Mackenzie Valley Land and Water Board
7th Floor - 4910 50th Avenue • P.O. Box 2130
YELLOWKNIFE, NT X1A 2P6
Phone (867) 669-0506 • FAX (867) 873-6610

June 12, 2006 File: MV2001L2-0003

Mr. David Harpley
Environmental Coordinator
Canadian Zinc Corporation
Suite 1710-650 West Georgia Street
VANCOUVER, BC V6B 4N9 Fax: (604) 594-3855

Dear Mr. Harpley:

Board Decision – Geotechnical Assessment of the Polishing Pond

The Mackenzie Valley Land and Water Board (the Board) met on June 9, 2006 to review the following documents related to the geotechnical assessment of the polishing pond:

- Technical Memorandum from Golder Associates, May 2006
- Activity Report Relating to the Construction of a Polishing Pond at the Prairie Creek Mine site, Northwest Territories from the Canadian Zinc Corporation (CZN), November 2005
- Quality Control for Construction of Polishing Pond, 2005 Construction Season from Golder Associates, January 2006

To assist the Board in its review, the Board commissioned Gartner Lee Limited (GLL) to evaluate these documents. Based on GLL's conclusions and the conclusions reached by Golder Associates in their Technical Memorandum, the Board considers the requirements of part D, item 7 to be fulfilled. This decision is contingent on CZN providing a "plain language" description of the operation of the polishing pond by July 14, 2006. CZN must also implement the recommendations made by the Geotechnical Engineer in the Technical Memorandum (pages 3-4):

1. Install the internal pond sedimentation baffles by the end of June 2006.
2. Cutoff the excess liner around the sides of the pond by June 2006.

.../2

3. Inspect the area around the outlet pipe for potential leakage whenever there is water in the pond. If leakage through the berm is observed, the pond should be drained and the liner and seams inspected for holes. Any holes or breaks in the liner should be repaired before water can be stored in the pond again.
4. Inspect the berms monthly during active operations for evidence of water flowing through the berms, such as wet spots or small mounds of fine grained soil. If these are noted, a geotechnical engineer should be contacted to review the data.
5. Inspect the liner for holes or tears whenever the water level in the pond is low or at the end of each operational season, when the pond is drained.

CZN shall submit to the Board a report by December 1 of every year detailing the work CZN undertook during that operating season to fulfill points 1 to 5 above.

If you have any questions, please contact Sarah Baines at (867) 766-7457 or by email at sbaines@mvlwb.com.

Yours sincerely,

Willard Hagen
Interim Chair

Copied to: Alan Taylor, Canadian Zinc Corporation (Fax: 604-688-2043)
Distribution List

TECHNICAL MEMORANDUM

Golder Associates Ltd.
#500 - 4260 Still Creek Drive
Burnaby, B.C., Canada V5C 6C6

Telephone: 604-298-6623
Fax Access: 604-298-5253

TO:	Alan Taylor, P.Geo.	**DATE:**	May 30, 2006
	Dave Harpley, P.Geo		
FROM:	Dave Caughill, John Hull	**JOB NO:**	06-1413-024.6000
EMAIL:	Dave_caughill@golder.com		

RE: QUALITY CONTROL FOR CONSTRUCTION OF POLISHING POND, 2006 CONSTRUCTION SEASON

Golder Associates Ltd. (Golder) was contracted by Canadian Zinc Corporation (CZC) to provide detailed design and quality assurance for construction of the Polishing Pond at the outlet of the 870 level portal, at CZC's Prairie Creek property.

The purpose of the Polishing Pond is to provide a facility for sedimentation of water flowing out of the existing underground workings, at the 870-level portal, prior to release of this water to the site Catchment Pond.

This technical memorandum provides a summary of Golder's QA activities following installation of the reclaimed Hypalon® liner in the pond. This technical memorandum is intended to accompany the documents entitled "Activity Report Relating to the Construction of a Polishing Pond at the Prairie Creek Mine site, Northwest Territories", as prepared by CZC (A. Taylor), and dated November 2005, (Report 1) and "Quality Control for Construction of Polishing Pond, 2005 Construction Season", prepared By Golder Associates Ltd. and dated January 26, 2006 (Report 2).

Report 1 details the construction process and methodology used to construct the Polishing Pond at Prairie Creek. Report 2 outlines quality assurance observations on the construction of the pond in 2005.

It is important to note that construction of the Polishing Pond was not completed during 2005: the Hypalon© liner was placed, but still required solvent welding. This work was not performed due to the onset of colder temperatures which do not favour the solvent welding process. Additionally, the sediment-control baffles were not installed.

A site plan showing the location and plan view of the pond is attached as Figure 1 and an as-built plan view and sections of the pond are attached as Figure 2.

QA of 2006 Activities

Golder personnel (David Caughill, P.Eng.) for Golder's Yellowknife visited the site in May 2006 to inspect the completion of the installation of the Hypalon© liner. At the time of the inspection on May 18, 2006, there was approximately 30 cm of water in the pond, from precipitation.

During the inspection it was observed that the liner had been glued together, using Conti Secur adhesive. The pond had been lined with three pieces of liner; two large pieces, with the seam down the centre of the pond (approximately north-south to east-west direction) and a third smaller piece of liner had been installed in the north corner of the pond, closest to the 870 Level Portal. All seams were observed to be approximately 0.3 m wide. In several locations it was observed that small holes in the liner had been patched with adhesive, by gluing a piece of liner over the hole. It is our understanding that the liner was visually inspected several times for holes and all holes found were patched.

It was observed that the liner had been draped over the sides of the pond embankments, to approximately ½ the way down the sides of the embankments. The liner over the top of the embankment had then been covered with 0.5 m of gravel to hold it in place.

It is also our understanding that the liner was glued to the outlet pipe by gluing the liner to a flange that had been welded to the pipe and then gluing a second layer of Hypalon© to the main liner and the sides of the pipe. At the time of the inspection, the inlet to the pipe was under approximately 15 cm of water. The outlet to the pipe was observed and the soil around the pipe was observed to be dry, except for a small amount of water leaking past the valve. The outlet weir was also inspected and consisted of a notch that had been cut in the embankment and then lined with Hypalon© liner (the same continuous piece that lined the south-eastern half of the pond). The weir was constructed to maintain the required 1.0 of freeboard in the pond and is sufficiently wide enough to conduct all anticipated flow into the pond.

A sample of hypalon was obtained that had been glued together by mine personnel at the same time as the pond, using two pieces of Hypalon© from the same sheets as installed in the pond. The glued seam was tested at the Layfield Geosynthetics and Industrial Fabrics

Ltd. plant in Edmonton. The tear strength of the seam was measured to be 39 lbs/in and the seam failed through the material, not along the bond. This indicates that the seam was glued properly, but also indicates that the Hypalon® material has weakened with time and weather exposure. The tear strength of new Hypalon© of this thickness is 80 lb/in. The remaining life of the liner cannot be predicted from the tear strength of the material, but the test does indicate that the liner is currently strong enough to perform as intended, but also that the liner will required periodic inspections to monitor for signs of weakening, such as small holes or tears.

Water Retention Test

The liner was tested by filling the pond with water and monitoring the water level and the area around the outlet pipe to ensure that the area around the pipe remained dry. The water retention pond was partially filled between May 26 and May 28, 2006. The water level was then measured periodically for 32 hours using a gauge installed from the top of the berm. Over this time period, the water level dropped approximately 0.5 inch in the first 12 hours and then remained constant. During filling and monitoring of the pond, the area around the outlet pipe remained dry. It is postulated that the drop in water level may have been due to air trapped under raised sections of the liner being expelled after the pond was filled. If the liner did leak, a small amount of leakage through the liner is not considered to be a concern, as the berms are well compacted and of a relatively low permeability soil, provided that leakage is not observed along the outlet pipe.

Conclusions and Recommendations

As a result of Golder's site visits, and QA review and testing of the construction materials and procedures, we conclude that the Prairie Creek Polishing Pond is approved for immediate use.

Items to be finished in spring 2006 include:

- Installation of internal pond sedimentation baffles, and
- Cutoff excess liner around the sides of the pond, to prevent concentration of rainwater, which could cause erosion of the base of the berms.

Completion of these items does not preclude the use of the pond, but it is recommended that they be completed by the end of June, 2006.

We recommend that the area around the outlet pipe be inspected weekly whenever there is water in the pond, to look for potential leakage around the pipe. If it is observed that water is leaking through the berm, along the pipe, it is recommended that the pond be drained and the liner and seams inspected for holes. Any holes or breaks in the liner that

are identified need to be repaired before water can again be stored in the pond. Monthly inspections of the berms should be carried out, to look for wet spots or other evidence of water flowing through the berms, such as small mounds of fine grained soil. If these are noted, a geotechnical engineer should be contacted to review the data.

The liner should also be inspected for holes or tears whenever the water level in the pond is low or at the end of the season, when the pond is drained.

CLOSURE

We trust that this letter provides the information required. If you have any questions concerning this technical memorandum, please contact Dave Caughill at (780) 930-8674.

Regards,

GOLDER ASSOCIATES LTD.

REGISTERED PROFESSIONAL ENGINEER D.L. CAUGHILL NWT/NU May 30, 2006

David Caughill, P.Eng.
Associate, Geotechnical Engineer

DLC/JAH/dlc

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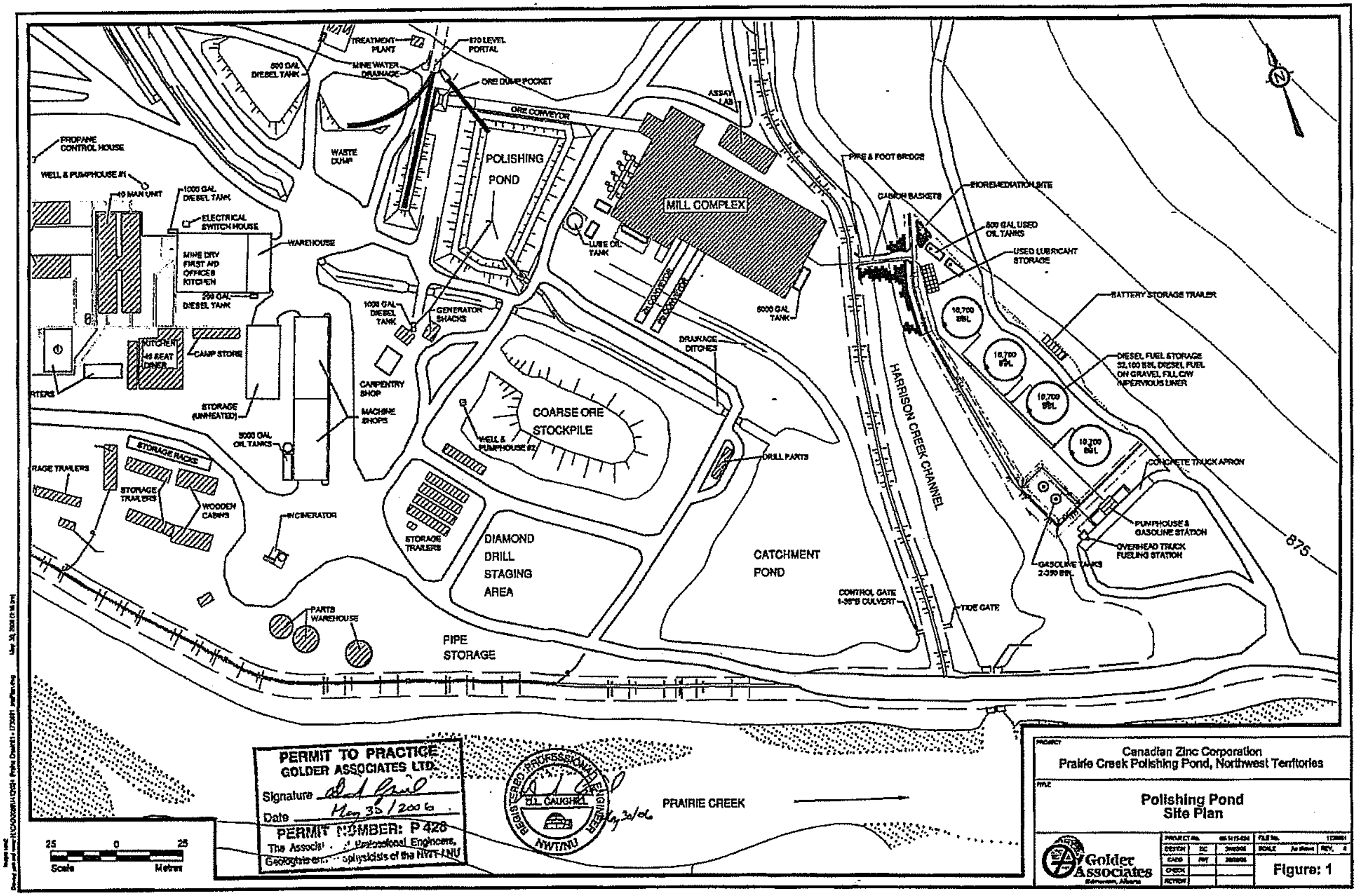
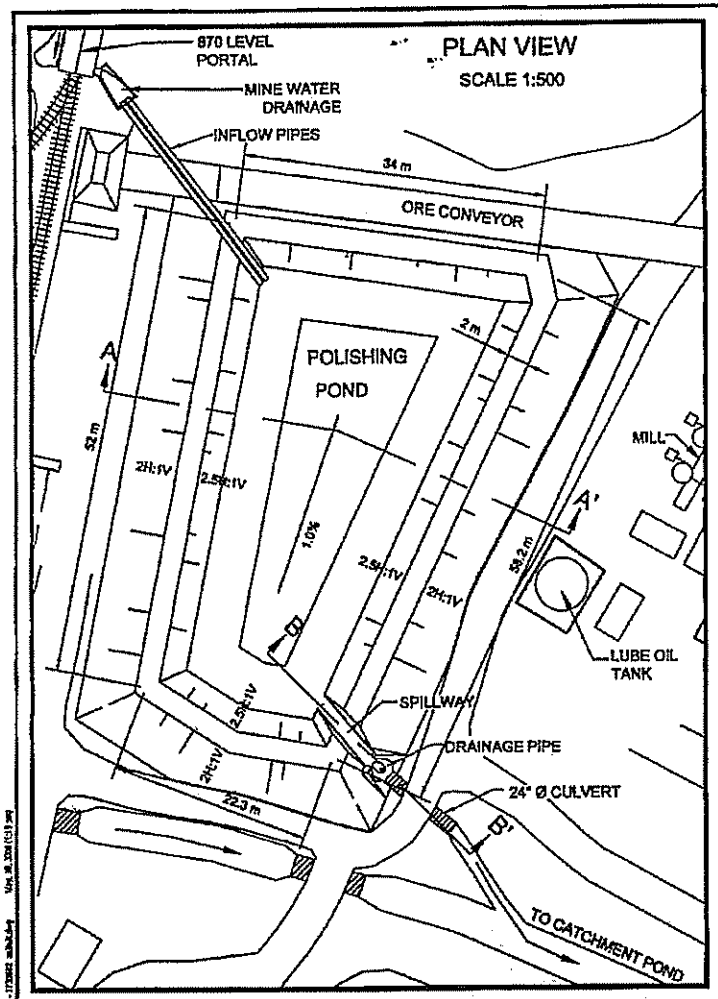
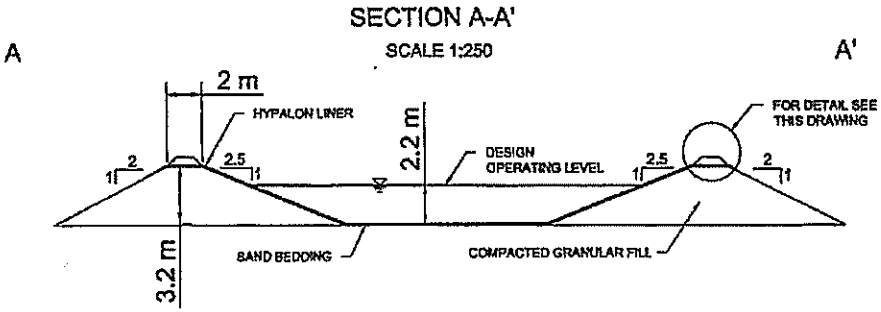
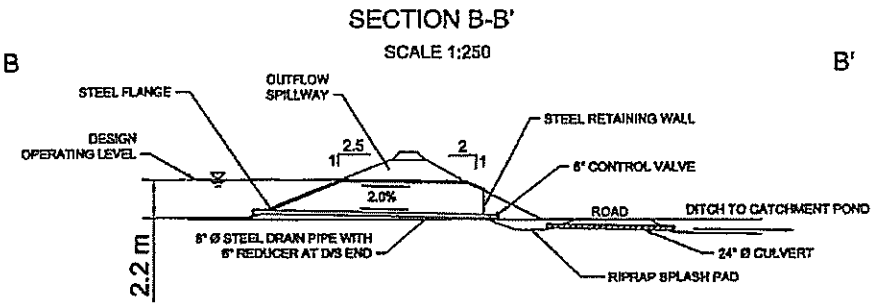
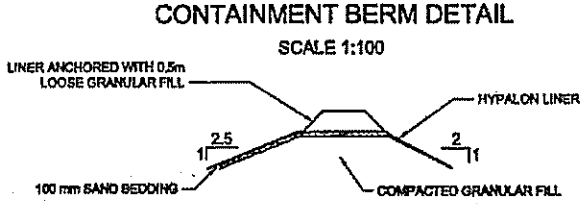
PERMIT TO PRACTICE
GOLDER ASSOCIATES LTD.
Signature
Date May 30 / 2006
PERMIT NUMBER: P 428
The Association of Professional Engineers, Geologists and Geophysicists of the NWT / NU











PERMIT TO PRACTICE
GOLDER ASSOCIATES LTD.
Signature
Date May 30/06
PERMIT NUMBER: P 428
The Association of Professional Engineers, Geologists and Geophysicists of the NWT / NU

REGISTERED PROFESSIONAL ENGINEER
D.L. CAUGHLIN
NWT/NU
May 30/06

PROJECT
Canadian Zinc Corporation
Prairie Creek Polishing Pond, Northwest Territories

TITLE
Polishing Pond As Built-
Plan And Sections

Golder Associates
Edmonton, Alberta

PROJECT No. 06-1415-004 | FILE No. 1729002
DESIGN MC 30/05/06 | SCALE As shown | REV. 0
CADD RW 30/05/06
CHECK
REVIEW

Figure: 2

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FAX (867) 873-6610

STAFF REPORT

Company: Canadian Zinc Corporation (CZN)	
Location: Prairie Creek Mine	**Application:** MV2001L2-0003
Date Prepared: May 25, 2006	**Meeting Date:** June 8, 2006
Subject: Geotechnical Assessment of the Polishing Pond	

1. Purpose/Report Summary

The purpose of this report is to the present to the Board the geotechnical assessment of the polishing pond newly constructed by Canadian Zinc Corporation (CZN) at the Prairie Creek Mine.

2. Background

Under part D, item 7 of WL MV2001L2-0003, CZN shall *"...submit to the Board for approval a geotechnical assessment carried out by a qualified Geotechnical Engineer certifying the integrity and capacity of the Polishing Pond and related water treatment facilities before they may be used in conjunction with the licensed undertakings. This report shall include as-built drawings certified by a qualified Geotechnical Engineer."*

On May 30, 2006, Golder Associates submitted a Technical Memorandum on the Polishing Pond to satisfy the requirements of part D, item 7. This Technical Memorandum is intended to accompany the documents entitled "Activity Report Relating to the Construction of a Polishing Pond at the Prairie Creek Mine site, Northwest Territories" (CZN November 2005), and "Quality Control for Construction of Polishing Pond, 2005 Construction Season" (Golder Associates January 2006).

Board staff provided these documents to Gartner Lee Limited (GLL) for a brief review. GLL's comments are discussed below under the Review Comments section.

3. Discussion

Not applicable.

4. Comments

Not applicable.

5. Review Comments

This document was not distributed for review and comment as it represents the certification by a geotechnical engineer of the integrity and capacity of the polishing pond.

However, Board staff discussed the report with Gartner Lee Limited (GLL). GLL's conclusion was that the Polishing Pond represents an improvement in water treatment on site and provides an opportunity to easily monitor the water emanating from the portals. GLL recommended that the document could be accepted by the Board as long as the engineer's recommendations listed in the report are implemented. GLL also recommended that CZN be required to summarize the functioning of the polishing pond

6. Security

Not applicable.

7. Conclusion

On page 3 of the Technical Memorandum, Golder Associates indicated that *"As a result of Golder's site visits, and QA review and testing of the construction materials and procedures, we conclude that the Prairie Creek Polishing pond is approved for immediate use."*

GLL reviewed the report and found no serious concerns with the documents or Golder Associates' conclusions.

8. Recommendation

I recommend that the Board approve the Technical Memorandum and consider the requirements of part D, item 7 of WL MV2001L2-003 fulfilled. This approval should be conditional on CZN providing a "plain language" description on the functioning of the Polishing Pond and on CZN implementing the recommendations made by the Geotechnical Engineer (pages 3-4 in the Technical Memorandum):

- Install the internal pond sedimentation baffles by the end of June 2006.
- Cutoff the excess liner around the sides of the pond by June 2006.

- Inspect the area around the outlet pipe for potential leakage whenever there is water in the pond. If leakage through the berm is observed, the pond should be drained and the liner and seams inspected for holes. Any holes or breaks in the liner should be repaired before water can be stored in the pond again.
- Inspect the berms monthly to look for evidence of water flowing through the berms, such as wet spots or small mounds of fine grained soil. If these are noted, a geotechnical engineer should be contacted to review the data.
- Inspect the liner for holes or tears whenever the water level in the pond is low or at the end of the season, when the pond is drained.

9. Attachments

- Technical Memorandum from Golder Associates
- Activity Report Relating to the Construction of a Polishing Pond at the Prairie Creek Mine site, Northwest Territories
- Quality Control for Construction of Polishing Pond, 2005 Construction Season

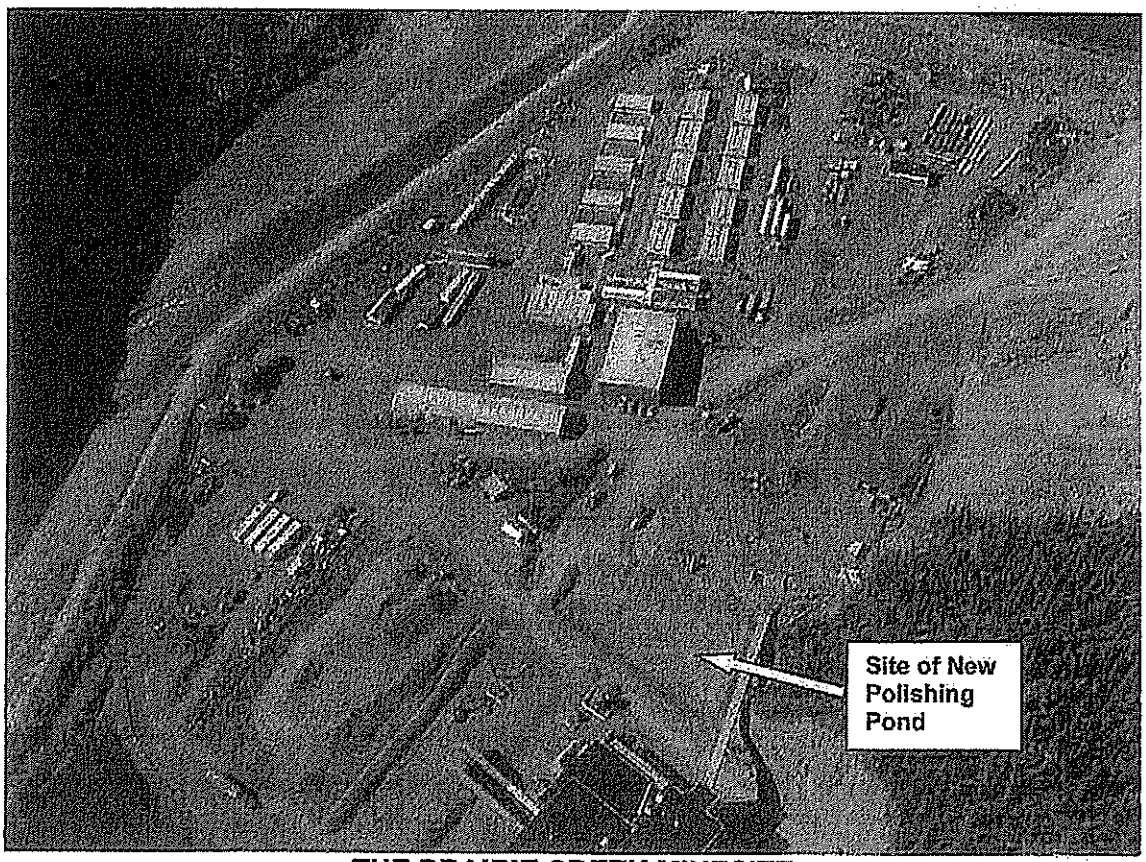
Respectfully submitted,

SBaines

Sarah Baines
Regulatory Officer

CANADIAN ZINC CORPORATION

Activity Report Relating to the Construction of a Polishing Pond at the Prairie Creek Minesite, Northwest Territories



THE PRAIRIE CREEK MINESITE

Alan B. Taylor, *P.Geo*
November 2005

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PO Box 11644
Vancouver, BC V6B 4N9
Tel: (604) 688-2001 Fax: (604) 688-2043
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APPENDIX 1

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Vancouver, BC V6B 4N9
Tel: (604) 688-2001 Fax: (604) 688-2043
E-mail:alan@canadianzinc.com, Website: www.canadianzinc.com

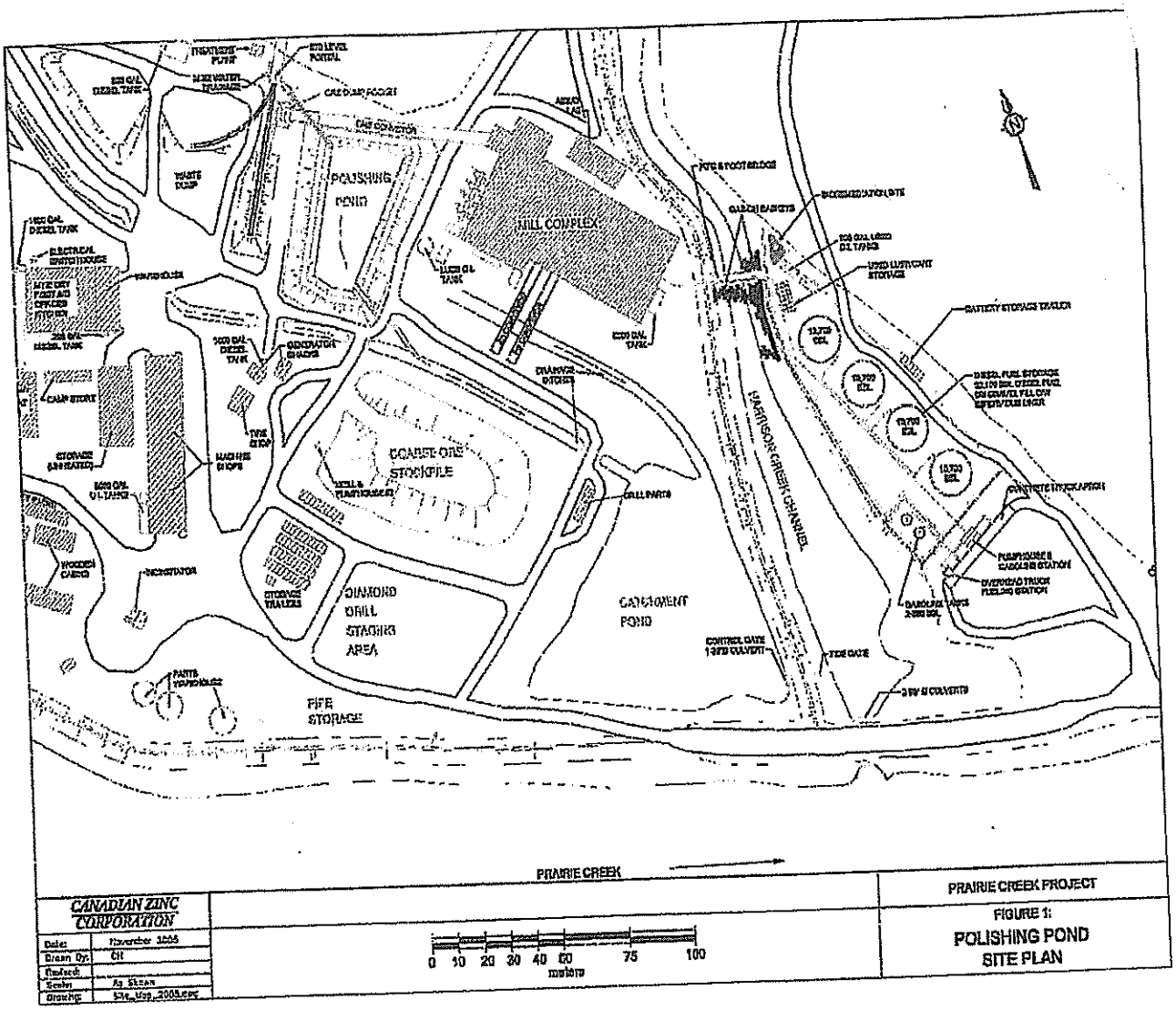
SUMMARY

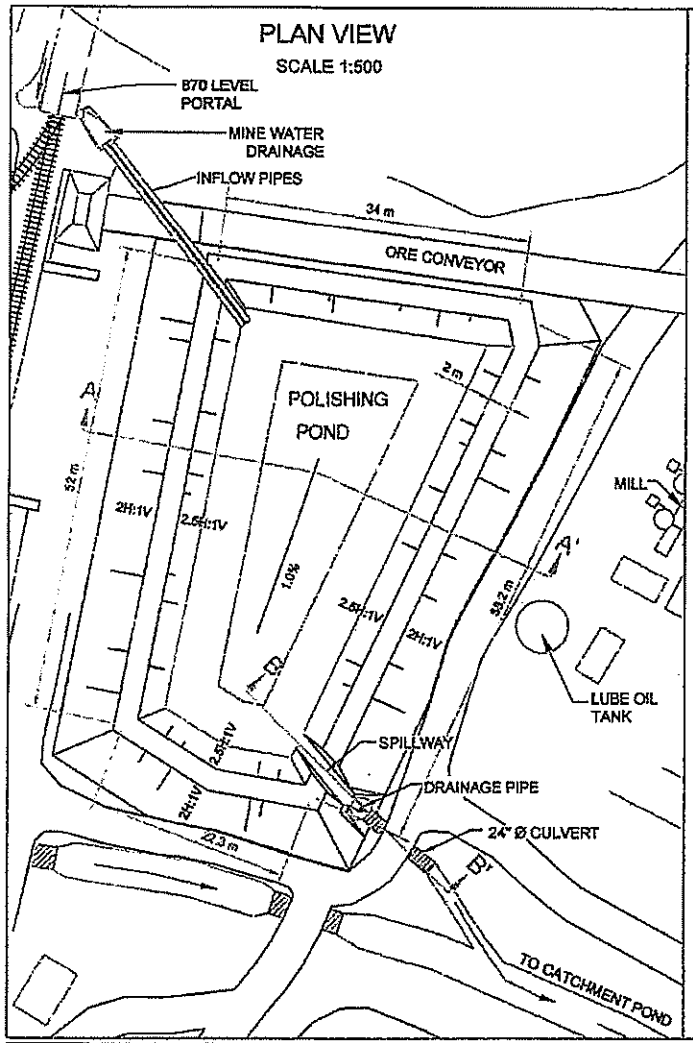
As part of the new water management facilities at Canadian Zinc Corporation's 100% owned Prairie Creek Mine in the Northwest Territories, a water impoundment structure, referred to as the Polishing Pond, was constructed during the 2005 season.

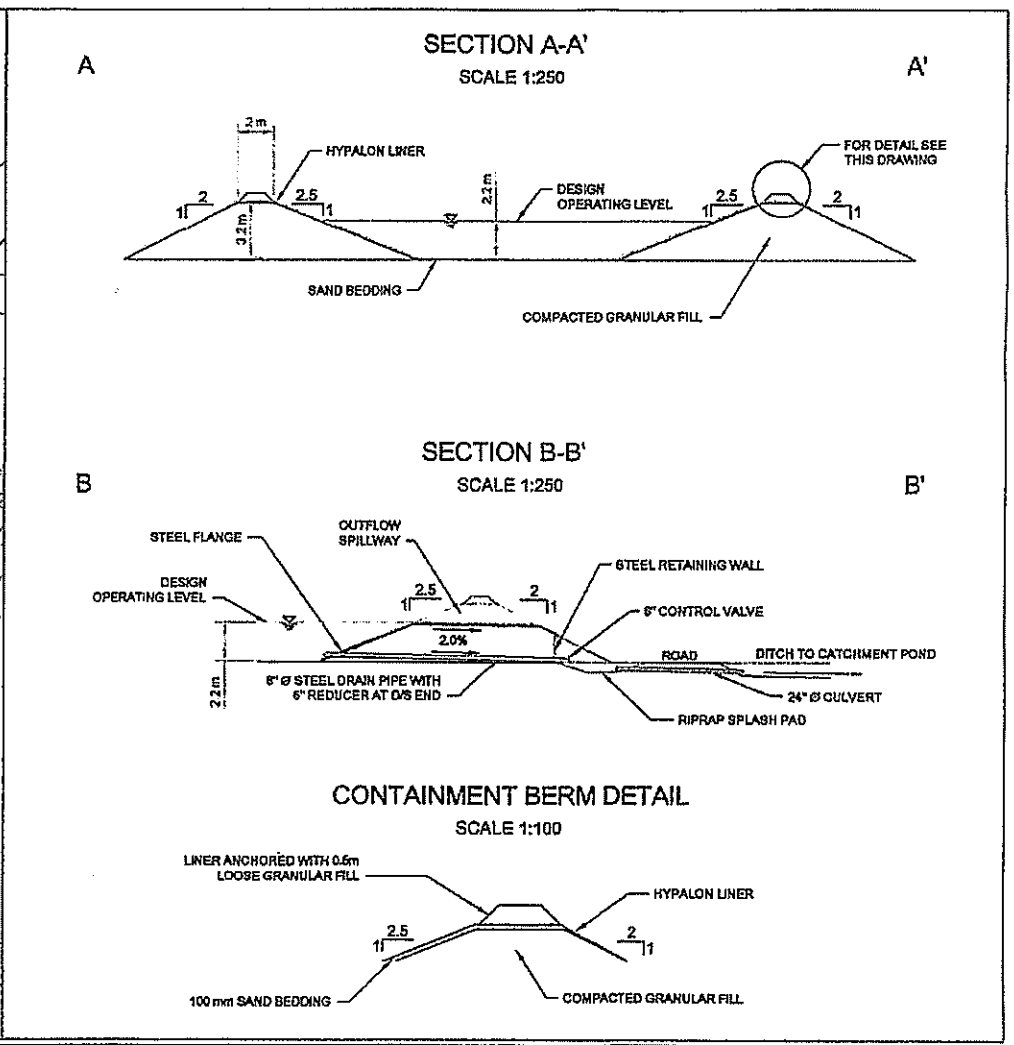
The Polishing Pond is located near the 870 meter underground portal entrance and close to the existing mill. It was designed to receive waters from a number of sources including; minewater effluent from the 870 meter underground level, a proposed mini-mill metallurgical Pilot Plant and any waters emanating from a proposed new decline. Primary water treatment is to occur within an underground sump within the 870 level workings and the treated water would then flow into the polishing pond. The new Polishing Pond's function is to allow residual metal carbonate precipitate contained within the water to settle out prior to discharge to the existing catchment pond. Water that exits the new pond will be in compliance with the MMER regulations.

EBA Engineering Consultants Ltd., completed the original preliminary design of the pond (April 26, 2005) which was subsequently revised by Golder and Associates (August 10, 2005) who oversaw the construction of the pond. Golder Engineer Don Hickson inspected the site on July 21, 2005. The Golder report determined an internal slope ratio of 2.5:1 was adequate and approved use of the existing hypolon liner. The site was initially cleared of equipment and trailers in 2004 and active pond construction work commenced in August 2005 and continued into October. Approximately 8,333m³ of fill material, which was tested by both EBA and Golder who both determined the material to be adequate construction material, was loaded hauled and dumped onto the site utilizing local heavy equipment. The fill material consisted of a silty-sand suitable for the construction and was quarried from a pit to the northeast of the existing tailings impoundment structure. All coarse material (>15cm) and any vegetation was removed then the material was compacted in maximum lifts of 25 cm. The crest of the dikes (>2.0 meters wide) were brought up to 3.2 meters above the mid-pond level, this was measured by a laser survey tool. Internal slopes were cut to a horizontal:vertical slope ratio of 2.5:1 and external walls were cut to 2:1 slope ratios. Approximately 280m³ of sand was spread out onto the fill in a 10 cm. layer, within the interior of the walls and floor of the pond. Hypolon material was removed from the existing tailings pond and laid down onto the sand bed in the polishing pond. A layer of gravel was added to the tops of the dikes to hold the membrane in place. Cold weather prohibited gluing of the seams until warmer weather in the spring of 2006 and it will take a short amount of time to make the pond functional and operating in the spring. Work to be done in the spring includes installation of the intake pipes, installation of the internal baffles and gluing the liner seams.

A minimum final pond water capacity of 900m³ giving a retention time of 20 hours to the water was required. The final dimensions of the pond were maximized to include what room there was at the specific site and resulted in a measured water capacity of 1500m³ still with a 1.0 meter freeboard which gives the new pond more than adequate capacity for both present and future needs.

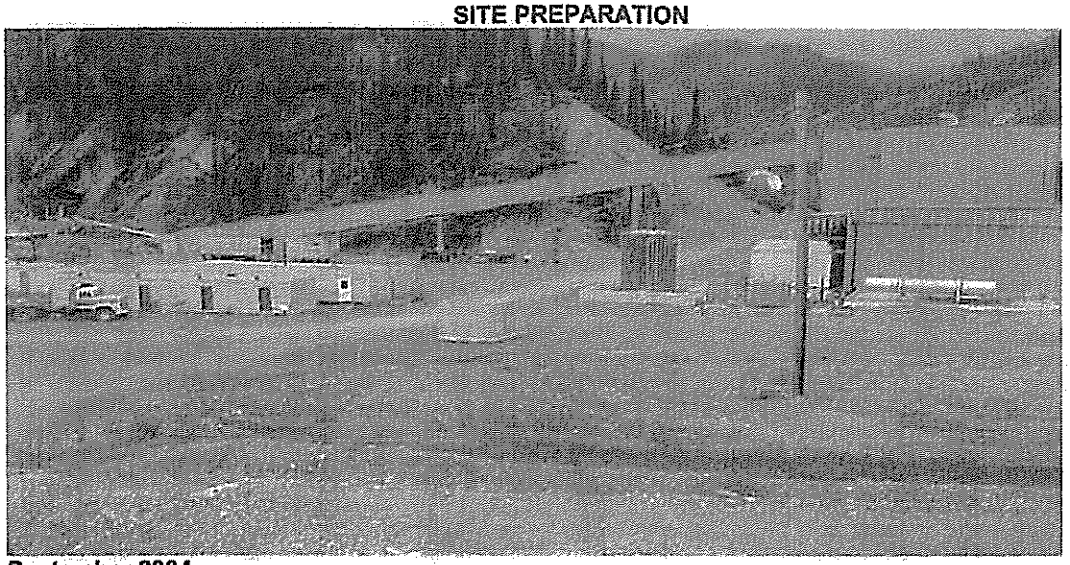




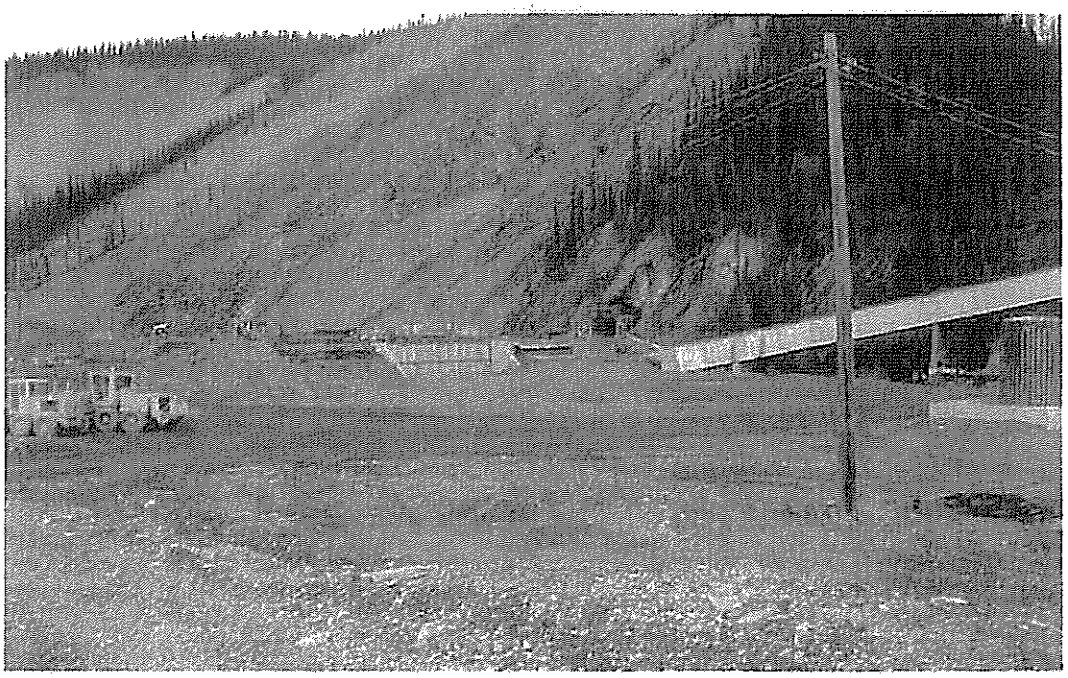


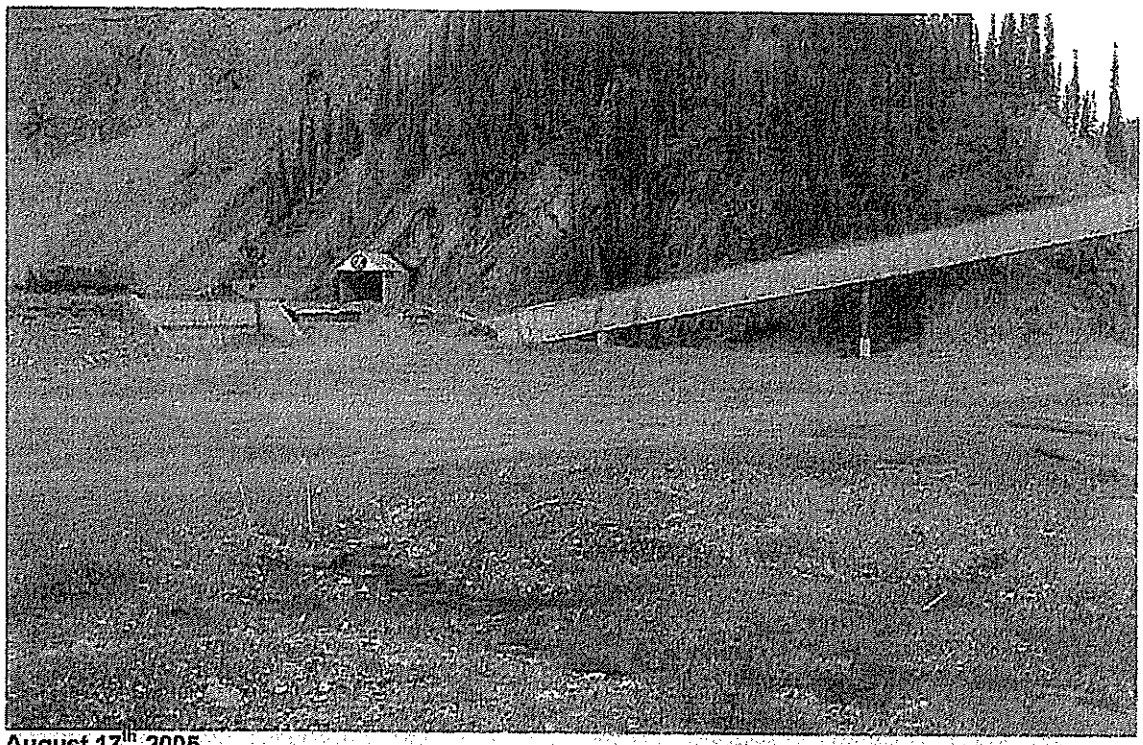
CANADIAN ZINC CORPORATION			PRAIRIE CREEK PROJECT
Date:	November 2005		FIGURE 2: POLISHING POND AS BUILT- PLAN AND SECTIONS
Drawn By:	CH		
Revised:			
Scale:	As Shown		
Drawing:	PolishPond.dwg		

SITE PREPARATION



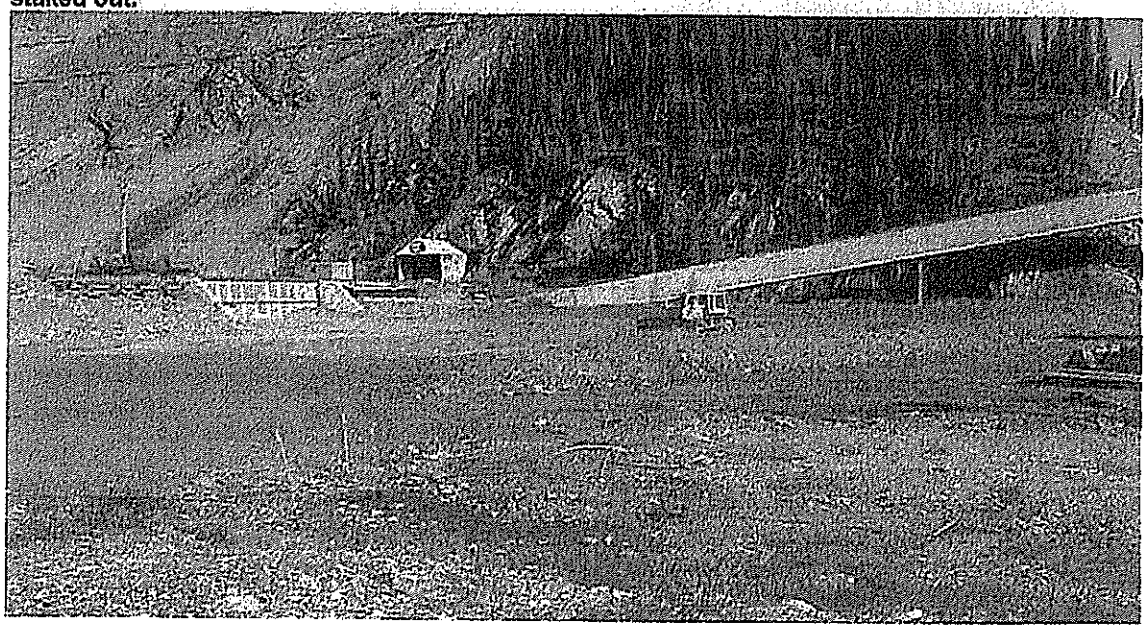
September 2004
The proposed site to establish a new polishing pond was cleared. This involved relocating the diamond drill staging area and 4 supply trailers to a new area in the southwest portion of the yard. The site was completely cleared and compacted with repeated driving of heavy equipment over the surface. The site was left open over the winter.





August 17th 2005

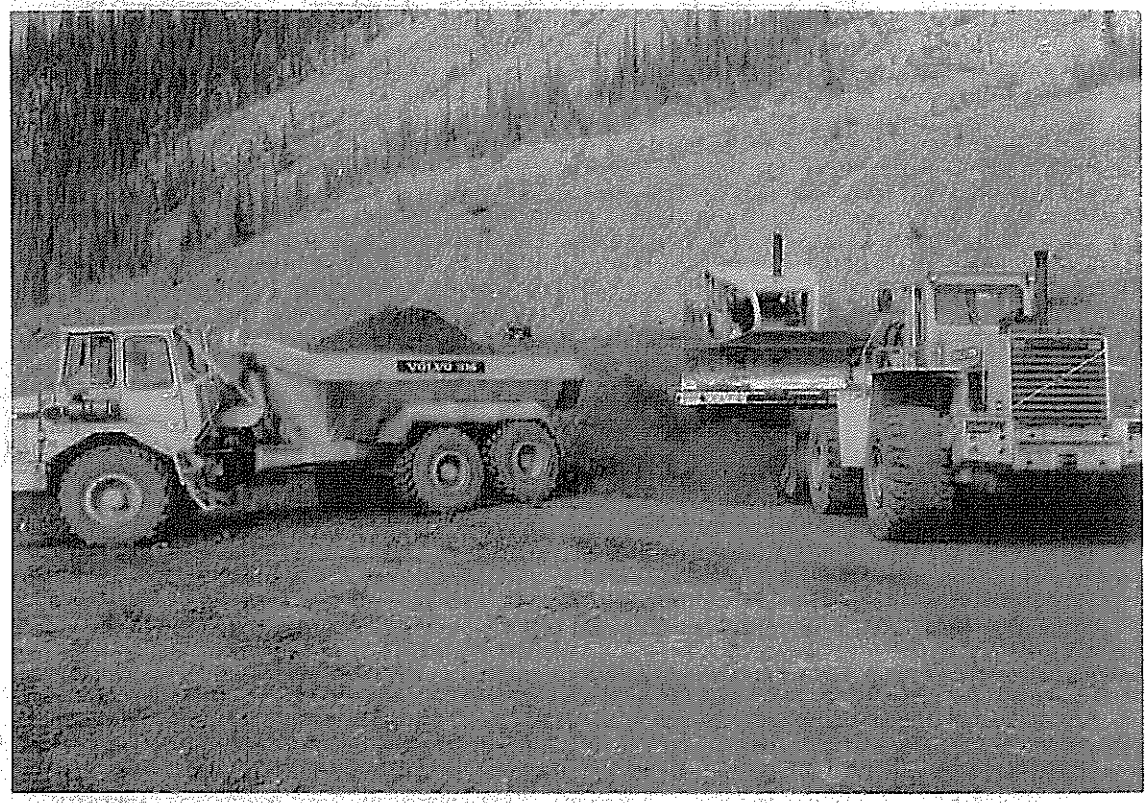
Further site preparation included filling in the drainage channel and adding 4 truckloads of fill to the base. This fill was taken from the tailing pond quarry and bladed into the base gravel, graded by Cat grader and packed by driving a loaded Volvo truck over the base. All large rocks and any vegetation were removed. The site was surveyed by laser level and indicated a maximum 0.15m elevation level difference of the base from east to west end. The dimensions of the pond were staked out.



August 18th

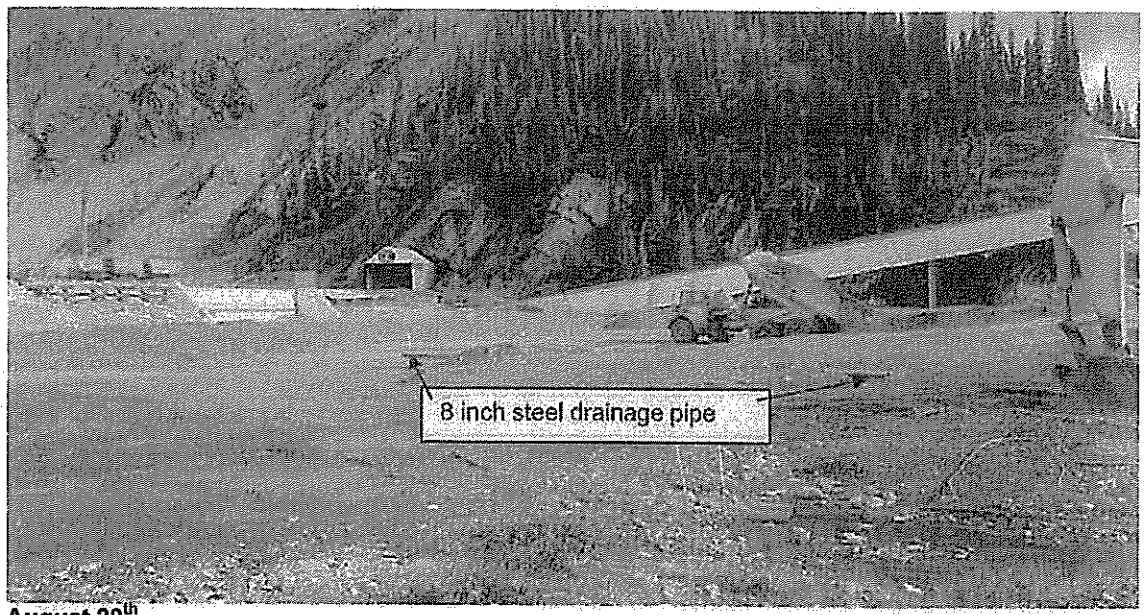
A staging area for extraction of the fill at the tailings pond quarry was established and an initial 20 truck loads of fill were placed in the east wall (conveyor side) bladed and compacted by driving loaded Volvo trucks over the new surface. All large boulders and vegetation was removed.

Personnel involved with this construction were 2 truck drivers Colin Taylor and Chris Hercun; 1 Cat Operator Dave Hart; 1 loader and D6 Operator Alan Taylor. Equipment used in the construction included 2 Volvo BM 5350 Rock Trucks, 1 Volvo BM 4600 Loader, 1 D8H Cat, 1 D6 Cat and a Hitachi Hoe.

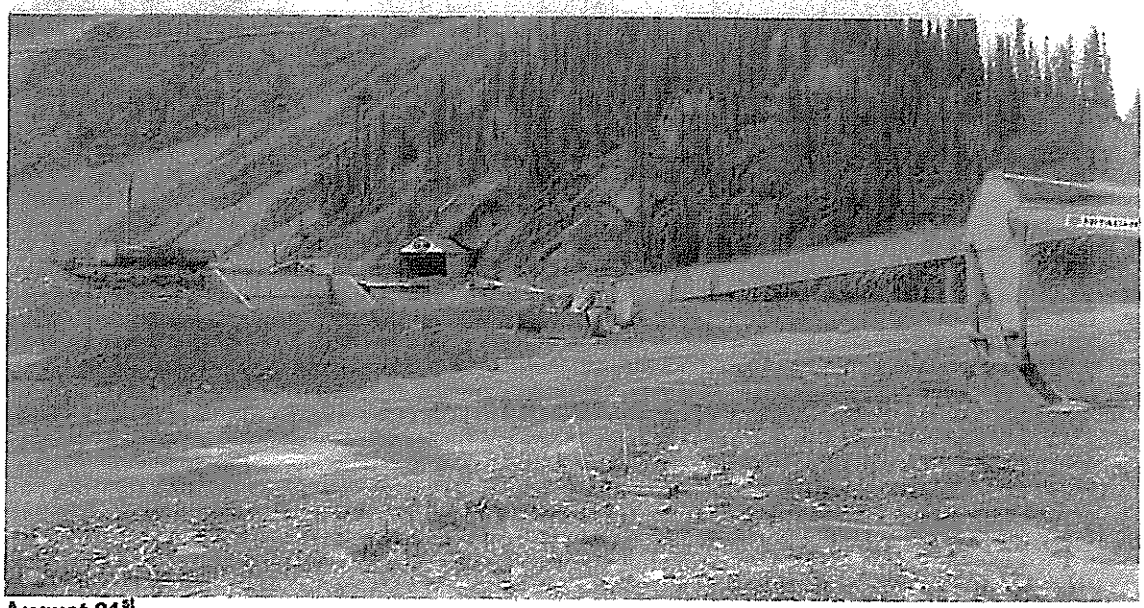


August 19th

At the quarry staging area it was determined most efficient to use the D8 Cat to loosen the fill so that it could be easily extracted using the Volvo loader. Two Volvo BM trucks were utilized and continuously dumped loads (double wide) to establish the first lift on the south wall. A total of 42 truck loads were dumped, bladed using the D6 Cat. The dikes were compacted using a loaded Volvo truck driving on top of the material over 20 times.

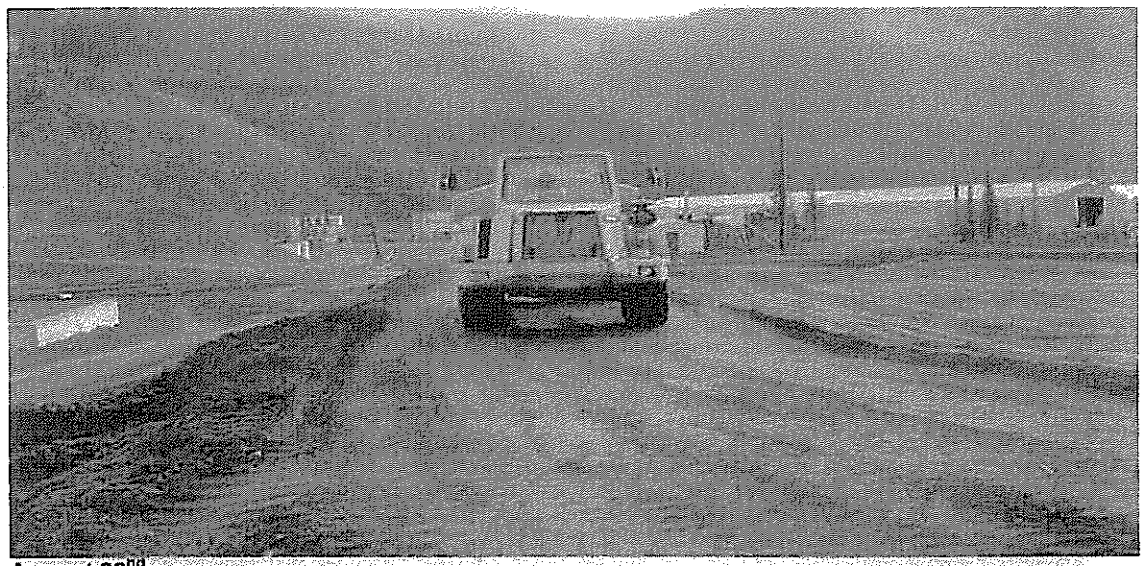


August 20th
A total of 46 truck loads were moved to establish the first lift on the north wall and second lifts on the east and south wall. Blading with the D6 Cat was completed after which the dikes were compacted by driving a loaded truck over at least 15 times. An 8 inch steel 15m long pipe was installed in the west corner of the south wall to allow periodic drainage of the pond, this will be valve controlled and the spillway is proposed to be above this. All drainage will report to the main minesite drainage channel instead of a separate channel near the mill. This will eliminate the need for the secondary channel.

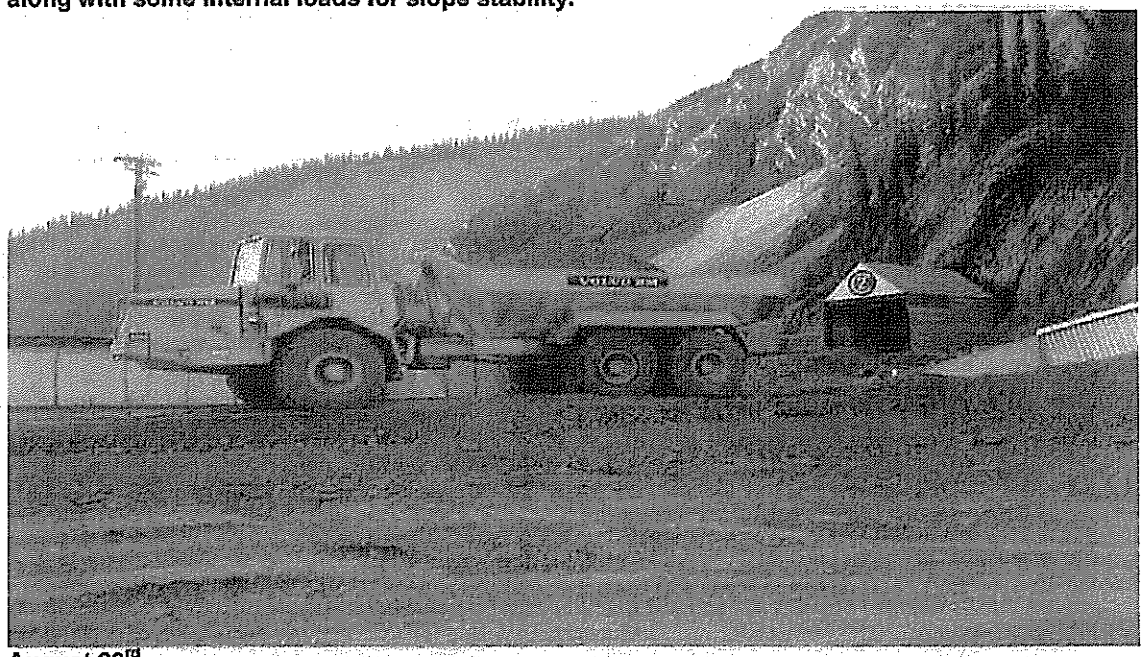


August 21st
A total of 48 truck loads were moved to establish 2nd lift in north wall and 3rd lifts in east and south wall. Blading with the D6 Cat and subsequent compaction by driving a loaded truck over the dikes.

COMPACTION WITH LOADED VOLVO TRUCKS

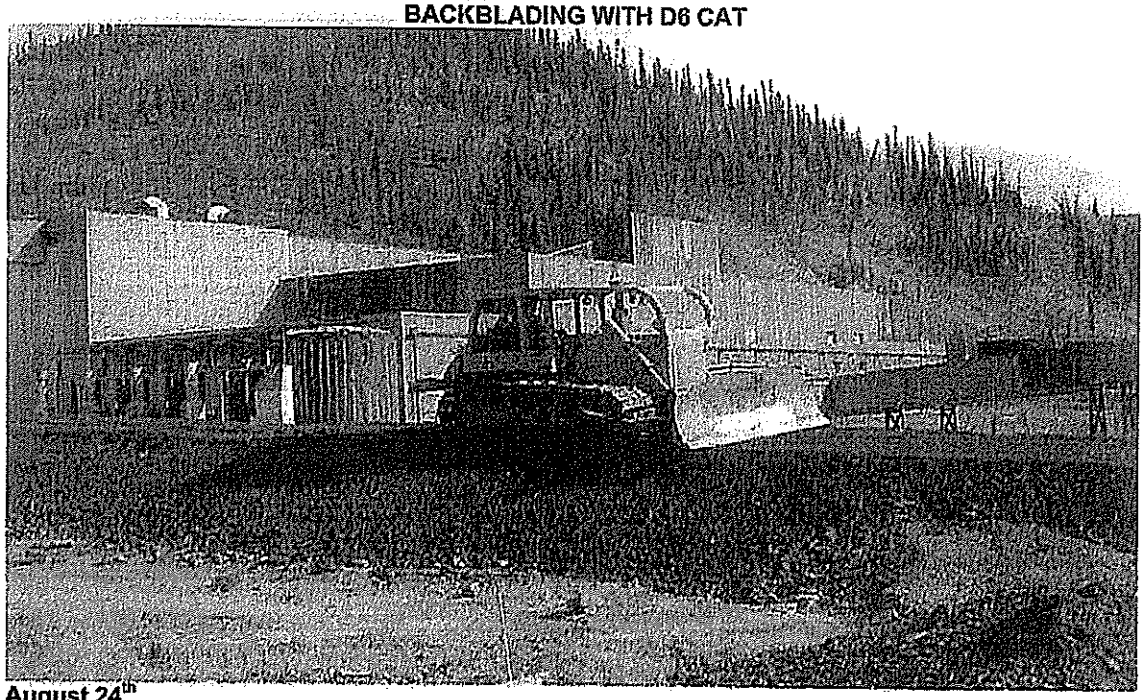


August 22nd
A total of 52 truck loads were moved to establish 3rd lift on the north and 4th lifts on east and south along with some internal loads for slope stability.



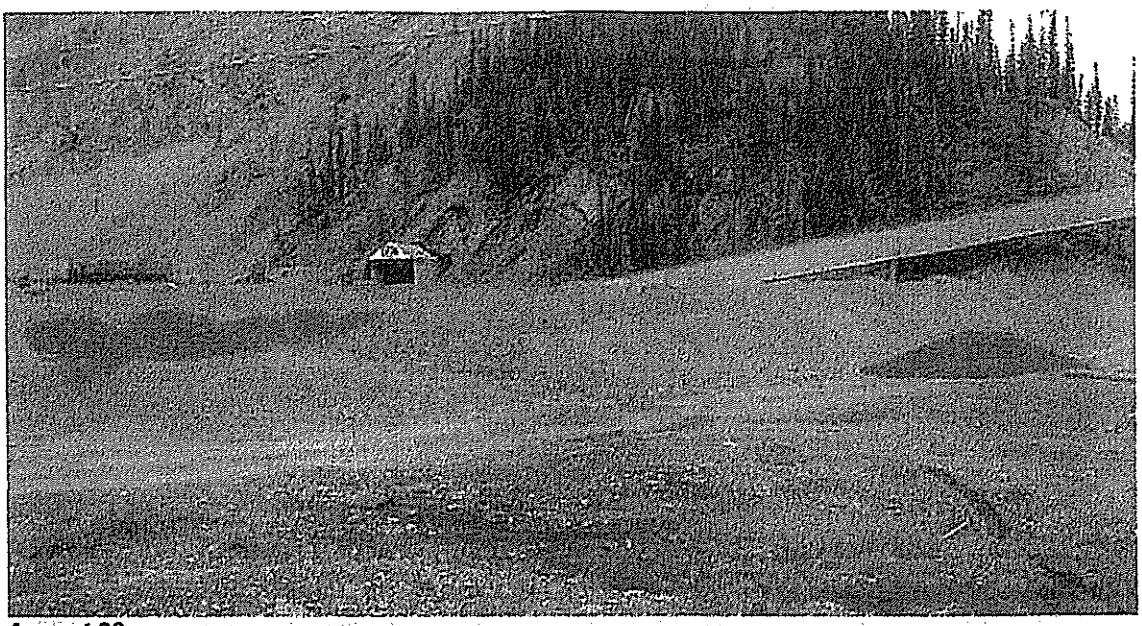
August 23rd
A total of 58 truck loads were moved to establish further (5-8) lifts on all 3 walls and an initial lift on the west wall. Subsequent blading with the D6 Cat and compaction with a loaded Volvo truck driving over at least 15 times at a slow rate.

BACKBLADING WITH D6 CAT

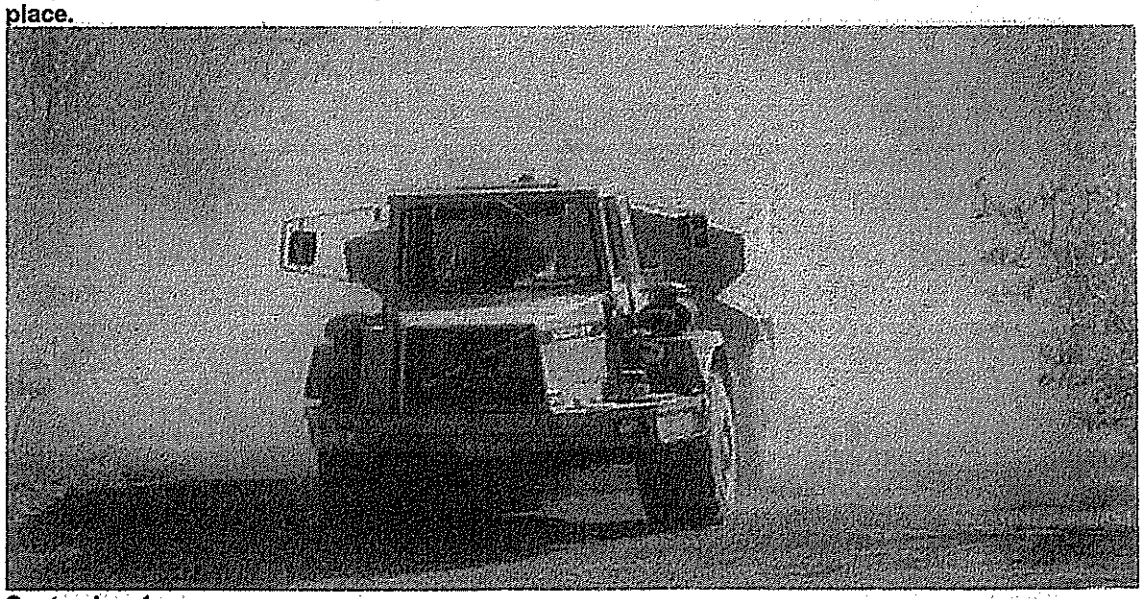


August 24th
A total of 52 truck loads were moved to establish further lifts on all 3 walls. Subsequent blading and compaction took place.

August 25
A total of 50 truck loads were moved onto the north and south walls and a few external locations where roads are required. Subsequent blading and compaction took place.



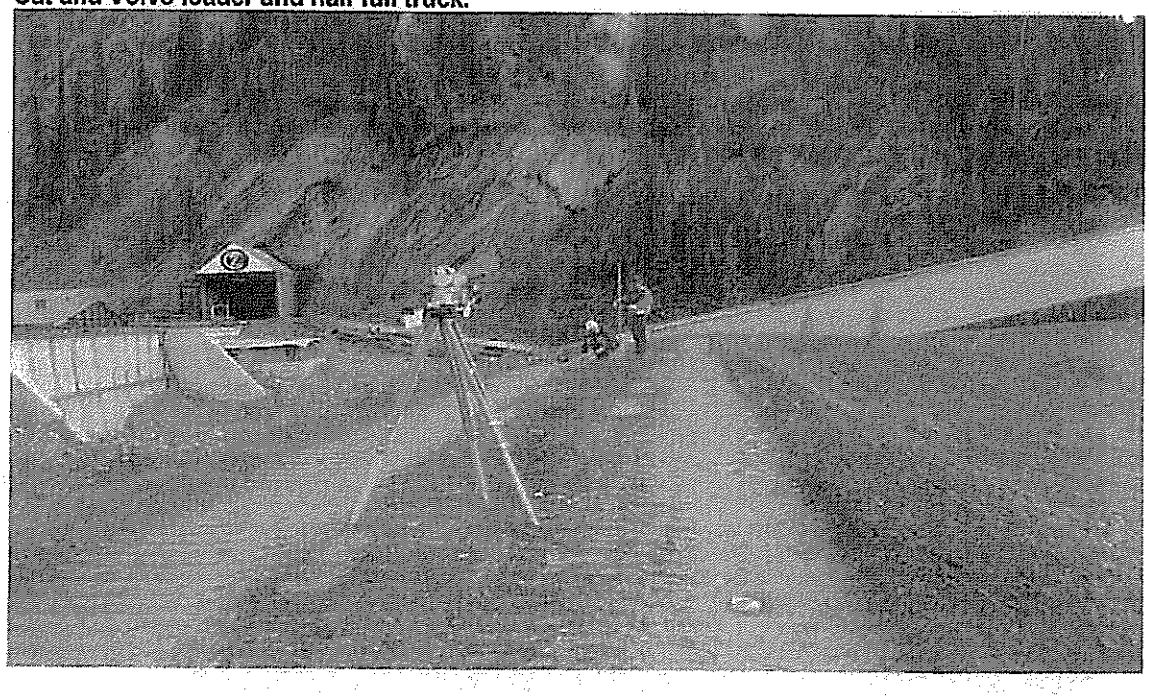
August 26
Since material at the quarry staging area was becoming difficult to access a new staging area was established on the road level below. This allowed sufficient fill material to complete the construction and also reduce truck cycle times since they do not have to drive up the steep pitch to the quarry. A total of 58 truck loads were moved onto all walls and also into the internal area of the pond to stabilize and buildup the 2.5:1 slope ratio. Subsequent blading and compaction took place.



September 4
A total of 84 truck loads were moved onto all walls, 8 loads to interior, 10 loads to perimeter. Dike getting close to height, not safe to drive trucks on so push fill onto dike and pack with CAT loader.

September 5
A total of 34 truck loads. Subsequent CAT blading and compaction using Volvo loader and a loaded Volvo truck.

September 6
Survey in 3 walls and mark low spots. A total of 26 truck loads moved in over low points to bring the walls to excess 3.2 meters above floor of pond. Subsequent blading and compaction using D6 Cat and Volvo loader and half full truck.

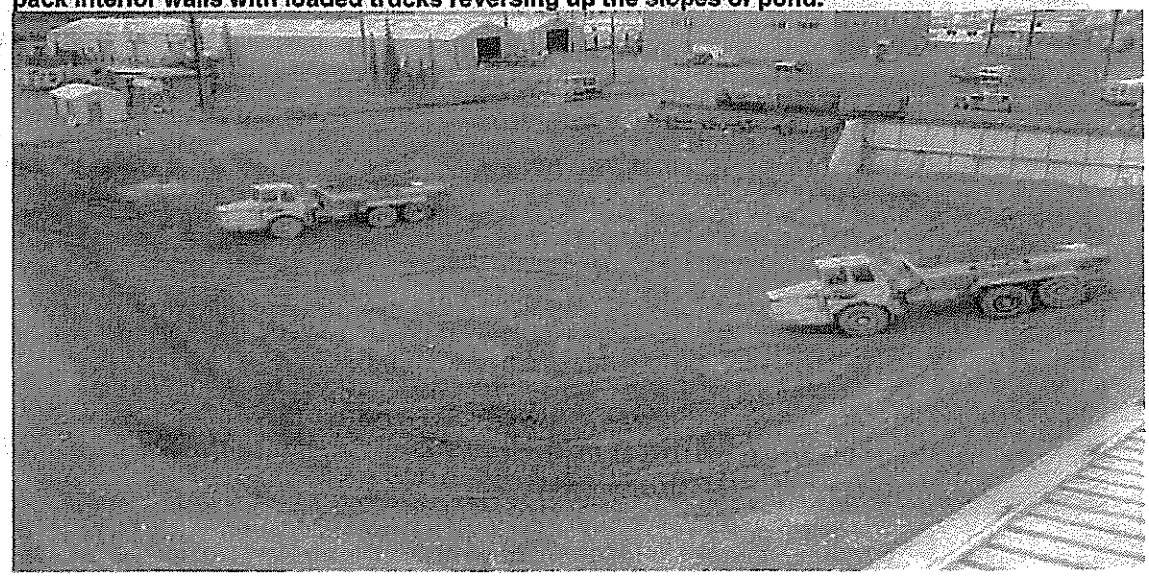


September 7
(below photo) Install steel shield around outlet drain pipe. Install a 24 inch culvert under the road on the south side of dike to channel water both from drain outlet and overflow from pond into main site drainage ditch. Cutting interior walls down towards 2.5:1.0 slope 4 hours Cat work.

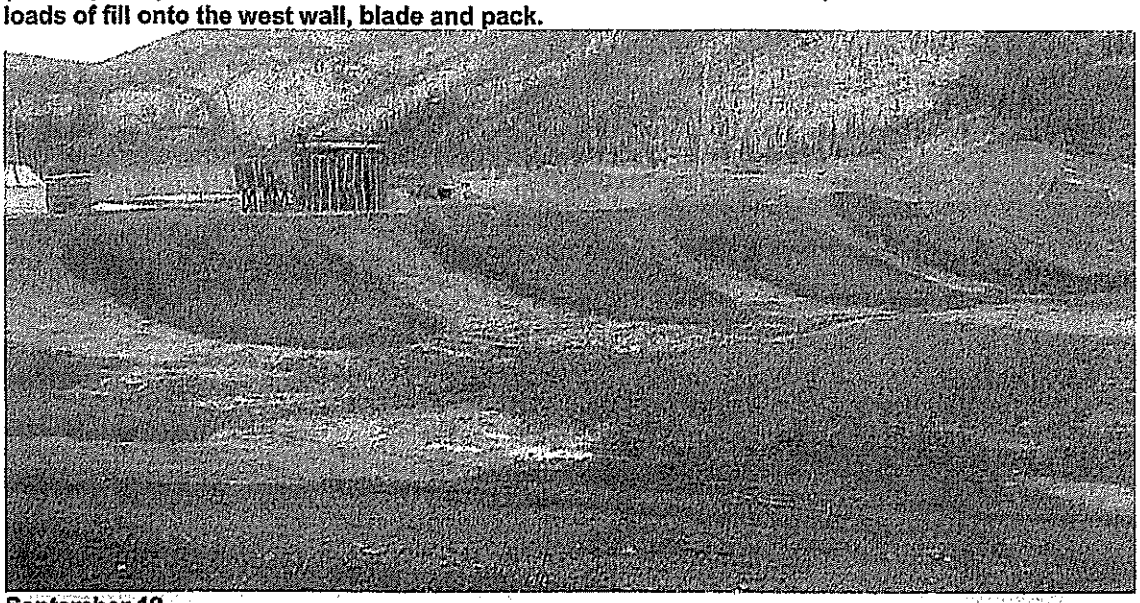
September 8
Cutting exterior walls down to 2.0:1.0 slope. 5 hours cat work. Locate valve assembly for drain pipe, ready for welding.

September 9
Dave Caughill of Golder Associates visits the site and takes sample of dike material.

September 10
(below photo) Haul 12 truck loads of fill onto the west wall, blade and pack. Picking out rocks and pack interior walls with loaded trucks reversing up the slopes of pond.



September 11
(below photo) Moved 14 truck loads of sand onto the 3 interior walls, blade with Cat. Truck 11 loads of fill onto the west wall, blade and pack.



September 12
Move 12 truck loads onto the west wall, blade and pack.

September 13
Move 10 truck loads for the west wall. Wet weather dictates dumping of loads at base of dike and the Cat is used to push them up and pack. Spreading sand by shovel and rake over the other 3 walls.

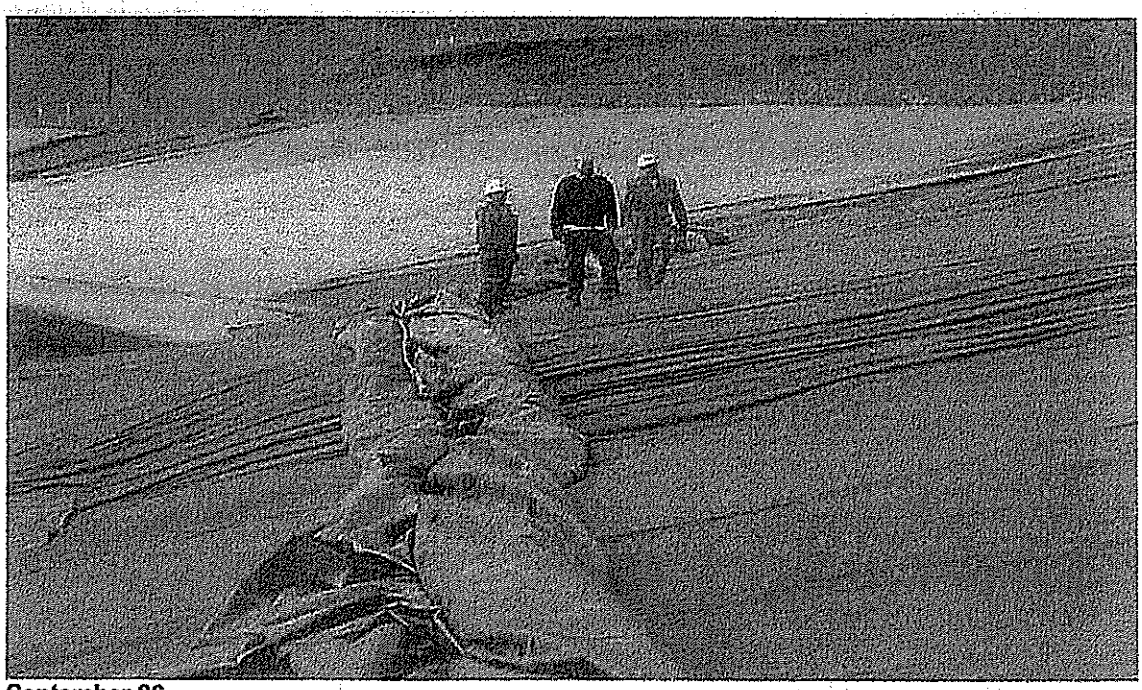
September 14
(above photo) Weld mounting plate and install knife valve on outlet pipe, new 24 inch drainage culvert under road.

September 15
Move 14 truck loads to base of west wall, push up with D8 and blade and pack with D6. Start cutting banks of west wall.

September 22
8 truck loads, push up with D8 onto the west wall, final lift brings it to height. Cut down banks, pack and prep metal collar for drain pipe. Blading and spreading sand. Final total number of truck loads of fill is 641 equating to 8,333m³ of material.

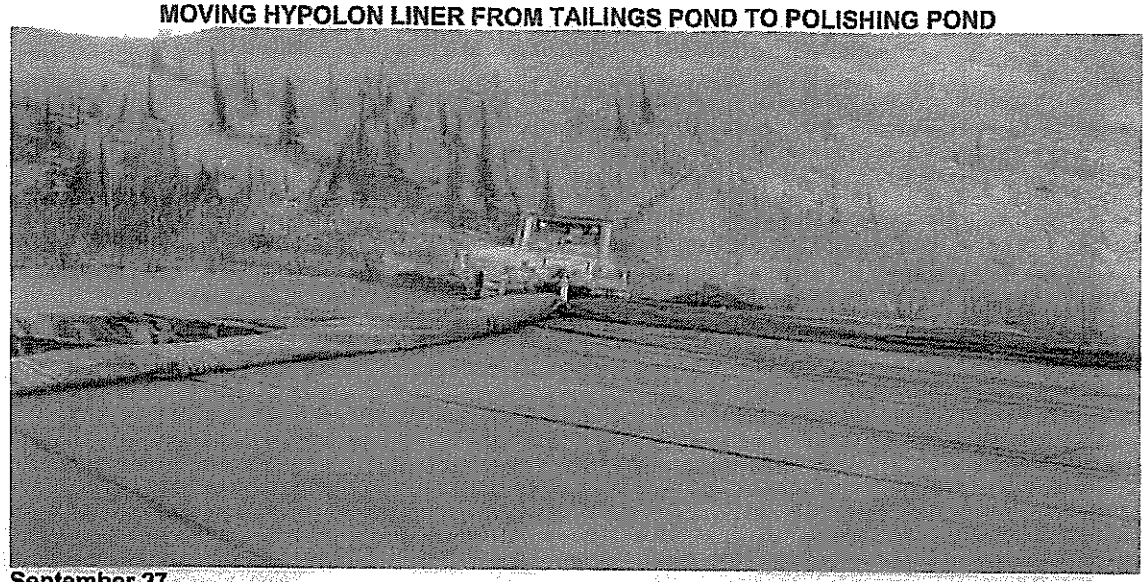
September 23
Load and dump 5 truck loads and push up on the west wall for final height. Cut both banks, knock down crest with back hoe then reblade. Final survey indicates at least a 3.2 meter height to all walls from the center point of pond.

September 25
Dump 6 loads of sand and push up into pond to line the walls.

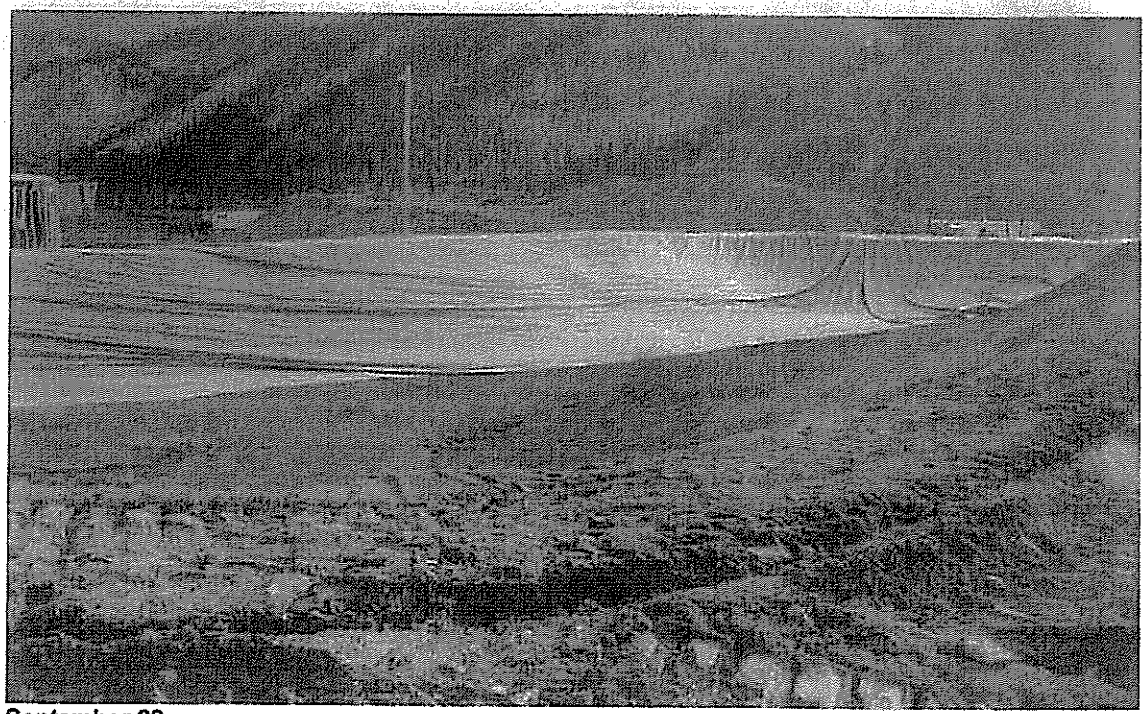


September 26
Strip of 2 sections of hypolon liner from the south and east walls of tailings pond (above photo). Roll up and drag out by CAT into yard.

MOVING HYPOLON LINER FROM TAILINGS POND TO POLISHING POND

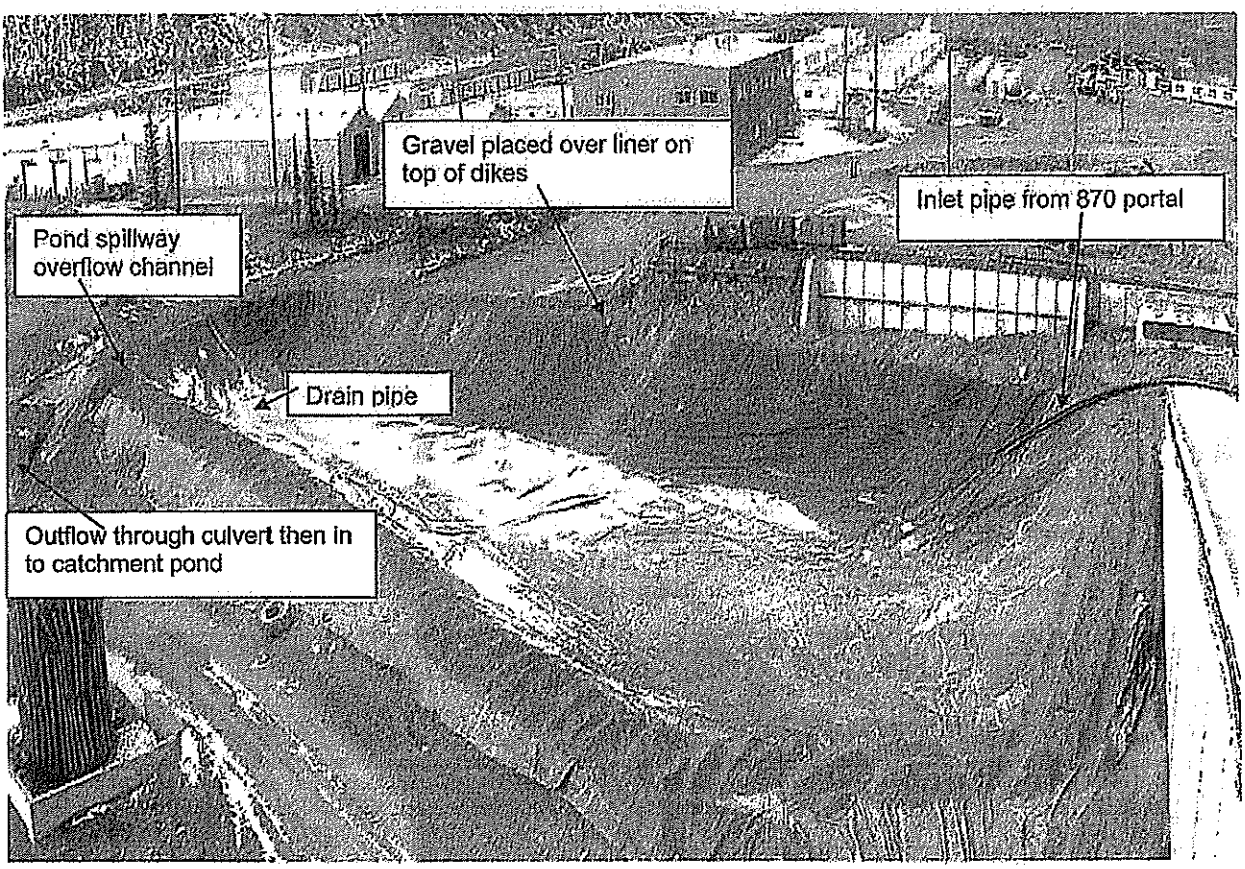


September 27
Dump 4 loads of sand and push onto floor of pond. Backblade sand. Picking rocks out and dressing walls in preparation for liner. Drag rolls of tarp onto the south and north walls of polishing pond start to unroll and place over pond.



September 28
Unroll tarp from north wall, very heavy to move. Cut in sections missing while allowing for overlap. Pond is now completely lined and just needs sections glued together place some rocks on tarp on walls to hold down. Crew leaves the site on a flight to Ft. Nelson.

POLISHING POND AS BUILT: PRAIRIE CREEK MINESITE



October 21
Photograph taken from the roof of the mill, conveyor into the mill is on the right side of picture. Tarp had partlally been blown off by strong winds, temporarily held down by large tires. Remove tires and dig with back hoe 1 meter channel below top of dike in southwest corner of south wall for pond spillway drainage which reports to same culvert as the pipe draining the bottom of the pond. Place extra liner in channel and replace main tarp over area. Load, haul and dump 6 truck loads of gravel onto roads outside pond. Use CAT loader with bucket to carry gravel up and place on the crest of the dikes over top of liner to hold tarp down. Inlet pipes placed on the conveyor. Cold temperatures precludes any further work on the pond until Spring 2006.

November 2005, Canadian Zinc Corporation

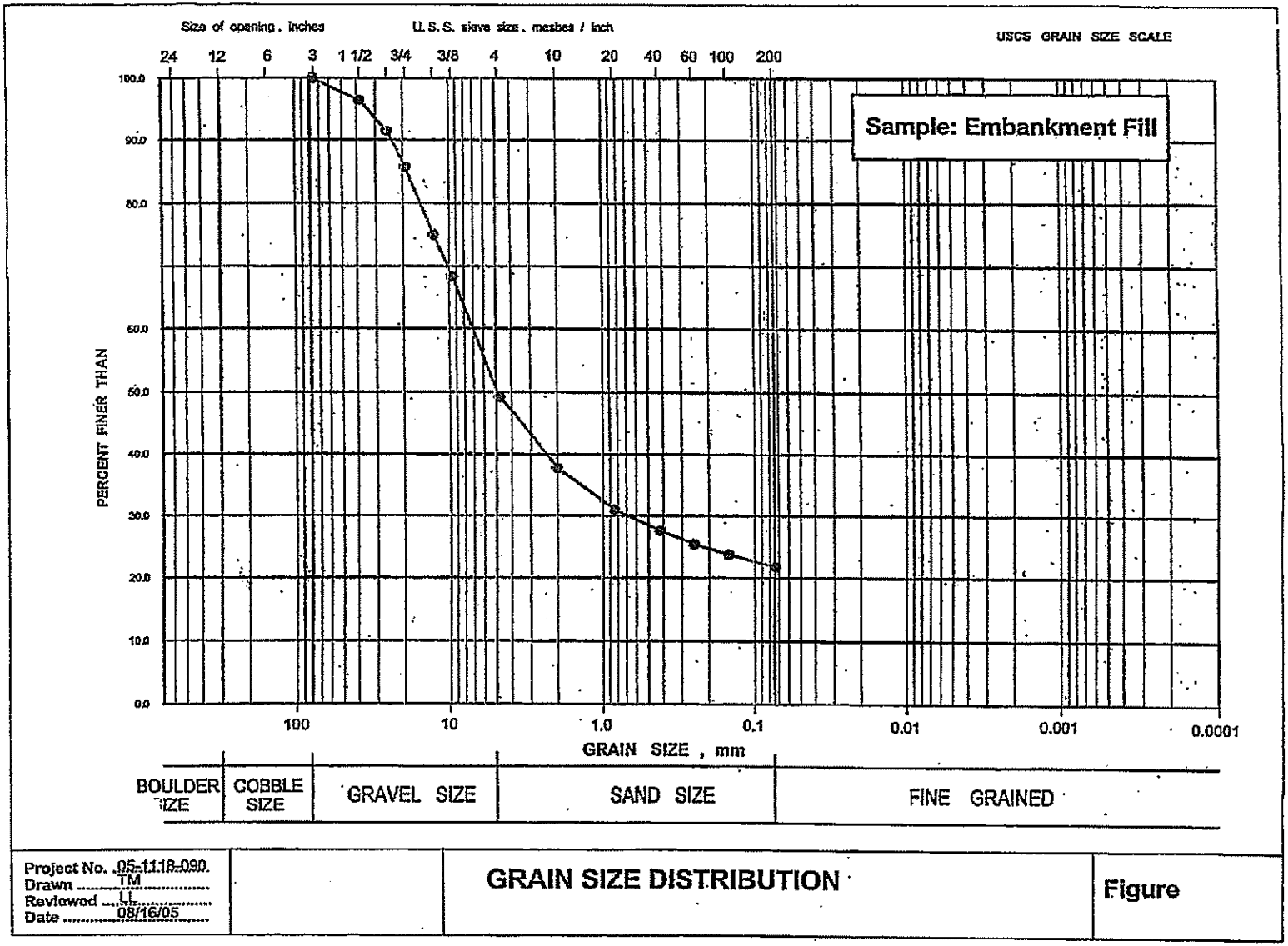
Construction Record of Polishing Pond, Prairie Creek Minesite.

r/v=rock and vegetation removal
c=compaction
b=blading

	LABOUR (hrs)				EQUIPMENT (hrs)						truck loads hauled				
Date	AT	DH	CH	CT	D8H	D6	BM4600	BM5350-1	BM5350-2	Hitachi Hoe	fill	sand	QC	work description	Weather
Sep-04	20	10			4	4	4							clear site: move 4 trailers, drill equip, grade	
Aug-17	5	2					2	2			4		r/v	base prepartion	clear,hot, sunny
Aug-18	10	8	8	8	8	2	8	8	8		20		r/v, c	intial lift east wall	clear,hot, sunny
Aug-19	10	8	8	8	8	2	8	8	8		42		r/v, c,b	south wall lift, start north	clear,hot, sunny
Aug-20	10	8	8	8	8	2	8	8	8		46		r/v, c,b	north,east, south, install drain pipe in south wall	clear,hot, sunny
Aug-21	10	8	8	8	8	2	8	8	8		48		r/v, c,b	north,east, south walls	
Aug-22	10	8	8	8	8	2	8	8	8		52		r/v, c,b	north,east, south walls	
Aug-23	10	8	8	8	8	2	8	8	8		58		r/v, c,b	north,east, south walls	
Aug-24	10	8	8	8	8	2	8	8	8		52		r/v, c,b	north,east, south walls	
Aug-25	10	8	8	8	8	2	8	8	8		50		r/v, c,b	north,east, south walls	
Aug-26	10	8	8	8	8	2	8	8	8		58		r/v, c,b	north,east, south walls	
Sep-04	10	8	8	8	8	2	8	8	8		84		r/v, c,b	north,east, south walls	
Sep-05	10	8	8	8	8	2	8	8	8		34		r/v, c,b	north,east, south walls	
Sep-06	10	8	8	8	8	2	8	8	8		26		r/v, c,b	north,east, south walls, survey dike tops	
Sep-07	4					1								install millhole shield over drainpipe, culvert	
Sep-08	5					5								cutting walls to slope	
Sep-09			4											Golder Engineer inspection, sample fill,	
Sep-10	10	0	6	6	2	2	6	6	6		12		r/v, c,b	west wall	
Sep-11	10	0	6	6		2	6	6	6		11	14	r/v, c,b	14 loads sand, spread	
Sep-12	8	0	4	4	2	2	4	4	4		12		r/v, c,b	west wall lifts	
Sep-13	8	0	4	0	2	2	2	2	0		10		r/v, c,b		
Sep-14	2	0	0	4	1	1	0	0	0					weld valve onto drain pipe	
Sep-15	6	0	4	0	1	2	4	4	0		14		r/v, c,b	west wall, truck breakdown	
Sep-22	8	0	4	0	1	4	2	3	0		8		r/v	further lifts, cutting slopes, steel plate on drain collar	
Sep-23	6	0	0	4	0	2				4	5		r/v	final lifts on west wall, cut banks with hoe	showers
Sep-25	6	0	0	6	4	3		4		4		6		muck out mud from floor, spread sand	showers
Sep-26	8	6	6	6	0	6	0	0	0	0			r/v	cut and roll 2 sections liner from tailings pond	clear,
Sep-27	6	0	2	0	1	2	2	2	0			4	r/v	4 loads sand onto floor	sun
Sep-28	6	6	6	6	0	1	0	0	0					Unroll tarp onto pond (extra labor LK, RC)	cool
Oct-18	0	4	0	0	0	0	0	0	0					place tires on tarp to hold down in wind	cold
Oct-21	12	12	0	0	0	0	4	4	0					dig spillway, place gravel on tarp with CAT loader	very cold
Total	250	136	142	138	114	63	132	133	112	8	648	24			

Total labor hours	666
Total equipment hours	562
Total amount of fill moved	8398
Total amount of sand moved	312

PROGRAM COST ESTIMATE		ACTUAL COSTS INCURRED
estimated labor cost	$31,620	$31,620
estimated equip cost	$137,000	$0
estimated fuel/parts	$58,200	$5,000
E & P	$10,000	$10,000
Room & Board	$7,313	$7,313
Total Estimated Cost	$224,820	$53,933



Project No. 05-1118-090 Drawn TM Reviewed JJ Date 08/16/05		GRAIN SIZE DISTRIBUTION	Figure

APPENDIX 1

April 26, 2005

EBA File: 740078

Canadian Zinc Corporation
Suite 1202
700 West Pender Street
Vancouver, BC
V6C 1G8

Attention: Mr. Allan Taylor

Subject: Prairie Creek Mine
Polishing Pond – Preliminary Design

1.0 INTRODUCTION

This letter presents the preliminary design completed by EBA Engineering Consultants Ltd. (EBA) for the polishing pond at Prairie Creek Mine, near Fort Simpson, NT. Authorization to proceed with the preliminary design was provided by Canadian Zinc Corporation (CZC) in a letter dated March 29, 2005 (copy attached).

A site infrastructure drawing was provided by CZC. Ground elevations were assumed for design purposes. A site survey will be required prior to completion of the detailed design.

2.0 PROJECT DETAILS

Design parameters were provided by CZC in their letter dated March 29, 2005. The polishing pond is to retain mine water effluent received from the 870 m Portal (Portal) and future Pilot Plant. Primary treatment will occur in an underground sump. The treated water will then be piped to the polishing pond. The pond's purpose is to allow residual metal carbonate precipitate contained in the water to settle out prior to discharge to the Catchment Pond.

P.O. Box 2244, #201, 4916 – 49 Street, Yellowknife, NWT X1A 2P7
Tel: (867) 920-2287 - Fax: (867) 873-3324 Email: yellowknife@eba.ca - Web Site: www.eba.ca

The polishing pond has been configured to provide a 20-hour retention time and accommodate a maximum inflow of 0.0124 m^3/sec. The retention time is based on guidelines from British Columbia[1] and is consistent with the Environmental Assessment and subsequent water license No. MV2001L2-0003. A water balance indicates that the desirable storage capacity is approximately 900 m^3. The respective inflows from the 870 m Portal and Pilot Plant are 0.012 m^3/sec and 0.004 m^3/sec. These flows will be seasonal and have an approximate duration of 6 months per year. The pond water balance is shown in Figure 1.

The polishing pond will be located in a clearing, immediately south of the 870 m Portal, as shown in Figure 2.

3.0 PRELIMINARY DESIGN

3.1 General

The preliminary pond design comprises a 3.2 m high containment berm with a geomembrane liner system. A steel pipe set at the maximum operating level controls discharge from the pond.

The pond has been designed to accommodate the following design criteria:

- 20 hour retention time;
- Operating capacity of 900 m^3;
- Maximum inflow of 0.0124 m^3/sec; and
- 0.5 m liner freeboard.

The proposed pond layout is shown in Figure 3. Typical cross sections are shown in Figure 4. The pond shape has been selected to accommodate existing site infrastructure and optimize the available storage. The configuration shown in Figures 3 and 4 provides an approximate storage capacity of 920 m^3 at an operating depth of 2 m.

The pond performance was evaluated for the 1:200 year rainfall event. This is equivalent to an approximate 110 mm of precipitation over a 24-hour period. When operating at full capacity (920 m^3), this storm event would increase the pond elevation by approximately 30 mm for an estimated two-hour duration. This small increase in elevation can be readily contained within the pond perimeter.

[1] "Guidance for Assessing the Design, Size and Operation of Sedimentation Ponds Used in Mining", British Columbia Ministry of Environment, Lands and Parks.

3.2 Pond Hydraulics

A 300 mm diameter steel pipe will be used to carry effluent to the pond. The pipe is located at the north corner of the pond, as shown in Figure 3. It has been sized to accommodate combined flow from both the Portal and the Pilot Plant. The outlet invert will be set at the top of berm elevation. The required pipe length and inlet elevation will be determined during detailed design once inflow elevations from the Portal and Pilot Plant have been finalized.

It has been assumed that both the Portal and Pilot Plant flows will discharge through a single inflow pipe. A second inflow pipe could be considered if this is not practical.

A 300 mm diameter steel pipe, with the inlet invert set at the maximum operating level, controls outflow from the pond. The pipe extends through the fill and runs down the embankment slope, discharging to the existing culvert under the service road. Erosion protection may be required at the base of the outflow pipe to prevent embankment erosion, unless the outflow pipe can be set to discharge directly inside the culvert. Further evaluation is required at detailed design to assess the viability of this option and its impact on existing drainage patterns.

Flow distance and direction through the pond are controlled by baffles. The baffles will be constructed using the available hypalon liner. The liner will be suspended from available insulated polyethylene pipe and secured to the floor of the pond using heavy steel pipe seated on the pond bottom. To minimize inflow and outflow piping requirements, two baffles have been designed as shown in Figure 3.

3.3 Liner

The liner system comprises a new 40 mil Enviro Liner overlain by hypalon liner that is surplus on the site. The Enviro Liner provides primary containment with the hypalon being used as a protective overlay. The liner system will extend 0.5 m above the maximum pond operating level and be keyed into the existing embankment.

A 200 mm thick sand bedding layer has been designed to support the liner system. EBA understands that a sand source is not available on site and that screening will be required to obtain the desired gradation. An estimated 250 m^3 of bedding material will be required for pond construction.

As an alternative to sand bedding, a coarser bedding layer (25 mm minus) could be used and a nonwoven geotextile placed between the liner and bedding to cushion and protect the liner.

Further analysis and discussion with GZC will be undertaken during detailed design to assess the most desirable and cost effective option.

The liner has been designed as an exposed surface without soil cover or ballast. The hypalon will provide protection from the elements; however, the seams should be adequately sealed or lapped to prevent wind damage. This is particularly important if a head of water is not maintained against the liner (i.e., the pond is drained).

3.4 Materials

A borrow pit sample was obtained during a site visit in July 2004. A particle size analysis completed on the sample showed the available borrow material to be silty sand and gravel with a maximum aggregate size of 50 mm. The silt/clay content was 23%. As such, this material is potentially frost susceptible and may be subject to frost heave in the presence of moisture and freezing conditions. The containment berms, however, will be constructed above grade, eliminating groundwater seepage as a potential moisture source. Furthermore, the liner system is capable of accommodating considerable differential movement and deflection without incurring damage. Therefore, the available borrow material is considered adequate for construction of the polishing pond.

Screening will be required to produce bedding material for the liner system, as discussed above. Screening or selective borrow sourcing may also be required during berm construction to ensure boulders and cobbles are not incorporated into the embankment material.

3.5 Quantities

Estimated construction quantities are summarized in Table 1. These values do not include the material requirements for baffle construction or the inflow and outflow structures.

TABLE 1
ESTIMATED CONSTRUCTION QUANTITIES

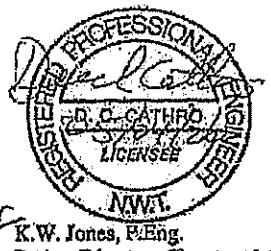
	Quantity
Granular Fill for Berm Construction (m^3)	5,500
Sand Bedding (m^3)	250
Enviro Liner (m^2)	1,500
Hypalon Liner (m^2)	1,500

CLOSURE

We trust this letter satisfies your present requirements. If you have any questions or require additional information, please contact our Edmonton office.

Yours truly,
EBA Engineering Consultants Ltd.

Reviewed by:

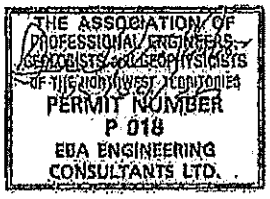


Gary Koop, P.Eng.
Project Engineer, Circumpolar Regions
(Direct Line: (780) 451-2130, ext. 509)
(e-mail: gkoop@eba.ca)

for K.W. Jones, P.Eng.
Project Director, Circumpolar Regions
(Direct Line: (780) 451-2130 ext. 271)
(e-mail: kjones@eba.ca)

GDK:kdb

cc: R. Hoos, EBA Vancouver
D. Hayley, EBA Kelowna



CANADIAN ZINC CORPORATION

March 25, 2005

EBA Engineering Consultants Limited
255, 1715 Dickson Avenue,
Kelowna, BC
V1Y 9G6

Attention: **Mr. Don Hayley**

Re: **Parameters for Preliminary Design**
Polishing Pond, Prairie Creek, NWT

Dear Sir:

EBA previously provided a mine water contingency plan in a letter dated May 10, 2004. In that plan, the intent was to construct a polishing pond at Prairie Creek with an approximate capacity of 1400 m^3 for the treatment of mine water. Canadian Zinc (CZN) subsequently completed a revised mine water contingency plan (MCP) dated November 19, 2004. In the latter plan, CZN incorporated some improvements to the proposed water management strategy. The key change was a decision that all mine water will be treated underground in the final sump on the 870 m level, near the existing portal. Effluent from the sump will be piped to the new polishing pond. This is considered a superior approach because treatment is conducted underground under cover from the elements, and final polishing to remove any suspended matter is accomplished in a separate pond. This letter is to give you parameters for the polishing pond based on the MCP so that you may complete a preliminary design.

CZN selected 6 L/sec (360 L/min or 0.006 m^3/sec) as the design flow from the 870 m level for water management planning, this being towards the high end of the range of historical measurements, but not at the extreme high end. Although the new 905 m decline will be driven into competent rock, to be conservative, CZN assumed that mine water produced from the new development will be similar in quantity and quality to water flowing from the existing 870 m level. This provides an assumed combined flow of 0.012 m^3/sec. In the unlikely event that this quantity is exceeded, there are contingency measures identified in the MCP to address the situation.

The Pilot Plant process water effluent discharge will be 36 m^3/day, or 0.0004 m^3/sec, for a limited 6-month period. Therefore, there would be a temporary, small increase of the combined flow to the treatment sump and polishing pond, 0.0124 m^3/sec, over this period. Over a 24-hour period, this equates to 1,071 m^3.

The treatment sump has dimensions 40 m by 3 m by 3 m, for a capacity of 360 m^3. At this point in time, the new decline will be started form the existing underground workings, and any inflows will eventually report to the 870 m level. The new decline will still have sumps as planned. The 905 m portal will be created at a later date. Until the decline is fully developed, the rate of water inflow is unlikely to approach the expected maximum. In addition, a pilot plant operation is not planned for 2005.

Inflows to the treatment sump will be subjected to pH adjustment to 9.5 by the metered addition of either lime of soda ash. The majority of metal carbonate precipitate is expected to settle in the bottom of the sump, although some may leave the sump with the effluent as suspended matter. The function of the polishing pond is to enable settling of this matter to ensure pond effluent meets the limits specified in the Water License. The polishing pond is to be built in the cleared area immediately south of the 870 m portal, between the portal and the Mill. Effluent from the pond will be directed into the existing Catchment Pond.

Please proceed with a preliminary design of the polishing pond using the above parameters. Thank you.

Yours truly,

"Alan B. Taylor

CANADIAN ZINC CORPORATION
Alan B. Taylor
COO & VP Exploration

Suite 1202-700 West Pender Street
Vancouver, BC V6C 1G8
Tel: (604) 688-2001 Fax: (604) 688-2043
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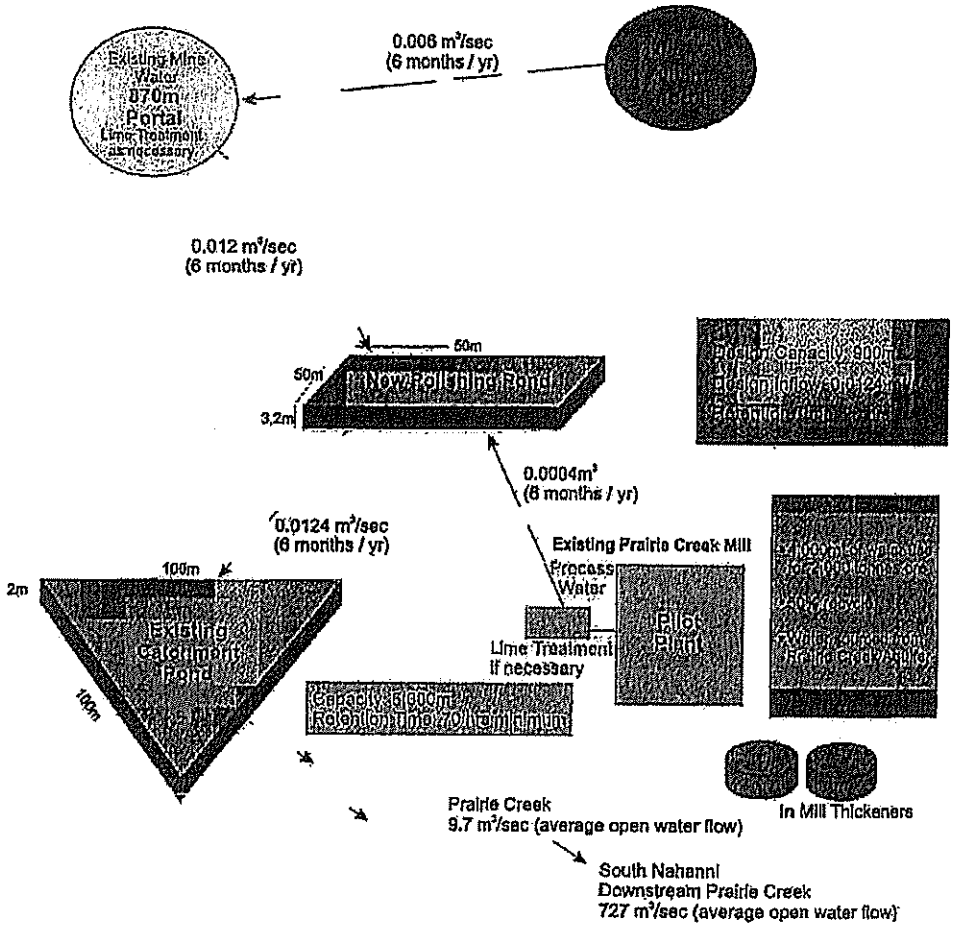
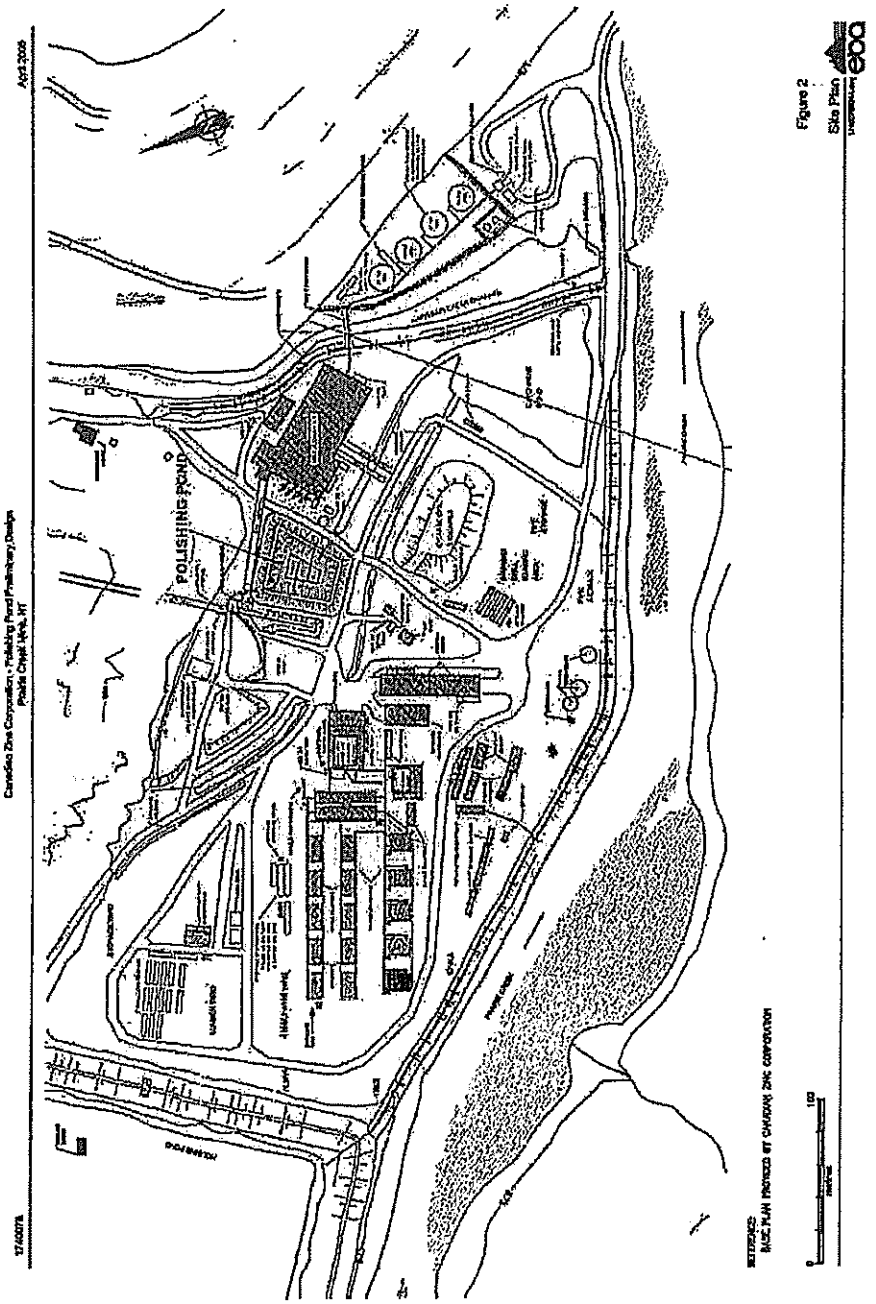
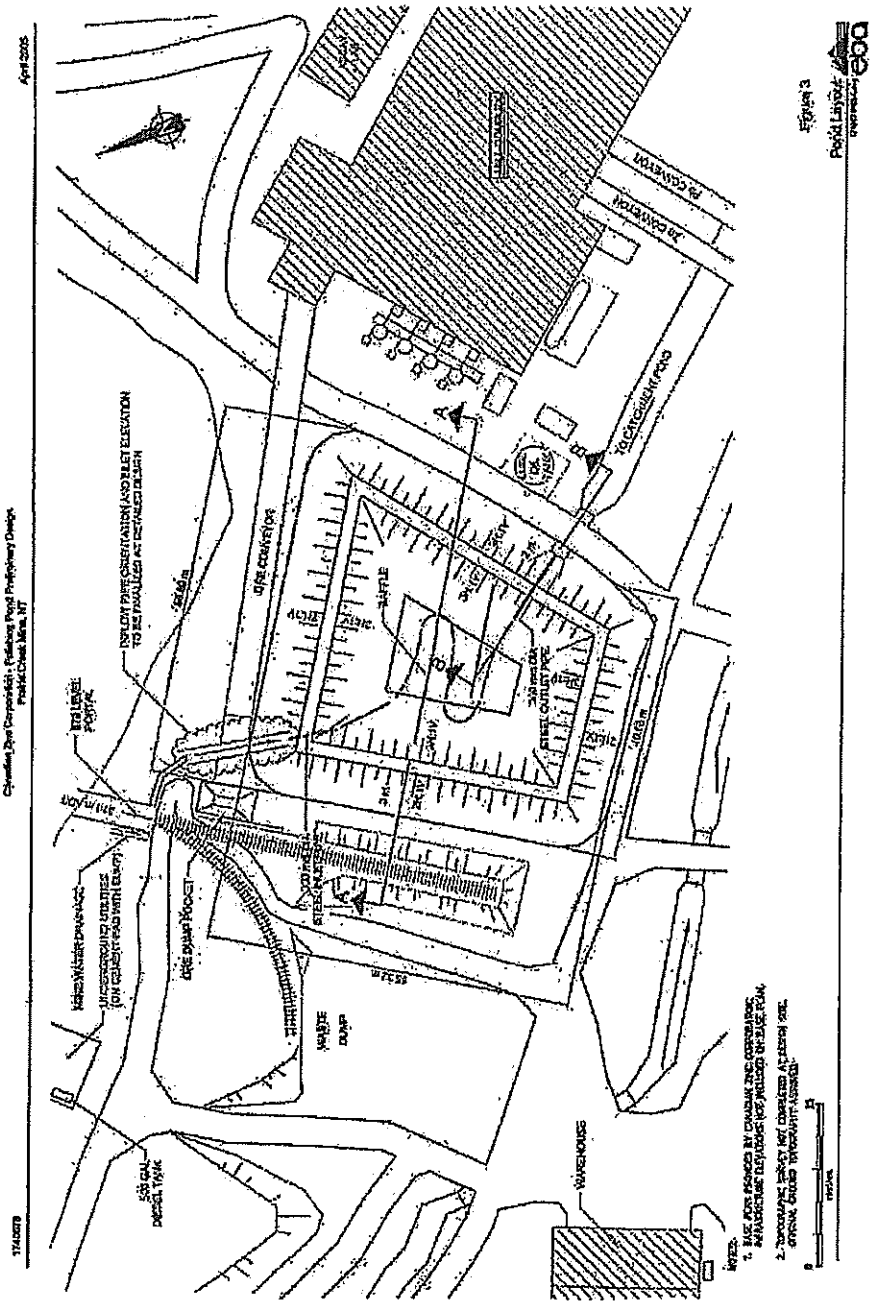
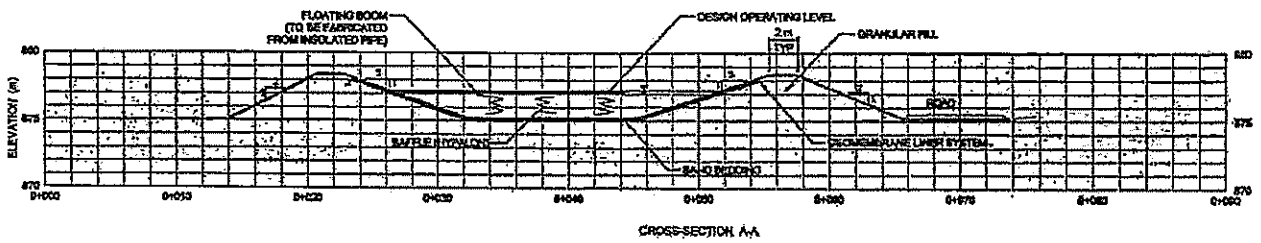


Figure 1
Polishing Pond
Water Balance
1740078d01c.cdr

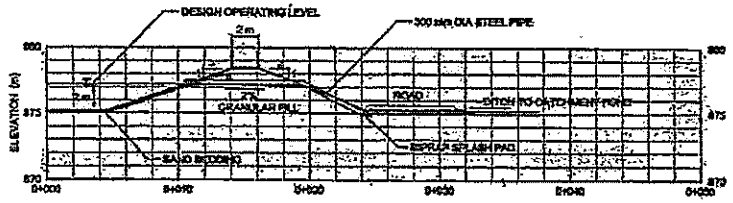




1740078 — Canadian Zinc Corporation - Polishing Pond Preliminary Design, Prairie Creek Mine, NT — April 2006



CROSS-SECTION A-A



CROSS-SECTION B-B

NOTES:

1. ORIGINAL GROUND TOPOGRAPHY AND ELEVATION ASSUMED.
2. ROAD AND CULVERT SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. ELEVATIONS NOT INDICATED ON BASE DRAWING.
3. OUTLET EROSION PROTECTION REQUIREMENTS TO BE FINALIZED AT DETAILED DESIGN.

0 10
metres

Figure 4

Pond Cross-Sections

eba

TECHNICAL MEMORANDUM No. 1

Golder Associates Ltd.
#500 - 4260 Still Creek Drive
Burnaby, B.C., Canada V5C 6C6

Telephone: 604-298-6623
Fax Access: 604-298-5253

	David Harpley, Allan Taylor, Canadian Zinc Corporation	**DATE:**	August 10, 2005
FROM:	Don A. Hickson, John A. Hull	**JOB NO:**	05-1118-090.9000
EMAIL:	dhickson@golder.com, jhull@golder.com		

POLISHING POND EMBANKMENT
FILL PLACEMENT AND COMPACTION
PRAIRIE CREEK, NT

The purpose of this memorandum is to provide Canadian Zinc Corporation (CZC) with preliminary guidance on fill placement and compaction for the embankments at the Polishing Pond at the outflow of the 870 m portal at the Prairie Creek mine in NT. A subsequent Technical Memorandum will be issued which will include:

Geotechnical design information for the polishing pond dikes;

- Issued for Construction drawings;
- Construction recommendations, and;

Quality control testing requirements.

This memorandum is to provide information for CZC to begin placing fill materials immediately. The fill placement methodologies are preliminary, and will be modified during construction, if required, based on further testing, observation, and design.

PRELIMINARY CONSTRUCTION METHODOLOGY - EMBANKMENT CONSTRUCTION

Embankment Construction Material

Golder has sampled the soil to be used as embankment construction material. Laboratory testing is currently being completed on this material (grain size distribution and Standard Proctor maximum dry density). This material was observed during a site visit, and it was field-classified as a silty gravel with cobbles. Although this material is not ideal as an embankment construction material (due to frost susceptibility of the finer fraction), it is the only material readily available in sufficient quantities to build the Polishing Pond, and therefore will be considered as acceptable for the embankment construction material.

During borrow operations, care must be taken to remove any deleterious materials from the fill, especially organic or topsoil materials. The maximum particle size of the excavated borrow material must be limited to a diameter of 15 cm.

Upstream Embankment Slope

On a preliminary basis, the embankment should be constructed at the dimensions indicated on the EBA preliminary design drawings, except that the upstream or inside pond slopes can be constructed at a slope of 2.5 Horizontal:1 Vertical. The steeper design slopes will provide a storage volume of approximately 1,100 m^3. This volume is greater than the minimum required storage volume of 900 m^3, and provides some additional storage as requested by CZC.

Placement and Compaction

The embankment construction material should be placed in loose lifts that do not exceed 25 cm in thickness. Each lift should be compacted by one of the following methods:

Method A

- Excavate fill at borrow with excavator, and load Volvo 25-ton rock trucks. Take care to eliminate particles larger than 15 cm in diameter;
- Dump fill from loaded Volvo truck;
- Spread fill using Caterpillar D8 bulldozer to a smooth, horizontal surface;
- Compact the surface of the fill using a minimum 10-ton, single drum, self-propelled, sheepsfoot compactor. The compactor should pass a minimum of 4 to 6 times over the surface of each lift, taking care to overlap each pass a minimum of 20 cm;

- Take care to 'overbuild' the slopes of the embankment slightly. When construction of the embankments is complete, trim the slopes back to a 2.5H:1V using the excavator; and

  Place bedding sand on top of embankment fill and pond base in a single, uncompacted, 15-cm thick lift.

Method B

If the sheepsfoot compactor described in Method A is either unavailable or ineffective, then the embankment construction material must be compacted using the loaded, 25-ton Volvo rock trucks. The trucks must be routed so that uniform compaction is achieved over the working surface of the embankment. A minimum of 4 passes of the trucks must be completed over all areas of the lift, at a speed not exceeding 10 km/h.

Fill must be dumped on top of the existing lift, and pushed over the leading edge of the advancing fill using a bulldozer. Fill should not be dumped over the advancing edge directly from the box of the truck.

Pockets of visibly coarser material must be removed and replaced with well-graded fill.

This construction methodology has been designed based on experience with similar projects. It is preliminary, and will be adjusted as needed.

DAH/JAH/lba
[illegible]

Golder Associates Ltd.

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Golder Associates

REPORT ON

PRAIRIE CREEK POLISHING POND DESIGN BASIS AND CONSTRUCTION GUIDANCE

Submitted to:

Canadian Zinc Corporation
Suite 1710 - 650 West Georgia Street
Vancouver, BC

DISTRIBUTION:

2 Copies - CZC
2 Copies - Golder Associates Ltd.

September 16, 2005 05-1118-010/9000

50 BEST EMPLOYERS IN CANADA 2005

CANADA'S 50 BEST MANAGED COMPANIES

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1.0 INTRODUCTION

Golder Associates Ltd. (Golder) has been contracted by Canadian Zinc Corporation (CZC) to provide engineering support during final design and construction of the Polishing Pond at the outflow of the 870 m portal, at CZC's Prairie Creek Project near Fort Simpson, NT.

The Polishing Pond is required to allow for final sedimentation of suspended solids in the effluent from the existing underground mine workings at the 870 m portal. Primary treatment of the portal outflow will be done in a sump inside the portal.

The purpose of this memo is to provide a design basis, construction methodology, guideline specification, and Quality Control (QC) requirements for construction of the Polishing Pond. This package also includes Revision 0 'Issued for Construction' drawings.

2.0 PREVIOUS DESIGN AND DESIGN CRITERIA

Previously, EBA Engineering Consultants Ltd. (EBA) completed a preliminary design of the Polishing Pond. EBA's preliminary design is summarized in Ref. 1. The design criteria for the preliminary design were provided to EBA in a letter from CZC to EBA dated March 25, 2005 (see Ref. 2). These design criteria are summarized in Table 1.

Table 1: Design Criteria

	Value	Source
Maximum Inflow	0.0124 m^3/s	CZC
Detention Time	20 hours	BC Ministry of ELP (see Ref. 3)
Freeboard	1.0 m	MVWLB via EBA and CZC (D. Harpley e-mail)
Operating Capacity	900 m^3	Calculated by EBA – verified by Golder
Extreme Design Storm Event	1:200 year, 24-hour	BC Ministry of ELP (see Ref. 3)

In addition to the above design criteria, CZC have indicated that they would prefer a storage volume greater than the 900 m^3 minimum if possible. This could be achieved by either increasing the footprint of the pond, or by steepening the upstream slopes of the pond embankments.

It is important to note that CZC have limited resources available to complete the construction of the Polishing Pond. There is currently no overland access to the site. The airstrip is sufficient to accommodate small aircraft only, so it is not practical to design structures which require the use of heavy equipment not already on site, or materials which are heavy and/or bulky.

We also understand that the Polishing Pond must be constructed during the 2005 construction season.

2.1 Type of Liner

Based on the above design criteria (minus the transportation requirements), the type of liner recommended by EBA was a 40-mil Enviroliner as supplied by Layfield Environmental Systems Ltd (Layfield). The previous design includes the use of Hypalon as a protective material over top of the Enviroliner.

Selection of this type of liner was based mainly on the following:

- Layfield was not able to achieve film tear bond; and
- The factory-sealed seam peeled easily (by hand).

During recent conversations with CZC, it has become apparent that the cost and logistical difficulty of transporting a shipment of Enviroliner to site are significant. Additionally, CZC has indicated that the primary purpose of the Polishing Pond is as a final sedimentation pond only. Any 'polishing' required to treat dissolved components would be performed in the sump located inside the 870 m portal.

Therefore, we recommend that the existing Hypalon be used as a liner material. This material is to be salvaged from the backslope of the existing tailings impoundment (from areas above where water is impounded). The material should be 'harvested' in the minimum number of pieces possible, while still easily transportable, to minimize the seaming required during construction of the Polishing Pond.

Care should be taken to ensure that the Hypalon is cut with straight, regular edges before being placed at the Polishing Pond.

Seaming of the Hypalon will require Secur hypalon adhesive or similar. This material should be purchased as soon as possible and transported to the mine. The seaming can be performed by CZC personnel, following the manufacturer's instructions.

CZC has indicated that the quantity of Hypalon available will be sufficient for one layer of liner. The Hypalon will be placed during the 2005 construction season. The pond will be filled during fall 2005, and emptied before winter. If any repairs or upgrades are required, they will be made at the beginning of the 2006 construction season. Such upgrades could include placing a second layer of liner on top of the Hypalon liner.

3.0 CONSTRUCTION METHODOLOGY AND SPECIFICATIONS

3.1 Embankment Construction

Golder has sampled the soil to be used as embankment construction material. Laboratory testing has indicated that the material sampled at CZC's borrow area is a silty, sandy gravel, with approximately 20% (by weight) passing the No. 200 sieve (see Appendix I). This material was observed during the first site visit.

The relatively high fines content of this material indicates that it will not be free-draining. Therefore it will likely be subject to freeze-thaw effects. As a result, CZC can expect some settlement of the embankment, which might require maintenance during the operational life of the facility. This material is the only material practically available in quantities sufficient to construct the Polishing Pond embankments.

3.1.1 Upstream Embankment Slope

The embankment should be constructed at the dimensions indicated on the EBA preliminary design drawings, except that the upstream pond slopes can be constructed at a slope of 2.5H:1V. The steeper design slopes will provide a storage volume of approximately 1,100 m^3. This volume is greater than the minimum required storage volume of 900 m^3, and therefore provides additional storage as requested by CZC.

3.1.2 Placement and Compaction

The embankment construction material should be placed in loose lifts not exceeding 0.25 m in thickness. Each lift should be compacted by one of the following methods:

Method A

- Excavate fill at borrow with excavator, and load Volvo 25-ton rock trucks. Take care to eliminate particles larger than 15 cm in diameter;
- Dump fill from loaded Volvo 25-ton rock truck;
- Spread fill using Caterpillar D8 bulldozer to a smooth, horizontal surface;
- Compact the surface of the fill using a minimum 10-ton, single drum, self-propelled, sheepsfoot compactor. The compactor should pass a minimum of 6 times over the surface of each lift, taking care to overlap each pass a minimum of 20 cm;

Take care to 'overbuild' the slopes of the embankment slightly. When construction of the embankments is complete, trim the slopes back to a 2.5H:1V using the excavator, and trim the outflow spillway opening; and

- Place bedding sand on top of embankment fill, pond base and in the outflow spillway in a single, uncompacted, 15-cm thick lift.

Method B

If the sheepsfoot compactor described in Method A is either unavailable or ineffective, then the embankment construction material must be compacted using the loaded, 25-ton Volvo rock trucks. The trucks must be routed so that uniform compaction is achieved over the working surface of the embankment. A minimum of 4 passes of the trucks must be completed over all areas of the lift, at a speed not exceeding 10 km/h.

Sand Bedding for Hypalon Liner

The sand bedding for the Hypalon Liner shall be placed in a single, 15 cm-thick. Compaction may be performed if desirable for trafficability or other ease-of-construction reasons, as approved by Golder, but is not required.

The sand bedding shall not contain any particles greater than 12 mm in diameter, nor shall it contain organic or other deleterious materials. The finished surface of the sand bedding shall be thoroughly inspected prior to placing the Hypalon liner. All sharp and/or protruding particles shall be removed prior to placing the liner.

Outlet Spillway

The outlet spillway will be constructed by excavating a 1-m wide trapezoidal channel at the Southwest embankment of the pond. The outlet will discharge to a splash pad / stilling basin which will, in turn, discharge to a culvert under the main site access road. The culvert will discharge to a channel to the Catchment Pond.

Details of the outlet spillway, stilling basin, and culvert are shown on the Drawings.

Inlet from 870 m Portal

A transition for the existing 100 mm-diameter HDPE pipe from the 870 m Portal is required. It is intended that this structure be finalized at the site, to suit the actual conditions and dimensions at the time of construction. The pipe should be accommodated on a compacted fill transition grading smoothly from the portal into the pond. Given the relatively small flow at the inlet, the Hypalon liner will provide adequate erosion protection of the upstream slope face of the Northeast embankment at

the discharge point of the inlet pipe. The pipe will be covered to a minimum depth of 15 cm with embankment fill material, to provide protection against possible physical / mechanical damage.

3.5 Hypalon Liner

The liner system for the pond shall comprise one layer of Hypalon liner. The liner will be reclaimed from the existing tailings impoundments (or other locations as approved by Golder). Care must be taken to reclaim the liner in large, rectangular pieces, with straight, clean edges. All pieces must be thoroughly inspected to identify existing punctures, or other irregularities which could lead to holes in the liner. Any holes encountered must be repaired by placing and gluing a piece of liner at least 0.5 m larger than the hole on all sides.

The liner will be placed in an anchor trench located at the crest of the embankment, and down the upstream slope face, and onto the base of the pond. The liner seams shall be glued using Secur adhesive. The seaming should be done according to Layfield's instructions, and in accordance with the following:

- Overlap the edges of each piece of liner a minimum of 0.3m;
- Thoroughly clean and dry the liner at the area of the seam prior to beginning seaming;
- Seaming is to be done at temperatures at or above +10°C; and
- Once seaming is complete, place sand bags on top of the seam for a minimum of 24 hours.

Horizontal seams on the upstream slope face should be avoided wherever possible.

A single layer of Hypalon will be placed during the 2005 construction season.

3.6 Sediment Baffles

Sediment baffles shall consist of sheets of Hypalon attached to insulated plastic pipe. The purpose of the baffles is to prevent 'short-circuiting' of transported sediment from the inlet to the outlet of the pond.

Baffles shall be constructed and placed as indicated on the Drawings.

4.0 QA / QC DOCUMENTATION

This section details the QA / QC testing and documentation required during construction of the Polishing Pond.

4.1 Daily Construction Reports

CZC must complete daily construction reports during the construction period. A sample form will be provided to CZC, and should include, as a minimum, the following information:

- Name of the project;
- Date;
- Hours of work;
- Weather conditions;
- Personnel working on the construction;
- Summary of construction activities; and
- Summary of QC activities;

These reports must be faxed or e-mailed to Golder by the end of the following day.

4.2 Photographs

CZC should take photographs of construction activities several times daily. Additionally, all finished surfaces should be photographed, such as the completed embankment fill, sand bedding layer, and first layer of liner.

4.3 Sampling and Testing

Sampling and testing of the constructed works shall include the following, as a minimum.

- Sample of placed embankment fill material. This sample shall be taken from material placed in the constructed embankment, at a representative location. The sample shall be taken off-site and tested for particle-size distribution, standard compaction, and moisture content.

- Samples of seamed Hypalon. CZC shall do two sample seams using two pieces of Hypalon liner. Each piece shall be a minimum of 1.0 m long by 0.5 m wide. The two pieces shall be overlapped a minimum of 15 cm, and shall be prepared at the same time as the actual seaming. The samples shall be sent off site and tested at a geosynthetics testing laboratory to be designated by Golder.

4.4 Site Inspections

Golder shall send an engineer to site to visually inspect the constructed works at key points during the construction process. These trips shall document the condition of the construction to date. If deficiencies in the Work are identified during the site visits, Golder shall issue documentation detailing the required repairs, and acceptance of the repairs once they have been completed.

4.5 As-Built Survey

A complete as-built survey of the constructed works will be required. The survey must be tied in to the UTM coordinate system. The survey must be done in sufficient detail to accurately represent the work to within ± 0.05 m vertically and ± 0.1 m horizontally.

GOLDER ASSOCIATES LTD.

Don Hickson, P.Eng.
Geotechnical Engineer

John Hull, P.Eng.
Principal

DH/JH/kt

N:\Final\2005\1118\05-1118-010\rpt-0916_05 CZC-Prairie Creek Polishing Pond.doc

5.0 REFERENCES

Prairie Creek Mine Polishing Pond – Preliminary Design, letter from EBA Engineering Consultants to Allan Taylor of Canadian Zinc Corporation, dated April 26, 2005.

2. Parameters for Preliminary Design Polishing Pond, Prairie Creek, NWT, letter from Canadian Zinc Corporation to Mr. Don Hayley of EBA Engineering Consultants Limited, dated March 25, 2005.

3. "Guidance for Assessing the Design, Size and Operation of Sedimentation Ponds Used in Mining", British Columbia Ministry of Environment, Lands and Parks.

APPENDIX I

LABORATORY SOILS TESTING

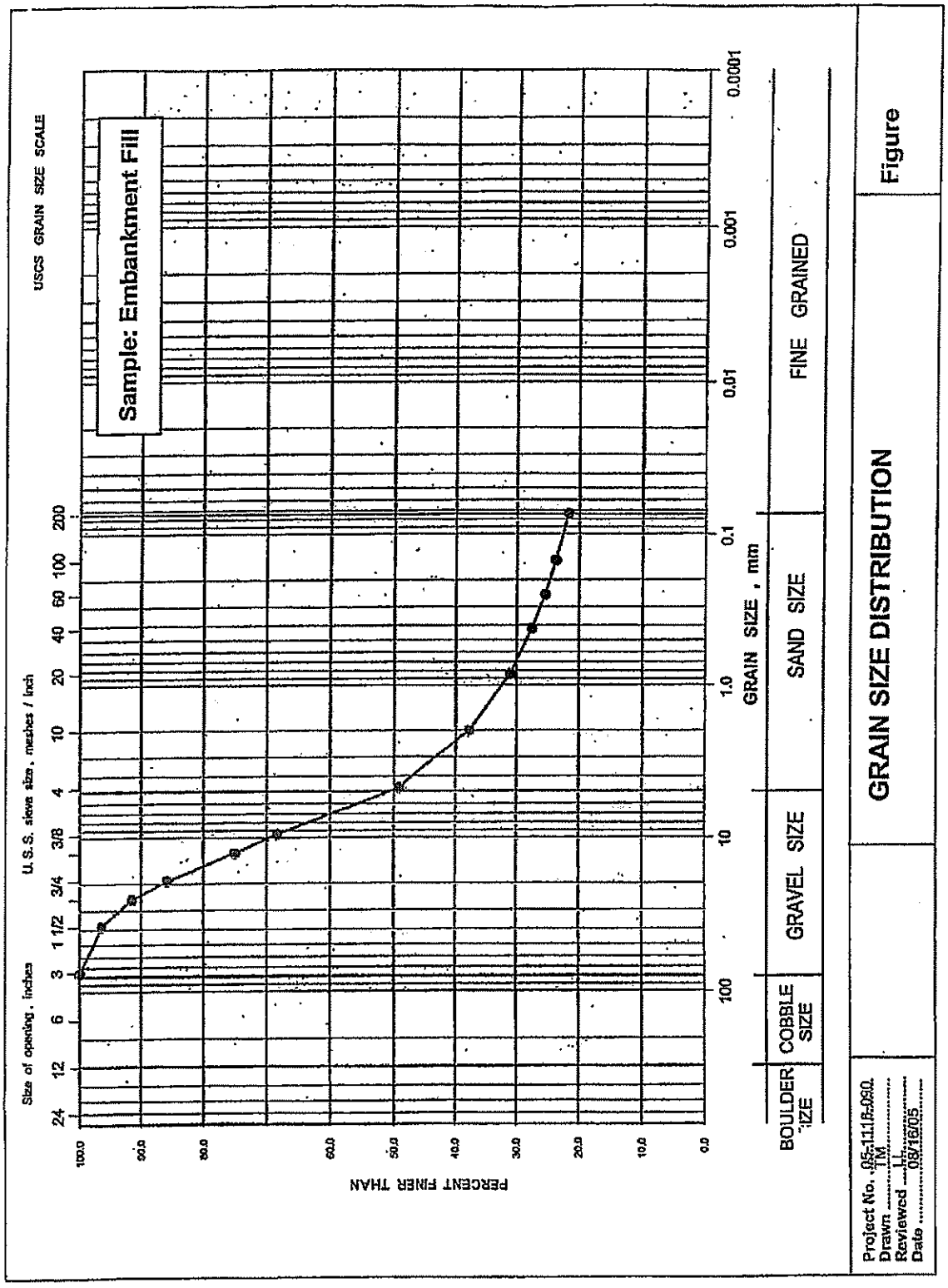
SIEVE ANALYSIS

Project No.	05-1118-090	Client	Canadian Zinc Corp	Sample	Embankment Fill
Sch#	176	Project	Prarie Creek Polishing Pond		
Lab Work	TM	Location	Fort Nelson		

1st SIEVING +#4		2nd SIEVING -#4		Wash Sieving - #4	
Weight before sieving		Quarter - #4 (Y/N)	Y	Weight before wash	240.1
Total weight	4817.8	Wash Sieve (Y/N)	Y	Weight after wash	135.4
Total Wt -#4	2378.9	Total Wt of -#4 sieved	240.1	Pan Weight	1.1

Sieve (USS)	Weight Retained	% Retained	Weight Retained	% Retained	% Retained of Total	Diameter (mm)	% Passing
12"	0.0	0.0			0.0	304.8	100.0
6"	0.0	0.0			0.0	152.4	100.0
3"	0.0	0.0			0.0	76.2	100.0
1 1/2 "	170.3	3.5			3.5	38.1	96.5
1"	241.8	5.0			5.0	25.4	91.4
3/4"	276.7	5.7			5.7	19.1	85.7
1/2"	514.4	10.7			10.7	12.7	75.0
3/8"	319.9	6.6			6.6	9.50	68.4
#4	917.8	19.1			19.1	4.76	49.3
#10			55.9	23.3	11.5	2.00	37.8
#20			33.0	13.7	6.8	0.84	31.1
#40			16.9	7.0	3.5	0.42	27.6
#60			10.6	4.4	2.2	0.25	25.4
#100			8.0	3.3	1.6	0.149	23.8
#200			9.9	4.1	2.0	0.074	21.7
-200			105.8	44.1	21.7		

REMARKS :



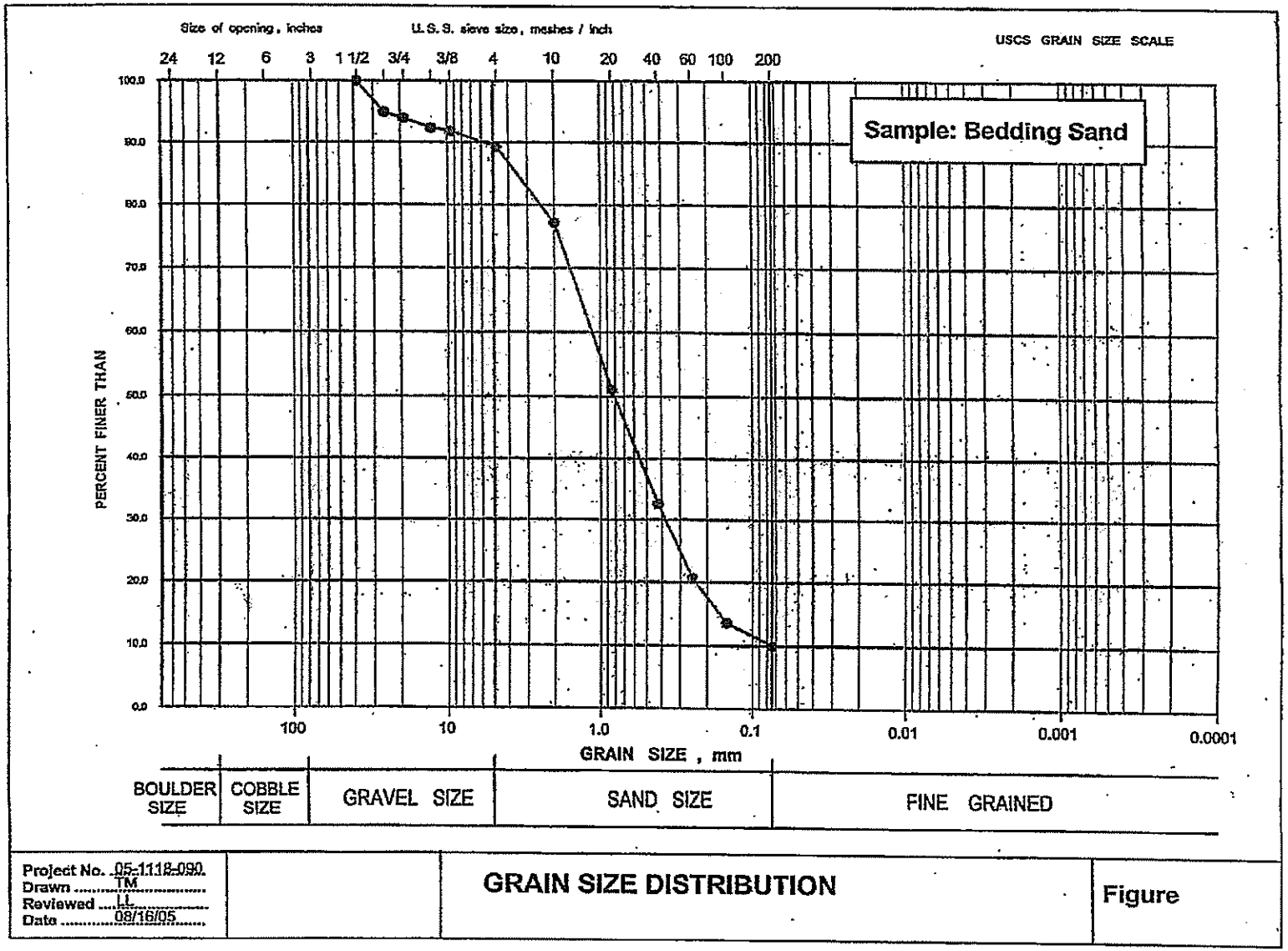
SIEVE ANALYSIS

Project No.	05-1118-090	Client	Canadian Zinc Corp	Sample	Bedding Sand
Sch#	176	Project	Prarie Creek Polishing Pond		
Lab Work	TM	Location	Fort Nelson		

1st SIEVING +#4		2nd SIEVING -#4		Wash Sieving - #4	
Weight before sieving		Quarter - #4 (Y/N)	Y	Weight before wash	282.2
Total weight	2111.6	Wash Sieve (Y/N)	Y	Weight after wash	251.0
Total Wt -#4	1885.3	Total Wt of -#4 sieved	282.2	Pan Weight	0.4

Sieve (USS)	Weight Retained	% Retained	Weight Retained	% Retained	% Retained of Total	Diameter (mm)	% Passing
12"	0.0	0.0			0.0	304.8	100.0
6"	0.0	0.0			0.0	152.4	100.0
3"	0.0	0.0			0.0	76.2	100.0
1 1/2 "	0.0	0.0			0.0	38.1	100.0
1"	107.1	5.1			5.1	25.4	94.9
3/4"	19.7	0.9			0.9	19.1	94.0
1/2"	33.7	1.6			1.6	12.7	92.4
3/8"	11.4	0.5			0.5	9.50	91.9
#4	54.4	2.6			2.6	4.76	89.3
#10			38.3	13.6	12.1	2.00	77.2
#20			82.3	29.2	26.0	0.84	51.1
#40			58.5	20.7	18.5	0.42	32.6
#60			37.7	13.4	11.9	0.25	20.7
#100			22.4	7.9	7.1	0.149	13.6
#200			11.4	4.0	3.6	0.074	10.0
-200			31.6	11.2	10.0		

REMARKS :



Project No. 05-1118-090 Drawn TM Reviewed LL Date 08/16/05		**GRAIN SIZE DISTRIBUTION**	Figure

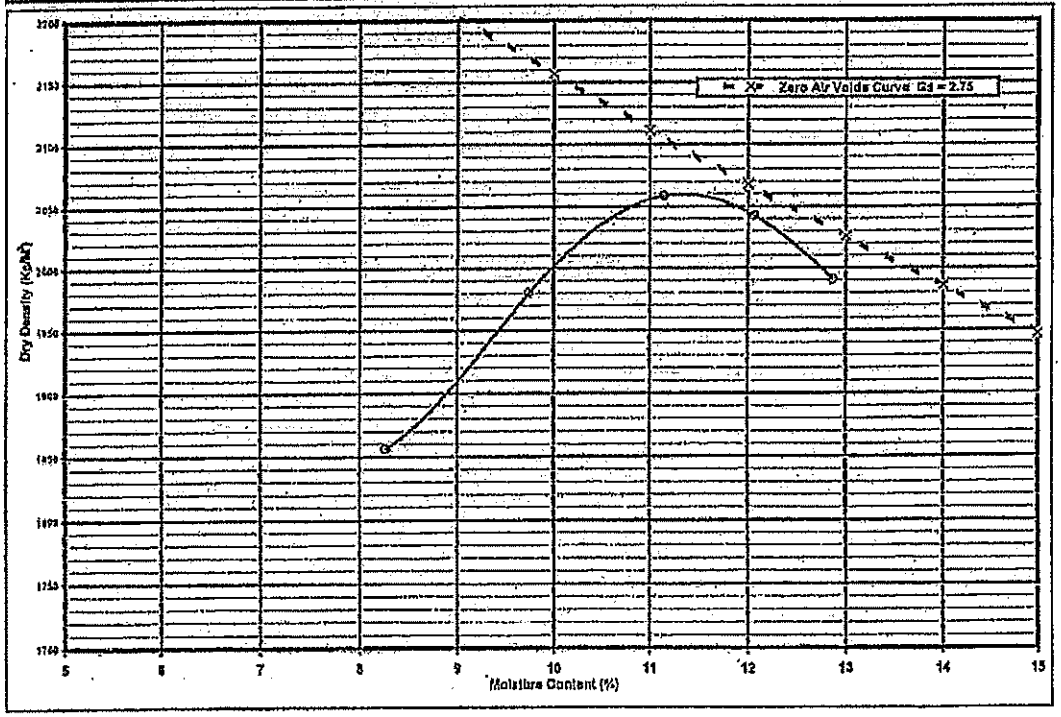
Test Method for Laboratory Compaction Characteristics of Soil

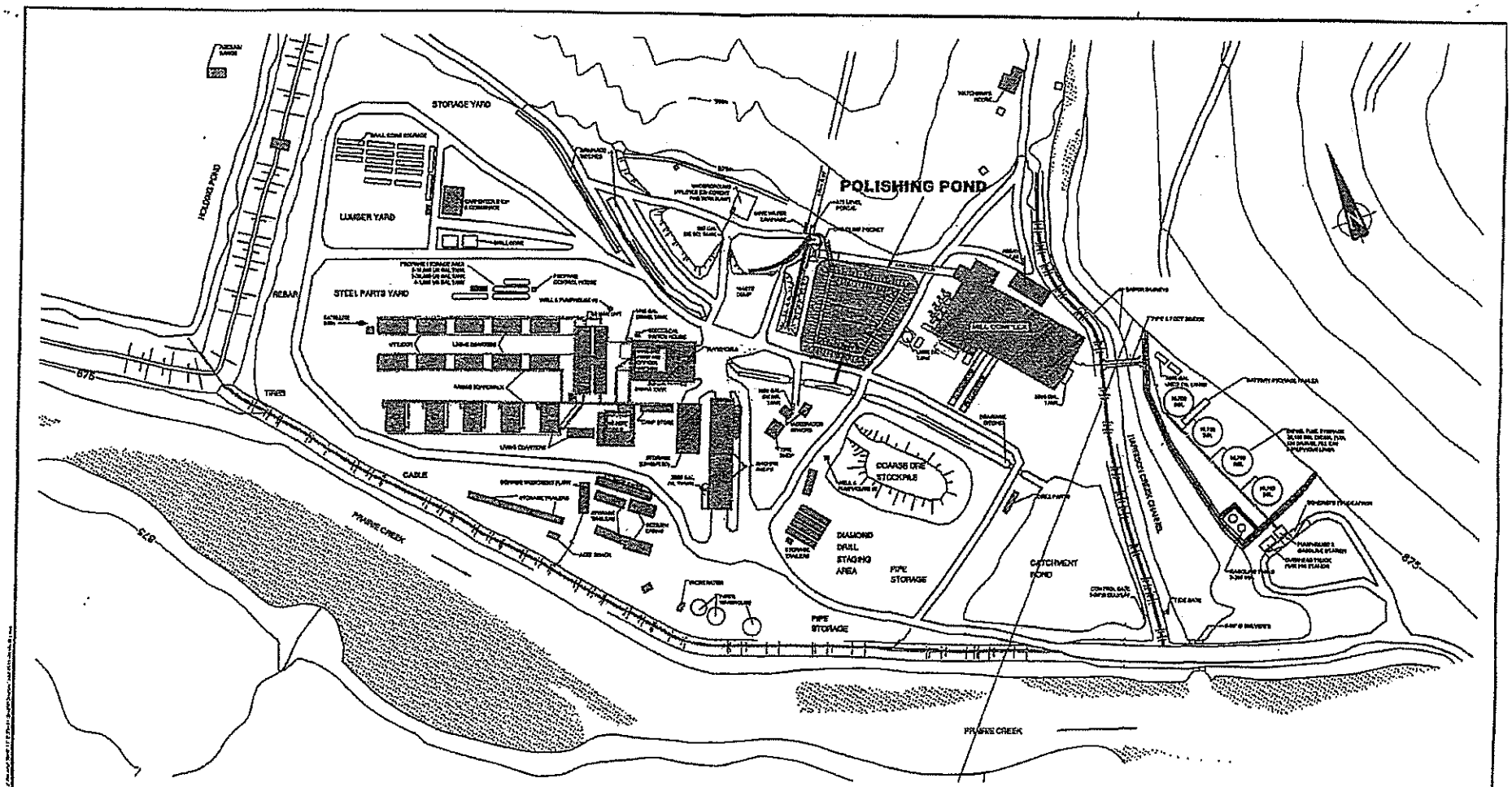
Project #	05-1118-090/9000	Sample Identification :		ASTM D 698-91 Standard Proctor		
Client	Canadian Zinc Corp.	Sample	Embankment Fill	Method	C	
Project	Prairie Creek Polishing Pond	Depth		Optimum WC =	11.3	%
Location	Fort Nelson			Max ρ_{dry} =	2060	Kg/M³

Technician	JM	Sample Description :				ASTM D 4718-87		
Schedule #	176					Correction for oversize particles		
Proctor Type (S/M)	S					Optimum WC =	9.9	%
		Mould Volume =	0.002124	m^3		Max ρ_{dry} =	2136	Kg/M³

TRIAL NO.	1	2	3	4	5		Percent Oversize :		
WT SOIL WET + MOULD	9925	10272	10516	10518	10430		SCREEN SIZE :	19.00	mm
WEIGHT OF MOULD	5057	5057	5057	5057	5057		Coarser Fraction		
WT OF SOIL, WET	4868	5215	5459	5461	5373		P_c =	14.2	%
WET DENSITY (Kg/M³)	2010	2173	2268	2269	2247		Gs =	2.75	assumed
DRY DENSITY (Kg/M³)	1856	1980	2058	2042	1991		W_c =	1.5	%

CONTAINER NO.							Finer Fraction		
WT OF WET SOIL + TARE	874.0	1039.5	1228.2	1252.3	1210.0		P_f =	85.8	%
WT OF DRY SOIL + TARE	885.0	979.6	1139.8	1155.4	1112.0		Gs =	2.75	assumed
WEIGHT OF WATER	39.0	60.0	88.4	96.9	98.0		W_f =	11.3	%
TARE WEIGHT	383.2	364.1	346.6	351.6	350.0		Zero Air Voids Curve Gs =		2.75
WEIGHT OF DRY SOIL	471.8	615.4	793.2	803.8	762.0		Bulk Gs =	2.76	
MOISTURE CONTENT (%)	8.3	9.7	11.1	12.1	12.9		Saturation =	100.0	%





REFERENCES

BASE PLAN PROVIDED BY CANADIAN ZINC CORPORATION

0 10 20 30 40 50
Scale in Metres

DRAWING NO.	REFERENCES

NO.	DATE	BY	REVISION DESCRIPTION	ORIG	DES	REVW
0	10OCT05	PMC	ISSUED FOR CONSTRUCTION	MJ		
	DATE	BY	REVISION DESCRIPTION	ORIG	DES	REVW

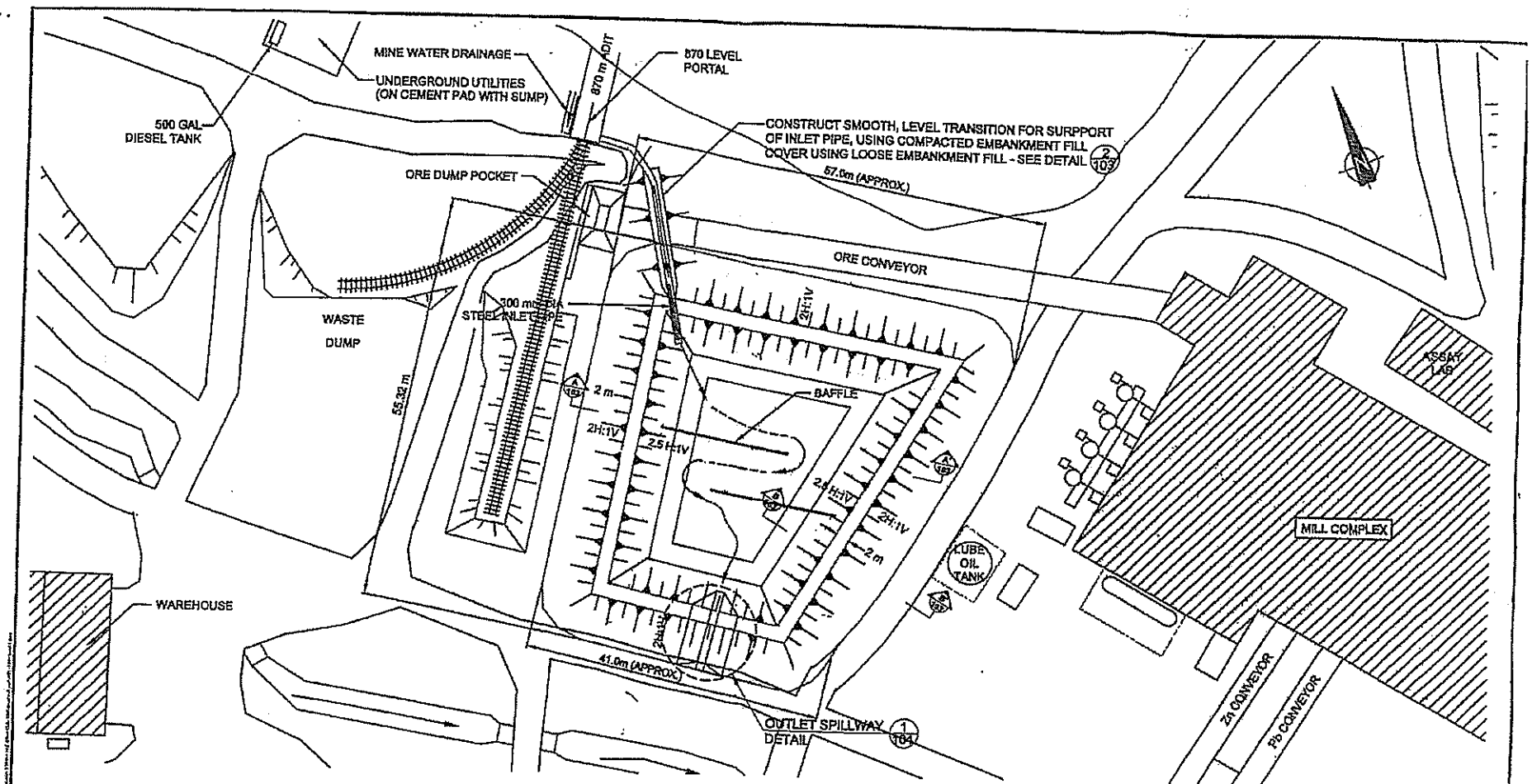
PROJECT: CANADIAN ZINC CORPORATION
PRAIRIE CREEK POLISHING POND
NORTHWEST TERRITORIES

TITLE: SITE PLAN

Golder Associates

PROJECT No. 05-1118-010		FILE No.	05111810101
DESIGN	DR	04AUG05	SCALE AS SHOWN REV. 0
DRAWN	MJ	04AUG05	
CHECK	BR	10OCT05	101
REVIEW			

Copy of SCAN00000001.max



NOTES

1) BASE PLAN PROVIDED BY CANADIAN ZINC CORPORATION. INFRASTRUCTURE ELEVATIONS NOT INCLUDED ON BASE PLAN.

2) TOPOGRAPHIC SURVEY NOT COMPLETED AT DESIGN SITE. ORIGINAL GROUND TOPOGRAPHY ASSUMED.

Scale in Metres

CANADIAN ZINC CORPORATION
PRAIRIE CREEK POLISHING POND
NORTHWEST TERRITORIES

GENERAL ARRANGEMENT

Golder Associates

PROJECT No. 09-1118-010 | FILE No. 09111810-DX1
DESIGN DR 04MAR09 | SCALE AS SHOWN | REV. 0
CADD WM 04MAR09
CHECK DR 12SEP08
REVIEW

102

Janna

From: Sarah Baines [sbaines@mvlwb.com]
Sent: Monday, May 09, 2005 8:24 AM
To: mvlwbpermit@mvlwb.com
Subject: FW: Polishing Pond

L01 Canadian Zinc
April 26 05...

For file MV2001L2-0003, CZN

-----Original Message-----
From: david@canadianzinc.com [mailto:david@canadianzinc.com]
Sent: Wednesday, April 27, 2005 3:52 PM
To: Sarah Baines
Cc: alan@canadianzinc.com
Subject: RE: Polishing Pond

Sarah,

For your information, please find attached a pdf of the preliminary design for the polishing pond.

We will undertake a ground survey of the pond site shortly after camp opening next month, and will then proceed with final design. Please provide any comments you might have on the preliminary design to accomodate that schedule. Thanks.

Regards.

April 26, 2005

EBA File: 1740078

Canadian Zinc Corporation
Suite 1202
700 West Pender Street
Vancouver, BC
V6C 1G8

Attention: Mr. Allan Taylor

Subject: Prairie Creek Mine
Polishing Pond – Preliminary Design

1.0 INTRODUCTION

This letter presents the preliminary design completed by EBA Engineering Consultants Ltd. (EBA) for the polishing pond at Prairie Creek Mine, near Fort Simpson, NT. Authorization to proceed with the preliminary design was provided by Canadian Zinc Corporation (CZC) in a letter dated March 29, 2005 (copy attached).

A site infrastructure drawing was provided by CZC. Ground elevations were assumed for design purposes. A site survey will be required prior to completion of the detailed design.

2.0 PROJECT DETAILS

Design parameters were provided by CZC in their letter dated March 29, 2005. The polishing pond is to retain mine water effluent received from the 870 m Portal (Portal) and future Pilot Plant. Primary treatment will occur in an underground sump. The treated water will then be piped to the polishing pond. The pond's purpose is to allow residual metal carbonate precipitate contained in the water to settle out prior to discharge to the Catchment Pond.

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The polishing pond has been configured to provide a 20-hour retention time and accommodate a maximum inflow of 0.0124 m^3/sec. The retention time is based on guidelines from British Columbia[1] and is consistent with the Environmental Assessment and subsequent water license No. MV2001L2-0003. A water balance indicates that the desirable storage capacity is approximately 900 m^3. The respective inflows from the 870 m Portal and Pilot Plant are 0.012 m^3/sec and 0.004 m^3/sec. These flows will be seasonal and have an approximate duration of 6 months per year. The pond water balance is shown in Figure 1.

The polishing pond will be located in a clearing, immediately south of the 870 m Portal, as shown in Figure 2.

3.0 PRELIMINARY DESIGN

3.1 General

The preliminary pond design comprises a 3.2 m high containment berm with a geomembrane liner system. A steel pipe set at the maximum operating level controls discharge from the pond.

The pond has been designed to accommodate the following design criteria:

- 20 hour retention time;
- Operating capacity of 900 m^3;
- Maximum inflow of 0.0124 m^3/sec; and
- 0.5 m liner freeboard.

The proposed pond layout is shown in Figure 3. Typical cross sections are shown in Figure 4. The pond shape has been selected to accommodate existing site infrastructure and optimize the available storage. The configuration shown in Figures 3 and 4 provides an approximate storage capacity of 920 m^3 at an operating depth of 2 m.

The pond performance was evaluated for the 1:200 year rainfall event. This is equivalent to an approximate 110 mm of precipitation over a 24-hour period. When operating at full capacity (920 m^3), this storm event would increase the pond elevation by approximately 30 mm for an estimated two-hour duration. This small increase in elevation can be readily contained within the pond perimeter.

[1] "Guidance for Assessing the Design, Size and Operation of Sedimentation Ponds Used in Mining", British Columbia Ministry of Environment, Lands and Parks.

3.2 Pond Hydraulics

A 300 mm diameter steel pipe will be used to carry effluent to the pond. The pipe is located at the north corner of the pond, as shown in Figure 3. It has been sized to accommodate combined flow from both the Portal and the Pilot Plant. The outlet invert will be set at the top of berm elevation. The required pipe length and inlet elevation will be determined during detailed design once inflow elevations from the Portal and Pilot Plant have been finalized.

It has been assumed that both the Portal and Pilot Plant flows will discharge through a single inflow pipe. A second inflow pipe could be considered if this is not practical.

A 300 mm diameter steel pipe, with the inlet invert set at the maximum operating level, controls outflow from the pond. The pipe extends through the fill and runs down the embankment slope, discharging to the existing culvert under the service road. Erosion protection may be required at the base of the outflow pipe to prevent embankment erosion, unless the outflow pipe can be set to discharge directly inside the culvert. Further evaluation is required at detailed design to assess the viability of this option and its impact on existing drainage patterns.

Flow distance and direction through the pond are controlled by baffles. The baffles will be constructed using the available hypalon liner. The liner will be suspended from available insulated polyethylene pipe and secured to the floor of the pond using heavy steel pipe seated on the pond bottom. To minimize inflow and outflow piping requirements, two baffles have been designed as shown in Figure 3.

3.3 Liner

The liner system comprises a new 40 mil Enviro Liner overlain by hypalon liner that is surplus on the site. The Enviro Liner provides primary containment with the hypalon being used as a protective overlay. The liner system will extend 0.5 m above the maximum pond operating level and be keyed into the existing embankment.

A 200 mm thick sand bedding layer has been designed to support the liner system. EBA understands that a sand source is not available on site and that screening will be required to obtain the desired gradation. An estimated 250 m^3 of bedding material will be required for pond construction.

As an alternative to sand bedding, a coarser bedding layer (25 mm minus) could be used and a nonwoven geotextile placed between the liner and bedding to cushion and protect the liner.

Further analysis and discussion with CZC will be undertaken during detailed design to assess the most desirable and cost effective option.

The liner has been designed as an exposed surface without soil cover or ballast. The hypalon will provide protection from the elements; however, the seams should be adequately sealed or lapped to prevent wind damage. This is particularly important if a head of water is not maintained against the liner (i.e., the pond is drained).

3.4 Materials

A borrow pit sample was obtained during a site visit in July 2004. A particle size analysis completed on the sample showed the available borrow material to be silty sand and gravel with a maximum aggregate size of 50 mm. The silt/clay content was 23%. As such, this material is potentially frost susceptible and may be subject to frost heave in the presence of moisture and freezing conditions. The containment berms, however, will be constructed above grade, eliminating groundwater seepage as a potential moisture source. Furthermore, the liner system is capable of accommodating considerable differential movement and deflection without incurring damage. Therefore, the available borrow material is considered adequate for construction of the polishing pond.

Screening will be required to produce bedding material for the liner system, as discussed above. Screening or selective borrow sourcing may also be required during berm construction to ensure boulders and cobbles are not incorporated into the embankment material.

3.5 Quantities

Estimated construction quantities are summarized in Table 1. These values do not include the material requirements for baffle construction or the inflow and outflow structures.

TABLE 1
ESTIMATED CONSTRUCTION QUANTITIES

	Quantity
Granular Fill for Berm Construction (m^3)	5,500
Sand Bedding (m^3)	250
Enviro Liner (m^2)	1,500
Hypalon Liner (m^2)	1,500

4.0 CLOSURE

We trust this letter satisfies your present requirements. If you have any questions or require additional information, please contact our Edmonton office.

Yours truly,
EBA Engineering Consultants Ltd.

Gary Koop

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THE ASSOCIATION OF PROFESSIONAL ENGINEERS, GEOLOGISTS and GEOPHYSICISTS OF THE NORTHWEST TERRITORIES
PERMIT NUMBER
P 018
EBA ENGINEERING CONSULTANTS LTD.

CANADIAN ZINC CORPORATION

March 25, 2005

EBA Engineering Consultants Limited
255, 1715 Dickson Avenue,
Kelowna, BC
V1Y 9G6

Attention: **Mr. Don Hayley**

Re: **Parameters for Preliminary Design**
Polishing Pond, Prairie Creek, NWT

Dear Sir:

EBA previously provided a mine water contingency plan in a letter dated May 10, 2004. In that plan, the intent was to construct a polishing pond at Prairie Creek with an approximate capacity of 1400 m^3 for the treatment of mine water. Canadian Zinc (CZN) subsequently completed a revised mine water contingency plan (MCP) dated November 19, 2004. In the latter plan, CZN incorporated some improvements to the proposed water management strategy. The key change was a decision that all mine water will be treated underground in the final sump on the 870 m level, near the existing portal. Effluent from the sump will be piped to the new polishing pond. This is considered a superior approach because treatment is conducted underground under cover from the elements, and final polishing to remove any suspended matter is accomplished in a separate pond. This letter is to give you parameters for the polishing pond based on the MCP so that you may complete a preliminary design.

CZN selected 6 L/sec (360 L/min or 0.006 m^3/sec) as the design flow from the 870 m level for water management planning, this being towards the high end of the range of historical measurements, but not at the extreme high end. Although the new 905 m decline will be driven into competent rock, to be conservative, CZN assumed that mine water produced from the new development will be similar in quantity and quality to water flowing from the existing 870 m level. This provides an assumed combined flow of 0.012 m^3/sec. In the unlikely event that this quantity is exceeded, there are contingency measures identified in the MCP to address the situation.

The Pilot Plant process water effluent discharge will be 36 m^3/day, or 0.0004 m^3/sec, for a limited 6-month period. Therefore, there would be a temporary, small increase of the combined flow to the treatment sump and polishing pond, 0.0124 m^3/sec, over this period. Over a 24-hour period, this equates to 1,071 m^3.

The treatment sump has dimensions 40 m by 3 m by 3 m, for a capacity of 360 m^3. At this point in time, the new decline will be started form the existing underground workings, and any inflows will eventually report to the 870 m level. The new decline will still have sumps as planned. The 905 m portal will be created at a later date. Until the decline is fully developed, the rate of water inflow is unlikely to approach the expected maximum. In addition, a pilot plant operation is not planned for 2005.

Inflows to the treatment sump will be subjected to pH adjustment to 9.5 by the metered addition of either lime of soda ash. The majority of metal carbonate precipitate is expected to settle in the bottom of the sump, although some may leave the sump with the effluent as suspended matter. The function of the polishing pond is to enable settling of this matter to ensure pond effluent meets the limits specified in the Water License. The polishing pond is to be built in the cleared area immediately south of the 870 m portal, between the portal and the Mill. Effluent from the pond will be directed into the existing Catchment Pond.

Please proceed with a preliminary design of the polishing pond using the above parameters. Thank you.

Yours truly,

"Alan B. Taylor"

CANADIAN ZINC CORPORATION
Alan B. Taylor
COO & VP Exploration

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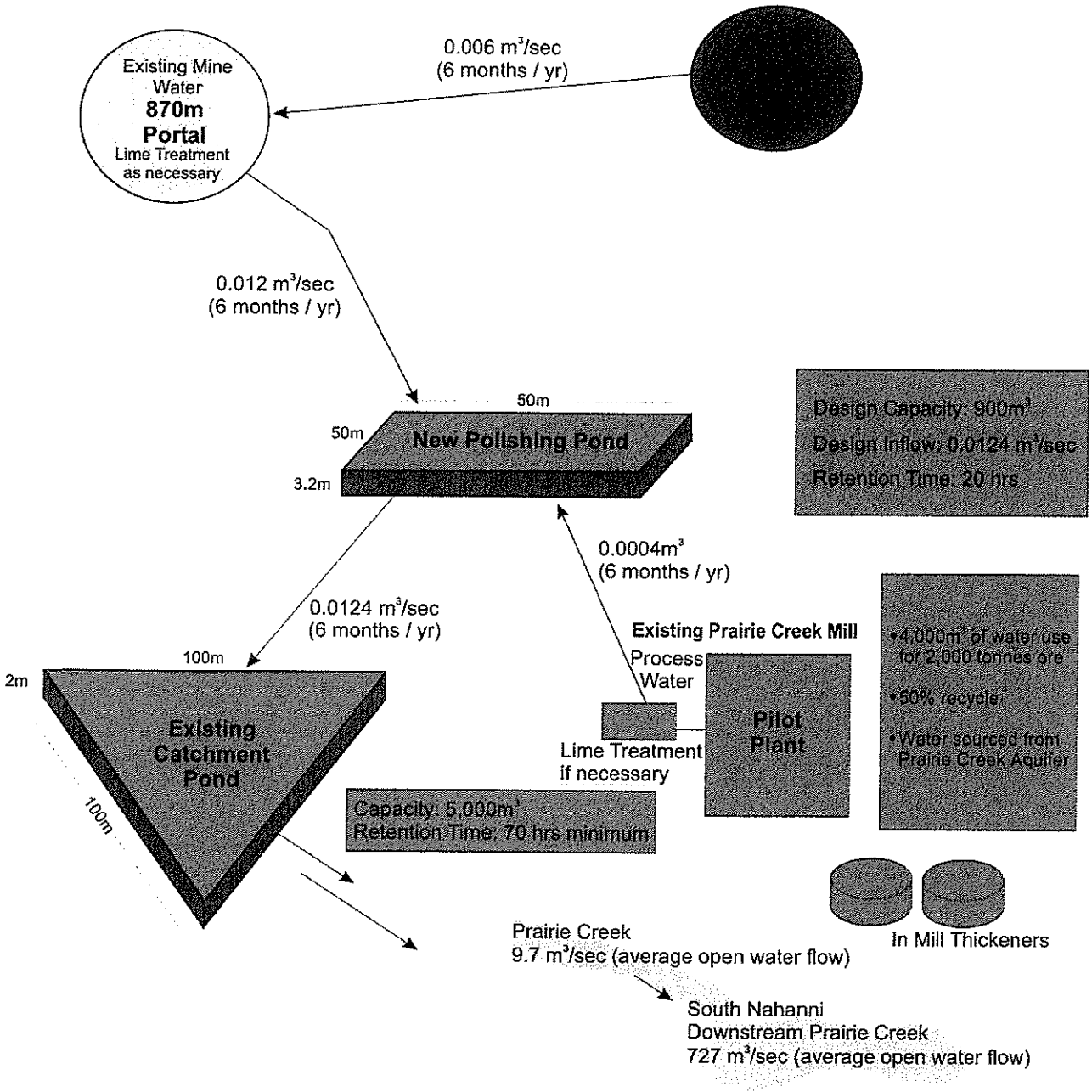

Figure 1
Polishing Pond
Water Balance
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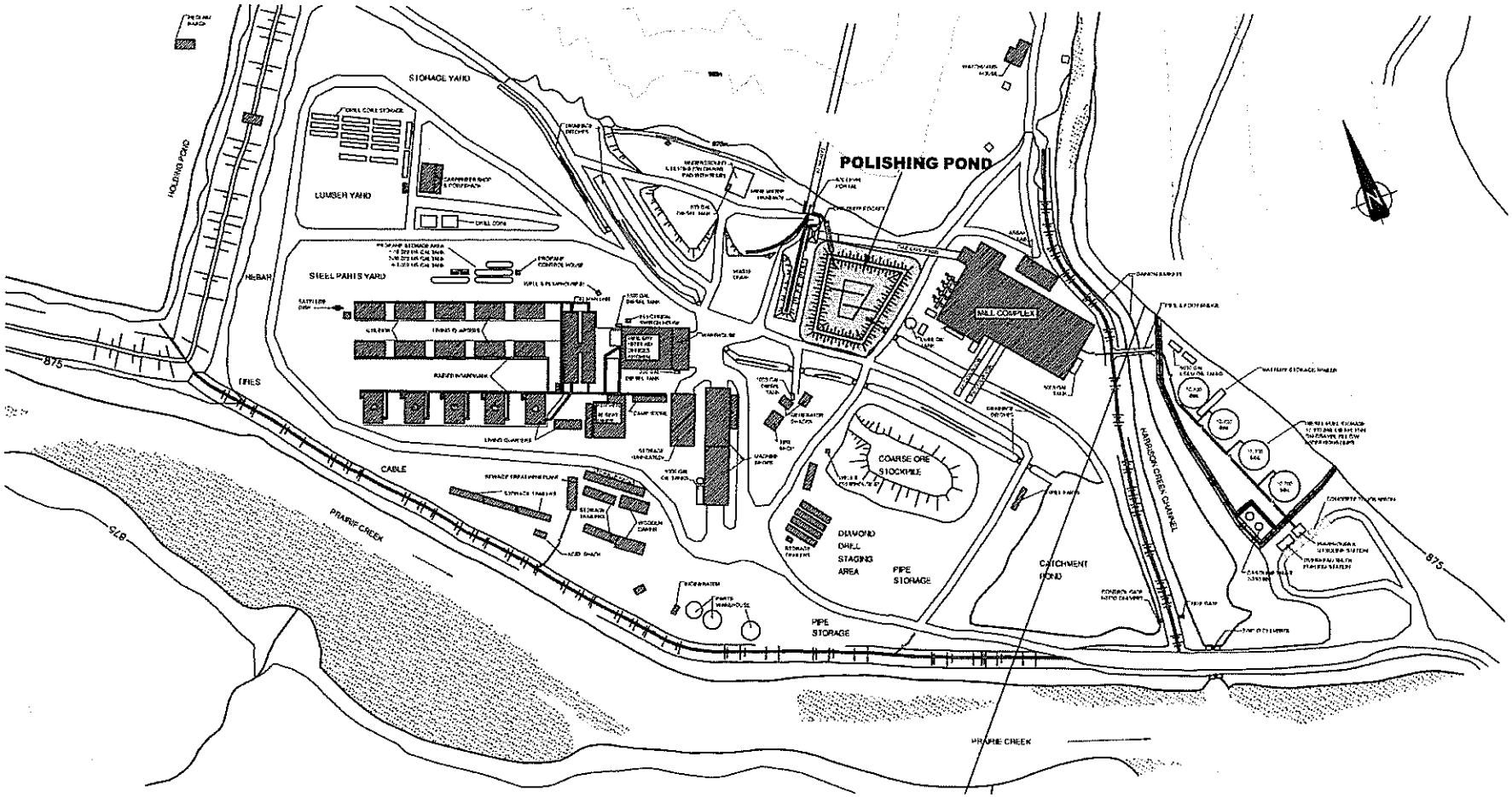

REFERENCE:
BASE PLAN PROVIDED BY CANADIAN ZINC CORPORATION

0 100
metres

Figure 2

Site Plan

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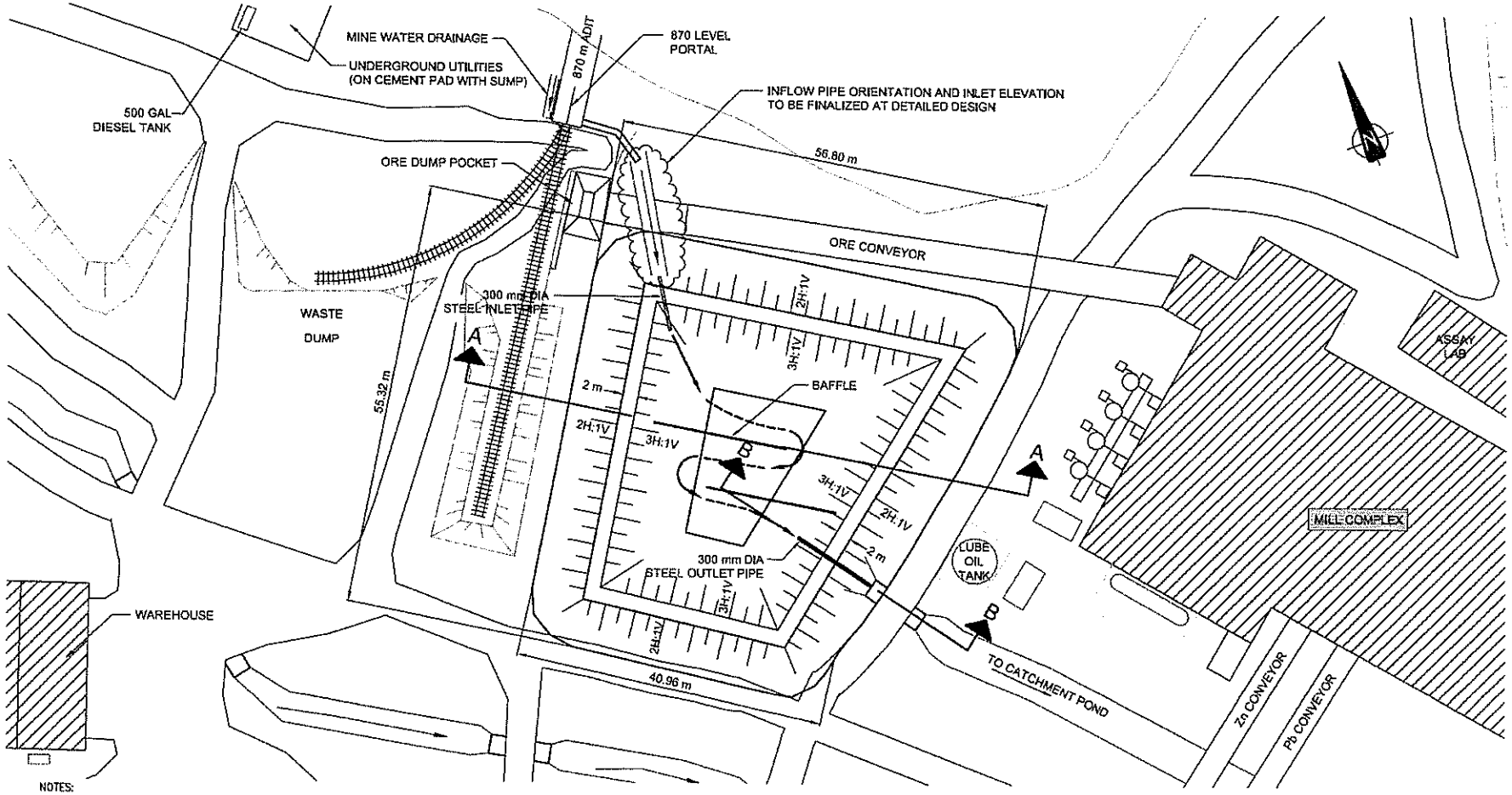

NOTES:

1. BASE PLAN PROVIDED BY CANADIAN ZINC CORPORATION. INFRASTUCTURE ELEVATIONS NOT INCLUDED ON BASE PLAN.
2. TOPOGRAPHIC SURVEY NOT COMPLETED AT DESIGN SITE. ORIGINAL GROUND TOPOGRAPHY ASSUMED.

0 25
metres

Figure 3

Pond Layout

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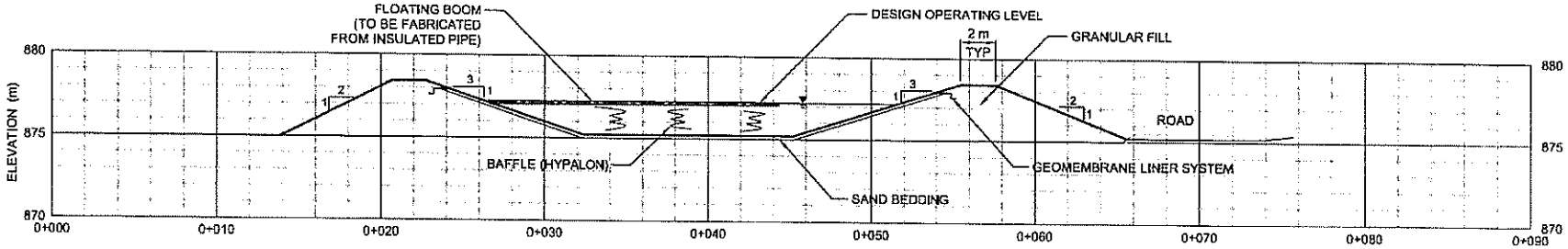
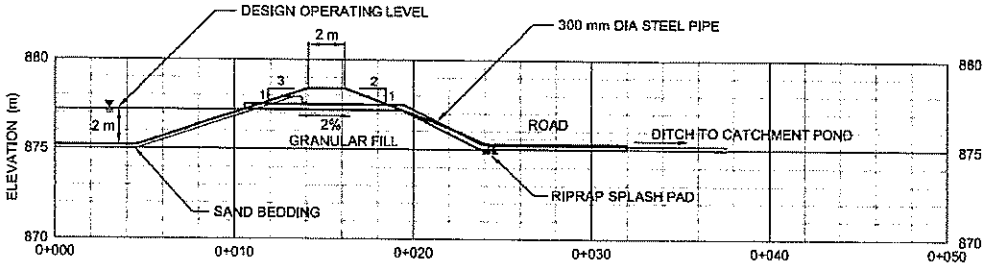


CROSS-SECTION A-A



CROSS-SECTION B-B

NOTES:

1. ORIGINAL GROUND TOPOGRAPHY AND ELEVATION ASSUMED.
2. ROAD AND CULVERT SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. ELEVATIONS NOT INDICATED ON BASE DRAWING.
3. OUTLET EROSION PROTECTION REQUIREMENTS TO BE FINALIZED AT DETAILED DESIGN.

0 10
metres

Figure 4

Pond Cross-Sections

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