

03/87

## WEST DOME MINERAL CLAIM

N.T.S. 93L/10E, Lat.  $54^{\circ}44'N$ , Long.  $126^{\circ}39.5'W$   
Omineca Mining Division  
British Columbia

## PROSPECTING REPORT

OWNER: A.L'ORSA

OPERATOR: FREEMONT GOLD CORP.

FILMED

By

L.B. Warren Prospector  
Smithers, B.C. 19 March 1986

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**14,490**

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## SUMMARY

Three days were spent doing an preliminary prospecting and soil geochemical reconnaissance program on the West Dome mineral claim on the steep western flank of Dome mountain.

Alteration zones consisting of sericite - quartz and carbonate and containing minor pyrite observed in the roadcut and were found to be geochemically anomalous in lead, zinc, copper, arsenic and gold.

The reconnaissance program has shown that a geochemical soil grid over the claim would aid in outlining the alteration zones and help pinpoint economic mineralization.

## INTRODUCTION

Three days were spent taking soil samples and prospecting on the West Dome Mineral claim during ~~October~~ of 1985.

*18<sup>th</sup> September*

Soils were taken at 20 metre intervals along the access road east of Marjorie creek . The starting point was the southeast corner of the Dome 2 ( 2 post) mineral claim ( record # 1624 ). The Southeast corner was established approximately in the field by running a chain and compass survey from the #1 post for the Dome 2 mineral claim. ( see fig.1 ). Prospecting notes were taken at each soil location and the outcrops close to the road were noted and tied into the soil sample stations which were marked with a piece of flagging tape.

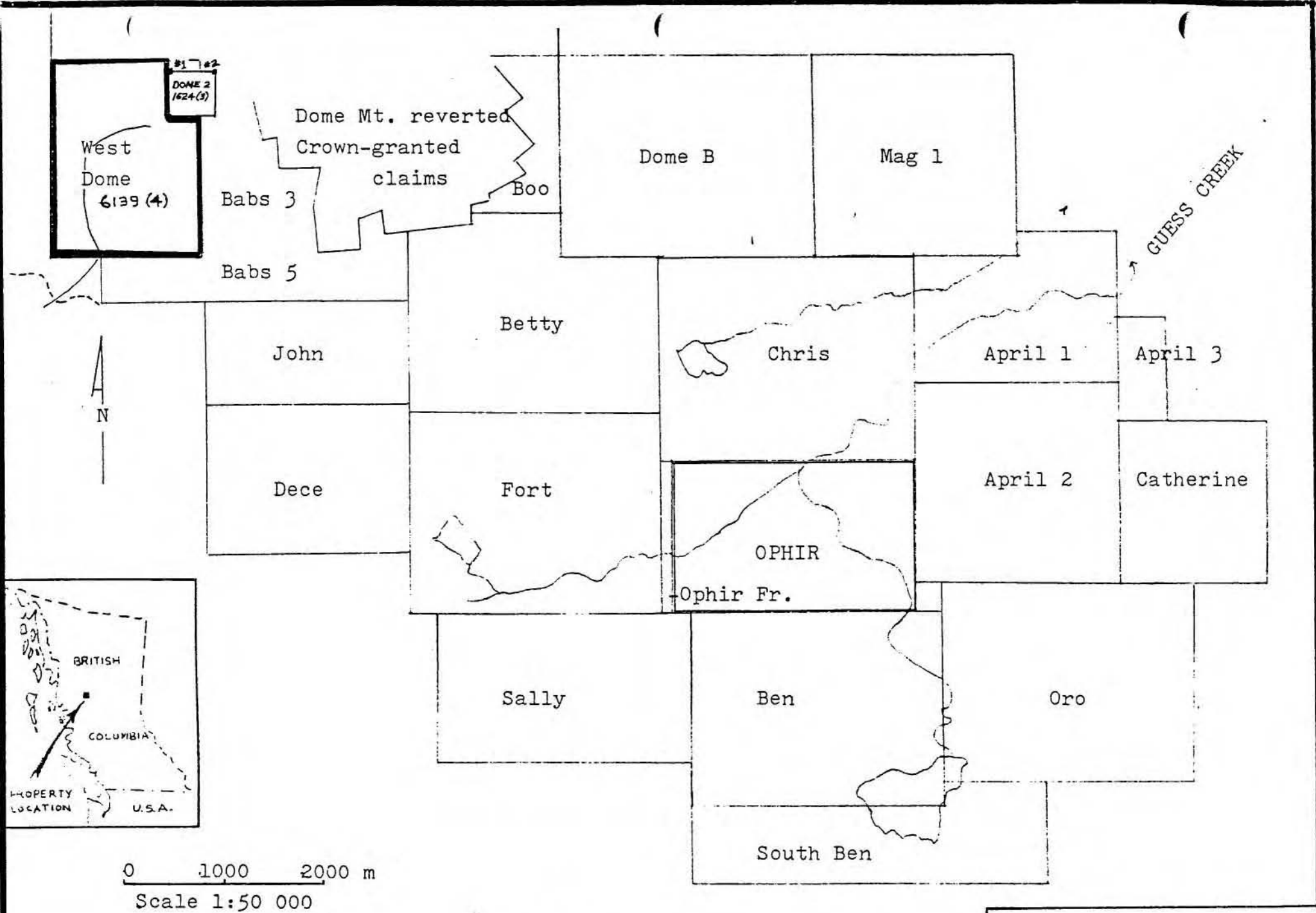


Fig.1

Southern Dome Mt. Area  
CLAIMS SKETCH MAP

Based upon Government claims map 93L/10E. Locations approximate.

### LOCATION AND ACCESS

The West Dome mineral claim is located on the steep western flank of Dome Mountain about 32Km east of Smithers, B.C..

The elevations on the claim range from about 1,158m ( 3800 ft.) to 1524m (5000ft.) .

Access to the West Dome claim is by an old mining - logging road suitable for four-wheel drive vehicles only. This road may be reached via the Woodmere and Paradise Lake roads which join Highway # 16 approximately 4Km east of Telkwa B.C. It is also accessible from the road to the Free Gold prospect on the east side of Dome Mountain.

### CLAIM AND OWNERSHIP

The West Dome claim consists of 12 units staked on the 30th of March 1984 and recorded on April 26th, 1984 - Record # 6139. The claim owner is A. L`Orsa and it is under option to Freemont Gold Corp. of 66-1285 West Pender St., Vancouver B.C.

### PHYSIOGRAPHY

The claim covers the steep western flank of Dome Mountain. Elevations range from 1,158m to 1524m. Marjorie Creek crosses the claim and carries enough water for exploration and mining purposes.

Balsam fir, spruce and lodgepole pine cover most of the claim. Areas above 1432m (4700 ft.) consist of large open Alpine meadows with a few clumps of alpine balsam scrub. 90% of the claim is obscured by overburden comprised of thin poorly developed soils.

REGIONAL GEOLOGIC SETTING

( Quoted from the B.C.Ministry of Mines paper 85-1, page 195;D.G.MacIntyre )

" The Dome Mountain area is underlain by subaerial to submarine volcanic, volcanoclastic and sedimentary rocks of the Hazelton Group ( figure 2 ). The Hazelton Group is an island-arc assemblage that was deposited in the northwest trending Hazelton Trough between Early Jurassic and Middle Jurassic time. Tipper and Richards (1976) divide the Hazelton group into three major formations in the Smithers map area (93L). These are the Late Sinemurian to Early Pliensbachian Telkwa Formation, the Early Pliensbachian to Middle Toarcian Nilkitkwa Formation, and the Middle Toarcian to Lower Callovian Smithers Formation.

The Telkwa Formation, which is comprised of subaerial and submarine pyroclastic and flow rocks with lesser intercalated sedimentary rocks, is the thickest and most extensive formation of the Hazelton Group. The mixed subaerial to submarine Babine Shelf Facies of the Telkwa Formation, which separates the subaerial Howson facies to the West and the Submarine Kotsine facies to the east, underlies the Babine Range ( Tipper and Richards, 1976).

The Nilkitkwa Formation conformably to disconformably overlies the Telkwa Formation, West of Dome Mountain it is comprised of predominantly Toarcian red Pyroclastic rocks; to the east it includes Early Pleinsbachian to Middle Toarcian marine sedimentary rocks with intercalated rhyolite to basalt flows.

In the Babine Range, the Smithers Formation disconformably overlies the Nilkitkwa Formation; it is predominantly Bajocian in age. It is comprised of Fossiliferous sandstone and siltstone with lesser intercalated felsic tuff. As far as is known, the Smithers Formation does not occur within the area of Figure 2."

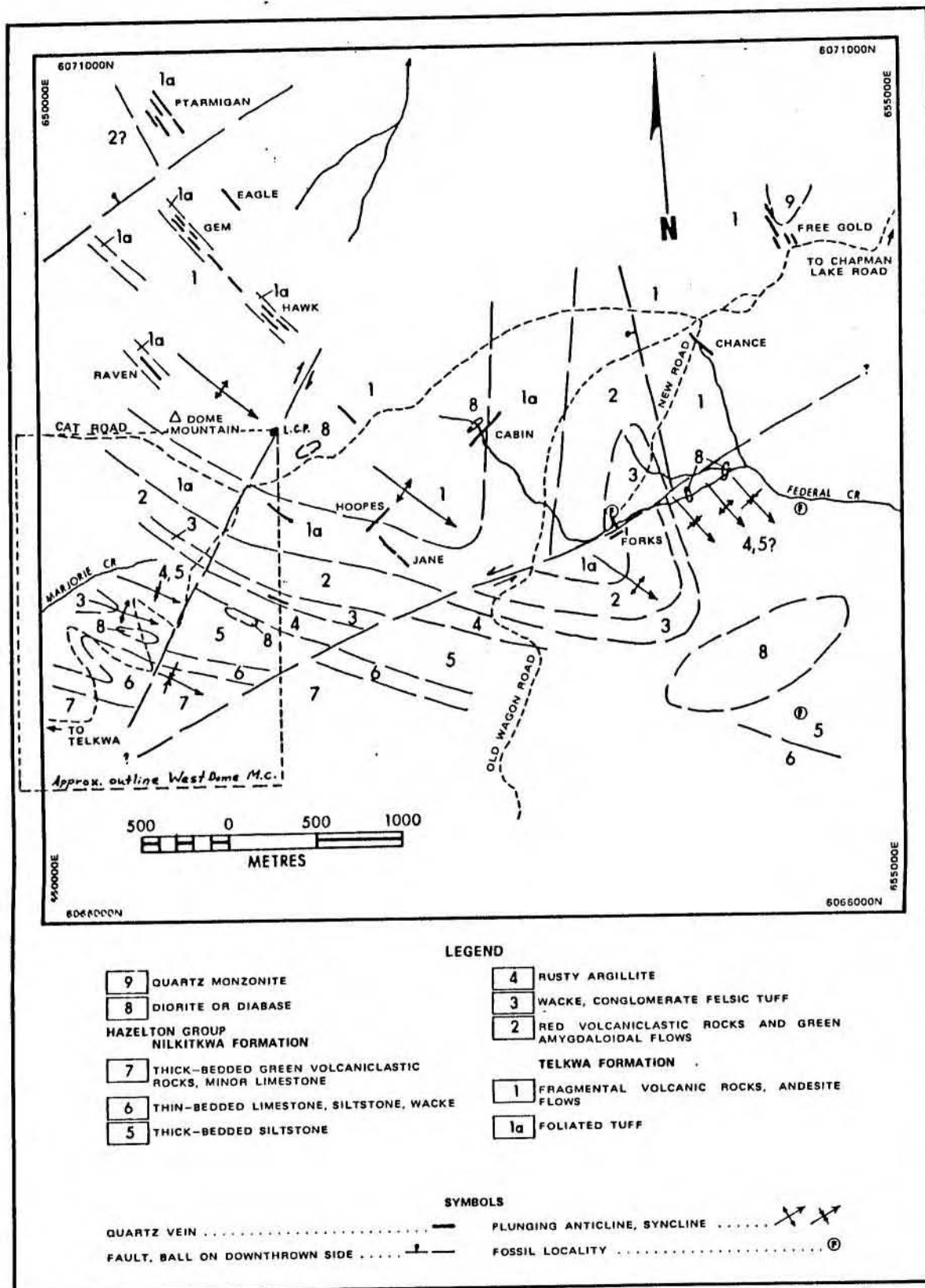


Figure 2 Preliminary geology of the Dome Mountain gold camp.  
 from B.C.D.M. Paper 1985-1 Page 194

# PRELIMINARY STRATIGRAPHIC COLUMN DOME MOUNTAIN

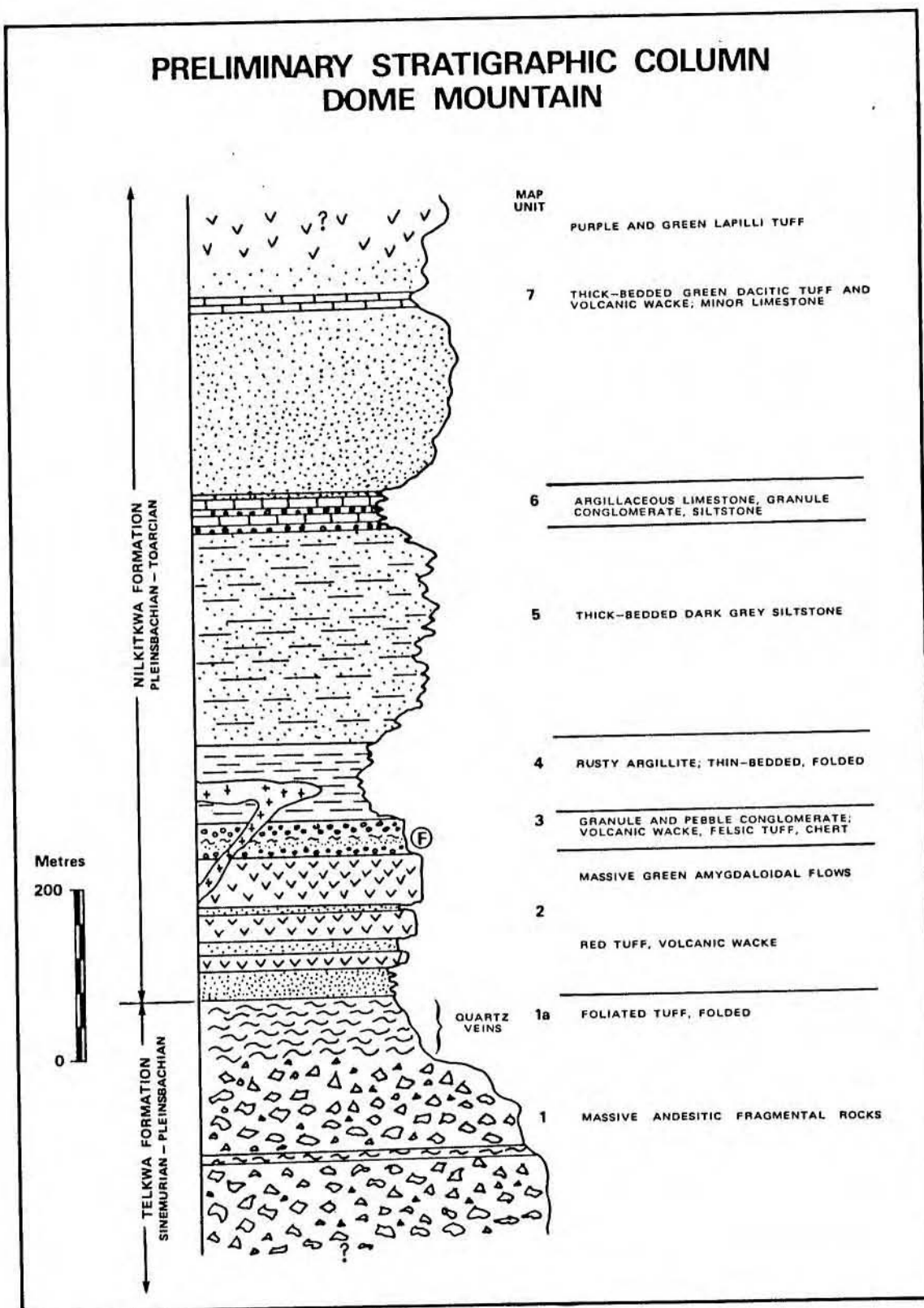


Figure 3 Preliminary stratigraphic column, Dome Mountain gold camp.  
 From B.C.D.M. Paper 1985-1 Page 196



## DOME MOUNTAIN GEOLOGY

" The core of Dome mountain is underlain by a large southwest-verging, southeast-plunging anticlinal structure that has been cut by northeast and northwest-trending high angle faults (fig. 2 ). The oldest rocks are well exposed on the crest of the mountain and a good stratigraphic section is exposed on the south slope. A preliminary stratigraphic column ( fig. 3 ) ( MacIntyre 1984 ) has been established on the basis of this section. The ages of these units and their correlations with Hazelton Group formations are not well established.

Several small plugs or dykes of diabase or diorite intrude the Hazelton Group on Dome Mountain; a stock of quartz porphyry or quartz monzonite is exposed near the Free-gold group."

## GEOLOGY OF THE CLAIM GROUP

In this preliminary reconnaissance program a correlation was established with MacIntyre's preliminary geology map ( fig.2). Red volcanoclastic rocks, Green amygdoloidal flows and rusty argillite outcrops correlated well with MacIntyre's map. The Green volcanic breccia with blocks up to two ft.in length in the north east part of the claim are not indicated on MacIntyre's map.

The high angle northeast - southwest striking fault was observed in the field at soil sample station WD 61. Highly sheared and foliated volcanics with intense sericite, quartz-carbonate alteration occurs in this outcrop ( stripping for road construction material has provided this exposure). Highly anomalous copper, lead, zinc, arsenic and gold geochem. results occur within and adjacent to this fault zone ; indicating the possibility of economic sulphides being associated with this structure.

CAT ROAD

△ DOME MOUNTAIN

L.G.P. 8

MARJORIE CR

TO TELKWA

Approx. outline West Dome M.C.

(Blow-up of Fig 2 from S.C.D.M. paper 1985-1 page 194)

500

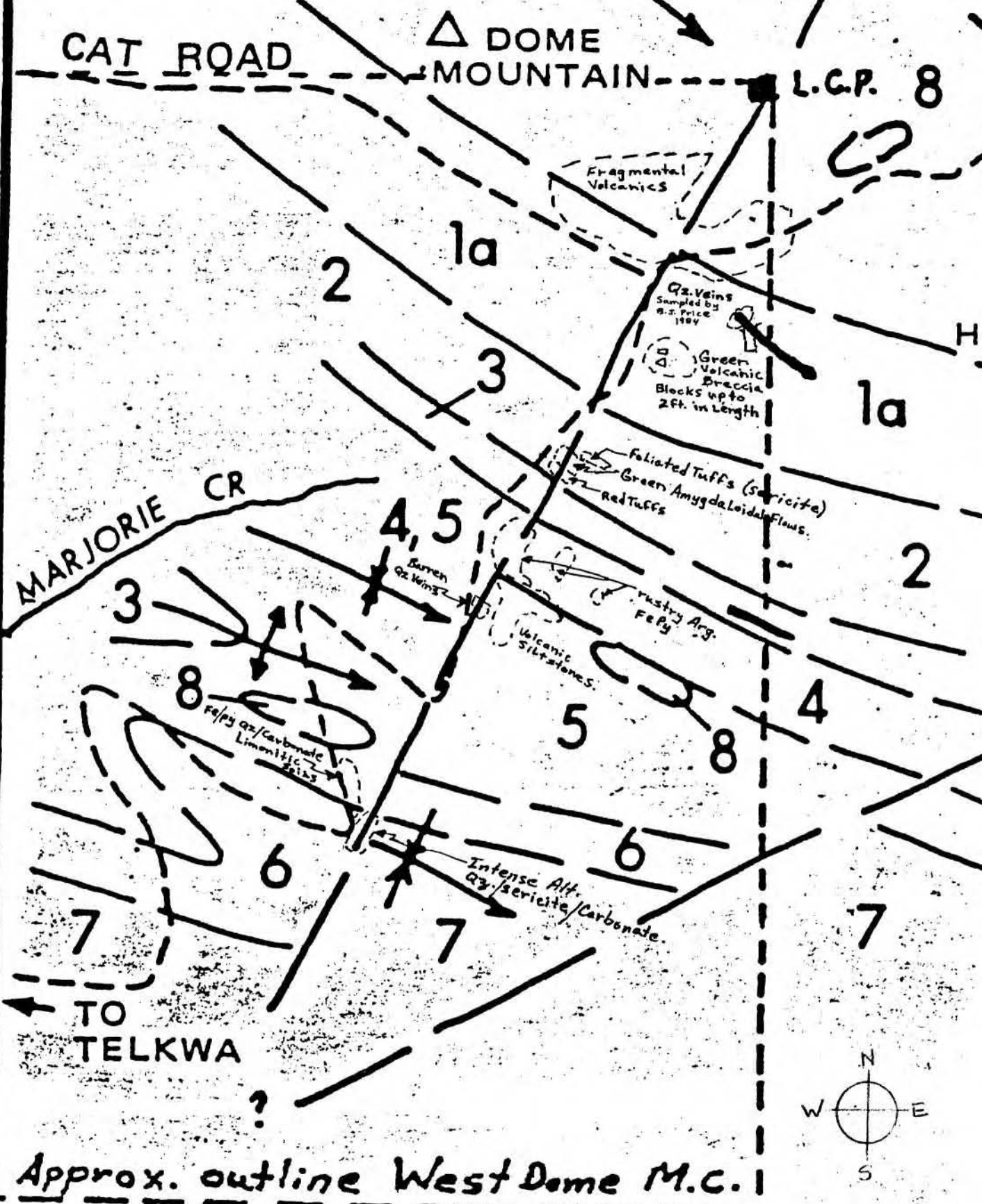
0

500

Figure 4



DE



GEOCHEMISTRY

A total of eighty - six (86) "B" horizon soils were collected along the road cut for the access road through the West Dome mineral claim.

The samples were analysed for "total" Au, Ag, As, Cu, Pb, and Zn by Bondar - Clegg and Company Ltd., North Vancouver B.C., and the results are plotted on Figures - 5a, 5b, 5c, 5e, and 5f. A summary of the analytical methods used for these samples is given in an appendix to this report.

Using the geochemical data base from an unpublished report from Noranda Explorations by D.Myers ; ( Myers,1985 ) the following table was constructed using a total sample population of 2705 "B" horizon soils.

<u>Element</u>	<u>Weakly anomolous</u>	<u>Strongly anomolous</u>
Pb	20 PPM	50 PPM
Zn	250 PPM	400 PPM
As	50 PPM	100 PPM
Cu	50 PPM	100 PPM
Ag	1.4 PPM	2.8 PPM
Au	30 PPB	60 PPB

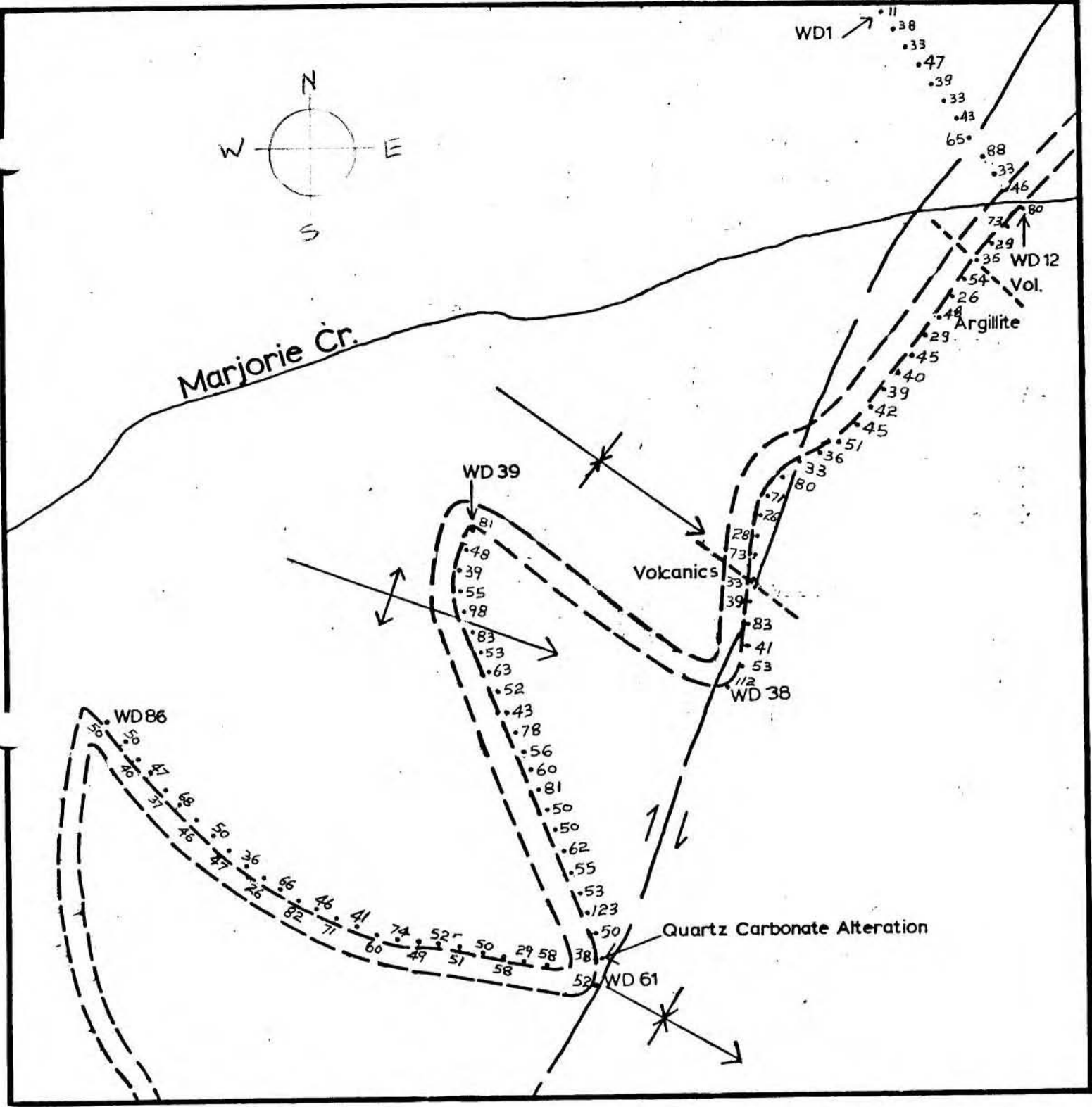
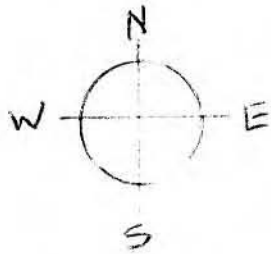
( PPM - parts per million and PPB - parts per billion )

In his report D.Myers has recommended follow - up on anomalies of greater than Pb 25 PPM, Zn 250 PPM and As 100 PPM.

CONCLUSIONS

The prospecting and geochemical reconnaissance program was successful in establishing that a more detailed and properly laid out grid over the West Dome claim would be successful in locating alteration and mineralized zones of possible economic significance.





The occurrence of anomalous geochemical results and alteration associated with a high angle fault zone indicates the potential for economic sulphides to occur within or adjacent to this fault zone.

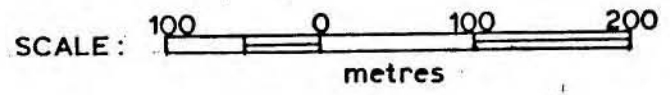


LEGEND

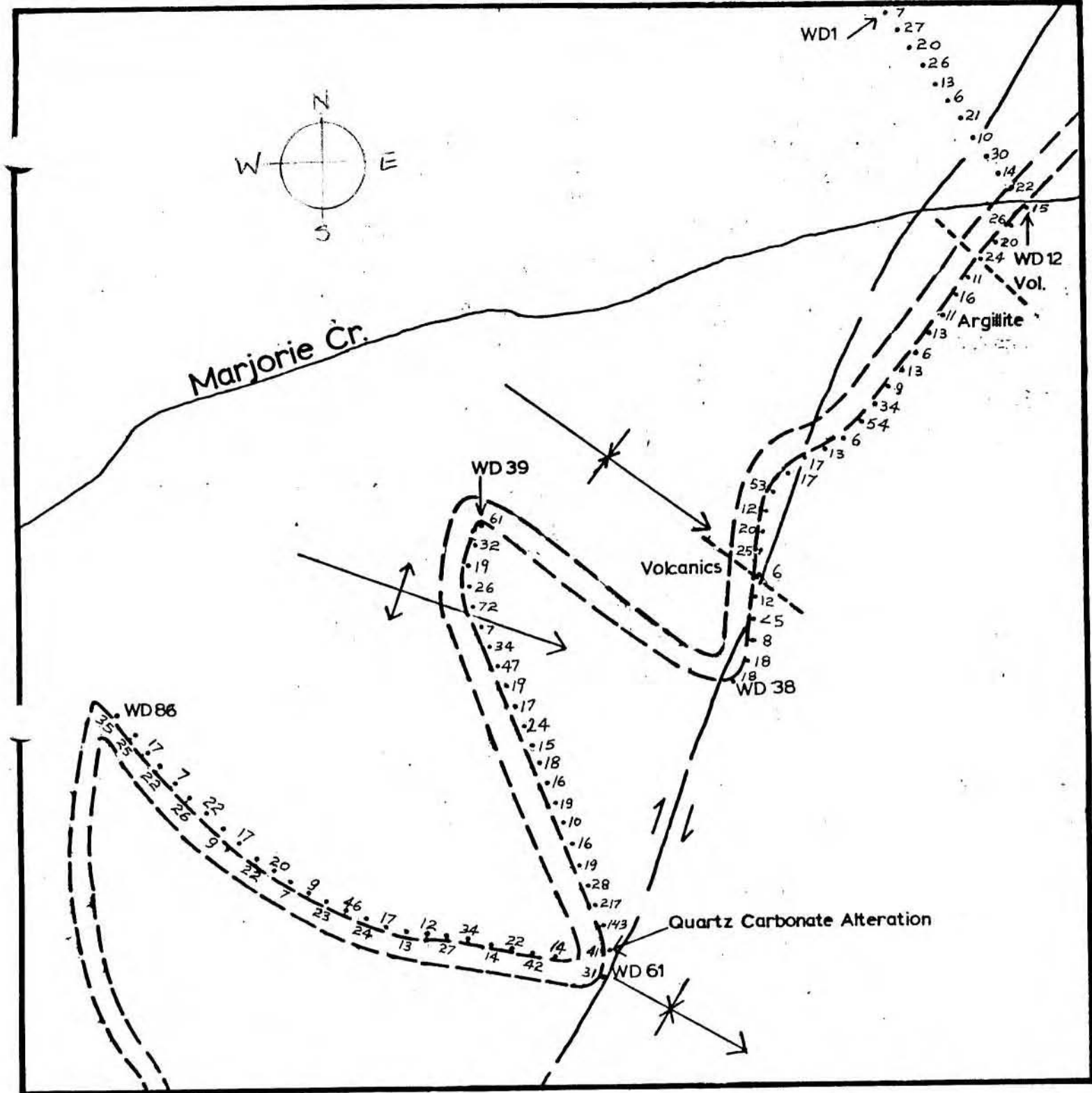
FREEMONT GOLD CORPORATION

WEST DOME M.C.

-  Cat road
-  Fault
-  Geochem samples
-  Plunging anticline, syncline



GEOCHEM: Cu in P.P.M. Fig. 5(A)

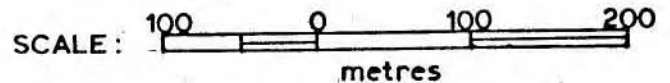


LEGEND

FREEMONT GOLD CORPORATION

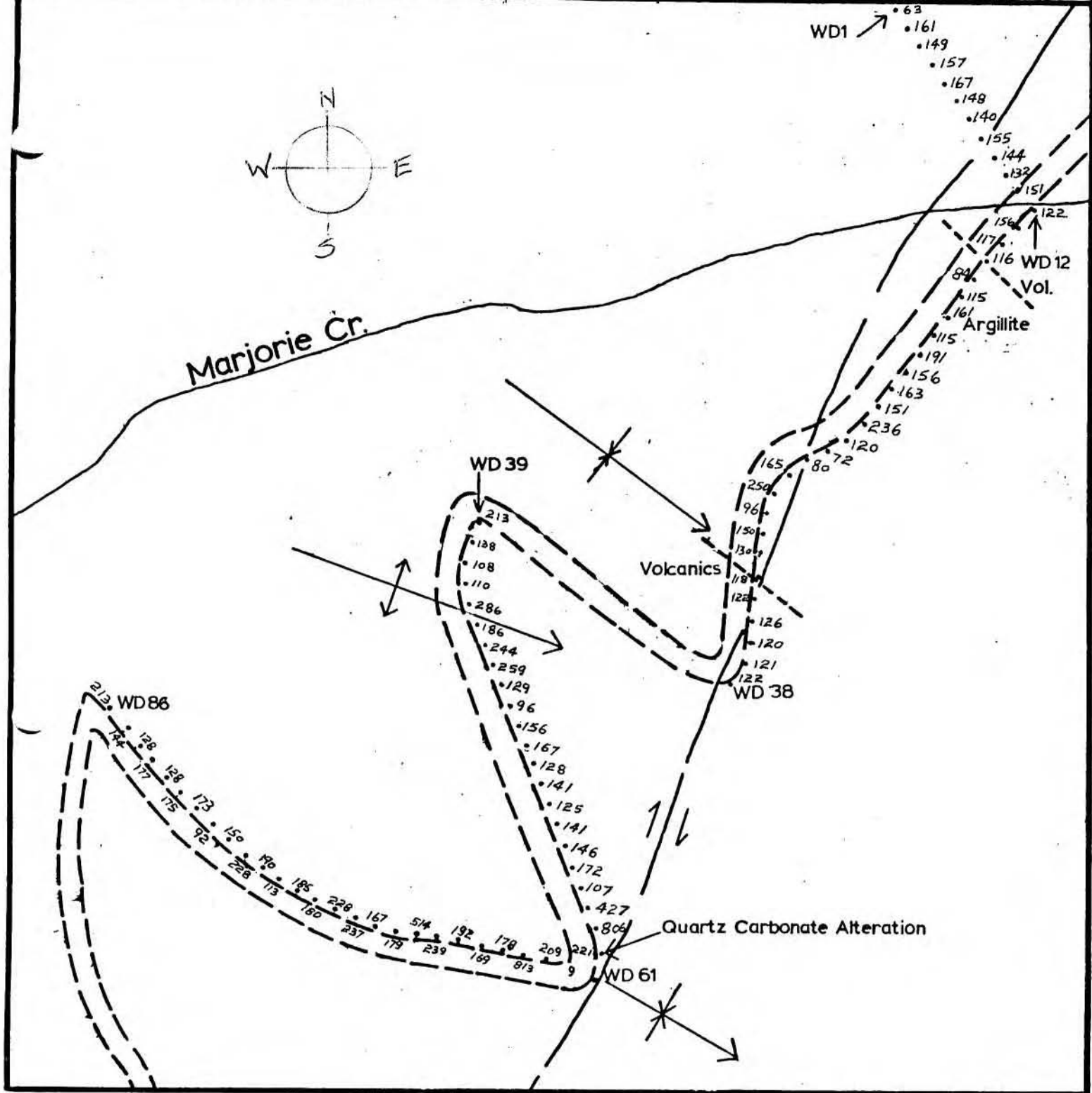
- == Cat road
- - - Fault
- • • Geochem samples

WEST DOME M. C.



- ↕ ↗ Plunging anticline, syncline

GEOCHEM: Pb in P.P.M. Fig. 5(B)

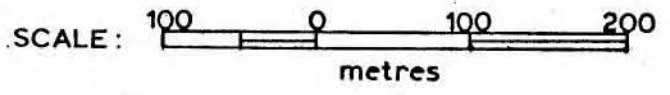


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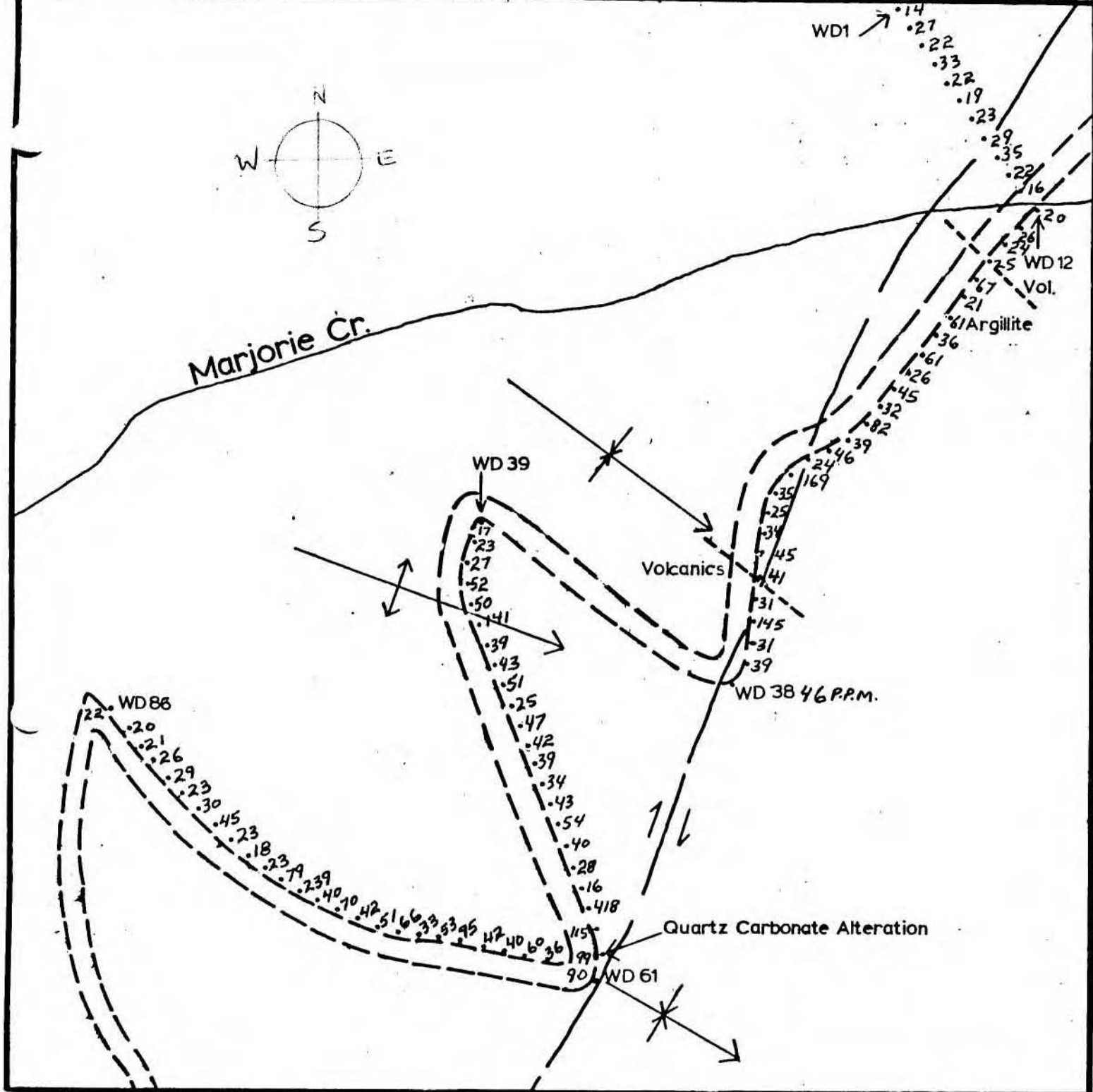
- Cat road
- Fault
- Geochem samples
- Plunging anticline, syncline

FREEMONT GOLD CORPORATION

WEST DOME M.C.



GEOCHEM: Zn in P.P.M. Fig. 5 (C)

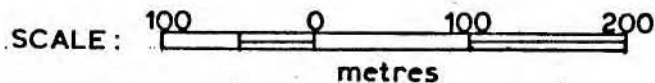


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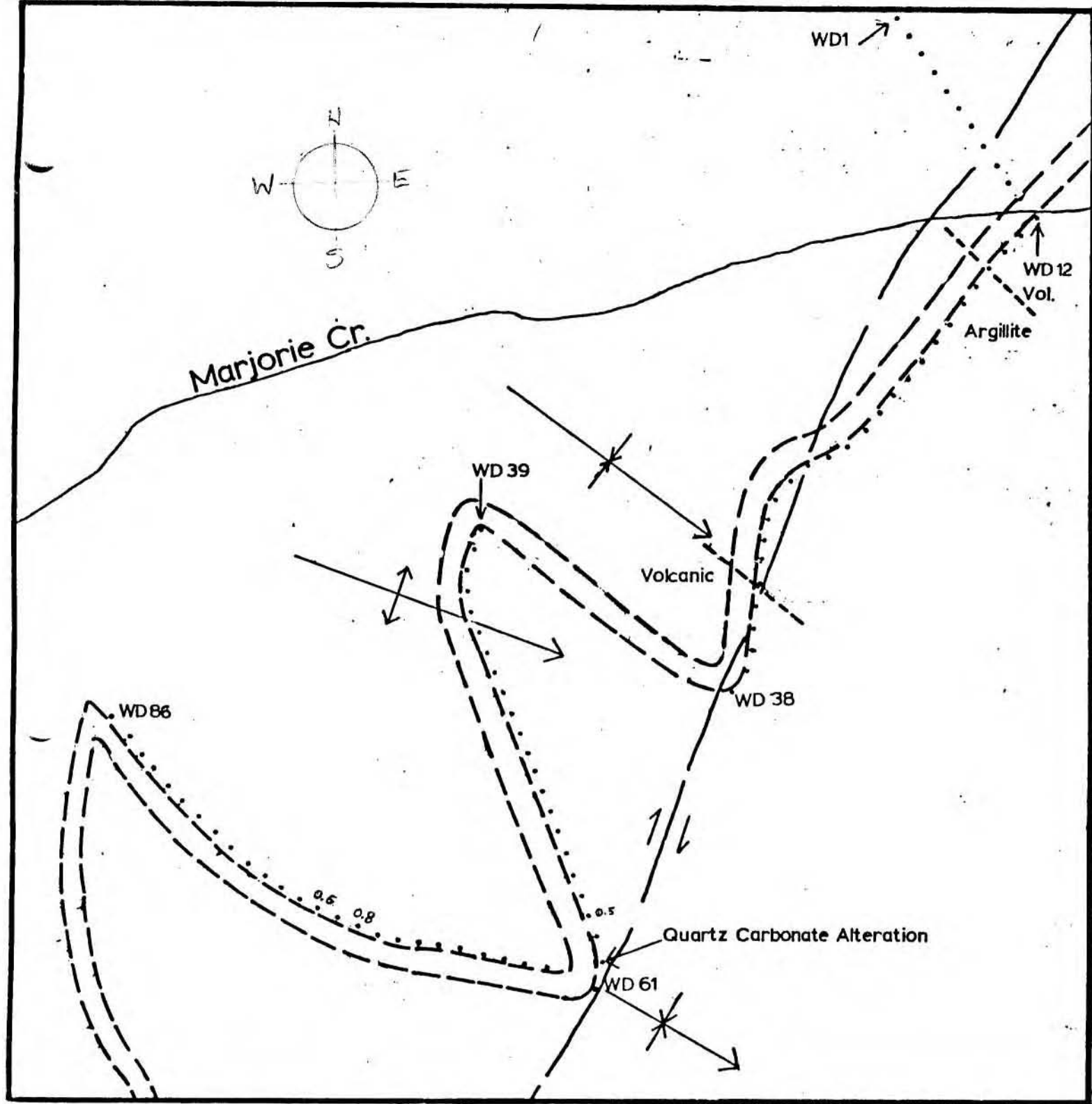
- == Cat road
- - - Fault
- • Geochem samples
- ↔ ↗ Plunging anticline, syncline

FREEMONT GOLD CORPORATION

WEST DOME M.C.



GEOCHEM: AS in P.P.M. Fig. 5 (D)



LEGEND

- == Cat road
- - - Fault
- ... Geochem samples
- ↕ ↗ Plunging anticline, syncline

GEOCHEM: Ag in P.P.M.

FREEMONT GOLD CORPORATION

WEST DOME M.C.

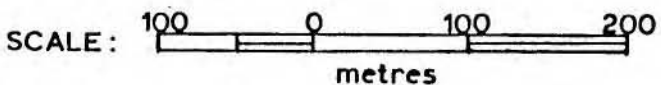
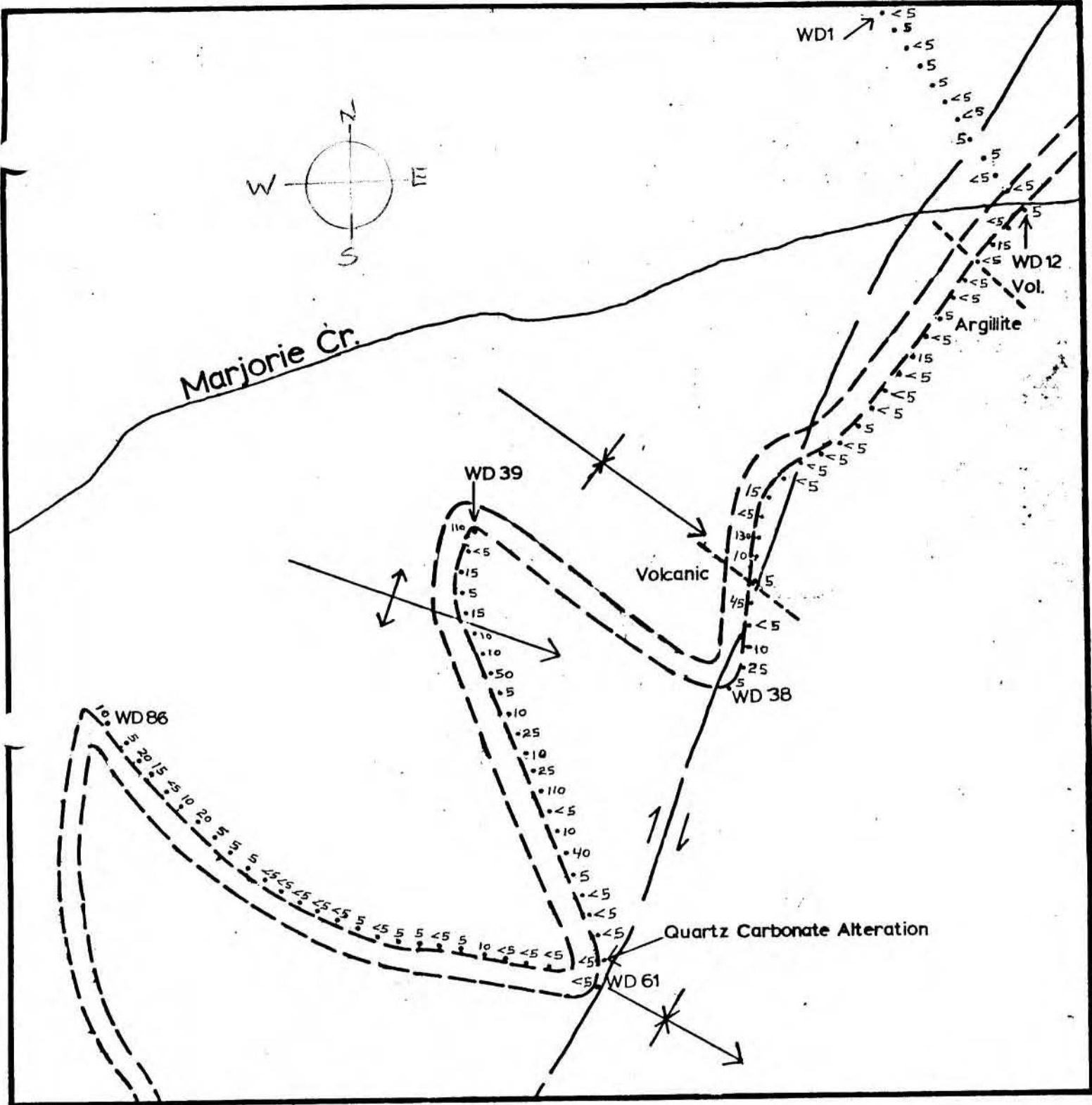



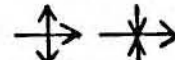


Fig. 5(E) (only values > 0.5 Plotted)






LEGEND

-  Cat road
-  Fault
-  Geochem samples
-  Plunging anticline, syncline

FREEMONT GOLD CORPORATION

WEST DOME M.C.

SCALE:  metres

Geochem : Au in P.P.B. Fig. 5(F)

REFERENCES

Myers, D.E., 1985, Preliminary report on 1984 work on...Dome Mountain (and) Mount McKendrick: Unpublished report for Noranda Exploration Company, Ltd., 63p.

Price, B., 1978, Geological and geophysical report, Delsanto 1-6 ... claims: Assessment Report 07286, Victoria, B.C.

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.

MacIntyre, D.G. 1984, Geology of the Dome Mountain Gold Camp ( 93L 10/15 ) B.C. Ministry of Energy, Mines and Petroleum Resources, Paper 1985 -1 Geological Fieldwork 1984

ITEMIZED COST STATEMENT

FIELD WORK :

L.B.Warren, Prospector, 3 Days @ \$175/day

\$ 525.00

R.C.Anderson, Assistant, 3 Days @ \$125/day

375.00

19,20 and 21 ~~Oct.~~ 1985

*few Sept.*

REPORT:

L.B.Warren 3 days @ \$175/day

525.00

Typing and copying

74.50

TRANSPORTATION:

4x4 truck 3 days @ \$65/day

195.00

ACCOMMODATION AND BOARD

6 mandays @ \$50/day

300.00

ANALYSES:

86 soil samples @ \$16.25/sample

1397.50

FIELD SUPPLIES:

Flagging and Hip chain thread

38.00

Total

\$3430.00

*L.B. Warren*  
L.B.Warren, Prospector

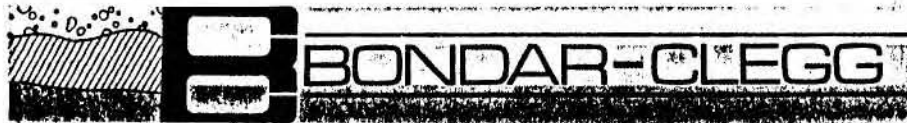
STATEMENT OF QUALIFICATIONS

- 1963            Geological Assistant - Mastodon Highland Bell  
Gordon Hilchey - Geologist  
Dome Mnt. - Smithers B.C.
- 1964            Geological Assistant - Phelps Dodge Corp.  
Stikine Area , B.C.
- 1965            Geological Assistant - Native Mines Ltd.  
W.J. Wilkinson - Geologist  
Terrace Area , B.C.
- 1966            Prospector and Geological Assistant  
Native Mines Ltd.  
W.J. Wilkinson - Supervisor  
Bridge River Area ,B.C.
- 1966 - 1971  
Full time- Field Tech.- Line cutter - Prospector  
Manex Mining Ltd.  
Throughout B.C.
- 1971 - 1979  
Granby Mining Corp.- Field Supervisor -  
Office Manager - Smithers area  
Supervised Drill programs  
Logged Drill core and Percussion Cuttings
- 1979 - Present  
  
President and Manager - C JL Enterprises Ltd.  
Kengold Mines Ltd. and Angel Jade Mines Ltd.  
Full time Prospector

APPENDIX

Summary of Analytical Methods  
and Results

Bondar-Clegg & Company Ltd.  
 130 Pemberton Ave.  
 North Vancouver, B.C.  
 Canada V7P 2R5  
 Phone: (604) 983-0681  
 Telex: 04-352667



Geochemical  
 Lab Report

REPORT: 125-3031 ( COMPLETE )

REFERENCE INFO:

CLIENT: FREEMONT GOLD  
 PROJECT: WD-01-85

SUBMITTED BY: L. WARREN  
 DATE PRINTED: 6-OCT-85

ORDER	ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Cu Copper	86	1 PPM	HNO3-HCL HOT EXTR	D.C. Plasma
2	Pb Lead	86	5 PPM	HNO3-HCL HOT EXTR	D.C. Plasma
3	Zn Zinc	86	1 PPM	HNO3-HCL HOT EXTR	D.C. Plasma
4	Ag Silver	86	0.5 PPM	HNO3-HCL HOT EXTR	D.C. Plasma
5	As Arsenic	86	5 PPM	HNO3-HCL HOT EXTR	D.C. Plasma
6	Sb Antimony	86	5 PPM	HNO3-HCL HOT EXTR	D.C. Plasma
7	Au Gold - Fire Assay	86	5 PPB	FIRE-ASSAY	Fire Assay AA

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
S SOILS	86	1 -80	86	DRY, SEIVE -80	86

REPORT COPIES TO: BEN OUELLITE  
 MR. L. B. WARREN

INVOICE TO: BEN OUELLITE

REPORT: 125-3031

PROJECT: WD-01-85

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Sb PPM	Au PPB
S1 WD 01		11	7	63	<0.5	14	<5	<5
S1 WD 02		38	27	161	<0.5	27	7	5
S1 WD 03		33	20	149	<0.5	22	5	<5
S1 WD 04		47	26	157	<0.5	33	<5	5
S1 WD 05		39	13	167	<0.5	22	6	5
S1 WD 06		33	6	148	<0.5	19	<5	<5
S1 WD 07		43	21	140	<0.5	23	<5	<5
S1 WD 08		65	10	155	<0.5	29	14	5
S1 WD 09		98	30	144	<0.5	35	<5	5
S1 WD 10		32	14	132	<0.5	22	<5	<5
S1 WD 11		46	22	151	<0.5	16	<5	<5
S1 WD 12		80	15	122	<0.5	20	11	5
S1 WD 13		73	26	156	<0.5	26	14	15
S1 WD 14		29	20	117	<0.5	24	9	<5
S1 WD 15		35	24	116	<0.5	25	9	<5
S1 WD 16		54	11	84	<0.5	67	20	<5
S1 WD 17		26	16	115	<0.5	21	14	<5
S1 WD 18		48	11	161	<0.5	61	<5	5
S1 WD 19		29	13	115	<0.5	36	14	<5
S1 WD 20		45	6	191	<0.5	61	12	15
S1 WD 21		40	13	156	<0.5	26	<5	<5
S1 WD 22		39	9	163	<0.5	45	8	<5
S1 WD 23		42	34	151	<0.5	32	9	<5
S1 WD 24		45	54	236	<0.5	82	5	5
S1 WD 25		51	6	120	<0.5	39	8	<5
S1 WD 26		36	13	72	<0.5	46	<5	<5
S1 WD 27		33	17	80	<0.5	24	10	<5
S1 WD 28		80	17	165	<0.5	169	13	<5
S1 WD 29		71	53	250	<0.5	35	<5	15
S1 WD 30		26	12	96	<0.5	25	<5	<5
S1 WD 31		28	20	150	<0.5	34	<5	130
S1 WD 32		73	25	130	<0.5	45	<5	10
S1 WD 33		33	6	118	<0.5	41	6	5
S1 WD 34		39	12	122	<0.5	21	<5	45
S1 WD 35		83	<5	126	<0.5	145	<5	<5
S1 WD 36		41	8	120	<0.5	31	<5	10
S1 WD 37		52	18	121	<0.5	39	<5	25
S1 WD 38		112	18	122	<0.5	46	<5	5
S1 WD 39		81	61	213	<0.5	17	<5	110
S1 WD 40		40	22	138	<0.5	23	<5	<5

REPORT: 125-3031

PROJECT: WD-01-85

PAGE 2

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Sr PPM	Au PPM
S1 WD 41		39	19	108	<0.5	27	<5	15
S1 WD 42		55	26	110	<0.5	52	6	5
S1 WD 43		98	73	286	<0.5	50	10	15
S1 WD 44		83	7	186	<0.5	141	7	10
S1 WD 45		53	34	244	<0.5	39	9	10
S1 WD 46		63	47	259	<0.5	43	7	50
S1 WD 47		52	19	129	<0.5	51	9	5
S1 WD 48		43	17	96	<0.5	25	<5	10
S1 WD 49		78	24	156	<0.5	47	15	25
S1 WD 50		56	15	167	<0.5	42	10	10
S1 WD 51		60	18	128	<0.5	39	<5	25
S1 WD 52		81	16	141	<0.5	34	10	110
S1 WD 53		50	19	125	<0.5	43	12	<5
S1 WD 54		50	10	141	<0.5	54	6	10
S1 WD 55		62	16	146	<0.5	40	<5	40
S1 WD 56		55	19	172	<0.5	28	<5	5
S1 WD 57		52	28	107	<0.5	16	<5	<5
S1 WD 58		123	217	422	0.5	418	19	<5
S1 WD 59		50	143	806	<0.5	115	7	<5
S1 WD 60		38	41	221	<0.5	99	9	<5
S1 WD 61		52	31	951	<0.5	90	13	<5
S1 WD 62		59	14	209	<0.5	36	9	<5
S1 WD 63		29	42	813	<0.5	60	7	<5
S1 WD 64		58	22	178	<0.5	40	8	10
S1 WD 65		50	14	169	<0.5	42	8	5
S1 WD 66		51	34	192	<0.5	95	<5	<5
S1 WD 67		52	27	229	<0.5	53	<5	5
S1 WD 68		49	12	514	<0.5	33	<5	5
S1 WD 69		74	13	179	<0.5	66	10	<5
S1 WD 70		60	17	167	<0.5	51	6	5
S1 WD 71		41	24	237	0.8	42	7	<5
S1 WD 72		71	46	228	<0.5	70	<5	<5
S1 WD 73		46	23	180	0.6	40	6	<5
S1 WD 74		82	9	185	<0.5	239	9	<5
S1 WD 75		66	7	113	<0.5	79	<5	<5
S1 WD 76		26	20	190	<0.5	23	7	<5
S1 WD 77		36	22	228	<0.5	18	9	5
S1 WD 78		47	17	150	<0.5	23	<5	5
S1 WD 79		50	9	92	<0.5	45	11	5
S1 WD 80		46	22	173	<0.5	30	8	20





REPORT: 125-3031

PROJECT: WD-01-85

PAGE 3

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Sb PPM	Au PPM
S1 WD 81		68	26	175	<0.5	23	13	10
S1 WD 82		37	7	128	<0.5	29	8	<5
S1 WD 83		47	22	177	<0.5	26	6	15
S1 WD 84		40	17	128	<0.5	21	<5	20
S1 WD 85		50	25	144	<0.5	20	<5	5
S1 WD 86		50	35	213	<0.5	22	9	10