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CLINE LAKE PROJECT
REPORT ON
DIAMOND DRILLING
BY
NORANDA EXPLORATION COMPANY, LIMITED
(no personal liability)
FOR
CLINE DEVELOPMENT CORPORATION
AND
FREEWEST RESOURCES INC.

TIMMINS, ONTARIO
APRIL 1988

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SENIOR PROJECT GEOLOGIST

0M87-7-L-277



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Maps

Pocket 1	Sections/Logs (detailed)
Pocket 2	Sections/Logs (detailed)

SUMMARY

During the period of January to February, 1988, Noranda Exploration Company, Limited (no personal liability) completed five (5) diamond drill holes on the Cline Lake project to the west of the lake zone. These holes were completed under Cline Lake with three holes collared on the ice.

The program was designed to locate the westward extension of the lake zone porphyry and to test the theory of an auriferous shear zone along the shore or under the water of Cline Lake.

The drilling successfully located the porphyry which contained numerous auriferous intercepts similar to those located further east on the lake zone. The most western hole, CL-88-59 intersected an unexpectedly wide porphyry unit which extended from 171.1 to 1467 feet down hole.

Another interesting development was the locating of a zone of sulfide/quartz veining and magnetite disseminations within the hangingwall basalt unit. This zone contains intercepts of up to 0.169 opt/15 feet and 0.900 opt/1.5 ft. This zone could be the auriferous shear zone which extends northeastwards from Goudreau Lake (Canamax, Magino). Further drilling will be necessary to test its potential.

INTRODUCTION

Beginning in early January of 1988 Noranda Exploration Company, Limited (no personal liability) undertook a drilling program on the Cline Lake Property, which was designed to extend the limits of an auriferous porphyry unit to the west, under Cline Lake. This required that the ice on the entire lake be built up to 36+ inches in order to accommodate changes in hole locations. A local contractor, Two Clement from Lochalsh, was contacted to complete the ice making.

A total of five (5) holes were completed for a total of 4438.6 feet (1353m). This brings the property total to 29,421 feet (8,968 m) since Norex assumed operatorship.

LOCATION AND ACCESS

The Cline Lake property is located in Jacobson township in the Sault Ste. Marie Mining Division, approximately 50 kilometers northeast of Wawa, and 15 kilometers east southeast of the town of Dubreuilville. Access is provided to the property from Wawa via Highway 17 (north 40 kilometers), Highway 519 (east 30km) to Dubreuilville and by an all weather logging road from Dubreuilville (20 kilometers east-northeast).

Property access is by the old mine road and a powerline, owned by Great Lakes Power, which bisects the property.

DIAMOND DRILLING

A total of 4438.6 feet of drilling was completed in five (5) holes between January 11, 1988 and February 23, 1988. The reader is referred to Appendix I for summary logs of each hole which provide intersected lithologies, collar locations and a complete list of assay results. For a complete description of lithologies refer to diamond drill logs located in pockets with drill sections.

These holes successfully located and delineated the porphyry unit to line 1965E or an additional 600 feet west of the previous drilling. The porphyry contained numerous auriferous sections similar to those previously realized on the lake zone to the east.

CL-88-56

Location: 2375E/865N
Dip: -50° Az.: 180°

CL-88-56 was drilled from the north shore of Cline Lake. The rock units intersected were as previously located on the lake zone with the addition of a sulfide/quartz-veined zone in the hanging wall basalt, similar to a zone located to the east in hole 41. This unit contained numerous intercepts with values to 0.812 opt/1.5 (268.0-269.5), which is 15 ft. below an intercept of 0.404 opt/3.0 and followed by a section of 0.038/11.5 ft.

The porphyry contained numerous anomalous intercepts with the highest value being 0.044 opt/2.9 ft. The footwall basaltic unit is highly altered for 156 ft. beyond the contact with the porphyry but unfortunately did not carry values greater than 0.058 opt/2.0 feet.

CL-88-57

Location: 2171E/862N
Dip: -50° Az.: 180°

CL-57 which was also collared on the north shore of Cline Lake, had to be abandoned due to excessive shallowing, with only 50 feet of porphyry being tested. The hole intersected a similar hangingwall sequence of rock units to CL-56 except that the sulfide/quartz-veined zone became more easily divided into basalt and sulfide iron formation. These units do not carry equivalent gold values to those located by CL-56. Intercepts located ranged to 0.066 opt/1.5 ft. but were generally less than 0.030 opt. The porphyry intercepts were low.

CL-88-58

Location: 2171E/600N
Dip: -49° Az.: 180°

CL-58 was collared south of CL-57, designed to test the porphyry and footwall basalts. The porphyry intersected contained numerous intercepts ranging from 0.030-0.055 opt with one intercept of 0.208 opt/2.8 ft. (274.2-277.0 ft.). The footwall basalts, displaying similar alteration to CL-56, contained an interesting intercept of 0.051 opt/21.0 ft. including 3.0 ft. of 0.156 opt.

CL-88-59

Location: 1965E/750N
 Dip: -53° Az.: 180°

CL-59 was drilled from the ice on Cline Lake with a projected depth of 800 feet. The units intersected above the porphyry were again similar to those in CL-56,57 with only anomalous intercepts of gold. The porphyry unit, which has generally been less than 300 feet in width, was much thicker, extending from 320.5 feet to 1469.0 feet down hole (1148.5 ft.). The unit was cut by numerous diabase dykes ranging in thickness from 2 to 50 feet. As is usual with this unit numerous narrow "high grade" intercepts were encountered along with sections of marginal grade over much wider zones. The following table summarizes the more significant sections.

<u>Depth</u>		<u>Width</u>	<u>Assay opt.</u>
<u>From</u>	<u>To</u>	(feet)	
469.0	487.0	18	0.034
629.4	635.0	5.6	0.075
692.0	695.0	3.0	0.126
786.7	795.0	8.3	0.054
888.0	903.0	15.0	0.051
1109.5	1111.0	1.5	0.202
1215.0	1224.0	9.0	0.040
1269.0	1287.0	18.0	0.104*
*including		3.0	0.416
1332.0	1350.0	18.0	0.041
1424.0	1429.0	5.2	0.035

The intercept of 0.416 opt was rechecked by the original laboratory and another with the value dropping to 0.243 opt average. This would indicate a free gold, nugget effect. This hole was drilled below the east end of the 3 shaft area.

CL-88-60

CL-88-60 was drilled under CL-87-31 which contained an intercept in the porphyry of 0.16 opt/18 feet. CL-88-60 collared in mafic volcanics with sulfide/quartz veining as in CL-56. This unit contained many intercepts of 3 feet or less ranging to 0.214 opt. The most significant intercept in the hangingwall sulfide/quartz zone was 0.169 opt/15 feet containing three intercepts of 0.114, 0.504, 0.116 across three foot intervals.

This zone was followed by an intercept of 0.214/1.5 feet, nine feet further down the hole. A second zone occurred fifty feet further down the hole which included three feet of 0.900 opt. The average for the zone was 0.486 opt/6 feet or 0.374 opt/9 feet.

The porphyry unit contained numerous intercepts as is normally the case with the best intercept being 0.066 opt/27 feet which is interpreted as being the equivalent zone to that in 87-31 (0.16 opt/18 feet). Although the grade was reduced the width increased by 9 feet. This zone unfortunately is carried by two intercepts of 0.190 opt and 0.228 opt across 3 feet each.

DISCUSSION

The purpose for the drilling completed in 1988 was successfully fulfilled in that the westward extension of the lake zone porphyry was located and the proposed regional shear zone has possibly been located.

The porphyry, which is generally <300 feet wide, continued at this width until it reached the area of CL-88-59. Here the unit thickened to a down hole width of 1148 feet before the hole was stopped in the porphyry. CL-88-59 was drilled in the area of the number 3 shaft and under the west end of the fourth level of the number 4 shaft. The porphyry unit becomes increasingly mafic in hole 59 and by description maybe equivalent to the granodiorite unit found in the number 4 shaft workings. The thickening therefore could be the result of the intersection of the granodiorite associated with the "A" vein (which contained the bulk of the gold mined) and the east-west trending lake zone porphyry.

The four shaft 4 level was driven much further than any other level and it would appear to have been driven along the trace of the "A" vein. Lateral development was minimal, mainly restricted to the most western end of the drift. This development was east-west trending, and vertically above the trace of hole CL-59. The fact that it was east-west trending indicates that it was on a different vein system than the "A" vein (300°).

The drilling also located a sheared quartz/sulfide vein system in the hangingwall basalts. This zone contains numerous auriferous intercepts which range in value to 0.169 opt/15 feet (hole CL-88-60). This vein system can be traced from CL-59 to CL-60 (800 ft.), but is more auriferous to the east (60). When the vein system is connected from hole to hole the strike is 070° . This zone is possibly located in a regional shear zone which contains the Canamax discovery on Goudreau Lake and the Magino deposit. Further exploration of this zone will be completed in the next phase of drilling. The proposed program for 1988 can be found in Appendix II.

CONCLUSIONS

Although the five holes drilled in 1988 appear to give similar results to previous drilling the following conclusions can be drawn.

- 1) The porphyry unit widens significantly to the west.
- 2) The porphyry unit remains auriferous with numerous intercepts to "ore grade".
- 3) The hangingwall sulphide/quartz zone intersecting over 800' of strike appears to strengthen to the east with a possible easterly plunge (ie. shallower holes have not obtained significant values).

4) The zone located in the hangingwall may be the 070° auriferous shear zone which extends from Goudreau Lake (Canamax/Magino).

RECOMMENDATIONS

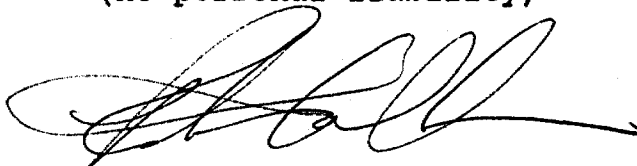
Based on the above conclusions the following recommendations are made:

1) One hole at 2960E/1050N should be drilled to test hangingwall and porphyry (recommended in December 1988 report).

2) One hole should be drilled at 3220E/1130N to cut possible auriferous zone at depth, hole should be at 055° dip. A hole previously recommended at 3220E/1050N should be moved to 950N to test porphyry at depth.

3) Further recommendation previously made in the December 1987 report remain as written.

Respectfully submitted
NORANDA EXPLORATION COMPANY, LIMITED
(no personal liability)



R.F. Calhoun
Senior Project Geologist

APPENDIX I

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 56
INSTRUMENT: TROPARI

DATE: 16/01/88
SURVEY BY: R.C.

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DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	2375.000	865.000	1000.000
164.00	-44.00	179.00	2375.976	753.157	880.058
328.00	-42.00	185.00	2371.790	633.288	768.210
462.00	-40.00	186.00	2362.097	532.622	680.298
521.00	-39.00	184.00	2358.129	487.269	642.770
643.00	-37.00	175.00	2358.968	391.136	567.659
837.00	-36.00	182.00	2363.051	235.241	452.263

SUMMARY LITHO LOG

PROPERTY: CL

HOLE : 56

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
ob	16.40	2375.10	853.82	988.01	90
1B	23.50	2375.14	848.97	988.81	50
2D/SIFs	27.00	2375.16	846.59	980.25	50
1B	66.50	2375.40	819.65	951.36	53
70P.ser	76.20	2375.45	813.03	944.37	50
1B	100.60	2375.60	796.39	928.43	62
70P.sil	134.60	2375.80	773.21	901.56	55
1B	231.70	2374.25	703.67	833.89	30
70P	253.00	2373.70	688.11	819.36	90
1B/SIFos	374.00	2368.46	598.73	738.03	45
70P.ser,sil	542.00	2358.27	470.72	629.84	50
8d	567.10	2358.45	450.94	614.39	45
70P	621.00	2358.82	408.47	581.20	50
1B,carb,sil	779.00	2361.83	281.85	486.76	70
1B	836.60	2363.04	235.56	452.50	70

ASSAY LOG

PROPERTY: CL

HOLE : 56

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FROM	TO	WIDTH	Au cdt	Au pbb
20.50	23.50	3.00	0.009	308.000
23.50	25.20	1.70	0.005	171.000
25.20	27.00	1.80	0.007	240.000
27.00	29.30	2.30	0.003	102.000
29.30	32.30	3.00	0.000	0.000
32.30	36.50	4.20	0.000	0.000
36.50	38.00	1.50	0.003	102.000
38.00	39.50	1.50	0.000	0.000
39.50	41.00	1.50	0.005	171.000
41.00	42.50	1.50	0.006	205.000
42.50	44.00	1.50	0.095	3250.000
44.00	45.50	1.50	0.370	12685.000
45.50	46.20	0.70	0.037	1268.000
46.20	49.20	3.00	0.010	341.000
49.20	50.00	1.50	0.009	308.000
50.00	100.60	2.60	0.017	582.000
100.60	102.00	1.40	0.005	171.000
102.00	104.00	2.00	0.003	102.000
104.00	106.00	2.00	0.000	0.000
106.00	108.00	2.00	0.004	137.000
108.00	110.00	2.00	0.007	240.000
110.00	111.90	1.90	0.000	0.000
111.90	114.00	2.10	0.016	548.000
114.00	114.90	0.90	0.014	480.000
114.90	118.30	3.40	0.000	0.000
118.30	119.20	0.90	0.010	342.000
119.20	120.90	1.70	0.014	480.000
120.90	124.00	3.10	0.000	0.000
124.00	127.00	3.00	0.026	891.000
127.00	130.00	3.00	0.009	308.000
130.00	132.50	2.50	0.000	0.000
132.50	134.60	2.10	0.000	0.000
134.60	137.00	2.40	0.000	0.000
137.00	160.00	23.00	0.000	0.000
160.00	169.00	9.00	0.054	1851.000
169.00	197.00	28.00	0.000	0.000
197.00	200.00	3.00	0.006	206.000
200.00	203.00	3.00	0.006	206.000
203.00	209.00	6.00	0.011	377.000
209.00	222.00	13.00	0.006	206.000
222.00	223.50	1.50	0.018	617.000
223.50	225.00	1.50	0.010	343.000
225.00	228.50	3.50	0.045	1542.000
228.50	231.70	3.20	0.035	1200.000
231.70	234.00	2.30	0.012	411.000
234.00	237.00	3.00	0.009	308.000
237.00	240.00	3.00	0.015	514.000
240.00	243.00	3.00	0.013	445.000
243.00	246.00	3.00	0.009	308.000
246.00	249.00	3.00	0.000	0.000

ASSAY LOG
PROPERTY : CL
HOLE NO. : 56

FROM	TO	WIDTH	Au opt	Au dob
249.00	251.00	2.00	0.011	377.000
251.00	253.00	2.00	0.014	480.000
253.00	256.00	3.00	0.404	13851.000
256.00	259.00	3.00	0.008	274.000
259.00	261.00	2.00	0.000	0.000
261.00	262.50	1.50	0.009	308.000
262.50	265.50	3.00	0.006	206.000
265.50	268.00	2.50	0.020	686.000
268.00	269.50	1.50	0.812	27840.000
269.50	273.00	3.50	0.000	0.000
273.00	275.50	2.50	0.032	1097.000
275.50	278.00	2.50	0.038	1303.000
278.00	280.00	2.00	0.032	1097.000
280.00	281.50	1.50	0.074	2537.000
281.50	284.50	3.00	0.030	1029.000
284.50	287.50	3.00	0.016	549.000
287.50	290.50	3.00	0.022	754.000
290.50	293.00	2.50	0.024	823.000
293.00	295.00	2.00	0.026	891.000
295.00	298.00	3.00	0.035	1200.000
298.00	301.00	3.00	0.019	651.000
301.00	304.00	3.00	0.028	960.000
304.00	307.00	3.00	0.029	994.000
307.00	310.00	3.00	0.022	754.000
310.00	313.00	3.00	0.021	720.000
313.00	316.00	3.00	0.016	548.000
316.00	319.00	3.00	0.019	651.000
376.00	379.00	3.00	0.013	445.000
379.00	382.00	3.00	0.018	617.000
382.00	385.00	3.00	0.017	582.000
385.00	388.00	3.00	0.027	925.000
388.00	391.00	3.00	0.023	788.000
391.00	394.00	3.00	0.022	754.000
394.00	397.00	3.00	0.018	617.000
397.00	400.00	3.00	0.012	411.000
400.00	403.00	3.00	0.010	342.000
403.00	406.00	3.00	0.000	0.000
406.00	409.00	3.00	0.006	205.000
409.00	412.00	3.00	0.000	0.000
412.00	415.00	3.00	0.000	0.000
415.00	418.00	3.00	0.009	308.000
418.00	421.00	3.00	0.000	0.000
421.00	424.00	3.00	0.011	377.000
424.00	427.00	3.00	0.004	137.000
427.00	430.00	3.00	0.000	0.000
430.00	433.00	3.00	0.006	205.000
433.00	436.00	3.00	0.012	411.000
436.00	439.00	3.00	0.010	342.000
439.00	442.00	3.00	0.008	224.000
442.00	445.00	3.00	0.008	274.000

ASSAY LOG

PROPERTY: CL

HOLE : 56

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FROM	TO	WIDTH	Au opt	Au pbb
445.00	448.00	3.00	0.000	0.000
448.00	451.00	3.00	0.006	206.000
451.00	454.00	3.00	0.014	480.000
454.00	457.00	3.00	0.014	480.000
457.00	459.00	2.00	0.016	549.000
459.00	461.00	2.00	0.006	206.000
461.00	463.00	2.00	0.008	274.000
463.00	466.00	3.00	0.000	0.000
466.00	469.00	3.00	0.006	206.000
469.00	472.00	3.00	0.018	617.000
472.00	475.00	3.00	0.000	0.000
475.00	478.00	3.00	0.000	0.000
478.00	481.00	3.00	0.000	0.000
481.00	484.00	3.00	0.000	0.000
484.00	487.00	3.00	0.000	0.000
487.00	490.00	3.00	0.008	274.000
490.00	493.00	3.00	0.000	0.000
493.00	496.00	3.00	0.010	343.000
496.00	499.00	3.00	0.016	549.000
499.00	502.00	3.00	0.024	825.000
502.00	505.00	3.00	0.000	0.000
505.00	508.00	3.00	0.010	343.000
508.00	511.00	3.00	0.024	823.000
511.00	514.00	3.00	0.008	274.000
514.00	517.00	3.00	0.012	411.000
517.00	520.00	3.00	0.006	206.000
520.00	523.00	3.00	0.000	0.000
523.00	526.00	3.00	0.016	549.000
526.00	529.00	3.00	0.000	0.000
529.00	532.00	3.00	0.000	0.000
532.00	535.00	3.00	0.000	0.000
535.00	538.00	3.00	0.000	0.000
538.00	540.00	2.00	0.010	343.000
540.00	542.00	2.00	0.012	411.000
567.10	570.00	2.90	0.000	0.000
570.00	573.00	3.00	0.000	0.000
573.00	576.00	3.00	0.000	0.000
576.00	579.00	3.00	0.006	206.000
579.00	582.00	3.00	0.026	891.000
582.00	585.00	3.00	0.014	480.000
585.00	588.00	3.00	0.016	549.000
588.00	591.00	3.00	0.018	617.000
591.00	594.00	3.00	0.016	549.000
594.00	597.00	3.00	0.012	411.000
597.00	600.00	3.00	0.014	480.000
600.00	603.00	3.00	0.000	0.000
603.00	605.50	2.50	0.016	549.000
605.50	608.40	2.90	0.044	1509.000
608.40	609.90	1.50	0.012	411.000
609.90	612.50	2.60	0.000	0.000

ASSAY LOG

PROPERTY: CL

HOLE NO.: 56

FROM	TO	WIDTH	Au opt	Au pbb
612.50	615.00	2.50	0.000	0.000
615.00	618.00	3.00	0.006	206.000
618.00	621.00	3.00	0.016	549.000
621.00	624.00	3.00	0.000	0.000
623.00	635.70	2.70	0.012	411.000
635.70	638.00	2.30	0.000	0.000
638.00	641.00	3.00	0.020	686.000
641.00	643.00	2.00	0.050	1714.000
643.00	644.50	1.50	0.016	549.000
644.50	646.00	1.50	0.000	0.000
646.00	647.80	1.80	0.000	0.000
647.80	650.70	2.90	0.006	206.000
650.70	651.70	1.00	0.000	0.000
651.70	653.00	1.30	0.036	1234.000
653.00	655.00	2.00	0.010	343.000
655.00	658.00	3.00	0.026	0.891
658.00	661.00	3.00	0.050	1714.000
661.00	664.00	3.00	0.010	343.000
664.00	667.00	3.00	0.008	274.000
667.00	670.00	3.00	0.006	206.000
670.00	673.00	3.00	0.018	617.000
673.00	676.00	3.00	0.014	480.000
676.00	679.40	3.40	0.012	411.000
679.40	682.10	2.70	0.008	274.000
682.00	685.00	3.00	0.020	686.000
685.00	688.00	3.00	0.024	823.000
688.00	691.00	3.00	0.026	891.000
691.00	693.40	2.40	0.030	1028.000
693.40	696.40	3.00	0.000	0.000
696.40	698.80	2.40	0.014	480.000
698.80	702.00	3.20	0.018	617.000
702.00	705.00	3.00	0.008	274.000
705.00	708.00	3.00	0.000	0.000
708.00	711.00	3.00	0.000	0.000
711.00	714.00	3.00	0.000	0.000
714.00	717.00	3.00	0.000	0.000
717.00	720.00	3.00	0.000	0.000
720.00	723.00	3.00	0.000	0.000
723.00	724.50	1.50	0.000	0.000
724.50	726.10	1.60	0.012	411.000
726.10	729.00	2.90	0.014	480.000
729.00	732.00	3.00	0.000	0.000
732.00	735.00	3.00	0.000	0.000
735.00	738.00	3.00	0.000	0.000
738.00	740.80	2.80	0.010	343.000
740.80	742.80	2.00	0.010	343.000
742.80	744.70	1.90	0.016	549.000
744.70	747.00	2.30	0.014	480.000
747.00	750.00	3.00	0.006	206.000
750.00	753.00	3.00	0.000	0.000

ASSAY LOG

PROPERTY: CL

HOLE : 56

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FROM	TO	WIDTH	Au opt	Au ppb
753.00	756.00	3.00	0.000	0.000
756.00	759.00	3.00	0.010	343.000
759.00	762.00	3.00	0.000	0.000
762.00	765.00	3.00	0.012	411.000
765.00	768.00	3.00	0.000	0.000
768.00	771.00	3.00	0.020	686.000

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 57
INSTRUMENT: TROPARI

DATE: 01/22/87
SURVEY BY: R.C.

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DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-50.00	180.00	2171.000	862.000	1000.000
69.00	-46.00	180.00	2171.000	815.830	948.723
167.00	-45.00	178.00	2172.199	747.151	878.824
325.00	-38.00	176.00	2178.392	628.979	774.130
423.00	-38.00	180.00	2181.087	551.801	713.796
482.30	-38.00	180.00	2181.087	505.071	677.287

SUMMARY LITHO LOG

PROPERTY: CL

HOLE : 57

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OB	52.50	2171.00	826.87	960.98	90
7QP, sil, ser	65.90	2171.00	817.90	951.03	55
1B, carb	75.90	2171.08	810.99	943.80	60
7QP, sil, ser	86.70	2171.22	803.43	936.10	50
1B, carb	137.80	2171.84	767.61	899.65	40
SIFs	180.80	2172.74	736.83	869.68	60
1B, sil, carb	434.20	2181.09	542.97	706.90	50
7QP	482.30	2181.09	505.07	677.29	60

ASSAY LOG
 PROPE: CL
 HOLE No.: 57

FROM	TO	WIDTH	Au oz/t	Au ppb
52.50	55.50	3.00	0.006	206.000
55.50	58.50	3.00	0.000	0.000
58.50	61.50	3.00	0.006	206.000
61.50	63.00	1.50	0.010	343.000
63.00	65.90	2.90	0.018	617.000
65.90	69.00	3.10	0.068	2331.000
73.00	75.90	2.90	0.026	891.000
75.90	79.00	3.10	0.038	1303.000
79.00	82.00	3.00	0.020	686.000
82.00	85.00	3.00	0.024	823.000
85.00	86.70	1.70	0.042	1440.000
86.70	89.70	3.00	0.024	823.000
98.40	101.40	3.00	0.000	0.000
106.50	109.50	3.00	0.026	891.000
118.50	121.50	3.00	0.030	1029.000
121.50	124.50	3.00	0.000	0.000
124.50	127.20	2.70	0.000	0.000
127.20	128.90	1.70	0.000	0.000
128.90	130.60	1.70	0.000	0.000
130.60	133.60	3.00	0.000	0.000
133.60	136.60	3.00	0.008	274.000
136.60	139.50	2.90	0.000	0.000
139.50	141.90	2.40	0.000	0.000
141.90	143.90	2.00	0.032	1097.000
143.90	147.00	3.10	0.006	206.000
147.00	150.00	3.00	0.000	0.000
150.00	153.00	3.00	0.006	206.000
153.00	156.00	3.00	0.000	0.000
156.00	159.00	3.00	0.000	0.000
159.00	162.00	3.00	0.000	0.000
162.00	165.00	3.00	0.006	206.000
165.00	168.00	3.00	0.008	264.000
168.00	172.00	4.00	0.014	480.000
172.00	175.00	3.00	0.000	0.000
175.00	178.00	3.00	0.006	206.000
178.00	180.20	2.20	0.000	0.000
180.20	183.00	2.80	0.014	480.000
183.00	186.00	3.00	0.006	206.000
206.00	209.00	3.00	0.022	754.000
209.00	212.00	3.00	0.000	0.000
212.00	215.00	3.00	0.018	617.000
215.00	218.00	3.00	0.000	0.000
218.00	221.00	3.00	0.014	480.000
221.00	224.00	3.00	0.010	343.000
229.00	232.00	3.00	0.008	274.000
237.50	239.00	1.50	0.006	206.000
239.00	241.00	2.00	0.024	823.000
241.00	243.50	2.50	0.010	343.000
243.50	246.50	3.00	0.014	480.000
246.50	248.00	1.50	0.086	2949.000

ASSAY LOG
 PROPERTY: CL
 HOLE NO.: 57

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FROM	TO	WIDTH	Au oz/t	Au ppb
271.50	273.00	1.50	0.008	274.000
273.00	274.50	1.50	0.036	1274.000
274.50	276.00	1.50	0.000	0.000
276.00	277.50	1.50	0.018	617.000
295.00	296.60	1.60	0.006	206.000
296.60	299.60	3.00	0.024	823.000
299.60	302.60	3.00	0.022	754.000
312.00	314.00	2.00	0.020	686.000
314.00	316.50	2.50	0.024	823.000
316.50	319.00	2.50	0.008	274.000
319.00	321.60	2.60	0.006	206.000
321.60	324.00	2.40	0.050	1714.000
324.00	326.00	2.00	0.038	1303.000
326.00	328.40	2.40	0.026	891.000
328.40	331.40	3.00	0.010	343.000
349.50	352.50	3.00	0.000	0.000
352.50	355.50	3.00	0.030	1029.000
355.50	357.50	2.00	0.006	206.000
357.50	359.50	2.00	0.008	274.000
359.50	362.20	2.70	0.000	0.000
362.20	365.10	2.90	0.010	343.000
365.10	368.00	2.90	0.006	206.000
368.00	371.00	3.00	0.018	617.000
371.00	374.00	3.00	0.016	549.000
374.00	377.70	3.70	0.024	823.000
377.70	380.00	2.30	0.014	480.000
380.00	383.00	3.00	0.010	343.000
383.00	386.00	3.00	0.020	686.000
386.00	387.60	1.60	0.088	3017.000
387.60	389.80	2.20	0.026	891.000
389.80	393.00	3.20	0.028	960.000
399.50	401.00	1.50	0.016	549.000
401.00	404.00	3.00	0.036	1204.000
411.00	414.00	3.00	0.032	1097.000
418.00	419.50	1.50	0.018	617.000
419.50	422.00	2.50	0.058	1989.000
422.00	423.50	1.50	0.020	686.000
428.00	431.00	3.00	0.018	617.000
431.00	432.50	1.50	0.022	754.000
432.50	434.20	1.70	0.024	823.000
434.20	437.00	2.80	0.022	754.000
437.00	440.00	3.00	0.014	480.000
440.00	443.00	3.00	0.008	274.000
443.00	446.00	3.00	0.000	0.000
446.00	449.00	3.00	0.018	617.000
449.00	449.60	0.60	0.056	1920.000
449.60	452.00	2.40	0.000	0.000
452.00	455.00	3.00	0.022	754.000
455.00	458.00	3.00	0.024	823.000
458.00	461.00	3.00	0.012	411.000

ASSAY LOG

PROPERTY: CL

HOLE NO.: 57

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FROM	TO	WIDTH	Au oz/t	Au ppb
461.00	464.00	3.00	0.020	686.000
464.00	467.00	3.00	0.018	617.000
467.00	470.00	3.00	0.028	960.000
470.00	473.00	3.00	0.000	0.000
473.00	476.00	3.00	0.000	0.000
476.00	479.00	3.00	0.014	480.000
479.00	482.30	3.30	0.024	823.000

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 58
INSTRUMENT: TROPARI

DATE: 01/29/87
SURVEY BY: R.C.

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DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-49.00	180.00	2171.000	600.000	1000.000
213.00	-48.00	183.00	2167.305	458.910	840.472
394.00	-44.00	180.00	2164.014	333.220	710.272
423.20	-44.00	180.00	2164.014	312.215	689.988

SUMMARY LITHO LOG

PROPERTY: CL

HOLE NO.: 58

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LITHO UNIT      DEPTH      EASTINGS    NORTHINGS   ELEVATION    CORE ANGLE
OB              78.70      2169.63     547.87      941.06       90
7QP, ser, sil   213.00     2167.31     458.91      840.47       40
8D              245.50     2166.71     436.34      817.09       55
7QP, ser, sil   274.20     2166.19     416.41      796.45       35
1B, sil, carb   423.20     2164.01     312.22      689.99       40
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ASSAY LOG

PROPERTY: CL

HOLE NO.: 58

FROM	TO	WIDTH	Au oz/t	Au pob
78.70	81.00	2.30	0.020	686.000
81.00	84.00	3.00	0.014	480.000
84.00	87.00	3.00	0.010	343.000
87.00	90.00	3.00	0.000	0.000
90.00	93.00	3.00	0.010	343.000
93.00	96.00	3.00	0.016	549.000
96.00	99.00	3.00	0.006	206.000
99.00	102.00	3.00	0.000	0.000
102.00	105.00	3.00	0.012	411.000
105.00	108.00	3.00	0.018	617.000
108.00	111.00	3.00	0.010	343.000
111.00	114.00	3.00	0.000	0.000
114.00	117.00	3.00	0.022	754.000
117.00	120.00	3.00	0.026	891.000
120.00	123.00	3.00	0.000	0.000
123.00	126.00	3.00	0.020	686.000
126.00	129.00	3.00	0.018	617.000
129.00	132.00	3.00	0.022	754.000
132.00	135.00	3.00	0.026	891.000
135.00	138.00	3.00	0.024	823.000
138.00	141.00	3.00	0.030	1024.000
141.00	144.00	3.00	0.024	823.000
144.00	147.00	3.00	0.028	960.000
147.00	150.00	3.00	0.010	343.000
150.00	153.00	3.00	0.034	1166.000
153.00	156.00	3.00	0.052	1783.000
156.00	159.00	3.00	0.043	1474.000
159.00	162.00	3.00	0.008	274.000
162.00	165.00	3.00	0.030	1024.000
165.00	168.00	3.00	0.034	1166.000
168.00	171.00	3.00	0.026	891.000
171.00	174.00	3.00	0.000	0.000
174.00	177.00	3.00	0.032	1097.000
177.00	180.00	3.00	0.036	1234.000
180.00	183.00	3.00	0.028	960.000
183.00	186.00	3.00	0.032	1097.000
186.00	189.00	3.00	0.036	1234.000
189.00	192.00	3.00	0.040	1371.000
192.00	195.00	3.00	0.032	1097.000
195.00	198.00	3.00	0.030	1029.000
198.00	201.00	3.00	0.026	891.000
201.00	204.00	3.00	0.000	0.000
204.00	207.00	3.00	0.032	1097.000
207.00	210.00	3.00	0.026	891.000
210.00	213.00	3.00	0.024	823.000
243.50	245.50	2.00	0.016	549.000
245.50	247.00	1.50	0.028	960.000
247.00	250.00	3.00	0.024	823.000
250.00	253.00	3.00	0.010	343.000
253.00	256.00	3.00	0.018	617.000

ASSAY LOG

PROPERTY: CL

HOLE NO.: 58

FROM	TO	WIDTH	Au oz/t	Au ppb
256.00	259.00	3.00	0.014	480.000
259.00	262.00	3.00	0.008	274.000
262.00	265.00	3.00	0.006	206.000
265.00	268.00	3.00	0.006	206.000
268.00	271.00	3.00	0.028	891.000
271.00	274.20	3.20	0.016	549.000
274.20	277.00	2.80	0.208	7131.000
277.00	280.00	3.00	0.018	617.000
280.00	283.00	3.00	0.020	686.000
283.00	286.00	3.00	0.016	549.000
286.00	289.00	3.00	0.006	206.000
289.00	292.00	3.00	0.014	480.000
292.00	295.00	3.00	0.022	754.000
295.00	298.00	3.00	0.020	686.000
298.00	301.00	3.00	0.040	1371.000
301.00	304.00	3.00	0.030	1029.000
304.00	307.00	3.00	0.084	2880.000
307.00	310.00	3.00	0.028	960.000
310.00	313.00	3.00	0.022	754.000
313.00	316.00	3.00	0.024	823.000
316.00	319.00	3.00	0.156	5349.000
319.00	322.00	3.00	0.020	686.000
322.00	325.00	3.00	0.008	274.000
325.00	328.00	3.00	0.014	480.000
328.00	331.00	3.00	0.022	754.000
331.00	334.00	3.00	0.006	206.000
334.00	337.00	3.00	0.020	686.000

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL
HOLE NO: 59
INSTRUMENT: TROPARI

DATE: 02/04/88
SURVEY BY: R.C.

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DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-53.00	180.00	1965.000	750.000	1000.000
0.00	-36.00	187.00	1965.000	750.000	1000.000
98.00	-47.00	183.00	1958.603	676.882	935.063
253.00	-50.00	186.50	1950.098	574.528	818.975
590.00	-43.00	188.50	1919.819	344.537	574.524
710.00	-42.00	186.50	1907.501	250.973	488.048
846.00	-40.00	186.00	1896.984	154.945	404.073
1023.00	-41.00	188.00	1880.582	21.356	289.121
1131.00	-38.00	180.00	1874.769	-61.777	220.424
1294.00	-36.00	188.00	1865.688	-191.637	122.328
1407.00	-36.00	187.00	1853.755	-282.274	55.908
1476.40	-36.00	187.00	1846.913	-338.001	15.116

SUMMARY LITHO LOG
 PROPERTY: CL
 HOLE NO.: 59

LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
OVB	59.00	1961.15	705.98	960.91	90
4/SIF	129.40	1956.88	656.15	911.55	50
1B	171.10	1954.59	628.61	880.31	55
7F, 1B, SIF	196.00	1953.23	612.17	861.67	55
1B	320.50	1944.03	528.46	770.01	60
7QP	327.30	1943.42	523.82	765.08	45
7QP, sh	335.00	1942.73	518.57	759.49	60
7QP	349.00	1941.47	509.01	749.34	70
7QP, sh	358.00	1940.66	502.87	742.81	45
7QP	464.00	1931.14	430.53	665.92	90
8D	466.00	1930.96	429.16	664.47	55
7QP	616.00	1917.32	325.53	556.96	45
8D	629.40	1916.03	315.74	547.91	45
7QP	774.80	1902.83	208.36	450.78	50
7F	786.70	1901.86	199.43	442.98	45
7QP	1024.40	1880.51	20.28	288.23	50
8D	1062.90	1878.43	-9.36	263.74	40
7QP, sh, ser	1073.50	1877.86	-17.52	257.00	60
8D	1083.20	1877.34	-24.98	250.83	40
7QP	1166.00	1872.82	-89.66	199.36	45
1B	1194.40	1871.24	-112.29	182.27	45
7QP	1469.00	1847.64	-332.06	19.47	45
6D	1476.40	1846.91	-338.00	15.12	45

ASSAY LOG
PROPERTY: CL
HOLE No.: 59

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FROM	TO	WIDTH	AU oz/T	pbb
59.00	62.00	3.00	0.010	343.000
62.00	65.20	3.20	0.000	0.000
65.20	66.80	1.60	0.000	0.000
66.80	71.50	4.70	0.000	0.000
71.50	75.80	4.30	0.006	206.000
75.80	77.50	1.70	0.000	0.000
77.50	79.40	1.90	0.020	686.000
79.40	82.20	2.80	0.024	823.000
82.20	84.00	1.80	0.000	0.000
84.00	85.20	1.20	0.000	0.000
85.20	87.70	2.50	0.000	0.000
87.70	89.10	1.40	0.000	0.000
89.10	92.40	3.30	0.012	411.000
92.40	96.00	3.60	0.014	480.000
96.00	99.00	3.00	0.001	343.000
99.00	102.00	3.00	0.012	411.000
102.00	105.00	3.00	0.000	0.000
105.00	108.10	3.10	0.012	411.000
108.10	111.00	2.90	0.006	206.000
111.00	114.00	3.00	0.000	0.000
114.00	117.00	3.00	0.000	0.000
117.00	120.00	3.00	0.008	274.000
120.00	123.00	3.00	0.000	0.000
123.00	126.20	3.20	0.000	0.000
126.20	129.40	3.20	0.014	480.000
129.40	132.00	2.60	0.012	411.000
132.00	135.00	3.00	0.016	549.000
135.00	138.00	3.00	0.026	891.000
138.00	141.00	3.00	0.000	0.000
169.80	173.00	3.20	0.024	823.000
173.00	176.00	3.00	0.024	823.000
176.00	179.70	3.70	0.020	686.000
179.70	182.00	2.30	0.018	617.000
182.00	185.00	3.00	0.000	0.000
185.00	188.00	3.00	0.024	0.024
194.00	196.20	2.20	0.024	823.000
196.20	199.00	2.80	0.000	0.000
223.60	226.60	3.00	0.000	0.000
233.70	236.20	2.50	0.028	960.000
242.60	245.60	3.00	0.000	0.000
252.80	256.30	3.50	0.012	411.000
261.90	265.10	3.20	0.006	206.000
265.80	268.00	2.20	0.006	206.000
280.90	284.00	3.10	0.000	0.000
284.00	286.10	2.10	0.016	549.000
286.10	289.10	3.00	0.000	0.000
305.80	308.80	3.00	0.018	617.000
312.10	314.10	2.00	0.008	274.000
314.10	316.20	2.10	0.018	617.000
316.20	318.40	2.20	0.022	754.000

ASSAY 006
PROPERTY: CL
HOLE No.: 59

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FROM	TO	WIDTH	AU oz/T	ppb
318.40	320.50	2.10	0.016	549.000
320.50	323.20	2.70	0.014	480.000
323.20	326.20	3.00	0.016	549.000
326.20	327.30	1.10	0.014	480.000
327.30	330.00	2.70	0.030	1029.000
330.00	333.00	3.00	0.000	0.000
333.00	335.00	2.00	0.012	411.000
335.00	338.00	3.00	0.012	411.000
338.00	341.00	3.00	0.016	549.000
341.00	344.00	3.00	0.018	617.000
344.00	347.00	3.00	0.014	480.000
347.00	349.00	2.00	0.018	617.000
349.00	352.00	3.00	0.010	343.000
352.00	355.00	3.00	0.014	480.000
355.00	358.00	3.00	0.022	754.000
358.00	361.00	3.00	0.006	206.000
361.00	364.00	3.00	0.000	0.000
364.00	367.00	3.00	0.012	411.000
367.00	370.00	3.00	0.016	549.000
370.00	373.00	3.00	0.022	754.000
373.00	376.00	3.00	0.012	411.000
376.00	377.70	1.70	0.014	480.000
377.70	379.00	1.30	0.020	686.000
379.00	382.00	3.00	0.018	617.000
382.00	385.00	3.00	0.016	549.000
385.00	388.20	3.20	0.018	617.000
388.00	391.00	3.00	0.016	549.000
391.00	394.00	3.00	0.006	206.000
394.00	397.00	3.00	0.016	549.000
397.00	400.00	3.00	0.018	617.000
400.00	403.00	3.00	0.014	480.000
403.00	406.00	3.00	0.010	343.000
406.00	409.00	3.00	0.000	0.000
409.00	412.00	3.00	0.000	0.000
412.00	415.00	3.00	0.020	686.000
415.00	418.00	3.00	0.022	754.000
418.00	421.00	3.00	0.024	823.000
421.00	424.00	3.00	0.016	549.000
424.00	427.00	3.00	0.008	274.000
427.00	430.00	3.00	0.000	0.000
430.00	433.00	3.00	0.014	480.000
433.00	436.00	3.00	0.018	617.000
436.00	439.00	3.00	0.000	0.000
439.00	442.00	3.00	0.000	0.000
442.00	445.00	3.00	0.006	206.000
445.00	448.00	3.00	0.000	0.000
448.00	451.00	3.00	0.032	1097.000
451.00	454.00	3.00	0.016	549.000
454.00	457.00	3.00	0.000	0.000
457.00	460.00	3.00	0.006	206.000

ASSAY LOG

PROPERTY: CL

HOLE NO.: 59

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FROM	TO	WIDTH	AU oz/T	ppb
460.00	464.00	4.00	0.006	206.000
466.00	469.00	3.00	0.008	274.000
469.00	472.00	3.00	0.050	1714.000
472.00	475.00	3.00	0.010	343.000
475.00	478.00	3.00	0.008	274.000
478.00	481.00	3.00	0.016	549.000
481.00	484.00	3.00	0.018	617.000
484.00	487.00	3.00	0.102	3497.000
487.00	490.00	3.00	0.006	206.000
490.00	493.00	3.00	0.000	0.000
493.00	496.00	3.00	0.024	823.000
496.00	499.00	3.00	0.006	206.000
499.00	502.00	3.00	0.020	686.000
502.00	505.00	3.00	0.018	617.000
505.00	508.00	3.00	0.000	0.000
508.00	511.00	3.00	0.000	0.000
511.00	514.00	3.00	0.010	343.000
514.00	517.00	3.00	0.006	206.000
517.00	520.00	3.00	0.000	0.000
520.00	523.00	3.00	0.000	0.000
523.00	526.00	3.00	0.006	206.000
526.00	529.00	3.00	0.000	0.000
529.00	532.00	3.00	0.000	0.000
532.00	535.00	3.00	0.006	206.000
535.00	538.00	3.00	0.000	0.000
538.00	541.00	3.00	0.000	0.000
541.00	544.00	3.00	0.034	1166.000
544.00	547.00	3.00	0.000	0.000
547.00	550.00	3.00	0.012	411.000
550.00	553.00	3.00	0.006	206.000
553.00	556.00	3.00	0.008	274.000
556.00	559.00	3.00	0.006	206.000
559.00	562.00	3.00	0.000	0.000
562.00	565.00	3.00	0.008	274.000
565.00	568.00	3.00	0.010	343.000
568.00	571.00	3.00	0.006	206.000
571.00	574.00	3.00	0.000	0.000
574.00	577.00	3.00	0.006	206.000
577.00	580.00	3.00	0.010	343.000
580.00	583.00	3.00	0.000	0.000
583.00	586.00	3.00	0.000	0.000
586.00	589.00	3.00	0.000	0.000
589.00	592.00	3.00	0.000	0.000
592.00	595.00	3.00	0.006	206.000
595.00	598.00	3.00	0.006	206.000
598.00	601.00	3.00	0.000	0.000
601.00	604.00	3.00	0.008	274.000
604.00	607.00	3.00	0.006	206.000
607.00	610.00	3.00	0.008	274.000
610.00	613.00	3.00	0.018	617.000

ASSAY LOG
 PROPERTY: CL
 HOLE No.: 59

FROM	TO	WIDTH	AU oz/T	ppb
613.00	616.00	3.00	0.006	206.000
629.40	632.00	2.60	0.030	1029.000
632.00	635.00	3.00	0.114	3909.000
635.00	638.00	3.00	0.016	549.000
638.00	641.00	3.00	0.026	891.000
641.00	644.00	3.00	0.008	274.000
644.00	647.00	3.00	0.006	206.000
647.00	650.00	3.00	0.000	0.000
650.00	653.00	3.00	0.000	0.000
653.00	656.00	3.00	0.000	0.000
656.00	659.00	3.00	0.000	0.000
659.00	662.00	3.00	0.016	549.000
662.00	665.00	3.00	0.012	411.000
665.00	668.00	3.00	0.000	0.000
668.00	671.00	3.00	0.056	1920.000
671.00	674.00	3.00	0.006	206.000
674.00	677.00	3.00	0.000	0.000
677.00	680.00	3.00	0.024	823.000
680.00	683.00	3.00	0.022	754.000
683.00	686.00	3.00	0.018	617.000
686.00	689.00	3.00	0.000	0.000
689.00	692.00	3.00	0.000	0.000
692.00	695.00	3.00	0.126	4320.000
695.00	698.00	3.00	0.016	549.000
698.00	701.00	3.00	0.000	0.000
701.00	704.00	3.00	0.000	0.000
704.00	707.00	3.00	0.012	411.000
707.00	710.00	3.00	0.036	1234.000
710.00	713.00	3.00	0.012	411.000
713.00	716.00	3.00	0.008	274.000
716.00	719.00	3.00	0.016	549.000
719.00	722.00	3.00	0.008	274.000
722.00	725.00	3.00	0.006	206.000
725.00	728.00	3.00	0.012	411.000
728.00	731.00	3.00	0.000	0.000
731.00	734.00	3.00	0.020	0.686
734.00	737.00	3.00	0.006	206.000
737.00	740.00	3.00	0.014	480.000
740.00	743.00	3.00	0.062	2126.000
743.00	746.00	3.00	0.000	0.000
746.00	749.00	3.00	0.000	0.000
749.00	752.00	3.00	0.000	0.000
752.00	755.00	3.00	0.000	0.000
755.00	758.00	3.00	0.006	206.000
758.00	761.00	3.00	0.012	411.000
761.00	764.00	3.00	0.028	960.000
764.00	767.00	3.00	0.018	617.000
767.00	770.00	3.00	0.000	0.000
770.00	773.00	3.00	0.006	206.000
773.00	774.80	1.80	0.044	1509.000

ASSAY LOG

PROPERTY: CL

HOLE NO.: 59

FROM	TO	WIDTH	AU oz/T	ppb
774.80	777.00	2.20	0.022	754.000
777.00	780.00	3.00	0.000	0.000
780.00	783.00	3.00	0.000	0.000
783.00	786.70	3.70	0.016	549.000
786.70	789.00	2.30	0.082	2811.000
789.00	792.00	3.00	0.046	1577.000
792.00	795.00	3.00	0.042	1440.000
795.00	798.00	3.00	0.026	891.000
798.00	801.00	3.00	0.022	754.000
801.00	804.00	3.00	0.026	891.000
804.00	807.00	3.00	0.006	206.000
807.00	810.00	3.00	0.000	0.000
810.00	813.00	3.00	0.000	0.000
813.00	816.00	3.00	0.006	206.000
816.00	819.00	3.00	0.000	0.000
819.00	822.00	3.00	0.050	1714.000
822.00	825.00	3.00	0.000	0.000
825.00	828.00	3.00	0.010	343.000
828.00	831.00	3.00	0.000	0.000
831.00	834.00	3.00	0.008	274.000
834.00	837.00	3.00	0.000	0.000
837.00	840.00	3.00	0.010	343.000
840.00	843.00	3.00	0.006	206.000
843.00	846.00	3.00	0.000	0.000
846.00	849.00	3.00	0.008	274.000
849.00	852.00	3.00	0.012	411.000
852.00	855.00	3.00	0.020	686.000
855.00	858.00	3.00	0.008	274.000
858.00	861.00	3.00	0.010	343.000
861.00	864.00	3.00	0.018	617.000
864.00	867.00	3.00	0.002	754.000
867.00	870.00	3.00	0.020	686.000
870.00	873.00	3.00	0.012	411.000
873.00	876.00	3.00	0.008	274.000
876.00	879.00	3.00	0.010	343.000
879.00	882.00	3.00	0.022	754.000
882.00	885.00	3.00	0.012	411.000
885.00	888.00	3.00	0.026	891.000
888.00	891.00	3.00	0.052	1783.000
891.00	894.00	3.00	0.028	960.000
894.00	897.00	3.00	0.040	1371.000
897.00	900.00	3.00	0.093	3223.000
900.00	903.00	3.00	0.040	1371.000
903.00	906.00	3.00	0.016	549.000
906.00	909.00	3.00	0.014	480.000
909.00	912.00	3.00	0.016	549.000
912.00	915.00	3.00	0.040	1371.000
915.00	918.00	3.00	0.010	343.000
918.00	921.00	3.00	0.006	206.000
921.00	924.00	3.00	0.010	343.000

ASSAY LOG

PROPERTY: CL

HOLE NO.: 59

FROM	TO	WIDTH	AU oz/T	ppb
924.00	927.00	3.00	0.006	206.000
927.00	930.00	3.00	0.000	0.000
930.00	933.00	3.00	0.010	343.000
933.00	936.00	3.00	0.006	206.000
936.00	939.00	3.00	0.006	206.000
939.00	942.00	3.00	0.016	549.000
942.00	945.00	3.00	0.010	343.000
945.00	948.00	3.00	0.000	0.000
948.00	951.00	3.00	0.006	206.000
951.00	954.00	3.00	0.000	0.000
954.00	957.00	3.00	0.000	0.000
957.00	960.00	3.00	0.000	0.000
960.00	963.00	3.00	0.006	206.000
963.00	966.00	3.00	0.006	206.000
966.00	969.00	3.00	0.008	274.000
969.00	972.00	3.00	0.012	411.000
972.00	975.00	3.00	0.000	0.000
975.00	978.00	3.00	0.006	206.000
978.00	981.00	3.00	0.000	0.000
981.00	984.00	3.00	0.000	0.000
984.00	987.00	3.00	0.006	206.000
987.00	990.00	3.00	0.000	0.000
990.00	993.00	3.00	0.000	0.000
993.00	996.00	3.00	0.022	754.000
996.00	999.00	3.00	0.008	274.000
999.00	1002.00	3.00	0.000	0.000
1002.00	1005.00	3.00	0.000	0.000
1005.00	1008.00	3.00	0.000	0.000
1008.00	1011.00	3.00	0.010	343.000
1011.00	1014.00	3.00	0.006	206.000
1014.00	1017.00	3.00	0.018	617.000
1017.00	1020.00	3.00	0.014	480.000
1020.00	1023.00	3.00	0.016	549.000
1023.00	1024.30	1.30	0.012	411.000
1024.30	1026.00	1.70	0.006	206.000
1061.00	1062.90	1.90	0.014	480.000
1062.90	1064.00	1.10	0.010	343.000
1064.00	1067.00	3.00	0.006	206.000
1067.00	1070.00	3.00	0.000	0.000
1070.00	1072.00	2.00	0.006	206.000
1072.00	1073.50	1.50	0.010	343.000
1073.50	1075.00	1.50	0.000	0.000
1081.00	1083.20	2.20	0.014	480.000
1083.20	1086.00	2.80	0.008	274.000
1086.00	1089.00	3.00	0.000	0.000
1089.00	1092.00	3.00	0.000	0.000
1092.00	1095.00	3.00	0.000	0.000
1095.00	1098.00	3.00	0.000	0.000
1098.00	1102.00	4.00	0.000	0.000
1102.00	1105.00	3.00	0.010	343.000

ASSAY LOG

PROPERTY: CL

HOLE : 59

FROM	TO	WIDTH	AU oz/T	pob
1105.00	1106.50	1.50	0.000	0.000
1106.50	1108.00	1.50	0.030	1029.000
1108.00	1109.50	1.50	0.000	0.000
1109.50	1111.00	1.50	0.202	6926.000
1111.00	1114.00	3.00	0.024	823.000
1114.00	1117.00	3.00	0.000	0.000
1117.00	1120.00	3.00	0.000	0.000
1120.00	1123.00	3.00	0.018	617.000
1123.00	1126.00	3.00	0.030	1029.000
1126.00	1129.00	3.00	0.034	1166.000
1129.00	1132.00	3.00	0.012	411.000
1132.00	1135.00	3.00	0.018	617.000
1135.00	1138.00	3.00	0.016	549.000
1138.00	1141.00	3.00	0.018	617.000
1141.00	1144.00	3.00	0.000	0.000
1144.00	1147.00	3.00	0.024	823.000
1147.00	1150.00	3.00	0.000	0.000
1150.00	1153.00	3.00	0.000	0.000
1153.00	1156.00	3.00	0.000	0.000
1156.00	1159.00	3.00	0.000	0.000
1159.00	1162.00	3.00	0.000	0.000
1162.00	1164.00	2.00	0.012	411.000
1164.00	1166.00	2.00	0.008	274.000
1166.00	1167.50	1.50	0.000	0.000
1167.50	1169.00	1.50	0.014	480.000
1169.00	1171.00	2.00	0.000	0.000
1190.00	1192.00	2.00	0.000	0.000
1192.00	1194.90	2.90	0.000	0.000
1194.90	1197.00	2.10	0.026	891.000
1197.00	1200.00	3.00	0.028	960.000
1200.00	1203.00	3.00	0.026	891.000
1203.00	1206.00	3.00	0.000	0.000
1206.00	1209.00	3.00	0.022	754.000
1209.00	1212.00	3.00	0.030	1029.000
1212.00	1215.00	3.00	0.024	823.000
1215.00	1218.00	3.00	0.042	1440.000
1218.00	1221.00	3.00	0.046	1577.000
1221.00	1224.00	3.00	0.032	1097.000
1224.00	1227.00	3.00	0.000	0.000
1227.00	1230.00	3.00	0.000	0.000
1230.00	1233.00	3.00	0.040	1371.000
1233.00	1236.00	3.00	0.006	206.000
1236.00	1239.00	3.00	0.032	1097.000
1239.00	1242.00	3.00	0.026	891.000
1242.00	1245.00	3.00	0.006	206.000
1245.00	1248.00	3.00	0.000	0.000
1248.00	1251.00	3.00	0.000	0.000
1251.00	1254.00	3.00	0.006	206.000
1254.00	1257.00	3.00	0.030	1029.000
1257.00	1260.00	3.00	0.032	1097.000

ASSAY LOG
PROPERTY: CL
HOLE NO.: 59

FROM	TO	WIDTH	AU oz/T	ppb
1260.00	1263.00	3.00	0.010	343.000
1263.00	1266.00	3.00	0.026	891.000
1266.00	1269.00	3.00	0.006	206.000
1269.00	1272.00	3.00	0.032	1097.000
1272.00	1275.00	3.00	0.416	14263.000
1275.00	1278.00	3.00	0.036	1234.000
1278.00	1281.00	3.00	0.064	2194.000
1281.00	1284.00	3.00	0.043	1440.000
1284.00	1287.00	3.00	0.034	1166.000
1287.00	1290.00	3.00	0.008	274.000
1290.00	1293.00	3.00	0.000	0.000
1293.00	1296.00	3.00	0.024	823.000
1296.00	1299.00	3.00	0.010	343.000
1299.00	1302.00	3.00	0.006	206.000
1302.00	1305.00	3.00	0.008	274.000
1305.00	1308.00	3.00	0.000	0.000
1308.00	1311.00	3.00	0.000	0.000
1311.00	1314.00	3.00	0.000	0.000
1314.00	1317.00	3.00	0.000	0.000
1317.00	1320.00	3.00	0.028	960.000
1320.00	1323.00	3.00	0.000	0.000
1323.00	1326.00	3.00	0.024	823.000
1326.00	1329.00	3.00	0.028	960.000
1329.00	1332.00	3.00	0.024	823.000
1332.00	1335.00	3.00	0.034	1166.000
1335.00	1338.00	3.00	0.056	1920.000
1338.00	1341.00	3.00	0.030	1029.000
1341.00	1344.00	3.00	0.048	1646.000
1344.00	1347.00	3.00	0.044	1509.000
1347.00	1350.00	3.00	0.036	1234.000
1350.00	1353.00	3.00	0.028	960.000
1353.00	1356.00	3.00	0.018	617.000
1356.00	1359.00	3.00	0.010	343.000
1359.00	1362.00	3.00	0.006	206.000
1362.00	1365.00	3.00	0.000	0.000
1365.00	1368.00	3.00	0.000	0.000
1368.00	1371.00	3.00	0.010	343.000
1371.00	1374.00	3.00	0.012	411.000
1374.00	1377.00	3.00	0.006	206.000
1377.00	1380.00	3.00	0.008	274.000
1380.00	1383.00	3.00	0.000	0.000
1383.00	1386.00	3.00	0.000	0.000
1386.00	1389.00	3.00	0.016	549.000
1389.00	1392.00	3.00	0.000	0.000
1392.00	1395.00	3.00	0.006	206.000
1395.00	1398.00	3.00	0.000	0.000
1398.00	1401.00	3.00	0.000	0.000
1401.00	1404.00	3.00	0.010	343.000
1404.00	1407.00	3.00	0.024	823.000
1407.00	1410.70	3.70	0.000	0.000

→ 0.243 avg. = 0.329
0.090
18.0'

ASSAY LOG
PROPERTY: CL
HOLE NO.: 59

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FROM	TO	WIDTH	AU oz/T	ppb
1410.70	1413.30	2.60	0.000	0.000
1413.30	1417.00	3.70	0.010	343.000
1417.00	1420.00	3.00	0.018	617.000
1420.00	1421.10	1.10	0.014	460.000
1421.10	1424.00	2.90	0.008	274.000
1424.00	1427.00	3.00	0.034	1166.000
1427.00	1429.20	2.20	0.036	1234.000
1429.20	1430.70	1.50	0.000	0.000
1430.70	1434.30	3.60	0.000	0.000
1434.30	1435.80	1.50	0.000	0.000
1435.80	1438.70	2.90	0.000	0.000
1438.70	1440.00	1.30	0.000	0.000
1440.00	1442.20	2.20	0.024	823.000
1442.20	1445.00	2.80	0.006	206.000
1445.00	1448.00	3.00	0.020	686.000
1448.00	1451.60	3.60	0.006	206.000
1451.60	1454.00	2.40	0.000	0.000
1454.00	1457.00	3.00	0.000	0.000
1457.00	1460.00	3.00	0.012	411.000
1460.00	1463.00	3.00	0.028	960.000
1463.00	1466.00	3.00	0.006	206.000
1466.00	1469.00	3.00	0.026	891.000
1469.00	1472.00	3.00	0.000	0.000
1472.00	1475.00	3.00	0.022	754.000
1475.00	1476.40	1.40	0.000	0.000

** BORSURV **

SURVEY DATA AND CALCULATED CO-ORDINATES

PROPERTY: CL

DATE: 02/18/88

HOLE NO: 60

SURVEY BY: R.C.

INSTRUMENT: TROPARI

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DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-55.00	180.00	2768.000	970.000	1000.000
88.80	-54.00	180.50	2767.775	918.434	927.707
207.00	-54.00	179.00	2768.078	848.959	833.081
442.00	-52.00	180.00	2769.312	707.537	644.401
620.00	-51.00	181.50	2767.862	556.739	505.097
864.00	-50.00	183.00	2761.769	441.656	316.821
1053.00	-48.00	182.50	2755.820	317.803	174.181
1220.00	-45.00	182.50	2750.805	202.958	53.043

SUMMARY LITHO LOG

PROPERTY: CL

HOLE : 60

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LITHO UNIT      DEPTH      EASTINGS    NORTHINGS    ELEVATION    CORE ANGLE
OVR              62.30       2767.84     933.82       949.28       30
1B,carb          85.00       2767.78     920.64       930.80       45
1Bt/SIF         111.40      2767.83     905.15       909.42       55
SIFs            120.30      2767.86     899.92       902.22       55
1Bt            136.00      2767.90     890.69       889.52       45
1B/7F          181.70      2768.01     863.83       852.55       50
SIFs           188.30      2768.03     859.95       847.21       60
7F/1Bt/SIFs,   205.20      2768.07     850.02       833.54       50
1Bt,carb       250.80      2768.31     822.60       797.10       50
7F,carb,chl    269.70      2768.41     811.23       782.01       25
1B             274.20      2768.43     808.52       778.41       50
7F            282.10      2768.47     803.76       772.10       25
1B/SIFo,sn     454.00      2769.21     700.07       635.01       35
7F            462.40      2769.15     694.84       628.44       60
1B            495.30      2768.88     674.36       602.69       50
7F            533.00      2768.57     650.89       573.18       30
1B/7F,carb     570.00      2768.27     627.86       544.23       50
7QP,sh,ser,s   603.30      2768.00     607.13       518.17       25
7QP,ser,sil,   649.80      2767.12     577.80       482.10       25
8D/7QP         726.60      2765.20     528.99       422.84       53
7QP/1B         1068.00     2755.37     307.49       163.30       50
1B,carb,sil    1195.00     2751.56     220.15        71.18       60
1B            1220.00     2750.81     202.96        53.04       60

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ASSAY LOG
PROPERTY: CL
HOLE : 60

FROM	TO	WIDTH	DPT	POB
88.00	91.20	3.20	0.006	206.000
91.20	91.60	0.40	0.016	549.000
91.60	94.60	3.00	0.008	274.000
94.60	97.00	2.40	0.000	0.000
97.00	98.00	1.00	0.000	0.000
98.00	101.00	3.00	0.000	0.000
108.30	111.40	3.10	0.000	0.000
111.40	114.40	3.00	0.006	206.000
114.40	117.40	3.00	0.006	206.000
117.40	120.30	2.90	0.000	0.000
120.30	123.30	3.00	0.000	0.000
169.00	171.00	2.00	0.000	0.000
179.00	181.70	2.70	0.000	0.000
181.70	184.70	3.00	0.012	411.000
184.70	186.70	2.00	0.006	206.000
186.70	188.30	1.60	0.026	891.000
188.30	191.00	2.70	0.024	823.000
191.00	194.00	3.00	0.006	206.000
194.00	195.40	1.40	0.000	0.000
195.40	197.40	2.00	0.024	823.000
197.40	199.30	1.90	0.014	480.000
199.30	202.30	3.00	0.000	0.000
202.30	205.20	2.90	0.000	0.000
205.20	208.00	2.80	0.010	343.000
208.00	211.00	3.00	0.006	206.000
211.00	214.00	3.00	0.000	0.000
214.00	217.00	3.00	0.000	0.000
217.00	220.00	3.00	0.008	274.000
220.00	223.00	3.00	0.000	0.000
223.00	226.00	3.00	0.010	343.000
226.00	229.00	3.00	0.022	754.000
229.00	232.00	3.00	0.000	0.000
232.00	235.00	3.00	0.082	2811.000
235.00	238.00	3.00	0.018	617.000
238.00	241.00	3.00	0.000	0.000
241.00	244.00	3.00	0.000	0.000
244.00	247.00	3.00	0.108	3703.000
247.00	250.80	3.80	0.000	0.000
250.80	253.00	2.20	0.000	0.000
253.00	256.00	3.00	0.000	0.000
256.00	259.00	3.00	0.016	549.000
259.00	262.00	3.00	0.006	206.000
262.00	265.00	3.00	0.000	0.000
265.00	268.00	3.00	0.010	343.000
268.00	269.70	1.70	0.006	206.000
269.70	272.00	2.30	0.006	206.000
272.00	274.20	2.20	0.006	206.000
274.20	277.00	2.80	0.022	754.000
277.00	279.00	2.00	0.020	686.000
279.00	282.10	3.10	0.038	1303.000

ASSAY LOG
PROPERTY: CL
HOLE : 60

FROM	TO	WIDTH	OPT	ppb
282.10	285.00	2.90	0.006	206.000
289.50	291.00	1.50	0.000	0.000
291.00	292.50	1.50	0.030	1029.000
292.50	294.00	1.50	0.000	0.000
294.00	295.50	1.50	0.000	0.000
295.50	297.00	1.50	0.028	960.000
297.00	298.50	1.50	0.020	686.000
315.00	318.00	3.00	0.006	206.000
318.00	321.00	3.00	0.114	3909.000
321.00	324.00	3.00	0.504	17280.000
324.00	327.00	3.00	0.044	1509.000
327.00	330.00	3.00	0.116	3977.000
330.00	333.00	3.00	0.066	2263.000
333.00	335.00	2.00	0.000	0.000
335.00	338.00	3.00	0.006	206.000
338.00	340.00	2.00	0.000	0.000
340.00	342.50	2.50	0.006	206.000
342.50	344.00	1.50	0.214	7337.000
344.00	347.00	3.00	0.000	0.000
347.00	350.00	3.00	0.000	0.000
350.00	353.00	3.00	0.000	0.000
353.00	356.00	3.00	0.006	206.000
356.00	357.50	1.50	0.020	686.000
357.50	360.50	3.00	0.024	823.000
360.50	362.00	1.50	0.016	549.000
362.00	364.00	2.00	0.018	617.000
367.00	369.00	2.00	0.030	1029.000
369.00	372.00	3.00	0.038	1303.000
377.00	379.30	2.30	0.000	0.000
383.00	385.00	2.00	0.036	1234.000
385.00	388.00	3.00	0.062	2126.000
388.00	391.00	3.00	0.900	30857.000
391.00	393.00	2.00	0.018	617.000
393.00	396.00	3.00	0.018	617.000
396.00	399.00	3.00	0.024	823.000
399.00	402.00	3.00	0.022	754.000
402.00	404.00	2.00	0.012	411.000
404.00	406.00	2.00	0.008	274.000
406.00	409.00	3.00	0.016	549.000
422.00	425.00	3.00	0.012	411.000
425.00	426.70	1.70	0.022	754.000
426.70	427.60	0.90	0.038	1303.000
427.60	430.00	2.40	0.030	1029.000
430.00	433.00	3.00	0.022	754.000
433.00	435.00	2.00	0.020	686.000
439.00	441.00	2.00	0.012	411.000
441.00	443.00	2.00	0.000	0.000
443.00	446.00	3.00	0.020	686.000
446.00	449.00	3.00	0.016	549.000
449.00	450.00	1.00	0.022	754.000

0.169
15.0

0.481
6.0

ASSAY LOG

PROPERTY: CL

HOLE : 60

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FROM	TO	WIDTH	OPT	ppb
452.00	454.00	2.00	0.018	617.000
454.00	457.00	3.00	0.016	549.000
457.00	460.00	3.00	0.014	480.000
460.00	462.40	2.40	0.022	754.000
462.40	464.00	1.60	0.006	206.000
464.00	467.00	3.00	0.024	823.000
467.00	470.00	3.00	0.030	1029.000
470.00	473.00	3.00	0.022	754.000
473.00	476.00	3.00	0.008	274.000
476.00	479.00	3.00	0.038	1303.000
479.00	482.00	3.00	0.032	1097.000
482.00	485.00	3.00	0.034	1166.000
485.00	488.00	3.00	0.010	343.000
488.00	491.00	3.00	0.038	1303.000
491.00	493.00	2.00	0.040	1371.000
493.00	495.30	2.30	0.030	1029.000
495.30	498.00	2.70	0.008	274.000
498.00	501.00	3.00	0.012	411.000
501.00	504.00	3.00	0.018	617.000
504.00	507.00	3.00	0.006	206.000
507.00	509.00	2.00	0.008	274.000
509.00	511.00	2.00	0.012	411.000
511.00	513.00	2.00	0.018	617.000
513.00	515.00	2.00	0.006	206.000
515.00	517.00	2.00	0.008	274.000
517.00	519.00	2.00	0.006	206.000
519.00	521.00	2.00	0.016	549.000
521.00	524.00	3.00	0.018	617.000
524.00	527.00	3.00	0.012	411.000
527.00	530.00	3.00	0.008	274.000
530.00	533.00	3.00	0.006	206.000
533.00	536.00	3.00	0.020	686.000
536.00	539.00	3.00	0.022	754.000
539.00	542.00	3.00	0.024	823.000
542.00	544.40	2.40	0.018	617.000
544.40	547.00	2.60	0.036	1234.000
547.00	549.00	2.00	0.084	2880.000
549.00	552.00	3.00	0.032	1097.000
552.00	555.00	3.00	0.026	891.000
555.00	558.00	3.00	0.038	1303.000
558.00	561.00	3.00	0.026	891.000
561.00	564.00	3.00	0.024	823.000
564.00	567.00	3.00	0.022	754.000
567.00	570.00	3.00	0.020	686.000
570.00	573.00	3.00	0.006	206.000
573.00	574.80	1.80	0.008	274.000
574.80	577.00	2.20	0.014	480.000
577.00	579.00	2.00	0.006	206.000
579.00	582.00	3.00	0.030	1029.000
582.00	585.00	3.00	0.032	1097.000

ASSAY LOG

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PROPERTY: CL

HOLE : 60

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FROM	TO	WIDTH	OPT	ppb
585.00	588.00	3.00	0.034	1166.000
588.00	591.00	3.00	0.016	549.000
591.00	594.00	3.00	0.008	274.000
594.00	597.00	3.00	0.010	343.000
597.00	600.00	3.00	0.012	411.000
600.00	603.00	3.00	0.014	480.000
603.00	606.00	3.00	0.012	411.000
606.00	609.00	3.00	0.014	480.000
609.00	612.00	3.00	0.016	549.000
612.00	615.00	3.00	0.020	686.000
615.00	618.00	3.00	0.018	617.000
618.00	621.00	3.00	0.016	549.000
621.00	624.00	3.00	0.014	480.000
624.00	627.00	3.00	0.010	343.000
627.00	630.00	3.00	0.006	206.000
630.00	633.00	3.00	0.008	274.000
633.00	635.00	2.00	0.010	343.000
635.00	637.00	2.00	0.006	206.000
637.00	639.00	2.00	0.000	0.000
639.00	641.00	2.00	0.000	0.000
641.00	643.00	2.00	0.006	206.000
643.00	645.00	2.00	0.008	274.000
645.00	647.00	2.00	0.006	206.000
647.00	649.80	2.80	0.000	0.000
673.00	675.60	2.60	0.010	343.000
675.60	678.00	2.40	0.008	274.000
678.00	681.00	3.00	0.012	411.000
681.00	684.00	3.00	0.006	206.000
684.00	687.00	3.00	0.008	274.000
687.00	688.30	1.30	0.000	0.000
688.30	690.00	1.70	0.000	0.000
717.50	719.10	1.60	0.000	0.000
719.10	721.30	2.20	0.000	0.000
721.30	725.00	3.70	0.020	686.000
725.00	726.60	1.60	0.006	206.000
726.60	729.00	2.40	0.000	0.000
729.00	732.00	3.00	0.000	0.000
732.00	735.00	3.00	0.000	0.000
735.00	738.00	3.00	0.006	206.000
738.00	741.00	3.00	0.000	0.000
741.00	744.00	3.00	0.026	891.000
744.00	747.00	3.00	0.008	274.000
747.00	750.00	3.00	<u>0.200</u>	6857.000
750.00	753.00	3.00	0.018	617.000
753.00	756.00	3.00	0.012	411.000
756.00	759.00	3.00	0.028	960.000
759.00	762.00	3.00	0.020	686.000
762.00	765.00	3.00	0.020	686.000
765.00	768.00	3.00	0.018	617.000
768.00	771.00	3.00	0.014	480.000

ASSAY LOG
PROPERTY: CL
HOLE : 60

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FROM	TO	WIDTH	OPT	ppb
771.00	774.00	3.00	0.022	754.000
774.00	777.00	3.00	0.016	549.000
777.00	780.00	3.00	0.032	1097.000
780.00	783.00	3.00	0.042	1440.000
783.00	786.00	3.00	0.010	343.000
786.00	789.00	3.00	0.000	0.000
789.00	792.00	3.00	0.008	274.000
792.00	795.00	3.00	0.006	206.000
795.00	798.00	3.00	0.000	0.000
798.00	801.00	3.00	0.000	0.000
801.00	804.00	3.00	0.000	0.000
804.00	807.00	3.00	0.018	617.000
807.00	810.00	3.00	0.006	206.000
810.00	813.00	3.00	<u>0.168</u>	5760.000
813.00	816.00	3.00	0.014	480.000
816.00	819.00	3.00	0.010	343.000
819.00	822.00	3.00	0.006	206.000
822.00	825.00	3.00	0.000	0.000
825.00	828.00	3.00	0.008	274.000
828.00	831.00	3.00	0.006	206.000
831.00	834.00	3.00	0.010	343.000
834.00	837.00	3.00	0.000	0.000
837.00	840.00	3.00	0.000	0.000
840.00	843.00	3.00	0.000	0.000
843.00	846.00	3.00	0.014	480.000
846.00	849.00	3.00	0.010	343.000
849.00	852.00	3.00	0.012	411.000
852.00	855.00	3.00	0.000	0.000
855.00	858.00	3.00	0.012	411.000
858.00	861.00	3.00	0.014	480.000
861.00	864.00	3.00	0.012	411.000
864.00	867.00	3.00	0.000	0.000
867.00	870.00	3.00	0.016	549.000
870.00	873.00	3.00	0.010	343.000
873.00	876.00	3.00	0.000	0.000
876.00	879.00	3.00	0.010	343.000
879.00	882.00	3.00	0.016	549.000
882.00	885.00	3.00	0.014	480.000
885.00	888.00	3.00	0.032	1097.000
888.00	891.00	3.00	0.070	2400.000
891.00	894.00	3.00	0.032	1097.000
894.00	897.00	3.00	0.014	480.000
897.00	900.00	3.00	0.006	206.000
900.00	903.00	3.00	0.012	411.000
903.00	906.00	3.00	0.000	0.000
906.00	909.00	3.00	0.000	0.000
909.00	912.00	3.00	0.028	960.000
912.00	915.00	3.00	0.046	1577.000
915.00	918.00	3.00	0.006	206.000
918.00	921.00	3.00	<u>0.228</u>	7817.000

ASSAY LOG
PROPERTY: CL
HOLE : 60

FROM	TO	WIDTH	OPT	ppb
921.00	924.00	3.00	0.000	0.000
924.00	927.00	3.00	0.008	274.000
927.00	930.00	3.00	0.012	411.000
930.00	933.00	3.00	0.190	6514.000
933.00	936.00	3.00	0.008	274.000
936.00	939.00	3.00	0.098	3360.000
939.00	942.00	3.00	0.022	754.000
942.00	945.00	3.00	0.012	411.000
945.00	948.00	3.00	0.018	617.000
948.00	951.00	3.00	0.006	206.000
951.00	954.00	3.00	0.000	0.000
954.00	957.00	3.00	0.036	1234.000
957.00	960.00	3.00	0.038	1303.000
960.00	963.00	3.00	0.052	1783.000
963.00	966.00	3.00	0.000	0.000
966.00	969.00	3.00	0.006	206.000
969.00	972.00	3.00	0.028	960.000
972.00	975.00	3.00	0.022	754.000
975.00	978.00	3.00	0.028	960.000
978.00	981.00	3.00	0.014	480.000
981.00	984.00	3.00	0.008	274.000
984.00	987.00	3.00	0.000	0.000
987.00	990.00	3.00	0.016	548.000
990.00	993.00	3.00	0.018	617.000
993.00	996.00	3.00	0.000	0.000
996.00	999.00	3.00	0.014	480.000
999.00	1002.00	3.00	0.000	0.000
1002.00	1005.00	3.00	0.016	549.000
1005.00	1008.00	3.00	0.034	1166.000
1008.00	1011.00	3.00	0.000	0.000
1011.00	1014.00	3.00	0.000	0.000
1014.00	1017.00	3.00	0.008	274.000
1017.00	1020.00	3.00	0.016	549.000
1020.00	1023.00	3.00	0.022	754.000
1023.00	1026.00	3.00	0.014	480.000
1026.00	1029.00	3.00	0.022	754.000
1029.00	1032.00	3.00	0.026	891.000
1032.00	1035.00	3.00	0.016	549.000
1035.00	1038.00	3.00	0.018	617.000
1038.00	1041.00	3.00	0.014	480.000
1041.00	1044.00	3.00	0.022	754.000
1044.00	1047.00	3.00	0.020	686.000
1047.00	1050.00	3.00	0.000	0.000
1050.00	1053.00	3.00	0.008	274.000
1053.00	1056.00	3.00	0.000	0.000
1056.00	1059.00	3.00	0.010	343.000
1059.00	1062.00	3.00	0.006	206.000
1062.00	1065.00	3.00	0.000	0.000
1065.00	1068.00	3.00	0.000	0.000
1068.00	1071.00	3.00	0.038	1303.000

0.099
9.0

ASSAY LOG
PROPERTY: CL
HOLE : 60

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FROM	TO	WIDTH	OPT	ppb
1071.00	1074.00	3.00	0.000	0.000
1074.00	1077.00	3.00	0.020	686.000
1077.00	1080.00	3.00	0.036	1234.000
1080.00	1083.00	3.00	0.012	411.000
1083.00	1086.00	3.00	0.000	0.000
1086.00	1089.00	3.00	0.008	274.000
1089.00	1092.00	3.00	0.000	0.000
1092.00	1095.00	3.00	0.008	274.000
1115.00	1117.30	2.30	0.006	206.000
1117.30	1120.00	2.70	0.012	411.000
1120.00	1123.00	3.00	0.000	0.000
1123.00	1126.00	3.00	0.000	0.000
1126.00	1127.00	1.00	0.000	0.000
1127.00	1130.00	3.00	0.000	0.000
1130.00	1133.00	3.00	0.000	0.000
1133.00	1136.00	3.00	0.000	0.000
1136.00	1139.00	3.00	0.026	891.000
1139.00	1142.00	3.00	0.046	1577.000
1142.00	1142.10	0.10	0.000	0.000
1154.50	1156.00	1.50	0.000	0.000
1156.00	1157.50	1.50	0.020	686.000
1157.50	1159.00	1.50	0.006	206.000
1159.00	1162.00	3.00	0.024	823.000
1162.00	1164.40	2.40	0.062	2126.000
1164.40	1166.70	2.30	0.028	960.000
1166.70	1169.70	3.00	0.018	617.000
1169.70	1172.00	2.30	0.006	206.000
1172.00	1174.40	2.40	0.022	754.000
1174.40	1177.40	3.00	0.026	891.000
1177.40	1179.60	2.20	0.016	549.000
1179.60	1183.00	3.40	0.020	686.000
1183.00	1186.00	3.00	0.000	0.000
1186.00	1189.00	3.00	0.020	686.000
1189.00	1192.00	3.00	0.024	823.000
1192.00	1195.00	3.00	0.008	274.000
1195.00	1198.00	3.00	0.000	0.000
1198.00	1201.00	3.00	0.032	1097.000

APPENDIX II

STATEMENT OF EXPENDITURES

CLINE LAKE PROJECT

FOR THE PERIOD MARCH 18, 1986 TO FEBRUARY 29TH, 1988

	<u>1986</u> <u>EXPENDITURES</u>	<u>1987</u> <u>EXPENDITURES</u>	<u>1988</u> <u>EXPENDITURES</u>	<u>TOTAL</u>
Technical Studies	2,443.39	0		2,443.39
Property Maintenance	733.90	0		733.90
Geology	11,524.89	0	1,146.50	12,941.39
Geophysics	17,097.14	17,374.06		34,471.20
Geochemistry	6,627.53	0		6,627.53
Trenching	46,079.39	36,019.21		82,098.60
Diamond Drilling	216,248.54	417,943.90	160,022.15	794,214.59
Camp Costs	<u>0</u>	<u>3,744.84</u>	<u></u>	<u>3,744.84</u>
Total Expenditures	300,754.78	475,082.01	161,438.65	937,275.44
Management Fees				<u>140,591.38</u>
Total Project Expenditures				<u>1,077,866.82</u>

	<u>EXPENDITURES</u>	<u>MANAGEMENT FEE</u>	<u>YEARLY EXPENDITURES</u>	<u>TOTAL PROJECT EXPENDITURES</u>
Norex 1986	180,837.32	27,125.60	207,962.92	
1987	0	0	0	
1988	0	0	<u>0</u>	207,962.92
Freewest 1986	119,917.46	17,987.62	137,905.08	
1987	303,877.74	45,581.72	349,459.46	
1988	96,863.19	14,529.48	<u>111,392.67</u>	598,757.21
Cline 1986	0	0	0	
1987	171,204.27	25,680.64	196,884.91	
1988	64,575.46	9,686.32	<u>74,261.78</u>	<u>271,146.69</u>
				1,077,866.82

LATITUDE 865NDEPARTURE 2375EELEVATION 1000DIP AT COLLAR -50° BEARING 180°TOTAL DEPTH 836.6 CORE SIZE BQCORE STORAGE Aunor Mine Site, Timmins

REMARKS _____

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Test Depth	Dip	Magnetic Bearing	Corrected Bearing
164	-41°	186	179
328	-42°	192	185
462	-40°	193	186
521	-39°	191	184
643	-37°	182	175
837	-36°	189	182

Sheet No. 1 OF 7Project No. 291 Hole No. CL-88-56Property CLINE LAKENTS. 42-C-8 TWP. Jacobson Claim No. SSM 2186Date started January 12, 1988 completed January 18, 1988Contractor St. LambertLogged by T. Neelands

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
Overburden				
16.4-23.5 Basalt	Dark green, fine-grained, schistose foliation 50 deg to C.A., magnetic. One fracture per foot filled with calcite parallel to schistosity. Lower contact @ 50 deg to C.A.	Weakly carbonatized		
23.5-27.0 Intermediate Tuff and Sulphide Ironstone	Tuff is medium grey, medium-grained and bedded. Beds are 1cm thick @ 50 deg to C.A. 23.5-24.5 - tuff 24.5-25.2 - milky quartz vein + 2% pyrrhotite 25.2-26.1 - basalt 26.1-27.0 - sulphides ironstone. 10% pyrrhotite, 90% cherty quartz Lower contact @ 50 deg to C.A.			
27.0-66.5 Basalt	Dark green, fine-grained, slightly schistose 3 calcite filled fractures per foot at 50 deg to C.A. Lower contact sharp @ 50 deg to C.A. Core angles 53 deg to C.A. 49.0-64.0 - magnetic ironstone fragments or thin beds: 29.7 - 2" sulphide ironstone, 25% pyrite, to C.A.	Carbonate alteration: 20%, crystals of dolomite - 20% disseminated Quartz Vein: 27.5-29.3 - milky upper contact, U.C. - 80 deg to core axis, C.A. -Lower contact, L.C. - 45 deg to C.A.: diffuse		Fragments of ironstone may have been ripped up by flow.

NORANDA EXPLORATION COMPANY LIMITED
DIAMOND DRILL CORE LOG

Sheet No. 2 OF 7

Project No. 291 Hole No. CL-88-56

Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	30.3 - 2" sulphide ironstone, 5% pyrite 30.6 - 3" sulphide ironstone, 5% pyrite 31.8 - fragment sulphide ironstone, 2% pyrite			
66.5-76.2 Granodiorite	Medium grey, fine-to medium-grained, slightly schistose @ 50 deg to C.A., 3% quartz phenocrysts	K-spars: 74.0-76.0 - 10%, 20% pyrite, 10% chlorite Silicification: 66.5-70.0 - 50% 5% ankerite		
76.2-100.6 Basalt	Dark green, fine-grained, weakly schistose, core angles @ 62 deg to C.A., 2 calcite filled fractures per foot, strongly magnetic - contains 3% disseminated magnetite, lower contact sharp at 70 deg to C.A.	Quartz veins: 89.2-89.6 - smoky, 50 50 deg to C.A. 99.5 - 2", milky, 60 deg to C.A. 100.0 - 1" milky, 70 deg to C.A.	98.0-100.5: 5% pyrite in stringers and disseminations	
100.6-134.6 Silicified Granodiorite	Light grey with dark grey laminations, fine-grained, schistose, core angles (foliation) 55 deg to C.A., quartz veining + ankerite, minor (1%) pyrrhotite, 5% bluish quartz eyes as phenocrysts	Sericite: 5% yellow-green Quartz: 10% 109.5 - 3", milky 118.2-119.2 - milky + 5% ankerite, contact @ 70 deg to C.A., 5% pyrrhotite, 5% pyrite	114.2-114.3 - 60% pyrite 119.8-121.0 - 10% pyrrhotite + pyrite	

NORANDA EXPLORATION COMPANY LIMITED
DIAMOND DRILL CORE LOG

Sheet No. 3 OF 7

Project No. 291 Hole No. CL-88-56

Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
134.6-231.7 Basalt	Dark and olive green, fine-grained, massive 3 fractures/foot, filled with calcite and 1% pyrite, fracturing at 30 deg to C.A., moderately magnetic, lower contact @ 70 deg to C.A.	119.2-121.3 - 30% chlorite, may be altered inclusion of basalt Epidote: 157.5-180.0 - 10%	1% pyrite	
231.7-253.0 Granodiorite	Medium grey, medium-grained, porphyritic, quartz phenocrysts up to 4mm in diameter - are fractured and boundaries altered, generally massive, lower contact @ 70 deg to C.A.	Sericite: content - 3% Relatively unaltered	1% pyrite overall 233.0 - specks of arsenopyrite on fractures	
253.0-374.0 Basalt and Ironstone	Light green, fine-grained, massive; 3 fractures per foot @ 45 deg to C.A. Moderately magnetic; 1% magnetite crystals as disseminations - 295.0-305.0: non-magnetic; lower contact @ 45 deg to C.A. Sulphide, oxide ironstone: 315.0-317.5 - 20% pyrite, 20% magnetite - 1/2" band, chloritic	Quartz Veins: 254.3-255.0 - 45 deg to C.A. 268.5 - 3", fragment? 5% pyrite, 1% pyrrhotite 30 deg to C.A. 274.5 - 1", 5% pyrite, smoky, 50 deg to C.A. 1% pyrite 280.5 - 2", 5% pyrite, smoky, 50 deg to C.A. Calcite in fractures		

NORANDA EXPLORATION COMPANY LIMITED
DIAMOND DRILL CORE LOG

Sheet No. 4 OF 7

Project No. 291 Hole No. CL-88-56

Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
374.0-542.0 Altered Granodiorite	Light to medium grey, medium-grained, porphyritic, ground mass altered to sericite, massive to slightly schistose sections are silicified: quartz veins and fractures generally parallel to schistosity 374.0-443.0 - less altered, medium-grained, 433.0 -542.0 - finer-grained, increase in sericite, minor quartz phenocrysts 490.0-542.0 - core angles @ 75 deg to C.A. Lower contact @ 45 deg to C.A.	Chlorite: 389.0-396.4 - 20% Sericite: 5% Quartz Veins: 385.4: 1", smoky, 50 to C.A. 390.0 - 1", smoky, 50 to C.A. 398.0-399.0 - beige silicification, 1% pyrite 407.5 - 3: smoky, 45 deg to C.A. 441.7 - 1", 80 deg to C.A. 459.5-461.0 - 50% quartz veining, smoky 60 deg to C.A. 474.0 - 4", 60 deg to C.A., tourmaline - 10% 442.4 - 2", 70 deg to C.A. 510.0 - 1", smoky, 35 deg to C.A.		

NORANDA EXPLORATION COMPANY LIMITED
DIAMOND DRILL CORE LOG

Sheet No. 5 OF 7

Project No. 291

Hole No. CL-88-56

Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
		513.6 - 4", smoky, tourmaline, 80 deg to C.A. 515.5 - 1", smoky, 80 deg to C.A. 527.0 - 1/2", smoky, 70 deg to C.A. 532.0 - 2, 1/2", smoky, with orange kspar alteration 539.2 - 1", smoky		
542.0-567.1 Diabase	Black, fine-grained, massive, 1 fracture per foot, filled ;with quartz-carbonate, magnetic, flint-like, Lower contact @ 45 deg to C.A.			
567.1-621.0 Altered Granodiorite	Light grey, fine-to medium-grained 567.1-603.0 - medium-grained, schistose, slightly porphyritic 603.0-621.0 - fine-grained, chilled, massive, <1mm quartz phenocrysts 605.5-608.4; 609.9-612.5 - altered inclusions of basalt as from 621.0-635.7, contacts @ 50 deg to C.A.	5% sericite		

NORANDA EXPLORATION COMPANY LIMITED
DIAMOND DRILL CORE LOG

Sheet No. 6 OF 7

Project No. 291 Hole No. CL-88-56

Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
621.0 Altered Basalt	Light green, fine-grained, slightly schistose, core angles @ 70 deg to C.A., porphyritic magnetite crystals <2mm, irregular shape, 10%, silicified: 2 Kink bands and drag fold are prominent 635.7-647.8 - chilled granodiorite sill, fine-grained, schistose: 60 deg to C.A. Quartz veins and ankerite, 1% tourmaline as lamillae, 2% pyrite 679.4-682.1 - altered granodiorite sill, purplish pink (d-spar alteration) fine-grained, massive 693.2-698.8 - Altered granodiorite sill, 5% sericite, 1% pyrite, tourmaline in crackled hairline fractures	No calcite Quartz Veins: 644.0 - 2" 50 deg to C.A. Chlorite: Increase in chlorite from 647.8, more schistose K-spar alteration: 740.8-744.7 - crackled contacts sharp @ 45 deg to C.A. Silicified overall -5% milky quartz as veins up to 2 inches, parallel to schistosity Quartz Veins: 674.5 - 1/2", smoky, 45 deg to C.A. and perpendicular to schistosity 687.0-690.0 - 5% pyrite 725.5-726.1 - milky quartz, 3% chalcopryite, 45 deg to C.A., 80 deg to schistosity	1% pyrite 719.0 - 2" - 30% pyrite	

NORANDA EXPLORATION COMPANY LIMITED
DIAMOND DRILL CORE LOG

Sheet No. 7 OF 7

Project No. 291 Hole No. CL-88-56

Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
779.0-836.6 Basalt	Light green, fine-grained, massive to slightly schistose, 3 fractures per foot, quartz-carbonate filled, fractures vary from 30 deg to 60 deg, 10% disseminated magnetite, foliation @ 70 deg to C.A.	743.0 - 2" milky quartz vein, 45 deg to C.A. 744.7-747.0 - 5% pyrite 754.0 - 3", 60 deg to C.A. Milky quartz, specks of <u>chalcopryrite</u> in basalt	1% pyrite as disseminations	
836.6	END OF HOLE			

LATITUDE 8 + 62N

DEPARTURE 21 + 71E

ELEVATION 1000

DIP AT COLLAR -50° BEARING 180°

TOTAL DEPTH 482.3 CORE SIZE BQ

CORE STORAGE Aunor Mine Site, Timmins

REMARKS Hole abandoned due to flattening

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Test Depth	Dip	Magnetic Bearing	Corrected Bearing
69	-46	187	180
167	-43	185	178
325	-38	183	176
423	-38	187	180

Sheet No. 1 OF 4

Project No. 291 Hole No. CL-88-57

Property Cline Lake

NTS. 42-C-8 TWP. Jacobson Claim No. SSM 2186

Date started January 19, 1988 completed January 22, 1988

Contractor St. Lambert

Logged by T. Neelands

Depth & Interval	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
Overburden				
52.5-65.9 Altered Granodiorite	Light grey, medium-grained, 5% quartz phenocrysts up to 4mm in diameter, schistosity @ 55 deg to C.A.*; 52.5 to 54.5 is probably a boulder because schistosity is parallel to core. Lower contact at 55 deg to C.A.	Silicified: silica flooding(?) - no quartz veinlets Sericitic: 2%, evenly	1% disseminated pyrite, crystals less than 1/20"	
65.9-75.9 Tuffaceous Basalt	Dark green, fine-grained, foliation parallel to bedding @ 60 deg to C.A., thinly bedded, beds show change in colour from light green to dark green, non-magnetic, 2 fractures / foot parallel to bedding, calcite filled.	Calcite: 5%	1% pyrite in calcite fractures.	
75.9-86.7 Altered Granodiorite	Light grey, fine-to medium-grained, schistose, foliation @ 50 deg to C.A. Lower contact @ 50 deg to C.A.	Chlorite: 5% Sericitic: 5% Silicified but only one quartz veinlet @ 78.6': 1/2" wide, @ 50 deg to C.A.		
86.7-137.8 Basalt	Dark green, fine-grained, slightly schistose, core angles of foliation @ 40 deg to C.A. Lower contact @ 50 deg to C.A. Light grey fine-grained felsite sills @ 122.5-127.0 and 128.9-130.6	Calcite: 5%		

NORANDA EXPLORATION COMPANY LIMITED
DIAMOND DRILL CORE LOG

Sheet No. 2 OF 4

Project No. 291

Hole No. CL-88-57

Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
137.8-180.8 Sulphide Ironstone	25% bedded chert, 40% mudstone, 30% intermediate tuff, 5% pyrrhotite + pyrite. Chert altered to sugary, milky quartz veins. Chert beds average 2-3" wide. Bedding @ 60 deg to C.A. Thinly laminated in tuff and grey mudstone. Pyrrhotite occurs as thin <1cm beds. Ratio of po/py is 8:1. Pyrrhotite massive: 161.2-161.7. Lower contact gradational.	Ankerite rims chert beds	1% chalcopyrite distributed from 155-170 as blebs and fracture smears. Fractures are at 80 deg to bedding and 45 deg to C.A. This suggests that chalcopyrite fractures are flat lying or vertical striking @ 150 deg.	
180.8-434.2 Silicified Basalt	Light green to grey, fine-grained, massive to slightly schistose with quartz-carbonate veinlets @ 30 deg, 45 deg, 60 deg, and 70 deg to C.A. Carbonate breccia: 229.0-231.5 - 10% quartz-carb, fragments of basalt in quartz-calcite matrix - 1% pyrrhotite Sills: 296.6-299.6 - altered granodiorite, medium grained, 5% quartz phenocrysts, schistosity @ 50 deg to C.A. Contacts @ 60 deg to C.A. 314.3-316.5 - felsite, 2% pyrite 321.6-328.4 - granodiorite sill, medium grained, not porphyritic 359.5-362.2 - chilled felsite sill	Quartz-carbonate veinlets: 206-224: 10% of core, smoky quartz with 5% ankerite 239.0-241.0: 70% smoky quartz + calcite, 10% pyrite, 45 deg to C.A. 247.3: 4", milky, 10% pyrite along contact 30 deg to C.A. 267.0: 1", milky, 50 deg to C.A. 273.5: 1", 30 deg to C.A., 2% pyrite	Veinlets contain 1% pyrite and pyrrhotite 358.0-358.5: 10% pyrite	

NORANDA EXPLORATION COMPANY LIMITED
DIAMOND DRILL CORE LOG

Sheet No. 3 OF 4

Project No. 291

Hole No. CL-88-57

Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	365.1-377.7 - granodiorite sill, 1% disseminated, 10% bluish quartz phenocrysts evenly distributed 387.6-389.8 - felsite sill, 1% pyrite at contacts 401.5-402.0 - 10% pyrite, 1" quartz-carbonate vein, 50 deg to C.A. 419.5-422.0 - 10% pyrite, silicified basalt 430.0-434.2 - 30% quartz veining, 2% ankerite, 5% pyrite	278.8: 2", smoky quartz vein @ 70 deg to C.A.		
434.2-482.3 Altered Granodiorite	Medium grey, medium-grained, moderately schistose, foliation @ 60 deg to C.A. 436.0 - 4" chilled section, felsite dykelet 440.5 - 8" chilled section, felsite dykelet For both contacts @ 55 deg to C.A.	Quartz Veins; 449.0-449.6: smoky, 85 deg to C.A. 453.6: 2", smoky, 20% tourmaline, 90 deg to C.A. 456.7: 1", smoky, 20% tourmaline 469.2-469.9: smoky, 20% tourmaline, 10% pink ankerite, 80 deg to C.A. 470.5: 1", smoky, 45 deg to C.A.		

NORANDA EXPLORATION COMPANY LIMITED
DIAMOND DRILL CORE LOG

Sheet No. 4 OF 4

Project No. 291

Hole No. CL-88-57

Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
482.3	END OF HOLE	471.4: 2", milky + 10% tourmaline, 70 deg to C.A. 473.7: 2", milky + 25% ankerite 477.0: 1/2", smoky, 80 deg to C.A.		

LATITUDE 6 + 00NDEPARTURE 21 + 71EELEVATION 1000DIP AT COLLAR -50° BEARING 180°TOTAL DEPTH 423.2 CORE SIZE BQCORE STORAGE Aunor Mine Site, Timmins

REMARKS _____

NORANDA EXPLORATION COMPANY LIMITED
DIAMOND DRILL CORE LOG

Test Depth	Dip	Magnetic Bearing	Corrected Bearing
98	48	190	183
206	44	187	180
246	44		
345	41		
423	41		

Sheet No. 1 OF 3Project No. 291 Hole No. CL-88-58Property Cline LakeNTS. 42-C-8 TWP. Jacobson Claim No. SSM 2186Date started January 22, 1988 completed January 29, 1988Contractor St. LambertLogged by T. Neelands

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
0-78.7 Overburden				
78.7-213.0 "Porphyry"	Medium grey colour, matrix light grey due to sericite alteration, medium-grained no definite quartz phenocrysts because alteration not extensive, slightly schistose @ 40 deg to C.A. 110.0-113.0 - fractured, hairline fractures filled with quartz carbonate 113.0-116.0; 137.2-137.7 - gossanous weathering 143.0-167.0 - low angle fractures, 0 deg to C.A. sub parallel to schistosity Chilled felsite dykes: sub parallel to schistosity, sharp 124.0-125.1 - light grey, fine-grained 120.0-124.3 - banded 167.3-168.2 - 159.3-160.6 - 158.0-161.0; 194.0-202.0 - gossanous weathering Shear Zone: 174.2-180.0 - 30% milky quartz, 2% smoky quartz, milky quartz folded, 40% chlorite	Sericite: 1% 96.1-96.4 - sericite rich band Quartz veins: 101.0 - 1", smoky, 20% ankerite, 60 deg to C.A. 101.5 - 1.5" bleb, 10% 10% ankerite 135.7-136.1 - shear, 55 deg to C.A., 30% quartz 5% chlorite 138.2-138.4 - shear, 55 to C.A., 10% chlorite, 10% quartz 141.7 - 1" quartz, smoky, 55 deg to C.A. 25% ankerite 145.8 - 1/2", hairline fracture of tourmaline, 1% pyrite 165.0 - smoky, 50 deg to C.A., 80 deg to schistosity	1% pyrite	Slightly altered granodiorite

NORANDA EXPLORATION COMPANY LIMITED
DIAMOND DRILL CORE LOG

Sheet No. 2 OF 3

Project No. 291

Hole No. CL-88-58

Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
213.0-245.5 Mafic Dykes	Black, fine-grained, massive, 2 hairline fractures per foot filled with quartz-carbonate, at 55 deg to C.A., magnetic lower and upper contacts @ 60 deg to C.A.	179.0 - 2", smoky, 10% tourmaline, 70 deg to C.A. k-spar: 118.2-130.0, 25%		
245.5-274.2 "Porphyry"	Medium grey, medium-grained, 10% blue quartz phenocrysts from 254.5 to 256.0, overall not porphyritic, moderately schistose, core angles @ 35 deg to C.A., core streaked with black mineral in hairline fractures possibly tourmaline; Upper Contact: altered contains smoky quartz veinlets and sericite. Lower contact sericitized.	Sericite: 5% Quartz veins: 273.3 - 2" smoky 90 deg to C.A., 3% pyrite, sericitic alteration halo.	1% pyrite	Moderately altered granodiorite. Increase in schistosity and decrease in granular texture.
274.2-423.3 Altered Basalt and Chilled Felsite Dykes	Medium to light green, medium-grained schistose. Decrease in alteration towards bottom. Core angles: 274.2-315.0 approx 35 deg; 315.0-340.0 approx 40 deg; 345.0-375.0 approx 45 deg Milky quartz veins parallel to schistosity are folded and kinked; are probably tension fillings due to shearing, 5% disseminated magnetite	K-spar: Mainly in felsite dykes - 290.9-291.4; 305.2-307.5; 335.2- 338.0, are 100% Quartz Veins; 279.6 - 2" smoky, 80 deg to C.A.	Pyrite 296.0-297.0 - 3% 303.0 - 2", 20% disseminated 326.0-326.6 - 10% banded with 50% milky quartz	

NORANDA EXPLORATION COMPANY LIMITED
DIAMOND DRILL CORE LOG

Sheet No. 3 OF 3

Project No. 291

Hole No. CL-88-58

Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
423.3	Chilled felsite dykes: 290.9-292.9; 296.0-297.0; 303.2-304.2; 305.2-307.5; 308.5-313.0; 317.6-318.2; 326.6-329.1; 329.7-330.4; 340.2-343.0 END OF HOLE	369.5 - 2", 50 deg to to C.A., 30% ankerite	340.0-340.3 - 20% ankerite, 60% milky quartz 369.0 - 2", 5% pyrite 422.0 - 4", 20% banded	

LATITUDE 750N

NORANDA EXPLORATION COMPANY LIMITED

Sheet No. 1 OF 14

DIAMOND DRILL CORE LOG

DEPARTURE 1965EProject No. 291 Hole No. CL-88-59ELEVATION 1000Property Cline LakeDIP AT COLLAR -53° BEARING 180NTS. 42-C-8 TWP Jacobson Claim No. SSM 2186TOTAL DEPTH 1476.4 CORE SIZE BQDate started January 28, 1988 completed February 10, 1988CORE STORAGE Aunor Mine Site, TimminsContractor St. Lambert

REMARKS

Logged by T. Neelands/J. Horawski

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Test Depth	Dip	Magnetic Bearing	Corrected Bearing	Mineralization	Remarks
		1284	-36	195.0	188		
		1407	-36	194	187		
0-59.0 Overburden							
59.0-129.4 Siltstone and Felsite Sills and band of Sulphide Ironstone	Medium-grey, fine-grained, bedding @ 50 to C.A. with quartz veinlets parallel to bedding. Most of unit is weakly carbonatized 83.1-85.0 - 85% sugary chert, 5% pyrite, 5% milky quartz 72.5-74.4 - zone of silicification with quartz veinlets and blebs of pyrite - possibly a felsite dyke 88.4-89.5 - weathered section sills: 90.9-92.4 - quartz porphyry sill, grey fine-to medium-grained, 5% quartz phenocrysts, 1% pyrite 94.6-95.5 - as from 90.9-92.4					Calcite: 10% Quartz veins: 79.9 - 6", carbonate veinlet 84.5 - 1", smoky, 55 deg to C.A. 85.0 - 1", smoky, 55 deg to C.A. 90.6-100.5 - 15% carbonate veining with minor pyrite 121.2-126.8 - increased quartz veining 5%	Minor pyrite in thin beds and disseminations; 76.4 - 4mm band of sphalerite -specks of chalcopyrite, 45 deg to C.A. 76.2-76.5 - 20% pyrite 106.8-108.4 - 10% pyrite 107.3 - 1" sphalerite band parallel to bedding and speck of chalcopyrite 108.4 - 0.5" band of sphalerite and 0.5" chert bed
129.4-171.1 Basalt	Dark green, fine-grained, massive to slightly schistose, foliation at 55 deg to C.A. with minor quartz-carbonate veining, moderately magnetic						

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL-88-59Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
171.1-196.0 Felsic Sills + basalt + Iron Formation	171.1-179.8 - felsite sill and iron formation - light greenish grey, fine-grained 172.0-174.6 - bedded, 30% chert, 6% pyrite, 2% pyrrhotite, 2% magnetite, 60% dark green argillite, bleb of chalcopyrite 179.8-188.0 - as from 129.4-171.1 -basalt, upper and lower contacts @ 55 deg 188.0-196.0 - quartz "porphyry" sill -medium grey, fine-to medium-grained, slightly schistose, 2% sericite, 2% blue quartz phenocrysts, 2% disseminated pyrite as cubes <2mm diameter			
196.0-320.5 Basalt and Felsite Dyke	Dark green, fine-grained, massive, slightly banded @ 35-60 deg to C.A., possible pillow margins; quartz-carbonate veins, 2 per foot @ steep angles (>45 deg) to C.A. 314.1-316.2 - dark grey, crackled, aphanitic felsite dyke		Disseminated and banded pyrite 226.6 - 20% pyrite @ 50 deg to C.A. 233.0-236.0 - 4% pyrite as blebs associated with calcite veins -possible replacement sulphides	
320.5-327.3 "Porphyry"	Medium grey, medium-grained, slightly schistose @ 45 deg to C.A.	2% sericite		"Porphyry is probably a "quenched", "chilled" grano-

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL-88-59Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
327.3-335.0 Shear Zone	20% smoky and milky quartz, 10% pyrite, 40% basalt, 30% felsite dyke, sheared @ 60 deg to C.A., minor pink dolomite			
335.0-349.0 "Porphyry"	Green-grey, medium-grained, massive equigranular 344.5 - 2" felsite dyke, contacts @ 70 deg to C.A.	Sericite: 5% Quartz veins: 338.5 - 1/4", smoky, deg to C.A. 339.6 - 1/4", smoky, 80 deg to C.A., 1% pyrite 341.0 - smoky, 10% to C.A. 150/90, 2" 342.7 - 1", 20% quartz, 20% tourmaline, 55 deg to C.A.	3% pyrite	
349.0-358.0 Shear Zone	20% milky quartz, 5% smoky, 75% chloritic schist, 2% pyrite, 45 deg to C.A., contacts gradational @ 45 deg to C.A.			
358.0-464.0 "Porphyry"	Medium grey, medium-grained, equigranular to massive, relatively unaltered compared to lake zone, schistose from 413.4 to 447.0 - 60 deg to C.A.	Sericite: 423.0-447.0 - 5% k-spar: 443.0-445.0 - 5% Quartz veinlets: 379.0 - 4:, cherty quartz vein, 60 deg	Trace pyrite overall increase in pyrite downhole from 416.0	

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL-88-59Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
		394.0-397.0 - 1" quartz vein parallel to core 423.2 - 1", smoky, 10% chlorite, 1% pyrite 60 deg to C.A. 424.5 - 3", milky, 5% chlorite, 3% ankerite 427.4 - 1", milky, 5% tourmaline, 1% pyrite @ 45 deg to C.A. 442.0 - 1/2", smoky, 60 deg to C.A., 1% pyrite 462.4 - 1/2" smoky and milky quartz		
464.0-466.0 Mafic Dyke Lamprophyre	Balck, fine-grained, massive, magnetic, contacts @ 55 deg to C.A.			
466.0-616.0 "Porphyry"	Light grey, medium-grained, massive to schistose in sections @ 50 deg to C.A. Increase in quartz veinlets and sericite. With increase in alteration rock becomes more porphyritic - quartz phenocrysts are less than 1/8" in diameter, compose 20% of rock in sections, quartz phenocrysts have bluish tinge	Sericite: 3-5% 523.0-530.0 - 10% 573.0-577.0 - 10% 595.0-609.8 - 15% Quartz veinlets: and "sweats" containing ankerite and pyrite	476.2 - specks of <u>chalcopryite</u> in quartz veinlet 553.0-557.0 - 5% pyrite in disseminated bands	

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL-88-59Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	573.0-609.8 - schistosity weak 70 deg to C.A.	476.3 - 1", 20 deg to C.A.		
		478.0 - 2", random		
		481.0 - 1/2", 45 deg to C.A.		
		494.1 - 1/4", 80 deg to C.A.		
		495.5 - 1/2", 50 deg to C.A.		
		521.0 - beige colour, 20 deg to C.A., 5% tourmaline		
		523.0 - 1", 30 deg to C.A., 10% pyrite		
		542.5 - 1/2" random, 2% tourmaline		
		549.5 - 1/2", parallel to core, sugary, 5% pyrite		
		551.5 - 1", 20 deg to C.A.		
		553.5 - 1/2", 25 deg to C.A. and random		
		556.0-557.5 - 1", 10 deg to C.A., 15% pyrite		
		575.0 - 1/4", 2% pyrite		

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL-88-59Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
616.0-629.4 Mafic Dyke	Fine-grained, black, massive, magnetic -upper and lower contacts sharp at 45 deg to C.A.	-smoky, parallel to core 580.7 - 1/4", 70 deg to C.A., smoky 606.3 - 1/4", 85 deg to C.A., smoky, 5% ankerite		
629.4-774.8 "Porphyry"	Light grey, medium-grained, more schistose @ 50 deg to C.A., @ 700.0 - 60 deg to C.A. 643.0-652.0 - more medium-grained 715.0-716.5 - shearing @ 45 deg to C.A. chlorite and mylonite	Sericite: 5% 700.0-761.0 - 10% Increase in smoky quartz veinlets parallel to schistosity from 700.0 down: 638.0 - 1/2", 10 deg to C.A., 5% pyrite 647.3 - 2", 80 deg to C.A., 10% ankerite 669.0 - 1", 70 deg to C.A., smoky, 30% ankerite, 5% pyrite 671.5 - 1", smoky, 70 deg to C.A., 5% ankerite	2% pyrite	

DIAMOND DRILL CORE LOG

Project No. 291Hole No. CL-88-59Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
		679.1 - 1/4", smoky, 85 deg to C.A.		
		706.0 - 2 X 1", smoky and ankerite, 60 deg to C.A.		
		731.5 - 1", smoky, 10 deg to C.A., 5% pyrite, bleb of <u>chalcopyrite</u>		
		738.0 - 1/2", 90 deg to C.A., smoky		
		739.0 - 1/4", smoky, 80 deg to C.A.		
		741.0 - 3", smoky, 15 ankerite, 5% tourmaline and chlorite		
		742.0 - 3", smoky, 45 deg to C.A., blebs of <u>chalcopyrite</u> , 5% pyrite		
		744.0 - 2 X 1/2", 1" smoky, 5% ankerite, 45 deg to C.A.		
		745.0 - 2", smoky, 50 deg to C.A.		
		746.2 - 1/2", 10% pyrite, bleb of <u>chalcopyrite</u> 40 deg to C.A.		
		760.0 - 1/4", 90 deg to C.A., smoky		

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL-88-59Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure etc.)	Alteration	Mineralization	Remarks
774.8-786.7 Altered Felsite Dyke	Beige to light grey, aphanitic (ryholitic) massive, crackled, hairline fractures filled with black soft mineral (mylonite) and calcite, 2% smoky quartz phenocrysts, quartz rich -upper contact sharp @ 45 deg to C.A. -lower contact not distinct @ 45 deg to C.A.	Sericite: 5% Quartz veinlets: 774.8 - 1/2", smoky, 45 deg to C.A. parallel to contact - 5% pyrite 776.0 - 2", smoky, 80 deg to C.A., 20% ankerite 779.0 - 1", 20% ankerite, 80 deg to C.A.	Pyrite: 1% 765.0 - speck of molybdenite	
786.7-1024.3 "Porphyry"	Light grey, medium-grained, moderately schistose @ 50 deg to C.A. 883.0-883.6 - shear: quartz veinlets (20%) chlorite - mylonite (20%) -porphyry (60%) 50 deg to C.A. -narrow shears @: 917.7; 920.0; 922.0-923.0; 931.0 @ 30 deg to C.A., contains minor smoky quartz veinlets and trace pyrite	Sericite: 10% 868.0-885.0 - 15% Quartz veinlets - 1 per 5 feet 788.6-789.3 - smoky, 30% chlorite, 80 deg to C.A., 1% pyrite 793.0-793.4 - smoky, 2% pyrite, specks of <u>chalcovpyrite</u> 795.5 - 2", smoky, 50 deg to C.A., 1% pyrite 798.2 - 1/2", smoky 800.0 - 3", smoky, 45 deg to C.A.	1% pyrite 800.7 - smear of molybdenite in	

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL-88-59

Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
		817.5 - 1/4", 45 deg to C.A.		
		818.0 - 2", 60 deg to C.A.		
		830.0 - 1/2", 30 deg to C.A.		
		845.0 - 3", 50 deg to C.A., 30% ankerite	842.0 - speck of molybdenite	
		868.5-872.0 - parallels core, smoky, 5% pyrite		
		878.5-879.5 - calcite parallels core		
	900.0 - schistosity @ 80 deg to C.A.	881.6 - 1/2", smoky, 60 deg to C.A.		
	900.0-1000.0 - becomes more grey-green because of increase in chlorite content -5%	888.2 - 1/4", smoky, 45 deg to C.A., 5% pyrite		
	1015.0-1024.3 - 30% greenish brown sericite	897.0 - 6", smoky, parallel to core, 5% pyrite		
		905.5 - 1/2", smoky, 45 deg to C.A.		
		980.0 - Increase in <1/2" quartz veinlets 2 per 5 feet, mainly @ 80-90 deg to C.A.		
		983.0 - 1/2", smoky, 80 deg to C.A.		

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL-88-59Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
		996.0 - 1", 30 deg to C.A., 5% pyrite		
		984.0 - increase in sericite alteration -rock becomes beige-grey-green		
		1001.0 - speck of fuchsite		
		1020.6-1023.0 - 30% smoky quartz veining 60 deg to C.A., 1% pyrite		
1024.3-1062.9 Mafic Dyke	Black, medium-grained, massive, diabase texture, chilled margins, 3 thin quartz-carbonate fracture - fillings per 5 foot section @ 45 deg to C.A. - upper contact 45 deg to C.A. - lower contact 25 deg to C.A.			
1062.9-1073.5 "Porphyry"	6 greenish-grey, fine-grained, massive weakly schistose @ 60 deg to C.A.			
1073.5-1083.2 Mafic Dyke	As from 1024.3-1062.9 -upper contact - 37 deg to C.A. -lower contact - 52 deg to C.A.			
1083.2-1166.0 "Porphyry"	Light grey becoming grey-green with increase in chlorite, medium-grained 2 quartz veinlets/foot	Chlorite: 5% Smoky quartz veins:		

DIAMOND DRILL CORE LOG

Project No. 291Hole No CL-88-59Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	1087.5 - 6" shear, 45 deg to C.A., 30% mylonite -lower contact @ 35 deg to C.A.	to C.A. 1092.2 - 1/4", 45 deg to C.A. 1093.3 - 1/4", 45 deg to C.A. 1094.5 - 1/4", 45 deg to C.A. 1095.1 - 1/4", 45 deg to C.A. 1098.0 - 1/4", 60 deg to C.A. 1100.0 - 1/4", 50 deg to C.A. 1101.0 - 1/4", 60 deg to AC. 1107.0-1107.8 - 45 deg deg to C.A. 1109.7 - 1" pyrite band 30 deg to C.A. 1111.0 - 3", 60 deg to C.A., 5% pyrite 1113.5 - 1", 60 deg to C.A. 1125.5 - 4", 20%, sheared @ 30 deg to C.A., 10% pyrite	1094.0 - smear of molybdenite	

DIAMOND DRILL CORE LOG

Project No. 291Hole No CL-88-59Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
		1132.3 - 1", quartz-calcite and chlorite, 50 deg to C.A.		
		1141.0 - 3", smoky, 30 deg to C.A.		
		1142.3 - 1", smoky, 35 deg to C.A.		
		1145.0 - 1/2", smoky, 30 deg to C.A, 1% pyrite		
		1151.0 - 1" is smoky, 35 deg to C.A.		
		1156.0-1157.0 - 20% quartz, 5% kspar, 2% pyrite		
1166.0-1194.4 Basalt	Medium green, fine-to medium-grained, massive, 1 quartz-carbonate fracture per foot, 1168.0-1169.0 - multiple fractures @ 30 deg to C.A., non-magnetic -lower contact @ 30 deg to C.A.	Carbonatized - 5% -chloritized - 5%		
1194.4-1252.0 "Porphyry"	Greenish grey becoming light grey after 1215 due to silicification, medium-grained, massive, less quartz veinlets but is silicified bluish quartz crystals in altered matrix of sericite, <2mm diameter, 25% of rock -weak schistosity @ 25-30 deg to C.A. @ 1220.0 - overall schistosity is 60 deg	Sericite - 10% 1194.4-1215.0 - 5% chlorite Chlorite - 5% Quartz veins: 1252.0 -1/2", 60 deg	1% pyrite	

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL-88-59Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	1273.0 - 4" shear @ 65 deg to C.A. From 1318.0 becomes more fine-grained 1323.0 - foliation 45 deg to C.A. Rock altered from 1375.0-1542.0 due to felsite dykes: 1381.0-1382.0 - beige to pink felsite dyke contacts @ 25 deg to C.A., contains 5% pyrite Other felsite dykes: 1380.9-1384.0; 1390.8-1394.8; 1404.7-1407.1; 1410.7-1413.3; 1420.0-1421.1 (30% K-spar alteration) 1429.2-1429.7; 1430.7-1434.3; 1435.3-1438.7; 1442.2-1451.6; Contacts @ 50 deg to C.A.	Sericite: 15%, 1255.0-1266.0 Silicified - 1279.0-1287.0, increase in quartz veinlets to 3/5 foot Smoky quartz veinlets: 1262.0 - 1/4", 60 deg to C.A. 1263.5 - 1/4", 30 deg to C.A. 1267.0 - 1/4", 85 deg to C.A. 1269.0 - 1/4", 45 deg to C.A. 1280.0 - 1/2", 45 deg to C.A., 3% pyrite 1281.3 - 1/4", 80 deg to C.A., 3% pyrite 1282.0 - 1", 65 deg to C.A., 5% pyrite 1283.0 - 1", 75 deg to C.A., 3% pyrite also in host rock 1284.3-1285.4 - 30% 40 deg and 60 deg to		

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL-88-59Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
		1380.0 - 4", 25 deg to C.A., 5% ankerite, 10% chlorite		
		1323.5 - 3", smoky, 60 deg to C.A., 3% pyrite		
		1419.5 - 1", smoky and 5% ankerite		
		1428.9 - 1" and 2", 60 deg to C.A., 5% ankerite		
		1440.0 - 1" and 3", 60 deg to C.A. -1 speck of chalcopyrite		
		1466.5 - 1", 60 deg to C.A., 3% pyrite		
1469.0-1476.4 Diorite	Green, medium-grained, white feldspar grains in a matrix of chlorite and ferromagnesian minerals, massive, slightly schistose near contact, contact is gradational from 1467.5-1469.0 @ 60 deg to C.A., minor quartz-carbonate fractures @ 45 deg to C.A., non-magnetic	Carbonate - calcite 5%		
1476.4	END OF HOLE			

LATITUDE 970N
DEPARTURE 2768E
ELEVATION 1000
DIP AT COLLAR -55° BEARING 180°
TOTAL DEPTH 1220 CORE SIZE BQ
CORE STORAGE Aunor Mine Site, Timmins
REMARKS _____

NORANDA EXPLORATION COMPANY LIMITED
DIAMOND DRILL CORE LOG

Test Depth	Dip	Magnetic Bearing	Corrected Bearing
88	-54	187.5	180.5
207	-54	186	179
442	-52	187	180

Sheet No. 1 OF 11
Project No. 291 Hole No. CL-88-60
Property Cline Lake
NTS. 42-C-8 TWP Jacobson Claim No. SSM 2186
Date started February 11, 1988 completed February 22, 1988
Contractor St. Lambert
Logged by I. Neelands

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
0-62.3 Overburden				
63.3-85.0 Basalt	Dark green, fine-to medium-grained, slightly schistose to massive, core angles @ 45 deg to C.A., magnetitic, 5% chloritoid. Lower contact not distinct over 1 foot.	Carbonate: calcite 10%		
85.0-111.4 Mafic Tuff and bands of Sulphide Ironstone	Dark green, fine-grained, bedded @ 45 deg to C.A. Sulphide ironstone 91.2-91.6 - 60% pyrite with chert matrix and interbeds of mafic tuff, bedding 55 deg to C.A., weakly magnetic 97.0-98.0 - 65% pyrite with chert matrix and mafic tuff interbeds, bedding @ 50 deg to C.A., weakly magnetic			The mafic tuff may include green argillite
111.4-120.3 Sulphide Ironstone	40% chert (sugary quartz) 45% tuffaceous (mafic) interbeds and 9% pyrite, 1% pyrrhotite, 5% disseminated crystalline magnetite, chert beds up to 3" thick	5% secondary chlorite		

DIAMOND DRILL CORE LOG

Project No. 291Hole No. CL-88-60Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
120.3-136.0 Mafic Tuff	Dark green, fine-to medium-grained, bedding @ 45 deg to C.A., 6 quartz-carbonate veins parallel to bedding, weakly magnetic, lower contact gradational.	Carbonate - 10% calcite		
136.0-181.7 Basalt and Feldspar	Dark green, as above, but more massive, less quartz-carbonate veining Felsic Dyke 169.9-170.7 - light grey, fine-grained, -upper contact 70 deg to C.A. -lower contact 35 deg to C.A. -1% pyrite	Carbonate - 5% calcite		
181.7-188.3 Sulphide Ironstone	30% sugary quartz (chert) 15% smoky-milky quartz, 20% felsic tuff, 5% sericite, 5% ankerite, 8% pyrrhotite, 2% pyrite, 10% mylonite -bedding at 60 deg to C.A. - upper contact sharp @ 60 deg to C.A.; lower contact gradational over 6"		186.5 - speck of chalcopyrite 182.3 - 2" band of massive pyrrhotite 183.5 - 4" band of massive pyrrhotite, 5% pyrite, 2% sphalerite	Zone is sheared
188.3-205.2 tuff and Mafic tuff and Sulphide Iron Formation	Grey to beige, fine-grained matrix, coarse-grained quartz crystals, compose 15% of rock. Rock is well foliated attributed to bedding and quartz crystals are dark grey rather than blue as in "porphyry" Mafic tuffs: 194.0-199.3 - dark greeny laminated, thin beds, 1/8" thick, 5% felsic tuff interbeds	Sericite - 10% Quartz Veins: 190.5 - 2", smoky 198.0 - at contact, 2" smoky, 5% ankerite, 2 parallel to bedding, 1 @ 70 deg to bedding, flat lying	1% pyrite	Porphyry is Felsic altered grano-diorite

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 3 OF 11

Project No. 291 Hole No. CL-88-60

Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
205.2-250.8 Mafic Tuff	Sulphide ironstone: 25% chert, 25% pyrite, 20% magnetite, 30% argillite or mafic tuff; Bedding @ 50 deg to C.A., chert beds 1/2" thick Medium green, fine-grained, laminated, wispy laminations, no distinct graded bedding but beds have different colours. Some lamellae up to 1/4" thick and light greenish grey colour. Contains smoky quartz and ankerite veins and quartz-carbonate veins	Carbonate - minor (3%) calcite Quartz Veins: 208.2 - 1", smoky, 60 deg to C.A. 204.5 - 2", smoky mylonite, 60 deg to C.A. 218.0-218.6 - 20% smoky, 30% ankerite, 60 deg to C.A., 1% pyrite 223.0 - 1", smoky and calcite 228.3-228.7 - smoky and 1% ankerite, 5% pyrite	212.2 - speck of chalcopyrite	
250.8-269.7 Felsic Dyke	Medium grey to beige, fine-grained to aphanitic, chilled within 2' of contact giving crackled appearance, 3 quartz veinlets (<1/4") per 5 feet, random core angles. Upper contact @ 25 deg to C.A.	Ankerite and chlorite blebs in quartz veinlets	1% pyrite	
269.7-274.2 Basalt	Dark green, fine-grained, massive, slightly foliated @ 50 deg to C.A., non-magnetic			

DIAMOND DRILL CORE LOG

Project No 291Hole No CL-88-60Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
274.2-282.1 Felsic Dyke	Light grey, fine-grained to aphanitic, 5% <1mm quartz phenocrysts, weakly schistose. Upper contact @ 25 deg to C.A.	Sericite - 2% Quartz Veins: 275.0 - 1/4"		
281.1-454.0 Basalt and Shear Zones and Oxide Iron Formation	Dark green, fine-to medium-grained, weakly schistose @ 35 deg to C.A., 3 quartz-calcite veins per foot, mainly parallel to schistosity, Non-magnetic, 297.0-318.0 - 10% leucoxene Shear Zones: 318.0-327.0 - schistosity @ 25 deg to C.A., 60% quartz-carbonate, 5% pyrite, 10% sericite, 328.7-335.0; 342.3-343.3; 388.0-391.0 Oxide ironstone: 367.0-368.0 - 30% magnetite, 30% chert 404.0-405.5 - 35% magnetite, 30% chert, 35% green argillite Felsic dykes: 323.3-324.0; 426.7-427.6 - contacts @ 40 deg to C.A.	Quartz Veins: 291.7 - 2", smoky and 20% ankerite, 5% pyrite 35 deg to C.A. 296.0 - 2", bleb, 5% ankerite 356.8 - 1", smoky, 60 deg to C.A., 20% pyrite 398.0 - 1/2", smoky Epidote: 20%, 378.0-379.3	Pyrite in stringer zones or along pillow rims @ 401.0 and 397.0-399.0 427.6 - speck of chalcopyrite 428.3 - 5% pyrite as coarse, 1/4" cubes	
454.0-462.4 Felsic Dyke	Dark grey, fine-grained to aphanitic, massive, 460.0 - speck of magnetite -upper contact @ 60 deg to C.A., lower contact @ 60 deg to C.A. - both sharp	Quartz Veins: 456.5 - 2" milky quartz and calcite, 1/16" stringer of chalcopyrite, 80 deg to C.A.	1% pyrite	

DIAMOND DRILL CORE LOG

Project No. 291 Hole No. CL-88-60Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
		457.1 - 2 X 1.4", quartz calcite veinlets, 1/4" band of tourmaline, speck of chalcopyrite 80 deg to C.A.		
		458.0 - 1/4", quartz- calcite veins, 80 deg to C.A.		
462.4-495.3 Basalt	Dark green, massive, slightly schistose @ 50 deg to C.A., random calcite veins, low and high angle, 2 per foot, moderately magnetic -lower contact @ 30 deg to C.A.			
495.3-533.0 Felsic Dyke	Medium grey, fine-grained, to aphanitic (rhyolitic) massive to weakly schistose, 5% white feldspar crystals (altered), lower contact @ 30 deg to C.A.	K-spar alteration: 499.0-501.0 - 3% 508.0-517.0 - 5% 519.0-528.0 - 15% Quartz-Calcite veins: 1-2" thick, parallel to core 511.8-512.5; 513.0- 514.0; 515.4-516.0; 517.0-518.0 Veins are rimmed by 1% pyrite and minor smoky quartz	1% pyrite 455.3-499.0 - 1/8" thick pyrite stringers parallel to core, 10% calcite	
533.0-570.0 Altered Basalt and Felsic Dyke	Dark green, medium-grained, schistose @ 50 deg to C.A., quartz-calcite fracture fillings @ 50 deg and 90 deg to C.A., 2 per foot. Non-magnetic.		548.0-549.0 - 15% pyrite as wispy bands	

NORANDA EXPLORATION COMPANY LIMITED
DIAMOND DRILL CORE LOG

Sheet No. 6 OF 11

Project No. 291 Hole No. CL-88-60

Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
570.0-603.3 Sheared "Porphyry"	545.0-549.0 - felsic dyke. Upper contact @ 25 deg to C.A., light to medium grey, 1% pyrite Medium grey with alternating bands of "porphyry" with sericite and chlorite bands, 5% pyrite as stringers. "Porphyry" fragments are stretched, fragments are 1" thick, schistosity @ 25 deg to C.A.	1% calcite Quartz Vein: 575.5 - 1", smoky, 45 deg to C.A., 1% pyrite 603.0 - 1/2", smoky, 25 deg to C.A., 1% pyrite	579.0-581.0 - 10% pyrite	
603.3-649.8 "Porphyry"	Light grey to medium-grained, weakly schistose @ 25 deg to C.A. More medium-grained from 640.0 to 649.8. Mottled appearance due to wavy fracture pattern filled with chlorite.	Sericite: 1% Quartz veins: 622.0 - 1", 25 deg to C.A., 1% pyrite, smoky 625.0 - 1", 30 deg to C.A. - 1% pyrite, milky and smoky 628.0 - 1/2", 25 deg to C.A., smoky 635.0-636.0 - 2 X 1/2", smoky sericitic rims, 1% pyrite, 25 deg to C.A. 643.0 - 1/2", smoky, 25 deg to C.A.		Altered grano-diorite

NORANDA EXPLORATION COMPANY LIMITED
DIAMOND DRILL CORE LOG

Sheet No. 7 OF 11

Project No. 291 Hole No. CL-88-60

Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
649.8-726.6 Mafic Dyke and "Porphyry"	Black to dark grey, fine (chilled) to medium-grained (ophitic) magnetic -1 calcite fracture filling 1 foot @ 60 to C.A. 699.0-720.0 more ophitic. Upper contact @ 53 deg to C.A. Lower contact @ 45 deg to C.A. - sharp contacts "Porphyry" inclusions: 675.6-688.3 - upper contact @ 32 deg to C.A. -foliated @ 30 deg to C.A., light brown sericite alteration 682.0-688.0 719.1-721.3 - 20% sericite, 5% smoky quartz @ 25 deg to C.A, contacts @ 60 deg to C.A.	648.0 - 1/2", smoky, 25 deg to C.A.		
726.0-1068.0 "Porphyry" + Mafic Dyke + Felsic Dykes + altered basalt inclusions	Light grey to greenish (in chloritic sections), medium-grained, massive to to weakly schistose. Schistosity varies from 30 deg to 50 deg to C.A. 726.0-760.0: 30 deg, 760.0-807.0: 47 deg 795.0-805.0 - ankerite in 1/4" quartz veinlets parallel to schistosity by: 2 per 5 feet Mafic Dyke: 855.2-855.7, contact @ 55 to C.A., cross-cuts schistosity @ 85 deg	Sericite: 5% Chlorite: 752.0-760.0 - 5% 5-10% 786.0-787.0; 788.0-790.0, 798.0-801.0, 807.0-810.0 Quartz Veins: 752.0 - 3 X 1/2", smoky + 10% ankerite, + mylonite @ 35 deg to C.A.		

DIAMOND DRILL CORE LOG

Project No. 291Hole No. CL-88-60Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	859.0 - 6" shear, parallel to schistosity @ 60 deg to C.A., 20% smoky quartz sericite + 10% black mylonite	757.0 - 1", 5% sericite 10% chlorite, 2% pyrite @ 25 deg to C.A.		
	812.0-860.0 - quartz veins: 2 per 5 feet mainly flat lying, cut schistosity @ 45 deg to C.A.	761.0 - 1/2", smoky + milky @ 35 deg to C.A.		
	869.0-890.0 - no definite schistosity	767.0 - 1/2", smoky, 1% ankerite @ 60 deg to C.A.		
	870.0 - 5mm blue quartz crystals, 5%	772.3 - 1/2", smoky @ 35 deg to C.A.		
	890.0-1000.0 - schistosity @ 40 deg to C.A.	778.5 - 1.2", smoky, 1% pyrite @ 15 deg to C.A.		
	Felsic dykes: 859.0-897.0 - fine-grained to aphanitic -rhyolitic, beige. Possibly a felsic dyke or chilled portion of prophyry, has erratic fracture pattern, very sericitic with chlorite in fractures	781.8 - 1", smoky, 50% to C.A.	Pyrite 986.0-987.0 - 10%	
		803.4 - 1" smoky	1012.0-1014.0 - 10%	
		812.6-813.0 - smoky, 40 deg to C.A, 5% pyrite specks of chalcopyrite, ankerite and tourmaline @ lower contact -attitude of vein 140/90		
	969.8-978.2; 981.3-987.0; 993.7-995.2; 1007.6-1068.0	818.5; 819.5 - 1/2", 1% pyrite flat lying veins		
		826.4 - 2", 1% pyrite, flat lying		
	Altered Basalt inclusions:	830.0-831.2 - 3 X 1/2" smoky, 1% pyrite, 5% ankerite		
	Light green schistose to massive, some pytygmatic quartz veining ± ankerite			

NORANDA EXPLORATION COMPANY LIMITED

DIAMOND DRILL CORE LOG

Sheet No. 9 OF 11

Project No. 291 Hole No. CL-88-60

Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	940.0-942.0; 944.5-946.6; 947.8-948.2; 955.7-956.2; 963.0-969.5; 987.0-993.0; 995.5-1002.5	838.0 - 3", smoky + milky, 5% tourmaline, 60 deg to C.A. 860.0 - 1", smoky, 30 deg to C.A, 1% pyrite Chlorite: 859.0-878.0 - 5% light green Sericite: in porphyry- 5%, in felsic dykes 10% K-spar alteration 993.7-995.2 - 5% 1007.6-1016.0 - 20% Quartz veins: Less pyrite occurs in these quartz veins. 861.5 - 2", smoky, 2% tourmaline @ 65 deg to C.A. 864.0 -1/2", smoky @ 30 deg to C.A, 1 speck of pyrite, 10% ankerite 879.5-881.0 - 5 quartz veins, 70 deg to C.A, 1-2" thick 885.0 - 1/2", 80 deg to C.A., 20% ankerite		

NORANDA EXPLORATION COMPANY LIMITED
DIAMOND DRILL CORE LOG

Sheet No. 10 OF 11

Project No. 291 Hole No CL-88-60

Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
		887.0 - 1/4", 80 deg to C.A.		
		897.5 - 2", 50 deg to C.A.		
		898.2 - 2", 47 deg to C.A.		
		904.4 - 2", 45 deg to C.A.		
		907.7 - 1", 45 deg to C.A.		
		915.9 - 1/4", 50 deg to C.A.		
		938.1-938.5 - smoky		
		984.1 - 1", smoky, 5% ankerite		
		997.0 - 1/4", smoky, 70 deg to C.A. -specks of chalcopyrite		
1068.0-1195.0 Altered Basalt	Light green with dark green sections where massive, medium-grained, schistose @ 45 deg to C.A., with quartz-ankerite veins @ erratic angles and parallel to core. Massvie - 1093.0-1117.3, magnetic -upper contact @ 60 deg to C.A.	K-spar: 1077.0-1078 - 5% Smoky quartz veins: 1070.0; 1071.0 - 30% 35 deg to C.A., 5% pyrite	Pyrite: 1068.0-1071.0 - 5% 1075.0-1078.2 - 3% 1089.0 - 1/4" band of pyrite @ 60 deg to C.A.	

DIAMOND DRILL CORE LOG

Project No. 291

Hole No. CL-88-60

Property CLINE LAKE

Depth & Lithology	Description (colour, grain size, texture, structure, etc.)	Alteration	Mineralization	Remarks
	Felsic dykes: 1078.2-1078.8 - contacts @ 50 deg to C.A. 1083.6-1085.7 - " " " 1117.3-1127.0 - 1% pyrite 1158.0 - 2" dykelet, 1/8" band of pyrite at contact, 45 deg to C.A. 1159.0-1164.4 - medium grey, relatively unaltered 1166.7-1174.4 1179.6-1186.0	1075.0-1076.0 - 1/2", parallel to core, 3% pyrite 1132.0 - 2", smoky, 75 deg to C.A, 2% pyrite, 20% carbonate 1164.4 - 1", irregular, parallel to core, quartz-carbonate, 5% pyrite as 1/4" 1192.5-1193.1 - 80 deg to C.A., 5% ankerite, 1% pyrite 1193.4-1194.3 - 5% ankerite	1138.0 - 1/8", stringer of pyrite, irregular quartz-carbonate veining 1139.5-1140.2 - 5% as irregular stringers with quartz-carbonate, irregular veining	
1195.0-1120.0 Basalt	Dark green, massive, medium-grained, irregular quartz-carbonate fractures 2 per foot, non-magnetic			
1220.0	END OF HOLE			



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SUMMARY TRENCHING REPORT
AND
1987 PROPOSED PROGRAM
FOR
CLINE LAKE PROPERTY
BY
NORANDA EXPLORATION CO. LTD.
(NO PERSONAL LIABILITY)

ROBERT CALHOUN
PROJECT GEOLOGIST

JUNE 26, 1987

Introduction

Since July of 1986 Noranda Exploration has completed geological, geophysical, trenching, and diamond drilling programs on the Cline Lake Property in Jacobson Township.

Drilling has located economic to subeconomic intercepts along with numerous anomalous zones. The bulk of the drilling has been on the lake zone where the best intercept to date is 0.292 opt across 10.4 ft.

The most recent program conducted was trenching, detailed mapping and sampling. Mapping and sampling was also completed in trenches excavated in the fall of 1986. Encouraging results were obtained in trenches in the Lake, "G" and east zones with values to 0.145 opt across 3.1 feet being found.

Trenching

Lake Zone

Detailed mapping of trenches on the lake zone revealed numerous shear patterns, quartz vein directions and a fault zone.

The identified shear zones are mainly in an east-west to northeast southwest direction. The zones are semi continuous and are 3"-6" in width. Usually the shears are quartz filled with associated chlorite/tourmaline. Samples from the shear zones returned only anomalous values.

Quartz veining in the Lake Zone was found to have a wide range of directions with the main direction in both the porphyry and andesite units, being nearly east west, parallel to the lithological contacts. Sampling of these veins has returned values which range to 0.145 opt across 3.1 ft. The highest value was located in porphyry vertically above the trace of hole CL86-02.

Also in the Lake Zone area, two faulting directions have been located ie. north-south and northwest-southeast (300 degrees).

The first fault identified was in the area of holes 86-03, 15, 23 where the highest assay values to date have been found. This fault strikes at 300 degrees and dips north at 72-75 degrees. The fault is tight with associated shearing only about 6-8" wide. The offset on the fault is approximately 120 feet (right lateral) and can be seen on surface in the trenched area. If projected down dip this fault would intersect holes 86-03, 15, 23 in the area of the high values. This fault direction is similar to the direction of shearing at the Kremzar and the Magino deposit to the west.

The second fault in the Lake Zone is a north south near vertical (east dip) right lateral fault. Again the fault is tight with little or no sympathetic fracturing or shearing. Drag folds are present which show the direction of movement. The offset on this fault is estimated to be 150 feet although it cannot be seen in the surface trenches. Sampling around and across this fault returned only low assay values.

G-Zone

Trenching on the "G" Zone revealed a porphyry/quartz/andesite sequence which is highly sheared. The quartz in this area contains chalcopyrite/sphalerite/pyrite/pyrrhotite to 20%. The chalcopyrite is disseminated throughout with one large ellipsoidal mass measuring approximately 5 inches by 3 inches. The sphalerite is disseminated "Black Jack" associated with the chalcopyrite. The southern andesites are highly sheared and weakly to moderately carbonatized. Sulfide content in the andesite is 10-15% as pyrite/pyrrhotite with minor quartz veining. Assay values from the "G" Zone generally were low, however a .041 opt value was derived from the footwall andesites.

Another trench on the G Zone, five hundred feet further east, showed the same sequence with the quartz zone being smaller than in previous trenches but still present. Again low values were encountered.

The "G" Zone is a regional structure on which Canamax drilled during the winter of 1987. Canamax released that they had intersected the Goudreau Shear and values to 11.33 gm/t across 5.3 meters (0.33 opt/17 feet). Although the holes completed on the "G" Zone in 1986 did not return values of this magnitude, they did show a similar arrangement of parallel zones with the best assay to the south of the shear. This is consistent with the Canamax discovery.

East Zone

Only one major trench was mapped in detail on the east zone (L 45E) during the latest program. This trench revealed the andesite porphyry andesite sequence similar to the Lake Zone. Assay values ranged up to 0.059 opt associated with an east-west shear along the footwall porphyry-andesite contact.

A 300 degree shear was located at the north end of the trench. The highest assay from this structure was .023 opt.

Camp Zone/South of G-Zone

Trenching in these areas attempted to test geochemical, B-horizon soil anomalies. Although numerous pits were attempted bedrock could not be reached due to the deep overburden.

The soil anomalies in these areas are quite significant and the two areas are geologically intriguing, along strike, from known mineralization as in the Camp Zone; or to the south of the "G" zone where Canamax has reported economic intersections.

Discussion

The recent trenching program on the Cline Property has revealed that a shear/fault direction of 300 degrees $\pm$ is associated with gold mineralization; an east-west shear contains gold mineralization in an untested area; and that the Goudreau Shear bisects the property with associated quartz veining and gold mineralization.

The 300 degree fault found in the Lake Zone, if projected along strike, is coincident with high geochemical values, and parallel lineaments can be drawn through other high geochemical values elsewhere on the property.

This fault/shear direction is similar to the shear zone associated with the Canamax B-Zone and the Magino ore structures, and will be further drill tested.

The "G" Zone structure should be drill tested to the east of holes 86-07, 11, 13 to determine its economic significance. In this zone the holes will be extended well past the "G" Zone structure to test for mineralization in the footwall similar to the Canamax discovery and the mineralization in hole CL86-07.

The high geochemical values in the Camp Zone and south of the "G" Zone will have to be drill tested since trenching was impossible due to overburden cover.

Proposed Drill Program

The following drill proposal is designed to further test previously located mineralization, to test along strike from known mineralization, to test high geochemical soil values and to test the area around the old workings at depth.

Each of the areas will be discussed separately following with the purpose azimuth depth and dip of each hole given.

Camp Zone

Hole No.	Purpose	Azimuth	Dip	Length
A	To test high geochemical values along strike from known mineralization and the projection of the main ore zone.	180 Deg.	-50	350 ft.
B	As "A"	180 Deg.	-50	350 ft.
C	As "A"	180 Deg.	-50	350 ft.
			Total	1050 ft.

Lake Zone

D	To test down dip extension of previously intersected mineralization.	190 Deg.	-50	600 ft.
D1	As "D"	180 Deg.	-50	800 ft.
D2	As "D"	180 Deg.	-50	800 ft.
E	As "D"	180 Deg.	-50	550 ft.
F	As "D"	180 Deg.	-50	550 ft.
E1	As "D"	180 Deg.	-50	850 ft.
G	To test the strike extension of mineralization in the area of a north-south fault zone.	180 Deg.	-50	300 ft.
H	To test the strike extension of mineralization in the area of a north-south fault zone.	180 Deg.	-50	250 ft.
I	To test the strike extension of known mineralization associated with the porphyry along the north-south fault zone.	180 Deg.	-50	300 ft.
J	To test for mineralization associated with the intersection of the 300 degree fault with a north-south fault.	210 Deg.	-50	350 ft.
K	To test the strike extension of known mineralization.	180 Deg.	-50	350 ft.
L	As "K"	180 Deg.	-50	350 ft.
			Total	6050 ft.

East Zone

M	To test the strike extension of gold associated with the east-west porphyry-andesite zone.	180 Deg.	-50	350 ft.
N	To test along strike extension of mineralization in porphyry/andesite.	180 Deg.	-50	350 ft.
O	As "N"	180 Deg.	-50	350 ft.
P	As "N" and also down dip extension of mineralization	180 Deg.	-50	400 ft.
Q	As "P"	180 Deg.	-50	400 ft.
R	As "N"	180 Deg.	-50	300 ft.
S	As "N"	180 Deg.	-50	300 ft.
T	As "N"	180 Deg.	-50	300 ft.
			Total	2750 ft.

G-Zone

U	To test the down dip extension of mineralization located in 1986 in a shear which has produced intersections to 11.33 g/t across 5.3m on the Canamax property to the west.	180 Deg.	-50	600 ft.
V	As "U"	180 Deg.	-50	600 ft.
W	To test the strike extension of mineralization located on the shear zone mentioned above for Hole U.			
X	As "W"	180 Deg.	-50	300 ft.
Y	As "W"	180 Deg.	-50	300 ft.
Z	As "W"	180 Deg.	-50	300 ft.
A2	As "W"	180 Deg.	-50	300 ft.

B2	To test for mineralization associated with high geochemical values along the trace of a 300 degree shear zone.	210 Deg.	-50	350 ft.
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Total 2750 ft.

South of G Zone

SG1	To test geochemical anomalies which could be associated with the extension of the 300 degrees shear which hosted the main "A" Zone mineralization.	180 Deg.	-50	350 ft.
SG2	As SG1	180 Deg.	-50	350 ft.
SG3	As SG1	180 Deg.	-50	350 ft.
SG4	As SG1	180 Deg.	-50	350 ft.
				Total 1400

Extension to Mine Zone

The main zone of the old workings as projected to surface and shown on the proposed drilling map. It is proposed to drill two holes on this extension to test for possible continuations along strike and down dip from the main mine workings.

Hole No.	Purpose	Azimuth	Dip	Length
MA1	To test the strike and dip extension of the main ore zone.	210 Deg.	-60	1200 ft.
MA2	As above	210 Deg.	-60	1000 ft.
				Total 2200 ft.

Linecutting

It is proposed that a new control grid be cut on the Cline Lake property to afford better control for completion of past and present drilling. The grid that now exists has been found to have far too many discrepancies to allow for the accuracy necessary to project mineralized units from area to area (ie. Lake Zone to East Zone).

A transit will be used to run the base line and all grid lines will be turned off using the transit.

Boundary Survey

The Ministry of Northern Development and Mines has advised us that a boundary survey will have to be completed before they will grant a 21 year lease on the property. Surveying companies have been contacted for bids. At present a total cost can only be estimated at \$12,000.

Conclusions

The recent trenching, mapping and sampling program has located further target areas for drilling on the Cline Lake Property.

Fault shearing directions located indicate a more complex structural history for the area with short right lateral faults offset being the norm. A shear direction similar to the Canamax deposits ie. 300 degrees, when applied to present data suggests that numerous gold horizons are possible on the property. These possibilities will be tested during the proposed drill program.

Respectfully submitted

A handwritten signature in black ink, appearing to be 'R. Calhoun', written in a cursive style.

Robert Calhoun
Project Geologist

ESTIMATED COST OF 1987 PROPOSED PROGRAM

DESCRIPTION	TOTAL COST
1. Linecutting - 7 miles @ \$400/mi	\$2,800
2. Boundary Survey - 3 miles @ \$400/mi	\$12,000
3. Diamond Drilling - 16100 ft. @ 26/ft.	\$419,500
Sub Total	\$434,300
Management	<u>\$65,000</u>
<u>1987 Proposed Program Grand Total</u>	<u>\$500,000</u>

Pursuant to sections 11, 12, 14 of the memorandum of
agreement the following cost estimates will apply

Noranda Exploration Company Limited (Freewest Resources)	
- Contributory Interest 60%	\$300,000
Cline Development Corporation	
- Contributory Interest 40%	<u>\$200,000</u>
Total 100%	<u>\$500,000</u>



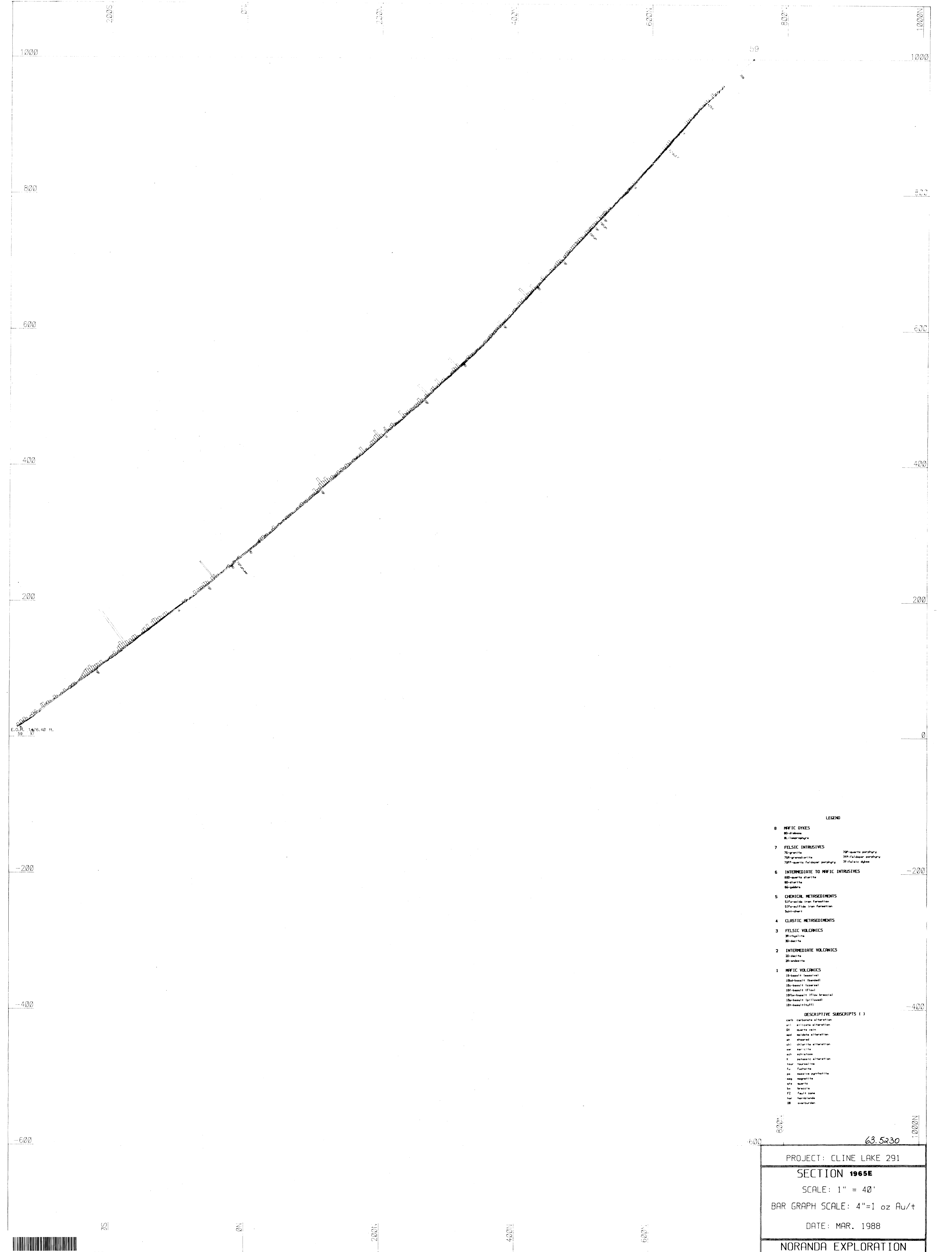
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OM 87-7-L-277

THIS SUBMITTAL CONSISTED OF VARIOUS REPORTS, SOME OF WHICH HAVE BEEN CULLED FROM THIS FILE. THE CULLED MATERIAL HAD BEEN PREVIOUSLY SUBMITTED UNDER THE FOLLOWING RECORD SERIES (THE DOCUMENTS CAN BE VIEWED IN THESE SERIES):

Report on an Induced Polarization → see Toronto
Survey, Cline Lk. area #63.5203
by: B. Groves January /87 OM 87-7-C-241



- LEGEND
- 8 AFIC DYES
80-diorite
80-100mephys
- 7 FELSIC INTRUSIVES
75-granite
75-granodiorite
75F-quartz felsic porphyry
75F-quartz felsic porphyry
75F-quartz felsic porphyry
75F-quartz felsic porphyry
- 6 INTERMEDIATE TO AFIC INTRUSIVES
60-quartz diorite
60-diorite
60-palms
- 5 CHEMICAL METASEDIMENTS
51F-quartz iron formation
51F-quartz iron formation
51F-quartz iron formation
51F-quartz iron formation
- 4 CLASTIC METASEDIMENTS
- 3 FELSIC VOLCANICS
30-rhyolite
30-diorite
- 2 INTERMEDIATE VOLCANICS
20-diorite
20-andesite
- 1 AFIC VOLCANICS
10-basalt (massive)
10-basalt (banded)
10-basalt (coarse)
10-basalt (fine)
10-basalt (flow breccia)
10-basalt (pillowed)
10-basalt (tuff)
- DESCRIPTIVE SUBSCRIPTS ()
- carb carbonate alteration
all silicate alteration
dy quartz vein
and andesite alteration
an andesite
ch chlorite alteration
car carite
ach achilstone
E potassic alteration
top tourmaline
F fuchite
pe massive pyrrhotite
mag magnetite
qtz quartz
br breccia
F2 fault zone
Nw northwesterly
OB overburden

PROJECT: CLINE LAKE 291

SECTION 1965E

SCALE: 1" = 40'

BAR GRAPH SCALE: 4"=1 oz Au/t

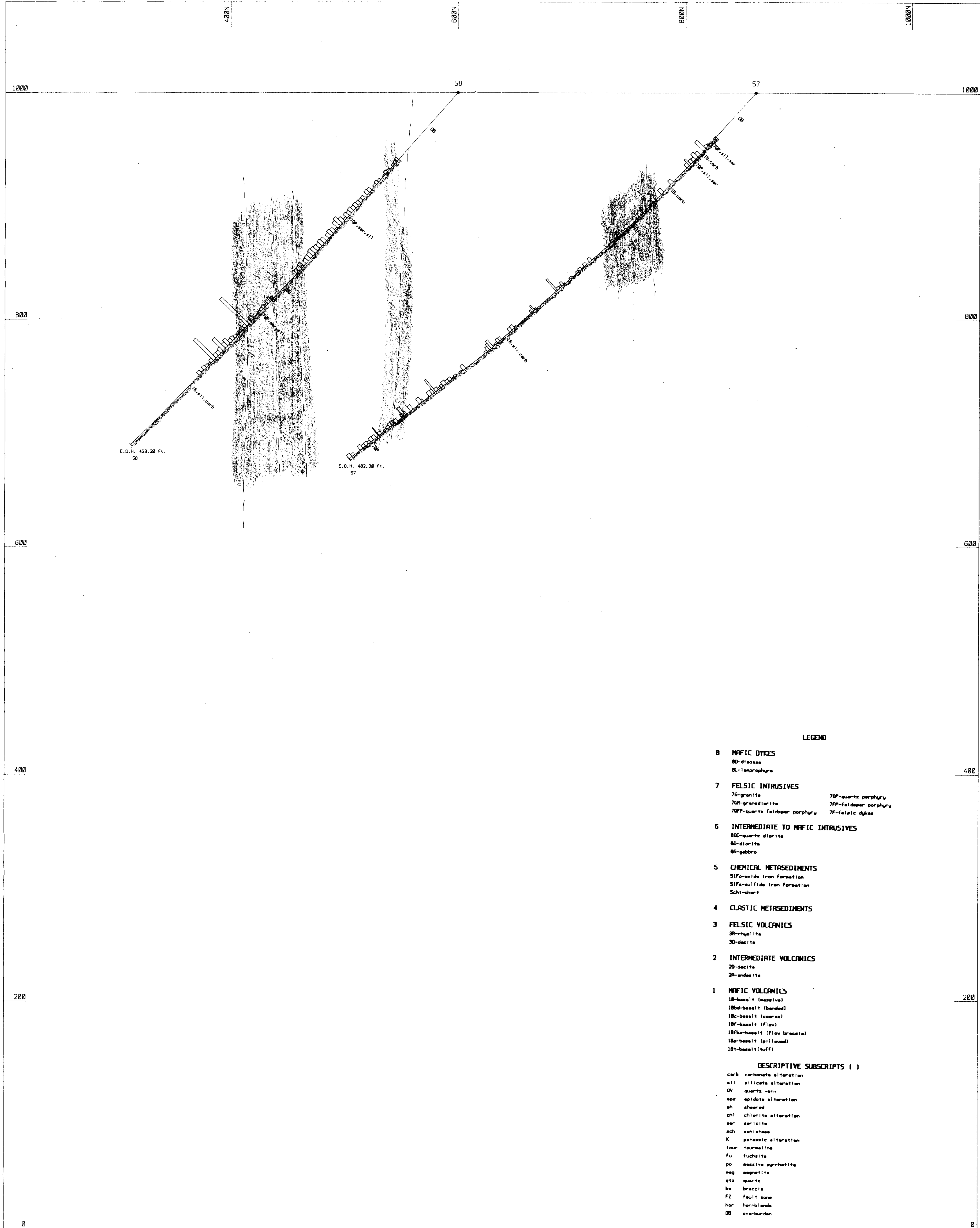
DATE: MAR. 1988

NORANDA EXPLORATION



2S 200N 400N 600N 800N 1000N

200 400 600 800 1000



PROJECT: CLINE LAKE 291

SECTION 2171E

SCALE: 1" = 40'

BAR GRAPH SCALE: 4"=1 oz Au/t

DATE: MAR. 1988

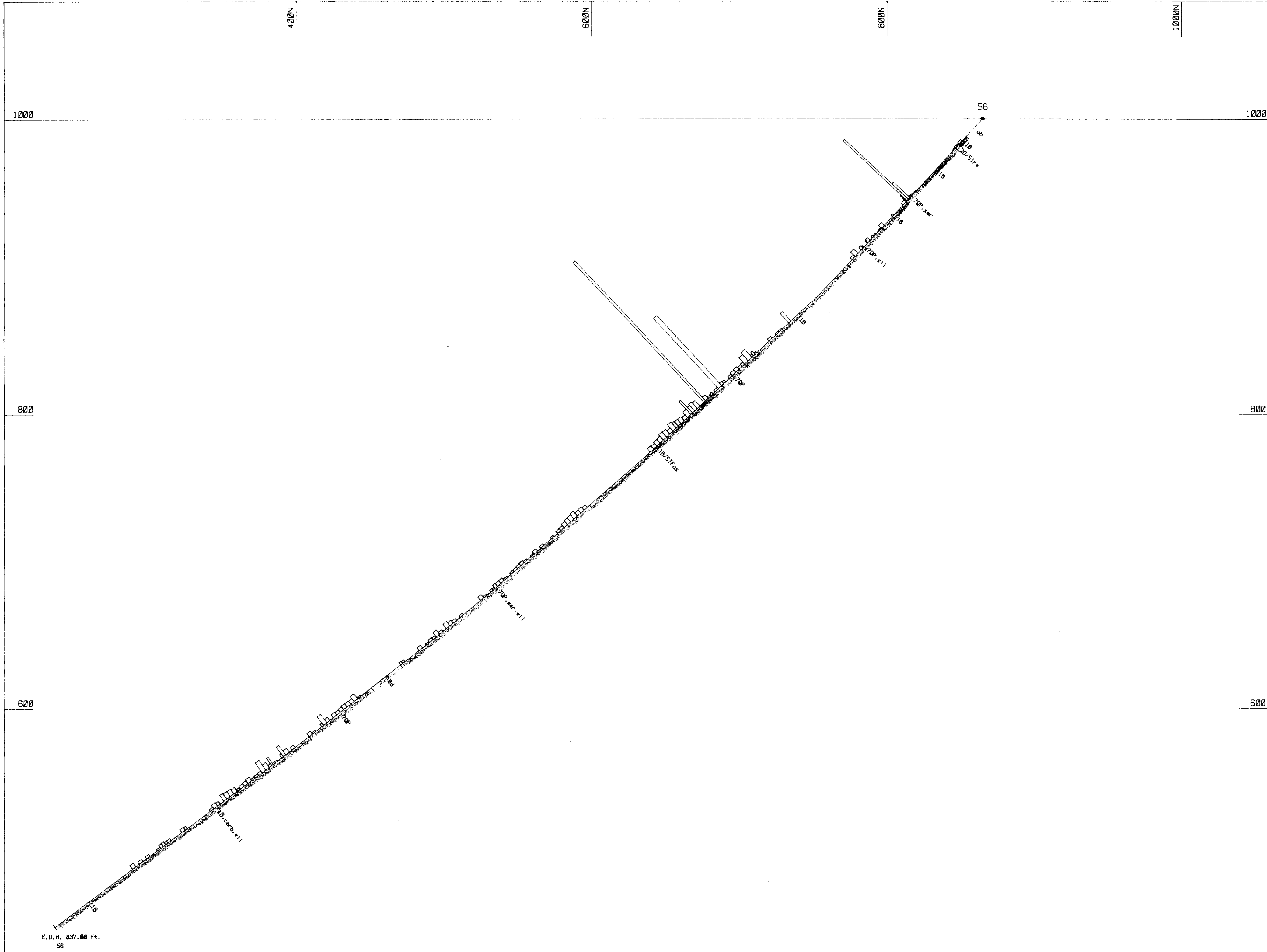
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LEGEND

- 8 MAFIC DYKES
 - 8D-diabase
 - 8L-leucophyre
- 7 FELSIC INTRUSIVES
 - 7G-granite
 - 7GR-granodiorite
 - 7QFP-quartz feldspar porphyry
 - 7QP-quartz porphyry
 - 7FP-feldspar porphyry
 - 7F-felsic dykes
- 6 INTERMEDIATE TO MAFIC INTRUSIVES
 - 6QD-quartz diorite
 - 6D-diorite
 - 6G-gabbro
- 5 CHEMICAL METASEDIMENTS
 - SIF-oxide iron formation
 - SIF-sulfide iron formation
 - SCH-chert
- 4 CLASTIC METASEDIMENTS
- 3 FELSIC VOLCANICS
 - 3R-rhyolite
 - 3D-dacite
- 2 INTERMEDIATE VOLCANICS
 - 2D-dacite
 - 2R-andesite
- 1 MAFIC VOLCANICS
 - 1B-basalt (massive)
 - 1Bb-basalt (banded)
 - 1Bc-basalt (coarse)
 - 1BF-basalt (flow)
 - 1Bfb-basalt (flow breccia)
 - 1Bp-basalt (pillowed)
 - 1Bt-basalt(tuff)

DESCRIPTIVE SUBSCRIPTS ()

- carb carbonate alteration
- sil silicate alteration
- QV quartz vein
- epd epidote alteration
- sh sheared
- chl chlorite alteration
- ser sericite
- sch schistose
- K potassic alteration
- tour tourmaline
- fu fuchsite
- po massive pyrrhotite
- mag magnetite
- qtz quartz
- bx breccia
- FZ fault zone
- hor hornblende
- OB overburden

PROJECT: CLINE LAKE 291

SECTION 2360E

SCALE: 1" = 40'

BAR GRAPH SCALE: 4"=1 oz Au/t

DATE: MAR. 1988

63.5230

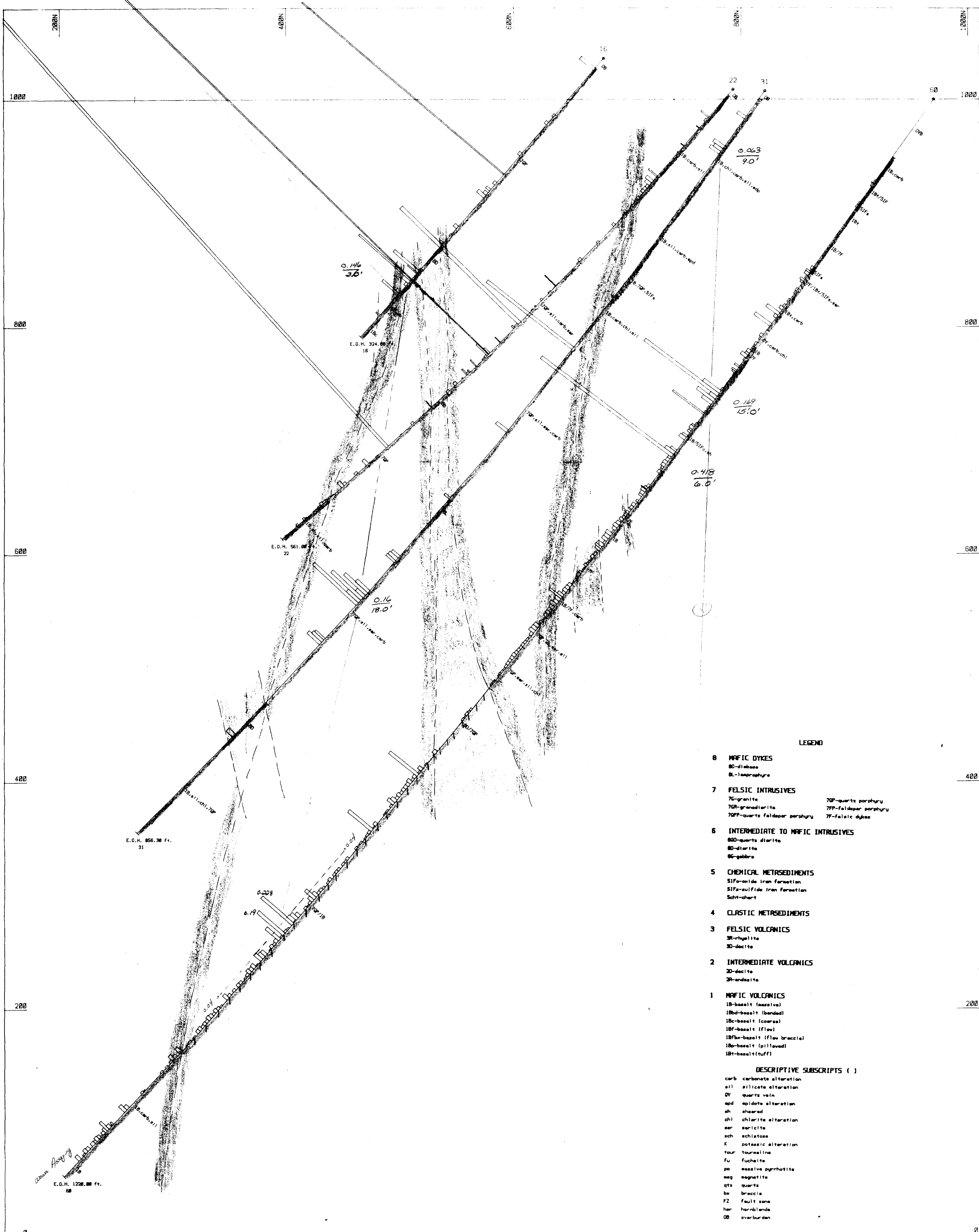
NORANDA EXPLORATION

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- LEGEND
- 8 MAFIC DYKES
 - BD-diabase
 - BL-leucophyre
 - 7 FELSIC INTRUSIVES
 - 7G-granite
 - 7GR-granodiorite
 - 7QF-quartz feldspar porphyry
 - 7QP-quartz porphyry
 - 7FP-feldspar porphyry
 - 7F-felsic dykes
 - 6 INTERMEDIATE TO MAFIC INTRUSIVES
 - 6QD-quartz diorite
 - 6D-diorite
 - 6G-gabbro
 - 5 CHEMICAL METASEDIMENTS
 - 5IF-oxide iron formation
 - 5IFs-sulfide iron formation
 - 5Sch-schist
 - 4 CLASTIC METASEDIMENTS
 - 3 FELSIC VOLCANICS
 - 3R-rhyolite
 - 3D-dacite
 - 2 INTERMEDIATE VOLCANICS
 - 2D-dacite
 - 2A-andesite
 - 1 MAFIC VOLCANICS
 - 1B-basalt (massive)
 - 1Bbd-basalt (banded)
 - 1Bc-basalt (coarse)
 - 1BF-basalt (flow)
 - 1BFb-basalt (flow breccia)
 - 1Bp-basalt (pillowed)
 - 1Bt-basalt (tuff)
- DESCRIPTIVE SUBSCRIPTS ()
- carb-carbonate alteration
 - sil-silicate alteration
 - QV-quartz vein
 - epd-epidote alteration
 - sh-shear
 - chl-chlorite alteration
 - ser-sericite
 - sch-schistose
 - K-potassic alteration
 - tour-tourmaline
 - fu-fuchsite
 - po-massive pyrrhotite
 - mag-magnetite
 - qtz-quartz
 - bx-breccia
 - FZ-fault zone
 - her-hornblende
 - OB-overburden

PROJECT: CLINE LAKE 291
SECTION 2768E
SCALE: 1" = 40'
BAR GRAPH SCALE: 4"=1 oz Au/t
DATE: MAR. 1988
63.5230
NORANDA EXPLORATION
0M87-7-L-277



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