

BC Geological Survey
Assessment Report
40707



ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TITLE OF REPORT: Technical Report OPL Group

TOTAL COST:\$4044.03

AUTHOR(S):D Manley Fredlund
SIGNATURE(S):

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S):
STATEMENT OF WORK EVENT NUMBER(S)/DATE(S):OPL-5952891. Oct 10/2022

YEAR OF WORK:2022

PROPERTY NAME:OPL Group

CLAIM NAME(S) (on which work was done): OPL, Ext 1, Ext 2, Ext3

COMMODITIES SOUGHT: base and precious metals

MINERAL INVENTORY MINFILE NUMBER(S),IF KNOWN:

MINING DIVISION: Cranbrook

NTS / BCGS:

LATITUDE: 49 ° 38 ' 42 "

LONGITUDE: 116 ° 18 ' 47 " (at center of work)

UTM Zone: EASTING: NORTHING:

OWNER(S):David Manley Fredlund

MAILING ADDRESS:1801 3rd Ave SE Salmon Arm BC V1E-1V1

OPERATOR(S) [who paid for the work]: As above

MAILING ADDRESS: as above

REPORT KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude. **Do not use abbreviations or codes**) mineralization, size, structure

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (in metric units)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping			
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Ground line-kilometers	4.4 km	Ext 3	\$ 3,554.03
GEOCHEMICAL (number of samples analysed for ...)			
Soil			
Silt			
Rock			
Other			
DRILLING (total metres, number of holes, size, storage location)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling / Assaying	7 samples	all	\$490.00
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale/area)			
	Area wide looking for outcrops	all	\$
PREPATORY / PHYSICAL			
Line/grid (km)			
Topo/Photogrammetric (scale, area)			
Legal Surveys (scale, area)			
Road, local access (km)/trail			
Trench (number/metres)			
Underground development (metres)			
Other			
Total			\$4,044.03

TECHNICAL PROSPECTING REPORT

FOR THE MINERAL PROPERTY
KNOWN AS OLD PEN LOCK (0PL) GROUP

Tenure Numbers 1082668, 1082719, 1082720, 1084736

Cranbrook Mining Division, B.C.

(49°36'28" N, 116°18'47" W)

Report by
registered claim owner

David Manley Fredlund
1801 3rd Ave S.E. Salmon Arm
(250) 804-0781

April 15, 2024

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SUMMARY

During the summer of 2022, prospectors, Dan Kobi and myself made several trips to the OPL Group mineral property. The decision was made to continue investigating the property utilizing a magnetometer with follow up prospecting or drilling. Magnetometer readings were taken utilizing existing roads and trails. Where possible, samples were taken from outcrop and were all very fine grained argillitic mudstone with very fine silica and metals. Due to the nature of the findings and the results of the geological investigation, further work is warranted as will be detailed in in this report and a permit application is in progress.

INTRODUCTION

Location: The property lies to the west of Kimberly within the St Mary's River valley. The mineral tenure is located approximately 25 km west of Kimberly. B C

The geographical coordinates for the center of the tenure are (49°38'42" N, 116°18'47" W) . The terrain consists of wooded slopes rising from St Mary's River to about 6,500 feet ASL where the terrain steepens considerably. The property is located on the North side of St Mary's valley on a South facing slope crossing the valley to the southwest side. The elevations vary from 3,500 feet ASL along the center of the property to 7,000 feet ASL to give a relief of 3500 feet.

The main water source is the easterly flowing St Mary's River which traverses the property. The forest cover is timber and tag alder, tag cedar, tag hemlock and devils club in all clear cut areas.

Access: Access is provided by the St Mary's Forest service road which crosses the property and logging access roads providing random access.

History and previous work: This general area has been the subject of attention for over a hundred years, although because of the soil cover and lack of outcrop, old workings are very hard to locate or non-existent. No successful drilling has been done and no geophysical work because of a powerline which crossed the property until decommissioning a few years ago.

GEOLOGY Property: Located in the Purcell range in Southeast BC. Rocks of the Mesoproterozoic Purcell Supergroup form a conformable sequence that dominates this part of southeastern BC. Lowest rocks of the Purcell Supergroup belong to the Fort Steele Formation, originally deposited as sands, silts and muds that display characteristics of having been accumulated at or above sea level. Aldridge strata rest on the Fort Steele Formation. For the most part the Aldridge Formation accumulated as muds, silts and sands at substantial depths below sea level in a basin that developed during a period of crustal rifting. Next in the succession is the Creston Formation, initially muds, silts and sands that accumulated in a shallow aqueous to emergent environment, parts of which have been interpreted as lacustrine

and other parts as alluvial fans. Kitchener Formation strata succeed the Creston Formation. Kitchener sediments were carbonate-rich silts and muds deposited in a shallow aqueous environment.

Mineralization: Based on geological reports on the area, it is this writer's opinion that the Mag readings could be consistent with base and precious metals carried by quartz veins, replacement structures and/or porphyritic structures.

Magnetometer: Exploration foreman Manley Fredlund and prospector Dan Kobi traveled to the OPL claim area during May 31, to June 2 to conduct an exploration survey utilizing a DETECK SSP 2100 magnetic pulse induction generator. This instrument creates an intermittent magnetic field capable of penetrating 10 to 15 meters of overburden or bedrock while in motion if the target is small, or much deeper if the target is large. The magnetic pulse is tunable in duration and strength, allowing for the elimination of false readings from mineralized overburden. Therefore, the mag gauge readings are relative to the tuning. The strong magnetic field induces eddy currents in mineralization or geological anomalies. These anomalies generate a secondary magnetic field which flows outward from the target which then passes through the antenna array winding. This signal is processed by the electronics and displayed on a meter that registers from zero to ten on an analogue scale. The size of the antenna/array is 1 meter square needing 2 men one of whom could be an operator to control the array as it moves and note readings.

A base line was established on forestry access roads meandering the tenure and established by GPS navigation utilizing the Iridium satellite system. The structure change/metal at depth signal was found to be exceedingly large as the array was moved across the structural formation. This anomaly was found to be approximately 1.4 km across and more than 4.4 km long. Samples were taken within the boundaries of the anomaly and the tenure when outcrops presented themselves. The magnetic anomaly was larger than the tenures, overlapping onto neighboring properties to the east and west which we are currently negotiating to acquire.

Exploration: This project was undertaken because previous geological reports in the area and surmised that the Sullivan fault traveling west was interrupted by the Hall Lake fault providing geological settings that could be applicable to mineral deposition.

Conclusion: Many targets have been determined and an area permit is being applied for covering exploration, drilling, and trenching. Each anomaly variation will need to be examined carefully with the magnetometer in order to provide more information for geological mapping. Extreme hot spots will need to be uncovered or drilled in order to accurately determine controls for mineralization and potential orebodies.

APPENDICES:

A. Statement of Expenditures for trip to project (May 31-/22, June 2-/22, for 6-man days.

Field:

Foreman	M Fredlund	3 days at \$400.00 per day = \$1,200.00
Prospector	Dan Kobi	3 days at \$350.00 per day = \$1,050.00
	Total	= <u>\$2,250.00</u>

Transportation:

Milage; 4x4 truck 1160 kilometers at .55/k = \$638.00

Equipment rental:

Deep Tech ground Magnetometer rental 3 hrs @ \$60.00 = \$180.00

Food and Lodging:

3 days food allowance @ \$75.00/day/man for crew = \$450.00

2 days hotel costs @ \$120.00/day/man for crew = \$480

Total claimed for assessment work. **\$3,998.00**

APPENDICES:

B. Statement of Writer's Qualifications

I, David Manley Fredlund am holder of valid free miners license number 108862 which I have held since 1965 and hereby certify that:

1. I started my mining career at age four as the camp water boy and cooks helper in a placer mining operation (my fathers).
2. I have been involved professionally in mineral exploration in different places for over forty two years including ;
 - Kootenays – gold, silver, lead, magnesite
 - Cariboo – gold
 - Revelstoke areas – silver, zinc, lead, dolomite, feldspar
 - Baker Lake N.W.T. – uranium, gold
 - Ominica – zinc
 - Stikine – gold, silver
 - Turnagain – gold, copper, jade
 - James Bay – diamonds
 - Pickle Lake – gold, platinum
3. I have worked with exploration crews for Boulder Creek Mines, Magnum Resources, Noranda, ESSO Resources, Texasgulf, Baker Mines, Powder Ridge Resources, Hammond Exploration and De Beers Canada Exploration (Monopros).
4. I am experienced in evaluating mineral prospects by Deteck magnetometer as I was the Canadian distributor for Deteck for 3 years and was able to practice on known mineralization, also in geology, soil sampling, rock sampling and pan sampling.
5. I maintain an extensive library of geological books, reports and articles.
6. I am the author of this report, which is primarily based on my personal observations made while in the field.

Dated at Salmon Arm, B. C. this 15 day of April, 2024

OPL Tenure Numbers



Legend

Mineral Titles (MTO) Reserves

- No Registration
- Conditional
- Heritage/Historic Site

Crown Land Layers (Tantalis)

Land Act Survey Parcels - Tantalis - Legal Descriptions

Label Text

Land Act Survey Parcels - Tantalis - Outlined



Administrative Boundaries

Local Regional Greenspaces - Outline

Local and Regional Greenspaces

Local Regional Greenspaces - Colour Filled



Federal Transfer Lands - Outlined



Federal Transfer Lands - Colour Filled



National Parks - Outlined



National Parks - Colour Filled



Conservancy Areas - Tantalis - Colour Filled

Conservancy Areas

Ecological Reserves - Tantalis - Colour Filled

Ecological Reserves - Colour Filled

Ecological Reserves - Colour Filled

Ecological Reserves - Colour Filled

Ecological Reserves - Colour Filled

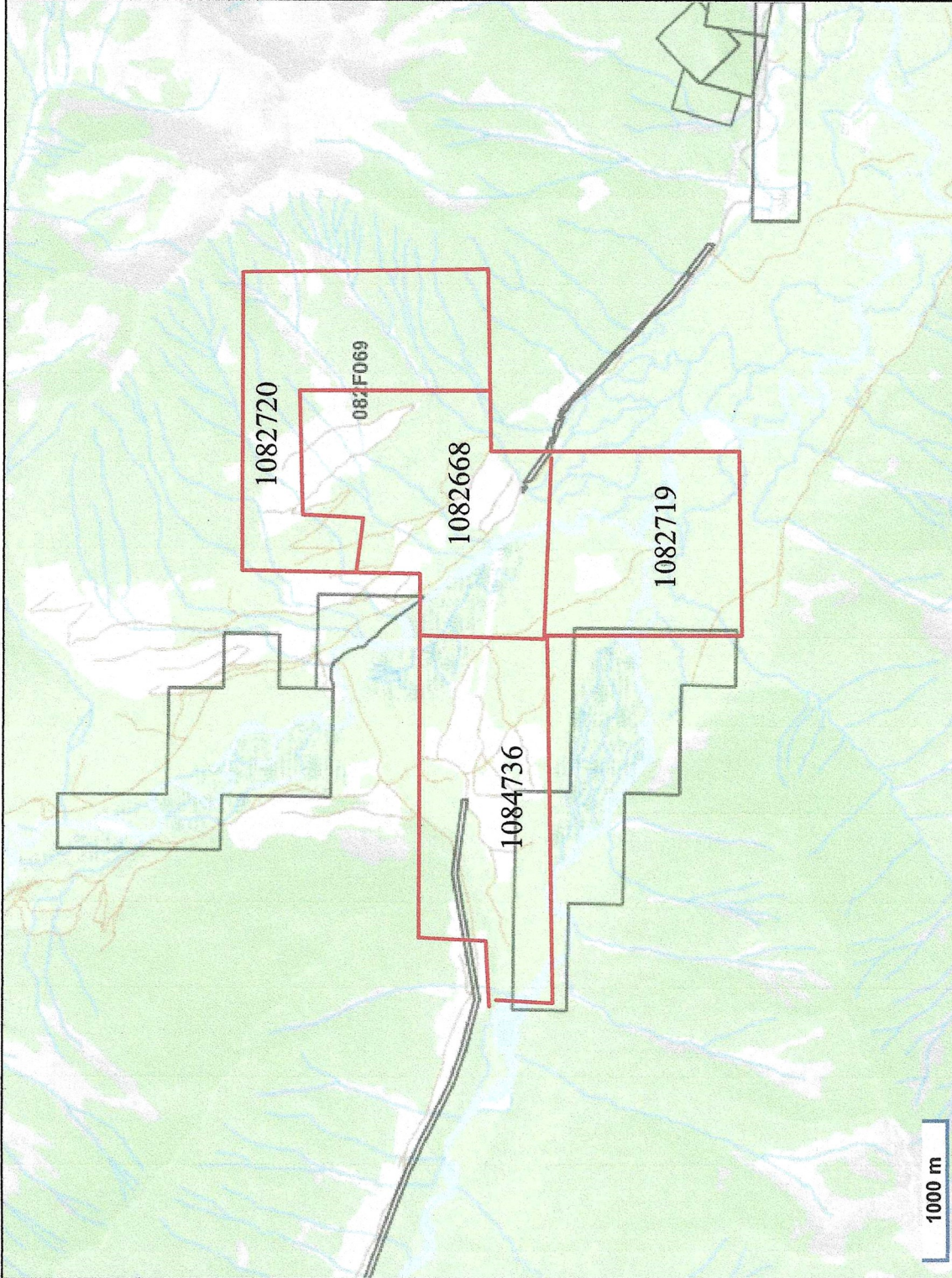
Ecological Reserves - Colour Filled

Ecological Reserves - Colour Filled

Ecological Reserves - Colour Filled

Ecological Reserves - Colour Filled

Ecological Reserves - Colour Filled



Printed using the Mineral Titles Online (MTO) application.

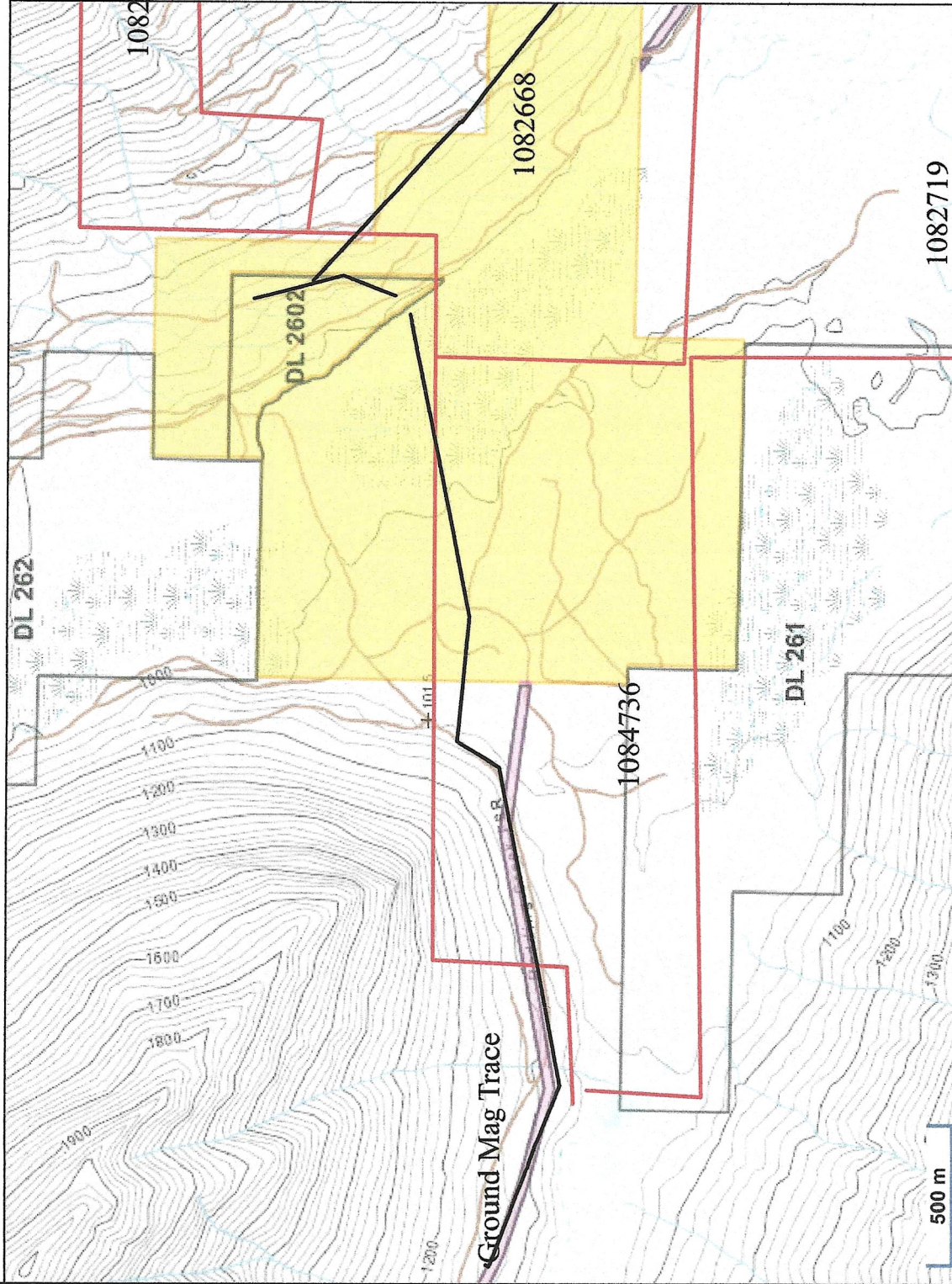
This map is a user generated static output from an internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.
THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Center: 49°38'32", -116°19'36"
Scale: 1 : 67710
SRS: EPSG:3857
UTM Zone: 11





Ground Mag Trace



Legend

- Mineral Titles (MTO) Reserves**
 - No Registration
 - Conditional
 - Heritage/Historic Site
- Crown Land Layers (Tantalis)**
 - Land Act Survey Parcels - Tantalis - Legal Descriptions
 - Label Text
 - Land Act Survey Parcels - Tantalis - Outlined
- Administrative Boundaries**
 - Local Regional Greenspaces - Outlined
 - Local and Regional Greenspaces - Colour Filled
 - Local Regional Greenspaces - Colour Filled
 - Federal Transfer Lands - Outlined
 - Federal Transfer Lands - Colour Filled
 - National Parks - Outlined
 - National Park
 - National Parks - Colour Filled
 - Conservancy Areas - Tantalis - Colour Filled
 - Conservancy Areas
 - Ecological Reserves - Tantalis - Colour Filled
 - Ecological Reserves
 - Protected Areas - Tantalis - Colour Filled

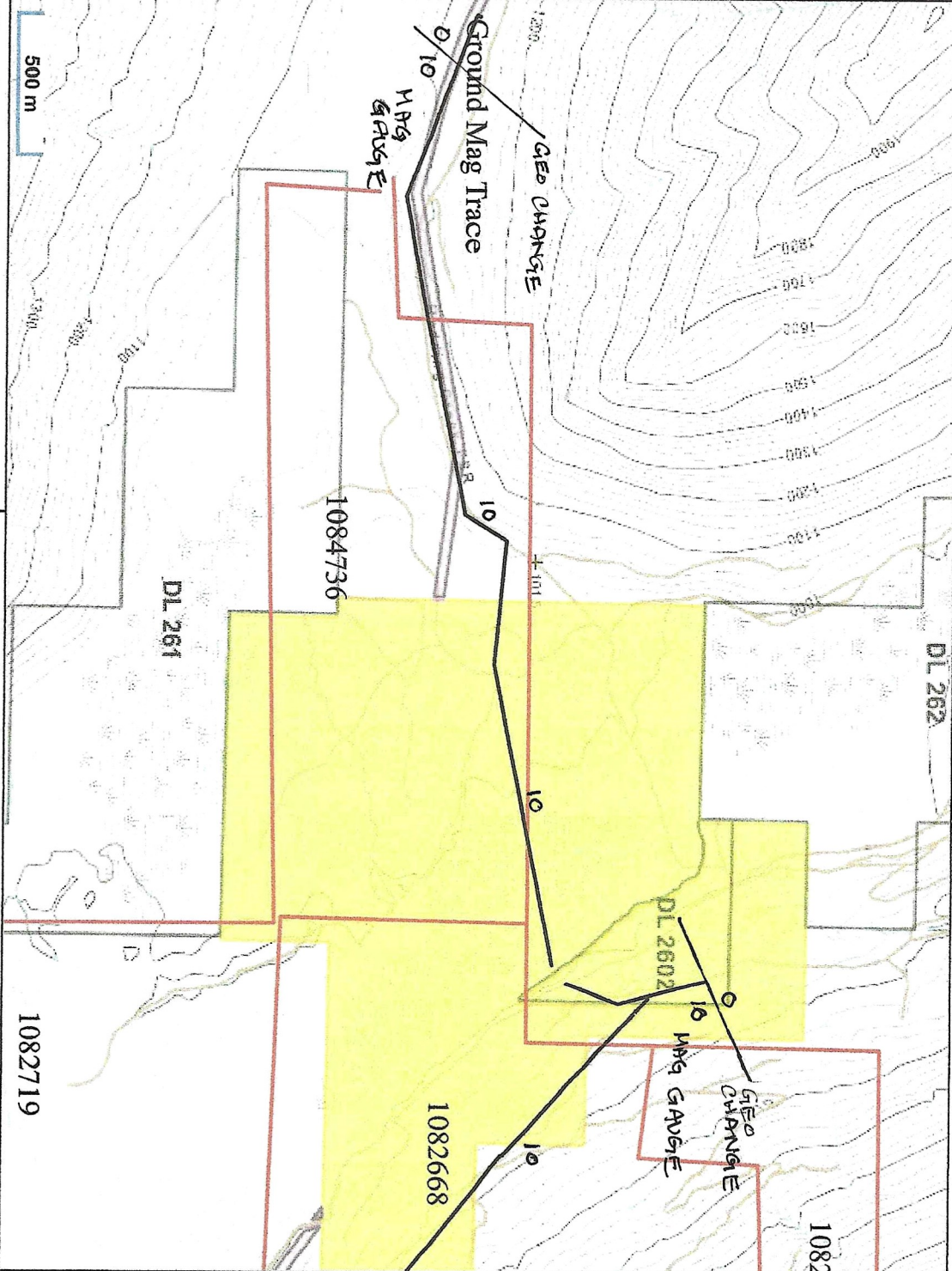
Printed using the Mineral Titles Online (MTO) application.

This map is a user generated static output from an internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.
THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Center: 49°38'40", -116°20'27"
 Scale: 1 : 33855
 SRS: EPSG:3857
 UTM Zone: 11

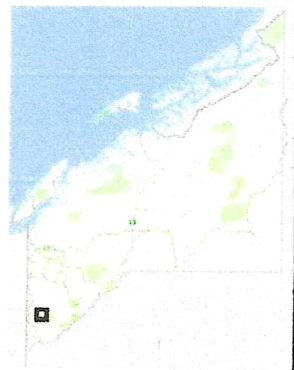
500 m

Ground Mag Trace



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Printed using the Mineral Titles Online (MTO) application.



Legend

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-
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 - Local Regional Greenspaces - Outline
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 - Local Regional Greenspaces - Colour Filled
 - Federal Transfer Lands - Outlined
 - Federal Transfer Lands - Colour Filled
 - National Parks - Outlined
 - National Parks - Colour Filled
 - National Parks - Colour Filled
 - Conservancy Areas - Tantails - Colour Filled
 - CONSERVANCY AREAS
 - Ecological Reserves - Tantails - Colour Filled
 - Ecological Reserves - Tantails - Colour Filled
 - Ecological Reserves
 - Protected Areas - Tantails - Colour Filled
-
- Center: 49°38'40", -116°20'27"
 Scale: 1 : 33855
 SRS: EPSG:3857
 UTM Zone: 11

