

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

85-1026 -
14207

14,207

DRILLING REPORT

J Group

Kamloops Mining Division, B.C.

92 I/13 & 14

Lat: 50°59' Long: 121°29'

Owned by: Murray Morrison

Operated by: Esso Minerals Canada

for

Esso Resources Canada Limited

FILMED

by

**Walter Melnyk
Esso Resources Canada Limited
1600-409 Granville Street
Vancouver, B.C. V6C 1T2**

October 31, 1985

0741B

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SUMMARY

Esso Minerals Canada conducted a diamond drill program on the J property in September, 1985. The property is owned by Murray Morrison of Kelowna, B.C. and is located 13 km southeast of Clinton, B.C.

The purpose of the EMC drill program was to test a VLF-EM conductor outlined by Mr. Morrison near which a percussion hole drilling in 1973, PDH 73-7, assayed 16 g/tonne Au over 3.05 m at a depth of 42.7 m. An intense carbonate altered zone occurs 2 km southeast of the drilling area, striking northwesterly, dipping southwesterly(?) and is believed to accompany the precious metals in PDH 73-7.

The EMC drill program consisted of three vertical diamond drill holes, size NQ, totalling 186.5 m (614 ft.). Core recovery was very poor, varying from 35-42%, due to the intensely broken nature of the rock. The drill holes intersected blocky cherty argillite, argillite, and mafic volcanic tuff of the Permian Cache Creek Group. Weak quartz vein zones were intersected in drill holes 85-1 and 85-2. The rocks are unaltered, and the carbonate alteration zone was not intersected in the EMC drill holes.

Drill core is stored on the property near DDH 85-1.

A total of twenty-nine split core samples were submitted for Au-Ag assay to Min-En Laboratories in North Vancouver. The analytical work failed to detect any significant precious metal values.

The J Property will be reverted to Mr. Morrison.

RECOMMENDATIONS

No further work is recommended on the J Property. The option agreement should be terminated and the property returned to the vendor.

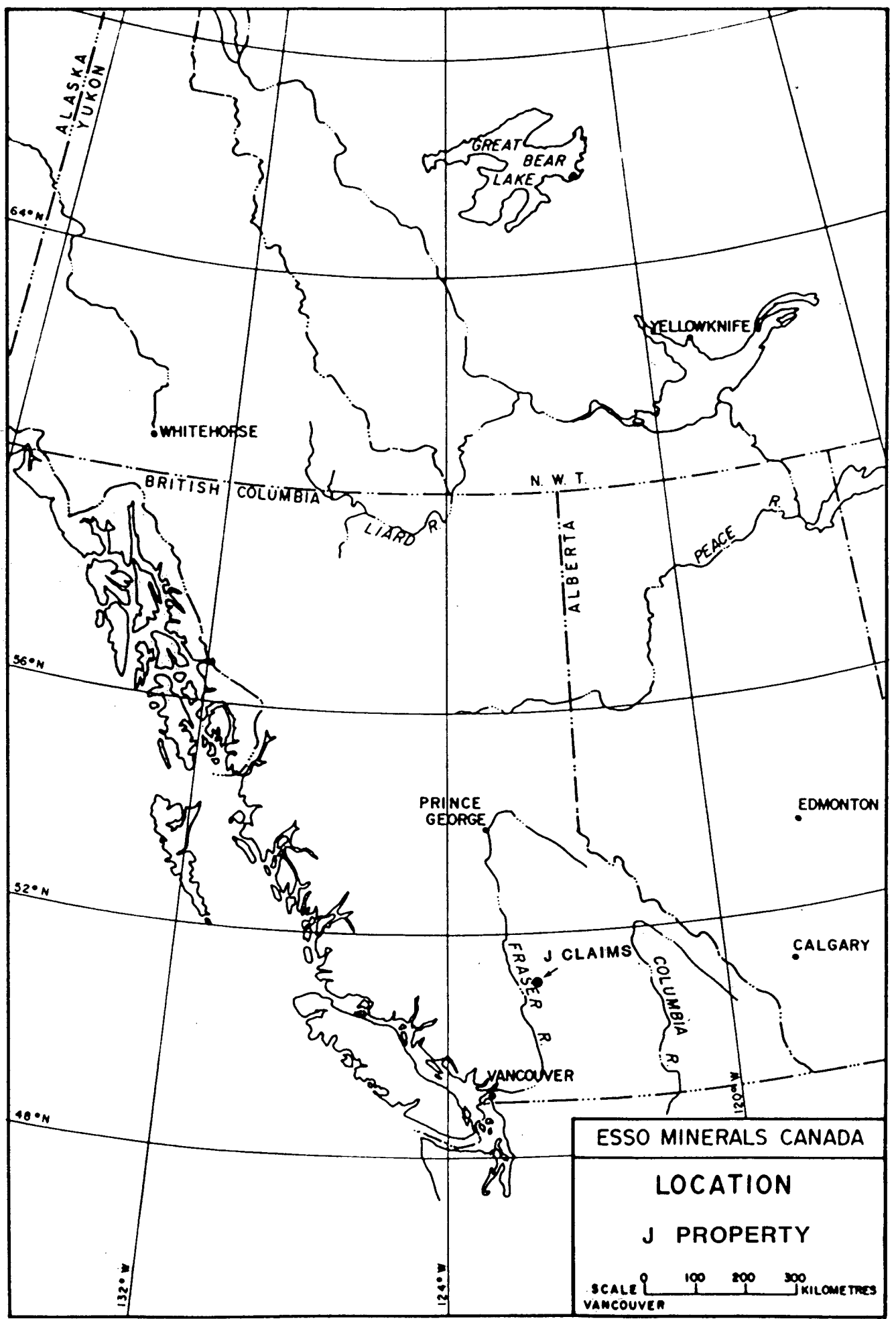


Fig. 1

INTRODUCTION

A diamond drill program was undertaken by Esso Minerals Canada on the 'J' Property near Clinton, B.C., owned by Murray Morrison of Kelowna.

The object of the drilling was to duplicate a gold intercept of 0.47 oz/t Au over 10 feet previously intersected by Peyto Oil in 1973, and to delineate a possible strike extension.

The drill program was conducted from Sept. 20 to Oct. 4, 1985, during which time three NQ vertical diamond drill holes were completed totaling 186.5 m.

LOCATION AND ACCESS

The 'J' Property is located 23 km north of Cache Creek adjacent to and northeast of Highway 97. The property extends over the southern apex of Hart Ridge near the junction of the Bonaparte River and Maiden Creek. The coordinates of the property are Lat. 50°59', Long. 121°29'.

The J 1-4 claims are located immediately adjacent to Highway 97 and cover an impressive colour anomaly or gossan, 400 metres northeast of the highway. The J5 claim lies adjacent to and north of J 1-4 claims. Access to this claim is via an old logging road which leaves a rest area two kilometers northwest of the gossan patch. The EMC drill sites are located 4.5 km from Highway 97, 2.5 kms up the logging road and 2 km along a winding bush trail to the drilling area at elevation 975 m.

CLAIM STATUS

The J Property consists of five mineral claims including 4 two-post claims, J 1-4 and one 4-post claim, J5, consisting of 16 units. All claims are located within the Kamloops Mining Division.

Details of the claims are tabulated below:

<u>Claim Name</u>	<u>Units</u>	<u>Recording Date</u>	<u>Record #</u>	<u>Expiry Date*</u>
J 1	1	May 11/82	4022	May 11/94
J 2	1	May 11/82	4023	May 11/94
J 3	1	May 11/82	4024	May 11/94
J 4	1	May 11/82	4025	May 11/94
J 5	16	Apr 3/84	5582	Apr 3/92

All of the above claims are presently held in trust by Esso Minerals Canada under an option agreement dated Feb. 6, 1985, with Murray Morrison of Kelowna, B.C.

* New expiry dates based on the acceptance of this report for assessment purposes.

HISTORY

A succinct historical account of the J Property is presented by Murray Morrison in his assessment report entitled "VLF-EM 16 Ground Survey, J 1-5 Mineral Claims, Cache Creek Area, Kamloops Mining Division, March 31, 1985". A brief summary of Mr. Morrison's account is presented here.

Exploration in the vicinity of the J Property was intense with the discovery of the Maggie Cu-Mo porphyry deposit in 1970. Peyto Oil Ltd. of Calgary held a block of 159 claims covering the present J Property. Exploration was carried out from 1970 to 1973. Work included geological mapping, soil geochemistry and geophysics including Mag and I.P. In 1973 fifteen percussion drill holes tested induced polarization anomalies with no success in terms of porphyry Cu-Mo mineralization but hole 73-7 intersected 16 grams gold per tonne in a 3.05 m interval from 42.7 to 45.7 m. This interval consisted of pyritic and quartz-carbonate material.

In 1974 the property was reduced to 17 claims. Four percussion drill holes tested the gold zone discovered in 1973 in PDH 73-7, with negative results and the claims were allowed to lapse.

The J 1-4 mineral claims were staked in 1982 by Murray Morrison of Kelowna, B.C. and in 1983 a lithogeochemical and prospecting survey was conducted. The J-5 mineral claim was staked in 1984.

REGIONAL GEOLOGY

The regional geological setting in the vicinity of the J Property is obtained from Geology Map 1010A, Ashcroft, by S. Duffell, and K. C. McTaggart, and Map 1278A, Bonaparte Lake by R. B. Campbell and H. W. Tipper.

The area of interest incorporating the J Property occurs near the edge of two physiographic regions, the Thompson Plateau and the Fraser Plateau in the southwestern corner of map sheet 92P. The Thompson Plateau represents a relatively subdued topography consisting of rolling hills somewhat more irregular than the flat lava areas of the Fraser Plateau to the north.

The J mineral claims are situated at the southern end of Hart Ridge 12 km southeast of Clinton, B.C. On a regional scale, Hart Ridge is underlain by rocks of the Permian Cache Creek Group and Lower Cretaceous Jackass Mountain Group. The area east and north of Hart Ridge is covered by a vast expanse of Miocene and Eocene Plateau lavas. More Cache Creek Group rocks, and younger Pavilion Group rocks occur to the southwest.

The Hart Ridge Cache Creek Group rocks consist of basic volcanic rocks, chert, argillite and minor limestone. The volcanic rocks, flows and pyroclastics, are medium to dark green, sheared, foliated and locally chloritized.

Chert occurs as black to dark grey, grey and tan bands 1 cm to 10 cm thick, which are separated by sheared graphitic argillaceous partings to 1 cm thick. Argillite is usually intensely sheared and fractured, and commonly carries some chert.

Limestone is interlayered with other rocks and occurs in bands up to 9 m thick. The limestone is grey, fine grained and massive.

The Lower Cretaceous Jackass Mountain Group occurs in fault contact with the Cache Creek Group and little is known about this unit due to its restricted nature, however, it probably consists of greywacke, shale, and siltstone.

Pavilion Group rocks have been described by Trettin in "Geology of the Fraser River Valley between Lillooet and Big Bar Creek", B.C. Dept. of Mines and Petrol Resources, Bull.44.

This unit consists of interbedded chert, argillite, and siltstone. Minor limestone beds and lenses and tuff beds occur in places. The chert varies from light grey to blue-black and is interlaminated with gray to black argillite. Locally thin beds of fine greenish grey to dark grey tuff are interlayered with argillite.

Trettin has identified the overall structure of the range as an anticlinorium plunging northwesterly. Folds central to the Marble Range, adjacent to and west of Hart Ridge, are simple and shallow while complex drag folding occurs on the flanks.

PROPERTY GEOLOGY

Rock exposure on the J Property is restricted to an area on J 1-4 claims immediately adjacent to and northeast of Highway 97. The rocks belong to the Cache Creek Group and consist of argillites, cherts, and mafic volcanic rocks. The rock units strike northwesterly and dip variably southwest and northeast. A prominent carbonate altered zone which is exposed over 750 metres, also trends northwesterly.

Most rock exposures have been intensely disrupted by tectonic events whereby only resistant units survive, particularly those which are siliceous, such as the cherty argillites and silicified carbonates, and massive units such as the mafic volcanics. The argillite has been intensely sheared and shattered and occurs as rubbly debris on ridge tops or adjacent to more resistant rock units. The argillite is black, thinly bedded, graphitic and weakly calcareous. Argillite is intimately associated with chert and occurs as a variable component in that unit. The chert is dark black, dark gray, tan, cream and nearly white. It varies from thinly bedded and light colored, 1-10 cm, to massive and dark with irregular milky white quartz veins. The chert usually has thin argillite partings.

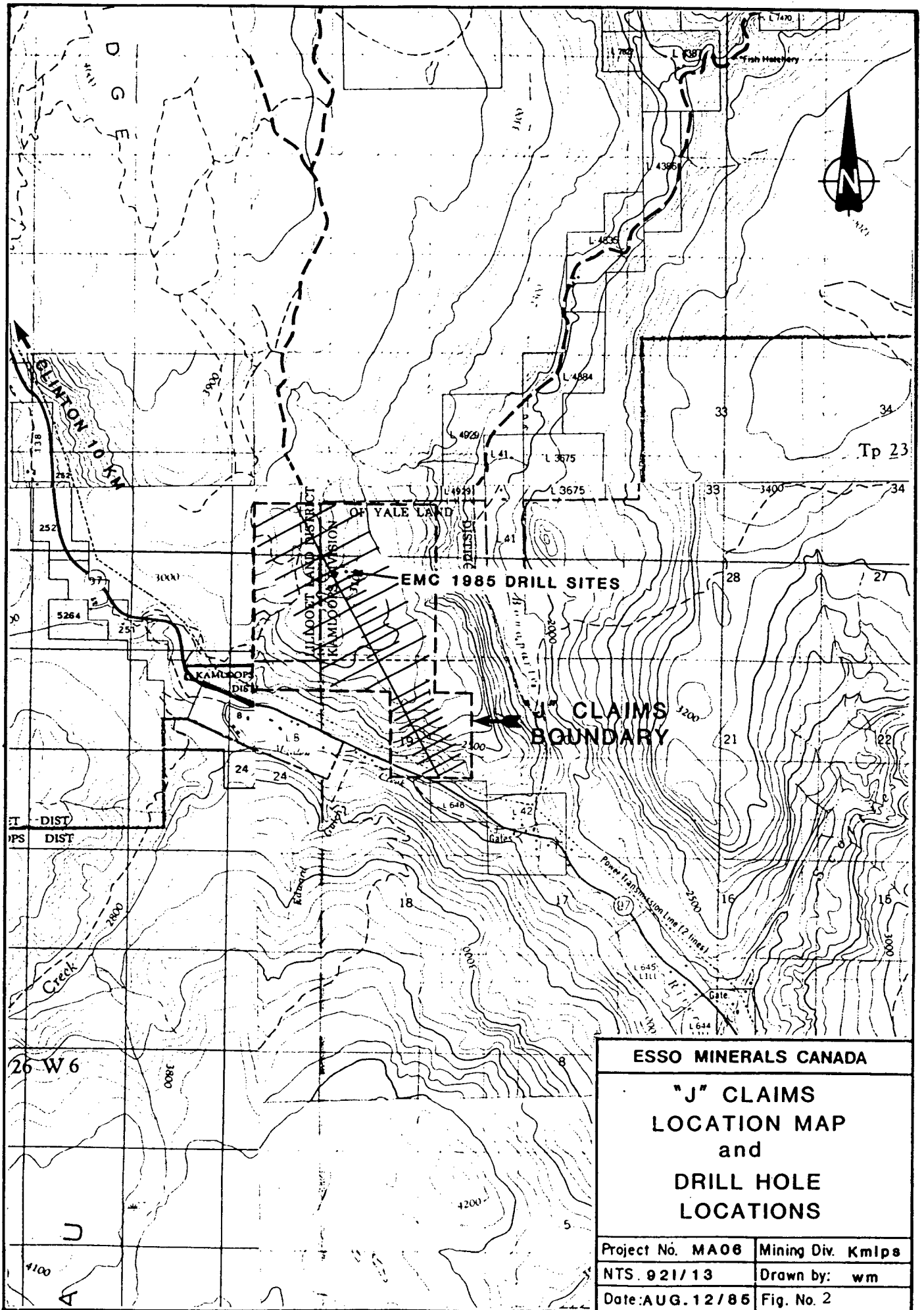
The mafic volcanic unit is medium to dark green, chloritic, where peripheral to the carbonate altered zone but assumes a light grey, waxy green, sericitic nature when engulfed in the altered zone. The rocks represent mafic flows where massive and tuffs where strongly foliated.

A zone of intense carbonate-silica alteration occurs within the sedimentary-volcanic sequence. The alteration zone trends northwesterly, is 750 m long and 40-70 m wide. The zone is manifest by a strong color anomaly which is attributable to the contained ankerite. Mineralogically the zone is characterized by ankerite, sericite, quartz and mariposite. The intensity of alteration in the zone is greatest near the base line and L5N where a flexure appears to have thickened the zone.

The carbonate-altered zone is intensely foliated to the extent that primary textures have been obliterated. However, near the southwestern contact and in isolated wedges within the altered zone, primary features including bedding are preserved. Blocks of argillite and black veined chert up to 50 m long and 10 m wide lie within the altered zone and maintain their chemical integrity and conformity with the overall structural setting.

Analysis of data obtained during the mapping of the J 1-4 claim exposures near Highway 97 is interpreted as representing a tight, plunging normal antiform segmented by northeasterly-trending faults. The carbonate alteration zone represents the axial trace of the fold structure.

Stereographic analysis of twelve select cherty argillite bedding attitudes suggests that the axis of the antiform trends 321° and plunges 24° northwest.



ESSO MINERALS CANADA	
"J" CLAIMS LOCATION MAP and DRILL HOLE LOCATIONS	
Project No. MA06	Mining Div. Kmlps
NTS. 921/13	Drawn by: wm
Date: AUG. 12/85	Fig. No. 2

There are two lines of evidence that support a fold interpretation. First, the stratigraphic sequence is very similar on either side of the altered zone (i.e. from southwest to northeast: argillite (+ volcanic) - black chert - carbonate-altered zone - black chert (+ white chert) - argillite (+ volcanic)). Second, bedding attitudes of cherty argillites on the northeast side of the alteration zone dip northeasterly and on the southwest side dip southwesterly.

DRILLING

Introduction

The diamond drill program undertaken by Esso Minerals Canada was designed to determine the extent of gold mineralization in the vicinity of PDH 73-7 which reportedly intersected 3.05 m assaying 16 g/tonne. The program called for four vertical drill holes; the first hole to test PDH 73-7 and the remaining holes to flank PDH 73-7 and test the strike continuity of the sought-after gold-bearing structure.

A VLF-EM survey conducted by Murray Morrison in February, 1985 outlined a conductor lying immediately to the east of PDH 73-7. It was Mr. Morrison's opinion that the conductor "should be assumed to represent the graphitic footwall of the mineralized zone".

Drilling Results

The diamond drilling program on the J property started September 24 and was completed October 3, 1985. During that time interval, three NQ vertical drill holes were completed totalling 186.5 m (614 feet).

The three EMC drill holes failed to intersect an altered zone similar to that mapped 2 km to the southeast near Highway 97.

Drill hole data is presented in Table I and assay data is tabulated in Table II.

TABLE I

<u>DDH #</u>	<u>Overburden</u>	<u>Depth</u>	<u>Co-ordinates</u>	<u>% Core Recovery</u>
1	32.0 m	68.3 m	23+53N 18+14W	35%
2	28.9 m	59.1 m	L24N 18+25W	42%
3	24.9 m	59.1 m	L23W 18+25W	35%

TABLE II

DDH 85-1

<u>Interval (m)</u>	<u>Width (m)</u>	<u>Au (g/tonne)</u>	<u>Ag (g/tonne)</u>
32.00 - 32.61	0.61	0.20	0.10
32.61 - 35.66	3.05	0.01	0.10
35.66 - 37.49	1.83	0.01	0.30
37.49 - 38.71	1.22	0.01	0.20
38.71 - 39.93	1.22	0.01	0.10
39.93 - 41.76	1.82	0.02	0.20
41.76 - 43.28	3.05	0.01	0.60
43.28 - 47.24	2.43	0.43	0.10
47.24 - 48.77	1.53	0.01	0.40
48.77 - 50.90	2.13	0.01	0.70
50.90 - 53.95	3.05	0.01	0.10
53.95 - 57.00	3.05	0.03	0.20
57.00 - 60.05	3.05	0.02	0.20
60.05 - 62.30	2.25	0.01	0.10
62.30 - 64.31	2.01	0.01	0.40
64.31 - 68.28	3.97	0.01	0.20

DDH 85-2

<u>Interval (m)</u>	<u>Width (m)</u>	<u>Au (g/tonne)</u>	<u>Ag (g/tonne)</u>
42.37 - 43.89	1.52	0.01	0.30
43.89 - 46.94	3.05	0.01	1.20
46.94 - 48.46	1.52	0.01	0.10
48.46 - 49.68	1.22	0.01	0.10
49.68 - 51.82	2.14	0.01	0.10
51.82 - 53.04	1.22	0.01	0.20
53.04 - 54.30	1.26	0.01	0.20
54.30 - 56.39	2.09	0.01	0.20

DDH 85-3

<u>Interval (m)</u>	<u>Width (m)</u>	<u>Au (g/tonne)</u>	<u>Ag (g/tonne)</u>
37.00 - 38.71	1.71	0.01	0.70
38.71 - 41.45	2.74	0.01	1.60
41.45 - 42.67	1.22	0.02	0.40
42.67 - 43.59	0.92	0.01	0.10
43.59 - 45.42	1.83	0.01	0.30

DRILL HOLE SUMMARIES

Summary: DDH 85-1

Diamond drill hole 85-1 intersected cherty argillites and graphitic argillites over the entire length of the hole. Two quartz vein zones were intersected from 38.71-41.76 m and 57.00-62.30 m. The quartz veins were both conformable with, and cross-cut bedding. Only trace amounts of pyrite were observed. A total of 16 assay samples, representing the entire drill hole, were submitted for analysis, . Assays did not detect any significant gold or silver values.

Summary: DDH 85-2

Diamond drill hole 85-2 intersected graphitic argillites over the entire length. The rock was badly sheared, broken and core recovery was only 42%. One quartz vein zone was intersected from 46.94 - 54.30 m. The style of veining was similar to DDH 85-1 and also carried only trace amounts of pyrite. Only eight samples were submitted for analysis and these proved negative for both gold and silver.

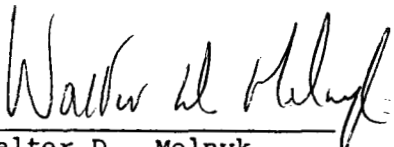
Summary: DDH 85-3

Diamond drill hole 85-3 intersected a mixed sequence of mafic volcanic rocks and black graphitic argillites. Again core recovery was very poor averaging 35%. At least two extensive fault gouge zones were intersected. One quartz vein zone was intersected from 37.00 - 45.42 m. The quartz veins carry only trace amounts of pyrite. Five assay samples resulted in very low precious metal values.

Walter H. H. H.

STATEMENT OF QUALIFICATION

I received my Bachelor of Science degree in Geological Engineering from the University of Saskatchewan, Saskatoon, in 1972. I have been permanently employed as an exploration geologist since 1974. I am a member of the Association of Professional Engineers of Ontario and British Columbia.


Walter D. Melnyk

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APPENDIX A

DETAILED DRILL LOGS

MIN-EN Laboratories Ltd.

705 WEST 15th STREET,
NORTH VANCOUVER, B.C., CANADA V7M 1T2
TELEPHONE (604) 980-5814

OCT 15.

ANALYTICAL REPORT

Project MA 06 Date of report Oct.11/85.

File No. 5-784 Date samples received Oct.7/85.

Samples submitted by: Walter Melynk

Company: Esso Minerals Canada

Report on: Geochem samples

29 Assay samples

Copies sent to:

- Esso Minerals Canada, Vancouver, BC
-
-

Samples: Sieved to mesh _____ Ground to mesh -100

Prepared samples stored discarded

rejects stored discarded

Methods of analysis: Ag-Acid digestion-chemical analysis.. Au-fire.

Remarks: _____

SPECIALISTS IN MINERAL ENVIRONMENTS

MIN-EN Laboratories Ltd.

Specialists in Mineral Environments

705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PHONE: (604)980-3814 OR (604)988-4524

TELEX: 04-352828

CERTIFICATE OF ASSAY

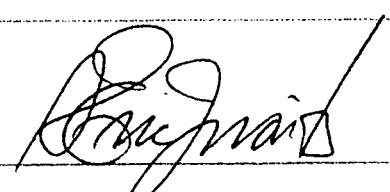
COMPANY: ESSO MINERALS CANADA
 PROJECT: MA 06
 ATTENTION: WALTER MELYNK

FILE: 5-784
 DATE: OCT. 11/85.
 TYPE: ROCK ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG	AG	AU	AU	
	G/TONNE	OZ/TON	G/TONNE	OZ/TON	
19001	0.1	0.01	.20	0.006	↑ DDH 86-1
19002	0.1	0.01	.01	0.001	
19003	0.3	0.01	.01	0.001	
19004	0.2	0.01	.01	0.001	
19005	0.1	0.01	.01	0.001	
19006	0.2	0.01	.02	0.001	
19007	0.6	0.02	.01	0.001	
19008	0.1	0.01	.43	0.013	
19009	0.4	0.01	.01	0.001	
19010	0.7	0.02	.01	0.001	
19011	0.1	0.01	.01	0.001	↑ DDH 86-2
19012	0.2	0.01	.03	0.001	
19013	0.2	0.01	.02	0.001	
19014	0.1	0.01	.01	0.001	
19015	0.4	0.01	.01	0.001	
19016	0.2	0.01	.01	0.001	↑ DDH 86-3
19017	0.3	0.01	.01	0.001	
19018	1.2	0.03	.01	0.001	
19019	0.1	0.01	.01	0.001	
19020	0.1	0.01	.01	0.001	
19021	0.1	0.01	.01	0.001	↑ DDH 86-3
19022	0.1	0.01	.01	0.001	
19023	0.2	0.01	.01	0.001	
19024	0.2	0.01	.01	0.001	
19025	0.7	0.02	.01	0.001	
19026	1.6	0.05	.01	0.001	↑ DDH 86-3
19027	0.4	0.01	.02	0.001	
19028	0.1	0.01	.01	0.001	
19029	0.3	0.01	.01	0.001	

Certified by



MIN-EN LABORATORIES LTD.

**ESSO MINERALS CANADA
DRILL LOG**

HOLE NO. 85-1
 PAGE 1 OF 5
 PROJECT MA 06
 LOGGED BY: W. Melnyk

COLLAR COORDINATES _____
23+53 N, 18+14 W
 AZIMUTH _____ DIP -90°
 HORIZONTAL PROJECTION _____

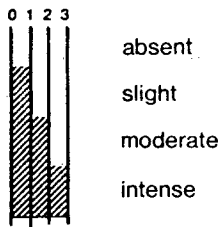
COLLAR ELEVATION 975 m
 TOTAL LENGTH 68.28 m
 VERTICAL PROJECTION _____

CONTRACTOR IRON MOUNTAIN DIAMOND D. CORE SIZE NA
 DATE STARTED Sept. 24 DATE COMPLETED Sept. 26, 1985
 AVERAGE CORE RECOVERY 35%

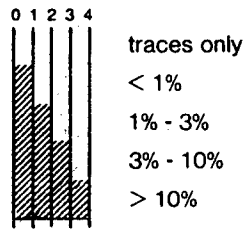
PURPOSE confirm 3.05 m of 16.1 g/t Au intercept by PH 73-7.

COMMENTS: Two quartz vein zones intersected, no wallrock alteration.

ALTERATION SCALE



TOTAL SULPHIDE SCALE



SUMMARY LOG

0 - 32.00 m : overburden
 32.00 - 41.76 m : cherty Argillite
 41.76 - 68.28 : Argillite, graphitic.

38.71 - 41.76 : Moderate quartz veining
 57.00 - 62.30 : Moderate quartz veining

DIP TESTS

DEPTH	DIP	AZIMUTH	DEPTH	DIP	AZIMUTH

LEGEND

Walter Melnyk

PAGE 2 OF 5		PROJECT: MA 06				
DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	GEOLOGICAL DESCRIPTION		
				FROM	TO	
				0.00	32.00	Overburden
30						
				32.00	41.76	Cherty Argillite: Black, graphitic, thinly bedded and pyritic. Rock is badly broken and recovery is poor averaging 39%. Unit has several clay-gouge zones throughout as well as two main quartz vein zones.
	16					32.00-32.61: Intact section, banded argillite well bedded at 75° w.c.a. Pyrite f. grained to 8%.
35						32.61-35.66: Gouge - intact as well - fault.
	16					35.66-38.71: Argillite badly broken, banding contorted again pyritic to 8% thin bands conformable with bedding. Increase in quartz veining near bottom of interval. Quartz veins to 4mm cross-cutting bedding. No carbonate. Many of the graphitic partings are at 45° w.c.a.
	74					38.71-41.76: Much quartz vein material. Coarse granular milky white. Only odd grain pyrite in quartz. No carbonate. No other sulfides.
40	30					
	26			41.76	62.30	Argillite: Graphitic, badly broken, locally somewhat cherty.
	14					41.76-57.00: Badly broken sheared graphitic Argillite. Very little quartz veining, only odd tension gash infilled with carbonate + quartz.
	34					occasional thin band pyrite 1-2mm, many blks coarse pyrite to 1cm diam.
45						44.81-48.77: Core is intact, recovery is good.
	81					
	75					47.00: Bedding at 65° w.c.a.

PAGE 4 OF 5		PROJECT: MA 06				
DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	GEOLOGICAL DESCRIPTION		
				FROM	TO	
50		89				47.85 Rock is intensely folded + sheared but cohesive
		50				48.77-49.99: Section is badly broken up. Much soft Muddy material - gouge.
		65				
		48				50.90-52.12: Impact soft gouge material. Muddy. Rock has no competence.
55		34				52.12-57.00: Badly broken rock recovery poor. rock is still pyritic, fractured, sheared with minor carbonate. minor quartz veining. Bedding still appears to be at 60-80° w.c.a. quite variable.
		34				
		15				
		37				
60		35				57.00-62.30: Dramatic increase in quartz veining in section. Veining appears to be conformable with bedding or only vaguely oblique. Not a stockwork as such. Quartz veins are generally barren. Argillite still has much pyrite. Some of the quartz veining is contorted.
		19				
		28				
		62.30	64.31			Mafic - Intermediate Tuff: 62.30-63.70: gouge
65		25				63.70-64.31: Tuff - Pale, light green, fine grained banded pyritic. Banding at 80° w.c.a.
		38				
		64.31	68.28			Argillite. Same as top of hole. Badly broken. Some gouge. Intensely sheared. Loss of all integrity. Very poor recovery.
		37				
70		9				
		68.28				END OF HOLE

PAGE 5 OF 5					PROJECT: MA 06				HOLE NO. 85-1					
ALTERATION					TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS				
						FROM	TO	WIDTH		g/tonne Au	g/tonne Ag			
						47.24	48.77	1.53	19009	0.01	0.40			
						48.77	50.90	2.13	19010	0.01	0.70			
						50.90	53.95	3.05	19011	0.01	0.10			
						53.95	57.00	3.05	19012	0.03	0.20			
						57.00	60.05	3.05	19013	0.02	0.20			
						60.05	62.30	2.25	19014	0.01	0.10			
						62.30	64.31	2.01	19015	0.01	0.40			
						64.31	68.28	3.97	19016	0.01	0.20			

**ESSO MINERALS CANADA
DRILL LOG**

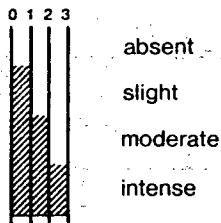
HOLE NO. 85-2
 PAGE 1 OF 5
 PROJECT MA 06
 LOGGED BY: W. Melnyk

COLLAR COORDINATES _____
L24N 18425 W
 AZIMUTH _____ DIP -90°
 HORIZONTAL PROJECTION _____

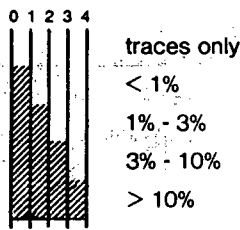
COLLAR ELEVATION 975 m
 TOTAL LENGTH 59.13 m
 VERTICAL PROJECTION _____

CONTRACTOR IRON MOUNTAIN DIAMOND DRILLING CORE SIZE NQ
 DATE STARTED Sept 27 DATE COMPLETED Sept 30, 1985
 AVERAGE CORE RECOVERY 42%
 PURPOSE To test NNW strike extension of inferred structure in DDH85-1
 COMMENTS: One quartz vein zone intersected, no associated wall rock alteration.

ALTERATION SCALE



TOTAL SULPHIDE SCALE



SUMMARY LOG

0-28.96 : Overburden
 28.96-59.13 : Argillite
 46.99-54.30 : Quartz vein zone
 10-15% qtz. Tr. py.

DIP TESTS

DEPTH	DIP	AZIMUTH	DEPTH	DIP	AZIMUTH

LEGEND

Walter Melnyk

PAGE 2 OF 5		PROJECT: MA06				
DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	GEOLOGICAL DESCRIPTION		
				FROM	TO	
				0	28.96	Overburden and casing
30		16		28.96	39.32	Argillite : Black, graphitic, banded, pyritic. Small irregular quartz veins and quartz smears through interval. Section is badly sheared and broken. Bedding and slip surfaces are at small angles with con axis ~15°. Recovery overall is poor. No economic sulfides present. Quartz veins may have odd speck of pyrite. 31.09-33.53 : Gauge, somewhat consolidated - soft clayey.
		18				
		54				overall pyrite about 3-5% disseminated
		79				
35		62				35.05 : Banding 15° W.C.A. similar angle for graphitic slips. 36.00 - 36.58 : Core ground up badly.
		52				
		22				
		61				
40		73		39.32	59.13	Argillite : Grey, hard, banded, weakly pyritic. Section is lighter colored from above unit not as much graphitic material. For the most part unit is quite hard locally is cherty. Recovery increases through this section - not as much graphitic material. 39.32 - 40.00(?) : Interval is brecciated cemented by black carbonaceous material. 42.37 - 42.80(?) : Well banded (bedded) section with several felsic(?) fragments (1-3cm). Banding 40° W.C.A. 43.89 - 44.30(?) : Black graphitic section, pyritic. Banding at 30° W.C.A. slips present.
		27				
		72				
		81				
		50				
45		27				
		36				

PAGE 4 OF 5

PROJECT:

MA 06

DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	GEOLOGICAL DESCRIPTION	
				FROM	TO
50	13				46.94 - 54.30: Argillite gray with 10-15% quartz veining. Veins vary from 2mm to 1.5cm. Most veins are cross-cutting bedding at least two stages of veining are recognized. Veins are barren except for odd speck of pyrite. Much veining irregular.
	64				Veining is most intense in two intervals 46.94 - 49.38 and 52.09 - 54.30. This unit is in part cherty.
	37				
	44				49.00 (approx.): 1.5cm quartz vein with speck chalcocyanite.
	29				52.90 - 54.10: Interval intensely broken, recovery not good.
	30				
	60				
	69				
55	78				54.30 - 56.39: Gray Argillite only one quartz vein at 55.25m. Increase in graphitic material.
	78				56.19 - 56.39: Gouge-clay fault.
					56.39 - 59.13: No core as core tubes did not lock.
	0				
60					59.13: END OF HOLE.

ESSO MINERALS CANADA DRILL LOG

HOLE NO. 85-3
 PAGE 1 OF 5
 PROJECT MA 06
 LOGGED BY: W. Melnyk

COLLAR COORDINATES _____

L 23 N 18+25 W

COLLAR ELEVATION 975 m

AZIMUTH - DIP -90°

TOTAL LENGTH 59.13

HORIZONTAL PROJECTION -

VERTICAL PROJECTION -

CONTRACTOR IRON MOUNTAIN DIAMOND DRILLING CORE SIZE NG

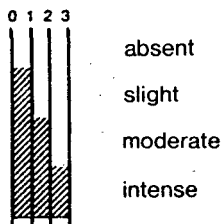
DATE STARTED Oct. 1 DATE COMPLETED Oct 2, 1985

AVERAGE CORE RECOVERY 35%

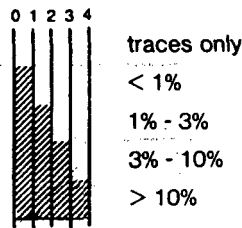
PURPOSE To test SSE strike extension of inferred mineralized structure in DDH05-1

COMMENTS: One weak quartz vein zone intersected, no related alteration or mineralization.

ALTERATION SCALE



TOTAL SULPHIDE SCALE



SUMMARY LOG

0 - 24.90 : Overburden
 24.90 - 37.00 : Mafic Lapilli Tuff
 37.00 - 51.00 : Argillite
 37.00 - 45.42 : Quartz vein zone 10% q.v.
 51.00 - 54.25 : Mafic Tuff
 54.25 - 57.30 : Argillite
 57.30 - 59.13 : Mafic Tuff

DIP TESTS

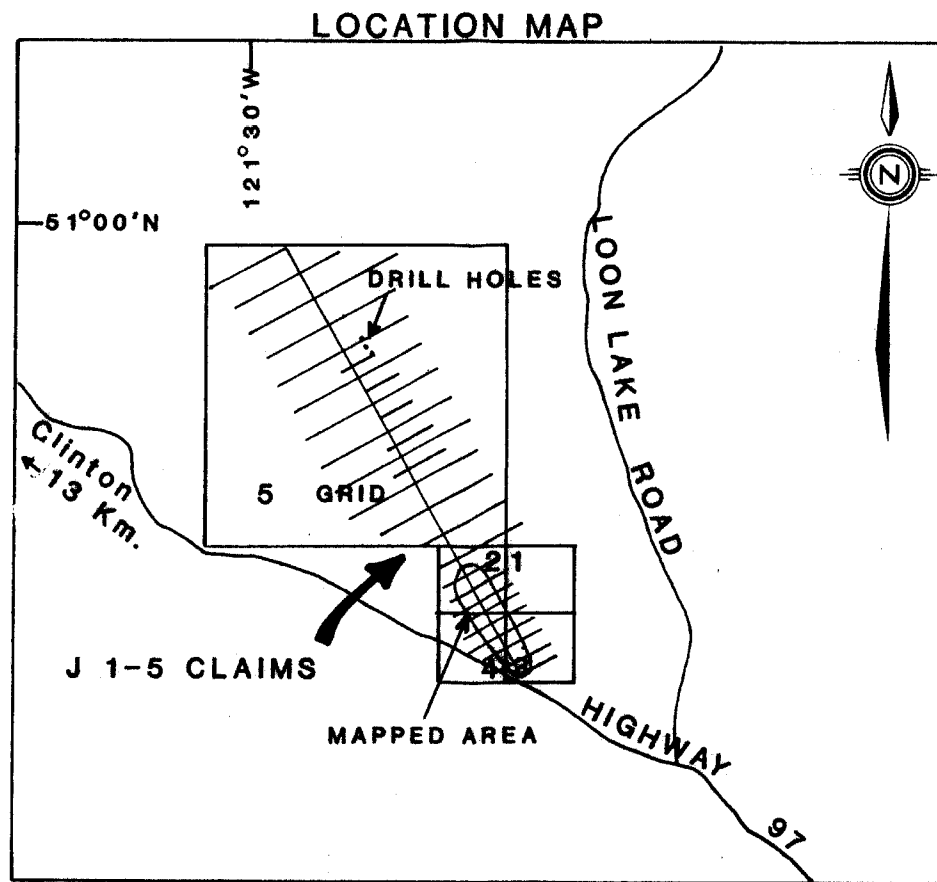
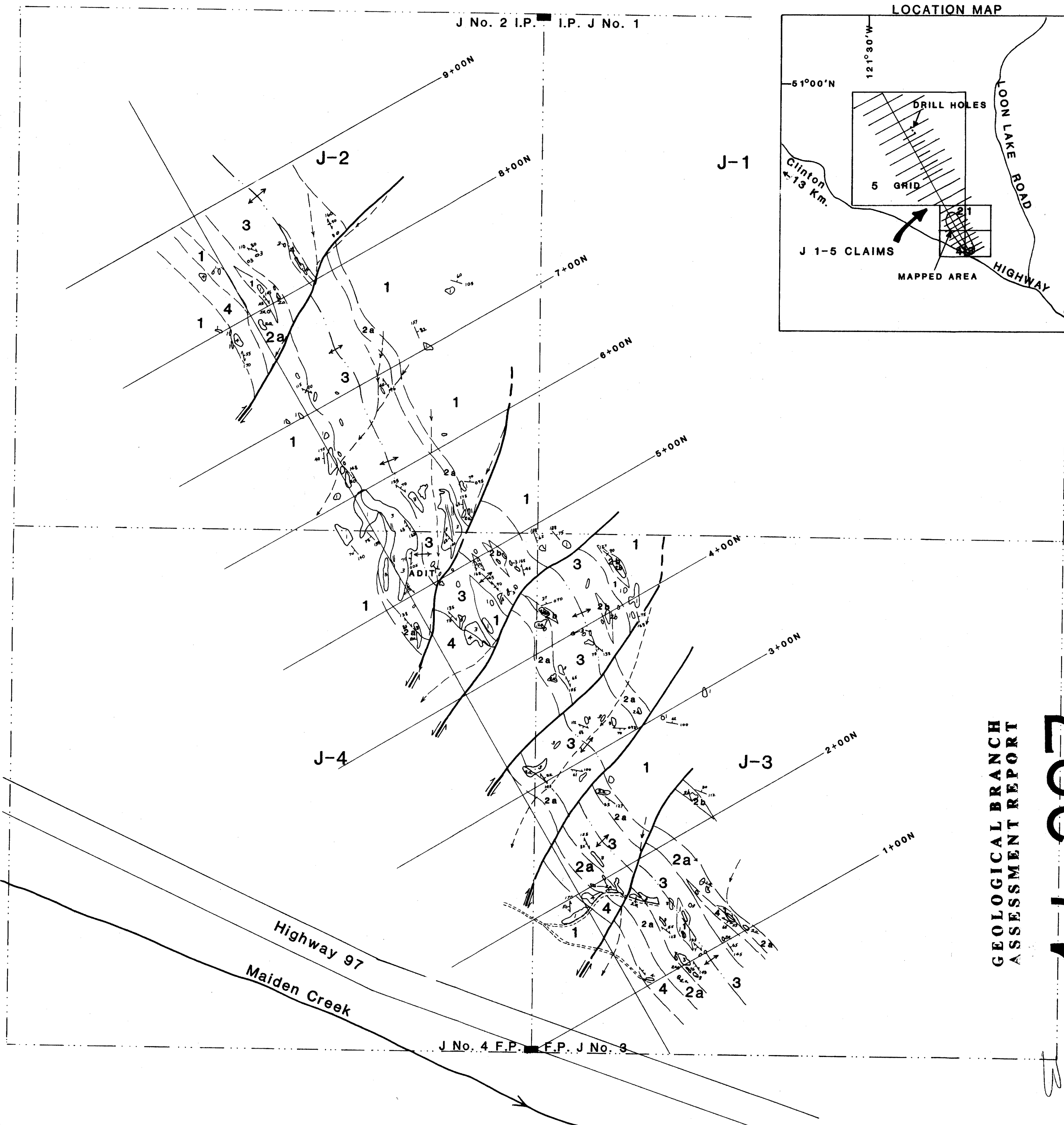
DEPTH	DIP	AZIMUTH	DEPTH	DIP	AZIMUTH

LEGEND

Walter Melnyk

DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG			GEOLOGICAL DESCRIPTION
				FROM	TO	
				0	24.90	Overburden and casing
25				24.90	37.00	Mafic Lapilli Tuff : Pale green tectonically crushed unit containing wisps of black graphitic Argillaceous material. Whole unit has been strongly sheared and for the most part this unit has the consistency of med. calcareous.
	48					24.90-28.34 : solid unit recovery fair.
	54					Pyroclastic is of lapilli size although odd fragment is 7cm dia. Most fragments are < 1cm.
	12					Crude banding is at 50° W.C.A.
30						28.34-37.00 : This section is badly sheared is predominantly gouge.
	14					
	4					
	33					
35						
	16					
				37.00	51.00	Argillite : Black, graphitic locally well bedded, with minor tuffaceous component. Unit does contain some quartz veining. Pyritic - fine to med grained to 5% disseminated.
	13					37.00-45.42 : 10% quartz veining mostly irregular coarse white barren. Recovery is poor through this veined zone.
	34					graphitic slips on at 30-50° W.C.A.
40						section is moderately calcareous.
	13					
	21					

PAGE 4 OF 5		PROJECT: MA 06		GEOLOGICAL DESCRIPTION	
DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	FROM	TO
45		18			
		36			
		22			45.42: Broken core at this marker, pieces are pale green tuffaceous. length of interval unknown probably < 1m.
		57			47.20- 48.46: Pale green Mafic Tuff with minor argillite material. Banding at 60° W.C.A. 48.46 - 49.68: 50% muddy gouge.
50		39			49.68-51.00: Competent cohesive Argillite bedding 80-90° W.C.A. two quartz veins, minor. Moderately calcareous.
		82		51.00	51.25 Mafic Tuff: Pale green with 10% Argillite. Most of this interval is muddy, soft but cohesive. No veining. Banding + bedding is at 90° with core axis.
		75			
		21		51.25	57.30 Argillite: Black, graphitic, 5% irregular quartz veining. Bedding is at 65-70° with core axis. moderately calcareous.
55		57			
		8		57.30	59.13 Mafic Tuff: For the most part this unit is mud. pale green gouge. Final 15cm is well banded cohesive solid and grades from mafic tuff to tuff and argillite to solid black graphitic argillite. Bedding is at 60° W.C.A.
		75			
		80			
60					59.13 END OF HOLE.



LEGEND

- PERMIAN**
- CACHE CREEK GROUP**
- 1. ARGILLITE: Cherty black, fine-grained, thinly bedded, graphitic, fractured.
 - 2a/2b. **CHERT:**
 - 2a - Black, massive, microcrystalline, veined with irregular cross-cutting white quartz veins.
 - 2b - White, grey, cream, thinly bedded, microcrystalline, thin argillite intercalations. No quartz veining present.
 - 3. ANKERITE-SERICITE-QUARTZ-CHLORITE SCHIST: Rusty brown on oxidized surface with dark green mariposite and variable amounts of silica and chlorite. Intensely silicified area near adit has good quartz stockwork. Contains blocks of black chert.
 - 4. MAFIC VOLCANIC: Tuffaceous, chloritic, schistose. Occasionally massive.

SYMBOLS

- Rock exposure
- Geological contact (solid where known, dashed where inferred)
- Adit
- Pit
- Fault, inferred, with assumed sense of movement.
- Foliation
- Bedding
- Fold axis, antiform.

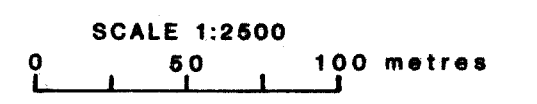
GEOLOGICAL BRANCH
ASSESSMENT REPORT

14,207

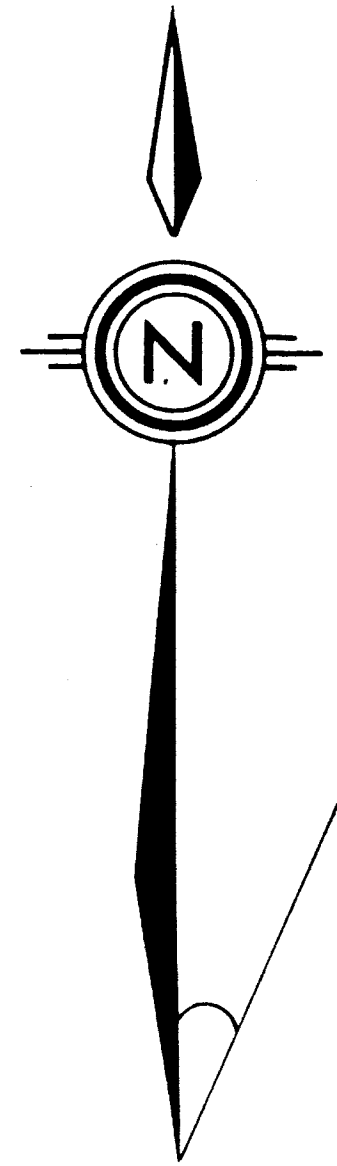
W.M.

ESSO MINERALS CANADA

**J CLAIMS
GEOLOGY**



Project No. MA06	Mining Div. Kamloops
NTS 92I/14	Drawn By W.M.
Date Oct. 1985	Map No MA06-01



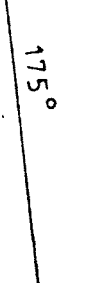
23° MAGNETIC DECLINATION



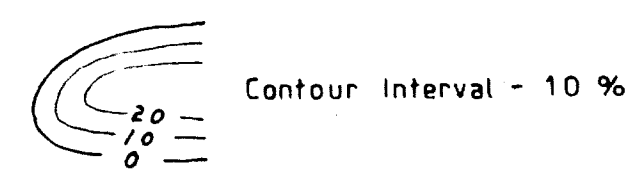
J 5

HIGHWAY 97

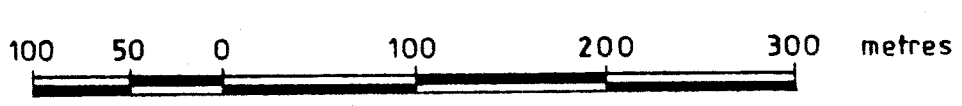
Seattle, Washington
Signal Station



Instrument: Geonics VLF-EM 16



○ Percussion Drill Holes 1973 & 1974



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

14,207

NOTE:
This map is taken from a report by Murray Morrison, B.Sc. entitled: VLF-EM 16 GROUND SURVEY ASSESSMENT REPORT J1-5 MINERAL CLAIMS CACHE CREEK AREA KAMLOOPS MINING DIVISION MARCH 31, 1985

ESSO MINERALS CANADA		
J PROPERTY		
CACHE CREEK AREA, KAMLOOPS M. D., B. C.		
VLF-EM 16 GROUND SURVEY		
FRASER FILTERED DATA		
1985 DRILL HOLE LOCATION MAP		
SURVEY BY M.M.	OCT. 17, 1985	NTS 92-1-13+14
DRAFTED BY A.H.	SCALE 1:4000	MAP MA06-02