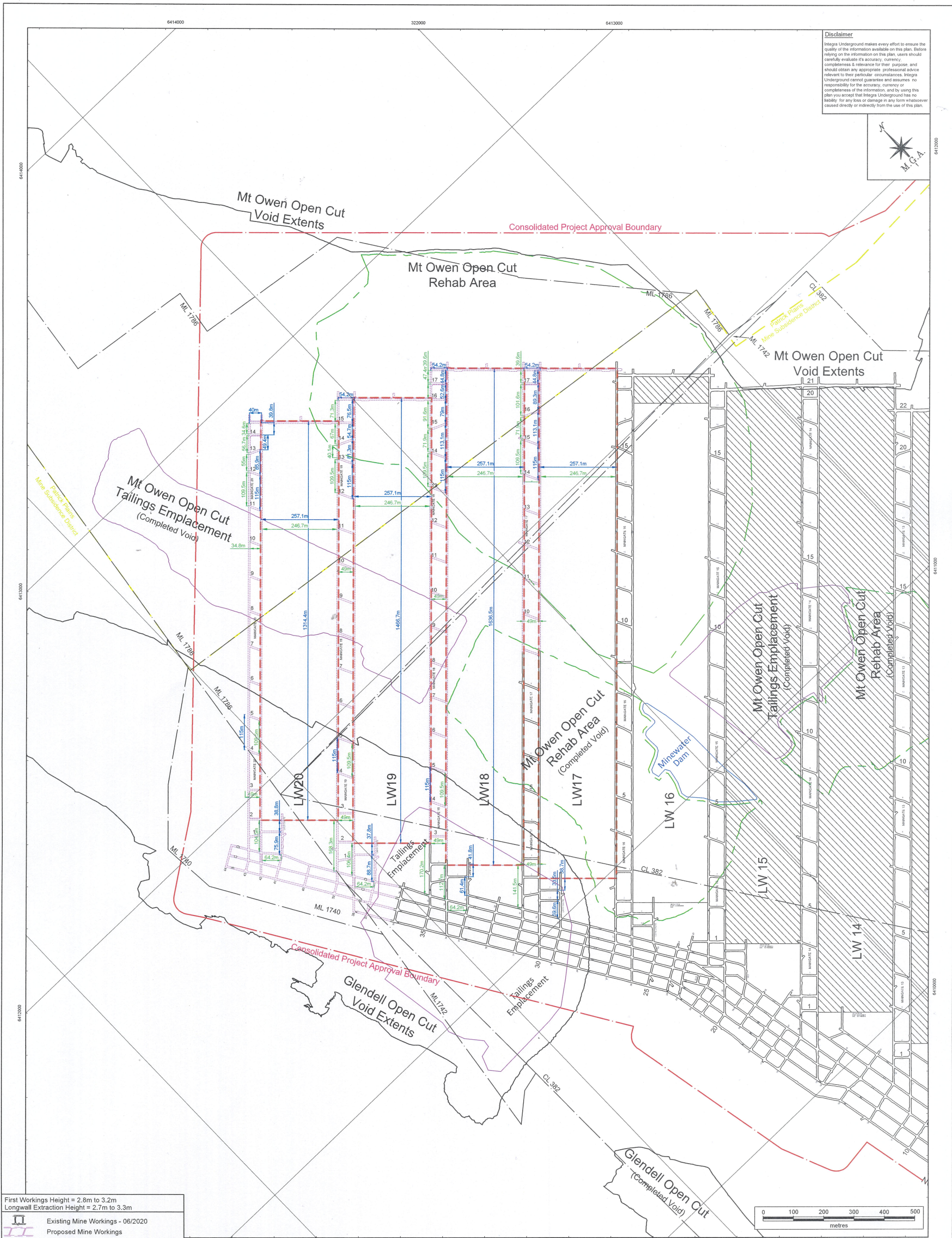




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First Workings Height = 2.8m to 3.2m Longwall Extraction Height = 2.7m to 3.3m	
	Existing Mine Workings - 06/2020
	Proposed Mine Workings
	Extents of Proposed Secondary Extraction
	Mining Lease Boundary
	Consolidated Project Approved Boundary
	Open Cut Void Extents (March 2020)
	Open Cut Rehabilitation Extents (March 2020)
	Tailing Emplacement Areas (March 2020)
	Underground Workings lie partly within Patrick Plains Mine Subsidence District
No known areas of Spontaneous Combustion or Gas Outburst has occurred within the Middle Liddell Seam, Integra Underground	
All underground workings, current or proposed are within CL382, ML1740, ML1742 & ML1786, dated 06/2020	

I, Peter Ostermann, certify that the information on this plan is a true indication of the proposed development.

Manager
(Cert. of Comp. No. 2967)
Date: 26-8-20

I, Richard Vetter, certify that to the best of my knowledge and belief that the Mining Workings information shown on this plan is spatially correct.

Registered Mining Surveyor
(BOSSI Id No: 8571)
Date: 28-8-20

GLENCORE

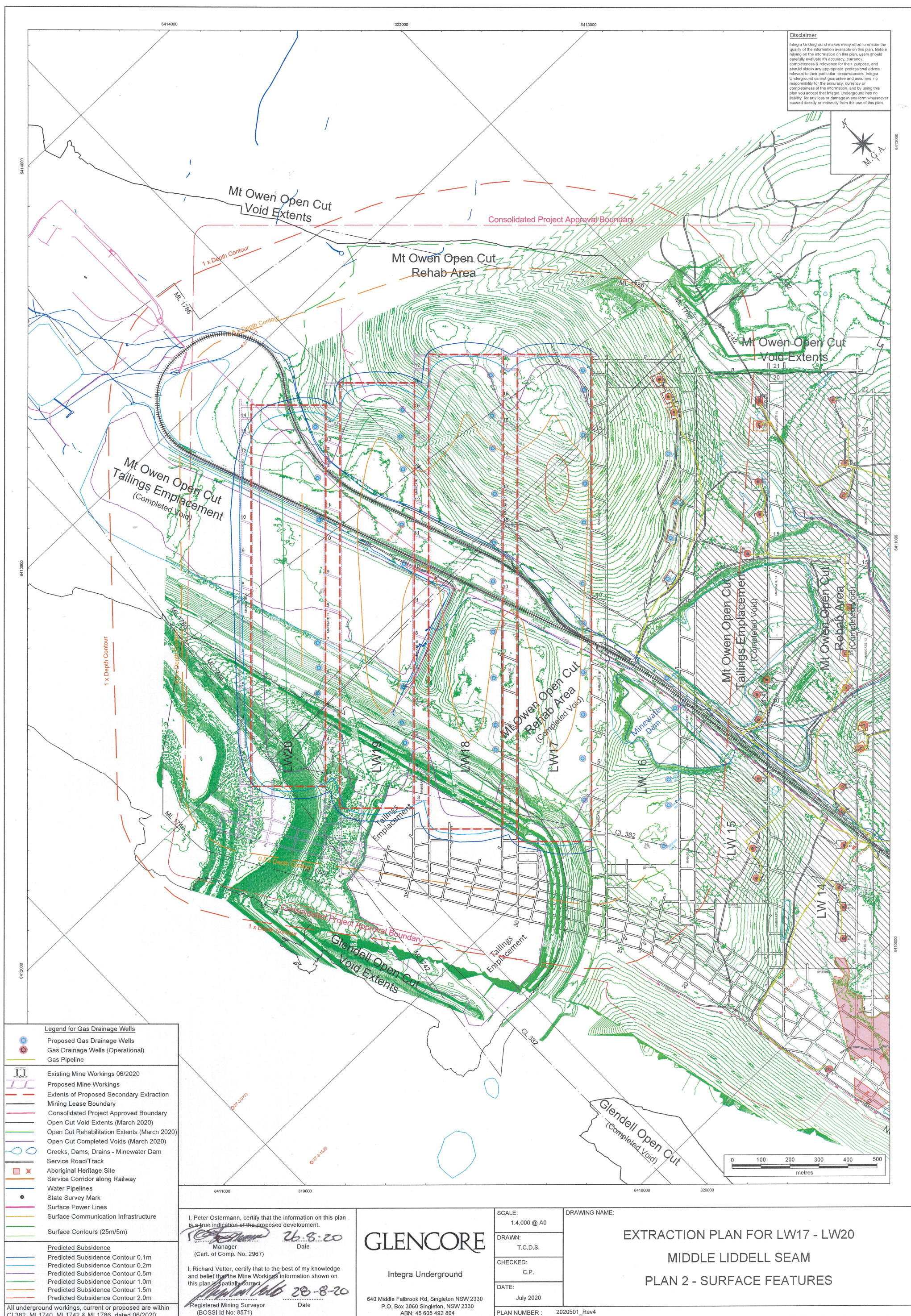
Integra Underground

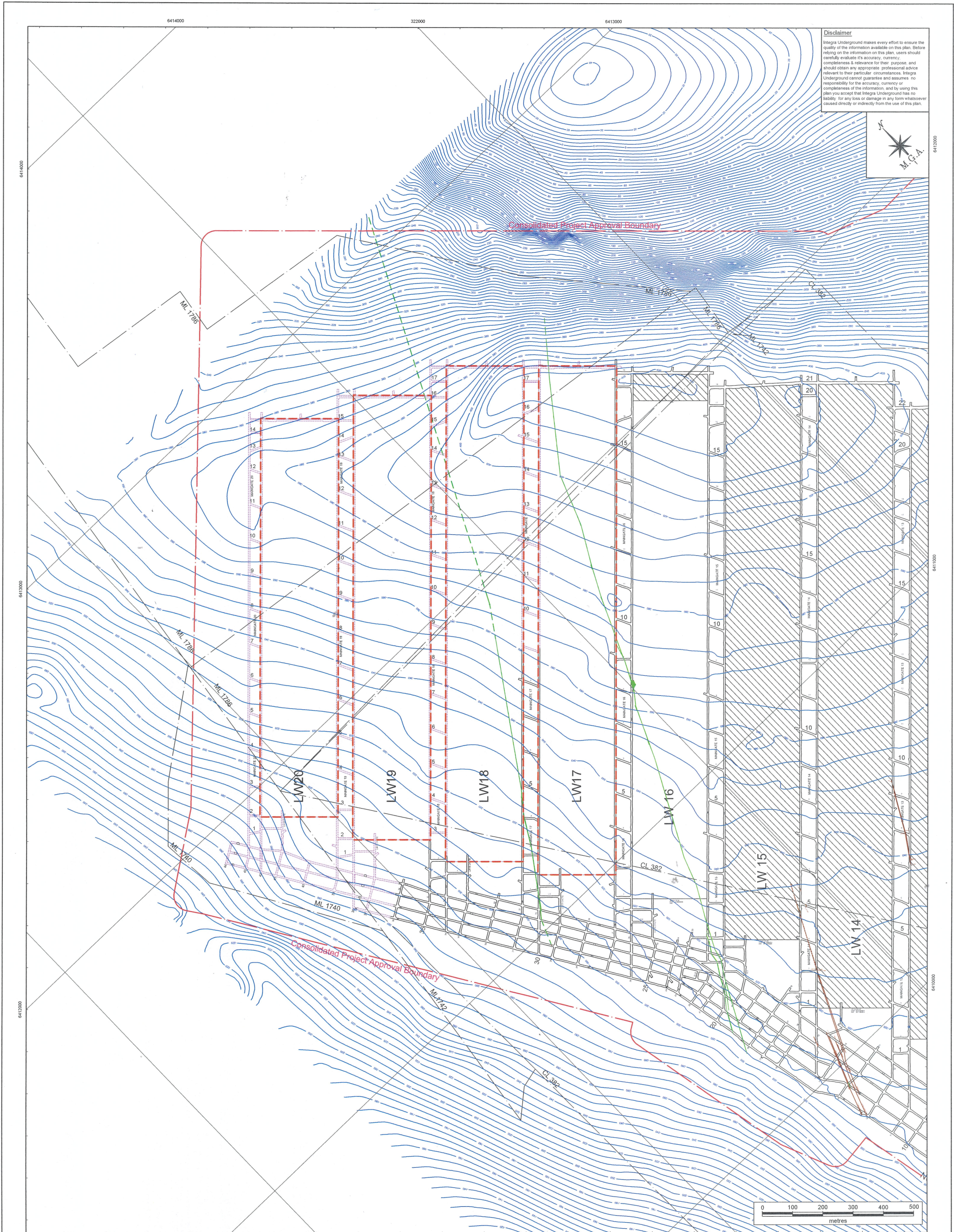
640 Middle Falbrook Rd, Singleton NSW 2330
P.O. Box 3060 Singleton, NSW 2330
ABN: 45 605 492 804

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DRAWN:
T.C.D.S.
CHECKED:
C.P.
DATE:
July 2020
PLAN NUMBER :
2020500_Rev3

DRAWING NAME:

EXTRACTION PLAN FOR LW17 - LW20
MIDDLE LIDDELL SEAM
PLAN 1 - WORKINGS & DIMENSIONS





Disclaimer
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- Existing Mine Workings - 06/2020
- Proposed Mine Workings
- Extents of Proposed Extraction Areas
- Mining Lease Boundary
- Consolidated Project Approved Boundary
- Fault - Known
- Fault - Inferred
- Dyke - Known
- Dyke - Inferred
- Seam Floor Contours (5m)

I, Peter Ostermann, certify that the information on this plan is a true indication of the proposed development.
Peter Ostermann 26-8-20
Manager
(Cert. of Comp. No. 2967)
Date

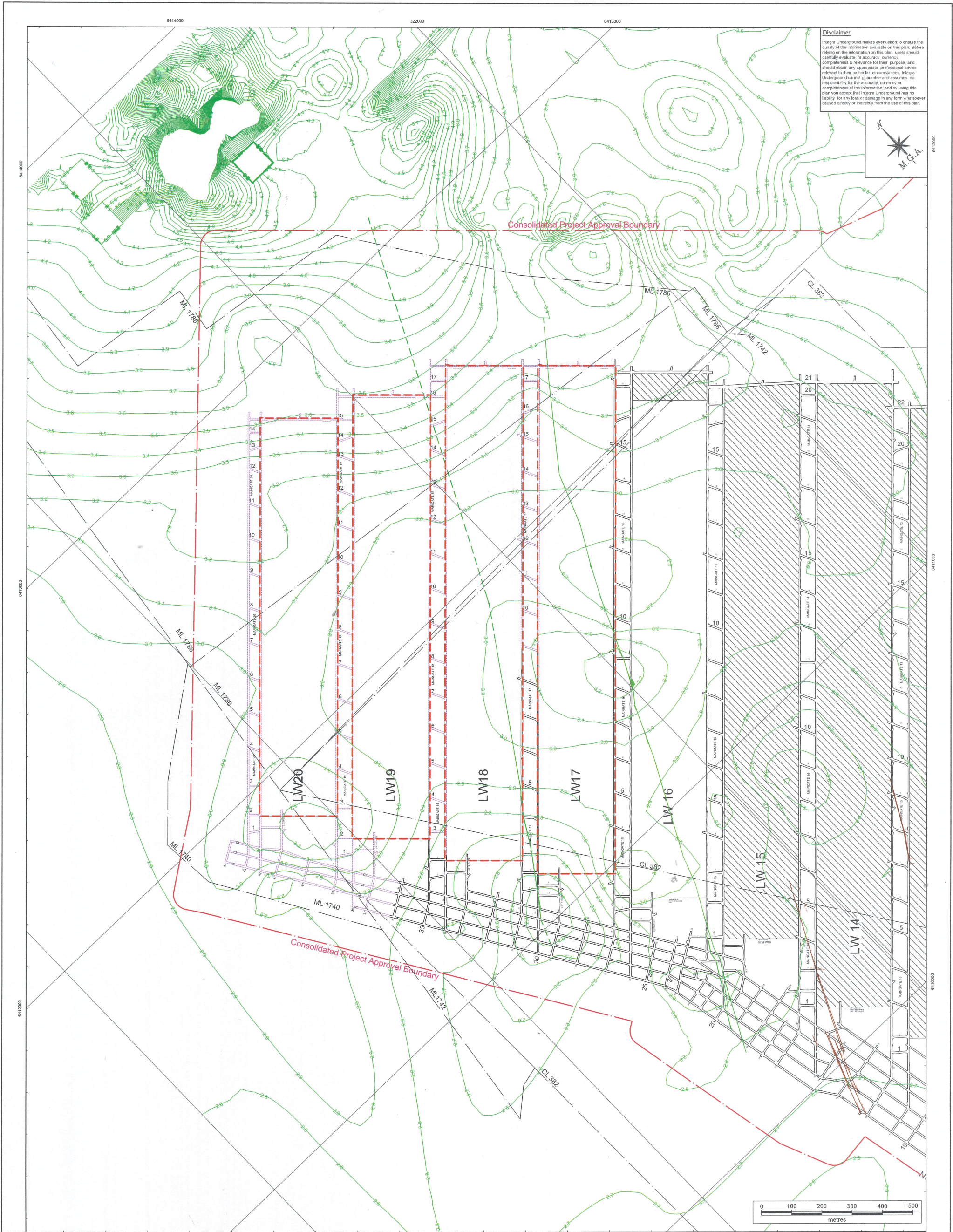
I, Richard Vetter, certify that to the best of my knowledge and belief that the Mine Workings information shown on this plan is spatially correct.
Richard Vetter 28-8-20
Registered Mining Surveyor
(BOSSI Id No: 8571)
Date

GLENCORE

Integra Underground
640 Middle Falbrook Rd, Singleton NSW 2330
P.O. Box 3060 Singleton, NSW 2330
ABN: 45 605 492 804

SCALE:
1:4,000 @ A0
DRAWN:
T.C.D.S.
CHECKED:
C.P.
DATE:
July 2020
PLAN NUMBER :
2020502_Rev2

DRAWING NAME:
EXTRACTION PLAN FOR LW17 - LW20
MIDDLE LIDDELL SEAM
PLAN 3A
GEOLOGICAL DATA, SEAM FLOOR CONTOURS



- Existing Mine Workings - 06/2020
- Proposed Mine Workings
- Extents of Proposed Extraction Areas
- Mining Lease Boundary
- Consolidated Project Approved Boundary
- Fault - Known
- Fault - Inferred
- Dyke - Known
- Dyke - Inferred
- Seam Thickness Contours (0.1m)

I, Peter Ostermann, certify that the information on this plan is a true indication of the proposed development.

Peter Ostermann 26-8-20
Manager
(Cert. of Comp. No. 2967)

I, Richard Vetter, certify that to the best of my knowledge and belief the Mine Workings information shown on this plan is spatially correct.

Richard Vetter 28-8-20
Registered Mining Surveyor
(BOSSI Id No: 8571)

GLENCORE

Integra Underground

640 Middle Falbrook Rd, Singleton NSW 2330
P.O. Box 3060 Singleton, NSW 2330
ABN: 45 605 492 804

SCALE:
1:4,000 @ A0

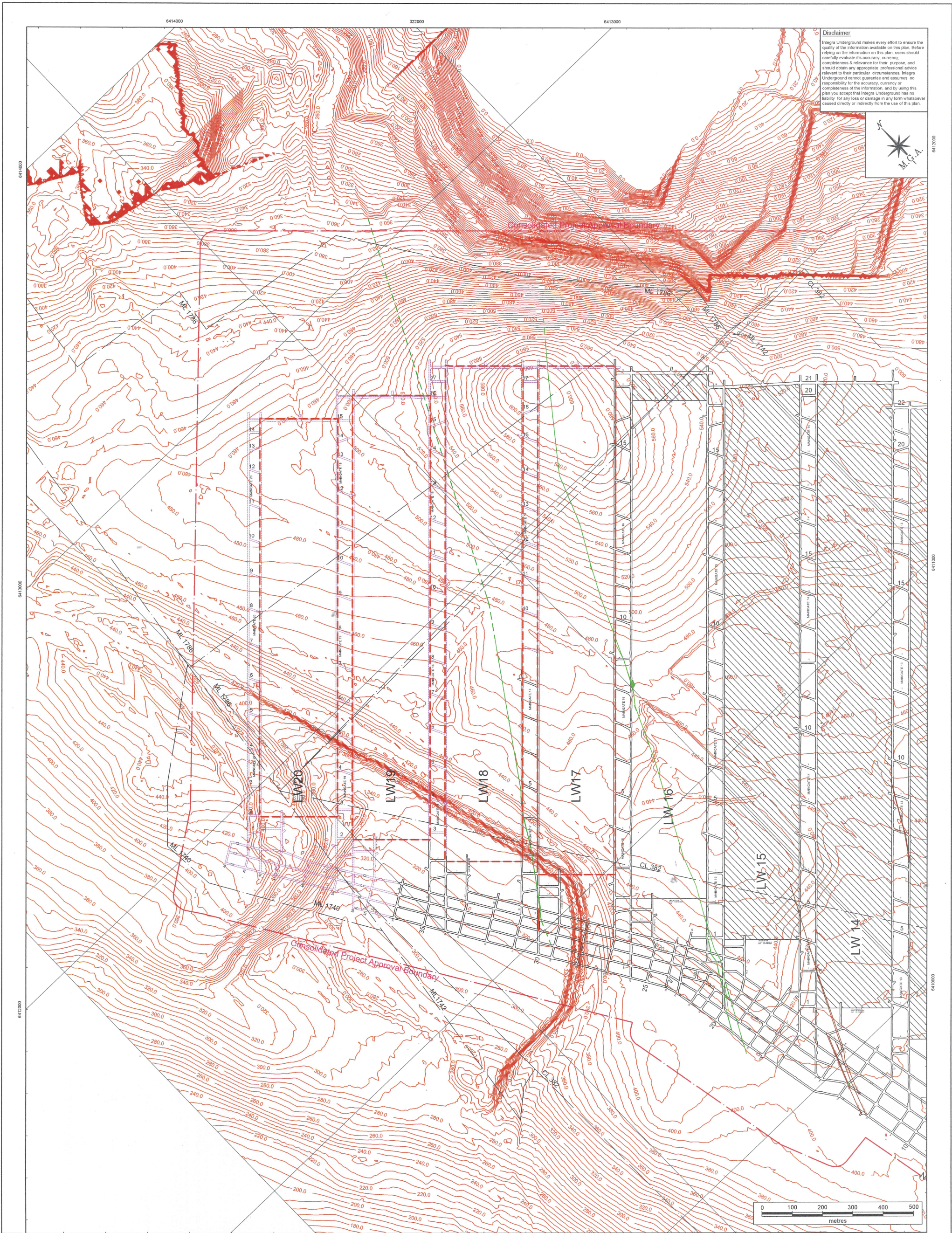
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T.C.D.S.

CHECKED:
C.P.

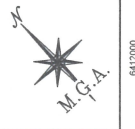
DATE:
July 2020

PLAN NUMBER :
2020503_Rev2

DRAWING NAME:
EXTRACTION PLAN FOR LW17 - LW20
MIDDLE LIDDELL SEAM
PLAN 3B
GEOLOGICAL DATA, SEAM THICKNESS CONTOURS



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Integra Underground makes every effort to ensure the quality of the information available on this plan. Before relying on the information on this plan, users should carefully evaluate its accuracy, currency, completeness & relevance for their purpose, and should obtain any appropriate professional advice relevant to their particular circumstances. Integra Underground cannot guarantee and assumes no responsibility for the accuracy, currency or completeness of the information, and by using this plan you accept that Integra Underground has no liability for any loss or damage in any form whatsoever caused directly or indirectly from the use of this plan.



- Existing Mine Workings - 06/2020
- Proposed Mine Workings
- Extents of Proposed Extraction Areas
- Mining Lease Boundary
- Consolidated Project Approved Boundary
- Fault - Known
- Fault - Inferred
- Dyke - Known
- Dyke - Inferred
- Depth of Cover Contours (10m)

I, Peter Ostermann, certify that the information on this plan is a true indication of the proposed development.
Peter Ostermann 26-9-20
Manager Date
(Cert. of Comp. No. 2967)

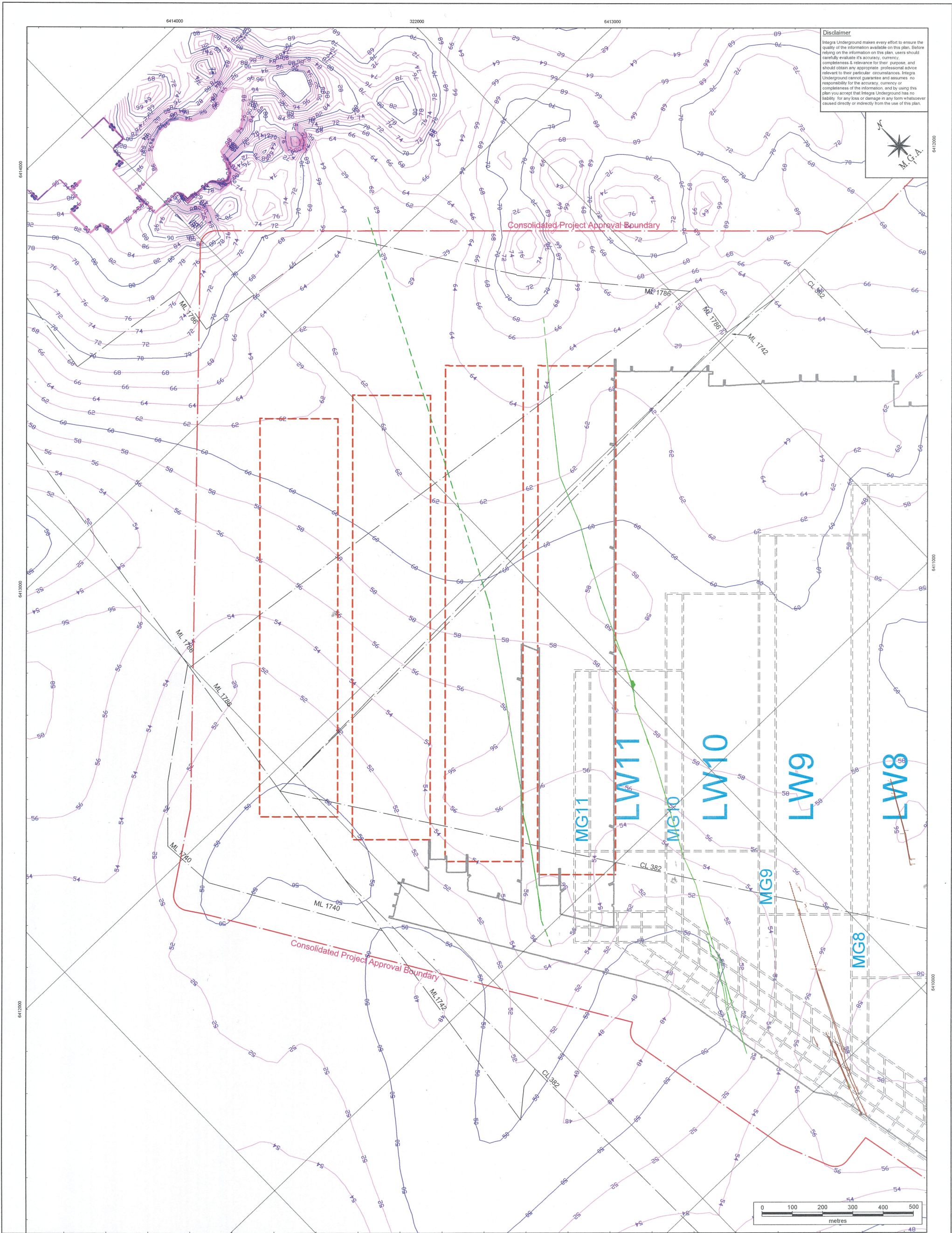
I, Richard Vetter, certify that to the best of my knowledge and belief that the Mine Workings information shown on this plan is spatially correct.
Richard Vetter 28-8-20
Registered Mining Surveyor Date
(BOSSI Id No: 8571)

GLENCORE

Integra Underground
640 Middle Falbrook Rd, Singleton NSW 2330
P.O. Box 3060 Singleton, NSW 2330
ABN: 45 605 492 804

SCALE:
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DRAWN:
T.C.D.S.
CHECKED:
C.P.
DATE:
July 2020
PLAN NUMBER:
2020504_Rev2

DRAWING NAME:
EXTRACTION PLAN FOR LW17 - LW20
MIDDLE LIDDELL SEAM
PLAN 3C
GEOLOGICAL DATA, DEPTH OF COVER CONTOURS



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Integra Underground makes every effort to ensure the quality of the information available on this plan. Before relying on the information on this plan, users should carefully evaluate its accuracy, currency, completeness & relevance for their purpose, and should obtain any appropriate professional advice relevant to their particular circumstances. Integra Underground cannot guarantee and assumes no responsibility for the accuracy, currency or completeness of the information, and by using this plan you accept that Integra Underground has no liability for any loss or damage in any form whatsoever caused directly or indirectly from the use of this plan.

- Geological Structures shown relate to Middle Liddell Seam
- Mine Workings Extent - Middle Liddell Seam Updated 06/2020
 - Approved Proposed Workings - Hebdon Seam
 - Extents of Proposed Extraction Areas
 - Mining Lease Boundary
 - Consolidated Project Approved Boundary
 - Fault - Known
 - Fault - Inferred
 - Dyke - Known
 - Dyke - Inferred
 - Interburden Contours (2m/10m)
 - Middle Liddell Seam to Hebdon Seam

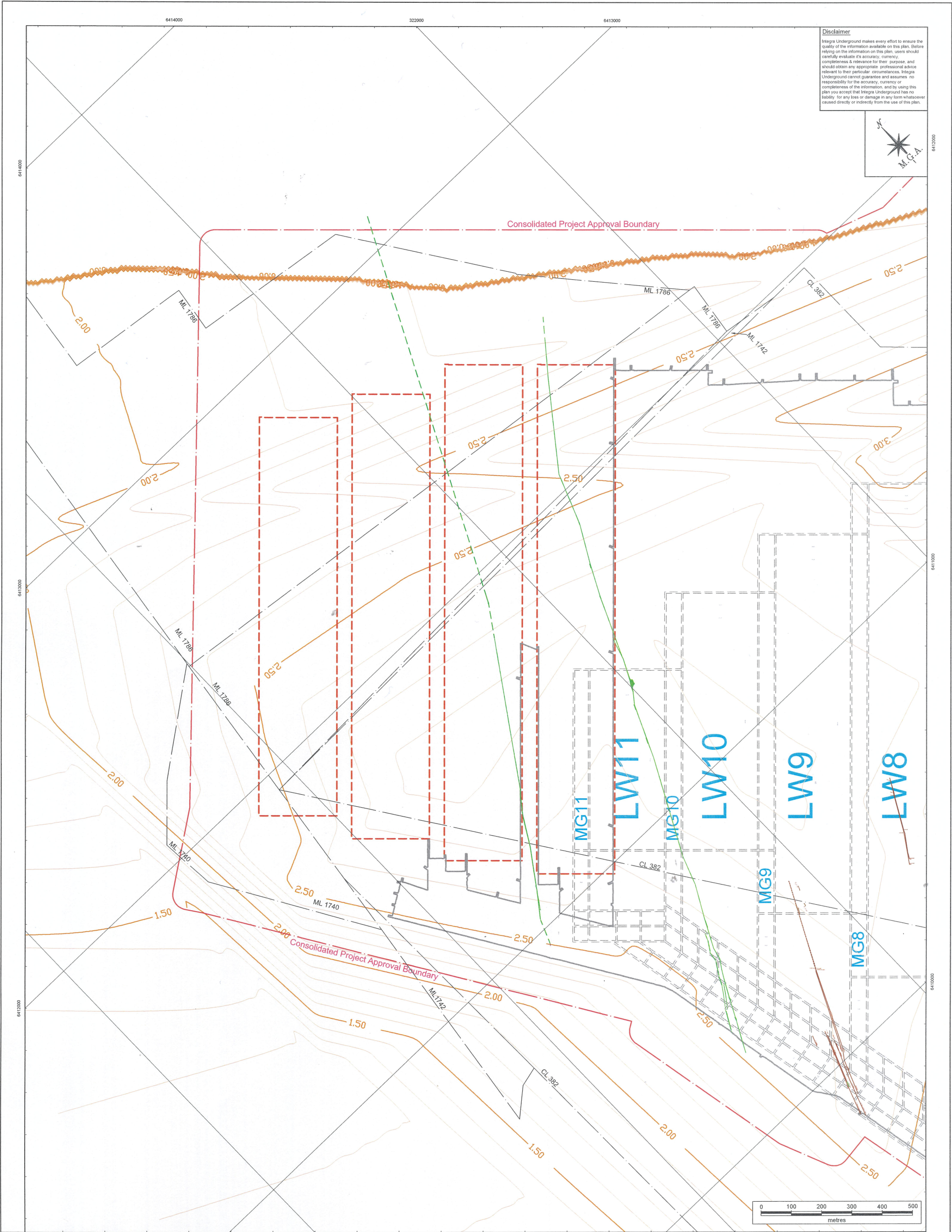
I, Peter Ostermann, certify that the information on this plan is a true indication of the proposed development.
Peter Ostermann 26-8-20
Manager
(Cert. of Comp. No. 2967)
Date

I, Richard Vetter, certify that to the best of my knowledge and belief the Mine Workings information shown on this plan is spatially correct.
Richard Vetter 28-8-20
Registered Mining Surveyor
(BOSSI Id No: 8571)
Date

GLENCORE
Integra Underground
640 Middle Falbrook Rd, Singleton NSW 2330
P.O. Box 3060 Singleton, NSW 2330
ABN: 45 605 492 804

SCALE:
1:4,000 @ A0
DRAWN:
T.C.D.S.
CHECKED:
C.P.
DATE:
July 2020
PLAN NUMBER :
2020505_Rev3

DRAWING NAME:
EXTRACTION PLAN FOR LW17 - LW20
MIDDLE LIDDELL SEAM
PLAN 4A - HEBDEN SEAM
GEOLOGICAL DATA - INTERBURDEN CONTOURS



Disclaimer
Integra Underground makes every effort to ensure the quality of the information available on this plan. Before relying on the information on this plan, users should carefully evaluate its accuracy, currency, completeness & relevance for their purpose, and should obtain any appropriate professional advice relevant to their particular circumstances. Integra Underground cannot guarantee and assumes no responsibility for the accuracy, currency or completeness of the information, and by using this plan you accept that Integra Underground has no liability for any loss or damage in any form whatsoever caused directly or indirectly from the use of this plan.



- Geological Structures shown relate to Middle Liddell Seam
- Mine Workings Extent - Middle Liddell Seam Updated 06/2020
 - Approved Proposed Workings - Hebdon Seam
 - Extents of Proposed Extraction Areas
 - Mining Lease Boundary
 - Consolidated Project Approved Boundary
 - Fault - Known
 - Fault - Inferred
 - Dyke - Known
 - Dyke - Inferred
 - Seam Thickness Contours (0.1m/0.5m)

I, Peter Ostermann, certify that the information on this plan is a true indication of the proposed development.
Peter Ostermann 26-8-20
Manager
(Cert. of Comp. No. 2967)
Date

I, Richard Vetter, certify that to the best of my knowledge and belief that the Mine Workings information shown on this plan is spatially correct.
Richard Vetter 26-8-20
Registered Mining Surveyor
(BOSSI Id No: 8571)
Date

GLENCORE

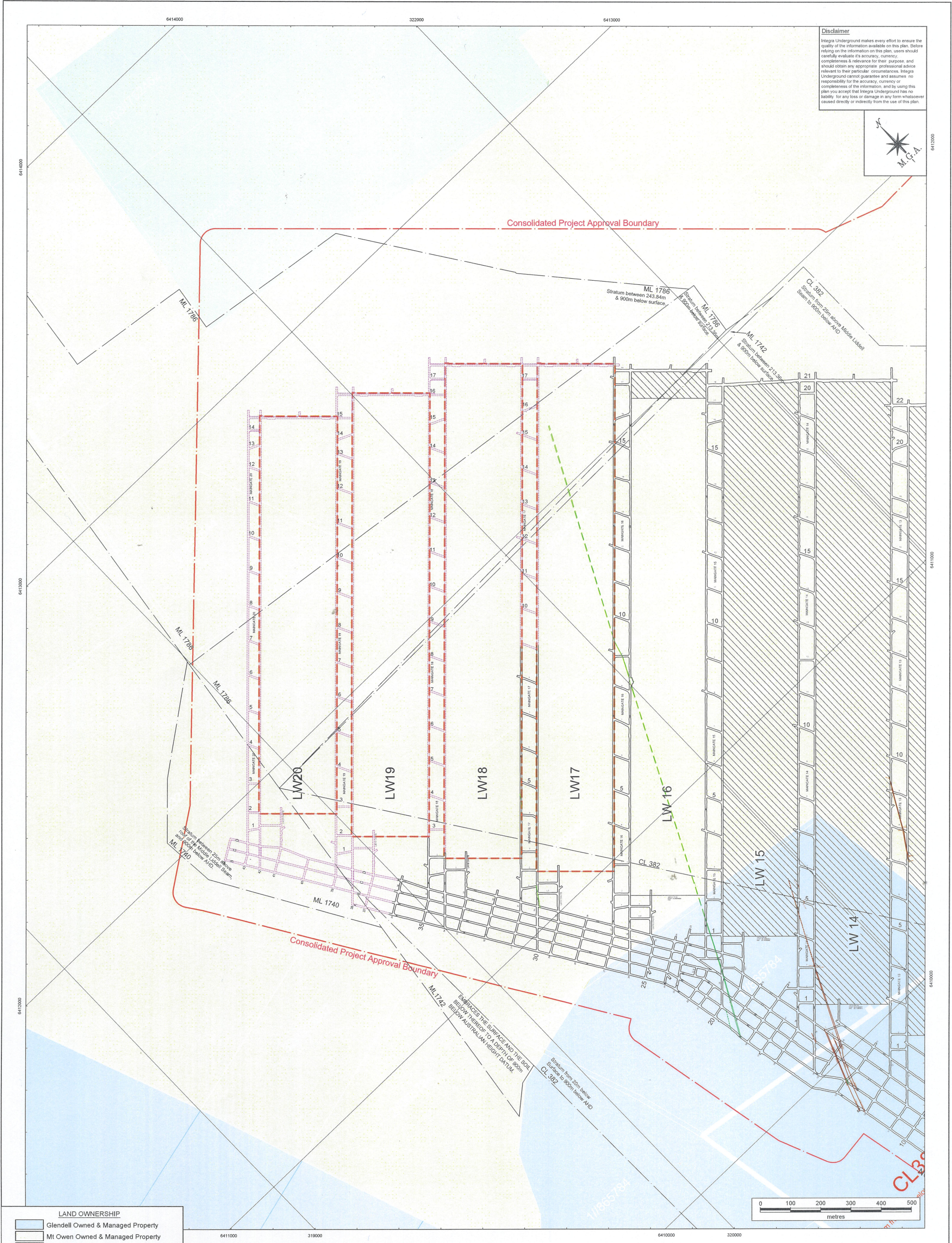
Integra Underground

640 Middle Falbrook Rd, Singleton NSW 2330
P.O. Box 3060 Singleton, NSW 2330
ABN: 45 605 492 804

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1:4,000 @ A0
DRAWN:
T.C.D.S.
CHECKED:
C.P.
DATE:
July 2020
PLAN NUMBER : 2020506_Rev3

DRAWING NAME:

EXTRACTION PLAN FOR LW17 - LW20
MIDDLE LIDDELL SEAM
PLAN 4B - HEBDEN SEAM
GEOLOGICAL DATA - SEAM THICKNESS CONTOURS



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LAND OWNERSHIP

- Glendell Owned & Managed Property
- Mt Owen Owned & Managed Property
- Ravensworth State Forest

Legend

- Existing Mine Workings - 06/2020
- Proposed Mine Workings
- Extents of Proposed Extraction Areas
- Mining Lease Boundary
- Project Approved boundary
- Cadastral Boundary

All 'Extents of Proposed Extraction Areas' lie within CL 382, ML1740, ML1742 & ML1786

I, Peter Ostermann, certify that the information on this plan is a true indication of the proposed development.

[Signature] 26-8-20
Manager
(Cert. of Comp. No. 2967)

I, Richard Vetter, certify that to the best of my knowledge and belief that the Mine Workings information shown on this plan is spatially correct.

[Signature] 28-8-20
Registered Mining Surveyor
(BOSSI Id No: 8571)

GLENCORE

Integra Underground

640 Middle Falbrook Rd, Singleton NSW 2330
P.O. Box 3060 Singleton, NSW 2330
ABN: 45 605 492 804

SCALE:
1:4,000 @ A0

DRAWN:
T.C.D.S.

CHECKED:
C.P.

DATE:
July 2020

PLAN NUMBER : 2020507_Rev1

DRAWING NAME:

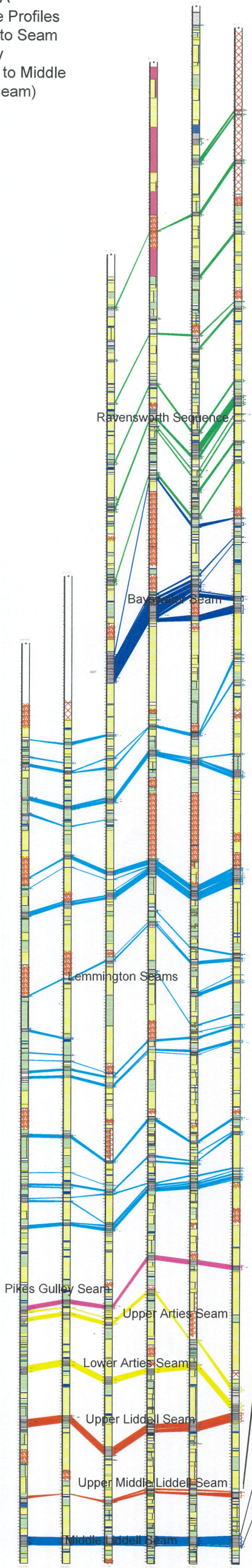
EXTRACTION PLAN FOR LW17 - LW20

MIDDLE LIDDELL SEAM

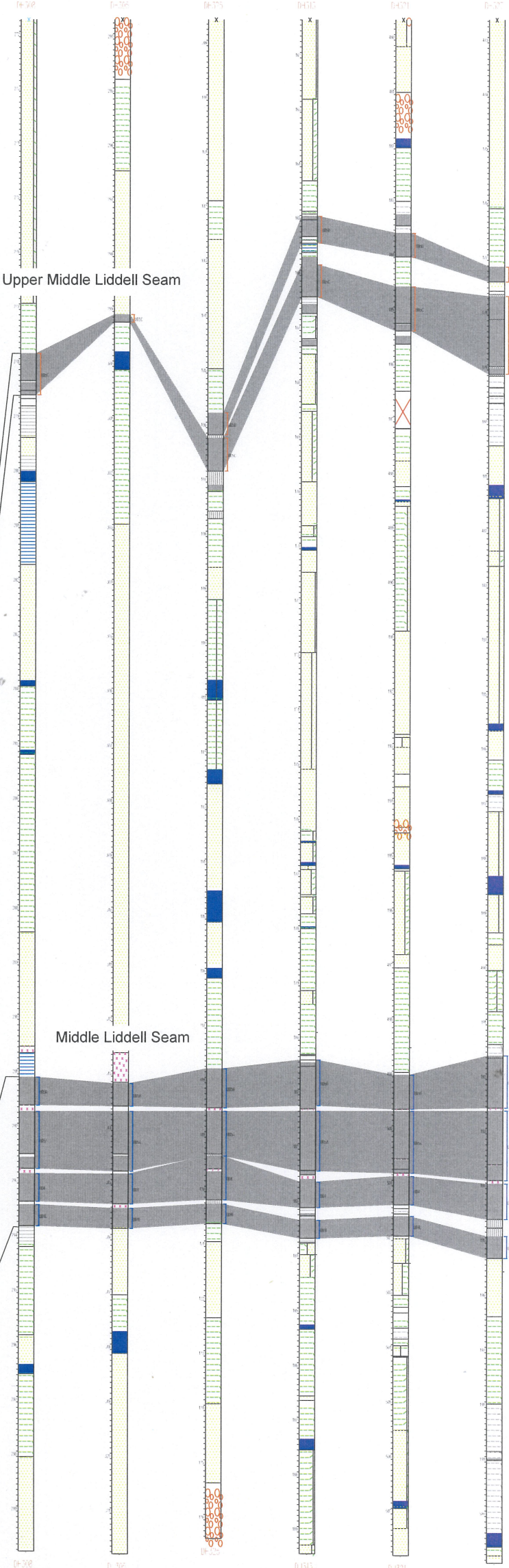
PLAN 5

MINING TITLES & LAND OWNERSHIP

INTEGRA
Borehole Profiles
Surface to Seam
Lithology
(Aligned to Middle
Liddell Seam)

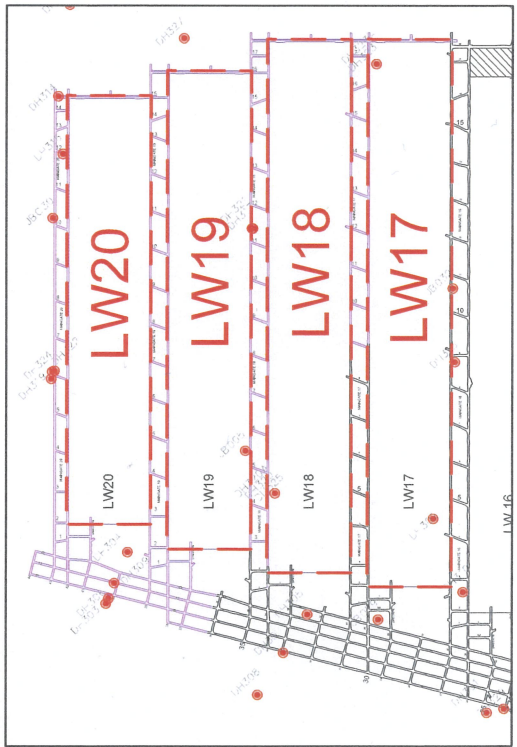


INTEGRA
Borehole Profiles
20m of roof
Lithology
(Aligned to Middle
Liddell Seam)



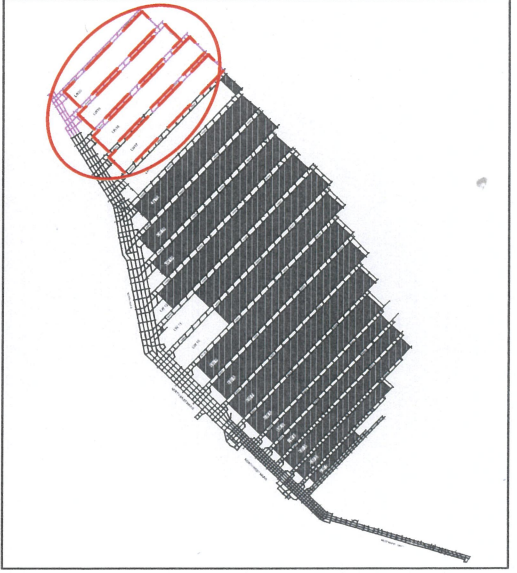
Disclaimer
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Location Detail



● Surface Boreholes
[Red dashed box] Middle Liddell Seam
Extraction Area - LW17 - LW20

Location Plan



Legend
Lithology Reference

	CONGLOMERATE		CARBONACEOUS SHALE
	SANDSTONE		CARBONACEOUS MUDSTONE
	SILTSTONE		CARBONACEOUS CLAYSTONE
	COAL		SIDERITE
	TUFF		IGNEOUS
	MUDSTONE		NO RECORD

Existing Mine Workings
 Secondary Mine Workings
 Proposed Mine Workings
 Extents of Proposed Secondary Extraction

I, Peter Ostermann, certify that the information on this plan is a true indication of the proposed development.

Manager
(Cert. of Comp. No. 2967)
Date: 26-8-20

I, Richard Vetter, certify that to the best of my knowledge and belief that the information shown on this plan is spatially correct.

Registered Mining Surveyor
(BOSSI Id No: 8289)
Date: 28-8-20

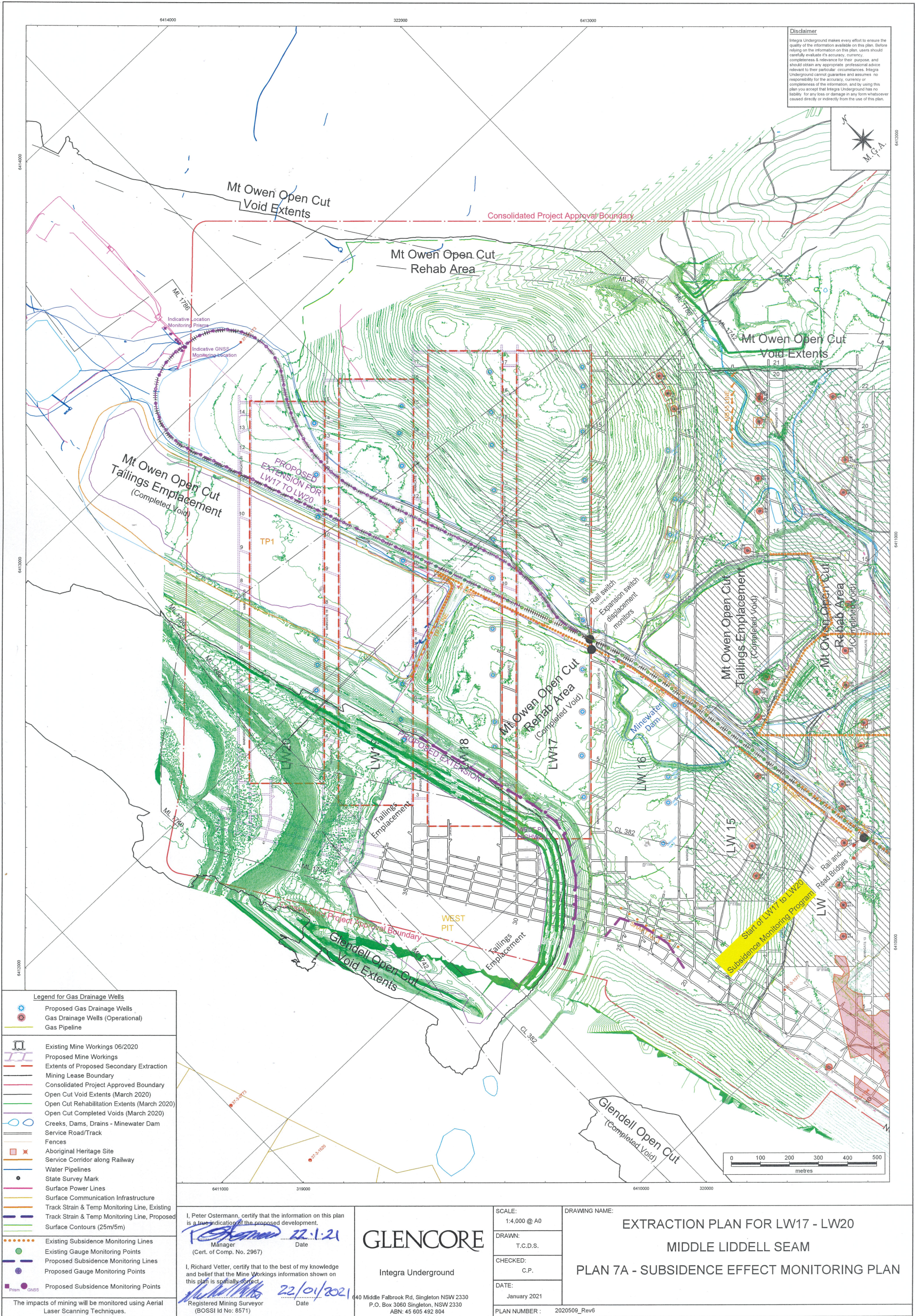
GLENCORE

Integra Underground

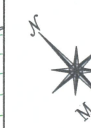
640 Middle Falbrook Rd, Singleton NSW 2330
P.O. Box 3060 Singleton, NSW 2330
ABN: 45 605 492 804

SCALE: NTS
DRAWN: M.A.S
CHECKED: A.M
DATE: JULY 2020
PLAN NUMBER: 2020501_Rev1

DRAWING NAME:
EXTRACTION PLAN FOR LW17 - LW20
MIDDLE LIDDELL SEAM
PLAN 6 - Geological Logs



Disclaimer
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Legend for Gas Drainage Wells

- Proposed Gas Drainage Wells
- Gas Drainage Wells (Operational)
- Gas Pipeline

- Existing Mine Workings 06/2020
- Proposed Mine Workings
- Extents of Proposed Secondary Extraction
- Mining Lease Boundary
- Consolidated Project Approved Boundary
- Open Cut Void Extents (March 2020)
- Open Cut Rehabilitation Extents (March 2020)
- Open Cut Completed Voids (March 2020)
- Creeks, Dams, Drains - Minewater Dam
- Service Road/Track
- Fences
- Aboriginal Heritage Site
- Service Corridor along Railway
- Water Pipelines
- State Survey Mark
- Surface Power Lines
- Surface Communication Infrastructure
- Track Strain & Temp Monitoring Line, Existing
- Track Strain & Temp Monitoring Line, Proposed
- Surface Contours (25m/5m)
- Existing Subsidence Monitoring Lines
- Existing Gauge Monitoring Points
- Proposed Subsidence Monitoring Lines
- Proposed Gauge Monitoring Points
- Proposed Subsidence Monitoring Points

The impacts of mining will be monitored using Aerial Laser Scanning Techniques.

I, Peter Ostermann, certify that the information on this plan is a true indication of the proposed development.
Manager
(Cert. of Comp. No. 2967)
Date: 22/01/2021

I, Richard Vetter, certify that to the best of my knowledge and belief that the Mine Workings information shown on this plan is spatially correct.
Registered Mining Surveyor
(BOSSI Id No: 8571)
Date: 22/01/2021

GLENCORE

Integra Underground

640 Middle Falbrook Rd, Singleton NSW 2330
P.O. Box 3060 Singleton, NSW 2330
ABN: 45 605 492 804

SCALE:

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T.C.D.S.

CHECKED:

C.P.

DATE:

January 2021

PLAN NUMBER:

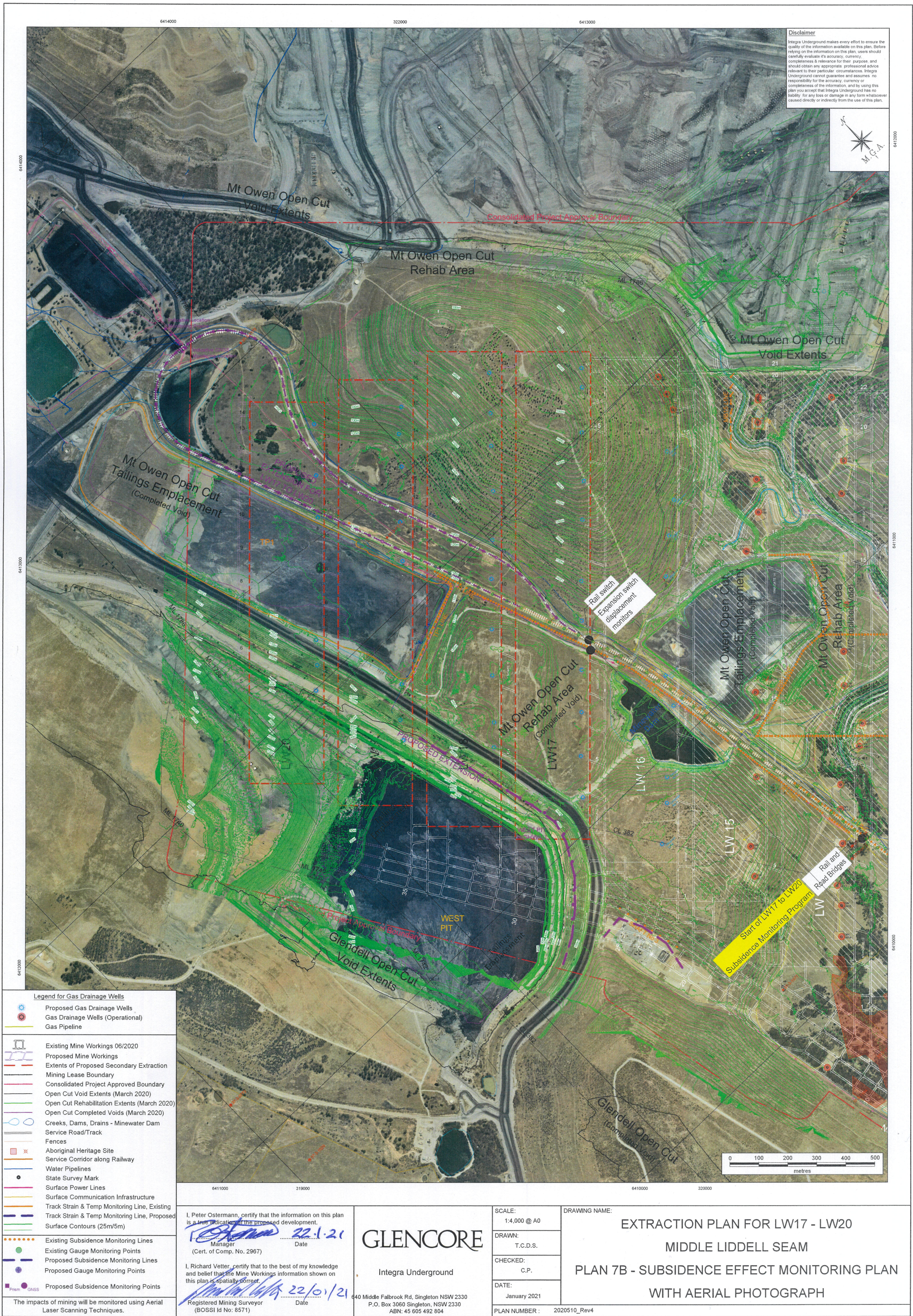
DRAWING NAME:

EXTRACTION PLAN FOR LW17 - LW20

MIDDLE LIDDELL SEAM

PLAN 7A - SUBSIDENCE EFFECT MONITORING PLAN

2020509_Rev6



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- Legend for Gas Drainage Wells**
- Proposed Gas Drainage Wells
 - Gas Drainage Wells (Operational)
 - Gas Pipeline
- Legend for Mine Workings**
- Existing Mine Workings 06/2020
 - Proposed Mine Workings
 - Extents of Proposed Secondary Extraction
 - Mining Lease Boundary
 - Consolidated Project Approved Boundary
 - Open Cut Void Extents (March 2020)
 - Open Cut Rehabilitation Extents (March 2020)
 - Open Cut Completed Voids (March 2020)
 - Creeks, Dams, Drains - Minewater Dam
 - Service Road/Track
 - Fences
 - Aboriginal Heritage Site
 - Service Corridor along Railway
 - Water Pipelines
 - State Survey Mark
 - Surface Power Lines
 - Surface Communication Infrastructure
 - Track Strain & Temp Monitoring Line, Existing
 - Track Strain & Temp Monitoring Line, Proposed
 - Surface Contours (25m/5m)
- Legend for Subsidence Monitoring**
- Existing Subsidence Monitoring Lines
 - Existing Gauge Monitoring Points
 - Proposed Subsidence Monitoring Lines
 - Proposed Gauge Monitoring Points
 - Proposed Subsidence Monitoring Points
- The impacts of mining will be monitored using Aerial Laser Scanning Techniques.

I, Peter Ostermann, certify that the information on this plan is a true indication of the proposed development.
Peter Ostermann 22/1/21
Manager
(Cert. of Comp. No. 2967)

I, Richard Vetter, certify that to the best of my knowledge and belief that the Mine Workings information shown on this plan is spatially correct.
Richard Vetter 22/01/21
Registered Mining Surveyor
(BOSSI Id No: 8571)

GLENCORE
Integra Underground
440 Middle Falbrook Rd, Singleton NSW 2330
P.O. Box 3060 Singleton, NSW 2330
ABN: 45 605 492 804

SCALE:
1:4,000 @ A0
DRAWN:
T.C.D.S.
CHECKED:
C.P.
DATE:
January 2021
PLAN NUMBER : 2020510_Rev4

DRAWING NAME:
EXTRACTION PLAN FOR LW17 - LW20
MIDDLE LIDDELL SEAM
PLAN 7B - SUBSIDENCE EFFECT MONITORING PLAN
WITH AERIAL PHOTOGRAPH