

33-#479 - #11220/0

REPORT ON
GEOLOGICAL, GEOCHEMICAL, MAGNETOMETER
AND
VERY LOW FREQUENCY - ELECTROMAGNETIC SURVEYS

CONDUCTED ON THE JON MINERAL CLAIM
VERNON MINING DIVISON

N.T.S. 82E/15E

49° 54' N. LATITUDE and 118° 34' W. LONGITUDE

OWNER OF CLAIMS: LIGHTNING MINERALS INCORPORATED OF VANCOUVER

GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,220

OPERATOR: MOHAWK OIL CO. LTD.

AUTHOR: B. CALLAGHAN

DATE: September 30, 1983

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INTRODUCTION

Exploration on the Jon Mineral Claim during the 1982 field season included geological mapping, geochemical soil sampling, trenching, a VLF-EM survey and a magnetic survey.

Work was initiated in early July. Some follow-up of geochemical and magnetic anomalies was carried out during the months of September and early October.

Interest on the Jon Claim has centered around the possible intersection of North/South trending quartz veins with an East/West extension of the Waterloo Vein as developed on the Waterloo Crown Grant to the east of the Jon Claim.

LOCATION AND ACCESS

The Jon Claim is situated on the East side of a mountain range known locally as the Granite Range, approximately 3 1/2 kilometres Northwest of Lightning Peak. The southern portion of the Jon Claim borders the Waterloo Crown Grant to the East. To the West - the Jon borders the headwaters of Rendell Creek, a tributary of the Kettle River.

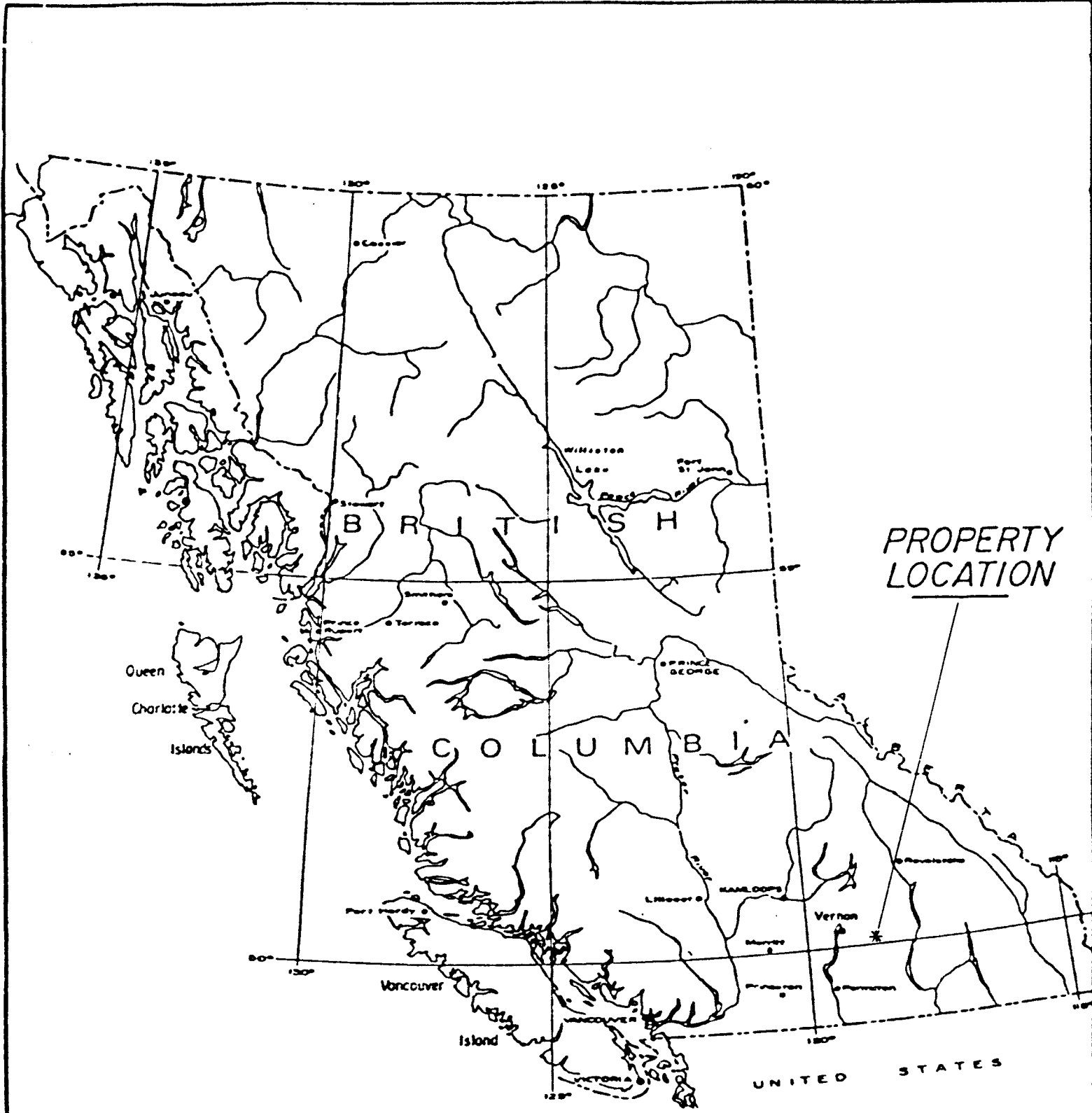
Approximate coordinates of the centre of the claim are 118° 34' 30" West longitude and 49° 54' North latitude, NTS map sheet 82E/15E. See Index map (Fig. 1).

Access to the Jon is via Highway No. 6 approximately 110 kilometres Southeast of Vernon passing through Lumby and Cherryville. The 30 kilometre long Lightning Peak access road joins Highway No. 6, 16 kilometres Southeast of the Spruce Grove Cafe. A turning to the west at the "post office" turn-off along the Waterloo Mine road provides access to the Jon Claim. Access to the north central portion of the Jon, that occupies ground once called the "Potosi Group", is via the reopened Potosi Trail.

The one kilometre trail branches off the Dictator Mine road two kilometres from the Dictator-Waterloo turn-off. Four wheel drive transportation is recommended especially during September prior to freeze-up.

PHYSIOGRAPHY

The Baby Range occupies the northern, central portion of the Jon property. This is a broad relatively flat-lying ridge which reaches an elevation of 1700 metres. It is drained by Waterloo Creek to the south and Rendell Creek to the west.



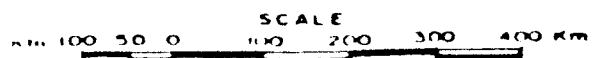
PROPERTY
LOCATION

MOHAWK OIL Co. LTD.

JON CLAIM

LOCATION MAP

FIGURE 1



Best exposures of outcrop occur in the narrow creek bottoms and along sharply rising ridges especially in the southern portion of the Jon Claim. Overburden is more pronounced in the northern portion of the Jon where outcrop exposure is fairly limited, i.e. 2-5% outcrop. Overburden depth average 1 metre and may be as much as 5 metres.

Substantial stands of Spruce, Jack pine as well as Cedar occur on south facing slopes along Waterloo Creek. Balsam, Jack pine, Spruce and Alder are the more common stands on the flatter ridge top areas to the north of the claim.

MINING PROPERTY

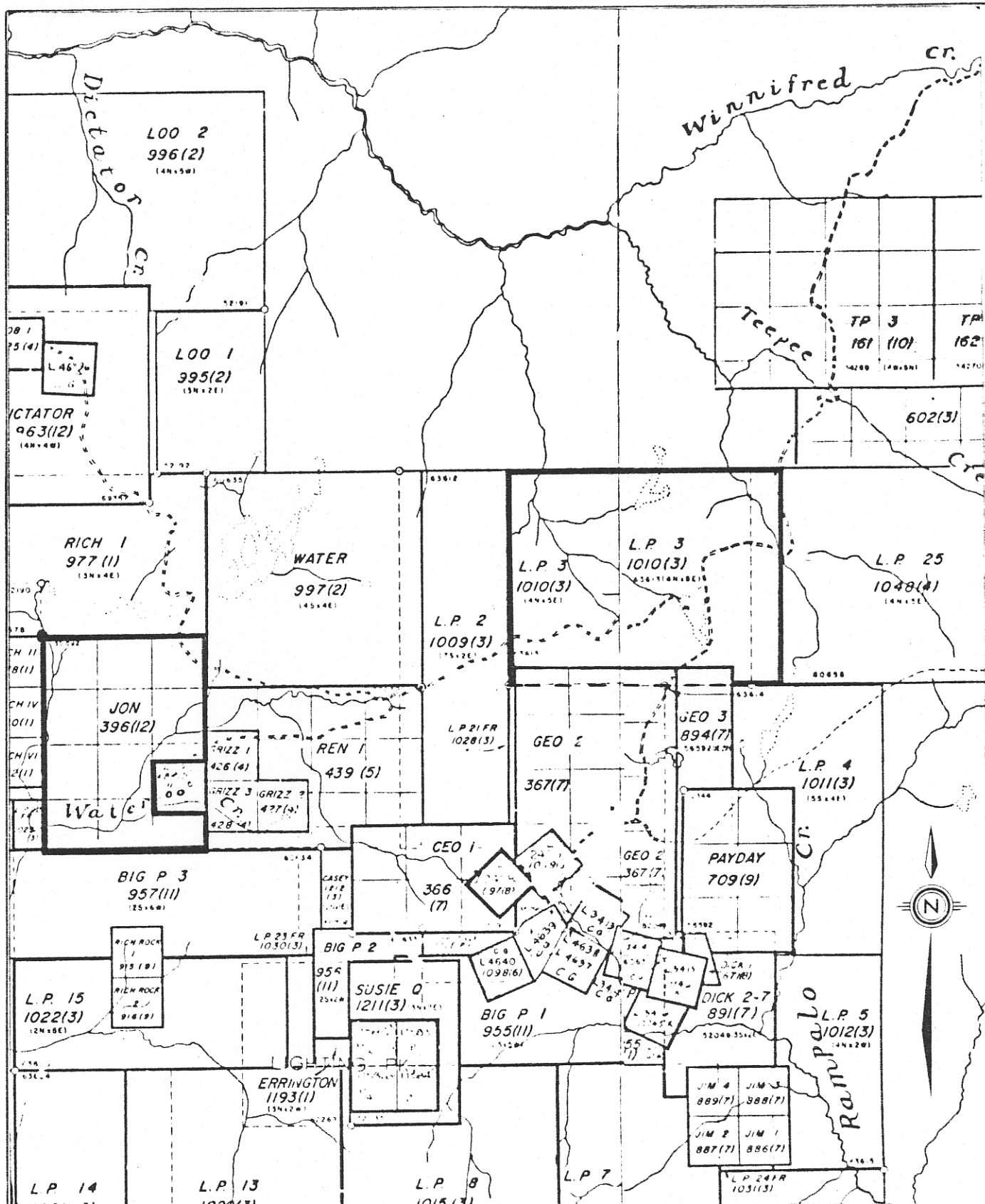
The Jon Claim is a 12 unit claim staked December 1, 1977. The claim is located in the Vernon Mining Division, record no.396. Record date December 5, 1977. The claim is owned by Lightning Minerals Incorporated of Vancouver. Mohawk Oil Co. Ltd. has an option on the property.

The Jon covers an area formerly known as the Potosi Group of claims and consisted of the Potosi, Potosi no. 4 and Silver Spot no. 4. The Potosi Group is described briefly by Cairnes (1930)

Early activities on the Potosi during the 1920's centered around the exposure of an 8ft. wide quartz vein found in limestone. This vein carried silver, galena and tetrahedrite in a gangue of calcite and quartz. The vein appeared to have the same strike as the main Waterloo vein, as developed on the Waterloo Crown Grant. A cabin was constructed on the Potosi property in 1929. Access then, was via a short trail from the Waterloo Mine camp or by a turn-off along the Dictator trail, half mile north-west of the Waterloo tractor road.

Surface exploration work included hand dug trenches placed along strike of shear zones containing quartz. Quartz veins 2ft. - 6ft. wide were exposed over a 1000ft. in a north/south direction.

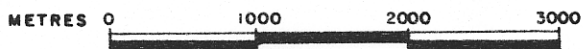
In 1927, a selected sample of ore containing pyrite assayed .04 oz/ton gold and silver values of 35 ozs/ton. (Ann. Report B.C. Minister of Mines 1927).



MOHAWK OIL CO. LTD.

SCALE 1:50,000

CLAIMS MAP



DRAWN BY	DATE	DRAWING NO.
M.W.V.	10/6/83	FIG. 2

A geochemical and topographic survey by International Mine Services Ltd was carried out in 1968 for Great Horn Mining Syndicate. The survey covered ground in the Lightning Peak area that included the Jon Claim. Also, in 1979, Sawyer Consultants Inc. compiled a report containing geochemical and uncorrected magnetic survey results for the Jon. Field data was supplied by Lightning Minerals Inc.

SUMMARY

The property was mapped and surveyed on a scale of 1:3000. The geological mapping included study of rock outcrops on the geochemical and geophysical grid and plotting of the geological structures and rock types. The geological interpretations employed outcrop mapping, magnetic data, VLF-EM data and aerial photographs.

The geochemical and geological survey grid included approximately 35 lines. Traverse lines in the southern portion of the property were run north/south perpendicular to possible East/West shear zones. Each line was approximately 1000 - 1050 metres in length. Traverse lines in the northern portion above 0+00N were run East/West perpendicular to possible North/South structures and were generally 1500 metres in length. The total length of the survey was approximately 36.5 kilometres. The geochemical and geological survey grid lines were flagged and chained for control for the surveys conducted on the property.

The VLF-EM dip angle readings were taken at 15 metre intervals along about 34.2 kilometres of the flagged lines. Magnetic readings were taken at about 15 metre intervals along about 38 kilometres of these same grid lines and soil samples collected at 50 metre intervals along all grid lines. A total 735 soil samples were collected. In addition, a closely spaced magnetic survey was conducted over the old Potosi trench area north of 0+00N/S and also north of Waterloo Creek west of the Waterloo Crown Grant.

Location of the chain and compass flagged grid lines was assisted using a theodolite and E.D.M. survey instrument. Approximately one day was spent establishing the claim's location employing the theodolite and E.D.M. The claim was tied to topographic features and legal survey points in the vicinity.

Access to the property required some improvement. The access road to the Potosi and through the property required some widening using a D-6 bulldozer.

Approximately 67 hours was spent improving the existing road, building some new road and initiating some preliminary trenching.

GENERAL GEOLOGY

The entire property was mapped along the flagged grid lines on a scale of 1:3000 (drawing No. 1). This reconnaissance type mapping program used the geochemical and geophysical grid lines as control in establishing outcrop locations. The general geology of the area is described by Cairnes (1930) and Little (1957). The Permian (?) Anarchist Group rocks consist of greenstone graywacke, tuffs, limestone and paragneiss. These rocks host the lead, zinc, silver mineralizations at the nearby Waterloo Mine. The Anarchist Group rocks form a roof pendant in the Lightning Peak area and are intruded by Cretaceous (?) Valhalla Intrusions and Nelson Intrusions. These intrusive rocks in the vicinity of the property have been interpreted by Little to be Nelson Intrusions.

Lightning Peak is Tertiary in age and is composed of massive, dark gray olivine basalt with large olivine phenocrysts.

The intrusive rocks mapped on the property are primarily granodiorite although the composition is somewhat variable and locally is diorite in composition. There are also some outcrops which are quartz diorite in composition. These rocks are generally gray to greenish-gray, coarse-grained and often porphyritic distinguished by K-feldspar phenocrysts of 1 - 2 cm in length. The mafic mineral is usually biotite which composes about 10% of the rock. The remainder of the rock is composed generally of about 30% quartz, 30% plagioclase and 30% orthoclase, although these compositions do vary depending upon the rock type. Alteration of the intrusives includes some chloritization of the mafics and sericitization of the feldspars.

Pre-Batholithic rocks include Anarchist Group metamorphosed sedimentary and volcanic rocks. Crystalline limestone occurs in the central and eastern portion of the Jon Claim as a belt that extends Northwest in contact with Nelson Intrusives and Anarchist metavolcanics. Limestone also occurs west of the Waterloo Crown Grant and can be seen readily in the creek bottoms.

The limestone is coarse crystalline with grain size in the order of 5mm. Individual calcite crystals as large as 3-5 cms can be found as cavity fillings. They occur just north of the Waterloo Crown Grant on line 3+00E. Original bedding

structures are not easily identifiable. Fibrous wollastonite occurs at the contact between limestone and intrusives on Waterloo Creek at approximately 2+20W. These Anarchist limestones are the host for high grade silver, lead and zinc mineralization on the Waterloo Crown Grant.

Metavolcanic Anarchist Group rocks which outcrop on the property are composed primarily of andesitic lava, flow breccia and recrystallized limy tuffs. The lavas are generally gray-green, fine grained and massive. The metamorphosed andesitic lava is rarely foliated. Any mafic phenocrysts are small and minor. Some andesite includes feldspar phenocrysts. Recrystallized limy tuffs interpreted by Cairnes contain bedding if tuffs are waterlain although this is not evident on the Jon Claim. The tuffs often contain calcite and mafic phenocrysts 2-3 mm in size. The volcanic breccia are similar to the tuffs but contain larger fragments and very minor phenocrysts.

Minor intrusive rocks occasionally occur within the metavolcanics as dykes. These dykes are composed of quartz diorite and granodiorite and are generally classified as acid dykes or acid porphyries. Pegmatites are related to the intrusives.

STRUCTURAL GEOLOGY

The structural geology has been interpreted using aerial photography, VLF-EM data and magnetic data in conjunction with the geological mapping. The property is disturbed by several major faults notably striking to the North and Northeast. East/West faulting occurs in the central and south half of the claim. The topographic expression of these faults are Rendell Creek on the western side of the claim and Waterloo Creek on the eastern side of the claim. In addition, there are other topographic features and VLF-EM "cross-overs" which have been interpreted to be faults.

These interpreted structures are illustrated on Drawing No. 1.

ECONOMIC GEOLOGY

The Potosi trenches occur in the middle of the claim centred on lines 1+00N, 2+00N, 3+00N and 4+00N. Old reports mention disseminated pyrite and a little galena occurring in 2ft - 3 ft. wide north striking quartz veins. Exploration in this vicinity did lead to the discovery of pyrite, pyrrhotite, Galena, Sphalerite, chalcopyrite (trace) and bornite (trace). Grab sample 4097 taken from a quartz stock pile containing pyrite adjacent to a trenched area ran 10.4 oz/ton silver, .09 gold. Channel samples taken

across this vein indicated lower values (See table 1 sample nos. 4926-4935).

Samples 4683, 4906, and 4682 were collected in the Northern Portion of the claim at or near a Northwest trending belt of limestone in contact with metavolcanics and intrusives. Pyrite, pyrrhotite and bornite mineralization was observed. Assays of 177ppm copper was recorded near the limestone metavolcanic contact. Sulphide mineralization observed occurred as minor fine disseminations throughout the rock.

Pyrite mineralization in the area of the Potosi trenches may be peripheral to copper-silver mineralization. Mineralization may be vein-type or disseminated.

Lead, zinc anomalies occur with minor copper and silver anomalies in the central portion of the claim, west of the Waterloo Mine. Antimony and arsenic anomalies occur in this vicinity and could be related to pyrargyrite - proustite mineralization as observed at the Waterloo Vein to the east. There is a possibility that the Waterloo vein extends westerly into this area. Galena, sphalerite float has been located within this area. They include sample nos. 0891, 0892, 4669 and 4672 (See table 1).

The possibility exists that mineralization may occur as fault in filling or in veins. Vein material at the Waterloo Mine occurs in strongly developed East/West shear zones that dip steeply to the North. The ore minerals include Galena, Sphalerite, pyrite, chalcopyrite, ruby silver, native silver and minor tetrahedrite.

The northwest trend of anomalous zone B₂ can be extended 900 metres to the area of anomalous Silver and copper geochemistry. Skarn-type mineralization related to the limestone may occur in this vicinity. Mineralization hosted in the volcanic or intrusive rocks is more probably vein-type.

The northwest trending zone, highly anomalous in copper, lead, zinc antimony, arsenic and silver occurs in the Southeastern corner of the claim block. This may indicate the presence of massive sulphide, skarn or vein-type gold-silver mineralization associated with galena, sphalerite, tetrahedrite, chalcopyrite mineralization.

In the Southwest part of the property anomalous lead, zinc, silver and minor copper is coincident with Northwest trending VLF-EM crossovers. Mineralization in this area is most likely vein or massive sulphide.

There is also the possibility that mineralization hosted in granodiorite on the claim is disseminated or veinlet-type.

A total of 39 rock samples were collected on the claim and assayed for gold, silver, copper, lead and zinc. These samples are identified on the geology map (Drawing No. 1). The assay results are illustrated on Table I.

TABLE I - ROCK SAMPLE ASSAYS

SAMPLE NO.	TYPE	LOCATION	Cu	Pb	Zn	Ag	Au
4682	Chip	1+00N 3+50W	ppm 7.0	ppm 15.0	ppm 16.0	ppm 0.6	ppb 5.0
4683	Chip	1+00N 3+50W	177.0	16.0	46.0	1.0	1.0
4901	Grab	0+00E/W 0+00N/S Potosi	% .15	% .02	% .06	oz/ton .29	oz/ton 0.76
4902	Grab Quartz Pile Trench	0+00E/W 0+00N/S Potosi	.03	.70	.19	10.85	.080
4903	Chip Trench	0+90S 0+60W Potosi Fine Grid	.05	.18	.03	.67	.005
4906	Grab	1+00N 3+50W	.02	.09	.14	.44	.001
4907	Grab Quartz Pile	0+90S 0+60W Potosi Fine Grid	.01	.37	.12	10.4	.090
4908	Grab	0+70S 0+95W Potosi Fine Grid	.02	.20	.24	3.3	.017
4909	Grab	0+00N/S 2+05W	.01	L .01	.04	.03	.002
4915	Grab	20M South of trip from mill	.01	L .01	L.01	.13	.002
4916	Grab	0+00N 1+20E	.02	L .01	.01	.19	.001
4917	Chip	1+50E 0+50S on W/C	.01	L .01	.01	.05	.001
4920	Channel	Trenched Potosi 9 tz Vein N7½m	ppm 46	% .59	ppm 4000	oz/ton 1.8	ppb 49

TABLE I - ROCK SAMPLE ASSAYS (continued)

SAMPLE NO.	TYPE	LOCATION	Cu	Pb	Zn	Ag	Au
			ppm	ppm	ppm	ppm	ppb
4921	Channel	Trenched Potosi qtz vein @ 14m	75	70	88	1.8	18
4922	Channel	Trenched Potosi qtz vein	69	730	287	15.9	6.0
4923	Channel	Trenched Potosi qtz vein	61	60	80	1.9	13
4924	Channel	Trenched Potosi qtz vein @ 25m	ppm 56	ppm 750	ppm 390	oz/ton 1.4	17
4925	Channel	Trenched Potosi qtz vein @ 25m	ppm 6	ppm 75	ppm 95	ppm 1.5	ppb 18
4926	Channel	Trenched Potosi qtz vein @ 41m	10	29	12	.9	18
4927	Channel	Trenched Potosi qtz vein @ 41m	8	91	35	2.0	17
4928	Channel	Trenched Potosi qtz vein @ 41m	21	80	70	1.9	17
4929	Channel	Trenched Potosi qtz vein @ 59½m	45	23	67	1.3	11
4930	Channel	Trenched Potosi qtz vein @ 59½m	17	120	81	2.5	18
4931	Channel	Trenched Potosi qtz vein @ 59½m	19	164	42	3.6	17
4932	Channel	Trenched Potosi qtz vein @ 59½m	13	62	49	3.4	16

TABLE I - ROCK SAMPLE ASSAYS (continued)

SAMPLE NO.	TYPE	LOCATION	Cu	Pb	Zn	Ag	Au
4933	Channel	Trenched Potosi qtz vein @ 59½m	ppm 12	ppm 56	ppm 37	ppm 2.6	ppb 20
4934	Channel	Trenched Potosi qtz vein @ 59½m	62	57	108	2.5	57
0891	Float(3)	3+60S 0+92W	% .01	% 1.65	% 7.10	oz/ton .43	oz/ton .003
0892	Float(2)	3+67S 0+97W	.01	8.70	8.60	1.57	.001
4669	Float	3+00W 6+20N	.005	9.60	.02	4.61	.014
4670	Chip	3+00W 5+20N	ppm 4	ppm 500	ppm 30	ppm 1.7	ppb L 5
4671	Chip	Potosi Geophysics Trench	18	715	48	2.0	L 5
4672	Float	1+00W-F 3+80S	ppm 37	% 1.03	% 7.22	ppm .64	ppb L 5
4673	Chip	1+20N 3+80S	37	.01	.05	.32	L 5
4679	Float	0+50W 1+40S	ppm 38	ppm 17.0	ppm 25.0	ppm 0.7	ppb 295.0
4680	Loose Rock from Trench	1+35S 0+65W	85.0	23.0	23.0	1.0	15.0
4681	Chip	2+00S 4+00E	11.0	15	31	0.7	10.0
4935	Channel	Trenched Potosi qtz vein @ 63m	20	66	13	1.3	14
4936	Grab	Upper Trench Potosi Mag Anomaly	30	139	46	2.4	14

GEOCHEMISTRY

The geochemical soil survey was conducted on the grid lines approximately 100 metres apart. Soil samples were taken along these lines at about 50 metre intervals. The grid lines were established as flagged lines only. All results were plotted in parts per million on 1:3000 scale base maps.

A total of 735 soil samples were collected. The samples were taken in the "B" horizon whenever possible. This horizon was generally reddish-brown in colour and occurred at a depth of 5 to 50 cm and was about 20 cm thick. A small mattock was used to dig the hole. Coarse rock debris and organic matter was discarded. Samples were not collected in swampy areas, in areas of talus or rock outcrop. If the "B" horizon was not developed but a "C" soil horizon was developed the "C" horizon was sampled. The grid location, soil horizon type and depth, degree of oxidation of soil and exposure were noted at each soil sample site.

All soil samples were boxed and freighted to Kamloops for preparation and analysed by Kamloops Research and Assay Laboratories Ltd. Samples were dried and screened to minus 80 mesh. A measured amount of the minus 80 mesh material was then digested in hot aqua regia. Atomic absorption was used to determine values in parts per million for copper, lead, zinc, silver, antimony and arsenic.

The assay data has been plotted on single element maps at a scale of 1:3000. The data treatment has included contouring and definition of subanomalous, anomalous and second order anomalous values for the six elements over the intrusive rocks and Anarchist Group metamorphic rocks. Table II illustrates the statistical data, contour intervals, and subanomalous, anomalous and second order anomalous values for each of the six elements analyzed. Generally, subanomalous values for each element are the mean plus one standard deviation, anomalous values are the mean plus two standard deviations and second order anomalous values are the mean plus three standard deviations.

TABLE II - GEOCHEMICAL PARAMETERS

<u>Parameter</u>	<u>Anarchist Group Rocks</u>						<u>Intrusive Rocks (NELSON INTRUSIVES)</u>					
	(ppm)						(ppm)					
	Pb	Zn	Ag	Cu	As	Sb	Pb	Zn	Ag	Cu	As	Sb
Mean	15	64	.8	22	1.350	8.22	15.6	70	.8	20	1.064	8.467
Standard Deviation	3.2	25.8	.3	13	2.147	1.867	3.5	20.9	.3	10	.518	1.864
Contour Interval	2	25	.3	15	2	2	2	20	.3	10	1	2
Sub Anomalous	20	90	1.1	35	3	10	20	90	1.1	30	2	10
Anomalous	22	115	1.4	50	5	12	22	110	1.4	40	3	12
2ndOrder Anomalous	24	140	1.7	65	7	14	24	130	1.7	50	4	14

INTERPRETATION OF GEOCHEMISTRY

ZINC

The Zinc soil geochemistry is illustrated on Drawing No. 3.

Anomaly A is centred in the southeast quadrant, south of the Waterloo Crown Grant on line 5+00E. Zinc values of up to 256 ppm are coincident with second order anomalous silver, lead, copper, arsenic and antimony. These anomalies occur in an area of recrystallized limy tuffs just north of a limestone-metavolcanic contact. Small exposures of limestone occur north and to the east of this anomaly on line 6+00E.

A subtle series of west striking EM-VLF crossovers are coincident with the anomaly immediately to the north. Dip angle relief is between 10° and 18° on lines 4+00E and 5+00E. Best response occurs on Annapolis. This anomalous zone is also coincident with an apparently related subtle mag dipole on line 4+00E and a slight mag-high centred on the anomaly on line 5+00E. Silver, lead, zinc mineralization related to vein type mineralization may exist in this southeast quadrant.

ANOMALY B

A second order zinc anomaly trends northeast parallel to Waterloo Creek. It is interpreted as a northeast structure. This anomaly occurs west of the Waterloo Crown Grant and may be attributable to:

- i) a possible extension of the main Waterloo Vein. Silver, Galena and Tetrahedrite mineralization related to the existence of an exposed 8' wide quartz vein was recorded to occur in limestone having the same strike as the Waterloo Vein and possibly lying in the same fracture zone (Minister of Mines 1921).
- ii) mineralization related to the limestone, intrusive contact that occurs in Waterloo Creek.

Anomaly B is also coincident with lead and antimony in the southern portions of the anomaly. Anomaly B, is a single value of 140 ppm zinc and occurs in the same vicinity on the southeast tributary of Waterloo Creek.

Anomaly B₂ also reflects a possible extension of the Waterloo Vein to the west.

A value of 231 ppm is coincident with anomalous lead and antimony. B, B₁, and B₂ anomalies occur in Intrusives. However, anomaly B is in close proximity to an intrusive, limestone, metavolcanic contact.

A weak mag-low of 57575 gammas occurs immediately north of B₁. This value is approximately 200 gammas below local readings. A detailed mag survey may uncover a mag-dipole related to the anomaly. This would indicate magnetic mineralization related to zinc mineralization. A subtle mag-dipole occurs on line 1+00E at the north end of Anomaly B. Mag relief is approximately 300 gammas over a 30 metre readings interval.

A mag dipole occurs over anomaly B₂ where mag relief in excess of 500 gammas occurs over a distance of 80 metres. The model for this dipole is interpreted to be a series of three vertical dyke-like structures, all at depths of 5 metres. The structures are perhaps related to magnetite, pyrrhotite, hematite and pyrite mineralization that occurs approximately 150 metres to the south. A more likely scenario is for zinc, lead mineralization related to vein-type mineralization trending to the west. Its attitude is indicated by a dipole that occurs on line 3+00W. The model for this dipole is interpreted to be a possible 25 metre deep stringer that dips 45° to the north. The dipole is related to magnetic mineralization.

Similarly, a corresponding west, northwest striking series of EM dip angle crossovers extend toward the west from the anomaly on lines 3+00W, 2+00W and 1+00W-F weakening to the east. Relief is up to 23°. Possible related sphalerite, galena float was located between 70 - 100 metres southeast of the anomaly.

Corresponding east/west structures are indicated on Hawaii as well as Annapolis. Spot anomalies south of B₂ include second order silver, zinc and anomalous antimony. This could indicate the presence of pyrargyrite.

ANOMALY C

A high zinc anomaly of 260 ppm occurs on the north end of 7+00W that has related second order lead and arsenic. This may indicate the presence of possible gold or proustite mineralization as well as sphalerite and galena.

Generally, there is no magnetic response in the vicinity of anomaly C that is hosted in intrusives. Corresponding EM dip angle crossovers for both stations occur in the vicinity of the anomaly. Response is stronger on Hawaii with 12° relief. This may indicate that the anomaly is related to a northeasterly striking structure.

Second order Zinc also occurs in the extreme southwest portion of the property on line 8+00W.

It is coincident with second order lead and lies directly west of a possibly related second order silver anomaly. Spot zinc anomalies occur in this southwestern quadrant on lines 5+00W and 3+50W.

SILVER

The silver soil geochemical results are illustrated on Drawing No. 4.

Anomalous silver occurs in both halves of the Jon Claim, most notably in the northeast, southeast and southwest quadrants.

Those silver geochem anomalies hosted in intrusives occur in the southwest and northeast quadrants of the survey area. Anomalies hosted in recrystallized limy tuffs occur in the southeastern quadrant. Second order spot anomalies of silver occur on traverse lines 3+00N, 1+00N, 7+00N, 2+00W and 5+00E. All these anomalies are related to Intrusive/metavolcanic contacts.

Anomaly A, centred in the southeast quadrant of the claim is approximately 450 metres in width and exhibits values of up to 3 ppm. This anomaly is coincident with second order arsenic, lead, zinc, copper and anomalous antimony.

NORTHEAST QUADRANT

In the northeast quadrant, a north trending silver anomaly with highs of 1.9 ppm extends over 600 metres from line 1+00N to line 7+00N. The anomaly is generally confined to a granodiorite host on the east side of a north trending fault. A spot lead anomaly is coincident with this second order silver anomaly on line 4+00N. Related second order and anomalous copper occurs on line 1+00N, 2+00N and 3+00N west and south of the anomalous silver zone.

The value of 1.9 ppm occurs at the intersection of a northeast trending fault and a possible intrusive, metavolcanic contact. Quartz containing Galena, Sphalerite and pyrite has been mapped along this structure approximately 500 metres southwest of the silver anomaly.

A mag relief of 830 gammas over a distance of 35 metres is coincident with anomalous silver values of 1.9 ppm on line 1+00N.

The intersection of this northeast trending structure with a north trending silver anomaly is significant.

NORTH CENTRAL PORTION

Silver values of 2.7 ppm occur in the north central portion of the claim centred on line 7+00N and 10+00N. The silver values in this area are coincident with anomalous lead.

A mag dipole on line 6+00N exhibits a relief of 1655 gammas over a distance of 35 metres. The model for this dipole has been interpreted to be a stringer at a depth of 10 metres dipping 45°W. Strongest EM-VLF cross-overs are coincident with the second order silver anomaly on line 7+00N.

EM crossovers are coincident with the second order silver anomaly on line 7+00N. Strongest EM responses immediately west of the silver anomaly occurring on the Hawaii frequency indicate a northerly striking structure is more likely than a westerly striking structure if the EM response is related to silver, lead mineralization.

Possible vein type mineralization may be sub-parallel to this north striking structure.

SOUTHWEST QUADRANT

Silver values of up to 1.9 ppm occur on lines 5+00W and 6+00W in the southwestern portion of the claim and a value of 1.6 ppm on line 8+00W.

The second order anomaly is confined to intrusives and is coincident with second order silver, copper, anomalous lead and antimony. Anomalous zinc values occur to the west of the anomaly.

EM response for both stations is similar except that peaks are possibly better defined on Hawaii frequency.

The general trend of Hawaii frequency suggests a northwest structural trend. Strong cross-overs are coincident with second order silver values on lines 5 and 6+00W. Maximum relief of 30° occurs over 50 metres on line 5+00W (see drawing no. 9).

There appears to be no significant mag response to possible mineralization.

LEAD

The lead soil geochemical results are illustrated on Drawing No. 2. Anomalies B, B₁. Anomaly A, B₂ (see Zinc).

A lead value of 26 ppm occurs in the southwest portion of B₁ coincident with a second order zinc anomaly and closely related to an antimony anomaly. This second order lead anomaly occurs at the intersection of the west striking Waterloo Creek fault and a major northeast striking fault.

Lead anomalies that occur in the southwest quadrant coincide with anomalous zinc and silver as well as copper and antimony. These have already been discussed. Anomalous lead with a value of 22 ppm coincides with anomalous zinc on line 5+00W.

ANOMALY C

A value of 32 ppm occurs at anomaly C and is coincident with anomalous zinc and arsenic. (See Zinc for detail).

ANOMALY B₂

Lead values of 24 ppm and 129 ppm occur on lines 1+00W-F and 1+00W-B. B₂ lead anomaly may have a southeasterly trend towards anomaly B₁.

NORTH CENTRAL AREA

Lead values of up to 27 ppm occurs in an area of anomalous silver values. (See interpretation of Silver for explanation of Geology, Mag and EM).

NORTHEASTERN QUADRANT

Values of up to 29 ppm lead occur on the eastern extent of lines 5, 6, 7 and 10+00N. These anomalies occur by themselves and trend to the north. There is no

mag response in this eastern most portion. However, a dipole occurs on line 10+00N, 130 metres west of the 25 ppm lead anomaly. The model for this dipole has been interpreted to be a vertical dyke-like structure with a depth of 7 1/2 metres. (See Table III). Lines were not run far enough east to determine an apparent EM response on Hawaii frequency in this area.

COPPER

The copper soil geochemistry values are plotted and contoured on Drawing No. 7.

Copper anomalies occur in all quadrants of the claim. Most noticeably in the northwest, east central and southeastern portions. Anomalies occur in both intrusives and volcanics.

ANOMALY A

Values of 70 ppm occur at Anomaly A. A value of 93 ppm recorded at line 1+00E is also probably related to this anomalous zone. If so, this would give a northwesterly trend to mineralization related to anomaly A. This value of 93 ppm is coincident with second order arsenic.

An anomalous zone of copper north of the Waterloo Crown Grant with values of up to 84 ppm on line 1+00N-B trends generally westerly. A series of VLF-EM crossovers on Hawaii frequency may indicate disseminated or massive-type mineralization. However, this response maybe due to east striking structures parallel to the VLF-EM survey lines.

EAST CENTRAL PORTION

Copper values vary from 55 ppm on the extreme north end of line 0+00E/W, up to 66 ppm on line 2+00N. This anomalous zone trends northeasterly over lines 2+00N and 1+00N. The model for a mag-dipole on line 0+00N/S has been interpreted as a stringer that dips 45° east to a depth of 8 metres. This dipole may be related to a limestone, Intrusive contact rather than any magnetic mineralization associated with copper.

NORTHWEST QUADRANT

Anomalous values of copper up to 70 ppm occur generally within a narrow band of intrusive rocks that trend in a northeasterly direction.

There is a broad VLF-EM crossover in the vicinity of values of 77 ppm on line 10+00N-B; 40° of dip angle relief were measured over 200 metres on Annapolis frequency, 36° of relief for Hawaii frequency (see drawing nos. 8 and 9).

SOUTHWEST CORNER

Copper values of 53 ppm occur on line 5+00W that coincide with anomalous lead and silver. (See discussion of Silver Southwest Quadrant).

ARSENIC

Arsenic determinations are illustrated on Drawing No. 5.

Arsenic anomalies occur in the southeast, northwest, northeast corner and the west central portion of the claim. Most of the anomalies occur in the metavolcanics except those that occur in the west central portion. Here, the host is intrusive. The most significant anomalies occur in the extreme western side of lines 6+00N, 7+00N and 10+00N. The anomaly trends north/south for approximately 300 metres.

An anomaly centred on line 9+00N may indicate a north striking gold bearing vein similar to the mineralization observed at the Dictator property north of the claim. The anomaly is coincident with a north/south trending structure that responds to VLF-EM.

Spot anomalies on 6+00W, 4+00W and 1+00W line up in a general east/west direction. There is evidence of an east/west structure which responds to VLF-EM.

ANTIMONY

Soil geochemical results are plotted and contoured on Drawing No. 6.

Values of up to 15 ppm occur in metavolcanics. They have an apparent west strike related to silver and copper geochem anomalies at the west end of line 3+00N.

Also, values of 12 ppm occur at anomaly A coincident with lead, zinc, copper, silver and arsenic. (See Zinc explanation for previous elements).

Antimony is also anomalous in the vicinity of B₁ and B₂ and is coincident with lead, zinc and silver geochemistry. Pyrite, Galena and Sphalerite mineralization has been observed in the form of float within this area.

An antimony anomaly coincident with anomalous silver occurs in the southwest corner of the claim. They are closely related to anomalous lead and copper.

Antimony may be an indication of pyrargyrite mineralization especially when associated with silver anomalies.

Significant, is a broad, north/south trending zone of sub-anomalous and anomalous antimony values concentrated in the south central portion of the claim, immediately west of the Waterloo Crown Grant. These values may be related to Ruby Silver mineralization that occurs in the Waterloo Mine.

GEOPHYSICS

A VLF-EM survey was conducted on the Jon Claim. The total length of traverse lines covered by the survey was approximately 34.2 kilometres. The instrumentation and theory of VLF-EM surveys are described in Appendix I. Dip angle readings were taken at 15 metre intervals. The field strength data was found to be of limited use and therefore was not collected. Dip angle readings were collected for the Hawaiian (23.4 KHz) and Annapolis, M.D. (21.4 KHz) transmitters. The Fraser filtered and unfiltered (Null) data are presented on Drawing nos. 8 and 9. The filtered data has been presented in profile form on these same drawings. The VLF-EM data was used to interpret the location of faults and to a limited extent in establishing rock contacts.

The theory and instrumentation of magnetic surveys is outlined in Appendix II. A magnetic survey, using a Scintrex model MP-2 precession magnetometre, was conducted on approximately 34 lines. Readings were taken every 15 metres.

Very strong dip angle crossovers occur on lines 10+00N to 3+00N in the western side of the north half of the claim. This anomaly correlates with a photo interpreted fault extension of this structure into the southern half of the claim. Fraser filtered dip angle readings show VLF-EM crossovers with up to 53° of relief (Hawaii) in this vicinity and indicate the presence of a northeast striking structure. Anomalous arsenic, sub-anomalous lead and anomalous antimony are coincident with this structure on lines 9+00N, 5+00N and 3+00N respectively. There is also a east/west striking photo interpreted fault that intersects the northeast structure below line 1+00N-B just east of Rendell Creek. Causitive source maybe reflecting a north/south trending quartz vein. Pyrite mineralization with gold values and galena carrying silver occurs to the north of the claim on the Dictator Crown Grant. Porphyry dykes accompanied

by quartz veining mineralized with pyrite and minor galena occur trending northeast on line 1+00N to the east of this VLF-EM anomaly.

More subtle "crossovers" as described above correlate with soil geochem anomalies. These soil geochem anomalies include A, B₂ and C and also soil geochem anomalies in the northwest and north central portion and southwest quadrant.

The theory and instrumentation of magnetic surveys is outlined in Appendix II. A magnetic survey, using Scintrex model MP-2 precession magnetometre, was conducted on approximately 34 lines.

In addition, two "fine grids" were surveyed. A fine-grid was constructed to the northeast of anomalies A₁ and A₂ (see Drawing No. 10). Spacing between traverse lines was 10 metres; readings were taken every 5 metres. The grid extended north/south for 100 metres and 230 metres east/west from 3+00W to 0+80W.

The other grid was constructed in the central northern portion of the claim in an area of hand dug trenches. Traverse lines were run east/west with spacings between lines of either 30 or 60 metres. Readings were taken at 15 metre intervals along the traverse lines. Extra readings were taken at 5 metre intervals, when strong high or low anomalies were detected. The grid extends north/south approximately 510 metres and 525 metres east/west.

The total distance surveyed was 38 kilometres. The magnetic readings were plotted in gammas on the attached map (Drawing No. 10) and the data contoured at 100 gamma intervals.

A total of 13 significant local anomalies were detected. Of these, nine could be modelled as "dipoles", the remaining four as vertical dykes. The dipoles and dykes are tabulated separately as shown in Tables III (Dipoles) and IV (Dykes).

The width of the nine dipoles as presented in Table III ranges between 25-75 metres. Depth ranges from 7-25 metres and averages close to 10 metres. Dipoles in the southern portion of the property dip to the north whilst those in the north dip to the west.

TABLE III
MAGNETIC DIPOLES (Stringer Model)

<u>ANOMALY NUMBER</u>	<u>LOCATION</u>	<u>MODEL</u>	<u>WIDTH</u> (Metres)	<u>DEPTH</u> (Metres)	<u>DIP</u>
A ₁	3+00W (F)	'STRINGER'	75	15	< 45°N
A ₂	3+00W	STRINGER	60	10	< 45°N
A ₃	3+00W	STRINGER	70	25	> 45°N
A ₅	0+00N	STRINGER	25	10	0°
A ₆	0+00N	STRINGER	45	8	Horizontal < 45°E
A ₇	4+00E	STRINGER	55	7	75°N
A ₈	2+00N	STRINGER	30	8	< 45°N
A ₉	6+00N	STRINGER	60	10	< 45°W
A ₁₂	Potosi 2+10N Fine Grid	STRINGER	75	7.5	85°W

TABLE IV
MAGNETIC DIPOLES (Dyke Model)

<u>ANOMALY NUMBER</u>	<u>LOCATION</u>	<u>MODEL</u>	<u>WIDTH</u> (Metres)	<u>DEPTH</u> (Metres)	<u>REMARKS</u>
A ₄	2+00W	Vertical dyke	180	20, 15, 12½	3 dykes in series depth decreases to south. Width is total width of series.
A ₁₀	10+00N (B)	Vertical dyke	45	15	A ₁₀ is 50% wider than A ₁₁ , and is twice as deep
A ₁₁	10+00N (B)	Vertical dyke	30	7.5	All is approx. 300m east of A ₁₀ .
A ₁₃	3+00N	Vertical dyke	90	All at 5m	3 dykes in series, all of small magnitude; width is total width of series.

The width of the vertical dykes as presented in Table IV range from 30-80 metres. Depths range in between 5 and 20 metres.

The property generally displays regional magnetic highs of 57850 gammas and magnetic lows of 57750 gammas. Higher magnetic values occur in intrusives, generally a granodiorite in composition. Lower magnetic values occur in limestone. Most higher magnetic values occur in the central portion. These values can be attributed to the presence of magnetite in the intrusives in the south half of the claim. There appears to be a northwest trend to the anomalies centred at Anomaly 3 located on 3+00W and anomaly 4 located at 2+00W. The location of these dipole and dyke structures coincide with zinc, lead and antimony soil geochem anomalies to the east at B₂. Sphalerite, galena float occurs to the southwest. Dipole A₃ suggests a stringer exists at a depth of 25 metres dipping 45° north. Anomaly A₄ suggests a series of three vertical dyke structures with increasing depth of 20 metres to the south. These structures may relate to a northwest trending igneous - metavolcanic contact or possibly veins containing magnetite associated with silver, sphalerite and galena mineralization. Stringers A₁ and A₂ centred on lines 3+00W-F and 3+00W may relate to magnetic mineralization associated with east/west mineralized shears. Sphalerite, Galena float occurs in the vicinity of these structures.

Anomalies A₅ and A₆ occur within intrusives. Anomaly A₆ suggests an east dipping stringer which may relate to a limestone - intrusive contact.

A strong magnetic dipole occurs on line 4+00E just north of the Waterloo Crown Grant with up to 2270 gammas of relief and is depicted as A₇. The anomaly occurs in the vicinity of a hand dug trench.

A dipole A₈ on line 2+00N may relate to a volcanic limestone contact. Dipole A₉ on line 6+00N occurs in intrusives with up to 1830 gammas of relief. This north/south trending anomaly is coincident with silver and lead soil geochem anomalies.

Anomalies A₁₀ and A₁₁ on line 10+00N-B, both suggest vertical dyke structures. Both structures occur in metavolcanics with up to 265 gammas of relief.

Anomaly A₁₂ occurs on the fine grid centred in the north half of the claim on line 2+10N. This dipole structure suggest a stringer dipping 85°W and having a depth of 7.5 metres. The anomaly exhibits a possible north/south alignment with anomaly A₁₃ to the south and anomaly A₁₀ to the north. This structure maybe related to north/south quartz veining mineralized with pyrite, sphalerite and galena.

CONCLUSIONS

1. Possible vein type sphalerite, galena mineralization with related magnetite or pyrrhotite striking West/Northwest and dipping 45° to the north may occur in the vicinity of B₂ geochemical anomaly.
2. The presence of second order zinc and silver spot anomalies and quartz, galena float as well as sphalerite galena float west of B₂, may indicate the presence of a generally Northeast striking vein.
3. Anomaly C may be an indication of a Northeast trending structure mineralized with gold, pyrite, sphalerite and galena.
4. Anomaly A may represent sphalerite, galena, ruby silver (proustite - pyragarite), tetrahedrite or chalcopyrite mineralization trending to the Northwest. Mineralization may be massive sulphide or vein type.
5. A mag dipole on line 10+00N-B with relief in excess of 1000 gammas over a distance of 50 metres occurs in a swampy area, approximately on strike with the Northeast silver anomaly. This dipole is interpreted as a vertical dyke-like body. This swamp may indicate an area of deep erosion possibly related to softer hydrothermally altered rock.
6. No anomalies occur in the areas mapped and interpreted as limestones.

RECOMMENDATIONS

1. Detail B₂ anomaly with EM 16 or Shootback, Self-Potential or Induced Polarization in an effort to delineate drill targets. Also, persue possibility of a north striking vein-type structure mineralized with sphalerite by using the geophysical methods as mentioned above and complement a fine grid over the anomaly.
2. Use of more sophisticated EM to chase a northeast trending structure at anomaly C that maybe mineralized with sphalerite, galena, gold and proustite. Also, recommended is detailed geochem follow-up of anomaly C including analysis for gold.
3. Detailed geology, prospecting, geochem follow-up and possibly SP and IP should be done on geochem anomaly A.

4. It is recommended that exploration for a possible north extension of silver mineralization be done on line 10+00N-B approximately on strike with the northeast silver anomaly.
5. A detailed magnetometer survey in area of anomalous silver should be carried out in the north central portion of the claim.
6. A Self-Potential survey in vicinity of coincident second order lead zinc anomalies on line 0+00N within anomaly B₁. Also, detailed mapping and prospecting to delineate drill targets at anomaly B₁.
7. In the northeast corner, extend VLF-EM survey to the east to determine any possible crossovers that can be related to the lead geochem anomalies.
8. Close spaced VLF-EM follow-up on lines orientated North/South in close proximity to line 1+00N-B.
9. Copper anomalies in area of line 10+00N-B in the northwest portion may reflect the existence of disseminated-type copper mineralization in the intrusives. Detailed VLF-EM and IP should be done in this area.
10. VLF-EM should be conducted between the arsenic anomaly on line 1+00W and line 6+00W and additional geochem follow-up for arsenic, silver, gold, lead and zinc. These elements may exist in the vicinity, as evidenced by related lead zinc soil geochem anomalies.
11. Detailed mapping and prospecting should be done in all anomalous zones.
12. It is recommended that a north/south traverse line be surveyed to establish the extent of an anomalous zone of antimony at the western end of line 3+00N, plus closed spaced mag, VLF-EM and detailed geological mapping.
13. Spot geochem anomalies should be resampled prospected and mapped.
14. Prospect and trench possible exposure of an 8' wide quartz vein thought to be on the old Potosi Group, having the same strike as the main Waterloo vein.

AUTHOR'S QUALIFICATIONS

BRIAN CALLAGHAN

I graduated from Manitoba Brandon University, in 1980 with a Bachelor of Science Degree in Geology.

The following is a synopsis my employment experience:

June - Oct 1980

Esso Minerals, Canada

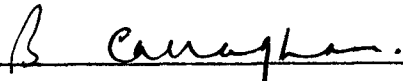
Geological Assistant - exploration in Northern Manitoba, Northern Saskatchewan, MacKenzie, B.C. and various properties in the Stewart area of B.C. including the Grande Duc Mine.

February 1981 - Present

Mohawk Oil Co. Ltd.

Exploration Geologist - responsible for geological exploration, report preparation, supervision of geological, geochemical and geophysical surveys.

SEPTEMBER 30, 1983



Brian Callaghan

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G.S.C. Annual Report 1930, Part A. pages 79A - 115A.
4. Callaghan, B. - Geological and Geochemical Report on the L.P. Mineral Claims L.P. 2 - 19, 21, Fr, 23, Fr, 25. Vernon Mining Division, April 1982 Assessment Report.
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G.S.C. Map 6 - 1957, Sheet 82E (East). Scale 1:253,440

APPENDIX I

Very Low Frequency Electromagnetic Survey - Instrumentation and Theory

A VLF-EM receiver, Model 27, manufactured by Sabre Electronics was used for the VLF-EM surveys. A transmitter located in Hawaii, U.S.A. and Annapolis, U.S.A. was used. The instrument measures the magnetic component of a very low frequency (VLF) electromagnetic (EM) field. The dip angles were measured on grid lines with the instrument oriented towards Hawaii and Annapolis. The VLF radio transmission from Hawaii and Annapolis produce an alternating magnetic field (primary). If a conductive mass such as a sulphide body or clay filled fault zone is within the magnetic field, a secondary alternating current is induced within it which in turn induces a secondary magnetic field that distorts the primary magnetic field. It is this distortion that the EM receiver measures. The VLF-EM uses a frequency range from 16 - 24 KHz. whereas most EM instruments use frequencies ranging from a few hundred to a few thousand KHz. Because of its relatively high frequency, the VLF-EM can pick up bodies of a much lower conductivity and therefore is more susceptible to clay beds, electrolyte-filling fault or shear zones and porous horizons, graphite, carbonaceous sediments, lithological contacts as well as sulphide bodies of too low a conductivity for other EM methods to pick up.

Consequently, the VLF-EM has additional uses in mapping structure and in detecting sulphide bodies of too low a conductivity for conventional EM methods and too small for induced polarization (in places it can be used instead of IP). However, its susceptibility to lower conductive bodies results in a number of anomalies, many of them difficult to explain and, thus, VLF-EM preferably should not be interpreted without a good geological knowledge of the property and/or other geophysical and geochemical surveys.

Subsequent to the collection of dip angle measurements at each station on the grid lines the data is "Fraser Filtered". The dip angle measurements for Hawaii and Annapolis are treated separately. North to Northeast striking structures should respond better to the Hawaiian signal and West or Northwest striking structures should respond best to the Annapolis signal.

The Fraser Filter is essentially a 4-point difference operator which transforms zero crossings into peaks, and a low pass smoothing operator which reduces the inherent high frequency noise in the data. Therefore, the noisy non-contourable data are transformed into contourable data. Another advantage of this filter is that a conductor that does not show up as a cross-over on the unfiltered data quite often will show up on the filtered data.

Profiles of the filter data were prepared for Hawaii and Annapolis separately. These plots were then analyzed and structures interpreted and possible zones of sulphide mineralization or clay alteration identified.

APPENDIX II

Magnetic Surveys - Instrumentation and Theory

The instrument used to perform the magnetic surveys was a proton precession magnetometer, model MP-2 manufactured by Scintrex. This instrument measures the magnitude of the total magnetic field at any given point on the surface. The total field is the sum of the external field and the internal field within and surrounding the material being measured. The magnetometer sensor consists of a chamber filled with a proton rich fluid enclosed within two wire wound coils. When a current passes through these coils for a short period of time a magnetic field is set up which aligns the spinning protons. When this polarizing current is abruptly switched off, the protons begin to precess around the earth's magnetic field and eventually re-align with it. This precession induces a small, exponentially decaying, AC signal in the sensor coils whose frequency is proportional to the flux of the ambient magnetic field. This frequency is measured, converted to gammas and presented on the digital display of the instrument.

The surveys consist of measuring accurately the resultant magnetic field of the earth's magnetism acting on rock formations having different magnetic properties and configurations. The resultant field is the vector sum of induced and remanent magnetism.

Thus there are three factors, excluding geometrical factors, which determine the magnetic field at any particular locality. These are the strength of the earth's magnetic field, the magnetic susceptibility of the rocks present and their remanent magnetism.

Magnetic surveys are useful in conjunction with geological mapping and for exploration for magnetically susceptible minerals. Interpretation of magnetic profiles and maps can assist in interpretation of rock type distribution and the locations of structural features. Often magnetic minerals such as magnetite,

pyrrhotite or ilmenite are associated with the mineral deposits which are sought or there may be a depletion of such minerals. Either case can assist in mineral exploration.

APPENDIX III

ITEMIZED COST STATEMENT - JON CLAIM

<u>PERSONNEL</u>	<u>DUTIES/ POSITION</u>	<u>DAYS WORKED</u>	<u>PAY SCALE</u>	<u>TOTAL COST</u>
K. Lyons	VLF-EM/ Geophysics Assist.	39	\$85/day	\$ 3,315.00
C. Nagati	Geology & Geochem/ Geologist	27	\$95/day	2,565.00
B. Callaghan	Project Supervision/ Project Geologist	26	\$110/day	2,860.00
W. Kirkman	Magnetometer/ Geophysist	45	\$95/day	4,275.00
D. Newton	Geochem & Surveying/ Geologist Tech.	11	\$90/day	990.00
S. Maltby	Geochem & surveying/ Geological Tech	9	\$90/day	810.00
K. Lindstrom	Geochem & Geology/ Geological Assist.	8	\$80/day	640.00
T. Barkiewicz	Geochem & Geology/ Geol. Assist.	10	\$85/day	850.00
H Mah	Geochem & Geology/ Geol. Assist.	6	\$80/day	480.00
B. Timler	Geochem & Geology/ Geol. Assist.	22	\$85/day	1,870.00
M. Waldner	Supervision/ Chief Geologist	5	\$225/day	<u>1,125.00</u>
			Total	<u>\$19,780.00</u>

<u>ITEM</u>	<u>RATE</u>	<u>TASK COMPLETED</u>	<u>TOTAL</u>
Room, Board	\$30/man/day	208 man days	\$ 6,240.00
D-6 Bulldozer and operator	\$56/hr	67 hours trenching and road work	3,752.00
Camp Mobilization and Demobilization	20% of total cost		1,414.54
Materials & Supplies	Exploration Equipment, Drafting Supplies, etc.		500.00
VLF-EM	\$15/day	30 days on survey	450.00
Magnetometer	\$25/day	30 days survey	750.00
4X4 Crewcabs Pickup	\$35/day	10 days transporting crews and equipment	350.00
Geochem Soil & Samples	\$8.50/sample	Pb, Zn, Ag, Cu, Sb, As determinations 735 samples	6,247.50
EDM Survey Instruments	\$25/day	1 day surveying and tying claims	25.00
Rock Samples	\$33/Sample	Cu, Au, Ag, Zn, Assaying 28 samples	924.00
	\$7.50/sample	Ni Assay, 2 samples	15.00
Assaying	\$19/sample	Cu, Au, Ag, assays 1 sample	19.00
Rock Geochem samples	\$9.45/sample	Cu, Pb, Zn, Au, Ag analyses 10 samples	94.50
Freight charges		shipping rock & soil soil samples	110.00
Drafting	\$12/day	160 hours, draughting	1,920.00
Map Preparation			
Interpretation & Report Rep	(B. Callaghan - 33 days @ \$110/day) (M. Waldner - 6 days @ \$225/day)		3,630.00 1,350.00
Typing and copying			450.00
		Total	<u>28,241.54</u>
		Grand Total	<u><u>\$48,021.54</u></u>

Field work performed between July 23rd and October 10th, 1982.

Interpretation of results, map preparation and report preparation done between February 11th, and September 30, 1983.

APPENDIX IV
VLF-EM - FIELD NOTES

		(H)	(A)
5100E	9+60		
(East)	9+75		
	9+90		
2100E	0+00	(H)	
(East)	0+15	+17	
	0+30	+10	21
	0+45	+5	7
Gully	0+60	+1	3
	0+75	+7	12
	0+90	-4	9
	1+05	0	11
	1+20	-6	11
	1+35	-7	2
Cairn	1+50	-8	-1
	1+65	-9	-7
	1+80	-7	-16
	1+95	-3	-18
	2+10	+3	-14
	2+25	+5	-4
Gully	2+40	+9	11
	2+55	+3	19
		0	16

creek (water)

Sept 27/82 Cont.			
		(H)	
2100E	2+70	-7	7
(East)	2+85	-6	5
	3+00	-8	19
	3+15	0	-16
	3+30	+5	-4
	3+45	+3	-2
	3+60	+6	6
	3+75	+4	16
	3+90	-1	19
	4+05	-5	17
	4+20	-11	8
	4+35	-12	10
	4+50	-12	24
	4+65	-21	26
	4+80	-27	14
W. Creek	4+95	-32*	-3
	5+10	-30	-16
	5+25	-26	-21
	5+40	-20	-23
	5+55	-15	-19
Gully	5+70	-8	-10
	5+85	-8	-12
	6+00	-5	-17

-15

H

Line
3+00E
(East)

6+00S	-15	-8
6+15S	-15	-10
6+30	-11	-9
6+45	-9	-7
6+60	-8	-8
6+75	-5	0
6+90	-4	8
7+05	-9	3
7+20	-8	-2
7+35	-8	-4
7+50	-7	-7
7+65	-5	-13
7+80	-3	-19
7+95	+4	-15
8+10	+7	2
8+25	+9	13
8+40	0	-1
8+55	+3	-13
8+70	+7	-8

✓ Dates: Sept 26/82

Weather: Rain

Claim: Ion (South)



(H)

3+00E (East)	8+85S	+9	6
	9+00S	+9	17
	9+15S	+1	11
	9+30S	0	3
	9+45	-1	0
	9+60	-1	
	9+75	0	
	9+90		

FOL 9+80

5+40	-13
5+55	-17
5+70	-18

✓	3100E	6460	-3	-8	18
		6475	-1	-8	18
		6490	+1	-4	4
		7105	+3	0	0
		7120	+1	0	0
		7135	+3	2	2
		7150	+1	2	2
		7165	+1	0	0
		7180	+1	-3	3
		7195	+1	-8	8
		8110	+4	-10	10
		8125	+6	-8	8
		8140	+9	-1	1
		8155	+9	4	4
		8170	+7	2	2
		8185	+7	1	1
		9100	+7	1	1
		9115	+6	0	0
		9136	+7	4	4
		9145	+6	8	8
		9160	+3	3	3
		9175	+2		
		9190	+4		

(A)

10100S	2450E	+3	(A)
	2435	+4	
	2420	+5	
	2405	+5	
	1490	0	
	1475	0	
	1450	-5	
	1435E	-1	
	1420E	0	

10100	7105	-3	(A)	-5
	6490	-4		-5
	6475	-5		-7
	6460	-5		-9
	6445	-6		-6
	6430	-5		-1
	6415	-5		0
	6400	-4		-1

34006

(A)

(A)

3400E

6115

6130

6145

(A)

17
-8
-5

13
-7
-9

4
3
7
9

Date: July 28/82 ✓

Weather: ☀

①

3100E ✓

0100S

(F1) -3

0115S

-1

-12

12

0130

+4

-4

4

0145

14

7

7

0160

+3

12

0175

-2

7

0190

-3

4

1105

-3

7

1120

-6

6

1135

-7

-1

1150

-8

-1

-11

+3

0

0

+3

6

6

+1

-1

3

-1

1

-2

0

-1

-1

-2

0

0

2

-3

-3

(East)	(H)	H	H	H
6+75	-7	-13	-12	-15
4+00E 6+90	-1	1	-4	-5
7+05	-4	6	-4	8
7+20	-5	0	-7	3
7+35	-6	-5	-9	-11
7+50	-3	-3	-5	-14
7+65	-3	-4	0	-2
7+80	-3	-7	0	4
7+95	+1	-1	-3	-2
8+10	0	0	-1	-9
8+25	-1	-6	0	-9
8+40	+2	-4	+5	-1
8+55	+3	-2	+3	-4
8+70	+2	-3	+3	-12
8+85	+5	1	+9	-4
9+00	+3	4	+9	3
9+15	+3	6	+7	3
9+30	+1	7	+8	8
9+45	-1	4	+5	10
9+60	-2	2	+2	6
9+75	-2	-2	+1	2

Sept 26/82 Cont.

4+00E (East)	9+90	(H) -3	(H) 0	
	10+05	+1	+1	
5+00E (East)	0+00S	-7	+3	
	0+15S	-7	+1	10 10
	0+30S	-10	-2	8
	0+45S	-12	-4	5
	0+60	-13	-5	4
	0+75	-13	-6	3
	0+90	-14	-7	3
	1+05	-13	-7	5
Ccamp	1+20	-15	-9	6

↓ ↓ Sept 26/82 Cont.

Line	0	(H)		(O)	
4005 (East)					
			F 02	4005	
1+05	+7			+4	
1+20	-1	17		+1	15
1+35	-6	6		-5	8
1+50	-5	4		-5	4
1+65	-8	2		-7	2
1+80	-7	2		-7	0
1+95	-8	3		-7	1
2+10	-9	3		-7	3
2+25	-9	2		-8	5
2+40	-11	-2		-3	1

Sept 26/82 Cont.

Stoo E (East)	(H)		(A)	
6130	-5	3	-7	0
6145	-7	0	-6	-2
6160	-8	-5	-6	-6
6175	-4	1	-5	-7
6190	-6	5	-1	3
7105	-7	2	-3	6
7120	-8	-3	-6	-2
7135	-7	-3	-4	-4
7150	-5	1	-3	0
7165	-7	1	-3	-2
7180	-6	-1	-4	-8
7195	-7	-1	0	-5
8110	-5	1	+1	2
8125	-7	1	0	1
8140	-6	1	-1	-4
8155	-7	-1	+1	-6
8170	-7	-3	+2	-6
8185	-5	-1	+4	-2
9100	-6		+5	
9115	-5		+3	

4
0
2
8
5
2
1
4
6
6
2

F.O.L 9+15

(H)	(H)
-7	-7
0	-3
-2	-2
-2	1

Stoo E (East)	5185	6100	6115
-7	-7	-7	-5
0	-2	-2	
-2			

Thunder

6100E

	(H)		(A)	
10105 S	-3		+1	
9+90 S	-3		+1	
9+75	-3	0	+1	2
9+60	-3	-2	-1	
9+45	-5	-6	-2	-7
9+30	-7	-5	-5	-6
9+15	-6	2	-4	0
9100	-4	5	-3	5
8+85	-4	0	-1	1
8+70	-6	-2	-5	-6
8+55	-4	3	-5	2
8+40	-3	4	+1	10
8+25	-3	0	-1	0
8+10	-4	-1	-3	-6
7+95	-3	2	-3	0
7+80	-2	1	-1	3
7+65	-4	-7	-2	0
7+50	-8	-10	-2	-2
7+35	-8	-9	-3	-8
7+20	-13	-11	-9	-14
7+05	-14	-5	-10	-7
6+90	-12	4	-9	3
6+75	-11	7	-7	8

2
5
7
6
0

?

4100W
(West)

9175	-2
9190	-5
10005	-6
10025	-7
10135	-6
10250	

FOL 10+605

2
5
1

(H)

14

(A)

Base	4105W	+9		+4
Line	3790	+11	-6	+11
0100	3775	+13	1	+13
	3760	+13	9	+12
	3745	+10	12	+13
	3730	+7	10	+7
	3715	+4	7	+5
	3700	+3	7	+3
	2785	+1	8	+1
	2770	-1	7	0
	2755	-3	3	-2
	2740	-4	1	-3
	2725	-3	0	-4
	2710	-5	-2	-2
	1795	-2	-2	-3
	1780	-4	-6	-4
	1765	-1	-9	-1
	1750	+1	-6	0
	1735	+3	0	+1
	1720	+3	6	+2
	1705	+1	3	+2
	0790	-1	2	-2
	0775	+2	6	-1

10
1
-5
-13
-12
-8
-7
-6
-6
-5
-1
2
-1
0
6
6
4
3
-3
-7
-3

4100W
(West)

2+85
3+100
3+115
3+30
3+45
3+60
3+75
3+90
4+05
4+20
4+35
4+50
4+65
4+80
4+95
5+10
5+25
5+40
5+55
5+70
5+85
6+00
6+15

(A)

+4 -5
+8 -2
+7 -10
+7 -4
+8 -11
+10 -16
+16 -12
+18 -6
+20 -3
+20 -4
+21 -2
+23 7
+20 14
+17 19
+12 12
+6 1
+11 6
+16 11
+5 7
+11 -7
+13 -21
+10 -22
+15 -19

4100W
(West)

6+30
6+45
6+60
6+75
6+90
7+05
7+20
7+35
7+50
7+65
7+80
7+95
8+10
8+25
8+40
8+55
8+70
8+85
9+00
9+15
9+30
9+45
9+60

(A)

+20 -9
+24 9
+20 16
+15 10
+13 9
+12 18
+7 30
0 27
-11 27
-9 4
-6 -5
-9 8
-14 13
-14 8
-17 9
-17 4
-21 -5
-19 -11
-16 -11
-13 -11
-11 -11
-7 -2
-6 5

W.L. Creek →

300W
(West)

(A)

6+30
6+45
6+60
6+75
6+90
7+05
7+20
7+35
7+50
7+65
7+80
8+95
8+10
8+25
8+40
8+55
8+70
8+85
9+00
9+15
9+30
9+45
9+60
9+75
9+90
10+05
10+20N
10+35N

(A)

+2 -18
-5 -16
-4 0
-2 11
+1 7
+1 -2
+3 6
+5 8
+7 4
+5 -3
+4 -2
+6 -3
+6 2
+6 4
+10 9
+11 0
+9 -7
+9 4
+11 10
+13 13
+10 -7
+7 -12
+4 -12
+1 -10
-4 -6
-2 4
+1

SFH

400W
(West)

0+00
0+15
0+30S
0+45
0+60
0+75
0+90
1+05
1+20
1+35
1+50
1+65
1+80
1+95
2+10
2+25
2+40
2+55
2+70

(A)

+4
+4 -4
+5 -5
+7 1
+7 9
+4 7
+1 0
+3 -3
+2 -1
+5 1
+11 0
+5 8
+1 9
-3 -1
0 -4
-1 -4
+2 -6
+1 -7
+6 -5

3+00W	0+00
(West)	0+15N
	0+30
	0+45
	0+60
	0+75
	0+90
	1+05
	1+20
	1+35
	1+50
	1+65
	1+80
	1+95
	2+10
	2+25
	2+40
	2+55
	2+70
	2+85
	3+00

Cont?

cc
calculated

-12
 (A)
 -15
 -6 15
 -7 3
 -11 -4
 -10 5
 -7 5
 -9 1
 -7 -2
 -11 -4
 -9 2
 -7 6
 -7 4
 -5 2
 -7 -4
 -9 -10
 -13 -11
 -14 -6
 -14 3
 -10 6
 -12 5
 -7 15

Date: Sep 27
 Weather: Clouds (Cold)
 Ch.: Jon (South)

3+00W	3+15
(West)	3+30
	3+45
	3+60
	3+75
	3+90
	4+05
	4+20
	4+35
	4+50
	4+65
	4+80
	4+95
	5+10
	5+25
	5+40
	5+55
	5+70
	5+85
	6+00
	6+15

(A)
 0 24
 +5 22
 +10 18
 +13 10
 +12 8
 +19 15
 +21 9
 +19 -11
 +10 -21
 +9 -13
 +7 -6
 +6 -3
 +7 0
 +6 1
 +8 4
 +9 9
 +14 12
 +15 8
 +16 -3
 +10 -16
 +5 -19

		(A)	
2100W	3100S	-3	14
(West)	3175	-7	6
	3190	-7	3
	4105	-9	-1
	4120	-8	-7
	4135	-7	-14
	4150	-3	-16
	4165	+2	-13
	4180	+4	-9
	4195	+8	-6
	5110S	+7	-7
	5125S	+11	-6
	5140S	+11	-7
	5155	+13	-7
	5170	+16	-7
	5185	+15	-10
	6100	+21	-1
	6115	+20	9
	6130	+17	8
	6145	+15	10
	6160	+14	16
	6175	+8	16
	6190	+5	8
	7105S	+1	-5

		(A)	
2100W	7100S	+4	-7
(West)	7135	+7	19
	7150	+5	37
W. Creek	7155	-13	10
	7160	-12	-19
	7195	-6	-11
	8110	0	6
	8125	-7	5
	8140	-5	0
	8155S	-7	-2
	8170S	-5	1
	8185S	-5	1
	9100	-8	-2
	9115	-3	10
	9130	-8	20
	9145	-13	8
	9160	-18	-5
	9190	-11	-3
	10105	-15	-5
	10120	-11	-5
	10135	-10	-
	10150S	-11	-

37
10 ← W.ck

5

		(H)	
Hoof	6+90	-13	-25
(East)	7+05	-10	-33
	7+20	+1	-25
	7+35	+9	3
	7+50	+7	9
	7+65	0	6
Gully	7+80	-3	10
	7+95	-6	7
	8+10	-7	4
	8+25	-9	0
	8+40	-8	-2
	8+55	-8	-2
	8+70	-7	-1
	8+85	-7	0
	9+00	-7	2
	9+15	-7	6
	9+30	-9	7
	9+45	-11	5
	9+60	-12	5
	9+75	-13	0
	9+90	-15	
	10+05	-10	

F 0 L 10+100

Limestone

		(A)	
2+00W	0+00	-5	
(West)	0+15S	-3	-4
	0+30	-5	-10
	0+45	+1	-8
	0+60	+1	-8
	0+75	+3	-14
	0+90	+7	-14
	1+05	+11	-4
	1+20	+13	8
	1+35	+9	2
	1+50S	+7	-11
	1+65S	+13	-6
	1+80S	+14	7
	1+95	+12	11
	2+10	+8	-2
	2+25	+7	-14
	2+40	+15	-4
	2+55	+14	5
	2+70	+12	3
	2+85	+12	6
	3+00	+11	11
	3+15	+7	10
	3+30	+5	12
	3+45S	+3	18

	(H)	(H)	
1+00 E	0100	-2	
(East)	0115	+1	-21
	0130	+7	-20
	0145	+13	-11
	0160	+15	-5
	0175	+16	-5
	0190	+17	-3
	1105	+19	2
	1120	+17	0
	1135	+17	0
	1150	+19	8
	1165	+15	10
trench	1180	+13	9
	1195	+11	8
	2110	+8	4
	2125	+8	-1
	2140	+10	3
	2155	+7	2
	2170	+8	1
	2185	+7	1
	3100	+7	0
	3115	+7	3
	3130	+7	7

		(H)	
1+00 E	3145	+4	8
(East)	3160	+3	11
	3175	0	11
	3190	-4	3
	4105	-4	-2
	4120	-3	-2
	4135	-3	-5
	4150	-2	1
	4165	+1	11
	4180	-7	13
	4195	-5	18
	5110	-14	5
	5125	-16	10
	5140	-18	17
W.L. Creek	5155	-22	10
	5170	-29	-8
	5185	-21	-11
	6100	-22	-4
	6115	-17	2
-creek	6130	-15	19
	6145	-26	5
	6160	-25	-17
	6175	-21	-23

2100E
(East)

6115	(H) +1	-11
6130	+3	3
6145	+4	16
6160	-3	11
6175	-6	2
6190	-4	4
7105	-7	3
7120	-7	2
7135	-7	6
7150	-9	4
7165	-11	-2
7180	-9	-1
7195	-9	1
8110	-10	-2
8125	-9	0
8140	-8	6
8155	-11	6
8170	-12	4
8185	-13	4
9100	-14	5
9115	-15	0
9130	-17	-9
9145	-12	-11

Sept 27/82 Cont

2100E	(H) 9160	-11	-10
(East)	9175	-7	-3
	9190	-6	r
	10105	-9	

Sept 27/82

Weather: clouds & Sun.

Claim: Jon.

- Deep Gully (Nocoy) (prob Paul?)

HOON
(North)

4180W	(H) +5	18	(A) +1	-2
4195	0	18	+3	0
5+10	-6	8	+1	1
5+25	-7	-13	+3	1
5+40	-7	-13	0	-10
5+55	+7	(16)	+3	-19
5+70	-8	13	+10	-8
5+85	-8	-3	+12	5
6+00	-6	-4	+9	8
6+15	-7	-7	+8	8
6+30	-3	-10	+5	6
6+45	-3	-5	+4	6
6+60	+3	7	+3	5
6+75	-4	3	0	4
6+90	-3	-3	+2	7
7+05	-1	3	-3	2
7+20	-3	7	-2	1
7+35	-4	5	-1	8
7+50	-7	0	-5	4
7+65	-5	-2	-6	-4
7+80	-6		-4	
7+95	-4		-3	

7
2
1
8
4
4

		(H)		(A)	
1400N	210	+4	4	+8	4
(North)	1495	+3	6	+4	9
	1480	+2	7	+3	4
Bully	1465	-1	3	0	0
	1450	-1	-1	+3	2
	1435	-1	-3	0	2
	1420	0	-3	+1	1
	1405	+1	-1	0	0
	0490	+1	-2	0	0
	0475	+1	-6	+1	3
	0460	+3	-7	-1	0
	0445	+5	-5	-1	-6
	0430	+6	-5	+1	-10
	0415E	+7	-4	+3	-10
	0400	+9	-3	+7	-8
	0415W	+8	-3	+7	-4
	0430W	+11	0	+11	3
	0445W	+9	1	+7	5
	0460	+10	5	+8	7
	0475	+9	10	+5	9
	0490	+5	5	+3	4
	1405	+4	2	+1	0
	1420	+5	7	+3	4

		(H)		(A)	
1400N	1405 1405	+2	6	+1	8
(North)	1450W	0	2	-1	2
	1465W	+1	1	-3	-6
	1480	-1	-3	+1	-6
	1495	+1	-2	+1	1
	2110	+2	1	+3	8
	2125	0	1	-2	8
	2140	+2	2	-2	7
	2155	-1	-3	-5	3
	2170	+1	1	-6	-3
	2185	+3	9	-4	-3
	3100	-4	3	-4	0
	3115	-1	-3	-3	-1
	3130	-3	-9	-5	-7
"Kup"	3145	+1	-9	-1	-6
	3160	+4	-3	0	-4
	3175	+3	-5	0	-10
	3190	+5	-5	+3	-7
	4105	+7	-5	+7	7
	4120	+9	-1	+3	11
	4135	+8	1	0	3
	4150	+9	5	-1	-3
	4165	+7	11	+1	-4

3+00 N
(North)

	(A)		(A)	
4+05 E	-15	-3	+1	1
4+20 E	+3	-3	+3	-1
4+35 E	+5	2	-2	-8
4+50	+5	2	-2	-1
4+65	+5	-2	+2	6
4+80	+3	-3	0	-3
4+95	+4	-1	-3	-6
5+10	+3	0	-1	1
5+25	+4	0	-1	3
5+40	+3	1	0	2
5+55	+5	5	0	6
5+70	+7	7	+5	8
5+85 E	+8	3	+3	-1
6+00	+7	2	+1	0
6+15	+10	4	+7	6
6+30	+9	-1	+3	1
6+45	+7	-2	+6	-3
6+60	+10	0	+1	-8
6+75	+6	-8	0	-8
6+90	+3	-6	-1	-2
7+05	+7		0	

Gully

Tealberry

Line
1+00 N
(North)

	(A)		(A)	
5+65 E	+5		-1	
5+90	-1	0	-3	-2
5+25	0	-10	-4	-10
5+10	+4	-2	+2	-6
4+95	+5	5	+1	-2
4+80	+1	2	+3	5
4+65	+3	0	+2	12
4+50	+1	-3	-3	6
4+35	+3	-5	+4	-1
4+20	+4	-3	-3	-4
4+05	+5	-3	-3	-2
3+90	+5	-4	0	4
3+75	+7	0	-4	0
3+60	+7	1	-3	-9
3+45	+5	-4	-1	-11
3+30	+8	-4	+3	-5
3+15	+8	0	+4	1
3+00	+9	3	+3	2
2+85	+7	2	+3	1
2+70	+7	0	+2	-3
2+55	+7	2	+3	-3
2+40	+7	5	+5	-3
2+25	+5	5	+3	-4

creek

		(M)		(A)	
3+00N	3+15W	-3	16	0	6
(North)	3+00W	+5	22	+1	8
	2+85W	+7	14	+7	17
	2+70W	+9	1	+11	10
	2+55	+2	-13	+7	-10
	2+40	+1	-7	+1	-16
	2+25	+3	6	+1	-4
	2+10	+6	9	+3	8
	1+95	+7	5	+7	11
	1+80	+7	2	+8	7
	1+65	+8	0	+9	-3
	1+50	+6	-3	+3	-4
	1+35	+6	-5	+10	2
	1+20	+3	-5	+4	-4
	1+05	+4	-1	+5	-6
	0+90	+4	-2	+3	-2
	0+75	+1	-7	+4	-3
	0+60	0	-4	+1	-3
	0+45	+1	1	+3	1
	0+30	+1	-1	+3	2
	0+15W	+1	-1	+3	2
	0+00	0	-2	+5	-1
	0+15E	0	-1	0	-4
	0+30E	0	3	+4	4

		(F)		(A)	
3+00N	0+45	+3	6	+5	11
(North)	0+60	+3	3	+10	1
2+10W	0+75	+3	1	0	-15
(LO160N)	0+90	+4	2	0	-8
1+80W	1+05	+4	3	+2	1
	1+20	+6	1	-1	-2
	1+35	+3	-7	+1	1
	1+50	+0	-6	+1	-1
	1+65	+3	4	-2	-4
	1+80	+4	5	0	1
	1+95	+4	1	0	0
	2+10	+4	-2	-2	-7
	2+25	+2	-4	-5	-3
	2+40	+2	-3	-3	3
	2+55	+1	-3	0	-1
	2+70	+0	-1	-4	-3
	2+85	+2	6	-2	7
	3+00E	+5	7	+5	12
0+30E	3+15	+4	3	+1	-1
	3+30	+6	2	+1	-2
	3+45	+5	1	+3	2
	3+60	+6	0	+1	-1
	3+75	+5	0	+2	-1
	3+90	+6	0	+1	-1

✓

	(H)	(A)	
7toon 6+15W	711	19	+5
6+30	+5	9	+3
6+45	+1	-3	+5
6+60	+6		+7
6+75	+3		+8

E.02 6+70 W

Line 2toon
20m S of Line 3toon

(Sept 25 cont)

Line	(H)	(A)	
3toon 6+45W	+6	+3	
(North) 6+30W	+7	+3	
- R. Creek. 6+15W	+6	+5	-4
6+00	+3	+5	-9
5+85	+1	0	-13
5+70	-5	-5	-11
5+55	-2	-9	1
5+40	-1	+2	0
5+25	-6	-1	-7
5+10	-4	+4	3
4+95	0	+5	9
4+80	-1	+7	1
4+65	-2	+5	-4
4+50	-3	+7	-5
4+35	-5	+9	-5
4+20	-5	+10	-6
4+05	-9	+11	-10
3+90	-11	+6	-7
3+75	-10	+1	-1
3+60	-11	-3	3
3+45	-7	-5	7
3+30	-7	0	8

4
-3
-15
-19
-2
15
10
8
3
0
4
7
5
-2
-14
-19
-15
-3
0

		(H)		(I)	
7:00N	0175E	0	-2	+1	-1
(North)	0160E	+3	0	+1	-3
	0145E	+1	1	+4	3
	0130E	+2	5	+1	-1
	0115E	+1	6	+1	-1
	0100	-3	-4	+5	5
	0115W	0	-14	-2	-7
	0130W	+2	-19	+3	-14
	0145W	+9	-7	+7	-7
	0160W	+12	10	+8	-2
	0175W	+6	3	+9	-3
	0190W	+5	-6	+8	-5
Gully	1105W	+10	2	+12	6
	1120W	+7	6	+10	11
R. gully	1135	+6	8	+4	10
	1150	+5	22	+7	19
	1165	0	28	-3	14
	1180	-11	20	-5	3
	1195	-12	13	-5	3
	2110	-19	-1	-6	1
	2125	-17	-14	-7	-10
	2140	-13	-13	-5	-11
	2155	-9	-7	+2	-1

		(H)		(A)	
7:00N	2170W	-8	-1	-3	1
(North)	2185	-7	-1	+1	3
	3100	-9	-8	-3	0
	3115	-5	-13	-2	-8
	3130	-3	-8	0	-10
	3145	+2	1	+3	-9
	3160	-2	8	+5	-12
	3175	0	13	+7	-15
	3190	-8	4	+13	-5
	4105	-7	-13	+14	11
	4120	-5	-8	+11	21
Gully	4135	+3	14	+5	24
	4150	-7	12	-1	10
	4165	-9	-2	-7	-3
	4180	-7	-10	+1	7
	4195	-7	-18	-6	9
	5110	+1	-20	-7	-6
	5125	+3	-22	-7	-14
R. Creek	5140	+11	-12	0	-14
	5155	+15	2	0	-15
Top R. gully	5170	+11	-1	+7	-8
R. Creek	5185	+13	-1	+8	3
	6100	+14	11	+7	7

Line		(H)		(A)	
7:00 N	7+05E	+3		+1	
(North)	6+90E	-1	-2	+3	-2
	6+75	+2	4	+1	-2
	6+60E	+2	16	+5	7
	6+45E	-5	14	+1	12
	6+30	-7	7	-2	10
	6+15	-10	5	-4	10
	6+00	-9	5	-7	7
	5+45	-13	-10	-9	-5
	5+70	-11	-23	-9	-16
P. Rd	5+55	-1	-6	-2	-6
	5+40	0	10	0	0
	5+25	-6	6	-5	8
	5+10	-5	-1	-7	-1
	4+95	-7	-3	-6	-5
	4+80	-3	1	-5	-3
	4+65	-6	0	-3	5
	4+50	-5	-2	-5	7
	4+35	-4	-1	-8	-1
	4+20	-5	-7	-7	-7
	4+05	-3	-10	-5	-4

(10)

Date: Sept 25/82
 Weather: Clear (Fog after 10:00am) Rain
 Claim: Jon (North)

		(H)		(A)	
7:00 N	3+90E	+1	-2	-3	0
(North)	3+75	+1	0	-5	1
	3+60	-1	-4	-3	-5
	3+45	+3	0	-6	-5
	3+30	+1	0	+3	8
	3+15	+1	2	-7	4
	3+00	+3	8	-4	-5
	2+85	-3	6	-4	-6
	2+70	-1	4	-2	-9
	2+55	-5	4	0	-8
	2+40	-3	6	+3	2
	2+25	-7	7	+3	7
	2+10	-7	-1	-2	4
	1+95	-10	-12	+1	5
	1+80	-3	-12	-4	0
	1+65	-2	-7	-2	-3
Gully	1+50	+1	-7	-1	2
	1+35	+1	-9	-2	5
	1+20	+5	-2	-3	-3
	1+05	+6	9	-5	-12
	0+90	+2	5	+3	-4

Line		(H)	
2100N	6190	+1	
	6175	+4	-4
	6160	+5	0
	6145	+4	-1
	6130	+5	-3
	6115	+5	-4
	6100	+7	-5
	5185	+7	-7
	5170	+10	-3
	5155	+11	2
	5140	+9	3
	5125	+10	6
	5110	+7	7
	4195	+6	3
	4180	+4	0
	4165	+6	-1
	4150	+4	-2
	4135	+7	2
	4120	+5	5
	4105	+4	5
	3190	+3	3
	3175	+1	-2
	3160	+3	-1

		(H)	
2100N	3145	+3	4
	3130	+2	4
	3115	0	
	3100	+1	

		(H)		(A)	
9100N	0175	-1	2	-5	5
	0180	+1	3	+1	7
	0195	0	-9	-3	-1
	0130	-9	-15	-2	-4
	0115	-5	-1	-4	0
	0100	-5	6	-1	7
	0115E	-3	4	+2	9
	0130	-3	7	+2	1
	0145	+2	11	0	-1
	0160	+3	7	+3	4
	0175	+3	1	+3	2
	0190	+3	-1	+2	-2
	1105	+2	-1	+2	-1
	1120	+3	-1	+2	-3
	1135	+1	-2	-1	-5
	1150	+2	1	0	0
	1165	+3	5	+1	5
	1180	+5	5	+3	1
	1195	+5	2	-1	-3
	2110	+5	2	+2	1
	2125	+7	2	+1	2
	2140	+5	-3	+2	-6
	2155	+4	-3	-5	-7
	2170	+5	-1	+1	5
	2185	+3	-3	+1	7

		(H)		(A)	
9100N	3100	+3	-1	+2	1
(North)	3115E	+4	1	+1	-2
	3130E	+3	-1	0	0
	3145E	+3	-2	+3	5
	3160	+2	-4	+3	3
	3175	0	-4	+3	-1
	3190	+1	-2	+2	-1
	4105	-1	-3	+3	-5
	4120	-1	-3	-3	-5
	4135	-2	-1	+3	2
	4150	-1	1	-1	-3
	4165	-1	-1	-2	-5
	4180	-3	-2	-1	-1
	4195	-1	0	-1	2
Swamp	5110	-3	-1	0	3
	5125	-2	-1	+1	3
	5140	-3	-1	+1	0
	5155	-3	-2	0	-3
	5170	-4	-3	-1	-2
	6100	-5		0	

EOL 6 to 0 E

		(H)		(I)	
9:00N	7+95W	+12		+10	
North	7+80W	+9		+12	
clock	7+65W	+7	-10	+13	$3\frac{3}{4}$
	7+50W	+4	-7	+12	-4
	7+35	+5	-2	+19	-7
	7+20	+4	2	+9	-5
	7+05	+7	4	+7	-4
	6+90	+6	2	+7	-2
	6+75	+7	3	+7	1
	6+60	+9	6	+8	3
	6+45	+10	5	+9	3
	6+30	+11	2	+9	3
	6+15	+10	2	+11	6
	6+00	+13	6	+13	8
Slope	5+85	+14	6	+15	4
	5+70	+15	3	+13	-3
	5+55	+15	1	+12	-4
	5+40	+15	-1	+12	-3
clock	5+25	+14	-5	+10	-4
	5+10	+11	-8	+10	-5
	4+95	+10	-7	+7	-4
	4+80	+8	-8	+9	0
	4+65	+5	-6	+8	-1
8:47	4+50	+7	0	+7	-3

		(H)		(A)	
9:00N	4+35	+6	-1	+7	0
	4+20	+5	-3	+8	-2
	4+05	+5	-4	+4	-5
	3+90	+2	-9	+6	4
	3+75	-1	-10	+10	7
	3+60	-2	-6	+7	-4
	3+45	-3	-5	+5	-8
	3+30	-5	-7	+4	-6
	3+15	-7	-9	+2	-8
	3+00	-10	-13	-1	-13
	2+85	-15	-17	-6	-12
	2+70	-19	-9	-5	-2
	2+55	-15		-4	2
	2+40	-3	16	-5	4
	2+25	-1	30	0	7
	2+10	-3	14	-2	2
	1+95	-3	-2	-1	-4
	1+80	-3	1	-5	-7
	1+65	-2	5	-5	-4
	1+50	+1	7	-5	2
	1+35	+1	2	-3	0
	1+20	0	-3	-7	-4
	1+05	-1	-3	-5	1
	0+90	-1	-1	-4	3

10102N
North

5785	(F) +7	3	(A) +8	3
6100	+6	1	+6	-1
6115	+6	-1	+8	0
6120	+6	-2	+7	1
6145	+7	-3	+7	2
6160	+7	-3	+7	3
6175	+9	3	+5	-1
6190	+8	6	+6	-5
7105	+5	0	+7	-5
7120	+6	-1	+9	-1
7135	+7	2	+9	1
7150	+5	-2	+8	-3
7165	+6	-4	+9	-55
7180	+8		+11	
7195	+7		+11	

Legal Corner Post 30m

Line 8100W

		(H)		(A)	
1000 N	0190	-3	7	-9	-6
(North)	0175	-5	1	-5	-5
	0160	-6	-7	-5	-9
	0145	-3	-8	-4	-18
	0130E	-1	-5	+3	-14
	0115E	0	-4	+6	-6
	0100	+1	-6	+7	-1
	0115W	+2	-10	+8	3
	0130	+5	-10	+6	1
	0145	+8	-3	+6	-5
	0160	+9	2	+7	-4
	0175	+7	2	+10	7
	0190	+8	8	+7	13
	1105	+6	15	+3	12
	1120	+1	14	+1	9
	1135	-2	7	-3	-1
	1150	-5	-2	-2	-7
	1165	-3	-3	+1	-2
	1180	-2	1	+1	1
	1195	-3	10	0	1
	2110	-3	19	+1	3
	2125	-12	6	-1	0

		(H)		(A)	
1000 N	2140	-13	-9	-1	-5
	2135	-8	-10	+1	-3
	2120	-8	-14	+2	1
	2185	-3	-13	+1	-1
o/c	3100	+1	-5	+1	-4
	3115	+1	1	+3	-1
o/c	3130	+2	1	+3	0
	3145	-1	-1	+2	-4
	3160	+3	1	+4	-4
o/c	3175	-1	-3	+5	-1
o/c	3190	+2	-9	+5	-1
o/c	4105	+3	-11	+5	-2
	4120	+7	-11	+6	-4
	4135	+9	-3	+6	-8
	4150	+12	-6	+9	-3
creek	4165	+7	-18	+11	2
	4180	+20	-5	+7	-2
	4195	+17	10	+11	-1
	5110	+15	9	+9	3
	5125	+12	7	+10	3
	5140	+11	6	+7	-1
	5155	+9	5	+9	-1
	5170	+8	4	+9	4

Line		(A)		(A)	✓
10100N (North)	7+05E	-11		+2	
	6+90	-5	-5	+4	4
	6+75	-4	6	+1	1
	6+60	-7	-1	+1	-4
	6+45	-8	-12	+3	-2
	6+30	-2	-13	+3	-1
	6+15	-1	-12	+3	0
	6+00	+4	-3	+4	2
	5+95	+5	7	+2	1
	5+70	+1	3	+3	0
	5+55	+1	1	+2	-2
o/c	5+40	+2	3	+3	-4
	5+25	-1	-3	+4	-3
-/c	5+10	+1	-8	+5	0
o/c	4+95	+3	-4	+5	3
-o/c	4+80	+5	2	+4	1
-o/c	4+65	+3	2	+3	-2
wm	4+50	+3	-1	+5	0
	4+35	+3	0	+4	-1
	4+20	+4	1	+4	-2
Rd	4+05	+2	-3	+6	-1

Date: Sept 24/82
 Weather: High clouds
 Claim: Sea (North) (Rain in afternoon)

		(A)		(A)	
10100N (North)	3+90	+4	-4	+4	0
	3+75	+5	-1	+7	3
	3+60	+5	-2	+3	2
	3+45	+5	-4	+5	1
	3+30	+7	-3	+3	-1
	3+15	+7	-3	+4	-1
o/c	3+00	+8	-4	+5	2
	2+85	+9	-4	+3	3
	2+70	+10	1	+4	4
	2+55	+11	7	+1	3
	2+40	+7	7	+2	6
	2+25	+7	16	0	13
	2+10	+4	26	-3	14
	1+95	-6	14	-8	5
	1+80	-9	-3	-9	-1
	1+65	-7	-6	-7	1
	1+50	-5	-1	-9	-1
	1+35	-5	-3	-8	-3
	1+20	-6	-7	-7	1
	1+05	-1	1	-7	0

Slow (West)		(H)		(A)		
3130	+13	-9	+11	-20	20	36
3115	+3	-23	-3	-26	30	30
3100	-3	-22	-11	-30	12	12
2185	-3	-10	-11	-12	6	6
2170	-7	-6	-15	-6	2	2
2155	-5	-2	-13	2	4	4
2140	-7	0	-11	4	0	0
2125	-5	-1	-13	0	5	5
2110	-8	-3	-11	5	9	9
1195	-7	-3	-8	9	5	5
1180	-9	-3	-7	5	3	3
1165	-9	3	-7	3	9	9
1150	-4	13	-5	9	7	7
1135	-1	6	0	7	8	8
1120	-6	-11	-5	-8	13	13
1105	-10	-17	-8	-13	6	6
0190	-14	-13	-10	-6	2	2
0175	-15	-5	-9	-2	7	7
0160	-14	4	-11	-1	6	6
0145	-11	11	-9	6	10	10
0130	-7	11	-5	10	8	8
0115	-7	7	-5	8		
0100	-4		-)			

		(H)		(A)	
Stoow	10+20N	-9		+2	
West	10+05N	-8		+1	
	9+90N	-7	4	+0	-33
	9+75N	-6	4	+1	2
	9+60	-5	-3	+2	1
Pit	9+45	-11	-7	0	0
	9+30	-7	6	+3	7
	9+15	-3	16	+6	14
	9+00	+1	14	+11	12
	8+85	+3	5	+10	0
	8+70	0	-3	+7	-5
	8+55	-1	-4	+6	-6
	8+40	-2	2	+4	0
	8+25	+4	13	+11	14
	7+95	+6	11	+13	9
	7+80	+7	-3	+11	-6
	7+65	0	-12	+7	-11
Gully	7+50	+1	-7	+6	-6
	7+35	-1	-6	+6	0
creek	7+20	-4	-9	+7	1
	7+05	-5	-1	+6	0
	6+90	-1	8	+7	3

		(H)		(A)	
Stoow	6+75N	0	7	+9	5
West	6+60N	+1	5	+9	2
	6+45	+3	0	+9	4
	6+30	+6	8	+13	12
	6+15	+6	5	+17	8
Creek	6+00	+8	-2	+13	-5
	5+85	+2	-9	+12	-4
	5+70	+3	0	+14	1
	5+55	+7	6	+12	0
	5+40	+4	0	+14	0
	5+25	+6	0	+12	-3
	5+10	+5	0	+11	-6
	4+95	+5	1	+9	-1
	4+80	+7	4	+13	6
	4+65	+7	10	+13	10
	4+50	+15	23	+19	18
	4+35	+22	21	+25	18
	4+20	+21	1	+25	2
	4+05	+17	-11	+21	-9
Gully	3+90	+15	-4	+20	-5
	3+75	+19	2	+21	-3
	3+60	+15	-9	+17	-13
	3+45	+10	-11	+11	-16

		(H)	(A)	
SAG	6+455	+15	+13	-11
(West)	6+60	+22	+17	51
8+00W	6+75	+20	+18	7
	6+90	+18	+15	7
	7+05	+19	+15	10
	7+20	+15	+11	21
	7+35	+9	+9	33
	7+50	+1	-4	29
	7+65	-9	-9	17
	7+80	-18	-15	2
	7+95	-15	-15	-14
	8+10	-14	-11	-7?
	8+25	-9	-5	-22
	8+40	-3	+1	-18
	8+55	+2	+5	-15
	8+70	+4	+9	-13
	8+85	+9	+12	-13
	9+00	+14	+15	-17
	9+15	+15	+19	-12
	9+30	+19	+25	10
	9+45	+14	+12	23
	9+60	+6	+13	16
	9+75	+4	+10	11

Sep 23/72 CW

		(I)	(J)	
Wes/1	9+90S	-1	+8	3
8+00W	10+05S	-5	+4	12
	10+20S	-9	+1	5
	10+35S	-11	-1	4
	10+50S	-12	+1	12
	10+65S	-14	-5	0
	10+80S	-11	-7	10
	10+95S	-15	-7	

EOL 11400 S

Down Slope To Waterloo Cr.

Line	(H)	(A)
0100	+7	+5
West) 0155	+4	+5
8toow 0130 S	+3	+6
0145 S	+2	+5
0160 S	+2	+7
0175	-1	-1
0190	-5	-1
1105	-5	-4
1120	-5	-6
1135	-7	-8
1150	-5	-4
1165	+3	+3
1180	+10	+11
1195	+13	+12
2110	+7	+6
2125	+3	+3
2140	-1	+1
2155	-5	-9
2170	-5	-3
2185	-6	-2
3100	-1	0
3115	-1	+2

Date: Sept 23/82

Weather: Sun ☉

Claim: Ion (South)

(West)	(H)	(A)
3130 S	0	+4
3145 S	0	+3
8toow 3160 S	-1	+4
3175 S	0	+2
3190 S	+7	+7
4105 S	+13	+15
4120	+10	+13
4135	+4	+7
4150	-3	+1
4165	-8	-8
4180	-6	-7
4195	-3	-3
5110	+1	+3
5125	+7	+6
5140	+9	+11
5155	+8	+10
5170	+9	+11
5185	+9	+11
6100	+9	+11
6115	+10	+9
6130	+11	+11

		(H)		(A)	
6+00w	6+90s	+7	18	+18	24
(west)	7+05s	+6	20	+13	36
	7+20s	-2	18	0	25
	7+35s	-5	10	-5	9
	7+50	-9	-3	-7	4
	7+65	-8	-10	-7	3
	7+80	-3	-2	-9	-1
	7+95	-4	2	-8	-4
	8+10	-5	0	-7	-6
	8+25	-4	3	-6	-10
	8+40	-5	3	-3	-9
	8+55	-7	0	0	-6
	8+70	-5	3	0	-6
	8+85	-7	3	+3	-3
	9+00	-8	2	+3	-11
	9+15	-7	7	+8	-4
	9+30	-10	8	+9	3
	9+45	-12	6	+6	11
	9+60	-13	7	+3	9
	9+75	-15	5	+1	7
	9+90	-17	-5	-1	1
	10+05	-16	-1 -13	-2	-6
	10+20	-11	-9	+1	-4

Sept 22 1882 Cont. (Jon)

← Waterloo Creek 7+25s

6+00w	10+35s	(H)	(A)
(west)	10+50s	-9	+2
		-9	+1
	FOL		10+50s

Sept 22/82 Cont. (Son)

	(H)		(N)		
6toow	3+455	+7	-13	+8	-15
(West)	3+605	+13	-8	+13	-16
	3+755	+13	4	+18	-6
	3+905	+15	10	+19	6
	4+05	+7	5	+18	14
	4+20	+11	7	+13	9
	4+35	+6	8	+10	-2
	4+50	+5	6	+12	-3
	4+65	+4	5	+13	0
	4+80	+1	1	+12	3
	4+95	+3	3	+13	3
	5+10	+1	2	+9	-2
	5+25	0	-1	+13	-9
	5+40	+2	-1	+16	-1
	5+55	0	-3	+15	5
	5+70	+3	-2	+15	6
	5+85	+2	0	+11	-1
	6+00	+3	0	+13	-4
	6+15	+2	-8	+14	-3
	6+30	+3	-18	+14	-8
	6+45	+10	-15	+16	-9
	6+60	+13	1	+20	-1
	6+75	+15	15	+19	8

Creek Parallel to Line

Creek 20°

Sept 22 (Cont) (Jon)

		(H)	F.I.	(A)	
6:00	0+00	-11		-3	
(West)	0+15S	-5	-7	-2	-6
	0+30S	-3	+4	+1	1
	0+45S	-6	0	0	4
	0+60S	-6	-6	-2	0
	0+75S	-3	-3	-1	-5
	0+90S	-3	-3	-1	-8
	1+05S	-3	-1	+3	-3
	1+20	0	3	+3	0
	1+35	-5	-4	+2	-3
	1+50	-1	-9	+4	-2
	1+65	0	-6	+4	-3
	1+80	+3	-3	+4	-4
	1+95	+2	-8	+7	-2
	2+10	+4	-12	+5	-6
	2+25	+9	-2	+8	-5
	2+40	+9	9	+10	6
	2+55	+6	8	+8	11
	2+70	+3	2	+4	6
	2+85	+4	-3	+3	-2
	3+00	+3	-6	+3	-8
	3+15	+7	-3	+6	-7
	3+30	+6	-7	+8	-7

5:10^h (same one as before)

	(H)		(A)	
7+00	6+75	+6	10	+5
WEST	6+90	+4	10	+7
	7+05	+2	16	+8
	7+20	-2	24	+3
	7+35	-8	7	-5
	7+50	-16	-10	-15
	7+65	-17	3	-17
	7+80	-13	-7	-13
	7+95	-7	-24	-7
	8+10	0	-16	0
	8+25	+4	-4	+5
	8+40	+5	3	+7
	8+55	+3	4	+5
	8+70	+3	6	+9
	8+85	+1	8	+6
	9+00	-1	7	+7
	9+15	-3	6	+7
	9+30	-4	6	+6
	9+45	-6	3	+6
	9+60	-7	0	+5
	9+75	-6	-1	+4
	9+90	-7	3	+1
	10+05	-5	15	-1
	10+20	-11	19	-2
	10+35	-16	1	-4

Sept 22 Cont (Sun)

Waterloo Creek 7+355

Series of Cullies, Punning N-S
Up the slope on flat ground

	(H)	(A)
10+50	-19	-27
10+65	-9	-3
E.O.L.	10	+705

		(H)		(A)	
7+00	3+30	-1	-11	+7	-9
WEST	3+45	+1	-17	+7	-18
	3+60	+7	-11	+15	-9
	3+75	+10	4	+17	6
	3+90	+9	11	+14	12
	4+05	+4	9	+12	14
	4+20	+4	6	+7	12
	4+35	0	-3	+5	5
	4+50	+2	-11	+2	-5
	4+65	+5	-11	+5	-10
	4+80	+8	-11	+7	-12
	4+95	+10	-16	+10	-16
	5+10	+14	-20	+14	-14
	5+25	+20	-15	+19	-6
	5+40	+24	-2	+19	-1
	5+55	+25	7	+20	1
	5+70	+21	5	+19	2
	5+85	+21	3	+19	2
	6+00	+20	5	+18	1
	6+15	+19	7	+18	3
	6+30	+17	11	+18	12
	6+45	+15	16	+15	19
	6+60	+10	15	+9	12

Sept 21 82 Cont (Jon)

Gully 20°

Creek 40°

7400W

	(H)		(A)	
0+00	0		+7	
0+15S	+2	0	+9	4
0+30S	0	-1	+6	1
0+45S	+2	0	+6	-8
0+60S	+1	3	+8	-5
0+75S	+1	8	+12	12
0+90S	-1	11	+7	18
1+05S	-5	3	+1	5
1+20S	-6	-7	0	-4
1+35S	-3	-10	+3	-6
1+50	-1	-7	+2	-12
1+65	+2	3	+7	-8
1+80	+1	12	+10	6
1+95	-3	13	+7	17
2+10	-6	15	+4	22
2+25	-9	14	-4	14
2+40	-15	0	-7	-1
2+55	-14	-13	-7	-10
2+70	-10	-16	-3	-8
2+85	-6	-12	-1	-9
3+00	-2	-5	-1	-15
3+15	-2	-4	+6	-9

Sept 22/82
 Weather: High clouds
 Class: Jan (South)

✓

1100WF	0100	(L) -2		0	
	0115	-1	-2	+2	-4
	0130	+1	3	+4	4
	0145	-2	3	+2	8
	0160S	-1	2	0	4
	0175S	-3	-4	-2	-9
	0190S	-2	-10	0	-14
	1105S	+2	-8	+7	-4
7000L	1120S	+3	-4	+5	-2
	1135S	+5	2	+6	-8
	1150S	+4	4	+8	-6
	1165	+2	4	+11	5
	1180S	+3	6	+9	10
	1195	-1	-4	+5	2
	2105	0	-12	+5	-7
	2125	+6	-5	+7	-9
	2140S	+5	2	+10	-3
	2155	+6	7	+11	3
	2170S	+3	6	+9	4
	2195	+1	-1	+7	2
	3100S	+2	-6	+7	2
	3115	+3	-1	+9	8
	3130S	+6	6	+5	4

✓

1100WF	3145	(H) 0	-2	(A) +3	0
	3160S	+3	-7	+3	-4
	3175	+5	-2	+5	0
	3190	+5	-1	+5	4
	4105	+5	-3	+3	2
	4120	+6	-3	+3	-2
	4135	+7	0	+3	-1
	4150	+7	2	+5	3
	4165	+6	2	+2	3
	4180	+6	-1	+3	-1
	4195	+5	-2	+1	-6
	5110	+8	1	+5	-4
	5125	+5	-3	+5	-2
	5140	+7	-10	+5	-6
	5155	+9	-11	+7	-9
	5170	+13	-5	+9	-9
	5185	+14	2	+12	-3
	6100	+13	2	+13	1
	6115	+12		+11	
	6130	+13		+13	

	(H)	(A)	
0100N(B)	2185W +11	7	+6
	3100 +7	7	+3
	3115 +6	9	+4
	3130 +5	19	+2
	3145 -1	19	+5
	3160 -7	10	+7
	3175 -8	3	+7
	3190 -10	-4	+6
	4105 -8	0	+11
	4120 -6	8	+9
	4135 -12	4	+6
	4150 -10	-1	+3
	4165 -12	-6	+7
	4180 -9	-7	+1
	4195 -7	-2	+4
	5110 -7	-1	+4
	5125 -7	1	0
	5140 -6	6	-4
	5155 -9	10	-7
	5170 -10		-3
Staff	5185 -15		-5
10.15 (H)	6107		-6
	6115		+1

	(H)	(A)
0100M(B)	6130	+2
	6145	+4
		+5
	<u>6102</u>	
	6150W	

-68

		(H)		(A)	
0100B N	4105E	+11	-3	+11	-1
	3190E	+13	-1	+12	2
	3175	+14	7	+11	5
	3160	+11	11	+10	6
	3145	+9	11	+8	8
	3130	+5	9	+7	9
	3115	+4	10	+3	10
Gully	3100	+1	12	+3	14
P.F.G	2185	-2	11	-3	14
	2170	-5	4	-5	4
	2155	-7	-2	-9	-6
	2140	-4	2	-3	-6
	2125	-6	4	-5	-6
	2110	-7	-8	-1	-5
	1195	-7	-19	-1	-7
	1180	+2	-12	0	-7
	1165	+3	-4	+5	3
	1150	+4	-3	+1	1
	1135	+5	-4	+1	-7
	1120	+5	-5	+4	-5
	1105	+8	-2	+5	1
	0190	+7	4	+5	3
	0175	+8	9	+3	5

H off air
10:00 am

		(H)		(A)	
0100B N	0160P	+3	9	+4	9
	0145E	+3	11	-1	7
	0130	-1	7	-1	4
	0115	-4	3	-3	1
	0100	-1	1	-3	0
	0115W	-1	8	-2	6
	0130	-5	4	-4	8
	0145	-5	3	-7	5
	0160	-5	6	-7	5
	0175	-8	1	-9	2
	0190	-8	-3	-10	-4
	1105	-6	0	-8	-9
	1120	-7	-1	-7	-13
	1135	-7	-3	-2	-6
	1150	-5	-2	0	0
	1165	-6	-3	-3	-1
	1180	-4	-5	+1	-1
	1195	-4	-10	-3	-5
	2110	-1	-11	+2	-3
	2125	+3	-6	+1	2
	2140	+3	-8	+1	0
	2155	+5	-12	+0	-7
	2170	+9	-4	+2	-7

✓ Sept 13/82

Weather: Cold & wet Heading West
 Clam: Jon

Line	TIME	(H)		(A)	
0100 N	7105E	-3		-6	
not (B.L)	6190E	-5	0	-3	-3
	6175E	-5	-4	-3	0
	6160	-3	-2	-3	0
	6145	-3	1	-3	3
	6130	-3	0	-3	4
LP-654	6115	-4	-5	-6	-2
		2	-5	-4	-4
	5185	0	2	-3	0
	5170	-1	-2	-3	-4
	5155	-3	-9	-4	-12
	5140	+4	-3	+2	-7
	5125	+1	-1	+3	0
	5110	+3	0	+2	3
	4195	+3	-3	+3	6
	4180	+1	-14	-1	-4
	4165	+8	-15	0	-18
"creek (fault)"	4150	+10	-9	+6	-16
	4135	+14	0	+11	-5
	4120	+13	3	+11	-1

80/115

		(H)	
3+00W	3+60N	0	14
	3+45	-3	19
	3+30	-7	24
Waterbu	3+15	-15	15
Creek	3+00	-19	3
3+00N	2+85	-18	2
	2+70	-19	3
	2+55	-20	2
	2+40	-20	-7
	2+25	-21	-23
	1+95	-6	-8
	1+80	-5	1
	1+65	-5	3
	1+50	-7	1
	1+35	-6	0
	1+20	-7	0
	1+05	-6	3
	0+90	-7	5
	0+75	-9	3
	0+60	-9	3
	0+45	-10	6
	0+30	-11	9
	0+15	-14	
	0+00	-16	

← W. CK.

✓

Going South
Starting @ 10:30W

(H)

(A) all air

Line		(H)	
3100W	10+20W	-5	
	10+05	-6	-9
	9+90	-3	-12
	9+75	+1	-8
	9+60	+2	4
	9+45	+4	-2
	9+30	+3	-3
	9+15	+5	0
	9+00	+5	5
	8+85	+3	0
	8+70	+2	-5
	8+55	+6	1
	8+40	+4	6
	8+25	+3	7
Trench	8+10	+1	6
	7+95	-1	4
	7+80	-1	-2
	7+65	-3	-11
ok	7+50	+3	-9
	7+35	+4	-3
	7+20	+5	2
	7+05	+5	7

✓

claim JON

		(H)	
3100W	6+90N	+2	5
	6+75	+1	3
	6+60	+1	5
	6+45	-1	1
	6+30	-2	-8
	6+15	+1	-11
	6+00	+4	-6
	5+85	+6	-1
B. 7	5+70	+5	5
	5+55	+6	13
	5+40	0	11
	5+25	-2	1
	5+10	-3	-6
	5+95	0	-7
	4+80	+1	-5
	4+65	+3	-5
	4+50	+3	-11
	4+35	+6	-18
	4+20	+11	-13
Slope down to W.L.C	4+05	+16	9
	3+90	+14	26
	3+75	+4	21

← Sample Taken

		(H)	(H)
Water	6+455	+18	5
4+00W	6+60	+17	11
	6+75	+13	11
	6+90	+11	19
	7+05	+8	29
	7+20	-3	21
	7+35	-7	8
Water	7+50	-7	4
low creek	7+65	-9	4
7+03	7+80	-11	4
	7+95	-11	8
	8+10	-13	12
	8+25	-17	7
	8+40	-19	0
	8+55	-18	0
	8+70	-18	0
	8+85	-17	-7
	9+00	-17	-13
	9+15	-13	-13
	9+30	-10	-7
	9+45	-7	-2
	9+60	-7	-1
	9+75	-8	-1
	9+90	-7	0
	10+05	-8	1
	10+20	-8	0

← Wick

Claim 50m

~~Line~~
~~10+30~~

~~9+60~~

~~9+30~~

4+00W

(H)
10+35 -7
10+50 -8

EOL @ 10+605

Line starts @ 10:30W

Line	(H)	(A)
0+00	+3	
0+15 S	+10	3
0+30 S	+7	2
0+45	+7	-3
0+60	+8	-1
0+75	+9	1
0+90	+7	0
1+05	+9	-2
1+20	+7	-7
bully 1+35	+11	-3
1+50	+12	5
1+65	+9	4
1+80	+9	5
1+95	+8	7
2+10	+5	1
2+25	+5	-2
2+40	+7	2
2+55	+5	0
2+70	+5	-2
2+85	+7	2
3+00	+5	2
3+15	+5	-3

Date: Sec: 782

Weather: clouds

Claim: 30W (South)

Line	(H)	(A)
3+30 S	+5	-7
4+00 W	+8	-8
3+60	+9	-8
3+75	+12	-7
3+90	+13	-7
4+05	+15	-5
4+20	+17	-1
4+35	+16	-2
4+50	+17	-2
4+65	+18	-7
4+80	+17	17
4+95	+11	14
5+10	+7	8
5+25	+7	10
5+40	+3	11
5+55	+1	2
5+70	-2	-12
5+85	+4	-18
6+00	+7	-19
6+15	+13	-15
6+30	+17	-5

11

10+00B

6+45

(H)

-1

-11

(A)

-4

4

-2

6+60

+1

-5

-2

6+75

+4

-3

F 02

6+80W

		(H)			
1000B	0175K	-3	1	-1	4
1000B	0160	-1	0	-3	-1
	0195	-1	-1	-1	-1
	0130	-3	-7	-2	0
	0115	+2	-7	-1	-6
	0100	+1	-9	-2	-14
	0115W	+5	-6	+5	-7
	0130L	+7	2	+6	2
	0145W	+5	0	+4	0
	0160V	+5	-5	+5	-2
	0175	+7	3	+5	3
	0190	+8	14	+6	9
	105	+1	12	+1	6
	1120	0	3	+1	3
	1135	-3	0	0	7
	1150	+1	19	-1	12
	1165	-4	34	-5	12
	1180	-17	18	-8	4
gully	1195	-20	-2	-10	-3
	2110	-19	-13	-7	-4
	2125	-16	-15	-8	-5
	2140	-10	-6	-5	-3
	2155	-10	-3	-5	-1

		(H)		(A)	
1000B	2170	-10	-6	-5	-3
	2185	-7	-5	-4	-3
	3100	-7	-2	-3	3
	3115	-5	0	-3	6
	3130	-7	-2	-7	-5
	3145	-5	-1	-5	-8
	3160	-5	2	0	22
	3175	-6	-2	-4	-10
	3190	-6	-4	-3	-30
	4105	-3	-8	+9	-25
	4120	-5	-18	+14	-13
	4135	+4	-16	+17	-5
	4150	+6	-14	+19	2
	4165	+9	-14	+17	1
	4180	+15	-9	+17	0
R. Creek	4195	+14	-8	+18	+4
	5110	+19	-1	+16	8
	5125	+18	8	+15	10
	5140	+16	14	+11	11
	5155	+13	17	+10	15
	5170	+7	8	+5	5
	5185	+5	1	+1	-4
creek	6100	+7	13	+9	13
	6115	+4	17	+1	18
	6130	-5	-1	-4	4

Line		(H)		(A)	
BASSN	7+05E	-7		-2	
10+00B'	6+90	-5	4	-3	6
	6+75	-5	11	-6	2
	6+60	-11	3	-5	1
	6+45	-10	-4	-6	-2
	6+30	-9	-2	-6	-2
	6+15	-8	1	-3	1
	6+00	-9	-2	-7	-2
	5+85	-9	-7	-3	0
	5+70	-6	-3	-5	4
Swamp	5+55	-5	3	-5	3
	5+40	-7	1	-7	-1
	5+25	-7	-3	-6	-3
	5+10	-6	-3	-5	1
Rd	4+75	-5	-2	-5	0
	4+60	-5	-3	-7	-3
	4+45	-4	-3	-3	3
10+00B'	4+30	-3	-3	-6	5
	4+15	-3	-5	-7	1
	4+00	-1	-6	-7	-2
	4+05	0	-5	-7	-2

(66)

Date Aug 24 1952
 Weather: Clouds
 Clear Jan

		(H)		(A)	
BASSN	3+90	+2	-4	-8	0
10+00B'	3+75	+2	-5	-7	-4
	3+60	+4	-2	-5	-6
	3+45	+5	1	-3	-3
	3+30	+3	0	-3	1
	3+15	+5	2	-2	3
	3+00	+3	3	-5	-9
	2+85	+3	3	-3	-18
	2+70	+2	5	+5	-9
	2+55	+1	6	+5	-3
	2+40	-1	L	+6	1
	2+25	-2	-7	+7	5
	2+10	+1	-7	+3	0
	2+05	+3	-4	+5	-1
	1+80	+3	-5	+5	0
	1+65	+5	-6	+4	-6
	1+50	+6	-4	+6	-3
	1+35	+8	1	+9	5
	1+20	+7	7	+4	6
	1+05	+6	14	+6	10
	0+90	+2	12	+1	11

		(+)	(-)	(+)	(-)
4100N	1+20W	+7	7	+2	3
	1+05	+8	4	+3	4
	0+90	+8	0	+4	0
	0+75	+7	-4	+1	-6
	0+60	+5	-8	0	-4
	0+45	+2	-8	+1	2
	0+30	+2	-5	+2	3
	0+15W	0	-3	+2	-3
	0+00	+1	1	-2	-4
	0+15E	+2	2	+2	5
	0+30	+1	-2	+3	7
	0+45	0	-1	+4	9
	0+60	+2	2	+10	12
	0+75	+1	-2	+9	5
	0+90	-1	-9	+2	-18
	1+05	-5	-7	-1	-9
	1+20	-2	5	+3	7
	1+35	+1	15	+5	8
	1+50	+7	15	+5	2
	1+65	+7	8	+5	1
	1+80	+9	1	+6	0
	1+95	+6	-4	+4	-4
	2+10	+6	-8	+3	-7

		(+)	(-)	(+)	(-)
4100N	2+25E	+1	-9	0	-6
	2+40	+2	-4	+1	1
	2+55	+1	3	+3	2
	2+70	+5	8	0	-2
	2+85	+6	6	+2	2
	3+00	+6	-1	+3	3
	3+15	+4	-1	+2	-2
	3+30	+7	5	+1	1
	3+45	+8	3	+5	6
	3+60	+6	-2	+4	3
	3+75	+7	0	+5	1
	3+90	+7	1	+5	3
	4+05	+7	1	+7	4
	4+20	+8	2	+8	0
	4+35	+8	4	+5	-2
	4+50	+11	6	+7	3
	4+65	+11	5	+8	3
	4+80	+13	2	+7	-2
	4+95	+11	-3	+6	-4
fault	5+10	+10	-5	+5	-3
	5+25	+9	-2	+5	1
	5+40	+10	-2	+7	2
	5+55	+7		+5	

Line		(H)		(A)	
4+00N	8+10W	+2		-3	
	7+95	-1		-1	
	7+80	+2	2	0	3
	7+65	+1	3	-1	-1
	7+50	+3	4	-1	-1
	7+35	+4	1	-1	2
	7+20	+1	-9	+1	2
	7+05	-3	-11	-1	-1
	6+90	-3	-5	0	1
	6+75	-4	0	+1	3
	6+60	-2	3	+1	3
	6+45	-2	3	+3	3
	6+30	-1	0	+2	-1
	6+15	-3	-3	+1	-1
	6+00	-3	-5	+3	0
	5+85	-6	-6	0	-3
	5+70	-6	-6	+1	1
	5+55	-9	-10	-2	1
	5+40	-13	-12	-4	-1
	5+25	-14	5	-6	-4
	5+10	-13	1	-4	0
	A+95	-13	-1	-6	-3

		(1)		(2)	
4+00N	4+80W	-15	-2	-7	-3
	4+65	-13	5	-6	3
	4+50	-10	3	-4	1
	4+35	-15	-2	-8	-7
	4+20	-10	14	-9	-2
fault	4+05	-1	27	-1	20
	3+90	+3	11	+6	19
	3+75	0	-5	+5	5
	3+60	-1	-7	+3	-1
	3+45	-3	-4	-1	-11
	3+30	-2	-1	-2	-6
	3+15	-3	-1	-2	-3
	3+00	-3	1	-4	-2
	2+85	-1	7	-2	7
	2+70	+2	6	+3	9
	2+55	0	0	0	1
	2+40	+1	1	+2	0
	2+25	+2	5	+1	-1
	2+10	+3+90W	4	+50N	6P1
	1+95	+3+75W	0	+2	Line?
	1+80	+3+60W	-2	+1	0
	1+65	+2	-1	+1	1
	1+50	+3	3	+1	0
	1+35	+5	7	+1	1

	(H)	F.I	(A)	F.I
1700MB 0130W	+2	3	+3	3
0150W	+3	4	+1	3
0100W	-1	-3	+2	4
015W	+2	-4	-1	0
0130	+3	2	0	-2
0145	+2	1	+1	0
0160	+1	-1	0	3
0175	+3	-1	+1	4
0190	+1	2	+3	3
1405	+4	12	+2	5
1420	-2	8	-1	3
1435	-5	-8	+1	4
1450	-1	-9	+3	2
1465	+2	1	+1	2
1480	+1	4	+1	-1
1495	-1	-4	+1	-5
2110	0	-10	+2	-4
2125	+4	-6	+5	-1
2140	+5	-7	+2	-9
2155	+5	-14	+6	-12
2170	+11	-7	+10	-3
2185	+13	7	+10	4
3100	+10	12	+9	4
3115	+7	15	+7	2

	(H)	F.I	(A)	F.I
1400W B 3130W	+4	22	+8	4
3145	-2	21	+6	8
3160	3 -9	12	+5	10
3175	-10	1	+1	7
3190	-13	-3	0	4
4105	-7	3	-1	4
4120	-13	-2	-2	1
4135	-10	-8	-3	-2
4150	-8	-7	-1	-1
4165	-7	-10	-2	0
6100W 4180	-4	-9	-1	0
on arrow 4195	-1	-4	-2	-2
5110	-1	-3	-1	-5
5125	0	-4	0	-7
5140	+1	-4	+2	-9
5155	+2	1	+4	-5
5170	+3	6	+7	6
5185	-1	3	+4	9
6100	0	0	+1	3
6115	-1	-5	+1	-4
NOW ON LINE 0100W				
6130W	0	-12	+1	-10
R clock 6145	+4		+5	-10
6160	+7		+7	

Line		(L)	Fil	(A)	Fil
1400NB	7108E	-7		-4	
	6190	-9	5	-8	4
	6175	-10	4	-7	1
	6160	-11	2	-7	-1
	6145	-12	-1	-7	-1
	6130	-11	-13	-6	-1
	6115	-5	-1	-7	-3
	6100	-5	7	-5	-1
	5185	-10	2	-5	3
	5170	-7	-2	-6	0
	5155	-10	-10	-7	-2
	5140	-5	-12	-4	-1
	5125	-2	-5	-7	3
	5110	-1	1	-3	2
	4195	-1	6	-5	-3
	4180	-3	4	-3	-4
	4165	-5	-4	-2	3
	4150	-3	-7	-2	5
	4135	-1	-6	0	6
	4120	0	-7	+1	-7
	4105	+2	-6	+3	-6
	3190	+4	-3	+5	-3
	3175	+4	-9	+5	-3

Date	Aug 5/82	Weather	High	Overcast	(H)	(A)	
1400NB	3160		+5	-18	+6	-9	
	3145		+12	-16	+9	-8	
(check)	3130		+15	-6	+11	-4	
	3115		+18	1	+12	2	
	3100		+15	1	+12	7	
	2185		+17	5	+9	8	
	2170		+15	13	+8	7	
	2155		+12	16	+5	5	
	2140		+7	14	+5	7	
	2125		+4	14	+3	6	
	2110		1	13	0	0	
Fault?	1195		-4	0	+2	1	
	1180		-4	-9	+1	2	
	1165		+1	-5	0	0	
	1150		0	-3	+1	0	
	1135		+2	-4	0	-3	
	1120		+2	-4	+1	-3	
	1105		+4	-4	+3	2	
	0190		+4	-4	+1	0	
	0175		+6	1	+1	-4	
	0160		+6	7	+3	-7	
	0145		+3	4	+3	2	

2700W

3775W

3790

4105

4120

4135

4150

4165

4180

4195

5110

5125

5140

5155

5170

5185

6100

6115

6130

6145

6160

(A)

+4

2

+3

4

+3

5

0

0

+1

-4

+2

-7

+3

-8

+7

-2

+6

3

+6

5

+4

6

+3

6

+1

3

0

0

+1

-3

0

-9

+4

-5

5

Creek Pond

✓
2100W

0115W

(A)
+3

1

0130W

+3

-1

0145W

+4

1

0160W

+3

2

0175

+3

2

0190

+2

-3

1105

+2

-6

1120

+6

-2

1135

+4

-1

1150

+6

0

1165

+5

1

1180

+5

0

1195

+5

1

2110

+5

0

2125

+4

0

2140

+6

8

2155

+3

14

2170

-1

8

2185

-4

-8

3100

-2

-15

3115

+5

-5

3130

+4

1

3145

+4

0

3160

+4

1

Date Aug 4/82
Weather: Clouds Jon

Line

2+00N

3+00E

2+85

2+70E

2+55

2+40

2+25

2+10

2+05

1+80

1+65

1+50

1+35

1+20

1+05

0+90

0+75

0+60

0+45

0+30

0+15

0+00

(H)

(A)

+9

5

+7

3

+7

4

+6

4

+4

0

+5

-1

+5

1

+5

2

+4

2

+4

1

+3

0

+4

0

+3

-3

+4

3

+6

1

+4

-3

+5

5

+8

2

+6

4

+5

3

+5

4

Add: A.I. ?

✓
1+00W
West

2+85
2+70
2+55
2+40
2+25
2+10
1+95
1+80
1+65
1+50
1+35
1+20
1+05
0+90
0+75
0+60
0+45
0+30
0+15
0+00

(A)

+9
+12
+9
+7
+4
+5
+4
+1
-2
-4
+3
+4
+3
+4
+5
+5
+7
+6
+7
+5

-2
0
-5
-10
-7
-2
-4
-10
-11
0
13
8
0
2
3
3
3
1
-1
-

(A)

+7
+10
+6
+3
+4
+6
+4
+1
-2
-9
+2
+1
+3
+3
+2
+5
+3
+3
+5
+4

-5
-2
-8
-9
1
3
-5
-11
-16
-6
14
11
3
1
1
3
-1
0
3

	(L)		(A)	
1+ack	6+45	+5	8	+11
West	6+30	+7	10	+11
	6+15	+11	12	+13
	6+00	+13	6	+12
	5+20	+11	-1	+11
	5+70	+12	4	+12
	5+55	+16	4	+11
	5+40	+11	-3	+6
	5+25	+11	-2	+8
	5+10	+11	-5	+6
	4+95	+9	-5	+4
	4+80	+11	2	+4
	4+65	+11	2	+5
	4+50	+11	3	+7
	4+35	+14	9	+6
	4+20	+17	9	+7
	4+05	+17	2	+7
	3+90	+16	-3	+9
	3+75	+15	-5	+10
	3+60	+13	-2	+11
Creek →	3+45	+16	0	+13
WL	3+30	+12	-6	+11
3+15	3+15	+11	-5	+11
	3+00	+12	-2	+11

3
3
5
3 ✓

✓
1400 W

	(H)	F.I.	(A)	F.I.
10+055	-10		-11	
9+90	-12		-10	
9+75	-13	-1	-12	4
9+60	-6	9	-8	12
9+45	-6	11	-5	8
9+30	-6	8	-4	4
9+15	-2	6	-2	4
9+00	-4	-3	-3	-6
8+85	-7	-10	-9	-11
8+70	-9	-6	-10	-5
8+55	-8	-1	-7	5
8+40	-9	-1	-7	1
8+25	-9	-2	-9	-2
8+10	-10	-3	-7	3
7+95	-11	-1	-6	6
7+80	-9	2	-4	6
7+65	-10	-1	-3	2
7+50	-11	-2	-5	-1
7+35	-10	5	-3	5
7+20	-6	11	0	11
7+05	-4	9	13	12
6+90	-3	8	16	10
6+75	+1	11	17	7
6+60	+3	10	+9	7

20
2

✓		(H)		(A)	
000	7+20	-4	8	+1	2
	7+35	-9	1	+1	1
	7+50	-10	-8	-2	-7
	7+65	-4	5	+3	-7
	7+80	-7	14	+3	7
	7+95	-12	5	0	5
	8+10	-13	-2	-1	1
	8+25	-11	+2	-1	2
	8+40	-12	5	-1	5
	8+55	-14	-3	-3	0
	8+70	-14	-6	-4	-4
	8+85	-9	2	0	3
	9+00	-13	6	-3	7
	9+15	-12	6	-4	5
	9+30	-16	1	-6	3
	9+45	-15	-7	-6	-1
	9+60	-14	-8	-7	-5
	9+75	-10	-4	-4	0
	9+90	-11		-4	0
	10+05	-9		-7	

F Creek

0+00

(F)

3+60S	+18
3+75S	+20
3+90S	+19
4+05	+16
4+20	+17
4+35	+11
4+50	+7
4+65	+3
4+80	+6
4+95	+5
5+10	+6
5+25	+5
5+40	+5
5+55	0
5+70	+2
5+85	-1
6+00	-9
6+15	-6
6+30	-10
6+45	-13
6+60	-12
6+75	-15
6+90	-12
7+05	-7

0
3
6
7
15
18
9
-1
-2
0
1
6
8
4
12
16
6
8
9
4
2
-8
-16
-6

(A)

+10
+13
+10
+9
+8
+7
+5
+4
+2
+3
+7
+4
+4
+7
+6
+5
+3
-1
-2
-2
-3
-4
-1
0

2
4
6
4
5
6
6
6
4
6
2
0
-5
0
5
9
11
6
2
3
0
-6
-6
-3

creek fault

creek

✓

0100

0100S

(1)

+5

(2)

-12

0115S

+5

1

-11

-3

0130

+4

5

+4

2

0145

+5

9

+2

3

0160

-1

-3

+1

2

0175

+1

-13

+2

4

0190

+6

-8

+3

2

1105

+7

0

+4

3

1120

+8

6

+3

5

Creek

1135

+5

3

+1

1

1150

+4

-10

+1

-5

1165

+6

-17

+2

-7

1180

+13

-12

+5

-7

1195

+14

-7

+7

-1

2110

+17

1

+7

0

2125

+17

4

+6

-4

2140

+13

-7

+8

-6

2155

+17

-11

+9

-6

2170

+20

-6

+11

-5

2185

+21

-1

+12

-1

3100

+22

0

+13

1

3115

+20

-2

+11

0

3130

+23

4

+13

3

3145

+21

6

+11

1

#00

7400F

6760
6775
6790
7105
7120
7135
7150
7185
7180
7195
8110
8125
8140
8155
8170
8185
9100
9115
9130
9145
9160
9175
9190
10105

(1)

-4 -3
-5 -5
-2 -4
0 0
-1 0
-1 0
0 1
-2 -2
0 1
0 6
-3 6
-3 6
-6 1
-4 -2
-4 1
-6 0
-5 -1
-5 1
-5 5
-6 5
-9 -1
-7 -6
-7
-3

✓

(2)

-1
-1
0
-4
-2
-3
-4
-7
-2
-3
-5
-7
-7
-9
-9
-7
-6
-7
-5
-8
-9
-6
-6
-5

1
2
5
1
1
6
2
-6
-1
7
6
4
4
0
-5
-3
-1
0
5
2
-5
-4

-2
-1
-2
-5
-1
-1
-6
-2
6
1
-7
-6
-4
0
5
3
1
0
-5
-2
-2
4
4
4

7100E

3+15	-3	0
3+30	-2	6
3+45	-4	6
3+60	-7	-1
3+75	-5	-5
3+90	-5	-6
4+05	-2	-8
4+20	-2	-8
4+35	+3	-3
4+50	+3	-1
4+65	+3	-1
4+80	+2	2
4+95	+3	12
5+10	0	19
5+25	-7	9
5+40	-9	-1
5+55	-7	-2
5+70	-8	-4
5+85	-6	-2
6+00	-5	+6
6+15	-7	2
6+30	-10	-9
6+45	-4	-7

1)) + 300 W.S.

Clock

(A)

75	-2
-2	5
-6	1
-6	-4
-3	-1
-5	-4
-3	-11
-1	-10
+4	-6
+2	-4
+7	2
+3	3
+4	8
+5	17
-4	12
-6	1
-7	-7
-4	-8
-2	-4
-1	-1
-1	-2
-1	-2
+1	2

8 ← W ck.
17

✓
Line
7100F

(+1)

0100	-7	
0115S	-8	-4
0130	-6	-4
0145	-5	-3
0160	-5	-3
0175	-3	-9
0190	11	-2
1105	0	0
1120	0	1
1135	+1	6
1150	-2	4
1165	-3	-3
1180	-2	-3
1195	-1	0
2110	-1	3
2125	-2	3
2140	-3	2
2155	-3	2
2170	-4	0
2185	-4	2
3100	-3	-2

✓
Date: July, 1952

Weather: ☁

(A)

-3		
-5	-7	
-8	-3	-3
-9	-1	1
-7	-1	1
-9	-9	9
-6	-11	11
-1	-2	2
-3	2	-2
-2	2	2
-4	1	-1
-3	0	0
-4	-1	1
-3	-3	3
-3	-3	3
-1	1	-1
-2	5	-5
-3	3	-3
-5	-2	2
-3	0	0
-3	4	-4
-5	-1	

1700E

3+605	+10	8
3+75	+8	9
3+90	+5	6
4+05	+4	-1
4+20	+3	-6
4+35	+7	0
4+50	+6	6
4+65	+4	4
4+80	+3	4
4+95	+3	10
5+10	0	17
5+25	-4	17
5+40	-10	2
5+55	-11	-9
5+70	-5	-2
5+85	-7	0
6+00	-7	-5
6+15	-5	2
6+30	-4	16
6+45	-10	9
6+60	-15	-11
6+75	-7	-12
6+90	-7	-18
7+05	-3	-24

(A)

2 ← creek fault

creek fault

1700E

7+205	+7	-18
7+35	+11	1
7+50	+11	9
7+65	+6	1
7+80	+7	-4
7+95	+7	5
8+10	+8	13
8+25	+3	7
8+40	+1	1
8+55	+3	5
8+70	0	6
8+85	-1	3
8+100	-2	1
9+15	-2	3
9+30	-2	-1
9+45	-5	-5
9+60	+2	7
9+75	-4	9
9+90	-6	
10+05	-5	

5
7
9

		(A)		
2+00E	2+35S	+4	0	0
	2+70S	+7	4	4
	2+55S	+6	4	4
	2+40	+9	3	3
	2+15S	+7	-1	7
	2+10	+7	6	7
	1+75	+3	-10	10
	1+80	+1	-10	10
	1+55	-1	-7	7
	1+50	-2	-2	2
	1+35	0	6	6
	1+20	+3	6	6
	1+5	+1	-1	1
	0+70	+1	-3	3
	0+75	0	1	1
	0+60	+3	3	3
	0+45	+1	-1	1
	0+30	+1	0	1
	0+15	+3	-	0
	0+00			

		(A)		
1+00E	0+00S			
	0+15S	0		
	0+30S	+3	-12	12
	0+45	+7	-6	
	0+60	+8	-3	
	0+75	+8	-1	
	0+90	+10	4	
	1+05	+7	3	
	1+20	+7	1	
	1+35	+7	5	
	1+50	+6	6	
	1+65	+3	0	
	1+80	+4	-4	
	1+95	+5	-4	
	2+10	+6	-3	
	2+25	+7	-2	
	2+40	+7	0	2
Creek	2+55	+8	-1	0
	2+70	+6	-9	9
	2+85	+10	-11	
	3+00	+13	-5	
	3+15	+14	2	
	3+30	+14	7	
	3+45	+11	7	

2+00E

6+95 +7
 6+30 +7
 6+15 -1
 6+00 -3
 5+85 -4
 5+70 -5
 5+55 -6
 5+40 -9
 5+25 -14
 5+10 -16
 4+95 -17
 4+80 -14
 4+65 +2
 4+50 +8
 4+35 +7
 4+20 +6
 4+05 +9
 3+90 +9
 3+75 +11
 3+60 +15
 3+45 +7
 3+30 +7
 3+15 +6
 3+00 +5

(A)

7
 -5
 -18
 -13
 -5
 -4
 -6
 -12
 -15
 -10
 -1
 21
 41
 27
 3
 0
 5
 5
 0
 2
 -12
 -9
 -3
 -4

15
10

21
21
11

4

✓
2400 E

10405

(A)
+5

9490

+3

9475

+3

-5

9460

0

-8

9445

-2

-13

9430

-8

-7

9415

-1

8

9400

-1

5

8485

-3

~~8~~-1

8470

0

5

8455

+1

5

8440

+1

2

8425

+2

4

8410

+4

3

7495

+2

-2

7480

+2

4

7465

0

-2

7450

+2

4

7435

+4

5

7420

+3

1

7405

+4

0

6490

+3

-1

6475

+3

0

6460

+4

5

fruit

(11)

L	8 100N	3+40v	60	+5	12
		3+25		+2	8
0		3+10	60	-2	-3
		2+95		+1	-6
		2+80	60	+2	-7
		2+65		+3	-14
		2+50		+7	-17
		2+35		+12	-21
		2+20		+15	-18
		2+05		+25	3
		1+90		+20	18
		1+75		+17	17
		1+60		+10	10
		1+45		+10	9
		1+30		+7	10
		1+15		+4	4
		1+00		+3	0
		0+85		+4	-1
		0+60		+3	-2
		0+45		+5	-1
		0+30		+4	-2
		0+15		+5	-2
		0+00		+6	1

(A)

	70	+8	5	
	71	+4	5	
	70	+4	1	
	70	+3	-4	
	70	+9	-8	
		+7	-5	
		+8	2	
		+8	-3	
	65	+5	-14	
		+14	-4	
		+13	8	
		+10	3	
		+9	1	
		+11	9	
		+7	12	
		+4	5	
		+2	1	
		+4	-1	
		+1	-5	
		+6	-1	
		+4	3	
		+4	2	
		+3	4	

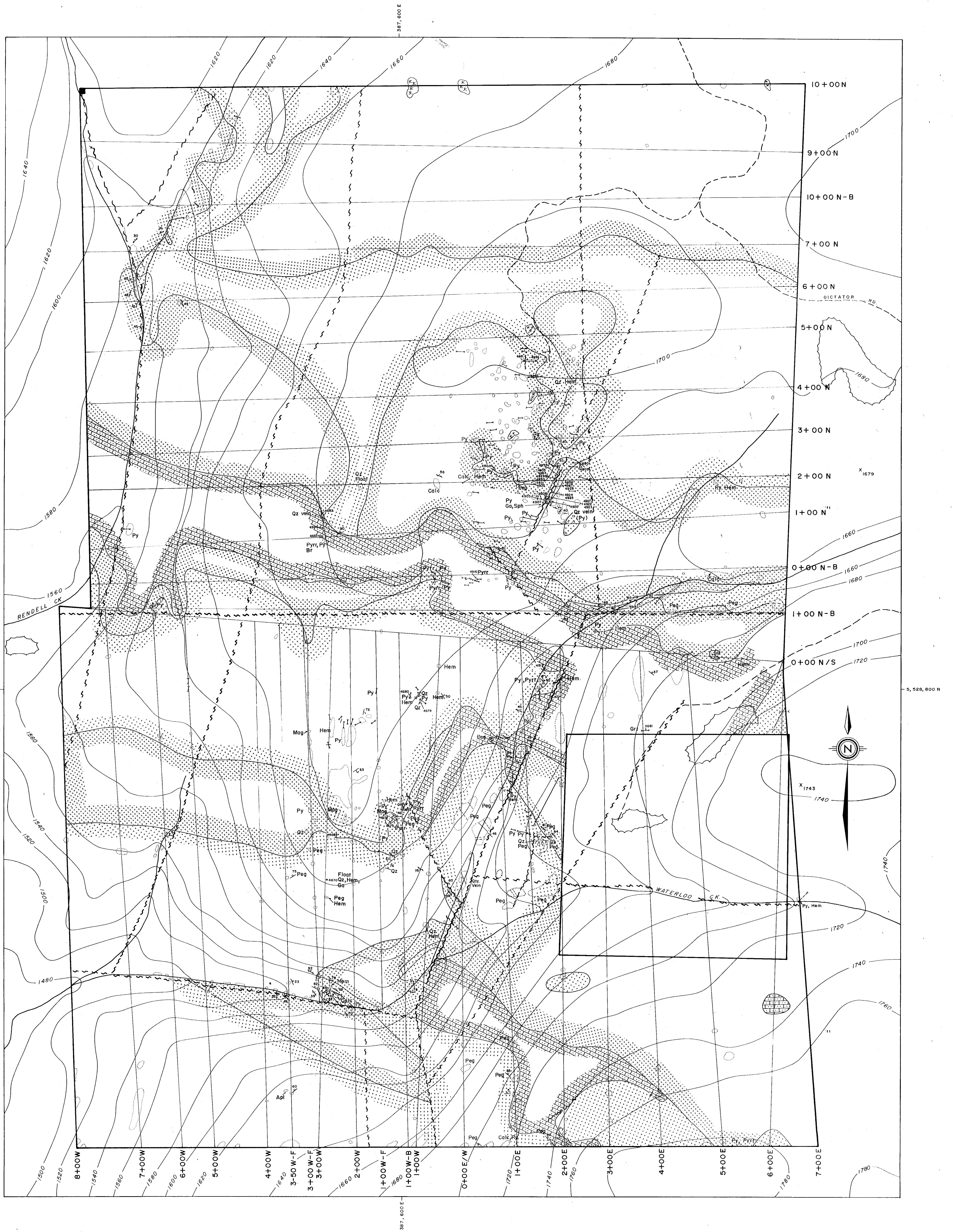
Fault?
Stream

Stream

Bills low
N-S

Line	Stn	+	File	Diff	
	8 + 85W		30	-6	
	8 + 15W	PM	65	-7	0
0+00 N	6 + 55		60	-7	1
	6 + 40		62	-6	3
	6 + 25		62	-9	-4
	6 + 10		62	-7	-7
	5 + 95		63	-4	0
	5 + 80		55	-5	0
	5 + 65		53	-6	-5
	5 + 50		55	-3	-6
	5 + 35		52	-3	-3
	5 + 20		52	0	1
	5 + 05		50	-3	-4
	4 + 90		54	-1	-9
	4 + 75		50	+2	-6
	4 + 60		50	+3	-7
	4 + 45		50	+4	-8
	4 + 30		50	+8	0
	4 + 15		52	+7	5
	4 + 00		60	+5	1
	3 + 85			+5	-3
	3 + 70			+6	-1
3+50	3 + 55		60	+7	6

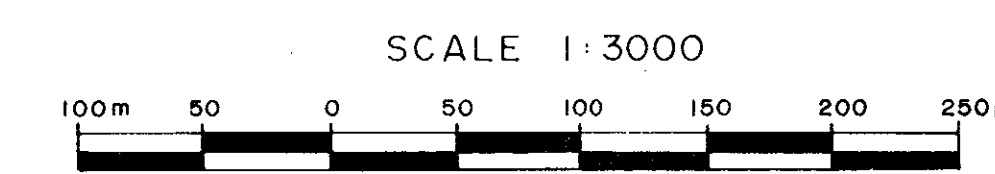
FS	NVI	
70	-7	✓
65	-7	3
66	-8	4
65	-9	1
75	-10	-6
70	-8	-8
65	-5	-5
60	-5	-3
75	-3	-4
75	-4	-10
72	0	-11
75	+3	-7
73	+4	-6
Trench 72	+6	-6
70	+7	-3
70	+9	1
75	+7	-2
70	+8	-2
70	+10	5
72	+7	7
	+6	4
	+4	-3
72	+5	-3



LEGEND

- TERTIARY**
- CENOZOIC**
 - KAMLOOPS GROUP
 - Basalt, olivine basalt, minor rhyolitic lava, and breccia.
- CRETACEOUS**
 - COAST INTRUSIONS
 - Veholite intrusions: granite, porphyritic granite.
 - Nelson intrusions: granodiorite, porphyritic granite, diorite, monzonite, quartz monzonite.
- MESOZOIC**
- PERMIAN**
 - ANACHIST GROUP
 - Greenstone, graywacke, porphyries, andesitic lava, breccia, recrystallized limy tuffs.
- PALEOZOIC**
 - Limestone.

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



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

- Qz QUARTZ
- Peg PEGMATITE
- Grt GARNET
- Apl APLITE
- Calc CALCITE
- Hem HEMATITE
- Mag MAGNETITE
- Pyrr PYRRHOTITE
- Sph SPHALERITE
- Ga GALENA
- Br BORNITE
- Cpy CHALCOPYRITE
- Py Pyrite

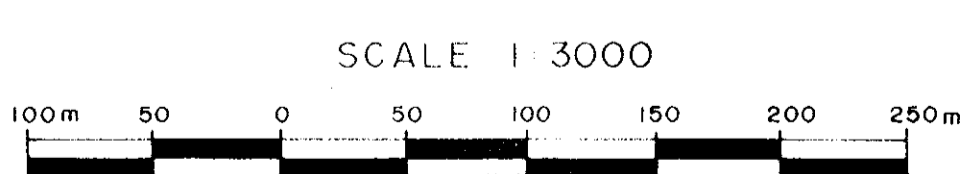
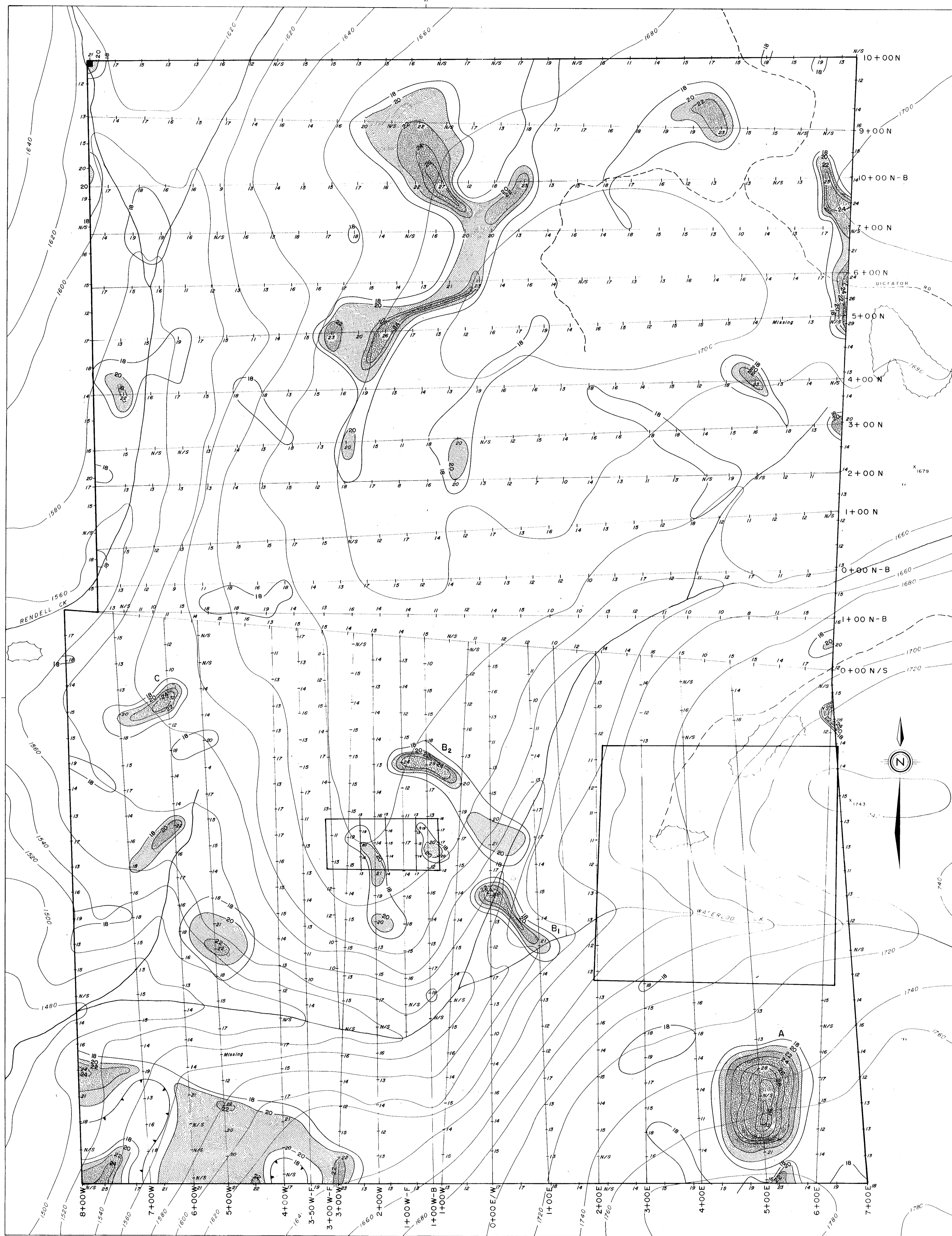
GEOLOGICAL BRANCH ASSESSMENT REPORT

11,220

MOHAWK OIL COMPANY LTD.
LIGHTNING PEAK AREA

JON
GEOLOGY

DRAWN BY	SCALE	DATE	DRAWING NO.
M. LETILLY	1:3000	MARCH, 1983	1



LEGEND

- | | | | | |
|-------------------|--|----------------------------|---------------------------------------|--|
| SUBNORMALOUS | | ANARCHIST GROUP INTRUSIVES | SOIL SAMPLE GRID LINE (values in ppm) | |
| ANOMALOUS | | ANARCHIST GROUP INTRUSIVES | CONTOUR LINE (ppm) | |
| 2ND ORDER ANOMALY | | ANARCHIST GROUP INTRUSIVES | TOPOGRAPHIC CONTOUR | |
| | | | ROAD | |

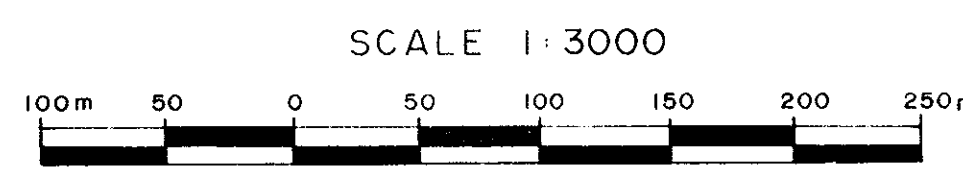
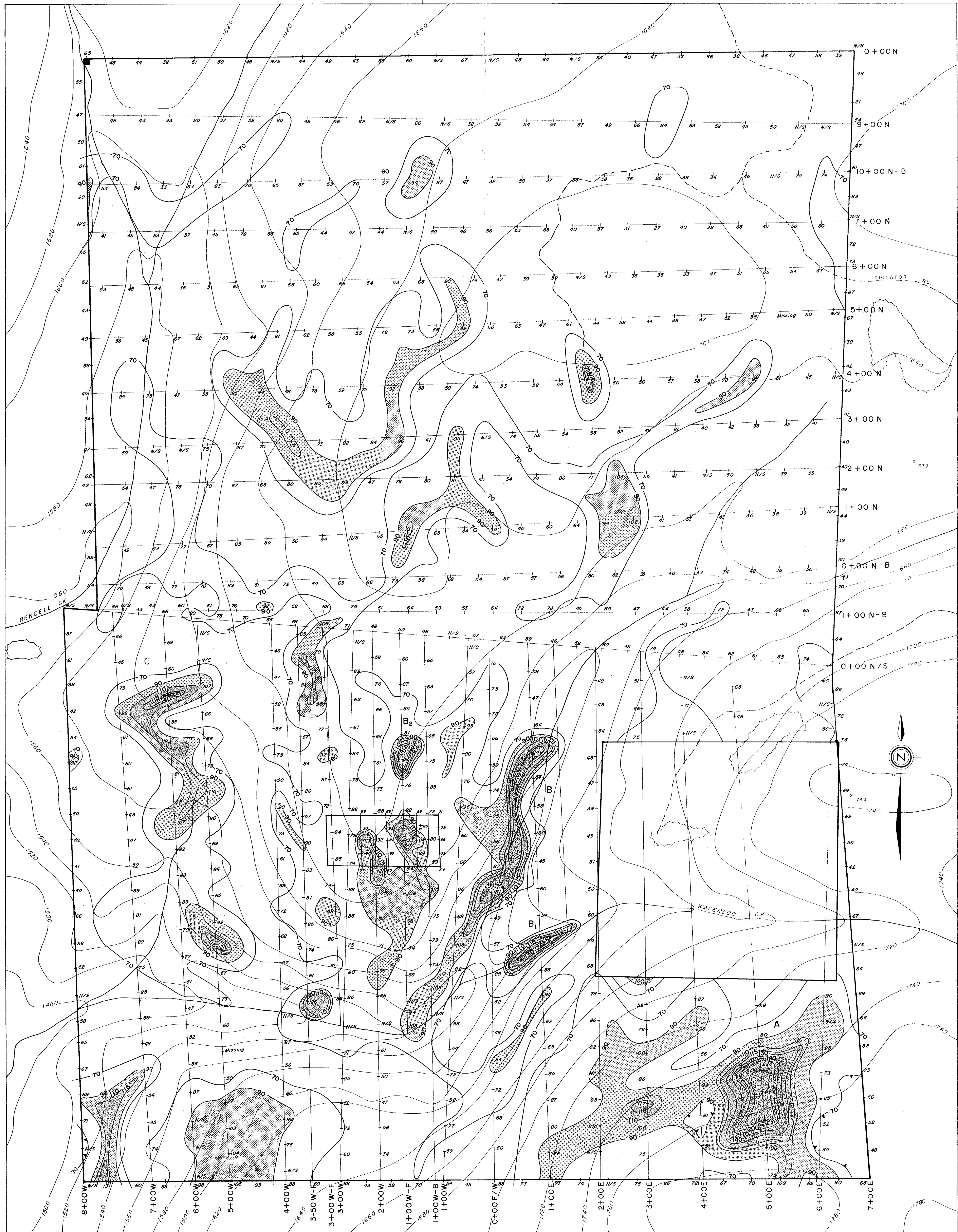
GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,220

MOHAWK OIL COMPANY LTD.
LIGHTNING PEAK AREA

JON
LEAD SOIL GEOCHEMISTRY

DRAWN BY	SCALE	DATE	DRAWING NO.
M. LITILLY	1:3000	MARCH, 1983	2



LEGEND

- | | | | | |
|-------------------|--|----------------------------|---------------------------------------|--|
| SUBANOMALOUS | | ANARCHIST GROUP INTRUSIVES | SOIL SAMPLE GRID LINE (values in ppm) | |
| ANOMALOUS | | ANARCHIST GROUP INTRUSIVES | CONTOUR LINE (ppm) | |
| 2ND ORDER ANOMALY | | ANARCHIST GROUP INTRUSIVES | TOPOGRAPHIC CONTOUR | |
| | | | ROAD | |

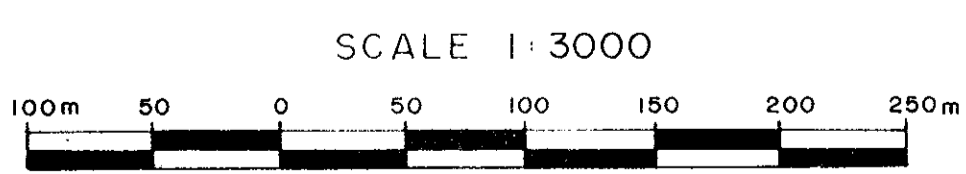
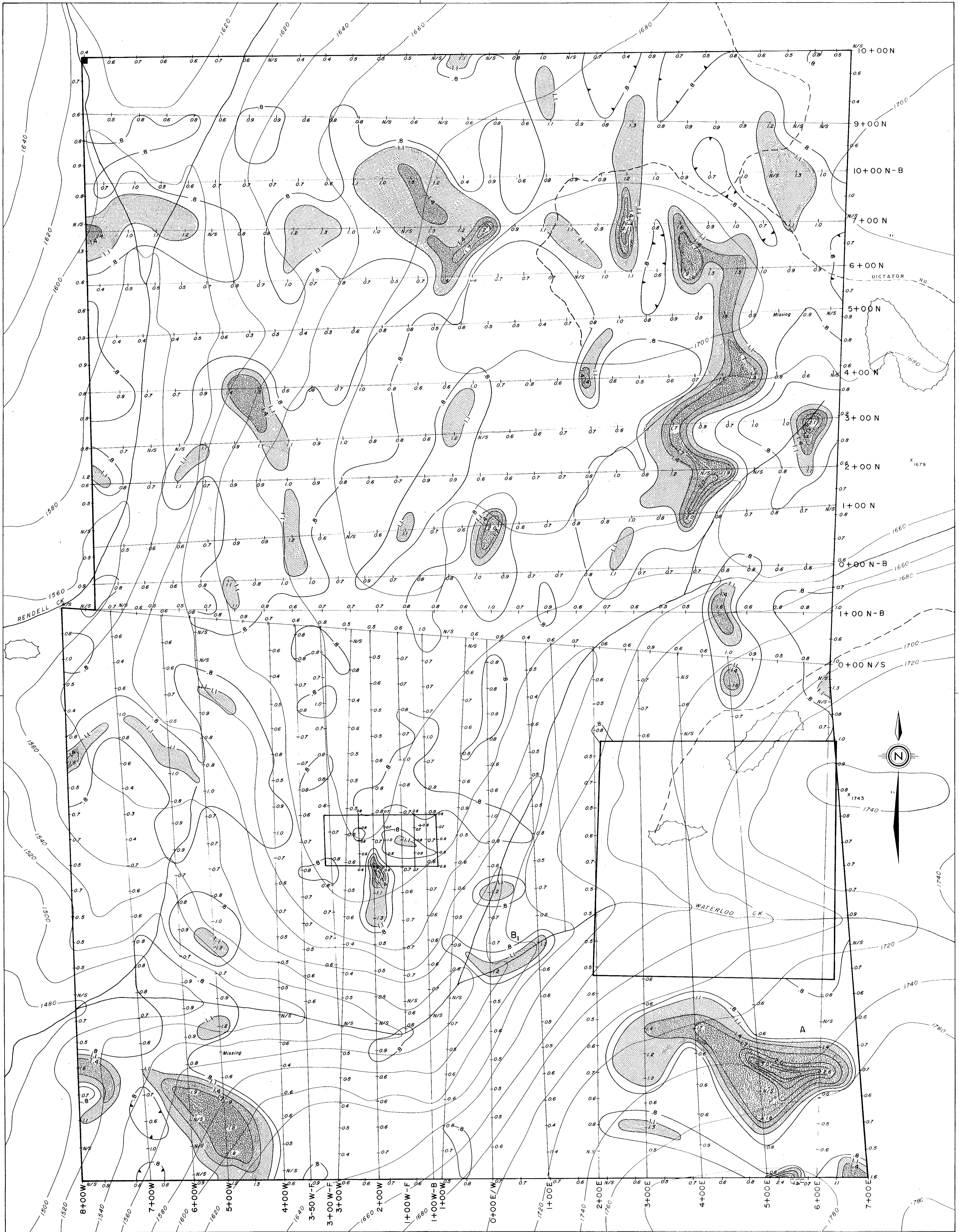
GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,220

MOHAWK OIL COMPANY LTD.
LIGHTNING PEAK AREA

JON
ZINC SOIL GEOCHEMISTRY

DRAWN BY	SCALE	DATE	DRAWING NO.
M. LETILLY	1:3000	MARCH, 1983	3



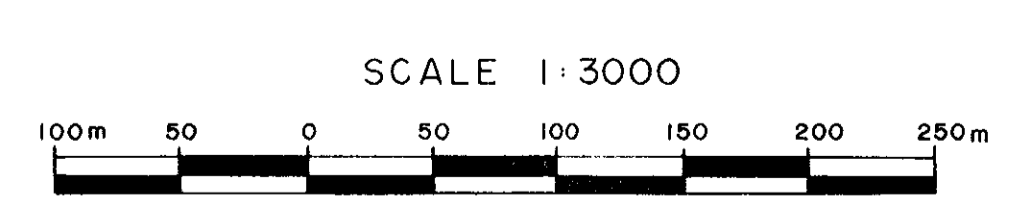
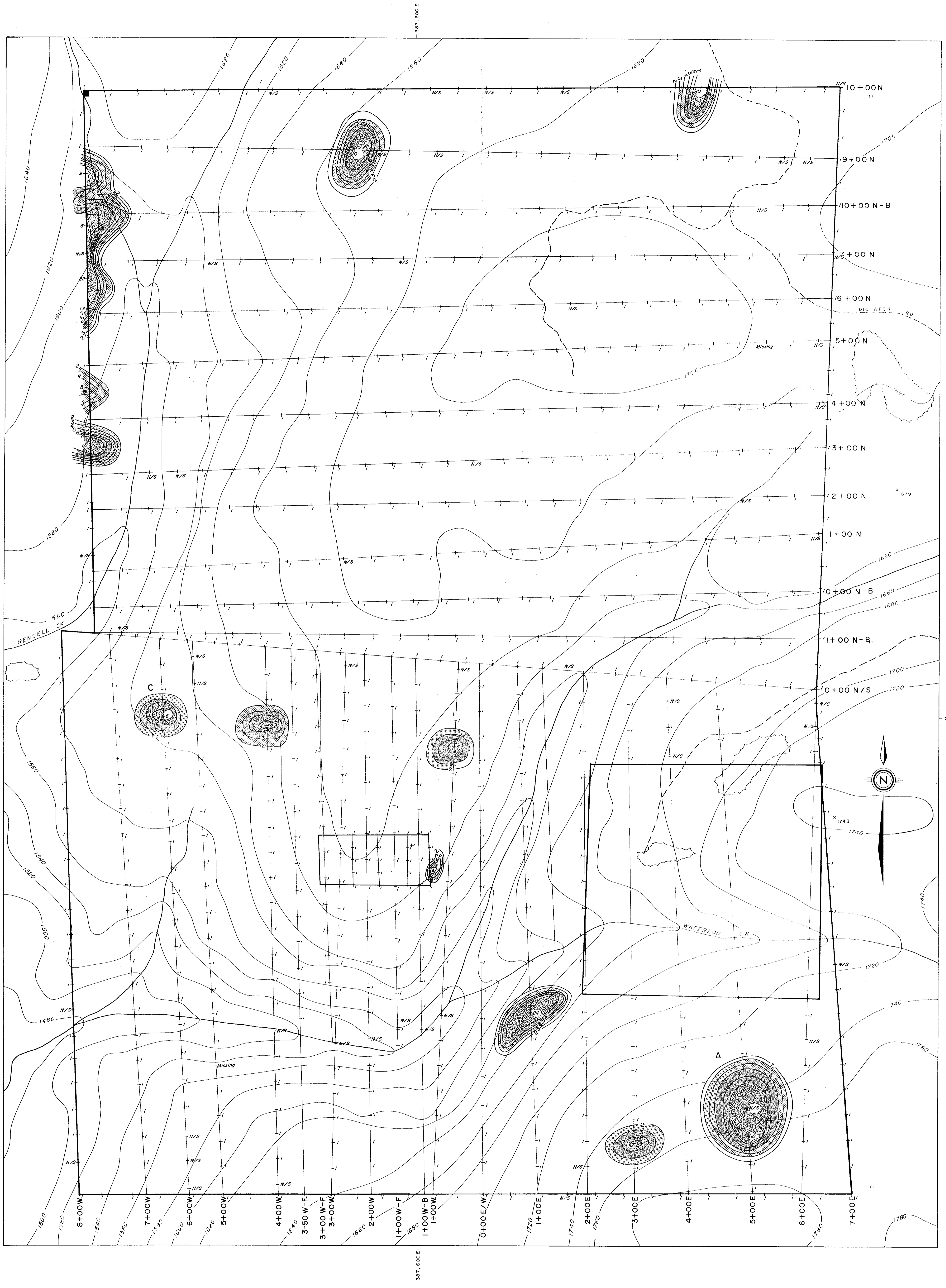
GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,220

LEGEND

- | | | | | |
|-------------------|--|----------------------------|---------------------------------------|--|
| SUBANOMALOUS | | ANARCHIST GROUP INTRUSIVES | SOIL SAMPLE GRID LINE (values in ppm) | |
| ANOMALOUS | | ANARCHIST GROUP INTRUSIVES | CONTOUR LINE (ppm) | |
| 2ND ORDER ANOMALY | | ANARCHIST GROUP INTRUSIVES | TOPOGRAPHIC CONTOUR | |
| | | | ROAD | |

MOHAWK OIL COMPANY LTD.			
LIGHTNING PEAK AREA			
JON			
SILVER SOIL GEOCHEMISTRY			
DRAWN BY	SCALE	DATE	DRAWING NO.
M. LETILLY	1:3000	MARCH, 1983	4



GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,220

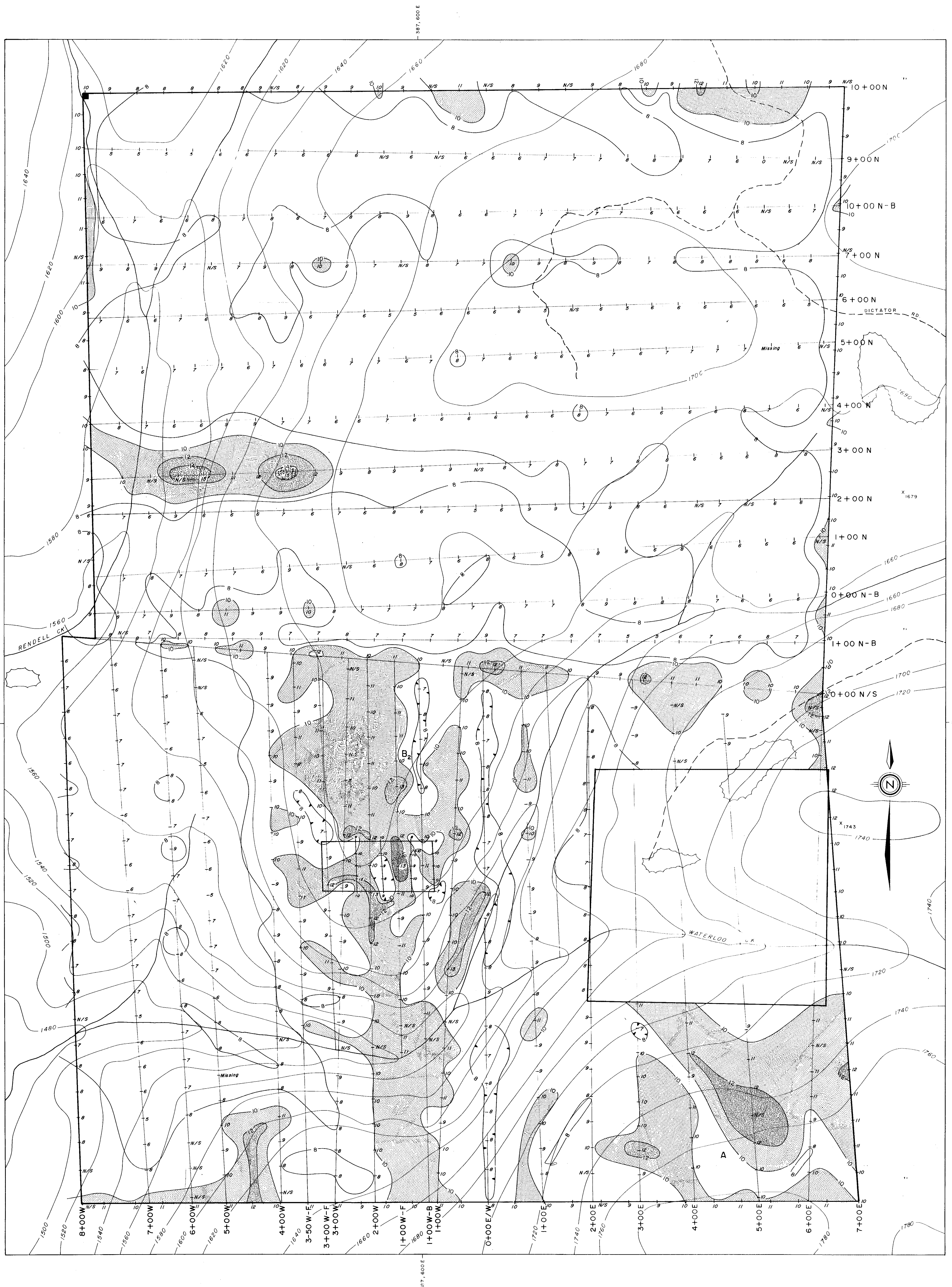
MOHAWK OIL COMPANY LTD.
LIGHTNING PEAK AREA

JON
ARSENIC SOIL GEOCHEMISTRY

LEGEND

- SUBANOMALOUS ANARCHIST GROUP INTRUSIVES
- ANOMALOUS ANARCHIST GROUP INTRUSIVES
- 2ND ORDER ANOMALY ANARCHIST GROUP INTRUSIVES
- SOIL SAMPLE GRID LINE (values in ppm)
- CONTOUR LINE (ppm)
- TOPOGRAPHIC CONTOUR
- ROAD

DRAWN BY	SCALE	DATE	DRAWING NO.
M. LETILLY	1:3000	MARCH, 1983	5



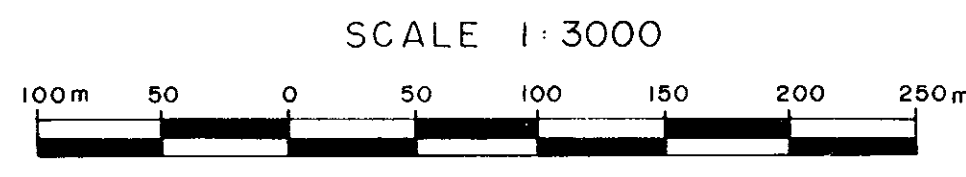
GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,220

MOHAWK OIL COMPANY LTD.
LIGHTNING PEAK AREA

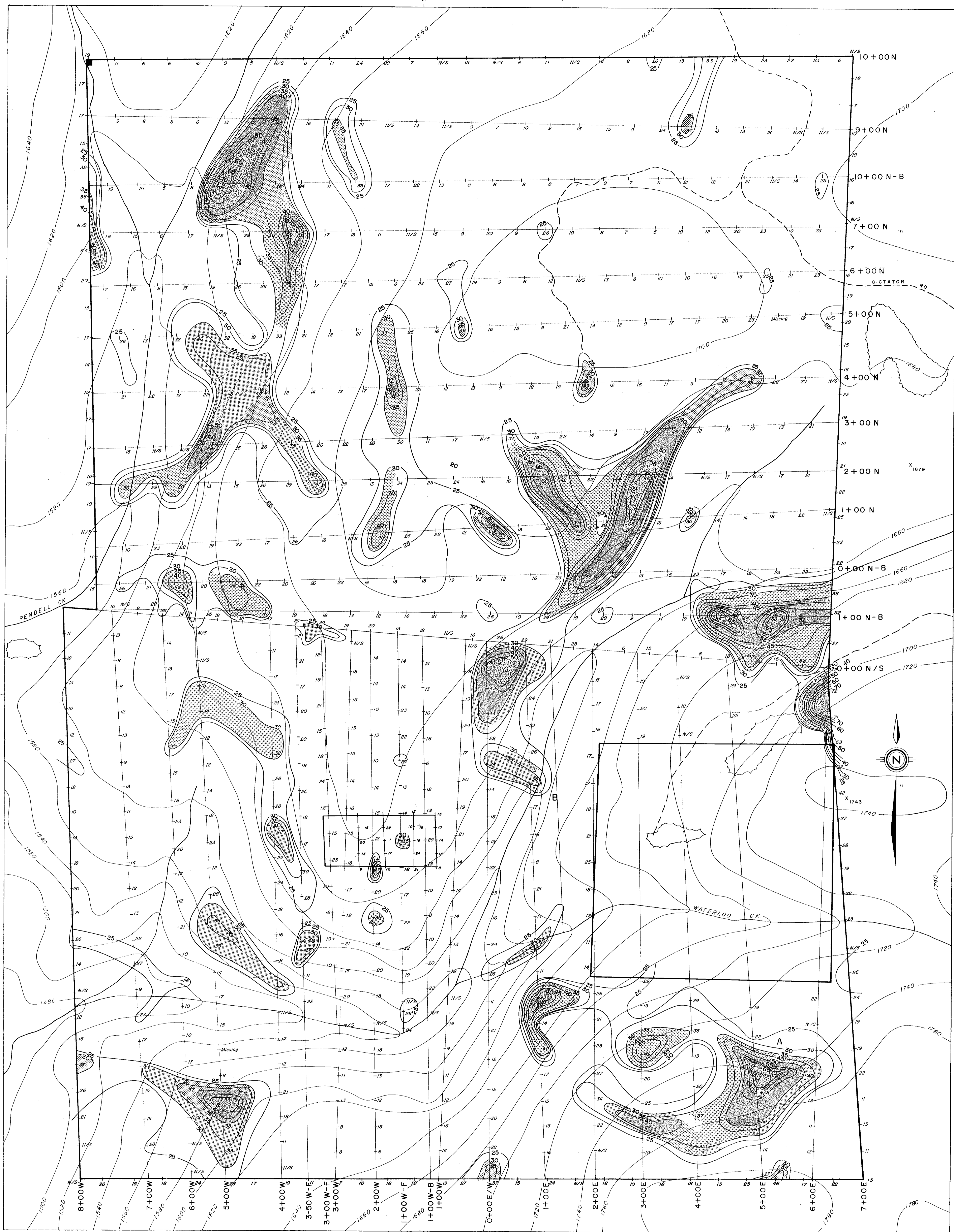
JON
ANTIMONY SOIL GEOCHEMISTRY

DRAWN BY	SCALE	DATE	DRAWING NO.
M. LETILLY	1:3000	MARCH, 1983	6



LEGEND

- | | | | | |
|-------------------|--|----------------------------|---------------------------------------|--|
| SUBANOMALOUS | | ANARCHIST GROUP INTRUSIVES | SOIL SAMPLE GRID LINE (values in ppm) | |
| ANOMALOUS | | ANARCHIST GROUP INTRUSIVES | CONTOUR LINE (ppm) | |
| 2ND ORDER ANOMALY | | ANARCHIST GROUP INTRUSIVES | TOPOGRAPHIC CONTOUR | |
| | | | ROAD | |



SCALE 1:3000
 100m 50 0 50 100 150 200 250m

LEGEND

- | | | | | |
|-------------------|--|----------------------------|---------------------------------------|--|
| SUBANOMALOUS | | ANARCHIST GROUP INTRUSIVES | SOIL SAMPLE GRID LINE (values in ppm) | |
| ANOMALOUS | | ANARCHIST GROUP INTRUSIVES | CONTOUR LINE (ppm) | |
| 2ND ORDER ANOMALY | | ANARCHIST GROUP INTRUSIVES | TOPOGRAPHIC CONTOUR | |
| | | | ROAD | |

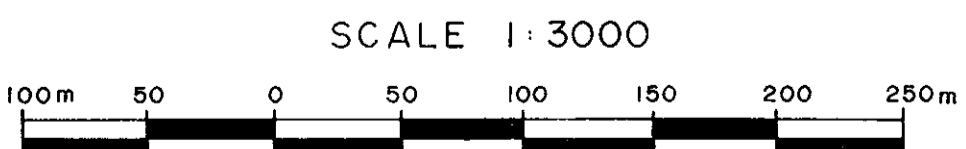
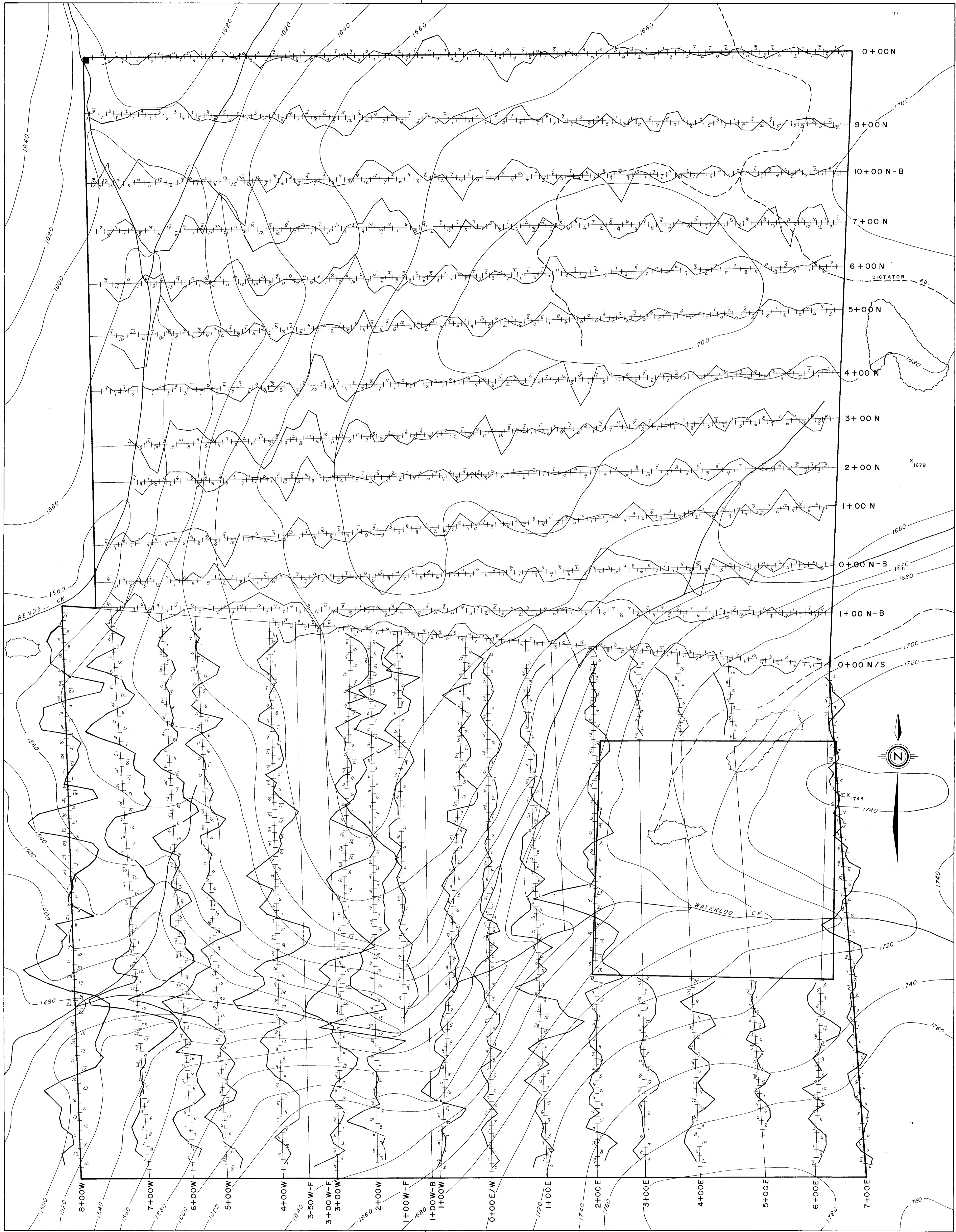
GEOLOGICAL BRANCH
 ASSESSMENT REPORT

11,220

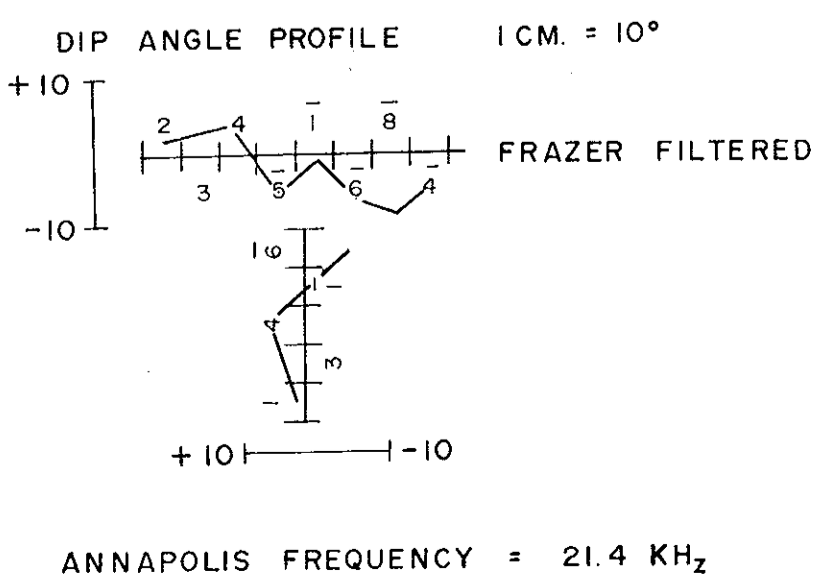
MOHAWK OIL COMPANY LTD.
 LIGHTNING PEAK AREA

JON
 COPPER SOIL GEOCHEMISTRY

DRAWN BY	SCALE	DATE	DRAWING NO.
M. LETILLY	1:3000	MARCH, 1983	7



LEGEND



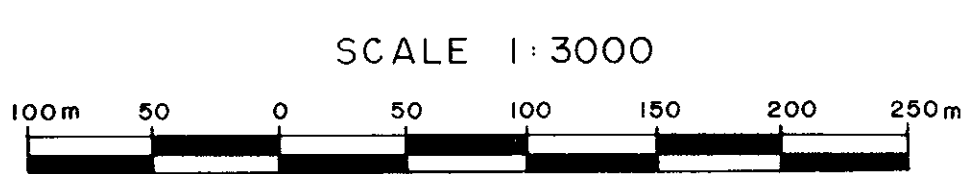
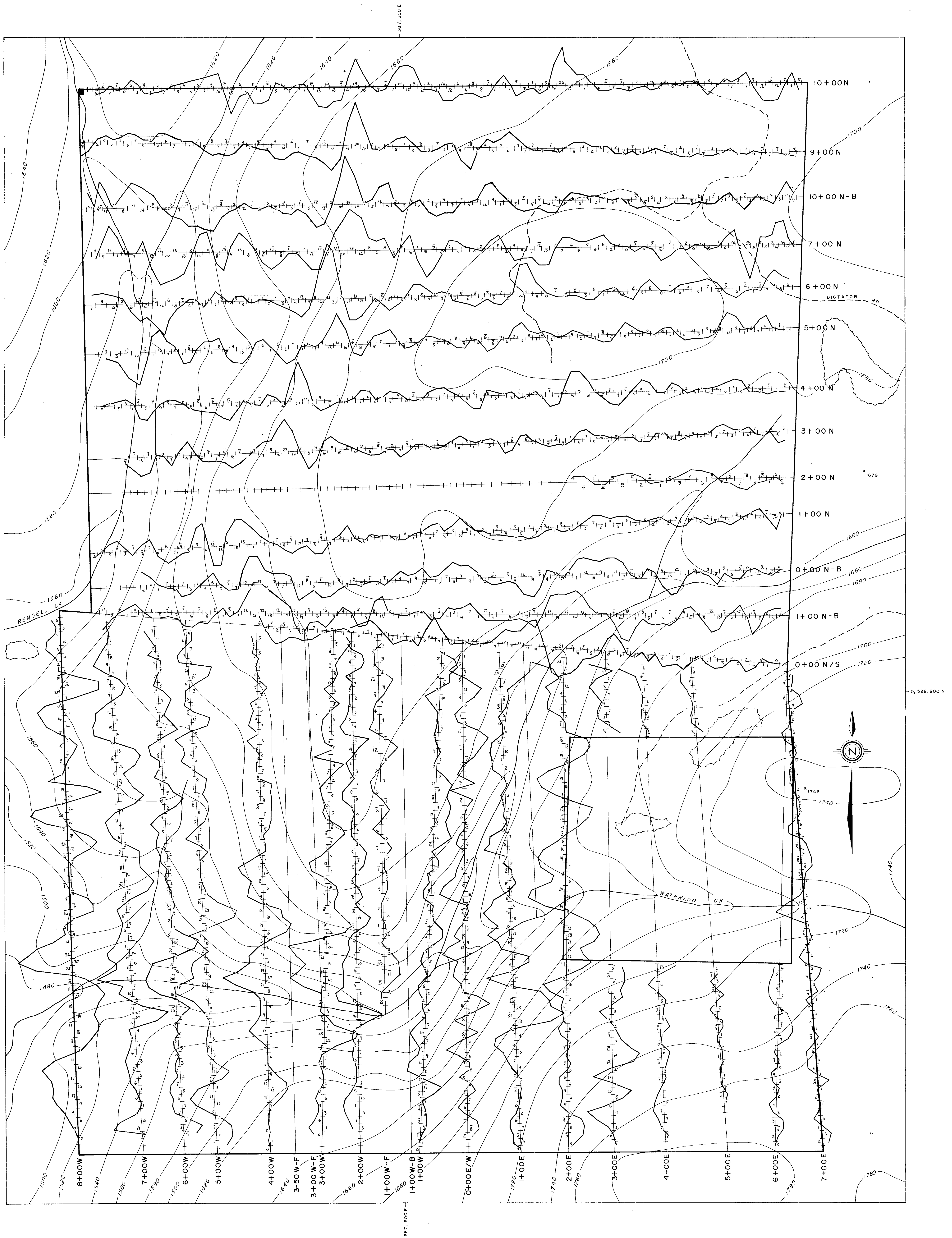
GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,220

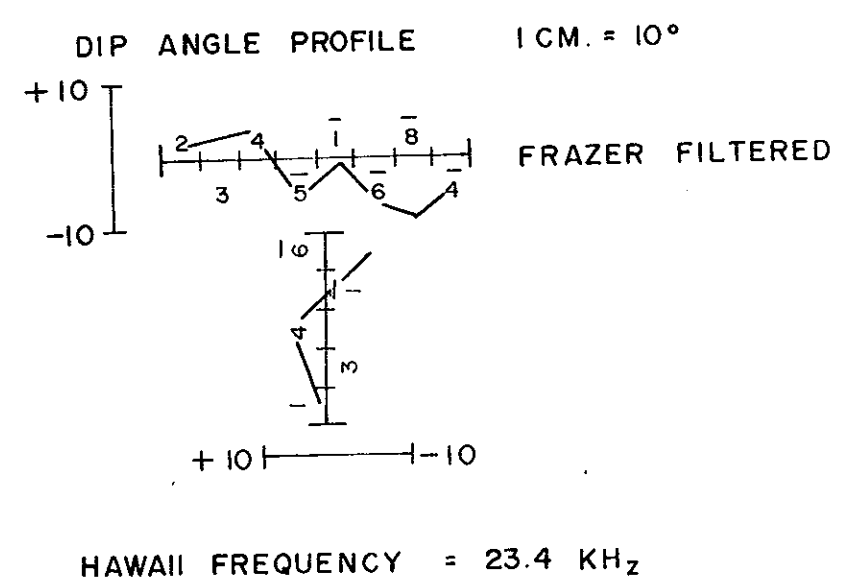
MOHAWK OIL COMPANY LTD.
LIGHTNING PEAK AREA

JON
VLF - EM DIP ANGLES
ANNAPOLIS

DRAWN BY	SCALE	DATE	DRAWING NO.
M LITTELL	1:3000	MARCH, 1983	8



LEGEND



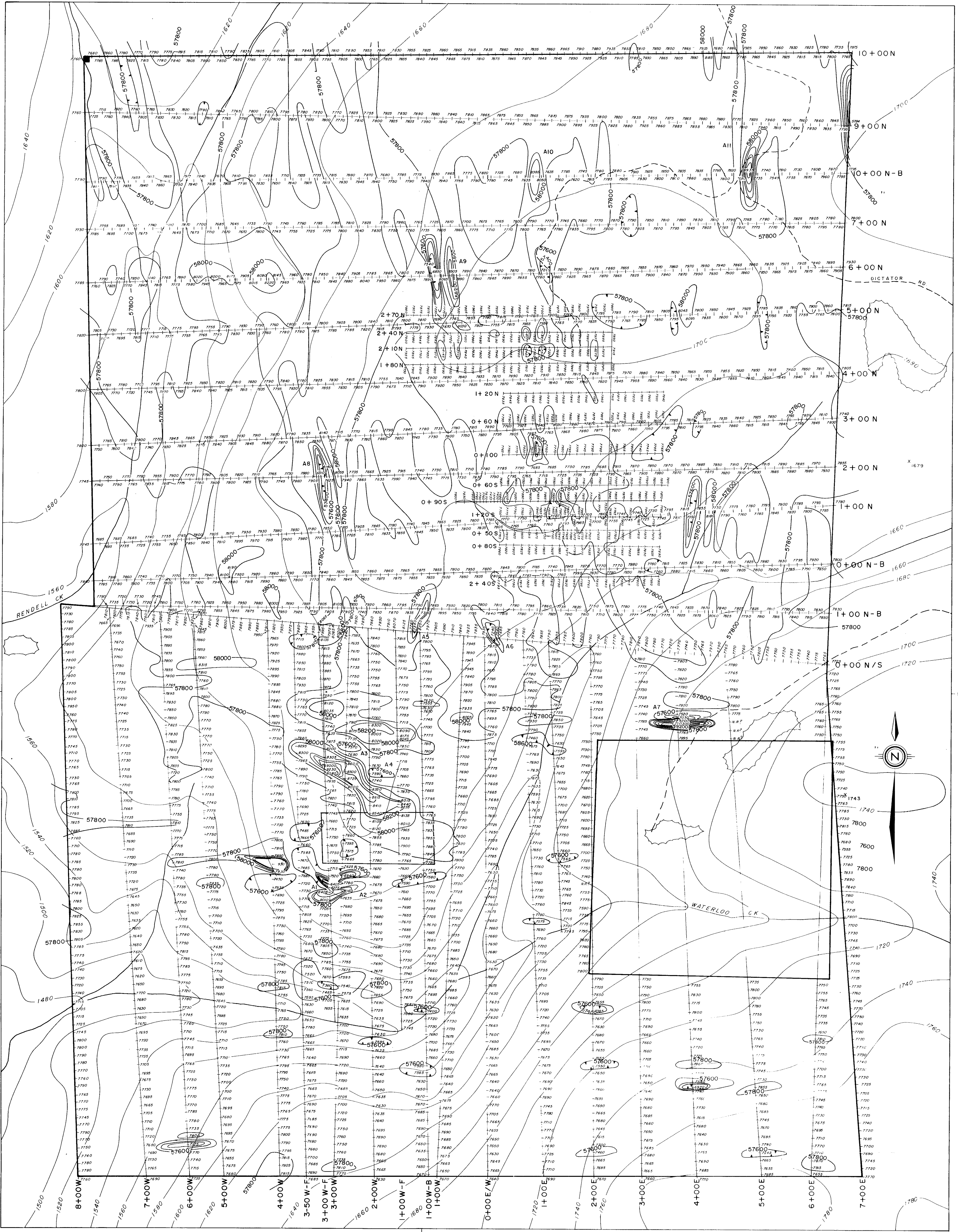
GEOLOGICAL BRANCH
 ASSESSMENT REPORT

11,220

MOHAWK OIL COMPANY LTD.
 LIGHTNING PEAK AREA

JON
 VLF - EM DIP ANGLES
 HAWAII

DRAWN BY	SCALE	DATE	DRAWING NO.
M. LITILLY	1:3000	MARCH, 1983	9



SCALE 1:3000



GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,220

MOHAWK OIL COMPANY LTD.
LIGHTNING PEAK AREA

JON
MAGNETIC SURVEY

LEGEND

- Magnetic Contour — 58000 —
- Magnetic Grid Reading (Gammas) — 1540 —
- Topographical Contour (Meters A.S.L.) — 1540 —
- Road —
- Clearing or Swamp —

3+10W	7800	7810	7820	7830	7840	7850	7860	7870	7880	7890	7900	7910	7920	7930	7940	7950	7960	7970	7980	7990	8000	8010	8020	8030	8040	8050	8060	8070	8080	8090	8100	8110	8120	8130	8140	8150	8160	8170	8180	8190	8200	8210	8220	8230	8240	8250	8260	8270	8280	8290	8300	8310	8320	8330	8340	8350	8360	8370	8380	8390	8400	8410	8420	8430	8440	8450	8460	8470	8480	8490	8500	8510	8520	8530	8540	8550	8560	8570	8580	8590	8600	8610	8620	8630	8640	8650	8660	8670	8680	8690	8700	8710	8720	8730	8740	8750	8760	8770	8780	8790	8800	8810	8820	8830	8840	8850	8860	8870	8880	8890	8900	8910	8920	8930	8940	8950	8960	8970	8980	8990	9000	9010	9020	9030	9040	9050	9060	9070	9080	9090	9100	9110	9120	9130	9140	9150	9160	9170	9180	9190	9200	9210	9220	9230	9240	9250	9260	9270	9280	9290	9300	9310	9320	9330	9340	9350	9360	9370	9380	9390	9400	9410	9420	9430	9440	9450	9460	9470	9480	9490	9500	9510	9520	9530	9540	9550	9560	9570	9580	9590	9600	9610	9620	9630	9640	9650	9660	9670	9680	9690	9700	9710	9720	9730	9740	9750	9760	9770	9780	9790	9800	9810	9820	9830	9840	9850	9860	9870	9880	9890	9900	9910	9920	9930	9940	9950	9960	9970	9980	9990	10000
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DRAWN BY	SCALE	DATE	DRAWING NO.
M. LITILLY	1:3000	MARCH, 1983	10