Sherwood Park, August 24, 2004

CONFIDENTIAL

Mr. John Stard
MIRAMAR CON MINE
Box 2000
Yellowknife, NWT X1A 2M1

SUBJECT: DESIGN OF SECONDARY CONTAINMENT FOR ABOVEGROUND STORAGE TANKS – BOSTON CAMP, WINDY LAKE CAMP, AND GOOSE LAKE CAMP, NUNAVUT (O/REF.: MM4206)

Dear Mr. Stard:

Biogenie S.R.D.C. Inc. (hereinafter called "Biogenie") is pleased to provide Miramar Mining Corporation (hereinafter called "Miramar") with secondary containment design for aboveground storage tanks (ASTs) at Boston Camp, Windy Lake Camp, and Goose Lake Camp, Nunavut.

Kitnuna Corporation (hereinafter called "Kitnuna") will be the construction contractor for the projects at the three sites. Miramar will be responsible for the health and safety of workers for the duration of the project. A Biogenie representative will be present at all times during construction to monitor progress and verify final secondary containment dimensions.

This letter provides a summary of applicable regulations, the proposed location and design of the secondary containment at Boston Camp, Windy Lake Camp, and Goose Lake Camp, Nunavut.

REGULATORY REQUIREMENTS FOR PETROLEUM STORAGE TANKS

As no guidelines currently exist for storage requirements in Nunavut, Alberta Energy and Utilities Board (EUB) *Guide 55 – Storage Requirements for the Upstream Petroleum Industry* (December 2001) was used for reference purposes.

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A summary of applicable Guide 55 secondary containment measures for ASTs with an internal volume of 5 m^3 or greater is as follows:

- The area around a single walled AST must have a secondary containment system designed to contain leakage and prevent it from impacting the surrounding environment.
- Secondary containment must consist of an impervious liner and a dike.
- The area within the secondary containment system must be graded to a sump or low-lying area (within the diked area) to allow for the collection of rainwater, snowmelt water, and any possible leakage from the tanks.
- The dike must be constructed of soil, steel, concrete, solid masonry, or synthetic material and designed to contain liquids within the diked area.
- The dike must be sized to have a volumetric capacity of not less than 110% of the capacity of the tank when the diked area contains one tank.
- When several tanks are within the diked area, the size must be the capacity of the largest tank, plus 10% of the largest tank or 10% of the aggregate capacity of all other tanks located in the diked area.
- The dike must have no openings in it and be maintained in good condition.

Secondary containment for the ASTs at each site was designed based upon the above conditions.

TANK FARM LOCATIONS

BOSTON CAMP

A site visit was conducted on August 18, 2004, to determine a suitable location of the proposed tank farm and, based upon data acquired during the site visit, the tank farm shall be constructed directly north of the maintenance building as illustrated on Figure 1.

Currently 1 - 35,000-litre tank is located on site with 2 additional 70,000-litre tanks scheduled for installation in winter 2004/2005. The 3 tanks will be placed within the secondary containment following its construction. The total volume of fuel to be stored within the ASTs will be 175,000 litres. Based upon G-55 regulations, the required containment volume of the dikes is 80,500 litres.

The length and height of the containment dikes to be constructed is shown in Figure 2. The dikes will be constructed from waste rock piles (identified to Kitnuna by Miramar)

to a minimum height of 0.7 m. The tank farm will be constructed upon an existing rock pad and lined with 30 mil Enviroliner® supplied and recommended by Layfield Plastics (Layfield) of Edmonton, Alberta. The pad will be graded slightly towards one corner (to be determined at time of construction) to allow for the collection of rainwater, snowmelt, and any possible leakage. Once the liner has been placed, a 0.3-m-thick layer of backfill (waste rock) will be placed over the liner to protect it from damage and degradation.

As waste rock will be used for dike and backfill material, a layer of 60-mil high density polyethylene (HDPE) will be used directly above and below the Enviroliner® for protection purposes. Welding of the HDPE material is not required as it is for protection and not containment purposes.

The total volume of the secondary containment at Boston Camp will be 147,600 litres.

WINDY LAKE CAMP

A site visit was conducted on August 17, 2004, to determine a suitable location of the proposed tank farm and, based upon data acquired during the site visit, the tank farm shall be constructed in the location of the current ASTs as illustrated in Figure 3.

Currently 1 - 50,000-litre tank and 2 – 70,000 litre tanks are located on site with 2 additional 70,000-litre tanks scheduled for installation in winter 2004/2005. The 5 tanks will be placed within the secondary containment following its construction. The total volume of fuel to be stored within the ASTs will be 330,000 litres. Based upon G-55 regulations, the required containment volume of the dikes is 96,000 litres.

The length and height of the containment dikes to be constructed is shown in Figure 4. The dikes will be constructed, to a minimum height of 0.7 m, from native sand by excavating the footprint of the tank farm for the required material. Once the dike heights have been achieved, the area within will be lined with 30 mil Enviroliner®. The pad will be graded slightly towards one corner (to be determined at time of construction) to allow for the collection of rainwater, snowmelt, and any possible leakage. Once the liner has been placed, a 0.3-m-thick layer of backfill (sand) will be placed over the liner to protect it from damage and degradation.

The total volume of the secondary containment at Windy Lake Camp will be 220,000 litres.

GOOSE LAKE CAMP

A site visit was conducted on August 16, 2004, to determine a suitable location of the proposed tank farm and, based upon data acquired during the site visit, the tank farm will be constructed south of the camp as illustrated in Figure 5.

Miramar plans to install 5 – 70,000-litre tanks on site during winter 2004/2005. The 5 tanks will be placed within the secondary containment. The total volume of fuel to be stored within the ASTs will be 350,000 litres. Based upon G-55 regulations, the required containment volume of the dikes is 98,000 litres.

The length and height of the containment dikes to be constructed is shown in Figure 6. The dikes will be constructed, to a minimum height of 0.7 m, from native sand by excavating the footprint of the tank farm for the required material. Once the dike heights have been achieved, the area within will be lined with 30 mil Enviroliner®. The pad will be graded slightly towards one corner (to be determined at time of construction) to allow for the collection of rainwater, snowmelt, and any possible leakage. Once the liner has been placed, a 0.3-m-thick layer of backfill (sand) will be placed over the liner to protect it from damage and degradation.

The total volume of the secondary containment at Goose Lake Camp will be 220,000 litres.

We trust the above meets with your expectations. Should you have any questions or require additional information, please do not hesitate to contact us.

Regards,

Prepared by:

Steve Taylor, B.Sc., Geol.I.T.
Project Manager

Verified and approved by:

Marie-Claude Drouin, P.Eng., M.Sc.A.
General Manager, Alberta

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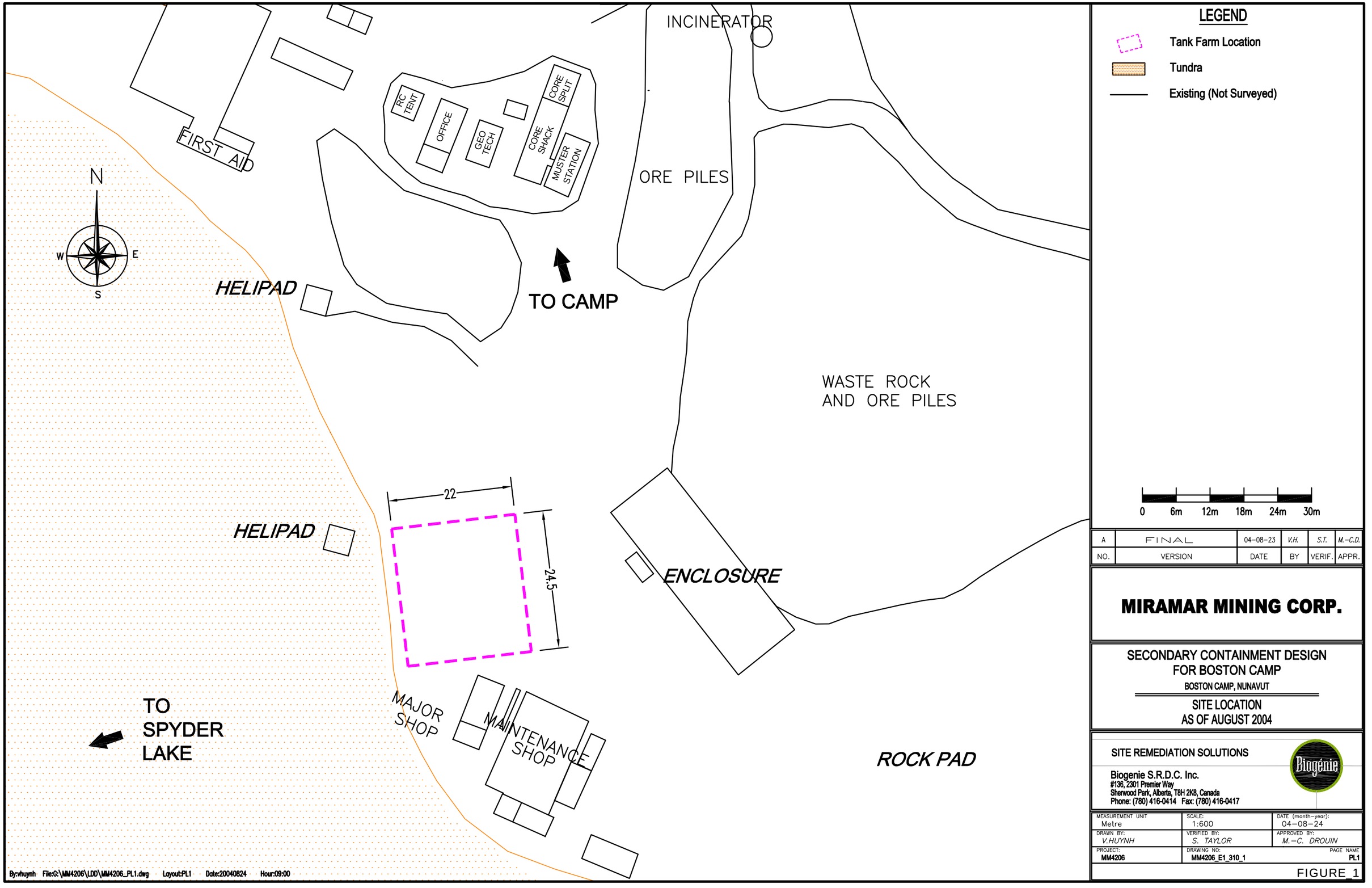

NO.	VERSION	DATE	BY	VERIF.	APPR.
A	FINAL	04-08-23	V.H.	S.T.	M.-C.D.

MIRAMAR MINING CORP.

SECONDARY CONTAINMENT DESIGN FOR BOSTON CAMP

BOSTON CAMP, NUNAVUT

SITE LOCATION
AS OF AUGUST 2004

SITE REMEDIATION SOLUTIONS

Biogenie S.R.D.C. Inc.
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Sherwood Park, Alberta, T8H 2K8, Canada
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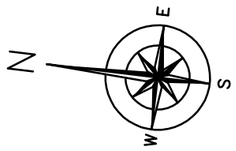
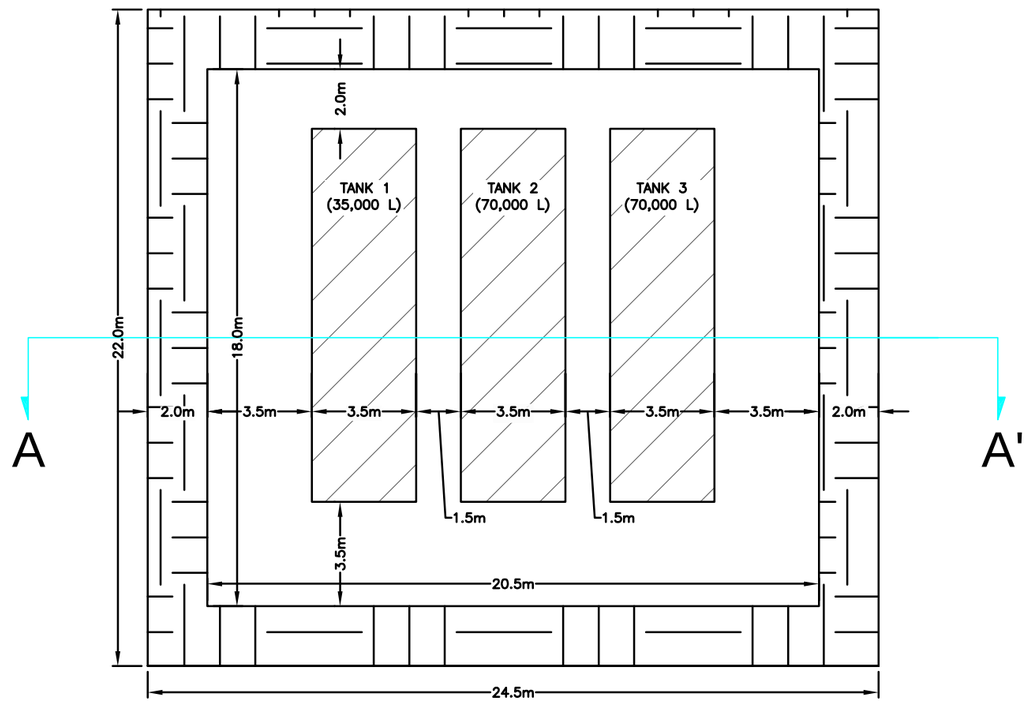
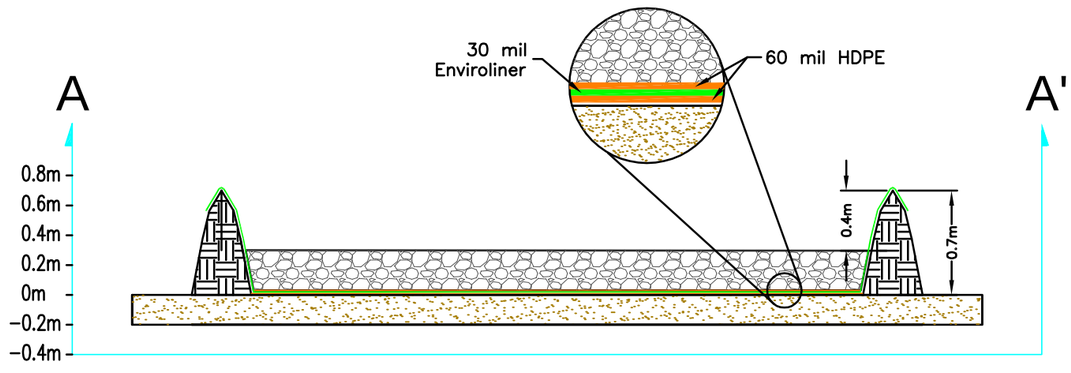
MEASUREMENT UNIT	SCALE:	DATE (month-year):
Metre	1:600	04-08-24
DRAWN BY: V.HUYNH	VERIFIED BY: S. TAYLOR	APPROVED BY: M.-C. DROUIN
PROJECT: MM4206	DRAWING NO: MM4206_E1_310_1	PAGE NAME: PL1

FIGURE 1

By:vhuynh File:G:\MM4206\LDD\MM4206_PL1.dwg Layout:PL1 Date:20040824 Hour:09:00







CROSS-SECTION A-A'
Vertical Exaggeration : 5X

LEGEND

- A/G Tank
- Berm
- Crushed Rock
- Waste Rock Pad
- 30 mil Enviroliner
- 60 mil HDPE
- Cross-Section

0 2m 4m 6m 8m 10m

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SECONDARY CONTAINMENT DESIGN
FOR BOSTON CAMP
BOSTON CAMP, NUNAVUT

SITE REMEDIATION SOLUTIONS

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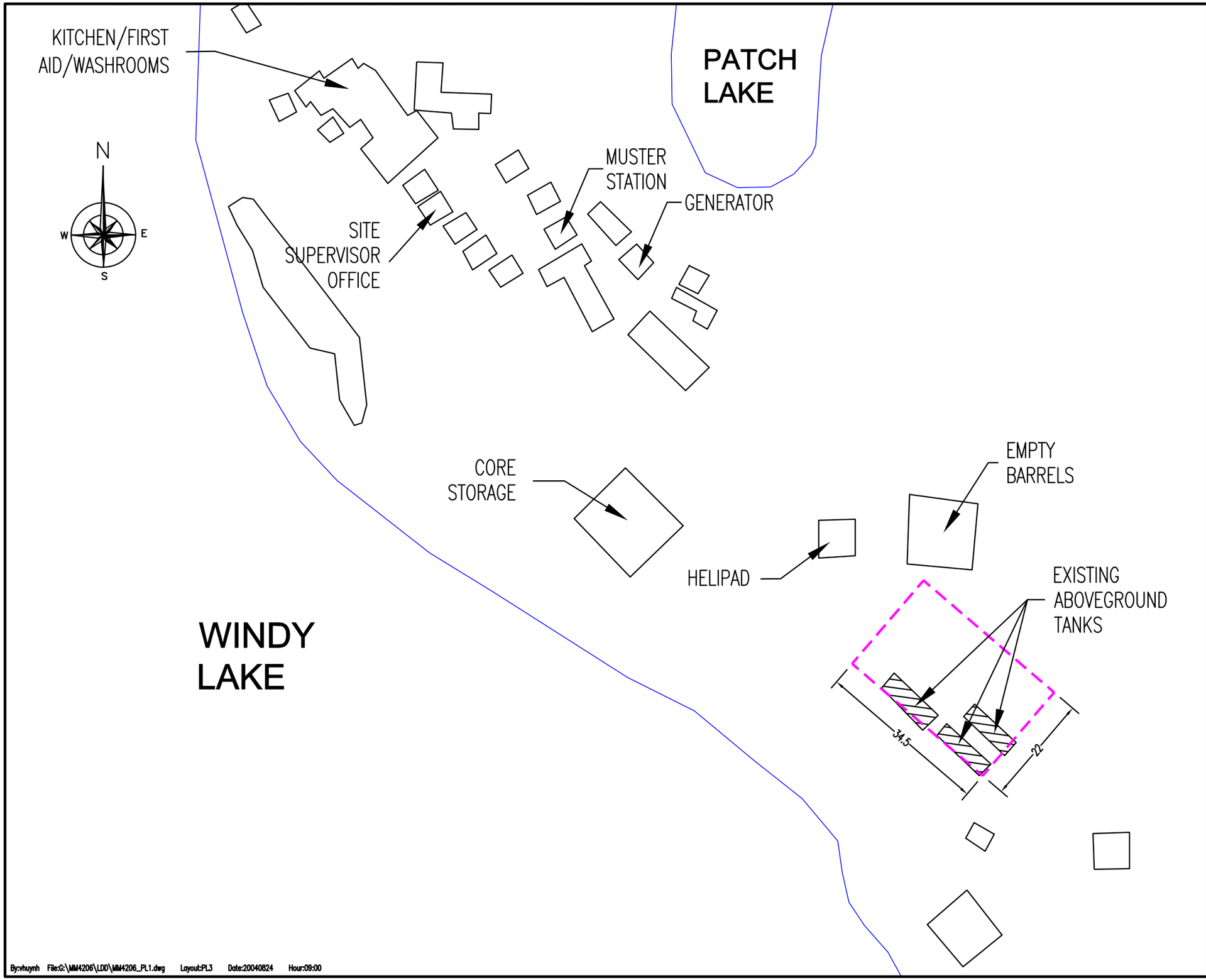
FIGURE_2

By:vhuynh File:G:\MM4206\LDD\MM4206_PL1.dwg Layout:PL2 Date:20040824 Hour:09:00



LEGEND

- Tank Farm Location
- Existing (Not Surveyed)

0 7.5m 15m 22.5m 30m 37.5m

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MIRAMAR MINING CORP.

SECONDARY CONTAINMENT DESIGN FOR WINDY LAKE CAMP

WINDY LAKE CAMP, NUNAVUT

SITE LOCATION AS OF AUGUST 2004

SITE REMEDIATION SOLUTIONS

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MEASUREMENT UNIT	SCALE:	DATE (month-year):
Metre	1:750	04-08-24
DRAWN BY: V.HUYNH	VERIFIED BY: S. TAYLOR	APPROVED BY: M.-C. DROUIN
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FIGURE 3

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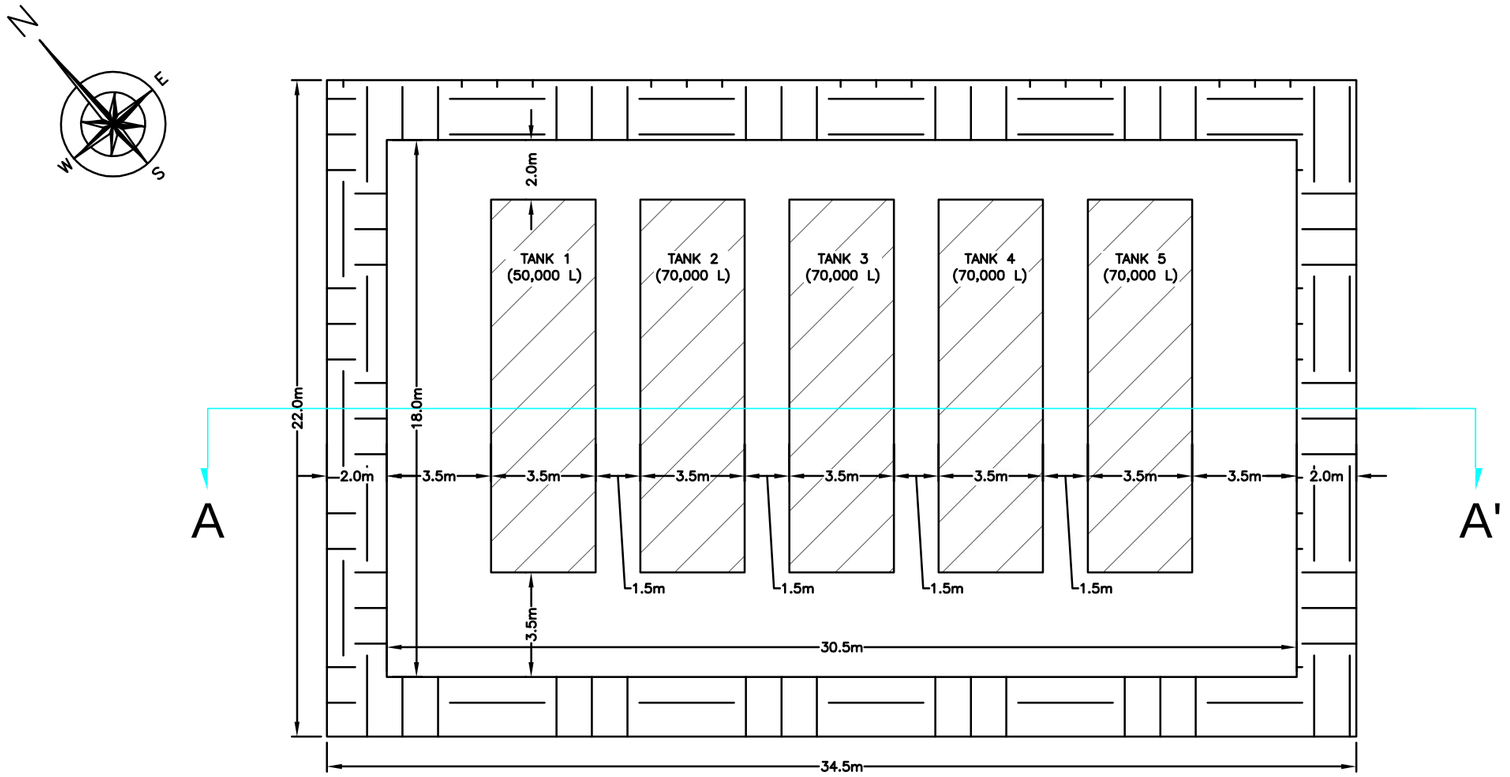

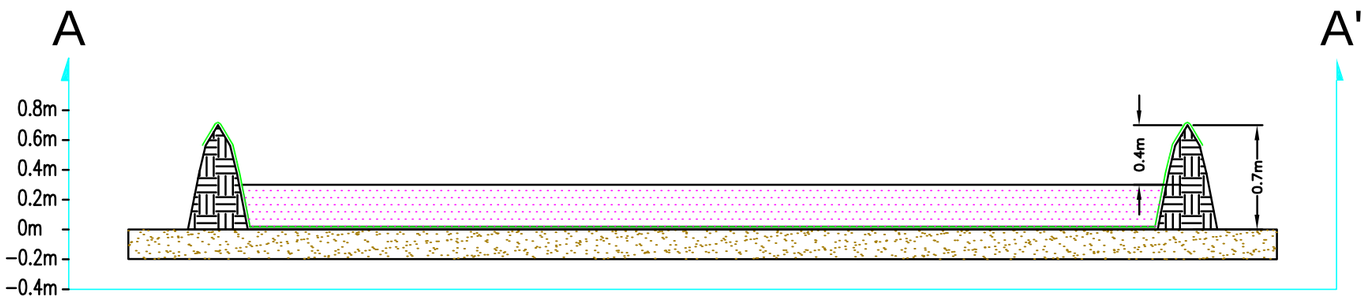

CROSS-SECTION A-A'
Vertical Exaggeration : 5X

LEGEND

- A/G Tank
- Berm
- Sand Backfill
- Native Sand
- 30 mil Enviroliner
- Cross-Section

0 2m 4m 6m 8m 10m

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MIRAMAR MINING CORP.

SECONDARY CONTAINMENT DESIGN
FOR WINDY LAKE CAMP
WINDY LAKE CAMP, NUNAVUT

SITE REMEDIATION SOLUTIONS
Biogenie S.R.D.C. Inc.
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FIGURE_4

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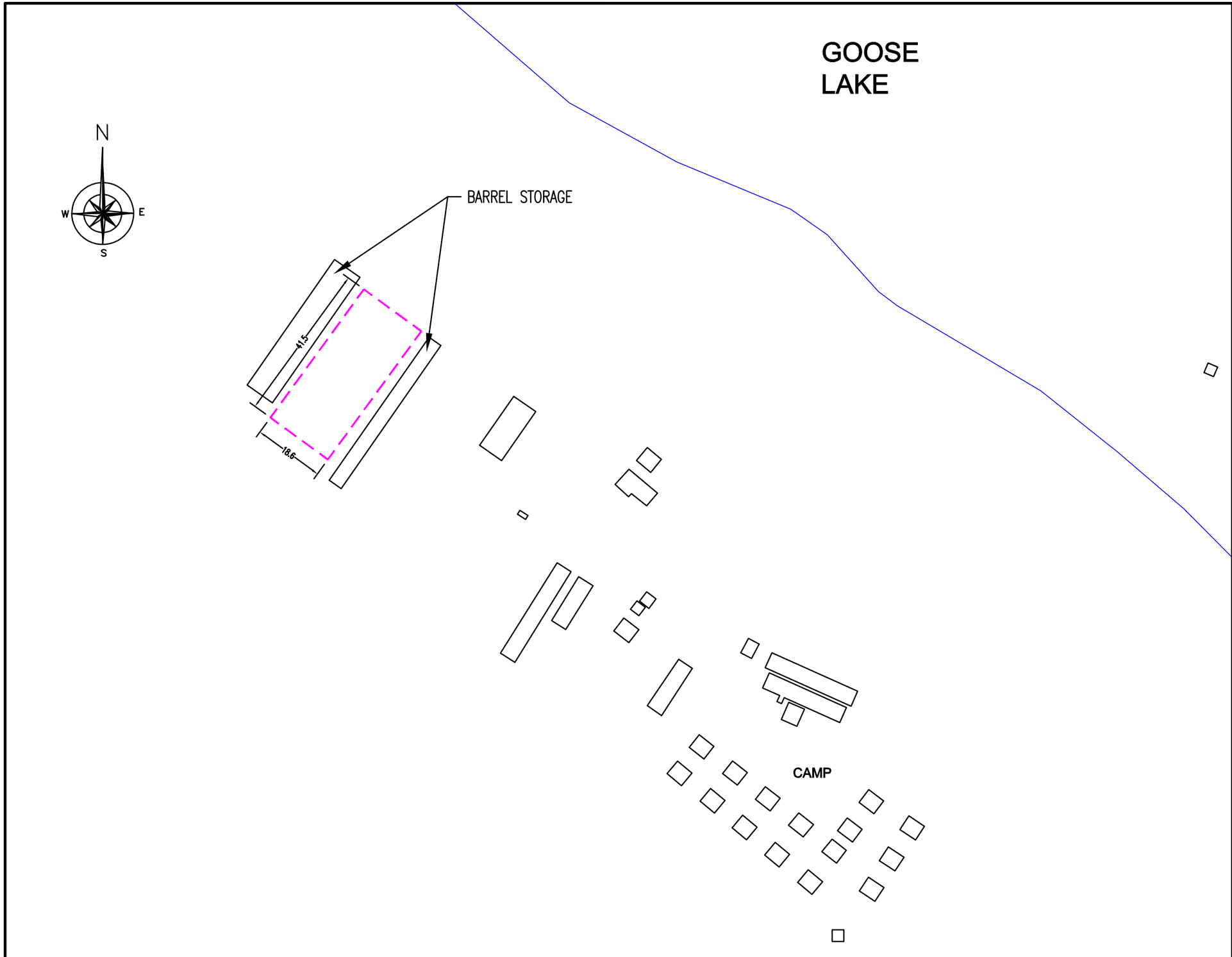

LEGEND

Tank Farm Location

Existing (Not Surveyed)

0 10m 20m 30m 40m 50m

NO.	VERSION	DATE	BY	VERIF.	APPR.
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MIRAMAR MINING CORP.

SECONDARY CONTAINMENT DESIGN FOR GOOSE LAKE CAMP

GOOSE LAKE CAMP, NUNAVUT

SITE LOCATION
AS OF AUGUST 2004

SITE REMEDIATION SOLUTIONS

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FIGURE 5

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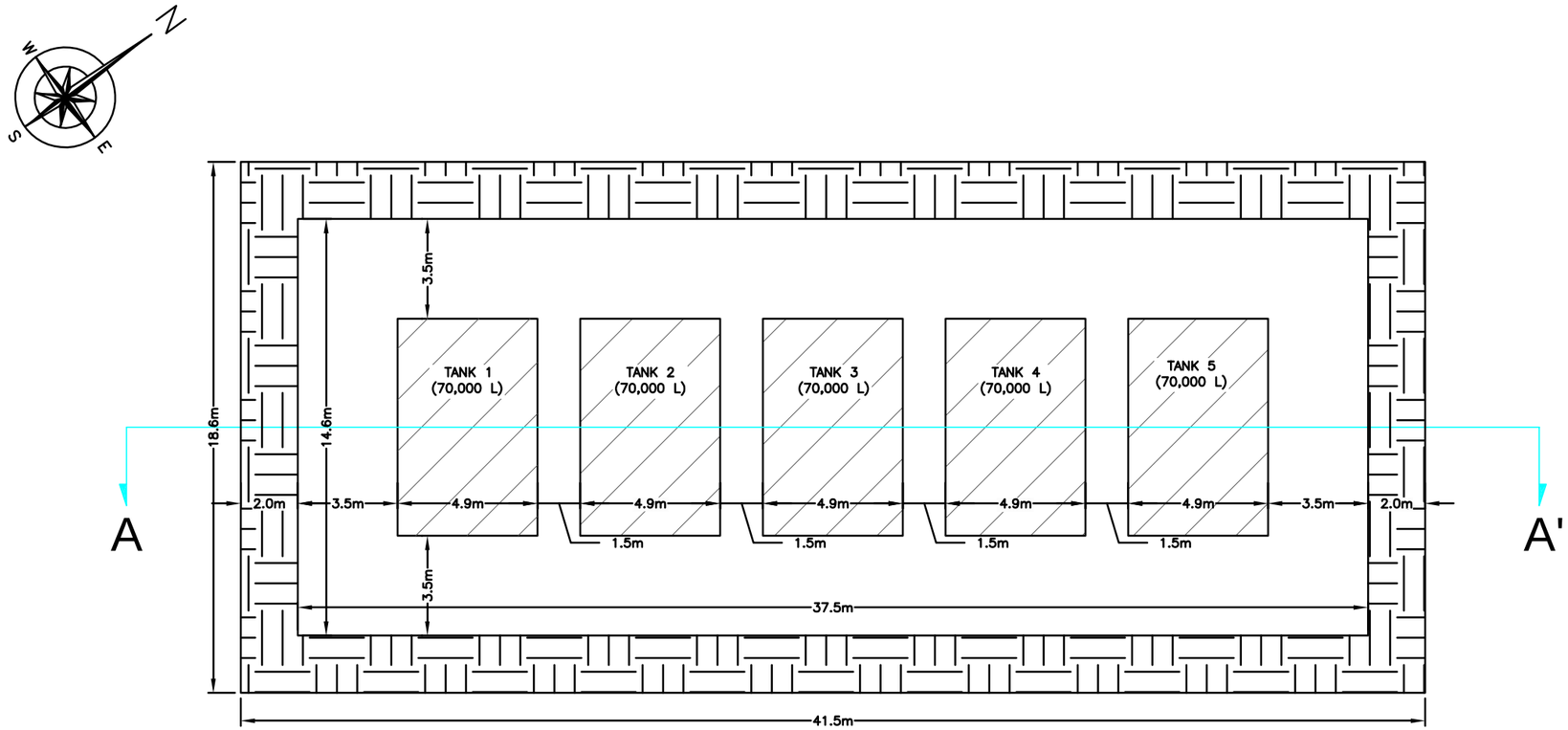

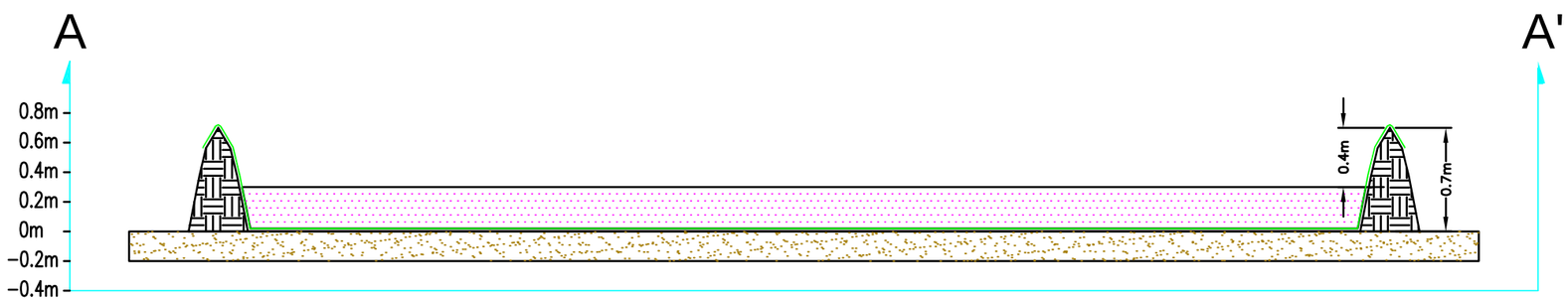

CROSS-SECTION A-A'
Vertical Exaggeration : 5X

LEGEND

- A/G Tank
- Berm
- Sand Backfill
- Native Sand
- 30 mil Enviroliner
- Cross-Section

0 2m 4m 6m 8m 10m

NO.	VERSION	DATE	BY	VERIF.	APPR.
A	FINAL	04-08-23	V.H.	S.T.	M.-C.D.

MIRAMAR MINING CORP.

SECONDARY CONTAINMENT DESIGN
FOR GOOSE LAKE CAMP
GOOSE LAKE CAMP, NUNAVUT

SITE REMEDIATION SOLUTIONS
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PROJECT: MM4206	DRAWING NO: MM4206_E1_310_1	PAGE NAME: PL6

FIGURE_6

By:vhuynh File:G:\MM4206\LDD\MM4206_PL1.dwg Layout:PL6 Date:20040824 Hour:09:00