

82F/AW

Claims: L49-117 SW
May Queen Groups Nos. 1-7
and May Queen Fr. Nos. 1,
17, 23, 36, and 38.
Owner: Rossland Mines Ltd.
Engineer: S.G. Bruce.

March, 1948

0034

34

REPORT ON THE ASSESSMENT WORK
ON THE MAY QUEEN GROUPS NOS.
1 TO 7, AND THE MAY QUEEN
FRACTIONAL MINERAL CLAIMS
NOS. 1, 17, 23, 36, AND 38

Rossland Mines Ltd.
Rossland, B.C.
March 11th, 1948

The assessment work performed on the 56 mineral claims held by location by Rossland Mines Ltd. was begun on March 8th, 1947. It consisted of a geophysical survey with magnetometer and potentiometer, but mainly with potentiometer; and a geological survey covering the mapping and study of rock outcrops. The years work was carried out under the supervision of Mr. E. H. Lovitt, Professional Engineer of the Province of British Columbia.

As a basis for the control of this type of work, which, during the year, covered the whole of the Rossland Mines holdings, two easterly and westerly main baselines known as "A" and "B" were run, "B" in the north central portion of the area and "A" in the south central portion. Each extended out to the longitude boundaries of the property. Their location had to be chosen not only with regard to topography, but also with regard to the rights of private property owners whose antagonism we did not wish to arouse by slashing lines across their ground. These two baselines were tied in at each end and also at the center. They were run as accurately as possible with transit, a 300 foot steel tape, and frequent azimuth checks on Polaris. A third baseline, known as "D" was cut but not chained, which ran east and west about one claim length north of the south boundary. The function of this line was to act as a distance marker for the north-south lines when they were cut to the south. Along the "A" and "B" baselines north-south lines were laid off at 400 foot intervals. These lines, run by transit, were later slashed out where possible to the north boundary of the property, and as far south as the season's coverage would permit. The lines were then measured with steel tape and inclinometer and stakes driven in at 100 foot intervals, the stakes being marked in distance with reference to the baseline from which measuring had commenced.

The geophysical results were plotted on 300 scale partly because this scale was suited to the 400 foot spacing of the north-south lines, and also because it coincided with the scale of the maps which already had been compiled. The geology was first mapped to 100 scale on numbered plates as shown on the key map of the area, but later was reduced to 300 to conform with the pattern of the other maps.

The geophysical work was carried out by Dr. A. R. Clark of the Physics Department of the University of British Columbia and by others under his direct supervision.

The geological mapping of rock outcrops was done by Mr. W. R. Baker.

Geophysical and geological reports covering these claims as a whole rather than by separate reports for each group or claim are submitted, not only because it saves in lot of extra work and needless repetition, but because in the case of Groups 2 to 6, the interpretation can be carried across the area from group to group in orderly sequence.

The same reasoning also applies in a sense to the statement of costs in which the expenditures are lumped for the 56 claims. To have kept track of the costs and labour distribution on each group would have presented great difficulties in bookkeeping. Instead, an estimate of the percentage of the total applicable costs has been made on the basis of the percentage of the total area covered, the type of terrain, and the difficulty of access.

S. G. Bruce

Engineer

REPORT ON THE GEOPHYSICAL SURVEY
OF THE
MAY QUEEN CLAIMS & FRACTIONS

Rossland Mines Ltd.
Rossland, B.C.

March 11, 1948

The main area covered by these claims, comprising Groups 2, 3, 4, 5, and 6, lies in the southerly portion of Rossland Mines Ltd. holdings and extends from the Rossland - Patterson highway on the west, to the easterly slopes of Tiger Creek on the east. Groups 1 and 7 lie in the north-easterly and northerly parts respectively, and the May Queen Nos. 23, 17, and 38 in the westerly and central parts.

Purpose

The purpose of the survey was to outline zones of sulphide mineralization and to trace contacts between geological formations.

The ground to be prospected and examined covered such a large area and had been so intensively prospected in previous year, that it was felt that the only way to handle the situation was by some geophysical means. Any apparent surface indications of mineralization were discovered during the early days of the camp, and it was assumed therefore that the only hope of discovering anything hitherto unknown lay in disclosing its presence under the mantle of overburden with geophysical instruments.

It was thought that the nature of the terrain and the geology of the district would be favourable towards these methods because the overburden is light, the ore bodies of such a nature that they could be expected to react well to detection, and the formations such that they would not give a reaction which might mask the possibility of the presence of sulphide bodies.

Methods

The methods selected were the magnetometer and the self potential. The reasons for choosing these devices were that they are easy to transport and handle, their operation doesn't require a highly trained crew, the results can be plotted without difficult calculations, and with them ground can be covered at a fairly rapid rate. As explained in the preliminary report, the whole area was laid out in a grid pattern of north-south lines spaced at 400 foot intervals and staked at 100 foot intervals along their length. These stakes served as reference and tie-in points for the survey.

(a) Magnetometer

This instrument was used to measure changes in the earth's magnetic field. Readings were taken every 100 feet along the north-south lines and plotted as shown on the accompanying maps. Owing to the presence of pyrrhotite bearing ore bodies in the camp, both in the North Belt and in the South Belt, it was thought that the magnetometer would prove valuable in disclosing favourable areas. As will be pointed out later, this was not the case, and after a fair trial, its use was abandoned in favour of the potentiometer.

(b) Self Potential

This method is one of measuring the earth's natural potentials. By plotting the readings taken every 50 feet along the north-south lines, areas were selected in which a definite design or pattern was indicated as being worthy of closer investigation, either by more detailed self potential study or a combination of this and close geological examination, trenching, and diamond drilling. The readings plotted on the accompanying maps are in millivolts.

Results

(a) Magnetometer

Magnetometer and self potential methods were carried out concurrently over a considerable area at the start of the season, and a close study of the results of the two methods was made. The area in question contains a good average of the rock formations which occur in the Rossland Camp. By this time the potentiometer was proving its worth by showing up well the zones where sulphide mineralization was already known to exist, by tracing out the extensions of these zones, and by indicating points of high potential which, after trenching or the digging of pits, disclosed sulphide ore bodies hitherto unknown.

The magnetometer, on the other hand, gave much weaker indications of these conditions. In places its results could be seen to agree with the self potential, elsewhere it missed altogether the findings of the electrical method, and again it showed strong anomalies which were due solely to the presence of small stringers of magnetite in otherwise barren monzonite. When this situation with respect to the magnetometer was realized, its use was abandoned, and the crew transferred to the operation of a second potentiometer.

(b) Self Potential

The self potential method is subject to two main handicaps. Its reaction decreases in strength as the depth of the overburden increases, until at a bedrock depth of 50 feet, it no longer gives any indication of what may lie underneath; and secondly, it is affected very strongly by a formation with a graphitic or high carbonaceous content.

Generally speaking, the overburden over the area is shallow, from 6 to 10 feet, but there are places where it is much deeper and the appearance of the terrain does not necessarily indicate the possible depth of bedrock even though outcrops may or may not be present. The second factor, that of the presence of graphite or a high carbon content in the rock, did cause high readings in certain areas where Mt. Roberts Formation exists. The Mt. Roberts Formation consists essentially of highly silicified slates, in part carbonaceous, with arenaceous and calcareous varieties. This formation is exposed quite widely across the southern area covered by Groups 2, 3, 4, 5, and 6, but fortunately the carbonaceous component is not very common. Its influence however can be noted in the central portion of Group 2, on the Curlew M.C. and the Alcome Fraction north of Group 4, and the southern parts of Groups 5 and 6, where in some instances the difference of potential has risen as high as 1000. Such high readings can only be attributed to this carbonaceous content, because in our experience over the whole South Belt, the highest reading ever obtained over a sulphide ore body was 472, and this was taken with one of the electrodes placed directly in contact with the oxidized exposure of a heavily mineralized mixed sulphide vein, a situation that would not likely arise unrecognized in the field.

Of all the anomalies showing up on these claims, it appears therefore that those which cover a large area with a high potential, such as those on the May Queen Nos. 6 and 8 M.C., the one extending from the Curlew M.C. over on to the May Queen Nos. 5 and 6, and the one extending west from the Fairview M.C. through the May Queen Nos. 23, 25, and 27 M.C.s; are due to the presence of a carbonaceous member of the Mt. Roberts Formation.

It does not necessarily apply that this is the sole reason for the appearance of the anomalies. The general pattern may be due to underlying mineralization, a possibility which is supported by evidence of sulphides which are commonly disseminated throughout the Mt. Roberts Formation, and also by the tendency of the anomalies to lie with an east-west trend more or less parallel to the other anomalies on the holdings which are connected with mineralized zones.

Time did not permit the investigation of these anomalies more closely by means of detailed potentiometer mapping, trenching, or diamond drilling, but they certainly warrant further work this coming season to prove their possibilities.

Conclusions

The season's work with the potentiometer gave highly satisfactory results, and proved that its use was the logical approach to the problem of prospecting such a large area.

The advantages of the method are that it reveals sulphide zones hidden by overburden, the maintenance and first cost of the equipment are small, its operation is rapid, simple, and flexible, and it doesn't require highly trained operators.

It has of course its limitations in that it will not differentiate between a heavy concentration of sulphides which are disseminated; it requires the presence of iron sulphides in the ore zone to promote strong galvanic action; and its utility is hampered by too great a depth of overburden. In spite of these factors it proved a valuable aid, and gave results that otherwise could only have been obtained by much more expensive methods.

It cannot be said that it is a tool which will definitely find and define ore bodies, it is only one of the many means utilized in the search and exploration for mineral deposits, but in this case it did outline certain sections of the property with definite indications that they are worthy of further exploration, and proved that others are more or less barren and therefore do not justify more work being done on them.

S. G. Bruce

Engineer

GEOLOGICAL REPORT ON THE SURVEY OF
THE
MAY QUEEN MINERAL CLAIMS

Rossland Mines Ltd.,
Rossland, B.C.

March 19, 1948

Abstract

The Rossland area consists of the remnants of Paleozoic sediments interbedded with lava flows lying on a dark igneous intrusive of augite porphyrite. Under this formed granodiorite from which extended apophyses, diorite porphyry. These formations are now exposed in places. Slightly later the monzonite chonolith was intruded between the augite porphyrite and the granodiorite. Considerably later appeared the syenite intrusives as plugs and dikes in north-south fractures, followed by the coarse grained porphyritic monzonite which intruded into NNE lines of weakness.

Mineralization generally occurred in east-west fractures. It is thought to have started with differentiates from the granodiorite batholith, and continued or was intermittently recurring until after the pulaskite and porphyritic monzonite were in place. However mineralization found in these latter bodies may have been the result of redistribution of moving ground waters, etc.

Introduction

Location

The claims of Rossland Mines Ltd. lie in the Trail Creek basin, and extend from the valley of Little Sheep Creek on the west to the valley of Tiger Creek in the east, and south of and adjacent to the city of Rossland.

Purpose

The purpose of the geological survey was to produce an accurate map of the outcrops and to ascertain and record as much of the data regarding them as the field season would permit.

Method of Investigation

The traverses followed the surveyed north-south lines as described in the general report, and made use of the 100' stakes as reference points. From the reference points the pace and compass method determined outcrop locations. The information was recorded on 8" x 10" map sections drawn to a 100 scale. Later these completed map sections were traced directly on to 24" x 36" map sections which are used as work sheets. The 24" x 36" plates were then reduced to 300 scale map and colored for use as a background for the tracing of the geophysical anomalies in studying the relation of the geology to the earth's natural potentials.

Acknowledgements

Of great assistance in the study was the assistance given by the following persons:

Dr. Gilbert of the C.M. & S. provided us maps of the

area which he had covered in his two year study of the North Belt. His discussions on the age relations of the syenite dikes and the pulaskite plugs, his subdivision of Young's augite diorite into augite diorite intrusive and various kinds of extrusives, appears to be a reasonable conclusion from the evidence so far available.

Drs. Gunning and Kaiser spent several weeks examining the area. Specimens of the various formations were examined and samples were sent to the University of B.C. where thin sections will be made for microscopic study.

Dr. Hedley investigated some of the phases of the Rossland Volcanics and discussed their possible age relation, mode, etc. He compared them with the similar greenstones of the Smithers district. He also sent samples of the ore minerals to Dr. H. V. Warren for determination. Dr. Warren's report showed the hitherto unsuspected mineral boulangerite to be present. This mineral is probably the source of the high silver values found in the South belt.

Geography

The claims are situated for the most part in the drainage basin of Trail Creek which is a cirque from which the ice flowed to the north-east. The point at which Trail Creek flows through the east boundary line is the lowest point on the property and has an elevation of 3000'. The highest elevation of approximately 4200' is found on Deer Park Ridge on the May Queen No. 23 Fraction. The drainage of the area to the west of co-ordinate 15400E is to the south.

Outcrops are plentiful, but for the most part contacts are buried. The overburden is light except in parts of the Trail Creek vallet bottom where drilling disclosed a depth of 43' at one point.

Stratigraphy & Petrography

Regional

The geology of Rossland has been described by C.W. Drysdale in Memoir 77, C.G.S., in which he reviews the work of R.G. McConnell, Brock, and Young, and his own work of 1913 and 1914.

Lying within the Columbia Range, the Rossland Mountains surround the area. To the south is Lake Mountain, to the west Deer Park Ridge, and to the west and north are Mt. Roberts, Record Ridge, Red Mt., Columbia, and Monte Christo Mountains.

Formational Units Occurring in Map Area

Sedimentary - Mt. Roberts

Igneous - Augite Porphyrite
Granodiorite
Diorite Porphyry
Monzonite
Lava Flows of andesite & latite
Porphyritic Monzonite
Lamprophyre Dikes
Pulaskite
(Serpentine)
Dikes

Young's description of the defining characteristics of the main igneous formations can be tabulated as follows:

Rock Type Definitions

	<u>Biotite</u>	<u>No Biotite</u>
Qtz.	Horneblende (Granite Porphyry (Granodiorite (Pulaskite	
No. Qtz.	Augite & Horneblende (Monzonite (Porphyritic Monzonite	Diorite Porphyry Augite Porphyrite

Local

Mt. Roberts Formation This, the oldest formation encountered, lies as disturbed caps or roof pendants ranging from a few square feet to bodies of considerable lateral dimensions. Drysdale gives the strike as north-south with a 30 degree to the west. The dips noted in our map area were all considerably steeper and ranged from 30 degrees to the vertical, in the railroad cut just north of Group 3.

Most of the Mt. Roberts encountered was of the arenaceous variety. It is altered and is, in places, not distinguishable from the altered augite porphyrite in contact with it. Calcareous and carbonaceous varieties were noted in locations described below.

Augite Porphyrite The augite porphyrite is younger than the Mr. Roberts. Its geological age is thought to be Triassic. The mode of occurrence for the most part was intrusive, although there were probably intrusive phases, the evidence of which has now disappeared. At present it should be classified as a stock with attached sills, for its dimensions are not extensive and no bottom has yet been reached. Typically, the rock is dark grayish to greenish black and studded with numerous dark crystals of augite. In places these phenocrysts disappear, at which time it is difficult to distinguish from metamorphic members of the Mt. Roberts series. In places the augite phorphyrite assumes a brecciated or agglomerate structure. Though not common, a flow structure in which either feldspars or mafics are aligned is evident. Contacts with the older Mt. Roberts are merged, altered, and indistinct. Contacts with the monzonite are characterized by a zone of high mafic content. Later dikes have produced little effect on the augite porphyrite. Faults, deformations, and fractures are seen in this formation. Faults, generally N-S to NNE, are seen in the Gopher and Bluebird workings. They are of important dimensions. NNE rifts are very evident in the aerial photographs of the district. Mineralizing solutions appear to have impregnated smaller and less distinct E-W fractures producing the important ore zones of the area.

Granodiorite

The granodiorite outcrops in a few areas. A considerable is seen in the Little Sheep Creek basin. It may be part of the Trail batholith underlying the area. It is a medium grained light gray rock composed of feldspars, quartz, hornblende, and biotite.

Diorite Porphyry

The diorite porphyry tongues, offshoots of the granodiorite, have a greyish finely crystalline ground in which are found, generally alligned, slender prisms of hornblende and lathe-like feldspars. The feldspar phase is found nearer the granodiorite and merges into it. Its age is placed in the Jurassic. The ore in the North Belt in many cases was found on the contacts of the diorite porphyry and the augite porphyrite.

Monzonite

The monzonite chonolith is a granular, grayish green to black rock containing pyroxene hornblende, brown biotite, and light plagioclase feldspars. It appears to be a chonolithic intrusion of Jurassic age, with a three mile east-west dimension at the surface but a smaller north-south extent. Many phases are intimately intermingled.

Pulaskite

Pulaskite appears as irregular boss-like and dike-like intrusions. The rock is coarse to fine and pale pink is the typical color. These intrusions are correlated with Daly's Coryell batholith in Big Sheep Valley which is of Miocene age.

Dikes

Porphyritic monzonite appears as large dikes with a NE trend. It is a coarse grained rock with large stout prisms of pyroxene hornblende and round flakes of biotite of varying size. The feldspars are medium plagioclase. Its age is thought to be Oligocene.

The granite porphyry, younger than the pulaskite, appears in dike-like forms cutting across the northern part of the property. It is gray, medium grained, with visible quartz and aligned tabular feldspars. Evidence marks it as the youngest igneous rock.

Other dikes are numerous and varied and are described below as encountered.

Geology of Groups & Claims

Group 1

Group 1 is underlain with monzonite, a crystalline intrusive thought to be of Jurassic age and characterized by biotite, augite, and hornblende, but no quartz. It varies from fine-grained to semi-porphyritic, and from gray to greenish black in color.

In this area it is extensively cut by syenite dikes very similar to the pulaskite but of much finer grain varying to aphanitic. In some dikes the folow structure is prominent.

Another class of dike similar to the first and probably closely related is a darker variety of syenite dike. It cuts the lighter dike and is therefore younger.

A third variety of dike termed by Dr. Gunning as "monzonite dike" cuts not only the monzonite but also the two types of syenite.

They are usually narrow and finely crystalline with chilled edges.

All the dikes have a north-south trend and an average vertical dip.

Just to the west of the May Queen No. 15 Fraction is a small area of augite porphyrite containing some mineralized fractures on which some pits have been sunk. The mineralization here would appear to be associated with the late syenite dikes, as is the case in the Spitzee Mine.

May Queen No. 38 Fraction

This fraction is also in the monzonite area. As it lies at the base of a hill it is nearly all covered with overburden and only two outcrops were located within its boundaries. However many outcrops surround it. Of the two outcrops, one is pulaskite, and the other is pulaskite cut by two late dikes, one a mica type, the other resembling a latite. Just to the west of the fraction is an exposure of porphyritic monzonite, probably a part of the same body which outcrops across the golf links to the south-west.

May Queen No. 36 Fraction

This fraction lies to the west of Group 1. It is crossed by the monzonite-augite porphyrite contact, the contact striking east-west. The ground, lying in the valley bottom, carries considerable overburden.

Group No. 2

Group No. 2 is situated in the south-east corner of the property. A greenstone agglomerate phase of the augite porphyrite underlies the May Queen No. 9 and No. 3 Fraction. They appear to be a series of flows and have been tilted with a 20 degree dip to the east and generally have a north-south strike. North of the agglomerate Mt. Roberts, which has a south-easterly dip, appears on the east boundary. A monzonite outcrop appears on the northern extremity of the May Queen No. 3 Fraction, and outcrops indicate that it is directly connected to the main monzonite body to the north. More monzonite, possibly a plug, outcrops just north of the May Queen No. 7. To the west of Tiger Creek, an area of Mt. Roberts extends to the north-east. Although some Mt. Roberts is found east of the creek, the channel would appear to have formed on a line of weakness along a contact.

Numerous augite porphyrite outcrops appear along the southern border of May Queen Nos. 3, 5, and 7, indicating that the Mr. Roberts cover has been largely removed.

Pulaskite dikes are numerous and prominent throughout this group, with the usual strike and dip, but with greater variations than in the areas farther north.

Other dike rocks similar to the monzonite dikes appear on the May Queen No. 5. Many pits have been dug in the area some of them showing considerable sulphides.

Group No. 3

This Group, lying to the west of and adjoining Group No. 2 is cut by pulaskite dikes in the easterly portion and overlain by Mr. Roberts formation in the west. The augite porphyrite is the typical variety, and is massive and in places comparatively undisturbed. The Mt. Roberts on the May Queen No. 4 Fraction is arenaceous and altered, and

and considerable disseminated pyrite is found in it.

In the north-east corner of the May Queen No. 13 appears an unusual dike. It consists of trachite or latite containing coarse crystalline mafics.

Group No. 4

Group 4 is underlain by augite porphyrite and Mt. Roberts. Some dike rocks are also present. The most important of the latter is the exposure of a considerable body of porphyritic monzonite on the May Queen No. 19 with smaller outcrops appearing on the May Queen No. 17. Others, extending north-easterly across the map area, indicate a possible line of weakness. The Mt. Roberts mapped on the May Queen No. 16 contains some carbonaceous shale and the outcrop is flat lying and may indicate the top or bottom of a fold.

Group No. 5

This Group, lying to the west of Group 4, is underlain by augite porphyrite, with a band of Mt. Roberts running NE and SW across the group. There are also some exposures of diorite porphyry along the Mt. Roberts - augite porphyrite contact on the May Queen No. 23. The same rock appears just to the north of the May Queen No. 19 Fraction, where it parallels a ten foot mica dike striking north-easterly. The rocks classified under augite porphyrite are fairly thin flows and individually would be classed as trachites to andesites. Their attitudes vary, but the strike averages N-S, and the dips appear to be to the west. The Mt. Roberts becomes much finer grained in this area, and the bedding is distinct towards the south-west. The attitude noted was a north-westerly strike and a dip of 50 degrees to 65 degrees to the N.E. Porphyritic monzonite appears in the S.W. corner of the May Queen No. 21 and similar outcrops appear to the NE. The Mt. Roberts is mineralized with disseminated pyrite and numerous small pits were put down in it by former prospectors.

Group No. 6

The north half of Group 6 consists of rocks classified under augite porphyry. They appear to be flows of latite of varying composition. Those appearing on the May Queen No. 27 have a dark aphanitic ground with some feldspar laths and blobs. Included pebbles are noted near the Mt. Roberts greenstone contact. In the May Queen Fractions Nos. 20 and 21, the greenstones have a lighter base and the flows from prominently aligned mafic sills to prominently aligned light feldspar sills.

The south half of this group produced Mt. Roberts outcrops with distinct bedding. Along the eastern edge one exposure dips 65 degrees to the N.E. On the west side of the May Queen No. 25 the Mt. Roberts was dipping 30 degrees to the NW. This would indicate an eroded anticline with the axis along what is now the drainage creek (Berry's Creek). In the Upper part of the May Queen No. 21 Fraction an outcrop of diorite porphyrite is noted.

May Queen No. 23 Fr.

On this fraction were found outcrops of Mt. Roberts, augite porphyrite, granodiorite, porphyritic monzonite, and serpentine. The augite porphyrite is similar to the augite porphyrite described above, occupying the north portion of Group 6. The granodiorite was located 1100' north of Baseline "A" on line 20W. It is probably connected with the large granodiorite area just to the north of it. (See Drysdale's map). The Mt. Roberts formation occupies the north portion of the fraction. Bedding at one point showed a NW strike with dip to the S.E. The serpentine, a dull black rock occurs along 18W north of "A" baseline. It has not been noted elsewhere and may be an apophysis of the body located in Sheep Creek Valley. It appears to be intruded into a late Jurassic flow and is therefore younger. The porphyritic monzonite body in Little Sheep Creek Valley. The monzonite lies just to the east of this claim which is the western extremity of the chonolith.

May Queen No. 17 Fraction

Monzonite, augite porphyrite, diorite porphyry, and dike rocks outcrop on this fraction. The line of contact between the monzonite and the augite porphyrite appears to be marked by the small stream running through the property. The diorite porphyry is a fairly large intrusive in the western lobe of the fraction. It also appears along portions of the southern border. Drill holes near the western lobe close to the monzonite contact showed considerable mineralization mostly disseminated pyrite.

Group No. 7

These claims lie in the monzonite area. The Spitzee pulaskite plug just crosses the westerly border and is the typical coarse grained variety with large well formed phenocrysts of light feldspar and hornblende. The granite porphyry tongue noted to the west probably enters the boundary although no outcrops were seen. On the eastern side of the May Queen No. 11 Fraction three outcrops of granodiorite were exposed. If it is intruded into the monzonite as it appears, it would indicate that the granodiorite is the younger of the two formations. To the east of this group, exposed in the Trail road rock cut, is an interesting exposure showing monzonite cut by vertical north-south dikes of granodiorite, diorite porphyry, pulaskite and later dikes.

Wallace R. Baker

STATEMENT OF COSTS IN
 CONNECTION WITH THE
 GEOLOGICAL & GEOPHYSICAL SURVEYS ON THE
MAY QUEEN MINERAL CLAIMS

Rossland Mines Ltd.,
 Rossland, B. C.

1947

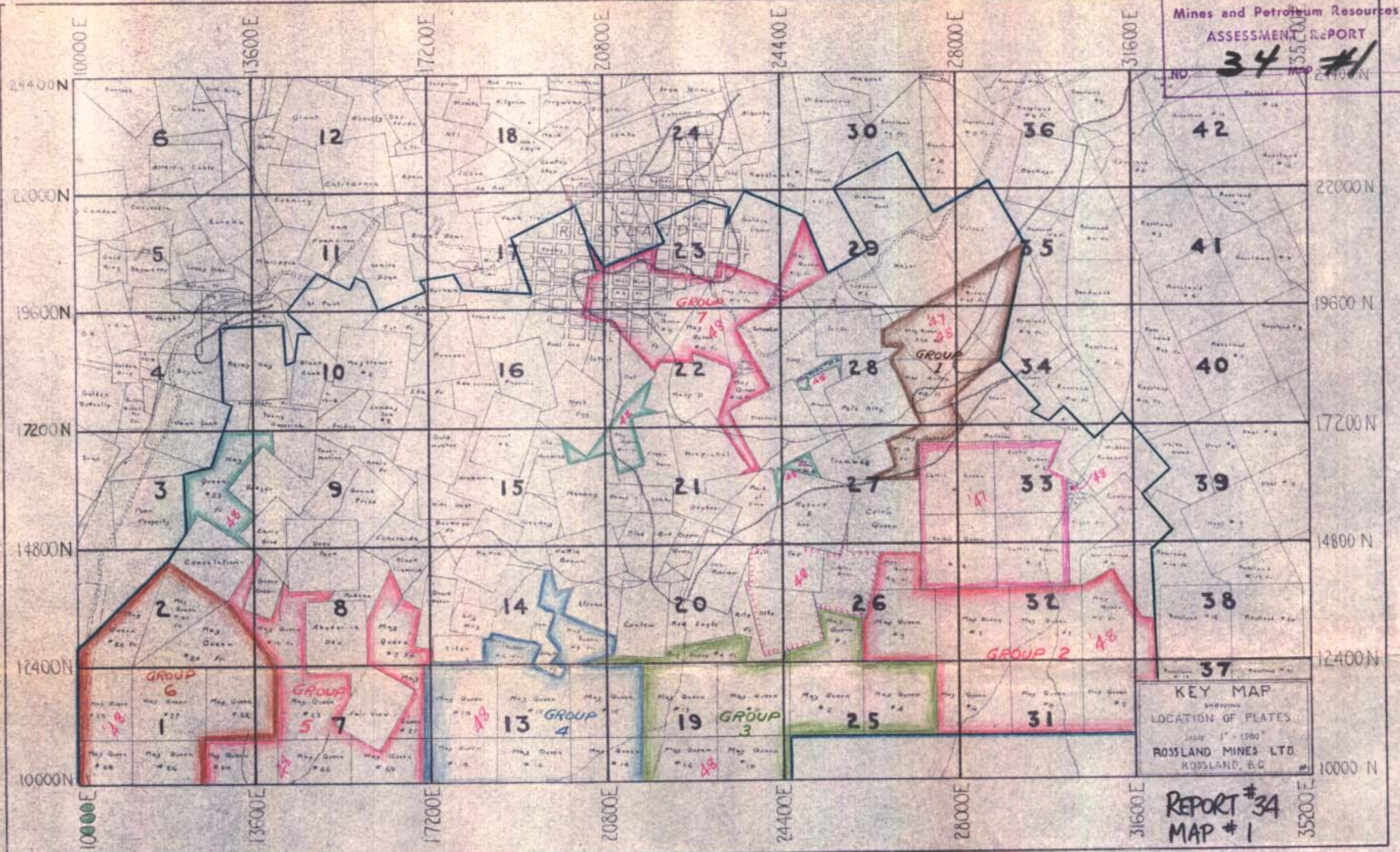
May - Sept.	Student geophysicist - Salary @ \$215.00 per month	\$1018.00
May - Sept.	Geophysicist's assistant @ \$155.00 per month	604.00
May - Sept.	Surveyor & Instrument-man @ \$180.00 per month	768.00
May - Sept.	Surveyor & Instrument-man @ \$180.00 per month	738.00
May - Sept.	Chainman @ \$155.00 per month	585.00
May - Sept.	Geophysicist @ \$480.00 per month	2080.00
May - Sept.	Geophysicist assistant @ \$155.00 per month	687.00
Mar. - Dec.	Engineer @ \$280.00 per month	2800.00
June - Dec.	Geologist @ \$230.00 per month	1610.00
Mar. - Dec.	Six axemen @ \$6.50 per day employed for various periods from one to seven months	3257.00
Mar. - Dec.	Automobile transportation	618.00
Mar. - Dec.	Supervisory Engineer salary	2250.00
		<u>\$17,015.00</u>

On the basis of percentage of total area covered by the surveys, costs applicable to the 56 May Queen Mineral Claims 40% of \$17,015.00 -----	6,806.00
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I hereby certify the above statement of costs to true and correct.

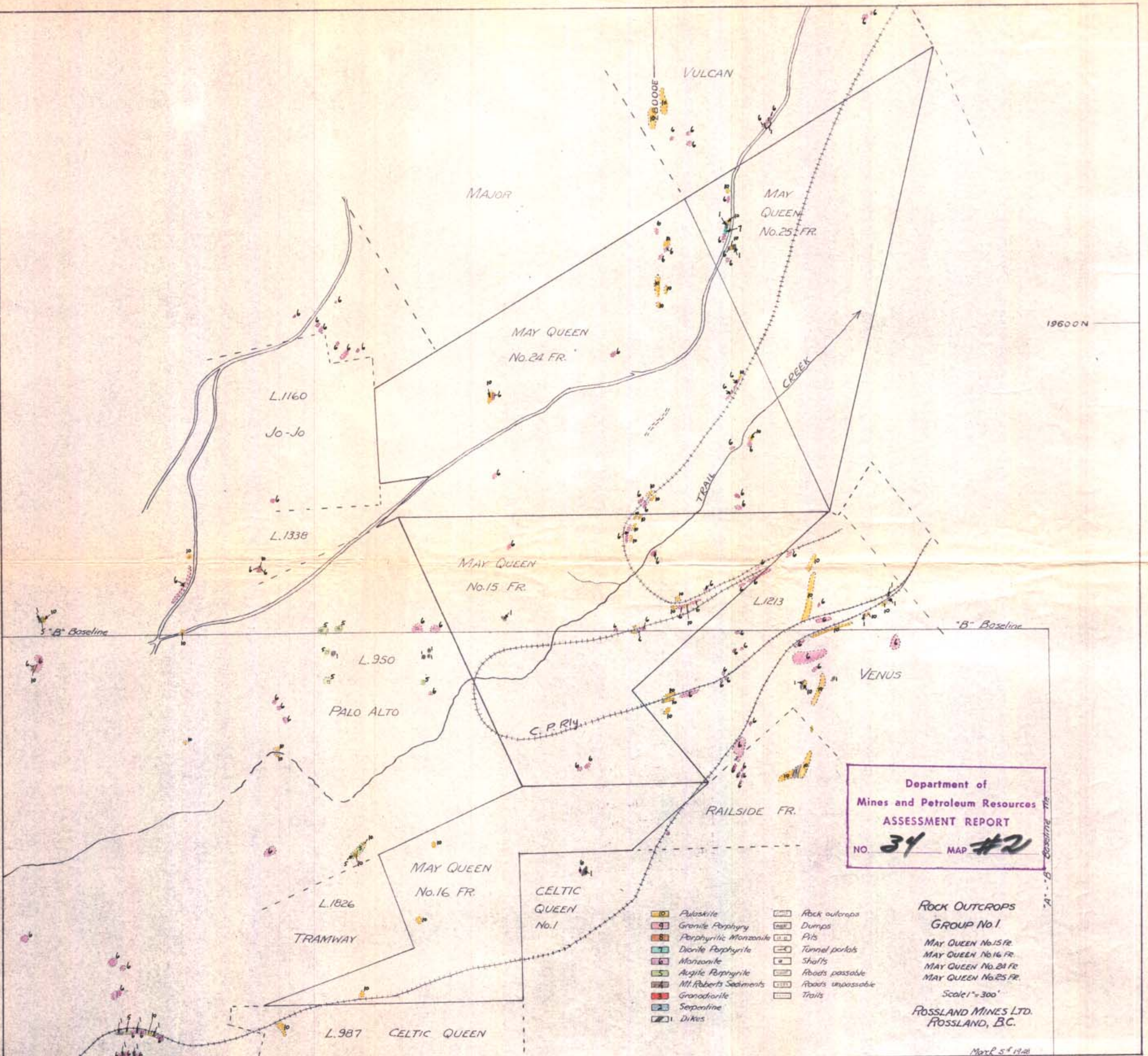
March 16, 1948.

S.G. Bruce
 Engineer for Rossland Mines Ltd.



KEY MAP
SHOWING
LOCATION OF PLATES
Scale 1" = 1500'
ROSSLAND MINES LTD.
ROSSLAND, B.C.

REPORT #34
MAP #1



19600N

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. **34** MAP **#2**

- | | |
|-----------------------|------------------|
| Palaskite | Rock outcrops |
| Granite Porphyry | Dumps |
| Porphyritic Monzonite | Pits |
| Diorite Porphyry | Tunnel portals |
| Monzonite | Shafts |
| Augite Porphyry | Roads passable |
| Mt. Roberts Sediments | Roads unpassable |
| Granodiorite | Trails |
| Serpentine | |
| Dikes | |

ROCK OUTCROPS
GROUP No. 1
MAY QUEEN No. 15 FR.
MAY QUEEN No. 16 FR.
MAY QUEEN No. 24 FR.
MAY QUEEN No. 25 FR.
Scale 1" = 300'

ROSSLAND MINES LTD.
ROSSLAND, B.C.

Mar. 25th 1948

L.987

14800N

LITTLE BESS

MAY QUEEN No.2 FR.

CELTIC QUEEN No.2

CELTIC QUEEN No.3

LITTLE JACK FR.

WOLVERINE No.2

MAY QUEEN No.3

MAY QUEEN No.5

MAY QUEEN No.7

MAY QUEEN No.3 FR.

12400N

MAY QUEEN No.6

MAY QUEEN No.8

MAY QUEEN No.9

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. **34** N. **#3**

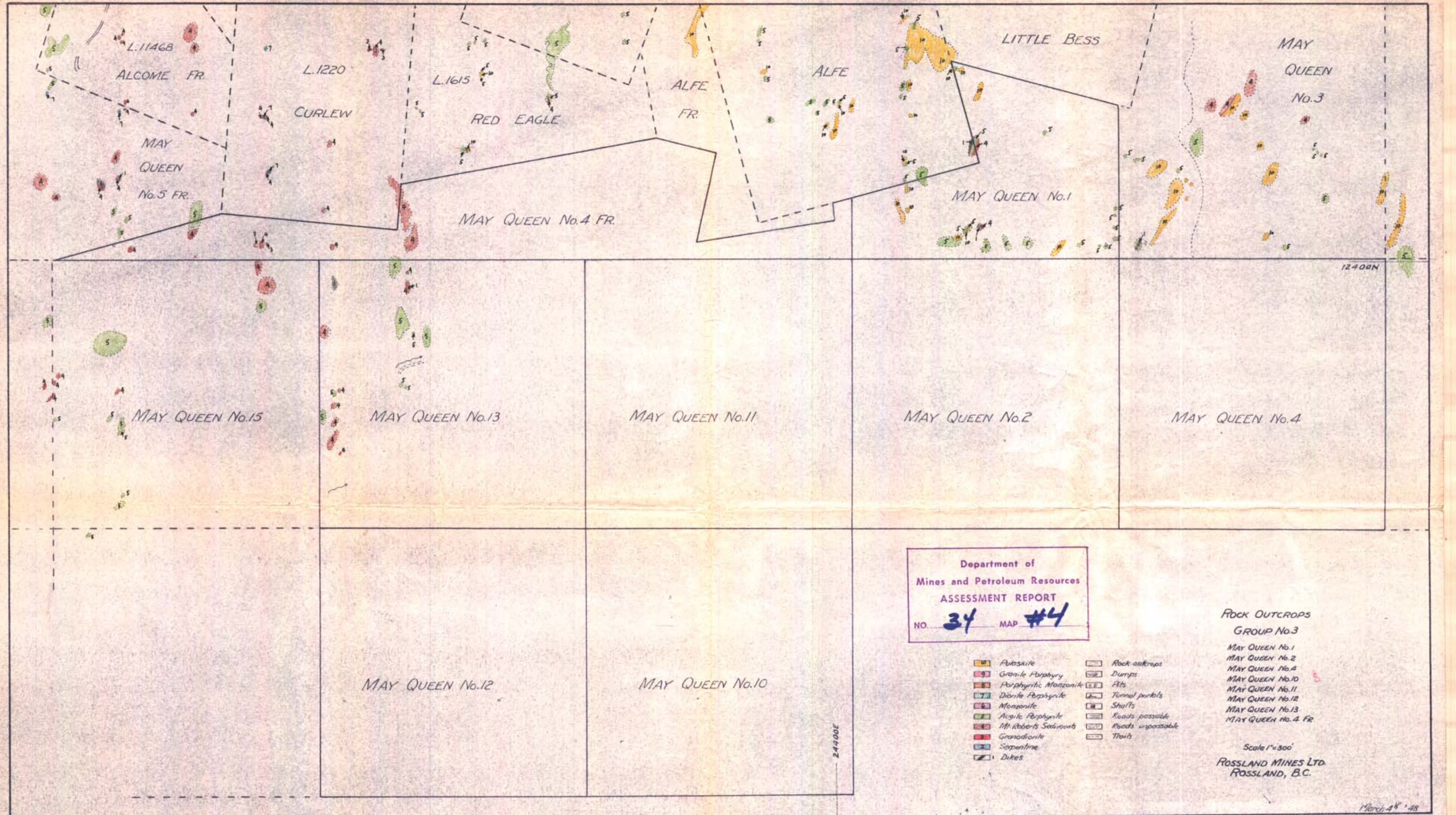
- | | |
|-----------------------|------------------|
| Palaskite | Rock outcrops |
| Granite Porphyry | Dumps |
| Porphyritic Monzonite | Pits |
| Diabase Porphyry | Tunnel portals |
| Monzonite | Shafts |
| Augite Porphyry | Roads passable |
| Mt. Roberts Sediments | Roads impassable |
| Granodiorite | Trails |
| Serpentine | |
| Dikes | |

ROCK OUTCROPS
GROUP No.2
MAY QUEEN No.3
MAY QUEEN No.5
MAY QUEEN No.6
MAY QUEEN No.7
MAY QUEEN No.8
MAY QUEEN No.9
MAY QUEEN No.2 FR.
MAY QUEEN No.3 FR.
Scale 1" = 300'

ROSSLAND MINES LTD.
ROSSLAND, B.C.

March 5th 1948

28000E

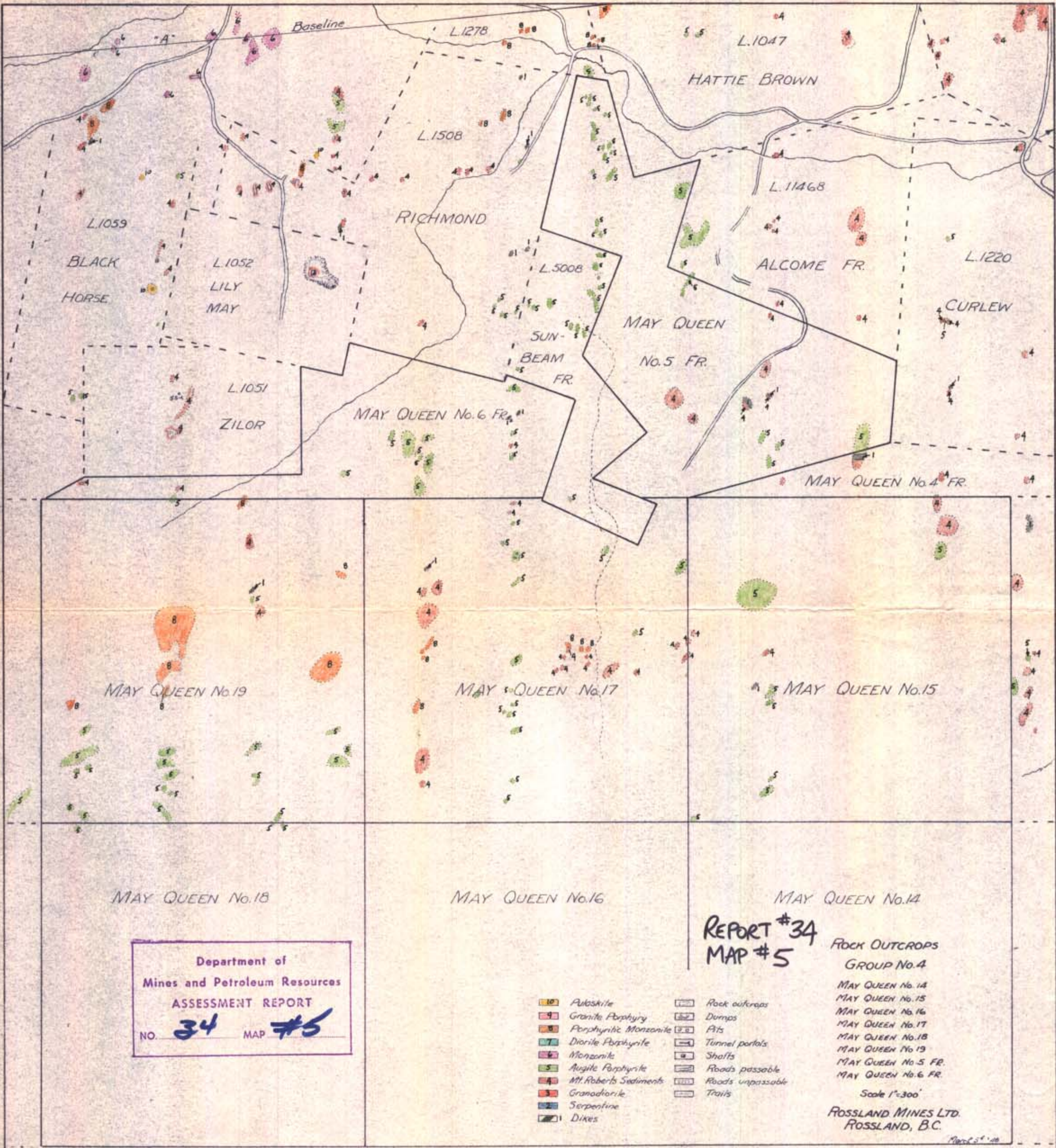


Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. **34** MAP **#4**

- | | |
|-----------------------|------------------|
| Andesite | Rock outcrops |
| Granite Porphyry | Dumps |
| Porphyritic Monzonite | Pits |
| Diorite Porphyry | Tunnel portals |
| Monzonite | Shafts |
| Andite Porphyry | Roads passable |
| Mt. Roberts Sediments | Roads impassable |
| Granodiorite | Trails |
| Serpentine | |
| Dikes | |

**Rock Outcrops
GROUP No.3**
MAY QUEEN No.1
MAY QUEEN No.2
MAY QUEEN No.4
MAY QUEEN No.10
MAY QUEEN No.11
MAY QUEEN No.12
MAY QUEEN No.13
MAY QUEEN No.4 FR.

Scale 1"=300'
ROSSLAND MINES LTD.
ROSSLAND, B.C.



Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. **34** MAP **#5**

- | | |
|-----------------------|------------------|
| Allostrite | Rock outcrops |
| Granite Porphyry | Dumps |
| Porphyritic Monzonite | Pits |
| Diorite Porphyry | Tunnel portals |
| Monzonite | Shafts |
| Argillite Porphyry | Roads passable |
| Mt. Roberts Sediments | Roads unpassable |
| Granodiorite | Trails |
| Serpentine | |
| Dikes | |

REPORT #34
MAP #5

ROCK OUTCROPS
GROUP No. 4
 MAY QUEEN No. 14
 MAY QUEEN No. 15
 MAY QUEEN No. 16
 MAY QUEEN No. 17
 MAY QUEEN No. 18
 MAY QUEEN No. 19
 MAY QUEEN No. 5 FR.
 MAY QUEEN No. 6 FR.

Scale 1"=300'

ROSSLAND MINES LTD.
 ROSSLAND, B.C.

Map 25-48

14800N

L.1282

CAMP BIRD

L.932

L.1444

"A" Baseline

L.1694

17200E

CONSOLATION

L.1232

DEER PARK

MODENA

BLACK DIAMOND

L.1059

GREEN CROWN

MAY QUEEN

L.1493

BLACK HORSE

MAY QUEEN No.20 FR.

No.19 FR.

RHODERICK DHU

MAY QUEEN No.7 FR.

L.1051

MAY QUEEN No.25

MAY QUEEN No.23

L.1058

FAIRVIEW

MAY QUEEN No.21

MAY QUEEN No.24

MAY QUEEN No.22

MAY QUEEN No.20

REPORT #34
MAP #6

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. **34** MAP **#6**

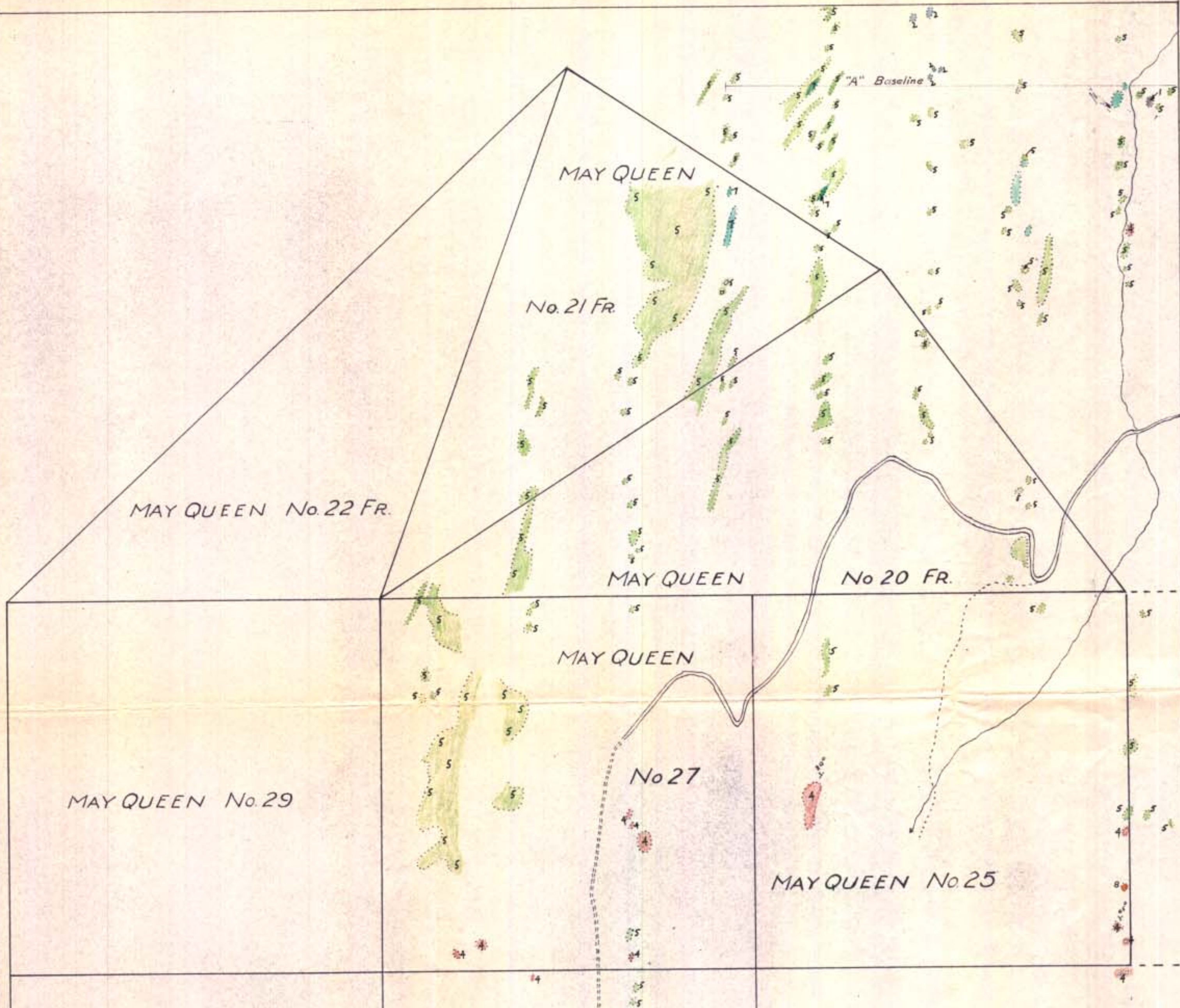
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|-----------------------|------------------|
| Pitaskite | Rock outcrops |
| Granite Porphyry | Dumps |
| Porphyritic Monzonite | Pits |
| Diorite Porphyry | Tunnel portals |
| Monzonite | Shafts |
| Argillite Porphyry | Roads passable |
| Mt Roberts Sediments | Roads unpassable |
| Granodiorite | Trails |
| Serpentine | |
| Dikes | |

ROCK OUTCROPS
GROUP No.5
MAY QUEEN No.20
" " " " No.21
" " " " No.22
" " " " No.23
" " " " No.24
" " " " No.7 FR.
" " " " No.19 FR.

Scale 1" = 300'

ROSSLAND MINES LTD.
ROSSLAND, B.C.

March, 25th 1948



MAY QUEEN No. 29

MAY QUEEN No. 28

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. **34** MAP **#7**

MAY QUEEN

No. 26

- Pulaskite
- Granite Porphyry
- Porphyritic Mansonite
- Diorite Porphyrite
- Mansonite
- Augite Porphyrite
- Mt. Roberts Sediments
- Granodiorite
- Serpentine
- Dikes

- Rock outcrops
- Dumps
- Pits
- Tunnel portals
- Shafts
- Roads passable
- Roads unpassable
- Trails

REPORT #34
MAP #7

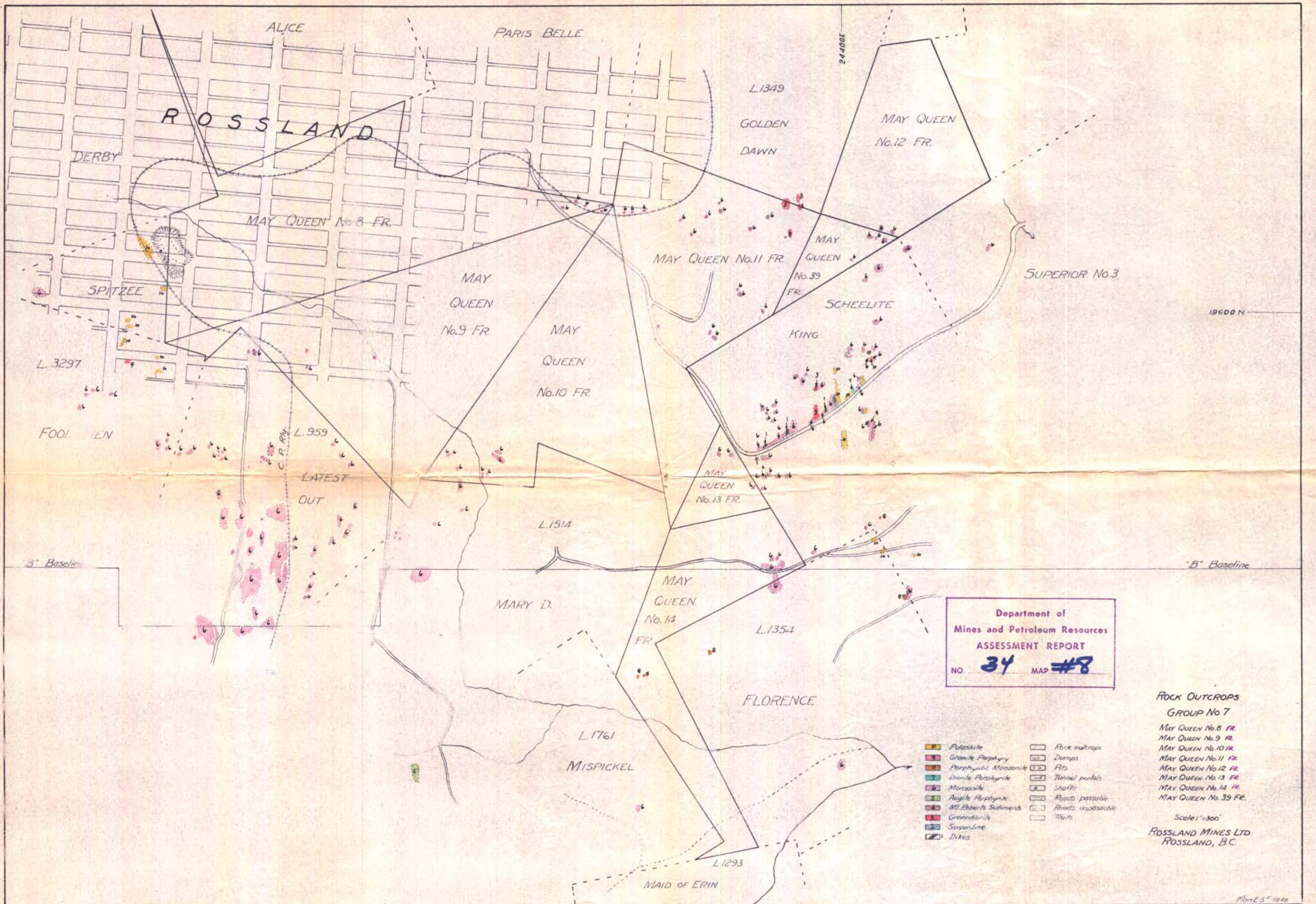
ROCK OUTCROPS

GROUP No. 6

- MAY QUEEN No. 25
- MAY QUEEN No. 26
- MAY QUEEN No. 27
- MAY QUEEN No. 28
- MAY QUEEN No. 29
- MAY QUEEN No. 20 FR.
- MAY QUEEN No. 21 FR.
- MAY QUEEN No. 22 FR.

Scale 1"=300'

ROSSLAND MINES LTD
ROSSLAND, B.C.



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. **34** MAP **#8**

- | | |
|-----------------------|------------------|
| Pulaskite | Rock outcrops |
| Granite Porphyry | Dumps |
| Porphyritic Monzonite | Pits |
| Diorite Porphyry | Tunnel portals |
| Monzonite | Shafts |
| Anisite Porphyry | Roads passable |
| Mt. Roberts Sediments | Roads impassable |
| Serpentine | Trails |
| Dikes | |

- ROCK OUTCROPS
GROUP No 7
MAY QUEEN No. 8 FR.
MAY QUEEN No. 9 FR.
MAY QUEEN No. 10 FR.
MAY QUEEN No. 11 FR.
MAY QUEEN No. 12 FR.
MAY QUEEN No. 13 FR.
MAY QUEEN No. 14 FR.
MAY QUEEN No. 39 FR.

Scale 1"=300'
ROSSLAND MINES LTD
ROSSLAND, B.C.

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 34
MAP # 9

REPORT # 34
MAP # 9

CELTIC QUEEN
No. 2

CELTIC QUEEN
No. 3

L. 1187

L. 930

R. LEE

HIDDEN
TREASURE

MAY
QUEEN
No. 1
FR.

LITTLE
JACK
FR.

"A" Baseline

TIGER
FR.

- | | |
|-----------------------|-------------------|
| Pulaskite | Rock outcrops |
| Granite Porphyry | Dumps |
| Porphyritic Monzonite | Pits |
| Diorite Porphyrite | Tunnel portals |
| Monzonite | Shafts |
| Augite Porphyrite | Road's passable |
| Mt. Roberts Sediments | Road's unpassable |
| Granodiorite | Trails |
| Serpentine | |
| Dikes | |

ROCK OUTCROPS

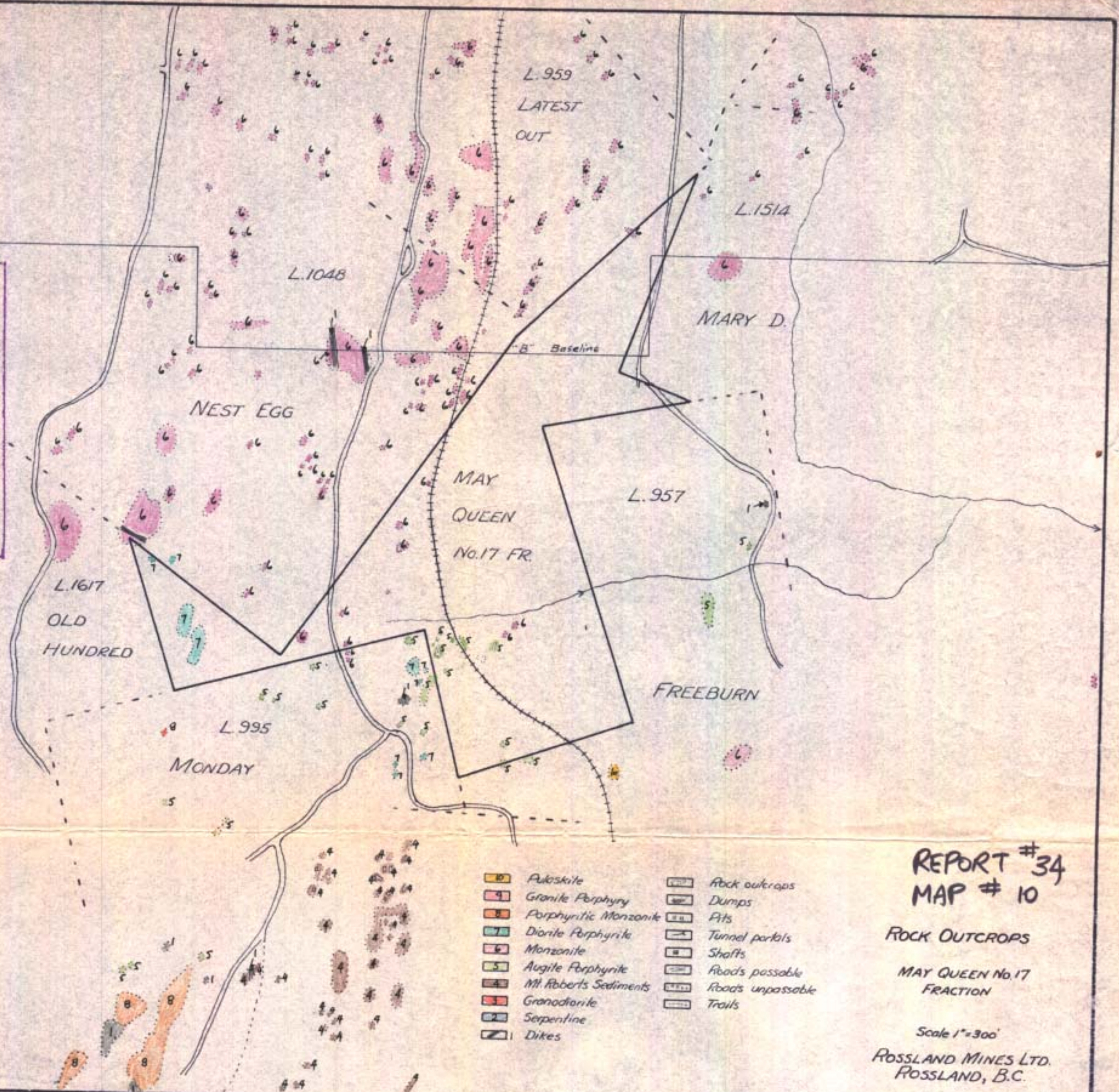
MAY QUEEN No. 1
FRACTION

Scale 1" = 300'

ROSSLAND MINES LTD.
ROSSLAND, B.C.

March 5th 1948

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 34 MAP #10



- | | |
|-----------------------|------------------|
| Andesite | Rock outcrops |
| Granite Porphyry | Dumps |
| Porphyritic Monzonite | Pits |
| Diorite Porphyrite | Tunnel portals |
| Monzonite | Shafts |
| Augite Porphyrite | Roads passable |
| Mt. Roberts Sediments | Roads unpassable |
| Granodiorite | Trails |
| Serpentine | |
| Dikes | |

REPORT #34
MAP #10

ROCK OUTCROPS

MAY QUEEN No.17
FRACTION

Scale 1"=300'

ROSSLAND MINES LTD.
ROSSLAND, B.C.

March 26 1948

L. 13116

L. 1233

UNION JACK

Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. **34** MAP **#11**

MAY
 QUEEN
 No. 23 FR.

BADGER

CONSOLATION

CAMP BIRD

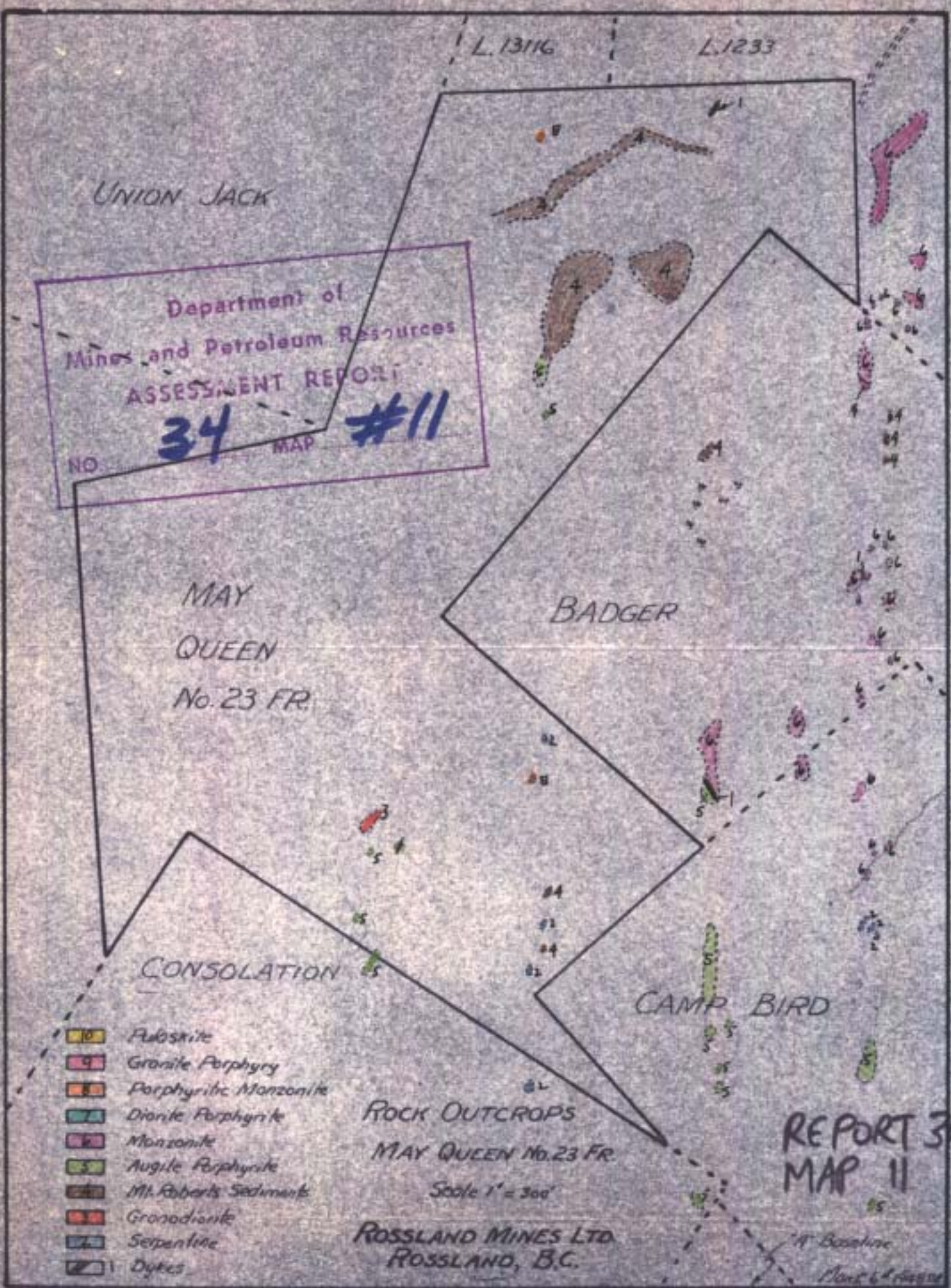
-  10 Pulaskite
-  4 Granite Porphyry
-  8 Porphyritic Monzonite
-  2 Diorite Porphyryite
-  9 Monzonite
-  5 Augite Porphyryite
-  3 Mt. Roberts Sediments
-  6 Granodiorite
-  7 Serpentinite
-  1 Dykes

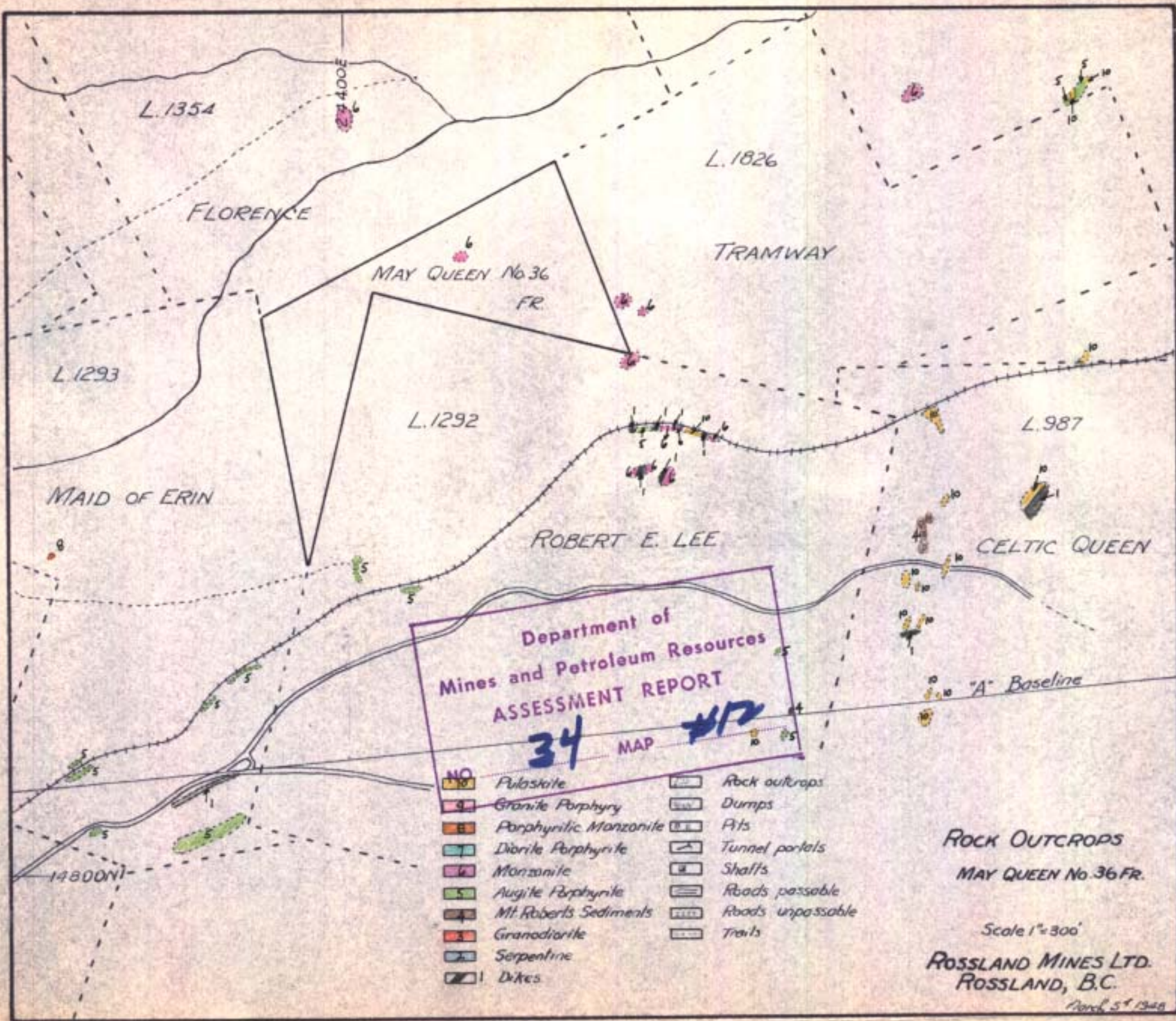
ROCK OUTCROPS
 MAY QUEEN No. 23 FR.
 Scale 1" = 300'

ROSSLAND MINES LTD.
 ROSSLAND, B.C.

REPORT 34
 MAP 11

1/4 Baseline
 Map 64-10000





L. 1354

L. 1826

FLORENCE

TRAMWAY

MAY QUEEN No 36 FR.

L. 1293

L. 1292

L. 987

MAID OF ERIN

ROBERT E. LEE

CELTIC QUEEN

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

34

MAP

#12

NO	10	Porphyry	Rock outcrops
9	Granite Porphyry	Dumps	
8	Porphyritic Monzonite	Pits	
7	Diorite Porphyry	Tunnel portals	
6	Monzonite	Shafts	
5	Augite Porphyry	Roads passable	
4	Mt Roberts Sediments	Roads unpassable	
3	Granodiorite	Trails	
2	Serpentine		
1	Dikes		

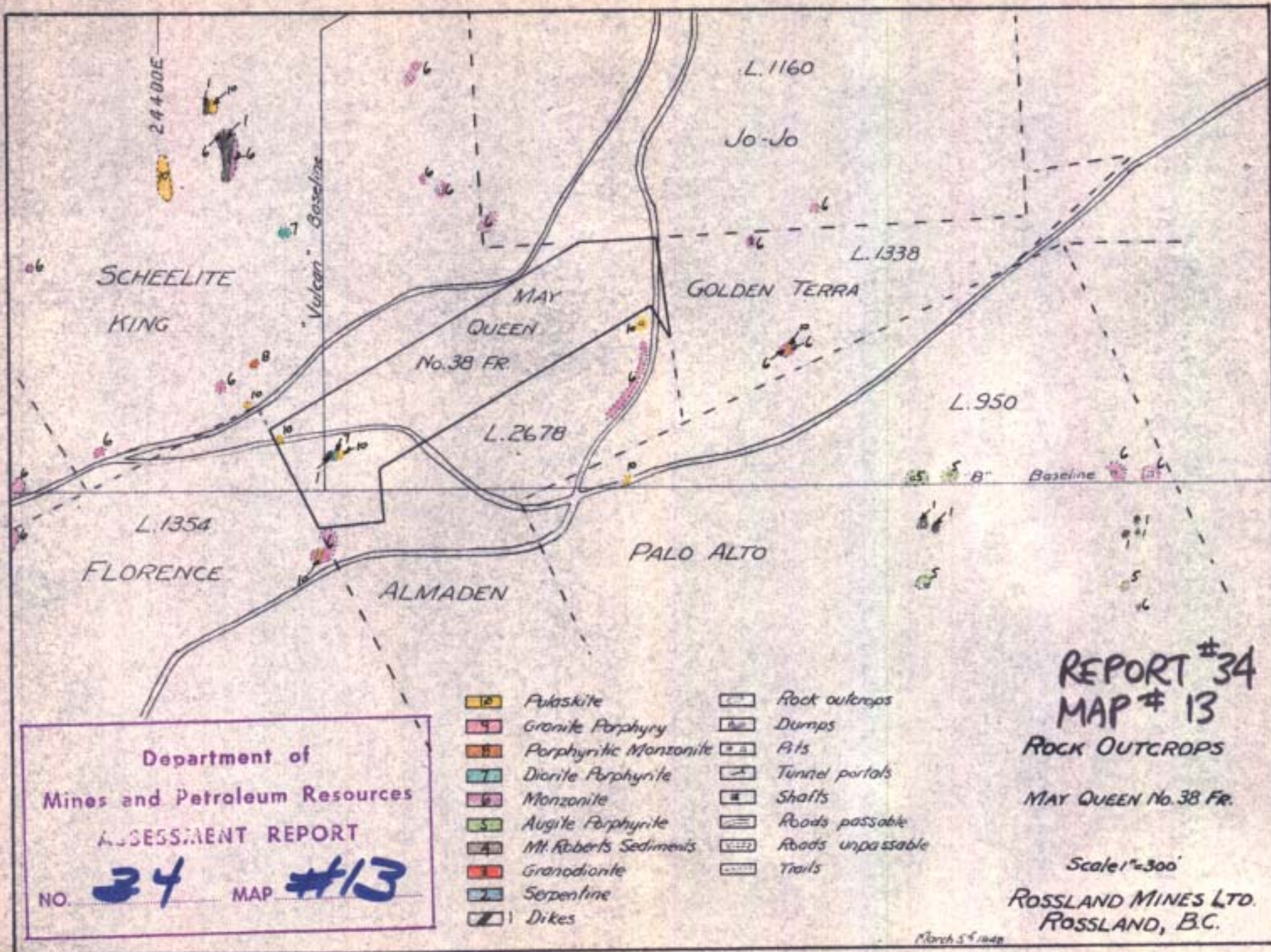
ROCK OUTCROPS

MAY QUEEN No. 36 FR.

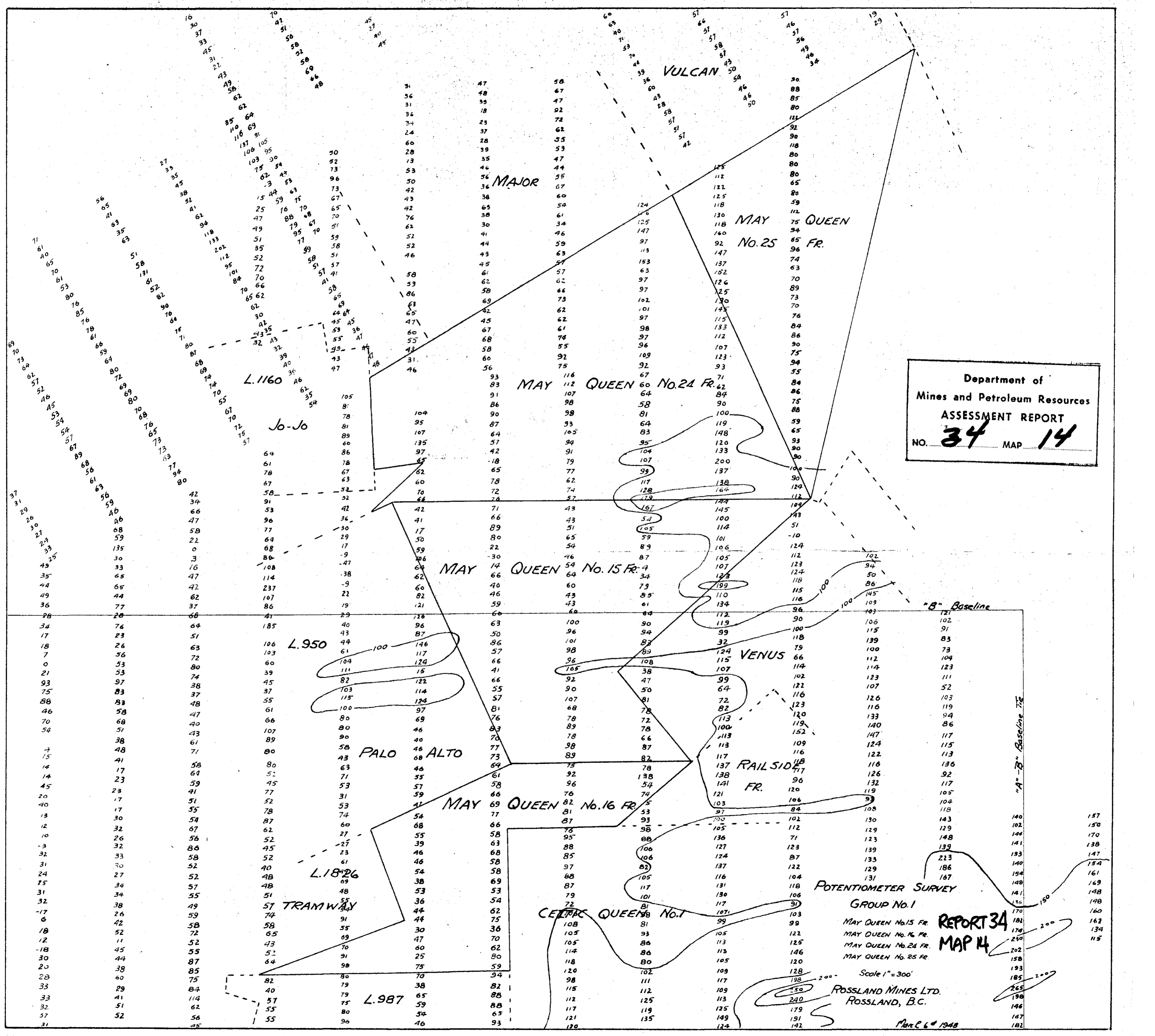
Scale 1" = 300'

ROSSLAND MINES LTD.
ROSSLAND, B.C.

Nov. 5, 1948



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. **34** MAP **14**

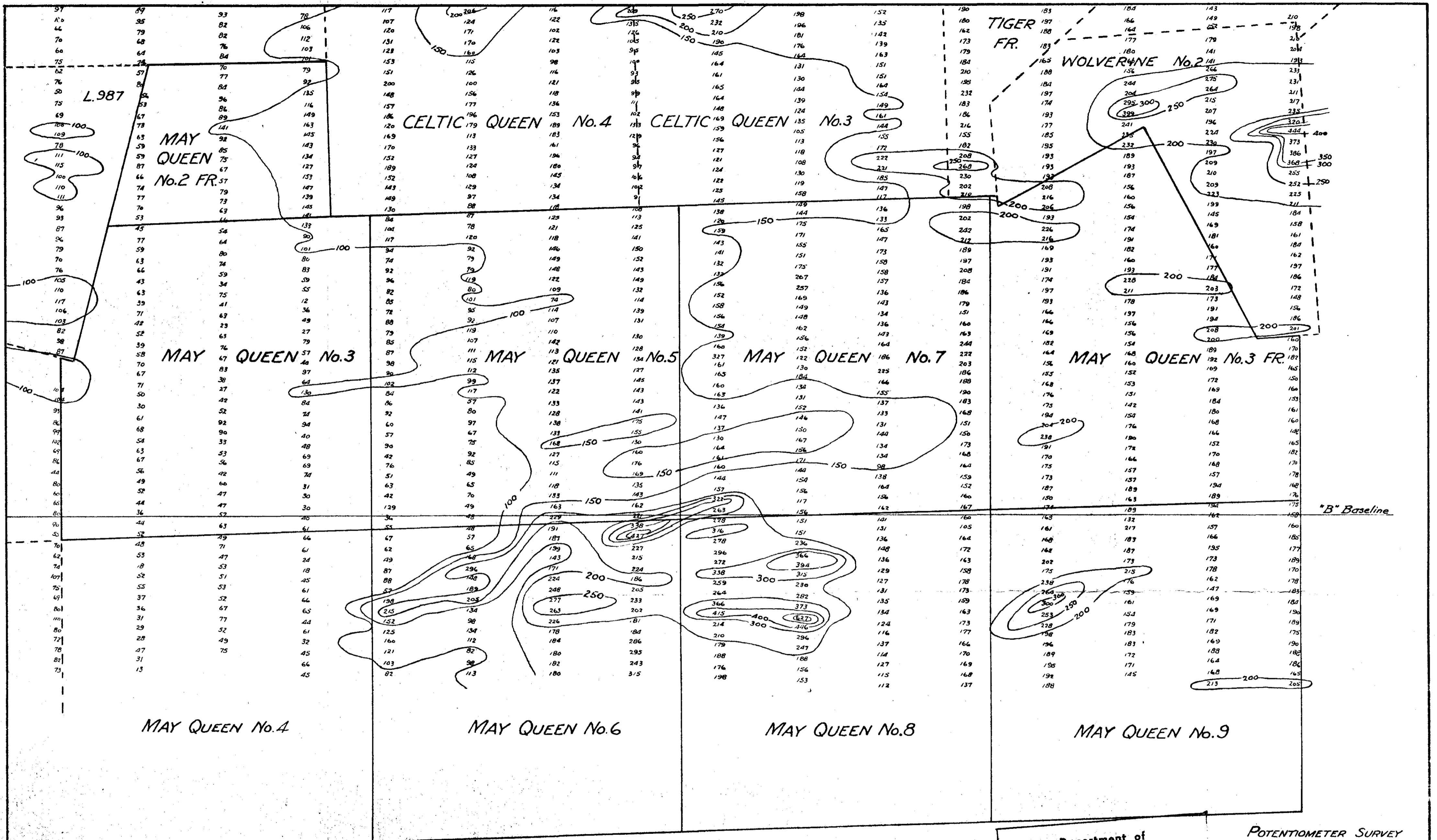


POTENTIOMETER SURVEY
GROUP No. 1
MAY QUEEN No. 15 FR.
MAY QUEEN No. 16 FR.
MAY QUEEN No. 24 FR.
MAY QUEEN No. 25 FR.

REPORT 34
MAP 14

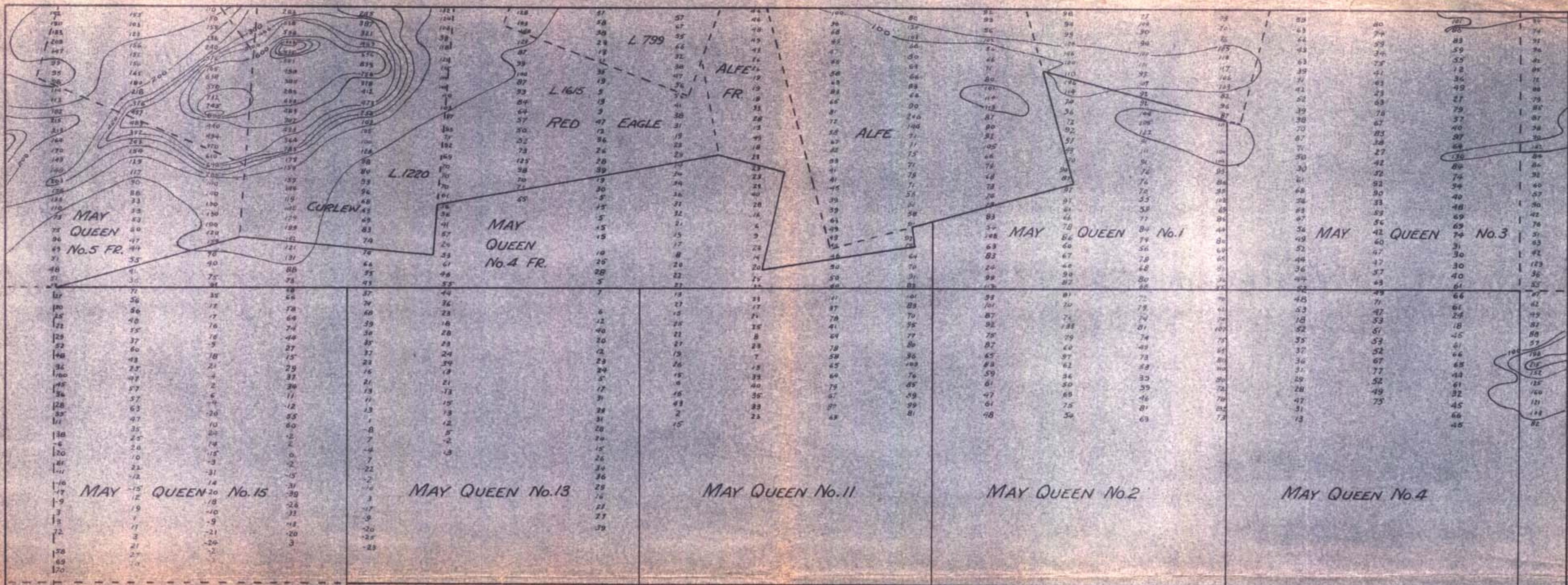
Scale 1" = 300'
ROSSLAND MINES LTD.
ROSSLAND, B.C.

Mar 26 1948



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. **37** MAP # **15**

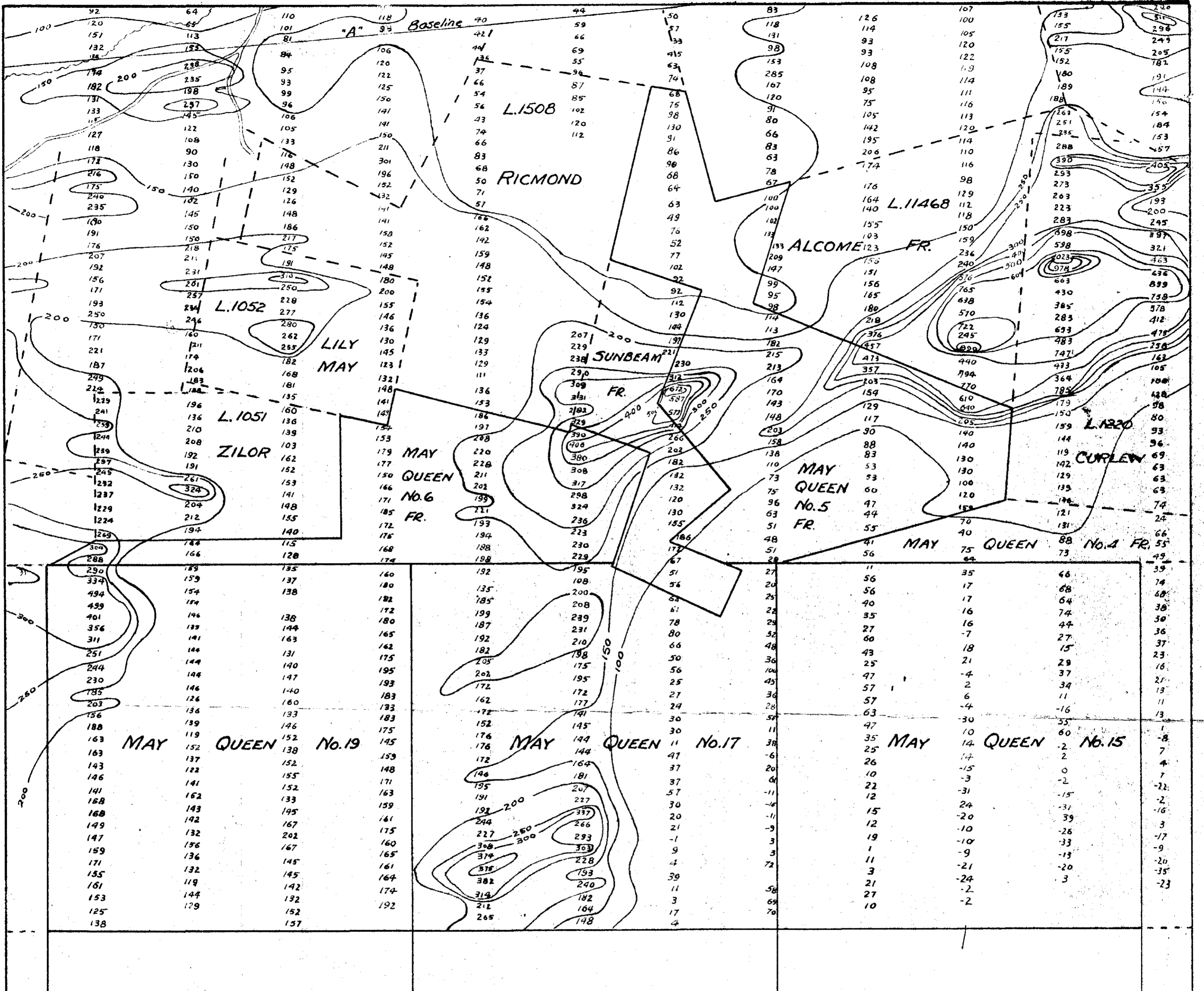
POTENTIOMETER SURVEY
GROUP No. 2
MAY QUEEN No. 3
" " No. 5
" " No. 6
" " No. 7
" " No. 8
" " No. 9
" " No. 2 FR.
" " No. 3 FR.
Scale 1" = 300'
ROSSLAND MINES LTD.
ROSSLAND, B.C.



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 34 MAR. 1966

POTENTIOMETER SURVEY
GROUP No. 3
MAY QUEEN No. 1
MAY QUEEN No. 2
MAY QUEEN No. 4
MAY QUEEN No. 10
MAY QUEEN No. 11
MAY QUEEN No. 12
MAY QUEEN No. 13
MAY QUEEN No. 14 FR.

Scale 1" = 300'
ROSSLAND MINES LTD.
ROSSLAND, B.C.



MAY QUEEN No. 18

MAY QUEEN No. 16

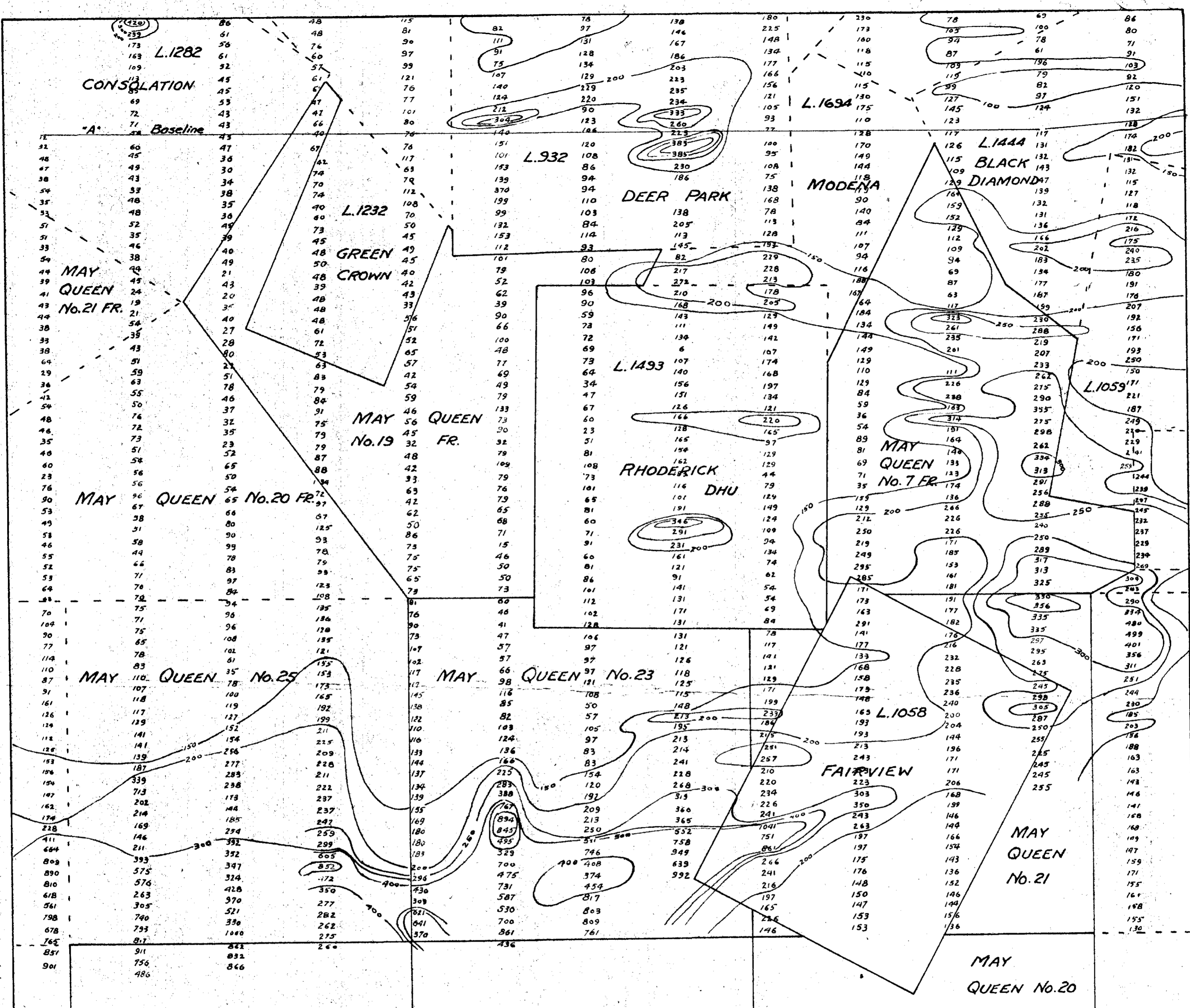
MAY QUEEN No. 14

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 34 MAP #17

POTENTIOMETER SURVEY
GROUP No. 4
MAY QUEEN No. 14
MAY QUEEN No. 15
MAY QUEEN No. 16
MAY QUEEN No. 17
MAY QUEEN No. 18
MAY QUEEN No. 19
MAY QUEEN No. 5 FR.
MAY QUEEN No. 6 FR.

Scale 1" = 300'
ROSSLAND MINES LTD.
ROSSLAND, B.C.

March 5th 1948

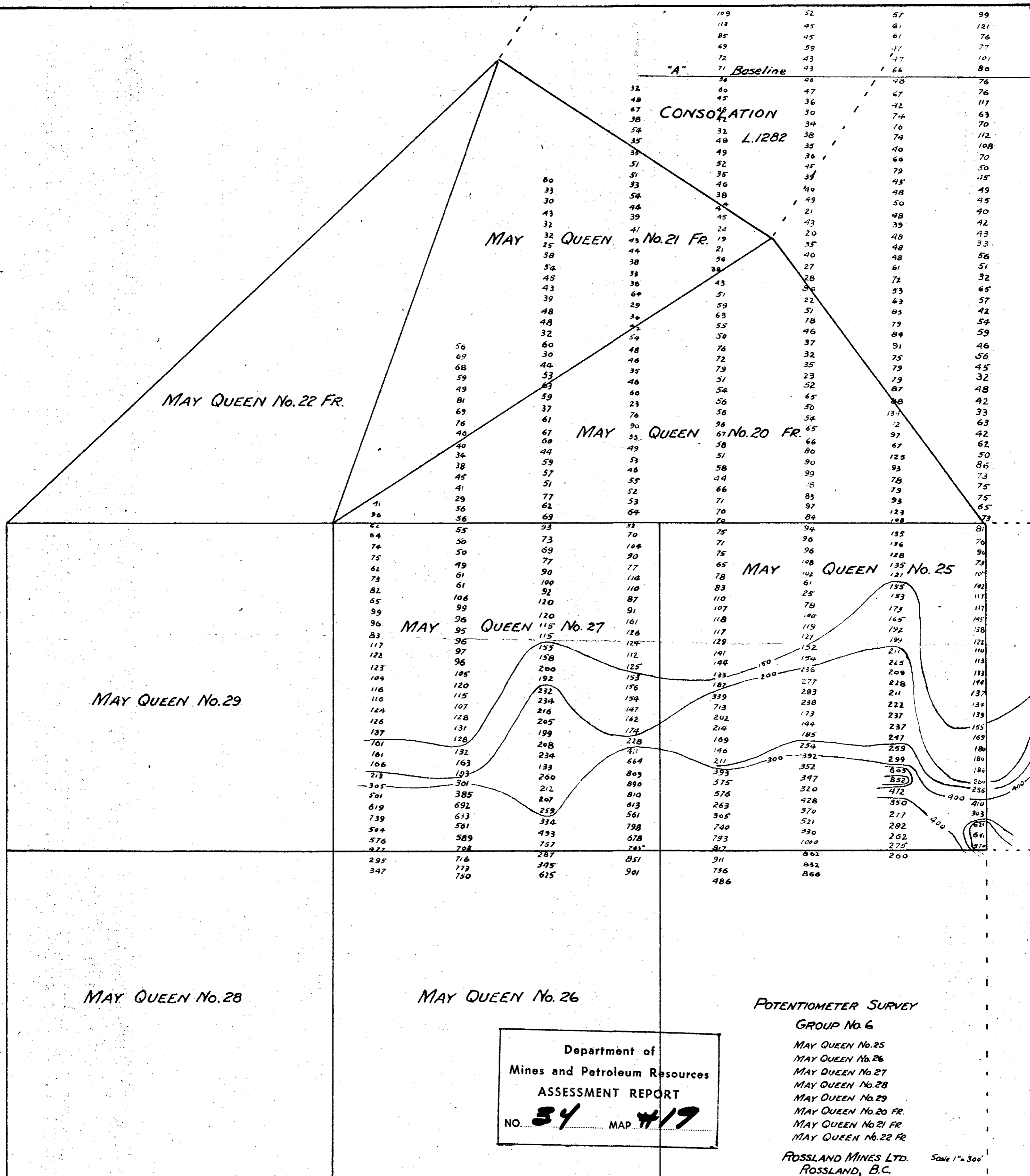


POTENTIOMETER SURVEY
 GROUP No. 5
 MAY QUEEN No. 20
 MAY QUEEN No. 21
 MAY QUEEN No. 22
 MAY QUEEN No. 23
 MAY QUEEN No. 24
 MAY QUEEN No. 7 FR.
 MAY QUEEN No. 19 FR.

Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. 34 MAP #18

Scale 1" = 300'
 ROSSLAND MINES LTD.
 ROSSLAND, B.C.

March 5th 1948



"A" Baseline

CONSORTATION
 L.1282

MAY QUEEN No. 21 FR.

MAY QUEEN No. 20 FR.

MAY QUEEN No. 25

MAY QUEEN No. 27

MAY QUEEN No. 29

MAY QUEEN No. 28

MAY QUEEN No. 26

POTENTIOMETER SURVEY

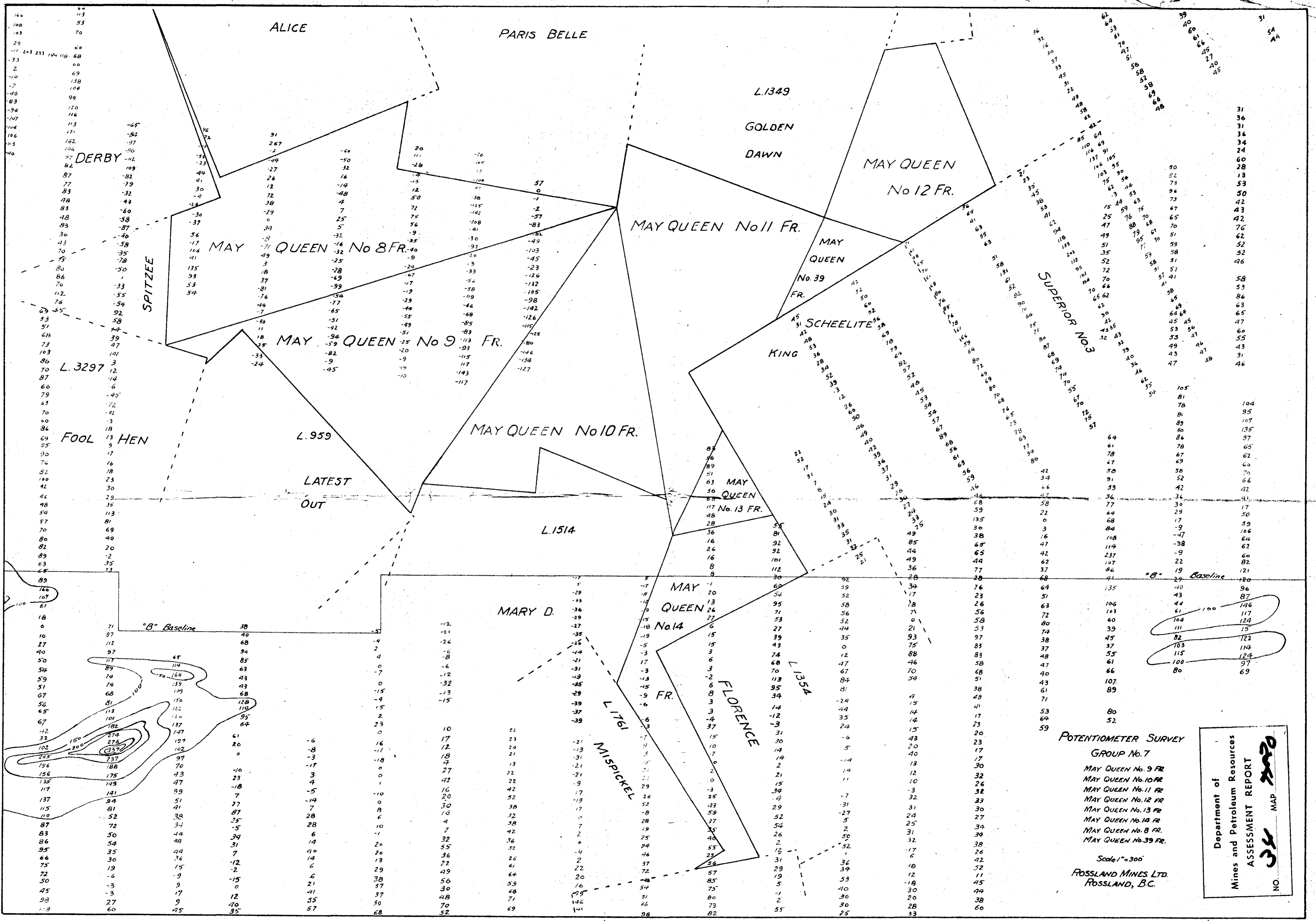
GROUP No. 6

MAY QUEEN No. 25
 MAY QUEEN No. 26
 MAY QUEEN No. 27
 MAY QUEEN No. 28
 MAY QUEEN No. 29
 MAY QUEEN No. 20 FR.
 MAY QUEEN No. 21 FR.
 MAY QUEEN No. 22 FR.

ROSSLAND MINES LTD.
 ROSSLAND, B.C.

Scale 1" = 300'

March 6, 1948



POTENTIOMETER SURVEY
 GROUP No. 7
 MAY QUEEN No. 9 FR.
 MAY QUEEN No. 10 FR.
 MAY QUEEN No. 11 FR.
 MAY QUEEN No. 12 FR.
 MAY QUEEN No. 13 FR.
 MAY QUEEN No. 14 FR.
 MAY QUEEN No. 8 FR.
 Scale 1" = 300'
 ROSSLAND MINES LTD.
 ROSSLAND, B.C.

Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 MAP
 NO. 34

Department of
Mines and Petroleum Resources

ASSESSMENT REPORT

NO. **34** MAP **#21**

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CELTIC

QUEEN

CELTIC

QUEEN

No.3

R. LEE

May Queen

No.1 Fr.

TIGER

Baseline

FR.

POTENTIOMETER SURVEY

MAY QUEEN No.1
FRACTION

Scale 1" = 300'

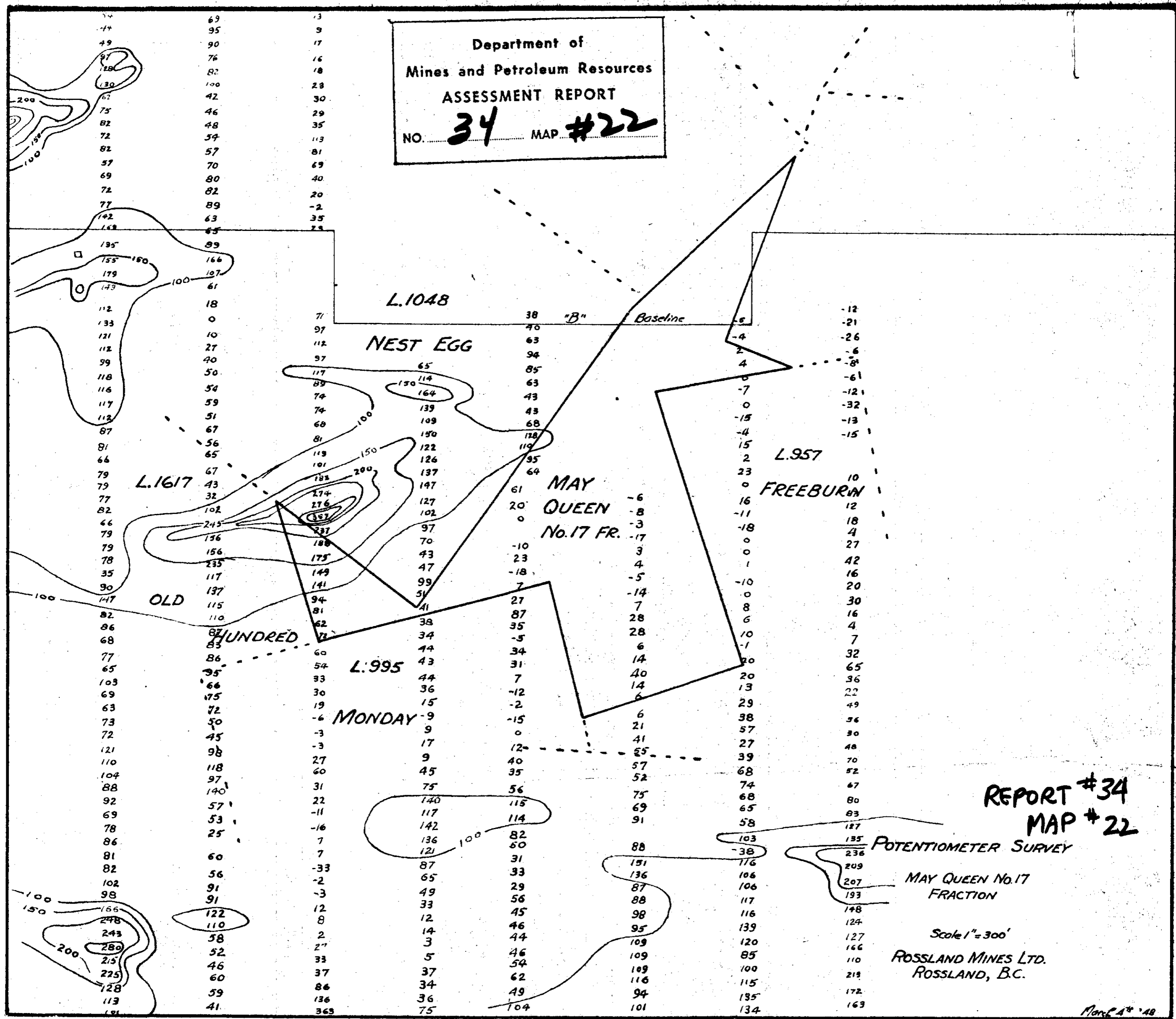
ROSSLAND MINES LTD.
ROSSLAND, B.C.

REPORT 34
MAP 21

Mar 24 1968

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. **34** MAP #22



REPORT #34
MAP #22

POTENTIOMETER SURVEY

MAY QUEEN No. 17
FRACTION

Scale 1" = 300'

ROSSLAND MINES LTD.
ROSSLAND, B.C.

March 4th '48

L. 1316

L. 1233

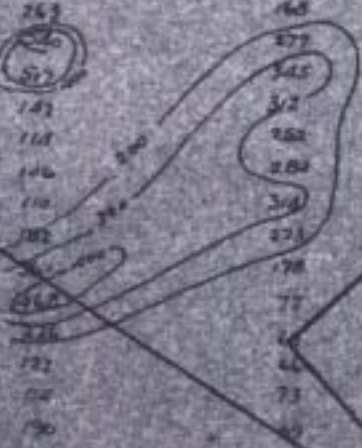
UNION JACK

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO 34 MAP #23

MAY
QUEEN
No. 23 FR.

BADGER



CONSOLATION

CAMP BIRD

POTENTIOMETER
SURVEY
MAY QUEEN No. 23 FR
Scale 1" = 300'

ROSSLAND MINES LTD
ROSSLAND, B.C.

REP. # 34
MAP # 23

March 6, 1958

Department of
Mines and Petroleum Resources

ASSESSMENT REPORT

NO. **37** MAP # **24**

L.1826

TRAMWAY

L.987

CELTIC QUEEN

"A" Baseline

REPORT #34
MAP #24

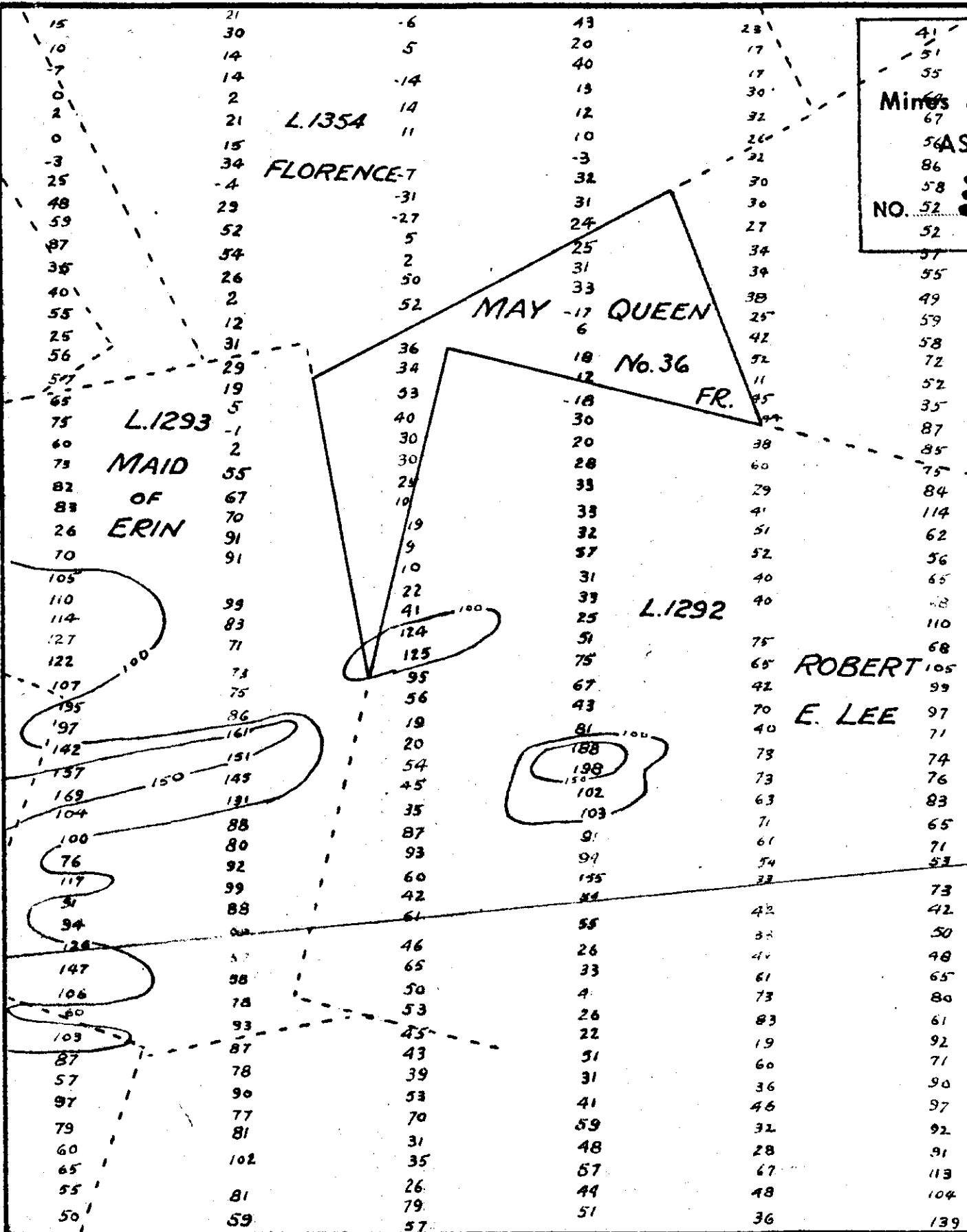
POTENTIOMETER SURVEY

MAY QUEEN No.36 Fr.

Scale 1"=300'

ROSSLAND MINES LTD.
ROSSLAND, B.C.

Mar 24 1948



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L.1354

FLORENCE-T

MAY QUEEN

No.36

FR.

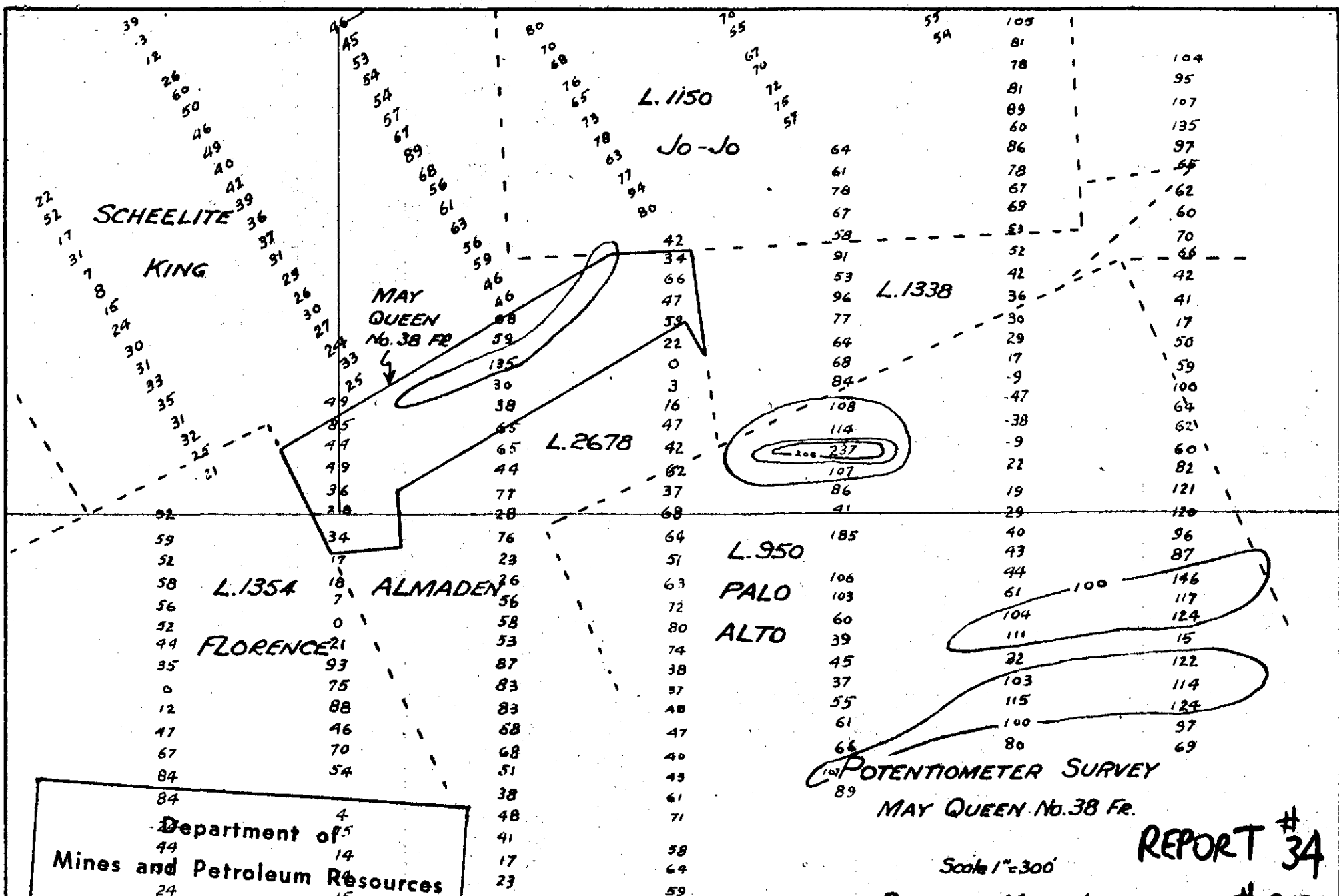
L.1293

MAID OF ERIN

L.1292

ROBERT

E. LEE



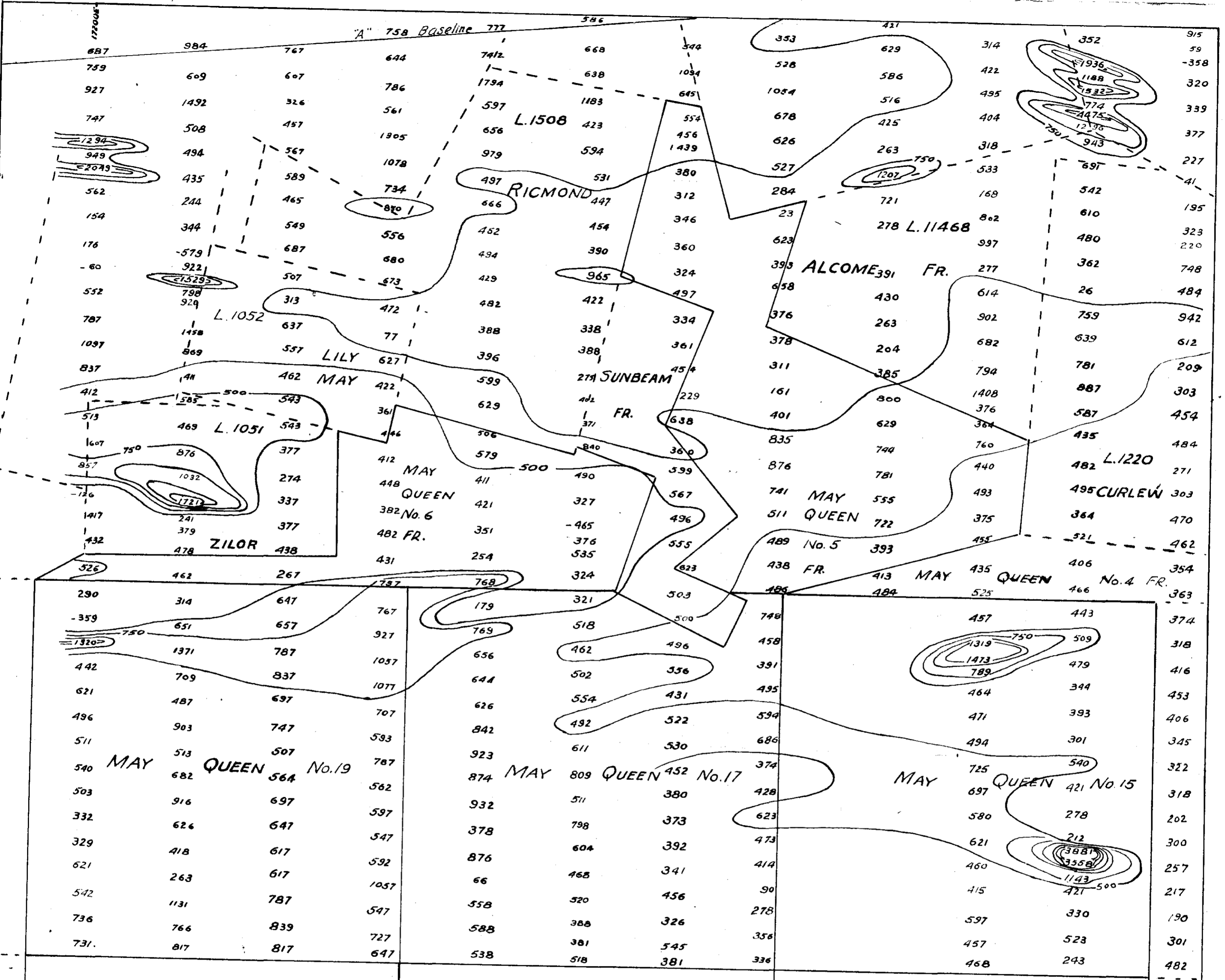
Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. **34** MAP **#25**

POTENTIOMETER SURVEY
 MAY QUEEN No. 38 Fr.

Scale 1" = 300'
 ROSSLAND MINES LTD.
 ROSSLAND, B.C.

REPORT # 34
 MAP # 25

Map 43 '48



MAY QUEEN No. 18

MAY QUEEN No. 16

MAY QUEEN No. 14

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. **34** MAP **#26**

MAGNETOMETER SURVEY

GROUP No 4

- MAY QUEEN No 14
- MAY QUEEN No 15
- MAY QUEEN No 16
- MAY QUEEN No 17
- MAY QUEEN No 18
- MAY QUEEN No 19
- MAY QUEEN No 5 FR.
- MAY QUEEN No 6 FR.

Scale 1" = 300'

ROSSLAND MINES LTD.
ROSSLAND, B.C.

March 16th 1948

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. **34** MAP # **27**

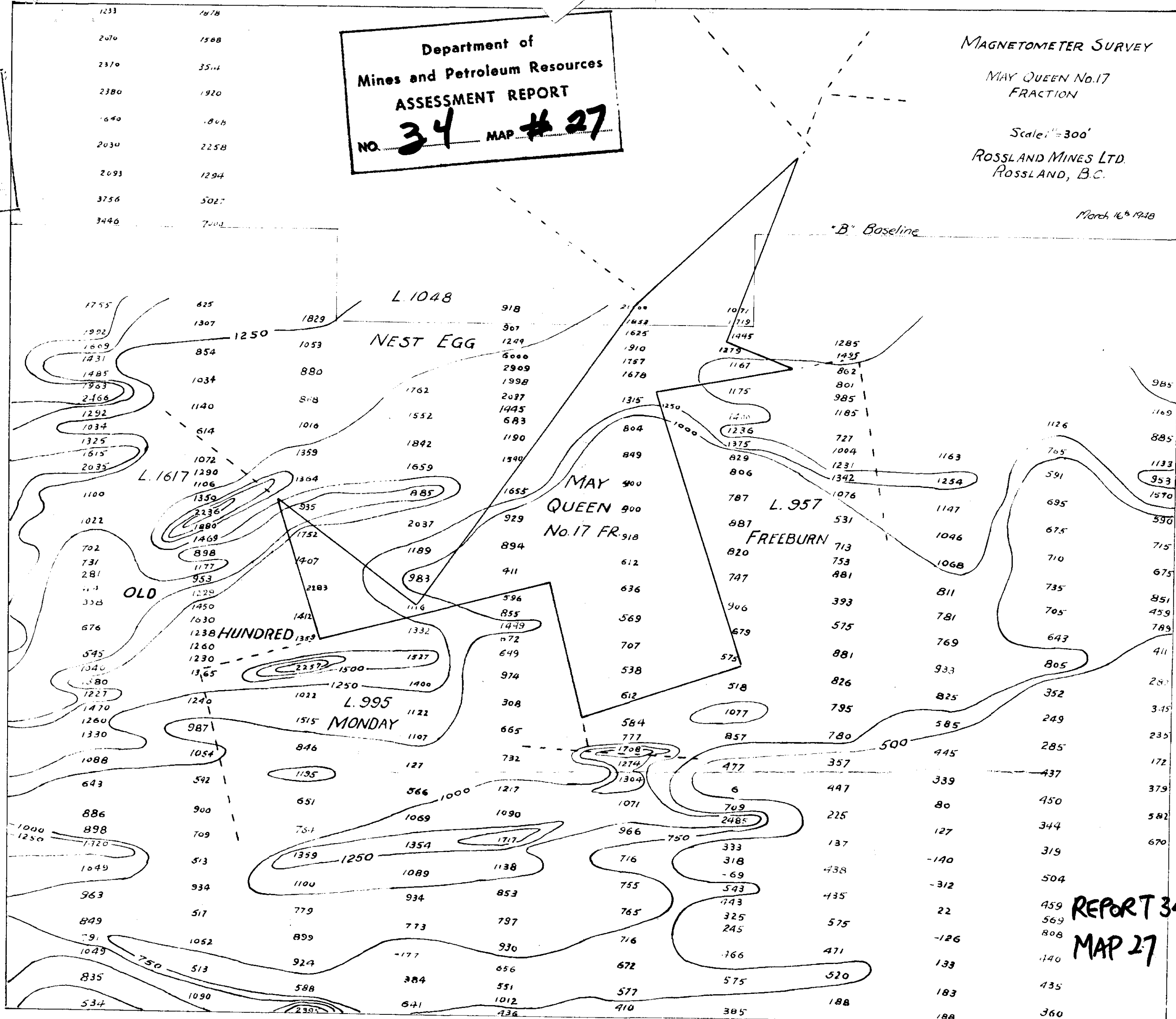
MAGNETOMETER SURVEY

MAY QUEEN No. 17
FRACTION

Scale: 1" = 300'
ROSSLAND MINES LTD.
ROSSLAND, B.C.

March 16th 1948

"B" Baseline



REPORT 34
MAP 27

