Site Water Management Plan

Jericho Project, Nunavut

Report Prepared by

Tahera Diamond Corporation

Report Reviewed by

AMEC Earth & Environmental

October 2005

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1 Introduction

This report presents the summary of designs of the site water management systems for the Jericho Diamond Project, Nunavut Territory. The Jericho Diamond Project is located approximately 420 km northeast of Yellowknife.

This report was compiled by Tahera Corporation and reviewed by AMEC. The report presents a summary description of the water management facilities for the Jericho Diamonds Project and an updated site water balance based on the latest site information. The designs of the site water management facilities are based on a series of previous reports and studies which are listed in the References. Site Water Management Technical Memorandum W submitted for the Water License Application provides the principal background information used for this report. Current site conditions, operations planning and experience gained from the 2005 construction season are reflected in this report.

This report addresses the requirements set forth in Schedule F of the Jericho Water License NWB1JER0410, and discusses the following:

- Measures to be undertaken to minimize the amount of raw water withdrawn from Carat Lake, including consideration of alternative water sources;
- The projected amount of water to be withdrawn from Carat Lake for the 2006 season;
- An assessment of the draw-down of Carat Lake caused by projected withdraws;
- A summary of plans for managing water to be stored in the PKCA and for management of all other water in the project area;
- A water balance for the Processed Kimberlite Containment Area (PKCA) updated on the basis of the most recent available information on the following key parameters;
    - On-site precipitation, evaporation and runoff;
    - Volumes of recycled/reclaimed water and raw water utilized during the previous year;
    - Ground water and runoff inflows to the pit; and
    - Volumes of runoff redirected to the PKCA from water management facilities (i.e. ponds, ditches, diversions).

The Site Water Management Plan takes into account various related design plans that either have or will be submitted to the Nunavut Water Board (NWB) as listed in Table 1.

Table 1 – Submissions to Nunavut Water Board

Water Management Structures and Reports	Date Submitted	To be Submitted
Jericho Diamond Project Aquatic Effects Monitoring Program	March 2005	
Specification for the Fresh Water Intake Causeway	April 2005	
Waste Rock Management Plan (Part 1, Waste Rock and Overburden)	May 2005	
Long Lake Divider Dike Design Report	June 2005	
Long Lake Dewatering Plan	July 2005	
C1 Diversion Channel	August 2005	
East and Southeast Dam Design Report	August 2005	
West Dam Design Report	September 2005	
PKCA Management Plan	Pre-Design-Aug. 2004	Final- February 2006

2 Site Water Management Facilities

2.1 General Description

Figure 1 and Figure 2 identify the locations and general configuration of the Jericho water management facilities which are either under construction or proposed. Also shown are contingency water management facilities which may be constructed later based on actual mine water management experience. The major water management facilities are summarized as follows:

1. Diversion Channel C1 -located to the west of the Open Pit to direct outflows from Lake C1 around the pit and back into the Stream C1 natural channel.
2. Diversion Ditch C4 -to be constructed east of Waste Dump Site 1 to divert clean runoff water from the area to the southeast away from the dump site and into Lake C4.
3. Pit Sumps -a series of sumps located within and around the perimeter of the open pit.
4. East Sump - the natural depression located to the east of the ore storage and processing facilities. The East Sump will collect runoff from the area around the plant and camp facilities and function as a transfer point for pit water destined for pumping to the PKCA. This sump serves the principal functions planned for Pond C in previous documents.
5. Processed Kimberlite Containment Area (PKCA) -located at Long Lake incorporates the East Dam, South East Dam, Divider Dike, and West Dam structures.
6. Fresh Water Intake -includes a causeway, intake and pump station structure located at Carat Lake and a distribution pipeline.

At the start of operations runoff and seepage from Waste Dump Site 2 and disturbed ground above the pit will flow by surface drainage to the open pit. Pit water is pumped to the East Sump for use in construction and later to the PKCA.

Facilities listed below are staged contingency structures that would be constructed during operations if and as required to maintain adequate control of site water quantity and quality.

- Pond A - to collect runoff and potential seepage from Waste Dump Site 1.
- Pond B - to collect runoff and potential seepage from Waste Dump Site 2 that is not directed to the pit.
- Pond C – to collect runoff and potential seepage from the Ore and Coarse Rejects piles if required.
- North Dam structure on the PKCA.

Waste Dump Site 2 is the site being developed for overburden storage during the initial stages of waste rock production. Waste Dump Site 1 will be developed starting in Year 2. The staging of construction for both dump sites has been designed to direct any seepage and runoff to the open pit for the initial years of operation. Monitoring data collected for area sumps during this period will be used to evaluate when and if the contingency collection facilities will be constructed. Details of the Waste Dump plans including monitoring plans can be found in the *Waste Rock Management Plan (Part 1 Waste Rock and Overburden)* submitted in May 2005.

Figure 2 is an updated schematic representation of component areas and the routing of water during the operations phase. It is expected that some of the pit water and east sump water can be reclaimed to supplement the processing plant thereby reducing the need for fresh water make-up from Carat Lake.

Figure 3 is an updated schematic representation of component areas and the routing of water during the closure phase. After mining is completed all site area runoff will be directed into the open pit and the PKCA. Further discussion of closure considerations are presented in the referenced *AMEC Abandonment and Restoration Plan* (AMEC 2004).

2.2 Hydrologic Design Criteria

The hydrologic design criteria for each of the potential water management structures are described in Technical Memorandum W submitted with the water license application. In summary surface water management structures will be designed for a 200 year return event and the in-pit sumps for a 10 to 15 year return event.

2.3 Channels

2.3.1 C1 Diversion

The primary purpose of this diversion channel is to allow outflows from Lake C1 to circumvent the open pit mining operations and to divert clean natural runoff water away from the open pit. All other project facilities are located in the upper parts of the local catchments and are not expected to require diversion works. Detail design of the C1 Diversion can be found in the *C1-Diversion – Geotechnical Design* submitted to the Nunavut Water Board in August 2005.

2.3.2 C4 Area Water Management

Runoff diversion is not required until such time that waste rock placement extends into the catchment of Lake C4. As per the water license requirements a detail design report will be submitted for approval 60 days prior to construction. Conceptually the upstream toe of Waste Rock Dump or area access road(s) will be constructed to act as a barrier to divert clean runoff water away from the rock dump and towards Lake C4.

2.3.3 Collector Ditches and Site Grading

Component areas (plant site, dumps, stockpiles etc.) will be graded and will incorporate a series of ditches as required to direct local runoff towards the East Sump, the open Pit and the PKCA. Any ditches required will be designed for peak flows from a 200 year event. Excavated cut sections of ditch will be avoided as much as possible so as to minimize potential impacts on permafrost conditions. Erosion protection will be provided as required. Any suspended sediment generated by ditch operation will either be directed into the open pit or would be contained within the collection ponds if constructed.

2.4 Collection Ponds A, B, C

If deemed necessary for water management and treatment later into the operations stage, intra-area collection Ponds A, B and C will be constructed. The original planned locations and general arrangements of the Ponds are shown on Figure 1, preliminary design details are shown on Drawings 1CT004.06-W-4 and 1CT004.06-W-5 which were part of the Water License application. The purpose for each area pond is as follows:

- Pond A would collect runoff and potential seepage from Waste Dump Site 1;
- Pond B would collect runoff and potential seepage from Waste Dump Site 2, including the stockpiled overburden;
- Pond C would collect runoff from the ore stockpiles, coarse tailings area and plant site area should the east sump become filled in with stockpile material.

2.5 Pit Pond

Sumps will be constructed within the open pit to keep the working area of the pit dewatered and to allow pumping of runoff inflows from the pit to the East Sump for possible reclaim use or onward to the PKCA. The location and size of the pit sump(s) will vary as the pit is developed. During the construction period all the pit water was pumped to the East Sump for containment and construction use. The construction period is expected to be the highest water inflow period of the mine life as water and ice saturated tills covering the kimberlite are exposed. By the end of the first year of operations, these tills are expected to be substantially removed and placed in the overburden dump (Waste Dump Site 2). During the summer months of 2005, a total of 61,000 cubic meters of pit water was pumped from sumps located within the pit and downstream of Waste Dump Site 2. Table 2 summarizes the monthly volumes pumped from the pit sump to the East Sump.

Table 2 - Volume of Water Collected in Open Pit and Pumped to East Sump in 2005

Month	Approximate Volume of Water (m^3)
July	25,000
August	26,000
September	10,000
Total	61,000

2.6 East Sump

The East Sump is a natural surface depression located in the area of the plant site, fuel farm and ore stockpiles. During the construction phase it was determined that this natural topographic feature was well suited for the purposes of area drainage for the plant and ore stock pile areas, and as an interim storage and transfer point for the pit discharge water. During operations excess water from this sump is to be either pumped to the PKCA, or used for plant reclaim, or for construction, and road maintenance.

2.7 PKCA Facility

The preliminary design of the PKCA facility was included as "Technical Memorandum P" as part of the Water License Application. A detailed PKCA Management Plan will be submitted in accordance with the requirements of the Water License. Detail designs plans for PKCA dams and dikes, as well as the lake dewatering plan have already been submitted separately. These plans include *Divider Dike Detail Design Report,* June 2005; *Long Lake Dewatering Plan,* July 2005; *East and Southeast Dam Design Report,* August 2005; and the *West Dam Design Report,* September 2005.

Under operational conditions water may be reclaimed to the process plant from the downstream side of the divider dike. Reclaim operations may be possible year round if pond and ice conditions permit. Water not used for reclaim will be discharged to Lake C3 on a seasonal basis at a rate not to exceed the hydraulic capacity of Stream C3. It is estimated that a discharge of approximately 140,000 m^3 in year 2006 is required to maintain the preferred PKCA water storage and level. A preliminary estimate for subsequent years of operations is 240,000 m^3 per year. As a contingency the PKCA reservoir has sufficient storage capacity to hold a minimum of two year's runoff from all site facilities. Subject to meeting water quality criteria the PKCA Management Plan will schedule release of water from the PKCA to Stream C3 beginning the first summer of operations. Discharges of water to Stream C3 are scheduled during the open water season only. The dewatering pump will be removed and stored during the winter.

Section 3 of this report presents the overall water balance for the site for the year 2006. All water flows associated with the PKCA including estimated monthly release volumes of excess water from the impoundment to Stream C3 are discussed in Section 3.3.

At closure the dam and the pond level will be lowered to minimize or eliminate water storage volumes and to facilitate placement of cover materials over the deposited fine kimberlite tailings.

2.8 Fresh Water Intake

The causeway is located approximately 200 m west of the Stream C1 outlet. The causeway is constructed of clean coarse rock fill and extends approximately 90 m into Carat Lake. Details of the causeway and intake/pumping facilities can be found in the *Specification for the Fresh Water Intake Causeway,* April 2005. The intake is located in approximately 5 m depth of water to allow operation under the ice during the winter. The design flow will average 35-40 m^3 per hour to account for process water makeup and potable camp water use. Any use of reclaim water will reduce this requirement accordingly.

2.9 Carat Lake

Carat Lake is the prime source for the process plant make-up water. Every attempt possible to minimize the use of this source will be explored during the first year of operation. Use of reclaim water from the PKCA and the East Sump will be maximized as well as any opportunities to collect seasonal surface runoff waters.

The amount of process plant makeup water and other camp site uses for a typical month is 24,000 m^3 or 288,000m^3 per year. This amount equates to approximately 20% less than the 350,400 m^3 per year maximum allowable under the water license. The 24,000 m^3 per month quantity will be further reduced by any recycled water taken from the East Sump or the PKCA. The projected amount of water to be drawn from Carat Lake during 2006 will be further reduced due to less than 100% plant utilization.

If no water was released from the PKCA during 2006 and the full 288,000 m^3 of water is required for mining operations the net draw down from Carat Lake (based on a surface area of 2,742,674 m^2) will be 10.5cm.

2.10 Other Facilities

Small culverts may be required under local site roads at minor natural drainage crossings. The locations of any such crossings will be determined in the field and installations will be carried out in accordance with the appropriate Nunavut regulations and guidelines. Regular inspections of the culverts and maintenance will be carried out as required to ensure proper operation.

2.11 Closure Considerations

The conceptual site closure plan was presented in the *"Abandonment and Restoration Plan"* (AMEC 2004a) and will be updated in the Interim A&R Plan to be submitted. The following water management activities are expected to be undertaken after the completion of mining and processing activities as part of the A&R Plan:

- All significant flows from all the mine components will be directed into the open pit.
- Drainage from reclaimed areas around the process plant site and stockpile areas will be directed into the open pit or the PKCA drainage system.
- The C1 diversion will remain in place to provide bypass of water around the open pit. All or some of these flows could be directed into the pit if a faster rate of pit filling is desirable.
- Prior to the filling of the open pit an in-pit water quality assessment will be conducted to determine the desirable fill rate and if required alternative methods of treatment.
- After the pit has filled and water quality is determined to be acceptable for release, flows from the pit could be directed into the C1 stream channel or be directed into a separate open channel discharging along the East Shore of Carat Lake. The final configuration will be determined once sufficient monitoring data are available to refine the present pit water quality estimates.
- The PKCA will be reclaimed as described in the "*Abandonment and Restoration Plan"* (AMEC 2004a). The West Dam will be partially or totally removed to minimize or eliminate stored water within the pond and to facilitate the reclamation activities once the water quality of runoff from the reclaimed area has been determined to be acceptable for direct uncontrolled release. Runoff will flow over the (lowered) West dam and directly into Stream C3 draining into Lake C3.

3 Site Water Balance

3.1 General Description

A continuous simulation water quantity and quality model was developed by Clearwater Consultants for the Jericho Project site for the NIRB and water licence application processes. This analysis can be found in the Technical Memorandum W. The spreadsheet model used monthly time steps to simulate inflows and outflows from the various project components. These include: the open pit mine area; Waste Dump Sites 1 and 2; ore storage areas including the low grade stockpile, the central lobe stockpile, and the north lobe stockpile; the coarse tailings storage area; the processing plant, sewage treatment plant, accommodations complex and surrounding area; areas draining to potential collection ponds A, B and C; and the PKCA drainage area including the processed kimberlite slurry flow. Opportunities to increase the plant processing rate are under review and will be balanced with actual area runoff volumes to maintain the integrity of the storage capabilities of the PKCA and related release rates to Lake C3. The 2006 water balance for the mine site has been updated to reflect site conditions found during 2005 and included in this report as Table 3.

3.2 Estimated 2006 Water Balance

The water balance for 2006 is based on updated information from the 2005 construction season and on the premise that water storage requirements in the PKCA will be managed on a year to year basis to maintain a water cover. The estimate of the planned release volumes of excess water from the system during the open water summer months of 2006 is 140,000 m^3 with a monthly maximum release of 70,000 m^3. These planned releases are to balance inflows of precipitation, runoff, and processing inflows. Table 3 illustrates the estimated monthly water balance for the PKCA for 2006.

Long Lake (PKCA designate) water level was lowered to permit construction of the West Dam and to discharge a quantity of clean water to provide an operational contingency for the first year of plant operation. Approximately 120,000m^3 of water has been removed from Long Lake and discharged to Lake C3 via Stream C3 during the 2005 season.

Table 3 - Jericho Project - Monthly Water Balance Volumes for Year 2006

(all water volumes in cubic metres)

	Processed Kimberlite Containment Area (PKCA) Inflows & Outflows								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Month of Operations	Precip + Runoff - Evaporation	Slurry + Grey Water From Plant Area	Pumped From MIne Pit to East Sump	Total Inflow to PKCA =(1)+(2)+(3)	Reclaim to Process Plant	Tailings Void Losses =(2)*50%	PKCA Free Flow Water =(4)-(5)-(6)	Controlled Release to C3	Fresh Water From Carat Lake =(2)-(5)
January	0	24000		24000		12000	12000		24000
February	0	24000		24000		12000	12000		24000
March	0	24000		24000		12000	12000		24000
April	0	24000		24000		12000	12000		24000
May	3199	24000		27199		12000	15199		24000
June	56682	24000		80682	14400	12000	54282		9600
July	11470	24000	25000	60470	14400	12000	34070	70000	9600
August	15304	24000	26000	65304	14400	12000	38904	50000	9600
September	7685	24000	10000	41685	14400	12000	15285	20000	9600
October	0	24000		24000		12000	12000		24000
November	0	24000		24000		12000	12000		24000
December	0	24000		24000		12000	12000		24000
Totals	94340	288000	61000	443340	57600	144000	241740	140000	230400

Net Free Flow Water Added to PKCA =(7)-(8)= 101740

Notes:

1. The East Pit is the collection and transfer point for runoff water collected from the open pit and stockpile areas (see Figure 2). Volumes in column (3) are 2005 measured volumes (see Table 2).

2. Water lost to the tailings voids is based on 50% of Slurry & Grey Water.

3. Reclaim Water is calculated as 20% of the total plant process and area discharge. (Slurry and Grey Water column (2))

4. Net Free Flow Water Added to PKCA in 2006 will be left in the PKCA to offset the estimated 120,000 m3 of water discharged in 2005 to construct the West Dam Structure and provide for a contingency storage allowance. Runoff volumes will be assessed on a year to year basis and releases to C3 will be proportionally adjusted (subject to water quality) to maintain a consistant water cover in the PKCA.

3.3 Discussion

The Base Case site water balance presented in Technical Memorandum W of the water license application included a number of highly conservative assumptions regarding both water quantity and water quality during the operations phase. "Conservative" in this context implies assumptions that result in either higher volumes of runoff or in higher potential estimated contaminant concentrations. Actual conditions are, therefore, expected to be better than those presented herein. All water (runoff and seepage) from all site components was assumed to always be collected and directed to the PKCA for temporary storage until released from the system starting in the first year. Several of these components will not be constructed until further into the operational period.

- Calculations of runoff from the waste dump(s) do not allow for any 'wetting" of the waste rock, i.e. the abstraction of the water which adheres to waste rock particles. Wetting of the waste will reduce the volume of runoff, and hence the contaminant load generated by the waste dump(s). Experience at Ekati and Diavik indicates that freeze-back of permafrost into the placed waste rock will also reduce dump runoff as most of the infiltrating rainfall and snowmelt will become permanently frozen within the dump. The Base Case therefore is considered an overestimate of the flow volumes and contaminant loadings in the early years of operation.

- Total water and contaminant loading to the PKCA assumes collecting runoff from all of the area of Waste Dump Site 1 starting in the first year of operation. None of the Site 1 area will be used in the first year and only a part of the area will be used in the second year of operations.

- Reclaim to the process plant was assumed in the model for only June through September at a rate equal to about 7,500 m^3 per month. It is now planned that the reclaim rate could be increased to 14,400 m^3 per month. If reclaim is feasible in the freezing months and reclaim water quality is acceptable in the process, even less water would report to the PKCA per year. Likewise should the East sump be capable of being used for process water then accordingly the water reporting to the PKCA will be further reduced.

Contingency allowances included in the system include the conservative assumptions above, plus:

- The PKCA has more than ample storage to, if necessary due to water quality concerns, store all site area runoff (all component area runoff plus pit inflows plus PKCA area runoff) for a minimum of the first two years of operations without any releases.

- If settling out of processed kimberlite within the PKCA is less efficient than planned, an additional dike will be constructed providing a second internal filtering system.

- If a specific water quality parameter or parameters in the PKCA releases become an issue during operations, other appropriate treatment alternatives would be evaluated at that time. The available storage within the PKCA would allow water to be retained thereby providing time to evaluate potential parameter-specific treatment alternatives.

The conceptual site closure plan presented in AMEC 2004a report will be further developed in a future update of the Abandonment and Restoration Plan. Depending on actual water quality conditions at the time of closure, a number of water management concepts have been identified:

- Allow the open pit to fill only with direct precipitation plus local runoff supplemented by site component area runoff. This could take in excess of 20 years to fill the pit.

- Increase the rate of pit filling by directing some of the flow during the freshet period from Stream C1 into the open pit.

- Minimize the time required to fill the pit by directing some of Stream C1 into the pit as well as pumping/siphoning water in from Carat Lake. This could dramatically reduce the filling time.

- After filling, flows from the pit could be directed into the C1 stream channel or could be directed into a separate open channel discharging along the east shore of Carat Lake. The final configuration will be determined once sufficient monitoring data are available to refine the present pit water quality estimates.

4 Water Monitoring Requirements

Flows and water quality will be monitored at key locations and are described in detail in the Aquatic Effects Monitoring Plan (AEMP) submitted to the Water Board in March 2005 and Tahera's Water License NWB1JER0410. Detailed locations of the network are listed here:

- JER-WQ1 – Carat Lake – Freshwater Intake
- JER-WQ2 – PKCA Discharge
- JER-WQ3 – Stream C3 upstream of Lake C3
- JER-WQ4 – Lake C3 South Basin
- JER-WQ5 – Lake C3 Outlet
- JER-WQ6 – Carat Lake Centre Basin
- JER-WQ7 – Carat Lake Outlet
- JER-WQ8 – Jericho Lake North Basin
- JER-WQ9 – Jericho River Downstream of Jericho Lake
- JER-WQ10 – Control Lake
- JER-WQ11 – Cigar Lake
- JER-WQ12 –Stream C1 Upstream of Carat Lake
- JER-WQ13 – Lake C1
- JER-WQ14 – Lake C4
- JER-WQ15 – Stream C4 upstream of Carat Lake
- JER-WQ16 – Lynne Lake
- JER-WQ17 – Key Lake
- JER-WQ18 – Ash Lake
- JER-WQ19 – Stream C1 outlet in Carat Lake
- JER-WQ20 – Stream C3 outlet in C3
- JER-SW1 – Sewage Treatment Plant Effluent
- JER-SW2 – Open Pit
- JER-SW3 – Process Plant Supernatant
- JER-SW4 – Processed Kimberlite Containment Area Pond Water
- JER-SW5 – Temporary/permanent collection Ditches
- JER-SW6 – Collection Pond A
- JER-SW7 – Collection Pond B
- JER-SW8 – Collection Pond C
- JER-SW9 – Rock Dump 1 Seepage
- JER-SW10 – Rock Dump 2 Seepage
- JER-SW11 – Coarse PK Stockpile
- JER-SW12 – Ore Stockpile
- JER-SW13 – Low Grade Ore Stockpile
- JER-SW14 – Recovery Plant Rejects

5 Conclusions

This report presents the designs of the site water management facilities and a summary of the Jericho Project overall site water balance. Water management facilities are described. A water balance for the PKCA 2006 operating year provides estimates of monthly and annual inflows, outflows based on hydrological data, process inputs and operating assumptions. A water balance for subsequent years will be developed based on the experienced of the first year of operation.

In Summary:

- Water may be recycled from within the PKC and East Sump to minimize water use from Carat Lake;
- It is estimated that approximately 230,000 m^3 of water will be obtained from Carat Lake during 2006 for use in the process plant and for potable water. This volume is based on 12 months of process plant operations with a maximum monthly use of approximately 24,000 m^3 of water, less reclaim water drawn from the PKCA and/ or the East Sump during the summer months.
- If, 24,000 m^3 of water per month is obtained from Carat Lake and the unlikely scenario of the use of reclaim water not feasible, the maximum draw down on Carat Lake is estimated to be 10.5 cm per year with no releases from the PKCA and under draught weather conditions.

6 Limitations and Closure

This report has been prepared by Tahera Diamond Corporation and reviewed by AMEC for the exclusive use of Tahera Diamond Corporation and is assumed to be confidential in terms of the content herein. Any use which a third party makes of this report, or any reliance on or decisions made based on it, are the responsibilities of such third parties. AMEC accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report. Unless otherwise directed by Tahera Diamond Corporation AMEC's distribution will be only to designated Tahera Diamond Corporation personnel

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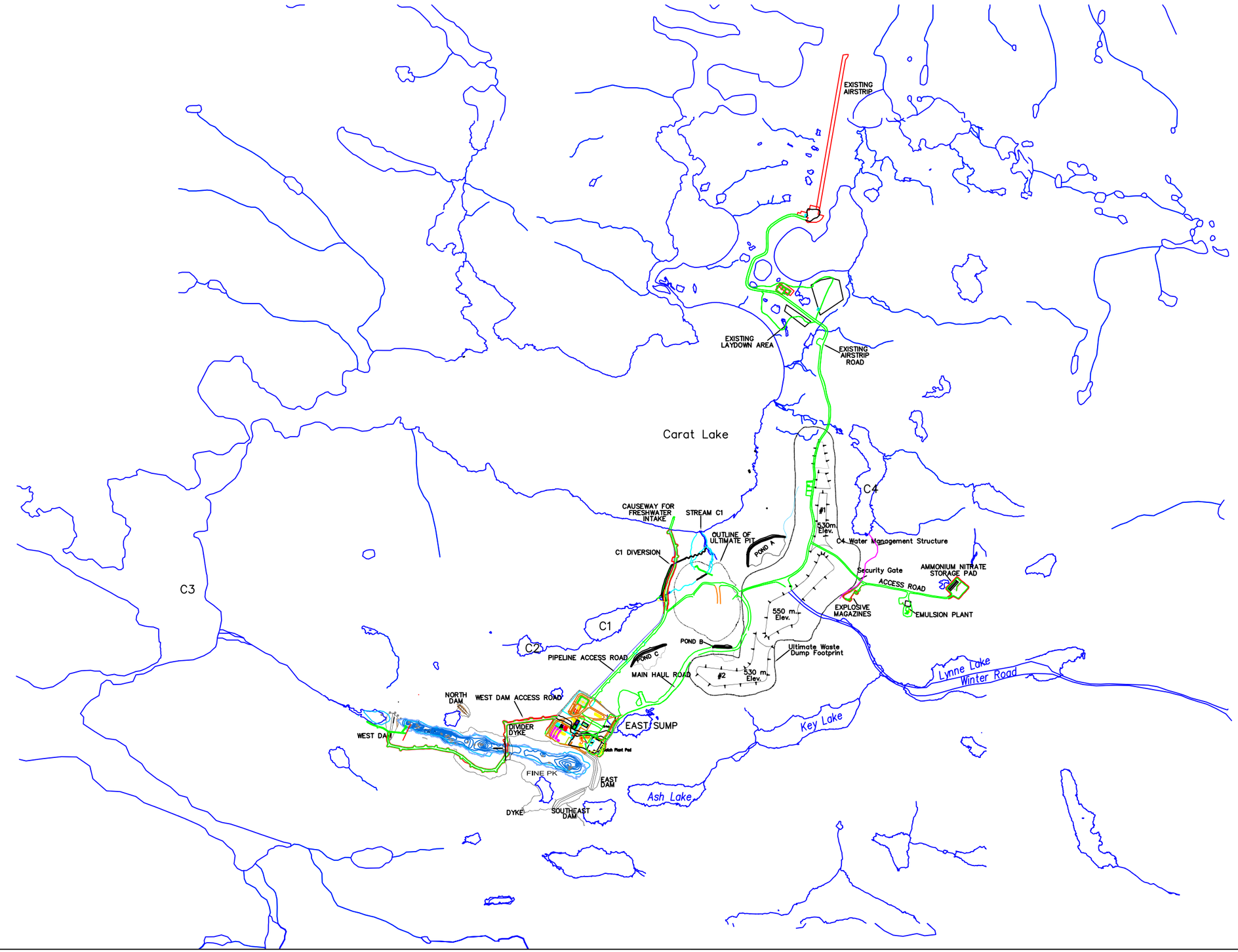
FIGURES



Notes:

Tahera Diamond Corporation

Dwn: AEB	S:\Environment\SITE MASTER WATER LICENSE.dwg	PIT:
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FIGURE 1
SITE PLAN

FIGURE 2 - WATER ROUTING - OPERATIONS PHASE

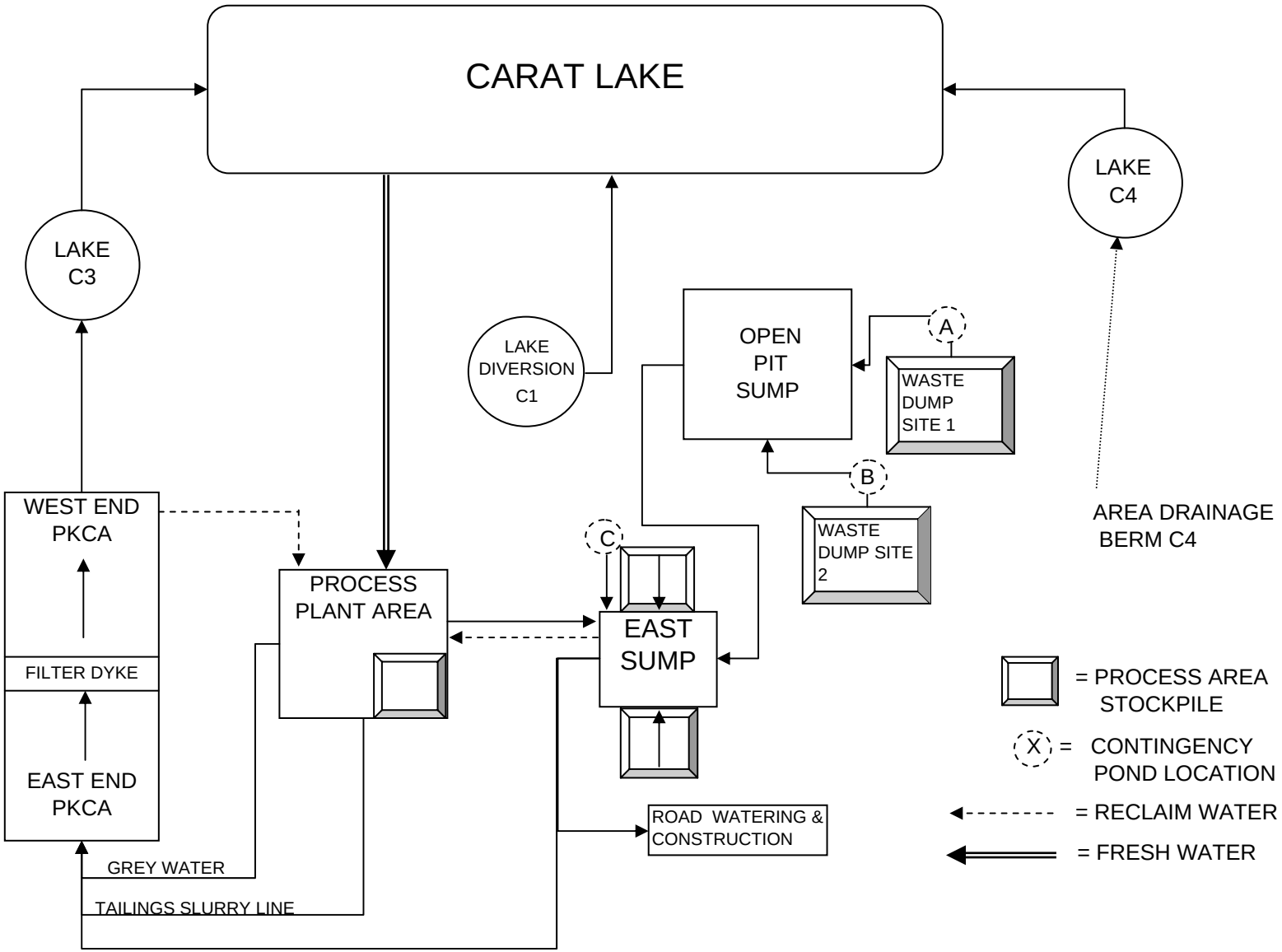
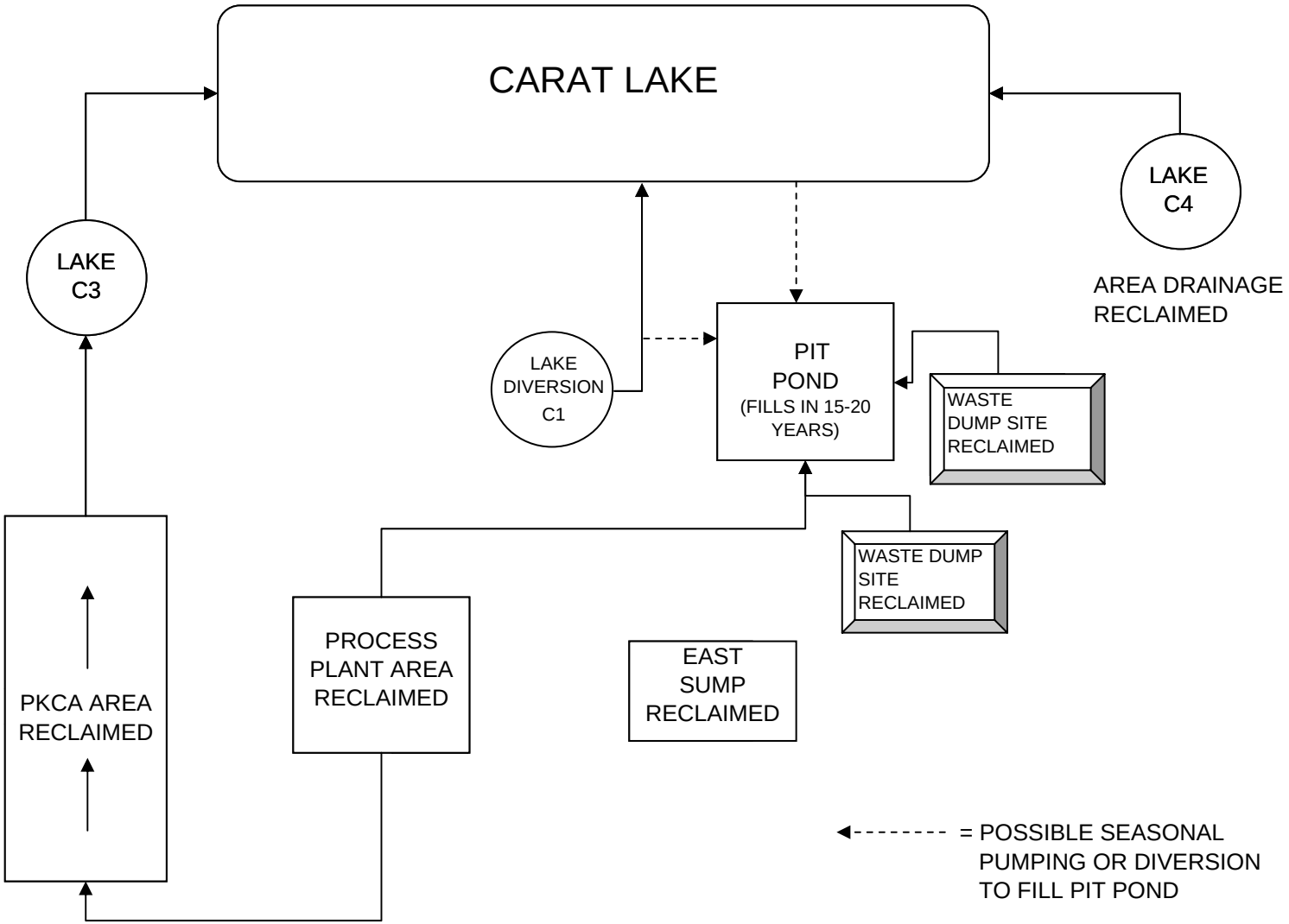
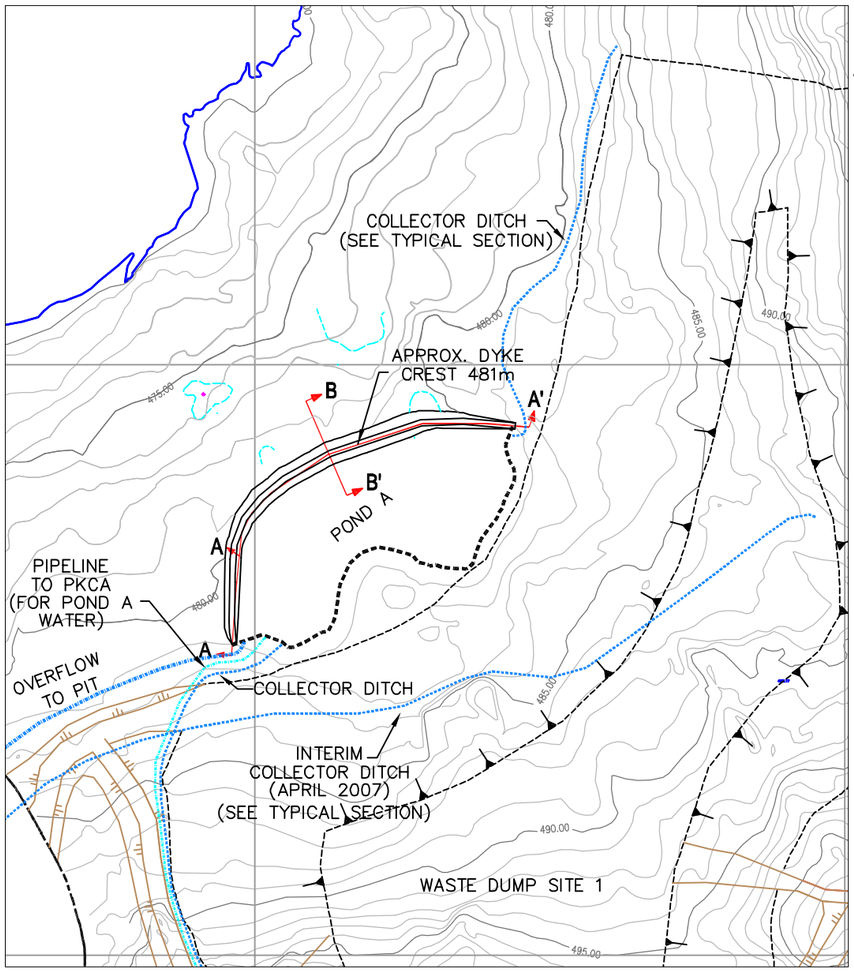


FIGURE 3 - WATER ROUTING - CLOSURE PHASE



DRAWINGS

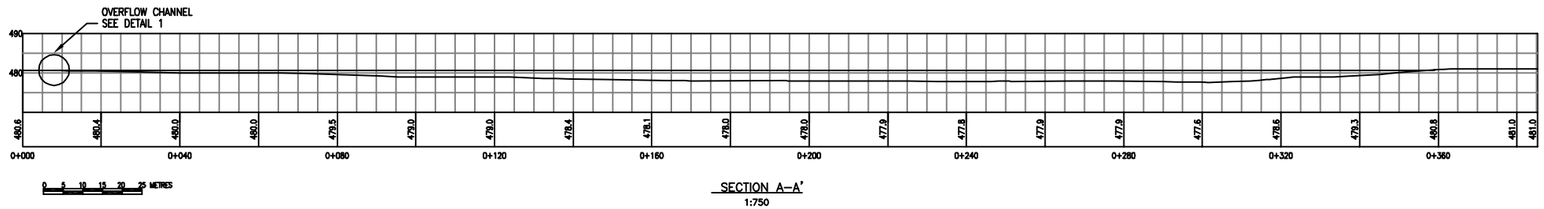


TAHERA CORPORATION
JERICHO LAKE SOUTHWEST EXTENSION

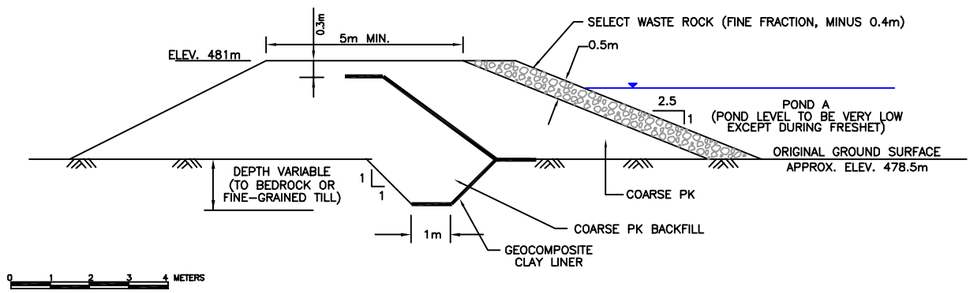
Date of Photography: August 5, 1995.
Scale of Photography: 1:10 000
Survey control supplied by: Canamera Geological Ltd.
Survey control based on: UTM Projection, NAD 27, Zone 12
Compiled by The ORTHOSHOP, Calgary, October 1995.
WO 7423

NOTE:

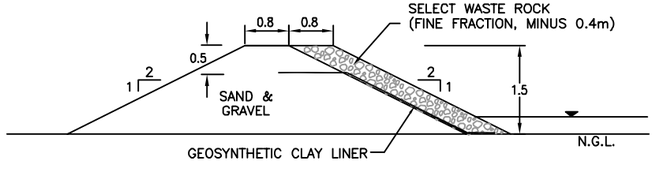
1. DRAWING SHOWS CONCEPTUAL SIZE AND LOCATION OF POND A IF REQUIRED, POND A WILL BE CONSTRUCTED BEFORE APRIL 2008.
2. DITCH ALIGNMENT AND SECTION TO BE FIELD FIT CONSISTENT WITH LOCAL GROUND CONDITIONS.



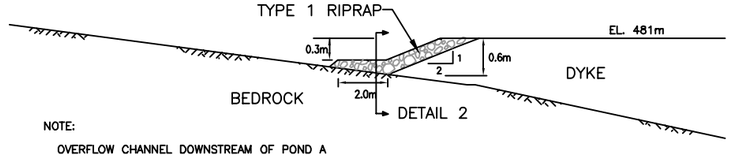
SECTION A–A'
1:750



SECTION B–B' (TYPICAL DYKE SECTION)
1:75



COLLECTOR AND INTERIM COLLECTOR DITCHES – TYPICAL SECTION
NTS



NOTE:
OVERFLOW CHANNEL DOWNSTREAM OF POND A WILL BE CONTROLLED BY A BERM ON BEDROCK SIMILAR TO THE TYPICAL COLLECTOR DITCH SECTION AND/OR A DITCH EXCAVATED IN THE NATURAL SOIL (DETAIL 2 ON DWG.1CT004.06–W5

DETAIL 1 OVERFLOW CHANNEL AT DYKE
N.T.S.

REFERENCE DRAWINGS		REVISIONS					ISSUE AUTHORIZATION			
DRAWING NO.	DRAWING TITLE	NO.	DESCRIPTION	CHK'D	APP'D	DATE	REV.	ISSUE PURPOSE	AUTH. BY	DATE
DRAWING W-6	PRELIMINARY LAYOUT OF CAUSEWAY SECTIONS AND DETAILS									
DRAWING W-5	PRELIMINARY LAYOUT OF PONDS B AND C CROSS SECTIONS AND DETAILS									
DRAWING W-3	C1 DIVERSION DETAILS									
DRAWING W-2	C1 DIVERSION PLAN AND CROSS SECTIONS									
DRAWING W-1	LAYOUT OF WATER MANAGEMENT FACILITIES						A	WATER LICENSE APPLICATION	CSS	JULY 2004

WATER LICENSE APPLICATION

SRK Consulting

DESIGNED BY: DL	DRAWN BY: JM
DATE: JULY 2004	DATE: JULY 2004
CHECKED BY: CCS	DISCIP. ENGR.
DATE: JULY 2004	DATE:
PROJ. MGR:	PROJ. ENGR.
DATE	DATE

SRK PROJECT NUMBER: 1CT004.06

Tahera Diamond Corporation

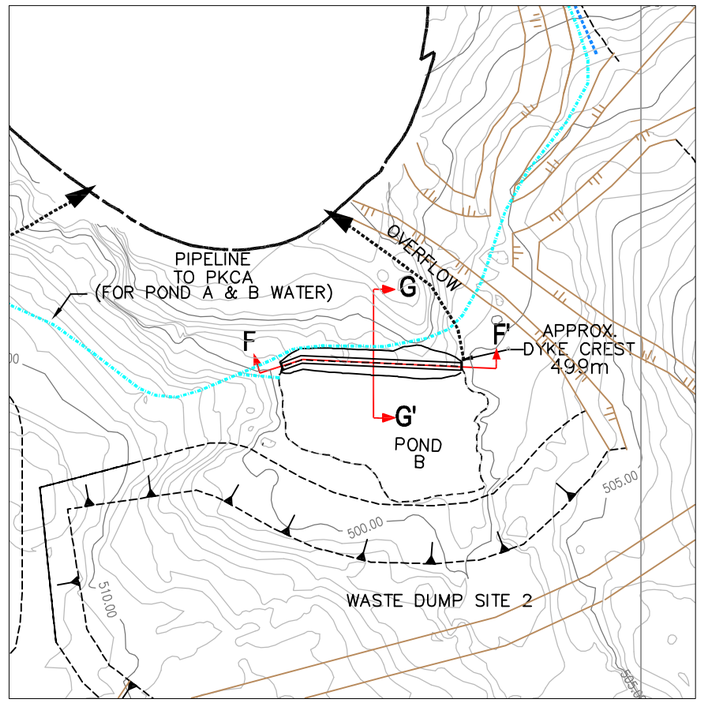
JERICHO PROJECT

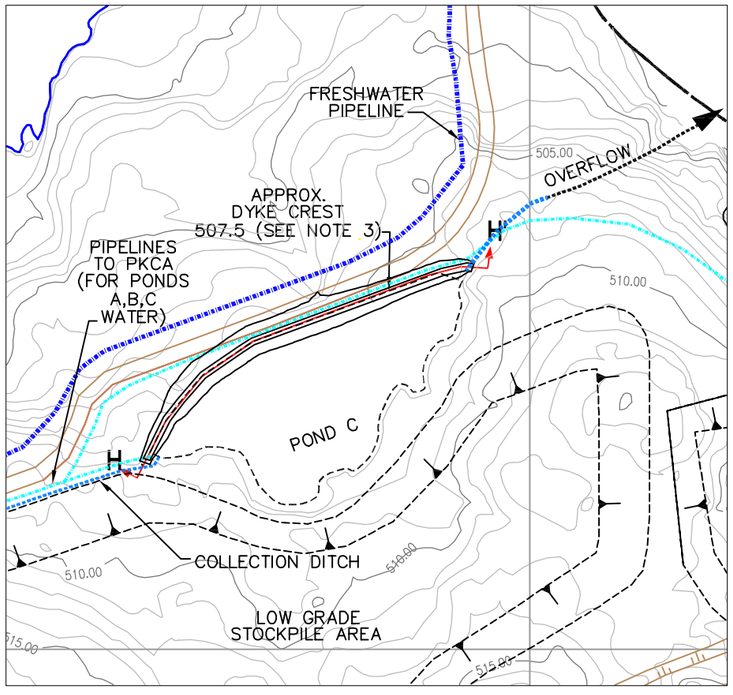
PRELIMINARY LAYOUT OF POND A CROSS SECTIONS & DETAILS

DRAWING NUMBER: 1CT004.06 – W4

REV.: A

FILE NAME: P:\Tahera Corp (Lytton minerals)\Mapping and Drawings-2004 dwgs\general-figures(2004)\F18-2

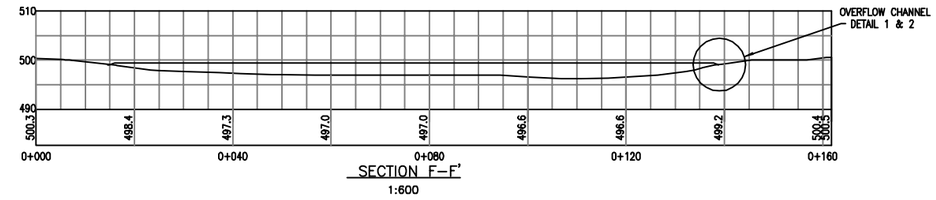




TAHERA CORPORATION
JERICHO LAKE SOUTHWEST EXTENSION

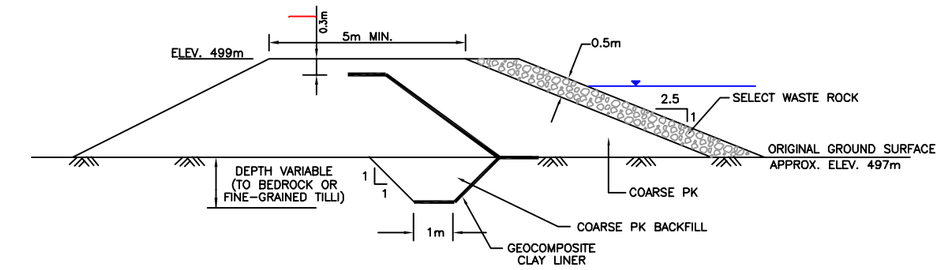
Date of Photography: August 8, 1995.
Scale of Photography: 1:10 000
Survey control supplied by: Canamera Geological Ltd.
Survey control based on: UTM Projection, NAD 27, Zone 12
Compiled by The ORTHOSHOP, Calgary, October 1995.
WO 7423

0 25 50 75 100 125 METRES
1:2000



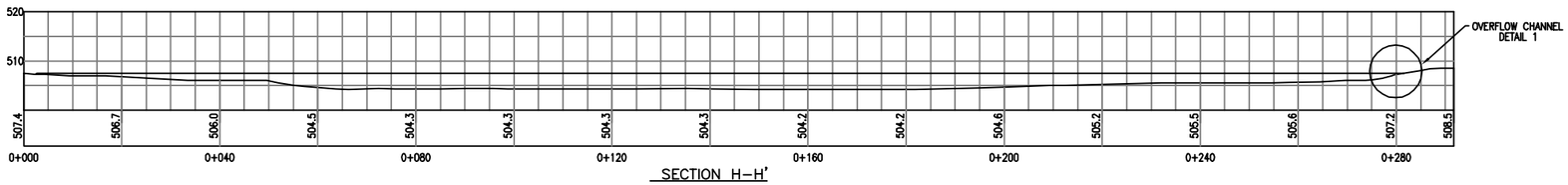
SECTION F–F'
1:600

0 5 10 15 20 25 METERS

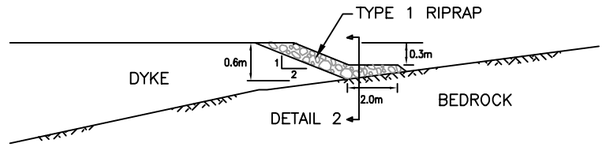


0 1 2 3 4 METERS

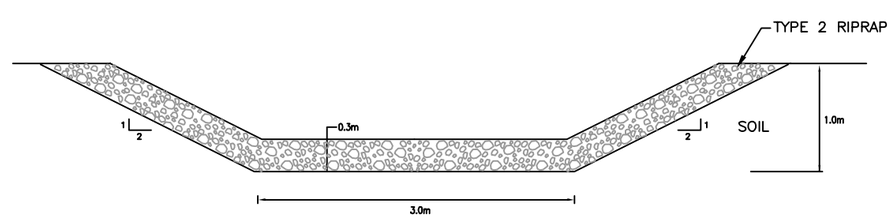
SECTION G–G' (TYPICAL DYKE SECTION)
1:100



SECTION H–H'
1:600



DETAIL 1 (TYPICAL OVERFLOW CHANNEL)
N.T.S.



DETAIL 2 OVERFLOW CHANNEL WHERE SOIL IS >1m THICK
N.T.S.

NOTES:

1. DRAWING SHOWS CONCEPTUAL SIZES AND LOCATIONS.
2. PONDS B & C ARE NOT REQUIRED UNTIL APRIL 2007, FINAL DECISIONS TO BE CONFIRMED IN 2006
3. OVERFLOW CHANNEL DOWNSTREAM OF PONDS B & C WILL BE CONTROLLED BY A BERM ON BEDROCK SIMILAR TO TYPICAL COLLECTOR DITCH SECTION (SEE DWG.1CT004.06–W4) THIS BERM WILL EXTEND ONLY AS FAR AS IS NECCESSARY TO DIRECT OVERFLOW TO NATURAL DRAINAGE PATHS THAT LEAD TO THE OPEN PIT.

DRAWING NO.	DRAWING TITLE
DRAWING W–6	PRELIMINARY LAYOUT OF CAUSEWAY SECTIONS AND DETAILS
DRAWING W–4	PRELIMINARY LAYOUT OF POND A CROSS SECTIONS AND DETAILS
DRAWING W–2	C1 DIVERSION DETAILS
DRAWING W–2	C1 DIVERSION PLAN AND CROSS SECTIONS
DRAWING W–1	LAYOUT OF WATER MANAGEMENT FACILITIES

REFERENCE DRAWINGS

NO.	DESCRIPTION	CHK'D	APP'D	DATE

REVISIONS

REV.	ISSUE PURPOSE	AUTH. BY	DATE
A	WATER LICENSE APPLICATION	CSS	JULY 2004

ISSUE AUTHORIZATION

WATER LICENSE APPLICATION

SRK Consulting

DESIGNED BY: DL	DRAWN BY: JM
DATE: JULY 2004	DATE: JULY 2004
CHECKED BY: CCS	DISCIP. ENGR.
DATE: JULY 2004	DATE:
PROJ. MGR:	PROJ. ENGR.
DATE	DATE

SRK PROJECT NUMBER: 1CT004.06

Tahera Diamond Corporation

JERICHO PROJECT

PRELIMINARY LAYOUT OF PONDS B AND C CROSS SECTIONS & DETAILS

DRAWING NUMBER: 1CT004.06 – W5

REV.: A

FILE NAME: F:\Tahera Corp (Jillian minerals)\Mapping and Drawings–2004 dwgs\general–figures(2004)\F38–2