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October 25, 2006 Our File: E06015

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Attention: **Pamela Ladyman, M.Sc., R.P.Bio.** pladyman@yukonzinc.com
Vice President Environmental and Community Affairs

Regarding: **Wolverine Project – All Weather Access Road**
Phase 1 Winter Access Road Plan
Subsequent to Completion of the Geotechnical Program

Yukon Zinc Corporation (YZC) submitted an All Weather Access Road Plan to Yukon Energy Mines and Resources (EMR), in June 2006. This submission was subject to outcomes of geotechnical and geochemical investigations and recommendations, and to questions from EMR.

The enclosed submission is in response to the investigations, and to concerns expressed by Yukon.

The two stage geotechnical roadway and granular source investigation completed by EBA Engineering Consultants Ltd. of Whitehorse, Yukon, has provided adequate information for YES to update the designs for the access road, the granular sources and borrow pits, pit haul roads, the staging / camp area as well as detailed drainage designs to Q^{100} parameters.

While the second report provided by EBA (Appendix B) is currently in Draft format, and does not include lab gradation results, the ice and moisture content along with the sample field log observations completed by EBA, have allowed us to complete the Phase 2 design of the access road.

As explained in the attached document, it was important for YES to complete the ultimate Phase 2 design, in order to properly plan for the Phase 1 winter access road.

A key component of the completion of the geotechnical field investigation, was the development of an access trail for completion of test pitting. YES and YZC propose to utilize this cleared trail for the development of an Interim Winter Access Road from km 190.0 of the Campbell Highway, to the Wolverine site.

YZC also retained the services of Woolpert in September 2006, to provide accurate Lidar bare earth surface topography of the road corridor and minesite. This information has also been used to update the designs.

All designs have been reviewed and sealed by Paul J. Knysh, P.Eng., a qualified Transportation Engineer, registered with the Association of Professional Engineers of the Yukon. While the designs are current and accurate for these purposes, they have not been Issued for Construction at this stage, since they have not undergone scrutiny and Quality Assurance from a Contractual perspective.

Thank you.
Yukon Engineering Services Inc.

Rob Harvey
CEO YES Group, Project Designer

Paul J. Knysh, P.Eng.
Engineering Manager, YES Group, Project Engineer

Enclosures:

Wolverine Project – Phase 1 Winter Access Road Plan, October 25, 2005

Wolverine Project

PHASE 1 WINTER ACCESS ROAD PLAN

Prepared by:

Yukon Zinc Corporation
and
Yukon Engineering Services Inc.
YES Group

October 25, 2006

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1 Introduction

This submission is a revision to June 2006 YZC and YES submission "All Weather Access Road Plan, Version 2006-01", and is all-inclusive with the exception of Appendix A (Adopted YG Standards and Specifications) included in the June submission. Figure 1 has been revised to include information originally provided in Figures 3 and 4. Appendix A and Figure 2 were originally developed for tendering purposes and are not warranted here.

This submission provides all necessary information for the completion of the access road from km post 190.0 of the Robert Campbell Highway. The road is planned to be constructed to the Wolverine Lake site in two phases:

- **Phase 1** – Construction of a temporary winter access road, and clearing for Phase 2
- **Phase 2** – Construction of the all weather access road and permanent crossings. The final report for Phase 2 design will be submitted at the end of November 2006.

Information gathered and subsequent operations, following the June submission include:
- Geotechnical investigation program.
- Geochemical analyses of borrow sources and roadway cuts.
- Lidar topography of road corridor.
- Detailed topographic surveys of the Campbell Highway intersection, stream crossings and rock outcrops.
- Complete re-design

This report was prepared by Yukon Zinc Corporation (YZC) and Yukon Engineering Services Inc. (YES) with contributions from EBA Engineering Consultants Ltd. (EBA), AMEC Earth & Environmental (AMEC), and Klohn Crippen Berger (Klohn).

YZC retained YES to complete the route selection, preliminary design, geotechnical assessment, detailed design, tendering, construction management and quality assurance of the proposed all weather Access Road. YES retained the services of EBA to provide professional geotechnical evaluations of the route and sources, undertake a roadway geotechnical testing program, complete laboratory testing of samples taken along the route and from granular sources, and to provide construction recommendations resulting from their investigations and laboratory results. AMEC has developed the environmental (ARD/ML) testing protocol, and Klohn provided borrow source testing results.

Preliminary assessments of the access road alignment were conducted in 2005. Activities in 2005 also included biophysical and archaeological assessments as described in the *Wolverine Project Environmental Assessment Report* (YZC, 2005[1]). Detailed alignment layout and engineering have been completed, and additional fieldwork has been done.

The following sections provide details pertaining to road design, stream crossing details, borrow sources, environmental and geotechnical testing protocols and outcomes, traffic and access control measures, best management practices and mitigation measures for construction related activities, construction monitoring

plans, and reclamation plans and cost estimates for closure of the Phase 1 road and borrow site at km 0.3.

2 Wolverine Project Access Road

YZC proposes to construct access to the site in two phases with construction of a winter access road following receipt of the Quartz Licence in late fall 2006 (Phase 1), and construction of the all weather access road in spring 2007 (Phase 2). Both Phase 1 and Phase 2 are or may be located on the Registered Quartz Mining Claims summarized in Table 2.1.

Table 2.1. Access Road Associated Quartz Mining Claims

Claim Name	Approximate km Location	Claim Name	Approximate km Location	Claim Name	Approximate km Location
Goalie 89	0	Goalie 260		Cup 15	
Goalie 102		Goalie 257	12	Puck 43	22
Goalie 100	1	Goalie 259		Cup 14	
Goalie 98		Money 12		Cup 13	
Goalie 96		Money 14		Puck 36	
Goalie 97	2	Money 13	13	Cup 11	
Goalie 94		Money 11		Cup 12	
Goalie 95		Money 2	14	Puck 34	
Goalie 93		Money 1		Puck 32	23
Goalie 292	3	Money 30		Puck 30	
Goalie 290		Money 29	15	Puck 28	24
Goalie 291		Goalie 306		Puck 27	
Goalie 289		Goalie 241		Puck 26	
Goalie 65	4	Goalie 239		Puck 25	
Goalie 63		Goalie 305		Puck 24	
Goalie 62		Goalie 240		Puck 23	
Goalie 60	5	Goalie 230	16	Puck 22	25
Goalie 52		Goalie 232		Puck 21	
Goalie 50		Goalie 231		Puck 20	
Goalie 51	6	Goalie 233		Puck 19	
Goalie 48		Goalie 220		Foot 1	26
Goalie 49		Goalie 219	17	Foot 3	
Goalie 47	7	Goalie 217			
Goalie 45		Goalie 215			
Goalie 43		Goalie 222	18		
Goalie 41	8	Goalie 213			
Goalie 40		Goalie 206			
Goalie 38		Goalie 205			
Goalie 39		Puck 71	19		
Goalie 36	9	Puck 69			
Goalie 37		Puck 70			
Goalie 35		Puck 67			
Goalie 34		Puck 68	20		
Goalie 32	10	Cup 19			
Goalie 33		Puck 59			
Goalie 30		Puck 61			
Goalie 31	11	Puck 62			
Goalie 29		Puck 47	21		
Goalie 258		Puck 45			

2.1 Phase 1 Winter Access Road

The first phase of the access road development is the construction of a ~24 km long temporary winter access road from km Post 190.0 of the Robert Campbell Highway to the mine site for the purpose of hauling in equipment and supplies required to set up the construction camp and for the onset of construction activities scheduled to commence in spring 2007. From the highway, the access road corridor follows the Putt Creek and Chip Creek drainages before transitioning into the Go Creek drainage and the mine.

The need for a winter access road into the site was envisioned prior to the completion of the geotechnical program, but was not part of the June submission to EMR.

Winter accesses are often situated in areas not conducive to all weather access road construction. Examples of situations often desirable for winter road construction, but not desirable for all weather road construction are:

- **Swamps, bogs and marshes** – winter roads constructed in frozen conditions are often built of snow and ice across the gentler terrain found at these features for economic reasons. Constructing all weather roads in these situations creates larger impacts, higher construction and maintenance costs, and larger reclamation programs.

- **Path of least resistance -** winter roads are usually selected along the path of least resistance for bulldozers and "cat-train" deployment. These alignments and grades are often not conducive to the longer terms safe haul of goods and personnel.

- **Stream Crossings –** winter road stream crossings are usually done over ice, or by way of ice bridges where possible. These locations are selected for their approach grades and gentler relief is usually desirable. The winter road crossing locations are usually chosen where the stream is shallower and wider. All weather road stream crossings must be chosen for flow impact, shorter crossing structures and all weather foundation conditions.

In order to minimize impact, and to better control access in the long term, YZC has chosen to construct its winter access road along the alignment of the cleared geotechnical investigation trail, which itself is within the footprint of the ultimate all weather access road clearing, and in the steeper side-hill areas, will fall within the ultimate roadway prism.

The winter road will be constructed over a four to six week period during November and December 2006, and approximately 275 loads would be hauled over the road during January to March 2007. Table 1 provides as summary of the types of equipment and materials and tote road usage over this period.

Table 2.2. Wolverine Project Anticipated Tote Road Usage November 2006 to March 2007.

Description	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Total Estimated Truck Loads
Temporary Bridge and Culverts						3
Camp and Associated Infrastructure						150
Structural Steel						12
Earth Moving Equipment						8
U/G Development Equipment						6
Fuel Tankers/Storage						4
Aggregate/Cement						60
Rebar						10
Piping/Electrical						18
Genset (Temp)						1
Service Vehicles						4
Catering/Consumables						2

Section 3 provides design and construction details for the Phase 1 winter access road.

2.2 Phase 2 All Weather Access Road

The second phase entails construction of an all weather access road. The road will be a private, single lane road with passing bays, will have restricted access and will be operated under radio control. The road will be used year round with minimal load restrictions. Design and construction details for this phase will be provided by the end of November 2006.

Prior to construction, clearing of the right of way will be required. It is preferred to conduct this work during the January to March 2006 period. Winter clearing operations allow for better access on frozen ground, and safe burning-disposal of non-salvageable product (rather than trucking and bury-disposal).

3 Phase 1 Road Design and Specifications

The Phase 2 access road design has been revised subsequent to the completion of the geotechnical field investigation (July, 2006) and granular investigation (September, 2006) programs executed by EBA Engineering Consultants Ltd, and following the Bare Earth Lidar topography provided by Woolpert on behalf of YZC.

The design of the Phase 2 road meets or exceeds Transportation Association of Canada (TAC) RLU 60 Single Lane Resource Road, (with inter-visible two lane sections) employing the standards summarized in Table 3.1. As discussed previously, the Phase 1 winter road will be built within the prism of the ultimate Phase 2 design.

Table 3.1. Adapted Transportation Association of Canada Single Lane Resource Road Standards

- Desirable Minimum Curve Radii	- 170m
- Minimum Curve Radii	- 120m
- Minimum Switch-back Radii[1]	- 65m
- Desirable Maximum Gradient[2]	- 8%
- Minimum "k" Factor Crest	- 15
- Minimum "k" Factor Sag	- 10
- Single Lane Width	- 6m crowned @ 3%
- Two Lane Width	- 8.5m crowned @ 3%
- Super-elevation	- Emax 8%
- Minimum Culvert Diameter	- 600mm or Q^{100} whichever is greater
- Culvert Installations	- as per *YG 06010-1, -2, -3, -4, -5, -6, -7 (Appendix A)*
- Clearing	- Machine and Hand Clearing as per: *YG Sections 03010, 03011 (Appendix A)* - to 15m either side minimum, or 3m beyond cuts (tree root protection), 6m beyond fills (access to reclaim stripping), whichever is greater.
- Surfacing Aggregate	- 300mm as per *YG Section 04060 (Appendix A)*
- Sideslopes (fill)	- 2H:1V ratio (except as geotechnically modified) - 1.5H:1V ratio, where safety berms are employed
- Backslopes (earth cut)	- 1.5H:1V ratio (except as geotechnically modified)
- Backslopes (rock cut)	- 0.5H:1V ratio (except as geotechnically modified)
- Ditch Depth	- 1m
- Ditch Type	- "V" Ditch, with widenings for side-borrow.
- Safety Berms	- 0.75m Ht. where Fills > 10m, or where downhill side hazard requires. Roadbed widened 1.5m to accommodate.
- Compactive Density	- 95% Standard Proctor (Embankment) - 98% Standard Proctor Density (Surfacing Aggregate and culvert bedding/backfill)

[1] Utilized in 2 situations: Bunker Ck. at km 10.4, to avoid a beaver dam, and at km 13.1, to avoid two stream crossings and for economic considerations.

[2] TAC recommends maximum gradients of 12% in mountainous terrain, and 10% in semi-mountainous terrain. 8% was selected for safety, erosion control and reduced operating costs. 10% grades were required for short sections

The road design drawings are provided in Figure 1 and have been sealed by Paul J. Knysh, Yukon P.Eng. The road design is not approved for construction purposes, but is complete in terms of impact and construction requirements. All assessments to date have been completed using techniques suiting the level of investigation required using systematic development planning.

Route selection and design were based on hydrology studies, stream data collection, terrain analyses and air photo interpretation of soils conditions, by hand sample truthing of the mapped interpretations, then by a two phase geotechnical investigation by:

- *Surface Geology, Soils and Associated Interpretations. Wolverine Biophysical Surveys* (Mougeot Geoanalysis 1996)
- Axys (satellite imagery interpretation of *Surficial Materials Distribution*)
- Jack Dennett, P.Geol., EBA Engineering Consultants Ltd., YES Geotechnical Sub-consultant (air photo interpretation)
- Paul J. Knysh, P.Eng., and Rob Harvey of Yukon Engineering Services Inc. (air photo interpretation)
- EBA Engineering Consultants Ltd. (Geotechnical Investigation)
- Lidar Bare Earth topography (Woolpert)

The Phase 2 route is “final”, within acceptable uses of the term. The alignment is fixed within a defined corridor of 50m in width, except at controlling stream crossings, where the alignment is considered final at its present location to within +/-10m.

The Phase 1 route as shown in Figure 1, is also final within +/- 10m. The controlling stream crossings for both phases are:

Table 3.2 Controlling Stream Crossings along the Road Alignment

Creek Crossing	Figure 1 Dwg #	km Location	Latitude	Longitude	Structure Type
Putt	"km 3"	3.03	61° 28’ 46.8”	129° 53’ 33.5”	1600mm Dia. CSP*
Pitch	"km 1.5"	2.88	61° 28’ 50.1”	129° 53’ 32.1”	2400mm Dia. CSP*
Bunker	"km 9"	10.38	61° 25’ 21.6”	129° 56’ 01.6”	20m Bridge**
Bogie	"km 15"	15.7	61° 24’ 00.3”	129° 59’ 25.2”	1000mm Dia. CSP***
Hawkowl	"km 22.5"	23.23	61° 24’ 00.4”	130° 03’ 49.8”	1600mm CSP at 23+225, plus a 1000mm in the Overflow Stream at 23+200
*	CSP = Corrugated Steel Pipe Helical Culvert. All diameters shown are "minimum anticipated", and are subject to further field confirmation.				
**	Figure 1 shows a SPCSP **or** 20m Bridge. A bridge is planned.				
***	Fluming is indicated in Figure 1. This will be confirmed following detailed topographic surveys.				

Confirmation of soils types and conditions was by way of the road geotechnical investigation (See Section 6).

The road construction contract has been tendered to qualified contractors. All bidders were instructed according to:

- Yukon Government Highways and Public Works design specifications. Appropriate specifications were provided following the completion of the roadway geotechnical investigation. To date, bidders have been provided with all YG specifications (Appendix A in report Version 2006-01). Additional particular specifications will become known and applicable once the roadway geotechnical report has been completed in its final form. This report will be integrated into report Version 2006-02, to be submitted at the end of November 2006.
- Tender Drawings (previously provided) were based on topography derived from satellite imagery. The intent of the tender drawings was honored in this submission (Figure 2) and will be honored in the Issued for Construction (IFC) Drawings. Heights of fills, depths of cuts, the location of the alignment, the design standards, drainage management and erosion protection protocols will be employed as provided in the Approved for Tender Drawings.

Figure 1:
"***Wolverine Access Road - km 0 to km 23.9***
SUBSEQUENT TO COMPLETION OF THE GEOTECHNICAL PROGRAM PROVIDING FOR THE INTERIM PROPOSED WINTER ACCESS ROAD OCTOBER, 2006"
Sealed by Paul J. Knysh, P.Eng.

Phase 2 design elements have not changed significantly since the June submission. The following exceptions apply, and are also applicable to the Phase 1 alignment as shown on Figure 1:

- **km 0 to km 0.7** – The intersection with the Campbell Highway has been relocated, to km 190.0 of the Campbell Highway. This was done in order to accomplish the following:
  - Improve the intersection visibility for public safety.
  - Avoid permafrost over shallow bedrock km 0 to km 0.7.
  - Reduce impact by including the first section of roadway within the footprint of the planned Borrow Pit, Staging and Camp Area.
- **km 0.7 to km 2.9** – Grade-lines were lowered, as ice contents within the discontinuous permafrost in this section were found to be generally less than 10% in granular soils. Should site-specific observations during construction so dictate, road grades will be raised to preserve the permafrost.
- **km 7.5 to km 9.0** – Revised grade-lines ensure adequate embankment over ice-rich permafrost in this section. Non-woven geotextile will be applied over undisturbed organic materials prior to backfilling.
- **km 10.1 to km 10.7** – Grade-lines have been improved from 10% to 8% as a result of the more accurate surface topography.
- **km 10.7 to km 16.4** – Grade-lines have been modified from the consistent 8%, to varying grade-lines of 6% to short "pitches" of 10%, due to the improved topography.
- **km 16.5 to km 17.4** – The road alignment was changed in order to avoid wet swampy ground on the glacio fluvial terrace area.
- **Throughout:**
  - Accurate surface topography accommodated a complete grade-line revision throughout the entire alignment.
  - Test pit information provided representative bedrock profile information, as well as reliable stripping, waste-cut and grubbing thickness.

Phase 2 borrow pit, granular sources and side-borrow areas have been identified for the entire Phase 2 roadway and are shown on Figure 1.

As discussed previously, Phase 1 operations, plans and specifications are based upon the integrity of the Phase 2 design and standards. Acceptable construction planning for Phase 2, necessitate acceptable construction planning for Phase 1.

Table 3.3 on the following page describes the conditions, Phase 2 Construction Method, and resultant Phase 1 plan for each segment along the ~24 km route.

Table 3.3 Phase 1 and Phase 2 Methods of Clearing and Construction

KM RANGE FROM	KM RANGE TO	CLEARING METHOD	PH. II CONSTRUCTION METHOD	PH II COMMENT	PH I COMMENT
0.140	0.525	MACHINE CLEARING	OPTIMAL CUT TO FILL METHODS	STAGING, CAMP, BORROW	STAGING, CAMP, BORROW
0.525	0.675	HAND CLEARING	>1.5M FILL (TYP)	BOG / SWAMP CROSSING	>1.5M FILL (TYP) 600mm CSP km 0.575
0.675	2.840	MACHINE CLEARING W/ STRATEGIC HAND CLEARING	NORMAL W/ STRATEGIC GEOTEXTILE, 1.5m FILL (TYP)	SPORATIC PERMAFROST, ICE CONTENT <10% TYPE, SOME ICE CONTENT >10%.	WINTER ROAD ABOVE / LT OF PH. II ROAD
2.840	2.905	HAND CLEARING	EMBANKMENT CLEAN GRANULAR	PITCH CREEK CROSSING	ICE + SNOW CROSSING
2.905	2.995	MACHINE CLEARING	OPTIMAL CUT TO FILL METHODS	GRANULAR DEPOSIT BETWEEN CREEKS.	WINTER ROAD ABOVE / RT OF PH. II ROAD
2.995	3.055	HAND CLEARING	EMBANKMENT CLEAN GRANULAR	PUTT CREEK CROSSING	ICE + SNOW CROSSING
3.055	3.200	HAND CLEARING, GEOTEXTILE, 1.5m FILL (TYP)	GEOTEXTILE, 1.5m FILL (TYP)	DISCONTINUOUS ICE RICH PERMAFROST ZONE	WINTER ROAD ABOVE / RT OF PH. II ROAD
3.200	4.175	MACHINE CLEARING W/ STRATEGIC HAND CLEARING	NORMAL W/ STRATEGIC GEOTEXTILE, 1.5m FILL (TYP)	SPORATIC PERMAFROST, ICE CONTENT <10% TYPE, SOME ICE CONTENT >10%.	WINTER ROAD ABOVE / RT OF PH. II ROAD
4.175	4.235	HAND CLEARING	OPTIMAL CUT TO FILL METHODS	UNNAMED STREAM CROSSING	ICE + SNOW CROSSING
4.235	5.075	MACHINE CLEARING W/ STRATEGIC HAND CLEARING	NORMAL W/ STRATEGIC GEOTEXTILE, 1.5m FILL (TYP)	SPORATIC PERMAFROST, ICE CONTENT <10% TYPE, SOME ICE CONTENT >10%.	WINTER ROAD ABOVE / RT OF PH. II ROAD
5.075	5.135	HAND CLEARING	OPTIMAL CUT TO FILL METHODS	UNNAMED STREAM CROSSING	ICE + SNOW CROSSING
5.135	5.565	MACHINE CLEARING W/ STRATEGIC HAND CLEARING	NORMAL W/ STRATEGIC GEOTEXTILE, 1.5m FILL (TYP)	SPORATIC PERMAFROST, ICE CONTENT <10% TYPE, SOME ICE CONTENT >10%.	WINTER ROAD ABOVE / RT OF PH. II ROAD
5.565	5.625	HAND CLEARING	OPTIMAL CUT TO FILL METHODS	UNNAMED STREAM CROSSING	ICE + SNOW CROSSING
5.625	6.740	MACHINE CLEARING W/ STRATEGIC HAND CLEARING	NORMAL W/ STRATEGIC GEOTEXTILE, 1.5m FILL (TYP)	SPORATIC PERMAFROST, ICE CONTENT <10% TYPE, SOME ICE CONTENT >10%.	WINTER ROAD ABOVE / RT OF PH. II ROAD
6.740	6.800	HAND CLEARING	OPTIMAL CUT TO FILL METHODS	UNNAMED STREAM CROSSING	ICE + SNOW CROSSING
6.800	6.440	MACHINE CLEARING W/ STRATEGIC HAND CLEARING	NORMAL W/ STRATEGIC GEOTEXTILE, 1.5m FILL (TYP)	SPORATIC PERMAFROST, ICE CONTENT <10% TYPE, SOME ICE CONTENT >10%.	WINTER ROAD ABOVE / RT OF PH. II ROAD
6.440	6.500	HAND CLEARING	OPTIMAL CUT TO FILL METHODS	UNNAMED STREAM CROSSING	ICE + SNOW CROSSING
6.500	7.500	MACHINE CLEARING W/ STRATEGIC HAND CLEARING	NORMAL W/ STRATEGIC GEOTEXTILE, 1.5m FILL (TYP)	SPORATIC PERMAFROST, ICE CONTENT <10% TYPE, SOME ICE CONTENT >10%.	WINTER ROAD ABOVE / RT OF PH. II ROAD
7.500	9.100	HAND CLEARING	GEOTEXTILE, 1.5m FILL (TYP)	DISCONTINUOUS ICE RICH PERMAFROST ZONE	ICE + SNOW CROSSING
9.100	10.175	MACHINE CLEARING W/ STRATEGIC HAND CLEARING	NORMAL W/ STRATEGIC GEOTEXTILE, 1.5m FILL (TYP)	SPORATIC PERMAFROST, ICE CONTENT <10% TYPE, SOME ICE CONTENT >10%.	WINTER ROAD ABOVE / RT OF PH. II ROAD
10.175	10.425	HAND CLEARING	OPTIMAL CUT TO FILL, 3m EMBANKMENT OVER CREEK	BUNKER CREEK CROSSING, BEAVER DAM	ICE + SNOW CROSSING 5m DOWNSTREAM OF PH II RD.
10.425	15.080	MACHINE CLEARING	OPTIMAL CUT TO FILL METHODS	SIDEHILL ASCENT	WINTER ROAD ABOVE / RT OF PH. II ROAD
15.080	15.140	HAND CLEARING	HAND CLEARING	UNNAMED STREAM CROSSING	ICE + SNOW CROSSING
15.140	15.210	MACHINE CLEARING	OPTIMAL CUT TO FILL METHODS	SIDEHILL ASCENT	WINTER ROAD ABOVE / RT OF PH. II ROAD
15.210	15.270	HAND CLEARING	HAND CLEARING	UNNAMED STREAM CROSSING	ICE + SNOW CROSSING
15.270	15.670	MACHINE CLEARING	OPTIMAL CUT TO FILL METHODS	SIDEHILL ASCENT, ROCK PREVALENT	WINTER ROAD ABOVE / RT OF PH. II ROAD
15.670	15.730	HAND CLEARING	HAND CLEARING	BOGIE CREEK CROSSING	ICE + SNOW CROSSING 200m UPSTREAM ABOVE H-WATER
15.730	16.700	MACHINE CLEARING	OPTIMAL CUT TO FILL METHODS	SIDEHILL ASCENT, ROCK PREVALENT	WINTER ROAD ABOVE / RT OF PH. II ROAD
16.700	18.800	MACHINE CLEARING	SMALL CUT TO FILLS	GLACIO FLUVIAL PLATEAU	WINTER ROAD ABOVE / RT OF PH. II ROAD
18.800	20.295	MACHINE CLEARING	OPTIMAL CUT TO FILL METHODS	SIDEHILL DESCENT, ROCK PREVALENT	WINTER ROAD ABOVE / RT OF PH. II ROAD
20.295	20.355	HAND CLEARING	HAND CLEARING	UNNAMED STREAM CROSSING	ICE + SNOW CROSSING
20.355	20.820	MACHINE CLEARING	OPTIMAL CUT TO FILL METHODS	SIDEHILL DESCENT	WINTER ROAD ABOVE / RT OF PH. II ROAD
20.820	20.880	HAND CLEARING	HAND CLEARING	UNNAMED STREAM CROSSING	UNNAMED STREAM CROSSING
20.880	21.570	MACHINE CLEARING	OPTIMAL CUT TO FILL METHODS	SIDEHILL	WINTER ROAD ABOVE / RT OF PH. II ROAD
21.570	21.630	HAND CLEARING	HAND CLEARING	UNNAMED STREAM CROSSING	UNNAMED STREAM CROSSING
21.630	23.170	MACHINE CLEARING	OPTIMAL CUT TO FILL METHODS	SIDEHILL	WINTER ROAD ABOVE / RT OF PH. II ROAD
23.170	23.255	HAND CLEARING	HAND CLEARING	HAWKOWL CREEK CROSSING	ICE + SNOW CROSSING 80m UPSTREAM ON EX DRILL RD.
23.255	23.950	MACHINE CLEARING	OPTIMAL CUT TO FILL METHODS	SIDEHILL	WINTER ROAD ABOVE / RT OF PH. II ROAD

3.1 Access Tie-In and Staging Areas

Yukon Engineering Services has completed its assessment of the proposed intersection of the all weather access road with the Campbell Highway. This has been done by way of confirming required sight distances based on the Rural Arterial 80 km/hr posting (TAC RAU 80) and designation of the Campbell Highway at present, and the intended RAU 90 designation of the Campbell Highway upgrades over the coming years.

The intended intersection with the Campbell Highway has been relocated from km 189.4 to km Post 190.0, at the proposed staging area as shown in Figure 1. A road construction camp will be required near the Campbell Highway for both Phase 1 and Phase 2. A staging area will also be required, which will be used throughout the construction of the mine and road, and the operation of the mine. It is proposed to combine these two developments for the construction stage.

Detailed topographic surveys were completed of the proposed Campbell Highway intersection during the geotechnical investigation program. Detailed site drawings and proposed intersection details will be presented to Yukon Highways and Public Works to ascertain their specific requirements or concerns. A Public Highways Access permit application will then be submitted to YG HPW for approval of the Phase 2 plan.

Construction needs for the staging area will include:

- Access road construction camp, engineering office
- Temporary storage of materials, camp and equipment awaiting availability of access to the mine site.
- Storage of culverts and other associated road construction materials.
- Parking and maintenance of construction equipment.
- Fuel, parts and lubricants storage and control.

Operational needs for the staging area include:

- Chaining of trucks during the winter months.
- Fuel for maintenance equipment.
- Holding area for vehicles awaiting authorization to proceed onto the access road.
- Traffic control gate

4 Borrow Sources

Originally it was planned to utilize side-borrows for all roadway embankment rather than specific borrow sources. Subsequent geotechnical investigations by EBA however, have indicated ice rich permafrost in portions. This has resulted in the need to extract common excavation as well as granular surfacing material from designated sources in some areas.

Information used to develop our Borrow Source Plan was derived from EBA's geotechnical investigation completed in two phases (Appendix A and Appendix B).

Of the nine possible borrow targets, it is planned to develop five during Phase 2, as summarized below and shown in Figure 1:

Table 4.1. Phase 2 Designated Borrow Sources along the Road Alignment

PIT	STA	O/S	GROSS AREA (Ha.)	NET AREA (Ha.)	AVG DEPTH (m)	COMMON (m^3)	GRANULAR SURFACING (m^3)	CONCRETE AGGREGATE (m^3)	TOTAL (m^3)
P1	350	0	5.3	2.7	2	3,000	3,000	-	6,000
S3A	2700	70	1.6	0.8	2	9,000	3,000	-	12,000
S3B	2950	70	1.1	0.6	2	-	9,000	-	9,000
P2A	11200	60	1.0	0.5	2	-	8,000	-	8,000
P2B	11100	130	0.6	0.5	2	-	5,000	5,000	5,000
P4A	16700	-100	2.9	1.5	2	22,000	7,000	-	29,000
P4B	17450	110	3.0	1.5	2	23,000	7,000	-	30,000
P3	23600	-150	1.0	0.5	2	-	8,000	-	8,000
TOTALS			**16.5**	**8.5**	**2.0**	**57,000**	**50,000**	**5,000**	**107,000**

Only Pit P1 will be partially developed for Phase 1. Reclamation plans will be applied to the Phase 1 P1 Pit development on a contingency basis, in the event that Phase 2 is delayed.

Phase 2 borrow sources will be developed according to acceptable construction practices, and to standards currently employed by the Yukon Government in its execution of highway construction contracts. Specifically:

- Prior to clearing, additional construction test pit information will be used to confirm the optimum depth of planned excavation. These depths will be used to confirm the extents of each source, with appropriate consideration to setbacks from streams and escarpments.
- Haul Roads are shown in Figure 1.
- A **Borrow Source Development Plan** drawing will be provided by YES on a case-by-case basis. Once approved, the plan will be provided to the Contractor. This Development Plan will include instructions for the development stage: storage of overburden soils and organic stripping materials, stockpiling of granular screened or crushed product for construction and maintenance, designated area for setting up of plant, limits of clearing, any required drainage remedies, and buffer areas; and for the reclamation stage: sloping of borrow walls (2H:1V maximum steepness recommended), re-contouring of pit area and haul road, creation of enhancements as may be directed, contouring of organic overburden over the surface area, and seeding.

- Limits of clearing for the borrow source and the haul road, will be flagged in the field by YES.
- Clearing, disposal and salvage will be completed by the Contractor, according to standards provided in *YG Sections 03010, 03011*.
- Once cleared, the extents of the planned borrow excavation will be laid out in the field by YES, leaving the required overburden storage and buffer zones.
- Grubbing and stripping operations will be by way bulldozing materials to the perimeter of the cleared area, leaving adequate space to re-access the materials for reclamation.
- Excavation will be limited to the development area as shown on each specific Borrow Source Development Plan, and as laid out in the field by YES.
- Where granular deposits are underlain by colluvium, till or other materials suitable for common embankment, these materials will be used for roadway sub-grade construction purposes.
- "Oversize" boulders rejected by crushing or screening operations will be employed as rip rap where feasible, or stockpiled for future use as rock pile barricades at the entrances to the borrow source haul roads.

Once construction and maintenance requirements are met, the borrow source sites will be reclaimed as identified in each specific Borrow Source Development Plan.

5 Geochemical Evaluation

The geotechnical trail from the Robert Campbell Highway to the Wolverine mine property was assessed and sampled along any significant road cuts, and significant lithology changes for geochemical testing. A thick organic cover over the first 9km (from the Robert Campbell Highway) of the road route prevented any bedrock or overburden sampling in this area. The last 5.5kms were also covered with thick organic layers and the bedrock and/or overburden were not sampled. Sampling was conducted by Project Geologist Gilles Dessereau as per the protocol requirements developed by AMEC Earth & Environmental (see Section 5.1) and lab results are pending. A summary of the onsite inspections and sample locations are provided in Table X.

Table 5.1. Summary of Geochemical Sampling along the Geotechnical Trail for Phase 1 Access Road Construction

Sample Number	UTM NAD 83 Zone 9 East	UTM NAD 83 Zone 9 North	Description	Fizz Rating (1-10*)	Sulfide Content (%)	ARD Potential Estimate
WVR06-001	450590	6810680	Small cut on west side of road, poorly sorted, well rounded glacial-fluvial overburden	5	<1	nil
WVR06-002	450080	6810120	Small cut on west side of road, poorly sorted, well rounded glacial-fluvial overburden	0	<1	nil
WVR06-003	450110	6810120	Small cut on west side of road, poorly sorted, well rounded glacial-fluvial overburden	1	<1	nil
WVR06-004	447710	6808360	Small cut on west side of road, poorly sorted sub-rounded to sub-angular glacial overburden	1	<1	nil
WVR06-005	446850	6807650	Large outcrop on west side of road greenstone with abundant greenstone cobbles in creek bed	1	<1	nil
WVR06-006	447120	6807360	Large outcrop on east side of road well foliated greenstone	1	<1	nil
WVR06-007	447310	6807010	Large outcrop on west side of road near creek greenstone	1	<1	nil
WVR06-008	445870	6804660	Large outcrop on west side of road greenstone	1	<1	nil
WVR06-009	444780	6805240	Colluvium on west side of road consisting of cobbles and boulders of greenstone	1	<1	nil
VD10-06-10G	446610	6805630	borrow pit			
VD10-5-1G	449750	6810120	borrow pit			
VD10-4-2-G2	452960	6819010	borrow pit			

Please refer to Figure 1.

EBA also collected samples from km 0 to km 3.2 for geotechnical purposes and upon further examination have submitted two geochemical samples for areas where the organic mat or permafrost did not limit

sampling. A sub-sample of these geotechnical samples has been submitted to the lab, and details pertaining to these samples are as follows:

- Primary 1 Borrow Site is located along the west side of the access road between km 0 and km 1 near the Robert Campbell Highway. Four test pits completed at the Primary 1 site intersected a blanket of gravelly sand. The proposed borrow area is on a glaciofluvial terrace about 11 ha in area.

- Secondary 3 Borrow Site is located at the confluence of two streams and is bisected by the road alignment between km 2.7 and km 3.0. Six test pits excavated in the area indicate that a blanket of glaciofluvial sand and gravel forms the two small ridges crossed by the road alignment in this area. North of the road alignment the ridges are well-drained and the granular sub-surface material is unfrozen. South of the road alignment the terrain is flat to gentle and the soils are frozen. This area appears to be a source of good quality granular material, however the extent of the deposit is limited and development may be constrained by close proximity to streams and a perched aquifer near km 2.8.

5.1 Geochemical Testing Protocol

Yukon Zinc Corporation (YZC) retained the services of AMEC Earth & Environmental to develop a protocol for environmental testing of construction materials and cut slopes along the access road from the Robert Campbell Highway to the Wolverine mine property. Construction materials used as borrow material along the road route may consist of unconsolidated sediments (soils, till, gravel, etc.) and bedrock. The protocols outlined below have and will be used for sampling and analysis techniques of along the access road to determine acid rock drainage and metal leaching potential. At sites of interest, the following actions will be carried out:

1. Visual inspection
2. Sampling
3. Analysis
4. Assessment

Details of each action are described below:

5.1.1 Inspection

An inspection of the borrow source site or road cut will be completed by a qualified geoscientist or engineer. The inspection will be used to assess the areas for potential ARD/ML conditions. The visual inspection will include a geologic assessment of the following parameters:

- rock type(s);
- sulphide content;
- carbonate content; and
- presence or absence of other ARD/ML indicators (iron-staining, etc.).

The inspection will be focused on the potential for the site to produce ARD/ML if disturbed. This assessment will include a visual characterization of the mineralogy of the borrow material. Detailed descriptions of the type and amount of sulphide mineralization will include the size and shape of grains, any visible weathering, and a visual estimate of the proportion of sulphides to host rock. Careful attention will also be paid to features such as quartz and carbonate veins in the host rock, as well as the presence of iron staining and secondary precipitates that may have formed on the host rock during in situ weathering.

5.1.2 Sampling

Following the completion of the visual inspection, the site will be sampled to provide sufficient material for environmental testing. Sampling will be conducted to collect a representative sample from each geologically distinct unit within the area. Samples will weigh a minimum of 2 kg. Depending upon their volume, large homogenous borrow sources may require multiple samples. After sampling, each sample will be bagged and carefully labelled with a unique identifier.

5.1.3 Analysis

Samples will be submitted to a certified environmental laboratory for testing. This will include the following analyses:

- Paste pH
- Total sulphur
- Sulphate sulphur
- Sulphide sulphur (by difference)
- Neutralization potential
- Metals by aqua regia-ICP

Analytical methods will follow current industry standards and/or those described in the Draft BC ARD Guidelines (Price,1997).

5.1.4 Assessment

The resulting field inspection and testing data will be assessed by a qualified geoscientist or engineer. The data will be assessed according to the guidelines and criteria described in the Draft BC ARD Guidelines (Price, 1997). This will include an assessment of the neutralization potential, acid generation potential and metal leaching potential of the borrow sources. Additional testing or assessment may be required as a result of the initial assessment.

6 Geotechnical Testing

Geotechnical Testing Protocols proposed in the June 2006 submission, were employed in two phases by EBA Engineering Consultants Ltd. Test results for both the roadway investigation (July 2006) and the granular source investigation (October 2006) are provided in Appendices A and B, respectively.

Field work was completed in July 2006 by Jack Dennett, P.Geo. and James Buyck of EBA. The report was completed and sealed by J. Richard Trimble, M.Eng, P.Eng., and Jack Dennett, P.Geo. in August 2006, and submitted to EMR for review. The granular and borrow investigation field work and the Draft Excerpts Report were completed by J. Dennett in October 2006. EBA provided significant findings only at this stage, highlighting suitable borrow sources, suitable granular and possible concrete aggregate sources, as well as soils summaries of the km 0 to km 3.25 portion of the roadway alignment. Moisture (ice) content information was provided in critical sections.

Design adjustments and recommended construction methods, resulting from these findings and recommendations, are provided in Figure 1 and in Table 3.3.

7 Phase 1 Road Closure Plans

In the event that the project does not proceed to the production phase, reclamation of the Phase 1 winter access road will be required. This will involve the removal of the culvert at km 0.575 and drainage structures and decommissioning of the roadbed itself.

7.1 Phase 1 Culvert and Drainage Structure Removal

We anticipate only one culvert will be installed and removed as part of Phase 1. This will be done at km 0.575, and will also form a barrier upon removal.

All culverts and drainage structures will be removed and disposed of off-site at an approved location. The following activities are proposed:

- Trenches resulting from the removal of culverts will be swaled or contoured to match the surrounding terrain.
- Where warranted due to fine grain soils, erosion protection will be installed within the remaining swales, to a point where the reclaimed watercourse meets with its original path in undisturbed soil.
- Ditch blocks will be removed where this is desirable. There may be instances where cross drainage should be maintained through such as the ditch blocks employed as part of the construction project (Figure 1).
- Where ditches are to be left intact (some steeper sections) existing ditch erosion protection may be left in place, again due to fine-grained soils.

7.2 Phase 1 Roadbed Decommissioning

The roadbed itself will be contoured and rounded throughout its length, and the following activities are proposed:

- Soils will be shaped to match the surrounding topography.
- All slopes will be flattened or rounded to better suit the surrounding terrain.
- Surfaces of gradients less than 25% will be scarified (using scarifiers on bulldozers, excavators and graders) to better accept seeding.

Permanent closure of the winter road access will be by way of removal of the culvert and fill material across the bog at km 0.575.

7.3 Phase 1 Closure Costs

YZC proposes to provide security commensurate with outstanding environmental liability associated with the Phase 1 road reclamation and closure costs prior to the onset of activities (anticipated to be November), and subsequently for the Phase 2 all weather access road in spring 2007.

Based on the information provided by YES, YZC has prepared a cost breakdown for the Phase 1 road (Table 2). The cost breakdown is based on the same unit rates provided by a SteveJan Consultants Inc report dated September 20, 2006 (requested by EMR to review Version 2006-01 report road closure cost estimate) with revised quantity estimates. The total cost for closure and reclamation of the all weather access road was provided in report Version 2006-01, and revisions will be provided in the forthcoming November report.

Based on these previous calculations and estimates from YES on volumetric and plan area impact estimates of 5-10% and 20% of the all weather access road, YZC proposes a cost estimate (without contingencies factored in) for the Phase 1 road equivalent to 25% of the all weather access road estimated cost ($562,000).

Table 7.1. Closure and Reclamation Cost Breakdown for Phase 1 Winter Access Road

Component	Description-Equipment/Labor	Units	Quantity	Unit Cost	Cost
Lowering road grade	Removing excess material to adjacent areas (including borrow sources) to make road stable against erosion-Cat D8 dozer	Hrs.	10	$185	$1,850
"	"–Cat 325 excavator	Hrs	14	$190	$2,660
"	"–Volvo A35 articulating haul truck	Hrs.	28	$190	$5,320
Stabilize side slopes	Flatten minor roadside cut banks/fill slopes with small excavator-Cat 325 (includes return travel time for length of road)	Hrs.	40	$190	$7,600
Culverts - 600mm dia. size	Work includes uncovering, removal to offsite for re-use, re-sloping banks, armoring wetted portion	Ea.	1	$1,500	$1,500
Culvert Crossings-restoration work	Minor restoration work, installation of environmental protection measures	L.S.	1	$4,000	$4,000
Bunker Creek Bridge removal	Removal of 20m temporary bridge, re-sloping of banks, riparian zone reclamation	L.S.	1	$10,000	$10,000
Scarifying lowered road surface	To encourage revegetation (25km x 7.5m)-Cat D8	Ha.	18.75	$2,000	$37,500
Reclaiming spoil piles	Restoration of spoil piles containing excess organics from road construction-Cat 325	Km.	25	$1,000	$25,000
Borrow sources-stabilize slopes	Stabilize the slopes of the excavations-Cat D8 dozer	Hrs.	10	$185	$1,850
Borrow sources-S&F flat areas	Using ATV mounted applicator for seed & fertilizer	Ha.	1.5	$1,500	$2,250
Borrow sources-hydroseed	Apply hydroseed to steeper slopes (>1V:4H slope)	Ha.	0.5	$3,000	$1,500
Corridor re-vegetate-broadcast S&F	Using ATV mounted applicator for seed & fertilizer incl staging area (25km x 7.5m & 4 ha incorporating natural revegetation of 50% of area)	Ha.	11.38	$1,500	$17,070
Maintenance S&F-after 1 year	Assume coverage of 50% with S&F, and other 50% with fertilizer alone	Ha.	11.38	$1,000	$11,380
Permanent barrier at highway access	Trenching and barricading using natural materials in the area, to dissuade casual access-Cat 315	L.S.	1	$2,000	$2,000
			Subtotal 1		**$131,480**
Engineering and Surveying (5%)	For major components, especially removal of bridge or stream crossings				$6,574
	l		**Subtotal 2**		**$138,054**
Contingency (20%)					$27,611
			TOTAL		**$165,665**

8 Best Management Practices

To ensure road construction has minimal impact on the environment, all activities will follow best management practices as outlined below. In areas where culverts will be installed, best management practices will include but not be limited to the following:

- Culvert installations at fish-bearing streams will be conducted during the instream work window.
- Heavy machinery will operate from the stream bank and in a manner that minimizes disturbance to the banks and bed of the creek crossing.
- Machinery will be clean and well maintained (i.e., free of fluid leaks).
- All machinery will carry emergency spill kits in case of a fluid leak or spill.
- Fuel, machinery and other materials will be stored away and equipment refueled away from watercourses to minimize the potential for the release of a deleterious substance downstream.
- Riparian vegetation removal will be minimized.

All exposed areas will be revegetated and/or measures to control erosion will be installed. In addition to the implementation of these best management practices, procedures outlined in the *Wildlife Protection Plan and Archaeology Contingency Plan* provided in the *Wolverine Project Environmental Assessment Report* (YZC, 2005) will apply.

Impact avoidance is the preferred means of protecting the environment; adverse environmental effects can be minimized by incorporating BMPs into construction activities. While it is recognized that there are general environmental techniques and procedures to minimize environmental damage, site-specific conditions will usually require a solution unique to that location. The generic BMPs listed below are not intended to be definitive, nor should they be interpreted as the only acceptable options. All onsite activities that interact with the environment will be reviewed by the onsite Environmental Coordinator. The main steps for review and approval of an activity include obtaining information pertaining to the job activity, assessing environmental risk, then determining mitigation measures.

If required, government regulatory agencies will be contacted and regulatory applications prepared. Examples of BMP procedures that will be incorporated in access road construction activities are summarized in the sub-sections that follow.

8.1 Sediment and Erosion Control Mitigative Measures

The key to controlling erosion and sedimentation caused by work-related activities is to manage off and onsite runoff. In general, to minimize erosion and sedimentation, work-related activities will be managed to:

- minimize disturbance to vegetation and limit area of clearing
- minimize length of time that unstable erodible soils are exposed
- stabilize erodible soils as soon as practical by seeding or installing erosion control blankets
- ensure effective installation of sediment control measures (silt fences, sediment traps, etc.) before starting work

Effective ways to control erosion and trap sediment are summarized in Table 2. All sediment traps and barriers (*i.e.*, silt fences, straw bales, etc.) will be inspected regularly while they are in place, and cleaned when required to maintain effectiveness. Sediment-laden or turbid runoff will be directed into vegetated areas and temporary fills or stockpiles will be covered with impermeable covers (e.g. plastic) during heavy rainfall.

Table 8.1. Description of Sediment and Erosion Techniques

Technique	Description	Application
Vegetation: preservation and replanting	Maintain vegetation, minimize grubbing and maintain root mat, reseed/ replant	On slopes, stream banks, floodplains to permit infiltration and minimize surface disturbance
Silt fences	Geotextile vertical barrier that causes sediment deposition	On slopes with erodible soils – surface applications only (not to be used instream (i.e., flowing water))
Straw bales	Barrier that causes sediment deposition	On slopes with erodible soils and in low surface or low flows only
Sediment traps or basins	Excavate minor depressions to allow sediment to settle	In areas where high volumes of sediment-laden water occurs; may be used with silt fencing or bales
Flumes/ spillways	A chute or pipe of non-erodible material to convey runoff down a slope	In areas with concentrated high velocity surface runoff
Check dams	Small dams to reduce the velocity of storm water flows in swales/ditches	In small open channels
Erosion control blankets	Natural fibre matting used to minimize surface erosion	In areas with surface runoff or channels
Plastic covers	Tarp to cover erosive soils	In non-vegetated areas where a temporary measure is required to control runoff until the site is stabilized

8.2 Site Isolation Mitigative Measures

Isolation techniques are required for instream work where sensitive habitat is potentially affected, or in areas where site activities have the potential to have impacts downslope. The isolation of a site reduces erosion and the release of contaminants offsite. Methods of isolating a work site so that works may proceed in isolation of flowing water or surface runoff include instream diversions, surface diversion berms or dikes, and swales, by-pass pipes, and coffer dams. A brief description of these mitigation techniques is provided in Table 8.2.

Table 8.2. Description of Site Isolation Techniques.

Technique	Description	Application
Instream diversion	Divert streams using dams, alternate channel, berms, pumps, etc.	To isolate an area to work in the dry; may be used with other techniques to minimize erosion and sedimentation
Diversion berms/dikes	Low berm used to divert surface water	Near slopes or around a work site; good for containing an area or preventing runoff into an area
Swales	Ditch to intercept storm runoff and divert to acceptable area	Along uphill side of exposed slopes to minimize runoff flowing across slope; may be used with other techniques to minimize erosion and sedimentation
By-pass pipes	Flexible hoses, pipes, or flumes used to carry/ pump water through or around a site	To isolate an area to work in the dry; limits sediment release, maintains streamflow
Coffer dams	sandbags, sheet piling, geotextiles used as a dam, pumps used to remove water	To isolate or contain a work area on larger streams

8.3 Construction Monitoring Plans

The purpose of monitoring is to ensure that site activities impact the environment as little as possible. Monitoring activities and priorities vary between sites and construction works and may include inspections to ensure that:

- All equipment used for instream work is clean and is in good mechanical order with no fluid leaks
- All fuels and lubricants are stored well away from the watercourse
- refueling and changing of oils/lubricants is completed away from bodies of water
- Spill containment and clean-up equipment are onsite at all times
- All stockpiles of material are kept above high watermarks.

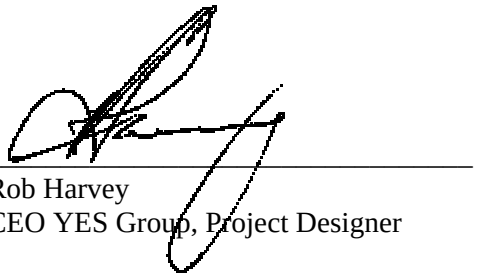
Environmental monitoring will ensure a high standard of environmental protection and compliance with all regulatory requirements. Details of monitoring programs will be specific to each work activity and specific plans will be developed in conjunction with the contractor.

Work limits have been surveyed in the field. This provides for containment of operations to the areas approved.

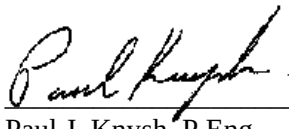
9 Summary

This plan is provided following the completion of the field geotechnical and granular investigations and upon completion of accurate topography data.

Thank you.
Yukon Engineering Services Inc.



Rob Harvey
CEO YES Group, Project Designer



Paul J. Knysh, P.Eng.
Engineering Manager, YES Group, Project Engineer

Enclosures:

Figure 1: "Wolverine Access Road - km 0 to km 23.9
SUBSEQUENT TO COMPLETION OF THE GEOTECHNICAL PROGRAM
PROVIDING FOR THE INTERIM PROPOSED WINTER ACCESS ROAD
OCTOBER, 2006" *E06015_3_PP*

Appendix A "Geotechnical Evaluation, Wolverine Lake Mine Access Road, August 2006"
EBA Engineering Consultants Ltd.

Appendix B "Draft Geotechnical Evaluation, Granular and Borrow Investigation, Wolverine Lake Mine Access Road, km 190 Robert Campbell Highway, October 2006."
EBA Engineering Consultants Ltd.