Tahera Diamond Corporation

JERICHO DIAMOND MINE
2006 GEOTHECHNICAL INSPECTION

1100060.010

September 2006

EBA Engineering Consultants Ltd.
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APPENDICES

1.0 INTRODUCTION

EBA Engineering Consultants Ltd. (EBA) completed the 2006 annual geotechnical inspection of the earth containment structures at the Jericho Mine.

This report presents the observations and recommendations for each structure for consideration by Tahera Diamond Corporation (Tahera). It is understood that Tahera will also use this report to fulfill the water licence requirement for an annual geotechnical inspection of the completed water retaining structures as specified in the Jericho Diamond Mine Water License NEWB1JER0410, Part G, Section 4.

The following structures were evaluated:

- Processed Kimberlite Containment Area (PKCA) Dams and Dykes (West Dam, East Dam, Divider Dyke)
- Fuel Containment Facilities
- Landfill
- Collection Ponds (East Sump)
- C1 Diversion

The water license also requires inspection of waste rock collection ponds and the landfarm. The current waste rock dumps drain directly into the open pit; therefore, no collection ponds have been constructed. No landfarm has been constructed to date.

2.0 METHODOLOGY FOR INSPECTION

The annual inspection of each structure was completed by Mr. Bill Horne, P.Eng., of EBA. The structures and immediate surrounding areas at each site were visually examined for signs of settlement, seepage, cracking, or any other signs of distress. Noteworthy observations were photographed and recorded. Where applicable, ground temperature and settlement data were collected at intervals throughout the year. These data were also reviewed in conjunction with the observations from each site to develop any recommendations presented for each structure.

The subsequent sections of this report briefly summarize the observations and measurements obtained for each of the individual structures. The respective appendices present site plans, photographs, ground temperature data, and survey data for each of the structures.

3.0 WEST DAM

The West Dam is a frozen core dam at the west end of the PKCA area. The dam was partially constructed during the winter of 2005/2006. The core was constructed to its final elevation at the south abutment; however, the center portion of the core was only constructed to 518.4 m as opposed to its final design elevation of 524 m. The core was covered with a minimum of 3 m of rockfill for thermal protection. Construction is intended to be complete during the winter of 2006/2007.

Minor settlement and cracking was noted in the dam surface as described in Appendix A. This performance is as expected in winter placed fill and will not affect the dam performance.

Ground temperature cables in the dam core at base of the key trench and at original ground elevation indicate the temperatures were between -2 and -7°C on August 19, 2006. These temperatures are colder than assumed in design.

The dam performance is satisfactory.

4.0 DIVIDER DYKE A

Divider Dyke A divides the PKCA into two areas. Fine processed kimberlite (fine PK) is deposited upstream of Divider Dyke A. The area downstream of the Divider Dyke is a polishing pond for the PKCA water. The dyke consists of a sand and gravel filter zone, supported by rock fill structure. The filter is protected with a layer of rip rap on the upstream side.

The dyke was partially constructed in the fall of 2005. The current dyke crest elevation varies from 519.2 m to 521.6 m. The design elevation of the dyke is 524 m.

The dyke appears to performing well with turbid water upstream and clean water meeting discharge criteria downstream of the dyke.

The inspection report and photos are in Appendix B. Cracks and settlement were observed in the surface of the dyke filter zone. It is recommended that the cracked zone of the filter be excavated and recompacted in the fall of 2006, prior to raising the dyke.

5.0 EAST DAM

The East Dam is a geomembrane lined dam at the east end of the PKCA. It was constructed during the 2005/2006 winter season. The liner is keyed into sand and gravel till permafrost, and bedrock. The upstream shell of the dam is constructed of a thick till layer and a coarse processed kimberlite (coarse PK). Fine PK is deposited off of the upstream face of the dam.

Two ground temperature cables were installed in the key trench at the base of the geomembrane liner. Measured temperatures on August 19, 2006 ranged from -3 to -5°C.

No significant signs of settlement or cracking were noted. A small pond was noted in a low lying area at the downstream dam toe. No seepage from the dam was noted.

The inspection report and photos are in Appendix C. The East Dam is performing well with no signs of distress.

6.0 TANKFARM

The primary tankfarm for the site is located at the Jericho plant site area. The tankfarm has two sections; Phase 1 and Phase 2. Phase 1 was constructed in winter 2004/2005 and was used during the construction of the Jericho plant site. Phase 2 was constructed between May and October 2005. Phase 1 consists of eight tanks, and Phase 2 consists of four larger tanks.

Both tank farm containment areas are lined with a 60 mil HDPE liner for secondary containment. It is understood that the base of the Phase 1 area was constructed of frozen esker fill. The base of the Phase 2 tankfarm was constructed of run of mine rockfill.

The tanks in Phase 1 are currently empty, and the tanks in Phase 2 are partially full.

Settlement of the tanks has been measured on a regular basis using survey prisms on the top of the tanks. The vertical tank movement is shown in Figure D-2 in Appendix D.

Vertical settlement of the tanks in Phase 1 ranges from 100 to 350 mm over the past fifteen months. The settlement is visually apparent in the piping connections to the tanks. It is understood that new flexible connections were installed after the geotechnical inspection. Small gaps (up to 15 mm high) are apparent below the tank bases in Phase 1 due to differential settlement of the tank farm base.

Minimal vertical movement of the tanks in Phase 2 has been measured (up to 37 mm) over the past fourteen months. No obvious signs of movement or tank distress was noted.

The settlement of the tanks should continue to be monitored. It is recommended that the tank manufacturer be requested to evaluate the Phase 1 tanks' integrity prior to filling with fuel. It is also recommended that the integrity of the secondary containment liner in Phase 1 be evaluated by filling the area with a water head and monitoring water level drop over a period of time while observing if seepage occurs out of the tank containment area.

7.0 LANDFILL

The waste from the mine operations are currently landfilled within the till dump area. Metal debris is separated and stockpiled in a separate area. Domestic wastes are burned and placed in a small pit, which is ultimately capped with till from the open pit mine. Food wastes are not placed in the landfill; they are incinerated separately from the domestic waste. Surface and subsurface drainage from the landfill area flows towards the open pit.

A small surface crack was observed adjacent to the current landfill pit. This may be a result of settlement of landfill waste. It is recommended that the waste within the pit be compacted prior to placing backfill over the waste.

The inspection report and photos are in Appendix E. The landfill appears to be performing adequately.

8.0 AIRSTRIP TANK CONTAINMENT AREA

Two 64,000 l fuel tanks are located adjacent to the airstrip apron. The tanks are contained by a lined containment area.

The secondary containment liner is covered with a layer of crushed gravel. Small cracks were observed in the top of the berms. No other signs of berm instability were noted. It is suspected the cracks are due to settlement of the berm fill.

The inspection report and photos are in Appendix F. The containment area appears to be satisfactory.

9.0 GENERATOR TANK CONTAINMENT AREA

One 64,000 l fuel tank is located adjacent to the generator area at the plant site. The tanks are contained by a lined containment area.

The secondary containment liner is covered with a layer of crushed gravel.

The containment area appears to be satisfactory.

10.0 EAST SUMP

The East Sump is a natural pond that is currently being used to contain runoff from the open pit and catchment areas around the plant site. The water level is being maintained below the original pond level to prevent water out flow from the pond. Water is pumped out of the East Sump to the plant site or pumped to the PKCA.

The inspection report for the East Sump and photos are in Appendix H. The East Sump appears to be functioning as intended and is in satisfactory condition.

11.0 C1 DIVERSION

The C1 Diversion was constructed to divert water from the natural C1 stream around the open pit. It consists of a cut off area lined with a HDPE liner keyed into bedrock, a rock cut channel (Reach A), a transition zone to natural ground (Reach B), and two berms which contain the diverted stream (Reach C) which redirects the water back to the original stream bed.

The rock cut was constructed in the summer of 2005, and the cut off and berms were constructed in the winter 2005/2006. Water first flowed through the diversion in the spring of 2006. It is understood that some additional fish habitat structures may be added to Reach C.

The inspection report and photos of the channel are in Appendix I.

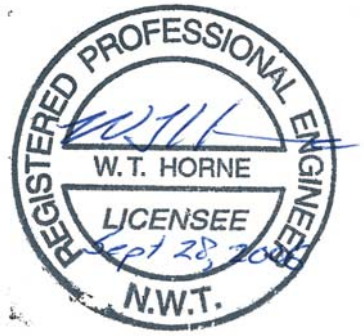
The water flows were relatively small at the time of the inspection. Very small wet areas were noted adjacent to both the north and south diversion berms but no seepage through the diversion berms was noted. A ponded area was noted downstream of the original stream C1 cutoff, but again no seepage into the ponded area was noted.

The C1 diversion works are performing as intended.

12.0 CLOSURE

EBA trusts that this report satisfies your present requirements. Should you require any additional information, please contact us.

EBA Engineering Consultants Ltd.



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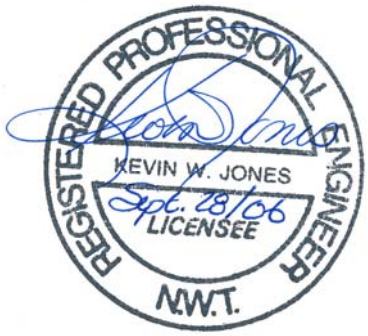

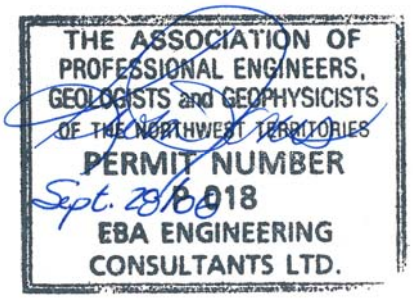

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/jnk

CARAT LAKE

CAUSEWAY FOR FRESHWATER INTAKE

TO AIRSTRIP

DITCH C4 (FUTURE)

STREAM C1

C1 DIVERSION

OVERFLOW

OPEN PIT (MAXIMUM EXTENT)

WASTE DUMP SITE 1 (FUTURE)

PROPOSED WATER ROAD

Lake C1

Lake C2

Lynne Lake

TANK FARM

GENERATOR TANK CONTAINMENT

LANDFILL

WASTE DUMP SITE 2

TILL DUMP (INSIDE WASTE DUMP)

SETTLING DAM (OPTIONAL)

ADDITIONAL SETTLING POND (OPTIONAL)

NORTH DAM (FUTURE)

COARSE PK STOCKPILE 3 (FUTURE)

PLANT SITE

EAST SUMP

Key Lake

CELL C

WEST DAM

ORE STOCKPILE

COARSE PK STOCKPILE 4

CELL B

DIVIDER DYKE A

WEST DAM ACCESS ROAD (APPROXIMATE LOCATION)

DIVIDER DYKE B (FUTURE)

PKCA

CELL A

COARSE PK STOCKPILE 2

EAST DAM

SOUTHEAST DAM

Ash Lake

CROWN LAND
INUIT LAND

COARSE PK STOCKPILE 1 (FUTURE)

4760000E 4765000E 4770000E 4775000E 4780000E 4785000E 4790000E 4795000E

7320000N 7319500N 7319000N 7318500N

LEGEND:

AREAS EVALUATED 2006 GEOTECHNICAL INSPECTION

0 500

Scale (metres)

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Jericho Project
2006 Geotechnical Inspection

Jericho Mine Site Plan

EBA Engineering Consultants Ltd.

PROJECT NO./FILE NO.	DWN	CKD	REV
1100060.010 1100060010Q01b.dwg	DBD	BH	1
OFFICE: EBA-EDM	DATE: September 26, 2006		

FIGURE 1

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APPENDIX

APPENDIX A WEST DAM

GEOTECHNICAL INSPECTION SUMMARY

Location: **Jericho Mine**
Facility: **West Dam**
Observation Date: **July 27th, 2006**

Inspected by: William T. Horne, P.Eng.
EBA Engineering Consultants Ltd.

OPERATING CONDITION	
Minimum Crest Elevation	521.6
Top of Core or Liner	518.6
Water Levels - Upstream	517.0
Water Levels - Downstream	515.3 (approx)
Discharge	Ongoing from July 9, 2006 – pump over dam to pond downstream of West Dam

OBSERVED CONDITION					
Features:	Present (Yes/No)	Dimensions	Extent	Description	Photographic Records
Erosion	None noted				
Cracking	WD-1	3 to 10 mm wide, 10 m long approximately 200 mm deep	Isolated	Several discontinuous cracks associated with settlement	A4
Settlement	WD-2	Numerous Voids 200 mm by 100 mm by 200 mm deep in an area 13 m by 7 m	Isolated	Voids in cover	A5
	WD-4	Area 6 m by 6 m, up to 150 mm deep	Isolated	Settlement area, 1cm wide cracks, subsidence holes 50 mm by 200 mm, by 300 m deep and 200 mm by 300 by 100 mm deep	A8
Seepage	None noted				

Other Features	WD-3 Wet area downstream south dam toe.	20 by 25 m	Isolated	Appeared to be a natural wet area, made wetter by a small leak from the discharge line.	A6, A7

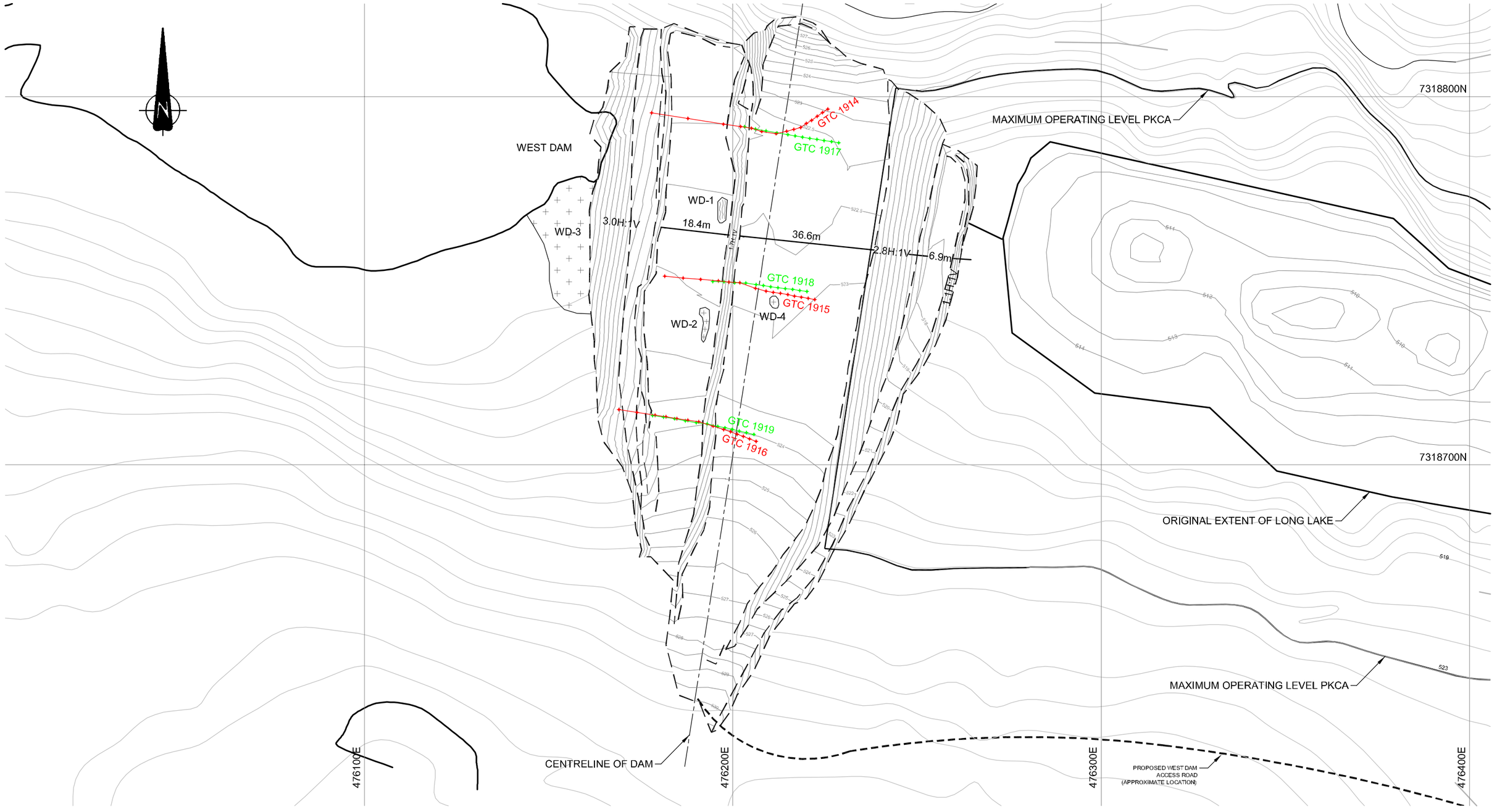
THERMAL SUMMARY:

Dam Core Frozen – Ground temperature measurements in attached figures.

RECOMMENDATIONS AND CONCLUSIONS:

Inspect and possibly strip top layer of frozen core when construction recommences in 2006.

Dam performance is satisfactory.



NOTE:

GROUND TEMPERATURE CABLES 1914, 1915 AND 1916 IN BASE OF CORE KEY TRENCH.

GROUND TEMPERATURE CABLES 1917, 1918 AND 1919 AT ORIGINAL GROUND LEVEL IN CORE ZONE.

0 50

Scale (metres)

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Jericho Project
2006 Geotechnical Inspection

West Dam
2006 Geotechnical Inspection

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PROJECT NO./FILE NO.	DWN	CKD	REV
1100060.010 1100060010Q02b.dwg	DBD	BH	1
OFFICE: EBA-EDM	DATE: September 27, 2006		

FIGURE A-1

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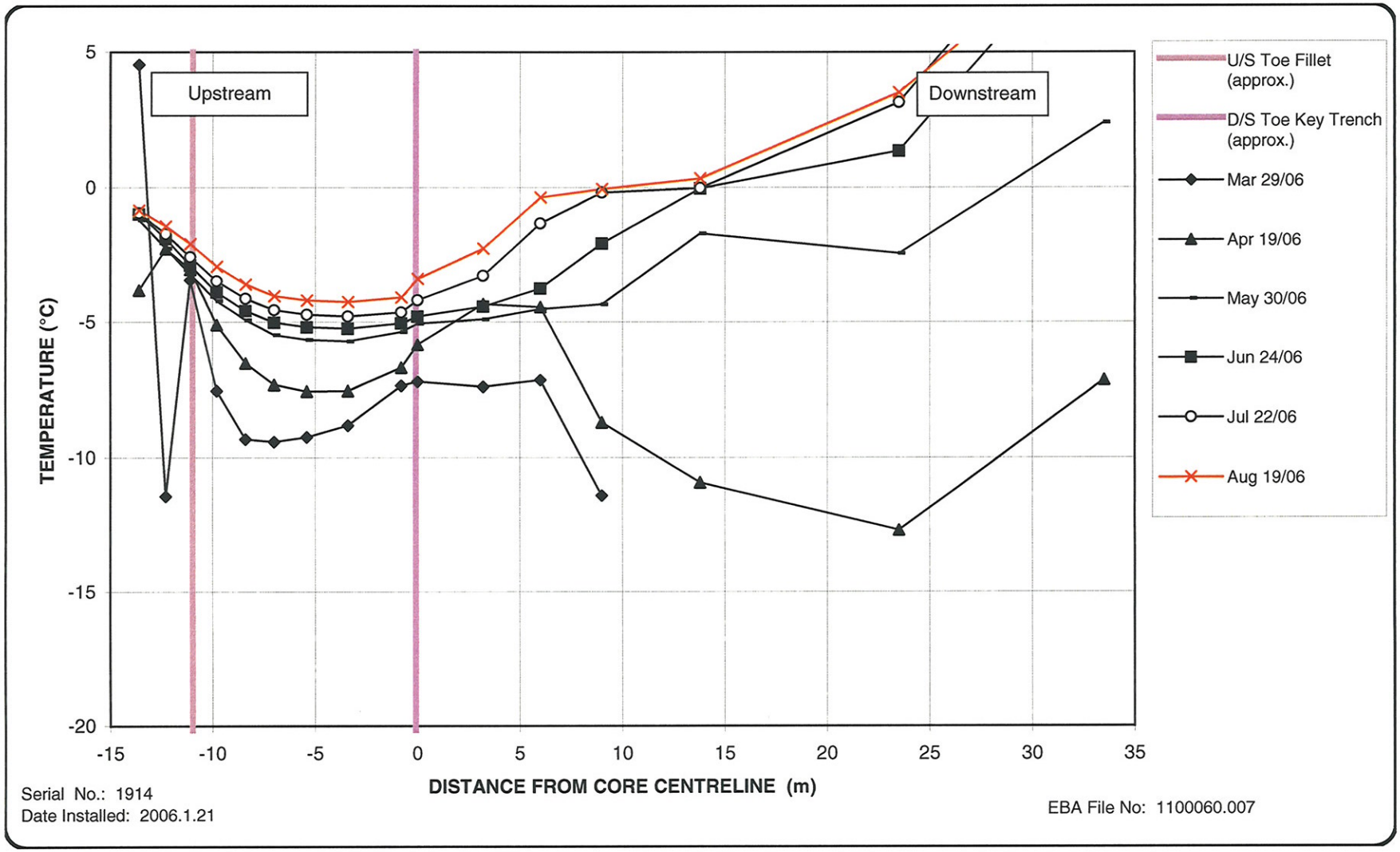
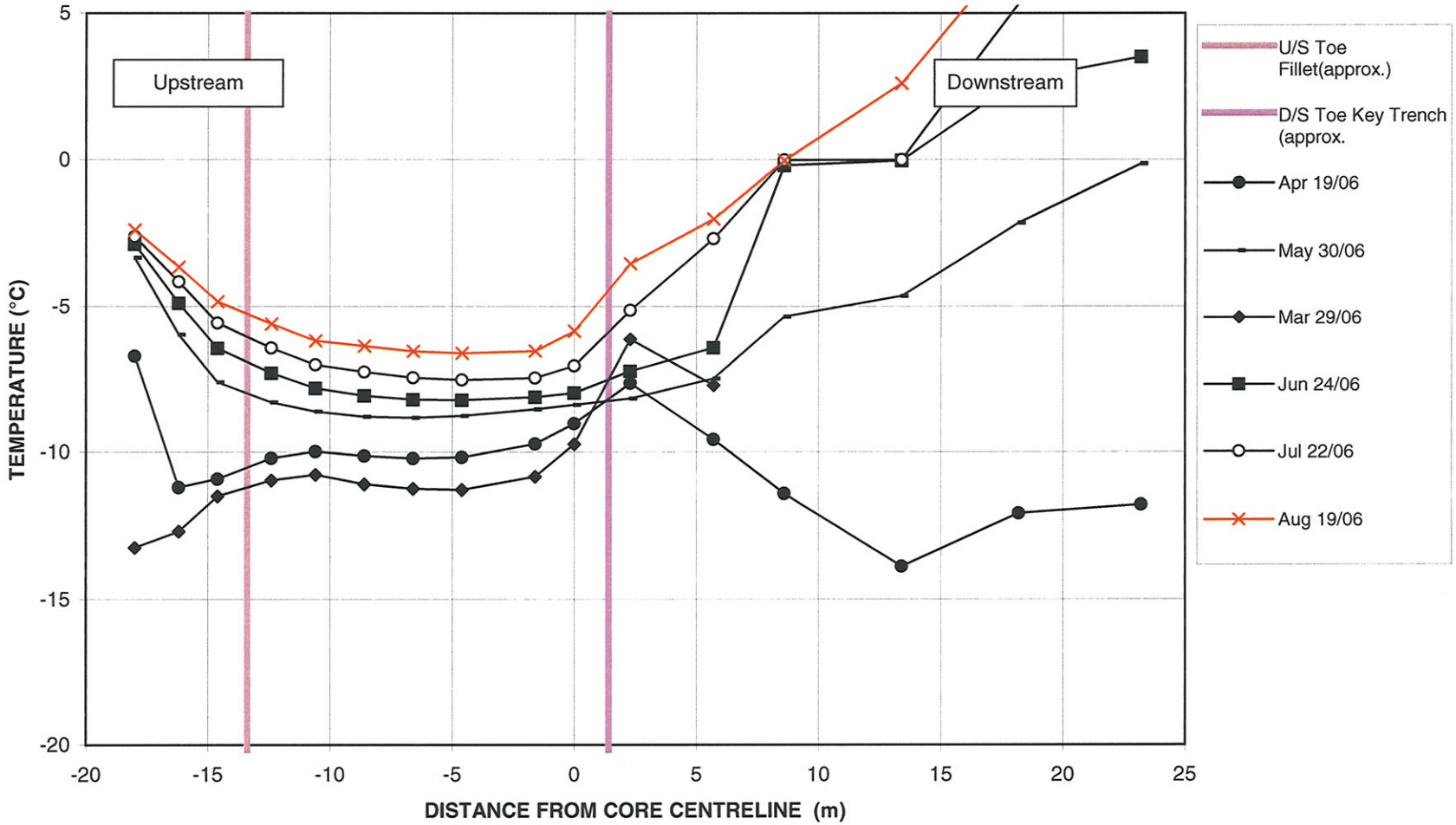


Figure A.2
Horizontal Ground Temperature Distribution
West Dam
Station 0+035, El. 513 m



Serial No.: 1915
Date Installed: 2006.1.20

EBA File No: 1100060.007

Figure A.3
Horizontal Ground Temperature Distribution
West Dam
Station 0+080, El. 514 m

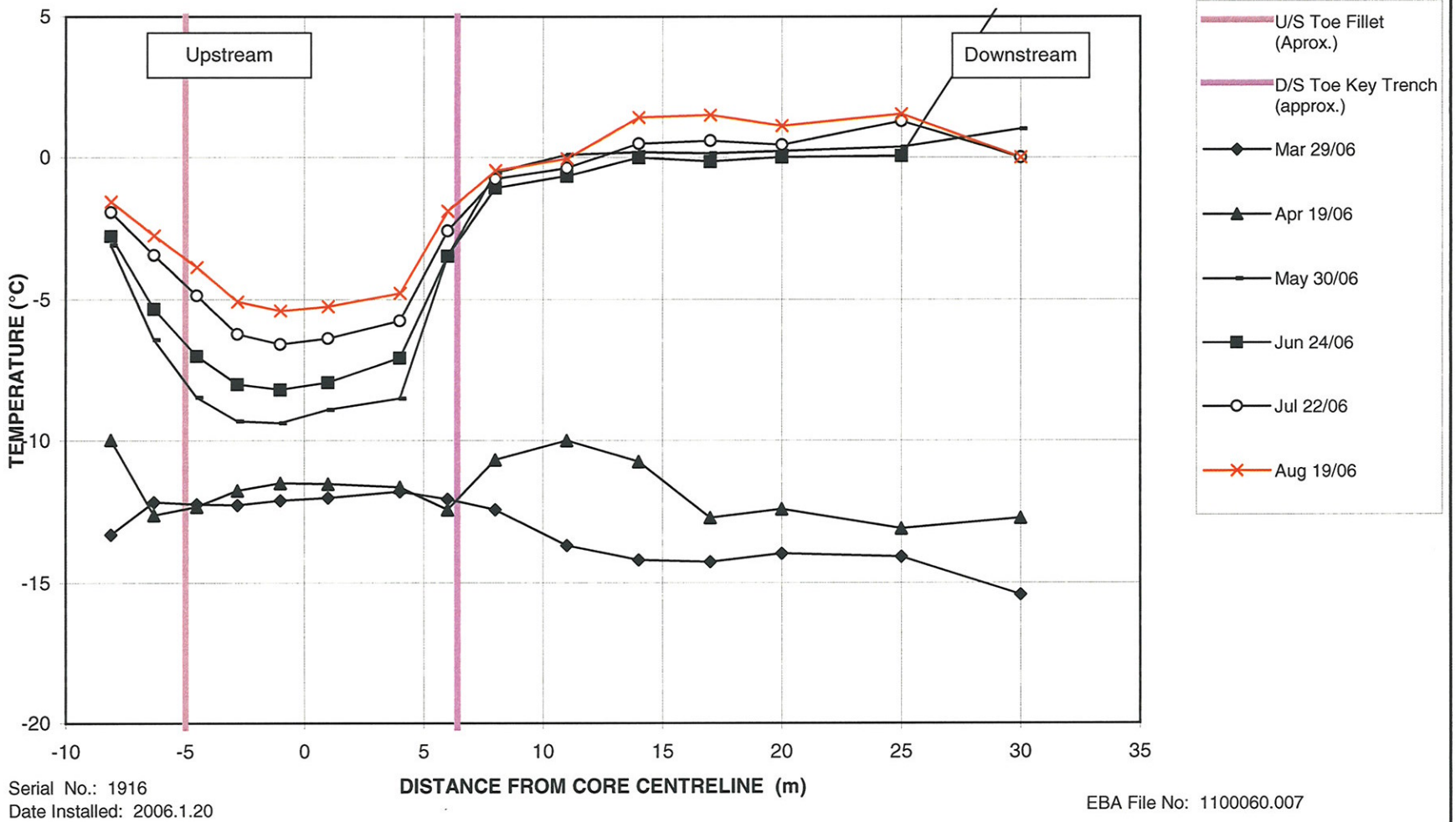


Figure A.4
Horizontal Ground Temperature Distribution
West Dam
Station 0+120, El. 518 m

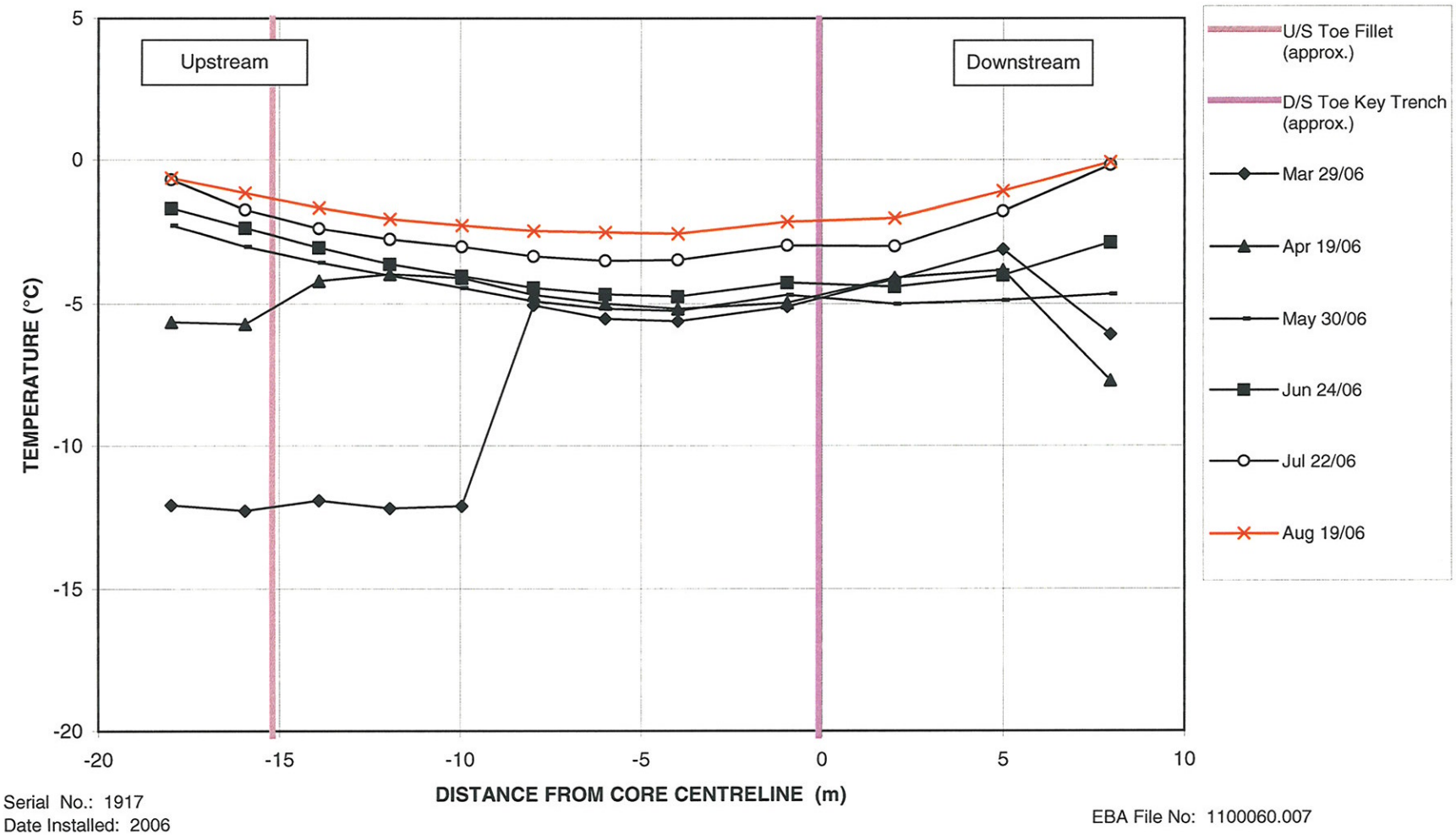


Figure A.5
Horizontal Ground Temperature Distribution
West Dam
Station 0+035, El. 516 m

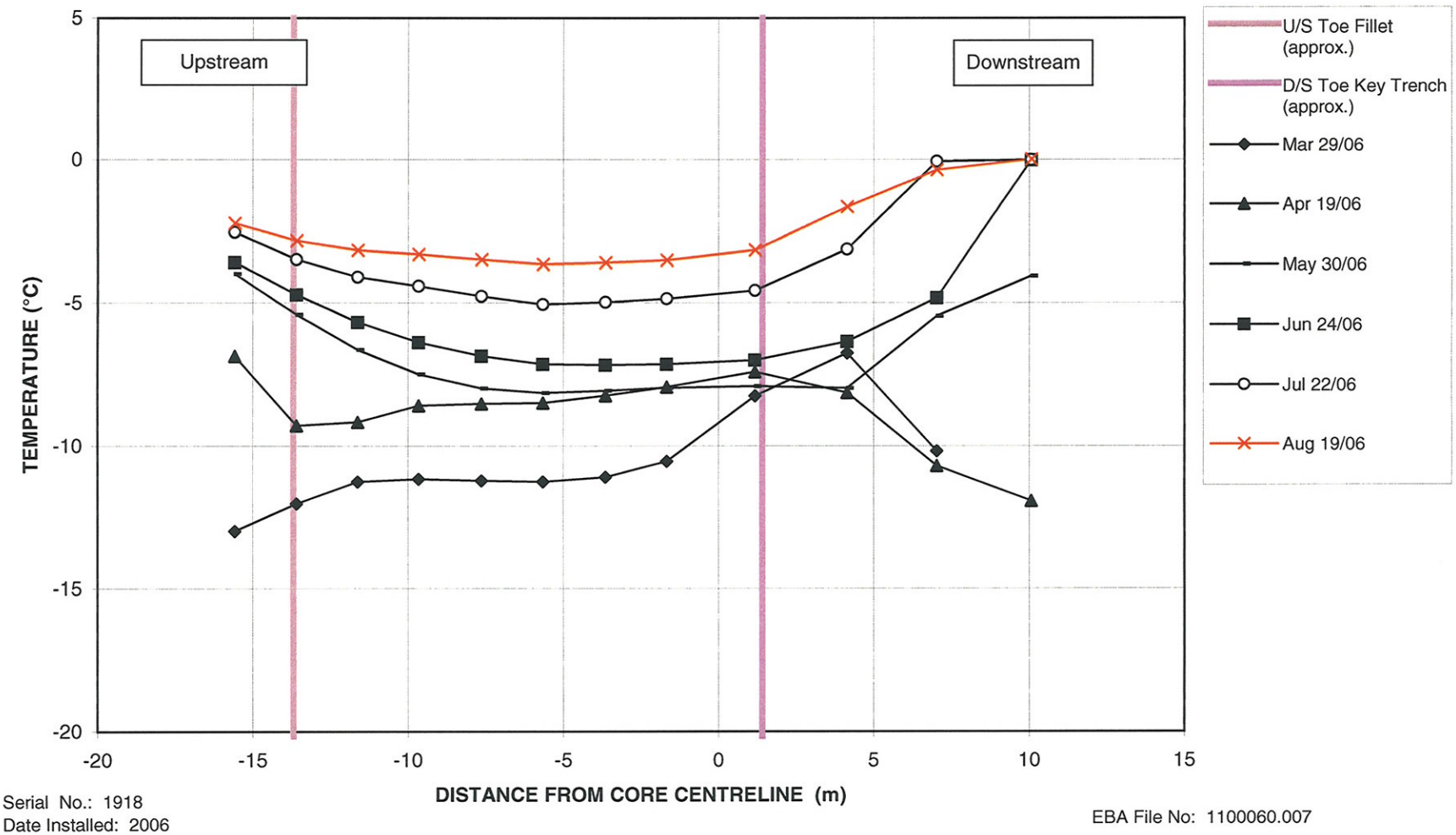


Figure A.6
Horizontal Ground Temperature Distribution
West Dam
Station 0+080, El. 518 m

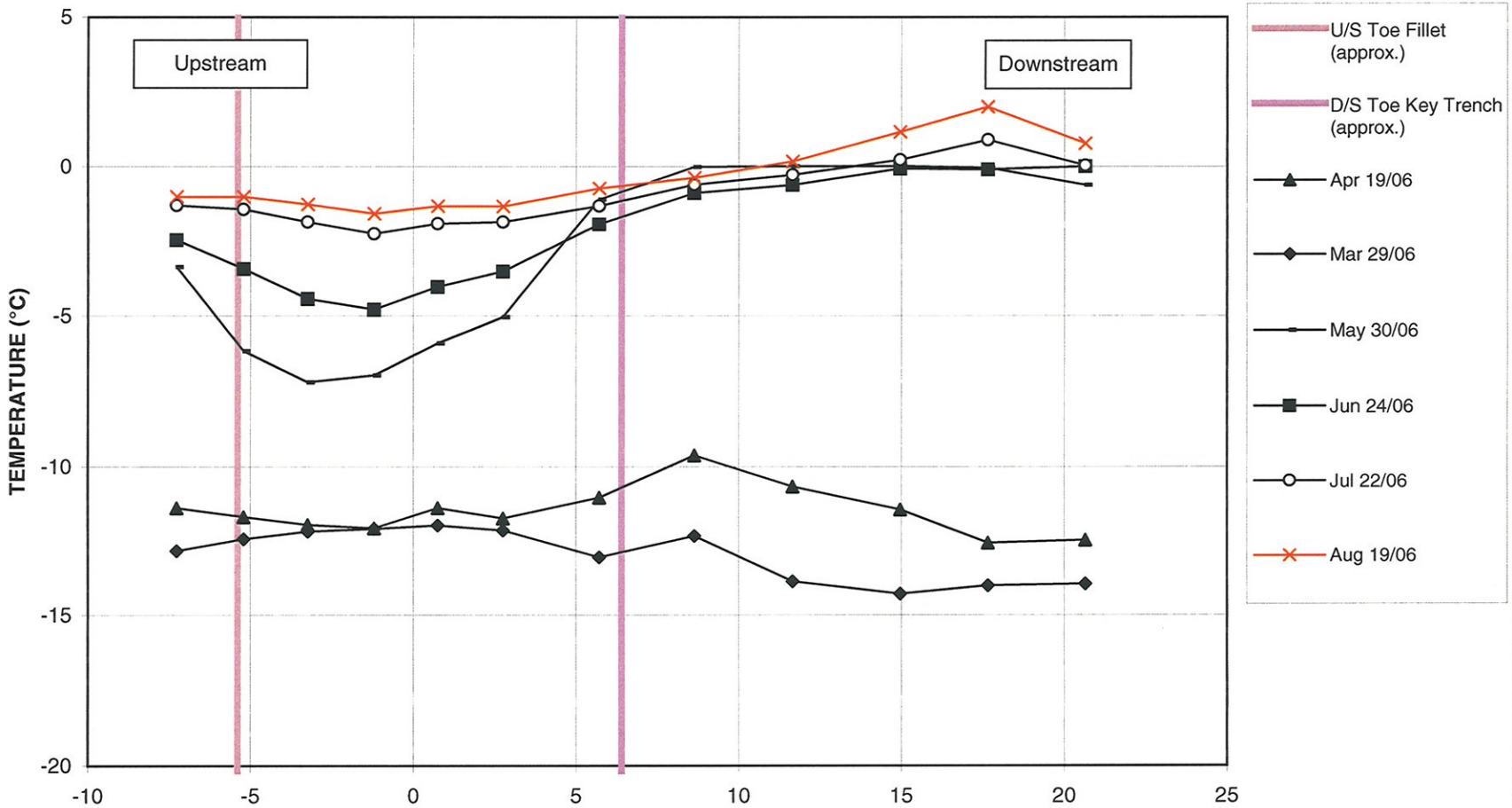


Figure A.7
Horizontal Ground Temperature Distribution
West Dam
Station 0+120, El. 520 m

Photo A1
West Dam - Upstream Slope, looking south.

Photo A2
West Dam - Downstream slope, looking south.

Photo A3
West Dam - Upstream slope, looking north.

Photo A4
West Dam - Feature WD-1, isolated cracking in downstream shell.

Photo A5
West Dam - Feature WD-2, voids in downstream shell.

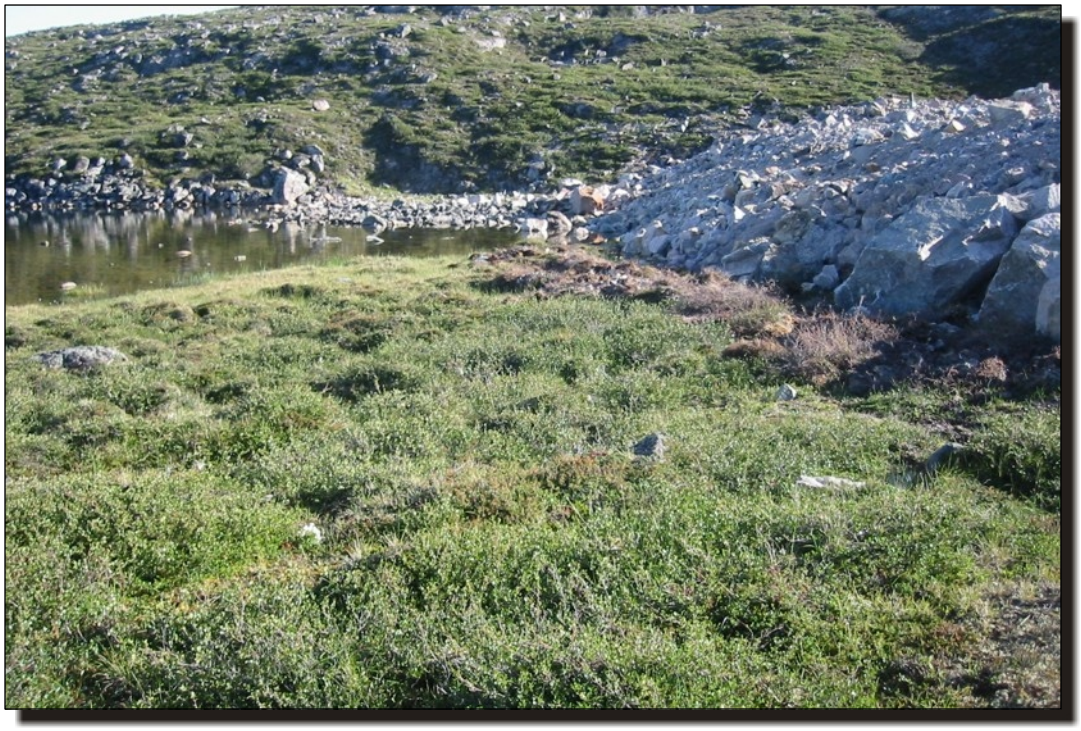


Photo A6
West Dam - Feature WD-3, wet area at downstream dam toe.

Photo A7
West Dam - Feature WD-3, wet area at downstream toe, discharge line.

Photo A8
West Dam - Feature WD-4, settlement in dam crest fill.

APPENDIX

APPENDIX B DIVIDER DYKE A

GEOTECHNICAL INSPECTION SUMMARY

Location: **Jericho Mine**
Facility: **Divider Dyke A**
Observation Date: **July 27th, 2006**

Inspected by: William T. Horne, P.Eng.
EBA Engineering Consultants Ltd.

OPERATING CONDITION:	
Minimum Crest Elevation	519.2
Top of Core or Liner	N/A
Water Levels - Upstream	517.0
Water Levels - Downstream	517.0
Discharge	Ongoing – through filter dyke

OBSERVED CONDITION:					
Features:	Present	Dimensions	Extent	Description	Photographic Records
Erosion	None noted				
Cracking	DD-2	10 to 40 mm wide, 400 to 800 mm deep	Discontinuous along most of the exposed filter zone	Cracks parallel to the dyke axis	B5, B6
Settlement	DD-1	1 m diameter, 150 mm deep	Isolated	Settlement in dyke filter zone.	B4
Seepage	None noted			No visible seepage, but seepage is occurring as evidence that the water levels upstream and downstream of the dyke are essentially equal, and Fine PK discharge is occurring upstream of the dyke.	

Other Features	None noted				

THERMAL SUMMARY:

No ground temperature measurements in the dyke – water elevation is similar on upstream and downstream sides; therefore it is concluded that the seepage is occurring through unfrozen dyke material.

RECOMMENDATIONS AND CONCLUSIONS:

Excavate and recompact top layer of filter zone to eliminate settlement cracks.

Dyke performance is satisfactory.

476800E
476900E
477000E
477100E
7318677.206N
476937.011E
DD2
0+250
DOWNSTREAM
7318600N
0+200
UPSTREAM
DD1
0+150
DIVIDER DYKE A
(INTERM AS-BUILT ELEV.
CREST ELEV. 519.2 m – 521.6 m)
7318520.269N
476942.354E
7318500N
0+100
0
50
Scale (metres)

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Divider Dyke A
2006 Geotechnical Inspection

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1100060.010 1100060010Q03b.dwg	DBD	BH	1
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FIGURE B-1

Photo B1
Divider Dyke - Upstream slope, looking north.

Photo B2
Divider Dyke - Downstream slope, looking north.

Photo B3
Divider Dyke - Crest, looking south.

Photo B4
Feature DD-1 - Settlement.

Photo B5
Feature DD-2 - Cracking in dyke filter.

Photo B6
Feature DD-3 - Cracking in dyke filter.

APPENDIX

APPENDIX C EAST DAM

GEOTECHNICAL INSPECTION SUMMARY

Location: **Jericho Mine**
Facility: **East Dam**
Observation Date: **July 27th, 2006**

Inspected by: William T. Horne, P.Eng.
EBA Engineering Consultants Ltd.

OPERATING CONDITION:	
Minimum Crest Elevation	524.5 (approx.)
Top of Core or Liner	523.3
Water Levels - Upstream	517.0
Water Levels - Downstream	N/A
Discharge	N/A

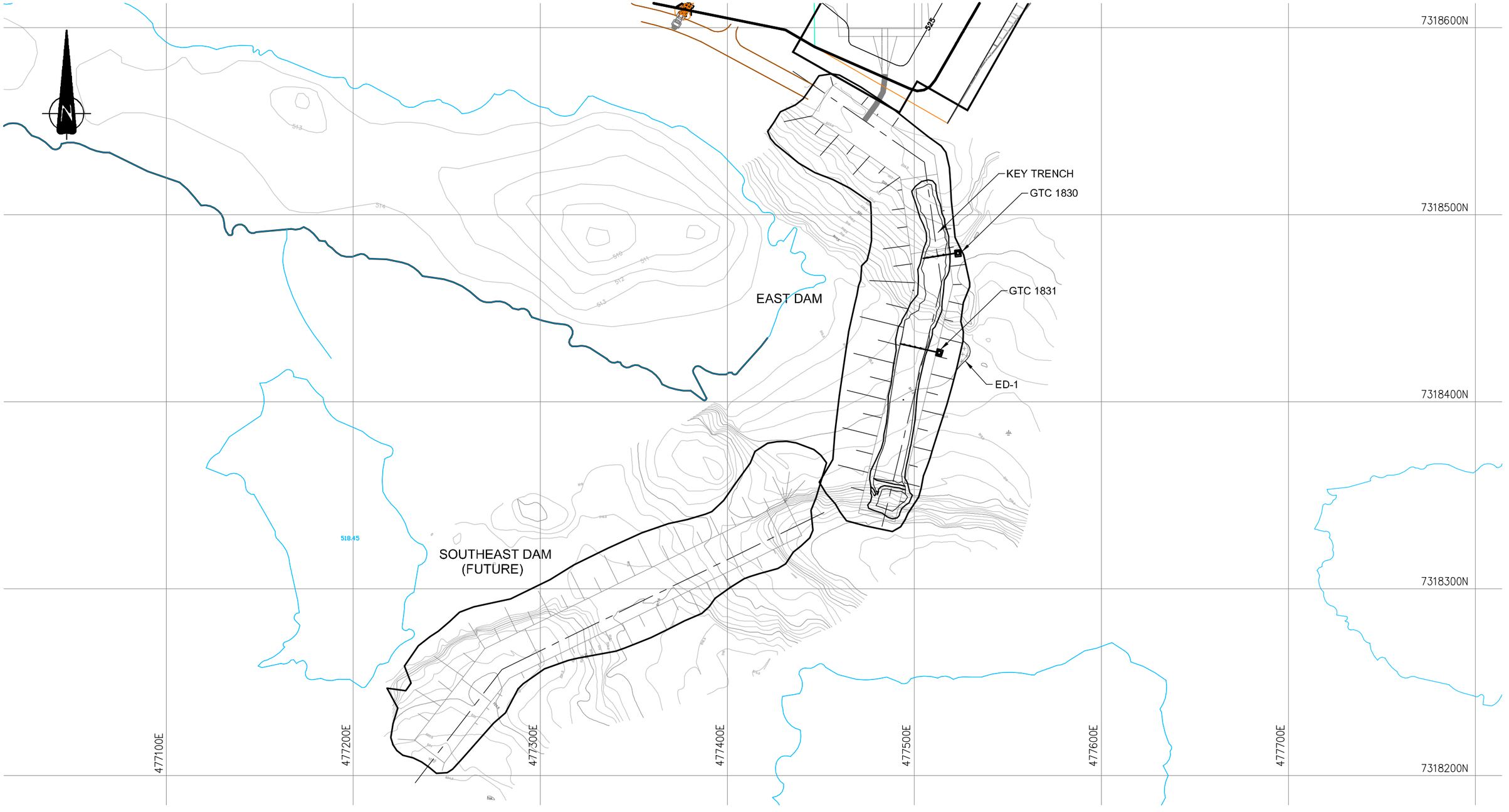
OBSERVED CONDITION:

Features:	Present	Dimensions	Extent	Description	Photographic Records
Erosion	None noted				
Cracking	None noted				
Settlement	None noted				
Seepage	None noted				
Other Features	ED-1 Wet area at dam toe	10 m by 6 m		Wet area in natural low area at dam toe Approximate Elev. 517.0 m	C3

THERMAL SUMMARY:

Ground temperature measurements in attached figures. Base of liner is frozen.

RECOMMENDATIONS AND CONCLUSIONS:
Initiate settlement monitoring. Dam performance is satisfactory.



LEGEND:
GROUND TEMPERATURE CABLES (APPROXIMATE LOCATION)
CABLES AT BASE OF LINER IN KEY TRENCH

0 100
Scale (metres)

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Jericho Project
2006 Geotechnical Inspection

East Dam
2006 Geotechnical Inspection

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PROJECT NO./FILE NO.	DWN	CKD	REV
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OFFICE: EBA-EDM	DATE: September 27, 2006		

FIGURE C-1

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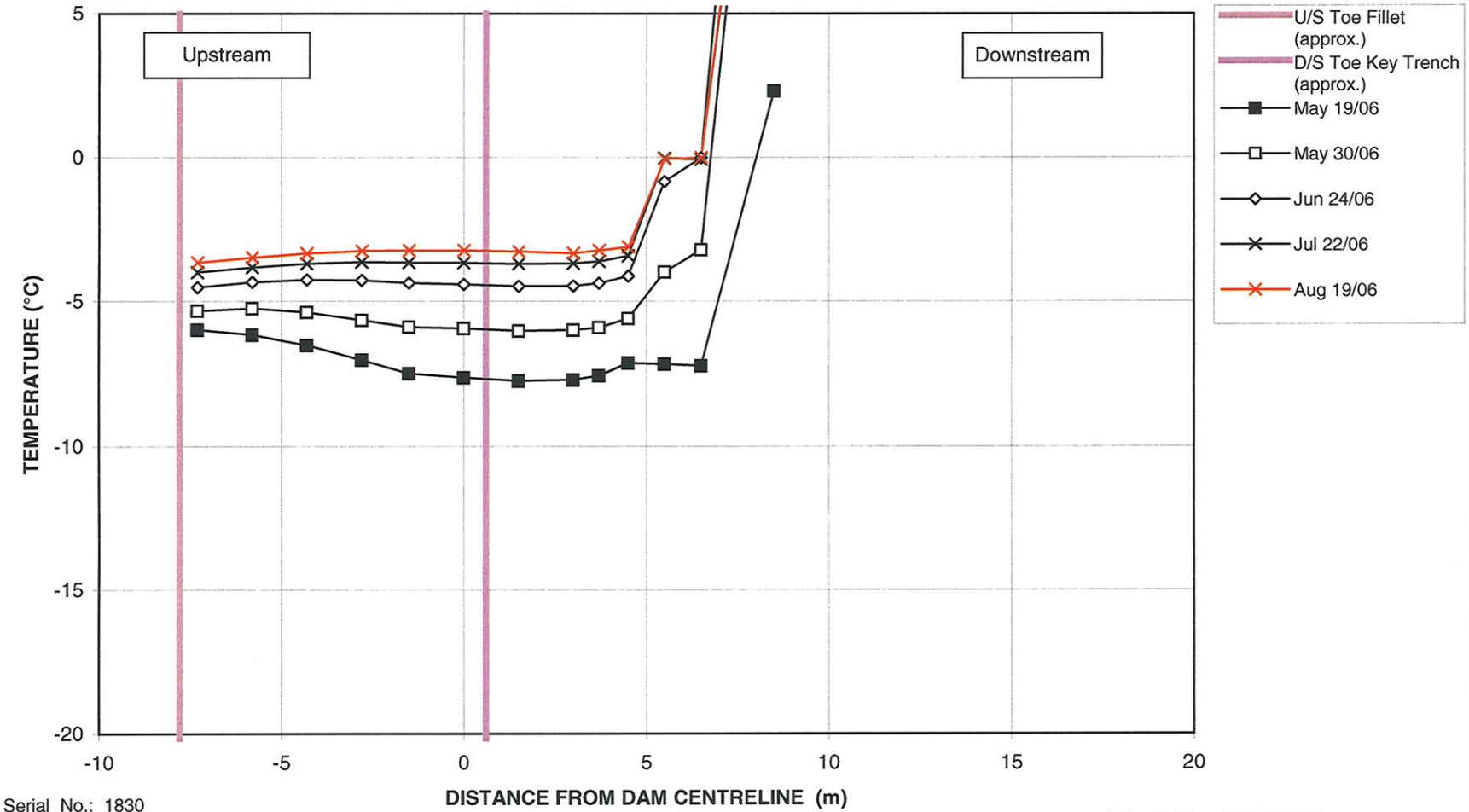


Figure C.2
Horizontal Ground Temperature Distribution
East Dam
Cable 1830 Station 0+150, El. 515 m

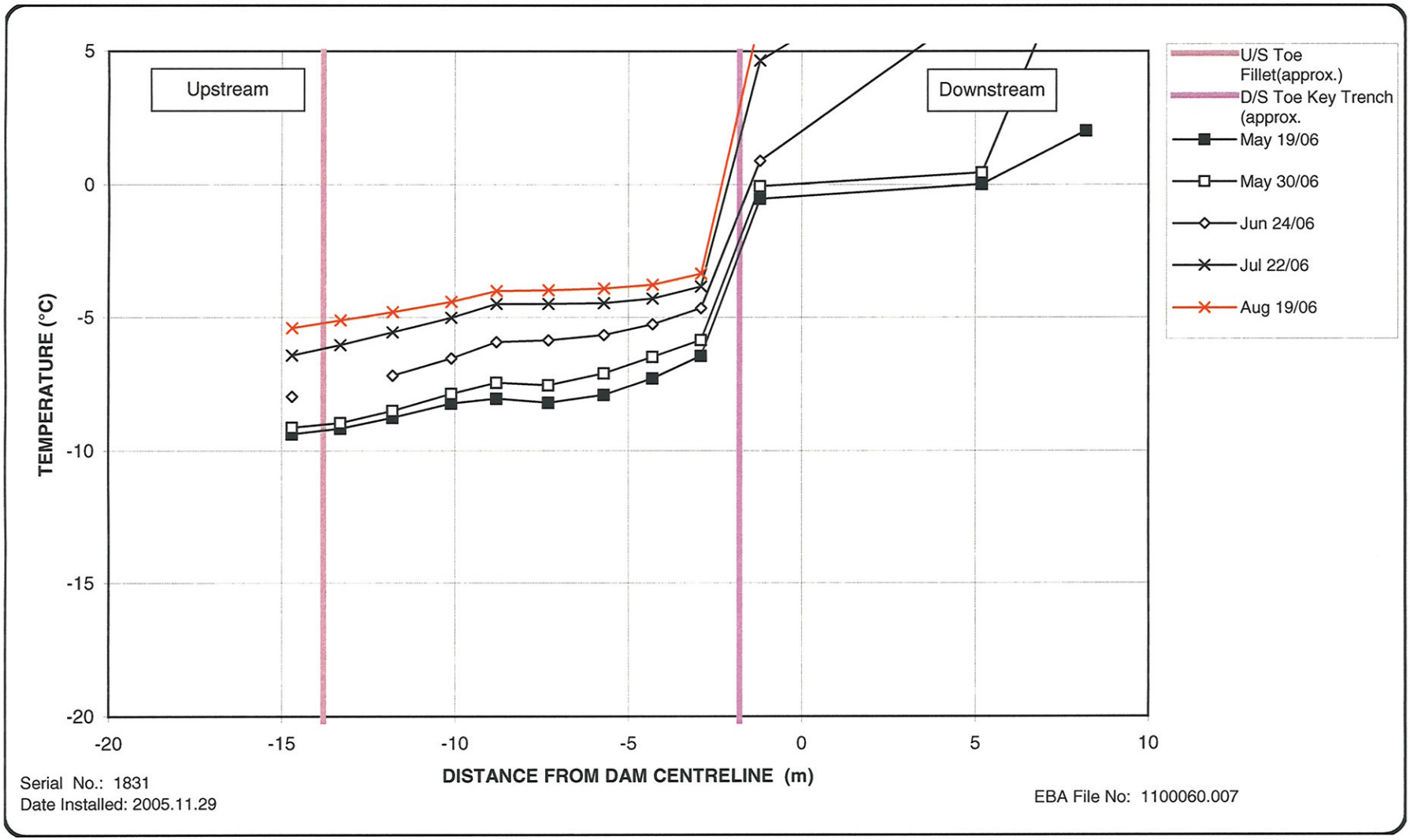


Figure C.3
Horizontal Ground Temperature Distribution
East Dam
Cable 1831 Station 0+100, El. 517 m

Photo C1
East Dam - Downstream slope, looking southwest.

Photo C2
East Dam - Downstream slope, looking west.

Photo C3
East Dam - Feature ED-1, ponded water at low area at downstream dam toe.

Photo C4
Dam Crest - 200 mm minus material over lined portion of dam, coarse PK in upstream shell.

Photo C5
East Dam - Settlement monitoring point.

Photo C6
East Dam - Upstream face, fine PK against coarse PK.

Photo C7
PKCA- Extent of fine PK against East Dam visible. Divider Dyke visible in centre of PKCA.

APPENDIX

APPENDIX D TANKFARM

GEOTECHNICAL INSPECTION SUMMARY

Location: **Jericho Mine**
Facility: **Tankfarm**
Observation Date: **July 27th, 2006**

Inspected by: William T. Horne, P.Eng.
EBA Engineering Consultants Ltd.

OPERATING CONDITION:	
Phase 1 (southern portion)	No fuel in tanks
Phase 2 (northern portion)	Operational

OBSERVED CONDITION:					
Features:	Present	Dimensions	Extent	Description	Photographic Records
Erosion	None noted				
Cracking	None noted				
Settlement	TF-1 Settlement in the south portion of the tankfarm	Uneven surface throughout the southern half of the tank farm	Throughout southern portion	Settlement apparent under tanks. Gaps 15 mm high under several of the tanks. Piping connections higher than tank flanges due to tanks settling (up to 60 mm higher). Some of the tanks appear to be listing.	D3, D4, D5, D6
Seepage	None noted				
Other Features	TF-2 Stained Soil	Numerous small areas, larger area at south end of area	Sporadic, most at valve locations	Hydrocarbon stained soil on inside surface of tankfarm base	D7

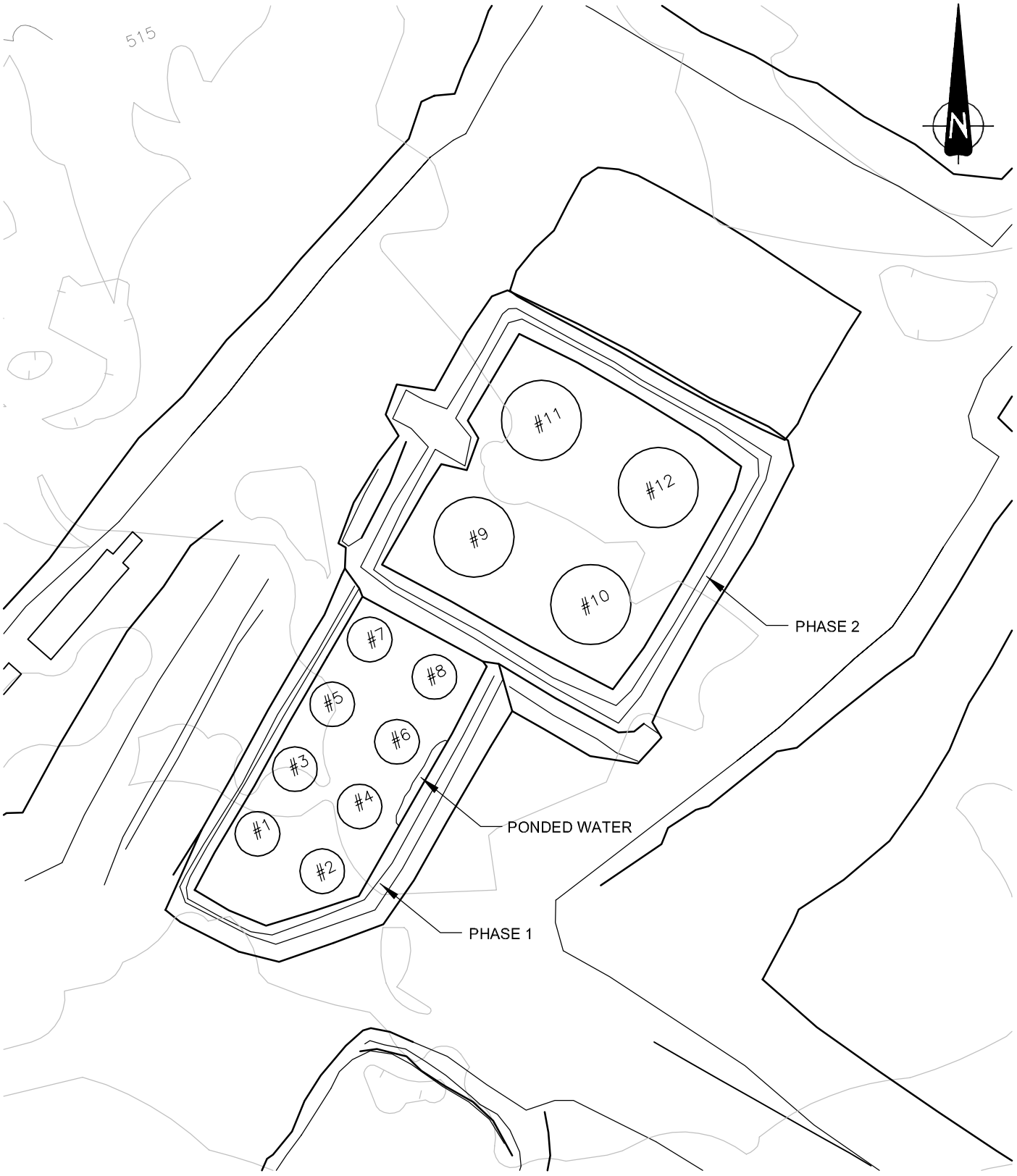
	TF-3 Ponded Water	3 m by 5 m and 1 m by 5 m	Isolated	Ponded water along inside west berm, approximately 50 mm deep by Tank #8 and #4.	D8

THERMAL SUMMARY:

Not applicable

RECOMMENDATIONS AND CONCLUSIONS:

Continue monitoring to determine if settlement is ongoing. Obtain clarification from tank engineer to determine if the tanks are safe to fill with petroleum products. Confirm geomembrane liner integrity.



0 50

Scale (metres)

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Jericho Project
2006 Geotechnical Inspection

Tank Farm
2006 Geotechnical Inspection

EBA Engineering Consultants Ltd.

PROJECT NO./FILE NO.	DWN	CKD	REV
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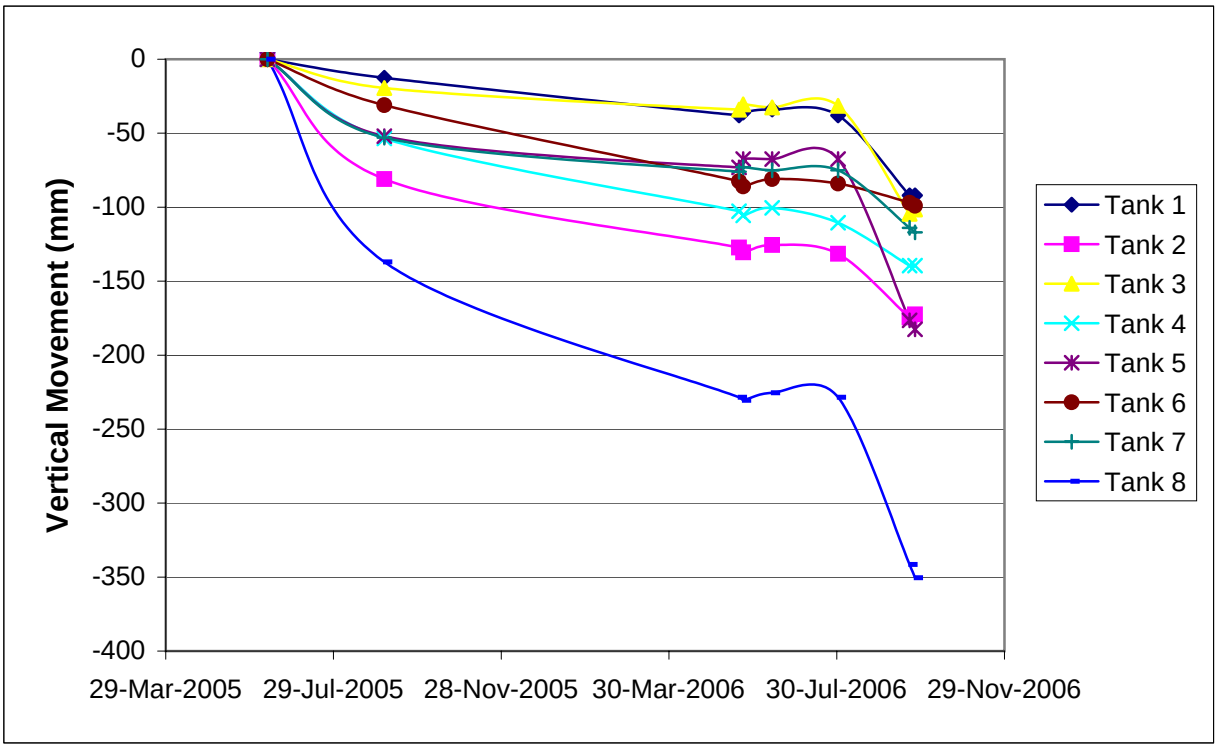
OFFICE: EBA-EDM	DATE: September 27, 2006		

FIGURE D-1

Q:\...Edmonton\...Drafting\...DIVISIONS\...0101\...Projects\...1100060\...010\...1100060010Q05.dwg [FigD-1] September 28, 2006 - 3:51pm dbashis



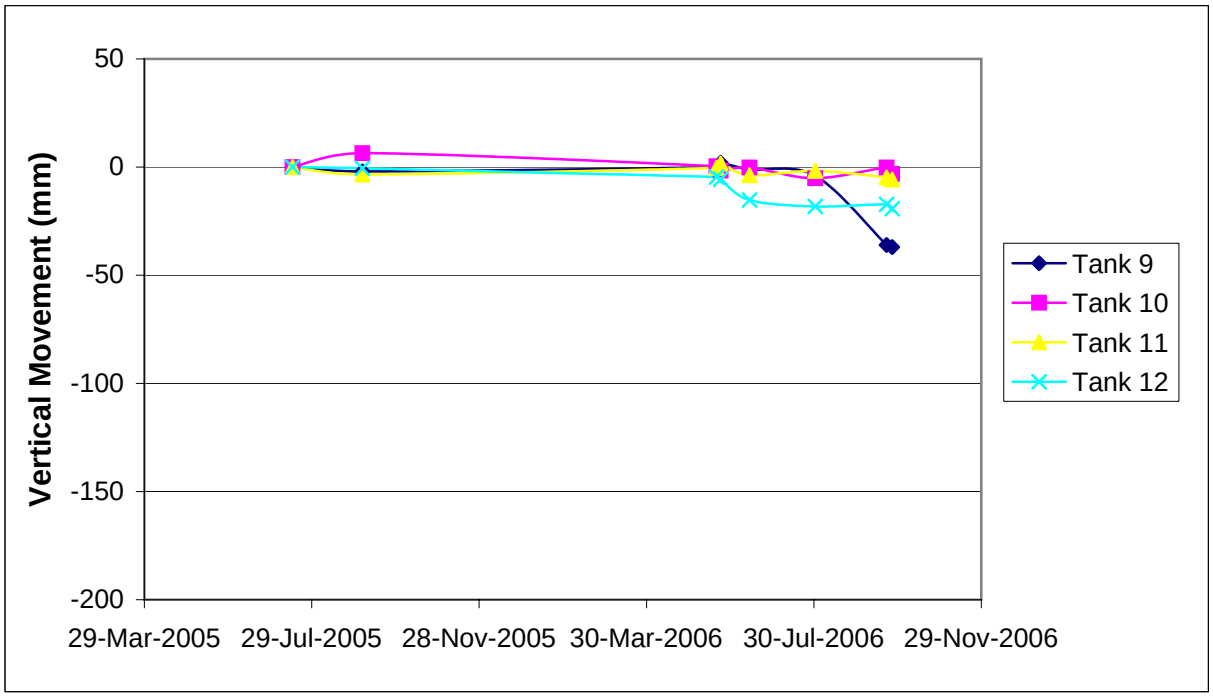


Figure D-2
Tank Farm Settlement Monitoring

Photo D1
Tankfarm - first phase in foreground, second phase in background.

Photo D2
Tankfarm - first phase.

Photo D3
Tankfarm - Feature TF-1, pipes disconnected from tank flanges. Note difference in elevation from pipe to tank flange.

Photo D4
Tankfarm - Feature TF-1, pipes disconnected from tank flanges. Note difference in elevation from pipe to tank flange.

Photo D5
Tankfarm - Feature TF-1, gap under tank due to differential settlement of pad.

Photo D6
Tankfarm - Feature TF-1, gap under tank due to differential settlement of pad.

Photo D7
Tankfarm - Feature TF-2, stained soil.

Photo D8
Tankfarm - Feature TF-3, ponded water in tankfarm containment area.

APPENDIX

APPENDIX E LANDFILL

GEOTECHNICAL INSPECTION SUMMARY

Location: **Jericho Mine**
Facility: **Landfill**
Observation Date: **July 27th, 2006**

Inspected by: William T. Horne, P.Eng.
EBA Engineering Consultants Ltd.

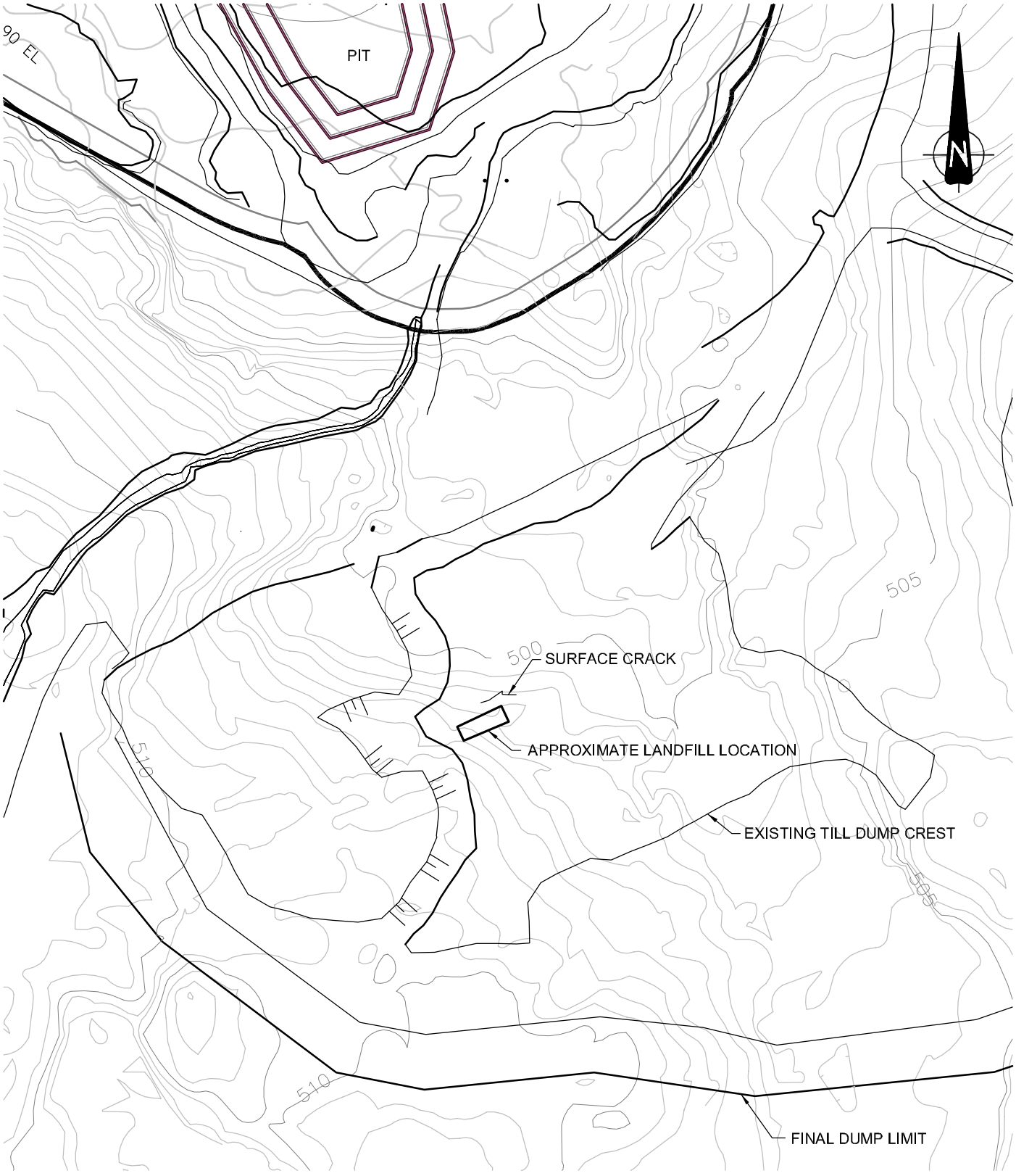
OBSERVED CONDITION:					
Features:	Present	Dimensions	Extent	Description	Photographic Records
Erosion	None noted				
Cracking	None noted	LF-1 - 10 m long, 15 mm wide, 0.3 m deep	Isolated	Surface crack adjacent to landfill – could be a result of settlement of landfilled area.	E5
Settlement	None noted				
Seepage	None noted				
Other Features	None noted				
Erosion	None noted				

THERMAL SUMMARY:
Not applicable

RECOMMENDATIONS AND CONCLUSIONS:

The landfill is constructed within the center of the till dump. Incinerated debris is covered over with till. Metallic debris and non-burnable debris is separated from the burnable debris. Some settlement cracks were observed near the active pit. It is recommended that the debris is compacted prior to covering to reduce the amount of settlement.

Overall satisfactory condition.



0 100

Scale (metres)

CLIENT

Tahera Diamond Corporation

Jericho Project

2006 Geotechnical Inspection

Landfill Area

EBA Engineering Consultants Ltd.

PROJECT NO./FILE NO.	DWN	CKD	REV
1100060.010 1100060010Q05b.dwg	DBD	BH	1
OFFICE: EBA-EDM	DATE: September 27, 2006		

FIGURE E-1

Q:\...Edmonton\...Drafting\...DIVISIONS\...0101\...Projects\...1100060\...010\...1100060010Q05.dwg [FigE-1] September 28, 2006 - 3:52pm debashis

Photo E1
Landfill location.

Photo E2
Landfill - metal debris.

Photo E3
Landfill - burnable debris.

Photo E4
Landfill - waste pit.

Photo E5
Landfill - surface crack.

APPENDIX

APPENDIX F AIRSTRIP TANK CONTAINMENT AREA

GEOTECHNICAL INSPECTION SUMMARY

Location: **Jericho Mine**
Facility: **Airstrip Tank Containment Area**
Observation Date: **July 27th, 2006**

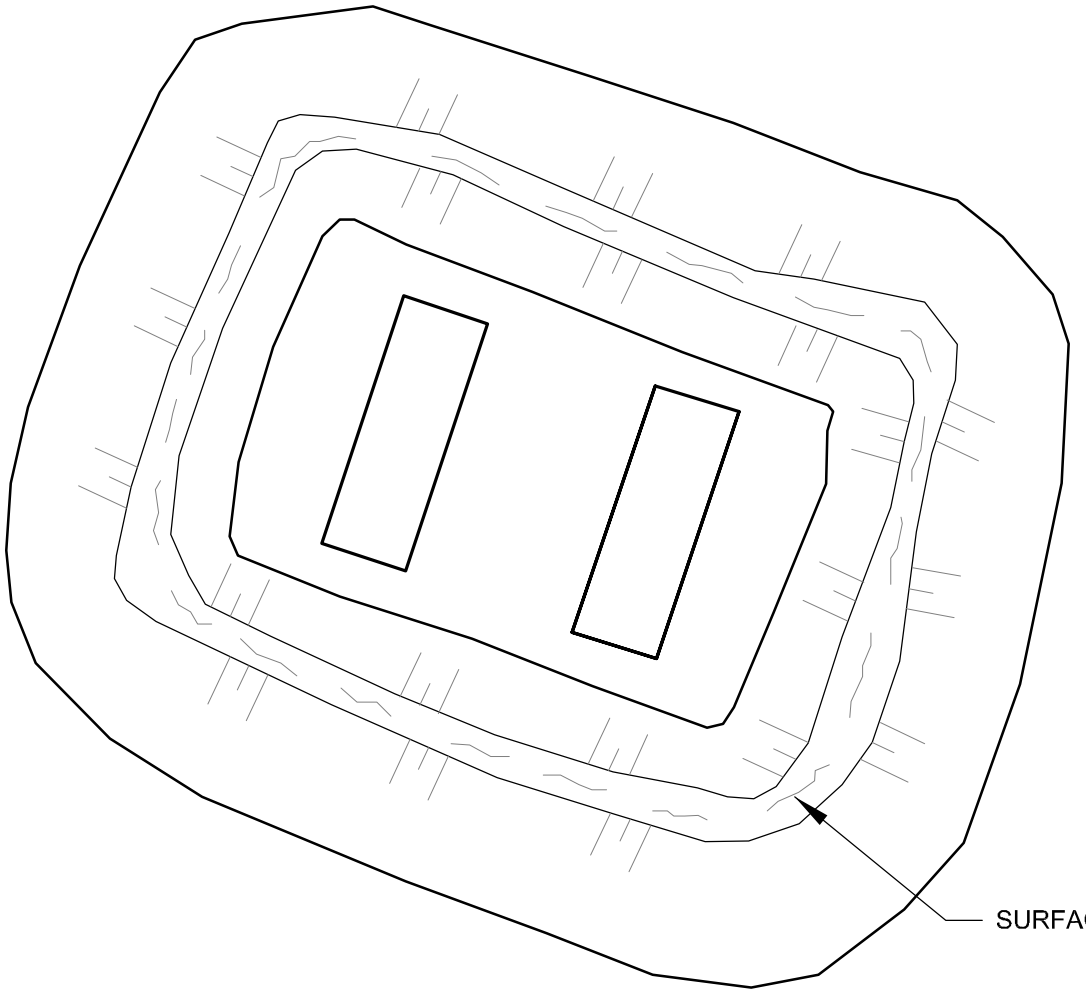
Inspected by: William T. Horne, P.Eng.
EBA Engineering Consultants Ltd.

OBSERVED CONDITION:					
Features:	Present	Dimensions	Extent	Description	Photographic Records
Erosion	None noted				
Cracking	ATF-1	3 to 15 mm wide cracks	Around most of the berm tops.	Appears to be settlement cracks. No signs of instability on the berms, i.e. no elevation difference from one side of the cracks to the other.	F2
Settlement	None noted				
Seepage	None noted				
Other Features	None noted				

THERMAL SUMMARY:
Not applicable

RECOMMENDATIONS AND CONCLUSIONS:

Satisfactory performance.



0 10

Scale (metres)

CLIENT

Tahera Diamond Corporation

Jericho Project
2006 Geotechnical Inspection

Airstrip Tank Farm
2006 Geotechnical Inspection

EBA Engineering Consultants Ltd.

PROJECT NO./FILE NO.	DWN	CKD	REV
1100060.010 1100060010Q05b.dwg	DBD	BH	1
OFFICE: EBA-EDM	DATE: September 27, 2006		

FIGURE F-1

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Photo F1
Airstrip tank farm.

Photo F2
Airstrip tank farm - settlement cracks.

APPENDIX

APPENDIX G GENERATOR TANK CONTAINMENT

GEOTECHNICAL INSPECTION SUMMARY

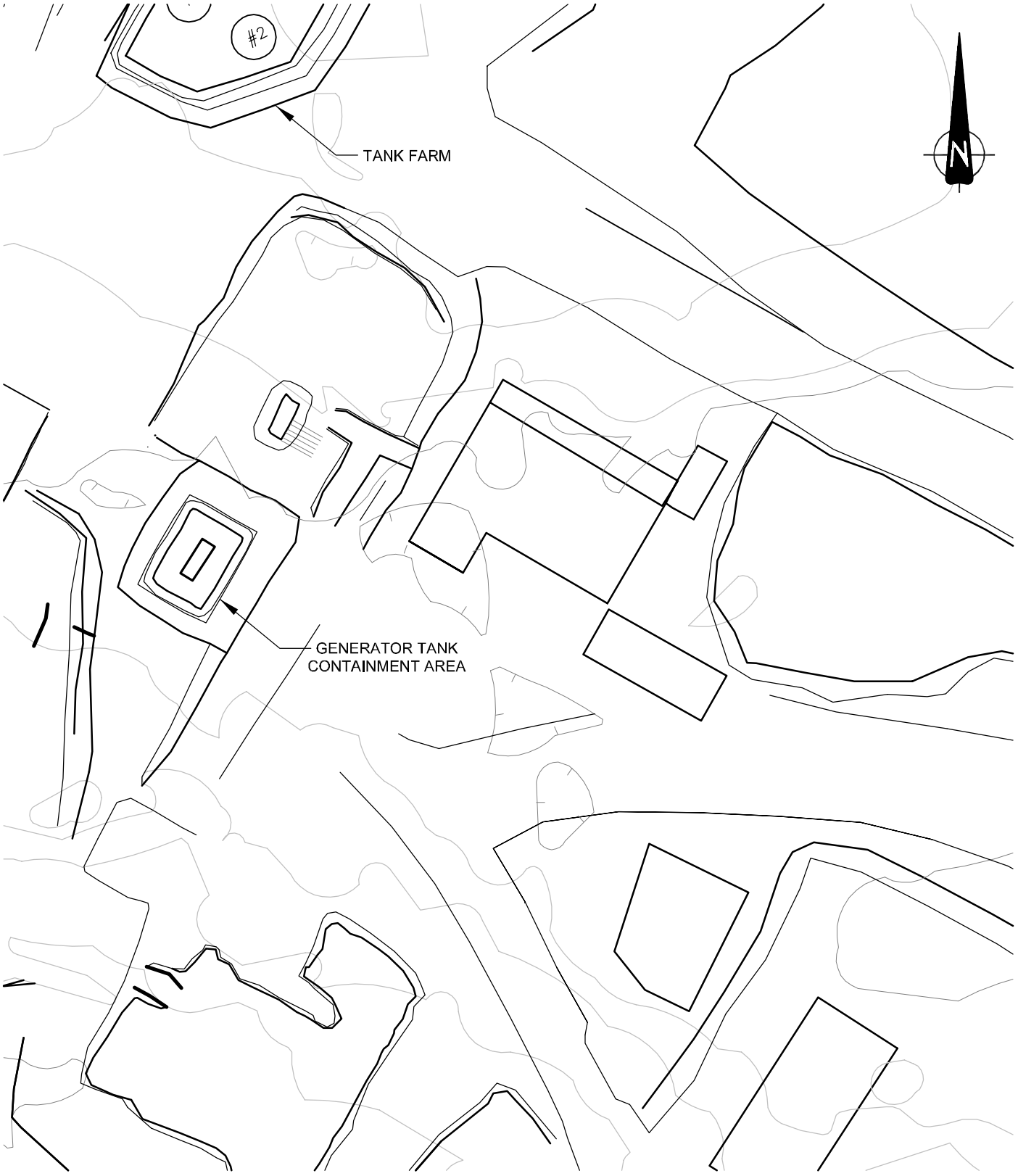
Location: **Jericho Mine**
Facility: **Generator Tank Containment**
Observation Date: **July 27th, 2006**

Inspected by: William T. Horne, P.Eng.
EBA Engineering Consultants Ltd.

OBSERVED CONDITION:					
Features:	Present	Dimensions	Extent	Description	Photographic Records
Erosion	None noted				
Cracking	None noted				
Settlement	None noted				
Seepage	None noted				
Other Features	None noted				

THERMAL SUMMARY:
Not applicable

RECOMMENDATIONS AND CONCLUSIONS:
Satisfactory performance.



0 50

Scale (metres)

CLIENT

Tahera Diamond Corporation

Jericho Project

2006 Geotechnical Inspection

Generator Tank Containment Area

EBA Engineering Consultants Ltd.

PROJECT NO./FILE NO.	DWN	CKD	REV
1100060.010 1100060010Q05a.dwg	DBD	BH	1
OFFICE: EBA-EDM	DATE: September 27, 2006		

FIGURE G-1

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Photo G1
Generator tank containment.

Photo G2
Generator tank farm - liner exposed.

APPENDIX

APPENDIX H EAST SUMP

GEOTECHNICAL INSPECTION SUMMARY

Location: **Jericho Mine**
Facility: **East Sump**
Observation Date: **July 27th, 2006**

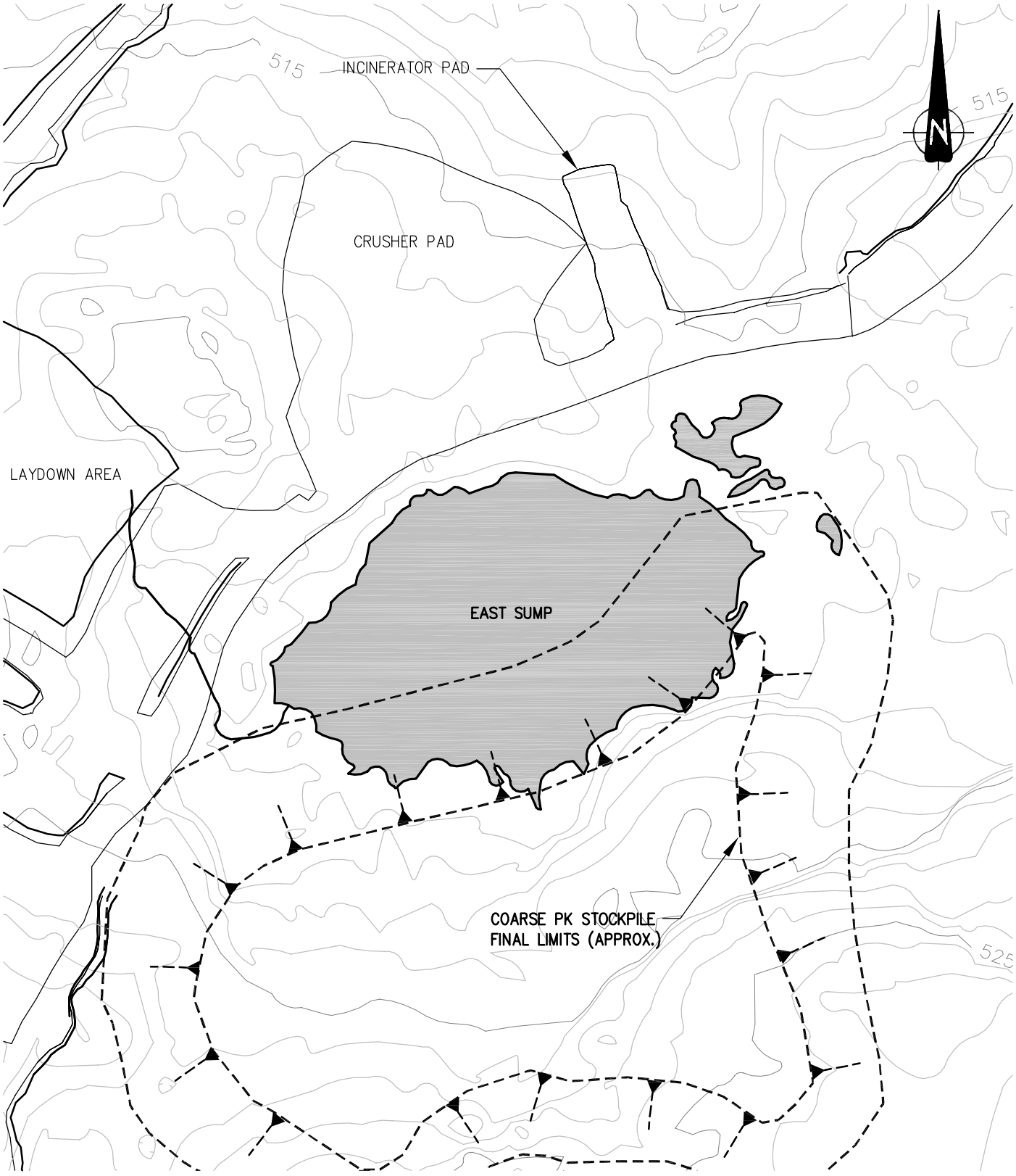
Inspected by: William T. Horne, P.Eng.
EBA Engineering Consultants Ltd.

OPERATING CONDITION:	
Maximum Pond Elev (0.5 m freeboard)	516.0
Water Levels -	514.0
Water Levels - Downstream	N/A
Discharge	To PKCA

OBSERVED CONDITION:					
Features:	Present	Dimensions	Extent	Description	Photographic Records
Erosion	None noted				
Cracking	None noted				
Settlement	None noted				
Seepage	None noted				
Other Features	None noted				

THERMAL SUMMARY:
Not applicable

RECOMMENDATIONS AND CONCLUSIONS:
Satisfactory performance.



0 100

Scale (metres)

CLIENT

Tahera Diamond Corporation

Jericho Project
2006 Geotechnical Inspection

East Sump
2006 Geotechnical Inspection

EBA Engineering Consultants Ltd.

PROJECT NO./FILE NO.	DWN	CKD	REV
1100060.010 1100060010Q05b.dwg	DBD	BH	1
OFFICE: EBA-EDM	DATE: September 27, 2006		

FIGURE H-1

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Photo H1
East sump - looking north.

Photo H2
East sump - looking north along road adjacent to area.

Photo H3
East sump, south end looking east - coarse PK stockpile.

APPENDIX

APPENDIX I C1 DIVERSION

GEOTECHNICAL INSPECTION SUMMARY

Location: **Jericho Mine**
Facility: **C1 Diversion**
Observation Date: **July 27th, 2006**

Inspected by: William T. Horne, P.Eng.
EBA Engineering Consultants Ltd.

OPERATING CONDITION:	
Flow	Low flow – maximum water depth in culvert approximately 35 mm.

OBSERVED CONDITION:					
Features:	Present	Dimensions	Extent	Description	Photographic Records
Erosion	None noted				
Cracking	None noted				
Settlement	None noted				
Seepage	None noted				
Other Features	C1-1 – Damp Area	0.3 m by 0.5 m	Isolated	Damp area at downstream edge of south berm (pit road). No seepage observed. Area nearby to original stream channels in C1 area.	I16
	C1-2 – Damp Area	0.5 by 0.5 m	Isolated	Damp area downstream of north berm. No seepage observed.	I17

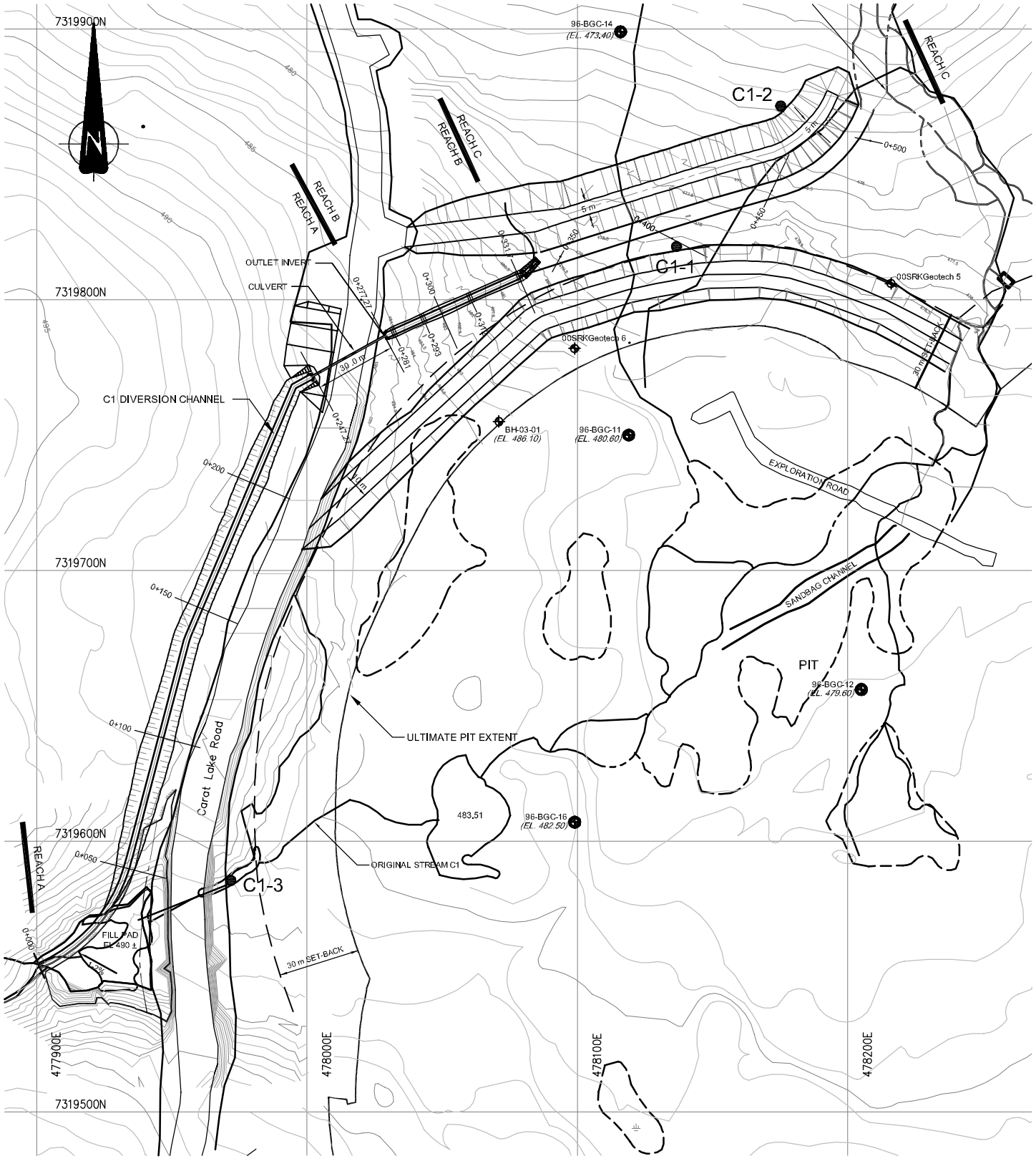
	C1-3 – Ponded water	0.5 m by 4 m	Isolated	Ponded water in remnant stream channel below C1 channel cut off. No seepage apparent.	I18
	C1-4 – Bent culvert inlet				I6

THERMAL SUMMARY:

Not applicable

RECOMMENDATIONS AND CONCLUSIONS:

C1 Diversion structure performance is satisfactory.



LEGEND:

● – FEATURE IDENTIFIED 2006 GEOTECHNICAL INSPECTION

NOTE: DRAWING BASED ON DESIGNED CONFIGURATION

0 100

Scale (metres)

CLIENT

Tahera Diamond Corporation

Jericho Project
2006 Geotechnical Inspection

Diversion Channel
2006 Geotechnical Inspection

EBA Engineering Consultants Ltd.

PROJECT NO./FILE NO.	DWN	CKD	REV
1100060.010 1100060010Q06b.dwg	DBD	BH	1
OFFICE: EBA-EDM	DATE: September 27, 2006		

FIGURE I-1

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Photo I1
C1 Diversion - Flow entering diversion channel.

Photo I2
C1 Diversion - start of diversion channel - lined cut off.

Photo I3
C1 Diversion - flow through reach A - bedrock cut.

Photo I4
C1 Diversion - Reach A - bedrock cut.

Photo I5
C1 Diversion - Reach A - downstream end.

Photo I6
C1 Diversion - Culvert below Reach A - bent culvert end.

Photo I7
C1 Diversion - Culvert below Reach A - low flow- slight bend in base of culvert at upstream end.

Photo I8
C1 Diversion - Reach B and C - below culvert - small pool in Reach B.

Photo I9
C1 Diversion - Reach B - rip rap below culvert.

Photo I10
C1 Diversion - Reach C - surface water, vegetation.

Photo I11
C1 Diversion - Reach C - water diversion berm.

Photo I12
C1 Diversion - Reach C - downstream end - surface water.

Photo I13
C1 Diversion - Reach C - end of Reach C berm - water flowing around the berm.

Photo I14
C1 Diversion - Reach C berm - downstream side.

Photo I15
Water entering Carat Lake below diversion channel.

Photo I16
Feature CD-1, Wet area adjacent to upstream Reach C berm.

Photo I17
Feature C1-2, Damp area downstream of north berm. No seepage observed.

Photo I18
Feature C1-3, Ponded water in remnant stream channel below C1 channel cut off. No seepage apparent.