BC Geological Survey Assessment Report 39531



ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TITLE OF REPORT: Report on the Lynx Property - Induced Polarization / Resistivity Survey, Omineca Mining Division, British Columbia, Canada

TOTAL COST: \$67,432

AUTHOR(S): Brad McKinley SIGNATURE(S):

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): MX-13-315 / May 12th 2020 STATEMENT OF WORK EVENT NUMBER(S)/DATE(S): 5841460 / July 28th 2021

YEAR OF WORK: 2020 PROPERTY NAME: Lynx CLAIM NAME(S) (on which work was done): DH3

COMMODITIES SOUGHT: GOLD, COPPER

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN:

MINING DIVISION: Omineca Mining Division NTS / BCGS: 093K090 LATITUDE: 54°51'16.17" LONGITUDE: 124°04'10.94" (at centre of work) UTM Zone: 10 EASTING: 431329 NORTHING: 6079119

OWNER(S): IAMGOLD Corporation (285236)

MAILING ADDRESS: 401 Bay Street, Suite 3200 Toronto ON, M5H 2Y4

OPERATOR(S) [who paid for the work]: IAMGOLD Corporation (285236)

MAILING ADDRESS: 401 Bay Street, Suite 3200 Toronto ON, M5H 2Y4

REPORT KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude. **Do not use abbreviations or codes**) Geophysics, Induced polarization, Quesnel, Takla Group, Porphyry, Gold, Copper, Chilcotin basalt, Triassic

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	Electromagnetic		
Induced Polarization	10.4 Km	DH3	\$67,432
Radiometric			
Seismic			
Physical Rock properties			
Airborne			
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			
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale/area)			
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 COST	\$67,432



Report on the Lynx Property

Induced Polarization / Resistivity Survey, Omineca Mining Division British Columbia, Canada

54°50'23.35" N, 124°04'29.82" W

IAMGOLD Corporation

Mining Claims Surveyed 1062059

NTS : 093K090 DATUM: NAD83 UTM ZONE 10T

Brad McKinley, M.Sc., P.Geo

September 23, 2021

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1.0 Summary:

This report documents the induced polarization survey conducted by IAMGOLD Corporation on the Lynx claim during the second half of October 2020. The work was conducted under Permit number MX-13-315. The claim is located in central British Columbia, 135 km northwest of Prince George and 45 km northeast of the town of Fort St. James.

In July 2018, IAMGOLD Corporation staked the Lynx property in central British Columbia in an area where previous explorers identified anomalous geochemical and geophysical anomalies. The property is located within the highly prospective Quesnel Terrane.

The 1,788 hectare property is centered at 54°50'23.35" N latitude, 124°04'29.82" W longitude on map sheets grids 093K090 in the Omineca Mining Division. The property is composed of one mining claim.

Between October 19th and 26th, 2020, Peter E. Walcott & Associates Limited undertook an induced polarization (IP) survey for IAMGOLD Corporation totaling of 10.4 line kilometres. The survey identified interesting chargeability anomalies that warrant future follow-up exploration work. The total cost of the survey was \$67,432.

2.0 Introduction

2.1 Purpose of the Report

This report has been prepared to meet requirements for the filing of Assessment Work under the provisions of the British Columbia Mineral Tenure Act Regulations. The report describes the results of the 2020 induced polarization survey on IAMGOLD Corporation's Lynx Project, located in central British Columbia, Fort St. James Area, Omineca Mining Division (Figure 1).

2.2 Induced Polarization (IP) Program - Overview

Between October 19th to 26th 2020, Peter E. Walcott & Associates Limited undertook an induced polarization (IP) survey for IAMGOLD Corporation over its' Lynx property. The surveying was conducted utilizing the pole-dipole technique measuring the 1st to 8th separations utilizing a 100 metre dipole. A total of four (4) traverses were completed for a total of 10.4 kilometres of induced polarization surveying on uncut lines. Survey lines were positioned and established by the

geophysical crews under the direction of Brad McKinley, Senior Geologist, IAMGOLD Corporation. The IP survey was conducted on mining claim 1062059.

3.0 Location and Access, Physiography and Vegetation

3.1 Location and Access

The Lynx Project is located in central British Columbia, 135 km northwest of Prince George and 45 km northeast of the town of Fort St. James (Figure 1). The 1,788 hectare property is centered at 54°50'23.35" N latitude, 124°04'29.82" W longitude on map sheets grids 093K090 in the Omineca Mining Division. The property is composed of one mining claim.

The property is accessed from the west by travelling northeast from Fort St. James on Highway 27 for approximately 9.2 km, the road then transitions into Germansen Landing road. Stay north on Germansen Landing road for approximately 42 km. From here, turn right onto the Cripple FSR. Travel north 4.8 km to reach the property's western boundary. The exposure of the intrusive diorite outcrop is located at the 6.7 km point along this road.

3.2 Physiography and Vegetation

The area is characterized by rolling topography and outcrops ridges. The property is divided by a northeast-southwest trending river. Elevations on the property range from 900 to 1,200 metres. Bed rock exposure is variable. Outcrop is generally limited to elevations of 1,000 metres or greater. A typical field season lasts from early June to late October.

Vegetation consists of mature stands of spruce, pine and fir which has recently been logged over much of the property.



Figure 1. Lynx project location map.

4.0 Claim Ownership – IAMGOLD Corporation

The Lynx claim is composed of one claim totaling approximately 1,788 ha, which is 100% owned by IAMGOLD Corporation (Figure 2). The claim block was staked by IAMGOLD Corporation on July 31st, 2018. A summary is provided below in Table 1.

Tenure Number ID	Claim Name	Issue Date	Good to Date	Area (ha²)
1062059	DH3	2018-07-31	2024-06-15	1788.1

Table 1. Summary of Lynx claim unit.



Figure 2. Lynx project claim map

5.0 Regional Geology

The Lynx project is located in the Quesnel Terrane of British Columbia, Canada. The Quesnel Terrane is one of several tectonic accretions comprising the Intermontane Belt of central British Columbia, and consists of Triassic to Early Jurassic age volcanic arc and arc derived volcanoclastic rocks separated from Stikine and Cache Creek terranes through unconformity and regional faulting. The Nicola island arc assemblage is the dominant lithologic package present within the Quesnel Terrane. The Nicola, or Takla Group rocks as they are known in this area, is a marginal basin sequence of basaltic to andesitic flows, breccias, and tuffs with associated sedimentary units (Panteleyev et al., 1996). Calcareous sedimentary facies and rare limestone units are also known to occur. During the lower Jurassic, a transpressive regional stress regime resulted in variable folding and fracturing throughout the Quesnel Terrane and syn-subduction alkalic to calc-alkalic plutonism. Intrusions of diorite, and subordinate monzonite and syenite, yielded to low-grade metamorphic mineral assemblages (Panteleyev et al., 1996). Porphyry copper-gold deposits in the Quesnel Terrane are hosted within Nicola volcanics and alkali stocks of large near surface batholiths of Late Triassic to Early Jurassic age (Panteleyev et al., 1996).

6.0 Property Geology

The bedrock geology underlying the Lynx property is interpreted to be Middle to Upper Triassic strata of the Takla Group. The Takla Group rocks consist of sediments overlain by thick sequences of Late Triassic alkali volcanism and associated extrusive volcanic and volcaniclastic rocks. A small outcrop of granodiorite/diorite intrudes the mafic volcanic rocks along the main access road into the property. The granodiorite/diorite contains trace to minor pyrite mineralization and is potassically altered. Chilcotin basaltic rocks have also been mapped on the property, however, none were observed during a site visit in 2019.

7.0 Exploration History

Below is a summary of work completed in and around the Lynx property held by the IAMGOLD Corporation:

- 1987 (Pacific Gold Ltd) Report #16379 (part 1 and 2):
 A program of line-cutting, grid soil sampling and geological mapping was reported over selected areas on the property. A total of 1,979 soil samples were collected. The report summarizes the work completed but the geochemical data is incomplete, therefore no recommendations were made.
- 1988 (Northwest Geological Consulting Ltd) Report #18020 : Reconnaissance grid soil sampling over a select area of the Max 16 and 18 claims. A total of 393 soil samples were collected. Results indicate a gold exploration target in the centre of the reconnaissance grid.
- 1989 (United Pacific Gold Ltd) Report #18988 (part 1):
 A combined VLF-EM and ground magnetic survey was carried out on the Max claims.
- 1989 (Northwest Geological Consulting Ltd) Report #18988 (part 2):
 A line-cutting, soil sampling, and geological mapping program to follow-up on previous geochemistry results. A total of 393 soils were collected during the program.
- 1990 (Rio Algom Exploration Inc.) Report #20530 (part 1 3): A program of grid soil sampling, geological mapping, and helicopter magnetic and VLF-EM surveying on the Max property. Both the geochemistry and geophysical surveys provided promising exploration targets on the property that warrant future exploration.
- 1991 (Rio Algom Exploration Inc.) Report #21736 (part 1 and 2): Geological mapping, grid soil sampling, and reconnaissance induced polarization survey.
- 1991 (Rio Algom Exploration Inc.) Report #21873: Detailed rock chip sampling, soil profiling and geological mapping to follow-up on a broad zone of anomalous copper and gold in soil.
- 1991 (Rio Algom Exploration Inc.) Report #21949:
 A 21.5 line kilometre pole-dipole induced polarization survey was performed on the Max property
- 1991 (Rio Algom Exploration Inc.) Report #22271:
 A diamond drill-hole program (six holes) totaling 600 metres testing anomalous zones. All gold and copper values were at or below background levels.

2019 (IAMGOLD Corporation) Report #38528:
 A geochemistry and physical rock property work program. The physical rock property work indicate that a future IP survey would work well in the area.

8.0 Induced Polarization Survey

Peter E. Walcott & Associates Limited was contracted to perform an induced polarization (IP) survey for IAMGOLD Corporation on the Lynx Property. The IP survey took place from October 19th to 26th 2020. The surveying was conducted utilizing the pole-dipole technique measuring the 1st to 8th separations utilizing a 100 metre dipole. A total of four traverses were completed for a total of 10.4 kilometres on uncut lines (Figure 3).

8.1 Survey Specifications

The induced polarization (IP) survey was conducted using a pulse type system, the principal components of which were manufactured by Instrumentation GDD of Quebec, Canada and Walcer Geophysics of Enniskillen, Ontario. The system consists basically of three units, a receiver (GDD), transmitter (Walcer) and a motor generator (Honda). The transmitter, which provides a maximum of 9.0 kw d.c. to the ground, obtains its power from a 20 kw 400 c.p.s. alternator driven by a Honda 24 h.p. gasoline engine. The cycling rate of the transmitter is 2 seconds "current-on" and 2 seconds "current-off" with the pulses reversing continuously in polarity. The data recorded in the field consists of careful measurements of the current (I) in amperes flowing through the current electrodes C1 and C2, the primary voltages (V) appearing between any two potential electrodes, P1 through P9, during the "current-on" part of the cycle, and the apparent chargeability (Ma) presented as a direct readout in millivolts per volt using a 200 millisecond delay and a 1000 millisecond sample window by the receiver, a digital receiver controlled by a micro-processor - the sample window is actually the total of twenty individual windows of 50 millisecond widths. The apparent resistivity $(\Box a)$ in ohm metres is proportional to the ratio of the primary voltage and the measured current, the proportionality factor depending on the geometry of the array used. The chargeability and resistivity are called apparent as they are values which that portion of the earth sampled would have if it were homogeneous. As the earth sampled is usually inhomogeneous the calculated apparent chargeability and resistivity are functions of the actual chargeability and resistivity of the rocks. The surveying was carried out using the "pole-dipole" method of surveying. In this method the current electrode, C1, and the potential electrodes, P1 through P9, are moved in unison along the survey lines at a spacing of "a" (the dipole) apart, while the second current electrode, C2, is kept constant at "infinity". The

distance, "na" between C1 and the nearest potential electrode generally controls the depth to be explored by the particular separation, "n", traverse. On this survey a 100 metre dipole separation was utilized (Walcott 2019). On this survey a total of 10.4 kilometres of survey traverses were completed. The horizontal positions of the stations were recorded using a Garmin GPSmap 64CSx.

The induced polarization data is presented as individual pseudo section plots of apparent resistivity and apparent chargeability at a scale of 1: 10,000 (Appendix B) generated using Geosoft Oasis Montaj (Walcott 2019).

9.0 Personnel and Timetable

The IP survey was overseen by Brad McKinley, Senior Geologist, IAMGOLD Corporation. The field personnel from Peter E. Walcott & Associates Limited and their time on the Lynx property are listed below in Table 2.

Name	Position	Time Period	
T. Kocan	Geophysical Operator	October 18th - October 27th (10 days)	
O. Kucera	Geophysical Operator	October 21st - October 27th (7 days)	
B.Hall	Geophysical Operator	October 18th - October 27th (10 days)	
M.Mcgee	Geophysical Operator	October 18th - October 27th (10 days)	
B.Lajeunesse	Geophysical Operator	October 18th - October 27th (10 days)	
N.Loubster	Geophysical Operator	October 18th - October 27th (10 days)	
E.Wolski	Geophysical Operator	October 18th - October 27th (10 days)	

Table 2. Peter E. Walcott & Associates Limited personnel and time period on the Lynx property



10.0 Induced Polarization (IP) Results

The 2020 induced polarization program identified a number of targets on the Lynx property that could be potentially associated with mineralized intrusions. The IP program was designed as a reconnaissance program that was following up on a past magnetic survey from previous explorers.

The reconnaissance survey focussed on the northeast corner of the Lynx property which had some moderate to high magnetic anomalies which were identified from a 1990 Rio Algom Exploration Inc. helicopter survey (Report #20530). Also, in 2019 IAMGOLD reported some anomalous copper mineralization and conducted a physical rock property study that indicated a future IP survey would work well in the area (Report #38528).

All four IP lines had interesting chargeability and resistivity responses associated with them. A number of distinct zones have been identified throughout the surveyed grid. These are discussed below.

Target A

Line 750E, has a strong chargeability response that correlates well with a magnetic high. The strong chargeability occurs just off the northern tip of the magnetic high in an untested area just north of the Lynx access road. The presence of pyrrhotite and/or other disseminated sulphides could be an explanation for this anomaly. The location of the chargeability feature and its position flanking a magnetic high, outlined by pink dashed lines, is interesting as alkalic porphyry deposits can be associated with a magnetic-rich core.

Target B

The southern parts of lines 750E and 1350E make up "Target B". There is a moderate chargeability anomaly identified on both lines. Due to the spacing of the lines, it is difficult to conclude if these anomalies are related. However, both these anomalies coincide with a mapped diorite intrusion in this part of the property. This intrusion still needs to be field checked, however, the diorite is recorded as a Late Triassic to Early Jurassic (Logan et al., 2010) intrusion. This age range coincides with other Cu-Au porphyry deposits in British Columbia, such as Galore Creek, Mount Polley, Copper Mountain, New Afton, Mount Milligan and Lorraine.

Target C

Target C is defined by two moderate chargeability anomalies identified on the southern sections of lines 1900E and 2500E. Like Target B, it is difficult to determine if these anomalies are related due to the large spacing (~600m) between the two lines. Both these anomalies occur just south of a moderate to high magnetic feature which was identified in the 1990 (Rio Algom Exploration Inc.) report (#20530).



Figure 4. Plan map of Lynx chargeability results with underlying geology



Figure 5. Plan map of Lynx resistivity results with underlying geology

11.0 Recommendations for Future Work

The induced polarization survey conducted in the NE corner of the Lynx property identified multiple chargeability zones and targets. The main resistivity contrast observed from the survey is interesting but at the moment more work will need to be done to explain the difference.

Additional work would include performing modelled inversions of each of the IP lines to determine the potential size and depth of the chargeability and resistivity anomalies. Due to the spacing of the current survey lines and the uncertainly surrounding if some of the current anomalies are related, infill IP lines are recommended along with follow-up geochemistry to assist in future targeting.

A field check of the different IP anomalies will also need to take place to determine if any outcrops exist in close proximity.

12.0 Expenditures

A summary of the expenditures for the IP survey on the Lynx property is shown below in Table 4.

Category	IAMGOLD Cost Description		Amount
	District Manager (\$550/day, 1 days)	\$	550
Salarias			
Salaries	Senior Geologist (\$500/day, 8 days)	\$	4,000
	Project Planning, Supervision, Report		
	TOTAL	\$	4,550
Category	Peter E. Walcott & Associates Limited Cost Description		Amount
Mobilization	Split	\$	7,500
Provisions	Provisions Six man crew, 10 kw IP system, 4x4 truck, \$4,300 per day		43,430
Expenses	Accomendations and Fuel	\$	9,012
	GST	\$	2,940
	TOTAL	\$	62,882
	GRAND TOTAL	\$	67,432

Table 3. Summary of expenditures for the Lynx IP Survey

13.0 References

Logan J.M., et al., 2010. Bedrock Geology of the QUEST map area, central British Columbia. Geoscience BC Report 2010-5, British Columbia Geological Survey Geoscience Map 2010-1, Geological Survey of Canada Open File 6476

Panteleyev, A., Bailey, D.G., Bloodgood, M.A., Hancock, K.D., 1996, Geology and Mineral Deposits of the Quesnel River – Horsefly Map Area, Central Quesnel Trough, British Columbia. Bulletin 97, NTS Map Sheets 93A/5, 6, 7, 11, 12, 13; 93B/9, 16; 93G/1; 93H/4, Issued by Geological Survey Branch of British Columbia.

1990 (Rio Algom Exploration Inc.) Report #20530 (part 1 - 3): A program of grid soil sampling, geological mapping, and helicopter magnetic and VLF-EM surveying on the Max property.

2019 (IAMGOLD Corporation) Report #38528: A geochemistry and physical rock property work program.

Walcott, A., 2019, A Logistics Report on Induced Polarization Surveying - DARK HORSE PROPERTY FT. ST. JAMES AREA, BRITISH COLUMBIA CARIBOO MINING DIVISION

14.0 Statement of Qualification

I, Bradley McKinley, P.Geo., a professional geologist with a business address of Unit 10 – 2140 Regent Street, Sudbury, ON, certify that:

- 1. I am Registered Member of the Association of Professional Engineers and Geoscientists of the Province of British Columbia (#39410), and a Registered Member of the Association of Professional Geoscientists of Ontario (#1734).
- 2. I graduated with a B.Sc. from the University of Waterloo (Honours Geology) in Earth Sciences in 2003.
- 3. I graduated with a M.Sc. from the University of British Columbia (Economic Geology) in 2006.
- 4. I have been practicing in my profession as a geologist since 2004.
- 5. I have been an employee of IAMGOLD Corporation since February 21st, 2017.
- 6. The information presented in this document is true and accurate to the best of my knowledge. This information was gathered from such various sources as assessment files, publications and contractor-provided reports.
- 7. I performed the preparation and oversaw the field work covered in this report.
- 8. I have no personal interest in the property covered by this report.

Dated in Sudbury, Ontario, this 23rd day of September 2021.

Respectfully Submitted,

1/m

Brad McKinley, M.Sc., P.Geo. Senior Geologist September 23, 2021

Appendix A





Appendix B





n=8











