

APRIL GROUP
93 L 10
Omineca Mining Division
British Columbia

DIAMOND DRILLING REPORT

54° 43'
126 31'

FILMED

GEOLOGICAL BRANCH
ASSESSMENT REPORT

18,909

Anthony L'Orsa, F.G.A.C.

Smithers, B.C.

10 July 1989

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INTRODUCTION

A diamond drill hole 128 metres (420 ft) in length was completed on the April 2 claim on the 11th of April, 1989. The hole was drilled to test a mineralized diorite. The contractor was J.T.Thomas Diamond Drilling Ltd of Smithers, B.C. The drill used was a JT 600-2, and the core size is BQ.

LOCATION AND ACCESS

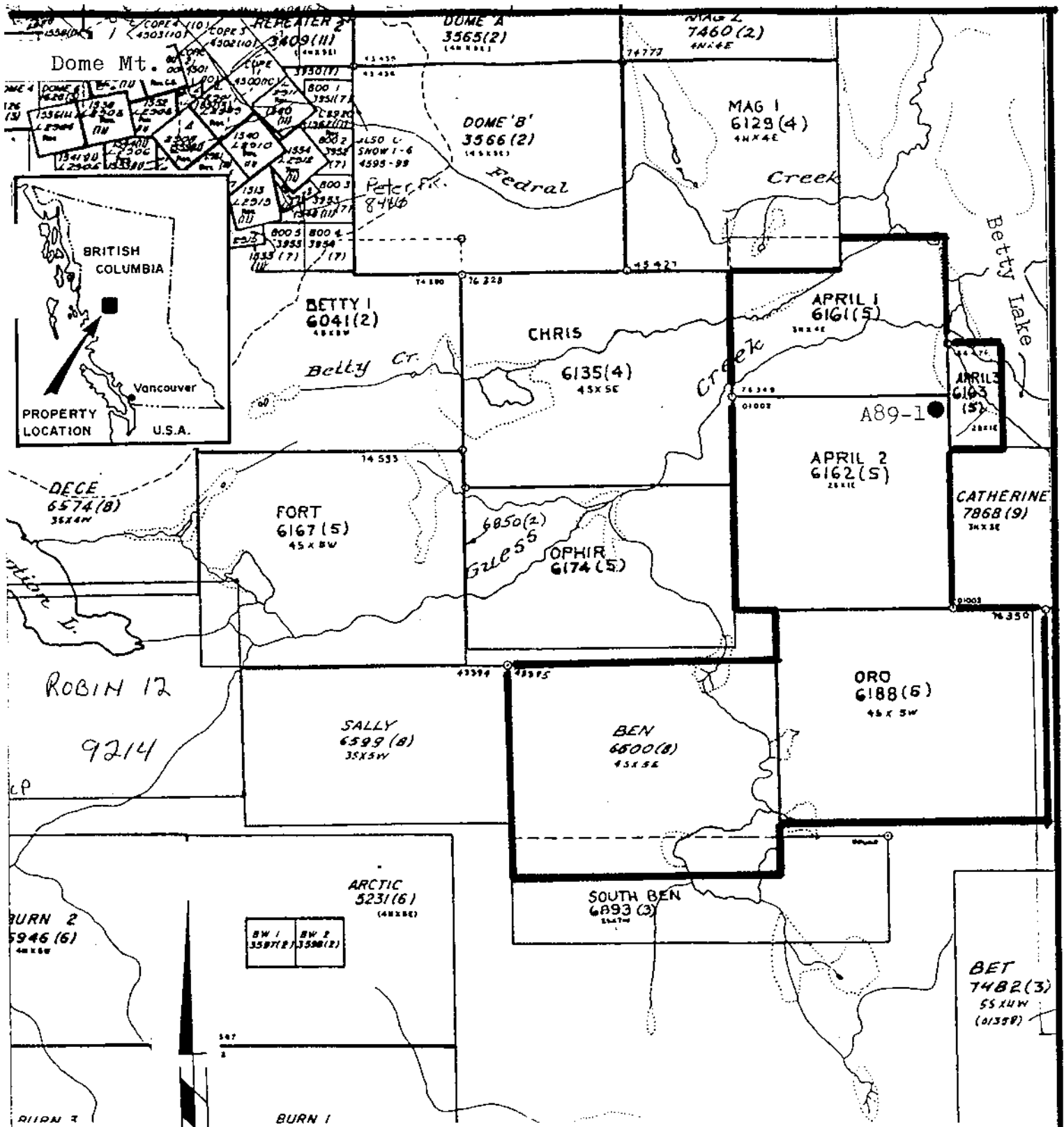
The diamond drill hole, marked A89-1, is at approximately $54^{\circ} 43'$ north latitude and $126^{\circ} 31'$ west longitude (Map 93L/10), and at an elevation of about 1000 m. The hole is 43 km east southeast of Smithers, and about 50 m northeast of the Chapman Lake Forest Road at about the 64 km sign. The Chapman Lake Forest Road provides excellent access all year from either Smithers or Houston.

The area is generally free of snow from May until late October.

PHYSIOGRAPHY

The area is one of moderate relief at the southeastern end of the Babine Range. Long, northwest-trending hills reach an elevation of 1237 m above sea level on the claims, and the lowest area is occupied by Betty (unofficial name) Lake at 983 m immediately east of the claims.

Water for drilling this hole came from a small northeasterly flowing creek 300 m southeast of the drill site.



L O C A T I O N M A P

APRIL GROUP
Dome Mt. Area, B.C.

10 July 1989 DRAWN BY: FIG. 1

CLAIMS AND OWNERSHIP

The April group comprises the following mineral claims:

<u>Claim</u>	<u>Units</u>	<u>Title No.</u>
April 1	12	6161
April 2	16	6162
April 3	2	6163
Ben	20	6600
Oro	20	6188

All the above claims are owned by A. L'Orsa except the Ben claim, which is owned by L.B.Warren and A.L'Orsa, both of Smithers, B.C. The claims are held under option by Freemont Gold Corp., 300 - 1497 Marine Drive, West Vancouver, B.C.

PREVIOUS WORK

I have done some general prospecting and geochemical sampling on the claims (L'Orsa, 1984; Price, 1987). Three mineral occurrences here have been trenched by backhoe and/or tractor, and an airborne electromagnetic and magnetic survey was conducted over the claims in December 1984 (Sheldrake, 1985).

GEOLOGY

The claims lie on the Skeena Arch near the southern edge of the Bowser Basin. Outcrops of intermediate to felsic volcanic rocks on the claims have been assigned to the Lower Jurassic Telkwa Formation by Tipper (1976; Tipper and Richards, 1976). These rocks are locally intruded by diorites and by northwest-striking plagioclase porphyry dykes.

Small occurrences of base and precious metals have been found in volcanic and intrusive rocks on the claims (L'Orsa, 1984; Price, 1987).

The diorite investigated with this drill hole contains a few small (generally less than 5 cm diameter) quartz veins that have yielded grab sample assays up to 0.03 opt Au, 1 opt Ag and 4.3% Cu.

DISCUSSION

The hole was drilled entirely in medium to coarse-grained, generally medium dark grey, diorite with a few fine-grained and porphyritic sections. The rocks exhibit strong to slight alteration and general evidence of shearing. Epidote-carbonate-chlorite alteration is generally present throughout the hole. Sericite alteration is strongly developed in some fault zones. Petrographic descriptions of three thin sections of this rock by K.E.Northcote form appendix 2 of this report.

Quartz and/or calcite veinlets are common. Pyrite occurs in local zones as disseminations (up to 1%) and as local very thin fracture fillings.

Eight samples of the most altered core were analysed for 34 elements and the results are in appendix 3. The highest gold analysis was 19 ppb, and the highest silver ran 2.4 ppm.

CONCLUSIONS

A diorite intrusive complex, which carries local quartz veins with anomalous concentrations of Cu, Ag and Au, was investigated in diamond drill hole A89-1. Several fine-grained diorite dykes were encountered in the hole. The dykes apparently originated in the same magmatic source as the coarser diorite.

Several strongly sericitized and/or chloritized fault zones were intersected, but no economic concentrations of metals were found.

CORE STORED AT J.T. THOMAS WAREHOUSE SMITHERS

REFERENCES

L'Orsa, A., 1984, April, Chris and West Dome claims: Report for Freemont Gold Corp., 9 p.

_____ 1985, Ophir mineral claim, prospecting report: Assessment Report 85-260-13638, Victoria, B.C.

MacIntyre, D., Brown, D., Desjardins, P., and Mallett, P., 1987, Geology of the Dome Mountain area: Ministry of Energy, Mines and Petroleum Resources, British Columbia, O.F. Map 1987/1.

Price, B., 1987, Dome Mountain gold property (April, Chris, Mag, Fort, Ophir, Sally, Ben, West Dome claims): Report for Freemont Gold Corp., 25 p.

Sheldrake, R. F., 1985, Report on a Helicopter borne multi-frequency electromagnetic, and magnetometer survey in the Dome Mountain area, British Columbia: Report for Freemont Gold Corp., and Assessment Report 85-230-13707, Victoria, B.C., 41 p.

Tipper, H. W., 1976, Smithers map area, British Columbia: Geol. Survey of Canada, O.F. 351.

Tipper, H. W., and Richards, T. A., 1976, Jurassic stratigraphy and history of north-central British Columbia: Geol. Survey of Canada, Bull. 270, 73 p.

STATEMENT OF COSTS

DIAMOND DRILLING: 128 m @ \$77.76/m	\$ 9,954.00
GEOLOGIST: Core logging, supervision & report. A.L'Orsa, 25 hrs @ \$50/hr	1,250.00
ANALYSES: 8 rock samples @ \$27.25/sample	218.00
PETROGRAPHIC WORK: 3 thin sections, reports, rock slices and shipping.	237.00
TRANSPORTATION: Truck $\frac{1}{2}$ day @ \$50/day	25.00
	<hr/>
	\$11,684.00



Anthony L'Orsa, Geologist

CERTIFICATE

I, Anthony T. L'Orsa, of Smithers, British Columbia, hereby certify that:

1. I am a geologist with business address at Box 23, R.R. 2, Adams Road, Smithers, B.C. VOJ 2N0.
2. I am a graduate of Tulane University, New Orleans, La., U.S.A. with the degrees of B.Sc. (1961) and M.Sc. (1964) in geology.
3. I have practised my profession in mineral exploration since 1962 in western Canada, Australia and Mexico.
4. I am a Fellow in good standing of the Geological Association of Canada and a member of the Society for Geology Applied to Mineral Deposits.



Anthony L'Orsa, Geologist

APPENDIX 1

Diamond Drill Logs

LOCATION: BETTY LAKE - DOME MT.						DRILL HOLE LOG						HOLE No. A89-1		PAGE NO. 3/4	
AZIM: 250°		ELEV: 1000 m asl		DIP TEST		PROPERTY: APRIL									
DIP: -45°		LENGTH: 128 m (420')		FOOTAGE		READING		CORRECT		CLAIM NO: April 2					
CORE SIZE: BQ		STARTED: 10 April 1989		FOOTAGE		READING		CORRECT		SECTION:					
COMPLETED: 11 April 1989		PURPOSE: Test mineralized intrusion		FOOTAGE		READING		CORRECT		LOGGED BY: A. LORSA					
CORE RECOVERY: 100%		FOOTAGE		FOOTAGE		READING		CORRECT		DATE LOGGED: 13-14 April 1989					
		FOOTAGE		FOOTAGE		READING		CORRECT		DRILLING CO: J. T. Thomas					
		FOOTAGE		FOOTAGE		READING		CORRECT		ASSAYED BY: Hin-En Laboratories					
METRES		DESCRIPTION	SAMPLE NO.	METRES		LENGTH	ASSAYS								
FROM	TO			FROM	TO		Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm				
88.4	93	Fine-grained diorite. Med. greenish grey. THIN SECTION #295 - appendix. Base contact @ 50° - chilled. i.e. finer-grained at contact. Minor epidote in disseminations & veinlets.													
93	96.3	Med. grey to med. dark grey, coarser diorite.													
96.3	97.5	Fine-grained diorite. Med. greenish grey. Top contact at 30°? - irregular. Minor epidote, chlorite; qz - calcite vlt.													
97.5	101.5	Med. to coarse-grained grey diorite. Porphyritic; plagioclase ≤ 6mm Minor pyrite in epidote veinlets.													
101.5	102.4	Fine-grained diorite as above. Minor diss. chalcopyrite (?) Epidote-filled fractures cut by calcite fractures.													
102.4	126.5	Dark grey diorite. Generally strongly magnetic. Epidote generally less than 10%. but 124.7-126.5 highly epidotized SAMPLE 25506: 80% epidote. H. py Red hematite veinlets. Local specularite disseminated.	25506	126	126.08	8cm	15	2.4	5	16	10				

APPENDIX 2

Petrographic Reports

A 89-1-265

Sheared/cataclastic diorite.

Coarse grained diorite composed of plagioclase (andesine) and hornblende, altered by chlorite, epidote, carbonate, second generation acicular amphibole and with probable chlorite (serpentine) on slip surfaces. No K-feldspar is indicated by the stained slab. Nonmagnetic.

The rock has a crushed/sheared fabric with most fracture-shear surfaces approximately parallel to the core axis. The crushed/sheared fabric is indicated by broken and deformed mineral grains, lensoidal clusters of mineral fragments, localized intensely granulated grains/mylonite, abundant near parallel slip and fracture surfaces and infilling by carbonate, epidote, chlorite (serpentine). Superimposed weak, late cross fracturing.

Petrography

Rock forming minerals.

Plagioclase; 40%, subhedral short prismatic, (to >7.5 mm), abundant broken granulated grains, edges of crystals zoned (albitic?). Adjacent grains show varied intensity of sericite and carbonate alteration. Twinning indicates andesine range of composition.

Hornblende; 25%, anhedral (to 3.75 mm), abundantly broken/granulated grains, frayed terminations. Biaxial (-) 2V 60° (?), inclined extinction. Crystals have diffuse, frayed outlines, have a very fine alteration dusting, are mottled pale dirty green to brown colour with moderate pleochroism.

Alteration

Epidote; 10%, clusters of broken grains in sheared granulated zones. Grain boundaries indistinct, fine dusted brown colour but epidote is indicated by birefringence and occasional yellowish pleochroism. Associated with granulated altered hornblende. Also occurs in veinlets.

Sericite; <10%, clusters of anhedral grains, varied intensity of alteration within and among feldspar grains.

Carbonate; <5%, clusters of anhedral grains, alteration of plagioclase but mainly occurs as veinlets with epidote and with chlorite.

A89-1-265 (Continued)

Chlorite/Chlorite-serpentine, 10%, lensoidal aggregates along prismatic cleavage of hornblende. Most prevalent as chlorite/serpentine foliated masses along well developed slip surfaces and in granulated zones.

Amphibole, second generation (?); <5%, acicular/fibrous.

Veins:

Carbonate and epidote.

A89-1-295

Altered andesite/diorite

Fine grained, mottled pale cream-green, interlocking felted narrow prismatic plagioclase and altered amphibole in a feldspar and chlorite interstitial groundmass. Nonmagnetic, and stained slab shows no K-feldspar.

Plagioclase is unaltered, unzoned. Amphibole is moderately to strongly altered by fine dusting of semiopaque aggregates of minute grains. Fibrous terminations commonly end in chloritic matrix. Other alteration minerals include carbonate and epidote.

There are localized chlorite/serpentine slip surfaces. Veined by carbonate, feldspar, epidote and very minor quartz as monomineralic or composite grains.

Petrography

Rock forming minerals.

Plagioclase; 45%, subhedral long prismatic, (to 0.6 mm), felted. Indicated composition in low andesine/oligoclase range.

Amphibole; (altered hornblende); 25%, fibrous bladed, radiating, (<0.5 to 1.0 mm). Blades are commonly disrupted but show optical continuity. Moderate to strong alteration; fine dusting and spotted by aggregates of minute semiopaque flecks. Fibrous, weak greenish brown colour, weak pleochroism, retain second order birefringence and inclined extinction of about 17° . Fibrous terminations commonly end in chloritic matrix.

Alteration:

Chlorite; 15%, interstitial matrix to plagioclase and amphibole forming an irregular network. Chlorite/serpentine slip surfaces.

Epidote; 10%, anhedral, (to 0.2 mm). Although there are disseminated grains and clusters of grains throughout it generally occurs in greater concentration in diffuse clusters, (several mm across), with increased altered amphibole, interstitial chlorite and decreased plagioclase. Also concentrated along minute shears and fractures to form veinlets.

Carbonate; 5%, anhedral, small clots. Most abundant in veinlets.

A 89-1-295 (Continued)

Veins:

Carbonate-feldspar; anhedral irregular masses, pinching and swelling fracture fillings. Feldspar, showing traces of twinning (andesine), permeates locally out into wall rock.

Carbonate-epidote-very minor quartz, granulated wall rock, composite veinlets.

Epidote; hairline fracture fillings.

Chlorite-serpentine slip surfaces.

A 89-1-394

Diorite

Coarse grained broad prismatic plagioclase, bladed hornblende. Chlorite, epidote alteration. Disseminated clusters of magnetic grains.

Localized crushing along shear planes, accompanied by granulated mineral grains from wall rock and granules of chlorite/epidote alteration.

Petrography

Plagioclase; 40%, euhedral/subhedral, short/broad prismatic, (generally 1.0 to 2.5 mm), some bent and broken grains, very weak dusting of alteration. Indicated composition in low andesine/oligoclase range. Unaltered, unzoned.

Hornblende; 25%, anhedral, bladed, (to 3.75 mm), moderately strong alteration to chlorite and lesser secondary fine bladed amphiboles. Pale greenish brown, weak pleochroism. Biaxial (-) 2V 70°.

Chlorite; 25% interstitial groundmass among plagioclase and hornblende crystals.

Alteration

Chlorite, alteration, interstitial masses, (to several mm), of aggregates of fine bladed chlorite.

Amphiboles; felted clusters secondary amphibole associated with epidote and chlorite.

Epidote; Clusters of minute grains, semiopaque, locally around margins and to lesser extent within plagioclase and hornblende grains.

Opagues; magnetite, irregular clusters of fine grains, magnetic.

Veins:

Carbonate; very fine granular, brown dusting of clusters of minute opaque grains. Also contains small mineral fragments of wall rock and lenses of late, clear, calcite. Follows small shear. Cut by calcite veinlets.

Chlorite; following minute fractures.

APPENDIX 3

Analyses



**MIN
• EN
LABORATORIES**

SPECIALISTS IN MINERAL ENVIRONMENTS
CHEMISTS • ASSAYERS • ANALYSTS • GEOCHEMISTS

VANCOUVER OFFICE:
705 WEST 15TH STREET
NORTH VANCOUVER, B.C. CANADA V7M 1T2
TELEPHONE (604) 980-5814 OR (604) 988-4524
TELEX: VIA U.S.A. 7601067 • FAX (604) 980-9621

TIMMINS OFFICE:
33 EAST IROQUOIS ROAD
P.O. BOX 867
TIMMINS, ONTARIO CANADA P4N 7G7
TELEPHONE: (705) 264-9996

Geochemical Analysis Certificate

9/S/0029/R/G/001

Company: **MPD CONSULTANTS**
Project: **FREEMONT**
Attn: **T.L'ORSA/S. JENNER/B. QUELLETTE**

Date: **MAY-12-89**

Copy 1. **MPD CONSULTANTS, VANCOUVER, B.C.**
2. **FREEMONT GOLD, WEST VANCOUVER, B.C.**
3. **A.L'ORSA, SMITHERS, B.C.**

We hereby certify the following Geochemical Analysis of 14 ROCK samples submitted MAY-08-89 by A.L'ORSA.

Sample Number	AU-FIRE PPB	TE PPM	TL PPB
25 506	15	.01	<20
25 507	6	.01	<20
25 508	4	.01	<20
25 509	2	.01	<20
25 510	19	.01	<20

25 511	3	.01	<20
25 512	13	.01	<20
25 513	19	.01	<20

COMPANY: MPD CONS./FREEMONT GOLD

MIN-EN LABS ICP REPORT

(ACT:F31) PAGE 1 OF 3

PROJECT NO: FREEMONT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2

FILE NO: 9/V/0029/R/J/001

ATTENTION: T.L. ORSA/S. JENNER/B. DUELLETTE

(604)980-5814 OR (604)988-4524

* TYPE ROCK GEOCHEM * DATE: 05-12-1989

(VALUES IN PPM)	AS	AL	AR	B	BA	BE	BI	CA	CD	CO	CU	FE
25506	2.4	13840	6	1	29	.4	16	59620	.1	12	5	15190
25507	.6	9190	9	1	28	.3	1	54420	.1	5	4	6360
25508	.6	17480	12	1	50	.4	1	51050	.1	9	71	13350
25509	.9	5570	12	1	114	.1	1	115920	.1	2	5	1910
25510	.4	9420	4	1	120	.2	1	16030	.1	3	5	3520
25511	2.2	28730	18	1	69	.7	18	13420	.3	31	23	33220
25512	1.3	7600	3	1	46	.2	4	31250	.1	7	3	4890
25513	1.5	6100	5	1	56	.2	5	50380	.1	5	3	3050

COMPANY: MPD CONS./FREEMONT GOLD

MIN-EN LABS ICP REPORT

(ACT:F31) PAGE 2 OF 3

PROJECT NO: FREEMONT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2

FILE NO: 9/V/0029/R/J/001

ATTENTION: T.L. ORSA/S. JENNER/B. QUELLETTE

(604)980-5814 OR (604)988-4524

* TYPE ROCK GEOCHEM * DATE: 05-12-1989

(VALUES IN PPM)	K	LI	HG	MN	MO	NA	NI	P	PB	SB	SR	TH
25506	70	1	2440	499	1	80	7	70	16	1	19	1
25507	2740	2	7760	438	3	70	21	180	23	1	1	1
25508	3280	6	13490	504	3	280	25	310	30	2	1	1
25509	3190	1	2070	627	1	110	7	200	12	1	1	1
25510	3710	1	4110	208	1	300	8	210	9	1	1	1
25511	2590	13	26280	712	5	280	43	600	51	6	12	1
25512	3210	1	3710	307	1	170	7	550	10	1	1	1
25513	3440	1	2080	392	1	140	6	480	10	1	1	1

COMPANY: MPD CONS./FREEMONT GOLD

MIN-EN LABS ICP REPORT

(ACT:F31) PAGE 3 OF 3

PROJECT NO: FREEMONT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2

FILE NO: 9/9/0029/R/J/001

ATTENTION: T.L'DRSA/S.JENNER/B.QUELLETTE

(604)980-5814 OR (604)988-4524

* TYPE ROCK GEDCHEM * DATE: 05-12-1989

(VALUES IN PPM)	U	V	ZN	GA	SN	W	CR
25506	1	71.1	10	2	1	1	71
25507	1	18.7	8	1	1	1	77
25508	1	52.0	21	2	1	1	66
25509	1	15.7	1	1	1	1	45
25510	2	32.3	5	1	1	1	59
25511	1	158.1	70	4	2	2	213
25512	1	76.5	5	1	1	1	51
25513	1	61.2	1	1	1	1	37