86-64-14451
02/87

REPORT ON THE

TRENCHING AND GEOLOGICAL MAPPING

CONDUCTED ON THE

PITA 16 MINERAL CLAIM

VERNON MINING DIVISION

BRITISH COLUMBIA

FILMED

N.T.S. 82L/2E

LONGITUDE 118° ~~32'~~ 30.5' AND LATITUDE 50° ~~10'~~ 10.8'

GEOLOGICAL BRANCH
ASSESSMENT REPORT

14,451

OWNER OF CLAIMS: MOHAWK OIL CO. LTD.

AUTHOR: B. CALLAGHAN, B. SC.

DATE: JANUARY 1986

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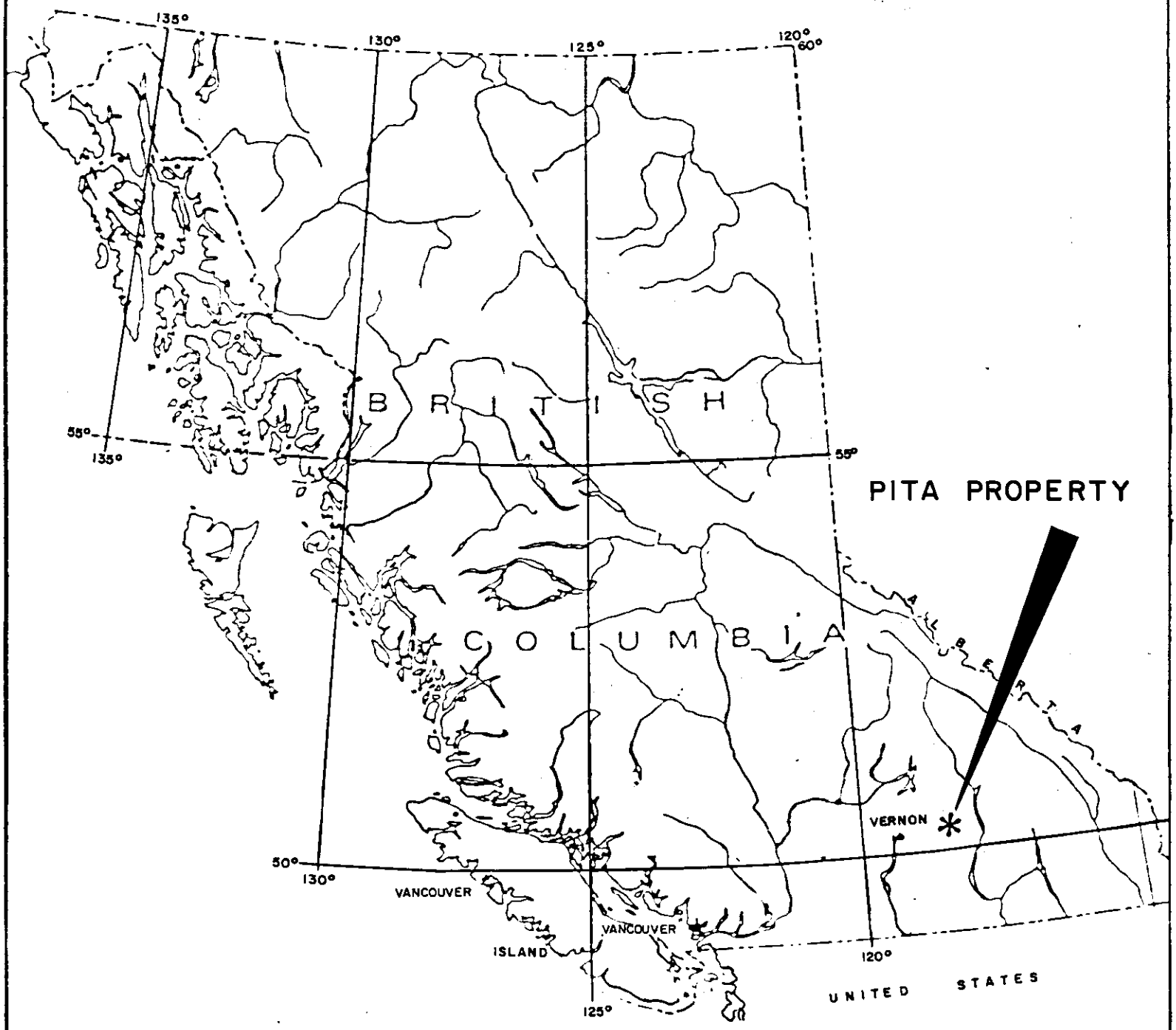


SCALE

100 50 0 100 200 300 400 Km.

MOHAWK OIL CO. LTD.	
PITA PROPERTY MONASHEE CREEK AREA, B.C.	
LOCATION MAP	
SCALE: 1:253,440	DRAWN BY: S. MALTBY
DATE: OCTOBER 85	FIGURE: 1

SUMMARY

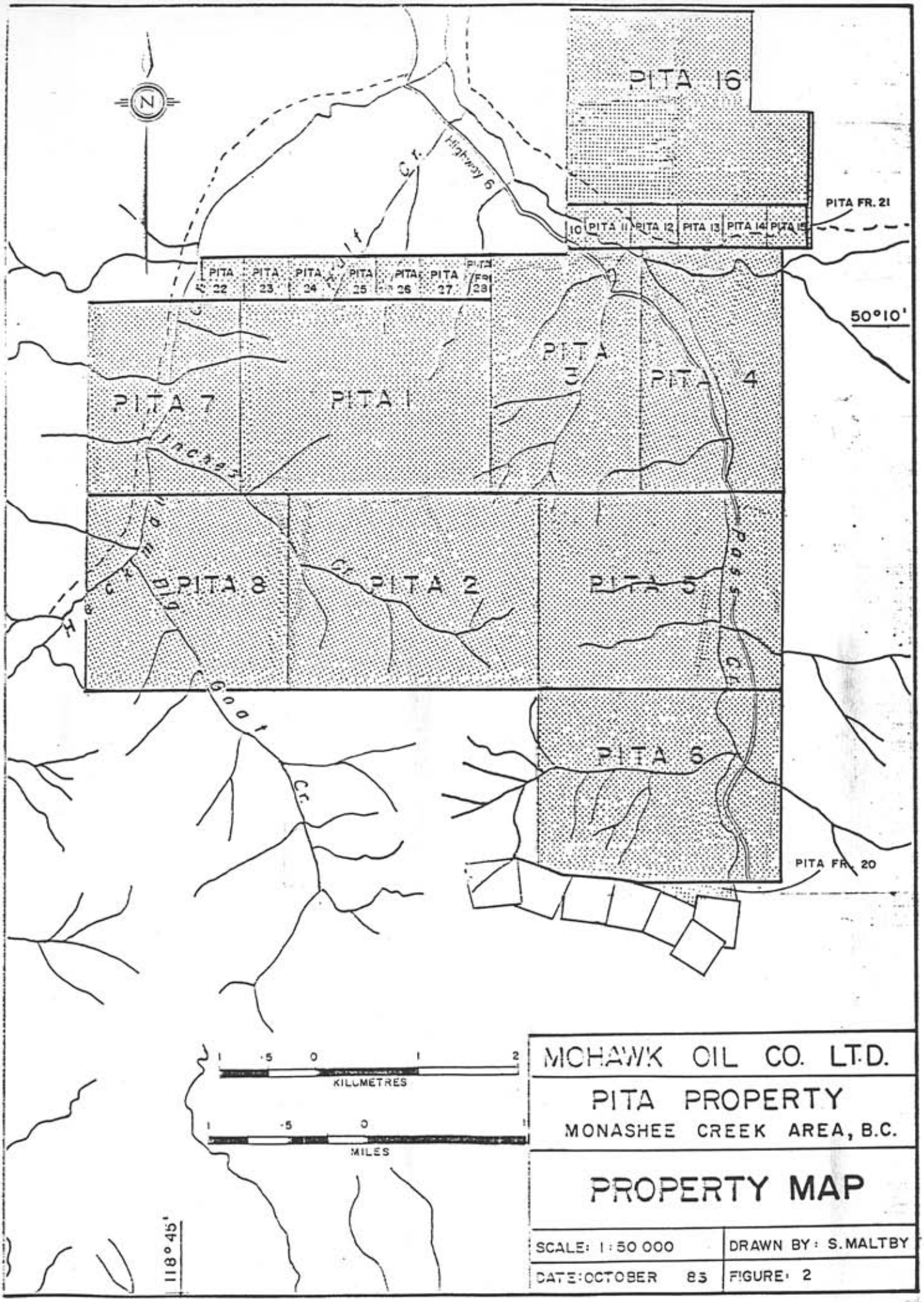
The source for zinc and copper geochemical soil anomalies may be a result of sphalerite and copper mineralization associated with eastwest trending fault contacts between black argillite and porphyritic horneblende andesite. Values of 42 ppb Au have been recorded in a carbonaceons quartz horizon at the contact between limy black argillite and albitized andesite.

A programme of detailed prospecting on Pita 16 claim is recommended to determine if there is a lode source for the placer gold that is found in Monashee Creek. Additional trenching may be justified after a prospecting program and would include trenching in the vicinity of trenches 7 & 11 and any other significant gold, silver, arsenic, antimony, zinc, copper geochemical anomalies not trenched.

INTRODUCTION

A follow-up programme of geophysical, geological and physical work on the Pita 16 mineral claim was recommeded in a report by M.W. Waldner (1984), to determine the sources of significant zinc and copper geochemical soil anomalies. These anomalies were established from the inital exploration programme in 1984 by Mohawk Oil Co. Ltd., that included geochemical soil sampling and geological mapping at a scale of 1:5000.

This paper reports on the results of the follow-up programme which has included geological mapping and sampling of 12 trenches. The trenches were established along secondary logging roads between October 30th and November 5th, 1985.


PITA 16
PITA FR. 21
10
PITA 11
PITA 12
PITA 13
PITA 14
PITA 15
PITA 22
PITA 23
PITA 24
PITA 25
PITA 26
PITA 27
50°10'
PITA 7
PITA 1
PITA 3
PITA 4
PITA 8
PITA 2
PITA 5
PITA 6
PITA FR. 20
Highway 6
Monashee Creek
Goat Cr.
Cr.
1 .5 0 1 2
KILOMETRES
1 .5 0 1
MILES
118°45'
MOHAWK OIL CO. LTD.
PITA PROPERTY
MONASHEE CREEK AREA, B.C.
PROPERTY MAP
SCALE: 1:50 000
DRAWN BY: S. MALTBY
DATE: OCTOBER 83
FIGURE: 2

LOCATION AND ACCESS

The Pita 16 claim is located in the Vernon Mining Division of British Columbia, N.T.S. map reference 82L/2E. The claim is centered at approximately 118° 32' W longitude and 50° 10' N latitude, in Southern B.C.

The property is situated in the Monashee Mountains approximately 70 kilometers south-easterly of Vernon. The claim is accessed from Highway #6 at the confluence with Monashee Creek and is reached by the South Fork logging road. Access throughout the claim is well provided by secondary logging roads off the South Fork road.

PHYSIOGRAPHY AND VEGETATION

The claim is situated on a moderate southerly facing slope bounded to the south by Monahsee Creek and to the north by Cherry Creek. Elevations range from 700m to 1,660m.

The southern portion of the claim is extensively logged with the northern half remaining in substantial stands of fir, larch, pine and spruce. Poplar and birch are confined mostly to the narrow gulleys draining the southerly slopes.

Best exposures of outcrop are in general, confined to gulleys on the steeper slopes and are readily found on road cut exposures. More than 80% of the property is overlain by a varying thickness of overburden.

PROPERTY

The Pita 16 claim consists of 20 units and was located by the recorded owner, Mohawk Oil Co. Ltd.

CLAIM NAME	RECORD NUMBER	DATE OF RECORD	UNITS	MINING DIVISION
Pita 16	1518	06/09/83	20	VERNON

HISTORY

Earliest activity in the vicinity of the Pita 16 claim consisted of significant placer gold mining conducted on Cherry and Monashee Creeks during the 1800's. Crown grants south and adjacent to the Pita claim block, cover the Monashee Mine where gold and silver were produced intermittently from the 1890's until approximately 1935. Ore was shipped to the Trail Smelter in 1927 from the nearby St. Paul mine on Monashee Mountain which reportedly graded Gold 0.50 oz/ton and silver 147.9 oz/ton (B.C. Minister of Mine Report, 1927). There is also renewed interest in gold-silver mineralization in an area between MacIntyre Lake and Keefer Lake south of the property.

Significant gold and base metal geochemical anomalies in soil and rock samples have been located on the Pita Group of claims to the south of Pita 16 during exploration activities by Mohawk Oil Co. Ltd. between 1981 and 1984.

TRENCHING

Twelve trenches were dug along secondary logging roads on the Pita 16 claim using an FL9 Fiat-Allis backhoe with front bucket. Forty-eight hours were spent in trenching selected areas for a total distance of 212 metres (See Drawing No. 1).

PROPERTY GEOLOGY

The general geology of the property has been described in a previous report by M.W. Waldner (1984). The Pita claim is underlain by the Thompson Assemblage, formerly of the Cache Creek Group and consists of the series of northwesterly trending argillites and blue green fine grained porphyritic andesites. These rocks are correlated by Okulitch et al (1979) with the Late Triassic Slocan Assemblage. Intrusive rocks of the Nelson Balholith as well as Kamloops Group basalts occur on the claims south of Pita 16 but were not observed during the trenching programme.

Contacts exposed during bulldozer trenching between black argillite and porphyritic feldspar andesite and porphyritic horneblende and andesite trend in a general northwest direction (See Drawing Nos. 1 to 6).

The argillites are both limy and highly foliated along the contacts between brown coloured albitized andesites. They contain moderate calcite veining particularily along bedding planes in trenches 7-12. Argillites in trenches 1-6 appear less limy and foliated.

The andesites appear to overlie the argillites, but several occurences of interbedding between the argillites and andesites were observed in several trenches. The andesites have a higher pyrite content (up to 10%) near the contact with the bedded argillites and weather to a light brown colour. Minor scattered cubic pyrite is localized in the argillites.

MINERALIZATION

Geochemical I.C.P. analysis was performed for ten elements by Acme Analytical Laboratories Ltd. on 18 rock samples taken from 4 of the 12 trenches (See Appendix II).

A contact zone in trench 11 is distinguished by a carbonaceous, quartz horizon in between black argillite and albitized andesite. The quartz occurs as fragments or pods, irregularly scattered amongst a graphitic carbonate seam along a crumbly foliated contact. Values of 42 ppb Au were recorded from grab sample No. 2270.

Brittle quartz with vuggy cavities up to 1 cm in width and infilled with hematite and calcite in trench 9 recorded low values for all elements (See Sample No. 2254).

The highest zinc value of 1933 ppm was taken in trench 7 (See Sample Nos. 2266-2269. The trench is located in close proximity to a north/south trending zinc anomaly with values of up to 553 ppm as recorded from the soil sampling programme in 1984 on line 59,600 N. Sample No. 2266 was taken across 25 cm of limonitic clays at the contact between black argillite and medium grained porphyritic horneblende andesite.

The highest copper values of 128 ppm from Sample No. 2269 were also taken from trench 7 in carbonaceous, limonitic clay. Sphalerite, copper mineralization may be structurally controlled along fault contacts between argillites and porphyritic andesites and may be the source for other zinc and copper soil geochemical anomalies.

CONCLUSIONS

A source for the gold found in Monashee Creek has not been located by previous soil geochemistry, rock sampling and 1985 rock sampling from trenches. A sample reporting a value of 42 ppb Au was taken in a carbonaceous quartz horizon at the contact between limy black argillites and albitized andesite in trench 11. Although the sample is geochemically significant it is not economically important.

The source for zinc and copper soil geochemical anomalies from the 1984 exploration programme on line 59,600 N may be due to sphalerite, copper mineralization associated with an eastwest trending fault contact between black argillite and porphyritic horneblende andesite in trench 7.

RECOMMENDATIONS

A programme of detailed, systematic prospecting and sampling is recommended to possibly determine a source for the gold found in Monashee Creek on the Pita 16 mineral claim. If the results of this further exploration positive, then additional trenching may be warranted. Additional trenching is recommended in the vicinity of: (i) trenches 7 and 11 to expose possible sphalerite, copper mineralization and (ii) several other significant zinc, copper geochemical anomalies not trenched due to deep snow cover during the 1985 field season.

BIBLIOGRAPHY

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JONES, A.G. (1959) Vernon Map Area, British Columbia, G.S.C., Memoir 296.

OKULITCH, A.V. (1979) Open File 637, G.S.C. Ottawa

WALDNER, M.W. (1984) Assessment Report, Geology and Geochemical Surveys conducted on the Pita 16 Claim.

AUTHOR'S QUALIFICATIONS

BRIAN CALLAGHAN

I graduated from Brandon University, Manitoba in 1980 with a Bachelor of Science Degree in Geology. The following is a synopsis of my employment experience.

June - October 1980	ESSO MINERALS CANADA - Geological Assistant Exploration in N. Manitoba, N. Sask., N. British Columbia, and various properties in the Stewart area of B.C.
Feb. 1981 - Apr. 1985	MOHAWK OIL CO. LTD. - Mining Division Exploration Geologist - Responsible for field supervision of exploration programs in Southern B.C.
April - August 1985	SEVEN MILE HIGH RESOURCES INC. - Exploration Geologist - Responsible for VLF-EM, Magnetic, and soil geochemistry surveys, sampling - percussion drilling program in B.C.
August - October 1985	SEARCHLIGHT RESOURCES INC. - Exploration Geologist Responsible for trenching and drilling program in Rancheria area of Yukon.
October - November 1985	MOHAWK OIL CO. LTD. - Minerals Division Exploration Geologist - Conducting exploration programs in Southern B.C.

DATED: 7th January 1986

SIGNED: Brian Callaghan

Brian Callaghan
Exploration Geologist
Minerals Division
MOHAWK OIL CO. LTD.

APPENDIX I

ITEMIZED COST STATEMENT

PERSONNEL/ EQUIPMENT	TASK	DAYS WORKED	PAY SCALE	TOTAL COST
B. Callaghan	Mapping & Sampling	7 days	$150/day	$1,050.00
Geologist	Report Prep. & Interpre.	4 days		600.00
S. Maltby	Sampling	7 days	$100/day	700.00
Geol. Tech.	Drafting & Copying	4 days		400.00
M. Waldner, Mngr. & Ch. Geol. Minerals Div. Mohawk	Field Work & Supervision	3 days	$275/day	825.00
ACME Analytical Lab Ltd.	Geochem Analysis	18 rock samples @ 14.50/sample		261.00
4 Crewcab Pickup	Crew Transport	7 days	$50/day	350.00
4x4 Pickup	Transport	1 day	$50/day	50.00
Radios	Communication	14 days	$15/day/radio	210.00
Room & Board		20 days	$61.75/man/day	1,235.00
Ohashi Bros.	Mob-Demob.	15 hrs.	$57.00/hr.	855.00
Typing & Copying				500.00
FL-9 Backhoe-Loader	Trenching	48 hrs.	$55/hr.	2,640.00
Freight, Mail, Courier	Shipping Samples Maps, Reports			125.00
M rials & Supplies				150.00
	TOTAL			$9,951.00

Field work portion conducted from October 30th to November 5th, 1985.

APPENDIX II

ROCK SAMPLES & LOCATIONS

SAMPLE NO.	LOCATIONS AND DESCRIPTIONS
Trench 11	
2260	Chip 4" hanging wall Limy black argillite, pyrite, hematite
2261	Chip 12", Limy black argillite on hanging wall side Pyrite, hematite, crumbled foliation
2262	Chip 7" Calcareous argillite
2263	Chip 8" Footwall - black argillite, graphite, quartz fragments 'pods' containing hematite
2264	Grab - quartz fragments
2265	Chip - quartz, carbonate horzion along contact
2270	Grab - graphitic quartz-carbonate at contact
Trench 7	
2266	Chip 12" - limonite clay fault
2267	Grab hanging wall - pyrolusite, limonite, calcite
2268	Chip 8" - black graphitic argillite, veinlets of limonite, hematite parallel to contact
2269	Chip 8" - calcareous argillite
Trench 9	
2254	Character sample - Chip 6", Boxwork quartz
2255	Chip 6" - hanging wall - contact brown argillite, sericite
2271	10" character sample, footwall, graphitic quartz, minor pyrite, sericite, hematite
Trench 10	
2256	Character sample - random sampling of quartz, calcite, minor chlorite, pyrite
225.	Chip 10", hanging wall, black argillite
2258	Chip 8", fine grained andesite
2259	Chip 20", black argillite in contact with brown argillite

ACME ANALYTICAL LABORATORIES LTD.
852 E.HASTINGS ST.VANCOUVER B.C. V6A 1R6
PHONE 253-3158 DATA LINE 251-1011

DATE RECEIVED: NOV 6 1985

DATE REPORT MAILED: Nov. 13/85

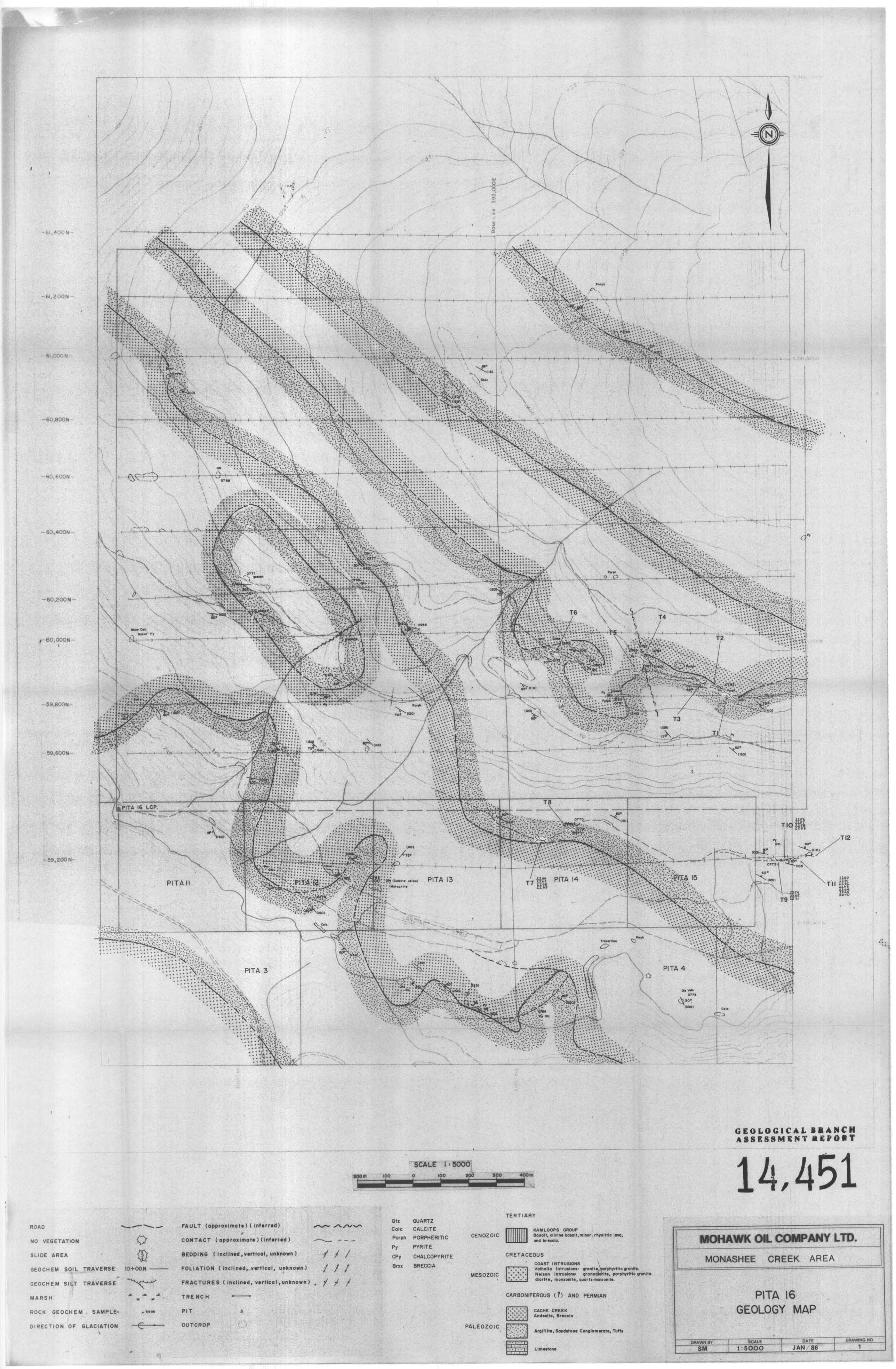
GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN.FE.CA.P.CR.MG.BA.TI.B.AL.NA.K.W.SI.ZR.CE.SN.Y.NB AND TA. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: P1-3 SOILS -20 MESH & PULVERIZED P4-ROCKS AU‡‡ ANALYSIS BY FA+AA FROM 10 GRAM SAMPLE.

ASSAYER: T. Saundry. DEAN TOYE OR TOM SAUNDRY. CERTIFIED B.C. ASSAYER

MOHAWK OIL CO. FILE # 85-3045 PAGE 1

SAMPLE‡	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Mn PPM	As PPM	U PPM	Th PPM	Sb PPM	W PPM	Au‡‡ PPB
2254	42	10	83	.7	508	10	5	3	2	1	2
2255	85	15	103	1.8	534	33	5	6	2	1	16
2256	12	23	36	.4	597	2	5	3	2	1	4
2257	28	16	86	.7	801	12	5	3	2	1	2
2258	14	18	36	.5	900	3	5	5	2	1	4
2259	63	25	107	1.6	646	18	5	4	2	1	3
2260	27	28	56	3.2	994	45	5	5	3	1	9
2261	12	20	33	.8	637	17	5	5	2	1	5
2262	8	27	29	1.4	622	17	5	3	2	1	1
2263	26	49	181	3.9	687	40	5	7	5	1	4
2264	21	9	217	1.0	844	50	5	6	3	1	42
2265	20	18	72	.3	624	4	5	4	2	1	4
2266	34	13	1933	.2	685	50	5	8	2	1	1
2267	29	17	1533	.5	799	23	5	7	2	2	1
2268	116	14	829	.9	954	102	5	4	6	1	3
2269	128	15	884	1.1	869	80	5	4	2	1	5
2270	8	26	37	.5	499	4	5	2	2	1	4
2271	59	18	85	.8	1151	14	5	3	2	1	21
STD C/FA-AU	60	40	134	7.0	1134	39	19	31	13	12	50



ROAD
NO VEGETATION
SLIDE AREA
GEOCHEM SOIL TRAVERSE 10+00N
GEOCHEM SILT TRAVERSE
MARSH
ROCK GEOCHEM. SAMPLE • 9999
DIRECTION OF GLACIATION

FAULT (approximate) (inferred)
CONTACT (approximate) (inferred)
BEDDING (inclined, vertical, unknown)
FOLIATION (inclined, vertical, unknown)
FRACTURES (inclined, vertical, unknown)
TRENCH
PIT △
OUTCROP ○

Qtz	QUARTZ
Calc	CALCITE
Porph	PORPHERITIC
Py	PYRITE
CPy	CHALCOPYRITE
Brxx	BRECCIA

TERTIARY

CENOZOIC — KAMLOOPS GROUP
Basalt, olivine basalt, minor rhyolitic lava, and breccia.

CRETACEOUS

MESOZOIC — COAST INTRUSIONS
Valhalla Intrusions: granite, porphyritic granite.
Nelson Intrusions: granodiorite, porphyritic granite diorite, monzonite, quartz monzonite.

CARBONIFEROUS (?) AND PERMIAN

PALEOZOIC — CACHE CREEK
Andesite, Breccia

Argillite, Sandstone Conglomerate, Tuffs

Limestone

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MOHAWK OIL COMPANY LTD.

MONASHEE CREEK AREA

PITA 16
GEOLOGY MAP

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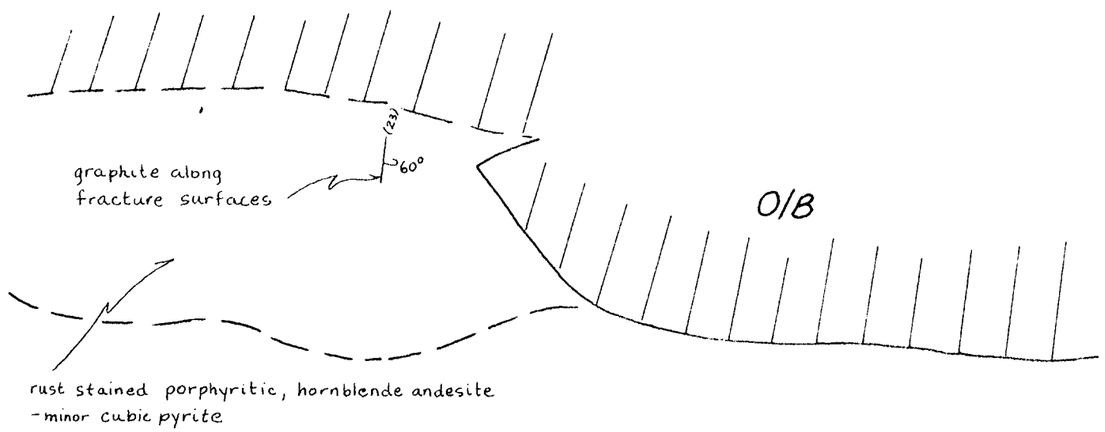
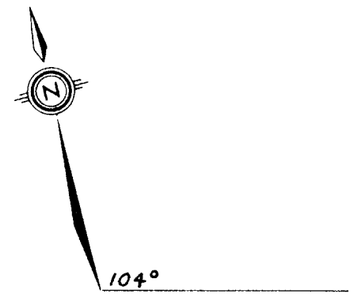
T1





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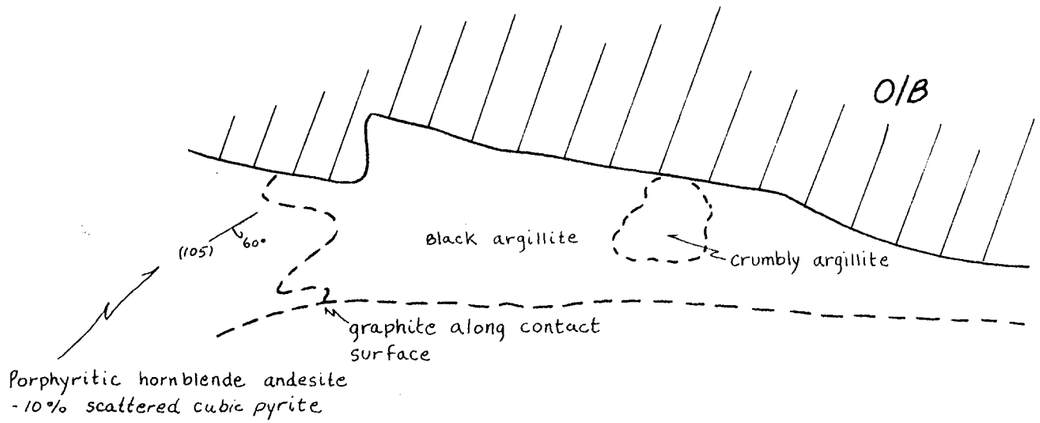

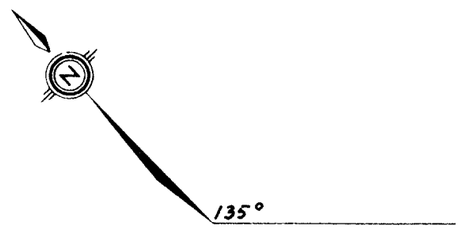

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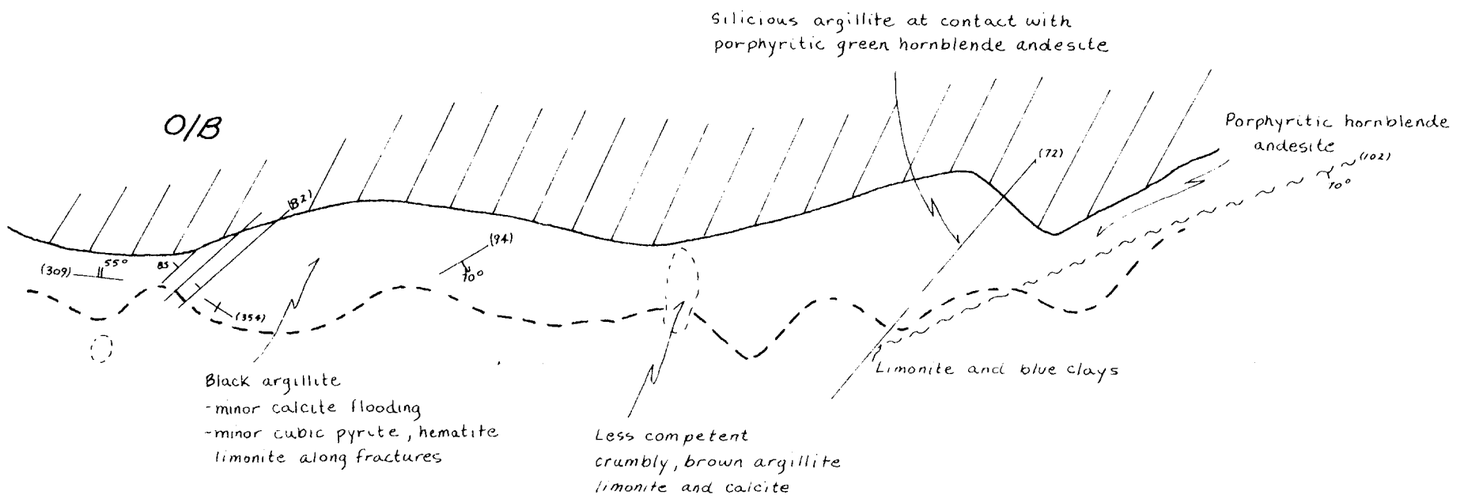
TRENCHES 1 & 2 (plan)		DRAWING NUMBER 2

T3



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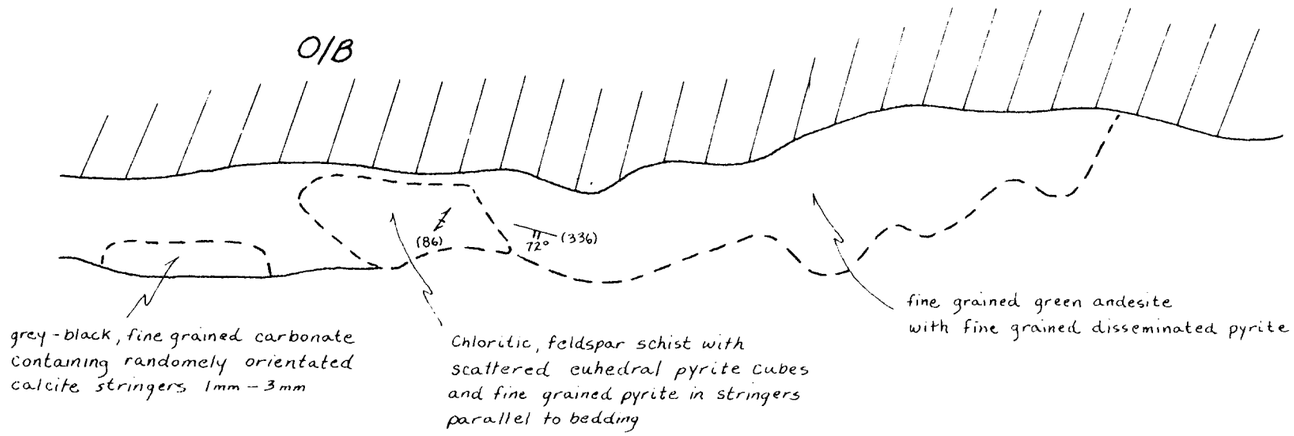

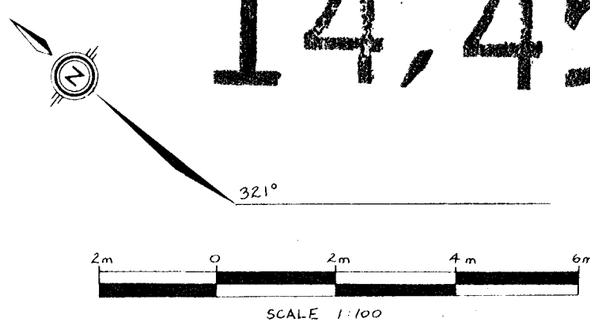

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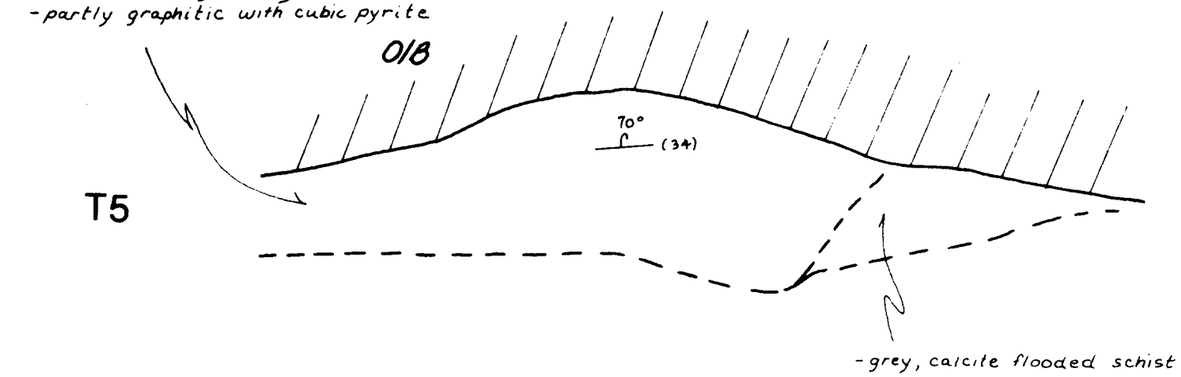
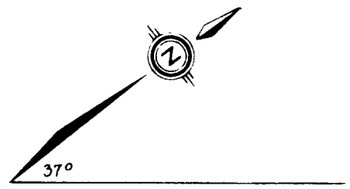
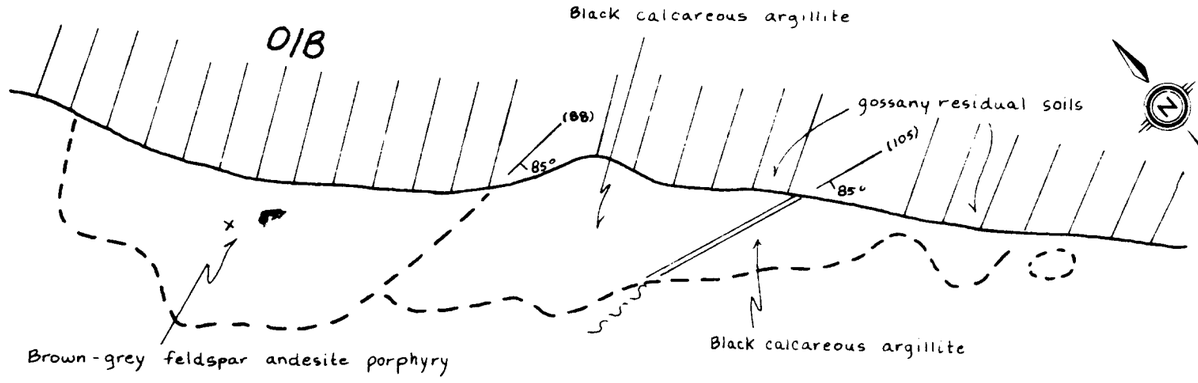
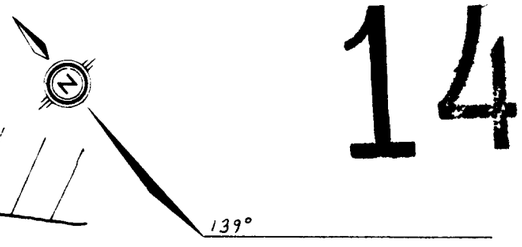
TRENCHES 3&4 (plan)		DRAWING NUMBER 3

Chlorite Schist
- Limonite along bedding
- partly graphitic with cubic pyrite









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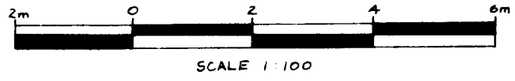

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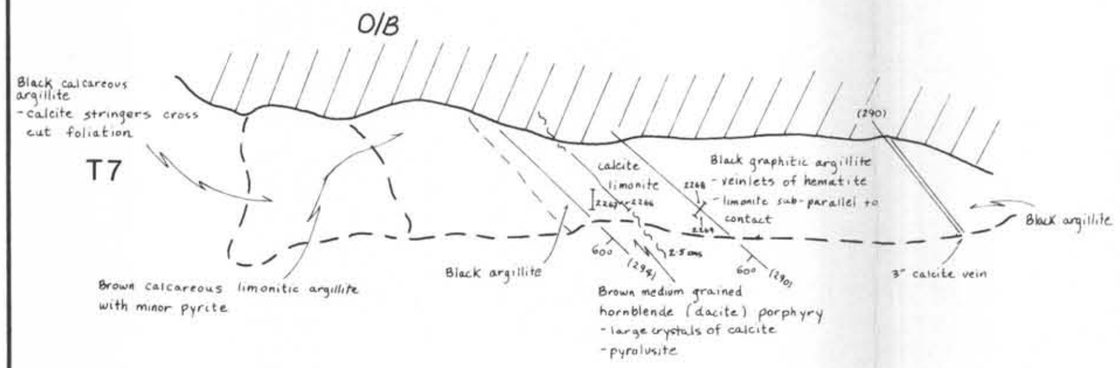
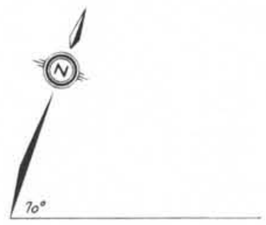
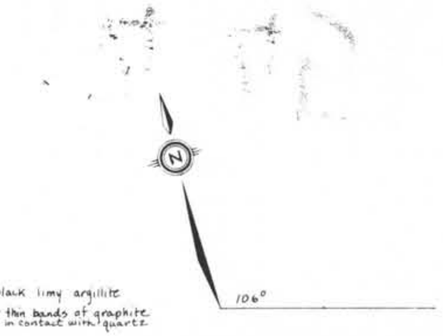
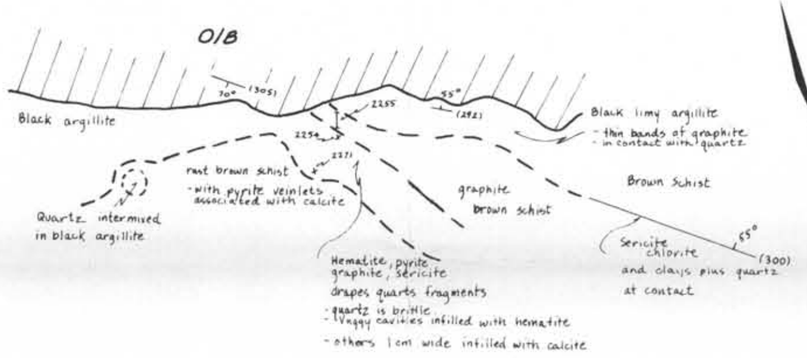
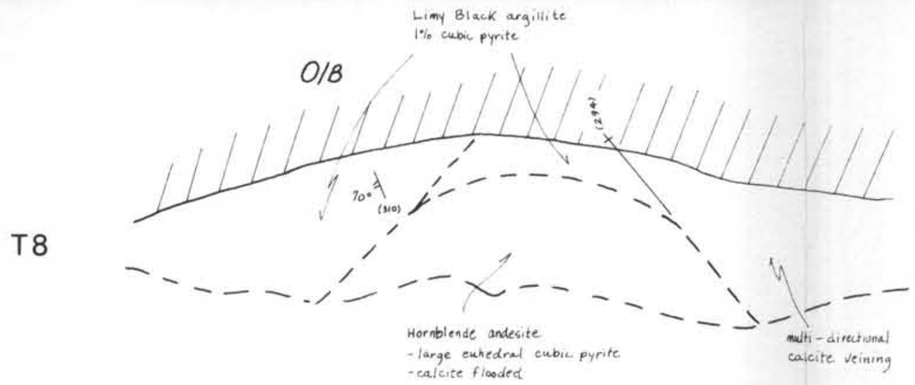
TRENCHES 5 & 6 (plan)		DRAWING NUMBER 4

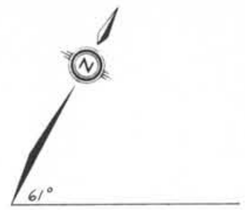












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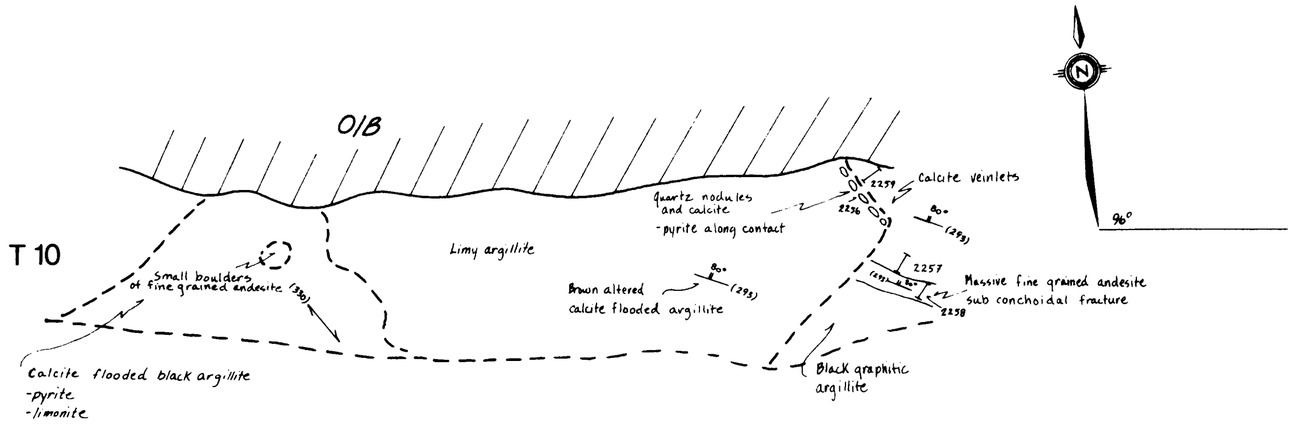
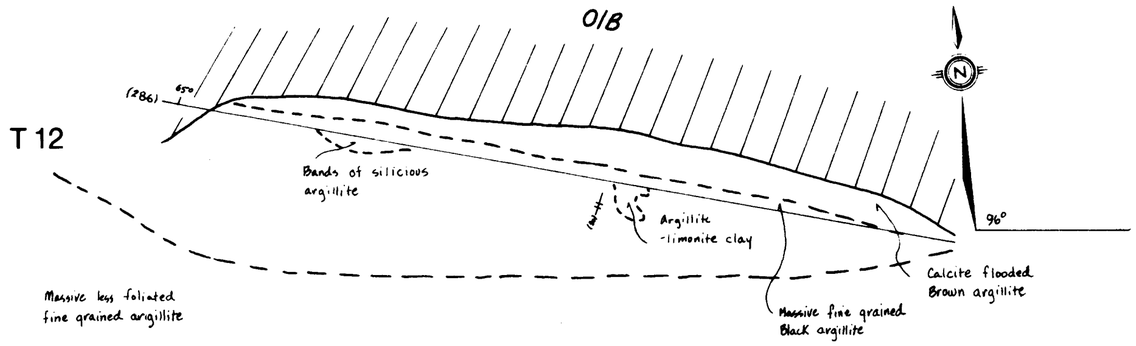
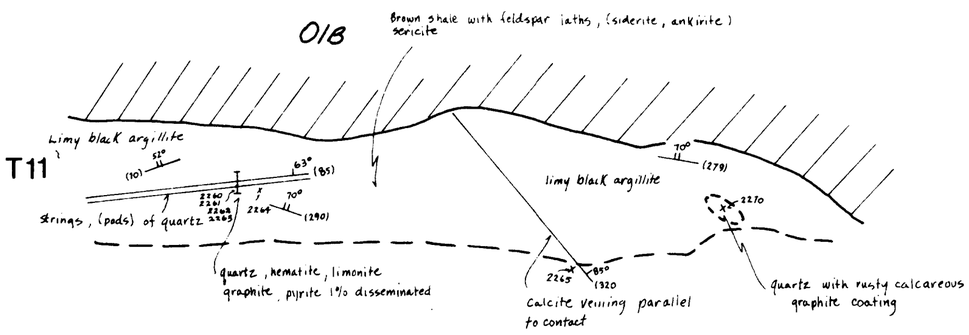
DATE: JAN/86		REVISED
PITA 16		
TRENCHES 7, 8, 9 (plan)		DRAWING NUMBER 5







2m 0 2 4 6m

SCALE 1:100

GEOLOGICAL BRANCH
ASSESSMENT REPORT

14,451

MOHAWK OIL CO. LTD.		
SCALE: 1:100	APPROVED BY:	DRAWN BY SM
DATE: JAN/86		REVISED
PITA 16		
TRENCHES 10, 11, 12, (plan)		DRAWING NUMBER 6