











Sharp Geophysical Solutions Interpretation of Beck-Ottaway Townships geophysical data For Fortune Nickel and Gold Inc

02-April 2021

















Available Data

GDS	YEAR	MAGNETIC	TDEM	FDEM	GRAVITY	LINE DIRECTION	LINE SPACING
1004	1987	YES	GEOTEM I	NO	NO	N-S	200 m
1100	1999	YES	GEOTEM III	NO	NO	030-210°	200 m
1051		NO	NO	NO	YES	E-W	1000 m



Preliminary Work

- The two magnetic grids from GDS 1004 and 1100 were joined
- The grids from the two EM systems cannot be easily joined, due to the different systems and output units. However, using the gate times from both systems and comparing the signals, the grids were joined for internal use only. Since GDS1004 was only X-component the joined EM grids could only be X-component



Survey flightpath overlaps





Magnetic RGB Ternary image

Analytic Signal – red Magnetic Intensity – green 1st vertical derivative - blue

Regional Scale - joined Magnetic grids

Magnetic RGB Ternary image

GDS 1004 Magnetic Intensity – red GDS 1004 1st vertical derivative – green GDS 1004 2nd vertical derivative - blue



Geophysical Signatures





Magnetics

From Reeves and Bullock

Serpentinization is the only common alteration that might increase the magnetite – therefore this applies to the Ni-Co-Cu-PGE deposits. Au mineralization is normally associated with magnetic lows... mafic and ultramafic rocks are similar in magnetic intensity, usually with ultramafics more magnetic, however andesites are comparable to peridotite/dunite

Gravity

Ultramafic rocks density range is 2.85- 3.4 g/cc

However serpentinizied ultramafics around the Crawford area are considerably less dense – 2.66 g/cc

Crawford Project

6.2.3.1. Drill Core Characterization

Drill core samples from four drill holes completed in 2018 by Spruce Ridge, holes CR18-01, 02, 03 and 04, were used to determine average specific gravity and magnetic susceptibility of the intersected rock units and to run laboratory tests comparing recovery differences using two different analytical methods.

Specific Gravity

Drill core from the 2018 drilling had specific gravity ("SG") measurements made at regular intervals using the "weight in water vs weight in air" relative density method. Average SG for mafic volcanic rocks was 2.67 (n=60) and average SG for serpentinized ultramafic rocks was 2.66 (n=436). Specifically, with respect to the ultramafic rocks, average SG for intervals grading over 0.25% Ni was 2.61, for intervals between 0.20% and 0.25% Ni was 2.62, and for intervals less than 0.20% Ni was 2.63. Fresh, unaltered dunite and peridotite, typically have a SG in the range of 3.2 to 3.4. The process of serpentinization involves the introduction of water into the rock, resulting in a substantial volume increase. The low average SG of the CUC ultramafic rocks (2.66) implies a high degree of serpentinization.

Magnetic Susceptibility

Magnetic susceptibility readings were collected along the drill core from the four drill holes completed in 2018. On the basis of more than 1,400 readings it was shown that the ultramafic rocks (average 129 units) were some 100 times higher than host mafic volcanic rocks (average 0.72 units). The serpentinized rocks are extremely magnetic relative to the host rocks and non-serpentinized ultramafic rocks, a result amplified by the serpentinization of olivine which releases iron to form magnetite.

Independent Technical Report and Mineral Resource Estimates Crawford Nickel-Cobalt Sulphide Project: Main Zone (Update) and East Zone (Maiden) Deposits

> Timmins-Cochrane Area Ontario, Canada

Report Prepared for:

Canada Nickel Company Inc. 130 King Street West, Suite 1900 Toronto, Ontario, Canada, M5X 1E3

Report Prepared by:

Caracle Creek International Consulting Inc. 1545 Maley Drive, Ste. 2018 Sudbury, Ontario, Canada, P3A 4R7

Report Effective Date: November 1, 2020 Mineral Resource Estimate Effective Date: October 18, 2020 Report Date: December 4, 2020

Qualified Persons: Scott Jobin-Bevans (Ph.D., PMP, P.Geo.) Principal Geoscientist

Looking for Ni(Co-Cu-PGE) – e.g. Crawford – magnetic high, may be conductive, gravity gradients? (serpentinization against unaltered ultramafic rocks) Looking for Au deposits – magnetic lows, only conductive if associated with sulphides, gravity high

We can expect conductors associated with graphitic material – as noted from drill holes from the Crawford Project and the Fortune claims

We can expect magnetic highs that are associated with mafic, ultramafics, diabase dykes and iron formation

We can expect magnetic lows that may be associated with felsic material, graphitic zones, shear zones, magnetic lows that are associated with Au mineralization

Background Geology – Beck-Ottaway Townships

Ontario Mapped Geology

Additional Sources of geology – from noblemmineralexploration.com

The image on the left is from a magnetic interpretation. The image on the right is slightly more detailed than the mapped geology available from the OGS. The magnetic interpretation suggests all structural directions that have been observed in this geophysical overview

The right image suggests that near the western boundary of the Fortune claims that there are two parallel ultramafic/mafic NNW-SSE trending bodies. From examination of the magnetic data, it is my opinion that there are a single ultramafic/mafic (southern) and a less magnetic (northern) feature that merge towards each other. This closeness of the bodies increases the magnetic signatures of both

Mineral Deposits

Looking for Ni-Co-Cu-PGE and Cu-Zn deposits similar to

- Crawford Main Zone and Annex
- Crawford-Nesbitt-Aubin
- Nesbitt North
- Mahaffy-Aubin •
- Kingsmill

The ultramafic/mafic rocks are clearly seen in the magnetic data – see next slide

Figure 7-5. Generalized property-scale geology of the project area (red outline) in Crawford and Lucas townships. Inset is a close up of the drill hole traces and collar locations. Map Features: CR18, CR20 and CR20 series drill hole collars (black dots); historical (1960s/1970s) diamond drill hole collars (red triangles) and reverse circulation collars (black squares) labelled by year. Target ultramafic-mafic rocks (purple/blue) of the Crawford Ultramafic Complex and other intrusions are hosted by metasedimentary (yellow/light blue) and volcanic (green) rocks (geology from Ontario Geological Survey, MRD126). Inset shows close up of the current drill hole collar locations targeting the CUC.

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236.9 223.8 210.8

197.7 184.6 171.5 158.5 145.4 132.3 119.2 106.2 93.1

> 80.0 66.9

53.8 40.8 27.7 14.6

Ultramafic/Mafic bodies displayed over the magnetic ternary (left) and the GDS1004/1100 joined 1900 us X coil EM data (right), the small image is a late B-field Z-coil component – showing essentially the same features as the 1987 survey

Figure 10-1. Plan view of diamond drill hole traces from 2018, 2019 and 2020 drilling within the Main, East, West and Thumb zones, outlines of the Main Zone and East Zone nickel Mineral Resource Estimate envelopes and PGE reefs, superimposed on airborne total field magnetic intensity (linear colour transform from low (blue) to high (red) magnetic field).

Qualified Persons: Scott Jobin-Bevans (Ph.D., PMP, P.Geo.) Principal Geoscientist

Figure 7-6. High-resolution helicopter-borne magnetic and electromagnetic survey flight lines, results, and interpretation (Balch, 2017) over the Crawford Ultramafic Complex. Shown are the general magnetic trends (A, B, C), the gravity anomaly outline and trends (1, 2, 3; see Figure 7-7) and the EM conductor picks. The northwest-southeast magnetic high and "Target Conductor" (yellow) at the Main Zone and the magnetic high at the East Zone, are the foci of current diamond drilling (historical drill hole traces shown). The North and East zones of the CUC have been offset to the northwest by a regional sinistral strike-slip fault (generalized with dashed line) (image from Spruce Ridge Resources Ltd.).

Figure 7-7. Results of the Crawford Township airborne gravimetric survey completed in 2018 (CGG, 2018). Shown are the general magnetic trends (A, B, C), the gravity anomaly outline and trends (1, 2, 3) and the EM conductor picks. The east-west electromagnetic "Target Conductor" (yellow) in the southeast portion of the Main target area is the focus of current diamond drilling; historical drill hole traces from INCO (1960s) and Spruce Ridge (CR18 series, 2018) are shown (image from Spruce Ridge Resources Ltd.).

Gravity low/magnetic high due to serpentinization

Crawford-Nesbitt-Aubin and Nesbitt North

Again, the characteristic magnetic anomalies due to the ultramafic rocks

Crawford-Nesbitt-Aubin and Nesbitt North

Ultramafic/Mafic bodies displayed over the magnetic ternary (left) and the GDS1004/1100 joined 1900 us x coil EM data (right)

Mahaffy-Aubin

•2018 AirTEM Magnetic survey shows a strong magnetic body striking east-southeast for a distance of over 7 km and probably composed of a series of sills and/or layered intrusive units, some having a plunge to the east and steep southwesterly dip

•There are two main EM conductor trends which occur near but not within magnetic features. These are likely altered structures such as faults that could host disseminated sulphide containing gold. The magnetic units, while not directly conductive, could host disseminated nickel, copper, and/or PGE.

Kingsmill

Gold Exploration

All three drillholes (OT81-1, OT81-2, 32910) are equidistant from a regional NW-SE structure and lie within a low mag area and there are indications of weak NW-SE structures.

The magnetic highs within and around the Fortune claims are prime areas for Ni mineralization based on the magnetic signatures of other ultramafic bodies associated with mineralization – see the areas of Crawford, Nesbitt, Mahaffy-Aubin and Kingsmill, above and left

Regional Scale magnetic highs and ultramafic trends which are associated with Ni mineralization

Joined EM X coil channels 12 (approx. 1900 millisec)

Known ultramafic bodies in comparison with the EM data

Interestingly, apart from Crawford, the known areas of mineralization do not correlate with strong conductors, and most of the conductors correlate with graphitic material. Later EM surveys (MEGATEM GDS 1041B) show similar results to the much earlier 1987 survey.....

Highlighting Conductors

EM RGB Ternary image

GDS 1004 Channel 8 vertical derivative - red GDS 1004 Channel 8 horizontal derivative -E-W - green GDS 1004 Channel 8 horizontal derivative - N-S - blue

GDS 1100 B field X ch10 vertical derivative - red GDS 1100 B field X ch10 horizontal derivative -E-W - green GDS 1100 B field X ch10 horizontal derivative - N-S - blue

The EM ternary is useful in identifying stronger bedrock features than looking at a single component. The whiter the colouration, the better the conductor. The derivative ternary highlights trends that may be obscured within a wider conductive zone

Highlighting Conductors

EM RGB Ternary image

GDS 1004 Channel 7 - red GDS 1004 Channel 9 – green GDS 1004 Channel 12 - blue

GDS 1100 B field X Channel 8 - red GDS 1100 B field X Channel 10 - green GDS 1100 B field X Channel 12 - blue

Like the previous slide, the EM ternary is used to identify stronger bedrock features. The whiter the colouration, the stronger the conductor.

Several areas within the Fortune Claims can be seen to have slightly stronger responses along the formational (graphitic) zones.

Gravity Data

-32.0

-33.9

The Gravity data is quite interesting – the Ni, Cu, Zn showings/occurrences/deposits all lie on the rim of a central low

The Fortune claims lie at the NE boundary of said low. Within the low (below) there appears to be a slightly denser zone trending NW-SE along which several Au (and Ni) occurrences lie.....

terrain corrected Bouguer Gravity mGal

Gravity Data

The question has been asked what is the cause of the gravity low. Although it looks significant in the big picture it seems rather insignificant

Comparing the gravity and the mapped geology the lows seem to correlated with massive granite / granodiorite

80 km

https://portal.gplates.org/portal/vertical_gravity_gradient/

Magnetic and Gravity Data

The areas circled are known Ni-Cu-Co-PGE occurrences/mines/deposits

High magnetic response and low gravity anomaly = serpentinized ultramafic rocks

1st Vertical derivative of the terrain-corrected Bouguer gravity superimposed over an RGB ternary image of the Analytic Signal (red), Residual Magnetic Intensity (green) and the 1st Vertical Derivative of the RMI (blue)

Interpretation Steps

2021-04-02

Interpretation Steps

- Magnetics
 - outline the mafic/ultramafic rocks, enriched magnetic features using the ternary images, the analytic signal using the joined magnetic datasets
 - Define potential faults, weak, moderate and strong using both available magnetic datasets and the EM data
- Gravity
 - Define gravity high anomalies importance for Au deposits, and Ni mineralization seems to occur on the flanks
- EM
 - Define conductors from profiles and grids for the EM datasets. Where dip is clearly identified it has been labelled
 - Define resistive zones that may be indicative of carbonate/silicate alteration, felsic rock types
- Define Targets for each geophysical parameter and then where these correspond are higher priority targets

Magnetic RGB Ternary image

Analytic Signal – red Magnetic Intensity – green 1st vertical derivative - blue

Magnetic View - claim scale

Magnetically high zones – with comparison to the mapped geology

Magnetic Interpretation

Intermediate

Int- Mafic

Moderate

Weak

Felsic

One regional NW-SE structure has stood out among the rest with respect to the magnetic data....

This structure passes directly through the Fortune claims

Magnetic RGB Ternary image

Analytic Signal – red Magnetic Intensity – green 1st vertical derivative - blue

²⁰²¹⁻⁰⁴⁻⁰²

Several orientations were identified, firstly and most predominantly

- NW-SE and NNW-SSE

These correlate with similar structures in the vicinity of Crawford/Crawford-Aubin-Nesbitt region

The second orientation is:

- NE-SW and ENE-WSW

This orientation likely continues from the Fortune Claims into the Nesbitt North area – see dashed line on the image

The last two orientations are less prevalent, but still are obvious in the data

- N-S and E-W

The N-S orientation likely continues from the Fortune Claims into the Crawford area – see dashed line on the image

Magnetic Structures – compared to the mapped geology

NAD83 UTM ZONE 17N

Magnetic and EM Structures – with relation to the magnetic high areas

The magnetic high areas include: Mafic/ultramafics/serpentinized alteration zones Intermediate to Mafic

Additional EM structures

NAD83 UTM ZONE 17N

Magnetic and EM Structures – with relation to the conductors

Additional N-S and NE-SW structures defined from the EM data

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Gravity Data – and the interpretation layers

It should be noted that the gravity data is still regional – having 1 km line spacing

Gravity Data – and the interpretation layers

484000

482000

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Several individual grids and grid combinations were utilized to define the conductor axes

Ternary image of the derivatives of dB/dt X ch8 (GDS1004) and B-field X ch8 (GDS1100)

Ternary image of successive channels of dB/dt X (GDS1004) and B-field (GDS1100)

EM analysis – the database has been viewed line by line

The government delivered anomalies were compared Conductors have been defined

Dip direction where possible has been determined Stronger responses along the conductors have been defined

Near vertical conductor axis

Dip undetermined

Dip direction

Areas of stronger responses

No Variation .

Surprisingly, an anomaly (light blue) from a ground survey conducted in the 1960's matches up quite well with the conductors from the much later airborne survey

The government data includes decay constant and conductivity grids for GDS1100, and a decay constant and resistivity grid for GDS1004

NAD83 UTM ZONE 17N

GDS1004 – Decay Constant (left) Resistivity (right) – the colours on the resistivity grid are inverted – warm colours are conductors

The government data includes decay constant and conductivity grids for GDS1100, and a decay constant and resistivity grid for GDS1004

GDS1100 – Decay Constant (left) Conductivity (right)

Both the conductivity grid and the colour-inverted resistivity grid show a general higher conductivity in the lower terrain, this is likely due to an increase of conductive sediments within the lower-lying area. However, the overall sense is that the stronger conductors lie over the area of slightly more elevated terrain....

EM – Resistive Zones

EM RGB Ternary image

GDS 1004 Channel 7 - red GDS 1004 Channel 9 – green GDS 1004 Channel 12 - blue

GDS 1100 B field X Channel 8 - red GDS 1100 B field X Channel 10 - green GDS 1100 B field X Channel 12 - blue

There is an absence of conductors in the zones outlined in green...this maybe either due to a different lithology (felsicintermediate – andesite, dacite, diorite) or potentially alteration that reduces the EM signal – e.g., carbonate alteration near the drill holes containing Ni indications.

In all but the small area on the northern boundary and near the drill holes B-1,B-1A, B-2 and B-3 the larger areas are likely due to a more felsic lithology due to their extent, however drill holes near these larger zones sometimes encountered carbonate alteration

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Target areas from the Magnetic Data

The NE-SW structure show above is defined from the regional magnetic data and there are multiple showings Ni, Cu along its length and in close proximity to it. It also corresponds with a boundary or structure seen in the regional gravity data. However, two drill holes OT-81-5 and 29183 are located adjacent to this feature and nothing of interest was detected. Regardless, it remains an area of interest...

Gaps in the higher mag zones that may be indicative of carbonate/siliceous alteration (around drill holes OT-81-2,3,4,7, 0/2/066)

Target areas from the Magnetic Data

The strong magnetic signal which is indicative of mafic/ultramafic rocks is of interest for Ni mineralization as seen at Crawford. Most strongly magnetic bodies have been identified as mafic/ultramafic rocks from the Ontario mapped geology, although this interpretation has changed the boundaries slightly on most of the bodies

Several new potential bodies have been interpreted from the magnetic data (see the Analytic Signal above). One of greater magnetic intensity straddles the powerline, with the best response lying east of the powerline/road, but there seems no cultural reason for the high signal... The signal is stronger than that near holes B-1 – B-3...

The WNW trending high lies near OT-81-1 which did encounter ultramafics at approx. 200 m depth. The other smaller feature is surrounded by holes 0/2/66, OT-81-2,3,4. 0/2/66 did not encounter ultramafics but the remaining holes did

Targets from the Gravity Data

As shown previously the Ni, Cu, Zn showings/occurrences/deposits all bound a central gravity low

The Fortune claims lie at the NE boundary of said low, in a similar location with respect to the centre of the low as Kingsmill and Nesbitt North. Crawford seems to bound a smaller gravity high (circled in white below)

-32.0

-33.9 -35.3 -36.4 -37.5

-38.4

-39.3 -40.1

-40.7

-41.3

-42.0 -42.7 -43.4 -44.3 -45.0 -45.7 -46.5

-47.4 -48.3

-49.2 -50.1

-50.9 -51.6

-52.3 -52.9 -53.7 -54.5 -55.4 -56.3

-57.2 -58.1 -58.9 -59.8 -60.6

-61.6 -62.8 -64.1 -66.9

Target areas from the Gravity Data

NAD83 UTM ZONE 17N

From Crawford and other known areas of Ni mineralization, the target areas are actually on the flanks of the gravity highs, thus the target areas in Beck-Ottaway are on the transitions from high to low

The gravity contact/structure passes directly through T-37 a Noble Mineral VMS target to the NW incl. 0.24 % Cu from DDH 25020

Again, with 1 km line spacing the gravity data is regional only and should be used as a guideline...

Target areas from the EM Data - conductive

Interestingly, apart from Crawford, the known areas of Ni mineralization do not correlate with strong conductors, and most of the conductors in the vicinity of these areas correlate with graphitic material. Later EM surveys (MEGATEM GDS 1041B) show similar results to the earlier 1987 survey.....

Most if not all holes near the conductor AOI encountered some degree of sulphides

Target areas from the EM Data - resistive

Since many of the drill holes near the resistor zones encountered carbonate alteration these are all considered of interest, but apart from the resistive zone near drill holes OT-81-1 and OT-81-2 are not considered stand alone targets

Target areas – Crawford style

Adjacent to magnetic high, weakly-moderately magnetic Moderately to strongly conductive (but other Ni area show no conductors) On gravity gradient area and/or adjacent to gravity high

THE TARGETS ARE MOSTLY BASED ON THE MAGNETIC DATA.....as the gravity data is regional, and the EM (given the signature on other deposits) could be anywhere from resistive to conductive. That being said those conductors in and around the strong magnetic bodies should be considered of interest

Target areas – Au

Magnetic lows, gravity highs, could be resistive

- there is only one area that fits this description - close to drill holes OT-81-1 and OT-81-2

Recommendations

2021-04-02

Main Targets and Recommendations

Ground follow-up should be conducted prior to any drilling.

The area around coordinate 480390, 5424010 (NAD83 UTM ZONE 17N) shows strong magnetic signal. This area should be check for signs of an ultramafic body and serpentinization. It lies adjacent to a gravity high, and strong EM signals are identified from the GDS1004 survey

The resistive zone / gravity high / slightly lowered magnetic signal (centred at 477140, 5427080) is an interesting target. There are indications of ultramafic's and weak conductors adjacent to a gravity high which may indication Ni mineralization, but at the same time, it could indicate Au mineralization from the small resistor, weaker mag, and gravity high...

All magnetic highs remain favourable for Ni mineralization, but besides the one mentioned above which lies east of the road/powerline, the stronger response lies immediately north of holes B-2 and B-3

The importance of the structures is unknown, but the regional scale NW-SE magnetic and gravity structures remain of interest given their proximity to known occurrences and showings

The strongest EM response (although it is hard to compare with little overlap between GDS1004 and GDS1100) lies at coordinate 479790, 5424500. The anomaly is best seen on line 218001 of the GDS1004 survey. Unfortunately it cannot be corroborated on the GDS1100 due to the nature of powerline response because of the increased power of the EM system

