REPORT ON THE 1986 EXPLORATION PROGRAM OF REGAL PETROLEUM LTD. SWAYZE PROPERTY PORCUPINE MINING DIVISION ONTARIO

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SUMMARY

The 1986 exploration program on Regal Petroleum's Swayze gold property was primarily a drilling program aimed at locating higher grade intersections within the known sub-economic mineralization at the shaft area. Additional mapping, geophysics and trenching was carried out along the projected eastern extension of the shaft shear zone. This work confirmed the existence of the shear for a minimum of 3,500 metres along strike.

The I.P. survey was conducted over the area of this eastern extension and outlined a number of anomalous trends flanking the shear trace. Of these, three anomalies were the focus of the second phase drilling.

A test grid for soil geochemistry was conducted southwest of the shaft area, however, results were not encouraging and due to extensive esker and swamp cover over the majority of the property, no further soil sampling was carried out.

The results of the 1986 drilling were similar to previous drilling carried out in 1985. In the area of the shaft and stepping out south easterly, more sub-economic mineralization was encountered within the cataclastic shear zone. No obvious higher grade sections were discovered but the shear system was still evident and strong at the end of the area explored in 1986.

A further 6 kilometers of strike length remains untested and provides an excellent exploration target for future programs.

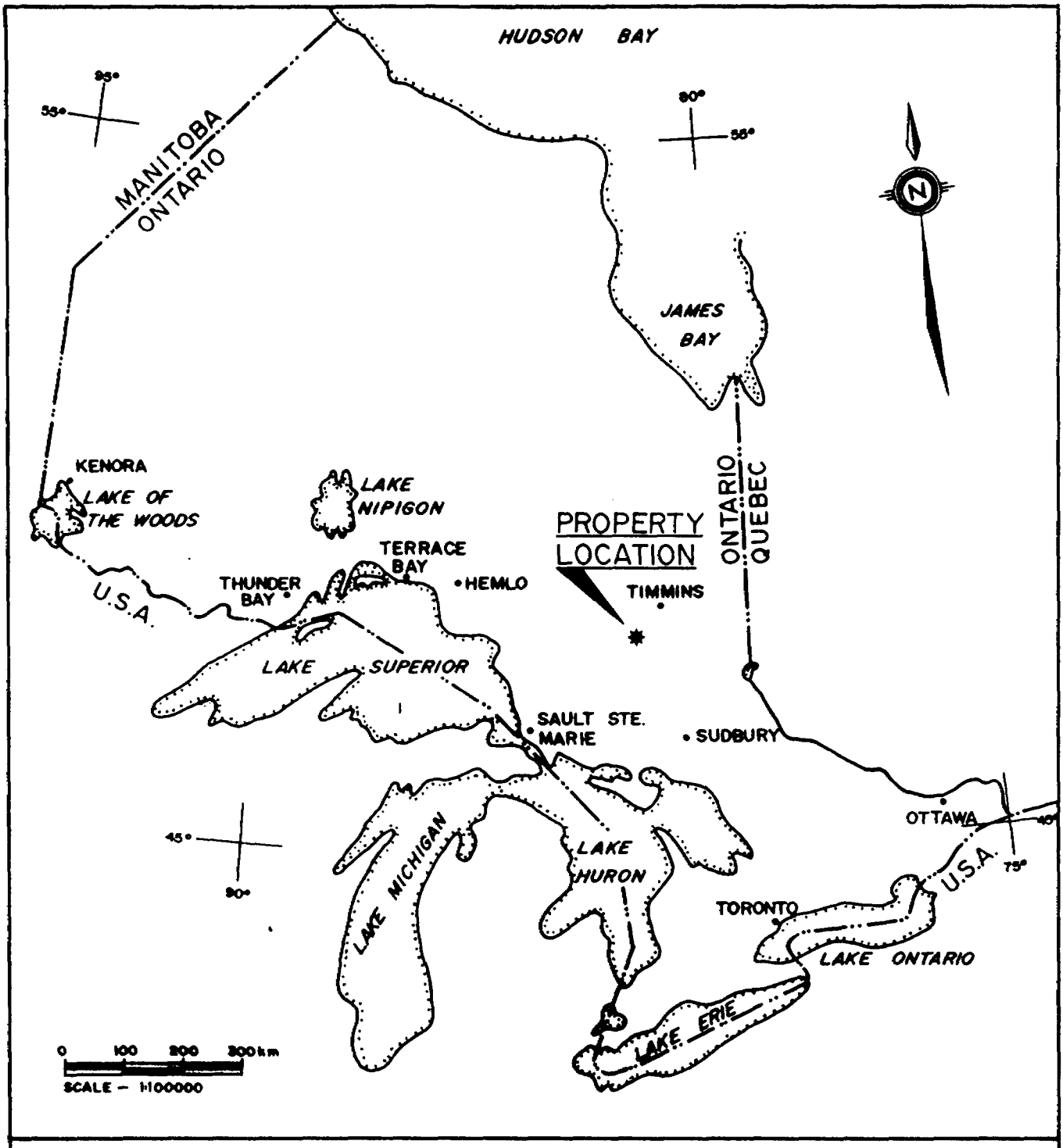

FIGURE 1

PROPERTY LOCATION MAP

REGAL PETROLEUM LTD.

SWAYZE AREA, PORCUPINE MINING DIV., ONTARIO

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INTRODUCTION

This report details the results of the 1986 exploration and drilling program on the Swayze propery of Regal Petroleum Ltd.

A total of 78 line kilometers were cut on a 100 metre grid spacing for mapping and geophysical control.

Following initial mapping, trenching and an I.P. survey, 2,130 metres of diamond drilling was carried out. This consisted of two phases: the first being a follow up to the 1985 drilling program and the second to test the 1986 survey I.P. anomalies.

The aim of this program was to locate higher grade intersections within the zone outlined by previous work, and trace the continuation of the shear along strike.

Reports on previous exploration programs are listed in the Bibliography.

LOCATION and ACCESS

The Regal Petroleum property is located approximately 40 kilometers east of the town of Chapleau and 120 kilometers southeast of Timmins, Ontario (Figure 1). Highway #101 connecting Chapleau to Timmins lies some 16 kilometers north of the north boundary of the property. A number of logging roads, originating from the small town of Kormak 16 kilometers southeast Chapleau, provide access to the southern portion of the property. During the summer months easiest access is by float plane to the Shunsby Lake camp through charter operators

located in Chapleau or from Ivanhoe Lake, 56 kilometers north. The work described herein was carried out from a base camp located at the south end of Shunsby Lake. A skidder trail was cut from the end of existing access at Betty Lake to the base camp. A shallow ford was constructed to cross the Kinogoma River.

PROPERTY and CLAIM STATUS

The entire property consists of 9 patented claims and 173 unpatented claims in Halcrow, Greenlaw and Tooms townships, Porcupine Mining Division, Ontario (Figure 2). They are listed as follows:

PATENTED

Patent Group - (6 claims)

Township	Claim Number
Halcrow	S-22148
	S-22150
	S-22152 to 22153
	S-22164
	S-22177

Shaft Group - (3 claims)

Township	Claim Number
Halcrow	S-22146
	S-22151
	S-22158

UNPATENTED - (173 claims)

Township	Claim Number	Expiry Date
Greenlaw	P-688610	March 4/87
	P-708930 to 708946 incl.	March 4/87
Tooms	P-688585 to 688590 incl.	March 4/87
	P-688595 to 688609 incl.	March 4/87
	P-708968 to 708969	March 4/87
	P-709068	March 4/87
	P-708950 to 708954 incl.	March 4/87
	P-708958 to 708961 incl.	March 4/87
Halcrow	P-708955 to 708957 incl.	March 4/87
	P-708970 to 708988 incl.	March 4/87
	P-709030 to 709043 incl.	March 4/87
	P-709045 to 709067 incl.	March 4/87
	P-758310 to 758319 incl.	May 5/87
	P-757402 to 757404 incl.	May 5/87
	P-757390 to 757401 incl.	May 5/87
	P-758284 to 758285	May 5/87
	P-708962 to 708967 incl.	March 4/87
	P-783632 to 783634 incl.	Dec. 23/87
	P-783637 to 783644 incl.	Dec. 23/87
	P-779842 to 779847 incl.	Dec. 23/87
	P-779870 to 779873 incl.	Dec. 23/87
	P-783631	Dec. 23/87
	P-752003 to 752008 incl.	Dec. 23/87
	P-779840 to 779841	Dec. 23/87

The patented claims are held in good standing as long as the taxes are paid. The work completed on the Regal property in 1986 will extend the expiry date on all claims to at least 1988 pending government approval.

PHYSIOGRAPHY and VEGETATION

The property area is relatively flat with a maximum elevation change in the order of 30 metres. A low gently sloping ridge, site of the old Halcrow Swayze mine, dominates the Shaft Claims. Overburden cover, consisting of sand and gravel till, mantles over 90% of the claim group.

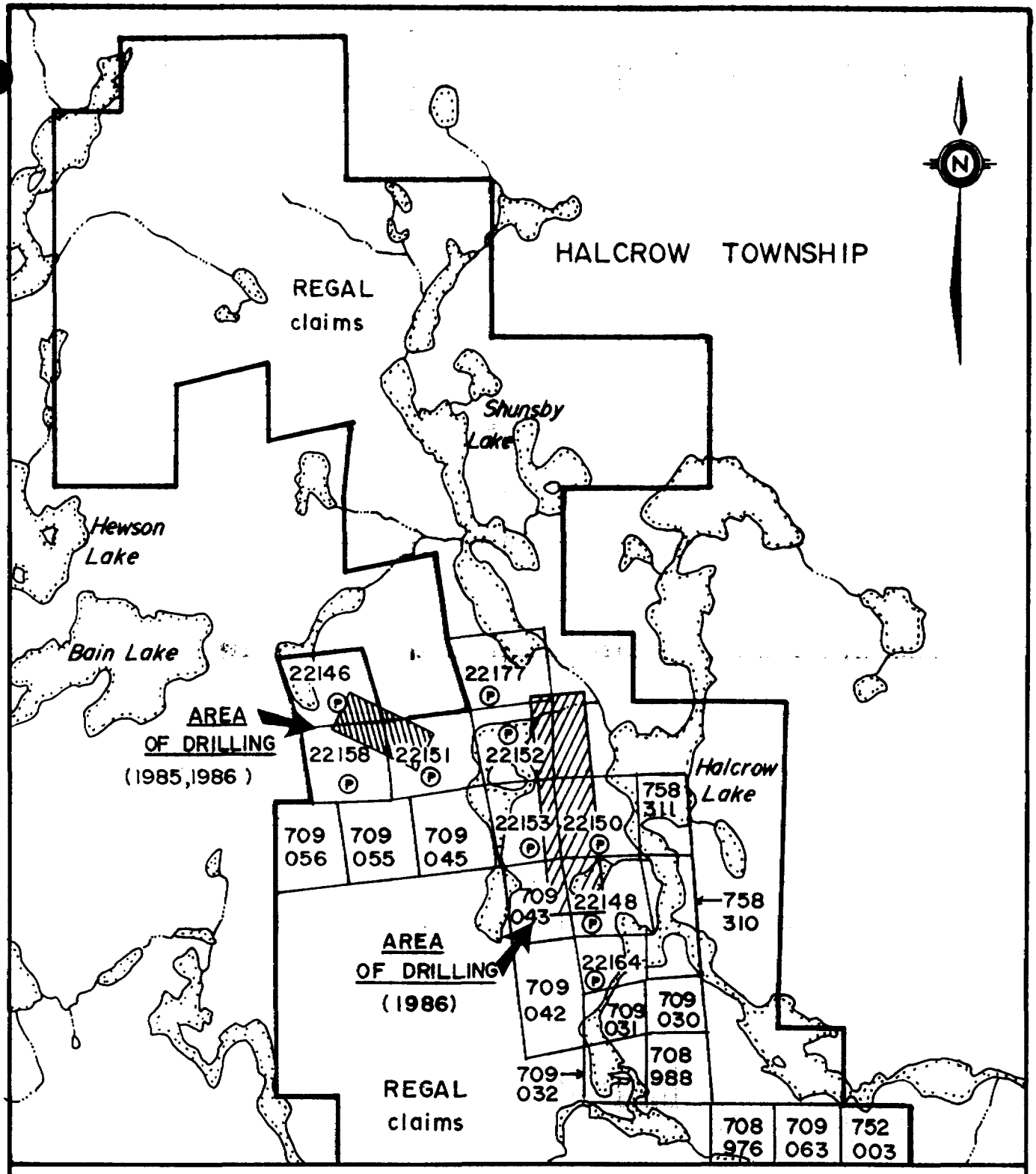

FIGURE 2

CLAIM MAP

REGAL PETROLEUM LTD.

SWAYZE AREA, ONTARIO

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Vegetation cover, on the Shaft claims, is dominated by mature stands of poplar, birch and jackpine. Outside of the Shaft area, the low ground and swampy areas are covered by spruce, balsam, cedar and abundant undergrowth of alder. The southeastern portion has been recently logged and the new growth is immature, mainly pine.

HISTORY and PREVIOUS WORK

Although the gold potential of the Swayze greenstone belt has been recognized since the early 1900's, the first major thrust in gold exploration occurred in the 1930-1943 period. The discovery of gold to the east of the area in Swayze Township, in 1931, lead to extensive prospecting in the area. A detailed account of other work carried out in the Swayze gold belt can be found in a report by Esson, 1983.

One of the most important gold discoveries of that era was that of the Halcrow Swayze mine, presently located on the three claims of the "Shaft Group" held by Regal Petroleum Ltd. According to Laird (1935) "Development of the property... consisted mainly of surface exploration (trenching), underground development, diamond drilling and the operation of a 25-ton test mill". Testing of the three main veins on surface yielded the following results (Laird, 1935):

Vein	Length (Feet)	Width (Inches)	Gold Content (oz/ton)
No. 1	100	16	.235
No. 2	900	84	.120
No. 4	30	12	.857

A shaft was sunk on No. 2 vein to a depth of 371 feet, with levels at 200

and 354 feet. Drifting on the No. 2 vein at the 200 foot level extended for 1,138 feet over width of 4 to 7 feet and the vein was opened for 200 feet at the 354 foot level. Ore reserves were estimated at 85,500 tons of ore grading .11 oz/ton Au in the No. 2 vein above the 200 foot level and a further 45,000 tons of the same grade between the two levels. Vertical continuity of the ore zone was indicated by diamond drilling to a depth of 500 feet.

Initial exploration work by Regal Petroleum Ltd. on the property commenced in 1984, with an airborne geophysical survey flown by Aerodat Limited. Data from magnetometer, HEM and VLF electromagnetic system were collected over the entire property.

In 1984, the firm of David R. Bell Geological Services Inc. was contracted to undertake a geological assessment of the Regal Petroleum property. A widely spaced cut grid was established over the entire property followed by geological mapping, rock sampling and limited soil geochemistry.

During the same year a preliminary phase of exploration on the "Shaft Group" of Patent Claims (old Halcrow Swayze Mine) was undertaken. Old trenches were cleaned and sampled and a cut grid was established along a 300° surveyed baseline with crosslines spaced at 100 foot intervals. Assays from grab samples ranged from 11 ppb to 0.713 oz Au/ton.

In 1985, exploration was restricted to the Shaft Group of claims (claims S 22146, S 22158 and S 22151). A geochemical soil survey and ground geophysics consisting of induced polarization, VLF-EM and magnetic surveys were completed

in the early part of the summer. Sixteen trenches were also excavated and later mapped and sampled. The trenches were located in two separate areas; twelve trenches were excavated on the Shaft Group and four others were located near the number three post of the claim S 22164. A total of 77 samples consisting mainly of grab samples with some channel and chip samples were collected from the trenches and assayed for gold.

A diamond drilling program was undertaken in November, 1985 to test the structure associated with the Halcrow Swayze Mine on the Shaft Group. The drilling was carried out by Bradley Brothers of Timmins under the supervision of OreQuest Consultants Ltd. A Viking Helicopter Hughes 500D provided the helicopter support. Diamond drilling began on November 15 and terminated on December 10 with the completion of the 14 drill holes for a total of 1,396 metres.

REGIONAL GEOLOGY

The property is situated in the western most corner of the Swayze greenstone belt. The Swayze area is an arcuate volcano-sedimentary belt grouped within the Abitibi sub-province (Figure 3).

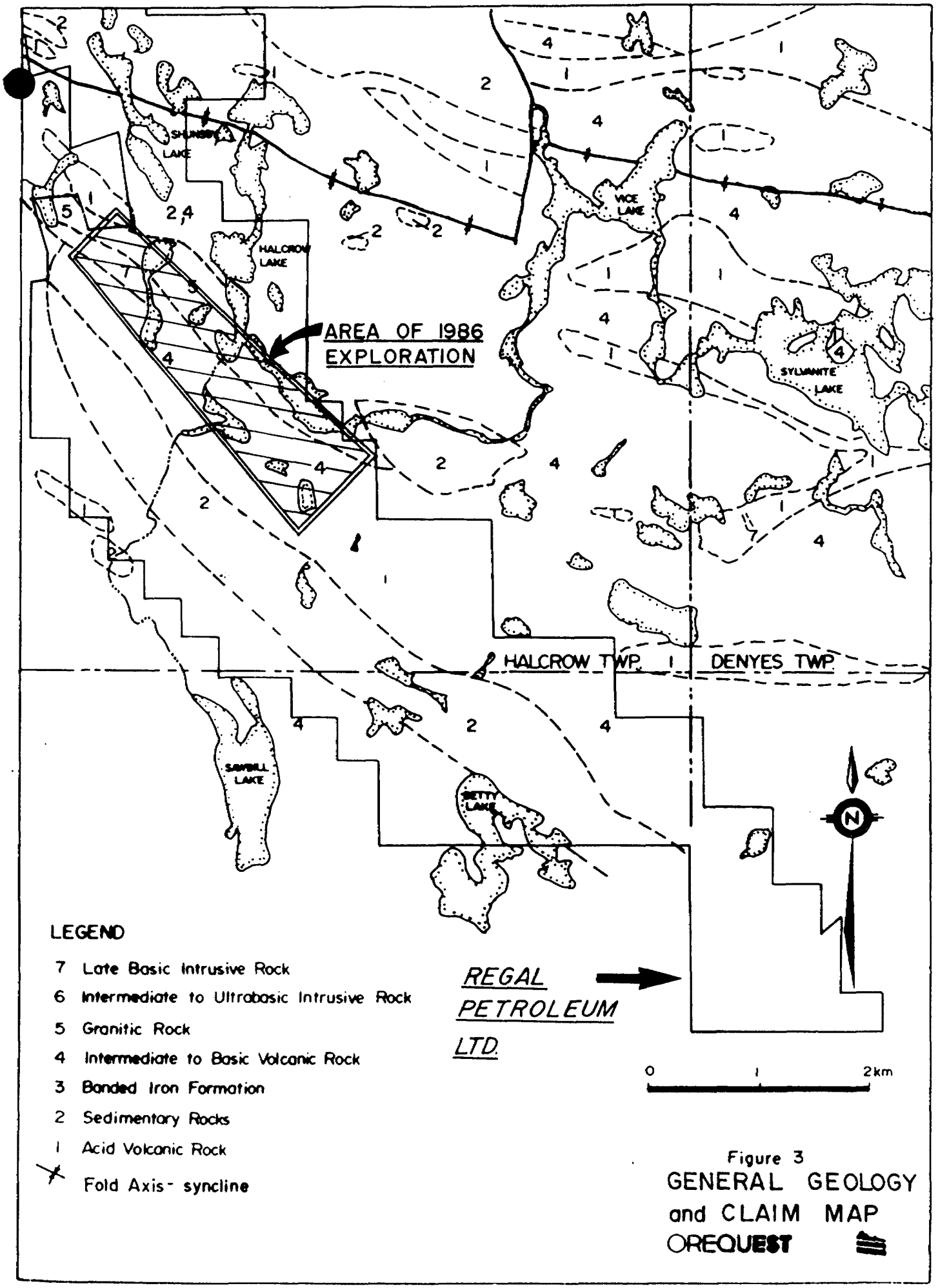

Figure 3
GENERAL GEOLOGY and CLAIM MAP
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A brief account of the regional geology as taken from Ontario Department of Mines Geological Report #63 "Geology of Halcrow-Ridout Lakes Area" by J.F. Donovan (1969) is as follows:

> "The area is underlain by Precambrian rocks, consisting of acid-to basic volcanic rocks, sedimentary rocks and intrusive igneous rocks.
>
> Intermediate-to-basic volcanic rocks are dominant and trend in an east-west direction across the area. Acid volcanic rocks are abundant in Denyes Township, but elsewhere acid volcanic rocks are intercalated with the intermediate-to basic volcanic rocks. Two major belts of sedimentary rocks traverse the map-area and form part of a major synclinal structure. The sedimentary rocks are predominantly conglomerate and quartzite with minor pelitic rocks, greywacke and arkose. A few bodies of intrusive granite cut the western part of Halcrow and Tooms Townships and a contact metamorphic zone is developed by the granite. A few bodies of intrusive diorite are closely associated with the basic volcanic rocks and numerous northwest and northeast trending diabase dikes transect all other rock types. Pleistocene and Recent deposits cover much of the area.
>
> The rocks are steeply dipping and tightly folded about an east-west trending synclinal fold axis. The syncline is doubly plunging and its north limb is overturned; facing south. Major north-south trending fault zones are found along the Kinogama and Wakami Rivers; elsewhere small faults offset lithologic units".

Mapping of the Regal Petroleum property was undertaken by Reukl and Conquer in 1984. They summarized its geology as follows:

> "The property was found to be underlain by a metavolcanic-metasedimentary assemblage dominated by massive to foliated andesites intercalated with discontinued bands of fine to medium grained sediments. Banded iron formation was located in many places on the property occurring as discontinuous pockets or lenses. Granitic rocks occupy the west central and northwest portions of the property representing the eastern margin of a pluton".

The following is a table of geological units used by Donovan (1968):

TABLE 1

TABLE OF FORMATIONS

PRECAMBRIAN INTRUSIVE ROCKS

Late Basic Intrusive Rocks, Diabase

Intrusive Contact

Intermediate to Ultrabasic Intrusive Rocks:
Diorite, gabbro, lamprophyre, serpentine.

Intrusive Contact

Granitic Rocks:
Granite, syenite, monzonite, quartz, monzonite grandiorite, quartz diorite, gneissic granite.

Intrusive Contact

INTERMEDIATE TO BASIC VOLCANIC ROCKS

Massive andesite and basalt, pillow andesite and basalt, chlorite-horneblende-feldspar schist, basic tuff, grey massive andesite, volcanic breccia, amphibolite, hornblende-mica-feldspar schist, diorite and gabbro (flows or intrusions), porphyritic andesite and basalt.

Iron Formation:
Banded iron formation, schistose iron formation.

SEDIMENTARY ROCKS

Shale, argillite, slate, conglomerate, quartzite, greywacke, arkose, paragneiss, mica-hornblende-plagioclase-quarttz schist.

ACID VOLCANIC ROCKS

Massive rhyolite, acid tuff, volcanic breccia, sericite-quartz-feldspar schist, banded rhyolite, silicified rhyolite, rhyolite porphyry, feldspar porphyry.

PROPERTY GEOLOGY

Geology - Shaft Group

Information obtained from diamond core drilling has permitted the identification of rock textures and structures otherwise indistinguishable in surface exposures. As a result, the underlying geology initially inferred from the trenching was re-interpreted.

The claim group is crosscut by a shear zone locally trending at 300° that forms the contact zone between a quartz diorite sill to the northeast and mafic volcanic rocks to the south (Figure 3).

Intense deformation and hydrothermal alteration along the contact has produced a wide cataclastic zone which has affected both the quartz diorite intrusive and the mafic volcanic rocks.

This zone which was initially thought to be sedimentary quartzites and greywackes and in past has been mapped as a felsic volcanic is in fact the result of polyphase deformation and hydrothermal alteration of the quartz diorite.

Structural Geology

The cataclastic zone developed along the contact of a quartz diorite and mafic volcanic succession appears related to a regional fault trending at 300° and extending beyond the boundary of the Shaft Group.

A linear magnetic anomaly (Aerodat, 1984) parallels the trend of the shear

zone and extends for 10 kilometers across the entire Regal property.

West of the shaft the contact zone dips steeply south while east of the shaft, the zone appears to be rotated and faces north.

Deformation of the quartz diorite may have been initiated at an early stage by protoclasis. Protoclasis applies to cataclasis of an igneous body or parts of an igneous body, generally before it has completely crystallized (Higgins, 1971).

The felsic intrusive may originally have been emplaced along a fault plane, only to be deformed by later fault movement. In metamorphic terrain, dikes, veins and sills often formed zones of easiest movement during periods of directed stress. Polyphase deformation is evidenced by thin section examination of the cataclasite from the 1985 drill ore which shows a granulation of quartz and feldspar crystal into fragments less than 2 mm and megascopic examination of rock or core specimens which typically exhibit a micro brecciation of this granulated matrix into .5 to 2 cm fragments separated by a network of sericitic veins. Deformation and alteration gradually increases from north to south, although sinusoidal dispersion of stress during deformation of the quartz diorite has produced zones of highly strained rock adjacent to less deformed rocks. For this reason intercalation of quartz diorite with its tectonised phases are found throughout the map area.

Mapping - 1986

During this phase of the program mapping was carried out on cut lines spaced at 100 metre intervals along a 4 kilometer baseline (Figure 8). The primary aim of the mapping was to attempt to locate the strike extension of the cataclastic zone and identify areas for follow up trenching. Outcrop exposure is poor over most of the area of interest with extensive cedar bog and esker cover.

The 1985 Aerodat survey outlined three sub-parallel magnetic highs trending northwest-southeast. The northern most of these was known to be the quartz diorite dyke flanking the cataclastic zone. A diabase dyke was thought to be the cause of the middle trend, and scattered outcrops located during the mapping proved this to be the case. At line 3+50E/6+80S a windfall tree exposed a 6 metre thick banded iron formation. Trenching exposed the same formation 50 metres along strike to the southeast after which overburden cover became excessive. This zone conforms to the location of the southermost magnetic anomaly.

Follow up on several of the E.M. anomalies revealed no obvious causes other than conductive swamps.

Several old trenches were located during the mapping one of which exposed a 0.3 metre wide quartz sulfide vein, a channel sample of which ran 5,140 ppb Au.

As no significant changes were made to the geological assemblage the reader is referred to the 1986 report by Cavey, LeBel and Dumouchel for more detailed

descriptions.

GEOPHYSICS

An induced polarization geophysical survey was conducted on the property. A previous induced polarization in the vicinity of the old Halcrow-Swayze mine detected a weak but distinct anomaly associated with the known mineralized zone. The purpose of the present survey was to explore for similar anomalies elsewhere on the property.

The survey was conducted in the time domain with an EDA IP-1 receiver and a Phoenix Geophysics IPT-1 transmitter and was done with the dipole-dipole electrode array with an electrode spacing of 25 metres expanded through four separations. The electrode array was selected to provide reasonable depth of detection and resolution of any narrow targets present.

The survey coverage was selectively applied to areas of known or inferred cataclasite and the contact between the cataclasite and volcanics. The coverage was further restricted by initially surveying alternate, 200 metres spaced lines and infilling at 100 metre intervals only if anomalies were recorded. Much of the area surveyed was coincidentally covered by a mantle of glacial till.

The coverage provided by the survey is as follows:

Line	From	To
5+00E	5+00N	8+50N
6+00E	6+00N	8+50N
7+00E	4+25N	7+25N
8+00E	4+25N	6+75N
9+00E	0+25N	7+50N
10+00E	3+75N	6+75N
11+00E	0+00	6+25N
12+00E	3+75N	6+25N
13+00E	3+00S	6+25N
14+00E	3+25N	5+00N
	3+00S	0+25N
15+00E	2+25N	4+75N
	2+50S	0+50N
16+00E	2+75S	4+50N
17+00E	2+00N	4+25N
	3+25S	0+75N
18+00E	4+50S	0+75N
21+00E	1+75S	2+75N
23+00E	2+25S	1+75N
25+00E	2+00S	2+00N
27+00E	2+00S	1+50N
29+00E	1+75S	0+75N
31+00E	1+50S	1+00N
33+00E	0+50S	2+75N
35+00E	0+50S	4+00N
37+00E	1+25S	2+75N

Since the present survey was conducted with a different reciever than the previous survey, a limited amount (2 short lines) of repeat coverage was done in the area of the Halcrow Swayze mine. This coverage did not exactly repeat the previous coverage because different (new) cut lines were used. This coverage is as follows:

Line	From	To
4+00E	0+25S	2+25N
5+00E	0+75S	1+50N

This coverage was also included because a drill hole was contemplated for the area.

The results of the survey are presented in pseudosection format in Appendix E. With the exception of lines 4+00E and 5+00E above only the anomalous portions of the pseudosections are shown in order to reduce the amount of data presented. Locations of the anomalies, in plan, are shown on Figure 6.

Weak chargeability anomalies ie. up to 9 msec. in a background of less than 4 msec. were recorded on llines 4+00E and 5+00E to duplicate previous results obtained in the vicinity of the old Halcrow Swayze mine. Although the anomalies are weak they are quite distinct because background values are uniformly low.

Five anomalous chargeability zones, labelled A to E, and one resistivity anomaly as shown on Figure 6 were recorded by the survey away from the original anomaly near the old Halcrow Swayze mine.

Zone A occurs principally on line 5+00E but is also evident on line 6+00E between 6+50N and 6+75N. On line 5+00E, zone A, exhibits chargeabilities of up to 30 msec. which were the highest values recorded by the survey. At this location zone A reflects a 50 metre wide body centered at about 7+00N. Zone A was tested by (RG-86-6) and was found to be caused by graphitic tuffs and siltstones.

Zone B extends from line 5+00E at 5+75N to line 15+00E at 4+25N. On line

15+00E the anomaly is not completely defined because the Kinogama River impeded the survey coverage. Chargeabilities in zone B range from 10 msec-25 msec. On line 13+00E the zone produced only weakly anomalous results because it is at a depth of 25-50 metres. Elsewhere zone B is generally shallow.

Zone B varies in width from narrow (ie. less than 25 metres) to 75 metres. At its widest located on lines 7+00E and 11+00E, it seems to be composed of a 50 metres wide zone of weakly anomalous values on the north, followed by a 25 metre wide band of strongly anomalous values on the south. Zone B was drilled on line 9+00E (RG-86-8), and on 11+00E (RG-86-7), and found to be a pyritic tuff. In both cases the variability in the anomaly was found to be caused by about 1% sulphides in the first part of the hole followed by a narrow intersection of 5%-50% sulphides.

Zone C crosses lines 13+00E to 18+00E at about 1+25S to 1+50S. Chargeabilities vary up to around 25 msec. and the width of zone C varies from narrow to 25 metres. On line 17+00E the zone is at a depth of 25m and on line 18+00E its depth has increased to about 50 metres.

Zone C appears to be associated with a marked resistivity low. For this reason it was argued that the zone may reflect a mineralized shear zone. Stratigraphically the zone appears to occur at the contact between andesite and volcanics and the cataclasite although geological evidence on line 14+00E possibly positioned the zone within andesites.

Drilling zone C on line 13+00E (RG-86-9) hit 2%-3% pyrite in andesite to

explain to chargeability anomaly. The amount of sulphides present was not sufficient to significantly depress the resistivity of the andesites and no other feature was found to adequately explain the resistivity low associated with the anomaly. A second hole (RG-86-10) in zone C on line 15+00E was not completed because of a major equipment failure.

Zone D is evident on lines 15+00E, 16+00E and 17+00E at about 2+75N. Chargeabilities associated with this zone are low achieving a maximum of 15 msec on line 16+00E. The zone reflects a narrow, less than 25 metre wide, body. This zone was not drilled.

Zone E extends from 21+00E to 37+00E within about 100 metre on either side of the base line with the exception of line 29+00E where no anomaly was obtained. Zone E is weak, rarely achieving over 10 msec in amplitude. Although it is weak the anomaly is quite distinct because background response in the area is unifromily low. The cause of zone C is not known nor was it tested by drilling. It appears to occur in andesites and occupies a similar stratigraphic position as zone C.

An anomaly of about 20 msec occurs on line 18+00E between 3+00S and 3+25S. This feature was not followed up because its location in andesites did not fit the model for the gold mineralization being sought on the property.

SOIL GEOCHEMISTRY

A total of 79 soil and 13 humus samples were collected during this portion of the program. An effort was made to collect B-horizon samples with A-horizon humus samples taken where a good B-horizon was not available. All samples were collected at 25 metre intervals over lines 1W to 4W. This was a test area to determine the viability of soil geochemistry as an exploration tool in an area where overburden cover was not excessive. The samples were analysed for gold, silver and copper by Vangeochem Lab. Ltd. in North Vancouver, B.C.

Results

Results of the soil sampling survey were disappointing with only one anomalous gold value of 150 ppb received on Line 1W, Station 0+25S. This sample was an organic rich muck from a cedar bog. The highest gold geochem in the remaining sampling was 10 ppb. No anomalous copper or silver values were detected. On the basis of these results no further sampling was undertaken as overburden would be more of a problem outside the test area and samples collected would not reflect bedrock mineralization.

A total of 40 rock samples were collected during the geological mapping program. Table 2 is a summary of the rock samples listing sample number, rock type, grid location and gold and copper values.

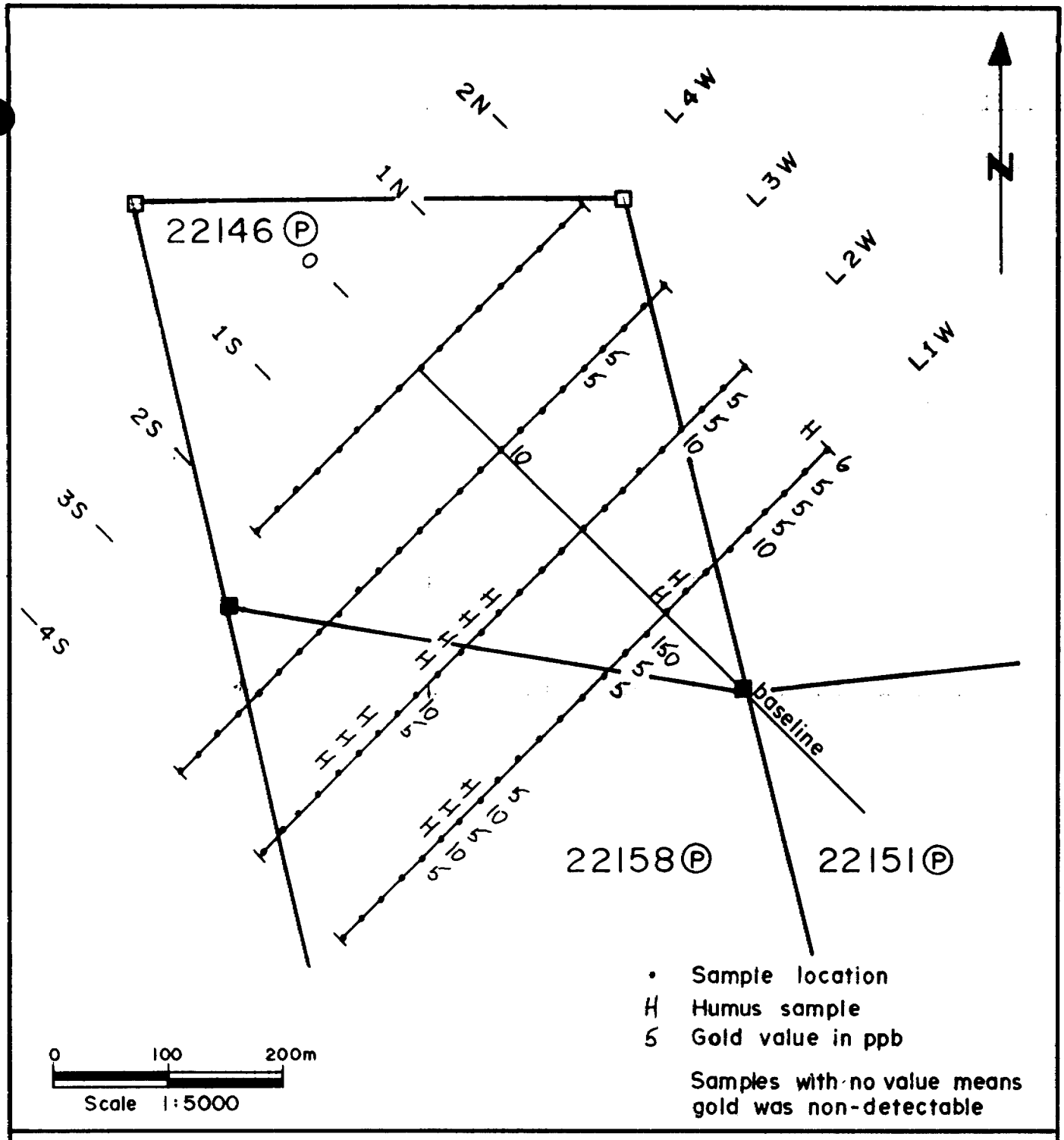

Figure 4

SOIL GEOCHEMISTRY RESULTS

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TABLE 2

Sample No.	Rock Type	Grid Location	Gold Value (ppb)	Copper Value (ppm)
09775	QD	1+00E, 1+60N	nd	5
09780	QD	15+90E, 0+75N	nd	91
09781	Quartz vein in QD	15+92E, 2+00N	10	10
09782	QD	16+85E, 0+70N	20	15
09783	QD	18+55E, 0+75N	5	21
09751	CQD	4+15W, 0+50N	20	10
09752	Sulfide vein in CQD	4+06W, 0+70S	2835	3160
09753	Quartz vein in CQD	4+05W, 0+69S	320	115
09754	CQD	3+05W, 0+60N	5	104
09764	CQD	2+95E, 3+30N	nd	13
09765	CQD	2+75E, 1+85N	nd	5
09766	CQD	2+80E, 1+65N	nd	90
09776	CQD	6+00E, 6+35N	10	8
09778	CQD	6+40E, 6+25N	30	3
09788	CQD	15+34E, 2+65N	5	14
09789	CQD	15+60E, 3+55N	nd	7
09769	CAT or Quartzite?	1+30E, 8+00N	5	16
09768	m MV	7+25E, 2+25S	nd	6
09763	f MV	1+98E, 1+60S	nd	26
09767	f MV	6+03E, 0+50S	nd	109
09755	sh MV	3+05W, 3+56S	20	40
09756	sh MV	2+08W, 2+00S	10	131
09757	sh MV	2+00W, 2+08S	nd	50
09758	sh MV	2+10W, 3+90S	nd	37
09759	sh MV	1+00W, 2+05S	5	141
09760	sh MV	1+15W, 2+95S	5	11
09761	sh MV	1+05W, 3+70S	nd	25
09777	sh MV	6+00E, 6+60N	5	50
09790	sh MV	14+35E, 2+95S	nd	40
09787	sh MV breccia	18+95E, 0+10S	nd	45
09762	sh, bl, MV	1+25E, 2+25E	10	120
09772	sh, bl, MV	3+55E, 6+70S	35	111
09773	BIF	3+55E, 6+80S	90	158
09784	BIF	18+75E, 3+25S	15	54
09785	BIF	18+90E, 3+15S	nd	27
09786	sil. MV or sediment	19+00E, 0+15S	nd	60
09770	sil. siltstone	2+50E, 7+30N	15	15
09771	quartz-carb. veins in siltstone	3+00E, 6+80N	70	70
09779	quartz vein in mudstone	8+15E, 2+20S	nd	23
09774	limonitic lamprophyre	3+45E, 6+68S	5	137

See figure 5a for rock type descriptions.

The highest results obtained were from the quartz sulfide vein system at L4+00W, 0+75S which was exposed in TR-86-01. Gold and copper values from a grab of the sulphide vein were 2,835 ppb and 3,160 ppm respectively along with 9.1 ppm silver. A gold value of 320 ppm together with 115 ppm copper and 1.9 ppm silver was received from the surrounding barren quartz vein system. A banded iron fromation, sample # 09773, exposed by TR-86-04 and TR-86-05 returned 90 ppb gold and 158 ppm copper. Sample #09771 returned 70 ppb gold and 70 ppm copper from quartz-carbonate veins in a siltstone unit found outside the main grid area on the west shore of Shunsby Lake. From the remaining samples gold values ranging from 5 ppb to 35 ppb were received.

TRENCHING

The excavation of the trenches was undertaken using a John Deer Backhoe mounted on a S1 Model Muskeg Tractor. After the backhoe removed as much overburden as possible, shoveling cleared any remaining material. The trench was then washed with water utilizing a high pressure pump leaving a clean, well exposed surface.

Channel sampling was conducted at various intervals depending upon the rock type and/or quantity of mineralization present. Areas deemed the most interesting were sampled at 1-1.5 metre intervals with 2-3 metre intervals used over secondary areas. The channel sample was obtained by using a Stihl Model 350 saw with either a composite or diamond blade depending upon the hardness of the rock type encountered. Two parallel grooves approximately 3 cm apart were sawn to a depth of about 3 cm and then chiseled out over the desired interval.

The channel cut provides a more representative sample of the interval than chip sampling or blasting.

A total of seventeen trenches were stripped, mapped and sampled. The objective of the trenching program was to confirm the presence along strike of the major shear zone outlined by previous work programs as well as the testing of other targets located by the 1986 geological mapping program.

Trench target areas were determined from the geological mapping program with an attempt to expose the cataclastic zone and its contacts. Where no outcrop was present the zone was projected along strike and an attempt made to expose bedrock. Over much of the property the overburden cover was excessive and test pits dug to the 4 metre limit of the machine bottomed in sand and gravel.

Table 3 lists trench locations and sample numbers from the trenching program with detailed information contained on the trench maps, Figures 5a to 5r.

Table 4 lists trench number, sample numbers, interval length in metres and gold results in ppb for all samples of greater than or equal to 10 ppb.

Summary

The trenching program succeeded in delineating the shear zone along strike. This shear zone trends northwesterly-southeasterly with steep dips to the north and has been traced along strike from L 4+00W to L 35+70E for a total length of

3,970 metres. Other sub-parallel shear systems were noted in the mafic volcanics, but on a much smaller scale. A generalized section, north to south, across the zone shows it to be bounded by quartz diorite grading into cataclastic quartz diorite (a transitional unit), cataclasite and mafic volcanics. This sequence was consistent with the geological section obtained from the 1985 diamond drill program. Results of the trenching program were disappointing with only anomalous, but sub-economic gold values encountered.

TRENCH DATA

Table 3

Trench No.	Line	Station	Sample Numbers
TR-86-01	4+00W	0+75N - 1+15S	01738-01750, 09826-09832
TR-86-02	3+00W	0+15S - 0+60S	09833-09835
		0+68S - 0+85S	
TR-86-03	1+00W	3+00S - 3+80S	01623-01639
TR-86-04	3+50E	6+35S - 7+05S	01601-01617
TR-86-05	4+00E	6+35S - 6+60S	01618-01619
		6+72S - 7+01S	
TR-86-06	5+00E	1+40N - 0+75N	09836-09839
TR-86-07	15+50E	3+76N - 3+35N	01693-01698
TR-86-08	16+00E	1+98.5N - 1+43.5N	01687-01692
TR-86-09	16+00E	0+62N - 0+10N	01678-01686
TR-86-10	16+75E	0+75N - 0+31N	01675-01677
TR-86-11	18+85E	0+05N - 0+55S	01661-01674
TR-86-12	19+00E	1+06S - 1+51S	01651-01660
TR-86-13	22+00E	0+60N - BLO	01640-01650, 01701-01704
		0+15S - 0+52S	
TR-86-14	24+00E	0+05N - 0+50S	01705-01709
TR-86-15	31+50E	0+89N - 0+63N	01710-01713
TR-86-16	33+20E	1+98N - 1+55N	01714-01726
TR-86-17	35+70E	1+82N - 1+37N	01727-01737

~ 153 samps

TABLE 4

Trench	Sample No.	Interval Length (metres)	Gold Value (ppb)	Sample No.	Interval Length (metres)	Gold Value (ppb)	Sample No.	Interval Length (metres)	Gold Value (ppb)
TR-86-01	01738	2.3	20	01739	2.0	10	01740	1.0	30
	01741	1.0	80	01742	1.0	170	01743	1.0	30
	01744	1.0	30	01746	1.0	650	01747	1.0	110
	01748	1.0	115	01749	1.7	140	01750	0.3	5140
	09826	2.0	65	09827	2.0	40	09829	2.0	45
	09831	2.0	10	09832	2.3	15			
TR-86-02	09835	2.2	240						
TR-86-03	01627	3.0	260	01628	3.0	25	01635	5.0	10
	01639	5.0	20						
TR-86-04	01602	1.0	140	01603	1.0	80	01604	1.0	25
	01605	1.0	20	01617	2.0	10			
TR-86-05	01619	2.5	15						
TR-86-06	09836	1.25	70	09837	1.25	70	09838	2.0	60
	09839	1.70	140						
TR-86-09	01678	2.0	20						
TR-86-10	01675	2.0	20	01676	2.0	80			
TR-86-11	01662	2.5	30	01666	2.5	20	01669	2.5	50
	01672	3.0	40	01673	2.0	40			
TR-86-12	01658	2.0	10	01659	3.0	10			
TR-86-13	01641	2.0	10	01642	1.5	10	01647	1.0	15
TR-86-14	01705	3.5	15	01707	1.75	20			
TR-86-15	01713	1.5	15						
TR-86-16	01720	2.0	40	01721	1.8	10			
TR-86-17	01729	2.0	15	01730	2.0	20			

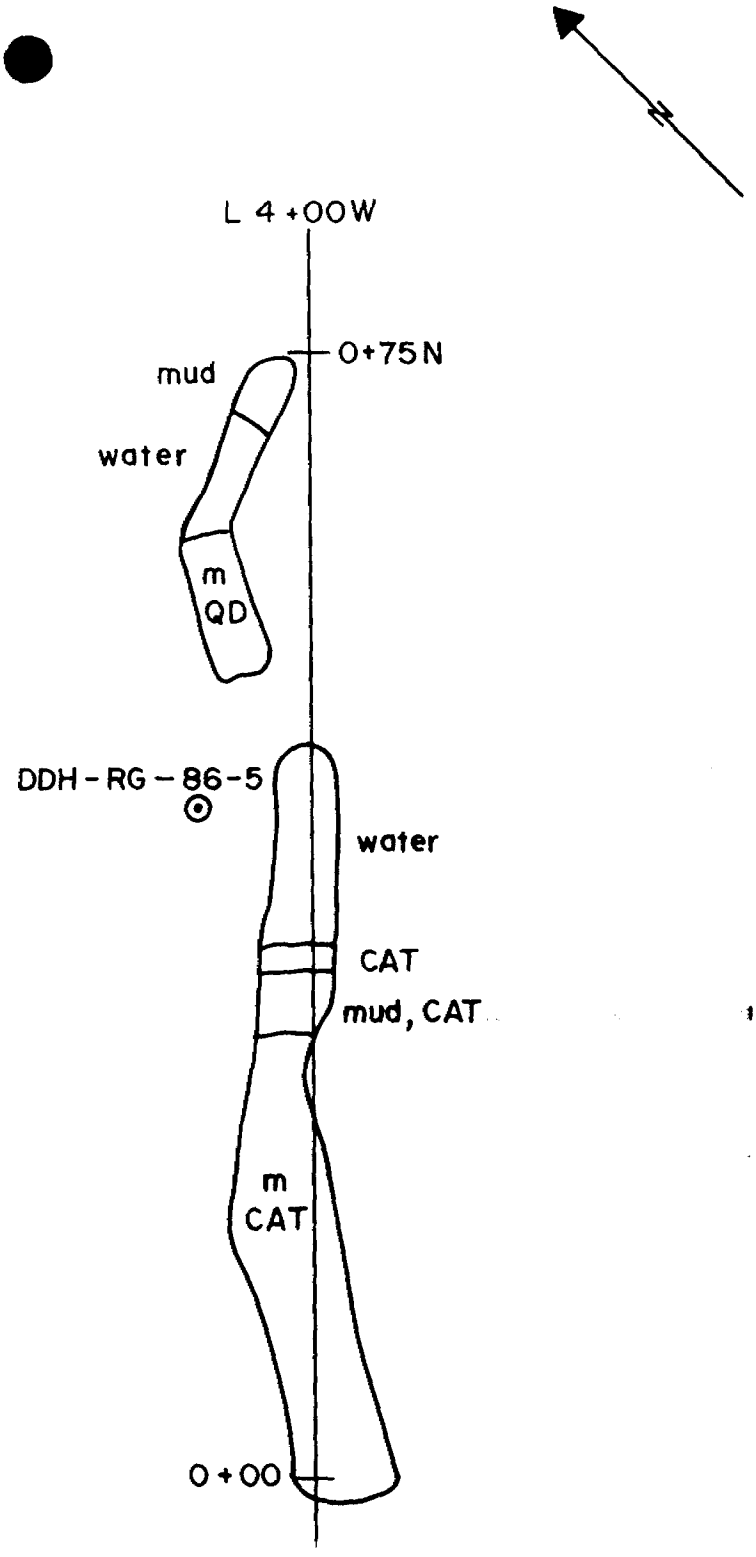
Detailed Trench Geology

TR-86-01

Quartz diorite occurs at the north end of the trench as a massive, equigranular intrusive with weak hematite and silica alteration and contains some porphyritic feldspars. Fractures trending 130/80°N over this section were gossaned and contained minor amounts of disseminated pyrite. A section of quartz diorite roughly 50 metres south of the baseline was found to contain chalcopyrite and malachite as disseminations and along fracture planes.

The cataclasite zone resembled the quartz diorite, but has undergone more intense alteration and the intrusive texture had been destroyed. Alteration included weak to moderate carbonate, hematite, sericite and silica. A variable competancy existed throughout the cataclasite with fractured areas having a stronger alteration imprint and heavier gossanous stains. The fracture systems trended approximately 115/75°N. The zone of quartz diorite/cataclastic quartz diorite was intensely silicified as a result of extensive quartz flooding producing small veins, clots and swells up to 0.5 metres wide. At the mafic volcanic contact a 2-3 metre wide zone contains a convoluted mass of quartz veins and swells. Generally veins are barren, but some wallrock fragments and small areas of sulfide enrichment containing up to 5% pyrite were noted. Of particular interest in this area was a 30 centimetre wide vein containing up to 50% massive pyrite with some chalcopyrite and malachite. The vein can be traced on surface for approximately 8 metres before disappearing under overburden.

Of the 20 samples collected from this trench most returned at least weakly



GEOLOGICAL LEGEND

BIF	Banded iron formation
CAT	Cataclasite
CCS	Chloritic carbonate schist
CQD	Cataclastic Quratz Diorite
DIAB	Diabase dike
LAMP	Lamprophyre dyke
MLT	Mafic lapilli tuff
MV	Mafic volcanics
MYL	Mylonite
MST	Mudstone / Siltstone
QBS	Quartz biotite schist
QD	Quartz diorite
QRY	Quartz eye rhyolite
Ft	Felsic tuff
At	Andesite tuff
It	Intermediate tuff

ABBREVIATIONS

bi	biotite
cp	chalcopyrite
fu	fuchsite
graph	graphitic
mag	magnetite
porpb	porphyroblast
py	pyrite
qtz	quartz
sp	specular hematite
tour	tourmaline
bl	bleached
bn	banded
bx	brecciated
f	foliated
m	massive
sh	sheared
tr	trace

ALTERATIONS

Note: Alterations are underlined

Moderate	Strong	
ca	CA	carbonate
chl	CHL	chloritic
ep	EP	epidotic
hem	HEM	hematite
se	SE	sericite
sil	SIL	siliceous

SYMBOLS

- foliation
- vein, fracture
- brecciated
- geological contact
- fault
- sheared
- claim line

0 10 20m

Scale 1:500

Figure 5a

TRENCH - 86 - 1

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SWAYZE AREA, PORCUPINE MIN. DIV.

OREQUEST

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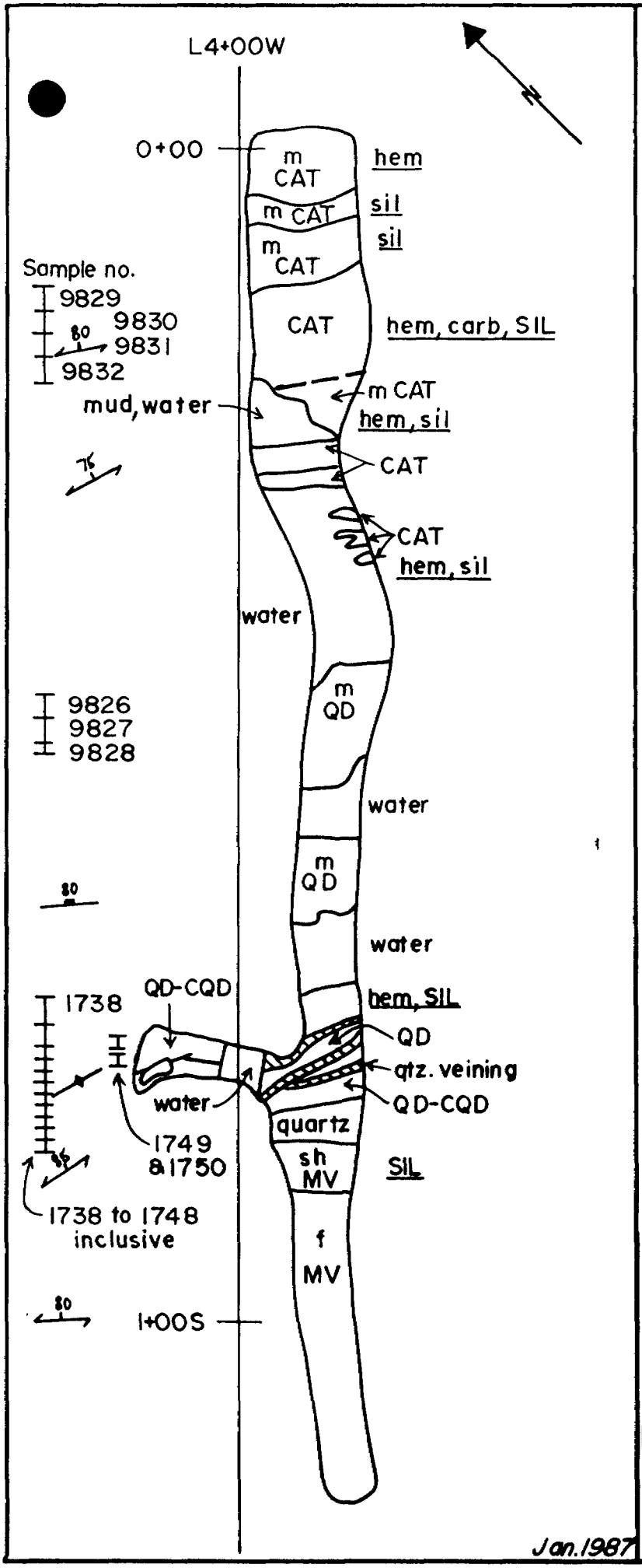

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0 10 20m

Scale 1:500

Figure 5b

TRENCH – 86 – 1

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anomalous gold results. The highest gold value obtained was 5,140 ppb (.15 oz/ton) coupled with 5.9 ppm silver and 2,140 ppm copper over the 30 centimetre quartz sulfide vein. A 1.7 metre section of the wallrock from either side of this vein returned values of 140 ppb gold, 0.7 ppm silver and 295 ppm copper.

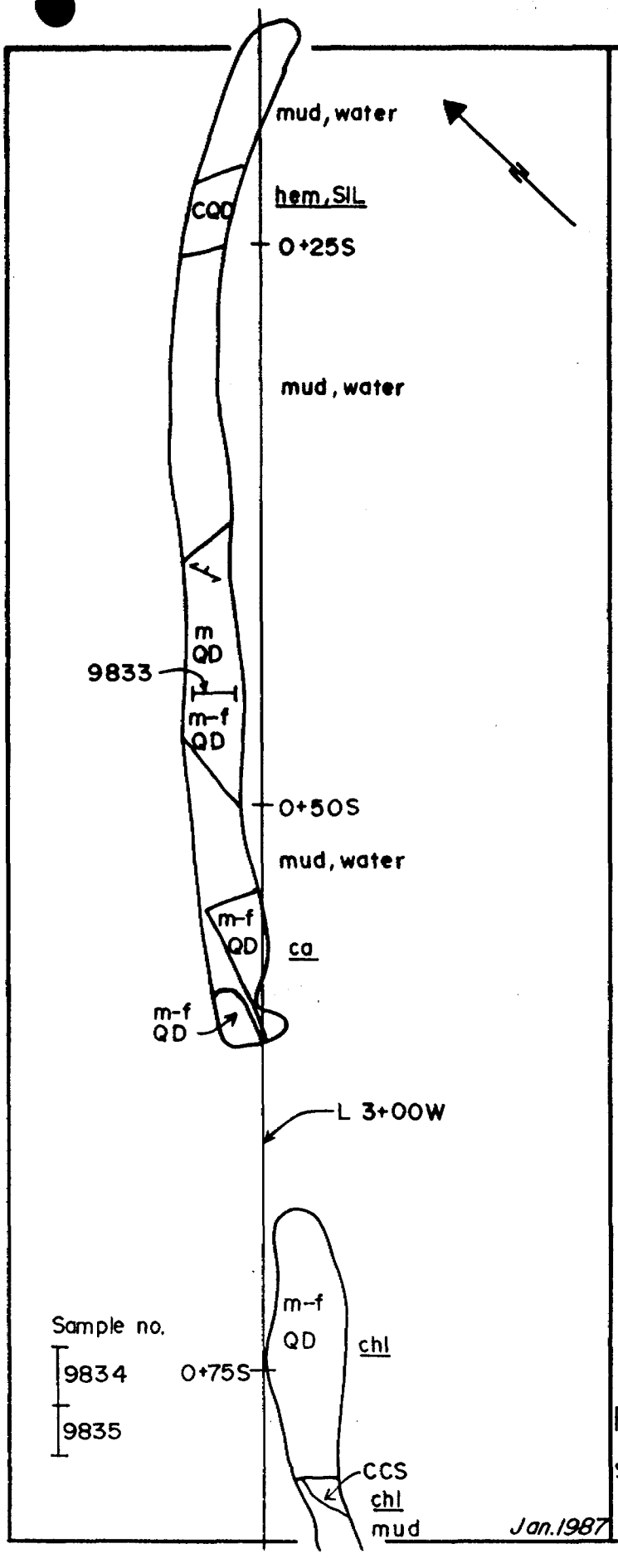
Anomalous gold values were also obtained from the silicified quartz diorite/cataclastic quartz diorite, see table 4, and from the area of quartz flooding at the volcanic contact.

TR-86-02

This trench consists of 2 pits separated by an 8 metre exposure of quartz diorite. The longer northern trench experienced severe flooding problems reducing exposure to about 20%. A small section of cataclastic quartz diorite was mapped at the north end with the remainder being quartz diorite. The cataclastic quartz diorite showed intense fracturing with weak carbonatization and sericitization, moderate to strong hematization and susong silicification. Small quartz-carbonate and chlorite veinlets (less than 1 mm) were noted throughout. The unit was heavily gossaned, but with less than 1% visible sulfides.

The quartz diorite was massive to moderately foliated with weak to moderate carbonate alteration. A stockwork of narrow quartz veins occupied the middle section of the trench, though no sulfides were noted.

The smaller southern trench contained quartz diorite except for a 2 metre section of foliated mafic volcanics. The quartz diorite was massive to very



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SYMBOLS

- foliation
- vein, fracture
- brecciated
- geological contact
- fault
- sheared
- claim line

0 5 10m

Figure 5c

TRENCH – 86 – 2

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weakly foliated, intensely chloritized and devoid of carbonate alteration. The mafic volcanics were dark green, well foliated and gossaned with moderate carbonate alteration.

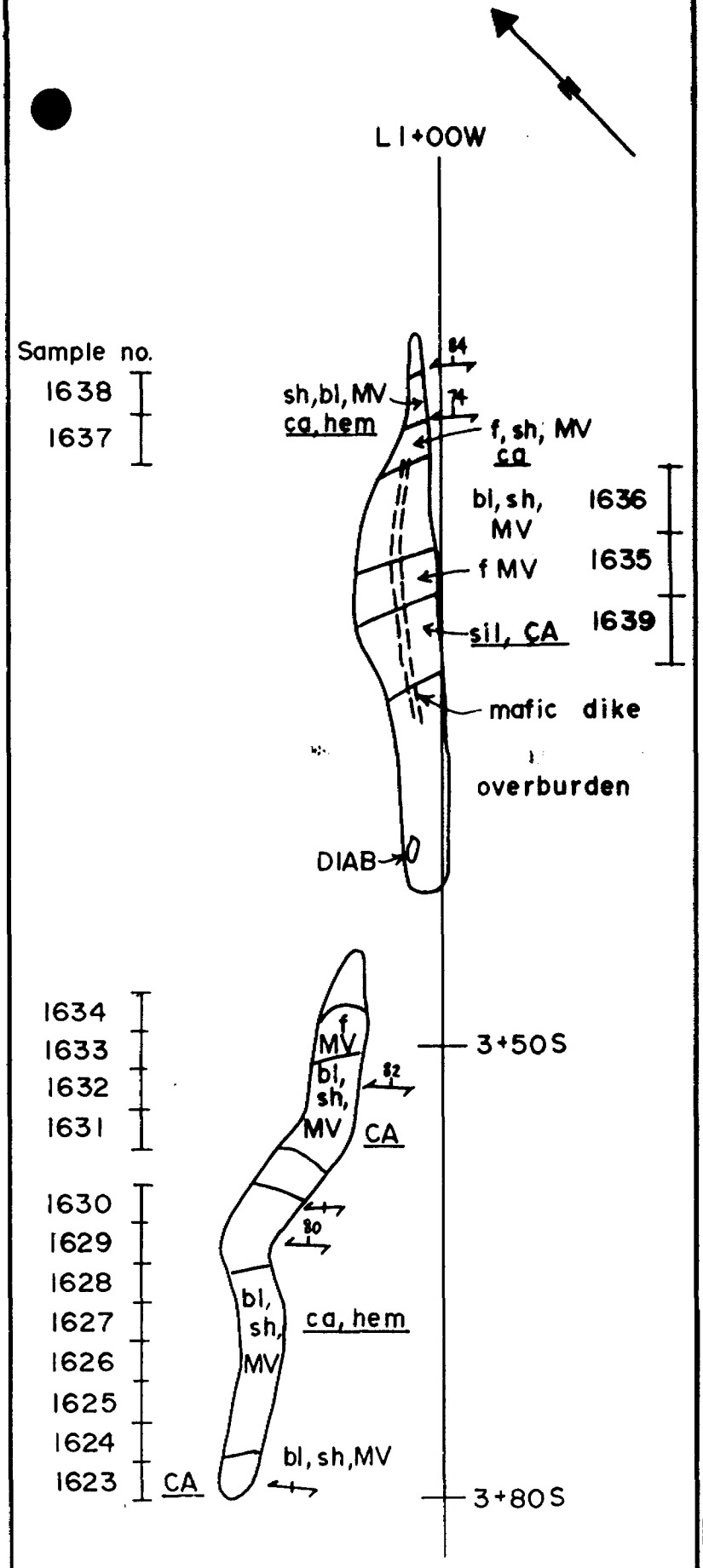
Foliation trends range from 108° in the middle to 130°-135° in the southern portions of the trench with steep northerly dips.

One gold anomaly of 240 ppb over a 2.2 metre interval was obtained from the southern end of the trench in an area of quartz veining near the mafic volcanic contact.

TR-86-03

This trench is underlain by mafic volcanics cut by a 15 metre diabase dyke. A pale to dark green foliated mafic volcanic with weak sericite and hematite alteration is the least altered rock. More intense shearing close to the diabase dyke shows an increase in sericite and hematite alteration. This gives rise to a reddish friable rock locally bleached to an off white colour. Carbonate alteration varies throughout the trench, but is generally moderate. Sulfide content was low throughout with less than 1% disseminated pyrite.

The diabase dyke was medium grained, weakly magnetic and pale greenish black with the typical "salt and pepper" diabasic texture. Minor gossan was observed in some sections and 1%-2% sulfides were common. Emplacement of the diabase in the mafic volcanics formed a 5 metre wide chill margin of fine grained, dense, dark green to black calcareous rock.



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SYMBOLS

- foliation
- vein, fracture
- brecciated
- geological contact
- fault
- sheared
- claim line

0 10 20m

Scale 1:500

Figure 5d

TRENCH – 86 – 3

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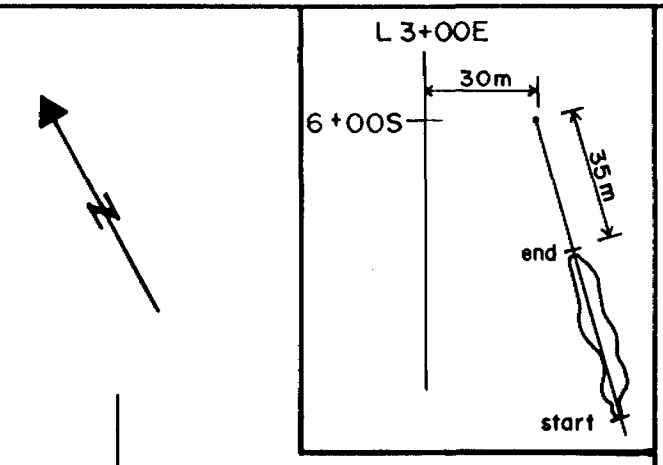
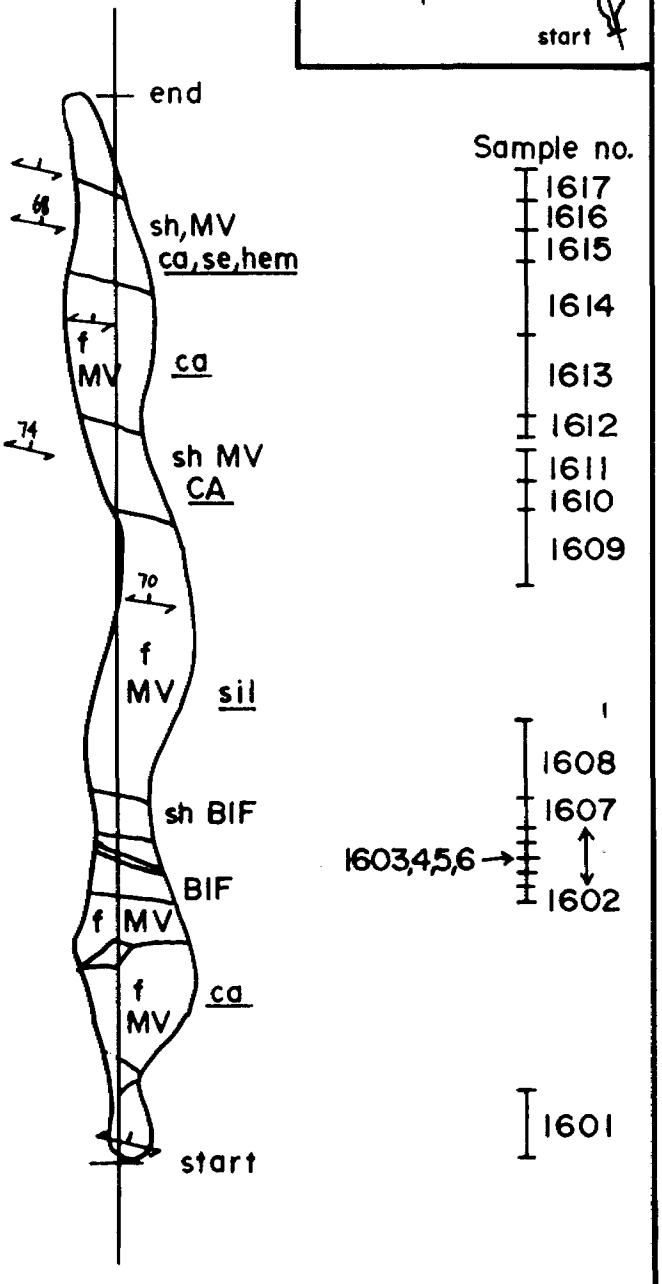
A gold high of 260 ppb over 3 metres was received from a section of sheared mafic volcanics containing a 5-6 centimetre wide rusty brown quartz vein that contained 5%-10% pyrite. An adjacent sample returned 25 ppb gold over 3 metres, this being the only other anomalous result from the 17 samples collected.

TR-86-04 and TR-86-05

These trenches exposed an iron formation unit within the mafic volcanics discovered during the mapping program. The iron formation consisted of thin discontinuous chert-magnetite bands (0.5-3 mm) containing 2%-10% sulfides as disseminations and thin veinlets with pyrite cubes up to 2 mm. Occasionally thin layers of bleached mafic volcanics were found interlayered with the chert bands. Chert was also noted as nodules up to 7 mm. Banding is parallel to the foliation seen in the enclosing volcanics, 130/70°N. Late stage barren quartz-limonite veinlets cut the iron formation. The contacts with the mafic volcanics are sharp. Moderate hematite occurs along with 2%-5% disseminated pyrite over the first metre of the volcanics. The iron formation had a width of approximately 6 metres in TR-86-04 and 3 metres in TR-86-05.

Foliated mafic volcanics comprise the bulk of the trenches. These are medium to dark green showing pervasive carbonate alteration, weak to moderate hematite in section and 1%-2% disseminated pyrite with minor to moderate gossan. Tension gashes and quartz veins were also present, with up to 15% sulfides seen in some veins. At the south end of both trenches the mafic volcanics were extensively chevron folded, the axial surface striking 158° plunge unknown with antiformal chevron folds trending 175/62°N to synformal open folds trending 176/43°N. Bleached tuffs were seen at the north end of both trenches with weak





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SYMBOLS

- foliation
- vein, fracture
- brecciated
- geological contact
- fault
- sheared
- claim line

0 10 20m

Scale 1:500

Figure 5e

TRENCH – 86 – 4

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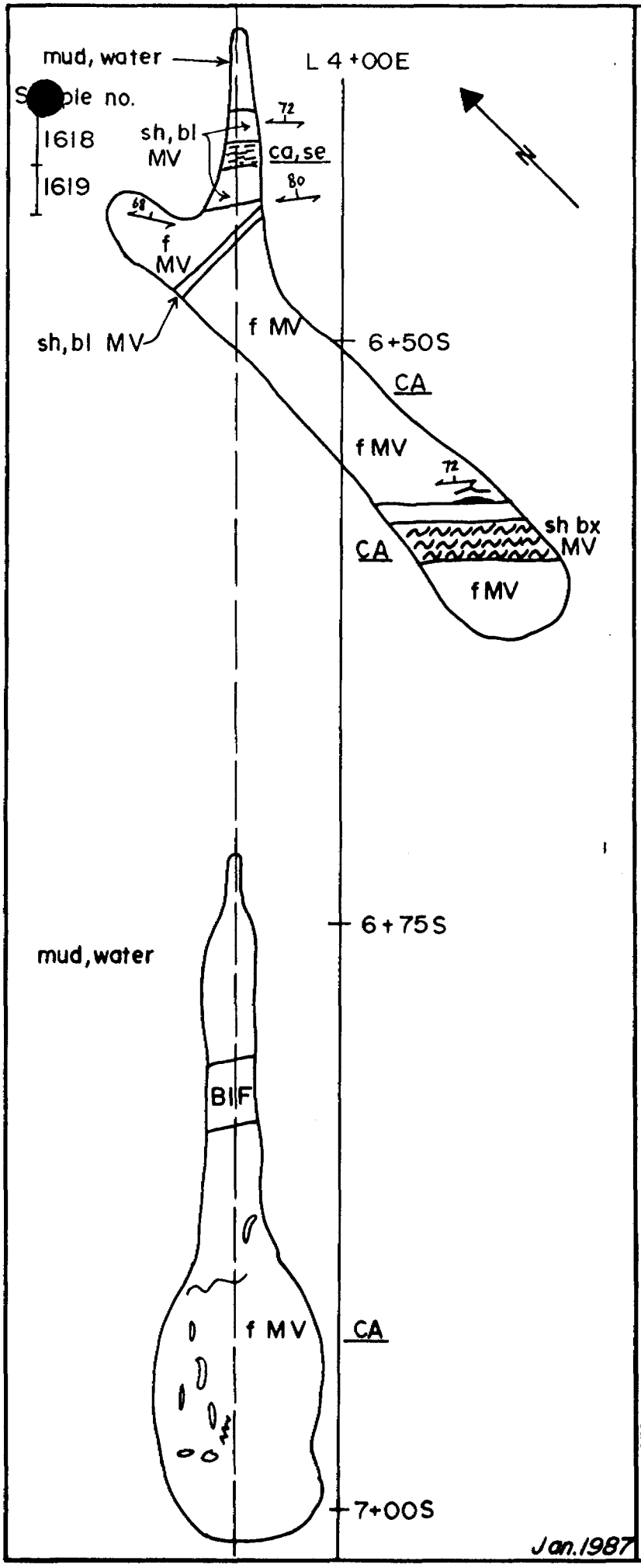

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SYMBOLS

- foliation
- vein, fracture
- brecciated
- geological contact
- fault
- sheared
- claim line

0 5 10m

Scale 1:250

Figure 5f

TRENCH – 86 – 5

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OREQUEST

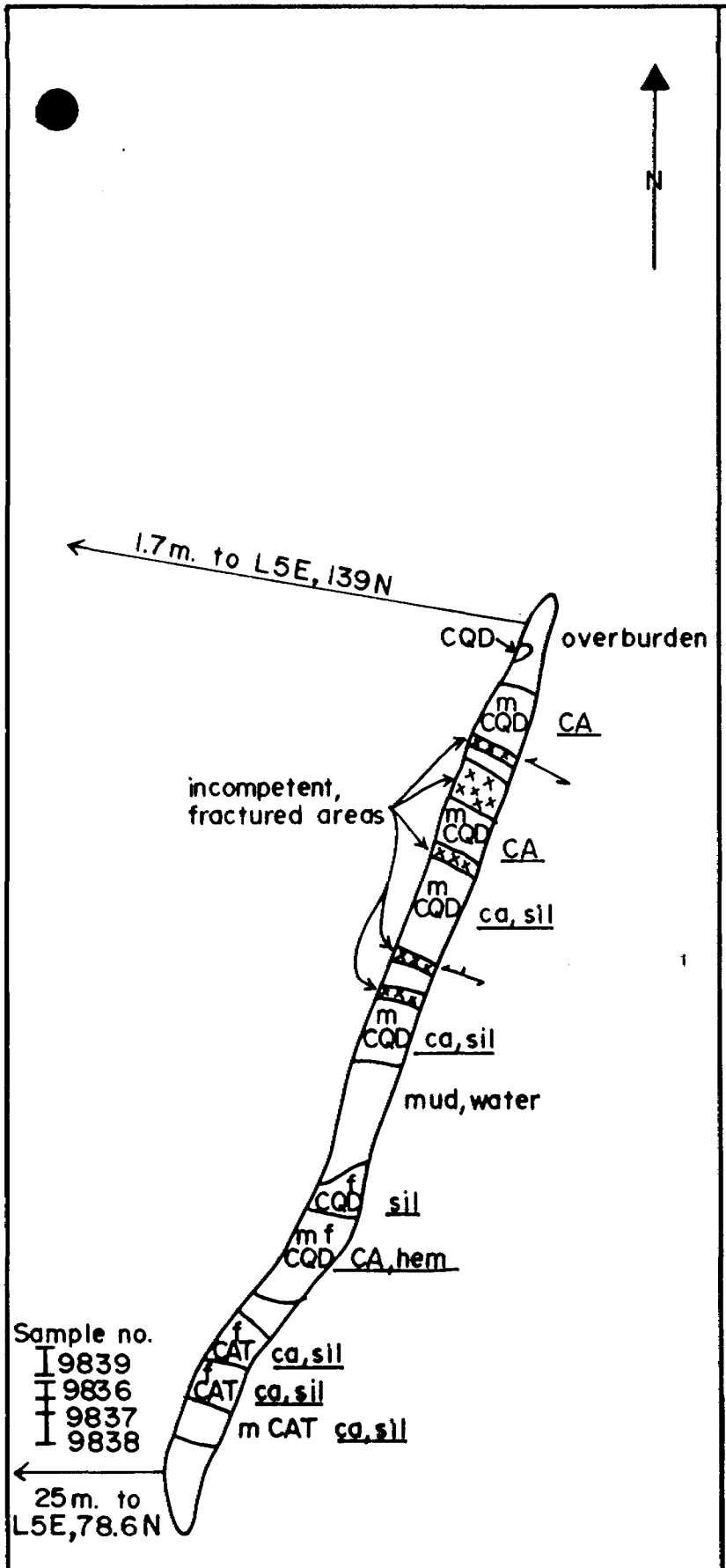
to strong foliation, moderate carbonate and sericite alteration and strong pervasive gossan. Sulfides consisted of 1%-2% disseminated pyrite as subhedral to euhedral crystals.

Samples #01602, #01603 and #01604 returned anomalous gold values of 140, 80 and 25 ppb respectively. Each interval was 1 metre in length and all are from the banded iron formation. Copper values over the iron formation ranged from 94 ppm to 308 ppm and were generally higher than those found over the mafic volcanics. No anomalous results were received from TR-86-05.

TR-86-06

This trench, excavated in 1985, was extended in an attempt to expose the volcanic contact at the south end. Virtually the entire trench was mapped as cataclastic quartz diorite, though the distinction between this and the cataclasite is difficult to make on weathered material. A 7 metre zone of cataclasite was uncovered at the southern end of the trench.

The cataclastic quartz diorite exhibited slight variation throughout the trench, but was generally pale green, weakly foliated, with weak to moderate carbonate hematite, sericite and silica alteration. Sulfide content was low, less than 1%-2% disseminated pyrite. An 8 metre section of strongly hematitic cataclastic quartz diorite occurs at approximately 13 metres north of the trench's south end. North of this hematitic zone the chlorite content increases to 25%, as blebs and stringers before dropping off to about 5% in the northern third of the trench.



Jan. 1987

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SYMBOLS

- foliation
- vein, fracture
- brecciated
- geological contact
- fault
- sheared
- claim line

0 5 10m

Scale 1:250

Figure 5g

TRENCH – 86 – 6

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The 7 metre section of cataclasite exposed at the southern end of the trench was also a pale green colour with moderate to strong carbonate (as blebs within quartz-sericite), sericite, and weak to moderate silica alteration. Quartz-carbonate, chlorite veins are found crosscutting the foliation. Sulfides are present as disseminations up to 10% pyrite.

Four samples, #09839, #09836, #09837 and #09838 of the cataclasite returned gold values of 140, 70, 70 and 60 ppb over intervals of 1.7, 1.25, 1.25 and 2.0 metres respectively. Copper and silver values were low.

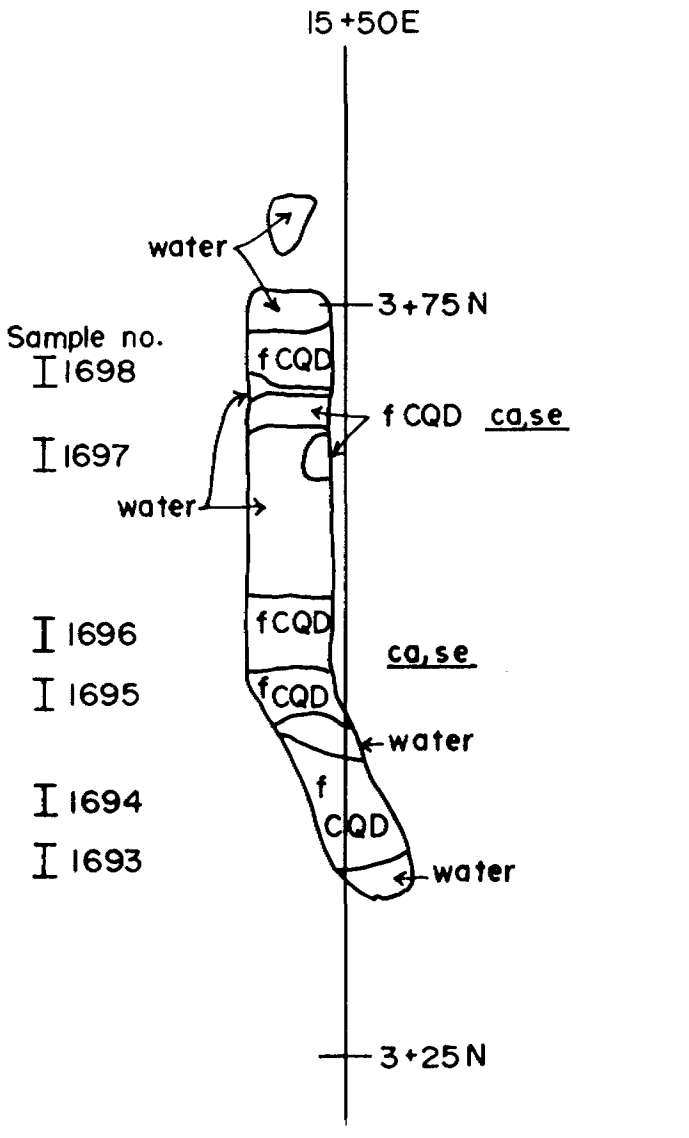
TR-86-07

This trench was completely underlain by cataclastic quartz diorite except for a 0.5 metre lens of foliated mafic volcanics. Overall appearance of the cataclastic quartz diorite is a foliated, pale greenish-white, fine grained intruisve rock. Up to 10% porphyritic quartz eyes and 15% porphyritic feldspars were found sporadically throughout the northern part of the trench dropping to about 5% at the south end. Alteration consists of weak to moderate carbonate and moderate sericite. Only traces of disseminated pyrite was found.

Six samples were collected containing no appreciable gold values.

TR-86-08

The trench is completely underlain by quartz diorite that has been subjected to varying stress and alteration. A well foliated and sheared variety contained moderate chlorite and hematite alteration as hairline to 1 cm bands trending 125/80°N. Up to 5% porphyritic feldspar crystals and occasional quartz



GEOLOGICAL LEGEND

BIF	Banded iron formation
CAT	Cataclasite
CCS	Chloritic carbonate schist
CQD	Cataclastic Quratz Diorite
DIAB	Diabase dike
LAMP	Lamprophyre dyke
MLT	Mafic lapilli tuff
MV	Mafic volcanics
MYL	Mylonite
MST	Mudstone / Siltstone
QBS	Quartz biotite schist
QD	Quartz diorite
QRY	Quartz eye rhyolite
Ft	Felsic tuff
At	Andesite tuff
It	Intermediate tuff

ABBREVIATIONS

bi	biotite
cp	chalcopyrite
fu	fuchsite
graph	graphitic
mag	magnetite
porpb	porphyroblast
py	pyrite
qtz	quartz
sp	specular hematite
tour	tourmaline
bl	bleached
bn	banded
bx	brecciated
f	foliated
m	massive
sh	sheared
tr	trace

ALTERATIONS

Note: Alterations are underlined

Moderate	Strong	
ca	CA	carbonate
chl	CHL	chloritic
ep	EP	epidotic
hem	HEM	hematite
se	SE	sericite
sil	SIL	siliceous

SYMBOLS

- foliation
- vein, fracture
- brecciated
- geological contact
- fault
- sheared
- claim line

0 10 20m

Scale 1:500

Figure 5h

TRENCH – 86 – 7

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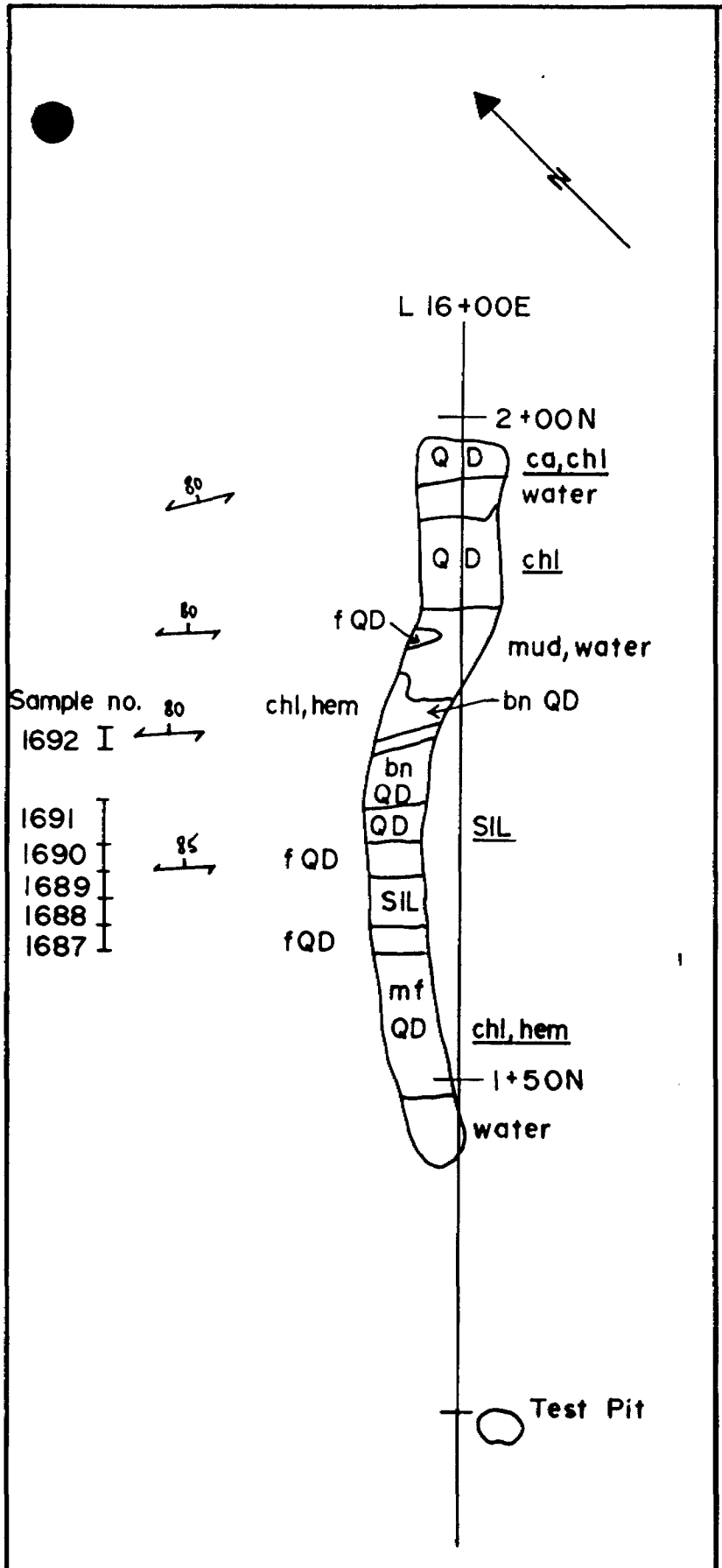

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GEOLOGICAL LEGEND

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SYMBOLS

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- vein, fracture
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- geological contact
- fault
- sheared
- claim line

0 10 20m

Scale 1:500

Figure 5i

TRENCH – 86 – 8

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eyes were also noted. Silicified quartz diorite is somewhat foliated with minor chlorite and hematite alteration, and has been invaded by numerous small quartz veins (3-10 cm) that pinch, swell and form clots. Chlorite is commonly found between the quartz and wallrock material. General trend of the veins is 120/80°N.

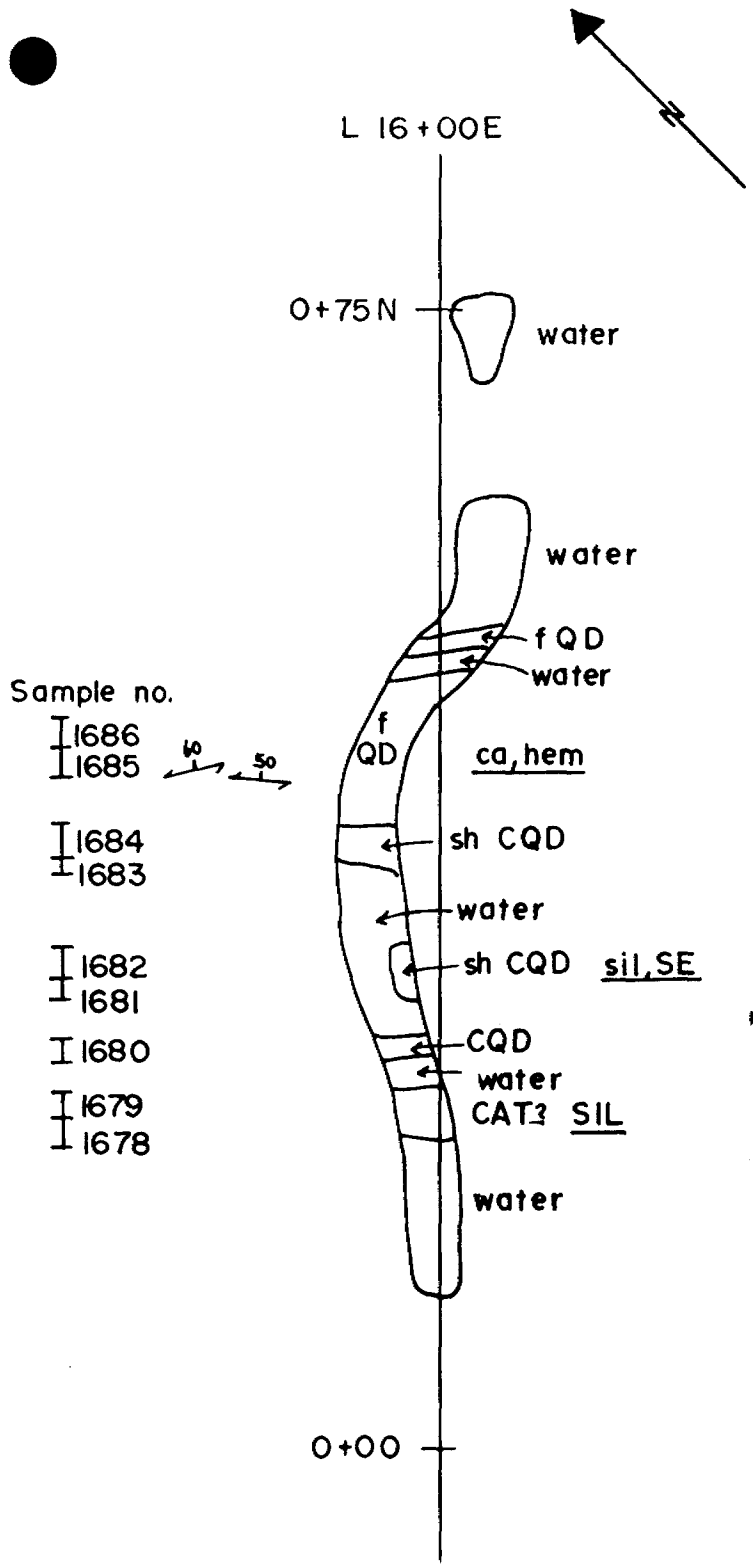
Assay results were disappointing with no detectable gold and low silver and copper values.

TR-86-9

From north to south rock types in this trench are quartz diorite, cataclastic quartz diorite and cataclasite. Rapid flooding during excavations at the south end of the trench prevented exposures of the mafic volcanic contact. The quartz diorite was a medium grained, mottled red and green, weakly to moderately foliated rock with up to 10% porphyritic feldspar and 5% porphyritic quartz eyes. Moderate to strong hematite, weak to moderate carbonate and weak sericite alteration has occurred. The general foliation trend averaged 130/60°N. The cataclastic quartz diorite was pale green and strongly foliated with some relic feldspar crystals and less than 5% porphyritic quartz eyes. Alteration included weak to moderate silicification and strong sericite +/- epidote. The cataclasite was similar to the cataclastic quartz diorite, but more intensely silicified.

TR-86-10

Two small trenches were excavated before overburden depth became excessive. The northern end of the trenches contains dark green chloritic quartz diorite



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At	Andesite tuff
It	Intermediate tuff

ABBREVIATIONS

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cp	chalcopyrite
fu	fuchsite
graph	graphitic
mag	magnetite
porpb	porphyroblast
py	pyrite
qtz	quartz
sp	specular hematite
tour	tourmaline
bl	bleached
bn	banded
bx	brecciated
f	foliated
m	massive
sh	sheared
tr	trace

ALTERATIONS

Note: Alterations are underlined

Moderate	Strong	
ca	CA	carbonate
chl	CHL	chloritic
ep	EP	epidotic
hem	HEM	hematite
se	SE	sericite
sil	SIL	siliceous

SYMBOLS

- foliation
- vein, fracture
- brecciated
- geological contact
- fault
- sheared
- claim line

0 10 20m

Scale 1:500

Figure 5j

TRENCH – 86 – 9

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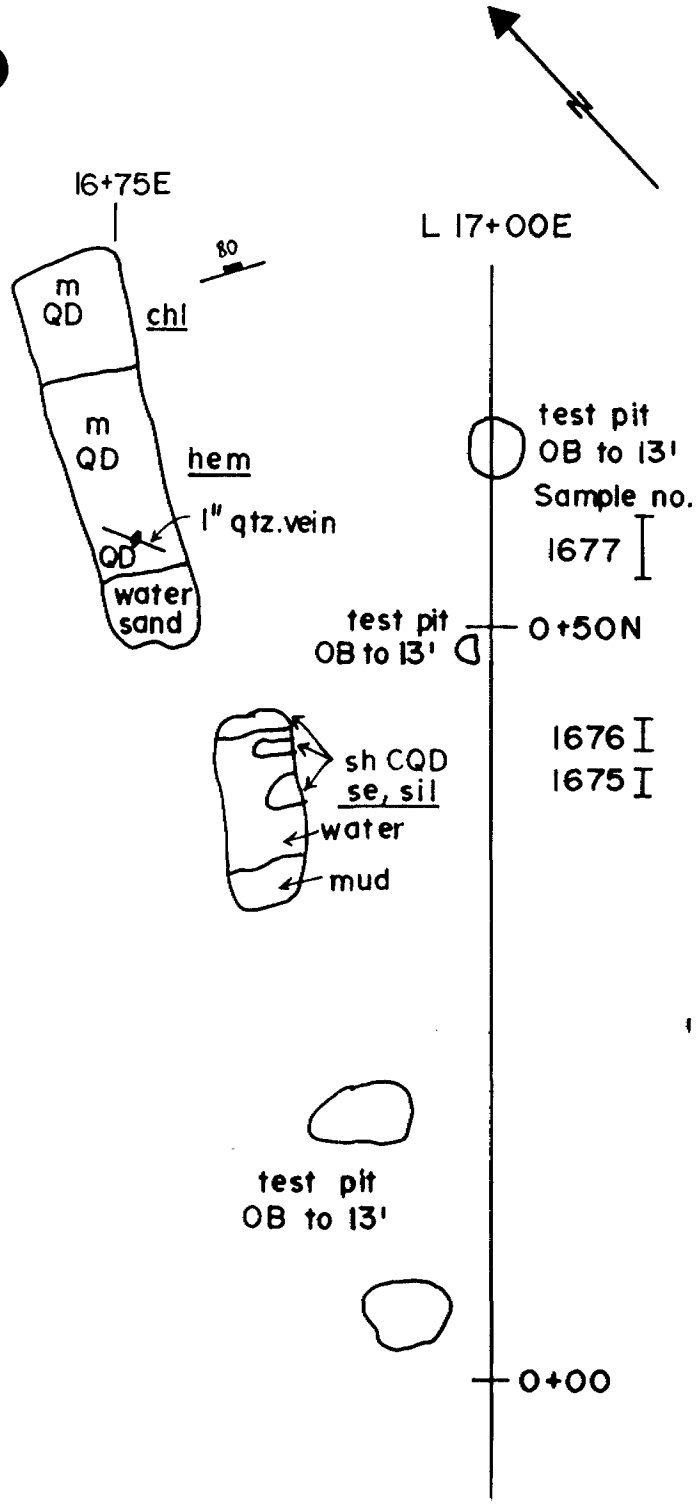

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ALTERATIONS

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Moderate	Strong	
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SYMBOLS

- foliation
- vein, fracture
- brecciated
- geological contact
- fault
- sheared
- claim line

0 10 20m

Scale 1:500

Figure 5k

TRENCH – 86 – 10

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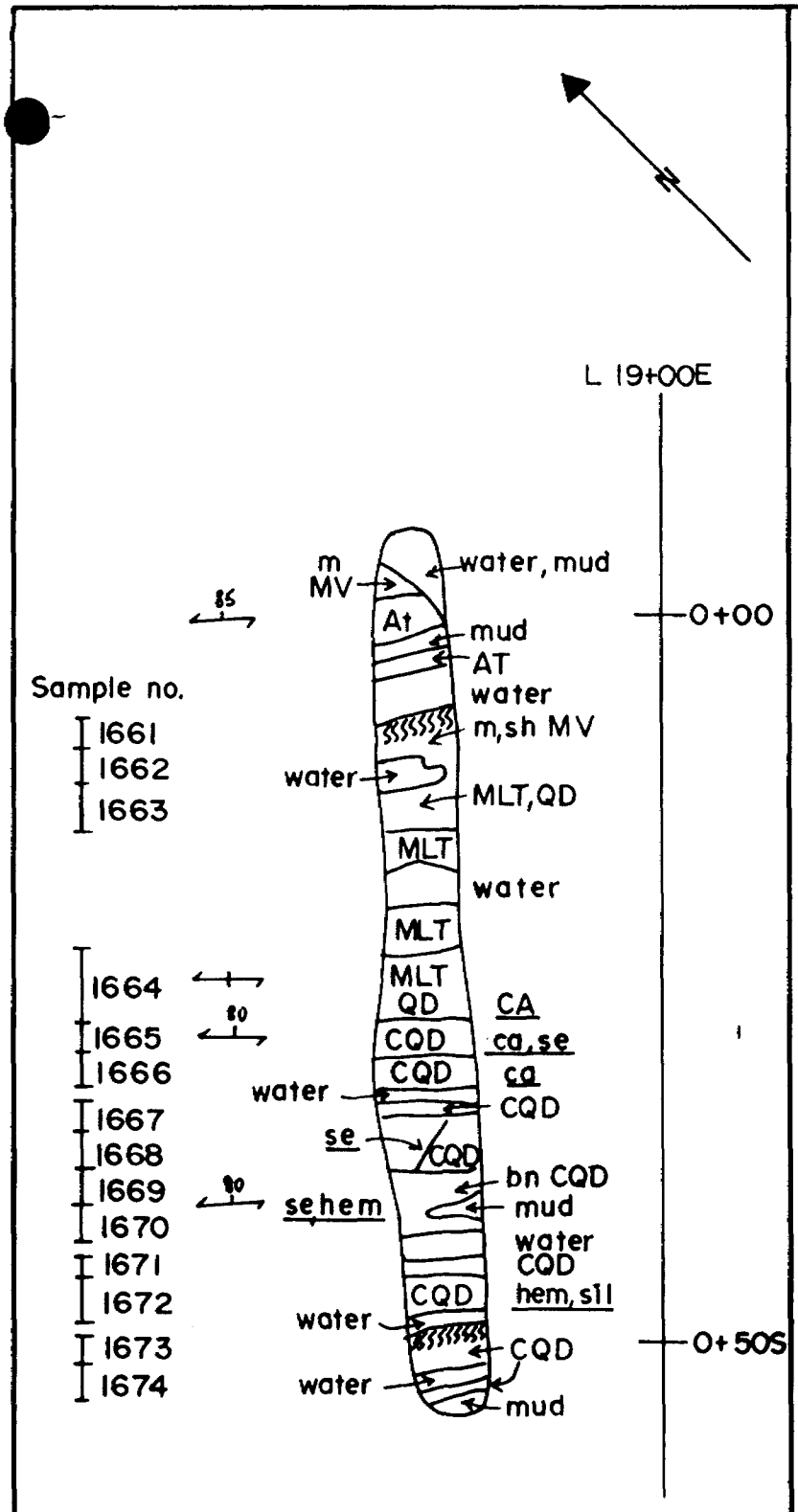
with minor hematite and carbonate alteration. This is bounded to the south by a distinctly red hematitic quartz diorite that contained 1%-2% disseminated sulfides. The cataclastic quartz diorite was pale green, highly sheared and friable with variable foliation trends (100/65°N to 135/80°N) and occasional relic feldspar crystals. Weak carbonate, moderate silica and moderate to strong sericite alteration was observed.

Three samples were taken from the trenches, one in the quartz diorite, returing negligible gold and two samples in the cataclastic quartz diorite returning gold values of 20 and 80 ppb.

TR-86-11

From north to south the trench is underlain by mafic volcanics, interlayered quartz diorite and mafic volcanics and cataclastic quaartz diorite. The mafic volcanics were massive and sheared andesitic tuffs and mafic lapilli tuffs. The massive and sheared tuffs were fine grained, medium green without any notable alteration and contained traces of pyrite. The sheared tuffs displayed a platey breakage along well developed foliation planes trending 120/85°N. The mafic lapilli tuff contained fragments up to 2 cm x 4 cm set in a fine grained mottled matrix of quartz-feldspar-chlorite along with some hematite and epidote-carbonate bands. The matrix also contained 2%-3% recrystallized quartz eyes.

The quartz diorite was a pale greenish-white rock, weakly foliated (133/90°) and contained 5%-10% porphyritic quartz eyes. The cataclastic quartz diorite was generally pale greenish-white with occasional relic feldspar crystals and up



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ALTERATIONS

Note: Alterations are underlined

Moderate	Strong	
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se	SE	sericite
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SYMBOLS

- foliation
- vein, fracture
- brecciated
- geological contact
- fault
- sheared
- claim line

0 10 20m

Scale 1:500

Figure 51

TRENCH – 86 – 11

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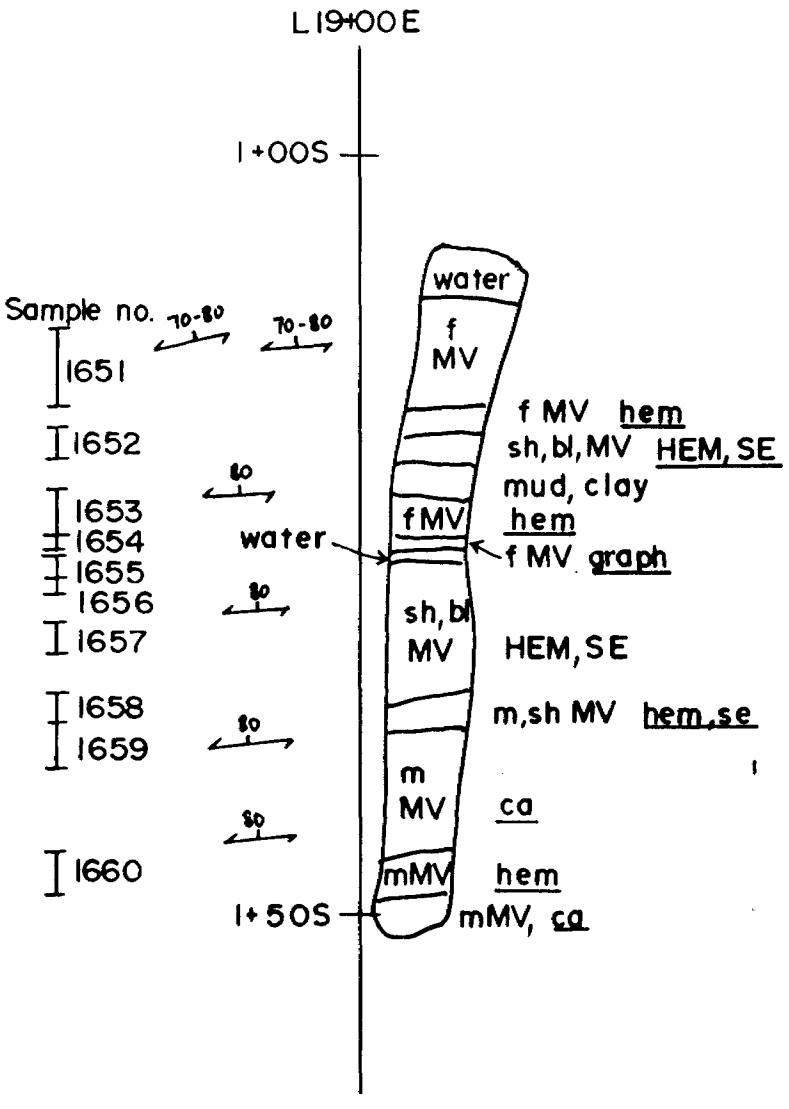
to 5% porphyritic quartz eyes. Alteration showed strong carbonatization, moderate sericitization and weak hematitization. Some sections appear banded, with alternating red hematitic and green chloritic bands. One 2.5 metre section was cross-cut by 0.5-5 mm discontinuous quartz veins and blebs. Foliations ranged from weak to very strong generally trending 130/80°N. Only minor amounts of pyrite were noted.

No anomalous values of copper and silver were detected and only weakly anomalous and sporadic gold values were obtained. A high of 50 ppb gold over 2.5 metres was returned from a sheared hematitic zone within the cataclastic quartz diorite. Two samples in the banded cataclastic quartz diorite at the south end of the trench returned values of 40 ppb gold over a total length of 4.5 metres.

TR-86-12

This trench is completely underlain by mafic volcanics. The foliated mafic volcanics were medium green with weak pervasive carbonate alteration while some sections also contained weak hematitic and sericitic alteration. The sheared and bleached mafic volcanics were a very pale greenish-white on fresh surface with strong pervasive sericite alteration. Heavy gossan made it difficult to obtain a fresh sample. Sulfides included 1% disseminated pyrite with some small (2-3 mm) bands also present. The massive mafic volcanics were very fine grained on weathered surface, but when broken up exhibited a platey almost slate-like cleavage/foliation trending 128/80°N. Weak carbonate and sericitic alteration was observed with one 3 metre wide hematitic zone at the south end. Weak gossan and 1% fine grained disseminated pyrite was observed throughout.



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GEOLOGICAL LEGEND

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ABBREVIATIONS

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ALTERATIONS

Note: Alterations are underlined

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hem	HEM	hematite
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SYMBOLS

- foliation
- vein, fracture
- brecciated
- geological contact
- fault
- sheared
- claim line

0 10 20m

Scale 1:500

Figure 5m

TRENCH – 86 – 12

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Assays were disappointing with no anomalous gold or silver values detected.

TR-86-13

The contact zone could not be exposed at this location due to excessive overburden. A trench north of the baseline bog exposed quartz diorite while a southern pit uncovered mafic volcanics.

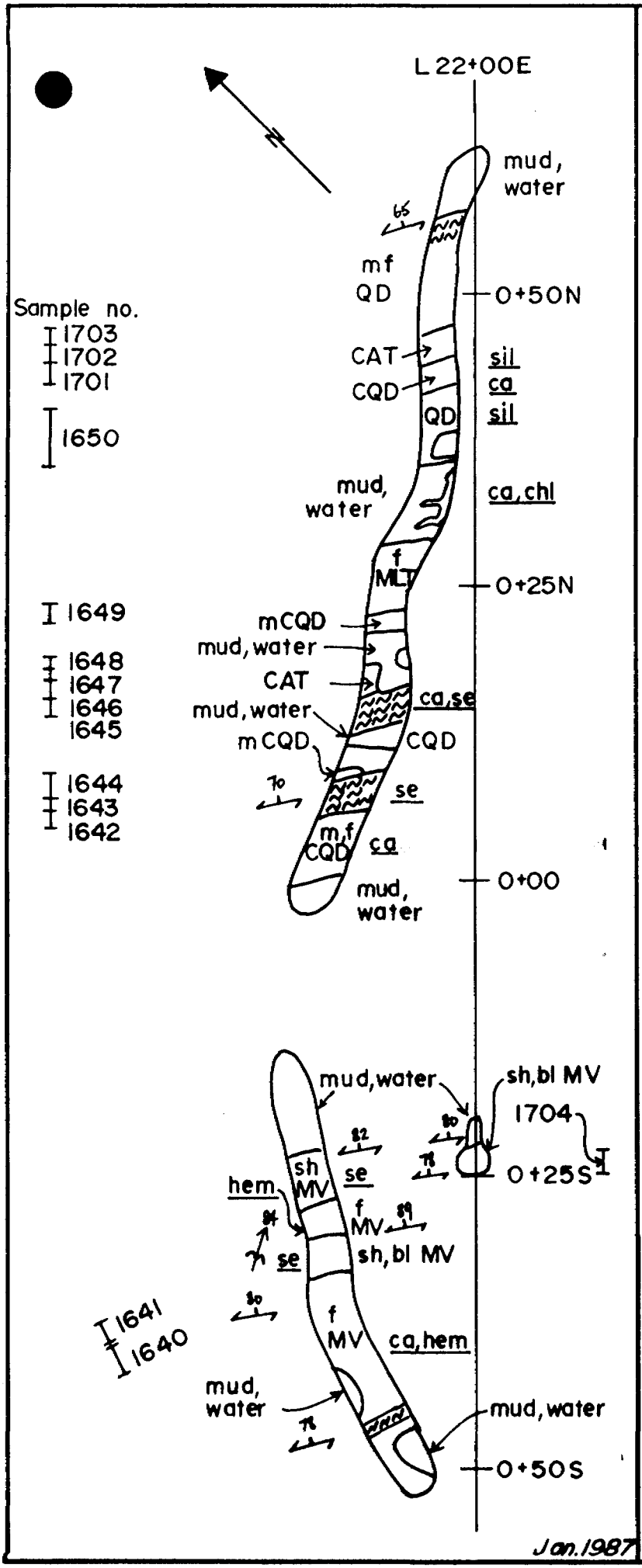
The northern trench contained thin sheared zones within the quartz diorite. The quartz diorite occurs as relatively fresh, fine to medium grained dykes with some porphyritic plagioclase crystals and variable amounts of chlorite. Sulfides consisted of less than 1% pyrite.

Mafic lapilli tuff bands contain 2-40 mm stretched, unsorted, subangular felsic fragments set in a chlorite-epidote matrix. This occurs as a massive to strongly foliated rock with 2%-3% disseminated pyrite seen in the foliated section. Sulfide content was generally low, approximately 1% disseminated pyrite with smaller sections containing up to 10% pyrite.

Assay results were low with no anomalous results detected.

TR-86-14

The southern half of the trench exposed weakly to moderately foliated, dark green fine grained mafic volcanics. Alteration consisted of weak carbonate and minor sericite along foliation planes. No sulfides were visible though gossan was found on the foliation planes. The remainder of the trench was underlain by



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- foliation
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- geological contact
- fault
- sheared
- claim line

0 10 20m

Scale 1:500

Figure 5n

TRENCH – 86 – 13

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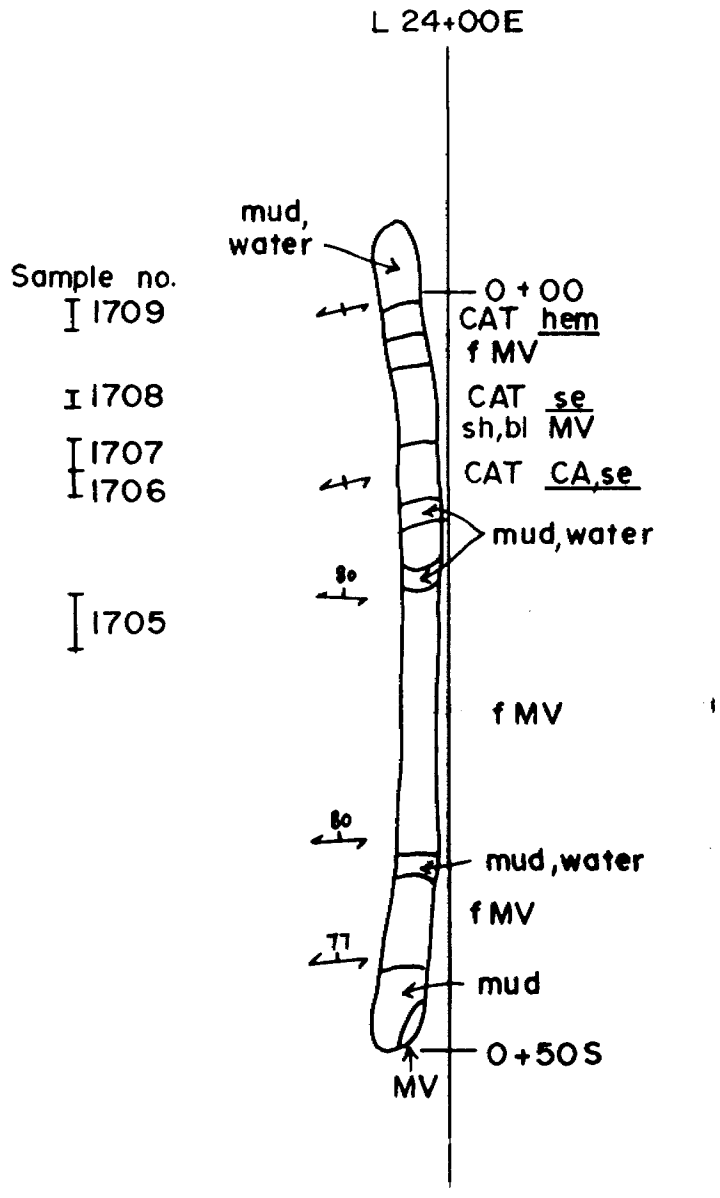

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- fault
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- claim line

0 10 20m

Scale 1:500

Figure 5 o

TRENCH – 86 – 14

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aphanitic, light grey foliated cataclasite. It was strongly carbonate altered along with moderate hematite and sericite found at the north end. Sulfides were found as pyrite disseminations up to 2%.

No anomalous gold or silver values were received.

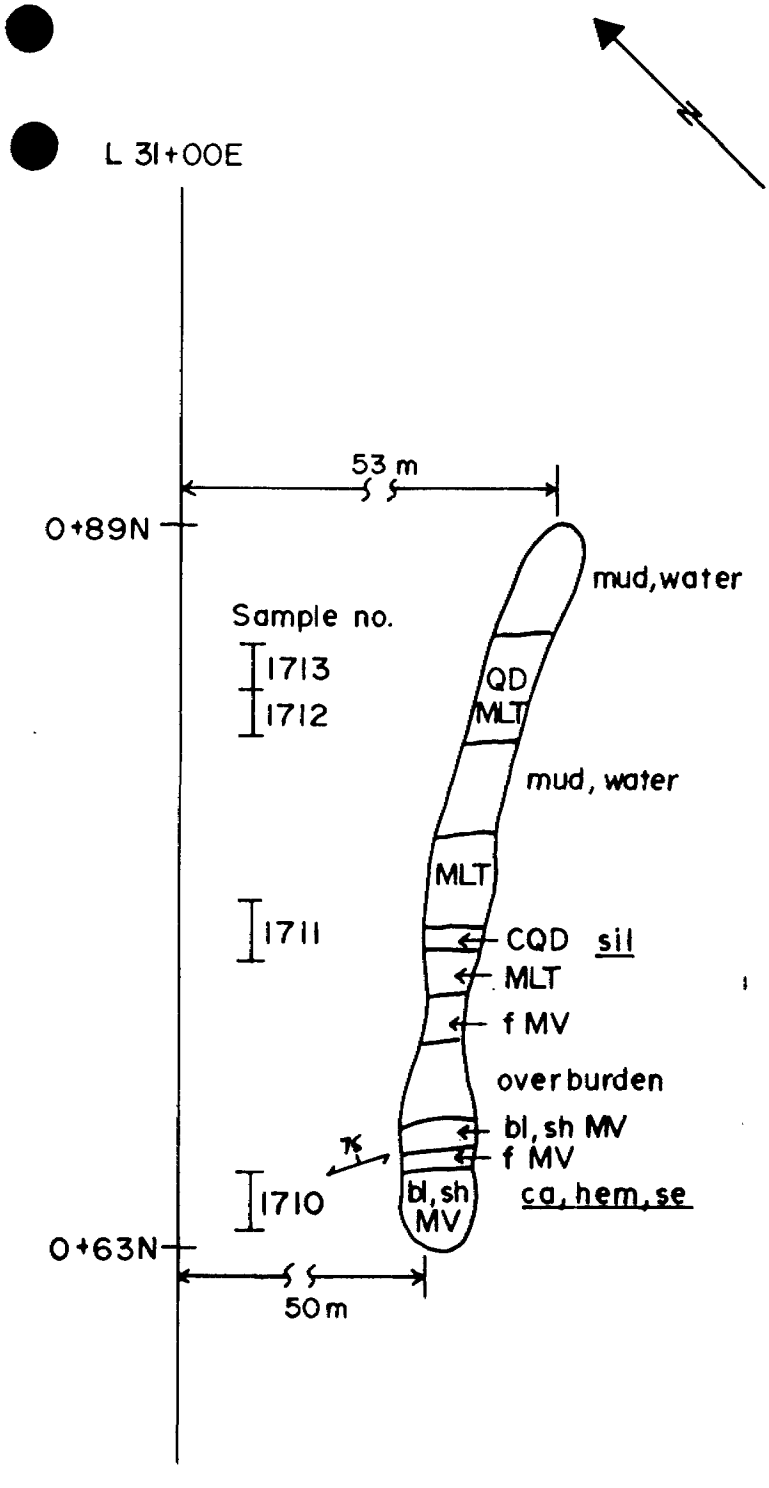
TR-86-15

The bulk of this trench was underlain by mafic volcanics and mafic lapilli tuff with some thin cataclastic quartz diorite dykes at the north end. Foliated and bleached mafic volcanics with weak carbonate, moderate hematitic and moderate to strong sericite alteration occur at the south end. Less than 1% disseminated pyrite was observed. The mafic lapilli tuff contained unsorted, subrounded felsic fragments (1 mm - 6 cm) set in a chlorite-epidote matrix. Fragments were stretched out along a trend of 115°. The cataclastic quartz diorite was pale green and aphanitic with very few clear quartz eyes. Sulfides consisted of less than 1% disseminated pyrite.

Assay results were low with no anomalous values detected.

TR-86-16 and TR-86-17

Both these trenches contain cataclasite in the northern end and cataclastic quartz diorite throughout the rest of the trench. The cataclastic quartz diorite was pale to dark green, fine to medium grained and massive to weakly foliated with a few plagioclase phenocrysts and porphyritic quartz eyes. Weak to moderate carbonate, silica, sericite and chlorite alteration was present. Sulfide content was generally low, less than 1% disseminated pyrite. The



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SYMBOLS

- foliation
- vein, fracture
- brecciated
- geological contact
- fault
- sheared
- claim line

0 5 10m

Scale 1:250

Figure 5p

TRENCH – 86 – 15

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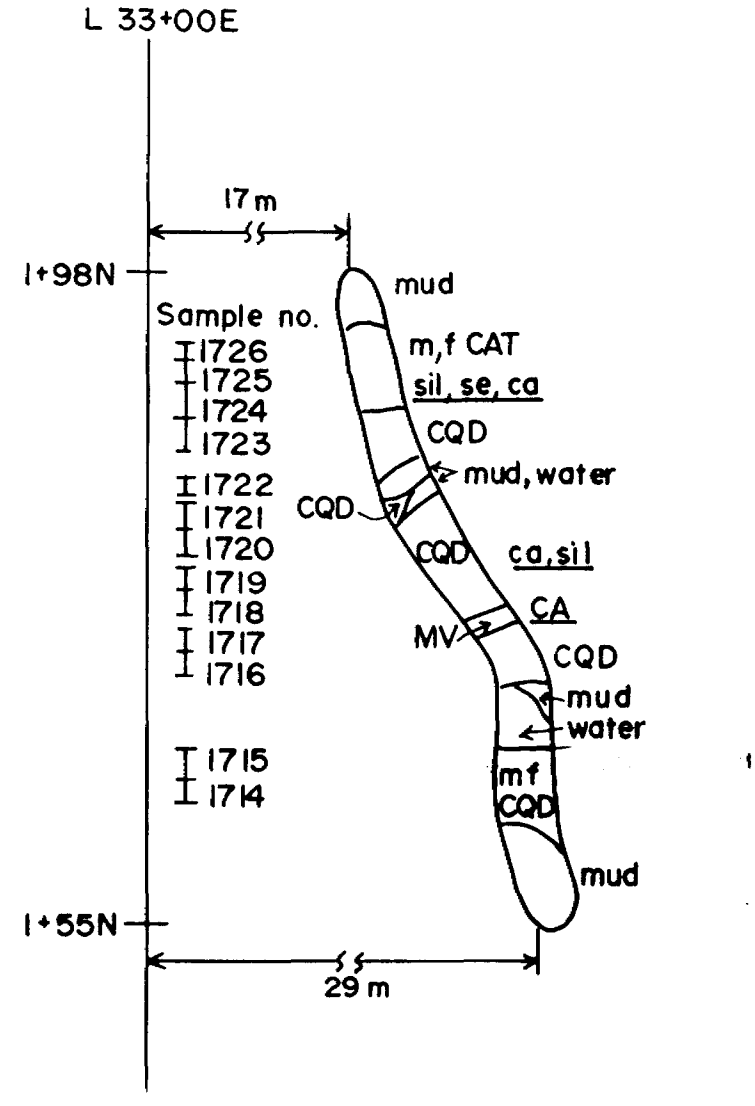

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SYMBOLS

- foliation
- vein, fracture
- brecciated
- geological contact
- fault
- sheared
- claim line

0 10 20m

Scale 1:500

Figure 5q

TRENCH – 86 – 16

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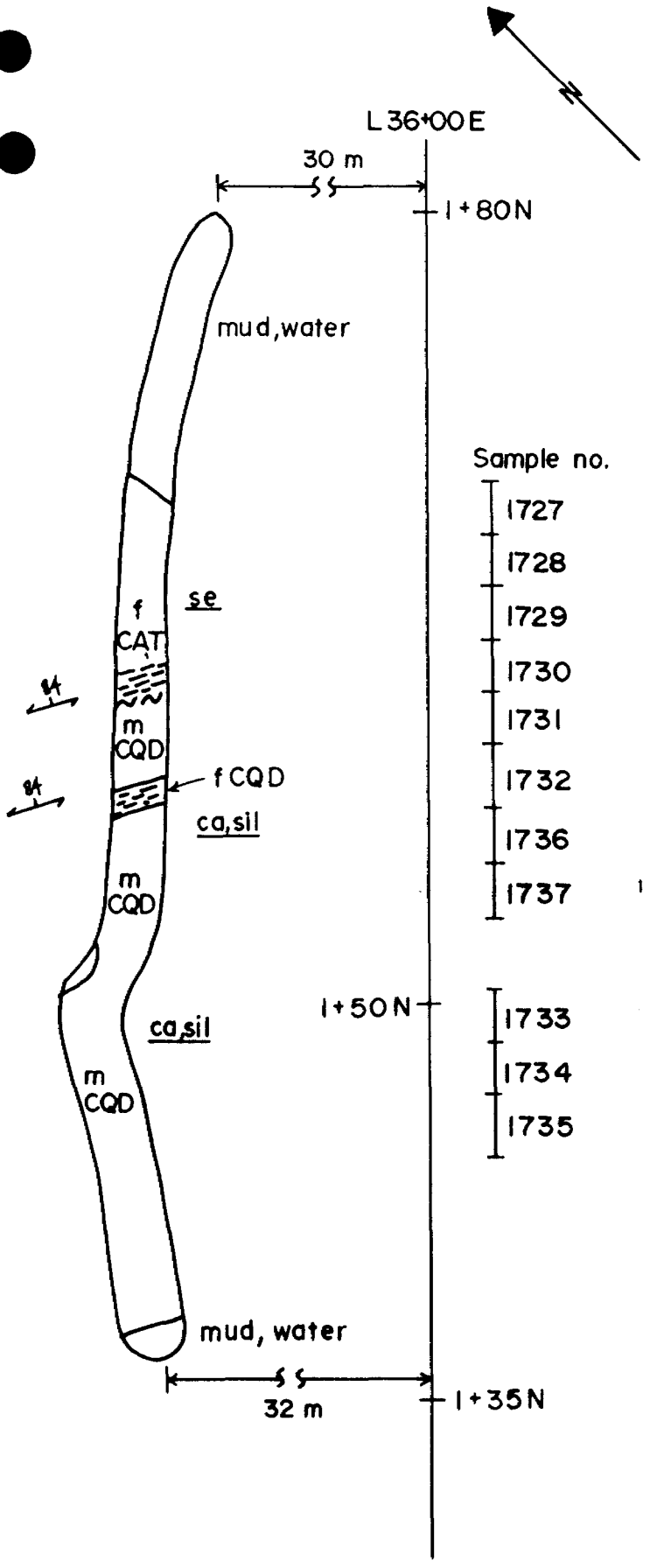
Jan. 1987



Jan.1987

GEOLOGICAL LEGEND

BIF	Banded iron formation
CAT	Cataclasite
CCS	Chloritic carbonate schist
CQD	Cataclastic Quratz Diorite
DIAB	Diabase dike
LAMP	Lamprophyre dyke
MLT	Mafic lapilli tuff
MV	Mafic volcanics
MYL	Mylonite
MST	Mudstone / Siltstone
QBS	Quartz biotite schist
QD	Quartz diorite
QRY	Quartz eye rhyolite
Ft	Felsic tuff
At	Andesite tuff
It	Intermediate tuff

ABBREVIATIONS

bi	biotite
cp	chalcopyrite
fu	fuchsite
graph	graphitic
mag	magnetite
porpb	porphyroblast
py	pyrite
qtz	quartz
sp	specular hematite
tour	tourmaline
bl	bleached
bn	banded
bx	brecciated
f	foliated
m	massive
sh	sheared
tr	trace

ALTERATIONS

Note: Alterations are underlined

Moderate	Strong	
ca	CA	carbonate
chl	CHL	chloritic
ep	EP	epidotic
hem	HEM	hematite
se	SE	sericite
sil	SIL	siliceous

SYMBOLS

- foliation
- vein, fracture
- brecciated
- geological contact
- fault
- sheared
- claim line

0 5 10m

Scale 1: 250

Figure 5r

TRENCH – 86 – 17

REGAL PETROLEUM LTD.

SWAYZE AREA, PORCUPINE MIN. DIV.

OREQUEST

cataclasite was grey to pale green, aphanitic and weakly foliated with some clear quartz eyes.

Assay results were low throughout both trenches with no anomalous copper or silver values and only one weak gold anomaly of 40 ppb.

DIAMOND DRILLING

Introduction

Drilling commenced on the Swayze property in early October with the first phase of 1,175 metres completed by early November. D.W. Coates Enterprises of Vancouver, B.C. carried out the drilling under supervision of OreQuest Consultants Ltd.

First phase drilling consisted of 4 deep holes in the shaft area to test, at depth, those mineralized horizons intersected by the 1985 drilling.

During the second phase in early December one additional deep hole was completed in the shaft area and 5 short holes tested the IP anomalies to the southeast. This amounted to 955 metres for a total drill contract of 2,130 metres.

Overburden is generally less than 5 metres thick in the shaft area, however to the southeast along the geophysical trend this thickens to 15 metres.

Discussion

Results of the deep drilling on the shaft zone returned values very similar to those encountered during the 1985 drilling program. Wide intersections of sub-economic low grade gold mineralization were encountered in the cataclastic rocks in close proximity to the volcanic contact.

A second major cataclastic horizon was outlined to the northeast (Figure 7). This zone ranged from 50 metres to 150 metres thick and though visually the same as the main contact zone it contains very low gold values. Pinching and swelling of these zones occurs both laterally and vertically as would be expected and additionally thin subsidiary shears are found interfingering with unaltered intrusives and volcanics.

Gold is generally associated with late stage quartz veins and shows a strong correlation with copper values. Copper is present as chalcopyrite both disseminated and in quartz-carbonate-pyrite veins and fracture fillings. Minor amounts of pyrrhotite and fuchsite were noted but showed no close association with gold values. Most gold bearing zones exhibited some degree of silicification and commonly hematization however the degree of alteration did not necessarily reflect the intensity of gold mineralization. Larger 10cm plus quartz veins, with or without sulfides, returned erratic gold values and comprise a very small percentage of the section.

Second phase drilling produced a mixed assemblage of volcanics, sediments and intrusive rocks. Three of the anomalous zones outlined by the IP survey were tested and causes determined for each (Figure 6).

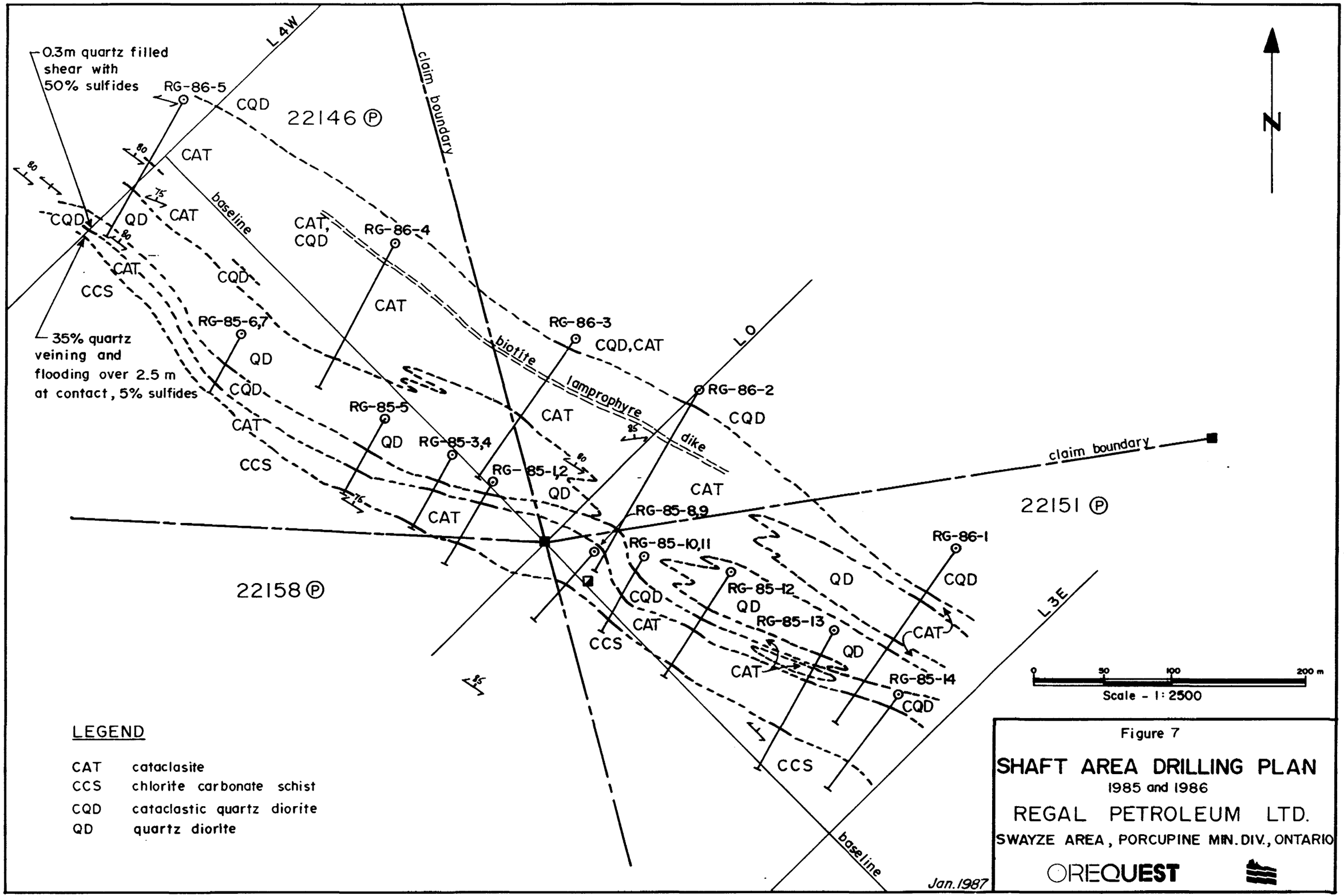


Figure 7

SHAFT AREA DRILLING PLAN

1985 and 1986

REGAL PETROLEUM LTD.

SWAYZE AREA, PORCUPINE MIN. DIV., ONTARIO

OREQUEST

A single line anomaly at 5E/6N, Zone A, produced the highest chargeability, 30 milliseconds, of the survey. This was determined to be caused by a 50 metre interval of graphitic mudstone/siltstone and interbedded graphitic mudstones and volcanics. The remainder of RG-86-6 consisted predominantly of tuffs. No anomalous gold values were encountered.

Anomaly B occupies a northwest-southeast trend and occurs over 8 lines. Two holes, RG-86-7,8, were used to test this anomaly at 9E and 11E/6N (Figure 6). These holes intersected a similar sequence of mudstone/siltstone and felsic to mafic tuffs as noted in hole RG-86-6. The source for this anomaly is a sulfide bearing felsic tuff 3 metre wide in RG-86-7 and 2 metre wide in RG-86-8 containing up to 10cm of massive pyrite and an average of 10-15% sulfides over the interval. Some quartz veining is associated with this zone, approximately 5%, however no gold values were reported.

Anomaly C occurs within the volcanics to the southwest of the projected trace of the cataclastic-volcanic contact. Hole RG-86-9 cut a section of predominantly intermediate volcanics with a short cataclastic quartz diorite interval. Increased sulfide content, 2-3% pyrite, at 112 m to 129 m is the probable cause of the IP anomaly as the remainder of the hole contains 1% or less sulfides. No gold values were obtained.

Drill hole RG-86-10 was located to test the same anomaly along strike at line 15E however this hole was abandoned at 18.9 metre due to major equipment failure. The hole collared in mafic volcanics and appeared to be a repeat of

the section encountered in RG-86-9. Based on this information it was decided not to attempt another.

Structures, where intersected in the drilling, were generally narrow, less than 10cm, and gave no indication as to either direction or amount of movement. In most cases little or no quartz veining was associated with these features.

Table 5 provides a summary of drill hole locations, attitudes and lengths.

TABLE 5

Drill Hole	Co-ordinates	Dip (degrees)	Azimuth (degrees)	Depth (metres)
RG-86-1	2+10E/2+05N	-60	215	306.7
RG-86-2	0+05W/1+60N	-60	208	306.7
RG-86-3	0+90W/1+20N	-65	218	285.4
RG-86-4	2+10W/1+00N	-65	210	276.2
RG-86-5	4+00W/0+45N	-60	225	214.3
RG-86-6	5+00E/6+00N	-50	225	169.5
RG-86-7	11+00E/6+00N	-50	225	154.3
RG-86-8	9+00E/6+00N	-50	225	181.7
RG-86-9	13+25E/0+25S	-50	225	215.2
RG-86-10	15+00E/1+00S	-50	225	18.9

DDH-RG-86-1

This hole intersected a section composed primarily of quartz diorite with lesser amounts of cataclastic quartz diorite and cataclasite. The cataclasite occurs as several thin horizons, maximum thickness 10 metres, throughout the section and a thin 3 metre zone at the chlorite-carboante schist contact. This is significantly narrower than the approximately 50 metre thickness encountered in DDH-85-13,14 which are the overlying shallow holes. Gold values were generally low with the best being 2 metres of 0.023 oz/ton at 280 metres and 3 metres of 0.018 oz/ton at 271 metres. The former occurs in the cataclasite near the chlorite-carbonate schist contact and the latter in a brecciated section of cataclastic quartz diorite.

DDH-RG-86-2

Hole RG-86-2 was the first to cut the main body of the northeastern cataclastic zone, which has a true thickness of 100 metres. This zone is separated from the 3 metre thick contact cataclastic zone by 70 metes of quartz diorite. A biotite lamprophyre dyke intersected in the upper portion of this hole extends across holes 3 and 4. Gold values occur in both the cataclasite and the quartz diorite. At 92.3 metres a 7 metre section of cataclasite and cataclastic quartz diorite displaying weak to moderate silicification and hematization and very minor quartz-carbonate fracture filling assayed 0.042 oz/ton Au. Within the quartz diorite a quartz-carbonate, pyrite, chalcopyrite vein system assayed 0.02 oz/t Au over 12 metres. A similar vein system at 264 metres to 273.4 metres close to the base of the quartz diorite section assayed 0.03 oz/ton Au. Toward the base of this interval the rock becomes a cataclastic quartz diorite. The final mineralized zone occurs in the cataclasite and

cataclastic quartz diorite adjacent to the chlorite-carbonate schist where a 17 metre section from 277 metres to 294 metres, assayed 0.015 oz/ton Au.

This hole in particular shows the strong correlation between late stage quartz and quartz sulfide veining with gold mineralization. At the same time the interval from 92.3 metre to 99.4 metre contains very little veining yet returned one of the higher assays. The underlying 20m section is quite strongly silicified and locally brecciated and though no gold values were obtained within that interval it is probably related to the overlying mineralization.

DDH-RG-86-3

Pinching and swelling of the shear zone produced a thickness of only 60m for the northeastern cataclastic horizon in this hole (Figure 11). This resulted in a proportionally thicker, 70 metres, mass of intrusive quartz diorite. On surface the cataclasite horizon at the volcanic contact thins along strike to the northwest, however, at depth the reverse holds true and in hole RG-86-3 it has increased to 6 metres.

Gold mineralization was restricted to 2 zones, from 222 metres to 237.8 metres in the quartz diorite and 253 metres to 261 metres in the cataclasite at the chlorite-carbonate schist contact. The diorite hosted interval assayed 0.021 oz/ton Au probably due to moderately silicified cataclastic horizons containing up to 5% pyrite and minor chalcopyrite and a 12cm quartz vein containing 5-10% pyrite and chalcopyrite. At the chlorite carbonate schist contact a strongly silicified brecciated section of cataclasite contains up to 5% pyrite with traces of fuchsite. Only minor quartz veining was present.

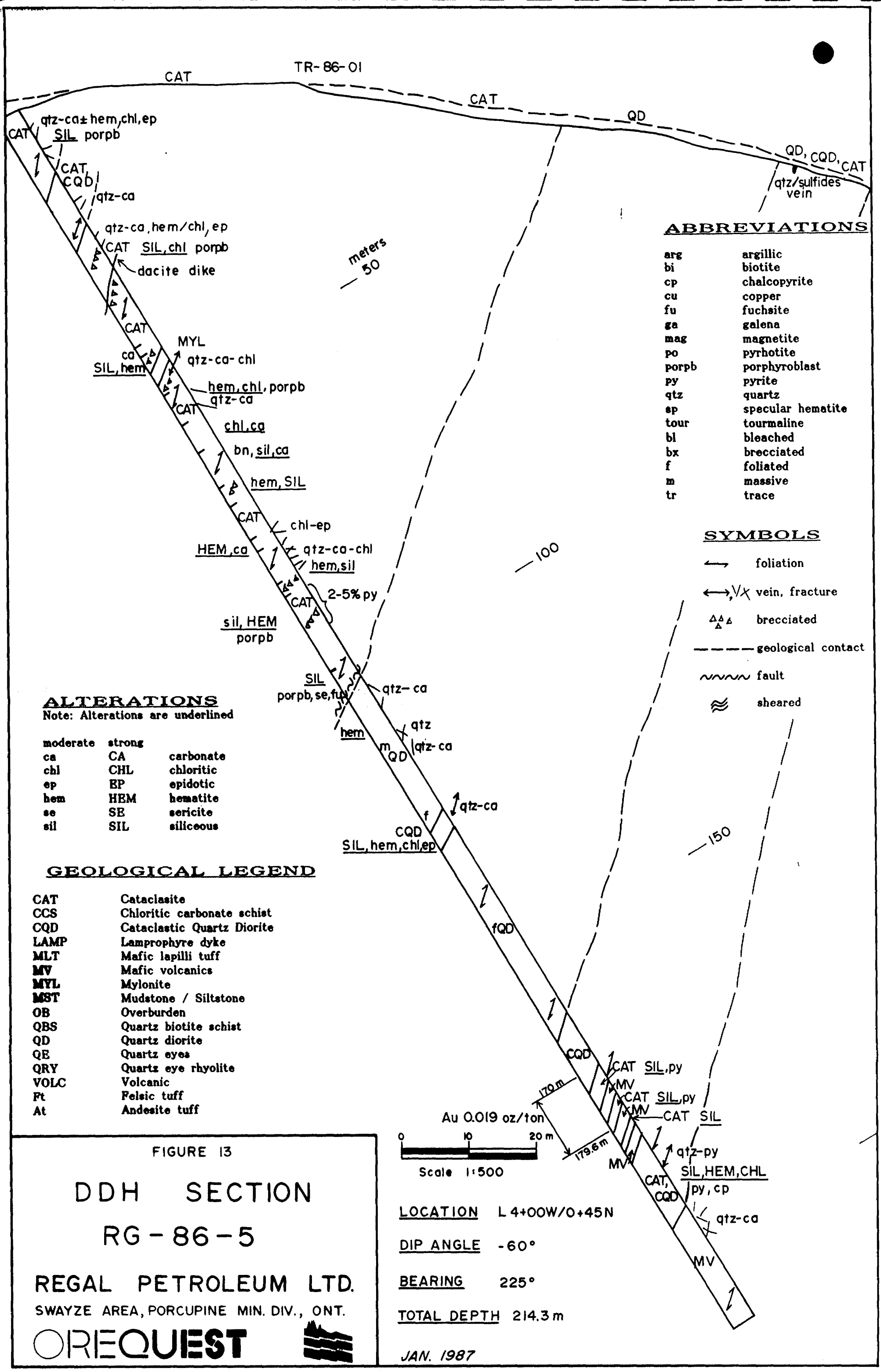
DDH-RG-86-4

Hole RG-86-4 was collared in the cataclastic horizon and cut a true thickness of 110 metres of variably altered cataclasite in the northeastern zone. Approximately 60 metres of quartz diorite and cataclastic quartz diorite separates the two cataclastic zones in this hole. In this hole the contact zone has thickened to 15 metres of siliceous cataclastic and mylonite, locally brecciated and containing up to 5% sulfides. The hole was terminated 6 metres in to the chlorite-carbonate schist.

The longest zone of gold mineralization occured in the siliceous mylonite near the schist contact at 249 metres to 271.5 metres. This assayed 0.016 oz/ton over the 22.5 metre interval. Shorter higher grade intersections were intersected within a mixed sequence of cataclastic quartz diorite and cataclasite overlying the above section. These consisted of moderately to strongly siliceous, moderately hematitic rocks with 1-5% sulfides, predominantly pyrite, as stringers and disseminations. Veining is present but not extensive and generally appears as thin, less than 5mm, quartz-carbonate veinlets or fracture fillings conformable with foliation. This interval from 237 metres to 246 metres included 1 metre of .087 oz./ton Au and 4 metres of 0.019 oz/ton Au.

DDH-RG-86-5

This hole was situated at the west end of the shaft area drilling and intersected 75 metre of cataclasite in the northeast zone. A 35 metre interval of quartz diorite and cataclastic quartz diorite separates the upper cataclastic zone from the contact with the mafic volcanics. In RG-86-5 the volcanic contact



ABBREVIATIONS

arg	argillic
bi	biotite
cp	chalcopyrite
cu	copper
fu	fuchsite
ga	galena
mag	magnetite
po	pyrhotite
porpb	porphyroblast
py	pyrite
qtz	quartz
sp	specular hematite
tour	tourmaline
bl	bleached
bx	brecciated
f	foliated
m	massive
tr	trace

SYMBOLS

- foliation
- vein, fracture
- brecciated
- geological contact
- fault
- sheared

ALTERATIONS

Note: Alterations are underlined

moderate	strong	
ca	CA	carbonate
chl	CHL	chloritic
ep	EP	epidotic
hem	HEM	hematite
se	SE	sericite
sil	SIL	siliceous

GEOLOGICAL LEGEND

CAT	Cataclasite
CCS	Chloritic carbonate schist
CQD	Cataclastic Quartz Diorite
LAMP	Lamprophyre dyke
MLT	Mafic lapilli tuff
MV	Mafic volcanics
MYL	Mylonite
MST	Mudstone / Siltstone
OB	Overburden
QBS	Quartz biotite schist
QD	Quartz diorite
QE	Quartz eyes
QRY	Quartz eye rhyolite
VOLC	Volcanic
Ft	Felsic tuff
At	Andesite tuff

FIGURE 13

DDH SECTION

RG-86-5

REGAL PETROLEUM LTD.

SWAYZE AREA, PORCUPINE MIN. DIV., ONT.

OREQUEST

LOCATION L 4+00W/0+45N

DIP ANGLE -60°

BEARING 225°

TOTAL DEPTH 214.3 m

JAN. 1987

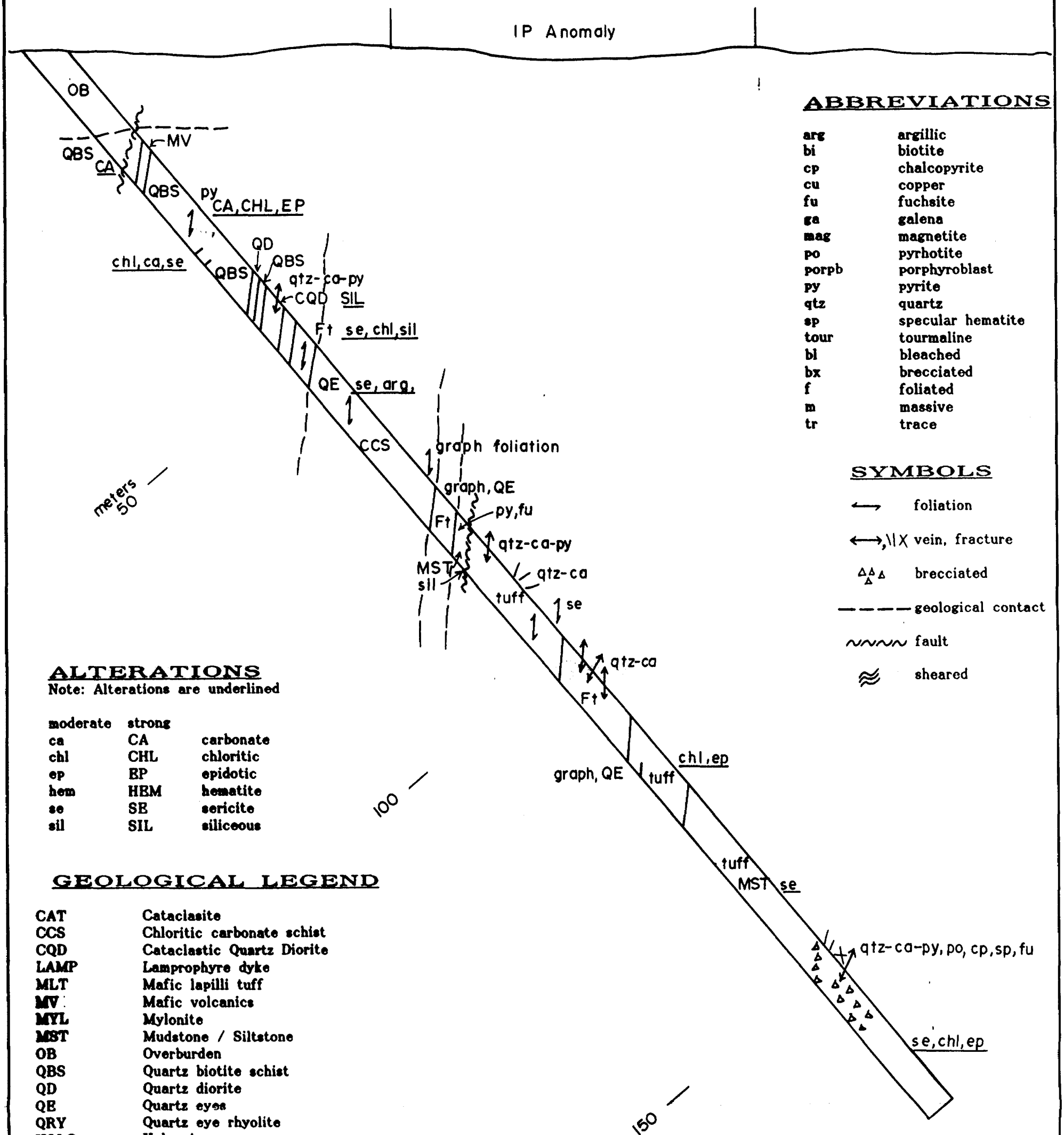
zone occupies a 25 metre interval of cataclasite, cataclastic quartz diorite and quartz diorite cut by several mafic volcanic dykes. Drilling continued for 17 metres past the lowest cataclasite unit because of the interlayered nature at the contact zone.

As in the previous holes the northeastern cataclastic zone contained only weak gold mineralization with the best values occuring above the volcanic contact. At 170 metres to 179.6 metres an assay of 0.019 oz/ton was contained in siliceous pyritic cataclasite cut by mafic volcanics dikes. No other noteable mineralized sections were encountered.

DDH-RG-86-6

An isolated IP anomaly was the target for this hole. Anomaly A showed the highest chargeability of the survey at 30 milliseconds, however, it is a single line anomaly. The section intersected by the drilling consisted primarily of tuffs with some mudstone/siltstone, minor mafic volcanics and intrusives. The anomaly appears to be caused by a 50 metre interval of graphitic tuffs and mudstones. Within the mudstone/siltstone unit the rocks are locally strongly graphitic in the mudstone portions. In the siltstone and tuff sections the graphite tends to occur as thin coatings along foliation planes.

Sulfides were low throughout the hole generally less than 1% but, occassionally increasing 2%-5% for short intervals. No significant gold values were detected in this hole.



ABBREVIATIONS

arg	argillic
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cp	chalcopyrite
cu	copper
fu	fuchsite
ga	galena
mag	magnetite
po	pyrhotite
porpb	porphyroblast
py	pyrite
qtz	quartz
sp	specular hematite
tour	tourmaline
bl	bleached
bx	brecciated
f	foliated
m	massive
tr	trace

SYMBOLS

- foliation
- vein, fracture
- brecciated
- geological contact
- fault
- sheared

ALTERATIONS

Note: Alterations are underlined

moderate	strong	
ca	CA	carbonate
chl	CHL	chloritic
ep	EP	epidotic
hem	HEM	hematite
se	SE	sericite
sil	SIL	siliceous

GEOLOGICAL LEGEND

CAT	Cataclasite
CCS	Chloritic carbonate schist
CQD	Cataclastic Quartz Diorite
LAMP	Lamprophyre dyke
MLT	Mafic lapilli tuff
MV	Mafic volcanics
MYL	Mylonite
MST	Mudstone / Siltstone
OB	Overburden
QBS	Quartz biotite schist
QD	Quartz diorite
QE	Quartz eyes
QRY	Quartz eye rhyolite
VOLC	Volcanic
Ft	Felsic tuff
At	Andesite tuff

FIGURE 14

DDH SECTION

RG-86-6

REGAL PETROLEUM LTD.

SWAYZE AREA, PORCUPINE MIN. DIV., ONT.

OREQUEST

0 10 20 m

Scale 1:500

LOCATION L5+00E / 7+60N

DIP ANGLE -50°

BEARING 225°

TOTAL DEPTH 169.5 m

JAN. 1987

DDH-RG-86-7,8

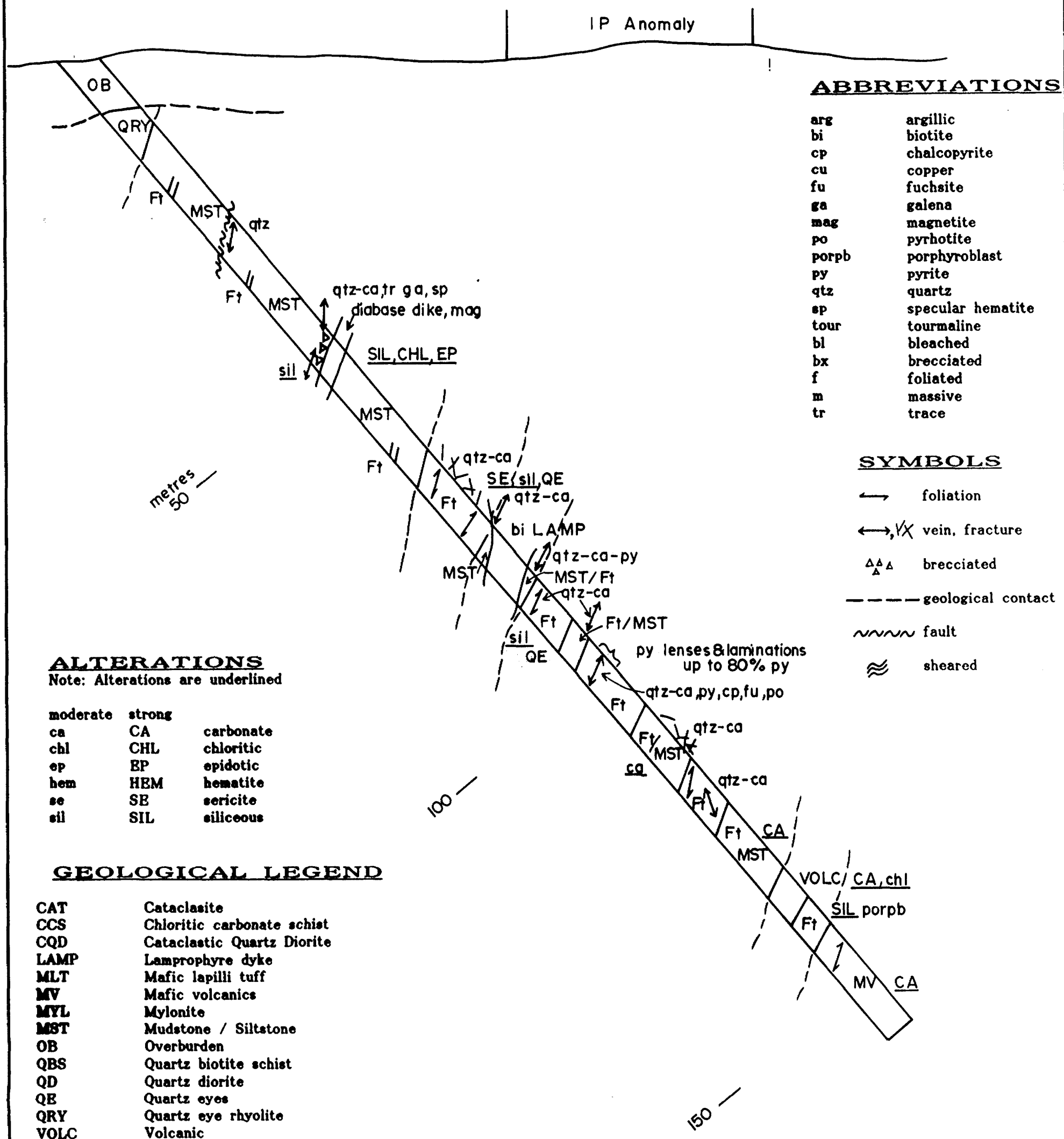
A similar sequence of rocks were intersected in holes 86-6, 7 and 8. This consisted predominantly of tuffs, mudstone/siltstone and mafic volcanics with minor intrusive.

In holes RG-86-7 and RG-86-8 a felsic tuff bed containing massive and disseminated sulfides appears to be the cause of the IP anomaly. Pyrite, the main sulfide, with traces of chalcopyrite, pyrhotite and fuchsite, occurs as stringers and dissemination averaging 10-15%, over 3 metres in 86-7 and 2 metres in RG-86-8. Both intervals also contain narrow, less than 10cm, quartz-carbonate vein hosted massive sulfides. A 3 metre to 5 metre envelope of 1%-3% pyrite surrounds these pyritic tuffs with the remainder of the section containing 1% pyrite or less. No gold values were associated with these zones.

DDH-RG-86-9

This was the first test of the southeastern IP anomaly. The hole encounterd the thickest overburden cover thus far, 16 metres, due to a swamp at the proposed drill site. Tuffs and chlorite carbonate schist make up 95% of the sequence with cataclastic quartz diorite forming the remaining 5%. A zone of chlorite-carbonate schist and felsic tuffs from 112 metres to 129 metres contains from 1%-3% pyrite as compared with less than 1% pyrite throughout the bulk of the section. This pyritic interval is the most likely cause of the IP anomaly with the only other possible source being a short graphitic section from 149 metres to 152 metres. No gold values were reported from this hole.

The results of this hole indicate that the anomaly is not related to the



ABBREVIATIONS

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cu	copper
fu	fuchsite
ga	galena
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py	pyrite
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tour	tourmaline
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bx	brecciated
f	foliated
m	massive
tr	trace

SYMBOLS

- foliation
- vein, fracture
- brecciated
- geological contact
- fault
- sheared

ALTERATIONS

Note: Alterations are underlined

moderate	strong	
ca	CA	carbonate
chl	CHL	chloritic
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OB	Overburden
QBS	Quartz biotite schist
QD	Quartz diorite
QE	Quartz eyes
QRY	Quartz eye rhyolite
VOLC	Volcanic
Ft	Felsic tuff
At	Andesite tuff

FIGURE 15

DDH SECTION

RG-86-7

REGAL PETROLEUM LTD.

SWAYZE AREA, PORCUPINE MIN. DIV., ONT.

OREQUEST

0 10 20 m

Scale 1:500

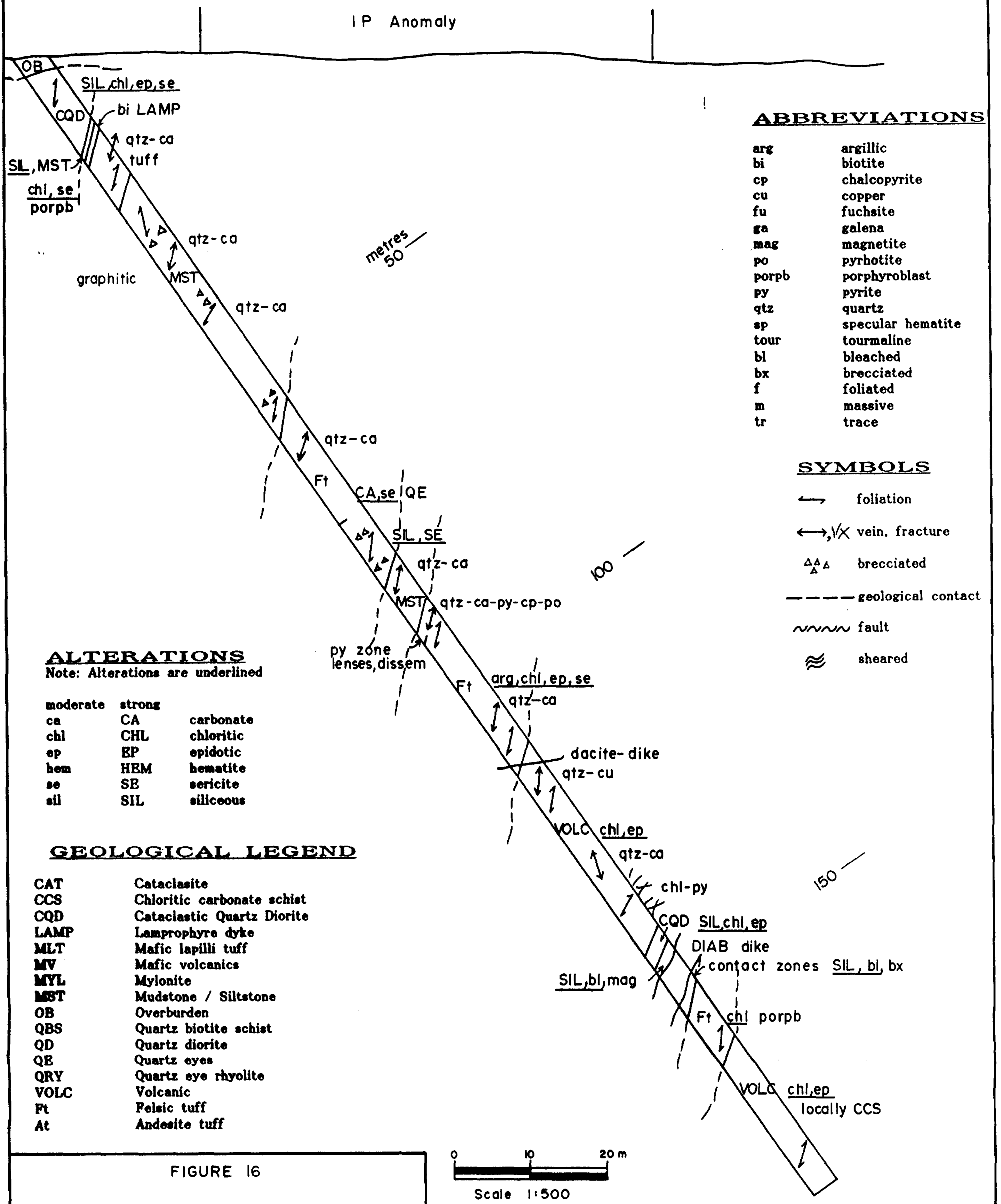
LOCATION L11+00E / 5+50N

DIP ANGLE -50°

BEARING 225°

TOTAL DEPTH 154.3m

JAN. 1987



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QE	Quartz eyes
QRY	Quartz eye rhyolite
VOLC	Volcanic
Ft	Felsic tuff
At	Andesite tuff

0 10 20 m

Scale 1:500

FIGURE 16

DDH SECTION

RG-86-8

REGAL PETROLEUM LTD.

SWAYZE AREA, PORCUPINE MIN. DIV., ONT.

OREQUEST

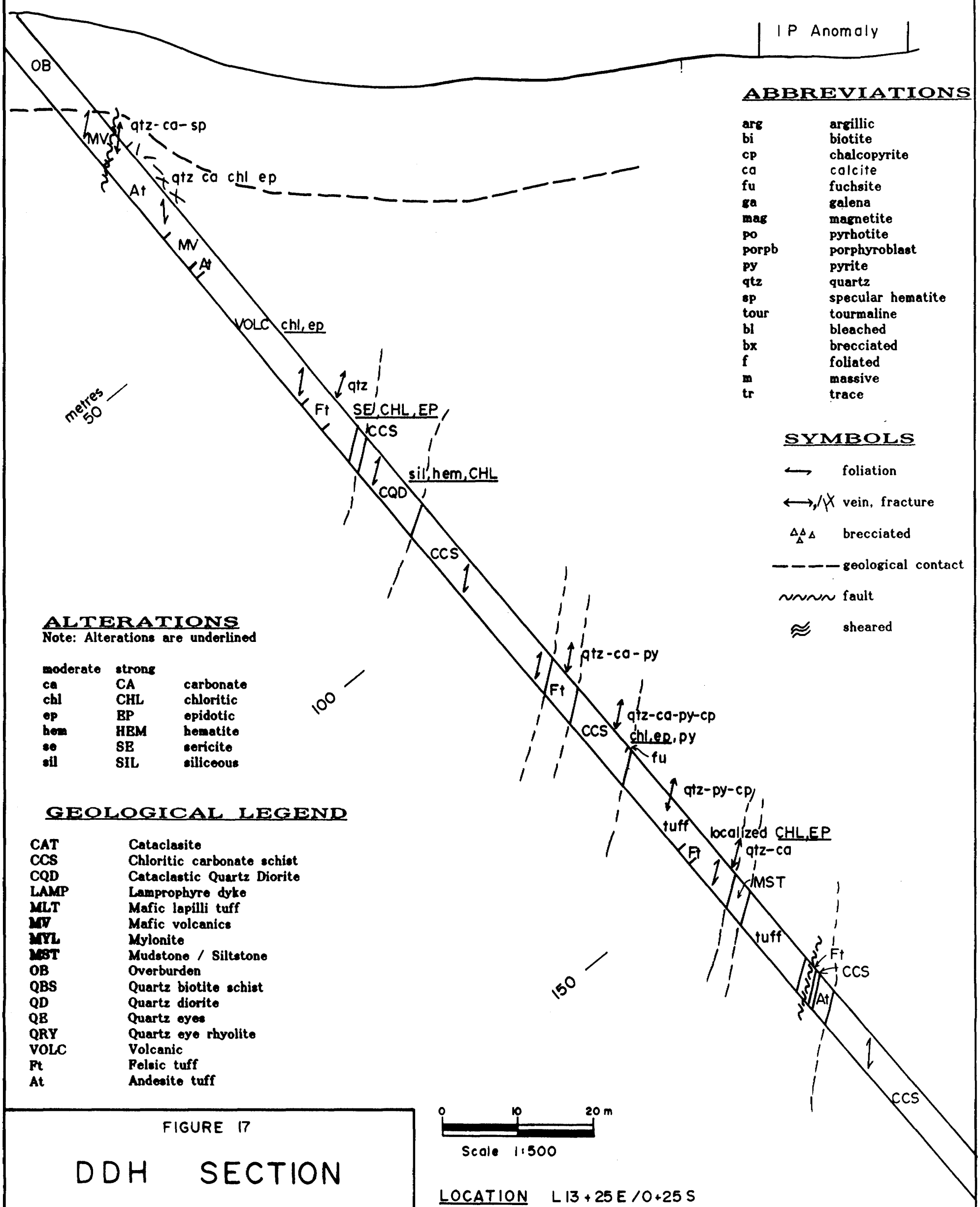
LOCATION L 9+00E /6+00N

DIP ANGLE -55°

BEARING 225°

TOTAL DEPTH 181.7 m

JAN. 1987



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QD	Quartz diorite
QE	Quartz eyes
QRY	Quartz eye rhyolite
VOLC	Volcanic
Ft	Felsic tuff
At	Andesite tuff

FIGURE 17

DDH SECTION

RG-86-9

REGAL PETROLEUM LTD.

SWAYZE AREA, PORCUPINE MIN. DIV., ONT.

OREQUEST

0 10 20 m

Scale 1:500

LOCATION L13+25E/0+25S

DIP ANGLE -50°

BEARING 240°

TOTAL DEPTH 215.2m

JAN. 1987

extension of the shaft area shear zone as expected, but lies wholly within the volcanic section.

WHOLE ROCK ANALYSES

A total of 87 samples mostly drill core were sent to X-Ray Laboratories for whole rock analyses (see Appendix G). These included both individual rock type samples and sequential groups encompassing greater than 150 metres of section in some holes. The purpose of this study was to determine variations in major element distribution and their relationship, if any, to gold mineralization. A correlation of sodium (Na) and calcium (Ca) depletion with potassium (K) enrichment and elevated gold values has been observed in the Hemlo deposits by Roger J. Kuhns, and this sampling was designed to check this association on the property.

Average values for Na_2O within the cataclastic units and the quartz diorites range from 5% to 7% with K_2O typically 1% to 2.5%. In DDH-RG-86-4 a series of samples were collected at 15 metre intervals from 15 metres to 180 metres. From 15 metres to 135 metres values remained within the norms for both groups then between 135 metres and 180 metres. Na_2O suffers 23% depletion while K_2O is enriched by 46%. These variations coincide with weak gold enrichment over that interval. From 15 metres to 135 metres the rocks contained no gold values.

A sample from DDH-RG-86-1 which was taken from an interval assaying 0.029 oz/ton Au contained 4.31 % Na_2O and 3.62% K_2O exhibiting the postulated depletion/enrichment. Further examples exist in DDH-RG-86-2 between 165 metres

and 3.63% K_2O. Assay results for this interval were 0.022 oz/ton Au.

Complete results with locations and rock types are contained in Appendix D.

From this information it appears that though the gold values are low the correlation with the enrichment/depletion haloes is quite good.

CONCLUSIONS and RECOMMENDATIONS

Gold values from the shaft area drilling were disappointing in that no higher results were obtained than those reported for the 1985 drilling. Wide zones of upto 0.02oz/ton Au occurred at depth, similar to those delineated near surface.

A parallel shear was outlined to the northeast of the shaft, separated by 40 - 80 metres of massive to foliated quartz diorite. This zone is wholly within the quartz diorite and probably represents a splay off the main shear. Overall, the gold values in the tested portion of this zone were lower than those encountered near the volcanic contact.

The mapping program indicated that the shear zone continues on a 130° trend to the southeast at least as far as Halcrow Lake and previous mapping programs have indicated similar shears 5 km along the strike to the southeast. Extensive exker and swamp development over much of the trench limits exposure even with the aid of backhoe trenching.

With one exception only weakly anomalous gold values were obtained from the

trenching program, however the contact zone was exposed only in TR-86-1, which did return a gold value of 5140 ppb.

Discontinuous lenses of banded iron formation were located but returned only weakly anomalous gold values.

Two subparallel I.P. anomalies outlined by the geophysical survey were tested during the second phase of drilling. A strongly pyritic felsic tuff 2 to 3 metres thick was the cause of Anomaly A and a weakly pyritic sequence of chlorite-carbonate schists and felsic tuffs caused Anomaly B. Neither zone returned anomalous gold values.

Prior to drilling it was thought that Anomaly B represented the shear trace along the volcanic contact. As this proved not to be the case the contact zone remains untested.

As described in the geophysical section of this report, additional I.P. anomalies remain untested along the southeast extension of the shear zone, to the limit of the survey area.

Further mapping and geophysical work to the southeast will likely reveal a continuation of the shear beyond its present limits. This was not done as it was beyond the scope of the current program.

Further work on the property should concentrate on the shear zone at the volcanic contact. Previous work, and this year's results, has shown this site

to have the greatest potential for hosting gold mineralization.

At present, approximately 4 kilometers of this contact zone have been delineated on the property with good probability of this extending an additional 6 kilometers further to the south east. This would require drill testing.

Data from previous programs indicates areas, along this trend, where due to thinness of overburden, soil geochemical surveys would be effective. In others, a combination of trenching and overburden drilling would be necessary. An I.P. survey should be carried out along the projected trace of the shear for anomalies related to the contact.

Results of these activities would provide targets for a series of short angle holes to test the structure.

Costs for a program of this nature would be on the order of $400,000 and require a crew for a period of 3 months.

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CERTIFICATE of QUALIFICATIONS

I, George Cavey, of 6891 Wiltshire Street, Vancouver, British Columbia hereby certify:

1. I am a graduate of the University of British Columbia (1976) and hold a BSc. degree in geology.
2. I am presently employed as a consulting geologist with OreQuest Consultants Ltd. of 404-595 Howe Street, Vancouver, British Columbia.
3. I have been employed in my profession by various mining companies since graduation.
4. I am a Fellow of the Geological Association of Canada.
5. I am a member of the Canadian Institute of Mining and Metallurgy.
6. The information contained in this report was obtained by direct supervision of the work done on the property by OreQuest Consultants Ltd. in 1986 including several property examinations during the field program.
7. Neither OreQuest Consultants Ltd. nor myself have or expect to receive direct or indirect interest in the property nor in the securities of Regal Petroleum Ltd.
8. I consent to and authorize the use of the attached report and my name in the Company's Prospectus, Statement of Material Facts or other public document.

GEOLOGICAL ASSOCIATION OF CANADA
GEORGE CAVEY
FELLOW

George Cavey
Consulting Geologist

DATED at Vancouver, British Columbia, this 14th day of January, 1987.

CERTIFICATE of QUALIFICATIONS

I, Jim Chapman, of 580 West 17th Avenue, Vancouver, British Columbia hereby certify:

1. I am a graduate of the University of British Columbia (1976) and hold a BSc. degree in geology.
2. I am presently employed as a consulting geologist with OreQuest Consultants Ltd. of 404-595 Howe Street, Vancouver, British Columbia.
3. I have been employed in my profession by various mining companies since graduation.
4. I am a member of the Canadian Institute of Mining and Metallurgy.
5. The information contained in this report was obtained from onsite supervision of the program during September to December, 1986, and a review of data listed in the bibliography.
6. Neither OreQuest Consultants Ltd. nor myself have or expect to receive direct or indirect interest in the property nor in the securities of Regal Petroleum Ltd. or any of its subsidiaries.
7. I consent to and authorize the use of the attached report and my name in the Company's Prospectus, Statement of Material Facts or other public document.

Jim Chapman
Consulting Geologist

DATED at Vancouver, British Columbia, this 14th day of January, 1987.

CERTIFICATE of QUALIFICATIONS

I, Wesley D.T. Raven, of 481 North 6th Avenue, Williams Lake, British Columbia, hereby certify:

1. I am a graduate of the University of British Columbia (1983) and hold a BSc. degree in geology.
2. I am presently employed as a project geologist with OreQuest Consultants Ltd. of 404-595 Howe Street, Vancouver, British Columbia.
3. I have been employed as an exploration geologist on a full time basis since 1983.
4. The information contained in this report was obtained during an onsite property examination personally conducted by myself and OreQuest Consultants Ltd. in 1986.
5. Neither OreQuest Consultants Ltd. nor myself have or expect to receive direct or indirect interest in the property described nor in the securities of Regal Petroleum Ltd.
6. This report may be used by Regal Petroleum Ltd. for all corporate purposes and including any public financing.

Wesley D.T. Raven

Wesley D.T. Raven
Geologist

DATED at Vancouver, British Columbia, this 14th day of January, 1987.

APPENDIX A

DRILL LOGS

OREQUEST CONSULTANTS LTD.

DIAMOND DRILL LOGS

Fill in every page ----> Hole No. RG-86-1 | Page No. 1

Drilling Company	Collar Elevation	Bearing from True North	Dip of hole at: Collar		Location of hole in relation to fixed point on claim.	Map Ref. No.	Claim No.
D.W. COATES INC.		215	306.7 m.	-60			S-22151 F
Date Hole Started 10/16/86	Date Completed 10/19/86	Logged by J. CHAPMAN	306.7 m.	-57		Location (Twp.Lot,Con. or Lat. and Long.) HALCROW TWP.; 47 47'45"N; 82 56'W	
Exploration Co., Owner or Optionee REGAL PETROLEUM LTD.	Date Submitted	Submitted (sign)	m.			Property Name REGAL - SWAYZE	

Meterage From	Meterage To	Rock Type	DESCRIPTION (Colour, grain size, texture, minerals, alteration, etc.)	Planar Feature Angle	Core Specimen Meterage	Your Sample No.	Sample (m.) From	Sample (m.) To	Sample Length (m.)	Assays ppm Cu	Assays ppm Ag	Assays ppb Au
-	2.44	overburden	casing									
2.44	7.32	quartz diorite	a foliated quartz diorite pervasively hematized; dark reddish brown medium to coarse grained; foliation consistantly at 60 degrees to core; 25%-40% mafics strongly chloritized; pervasive carbonitization and abundant quartz-carbonate veinlets less than 2 mm both conformable to and crosscutting foliation; 12 cm quartz carbonate chlorite vein at 7.32 metres	fol. 60								
7.32	8.54	cataclastic quartz diorite	dark gray with anhedral quartz and feldspar crystals; moderately hematized; pervasive carbonate in matrix; hairline to 2 mm hematite filled fractures at random orientations; fault zone at 8.54 metres; footwall silicified for 20 cm			1901	7.32	8.82	1.5	30	0.3	-
8.54	10.5	quartz diorite	fine to medium grained equigranular dark gray green; massive; occasional quartz-carbonate veinlets from hairline at top to 7 cm at base; basal vein at 20 degrees to core with 3 cm border zones of chlorite; epidote; hematite; approximately 5% pyrite									
10.5	13.87	cataclastic quartz diorite	from aphanitic to medium grained; dark reddish brown to dark gray green; pervasive hairline quartz-carbonate and chlorite-epidote veining; moderate hematization; approximately 10% veins greater than 2 cm; quartz-carbonate; tourmaline; minor chlorite; epidote; less than 3%; sulfides; margins of some veins mylonitic; veins all 20%-40% with same orientation; variably silicified			1902	10	12	2	20	0.8	-
						1903	12	13.9	1.9	60	0.1	30
13.87	14.3	cataclasite	aphanitic dark reddish brown; intensely fractured; fracture fillings epidote; hematite; minor magnetite; fragments of cataclastic quartz diorite upto 4 cm in aphanatic groundmass			1904	13.9	15.75	1.85	24	0.1	-
14.3	15.42	cataclastic quartz diorite	fine grained dark gray-green with quartz and feldspar porphyro-blasts; variably siliceous with prevasive chloritization; stockwork quartz; carbonate veinlets with minor associated pyrite approximately 4% and trace chalcopyrite at 14.7 metres to 14.9 metres									
15.42	22.17	quartz diorite	predominantly medium to coarse grained; equigranular; dark greenish brown; strongly foliated approximately 45 degrees; quartz-carbonate +/- chlorite; epidote filled hairline fractures present throughout; occasionally up to 5 cm; occasional blue quartz veins less than 1 cm;	fol. 45		1905	15.75	17.1	1.35	30	0.2	-
						1906	18.5	20	1.5	11	0.2	-

OREQUEST CONSULTANTS LTD.

DIAMOND DRILL LOGS

Fill in every page ---->

Hole No.	Page No.
RG-86-1	2

Drilling Company	Collar Elevation	Bearing from True North	Dip of hole at: Collar		Location of hole in relation to fixed point on claim.	Map Ref. No.	Claim No.
D.W. COATES INC.		215		-60			S-22151 P
Date Hole Started	Date Completed	Date Logged		-57		Location (Twp.Lot,Con. or Lat. and Long.)	
10/16/86	10/19/86		306.7 m.			HALCROW TWP., 47 47'45"N, 82 56'W	
Exploration Co., Owner or Optionee		Date Submitted	Logged by J. CHAPMAN	m.		Property Name	
REGAL PETROLEUM LTD.			Submitted (sign)	m.		REGAL - SWAYZE	

Meterage From	Meterage To	Rock Type	DESCRIPTION (Colour, grain size, texture, minerals, alteration, etc.)	Planar Feature Angle	Core Specimen Meterage	Your Sample No.	Sample (m.) From	Sample (m.) To	Sample Length (m.)	ppm Assays Cu	ppm Assays Ag	ppb Assays Au
			chlorite, epidote increase toward base of section, interbanded fine grained strongly sheared zone less then 20 cm thick also siliceous sections 10-20 cm thick, weakly hematized throughout with local intense zones generally associated with fine grained sheared sections									
22.17	26.22	quartz diorite	as above, but mostly fine to medium grained, predominantly medium grained in lower portion, 19.25-24.77m zone of most intense chlorite carbonate +/- epidote veining preferred orientation of veins approximately 70 degrees, hematization strongest in fine grained zones									
26.22	28.62	quartz diorite cataclastic quartz diorite 50/50	medium to coarse grained, dark reddish brown with strong foliation, interbanded with aphanitic grayish pink cataclastic zones with quartz porphyroblasts up to 1 cm, section cut by many hairline quartz-carbonate +/- chlorite veinlets and tension fractures, 1%-3% pyrite throughout with traces of chalcopyrite mostly disseminated occasional fracture filling, euhedral, hematization inreasing to base	fol. 55		1907	26.22	28	1.78	30	0.1	5
28.62	33.86	cataclastic quartz diorite	predominantly aphanatic to fine grained red brown, pervasive carbonitization and hematization, weak to moderate chlorite, abundant hematite filled fractures parallel to foliation, minor tourmaline at 32.8m, very fine grained pyrite disseminated throughout section approximately 5%, trace cp., sericitic	fol. 50		1908	28	30	2	20	0.4	5
						1909	30.3	32.3	2	23	0.1	-
						1910	32.3	33.9	1.6	26	0.2	-
33.86	41.06	quartz diorite	medium to coarse grained foliated, reddish brown, hairline quartz-carbonate +/- chlorite veins, pervasive carbonatization restricted to cataclastic zones 34.76-35.26 metres, pyrite 1%-3% disseminated, trace chalcopyrite, moderate chloritization throughout, minor sericite in cataclastic zones	fol. 45		1911	40.8	42.8	2	17	0.1	-
41.06	44.4	cataclastic quartz diorite	very fine grained banded red and green with minor coarse grained diorite, quartz-carbonate +/- chlorite veining throughout conformable with foliation in sheared zones, minor blue quartz veins less than 1% sulfides (pyrite), chloritization weakening toward base, shearing less intense toward base	fol. 60								
44.4	49.26	quartz diorite	fine to medium grained equigranular, foliated, dark reddish gray, pervasive hematization and chloritization, quartz-carbonate +/-	fol.		1912	44.5	46.5	2	21	0.1	5

OREQUEST CONSULTANTS LTD.

DIAMOND DRILL LOGS

Fill in every page ---->

Hole No.	Page
RG-86-1	3

Drilling Company	Collar Elevation	Bearing from True North	Dip of hole at:	Collar		Location of hole in relation to fixed point on claim.	Map Ref. No.	Claim No.
D.W. COATES INC.		215			-60			S-22151 P
Date Hole Started	Date Completed	Date Logged		306.7 m.	-57		Location (Twp.,Lot,Con. or Lat. and Long.)	
10/16/86	10/19/86		Logged by				HALCROW TWP., 47 47'45"N, 82 56'W	
			J. CHAPMAN	m.				
Exploration Co., Owner or Optionee		Date Submitted					Property Name	
REGAL PETROLEUM LTD.			Submitted (sign)	m.			REGAL - SWAYZE	

Meterage From	Meterage To	Rock Type	DESCRIPTION (Colour, grain size, texture, minerals, alteration, etc.)	Planar Feature Angle	Core Specimen Meterage	Your Sample No.	Sample (m.) From	Sample (m.) To	Sample Length (m.)	ppm Assays Cu	ppm Assays Ag	ppb Assays Au
			chlorite, hematite, minor tourmaline, locally brecciated and silicified, short zones, up to 20 cm, intensely sheared, very fine grained pyrite disseminated throughout, locally up to 3%	50		1913	46.6	48.7	2.1	25	0.2	-
49.26	54.76	cataclastic quartz diorite	very fine grained groundmass of quartz, carbonate, sericite, chlorite with disseminated pyrite 1%-2%, banded appearance due to alternating hematitic and chloritic layers, locally weakly siliceous, quartz porphyblasts from 1 mm to 1 cm, fragments of mafic volcanics, hematization pervasive, minor tourmaline			1914	50.8	52.4	1.8	16	0.2	-
						1915	52.4	53.9	1.5	15	0.2	110
						1916	53.9	54.8	0.9	27	0.2	20
54.76	58.06	cataclastic	aphanitic to very fine grained groundmass with 1 mm to 1 cm quartz porphyroblosts, intensely hematized and pervasive carbonate and silicification, groundmass quartz, carbonate, sericite, hematite, pyrite (very fine disseminations up to 5%) minor chlorite-epidote veinlets			1917	54.8	56.3	1.5	23	0.2	80
						1918	56.3	57.4	1.1	16	-	10
			dark green very fine grained with abundant crosscutting quartz	upper		1919	57.4	58.3	0.9	15	0.2	-
58.06	66.1	mafic volcanics	carbonate veins, silicified and mineralized for 45 cm below contact with above, pervasive carbonatization, very fine grained pyrite throughout 1%-3%, cataclastic zones at 63.45 metres (15 cm wide) and 65.2 to 65.65 metres as above, but not hematized	contact 70		1920	58.3	59	0.7	66	0.4	-
				lower contact								
			- 56.72 to 59.75 85% recovery - loss in volcanics 59.75 to 62.8 50% recovery - loss in volcanics 62.8 to 65.85 55% recovery - loss in volcanics	60								
66.1	73.3	quartz diorite	medium to coarse grained, medium to dark gray, equigranular, foliation weak to absent, 10% quartz, 45% mafics (mostly biotite weakly chloritized), 45% feldspars, pervasive carbonatization and weak hematization forming narrow envelopes around quartz carbonate veins and diffuse patches, minor interbanded mafic volcanics at base and foliation becoming more pronounced	fol. 55		2032	66.25	67.45	1.2	165	0.1	30
73.3	82.62	quartz diorite	foliated, fine to medium grained, kink bands in foliation and larger scale folding, foliation varies from 0 to 55 degrees, interlayered with thin mafic volcanic bands less than 15 cm fault zone at 80.7m metres narrow unaltered, alteration as above	fol. 45								
			les in 66.1 to 73.3 metres with some quartz-carbonate tourmaline									

OREQUEST CONSULTANTS LTD.

DIAMOND DRILL LOGS

Fill in every page ----> | Hole No. RG-86-1 | Page

Drilling Company: O.W. COATES INC.	Collar Elevation:	Bearing from True North: 215	Dip of hole at: Collar: 306.7 m.	-60 / -57
Date Hole Started: 10/16/86	Date Completed: 10/19/86	Date Logged:	Logged by: J. CHAPMAN	
Exploration Co., Owner or Optionee: REGAL PETROLEUM LTD.	Date Submitted:	Submitted (sign):		

Location of hole in relation to fixed point on claim.

Map Ref. No.

Claim No.: S-22151 P

Location (Twp.Lot,Con. or Lat. and Long.): HALCROW TWP.; 47 47'45"N; 82 56'W

Property Name: REGAL - SWAYZE

Meterage From	Meterage To	Rock Type	DESCRIPTION (Colour, grain size, texture, minerals, alteration, etc.)	Planar Feature Angle	Core Specimen Meterage	Your Sample No.	Sample (m.) From	Sample (m.) To	Sample Length (m.)	ppm Assays Cu	ppm Assays Ag	ppb Assays Au
82.62	107.59	quartz diorite	veining at 89.44-91.14 metres; weak chloritization; intense silicification with 2%-5% pyrite in gray black fine grained diorite			1921	85.3	87.3	2	61	1.4	-
			100.75 to 103.6 metres; weak hematization; traces of chalcopyrite with quartz carbonate veins; trace disseminated magnetite in diorite			1922	89.3	91.2	1.9	25	0.1	-
			105.4-106.30 metres increasing pyrite content up to 20% at base with increasing hematization and grading into massive biotite chlorite rock immediately overlying 15 cm quartz vein.			1923	99.4	101	1.6	238	0.6	40
			106.3-107.59m beginning of brecciated hematized cataclastic zone			1924	101	103.1	2.1	50	0.1	100
						1925	103.1	105.1	2	30	0.4	45
107.59	118.1	cataclasite	strongly silicified and hematized, dark red brown aphanitic to very fine grained groundmass with quartz porphyroblasts; pervasive carbonitization, weak to moderate seritization. Abundant vein breccia and quartz-carb. veining at top of section; pyrite 1%-2% throughout locally 5%; trace chalcopyrite as disseminations and vein filling; mafic dyke 10 cm wide at 112.1 m 5 mm chilled margin, lower contact with foliated quartz diorite; hematization weakening approaching contact			1926	105.2	106.5	1.3	33	0.4	5
						1927	106.5	108.3	1.8	5	0.3	15
						1928	108.3	109.4	1.1	24	0.4	-
				dike 60		1929	109.4	111.1	1.7	5	0.1	-
			equigranular, medium to coarse grained, dark gray, weakly hematized, pervasively carbonatized with occasional thin mafic horizons less than 5 cm, minor less than 1% disseminated fine grained pyrite	fol. 30		1930	111.1	112.7	1.6	18	0.1	100
118.1	157.06	quartz diorite				1931	112.7	114.2	1.5	15	0.3	10
						1932	114.2	115.7	1.5	22	0.3	65
			foliation fades out by 122.23 metres; abundant hairline	fol. 50		1933	115.7	117.6	1.9	15	0.3	10
			quartz-carbonate, chlorite +/- epidote, hematite veins with random orientation occasionally containing specular hematite, weakly to moderately magnetic throughout to 134.3 metres			1934	117.6	118.5	0.9	55	0.4	-
						1935	133.7	135.5	1.8	23	0.1	-
						1936	135.5	137.5	2	20	0.2	50
			134.6 to 137.2m increase in vein size			1937	141.2	143	1.8	84	0.1	-
			148.0 to 152.0m large euhedral py up to 1 cm with 1%-2% disseminated pyrite			1938	146.1	148.1	2	41	0.2	40
						1939	148.1	149.3	1.2	180	0.6	420
			155.77 to 156.4m mafic volcanic dyke with 5 mm chilled margin upper contact at 50 degrees, lower contact			1940	149.3	151.9	2.6	89	0.1	310
				70								
			increase in hematization and silicification at top of section becoming progressively more brecciated to 160 metres then grading back to quartz diorite as above; quartz vein at 162.51 metres			1941	157	158.5	1.5	58	0.5	-
157.06	163.55	cataclastic quartz diorite		vein		1942	158.5	159.7	1.2	25	0.2	-
			dark green and red brown; pyrite locally up to 5% in stringers;	top 15		1943	159.7	161.4	1.7	10	0.3	70
			162.51-163.55 barren milky quartz vein pervasive carbonatization, trace chalcopyrite	65		1944	161.4	162.6	1.2	95	0.8	30
						1945	162.6	163.5	0.9	20	0.4	55
				bottom		1946	163.5	164.6	1.1	42	0.2	-

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DIAMOND DRILL LOGS

Fill in every page ---->| Hole No. RG-86-1 | Page No. 5

Drilling Company: D.W. COATES INC.	Collar Elevation:	Bearing from True North: 215	Dip of hole at: Collar: 306.7 m.	-60 / -57	Location of hole in relation to fixed point on claim.
Date Hole Started: 10/16/86	Date Completed: 10/19/86	Date Logged:	Logged by: J. CHAPMAN	m.	
Exploration Co., Owner or Optionee: REGAL PETROLEUM LTD.	Date Submitted:	Submitted (sign):	m.		

Map Ref. No.	Claim No.
	S-22151 P

Location (Twp.Lot,Con. or Lat. and Long.): HALCROW TWP., 47 47'45"N, 82 56'W

Property Name: REGAL - SWAYZE

Meterage From	Meterage To	Rock Type	DESCRIPTION (Colour, grain size, texture, minerals, alteration, etc.)	Planar Feature Angle	Core Specimen Meterage	Your Sample No.	Sample (m.) From	Sample (m.) To	Sample Length (m.)	ppm Assays Cu	ppm Assays Ag	ppb Assays Au
			approximately 50/50 cataclastic quartz diorite as above and weakly			1947	164.6	165.5	0.9	25	0.2	-
163.55	167.56	quartz diorite/ cataclastic quartz diorite	altered quartz diorite with a 35 cm quartz vein at 166.91, pyrite approximately 5% with trace chalcopyrite	vein 45		1948	165.5	166.5	1	47	0.1	-
				80		1949	166.5	167.5	1	20	0.2	-
			medium to coarse grained, equigranular, weak hematization, thin, 5-10			1950	167.5	169	1.5	224	0.6	-
167.56	174.46	quartz diorite	cm shear zones near base of section with up to 5 cm bleached weakly			1951	172.3	174.4	2.1	74	0.2	20
			silicified sericite envelopes traces pyrite and chalcopyrite	shears		1952	174.4	176	1.6	35	-	10
				approx.		1953	176	178.3	2.3	81	0.4	380
			continuation of lower section above, shear zones 1 per 10 cm	45		1954	178.3	179.4	1.1	30	0.2	80
174.46	181	cataclastic quartz diorite	separated by relatively unaltered quartz diorite			1955	179.4	180.6	1.2	45	0.1	-
			178.5 to 180.75 metres, 35% quartz veins with pyrite and minor	shears		1956	180.6	181.2	0.6	1630	0.9	240
			chalcopyrite separated by cataclastic quartz diorite with pyrite up	approx.		1957	181.2	182.4	1.2	50	0.2	30
			to 10%	45		1958	182.5	183.9	1.4	43	0.4	5
						1959	183.9	185.3	1.4	65	0.3	80
181	201.55	quartz diorite	predominantly medium to coarse grained equigranular dark gray partly	fol.		1960	186.2	187.8	1.6	87	0.3	15
			foliated, weak to moderate hematization and chloritization,	45-75		1961	187.8	189.3	1.5	60	0.2	-
			occasional shear zones, less than 0.5 metres, of fine to very fine									
			grained greenish gray or hematitic rock cut by thin, less than 2 cm,			1962	200	201.1	1.1	65	-	-
			quartz carbonate +/- chlorite, hematite, feldspar veins, pyrite and									
			chalcopyrite less than 1%, locally 2%-5% associated with shear zones,			1963	201.1	202.7	1.6	60	0.6	50
			increasing hematization at base of section									
						1964	202.7	203.8	1.1	40	0.4	70
201.55	207.4	cataclastic quartz diorite	strongly hematized to 202.60 metres, veining conformable with	fol.								
			foliation (quartz-carbonate chlorite, hematite)	40		1965	203.8	205.4	1.6	25	0.1	330
			202.6-207.4 metres chlorite-sericite alteration dominant with weak									
			hematization, minor epidote, moderate quartz veining, cataclastic			1966	205.4	206.6	1.2	46	0.2	25
			zones separated by section of weakly altered dark gray quartz diorite									
			as above			1967	206.6	208.3	1.7	22	0.2	65
207.4	270.6	quartz diorite	as in 181.0 to 201.55 metres with narrow shear zones as in 202.6 to			1968	208.3	209.8	1.5	39	0.1	40
			207.4 metres, below 214 metres moderate hematization and	fol.								
			chloritization in shear zones, shears approximately 15% of section	55		1969	210.4	211.8	1.4	60	-	25
			diorite predominantly foliated steepening to 30 degrees at 234 m	to		1970	211.8	213.3	1.5	40	0.6	10
			234-236.5 metres abundant quartz-carbonate hematite veining parallel	75		1971	215	216.2	1.2	121	-	110
			to subparallel to core locally up to 1% chalcopyrite			1972	219.8	221.1	1.3	45	0.4	-
			237-245m chlorite epidote veining			1973	221.1	222.6	1.5	78	0.3	20
			256.2-258.5 magnetic section with brecciated zone			1974	222.6	224.2	1.6	241	0.7	5
			259.5-260.7 metres containing quartz, chlorite biotite rock,			1975	224.7	225.2	0.5	270	0.3	-
			tourmaline, pale to medium green at base of section before transition			1976	228.7	230.2	1.5	259	0.5	50

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DIAMOND DRILL LOGS

Fill in every page ----> Hole No. RG-86-1 | Page No. 6

Drilling Company	Collar Elevation	Bearing from True North	Dip of hole at: Collar		Location of hole in relation to fixed point on claim.	Map Ref. No.	Claim No.
D.W. COATES INC.		215	306.7 m.	-60			S-22151 P
Date Hole Started	Date Completed	Date Logged		-57		Location (Twp.Lot;Con. or Lat. and Long.)	
10/16/86	10/19/86		Logged by			HALCROW TWP.; 47 47'45"N; 82 56'W	
			J. CHAPMAN				
Exploration Co., Owner or Optionee		Date Submitted		m.		Property Name	
REGAL PETROLEUM LTD.			Submitted (sign)	m.		REGAL - SWAYZE	

Meterage From	Meterage To	Rock Type	DESCRIPTION (Colour; grain size; texture; minerals; alteration; etc.)	Planar Feature Angle	Core Specimen Meterage	Your Sample No.	Sample (m.) From	Sample (m.) To	Sample Length (m.)	ppm Assays Cu	ppm Assays Ag	ppb Assays Au
82.62	107.59	quartz diorite	veining at 89.44-91.14 metres; weak chloritization; intense silicification with 2%-5% pyrite in gray black fine grained diorite			1921	85.3	87.3	2	61	1.4	-
			100.75 to 103.6 metres; weak hematization; traces of chalcopyrite with quartz carbonate veins; trace disseminated magnetite in diorite			1922	89.3	91.2	1.9	25	0.1	-
			105.4-106.30 metres increasing pyrite content up to 20% at base with increasing hematization and grading into massive biotite chlorite rock immediately overlying 15 cm quartz vein.			1923	99.4	101	1.6	238	0.6	40
						1924	101	103.1	2.1	50	0.1	100
			106.3-107.59m beginning of brecciated hematized cataclastic zone			1925	103.1	105.1	2	30	0.4	45
107.59	118.1	cataclasite	strongly silicified and hematized; dark red brown aphanitic to very fine grained groundmass with quartz porphyroblasts; pervasive carbonitization; weak to moderate seritization. Abundant vein			1926	105.2	106.5	1.3	33	0.4	5
			breccia and quartz-carb. veining at top of section; pyrite 1%-2% throughout locally 5%; trace chalcopyrite as disseminations and vein			1927	106.5	108.3	1.8	5	0.3	15
			filling; mafic dyke 10 cm wide at 112.1 m 5 mm chilled margin; lower contact with foliated quartz diorite; hematization weakening			1928	108.3	109.4	1.1	24	0.4	-
			approaching contact	dike 60		1929	109.4	111.1	1.7	5	0.1	-
			equigranular; medium to corase grained; dark gray; weakly hematized;	fol.		1930	111.1	112.7	1.6	18	0.1	100
118.1	157.06	quartz diorite	pervasively carbonatized with occasional thin mafic horizons less	30		1931	112.7	114.2	1.5	15	0.3	10
			than 5 cm; minor less than 1% disseminated fine grained pyrite			1932	114.2	115.7	1.5	22	0.3	65
			foliation fades out by 122.23 metres; abundant hairline	fol.		1933	115.7	117.6	1.9	15	0.3	10
			quartz-carbonate; chlorite +/- epidote; hematite veins with random	50		1934	117.6	118.5	0.9	55	0.4	-
			orientation occasionally containing specular hematite; weakly to			1935	133.7	135.5	1.8	23	0.1	-
			moderately magnetic throughout to 134.3 metres			1936	135.5	137.5	2	20	0.2	50
			134.6 to 137.2m increase in vein size			1937	141.2	143	1.8	84	0.1	-
			148.0 to 152.0m large euhedral py up to 1 cm with 1%-2% disseminated pyrite			1938	146.1	148.1	2	41	0.2	40
						1939	148.1	149.3	1.2	180	0.6	420
			155.77 to 156.4m mafic volcanic dyke with 5 mm chilled margin upper contact at 50 degrees; lower contact			1940	149.3	151.9	2.6	89	0.1	310
				70								
			increase in hematization and silicification at top of section									
157.06	163.55	cataclastic quartz diorite	becoming progressively more brecciated to 160 metres then grading			1941	157	158.5	1.5	58	0.5	-
			back to quartz diorite as above; quartz vein at 162.51 metres	vein		1942	158.5	159.7	1.2	25	0.2	-
			dark green and red brown; pyrite locally up to 5% in stringers;	top 15		1943	159.7	161.4	1.7	10	0.3	70
			162.51-163.55 barren milky quartz vein pervasive carbonatization;			1944	161.4	162.6	1.2	95	0.8	30
			trace chalcopyrite	65		1945	162.6	163.5	0.9	20	0.4	55
				bottom		1946	163.5	164.6	1.1	42	0.2	-

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DIAMOND DRILL LOGS

Fill in every page ----> | Hole No. RG-86-1 | Page No. 7

Drilling Company: D.W. COATES INC.	Collar Elevation:	Bearing from True North: 215	Dip of hole at: Collar: 306.7 m.	-60 / -57	Location of hole in relation to fixed point on claim.
Date Hole Started: 10/16/86	Date Completed: 10/19/86	Date Logged:	Logged by: J. CHAPMAN		
Exploration Co., Owner or Optionee: REGAL PETROLEUM LTD.	Date Submitted:	Submitted (sign):	m.		

Map Ref. No.	Claim No.
	S-22151 P

Location (Twp.Lot,Con. or Lat. and Long.): HALCROW TWP., 47 47'45"N, 82 56'W

Property Name: REGAL - SWAYZE

Meterage From	Meterage To	Rock Type	DESCRIPTION (Colour, grain size, texture, minerals, alteration, etc.)	Planar Feature Angle	Core Specimen Meterage	Your Sample No.	Sample (m.) From	Sample (m.) To	Sample Length (m.)	ppm Cu	Assays ppm Ag	Assays ppb Au
			to cataclastic quartz diorite			1977	230.2	231.7	1.5	155	0.4	170
						1978	233.2	233.9	0.7	180	0.4	35
270.6	273.62	cataclastic quartz diorite	pale to medium green fine grained brecciated, foliated bands of medium grained quartz diorite, intense chloritization throughout minor epidote and hematite	fol. 45		1979	231.7	233.2	1.5	170	0.8	50
						1980	233.9	235.4	1.5	171	0.1	80
						1981	235.4	236.8	1.4	1080	0.8	40
						1982	236.9	238.4	1.5	207	0.4	160
273.62	280.25	quartz diorite	pale green fine to medium grained equigranular with fine to very fine grained shear zones, chloritic, minor epidote			1983	247.5	248.2	0.7	215	0.8	40
						1984	256.4	257.4	1	450	0.4	20
280.25	286.12	cataclasite	280.25-281.76 metres pale green cataclastic quartz diorite as above with thin less than 1 cm massive pyrite bands (trace chalcopyrite)			1985	257.4	259	1.6	252	0.6	100
						1986	259	261	2	35	0.4	180
			281.76-285.3 metres dark red moderately siliceous very fine grained quartz, carbonate, sericite groundmass with 1-5 mm quartz porphyroblasts, pyrite + chalcopyrite approximately 2%, weak chloritization	fol. 45		1987	270.7	272.1	1.4	700	0.4	380
						1988	272.2	273.7	1.5	225	-	240
						1989	275.4	277	1.6	87	0.2	70
						1990	277	278.5	1.5	163	0.3	90
			285.3-286.12 metres gray green as above			1991	278.5	279.9	1.4	140	0.2	-
				fol.		1992	279.9	280.4	0.5	1050	1.6	300
286.12	286.57	sericite schist	contact zone with pale to medium gray green quartz, carbonate chlorite schist - completely sericitized	40		1993	280.4	281.9	1.5	131	0.4	1000
						1994	281.9	282.9	1	87	-	35
						1995	282.9	284.4	1.5	290	-	-
286.57	295	chlorite carbonate schist	286.57 to 287.81 metres medium gray green with 15% thin, less than 1 cm, quartz carbonate veins parallel to foliation 1%-2% pyrite, kink folds axial plane 45 degrees to core			1996	284.4	285.2	0.8	96	0.1	-
						1997	285.2	286.1	0.9	63	-	100
				fol.		1998	286.1	287.4	1.3	66	0.2	130
				40		1999	287.4	288.7	1.3	160	0.3	20
			287.51 to 295.0 metres weakly hematized dark gray green, vein density decreasing			2000	288.7	290.2	1.5	189	0.4	10
				fol.		2001	290.2	293	2.8	125	0.3	10
				50		2002	293	294.5	1.5	120	0.4	-
295	306.7	mafic lapilli tuff	medium to dark green weakly foliated fine to medium grained, occasional quartz carbonate veins, moderately chloritic			2003	301.2	301.9	0.7	200	0.4	-
			END OF HOLE ANGLE	57								

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DIAMOND DRILL LOGS

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Hole No.	Page No.
RG-86-2	1

Drilling Company D.W. Coates		Collar Elevation	Bearing from True North 208	Dip of hole at: Collar -60	Location of hole in relation to fixed point on claim.	Map Ref. No.	Claim No. S-22176 P
Date Hole Started 20/10/86	Date Completed 23/10/86	Date Logged	Logged by J. Chapman	306.7 m. -54 m.		Location (Twp.Lot,Con. or Lat. and Long.) Halcrow Twp., 47 48'N, 82 56'W	
Exploration Co., Owner or Optionee Regal Petroleum Ltd.		Date Submitted	Submitted (sign)	m.		Property Name Regal - Swayze	

Meterage From	Meterage To	Rock Type	DESCRIPTION (Colour, grain size, texture, minerals, alteration, etc.)	Planar Feature Angle	Core Specimen Meterage	Your Sample No.	Sample (m.) From	Sample (m.) To	Sample Length (m.)	Assays Cu	Assays Ag	Assays Au
0	1.8	Overburden										
1.8	6.09	Cataclastic quartz diorite	Brecciated and silicified with moderate hematization and strong chloritization, chlorite carbonate +/- epidote veinlets occur approx 1 per 1 cm. Generally hairline but up to 1cm thick, quartz tourmaline ? veins at 3.65 (25cm) and 6.09m (10cm) true, conformable with foliation, massive chlorite selvages 1cm thick at vein boundaries at 6.09m, chalcopyrite blebs in vein, pyrite <<1%	fol 30 fract 45		2004 2005	5.9 2.9	6.3 4.1	0.4 1.2	780 15	0.8 0.1	- -
6.09	8.97	Quartz diorite porphyry	Foliated dark gray green speckled appearance due to quartz and feldspar porhyroclasts in a finer grained matrix, silicification and chloritization decreasing with depth, hematization increasing, grain size decreasing, 10cm quartz carbonate chlorite vein at 8.97m	fol 45		2006	8.2	9.6	1.4	30	0.4	-
8.97	12.97	Cataclastic quartz diorite	Weakly hematitic and siliceous at the top becoming more chloritic to bottom, 6 conformable quartz-carbonate veins 1-3cm wide, short <15cm sheared sections	fol 60								
12.97	16.87	Cataclasite	Pale gray green, strongly sericitic, moderately chloritic and carbonatized along randomly oriented hairline fractures, porphyroblasts, <1mm, very similar in colour to groundmass, pyrite is fine to very fine disseminations 1-2%	fol 50		2007 2008 2009 2010 2011	13 14.6 16.4 17.8 19.1	14.6 16.4 17.8 19.1 19.7	1.6 1.8 1.4 1.3 0.6	19 20 25 21 75	0.2 0.4 0.3 0.3 0.5	- - - - -
16.87	27.42	Cataclasite	As above but darker gray with patchy appearance, foliation less pronounced. 18.82-19.57m strongly oxidized quartz diorite band, fragment size generally 1mm, locally weak to moderately siliceous	fol 60		2012 2013 2014 2015 2016	19.7 21.2 22.6 24.2 25.7	21.2 22.6 24.2 25.7 27.4	1.5 1.4 1.5 1.5 1.7	21 13 14 21 20	0.1 0.4 0.2 0.3 0.2	- - - - -
27.42	45.86	Cataclasite	Moderate hematization superimposed an chloritic section above fragment size range <.5mm to >2mm, moderate silicification strongly sericitic groundmass, approx 5% blue quartz fragments, hairline quartz carbonate fractures 3 per 1cm, 1-2% disemm py	fol 45		2034 2035 2036 2037 2038	27.4 29 31.2 32.5 34.5	29 31.2 32.5 34.5 36.3	1.6 2.2 1.3 2 1.7	20 19 20 23 58	0.13 0.2 0.24 0.13 0.09	- - - 0.005 0.005
34.41	34.71	Cataclasite	Moderately silicified, strongly hematized groundmass with 5% fragments of blue white quartz upto 3mm, 4 per 1 cm white quartz-carbonate veins conformable with foliation			2039 2040 2041 2042	36.3 37.9 38.9 40.9	37.9 38.9 40.9 42.2	1.6 1 2 1.3	15 15 19 17	0.02 0.04 0.17 0.14	- - - -
38.35	39.11	cataclasite brecciated	large (1-2 cm) fragments of quartz, carbonate, feldspar outlined by thin chlorite carbonate foliations, 2-3% pyrite greenish beige			2043 2044	42.2 43.7	43.7 45	1.5 1.3	15 20	0.07 0.01	- 0.02

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DIAMOND DRILL LOGS

Fill in every page ---->

Hole No.	Page No.
RG-86-2	2

Drilling Company	Collar Elevation	Bearing from True North	Dip of hole at: Collar	-60	Location of hole in relation to fixed point on claim.	Map Ref. No.	Claim No.
D.W. Coates		208					S-22176 P
Date Hole Started	Date Completed	Date Logged		306.7 m.	-54	Location (Twp.Lot;Con. or Lat. and Long.)	
20/10/86	23/10/86	Logged by				Halcrow Twp.; 47 48'N, 82 56'W	
Exploration Co., Owner or Optionee		Date Submitted	J. Chapman	m.		Property Name	
Regal Petroleum Ltd.		Submitted (sign)		m.		Regal - Swayze	

Meterage From	Meterage To	Rock Type	DESCRIPTION (Colour, grain size, texture, minerals, alteration, etc.)	Planar Feature Angle	Core Specimen Meterage	Your Sample No.	Sample (m.) From	Sample (m.) To	Sample Length (m.)	Assays Cu	Assays Ag	Assays Au
			colour, small (0.5 mm quartz porphyroblasts within fragments,			2045	45	46.4	1.4	21	0.02	-
			gradational upper and lower contacts			2046	46.4	47.5	1.1	20	0.03	0.012
						2033	47.5	49.4	1.9	16	0.15	-
45.86	47.98	cataclasite	pale grey green fine grained groundmass of quartz, sericite with minor chlorite and carbonate, fracture density approximately 1 per 1 cm, porphyroblosts 0.5 to 3 mm, locally weakly hematitic, pyrite 1-2% predominantly disseminated with a few thin 1-2 mm stringers, silicification moderate to strong	fol. 45								
47.98	56.7	cataclasite	pale grey green quartz, sericite, chlorite groundmass with < 1% carbonate, quartz carbonate chlorite +/- epidote veins, 1 - 3cm, conformable with foliation, approximately 4 per metre, porphyroblasts 1-4 mm, moderate to strong silicification, patchy weak hematization, 1-3% disseminated pyrite	fol. 45		2047	49.4	50.7	1.3	11	0.06	-
						2048	50.7	52.3	1.6	15	0.07	-
						2049	52.3	53.6	1.3	13	0.03	-
						2050	53.6	55.3	1.7	13	0.04	-
						2051	55.3	56.7	1.4	10	0.06	-
						2052	56.7	57.6	0.9	14	0.05	-
56.7	61.25	cataclasite siliceous	strong silicification, fine grained groundmass and <.5 mm porphyroblasts, patchy zone of quartz carbonate sericite chlorite alteration, 20 cm 5% py at 57 m			2053	57.6	59.1	1.5	24	0.02	-
						2054	59.1	60.3	1.2	15	0.07	-
						2055	60.3	61.7	1.4	17	0.05	-
						2056	61.7	63.5	1.8	25	0.03	-
61.25	63.3	cataclasite	blue gray aphanitic to very fine grained with small < 1mm porphyroblasts, quartz sericite groundmass, strongly siliceous, 1-3% very fine grained pyrite disseminated throughout	fol. 50		2057	63.5	64.9	1.4	145	0.07	-
						2058	64.9	66	1.1	70	0.02	-
63.3	69.92	biotite lamprophyre dyke	black fine to medium grained matrix with 0.5 to 3 mm biotite crystals, included slices of above at 63.42 m (5 cm), 65.20 m (30 cm), 65.85 m (20 cm), contacts conformable to foliation and show chilled margins, no visible sulfides, 1-15% carbonate throughout, quartz carbonate vein at 66.76 m parallel to core	dike 40		2059	69.8	71.3	1.5	20	0.08	-
69.92	73.4	cataclasite siliceous	blue gray, strongly siliceous, moderately chloritic, quartz sericite, chlorite groundmass, hairline quartz carbonate veins, 1-3% disseminated pyrite	fol. 45		2060	71.3	72.9	1.6	24	0.02	0.012
						2061	72.9	74.3	1.4	25	0.03	-
						2062	74.4	75.5	1.1	15	0.19	-
						2063	75.5	77	1.5	15	0.01	-
73.4	78.05	cataclasite chloritic	mottled appearance pale gray green with mixed chloritic and siliceous sections, chloritic fractures more pronounced moderately chloritic with weak hematization at base of section, 1-2% disseminated pyrite, 4 cm quartz-carbonate vein at 78.0 m parallel to foliation	fol. 40-45		2064	77	79.2	2.2	15	0.33	-
78.05	87.57	cataclasite	banded red and green cataclosite with 10-20% red and green mylonite			2065	79.2	80.5	1.3	15	0.06	-

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DIAMOND DRILL LOGS

Fill in every page ----> Hole No. RG-86-2 | Page No. 3

Drilling Company	Collar Elevation	Bearing from True North	Dip of hole at: Collar		Location of hole in relation to fixed point on claim.	Map Ref. No.	Claim No.
D.W. Coates		208	306.7 m.	-54			S-22176 P
Date Hole Started	Date Completed	Date Logged				Location (Twp.Lot;Con. or Lat. and Long.)	
20/10/86	23/10/86	Logged by				Halcrow Twp.; 47 48'N; 82 56'W	
Exploration Co., Owner or Optionee		Date Submitted				Property Name	
Regal Petroleum Ltd.		Submitted (sign)	m.			Regal - Swayze	

Meterage From	Meterage To	Rock Type	DESCRIPTION (Colour; grain size; texture; minerals; alteration; etc.)	Planar Feature Angle	Core Specimen Meterage	Your Sample No.	Sample (m.) From	Sample (m.) To	Sample Length (m.)	Assays Cu	Assays Ag	Assays Au
		hematitic/ chloritic	bands <15 cm thick; moderate to strongly siliceous; carbonate only in veins and fractures <5%			2066	80.5	82	1.5	19	0.07	-
						2067	82	83.5	1.5	15	0.09	-
						2068	83.5	84.8	1.3	14	0.01	-
87.57	90.24	cataclasite/ mylonite	brick red; aphanitic to very fine grained; with approximately 30% gree chloritic bands; quartz-carbonate veinlets parallel to foliation approximately 3/cm; weak to moderate pervasive carbonitization; occasional cross-cutting quartz-carbonate hematite veins; moderate silicification 1-2% disseminated pyrite	fol. 50		2069	84.8	86.3	1.5	15	0.03	-
						2070	86.3	87	0.7	15	0.02	-
						2071	85.7	86.9	1.2	11	0.07	-
						2072	86.9	88	1.1	9	0.05	-
						2073	88	89.6	1.6	15	0.13	0.005
						2074	89.6	91.1	1.5	12	0.05	0.005
90.24	92.91	cataclasite	medium red with 25% green chloritic bands; moderately chloritic siliceous; calcareous; small intervals of cataclastic quartz diorite <15 cm; quartz; carbonate; sericite; hematite; chlorite groundmass; 1-2% pyrite	fol. 50		2075	91.1	92.3	1.2	15	0.04	-
						2076	92.3	94	1.8	6	-	0.032
92.91	94.89	cataclasite	dominantly chloritic and as above			2077	94.1	95.5	1.4	12	-	0.028
						2078	95.5	96.6	1.1	20	0.01	0.018
94.89	104	cataclasite/CQD	approximately 60/40; becoming more CQD toward base of the section; cataclasite predominantly chloritic with minor hematitic zones; CQD is medium grained with a patchy appearance with chlorite laminations and a gray green colour; 1-2% pyrite; minor sericite; moderate silicification; feldspar clots vary from relatively fresh to relict	fol. 45		2079	96.6	98.1	1.5	14	0.01	0.086
						2080	98.1	99.4	1.3	13	0.01	0.028
						2081	99.4	100.8	1.4	11	0.09	-
						2082	100.8	102.7	1.9	25	0.07	-
						9803	102.7	104.2	1.5	14	0.04	-
						9804	104.2	105.1	0.9	15	0.02	-
104	106.7	cataclasite	banded reddish brown and gray green; fine grained groundmass of quartz; chlorite; sericite; carbonate with <20% quartz porphyroblasts <1mm; faint fluxion structures visible at 105.9 sub-parallel to foliation; strongly siliceous	fol. 40-45		9805	105.1	105.9	0.8	10	0.02	-
						9806	105.9	106.9	1	19	0.02	-
						9807	106.9	107.8	0.9	14	0.02	-
						9808	107.8	108.8	1	15	0.03	-
						9809	108.8	109.8	1	15	0.07	-
106.7	111.58	cataclasite siliceous	strongly siliceous dark green becoming more hematitic with depth; patchy and banded appearance; quartz chlorite groundmass with minor carbonate and epidote; zones of brecciation at base of section; sulfides vary from <1% to 3% mostly pyrite with trace cp	fol. 45-55		9810	109.8	110.8	1	19	0.02	-
						9811	110.8	111.8	1	16	0.02	-
						9812	111.8	112.9	1.1	20	0.01	-
						9813	112.9	114.3	1.4	20	0.05	-
						9817	114.3	115.1	0.8	26	0.02	-
111.58	120.6	brecciated cataclasite	brecciated and recemented with quartz; carbonate; chlorite epidote; strongly siliceous and hematitic; softer chloritic bands; <15%. Biotite lamprophyre dyke 4 cm at 114 m and 114.5 m; sulfides as above; quartz porphyroblasts 1-3 mm 15-30%; 120-120.6 m rubble; carbonate content increasing near contact with CQD			9818	115.1	116.1	1	14	0.08	-
						9819	116.1	117	0.9	105	0.02	-
						9820	117	117.9	0.9	14	0.02	-
						9821	117.9	118.9	1	10	0.14	-
						9822	118.9	119.9	1	14	0.05	-
						9814	119.9	120.7	0.8	25	0.02	-
120.6	125.33	cataclastic				9815	120.7	121.8	1.1	49	0.02	0.005

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DIAMOND DRILL LOGS

Fill in every page ----) | Hole No. RG-86-2 | Page No. 4

Drilling Company	Collar Elevation	Bearing from True North	Dip of hole at: Collar	-60	Location of hole in relation to fixed point on claim.	Map Ref. No.	Claim No.
D.W. Coates		208					S-22176 P
Date Hole Started: 20/10/86	Date Completed: 23/10/86	Date Logged	306.7 m.	-54		Location (Twp.Lot;Con. or Lat. and Long.)	
		Logged by: J. Chapman	m.			Halcrow Twp., 47 48'N, 82 56'W	
Exploration Co., Owner or Optionee: Regal Petroleum Ltd.	Date Submitted	Submitted (sign)	m.			Property Name: Regal - Swayze	

Meterage From	Meterage To	Rock Type	DESCRIPTION (Colour, grain size, texture, minerals, alteration, etc.)	Planar Feature Angle	Core Specimen Meterage	Your Sample No.	Sample (m.) From	Sample (m.) To	Sample Length (m.)	Assays Cu	Assays Ag	Assays Au
		quartz diorite	dark gray moderately hematitic with approximately 25% quartz diorite			9816	124.5	125.3	0.8	174	0.09	-
			weak to moderate chloritization and silicification, pyrite 1-2% as			2083	125.3	126.4	1.1	55	0.01	-
			disseminations and thin 1-3 mm stringers			2084	128.3	129.2	0.9	70	0.04	-
125.33	138.8	quartz diorite				2085	129.7	130.6	0.9	69	0.06	-
			dark gray fresh coarse grained, weakly carbonatized locally weakly			2017	130.7	131.4	0.7	345	0.5	-
			chloritized, quartz veins at 129.87 m (10 cm), 131.45 m, sliced,			2018	134.5	135.1	0.6	28	0.4	-
			137.5 m (8 cm), 0.5 m cataclastic zone at 135.1-135.6 m; 15% py + cp			2019	135.1	136.2	1.1	40	0.1	-
			in vein at 137.5 m; generally <1% pyrite in diorite, but locally up			2020	136.2	137.4	1.2	50	0.5	-
			to 2%			2021	137.4	137.8	0.4	46	0.4	0.23
138.8	151.22	cataclasite		contact		2022	137.8	138.7	0.9	75	0.4	-
			pale greenish gray weak to moderately siliceous, very fine grained	30		2023	138.7	140.4	1.7	20	-	-
			quartz, chlorite, sericite, carbonate groundmass; 1 cm quartz sericite			2024	140.4	141.2	0.8	26	0.4	-
			vein with carbonate selvages and scattered euhedral magnetite			2025	141.2	142.4	1.2	15	0.4	-
			crystals 1-2 mm at 143 m; 138.8 to 139.8 m cataclasitic quartz			2026	142.4	143.2	0.8	7	-	-
			diorite, brecciated 171.9-173.3 m. Magnetic diabase dike at			2027	143.2	144.2	0.9	95	0.2	0.006
			149.75-150.3 m; fault gouge at 149.85 m; grades into CQD at 149.5 m			2028	144.2	145.1	0.9	50	0.2	-
			sulfide 1 to 5% pyrite + trace cp			2029	145.1	146	0.9	16	-	-
151.22	288.99	quartz diorite		45		2030	146	147	1	200	1	0.219
			medium to coarse grained, dark gray, pervasive carbonatization,	dike		2031	147	148.3	1.3	70	0.4	-
			locally foliated, small 1-3 cm quartz veins;			2086	148.3	150	1.7	82	0.04	-
			magnetic biotite lamprophyre dyke at 157.83 m (38 cm); 158.41 m (1.8 m			2087	150.4	151.2	0.8	40	0.09	-
			160.36-176.68 m - increase in chloritization and chalcopyrite upto 1%			2088	151.2	152	0.8	112	0.09	-
			locally both disseminated and in veins; py increasing to 5% overall,			2089	152	152.6	0.6	204	0.1	-
			15% over 10-20 cm; moderate silicification			2090	160.3	161.1	0.8	332	0.09	-
				0-20		2091	161.1	162.1	1	1120	0.08	-
			176.68-179 m - thin quartz carbonate hematite veins, increasing chlori	te		2092	162.8	163.6	0.8	850	0.25	-
			epidote alteration			2093	163.6	164.7	0.9	84	0.01	-
				40		2094	164.7	165.1	0.4	1050	0.01	0.014
			181.4 m - 35 cm biotite lamprophyre dyke, magnetic	dike		2095	165.1	166.1	1	310	0.01	0.01
						2096	166.1	167.3	1.2	1330	0.05	0.014
			185.5-186.6 m - cataclastic zone fine grained moderately hematitic			2097	167.3	168.2	0.9	950	0.03	0.016
			and chloritic banded appearance 1-2% py + cp			2098	168.2	169.9	1.7	1900	0.04	0.02
				fol.		2099	169.9	170.5	0.6	1700	0.1	0.05
			209.44-210.0 m - chloritic cataclastic zone	45		2100	170.5	171.9	1.4	640	0.06	0.026
						2101	171.9	172.8	0.9	309	0.06	0.016
			235-238.85 m - pale gray green diorite with mafic volcanic xenolith			2102	172.8	173.9	1.1	10	0.06	0.022
			and minor weak hematization along fractures			2103	173.9	175.1	1.2	235	0.23	0.028
				fol.		2104	175.1	176.2	1.1	167	0.01	0.014
			241.58-242.38 m - short cataclastic zone 1-3% pyrite + cp	65		2105	176.2	177.4	1.2	55	0.09	-

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DIAMOND DRILL LOGS

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Hole No.	Page No.
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Drilling Company	Collar Elevation	Bearing from True North	Dip of hole at: Collar	Location of hole in relation to fixed point on claim.	Map Ref. No.	Claim No.
D.W. Coates		208	-60			S-22176 P
Date Hole Started: 20/10/86	Date Completed: 23/10/86		306.7 m. -54		Location (Twp.Lot,Con. or Lat. and Long.): Halcrow Twp., 47 48'N, 82 56'W	
		Logged by: J. Chapman	m.			
Exploration Co., Owner or Optionee: Regal Petroleum Ltd.	Date Submitted		m.		Property Name: Regal - Swayze	
		Submitted (sign)				

Meterage From	Meterage To	Rock Type	DESCRIPTION (Colour, grain size, texture, minerals, alteration, etc.)	Planar Feature Angle	Core Specimen Meterage	Your Sample No.	Sample (m.) From	Sample (m.) To	Sample Length (m.)	Assays Cu	Assays Ag	Assays Au
						2106	177.4	178.4	1	35	0.09	-
			258.20-273.17 m - increased sulfides pyrite + chalcopyrite 2-5%			2107	178.4	179.5	1.1	120	0.1	-
			related to increased quartz veining approximately 10%,			2108	185.4	186.6	1.2	114	0.05	-
			cataclastic zone at base			2109	191.9	192.9	1	341	0.09	-
				70		2110	192.9	193.9	1	288	0.14	0.005
			275.84 m - 20 cm mafic volcanic dike			2111	193.9	194.8	0.9	180	0.11	-
288.99	291.4	cataclastic				2112	198.2	199.1	0	120	0.1	-
		quartz diorite	dark gray, moderately carbonatized and silicified, weakly chloritic,			2113	224	225.3	1.3	103	0.13	0.005
			5% pyrite,trace chalcopyrite			2114	225.3	226.5	1.2	114	0.01	-
291.4	294.9	cataclasite		fol.		2115	228.6	229.7	1.1	116	0.16	-
			medium to dark green, moderate silicification chloritization 2-3% py.	50		2116	229.7	231	1.3	181	0.02	-
			very fine grained with <15% quartz porphyroblasts-almost mylonite			2117	231	231.8	0.8	79	0.01	0.006
294.9	301.5	chlorite				2118	231.8	233	1.2	129	0.4	0.012
		carbonate	green to brownish green schist with abundant carbonate bands and			2119	233	234.4	1.4	45	0.05	-
		schist	minor quartz veining			2120	234.4	235.1	0.7	332	0.08	0.005
301.5	306.7			fol.		2121	238	239.4	1.4	335	0.05	-
		mafic lapilli	medium green, very fine grained, 1-3 mm fragments, quartz carbonate,	45		2122	240.9	241.6	0.7	181	0.02	-
		tuff	chlorite epidote vein 40 cm at 303.4 m, strongly hematized, <1%			2123	241.6	242.6	1	205	0.05	-
			sulfides in tuff			2124	258.4	259	0.6	109	0.08	-
						2125	261	261.7	0.7	210	0.03	-
			END OF HOLE ANGLE	54		2126	262.4	263.2	0.8	55	0.04	-
						2127	263.2	264.5	1.3	164	0.01	-
						2128	264.5	266	1.5	300	0.13	0.02
						2129	266.1	267.1	1	174	0.06	0.012
						2130	267.1	268.1	1	1090	0.14	0.072
						2131	268.1	268.8	0.7	610	0.1	0.05
						2132	268.8	269.8	1	520	0.05	0.044
						2133	269.8	271.7	1.9	800	0.09	0.012
						2134	271.7	272.2	0.5	1270	0.15	0.08
						2135	272.2	273.4	1.2	210	0.05	0.008
						2136	277.6	278.7	1.1	182	0.04	0.016
						2137	278.7	280	1.3	133	0.06	0.012
						2138	280	281.3	1.3	37	0.05	0.005
						2139	281.3	282.7	1.4	100	0.06	0.01
						2140	282.7	284.2	1.5	125	0.11	0.01
						2141	284.2	285.7	1.5	165	0.07	0.006
						2142	285.7	287.2	1.5	145	0.03	0.006
						2143	287.2	288.9	1.7	140	0.05	0.006
						2144	288.9	290.1	1.2	372	0.06	0.02

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DIAMOND DRILL LOGS

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Drilling Company	Collar Elevation	Bearing from True North	Dip of hole at: Collar	Location of hole in relation to fixed point on claim.	Map Ref. No.	Claim No.
D.W. Coates		208	-60			S-22176 P
Date Hole Started: 20/10/86	Date Completed: 23/10/86	Logged by: J. Chapman	306.7 m. / -54		Location (Twp.,Lot,Con. or Lat. and Long.): Halcrow Twp., 47 48'N, 82 56'W	
Exploration Co., Owner or Optionee: Regal Petroleum Ltd.	Date Submitted	Submitted (sign)	m.		Property Name: Regal - Swayze	

Meterage From	Meterage To	Rock Type	DESCRIPTION (Colour, grain size, texture, minerals, alteration, etc.)	Planar Feature Angle	Core Specimen Meterage	Your Sample No.	Sample (m.) From	Sample (m.) To	Sample Length (m.)	Assays Cu	Assays Ag	Assays Au
						2145	290.1	291.6	1.5	570	0.03	0.044
						2146	291.6	292.7	1.1	30	0.04	0.032
						2147	292.7	293.8	1.1	46	0.06	0.012
						2148	293.8	295	1.2	67	0.05	-
						2149	303.4	303.9	0.5	65	0.04	-

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DIAMOND DRILL LOGS

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Hole No.	Page No.
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Drilling Company	Collar Elevation	Bearing from True North	Dip of hole at: Collar	-65	Location of hole in relation to fixed point on claim.	Map Ref. No.	Claim No.
D.W. Coates		218	285.4 m.	52			S-22176 P
Date Hole Started: 24/10/86	Date Completed: 26/10/86	Date Logged:	Logged by: J. Chapman	m.		Location (Twp.Lot,Con. or Lat. and Long.): Halcrow Twp., 47 58'N, 82 56'W	
Exploration Co., Owner or Optionee: Regal Petroleum Ltd.		Date Submitted:	Submitted (sign):	m.		Property Name: Regal - Swayze	

Meterage From	Meterage To	Rock Type	DESCRIPTION (Colour, grain size, texture, minerals, alteration, etc.)	Planar Feature Angle	Core Specimen Meterage	Your Sample No.	Sample (m.) From	Sample (m.) To	Sample Length (m.)	Assays ppm Cu	Assays ppm Ag	Assays ppb Au
0	1.8	Overburden										
1.8	5.07	Cataclastic quartz diorite/ cataclasite	Depth of strong oxidization, reddish brown, moderately siliceous, weakly carbonatized along quartz, chlorite, carbonate veins, quartz porphyroblasts and relict feldspars up to 2mm in aphanitic to very fine grained groundmass, 1% pyrite	fol 45		2170	5	6.2	1.2	26	0.04	0.005
						2171	6.2	7.4	1.2	24	0.05	-
						2172	7.4	8.6	1.2	20	0.02	-
5.07	18.77	Cataclasite	Fine grained, groundmass of quartz, carbonate, sericite, chlorite, patchy epidote with quartz porphyroblasts 0.5-2mm, carbonatization weak to moderate predominantly along vein and foliations, large quartz veins 2-10cm most parallel to foliation, moderate hematization and chloritization producing weakly banded or patchy effect. 1-2% pyrite, trace chalcopyrite			2173	8.6	9.3	0.7	20	0.01	-
						2174	9.3	10.2	0.9	30	0.02	-
				veins 40-45		2175	10.2	11.2	1	55	0.02	-
						2176	11.2	12.3	1.1	11	0.01	-
						2177	12.3	13.5	1.2	9	-	-
						2178	13.5	14.7	1.2	18	-	-
						2179	14.7	16	1.3	17	0.01	0.005
18.77	26.22	cataclasite siliceous	predominantly brick red strongly silicified, with 10% quartz veining (plus/minus carbonate, chlorite, epidote, hematite) pervasive weak carbonatization, chloritization moderate, undulatory foliation mostly 45 degrees but also 0 degrees			2180	16	17.3	1.3	13	-	-
						2181	17.3	18.9	1.6	20	-	-
						2182	18.9	20.7	1.8	10	0.02	-
						2183	20.7	21.9	1.2	10	-	-
						2184	21.9	23.1	1.2	6	0.01	-
26.22	31.03	cataclasite siliceous	banded reddish orange and green, strongly siliceous with weak carbonatization and moderate chloritization in green bands, quartz porphyroblasts less than 25%, thin chlorite-epidote envelopes about quartz carbonate veins, approximately 1% sulfides			2185	23.1	24.2	1.1	5	-	-
				fol 0-45		2186	24.2	25	0.8	4	0.05	-
						2187	25	26.1	1.1	4	0.02	-
						2188	26.1	27.6	1.5	15	0.02	-
						2189	27.8	28.7	0.9	5	0.03	-
31.03	31.94	cataclasite siliceous	intense chlorite sericite epidote alteration with moderate silicification	fol		2190	28.7	29.6	0.9	10	-	-
						2191	29.6	30.8	1.2	5	-	-
31.94	34.12	cataclasite siliceous	dark red brown, patchy and banded, strong hematization	50		2192	30.8	31.9	1.1	7	-	-
						2193	31.9	33.1	1.2	10	-	-
34.12	55.21	cataclasite	gray green with occasional hematitic and bleached zones generally 2-70 cm wide parallel to foliation, very fine grained groundmass quartz, chlorite, sericite, carbonate, epidote with 20%-40% quartz porphyroblasts 0.5-2 mm, minor crosscutting quartz carbonate veins less than 1 cm, 1%-2% pyrite, moderate to strong silicification, chlorite, epidote alteration mostly restricted to hairline fractures and foliation planes, 15 cm pale green aphanitic mylonite at base of section	fol 45		2194	33.1	34.3	1.2	10	-	-
						2195	34.3	35.7	1.4	9	-	-
						2196	35.7	37.1	1.4	10	0.02	-
						2197	37.1	38.5	1.4	15	0.01	-
						2198	38.5	39.4	0.9	17	-	-
						2199	39.4	40.3	0.9	16	-	-
						2200	40.3	41.8	1.5	19	-	-
				fol 40-50		2201	41.8	43	1.2	20	-	-
						2202	43	44.2	1.2	19	-	-
55.21	65.4	cataclasite strongly	fine to medium grained groundmass resulting in patchy appearance becoming more banded with depth pale to medium green and beige to			2203	44.2	45.3	1.1	24	-	-
						2204	45.3	46.6	1.3	15	-	-

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DIAMOND DRILL LOGS

Fill in every page ----> Hole No. RG-86-3 | Page No. 2

Drilling Company	Collar Elevation	Bearing from True North	Dip of hole at: Collar		Location of hole in relation to fixed point on claim.	Map Ref. No.	Claim No.
D.W. Coates		218	-65				S-22176 P
Date Hole Started	Date Completed	Date Logged	285.4 m.	52		Location (Twp.Lot,Con. or Lat. and Long.)	
24/10/86	26/10/86	Logged by J. Chapman	m.			Halcrow Twp., 47 58'N, 82 56'W	
Exploration Co., Owner or Optionee	Date Submitted	Submitted (sign)	m.			Property Name	
Regal Petroleum Ltd.						Regal - Swayze	

Meterage From	Meterage To	Rock Type	DESCRIPTION (Colour, grain size, texture, minerals, alteration, etc.)	Planar Feature Angle	Core Specimen Meterage	Your Sample No.	Sample (m.) From	Sample (m.) To	Sample Length (m.)	ppm Assays Cu	Ag	ppb Assays Au
		siliceous	pale red. 10%-40% quartz porphyroblasts carbonatization restricted to veins and fractures strong to intensely silicified, strong sericitization, 1%-2% very fine disseminated pyrite			2205	46.6	47.9	1.3	18	-	-
						2206	47.9	49	1.1	15	-	-
				fol		2207	49	50.5	1.5	12	-	-
				45		2208	50.5	51.6	1.1	14	-	-
65.4	67.14	cataclasite intensely siliceous	dark green at top becoming dark blue at lamprophyre contact very fine grained to aphanitic, quartz porphyroblasts decrease from 35% to approximately 5%, groundmass quartz, sericite, chlorite, 1%-2% pyrite			2209	51.6	53.1	1.5	13	-	-
						2210	53.1	54.3	1.2	12	-	-
						2211	54.3	55.6	1.3	20	-	-
				fol		2212	55.6	56.7	1.1	17	-	-
				45		2213	56.7	58.1	1.4	18	-	-
67.14	68.78	biotite lamprophyre dike	mafic dike with approximately 35% carbonate			2214	58.2	59.4	1.2	16	-	-
						2215	59.4	60.4	1	15	-	-
				dike		2216	60.4	61.9	1.5	15	-	-
68.78	70.8	cataclasite intensely siliceous	continuation of 65.4-67.14 metres, becoming gray green with depth, 2%-3% sulfides	25		2217	61.9	62.8	0.9	14	-	-
				30		2218	62.8	63.8	1	15	-	-
						2219	63.8	64.9	1.1	15	-	-
						2220	64.9	65.8	0.9	12	-	-
70.8	73.15	cataclasite intensely siliceous	pale gray green with hairline, quartz, chlorite, carbonate veins, intensely silicified and sericitized, 1%-2% pyrite			2221	65.8	66.8	1	19	-	-
				fol		2222	68.2	69.5	1.3	20	-	-
				45		2223	69.5	70.6	1.1	20	-	-
						2224	70.6	72	1.4	22	-	-
73.15	84.3	cataclasite	pale beige to gray green fine grained groundmass of quartz, sericite, chlorite, minor carbonate, epidote, 20%-40% quartz porphyroblasts less than 0.5 to 2 mm, strongly siliceous and sericitic, weak hematitic zones, 1%-2% pyrite, trace chalcopyrite	fol		2225	72	73	1	19	0.01	-
				40-50		2226	73	74.3	1.3	15	0.02	-
						2227	74.3	75.2	0.9	14	-	-
						2228	75.2	76.4	1.2	15	0.07	0.008
						2229	76.4	77.8	1.4	15	-	-
84.3	99.14	cataclasite	very fine grained with less than 20% quartz porphyroblasts less than 0.5 mm, pale red to pale gray blue, strongly siliceous, 1%-2% pyrite, trace chalcopyrite, badly broken 23-24.8 metres	fol		2230	77.8	79.2	1.4	20	0.03	-
				40-60		2231	79.2	80.5	1.3	18	0.02	-
						2232	80.5	81.5	1	14	0.14	-
						2233	81.5	82.7	1.2	15	0.04	-
99.14	103.95	cataclasite	dark reddish purple, intensely silicified minor quartz carbonate chlorite hairline fractures, aphanitic to very fine grained siliceous groundmass, less than 5% quartz porphyroblasts, locally brecciated, colour change at 102.35 metres to gray red with gradually increasing quartz porphyroblasts approximately 20%, 1%-2% pyrite			2234	82.7	84.2	1.5	15	0.02	-
						2235	84.2	85.1	0.9	20	0.03	-
						2236	85.1	86.2	1.1	24	0.07	-
						2237	86.2	86.9	0.7	25	0.06	-
						2238	86.9	88	1.1	20	0.08	0.005
				fol		2239	88	89.1	1.1	21	0.04	0.005
103.95	105.49	cataclasitic quartz diorite	dark reddish gray locally sheared fine to medium grained previously carbonatized silicified, approximately 1% pyrite	55		2240	89.1	90.1	1	20	0.02	-
						2241	90.1	91.2	1.1	15	0.03	-
						2242	91.2	92.2	1	15	0.02	-
105.49	123.5	quartz diorite	dark gray medium to coarse grained moderately chloritized pervasively			2243	92.2	93.3	1.1	18	0.03	-

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DIAMOND DRILL LOGS

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Drilling Company	Collar Elevation	Bearing from True North	Dip of hole at: Collar	-65	Location of hole in relation to fixed point on claim.	Map Ref. No.	Claim No.
D.W. Coates		218	285.4 m.	52			S-22176 P
Date Hole Started	**Date Completed**	**Date Logged**	**Logged by**			**Location (Twp.Lot;Con. or Lat. and Long.)**	
24/10/86	26/10/86		J. Chapman	m.		Halcrow Twp.; 47 58'N; 82 56'W	
Exploration Co., Owner or Optionee		**Date Submitted**	**Submitted (sign)**			**Property Name**	
Regal Petroleum Ltd.				m.		Regal - Swayze	

Meterage From	Meterage To	Rock Type	DESCRIPTION (Colour; grain size; texture; minerals; alteration; etc.)	Planar Feature Angle	Core Specimen Meterage	Your Sample No.	Sample (m.) From	Sample (m.) To	Sample Length (m.)	ppm Cu	Assays Ag	ppb Au
		massive	carbonatized; overall less than 1% pyrite plus cp. locally (less than			2244	93.3	94.8	1.5	12	0.02	-
			20 cm) 1%-2%; minor chlorite epidote +/- hematite veining			2245	94.8	96.3	1.5	15	0.06	-
			generally at high angles			2246	96.3	97.4	1.1	20	0.02	-
						2247	97.4	98.4	1	17	0.03	-
123.5	227	quartz diorite	lighter gray than above; fresher; with chlorite epidote; and hematite			2248	98.4	99.1	0.7	9	0.02	-
		massive	specularite veinlets			2249	99.1	100.1	1	11	0.03	-
						2250	100.1	101.2	1.1	18	0.05	-
			146.6 - 165m - abundant hematite veinlets random attitudes some			2251	101.2	102.3	1.1	11	0.09	-
			containing specular hematite 151.62-152.08 m - 15% pyrite in lenses	fol		2252	102.3	103.5	1.2	10	0.03	-
			and quartz veins 153.5-165 m - hematite carbonate veinlets 167-171 m	40-45		2253	103.5	104.8	1.3	42	0.06	-
			- 2%-5% pyrite; start of foliated quartz diorite; trace cp.			2254	104.8	105.8	1	460	0.01	0.006
			181.45-183.55 m - mafic volcanics with 5% veining minor 1% pyrite			2255	116.1	116.6	0.5	150	0.03	-
			185-188.2 m - 20% cataclastic quartz diorite 2%-5% pyrite; trace cp	fol		2256	121.5	122.5	1	41	0.02	-
			202.8-204.6 m - less than 1% disseminated chalcopyrite 221.16-222.9 m	40-60		2257	122.5	123.3	0.8	70	0.07	-
			- silicified carbonatized locally cataclastic quartz diorite			2258	136.2	136.7	0.5	310	0.11	0.006
			222.9-223.7 m - biotite lamprophyre			2259	137.1	138.1	1	540	0.08	-
						2260	146.4	147.8	1.4	36	0.07	-
			with 20% cataclastic zones; patchy moderate silicification and			2261	151.5	152.7	1.2	372	0.06	0.02
			hematization; 1-2% pyrite and chalcopyrite locally upto 5% over less			2262	153.6	154.4	0.8	85	0.05	0.008
227	236.58	quartz diorite	than 10 cm; pervasive carbonatization; 12 cm quartz vein with 5-10%	fol		2263	155.8	156.3	0.5	8	0.05	-
		foliated	py and cp	45-60		2264	164.6	165.2	0.6	70	0.12	-
				vein		2265	165.3	166.2	0.9	70	0.06	-
				40		2266	166.2	167.1	0.9	157	0.03	-
						2267	167.1	168.1	1	189	0.09	-
						2268	168.1	169	0.9	960	0.04	-
						2269	169	169.9	0.9	308	0.03	0.014
						2270	169.9	171.2	1.3	325	0.02	0.006
						2271	173.1	174.1	1	121	0.26	-
						2272	174.1	175.1	1	51	0.04	0.014
						2273	180.6	181.4	0.8	205	0.05	0.016
						2274	181.4	182.4	1	82	0.06	-
						2275	182.4	183.5	0.9	36	0.08	-
						2276	185.4	186.4	1	900	0.13	0.02
						2277	186.4	187.3	0.9	40	0.05	-
						2278	187.3	188.1	0.8	86	0.07	-
						2279	188.1	188.6	0.5	300	0.1	0.005
						2280	189.7	190.6	0.9	141	0.06	0.012
						2281	194.1	194.6	0.5	210	0.06	0.006
						2282	202.5	203.5	1	800	0.03	0.018

OREQUEST CONSULTANTS LTD.

DIAMOND DRILL LOGS

Fill in every page ----> Hole No. RG-86-3 | Page No. 4

Drilling Company	Collar Elevation	Bearing from True North	Dip of hole at: Collar	-65	Location of hole in relation to fixed point on claim.	Map Ref. No.	Claim No.
D.W. Coates		218					S-22176 P
Date Hole Started	Date Completed	Date Logged		285.4 m.	52	Location (Twp.Lot;Con. or Lat. and Long.)	
24/10/86	26/10/86	Logged by	J. Chapman			Halcrow Twp.; 47 58'N; 82 56'W	
Exploration Co., Owner or Optionee		Date Submitted		m.		Property Name	
Regal Petroleum Ltd.		Submitted (sign)		m.		Regal - Swayze	

Meterage From	Meterage To	Rock Type	DESCRIPTION (Colour; grain size; texture; minerals; alteration; etc.)	Planar Feature Angle	Core Specimen Meterage	Your Sample No.	Sample (m.) From	Sample (m.) To	Sample Length (m.)	ppm Cu	Assays Ag	Assays ppb Au
236.8	247.03	quartz diorite foliated	medium grained; dark gray with short intervals; less than 20 cm; weak hematization; at 241.48 metres; 25 cm biotite lamprophyre dyke	fol 45-50 dike		2283	203.5	204.6	1.1	970	0.07	0.006
						2284	206.3	207.4	1.1	292	0.02	0.016
						2285	207.4	208.3	0.9	96	0.02	-
247.03	251.8	cataclasite siliceous	pale gray blue; aphanitic to very fine grained groundmass; strong silicification with weak chloritization; carbonitization and hematization; minor sericite; intensely fractured (hairline); 1%-2% disseminated fine grained pyrite; gradual increase in sulfide content with depth; less than 15% quartz porphyroblasts	450 fol 40-50		2286	213.9	214.9	1	125	0.02	0.016
						2287	215.6	216.5	0.9	139	-	-
						2288	221	222	0.9	41	0.02	-
						2289	222	222.9	0.9	46	0.01	0.016
						2290	226.8	227.5	0.7	99	0.01	0.022
						2291	228.5	229.4	0.9	87	0.04	0.028
251.8	256.38	cataclasite brecciated	as above with increasing chloritization and quartz veining approximately 10% narrow veins less than 5 cm wide; blue mineral in fracture			2292	229.4	230.3	0.9	48	0.03	-
						2293	230.3	231.4	1.1	159	0.01	0.026
						2294	231.4	232.3	0.9	244	0.03	0.026
						2295	232.3	233.3	1	91	0.06	0.032
256.38	260.46	cataclasite silicified contact zone	pale gray green brecciation probably annealed by silicification fuchsite; pyrite up to 5%; stringers more prevalent; chloritization increasing with depth; blue mineral in fracture	fol 45		2296	233.3	234.1	0.8	160	0.07	0.012
						2297	234.1	235.1	1	89	0.01	0.01
						2298	235.1	236.6	1.5	1010	0.06	0.052
						2299	237.1	237.8	0.7	112	0.03	0.01
260.46	267.2	chlorite carbonat schist	dark green chloritic bands with interbanded white carbonate 1 cm maximum thickness of bands; most 1-4 mm; 1%-2% pyrite predominantly disseminated some kink banding and small scale folds in bands parallel to core	fol 40-50		2169	245.7	246.6	0.9		0.06	-
						2168	246.6	247.7	1.1	50	0.26	0.008
						2163	248.5	249.2	0.7	26	0.04	-
						2164	249.2	250.2	1	15	0.01	-
267.2	280.32	mafic lapilli tuff	fine grained dark green with thin less than 1 mm flattened fragments 2-5 mm long; weakly calcareous; less than 1% pyrite occasional thin; less than 2 cm; quartz carbonate veins	fol 45		2165	250.2	251.3	1.1	30	0.01	0.006
						2166	251.3	252.2	0.9	10	-	0.006
						2167	252.2	253.2	1	10	-	0.006
						2156	253.2	253.7	0.5	35	0.01	-
280.32	283.51	biotite lamprophyre dyke	mafic dyke with approximately 30% carbonate	35-40		2157	253.7	255.2	1.5	158	0.07	0.034
						2158	255.2	256.1	0.9	990	0.03	-
						2159	256.1	257	0.9	148	0.01	0.02
283.51	285.36	mafic lapilli tuff	as above	fol 40		2160	257	257.7	0.7	84	0.03	0.04
						2161	257.7	258.5	0.8	22	0.11	0.064
						2162	258.5	259.6	1.1	21	0.02	0.058
						2150	259.7	260.3	0.6	10	0.05	0.096
						2151	260.3	261.3	1	60	0.07	0.01
		END OF HOLE		52		2152	261.3	262.2	0.9	45	0.04	0.005
						2153	262.2	263.1	0.9	68	0.08	-
			ANGLE OF HOLE			2154	263.1	264.3	1.2	75	0.01	-
						2155	264.3	265.5	1.2	53	0.02	-

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DIAMOND DRILL LOGS

Fill in every page ----> Hole No. RG-86-4 | Page No. 1

Drilling Company	Collar Elevation	Bearing from True North	Dip of hole at: Collar	-65	Location of hole in relation to fixed point on claim.	Map Ref. No.	Claim No.
D.W. COATES		210 degrees					S-22146
Date Hole Started: Oct. 27, 1986 / Date Completed: Oct. 30, 1986 / Date Logged:		Logged by: J. Chapman	276.2 m.	57		Location (Twp.Lot,Con. or Lat. and Long.): Halcrow Twp. 47 48'N, 82 56'W	
Exploration Co., Owner or Optionee: REGAL PETROLEUM LTD.	Date Submitted:	Submitted (sign):	m.			Property Name: REGAL - SWAYZE	

Meterage From	Meterage To	Rock Type	DESCRIPTION (Colour, grain size, texture, minerals, alteration, etc.)	Planar Feature Angle	Core Specimen Meterage	Your Sample No.	Sample (m.) From	Sample (m.) To	Sample Length (m.)	ppm. Assays + Cu	Ag	oz/ton Au
0	7.92	Overburden										
7.92	12	Cataclasite	strongly silicified, moderately hematized, weak chloritization and carbonitization 10.6 to 12 metre chloritization dominant 1 - 2% very fine grained pyrite, fine grained quartz, chlorite minor sericite, carbonate ground mass with 20 - 40% quartz porphyroblasts less than 0.5 mm.	fol 40		2300	8	8.8	0.8	11	0.02	-
						2301	8.8	9.6	0.8	16	-	-
						2302	9.6	10.8	1.2	12	0.02	-
						2303	10.8	12.1	1.3	31	-	-
						2304	14.9	16.4	1.5	7	0.04	-
						2305	16.4	17.3	0	5	0.02	-
12	15.07	Mafic volcanic dike	fine to very fine grained dark gray green; 20 - 35% carbonate carbonate - hematite veinlets parallel to upper contact	dike 25 45		2306	17.3	18.2	0.9	10	-	-
						2307	18.2	19.3	1.1	10	-	-
						2308	19.3	20.1	0.8	5	0.01	-
15.07	41.61	Cataclasite siliceous	pale red brown strongly silicified, moderately hematized and chloritized, weakly carbonatized, abundant hairline chlorite, hematite, carbonate fractures, fine grained quartz chlorite groundmass with minor carbonate, 1% pyrite, 10 to 30% quartz porphyroblasts less than 1mm, 2 - 20 cm quartz carbonate chlorite plus/minus epidote, tourmaline, hematite, slight colour changes depending on relative strength of hematization and chloritization 26.98 - 30.27 metre - predominantly brick red with hairline quartz chlorite plus/minus epidote fractures to 2 cm veins 36.25 - 37.25 metre - brick red intensely siliceous locally brecciated 2 - 2 cm quartz, carbonate tourmaline veins conformable with foliation	fol 35-45 veins 20-45 fol 35-45		2309	20.1	21.2	1.1	5	-	-
						2310	21.2	22.2	1	9	0.01	-
						2311	22.2	23.1	0.9	9	0.02	-
						2312	23.1	23.6	0.5	5	-	-
						2313	23.6	24.6	1	8	0.01	-
						2314	24.6	25.8	1.2	14	0.01	-
						2315	25.8	26.9	1.1	7	-	-
						2316	26.9	28.1	1.3	9	0.03	-
						2317	28.1	29.1	1	10	0.05	-
						2318	29.1	30.1	1	10	0.08	-
						2319	30.1	31.4	1.3	35	0.06	-
						2320	31.4	32.5	1.1	60	0.09	0.005
						2321	32.5	33.6	1.1	15	0.09	-
41.61	69.1	Cataclasite	pale red brown, fine grained, moderate silicification, chloritization, hematization, carbonatization, 20 - 30% quartz porphyroblasts upto 2 mm, quartz chlorite, carbonate veins parallel to core plus/minus pyrite, epidote also parallel to foliation 52.86-53.46 metres - strongly banded dark red and green	fol 35-45		2322	33.6	34.9	1.3	11	0.13	-
						2323	34.9	35.8	0.9	8	0.07	-
						2324	35.8	36.8	1	5	0.02	-
						2325	36.8	37.8	1	6	0.02	-
						2326	37.8	38.5	0.7	6	0.02	-
						2327	38.5	39.4	0.9	10	0.02	-
69.1	72.4	Cataclasite	dark purple red, moderate silicification with abundant hematite, carbonate, chlorite veinlets and fractures, 5/cm, predominantly concordant with foliation but also crosscutting, generally hairline to 3 mm, 20-40% quartz porphyroblasts less than 0.5 to 3 mm, fracture density decreasing with depth, less than 1% pyrite			2328	39.4	40.5	1.1	44	0.04	-
						2329	40.5	41.6	1.1	15	0.04	-
						2330	41.6	42.5	0.9	10	0.02	-
						2331	42.5	44	1.5	5	0.01	-
						2332	44	45.2	1.2	10	0.03	-
				fol		2333	45.2	46.2	1	4	0.03	-
72.4	84.1	Cataclasite	pale red to pale green, moderate carbonatization, generally weak silicification, hematization, chloritization, fine grained quartz, carbonate, chlorite groundmass, 15 - 35% quartz porphyroblasts less	40-50		2334	46.2	47.5	1.3	5	0.05	-
						2335	47.5	47.9	0.4	3	0.01	-
						2336	47.9	48.9	1	5	0.05	-

OREQUEST CONSULTANTS LTD.

DIAMOND DRILL LOGS

Fill in every page ----> Hole No. RG-86-4 | Page No. 2

Drilling Company	Collar Elevation	Bearing from	Dip of hole		Location of hole in relation	Map Ref. No.	Claim No.
D.W. COATES		True North	at: Collar	-65	to fixed point on claim.		S-22146
		210 degrees	276.2 m.	57			
Date Hole Started	Date Completed	Date Logged	Logged by			Location (Twp.Lot;Con. or Lat. and Long.)	
Oct. 27, 1986	Oct. 30, 1986		J. Chapman	m.		Halcrow Twp. 47 48'N, 82 56'W	
Exploration Co.; Owner or Optionee		Date Submitted				Property Name	
			Submitted (sign)	m.			
REGAL PETROLEUM LTD.						REGAL - SWAYZE	

Meterage From	Meterage To	Rock Type	DESCRIPTION (Colour; grain size; texture; minerals; alteration; etc.)	Planar Feature Angle	Core Specimen Meterage	Your Sample No.	Sample (m.) From	Sample (m.) To	Sample Length (m.)	ppm. Assays + Cu	Ag	oz/ton Au
			than 0.5 to 2 mm; occasional veinlets as above. 12 cm vuggy quartz			2337	48.9	49.8	0.9	8	0.03	-
			carbonate chlorite vein at 75.5 metre; smaller 1 - 3 cm veins at 75.8			2338	49.8	50.6	0.8	5	0.01	-
			metre; 76.5 metre; 79.9 metre; 80 metre 20 - 40 to core; less than	fol		2339	50.6	51.8	1.2	5	0.03	-
			1 % pyrite	40		2340	51.8	52.9	1.1	10	0.03	-
						2341	52.9	54	1.1	6	0.05	-
84.1	107	Cataclasite	darker coloured version of above with moderate to strong			2342	54	54.9	0.9	10	0.06	-
			silicification; 20 - 50 % quartz porphyroblasts upto 4 mm; 1 - 2 %			2343	54.9	55.8	0.9	5	0.1	-
			pyrite; trace specularite on fracture surfaces			2344	55.8	57.3	1.5	5	0.08	-
			99.5 - 101.5 metre - strongly silicous gray white; predominantly			2345	57.3	58.7	1.4	4	0.01	-
			quartz with minor chlorite; trace sericite; carbonate on fracture	fol		2346	58.7	59.3	0.6	5	0.04	-
			surfaces.	45		2347	59.3	60.1	0.8	9	0.02	-
						2348	60.1	61.2	1.1	6	0.04	-
107	113	Cataclasite	as above with only 15 - 30% quartz porphyroblasts less than 1 mm;			2349	61.2	62.4	1.2	8	0.04	-
			increase in epidote but still minor; hematite or chlorite - epidote;			2350	62.4	63.4	1	6	-	-
			envelopes rimming some veins and fractures; weak			1801	63.4	64.5	1.1	9	0.02	-
			carbonatization			1802	64.5	65.6	1.1	10	0.01	-
				fol		1803	65.6	66.7	1.1	5	0.01	-
113	120.7	Cataclasite	as in 84 - 107 metre; longer (upto 4 mm) and more abundant (50%)	40-45		1804	66.7	67.9	1.2	9	0.01	-
			quartz porphyroblasts; locally banded appearance due to alternating			1805	67.9	69	1.2	9	0.01	-
			chloritic and hematitic bands generally less than 2 cm thick;			1806	69	70	1	5	0.04	-
			occasional cross - cutting veinlets.	fol		1807	70	71.2	1.2	5	0.03	-
				45		1808	71.2	72.3	1.1	8	0.02	-
120.7	137.65	Cataclasite	dull gray brown and greenish brown; 15 - 30% quartz porphyroblasts			1809	72.3	73.6	1.3	9	0.01	-
			less than 0.5 - 2 mm in a fine grained quartz; chlorite hematite;			1810	73.6	74.6	1	5	0.02	-
			minor carbonate ground mass; occasional 5 - 10/metre thin; less than			1811	74.6	18.75	0.8	5	0.01	-
			4 mm; quartz carbonate plus/minus chlorite; hematite cross cutting			1812	75.4	76.3	0.9	4	0.01	-
			veinlets; 1 - 2 % disseminated pyrite; silicification moderate at			1813	76.3	77.5	1.2	4	0.02	-
			top of section; increasing with depth.	fol		1814	77.5	78.5	1	8	0.01	0.008
			123.5 - 129.0 metres - predominantly hematitic fractures	40-45		1815	78.5	79.5	1	5	0.02	-
			129.0 - 132.2 metres - predominantly chlorite epidote fractures with			1816	79.5	80.3	0.8	5	0.04	-
			increasing fracture density with depth to stock work at 130 metres			1817	80.3	81.1	0.8	15	0.02	-
			for 15 cm.			1818	81.1	82.5	0.25	6	0.04	-
			132.2 - 134.8 metres - hematitic zone with short; 10 cm intervals of			1819	82.5	83.2	0.7	6	0.03	-
			mylonite (no quartz porphyroblasts) with increased carbonatization.			1820	83.2	84.5	1.3	6	0.01	-
			134.8 - 137.5 metres - mixed with 15 cm quartz; carbonate; chlorite			1821	84.5	85.7	1.2	5	0.01	-
			vein parallel to foliation at base.			1822	85.7	86.8	1.1	10	0.01	-
				fol		1823	86.8	88.1	1.3	10	0.02	-
137.65	138.6	Cataclasite	brick red strongly silicified rubble 1 - 2 % pyrite (very fine)	40-45		1824	88.1	89.3	1.2	9	0.05	-
						1825	89.3	90.7	1.4	8	0.08	-

OREQUEST CONSULTANTS LTD.

DIAMOND DRILL LOGS

Fill in every page ----> | Hole No. RG-86-4 | Page No. 3

Drilling Company	Collar Elevation	Bearing from True North	Dip of hole at: Collar	-65	Location of hole in relation to fixed point on claim.	Map Ref. No.	Claim No.
D.W. COATES		210 degrees	276.2 m.	57			S-22146
Date Hole Started: Oct. 27, 1986	Date Completed: Oct. 30, 1986	Date Logged:	Logged by: J. Chapman	m.		Location (Twp.Lot;Con. or Lat. and Long.): Halcrow Twp. 47 48'N; 82 56'W	
Exploration Co., Owner or Optionee: REGAL PETROLEUM LTD.	Date Submitted:		Submitted (sign):	m.		Property Name: REGAL - SWAYZE	

Meterage From	Meterage To	Rock Type	DESCRIPTION (Colour, grain size, texture, minerals, alteration, etc.)	Planar Feature Angle	Core Specimen Meterage	Your Sample No.	Sample (m.) From	Sample (m.) To	Sample Length (m.)	ppm. Assays + Cu	Ag	oz/ton Au
138.6	141.5	Cataclasite	mixed dark red brown and dark green, strongly siliceous less than 20% quartz porphyroblasts, 2 - 4 % pyrite, mostly disseminated with some fine stringers, pervasive carbonatization			1826	90.7	92	1.3	6	0.09	0.005
						1827	92	93	1	7	-	-
						1828	93	93.9	0.9	15	0.06	-
						1829	93.9	94.9	1	6	0.02	-
141.5	144.85	Cataclasite	pale gray, moderate to strongly silicified, weakly chloritic and carbonatized, 2 - 4 % pyrite very fine disseminated, 15 - 25 % quartz porphyroblasts in fine to very fine grained groundmass.			1830	94.9	96.3	1.4	8	0.01	-
						1831	96.3	97.5	1.2	5	0.02	-
						1832	97.5	98.4	0.9	10	0.04	-
						1833	98.4	99.4	1	11	0.01	-
144.85	153.25	Cataclasite	brick red to pale rose, weak to moderate silicification, abundant quartz carbonate plus/minus chlorite, hematite epidote fractures, diminishing with depth, sericitic zone at 147.67 - 148 metres, 1 cm fault gauge at 147.6 metres parallel to foliation. 1 - 2 % pyrite.			1834	99.4	100.5	1.1	12	0.08	-
						1835	100.5	101.5	1	16	0.06	-
				fol		1836	101.5	102.4	0.9	15	0.01	-
				40-45		1837	102.4	103.5	1.1	11	0.04	-
						1838	103.5	104.6	1.1	10	0.04	-
153.25	155	Cataclastic quartz diorite	pink and green, foliatd, quartz and relic and feldspar aggregates in a quartz chlorite groundmass, abundant hairline to 5 cm quartz carbonate veins. 1%pyrite.			1839	104.6	105.7	1.1	7	0.04	0.005
				fol		1840	105.7	107	1.3	5	0.04	0.01
				45		1841	107	108.1	1.1	7	0.02	-
						1842	108.1	108.8	0.7	10	0.03	-
						1843	108.8	109.7	0.9	15	0.05	-
						1844	109.7	110.8	1.1	5	0.08	-
				fol		1845	110.8	112	1.2	8	0.03	-
				40		1846	112	113.3	1.3	9	0.2	0.01
						1847	113.3	114.1	0.8	15	0.04	-
						1848	114.1	114.9	0.8	12	0.01	-
						1849	114.9	115.9	1	15	0.02	-
						1850	115.9	117.1	1.1	20	0.06	-
						1851	117.1	118.4	1.3	15	0.01	-
						1852	118.4	119.4	1	10	-	-
						1853	119.4	120.5	1.1	12	0.04	-
						1854	120.5	121.6	1.1	20	0.01	-
						1855	121.6	122.6	1	2	0.05	-
						1856	122.6	123.8	1.1	4	0.04	-
						1857	123.8	124.9	1.1	3	0.02	0.012
						1858	124.9	126.1	1.2	5	-	-
						1859	126.1	127.4	1.3	5	-	-
						1860	127.4	128.4	1	4	-	-
						1861	128.4	129.3	0.9	3	0.04	-
						1862	129.3	130.1	0.8	7	0.02	-
						1863	130.1	131.6	1.5	5	0.02	-
						1864	131.6	133	1.4	7	0.02	-

OREQUEST CONSULTANTS LTD.

DIAMOND DRILL LOGS

Fill in every page ----> Hole No. RG-86-4 | Page No. 4

Drilling Company	Collar Elevation	Bearing from True North	Dip of hole at: Collar	-65	Location of hole in relation to fixed point on claim.	Map Ref. No.	Claim No.
D.W. COATES		210 degrees	276.2 m.	57			S-22146
Date Hole Started: Oct. 27, 1986	Date Completed: Oct. 30, 1986	Date Logged:	Logged by: J. Chapman			Location (Twp.Lot;Con. or Lat. and Long.): Halcrow Twp. 47 48'N, 82 56'W	
Exploration Co., Owner or Optionee: REGAL PETROLEUM LTD.		Date Submitted:	Submitted (sign):	m.		Property Name: REGAL - SWAYZE	

Meterage From	Meterage To	Rock Type	DESCRIPTION (Colour, grain size, texture, minerals, alteration, etc.)	Planar Feature Angle	Core Specimen Meterage	Your Sample No.	Sample (m.) From	Sample (m.) To	Sample Length (m.)	ppm. Assays † Cu	oz/ton Ag	oz/ton Au
						1865	133	133.9	0.9	6	0.06	-
						1866	133.9	134.9	1	4	-	-
						1867	134.9	136	1.1	10	-	-
						1868	136	136.9	0.9	6	0.03	-
						1869	136.9	138	1.1	7	0.04	-
						1870	138	138.3	0.3	14	0.02	-
						1871	138.3	139	0.7	11	0.05	-
						1872	139	16.25	0.8	6	0.08	-
						1873	139.8	140.6	0.8	10	0.01	-
						1874	140.6	141.5	0.9	25	0.03	-
						1875	141.5	142.4	0.9	16	0.02	-
						1876	142.4	143.5	1.1	25	0.04	-
						1877	143.5	144.7	1.2	20	0.02	-
						1878	144.7	145.7	1	11	-	-
						1879	145.7	146.8	1.1	40	0.05	-
						1880	146.8	147.7	0.9	11	0.01	-
						1881	147.7	148.6	0.9	20	0.03	-
155	167.45	quartz diorite foliated	pinkish gray becoming dary gray with depth, medium grained pervasive carbonitization, moderate chloritization, occasional thin 1 - 5mm quartz carbonate veins, 5/metre, less than 1% pyrite	fol 45		1882	148.6	149.7	1.1	20	0.06	-
						1883	149.7	150.5	0.8	10	0.01	-
						1884	150.5	151.4	0.9	10	0.04	-
						1885	151.4	152.7	1.3	35	0.02	-
167.45	177.25	cataclastic quartz diorite/ quartz diorite	approximately 50/50 in 1 to 1.5 metre sections, quartz diorite foliated fine grained dark pinkish gray, pervasive carbonatization, 1 - 3% pyrite trace cp., some stringers. Cataclastic quartz diorite grayish pink with patchy brecciated appearance moderately chloritic, 1 - 2% pyrite, weak silicification with patches of quartz.	fol 40 - 45		1886	152.7	153.6	0.9	84	0.02	-
						1887	153.6	154.6	1	69	0.02	0.012
						1888	167.4	168.3	0.9	123	0.03	0.028
						1889	168.3	169.4	1.1	85	0.23	-
						1890	169.4	170.2	0.8	98	0.16	0.03
						1891	170.2	171.4	1.2	179	-	0.018
177.25	226.2	quartz diorite massive	medium gray, medium grained, partly weakly foliated, pervasive carbonatization, less than 1% pyrite			1892	171.4	172.4	1	246	0.08	0.005
						1893	172.4	173.3	0.9	219	0.02	0.005
			179.25 - 180.1 metres - 5% pyrite in weakly foliated dark gray chloritic quartz diorite			1894	173.3	174.3	1	61	0.03	0.02
				fol		1895	174.3	175.6	1.3	132	0.02	0.005
			187.9 - 188.8 metres - C.G.D., chloritic, carbonatized end of sag. section at 195 metres.	40		1896	175.6	176.5	0.9	60	0.04	0.005
				60		1897	176.5	177.4	0.9	228	0.08	0.008
						1898	179.2	180.2	1	650	0.06	0.005
226.2	228.9	cataclastic quartz diorite	pale gray to pinkish gray, medium grained with 10 - 20 cm intervals of fine grained quartz with minor carbonate, chlorite, hematite, weak to moderate silicification 1% pyrite	fol 45		1899	184.9	186.1	1.2	49	0.07	-
						1900	187.9	188.8	0.9	59	0.12	0.005
						1751	188.8	189.7	0.9	76	0.01	-
						1752	189.7	190.3	0.6	350	0.01	0.014
228.9	242.25	cataclastic	pale gray green as above 1 - 5% pyrite stringers and disseminated,			1753	199.9	200.5	0.6	295	0.34	0.005

OREQUEST CONSULTANTS LTD.

DIAMOND DRILL LOGS

Fill in every page ----> | Hole No. RG-86-4 | Page No. 5

Drilling Company	Collar Elevation	Bearing from True North	Dip of hole at: Collar	-65	Location of hole in relation to fixed point on claim.	Map Ref. No.	Claim No.
D.W. COATES		210 degrees	276.2 m.	57			S-22146
Date Hole Started: Oct. 27, 1986	Date Completed: Oct. 30, 1986	Date Logged	Logged by: J. Chapman	m.		Location (Twp.Lot,Con. or Lat. and Long.): Halcrow Twp. 47 48'N, 82 56'W	
Exploration Co., Owner or Optionee: REGAL PETROLEUM LTD.		Date Submitted	Submitted (sign)	m.		Property Name: REGAL - SWAYZE	

Meterage From	Meterage To	Rock Type	DESCRIPTION (Colour, grain size, texture, minerals, alteration, etc.)	Planar Feature Angle	Core Specimen Meterage	Your Sample No.	Sample (m.) From	Sample (m.) To	Sample Length (m.)	ppm. Assays + oz/ton Cu	Ag	Au
		quartz diorite	quartz carbonate veining approximately 5% concordant with foliation			1754	226.2	227.4	1.2	35	0.13	-
				fol		1755	227.4	228.3	0.7	48	0.03	-
			238.9 - 240.2 metres - first appearance of blue mineral (alteration	50		1756	228.3	229.5	1.2	181	-	-
			product(?) along veins and fractures)			1757	229.5	230.1	0.6	1350	0.13	0.02
			239.3 - 239.8 metres - biotite lamprophyre dyke upper contact	65		1758	230.1	231	0.9	85	0.32	0.005
			lower contact	25		1759	231	232.1	1.1	156	0.01	0.005
						1760	232.1	233.5	1.4	25	0.05	-
						1761	233.5	234.5	1	70	-	-
						1762	234.5	235.5	1	61	0.01	-
242.25	250.4	cataclastic quartz diorite/ cataclasite	70/30 pale rose to pale red brown, moderately siliceous weakly chloritic quartz, chlorite groundmass with approximately 5% quartz porphyroblasts and some relict feldspars. 1 - 5% pyrite, weak carbonitization, increasing silicification to base, increasing quartz carbonate veining 1 - 3 cm approximately concordant with foliation.			1763	235.5	236.5	1	96	0.06	-
						1764	236.5	237.2	0.7	148	0.09	-
						1765	237.2	238.1	0.9	990	0.07	0.087
						1766	238.1	239.2	1.1	70	-	-
				fol		1767	239.7	240.7	1	49	-	-
				45 - 55		1768	240.7	241.7	1	50	0.04	-
			pale to dark red brown, aphanitic to very fine grained with less than			1769	241.7	242.4	0.7	90	0.05	0.01
250.4	266.05	mylonite siliceous	10% quartz porphyroblasts, less than 1 mm, 2 - 5% pyrite			1770	242.4	243.6	1.2	76	0.01	0.012
			predominantly as stringers, intensely silicified, moderate to strong	fol		1771	243.6	244.7	1.1	105	0.01	0.028
			hematization, banded appearance due to dark green chloritic zones and	45 -		1772	244.7	245.7	1	51	0.06	0.022
			white carbonate bearing bands. Silicification weakening with depth	65		1773	245.7	246.5	1	35	-	-
			becoming patchy.			1774	246.5	247.5	1	32	-	-
			261 - 261.35 metres - silicified brecciated zone 5% pyrite			1775	247.5	248.5	1	193	0.02	-
			262.3 - 264.38 metres - as above			1776	248.5	249.5	1	76	0.09	-
						1777	249.5	250.5	1	75	0.07	0.022
		mylonite	as above with approximately 10% mafic volcanic dykes.			1778	250.5	251.6	1.1	275	0.11	0.02
266.05	270.5			fol		1779	251.6	252.2	0.6	30	0.09	0.065
				40 - 50		1780	252.2	253.1	0	73	0.09	0.03
		chlorite	dark green moderately hematitic near contact zone decreasing with dept			1781	253.1	254	0.9	45	0.04	0.016
270.5	276.2	carbonate schist				1782	254	254.9	0.9	15	0.06	0.005
				fol		1783	254.9	255.7	0.8	26	0.01	0.005
				45		1784	255.7	256.7	1	24	0.07	0.01
						1785	256.7	257.5	0.8	91	0.05	0.016
			end of hole angle	57		1786	257.5	258.4	0.9	28	0.18	0.012
						1787	258.4	259.4	1	51	0.06	0.016
						1788	259.4	260.3	0.9	16	0.06	0.03
						1789	260.3	261	0.7	30	0.02	0.022
						1790	261	261.5	0.5	10	0.07	0.022
						1791	261.5	267.3	0.8	23	0.04	0.01
						1792	262.3	263.3	1	15	0.06	0.014

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DIAMOND DRILL LOGS

Fill in every page ----> Hole No. RG-86-4 | Page No. 6

Drilling Company D.W. COATES	Collar Elevation	Bearing from True North 210 degrees	Dip of hole at: Collar	-65	Location of hole in relation to fixed point on claim.	Map Ref. No.	Claim No. S-22146
Date Hole Started Oct. 27, 1986	Date Completed Oct. 30, 1986	Date Logged	276.2 m.	57		Location (Twp.Lot;Con. or Lat. and Long.) Halcrow Twp. 47 48'N, 82 56'W	
		Logged by J. Chapman	m.				
Exploration Co., Owner or Optionee REGAL PETROLEUM LTD.	Date Submitted	Submitted (sign)	m.			Property Name REGAL - SWAYZE	

Meterage From	Meterage To	Rock Type	DESCRIPTION (Colour, grain size, texture, minerals, alteration, etc.)	Planar Feature Angle	Core Specimen Meterage	Your Sample No.	Sample (m.) From	Sample (m.) To	Sample Length (m.)	ppm. Assays † Cu	Ag	oz/ton Au
						1793	263.3	264.2	0.9	22	0.07	0.006
						1794	264.2	265	0.8	20	0.07	0.024
						1795	265	266	1	40	0.02	0.012
						1796	266	266.8	0.8	57	0.07	0.005
						1797	266.8	267.8	1	15	0.03	0.01
						1798	267.8	268.8	1	21	0.04	0.01
						1799	268.8	270	1.2	31	0.01	0.012
						1800	270	270.8	0.8	45	0.04	-
						9801	270.8	271.6	0.8	80	0.05	0.015
						9802	271.6	272.5	0.9	195	0.05	0.005

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DIAMOND DRILL LOGS

Fill in every page ---->

Hole No.	Page No.
RG-86-5	1

Drilling Company	Collar Elevation	Bearing from True North	Dip of hole at: Collar	Location of hole in relation to fixed point on claim.	Map Ref. No.	Claim No.
D.W. COATES		225	-60			S-22146 P
Date Hole Started: NOV. 26, 1986	Date Completed: NOV. 29, 1986	Date Logged	m.		Location (Twp.Lot;Con. or Lat. and Long.)	
		Logged by: J. CHAPMAN	214.3 m. / 54		HALCROW TOWNSHIP 0+45N/4W 47 48'N, 82 57'W	
Exploration Co., Owner or Optionee	Date Submitted				Property Name	
REGAL PETROLEUM		Submitted (sign)	m.		REGAL - SWAYZE	

Meterage From	Meterage To	Rock Type	DESCRIPTION (Colour, grain size, texture, minerals, alteration, etc.)	Planar Feature Angle	Core Specimen Meterage	Your Sample No.	Sample (m.) From	Sample (m.) To	Sample Length (m.)	Assays ppm Cu	Assays ppb Au
0	0.5	overburden									
0.5	5.2	cataclasite	oxidized, weak to moderately siliceous, red brown, fine grained with less than 10% porphyroblasts, less than 1% pyrite, top 0.5 metres CQD, hairline quartz carbonate fractures throughout, 1%-5%, random orientation	fol. 40-55		9851	0.5	1.95	1.45	17	40
						9852	1.95	2.45	0.5	20	-
						9853	2.45	3.95	1.5	24	-
						9854	3.95	6.95	3	40	-
						9855	6.95	8.7	1.75	19	-
5.2	16	cataclasite	pale pink to pale green, porphyroblasts less than 3 mm, 20%-50% fine to medium grained groundmass, fractures predominantly quartz-carbonate with lesser hematitic and chlorite-epidote, pyrite less than 1%			9856	8.7	9.7	1	21	-
						9857	11.6	12.7	1.1	27	-
						9858	13.3	14.8	1.5	10	-
						9859	14.8	15.8	1	15	-
						9860	15.8	16.9	1.1	11	40
16	25.3	cataclasite/CQD	predominantly pale pink and pale green cataclasite with approximately 5%-10% pale to dark green cataclastic quartz diorite, cataclasite as above, CQD generally fine to medium grained groundmass with occasional relict feldspars up to 4 mm, short intervals, 5-20 cm, of possible xenoliths, foliation weak, increasing thickness of veins and fractures, 1-3 mm average but upto 1 cm, random orientation with possible preponderance at 60-80 degrees, weak chloritization and hematization, pyrite less than 1%	fol. 40-50		9861	16.9	18.4	1.5	7	-
						9862	18.4	19.7	1.3	7	-
						9863	19.7	20.8	1.1	9	-
						9864	20.8	21.7	0.9	9	35
						9865	25.1	25.7	0.6	30	-
						9866	25.7	27.1	1.4	9	240
						9867	27.1	28.5	1.4	8	40
						9868	28.5	29.7	1.2	33	40
25.3	35.36	cataclasite	pale gray green to pinkish gray, fine to medium grained with 10%-30% porphyroblasts less than 1 mm to 3 mm, weak to moderate silicification and chloritization, carbonate primarily in fractures and veinlets, fracture filling predominantly quartz carbonate with lesser hematitic and minor chlorite-epidote, generally less than 1 mm, high angle greater than low angle, minor brecciated zone - 20 cm at 27.5 metres, 20 cm dacitic dyke at 33.4 metres with brecciated lower contact, patchy chloritic zones throughout interval, pyrite less than 1%			9869	29.7	31.3	1.6	10	-
						9870	31.3	32.3	1	16	-
						9871	32.3	33.4	1.1	15	60
						9872	33.4	34.3	0.9	38	-
						9873	34.3	35.3	1	60	-
				dyke		9874	35.3	36.4	1.1	71	65
				40		9875	36.4	37.9	1.5	68	-
						9791	37.9	39.4	1.5	226	100
						9792	39.4	40.9	1.5	76	-
						9793	40.9	42.3	1.4	35	-
35.36	43	cataclasite	medium gray green, weakly hematitic locally moderately siliceous and/or bleached, chloritic bands from 5 cm to 10 cm wide, pyrite approximately 1%, trace cp at 42 metres			9794	42.3	43.3	1	15	-
						9795	43.3	44.5	1.2	27	-
43	50	cataclasite	predominantly fine grained with very fine grained mylonitic zone from *45.8 metres; mylonitic zones contain no porphyroblasts;* pinkish gray with patchy areas of weak to moderate chlorite epidote alteration;	fol. 45		9796	44.5	45.8	1.3	21	-
						9797	45.8	46.7	0.9	42	-
						9798	46.7	47.6	0.9	20	-

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DIAMOND DRILL LOGS

Fill in every page ----> Hole No. RG-86-5 | Page No. 2

Drilling Company	Collar Elevation	Bearing from True North	Dip of hole at: Collar		Location of hole in relation to fixed point on claim.	Map Ref. No.	Claim No.
D.W. COATES		225	m.	60			S-22146 P
Date Hole Started: NOV. 26, 1986	Date Completed: NOV. 29, 1986	Date Logged	Logged by: J. CHAPMAN	214.3 m.	54	Location (Twp.Lot,Con. or Lat. and Long.): HALCROW TOWNPSHIP 0+45N/4W 47 48'N, 82 57'W	
Exploration Co., Owner or Optionee: REGAL PETROLEUM		Date Submitted	Submitted (sign)	m.		Property Name: REGAL - SWAYZE	

Meterage From	Meterage To	Rock Type	DESCRIPTION (Colour, grain size, texture, minerals, alteration, etc.)	Planar Feature Angle	Core Specimen Meterage	Your Sample No.	Sample (m.) From	Sample (m.) To	Sample Length (m.)	Assays ppm Cu	Assays ppb Au
			strongly silicified with occasional quartz-carbonate chlorite veins 1	veins		9799	47.6	48.8	1.2	12	-
			cm to 5 cm wide, locally moderately hematitic, brecciated zones upto	45		9800	48.8	49.9	1.1	24	-
			25 cm, very fine grained pyrite approximately 1% disseminated								
						9840	49.9	50.7	0.8	15	-
50	55.5	cataclasite	predominantly fine grained groundmass with 20%-50% prophyroblasts			9841	50.7	52.2	1.5	7	-
			0.5 mm to 2 mm, shows variation in colour from pale orange (bleached			9842	52.2	53.6	1.4	12	80
			hematitic) to dark green (chloritic) less than 1% pyrite, thin 1-2 mm	fol.		9843	53.6	55	1.4	11	-
			white quartz carbonate veins approximately perpendicular to foliation	45		9844	55	56.3	1.3	71	-
						9845	56.3	57.8	1.5	87	-
55.5	60.2	cataclasite	dark green to dark greenish brown, weakly hematitic at top of			9846	57.8	59	1.2	25	-
			interval becoming more chloritic with depth, carbonitization			9847	59	60	1	12	-
			increasing with depth pervasive from 57 metres very finely	fol.		9848	60	61.5	1.5	36	-
			disseminated	45		9849	61.5	63	1.5	24	20
						9850	63	64.5	1.5	22	10
60.2	65.85	cataclasite	pale gray fine grained with 10%-30% porphyroblasts less than 1 mm,								
			banded appearance due to weakly hematitic and pale bleached bands	fol.		38051	64.5	65.5	1	12	-
			generally less than 5 cm, pervasive very fine carbonate with few	50		38052	65.5	66.5	1	18	50
			quartz carbonate veinlets, volcanic xenolith at 62.65 metres,			38053	66.5	67.6	1.1	80	280
			silicification increasing with depth pyrite less than 1%			38054	67.6	68.6	1	45	205
						38055	68.6	69.4	0.8	22	30
65.85	68.9	cataclasite	gray white siliceous with 20% chlorite, minor patchy hematitic zones,			38056	69.4	70.4	1	24	75
			locally brecciated, 1%-2% pyrite	fol.		38057	70.4	71.4	1	7	340
				50		38058	71.4	72.3	0.9	23	30
68.9	74.7	cataclasite	pale gray green, moderately siliceous foliated appearance almost CGO,			38059	72.3	73.7	1.4	14	40
			1%-2% pyrite, becoming finer grained with depth	fol.		38060	73.7	74.7	1	8	10
				40-50		38061	74.7	75.7	1	13	20
74.7	77.7	cataclasite	fine to medium grained, pale to brick red locally purple, chlorite			38062	75.7	76.7	1	7	25
			epidote alteration strong along occasional fractures restricted to			38063	76.7	77.7	1	5	-
			less than 1 cm from vein, pervasive carbonate in upper 2 metres of	fol.		38064	77.7	78.7	1	10	-
			interval	50		38065	78.7	79.7	1	8	-
77.7	83.5	cataclasite	predominantly pale gray with lesser pale orange (20-30 cm) and gray			38066	79.7	80.7	1	8	-
			green (10-20 cm) intervals, fine to very fine grained, locally			38067	80.7	81.5	0.8	9	-
			moderately siliceous and hematitic 78.5-80.3 metres abundant thin			38068	81.5	82.8	1.3	10	-
			less than 3 mm quartz carbonate, and chlorite (minor epidote)			38069	82.8	84.4	1.6	11	-
			veining, predominantly high angle			38070	84.4	85.4	1	12	30
			- 20 cm chloritic breccia at 83.1 metres, weak foliation, less than 1%			38071	85.4	86.4	1	11	25
			pyrite	fol.		38072	86.4	87.5	1.1	25	-

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DIAMOND DRILL LOGS

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Hole No. RG-86-5 | Page No. 3

Drilling Company	Collar Elevation	Bearing from True North	Dip of hole at: Collar		Location of hole in relation to fixed point on claim.	Map Ref. No.	Claim No.
D.W. COATES		225		60			S-22146 P
Date Hole Started	Date Completed	Date Logged		m.		Location (Twp.Lot,Con. or Lat. and Long.)	
NOV. 26, 1986	NOV. 29, 1986		Logged by			HALCROW TOWNPSHIP D+45N/4W 47 48'N, 82 57'W	
Exploration Co., Owner or Optionee	Date Subaitted		J. CHAPMAN	214.3 m.	54		
REGAL PETROLEUM			Subaitted (sign)	m.		Property Name REGAL - SWAYZE	

Meterage From	Meterage To	Rock Type	DESCRIPTION (Colour, grain size, texture, minerals, alteration, etc.)	Planar Feature Angle	Core Specimen Meterage	Your Sample No.	Sample (m.) From	Sample (m.) To	Sample Length (m.)	ppm Assays Cu	ppb Assays Au
				50		38073	87.5	88.5	1	16	-
83.5	93.8	cataclasite	dark red brown to dark gray green with approximately 30%			38074	88.5	89.3	0.8	13	-
			porphyroblasts (0.5-3 mm), weakly carbonatized, bleaching related to			38075	89.3	90.2	0.9	21	-
			quartz carbonate veins - bleached envelope from less than 1 cm to 5			38076	90.2	91.3	1.1	13	-
			cm - not directly related to vein thickness			38077	91.3	92.3	1	10	-
			84.5-92.5 metres - 2%-3% pyrite both disseminated and as stringers,			38078	92.3	93.3	1	14	-
			fine to medium grained, less than 2 mm thick	fol.		38079	93.3	94.3	1	7	-
			90.2 metres - 25 cm breccia zone with predominantly chloritic matrix	60		38080	94.3	95.3	1	12	40
						38081	95.3	96.2	0.9	13	-
			- silicification weak to moderate overall, general increase with depth			38082	96.2	97.2	1	13	-
						38083	97.2	98.2	1	20	-
93.8	97.8	cataclasite	fine grained dark red brown approximately 20% porphyroblasts less			38084	98.2	99.2	1	11	-
			than 1 mm moderately siliceous increasing with depth, less than 1%			38085	99.2	100.2	1	11	-
			pyrite	fol.		38086	100.2	101	0.8	15	-
				45-55		38087	101	101.9	0.9	18	-
97.8	104	cataclasite	pale rose to pale green at contact, 20%-60% porphyroblasts from less			38088	101.9	102.9	1.0	36	-
			than 1 mm to 5 mm mostly 1-2 mm, moderate to strongly siliceous	fol.		38089	102.9	104	1.1	36	-
			97.8-101 metres - pale rose to medium red generally quite siliceous,	50-65		38090	104	104.8	0.8	75	-
			approximately 1% pyrite, minor quartz-carbonate veining less than 1 cm								
			101-104 - greenish tint due to sericite, fuchsite?, 1%-2% pyrite fault			38091	107.6	109	1.4	15	-
			zone at 103 metres			38092	109	110.8	1.8	42	-
104	127.8	quartz diorite	medium grained, weakly foliated with occasional low angle quartz			38093	115.7	116.7	1.2	131	-
			carbonate veins, weak cataclasis over 0.3 metres at contact								
			104.0-106.0 metres - moderate hematitic alteration weakening with			38094	124.7	125.7	1	89	-
			depth 107.4-110.8 metres - massive with several small quartz and			38095	127.7	128.7	1	13	-
			quartz- carbonate veins, bleached alteration zones around			38096	128.7	129.7	1	13	-
			quartz-carbonate veins (low angle), weakly foliated approaching			38097	129.7	130.3	0.6	15	-
			contact								
127.8	130.25	cataclastic quartz diorite	127.8-128.6 metres, 129.6-130.25 metres, strongly cataclastic zones								
			with weaker less altered interval between red brown with moderate								
			chlorite-epidote alteration, strongly silicified, less than 1%								
			pyrite, 3 creamy white quartz-carbonate veins 1 cm, 1 cm and 5 cm								
130.25	164	quartz diorite	foliated predominantly medium grained light to dark gray locally	fol.		38098	151.9	153.1	1.2	41	185
			weakly chloritized, occasional fine and coarse grained sections,	50-60							
			minor erratic quartz carbonate veins			38099	157.7	159.1	1.4	750	310

OREQUEST CONSULTANTS LTD.

DIAMOND DRILL LOGS

Fill in every page ----> Hole No. RG-86-5 | Page No. 4

Drilling Company	Collar Elevation	Bearing from True North	Dip of hole at: Collar		Location of hole in relation to fixed point on claim.	Map Ref. No.	Claim No.
D.W. COATES		225		60			S-22146 P
Date Hole Started	Date Completed	Date Logged		m.		Location (Twp.Lot;Con. or Lat. and Long.)	
NOV. 26, 1986	NOV. 29, 1986	Logged by				HALCROW TOWNPSHIP 0+45N/4W 47 48'N, 82 57'W	
		J. CHAPMAN	214.3 m.	54			
Exploration Co., Owner or Optionee		Date Submitted				Property Name	
REGAL PETROLEUM		Submitted (sign)		m.		REGAL - SWAYZE	

Meterage From	Meterage To	Rock Type	DESCRIPTION (Colour; grain size; texture; minerals; alteration; etc.)	Planar Feature Angle	Core Specimen Meterage	Your Sample No.	Sample (m.) From	Sample (m.) To	Sample Length (m.)	Assays ppm Cu	Assays ppb Au
						38100	159.1	160.1	1	60	180
164	173.1	cataclasitc quartz diorite	weakly sheared and altered; fine to medium grained weakly chloritic and hematitic (increasing with depth); approximately 1% pyrite	fol. 50		38101	160.5	161.7	1.2		-
173.1	175.8	cataclasite	predominantly beige to green fine to very fine grained; porphyroblasts less than 10%; 2%-3% pyrite as disseminations and thin 1-3 mm stringers; weak to moderate silicification; little veining; 15% interbanded mafic volcanics; 40 cm COD at base of section			38102	170.1	171.5	1.4		0.034
						38103	171.5	173	1.5		-
						38104	173	174	1		0.008
						38105	174	175	1		0.01
175.8	178	mafic volcanic	dark green with 10% quartz carbonate bands less than 1% pyrite			38106	175	175.8	0.8		0.016
						38107	175.8	177.8	2		0.046
178	179.6	tuff	dark purple highly silicified; upto 5% pyrite; little veining			38108	177.8	178.6	0.8		-
						38109	178.6	179.6	1		0.01
179.6	181.9	mafic volcanic	as in 175.8-178.0 metres	fol. 45		38110	179.6	181.9	2.3		0.008
						38111	181.9	183.2	1.3		-
181.9	197.6	tuff	181.9-183.2 metres - grayish purple; intensely siliceous; 1% pyrite chlorite veinlets; 20 cm mafic volcanics lens at 183.0			38112	183.2	185	1.8	66	-
						38113	185	186.2	1.2	37	-
			183.2-185.0 metres - mafic volcanic as in 175.8-178.0 metres			38114	186.2	187.3	1.1	32	-
			185.0-191.2 metres - COD/CAT moderate to strongly siliceous; strongly hematitic and chloritic; 4 cm quartz vein at 191.0 metres 1%-3% pyrite trace cp	fol. 50		38115	187.3	188.3	1	95	445
						38116	188.3	189.3	1	33	-
						38117	189.3	190.3	1	78	235
			191.2-197.6 metres - COD/CAT approx 60/40 with 10% mafic volcanics; moderate to strong silicification and chloritization with weak to moderate hematization; 1%-4% pyrite with trace up	fol. 65		38118	190.3	191.3	1	26	260
						38119	191.3	192.2	0.9	67	85
						38120	192.2	193.2	1	96	60
						38121	193.2	194.3	1.1	32	75
197.6	214.3	mafic volcanics	dark green with abundant quartz carbonate veining within the first 5 metres of contact; 1%-2% pyrite within 2 metres of contact	fol. 60		38122	194.3	195.3	1	26	340
						38123	195.3	196.3	1	20	-
						38124	196.3	197.2	0.9	21	-
						38125	197.2	198.1	0.9	29	-
				fol. 50		38126	198.1	199.5	1.4	54	70
			END OF HOLE ANGLE	54							

OREQUEST CONSULTANTS LTD.

DIAMOND DRILL LOGS

Fill in every page ----> Hole No. RG-86-6 | Page No. 1

Drilling Company	Collar Elevation	Bearing from True North	Dip of hole at:	Collar		Location of hole in relation to fixed point on claim.	Map Ref. No.	Claim No.
D.W. Coates		225	169.5 m.	49				756314
Date Hole Started	Date Completed	Date Logged					Location (Twp.Lot;Con. or Lat. and Long.)	
30/11/86	3/12/86		Logged by				Halcrow Twp. - 5E/6N; 47 48'N; 82 55'30"W	
			J. Chapman	m.				
Exploration Co., Owner or Optionee		Date Submitted					Property Name	
			Submitted (sign)	m.				
Regal Petroleum Ltd.							Regal - Swayze	

Meterage From	Meterage To	Rock Type	DESCRIPTION (Colour, grain size, texture, minerals, alteration, etc.)	Planar Feature Angle	Core Specimen Meterage	Your Sample No.	Sample (m.) From	Sample (m.) To	Sample Length (m.)	Assays ppm Cu	Assays ppb Au
-	12.37	Overburden									
12.37	15.06	Quartz-biotite schist	Fine grained, gray black, strong carbonate alteration, weakly foliated, carbonate as pink to white subhedral to anhedral blebs and in quartz biotite groundmass, no sulfides fault gouge at 13.6m								
15.06	16.26	Mafic Volcanics	Fine grained, dark green, moderate to strong chlorite-epidote alteration, strong carbonate								
16.26	29.57	Quartz-biotite schist	Fine grained gray green, moderate to strongly calcareous, moderately chloritic, weakly sericitic, 2-3% sulfides at 22.7-23.8m 28.1-29.5m - 1-2% py as blebs and stringers	fol 45		37451	22.8	23.8	1	108	-
						37452	23.8	25.3	1.5	55	-
						37453	28.1	29.3	1.2	35	-
29.57	29.9	Quartz-sericite chlorite schist	Gray, fine grained, chloritic bands along foliation planes, quartz, carbonate, chlorite, sericite groundmass, <1% disseminated pyrite			37454	29.9	30.8	0.9	24	-
29.9	30.7	Quartz-biotite schist	as in 16.26-29.57m								
30.7	31.1	Quartz-sericite schist	Continuation of above rock type with increased sericitization, increased pyrite, 1-2%, associated with increased sericite								
31.1	35.9	Quartz-biotite schist	as in 16.26-29.57m 32.5-33.7m 1-2% pyrite-disseminated			37455	32.6	33.8	0.8	102	-
35.9	37.4	Quartz diorite	Medium grained, gray gr en, porphyritic, 60% phenocrysts of plagioclase; weak to moderate chlorite epidote alteration, volcanic xenolith at 36.5m, 1% pyrite								
37.4	42.8	Cataclastic quartz diorite	Gray, fine to medium grained, <20% of plagioclase phenocrysts still visible, moderate silicification, weak carbonate, chlorite alteration, 20cm barren quartz carbonate vein at 41.7m, 1-2% disseminated pyrite throughout			38293	41.5	43	1.5	32	-
42.8	44	Mafic tuff	Olive green, chlorite, quartz, carbonate matrix with felsic fragments ((2mm) about 5% of rock, 5% clear quartz eyes								
44	48.2	*Felsic Tuff*	*Light gray in color, fine to medium grained,* clear light blue quartz-eyes make up 5-10% of sample, foliated, mod sericite (found								

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DIAMOND DRILL LOGS

Fill in every page ----> Hole No. RG-86-6 | Page No. 2

Drilling Company	Collar Elevation	Bearing from True North	Dip of hole at: Collar		Location of hole in relation to fixed point on claim.	Map Ref. No.	Claim No.
D.W. Coates		225	169.5 a.	50			758314
Date Hole Started	Date Completed	Date Logged	Logged by	49		Location (Twp.Lot;Con. or Lat. and Long.)	
30/11/86	3/12/86		J. Chapman	a.		Haircrow Twp. - 5E/6N; 47 48'N; 82 55'30"W	
Exploration Co., Owner or Optionee	Date Submitted		Submitted (sign)	a.		Property Name	
Regal Petroleum Ltd.						Regal - Swayze	

Meterage From	Meterage To	Rock Type	DESCRIPTION (Colour, grain size, texture, minerals, alteration, etc.)	Planar Feature Angle	Core Specimen Meterage	Your Sample No.	Sample (m.) From	Sample (m.) To	Sample Length (m.)	ppm Assays Cu	ppb Au
			along foliation planes) clay alt (?) along foliation planes;; minor chlorite along fol. planes; much carb occurs as white stretched out blebs; small feldspar fragments (?) <1mm; <1% disseminated sulphides	fol 45							
			Narrow white barren quartz vein with a narrow (1mm) chlorite seam enclosing it found at 44.1m			38252	51.6	53	1.4	70	-
						38250	55.8	57.4	1.6	80	-
48.2	71.2	Quartz chlorite carbonate sericite schist	Contorted schistosity with overprinted foliation pale gray to gray green locally epidotic; sericitic along foliation planes; gray blue quartz eyes throughout 1-5% (<1mm to 2cm); patchy appearance due to sheared out quartz carbonate bands and zones of intense clay alteration	fol 45		38251	57.4	58.8	1.2	74	-
						38249	58.8	60.2	1.4	67	-
			58.6-60.3m - schistosity parallel to core with foliation at 40 ; kink bands in schistosity; probably fold nose. Sulfides (py with trace cp) approx 1%								
			70.0-71.2m - weakly graphitic along foliation								
71.2	74.7	Graphitic tuff	Felsic tuff with 10-35% carbonaceous (graphitic) laminations; fragments and beds up to 1cm thick; 5-10% quartz eyes <2mm; dark gray colour; 1-2% pyrite	fol 40-50		38255	73.1	74.6	1.5	57	-
						38254	74.6	75.4	0.8	36	-
74.7	77.4	Mudstone graphitic	Black; very fine grained mudstone with 10-15% interbedded tuff as above; mudstone locally silicified and oxidized			38253	75.4	77.8	2.4	81	-
			75.6m - 20cm silicified beige felsic tuff as in #7 and #8 with pyrite 2-3% and fuchsite; oxidized at upper contact								
			77.4 - fault zone at contact								
77.4	95.4	Tuff	Medium to dark gray; fine grained; <5% quartz eyes; graphite on foliation planes; calcareous 20%; minor crosscutting quartz carbonate veinlets <1cm predominantly high angle; 10cm vein at 81.7m with py	fol 45		38257	82.7	83.3	0.6	52	-
						38258	83.3	84.5	1.2	35	-
			-carbonaceous mudstone interbeds and laminations from 2% to 30%			38259	85.5	86.7	1.2	41	-
			-10cm to 30cm bands predominantly chlorite epidote quartz carbonate; some sericite on foliation planes			38260	88.5	90	1.5	60	-
			81.8-83.2m - series of fold noses	fol 45-55		38261	94.6	96.4	1.9	51	-
			93.3-94.0 m - pale gray green with approx 1% carbonaceous mudstone; patchy appearance due to clay alteration			38262	97.9	99.4	1.5	40	-
						38263	99.4	100.9	1.5	55	-
95.4	108.5	Felsic tuff	Pale to medium gray; patchy appearance (clay alteration) fragments;			38264	100.9	102.3	1.4	36	-
			<1% pyrite from <2mm to 3cm; <1% mudstone frags			38265	102.3	103.8	1.5	54	-
			100.5-104.5m - 17% quartz veining; up to 20cm wide; barren white			38266	103.8	105.1	1.3	41	-

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DIAMOND DRILL LOGS

Fill in every page ----> Hole No. RG-86-6 | Page No. 3

Drilling Company	Collar Elevation	Bearing from True North	Dip of hole at: Collar		Location of hole in relation to fixed point on claim.	Map Ref. No.	Claim No.
D.W. Coates		225	169.5 m.	49			758314
Date Hole Started: 30/11/86	Date Completed: 3/12/86	Date Logged	Logged by: J. Chapman	m.		Location (Twp.Lot;Con. or Lat. and Long.): Halcrow Twp. - 5E/6N; 47 48'N; 82 55'30"W	
Exploration Co.; Owner or Optionee: Regal Petroleum Ltd.		Date Submitted	Submitted (sign)	m.		Property Name: Regal - Swayze	

Meterage From	Meterage To	Rock Type	DESCRIPTION (Colour; grain size; texture; minerals; alteration; etc.)	Planar Feature Angle	Core Specimen Meterage	Your Sample No.	Sample (m.) From	Sample (m.) To	Sample Length (m.)	Assays ppm Cu	Assays ppb Au
			quartz carbonate veins			38267	105.1	105.4	0.3	42	-
108.5	112.4	Tuff (graphitic)	Fine to medium grained; fragments <3mm; 20-45% carbonaceous mudstone; <1% pyrite; <3% veining; quartz eyes 10-30%	fol 45		38268	109.4	110.9	1.5	26	-
112.4	119.4	Tuff	As above with mudstone content decreasing <5%; chlorite epidote alteration more evident; locally patchy appearance	50							
119.4	143.3		119.4-123.5m - graphitic mudstone up to 40%; py lenses up to 5mm			38269	120.1	121.2	1.1	43	-
			123.5-125.7m - <20% GM all as small thin 1x5mm frags max			38270	121.2	122.7	1.5	87	-
			125.7-127.2m - GM beds 50% of interval up to 5cm	65							
			127.2-132.4m - 30% GM beds lam. and frags. -secondary sericitic fol. overpoint at 45; primary foliation at 70 at 132.4m			38271	125.4	126.8	1.4	44	-
						38272	126.3	129.8	1.5	36	-
			132.4-143.3m - <15% GM frags. over top 3m < 3% over remainder of interval			38275	139.9	141.1	1.5	39	
			140.6m - sericitic overprint opposite primary foliation angles as above; rotated 90			38273	143	144.5	1.5	102	-
						38274	144.5	145.7	1.2	48	-
143.3	156.6	Tuff	Patchy variety; pale gray green to gray brown based on intensity of clay alt; fine grained to very fine grained increasing vein density			38276	145.7	146.2	0.5	97	-
			143.6-144.3m - brecciated by quartz carbonate chlorite veins totalling 50% of interval			38277	146.2	147.5	1.3	83	-
						38278	147.5	148.5	1	92	-
			148.7-149.05m - vein breccia containing po; py; sp; cp; and fushite			38279	148.5	149.3	0.8	96	-
			150.0-155.2m - large frags up to 5x2cm; vein breccia at 150.0-150.5 m possibly agglomerate			38280	149.3	150.2	0.9	103	-
						38281	150.2	151	0.8	91	-
						38282	151	151.6	0.5	100	-
156.6	169.5	Tuff	Dark gray; fine to medium grained; 10-15% graphitic mudstone; fragments along foliation; sericitic overprint 45 deg same direction			38283	151.6	152.1	0.5	80	-
						38284	152.1	153.4	1.3	87	-
			rotated 90 deg; approx 1% pyrite with some po. associated			38285	153.4	154.9	1.5	87	-
			168.1-169.5m - predominantly chlorite epidote alteration			38286	154.9	156.4	1.5	100	-
						38287	156.4	157.3	0.9	80	-
						38288	157.3	158.8	1.5	28	-
						38289	160.2	161.7	1.5	23	-
						38290	164.6	166.1	1.5	56	-
						38291	167.7	169.2	1.5	71	-

OREQUEST CONSULTANTS LTD.

DIAMOND DRILL LOGS

Fill in every page ----> Hole No. RG-86-7 | Page No. 1

Drilling Company	Collar Elevation	Bearing from True North	Dip of hole at: Collar	50	Location of hole in relation to fixed point on claim.	Map Ref. No.	Claim No.
D.W. COATES		225					758313
Date Hole Started	Date Completed	Date Logged		m.		Location (Twp.Lot;Con. or Lat. and Long.)	
DEC. 3, 1986	DEC. 5, 1986		Logged by			HALCROW TOWNSHIP 11E/6N 47 48'N, 82 55'W	
			J. CHAPMAN	m.			
Exploration Co., Owner or Optionee		Date Submitted				Property Name	
REGAL PETROLEUM LTD.			Submitted (sign)	m.		REGAL, SWAYZE	

Meterage From	Meterage To	Rock Type	DESCRIPTION (Colour, grain size, texture, minerals, alteration, etc.)	Planar Feature Angle	Core Specimen Meterage	Your Sample No.	Sample (m.) From	Sample (m.) To	Sample Length (m.)	Assays ppm Cu	Assays ppb Au
0	7.9	overburden	sand and clay								
7.9	10.6	rhyolite	pale gray to gray green with 5%-10% quartz eyes less than 1 mm; minor quartz carbonate veining at 8.8 metres with weak chlorite epidote alteration	fol. 50		38127	7.9	9.4	1.5	16	-
						38128	9.4	10.5	1.1	12	-
10.6	62.7	mudstone 65% siltstone 35%	interbedded black, fine to very fine grained, mudstone with light to dark gray siltstone, siltstone layers calcareous, thickness ranges from less than 1 mm laminations to 15 cm beds average less than 1 cm. Mudstone beds generally thicker 2-5 cm, pyrite blebs up to 1 cm in diameter occur sporadically less than 1% overall. Occasional small scale folds and fault offsets (1-5 cm) visible. Individual beds pinch and swell. Occasional bands of felsic tuff less than 50 cm average 5-20 cm	45-65		38129	25.6	27.1	1.5	57	-
						38130	29.3	30.1	0.8	60	-
						38131	34.5	35.7	1.2	53	-
						38132	42.3	43.7	1.4	50	-
						38133	43.7	44.7	1	31	90
			25.9 metres - narrow fault zone with 3 cm quartz vein	50		38134	44.7	45.4	0.7	52	40
			30.3-40.5 metres siltstone greater than mudstone 70/30%								
			43.0-45.5 metres siliceous brecciated mudstone overlying diabase dike, abundant quartz carbonate veining, trace galena and sphalerite			38135	47	48.1	1.1	32	35
			45.5-47.0 metres - diabase dike, strongly magnetic, speckled brown appearance due to oxidized magnetite			38136	57.9	59.4	1.5	36	-
			47.0-48.1 silicified mudstone/siltstone with strong chlorite epidote alteration in siltstone horizons			38170	60.3	61.8	1.5	37	-
						38171	61.8	62.8	1	31	-
			58.2 metres 45 cm felsic tuff pale gray green fissile, mostly clay	55		38172	62.8	64.3	1.5	19	-
						38173	64.3	65.6	1.3	2	-
62.7	75.2	felsic tuff	uniformly fine grained, grayish white occasionally with a pale strongly sericitic, weak to moderate silicification, quartz carbonate filled fractures (predominantly hairline) pervasive, but varying in density from 1/10 cm to stockwork. 10%-25% quartz eyes (less than 0.5 mm to 2 mm) in a predominantly quartz, micas, clay plus/minus chlorite, epidote groundmass, becoming coarser grained with depth. Coarser grained sections show larger quartz patches up to 2 cm and contorted foliation, less than 1% pyrite throughout	fol 55-75		38174	65.6	67	1.4	3	-
						38175	67	68.1	1.1	1	-
						38176	68.7	69.6	0.9	2	-
						38177	72.7	74.2	1.5	11	270
						38178	74.2	75.6	1.4	54	-
75.2	75.6	mudstone	predominantly black fine grained soft mudstone with less than 10% interbedded siltstone, 15 cm barren quartz carbonate vein along contact with overlying tuff, lower contact 10 degrees with biotite lamprophyre dike, 1%-3% pyrite blebs in mudstone	60							
75.6	81.4	biotite	magnetic, calcareous with 40 cm strongly siliceous black mudstone at								

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DIAMOND DRILL LOGS

Fill in every page ----> Hole No. RG-86-7 | Page No. 2

Drilling Company	Collar Elevation	Bearing from True North	Dip of hole at: Collar	50	Location of hole in relation to fixed point on claim.	Map Ref. No.	Claim No.
O.W. COATES		225					758313
Date Hole Started: DEC. 3, 1986	Date Completed: DEC. 5, 1986	Date Logged		n.		Location (Twp.Lot,Con. or Lat. and Long.): HALCROW TOWNSHIP 11E/6N 47 48'N, 82 55'W	
		Logged by: J. CHAPMAN		n.			
Exploration Co., Owner or Optionee: REGAL PETROLEUM LTD.		Date Submitted				Property Name: REGAL, SWAYZE	
		Submitted (sign)		n.			

Meterage From	Meterage To	Rock Type	DESCRIPTION (Colour, grain size, texture, minerals, alteration, etc.)	Planar Feature Angle	Core Specimen Meterage	Your Sample No.	Sample (m.) From	Sample (m.) To	Sample Length (m.)	Assays ppm Cu	Assays ppb Au
		lamprophyre dike	80.3 m; contact 20 degrees upper; lower 60 degrees; footwall contact with gray siltstone 20 degrees; xenoliths of sediments caught in dike	bed 70		38179	81.3	82.6	1.3	50	-
						38180	82.6	83.6	1	26	-
						38181	83.6	84.2	0.6	17	-
81.4	83.4	mudstone; siltstone felsic tuff	interbedded 20%, 40% and 40% respectively with disseminated and layered sulfides (py) up to 1 cm thick; py also associated with quartz-carbonate veining conformable with bedding	60-80		38182	84.2	85.1	0.9	12	-
						38183	85.1	86.6	1.5	11	60
						38184	86.6	88	1.4	12	-
						38185	88	89.5	1.5	11	-
83.4	90.2	felsic tuff	as in 62.7-72.5 metres with quartz eyes approximately 40% and up to 4 mm; pyrite less than 1%; moderately siliceous; chlorite-epidote alteration weak and very few quartz carbonate veinlets			38186	89.5	90.8	1.3	12	-
				60		38187	90.8	92.3	1.5	11	-
						38188	92.3	93.6	1.3	26	-
						38189	93.6	94.6	1	31	-
90.2	92.8	felsic tuff	with 20% mudstone laminations less than 2 mm thick gives striped appearance; veining increasing toward base of section			37456	94.6	95.6	1		-
						37457	95.6	96.6	1		0.016
						37458	96.6	97.6	1		-
92.8	104.1	felsic tuff	92.8-95 metres - light gray; 10%-30% quartz eyes; minor quartz-carbonate veining quartz sericite groundmass with minor chlorite epidote; clay; fine laminations and fragments of pyrite less than 1 mm thick approximately 1%-2%			37459	97.6	98.5	0.9		-
						38190	98.5	99.5	1	11	-
						38191	99.5	101	1.5	10	-
						38192	101	102.4	1.4	11	-
104.1	130	felsic tuff	95.0-98.3 metres - as above with massive pyrite lenses and laminations up to 2 cm; concordant quartz-carbonate veins at 96.2 metres (5 cm) and 97.9 metres; 10 cm with 80% pyrite; 95.3-97 metres strongest mineralization 10%-20%; fuchsite 97.7-98.3 metres - 33 cm black pyritic mudstone with vein at base trace cp; malachite stain; po. 98.3-104.1 metres - as in 92.8-95 metres								
			104.1-107.6 metres - interbedded tuff and mudstone/siltstone			38193	110	111.6	1.6	81	-
			(lithic tuff) laminations; carbonatization moderate to strong; sporadic crosscutting quartz-carbonate veins up to 1 cm wide; pyrite			38194	111.6	113.1	1.5	100	-
						38195	120.2	121.6	1.4	100	-
			approximately 1%	fol		38196	121.6	123.1	1.5	93	-
			107.6-113.0 - patchy appearance due to lenses and laminations of	60		38197	123.1	124.6	1.5	83	-
			(lithic tuff) pale gray brown very fine grained clay altered zones; small fragments (angular) of black chert? less than 1% pyrite in continuation of above; vein density increasing			38198	124.6	126.1	1.5	53	-
			113.0-120.5 - pale gray to gray green uniform fine grained calcareous; occasional pyrite crystals; few quartz carbonate veins								

OREQUEST CONSULTANTS LTD.

DIAMOND DRILL LOGS

Fill in every page ----> Hole No. RG-86-7 | Page No. 3

Drilling Company	Collar Elevation	Bearing from True North	Dip of hole at: Collar	50	Location of hole in relation to fixed point on claim.	Map Ref. No.	Claim No.
D.W. COATES		225	n.				758313
Date Hole Started: DEC. 3, 1986	Date Completed: DEC. 5, 1986	Date Logged	n.			Location (Twp.Lot,Con. or Lat. and Long.): HALCROW TOWNSHIP 11E/6N 47 48'N, 82 55'W	
Exploration Co., Owner or Optionee: REGAL PETROLEUM LTD.	Date Submitted	Logged by: J. CHAPMAN	n.			Property Name: REGAL, SWAYZE	
		Submitted (sign)	n.				

Meterage From	Meterage To	Rock Type	DESCRIPTION (Colour, grain size, texture, minerals, alteration, etc.)	Planar Feature Angle	Core Specimen Meterage	Your Sample No.	Sample (m.) From	Sample (m.) To	Sample Length (m.)	Assays ppm Cu	Assays ppb Au
			120.5-130.0 - repeat of 104.1-113.0, pyrite 1%-2% disseminated, (lithic tuff) stringers and blebs	65							
130	134.9	felsic to intermediate volcanics	pale to medium gray green, fine to medium grained, strongly calcareous upper third of interval contains 10%-20% whitish quartz carbonate horizons with sparse mafic minerals (felsic segregations)			38199	134.9	136.1	1.2	30	-
						38200	136.1	137.6	1	1	-
						38201	137.6	139.3	1.7	1	-
						38202	139.3	140.7	1.4	52	-
134.9	139.4	dacite dike	very fine grained gray blue, intensely siliceous, weak chlorite-epidote alteration along fractures and veinlets, quartz porphyroblasts less than 5% upper and lower contacts sharp, pyrite less than 1%	60							
139.4	154.3	felsic to intermediate volcanics	pale greenish gray tuffs grading through to short, 20-40 cm, sections of dark green andesites, less than 1% pyrite, foliation more obvious in mafic sections, pervasively carbonatized throughout	55-65							

OREQUEST CONSULTANTS LTD.

DIAMOND DRILL LOGS

Fill in every page ----> Hole No. RG-86-8 | Page No. 1

Drilling Company	Collar Elevation	Bearing from True North	Dip of hole at: Collar	-55	Location of hole in relation to fixed point on claim.	Map Ref. No.	Claim No.
D.W. Coates		225					758313
Date Hole Started	Date Completed	Date Logged		m.		Location (Twp.Lot;Con. or Lat. and Long.)	
1215186	1218186		Logged by			Haircow Twp. 9E16N; 47 48'N; 82 55'W	
Exploration Co.; Owner or Optionee		Date Submitted	J. Chapman	m.		Property Name	
Regal Petroleum Ltd.			Submitted (sign)	m.		Regal - Swayze	

Meterage From	Meterage To	Rock Type	DESCRIPTION (Colour; grain size; texture; minerals; alteration; etc.)	Planar Feature Angle	Core Specimen Meterage	Your Sample No.	Sample (m.) From	Sample (m.) To	Sample Length (m.)	Assays ppm Cu	Assays ppb Au
0	1.9	Overburden									
1.9	13.6	cataclastic quartz diorite	pale greenish gray medium to coarse grained; strongly silicified with local zones of quartz flooding; minor carbonate along smaller fractures; chlorite epidote alteration moderate to pervasive with weak to moderate sericite; < 1% pyrite	fol 45		38144	2.3	3.3	1	7	-
						38137	4.4	5.3	0.9	5	-
						38138	6.1	7.6	1.5	6	-
			3.3 - 4.45m - fine to very fine grained pale green tuff; strong	fol 45		38139	7.6	9.1	1.5	4	-
			10.25-12.9m chlorite - epidote alteration; fragments typically elongate < 1mm thick; some smeared out quartz			38140	12.9	14.2	1.3	12	-
13.6	14.1	mudstone	surface oxidation along fractures extends to 15 m; black; silicified			38141	14.4	15.8	1.4	28	-
14.1	14.55	biotite lamprophyre	overlying mudstone bleached for 5 cm; upper contact	50		38142	15.8	17.2	1.4	14	-
			chilled margins < 1 cm lower contact	45		38143	17.2	18.6	1.4	31	80
						38145	18.6	20.1	1.5	37	-
14.55	21.6	tuff	gray - blue; fine grained groundmass of quartz; chlorite; carbonate minor epidote; quartz porphyroblasts < 0.5 mm - 3 mm; ave. < 1 mm approximately 10 - 30%	fol 45 - 55		38146	20.1	21.6	1.5	37	-
			16.9 - 18.9 m - contains approximately 30% graphitic black mudstone; 1% py. 18.9 - 21.6m - contains approx. 15%	fol 50							
			graphitic black mudstone; 1 - 2% py.; sericite increasing toward base of interval - conformable quartz-carbonate horizons (veins?) upto 5 cm								
						38147	33.7	34.6	0.9	61	30
21.6	58.7	mudstone (graphitic)	black very fine grained with stringers;blebs and diagenetic pyrite; mostly soft but locally siliceous; interbedded with dark gray siltstone (wacke) horizons 20 - 50%; foliation ranges from 0 to 90	fol 50		38148	46.9	47.9	1	53	40
			with small-scale folding; quartz carbonate veining approx. 3% (barren mostly); locally short brecciated zones (< 15 cm)			38149	48.3	49.5	1.2	45	-
						38150	54.6	56.1	1.5	30	-
58.7	71.5	tuff	felsic to intermediate tuff with quartz eyes 1 - 5mm; pale gray to greenish gray; fine to medium grained; approx. 15 - 20% interbedded mudstone and siltstone; approx. 1% quartz carbonate veining; and 1% pyrite	45							
71.5	82.1	tuff	predominantly light gray white felsic tuff with 5 - 20% quartz eyes < 0.5mm to 5mm (most <1mm); weak chlorite-epidote alteration along foliation planes with moderate sericite; < 1% pyrite; strongly calcareous	fol 45		38151	73.9	75.4	1.5	17	50
						38152	75.4	77.1	1.7	35	-
						38153	77.1	78.4	1.3	16	60
			76.75 - 80.9 m - intensely silicified approx. 1% pyrite; locally brecciated patchy appearance; strongly sericitic			38154	78.4	79.8	1.4	5	20
						38155	79.8	81.2	1.4	15	-

OREQUEST CONSULTANTS LTD.

DIAMOND DRILL LOGS

Fill in every page ---->

Hole No.	Page No.
RG-86-8	2

Drilling Company	Collar Elevation	Bearing from True North	Dip of hole at: Collar	-55	Location of hole in relation to fixed point on claim.	Map Ref. No.	Claim No.
D.W. Coates		225	m.				758313
Date Hole Started / Date Completed / Date Logged		Logged by	m.			Location (Twp.Lot;Con. or Lat. and Long.)	
1215186 / 1218186		J. Chapman				Haicrow Twp. 9E16N; 47 48'N; 82 55'W	
Exploration Co., Owner or Optionee	Date Submitted	Submitted (sign)	m.			Property Name	
Regal Petroleum Ltd.						Regal - Swayze	

Meterage From	Meterage To	Rock Type	DESCRIPTION (Colour; grain size; texture; minerals; alteration; etc.)	Planar Feature Angle	Core Specimen Meterage	Your Sample No.	Sample (m.) From	Sample (m.) To	Sample Length (m.)	Assays ppm Cu	Assays ppb Au
						38156	81.2	82.2	1	21	-
			black; 80% very fine grained mudstone with 20% thin < 2cm siltstone			38157	82.2	83.7	1.5	65	-
82.1	89.4	mudstone	interbeds; 1% pyrite blebs upto 2 cm; minor conformable quartz	50							
			carbonate veining (barren); basal 0.5 m 40% siltstone			38158	84.4	85.9	1.5	80	-
						38159	88.4	89.3	0.9	50	-
			as in 71.5 - 76.7 m above			37463	89.3	90.2	0.9		-
89.4	113	tuff	89.5 - 91.7 m - pyritic zone; predominantly as thin (< 1cm)			37460	90.2	91.2	1		-
			discontinuous lenses and vein material; 10 cm of 70% pyrite in a	45 - 60		37461	91.2	91.7	0.5		-
			quartz-carbonate vein at 91.5 m			37462	91.7	92.7	1		-
			felsic to intermediate below pyritic zone; patchy appearance due to			38160	92.7	94.3	1.6	10	-
			clay altered fragments; increasing chlorite-epidote and argillic								
			alteration with depth			38161	113	113.9	0.9	68	-
			gray green; fine grained moderate to strong chlorite epidote								
113	141.6	intermediate volcanics	alteration; 1 - 3% conformable quartz-carbonate veining and patches;			38162	132.9	134.4	1.5	100	-
			minor cross cutting veinlets; < 1% pyrite occurs locally as large 1 -								
			2 cm euhedral to subhedral crystal masses	45 - 60		38163	138.4	139.8	1.4	99	-
			113.0 - 113.5 m - 2 pale orange fine grained intrusive (dacite) dykes			38164	139.8	141	1.2	103	-
			cross cutting at 70 to foliation; contain large 2 - 4 mm biotites								
			approx. 1%			38165	144.3	145.4	1.1	86	-
			132.9 - 140.6 m - increase in hairline chlorite pyrite fractures -			38166	145.4	146.9	1.5	21	-
			cross cutting at high angles								
						38167	149.7	151.3	1.6	36	-
			dark gray to gray green locally strongly siliceous with weak to			38168	151.3	152.7	1.4	124	-
141.6	144.3	cataclastic quartz diorite	moderate chlorite-epidote alteration; < 1% pyrite; weakly carbonatized			38169	152.7	154.2	1.5	120	-
			upper contact zone with dike; mixed dark blue gray intensely								
144.3	145.4		silicified zones; dark green mafic volcanics; and C.Q.D. from above;								
			1 - 2% pyrite; 2 - 5% magnetite								
			dark green to black; fine to medium grained; strongly magnetic 20 -								
145.4	149.9	diabase dike	40% euhedral to subhedral magnetite; locally reddish stain due to								
			oxidized magnetite; moderately calcareous. Some quartz-carbonate								
			veining < 2 cm.								
			footwall contact zone; intensely bleached and silicified; brecciated								
149.9	151.3		for 30 cm at 149.9 m; cut by dacitic dikelets with xenoliths of blue								
			gray siliceous material								

OREQUEST CONSULTANTS LTD.

DIAMOND DRILL LOGS

Fill in every page ----> | Hole No. RG-86-8 | Page No. 3

Drilling Company: D.W. Coates	Collar Elevation:	Bearing from True North: 225	Dip of hole at: Collar	-55	Location of hole in relation to fixed point on claim.
Date Hole Started: 1215186	Date Completed: 1218186	Date Logged:	Logged by: J. Chapman		
Exploration Co., Owner or Optionee: Regal Petroleum Ltd.	Date Submitted:		Submitted (sign):		

Map Ref. No.	Claim No.
	758313

Location (Twp.Lot,Con. or Lat. and Long.): Haircow Twp. 9E16N, 47 48'N, 82 55'W

Property Name: Regal - Swayze

Meterage From	Meterage To	Rock Type	DESCRIPTION (Colour, grain size, texture, minerals, alteration, etc.)	Planar Feature Angle	Core Specimen Meterage	Your Sample No.	Sample (m.) From	Sample (m.) To	Sample Length (m.)	Assays ppm Cu	Assays ppb Au
151.3	157.5	cataclasite	gray blue very fine grained with 10 - 30% quartz porphyroblasts < 0.5 mm, increasingly chloritic with depth.	tol 45							
157.5	181.7	volcanics	felsic to intermediate, gray to gray-green, in prt chlorite carbonate schist, locally chlorite-epidote alteration moderate								
			end of hole								

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DIAMOND DRILL LOGS

Fill in every page ----> Hole No. RG-86-9 | Page No. 1

Drilling Company: D.W. Coates	Collar Elevation:	Bearing from True North: 225	Dip of hole at: Collar: 50 / a.: / a.:	Location of hole in relation to fixed point on claim.	Map Ref. No.:	Claim No.: 709043
Date Hole Started: 12/9/86	Date Completed: 12/12/86	Date Logged:	Logged by: J. Chapman		Location (Twp.Lot;Con. or Lat. and Long.): Halcrow Twp 13+25E/0+25S; 47 47'N; 82 55'30"W	
Exploration Co., Owner or Optionee: Regal Petroleum Ltd.	Date Submitted:	Submitted (sign):			Property Name: Regal - Swayze	

Meterage From	Meterage To	Rock Type	DESCRIPTION (Colour; grain size; texture; minerals; alteration; etc.)	Planar Feature Angle	Core Specimen Meterage	Your Sample No.	Sample (m.) From	Sample (m.) To	Sample Length (m.)	Assays ppm Cu	Assays ppm Ag	Assays ppb Au
0	17.3	Overburden										
17.3	36.8	Mafic Volcanics	dark green fine to medium grained; massive to weakly foliated andesite; very little carbonate and minor quartz veining pyrite approx 1%; specular hematite occurs as irregular patches and associated with quartz veins; chlorite epidote alteration along hairline fractures moderate to strong. Locally tuffaceous sections with same composition and appearance	55		38203	12.3	18.8	1.5	1		-
						38204	24.6	26	1.4	165		-
						38205	31.4	32.9	1.5	7		80
			20.5m - fault zone			38206	35.5	32	1.5	183		-
			23.0m - 10cm quartz vein with specular hematite									
			23.5m - 36.8m - tuffaceous section	45								
36.8	71.6	Intermediate Volcanics	gray green predominantly medium grained with weak foliation weak to moderate chlorite-epidote alteration; <1% pyrite	50-75		38207	41.6	43.4	1.8	5		-
			41.6-42.6m - tuffaceous interval			38208	54.6	55.8	1.2	6		-
			65.0-69.1m - sericitic zone; increase in intensity of chlorite-epidote alteration; minor quartz veining conformable to foliation			38209	57.4	58.7	1.3	3		-
						38210	62.9	64.4	1.5	14		-
71.6	73.1	Chlorite carbonate schist	green and white banded; approximately 60/40 chloritic/carbonate intervals; <1% pyrite	55		38211	67.4	68.9	1.5	8		-
73.1	85.1	Cataclastic quartz diorite	interbanded predominantly pale reddish; fine to medium grained; moderately siliceous and weak to moderate hematization; CHO with intensely chloritized zones approx equal; individual bands thickest in center of interval <1% pyrite	60		38212	73.2	74.7	1.5	24		-
						38213	76	77.5	1.5	29		-
						38214	77.5	79.1	1.6	11		-
85.1	112.3	Chlorite carbonate schist	as in 71.6-73.1m; relative proportions of chlorite to carbonate bands varies; few quartz veins mostly conformable with foliation pyrite <1%	50		38215	80.6	82	1.4	32		-
						38216	86.3	87.8	1.5	45		-
						38217	90.7	92.4	1.7	105		-
112.3	117.5	Felsic tuff	fine to medium grained gray; uniform grain size; weakly foliated; 1-3% pyrite as dissemination and stringers associated with small 1-4cm quartz veins	50		38218	93.9	95.4	1.5	90		-
						38219	99.8	101.3	1.5	93		-
						38220	104.1	105.7	1.6	98		-
						38221	111.1	112.6	1.5	41		-
117.5	128.7	Chlorite carbonate schist	as in 85.1-112.3m; contorted foliation common and 2-5% quartz veining (up to 5cm); chlorite-epidote alteration moderate locally intense; pyrite 1-3% associated with quartz veining; possible fold zone at 118-119.5m			38222	114.1	115.5	1.4	38		-
						38223	115.5	117	1.5	12		-
						38224	117	118.6	1.6	66		-
						38225	118.6	120.1	1.5	50		-
			124.9m - 15cm quartz vein with py and trace cp			38226	120.1	121.4	1.3	73		-

128.7	168.7	tuff/mudstone	banded, very fine grained gray brown tuff with elongate vitrous gray			38227	124.4	125.9	1.5	251		-
			fragments, very soft; dark green to black chlorite-biotite bands;	fol		38228	127.2	128.7	1.5	70		-
			white quartz carbonate bands, minor fuchite at 128.4m, 1% pyrite and	one		38229	128.7	130.3	1.6	59		-
			trace cp associated with quartz veining conf. with foliation, locally	45		38230	130.3	131.8	1.5	66		-
			intense chlorite-epidote alteration			38231	131.8	133	1.2	61		-
			136.8m - 10cm quartz vein with 5% pyrite, trace cp; contorted bedding			38232	133	134	1	74		-
			143.2-145.3m - 0-65 deg. at 128.5m, 133.3m, 135.8m, 138.8m, pale gray			38233	134	135.5	1.5	45		-
			brown felsic tuff uniform fine grained very weak banding, weakly	45-90		38234	135.5	136.9	1.4	59		-
			calcareous			38235	136.9	138.4	1.5	56		-
			150.2-151.3m - black mudstone lenses within tuff section, strongly			38236	138.9	140.4	1.5	56		-
			graphitic									
			152.7-153.1m - same as 150.2-151.3									
			149.2-149.7m - 80% quartz veins conformable with foliation; graphitic			38237	148.7	150.2	1.5	97		-
			partings between veins			38238	150.2	151.6	1.4	66		-
			165.4-167m - gray white felsic tuff similar to mineralized zone in			38239	151.6	153.1	1.5	70		-
			DDH # 7&8; <1% pyrite, fault at 166m			38240	153.1	154.5	1.4	114		-
168.7	215.2	Chlorite	as in 85.1-112.3m			38241	160.9	162.4	1.5	109		-
		carbonate schist	168.7-171.3m - andesitic tuff	50		38242	163.9	165.4	1.5	106		-
						38243	165.4	166.9	1.5	75		-
						38244	166.9	168.3	1.4	71		-
						38245	175.8	177.3	1.5	102		-
						38246	181.9	183.3	1.4	99		-
						38248	196.5	197.2	0.7	130		-
						38247	199.2	200.8	0.8	73		-

OREQUEST CONSULTANTS LTD.

DIAMOND DRILL LOGS

Fill in every page ---->

Hole No.	Page
RG-86-10	1

Drilling Company	Collar Elevation	Bearing from True North	Dip of hole at: Collar	50	Location of hole in relation to fixed point on claim.	Map Ref. No.	Claim No.
D. W. Coates Enterprises		225	n.				709043
Date Hole Started	**Date Completed**	**Date Logged**				**Location (Twp.Lot,Con. or Lat. and Long.)**	
12-12-86	12-13-86	12-15-86	**Logged by**			Halcrow Twp. 15E/1S 47 47'30" 82 55'30 W	
Exploration Co., Owner or Optionee	**Date Submitted**		J.Chapman	n.		**Property Name**	
		Submitted (sign)	n.			Regal-Swayze	

Meterage From	Meterage To	Rock Type	DESCRIPTION (Colour, grain size, texture, minerals, alteration, etc.)	Planar Feature Angle	Core Specimen Meterage	Your Sample No.	Sample (m.) From	Sample (m.) To	Sample Length (m.)	Assays Cu ppm	Assays Au oz/t
0	4.8	Overburden									
4.8	18.9	chlorite carbonate schist	4.8-15.6m dark green medium grained with white calcareous bands; <1% pyrite.	fol 50		38292	14.7	16.2	1.5	95	-
			15.6-18.9m fine grained grayish green; carbonate layers thinner <3mm								
			end of hole								

APPENDIX B

ASSAY REPORTS - TRENCHING and DRILLING

VANGEOCHEM LAB LIMITED

MAIN OFFICE
1521 PEMBERTON AVE.
NORTH VANCOUVER, B.C. V7P 2S3
(604) 986-5211 TELEX: 04-352578

BRANCH OFFICE
1630 PANDORA ST.
VANCOUVER, B.C. V5L 1L6
(604) 251-5656

Rock samples
from mapping program
09775 - 09790 ✓

GEOCHEMICAL ANALYTICAL REPORT

CLIENT: OREQUEST CONSULTANTS LIMITED
ADDRESS: 404 - 595 Howe Street
: Vancouver, B.C.
: V6C 2T5

DATE: Oct 22 1986
REPORT#: 860543 GA
JOB#: 860543

PROJECT#: RG
SAMPLES ARRIVED: Oct 20 1986
REPORT COMPLETED: Oct 22 1986
ANALYSED FOR: Cu Ag Au (FA/AAS)

INVOICE#: 860543 NA
TOTAL SAMPLES: 16
SAMPLE TYPE: 16 ROCK
REJECTS: SAVED

SAMPLES FROM: Timmins, Ontario
COPY SENT TO: WESLEY RAVEN

PREPARED FOR: MR. JIM CHAPMAN

ANALYSED BY: VGC Staff

SIGNED: _____

GENERAL REMARK: None

VANGEOCHEM LAB LIMITED

MAIN OFFICE
1521 PEMBERTON AVE.
NORTH VANCOUVER, B.C. V7P 2S3
(604) 986-5211 TELEX: 04-352578

BRANCH OFFICE
1630 PANDORA ST.
VANCOUVER, B.C. V5L 1L6
(604) 251-5656

REPORT NUMBER: 860543 GA JOB NUMBER: 860543 **OREQUEST CONSULTANTS LIMITED**

SAMPLE #	Cu ppm	Ag ppm	Au ppb
09775	5	.2	nd
09776	8	nd	10
09777	50	.2	5
09778	3	nd	30
09779	23	.3	nd
09780	91	.6	nd
09781	10	.1	10
09782	15	.4	20
09783	21	.3	5
09784	54	.3	15
09785	27	.2	nd
09786	60	.3	nd
09787	81	.7	25
09788	14	.4	5
09789	7	.2	nd
09790	45	.4	nd

DETECTION LIMIT 1 0.1 5
nd = none detected -- = not analysed is = insufficient sample

VANGEOCHEM LAB LIMITED

MAIN OFFICE
1521 PEMBERTON AVE.
NORTH VANCOUVER, B.C. V7P 2S3
(604) 986-5211 TELEX: 04-352578

BRANCH OFFICE
1630 PANDORA ST.
VANCOUVER, B.C. V5L 1L6
(604) 251-5656

Soil Samples

GEOCHEMICAL ANALYTICAL REPORT

CLIENT: OREQUEST CONSULTANTS LIMITED
ADDRESS: 404 - 595 Howe Street
: Vancouver, B.C.
: V6C 2T5

DATE: Oct 29 1986
REPORT#: 860547 GA
JOB#: 860547

PROJECT#: RG
SAMPLES ARRIVED: Oct 20 1986
REPORT COMPLETED: Oct 29 1986
ANALYSED FOR: Cu Ag Au

INVOICE#: 860547 NA
TOTAL SAMPLES: 92
SAMPLE TYPE: 92 SOIL
REJECTS: DISCARDED

SAMPLES FROM: WESLEY RAVEN
COPY SENT TO: Timmins, Ont.

PREPARED FOR: MR. JIM CHAPMAN

ANALYSED BY: VGC Staff

SIGNED: _____

GENERAL REMARK: None

VANGEOCHEM LAB LIMITED

MAIN OFFICE
1521 PEMBERTON AVE.
NORTH VANCOUVER, B.C. V7P 2S3
(604) 986-5211 TELEX: 04-352578

BRANCH OFFICE
1630 PANDORA ST.
VANCOUVER, B.C. V5L 1L6
(604) 251-5656

REPORT NUMBER: 860547 GA JOB NUMBER: 860547 **OREQUEST CONSULTANTS LIMITED**

SAMPLE #	Cu ppm	Ag ppm	Au ppb
L1W 0+00N	7	.1	nd
L1W 0+25N	11	.1	nd
L1W 0+50N	3	nd	nd
L1W 0+75N	10	.1	nd
L1W 1+00N	6	nd	10
L1W 1+25N	5	.2	5
L1W 1+50N	5	.2	5
L1W 1+75N	3	.3	5
L1W 2+00N	7	.2	5
L1W 0+25S	5	.2	150
L1W 0+50S	5	.2	5
L1W 0+75S	15	.2	5
L1W 1+00S	9	.2	nd
L1W 1+25S	3	.3	nd
L1W 1+50S	15	.1	nd
L1W 1+75S	5	.4	nd
L1W 2+00S	28	.4	5
L1W 2+25S	12	nd	10
L1W 2+50S	7	nd	5
L1W 2+75S	7	.1	10
L1W 3+00S	9	nd	5
L1W 3+25S	17	.2	nd
L1W 3+50S	5	.2	nd
L1W 3+75S	16	.4	nd
L1W 4+00S	7	.1	nd
L2W 0+00N	15	.3	nd
L2W 0+25N	10	.3	nd
L2W 0+50N	2	nd	nd
L2W 0+75N	8	nd	nd
L2W 1+00N	5	.1	nd
L2W 1+25N	6	nd	10
L2W 1+50N	5	nd	5
L2W 1+75N	4	.3	5
L2W 2+00N	42	.3	nd
L2W 0+25S	5	.2	nd
L2W 0+50S	5	.3	nd
L2W 0+75S	16	.2	nd
L2W 1+00S	10	nd	nd
L2W 1+25S	10	.2	nd
DETECTION LIMIT	1	0.1	5

nd = none detected -- = not analysed is = insufficient sample

VANGEOCHEM LAB LIMITED

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VANCOUVER, B.C. V5L 1L6
(604) 251-5656

SAMPLE #	Cu ppm	Ag ppm	Au ppb
L2W 1+50S	8	.2	nd
L2W 1+75S	10	.1	nd
L2W 2+00S	50	nd	10
L2W 2+25S	31	.5	5
L2W 2+50S	10	.5	nd
L2W 2+75S	7	.2	nd
L2W 3+00S	14	.2	nd
L2W 3+25S	50	nd	nd
L2W 3+50S	5	.2	nd
L2W 3+75S	10	.1	nd
L2W 4+00S	25	.2	nd
L3W 0+00N	5	.3	10
L3W 0+25N	4	.2	nd
L3W 0+50N	4	.1	nd
L3W 0+75N	7	nd	nd
L3W 1+00N	30	.3	5
L3W 1+25N	5	.5	5
L3W 1+50N	5	.5	nd
L3W 1+75N	5	.1	nd
L3W 2+00N	6	nd	nd
L3W 0+25S	6	nd	nd
L3W 0+50S	14	nd	nd
L3W 0+75S	7	nd	nd
L3W 1+00S	5	.4	nd
L3W 1+25S	4	nd	nd
L3W 1+50S	26	.3	nd
L3W 1+75S	13	.2	nd
L3W 2+00S	5	.1	nd
L3W 2+25S	10	.2	nd
L3W 2+50S	4	.3	nd
L3W 2+75S	5	nd	nd
L3W 3+00S	9	nd	nd
L3W 3+25S	11	.2	nd
L3W 3+50S	6	.4	nd
L3W 3+75S	6	.2	nd
L3W 4+00S	4	.1	nd
L4W 0+00N	5	nd	nd
L4W 0+25N	15	nd	nd
L4W 0+50N	10	nd	nd
DETECTION LIMIT	1	0.1	5

nd = none detected --- = not analysed is = insufficient sample

VANGEOCHEM LAB LIMITED

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BRANCH OFFICE
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VANCOUVER, B.C. V5L 1L6
(604) 251-5656

SAMPLE #	Cu ppm	Ag ppm	Au ppb
L4W 0+75N	15	nd	nd
L4W 1+00N	5	.2	nd
L4W 1+25N	5	nd	nd
L4W 1+50N	6	.4	nd
L4W 1+75N	5	.1	nd
L4W 2+00N	4	nd	nd
L4W 0+25S	4	nd	nd
L4W 0+50S	24	.1	nd
L4W 0+75S	12	nd	nd
L4W 1+00S	7	nd	nd
L4W 1+25S	3	.2	nd
L4W 1+50S	5	.2	nd
L4W 1+75S	2	nd	nd
L4W 2+00S	14	.2	nd

DETECTION LIMIT 1 0.1 5
nd = none detected — = not analysed is = insufficient sample

VANGEOCHEM LAB LIMITED

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(604) 986-5211 TELEX: 04-352578

BRANCH OFFICE
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VANCOUVER, B.C. V5L 1L6
(604) 251-5656

Rock Samples
from mapping program
09751 - 09774 ✓

GEOCHEMICAL ANALYTICAL REPORT

CLIENT: OREQUEST CONSULTANTS LIMITED
ADDRESS: 404 - 595 Howe Street
: Vancouver, B.C.
: V6C 2T5

DATE: Oct 29 1986
REPORT#: 860563 GA
JOB#: 860563

PROJECT#: RG
SAMPLES ARRIVED: Oct 23 1986
REPORT COMPLETED: Oct 29 1986
ANALYSED FOR: Cu Ag Au (FA/AAS)

INVOICE#: 860563 NA
TOTAL SAMPLES: 24
SAMPLE TYPE: 24 ROCK
REJECTS: SAVED

SAMPLES FROM: WESLEY RAVEN
COPY SENT TO: Timmins, Ont.

PREPARED FOR: MR. JIM CHAPMAN

ANALYSED BY: VGC Staff

SIGNED: _____

GENERAL REMARK: None

VANGEOCHEM LAB LIMITED

MAIN OFFICE
1521 PEMBERTON AVE.
NORTH VANCOUVER, B.C. V7P 2S3
(604) 986-5211 TELEX: 04-352578

BRANCH OFFICE
1630 PANDORA ST.
VANCOUVER, B.C. V5L 1L6
(604) 251-5656

01601- 01619 ✓

GEOCHEMICAL ANALYTICAL REPORT

CLIENT: OREQUEST CONSULTANTS LIMITED
ADDRESS: 404 - 595 Howe Street
: Vancouver, B.C.
: V6C 2T5

DATE: Oct 29 1986
REPORT#: 860569 GA
JOB#: 860569

PROJECT#: RGT
SAMPLES ARRIVED: Oct 24 1986
REPORT COMPLETED: Oct 29 1986
ANALYSED FOR: Cu Ag Au (FA/AAS)

INVOICE#: 860569 NA
TOTAL SAMPLES: 19
SAMPLE TYPE: 19 ROCK
REJECTS: SAVED

SAMPLES FROM: WESLEY RAVEN
COPY SENT TO: Timmins, Ont.

PREPARED FOR: MR. JIM CHAPMAN

ANALYSED BY: VGC Staff

SIGNED: _____

GENERAL REMARK: None

VANGEOCHEM LAB LIMITED

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NORTH VANCOUVER, B.C. V7P 2S3
(604) 986-5211 TELEX: 04-352578

BRANCH OFFICE
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VANCOUVER, B.C. V5L 1L6
(604) 251-5656

REPORT NUMBER: 860569 GA JOB NUMBER: 860569 **OREQUEST CONSULTANTS LIMITED** PAGE 1 OF 1

SAMPLE #	Cu ppm	Ag ppm	Au ppb
01601	41	.9	nd
01602	129	1.3	140
01603	112	.6	80
01604	94	nd	25
01605	308	.8	20
01606	191	.4	nd
01607	122	nd	nd
01608	50	.2	nd
01609	51	.4	5
01610	120	.2	nd
01611	141	.7	nd
01612	111	.3	nd
01613	39	nd	nd
01614	61	.2	nd
01615	100	.1	nd
01616	119	.3	nd
01617	82	nd	10
01618	85	.1	nd
01619	100	nd	15

DETECTION LIMIT 1 0.1 5

nd = none detected — = not analysed is = insufficient sample

VANGEOCHEM LAB LIMITED

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VANCOUVER, B.C. V5L 1L6
(604) 251-5656

01629 - 01639 ✓
1901 - 2032 ✓

GEOCHEMICAL ANALYTICAL REPORT

CLIENT:	**OREQUEST CONSULTANTS LIMITED**	DATE:	Nov 13 1986
ADDRESS:	404 - 595 Howe Street		
:	Vancouver, B.C.	**REPORT#:**	**860595 GA**
:	V6C 2T5	JOB#:	860595
PROJECT#:	RG - TR	INVOICE#:	860595 NA
SAMPLES ARRIVED:	Oct 31 1986	TOTAL SAMPLES:	153
REPORT COMPLETED:	Nov 13 1986	SAMPLE TYPE:	153 ROCK
ANALYSED FOR:	Cu Ag Au (FA/AAS)	REJECTS:	SAVED

SAMPLES FROM: Timmins, Ont.
COPY SENT TO: JIM CHAPMAN

PREPARED FOR: MR. GEORGE CAVEY

ANALYSED BY: VGC Staff

SIGNED: _____

GENERAL REMARK: None

VANGEOCHEM LAB LIMITED

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BRANCH OFFICE
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(604) 251-5656

REPORT NUMBER: 860595 GA JOB NUMBER: 860595 **OREQUEST CONSULTANTS LIMITED**

SAMPLE #	Cu ppm	Ag ppm	Au ppb
01629	30	.3	nd
01630	39	.5	nd
01631	39	nd	nd
01632	38	.1	nd
01633	26	.5	nd
01634	35	.7	nd
01635	20	.3	10
01636	24	.1	nd
01637	15	nd	nd
01638	20	.1	nd
01639	16	nd	20
01651	65	.6	nd
01652	12	.3	5
01653	66	.5	nd
01654	73	.3	nd
01655	35	.2	nd
01656	10	.5	nd
01657	100	nd	nd
01658	110	.2	10
01659	105	nd	10
01660	125	.3	nd
1901	30	.3	nd
1902	20	.8	nd
1903	60	.1	30
1904	24	.1	nd
1905	30	.2	nd
1906	11	.2	nd
1907	30	.1	5
1908	20	.4	5
1909	23	.1	nd
1910	26	.2	nd
1911	17	.1	nd
1912	21	.1	5
1913	25	.2	nd
1914	16	.2	nd
1915	15	.2	110
1916	27	.2	20
1917	22	.3	80
1918	16	nd	10
DETECTION LIMIT	1	0.1	5

nd = none detected -- = not analysed is = insufficient sample

VANGEOCHEM LAB LIMITED

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SAMPLE #	Cu ppm	Ag ppm	Au ppb
1919	15	.2	nd
1920	66	.4	nd
1921	61	1.4	nd
1922	25	.1	nd
1923	238	.6	40
1924	50	.1	100
1925	38	.4	45
1926	33	.4	5
1927	5	.3	15
1928	24	.4	nd
1929	5	.1	nd
1930	18	.1	100
1931	15	.3	10
1932	22	.3	65
1933	15	.3	10
1934	55	.4	nd
1935	35	.1	nd
1936	20	.2	50
1937	84	.1	nd
1938	41	.2	40
1939	180	.6	420
1940	89	.1	310
1941	58	.5	nd
1942	25	.2	nd
1943	10	.3	70
1944	95	.8	30
1945	20	.4	55
1946	48	.2	nd
1947	25	.2	nd
1948	47	.1	nd
1949	20	.2	nd
1950	224	.6	nd
1951	74	.2	20
1952	35	nd	10
1953	81	.4	380
1954	30	.2	80
1955	45	.1	nd
1956	1630	.9	240
1957	50	.2	30
DETECTION LIMIT	1	0.1	5

nd = none detected -- = not analysed is = insufficient sample

VANGEOCHEM LAB LIMITED

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(604) 251-5656

REPORT NUMBER: 860595 GA JOB NUMBER: 860595 **OREQUEST CONSULTANTS LIMITED**

SAMPLE #	Cu ppm	Ag ppm	Au ppb
1958	43	.4	5
1959	65	.3	80
1960	87	.3	15
1961	60	.2	nd
1962	65	nd	nd
1963	60	.6	50
1964	40	.4	70
1965	25	.1	330
1966	46	.2	25
1967	22	.2	85
1968	39	.1	40
1969	60	nd	25
1970	40	.6	10
1971	121	nd	110
1972	45	.4	nd
1973	78	.3	20
1974	241	.7	5
1975	270	.3	nd
1976	259	.5	50
1977	155	.4	170
1978	100	.4	35
1979	170	.8	50
1980	174	.1	80
1981	1080	.8	40
1982	207	.4	180
1983	215	.8	40
1984	450	.4	20
1985	252	.6	100
1986	35	.4	180
1987	700	.4	380
1988	225	nd	240
1989	87	.2	70
1990	163	.3	90
1991	140	.2	nd
1992	1050	1.6	300
1993	131	.4	1000
1994	87	nd	35
1995	290	nd	nd
1996	96	.1	nd
DETECTION LIMIT	1	0.1	5

nd = none detected -- = not analysed is = insufficient sample

VANGEOCHEM LAB LIMITED

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REPORT NUMBER: 860595 GA JOB NUMBER: 860595 **OREQUEST CONSULTANTS LIMITED**

SAMPLE #	Cu ppm	Ag ppm	Au ppb
1997	63	nd	100
1998	66	.2	130
1999	160	.3	20
2000	189	.4	10
2001	125	.3	10
2002	120	.4	nd
2003	200	.4	nd
2004	780	.8	nd
2005	15	.1	nd
2006	30	.4	nd
2007	19	.2	nd
2008	20	.4	nd
2009	25	.3	nd
2010	21	.3	nd
2011	75	.5	nd
2012	12	.1	10
2013	13	.4	10
2014	14	.2	nd
2015	21	.3	10
2016	20	.2	20
2017	345	.5	90
2018	28	.4	nd
2019	40	.1	40
2020	50	.5	70
2021	46	.4	780
2022	75	.4	15
2023	20	nd	100
2024	26	.4	40
2025	15	.4	45
2026	7	nd	50
2027	95	.2	210
2028	50	.2	90
2029	16	nd	20
2030	200	1.0	7500
2031	70	.4	100
2032	165	.1	30

DETECTION LIMIT 1 0.1 5

nd = none detected -- = not analysed is = insufficient sample

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(604) 251-5656

01640 - 01698 ✓

GEOCHEMICAL ANALYTICAL REPORT

CLIENT: OREQUEST CONSULTANTS LIMITED
ADDRESS: 404 - 595 Howe Street
: Vancouver, B.C.
: V6C 2T5

DATE: Nov 14 1986
REPORT#: 860632 GA
JOB#: 860632

PROJECT#: RG - TR
SAMPLES ARRIVED: Nov 12 1986
REPORT COMPLETED: Nov 14 1986
ANALYSED FOR: Cu Ag Au

INVOICE#: 860532 NA
TOTAL SAMPLES: 47
SAMPLE TYPE: 47 ROCK
REJECTS: SAVED

SAMPLES FROM: Timmins, Ont.
COPY SENT TO: MR. JIM CHAPMAN

PREPARED FOR: MR. GEORGE CAVEY

ANALYSED BY: VGC Staff

SIGNED: _____

GENERAL REMARK: Au analyses by fire assay/AAS finish

VANGEOCHEM LAB LIMITED

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(604) 986-5211 TELEX: 04-352578

BRANCH OFFICE
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VANCOUVER, B.C. V5L 1L6
(604) 251-5656

REPORT NUMBER: 860632 GA JOB NUMBER: 860632 **OREQUEST CONSULTANTS LIMITED**

SAMPLE #	Cu ppm	Ag ppm	Au ppb
01640	17	nd	nd
01641	7	.2	10
01642	18	.5	10
01643	20	.3	5
01644	5	.2	nd
01645	19	.2	nd
01646	14	.3	nd
01647	36	.3	15
01648	15	.4	5
01661	14	.2	nd
01662	16	.1	30
01663	9	nd	nd
01664	35	.3	nd
01665	24	.2	nd
01666	41	.3	20
01667	37	.2	nd
01668	12	nd	nd
01669	15	.1	50
01670	21	.2	nd
01671	15	nd	5
01672	10	.4	40
01673	41	.4	40
01674	44	.1	nd
01675	62	.4	20
01676	29	.3	80
01677	40	.3	nd
01678	17	.3	20
01679	25	.3	nd
01680	10	.1	nd
01681	187	.7	nd
01682	81	nd	5
01683	15	.2	nd
01684	12	.2	nd
01685	26	.2	5
01686	35	.2	5
01687	14	.3	nd
01688	10	.1	nd
01689	10	.2	nd
01690	10	.3	nd
DETECTION LIMIT	1	0.1	5

nd = none detected — = not analysed is = insufficient sample

VANGEOCHEM LAB LIMITED

MAIN OFFICE
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REPORT NUMBER: 860632 GA JOB NUMBER: 860632 **OREQUEST CONSULTANTS LIMITED**

SAMPLE #	Cu ppm	Ag ppm	Au ppb
01691	14	.1	nd
01692	26	.1	nd
01693	16	.1	nd
01694	16	.1	nd
01695	24	.2	nd
01696	15	.2	nd
01697	21	.1	nd
01698	35	nd	nd

DETECTION LIMIT 1 0.1 5

nd = none detected -- = not analysed is = insufficient sample

VANGEOCHEM LAB LIMITED

MAIN OFFICE
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BRANCH OFFICE
1630 PANDORA ST.
VANCOUVER, B.C. V5L 1L6
(604) 251-5656

2033- 2237 ✓

GEOCHEMICAL ANALYTICAL REPORT

CLIENT: OREQUEST CONSULTANTS LIMITED
ADDRESS: 404 - 595 Howe Street
: Vancouver. B.C.
: V6C 2T5

DATE: Nov 18 1986
REPORT#: 860631 GA
JOB#: 860631

PROJECT#: RG-DR
SAMPLES ARRIVED: Nov 12 1986
REPORT COMPLETED: Nov 18 1986
ANALYSED FOR: Cu

INVOICE#: 860631 NA
TOTAL SAMPLES: 205
SAMPLE TYPE: 205 ROCK
REJECTS: SAVED

SAMPLES FROM: Timmins. Ont.
COPY SENT TO: MR. JIM CHAPMAN

PREPARED FOR: MR. GEORGE CAVEY

ANALYSED BY: VGC Staff

SIGNED: _____

GENERAL REMARK: None

VANGEOCHEM LAB LIMITED

MAIN OFFICE
1521 PEMBERTON AVE.
NORTH VANCOUVER, B.C. V7P 2S3
(604) 986-5211 TELEX: 04-352578

BRANCH OFFICE
1630 PANDORA ST.
VANCOUVER, B.C. V5L 1L6
(604) 251-5656

REPORT NUMBER: 860631 GA JOB NUMBER: 860631 **OREQUEST CONSULTANTS LIMITED**

SAMPLE #	Cu ppm
2033	16
2034	20
2035	19
2036	20
2037	23
2038	58
2039	15
2040	15
2041	19
2042	17
2043	15
2044	20
2045	21
2046	20
2047	11
2048	15
2049	13
2050	13
2051	10
2052	17
2053	24
2054	15
2055	17
2056	25
2057	145
2058	70
2059	20
2060	24
2061	25
2062	15
2063	15
2064	15
2065	15
2066	19
2067	15
2068	14
2069	15
2070	15
2071	11
DETECTION LIMIT	1

nd = none detected — = not analysed is = insufficient sample

VANGEOCHEM LAB LIMITED

MAIN OFFICE
1521 PEMBERTON AVE.
NORTH VANCOUVER, B.C. V7P 2S3
(604) 986-5211 TELEX: 04-352578

BRANCH OFFICE
1630 PANDORA ST.
VANCOUVER, B.C. V5L 1L6
(604) 251-5656

SAMPLE #	Cu ppm
2072	9
2073	15
2074	12
2075	15
2076	6
2077	12
2078	20
2079	14
2080	13
2081	14
2082	25
2083	55
2084	70
2085	69
2086	82
2087	40
2088	112
2089	204
2090	332
2091	1120
2092	850
2093	84
2094	1050
2095	310
2096	1330
2097	950
2098	1900
2099	1700
2100	640
2101	309
2102	810
2103	235
2104	167
2105	55
2106	35
2107	120
2108	119
2109	341
2110	288
DETECTION LIMIT	1

nd = none detected — = not analysed is = insufficient sample

VANGEOCHEM LAB LIMITED

MAIN OFFICE
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(604) 986-5211 TELEX: 04-352578

BRANCH OFFICE
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SAMPLE #	Cu ppm
2111	190
2112	120
2113	103
2114	114
2115	116
2116	181
2117	79
2118	127
2119	45
2120	332
2121	335
2122	181
2123	205
2124	109
2125	210
2126	55
2127	164
2128	300
2129	170
2130	1090
2131	610
2132	520
2133	800
2134	1270
2135	210
2136	182
2137	133
2138	37
2139	100
2140	125
2141	165
2142	145
2143	140
2144	372
2145	570
2146	30
2147	46
2148	67
2149	65
DETECTION LIMIT	1

nd = none detected — = not analysed is = insufficient sample

VANGEOCHEM LAB LIMITED

MAIN OFFICE
1521 PEMBERTON AVE.
NORTH VANCOUVER, B.C. V7P 2S3
(604) 986-5211 TELEX: 04-352578

BRANCH OFFICE
1630 PANDORA ST.
VANCOUVER, B.C. V5L 1L6
(604) 251-5656

SAMPLE #	Cu ppm
2150	10
2151	50
2152	45
2153	68
2154	75
2155	53
2156	35
2157	158
2158	990
2159	148
2160	84
2161	22
2162	21
2163	26
2164	15
2165	30
2166	10
2167	10
2168	50
2169	130
2170	26
2171	24
2172	20
2173	20
2174	30
2175	55
2176	11
2177	9
2178	18
2179	17
2180	13
2181	20
2182	10
2183	10
2184	6
2185	5
2186	4
2187	4
2188	15
DETECTION LIMIT	1

nd = none detected — = not analysed is = insufficient sample

VANGEOCHEM LAB LIMITED

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NORTH VANCOUVER, B.C. V7P 2S3
(604) 986-5211 TELEX: 04-352578

BRANCH OFFICE
1630 PANDORA ST.
VANCOUVER, B.C. V5L 1L6
(604) 251-5656

REPORT NUMBER: 860631 GA JOB NUMBER: 860631 **OREQUEST CONSULTANTS LIMITED**

SAMPLE #	Cu ppm
2189	5
2190	10
2191	5
2192	7
2193	10
2194	10
2195	9
2196	10
2197	15
2198	17
2199	16
2200	19
2201	20
2202	19
2203	24
2204	15
2205	18
2206	15
2207	12
2208	14
2209	13
2210	12
2211	20
2212	17
2213	18
2214	16
2215	15
2216	15
2217	14
2218	15
2219	15
2220	12
2221	19
2222	20
2223	20
2224	22
2225	19
2226	15
2227	14
DETECTION LIMIT	1

nd = none detected — = not analysed is = insufficient sample

VANGEOCHEM LAB LIMITED

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(604) 986-5211 TELEX: 04-352578

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1630 PANDORA ST.
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(604) 251-5656

REPORT NUMBER: 860631 GA JOB NUMBER: 86063! **OREQUEST CONSULTANTS LIMITED** PAGE 6 OF 6

SAMPLE #	Cu ppm
2228	15
2229	15
2230	20
2231	18
2232	14
2233	15
2234	15
2235	20
2236	24
2237	25

DETECTION LIMIT 1

nd = none detected — = not analysed is = insufficient sample

VANGEOCHEM LAB LIMITED

MAIN OFFICE
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NORTH VANCOUVER, B.C. V7P 2S3
(604) 986-5211 TELEX: 04-352578

BRANCH OFFICE
1630 PANDORA ST.
VANCOUVER, B.C. V5L 1L6
(604) 251-5656

01751 - 01900 ✓
02238 - 02350 ✓
09801 - 09822 ✓

GEOCHEMICAL ANALYTICAL REPORT

CLIENT: OREQUEST CONSULTANTS LIMITED
ADDRESS: 404 - 595 Howe Street
: Vancouver. B.C.
: V6C 2T5

DATE: Nov 25 1986
REPORT#: 860655 AA
JOB#: 860655

PROJECT#: RG-DR
SAMPLES ARRIVED: Nov 20 1986
REPORT COMPLETED: Nov 25 1986
ANALYSED FOR: Cu

INVOICE#: 860655 NA
TOTAL SAMPLES: 285
SAMPLE TYPE: 285 DRILL CORE
REJECTS: SAVED

SAMPLES FROM: Timmins. Ont.
COPY SENT TO: MR. JIM CHAPMAN

PREPARED FOR: MR. JIM CHAPMAN

ANALYSED BY: VGC Staff

SIGNED: _____

GENERAL REMARK: None

VANGEOCHEM LAB LIMITED

MAIN OFFICE
1521 PEMBERTON AVE.
NORTH VANCOUVER, B.C. V7P 2S3
(604) 986-5211 TELEX: 04-352578

BRANCH OFFICE
1630 PANDORA ST.
VANCOUVER, B.C. V5L 1L6
(604) 251-5656

REPORT NUMBER: 860655GA JOB NUMBER: 860655 **OREQUEST CONSULTANTS LIMITED**

SAMPLE #	Cu ppm
01751	76
01752	350
01753	295
01754	35
01755	48
01756	181
01757	1350
01758	85
01759	156
01760	25
01761	70
01762	61
01763	96
01764	148
01765	990
01766	70
01767	49
01768	50
01769	90
01770	76
01771	105
01772	51
01773	35
01774	32
01775	193
01776	76
01777	75
01778	275
01779	30
01780	73
01781	45
01782	15
01783	26
01784	24
01785	91
01786	28
01787	51
01788	16
01789	30
DETECTION LIMIT	1

nd = none detected — = not analysed is = insufficient sample

VANGEOCHEM LAB LIMITED

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(604) 986-5211 TELEX: 04-352578

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VANCOUVER, B.C. V5L 1L6
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SAMPLE #	Cu ppm
01790	10
01791	23
01792	15
01793	22
01794	20
01795	40
01796	52
01797	15
01798	21
01799	31
01800	45
01801	9
01802	10
01803	5
01804	9
01805	9
01806	5
01807	5
01808	8
01809	9
01810	5
01811	5
01812	4
01813	4
01814	8
01815	5
01816	5
01817	15
01818	6
01819	6
01820	6
01821	5
01822	10
01823	10
01824	9
01825	8
01826	6
01827	7
01828	15
DETECTION LIMIT	1

nd = none detected -- = not analysed is = insufficient sample

VANGEOCHEM LAB LIMITED

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VANCOUVER, B.C. V5L 1L6
(604) 251-5656

SAMPLE #	Cu ppm
01829	6
01830	8
01831	5
01832	10
01833	11
01834	17
01835	16
01836	15
01837	11
01838	10
01839	7
01840	5
01841	7
01842	10
01843	15
01844	5
01845	8
01846	9
01847	15
01848	12
01849	15
01850	20
01851	15
01852	10
01853	12
01854	20
01855	2
01856	4
01857	3
01858	5
01859	5
01860	4
01861	3
01862	7
01863	5
01864	7
01865	6
01866	4
01867	10
DETECTION LIMIT	1

nd = none detected --- = not analysed is = insufficient sample

VANGEOCHEM LAB LIMITED

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SAMPLE #	Cu ppm
01868	6
01869	7
01870	14
01871	11
01872	6
01873	10
01874	25
01875	16
01876	25
01877	20
01878	11
01879	40
01880	11
01881	20
01882	20
01883	10
01884	10
01885	35
01886	84
01887	69
01888	123
01889	85
01890	98
01891	179
01892	246
01893	219
01894	61
01895	132
01896	60
01897	228
01898	650
01899	49
01900	59
02238	20
02239	21
02240	20
02241	15
02242	15
02243	18
DETECTION LIMIT	1

nd = none detected — = not analysed is = insufficient sample

VANGEOCHEM LAB LIMITED

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NORTH VANCOUVER, B.C. V7P 2S3
(604) 986-5211 TELEX: 04-352578

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VANCOUVER, B.C. V5L 1L6
(604) 251-5656

SAMPLE #	Cu ppm
02244	12
02245	15
02246	20
02247	17
02248	9
02249	11
02250	18
02251	11
02252	10
02253	42
02254	460
02255	150
02256	41
02257	70
02258	310
02259	540
02260	36
02261	372
02262	85
02263	8
02264	70
02265	70
02266	157
02267	189
02268	960
02269	308
02270	325
02271	121
02272	51
02273	205
02274	82
02275	36
02276	900
02277	40
02278	86
02279	300
02280	141
02281	210
02282	800
DETECTION LIMIT	1

nd = none detected -- = not analysed is = insufficient sample

VANGEOCHEM LAB LIMITED

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(604) 986-5211 TELEX: 04-352578

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SAMPLE #	Cu ppm
02283	970
02284	292
02285	96
02286	125
02287	139
02288	41
02289	46
02290	99
02291	87
02292	48
02293	159
02294	244
02295	91
02296	160
02297	89
02298	1010
02299	112
02300	11
02301	16
02302	12
02303	31
02304	7
02305	5
02306	10
02307	10
02308	5
02309	5
02310	9
02311	9
02312	5
02313	8
02314	14
02315	7
02316	9
02317	10
02318	10
02319	35
02320	60
02321	15
DETECTION LIMIT	1

nd = none detected — = not analysed is = insufficient sample

VANGEOCHEM LAB LIMITED

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VANCOUVER, B.C. V5L 1L6
(604) 251-5656

SAMPLE #	Cu ppm
02322	11
02323	8
02324	5
02325	6
02326	6
02327	10
02328	4
02329	15
02330	10
02331	5
02332	10
02333	4
02334	5
02335	3
02336	5
02337	8
02338	5
02339	5
02340	10
02341	6
02342	10
02343	5
02344	5
02345	4
02346	5
02347	9
02348	6
02349	8
02350	6
09801	80
09802	195
09803	14
09804	15
09805	10
09806	19
09807	14
09808	15
09809	15
09810	19
DETECTION LIMIT	1

nd = none detected -- = not analysed is = insufficient sample

VANGEOCHEM LAB LIMITED

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(604) 986-5211 TELEX: 04-352578

BRANCH OFFICE
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(604) 251-5656

REPORT NUMBER: 860655 AA JOB NUMBER: 860655 **OREQUEST CONSULTANTS LIMITED** PAGE 8 OF 8

SAMPLE #	Cu ppm
09811	16
09812	20
09813	20
09814	25
09815	49
09816	174
09817	26
09818	14
09819	105
09820	14
09821	10
09822	14

DETECTION LIMIT 1

nd = none detected **--- = not analysed** **is = insufficient sample**

VANGEOCHEM LAB LIMITED

MAIN OFFICE
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NORTH VANCOUVER, B.C. V7P 2S3
(604) 986-5211 TELEX: 04-352578

BRANCH OFFICE
1630 PANDORA ST.
VANCOUVER, B.C. V5L 1L6
(604) 251-5656

01623 - 01628 , 1649 - 1650 ✓
01701 - 01750 ✓
09826 - 09839 ✓

GEOCHEMICAL ANALYTICAL REPORT

CLIENT: OREQUEST CONSULTANTS LIMITED
ADDRESS: 404 - 595 Howe Street
: Vancouver, B.C.
: V6C 2T5

DATE: Nov 27 1986
REPORT#: 860657 GA
JOB#: 860657

PROJECT#: RG-TR
SAMPLES ARRIVED: Nov 20 1986
REPORT COMPLETED: Nov 27 1986
ANALYSED FOR: Cu Ag Au (FA/AAS)

INVOICE#: 860657 NA
TOTAL SAMPLES: 72
SAMPLE TYPE: 72 ROCK
REJECTS: SAVED

SAMPLES FROM: Timmins, Ont.
COPY SENT TO: MR. JIM CHAPMAN

PREPARED FOR: MR. JIM CHAPMAN

ANALYSED BY: VGC Staff

SIGNED:

GENERAL REMARK: None

VANGEOCHEM LAB LIMITED

MAIN OFFICE
1521 PEMBERTON AVE.
NORTH VANCOUVER, B.C. V7P 2S3
(604) 986-5211 TELEX: 04-352578

BRANCH OFFICE
1630 PANDORA ST.
VANCOUVER, B.C. V5L 1L6
(604) 251-5656

REPORT NUMBER: 860657 GA JOB NUMBER: 860657 **DREQUEST CONSULTANTS LIMITED**

SAMPLE #	Cu ppm	Ag ppm	Au ppb	
01623	35	.4	nd	
01624	33	nd	nd	
01625	32	.4	nd	
01626	39	.3	nd	
01627	41	.4	260	✓
01628	59	nd	25	
01649	15	.3	nd	
01650	22	.5	5	
01701	11	.2	nd	
01702	10	.1	5	
01703	10	.1	5	
01704	5	.2	nd	
01705	145	.4	15	
01706	119	.2	nd	
01707	139	.4	20	
01708	25	.1	5	
01709	25	nd	nd	
01710	20	.2	nd	
01711	26	.3	nd	
01712	20	.3	nd	
01713	4	.2	15	
01714	17	.2	5	
01715	25	.2	nd	
01716	8	.3	nd	
01717	19	.1	nd	
01718	9	.2	nd	
01719	5	nd	nd	
01720	15	.1	40	
01721	20	.1	10	
01722	17	.1	nd	
01723	30	.1	nd	
01724	15	.4	nd	
01725	13	.1	nd	
01726	10	.4	nd	
01727	13	.1	5	
01728	18	.2	5	
01729	20	.2	15	
01730	11	.2	20	
01731	7	nd	nd	✓
DETECTION LIMIT	1	0.1	5	

nd = none detected -- = not analysed is = insufficient sample

VANGEOCHEM LAB LIMITED

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(604) 986-5211 TELEX: 04-352578

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1630 PANDORA ST.
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(604) 251-5656

REPORT NUMBER: 860657 GA JOB NUMBER: 860657 **DREQUEST CONSULTANTS LIMITED**

SAMPLE #	Cu ppm	Ag ppm	Au ppb	
01732	11	.1	nd	
01733	15	.1	nd	
01734	5	.2	nd	
01735	10	.3	nd	
01736	10	nd	nd	
01737	11	nd	nd	
01738	490	1.8	20	
01739	51	.6	10	
01740	51	1.0	30	
01741	290	.5	80	
01742	600	1.4	170	✓
01743	164	.5	30	
01744	101	.5	30	
01745	30	.6	5	
01746	20	.4	650	✓
01747	12	1.3	110	
01748	13	.6	115	
01749	295	.7	140	
01750	2140	5.9	5140	✓
09826	1610	1.0	65	
09827	560	.8	40	
09828	670	.6	nd	
09829	39	.2	45	
09830	50	.2	nd	
09831	45	.2	10	
09832	35	.1	15	
09833	24	.1	nd	
09834	60	.4	nd	
09835	51	1.0	240	✓
09836	15	.1	70	
09837	30	.3	70	
09838	13	.4	60	
09839	45	.5	140	✓

DETECTION LIMIT 1 0.1 5
nd = none detected -- = not analysed is = insufficient sample

VANGEOCHEM LAB LIMITED

MAIN OFFICE
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(604) 986-5211 TELEX: 04-352578

BRANCH OFFICE
1630 PANDORA ST.
VANCOUVER, B.C. V5L 1L6
(604) 251-5656

ASSAY ANALYTICAL REPORT

CLIENT: OREQUEST CONSULTANTS LIMITED DATE: Dec 17 1986
ADDRESS: 404 - 595 Howe Street
: Vancouver, B.C. **REPORT#: 860728AA**
: V6C 2T5 JOB#: 860728

PROJECT#: RG INVOICE#: 860728NA
SAMPLES ARRIVED: Dec 12 1986 TOTAL SAMPLES: 19
REPORT COMPLETED: Dec 17 1986 REJECTS/PULPS: 90 DAYS/1 YR
ANALYSED FOR: Cu Au Au SAMPLE TYPE: 19 DRILL CORES

SAMPLES FROM: OREQUEST CONSULTANTS LIMITED
COPY SENT TO: OREQUEST CONSULTANTS LIMITED

PREPARED FOR: MR. IAN CAMPBELL

ANALYSED BY: David Chiu

SIGNED: _____
Registered Provincial Assayer

GENERAL REMARK: None

VANGEOCHEM LAB LIMITED

MAIN OFFICE
1521 PEMBERTON AVE.
NORTH VANCOUVER, B.C. V7P 2S3
(604) 986-5211 TELEX: 04-352578

BRANCH OFFICE
1630 PANDORA ST.
VANCOUVER, B.C. V5L 1L6
(604) 251-5656

REPORT NUMBER: 860728AA JOB NUMBER: 860728 OREQUEST CONSULTANTS LIMITED

SAMPLE #	Cu %	Au oz/st	Au oz/st
37456	<.01	<.005	--
37457	<.01	.016	.008
37458	<.01	<.005	<.005
37459	<.01	<.005	--
37460	<.01	<.005	--
37461	<.01	<.005	--
37462	<.01	<.005	<.005
37463	<.01	<.005	--
38101	.03	<.005	--
38102	<.01	.034	--
38103	<.01	<.005	--
38104	<.01	.008	--
38105	<.01	.010	--
38106	<.01	.016	--
38107	<.01	.048	.040
38108	<.01	<.005	--
38109	.01	.010	--
38110	<.01	.008	--
38111	<.01	<.005	--
DETECTION LIMIT	.01	.005	.005

1 Troy oz/short ton = 34.28 ppm 1 ppm = 0.0001% ppm = parts per million < = less than

signed: _____

VANGEOCHEM LAB LIMITED

MAIN OFFICE
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(604) 986-5211 TELEX: 04-352578

BRANCH OFFICE
1630 PANDORA ST.
VANCOUVER, B.C. V5L 1L6
(604) 251-5656

GEOCHEMICAL ANALYTICAL REPORT

CLIENT: OREQUEST CONSULTANTS LTD.
ADDRESS: 404 - 595 Howe Street
: Vancouver, B.C.
: V6C 2T5

DATE: Jan 13 1987

REPORT#: 870010 GA
JOB#: 870010

PROJECT#: REGAL/SAVAGE
SAMPLES ARRIVED: Jan 6 1987
REPORT COMPLETED: Jan 13 1987
ANALYSED FOR: Cu Au (FA/AAS)

INVOICE#: 870010 NA
TOTAL SAMPLES: 283
SAMPLE TYPE: 283 DRILL CORE
REJECTS: DISCARDED

SAMPLES FROM: Timmins, Ont.
COPY SENT TO: JIM CHAPMAN

PREPARED FOR: MR. GEORGE CAVEY

ANALYSED BY: VGC Staff

SIGNED: _____

GENERAL REMARK: None

VANGEOCHEM LAB LIMITED

MAIN OFFICE
1521 PEMBERTON AVE.
NORTH VANCOUVER, B.C. V7P 2S3
(604) 986-5211 TELEX: 04-352578

BRANCH OFFICE
1630 PANDORA ST.
VANCOUVER, B.C. V5L 1L6
(604) 251-5656

REPORT NUMBER: 870010 GA JOB NUMBER: 870010 **OREQUEST CONSULTANTS LTD.**

SAMPLE #	Cu ppm	Au ppb
09791	226	100
09792	76	nd
09793	35	nd
09794	15	nd
09795	27	nd
09796	21	nd
09797	42	nd
09798	20	nd
09799	12	nd
09800	24	nd
09840	15	nd
09841	7	nd
09842	12	80
09843	11	nd
09844	71	nd
09845	87	nd
09846	25	nd
09847	12	nd
09848	36	nd
09849	24	20
09850	22	10
09851	17	40
09852	20	nd
09853	24	nd
09854	40	nd
09855	19	nd
09856	21	nd
09857	27	nd
09858	10	nd
09859	15	nd
09860	11	40
09861	7	nd
09862	7	nd
09863	9	nd
09864	9	35
09865	30	nd
09866	9	240
09867	8	40
09868	33	40
DETECTION LIMIT	1	5

nd = none detected — = not analysed is = insufficient sample

VANGEOCHEM LAB LIMITED

MAIN OFFICE
1521 PEMBERTON AVE.
NORTH VANCOUVER, B.C. V7P 2S3
(604) 986-5211 TELEX: 04-352578

BRANCH OFFICE
1630 PANDORA ST.
VANCOUVER, B.C. V5L 1L6
(604) 251-5656

REPORT NUMBER: 870010 GA JOB NUMBER: 870010 **DREQUEST CONSULTANTS LTD.**

SAMPLE #	Cu ppm	Au ppb	
09869	10	nd	
09870	16	nd	
09871	15	80	
09872	38	nd	
09873	60	nd	
09874	71	65	
09875	68	nd	
37451	108	nd	
37452	55	nd	
37453	35	nd	
37454	74	nd	
37455	102	nd	
38051	12	nd	
38052	18	50	
38053	80	280	.008
38054	45	205	.006
38055	22	30	
38056	24	75	
38057	7	340	.010
38058	23	30	
38059	14	40	
38060	8	10	
38061	13	20	
38062	7	25	
38063	5	nd	
38064	10	nd	
38065	8	nd	
38066	8	nd	
38067	9	nd	
38068	10	nd	
38069	11	nd	
38070	12	30	
38071	11	25	
38072	25	nd	
38073	16	nd	
38074	13	nd	
38075	21	nd	
38076	13	nd	
38077	10	nd	
DETECTION LIMIT	1	5	

nd = none detected — = not analysed is = insufficient sample

VANGEOCHEM LAB LIMITED

MAIN OFFICE
1521 PEMBERTON AVE.
NORTH VANCOUVER, B.C. V7P 2S3
(604) 986-5211 TELEX: 04-352578

BRANCH OFFICE
1630 PANDORA ST.
VANCOUVER, B.C. V5L 1L6
(604) 251-5656

REPORT NUMBER: 870010 GA JOB NUMBER: 870010 **OREQUEST CONSULTANTS LTD.**

SAMPLE #	Cu ppm	Au ppb	
38078	14	nd	
38079	7	nd	
38080	12	40	
38081	13	nd	
38082	13	nd	
38083	20	nd	
38084	11	nd	
38085	11	nd	
38086	15	nd	
38087	18	nd	
38088	16	nd	
38089	36	nd	
38090	75	nd	
38091	15	nd	
38092	42	nd	
38093	131	nd	
38094	89	nd	
38095	13	nd	
38096	13	nd	
38097	15	nd	
38098	41	185	
38099	750	310	.009
38100	60	180	
38112	66	nd	
38113	37	nd	
38114	32	nd	
38115	95	445	.013
38116	33	nd	
38117	78	235	.007
38118	26	260	.007
38119	67	85	
38120	96	60	
38121	32	75	
38122	26	340	.010
38123	20	nd	
38124	21	nd	
38125	29	nd	
38126	54	70	
38127	16	nd	
DETECTION LIMIT	1	5	

nd = none detected -- = not analysed is = insufficient sample

RG-86-05

RG-86-7

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SAMPLE #	Cu ppm	Au ppb
38128	12	nd
38129	57	nd
38130	60	nd
38131	53	nd
38132	50	nd
38133	31	90
38134	52	40
38135	32	35
38136	36	nd
38137	5	nd
38138	6	nd
38139	4	nd
38140	12	nd
38141	28	nd
38142	14	nd
38143	31	80
38144	7	nd
38145	37	nd
38146	37	nd
38147	61	30
38148	53	40
38149	45	nd
38150	30	nd
38151	17	50
38152	35	nd
38153	16	60
38154	5	20
38155	15	nd
38156	21	nd
38157	65	nd
38158	80	nd
38159	50	nd
38160	10	nd
38161	68	nd
38162	100	nd
38163	99	nd
38164	103	nd
38165	86	nd
38166	21	nd
DETECTION LIMIT	1	5

nd = none detected -- = not analysed is = insufficient sample

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SAMPLE #	Cu ppm	Au ppb
38167	36	nd
38168	124	nd
38169	120	nd
38170	37	nd
38171	31	nd
38172	19	nd
38173	2	nd
38174	3	nd
38175	1	nd
38176	2	nd
38177	11	270 .004
38178	54	nd
38179	50	nd
38180	26	nd
38181	17	nd
38182	12	nd
38183	11	60
38184	12	nd
38185	11	nd
38186	12	nd
38187	11	nd
38188	26	nd
38189	31	nd
38190	11	nd
38191	10	nd
38192	11	nd
38193	81	nd
38194	100	nd
38195	100	nd
38196	93	nd
38197	83	nd
38198	53	nd
38199	30	nd
38200	1	nd
38201	1	nd
38202	52	nd
38203	1	nd
38204	165	nd
38205	7	80
DETECTION LIMIT	1	5

nd = none detected *— = not analysed* *is = insufficient sample*

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SAMPLE #	Cu ppm	Au ppb
38206	183	nd
38207	5	nd
38208	6	nd
38209	3	nd
38210	14	nd
38211	8	nd
38212	24	nd
38213	29	nd
38214	11	nd
38215	32	nd
38216	45	nd
38217	105	nd
38218	90	nd
38219	93	nd
38220	98	nd
38221	41	nd
38222	38	nd
38223	12	nd
38224	66	30
38225	50	40
38226	73	nd
38227	251	nd
38228	70	nd
38229	59	nd
38230	66	nd
38231	61	nd
38232	71	nd
38233	45	nd
38234	59	nd
38235	56	nd
38236	56	nd
38237	97	nd
38238	66	nd
38239	70	nd
38240	114	nd
38241	109	nd
38242	106	nd
38243	75	nd
38244	71	nd
DETECTION LIMIT	1	5

nd = none detected -- = not analysed is = insufficient sample

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REPORT NUMBER: B70010 GA JOB NUMBER: B70010 **DREDUEST CONSULTANTS LTD.**

PG-86-9

PG-86-6

SAMPLE #	Cu ppm	Au ppb
38245	102	nd
38246	99	nd
38247	73	nd
38248	130	nd
38249	67	nd
38250	80	nd
38251	74	nd
38252	70	nd
38253	81	nd
38254	36	nd
38255	57	nd
38256	49	nd
38257	52	nd
38258	35	nd
38259	41	nd
38260	60	nd
38261	51	nd
38262	40	nd
38263	55	nd
38264	36	nd
38265	54	nd
38266	41	nd
38267	42	nd
38268	26	nd
38269	43	nd
38270	87	nd
38271	44	nd
38272	36	nd
38273	102	nd
38274	48	nd
38275	39	nd
38276	97	nd
38277	83	nd
38278	92	nd
38279	96	nd
38280	103	nd
38281	91	nd
38282	100	nd
38283	80	nd
DETECTION LIMIT	1	5

nd = none detected — = not analysed is = insufficient sample

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REPORT NUMBER: 870010 GA JOB NUMBER: 870010 **OREQUEST CONSULTANTS LTD.**

SAMPLE #	Cu ppm	Au ppb
38284	87	nd
38285	87	nd
38286	100	nd
38287	80	nd
38288	28	nd
38289	23	nd
38290	56	nd
38291	71	nd
38292	95	nd
38293	32	nd

DETECTION LIMIT 1 5
nd = none detected -- = not analysed is = insufficient sample

APPENDIX C

THIN SECTION REPORT

Harris
EXPLORATION
SERVICES

MINERALOGY AND GEOCHEMISTRY

534 ELLIS STREET, NORTH VANCOUVER, B.C., CANADA V7H 2G6 TELEPHONE (604) 929-5867

Job #87-1

January 26th, 1987

Report for: Jim Chapman,
Orequest Consultants Ltd.,
404-595 Howe Street,
Vancouver, B.C.
V6C 2T5

Samples:

24 core samples from the Regal Petroleum property, Ontario, for petrographic study.

The samples were prepared as conventional thin sections. Cross reference between sample numbers and slide numbers is as follows:

Sample No.	Slide No.
RG-2 35m.	87-004X
87m.	005X
88m.	027X
RG-3 260m.	006X
RG-4 30m.	007X
75m.	008X
135m.	009X
245m.	010X
255m.	011X
RG-5 130m.	012X
RG-6 22.7m.	013X
66.3m.	014X
86.6m.	015X
RG-7 58.2m.	016X
65.0m.	017X
108.0m.	018X
123.5m.	019X
139.0m.	020X
RG-8 15.7m.	021X
162.4m.	022X
RG-9 114m.	023X
144m.	024X
TR-4	025X
TR-13	026X

Summary:

This is a suite of rocks showing a very restricted compositional range, being

composed essentially of plagioclase, quartz, sericite and carbonate in various proportions. Additional or alternate components present in a few of them are chlorite and, in minor to trace amounts, rutile, pyrite, epidote and tourmaline.

Texturally these rocks display gradational characteristics. A few textural 'end-members' can be recognized with some confidence but many are less clearly identifiable as to genetic type.

The majority appear to be of igneous or pyroclastic origin. A few may be dominantly sedimentary, though probably still have tuffaceous affinities.

Sample RG-5 130m. is an intrusive-textured quartz diorite, strongly replaced by carbonate via a network of veinlets, but unsheared.

Sample RG-4 245m. also appears to have originated as a quartz diorite but has been strongly fragmented by shearing. It also differs from the previous sample in containing accessory K-feldspar.

Samples RG-2 35m. and 88m., RG-3 260m., RG-4 30m., 75m. and 135m., RG-7 65m. and RG-9 114m. are all closely similar. They are texturally heterogenous, with abundant individual crystals of plagioclase and lesser quartz set in a felsitic matrix which shows more or less clear evidence of shearing in the form of sinuous sericitic schlieren. The fine felsitic groundmass is believed to be of primary rather than cataclastic origin and these rocks are interpreted as probably being sheared quartz diorite porphyries. An alternative is that they are sheared andesitic to dacitic crystal tuffs.

Samples RG-4 255m. and RG-8 15.7m. also have a somewhat sheared aspect but have much less abundant coarse plagioclase phenocrysts or clasts. They are most likely modified tuffs.

Samples RG-2 87m. and RG-8 162.4m. are rather homogenous, fine-grained, weakly foliated rocks lacking any evidence of shearing. They are probably tuffs. The last of the three is of distinctive composition in that it contains chlorite and no sericite, possibly indicating a more mafic original composition. Sample RG-9 144m. may be of similar type but is particularly enriched in carbonate.

Sample RG-7 108m. shows the best developed pyroclastic features of all the suite. It is unquestionably a mixed lithic crystal tuff.

Samples RG-7 58.2m. and 123.5m. are also identified as tuffs but, unlike the previous sample (which is relatively coarse grained and shows no perceptible layering on the thin section scale), are fine-grained rocks which show a distinct lamination and have only a minor content of plagioclase crystal clasts or quartz eyes.

The three samples from RG-6 (at 22.7m., 66.3m. and 86.6m.) are similar fine-grained, laminated rocks, typically with well-differentiated, micaceous (possibly sedimentary) and feldspathic (tuffaceous?) laminae. The first of them is distinctive in that the felsitic component is very minor and the rock is unique in containing major amounts of biotite. The last of the above samples is essentially devoid of recognizable clasts and may be dominantly sedimentary. The group probably represents a sequence of tuffaceous siltstones. All show strong deformation.

Samples TR-4 and TR-13 are also fine-grained laminated rocks, but undeformed. The first is distinctive in containing no sericite or chlorite; it appears to be a thin-bedded, calcareous, tuffaceous siltstone. The second shows well-developed clastic sedimentary textures and consists of interlaminated fine-grained feldspathic

wacke and calcareous siltstone.

The remaining sample, RG-7 139m., appears to be of a different type to the rest. It is made up essentially of a homogenous, fine-grained, random aggregate of plagioclase of igneous aspect and is possibly an andesitic dyke.

All the rocks of the suite show the effect of mild regional metamorphism, leading to the partial recrystallization of original plagioclase and the development of sericite, chlorite and occasionally epidote.

A proportion of the samples exhibit cataclastic structures suggestive of shearing. A few others show strong small-scale crumpling producing an axial plane cleavage.

The effect of alteration is difficult to assess. Plagioclase, whether as coarser phenocrysts or clasts, or as fine-grained matrix, typically appears essentially fresh except for incipient sericitization.

The abundance of carbonate in most of the rocks may, in part, represent a form of alteration. In some cases the textural relationships (veining, pseudomorphing) are indicative of this; moreover the carbonate introduction appears sometimes to have been accompanied by minor silicification, in the form of associated micro-granular, chert-like quartz.

For the most part, however, the carbonate exhibits an intimately intergrown, inter-laminated relationship which suggests that it may have formed concurrently with the tuffs as a chemical sedimentary addition at the site of deposition. Whatever its origin, it largely predates the metamorphism and recrystallization.

The carbonate in almost all cases shows little or no reactivity to dilute acid and is presumably of dolomitic, or accasionally ankeritic composition. Exceptions are RG-6 22.7m. and 86.6m. and RG-7 123.5m. where it is apparently calcitic.

J.F. Harris Ph.D.

Sample RG-2 35m (Slide 87-004X) SHEARED QUARTZ-FELDSPAR PORPHYRY

Estimated mode

Plagioclase	60
Quartz	30
Sericite	6
Carbonate	2
Pyrite	2

This rock consists of equant, subhedral plagioclase crystals, 0.2 - 1.5mm in size, together with lesser quartz of similar size range, set in a very fine-grained felsitic matrix. The latter has a grain size of 5 - 20 microns and consists of plagioclase and quartz in indeterminate proportions.

In addition to the individual phenocryst-like grains, a fair proportion of quartz is in the form of finer-grained aggregates. These often occur peripheral to quartz phenocrysts and between and around clumps of plagioclase phenocrysts. The quartz typically shows strain polarization.

The rock is traversed by discrete, sinuous, sub-parallel, wispy schlieren of sericite which diverge around the phenocrysts and define a weak, ill-defined, locally micro-lenticular foliation. The plagioclase phenocrysts and felsitic groundmass also show incipient to very weak pervasive sericitization.

Carbonate occurs sparsely as random flecks, intergrown with the granular quartz and associated with the sericite wisps.

Pyrite occurs as randomly disseminated, subhedral, sometimes skeletal grains to 0.5mm in size.

This rock has the aspect of a rather fresh but somewhat sheared igneous (quartz dioritic) intrusive. The shearing does not appear strong enough to have produced the fine felsitic matrix by cataclasis. This is therefore interpreted as a primary component, representing the groundmass in an original porphyritic rock.

Some of the finer-grained quartz may represent peripheral granulation of phenocrysts and some may be of introduced origin (silicification).

The lack of any mafic silicates (or derived alteration products) is notable.

Sample RG-2 87m. (Slide 87-005X)

Estimated mode

Plagioclase	62
Quartz	19
Sericite	10
Chlorite	5
Carbonate	1
Epidote	3
Tourmaline	trace
Rutile) Opaques)	trace

This is a weakly foliated, homogenous rock exhibiting the texture of a fine-grained sediment or tuff.

It consists principally of an aggregate of plagioclase and lesser quartz in the size range 0.01 - 0.05mm, with randomly scattered angular clasts around 0.1mm in size. A few bands or lenses are made up of coarser grains to 0.2mm or so.

Fine-grained sericite and chlorite (often intergrown) form oriented tiny flakes throughout. These tend to coalesce as small diffuse wisps, but show no segregation into discrete continuous schlieren or foliae. The rock thus appears essentially unfoliated on the macro scale.

Epidote is the other accessory constituent, as evenly disseminated tiny specks, locally coalescing to small microgranular clusters.

Carbonate occurs as a few sub-concordant or discordant hairline veinlets, sometimes with traces of limonite or with intergrown epidote and/or chlorite. One coarser cross-cutting veinlet of carbonate (0.5mm thick) contains abundant, well-formed prismatic grains of blue-green tourmaline.

This rock has the aspect of an undeformed, fine-grained, metamorphosed sediment or volcaniclastic.

Sample RG-2 88m. (Slide 87-027X) SHEARED QUARTZ-FELDSPAR PORPHYRY

Estimated mode

Plagioclase	64
Quartz	12
Sericite	17
Carbonate	6
Rutile	1

This is a rock of similar type to RG-2 35m., though somewhat more strongly sericitic.

It consists of subhedral phenocrysts of plagioclase and lesser angular grains of quartz to 1.0mm in size, set in a felsitic groundmass. The plagioclase phenocrysts occur as individuals and concentrated in lenticular clumps, often with associated microgranular quartz.

The plagioclase phenocrysts show weak to occasionally moderate pervasive sericitization (as randomly oriented or crystallographically controlled flecks). The felsitic groundmass is rather extensively pervaded by fine-grained sericite as diffuse wisps. Locally these form sinuous through-going schlieren with intergrown fine-grained carbonate. These define a distinct foliation.

Minor carbonate also occurs as random granules and pockets throughout, especially in association with microgranular quartz and phenocryst clusters.

Disseminated specks and clumps of rutile are relatively abundant, often showing a close association with the carbonate/sericite schlieren.

Sample RG-3 260m. (Slide 87-006X) ALTERED PORPHYRY (OR TUFF?)

Estimated mode

Plagioclase	65
Quartz	18
Sericite	2
Carbonate	13
Chlorite	trace
Tourmaline	1
Rutile	trace
Pyrite	1

This is a rock of similar composition and general aspect to the sheared porphyries from RG-2. It differs in being somewhat more heterogenous, having a higher content of carbonate, and in lacking quartz phenocrysts.

Plagioclase phenocrysts are 0.2 - 2.0mm in size and range from euhedral to anhedral in form. The latter type often appear to be the result of marginal assimilation by the felsitic groundmass or by microgranular quartz.

Quartz appears to be almost entirely in the form of microgranular clumps and streaks. These are sometimes diffusely developed within the groundmass, sometimes closely associated with clusters or lenses of plagioclase phenocrysts, sometimes intimately intergrown with carbonate as sub-concordant streaks and lenticular masses,and occasionally of discordant, veniform character.

This rock contains very little sericite. What there is occurs as occasional wispy schlieren in the groundmass and as a very sparse dusting in some of the plagioclase phenocrysts.

Carbonate, by comparison, is abundant; it occurs as dispersed flecks and pockets throughout, locally concentrating as diffuse to compact lenses, sometimes with associated microgranular quartz. Rarely it forms discordant hairline veinlets.

A notable constituent is dark bluish-green tourmaline, as small radiate clusters of very fine-grained hair-like, acicular crystals and occasional more granular clusters. It is closely associated with (and usually included within) carbonate.

Minor pyrite occurs randomly disseminated and as trains of elongate grains associated with some of the carbonate/quartz lenses.

This rock does not appear to be significantly sheared. However, much of the carbonate and quartz have the textural aspect of introduced constituents, indicating that it may be rather extensively altered.

There is a tendency for the porphyry-textured rock to occupy a central zone in the slide and to be flanked by bands (?) in which phenocrysts are sparse and the groundmass shows more extensive carbonate and granular quartz development. An alternative interpretation is that this is a pyroclastic in which a central band rich in crystal clasts is interlayered with finer, more altered tuff.

Sample RG-4 30m. (Slide 87-007X)

Estimated mode

Plagioclase	72
Quartz	20
Sericite	3
Carbonate	5
Rutile	trace
Pyrite	trace

This rock is of very similar type to RG-2 35m., consisting of abundant individual and clumped phenocryst-like grains of plagioclase and lesser quartz in a felsitic matrix.

Sericite occurs as very fine-grained dispersed flecks through the groundmass, only rarely concentrating as discrete wisps or sinuous envelopes to phenocrysts. Carbonate likewise forms random interstitial flecks, especially in association with clusters of phenocrysts. The fabric is only very weakly foliated.

The plagioclase phenocrysts mainly show little or no pervasive sericitization.

Quartz phenocrysts rather commonly show peripheral granulation. Similar microgranular quartz sometimes forms irregular pockets and networks between plagioclase crystals.

The phenocrysts in this rock are noticeably more rounded than in previous samples, and tend to show a weak preferred orientation parallel to the foliation, resulting in a somewhat clastic (greywacke-like) appearance in thin section.

Sample RG-4 75m. (Slide 87-008X)

Estimated mode

Plagioclase	67
Quartz	18
Sericite	11
Carbonate	2
Epidote	2
Chlorite	trace

This is another rock showing similar features to the previous samples of sheared quartz-diorite porphyry. The presence of epidote is, however, a distinctive feature (previously seen only in RG-2 87m., a fine-grained rock of different type).

Phenocrysts (of mildly sericitized plagioclase and lesser quartz) are 0.2 - 2.0mm in size, and range from euhedral to rounded. They occasionally show a preferred elongation parallel to the rather well-defined foliation.

Sericite is relatively abundant, as very fine-grained diffuse impregnations, locally concentrating as parallel, wispy schlieren. Fine-grained epidote is a common associate as specks and small clusters throughout the sericitic zones.

Carbonate is minor, mainly occurring concentrated in a single thin (concordant) zone at one end of the slide.

Quartz occurs, as in the other rocks, as individual phenocrysts, sometimes partially granulated, and as irregualr pockets of microgranular material in the groundmass and interstitial to clumps of plagioclase phenocrysts.

The rock exhibits a tendency for banded alternations of phenocryst-rich material and strongly sericitic material with few phenocrysts, possibly more highly sheared zones in which phenocrysts have been largely broken down by cataclasis and/or alteration. The alternative hpothesis of coarser and finer tuffaceous laminae could also apply.

Sample RG-4 135m. (Slide 87-009X)

Estimated mode

Plagioclase	68
Quartz	15
Sericite	12
Carbonate	2
Epidote	2
Chorite	1
Rutile, Leucoxene	trace

This is another rock of essentially the same type as the majority of previous samples in the suite. The overall size of the phenocrysts is slightly smaller (maximum 1.0mm) and they are often notably angular in shape. This is especially true of the quartz, though the plagioclase also shows poor development of crystal form. Random orientation of the phenocrysts (with only minimal tendency for elongation parallel to the weak foliation) is another feature which adds to the rather heterogenous, gritty textural aspect.

Sericite, in very fine-grained form, is rather extensively developed throughout the groundmass, concentrating as short parallel wisps between the phenocrysts. The plagioclase phenocrysts also show rather consistent weak pervasive sericitization (in random orientation).

Carbonate is minor, as small pockets interstitial to (and partially replacing?) plagioclase in some sericite-poor zones of small phenocrysts.

Fine-grained epidote and traces of sphene and leucoxene occur as small flecks, trains and clusters associated with sericite wisps.

Scattered small pockets of chlorite are seen, often apparently replacing plagioclase phenocrysts and/or associated with carbonate.

Sample RG-4 245m. (Slide 87-010X) SHEARED QUARTZ DIORITE

Estimated mode

Plagioclase	60
Quartz	12
K-feldspar	5
Carbonate	12
Sericite	10
Rutile	trace
Pyrite	1

This rock is distinct from all previous samples of the suite in containing accessory K-feldspar, and in exhibiting a texture clearly indicative of cataclasis of an original medium-grained, non-porphyritic, quartz dioritic intrusive.

It consists of remnant patches and lensoid augen up to 5mm in size, made up of strained, partially recrystallized, polygranular aggregates of plagioclase with intergrown accessory quartz and microcline, set in a strongly sheared, sericitized matrix. The latter apparently represents a more strongly granulated, disaggregated form of the same rock seen as the more coherent remnants.

The sheared form consists of felsitic material intimately intergrown with very fine-grained sericite. The latter locally concentrates as strong, through-going schlieren which define a distinct foliation. These sericitic shears sometimes separate fractured portions of such remnants.

Carbonate is also rather abundant, as irregular patches and randomly disseminated grains. It is concentrated in the less sericitized areas of granulated feldspars, and in streaky quartzose segregations. It also appears to form replacements of some of the less granulated kernels of intrusive. It possibly predates the main shearing and sericitization.

Minor disseminated fine-grained pyrite and rutile are partly random in their distribution and partly form short trains paralleling the sericitic shears.

Sample RG-4 255m. (Slide 87-011X)

Estimated mode

Plagioclase	38
Quartz	24
Carbonate	25
Sericite	12
Rutile	trace
Pyrite	1

This sample represents another variant of the sheared quartzo-feldspathic igneous lithotype making up the bulk of the suite.

Remnant phenocrysts are essentially absent, and the rock consists largely of felsitic material (possibly representing a finely granulated form of a coarser original rock) together with abundant carboante, quartz and sericite which have the aspect of alteration products (since more or less recrystallized).

The fabric is quite strongly oriented, with a foliation defined by sinuous, sub-parallel schlieren of sericite (sometimes with trains of fine-grained rutile). These separate streaky bands and lenses which consist of felsitic plagioclase with finely dispersed sericite and disseminated carbonate. Locally small rather ill-defined plagioclase phenocrysts, to 0.5mm in size, are recognizable in this material.

Carbonate also concentrates as extensive zones of en-echelon lenses with abundant intergrown granular quartz. This quartz appears distinct from the occasional, individual, more or less granulated augen or phenocrysts.

The quartz/carbonate zones locally exhibit small-scale kinks and micro-structural disturbances.

Disseminated pyrite occurs as rather coarse grains, strongly associated with the lenses and anastomosing networks of carbonate and granular quartz, which may be partly of introduced origin.

Sample RG-5 130m. (Slide 87-012X) ALTERED QUARTZ DIORITE

Estimated mode

Plagioclase	50
Quartz	20
Carbonate	27
Sericite	3
Rutile	trace

This sample is unique in the suite in being a non-foliated rock, strongly altered but exhibiting no evidence of shearing.

It clearly originated as a medium-grained quartz diorite consisting dominantly of a granular aggregate of subhedral plagioclase of grain size 0.3 - 5.0mm. Accessory quartz, intergrown with the plagioclase in interstitial and sometimes graphic-textured relationship, is clearly of primary magmatic origin.

The plagioclase shows a rather even, weak to moderate, pervasive dusting of sericite and fine-grained carbonate. The major alteration, however, is carbonate in the form of a coarse network of irregular veinlets, intergranular fillings and coarse replacement patches. Locally the carbonate includes considerable intergrown microgranular quartz which appears to represent an associated introduced phase of silicification.

Fine-grained rutile, as irregular disseminated flecks, is a common (though trace-level) constituent of the carbonate alteration. Occasionally this is in the form of small angular clumps which may represent pseudomorphs of original mafic accessories.

Sample RG-6 22.7m. (Slide 87-013X) ALTERED LAMINATED MAFIC TUFF?

Estimated mode

Biotite	34
Chlorite	8
Felsite	8
Carbonate	30
Sericite	20
Tourmaline	trace
Apatite	trace
Sphene)	trace
Rutile)	

This slide is made up of a folded, thinly laminated sequence and shows a green and a white lithotype in conformable contact.

The green portion is made up essentially of intimately intergrown, very fine-grained biotite and sericite, with lesser chlorite. The fabric is dominantly a felted one, locally displaying partial orientation. A fair degree of internal micro-deformation may be present.

Some sub-parallel lensy/laminar segregation of biotite-rich vs sericite-rich composition is seen, and chlorite also tends to concentrate as localized wisps.

A cryptocrystalline felsitic material is the other component and can be distinguished throughout as diffuse remnants - possibly representing an original matrix now almost totally obscured by the growth of biotite and sericite. Locally the felsitic phase forms small, better-defined, lensoid patches in which vestiges of plagioclase phenocrysts or clasts can sometimes be seen.

Scattered individual grains of apatite occur within the micaceous aggregate, as well as traces of dissemianted fine-grained rutile and sphene.

The white portion of the slide is composed dominantly of carbonate as ragged, relatively coarse-grained clumps and streaks (possibly disrupted laminae). Irregular patches and lenses of the biotite/sericite/chlorite assemblage and, occasionally, of felsitic plagioclase occur within the dominant carbonate.

Disseminated tiny grains of tourmaline are seen within the biotite-rich rock at the contact with the mixed carbonate/argillite sequence.

This rock may be an altered/metamorphosed, fine-grained, calcareous, mafic tuff.

Sample RG-6 66.3m. (Slide 87-014X)

Estimated mode

Felsite) Plagioclase)	52
Quartz	8
Carbonate	27
Sericite	10
Chlorite	3
Tourmaline	trace
Rutile	trace
Pyrite	trace

This is a fine-grained laminated rock showing strong deformation. It consists essentially of alternating bands composed dominantly of felsitic plagioclase and of sericite and chlorite.

The micaceous bands are similar to silty argillites and contain more or less intergrown, minutely interlayered, fine-grained quartzo-feldspathic material. They show intense close-spaced crenulation, with development of axial plane cleavage.

The felsitic bands contain tiny plagioclase crystals and clumps of micro-granular quartz, as well as varying amounts of intimately interlayered sericitic material. A few bands contain coarser plagioclase crystals (clasts?) and quartz augen up to 1.0mm in size. The coarser grains show partial destruction and assimilation by recrystallization.

Carbonate is an abundant constituent of the rock. It occurs as thin semi-continuous bands and trains of disseminated grains in the felsitic laminae. These show a sinuous deformation pattern and apparently represent concordant primary calcareous zones. Carbonate also occurs in interstitial mode between clumps of plagioclase crystals in the coarser quartzo-feldspathic laminae. A third form is as extensive irregular patches of granular mosaic which apparently represent more substantial interbeds which have suffered complex disruption and remobilization.

Traces of tourmaline and contorted films of rutile are seen in some of the argillaceous (sericitic) bands.

This rock appears to be a metamorphosed, laminated, calcareous, argillaceous tuff.

Sample RG-6 86.6m. (Slide 87-015X)

Estimated mode

Felsite	20
Quartz	7
Sericite	26
Chlorite	14
Carbonate	32
Rutile)	1
Leucoxene)	
Tourmaline	trace

This is another rock of similar general type to the preceding two samples from RG-6.

It consists of alternating thin laminae (0.2 - 2.0mm in thickness) made up of various proportions of intimately intergrown carbonate, sericite/chlorite and felsitic plagioclase and/or fine-grained quartz.

The grain size throughout is in the range 0.01 - 0.1mm, and discrete plagioclase clasts or quartz fragments are very rare.

As in the previous sample traces of tourmaline are seen in some of the argillaceous laminae.

The rock shows close-spaced crumpling throughout, with the development of a prounounced axial plane cleavage (emphasized in the micaceous zones by strong concentrations of micron-sized rutile).

Of the three related rocks from RG-6 this one shows the least obvious tuffaceous affinities. It would appear to be essentially a laminated, calcareous siltstone/argillite.

Sample RG-7 58.2m. (Slide 87-016X)

Estimated mode

Felsite	26
Plagioclase	4
Quartz	14
Carbonate	44
Sericite	12
Rutile) Leucoxene)	trace
Pyrite	trace

This sample shows a somewhat lensy, laminated structure on the scale 0.5 - 2.0mm.

It is of similar composition to the preceding samples (from RG-6) but is undeformed. It consists of alternating, somewhat interfingering laminae made up of varying proportions of felsitic plagioclase and fine-grained quartz, carbonate and sericite. These constituents are typically intimately intergrown and the laminae show less clear-cut differentiation than in the RG-6 rocks.

The more quartzo-feldspathic bands often show scattered quartz eyes (angular to rounded grains up to 1.0mm in size) and plagioclase clasts, sometimes as well-defined lensoid clumps and sometimes partially assimilated into the recrystallized groundmass. These features clearly attest to the igneous or pyroclastic affinities of the rock.

Fine-grained carbonate is disseminated throughout and concentrates as trains of elongate grains and as more or less distinct laminae. Sericite occurs in similar mode but is less abundant. Wisps of micron-sized rutile occur within the occasional, thin, concordant, sericite-rich schlieren.

This rock does not appear to show evidence of the intense shearing which would have been required to produce it cataclastically from an igneous progenitor. It is more likely a somewhat metamorphosed/recrystallized thin-bedded, calcareous tuff.

Sample RG-7 65.0m. (Slide 87-017X)

Estimated mode

Felsite	35
Plagioclase crystals	28
Quartz	8
Sericite	16
Carbonate	12
Rutile	1

This rock appears to be of similar type to the samples from RG-2 classified as sheared porphyrites. It is, however, somewhat finer grained and has a lower ratio of phenocrysts (or clasts) to felsite. An alternative origin for these rocks is shearing of rather coarse crystal tuffs.

It consists of scattered, individual, equant/subhedral grains of mildly sericitized plagioclase and angular grains of quartz, and linear trains and lenses of such grains, set in a predominant felsitic matrix.

The quartz clasts tend to be somewhat coarser than the plagioclase, occasionally reaching 2.0mm in size.

The felsitic matrix contains intimately intergrown, well-oriented, very fine-grained sericite, concentrating as parallel wispy schlieren. These sometimes outline coarse flattened lenticles of felsite which appear to be stretched fragments.

Carbonate occurs as a fine-grained disseminated component, partly segregated as small elongate lenses and also in slightly coarser granular form interstitial to clumps of plagioclase crystals.

The parallel elongation of sericite schlieren, trains of plagioclase clasts and carbonate wisps bestows a rather well-defined foliation.

Sample RG-7 108.0m. (Slide 87-018X) LITHIC CRYSTAL TUFF

Estimated mode

Felsite) Lithic fragments)	20
Plagioclase crystals	40
Quartz	10
Sericite	5
Chlorite	10
Carbonate	15
Rutile	trace

Of all the rocks of the suite, this shows the most abundant and undeniable pyroclastic features.

It is an aggregate of randomly oriented, angular to sub-rounded plagioclase crystal clasts, 0.1 - 1.0mm in size, with lesser angular quartz grains to 2.0mm. These are set in a matrix of smaller crystals and felsitic plagioclase, with intimately intergrown carbonate, chlorite and minor sericite. The carbonate forms irregular, patchy concentrations as well as a few discordant veinlets.

The rock also contains obvious lithic fragments, up to 5mm in size, which are commonly strongly flattened or elongated. Some of these are felsitic, some porphyritic, and some shaly (micaceous). The parallelism of these lenticular lithic clasts constitutes almost the only perceptible planar structure in the rock.

Sample RG-7 123.5m. (Slide 87-019X)

Estimated mode

Felsite	20
Plagioclase	3
Quartz	3
Carbonate	50
Chlorite	16
Sericite	8
Rutile	trace
Pyrite	trace

This rock is a finely laminated, highly calcareous rock which is probably a fine-grained silty tuff.

It exhibits lamination on the scale 0.5 - 2.0mm, and a strongly oriented fabric.

The laminae are composed of the usual constituents: felsitic plagioclase, chlorite, sericite and carbonate in various proportions. They range from essentially monomineralic to gradational mixtures.

Carbonate is particularly abundant, as strongly flattened, elongate grains, commonly coalescing to form discrete laminae. Sericite and chlorite also form occasional thin concentrated layers.

Crystal clasts (plagioclase and quartz) are sparse and small (generally up to 0.2mm or, rarely, 0.5mm). They occur randomly disseminated.

Traces of fine-grained rutile occur in the less carbonate-rich bands. There are also rare small randomly disseminated clusters of pyrite.

The rock shows a strong slightly sinuous foliation representing original layering.

Sample RG-7 139.0m. (Slide 87-020X)

Estimated mode

Plagioclase	80
Quartz	8
Sericite	6
Chlorite	4
Carbonate	2
Rutile	trace

This rock is texturally distinct from all others of the suite.

It consists essentially of a fine-grained aggregate of subhedral to anhedral plagioclase of grain size 0.01 - 0.3mm, with occasional euhedral grains to 1.0mm. The fabric is randomly oriented, locally mesh-like, and looks igneous. It could be classified as sub-porphyritic with the finest grains occurring interstially to the coarser ones but without a true groundmass.

The plagioclase shows a weak pervasive dusting of sericite. Sericite and chlorite also occur in interstitial mode and as an irregular network of somewhat diffuse hair-line veinlets.

Quartz occurs as minor interstitial pockets and, occasionally, as irregular veinlike bodies.

Carbonate is rare, occurring mainly as flecks associated with quartzose pockets.

The rock shows partial recrystallization, evidenced by blurring of original crystal outlines, and by local patches of textural coarsening. Also the sericite in the veinlet network shows a consistent orientation suggesting that the rock bears an overprint of dynamic metamorphism.

Its texture is consistent with origin as a feldspathic (andesitic) dyke.

Sample RG-8 15.7m. (Slide 87-021X)

Estimated mode

Plagioclase) Felsite)	42
Quartz	12
Sericite	30
Carbonate	16
Rutile	trace
Tourmaline	trace

This is another fine-grained, rather diffusely laminated rock.

It consists principally of an intimate intergrowth of sericite and felsitic material with accessory carbonate. The sericite is very fine-grained and occurs abundantly throughout as well oriented minute flakes, frequently concentrating as more or less coherent lensy laminae.

The felsite matrix is generally of grain size 0.01 - 0.05mm and appears somewhat recrystallized. It shows a tendency for grain flattening or elongation, emphasising the well-foliated fabric defined by the abundant sericite. Recognizable plagioclase crystals (clasts or phenocrysts) 0.1 - 0.2mm in size and equant in shape, are relatively common and tend to occur in lines.

Quartz clasts tend to be considerably coarser in size (to 2.0mm) and are rather abundant. They are angular to sub-rounded in shape and show random orientation with respect to the foliation.

Carbonate occurs rather evenly distributed as small wisps and lines of disseminated irregular grains, as well as coarser patches associated with concentrations of plagioclase and quartz clasts.

Rutile forms strings of small granules associated with the more sericitic laminae. Traces of tourmaline were seen as occasional lines of tiny prisms, elongated parallel to the foliation.

The foliation is distinctly sinuous and anastomosing, and there is local small-scale crumpling.

Sample RG-8 162.4m. (Slide 87-022X)

Estimated mode

Felsite	40
Chlorite	26
Carbonate	32
Rutile	2

This is a rock of distinctive texture and mineralogy compared to the rest of the suite. It contains no sericite and displays no lamination or banding.

It consists of an evenly fine-grained felsitic aggregate of grain size 0.01 - 0.1mm, showing strong grain flattening. Chlorite, of similar grain size, occurs as an intergranular phase of well-oriented individual flakes, commonly coalescing as diffuse streaks and networks.

Carbonate is a major constituent, as disseminated grains and small clumps, commonly clustering to form en-echelon swarms and small lenses. It also shows strong parallel grain elongation and much of it is considerably coarser (up to 0.5mm) than the other components.

Rutile, and traces of opaques (oxides or sulfides), occurs as rather abundant disseminated irregular granules. These are closely associated with the chlorite but lack the strong orientation exhibited by the other constituents.

No quartz eyes or coarser plagioclase crystals are present.

The strongly oriented grain fabric appears to be an effect of recrystallization. The rather irregular, streaky/lensy concentrations of the major components may be a relic of pre-metamorphic deformational or fragmental structures.

The original character of this rock is indeterminate, but its mineralogy is consistent with that of an altered, metamorphosed mafic tuff.

Sample RG-9 114m. (Slide 87-023X)

Estimated mode

Felsite	34
Plagioclase crystals	20
Quartz	8
Sericite	14
Chlorite	12
Carbonate	12
Rutile	trace

This is a similar type of rock to RG-7 65m. except that it contains chlorite and the felsitic matrix looks a little coarser and more recrystallized.

It consists of a matrix of felsite of somewhat variable grain size, with intimately intergrown chlorite and sericite. These concentrate as close-spaced, wispy schlieren, bestowing a sinuous foliation which shows occasional local crunpling.

Carbonate exhibits a similar mode but is more restricted in its occurrence, being concentrated mainly in a few discrete lenses or laminae.

Plagioclase crystals and lesser quartz grains, in the size range 0.1 - 1.0mm, are rather abundant. They occur as scattered individuals and small lensoid clusters. They commonly show marginal granulation/recrystallization and partial assimilation by the matrix.

The texture overall is lensy. The rock is foliated but shows no well-defined layered compositional or grain size variations. In particular it lacks the intercalated, strongly argillaceous (micaceous) bands seen in some of the other, otherwise similar, samples.

Sample RG-9 144m. (Slide 87-024X)

Estimated mode

Felsite	40
Quartz	8
Carbonate	34
Sericite	10
Chlorite	7
Rutile	1
Pyrite	trace

This rock exhibits textural details which set it apart from others of the suite, although it is clearly of similar general type.

It consists basically of a rather even, very fine-grained felsitic aggregate of grain size 0.01 - 0.03mm, with intimately intergrown sericite and chlorite of similar grain size. The latter constituents are very evenly distributed and show little or no tendency to concentrate as discrete wisps or schlieren. Fine-grained rutile occurs as disseminated granules.

The rock contains none of the coarser plagioclase crystals or quartz eyes seen in many of the other samples.

Carbonate is a major component. It occurs in distinctive manner as lines and lenticular clusters of equant, sub-prismatic grains, 0.1 - 0.5mm in size, which look very like pseudomorphs of original plagioclase crystals. It also forms a few thin coherent vein-like bodies or laminae; these are concordant with the lines of pseudomorph-like, individual carbonate grains mentioned above, and locally merge with them. In this form the carbonate often has intergrown streaks and patches of microgranular quartz and rare grains of pyrite.

These features suggest the possibility that the carbonate in this rock is mainly of introduced (alteration) origin and that the associated quartz represents an episode of silicification. It may, therefore, represent an altered version of the tuff lithotype which dominates the suite.

This rock exhibits only a weak foliation, defined by the linear arrangement of carbonate concentrations and some crudely banded variations in the abundance of intergrown sericite and chlorite in the felsite. It is notable that the individual flakes of micaceous minerals show a strong parallelism (somewhat disturbed by local minor crumpling) but this is oblique to the weak mineralogical banding, not parallel to it as in the majority of samples.

Sample TR-4 (Slide 87-025X)

Estimated mode

Felsite) Plagioclase)	36
Quartz	16
Carbonate	42
Limonite	5
Rutile) Leucoxene)	1

This sample represents still another variant of the fine-grained felsitic, probably tuffaceous lithotype which dominates the suite.

It is unique in totally lacking any sericite or chlorite. Carbonate, by comparison, is extremely abundant.

It is a very fine-grained rock showing a strong, slightly sinuous, but essentially undisturbed laminar structure paralleling a very well-oriented grain fabric.

The felsitic matrix contains scattered small individual plagioclase crystals to 0.2mm in size, and rare composite augen of coarser plagioclase with intergrown carbonate. Thin, lensy variations in felsite grain size are common.

Quartz is relatively abundant, often segregating as microgranular laminae and lenses, and also forming scattered polygranular augen.

Carbonate is intimately intergrown throughout, as rather elongate grains, commonly coalescing to semi-continuous streaks and networks, and also forming some well-defined laminae, often with intergrown microgranular quartz. A proportion of the carbonate is of distinctive form, being extremely fine-grained and almost sub-opaque in appearance, partially as a result of intergrown flecks and cryptocrystalline inclusions of rutile and leucoxene. This form of carbonate forms swarms of parallel en-echelon wisps and more throughgoing schlieren which strongly reinforce the well-foliated character of the rock. These features are reminiscent of the wispy concentrations of sericite seen in some of the samples, and could possibly be pseudomorphic replacements thereof.

Minor carbonate is in the form of discordant veinlets, which cross-cut and also merge with the dominant laminar/concordant form.

One side of the slide shows strong limonitic impregnation, apparently developed largely by weathering of carbonate (presumably, therefore, a ferruginous variety). Rare elongate clumps of disseminated pyrite are also present but these do not appear to be the origin of the limonite.

This rock is apparently a calcareous thin-bedded tuff or tuffaceous sediment.

Sample TR-13 (Slide 87-026X)

Estimated mode

Plagioclase) Felsite)	62
Quartz	15
Carbonate	15
Sericite	8
Rutile	trace

This rock is of distinctive appearance in thin section and clearly consists of undisturbed, thinly laminated alternations (on the scale of 2 - 10mm) of fine-grained greywacke and calcareous siltstone.

The greywacke beds consist of abundant sub-rounded clasts, 0.1 - 0.3mm in size, of incipiently sericitized plagioclase and minor quartz, set in a felsitic-textured quartzo-feldspathic, silty matrix of grain size 5 - 30 microns. This matrix contains rather sparse wisps of very fine-grained sericite which wrap around the somewhat parallel-elongated clasts and define a weak, sinuous foliation. Carbonate is rather evenly disseminated through the matrix, in interstitial relation to the clasts.

The siltstone beds are of similar composition but lack the coarser clasts and consequently have a relatively higher content of sericite and carbonate and more even parallelism of fabric compared with the wacke.

This rock lacks the scattered coarse augen and wispy/lensy fabric seen in most of the rocks of the suite and thought to be indicative of tuffaceous character. It is a homogenous, well-sorted rock of obvious sedimentary origin, though the high content of plagioclase suggests close affinities with, or derivation from, felsic volcanic or tuffaceous material.

APPENDIX D

WHOLE ROCK ANALYSES

CERTIFICATE OF ANALYSIS

TO: OREQUEST CONSULTANTS
ATTN: G. CAVEY
595 HOWE STREET, SUITE 404
VANCOUVER, BRITISH COLUMBIA
V6C 2T5

CUSTOMER NO. 1374

DATE SUBMITTED
19-NOV-86

REPORT 30291

REF. FILE 25862-S3

43 S.CORES PROJ. REGAL SWAZIE

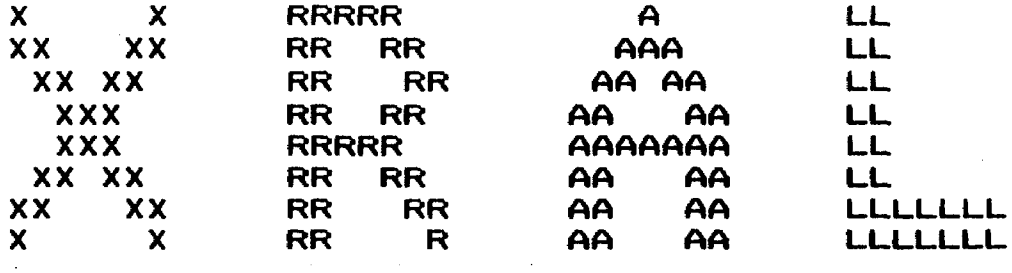
WERE ANALYSED AS FOLLOWS:

	METHOD	DETECTION LIMIT
WRMAJ %	WR	0.010
WRMIN PPM	WR	10.000

X-RAY ASSAY LABORATORIES LIMITED

DATE 04-DEC-86

CERTIFIED BY .....



XRF - WHOLE ROCK ANALYSIS

OREQUEST CONSULTANTS
Attn: G. CAVEY
595 HOWE STREET, SUITE 404
VANCOUVER, BRITISH COLUMBIA
V6C 2T5

CUSTOMER No. 1374

DATE SUBMITTED
19-NOV-86

REPORT 30291 REF. FILE 25862 04-DEC-86

XRF W. R. A. SUMS INCLUDE ALL ELEMENTS DETERMINED.
FOR SUMMATION ELEMENTS ARE CALCULATED AS OXIDES.

X-RAY ASSAY LABORATORIES 04-DEC-86 REPORT 30291 REFERENCE FILE 25862 PAGE 1

	SAMPLE	SIO2	AL203	CAO	MGO	NA20	K20	FE203	MNO	TIO2	P205	CR203	LOI	SUM
2-88	RG-1 H CAT	67.2	15.1	2.50	0.96	5.29	2.19	2.13	0.03	0.32	0.10	0.01	3.47	99.5
2-87	RG-2 GRMYL	62.5	17.4	2.46	2.12	6.07	2.01	3.01	0.05	0.33	0.13	0.01	2.93	99.2
2-65	RG-3 GY BL CAT	62.0	14.8	5.99	1.08	10.6	0.41	2.89	0.06	0.41	0.27	0.01	1.00	100.1
2-57	RG-4 GY CAT py	67.2	15.4	2.44	1.20	6.31	1.61	2.78	0.03	0.31	0.11	0.08	2.85	100.5
2-75	RG-5 GN CAT	62.0	17.9	2.93	1.69	5.83	2.38	3.70	0.05	0.35	0.15	0.01	2.85	100.1
2-35	RG-6 brCAT/CQD	67.0	13.8	2.89	0.55	6.44	1.33	3.12	0.04	0.34	0.11	0.01	4.00	99.8
2-27	RG-7se CAT	64.3	15.7	3.23	1.07	6.00	2.02	2.40	0.04	0.35	0.13	0.01	4.00	99.4
286	RG-8 GN CAT	66.2	15.6	2.17	0.91	3.49	3.37	2.62	0.03	0.34	0.09	0.01	3.85	98.8
1-284	RG-9 H CAT	63.3	13.9	5.19	0.94	3.54	2.71	2.45	0.06	0.30	0.07	0.01	6.39	99.1
-282	RG-10 pink CAT	61.9	17.6	3.36	0.86	4.31	3.62	2.36	0.04	0.38	0.09	0.01	4.47	99.2
1-276	RG-11 QD	57.1	12.4	5.75	4.50	3.82	0.54	7.06	0.12	0.64	0.34	0.03	6.47	99.0
-280	RG-12 QD	55.2	13.7	6.37	3.95	5.18	0.57	5.99	0.12	0.64	0.33	0.02	7.77	100.0
-267	RG-13 QD	56.7	15.8	4.59	3.65	4.84	1.35	5.62	0.10	0.60	0.42	0.02	5.16	99.1
12-4	RG-14 ch A bl	47.2	12.8	6.67	2.48	2.89	0.05	13.0	0.25	6.69	0.14	0.02	13.8	100.1
R-13	RG-15 CAT	66.6	12.6	3.95	1.54	6.45	0.67	2.13	0.10	0.28	0.09	0.01	5.85	100.4
4-15	RG-16 CAT R/G	67.0	15.7	2.67	0.94	6.39	1.47	2.18	0.05	0.33	0.10	0.01	2.16	99.2
-30	RG-17 CAT sil R	64.3	14.7	3.48	1.43	7.04	1.00	2.56	0.06	0.29	0.10	0.01	5.31	100.5
4-45	RG-18 CAT R	67.1	15.8	3.25	0.62	6.65	1.53	1.34	0.04	0.32	0.10	0.01	2.31	99.3
4-60	RG-19 CAT R/G	65.5	15.4	4.38	1.13	5.73	1.65	2.20	0.07	0.28	0.09	0.01	3.31	100.0
-75	RG-20 CAT R/G	66.4	16.6	2.19	1.00	5.73	2.37	2.09	0.04	0.31	0.10	0.01	2.00	99.1
4-90	RG-21 CAT R/GY	68.5	15.7	2.63	0.83	6.16	1.71	2.03	0.04	0.31	0.09	0.02	1.85	100.1
-105	RG-22 CAT R/G	67.6	15.2	2.56	0.94	6.25	1.60	2.00	0.04	0.32	0.10	0.01	2.47	99.3
4-120	RG-23 CAT R/G	67.9	15.3	2.80	0.80	5.74	1.96	2.20	0.04	0.33	0.10	0.01	2.31	99.7
4-135	RG-24 CAT GY/B	68.0	15.4	2.08	1.38	6.37	1.11	2.16	0.04	0.36	0.12	0.01	1.54	98.8
-150	RG-25 CAT pebR	66.9	15.5	2.50	0.84	5.31	2.69	2.16	0.03	0.30	0.10	0.01	3.08	99.6
4-165	RG-26 CQD/QD	57.8	14.7	3.96	3.66	4.86	2.39	5.97	0.09	0.65	0.32	0.02	4.47	99.1
4-180	RG-27 CQD	52.0	14.2	5.68	4.89	4.30	3.79	6.76	0.13	0.71	0.40	0.03	5.77	99.1

X-RAY ASSAY LABORATORIES 04-DEC-86 REPORT 30291 REFERENCE FILE 25862 PAGE 2

	SAMPLE	SIO2	AL203	CAO	MGO	NA20	K20	FE203	MNO	TIO2	P205	CR203	LOI	SUM
6-7	RG-28 CAT	62.2	15.2	5.16	0.78	5.73	1.72	2.60	0.08	0.36	0.08	0.01	5.00	99.1
4-245	RG-32 COD/CAT	55.1	13.9	4.78	3.69	4.72	2.80	5.10	0.11	0.60	0.31	0.02	7.93	99.3
4-250	RG-33 CAT/COD	53.1	13.6	5.82	3.82	6.40	0.86	5.80	0.11	0.60	0.32	0.02	8.39	99.1
4-255	RG-34 CAT R/BR	64.2	14.8	2.79	1.85	4.33	2.97	3.47	0.05	0.43	0.19	0.01	4.47	99.7
4-260	RG-35 CAT R/G	59.6	14.7	4.98	1.63	4.47	2.91	3.50	0.06	0.44	0.19	0.01	6.39	99.1
4-265	RG-36 CAT R/G	61.5	13.7	4.93	2.15	4.60	2.09	3.81	0.06	0.45	0.18	0.01	6.16	99.8
4-270	RG-37 CAT R	61.4	14.0	4.64	2.43	4.91	2.17	3.66	0.07	0.44	0.18	0.01	5.23	99.3
2-155	RG-39 QD	58.5	14.4	4.34	3.61	4.38	3.37	5.23	0.09	0.58	0.28	0.02	4.08	99.2
2-165	RG-40 QD	58.0	14.2	4.88	3.93	3.39	4.08	5.99	0.10	0.63	0.31	0.02	2.85	98.7
2-175	RG-41 QD	58.3	14.7	4.66	3.87	4.11	3.63	5.89	0.11	0.62	0.30	0.02	2.85	99.4
2-185	RG-42 COD/QD	58.0	15.2	3.44	3.95	5.08	3.16	6.16	0.09	0.69	0.33	0.02	3.70	100.1
3-245	RG-43 QD	54.4	14.1	5.97	4.13	4.51	2.72	6.27	0.12	0.67	0.36	0.02	5.93	99.5
3-250	RG-44 CAT BL/GY	67.2	15.2	2.44	0.82	5.32	2.66	2.43	0.04	0.30	0.08	0.01	2.93	99.6
3-255	RG-45 CAT GY/G	68.4	14.7	2.51	0.66	5.02	2.76	1.94	0.03	0.31	0.08	0.01	2.85	99.4
3-260	RG-46 CAT G	60.2	11.5	5.68	2.96	4.31	1.76	4.26	0.10	0.41	0.17	0.03	7.39	99.0
3-265	RG-47 CCS	59.3	13.5	5.78	3.79	5.65	0.84	4.01	0.08	0.45	0.19	0.03	5.70	99.5

SAMPLE	RB	SR	Y	ZR	NB	BA
RG-1	100	1060	<10	70	20	820
RG-2	70	960	<10	110	10	810
RG-3	10	3540	30	90	30	860
RG-4	80	940	10	90	10	690
RG-5	90	1490	10	120	20	890
RG-6	60	570	<10	100	10	490
RG-7	70	720	<10	100	10	640
RG-8	150	300	<10	110	10	530
RG-9	120	1040	10	60	<10	660
RG-10	180	870	<10	110	20	740
RG-11	50	1010	10	160	10	420
RG-12	40	1080	20	120	10	320
RG-13	60	1250	10	20	20	560
RG-14	10	70	20	90	10	100
RG-15	40	680	10	80	20	490
RG-16	60	1010	<10	100	10	670
RG-17	50	1180	<10	70	20	340
RG-18	80	1020	<10	100	10	650
RG-19	60	900	<10	90	10	750
RG-20	100	920	<10	90	<10	870
RG-21	70	1210	20	90	10	740
RG-22	60	840	<10	100	10	660
RG-23	90	1100	<10	100	<10	650
RG-24	50	1120	10	110	<10	420
RG-25	130	710	20	90	10	690
RG-26	110	910	20	210	10	740
RG-27	210	1660	30	190	10	1300

SAMPLE	RB	SR	Y	ZR	NB	BA
RG-28	80	640	<10	80	10	370
RG-32	90	1110	10	150	10	940
RG-33	30	930	<10	140	20	700
RG-34	150	460	10	90	10	740
RG-35	140	460	<10	100	10	880
RG-36	90	520	<10	90	<10	680
RG-37	90	510	10	100	10	660
RG-39	160	1130	20	160	10	1400
RG-40	170	1300	20	170	<10	1240
RG-41	160	1280	20	180	20	1120
RG-42	160	830	20	200	20	930
RG-43	130	920	30	170	<10	1120
RG-44	100	590	<10	80	10	670
RG-45	120	560	<10	110	10	580
RG-46	70	600	20	80	10	940
RG-47	30	610	20	100	<10	560

CERTIFICATE OF ANALYSIS

TO: OREQUEST CONSULTANTS
ATTN: G. CAVEY
595 HOWE STREET, SUITE 404
VANCOUVER, BRITISH COLUMBIA
V6C 2T5

CUSTOMER NO. 1374

DATE SUBMITTED
23-DEC-86

REPORT 30710

REF. FILE 26289-N1

44 SPLIT CORE

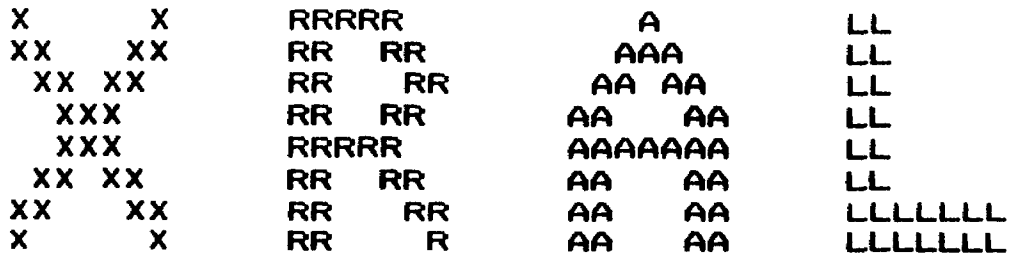
WERE ANALYSED AS FOLLOWS:

	METHOD	DETECTION LIMIT
WRMAJ %	WR	0.010
WRMIN PPM	WR	10.000

X-RAY ASSAY LABORATORIES LIMITED

DATE 19-JAN-87

CERTIFIED BY .....



XRF - WHOLE ROCK ANALYSIS

OREQUEST CONSULTANTS
Attn: G. CAVEY
595 HOWE STREET, SUITE 404
VANCOUVER, BRITISH COLUMBIA
V6C 2T5

CUSTOMER No. 1374

DATE SUBMITTED
23-DEC-86

REPORT 30710 REF. FILE 26289 19-JAN-87

XRF W. R. A. SUMS INCLUDE ALL ELEMENTS DETERMINED.
FOR SUMMATION ELEMENTS ARE CALCULATED AS OXIDES.

X-RAY ASSAY LABORATORIES 19-JAN-87 REPORT 30710 REFERENCE FILE 26289 PAGE 1

SAMPLE	SIO2	AL203	CAO	MGO	NA2O	K2O	FE203	MNO	TIO2	P2O5	CR203	LOI	SUM
5-70	65.0	15.6	3.93	1.02	5.29	2.03	2.62	0.05	0.34	0.13	0.01	3.77	100.0
5-80	65.3	16.3	2.79	1.12	5.94	2.06	2.84	0.04	0.39	0.13	0.01	2.93	100.1
5-90	67.3	15.6	2.31	1.09	6.87	1.16	2.70	0.04	0.35	0.12	0.01	2.54	100.3
5-100	66.0	14.3	3.27	1.05	4.92	2.28	3.00	0.04	0.46	0.13	0.01	4.54	100.2
5-130	55.8	14.7	4.17	3.01	4.13	4.29	5.14	0.09	0.58	0.30	0.02	6.93	99.4
5-140	56.8	16.5	3.75	3.14	4.09	4.28	6.02	0.08	0.68	0.35	0.01	4.54	100.5
5-150	56.3	14.4	6.87	2.33	4.25	2.67	5.52	0.08	0.60	0.31	0.01	6.62	100.2
5-160	53.0	17.8	5.50	2.52	4.38	3.49	5.59	0.07	0.76	0.43	0.01	6.54	100.3
5-170	58.2	14.6	6.01	2.02	4.76	2.27	4.72	0.09	0.52	0.28	0.01	6.31	100.0
5-180	58.0	17.9	3.53	3.06	6.18	1.75	5.80	0.10	0.79	0.21	0.03	3.00	100.6
5-190	64.6	14.6	3.70	1.66	5.49	2.15	3.45	0.07	0.44	0.19	0.01	3.62	100.2
5-200	65.3	13.1	4.96	2.61	5.10	1.14	3.46	0.08	0.42	0.16	0.01	3.70	100.2
6-25	44.6	8.21	6.64	17.8	1.51	1.36	9.27	0.16	0.51	0.19	0.21	9.23	99.8
6-35	44.4	8.26	6.90	17.5	1.72	0.11	9.50	0.16	0.54	0.22	0.21	9.62	99.2
6-45	64.6	14.9	3.90	1.73	3.77	2.21	3.69	0.07	0.38	0.08	0.01	4.47	99.9
6-55	52.7	15.8	9.70	1.89	3.24	2.13	4.78	0.14	0.83	0.08	0.03	8.39	99.8
6-65	58.5	15.6	6.47	2.16	0.84	3.26	4.45	0.09	0.70	0.08	0.03	7.54	99.8
6-85	67.8	15.8	2.69	1.15	3.37	2.34	2.73	0.04	0.34	0.09	<0.01	3.85	100.3
6-95	55.7	15.3	7.15	1.67	3.42	1.26	5.75	0.11	0.60	0.08	0.02	8.62	99.8
7-65	67.8	14.6	2.80	0.93	6.16	1.40	2.08	0.04	0.26	0.07	0.01	4.16	100.5
7-70	67.5	15.5	2.31	0.80	7.16	1.14	1.71	0.03	0.27	0.08	0.01	3.39	100.1
7-75	37.5	14.5	12.4	4.41	3.22	2.39	7.25	0.29	0.40	0.12	<0.01	17.5	100.2
7-80	60.2	14.7	6.26	1.56	4.44	1.88	2.70	0.08	0.34	0.10	<0.01	7.39	99.8
7-85	64.6	15.6	4.01	1.21	4.55	1.57	2.15	0.04	0.33	0.08	<0.01	5.85	100.1
7-90	66.6	15.9	3.67	0.95	4.44	1.61	1.85	0.03	0.33	0.09	0.01	4.70	100.3
7-95	69.5	16.7	2.02	0.74	4.04	2.11	1.05	0.04	0.43	0.10	0.01	3.54	100.4
7-100	67.8	15.0	4.44	0.59	4.33	1.65	1.28	0.03	0.32	0.08	0.01	4.62	100.3

SAMPLE	SIO2	AL203	CAO	MGO	NA2O	K2O	FE203	MNO	TIO2	P2O5	CR203	LOI	SUM
7-105	57.7	13.5	8.24	2.23	3.71	0.85	5.41	0.12	0.40	0.07	0.01	8.08	100.4
7-110	56.8	16.0	4.50	3.55	4.76	0.83	6.47	0.13	0.97	0.09	0.02	6.08	100.3
7-115	54.8	15.4	6.47	4.54	4.12	0.15	7.35	0.16	1.05	0.09	0.02	6.39	100.6
7-120	48.8	14.2	9.19	5.07	2.62	0.33	9.03	0.22	0.97	0.08	0.01	8.93	99.5
7-125	52.4	14.4	7.89	4.23	3.73	0.48	7.55	0.18	0.74	0.07	0.01	8.00	99.7
7-130	44.7	13.8	9.36	7.03	1.42	0.08	12.4	0.33	0.94	0.08	0.01	10.0	100.2
7-135A	67.8	16.2	1.52	1.53	7.82	0.61	2.29	0.05	0.33	0.09	0.01	1.93	100.3
7-135B	68.7	16.0	1.67	1.33	6.93	1.03	1.99	0.04	0.31	0.09	0.01	1.93	100.1
8-60	63.0	14.7	4.46	2.22	3.60	1.52	4.51	0.07	0.58	0.34	0.02	4.70	99.9
8-65	59.9	14.7	6.15	1.74	4.07	1.58	4.06	0.09	0.48	0.18	<0.01	6.93	100.1
8-70	67.3	17.2	1.79	0.88	4.34	2.27	2.00	0.03	0.39	0.12	<0.01	3.93	100.5
8-75	65.0	15.8	4.36	0.90	4.04	2.23	2.24	0.04	0.36	0.09	0.01	5.08	100.3
8-80	59.4	20.6	2.26	0.94	9.19	1.31	2.10	0.04	0.33	0.08	<0.01	4.00	100.5
8-90	65.3	17.0	3.90	0.48	4.95	2.03	1.68	0.04	0.34	0.11	0.01	4.31	100.3
8-95	65.2	15.1	4.85	1.28	3.48	1.94	2.63	0.05	0.33	0.08	0.01	5.08	100.1
8-100	51.3	14.9	10.6	2.45	3.44	1.29	5.34	0.15	0.84	0.08	0.02	9.47	100.0
8-105	53.7	16.3	8.40	2.37	3.80	1.58	5.04	0.12	0.84	0.08	0.02	7.62	100.0

SAMPLE	RB	SR	Y	ZR	NB	BA
5-70	90	990	20	100	10	650
5-80	80	800	<10	100	20	730
5-90	50	1060	20	110	20	550
5-100	110	930	<10	110	10	620
5-130	140	820	30	170	10	1290
5-140	190	480	20	230	20	1020
5-150	100	660	20	180	20	910
5-160	140	460	20	280	10	1280
5-170	90	960	20	140	10	970
5-180	70	1090	10	80	10	570
5-190	110	620	20	150	10	710
5-200	30	560	10	70	10	390
6-25	80	400	<10	30	10	80
6-35	20	460	<10	30	10	70
6-45	70	260	<10	80	20	320
6-55	80	320	20	40	10	320
6-65	120	180	10	50	10	420
6-85	120	440	<10	120	10	360
6-95	70	460	<10	70	20	260
7-65	90	750	<10	70	10	540
7-70	60	870	<10	70	10	380
7-75	90	630	10	80	20	680
7-80	60	580	<10	90	10	550
7-85	60	560	<10	110	20	400
7-90	60	540	<10	90	10	330
7-95	80	580	10	120	20	490
7-100	50	480	<10	90	10	350

SAMPLE	RB	SR	Y	ZR	NB	BA
7-105	50	210	<10	70	30	170
7-110	20	160	<10	60	10	250
7-115	10	120	30	40	10	90
7-120	30	120	30	40	10	90
7-125	20	90	<10	60	20	240
7-130	20	130	10	40	20	50
7-135A	20	230	10	90	10	290
7-135B	60	310	<10	90	<10	510
8-60	70	790	10	120	20	940
8-65	60	1030	<10	80	10	900
8-70	90	800	<10	100	20	960
8-75	90	500	<10	100	10	440
8-80	60	1050	<10	100	10	500
8-90	80	680	<10	80	10	600
8-95	60	470	<10	100	10	360
8-100	40	350	20	30	20	300
8-105	60	310	10	40	10	300

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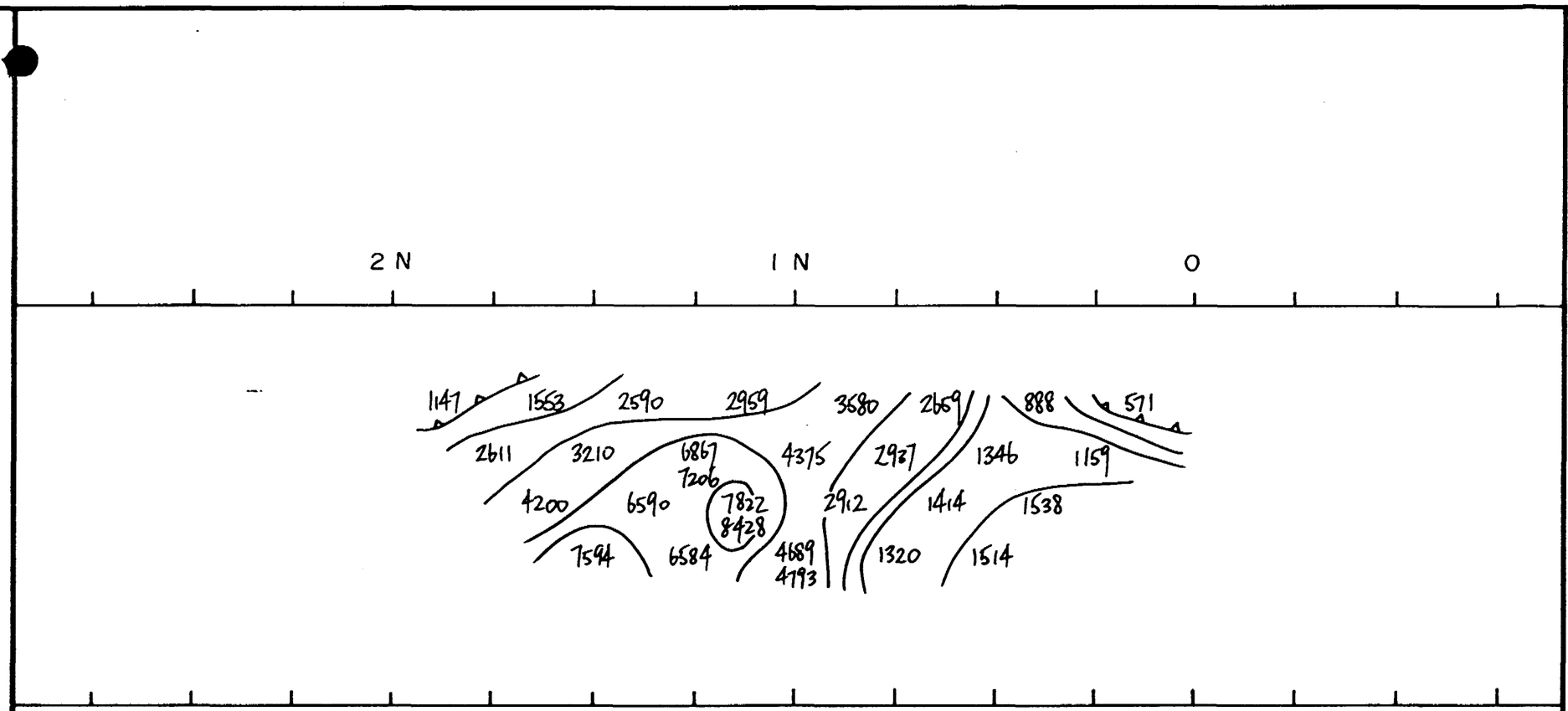
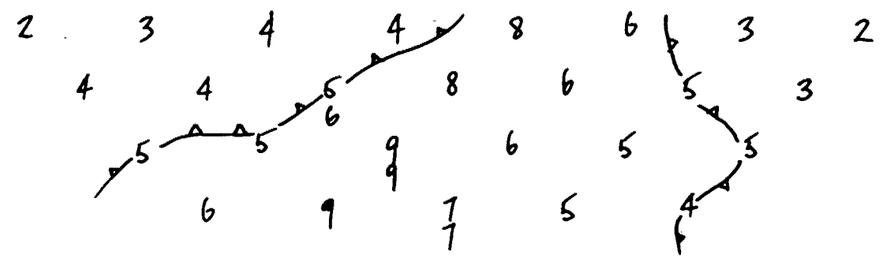
APPENDIX E

IP SURVEY PSEUDOSECTIONS





Jan. 1987

LEGEND

INSTRUMENTS

Tx : EDA IP-1

Rx : Phoenix IPT-1

ELECTRODE ARRAY

Dipole – Dipole

a = 25 m

FIGURE

IP SURVEY
LINE 4+00E

REGAL PETROLEUM LTD.

SWAYZE AREA, PORCUPINE MIN. DIV.

OREQUEST

8 N

7 N

6 N

1 N

1013 792 1587 896 824 800 583 702 534 894 703 844 2655

851 1315 1717 572 563 489 974 779 1352 1068 1024 696 1286

1528 990 983 925 290 613 1019 1718 1620 1649 1200 980

1000 440 464 510 349 657 2245 2143 2133 1658 1512

5417 3570 836

5454 2377 2380 1024

2865 2172 2397

2382 2420 2568

DDH
RG-86-6

A

B

?

-50°

2 2 2 9 18 17 13 7 3 2 13 9 3

2 1 10 21 19 26 13 9 3 (18) 14 (14) 8

0 11 21 (25) 32 11 (8) (15) 13 (14) 15

16 18 (22) 31 26 13 (14) (10) (11) (13)

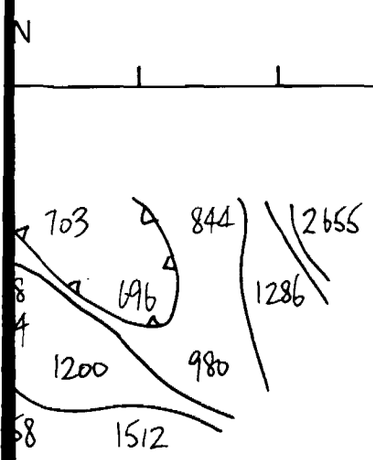
169.5 m

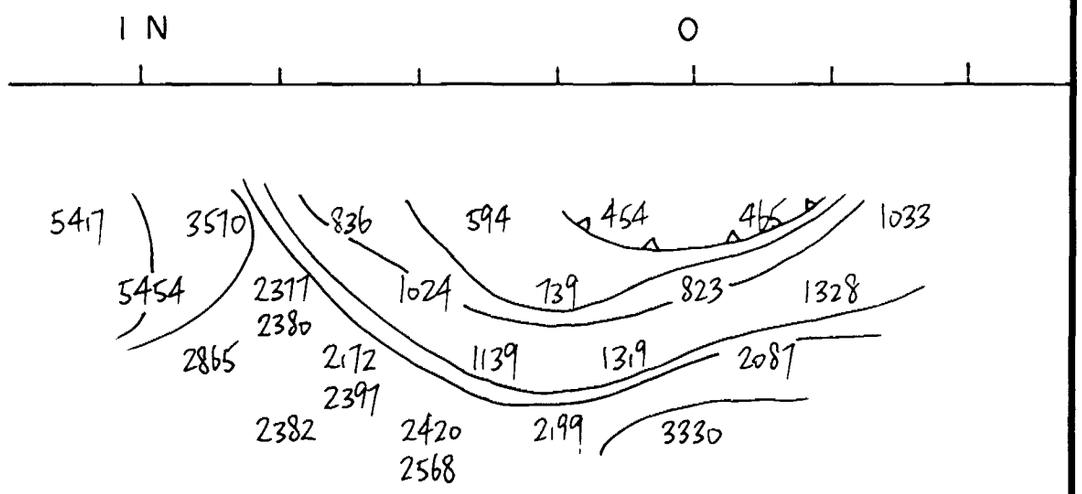
5 5 4

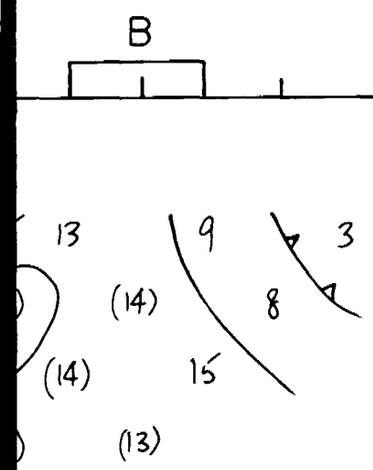
6 6 6 4

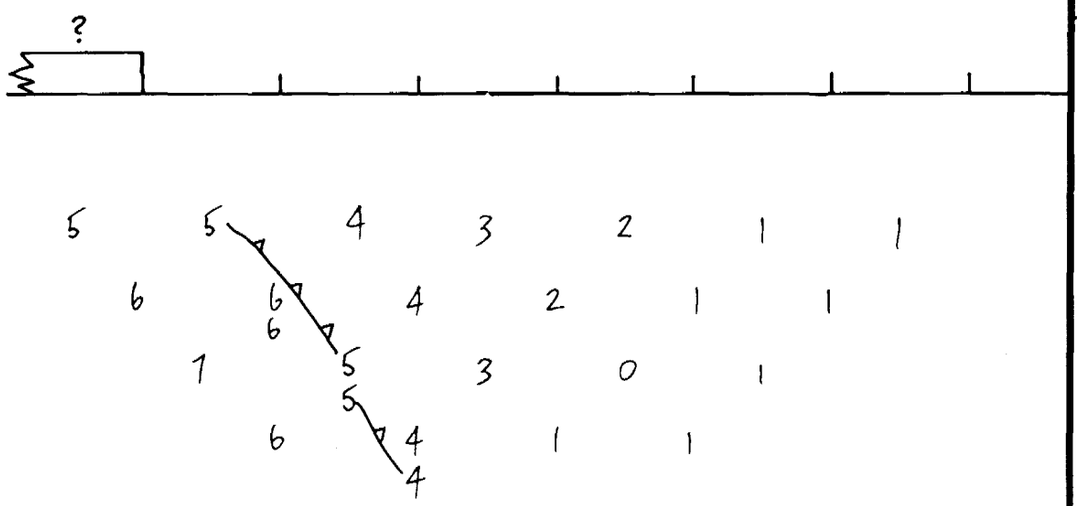
7 5 5

6 4 4









LEGEND

INSTRUMENTS

Tx : EDA IP-1

Rx : Phoenix IPT-1

ELECTRODE ARRAY

Dipole — Dipole

a = 25 m

Jan. 1987

FIGURE

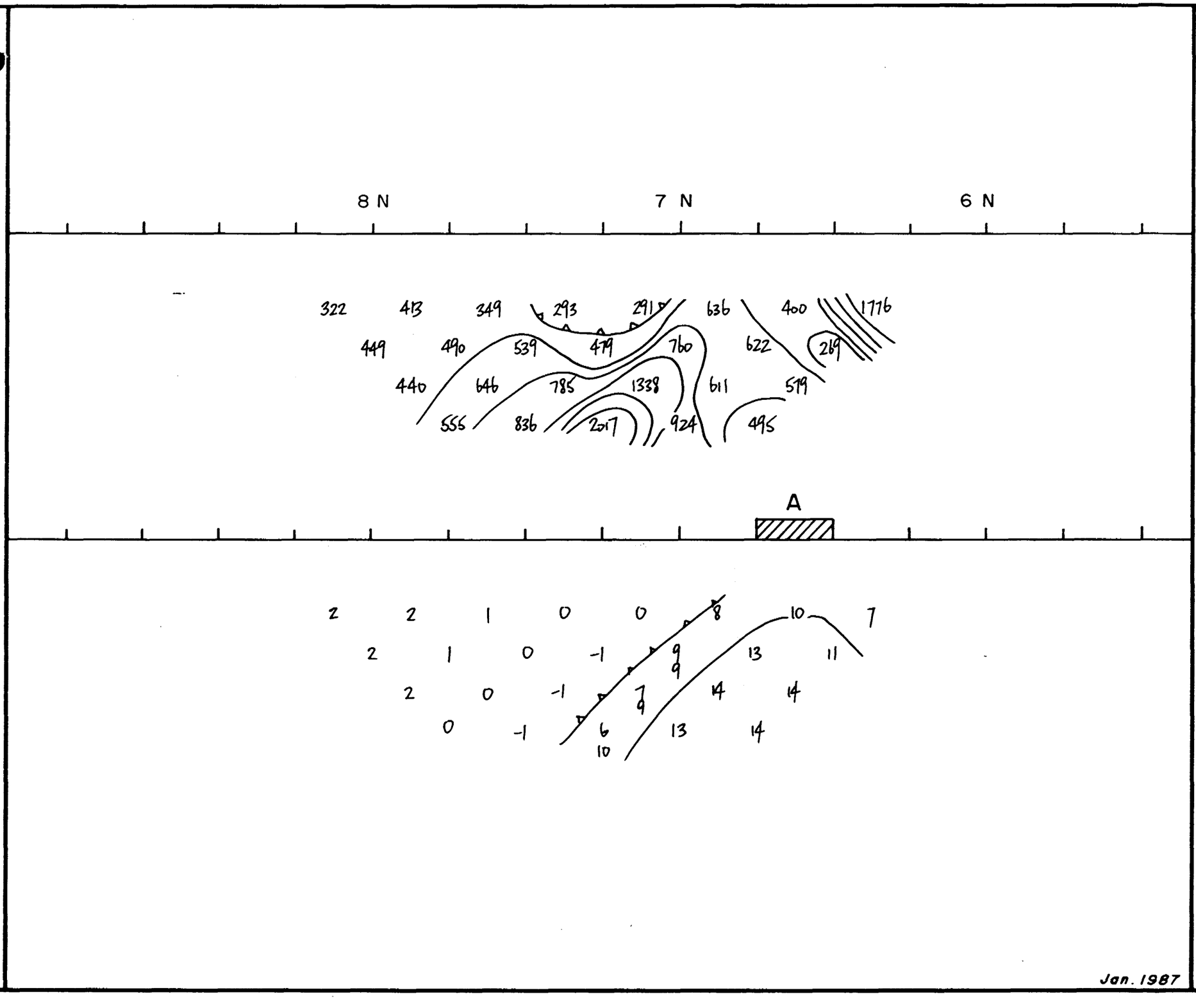
IP SURVEY

LINE 5+00E

REGAL PETROLEUM LTD.

SWAYZE AREA, PORCUPINE MIN. DIV.

OREQUEST



LEGEND

INSTRUMENTS

Tx : EDA IP-1

Rx : Phoenix IPT-1

ELECTRODE ARRAY

Dipole – Dipole

a = 25 m

Jan. 1987

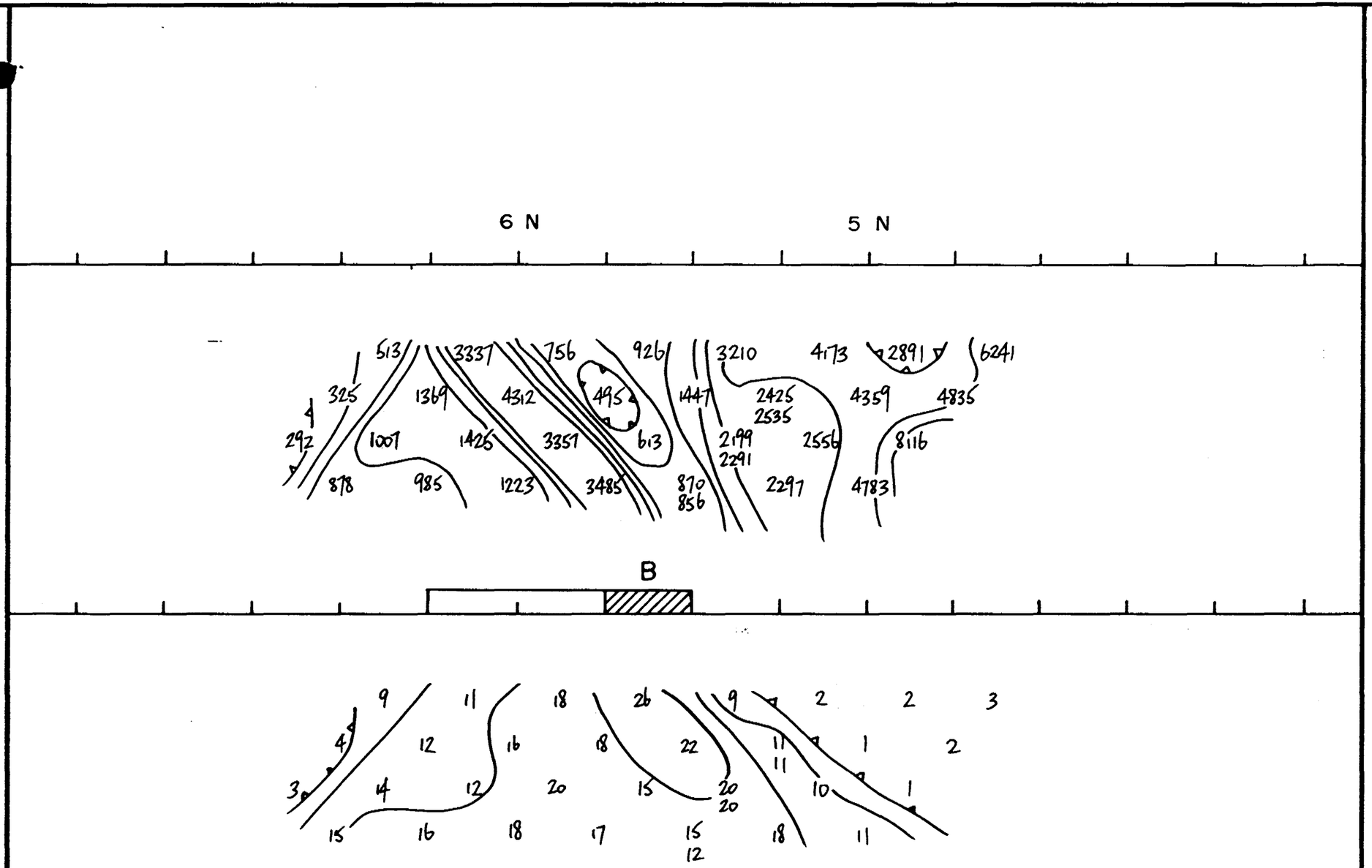
FIGURE

IP SURVEY
LINE 6+00E

REGAL PETROLEUM LTD.

SWAYZE AREA, PORCUPINE MIN. DIV.

OREQUEST



LEGEND

INSTRUMENTS

Tx : EDA IP-1

Rx : Phoenix IPT-1

ELECTRODE ARRAY

Dipole – Dipole

a = 25 m

FIGURE

IP SURVEY

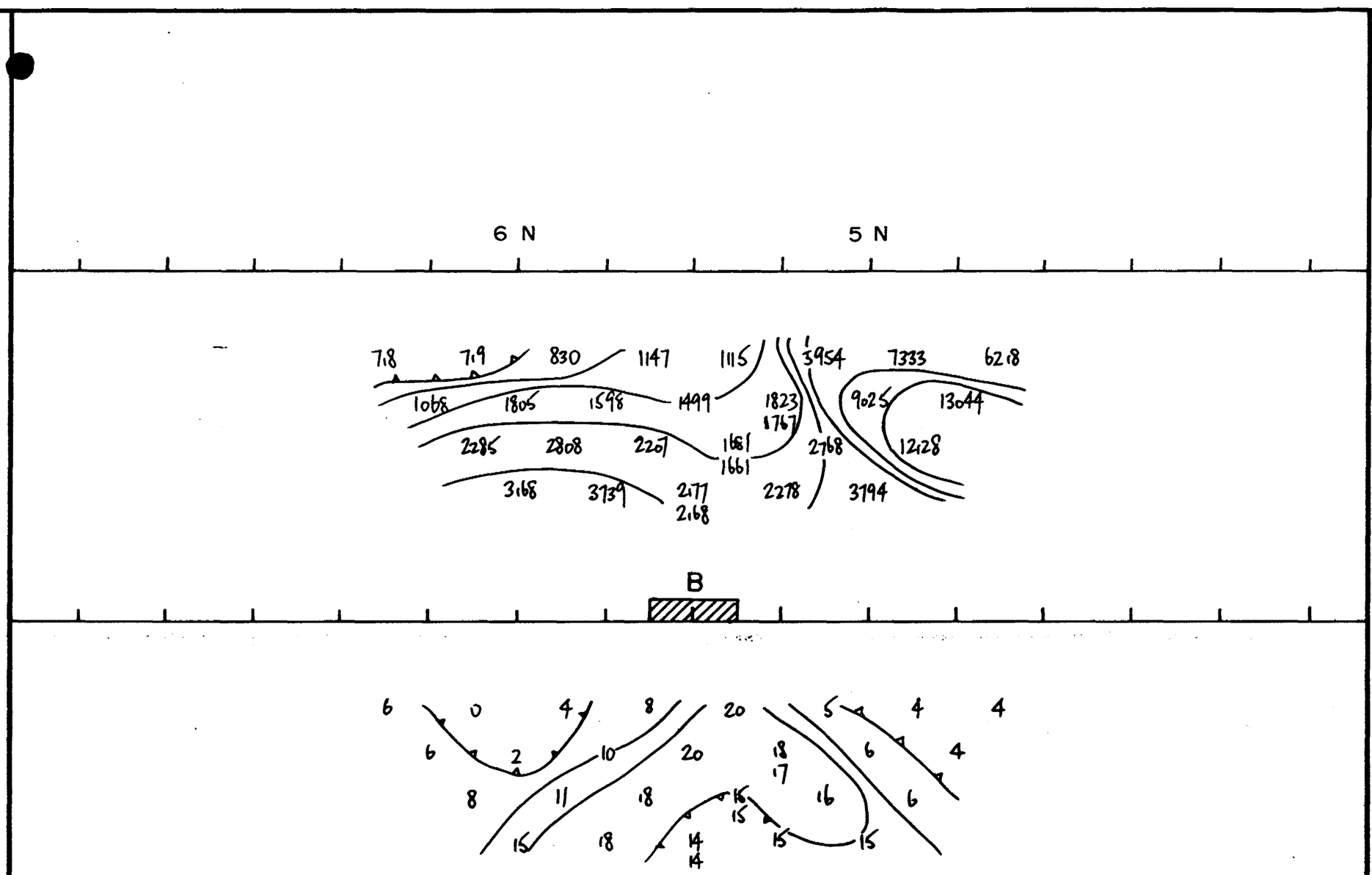
LINE 7+00E

REGAL PETROLEUM LTD.

SWAYZE AREA, PORCUPINE MIN. DIV.

OREQUEST

Jan. 1987



LEGEND

INSTRUMENTS

Tx : EDA IP-1

Rx : Phoenix IPT-1

ELECTRODE ARRAY

Dipole – Dipole

a = 25 m

FIGURE

IP SURVEY

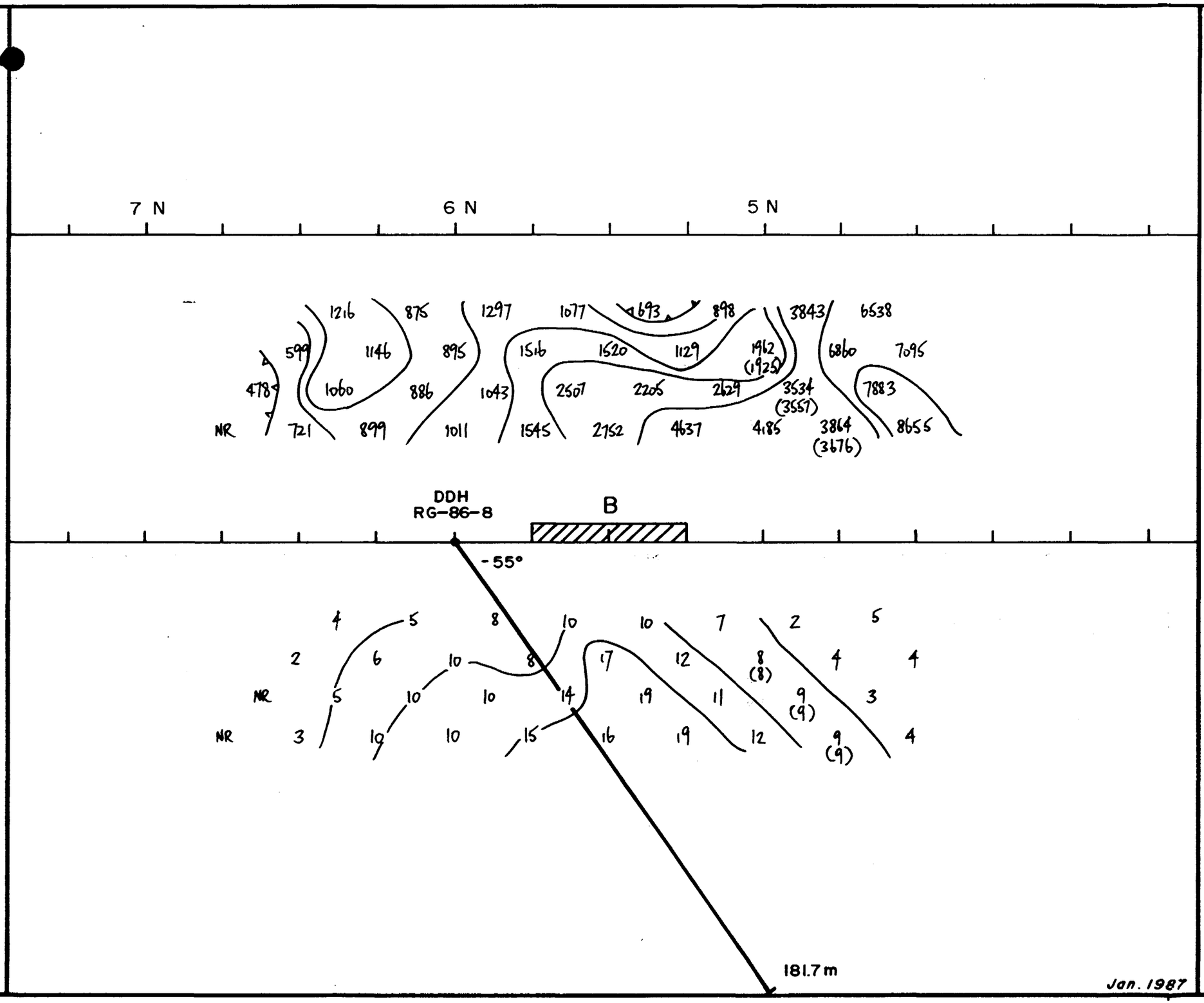
LINE 8+00E

REGAL PETROLEUM LTD.

SWAYZE AREA, PORCUPINE MIN. DIV.

OREQUEST

Jan. 1987



LEGEND

INSTRUMENTS

Tx : EDA IP-1

Rx : Phoenix IPT-1

ELECTRODE ARRAY

Dipole – Dipole

a = 25 m

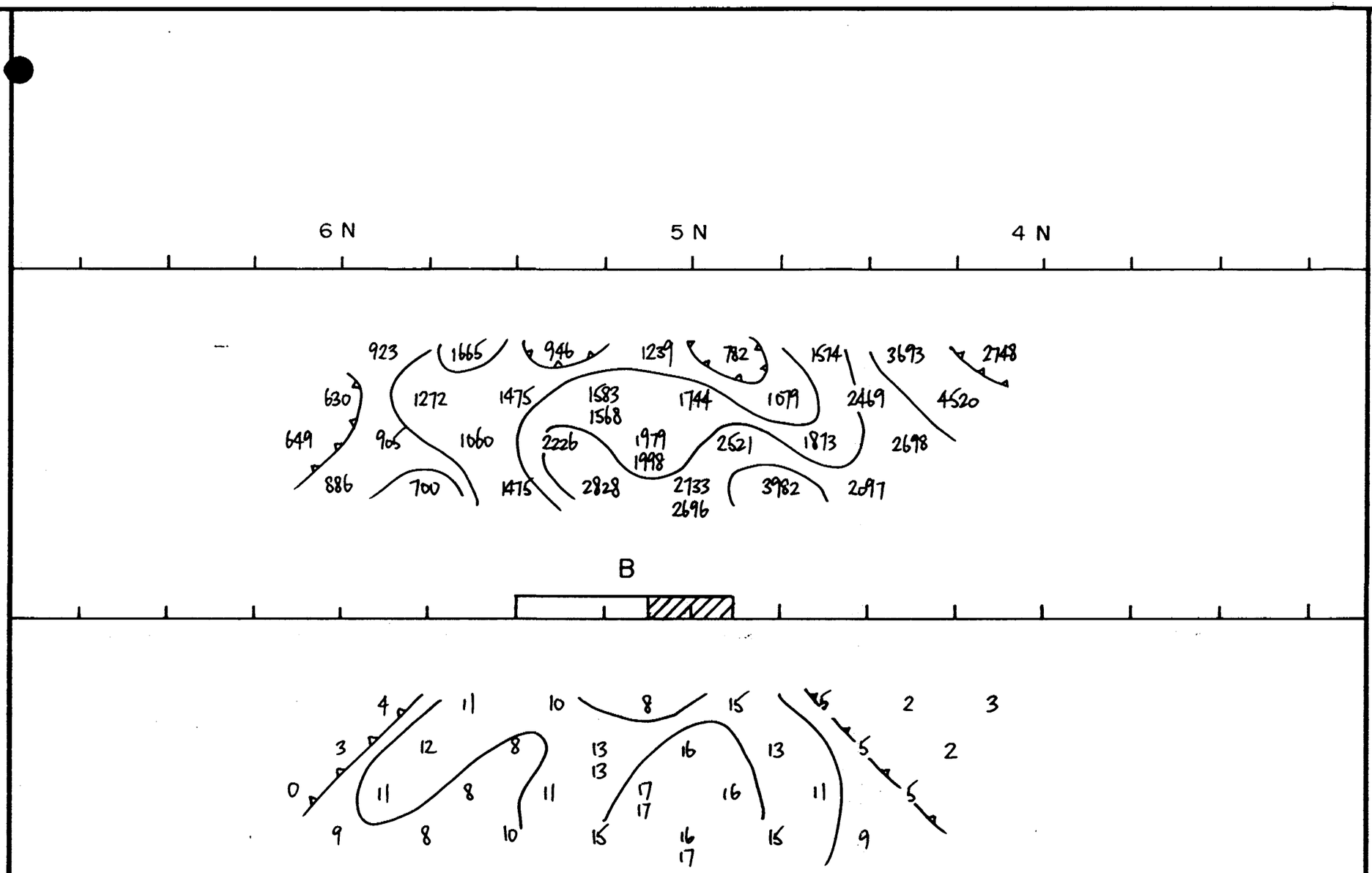
FIGURE

IP SURVEY
LINE 9+00E

REGAL PETROLEUM LTD.

SWAYZE AREA, PORCUPINE MIN. DIV.

OREQUEST



LEGEND

INSTRUMENTS

Tx : EDA IP-1

Rx : Phoenix IPT-1

ELECTRODE ARRAY

Dipole – Dipole

a = 25 m

FIGURE

IP SURVEY

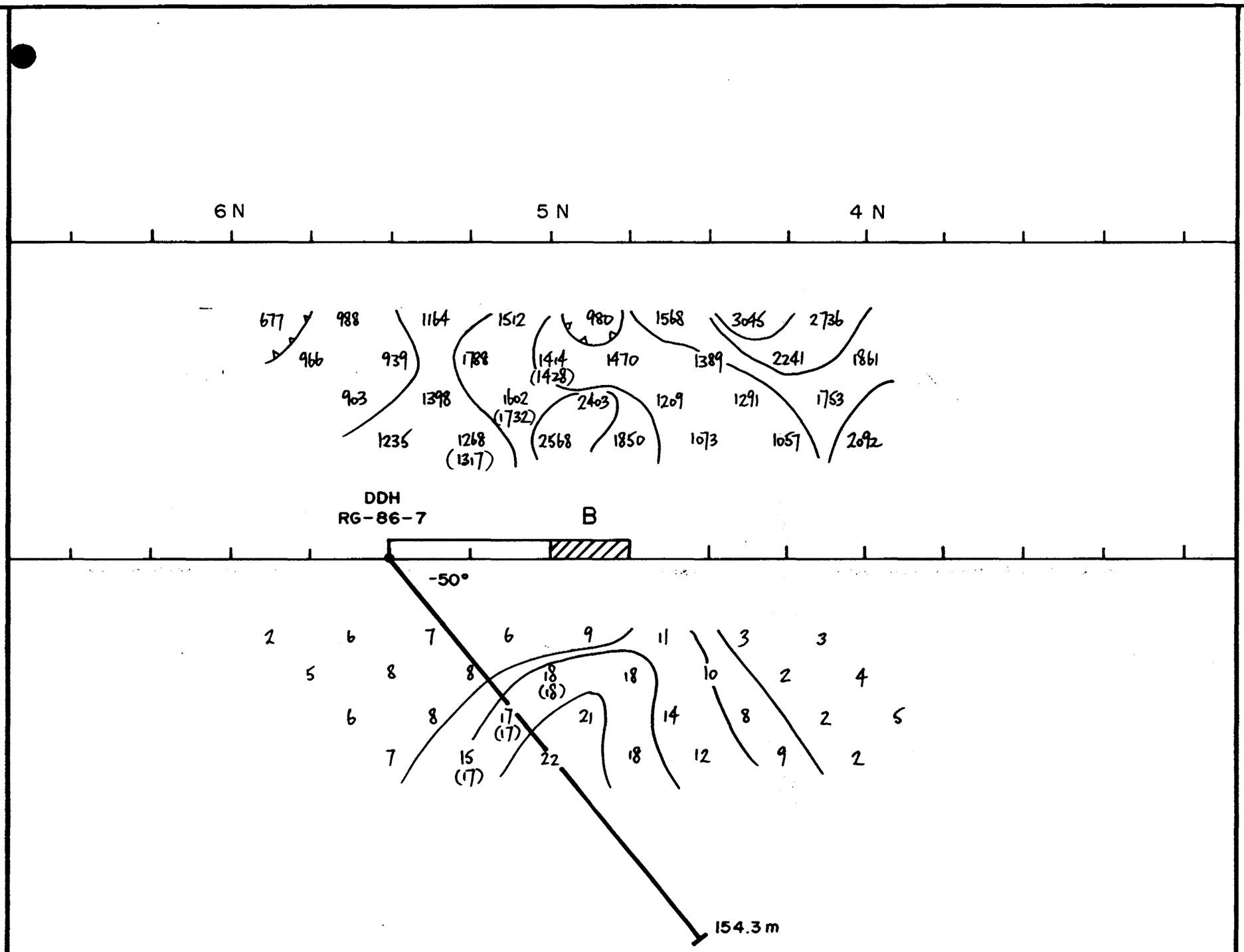
LINE 10+00E

REGAL PETROLEUM LTD.

SWAYZE AREA, PORCUPINE MIN. DIV.

OREQUEST

Jan. 1987



Jan. 1987

LEGEND

INSTRUMENTS

Tx : EDA IP-1

Rx : Phoenix IPT-1

ELECTRODE ARRAY

Dipole – Dipole

a = 25 m

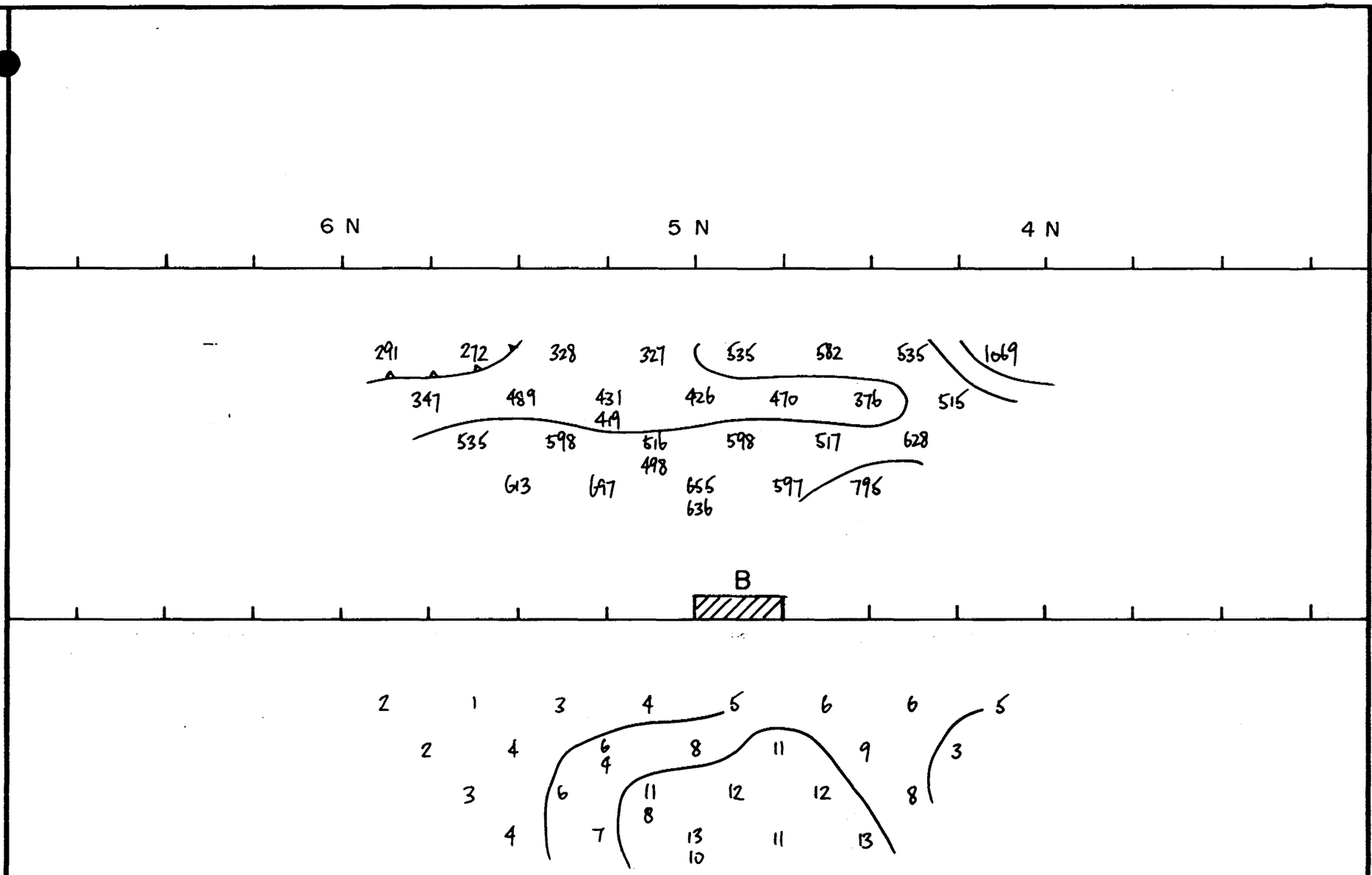
FIGURE

IP SURVEY
LINE 11+00E

REGAL PETROLEUM LTD.

SWAYZE AREA, PORCUPINE MIN. DIV.

OREQUEST



LEGEND

INSTRUMENTS

Tx : EDA IP-1

Rx : Phoenix IPT-1

ELECTRODE ARRAY

Dipole – Dipole

a = 25 m

Jan. 1987

FIGURE

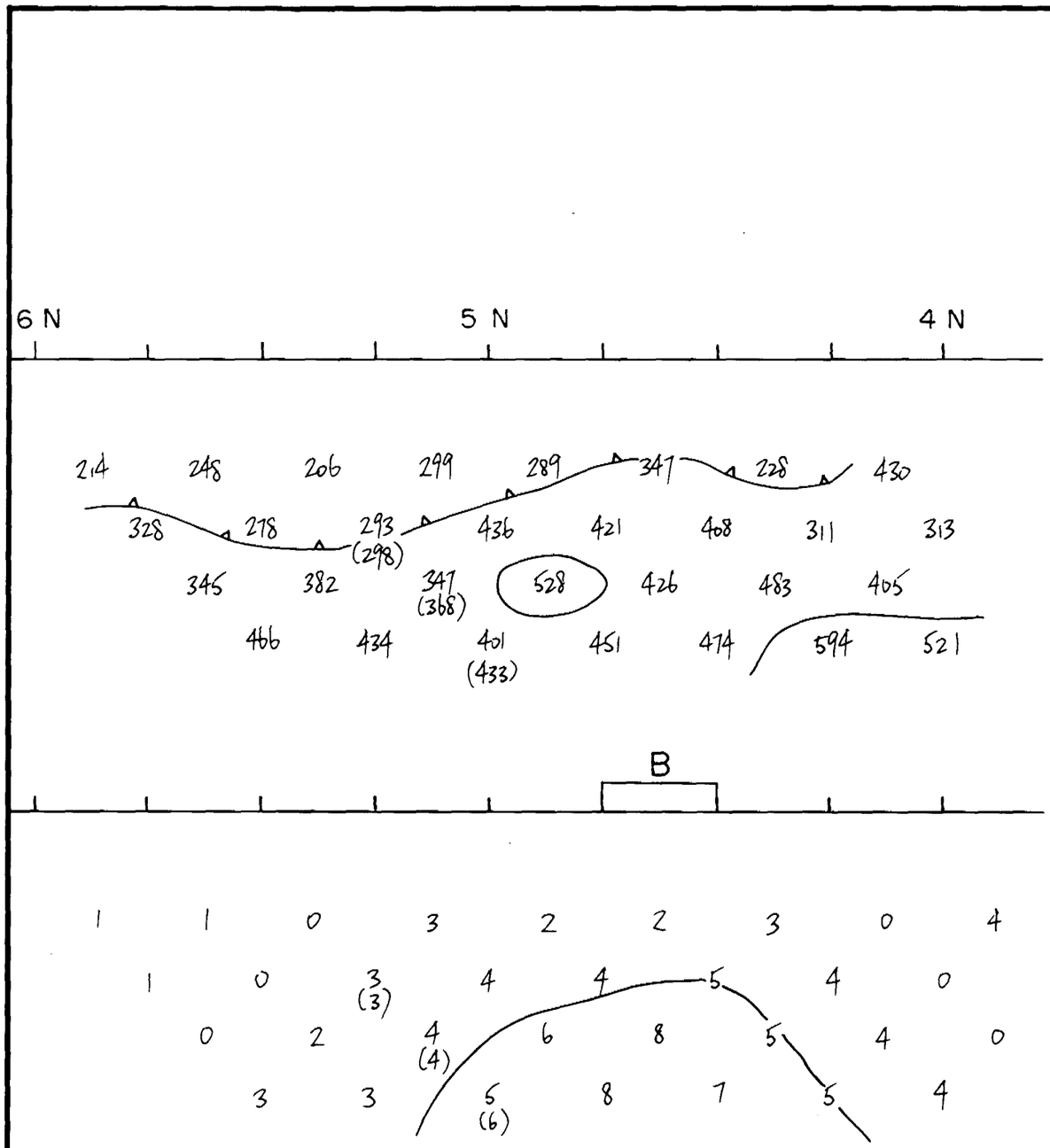
IP SURVEY

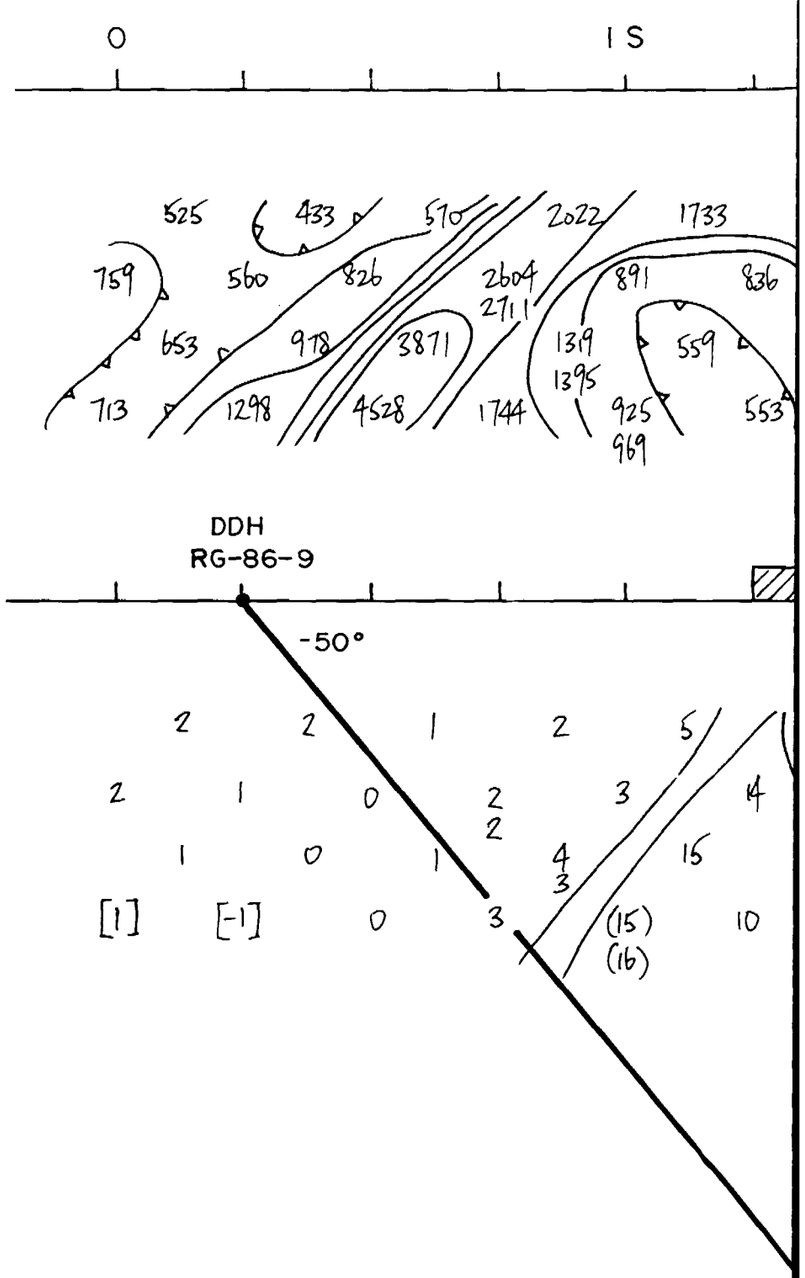
LINE 12+00E

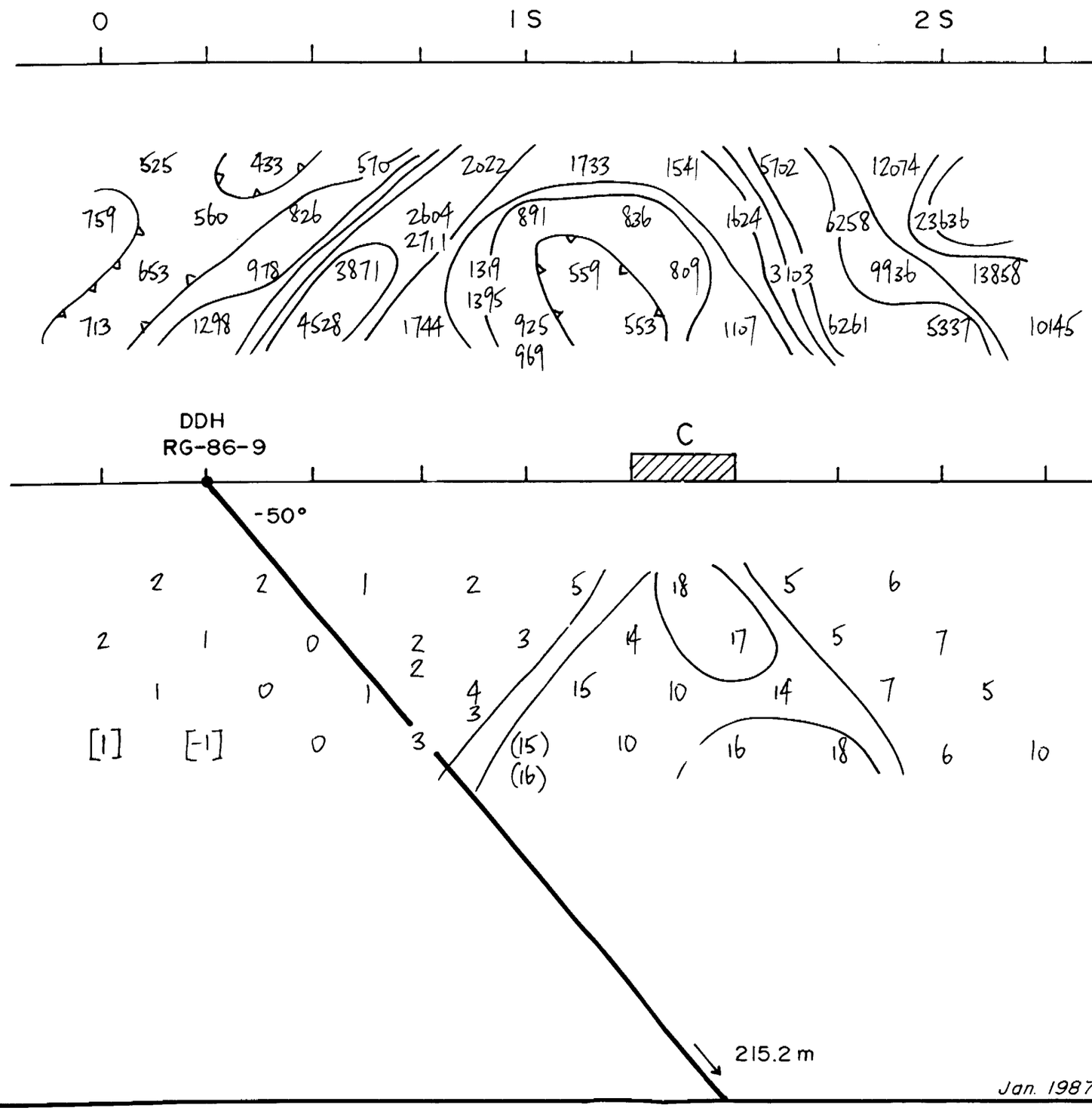
REGAL PETROLEUM LTD.

SWAYZE · AREA, PORCUPINE MIN. DIV.

OREQUEST


6 N
5 N
4 N
214 248 206 299 289 347 228 430
328 278 293 (298) 436 421 408 311 313
345 382 347 (368) 528 426 483 405
466 434 401 (433) 451 474 594 521
B
1 1 0 3 2 2 3 0 4
1 0 3 (3) 4 4 5 4 0
0 2 4 (4) 6 8 5 4 0
3 3 5 (6) 8 7 5 4


0
1 S
525 433 570 2022 1733
759 560 826 2604 891 836
2711
653 978 3871 1319 559
1395
713 1298 4528 1744 925 553
969
DDH
RG-86-9
-50°
2 2 1 2 5
2 1 0 2 3 4
2
1 0 1 4 15
3
[1] [-1] 0 3 (15) 10
(16)



LEGEND

INSTRUMENTS

Tx : EDA IP-1

Rx : Phoenix IPT-1

ELECTRODE ARRAY

Dipole — Dipole

a = 25 m

FIGURE

IP SURVEY

LINE 13+00E

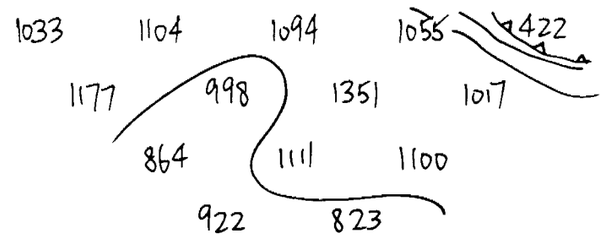
REGAL PETROLEUM LTD.

SWAYZE AREA, PORCUPINE MIN. DIV.

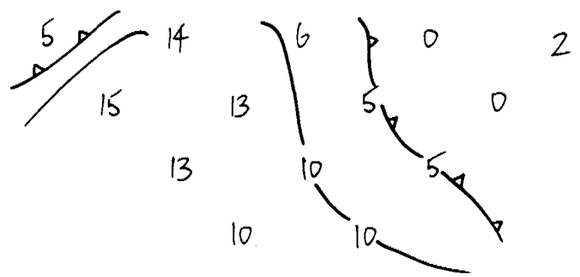
OREQUEST

5 N

4 N

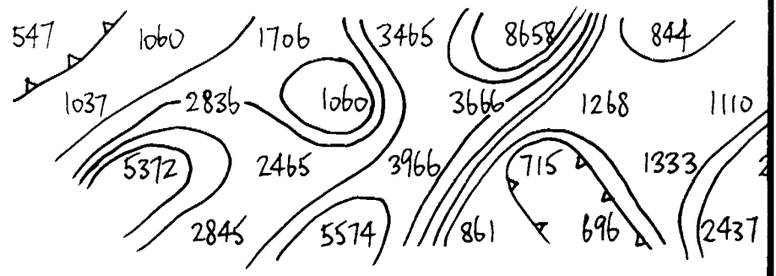

1033
1104
1094
1055
422
1177
998
1351
1017
864
1111
1100
922
823

B

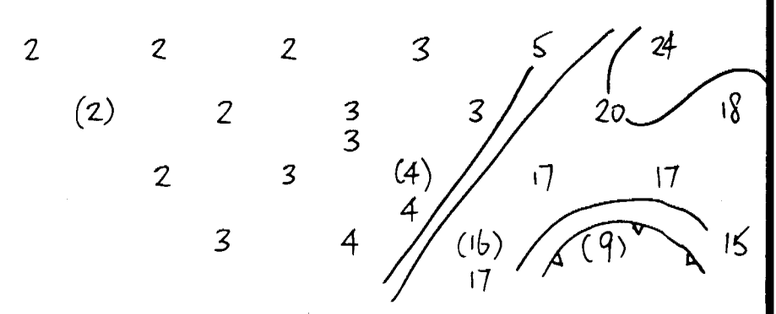

5
14
6
0
2
15
13
5
0
13
10
5
10
10

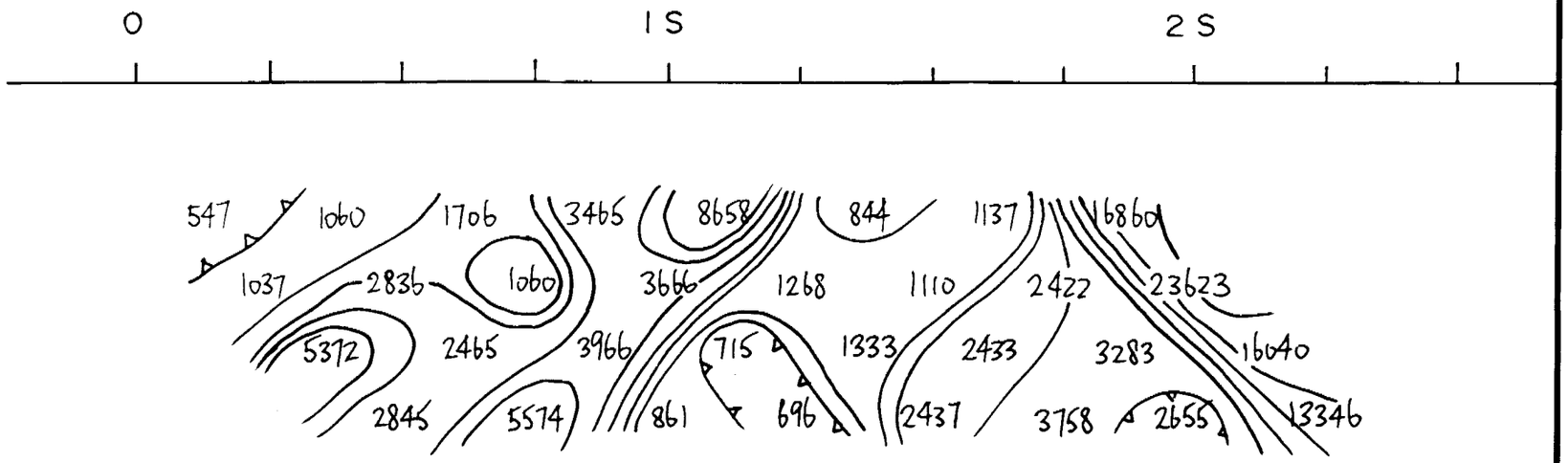
0

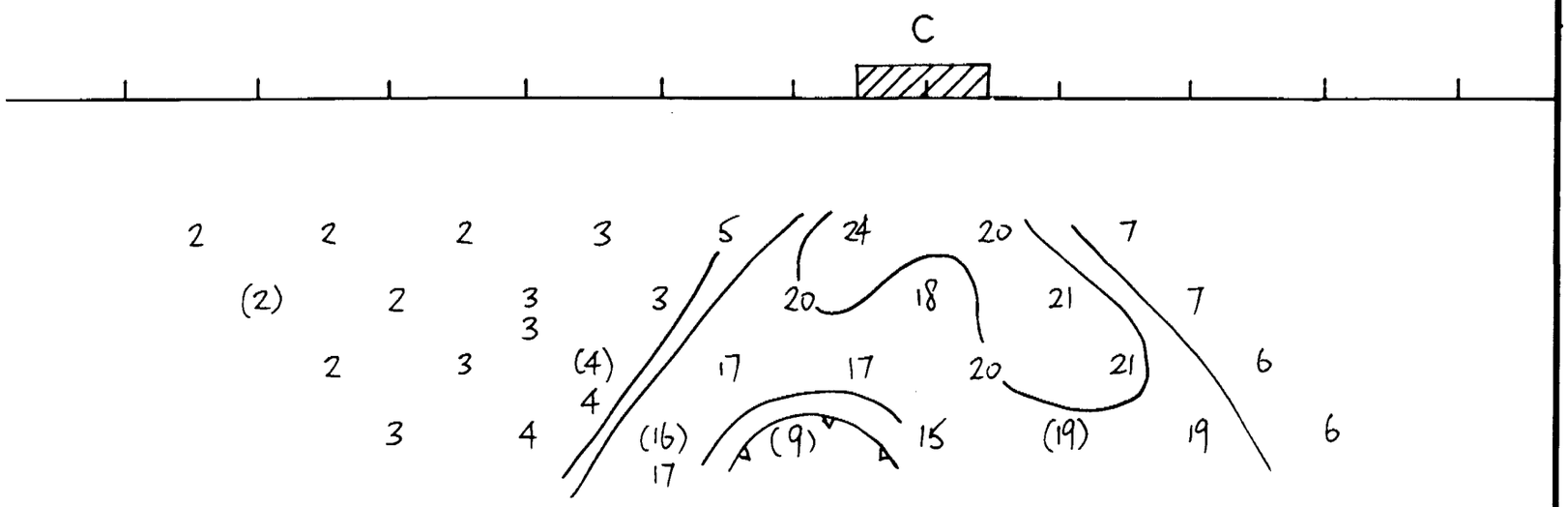
1 S


547
1060
1706
3465
8658
844
1037
2836
1060
3666
1268
1110
5372
2465
3966
715
1333
2845
5574
861
696
2437

C


2
2
2
3
5
24
(2)
2
3
3
3
20
18
2
3
(4)
4
17
17
3
4
(16)
17
(9)
15





Jan. 1987

LEGEND

INSTRUMENTS

Tx : EDA IP-1

Rx : Phoenix IPT-1

ELECTRODE ARRAY

Dipole — Dipole

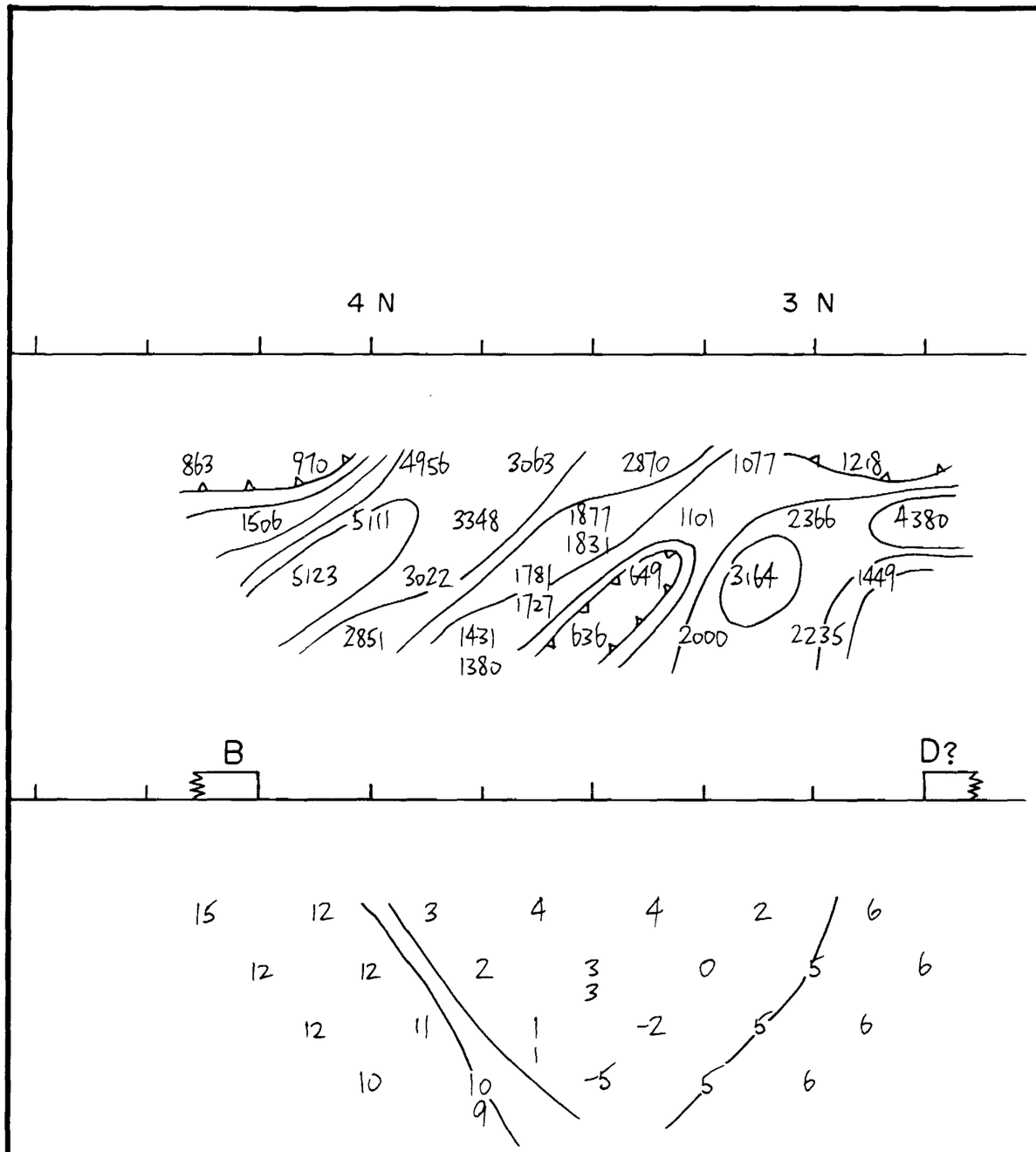
a = 25 m

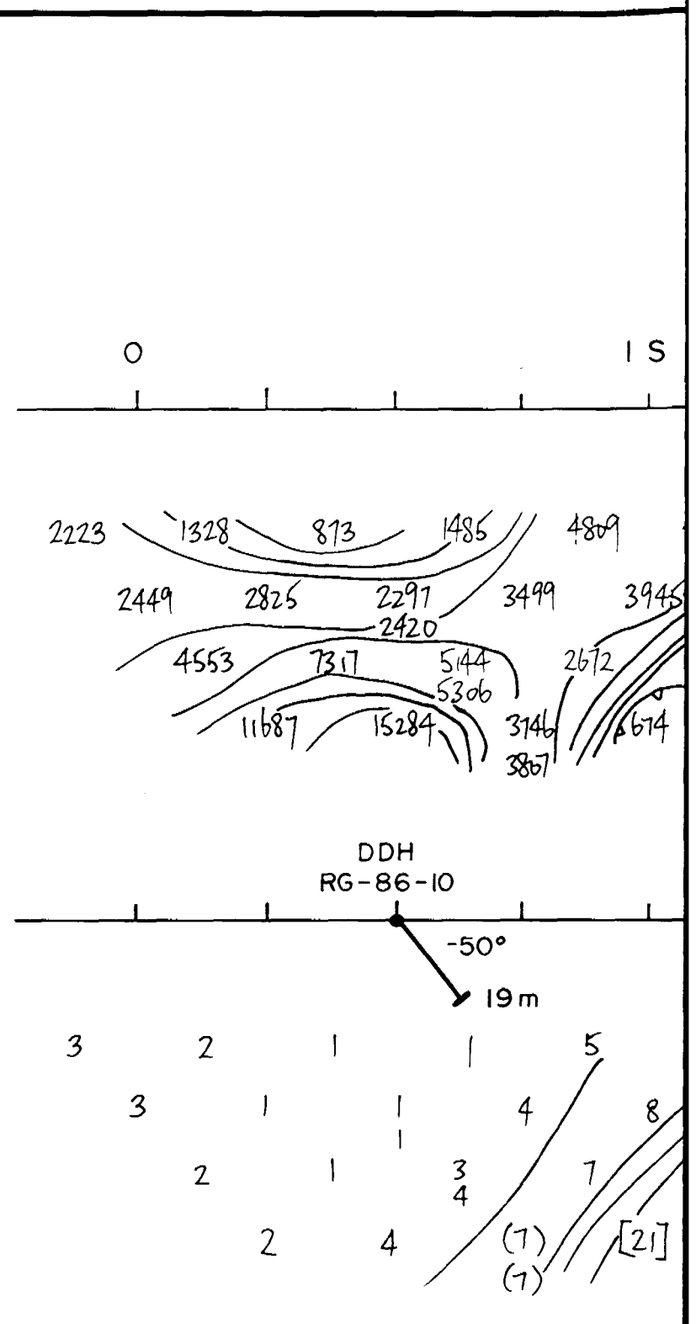
FIGURE

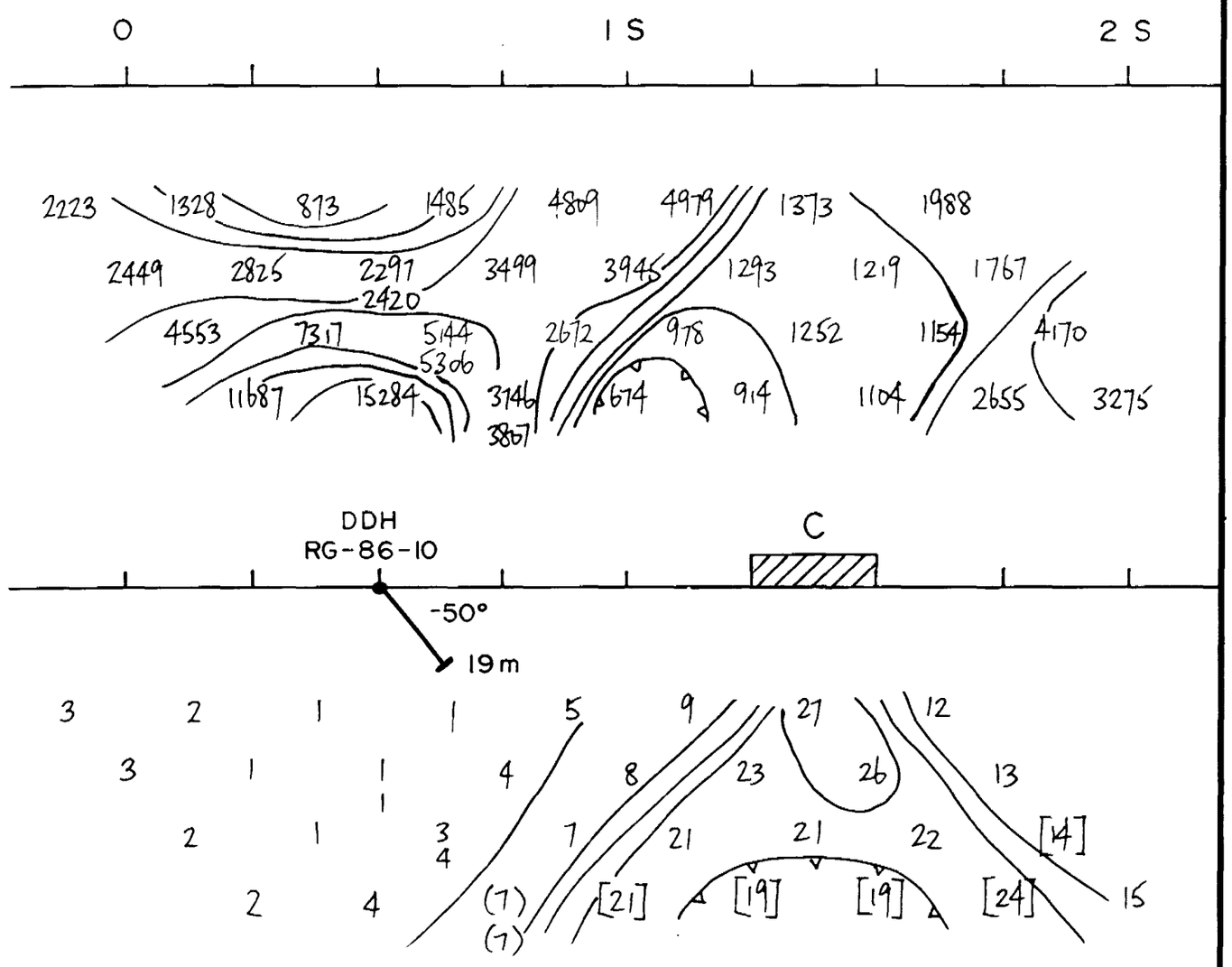
IP SURVEY
LINE 14+00E
REGAL PETROLEUM LTD.

SWAYZE AREA, PORCUPINE MIN. DIV.

OREQUEST


4 N
3 N
863
970
4956
3063
2870
1077
1218
1506
5111
3348
1877
1831
1101
2366
4380
5123
3022
1781
1727
649
3164
1449
2851
1431
1380
636
2000
2235
B
D?
15
12
3
4
4
2
6
12
12
2
3
3
0
5
6
12
11
1
1
-2
5
6
10
10
9
-5
5
6


0
1 S
2223
1328
873
1485
4809
2449
2825
2297
3499
3945
2420
4553
7317
5144
5306
2672
11687
15284
3146
3867
674
DDH
RG-86-10
-50°
19 m
3
2
1
1
5
3
1
1
1
4
8
2
1
3
4
7
2
4
(7)
(7)
[21]



Jan. 1987

LEGEND

INSTRUMENTS

Tx : EDA IP-1

Rx : Phoenix IPT-1

ELECTRODE ARRAY

Dipole — Dipole

a = 25 m

FIGURE

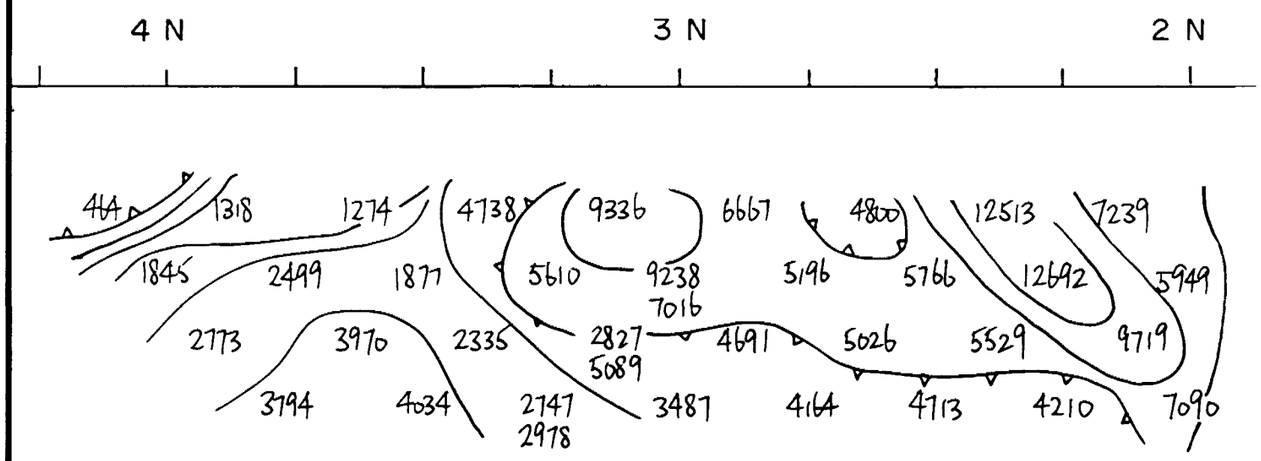
IP SURVEY

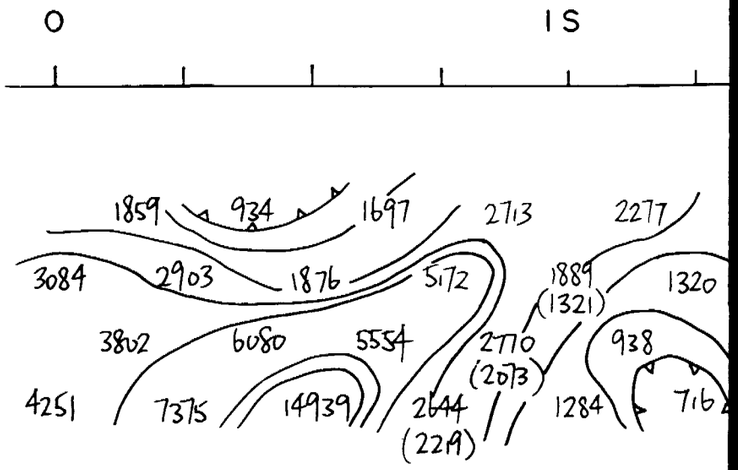
LINE 15+00E

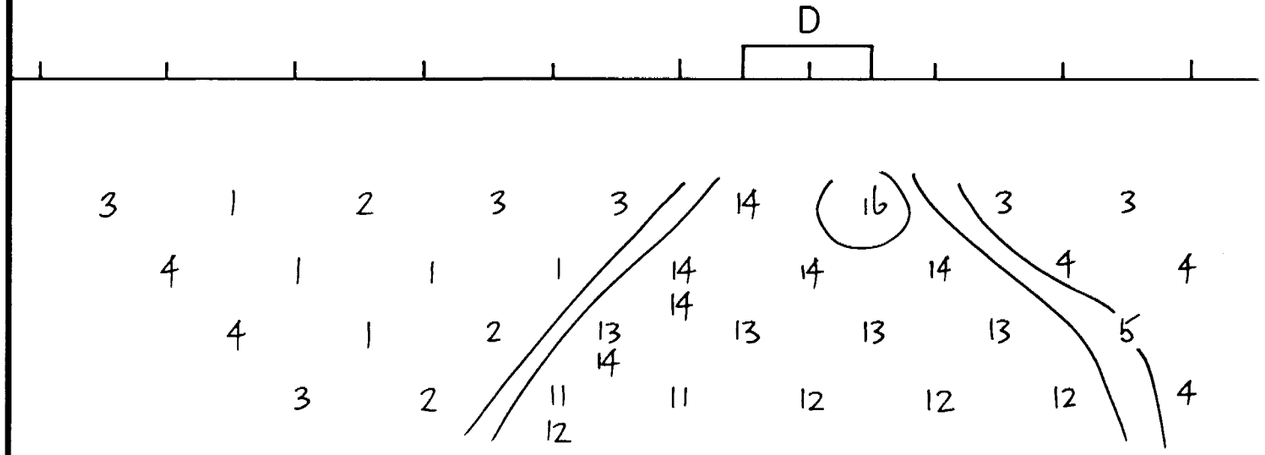
REGAL PETROLEUM LTD.

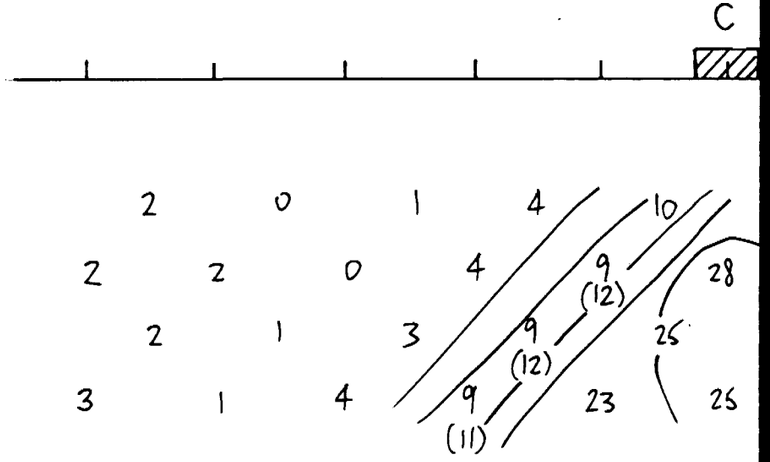
SWAYZE AREA, PORCUPINE MIN. DIV.

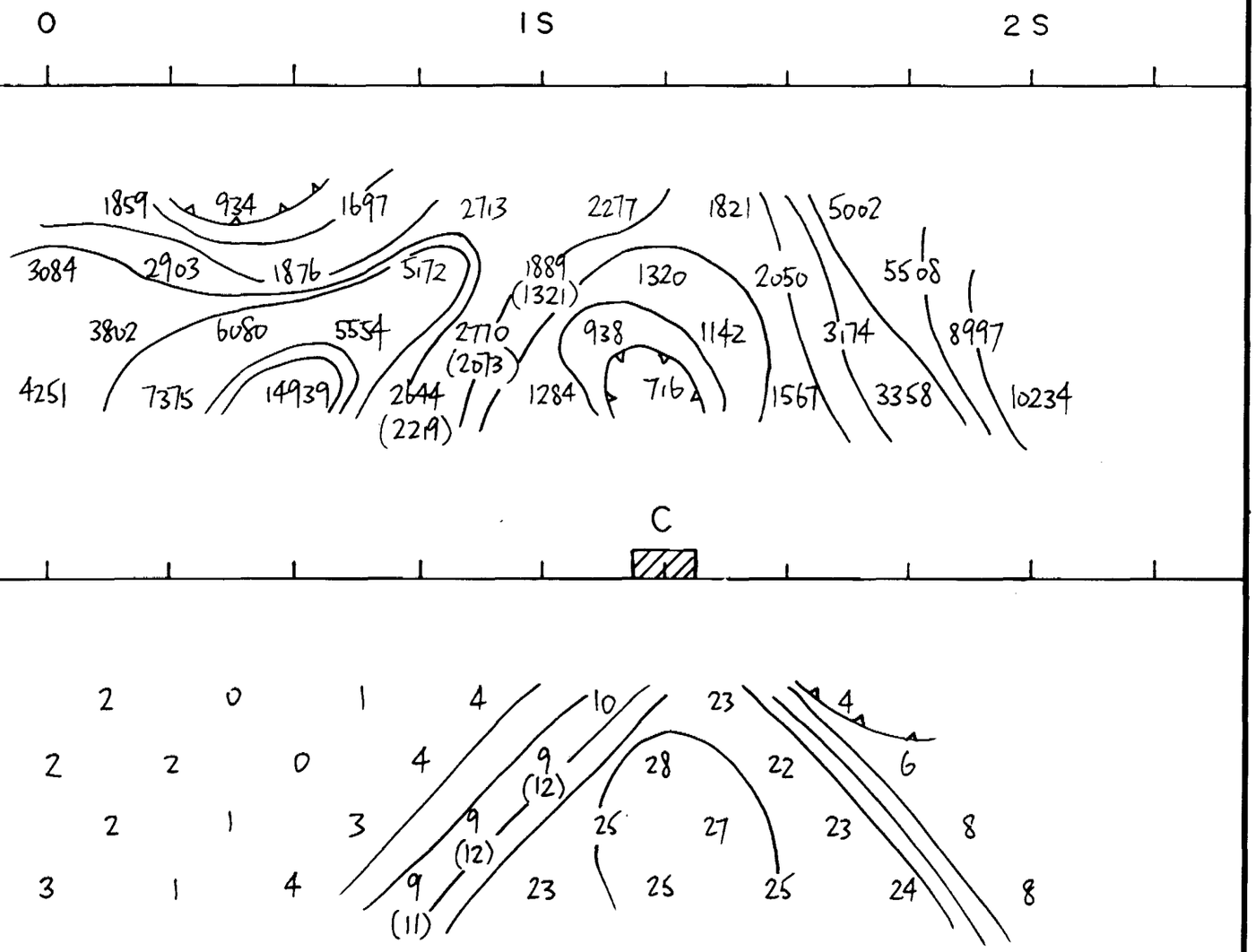
OREQUEST


4 N
3 N
2 N
414
1318
1274
4738
9336
6667
4800
12513
7239
1845
2499
1877
5610
9238
7016
5196
5766
12692
5949
2773
3970
2335
2827
5089
4691
5026
5529
9719
3794
4034
2747
2978
3487
4164
4713
4210
7090


O
1S
1859
934
1697
2713
2277
3084
2903
1876
5172
1889
(1321)
1320
3802
6080
5554
2710
(2673)
938
4251
7375
14939
2644
(2249)
1284
716


D
3 1 2 3 3 14 16 3 3
4 1 1 1 14 14 14 4 4
14
4 1 2 13 13 13 13 5
14
3 2 11 11 12 12 12 4
12


C
2 0 1 4 10
2 2 0 4 9 28
(12)
2 1 3 9 25
(12)
3 1 4 9 23 26
(11)



LEGEND

INSTRUMENTS

Tx : EDA IP-1

Rx : Phoenix IPT-1

ELECTRODE ARRAY

Dipole — Dipole

a = 25 m

Jan. 1987

FIGURE

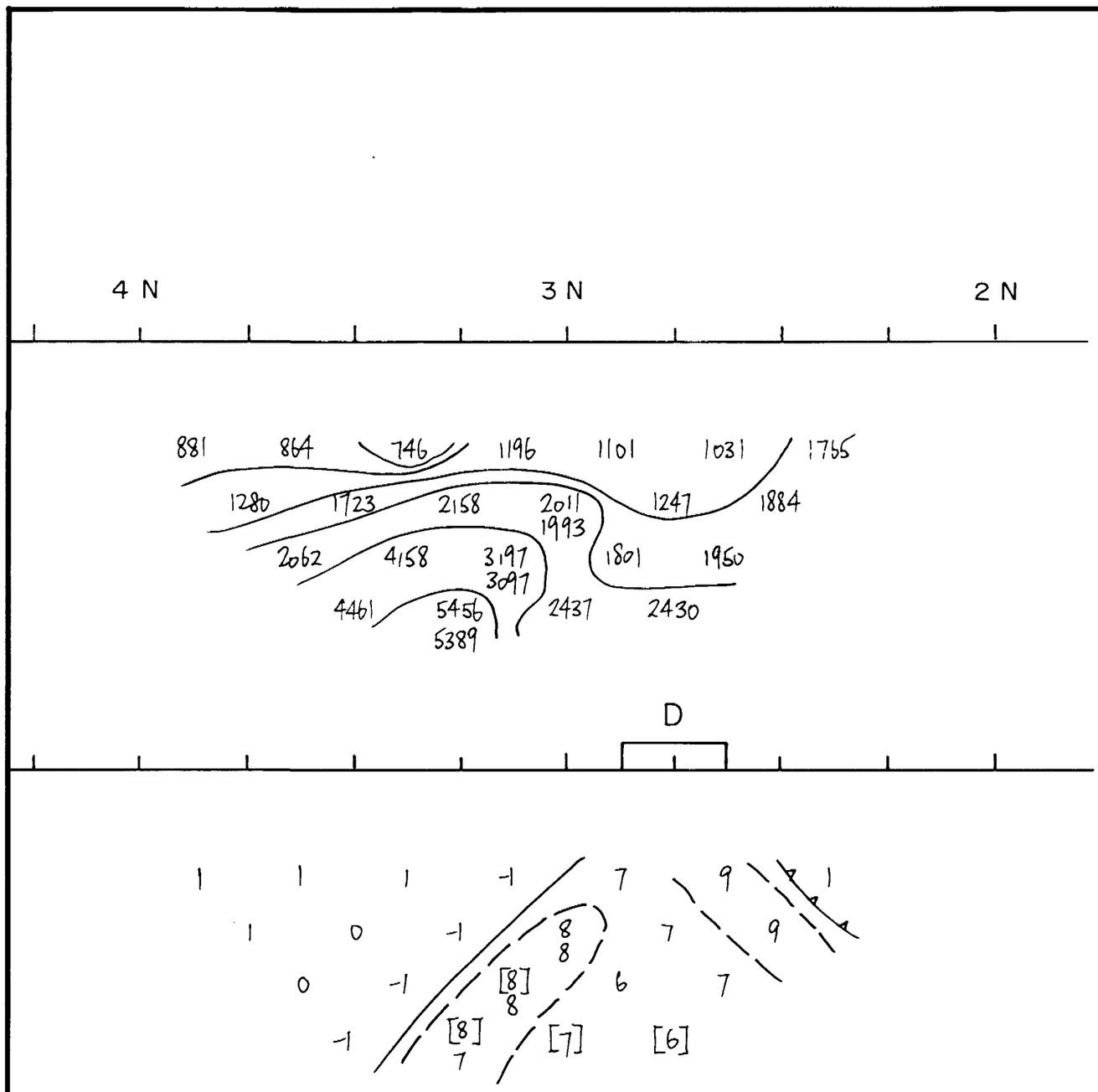
IP SURVEY

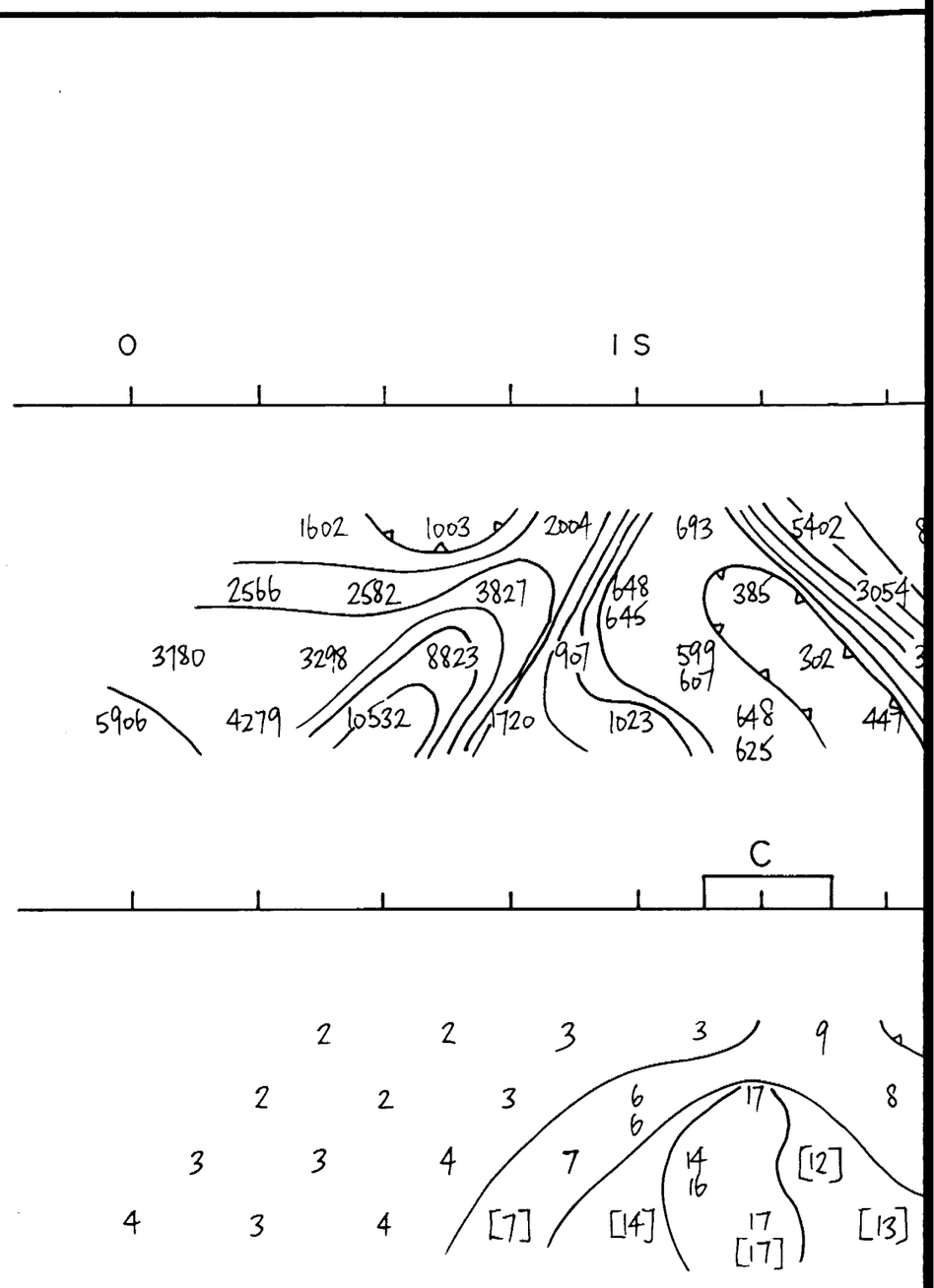
LINE 16+00E

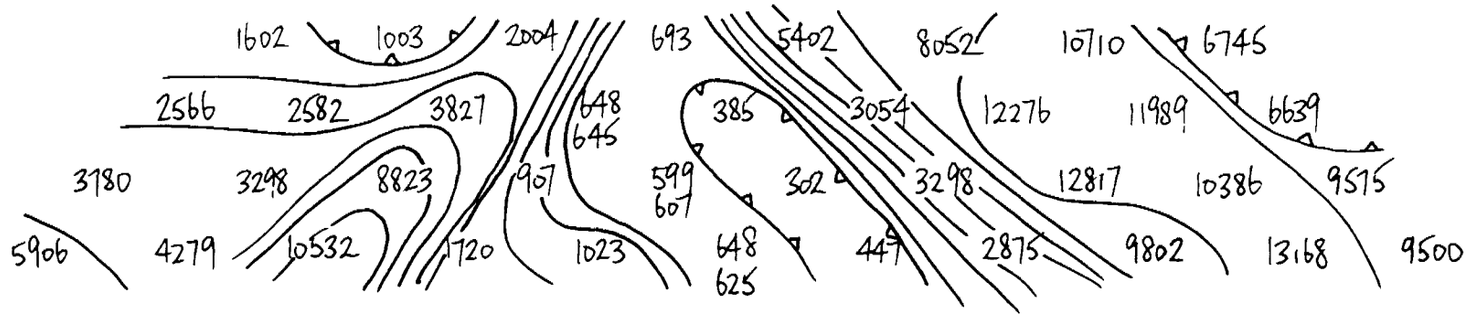
REGAL PETROLEUM LTD.

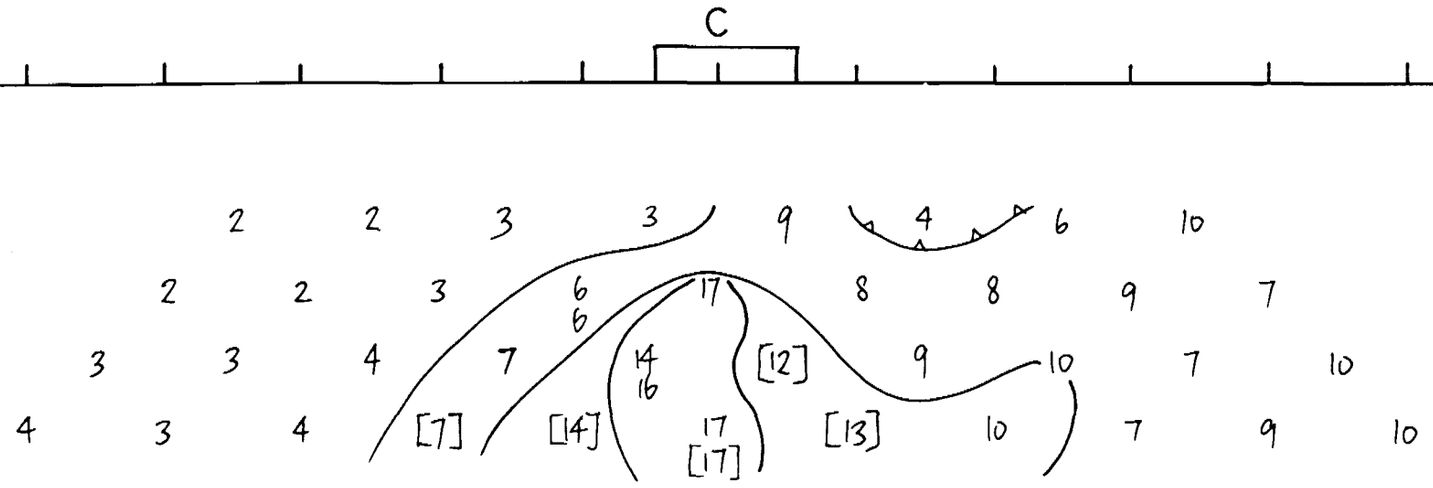
SWAYZE AREA, PORCUPINE MIN. DIV.

OREQUEST


4 N
3 N
2 N
881 864 746 1196 1101 1031 1755
1280 1723 2158 2011 1993 1247 1884
2062 4158 3197 3097 1801 1950
4461 5456 5389 2437 2430
D
1 1 1 -1 7 9 1
1 0 -1 8 8 7 9
0 -1 [8] 8 6 7
-1 [8] 7 [7] [6]


0
1 S
1602 1003 2004 693 5402
2566 2582 3827 648 645 385 3054
3780 3298 8823 907 599 607 302
5906 4279 10532 1720 1023 648 625 447
C
2 2 3 3 9
2 2 3 6 6 17 8
3 3 4 7 14 16 [12]
4 3 4 [7] [14] 17 [17] [13]





Jan. 1987

LEGEND

INSTRUMENTS

Tx : EDA IP-1

Rx : Phoenix IPT-1

ELECTRODE ARRAY

Dipole — Dipole

a = 25 m

FIGURE

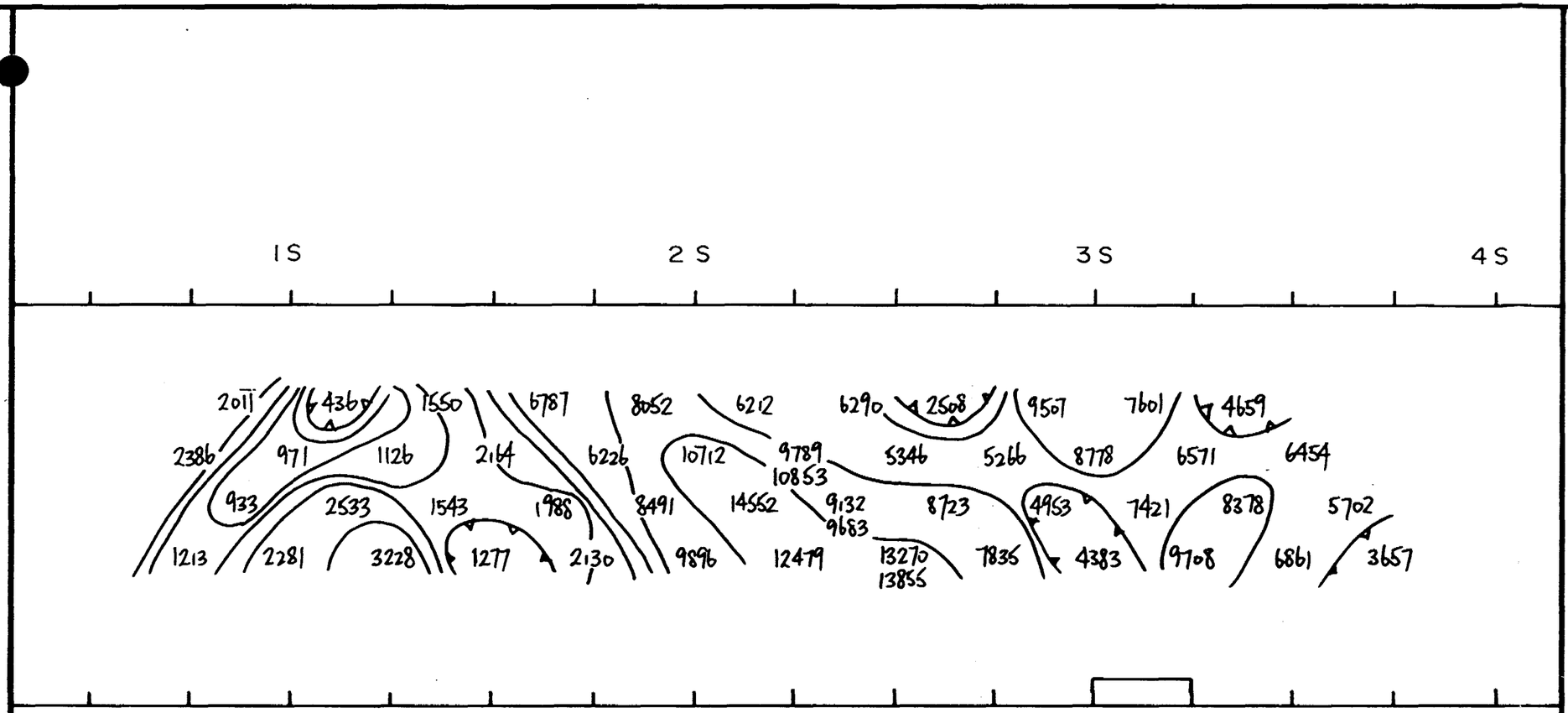
IP SURVEY

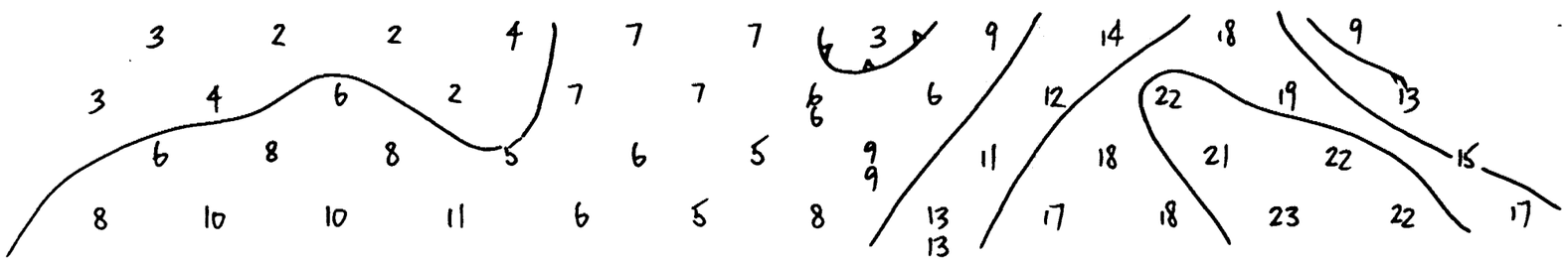
LINE 17+00E

REGAL PETROLEUM LTD.

SWAYZE AREA, PORCUPINE MIN. DIV.

OREQUEST





Jan. 1987

LEGEND

INSTRUMENTS

Tx : EDA IP-1

Rx : Phoenix IPT-1

ELECTRODE ARRAY

Dipole – Dipole

a = 25 m

FIGURE

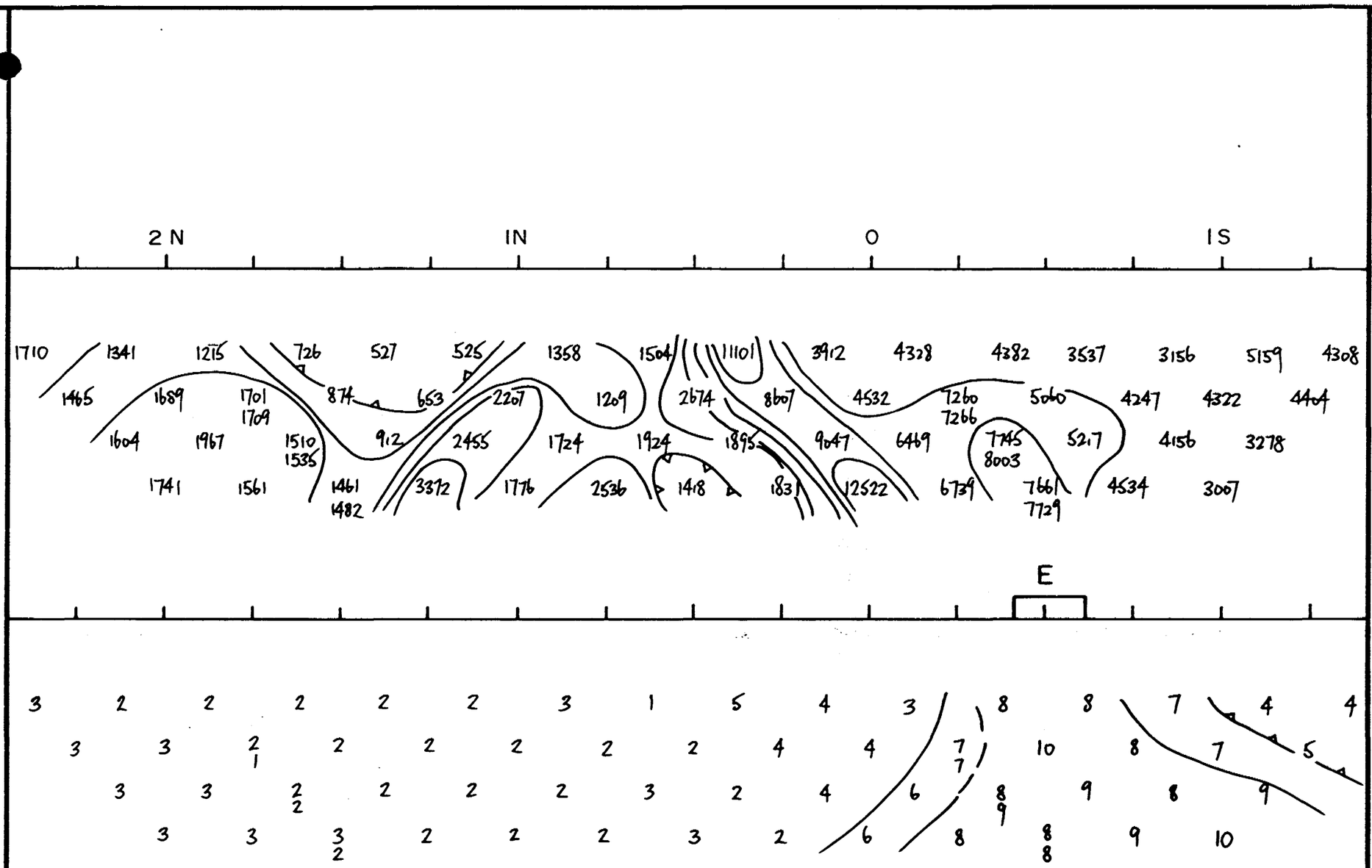
IP SURVEY

LINE 18+00E

REGAL PETROLEUM LTD.

SWAYZE AREA, PORCUPINE MIN. DIV.

OREQUEST



Jan. 1987

LEGEND

INSTRUMENTS

Tx : EDA IP-1

Rx : Phoenix IPT-1

ELECTRODE ARRAY

Dipole – Dipole

a = 25 m

FIGURE

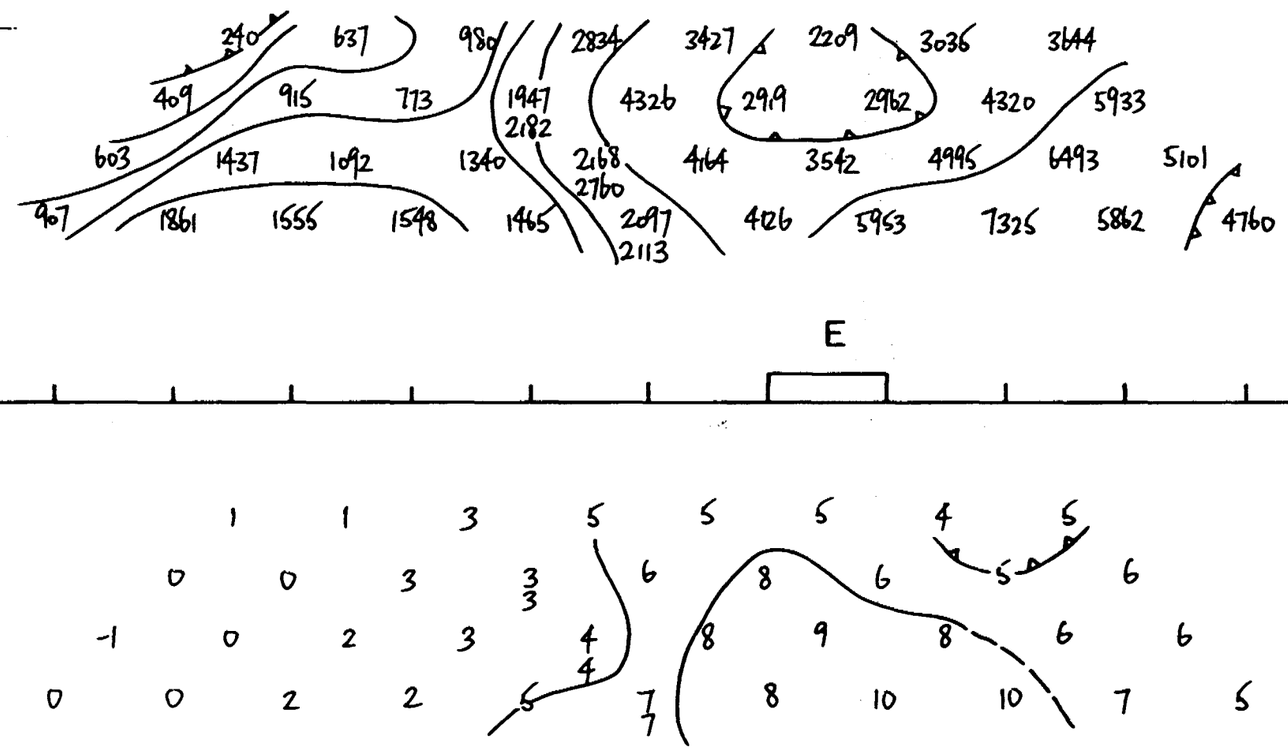
IP SURVEY

LINE 21+00E

REGAL PETROLEUM LTD.

SWAYZE AREA, PORCUPINE MIN. DIV.

OREQUEST



Jan. 1987

LEGEND

INSTRUMENTS

Tx : EDA IP-1

Rx : Phoenix IPT-1

ELECTRODE ARRAY

Dipole – Dipole

a = 25 m

FIGURE

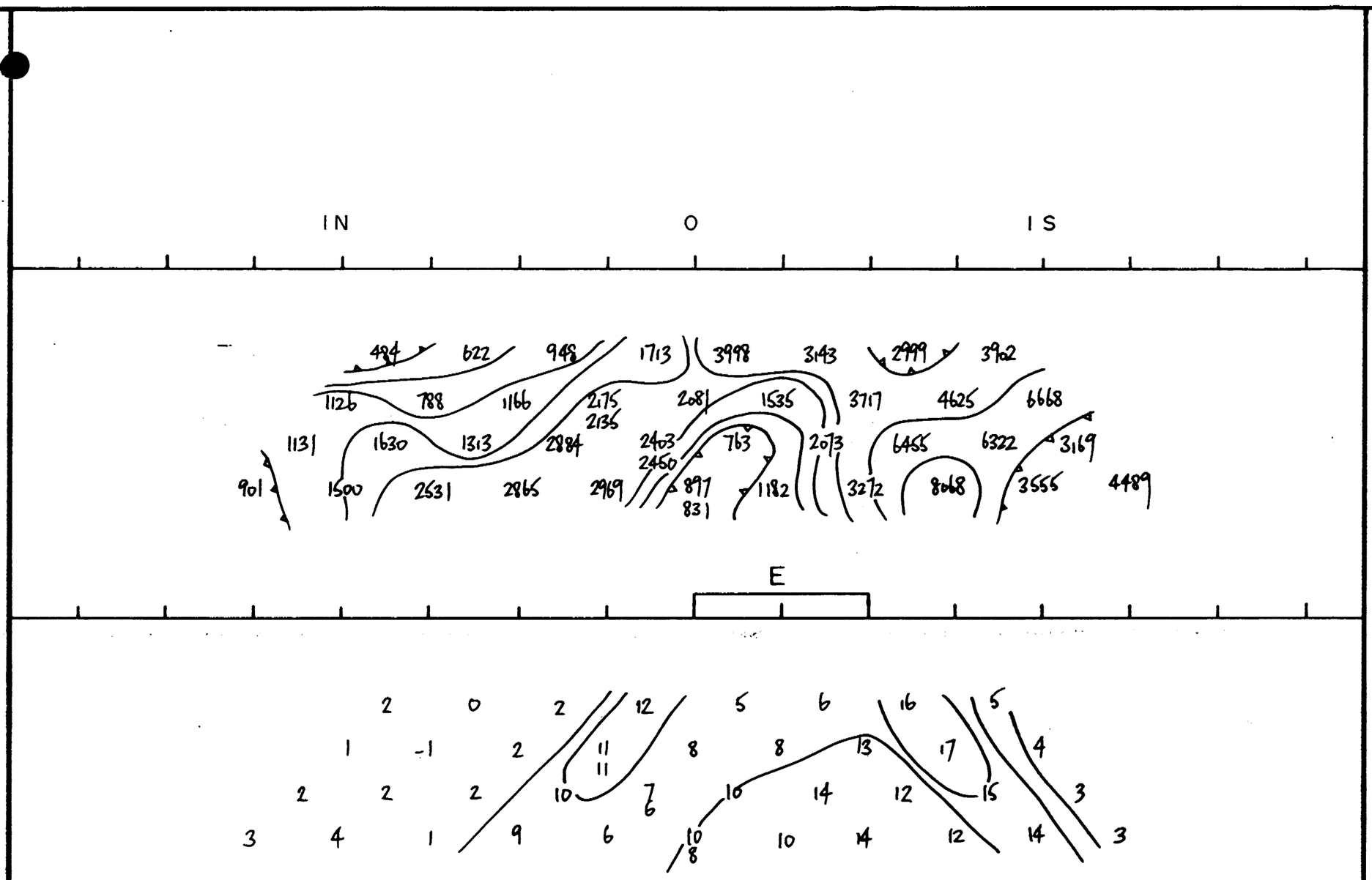
IP SURVEY

LINE 23+00E

REGAL PETROLEUM LTD.

SWAYZE AREA, PORCUPINE MIN. DIV.

OREQUEST



Jan. 1987

LEGEND

INSTRUMENTS

Tx : EDA IP-1

Rx : Phoenix IPT-1

ELECTRODE ARRAY

Dipole – Dipole

a = 25 m

FIGURE

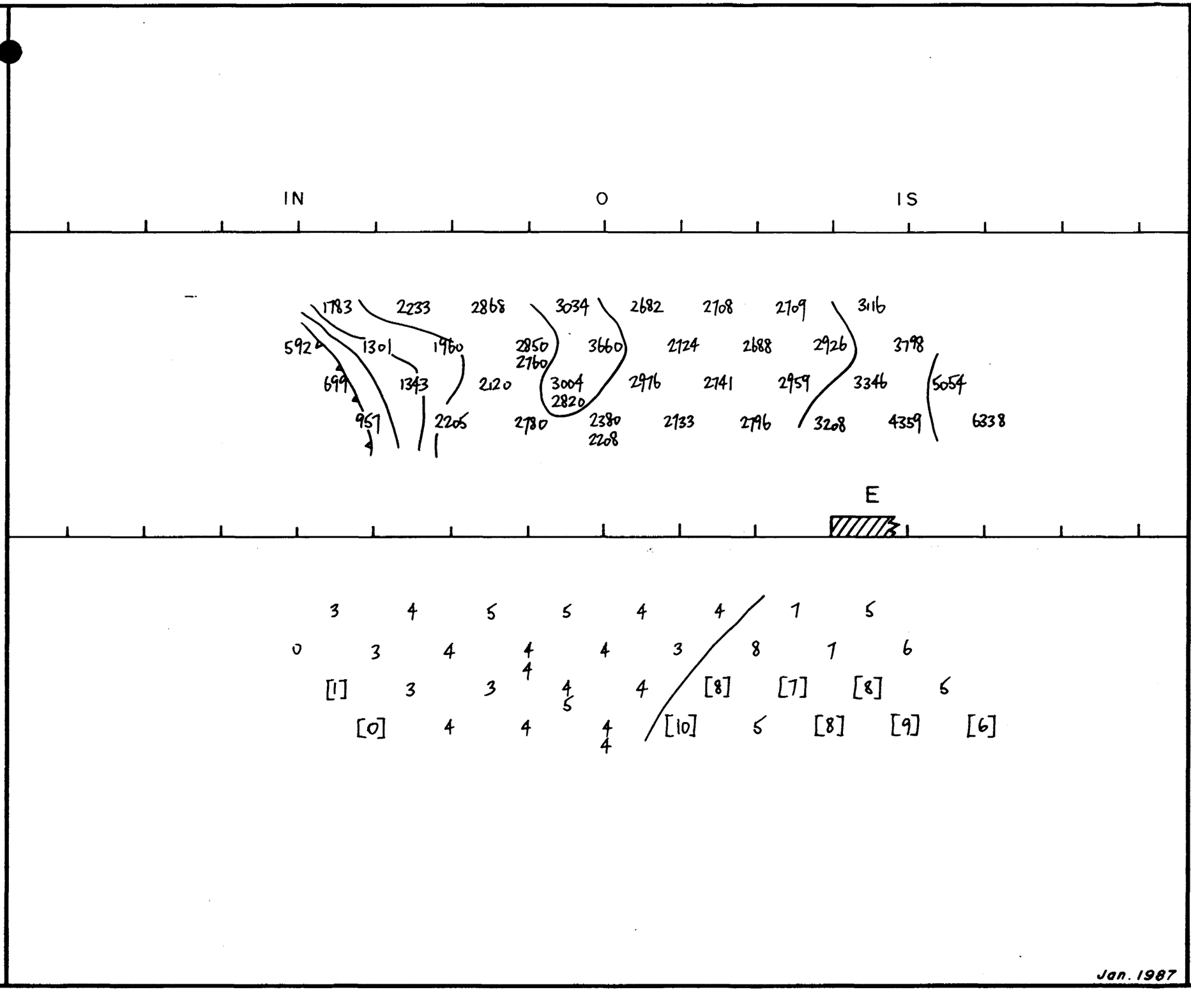
IP SURVEY

LINE 25+00E

REGAL PETROLEUM LTD.

SWAYZE AREA, PORCUPINE MIN. DIV.

OREQUEST



Jan. 1987

LEGEND

INSTRUMENTS

Tx : EDA IP-1

Rx : Phoenix IPT-1

ELECTRODE ARRAY

Dipole – Dipole

a = 25 m

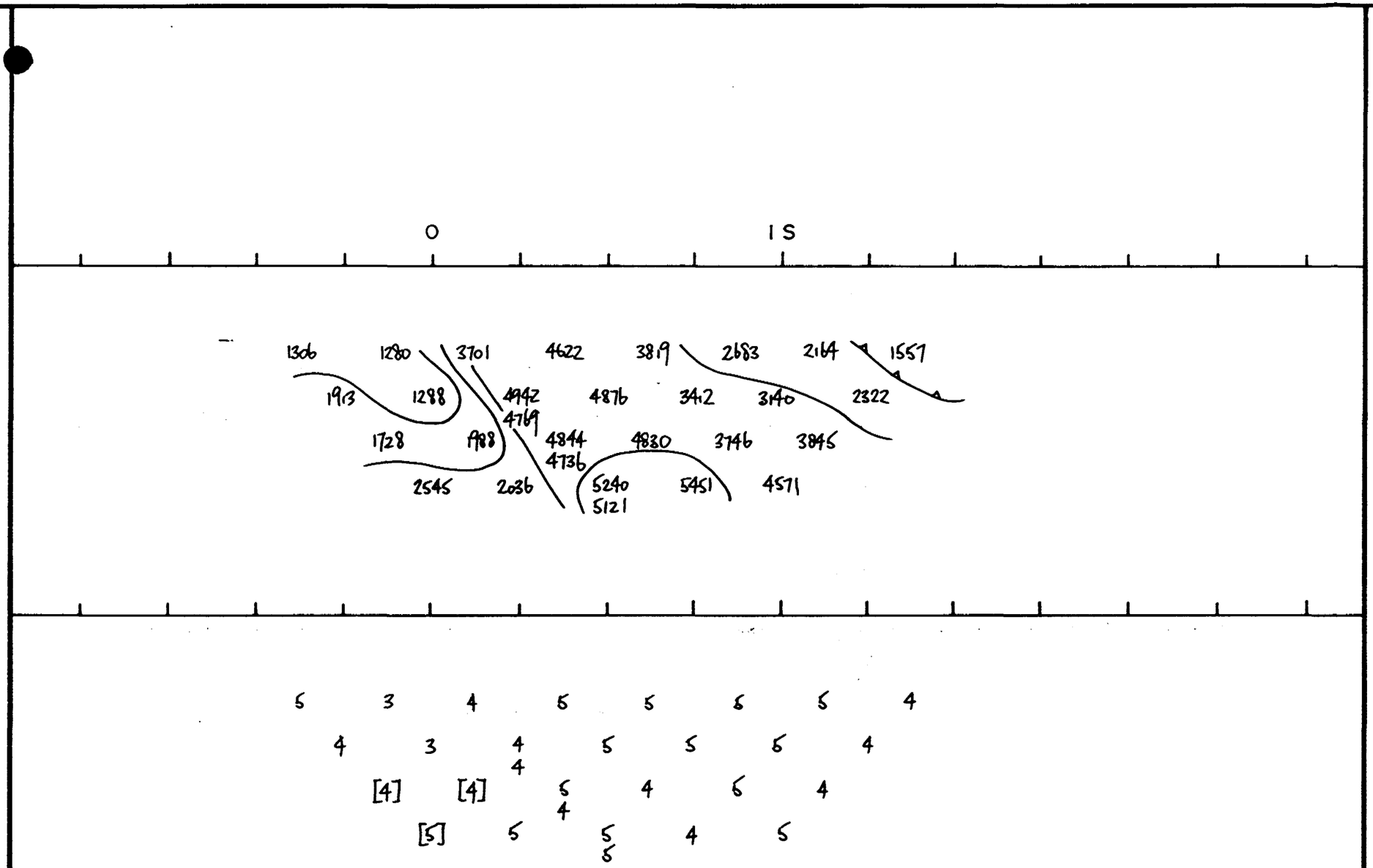
FIGURE

IP SURVEY
LINE 27+00E

REGAL PETROLEUM LTD.

SWAYZE AREA, PORCUPINE MIN. DIV.

OREQUEST



Jan. 1987

LEGEND

INSTRUMENTS

Tx : EDA IP-1

Rx : Phoenix IPT-1

ELECTRODE ARRAY

Dipole – Dipole

a = 25 m

FIGURE

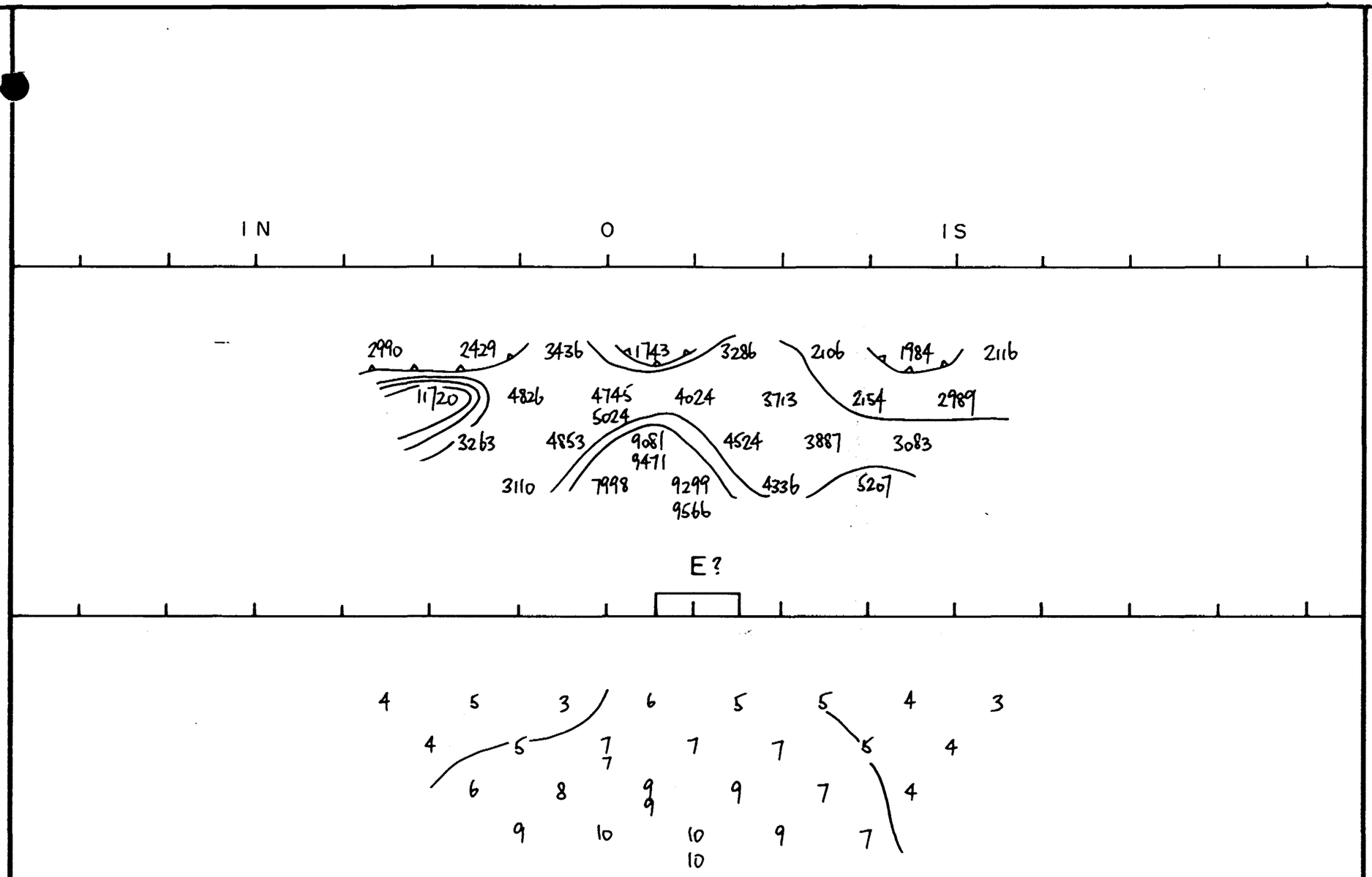
IP SURVEY

LINE 29+00E

REGAL PETROLEUM LTD.

SWAYZE AREA, PORCUPINE MIN. DIV.

OREQUEST



LEGEND

INSTRUMENTS

Tx : EDA IP-1

Rx : Phoenix IPT-1

ELECTRODE ARRAY

Dipole – Dipole

a = 25 m

Jan. 1987

FIGURE

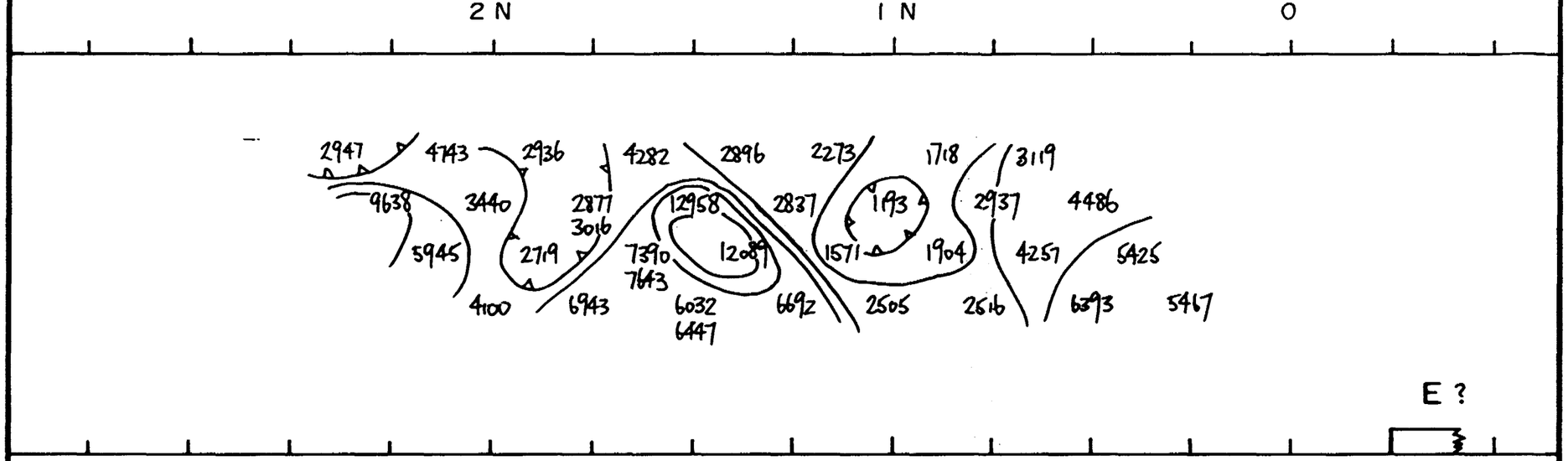
IP SURVEY

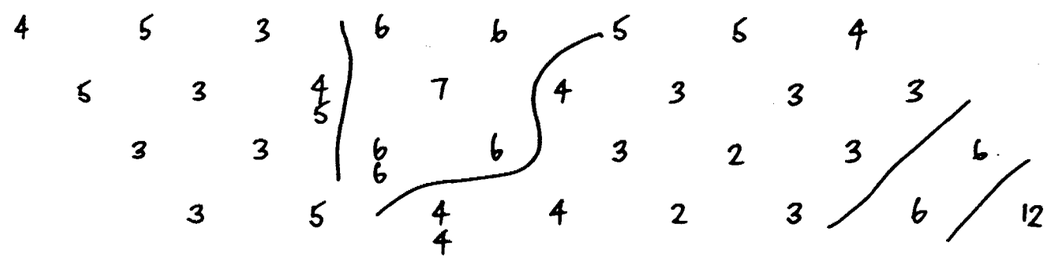
LINE 31+00E

REGAL PETROLEUM LTD.

SWAYZE AREA, PORCUPINE MIN. DIV.

OREQUEST





Jan. 1987

LEGEND

INSTRUMENTS

Tx : EDA IP-1

Rx : Phoenix IPT-1

ELECTRODE ARRAY

Dipole – Dipole

a = 25 m

FIGURE

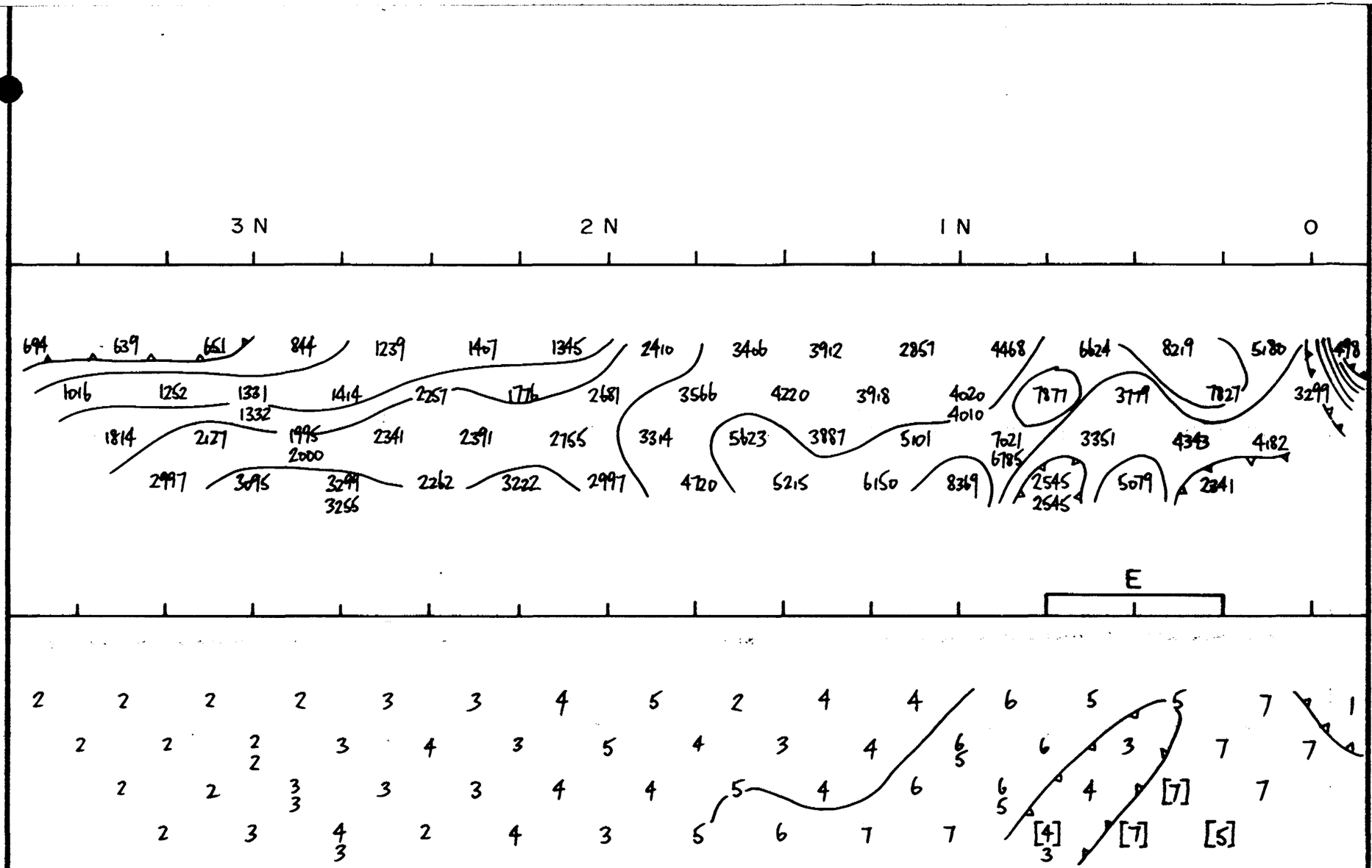
IP SURVEY

LINE 33+00E

REGAL PETROLEUM LTD.

SWAYZE AREA, PORCUPINE MIN. DIV.

OREQUEST



Jan. 1987

LEGEND

INSTRUMENTS

Tx : EDA IP-1

Rx : Phoenix IPT-1

ELECTRODE ARRAY

Dipole – Dipole

a = 25 m

FIGURE

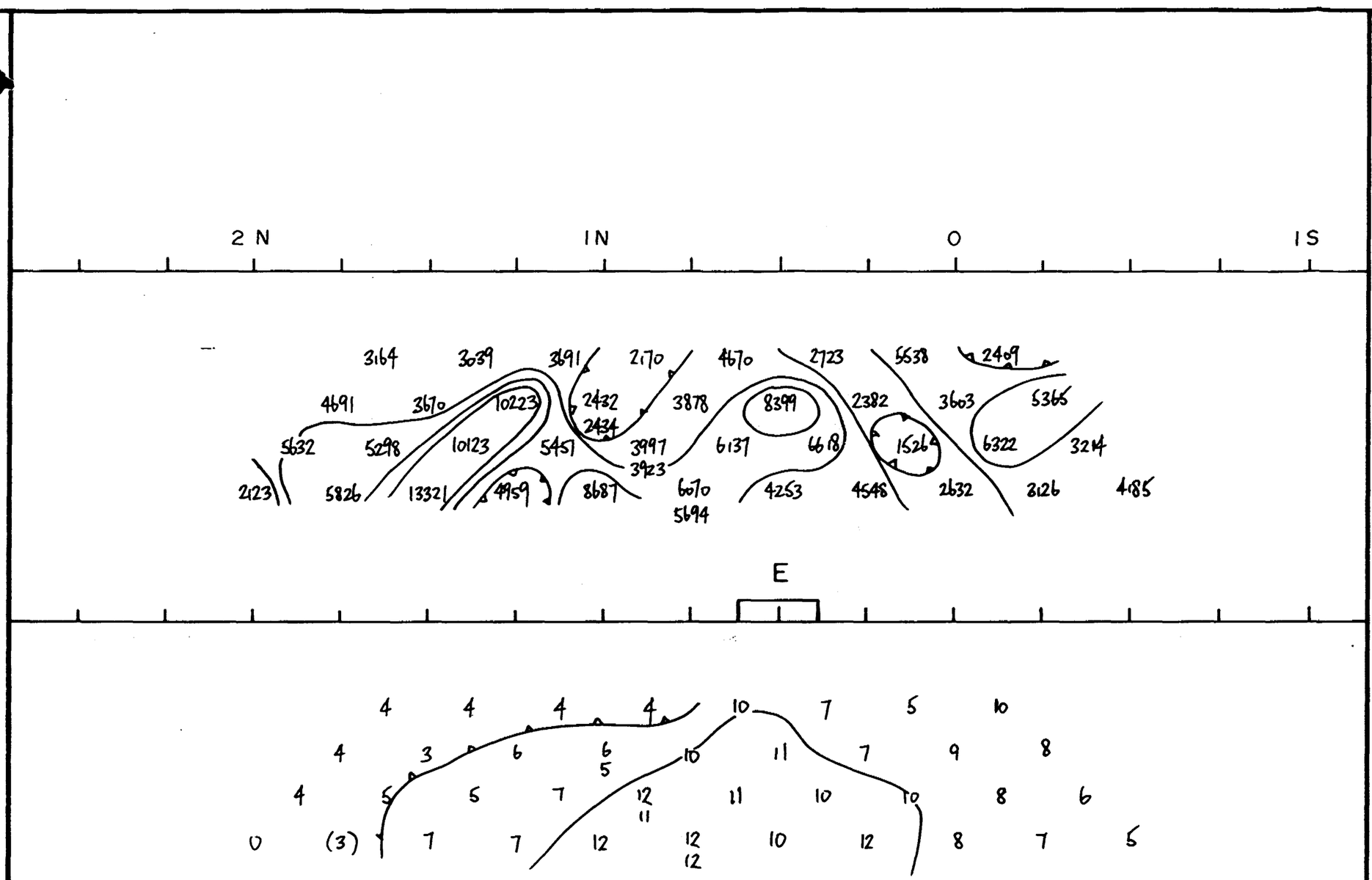
IP SURVEY

LINE 35+00E

REGAL PETROLEUM LTD.

SWAYZE AREA, PORCUPINE MIN. DIV.

OREQUEST



LEGEND

INSTRUMENTS

Tx : EDA IP-1

Rx : Phoenix IPT-1

ELECTRODE ARRAY

Dipole – Dipole

a = 25 m

Jan. 1987

FIGURE

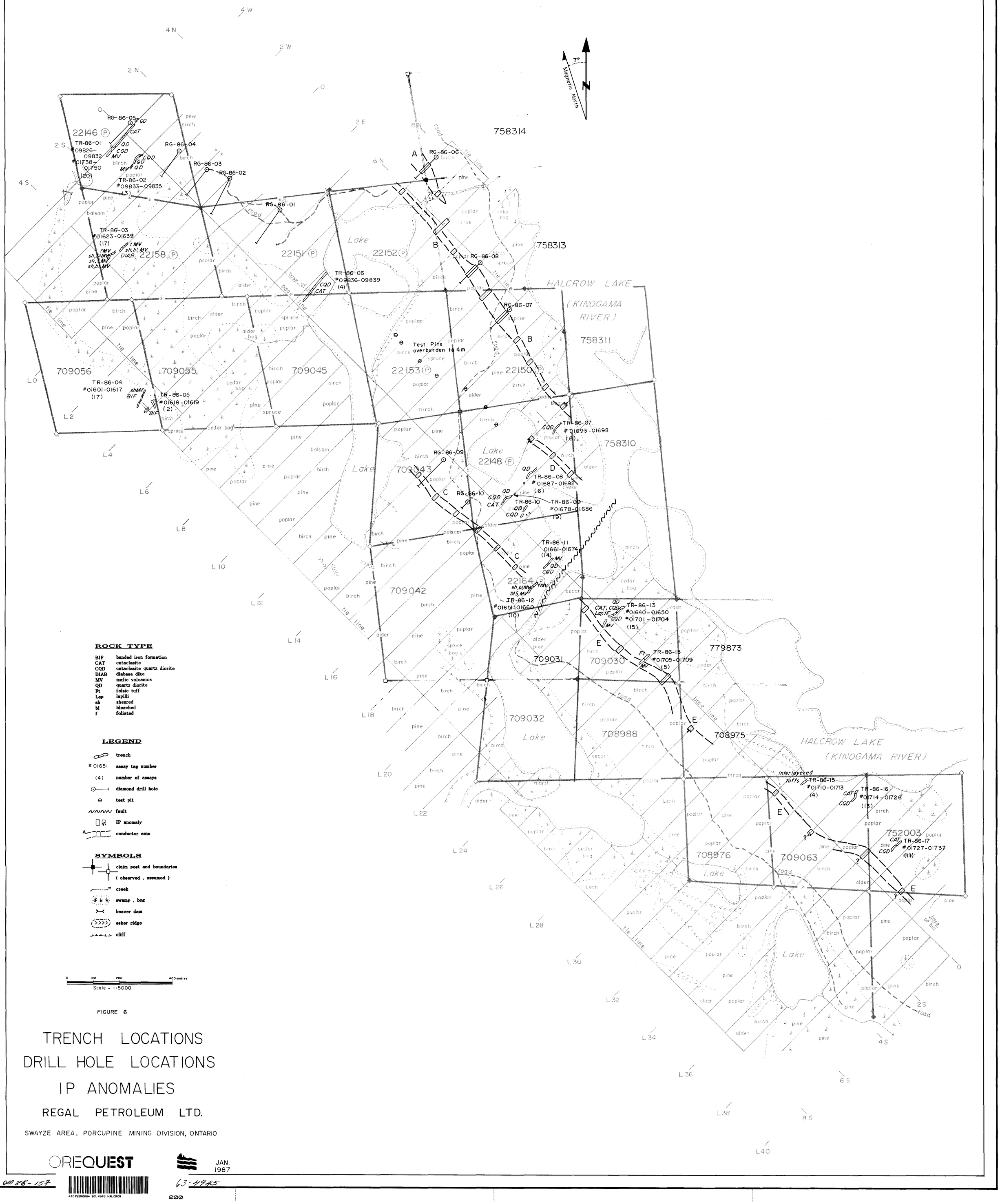
IP SURVEY

LINE 37+00E

REGAL PETROLEUM LTD.

SWAYZE AREA, PORCUPINE MIN. DIV.

OREQUEST



ROCK TYPE

BIF	banded iron formation
CAT	cataclasite
CQD	cataclasite quartz diorite
DIAB	diabase dike
MV	mafic volcanics
QD	quartz diorite
Ft	felsic tuff
Lap	lapilli
sh	sheared
bl	bleached
f	foliated

LEGEND

- trench
- #01651 assay tag number
- (4) number of assays
- diamond drill hole
- test pit
- fault
- IP anomaly
- A conductor axis

SYMBOLS

- claim post and boundaries
- (observed , assumed)
- creek
- swamp , bog
- beaver dam
- esker ridge
- cliff

0 100 200 400 metres
Scale - 1:5000

FIGURE 6

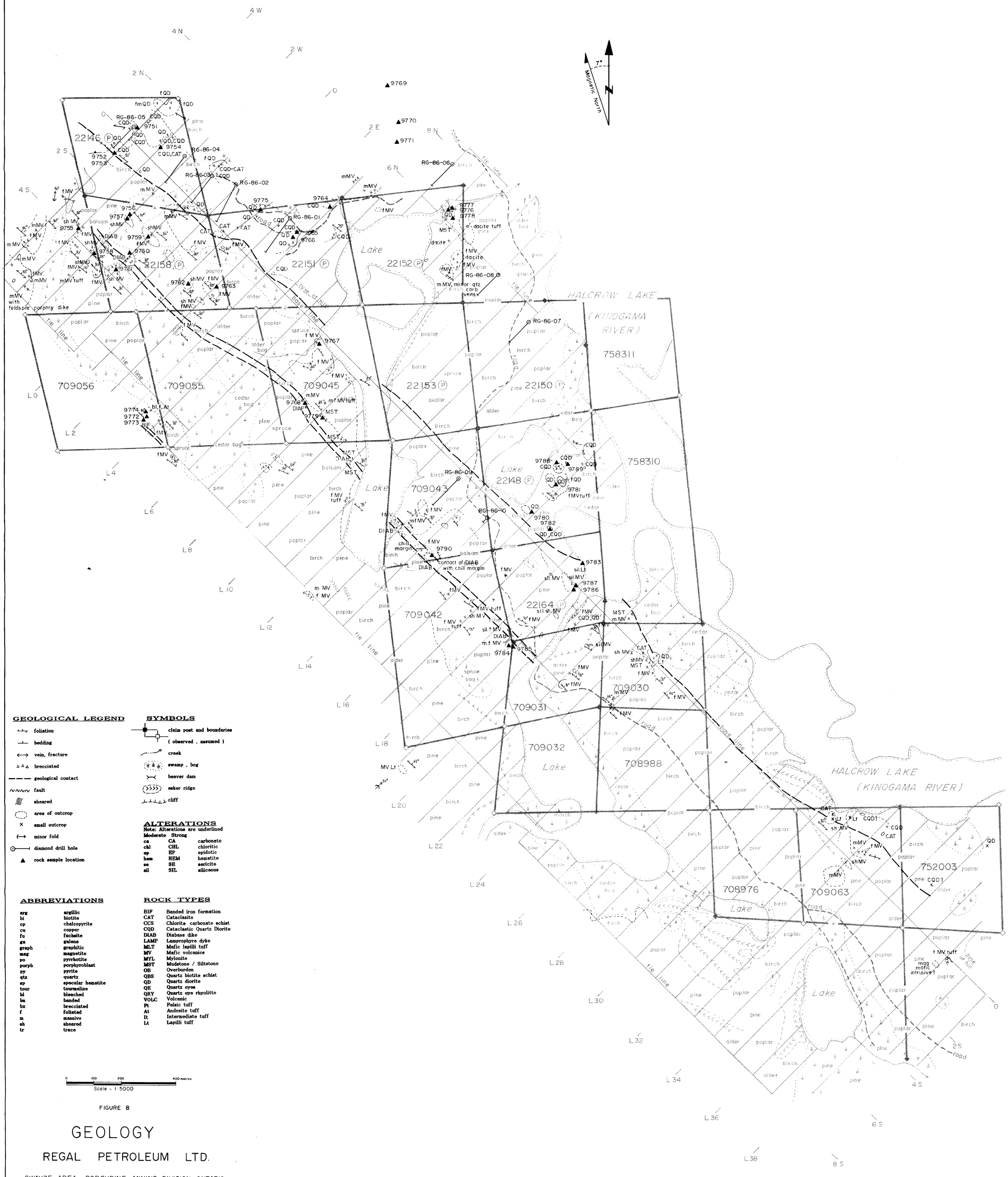
TRENCH LOCATIONS
DRILL HOLE LOCATIONS
IP ANOMALIES

REGAL PETROLEUM LTD.

SWAYZE AREA, PORCUPINE MINING DIVISION, ONTARIO

OREQUEST

JAN. 1987



GEOLOGICAL LEGEND

- foliation
- bedding
- vein, fracture
- brecciated
- geological contact
- fault
- sheared
- area of outcrop
- small outcrop
- minor fold
- diamond drill hole
- rock sample location

SYMBOLS

- claim post and boundaries (observed , assumed)
- creek
- swamp , bog
- beaver dam
- esker ridge
- cliff

ALTERATIONS

Note: Alterations are underlined

Moderate	Strong	
ca	CA	carbonate
chl	CHL	chloritic
ep	EP	epidotic
hem	HEM	hematite
se	SE	sericite
sil	SIL	siliceous

ABBREVIATIONS

arg	argillic
bi	biotite
cp	chalcopyrite
cu	copper
fu	fuchsite
ga	galena
graph	graphitic
mag	magnetite
po	pyrrhotite
porph	porphyroblast
py	pyrite
qtz	quartz
sp	specular hematite
tour	tourmaline
bl	bleached
bn	banded
bx	brecciated
f	foliated
m	massive
sh	sheared
tr	trace

ROCK TYPES

BIF	Banded iron formation
CAT	Cataclasite
CCS	Chlorite carbonate schist
CQD	Cataclastic Quartz Diorite
DIAB	Diabase dike
LAMP	Lamprophyre dyke
MLT	Mafic lapilli tuff
MV	Mafic volcanics
MYL	Mylonite
MST	Mudstone / Siltstone
OB	Overburden
QBS	Quartz biotite schist
QD	Quartz diorite
QE	Quartz eyes
QRY	Quartz eye rhyolitte
VOLC	Volcanic
Ft	Felsic tuff
At	Andesite tuff
It	Intermediate tuff
Lt	Lapilli tuff

0 100 200 400 metres

Scale - 1:5000

FIGURE 8

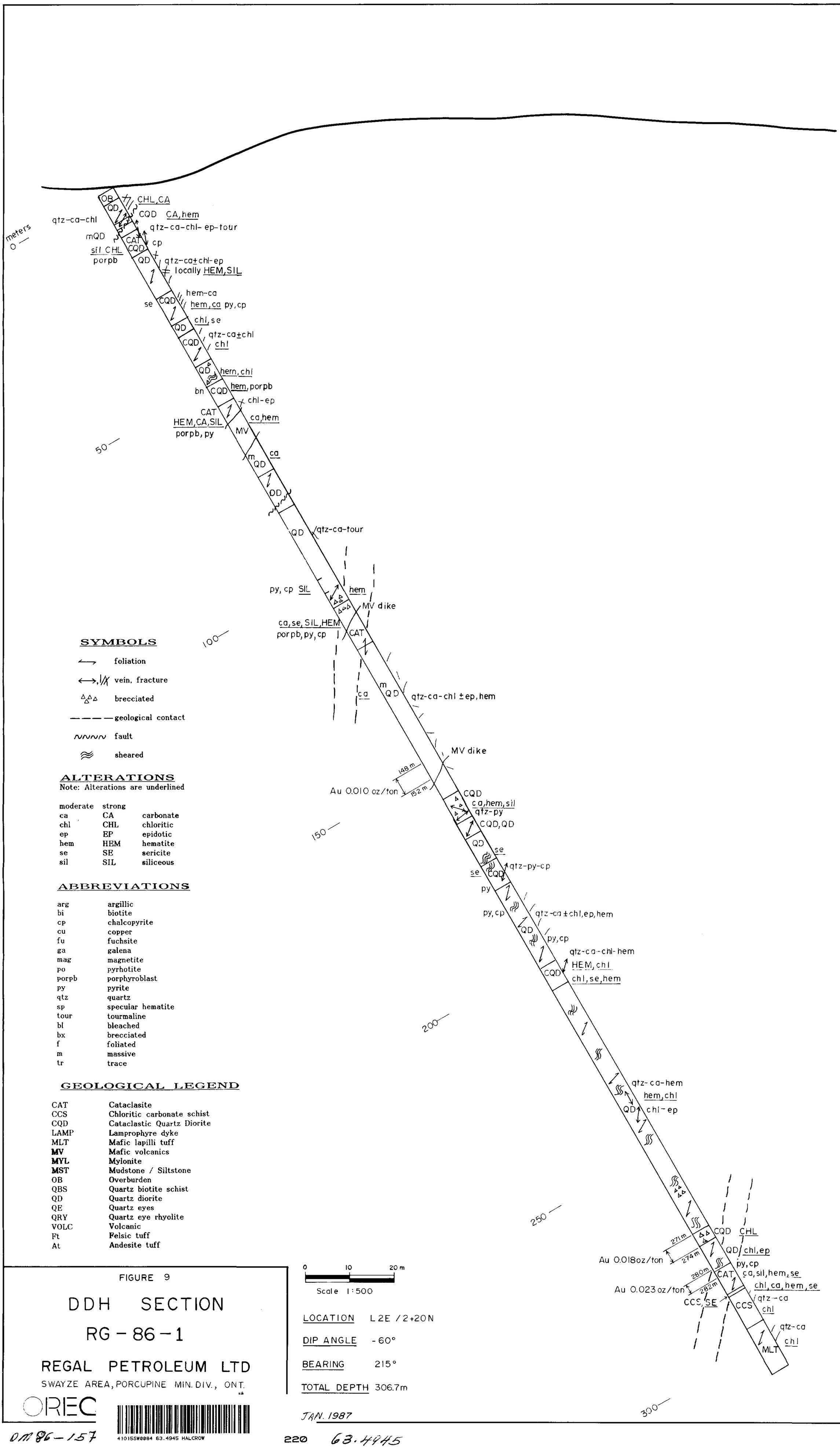
GEOLOGY

REGAL PETROLEUM LTD.

SWAYZE AREA, PORCUPINE MINING DIVISION, ONTARIO

OREQUEST

JAN. 1987



SYMBOLS

- foliation
- vein, fracture
- brecciated
- geological contact
- fault
- sheared

ALTERATIONS

Note: Alterations are underlined

moderate	strong	
ca	CA	carbonate
chl	CHL	chloritic
ep	EP	epidotic
hem	HEM	hematite
se	SE	sericite
sil	SIL	siliceous

ABBREVIATIONS

arg	argillic
bi	biotite
cp	chalcopyrite
cu	copper
fu	fuchsite
ga	galena
mag	magnetite
po	pyrhotite
porpb	porphyroblast
py	pyrite
qtz	quartz
sp	specular hematite
tour	tourmaline
bl	bleached
bx	brecciated
f	foliated
m	massive
tr	trace

GEOLOGICAL LEGEND

CAT	Cataclasite
CCS	Chloritic carbonate schist
CQD	Cataclastic Quartz Diorite
LAMP	Lamprophyre dyke
MLT	Mafic lapilli tuff
MV	Mafic volcanics
MYL	Mylonite
MST	Mudstone / Siltstone
OB	Overburden
QBS	Quartz biotite schist
QD	Quartz diorite
QE	Quartz eyes
QRY	Quartz eye rhyolite
VOLC	Volcanic
Ft	Felsic tuff
At	Andesite tuff

FIGURE 9

DDH SECTION

RG - 86 - 1

REGAL PETROLEUM LTD

SWAYZE AREA, PORCUPINE MIN. DIV., ONT.

0 10 20 m

Scale 1:500

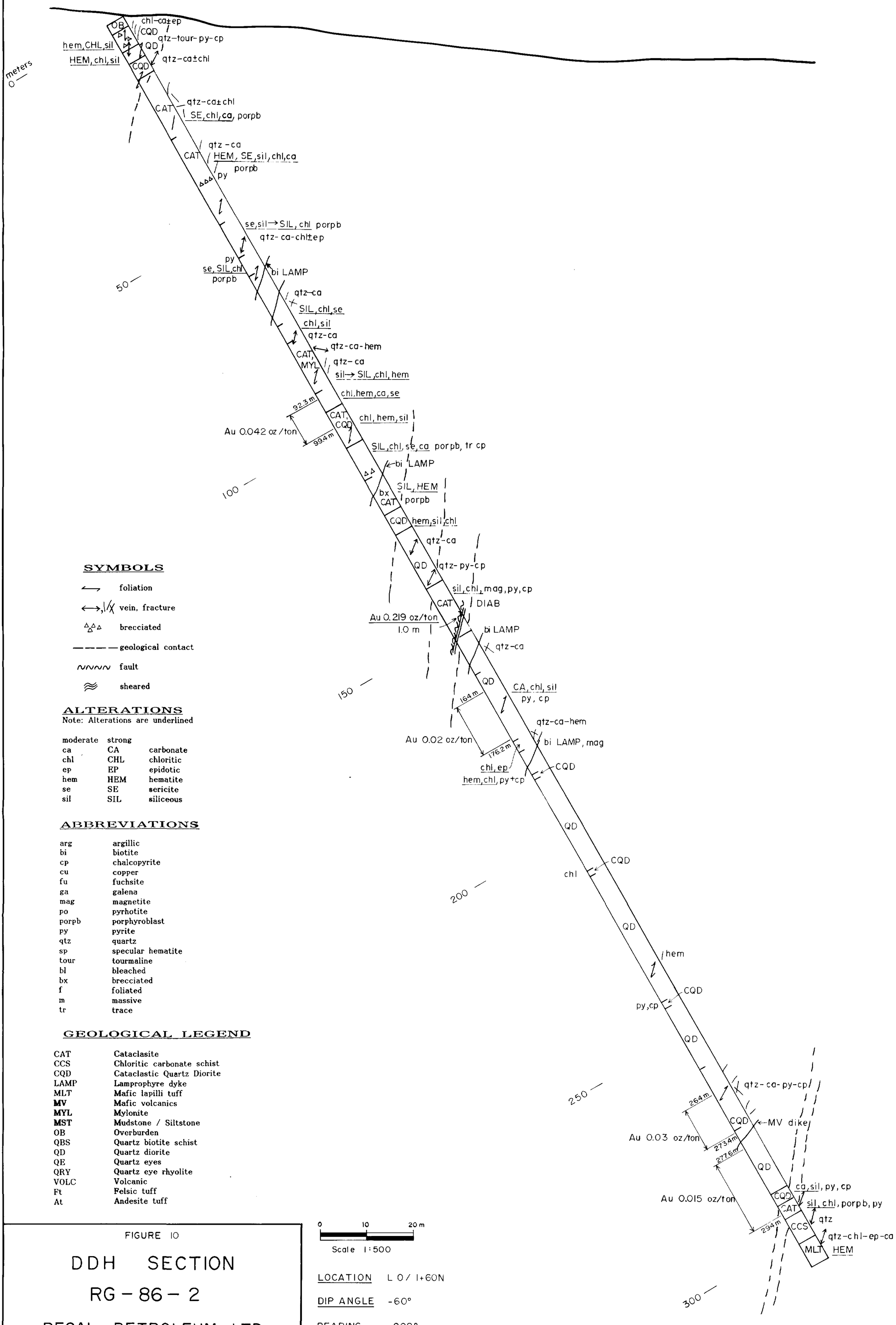
LOCATION L2E / 2+20N

DIP ANGLE -60°

BEARING 215°

TOTAL DEPTH 306.7m

JAN. 1987



SYMBOLS

- foliation
- vein, fracture
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- fault
- sheared

ALTERATIONS

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sp	specular hematite
tour	tourmaline
bl	bleached
bx	brecciated
f	foliated
m	massive
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GEOLOGICAL LEGEND

CAT	Cataclasite
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QBS	Quartz biotite schist
QD	Quartz diorite
QE	Quartz eyes
QRY	Quartz eye rhyolite
VOLC	Volcanic
Ft	Felsic tuff
At	Andesite tuff

FIGURE 10

DDH SECTION

RG-86-2

REGAL PETROLEUM LTD

SWAYZE AREA, PORCUPINE MIN. DIV., ONT.

0 10 20 m

Scale 1:500

LOCATION L 0/ 1+60N

DIP ANGLE -60°

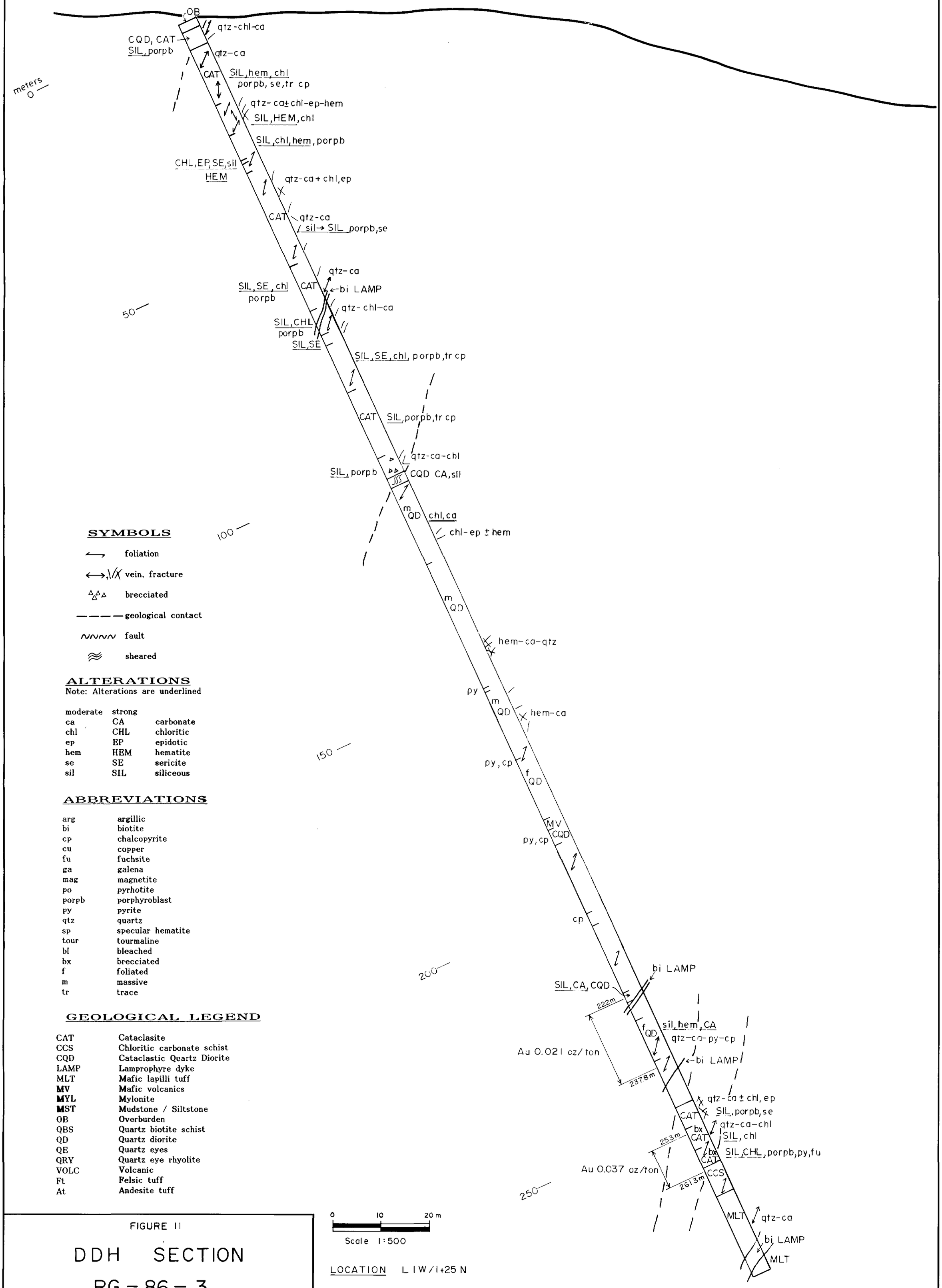
BEARING 208°

TOTAL DEPTH 306.7 m

JAN 1987

om 86-157

63.4945



SYMBOLS

- foliation
- vein, fracture
- brecciated
- geological contact
- fault
- sheared

ALTERATIONS

Note: Alterations are underlined

moderate	strong	
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GEOLOGICAL LEGEND

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QBS	Quartz biotite schist
QD	Quartz diorite
QE	Quartz eyes
QRY	Quartz eye rhyolite
VOLC	Volcanic
Ft	Felsic tuff
At	Andesite tuff

FIGURE 11

DDH SECTION

RG-86-3

REGAL PETROLEUM LTD

SWAYZE AREA, PORCUPINE MIN. DIV., ONT.

0 10 20 m

Scale 1:500

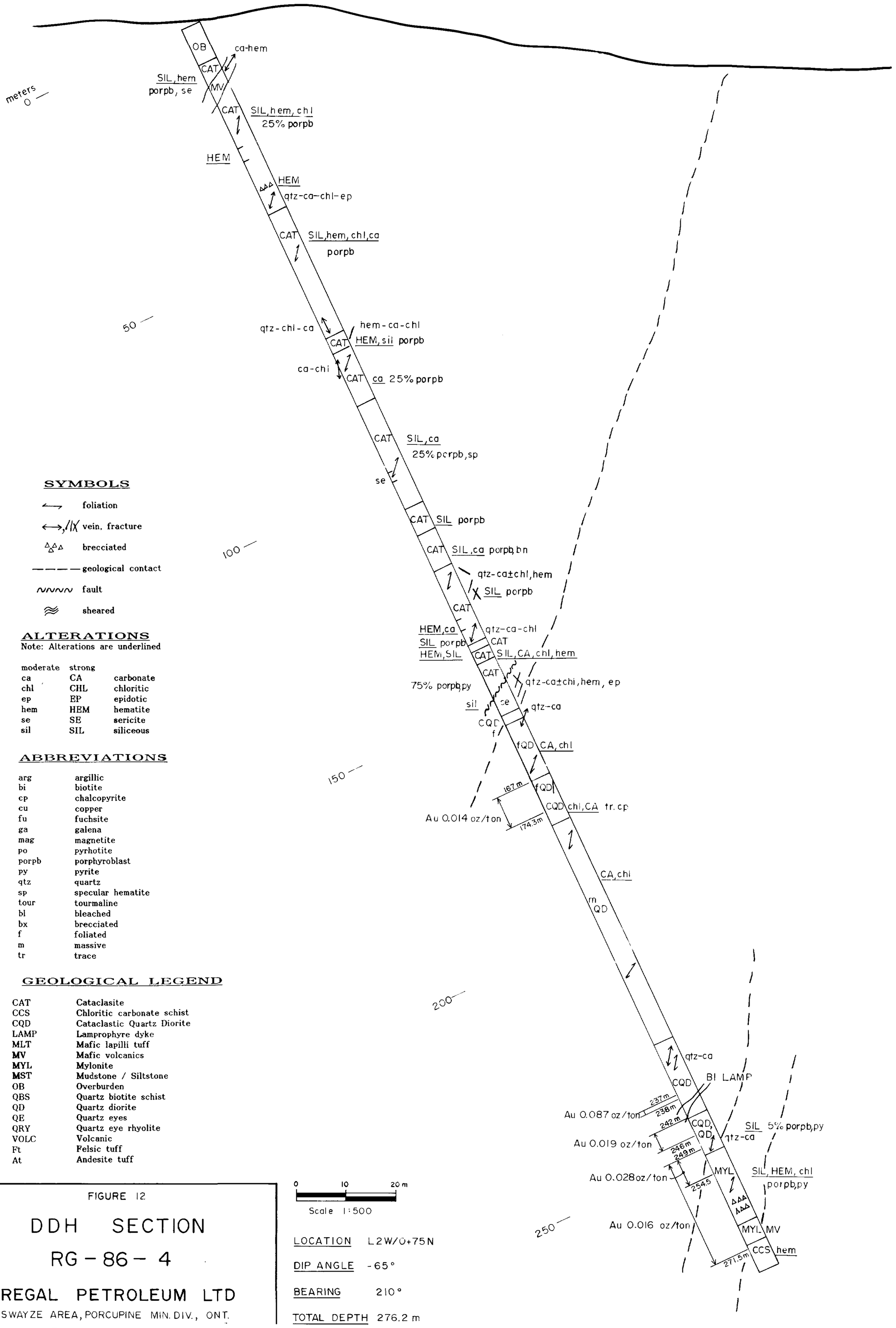
LOCATION L 1W/1+25 N

DIP ANGLE -65°

BEARING 218°

TOTAL DEPTH 285.4 m

JAN. 1987



SYMBOLS

- foliation
- vein, fracture
- brecciated
- geological contact
- fault
- sheared

ALTERATIONS

Note: Alterations are underlined

moderate	strong	
ca	CA	carbonate
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qtz	quartz
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GEOLOGICAL LEGEND

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CQD	Cataclastic Quartz Diorite
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MYL	Mylonite
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OB	Overburden
QBS	Quartz biotite schist
QD	Quartz diorite
QE	Quartz eyes
QRY	Quartz eye rhyolite
VOLC	Volcanic
Ft	Felsic tuff
At	Andesite tuff

FIGURE 12

DDH SECTION

RG – 86 – 4

REGAL PETROLEUM LTD

SWAYZE AREA, PORCUPINE MIN. DIV., ONT.

0 10 20 m

Scale 1:500

LOCATION L2W/0+75N

DIP ANGLE -65°

BEARING 210°

TOTAL DEPTH 276.2 m

JAN 1987