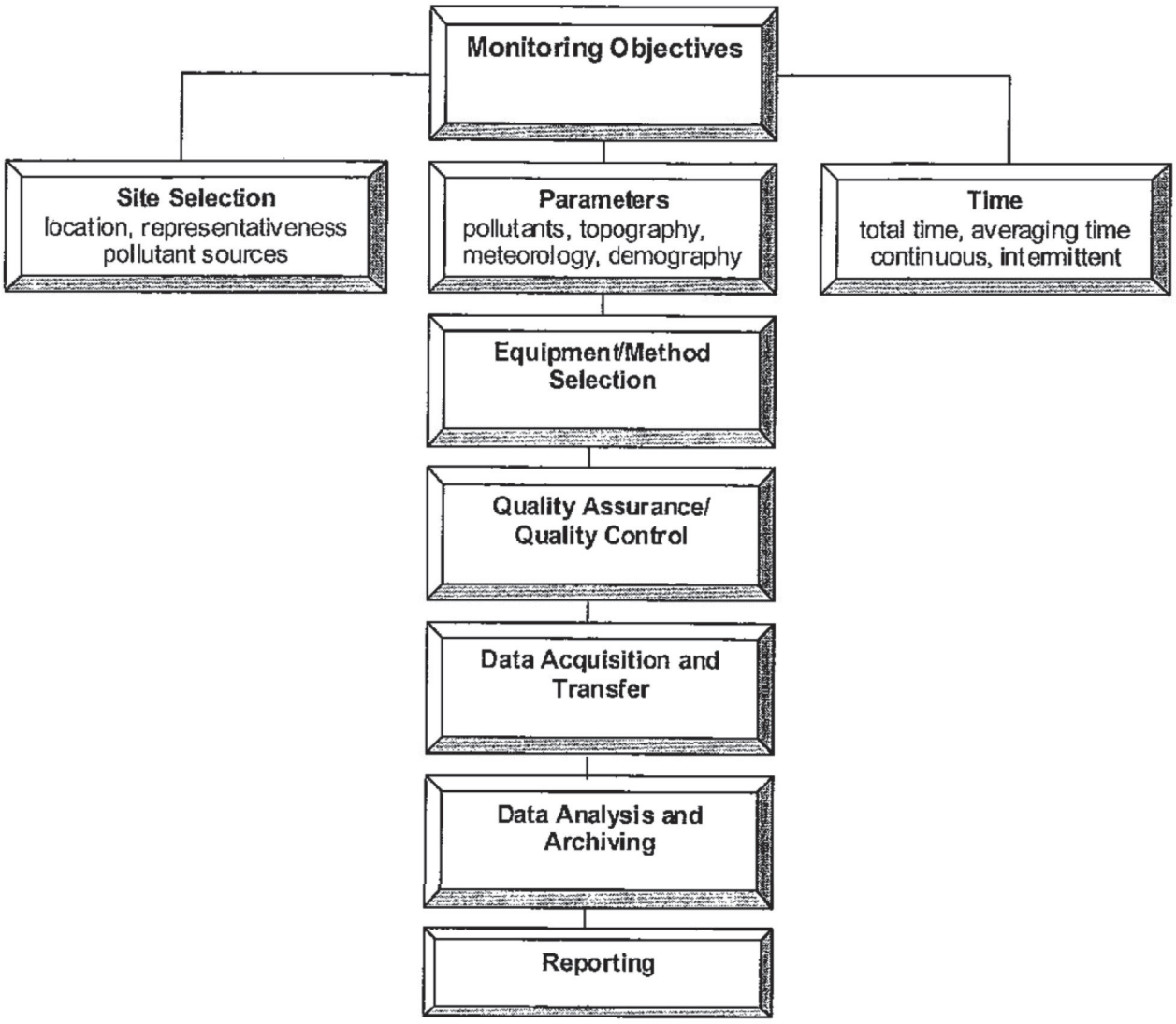


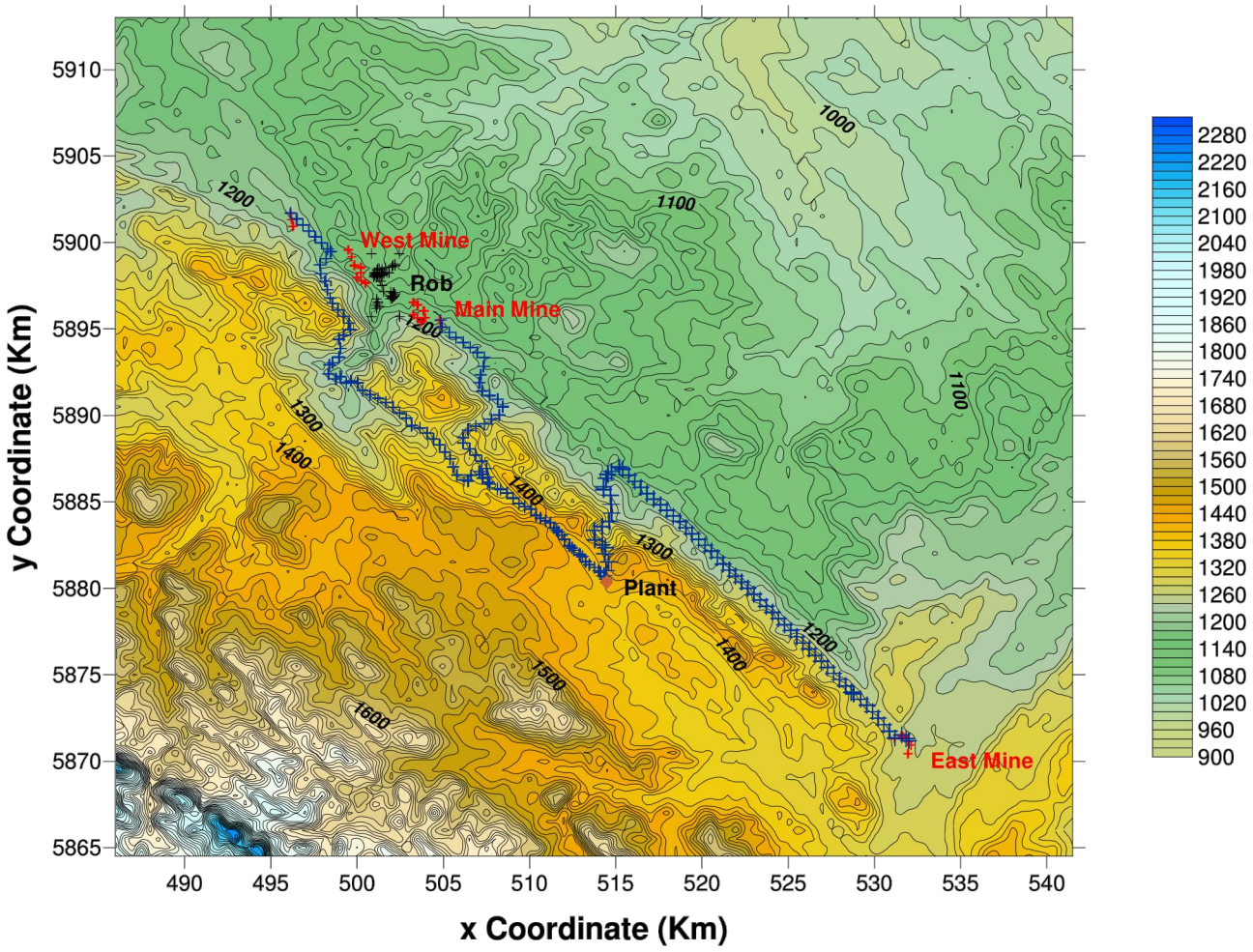
PROJECT:
Coal Valley Mine
Robb Trend Project

TITLE:
Data Flow Model (Figure 2 from CASA, 2009)

FILE: SIR Drawings.dwg

DRAWN:	RS
CHECKED:	JT
DATE:	Nov 27/12
PROJECT:	08-041

FIGURE:
56-1



Legend

- West, East and Main Mine Operations
- Haul Roads
- Receptors Chosen Within Robb
- ROM Pile at Robb Trend Coal Processing Plant

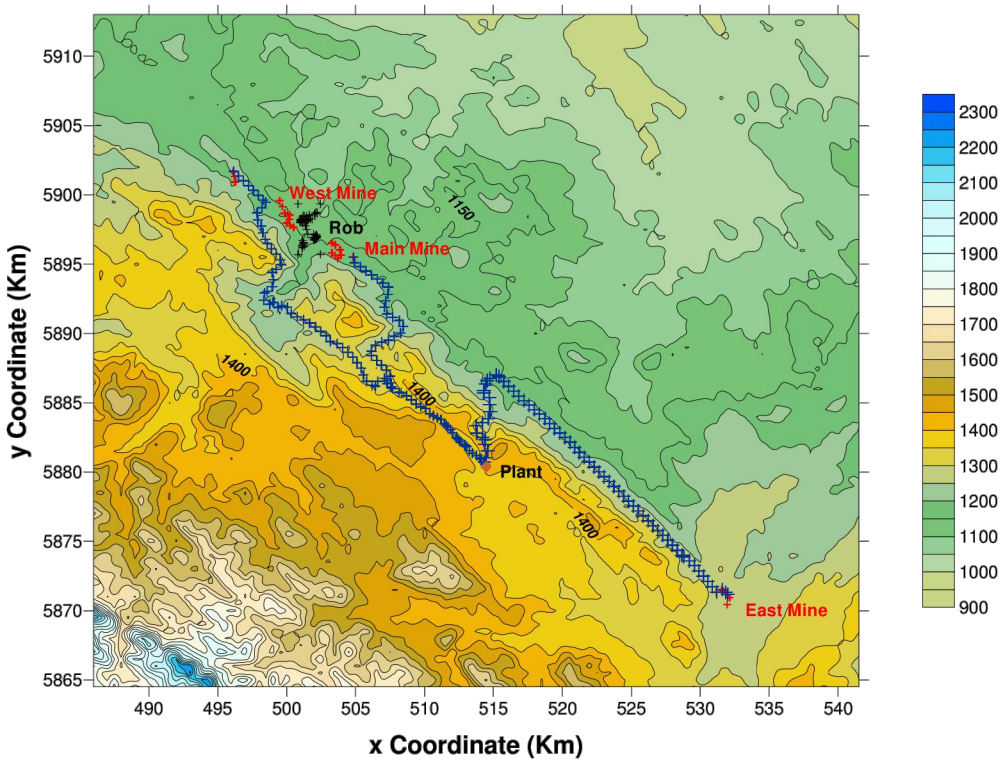
PROJECT:
Coal Valley Mine
Robb Trend Project

TITLE:
Terrain Features in the RSA

FILE: ..Final Docs\SIR\SIR AESRD Drawings.dwg

DRAWN:	RS/JG
CHECKED:	KP
DATE:	Dec 5/12
PROJECT:	08-0/1

FIGURE:
61-1



Legend

- West, East and Main Mine Operations
- Haul Roads
- Receptors Chosen Within Robb
- ROM Pile at Robb Trend Coal Processing Plant

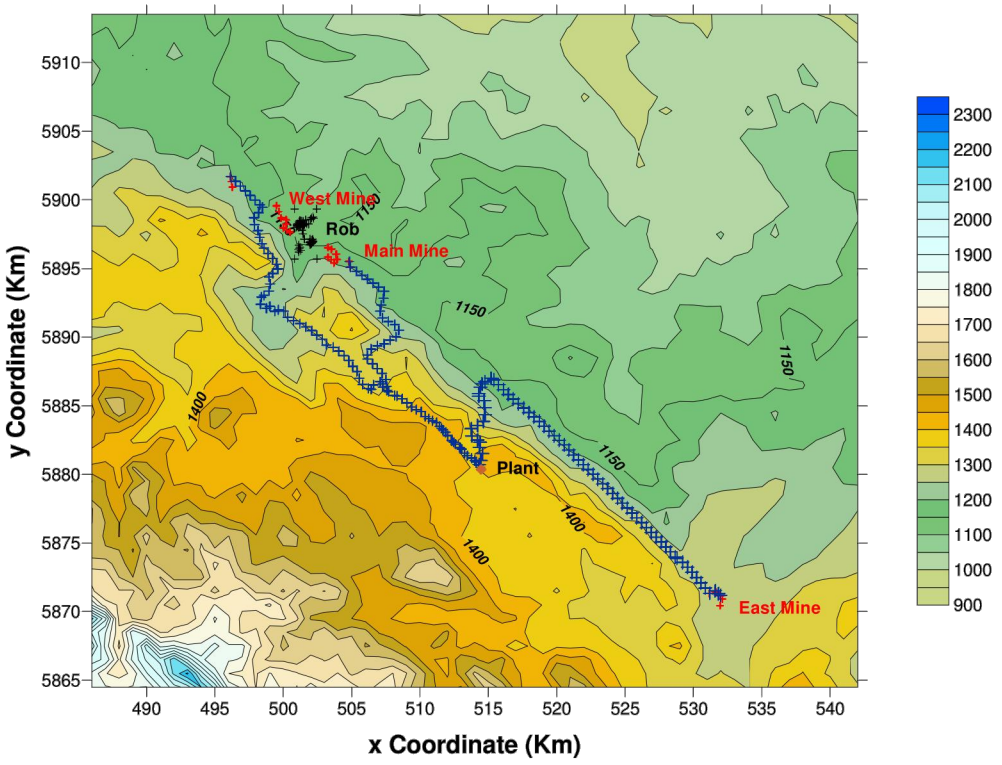
PROJECT:
Coal Valley Mine
Robb Trend Project

TITLE:
Terrain within Robb Trend RSA Obtained from CALMET with 500m Grid Spacing

FILE: ..Final Docs\SIR\SIR AESRD Drawings.dwg

DRAWN:	RS/JG
CHECKED:	KP
DATE:	Dec 5/12
PROJECT:	08-0/1

FIGURE: **61-2**



Legend

- + West, East and Main Mine Operations
- + Haul Roads
- + Receptors Chosen Within Robb
- ◆ ROM Pile at Robb Trend Coal Processing Plant

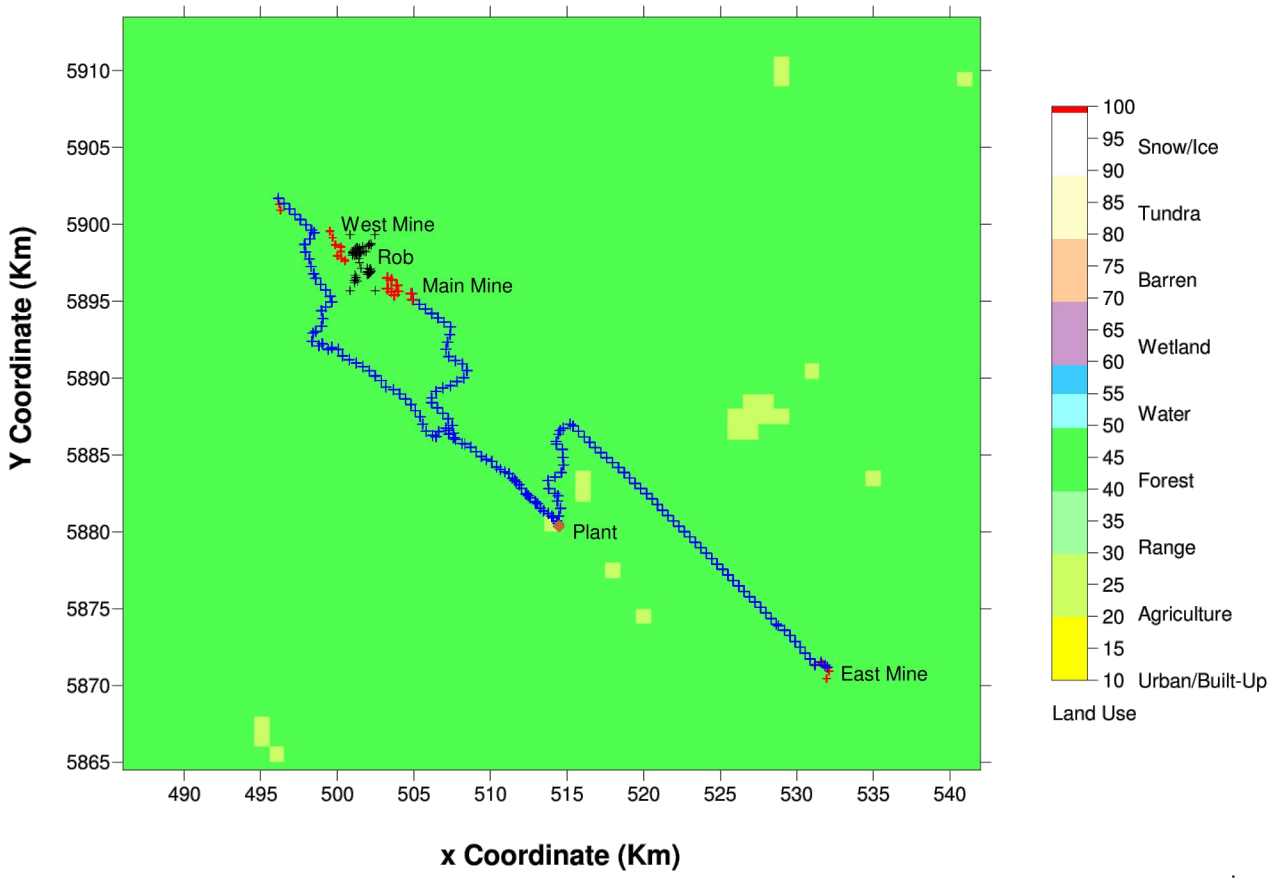
PROJECT:
Coal Valley Mine
Robb Trend Project

TITLE:
Terrain within Robb Trend RSA Obtained from CALMET with 1000m Grid Spacing

FILE: ..Final Docs\SIR\SIR AESRD Drawings.dwg

DRAWN:	RS/JG
CHECKED:	KP
DATE:	Dec 5/12
PROJECT:	08-0/1

FIGURE: **61-3**



Legend

- West, East and Main Mine Operations
- Haul Roads
- Receptors Chosen Within Robb
- ROM Pile at Robb Trend Coal Processing Plant

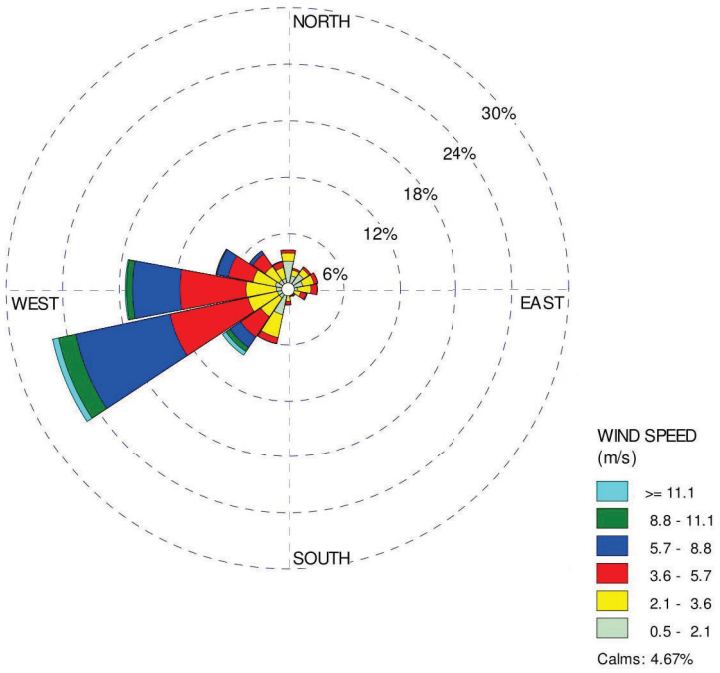
PROJECT:
Coal Valley Mine
Robb Trend Project

TITLE:
Land Use in the RSA

FILE: ..Final Docs\SIR\SIR AESRD Drawings.dwg

DRAWN:	RS/JG
CHECKED:	KP
DATE:	Dec 5/12
PROJECT:	08-0□1

FIGURE: **61-4**



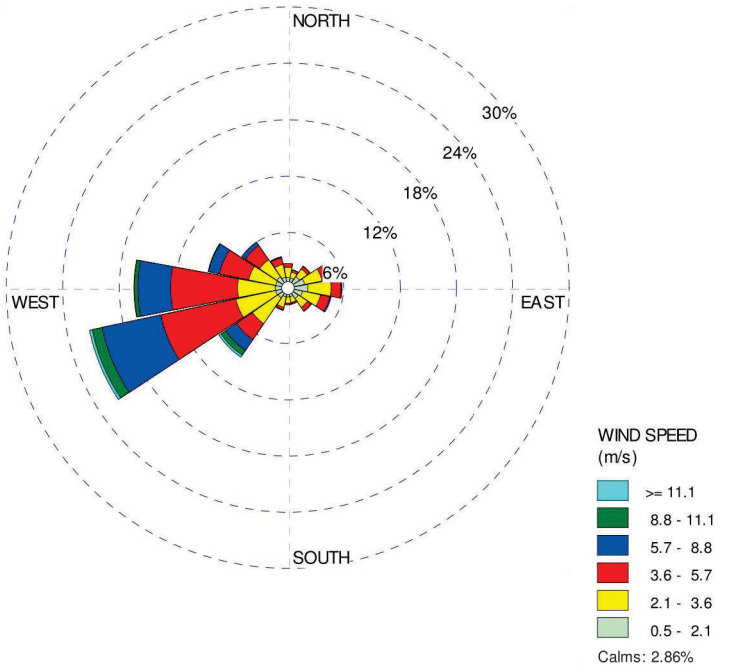
PROJECT:
Coal Valley Mine
Robb Trend Project

TITLE:
Wind Rose at Robb Community Obtained from CALMET with 500m Grid Spacing

FILE: SIR Drawings.dwg

DRAWN:	RS
CHECKED:	JT
DATE:	Nov 27/12
PROJECT:	08-041

FIGURE:
61-5



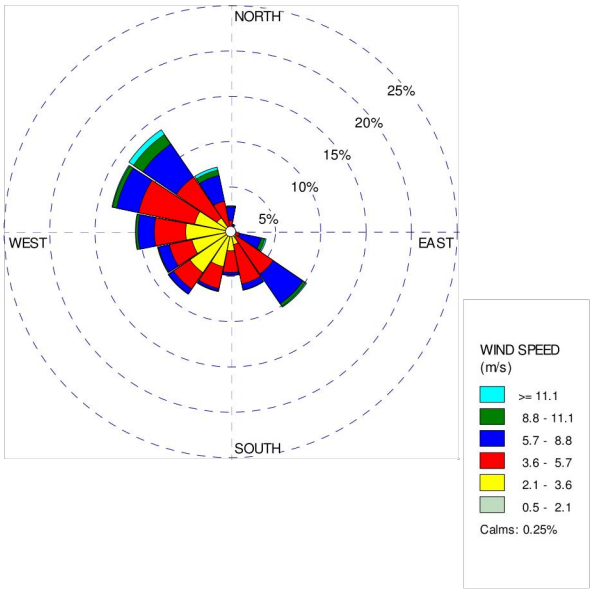
PROJECT:
Coal Valley Mine
Robb Trend Project

TITLE:
Wind Rose at Robb Community Obtained from CALMET with 1000m Grid Spacing

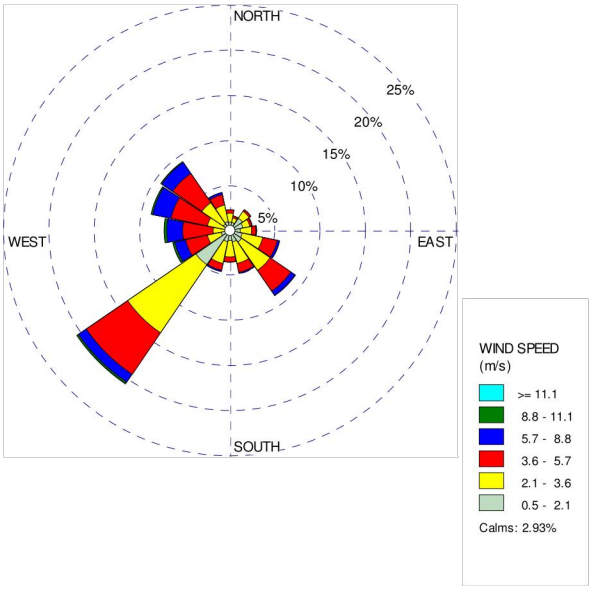
FILE: SIR Drawings.dwg

DRAWN:	RS
CHECKED:	JT
DATE:	Nov 27/12
PROJECT:	08-041

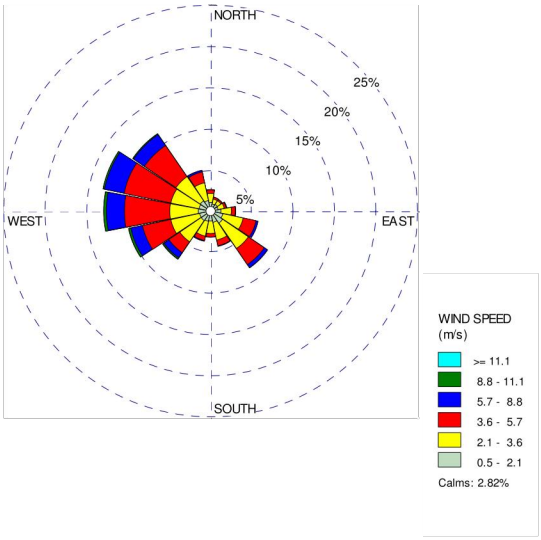
FIGURE: **61-6**



Measurements at Hanlan Robb Gas Plant



CALMET Generated Winds at Gas Plant – TERRAD = 15 km



CALMET Generated Winds at Gas Plant – TERRAD = 1 km

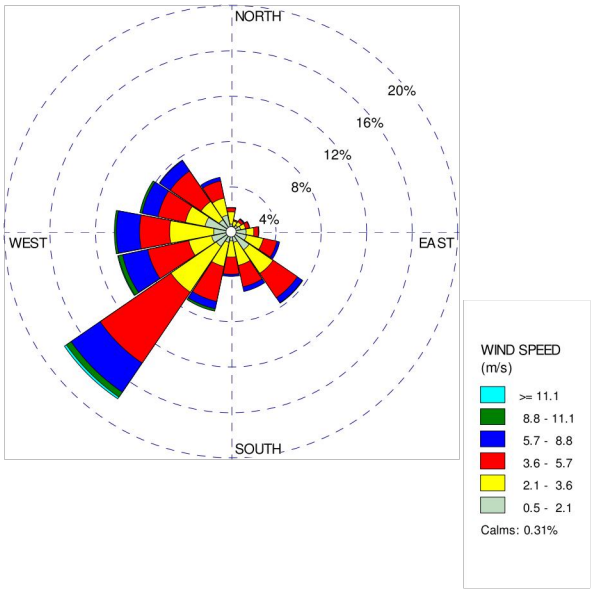
PROJECT:
Coal Valley Mine
Robb Trend Project

TITLE:
Wind Roses at the Suncor Hanlan Robb Gas Plant

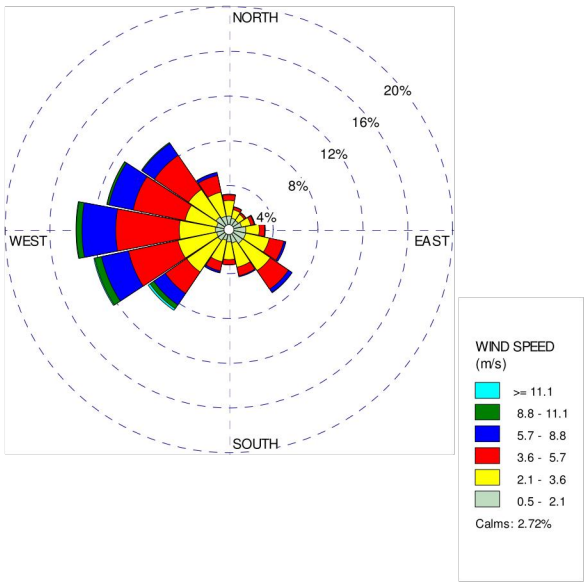
FILE: ..Final Docs\SIR\SIR AESRD Drawings.dwg

DRAWN:	RS/JG
CHECKED:	KP
DATE:	Dec 5/12
PROJECT:	08-01

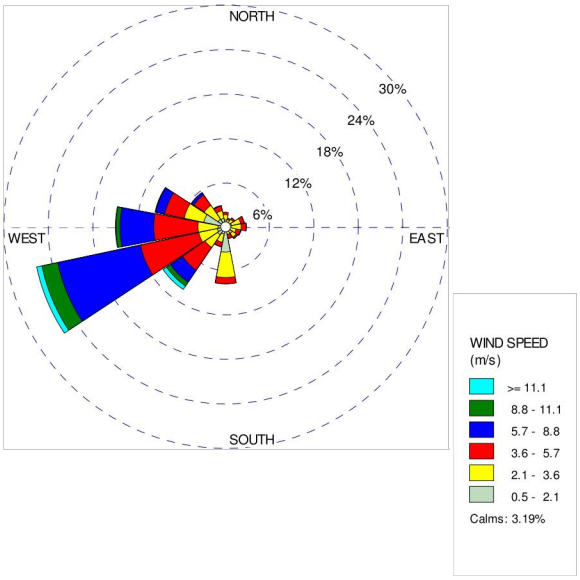
FIGURE: **64-1**



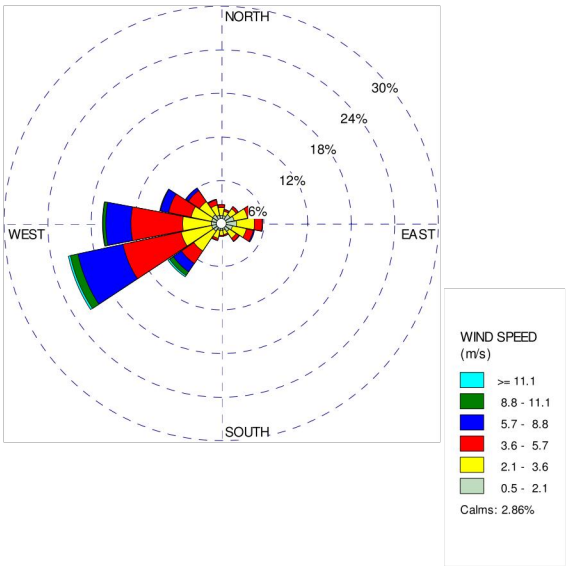
Robb East – TERRAD = 15 km



Robb East – TERRAD = 1 km



Robb Community – TERRAD = 15 km



Robb Community – TERRAD = 1 km

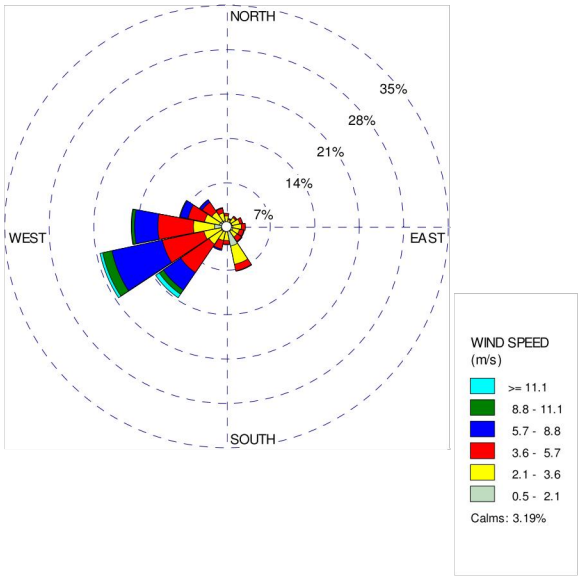
PROJECT:
Coal Valley Mine
Robb Trend Project

TITLE:
Wind Roses at Future Robb East Mine and at Robb Community

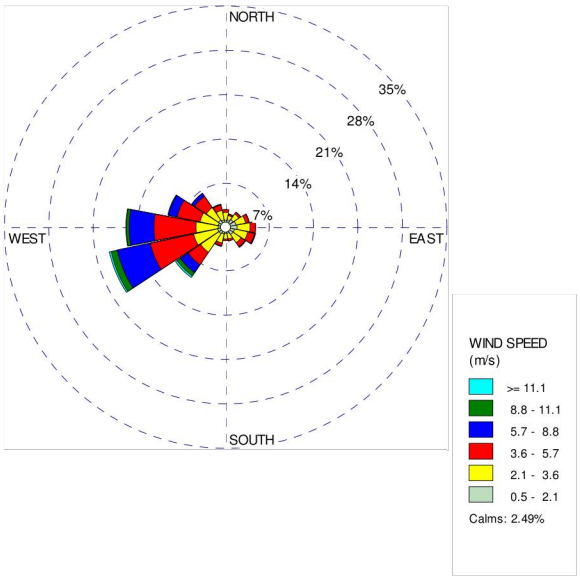
FILE: ..Final Docs\SIR\SIR AESRD Drawings.dwg

DRAWN:	RS/JG
CHECKED:	KP
DATE:	Dec 5/12
PROJECT:	08-01

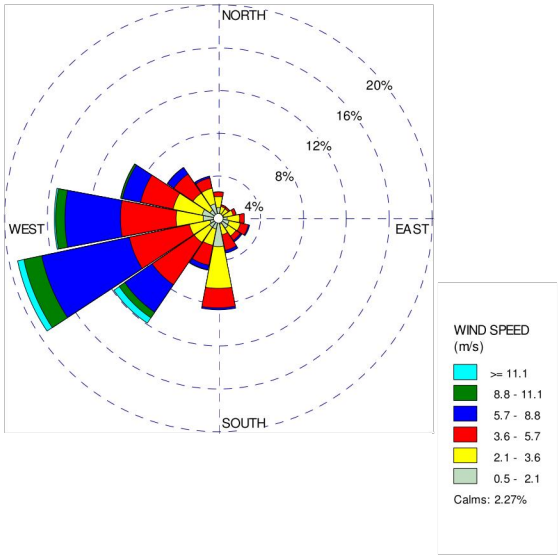
FIGURE:
64-2



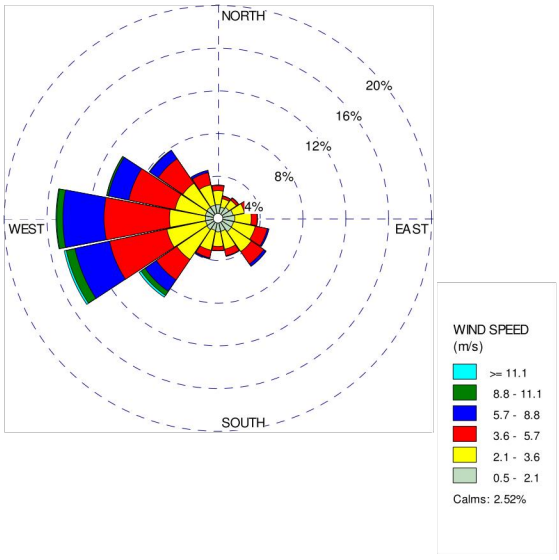
Robb Main – TERRAD = 15 km



Robb Main – TERRAD = 1 km



Robb Center – TERRAD = 15 km



Robb Center – TERRAD = 1 km

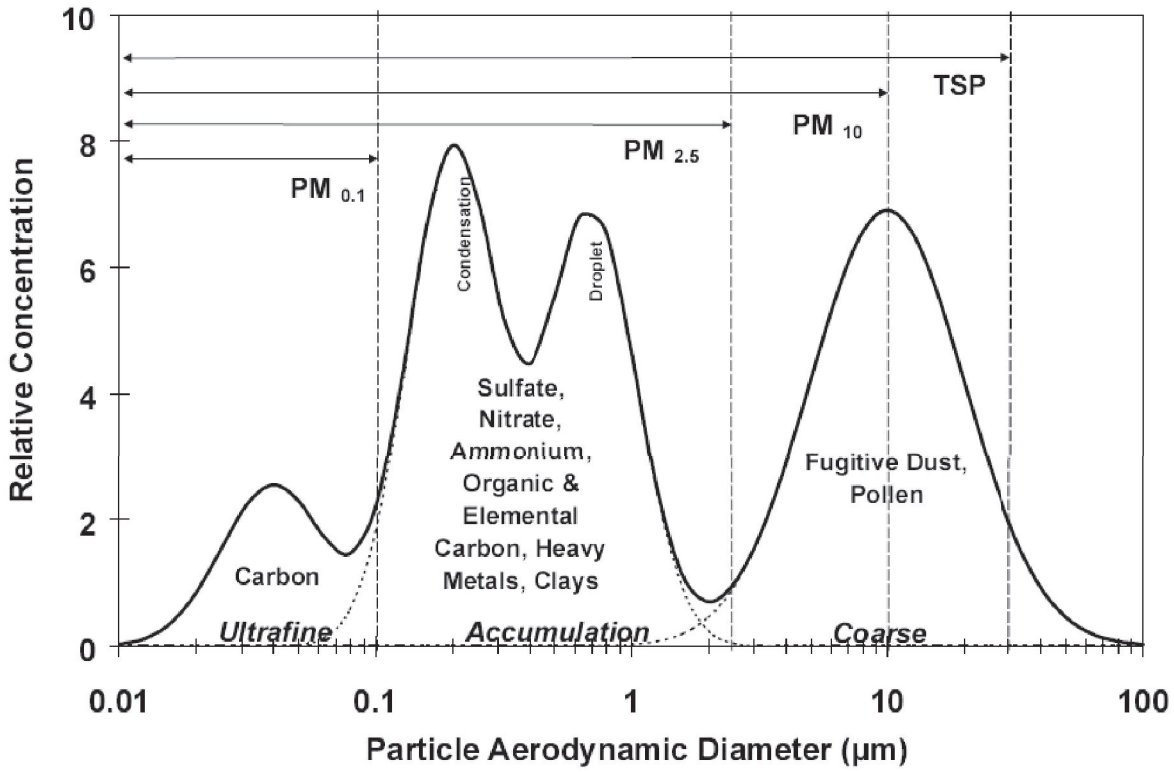
PROJECT:
Coal Valley Mine
Robb Trend Project

TITLE:
Wind Roses at Future Robb Main and Robb Centre Mine

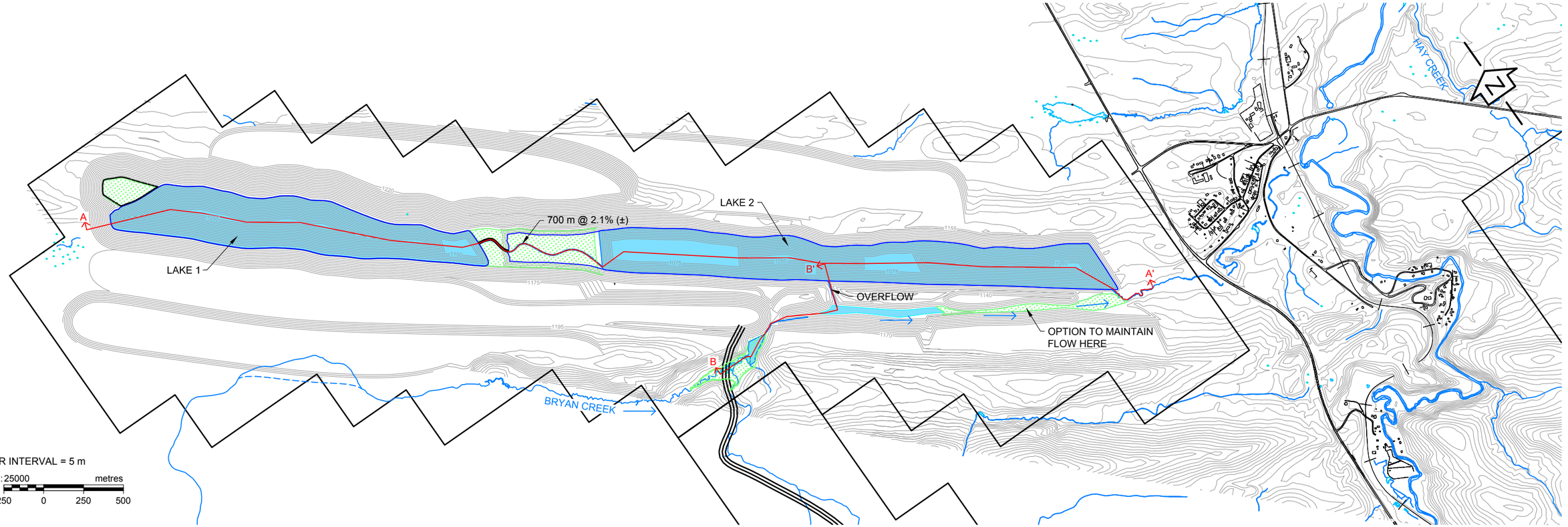
FILE: ..Final Docs\SIR\SIR AESRD Drawings.dwg

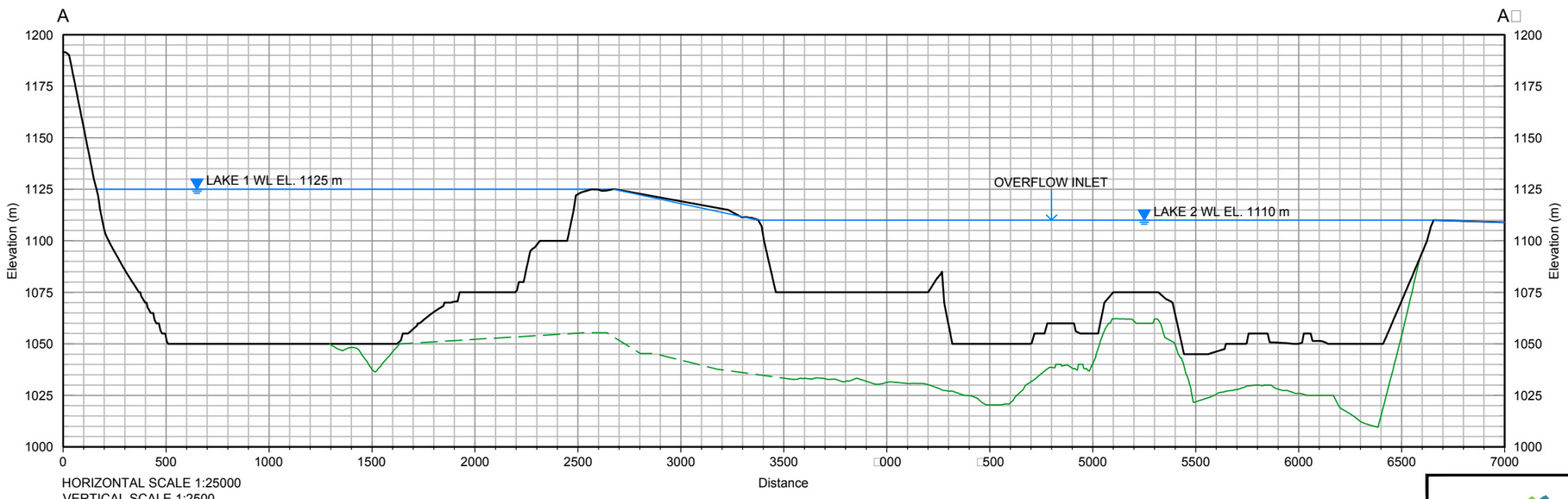
DRAWN:	RS□JG
CHECKED:	KP
DATE:	Dec 5□12
PROJECT:	08-0□1

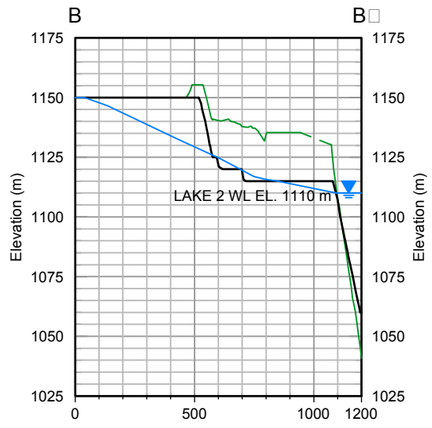
FIGURE:
64-3



PROJECT: Coal Valley Mine Robb Trend Project	cvri
TITLE: Typical distribution of atmospheric particulate (from Watson and Chow 2000)	FILE: SIR Drawings.dwg
	DRAWN: RS CHECKED: JT DATE: Nov 27/12 PROJECT: 08-041
	FIGURE: 67-1







LEGEND

- Approximate Pit Bottom
- Final Grade
- Channel □Water

REFERENCE:

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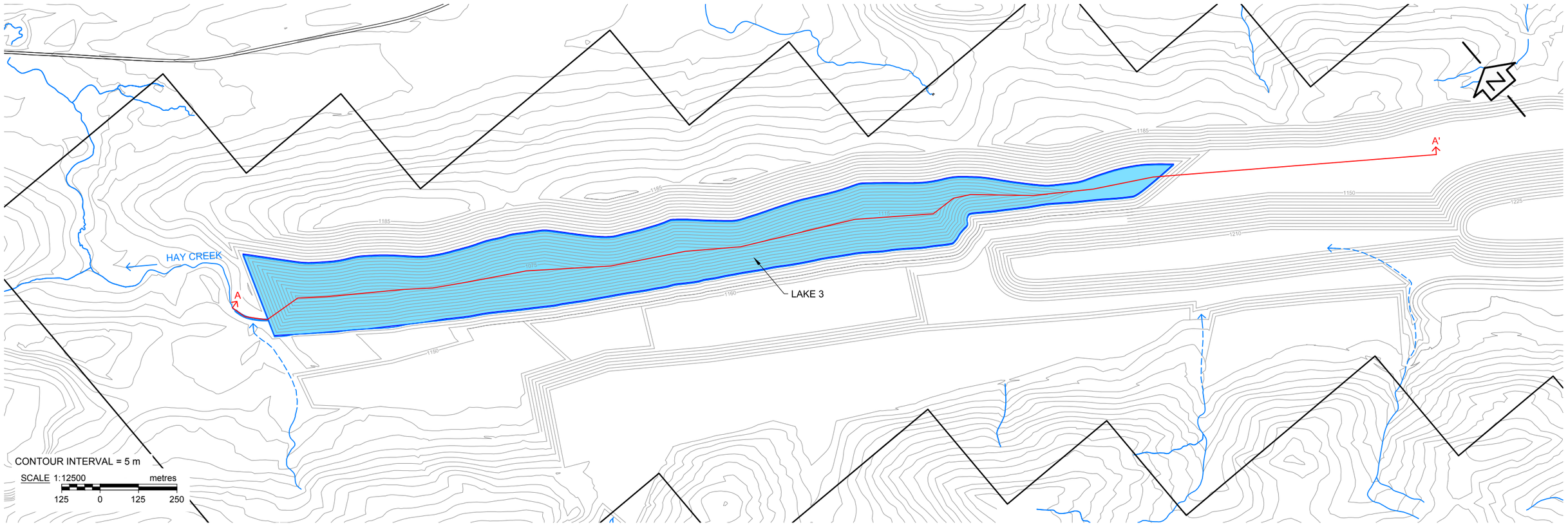
Matrix Solutions Inc.

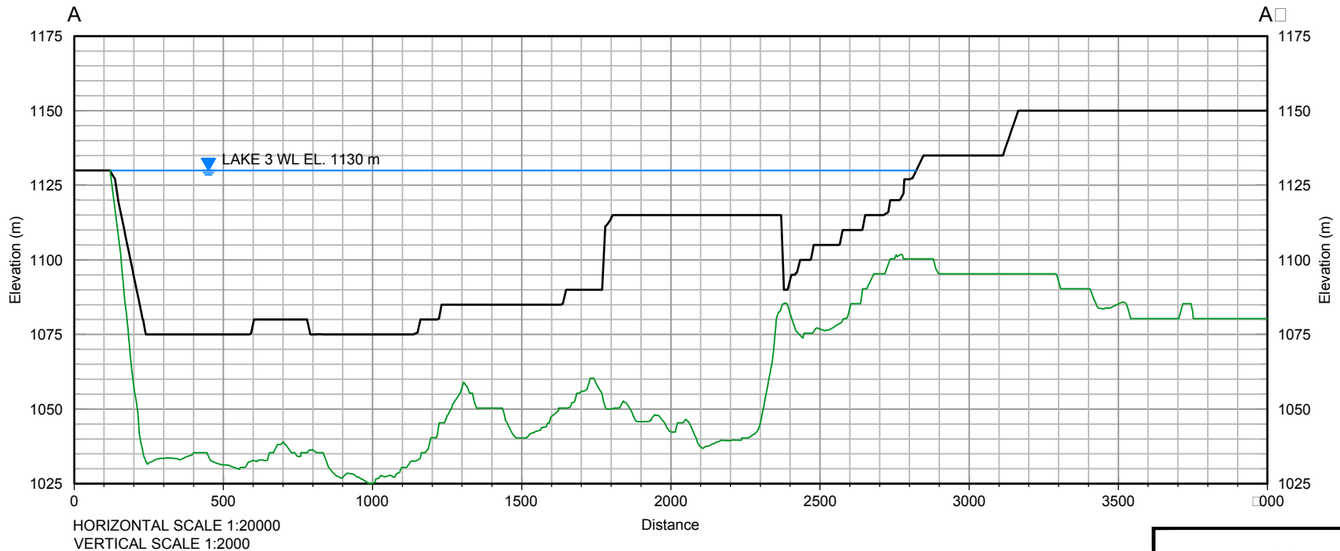
COAL VALLEY RESOURCES INC.

LAKES 1 AND 2 RECLAMATION PLAN AND PROFILE

ROBB TREND PROJECT - SIR 75 AND 183

DATE: AUGUST 2012	DESIGN: D. COOPER	DRAWN: Z. STEELE	FIGURE 75a-1
FILE: 5867-□S-ROBB-11.DWG	CHECK: D. RAMSEY	DATUM: UTM83-11	





LEGEND

- Approximate Pit Bottom
- Final Grade
- Channel Water

REFERENCE:

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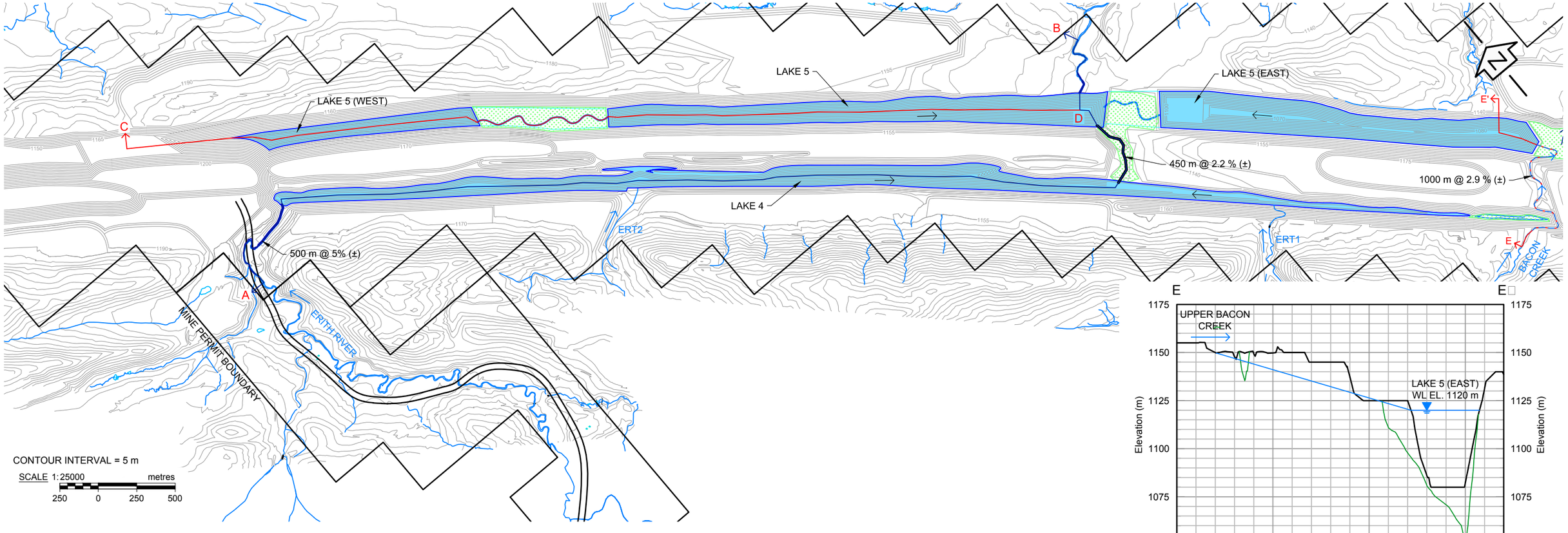
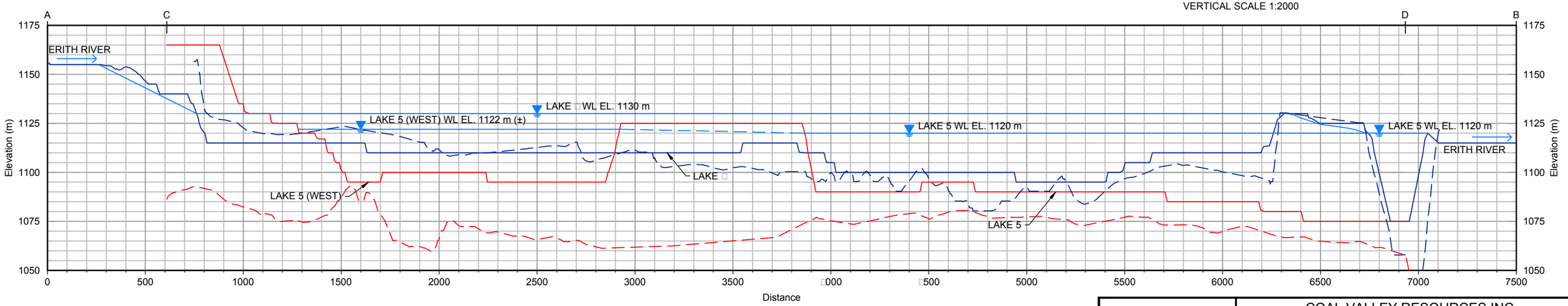
COAL VALLEY RESOURCES INC.

LAKE 3 RECLAMATION PLAN AND PROFILE

ROBB TREND PROJECT - SIR 75 AND 183

DATE: AUGUST 2012	DESIGN: D. COOPER	DRAWN: Z. STEELE	FIGURE 75a-2
FILE: 5867-S-ROBB-11.DWG	CHECK: D. RAMSEY	DATUM: UTM83-11	





LAKE 4 AND 5 PROFILES

HORIZONTAL SCALE 1:20,000 VERTICAL SCALE 1:2000

LEGEND

- Lake Approximate Pit Bottom
- Lake Final Grade
- Lake 5 Approximate Pit Bottom
- Lake 5 Final Grade
- Channel Water

REFERENCE:

DISCLAIMER: The information contained herein may be compiled from numerous third party materials that are subject to periodic change without prior notification. While every effort has been made by Matrix Solutions Inc. to ensure the accuracy of the information presented at the time of publication, Matrix Solutions Inc. assumes no liability for any errors, omissions, or inaccuracies in the third party material.

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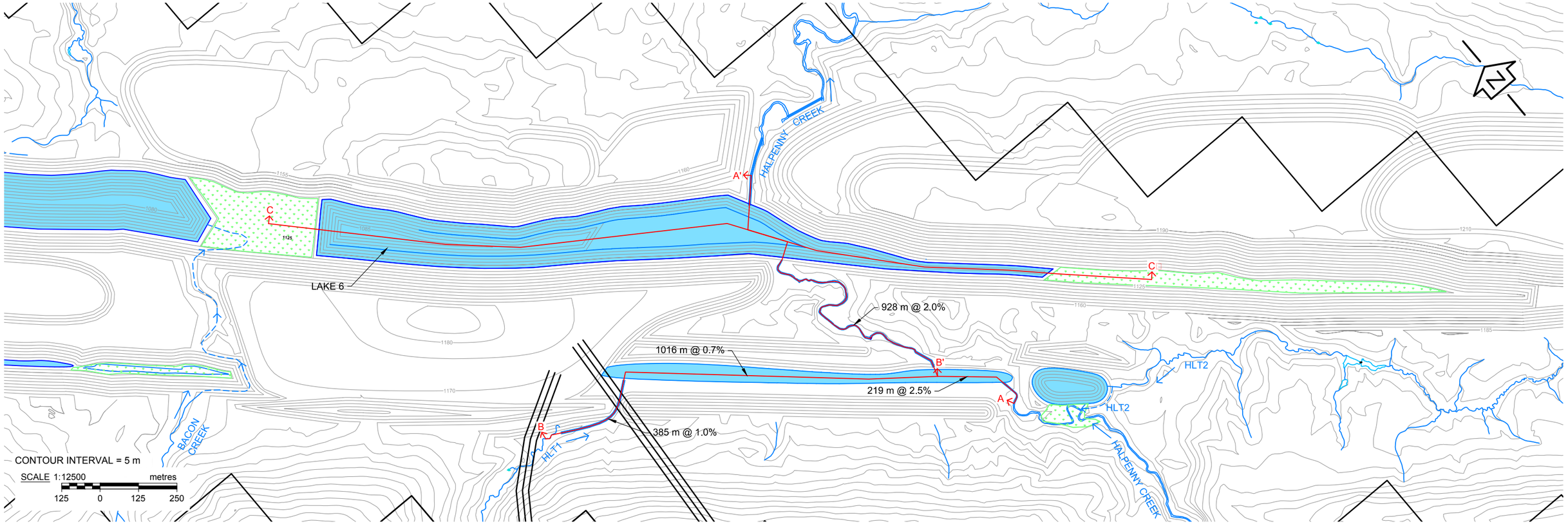
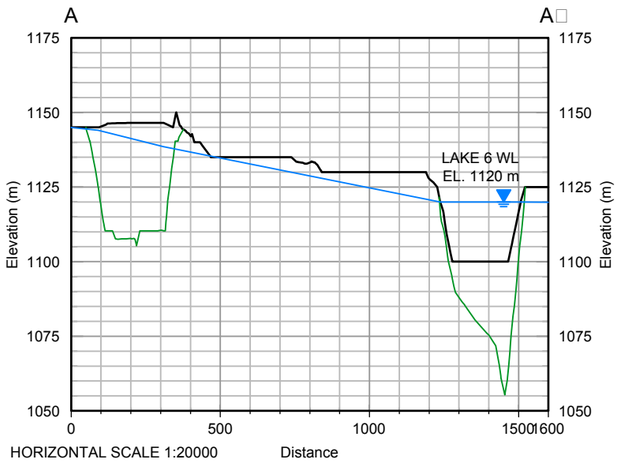
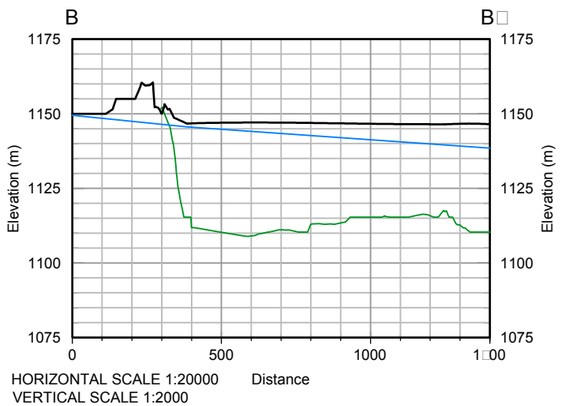
LAKES 4 AND 5 RECLAMATION PLAN AND PROFILE

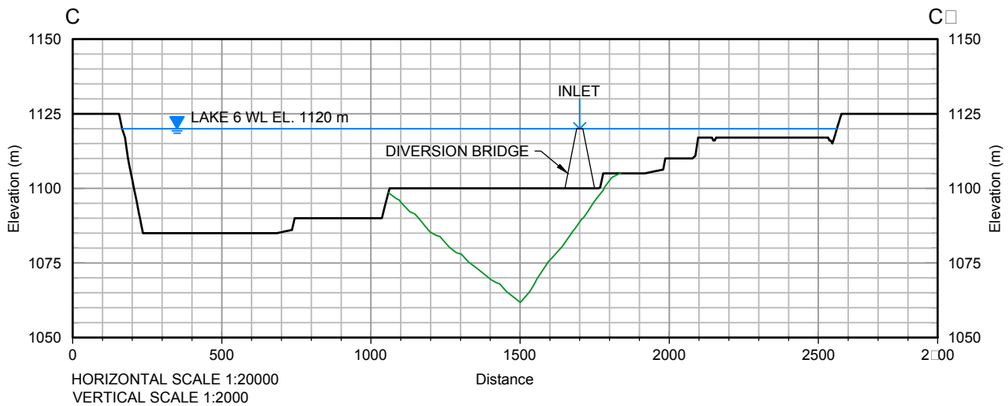
ROBB TREND PROJECT - SIR 75 AND 183

DATE:	DESIGN:	DRAWN:	FIGURE
AUGUST 2012	D. COOPER	Z. STEELE	75a-3
FILE: 5867-S-ROBB-11.DWG	CHECK: D. RAMSEY	DATUM: UTM83-11	









LEGEND

- Approximate Pit Bottom
- Final Grade
- Channel □Water

REFERENCE:

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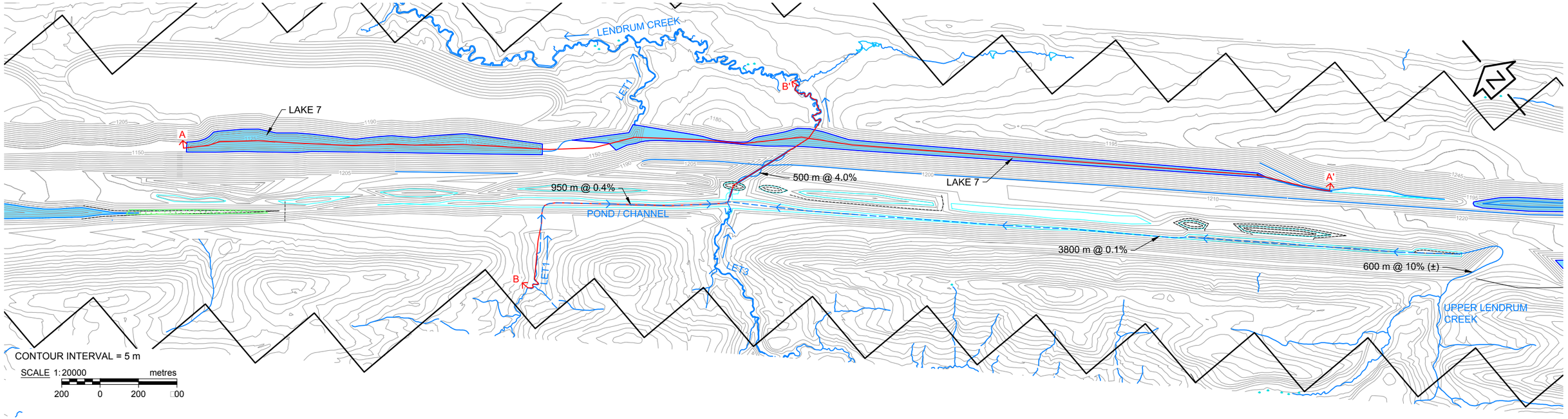
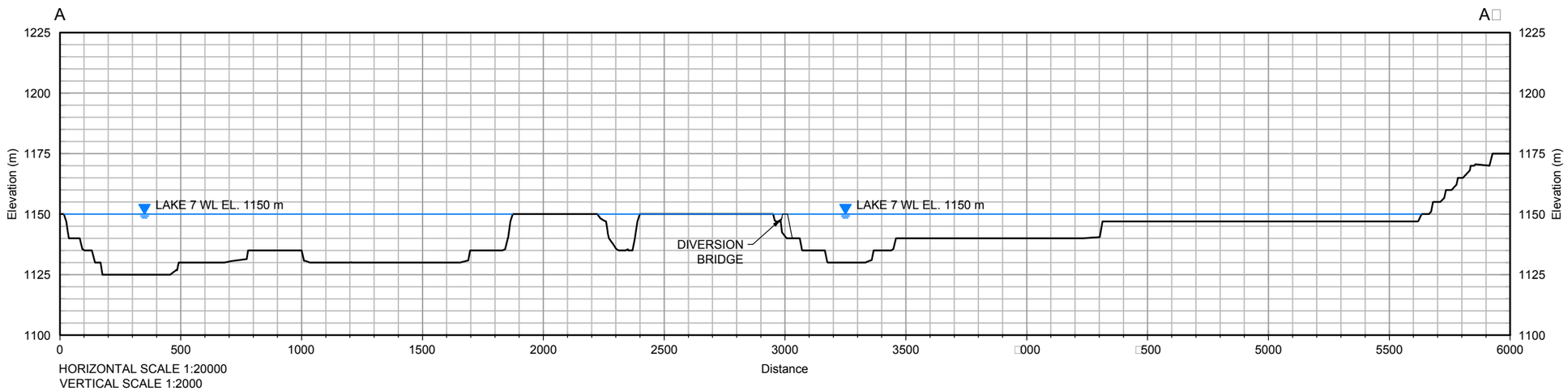
COAL VALLEY RESOURCES INC.

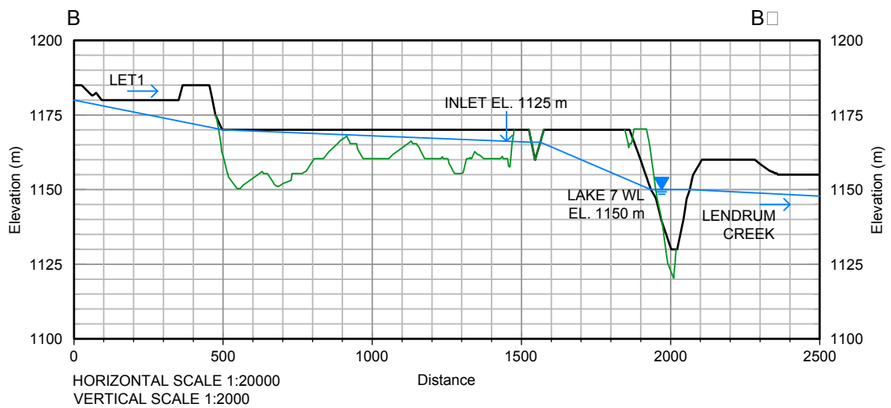
LAKE 6 RECLAMATION PLAN AND PROFILE

ROBB TREND PROJECT - SIR 75 AND 183

DATE:	DESIGN:	DRAWN:	FIGURE
AUGUST 2012	D. COOPER	Z. STEELE	75a-4
FILE: 5867-□S-ROBB-11.DWG	CHECK: D. RAMSEY	DATUM: UTM83-11	







LEGEND

- Approximate Pit Bottom
- Final Grade
- Channel Water

REFERENCE:

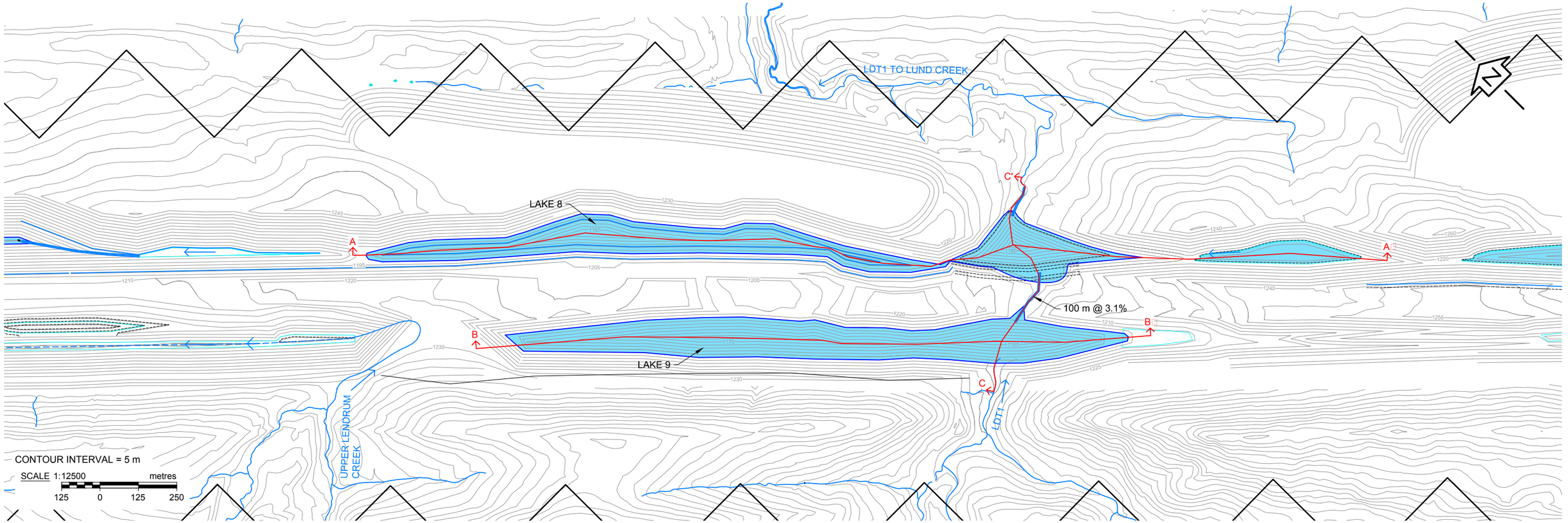
Matrix Solutions Inc.

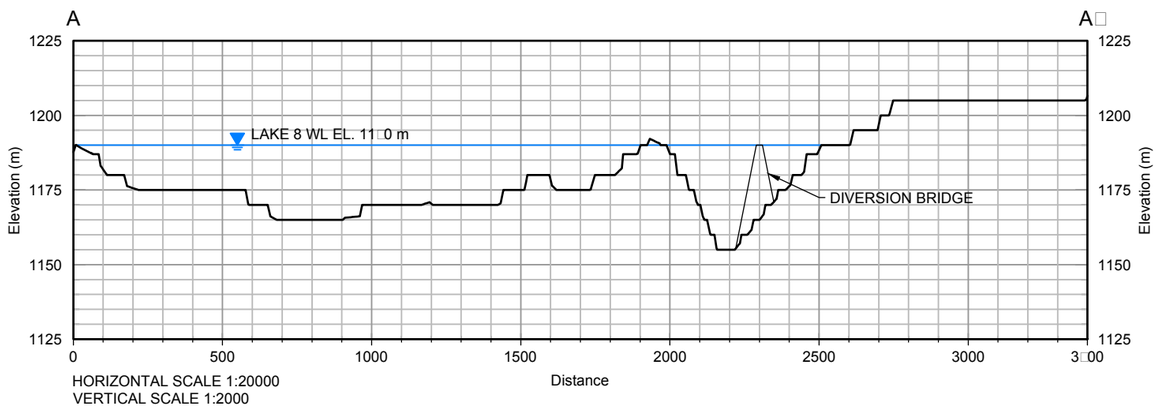
COAL VALLEY RESOURCES INC.

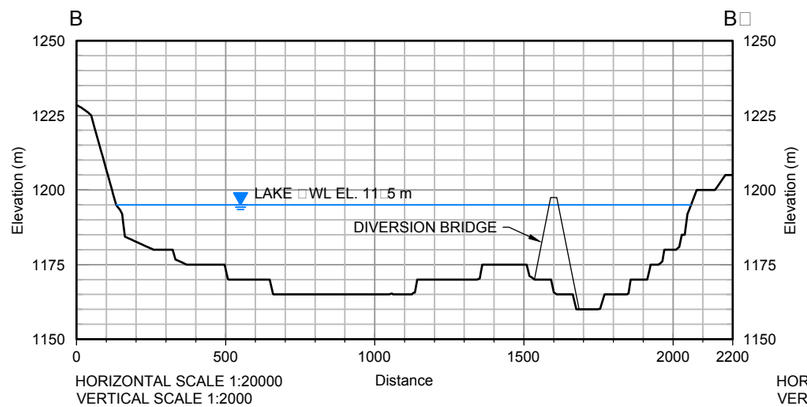
LAKE 7 RECLAMATION PLAN AND PROFILE

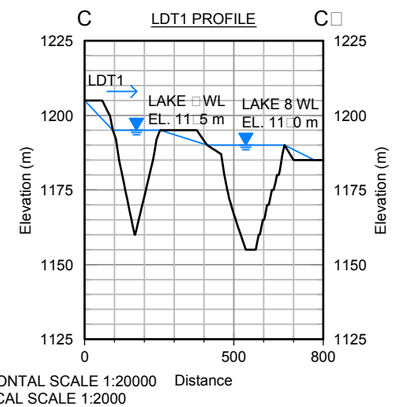
ROBB TREND PROJECT - SIR 75 AND 183

DATE:	DESIGN:	DRAWN:	FIGURE
AUGUST 2012	D. COOPER	Z. STEELE	75a-5
FILE: 5867-□S-ROBB-11.DWG	CHECK: D. RAMSEY	DATUM: UTM83-11	









LEGEND

- Final Grade
- Channel Water

REFERENCE:

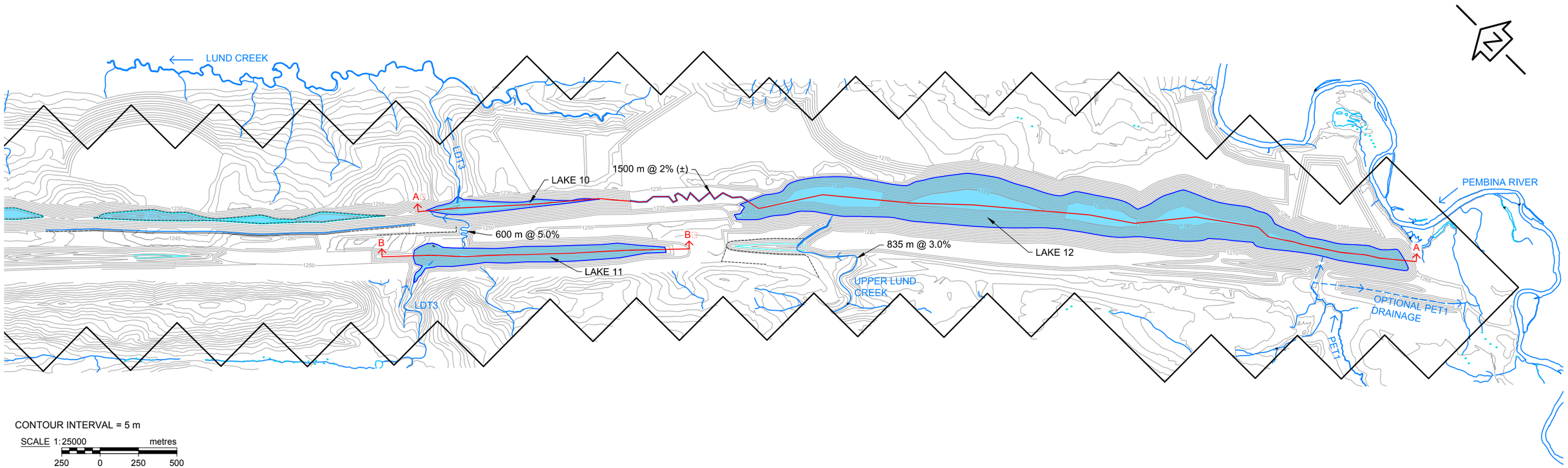
Matrix Solutions Inc.

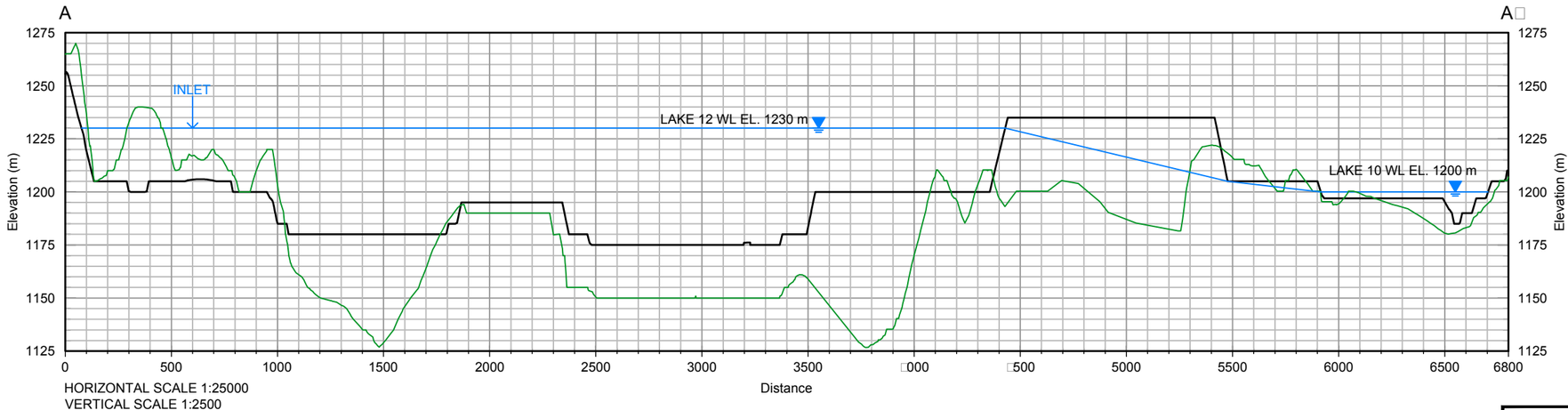
COAL VALLEY RESOURCES INC.

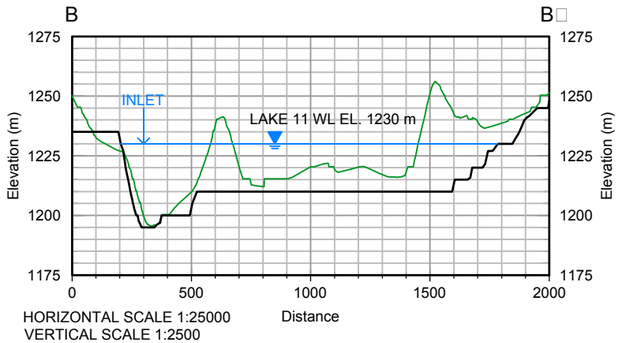
LDT1 LAKES 8 AND 9 RECLAMATION PLAN AND PROFILE

ROBB TREND PROJECT - SIR 75 AND 183

DATE:	DESIGN:	DRAWN:	FIGURE
AUGUST 2012	D. COOPER	Z. STEELE	75a-6
FILE: 5867-_S-ROBB-11.DWG	CHECK: D. RAMSEY	DATUM: UTM83-11	







LEGEND

- Approximate Pit Bottom
- Final Grade
- Channel Water

REFERENCE:

Matrix Solutions Inc.

COAL VALLEY RESOURCES INC.

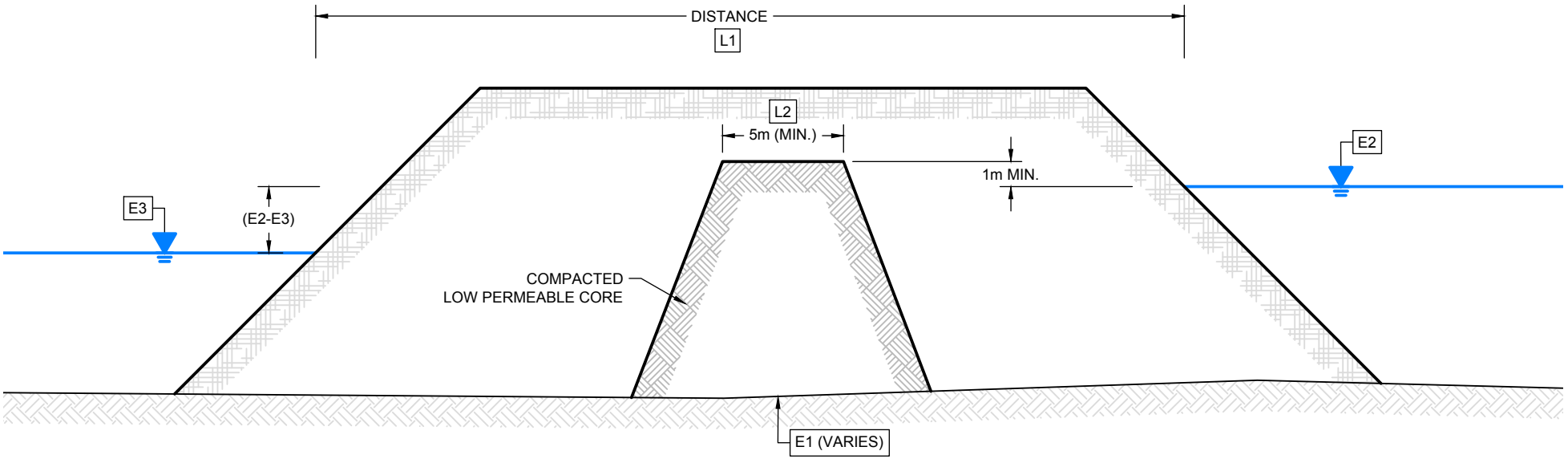
LENDRUM LAKES 10 - 12 RECLAMATION PLAN AND PROFILE

ROBB TREND PROJECT - SIR 75 AND 183

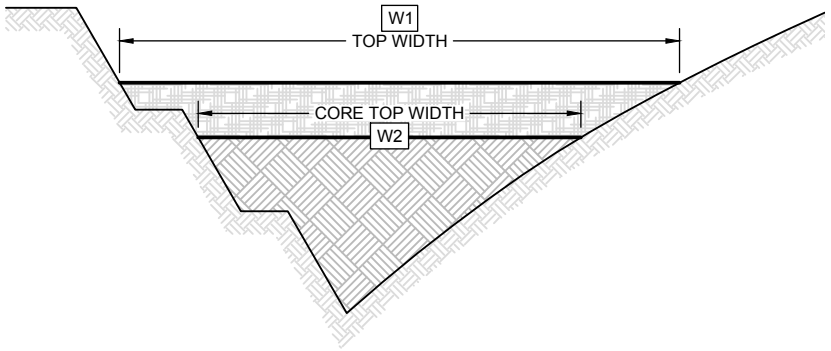
DATE:	DESIGN:	DRAWN:	FIGURE
AUGUST 2012	D. COOPER	Z. STEELE	75a-7
FILE: 5867-S-ROBB-11.DWG	CHECK: D. RAMSEY	DATUM: UTM83-11	

F:\5867\Drafting\2012\5867-RB-SH-12.dwg - SeepageControls - Tuesday, August 28, 2012 11:16:07 AM - Nick Dyer

*PLOT 1:1 = Letter (L)



SECTION
NTS



SECTION
NTS

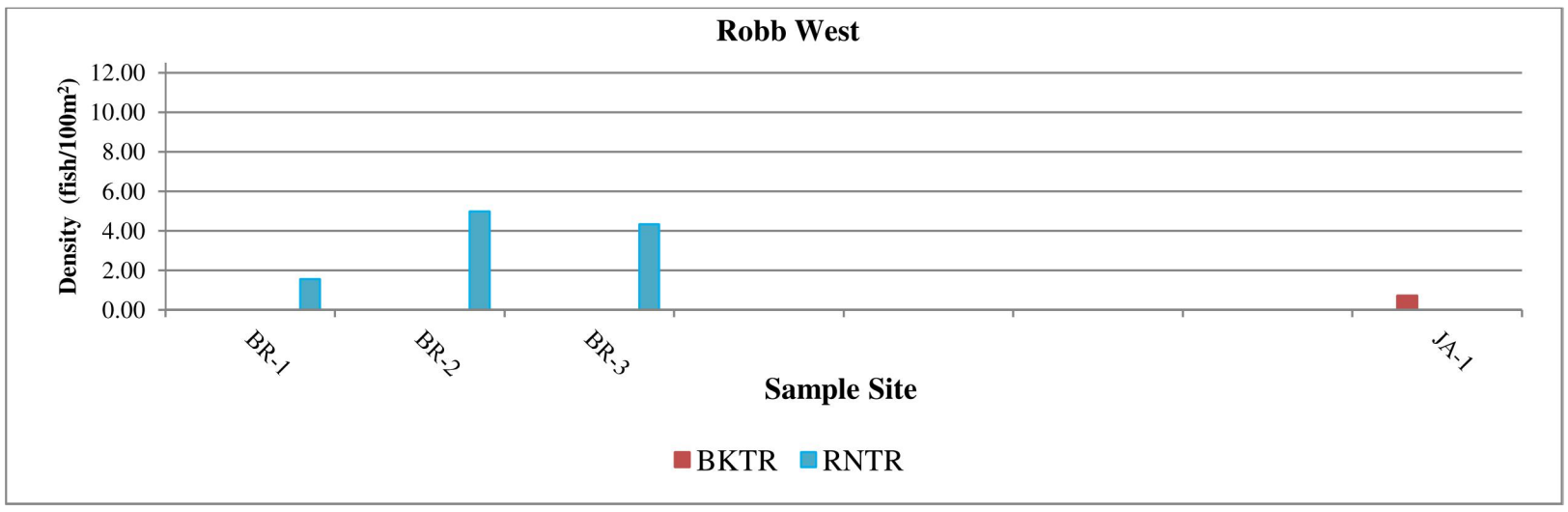
Location	Pit Bottom (m)	Water Level (m)		Pit Backfill (m)		Maximum Seepage with Core (m³/s)	% of Mean Annual Flow		Comments
	E1	E2	E3	W2	L1		U/S Lake	D/S Lake	
Lake 1 to Lake 2	1005	1125	1110	250	120	0.0011	2.3%	0.7%	Same Stream, No Core
Lake 3 to Lake 5	1110	1130	1120	230	2620	0.0005	1.2%	0.1%	To Use Core
Lake 12 to Lake 10	1200	1230	1200	220	8?0	0.0021	1.7%	1.2%	Same Drainage, No Core
Lake 5 to Lake 6	1060	1120	1120	200	360	0.0000	N/A	N/A	Same Level, No Core
Lake 7 to Lake 6	1060	1150	1120	120	3280	0.0035	2.0%	2.0%	To Use Core
Lake 8 to Lake 7	1120	11?0	1150	150	2150	0.00?5	6.?%	2.5%	To Use Core
Lake 10 to Lake 8	11?0	1200	11?0	110	1050	0.0007	0.?%	0.?%	To Use Core

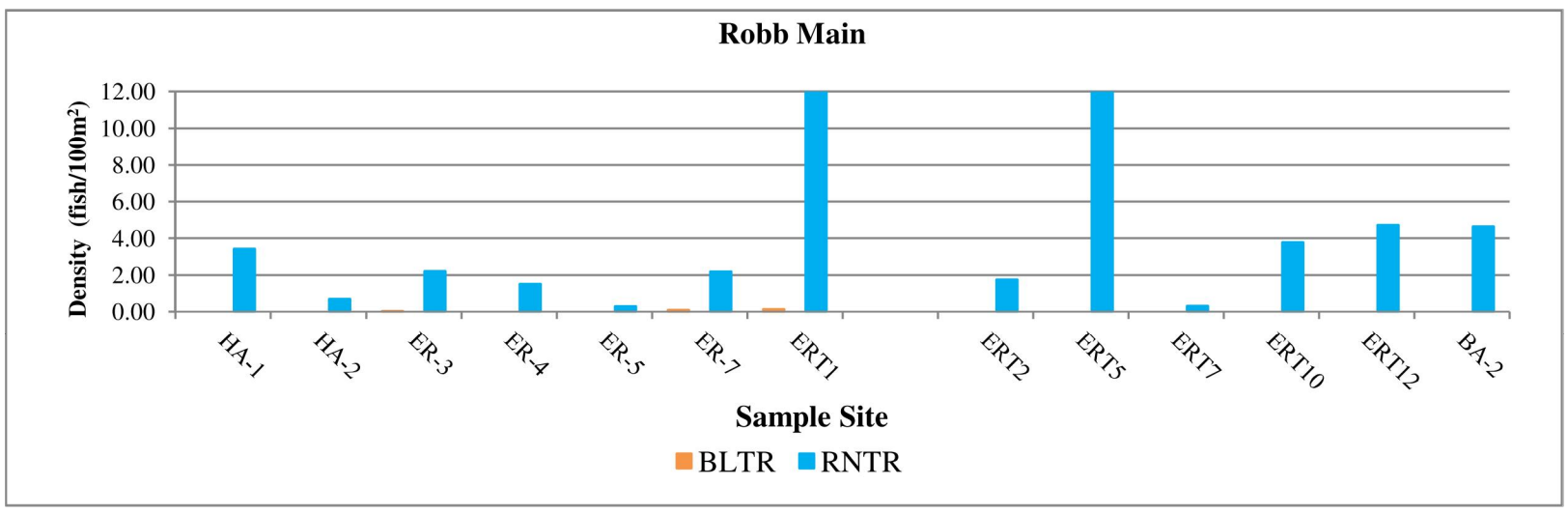
COAL VALLEY RESOURCES INC.

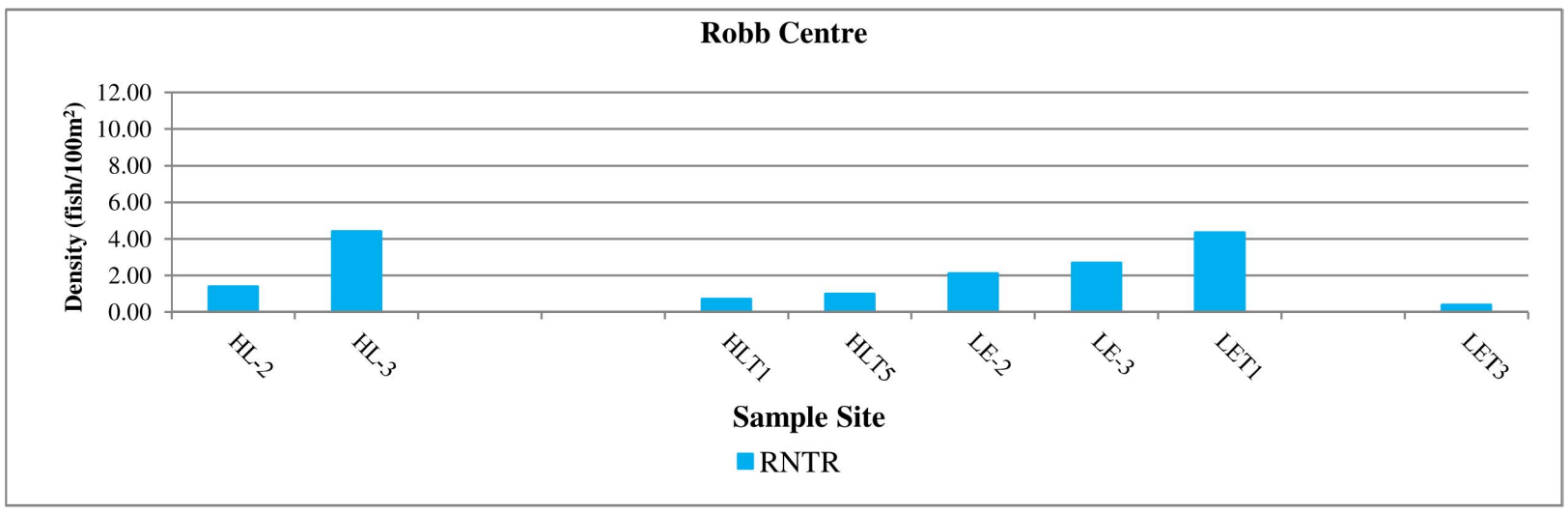
Seepage Controls Between End Pit Lakes (SIR 79a)

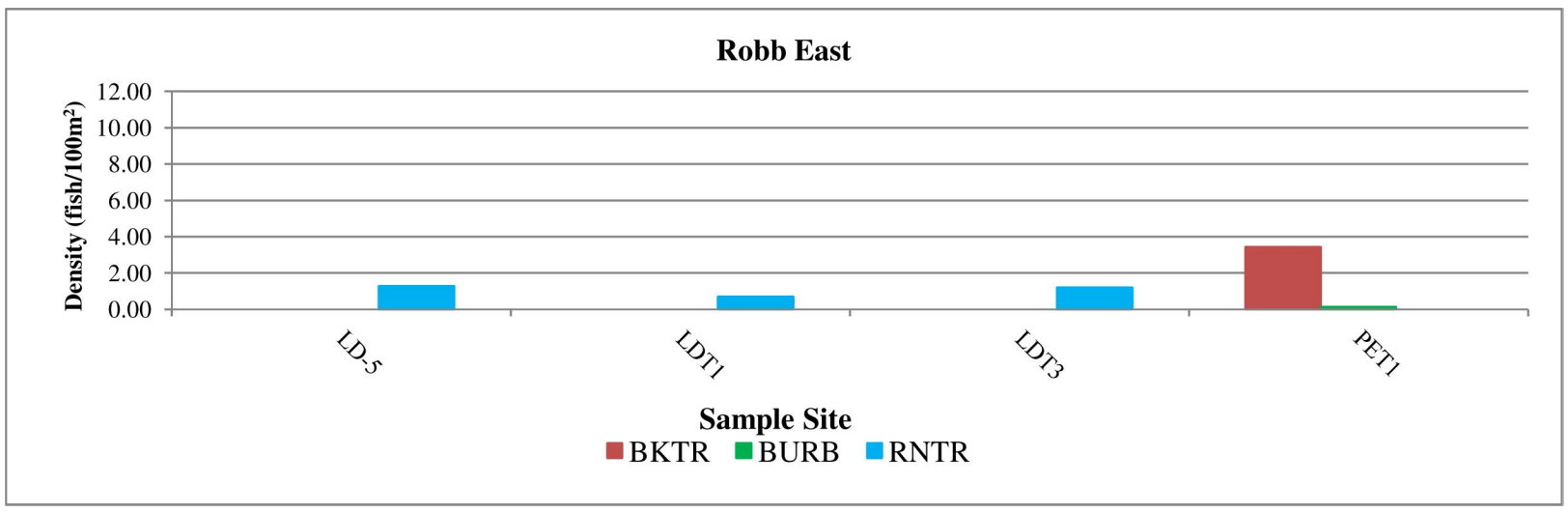
ROBB TREND PROJECT

FIGURE 79-1









Legend

BKTR	Brook Trout
BLTR	Bull Trout
BURB	Burbot
RNTR	Rainbow Trout

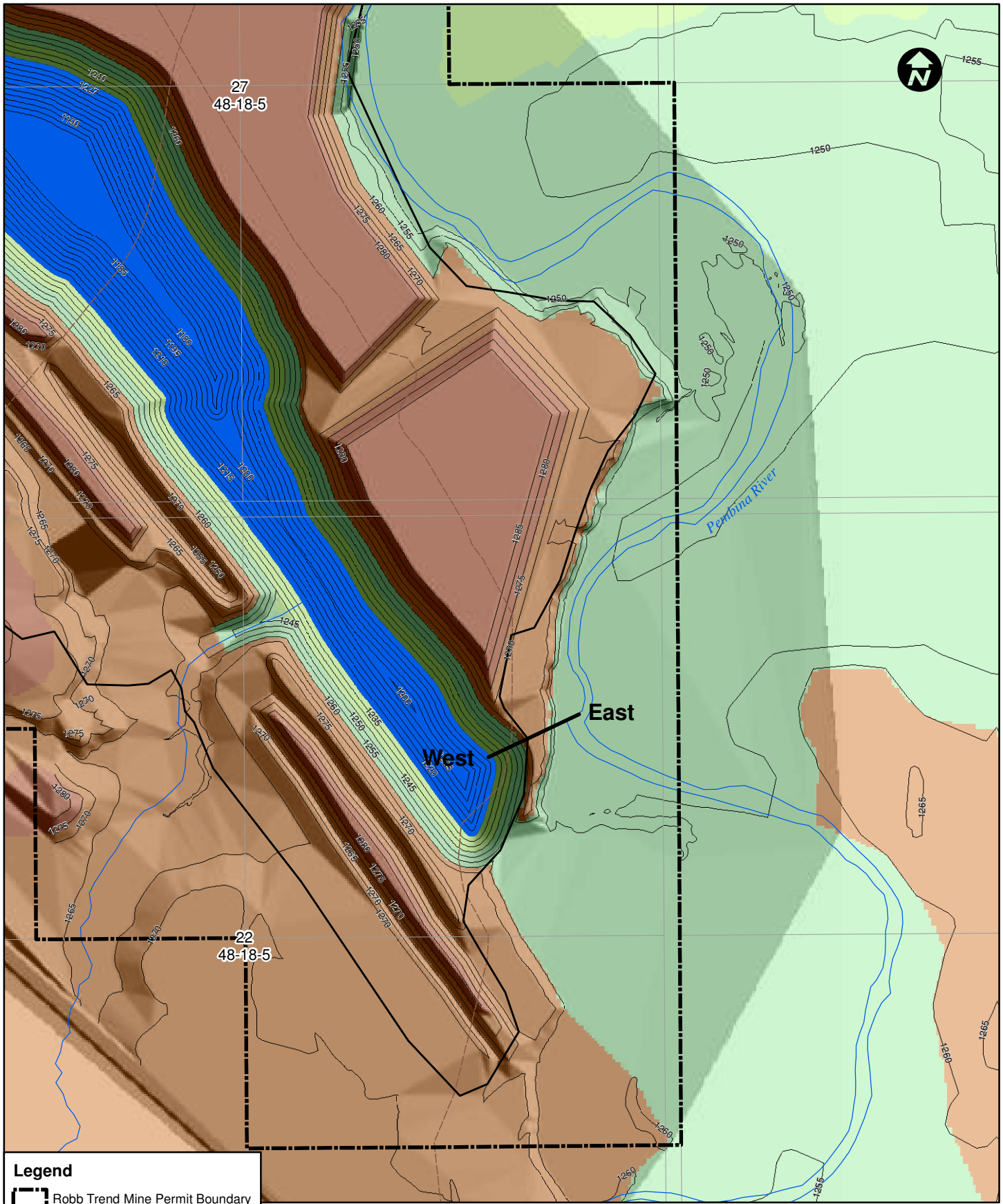
PROJECT:
Coal Valley Mine
Robb Trend Project

TITLE:
First-pass sport fish densities for summer and early fall sampling

...Final Docs\SIR\SIR AESRD 11x17 Drawings.dwg

DRAWN: RS/JG
CHECKED: KP
DATE: Dec 5/12
PROJECT: 08-0□1

FIGURE:
101-1



Legend

- Robb Trend Mine Permit Boundary
- Reclaimed Contour (Interval 5 m)
- Reclaimed Watercourse
- Reclaimed Lake

0 75 150 300 450
Meters

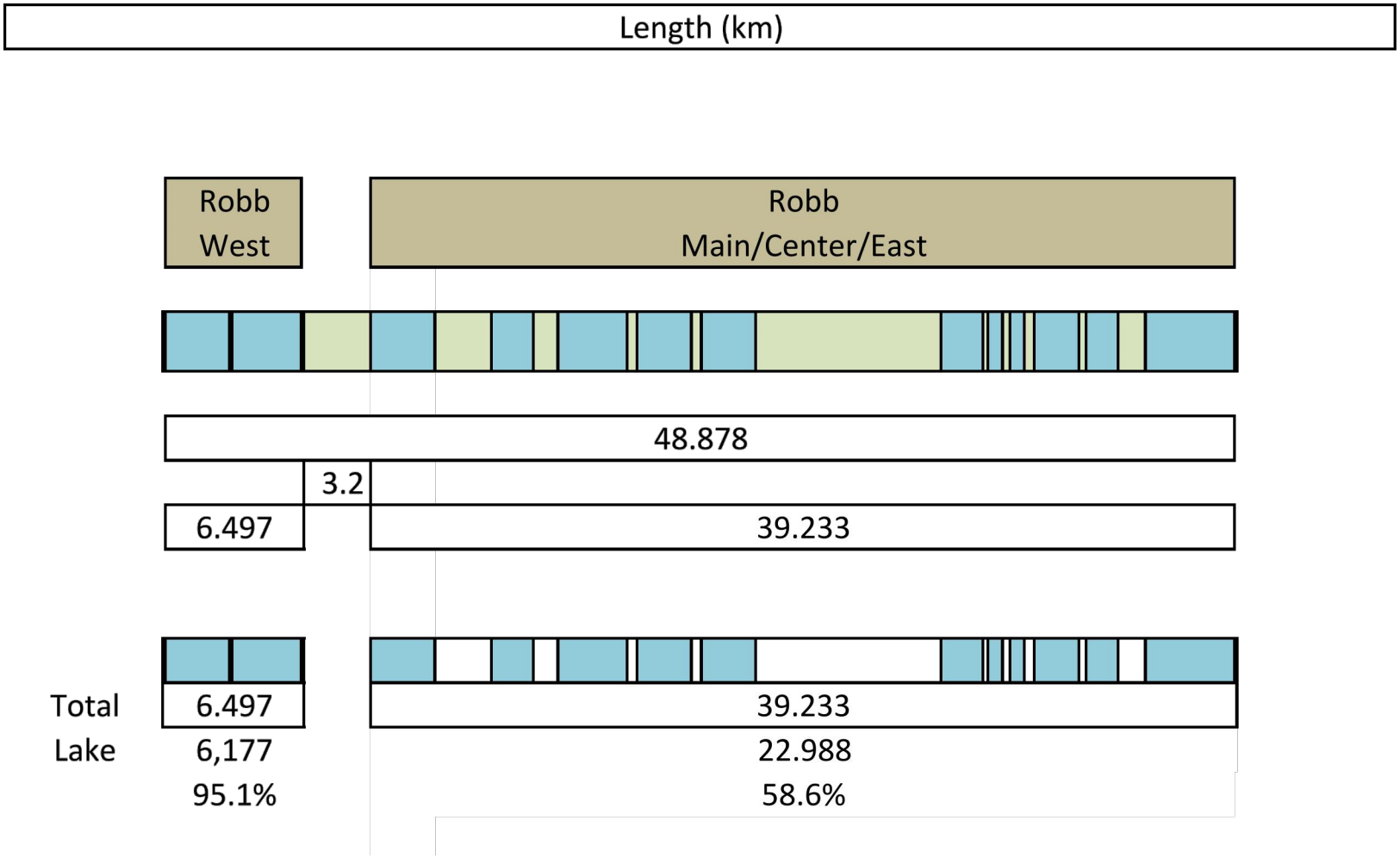
REF: CVRI, Robb Trend Project Extents 2B.dwg, Feb 7, 2011.

PROJECT:
Coal Valley Mine
Robb Trend Project

TITLE:
Cross-Section Pit to Pembina River

DRAWN:	PS
CHECKED:	KP
DATE:	Dec 4/12
PROJECT:	08-041

FIGURE:
108-1



PROJECT:
Coal Valley Mine
Robb Trend Project

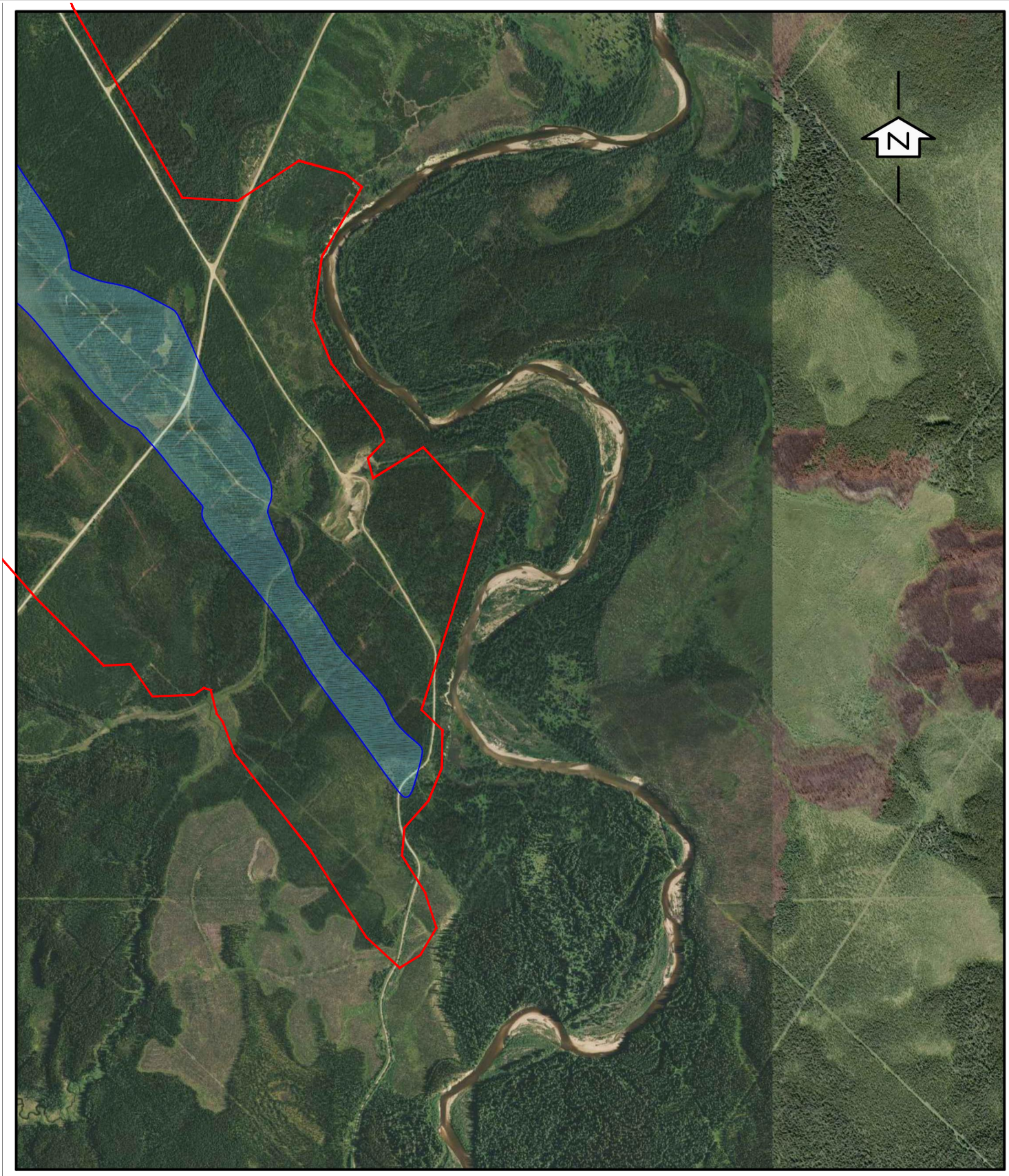
TITLE:
Linear Profile

FILE: ...Final Docs\SIR\ERCB\SIR Drawings.dwg

DRAWN:	RS/JG
CHECKED:	KP
DATE:	Dec 5/12
PROJECT:	08-0□1

FIGURE: **122-1**

REF: Linear Profile Cartoon.xls



Legend

Proposed Footprint (Disturbance Limit)

Extent of Excavation

0 0.1 0.2 0.5km

Scale 1 : 15 000

REF: Matrix Soltuions Inc. File:5867-ROBB-AP-12.DWG

PROJECT:

Coal Valley Mine
Robb Trend Project

TITLE:

Footprint Disturbance in Relation to the Pembina River

..Final Docs\SIR\Fig 130-1 Proximity Disturbance.dwg

DRAWN:	RS/JG
CHECKED:	KP
DATE:	Dec 5/12
PROJECT:	08-0□1

FIGURE: **130-1**