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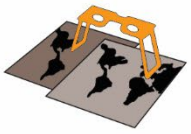

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January 12, 2023

Michael Chung
morehats@shaw.ca

RE: EM31 Geophysical survey results covering NW & NE 32-18-03-W2 (RM of Fertile Belt No. 183)

Mr. Chung:

The following report outlines the results of J.D. Mollard and Associates (2010) Limited's (JDMA) EM31 geophysical survey covering NW & NE 32-18-03-W2 in the RM of Fertile Belt No. 183.

Based on the geophysical results, the entire upland area surveyed appears to have potential for aggregate resources. Further testing is required to confirm the presence, depth and gradation of material.

Please contact me if you have any questions.

Sincerely,

Lynden Penner, M.Sc., P.Eng., P.Geo.
J.D. Mollard and Associates (2010) Limited

Introduction

This report summarizes results of an EM31 geophysical survey to assess the potential aggregate resources on NW & NE 32-18-03-W2 in the RM of Fertile Belt No. 183. These quarter-sections are located approximately 1.5 km north of Round Lake. This study consists of a geophysical survey of the study area using an electromagnetic ground conductivity meter. The purpose of the survey is to assess the potential for aggregate resources to be present on these parcels.

JDMA uses an EM31 to carry out geophysical surveys in support of aggregate exploration. The EM31 device (manufactured by Geonics Ltd.) is a handheld instrument that measures the electrical conductivity of the ground. The EM31 can be used to collect ground electrical conductivity information (in mS/m) at effective exploration depths of ~3m and ~6m.

Because granular material has a lower electrical conductivity than other common surface deposits (Table 1), the ground electrical conductivity measurements provided by the EM31 surveys are useful in assessing the potential presence/absence of granular material prior to drilling or backhoe testing. EM31 conductivity values can also offer clues to the possible thickness of a granular deposit, and, if present, an estimate of overburden thickness. It is important to note that ground electrical conductivity measurements do not provide any indication of the coarseness of a granular deposit. Thus, further testing (backhoe, trackhoe or auger) is required to confirm the quantity and quality of any suspected granular deposits.

Table 1. Common surficial materials and associated EM31 readings.

Common Material	Typical Deep (~6m) Conductivity (mS/m)
Granular soils	5-20
Till	35-70
Clay	80-130
Shale	>100

To conduct the survey, the EM31 was towed on a sled behind a snowmobile. The instrument was coupled to a GPS and data logger set to continuously record both GPS and EM31 data. The EM31 survey included collection of 'shallow' (~0-3m depth) and 'deep' (~0-6m depth) conductivity values. The survey was carried out on January 11, 2023. The survey area was restricted to the cleared upland portion of these quarter-sections.

Geophysical Survey Results and Interpretation

Figure 1 shows the survey coverage and results for the 'shallow' (0-3m depth) conductivity survey. Results for the 'deep' (~0-6m depth) are shown in Figure 2.

As shown in the legend on Figures 1 and 2, EM31 values coloured green are considered to have 'good' potential for aggregate resources. Survey points shown as yellow and orange indicate 'fair' readings which can be considered borderline but still have potential for thinner / dirtier granular material or thicker overburden depending on the geology. Red coloured results would indicate 'poor' potential for aggregate; however, no red values appear at either exploration depths.

Based on values of less than 20 mS/m across the entire survey area (indicated by various shades of green in Figure 1) there appears to be some potential for granular material across the upland portion of both quarter-sections. The darker shades of green (EM values of 0-10 mS/m) indicate areas where the granular material is expected to be the deepest (possibly >3m depth). The lighter shade of green in Figure 1 (EM values of 10-20 mS/m) suggests shallower depths of granular material in these areas.

Figure 2 shows results for an approximate 0-6m depth range. The deeper conductivity readings are consistently higher than the shallow readings in Figure 1. This indicates an increase in conductivity with depth, likely resulting from a higher conductivity material (a material with a higher clay content) that underlies the lower conductivity granular material at the surface. Lower deep conductivity values (*i.e*., green areas in Figure 2) are locations where the granular material is expected to be the thickest. Yellow areas in Figure 2 have conductivity values that exceed 20 mS/m. These areas likely have thinner granular material, perhaps less than 3m depth, or so.

It is important to note that EM values (either shallow or deep) are not sensitive to the gradation of the material; *i.e.,* sand will provide similar results as gravel for a given depth of material. Therefore test pitting is required to confirm the gradation of the material and to obtain a more accurate indication of depth.

It is also worth noting that the terrain in the survey area is similar in appearance in air photos and satellite image to the area 1-2 km to the northwest where several gravel pits are located. This supports the interpretation of the geophysical survey results suggesting that there is a good potential for aggregate resources on the surveyed parcel; however, there is no assurance that the quality (*i.e.,* gradation) of the granular material in the survey area is the same as in the area where the pits have been developed.

LEGEND

EM31 Horizontal Loop (0-3 m)
Ground Conductivity (mS/m)

Good
- 0 - 5
- 5 - 10
- 10 - 20

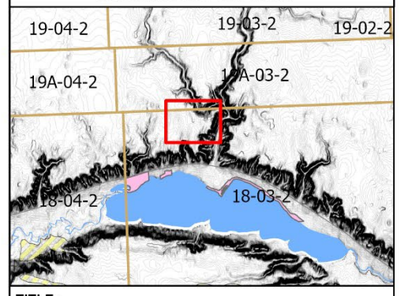
Fair
- 20 - 30
- 30 - 40

Poor
- >40

Ag Soils Data (Inset Map)
- Sand matrix
- Gravel matrix

0 45 90 180 270 360
Meters

Scale: 1:6,000
Projection: NAD 1983 UTM Zone 13N



TITLE:
Shallow (0-3 m) EM31 Data:
N-32-18-03-W2

PROJECT:
EM31 Survey
Aggregate Exploration

CLIENT:
Michael Chung

Imagery: FlySask2
Data: Esri
Geomatics: JIC
Revision Date: 1/12/2023
General reference map only: Not for legal survey

FIGURE:
1

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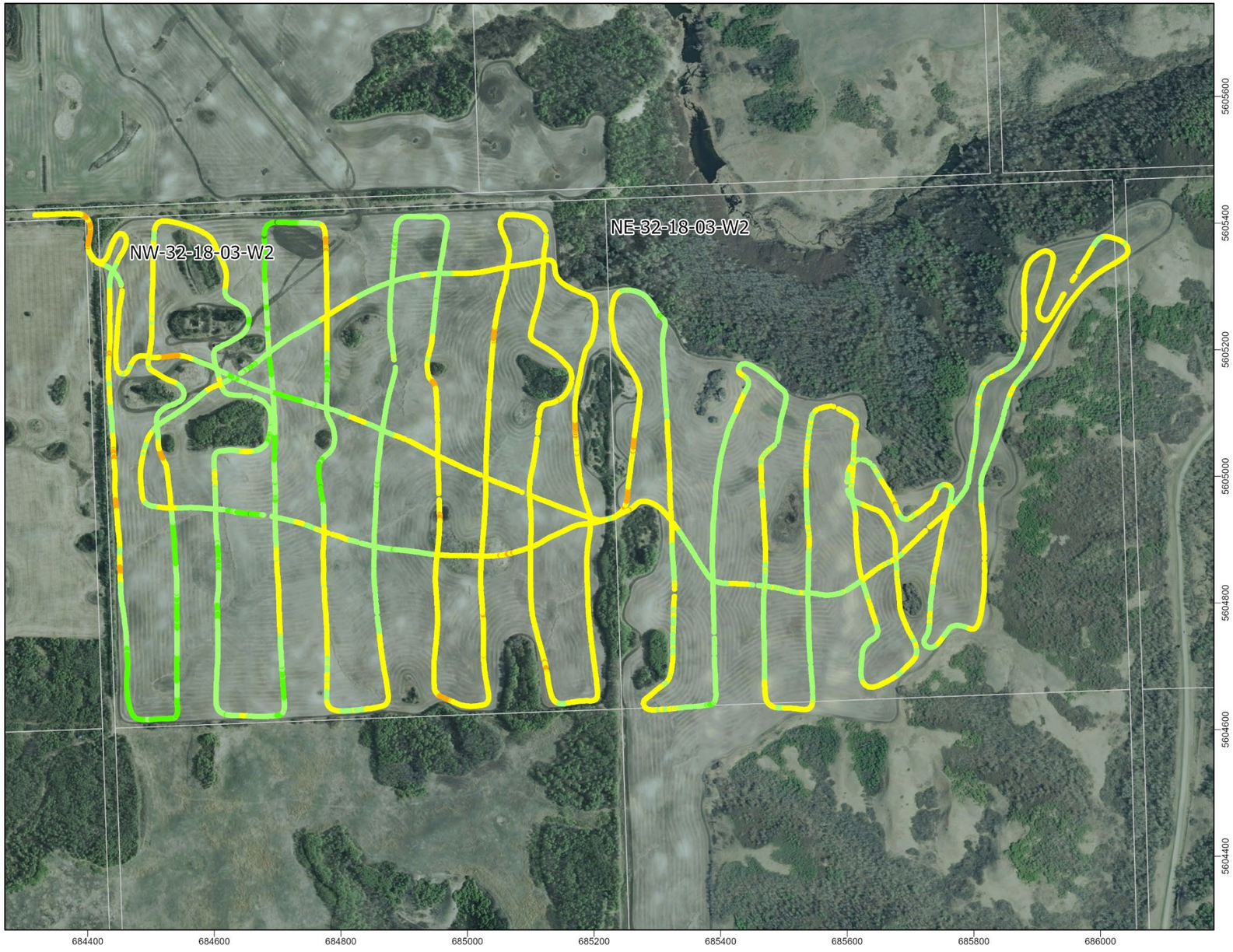


LEGEND

EM31 Vertical Loop (0-6 m)
Ground Conductivity (mS/m)

Good
- 0 - 5
- 5 - 10
- 10 - 20

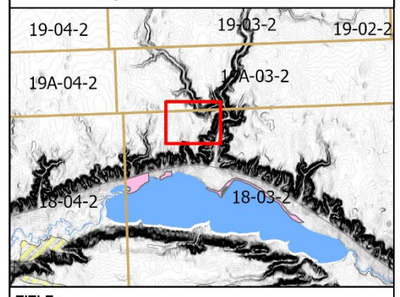
Fair
- 20 - 30
- 30 - 40

Poor
- >40

Ag Soils Data (Inset Map)
- Sand matrix
- Gravel matrix

0 45 90 180 270 360
Meters

Scale: 1:6,000
Projection: NAD 1983 UTM Zone 13N



TITLE:
Deep (0-6 m) EM31 Data:
N-32-18-03-W2

PROJECT:
EM31 Survey
Aggregate Exploration

CLIENT:
Michael Chung

Imagery: FlySask2
Data: Esri
Geomatics: JIC
Revision Date: 1/12/2023
General reference map only: Not for legal survey

FIGURE:
2

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Closing

The EM31 survey carried out on NW & NE 32-18-03-W2 indicates a potential for granular material to be present across the upland portions of both quarter-sections. Further field testing (test pits and lab testing) is required to confirm the presence and depth of material, and to determine its gradation and variability across the two quarter-sections.

Please contact Lynden Penner (306-352-8811 or penner@jdmollard.com) if you have any questions

Signature

Lynden Penner, M.Sc. P.Eng P.Geo.