010	.01			
										105.75 <sub>10</sub> 108.75						
										FL 2505	0.17	.008	.01			
										108.75 <sub>10</sub> 111.75						116.79-127.90
112-113.5 m. Fine-grained, highly altered section.										FL 2506	0.17	.009	.01			
										111.75 <sub>10</sub> 114.75						91%
112 - gypsum veining begins. Average 1/m. 116 - fault with 2 cm gouge at 10°.										FL 2507	0.19	.011	.01			
										14.75 <sub>10</sub> 117.75						
										FL 2508	0.26	.017	.03			
										117.75 <sub>10</sub> 120.75						127.90-137.37
										FL 2509	0.26	.016	.02			
116-134.7 m. Altered Andesite. Fine-grained, dark green to buff. Mottled with 2ndary biotite. Gypsum veinlets. Some pink between 121 & 128 - Kspar?										20.75 <sub>10</sub> 123.75						78%
										FL 2510	0.18	.008	.02			
										23.75 <sub>10</sub> 126.75						
										FL 2511	0.18	.009	.02			
										26.75 <sub>10</sub> 129.75						
										FL 2512	0.16	.007	.02			
										129.75 <sub>10</sub> 132.75						
										FL 2513	0.20	.009	.01			
										132.75 <sub>10</sub> 135.75						
										FL 2514	0.07	.002	.01			

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## GENERAL DRILL HOLE LOG

Latitude:	Longitude:
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 2 of 6
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Drill Type:

Core Size:

Core Size:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KI	BI	OTHER		Cu	Au	Ag	Mo		
134.7-139.93 m. Fs-Hb Dike. Looks like cold & forcible emplacement. Top contact is sheared. Minor magnetite. Carbonate veinlets throughout core.											35.75 to 138.75 FL 2515	0.01	<.002	<.01			137.37-148.02
				mag							38.75 to 141.75 FL 2516	0.09	.005	.02			88%
											41.75 to 144.75 FL 2517	0.20	.011	.01			
139.93-167.50 m. Altered Andesite. 143 - fault gouge 10 cms.											44.75 to 147.75 FL 2518	0.19	.010	.02			148.02-158.77
143-148.5 m. Magnetite veinlets & in biotite clots. Rock is strongly magnetic.				mag							47.75 to 150.75 FL 2519	0.21	.011	.02			88%
157.6-158.7 Late pyrite veinlet 3 mm subparallel to vca.		x							M		50.75 to 153.75 FL 2520	0.19	.010	.03			
167.50 - Altered Feldspar Porphyry. Porphyry texture is preserved, but rock is intensely altered to clay & sericite. Disseminated pyrite <1%. Gypsum veins. Few sulfide veinlets. Py-clcp - dis & veins increases with depth.											53.75 to 156.75 FL 2521	0.23	.011	.03			158.77-170.12
											56.75 to 159.75 FL 2522	0.27	.014	.03			93%
											59.75 to 162.75 FL 2523	0.36	.019	.03			
											62.75 to 165.75 FL 2524	0.25	.015	.02			170.12-181.62
											65.75 to 168.75 FL 2525	0.27	.014	.02			95%
											68.75 to 171.75 FL 2526	0.26	.014	.02			
											71.75 to 174.75 FL 2527	0.31	.017	.03			
											74.75 to 177.75 FL 2528	0.25	.014	.04			



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. Q81-14
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 3 of 6
Az. Dip:	Claim:

Contractor: J. T. Thomas

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	Kf	BI	OTHER		Cu	Au	Ag	Mo		
216 - Altered Andesite?	x	x		mag					M	M	gypsum	177.75 <sub>0</sub> 180.75					181.62-
Finer-grained than above, but may be a different alteration.												FL 2529	0.26	.014	.03		193.33
Pink blotches (Kspar) infrequent.												180.75 <sub>0</sub> 183.75					96%
Contact is gradational.												FL 2530	0.27	.015	.03		
237.5-238 Ground core.												183.75 <sub>0</sub> 186.75					193.33-
238.2-238.4 Gouge 1 cm wide parallel to vca.												FL 2531	0.25	.014	.08		204.42
												186.75 <sub>0</sub> 189.75					91%
												FL 2532	0.30	.015	.03		
												189.75 <sub>0</sub> 192.75					204.42-
												FL 2533	0.24	.010	.02		215.59
												192.75 <sub>0</sub> 195.75					98%
												FL 2534	0.31	.014	.02		
												195.75 <sub>0</sub> 198.75					
												FL 2535	0.30	.013	.04		
												198.75 <sub>0</sub> 201.75					215.59-
												FL 2536	0.35	.017	.04		227.38
												201.75 <sub>0</sub> 204.75					97%
												FL 2537	0.25	.012	.04		
												204.75 <sub>0</sub> 207.75					227.38-
												FL 2538	0.29	.020	.04		238.38
												207.75 <sub>0</sub> 210.75					90%
												FL 2539	0.31	.016	.04		
												210.75 <sub>0</sub> 213.75					
												FL 2540	0.32	.019	.05		
												213.75 <sub>0</sub> 216.75					
												FL 2541	0.25	.014	.04		
												216.75 <sub>0</sub> 219.75					
												FL 2542	0.30	.013	.04		



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## GENERAL DRILL HOLE LOG

Property: Fish Lake

Area:

Purpose:

Latitude:

Departure:

Elevation:

Length:

Overburden:

Az.

Dip:

Hole No. Q81-14

Commenced:

Completed:

Logged by: NJW

Sheet No. 4 of 6

Claim:

Contractor: J. T. Thomas

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	K?	BI	OTHER		Cu	Au	Ag	Mo		
239.88-240.0 m. Ground core.											219.75 to 222.75						238.38-
242-242.1 m. Tectonic breccia.	x	x									FL 2543	0.35	.036	.05			248.83
Magnetite disseminated throughout core.				mag							222.75 to 225.75						89%
250-250.5 m. Tectonic breccia.									W W M	gypsum	225.75 to 228.75	0.33	.018	.04			
Irregular carbonate veinlets through most of unit.										carbonate	FL 2545	0.38	.019	.03			
											228.75 to 231.75						248.83-
											FL 2546	0.36	.020	.03			258.75
264.46-265 m. Mottled. Some feldspars. May have been small dike. Now altered & diffuse.											231.75 to 234.75						82%
											FL 2547	0.40	.024	.06			
											234.75 to 237.75						258.75-
											FL 2548	0.29	.016	.02			269.10
270.3 - Carbonate chlorite vein parallel to axis.											237.75 to 240.75						88%
											FL 2549	0.29	.014	.06			
											240.75 to 243.75						
277-277.20 Fault gouge. Bottom contact 30° to vca.											FL 2550	0.38	.017	.04			
											243.75 to 246.75						
											FL 2551	0.29	.014	.04			
											246.75 to 249.75						
											FL 2552	0.31	.015	.04			
											249.75 to 252.75						
											FL 2553	0.37	.015	.03			
											252.75 to 255.75						
											FL 2554	0.31	.014	.04			
											255.75 to 258.75						
											FL 2555	0.24	.013	.08			
											258.75 to 261.75						
											FL 2556	0.27	.014	.02			



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. Q81-14
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 5 of 6
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %				% RECOV
	Cp	Py	Other	OXIDE	EP	CL	MS	KZ	BI	OTHER		Cu	Au	Ag	Mo	
290-301 m. Marked decrease in alteration. Still visible clcp. More biotite. Less bleaching.	x	x		mag							261.75 <sub>0</sub> 264.75 FL 2557	0.23	.016	.02		269.10- 289.20
302-303.5 m. Blotchy - may be fragments											264.75 <sub>0</sub> 267.75 FL 2558	0.29	.014	.01		91%
											267.75 <sub>0</sub> 270.75 FL 2559	0.35	.023	.02		
											270.75 <sub>0</sub> 273.75 FL 2560	0.78	.027	.03		289.20- 291.69
											273.75 <sub>0</sub> 276.75 FL 2561	0.81	.035	.04		94%
											276.75 <sub>0</sub> 279.75 FL 2562	0.33	.017	.02		291.69- 303.16
											279.75 <sub>0</sub> 282.75 FL 2563	0.27	.015	.01		94%
											282.75 <sub>0</sub> 285.75 FL 2564	0.26	.013	.01		
											285.75 <sub>0</sub> 288.75 FL 2565	0.27	.013	.02		
											288.75 <sub>0</sub> 291.75 FL 2566	0.38	.018	.03		
											291.75 <sub>0</sub> 294.75 FL 2567	0.33	.016	.03		
											294.75 <sub>0</sub> 297.75 FL 2568	0.42	.019	.03		
											297.75 <sub>0</sub> 300.75 FL 2569	0.68	.030	.03		
											300.75 <sub>0</sub> 303.75 FL 2570	0.48	.027	.03		







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## GENERAL DRILL HOLE LOG

Latitude: 10,421.30	Hole No. FL 81-14
Departure: 10,299.41	Commenced: Feb. 24/81
Elevation: 1,463.1	Completed: Feb. 28/81
Length: 352.35	Logged by: NJW
Overburden: 24.38	Sheet No. 1 of 8
Az. 0 Dip: -60°	Claim: Tk 33,35

Contractor: Drill Type: 38 Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION						HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KY	BI		OTHER	Cu	Au	Ag	Mo	
0-24.38 Casing-overburden											24.38 to 27 2783FL	.13	.010	.03	.006	24.38- 35.13
24.38-29 Q-Feldspar Porphyry. Top part is altered-fs are sericitized. Fracture controlled biotite.		X									27 to 30 2784FL	.10	.010	.05	.004	88%
27.21-28.21 Coarse calcite vein - some clasts included. No sulfides.											30 to 33 2785FL	.09	.006	.02	.004	
29-29.5 Fault gouge.											33 to 36 2786FL	.14	.008	.03	.003	35.13- 44.96
29.5-34.5m Altered Andesite Pale grey to green with some feldspars and some porphyritic sections. Some chlorite clots w/pyrite centres.											36 to 39 2787FL	.17	.013	.02	.003	81%
											39 to 42 2788FL	.10	.008	.03	.007	
34.5m Crowded Feldspar Porphyry Dark green, fine grained matrix.							W	M	W		42 to 45 2789FL	.26	.014	.03	.007	44.96- 55.12
Feldspars are 2-4mm and comprise about 75% of the rock. Occasional chlorite clots. Hairline carbonate veinlets frequent. Occasional pyrite veinlet, hematite disseminated in bleached sections.											45 to 48 2790FL	.27	.012	.03	.008	84%
Kspar? 51-53.8m		X									48 to 51 2791FL	.63	.012	.03	.014	
											51 to 54 2792FL	.11	.010	.03	.007	
											54 to 57 2793FL	.26	.012	.03	.012	
							W	W			57 to 60 2794FL	.22	.012	.04	.005	
				hem.							60 to 63 2795FL	.19	.008	.03	.006	
											63 to 66 2796FL	.30	.017	.03	.008	

Chl-



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL 81-14
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. <u>2</u> of <u>8</u>
Az. Dip:	Claim:

Contractor: Drill Type: 38 Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION						HOLE DEPTH TAG NO.	ASSAYS%					% RECOV
	Cp	Py	Other	OXIDE	EP	CL	MS	KN	BI		OTHER	Cu	Au	Ag	Mo	
56-58 Core broken up.	X	X									66 to 69 2797FL	0.41	.037	.05	.005	55.12- 60.12
72-80 rocks are intensely silicified. May or may not still be a porphyry.											69 to 72 2798FL	0.21	.013	.03	.005	82%
80 - Andesite											72 to 75 2799FL	0.18	.012	.03	.006	
Silicified, sericitized. Lots of secondary chlorite clots. Some magnetite with chlorite.				mag.							75 to 78 2800FL	0.10	.006	.02	.009	60.12- 70.59
88 down - vague banding - maybe a flow.											78 to 81 2801FL	0.09	.011	.07	.004	86%
89.5 - interbedded andesite and chert on .5-lcm scale. Bands at 40° to vca.											81 to 84 2802FL	0.09	.005	.03	.005	
90.9-94.5 banding faint but occasionally recognizable.											84 to 87 2803FL	0.09	.006	.03	.005	70.59- 80.11
94.5-96 banding clear.											87 to 90 2804FL	0.11	.007	.02	.006	78%
99.5-100 broken & ground. Gouged.											90 to 93 2805FL	0.15	.008	.02	.006	
											93 to 96 2806FL	0.12	.007	.03	.004	80.11- 90.88
											96 to 99 2807FL	0.16	.012	.05	.008	89%
											99 to 102 2808FL	0.14	.006	.03	.004	90.88- 100.30
											102 to 105 2809FL	0.09	.004	.03	.009	78%
											105 to 108 2810FL	0.14	.005	.04	.004	



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL 81-14
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. <u>3</u> of <u>9</u>
Az. Dip:	Claim:

Contractor:	Drill Type: 38	Core Size:
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GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					RECOV %
	Cp	Py	Other	OXIDE	EP	CL	MS	K2	BI	OTHER		Cu	Au	Ag	Mo		
Pyrite disseminated and on fractures. Occasional magnetite bleb. Rock is not too altered.	X	X										108 to 111 2811FL	.19	.006	.03	.009	100.30-109.56
Still dark green, fine grained. 114.3-114.5 coarse calcite vein. barren.												111 to 114 2812FL	.17	.006	.04	.008	76%
120-130 chlorite clots. Broken up rock.												114 to 117 2813FL	.07	.003	.03	.003	109.56-120.24 88%
130.2 - 130.3 barren calcite vein. 136-136.5 banding evident.												117 to 120 2814FL	.08	.013	.03	.002	
146.4 first gypsum.												120 to 123 2815FL	.06	.010	.03	.003	
Sulfides increasing. 156-157 10% disseminated sulfides.	X	X										123 to 126 2816FL	.07	.004	.04	.001	120.24-129.67
												126 to 129 2817FL	.05	.003	.03	.001	75%
												129 to 132 2818FL	.05	.003	.03	.003	129.67-140.4 88%
												132 to 135 2819FL	.01	.002	.03	.002	
												135 to 138 2820FL	.03	.003	.03	.002	
												138 to 141 2821FL	.04	.003	.03	.002	140.4-150.29 81%
												141 to 144 2822FL	.05	.003	.03	.002	
												144 to 147 2823FL	.06	.005	.04	.002	150.29-161.52
												147 to 150 2824FL	.07	.008	.04	.002	93%



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL 81-14
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 4 of 8
Az. Dip:	Claim:

Contractor: Drill Type: 38 Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %				% RECOVER				
	Cp	Py	Other	OXIDE	EP	CL	MS		KA	BI	OTHER	Cu		Au	Ag	Mo	
163 - 163.5m Chlorite-Kaolin. Maybe fault gouge.								M	M		gypsum	150 to 153 2825FL	.06	.003	.03	.002	161.52- 172.15 87%
186.7- Gouge 2cms is top contact. Rock is pale grey-pink. Very siliceous. Spots may be relict feldspars. Also occasionally chlorite. 3% dissiminated sulfides. Quartz- pyrite veins commonly along vca. Numerous hairline carbonate veinlets. Gypsum infrequent. Sample taken for thin section at 192.2												153 to 156 2826FL	.04	.003	.03	.001	
												156 to 159 2827FL	.03	<.002	.03	.002	
												159 to 162 2828FL	.04	<.002	.03	.001	172.15- 183.45 93%
	X	X										162 to 165 2829FL	.02	<.002	.03	.002	
												165 to 168 2830FL	.09	.004	.03	.001	
202.8 argillaceous interbands. Looks like soft sediment deformation.												168 to 171 2831FL	.05	.003	.03	.002	183.45- 194.27 89%
203.5 - 205 - shattered. Kaolin "cement".												171 to 174 2832FL	.03	.005	.03	.001	
205-210.4 - greenish, less banded.												174 to 177 2822FL	.03	.004	.03	.002	
210-227 siliceous, banded.												177 to 180 2834FL	.03	.002	.02	.001	194.27 205.71 94%
												180 to 183 2835FL	.06	.009	.01	.001	
												183 to 186 2836FL	.07	<.002	.02	.001	205.71- 217.13 94%
												186 to 189 2837FL	.02	.002	.02	.002	
												189 to 192 2838FL	.01	<.002	.02	.001	



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL 81-14
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 5 of 8
Az. Dip:	Claim:

Contractor: \_\_\_\_\_ Property: FISH LAKE Area: \_\_\_\_\_ Purpose: \_\_\_\_\_ Drill Type: 38 Core Size: NQ

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					RECOV	%	
	Cp	Py	Other	OXIDE	EP	CL	MS	K7	BI	OTHER		Cu	Au	Ag	Mo				
220 down - chlorite developed gives greenish color to siliceous rocks.	X	X										192 to 195 2839FL	.01	<.002	.02	.002	217.13-228.62		
247m banded chalcidony at 20° to vca. 3cms thick. More at 248.8m.												195 to 198 2840FL	<.01	<.002	.02	.002	95%		
247.9-248.5 dark gray-brown, fine grained rock.												198 to 201 2841FL	<.01	<.002	.01	.002			
Grading downwards into more chlorite clots and more intrusive looking rock.	X	X										201 to 204 2842FL	<.01	<.002	.02	.002	228.62-240.02		
												204 to 207 2843FL	.02	.003	.02	.002	94%		
												207 to 210 2844FL	.02	<.002	.02	.002	240.02-251.68		
												210 to 213 2845FL	.01	<.002	.01	.002	96%		
												213 to 216 2846FL	.04	.004	.02	.002	251.68-262.64		
												216 to 219 2847FL	.02	.002	.02	.002	90%		
												219 to 222 2848FL	.01	.003	.03	.001			
												222 to 225 2849FL	.01	.004	.02	.001			
												225 to 228 2850FL	.01	<.002	.02	.002			
												228 to 231 2851FL	.11	.014	.02	.001			
												231 to 234 2852FL	.07	.006	.02	.002			



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL 81-14
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 6 of 8
Az. Dip:	Claim:

Contractor:

Drill Type:

Core Size:

Az. Dip:

Claim:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES		MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %				% RECOVER		
	Cp	Py	Other	OXIDE	EP	CL	MS	KP	BI		OTHER	Cu	Au	Ag		Mo	
250.3 - 281.4m Andesite. Above rocks become progressively less siliceous. Rocks are green, fine grained, massive. Little veining or alteration. Some diss. pyrite. Sample at 261.6m for thin section.		X									234 to 237 2853FL	.05	004	.02	.001	262.64- 273.91	
											237 to 240 2854FL	.05	003	.01	.001	93%	
											240 to 243 2855FL	.08	008	.01	.001		
272.5 pyrite-gypsum - chalco vein along core.											243 to 246 2856FL	.11	010	.03	.001	273.91- 284.79	
											246 to 249 2857FL	.07	006	.03	.001	90%	
											249 to 252 2858FL	.02	002	.02	.001		
281.4m - Pyrite - chlorite porphyry. Matrix is grey brown, fine grained with chile margin at top, but gradational contact. Pyrite - chlorite clots up to 6mm avg. 4mm.											252 to 255 2859FL	.03	002	.02	.001		
											255 to 258 2860FL	.19	010	.04	.001		
283-284 - qtz-py vein runs down core.											258 to 261 2861FL	.03	003	.02	.001		
											261 to 264 2862FL	.05	005	.03	.001		
											264 to 267 2863FL	.05	004	.02	.001		
											267 to 270 2864FL	.09	013	.02	.002		
											270 to 273 2865FL	.06	012	.02	.002		
											273 to 276 2866FL	.03	004	.02	.002		



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL 81-14
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 7 of 8
Az. Dip:	Claim:

Contractor:	Drill Type: 38	Core Size:
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GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES		MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS%					% RECOV	
	Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI		OTHER	Cu	Au	Ag	Mo		
286-292 Felsic volcanics. Very siliceous, banded faintly. Still some chlorite & pyrite clots.											276 to 279 2867FL	.05	.008	.02	.001	284.79- 293.96	
											279 to 282 2868FL	.06	.010	.02	.002	92%	
292-320.14 Andesite - FV interbedded on about 1m scale. And > FV by a 2:1.											282 to 285 2869FL	.02	.002	.02	.002		
315.65 - 316.4 Breccia Andesite and FV frags in calcite matrix both contacts crackled.											285 to 288 2870FL	.02	.003	.02	.001		
											288 to 291 2871FL	.02	.003	.02	.002	295.96- 306.92	
320.14 - 238m Fs-Hb Dike											291 to 294 2872FL	.01	.002	.01	.002	96%	
327-328 - highly kaolinized & crumbled maybe gouge. Contacts irregular at about 80° to vca.											294 to 297 2873FL	.03	.002	.02	.001		
											297 to 300 2874FL	.02	.002	.02	.001	306.92- 317.54	
328-333.5 FV as 286-292.											300 to 303 2875FL	.01	.004	.02	.003	87%	
											303 to 306 2876FL	.01	.002	.01	.001		
											306 to 309 2877FL	.01	.003	.01	.001	317.54- 328.71	
											309 to 312 2878FL	.04	.002	.02	.002	92%	
											312 to 315 2879FL	.03	.007	.02	.002	328.71- 339.38	
											315 to 318 2880FL	.01	.002	.02	.001	88%	



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL 81-14
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. <u>8</u> of <u>8</u>
Az. Dip:	Claim:

Contractor: \_\_\_\_\_ Drill Type: 44 Core Size: \_\_\_\_\_

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION								HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KA		BI	OTHER	Cu	Au	Ag	
333.5 - 339.9m Feldspar Porphyry. Siliceous. Feldspars fuzzy and kaolinized. Mafics chloritized. Few sulfides or veins.										318 to 321 2881FL	.03	003	.02	.001	339.38- 349.66 85%
										321 to 324 2882FL	.03	003	.01	.001	
339.9 - 352.35m Andesite Dark green, fine - grained. Carbonate veinlets, but not much else.										324 to 327 2883FL	.02	002	.01	.001	
										327 to 330 2884FL	.01	002	.03	.001	
352.35 End of Hole										330 to 333 2885FL	.03	002	.02	.001	
NQ casing left in hole.										333 to 336 2886FL	.01	002	.02	.001	
Sperry-Sun Test										336 to 339 2887FL	.01	002	.01	.001	
@ 60.96 -59° Due north										339 to 342 2888FL	.01	002	.01	.001	
@ 352.35 -60° N 9° E.										342 to 345 2889FL	.01	002	.01	.001	
										345 to 348 2890FL	.03	007	.02	.001	
										348 to 351 2891FL	.01	002	.03	.001	
										351 to 352.35 2892FL	.03	002	.02	.001	
										to _____					
										to _____					





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## GENERAL DRILL HOLE LOG

Latitude: 9,779.69 Hole No. FL 81-15  
 Departure: 10,200.54 Commenced: Feb. 28/81  
 Elevation: 1,462.2 Completed: Mar 4/81  
 Length: 352.65 Logged by: N. J. Wilson  
 Overburden: 80.47m Sheet No. 1 of 7  
 Az. 0 Dip: -60° Claim: TK 6,3,4

Contractor:

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION						HOLE DEPTH TAG NO.	ASSAYS %					% RECOV
	Cp	Py	Other	OXIDE	FP	CL	MS	KN	BI		OTHER	Cu	Au	Ag	Mo	
0.80.47m Overburden											80.47 to 83 2901FL	.08	.005	.02	.009	86.56- 96.01
80.47-97.5m Altered Andesite. core very broken and ground. Fine grained, pale grey, green, or beige. Secondary chlorite clots. Some fractures with pyrite and chlorite. Appears weakly banded between 93.9 and 94.2m.		X				M	W	M			83 to 86 2902FL	.06	.003	.01	.007	78%
											86 to 89 2903FL	.06	.002	.01	.007	
											89 to 92 2904FL	.09	.003	.01	.008	
											92 to 95 2905FL	.08	.003	.01	.010	96.01- 106.33
											95 to 98 2906FL	.08	.002	.01	.009	85%
97.5-103.8m Hb-Fs dike - PMD. Feldspars are kaolinized, hb are chloritized. Kaolin-calcite on fractures.											98 to 101 2907FL	.02	.002	.01	.009	
											101 to 104 2908FL	.02	.002	.02	.008	106.33- 116.4
103.8- Andesite. Fine grained, as before. Very little pyrite. 110m - amount of pyrite on fracs. Increases.		X				M	W	M			104 to 107 2909FL	.14	.007	.01	.010	83%
											107 to 110 2910FL	.14	.008	.01	.010	
											110 to 113 2911FL	.16	.006	.01	.011	116.4- 127.10
											113 to 116 2912FL	.13	.006	.02	.011	88%
											116 to 119 2913FL	.10	.003	.01	.010	127.10- 140.81
											119 to 122 2914FL	.14	.007	.01	.011	70%



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL 81-15
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: N. J. Wilson
Overburden:	Sheet No. <u>2</u> of <u>7</u>
Az. Dip:	Claim:

Contractor:	Drill Type:	Core Size:
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GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	K2	BI	OTHER		Cu	Au	Ag	Mo		
138.38 - core suddenly becomes competent. Some magnetite.		X									122 to 125 2915FL	.14	.005	.01	.006	140.81- 151.61	
139.7 - gypsum.										gypsum	125 to 128 2916FL	.18	.008	.02	.009	89%	
Magnetite seams - several x-cutting hematite on fractures. Also mag. clots.				mag.							128 to 131 2917FL	.11	.003	.01	.010		
155.4-157 Hb-Fs PMD. More altered than previous dike. Feldspars more diffuse.				hem.							131 to 134 2918FL	.11	.008	.02	.009	151.61- 162.56	
157- Andesite Silicified in spots. More disseminated pyrite. Some disseminated chalco.		X									134 to 137 2919FL	.15	.006	.01	.010	90%	
	X										137 to 140 2920FL	.18	.007	.02	.009		
											140 to 143 2921FL	.20	.011	.02	.009	162.56- 173.62	
											143 to 146 2922FL	.19	.007	.02	.009	91%	
											146 to 149 2923FL	.16	.007	.02	.007		
											149 to 152 2924FL	.24	.008	.02	.006		
											152 to 155 2925FL	.15	.005	.02	.008		
											155 to 158 2926FL	.09	.004	.01	.005		
											158 to 161 2927FL	.18	.006	.02	.009		
											161 to 164 2928FL	.18	.007	.02	.008		



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL 81-15
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 3 of 7
Az. Dip:	Claim:

Contractor: Drill Type: 44 Core Size: NQ

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION								HOLE DEPTH TAG NO.	ASSAYS %				% RECOVER			
	Cp	Py	Other	OXIDE	EP	CL	MS	KT		BI	OTHER	Cu	Au		Ag	Mo	
Gypsum veinlets fairly common. 2/meter.		X									164 to 167 2929FL	.12	.004	.02	.007	173.62- 184.66	
Carbonate veinlets frequent.											167 to 170 2930FL	.18	.007	.02	.010	91%	
Rocks are generally dark green, fairly unaltered.											170 to 173 2931FL	.13	.007	.02	.009		
191-196 bleached sections with hematite - disseminated and w/qtz & py. Also occasional ghost feldspar.											173 to 176 2932FL	.17	.009	.01	.006	184.66- 195.96	
196 to 214.4m - probably an altered feldspar porphyry. Lots of hematite on fracture and with quartz in bleached sections. In dark green, less porphyritic sections magnetite remains. Gypsum common - pink and white.											176 to 179 2933FL	.15	.009	.01	.006	93%	
214.4-227 Decrease in chalco	X	X									179 to 182 2934FL	.17	.007	.01	.006		
227-230 Relict feldspars again.											182 to 185 2935FL	.15	.005	.02	.006	195.96- 207.57	
											185 to 188 2936FL	.23	.006	.02	.008	95%	
											188 to 191 2937FL	.21	.012	.02	.008		
											191 to 194 2938FL	.24	.014	.01	.005	207.57- 218.94	
											194 to 197 2939FL	.23	.011	.01	.006	94%	
											197 to 200 2940FL	.30	.021	.01	.008	218.94- 230.37	
											200 to 203 2941FL	.28	.017	.01	.005	94%	
											203 to 206 2942FL	.24	.012	.01	.007		



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GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL 81-15
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 4 of 7
Az. Dip:	Claim:

Contractor:	Drill Type: 44	Core Size: NQ
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GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KY	BI	OTHER		Cu	Au	Ag	Mo		
Rocks are monotonously uniform - green andesite. Hematite in fractures and in veinlets with quartz. Magnetite seams and disseminated.	X	X		hem. mag.							gypsum carbonate	206 to 209 2943FL	.29	.016	.02	.007	230.37- 241.79
												209 to 212 2944FL	.33	.018	.02	.005	94%
												212 to 215 2945FL	.25	.020	.02	.008	
												215 to 218 2946FL	.20	.011	.01	.007	241.79- 253.08
												218 to 221 2947FL	.28	.019	.02	.010	93%
												221 to 224 2948FL	.31	.022	.01	.009	
												224 to 227 2949FL	.25	.010	.02	.009	253.08- 264.00
												227 to 230 2950FL	.32	.011	.01	.011	90%
												230 to 233 2951FL	.26	.011	.01	.010	
												233 to 236 2952FL	.14	.008	.01	.012	
												236 to 239 2953FL	.17	.011	.01	.010	
												239 to 242 2954FL	.23	.012	.02	.009	
												242 to 245 2955FL	.19	.007	.01	.011	
												245 to 248 2956FL	.28	.012	.01	.009	



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL 81-15
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. <u>5</u> of <u>7</u>
Az. Dip:	Claim:

Contractor: \_\_\_\_\_ Drill Type: 44 Core Size: \_\_\_\_\_

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	K2	BI	OTHER		Cu	Au	Ag	Mo		
254.4-257.4m Pale grey green, porphyritic. Feldspars are small, crowded, and slightly diffuse. May be post mineral as sulfides drop.												248 to 251 2957FL	.26	.010	.01	.009	264.00- 275.40 94%
260 - disseminated chalco over next 5 meters or so.												251 to 254 2958FL	.23	.010	.01	.009	
												254 to 257 2959FL	.09		.01	.012	
277.7 - 278.6 quartz vein with lots of chalco and pyrite dipping down core axis. Several other small qtz veins also along core axis.	X	X		hem.							gypsum carbonate	257 to 260 2960FL	.20	.010	.02	.009	275.40- 287.07 96%
	X	X										260 to 263 2961FL	.23	.008	.01	.011	
												263 to 266 2962FL	.22	.011	.04	.007	287.07- 298.19 91%
288 - Feldspar Porphyry. Rock dark green to pale pink, feldspars are 2mm-5mm in size and fairly sharp. A few altered inclusions present. Some disseminated sulfides. Also magnetite in veinlets.												266 to 269 2963FL	.22	.012	.02	.007	
												269 to 272 2964FL	.29	.010	.01	.010	
												272 to 275 2965FL	.31	.011	.02	.008	
												275 to 278 2966FL	.36	.012	.01	.008	
												278 to 281 2967FL	.45	.010	.04	.007	
												281 to 284 2968FL	.22	.010	.01	.006	
												284 to 287 2969FL	.27	.021	.01	.007	
												287 to 290 2970FL	.20	.010	.01	.005	



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL 81-15
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. <u>6</u> of <u>7</u>
Az. Dip:	Claim:

Contractor:	Drill Type:	Core Size:
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GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	Kf	BI	OTHER		Cu	Au	Ag	Mo		
303-307 inclusion of andesite. Altered.	X	X		hem.							gypsum	290 to 293 2971FL	.13	.011	.01	.006	298.19- 309.25 91%
323-352.05 OFF. looks like above rock, but up to 10% 3mm quartz eyes.												293 to 296 2972FL	.09	.014	.01	.004	
												296 to 299 2973FL	.21	.008	.03	.006	
331.6-332.2 vuggy qtz-pyrite along vca.												299 to 302 2974FL	.29	.011	.01	.008	309.25- 320.23
												302 to 305 2975FL	.18	.007	.01	.009	90%
335.5 - 15cms fault gouge 30° to vca.												305 to 308 2976FL	.30	.011	.02	.009	
334.6 2cms qtz-py-sph vein at 60° to vca.												308 to 311 2977FL	.26	.011	.03	.006	320.23- 331.50 93%
												311 to 314 2978FL	.27	.010	.01	.010	
												314 to 317 2999FL	.38	.012	.02	.009	
												317 to 320 2980FL	.37	.015	.01	.009	331.5- 343.06
												320 to 323 2981FL	.18	.015	.01	.010	95%
												323 to 326 2982FL	.18	.019	.01	.013	
												326 to 329 2983FL	.15	.010	.01	.013	
												329 to 332 2984FL	.15	.008	.01	.013	









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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL 81-16
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 2 of 4
Az. Dip:	Claim:

Contractor:	Drill Type:	Core Size:
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GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECON
	Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI	OTHER		Cu	Au	Ag	Mo		
rocks very broken		X									54 to 57 1473FL	.19	<.002	<.01	.007	62.01- 70.96	
66.7-67.06 - crumble - fault gouge?											57 to 60 1474FL	.24	.009	.01	.009	74%	
Some silicification. Occasional disseminated pyrite and magnetite.				mag.							60 to 63 1475FL	.18	.008	.01	.013		
92-98 disseminated pyrite w/secondary biotite clots. Now chloritized.											63 to 66 1476FL	.22	.024	.03	.014	70.96- 80.57	
101-104.5 banded at 45° to vca.											66 to 69 1477FL	.27	<.002	<.01	.010	79%	
											69 to 72 1478FL	.21	<.002	<.01	.009		
											72 to 75 1479FL	.17	.005	.01	.009	80.57- 91.06	
											75 to 78 1480FL	.23	.004	<.01	.007	86%	
											78 to 81 1481FL	.17	.005	<.01	.008	91.06 101.78	
											81 to 84 1482FL	.10	<.002	<.01	.006	88%	
											84 to 87 1483FL	.13	.005	<.01	.007		
											87 to 90 1484FL	.15	.008	.01	.006	101.78- 111.17	
											90 to 93 1485FL	.16	.004	.01	.006	77%	
											93 to 96 1486FL	.11	.002	.01	.007		



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL 81-16
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 3 of 4
Az. Dip:	Claim:

Contractor:

Drill Type:

Core Size:

Az. Dip:

Claim:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES		MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOV	
	Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI		OTHER	Cu	Au	Ag	Mo		
Fault gouge. 114.2-114.6											96 to 99 1487FL	.26	.007	.01	.010	111.17- 120.69	
Rocks are becoming dark green with secondary chlorite. Pyrite sheared on fractures. Maybe microporphyry.		X									99 to 102 1488FL	.18	.006	.01	.010	78%	
											102 to 105 1489FL	.16	.005	.01	.009		
139.62 - 10 cms of biotite and kaolin.											105 to 108 1490FL	.15	.005	.02	.007	120.69- 131.00	
											108 to 111 1491FL	.21	.006	.01	.011	85%	
											111 to 114 1492FL	.20	.008	.01	.009		
											114 to 117 1493FL	.21	.005	.01	.011	131.00- 140.69	
											117 to 120 1494FL	.16	.004	.01	.009	86%	
											120 to 123 1495FL	.11	.005	.02	.006		
											123 to 126 1496FL	.15	.004	.01	.006	140.69- 153.0 80%	
											126 to 129 1497FL	.24	.012	.01	.008		
											129 to 132 1498FL	.19	.009	.01	.006		
											132 to 135 1499FL	.17	.005	.01	.007		
											135 to 138 1500FL	.14	.008	.01	.004		





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## GENERAL DRILL HOLE LOG

Latitude: 10,096.17	Hole No. FL 81-17
Departure: 10,100.14	Commenced: March 2/81
Elevation: 1,443.6	Completed: March 4/81
Length: 157.28	Logged by: NJW
Overburden: 51.82	Sheet No. 1 of 3
Az. 0 Dip: -60°	Claim: TK6

Contractor:

Drill Type: 38

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION								HOLE DEPTH TAG NO.	ASSAYS%					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KA		BI	OTHER	Cu	Au	Ag	
0-51.82 Overburden										51.82 to 55 2992FL	.09	.005	.01	.005	51.82- 61.82
51.82- Feldspar Porphyry. Rocks are pale gray to bleached, kaolinized. Fracture controlled secondary biotite. No limonite in core. Core is broken -up. 61.87-62.05 pale pink QFP - PMD. Below 65, chlorite becomes dominant. More bleaching and alteration with depth. Not much chalco visible. Pyrite veinlets thin and leached. 92.34- large clots of py-clcp in quartz vein.										55 to 58 2993FL	.06	.007	.01	.005	82%
										58 to 61 2994FL	.09	.004	.01	.009	
										61 to 64 2995FL	.06	.008	.01	.008	61.82- 72.65
		X								64 to 67 2996FL	.06	.002	.01	.007	92%
										67 to 70 2997FL	.12	.004	.01	.009	
										70 to 73 2998FL	.12	.006	.01	.011	72.85 83.40
										73 to 76 2999FL	.18	.009	.01	.012	88%
										76 to 79 3000FL	.21	.014	.01	.011	
										79 to 82 3001FL	.12	.006	.01	.008	83.4- 92.84
										82 to 85 3002FL	.14	.011	.01	.010	78%
										85 to 88 3003FL	.15	.008	.01	.011	
										88 to 91 3004FL	.10	.006	.01	.010	92.84 102.48
										91 to 94 3005FL	.12	.007	.01	.012	80%



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL 81-17
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheer No. <u>2</u> of <u>3</u>
Az. Dip:	Claim:

Contractor: Drill Type: Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION										HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER	
	Cp	Py	Other	OXIDE	EP	CL	MS	KN	BI	OTHER		Cu	Au	Ag	Mo			
106-106.8 Fault gouge.	X	X	MoS <sub>2</sub>	hem.				W	H			94 to 97 3006FL	.13	.009	.01	.009	102.48- 112.45	
108-108.5 Shear runs along core axis with MoS <sub>2</sub> . Coarse pyrite on some fractures. Hematite smeared on every fracture.												97 to 100 3007FL	.11	.008	.01	.010	82%	
												100 to 103 3008FL	.17	.012	.01	.010		
												103 to 106 3009FL	.19	.009	.01	.010	112.45- 122.10	
128-135 feldspars very diffuse												106 to 109 3010FL	.10	.007	.01	.008	79%	
120-140 core very broken up.												109 to 112 3011FL	.07	.004	.01	.007		
												112 to 115 3012FL	.13	.006	.01	.008	122.10- 130.97	
												115 to 118 3013FL	.09	.007	.01	.007	73%	
												118 to 121 3014FL	.09	.005	.01	.009		
												121 to 124 3015FL	.09	.005	.01	.008	130.97- 140.16	
												124 to 127 3016FL	.06	.004	.01	.008	76%	
												127 to 130 3017FL	.12	.004	.02	.010		
												130 to 133 3018FL	.08	.004	.01	.009	140.16- 150.01	
												133 to 136 3019FL	.09	.004	.01	.010	81%	





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## GENERAL DRILL HOLE LOG

Latitude: 9,801.58	Hole No. FL 81-18
Departure: 10,100.37	Commenced: March 4/81
Elevation: 1,466.8	Completed: March 8/81
Length: 352.61m	Logged by: NJW
Overburden: 82.30m	Sheet No. 1 of 7
Az. 0 Dip: -60°	Claim: TK6,5

Contractor:

Drill Type: 44

Core Size: NQ

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER	
	Cp	Py	Other	OXIDE	EP	CL	MS	KN	BI	OTHER		Cu	Au	Ag	Mo			
Bedrock at 258' casing to 270'.											82.3 to 85 3027	.12	.005	.01	.008	82.3-94.6	3-6	
0-82.30m overburden.											85 to 88 3028	.09	.005	.01	.010	70%		
82.30-110 Andesite											88 to 91 3029	.09	.004	.01	.006	94.6-103.02	6-02	
Dark green, fine grained. Core very broken and crumbled. Pyrite on some fracture faces. Lots of carbonate on fractures and hairline veinlets. Hematite on fractures. Magnetite disseminated.			X		hem.					carbonate	91 to 94 3030	.09	.004	<.01	.009	70%		
Weak alteration.					mag.						94 to 97 3031	.12	.005	.01	.008			
Some chalco on fractures and disseminated.	X										97 to 100 3032	.12	.007	<.01	.009			
110 Crowded Feldspar											100 to 103 3033	.16	.008	<.01	.009	103.02-112.50	02-50	
Porphyry. Rock is pale grey with small (2mm) feldspar laths and chlorite clots.											103 to 106 3034	.20	.009	.01	.010	78%		
Contact is gradational and broken over 20 cms. Hematite clots and on fractures. Dark green sections have magnetite veins and clots.					hem. mag.						106 to 109 3035	.33	.013	.01	.011			
											109 to 112 3036	.15	.006	<.01	.010	112.5-122.79	5-79	
											112 to 115 3037	.14	.006	.01	.009	85%		
											115 to 118 3038	.10	.004	.01	.010	122.79-133.4	79-4	
											118 to 121 3039	.13	.008	.01	.008	87%		
											121 to 124 3040	.17	.010	<.01	.014			

chub.



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL 81-18
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 2 of 7
Az. Dip:	Claim:

Contractor: Drill Type: 44 Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH		ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KN	BI	OTHER	TAG NO.	Cu	Au	Ag	Mo			
138.9-139, 139.5-139.65 Post mineral felsic dikes.											124 to 127 3041	.10	.006	<.01	009	133.4-144.37		
Carbonate on fractures and hairline veinlets.		X								carbonate.	127 to 130 3042	.09	.006	<.01	009	90%		
Little alteration.											130 to 133 3043	.06	<.002	<.01	009			
Disseminated pyrite.											133 to 136 3044	.17	.006	<.01	016	144.37-154.73		
											136 to 139 3045	.09	<.002	<.01	010	85%		
											139 to 142 3046	.17	.007	<.01	010			
											142 to 145 3047	.20	.010	.02	013	154.73-164.65		
											145 to 148 3048	.23	.012	.02	009	82%		
											148 to 151 3049	.24	.012	.01	011			
											151 to 154 3050	.08	.004	<.01	011	164.65-174.76		
											154 to 157 3051	.18	.007	.01	011	83%		
											157 to 160 3052	.18	.007	<.01	010			
											160 to 163 3053	.18	.007	<.01	013	174.76-184.29		
											163 to 166 3054	.20	.009	<.01	011	78%		





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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-18
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 3 of 7
Az. Dip:	Claim:

Contractor: \_\_\_\_\_ Drill Type: \_\_\_\_\_ Core Size: \_\_\_\_\_

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION								HOLE DEPTH TAG NO.	ASSAYS %					% RECOV	
	Cp	Py	Other	OXIDE	EP	CL	MS	KA		BI	OTHER	Cu	Au	Ag		Mo
Some coarse pyrite on fractures.		X								166 to 169 3055	.25	.009	<.01	.012	184.29- 194.98	
184-223.2m Post mineral Hb-Fs Dike. Pale green-occasional carbonate veinlet.										169 to 172 3056	.14	.006	<.01	.009	88%	
202.1-202.3 vuggy quartz vein runs along core. 212.5-212.6 fault gouge.										172 to 175 3057	.21	.007	<.01	.002		
										175 to 178 3058	.24	.007	<.01	.003	194.98- 206.25	
										178 to 181 3059	.19	.007	<.01	.001	93%	
										181 to 184 3060	.24	.022	.02	.002		
										184 to 187 3061	<.01	.002	<.01	.001	206.25- 217.46	
										187 to 190 3062	.01	<.002	<.01	<.001	92%	
										190 to 193 3063	<.01	<.002	<.01	<.001		
										193 to 196 3064	<.01	<.002	<.01	<.001	217.46- 228.39	
										196 to 199 3065	<.01	<.002	<.01	<.001	90%	
										199 to 202 3066	<.01	<.002	<.01	<.001		
										202 to 205 3067	<.01	<.002	<.01	<.001		
										205 to 208 3068	<.01	<.002	<.01	<.001		



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### GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL 81-18
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 4 of 7
Az. Dip:	Claim:

Contractor:

Drill Type: 44

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION								HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER	
	Cp	Py	Other	OXIDE	EP	CL	MS	KN		BI	OTHER	Cu	Au	Ag		Mo
232.2- Andesite Dark green-black, fine grained. vaguely porphyritic. Feldspars are mostly ghosts or diffuse white spots. Disseminated specks of py-clcp and occasional sulfide veinlet at 20° to vca. Magnetite disseminated throughout.										208 to 211 3069	<.01	<.002	<.01	<.001	208.39- 239.88	
										211 to 214 3070	<.01	<.002	<.01	<.001	95%	
	X	X								214 to 217 3071	<.01	<.002	<.01	<.001		
				mag.				W		217 to 220 3072	<.01	<.002	<.01	<.001	239.88- 251.5	
Carbonate veinlets & hairlines common. 224.9- spot gypsum Occasional bleached sections.									carbonate gypsum	220 to 223 3073	<.01	<.002	<.01	<.001	96%	
										223 to 226 3074	<.01	<.017	<.01	<.001		
240 - hematite appears with veins and on occasional fracture.										226 to 229 3075	.22	.003	<.01	.002		
				hem						229 to 232 3076	.21	.021	.03	.001		
										232 to 235 3077	.14	.010	<.01	.003		
										235 to 238 3078	.22	.007	<.01	.002	251.5- 262.88	
										238 to 241 3079	.17	.007	.01	.002	94%	
										241 to 244 3080	.22	.005	.01	.002		
										244 to 247 3081	.33	.023	.03	.001		
										247 to 250 3082	.36	.018	.02	.001		



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL 81-18
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 5 of 7
Az. Dip:	Claim:

Contractor: Drill Type: 44 Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH		ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI	OTHER	TAG NO.	Cu	Au	Ag	Mo			
271.75-274m. Post mineral Hb-Fs Dike. As before.											250 to 253 3083	33	.005	.01	.001	262.88- 274.22 93%		
											253 to 256 3084	13	.007	<.01	.001			
274-290 Andesite. Fine grained, green-black.											256 to 259 3085	25	.005	<.01	.001			
278.8m - quartz-chlorite vein - maybe gouges with molybdenite.	X	X									259 to 262 3086	12	<.002	<.01	<.001	274.22- 285.25		
Magnetite in veins with py and clcp.			MoS <sub>2</sub>								262 to 265 3087	14	<.003	<.03	<.001	91%		
											265 to 268 3088	15	<.002	<.01	<.001			
290-296m Hb-Fs Post mineral Dike. Contacts are gradational centre. 8m of dike is pale pink with feldspar but no mafics.											268 to 271 3089	15	.006	<.01	<.001			
											271 to 274 3090	19	.002	<.01	.001	285.25- 296.45		
											274 to 277 3091	06	.007	<.01	<.001	92%		
											277 to 280 3092	25	<.002	<.01	.001			
											280 to 283 3093	23	.007	.01	.002			
											283 to 286 3094	29	.003	.01	.001			
											286 to 289 3095	30	.006	<.01	.003			
											289 to 292 3096	22	<.002	<.01	<.001			



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL 81-18
Departure:	Commenced:
Elevation:	Completed:
Length: 352.65	Logged by: NJW
Overburden:	Sheet No. <u>6</u> of <u>7</u>
Az. Dip:	Claim:

Contractor:	Drill Type: 44	Core Size:
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GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	K <sub>2</sub>	BI	OTHER		Cu	Au	Ag	Mo		
296-296.65 Andesite contact with dike is gradational. Disseminated sulfides present.	X	X									292 to 295 3097	.08	.014	.03	.001	296.45- 306.93	
											295 to 298 3098	<.01	<.002	<.01	<.001	86%	
296.65-334.6m Hb-Fs Post mineral dike. Alternating green and pink sections - may be repeated intrusions. Gypsum on shear at 303.49m No Sulfides. Carbonate veinlets with hematite.											298 to 301 3099	.17	.003	<.01	<.001		
											301 to 304 3100	<.01	<.002	<.01	<.001	306.93- 317.87	
											304 to 307 3101	<.01	<.002	<.01	<.001	90%	
											307 to 310 3102	<.01	<.002	<.01	<.001		
334.6 - Altered Quartz. Feldspar Porphyry. Contact with above is gradational. Feldspars are altered. Hematite is disseminated and in veinlets. Some pyrite in veins at 30° to vca. Quartz gypsum veinlets common. Clcp rare.											310 to 313 3103	<.01	<.002	<.01	<.001		
											313 to 316 3104	<.01	<.002	<.01	<.001	317.87- 329.15	
											316 to 319 3105	<.01	<.002	<.01	<.001	93%	
											319 to 322 3106	<.01	<.002	<.01	<.001		
											322 to 325 3107	<.01	<.002	<.01	<.001		
											325 to 328 3108	<.01	<.002	.01	<.001	329.15- 340.39	
											328 to 331 3109	<.01	.002	<.01	<.001	92%	
											331 to 334 3110	<.01	<.002	<.01	<.001		





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## GENERAL DRILL HOLE LOG

Latitude: 10,200.37	Hole No. FL 81-19
Departure: 10,599.68	Commenced: March 6/81
Elevation: 1,491.9	Completed: March 10/81
Length: 352.35	Logged by: NJWilson
Overburden: 33.53	Sheet No. 1 of 8
Az. 0 Dip: -60°	Claim: TK 33

Contractor: Drill Type: 38 Core Size: NQ

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION								HOLE DEPTH TAG NO.	ASSAYS%				% RECOVER	
	Cp	Py	Other	OXIDE	EP	CL	MS	KN		BI	OTHER	Cu	Au		Ag
0-33.53 Overburden 110ft NQ casing										33.53 to 36.5 1507FL	.18	.015	.05	.006	33.53- 44.02
33.53- Feldspar Porphyry. Feldspars are kaolinized and sericitized. Some chlorite clots. Some zones of silicification. Hematite disseminated and in veinlets.										36.5 to 39.5 1508FL	.29	.020	.06	.002	86%
										39.5 to 42.5 1509FL	.10	.004	.01	.001	
										42.5 to 45.5 1510FL	.09	.005	.01	.004	44.02- 54.79
										45.5 to 48.5 1511FL	.10	.005	.01	.002	88%
38.40-38.80 - sand. Bit crown broke off and tricone pushed through core broken up. Kaolin on fractures Pyrite veins leached. Much of core is quartz grains in clays.										48.5 to 51.5 1512FL	.17	.005	.03	.002	
										51.5 to 54.5 1513FL	.08	.004	.03	.002	
										54.5 to 57.5 1514FL	.12	.009	.06	.002	54.79- 65.40
Biotite altered to chlorite and some open spaces left.										57.5 to 60.5 1515FL	.25	.012	.03	.005	87%
										60.5 to 63.5 1516FL	.26	.008	.04	.004	
Alteration and mineralization increases after 80m.										63.5 to 66.5 1517FL	.18	.014	.05	.005	65.40- 75.18
										66.5 to 69.5 1518FL	.15	.005	.01	.004	80%
										69.5 to 72.5 1519FL	.18	.011	.01	.002	75.18- 86.11
										72.5 to 75.5 1520FL	.33	.021	.03	.005	90%

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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL 81-19
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 2 of 8
Az. Dip:	Claim:

Property: FISH LAKE

Area:

Purpose:

Contractor:

Drill Type: 38

Core Size: NQ

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION					HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER	
	Cp	Py	Other	OXIDE	EP	CL	MS	KN		BI	OTHER	Cu	Au	Ag		Mo
Some fracture controlled secondary biotite.											75.5 to 78.5 1521FL	.18	.012	.02	.006	86.11-96.52
Core still quite broken up, but not as much kaolin.				hem.							78.5 to 81.5 1522FL	.12	.008	.02	.003	86%
109.4-10cm, coarse chalco-pyrite quartz vein. Maybe moly.	X	X	MoS <sub>2</sub>								81.5 to 84.5 1523FL	.12	.014	.03	.003	
											84.5 to 87.5 1524FL	.13	.008	.02	.001	96.52-107.21
											87.5 to 90.5 1525FL	.12	.007	<.01	.007	88%
											90.5 to 93.5 1526FL	.12	.007	.012	.004	
											93.5 to 96.5 1527FL	.14	.005	.01	.013	107.21-117.45
											96.5 to 99.5 1528FL	.15	.007	<.01	.002	84%
											99.5 to 102.5 1529FL	.13	.007	<.01	.003	
											102.5 to 105.5 1530FL	.11	.005	<.01	.003	
											105.5 to 108.5 1531FL	.08	.003	.01	.001	117.45-128.20
											108.5 to 111.5 1532FL	.25	.010	.02	.003	88%
											111.5 to 114.5 1533FL	.17	.007	.01	.002	
											114.5 to 117.5 1534FL	.14	.005	.01	.001	



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL 81-19
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 3 of 8
Az. Dip:	Claim:

Contractor: Drill Type: 38 Core Size: NQ

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER		
	Cp	Py	Other	OXIDE	EP	CL	MS		K <sub>2</sub>	BI	OTHER	Cu	Au		Ag	Mo
Sericitic alteration increases.								M	W		117.5 to 120.5 1535FL	.24	.025	.02	.005	128.2- 138.88
Yuggy quartz vein at 133.4m.	X	X									120.5 to 123.5 1536FL	.19	.005	<.01	.004	87%
147.4 - 10cms fault gouge.											123.5 to 126.5 1537FL	.14	.005	.01	.002	
153 - magnetite vein at 85% vca.				mag.							126.5 to 129.5 1538FL	.11	.005	<.01	.002	
											129.5 to 132.5 1539FL	.22	.008	<.01	.004	
											132.5 to 135.5 1540FL	.21	.021	.02	.004	138.88- 149.63
											135.5 to 138.5 1541FL	.29	.008	.04	.013	88%
											138.5 to 141.5 1542FL	.13	.007	.01	.002	
											141.5 to 144.5 1543FL	.21	.007	.01	.004	149.63- 159.73
											144.5 to 147.5 1544FL	.18	.010	.03	.003	83%
											147.5 to 150.5 1545FL	.13	.009	.02	.005	
											150.5 to 153.5 1546FL	.18	.008	.01	.004	159.73- 169.32
											153.5 to 156.5 1547FL	.18	.014	.03	.004	79%
											156.5 to 159.5 1548FL	.32	.011	.03	.007	





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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL 81-19
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 4 of 8
Az. Dip:	Claim:

Contractor:

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KF	BI	OTHER		Cu	Au	Ag	Mo		
Some chlorite clots.											159.5 to 162.5 1549FL	.17	.006	.01	.003	169.32- 179.25	
193-196 5% disseminated pyrite chalco blebs & stringers.	X	X									162.5 to 165.5 1550FL	.27	.011	.01	.006	82%	
203.2-204 Post mineral dike.											165.5 to 168.5 1551FL	.23	.012	.03	.005		
Pale beige with large quartz eyes and green clots. Both contacts sharp and sheared. Fine grained ground mass.											168.5 to 171.5 1552FL	.18	.007	.01	.006	179.25- 188.36	
											171.5 to 174.5 1553FL	.17	.006	.01	.004	75%	
											174.5 to 177.5 1554FL	.17	.005	.01	.002	188.36-	
											177.5 to 180.5 1555FL	.20	.015	.03	.004	198.59 84%	
											180.5 to 183.5 1556FL	.15	.006	.01	.001		
											183.5 to 186.5 1557FL	.31	.013	.04	.002		
											186.5 to 189.5 1558FL	.12	.017	.02	.002	198.59- 209.00	
											189.5 to 192.5 1559FL	.17	.013	.04	.008	84%	
											192.5 to 195.5 1560FL	.05	.010	.02	.008		
											195.5 to 198.5 1561FL	.05	.011	.02	.002		
											198.5 to 201.5 1562FL	.10	.013	.03	.002		



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## GENERAL DRILL HOLE LOG

Latitude:	Note No. FL 81-19
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 5 of 8
Az. Dip:	Claim:

Contractor:	Drill Type:	Core Size:	GENERAL DESCRIPTION (GEOLOGY)										HOLE DEPTH		ASSAYS %					% RECOVERED
			SULPHIDES			MINERALIZATION ALTERATION							Tag No.	Cu	Au	Ag	Mo			
Property:	Area:	Purpose:	Cp	Py	Other	OXIDE	EP	CL	MS	K	BI	OTHER								
													201.5 to 204.5 1563FL	.11	.014	.02	.002			
													204.5 to 207.5 1564FL	.12	.010	.02	.003	209.00- 219.73		
													207.5 to 210.5 1565FL	.22	.011	.03	.005	88%		
			X	X									210.5 to 213.5 1566FL	.07	.009	.01	.002			
								M	M				213.5 to 216.5 1567FL	.03	.004	.02	.001			
													216.5 to 219.5 1568FL	<.01	<.002	.01	.001	219.73- 230.32		
													219.5 to 222.5 1569FL	<.01	.013	.01	<.001	87%		
													222.5 to 225.5 1570FL	.07	.003	<.01	.002			
													225.5 to 228.5 1571FL	.12	.003	.01	.002	230.32- 241.52		
													228.5 to 231.5 1572FL	.09	.004	<.01	.001	92%		
													231.5 to 234.5 1573FL	.07	<.002	<.01	.001			
													234.5 to 237.5 1574FL	.22	.005	<.01	.003	241.52- 252.00		
													237.5 to 240.5 1575FL	.12	.004	<.01	.001	82%		
													240.5 to 243.5 1576FL	.09	.003	.01	.001			



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL 81-19
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 6 of 8
Az. Dip:	Claim:

Contractor: Drill Type: 38 Core Size: NQ

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION								HOLE DEPTH TAG NO.	ASSAYS%					% RECOVER	
	Cp	Py	Other	OXIDE	EP	CL	MS	KP		BI	OTHER	Cu	Au	Ag		Mo
255-283.5m Andesite										243.5 to 246.5 1577FL	.11	.003	<.01	.005	252.00-263.14	
256-257.5m Calcite, band, very coarse grained. Barren.										246.5 to 249.5 1578FL	.15	.003	.01	.002	98%	
Andesite is fine grained, green to buff. Some clotty biotite sections. Gypsum at 262.7m. Ubiquitously sericitized.								M	M	gypsum	249.5 to 252.5 1579FL	.04	.003	<.01	.002	263.14-
										252.5 to 255.5 1580FL	.03	<.002	<.01	.001	274.66-95%	
										255.5 to 258.5 1581FL	.10	.003	.01	.004		
Rocks appear spotted with secondary chlorite. Lots of disseminated pyrite and chalcopyrite (10% total)										258.5 to 261.5 1582FL	.15	.008	.02	.003		
	X	X								261.5 to 264.5 1583FL	.17	.005	.02	.006	274.66-285.65	
283.5-291.5 Feldspar Porphyry. Relict, highly altered feldspars. Intensely sericitized. Gypsum veinlets common.									S		264.5 to 267.5 1584FL	.30	.006	.01	.007	90%
										267.5 to 270.5 1585FL	.19	.013	.02	.004	285.65-	
										270.5 to 273.5 1586FL	.14	.004	.01	<.001	296.98-92%	
										273.5 to 276.5 1587FL	.17	.004	<.01	.002		
										276.5 to 279.5 1588FL	.12	.008	<.01	.006		
										279.5 to 282.5 1589FL	.13	.009	.01	.002		
										282.5 to 285.5 1590FL	.15	.003	.01	.004		



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## GENERAL DRILL HOLE LOG

Latitude:	hole no. FL 81-19
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. <u>7</u> of <u>8</u>
Az. Dip:	Claim:

Contractor:	Drill Type: 38	Core Size:	GENERAL DESCRIPTION (GEOLOGY)										HOLE DEPTH		ASSAYS %					% RECOVERED
			SULPHIDES			MINERALIZATION ALTERATION				OTHER			TAG NO.	Cu	Au	Ag	Mo			
			Cp	Py	Other	OXIDE	EP	CL	MS	KN	BI	OTHER								
219.5-316.7	Andesite-altered.												285.5 <sub>10</sub> 288.5	.13	.005	<.01	.003	296.98		
	Fine grained and yellowish at top		X	X									1591FL					308.52		
	could be tuffaceous.												288.5 <sub>10</sub> 291.5	.10	.006	.02	.001	95%		
312-314.5	Fault gouge. Core goes												1592FL							
	along gouge.												291.5 <sub>10</sub> 294.5	.17	.007	.01	.001			
316.7-319.61	Felsic volcanics.		X	X									1593FL							
	Pale grey, aphanitic, very												294.5 <sub>10</sub> 297.5	.15	.006	.01	.002	308.52		
	siliceous.												1594FL					319.64		
													297.5 <sub>10</sub> 300.5	.13	.006	<.01	.002	91%		
319.6 -	Andesite - altered.												1595FL							
	Yellowish in places - chloritic												300.5 <sub>10</sub> 303.5	.15	.006	.01	.002			
	clots and bands at 50° vca.												1596FL							
	-36-337.5 fs porphyry.												303.5 <sub>10</sub> 306.5	.17	.005	<.01	.003	319.64		
													1597FL					330.96		
													306.5 <sub>10</sub> 309.5	.09	.003	.02	.004	93%		
													1598FL							
													309.5 <sub>10</sub> 312.5	.12	.004	.02	.002			
													1599FL							
													312.5 <sub>10</sub> 315.5	.09	.003	.01	.002	330.96		
													1600FL					342.45		
													315.5 <sub>10</sub> 318.5	.13	.005	.02	.004	94%		
													1601FL							
													318.5 <sub>10</sub> 321.5	.21	.006	.01	.011			
													1602FL							
													321.5 <sub>10</sub> 324.5	.12	.005	.02	.003			
													1603FL							
													324.5 <sub>10</sub> 327.5	.13	.007	.01	.009			
													1604FL							





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## GENERAL DRILL HOLE LOG

Latitude: 9,650.09	Hole No. FL 81-20
Departure: 10,296.84	Commenced: March 81
Elevation: 1,463.6	Completed: March 81
Length: 352.65	Logged by: AMPauwels
Overburden: 71.29	Sheet No. 1 of 8
Az. N Dip: -60°	Claim: TK4, TK3

Contractor: J. T. Thomas Drilling Ltd.

Drill Type: 44

Core Size: NQ

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES		MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS%					% RECOV
	Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI		OTHER	Cu	Au	Ag	Mo	
71.29 - 92m Grey to green, medium to fine grained andesite. Core is broken up in 1 to 1/2 m pieces. Alteration consists of chlorite, silica in ground-mass, pyrite 5 to 10%, probable sericite in ground mass. Relic agglomeratic textures. Rare, thin qz veins, minor carbo-py veins. At 79.5 siliceous fragments 1/2 to 1.5 cm and very rare chalcopyrite. Bleaching increases with depth.		X		hem.		X	?			gypsum	71.3 to 74.3 FL3117	.01	.007	<.01	<.001	72.29-81.38 94%
92-111.1m Texture changes to medium grained feldspar porphyry. Pyrite +5% Pyrite is coarse grained and on fractures. Qz, sericite-chlorite-carbonate alteration. Definite intrusive boundary at 111.1 at 30° vca. Some pink hue in ground mass from 107 on. Core solid from 107 on.											74.3 to 77.3 FL3118	.03	<.002	<.01	<.001	
											77.3 to 80.3 FL3119	.04	<.002	.01	<.001	
											80.3 to 83.3 FL3120	.03	<.002	.02	<.001	
											83.3 to 86.3 FL3121	.02	<.002	<.01	<.001	
											86.3 to 89.3 FL3122	.02	<.002	.01	<.001	102.7-107 98%
											89.3 to 92.3 FL3123	<.01	<.002	.01	<.001	
						X	X				92.3 to 95.3 FL3124	.04	.002	<.01	<.001	107-112.9 98%
											95.3 to 98.3 FL3125	.02	<.002	<.01	<.001	
											98.3 to 101.3 FL3126	.04	.002	<.01	<.001	114.9-124.05 98%
		X				X	X			gypsum	101.3 to 104.3 FL3127	.04	<.002	.01	<.001	
											104.3 to 107.3 FL3128	.01	<.002	.01	<.001	
											107.3 to 110.3 FL3129	<.01	<.002	.02	<.001	
											110.3 to 113.3 FL3130	.02	<.002	.01	<.001	



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## GENERAL DRILL HOLE LOG

Latitude:	None No. FL 81-20
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: A. P.
Overburden:	Sheet No. <u>2</u> of <u>8</u>
Az. Dip:	Claim:

Contractor: Drill Type: Longyear 44 Core Size: NQ

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION										HOLE DEPTH TAG NO.	ASSAYS %					RECOVER		
	Cp	Py	Other	OXIDE	EP	CL	MS	KN	BI	OTHER		Cu	Au	Ag	Mo	%			
111.1 - 143.9 Totally altered volcanics. Fine grained sericitic ground mass 2 to 5% pyrite, gypsum veins, carbonate veins, pyrite veins. Pink hue in ground-mass. Pyrite also in clots (2 to 3mm Ø) and finely disseminated. Frequency of gypsum veins increases to 1 per 5cm carbonate as hairlines to 2mm. Quartz carbonate veins 1 to 3mm. Sparse secondary biotite ( or retro chlorite) starts to be developed with abundant pyrite in relict fragmental textures (example 124m). Pyrite also in chlorite veinlets 5cm of lost core at 114m. Kaolin on fracture surfaces. Large patches of fine pink zones consist of carbonate and sericite. Some silicification 127.20		X						X	X			gypsum	113.3 to 116.3 FL 3131	.02	.002	.02	<.001	124.05- 136.24	
													116.3 to 119.3 FL 3132	.02	<.002	.02	<.001	100%	
													119.3 to 122.3 FL 3133	.02	<.002	.03	<.001		
													122.3 to 125.3 FL 3134	<.01	.002	.03	<.001	136.24- 145.39	
													125.3 to 128.3 FL 3135	.02	<.002	.02	<.001	100%	
													128.3 to 131.3 FL 3136	.02	<.002	.01	<.001	145.39- 157.6	
		X							X	X			131.3 to 134.3 FL 3137	.02	<.002	.02	<.001	100%	
													134.3 to 137.3 FL 3138	.04	<.002	.02	<.001	157.6- 169.77	
143.9-171 Fault gouges and brecciated core. Increase in pyrite Pyrite occurs in coarse grained masses. Brecciation is pre - gypsum.													137.3 to 140.3 FL 3139	.02	<.002	<.01	<.001	100%	
													140.3 to 143.3 FL 3140	.03	<.002	.01	<.001	169.77 100%	
	X	X						X	X		X	gypsum	143.3 to 146.3 FL 3141	.02	<.002	<.01	<.001		
													146.3 to 149.3 FL 3142	.06	<.002	.01	<.001		
													149.3 to 152.3 FL 3143	.04	.002	<.01	<.001		
													152.3 to 155.3 FL 3144	.03	<.002	.01	<.001		



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GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL 81-20
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: A.P.
Overburden:	Sheet No. 3 of 8
Az. 0° N Dip: -60	Claim:

Contractor:

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION					HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER		
	Cp	Py	Other	OXIDE	EP	CL	MS	KN		BI	OTHER	Cu	Au	Ag		Mo	
	X	X						X	X	X	gypsum	155.3 to 158.5 FL 3145	.04	<.002	.01	<.001	169.77- 178.92
Finely grained chalcopyrite intermixed with pyrite; rare clots of biotite. Bleaching diminishes somewhat.												158.3 to 161.3 FL 3146	.02	<.002	.01	<.001	100%
												161.3 to 164.3 FL 3147	.05	<.002	<.01	<.001	178.92- 191.11
171-187 Altered fine grained volcanics green - grey - fine grained.												164.3 to 167.3 FL 3148	.02	<.002	<.01	.001	95%
Rare siliceous patches become more abundant to 10%. Could be Acid pyrocl or coarse sediment. Fragmental texture visible pyrite 1-5%, appearance of magnetite to 5% of core. Some relic banding parallel to core.			X	mag.				X				167.3 to 170.0 FL 3149	.03	<.002	.01	<.001	
												170.0 to 173.3 FL 3150	.03	<.002	<.01	.001	191.11- 200.25
												173.3 to 176.3 FL 3151	.03	<.002	.01	.001	
187-237.45 Fine to medium grained altered volcanics, grey to green in colour, sparse hematite.			X	hem.				X	X		gypsum	176.3 to 179.3 FL 3152	.03	<.002	.01	<.001	
Coarse carbonate-py patches and veins 1to2cm wide. From 233 on many pink patches of sericite.												179.3 to 182.3 FL 3153	.03	<.002	.01	<.001	
Coarse chlorite rims carbonate veins.												182.3 to 185.3 FL 3154	.02	<.002	.02	<.001	
												185.3 to 188.3 FL 3155	.03	<.002	.01	<.001	
												188.3 to 191.3 FL 3156	.02	<.002	.02	.001	
												191.3 to 194.3 FL 3157	.04	.006	.02	<.001	
												194.3 to 197.3 FL 3158	.05	<.002	.01	<.001	





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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL 81-20
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: AP
Overburden:	Sheet No. <u>4</u> of <u>8</u>
Az. Dip: 60	Claim:

Contractor: Drill Type: Longyear 44 Core Size: NQ

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER		
	Cp	Py	Other	OXIDE	EP	CL	MS		KA	BI	OTHER	Cu	Au		Ag	Mo
		X		mag			X			gypsum	197.3 to 200.3 FL3159	.03	<.002	.03	<.001	200.25- 212.44
237.45 - 253.9 Quartz Feldspar porphyry medium grained 2mm feldspars, qz, ground mass.											200.3 to 203.3 FL3160	.04	<.002	.01	<.001	98%
Chlorite in clots with py along fractures 2 to 5% pyrite, sparse magnetite in clots and hairline veins. The intrusive is the boundary of pervasive sericite zone.											203.3 to 206.3 FL3161	.03	<.002	.01	<.001	
											206.3 to 209.3 FL3162	.03	<.002	<.01	.001	212.44- 224.64
QFP continues until 253.87 contact irregular, a 5cm zone of sericitic alteration at 35° to vca.											209.3 to 212.3 FL3163	.02	<.002	.01	<.001	100%
											212.3 to 215.3 FL3164	.03	<.002	<.01	<.001	
											215.3 to 218.3 FL3165	.03	<.002	.02	.001	224.64- 236.83
											218.3 to 221.3 FL3166	.04	<.002	<.01	.001	100%
											221.3 to 224.3 FL3167	.03	<.002	<.01	.001	
											224.3 to 227.3 FL3168	.03	<.002	.01	.001	236.83- 249.03
											227.3 to 230.3 FL3169	.04	<.002	<.01	.001	100%
											230.3 to 233.3 FL3170	.04	<.002	<.01	.001	
											233.3 to 236.3 FL3171	.03	<.002	<.01	.001	
											236.3 to 239.3 FL3172	.04	<.002	<.01	.001	



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-20
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: AMP
Overburden:	Sheet No. 5 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION								HOLE DEPTH TAG NO.	ASSAYS %				% RECOVER		
	Cp	Py	Other	OXIDE	EP	CL	MS	KA		BI	OTHER	Cu	Au		Ag	Mo
QFP continues till 253.87		x								gypsum	239.3 to 242.3					249.03-
Contact irregular. 5 cm zone of sericitic alteration at 35° to vca.											FL 3173	.09	.003	.01	.003	258.17
											242.3 to 245.3					100%
											FL 3174	.08	.003	.02	.005	
253.9-264.3											245.3 to 248.3					258.17-
Altered volcanics.	x	x		mag							FL 3175	.08	.003	.01	.002	
Pink pervasive sericitization in patches 80 to 100% of core. Post sericite chloritization						x	x	(x)		gypsum	248.3 to 251.3					
											FL 3176	.08	.003	.02	.003	
in vein and pervasive. Py is confined to chloritic areas and in veins to											251.3 to 254.3					
5%. Disseminated chalcopyrite											FL 3177	.08	.003	.02	.002	
in dark areas (biotite?) with magnetite.											254.3 to 257.3					
Copper-rich areas disseminated.											FL 3178	.12	.005	.03	.003	
											257.3 to 260.3					
											FL 3179	.05	.002	.02	.005	
											260.3 to 263.3					
264.26-276.5 Quartz Feldspar Porphyry as above 243. Contact at 60° to vca.		x				x	x			gypsum	FL 3180	.18	.010	.03	.005	
											263.3 to 266.3					
											FL 3181	.07	.003	.01	.001	
											266.3 to 269.3					
Sericitic alteration in patches and on vein rims.											FL 3182	.06	.003	.01	.002	
											269.3 to 272.3					
											FL 3183	.07	.002	.01	.003	
											272.3 to 275.3					
											FL 3184	.06	.003	.01	.002	
											275.3 to 278.3					
											FL 3185	.08	.002	.01	.004	
											278.3 to 281.3					
											FL 3186	.12	.004	.01	.004	



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-20
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: AMP
Overburden:	Sheet No. 6 of 8
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Drill Type:

Core Size:

Az. Dip:

Claim:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION						HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER	
	Cp	Py	Other	OXIDE	EP	CL	MS	KN	BI		OTHER	Cu	Au	Ag	Mo		
276.5-279.8											281.3 to 284.3						
100% Altered Andesite.		x									FL 3187	.10	.004	.01	.003		
Sericitic alteration, chloritic super-imposed. Core very broken-up.											284.3 to 287.3						264.26-
											FL 3188	.11	.004	.01	.005		279.50
279.8-288.6 Fault gouges, broken-up core over zones 30 cm to 2 cm wide. Little or no py in fault gouges.											287.3 to 290.3						95%
Fault post sericite alteration.											FL 3189	.15	.008	.01	.004		
Pyrite in less affected part.											290.3 to 293.3						279.50-
						x					FL 3190	.20	.009	.03	.005		282.50
286.6-326.2 Altered Andesite.	x	x		mag							293.3 to 296.3						90%
Less sericitic alteration. Py to 5%.											FL 3191	.20	.008	.02	.005		
Chlorite in spots to 0.5 cm wide with py.											296.3 to 299.3						
Sparse chalcopyrite.											FL 3192	.17	.005	.01	.004		
Large 1 to 2 cm irregular coarse carbo veins, 5% of core.											299.3 to 302.3						282.50-
Magnetite in veins and clots.											FL 3193	.18	.007	.01	.004		285.60
326.2-333											302.3 to 305.3						100%
Pale yellow, to pink andesite or tuffs.		x									FL 3194	.25	.010	.02	.004		
Numerous microfractures with gypsum and quartz veins.											305.3 to 308.3						285.60-
											FL 3195	.22	.007	.02	.005		291.70
											308.3 to 311.3						100%
											FL 3196	.34	.011	.03	.005		
											311.3 to 314.3						291.70-
											FL 3197	.33	.010	.02	.003		303.80
											314.3 to 317.3						100%
											FL 3198	.33	.011	.03	.004		
											317.3 to 320.3						
											FL 3199	.30	.012	.02	.004		
											320.3 to 323.3						
											FL 3200	.20	.013	.01	.004		







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## GENERAL DRILL HOLE LOG

Latitude: 11,186.04	Hole No. FL81-21
Departure: 11,419.00	Commenced: March 10/81
Elevation: 1,585.8	Completed: March 12/81
Length:	Logged by: NJW
Overburden: 1.83 m	Sheet No. 1 of 4
Az. 302° Dip: -45°	Claim: TK62, G

Contractor: J. T. Thomas      Drill Type: 38      Core Size: NQ

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	Kf	BI	OTHER		Cu	Au	Ag	Mo		
1.83 Diorite											to					1.83-	
Fine-grained, dark green with hornblende (chlorite). Tiny (<1 mm) diffuse feldspars. Could be a flow as easily as a high-level intrusion. Fine-grained disseminated pyrite throughout.		x		mag		W					to					12.76-	
7.00 - 5 mm quartz-hematite-chalco veinlet at 50° to vca.	x										to					23.34	
Several hairline quartz or qtz-hem veinlets at 30° to vca.				hem							to					87%	
Siliceous fragment at 10.6 m											to					12.76-	
12.2-12.35 m. "Crackle" - multiple disoriented quartz veins look like breccia.											to					23.34-	
Quartz-limonite on fractures.											to					34.55	
21.93-22.86 10% sulfides - mostly pyrite. Probably drilling down dip. Weak sericite alteration with sulfides.						W					to					92%	
Sericite alteration increases with depth. Hairline pyrite veinlets every 50 cms.											to						
											to						
											to						
											to						

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## GENERAL DRILL HOLE LOG

Contractor: J. T. Thomas		Drill Type:	Core Size:	Latitude:	Well No. FLS1-11
Property: Fish Lake		Area:	Purpose:	Departure:	Commenced:
Elevation:		Length:	Overburden:	Completed:	Logged by: NJW
Az. Dip:		Claim:	Sheet No. 2 of 4		

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH		ASSAYS %						% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KN	BI	OTHER	TAG NO.	Cu	Au	Ag	Mo	As	Hg		
51.7 m. 1 cm quartz vein with pyrite & chalco at 30° to vca.	x	x		mag			W	W			78.86 <sub>10</sub> 81.86 FL 1614	.01	<.002	.01	.002	1.8	<.01	34.55- 44.20	
57.8 m. - 3 cm quartz-pyrite-chalco vein at 30° to vca. Several small parallel pyrite veins and some disseminated sulfides.											81.86 <sub>10</sub> 82.86 FL 1615	.02	.020	.08	.001	176.0	<.01	80%	
70.9 - 20 cm porphyritic section. Top contact gradational - Bottom sharp at 20° to vca. Carbonate on fractures.											82.86 <sub>10</sub> 83.86 FL 1616	.02	<.002	.01	.001	70.0	<.01		
											83.86 <sub>10</sub> 84.86 FL 1617	<.01	<.002	.01	.001	7.6	<.01	44.20- 56.84	
										carbonate	84.86 <sub>10</sub> 85.86 FL 1618	.01	<.002	<.01	.001	35.0	<.01	100%	
											85.86 <sub>10</sub> 86.86 FL 1619	<.01	<.002	<.01	.001	18.0	<.01		
81.49 - Sediments											86.86 <sub>10</sub> 87.86 FL 1620	<.01	.002	<.01	.001	6.0	<.01	56.84- 68.14	
Gradational change. Probably reworked volcanics flow above.											87.86 <sub>10</sub> 88.86 FL 1621	.02	.004	.02	.002	900.0	<.01	70%	
Disseminated pyrite. Some porphyritic sections - may be local flows or minor intrusions - 10-15 cms wide.											88.86 <sub>10</sub> 89.86 FL 1622	.08	.068	.09	.001	10, 800.0	<.01		
81.4 cms - 1.5 cms quartz vein with Pyrite, chalco & moly at 40° to vca.	x	x	MoS <sub>2</sub>								89.86 <sub>10</sub> 90.86 FL 1623	.01	<.002	.02	.001	250.0	<.01	68.14- 78.69	
86.3-87.5 Feldspar Porphyry											90.86 <sub>10</sub> 91.86 FL 1624	.01	<.002	<.01	.001	170.0	<.01	87%	
Feldspars are soft and diffuse.											91.86 <sub>10</sub> 92.86 FL 1625	.01	<.002	<.01	.001	118.0	<.01		
87.5 down - disseminated orpiment											92.86 <sub>10</sub> 93.86 FL 1626	.02	<.002	.01	.001	66.0	<.01	78.69- 89.81	
											93.86 <sub>10</sub> 94.86 FL 1627	.02	<.002	.02	.001	26.0	<.01	91%	









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## GENERAL DRILL HOLE LOG

Latitude: 11,233.70	Hole No. FL 81-22
Departure: 11,451.07	Commenced: March 12/81
Elevation: 1,580.7	Completed: March 14/81
Length: 150.88	Logged by: NJW
Overburden: 1.83	Sheet No. 1 of 3
Az. 302° Dip: -45°	Claim: TK61

Contractor:

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES		MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %						% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KF	BI		OTHER	Cu	Au	Ag	Mo	As	
1.83- Andesite - Diorite																	1.83-
Dark-green - fine-grained. Some chlorite laths. Occasional carbonate veinlets. Limonite on fractures down to 14m. Rock is magnetic. Magnetite is possibly primary or with chlorite after hornblende.																	12.38
Occasional hematite with quartz.				mag.													87%
40.7 - 8cms fault gouge.				hem.													12.38-
39.2 - 1cm pyrite - quartz veinlet																	23.70
50° vca																	23.70
57.2 - orpiment blob appear in core.																	34.95
61.48 - 1.5cm quartz-calcite-orpiment - realgar-pyrite vein at 40° to vca.																	34.95-
																	45.62
																	56.54
																	88%
																	93%
																	90%
																	56.54-
																	67.57

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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL 81-22
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden: 183.	Sheet No. 2 of 3
Az. Dip:	Claim:

Contractor:

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS%						% RECON		
	Cp	Py	Other	OXIDE	EP	CL	MS		KZ	BI	OTHER	Cu	Au	Ag		Mo	As
71.27 - 71.57 Feldspar Porphyry Dike									69 to 72 1649FL	.01	.002	.01	.001	14.0	0.1		65.57- 78.52
73.55-84.5m Crowded Feldspar Porphyry. Feldspars are soft and diffuse. Matrix's hard, pale pink to pale green in places. Top contact sharp, not sheared. No chile zone. At 40° to vca.									72 to 75 1650FL	.01	.002	.02	.001	4.0	0.1		90%
									75 to 78 1651FL	.01	.002	.02	.001	11.5	0.1		78.52- 88.99
									78 to 81 1652FL	.01	.002	.02	.001	02.0	0.1		86%
84.5- Sediments. Contact is broken & sheared in core.									81 to 84 1653FL	.01	.013	.01	.001	40.0	0.1		88.99- 100.15
Mixed graphitic shale, arkose, and conglomerate									84 to 85 1654FL	.01	.002	.01	.001	94.0	0.1		92%
84.5-89.6 conglomerate. Fragments of shale & arkose. Rounded Arkosic matrix with orpiment. Minor lime in matrix.									85 to 86 1655FL	.01	.002	.01	.001	78.0	0.1		100.15- 111.45
									86 to 87 1656FL	.01	.002	.01	.001	20.0	0.1		93%
89.6-90.4 Arkose.									87 to 88 1657FL	.01	.018	.02	.001	44.0	0.1		
90.4-93.5 ss-ms. Graphitic. Bedded at 60° to vca.									88 to 89 1658FL	.01	.039	.08	.001	48.0	0.1		
93.5-102.7 Arkose - finer than above.									89 to 90 1659FL	.01	.007	.01	.001	14.0	0.1		
102.7-106.2 banded ss-ms soft sediment deformational features such as slumps, bend frags, cut and fill channels									90 to 91 1660FL	.01	.008	.02	.001	10.0	0.1		
103.63-10cms carbonaceous material.									91 to 92 1661FL	.01	.011	.02	.001	16.5	0.1		
									92 to 93	.01	.012	.02	.001	7.5	0.1		



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## GENERAL DRILL HOLE LOG

Latitude:	Note No. FL 81-22
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 3 of 3
Az. Dip:	Claim:

Contractor:	Drill Type: 38	Core Size: NQ
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GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION								HOLE DEPTH TAG NO.	ASSAYS %						% RECOVER	
	Cp	Py	Other	OXIDE	EP	CL	MS	KA		BI	OTHER	Cu	Au	Ag	Mo		As
106.2-120.15 fine arkose - some sandy bands. Orpiment has died out. Some graphitic bands.										93 to 94 1663FL	.01	.008	.02	.001	12.0	<0.1	111.45- 122.44
										94 to 97 1664FL	.01	.007	.02	.001	8.0	<0.1	93%
120.15-124.5 Quartz-Feldspar Porphyry Rock is pale green. Matrix feldspars are kaolinized. Maybe some sericite.										97 to 100 1665FL	.01	.002	.01	.001	11.5	<0.1	122.44- 133.56
										100 to 103 1666FL	.01	<.002	.02	.001	10.5	<0.1	91%
124.5-150.88m. Sediments 124.5-135 ss-ms. Fine arkose bands and sand bands.										103 to 106 1667FL	.01	<.002	.01	.001	11.0	<0.1	
										106 to 109 1668FL	.01	<.002	<.01	<.001	0.1	<0.1	133.56- 144.05
135-136 arkose - fine.										to							87%
136-143 graphitic siltstone - arkose.										to							144.05- 150.88
137.9-8 cms coal.										to							
143-143.6 coarse arkose. Almost a chert pebble conglomerate.										to							90%
143.6 - 10 cm quartz vein with chalco blebs.										to							
143.6-150.88 Sandy arkose. Some coarse pebbly sections. Occasional pyrite on fractures.										to							
150.88 End of hole. 4' NQ casing left in hole. Sperry-sun tests. @ 30.48m -44° N 59°W @ 150.88m -44.5° N 56°W										to							



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## GENERAL DRILL HOLE LOG

Latitude: 9,798.07	Hole No. FL81-23
Departure: 10,393.77	Commenced: March 12/81
Elevation: 1,464.0	Completed: March 14/81
Length: 178.30	Logged by: AMP
Overburden: 40.25	Sheet No. 1 of 4
Az. N Dip: -60°	Claim: TK4

Contractor: J. T. Thomas Drilling Ltd.

Drill Type: Longyear 44

Core Size: NQ

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER		
	Cp	Py	Other	OXIDE	EP	CL	MS		KA	BI	OTHER	Cu	Au		Ag	Mo
40.25-55 Green to white coloured medium to coarse-grained. Feldspar porphyry. Argillic alteration in joints and in short sections. Abundant (5%) pyrite in veins and disseminated. Green parts are biotite rich, disseminated hematite. Argillic alteration is post chloritic. Veining is moderate. Large irregular, vuggy quartz veins along core axis at 43.30 for 50 cm. Only carbonate veins cut argillic alteration. Quartz veining precedes argillic alteration. Some quartz veins have chlorite veins. Weak limonite stains to 50 m. A few short siliceous sections with magnetite after Hblende.		x		hem		x		x	x		40.25 <sub>to</sub> 43.25 FL 3211	.02	.006	<.01	.001	41.25- 47.24
											43.25 <sub>to</sub> 46.25 FL 3212	.02	<.002	.01	<.001	100%
											46.25 <sub>to</sub> 49.25 FL 3213	.01	.003	.01	.001	47.24- 50.43
											49.25 <sub>to</sub> 52.25 FL 3214	.02	.002	<.01	.001	95% 50.43-
											52.25 <sub>to</sub> 55.25 FL 3215	.01	<.002	.01	<.001	59.78- 95%
											55.25 <sub>to</sub> 58.25 FL 3216	.03	.002	.02	<.001	59.78- 72.28
											58.25 <sub>to</sub> 61.25 FL 3217	.02	<.002	.02	<.001	Core is very bro-
											61.25 <sub>to</sub> 64.25 FL 3218	.01	<.002	.02	<.001	ken up. ~100%
											64.25 <sub>to</sub> 67.25 FL 3219	.01	<.002	<.01	.001	72.78- 74.42
											67.25 <sub>to</sub> 70.25 FL 3220	.02	.002	.02	.001	60% 74.42-
55-62 Former porphyry fades into fine-grained altered volcanics.	x					x	x				70.25 <sub>to</sub> 73.25 FL 3221	.01	.002	.02	.001	77.16- 50%
62-71 Altered Andesite. Green to dark green small bleached sections. All core very broken-up. Recovery measurements are unprecise.											73.25 <sub>to</sub> 76.25 FL 3222	.01	<.002	.01	.001	77.16- 79.91
											76.25 <sub>to</sub> 79.25 FL 3223	<.01	.002	<.01	<.001	~ 95%
											79.25 <sub>to</sub> 82.25 FL 3224	.02	.002	.01	<.001	





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## GENERAL DRILL HOLE LOG

Latitude:	FL81-23
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: AMP
Overburden:	Sheet No. 3 of 4
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Drill Type:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER	
	Cp	Py	Other	OXIDE	EP	CL	MS	KN	BI	OTHER		Cu	Au	Ag	Mo			
Coarse sediments, continue		x					x	x	x			109.25 <sub>10</sub> 112.25						
coarse pyrite in joints and in												FL 3234	.04	.004	.02	.001		
in quartz veins.												112.25 <sub>10</sub> 115.25						
Core still broken-up.												FL 3235	.07	.005	.01	.001		
127-139.												115.25 <sub>10</sub> 118.25						133.28-
Very fine-grained sediments or												FL 3236	.06	.004	.01	.004		135.64
volcanics shot through with												118.25 <sub>10</sub> 121.25						90%
veins of chlorite, minor py.							x		x			121.25 <sub>10</sub> 124.25						135.64-
Pervasive argillic alteration		x										FL 3238	.05	.003	.03	.001		143.87
at 134-138.												124.25 <sub>10</sub> 127.25						95%
Fault gouge at 45° to vca.												FL 3239	.05	.004	.02	.003		
Core shell shattered.												127.25 <sub>10</sub> 130.25						
												FL 3240	.04	.002	.02	.002		
139-154 Medium to fine		x			mag							130.25 <sub>10</sub> 133.25						143.87-
grained sediment.												FL 3241	.02	.002	.01	.001		151.18
Well developed clots of secondary												133.25 <sub>10</sub> 136.25						95%
chlorite. Chlorite on fractures.												FL 3242	.01	.002	.01	.004		
Coarse py vein 1/4 cm.												136.25 <sub>10</sub> 139.25						
Sericitization veins 1/4 cm.	x											FL 3243	.01	.002	.01	.004		
Trace of chalco.												139.25 <sub>10</sub> 142.25						
Some sections already show large												FL 3244	.02	.002	.01	.002		
detailed fragments (141).												142.25 <sub>10</sub> 145.25						
												FL 3245	.04	.004	.01	.003		
Core very shattered.												145.25 <sub>10</sub> 148.25						
												FL 3246	.05	.003	.01	.002		
												148.25 <sub>10</sub> 151.25						
												FL 3247	.06	.004	.02	.002		



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-23
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: AMP
Overburden:	Sheet No. 4 of 4
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES							MINERALIZATION ALTERATION					HOLE DEPTH TAG NO.	ASSAYS %					% RECOVERED
	Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI	OTHER	Cu	Au		Ag	Mo				
154-165.5 Fine-grained sediments or tuffs. Little or no pyrite. Sericitic alteration pervasive, chloritic alteration in veins and on joints. Green to pinkish color. Core split up in small fragments.						x	x					151.25 <sub>o</sub> 154.25 FL 3248	.04	.003	.02	.002		151.18- 153.48	
												154.25 <sub>o</sub> 157.25 FL 3249	.05	.003	.01	.002		95%	
												157.25 <sub>o</sub> 160.25 FL 3250	.03	.002	.01	.003		153.48- 166.73	
												160.25 <sub>o</sub> 163.25 FL 3251	.04	.003	.01	.001		100%	
												163.25 <sub>o</sub> 166.25 FL 3252	.05	.003	.01	.002			
165.5-177 Medium to coarse grained sediments. Secondary chlo ite. Very well developed.		x						x				166.25 <sub>o</sub> 169.25 FL 3253	.10	.005	.02	.003		166.73- 167.94	
												169.25 <sub>o</sub> 172.25 FL 3254	.12	.006	.02	.004		5%	
Core shell very fragmented. 1 m core ground at 166.7 Soft clay alteration at 170.4 in fault gouge.												172.25 <sub>o</sub> 175.25 FL 3255	.18	.009	.02	.003			
												175.25 <sub>o</sub> 178.30 FL 3256	.13	.006	.03	.003		167.94- 175.26	
												to						90%	
177-178.3 End of Hole. Fine-grained bands of sediment clay seams at 170.												to						175.26- 177.05	
												to						90%	
Hole stopped at 178.3 (excessive caving) N casing left in hole.												to						177.05- 178.30	
Sperry-Sun Tests												to						75%	

@ 45.72 m -62° N 4° E  
@ 176.78 m -62.5° N 8° E





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## GENERAL DRILL HOLE LOG

Latitude: 9,798.40	Hole No. FL81-24
Departure: 10,492.56	Commenced: March 14/81
Elevation: 1,466.1	Completed: March 18/81
Length: 341.38	Logged by: NJW
Overburden: 60.96	Sheet No. 1 of 7
Az. 0 Dip: -60°	Claim: TK4

Contractor: J. T. Thomas

Drill Type: 44

Core Size: NQ

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES		MINERALIZATION ALTERATION						HOLE DEPTH TAG NO.	ASSAYS %				% RECOVER	
	Cp	Py	Other	OXIDE	EP	CL	MS	KN		BI	OTHER	Cu	Au		Ag
0-60.96 Overburden.										60.96 to 64					60.96-72.83
										FL 3257	<.01	<.002	<.01	<.001	
60.96 -										64 to 67					80%
Core is badly broken. Probably a fault zone.										FL 3258	<.01	<.002	<.01	<.001	
										67 to 70					72.83-89.61
Rock pieces are fine-grained										FL 3259	<.01	<.002	<.01	<.001	
feldspar porphyry. Kaolinized.										70 to 73					70%
Also some silicified, weakly										FL 3260	<.01	<.002	<.01	<.001	
banded pieces. Pyrite on fractures										73 to 76					
and in gouge. Also hematite. No										FL 3261	<.01	<.002	<.01	<.001	
visible chalcopryrite. Less than		x		hem				M		76 to 79					89.61-104.55
5% sulfides.										FL 3262	<.01	<.002	<.01	<.001	
										79 to 82					70%
Silicified frags below 72 m.										FL 3263	.01	.002	<.01	<.001	
										82 to 85					104.55-117.96
Some sericitic alteration; some										FL 3264	.01	<.002	<.01	<.001	
chlorite.										85 to 88					70%
										FL 3265	.01	<.002	<.01	<.001	
										88 to 91					
										FL 3266	.01	<.002	<.01	<.001	
										91 to 94					
										FL 3267	.01	<.002	<.01	<.001	
										94 to 97					
										FL 3268	.03	<.002	<.01	<.001	
										97 to 100					
										FL 3269	.01	<.002	<.01	<.001	
										100 to 103					
										FL 3270	.01	<.002	<.01	<.001	

JP



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-24
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 2 of 7
Az. Dip:	Claim:

Contractor: J. T. Thomas

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION					HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KN		BI	OTHER	Cu	Au	Ag	
Some breccia fragments are of a previous, quartz-cemented breccia.		x								103 to 106 FL 3271	.02	<.002	<.01	.001	117.96- 135.15
140 - rocks are less gouged. Still very broken. Rocks are vuggy - some pyrite and chlorite clots. Maybe relict vesicles now filled by pyrite.										106 to 109 FL 3272	.01	<.002	<.01	<.001	60%
										109 to 112 FL 3273	.01	<.002	<.01	<.001	135.15- 146.53
										112 to 115 FL 3274	.01	<.002	<.01	<.001	94%
										115 to 118 FL 3275	.01	<.002	.01	<.001	146.53- 157.39
Bleached sections 150-153, 158.5 -										118 to 121 FL 3276	<.01	<.002	<.01	<.001	89%
										121 to 124 FL 3277	.01	<.002	<.01	<.001	
										124 to 127 FL 3278	.01	<.002	<.01	<.001	157.39- 168.54
										127 to 130 FL 3279	.01	<.002	<.01	<.001	92%
										130 to 133 FL 3280	.01	<.002	.01	<.001	
										133 to 136 FL 3281	.04	.003	<.01	<.001	
										136 to 139 FL 3282	.02	<.002	<.01	<.001	
										139 to 142 FL 3283	.02	<.002	.01	<.001	
										142 to 145 FL 3284	.02	<.002	<.01	<.001	



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-24
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJV
Overburden:	Sheet No. 3 of 7
Az. Dip:	Claim:

Contractor: J. T. Thomas

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES		MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVERED
	Cp	Py	Other	OXIDE	EP	CL	MS	KN	BI		OTHER	Cu	Au	Ag	Mo	
163.6 Gypsum veinlets begin. Rocks appear blotchy due to secondary biotite. Pyrite on fractures and veinlets. Not much visible chalco. Core is becoming more solid by 169 m.		x								gypsum	145 to 148 FL 3285	.04	<.002	<.01	<.001	168.54- 178.82
171-175.5 Siliceous volcanics or Chert. Pale grey, siliceous. Fine-grained May be faint banding at about 40° to vca.											148 to 151 FL 3286 151 to 154 FL 3287 154 to 157 FL 3288	.02	<.002	.01	<.001	80%
175.5-177 Conglomerate, Black, soft, fine- grained matrix with round chert fragments.											157 to 160 FL 3289 160 to 163 FL 3290 163 to 166 FL 3291 166 to 169 FL 3292 169 to 172 FL 3293	.02	.002	<.01	<.001	178.32- 189.72
177-186.8 Altered Feldspar Porphyry. Pale grey, kaolinized. Occasional quartz bleb remains. Disseminated pyrite about 1%.		x									160 to 163 FL 3290 163 to 166 FL 3291 166 to 169 FL 3292 169 to 172 FL 3293 172 to 175 FL 3294 175 to 178 FL 3295	.05	<.002	<.01	<.001	94%
186.8-187.4 Fault gouge.											172 to 175 FL 3294 175 to 178 FL 3295 178 to 181 FL 3296 181 to 184 FL 3297	.10	.002	<.01	<.001	
187.4 Altered Volcanics. Pale grey, extensive clots of biotite and chlorite. Disseminated and veinlet pyrite. Occasional clot chalco.	x	x									172 to 175 FL 3294 175 to 178 FL 3295 178 to 181 FL 3296 181 to 184 FL 3297 184 to 187 FL 3298	.13	.002	<.01	.003	
											175 to 178 FL 3295 178 to 181 FL 3296 181 to 184 FL 3297 184 to 187 FL 3298	.13	.004	<.01	.006	
											178 to 181 FL 3296 181 to 184 FL 3297 184 to 187 FL 3298	.06	.002	<.01	.006	
											181 to 184 FL 3297 184 to 187 FL 3298	.08	.002	<.01	.001	
											184 to 187 FL 3298	.08	.005	.01	.001	



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-24
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 4 of 7
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Drill Type:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KN	BI	OTHER		Cu	Au	Ag	Mo		
193.4 Biotite alteration envelopes around fractures. Cu grade improves.	x	x									187 to 190 FL 3299	.18	.007	.02	.003	189.72- 200.94	
207.5 - Pale yellow grey, fine-grained section. Tuffaceous or sediments?											190 to 193 FL 3300	.12	.002	.01	.001	92%	
Intense fracturing with qtz-pyrite- clcp fill & sericite envelopes to 3 mm.											193 to 196 FL 3301	.12	.003	.01	.001		
Gypsum veinlets common (1/80 cms)							S		M	gypsum	196 to 199 FL 3302	.09	.002	.01	.002	200.94- 212.29	
											199 to 202 FL 3303	.10	.002	.01	.001	93%	
											202 to 205 FL 3304	.09	.004	.01	.001		
											205 to 208 FL 3305	.10	.002	.01	.001	212.29- 223.84	
											208 to 211 FL 3306	.08	.002	.01	.001	95%	
											211 to 214 FL 3307	.06	.002	.01	.001	223.84- 235.13	
											214 to 217 FL 3308	.07	.002	.01	.001	93%	
											217 to 220 FL 3309	.06	.002	.01	.001		
											220 to 223 FL 3310	.06	.002	.01	.001	235.13- 246.58	
											223 to 226 FL 3311	.09	.002	.01	.001	94%	
											226 to 229 FL 3312	.09	.002	.01	.001		



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GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-24
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 5 of 7
Az. Dip:	Claim:

Contractor: J. T. Thomas

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KI	BI	OTHER		Cu	Au	Ag	Mo		
248-266.2 Green, chloritic. Not yellow.	x	x									229 to 232 FL 3313	.10	.002	.01	.001	246.58-257.97	
266.2-268 Yellow											232 to 235 FL 3314	.07	.002	.01	.001	94%	
268-269.5 Green											235 to 238 FL 3315	.06	.002	.01	.002	257.97-269.86	
269.5-272 Yellow											238 to 241 FL 3316	.10	.002	.01	.003	94%	
272 - Feldspar Porphyry Pale grey-green with soft, diffuse feldspars up to 5 mm across. Rock is silicified and sericitized. Rare, embayed quartz eyes. Gypsum veinlets common (10/metre) Pyrite and chalcopyrite finely disseminated. Occasional sulfide veinlets. Top contact gradational. Some inclusions of above unit in first 50 cms. Altered inclusions up to 3 cms throughout unit.											241 to 244 FL 3317	.14	.004	.01	.004		
											244 to 247 FL 3318	.07	.002	.01	.003	269.86-280.84	
											247 to 250 FL 3319	.09	.003	.01	.003	94%	
	x	x									250 to 253 FL 3320	.17	.007	.01	.004		
											253 to 256 FL 3321	.24	.011	.02	.004	280.84-292.83	
											256 to 259 FL 3322	.21	.007	.01	.008	95%	
											259 to 262 FL 3323	.23	.010	.01	.006		
											262 to 265 FL 3324	.22	.009	.02	.006		
											265 to 268 FL 3325	.14	.005	.01	.006		
											268 to 271 FL 3326	.13	.004	.01	.006		

Average 250 - 286

.176 .0064 .0091 .0056



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-24
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. <u>6</u> of <u>7</u>
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KY	BI	OTHER		Cu	Au	Ag	Mo		
293.5-301 Kaolinized areas are leached. Some may be gouge.											271 to 274 FL 3327	.16	.008	.01	.005	292.33-303.59	
											274 to 277 FL 3328	.12	.003	.01	.003	93%	
309.65 - Tuff or Altered Sediments. Yellow green, intensely veined with quartz-sericite. Some chloritic, green sections.											277 to 280 FL 3329	.14	.004	.01	.004		
											280 to 283 FL 3330	.23	.006	.01	.013	303.59-315.38	
309.65 - 315 Yellow											283 to 286 FL 3331	.13	.004	.01	.003	97%	
315 - 326.44 Green											286 to 289 FL 3332	.17	.005	.01	.007		
326.44 - Yellow. Contact is a quartz vein with fragments of both rock types included.											289 to 292 FL 3333	.26	.005	.02	.006	315.38-326.74	
											292 to 295 FL 3334	.20	.002	.01	.005	93%	
											295 to 298 FL 3335	.19	.009	.02	.005		
											298 to 301 FL 3336	.15	.003	.01	.004		
											301 to 304 FL 3337	.20	.004	.01	.004		
											304 to 307 FL 3338	.30	.009	.01	.008		
											307 to 310 FL 3339	.25	.010	.01	.004		
											310 to 313 FL 3340	.13	.002	.01	.005		



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. <b>FL81-24</b>
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: <b>NJW</b>
Overburden:	Sheet No. <u>7</u> of <u>7</u>
Az. Dip:	Claim:

Contractor: **J. T. Thomas**

Property: **Fish Lake**

Area:

Purpose:

Drill Type:

Core Size:

Az. Dip:

Claim:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION					HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER	
	Cp	Py	Other	OXIDE	EP	CL	MS	KF		BI	OTHER	Cu	Au	Ag		Mo
341.38 End of Hole.	x	x		hem		W	M	W		gypsum	313 to 316					326.74-
											FL 3341	.19	.008	.01	.008	338.80
Bit finished. Casing escaped down hole, probably due to washing in gouge at top of hole. Hole stopped 37 feet early. This hole cannot be deepened.											316 to 319					95%
											FL 3342	.25	.009	.02	.005	
											319 to 322					
											FL 3343	.25	.007	.02	.006	
											322 to 325					
											FL 3344	.23	.006	.02	.006	
Sperry-Sun Tests											325 to 328					
											FL 3345	.21	.011	.02	.013	
@ 152.4 m -63° N 2° E											328 to 331					
@ 341.38 m -64° Due North											FL 3346	.26	.025	.02	.008	
											331 to 334					
											FL 3347	.31	.013	.02	.006	
											334 to 337					
											FL 3348	.33	.025	.04	.010	
											337 to 340					
											FL 3349	.34	.018	.03	.007	
											340 to 341.38					
											FL 3350	.21	.014	.03	.008	
											to					
											to					
											to					
											to					



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## GENERAL DRILL HOLE LOG

Latitude: 10,378.03	Hole No. FL81-25
Departure: 11,528.18	Commenced March 14/81
Elevation: 1,525.7	Completed: March 15/81
Length: 151.18	Logged by: NJW
Overburden: 6.10 m	Sheet No. 1 of 4
Az. 233° Dip: -45°	Claim: Tk30

Contractor: J. T. Thomas

Drill Type: 38

Core Size: NQ

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER	
	Cp	Py	Other	OXIDE	EP	CL	MS		K	BI	OTHER	Cu	Au		Ag
0-6.10 Overburden.									6.1 to 9.0						6.10-18.07
									FL 1678	<.01	.009	.01	.001		18.07
6.10 - Andesite -Diorite									9 to 12						98%
Medium to dark grey-green.									FL 1679	.04	.008	.01	<.001		
10% disseminated pyrite. Biotite -									12 to 15						
chlorite ubiquitously developed									FL 1680	.04	.003	.01	<.001		
throughout matrix. Occasional									15 to 18						
fuzzy feldspar visible. Quartz eyes									FL 1681	.01	.007	.01	<.001		18.07-29.49
rare.									18 to 21						94%
									FL 1682	.05	.079	.03	<.001		
Surficial weathering to 10 m.									21 to 24						
									FL 1683	.03	.030	.03	<.001		
Massive pyrite vein at 6.64 at 10°									24 to 27						
to vca about 4 cms.									FL 1684	.02	.006	.01	<.001		
									27 to 30						
Pyrite veins fairly common (1/m)									FL 1685	.03	.005	.01	<.001		
mostly at 10° to vca. Some with									30 to 33						
chalco.									FL 1686	.06	.014	.02	<.001		
									33 to 36						
19.8-20.72 2 cm pyrite vein runs									FL 1687	.02	.013	.02	<.001		
down core with sericite envelope about									to						
3 cms wide.									to						
									to						
Irregular hairline carbonate veinlets.									to						
									18 to 48						
									AVERAGE	.031	.0235	.021	.0		

410





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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-25
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 2 of 4
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Drill Type:

Core Size:

Az. Dip:

Claim:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES		MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KN	BI		OTHER	Cu	Au	Ag	Mo	
36.7 - 10 cms fault gouge.											36 to 39					29.49-
Sericitic alteration increases. Pyrite decreases.		x									FL 1688	.01	.032	.02	<.001	40.71
47-47.8 Fault gouge.											39 to 42					92%
63-64.5 Pyrite vein parallel to vca. Sericitic alteration.											FL 1689	.02	.015	.02	<.001	
Carbonate throughout rock.											42 to 45					
											FL 1690	.02	.022	.03	<.001	
											45 to 48					40.71-
											FL 1691	.05	.019	.02	<.001	51.84
											48 to 51					92%
78.54 10 cm quartz vein. Vuggy. Clasts of surrounding rock included. Pyrite included.		x									FL 1692	.01	.005	.01	<.001	
											51 to 54					51.84-
											FL 1693	.01	.002	.01	<.001	62.94
											54 to 57					91%
82.39-83.39 Fault gouge.											FL 1694	.02	.002	<.01	<.001	
											57 to 60					
											FL 1695	<.01	<.002	<.01	<.001	
											60 to 63					62.94-
											FL 1696	.01	.004	<.01	<.001	74.14
											63 to 66					92%
											FL 1697	.01	.004	.01	<.001	
											66 to 69					74.14-
											FL 1698	.01	.009	.01	<.001	85.46
											69 to 72					93%
											FL 1699	.01	.004	.02	<.001	
											72 to 75					85.46-
											FL 1700	.01	.53	.08	<.001	96.43
											75 to 78					90%
											FL 1701	.03	.005	.01	<.001	



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-25
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 3 of 4
Az. Dip:	Claim:

Contractor: J. T. Thomas

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %						% RECOV.
	Cp	Py	Other	OXIDE	EP	CL	MS	KY	BI	OTHER		Cu	Au	Ag	Mo	As	Hg	
88.5 Few specks orpiment.											78 to 81						96.43-108.01	
											FL 1702	.01	.009	.02	<.001			
128.92 Altered xenolith.											81 to 84						95%	
											FL 1703	.04	.006	<.01	.001	35.0	<0.1	
140 m - Becomes fine-grained - no clasts or phenocrysts visible.											84 to 87							
Still about 5% disseminated pyrite.											FL 1704	.01	.005	<.01	<.001	12.0	<0.1	
											87 to 90						108.01-118.81	
											FL 1705	.04	<.002	.01	.001	8.0	<0.1	
											90 to 93						89%	
142 - 2.5 cm quartz-pyrite-chalco- hematite vein at 30° to vca.	x	x									FL 1706	.05	.004	.01	<.001	8.0	<0.1	
											93 to 96							
											FL 1707	.04	<.002	.01	<.001	20.0	<0.1	
145.8-151.18 Specks disseminated orpiment.											96 to 99						118.81-129.84	
											FL 1708	.04	.002	.01	.001	17.0	<0.1	
											99 to 102						91%	
151.18 End of Hole.											FL 1709	.05	.012	.02	.001	90.0	<0.1	
											102 to 105							
											FL 1710	.01	.004	.01	<.001	37.0	<0.1	
											105 to 108						129.84-140.90	
											FL 1711	.11	.054	.10	<.001	28.0	0.6	
											108 to 111						91%	
											FL 1712	.03	.006	.01	<.001	40.0	<0.1	
											111 to 114						140.90-151.18	
											FL 1713	.01	.009	<.01	<.001	66.0	<0.1	
											114 to 117						95%	
											FL 1714	.01	<.002	.02	<.001	22.0	<0.1	
											117 to 120							
											FL 1715	.05	.005	.01	.001	36.0	<0.1	





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## GENERAL DRILL HOLE LOG

Latitude: 10,296.45 Hole No. FLS1-36  
 Departure: 11,584.35 (Commenced: March 16 81)  
 Elevation: 1,524.1 Completed: March 17/81  
 Length: 61.87 Logged by: NJW  
 Overburden: 3.05 Sheet No. 1 of 2  
 Az. 53° Dip: -45° Claim: TK 30

Contractor: J. T. Thomas

Drill Type: 38

Core Size: NQ

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS%						% RECON
	Cp	Py	Other	OXIDE	EP	CL	MS	KZ	BI	OTHER		Cu	Au	Ag	Mo	As	Hg	
0-3.05 Overburden											3.05 to 6 FL 1727	.02	.003	.02	.001	21.0	0.1	3.05-14.92
3.05-61.87 Andesite-Diorite Rock is dark green, fine-grained with pale, white to yellow diffuse feldspars. Some sericitic alteration, about 5% disseminated pyrite.											6 to 9 FL 1728	.02	.003	.01	.001	32.0	0.1	9.8
7.8-10.7 Bleached section. Maybe another intrusive, but altered.											9 to 12 FL 1729	.02	.002	.01	.001	40.0	0.2	
Quartz-pyrite fractures at 40° to vca Hematite on fractures.		x							W	W	12 to 15 FL 1730	.02	.002	.01	.001	11.0	0.1	14.92-25.71
Surface weathering down to 6 m.											15 to 18 FL 1731	.02	.003	.02	.001	60.0	0.1	8.0
38-39.5 Bleached Occasional chalco bleb with pyrite	x	x									18 to 21 FL 1732	.05	.003	.02	.001	10.0	0.9	25.71-36.67
55-61.87 Chlorite clots developed often with pyrite centres.											21 to 24 FL 1733	.02	.006	.01	.001	52.0	0.1	9.0
											24 to 27 FL 1734	.02	.004	.01	.001	90.0	0.1	36.67-47.22
											27 to 30 FL 1735	.01	.004	.01	.001	05.0	0.1	47.22-61.87
61.87 End of Hole. Casing pulled. Hole drilled 180° from planned direction.											30 to 33 FL 1736	.01	.002	.01	.001	210.0	0.1	47.22-57.00
											33 to 36 FL 1737	.02	.002	.01	.001	92.0	0.1	85.2
											36 to 39 FL 1738	.02	.003	.01	.001	66.0	0.1	57.00-61.87
											39 to 42 FL 1739	.01	.002	.01	.001	24.0	0.1	85.2
											42 to 45 FL 1740	.01	.004	.01	.001	21.0	0.1	





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## GENERAL DRILL HOLE LOG

Latitude: 10,296.45 Hole No. FL81-27  
 Departure: 11,584.35 Commenced: March 17/81  
 Elevation: 1,524.1 Completed: March 18/81  
 Length: Logged by: N.I.W.  
 Overburden: 6.10 Sheet No. 1 of 4  
 Az. 223° Dip: 45° Claim: Tk30

Contractor: J. T. Thomas Drill Type: 38 Core Size: NQ

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION						HOLE DEPTH TAG NO.	ASSAYS %						% RECOVER	
	Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI		OTHER	Cu	Au	Ag	Mo	As		Hg
0-6.10 Overburden											6.10 to 9 FL 1747	.07	.007	.01	<.001	15.5	<0.1	6.10-16.03
6.10-24 m. Crowded Feldspar Porphyry - Porphyritic Andesite. Rock is alternately (1 m or so) bleached and dark green, fine- grained groundmass with tiny (1-3 mm) feldspar phenocrysts. Feldspars are kaolinized. Chlorite clots to 4 mm present in green sections. Surface weathering down to 9.5 m. Pyrite mostly in veins - some leached.											9 to 12 FL 1748	.02	.032	.04	<.001	62.0	<0.1	80%
23.46-24.38 Massive, fine-grained pyrite with quartz.			x								12 to 15 FL 1749	.03	.021	.02	<.001	24.0	<0.1	
											15 to 18 FL 1750	<.01	.005	.02	<.001	23.0	<0.1	16.03-27.36
											18 to 21 FL 1751	.01	.049	.04	<.001	140.0	0.1	93%
											21 to 24 FL 1752	<.01	.029	.02	<.001	118.0	0.2	
											24 to 27 FL 1753	.01	.002	.01	<.001	94.0	<0.1	27.36-38.69
											27 to 30 FL 1754	.03	<.002	<.01	<.001	20.0	<0.1	93%
24-27 Pale grey, siliceous aphanitic may be altered part of above unit, or may be silt volcanic unit											30 to 33 FL 1755	.04	<.002	<.01	<.001	16.0	<0.1	
											33 to 36 FL 1756	.04	<.002	<.01	<.001	36.0	<0.1	
27 - Crowded Fs Porphyry Unit. Rocks are dark green, fairly fresh. About 50% of feldspars are altered to epidote. Quartz-hematite veinlets at 30° to vca. Carbonate hairlines and in matrix.											36 to 39 FL 1757	.05	<.002	.01	<.001	2.1	<0.1	
											39 to 42 FL 1758	.01	.002	.01	<.001	21.0	<0.1	
											42 to 45 FL 1759	<.01	<.002	.01	<.001	11.0	<0.1	
											45 to 48 FL 1760	.03	<.002	<.01	<.001	1.0	<0.1	

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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-27
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 2 of 4
Az. Dip:	Claim:

Contractor: J. T. Thomas

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %						% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KN	BI	OTHER		Cu	Au	Ag	Mo	As	Hg	
Some disseminated magnetite with biotite-chlorite. Hematite on fractures.		x									48 to 51						38.69-	
				mag							FL 1761	.03	<.002	<.01	<.001	1.9	<.1	49.72
				hem							51 to 54						91%	
											FL 1762	.03	.012	.02	<.001	23.0	<.1	49.72-
53.49-62.8 Pale grey, silic rock.											54 to 57						60.94	
Moderate pervasive sericitic alteration.		x									FL 1763	.01	.030	.01	<.001	92.0	<.1	60.94
Pyrite disseminated and in clots. Contact with above is 2 cms fault gouge.											57 to 60						92%	
											FL 1764	<.01	.026	.03	.001	80.0	<.1	
Numerous pyrite veins parallel to vca.											60 to 63							
											FL 1765	<.01	.018	.02	<.001	114.0	<.1	
60.3-60.9 Massive pyrite.											63 to 66						60.94-	
61-61.5 Massive pyrite.											FL 1766	.02	.034	.02	<.001	58.0	<.1	72.30
											66 to 69						93%	
											FL 1767	<.01	<.002	<.01	<.001	37.0	<.1	
62.8-64 Mafic Dike.											69 to 72							
Matrix is aphanitic, dark grey-brown.											FL 1768	<.01	<.002	<.01	<.001	36.0	<.1	
Small white blebs of quartz-filling vesicules? Some are elongated - perhaps stretched gas bubbles.											72 to 75							
											FL 1769	<.01	<.002	<.01	<.001	67.0	<.1	
64-66.1 Biotite-rich rock as above dike.											75 to 78							
											FL 1770	.01	.009	.02	<.001	160.0	0.7	
											78 to 81							
											FL 1771	<.01	<.002	<.01	<.001	30.0	0.5	
66.1-70.9 m. Mafic Dike as above. Hairline carbonate.											81 to 84							
											FL 1772	.03	.019	<.01	<.001	50.0	<.1	
											84 to 87							
											FL 1773	<.01	.016	<.01	<.001	220.0	0.2	
											87 to 90							
											FL 1774	.01	.003	<.01	<.001	430.0	<.1	



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## GENERAL DRILL HOLE LOG

GENERAL DESCRIPTION (GEOLOGY)		SULPHIDES							MINERALIZATION ALTERATION					HOLE DEPTH		ASSAYS %						% RECOVER
		Cp	Py	Other	OXIDE	EP	CL	MS	KN	BI	OTHER	TAG NO.	Cu	Au	Ag	Mo	As	Hg				
70.9-80 Diorite.														90 to 93						1040.0	72.30-	
Small feldspars with chlorite clots.														FL 1775	.02	.012	.02	<.001	<.001	<.001	<.001	84.10
71-72 1 cm pyrite vein parallel to core.														93 to 96							97%	
73-80 Bleached.														FL 1776	.02	.011	.01	<.001	<.001	150.0	<.001	
														96 to 99								
														FL 1777	.01	.002	<.01	<.001	<.001	17.0	<.001	
														99 to 102								84.10-
														FL 1778	.03	.002	<.01	<.001	<.001	21.0	<.001	94.47
80-123.75 Crowded Fs Porphyry.														102 to 105								85%
as 27-53.49.														FL 1779	.01	.002	<.01	<.001	<.001	15.0	<.001	
89.61- 5 cms gouge.														105 to 108								
Extensive hematite on fractures and some clots. Epidote blebs common.														FL 1780	.03	<.002	<.01	<.001	<.001	13.0	<.001	
Q-ser around veins.			x				hem	M	M					108 to 111								94.47-
123.75 - Epidote alteration ends.														FL 1781	<.01	<.002	<.01	<.001	<.001	16.5	<.001	104.61
														111 to 114								84%
														FL 1782	.02	.019	.02	<.001	<.001	420.0	<.001	
123.75- Crowded Fs Porphyry.														114 to 117								
Contact is 3 cms gouge.														FL 1783	.01	.002	.01	<.001	<.001	47.0	<.001	
Orphiment present in first 1 m.														117 to 120								104.61-
Weak epidote alteration begins about 125.														FL 1784	.01	<.002	.01	<.001	<.001	14.0	<.001	114.72
														120 to 123								84%
														FL 1785	.01	<.002	<.01	<.001	<.001	33.0	<.001	
														123 to 126								114.72-
														FL 1786	<.01	<.002	<.01	<.001	<.001	14.0	<.001	126.10
														126 to 129								94%
														FL 1787	.01	.003	.01	<.001	<.001	29.0	<.001	
														129 to 132								126.10-
														FL 1788	.01	<.002	<.01	<.001	<.001	14.0	<.001	136.77







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## GENERAL DRILL HOLE LOG

Latitude: 10,470.45	Hole No. FL81-28
Departure: 11,480.63	Commenced: March 19/81
Elevation: 1,527.3	Completed: March 21/81
Length:	Logged by: NJW
Overburden: 7.62	Sheet No. 1 of 4
Az. 223° Dip: 45°	Claim: FL3, TR 32

Contractor: J. T. Thomas

Drill Type: 38

Core Size: NQ

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %						% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KN	BI	OTHER		Cu	Au	Ag	Mo	As	Hg	
0-7.62 Overburden											7.62 to 10.0							7.62-
											FL 1796	<.01	<.002	.01	.001	19.0	<.01	19.69
7.62-10.25 Andesite											10 to 13							98%
Medium to dark green, fine-grained. Biotite-chlorite clots increase with depth. Intense biotite near bottom contact. Disseminated pyrite.		x									FL 1797	<.01	<.002	<.01	.001	8.0	<.01	
											13 to 16							
											FL 1798	<.01	<.002	<.01	<.001	8.5	<.01	
											16 to 19							19.69-
											FL 1799	<.01	<.002	<.01	.001	16.5	<.01	30.69
10.25-17.87 Hb-Fs Dike.											19 to 22							91%
Top contact gouged at 60° to vca. Bottom at about 80° across 2 cms gouge.											FL 1800	<.01	.004	.01	<.001	18.0	<.01	
											22 to 25							30.69-
											FL 1801	<.01	.004	.02	.001	23.0	<.01	41.96
											25 to 28							93%
17.87 - Andesite-Diorite.											FL 1802	.01	.005	<.01	.002	25.0	<.01	
As above dike, but occasional feldspar. 3% disseminated pyrite with some veins parallel to core. Hairline carbonate veinlets throughout core. Feldspar becomes more common with depth until rock is a crowded feldspar porphyry.		x									28 to 31							
											FL 1803	<.01	.005	<.01	.001	33.0	<.01	
											31 to 34							41.96-
											FL 1804	.03	.005	<.01	<.001	45.0	<.01	52.58
											34 to 37							87%
											FL 1805	.01	<.002	<.01	<.001	10.0	<.01	
											37 to 40							
											FL 1806	.01	.002	.01	.001	11.0	<.01	
23 - Some shears with moly. Also at 30 m.											40 to 43							
Hematite on fractures. Rock is weakly magnetic.					hem						FL 1807	.01	.003	<.01	<.001	37.0	<.01	
					mag		M	M	M		43 to 46							
											FL 1808	.01	.002	<.01	<.001	27.0	<.01	
											46 to 49							
											FL 1809	<.01	.002	<.01	.001	37.0	<.01	



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-28
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 2 of 4
Az. Dip:	Claim:

Contractor: J. T. Thomas Drilling      Drill Type: 38      Core Size: NQ

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %						% RECOV
	Cp	Py	Other	OXIDE	EP	CL	MS	KY	BI	OTHER		Cu	Au	Ag	Mo	As	Hg	
79.45-80 Fault gouge											49 to 52							52.58-
85-85.3 Fault gouge with pyrite		x									FL 1810	<.01	<.002	<.01	.002	45.0	0.1	63.83
87.2- 5 cm xenoliths											52 to 55							93%
93.27-94.2 Fault gouge. Pyrite and kaolin with a few pebbles of feldspar porphyry.		x									FL 1811	.01	.002	.01	.001	21.0	0.1	
											55 to 58							
											FL 1812	.01	.004	.01	.001	22.0	0.1	
											58 to 61							63.83-
											FL 1813	<.01	.003	.02	.001	42.0	0.1	74.83
											61 to 64							91%
											FL 1814	.01	.002	<.01	.001	26.0	0.1	
											64 to 67							
											FL 1815	.01	.002	<.01	<.001	13.0	0.1	
											67 to 70							74.83-
											FL 1816	.01	.002	.01	<.001	8.5	0.1	85.65
											70 to 73							90%
											FL 1817	.01	<.002	.01	<.001	8.0	0.1	
											73 to 76							85.65-
											FL 1818	<.01	.002	.02	.001	8.5	0.1	97.13
											76 to 79							94%
											FL 1819	<.01	<.002	.01	.001	16.0	0.1	
											79 to 82							
											FL 1820	.02	.003	<.01	.001	18.5	0.1	
											82 to 85							
											FL 1821	.03	.006	.01	.001	21.0	0.1	
											85 to 88							
											FL 1822	.01	.011	<.01	<.001	17.5	0.1	
											88 to 91							
											FL 1823	.02	.018	.01	.001	84.0	0.1	



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-28
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 3 of 4
Az. Dip:	Claim:

Contractor: J. T. Thomas Drilling      Drill Type: 38      Core Size: NQ

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION								HOLE DEPTH TAG NO.	ASSAYS%						% RECOVER	
	Cp	Py	Other	OXIDE	EP	CL	MS	KN		BI	OTHER	Cu	Au	Ag	Mo		As
100.75 Chalco veins - 2 mm 1 - parallel to vca. 1 - at 15° to vca.										91 to 94 FL 1824	.03	.058	.02	.001	96.0	<0.1	97.13- 108.46
126.8 - Epidote clots appear.										94 to 97 FL 1825	.01	.006	.01	.001	56.0	<0.1	93%
130.5 - 10 cms intense chlorite.										97 to 100 FL 1826	<.01	.012	.01	.001	62.0	<0.1	
143.4 - 2 cm chalco vein at 10° to vca. Minor pyrite & quartz.	x	x								100 to 103 FL 1827	.03	.003	<.01	.002	28.0	<0.1	108.46- 119.20
										103 to 106 FL 1828	.03	.006	.01	.001	54.0	<0.1	88%
										106 to 109 FL 1829	.01	.004	<.01	.001	60.0	<0.1	
										109 to 112 FL 1830	.04	.007	.01	.002	31.0	<0.1	119.20- 130.69
										112 to 115 FL 1831	.08	.060	.03	.002	57.0	<0.1	95%
										115 to 118 FL 1832	.01	.004	<.01	.001	30.0	<0.1	
										118 to 121 FL 1833	.04	.009	.01	.002	37.0	<0.1	130.69- 141.84
										121 to 124 FL 1834	.01	.022	.02	.003	43.0	<0.1	93%
										124 to 127 FL 1835	.01	.003	.02	.001	32.0	<0.1	
										127 to 130 FL 1836	<.01	.005	.01	.002	47.0	<0.1	141.84- 151.18
										130 to 133 FL 1837	.01	.002	<.01	.001	19.0	<0.1	95%





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### GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-28 A
Departure:	Commenced: March 18/81
Elevation:	Completed: March 19/81
Length: 19.20 m	Logged by: NJW
Overburden: 7.62 m	Sheet No. 1 of
Az. 233° Dip: -45°	Claim: FL3

Contractor: J. T. Thomas

Drill Type: 38 Core Size: NQ

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	K <sub>2</sub>	BI	OTHER		Cu	Au	Ag	Mo		
0-7.62 Overburden.											to						
7.62-12 Andesite. Medium green, fine-grained. Sericitic alteration around pyrite veinlets. Veinlets parallel to core. Some biotite clots. Contact with below is an irregular quartz-hematite vein, and broken.		x									to						
12-18.29 Feldspar-Hb-Porphry Dike. Feldspars kaolinized, hornblendes are now chlorite. Vague alignment of hb laths along contacts. Both contacts are broken, but bottom one may be at 40° to vca.											to						
18.29-19.2 Andesite as above.											to						
19.2 End of Hole. Casing bent around boulder and tube wouldn't go down. Hole abandoned and drill moved two feet ahead. Casing pulled. Redrilled as FL81-28.											to						

AD



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GENERAL DRILL HOLE LOG

Latitude: 10,492.10	Hole No. FL81-29
Departure: 11,345.67	Commenced: March 21/81
Elevation: 1,534.6	Completed: March 22/81
Length: 106.68	Logged by: NJW
Overburden: 21.33	Sheet No. 1 of 3
Az. Dip: -90°	Claim: TK 32

Contractor: J. T. Thomas      Drill Type: 38      Core Size: NQ

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS%						% RECOVER			
	Cp	Py	Other	OXIDE	EP	CL	MS		KA	BI	OTHER	Cu	Au	Ag		Mo	As	Hg
0-21.33 Overburden.										21.33 to 23								21.33-32.53
21.33-40.6 Chert Fragment Breccia. Rock is pale grey, highly altered. Moderate sericitic alteration with disseminated pyrite. Chert frags are subrounded. Some lithic fragments are eaten and ghosts remain. Some kaolin? blebs after feldspar clasts.										FL 1844	.02	.003	<.01	.001	48.0	<0.1		92%
26.8-27.4 Fault gouge.										23 to 26								
31.7-40.3 10% disseminated pyrite with biotite.		x						M		FL 1845	.01	.033	.03	.001	88.0	<0.1		
40.6-47.4 Greywacke? Rock is medium green with "feldspar phenos" & chert fragments. Chert blebs are rounded, and black or dark green. Top contact is 15 cms gouge, bottom is 25 cms gouge.										26 to 29								32.53-43.94
47.4 Altered Feldspar Porphyry. Pale grey, kaolinized feldspars. No visible fragments. Much softer than previous two units.										FL 1846	.01	.003	<.01	<.001	108.0	<0.1		94%
										29 to 32								
										FL 1847	<.01	.010	.01	.001	80.0	<0.1		
										32 to 35								
										FL 1848	<.01	<.002	<.01	.001	60.0	<0.1		
										35 to 38								43.94-55.26
										FL 1849	<.01	<.002	<.01	.001	76.0	<0.1		93%
										38 to 41								
										FL 1850	<.01	.007	<.01	.002	40.0	<0.1		
										41 to 44								
										FL 1851	<.01	<.002	<.01	.001	17.0	<0.1		
										44 to 47								
										FL 1852	.01	<.002	<.01	.001	6.0	<0.1		
										47 to 50								
										FL 1853	<.01	<.002	<.01	.001	25.0	<0.1		
										50 to 53								
										FL 1854	<.01	<.002	<.01	<.001	26.0	<0.1		
										53 to 56								
										FL 1855	<.01	<.002	<.01	.001	35.0	<0.1		
										56 to 59								
										FL 1856	<.01	<.002	.01	<.001	34.0	<0.1		
										59 to 62								
										FL 1857	.01	.002	.01	<.001	38.0	<0.1		



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-29
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 2 of 3
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Drill Type:

Core Size:

Az. Dip:

Claim:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %						% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI	OTHER		Cu	Au	Ag	Mo	As	Hg	
Rock is sericitized and kaolinized.											62 to 65						55.26-	
Disseminated pyrite throughout.											FL 1858	.02	.004	<.01	<.001	34.0	<0.1	66.24
49.6-50.2 Large blebs (8 mm) pyrite in core.											65 to 68						90%	
Some graphitic bands.											FL 1859	.01	.004	<.01	<.001	39.0	<0.1	
											68 to 71							
											FL 1860	.01	.002	.01	.001	14.0	<0.1	
62-90 Greywacke?											71 to 74							
62-63 Chert pebbles and lithic clasts fairly common.											FL 1861	.02	.002	<.01	.001	15.0	<0.1	66.24-
Grades downwards into rock same as 40.6-47.4.											74 to 77						93%	
Below 71 - becomes more siliceous. Diffuse chert blebs.											FL 1862	<.01	<.002	<.01	.001	17.5	<0.1	
											77 to 80							
											FL 1863	<.01	.003	.01	<.001	22.0	<0.1	
											80 to 83							
											FL 1864	<.01	.002	<.01	<.001	24.0	<0.1	77.53-
											83 to 86						87.34	
90-99.2 Post Mineral QFP Dike.											FL 1865	<.01	<.002	<.01	.001	26.0	<0.1	81%
Top contact is sheared with graphite and moly? Centre part is dark green with a few hornblendes. Edges are chilled pale pink with fs laths & occasional quartz phenos.											86 to 89							
											FL 1866	<.01	<.002	<.01	.001	24.0	<0.1	87.34-
											89 to 92						99.78	
											FL 1867	<.01	<.002	<.01	<.001	13.0	<0.1	98%
											92 to 95							
											FL 1868	<.01	<.002	<.01	.002	4.2	<0.1	
99.2 Greywacke.											95 to 98							
Chlorite developed near contact. Some hematite on fractures. Epidote developed in clots and along some irregular fractures.											FL 1869	<.01	<.002	<.01	.002	2.1	<0.1	
											98 to 101							
											FL 1870	.01	<.002	.01	<.001	10.5	<0.1	
											101 to 104							
											FL 1871	<.01	<.002	<.01	<.001	12.0	<0.1	









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GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-30
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 2 of 5
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION						HOLE DEPTH TAG NO.	ASSAYS %					% RECOVERED
	Cp	Py	Other	OXIDE	EP	CL	MS	KA	BI		OTHER	Cu	Au	Ag	Mo	
155.9-167 Siltstone. Pale grey-brown, very fine-grained Top 1 m has chert bands at 15' to vca. Some disseminated and nodular pyrite. Also some chlorite bands.											149 to 152 FL 3365	.14	.007	.02	.002	152.75- 163.46
											152 to 155 FL 3366	.09	<.002	.01	.005	88%
											155 to 158 FL 3367	.05	<.002	<.01	.004	
167 - 182.3 Sandstone - Chert Pebble Conglomerate. Frag. are same composition throughout. Become coarser with depth. eg 168 mm 173 2 cm Becomes finer after 175. Disseminated pyrite.											158 to 161 FL 3368	<.01	<.002	<.01	.002	163.46- 174.60
											161 to 164 FL 3369	.01	<.002	.01	.002	92%
											164 to 167 FL 3370	<.01	<.002	<.01	.002	
											167 to 170 FL 3371	<.01	<.002	<.01	.002	174.60- 185.86
182.3-191.3 Siltstone. Broken up. Top contact is slumped.											170 to 173 FL 3372	<.01	<.002	<.01	.003	89%
											173 to 176 FL 3373	.05	.002	.01	.003	
											176 to 179 FL 3374	.02	.002	.01	.003	185.86- 195.87
											179 to 182 FL 3375	.12	.009	.02	.004	86%
											182 to 185 FL 3376	.04	.002	.01	.003	
											185 to 188 FL 3377	<.01	<.002	<.01	.003	
											188 to 191 FL 3378	<.01	<.002	<.01	.005	



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## GENERAL DRILL HOLE LOG

Property: Fish Lake		Latitude:		Hole No. FL81-30	
Area:		Departure:		Commenced:	
Purpose:		Elevation:		Completed:	
Drill Type:		Length:		Logged by: NJW	
Core Size:		Overburden:		Sheet No. <u>3</u> of <u>5</u>	
Contractor: J. T. Thomas		Az. Dip:		Claim:	

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES							MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOV
	Cp	Py	Other	OXIDE	EP	CL	MS	KN	BI	OTHER											
191.3-199.25 Chert Pebble Conglomerate		x											191 to 194							195.87-	
													FL 3379	<.01	<.002	<.01	.004			206.75	
199.25-204.1 Siltstone.													194 to 197							90%	
203.95-204.1 Fault gouge													FL 3380	.06	.003	<.01	.003				
													197 to 200								
204.1-205 QFP Post Mineral													FL 3381	.03	<.002	<.01	.003				
													200 to 203							206.75-	
205-214 Siltstone.													FL 3382	.01	<.002	<.01	.002			217.54	
													203 to 206							89%	
214-236 Sandstone.													FL 3383	<.01	<.002	<.01	.003				
Below 223.5 - becomes silty - broken up. Some gouge.													206 to 209								
													FL 3384	<.01	<.002	<.01	.002				
													209 to 212							217.54-	
													FL 3385	<.01	<.002	<.01	.002			227.58	
													212 to 215							83%	
													FL 3386	<.01	<.002	<.01	.002				
													215 to 218								
													FL 3387	.01	.004	<.01	.003				
													218 to 221							227.58-	
													FL 3388	.01	.003	.01	.003			238.03	
													221 to 224							86%	
													FL 3389	.02	.003	<.01	.001				
													224 to 227								
													FL 3390	.03	.005	.01	.003				
													227 to 230								
													FL 3391	.05	.005	.01	.002				
													230 to 233								
													FL 3392	.02	.005	.01	.002				



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-30
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. <u>4</u> of <u>5</u>
Az. Dip:	Claim:

Contractor: J. T. Thomas

Drill Type: \_\_\_\_\_ Core Size: \_\_\_\_\_

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION						HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER	
	Cp	Py	Other	OXIDE	EP	CL	MS	KF	BI		OTHER	Cu	Au	Ag	Mo		
236-288.75 Siltstone.											233 to 236						238.03-
Occasional grey gypsum veinlet		x									FL 3393	.01	<.002	.01	.002		249.24
Disseminated pyrite. Some											236 to 239						92%
chlorite developed along old											FL 3394	.01	<.002	<.01	.002		
bedding planes? at 40° to vca.											239 to 242						
Below 267, rocks are broken-up											FL 3395	.01	.002	<.01	.002		
and have talc-gypsum on											242 to 245						249.24-
fracture faces. Some orange											FL 3396	.02	<.002	<.01	.004		259.18
colored sections. May be tuffaceous											245 to 248						82%
sediments or hematite staining.											FL 3397	.01	<.002	<.01	.001		
Rock has swirly chlorite. Looks											248 to 251						
brecciated in places.											FL 3398	.01	<.002	<.01	.002		
											251 to 254						259.18-
											FL 3399	.01	<.002	<.01	.002		270.02
											254 to 257						89%
											FL 3400	.01	<.002	<.01	.002		
											257 to 260						270.02-
											FL 3401	.02	<.002	<.01	.001		280.13
											260 to 263						83%
											FL 3402	.01	<.002	<.01	.002		
											263 to 266						
											FL 3403	.01	<.002	<.01	.002		
											266 to 269						280.13-
											FL 3404	.01	<.002	<.01	.002		290.88
											269 to 272						88%
											FL 3405	.01	<.002	.01	.003		
											272 to 275						
											FL 3406	.02	<.002	<.01	.002		



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## GENERAL DRILL HOLE LOG

Latitude:	Note No. FL81-30
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 5 of 5
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KN	BI	OTHER		Cu	Au	Ag	Mo		
288.75-291 m. Fault gouge.											275 to 278						290.88-300.84
											FL 3407	.01	<.002	<.01	.002		
291-311.81 As before gouge.		x									278 to 281						82%
308.6-311.81 Rock is red - jasper or disseminated hematite.											FL 3408	<.01	<.002	<.01	.002		
											281 to 284						
											FL 3409	.01	<.002	<.01	.003		
											284 to 287						
311.81 End of Hole. Hole stopped because enlarged below casing, and rods whipping badly.											FL 3410	.01	<.002	<.01	.001		
NW casing left in hole.											287 to 290						
											FL 3411	.01	<.002	<.01	.003		
											290 to 293						
											FL 3412	.01	<.002	.01	.002		
											293 to 296						
											FL 3413	.02	<.002	<.01	.003		
											296 to 299						
Sperry-Sun Tests											FL 3414	.01	<.002	<.01	.002		
											299 to 302						
@ 106.68 m -62° N 2° E											FL 3415	.01	<.002	.01	.002		
@ 167.64 m -62.5° N 2° E											302 to 305						
@ 304.80 m -63° N 1° E											FL 3416	.01	<.002	.01	.002	300.84-311.81	
											305 to 308						90%
											FL 3417	.01	<.002	<.01	.002		
											308 to 311.81						
											FL 3418	.01	.002	<.01	.002		
											to F.O.H.						
											to						



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## GENERAL DRILL HOLE LOG

Latitude: 10,297.95	Hole No. FL81-31
Departure: 10,596.88	Commenced: Mar. 22/81
Elevation: 1,490.1	Completed: Mar. 26/81
Length: 306.52	Logged by: NJW
Overburden: 36.58	Sheet No. 1 of 7
Az. 000 Dip: -60°N	Claim: Tk 33

Property: Fish Lake

Area:

Purpose:

Contractor: J. T. Thomas

Drill Type: 38

Core Size: NQ

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KN	BI	OTHER		Cu	Au	Ag	Mo		
0-36.58 Overburden.											36.58 to 39						36.58-48.75
36.58 - Altered Crowded Feldspar Porphyry.											FL 1873	.05	.002	<.01	.003		
Pale grey, fine-grained with 1-2 mm feldspar phenocrysts. Feldspars are soft and usually diffuse.											39 to 42	.12	.008	.01	.005		90%
Rock is sericitically altered.											FL 1874						
Some biotite swirls & wisps.											42 to 45	.12	.013	<.01	.002		
Pyrite is in veinlets, with quartz.											FL 1875						
No visible chalco.											45 to 48	.11	.006	.01	.003		48.75-59.65
52.55-52.75 Massive pyrite.											FL 1876	.09	.004	.02	.004		
64.5 - Vuggy quartz vein with chalco and pyrite. 2 cms at 15° to vca.	x	x									48 to 51	.09	.004	.02	.004		90%
91 - sulfides start to increase.											FL 1877	.12	.007	.01	.011		
											51 to 54	.12	.007	.01	.011		
											FL 1878	.09	.004	.01	.005		59.65-70.88
											54 to 57	.09	.004	.01	.005		
											FL 1879	.07	.005	.02	.003		92%
											57 to 60	.07	.005	.02	.003		
											FL 1880	.09	.004	.01	.004		
											60 to 63	.09	.004	.01	.004		
											FL 1881	.06	.006	.01	.003		70.88-81.98
											63 to 66	.06	.006	.01	.003		
											FL 1882	.08	.003	<.01	.008		91%
											66 to 69	.08	.003	<.01	.008		
											FL 1883	.05	.003	.02	.003		
											69 to 72	.05	.003	.02	.003		
											FL 1884	.09	.004	.01	.007		81.98-92.96
											72 to 75	.09	.004	.01	.007		
											FL 1885	.04	<.002	<.01	.004		90%
											75 to 78	.04	<.002	<.01	.004		
											FL 1886						

AP



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-31
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 2 of 7
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION								HOLE DEPTH TAG NO.	ASSAYS %					% RECOV
	Cp	Py	Other	OXIDE	EP	CL	MS	KN		BI	OTHER	Cu	Au	Ag	
108.8 - few blebs honey-orange sphalerite in veinlet subparallel to vca.		x	sphalerite							78 to 81 FL 1887	.03	<.002	<.01	.002	92.96- 103.85
110-110.25 Vuggy quartz with biotite										81 to 84 FL 1888	.04	<.002	<.01	.003	90%
110.5-111.6 QFP Post Mineral Dike. Pale pink, altered.										84 to 87 FL 1889	.06	.009	.03	.003	
										87 to 90 FL 1890	.11	.005	.02	.002	103.85- 115.52
111.6 - Altered Crowded Es Porphyry. As before dike.										90 to 93 FL 1891	.04	.002	.01	.001	96%
Kaolinization increases. Core looks eaten. Fairly intense veining.		x						M	W	W	.07	.002	.01	.001	
114-114.85 Fault gouge.										93 to 96 FL 1892	.03	<.002	<.01	.003	115.52- 126.80
										96 to 99 FL 1893	.07	<.002	.02	.002	93%
										99 to 102 FL 1894	.06	.005	.01	.003	
										102 to 105 FL 1895	.24	.007	.07	.010	
										105 to 108 FL 1896	.19	.008	.24	.005	
										108 to 111 FL 1897	.05	<.002	.01	.007	
										111 to 114 FL 1898	.08	.002	.01	.004	
										114 to 117 FL 1899	.12	.033	.01	.002	
										117 to 120 FL 1900					





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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-31
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 3 of 7
Az. Dip:	Claim:

Contractor: J. T. Thomas

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION						HOLE DEPTH TAG NO.	ASSAYS %					% RECOV
	Cp	Py	Other	OXIDE	EP	CL	MS	KN	BI		OTHER	Cu	Au	Ag	Mo	
131.8 - Quartz-pyrite vein.		x									120 to 123					126.80-
136.8 - Fault gouge. Vuggy quartz.											FL 1901	.04	<.002	<.01	<.001	137.80
Below 133 - disseminated hematite.											123 to 126					91%
											FL 1902	.09	<.002	<.01	.001	
											126 to 129					
138-157 m. Weathered Quartz -											FL 1903	.04	<.002	<.01	.001	
Feldspar Porphyry. Fair sulfides.	x	x									129 to 132					137.80-
Rock is pale grey, feldspars are now											FL 1904	.04	.009	<.01	.001	148.68
clays. Very broken-up & mushy.											132 to 135					90%
Occasional hematite blebs.											FL 1905	.07	.004	<.01	.002	
150 - Moly & sphalerite in quartz.											135 to 138					
148-156 About 40% recovery.	x	x	MoS <sub>2</sub>								FL 1906	.06	<.002	<.01	.003	
			sph								138 to 141					148.68-
157-168.6 m. Altered Crowded Fs											FL 1907	.03	<.002	<.01	.003	161.65
Porphyry.											141 to 144					68%
Unit is not as bleached. Sulfides	x	x									FL 1908	.03	.002	<.01	.003	
fairly common.											144 to 147					
											FL 1909	.08	<.002	.01	.002	
											147 to 150					161.65-
											FL 1910	.09	<.002	.12	.002	172.50
											150 to 153					89%
											FL 1911	.12	.004	.16	.003	
											153 to 156					
											FL 1912	.03	<.002	.03	.006	
											156 to 159					
											FL 1913	.07	.002	.03	.002	
											159 to 162					
											FL 1914	.06	<.002	.02	.003	



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-31
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 4 of 7
Az. Dip:	Claim:

Contractor: J. T. Thomas      Drill Type:      Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES							MINERALIZATION ALTERATION					HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER
	Cp	Py	Other	OXIDE	EP	CL	MS	KN	BI	OTHER	Cu	Au		Ag	Mo				
168.6-185 Felsic Volcanics? Rocks are pale grey to pink, hard, siliceous. Massive with disseminated sulfides. Top contact gouged at 15° to vca.												162 to 165 FL 1915	.06	<.002	<.01	.005		172.50- 184.0	
	x	x										165 to 168 FL 1916	.07	.003	.02	<.001		95%	
												168 to 171 FL 1917	.02	.002	.01	.003			
185-202.8 Altered Feldspar Porphyry Rock is pale grey, feldspars are now clays, and rock resembles gouge. May be in some places. Some sulfides in matrix. Some 1 cm veins of mixed clcp & py.												171 to 174 FL 1918	.01	<.002	<.01	.002		184.0- 195.00	
												174 to 177 FL 1919	.07	.004	.02	.003		95%	
	x	x										177 to 180 FL 1920	.02	<.002	<.01	.001			
												180 to 183 FL 1921	.03	.002	<.01	<.001		195.00- 206.14	
												183 to 186 FL 1922	.04	.003	.01	.003		92%	
202.8-204.52 QFP Post Mineral Dike. Pale pink. Both contacts sharp and a bit sheared at 40° to vca.												186 to 189 FL 1923	.03	.004	<.01	.006			
												189 to 192 FL 1924	.05	.003	.01	.004			
												192 to 195 FL 1925	.05	.005	.01	.006			
												195 to 198 FL 1926	.04	.003	<.01	.002			
												198 to 201 FL 1927	.04	<.002	<.01	<.001			
												201 to 204 FL 1928	.02	<.002	<.01	.002			



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## GENERAL DRILL HOLE LOG

Latitude:	Hole No. FL81-31
Departure:	Commenced:
Elevation:	Completed:
Length:	Logged by: NJW
Overburden:	Sheet No. 5 of 7
Az. Dip:	Claim:

Contractor: J. T. Thomas

Property: Fish Lake

Area:

Purpose:

Drill Type:

Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES			MINERALIZATION ALTERATION							HOLE DEPTH TAG NO.	ASSAYS %					% RECOVER		
	Cp	Py	Other	OXIDE	EP	CL	MS	K	BI	OTHER		Cu	Au	Ag	Mo				
204.52-212.7 Yellow orange, fine-grained with biotite. Very few visible sulfides.											204	to	207						206.14-
											FL		1929	.02	<.002	<.01	.002		217.11
		x										207	to	210					90%
212.7-222.3 Quartz Feldspar Porphyry. Quartz eyes to 4 mm common. Feldspars soft & diffuse. Fair sulfides.											FL		1930	.03	<.002	<.01	<.001		
											210	to	213						
											FL		1931	.03	<.002	<.01	<.001		
222.3-230.1 Felsic Volcanics Weakly banded at 50° to vca.											213	to	216					217.11-	
	x	x									FL		1932	.01	<.002	<.01	<.001	228.79	
											216	to	219						96%
230.1-233.8 m. Quartz Feldspar Porphyry Post Mineral Dike.											FL		1933	.03	<.002	<.01	.003		
											219	to	222						
								M	M		FL		1934	.02	<.002	<.01	.003		
233.8 - Volcanics Banded and splotchey as above. Some cherty bands.											222	to	225					228.79-	
											FL		1935	.04	<.002	<.01	.001	239.87	
											225	to	228						91%
233.8 - Volcanics Banded and splotchey as above. Some cherty bands.											FL		1936	.01	<.002	<.01	.002		
	x	x									228	to	231					239.87-	
											FL		1937	<.01	<.002	<.01	<.001	250.55	
233.8 - Volcanics Banded and splotchey as above. Some cherty bands.											231	to	234						88%
											FL		1938	<.01	<.002	<.01	<.001		
											234	to	237						
233.8 - Volcanics Banded and splotchey as above. Some cherty bands.											FL		1939	<.01	<.002	<.01	.001		
											237	to	240					250.55-	
											FL		1940	.03	<.002	.01	<.001	261.21	
233.8 - Volcanics Banded and splotchey as above. Some cherty bands.											240	to	243						88%
											FL		1941	.02	<.002	<.01	<.001		
											243	to	246						
233.8 - Volcanics Banded and splotchey as above. Some cherty bands.											FL		1942	.03	.005	.01	<.001		



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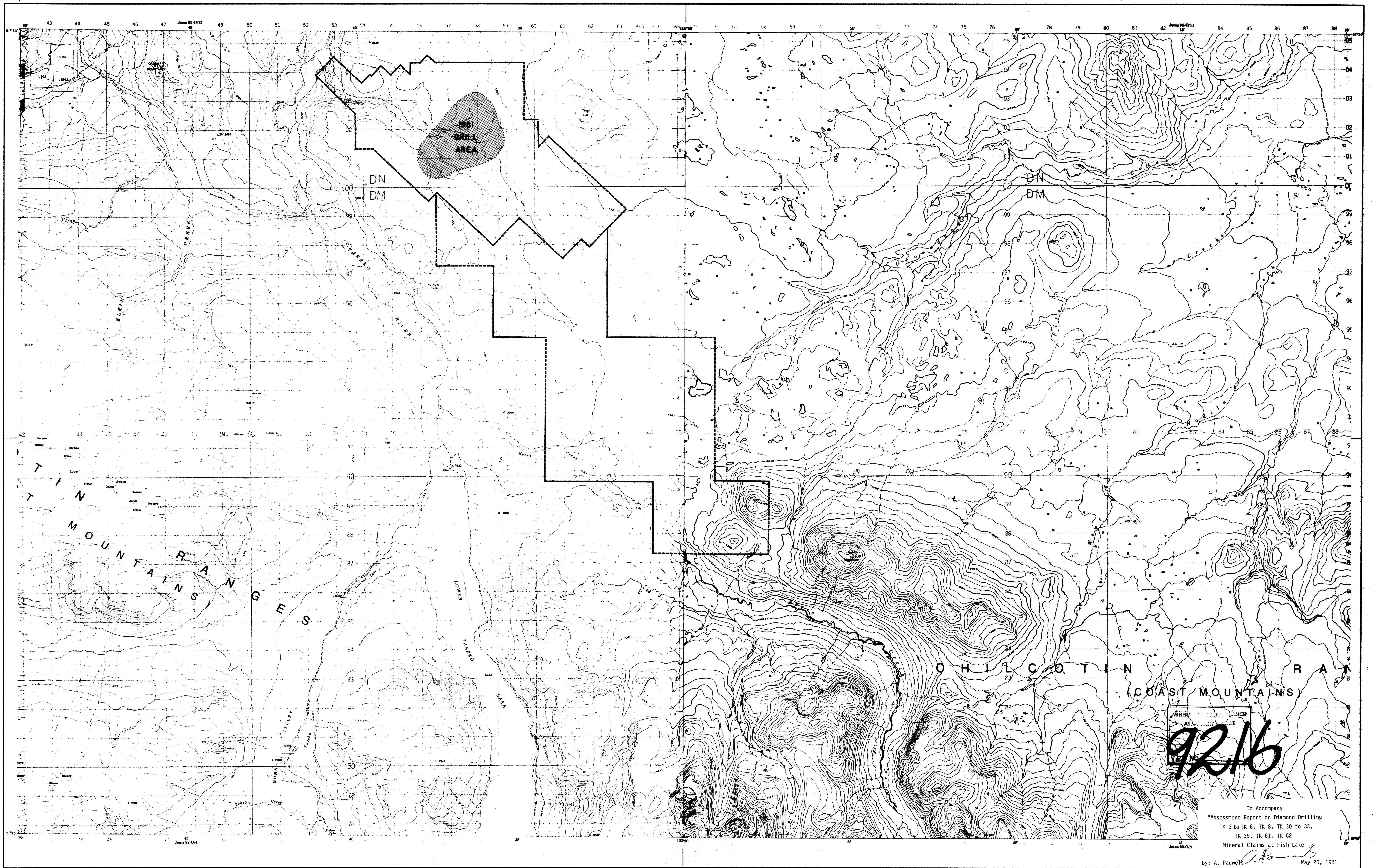
## GENERAL DRILL HOLE LOG

Latitude:		Hole No. FL81-31
Departure:		Commenced:
Elevation:		Completed:
Length:		Logged by: NJW
Overburden:		Sheet No. <u>6</u> of <u>7</u>
Az. Dip:		Claim:

Contractor: J. T. Thomas      Drill Type:      Core Size:

GENERAL DESCRIPTION (GEOLOGY)	SULPHIDES MINERALIZATION ALTERATION								HOLE DEPTH TAG NO.	ASSAYS%					% RECOV
	Cp	Py	Other	OXIDE	EP	CL	MS	K <sub>2</sub>		BI	OTHER	Cu	Au	Ag	
Reasonable sulfides.	x	x								246 to 249 FL 1943	.02	.005	<.01	<.001	261.21- 271.78
275.5-306.32 QFP Post Mineral Dike.										249 to 252 FL 1944	.03	.007	<.01	.001	87%
Pale grey-pink with white feldspars and some quartz veining.										252 to 255 FL 1945	.02	.005	<.01	<.001	
280.2-282 - Calcite vein? with fragments of dike volcanics, sulfides.	x	x								255 to 258 FL 1946	.01	<.002	<.01	.001	271.78- 283.21
Hematite common. Graphitic.				hem						258 to 261 FL 1947	<.01	<.002	<.01	.001	94%
Quartz veins cut frags & matrix.										261 to 264 FL 1948	<.01	<.002	<.01	.001	
Dike has some shears, hematite blebs and on fractures.										264 to 267 FL 1949	<.01	<.002	<.01	<.001	283.21- 294.43
										267 to 270 FL 1950	.01	<.002	<.01	<.001	92%
										270 to 273 FL 1951	.03	.002	<.01	<.001	294.43- 306.32
										273 to 276 FL 1952	.01	<.002	<.01	.001	98%
										276 to 279 FL 1953	<.01	<.002	<.01	.001	
										279 to 282 FL 1954	.01	<.002	<.01	.002	
										282 to 285 FL 1955	<.01	<.002	<.01	.001	
										285 to 288 FL 1956	<.01	<.002	<.01	.001	



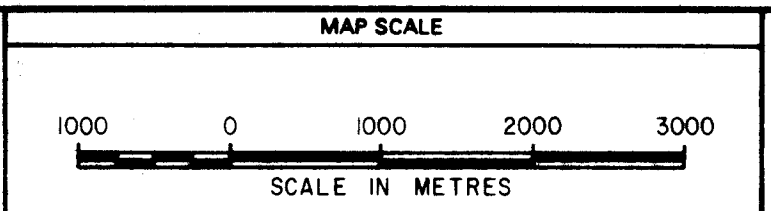


MINERALS  
AS SHOWN ON  
**9216**

To Accompany  
"Assessment Report on Diamond Drilling  
TK 3 to TK 6, TK 8, TK 30 to 33,  
TK 35, TK 61, TK 62  
Mineral Claims at Fish Lake"

by: A. Pauwels *A. Pauwels* May 20, 1981

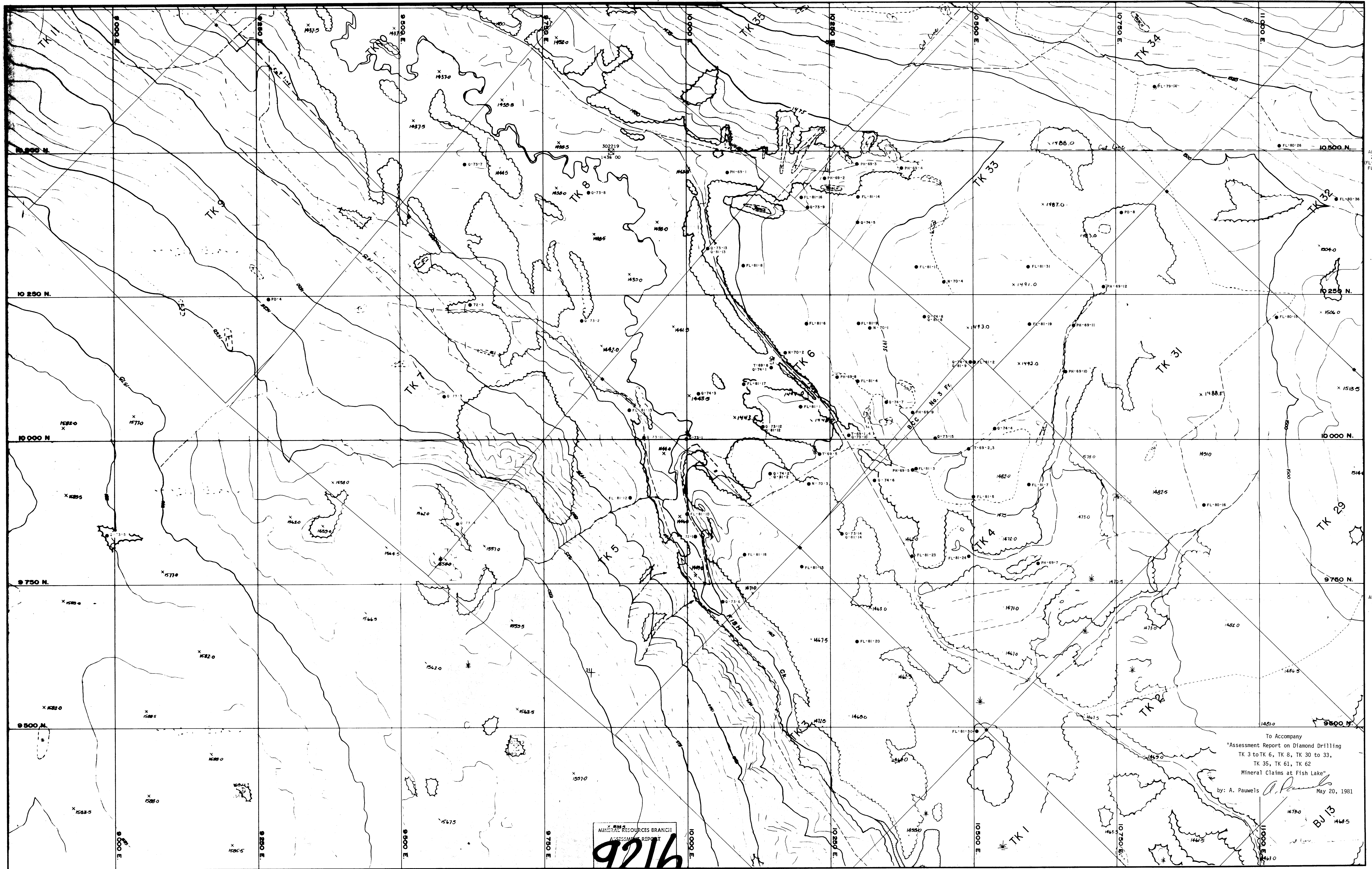
----- CLAIM BOUNDARY



No.	Date	MADE BY	DESCRIPTION
1			
2			
3			
4			
5			

	BETHLEHEM COPPER CORPORATION
	OFFICE: VANCOUVER

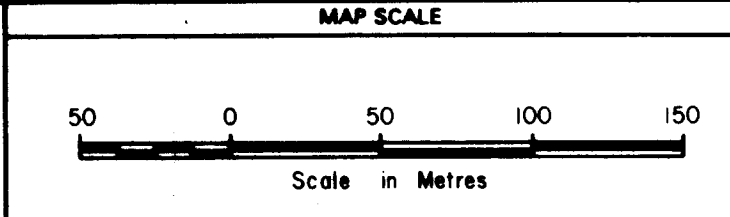
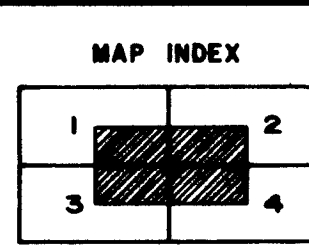
FISH LAKE PROJECT	
LOCATION PLAN	
DEPARTMENT: EXPLORATION	MAP INDEX NUMBER: N.T.S. 92-0/5,6
DATE: MAY, 1981	SCALE: 1:50,000
DRAWN BY: a.m.b.	DRAWING NUMBER:



MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
**9216**

To Accompany  
"Assessment Report on Diamond Drilling  
TK 3 to TK 6, TK 8, TK 30 to 33,  
TK 35, TK 61, TK 62  
Mineral Claims at Fish Lake"  
by: A. Pauwels *A. Pauwels* May 20, 1981

FL-81-...  
or Q-81-...  
● 1981 DIAMOND DRILL SITES  
--- DRILL ROADS (Constructed and Reconstructed)  
FOR ACCESS  
■ INITIAL POST

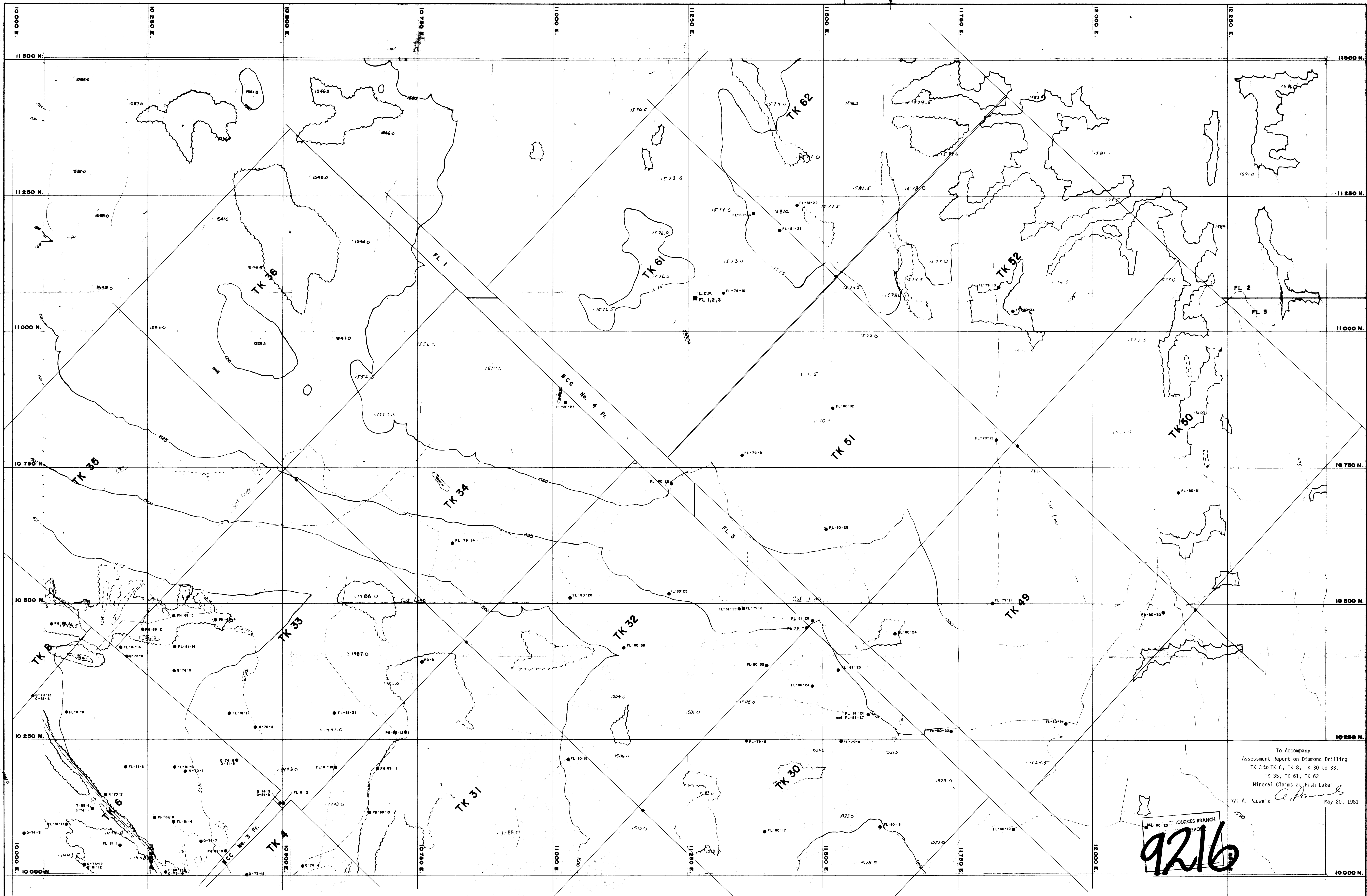


NO.	DATE	MADE BY	DESCRIPTION
1	28/4/81	J.B.C.	COPY TO FORESTRY - ALEXIS CO.
2			
3			
4			
5			
6			

DATE	DRAWN BY	CHECKED	APPROVED	OFFICE	DEPARTMENT	MAP INDEX NUMBER	SCALE	DRAWING NUMBER
Dec., 1980	a.m.b.			VANCOUVER	EXPLORATION		1:2500	

**B** BETHLEHEM  
COPPER  
CORPORATION

FISH LAKE PROJECT  
DRILL HOLE LOCATIONS




To accompany  
 "Assessment Report on Diamond Drilling  
 TK 3 to TK 6, TK 8, TK 30 to 33,  
 TK 35, TK 61, TK 62  
 Mineral Claims at Fish Lake"  
 By: A. Pauwels *A. Pauwels* May 20, 1981

9216

FL-81-1 ● 1981 DIAMOND DRILL SITES

■ INITIAL POST

Compiled from aerial photography at an approximate scale of 1:10 000. Base is 1980

BETHLEHEM COPPER CORPORATION	
FISH LAKE AREA	
DRILL HOLE LOCATIONS	
 McKENNAN Mc Kenney Surveying & Engineering Ltd. 1906 Alberni Street, Vancouver B.C., Canada	Scale 1:5 000 Contour & Meters Date Nov 1980 Job No. 02888-1 Sheet No. 4 of 4

1	2
3	4