



200 – 365 Hargrave Street
Winnipeg, MB R3B 3A3

AUG 10 2016

Your file *Votre référence*

Our file *Notre référence*
WIN-E 4300-311
CIDM # 1624606

Chief and Council
Mathias Colomb Cree Nation
General Delivery
Pukatawagan, MB R0B 1G0

Dear Chief and Council,

RE: Statement of Work - Mathias Colomb Cree Nation Manitoba Conservation Site and Airport Fire Practice Area Phase II Environmental Site Assessment (ESA)

Aski Geosciences Limited's proposal (attached) for providing consulting services for the subject Phase II ESA, for a total cost of \$49,750 was accepted due to Aski's:

1. In depth knowledge the community and these sites.
2. Concurrently being in the community for a geotechnical survey for the school feasibility study thereby providing drill rig mobilisation savings and a reasonable price.

The onsite investigation, analysis and subsequent ESA report have already been submitted. An amendment to your 2016/17 funding agreement in the amount of \$49,750 has been initiated and should be ready for signature shortly. If you require any further information, please contact your Technical Services Officer, Derek Peña at (204) 983-4315.

Yours truly,

Leona Tencha, P. Eng.
Manager, Professional and Technical Services
Infrastructure and Housing
Indigenous and Northern Affairs Canada
Manitoba Region

Cc: Derek Peña, P. Eng., Technical Services Officer

April 18, 2016
File: AG100

Mathias Colomb Cree Nation
c/o Aboriginal Affairs and Northern Development Canada
200-365 Hargrave Street
Winnipeg, Manitoba
R3B 3A3

Attention: Mr. Derek Peña, P.Eng.

Dear Sir:

**RE: Proposal to Undertake a Limited Phase II Environmental Site Assessment at
the Manitoba Conservation Site & Airport Fire Practice Area in Pukatawagan**

Aski Geosciences Ltd. (Aski) is pleased to provide the following proposal for the provision of services to complete a Limited Phase II Environmental Site Assessment (ESA) at the Manitoba Conservation Site & Airport Fire Practice Area in Pukatawagan, Manitoba.

Further to our correspondence, Aski proposes to undertake a drilling and sampling program at the Airport to determine potential Perfluorooctane Sulfonate (PFOS) impacts in the soil and groundwater, related to fire suppressants that may have been used for training at the airport.

Specific sampling procedures must be followed when testing for PFOS. Due to the ubiquitous nature of PFOS, careful sampling procedures must be undertaken to ensure cross-contamination, or other exposures do not affect samples. In addition, special laboratory supplied sampling containers must be used to ensure substances that may impact analytical results, such as Teflon, are not introduced to the samples. A field/equipment blank must be included with the water samples for quality control/quality assurance purposes.

In addition, an investigation will be undertaken at the Natural Resources Site (Helicopter Landing Pad). Aski will review the Pinter report and develop a plan to advance the boreholes necessary to determine the extent of a potential plume, and potential migratory path.

An environmental drilling rig will be mobilized to and from the Site by air and/or rail, to conduct the assessment. Monitoring wells will be installed with flush mounted covers to reduce obstructions at the site.

Prior to undertaking the drilling program for the Phase II ESA, Aski will contact the appropriate agencies, and the Airport operations staff (if possible) to identify and mark any buried services at the Site. Although Aski will screen the area with a Trace Master before drilling, Aski is not responsible for any unknown services that are not identified at the Site.

The key components of the intrusive investigation at the Airport are as follows:

- Advance four (4) boreholes, in the vicinity of the fire training site at the airport, to 4.0 metres below grade level (mBGL) or to auger refusal;
- Log the soil stratigraphy of each borehole;
- Submit for analysis, four (4) soil samples for PFOS;
- Install groundwater monitoring wells in two (2) of the boreholes, complete with flush mount covers;
- Submit for analysis, two (2) water samples for PFOS; and
- Conduct a detailed topographic survey of all borehole locations and surrounding structures using a total station instrument.

The key components of the intrusive investigation at the Natural Resources Site is as follows:

- Advance eight (8) boreholes, in strategic locations to best identify the extent of PHC migration towards the lake, the boreholes will be extended to 4.0 mBGL or to auger refusal;
- Log the soil stratigraphy of each borehole;
- Field screen the soil samples at 0.76 metre intervals for hydrocarbon vapour concentrations using a Gastech Surveyor or equivalent organic vapour analyzer;
- Submit for analysis, twelve (12) soil samples for Canadian Council of Ministers of the Environment (CCME) Canada Wide Standards (CWS) petroleum hydrocarbon (PHC) fractions F1 to F4 and Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) concentrations. One duplicate sample will also be analysed;
- Submit for analysis, one (1) soil sample for volatile organic compounds (VOC);
- Submit for analysis, one (1) soil sample for Total Lead concentration;
- Submit for analysis, four (4) soil samples for polycyclic aromatic hydrocarbon (PAH) concentrations from the soil samples exhibiting higher vapour concentrations;
- Submit one (1) representative soil sample for grain size analysis; and
- Conduct a detailed topographic survey of all borehole locations and surrounding structures using a total station instrument.

Three (3) hard copies of the ESA report as well as one (1) digital copy in PDF format will be prepared. The report will include borehole logs, field analysis results, laboratory results, site plans, and photographs.

Placement of the borehole may be adjusted in the field, based on field screening and associated findings during the drilling program. Should additional fieldwork be required (additional boreholes or analytical), Aski will consult with the AANDC project manager and acquire approval before undertaking any additional work.

Aski will provide recommendations for both sites based on our findings. Remedial options and risk management options will be addressed in the final report.

Aski is prepared to undertake the abovementioned assessment for a fixed fee of \$49,750.00 plus GST (if applicable).

Field work will be initiated immediately. The report will be provided within six (6) weeks of completion of the laboratory analyses. Expedient approval will be required to ensure that an environmental drill can be retained for this schedule.

If this proposal is acceptable to you, please respond today so that materials can be mobilized by rail to the site. If you have any questions, please do not hesitate to contact the undersigned at (204) 779-7449.

Yours Truly,
Aski Geosciences Ltd.

Colin Ledger, C.E.T.
Principal