

J D MOLLARD AND ASSOCIATES (2010) LIMITED

CONSULTING ENGINEERS AND GEOSCIENTISTS

Phone (306) 352-8811 (306) 352-8855
Fax (306) 352-8820
Email: admin@jdmollard.com



2215-A Emmett Hall Road
Regina Saskatchewan Canada
S4N 2Y3

www.jdmollard.com

October 28, 2022

Michael Chung
morehats@shaw.ca

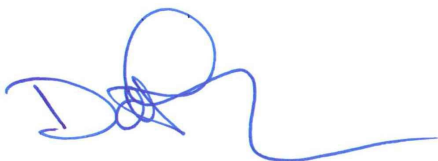
RE: EM31 Geophysical survey results near Serath, SK.

Mr. Chung:

The following report outlines the results of J.D. Mollard and Associates (2010) Limited's (JDMA) EM31 geophysical surveys on NE35-25-18-W2.

Based on the geophysical results, we have identified the area with the highest aggregate potential that is recommended for further testing (backhoe test pits).

Sincerely,



David Boschman, M.Sc.
J.D. Mollard and Associates (2010) Limited

Introduction

This report summarizes results of an EM31 geophysical survey to assess the potential aggregate resources on NE35-25-18-W2 near Serath, SK. This study consists of a field based geophysical survey of the study area. The EM31 survey is to identify and assess areas with potential for aggregate resources – and those areas without potential -- and where a test pit exploration program is recommended.

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.

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

To conduct the survey, the EM31 was towed on a trailer behind an ATV coupled to a GPS and data logger set to continuously record both GPS and EM31 data. The EM31 survey was oriented to collect the 'deep' (~6m) reading. The survey was carried out on October 27, 2022.

Geophysical Survey Results and Interpretation

Figure 1 shows the coverage and a general interpretation of the EM31 survey data over the study area (NE35-25-18-W2).

As shown in the legend for Figure 1, EM31 readings coloured in 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, purple and pink coloured results indicate 'poor' potential for aggregate and are generally not recommended for further field testing.

Figure 1 shows an area in the NE corner of the quarter section where lower EM31 readings suggest the potential for aggregate material. This area corresponds to where there are some existing small pits currently on the property. The generally 'good' EM31 readings here suggest that there could be up to several meters (3-4 m) of aggregate material. In total there are approximately 21 acres (~8.5 ha) of prospective area south of the road and an additional 4 acres (1.6 ha) north of the road.

Field observations of existing pit faces and exposures generally show a sandy gravel with some sandier pockets. Typically, pit faces are ~2m high. Photos in Figure 2 show examples of this material and the pit faces. Test pits should be placed in this area to confirm the quality and variation of the material over the entire area and confirm the thickness of the aggregate material.

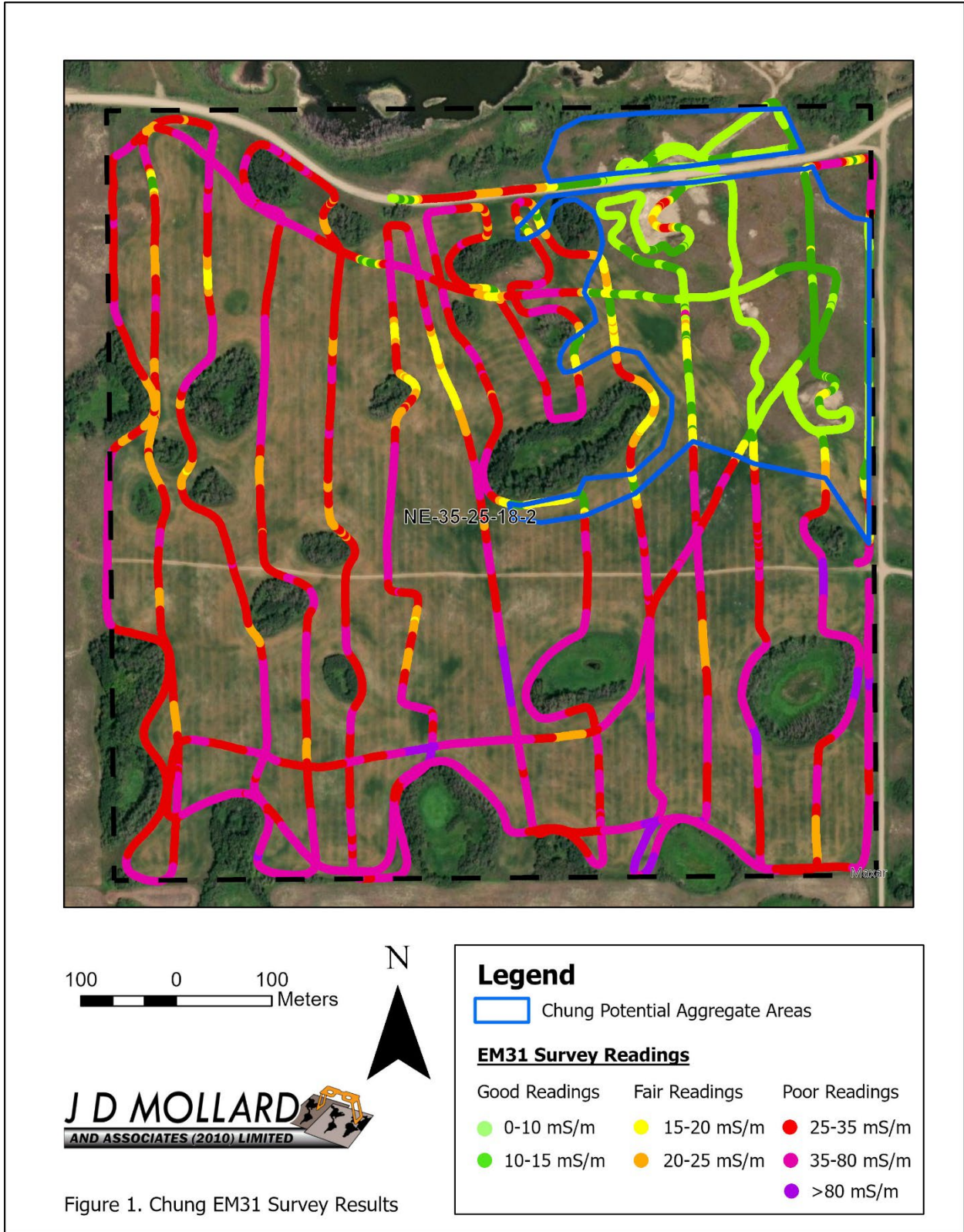




Figure 2. Selected field photos from the aggregate area on the NE35-25-18-2.

Closing

The EM31 survey carried out by JDMA have identified an area with potential aggregate resources on the NE35-25-18-W2. Further field testing (test pits and lab testing) could be carried out in the potential aggregate area shown in Figure 1 to confirm presence, suitability and potential variability of any material here.

Please contact David Boschman (306-352-8811 or boschman@jdmollard.com) if you have any questions or would like to discuss planning and JDMA involvement in the next phase of field testing.