1043

GEOLOGICAL, GEOPHYSICAL AND DIAMOND DRILLING REPORT

JIM GROUP CLAIMS
Lat. 49°, Long. 115° NW

CRANBROOK, BRITISH COLUMBIA

PLACID OIL COMPANY

CALGARY, ALBERTA

J. S. Scott, P.Eng.

R.A. Buckley, B.Sc., M.Sc.

January 27, 1967

GEOLOGICAL, GEOPHYSICAL AND DRILLING REPORT

JIM GROUP CLAIMS - CRANBROOK

BRITISH COLUMBIA

TABLE OF CONTENTS

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JIM GROUP CLAIMS

CRANBROOK, BRITISH COLUMBIA

LIST OF ENCLOSURES

INTRODUCTION

The Jim Group of Claims consists of 50 claims in the Fort Steele Mining Division, South East British Columbia. The claims were staked January 25, 1966, by Mr. D. J. Fulton, of Cranbrook, as agent for W. Hope-Ross, and recorded February 1, 1966. Placid Oil Company, of Calgary, Alberta, carried out an exploration program consisting of line cutting, a magnetometer survey, geological mapping and diamond drilling in the period June to October 1966.

This exploration program was undertaken to determine the stratigraphic position of the outcropping Aldridge formation, and to relate this information to known intrusions in the area. A review of the literature and examinations of known ore deposits and mineral showings are combined, with a view to using these data and theories in the search for orebodies on the Jim Claims of the Sullivan Mine type.

LOCATION AND ACCESSIBILITY

The Jim Group of Claims is located six miles WSW of Cranbrook, B.C., bounded on the east by Highway No. 3, and on the west by Kiakho Creek. The property has a network of good to fair logging roads giving good access to all portions of the claim group from No. 3 Highway.

TOPOGRAPHY AND CLIMATE

The majority of the claims lie at the junction of two vallies; namely, the Palmer Bar-Kiakho Creek Valley and the Cranbrook-Moyie Lake Valley. Highway No. 3 and the Canadian Pacific Railway pass through the Cranbrook-Moyie Lake valley. The northern portion of the claims extend up the slopes of the valley to a height of 4300 feet above sea level, or 1,000 feet above the valley floor.

The area has been logged in past years leaving some stands of Fir and Tamerack up to 2 feet in diameter. Swampy, poorly drained stream tributaries contain a variety of Poplar or Aspen trees and low bush.

The summer temperatures and rain fall are ideal for field work. The temperature varies from 70 to 95 degrees, while the rain fall is very light. The field party lost only one-half day during the period June 26 to August 29, due to rain.

OUTLINE OF WORK

The field party consisted of 6 University and Pre-University students and the author. A total of 334 man days of work was performed on this property, further broken down into 277 man days in the field, and 57 man days interpretating the results, drafting, etc. in the office.

Access to the property was gained over existing logging and forestry roads using a Ford Econoline Van. Transportation to the less accessbile areas was by means of two "Tote-Goats", an off-the-road type of motor scooter. The "Tote-Goats" proved very effective in moving personnel, chain saws, gasoline, diamond drills and associated field equipment.

Using a transit a primary base line was laid out on an azimuth of 280° 30' true and driven from a known point on Highway No. 3 for a total of 18,750 feet. At a distance of 6100 feet along the base line west from Highway No. 3 a transit line normal to the base line was driven at an azimuth of 19° 30' true and designated as the NS base line. East-West tie lines normal to the NS base line and, therefore, parallel to the primary EW base line, were laid out using the transit. The north tie line is 8860 feet north of the EW base line and is 7,000 feet long. The south tie line was located by transit and chain 6,330 feet south of the EW base line and is 6,000 feet long.

The purpose of the North and South tie lines was to tie-in the picket lines which were cut normal and every 500 feet along the primary base line. The base line and tie lines were cleared wide enough to allow transit shots up to 500 feet to be made. In areas of extreme topography shorter transit shots were necessary.

The picket lines were projected by means of aligning a minimum of three pickets. The lines were cleared of small trees and overhanging underbrush with chain saws, then chained and flagged every 100 feet with poly flagging in preparation for a detailed magnetometer survey. A total of 272,050 feet of picket line was cut.

The survey on the Jim Group was tied in regionally with the granite intrustion on the north as well as the Cat Group of Claims (under option to Placid Oil Company) to the west.

The following is a summary of the lines cut and magnetometer stations surveyed during the summer period.

	Picket Lines	Base Lines	Magnetometer Stations
Jim Claims	272,050 feet	40,560 feet	3021
Cat Claims	69,650 feet	7,200 feet	706
Total	341,700 feet	47,760 feet	3727 stations

The Geological and Geophysical Report covering the Cat Group of Claims was submitted to the Gold Commissioner in Cranbrook for assessment work credits on December 19, 1966. Only those figures pertaining to the Jim Claims will be considered in this report.

MAGNETOMETER SURVEY

The Magnetometer Survey was conducted by the author using the Type 46-65 Jalander Electronic Fluxgate Magnetometer. (Serial No. 7255). This instrument has a range of 10 - 250,000 gammas in five sensitivity ranges, with a maximum sensitivity of 10 gammas. The manufacturer is Optillinen Tehdas Oy, Helsinki, Finland.

Magnetic readings were taken at 100 foot intervals along the base line and the picket lines. Associated Diurnal readings were recorded and taken into account in the map interpretation.

GEOLOGICAL MAPPING

One day in June was spent with Mr. J.S. Scott (Consultant) on a reconnaissance survey of the region. Three days in July and four days in August were spent mapping and examining the lithology in more detail. The period October 24, 25 and 26, 1966, was spent doing additional detailed examination of the lithology and in the collection of rock specimens to be used in obtaining various magnetic parameters. In addition, the granite intrusions near Kiakho Lake and Elephant Creek, north of the property, the exploration adit on Elephant Creek, and the Burt Frisinia Mine were examined and sampled. To gain additional information on ore control, additional mines in the area were examined including the St. Eugene and Midway Mine to the south and the "Try Again" showing to the northeast. The large granite intrusion on the St. Mary's River near the St. Eugene Mission was also examined.

In total, 11 man days were spent in the field Geologically mapping this property and the surrounding area.

DIAMOND DRILLING

A program of drilling was initiated along line 55+00W near the junction of Kiakho Creek and the Drill Site Road. It was intended to drill vertically through the Aldridge quartzites and determine the depth to the Granite-Aldridge contact, this information to be then used in conjunction with the magnetometer survey.

The equipment used was a Remington packsack drill, Model 2MG, Serial No. 5564. Three holes were drilled with this unit. Diamond Drill Hole No. 1 (DDH 1) reached a depth of 32 feet and encountered highly fractured zone giving lost circulation. The hole was cemented and re-drilled four times, but each time when new rock was drilled, the drilling fluid was lost in open fractures. DDH 2 was drilled 50 feet south of DDH No. 1. It encountered lost circulation at a depth of 12 feet and was abandoned. DDH 3 was abandoned at a depth of 10 feet with the drill string stuck in the hole.

The Aldridge quartzites was highly fractured with numerous cracks up to 1/4 inch across. To drill this rock it was necessary to cement every two feet in order to get drilling water returns.

A complete description of the core appears in the appendix

REGIONAL GEOLOGY

The Cranbrook Area has received considerable attention by the Geological Survey of Canada, prospectors and mining companies for many years. The first maps and reports were made by Dawson 1886, Scholfield 1915 and Rice 1938, with more detailed work being done by Ressor 1954, and Leech 1960.

This prospect lies within the Rocky Mountain Area of the Eastern system of the Canadian Cordillera. A thick group of sediments was deposited within the original synclinal trough of the Cordillera in late Pre-Cambrian time. These sediments are divided into the Windermere and Purcell Series. The Purcell series has an estimated thickness of up to 37,000 feet divided as follows:

Fort Steele	6,000-7,000 feet
Aldridge	12,000-16,000 feet
Creston	5,000-7,000 feet
Kitchener	6,000-7,000 feet

These formations are fine grained argillites, dolomitic argillities, and argillaceous quartzites and quartzites. They are believed to have been deposited under shallow, fresh water conditions in a large basin not connected with the sea (Rice). Rice, Leech, and Ressor of the G.S.C. recognized the importance of stratigraphy as a guide to exploration and divided the Aldridge into three divisionson the basis of lithology. The pattern of exploration has followed these divisions with emphasis on the lower division. The lowest division occurs on the property and is approximately 4,500 feet thick (Rice) and consists of a rusty weathered assemblage of impure grey quartzites with fine dark laminations, scour channels, ripple marks and cross-bedding. Intraformational

conglomerates are fairly common near the top. Freeze (1966) states that the intraformational conglomerate can be traced laterally up to three miles before pinching out, and is known to attain a thickness of approximately 1,000 feet. He suggests that the origin can be ascribed to violent submarine slides.

The Middle division is 10,000 feet thick and consists of cleaner massive light coloured quartzites with argillaceous partings. The minor rusty weathering is confined to relatively thin argillaceous zones. The transition to the upper division is difficult to recognize in the field, but is marked by an increase in rust on an outcropping section. The Upper Section is 1,300 feet thick and is characterized by an increase in thinly laminated argillite and argillaceous quartzite.

TABLE OF FORMATIONS

The following table of formations is pertinent to the area, although only rocks of the Late Pre-Cambrian appear as bedrock in the vicinity of the claims:

PERIOD	AGE	FORMATION OR ROCK TYPE
CENOZOIC	Recent	Sands, gravels, river wash.
	Pleistocene	Glacial drift, tills, boulder clay, gravels.
	- - - - - - - - - - Unconformity - - - - - - - - - -	
	Miocene	St. Eugene silts.
	- - - - - - - - - - Unconformity - - - - - - - - - -	
	Early Tertiary or Late Cretaceous	Granodiorite stocks Syenite dykes.
	- - - - - - - - - - intrusive contact - - - - - - - -	
		Eager.
PALEOZOIC	Lower Cambrian	- - - disconformity(?) - - Cranbrook.
	- - - - - - - - - - Unconformity - - - - - - - - - -	
	Upper Purcell	Gateway.
PRE-CAMBRIAN		Purcell igneous rocks - - - intrusive contact - - Siyeh vivid colored dolomitic argillite.
	Lower Purcell	Kitchener - buff weathering Creston - green, purple, white, argillaceous gtzites. Aldridge - grey, rusty argillite, argillaceous gtzite. Fort Steele - banded, black to light argillite, dolomitic argillite and gtzite.

STRUCTURAL GEOLOGY

The Jim Group of Claims is on the west limb of a large north-east trending fold known as the Moyie Lake anticline. The outcropping Aldridge formation strikes NW and dips 10-15 degrees to the NE. The stratigraphic position of the outcropping Aldridge is placed as Middle Aldridge, or most probable on the top of the lower division. The latest regional map (Leech 1959) indicates a large fold, with its axis passing through the village of Moyie and NE towards the village of Fort Steele, is cut and modified by several regional faults. The Moyie fault, the largest, is a reverse fault striking approximately N45E with a steep dip NW. It faults the Aldridge on to the Kitchener Formation. Leech (1959) believes this fault to be an oblique thrust whose hanging wall moved relatively upward and northeastward. The Cranbrook fault, less than one mile north of the Jim Group, strikes approximately EW and dips 65 degrees north. The movement on the Cranbrook fault has been such that the younger Creston Formation has down faulted on the north of the fault plane and the Jim Group of claims. This fault has a good surface expression east of the Jim Group, north of Jim Smith Lake, where 30 feet of white to reddish-pink massive vein quartz along the fault plane crops out.

The Purcell intrusives are dioritic in composition, sill or dyke in habit and intrude all formations of the lower Purcell series. The larger sills are more prominent in Fort Steele and Aldridge formations. The Purcell extrusives are interbedded with Siyeh Strata and were extruded under water. A little alteration accomapnies the intrusion of the Purcell sills and usually takes the form of biotite development in a narrow zone.

Granodiorite plugs and syenite dykes and sills of late Cretaceous to early Tertiary age are common in lower Purcell rocks. A number of granodiorite outcroppings occur between St. Mary River and Mather Creek in the trench, and are known (from Aeromagnetics) to be a part of a larger body some 4-5 miles in diameter. A second body a mile in diameter outcrops at the south end of Kiakho Lake. These bodies become more numerous westerly in the Upper St. Mary River drainage system. Syenites are frequently associated with the granodiorites and are considered a late phase. These intrusives are magnetically high and are readily mapped by airborn magnetometers.

DISCUSSION OF MAGNETOMETER RESULTS

The Aldridge quartzites that crop out on the Jim Group of claims is remarkably homogeneous. It consists of a thick series of massive and argillaceous quartzites striking NW and dipping 10-15 degrees NE. Purcell intrusives of dioritic composition intrude the Aldridge along the bedding planes. These sills vary in thickness from 50 to 200 feet. Four separate sills were mapped geologically on the property.

Since the quartzites are so homogeneous very little variation in magnetic intensity was observed with the ground magnetometer. Because there was very little variation in the vertical magnetic field, it was decided to outline only the high magnetic trends rather than attempt to conventionally contour the data. The results (Enclosure #2) shows elongated magnetic highs which follow the surface expression of the diorite sills.

The Diorite sills in this region are conformable with the bedding of the quartzites. These sills as they crop out on the hill sides appear on the surface as gently curving structures, but in reality strike NW with a low northeast dip.

The strong magnetic feature on the west portion on the Drill Site Road near Kiakho Creek is due to the large granite intrusion.

The granite contact appears to dip less steeply along lines 30+00W and 35+00W, than in the region where lines 50+00W and 55+00W make contact with the granite.

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The strong magnetic feature on the west portion on the Drill Site Road near Kiakho Creek is due to the large granite intrusion.

The granite contact appears to dip less steeply along lines 30+00W and 35+00W, than in the region where lines 50+00W and 55+00W make contact with the granite.

In both cases it is interpretated that the intrusive is steeply dipping and is not underlying, at a shallow depth, the surrounding Aldridge sediments.

Another granite intrusive is mapped Geologically and Geophysically at Elephant Creek immediately north of the Jim Smith Lake Road. This intrusive trends northeastward and continues outside the surveyed area.

Two other anomalous areas occur farther downstream on Elephant Creek, as mapped in lines 15+00E, 20+00E, and 25+00E, 1400 feet north of the primary base line and on lines 20+00E, 25+00E, 30+00E and 35+00E, 200 feet south of the base line. It is postulated that Elephant Creek flows along a minor fault or synclinal axis. This fault or syncline axis has provided a zone of weakness along which it appears, Granite plugs have intruded. This same combination is noted along Kiakho Creek where Granite boulders were mapped at two localities. See enclosure No. 1. In addition to the above evidence, it was noted that the Aldridge guartzite is quite different in appearance and mineralogical content on the west than that mapped on the east bank. The Aldridge observed on the west bank is thought to be stratigraphically lower than that on the east bank which would confirm the presence of a north-south fault along Kiakho Creek.

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Rice, H.M.A.	1937	Cranbrook Map Area, B.C. Geol. Serv., Canada, Mem 207.
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CONCLUSIONS

The region covered by the Magnetometer Survey indicated that the Aldridge sediments are thick and highly intruded by diorite sills. The large Kiakho Lake Granite intrusive has steeply dipping boundaries and does not immediately underlie the Aldridge quartzites.

Zones of weakness; i.e. faults, or fold axis lie along Kiakho Creek and Elephant Creek. There is good evidence that small granite stocks have intruded these faults at the time of the Kiakho Lake intrusive giving rise to multiple outcrop and near outcroppings of granite.

Minor warping by gentle folding is indicated from preliminary geological mapping. A conformable series of rock composed of sediments and more competant layers such as the diorite intrusives, when gently folded, could give rise to numerous zones of crumpling and intraformational conglomerate. The resulting porous zones such as these would be ideal host rock for metallic solutions derived from the granite intrusives.

RECOMMENDATIONS

1. The anomalous zones along the Drill Site Road and Elephant Creek indicated by the Magnetometer Survey should be further explored by induced Polarization.

2. Any Induced Polarization anomalies should be diamond drilled.

3. The area should be mapped in detail Geologically.

Respectfully submitted,

J. S. Scott, P.Eng.

R.A. Buckley, B.Sc., M.Sc.

January 25, 1967.

R. A. Buckley — Qualifications

A. I, Ronald A. Buckley, am by profession a Geologist, residing in the City of Calgary, Province of Alberta.

B. I graduated in the year 1957 from Acadia University, Wolfville, Nova Scotia, with a Bachelor of Science Degree in Geology, with a minor in Chemistry and Physics.

C. I graduated in the year 1959 from McGill University, Montreal, Quebec, with a Master of Science Degree in Geology.

D. Since graduation, I have been employed by a Mining Company, a Provincial Department of Mines, and two Oil Companies in the search for oil, gas and metallic minerals.

E. I am a member:
The Alberta Association of Petroleum Geologists
Mineralogical Association of Canada
Society of Economic Geologists
Society of The Sigma XI
Canadian Institute of Mining and Metallurgy

F. I have applied for membership:
Association of Professional Engineers of B.C.
Association of Professional Engineers of Alberta.

R. A. Buckley, B.Sc., M.Sc.

December 14, 1966.

Calgary, Alberta.

A P P E N D I X

APPENDIX

CRANBROOK PROJECT - CORE #1

DIAMOND DRILL HOLE NO. 1

0 - 1	Quartzite, grey, very high content of quartz. Fracture with apparent of dip 80°.
1 - 2	As above. Fractures common open with apparent dip 80°.
3 - 4	As above.
4 - 5	Quartzite slightly lighter than above with 1" band of greenish quartzite dipping 5°. Mottled appearance to the quartzite. Appears metamorphorsed.
5 - 6	Quartzite grey to dark greenish tinge. Increase in argillaceous material.
6 - 7	As above with increase in argillaceous material. Bedding is at 0°.
7 - 8	Quartzite decrease in argillaceous material. Mottled, and speckled appearance. Fractures steeply dipping 75°. Slightly greenish tint.
8 - 9	As above.
9 - 10	As above with slight decrease in greenish color.
10 - 11	Quartzite grey to dark grey, argillaceous. Content increasing. Bedding, apparent dip 5°.
11 - 12	Quartzite dark grey. Argillaceous bands. Slightly greenish, apparent dip on bedding, 5° fractures steep, apparent, dip 75°.
12 - 13	As above. Highly fractured. Core is broken due to deeply dipping fractures, minor quartz filling the fractures, 1/8 inch thick.
13 - 14	As above. Quartzite bands containing pyrite 1/4 inch thick, vuggy.
14 - 15	As above with quartz bands, probably vein and fracture filling, greenish color in part, greenish quartz.

15 - 16	As above. Slight increase in argillaceous material. Some open fractures 1/8 inch thick openings along fractures. Apparent dip of fractures 30°.
16 - 17	As above, less argillaceous material. The core has a very high ring to it when struck.
17 - 18	As above with lighter greenish beds.
18 - 19	As above with 1/2 inch beds. Very argillaceous quartzite, nearly shale.
19 - 20	As above.
20 - 21	Color dark grey with an increase in argillaceous material.
21 - 22	Dark grey with beds 1" greenish quartzite, also beds of argillaceous quartzite to shaley.
22 - 24	As above. Apparent dip of bedding 5°.
24 - 25	Quartzite light grey speckled appearance, apparent dip on beds 10°, some darker bands of argillaceous quartzite.
25 - 26	Dark grey to near black, dark grey to black quartzite with beds of light green quartzite to light green vein quartz. The irregular boundaries seem to follow a fracture pattern. Dips of these beds vary from 20° to apparent dip of 60°. The vein quartz here has a speckled appearance possibly due to proximity to granitic intrusion.
26 - 32	As above, highly fractured with fractures having an apparent dip of 80°. Core is badly broken up. At this point the fractures were wide and the hole was terminated due to lost circulation in the fracture pattern.

DIAMOND DRILL HOLE #2

Drilled 50 feet South of Diamond Drill Hole #1.
Drilled vertically.

Core Description: *Surface to Foot* #1 quartzite, slightly mottled appearance, grey with thin bands of argillaceous material.

1 - 2 As above.

2 - 3 Quartzite, increase in argillaceous material, dark grey, argillaceous bands being black.

3 - 4 Quartzite, larger quantity of argillaceous material thinly banded, fracture system with an apparent dip of 25°, 1/8 of an inch thick containing white quartz, vein quartz.

4 - 5 Decrease in argillaceous material, color the same, that is, dark grey mottled appearance, bedding not as distinct.

5 - 6 Quartzite, grey, mottled appearance has a metamorphorsed look, fractured pattern very steep, almost along the length of the core, apparent dip 85°.

7 - 8 Quartzite, dark grey, mottled appearance, has a granitized look to it.

6 - 7 As above bedding indistinct, mottled speckled appearance, this is the end of the core, the rest of the core was lost in the hole, fracture pattern steeply dipping, fractures filled with white veined quartz, rock is hard with a ringing sound when struck.

DIAMOND DRILL HOLE #3

Drilled 25 feet due West of Diamond Drill Hole #1. No core was recovered from this hole due to the highly fractured nature of the rock. The core was ground up as fast as the hole was made. This hole was abandoned when the drill string became stuck in the hole. Left in the hole was core barrel and the diamond bit.

SURFACE GEOLOGY
CRANBROOK AREA
BRITISH COLUMBIA

SCALE - 8 INCHES TO 1 MILE

To accompany Geological and Geophysical Report on Jim Group of Claims, Cranbrook, B.C. Latitude 49° Longitude 115° NW.

PLACID OIL COMPANY
CALGARY ALBERTA

R.A. BUCKLEY
J.D. SCOTT

JANUARY 1967

R.A. Buckley

J.D. Scott Ph.D.

1043

ENCLOSURE 1

— LEGEND —

- CUT LINE
- MAGNETOMETER STATIONS
- CLAIM NUMBER — 33
- CLAIM LINE LOCATED
- CLAIM LINE ASSUMED
- CLAIM BOUNDARY
- CLAIM POST LOCATED
- CLAIM POST ASSUMED
- DIORITE
- GRANITE
- SAMPLE LOCATION
- OUTCROPPING OF ALDRIDGE QUARTZITE
- OUTCROPPING OF DIORITE
- OUTCROPPING OF GRANITE

Kiakho Lakes

CRANBROOK FAULT

QUARTZ VEIN

SYENITE DYKE

Palmer Bar Creek

Jim Smith Creek

Jim Smith Lake

JIM SMITH L. PROV. PARK

Fassiferne

Old Mine Adit & Shaft

Old Placer Mine

Granite Boulders

Diggings

Drill Site

N-S BASE LINE

E-W BASE LINE

NORTH TIE LINE

SOUTH TIE LINE

Railway

Canadian Pacific

RES.

L.9691, L.4837, L.12142, L.7421, Blk. A, L.5249, L.5801, L.2310, L.10087, L.12437, L.3574, L.12438, L.7794, L.2311, L.10094, L.5254, L.10728, L.5253, L.10727, L.8753, L.5241, L.4687, L.7006, L.3065, L.5460, L.5240, L.10321, L.5242, L.6542, L.3571, L.5244, L.9855, L.5459, L.5243, L.10987, L.6323, L.2305, L.2804, L.2304, S.L. 77, S.L. D, S.L. 10, Blk. A

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

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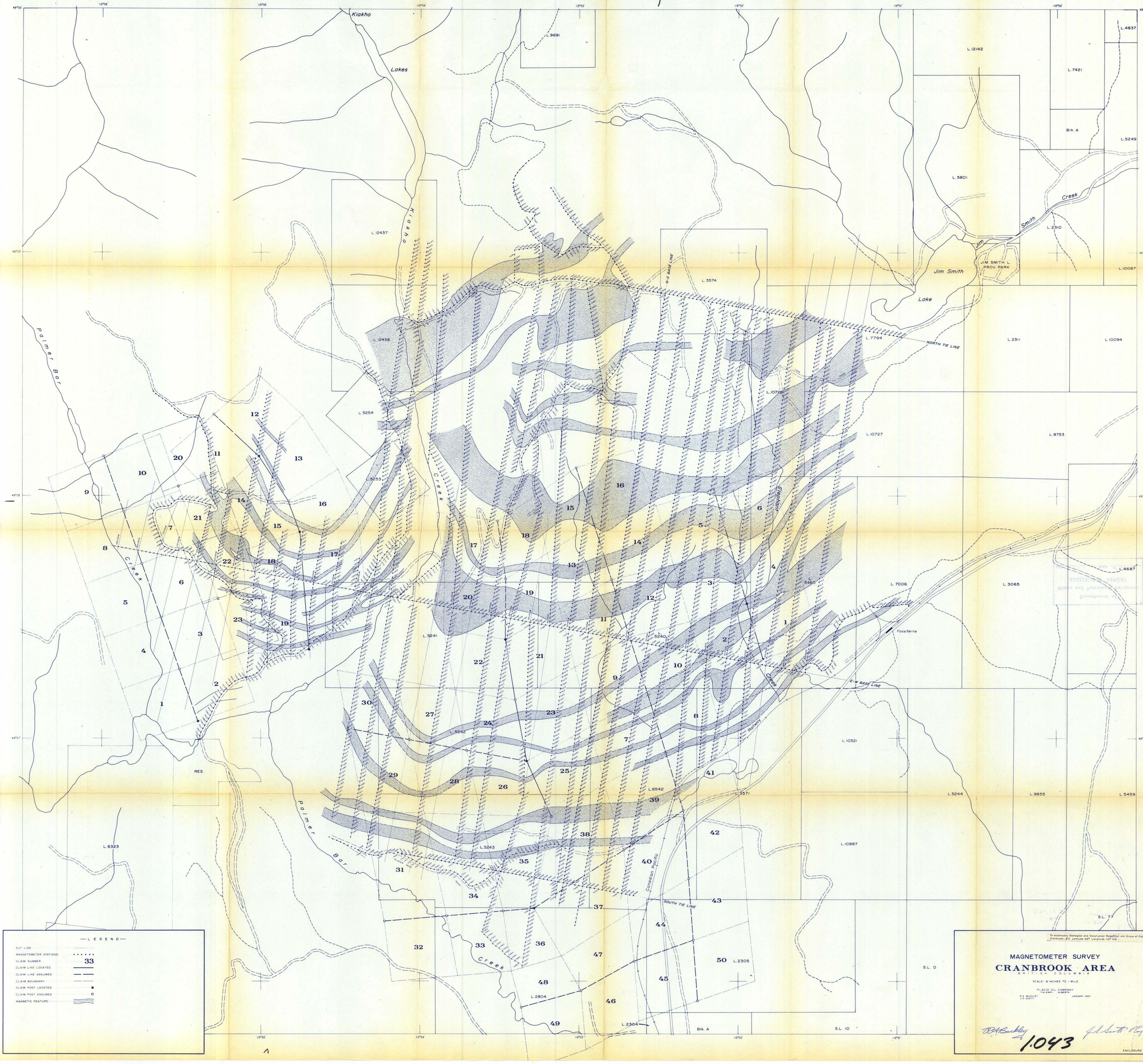


—LEGEND—

- CUT LINE
- MAGNETOMETER STATIONS
- CLAIM NUMBER 33
- CLAIM LINE LOCATED
- CLAIM LINE ASSUMED
- CLAIM BOUNDARY
- CLAIM POST LOCATED
- CLAIM POST ASSUMED
- MAGNETIC FEATURE

To accompany Geological and Geophysical Report on Jim Group of Claims, Cranbrook, B.C. Latitude 49° Longitude 115° NW.

MAGNETOMETER SURVEY
CRANBROOK AREA
BRITISH COLUMBIA

SCALE - 8 INCHES TO 1 MILE

PLACID OIL COMPANY
CALGARY, ALBERTA

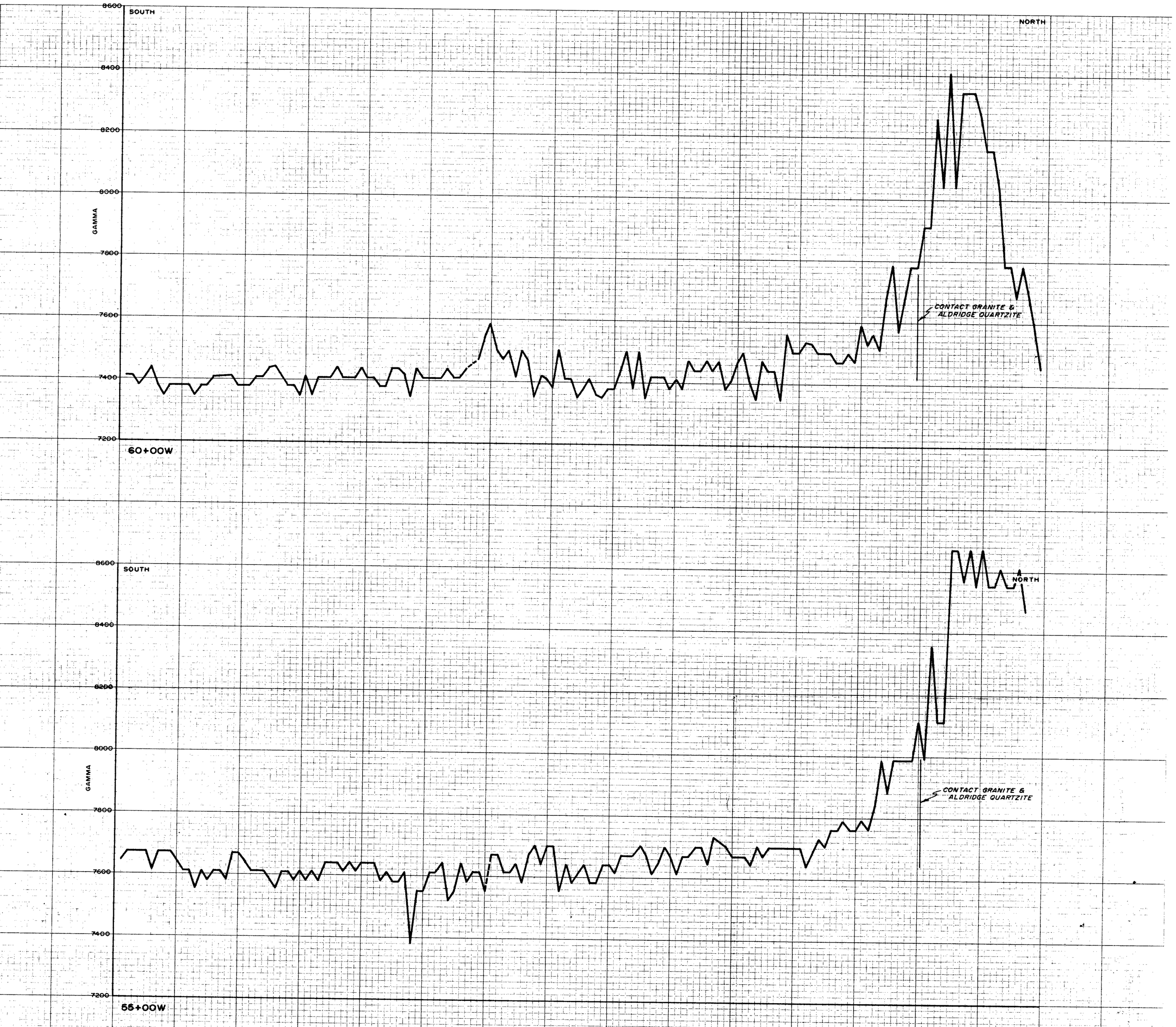
R.A. BUCKLEY
J.S. SCOTT

JANUARY 1967

R.A. Buckley J.S. Scott Eng.

1.043

ENCLOSURE 2



To accompany Geological and Geophysical Report on Jim Group of Claims, Cranbrook, B.C. Latitude 49° Longitude 115° NW.

MAGNETOMETER PROFILES
CRANBROOK AREA

HORIZONTAL SCALE-1 INCH TO 1000 FEET

PLACID OIL COMPANY
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OCTOBER 1960

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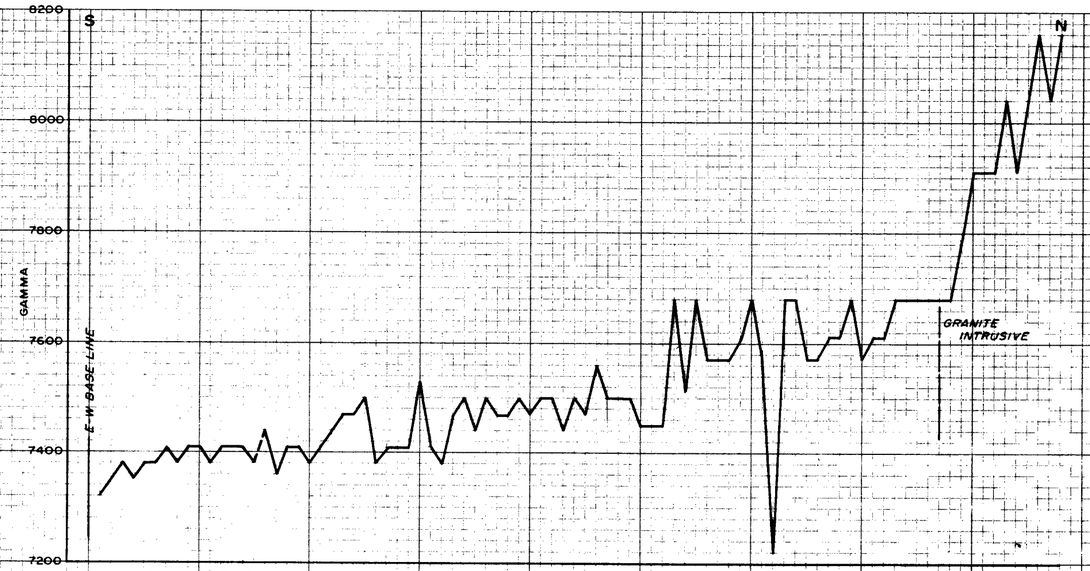
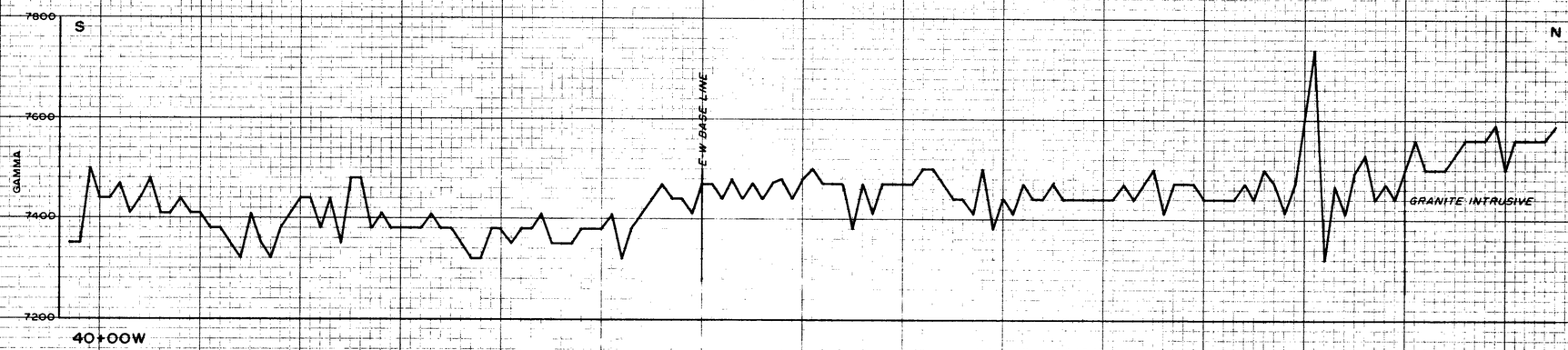
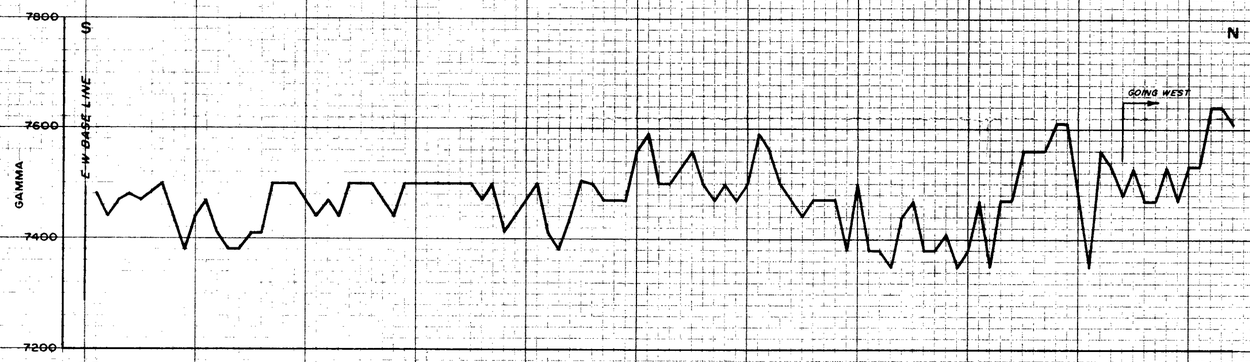
ENCLOSURE 3



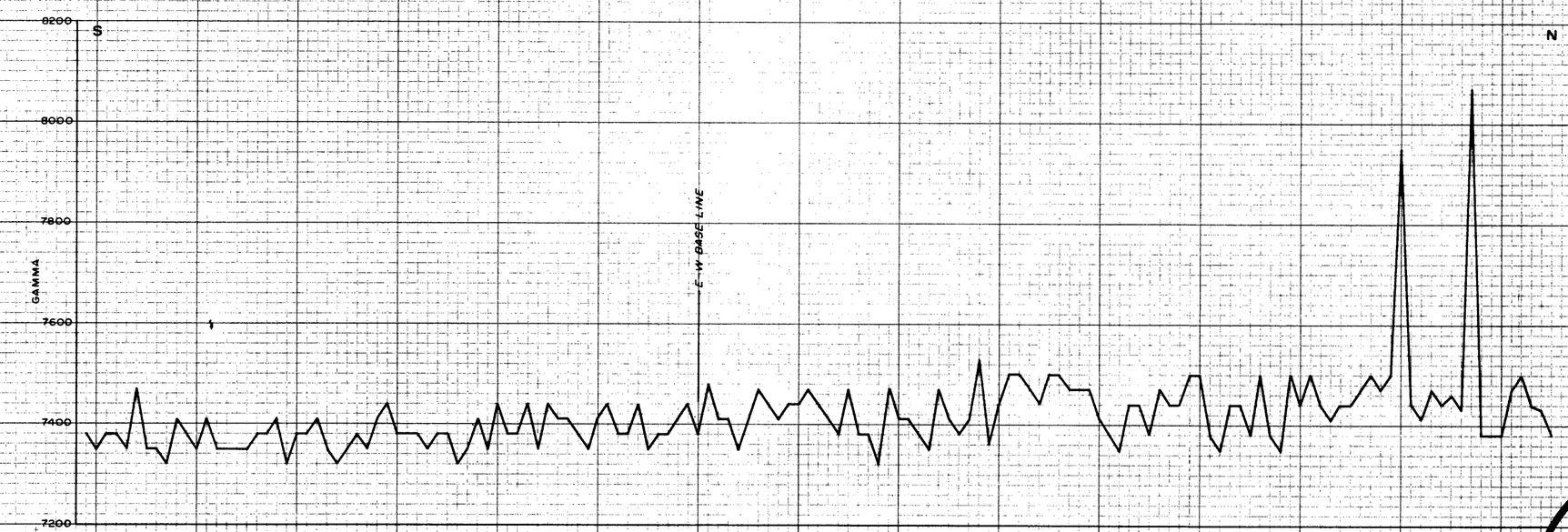
50+00W FROM E-W BASE LINE AT 54+60W NORTHWARD ALONG KIAKHO CREEK TO DRILL SITE ROAD



40+00W



35+00W



30+00W

To accompany Geological and Geophysical Report on Jim Group of Claims, Cranbrook, B.C. Latitude 49° Longitude 115° NW.

MAGNETOMETER PROFILES
CRANBROOK AREA

HORIZONTAL SCALE - 1 INCH TO 1000 FEET

PLACID OIL COMPANY
CALGARY ALBERTA

R.A. BUCKLEY
J.S. SCOTT

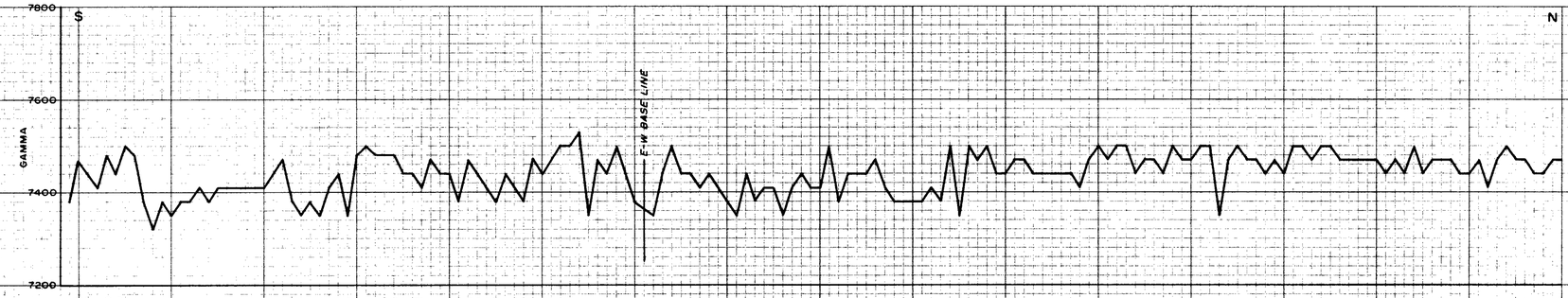
JANUARY 1967

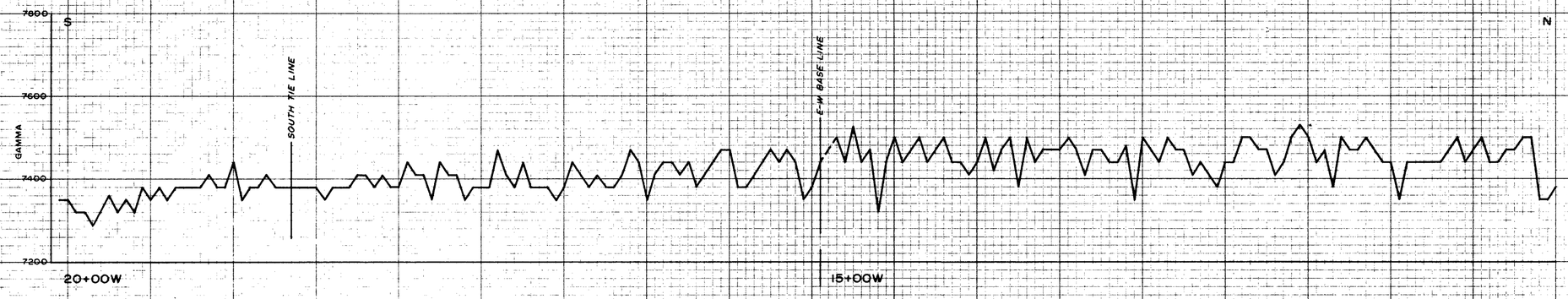
1043

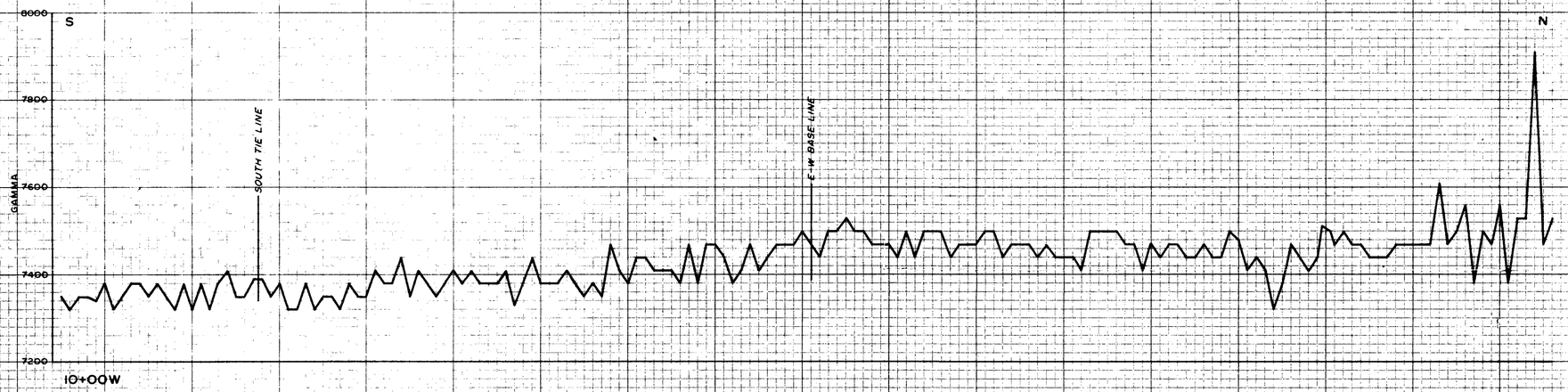
R.A. Buckley

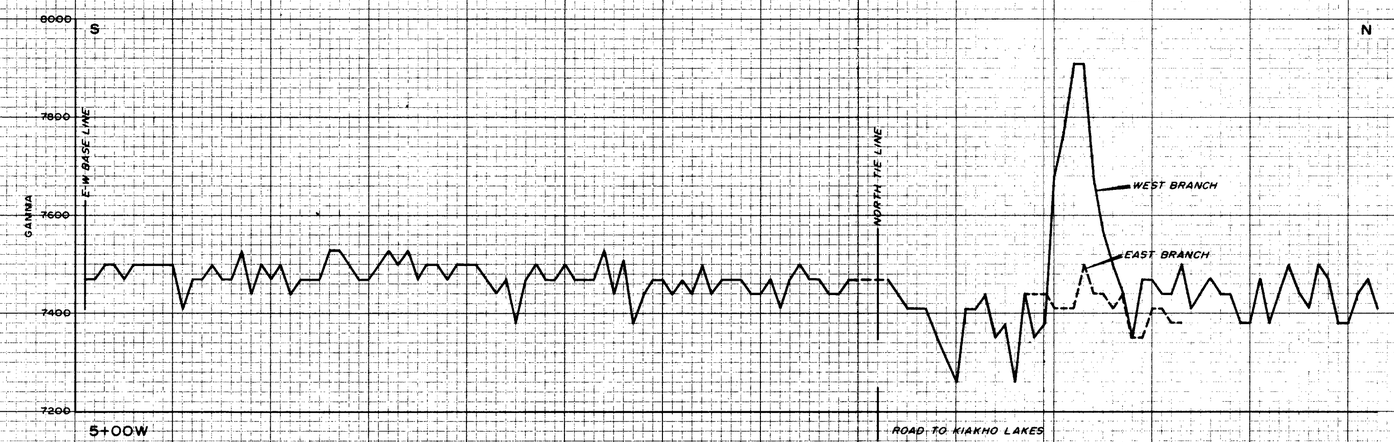
J.S. Scott, P.Eng.

ENCLOSURE 4









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MAGNETOMETER PROFILES
CRANBROOK AREA

HORIZONTAL SCALE-1 INCH TO 1000 FEET

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J.S. SCOTT

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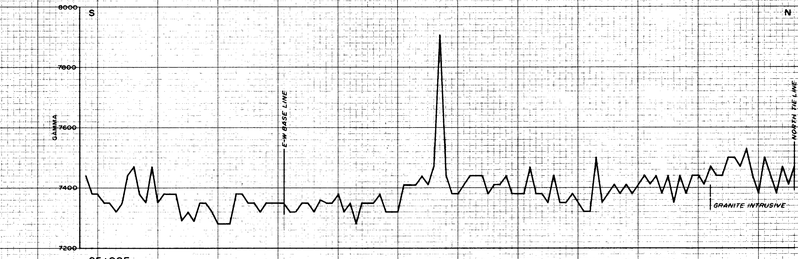
R.A. Buckley

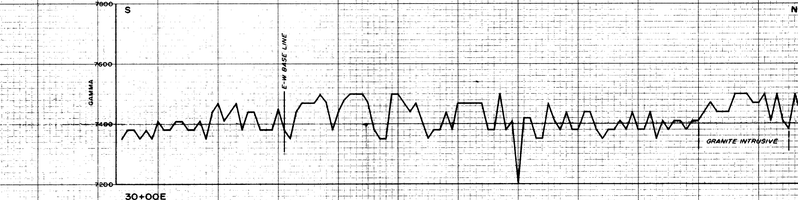
J.S. Scott P. Eng.

ENCLOSURE 5

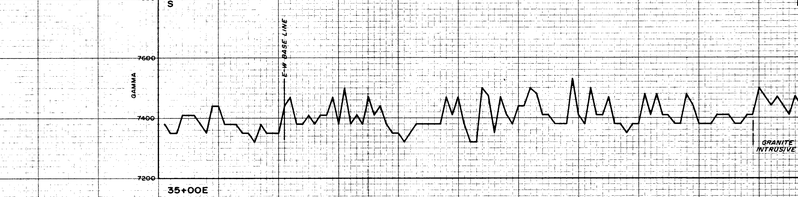
20+00E



25+00E



30+00E



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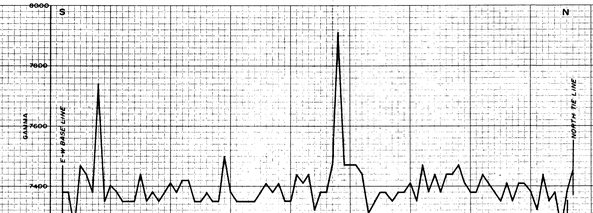
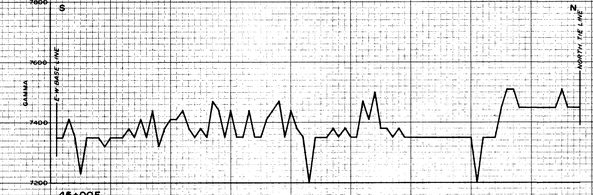
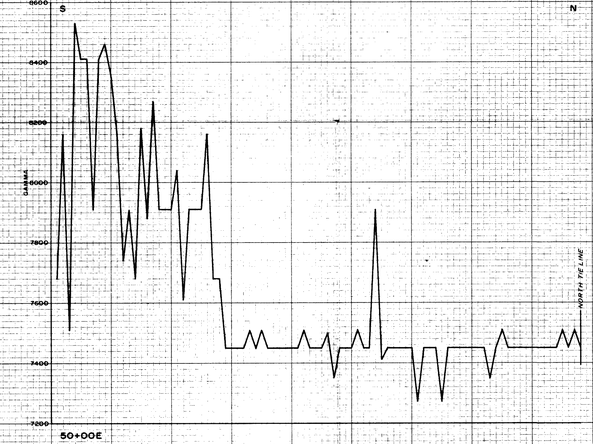


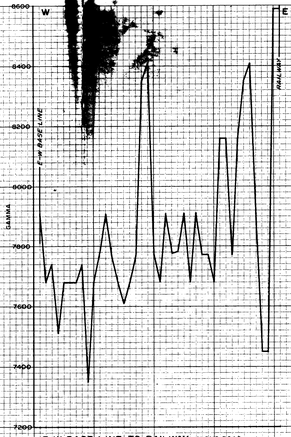
40+00E



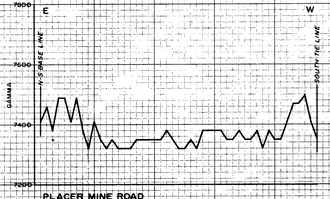
45+00E



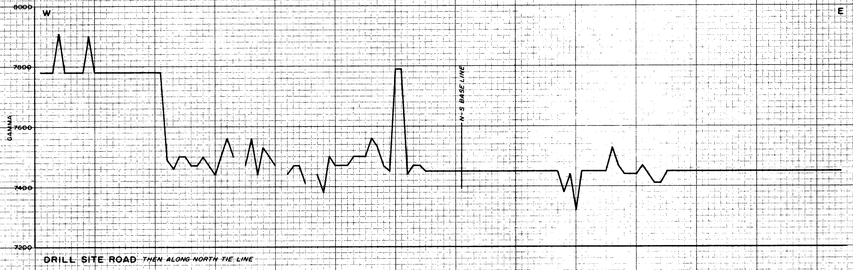
50+00E



E-W BASE LINE TO RAILWAY *ALONG ROAD*



PLACER MINE ROAD



DRILL SITE ROAD *THEN ALONG NORTH TIE LINE*

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ENCLOSURE 6