2015 Annual Geotechnical Inspection of Selected Structures – Ulu Gold Project, Nunavut

Prepared for

Bonito Capital Corporation

Prepared by

SRK Consulting (Canada) Inc.
1CB027.003
October 2015

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1 Introduction and Scope of Work

The Ulu Gold Project is an advanced exploration project that is currently in care and maintenance status under Nunavut Water Licence 2BM-ULU0914 by Bonito Capital Corp (BCC), a wholly owned subsidiary of Elgin Mining Inc. (NWB 2011). The project is situated in the Kitikmeot region of Nunavut, with the underground exploration site located at UTM 12W 501,167E 7,421,069N. This is about 12 km north of Hood River and 150 km north of Lupin Mine, in the treeless arctic tundra where rock and glacial features dominate the landscape. Figure 1.1 shows the general location of the Ulu Gold Project.

Part D.10 of the water license states:

> "*An inspection of the earthworks, geological regime, and the hydrological regime of the Project is to be carried out by a Geotechnical Engineer prior to the recommencement of on-site activities and annually thereafter. The Geotechnical Engineer's report shall be submitted to the Board within sixty (60) days of the inspection, with a covering letter from the Licensee outlining an implementation plan to respond to the Engineer's recommendations."*

Ms. Karyn Lewis of BCC retained SRK Consulting (Canada) Inc. to conduct the 2015 geotechnical site inspection in fulfillment of these regulatory requirements. Specifically, SRK scope of work was to inspect the following structures:

- Ulu Gold Project main tank farm containment berm;
- Day fuel tank containment berm;
- Camp 3 fuel tank farm containment berm;
- Mine sump;
- Ore storage pad; and
- Portal laydown pad.

The inspection focuses on the geotechnical aspects of the structures listed above. This report summarizes SRK's observations made during the 2015 site inspection and provides recommendations for remediation. The report does not include any commentary on fuel storage, fuel and waste management practices.

srk consulting	**Bonito Capital Corp.**	Ulu Project
		Location Plan
SRK JOB NO.: 1CL008.000	Bonito Capital Corp.	DATE: October 2015 / APPROVED: AT / FIGURE: 1.1
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2 Site Conditions

2.1 Site History

Echo Bay Mines Ltd. (EBM) purchased the Ulu Gold Project site lease from BHP Minerals in 1995. Underground development was initiated in 1996. The mining operation was suspended in 1997. In January 2003, Kinross Gold Corporation acquired EBM through a merger of companies. Following this, Wolfden Resources Inc. purchased a 100% interest in Ulu from Kinross in December 2003. Wolfden reopened the mine portal in May 2005 for grade and resource confirmation. Because of a safety concern, work in the mine was suspended once again and Ulu was put into care and maintenance in the summer of 2006.

Zinifex Canada Inc. purchased Wolfden in autumn 2007 and took over Ulu and other assets. In June 2008, Zinifex merged with Oxiana Ltd., forming OZ Minerals, which was purchased by China Minmetals to become MMG Resource Inc. In July 2011 BCC, a wholly owned indirect subsidiary of Elgin Mining Inc. purchased the site from MMG. An annual report was completed by BCC for 2011 summarizing site conditions (BCC 2012) and an annual geotechnical inspection was completed by TBT Engineering in 2011 (TBT 2011). SRK has completed geotechnical inspections from 2012 onward.

2.2 Site Infrastructures

Year round access to the site is by aircraft only. The Ulu Gold Project site (Figure 2.1) consists of three major areas: the Ulu Camp, airstrip, and Camp 3. The facilities at the Ulu Camp (Figure 2.2) consist of a 60-man camp, a vehicle repair shop, powerhouse, warehouse, cold storage, and office. The site also houses a fuel tank farm, day use fuel tank, fresh water and sewage systems, garbage incinerator, ore storage area, waste rock pad, mine portal and explosive magazines. All mine production was intended to be transported via an ice road during the winter months to the Lupin Mine for processing. No processing facility was constructed at Ulu. The Camp 3 area has a fuel tank farm and a vehicle repair shop.

The tank farm at Camp 3 consists of two 1,324,895 litre tanks and six 52,995 litre tanks; these are currently not in use. At the Ulu site, fuel is stored in five 52,995 litre tanks in the fuel tank farm and one 8,800 litre day use tank.

Historically, P40 and P50 grade fuels were stored in the remote tank farm at Camp 3 until it was transferred to the Ulu camp as required. The Camp 3 fuel facility does not currently contain fuel. P50 grade fuel is currently stored in the Ulu site fuel tank farm.

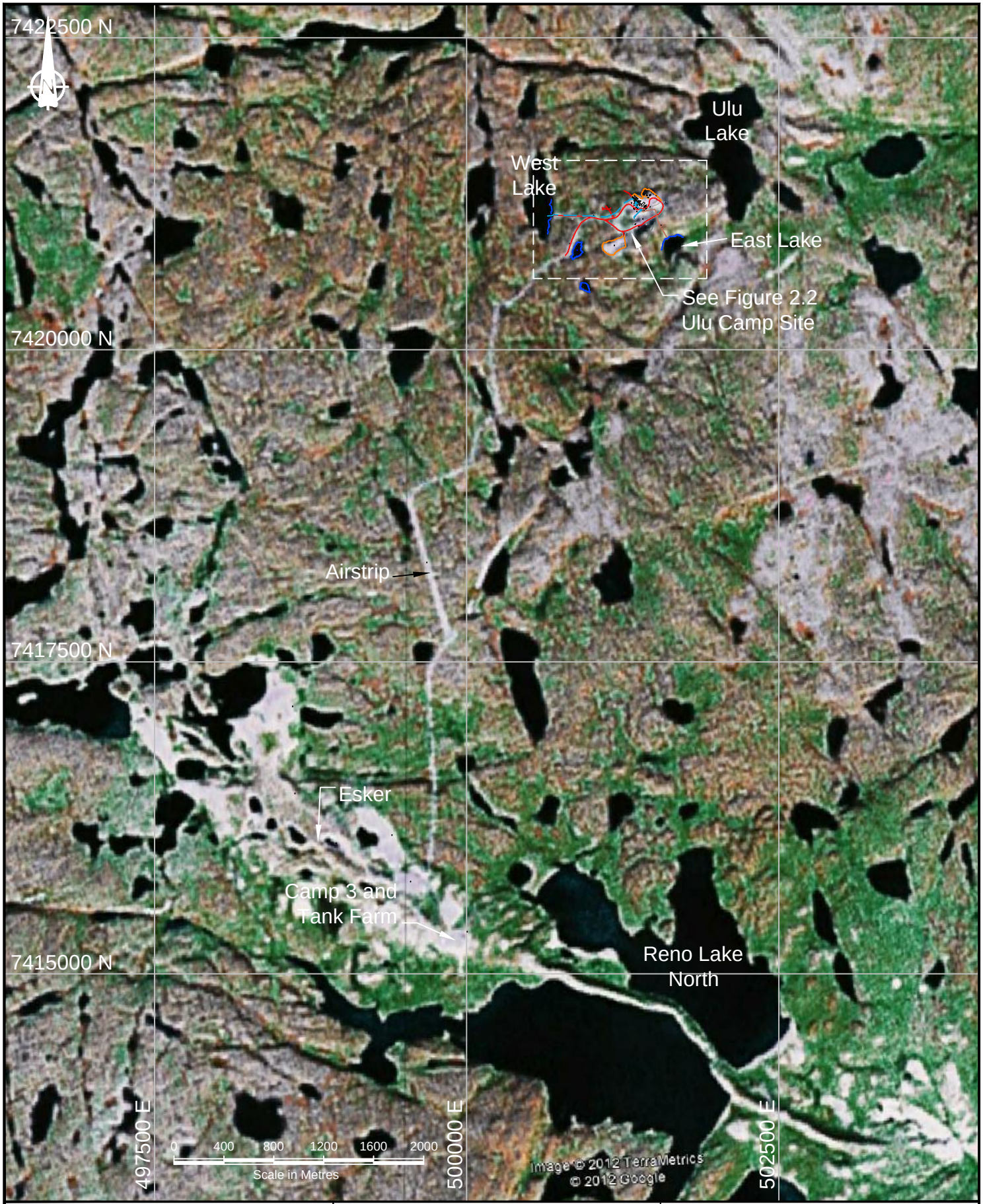
2.3 Climate

There is no weather station on site to actively record data. The nearest recording station is at Lupin Mine site about 150 km south of Ulu. Generally, the area is characterized by high arctic climate with severe winter and mild summers. The overall temperature ranges from approximately –50°C in winter to 30°C in summer. Permafrost is found in and around the site and typically extends to several hundred metres (NWB 2009). The annual mean precipitation is assumed to be between 300-350 mm.

2.4 Site Geology

The BGC Engineering 2007 Annual Inspection Report provided a summary of geology on the Ulu Gold Project and is summarized as follows:

> *The Ulu claims are located within the High Lake Volcanic Belt of the Archean Slave Structural province. This geological province consists of basement gneisses overlaid by greywacke turbidite and basalt in thick sequences. The High lake Volcanic Belt is part of such a sequence and consists of a north-south trending volcanic and sedimentary sequence, enclosed by later Archean granitoid rocks.*
>
> *The geology of the Ulu property consists of a sequence of folded mafic volcanic, mafic intrusive and sedimentary rocks, metamorphosed to upper greenshist / lower amphibolite phases. These rocks are intruded by later felsic intrusive rocks and diabase dykes. At least three phases of deformation are noted with the rocks at Ulu. The volcanic, intrusive, and sedimentary rocks are folded into a north trending anticline that plunges deeply to the north in the area of the Flood Zone. Gold occurs in laminated calc-silicate veins and in quartz veins. The highest concentrations of gold grains are found in quartz veins containing fine-grained arsenopyrite. Gold mineralization occurs primarily in the basalt and to some degree in the sediments. Very little gold mineralization occurs in the gabbroic rocks (BGC 2007).*



srk consulting	**Bonito Capital Corp.**	ULU PROJECT
		Ulu Facility Area Plan
SRK JOB NO.: 1CL008.000	Bonito Capital Corp.	DATE: October 2015 / APPROVED: AT / FIGURE: 2.1
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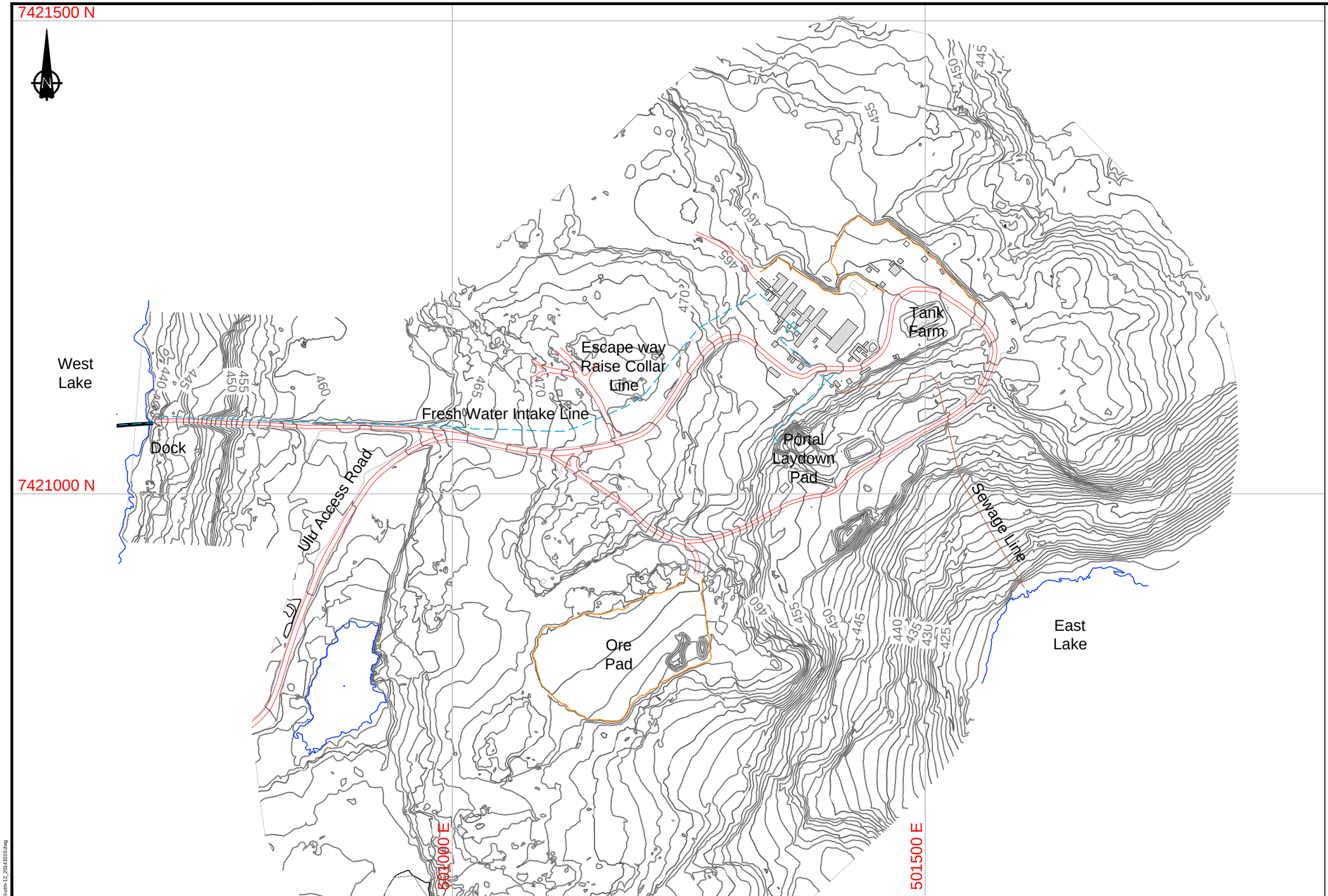

LEGEND

- Tank Farm Berm Outline
- Building
- Water Pipeline
- Sewage Pipeline
- Lake Shore, Drainage
- Contour 1 m
- Contour 5 m
- Roads
- Site Features Miscellaneous

NOTES

1. Topographic information and facilities outline provided by Bonito Capital Corporation.

0 40 80 120 160 200

Scale in Metres

Coordinate System: Nad_1983_UTM_Zone_12N
NTS Map Sheets 076L15

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ULU PROJECT

Ulu Site Plan

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3 Geotechnical Site Inspection

3.1 General

Mr Alvin Tong, PEng, a senior geotechnical engineer with SRK, conducted the geotechnical inspection on 6 August and 20 August, 2015. After a general overview of the site by air, a detailed inspection was completed on the ground. Ms Karyn Lewis of BCC was present on the 20 August visit and accompanied SRK personnel for the inspection.

Weather conditions during the inspection were overcast and cold with high gusts of wind. A detailed photographic log of the inspection is included in Appendix A.

3.2 Ulu Camp

The Ulu Camp area consists of the following facilities:

- Mine sump;
- Ulu Gold Project main tank farm containment berm;
- Day fuel tank containment berm;
- Ore storage pad; and
- Portal laydown pad.

All the facilities are generally in good condition, in terms of stability and performance, where only minor damages are noted in tank farms on the geosynthetic liner and minor erosion in overliner that require maintenance.

During the inspection, part of the leading edge and the slopes of the liner in the mine sump were found to be exposed and should be covered at the first opportunity to protect the liner. Damage to the sump liner was also observed and should be repaired. These repairs and maintenance should be performed prior to utilizing the sump.

There are minor erosion issues near each crest of the fuel containment berms where liners are exposed and damaged. The erosion should be repaired to prevent further damage to the liner, as well as to prevent leakage during periods of high water levels. Burrows are observed in the main tank farm containment berm. It is undetermined what ground animal made these burrows. Liner fragments were not observed in 2015 around the burrows to indicate the animal had damaged the liner. While it is unlikely that the animal would damage the geosynthetic liner, periodic monitoring is recommended during the summer season to ensure the number of burrows does not increase and liner fragments are not observed.

Both the ore storage and portal laydown pads are in satisfactory geotechnical condition.

3.3 Camp 3

The Camp 3 area consists of the following facilities:

- Camp 3 fuel tank farm, and
- Vehicle repair shop.

Similar to facilities at Ulu, minor damage was noted in the liner and left exposed from erosion. The main concern observed during the Camp 3 inspection is that three fuel tanks are leaning because of broken cribbing at their base. It is recommended that the cribbing be repaired. The tanks should be set upright and leveled so as to prevent toppling and damage to the tanks and containment berm. Alternatively, the leaning tanks could be decommissioned and removed from the containment berm. The fuel tank farm containment berm was generally in good condition with no visual stability concerns. The parts of the liner that are damage should be repaired and cover with appropriate backfill.

The vehicle repair shop was not part of the geotechnical inspection requirement.

4 Recommendations

Overall, the facilities are in good geotechnical condition; however, SRK makes the following recommendations for site maintenance and repairs:

- Cover all exposed liners and leading edges with granular fill for overliner protection.
- Repair all damaged liners in the fuel storage.
- Replace the broken cribbing at Camp 3 and re-level the fuel tank or decommission the tank.
- Repairs and perform maintenance on the liner in the mine sump shall be completed prior to utilizing it.
- Monitor the animal burrows in the fuel containment area for increased activities, damaged liner and fragments.

This report *"2015 Annual Geotechnical Inspection of Selected Structures − Ulu Gold Project, Nunavut"* has been prepared by SRK Consulting (Canada) Inc.

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Senior Consultant

Reviewed by

Peter Healey, PEng
Principal Engineer

5 References

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Appendix A: Photo Log

Photo 1: Looking north at one of the leaning tanks in the front of the Camp 3 fuel tank farm.

Photo 2: Close up view of the broken cribbing underneath the tank.

Photo 3: Looking east at the Camp 3 fuel tank farm.

Photo 4: Close up view of the damaged liner in the southern bank of the Camp 3 fuel tank farm.

Photo 5: Close up view of the exposed liner and water ponding underneath the large tanks in Camp 3 fuel tank farm.

Photo 6: Looking at the exposed liner in the north bank of the Camp 3 fuel tank farm.

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		Ulu Geotechnical Inspection
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Photo 7: Looking South at the Ore Pad.

Photo 8: Looking west at the mine sump. Note the exposed liner on the north bank.

Photo 9: View of the portal.

Photo 10: Looking southwest at the south slope of the Portal Laydown Pad.

Photo 11: Looking southeast at the south slope of the Portal Laydown Pad.

Photo 12: Looking north at the Portal Laydown Pad.

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Photo 13: Looking northeast at the Ulu Main Tank Farm.

Photo 14: Looking at the north banks and exposed liner at the Ulu Main Tank Farm.

Photo 15: Looking at the south banks of the Ulu Main Tank Farm

Photo 16: Looking northeast at the waste oil storage, just south of the Ulu main tank farm

Photo 17: Looking west at the exposed liner in the south banks of the waste oil storage.

Photo 18: Looking west at the day use tank at Ulu. Note the exposed liner in the west bank.

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