

82F/4W

L49-117 SW.

Celtic Queen Gr, Vulcan Gr.etc  
Rossland Mines Ltd.

Bruce, S.G.;Clark,A.R.;

Baker,W.R.; Engineers.

0024

PROPERTIES

24

CONSOLIDATED MINING AND SMELTING COMPANY

Some 107 claims and fractions covering 1,119.1 acres are held by the Consolidated Mining and Smelting Company in the vicinity of Rossland. These cover all the deposits of the type in question which have enjoyed any considerable production. During the currency of their operation by the various companies which eventually came under the head of the Consolidated Mining and Smelting Company, they produced some 6,000,000 tons containing over 2,600,000 oz. of gold; 3,000,000 oz. silver; and 100,000,000 lbs. of copper. Subsequent operations by lessors have added some 2,500,000 to the total production. These latter operations have largely been controlled by fluxing requirements of the Consolidated Mining and Smelting Company at Trail. During their peak they reached a production of two-thirds of a million in each of the years 1933 and 1934.

A description of these properties is covered in a general way in the preceding parts of the report and is covered in some detail in the G.S.C. Memoir 77 - "Geology and Ore Deposits of Rossland" by Charles Drysdale.

It is anticipated that the capital of Rossland Mines Ltd will be increased to 5,000,000 shares to include part of the Consolidated Mining and Smelting Company holdings as outlined in a letter from the Consolidated Mining and Smelting Company.

ROSSLAND MINES LIMITED

The following properties will be transferred to the Rossland Mines Limited:

1.	53 claims & fractions held on location approx.	2,000 acres
2.	25 claims & fractions held on lease	717.1 acres
3.	25 claims & fractions held under option	300
<u>Total 103 claims and fractions</u>		<u>Approx. 3,000 acres</u>

These claims cover the bulk of the ground not held by the Consolidated Mining and Smelting Company which may be construed to contain deposits of the type in question.

Upon these claims are a number of veins, many of which have received some development in the past. In general the work is not well planned and gives little information concerning the deposits it was intended to explore and in most cases the workings are not open for inspection. In nearly all instances the ore developed has been mined and shipped either by the original company or by lessees.

Present efforts to discover the importance of these veins were frequently of necessity confined to sampling dumps. In these instances samples marked selected are from mineralized material on the dumps, possibly representing the unshipped product of these workings. It is not known whether this material is all that was found in these workings or whether the best material was shipped and this is rejected low grade. On the average, however, they probably give some indication of the importance of these workings.

In a few rare instances the veins are open for inspection and it is presumed in these cases that the material exposed did not provide a profitable shipping product. This is proven in sampling results, but in some cases widths and values are very encouraging.

The following brief accounts cover the more important showings.

MAY QUEEN

The property of the May Queen Mining Company covers the most interesting showing yet developed on the south belt. It is rather interesting to note that work done by this company represents the only effort since the early days to prove the existence of ore-bodies on the south belt and the results of these efforts the most tangible proof of their existence. Further since early reports and surface exposures do not present any more reason to presume the existence of ore-bodies in this particular section than elsewhere on the south belt, it is rather surprising and decidedly encouraging that a little well planned development should be so successful in proving the existence of a substantial quantity of commercial ore.

A short crosscut followed by a drift 355 feet long on the so-called main vein, interrupted by several dykes give a length of 183 feet, an average sampled width of 4.3 feet (not completely exposed in the drift) and an average value of Au. 0.15, Ag. 3.91, Pb. 1.68% and Zn. 4.18%. This ore-body is open on both ends with an ore assay in each face, while diamond drill holes below have given similar results.

A composite sample used for mill test averaged 0.15 oz Au., 3.78 Ag., 1.53% Pb., and 4.50% Zn., approximately the grade of the mine.

The test work demonstrated that it is possible to recover 89.9% of the Au., 87.9% of the silver, 97.52% of the lead and 95.0% of the zinc in two concentrates: a lead concentrate containing 83.5% of the gold, 71.8% of the silver and 83.44% of

the lead, and a zinc concentrate containing 89.5% of the zinc and only 6.4% of the gold.

The test work showed that a concentration rate of 12.8 to 1 could be obtained in making the zinc concentrate which assayed only 0.3 oz Au., 5.6 oz Ag., 0.3% Pb., 54.0% Zn. and 0.68% Cd.

The test work showed that a concentration rate of 29 to 1 was obtained in making the lead concentrate which assayed 3.50 oz Au., 94.4 oz Ag., 43.0% Pb. and 7.7% Zn. per ton.

Based on prices existing in May 1946, the zinc concentrates had a settlement value at Trail of \$33.95 and the lead concentrate of \$221.68.

<u>221.68</u>	=	\$7.64	8.28
29			
<u>33.95</u>	=	<u>3.04</u>	4.60
12.8			
Net smelter value per ton ore - allowing for mill recoveries.		\$10.64	<u>12.88</u>

Four other veins are exposed on this property which apparently have some promise. One is exposed in a tunnel from the railroad grade on the Olio Fodrida Claim. At present this tunnel is caved, but the vein is reported to be from a few inches to 3' wide. Shipments are reported to have netted \$56.00 of which \$40.00 was silver, \$10.00 in gold and \$6.00 in lead.

Another vein exposed near the southwestern corner of this claim on a short tunnel is quite narrow, but fairly high grade. An assay across 3" returned Au. 0.06 oz, Ag. 48.2 oz, Pb. 6.60%, Zn 7.20%.

The third vein is exposed on the eastern boundary of the Celtic Queen claim in a number of cuts for a length of 100 to 200'. It averaged 1.0' to 2.8' in width and returned values of .04 to .08 in gold with 7 to 8% zinc.

The fourth vein is exposed near the south eastern corner of the Celtic Queen No. 1 mineral claim. A small cut on this vein near the contact of a palaskite dyke returned Au. 0.14 oz., Ag. Tr. across 22".

#### HATTIE

On the Hattie claim in a short shaft in monzonite a 3' vein assayed Au. 0.10 oz, Ag. 0.8 oz, Cu. 0.38%, Pb. 0.10% Zn. 0.25%.

Another vein has been developed in an open cut immediately to the south. The vein is not exposed at the present time but material on the dump assayed as follows:

Au. 0.34, Ag. Tr., Cu. 0.25, Pb. 0.24, Zn. 0.20  
Au. 0.16, Ag. 1.1, Cu. 0.10, Pb. 0.14, Zn. 0.31

#### LILY MAY

The Lily May vein was the original discovery in the camp. It was evidently exposed right on the Dewdney trail. The principal working is a shaft from which levels have been driven. At 50' a short adit connects the shaft. This was the only working accessible at the time of examination. In it the vein was quite narrow. One sample across 6" returned low values. Government reports states that the vein was 4' wide in the shaft and a trial shipment returned \$32.00 a ton in silver, lead and gold.

ZILOR - Option Agreements not complete at time of writing. Will be included when negotiations satisfactorily concluded.

One of the strongest veins exposed in the south belt is on the Zilor claim. It is developed by two short shafts about 150' apart and some open cuts between. Widths exposed are from 2 to 5', but assay values are fairly low, from .02 to .04 in gold, 1 to 4 oz. in silver and 2 to 6% zinc. Copper and lead values are generally quite low, less than  $\frac{1}{2}\%$ . This vein is exposed in the Mount Roberts formation. On account of its strength it would be well worth developing into the augite porphyrite area.

GOPHER, MAID OF MERVIN, ROBERT E. LEE

One of the longest structures in the south belt. It apparently crosses the Robert E. Lee, Maid of Merin and Gopher and is continuous through the Homestake to the Monday claim. Very little data could be obtained in the field from the few scattered workings on these claims. From the dump of a short tunnel on the Gopher the following assays were obtained:

Au. 0.12,	Ag. 37.4,	Cu. 1.16,	Pb. Tr.,	Sn. 0.21
0.22	5.6	--	2.25	1.14

On the adjoining Homestake evidently considerable work has been done, but the writer has the impression that most of it was off the vein. Locally at any rate there are good vein widths and high assays.

PHOENIX

On the Phoenix claim work done by leasers in recent years has opened up a strong vein with good widths and values. Widths exposed in unstoped sections vary from 12" to 60" and carry values from 0.10 to 0.53 oz. Au., 1 to 2 oz. Ag., and

2 to 3% Cu., with less than .25% Pb. and Zn. The showing would apparently warrant considerable attention.

*E. H. ...*





PRELIMINARY REPORT ON THE ROSSLAND DISTRICT

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## PRELIMINARY REPORT ON THE ROSSLAND DISTRICT

### INTRODUCTION

The Rossland mining area merits special attention on account of the magnitude of the ore deposits and their richness and persistence in depth. Individual veins have been mined over lengths of 4,000 feet, over widths up to 130 feet and over depths in excess of 2,000 feet with no particular reason to presume they have bottomed. Since its discovery in 1890 the mines have produced over 6,000,000 tons of ore containing over 2,600,000 oz. of gold. From the same ore as a bi-product have come over 3,000,000 oz. of silver and 100,000,000 lbs of copper. The gross value at present prices is well over \$100,000,000.

That the region merits special attention becomes more apparent when it is realized that practically all the production has come from an area one mile long and half a mile wide and that within this section most of it has come from a rectangular area 100 acres in extent, while on the other hand similar geological conditions are much more extensive. There is at least an equivalent area less than one mile away in which conditions are apparently identical. The production from here is less than 1,000 tons, the workings are small, in most cases entirely superficial and quite inadequate to explore the possibilities of any one vein, let alone the possibilities of this area.

### LOCATION AND MEANS OF ACCESS

Rossland is situated in the Trail Creek mining

Division of the West Kootenay district, British Columbia, about six miles west of Trail on the Columbia River and five miles north of the International Boundary line. It is serviced by a branch line of the Canadian Pacific Railway from Castlegar via Trail, lies on the Trans-Canada highway and is connected with the State of Washington highway system.

#### HISTORY

The mining history of the camp began in 1887 by the recording of the Lily May claim, followed in 1890 by the LeRoi, War Eagle and Centre Star claims. These latter claims subsequently produced most of the ore from this district. Production began in 1891 with small shipments from these claims and before the turn of the century had grown into the largest in Canada. It reached its peak in the years preceding the first world war, company operations finally tapering off and terminating in 1928 with the removal of most of the machinery. Subsequently the upper levels of the mines have been operated by leasers, production reaching a peak of two-thirds of a million in 1933 and 1934. Restrictions in succeeding years have reduced production to very low levels.

The history of the camp is possibly best expressed in the following table:-

	tons	value
1894	1,956	75,510
1895	19,693	702,459
1896	38,075	1,243,360
1897	68,804	2,097,280
1898	111,282	2,470,811
1899	130,300	3,211,400
1900	217,636	2,739,299
1901	283,307	4,621,299
1902	329,589	4,893,395
1903	360,408	4,289,857
1904	312,991	3,760,886
1905	321,463	3,545,132
1906	280,000	3,278,269
1907	289,056	3,040,937
1908	302,419	3,673,392
1909	237,656	2,875,084
1910	253,471	2,966,096
1911	254,062	2,831,366
1912	243,870	3,196,037
1913	253,870	3,276,677
1914	297,290	3,491,066
1915	338,365	4,067,377
1916	289,695	3,509,174
1917	100,171	1,223,088
1918	120,374	1,472,173
1919	88,266	1,275,538
1920	67,714	982,020
1921	89,107	1,250,233
1922	18,982	272,967
1923	18,568	189,439
1924	155,543	1,510,122
1925	37,596	474,215
1926	23,484	276,117
1927	15,450	206,744
1928	13,941	200,460
1929	110	3,825
1930	88	2,800
1931	113	4,694
1932	505	31,102
1933	11,960	223,119
1934	43,088	686,481
1935	32,900	680,000
1936	15,823	380,000
1937	16,783	276,285
1938	10,106	203,433
1939	204	40,000
1940	38	13,885
1941	--	---
1942	926	30,000
1943	227	17,000
1944	121	13,772

Total

6,166,946 tons \$81,834,675.

From 1894 to 1914, 4,655,388 tons of ore valued at \$62,347,682. were mined from an area one mile long by one-half mile wide comprising the LeRoi, War Eagle, Centre Star and adjoining claims. The breakdown of this tonnage and value was:-

<u>Gold</u> (20.73 per ounce)	<u>Silver</u> (60¢ per ounce)	<u>Copper</u> .14¢ per
2,293,255 ounces	2,875,440 ounces	93,455,188 lbs.
\$47,538,692.	\$1,725,264.	\$13,080,726.
76.25%	2.77%	20.98%

Further details may be found in Memoir 77 of the G.S.C.

"Geology & Ore Deposits of Rossland B.C." by Charles Drysdale.

#### ECONOMIC GEOLOGY

##### ORES

The typical Rossland ore consists mainly of pyrrhotite and chalcopyrite, associated with a gangue of altered country rock containing some quartz and locally a little calcite. The sulphides form from 50 to 70 percent of the mass. The values are largely in gold (0.4 to 1.2 ounces) with some copper (0.7 to 3.6 percent) and a little silver (0.3 to 2.3 ounces). There are all transitions from typical ore to solid sulphides or to rock matter, or to a gangue with little apparent mineralization but carrying values.

Progressing toward the south belt, while deposits of typical Rossland ore occur, some of the veins carry considerable lead and zinc with high silver values. While specimens of typical Rossland ore may be obtained from these veins, on the average they would show a higher percentage of silver, lead and zinc.

In order to illustrate these variations, the following assays are appended.

The typical Rossland ore would average - Au. 0.4 oz, Ag. 0.5 oz, Cu. 1.0%, with occasionally small amounts of Pb. and Zn.

Ore from the south belt has to date shown variations as follows:

Crown Point 11 cars averaged -

Au. 0.5 oz, Ag. 0.3 oz, 0.6% Cu., No lead and silver assays available, and very little observed.

From a sample across a 3' vein exposed on the Hattie -

Au. 0.10 oz, Ag. 0.8 oz, Cu. 0.38 oz, Pb. 0.10%, Zn. 0.25%.

From a sample across a 3½' vein on the Zilor -

Au. 0.04, Ag. 4.4, Cu. 0.06, Pb. 1.85, Zn. 4.40.

From a sample across a 3' vein on the Phoenix -

Au. 0.20, Ag. 1.2, Cu. 1.80, Pb. 0.10, Zn. 0.21.

Other types of deposit occur within the Rossland camp but they are out of the scope of this report.

#### VEINS

The principal deposits occur as replacements in sheeted or fissure zones having in general an east-west direction. The divergence in strike is from N 60° E to N 70° W. The dips are uniformly south at an angle of 60° to 70°, although sometimes flattening to as much as 10°.

Some of the veins are 4,000 feet and more in length and from a few inches to 130 feet in width.

### ORE SHOOTS

The ore occurs in irregular replacement ore shoots along both the main fissures or shear zones and the various branches composing them. In the majority of cases the shoots are either lenticular masses with gradational boundaries or tabular blocks terminating against faults or dykes. The ore shoots vary in width from a few feet up to, in exceptional cases, 130 feet and in stope or horizontal length from 50 to 500 feet and more. On the average the vertical dimension is greater than the lateral. It is sometimes difficult to trace the vein from shoot to shoot, particularly when its continuity is interrupted by faults and dykes.

### GENERAL GEOLOGY

For a detailed account of the Geology the reader is referred to Memoir 77 - "Geology & Ore Deposits of Rossland" by Charles Drysdale.

### SUMMARY OF GEOLOGY IN RELATION TO ORE DEPOSITS

#### MOUNT ROBERTS FORMATION

The oldest formation in the district is known as the Mount Roberts. It consists essentially of highly silicified slates in part carbonaceous, with arenaceous and calcareous varieties. Within the vicinity of the intrusives it is intensely altered and mineralized more so than any other formation. However, in general it would appear to be

incompetent to hold major fractures and as a consequence mineralization is disseminated in innumerable small deposits of little importance. The possibility has been suggested and still exists that locally these small deposits may be sufficiently numerous to form the basis of a large low grade operation.

AUGITE PORPHYRITE

Younger than, and intrusive into the Mount Roberts formation, are extensive sill-like intrusions of a dark greyish to greenish black augite porphyrite studded with numerous dark crystals of augite. These rocks probably represent both sills and contemporaneous surface flows. Their general relations with the bedded rocks of the Mount Roberts formation would bear out either conclusion since there is a very close parallelism between the direction of strike of the associated sediments and perhaps tuffs and the line of contact to the two types.

Judging by production to date, this formation would appear to be the most favourable for ore deposition.

TRAIL BATHOLITH, STOCKS OF GRANODIORITE AND DIORITE  
PORPHYRITE TONGUES

The Trail or Nelson granodiorite batholith which has its best local development around Trail in the valley of the Columbia River probably underlies Rossland. It outcrops in the western part of the map area on both sides of Sheep Creek for nearly a mile in a north south direction and in the intervening area appears as stocks within the mine workings.



A border of dyke facies of the granodiorite is known locally as diorite porphyrite. It is very abundant within the mine workings on the northern side of the monzonite either in the augite porphyrite or Mount Roberts formation and has been noted in the scattered outcrops of augite porphyrite on the southern side of the monzonite. The mode of occurrence is in dyke-like masses and small irregular bodies which have in general a strike and dip parallel to the vein fissures. For long distances they form walls for the ore deposits and for some reason, possibly chemical, the higher gold values are associated with their contacts. Since they are older than the monzonite (cut off by monzonite) and the monzonite is in turn older than the principal lodes, it would not appear that they are directly responsible for the higher gold values. Their primary role is probably physical first in sealing the area and permitting the development of long fractures and second in influencing the location of the lodes and the secondary role purely chemical in precipitating the higher gold values.

#### MONZONITE

The eastern half of the area is largely occupied by the western portion of a monzonite body which ending in the southwestern part of the district extends eastward beyond the limits of the map over a distance in all of about five miles. It is bounded in some places by flatly dipping contacts and elsewhere by steeply dipping contacts. The main productive

belt of the camp surrounds this mass of monzonite, and locally the deposits on the north side are referred to as the "North Belt" and those on the south side as the "South Belt".

The incursion of the monzonite was probably the final event preceding the initial stages of mineralization. The principal lodes are within areas of augite porphyrite, diorite porphyrite and monzonite, along their respective contacts and cross their contacts in most cases without interruption. Occasionally lodes in the augite porphyrite terminate at the monzonite contacts possibly because they are formed on lines of weakness developed in pre-monzonite times, for example those occupied by the diorite porphyrite tongues.

All later intrusives cut the lodes but since it may be shown that enrichment occurred within the lodes on the undersides of dykes and extends into the walls along the dykes at times forming L-shaped stopes, it may be concluded that mineralization continued during the entire igneous history. The alternative hypothesis is that mineralization took place in two periods, the first following the incursion of the monzonite, the second following the incursion of the Coryell Batholith (Nelson alkali granite) lying to the north of the area in question and presumably represented locally by the pulaskite intrusives.

Since the intrusives in the area, together with the mineralization are probably all differentiates of the same magma, it is not surprising that the mineral deposits and

intrusives should be intimately associated. The monzonite represents the major event in the local centre of differentiation and the various dykes and mineralization the final stages. Within the region so effected where similar structural conditions exist similar mineral deposits should exist. That these conditions, including deposits of ore of commercial grade exist over a fairly wide area is demonstrated on the accompanying maps. The fact that bonanza deposits are so far limited to a small area on the north side of the monzonite is not surprising. Many of these deposits did not reach the surface and were found only after protracted effort. It is not to be expected that others will be found in any other manner.

#### MINOR INTRUSIVES

##### PORPHYRITIC MONZONITE STOCKS

Eight bodies of porphyrite monzonite occur within the map area. While definite age relationships have not been established due to their rather wide distribution and occurrence, it seems probable that they represent a late phase of monzonitic invasion.

##### PULASKITE INTRUSIVES

An alkalic syenite of the composition, predominantly of pulaskite occurs in irregular boss-like and dyke-like intrusions cutting all the preceding formations. In the surrounding country the pulaskite or Rosslund Alkali syenite occupies large areas of Batholithic dimensions and all intermediate sizes down to small dykes.

Brook apparently attaches particular significance to these rocks since he states that "The ground which up to the present has proved to be productive is situated either near or within a limited distance of the alkalic syenite and lies between exposures of the latter".

At least one of the large bodies shows north-south structural control and on the "South Belt" there are a number of rather large north-south pulaskite dykes.

Mineralization probably persisted until after their intrusion since at a number of points, notably the Spitzee and Jumbo, they are associated with ore deposits.

#### SHEPPARD GRANITE INTRUSIVES

Intrusive into the pulaskite south of the Spitzee mine occurs a prominent granite porphyry dyke. Smaller dykes occur at other points in the map area. An east-west trend at right angles to the normal direction of the younger dykes of the district seem to be characteristic of these rocks.

#### LAMPROPHYRE DYKES

Rosslund is noted for the innumerable lamprophyre dykes which cut all the veins and country rock formations in the mines and which invariably have a north-south trend. Their mineral composition is not only that of typical minettes, kersantites, vogesites, spessartites and odonites, but also all intermediate forms. Underground workings show that in an east-west direction they average one for every twenty-five feet and they appear to be equally abundant throughout the map area.

While they cut the veins generally with little if any displacement and are definitely post lode in age, nevertheless they have acted as dams for later mineralizing solutions. Values are frequently concentrated in the veins against the dykes. As a consequence it may be concluded that mineralization persisted at least until after the intrusion of these dykes.

#### SUMMARY AND CONCLUSIONS

1. The monzonite chonolith occupying the central part of the area is the major event in the local centre of differentiation. Both the monzonite and the great diversity of igneous rocks in dykes and larger bodies intruding it and the surrounding rocks plus the mineralization are probably products of local differentiation within the underlying magmas of the Trail Batholith. Part of the intrusives, notably the pulaskite may be related to the Coryell Batholith lying to the north of the area in question and part of the mineralization may be attributed to this source. It seems only logical however to assume that the bulk of the mineralization was provided locally since there is no need to postulate some distance source.

2. The entire area in question has undergone the same igneous and structural history. A similar parallel vein structure is developed throughout. Similar intrusives are not confined to any one section and display at all times the same structural control.

3. The incursion of the monzite was the last

event before the formation of the principal lodes, consequently it and all older rocks must be regarded as favourable for ore deposits. Some of these rocks, notably the sedimentary rocks of the Mount Roberts group apparently are not competent to hold major fractures consequently they must be regarded as less favourable for the type of mineral deposit in question. However, since within the vicinity of the intrusives they are well mineralized with innumerable small veins, the possibility exists that locally these veins will be sufficiently numerous to form large low grade deposits.

4. Mineralization either took place in two distinct periods or persisted throughout the entire igneous history, since all of the younger dykes have had an important effect in controlling enrichments within the lodes.

5. The principal production to date has come from an area of augite porphorite intruded by and apparently sealed and stiffened by diorite porphyrite tongues older in age than the monzonite and lying along the northern periphery of the monzonite chonolith. A similar area lies along the southern periphery of the monzonite chonolith but to date its possibilities have not been exploited. Large production has come from within the monzonite mass itself but areas of this rock in general have received little attention possibly because the bulk of the area underlain by this rock immediately adjoining the producing mines is heavily drift covered. There are notable instances however where veins presumably near the central part

of this mass have displayed both good widths and values, e.g. the Phoenix. For some reason, possibly because they did not respond immediately to development, these operations were short lived and actually accomplished little in the way of development.

6. There is no apparent reason why the entire monzonite mass some five miles long in an east-west direction and averaging over a mile in width together with the surrounding adjacent rocks would not form part of the productive areas. The writer presumes, but has no adequate proof that this region has been intensively prospected, and for this reason has preferred to confine investigations to that section immediately south and not far distant from the productive mines where similar conditions and a similar vein structure may be demonstrated to exist. There are in this section veins with good widths and values worthy of intensive development together with certain intrusive contacts so important on the north belt which have not been exposed, let alone developed.



REPORT ON THE ASSESSMENT WORK  
DONE ON THE COLTIC QUEEN GROUP  
OF MINERAL CLAIMS.

Roseland Mines Ltd.,  
Roseland, B.C.

August 21st, 1947

The assessment work done on the four mineral claims of the Coltic Queen Group consists of a geological survey and a geophysical survey with a potentiometer, carried out under the supervision of Mr. J.N. Lovitt, Professional Engineer of the Province of British Columbia.

As a basis for the survey, a baseline and a pattern of north-south lines were run with the transit. The north-south lines, spaced at 400 foot intervals, were staked off at 100 foot intervals as accurately as possible with a chain and inclinometer to serve as tie-in stations for the geologist and geophysical crew.

The geophysical survey was carried out by Dr. A.R. Clark, geophysicist of the University of British Columbia. A map showing the potentiometer results accompanies his report.

The geological examination was made by Mr. G.A. Baker.

*S.J. Blair*

Engineer.



STATEMENT OF COSTS

CALDIS UEN GROUP

Rossland, B.C.

August 21st, 1947

Transit Crew

Instrument-man's wages	12 days @	\$8.00	\$96.00
Chain-man's	12 "	6.50	78.00
Ironman's	12 "	6.50	78.00

Chaining Crew

3 men for 3 days @ \$6.50 194.00

Potentiometer Crew

Geophysicist's wages	6 days @	\$15.00	90.00
" assistant'	6 "	6.50	39.00

Geologist 5 days @ \$10.00 50.00

Engineer 5 days @ \$10.00 50.00

\$585.00

I hereby certify that the above statement of costs is true and correct.

*S. J. Brown*

REPORT ON THE GEOMETRIC &  
SURVEY ON THE COLTIC VEIN  
GROUP OF MINERAL CLAIMS

Rossland Mines Ltd.,  
Rossland, B.C.

August 31st, 1947

The group of claims on which the survey was completed lie approximately one half mile south of the switchback on the C.P.R. between Trail and Rossland.

Purpose

The geoelectrical survey was carried out in an attempt to outline zones of mineralization which might exist on this group of claims.

Methods

Measurement of natural earth potentials were made at 50' intervals along T/S lines spaced at 400' intervals.

Results

The values of the potentials were generally high over the entire area covered by the claims.

Anomalies were outlined as follows:-

- (a) On the line 22E from 100' N. of the baseline to 550' north.
- (b) On the lines 13E and 19E at 50' north and 50' to 150' north of the baseline.
- (c) On the line 22E at 450' south of the baseline.
- (d) On the lines 19E, 20E, 21E, 22E, and 23E at 450' south on 19E extending to 50' south on 23E.
- (e) on line 17E at 300' south.

Conclusions

The location and strike of the anomalies coincides with the position of known mineralized zones.

Similar work on other parts of the Rossland area has shown that the Mount Roberts Formation usually produces higher and more erratic potentials than other rock types. Since outcrops of Mount Roberts Formation are numerous on these claims, some or nearly all of the anomalies may be due to this formation.

Anomalies (a) and (b) are most likely due to Mount Roberts Formation. Anomalies (c) and (d) may also be due to the same formation, but are of interest because they are members of a series of two parallel chains of anomalies striking NE, the eastern end of which coincides with known deposits of sulphides. The most northerly chain terminates at the old Crown Point mine. Anomaly (e) coincides with a sulphide vein on the Coltic vein No. 3.

*A.R. Clark*

# 24



REPORT ON THE GEOLOGICAL SURVEY  
OF THE CELTIC QUEEN GROUP

Rossland Mines Ltd.  
Rossland, B.C.

August 21st, 1947

Second half.  
of text

Introduction

The area covered by these claims lies in the Tiger Creek Valley and extends westward.

The purpose of the investigation was to determine the possibility of the presence of economic mineral deposits.

An outcrop map was made by pace and compass method using surveyed stations as control. These stations are at 100' intervals on north-south lines spaced at 400' intervals. Specimens of the outcropping rocks were collected for confirmatory study in the geological laboratory.

Lithology

The rock types encountered were classified according to the names and descriptions (as suggested by Drysdale) as follows:-

Mount Roberts Formation - This formation consists of which appear to be mostly tuffs, somewhat altered. They are light grey to buff in color and seldom show visible grain. The strata vary from very narrow to widths of about one inch.

Monzonite - The normal phase shows a light color base in which are set the medium sized (one sixteenth - one fifth inches) crystals of augite and biotite. The augite crystals are short stubby and with hackleyed ends. Other phases show a large mafic content giving it an almost black color. Border phases show an agglomerate - a mixture of several phases.

Augite Porphyrite - This rock is of a dark greyish or greenish color and is at times studded with stout prisms of greenish black mafic mineral. It is also abundant as an agglomerate in which several phases of this rock are found.

Dykes - Dykes of several varieties are found on these claims. The most prominent being the Pulaskite dyke composed of fine grained syenite often with some form of phenocryst added. The other dykes encountered vary from light green to black. The black variety often hold conspicuous white phenocrysts.

Stratigraphy and Geological Structures

The area is principally Mount Roberts. The northern Boundary has been intruded by the monzonite as has also a small are in the south-east corner. The eastern border is overlain by the augite porphyry agglomerate.

The dykes all have a north-south trend and vertical to easterly dip. Strike and dip of the Mount Roberts formation was marked on the outcrop map where noted. In the area it appeared to have a northerly strike and westerly dip. The fracture pattern showed north-south shearing with the prominent fractures dipping east at 40 degrees.

Three interesting showings of sulphidesveins are indicated on the map, arsenopyrite being the most prominent. Further work on these showings might show deposits of considerable importance.

Wallace R. Baker

REPORT ON THE ASSESSMENT WORK  
ON THE BUCKEYE MINERAL CLAIM

Rossland Mines Ltd.  
Rossland, B. C.

August 26th, 1947

The assessment work completed on the Buckeye Mineral Claim consisted of a geological survey and a geophysical survey, carried out under the supervision of Mr. E. H. Lovitt, Professional Engineer of the Province of British Columbia.

Because of the Buckeye Claim lies outside the main holdings of Rossland Mines Ltd., it wasn't convenient to tie it in with the general pattern of north-south lines covering the area, so a traverse was run connecting it with the baseline on the Vulcan Claim which lies to the west. From this traverse a baseline was run across the centre of the Buckeye parallel to its boundaries, and from this, four lines were run at right angles spaced at 400' intervals. These latter lines were chained with steel tape and inclinometer, and marked stakes driven in at 100' intervals.

The geophysical survey was carried out under the direction of Dr. A.R. Clark, geophysicist of the University of British Columbia. A map showing the potentiometer results accompanies his report.

The geological examination was made by Mr. W. R. Baker.

S. G. Bruce  
Engineer

STATEMENT OF COSTS IN  
CONNECTION WITH THE  
ASSESSMENT WORK ON THE  
BUCKEYE MINERAL CLAIM

Rossland Mines Ltd.  
Rossland, B.C.

August 26, 1947

Transit Crew

Instrument-man's wages	2 days @ \$8.00	\$16.00
Chainman's wages	2 days @ 6.50	13.00
Axeman's wages	2 days @ 6.50	13.00

Chaining Crew

Two men for 1 day @ \$6.50		13.00
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Potentiometer Crew

Geophysicists's wages	1½ days @ \$15.00	22.50
assistant	1½ days @ \$6.50	9.75

<u>Geologist</u>	2 days @ \$10.00	20.00
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<u>Engineer</u>	1 day @ \$10.00	10.00
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Transportation

Car Mileage - 50 miles @ 10¢ per mile		<u>5.00</u>
		<u>\$122.25</u>

I hereby certify that the above statement of  
costs is true and correct.

S. G. Bruce

REPORT ON THE GEOELECTRICAL  
SURVEY ON THE BUCKEYE M.C.

Rossland Mines Ltd.  
Rossland, B. C.

August 26, 1947

The Buckeye Mineral Claim is situated on either side of the C.P.R. right-of-way about 3 miles east of Rossland.

Method

Measurements of natural earth potentials were made at 50' intervals along lines N. 42 degrees E. spaced 400' apart

Results

The values of the self potentials obtained are shown on the accompanying map.

Discussion

The values of the potential over the whole claim were low and quite regular. A single large value occurred on line #1 at the baseline, probably due to a small shallow area of mineralization.

A narrow weak anomaly extends almost east-west over the southern part of the claim indicating a sparsely mineralized zone not worthy of further work.

A. R. Clark

REPORT ON THE GEOLOGY OF  
THE BUCKEYE MINERAL CLAIM

Rossland Mines Ltd.  
Rossland, B.C.

August 26, 1947

Introduction

The area covered by the Buckeye Claim lies on the southern slope of Columbia Kootenay Mountain.

The purpose of the survey was to prepare a geological map for the geophysical survey, and to determine the possibility of geological structures favorable for economic mineral deposits.

An outcrop map was made by pace and compass traverse using surveyed stations as control. The stations were at 100' intervals along north-southerly lines spaced at 400' intervals. Specimens of the outcropping rocks were collected for further study in the geological lab.

The following rock types were encountered and classified under the following headings:-

Augite porphyry- observed on this claim is the agglomerate variety consisting of a dark greyish green fine grained ground mass with very small augite phenocrysts. In the ground mass are inclusions of a lighter porphyry of various shapes and sizes- mostly round though some are angular.

Diorite Porphyry- Three samples of this rock were observed. The color is light grey and the ground mass is finely crystalline. The feldspars are light to pink colored, and the augite crystals are fine and needle shaped.

Granodiorite - Four outcrops show the occurrence of this rock. It is coarsely crystalline with light feldspars and green mafics with an overall grey green color. The border phases have an agglomerate structure.

Monzonite- This rock is of the normal variety. It is light grey and fine grained. The border phase shows considerable epidote.

Dykes- There are two varieties of dykes cutting the above rocks. One, the syenite porphyry dykes, have an aphanitic grey white, or pink base with phenocrysts of light feldspars. The second type of dyke is a grey to black aphanitic rock often with light phenocrysts. It is the youngest of the rocks and cuts all others, generally striking north but varies considerably



Stratigraphy & Structure

It would appear from the evidence gathered that the monzonite boss intruded the augite porphyry and both rocks were later cut by the dyke rocks.

Economic Considerations

If the mineralization of this district is related to the intruding monzonite, its contact with the older augite porphyry should be considered good ground for investigation. If values come from a deeper Trail Batholith, the contacts on this property could be favourable channels for ore producing solutions.

One sulphide vein was noted at the south eastern corner of the property. More work on this showing might prove profitable as it is on the greenstone-monzonite contact.

Wallace R. Baker

REPORT  
CONCERNING A GEO-ELECTRICAL SURVEY  
ON THE MAJOR MINERAL CLAIM

A geo-electrical survey using the self-potential method was completed on the claim.

Method

Earth potentials were measured at 50' intervals along N-S transit lines placed 400' apart across the area. The lines were so placed as to cross the strike of any veins extending from old workings. 132 measurements of the earth's potential were made.

Results

The values of the earth's potentials are shown on the accompanying map.

Discussion

The results indicate that any veins which may have existed at the old shaft do not extend any appreciable distance to either east or west.

The method has been extensively tested over known mineralized zones in the Rossland area with striking results. In every case the zones gave unmistakable indications of their presence.

Conclusions

The results indicate that the mineralization near the "MAJOR" shaft is quite localized and does not appear to extend laterally sufficiently in any direction to make the prospect a commercial proposition.

A. R. Clark

Note:-

This work was carried out under the supervision of E.H. Lovitt, Professional Engineer of the Province of British Columbia, and Dr. A.R. Clark Geophysicist of the University of British Columbia.

**STATEMENT OF COSTS ON LINE CUTTING  
AND GEOPHYSICAL WORK ON THE "MAJOR"  
MINERAL CLAIM ROSSLAND M.C.**

May 26, 1947

Engineer's wages	3 days @ \$8.50	\$25.50
Axemen's wages	2 men for 3 days @ \$6.50	39.00
Geophysicists'		
wages	2 days @ \$15.00	30.00
assistant's wages	2 days @ \$6.00	<u>12.00</u>
		<u>\$106.50</u>

I hereby certify that the above statement of costs is true and correct.

S. G. Bruce

**REPORT ON THE ASSESSMENT WORK  
DONE ON THE VULCAN GROUP, i.e.  
Scheelite King, Superior No.3,  
Diamond Dust and Vulcan M.Cs**

**Rossland Mines Ltd.,  
Rossland, B. C.**

**July 5, 1947**

The assessment work done on the above mentioned claims consists of a geological survey and a geophysical survey with magnetometer and potentiometer, carried out under the supervision of Mr. E.H. Lovitt, Professional Engineer of the Province of British Columbia.

As a basis for the above surveys, a pattern of base-lines and control lines were run with the transit. The base-lines were tied into a main East-West baseline running across the northerly portion of the Rossland Mines holdings. Lines, spaced at 400' intervals and cut at right angles to the base-lines, were staked off at 100' intervals with chain and inclinometer. These points served as ties for the geologist, and as stations for the geophysical instruments.

The geophysical survey was carried out by Dr. A. R. Clark, geophysicist of the University of British Columbia. His report on the results obtained is supplemented by separate maps for the potentiometer and magnetometer readings.

The geological examination was made by Mr. W.R. Baker. A detailed map covers his report.

**S. G. Bruce  
Engineer.**

A GEOLOGICAL SURVEY OF  
MINERAL CLAIMS COMPRISING THE  
"VULCAN GROUP"

Introduction

The area covered by these claims lies in the valley of Trail Creek to the south of Columbia Kootenay Mountain.

The purpose of the investigation was to determine the possibilities of the presence of economic mineral deposits. The work was carried out simultaneously with a geo-physical survey, so that data gathered by each investigation might assist in the interpretation of the other, and that the conclusions arrived at might be from as broad a foundation as possible.

The method used in this investigation was a series of traverses from control stations. To locate the stations a base-line was surveyed by transit across the claims as indicated in the accompanying map. At 400' intervals normal to the base-line, lines were run by chain, compass, and clinometer method, and hubs were set at 100' intervals. The area adjacent to these hubs was examined for outcrops and located by means of pace and compass. Samples of outcrops were obtained, numbered, and filed for re-examination at the geological laboratory.

Geography

The area extends from the comparatively flat land of the valley bottom to the lower slopes of the mountain to the north-west. It has a considerable mantle of overburden but there is a satisfactory number of outcrops (exception Diamond Dust M.C.) to give a fair picture of the formations underlying it. A very good exposure is provided by the rock-cut on the Trail-Rossland road at the westerly end of the Scheelite King M.C.

Three small streams, probably intermittent, accomplish the drainage, but nowhere has bed-rock been exposed by their action.

The area has been partly converted to agricultural land, and the remainder supports a good cover of poplar, red willow, and other vegetation generally classed as underbrush.

### Lithology

The rocks encountered were classified according to the names and descriptions as reported by C.W. Drysdale.

The area would appear to be underlain by monzonite, outcrops of which occur rather evenly throughout the property. It is a crystalline rock ranging from coarse to fine grain. The mafic content varies considerably, from 10 percent to about 40 percent, and consists of nearly black prisms of pyroxene (augite) and secondary hornblende, prominent biotite fresh and dark brown in color. The feldspars are light colored and striated cleavage faces are rare. They appear to lie between the well formed augite crystals. This gives the rock a characteristic pepper appearance.

Less abundant is the augite porphyrite. It is encountered on the most westerly claim and can be described as follows. The augite porphyrite is a very dark grayish or greenish black colored rock and is studded by numerous stout prisms of greenish black pyroxene or hornblende. The phenocrysts lie in a very fine grained groundmass in which may be distinguished at times small cleavage faces of light colored feldspars. At times the ground mass assumes a grayish hue due to the increase in the size of the feldspar crystals comprising it. The phenocrysts of augite and hornblende are very noticeable, sometimes reaching 1/4", but more commonly are less than half this size; while in places, especially near contact with the bedded rocks, these individuals sink to still smaller dimensions.

The diorite porphyry ranges in color from light grey to dark greenish black and is composed of numerous dark slender prisms of hornblende and pyroxene, and many lath-like feldspars lying in a fine crystalline grayish ground mass. Two distinct phases are seen, a hornblende phase and a feldspar phase. The needle-like crystals of hornblende are characteristic, and are usually about one twentieth of an inch in length. The tabular phenocrysts of feldspar, which are not so noticeable in the hornblende phase, are very abundant in the feldspar phase and give the rock a spotted appearance. This rock occurs in the form of irregular masses and is noted especially on the Vulcan claim.

An intrusion of porphyritic monzonite is seen in the N.E. corner of the area. This is a coarse grained light gray colored rock,

composed of rather large stout prisms of dark pyroxene and hornblende and numerous flakes of brown biotite and abundant feldspars. The mafics are sharply irregular in outline. The feldspars have less regular crystal forms and vary much in size.

The pulaskite is very conspicuous due to its light color and even lighter weathered surface. It occurs in dyke like form at several places and at fairly regular intervals on three of the claims. It is a coarse grained rock, of a typical pale pink color, and composed of long rectangular feldspars. Both biotite and hornblende are present, usually in small quantities.

Two occurrences of granite porphyry were noted in the area. This is a medium gray rock composed of numerous rounded phenocrysts of quartz, many white tabular feldspars, and tiny flakes of biotite lying in a fine grained dark bluish to greenish ground. The phenocrysts are very abundant.

#### Stratigraphy and Geological Structure

The area is principally monzonite with augite porphyry appearing in the south-west corner of the Schoelite King. Cutting it with a north to north-easterly strike are three prominent pulaskite dykes. These have vertical to easterly dips. Near or at the contact of these dykes are small intrusions of diorite porphyry and granite porphyry in the form of irregular apophyses.

A mineralized quartz vein was noted in a shear zone in monzonite in the Vulcan.

Fractures and shear zones have in general a N-S strike and a varying dip to the east.

Several of the shear zones appear to have been channels for mineralizing solutions. Exploration on these showings, especially those adjacent to the diorite porphyry contacts should be undertaken with some hope of finding new ore bodies.

Wallace R. Baker

REPORT ON A GEOPHYSICAL SURVEY  
CARRIED OUT ON THE "VULCAN GROUP"  
OF MINERAL CLAIMS, ROSSLAND, B. C.

The group of claims on which the survey was completed lie close to the Trail - Rossland Highway, and consist of the Scheelite King, Superior No. 3, Diamond Dust, and the Vulcan Mineral Claims.

Purpose.

The geophysical survey was carried out in an attempt to outline the zones of sulphide mineralization, and to trace the contact between the geological formations.

Methods

- (a) Self Potential  
Measurements of natural earth potentials were made at 50' intervals along lines N32W spaced at 400' intervals. Values obtained are shown on the map of the geoelectrical survey.
- (b) Magnetometer  
Measurements of the changes in the earth's magnetic field were made at 100' intervals over the same lines as were used for the self potential survey.

Results

- (a) Self Potential  
A small anomaly extended from the Scheelite King almost across the Superior No. 3. The values over the rest of the group were small and quite regular.
- (b) Magnetometer  
The magnetic values were generally larger over the Scheelite King and Superior No. 3 than over the other claims. A magnetic low coincided with the high value of the self-potential on the Superior No. 3.

Conclusions

A narrow mineralized zone probably exists on the Superior No. 3 Mineral Claim. The best part of this zone is near Line 3E. Since the magnetic readings over this point were low, the mineralization is likely to be pyrite or possibly chalcopyrite. A pit at this point should be put down to test the cause of the anomalous potential values.

A. R. Clark









Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. **24** MAP #2

**SHEET 2**  
**MINERAL CLAIMS**  
**ROSSLAND, B.C.**  
SCALE: 300'-1"

- LEGEND**
- Alluvium
  - Monazite
  - Al<sub>2</sub>SiO<sub>5</sub>
  - Pyrite
  - Magnetite
  - Veins

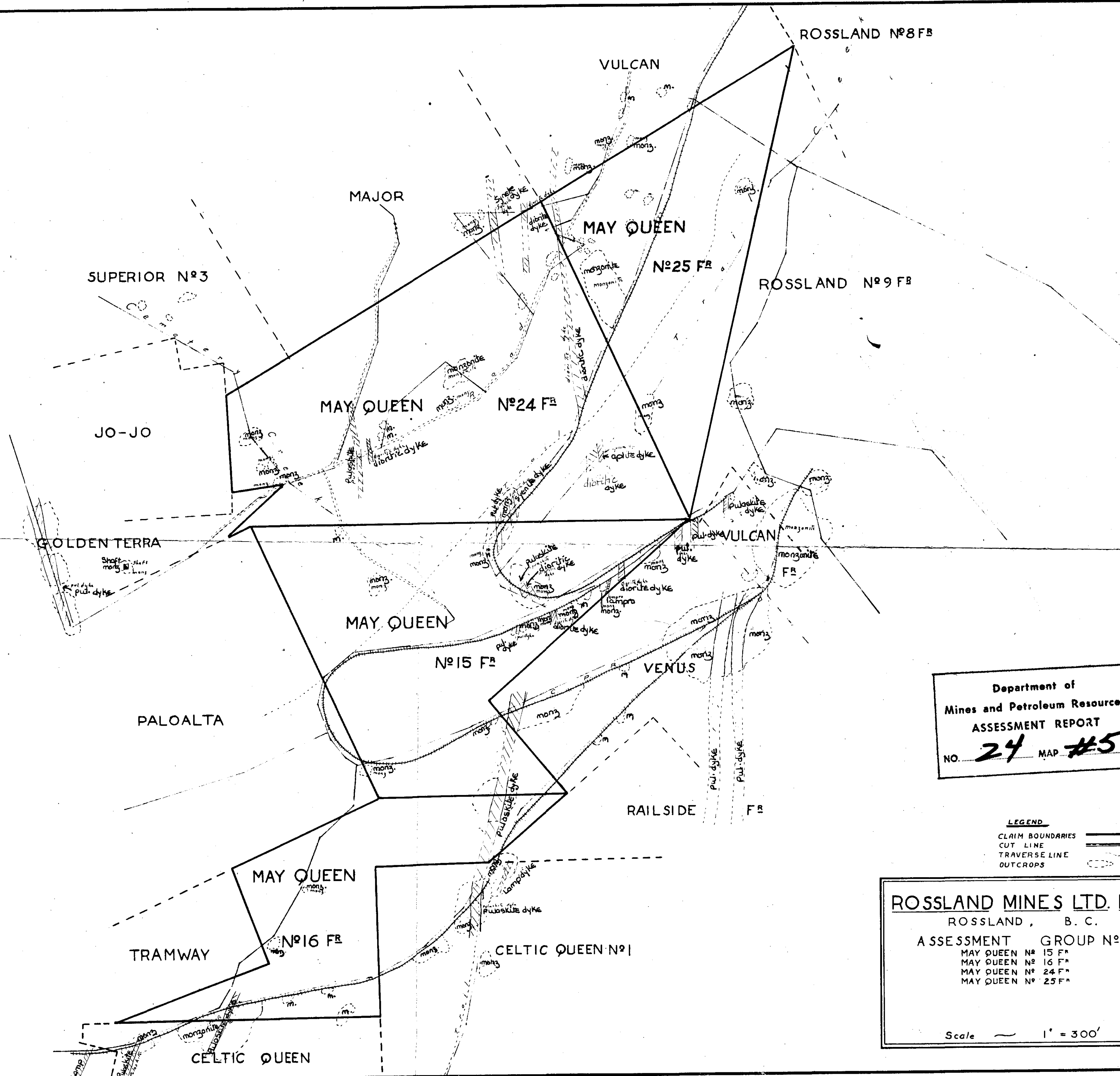










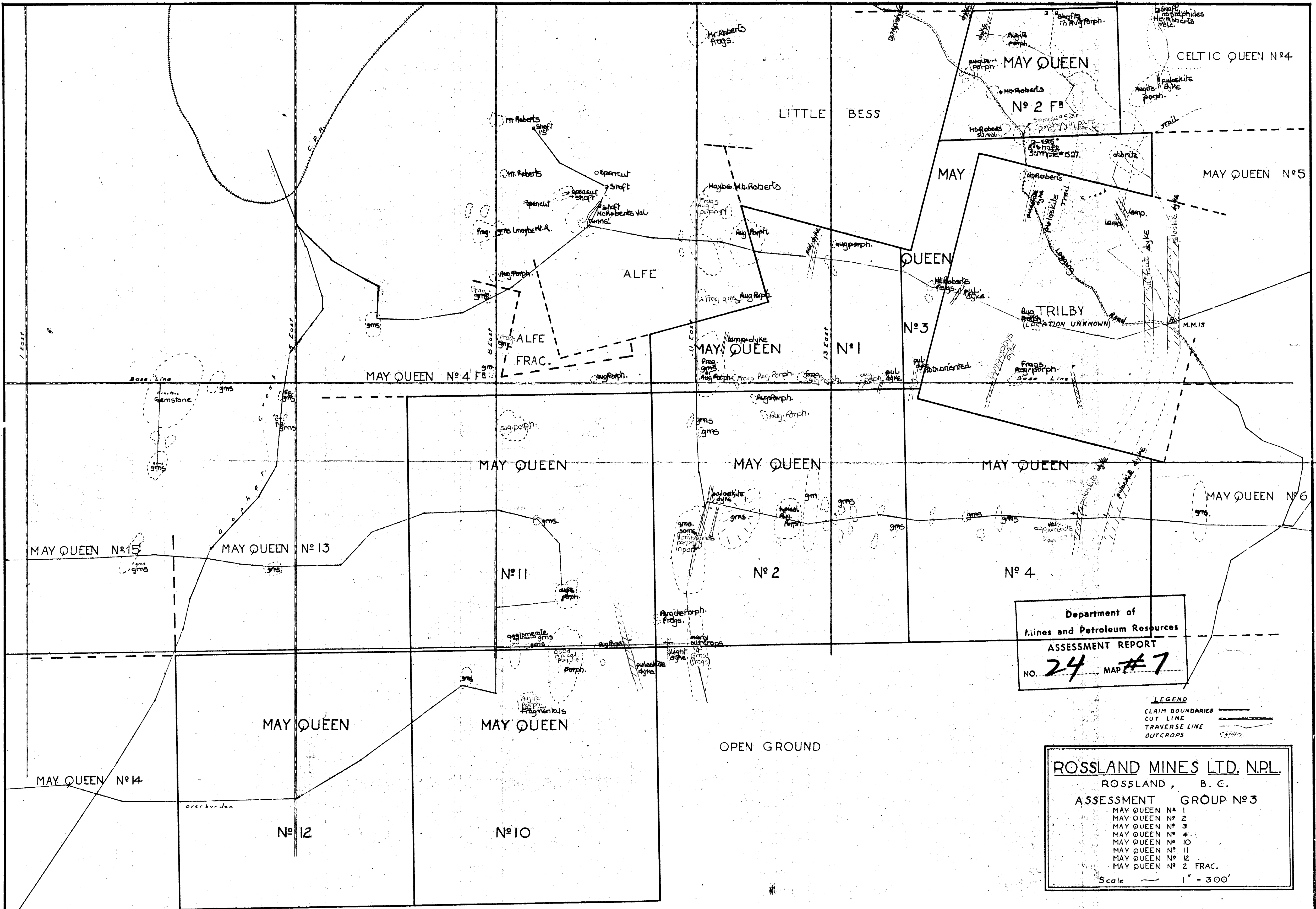


Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. **24** MAP **#5**

**LEGEND**  
CLAIM BOUNDARIES ———  
CUT LINE ———  
TRAVERSE LINE ———  
OUTCROPS ———

**ROSSLAND MINE S LTD. N.P.L.**  
ROSSLAND, B. C.  
ASSESSMENT GROUP No 1  
MAY QUEEN No 15 F<sup>a</sup>  
MAY QUEEN No 16 F<sup>a</sup>  
MAY QUEEN No 24 F<sup>a</sup>  
MAY QUEEN No 25 F<sup>a</sup>  
Scale 1" = 300'





Department of  
 Mines and Petroleum Resources  
 ASSESSMENT REPORT  
 NO. 24 MAP #7

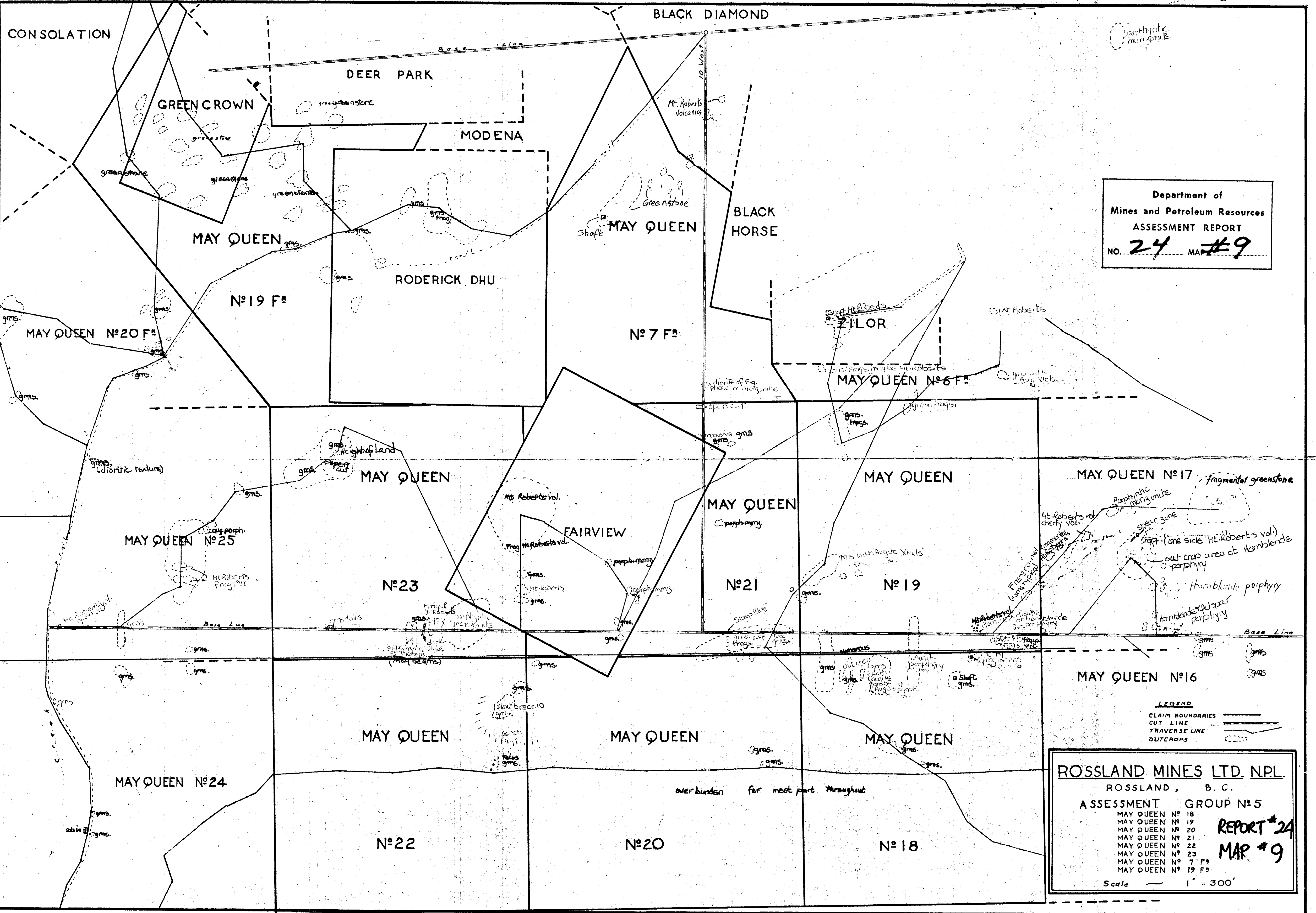
LEGEND  
 CLAIM BOUNDARIES  
 CUT LINE  
 TRAVERSE LINE  
 OUTCROPS

ROSSLAND MINES LTD. N.P.L.  
 ROSSLAND, B. C.  
 ASSESSMENT GROUP No 3  
 MAY QUEEN No 1  
 MAY QUEEN No 2  
 MAY QUEEN No 3  
 MAY QUEEN No 4  
 MAY QUEEN No 10  
 MAY QUEEN No 11  
 MAY QUEEN No 12  
 MAY QUEEN No 2 FRAC.  
 Scale 1" = 300'





Porphyry  
mineral zone



Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. **24** MAP # **9**

**LEGEND**  
CLAIM BOUNDARIES  
CUT LINE  
TRAVERSE LINE  
OUTCROPS

**ROSSLAND MINES LTD. N.P.L.**  
ROSSLAND, B. C.  
ASSESSMENT GROUP NO. 5  
MAY QUEEN NO. 18  
MAY QUEEN NO. 19  
MAY QUEEN NO. 20  
MAY QUEEN NO. 21  
MAY QUEEN NO. 22  
MAY QUEEN NO. 23  
MAY QUEEN NO. 7 F.  
MAY QUEEN NO. 19 F.  
**REPORT # 24**  
**MAP # 9**  
Scale 1" = 300'

overburden for most part throughout

fragmental greenstone

Horblende porphyry

Porphyry monzonite

out crop area at Hornblende porphyry

Hornblende and spar porphyry

MAY QUEEN NO. 17

MAY QUEEN NO. 16

MAY QUEEN NO. 19

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MAY QUEEN NO. 7 F.

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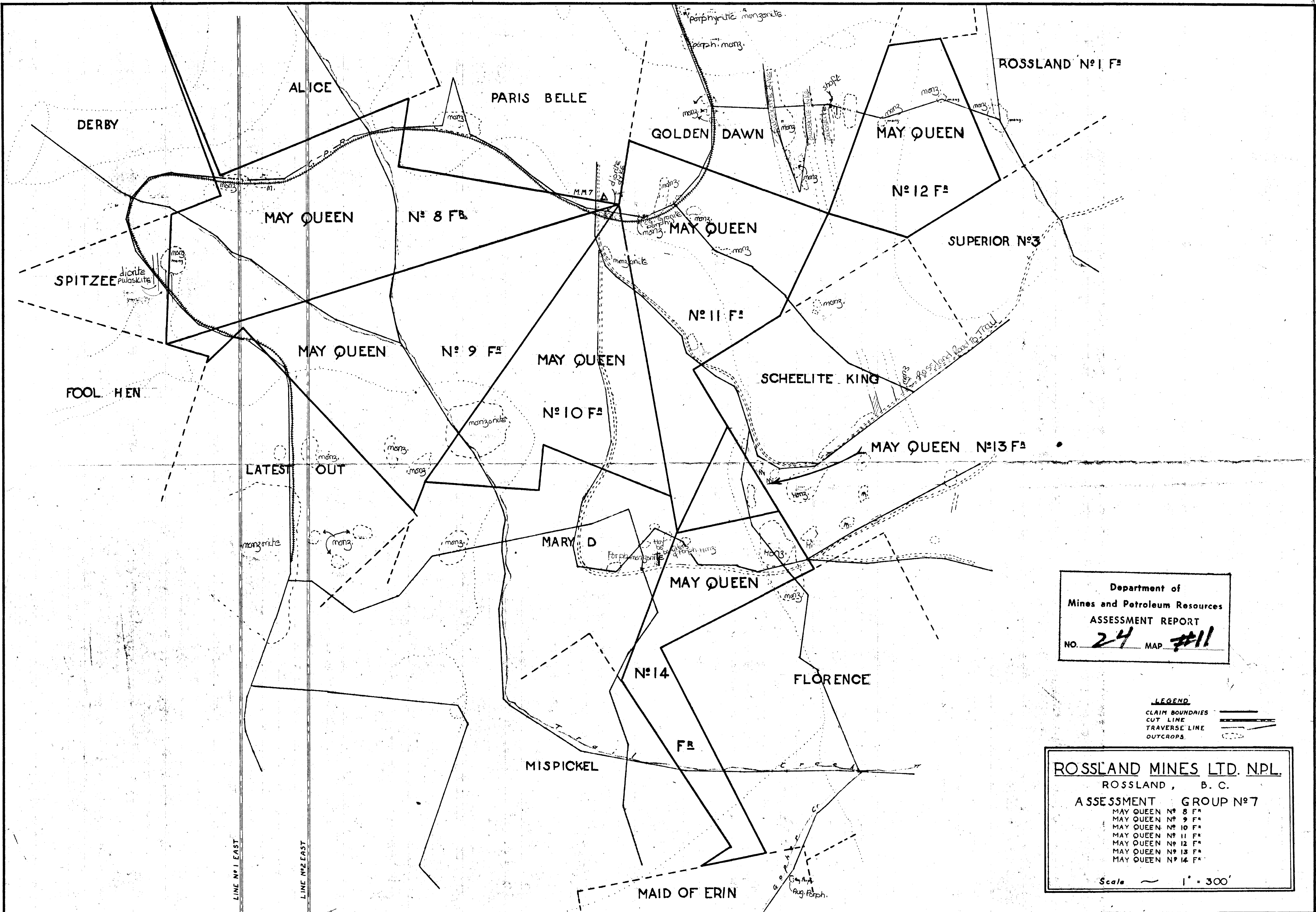
MAY QUEEN NO. 7 F.

MAY QUEEN NO. 19 F.

MAY QUEEN NO. 20 F.

MAY QUEEN NO. 24





Department of  
 Mines and Petroleum Resources  
 ASSESSMENT REPORT  
 NO. **24** MAP **#11**

**LEGEND**  
 CLAIM BOUNDARIES ———  
 CUT LINE ———  
 TRAVERSE LINE ———  
 OUTCROPS - - - - -

**ROSSLAND MINES LTD. NPL.**  
 ROSSLAND, B. C.  
 ASSESSMENT GROUP NO 7  
 MAY QUEEN NO 8 FA  
 MAY QUEEN NO 9 FA  
 MAY QUEEN NO 10 FA  
 MAY QUEEN NO 11 FA  
 MAY QUEEN NO 12 FA  
 MAY QUEEN NO 13 FA  
 MAY QUEEN NO 14 FA  
 Scale 1" = 300'

MAY QUEEN  
Nº 1 FB

CELTIC QUEEN  
Nº 2

CELTIC QUEEN  
Nº 3

R. LEE

LITTLE  
JACK  
FB

TIGER FB

HIDDEN TREASURE

CROWN POINT

lupulaskite dyke  
Lamprophyre  
dyke

monzonite

augite  
porph.

augite  
porph.

Adit Crown Pt. Mine

augite  
porph.

Aug. porph.

augite  
porph.

augite  
porph.

augite  
porph.

augite  
porph.

monzonite

monzonite

sample #423

sample #424

sample #534

sample #534

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sample #534

sample #534

magnetite

augite porphyry

augite porph.

augite porph.

augite porph.

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augite porph.

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augite porph.

augite porph.

sample #537

sample #538

sample #539

sample #539

sample #539

sample #539

sample #539

sample #539

sample #539

sample #539

sample #539

sample #539

sample #539

sample #539

sample #539

sample #539

sample #539

sample #539

sample #539

sample #539

sample #539

sample #539

sample #539

LEGEND

CLAIM BOUNDARIES

CUT LINE

TRAVERSES

OUTCROPS

ROSSLAND MINES LTD. N.P.L.  
ROSSLAND, B. C.

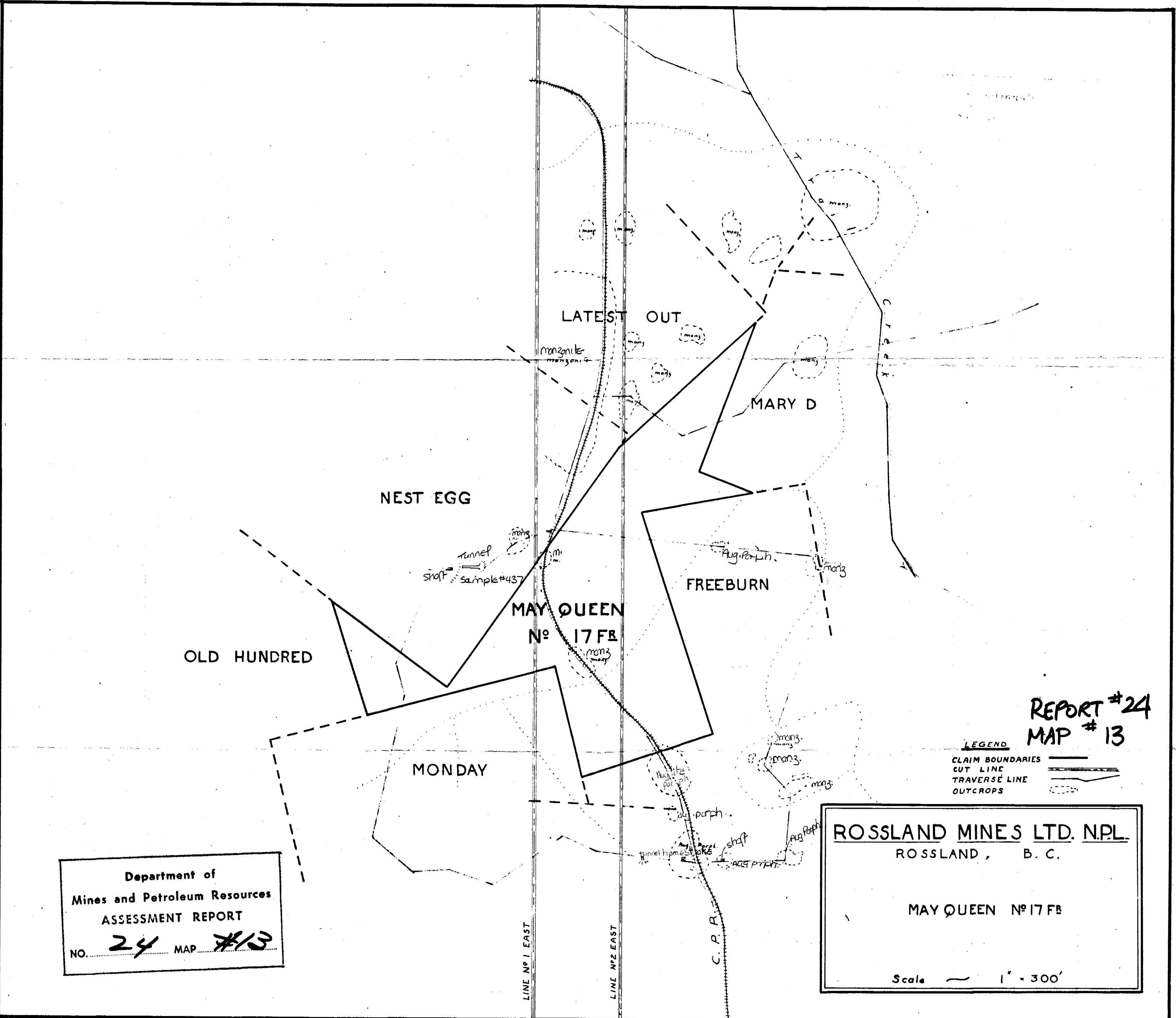
MAY QUEEN Nº 1 FB

Scale 1" = 300'

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 24 MAP #12

REPORT #24  
MAP #12





REPORT #24  
MAP #13

LEGEND  
 CLAIM BOUNDARIES ———  
 CUT LINE ———  
 TRAVERSE LINE ———  
 OUTCROPS ○○○○

Department of  
 Mines and Petroleum Resources  
 ASSESSMENT REPORT  
 NO. 24 MAP #13

ROSSLAND MINES LTD. N.P.L.  
 ROSSLAND, B. C.  
 MAY QUEEN N°17 F.B.  
 Scale 1" = 300'

LINE N°1 EAST

LINE N°2 EAST

C. P. R.

NEST EGG

LATEST OUT

MARY D

FREEBURN

MAY QUEEN  
 N° 17 F.B.

OLD HUNDRED

MONDAY

tunnel  
 shaft sample #437

Aug. Porph.

And. Porph.  
 Aug. Porph.

tunnel  
 shaft

monzonite  
 monzonite

monz.

monz.

monz.

monz.

monz.

monz.

monz.

monz.

monz.

monz.

monz.

monz.

Aug. Porph.

Aug. Porph.

Aug. Porph.

Aug. Porph.

Aug. Porph.

Aug. Porph.

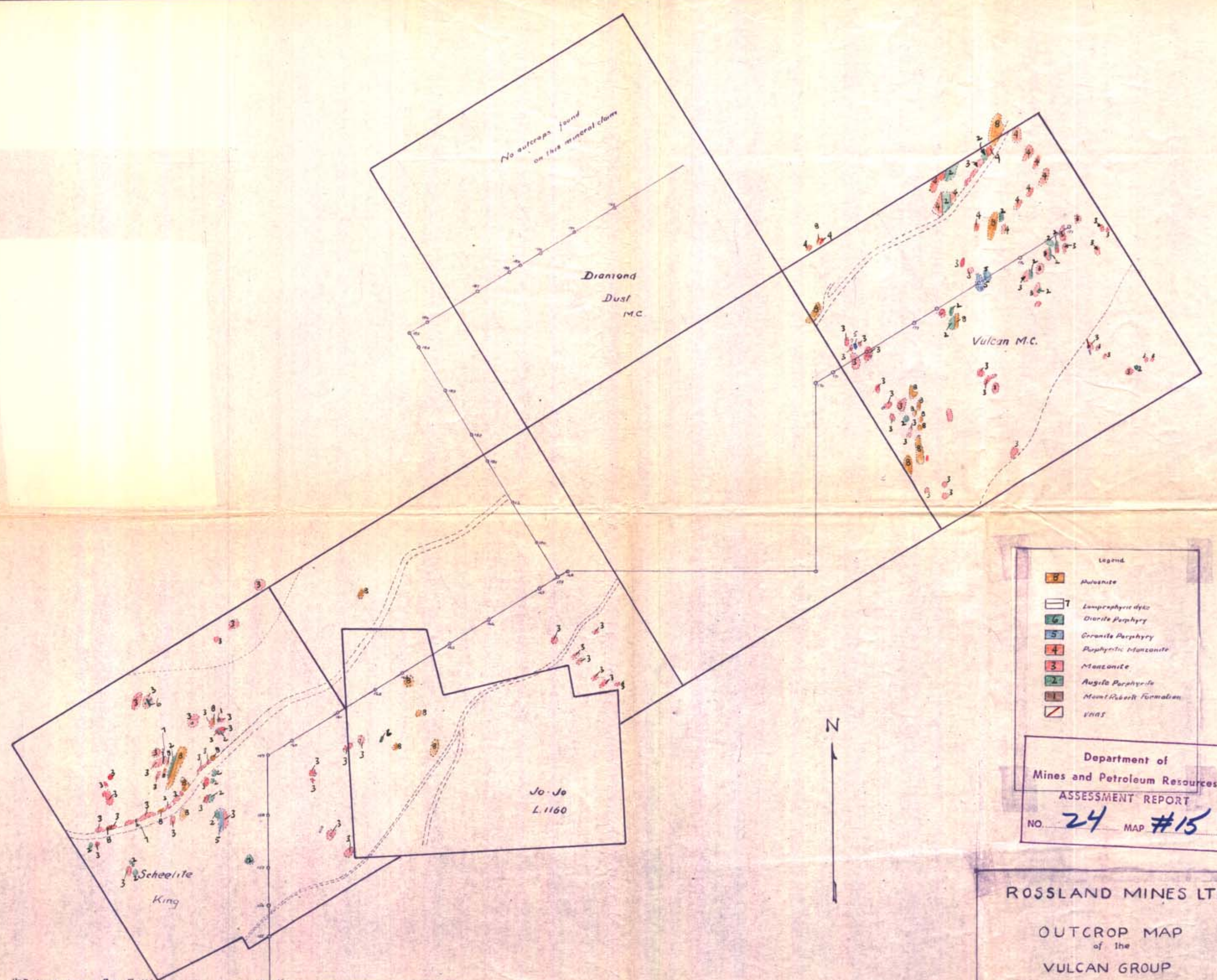
Aug. Porph.

Aug. Porph.

Aug. Porph.







Legend

8	Muscovite
7	Lampyrhic dyke
6	Diorite Porphyry
5	Granite Porphyry
4	Porphyritic Monzonite
3	Monzonite
2	Angite Porphyry
1	Mount Robert Formation
∕	veins

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 24 MAP #15

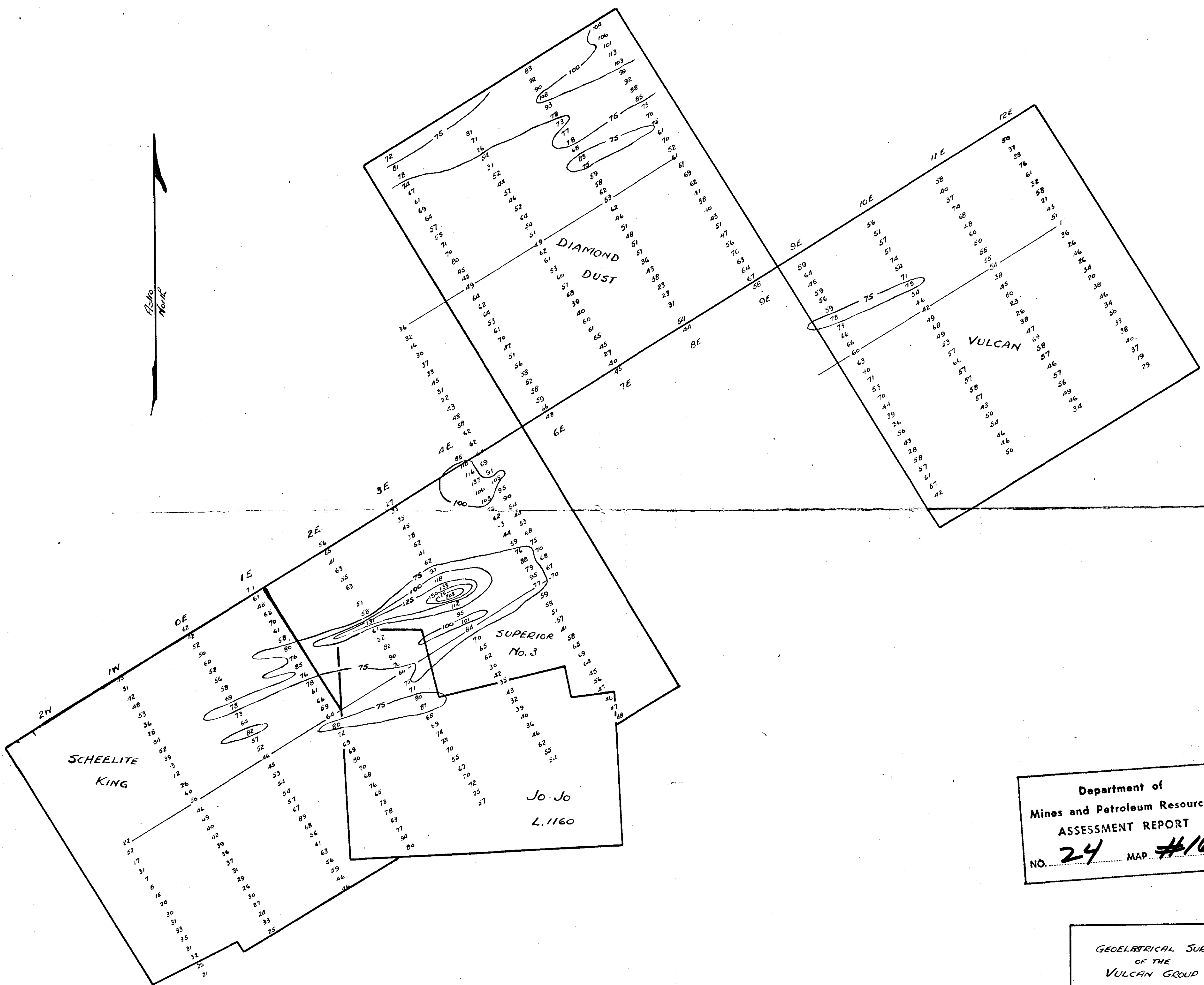
ROSSLAND MINES LTD  
OUTCROP MAP  
of the  
VULCAN GROUP

Wallace R. Baker

July 1947



Rosko  
Mark

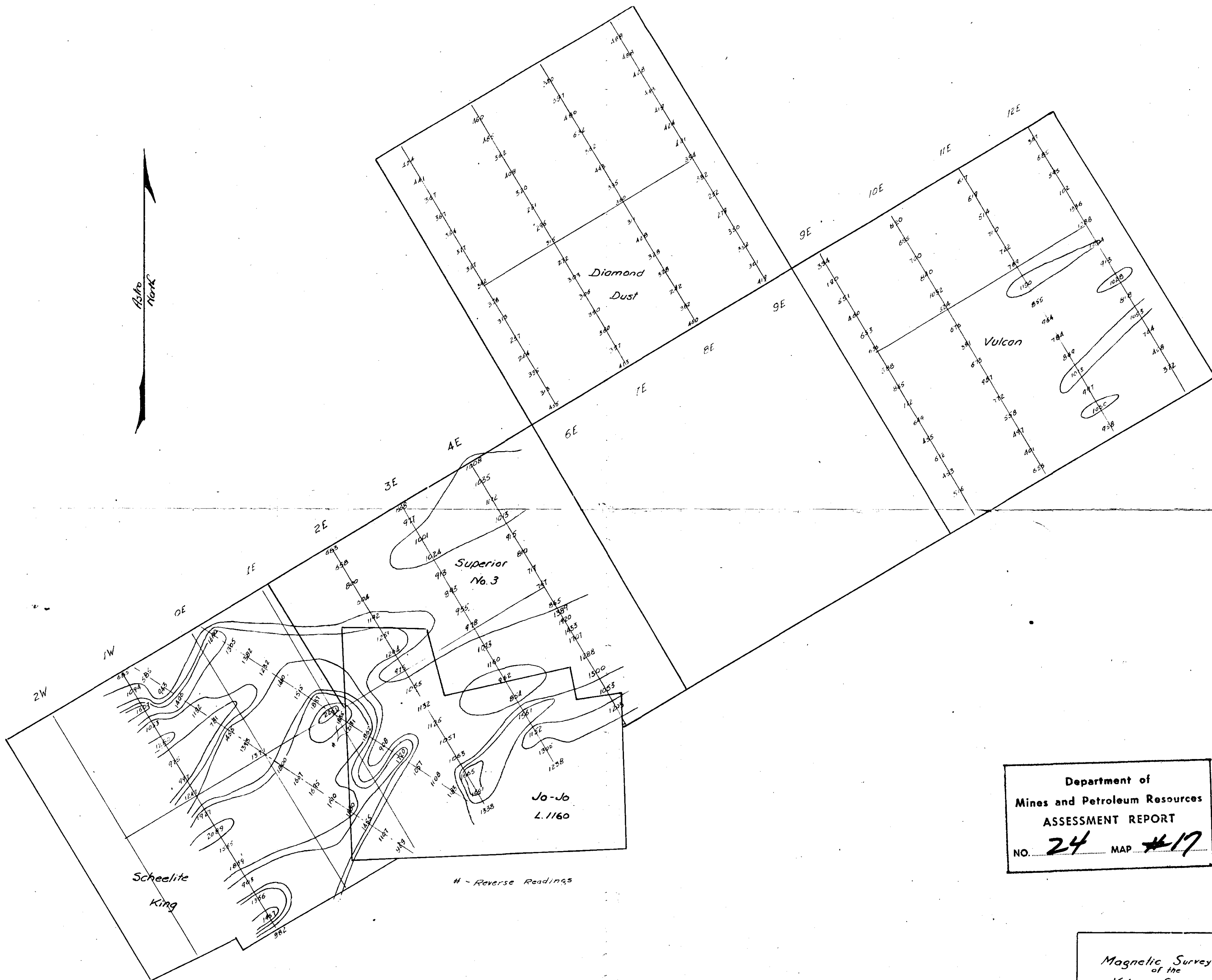


Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 24 MAP #16

GEOELECTRICAL SURVEY  
OF THE  
VULCAN GROUP  
Scale 1" = 300'  
July 5<sup>th</sup> 1947  
A. R. Clark

Rosland Mines Ltd.  
Rosland, B.C.





Jo-Jo  
L. 1160

# - Reverse Readings

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. **24** MAP **#17**

Magnetic Survey  
of the  
Vulcan Group  
Scale: 300ft - 1 in.  
June - July 37  
A. H. Lalor  
Rosland Mines Ltd.  
Rosland, B.C.



RECORD MTN.

GRANITE MTN

SPOKANE MTN

O.K. MTN

IVANHUZ MTN

TAMARAC MTN

BALDY MTN

LAKE MTN

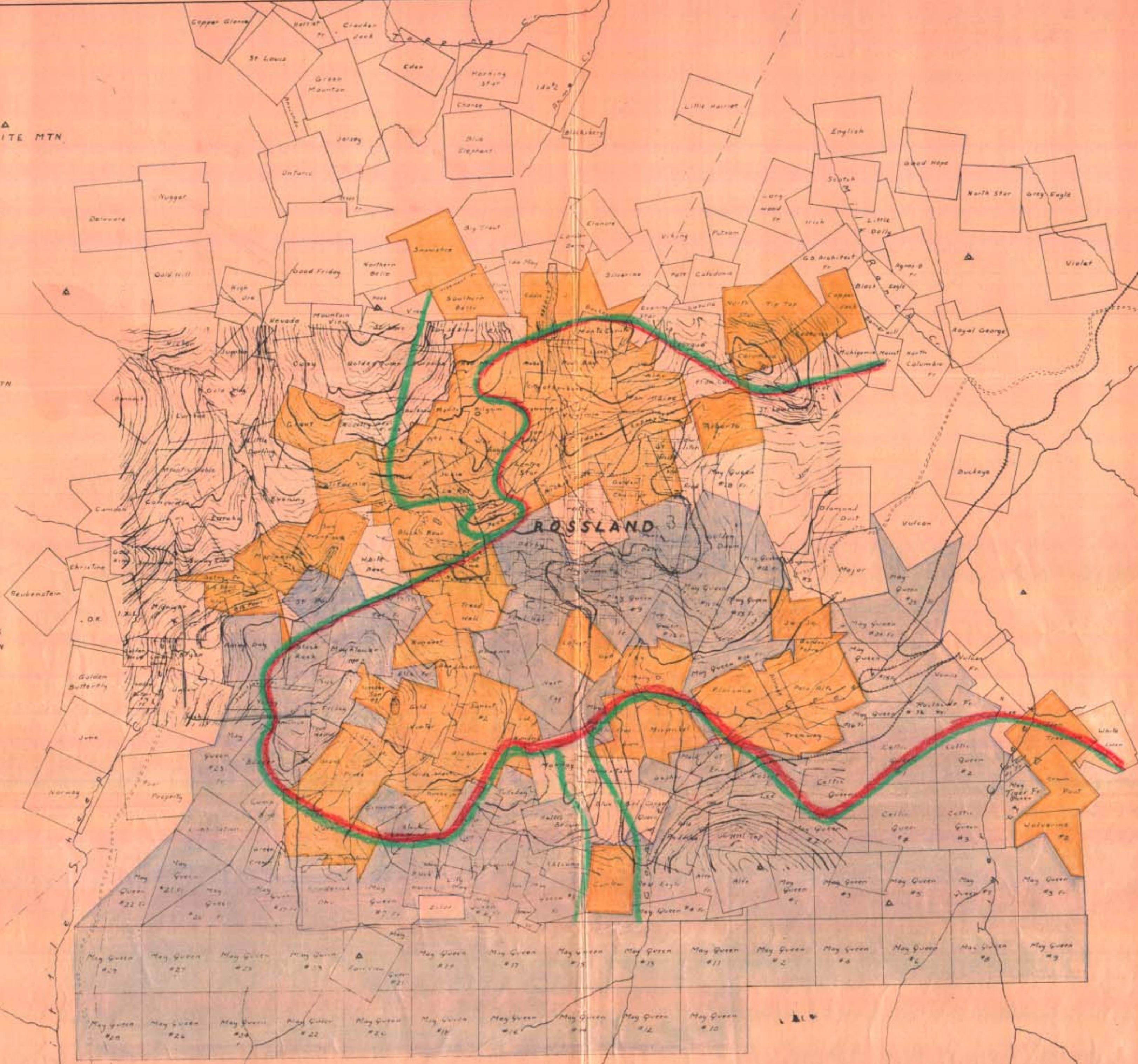
TRAIL

C.M.&S.

N

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. **24** MAP **#18**

ROSSLAND AREA  
MINERAL CLAIMS  
CONTOUR INTERVAL 40'  
SCALE 1" = 1500'





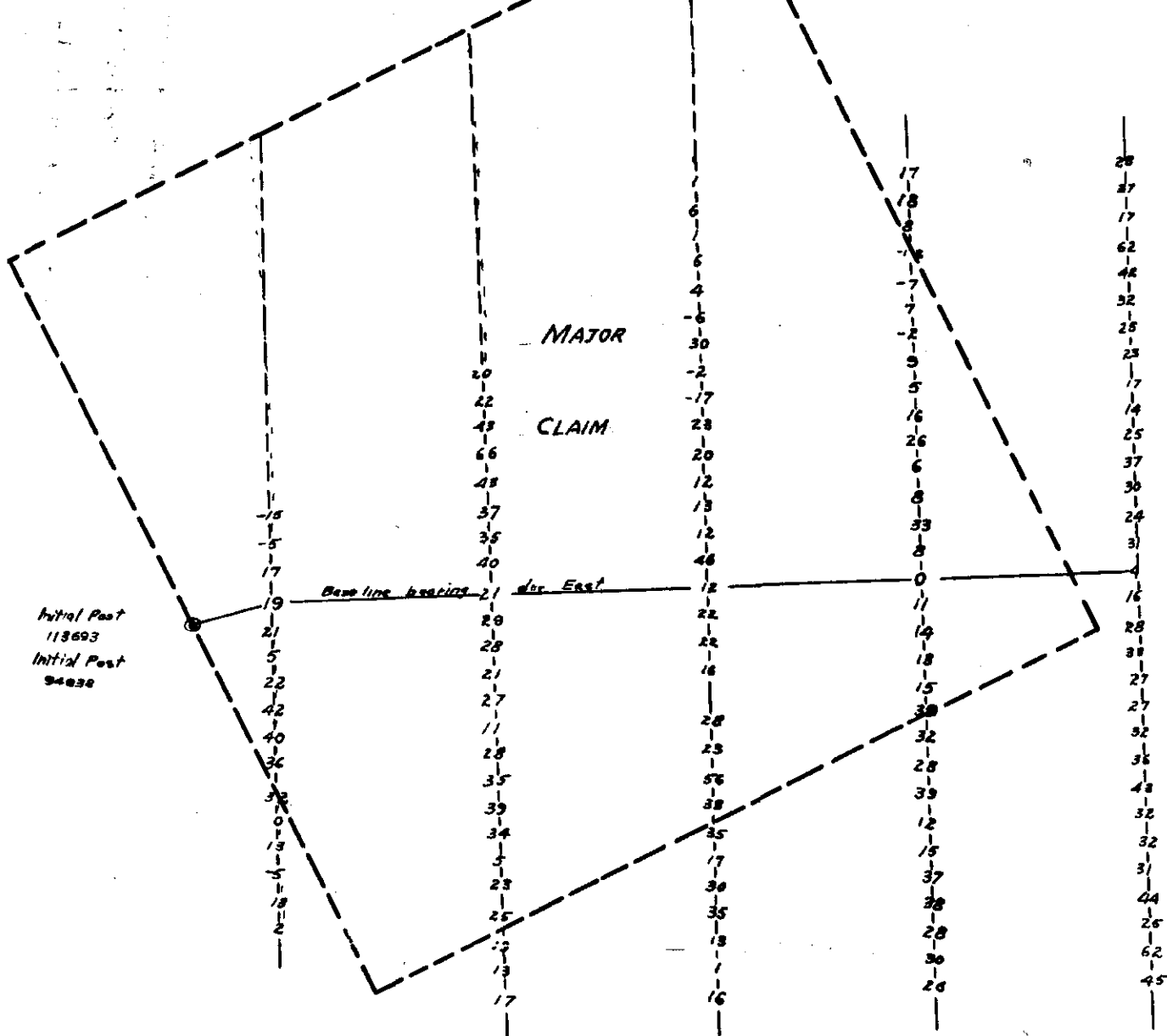
Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT

NO.

24

MAP

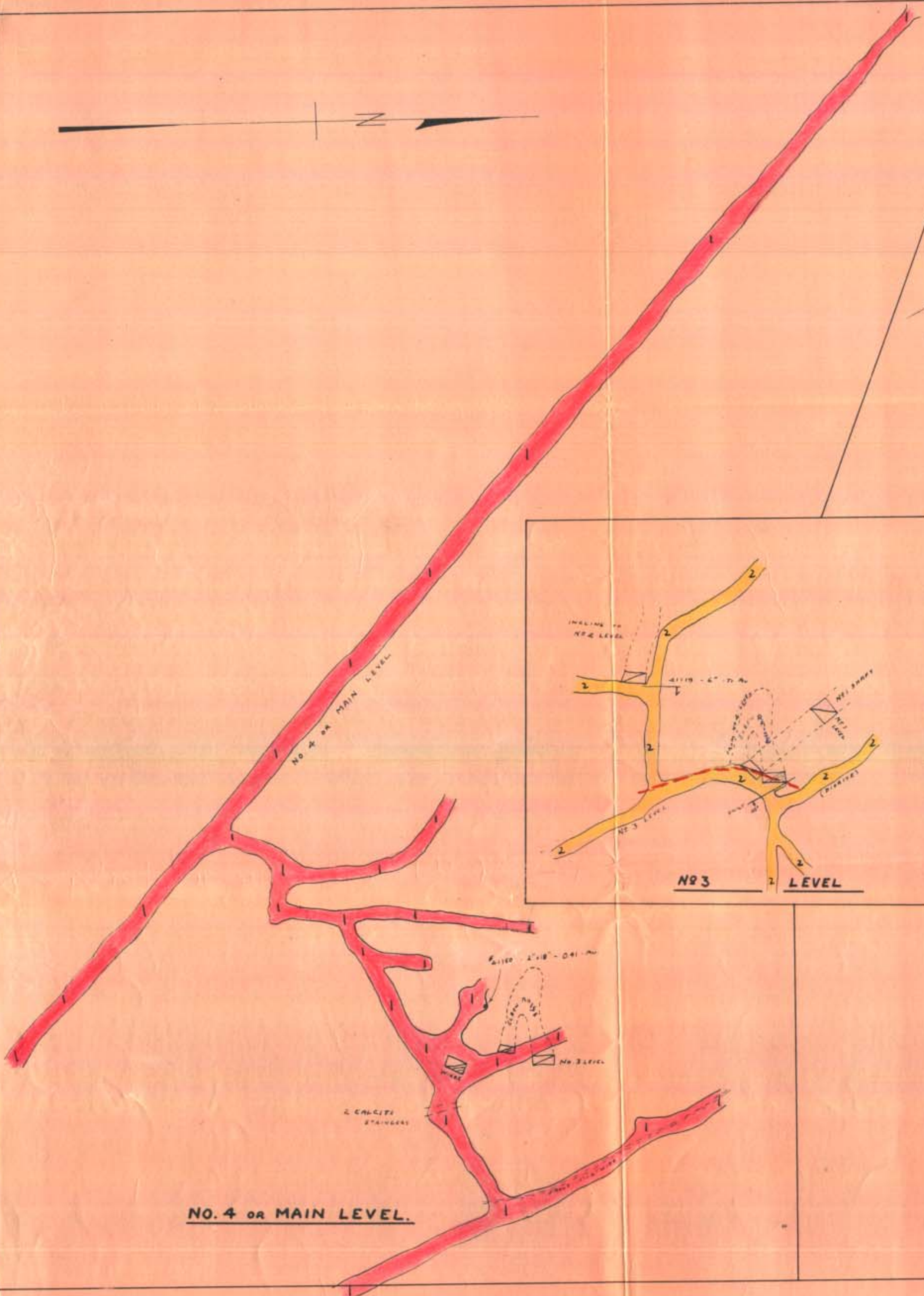
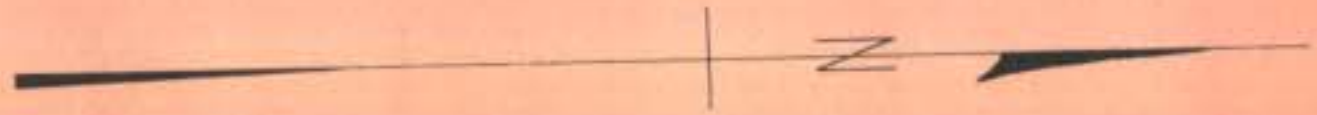
#19



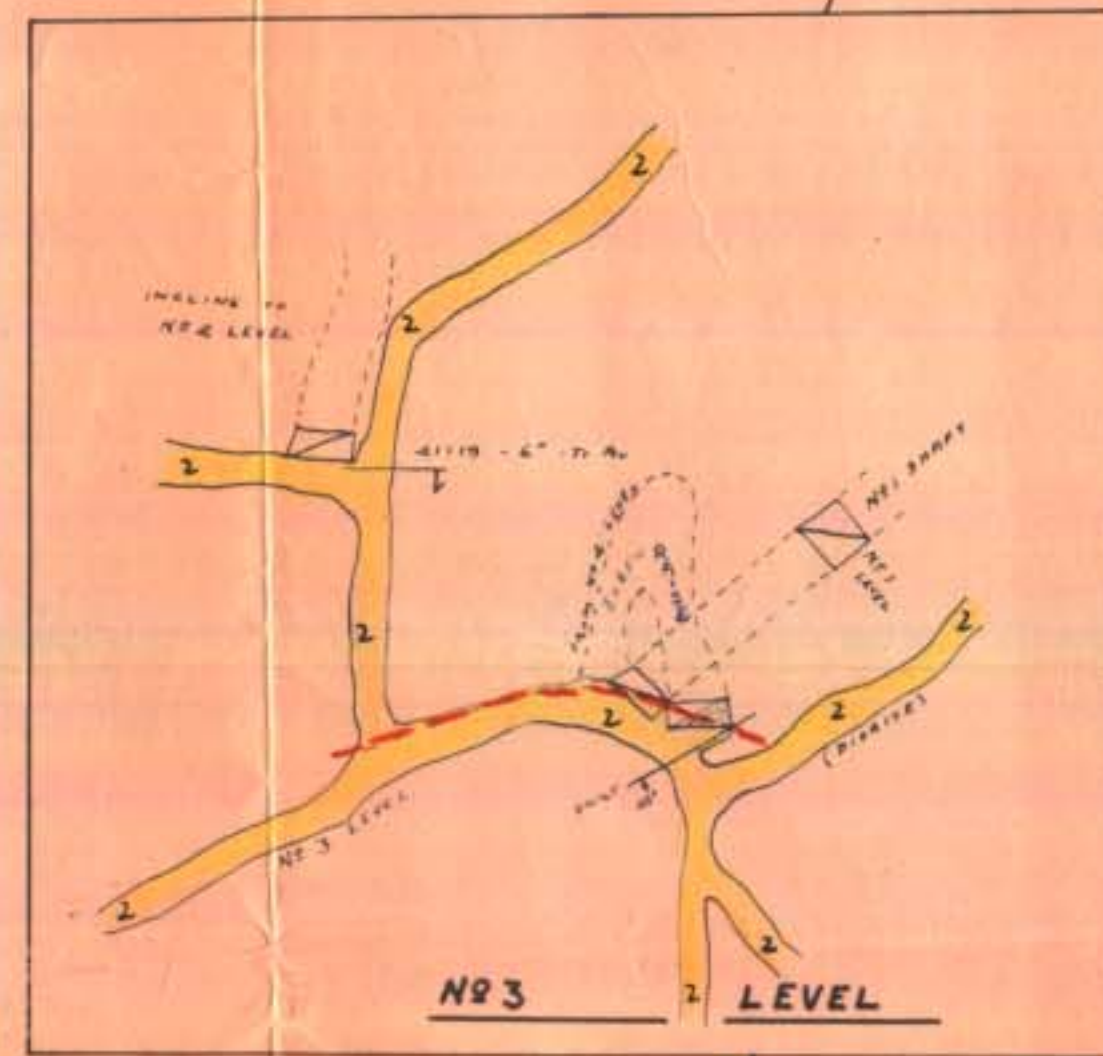
PLAN SHOWING GEOPHYSICAL RESULTS AND BASE LINE AND  
NORTH SOUTH LINES ON THE  
MAJOR MINERAL CLAIM

REPORT #24  
MAP #19

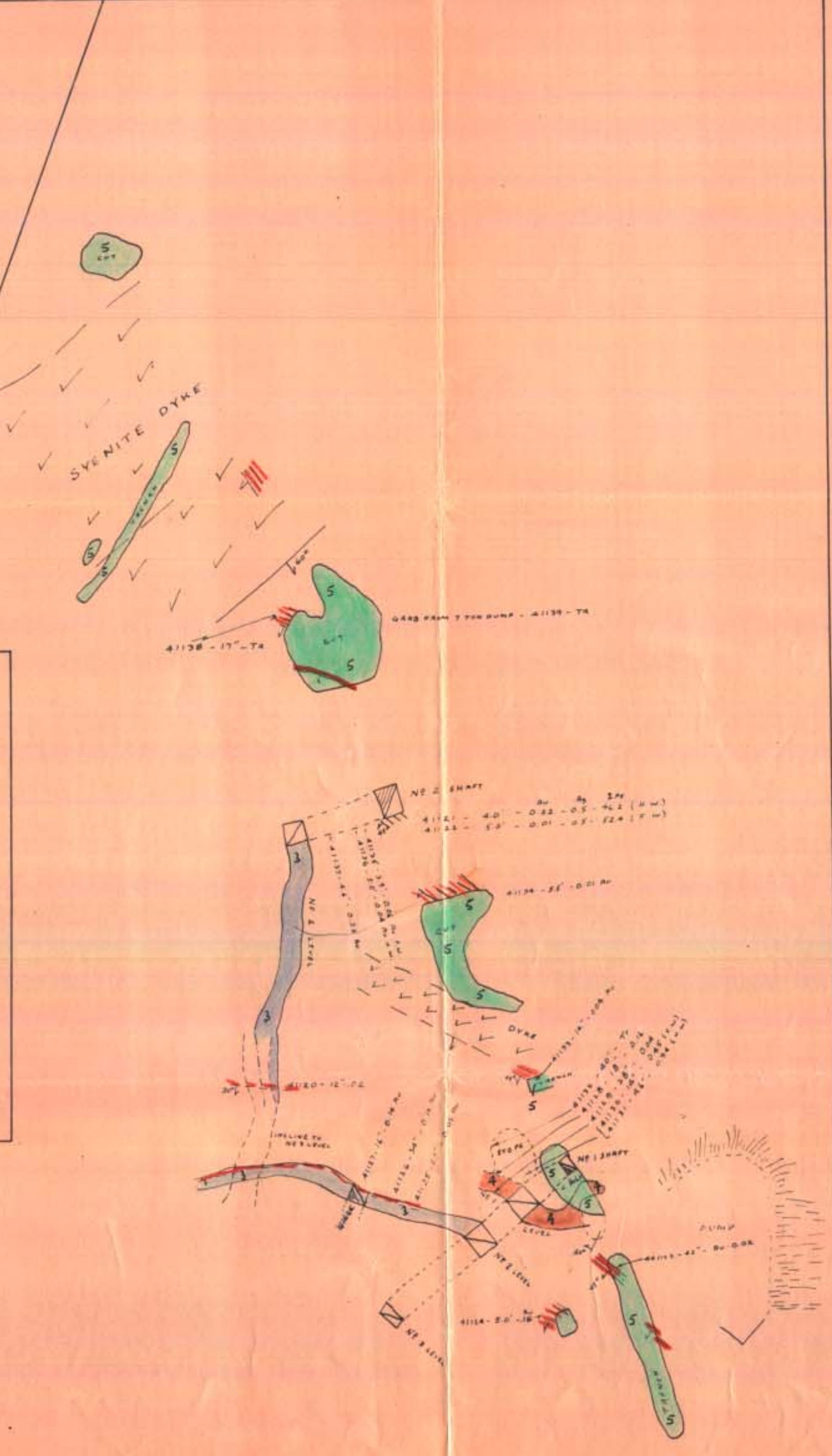




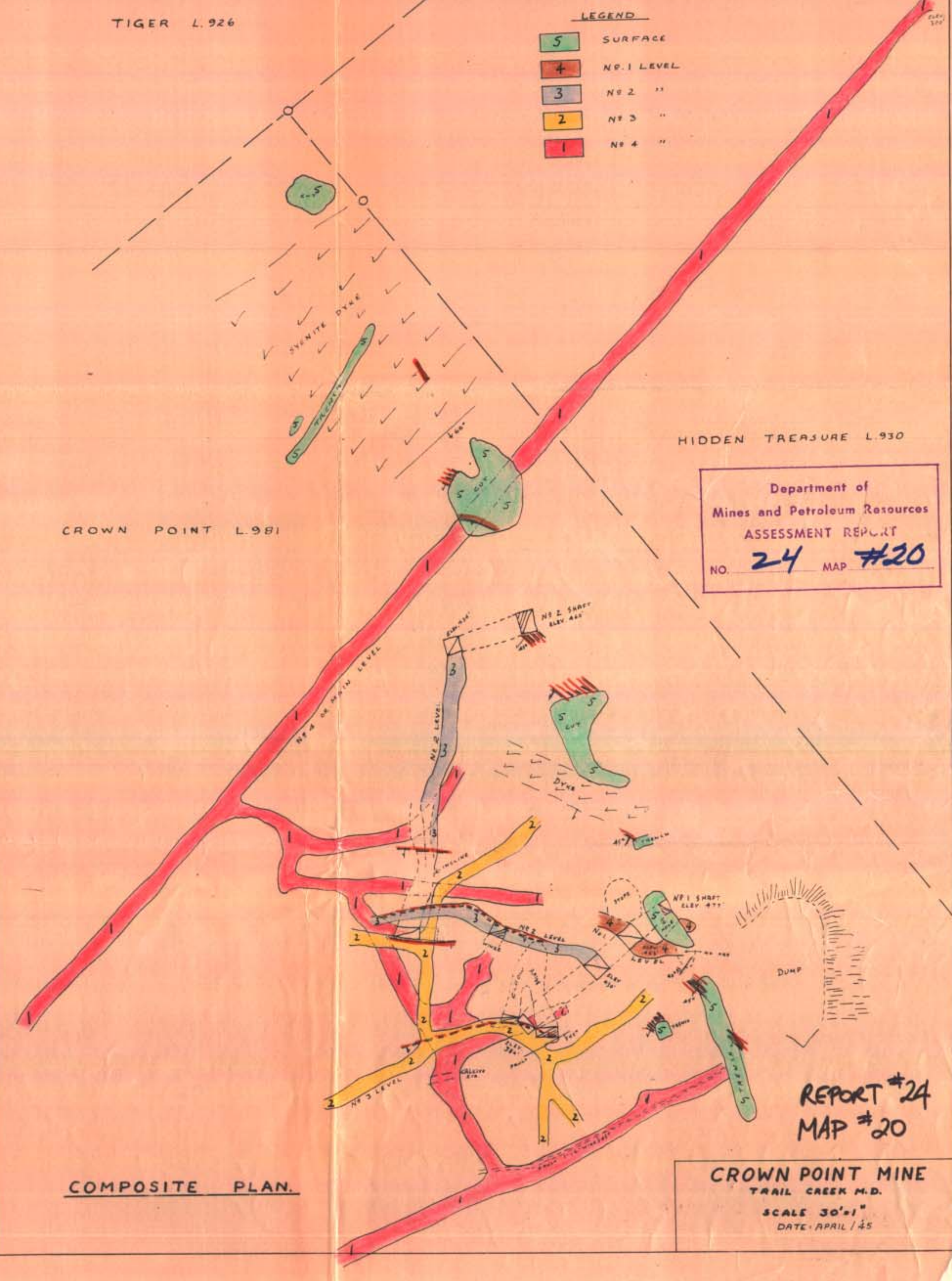
NO. 4 OR MAIN LEVEL.



NO. 3 LEVEL.



SURFACE, NO. 1 & NO. 2 LEVELS.



COMPOSITE PLAN.

LEGEND

5	SURFACE
4	NO. 1 LEVEL
3	NO. 2 "
2	NO. 3 "
1	NO. 4 "

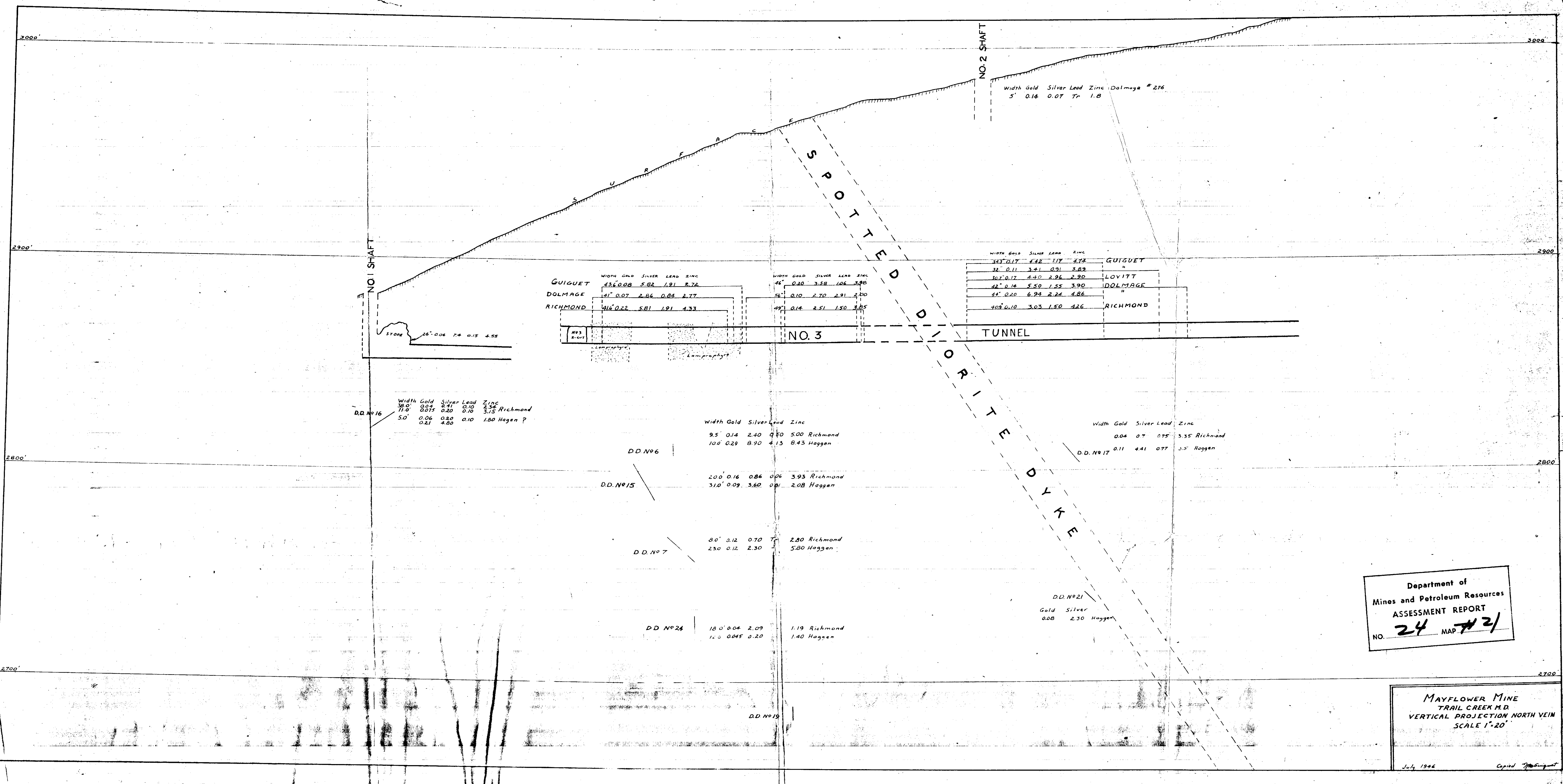
HIDDEN TREASURE L. 930

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. **24** MAP #20

REPORT #24  
MAP #20

CROWN POINT MINE  
TRAIL CREEK M.D.  
SCALE 30' = 1"  
DATE: APRIL / 45





Width Gold Silver Lead Zinc Dolmage # 276  
5' 0.14 0.07 Tr 1.8

	WIDTH	GOLD	SILVER	LEAD	ZINC
GUIGUET	43'	0.08	5.82	1.91	2.72
DOLMAGE	41'	0.07	2.86	0.84	2.77
RICHMOND	41'	0.22	5.81	1.91	4.33

	WIDTH	GOLD	SILVER	LEAD	ZINC
	46'	0.20	3.58	1.06	3.98
	46'	0.10	2.70	2.91	2.00
	49'	0.14	2.51	1.50	3.85

	WIDTH	GOLD	SILVER	LEAD	ZINC
	34'	0.17	4.42	1.17	4.73
	32'	0.11	3.41	0.91	3.89
	30'	0.17	4.40	2.26	2.90
	42'	0.14	5.50	1.55	3.90
	44'	0.20	6.94	2.24	4.86
	40'	0.10	3.03	1.50	4.26

D.D. No. 16  
Width Gold Silver Lead Zinc  
36' 0.04 6.41 0.10 2.34 Richmond  
11' 0.075 0.20 0.10 3.15 Richmond  
5' 0.06 0.20 0.10 1.80 Hagen ?  
0.21 4.80

Width Gold Silver Lead Zinc  
9.5' 0.14 2.40 0.70 5.00 Richmond  
100' 0.29 8.90 4.13 8.43 Hagen

Width Gold Silver Lead Zinc  
0.04 0.7 0.75 3.55 Richmond  
D.D. No. 17 0.11 4.41 0.77 3.5 Hagen

D.D. No. 15  
2.00' 0.16 0.86 0.06 3.93 Richmond  
31.0' 0.09 3.60 0.01 2.08 Hagen

D.D. No. 7  
8.0' 0.12 0.70 2.80 Richmond  
23.0' 0.12 2.30 5.80 Hagen

D.D. No. 24  
18.0' 0.04 2.09 1.19 Richmond  
12.0' 0.045 0.20 1.40 Hagen

D.D. No. 21  
Gold Silver  
0.08 2.30 Hagen

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 24 MAP # 21

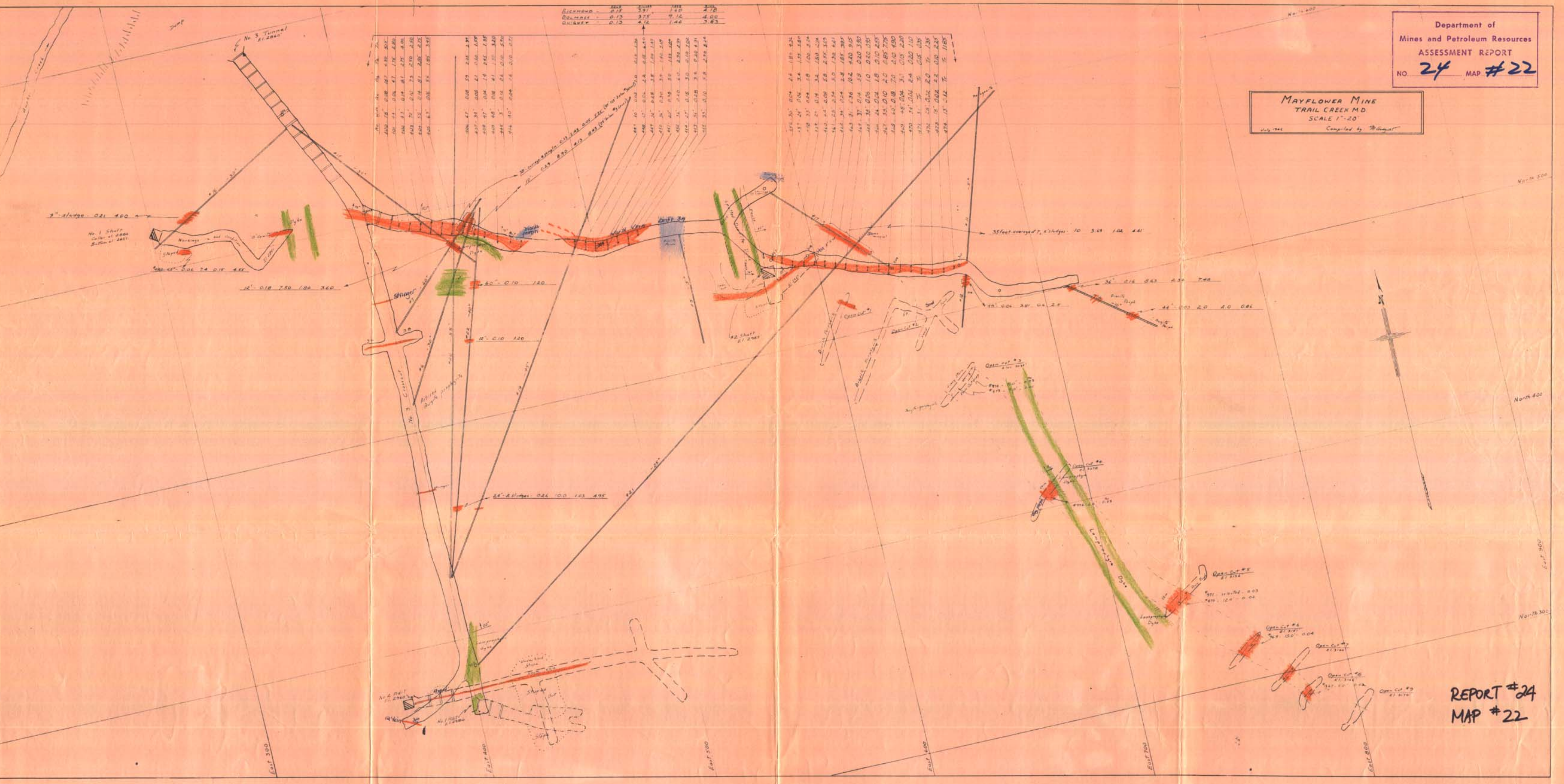
MAYFLOWER MINE  
TRAIL CREEK M.D.  
VERTICAL PROJECTION NORTH VEIN  
SCALE 1"=20'



MAYFLOWER MINE  
TRAIL CREEK MD  
SCALE 1"=20'  
July 1946  
Compiled by [Signature]

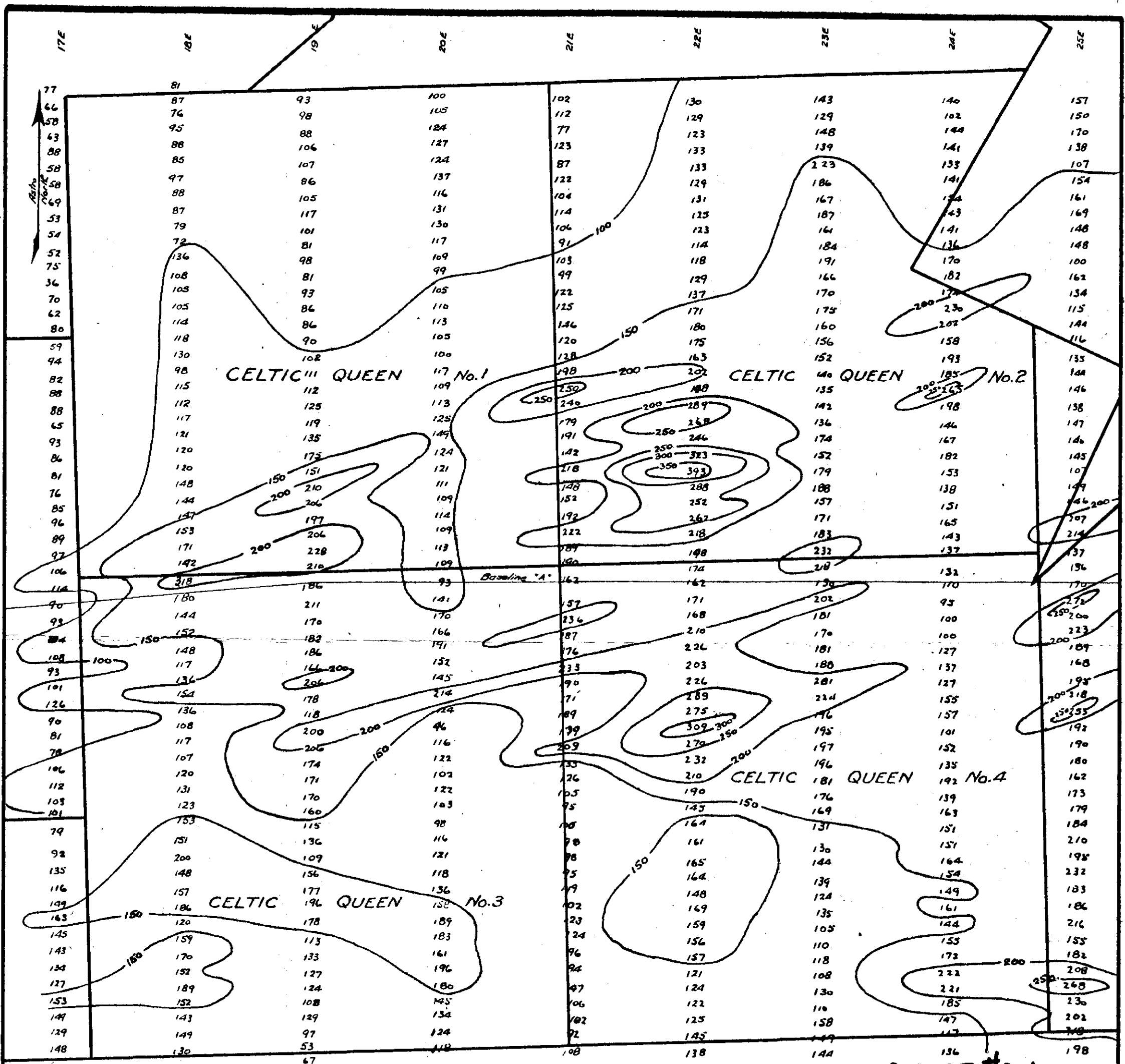
ELZEMER	0.12	3.75	1.47	4.34
DELMAR	0.12	3.75	1.47	4.34
GIARNEY	0.12	3.75	1.47	4.34

1000.00	0.00	0.00	0.00	0.00
999.99	0.01	0.01	0.01	0.01
999.98	0.02	0.02	0.02	0.02
999.97	0.03	0.03	0.03	0.03
999.96	0.04	0.04	0.04	0.04
999.95	0.05	0.05	0.05	0.05
999.94	0.06	0.06	0.06	0.06
999.93	0.07	0.07	0.07	0.07
999.92	0.08	0.08	0.08	0.08
999.91	0.09	0.09	0.09	0.09
999.90	0.10	0.10	0.10	0.10
999.89	0.11	0.11	0.11	0.11
999.88	0.12	0.12	0.12	0.12
999.87	0.13	0.13	0.13	0.13
999.86	0.14	0.14	0.14	0.14
999.85	0.15	0.15	0.15	0.15
999.84	0.16	0.16	0.16	0.16
999.83	0.17	0.17	0.17	0.17
999.82	0.18	0.18	0.18	0.18
999.81	0.19	0.19	0.19	0.19
999.80	0.20	0.20	0.20	0.20
999.79	0.21	0.21	0.21	0.21
999.78	0.22	0.22	0.22	0.22
999.77	0.23	0.23	0.23	0.23
999.76	0.24	0.24	0.24	0.24
999.75	0.25	0.25	0.25	0.25
999.74	0.26	0.26	0.26	0.26
999.73	0.27	0.27	0.27	0.27
999.72	0.28	0.28	0.28	0.28
999.71	0.29	0.29	0.29	0.29
999.70	0.30	0.30	0.30	0.30
999.69	0.31	0.31	0.31	0.31
999.68	0.32	0.32	0.32	0.32
999.67	0.33	0.33	0.33	0.33
999.66	0.34	0.34	0.34	0.34
999.65	0.35	0.35	0.35	0.35
999.64	0.36	0.36	0.36	0.36
999.63	0.37	0.37	0.37	0.37
999.62	0.38	0.38	0.38	0.38
999.61	0.39	0.39	0.39	0.39
999.60	0.40	0.40	0.40	0.40
999.59	0.41	0.41	0.41	0.41
999.58	0.42	0.42	0.42	0.42
999.57	0.43	0.43	0.43	0.43
999.56	0.44	0.44	0.44	0.44
999.55	0.45	0.45	0.45	0.45
999.54	0.46	0.46	0.46	0.46
999.53	0.47	0.47	0.47	0.47
999.52	0.48	0.48	0.48	0.48
999.51	0.49	0.49	0.49	0.49
999.50	0.50	0.50	0.50	0.50
999.49	0.51	0.51	0.51	0.51
999.48	0.52	0.52	0.52	0.52
999.47	0.53	0.53	0.53	0.53
999.46	0.54	0.54	0.54	0.54
999.45	0.55	0.55	0.55	0.55
999.44	0.56	0.56	0.56	0.56
999.43	0.57	0.57	0.57	0.57
999.42	0.58	0.58	0.58	0.58
999.41	0.59	0.59	0.59	0.59
999.40	0.60	0.60	0.60	0.60
999.39	0.61	0.61	0.61	0.61
999.38	0.62	0.62	0.62	0.62
999.37	0.63	0.63	0.63	0.63
999.36	0.64	0.64	0.64	0.64
999.35	0.65	0.65	0.65	0.65
999.34	0.66	0.66	0.66	0.66
999.33	0.67	0.67	0.67	0.67
999.32	0.68	0.68	0.68	0.68
999.31	0.69	0.69	0.69	0.69
999.30	0.70	0.70	0.70	0.70
999.29	0.71	0.71	0.71	0.71
999.28	0.72	0.72	0.72	0.72
999.27	0.73	0.73	0.73	0.73
999.26	0.74	0.74	0.74	0.74
999.25	0.75	0.75	0.75	0.75
999.24	0.76	0.76	0.76	0.76
999.23	0.77	0.77	0.77	0.77
999.22	0.78	0.78	0.78	0.78
999.21	0.79	0.79	0.79	0.79
999.20	0.80	0.80	0.80	0.80
999.19	0.81	0.81	0.81	0.81
999.18	0.82	0.82	0.82	0.82
999.17	0.83	0.83	0.83	0.83
999.16	0.84	0.84	0.84	0.84
999.15	0.85	0.85	0.85	0.85
999.14	0.86	0.86	0.86	0.86
999.13	0.87	0.87	0.87	0.87
999.12	0.88	0.88	0.88	0.88
999.11	0.89	0.89	0.89	0.89
999.10	0.90	0.90	0.90	0.90
999.09	0.91	0.91	0.91	0.91
999.08	0.92	0.92	0.92	0.92
999.07	0.93	0.93	0.93	0.93
999.06	0.94	0.94	0.94	0.94
999.05	0.95	0.95	0.95	0.95
999.04	0.96	0.96	0.96	0.96
999.03	0.97	0.97	0.97	0.97
999.02	0.98	0.98	0.98	0.98
999.01	0.99	0.99	0.99	0.99
999.00	1.00	1.00	1.00	1.00



REPORT #24  
MAP #22





Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT

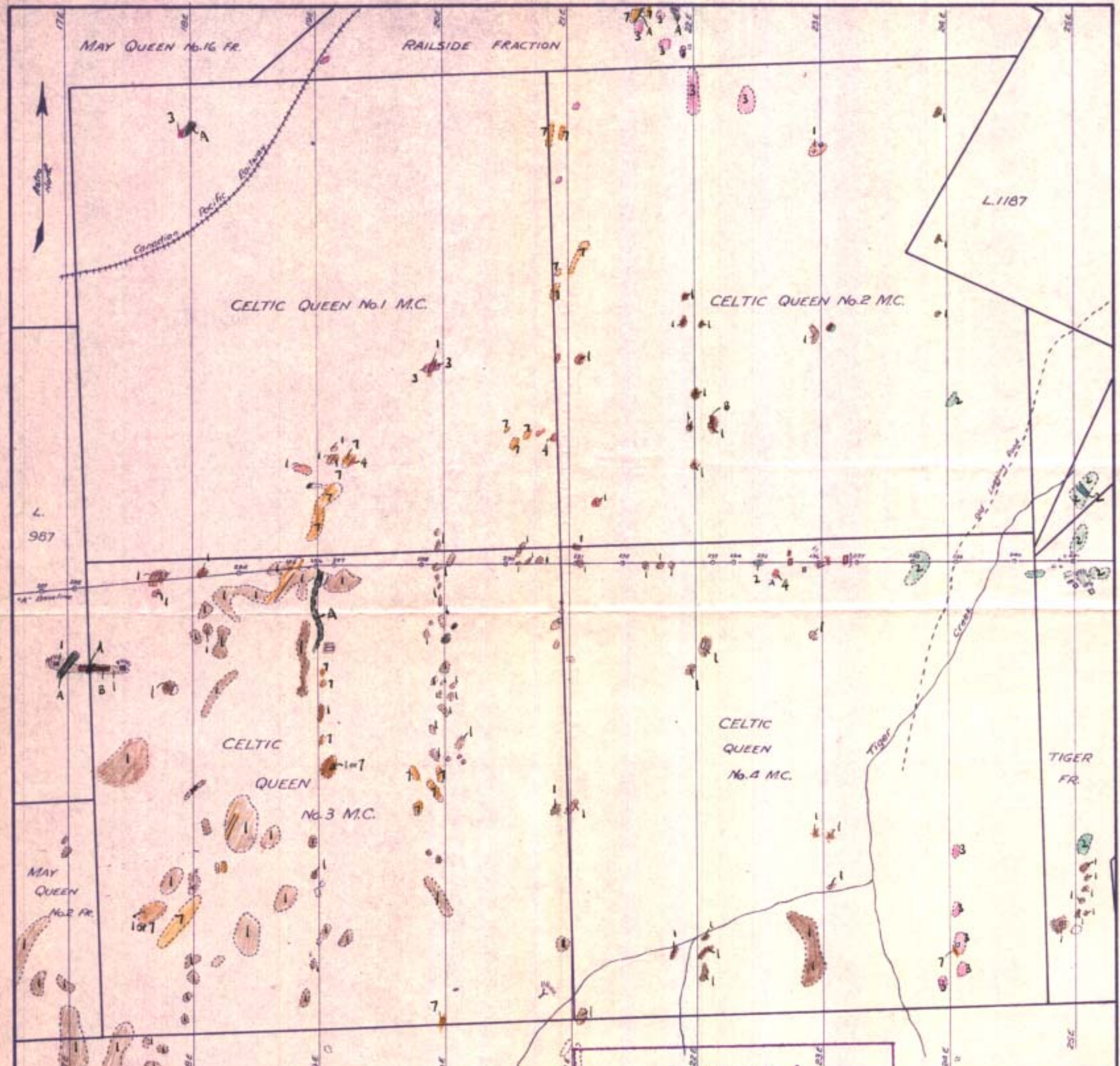
NO. **24** MAP # **23**

**REPORT # 24**  
**MAP # 23**  
GEOELECTRICAL SURVEY  
OF  
THE CELTIC QUEEN GROUP  
Scale 1" = 300'  
Rosland Mines Ltd.  
Rosland, B.C.

A.R.C.

AUGUST 1947





L. 987

- |                         |                         |
|-------------------------|-------------------------|
| Pulaskite               | Monzonite               |
| Lamprophenic Dikes      | Argillite Porphyry      |
| Diorite Porphyry        | Mount Roberts Formation |
| Granite Porphyry        | Veins                   |
| Porphyritic Monzonite B |                         |

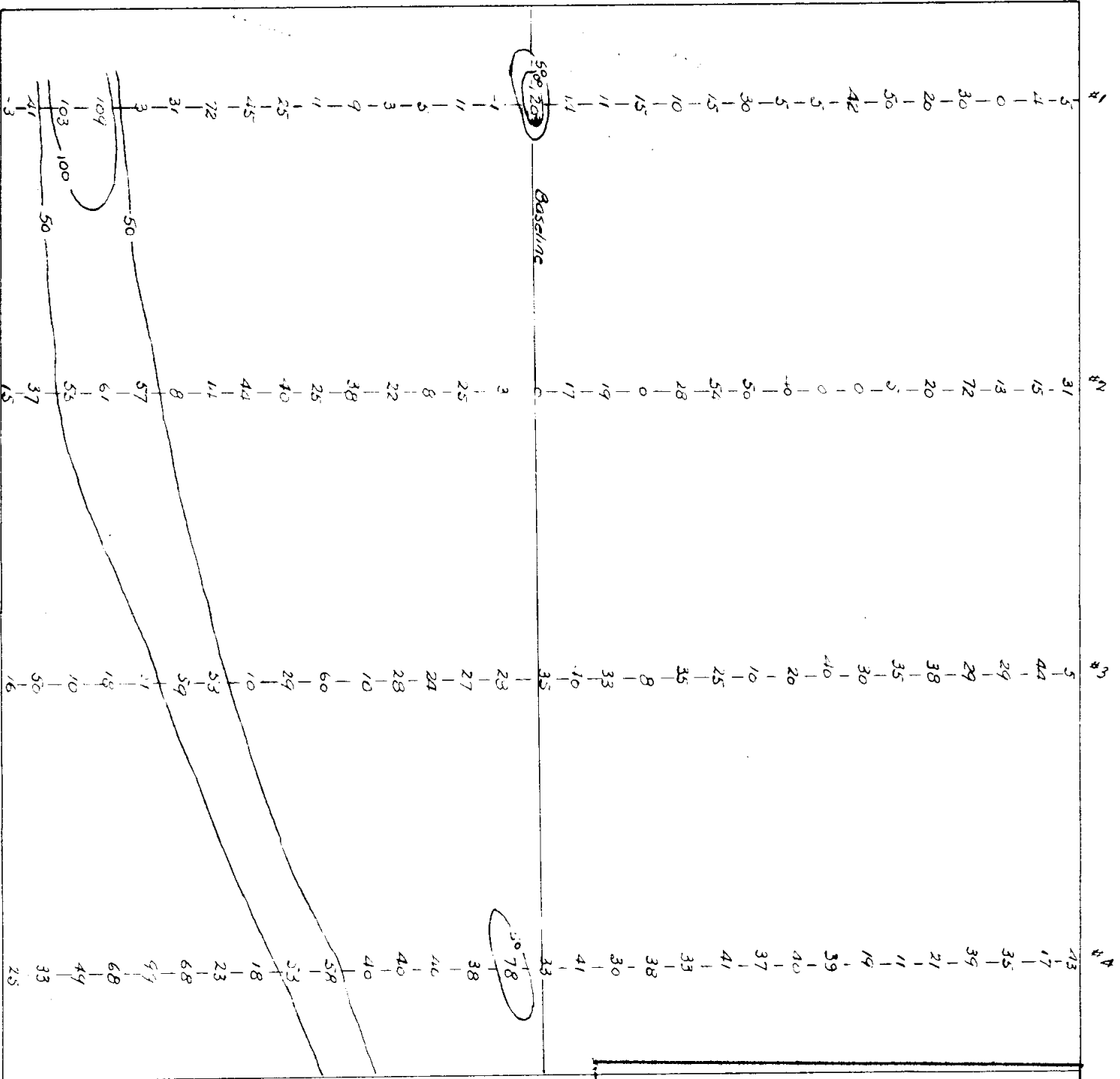
Department of  
 Mines and Petroleum Resources

**OUTCROP MAP**  
 OF  
**ASSESSMENT REPORT THE CELTIC QUEEN GROUP**  
 Scale 1" = 300'

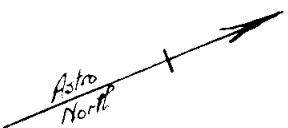
NO. **24** MAP **#24** Rossland Mines Ltd.  
 Rossland, B.C.

Wallace R. Baker AUGUST 1947

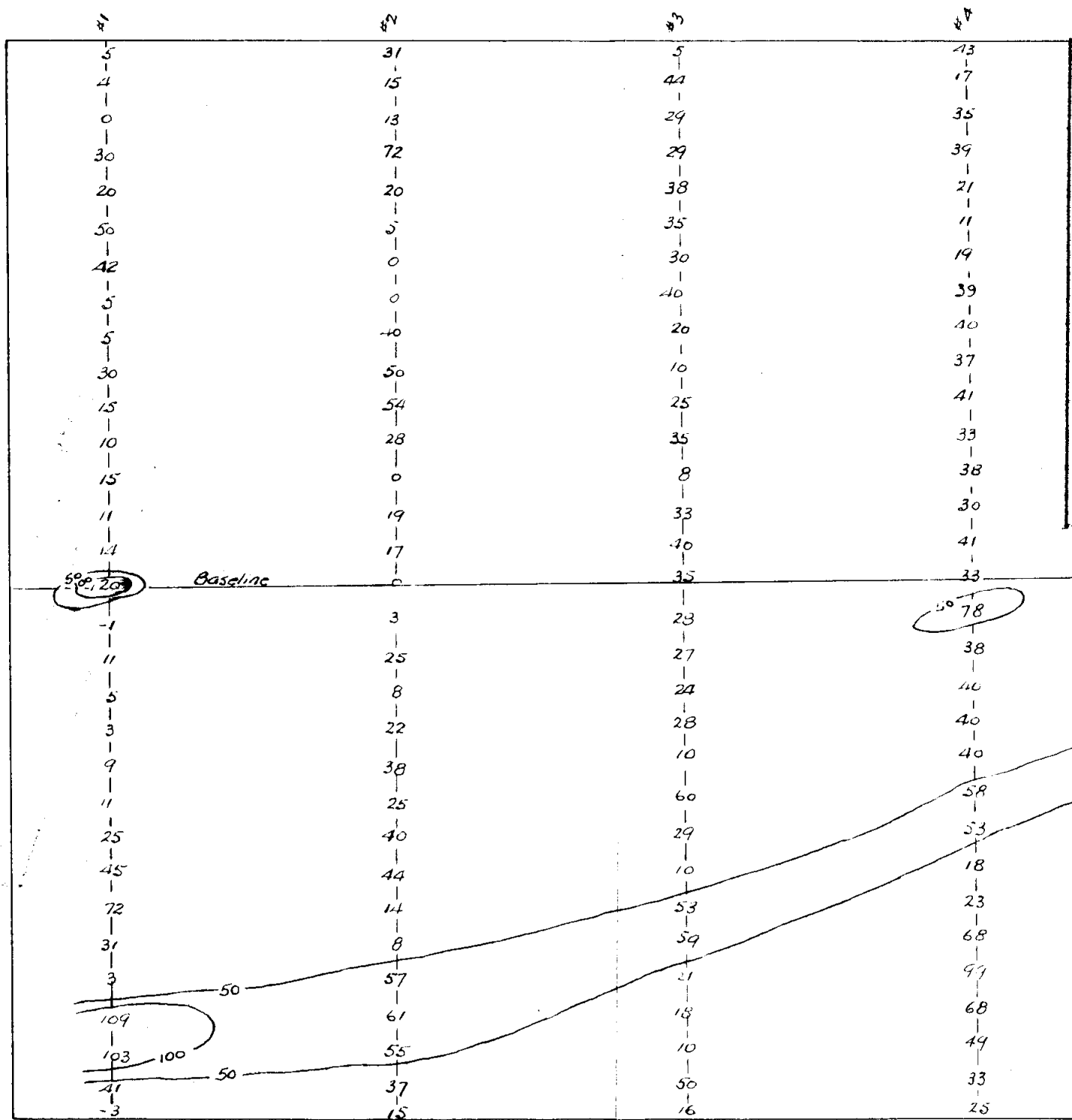




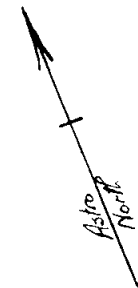
**Department of**  
**Mines and Petroleum Resources**  
**ASSESSMENT REPORT**  
 NO. **24** MAP **#25**



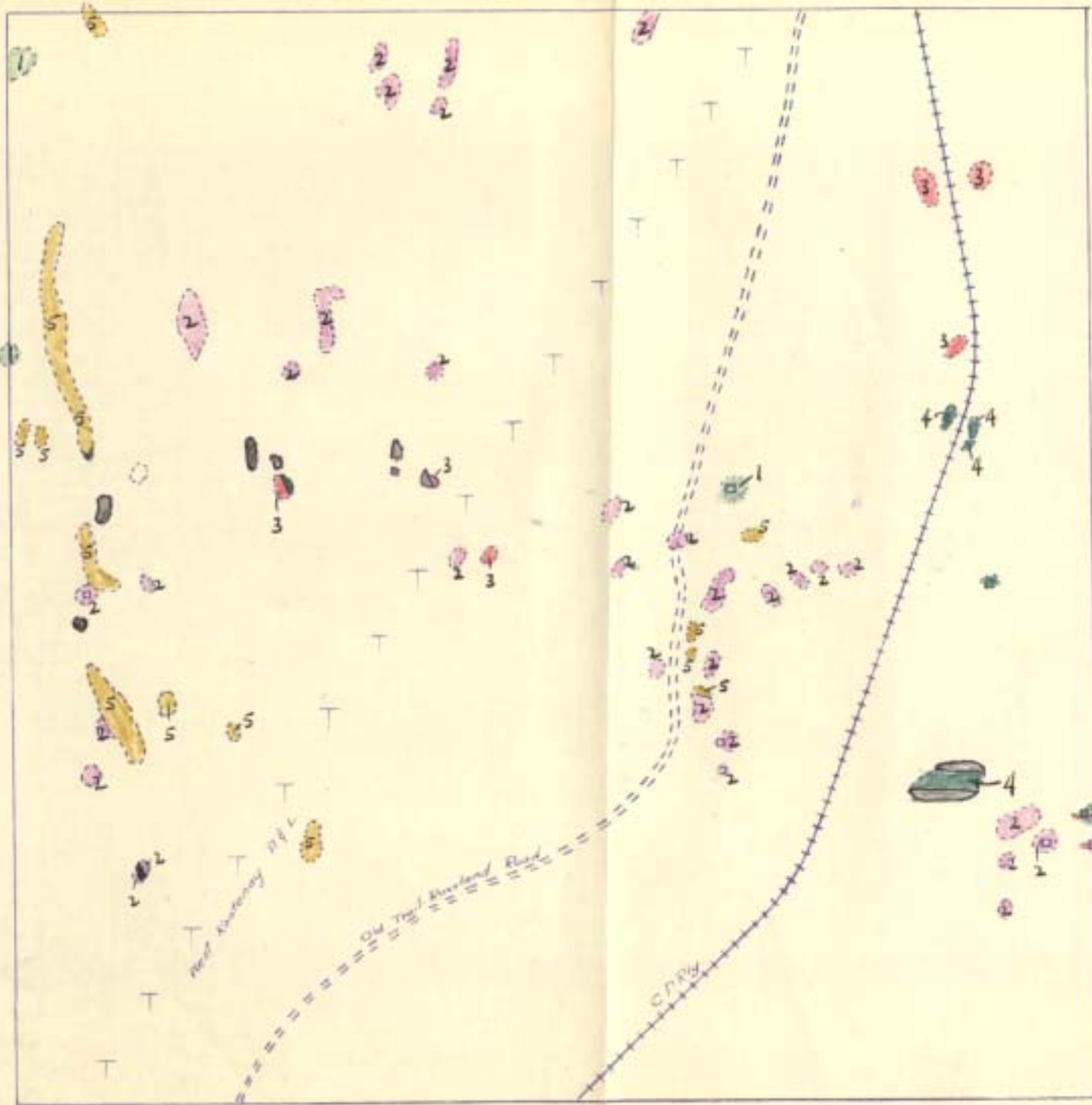
Rosland Mines Ltd.  
**GEOELECTRICAL SURVEY**  
 of  
**BUCKEYE M.C.**  
 1" = 200'  
 Aug. 47



Department of  
 Mines and Petroleum Resources  
 ASSESSMENT REPORT  
 NO. **24** MAP **#25**



Rossland Mines Ltd.  
 GEOELECTRICAL SURVEY  
 of  
 BUCKEYE M.C.  
 1" = 200'  
 Aug - '47

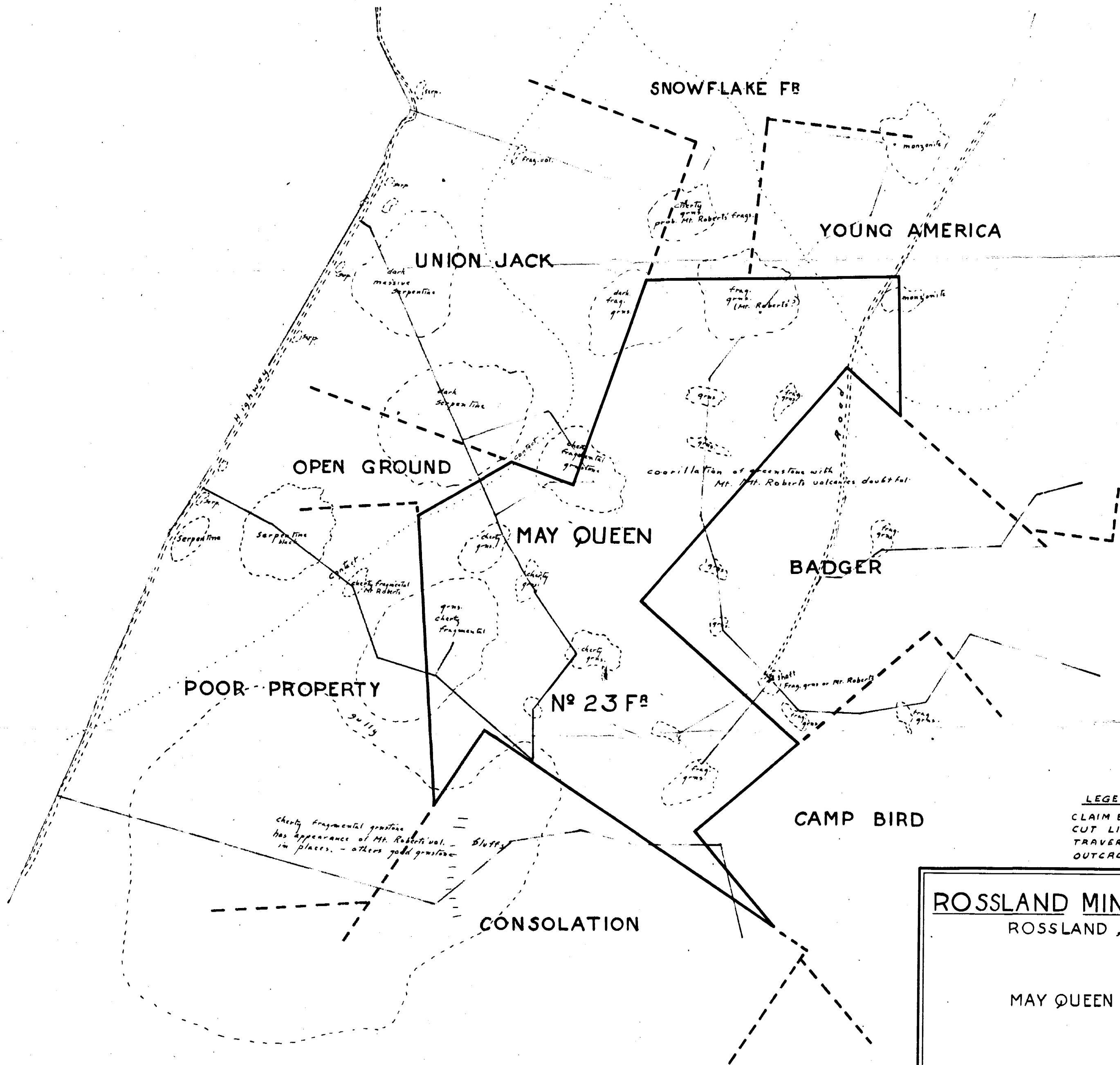


Legend

- 5 *Plinianite dikes*
- Lamprophyre dikes*
- Quartz Porphyry*
- Granoblastic*
- Porphyritic Monzonite*
- Monzonite*
- Augite Porphyry*
- Mount Roberts Formation*
- Vents*

Department of  
 Mines and Petroleum Resources  
 ASSESSMENT REPORT  
 24 MAP #26  
 Rossland Mines Ltd.

OUTCROP MAP  
 of  
 BUCKEYE M.C.  
 1" = 200'  
 Aug 47 W.R. Baker



REPORT 24  
Map 27

LEGEND  
 CLAIM BOUNDARIES ———  
 CUT LINE ———  
 TRAVERSES ———  
 OUTCROPS ———

**ROSSLAND MINES LTD. N.P.L.**  
 ROSSLAND, B. C.

MAY QUEEN No 23 FB

Scale ~ 1" = 300'