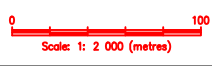
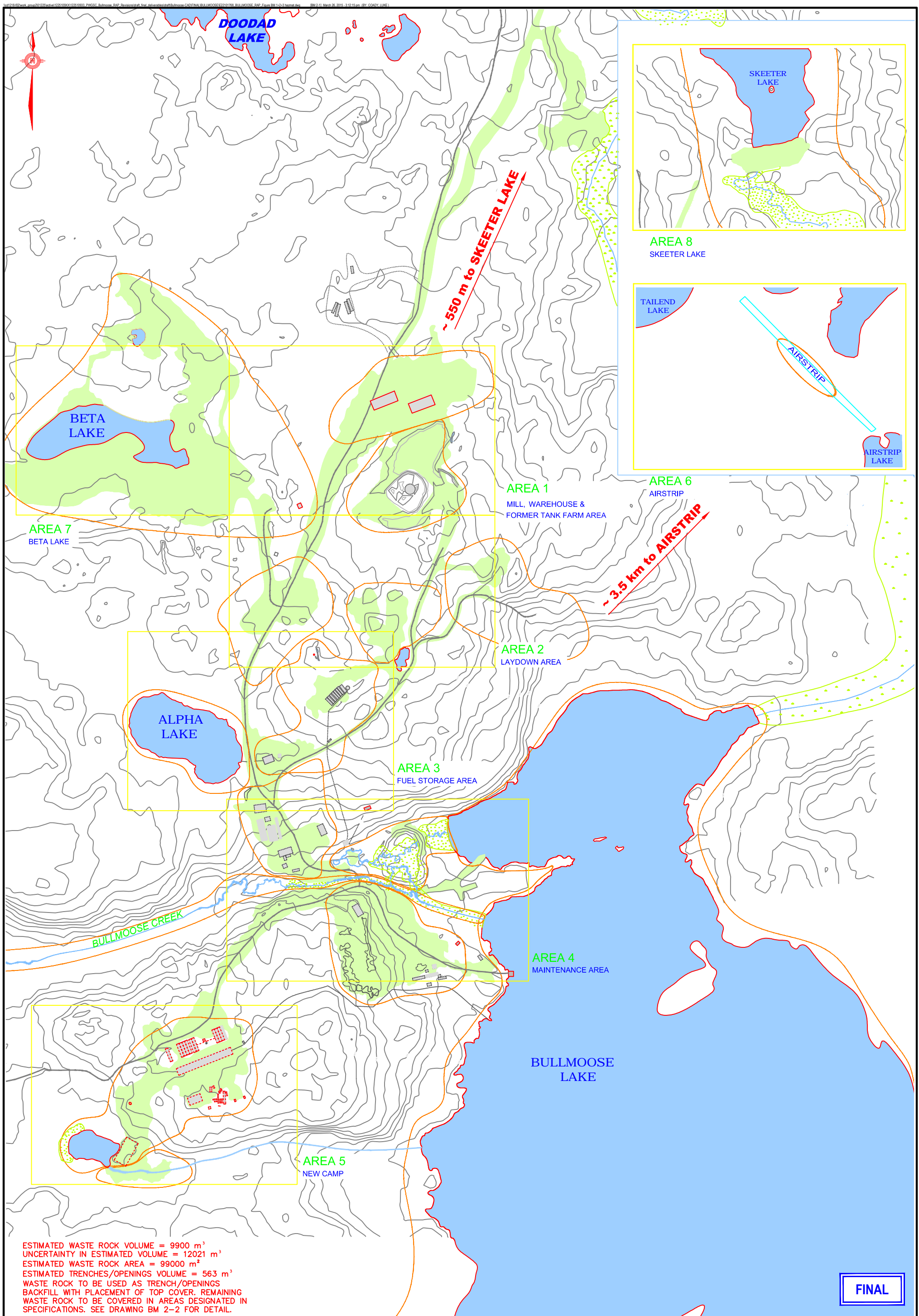


**FINAL**

<p>Public Works and Government Services Canada Travaux publics et Services gouvernementaux Canada</p>	<p>REMEDIACTION ACTION PLAN FOR 7 ABANDONED MINE SITES, NT</p>				
	<p><b>BULLMOOSE MINE : GENERAL SITE PLAN</b></p>				
<p>PROJECT No. 122510933</p>	<p>OFFICE OTT</p>	<p>DES DW</p>	<p>CKD FL</p>	<p>REV 0</p>	<p>DRAWING FIGURE BM 1</p>
<p>DATE Mar 2015</p>	<p>SHEET No. - of -</p>	<p>DWN APP</p>	<p>LC</p>	<p>STATUS 0</p>	





ESTIMATED WASTE ROCK VOLUME = 9900 m<sup>3</sup>  
 UNCERTAINTY IN ESTIMATED VOLUME = 12021 m<sup>3</sup>  
 ESTIMATED WASTE ROCK AREA = 99000 m<sup>2</sup>  
 ESTIMATED TRENCHES/OPENINGS VOLUME = 563 m<sup>3</sup>  
 WASTE ROCK TO BE USED AS TRENCH/OPENINGS  
 BACKFILL WITH PLACEMENT OF TOP COVER. REMAINING  
 WASTE ROCK TO BE COVERED IN AREAS DESIGNATED IN  
 SPECIFICATIONS. SEE DRAWING BM 2-2 FOR DETAIL.

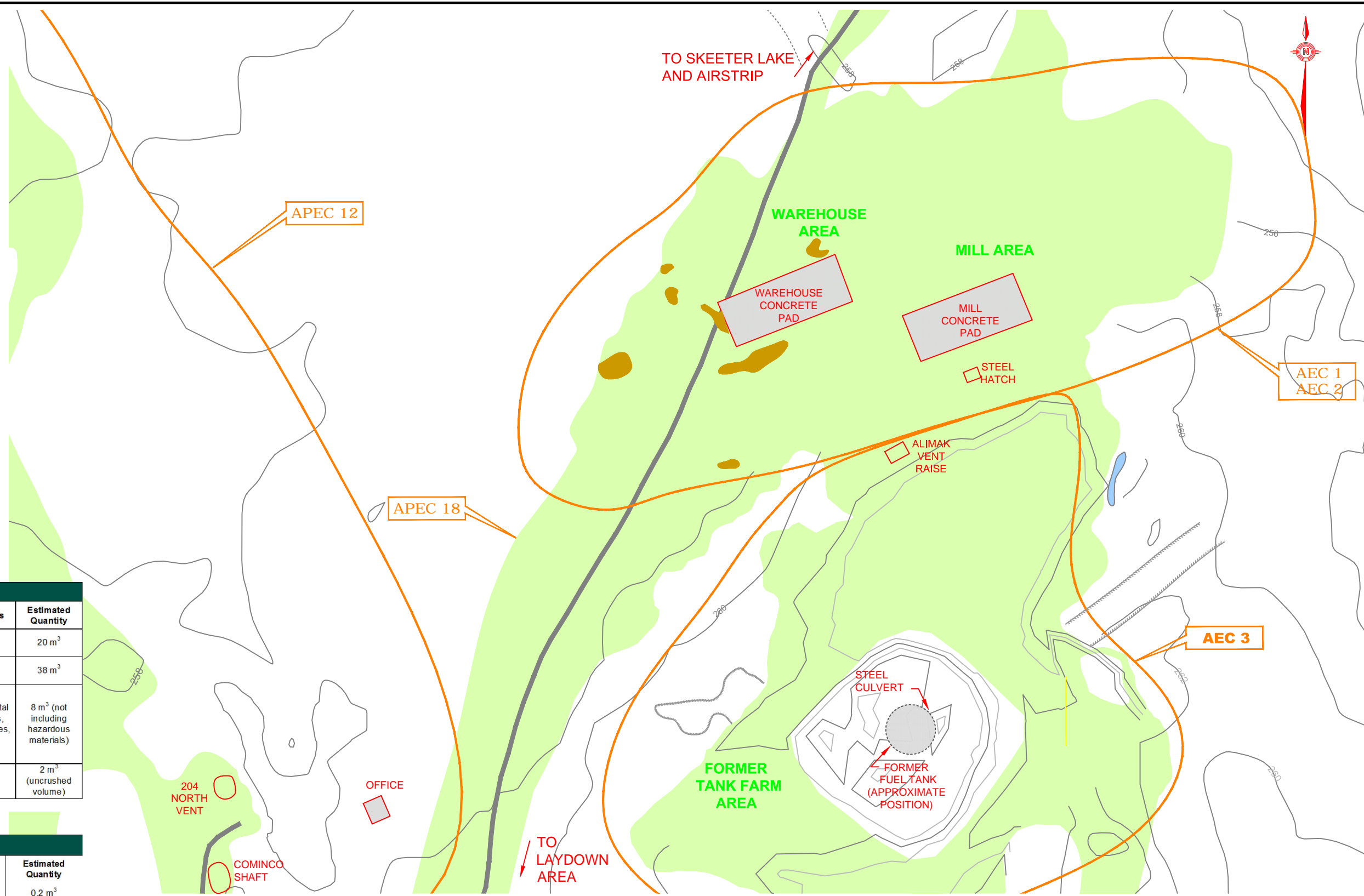
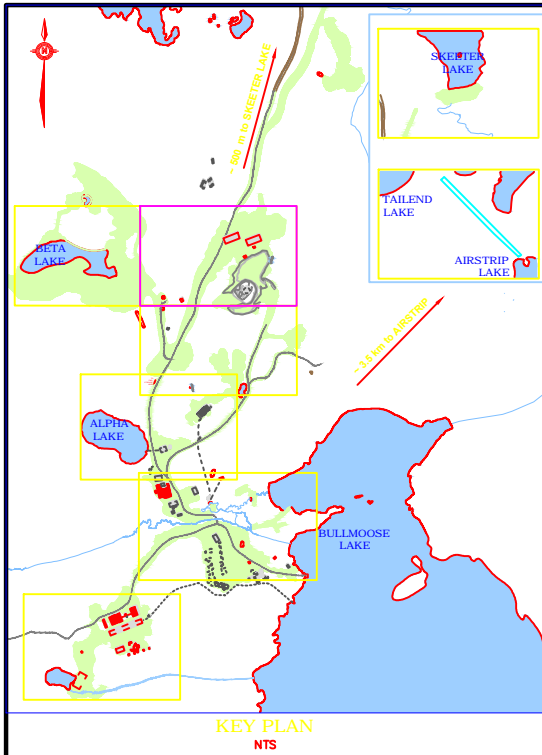
**FINAL**

	<b>REMEDIAL ACTION PLAN FOR 7 ABANDONED MINE SITES, NT</b>				
	<b>BULLMOOSE MINE : ESTIMATED VOLUMES FOR WASTE ROCK AND TRENCHES/OPENINGS</b>				
PROJECT No. 122510933	OFFICE OTT	DES DWN	CKD FL	REV 0	DRAWING FIGURE BM 2-1
DATE Mar 2015	SHEET No. - of -	APP LC	STATUS -	REV 0	DRAWING FIGURE BM 2-1

Scale: 1: 2 000 (metres)

**Stantec**





**NON HAZARDOUS INVENTORY AT THE FORMER BULLMOOSE MINE**

Area/AEC	Item	Identified Materials	Estimated Quantity
Mill Area (AEC-1)	Concrete pad (18 m by 9.5 m)	Pad	20 m <sup>3</sup>
Warehouse Area North (AEC-2)	Concrete pad (32 m by 12 m)	Pad	38 m <sup>3</sup>
Mill, Warehouse and Former Tank Farm Area	Miscellaneous items – Most of the items have been collected and placed into a pile located southwest of the former mill and fuel storage areas. Some debris was scattered around the site.	Mill balls, piping, metal debris, wood debris, pieces of rubber hoses, gasket	8 m <sup>3</sup> (not including hazardous materials)
Former Tank Farm (AEC-3)	Metal Culvert	Metal Culvert	2 m <sup>3</sup> (uncrushed volume)

**HAZARDOUS INVENTORY AT THE FORMER BULLMOOSE MINE**

Area/AEC	Item	Materials of Concern	Estimated Quantity
Mill Area	Old Gaskets	Asbestos (75-99% chrysotile)	0.2 m <sup>3</sup>
Former Tank Farm	Cresote treated wood	Hazardous material	1.8 m <sup>3</sup>

**FINAL**

**LEGEND:**

- WATER
- WASTE ROCK (2008)
- WETLAND
- CURRENT STRUCTURE (2008)
- FORMER STRUCTURE
- STAINING
- WINTER ROAD
- TRAIL
- BEDROCK OUTLINE (2008)
- GROUND ELEVATION CONTOUR (masl)
- AEC
- APEC
- AEC / APEC AREA OUTLINE

CLIENT: Public Works and Government Services Canada / Travaux publics et Services Gouvernementaux Canada

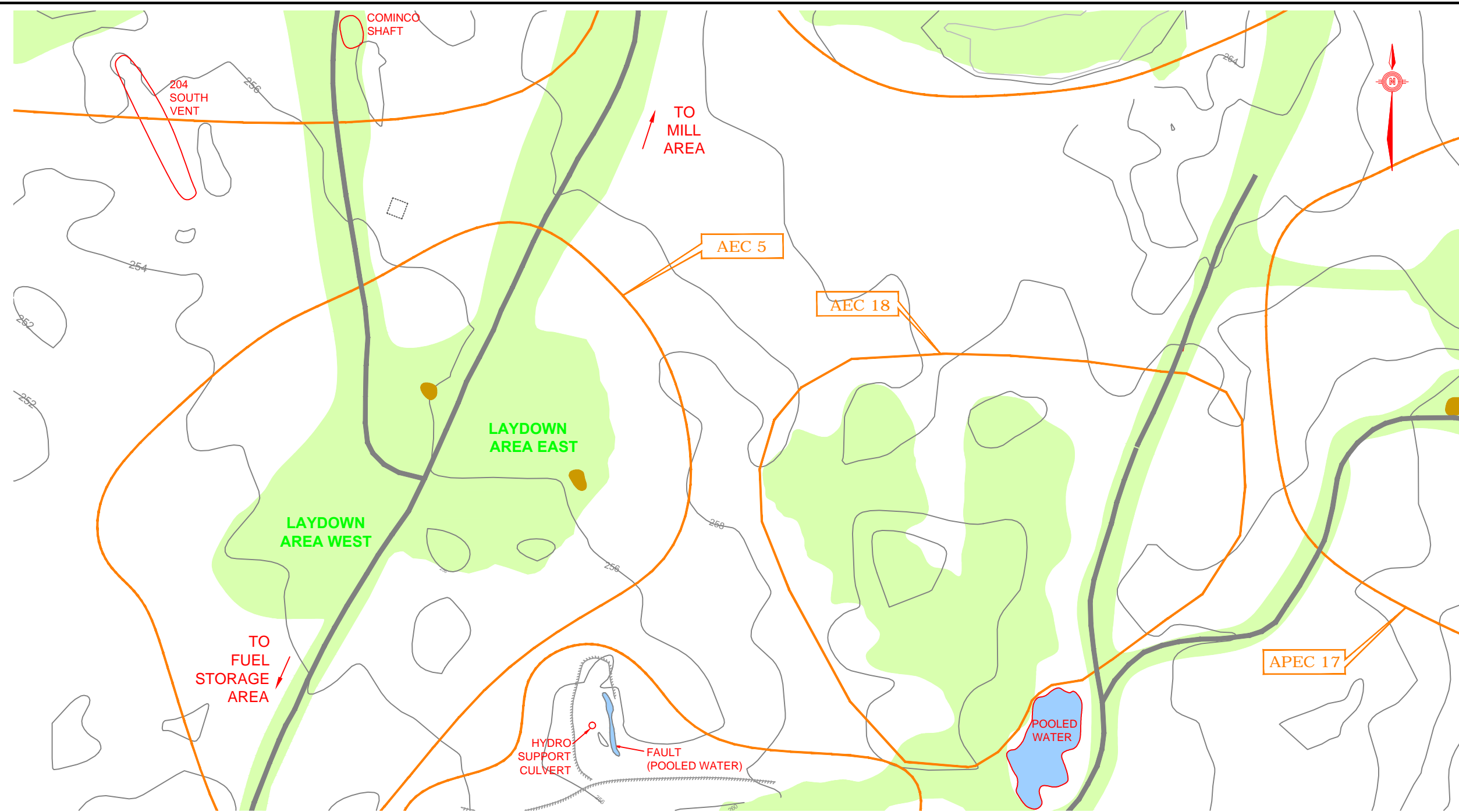
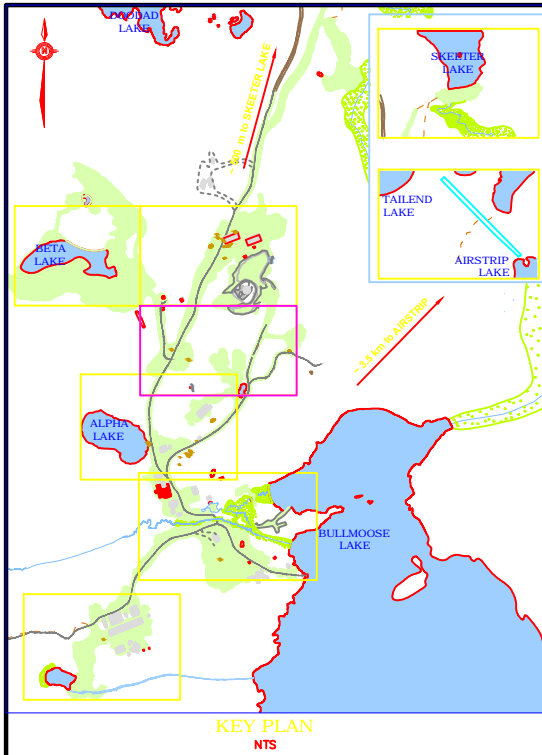
**REMEDIATION ACTION PLAN FOR 7 ABANDONED MINESITES, NT**

**BULLMOOSE MINE - AREA 1: HAZARDOUS & NON-HAZARDOUS MATERIALS**

PROJECT No. 122510933 | OFFICE OTT | DES DW | CKD FL | REV 0 | DRAWING DATE: Mar 2015 | SHEET No. - of - | DWN APP | STATUS | LC | 0 | **FIGURE BM 3-1**

**Stantec**

Scale: 1: 500 (metres)



NON HAZARDOUS INVENTORY AT THE FORMER BULLMOOSE MINE			
Area/AEC	Item	Identified Materials	Estimated Quantity
Laydown Areas (AEC-5)	Miscellaneous Metal scattered throughout	Crucibles, metal piping, drill rods, mill balls, scrap metal	5 m <sup>3</sup>

**FINAL**

LEGEND:

- WATER
- WASTE ROCK (2008)
- WETLAND
- CURRENT STRUCTURE (2008)
- FORMER STRUCTURE
- STAINING
- WINTER ROAD
- TRAIL
- BEDROCK OUTLINE (2008)
- GROUND ELEVATION CONTOUR (masl)
- AEC AREA OF ENVIRONMENTAL CONCERN
- APEC AREA OF POTENTIAL ENVIRONMENTAL CONCERN
- AEC / APEC AREA OUTLINE



CLIENT

Public Works and Government Services Canada / Travaux publics et Services Gouvernementaux Canada

**REMEDIATION ACTION PLAN FOR 7 ABANDONED MINE SITES, NT**

**BULLMOOSE MINE - AREA 2 : HAZARDOUS & NON-HAZARDOUS MATERIALS**

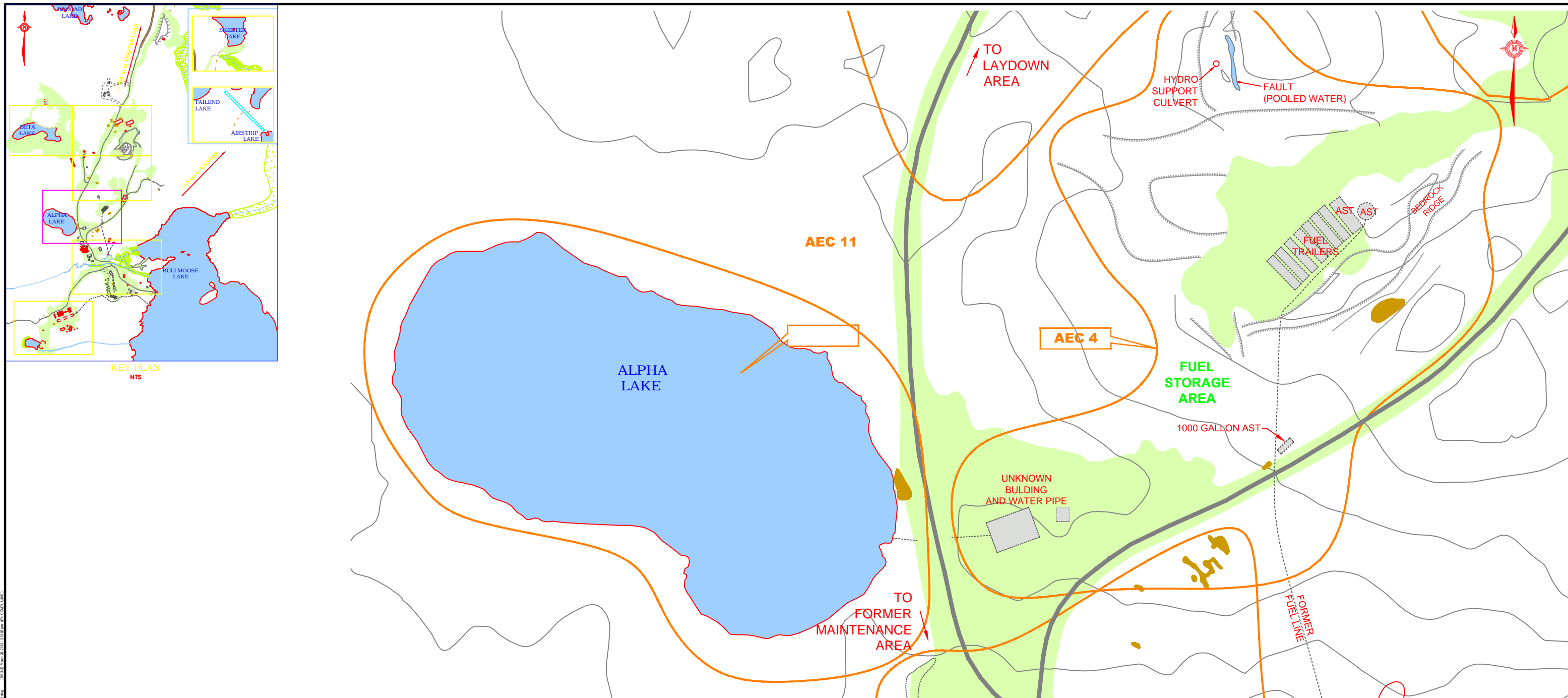
PROJECT No. 122510933  
DATE: Mar 2015

OFFICE OTT  
DES DW  
APP LC

REV 0  
FL 0  
STATUS 0

DRAWING  
FIGURE BM 3-2

**Stantec**



NON HAZARDOUS INVENTORY AT THE FORMER BULLMOOSE MINE			
Area/AEC	Item	Identified Materials	Estimated Quantity
Fuel Storage Area South (AEC-4)	Metal Debris	Metal Pipe	2 m <sup>3</sup>

**FINAL**

- LEGEND:**
- WATER
  - CURRENT STRUCTURE (2008)
  - WINTER ROAD
  - GROUND ELEVATION CONTOUR (masl)
  - WASTE ROCK (2008)
  - FORMER STRUCTURE
  - TRAIL
  - AEC
  - AREA OF ENVIRONMENTAL CONCERN
  - WETLAND
  - STAINING
  - BEDROCK OUTLINE (2008)
  - APEC
  - AREA OF POTENTIAL ENVIRONMENTAL CONCERN
  - AEC / APEC AREA OUTLINE

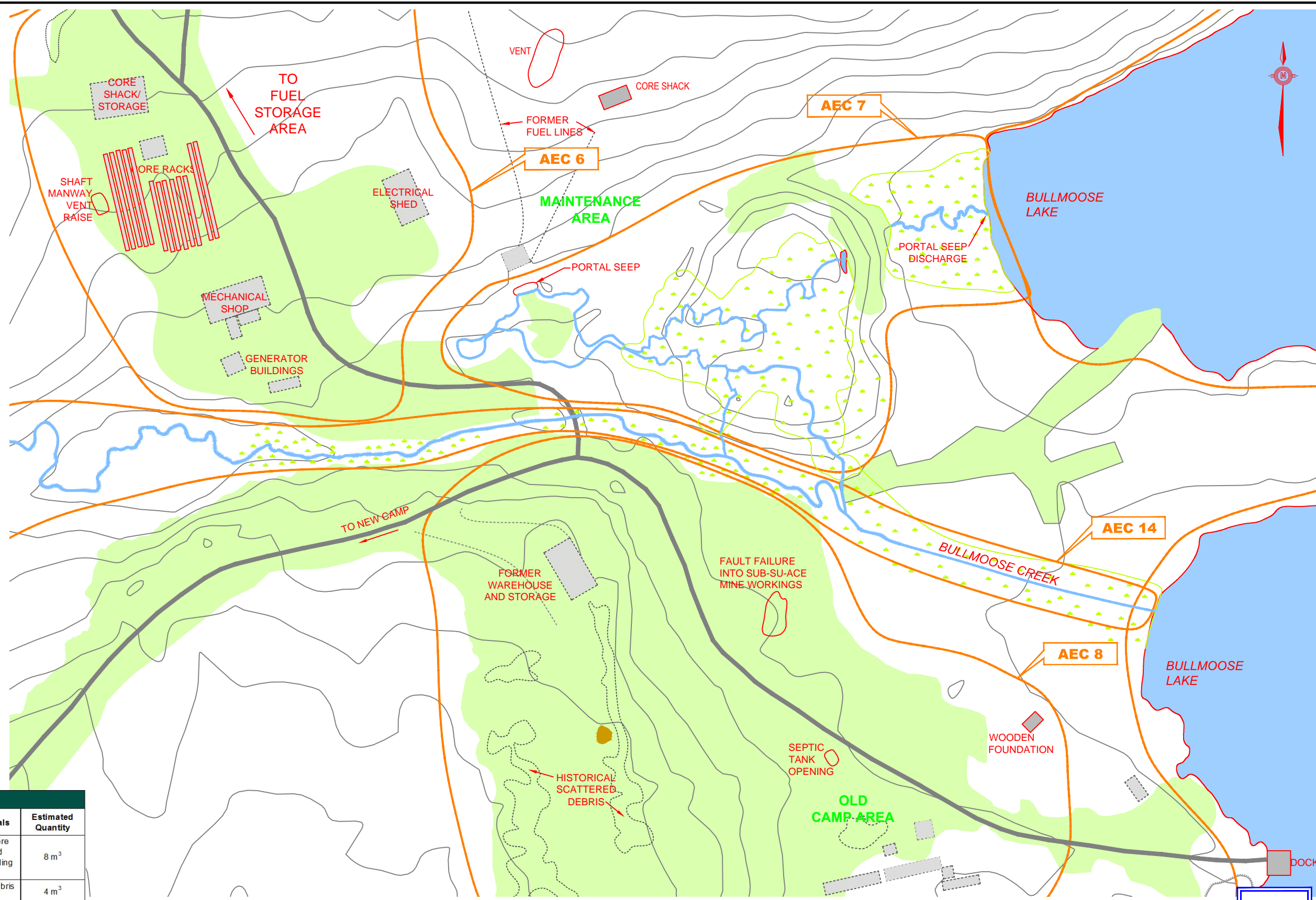
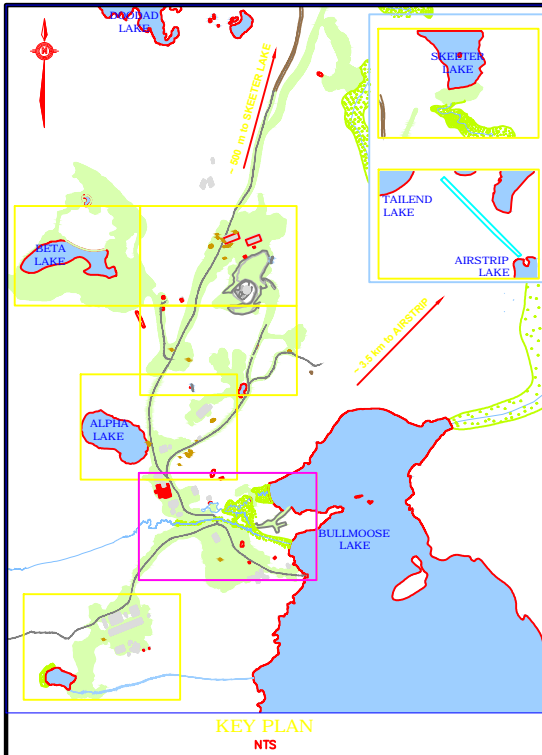


CLIENT: Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada

**REMEDIATION ACTION PLAN FOR 7 ABANDONED MINESITES, NT**

**BULLMOOSE MINE - AREA 3 : HAZARDOUS & NON-HAZARDOUS MATERIALS**

PROJECT No. 122510933 | OFFICE OTT | DES DW | CKD FL | REV 0 | DRAWING  
 DATE: Mar 2015 | SHEET No. - of - | DWN APP | STATUS - | 0 | **FIGURE BM 3-3**



NON HAZARDOUS INVENTORY AT THE FORMER BULLMOOSE MINE			
Area/AEC	Item	Identified Materials	Estimated Quantity
Former Maintenance Shop (AEC-6)	Scattered Metal Debris	Empty wooden core racks, 5 crushed drums, partial building (wood),	8 m <sup>3</sup>
Old Camp	Scattered Metal Debris and wood	Scattered Metal Debris and wood	4 m <sup>3</sup>

LEGEND:

- WATER
- WASTE ROCK (2008)
- WETLAND
- CURRENT STRUCTURE (2008)
- FORMER STRUCTURE
- STAINING
- WINTER ROAD
- TRAIL
- BEDROCK OUTLINE (2008)
- GROUND ELEVATION CONTOUR (masl)
- AEC AREA OF ENVIRONMENTAL CONCERN
- APEC AREA OF POTENTIAL ENVIRONMENTAL CONCERN
- AEC / APEC AREA OUTLINE



CLIENT: Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada

PROJECT No. 122510933  
DATE: Mar 2015

OFFICE: OTT  
DESIGNER: DW  
DRAWN: DWN  
APP: APP  
STATUS: LC

REVISIONS:  
REV 0  
REV 0  
REV 0

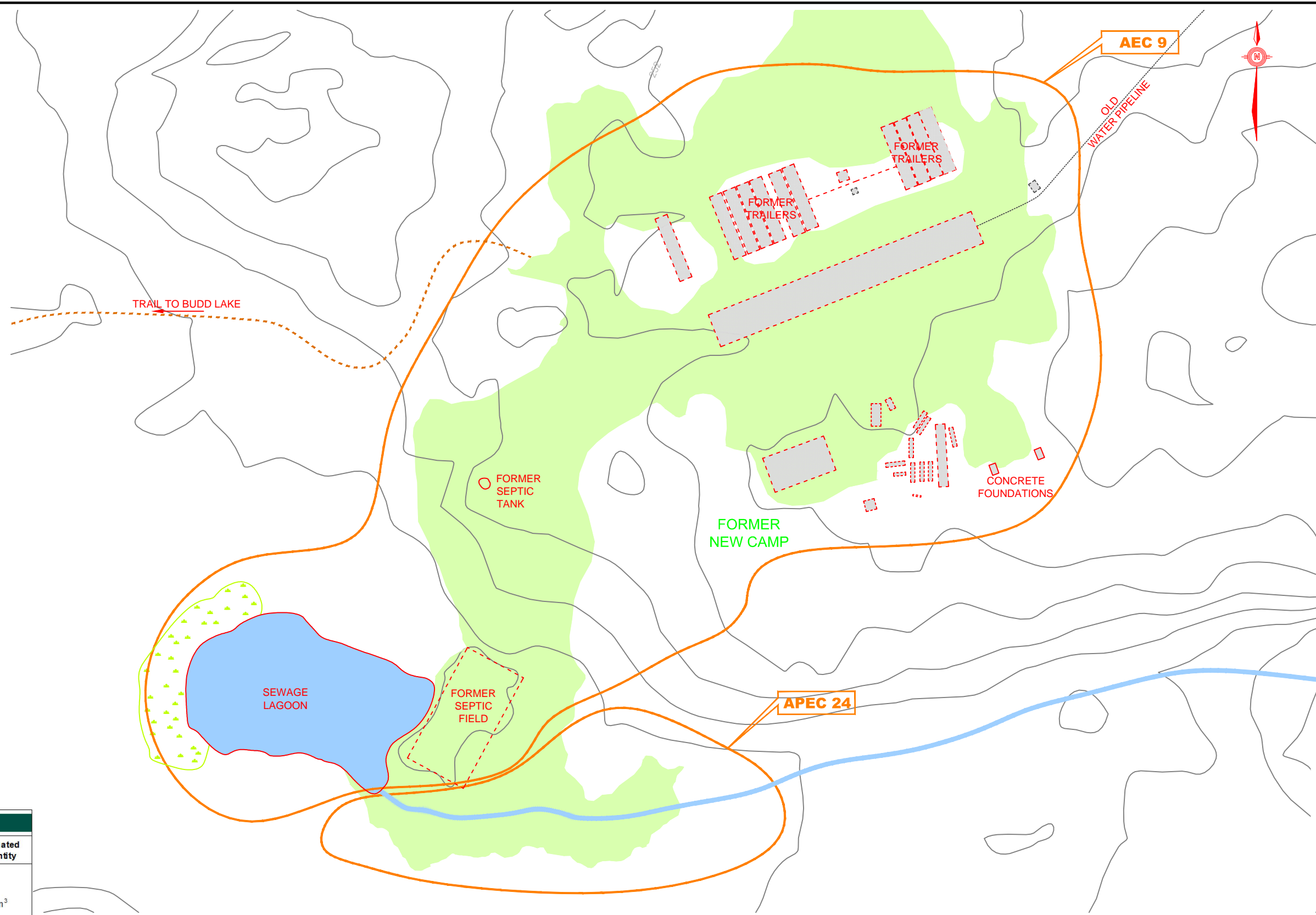
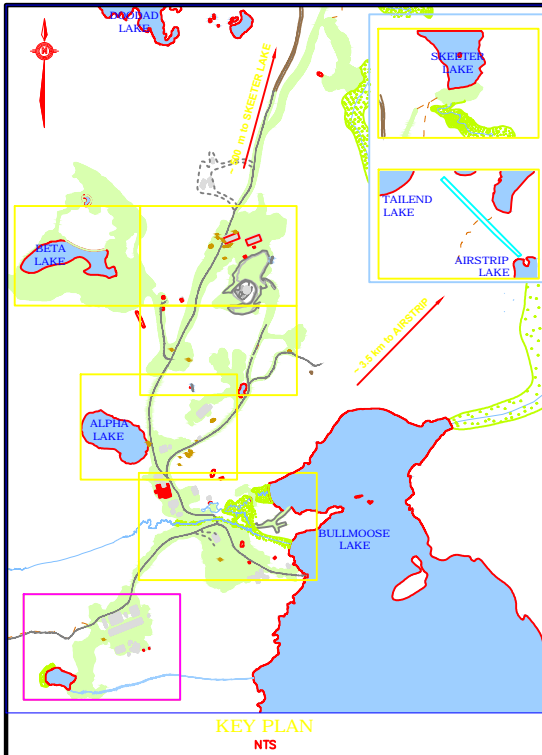
DRAWING: FIGURE BM 3-4

STANTEC

REMEDIATION ACTION PLAN  
FOR 7 ABANDONED MINESITES, NT

**BULLMOOSE MINE - AREA 4**  
HAZARDOUS & NON-HAZARDOUS MATERIALS

**FINAL**



NON HAZARDOUS INVENTORY AT THE FORMER BULLMOOSE MINE			
Area/AEC	Item	Identified Materials	Estimated Quantity
New Camp	Scattered Debris	Culvert, piping, 3 crushed drums, concrete supports, fibre glass septic tank, piping and various small pieces of wooden and metal debris	8 m <sup>3</sup>

**FINAL**

**LEGEND:**

- WATER
- WASTE ROCK (2008)
- WETLAND
- CURRENT STRUCTURE (2008)
- FORMER STRUCTURE
- STAINING
- WINTER ROAD
- TRAIL
- BEDROCK OUTLINE (2008)
- GROUND ELEVATION CONTOUR (masl)
- AEC AREA OF ENVIRONMENTAL CONCERN
- APEC AREA OF POTENTIAL ENVIRONMENTAL CONCERN
- AEC / APEC AREA OUTLINE

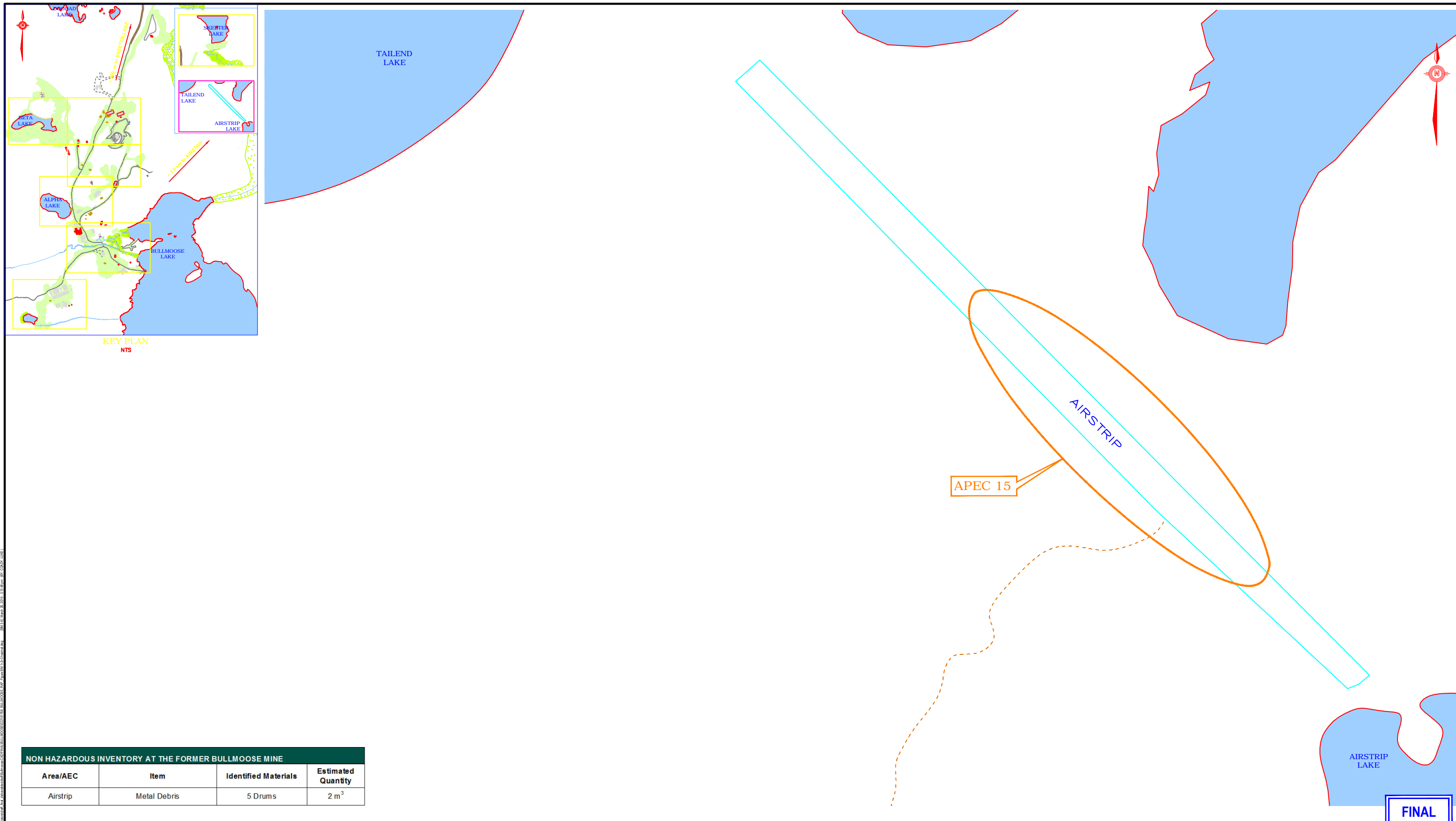


**REMEDIATION ACTION PLAN  
FOR 7 ABANDONED MINESITES, NT**

**BULLMOOSE MINE - AREA 5 :  
HAZARDOUS & NON-HAZARDOUS MATERIALS**

PROJECT No. 122510933	OFFICE OTT	DES DW	CKD FL	REV 0	DRAWING
DATE Mar 2015	SHEET No. - of -	DWN APP	STATUS LC	0	FIGURE BM 3-5

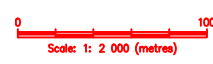




NON HAZARDOUS INVENTORY AT THE FORMER BULLMOOSE MINE			
Area/AEC	Item	Identified Materials	Estimated Quantity
Airstrip	Metal Debris	5 Drums	2 m <sup>3</sup>

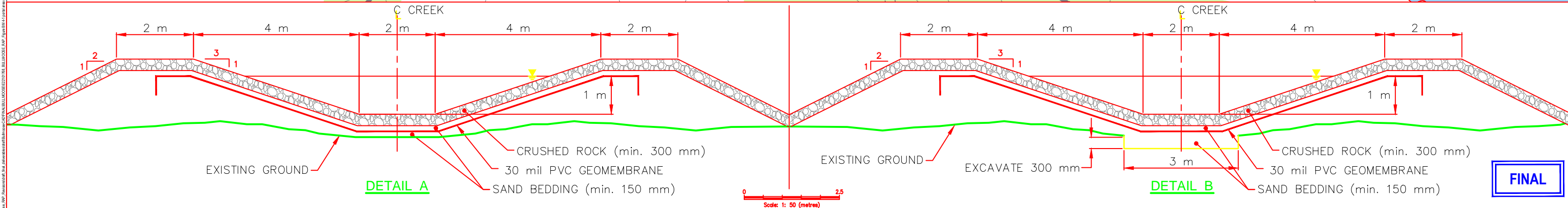
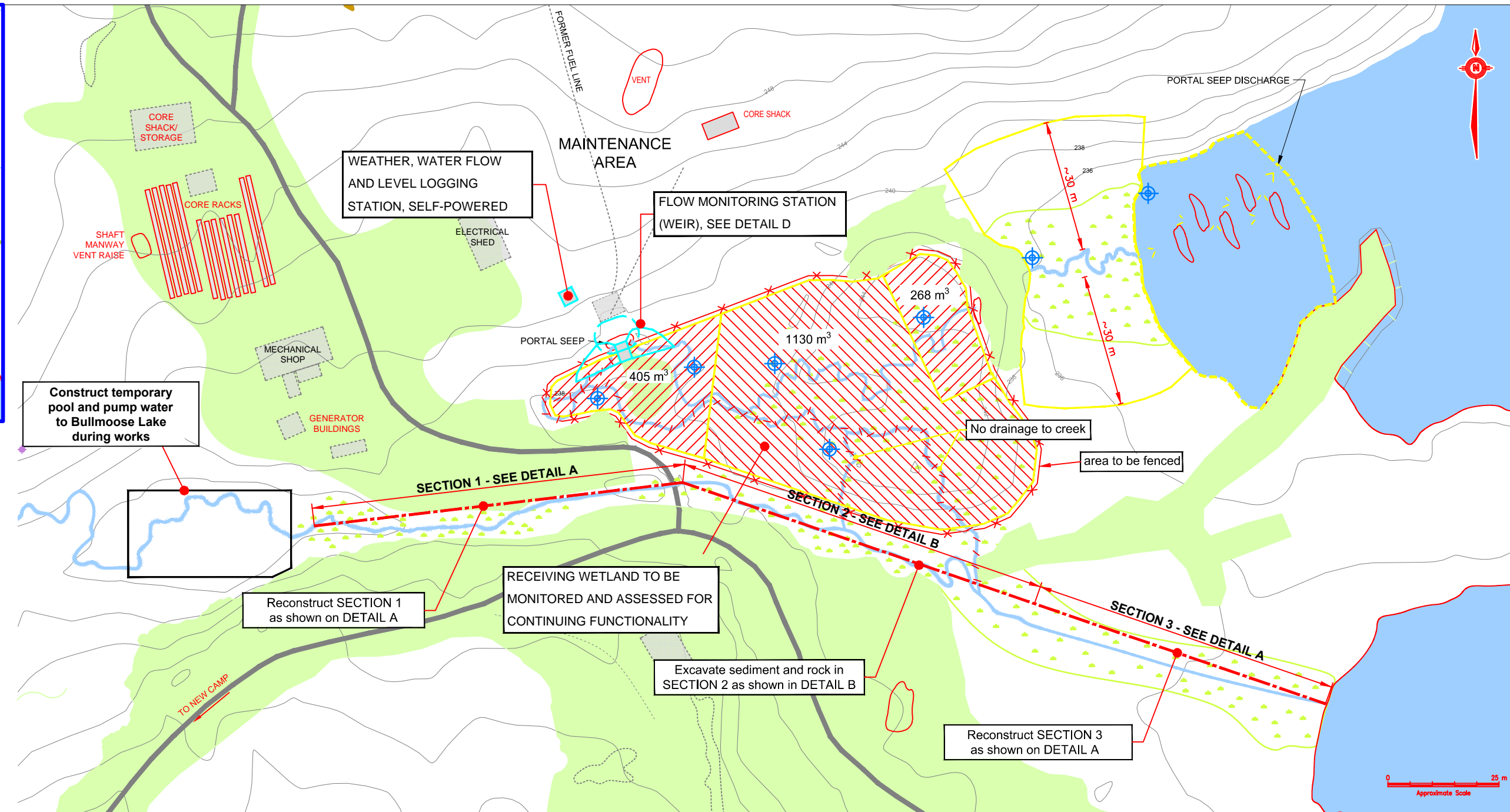
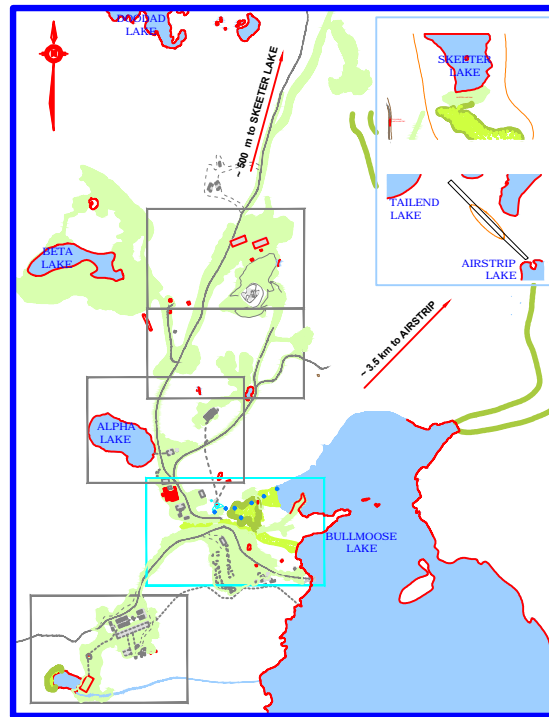
**FINAL**

- LEGEND:**
- WATER
  - WASTE ROCK (2008)
  - WETLAND
  - CURRENT STRUCTURE (2008)
  - FORMER STRUCTURE
  - STAINING
  - WINTER ROAD
  - TRAIL
  - BEDROCK OUTLINE (2008)
  - GROUND ELEVATION CONTOUR (masl)
  - AEC AREA OF ENVIRONMENTAL CONCERN
  - APEC AREA OF POTENTIAL ENVIRONMENTAL CONCERN
  - AEC / APEC AREA OUTLINE



 Public Works and Government Services Canada Travaux publics et Services gouvernementaux Canada	<b>REMEDIATION ACTION PLAN FOR 7 ABANDONED MINESITES, NT</b>					
	<b>BULLMOOSE MINE - AREA 6 : HAZARDOUS &amp; NON-HAZARDOUS MATERIALS</b>					
PROJECT No. 122510933	OFFICE OTT	DES DW	CKD FL	REV 0	DRAWING 0	<b>FIGURE BM 3-6</b>
DATE Mar 2015	SHEET No. - of -	DWN APP	STATUS LC	REV 0	DRAWING 0	





**LEGEND:**

	WATER		CURRENT STRUCTURE (2008)		WINTER ROAD
	WASTE ROCK (2008)		FORMER STRUCTURE		GROUND ELEVATION CONTOUR (masl)
	WETLAND		WATER LEVEL GAUGES		

- NOTES:**
- Detailed hydrology of this site is unknown
  - For seepage and contact water during works, pump and discharge as per water licence requirements. (May require treatment)
  - Install silt fencing to protect all watercourses during works

CLIENT

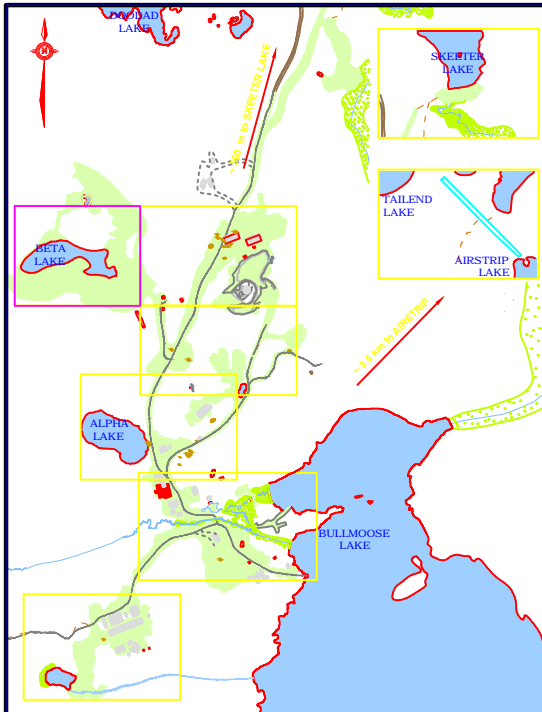
Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada

**REMEDATION ACTION PLAN FOR 7 ABANDONED MINE SITES, NT**

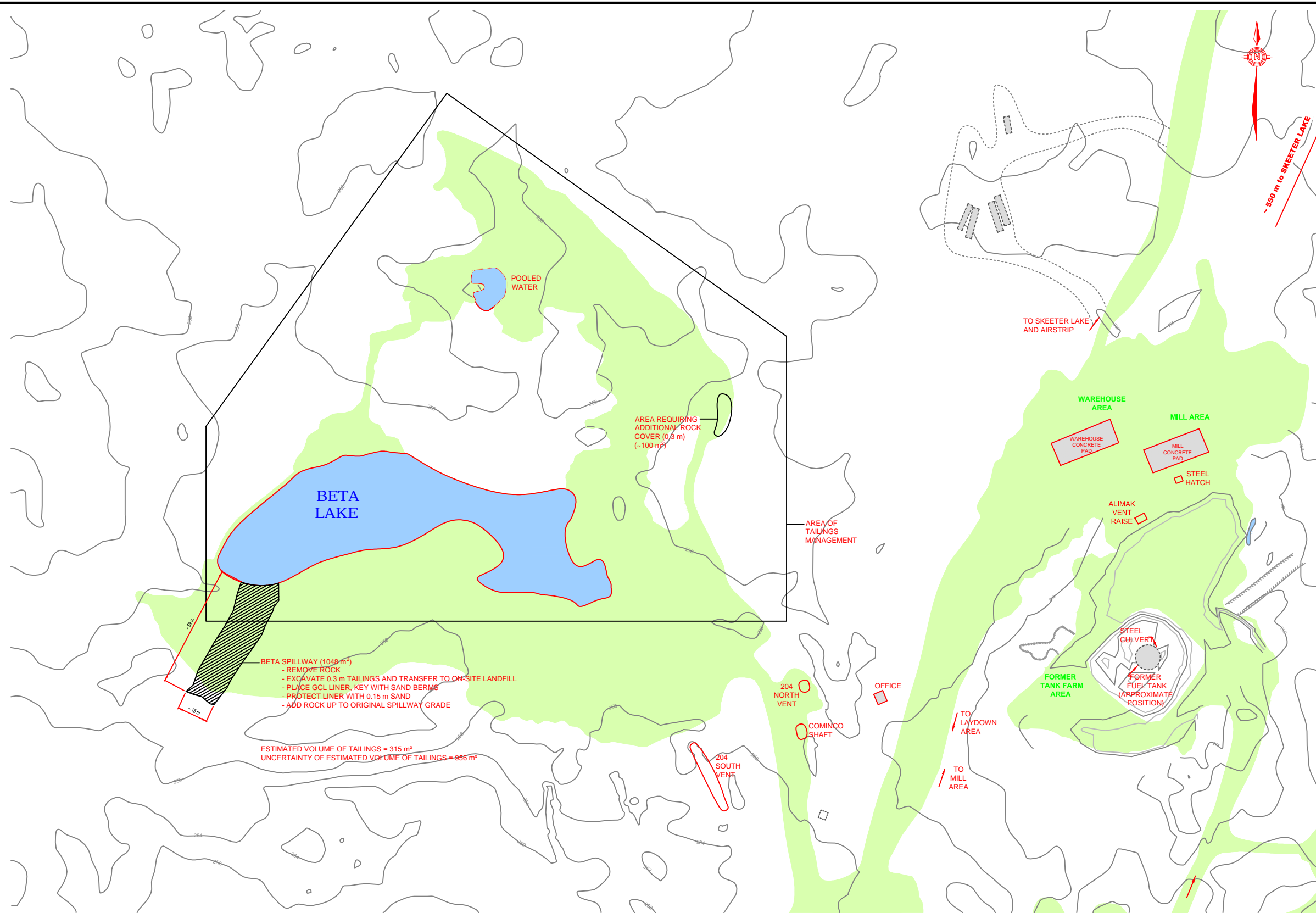
**BULLMOOSE MINE - BULLMOOSE CREEK: PORTAL AREA REMEDIATION AND DETAILS**

PROJECT No. 122511037	OFFICE OTT	DES DW	CKD FL	REV 0	DRAWING
DATE: Mar 2015	SHEET No. -	DWN -	APP -	STATUS -	FIGURE BM 4-1

Scale: 1: 500 (metres)



KEY PLAN  
NTS



FINAL

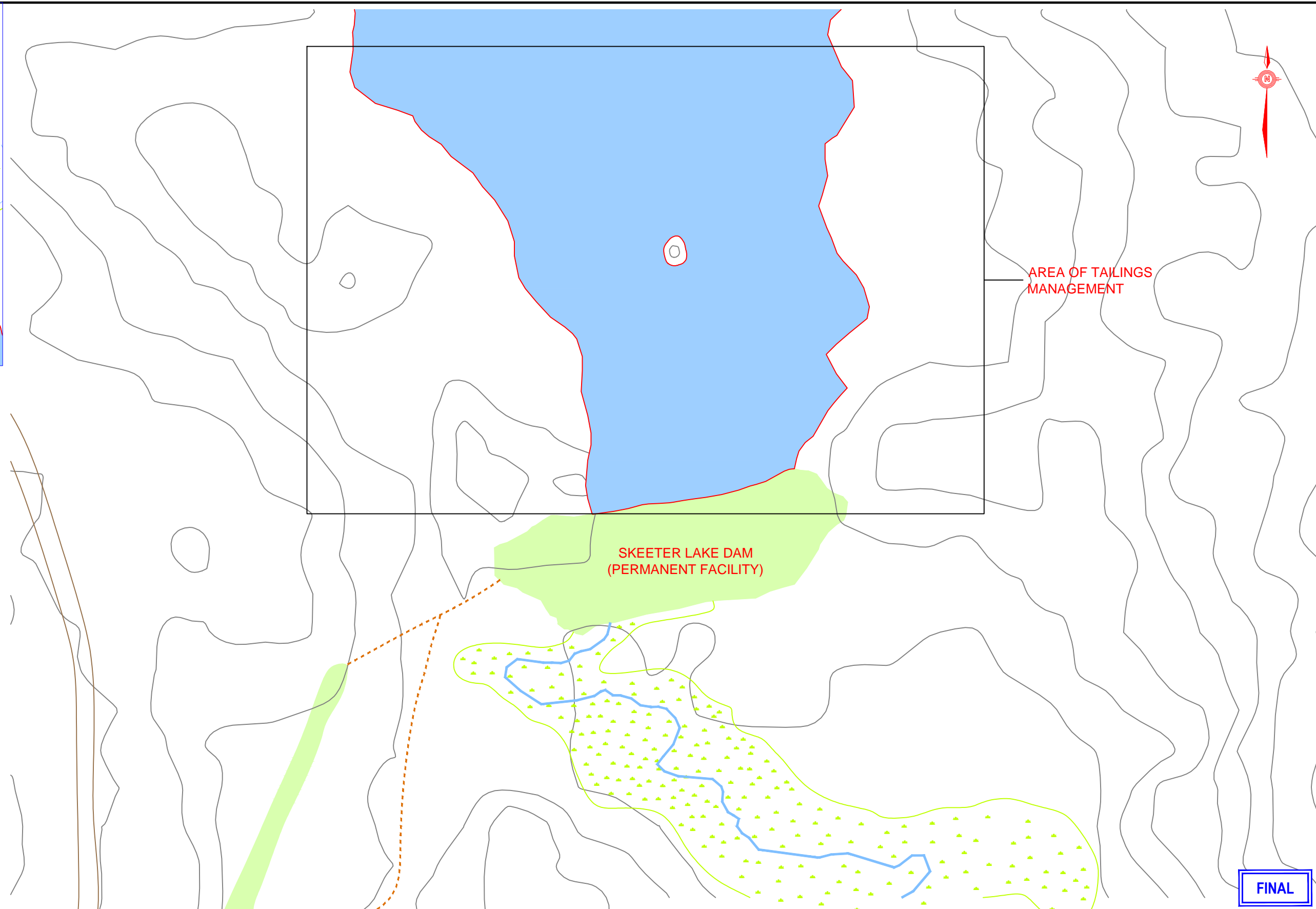
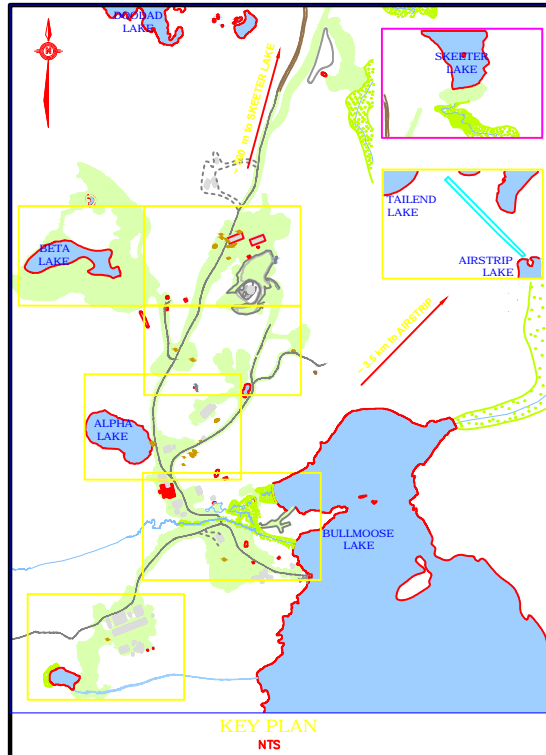
LEGEND:

- |                   |                          |                        |                                 |
|-------------------|--------------------------|------------------------|---------------------------------|
| WATER             | CURRENT STRUCTURE (2008) | WINTER ROAD            | GROUND ELEVATION CONTOUR (masl) |
| WASTE ROCK (2008) | FORMER STRUCTURE         | TRAIL                  | AEC                             |
| WETLAND           | STAINING                 | BEDROCK OUTLINE (2008) | APEC                            |
|                   |                          |                        | AEC / APEC AREA OUTLINE         |



	<b>REMEDIATION ACTION PLAN FOR 7 ABANDONED MINE SITES, NT</b>				
	<b>BULLMOOSE MINE - AREA 7: TAILINGS MANAGEMENT PLAN AND SPILL WAY REHABILITATION</b>				
	PROJECT No. 122510933	OFFICE OTT	DES DW	CKD FL	REV 0
	DATE Mar 2015	SHEET No. - of -	DWN APP	STATUS -	DRAWING 0

FIGURE  
BM 4-2



**FINAL**

**LEGEND:**

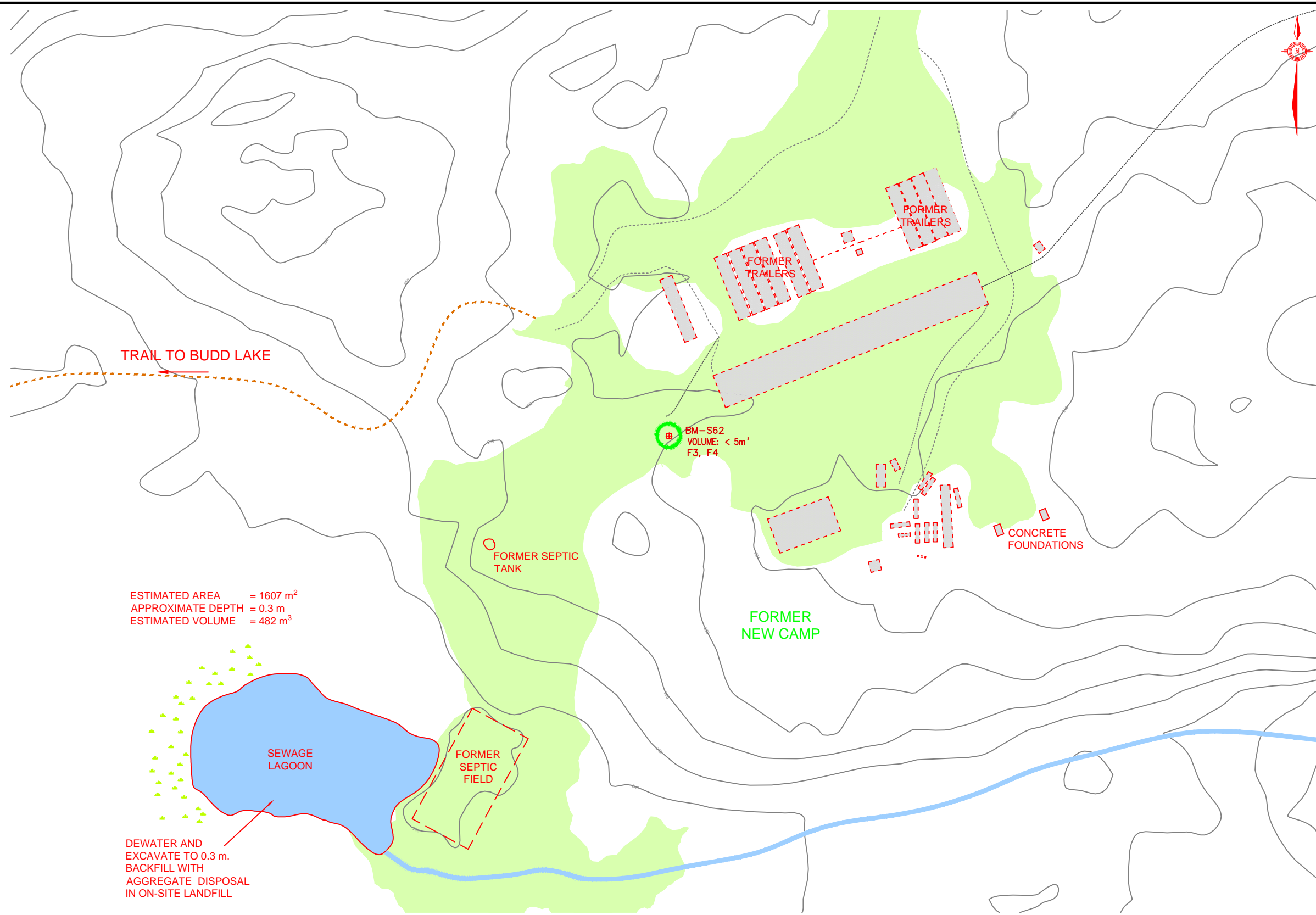
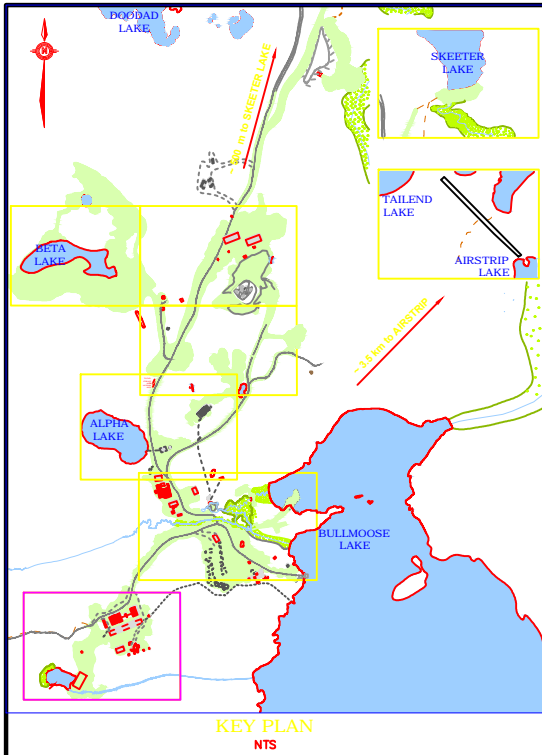
- |                   |                          |                        |  |
|-------------------|--------------------------|------------------------|--|
| WATER             | CURRENT STRUCTURE (2008) | WINTER ROAD            | GROUND ELEVATION CONTOUR (masl)              |
| WASTE ROCK (2008) | FORMER STRUCTURE         | TRAIL                  | AEC AREA OF ENVIRONMENTAL CONCERN            |
| WETLAND           | STAINING                 | BEDROCK OUTLINE (2008) | APEC AREA OF POTENTIAL ENVIRONMENTAL CONCERN |
|                   |                          |                        | AEC / APEC AREA OUTLINE                      |



CLIENT

Public Works and Government Services Canada  
Travaux publics et Services Gouvernementaux Canada

REMEDIATION ACTION PLAN FOR 7 ABANDONED MINE SITES, NT					
BULLMOOSE MINE - AREA 8 : TAILINGS & SEDIMENT MANAGEMENT PLAN					
PROJECT No. 122510933	OFFICE OTT	DES DW	CKD FL	REV 0	DRAWING 0
DATE Mar 2015	SHEET No. - of -	DWN APP	STATUS - -	REV 0	FIGURE BM 4-3



ESTIMATED AREA =  $1607\text{ m}^2$   
 APPROXIMATE DEPTH =  $0.3\text{ m}$   
 ESTIMATED VOLUME =  $482\text{ m}^3$

DEWATER AND EXCAVATE TO  $0.3\text{ m}$ .  
 BACKFILL WITH AGGREGATE DISPOSAL IN ON-SITE LANDFILL

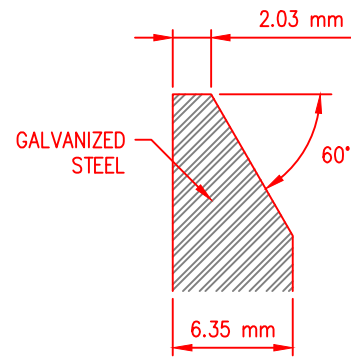
**FINAL**

**LEGEND:**

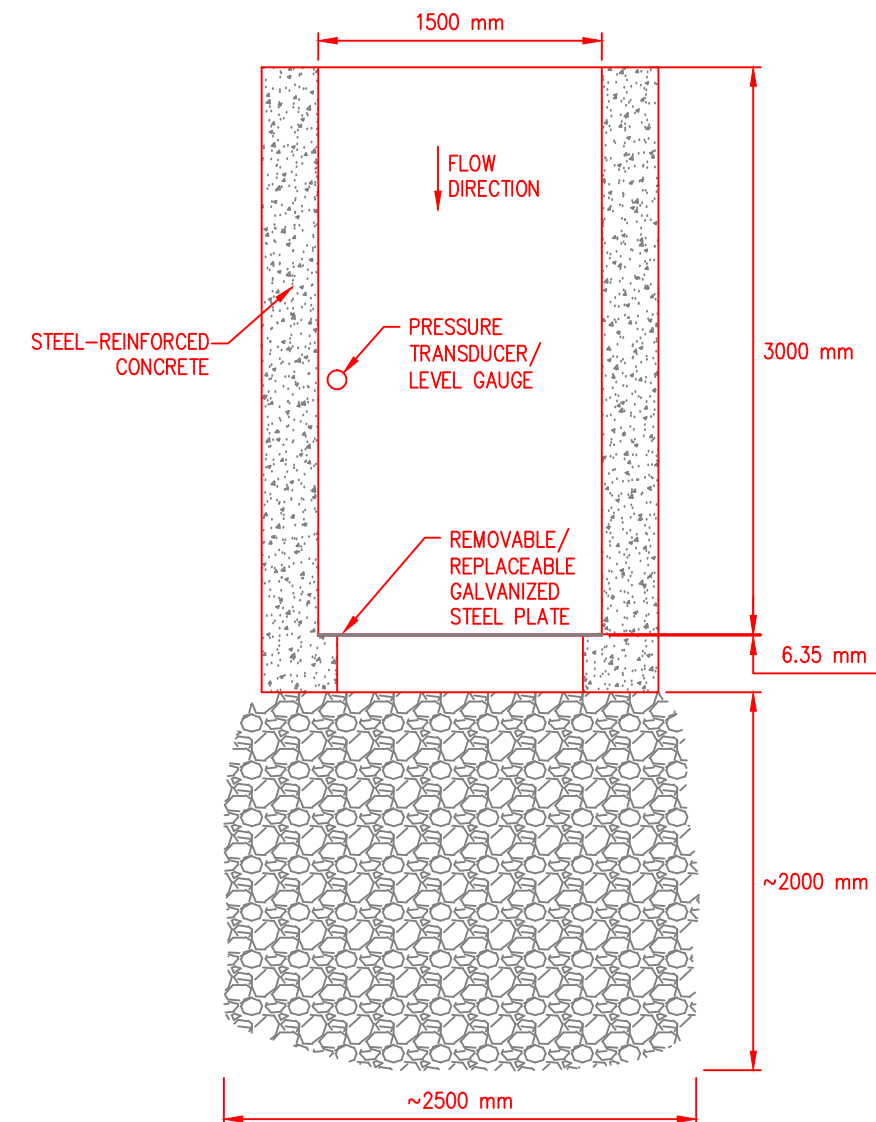
- |                   |                          |                        |  |   |
|-------------------|--------------------------|------------------------|--|---|
| WATER             | CURRENT STRUCTURE (2008) | WINTER ROAD            | GROUND ELEVATION CONTOUR (masl)              | EST PIT SAMPLE - EBA 2009                   |
| WASTE ROCK (2008) | FORMER STRUCTURE         | TRAIL                  | AEC AREA OF ENVIRONMENTAL CONCERN            | TEST PIT SOIL SAMPLE - FRANZ/ECOMETRIX 2008 |
| WETLAND           | STAINING                 | BEDROCK OUTLINE (2008) | APEC AREA OF POTENTIAL ENVIRONMENTAL CONCERN | SOIL SAMPLE - WESA 2007                     |
|                   |                          |                        | AEC / APEC AREA OUTLINE                      | METAL CONTAMINATION                         |
|                   |                          |                        |  | HYDROCARBON CONTAMINATION                   |



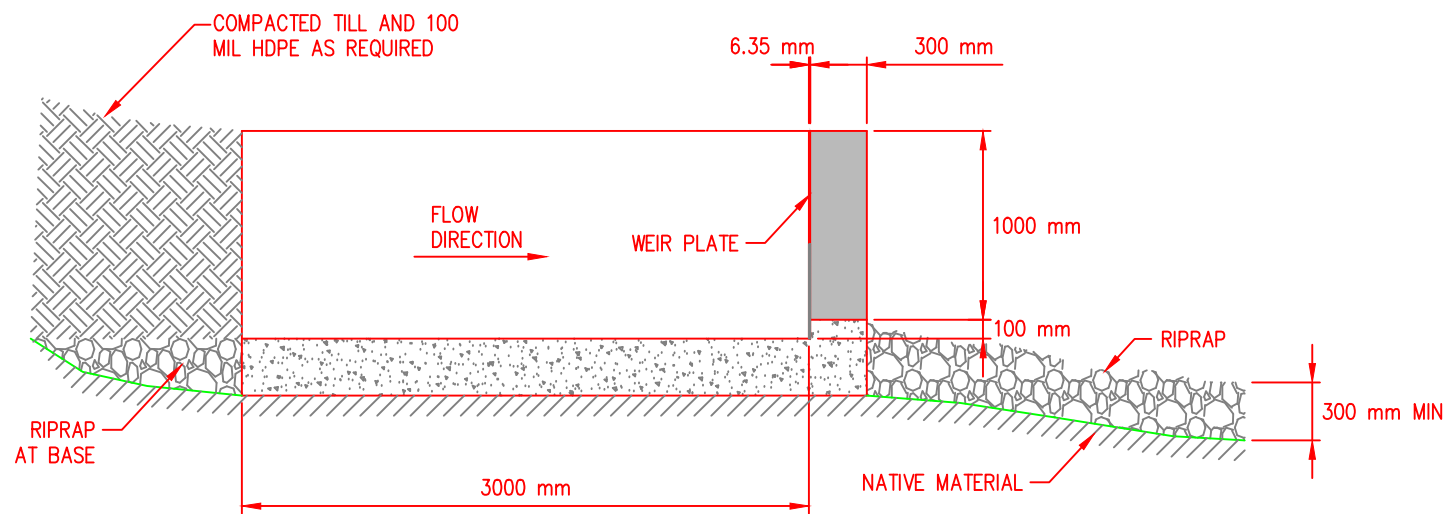
	<b>REMEDIATION ACTION PLAN FOR 7 ABANDONED MINE SITES, NT</b>					
	<b>BULLMOOSE MINE - AREA 5 : SEDIMENT MANAGEMENT PLAN</b>					
	PROJECT No. 122510933	OFFICE OTT	DES DW	CKD FL	REV 0	DRAWING FIGURE BM 4-4
	DATE Mar 2015	SHEET No. - of -	DWN APP LC	STATUS -	REV 0	



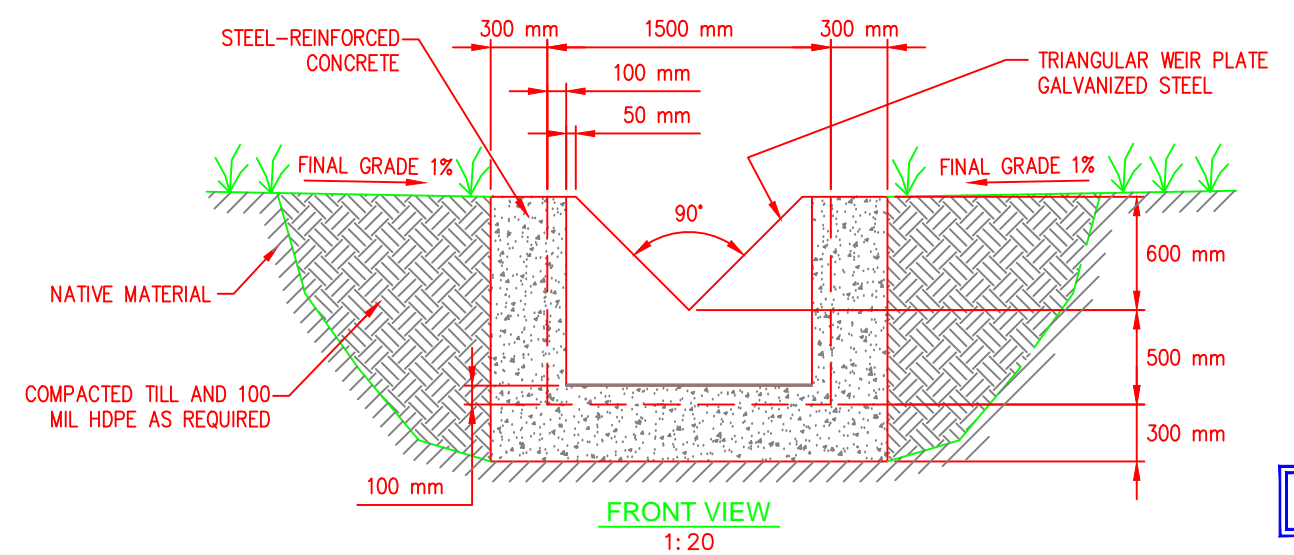
**WEIR PLATE FREE EDGE DETAIL**  
1:50



**TOP VIEW**  
1:20

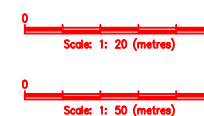


**SIDE VIEW**  
1:20

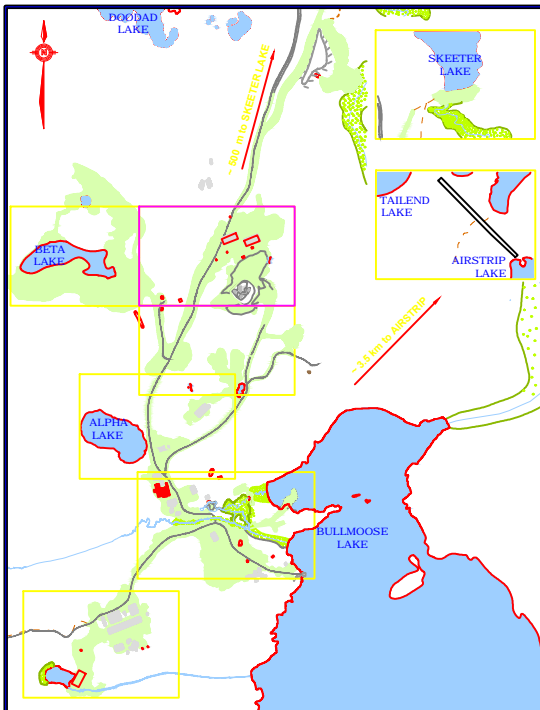


**FRONT VIEW**  
1:20

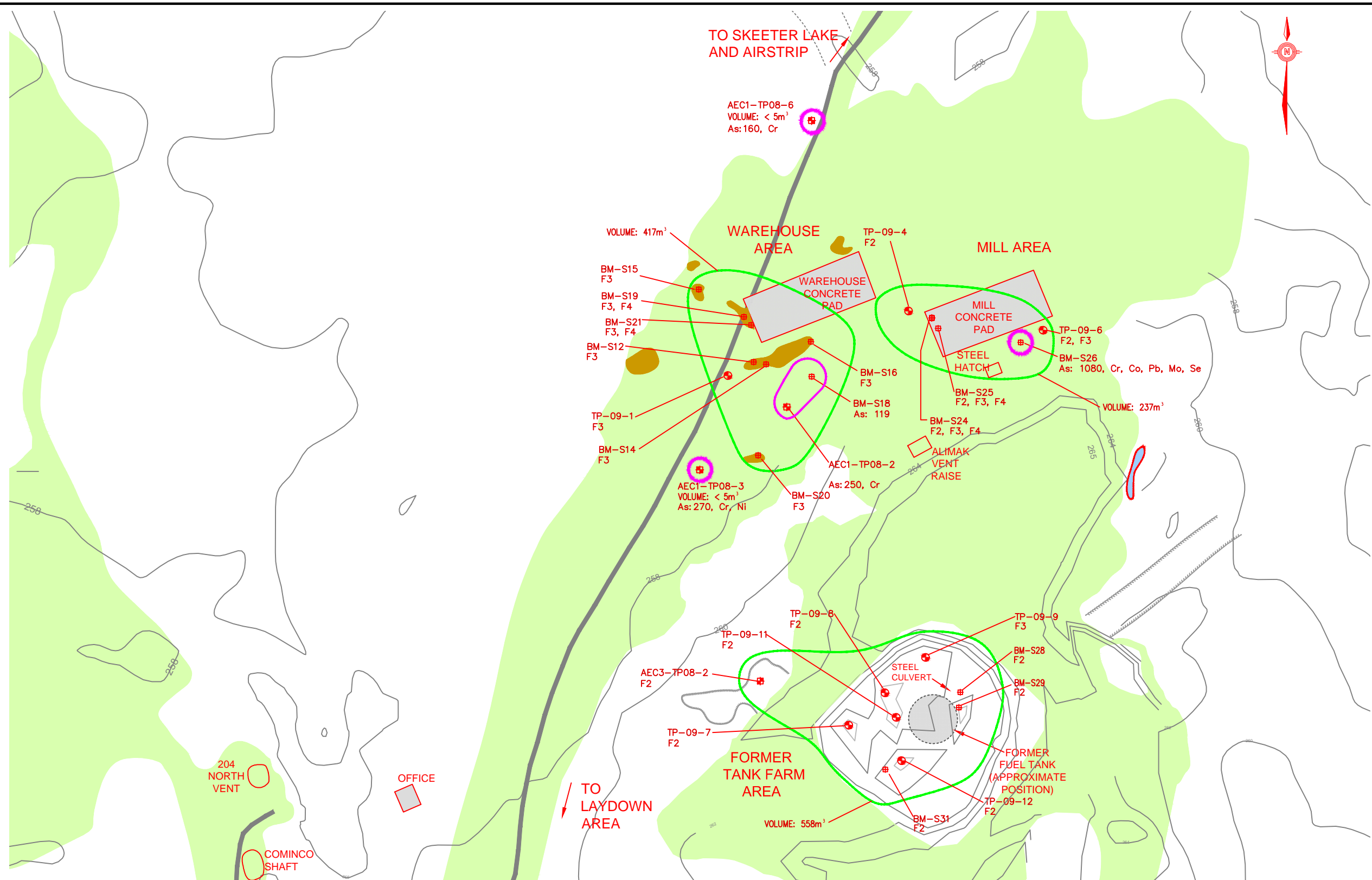
**FINAL**



CLIENT		REMEDIAL ACTION PLAN FOR 7 ABANDONED MINE SITES, NT	
Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada		BULLMOOSE MINE - BULLMOOSE CREEK: DETAIL D	
PROJECT No. 122511037	OFFICE OTT	DES DW	CKD MB
DATE: Mar 2015	SHEET No. - of -	DWN APP	REV 0
Stantec			DRAWING STATUS 0
			FIGURE BM 4-5



KEY PLAN  
NTS



WASTE STREAM	TOTAL ESTIMATED VOLUME (m <sup>3</sup> )	UNCERTAINTY (m <sup>3</sup> )
METALS + PHC IMPACTED SOILS	800	135
PHC's IMPACTED SOILS	1372	289

NOTE: INCLUDES VOLUMES AND ASSOCIATED UNCERTAINTIES FROM FIGURES BM 5-1 TO BM 5-5

**FINAL**

LEGEND:

- WATER
- WASTE ROCK (2008)
- WETLAND
- CURRENT STRUCTURE (2008)
- FORMER STRUCTURE
- STAINING
- WINTER ROAD
- TRAIL
- BEDROCK OUTLINE (2008)
- GROUND ELEVATION CONTOUR (masl)
- AEC
- APEC
- AEC / APEC AREA OUTLINE
- EST PIT SAMPLE - EBA 2009
- TEST PIT SOIL SAMPLE - FRANZ/ECOMETRIX 2008
- SOIL SAMPLE - WESA 2007
- METAL CONTAMINATION
- HYDROCARBON CONTAMINATION

CLIENT

Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada

**REMEDIATION ACTION PLAN  
FOR 7 ABANDONED MINE SITES, NT**

**BULLMOOSE MINE - AREA 1:  
METAL AND HYDROCARBON  
SOIL CONTAMINATION AREAS**

PROJECT No: 122510933

DATE: Mar 2015

OFFICE: OTT

SHEET No: DWN

DES: DW

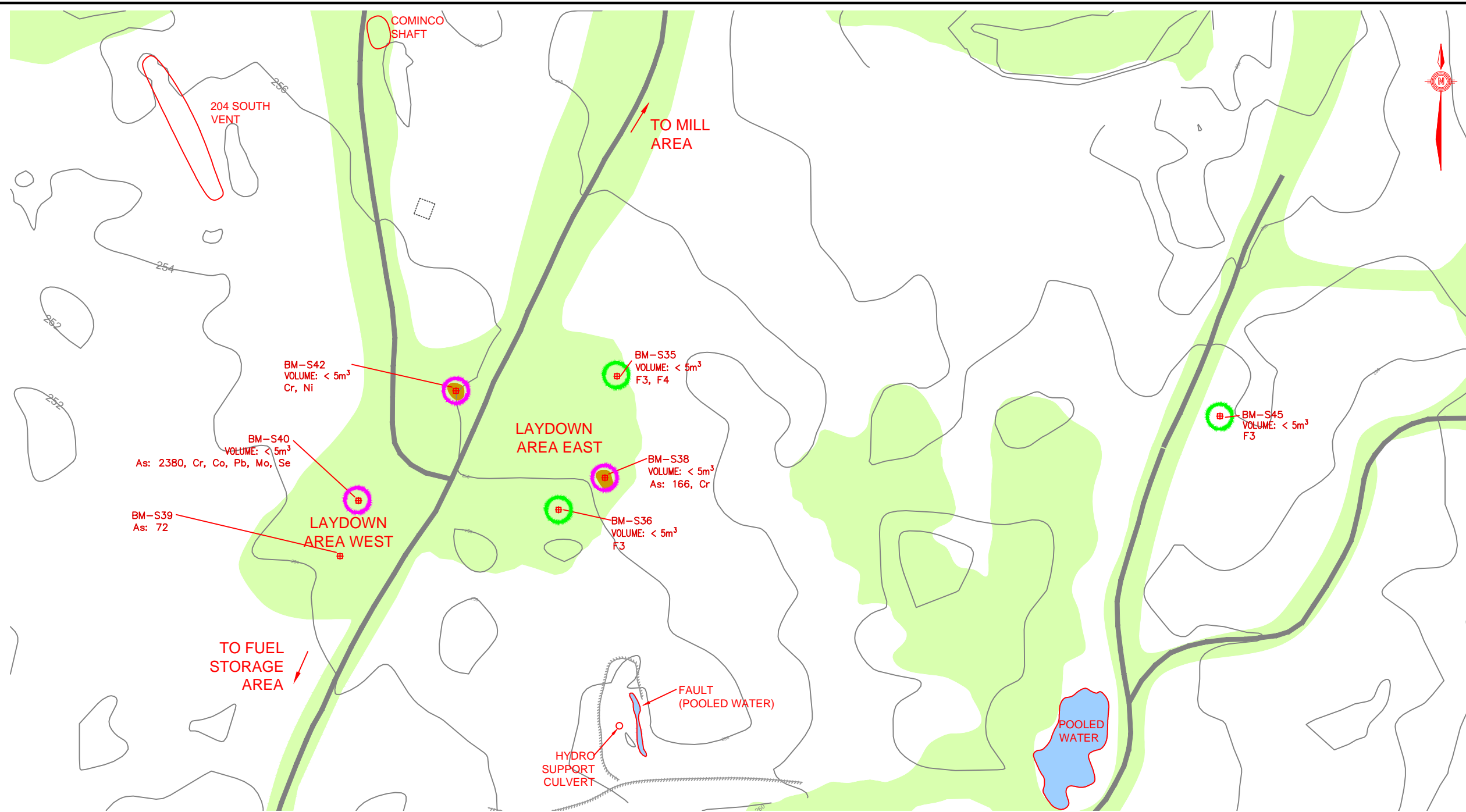
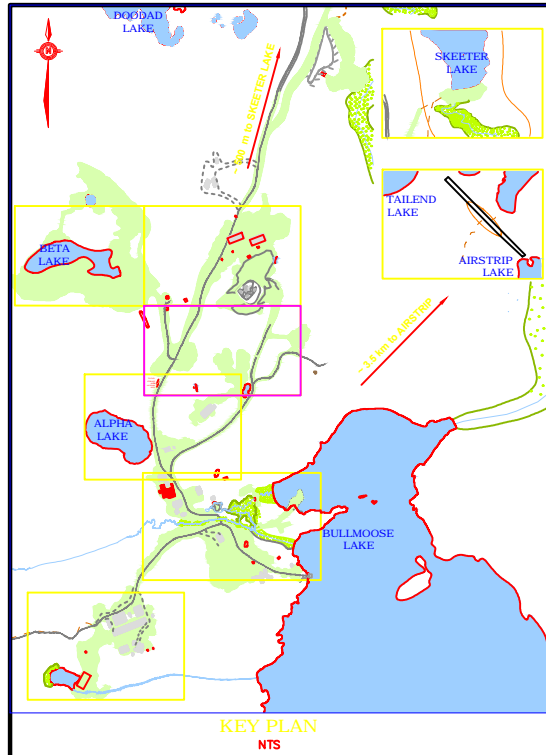
CHK: FL

REV: 0

DRAWING STATUS: 0

FIGURE BM 5-1

Scale: 1: 500 (metres)



WASTE STREAM	TOTAL ESTIMATED VOLUME (m³)	UNCERTAINTY (m³)
METALS + PHC IMPACTED SOILS	800	135
PHC's IMPACTED SOILS	1372	289

NOTE: INCLUDES VOLUMES AND ASSOCIATED UNCERTAINTIES FROM FIGURES BM 5-1 TO BM 5-5

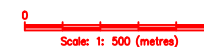
**FINAL**

LEGEND:

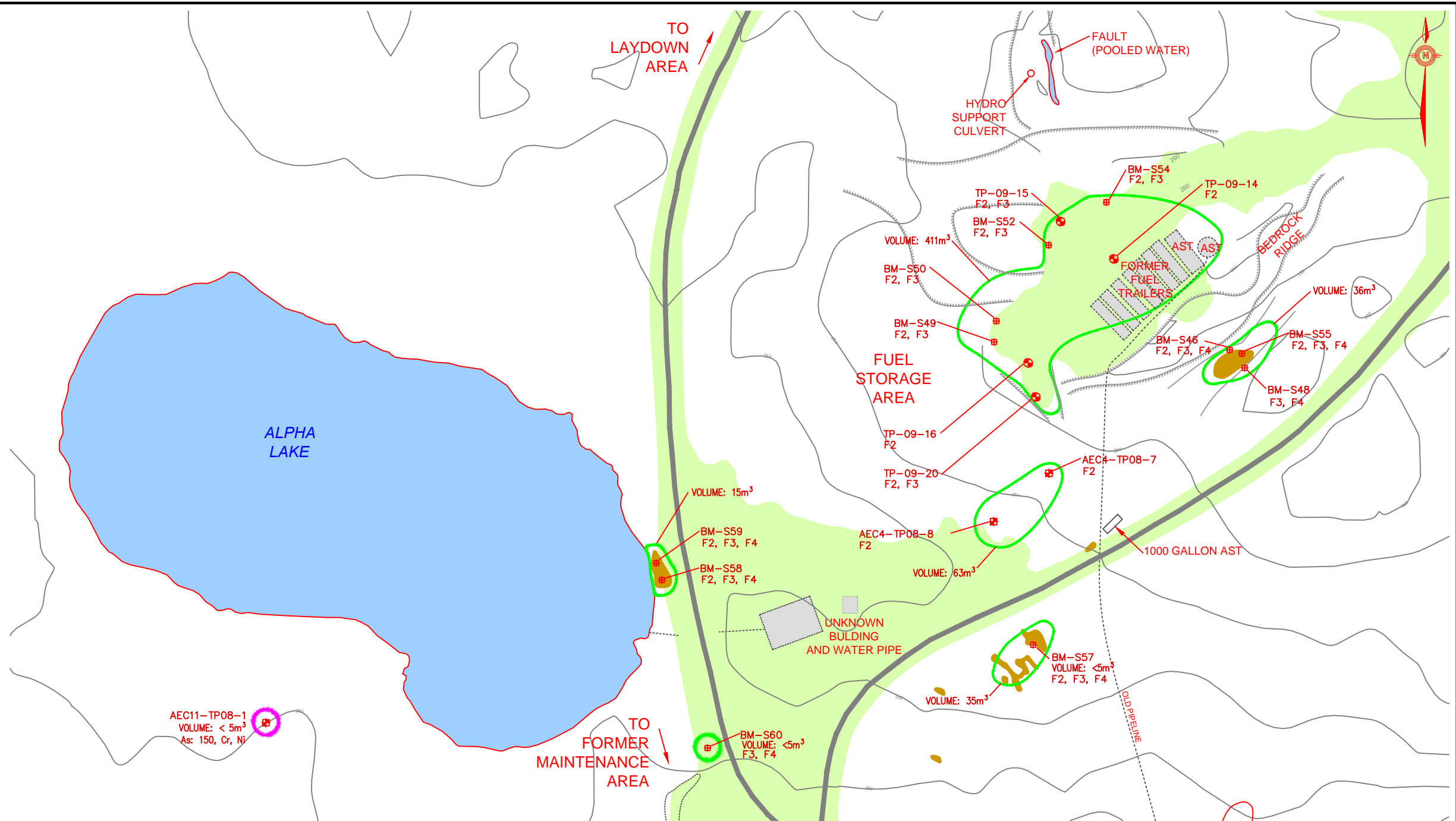
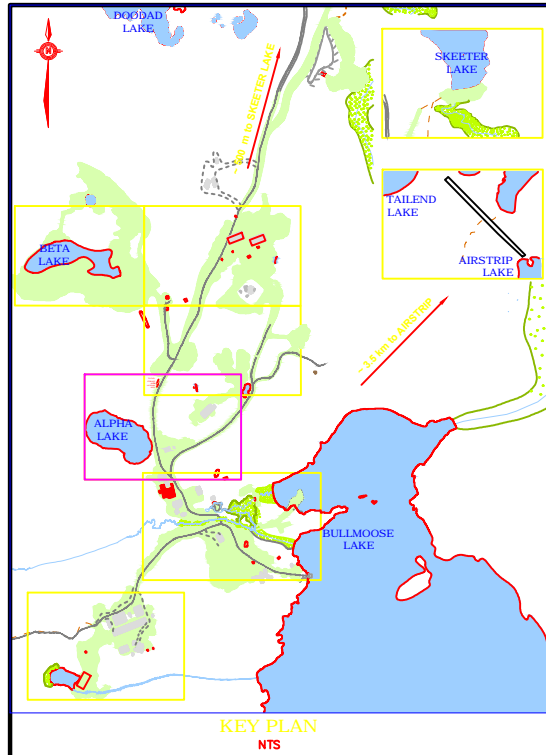
- WATER
- WASTE ROCK (2008)
- WETLAND
- CURRENT STRUCTURE (2008)
- FORMER STRUCTURE
- STAINING
- WINTER ROAD
- TRAIL
- BEDROCK OUTLINE (2008)
- GROUND ELEVATION CONTOUR (masl)
- AEC AREA OF ENVIRONMENTAL CONCERN
- APEC AREA OF POTENTIAL ENVIRONMENTAL CONCERN
- AEC / APEC AREA OUTLINE
- EST PIT SAMPLE - EBA 2009
- TEST PIT SOIL SAMPLE - FRANZ/ECOMETRIX 2008
- SOIL SAMPLE - WESA 2007
- METAL CONTAMINATION
- HYDROCARBON CONTAMINATION



REMEDIATION ACTION PLAN FOR 7 ABANDONED MINE SITES, NT					
<b>BULLMOOSE MINE - AREA 2 : METAL AND HYDROCARBON SOIL CONTAMINATION AREAS</b>					
PROJECT No. 122510933	OFFICE OTT	DES DW	CKD FL	REV 0	DRAWING FIGURE BM 5-2
DATE Mar 2015	SHEET No. - of -	DWN APP	STATUS - LC	REV 0	







WASTE STREAM	TOTAL ESTIMATED VOLUME (m <sup>3</sup> )	UNCERTAINTY (m <sup>3</sup> )
METALS + PHC IMPACTED SOILS	800	135
PHC's IMPACTED SOILS	1372	289

NOTE: INCLUDES VOLUMES AND ASSOCIATED UNCERTAINTIES FROM FIGURES BM 5-1 TO BM 5-5

**FINAL**

- LEGEND:**
- WATER
  - WASTE ROCK (2008)
  - WETLAND
  - CURRENT STRUCTURE (2008)
  - FORMER STRUCTURE
  - STAINING
  - WINTER ROAD
  - TRAIL
  - BEDROCK OUTLINE (2008)
  - GROUND ELEVATION CONTOUR (masl)
  - AEC AREA OF ENVIRONMENTAL CONCERN
  - APEC AREA OF POTENTIAL ENVIRONMENTAL CONCERN
  - AEC / APEC AREA OUTLINE
  - EST PIT SAMPLE - EBA 2009
  - TEST PIT SOIL SAMPLE - FRANZ/ECOMETRIX 2008
  - SOIL SAMPLE - WESA 2007
  - METAL CONTAMINATION
  - HYDROCARBON CONTAMINATION

CLIENT: Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada

PROJECT No. 122510933  
 DATE: Mar 2015

OFFICE: OTT  
 SHEET No. - of -  
 DES: DW  
 FL: LC

REV: 0  
 STATUS: 0

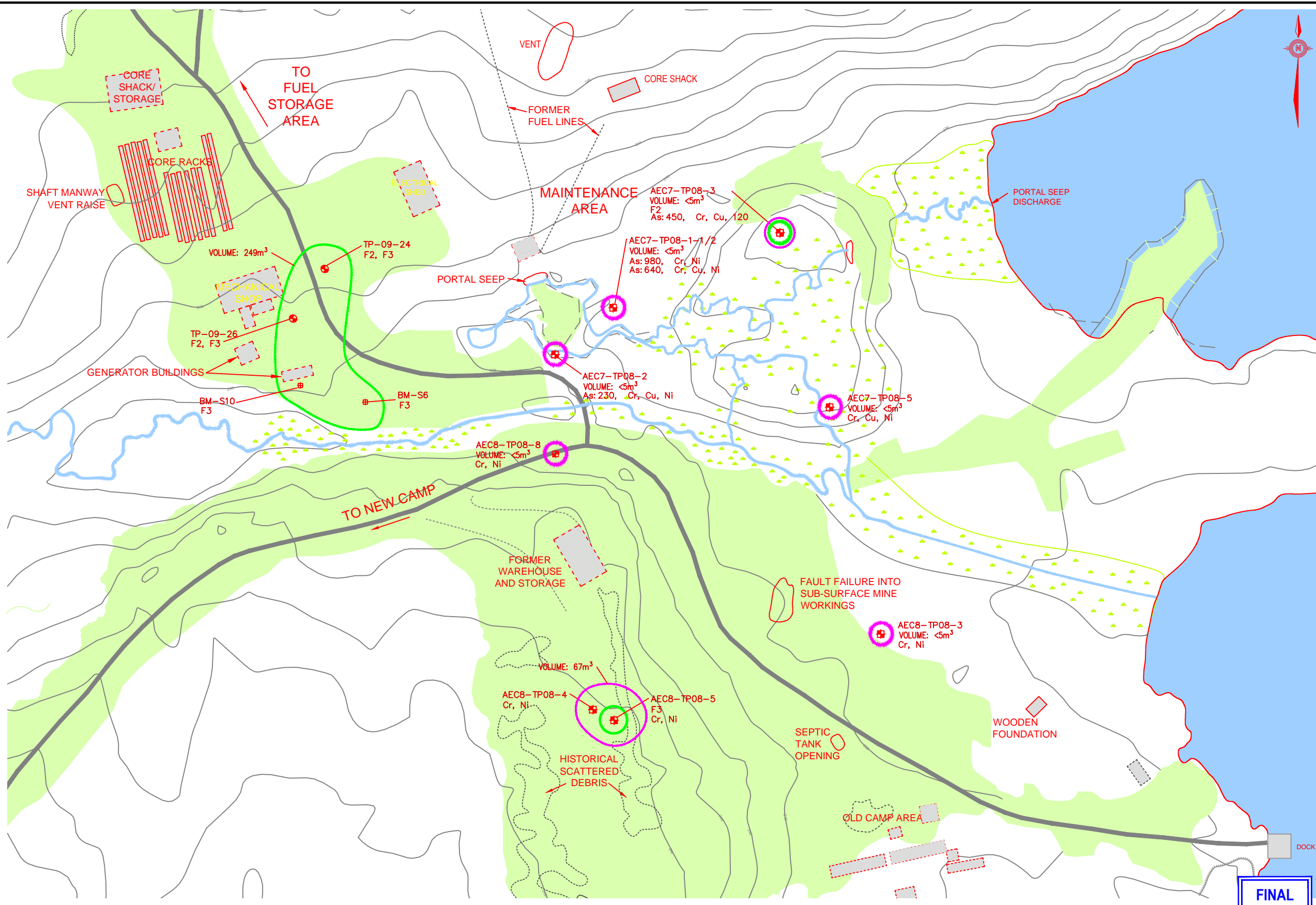
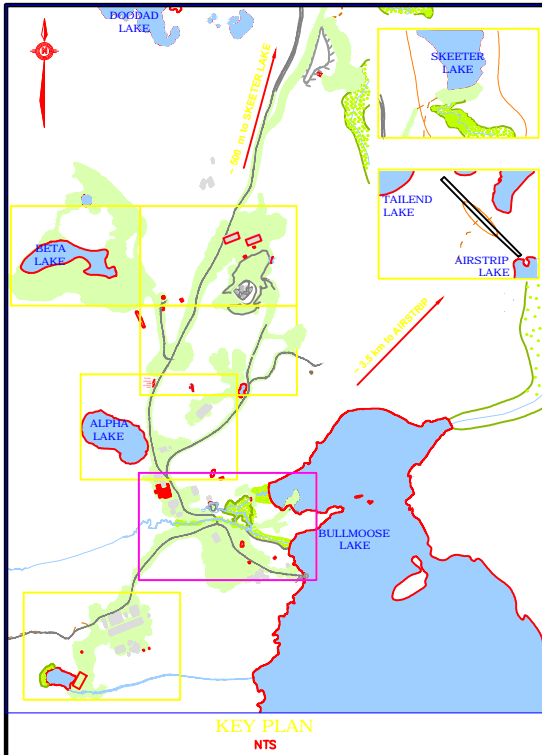
DRAWING: **FIGURE BM 5-3**

REMEDATION ACTION PLAN FOR 7 ABANDONED MINE SITES, NT

**BULLMOOSE MINE - AREA 3 : METAL AND HYDROCARBON SOIL CONTAMINATION AREAS**

Stantec

Scale: 1: 500 (metres)



WASTE STREAM	TOTAL ESTIMATED VOLUME (m <sup>3</sup> )	UNCERTAINTY (m <sup>3</sup> )
METALS + PHC IMPACTED SOILS	800	135
PHC's IMPACTED SOILS	1372	289

NOTE: INCLUDES VOLUMES AND ASSOCIATED UNCERTAINTIES FROM FIGURES BM 5-1 TO BM 5-5

**FINAL**

LEGEND:

- WATER
- WASTE ROCK (2008)
- WETLAND
- CURRENT STRUCTURE (2008)
- FORMER STRUCTURE
- STAINING
- WINTER ROAD
- TRAIL
- BEDROCK OUTLINE (2008)
- GROUND ELEVATION CONTOUR (masl)
- AEC AREA OF ENVIRONMENTAL CONCERN
- APEC AREA OF POTENTIAL ENVIRONMENTAL CONCERN
- AEC / APEC AREA OUTLINE
- EST PIT SAMPLE - EBA 2009
- TEST PIT SOIL SAMPLE - FRANZ/ECOMETRIX 2008
- SOIL SAMPLE - WESA 2007
- METAL CONTAMINATION
- HYDROCARBON CONTAMINATION



REMEDIATION ACTION PLAN FOR 7 ABANDONED MINE SITES, NT

**BULLMOOSE MINE - AREA 4 : METAL AND HYDROCARBON SOIL CONTAMINATION AREAS**



PROJECT No. 122510933	OFFICE OTT	DES DW	CKD FL	REV 0	DRAWING FIGURE BM 5-4
DATE Mar 2015	SHEET No. - of -	DWN APP	STATUS - LC	REV 0	



