

APPENDIX D – LABORATORY TEST RESULTS

TABLE D1: - 2024 LABORATORY TEST RESULTS

Table D1: UCS and Tensile Strength Test Results 2024 – BCM Sandstone (East Pit)												
Sample #			Depth				Rock Type	Bulk Density (t/m³)	Water Content (%)	Unconfined Compressive Strength (UCS) MPa	Young’s Modulus Axial Strain (MPa)	Tensile Strength (MPa)
			mbgl		mRL							
DC05			5.03	5.08	840.30	804.80	FSS	-	-	-	-	1.4
			7.29	7.43	838.04	837.90	VCSS	2.29	3.0	30.6	10244	-
			12.6	12.77	832.73	832.56	VCSS	2.26	1.6	19.6	6133	-
			23.6	23.74	821.73	821.59	VCSS	2.32	1.3	31.6	9466	-
			24.19	24.38	821.14	820.95	MSS	2.47	1.6	26.6	4772	-
DC06			6.93	6.97	808.14	808.10	VFSS	-	-	-	-	2.0
			9.58	9.74	805.49	805.33	VCSS	2.42	1.1	23.6	6584	-
			25.93	25.97	789.14	789.1	MSS	-	-	-	-	2.2
			26.14	26.3	788.93	788.77	MSS	2.36	1.1	27.6	9145	-
			32.26	32.43	782.81	782.64	FSS	2.55	0.6	25.7	8628	-
			33.76	33.80	781.31	781.27	FSS	-	-	-	-	2.9
			33.80	33.96	781.27	781.11	FSS	2.57	0.6	25.5	8279	--
DC12			6.61	6.67	810.98	810.92	CSS	2.32	1.6	30.9	9396	-
			9.89	9.93	807.70	807.66	CSS	-	-	-	-	2.4
			9.93	10.09	807.66	807.50	CSS	2.43	1.2	32.3	11045	-
DC13			11.4	11.59	848.35	848.16	VCSS	-	-	-	-	3.5
			12.71	12.82	847.04	846.93	VCSS	2.44	0.7	45.4	15591	-
			17.15	17.31	842.60	842.44	MSS	2.43	1.0	42.8	11729	-
Notes: 1. UCS 2. F _{max} 3. Modulus 4. m			7-23"									

TABLE D2: BT MINING LABORATORY TEST RESULTS FROM STOCKTON

TableD2: Summary of BTM supplied UCS and Tensile Strength Test Results from Stockton									
Sample #	Depth (mbgl)		Formation	Lithology	Bulk Density (t/m³)	Dry Density (t/m³)	Moisture Content (%)	Unconfined Compressive Strength (UCS) MPa	Tensile Strength (MPa)
3676	12.5	15.3	BSM - Greenland Group -Mount Fred	HNFL	2.567	2.54	1.1	10.6	
3676	22.5	25.7		HNFL	2.599	5.57	1.3	21.1	
3720	60.4	63.3		HNFL	2.656	2.65	0.3	20.9	
3720	69.83	73.5		GRF	2.661	2.64	0.7	35.5	
3724	67.77	68.67		HNFL	2.956	2.51	2.1	8.18	
726	71.78	71.95		GRF		2.56			1.62
Notes: 1. UCS (MPa) ATSM D7012-14e1 2. Tensile Strength MPa (Brazilian) ASTM D3967-23 3. m bgl = metres below ground level									



6 November 2024
Our Ref: 1097245.0000.0.0/Rep1

Bathurst Resources Limited
PO Box 5963
Lambton Quay
Wellington 6145

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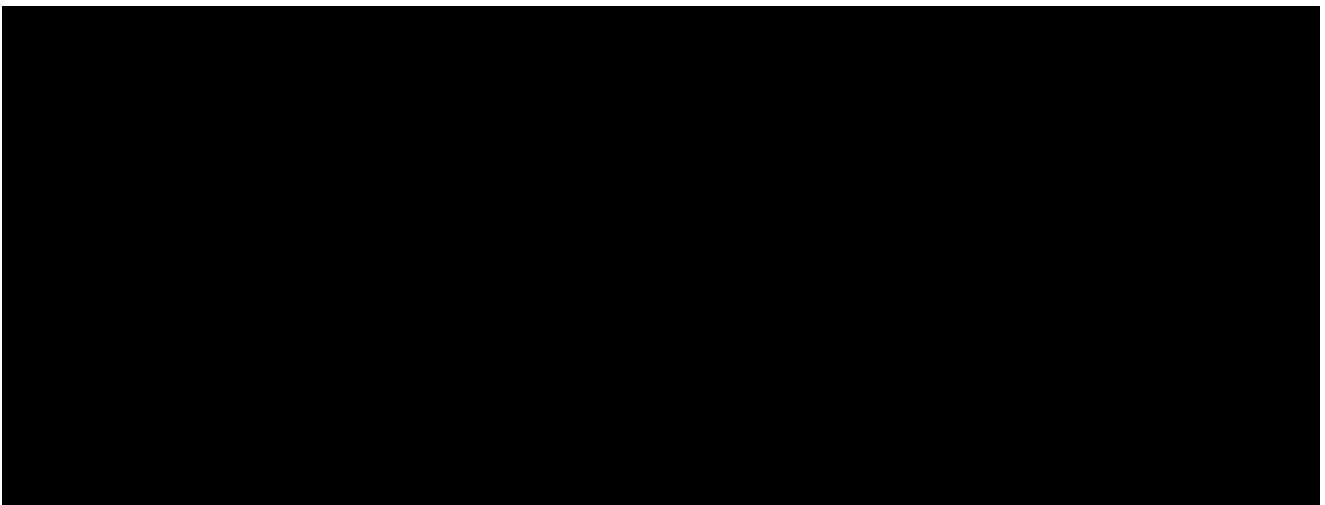
Mt Fred South Development Laboratory Test Report

Samples from the above-mentioned site have been tested as received according to your instructions and the results are included in this report. Results apply only to the sample(s) tested.

This report has been prepared for the benefit of Bathurst Resources Limited, with respect to the particular brief given to us and it cannot be relied upon in other contexts or for any other purpose without our prior review and agreement.

This report may be reproduced only in full.

Samples not destroyed during testing will be retained for one month from the date of this report before being discarded. If we can be of any further assistance, feel free to get in touch. Contact details are provided at the bottom of this page.

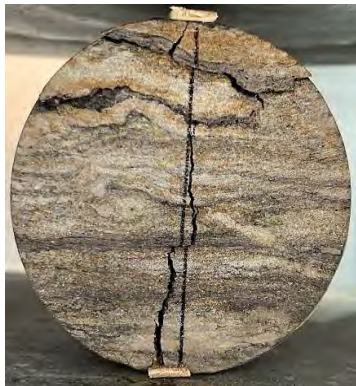


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Splitting Tensile Strength of Intact Rock Core Specimens with Flat Loading Platens - ASTM D3967-23

TEST DETAILS			
LOCATION	ID	DC05	
	Description	Mt Fred South Development, Westport	
	Data	N/A	
SAMPLE	Geotechnics ID	AKL1063.1	
	Reference	DC05.1	Depth 4.85-5.08 m
	Description	Unweathered, dark grey and grey, SANDSTONE, moderately strong.	
TEST RESULT			
Specimen1			
Specimen depth	(m)	5.03-5.08	
Specimen description		Unweathered, dark grey and grey, SANDSTONE, moderately strong.	
Specimen diameter	(mm)	82.50	
Specimen thickness	(mm)	42.25	
Thickness/Diameter ratio		0.51	
Moisture condition		As-received	
Contact type		Plywood bearing strips	
Rate of loading	(kN/s)	0.02	
Mode of failure		b - Failure mode with wedge formation	
Splitting tensile strength	(MPa)	1.4	
TEST PHOTOS			
Specimen 1			
Before		After	
			
TEST REMARKS			
Mode of failure source "Implementation of path following techniques into the finite element code LAGAMINE. Part II: Material non linearity - Scientific Figure on ResearchGate."			
Date Tested: 04/11/2024			
This test result is not IANZ accredited.			

Splitting Tensile Strength of Intact Rock Core Specimens with Flat Loading Platens - ASTM D3967-23

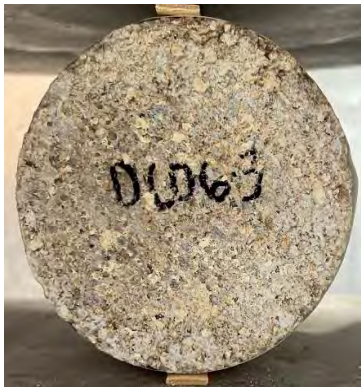
TEST DETAILS			
LOCATION	ID	DC06	
	Description	Mt Fred South Development, Westport	
	Data	N/A	
SAMPLE	Geotechnics ID	AKL1063.6	
	Reference	DC06.1	Depth 6.89-7.1 m
	Description	Slightly weathered, light grey, dark grey and light orange, SANDSTONE, moderately strong.	
TEST RESULT			
Specimen1			
Specimen depth	(m)	6.93-6.97	
Specimen description		Slightly weathered, light grey, dark grey and light orange, SANDSTONE, moderately strong.	
Specimen diameter	(mm)	82.75	
Specimen thickness	(mm)	41.00	
Thickness/Diameter ratio		0.50	
Moisture condition		As-received	
Contact type		Plywood bearing strips	
Rate of loading	(kN/s)	0.09	
Mode of failure		E - Pure tension across bedding	
Splitting tensile strength	(MPa)	2.0	
TEST PHOTOS			
Specimen 1			
Before		After	
			
TEST REMARKS			
• Mode of failure source "ASTM D3967-23"			
Date Tested: 04/11/2024			
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Onehunga
Auckland 1061
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TEST DETAILS					
LOCATION		ID	DC06		
		Description	Mt Fred South Development, Westport		
		Data	N/A		
SAMPLE		Geotechnics ID	AKL1063.8		
		Reference	DC06.3	Depth	25.92-26.53 m
		Description	Unweathered, light grey and yellowish brown, SANDSTONE; moderately strong.		
TEST RESULT					
		Specimen1			
Specimen depth	(m)	25.93-25.97			
Specimen description		Unweathered, light grey and yellowish brown, SANDSTONE; moderately strong.			
Specimen diameter	(mm)	82.50			
Specimen thickness	(mm)	48.50			
Thickness/Diameter ratio		0.59			
Moisture condition		As-received			
Contact type		Plywood bearing strips			
Rate of loading	(kN/s)	0.09			
Mode of failure		b - Failure mode with wedge formation			
Splitting tensile strength	(MPa)	2.2			
TEST PHOTOS					
Specimen 1					
Before			After		
					
TEST REMARKS					
Mode of failure source "Implementation of path following techniques into the finite element code LAGAMINE. Part II: Material non linearity - Scientific Figure on ResearchGate."					
Date Tested: 04/11/2024					
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Customer Project ID -

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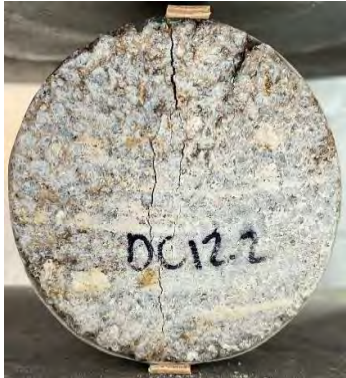
TEST DETAILS			
LOCATION	ID	DC06	
	Description	Mt Fred South Development, Westport	
	Data	N/A	
SAMPLE	Geotechnics ID	AKL1063.10	
	Reference	DC06.5	Depth33.75-34.09 m
	Description	Unweathered, dark grey.light grey and black, SANDSTONE, moderately strong.	
TEST RESULT			
Specimen1			
Specimen depth	(m)	33.76-33.80	
Specimen description		Unweathered, dark grey.light grey and black, SANDSTONE, moderately strong.	
Specimen diameter	(mm)	83.25	
Specimen thickness	(mm)	44.00	
Thickness/Diameter ratio		0.53	
Moisture condition		As-received	
Contact type		Plywood bearing strips	
Rate of loading	(kN/s)	0.10	
Mode of failure		c - Failure mode with primary & secondary cracks B - Pure shear failure along bedding	
Splitting tensile strength	(MPa)	2.9	
TEST PHOTOS			
Specimen 1			
Before		After	
			
TEST REMARKS			
• Mode of failure source "ASTM D3967-23"			
Date Tested: 04/11/2024			
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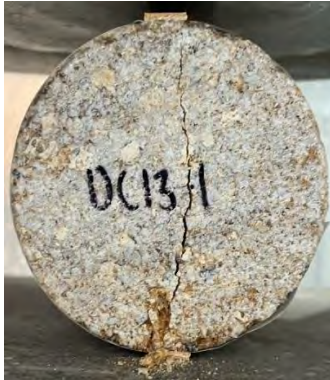
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Splitting Tensile Strength of Intact Rock Core Specimens with Flat Loading Platens - ASTM D3967-23

TEST DETAILS			
LOCATION	ID	DC012	
	Description	Mt Fred South Development, Westport	
	Data	N/A	
SAMPLE	Geotechnics ID	AKL1063.12	
	Reference	DC012.2	Depth 9.88-10.24 m
	Description	Unweathered, light grey and light orange, SANDSTONE, moderately strong.	
TEST RESULT			
Specimen1			
Specimen depth	(m)	9.89-9.93	
Specimen description		Unweathered, light grey and light orange, SANDSTONE, moderately strong.	
Specimen diameter	(mm)	82.75	
Specimen thickness	(mm)	46.50	
Thickness/Diameter ratio		0.56	
Moisture condition		As-received	
Contact type		Plywood bearing strips	
Rate of loading	(kN/s)	0.10	
Mode of failure		c - Failure mode with primary & secondary cracks	
Splitting tensile strength	(MPa)	2.4	
TEST PHOTOS			
Specimen 1			
Before		After	
			
TEST REMARKS			
Mode of failure source "Implementation of path following techniques into the finite element code LAGAMINE. Part II: Material non linearity - Scientific Figure on ResearchGate."			
Date Tested: 04/11/2024			
This test result is not IANZ accredited.			

Splitting Tensile Strength of Intact Rock Core Specimens with Flat Loading Platens - ASTM D3967-23

TEST DETAILS			
LOCATION	ID	DC013	
	Description	Mt Fred South Development, Westport	
	Data	N/A	
SAMPLE	Geotechnics ID	AKL1063.13	
	Reference	DC013.1	Depth11.4-11.59 m
	Description	Unweathered, light grey and light yellowish brown, SANDSTONE; moderately strong.	
TEST RESULT			
		Specimen1	
Specimen depth	(m)	11.40-11.44	
Specimen description		Unweathered, light grey and light yellowish brown, SANDSTONE; moderately strong.	
Specimen diameter	(mm)	82.75	
Specimen thickness	(mm)	47.00	
Thickness/Diameter ratio		0.57	
Moisture condition		As-received	
Contact type		Plywood bearing strips	
Rate of loading	(kN/s)	0.10	
Mode of failure		E - Pure tension across bedding	
Splitting tensile strength	(MPa)	3.5	
TEST PHOTOS			
		Specimen 1	
	Before		After
			
TEST REMARKS			
• Mode of failure source "ASTM D3967-23"			
Date Tested: 04/11/2024			
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Site: Mt Fred South Development, Westport

Location ID: DC05.2

Sample Ref.: AKL1063.2

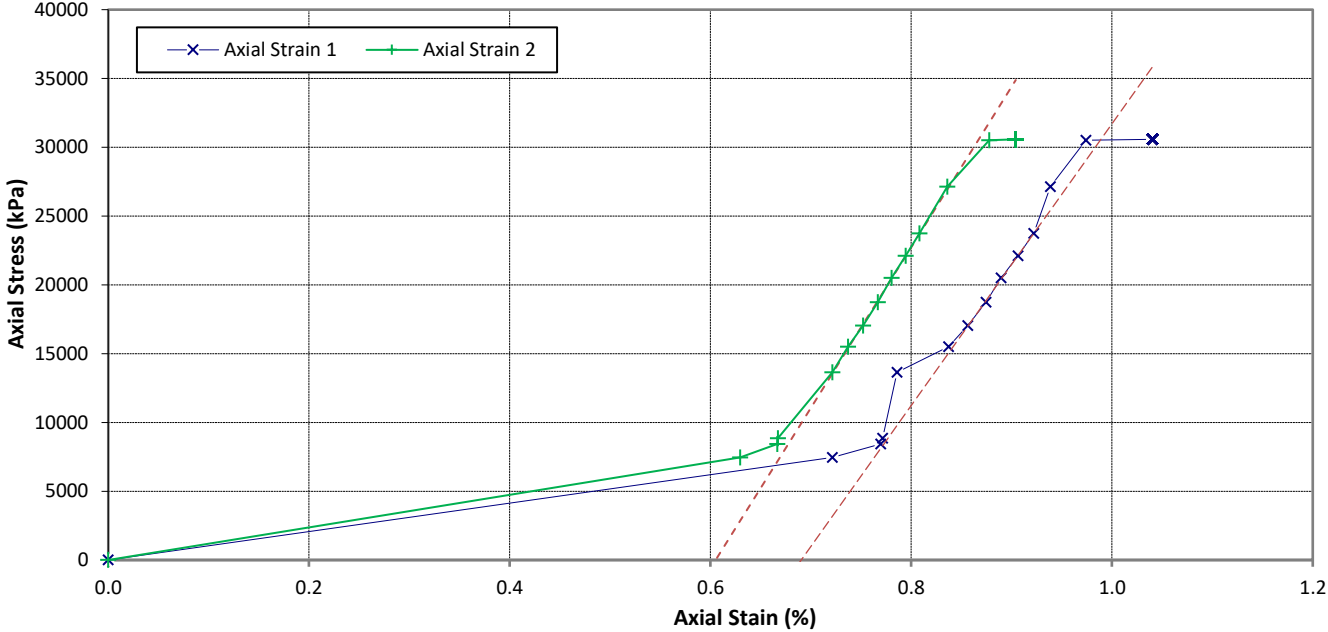
Depth: 7.29-7.43 (m)

Test method used: ASTM D7012-14e1 Compressive Strength and Elastic Moduli of Intact Rock Core Specimens under Varying States of Stress and Temperatures (Method D)

NZS 4402:1986 Test 2.1 Determination of Water Content

UNCONFINED COMPRESSION STRENGTH TEST

Axial Stress VS Axial Strain



Initial Sample Parameters:

Sample Length (mm)	165.81	Bulk Density (t/m³)	2.29
Sample Diameter (mm)	82.54	Dry Density (t/m³)	2.22
Test Length (mm)	165.81	Water Content (%)	3.0
Test Height / Diameter Ratio	2.01		

Failure Value:

Axial Strain ε (%)	Unconfined Compressive Strength q _u (kPa)	Rate of Compression (mm/min)
1.04	30575	0.18

Young's Modulus (MPa):

Axial Strain 1: 10244

Axial Strain 2: 11669

Sample History:

Undisturbed core trimmed at natural water content.

Soil Description:

slightly weathered, light grey mottled orange, SANDSTONE, moderately strong

Test Remarks:

Unconfined Compressive Strength reported to the nearest 1 kPa.
The test is not IANZ accredited.

Failure Mode & Photo

Axial



Tested by: ELMO/KAPO

Date: 4/11/2024

Our Ref: 1097245.0000.0.0/Rep1

Geotechnics Ltd
ASTM D7012-14e1 Compressive Strength and Elastic Moduli of Intact Rock Core Specimens under Varying States of Stress and Temperatures

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New Zealand
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Geotechnics Project ID: 1097245.0000.0.0

Customer Project ID:

Site: Mt Fred South Development, Westport

Location ID: DC05.3

Sample Ref.: AKL1063.3

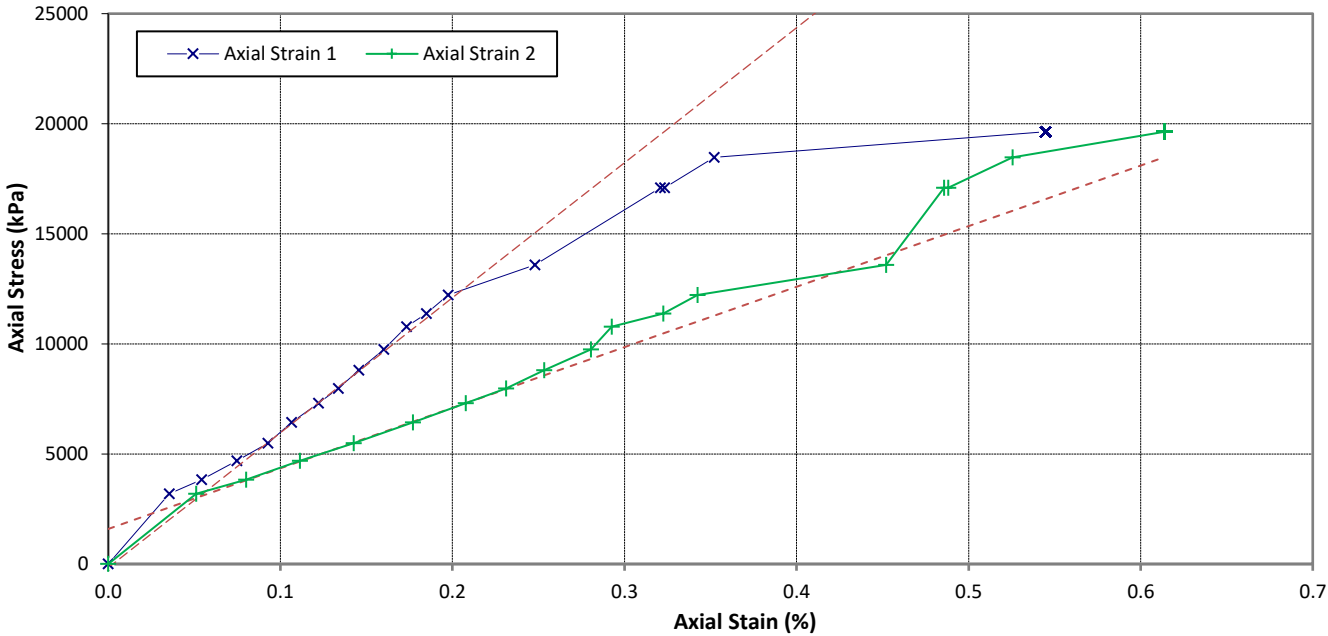
Depth: 12.6-12.77 (m)

Test method used: ASTM D7012-14e1 Compressive Strength and Elastic Moduli of Intact Rock Core Specimens under Varying States of Stress and Temperatures (Method D)

NZS 4402:1986 Test 2.1 Determination of Water Content

UNCONFINED COMPRESSION STRENGTH TEST

Axial Stress VS Axial Strain



Initial Sample Parameters:

Sample Length (mm)	166.13	Bulk Density (t/m³)	2.26
Sample Diameter (mm)	82.55	Dry Density (t/m³)	2.23
Test Length (mm)	166.13	Water Content (%)	1.6
Test Height / Diameter Ratio	2.01		

Failure Value:

Axial Strain ε (%)	Unconfined Compressive Strength q _u (kPa)	Rate of Compression (mm/min)
0.54	19636	0.18

Young's Modulus (MPa):

Axial Strain 1:	6133	Axial Strain 2:	2752
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Sample History:

Undisturbed core trimmed at natural water content.

Soil Description:

unweathered, light grey and light brown, SANDSTONE,weak

Test Remarks:

Unconfined Compressive Strength reported to the nearest 1 kPa.
The test is not IANZ accredited.

Failure Mode & Photo

Axial



Tested by: ELMO/KAPO

Date: 4/11/2024



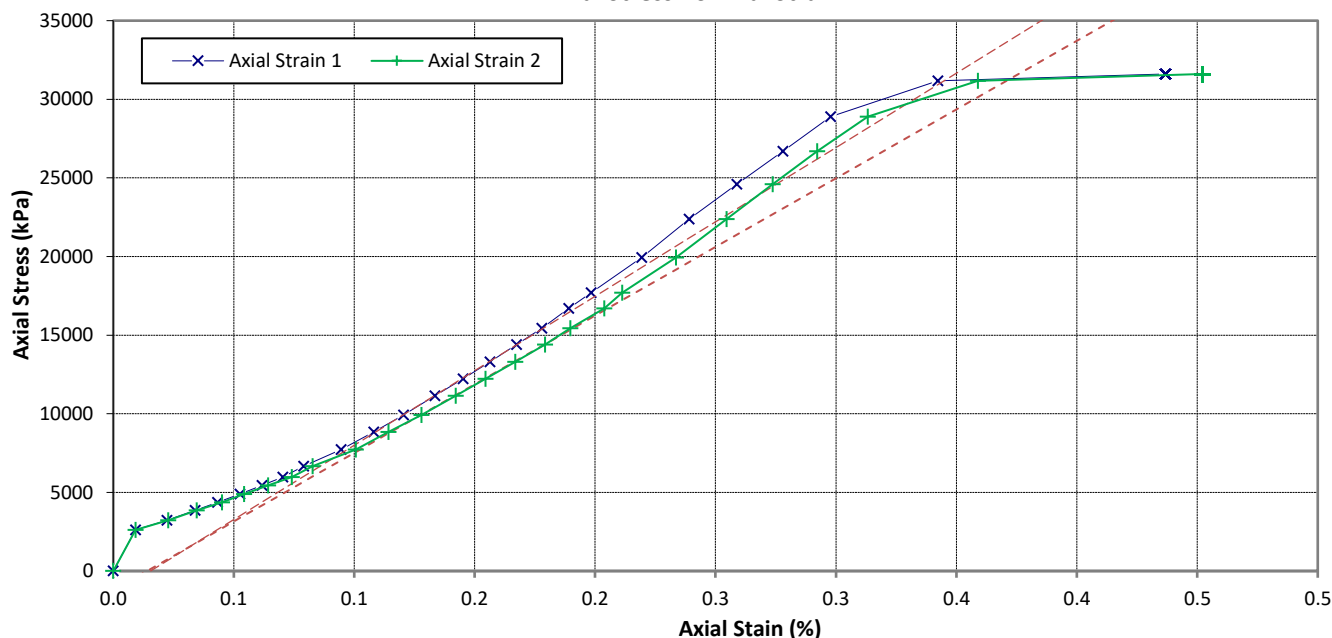
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Geotechnics Project ID: 1097245.0000.0.0
Customer Project ID:

Site: Mt Fred South Development, Westport Location ID: DC05.4
Sample Ref.: AKL1063.4 Depth: 23.6-23.74 (m)
Test method used: ASTM D7012-14e1 Compressive Strength and Elastic Moduli of Intact Rock Core Specimens under Varying States of Stress and Temperatures (Method D)
NZS 4402:1986 Test 2.1 Determination of Water Content

UNCONFINED COMPRESSION STRENGTH TEST

Axial Stress VS Axial Strain



Initial Sample Parameters:

Sample Length (mm)	161.86	Bulk Density (t/m ³)	2.32
Sample Diameter (mm)	82.63	Dry Density (t/m ³)	2.29
Test Length (mm)	161.86	Water Content (%)	1.3
Test Height / Diameter Ratio	1.96		

Failure Value:

Axial Strain ϵ (%)	Unconfined Compressive Strength q_u (kPa)	Rate of Compression (mm/min)
0.44	31609	0.05

Young's Modulus (MPa):

Axial Strain 1:	9466	Axial Strain 2:	8734
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Sample History: Undisturbed core trimmed at natural water content.

Soil Description: slightly weathered, light grey and orange, SANDSTONE, moderately strong

Test Remarks: Unconfined Compressive Strength reported to the nearest 1 kPa.
The test is not IANZ accredited.

Failure Mode & Photo

Axial



Tested by: ELMO/KAPO Date: 4/11/2024

Our Ref: 1097245.0000.0.0/Rep1



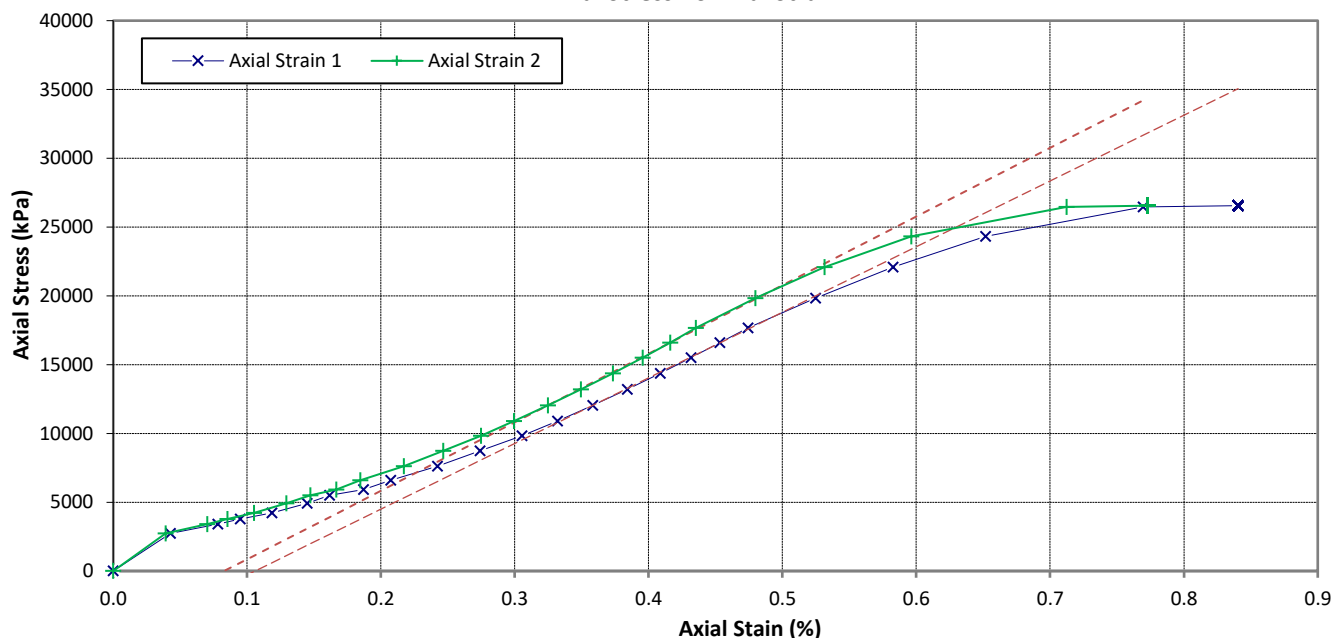
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Geotechnics Project ID: 1097245.0000.0.0
Customer Project ID:

Site: Mt Fred South Development, Westport Location ID: DC05.5
Sample Ref.: AKL1063.5 Depth: 24.19-24.38 (m)
Test method used: ASTM D7012-14e1 Compressive Strength and Elastic Moduli of Intact Rock Core Specimens under Varying States of Stress and Temperatures (Method D)
NZS 4402:1986 Test 2.1 Determination of Water Content

UNCONFINED COMPRESSION STRENGTH TEST

Axial Stress VS Axial Strain



Initial Sample Parameters:

Sample Length (mm)	166.33	Bulk Density (t/m ³)	2.47
Sample Diameter (mm)	82.90	Dry Density (t/m ³)	2.43
Test Length (mm)	166.33	Water Content (%)	1.6
Test Height / Diameter Ratio	2.01		

Failure Value:

Axial Strain ϵ (%)	Unconfined Compressive Strength q_u (kPa)	Rate of Compression (mm/min)
0.84	26552	0.12

Young's Modulus (MPa):

Axial Strain 1:	4772	Axial Strain 2:	4982
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Sample History: Undisturbed core trimmed at natural water content.

Soil Description: slightly weathered, light grey with grey and orange, SANDSTONE, moderately strong

Test Remarks: Unconfined Compressive Strength reported to the nearest 1 kPa.
The test is not IANZ accredited.

Failure Mode & Photo

Axial



Tested by: ELMO/KAPO Date: 4/11/2024

Our Ref: 1097245.0000.0.0/Rep1



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Auckland
New Zealand
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Geotechnics Project ID: 1097245.0000.0.0

Customer Project ID:

Site: Mt Fred South Development, Westport

Location ID: DC06.2

Sample Ref.: AKL1063.7

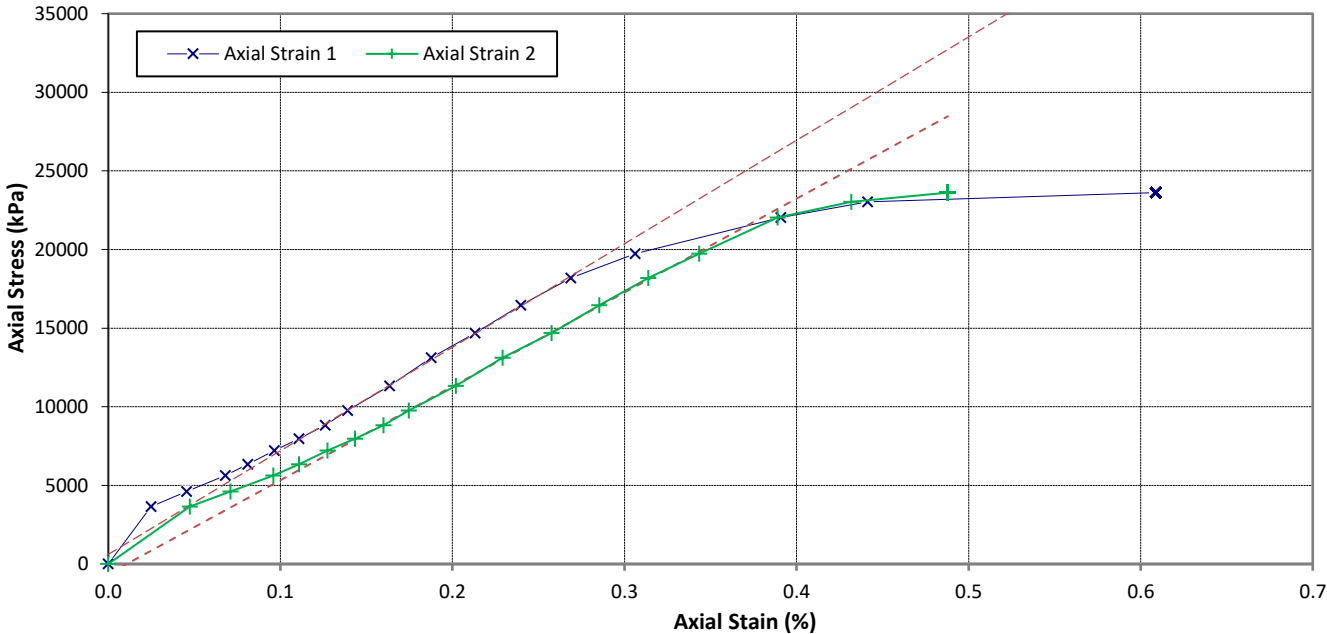
Depth: 9.58-9.74 (m)

Test method used: ASTM D7012-14e1 Compressive Strength and Elastic Moduli of Intact Rock Core Specimens under Varying States of Stress and Temperatures (Method D)

NZS 4402:1986 Test 2.1 Determination of Water Content

UNCONFINED COMPRESSION STRENGTH TEST

Axial Stress VS Axial Strain



Initial Sample Parameters:

Sample Length (mm)	168.87	Bulk Density (t/m ³)	2.42
Sample Diameter (mm)	82.58	Dry Density (t/m ³)	2.39
Test Length (mm)	168.87	Water Content (%)	1.1
Test Height / Diameter Ratio	2.04		

Failure Value:

Axial Strain ε (%)	Unconfined Compressive Strength q _u (kPa)	Rate of Compression (mm/min)
0.61	23618	0.15

Young's Modulus (MPa):

Axial Strain 1: 6584

Axial Strain 2: 5967

Sample History:

Undisturbed core trimmed at natural water content.

Soil Description:

unweathered, light grey and light yellowish brown, SANDSTONE, moderately strong

Test Remarks:

Unconfined Compressive Strength reported to the nearest 1 kPa.
The test is not IANZ accredited.

Failure Mode & Photo

Axial



Tested by: ELMO/KAPO

Date: 4/11/2024

Our Ref: 1097245.0000.0.0/Rep1

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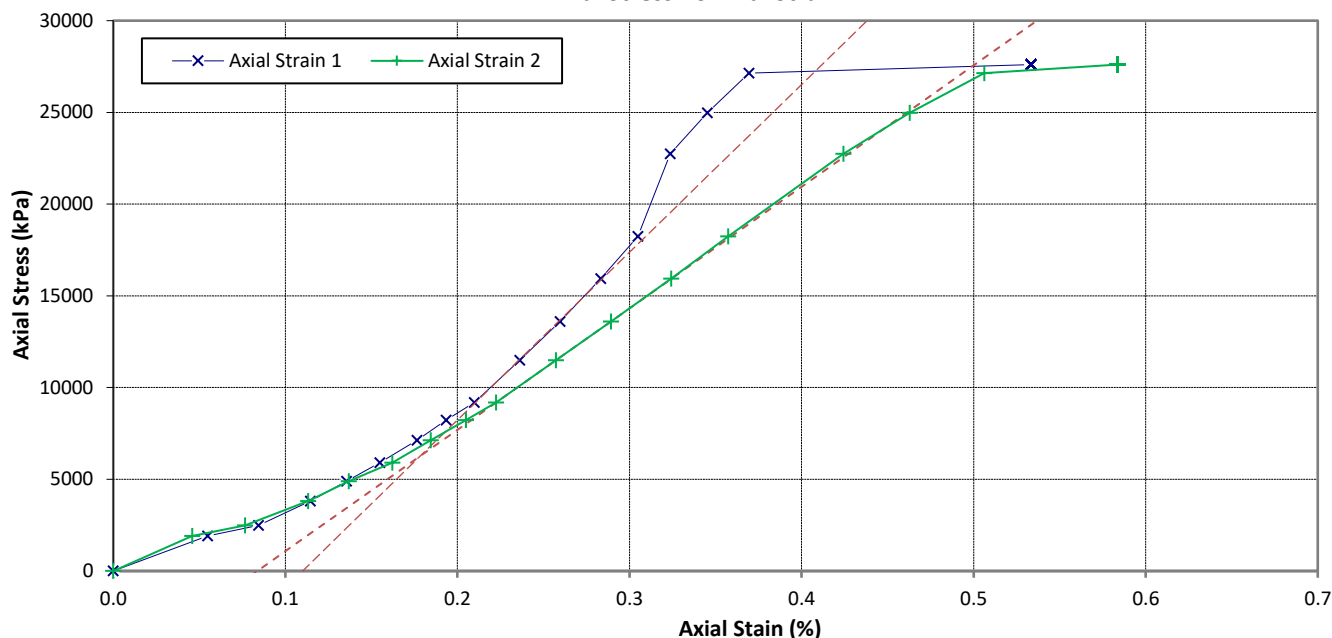
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Geotechnics Project ID: 1097245.0000.0.0
Customer Project ID:

Site: Mt Fred South Development, Westport Location ID: DC06.3
Sample Ref.: AKL1063.8 Depth: 26.14-26.3 (m)
Test method used: ASTM D7012-14e1 Compressive Strength and Elastic Moduli of Intact Rock Core Specimens under Varying States of Stress and Temperatures (Method D)
NZS 4402:1986 Test 2.1 Determination of Water Content

UNCONFINED COMPRESSION STRENGTH TEST

Axial Stress VS Axial Strain



Initial Sample Parameters:

Sample Length (mm)	165.93	Bulk Density (t/m ³)	2.36
Sample Diameter (mm)	82.57	Dry Density (t/m ³)	2.33
Test Length (mm)	165.93	Water Content (%)	1.1
Test Height / Diameter Ratio	2.01		

Failure Value:

Axial Strain ϵ (%)	Unconfined Compressive Strength q_u (kPa)	Rate of Compression (mm/min)
0.53	27605	0.15

Young's Modulus (MPa):

Axial Strain 1:	9145	Axial Strain 2:	6619
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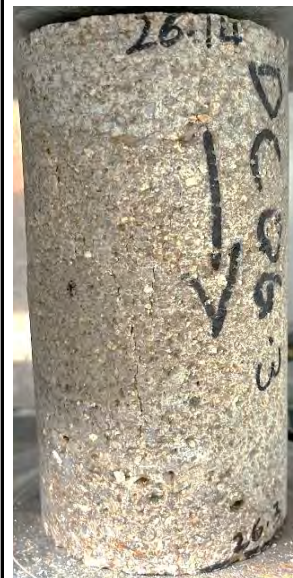
Sample History: Undisturbed core trimmed at natural water content.

Soil Description: unweathered, light grey and light yellowish brown, SANDSTONE, moderately strong

Test Remarks: Unconfined Compressive Strength reported to the nearest 1 kPa.
The test is not IANZ accredited.

Failure Mode & Photo

Axial



Tested by: ELMO/KAPO Date: 4/11/2024

Our Ref: 1097245.0000.0.0/Rep1



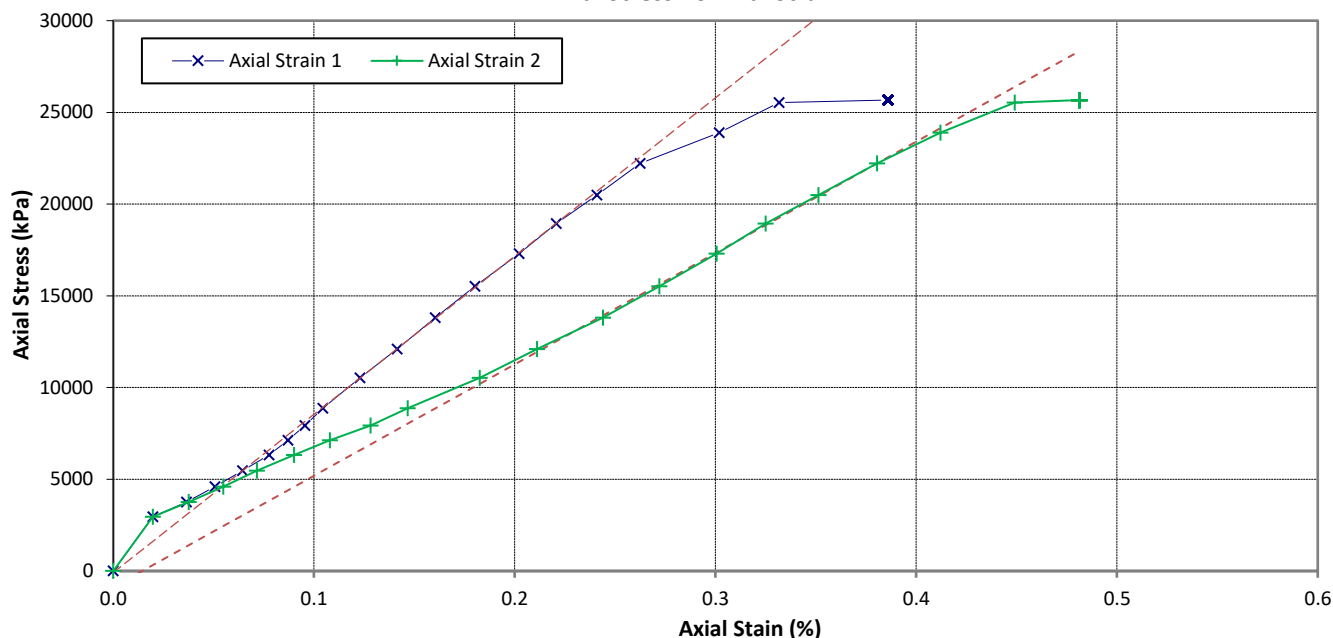
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Geotechnics Project ID: 1097245.0000.0.0
Customer Project ID:

Site: Mt Fred South Development, Westport Location ID: DC06.4
Sample Ref.: AKL1063.9 Depth: 32.26-32.43 (m)
Test method used: ASTM D7012-14e1 Compressive Strength and Elastic Moduli of Intact Rock Core Specimens under Varying States of Stress and Temperatures (Method D)
NZS 4402:1986 Test 2.1 Determination of Water Content

UNCONFINED COMPRESSION STRENGTH TEST

Axial Stress VS Axial Strain



Initial Sample Parameters:

Sample Length (mm)	167.68	Bulk Density (t/m ³)	2.55
Sample Diameter (mm)	82.64	Dry Density (t/m ³)	2.53
Test Length (mm)	167.68	Water Content (%)	0.6
Test Height / Diameter Ratio	2.03		

Failure Value:

Axial Strain ϵ (%)	Unconfined Compressive Strength q_u (kPa)	Rate of Compression (mm/min)
0.39	25672	0.10

Young's Modulus (MPa):

Axial Strain 1:	8628	Axial Strain 2:	6071
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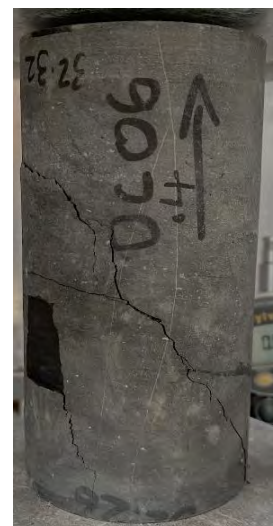
Sample History: Undisturbed core trimmed at natural water content.

Soil Description: unweathered, grey and dark grey, SANDSTONE, moderately strong

Test Remarks: Unconfined Compressive Strength reported to the nearest 1 kPa.
The test is not IANZ accredited.

Failure Mode & Photo

Axial



Tested by: ELMO/KAPO Date: 4/11/2024

Our Ref: 1097245.0000.0.0/Rep1



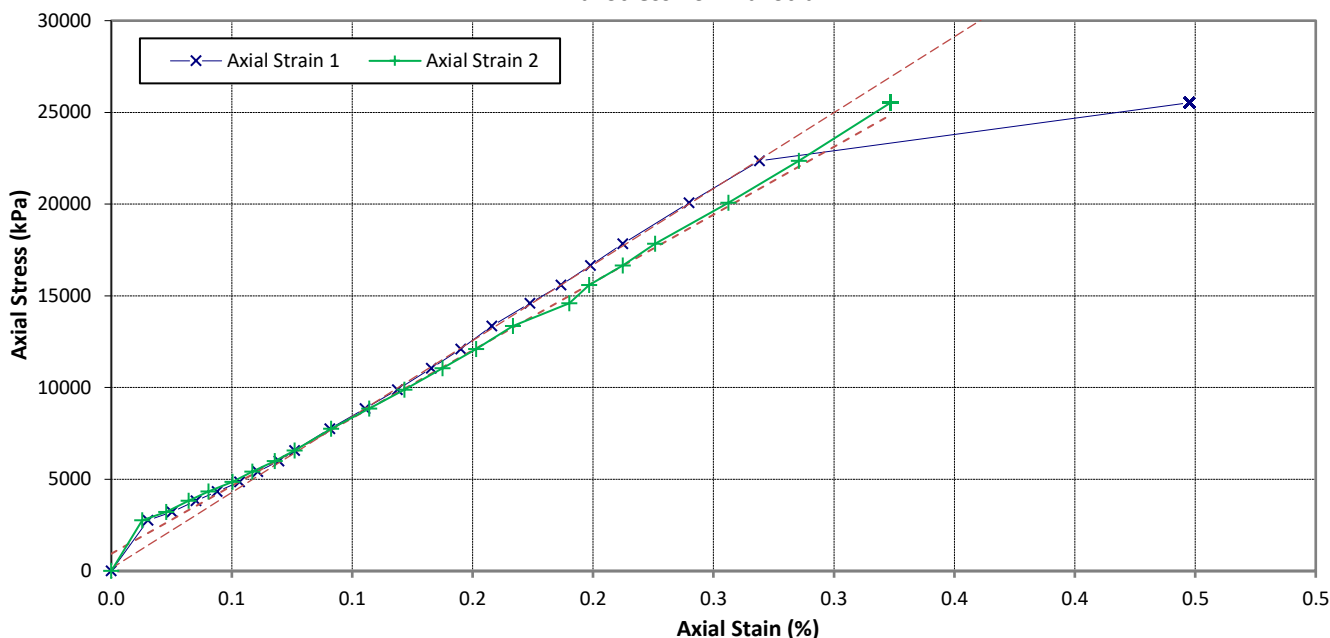
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Geotechnics Project ID: 1097245.0000.0.0
Customer Project ID:

Site: Mt Fred South Development, Westport Location ID: DC06.5
Sample Ref.: AKL1063.10 Depth: 33.8-33.96 (m)
Test method used: ASTM D7012-14e1 Compressive Strength and Elastic Moduli of Intact Rock Core Specimens under Varying States of Stress and Temperatures (Method D)
NZS 4402:1986 Test 2.1 Determination of Water Content

UNCONFINED COMPRESSION STRENGTH TEST

Axial Stress VS Axial Strain



Initial Sample Parameters:

Sample Length (mm)	170.95	Bulk Density (t/m ³)	2.57
Sample Diameter (mm)	82.57	Dry Density (t/m ³)	2.55
Test Length (mm)	170.95	Water Content (%)	0.6
Test Height / Diameter Ratio	2.07		

Failure Value:

Axial Strain ϵ (%)	Unconfined Compressive Strength q_u (kPa)	Rate of Compression (mm/min)
0.45	25527	0.06

Young's Modulus (MPa):

Axial Strain 1:	8279	Axial Strain 2:	7394
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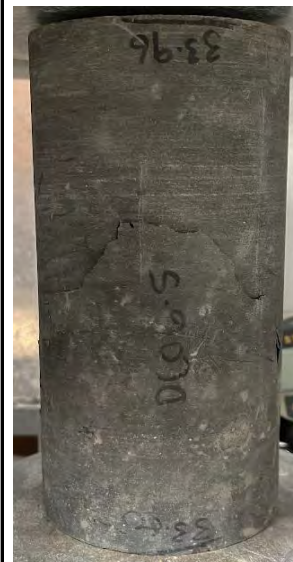
Sample History: Undisturbed core trimmed at natural water content.

Soil Description: unweathered, dark grey and grey, SANDSTONE, moderately strong

Test Remarks: Unconfined Compressive Strength reported to the nearest 1 kPa.
The test is not IANZ accredited.

Failure Mode & Photo

Axial



Tested by: ELMO/KAPO Date: 4/11/2024

Our Ref: 1097245.0000.0.0/Rep1



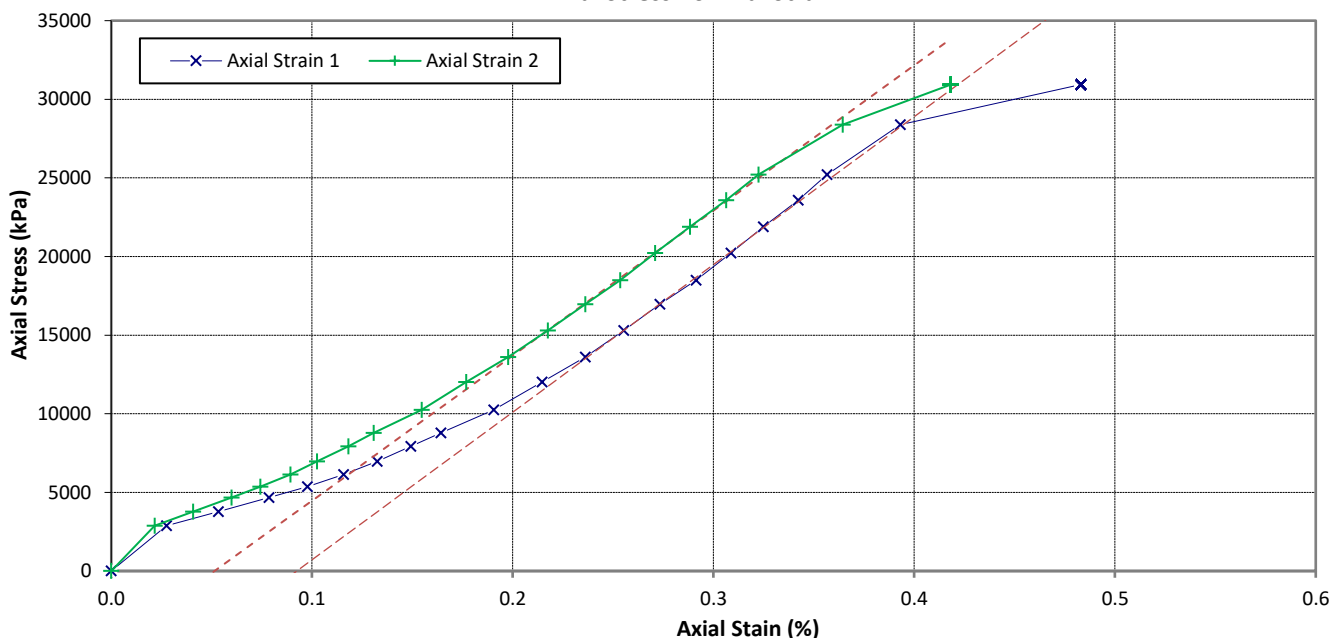
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Geotechnics Project ID: 1097245.0000.0.0
Customer Project ID:

Site: Mt Fred South Development, Westport Location ID: DC12.1
Sample Ref.: AKL1063.11 Depth: 6.61-6.77 (m)
Test method used: ASTM D7012-14e1 Compressive Strength and Elastic Moduli of Intact Rock Core Specimens under Varying States of Stress and Temperatures (Method D)
NZS 4402:1986 Test 2.1 Determination of Water Content

UNCONFINED COMPRESSION STRENGTH TEST

Axial Stress VS Axial Strain



Initial Sample Parameters:

Sample Length (mm)	166.86	Bulk Density (t/m ³)	2.32
Sample Diameter (mm)	83.30	Dry Density (t/m ³)	2.28
Test Length (mm)	166.86	Water Content (%)	1.6
Test Height / Diameter Ratio	2.00		

Failure Value:

Axial Strain ϵ (%)	Unconfined Compressive Strength q_u (kPa)	Rate of Compression (mm/min)
0.48	30939	0.08

Young's Modulus (MPa):

Axial Strain 1: 9396 Axial Strain 2: 9229

Sample History: Undisturbed core trimmed at natural water content.

Soil Description: unweathered, light grey and yellowish brown, SANDSTONE, moderately strong

Test Remarks: Unconfined Compressive Strength reported to the nearest 1 kPa.
The test is not IANZ accredited.

Failure Mode & Photo

Axial



Tested by: ELMO/KAPO Date: 4/11/2024

Our Ref: 1097245.0000.0.0/Rep1



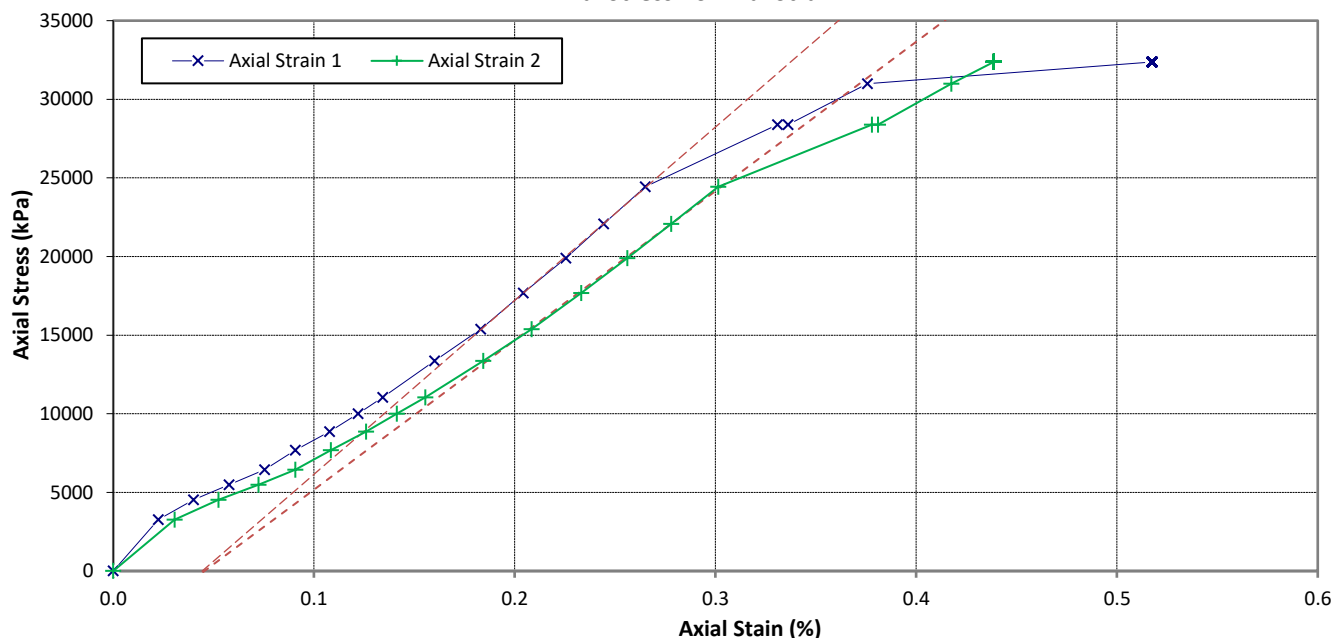
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Geotechnics Project ID: 1097245.0000.0.0
Customer Project ID:

Site: Mt Fred South Development, Westport Location ID: DC12.2
Sample Ref.: AKL1063.12 Depth: 9.93-10.09 (m)
Test method used: ASTM D7012-14e1 Compressive Strength and Elastic Moduli of Intact Rock Core Specimens under Varying States of Stress and Temperatures (Method D)
NZS 4402:1986 Test 2.1 Determination of Water Content

UNCONFINED COMPRESSION STRENGTH TEST

Axial Stress VS Axial Strain



Initial Sample Parameters:

Sample Length (mm)	169.86	Bulk Density (t/m ³)	2.43
Sample Diameter (mm)	82.87	Dry Density (t/m ³)	2.40
Test Length (mm)	169.86	Water Content (%)	1.2
Test Height / Diameter Ratio	2.05		

Failure Value:

Axial Strain ϵ (%)	Unconfined Compressive Strength q_u (kPa)	Rate of Compression (mm/min)
0.52	32371	0.12

Young's Modulus (MPa):

Axial Strain 1: 11045 Axial Strain 2: 9497

Sample History: Undisturbed core trimmed at natural water content.

Soil Description: unweathered, light grey and light brownish orange, SANDSTONE, moderately strong

Test Remarks: Unconfined Compressive Strength reported to the nearest 1 kPa.
The test is not IANZ accredited.

Failure Mode & Photo

Axial



Tested by: ELMO/KAPO Date: 4/11/2024

Our Ref: 1097245.0000.0.0/Rep1



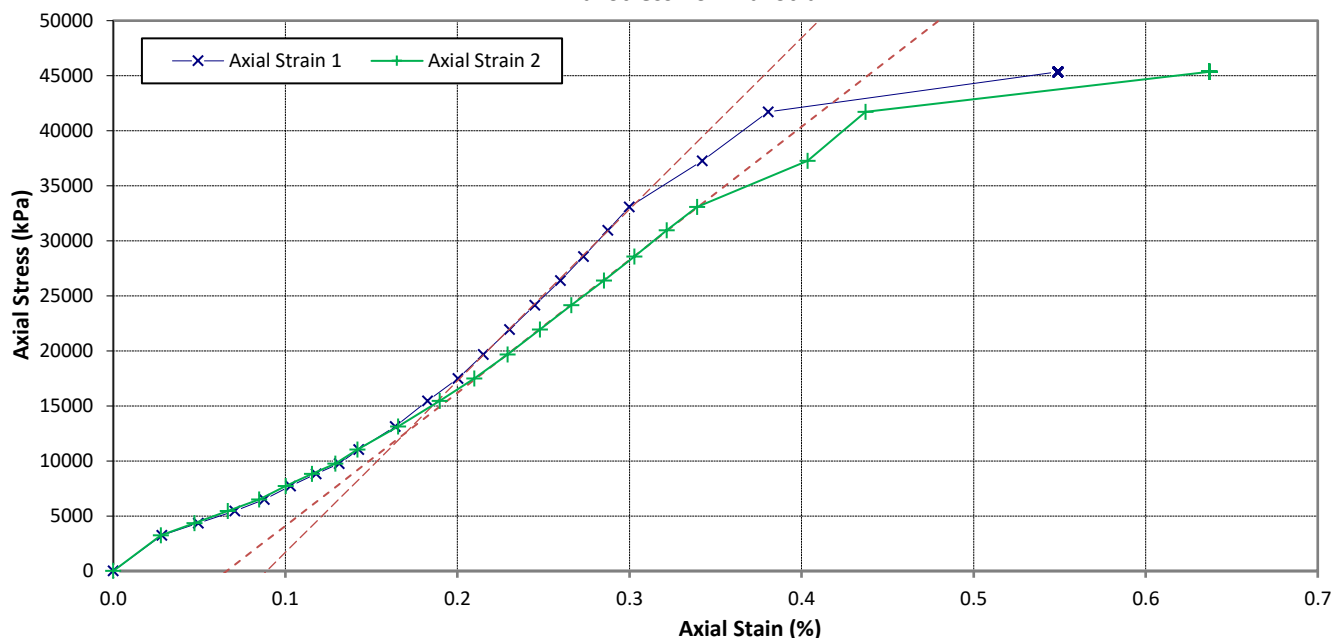
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Geotechnics Project ID: 1097245.0000.0.0
Customer Project ID:

Site: Mt Fred South Development, Westport Location ID: DC13.2
Sample Ref.: AKL1063.14 Depth: 12.71-12.82 (m)
Test method used: ASTM D7012-14e1 Compressive Strength and Elastic Moduli of Intact Rock Core Specimens under Varying States of Stress and Temperatures (Method D)
NZS 4402:1986 Test 2.1 Determination of Water Content

UNCONFINED COMPRESSION STRENGTH TEST

Axial Stress VS Axial Strain



Initial Sample Parameters:

Sample Length (mm)	169.76	Bulk Density (t/m ³)	2.44
Sample Diameter (mm)	83.12	Dry Density (t/m ³)	2.42
Test Length (mm)	169.76	Water Content (%)	0.7
Test Height / Diameter Ratio	2.04		

Failure Value:

Axial Strain ϵ (%)	Unconfined Compressive Strength q_u (kPa)	Rate of Compression (mm/min)
0.55	45351	0.10

Young's Modulus (MPa):

Axial Strain 1: 15591 Axial Strain 2: 12085

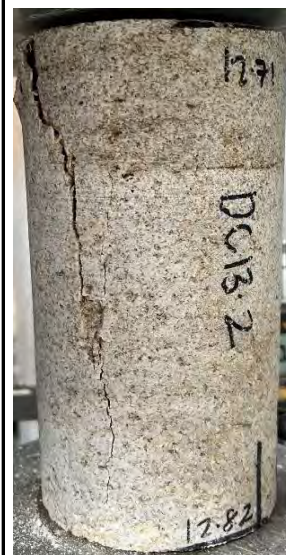
Sample History: Undisturbed core trimmed at natural water content.

Soil Description: unweathered, light grey and grey, SANDSTONE, moderately strong

Test Remarks: Unconfined Compressive Strength reported to the nearest 1 kPa.
The test is not IANZ accredited.

Failure Mode & Photo

Axial



Tested by: ELMO/KAPO Date: 4/11/2024

Our Ref: 1097245.0000.0.0/Rep1



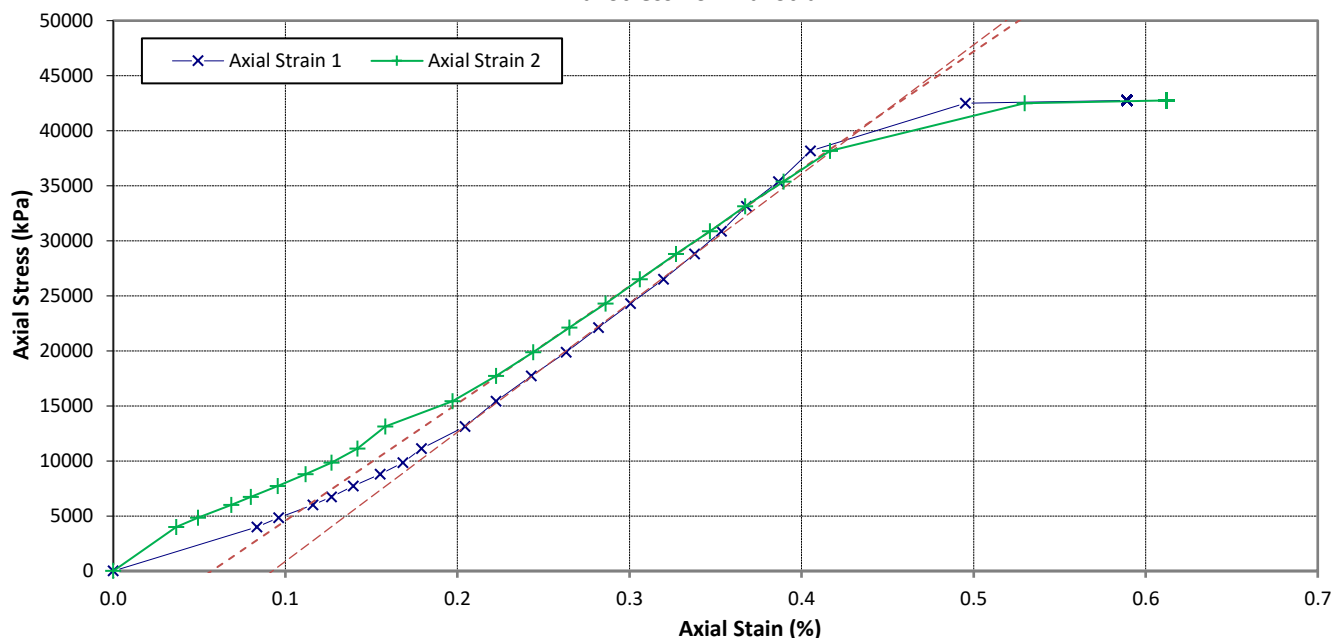
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New Zealand
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Geotechnics Project ID: 1097245.0000.0.0
Customer Project ID:

Site: Mt Fred South Development, Westport Location ID: DC13.4
Sample Ref.: AKL1063.15 Depth: 17.15-17.31 (m)
Test method used: ASTM D7012-14e1 Compressive Strength and Elastic Moduli of Intact Rock Core Specimens under Varying States of Stress and Temperatures (Method D)
NZS 4402:1986 Test 2.1 Determination of Water Content

UNCONFINED COMPRESSION STRENGTH TEST

Axial Stress VS Axial Strain



Initial Sample Parameters:

Sample Length (mm)	166.36	Bulk Density (t/m ³)	2.43
Sample Diameter (mm)	83.04	Dry Density (t/m ³)	2.40
Test Length (mm)	166.36	Water Content (%)	1.0
Test Height / Diameter Ratio	2.00		

Failure Value:

Axial Strain ϵ (%)	Unconfined Compressive Strength q_u (kPa)	Rate of Compression (mm/min)
0.59	42750	0.11

Young's Modulus (MPa):

Axial Strain 1: 11729 Axial Strain 2: 10657

Sample History: Undisturbed core trimmed at natural water content.

Soil Description: unweathered, light grey and light brown, SANDSTONE, moderately strong

Test Remarks: Unconfined Compressive Strength reported to the nearest 1 kPa.
The test is not IANZ accredited.

Failure Mode & Photo

Axial



Tested by: ELMO/KAPO Date: 4/11/2024

Our Ref: 1097245.0000.0.0/Rep1

APPENDIX E

TABLE E1: WellCAD® – DISCONTINUITY - JOINTS AND FRACTURES

Table E1: WellCAD® - Orientation Pick Data – Joints and Fractures					
Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature	Lithology
DC16	3.58	69.57	350.77	Fracture 60+ °	VCSS
DC16	3.74	27.31	148.38	Fracture <30 °	VCSS
DC16	3.84	18.34	164.69	Fracture <30 °	GRCG
DC16	4.02	77.96	146.06	Joint Open 60+ °	GRCG
DC16	4.43	66.36	306.77	Fracture 60+ °	GRCG
DC16	4.5	54.67	293.87	Joint Open >30<60 °	GRCG
DC16	5.04	74.88	308.07	Joint Open 60+ °	GRCG
DC16	6.42	52.68	14.91	Fracture>30<60 °	CM
DC16	6.48	36.44	261.2	Fracture>30<60 °	CM
DC16	7.69	42.72	9.16	Fracture>30<60 °	MSS
DC16	7.74	40.94	14.91	Fracture>30<60 °	VCSS
DC16	7.83	32.69	160.14	Fracture>30<60 °	GRCG
DC16	10.58	17.91	133.77	Fracture <30 °	GRCG
DC16	14.54	27.57	177.71	Fracture <30 °	GRBX
DC16	14.66	76.88	19.27	Fracture 60+ °	GRBX
DC16	14.92	75.1	22.93	Fracture 60+ °	GRBX
DC16	15.16	75.64	23.54	Fracture 60+ °	GRBX
DC16	16.92	74.55	36.88	Fracture 60+ °	MSS
DC16	19.38	74.57	178.37	Joint Open 60+ °	VCSS
DC16	19.8	69.11	13.64	Joint Open 60+ °	VCSS
DC16	20.07	74.55	18.83	Joint Open 60+ °	VCSS
DC16	20.25	61.92	11.97	Joint Open 60+ °	GRBX
DC16	20.56	68.89	11.97	Joint Open 60+ °	GRBX
DC16	22.9	69.22	15.42	Fracture 60+ °	GRBX
DC16	23.13	77.3	30.88	Fracture 60+ °	GRBX
DC16	23.17	67.94	25.76	Fracture 60+ °	GRBX
DC16	24.97	40.16	214.11	Fracture>30<60 °	GRBX
DC16	26.05	73.61	356.54	Fracture 60+ °	MSS
DC16	26.96	62.1	25.79	Fracture 60+ °	MSS
DC16	27.02	15.86	182.03	Fracture <30 °	LFSS
DC16	27.45	53.74	39.64	Fracture>30<60 °	LFSS
DC16	27.67	24.43	64.42	Fracture <30 °	VFSS

Table E1: WellCAD® - Orientation Pick Data – Joints and Fractures

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature	Lithology
DC16	28.21	8.14	215.08	Fracture <30 °	CO
DC16	28.7	73.03	341.11	Fracture 60+ °	CO
DC16	29.39	75.09	5.19	Fracture 60+ °	CO
DC16	29.56	49.67	48.24	Fracture>30<60 °	CO
DC16	29.87	77	337.71	Fracture 60+ °	CO
DC16	30.98	77.51	13.73	Fracture 60+ °	CO
DC16	32.72	28.91	144.29	Fracture>30<60 °	CQ
DC16	33.11	20.37	195.45	Fracture <30 °	CQ
DC16	33.17	20.36	170.14	Fracture <30 °	CQ
DC16	33.28	34.83	183.57	Fracture>30<60 °	VFSS
DC16	35.51	30.91	164.7	Fracture>30<60 °	VFSS
DC16	35.83	72.36	178.31	Joint Open 60+ °	CSS
DC16	36.37	68.25	176.63	Joint Open 60+ °	VCSS
DC16	37.23	42.46	151.07	Fracture>30<60 °	VFSS
DC16	38.6	33.06	195.5	Fracture>30<60 °	VFSS
DC16	38.9	75.97	8.54	Fracture 60+ °	PBCG
DC19	2.96	56.13	327.61	Joint Open >30<60 °	LVFS
DC19	3.15	58.27	53.62	Joint Open >30<60 °	LVFS
DC19	3.54	75.93	156.55	Fracture 60+ °	CO
DC19	3.92	5.64	178.93	Fracture <30 °	CSS
DC19	5.93	10.6	95.77	Fracture <30 °	CSS
DC19	6.03	4.61	157.81	Fracture <30 °	VCSS
DC19	9.18	64.7	102.16	Joint Open 60+ °	CM
DC19	9.44	7.27	232.06	Fracture Zone	HCM
DC19	9.57	11.42	158.9	Fracture Zone	HCM
DC19	10.44	81.45	309.6	Joint Open 60+ °	CM
DC19	14.19	18.31	234.66	Fracture <30 °	VCSS
DC19	16.09	14.55	203.35	Fracture Zone	VCSS
DC19	16.18	17.25	208.38	Fracture Zone	GRBX
DC19	19.64	83.07	331.37	Joint Open 60+ °	LMSS
DC19	18.31	62.77	59.49	Joint Open 60+ °	LMSS
DC19	19.23	9.35	243.43	Joint Open <30 °	LMSS
DC19	19.58	84.96	319.83	Joint Open 60+ °	LMSS
DC19	20.52	51.87	109.37	Fracture>30<60 °	CSS
DC19	20.63	39.7	92.46	Fracture>30<60 °	CSS

Table E1: WellCAD® - Orientation Pick Data – Joints and Fractures

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature	Lithology
DC19	20.82	52.52	81.95	Fracture>30<60 °	CSS
DC19	21.88	34.38	71.98	Fracture>30<60 °	CSS
DC19	21.94	84.5	151.89	Joint Open 60+ °	VCSS
DC19	22.11	16.01	158.85	Fracture <30 °	GRBX
DC19	22.24	17.97	158.71	Fracture <30 °	CM
DC19	22.35	43.93	32.4	Joint Open >30<60 °	CM
DC19	22.61	75.38	64.56	Joint Open 60+ °	VCSS
DC19	23.42	67.17	64.72	Joint Open 60+ °	VCSS
DC19	24.9	78.6	306.09	Joint Open 60+ °	GRBX
DC19	25.51	70.5	230.56	Fracture 60+ °	CSS
DC19	25.62	50.33	39.03	Fracture>30<60 °	VCSS
DC19	26.18	61.86	35.5	Joint Open 60+ °	GRBX
DC19	26.49	58.24	129.67	Fracture>30<60 °	GRBX
DC19	27.04	72.56	242.63	Joint Closed 60+ °	GRBX
DC19	27.94	77.45	309.53	Joint Open 60+ °	GRBX
DC19	30.37	86.03	184.43	Joint Open 60+ °	VFSS
DC19	30.44	74.01	103.94	Joint Open 60+ °	VFSS
DC19	30.54	62.15	338.57	Joint Open 60+ °	VFSS
DC19	31	52.3	174.33	Joint Open >30<60 °	CSS
DC19	31.69	43.73	129.83	Joint Open >30<60 °	PBCG
DC19	31.99	37.19	71.46	Joint Open >30<60 °	PBCG
DC19	32.2	33.8	117.85	Joint Open >30<60 °	PBBX
DC19	32.32	50.78	128.17	Joint Open >30<60 °	PBBX
DC19	33.11	28.27	116.36	Fracture <30 °	CSS
DC19	33.35	48.16	40.49	Joint Closed >30<60 °	PBBX
DC19	33.75	52.74	73.13	Joint Open >30<60 °	PBBX
DC19	33.9	50.26	140.01	Joint Open >30<60 °	ARG
DC19	34.09	29.26	116.39	Joint Open <30 °	ARG
DC20	5.12	82.44	187.84	Joint Closed 60+ °	MSS
DC20	5.53	65.4	333.9	Joint Closed >30<60 °	CO
DC20	8.49	35.08	28.25	Joint Open >30<60 °	ARG
DC20	8.86	33.81	56.09	Joint Open >30<60 °	ARG
DC20	8.95	33.55	242.71	Joint Open >30<60 °	ARG
DC20	9.1	60.18	316.46	Joint Open 60+ °	ARG
DC20	9.31	15.03	55.48	Fracture <30 °	ARG

Table E1: WellCAD® - Orientation Pick Data – Joints and Fractures

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature	Lithology
DC20	9.43	59.29	69.81	Joint Open >30<60 °	ARG
DC20	9.47	32.24	66.7	Joint Closed >30<60 °	ARG
DC20	9.65	18.08	14.23	Fracture <30 °	ARG
DC20	9.81	20.14	144.12	Fracture <30 °	ARG
DC20	9.95	46.58	228.68	Fracture>30<60 °	ARG
DC20	10.03	35.44	66.45	Fracture>30<60 °	ARG
DC20	10.9	68.11	254.62	Joint Closed 60+ °	ARG
DC20	11.05	66.13	252.92	Joint Closed 60+ °	ARG
DC20	11.93	57.06	290.65	Joint Open >30<60 °	ARG
DC22	4.78	68.07	327.25	Joint Open 60+ °	GRBX
DC22	4.98	61	327.27	Joint Open 60+ °	GRBX
DC22	7.07	23.57	154.4	Fracture <30 °	GRBX
DC22	7.43	25.84	159.5	Fracture <30 °	GRBX
DC22	7.47	7.33	22.65	Fracture <30 °	GRBX
DC22	7.58	30.13	152.23	Fracture>30<60 °	GRBX
DC22	8.79	65.86	347.53	Joint Open 60+ °	GRBX
DC22	8.79	12.65	236.74	Fracture <30 °	GRBX
DC22	9.55	21.31	128.41	Fracture <30 °	GRBX
DC22	9.9	61.7	282.97	Fracture 60+ °	FSS
DC22	10.32	64.15	350.6	Fracture 60+ °	VCSS
DC22	12.75	11.02	213.12	Fracture <30 °	LFSS
DC22	14.52	9.29	260.27	Fracture <30 °	VCSS
DC22	14.59	72.75	340.43	Joint Open 60+ °	VCSS
DC22	14.68	9.5	89.55	Fracture <30 °	VCSS
DC22	14.82	82.78	320.34	Fracture 60+ °	VCSS
DC22	14.89	29.75	128.28	Fracture <30 °	VCSS
DC22	15.2	28.09	156.64	Fracture <30 °	GRBX
DC22	15.3	68.58	312.48	Joint Open 60+ °	GRBX
DC22	15.56	53.77	64.3	Fracture>30<60 °	GRBX
DC22	16.51	80.98	328.4	Joint Open 60+ °	GRBX
DC22	17.83	69.99	330.09	Joint Open 60+ °	GRBX
DC22	18.43	61.44	354.22	Joint Closed 60+ °	GRBX
DC22	21.49	84.61	287.25	Joint Open 60+ °	CO
DC22	21.96	37.81	18.47	Joint Open >30<60 °	CO
DC22	22.03	4.19	179.78	Fracture <30 °	HCM

Table E1: WellCAD® - Orientation Pick Data – Joints and Fractures

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature	Lithology
DC22	22.06	4.19	150.83	Fracture <30 °	HCM
DC22	22.21	6.09	185.28	Fracture <30 °	HCM
DC22	22.31	37.85	35.7	Fracture>30<60 °	HCM
DC22	22.45	48.61	297.21	Fracture>30<60 °	HCM
DC22	22.49	14.92	230.78	Fracture <30 °	HCM
DC22	22.7	38.67	0.98	Joint Open >30<60 °	HCM
DC22	24.4	28.41	339.98	Fracture <30 °	MSS
DC22	24.6	60.8	317.92	Joint Open 60+ °	MSS
DC22	24.63	15.69	10.55	Joint Open <30 °	MSS
DC22	25.45	85	230.68	Joint Open 60+ °	LC
DC22	25.71	31.17	213.29	Fracture>30<60 °	MSS
DC22	26.37	38.66	227.28	Joint Open >30<60 °	FSS
DC22	26.44	15.91	0.41	Joint Open <30 °	FSS
DC22	26.57	1.73	297.63	Joint Open <30 °	MST
DC22	26.63	67.74	263.47	Joint Open 60+ °	FSS
DC22	26.95	12.38	35.77	Joint Open <30 °	MST
DC22	27.13	62.93	242.72	Joint Open 60+ °	MST
DC22	27.25	31.97	262.97	Joint Open >30<60 °	GWK
DC22	28.1	85.08	228.98	Joint Open 60+ °	GWK
DC22	28.25	31.98	113.23	Fracture>30<60 °	GWK
DC22	29.29	14.33	31.9	Fracture <30 °	GWK
DC22	29.38	70.83	297.4	Joint Closed 60+ °	GWK
DC22	29.55	73.33	230.65	Joint Closed 60+ °	ARG
DC22	29.63	27.37	32.76	Fracture <30 °	GWK
DC22	30.15	75.52	227.23	Joint Open 60+ °	GWK
DC22	30.49	73.64	328.31	Joint Open 60+ °	GWK
DC22	30.73	78.4	302.61	Joint Open 60+ °	GWK
DC22	31.05	80.1	300.91	Joint Open 60+ °	GWK
DC22	31.52	78.77	319.77	Joint Open 60+ °	GWK
DC23	9.07	80.73	3.27	Joint Open 60+ °	CSS
DC23	9.86	73.82	357.73	Joint Open 60+ °	FSS
DC23	9.95	73.03	140.63	Joint Open 60+ °	VCSS
DC23	11.31	84.71	168.97	Joint Open 60+ °	VCSS
DC23	11.7	77.96	166.38	Joint Open 60+ °	CQ
DC23	11.86	62.11	337.18	Joint Open 60+ °	ZSS

Table E1: WellCAD® - Orientation Pick Data – Joints and Fractures

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature	Lithology
DC23	12.15	39.83	264.04	Fracture>30<60 °	ZSS
DC23	12.21	75.39	188.42	Joint Open 60+ °	ZSS
DC23	12.72	53.25	193.85	Fracture>30<60 °	VCSS
DC23	12.98	62.25	4.72	Fracture>30<60 °	VCSS
DC23	13.39	56.72	10.85	Fracture>30<60 °	GRBX
DC23	14.34	23.13	236.91	Fracture <30 °	GRBX
DC23	14.8	78.51	359.09	Joint Closed 60+ °	GRBX
DC23	15.06	81.01	18.62	Joint Closed 60+ °	GRBX
DC23	15.69	63.93	351.34	Fracture>30<60 °	GRBX
DC23	16.22	80.17	339.6	Joint Open 60+ °	GRBX
DC23	16.56	74.14	158.25	Joint Open 60+ °	VCSS
DC23	17.33	79.9	347.42	Joint Open 60+ °	GRBX
DC23	17.49	71.21	351.33	Joint Open 60+ °	GRBX
DC23	17.59	71.17	236.19	Joint Open 60+ °	GRBX
DC23	18.07	75.36	349.41	Joint Open 60+ °	GRBX
DC23	18.31	24.24	246.44	Fracture <30 °	GRBX
DC23	18.48	46.99	299.79	Joint Open >30<60 °	GRBX
DC23	18.75	71.7	351.31	Joint Open 60+ °	GRBX
DC23	19.05	23.47	104.08	Joint Open <30 °	GRBX
DC23	19.3	73.1	356.81	Joint Open 60+ °	GRBX
DC23	19.41	78.2	174.26	Joint Open 60+ °	GRBX
DC23	19.93	65.19	20.58	Joint Open 60+ °	VFSS
DC23	20.3	60.24	326.46	Joint Open 60+ °	CSS
DC23	20.48	62.46	0.52	Fracture 60+ °	CSS
DC23	20.61	65.04	2.93	Fracture 60+ °	CSS
DC23	20.94	51.88	1.21	Fracture>30<60 °	CSS
DC23	21.55	75.25	346.94	Fracture 60+ °	FSS
DC23	22.47	70.85	47.86	Joint Open 60+ °	MSS
DC23	22.54	72.5	55.79	Joint Open 60+ °	MSS
DC23	22.62	56.86	216.55	Joint Open >30<60 °	MSS
DC23	23.21	49.63	81.13	Fracture>30<60 °	VCSS
DC23	23.89	75.12	137.96	Joint Open 60+ °	VCSS
DC23	24.72	80.99	311.46	Joint Open 60+ °	VCSS
DC23	25.08	80.54	321.26	Joint Open 60+ °	VCSS
DC23	31.79	61.38	334.81	Joint Open 60+ °	FSS

Table E1: WellCAD® - Orientation Pick Data – Joints and Fractures

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature	Lithology
DC23	31.97	60.64	164.36	Joint Open 60+ °	FSS
DC23	33.03	53.69	218.17	Joint Open >30<60 °	CM
DC23	33.21	71.67	169.94	Joint Open 60+ °	CM
DC23	33.63	62.36	256.33	Joint Open 60+ °	CM
DC23	33.79	69.42	327.44	Joint Open 60+ °	CM
DC23	33.83	23.28	68.23	Joint Open <30 °	CM
DC23	33.96	56.95	331.87	Joint Open >30<60 °	VFSS
DC23	34.06	59.74	321.37	Joint Open >30<60 °	CM
DC23	34.13	69.07	141.2	Joint Open 60+ °	CM
DC23	34.36	28.63	14.04	Joint Open <30 °	CM
DC23	34.58	68.64	325.57	Joint Open 60+ °	CM
DC23	34.87	67.31	343.32	Joint Open 60+ °	FSS
DC23	35.01	70.57	144.89	Joint Open 60+ °	MSS
DC23	35.05	70.11	345.16	Joint Open 60+ °	MSS
DC23	35.33	19.5	4.03	Joint Open <30 °	VFSS
DC23	35.56	26.48	37.55	Joint Open <30 °	VFSS
DC23	35.64	65.76	146.7	Joint Open 60+ °	VFSS
DC23	35.83	43.33	350.17	Joint Open >30<60 °	MSS
DC23	35.99	74.49	337.16	Joint Open 60+ °	MSS
DC23	36.34	19.68	113.44	Joint Open <30 °	CSS
DC23	39.18	57.26	252.04	Joint Open >30<60 °	GWK
DC23	39.32	10.36	193.99	Joint Open <30 °	GWK
DC23	39.39	31.16	138.41	Joint Open >30<60 °	ARG
DC23	39.56	36.11	1.25	Joint Open >30<60 °	ARG
DC23	39.76	64.16	350.64	Joint Open 60+ °	GWK
DC23	39.89	53.31	17	Joint Open >30<60 °	ARG
DC23	40.08	31.04	323.61	Joint Open >30<60 °	ARG
DC23	40.2	50.13	303.69	Joint Open >30<60 °	GWK
DC23	40.33	7.96	344.5	Joint Open <30 °	GWK
DC24	8.58	80.84	328.85	Joint Open 60+ °	VCSS
DC24	8.95	37.92	119.7	Joint Open >30<60 °	VCSS
DC24	9.49	52.43	264.36	Fracture>30<60 °	VCSS
DC24	11.14	78.2	356.27	Joint Open 60+ °	VCSS
DC24	11.15	39.27	135.88	Joint Open >30<60 °	VCSS
DC24	12.35	59.92	318.61	Joint Open >30<60 °	CQ

Table E1: WellCAD® - Orientation Pick Data – Joints and Fractures

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature	Lithology
DC24	12.52	48.54	141.8	Joint Open >30<60 °	CQ
DC24	12.91	3.22	168.54	Fracture <30 °	CM
DC24	12.93	51.83	4.1	Fracture>30<60 °	CM
DC24	13	17.09	132.13	Fracture <30 °	FSS
DC24	13.09	31.74	105.84	Joint Open >30<60 °	FSS
DC24	13.56	16.68	78.85	Fracture <30 °	FSS
DC24	13.58	16.15	4.82	Fracture <30 °	FSS
DC24	13.89	71.1	75.29	Joint Open 60+ °	FSS
DC24	13.9	50.18	262.58	Joint Open >30<60 °	FSS
DC24	15.39	44.1	212.94	Fracture>30<60 °	FSS
DC24	15.83	45.32	55.13	Fracture>30<60 °	CO
DC24	18.23	22.08	143.53	Fracture <30 °	CM
DC24	20.87	81.6	338.62	Joint Open 60+ °	ARG
DC24	21.03	78.84	346.48	Joint Open 60+ °	ARG
DC24	21.47	52.34	125.87	Joint Open >30<60 °	ARG
DC24	21.88	19.92	94.07	Fracture <30 °	ARG
DC24	22.08	82.06	334.39	Joint Open 60+ °	GWK
DC24	22.34	75.42	146.59	Joint Open 60+ °	GWK
DC26	6.07	83.13	344.9	Joint Open 60+ °	GRBX
DC26	6.71	73.96	251.81	Joint Open 60+ °	GRBX
DC26	6.75	61.77	330.26	Joint Open 60+ °	GRBX
DC26	6.77	63.19	177.2	Joint Open 60+ °	GRBX
DC26	6.86	59.06	4.06	Joint Open >30<60 °	GRBX
DC26	6.95	64.75	154.42	Joint Open 60+ °	GRBX
DC26	7.7	58.04	246.83	Fracture>30<60 °	VCSS
DC26	7.94	41.02	251.63	Fracture>30<60 °	VCSS
DC26	8.32	76.4	205.86	Joint Open 60+ °	VCSS
DC26	8.74	82.07	300.43	Joint Open 60+ °	GRBX
DC26	9.57	19.57	334.61	Joint Open <30 °	GRBX
DC26	9.65	60.37	331.29	Joint Open 60+ °	GRBX
DC26	9.93	71.22	342.78	Joint Open 60+ °	GRBX
DC26	9.95	48.6	346.41	Joint Open >30<60 °	GRBX
DC26	10.19	59.66	351.72	Joint Open >30<60 °	GRBX
DC26	10.24	68.1	155.67	Joint Open 60+ °	GRBX
DC26	10.39	27.42	99.59	Fracture <30 °	GRBX

Table E1: WellCAD® - Orientation Pick Data – Joints and Fractures

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature	Lithology
DC26	11.05	67.57	355.44	Fracture 60+ °	MSS
DC26	11.48	60.07	353.54	Joint Open 60+ °	CM
DC26	11.8	84.12	117.63	Joint Open 60+ °	CM
DC26	12.03	80.93	215.27	Joint Open 60+ °	VCSS
DC26	12.51	75.85	348.73	Joint Open 60+ °	VCSS
DC26	12.55	61.38	237.95	Joint Open 60+ °	VCSS
DC26	12.85	77.35	336.78	Joint Open 60+ °	LC
DC26	13.04	70.37	260.33	Joint Open 60+ °	LC
DC26	14.19	76.99	328.29	Joint Open 60+ °	CM
DC26	14.22	31.79	14.83	Joint Open >30<60 °	CM
DC26	14.59	56.39	10.3	Joint Open >30<60 °	CM
DC26	14.81	34.21	67.88	Joint Open >30<60 °	CM
DC26	15.13	45.57	336.02	Fracture>30<60 °	CM
DC26	16.23	58.36	145.51	Joint Open >30<60 °	GRBX
DC26	16.29	66.46	227.85	Joint Open 60+ °	GRBX
DC26	16.3	62.38	326.7	Joint Open 60+ °	GRBX
DC26	16.49	58.63	164.42	Joint Open >30<60 °	GRBX
DC26	16.72	63.58	150.55	Joint Open 60+ °	GRBX
DC26	16.89	70.79	330.56	Joint Open 60+ °	GRBX
DC26	17.15	54.02	32.56	Joint Open >30<60 °	GRBX
DC26	17.44	52.17	287.4	Joint Open >30<60 °	GRBX
DC26	18.09	50.44	67.49	Fracture>30<60 °	GRBX
DC26	18.41	64.01	171.24	Joint Open 60+ °	VCSS
DC26	18.54	33.19	290.45	Fracture>30<60 °	MSS
DC26	20.48	49.83	59.94	Fracture>30<60 °	GGB
DC26	20.61	64.24	113.62	Fracture 60+ °	GGB
DC26	20.81	36.13	245.84	Joint Open >30<60 °	GGB
DC26	21.02	27.59	65.29	Joint Open <30 °	GGB
DC26	21.32	60.5	177.49	Joint Closed 60+ °	GGB
DC26	21.81	28.81	4.36	Joint Open <30 °	GGB
DC26	21.95	58.25	175.66	Joint Open >30<60 °	GGB
DC26	22.19	63	0.48	Joint Open 60+ °	GGB
DC27	3.17	55.87	27.48	Joint Open >30<60 °	CM
DC27	3.47	5.07	351.62	Joint Open <30 °	CM
DC27	3.64	80.16	313.28	Joint Open 60+ °	VFSS

Table E1: WellCAD® - Orientation Pick Data – Joints and Fractures

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature	Lithology
DC27	3.91	77.78	33.86	Joint Open 60+ °	MSS
DC27	4.46	84.61	182.65	Joint Open 60+ °	MSS
DC27	4.5	72.92	332.06	Joint Open 60+ °	MSS
DC27	4.89	78.32	57.61	Joint Open 60+ °	GRBX
DC27	5.21	64.76	337.23	Joint Open 60+ °	GRBX
DC27	5.67	81.96	81.13	Joint Open 60+ °	GRBX
DC27	6.69	52.93	50.51	Fracture>30<60 °	GRBX
DC27	7.2	27.28	349.91	Fracture <30 °	VCSS
DC27	7.27	59.66	124.29	Fracture>30<60 °	VCSS
DC27	7.4	40.27	18.5	Joint Open >30<60 °	VCSS
DC27	8.32	69.84	169.62	Joint Open 60+ °	VCSS
DC27	8.44	64.92	337.16	Joint Open 60+ °	GRBX
DC27	9.13	80.73	337.07	Joint Open 60+ °	GRBX
DC27	11.24	79.01	71.34	Joint Open 60+ °	FSS
DC27	11.66	81.69	141.52	Joint Open 60+ °	CM
DC27	12.82	78.07	290.91	Joint Open 60+ °	LC
DC27	16.05	72.45	47.06	Joint Open 60+ °	GRBX
DC27	16.66	75.24	31.71	Joint Open 60+ °	GRBX
DC27	17.57	78.68	100.43	Joint Open 60+ °	GRBX
DC27	17.86	78.23	100.44	Joint Open 60+ °	GRBX
DC27	20.45	8.77	259.06	Joint Open <30 °	GGB
DC27	20.71	22.44	262.99	Joint Open <30 °	GGB
DC27	21.06	8.98	305.47	Joint Open <30 °	GGB
DC27	21.22	19.35	256.42	Joint Open <30 °	GGB
DC27	21.51	19.27	278.81	Joint Open <30 °	GGB
DC27	21.87	39.56	294.47	Joint Open >30<60 °	GGB
DC27	22	20.88	287.61	Joint Open <30 °	GGB
DC27	22.16	31.54	301.2	Joint Open >30<60 °	GGB
DC27	22.48	75.21	19.72	Joint Open 60+ °	GGB
DC27	22.72	71.78	21.41	Joint Open 60+ °	GGB
DC27	23.28	60.95	25.09	Joint Open 60+ °	GGB
DC27	23.39	41.11	302.91	Joint Open >30<60 °	GGB
DC27	23.79	29.52	313.52	Joint Open <30 °	GGB
DC27	23.98	35.71	43.83	Joint Open >30<60 °	GGB
DC27	24.12	34.43	33.69	Joint Open >30<60 °	GGB

Table E1: WellCAD® - Orientation Pick Data – Joints and Fractures

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature	Lithology
DC27	24.52	38.26	332.24	Joint Open >30<60 °	GGB
DC27	24.82	27.36	318.68	Joint Open <30 °	GGB
DC27	24.89	29.09	345.92	Joint Open <30 °	GGB
DC30	5.34	10.3	108.21	Joint Open <30 °	VCSS
DC30	5.94	73.56	1.08	Joint Open 60+ °	VCSS
DC30	7.07	80.95	20.36	Joint Open 60+ °	VCSS
DC30	8.35	46.11	234.57	Joint Open >30<60 °	VCSS
DC30	8.76	73.12	4.02	Joint Open 60+ °	VCSS
DC30	14.34	7.21	161.3	Joint Open <30 °	CM
DC30	15.87	55.54	261.81	Joint Open >30<60 °	CO
DC30	16.11	63.28	266.31	Joint Open 60+ °	CO
DC30	16.64	78.93	295.67	Joint Open 60+ °	CO
DC30	17.25	35.1	96.3	Joint Open >30<60 °	CO
DC30	17.68	50.73	343.58	Joint Open >30<60 °	CO
DC30	18.04	50.11	4.61	Joint Open >30<60 °	CO
DC30	18.26	50.64	6.72	Joint Open >30<60 °	CO
DC30	21.08	22.92	142.13	Joint Open <30 °	CM
DC30	21.29	23.39	256.92	Joint Open <30 °	CM
DC30	22.52	26.04	114.82	Joint Open <30 °	LVFS
DC30	26.35	63.47	37.75	Joint Open 60+ °	CO
DC30	26.89	85.58	88.22	Joint Open 60+ °	CO
DC30	28.38	66.41	173.61	Joint Open 60+ °	CO
DC30	28.8	74.2	172.1	Joint Open 60+ °	CO
DC30	29.88	47.69	52.43	Joint Open >30<60 °	CO
DC30	30.24	31.11	277.14	Joint Open >30<60 °	CO
DC30	30.6	36.18	142.6	Joint Open >30<60 °	CO
DC30	30.91	5.71	352.97	Joint Open <30 °	CO
DC30	32.29	49.69	218.56	Joint Open >30<60 °	CO
DC30	32.78	75.57	143.17	Joint Open 60+ °	CO
DC30	35.34	60.92	281.82	Joint Open 60+ °	CM
DC30	35.77	73.19	270.08	Joint Open 60+ °	ZSS
DC30	35.8	56.92	302.71	Joint Open >30<60 °	ZSS
DC30	36.22	79.08	352.62	Joint Open 60+ °	VFSS
DC30	36.91	47.84	181.98	Joint Open >30<60 °	FSS
DC30	36.95	56.85	5.46	Joint Open >30<60 °	PBBX

Table E1: WellCAD® - Orientation Pick Data – Joints and Fractures

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature	Lithology
DC30	37.25	65.12	1.53	Joint Open 60+ °	PBBX
DC30	37.51	72.62	359.62	Joint Open 60+ °	PBBX
DC30	37.79	75.27	2.99	Joint Open 60+ °	PBBX
DC31	5.12	71.75	313.88	Joint Open 60+ °	CM
DC31	3.04	38.66	209.02	Fracture >30<60 °	VCSS
DC31	3.39	21.6	168.16	Joint Open <30 °	ZSS
DC31	3.58	40.72	207.2	Joint Open >30<60 °	ZSS
DC31	4.94	35.2	314.18	Joint Open >30<60 °	CM
DC34	10.8	78.05	28.73	Joint Open 60+ °	LC
DC31	5.46	42.97	324.25	Joint Open >30<60 °	ZSS
DC31	5.53	41.08	355.3	Joint Open >30<60 °	ZSS
DC31	5.62	41.74	346.99	Joint Open >30<60 °	ZSS
DC31	5.72	23.74	192.68	Joint Open <30 °	ZSS
DC31	6.37	71.42	7.47	Joint Open 60+ °	VCSS
DC31	8.29	54.45	154.42	Joint Closed >30<60 °	LC
DC31	8.77	48.54	303.02	Joint Open >30<60 °	VCSS
DC31	9.48	68.91	351.79	Joint Open 60+ °	VCSS
DC31	9.68	68.61	350.82	Joint Open 60+ °	CSS
DC31	9.76	66.81	345.03	Joint Open 60+ °	CSS
DC31	9.91	68.25	276.48	Joint Open 60+ °	CSS
DC31	10.18	72.09	302.15	Joint Open 60+ °	CSS
DC31	10.72	56.24	166.64	Joint Open >30<60 °	CSS
DC31	10.84	73.43	334.79	Joint Open 60+ °	CSS
DC31	10.88	58.8	356.78	Joint Open >30<60 °	CSS
DC31	11.58	74.33	321.16	Joint Open 60+ °	VCSS
DC31	12.58	45.38	352.9	Joint Open >30<60 °	GRBX
DC31	12.72	67.45	350.21	Joint Open 60+ °	GRBX
DC31	12.83	61.7	339.79	Joint Open 60+ °	GRBX
DC31	12.94	62.25	338.09	Joint Open 60+ °	LC
DC31	13.09	33.17	228.33	Joint Open >30<60 °	GRBX
DC31	13.23	58.09	239.86	Joint Open >30<60 °	CM
DC31	13.4	38.58	196.73	Joint Closed >30<60 °	CM
DC31	13.5	44.64	182.21	Joint Closed >30<60 °	CM
DC31	14.18	14.78	85.45	Fracture <30 °	ZSS
DC31	14.73	67.84	181.53	Joint Open 60+ °	CO

Table E1: WellCAD® - Orientation Pick Data – Joints and Fractures

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature	Lithology
DC31	15.01	36.66	20.32	Joint Open >30<60 °	CO
DC31	16.03	10.48	149.16	Joint Open <30 °	CO
DC31	16.74	66.21	41.99	Joint Open 60+ °	CO
DC31	17.3	48.58	31.24	Joint Open >30<60 °	CO
DC31	17.48	33.04	41.51	Joint Open >30<60 °	CO
DC31	17.92	36.79	27.5	Joint Open >30<60 °	CO
DC31	18.83	41.15	34.65	Joint Open >30<60 °	CO
DC31	19.5	66.65	24.7	Joint Open 60+ °	CO
DC31	21.06	7.05	148.39	Joint Open <30 °	PBCG
DC31	21.35	33.66	8.19	Joint Open >30<60 °	MSS
DC31	21.67	39.58	342.41	Joint Closed >30<60 °	PBBX
DC31	22.3	46.27	123.7	Joint Closed >30<60 °	LC
DC31	22.84	58.19	225.61	Joint Closed >30<60 °	LC
DC31	23.11	42.31	320.14	Joint Open >30<60 °	MSS
DC31	23.29	54.49	318.93	Joint Open >30<60 °	MSS
DC31	24.68	45.99	325.41	Fracture>30<60 °	MSS
DC31	24.99	31.19	272.44	Fracture>30<60 °	GRBX
DC31	25.04	40.55	115.48	Fracture>30<60 °	PBBX
DC31	25.51	55.68	334.49	Joint Open >30<60 °	PBBX
DC31	25.71	25.09	269.97	Fracture <30 °	PBBX
DC31	26.07	27.95	287.17	Fracture <30 °	ARG
DC31	26.17	45.83	260.97	Fracture>30<60 °	ARG
DC31	26.23	52.19	62.89	Fracture>30<60 °	ARG
DC31	27.49	60.49	251.08	Joint Open 60+ °	ARG
DC32	7.74	78.27	14.12	Joint Open 60+ °	GRBX
DC32	8.4	79.73	6.81	Joint Open 60+ °	CSS
DC32	9.46	37.2	257.98	Joint Open >30<60 °	CM
DC32	10.51	48.03	291.39	Joint Open >30<60 °	MSS
DC32	11.22	23.77	92.05	Joint Closed <30 °	MSS
DC32	11.31	29.58	77.9	Joint Closed <30 °	GRBX
DC32	11.43	16.08	130.82	Joint Closed <30 °	GRBX
DC32	11.86	76.89	145.24	Joint Open 60+ °	GRBX
DC32	12.08	78.35	330.75	Joint Open 60+ °	GRBX
DC32	12.69	17.53	130.77	Joint Open <30 °	PBBX
DC32	12.88	40.85	139.72	Fracture>30<60 °	PBBX

Table E1: WellCAD® - Orientation Pick Data – Joints and Fractures

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature	Lithology
DC32	12.94	3.49	163.35	Joint Open <30 °	PBBX
DC32	13.26	28.07	84.62	Joint Open <30 °	GRBX
DC32	13.5	9.2	336.72	Fracture <30 °	VCSS
DC32	13.55	66.99	350.4	Joint Open 60+ °	VCSS
DC32	13.86	66.36	356.26	Joint Open 60+ °	VCSS
DC32	14.07	31.31	133.93	Fracture>30<60 °	GRBX
DC32	15.45	53.11	338.26	Fracture>30<60 °	VCSS
DC32	15.84	64.68	7.44	Joint Open 60+ °	VCSS
DC32	16.12	49.19	353.44	Fracture>30<60 °	VCSS
DC32	17.09	61.35	324.79	Joint Open 60+ °	VCSS
DC32	17.61	64.63	304.33	Joint Open 60+ °	VCSS
DC32	17.66	71.98	302.74	Joint Open 60+ °	VCSS
DC32	17.87	60.27	300.85	Joint Closed 60+ °	VCSS
DC32	17.97	57.68	305.9	Joint Closed >30<60 °	VCSS
DC32	18.33	47.03	324.41	Fracture>30<60 °	VCSS
DC32	18.39	54.51	326.41	Fracture>30<60 °	VCSS
DC32	19.2	61.77	10.87	Fracture 60+ °	CSS
DC32	19.78	81.68	330.09	Fracture 60+ °	VCSS
DC32	22.06	53.94	218.83	Fracture>30<60 °	GRBX
DC32	22.25	59.1	42.12	Fracture>30<60 °	GRBX
DC32	22.6	20.29	210.71	Fracture <30 °	CO
DC32	25.29	52.06	12.73	Joint Open >30<60 °	CO
DC32	25.54	37.55	9.05	Joint Open >30<60 °	CO
DC32	26.01	57.99	343.49	Joint Open >30<60 °	CM
DC32	26.02	80.52	108.42	Joint Open 60+ °	CM
DC32	26.74	81.46	0.93	Joint Open 60+ °	MSS
DC32	27.06	73.21	191.41	Joint Open 60+ °	FSS
DC32	27.53	54.96	147.89	Fracture>30<60 °	MSS
DC32	27.83	53.72	333.37	Fracture>30<60 °	MSS
DC32	28.03	57.29	335.04	Joint Open >30<60 °	MSS
DC32	28.35	37.71	3.83	Joint Open >30<60 °	GWK
DC32	28.35	63.8	188.78	Joint Open 60+ °	GWK
DC32	28.52	51.24	176.12	Joint Open >30<60 °	GWK
DC32	29.35	66.7	251.68	Joint Open 60+ °	GWK
DC32	29.7	76.59	268.75	Joint Open 60+ °	GWK

Table E1: WellCAD® - Orientation Pick Data – Joints and Fractures

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature	Lithology
DC32	30.37	68.76	103.3	Joint Open 60+ °	GWK
DC32	30.43	77.55	93.03	Joint Open 60+ °	GWK
DC32	30.51	83.45	65.72	Joint Open 60+ °	GWK
DC32	31.04	72.59	98.18	Joint Open 60+ °	GWK
DC32	31.4	77.06	85.04	Joint Open 60+ °	GWK
DC34	11.19	82.02	182.61	Joint Open 60+ °	LC
DC34	11.7	37.64	341.68	Fracture>30<60 °	ZSS
DC34	11.75	38.98	353.95	Fracture>30<60 °	ZSS
DC34	11.85	30.63	1.28	Fracture>30<60 °	HCM
DC34	11.92	38.06	4.29	Fracture>30<60 °	CO
DC34	12.06	33.19	359.65	Fracture>30<60 °	CO
DC34	12.39	49.12	91.24	Fracture>30<60 °	CO
DC34	12.58	62.45	347.76	Fracture 60+ °	CO
DC34	12.83	71.13	76.93	Fracture 60+ °	CO
DC34	13.11	43.39	21.29	Fracture>30<60 °	CO
DC34	13.2	42.99	33.37	Fracture>30<60 °	CO
DC34	13.23	55.34	54.94	Fracture>30<60 °	CO
DC34	13.24	70.32	29.01	Fracture 60+ °	CO
DC34	13.67	75.59	148.29	Joint Open 60+ °	CO
DC34	13.87	40.9	277.69	Joint Open >30<60 °	CO
DC34	14.32	61.96	8.61	Joint Open 60+ °	CO
DC34	14.46	77.44	220.03	Joint Open 60+ °	CO
DC34	14.9	79.18	49.34	Fracture 60+ °	CO
DC34	15.07	79.33	216.66	Fracture 60+ °	CO
DC34	15.37	71.47	230.63	Fracture 60+ °	CO
DC34	15.56	68.95	354.53	Fracture 60+ °	CO
DC34	15.85	75.44	8.12	Fracture 60+ °	CO
DC34	16.27	58.25	13.9	Fracture>30<60 °	CO
DC34	16.5	57.37	33.07	Fracture>30<60 °	CO
DC34	16.83	64.72	56.34	Fracture 60+ °	CO
DC34	17.04	63.98	1.63	Fracture 60+ °	CO
DC34	17.1	61.15	7.04	Joint Open 60+ °	CO
DC34	17.26	59.51	226.72	Fracture>30<60 °	CO
DC34	17.6	70.95	358.07	Joint Open 60+ °	HCM
DC34	17.62	63.88	82.25	Joint Open 60+ °	HCM

Table E1: WellCAD® - Orientation Pick Data – Joints and Fractures

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature	Lithology
DC34	18.95	45.37	276.24	Fracture>30<60 °	CM
DC34	19.04	41.51	283.21	Fracture>30<60 °	CM
DC34	19.5	16.38	212.24	Fracture <30 °	CM
DC34	19.52	52.71	2.11	Fracture>30<60 °	VFSS
DC34	19.54	24.22	324.5	Fracture <30 °	VFSS
DC34	20.16	49.61	60.84	Fracture>30<60 °	MST
DC34	20.26	20.43	191.98	Fracture <30 °	VFSS
DC34	20.76	52.91	178.84	Fracture>30<60 °	VFSS
DC34	21.19	51.01	7.34	Joint Open >30<60 °	ZSS
DC34	21.33	44.61	208.82	Joint Open >30<60 °	ZSS
DC34	21.72	45.13	146.79	Joint Open >30<60 °	ZSS
DC34	21.92	50.74	0.57	Joint Open >30<60 °	FSS
DC34	22.07	28.18	234.37	Fracture <30 °	GRBX
DC34	22.08	45.1	359.11	Joint Open >30<60 °	FSS
DC34	22.27	63.59	341.01	Joint Open 60+ °	MSS
DC34	22.35	34.58	161.12	Fracture>30<60 °	GRCG
DC34	22.49	53.6	167.03	Joint Open >30<60 °	GRCG
DC34	22.55	63.67	170.77	Joint Open 60+ °	FSS
DC34	22.64	66.38	164.08	Joint Open 60+ °	PBBX
DC34	22.76	35.83	201.3	Joint Open >30<60 °	GWK
DC34	22.94	63.41	93.47	Fracture 60+ °	GWK
DC34	23.19	48.45	348.46	Joint Open >30<60 °	GWK
DC34	23.38	27.33	68.75	Fracture <30 °	GWK
DC34	23.65	15.32	357.77	Fracture <30 °	GWK
DC34	24	43.71	165.88	Fracture>30<60 °	GWK
DC34	24.11	74.43	351.04	Fracture 60+ °	GWK
DC34	24.41	54.94	157	Fracture>30<60 °	GWK
DC34	24.42	49.44	244.87	Fracture>30<60 °	GWK
DC34	24.57	19.31	12.79	Joint Open <30 °	GWK
DC34	24.61	59.89	150.42	Joint Open >30<60 °	GWK
DC34	24.68	59.07	130.31	Joint Open >30<60 °	GWK
DC34	24.84	51.81	148.51	Fracture>30<60 °	GWK
DC34	24.93	51.98	136.85	Fracture>30<60 °	GWK
DC34	24.97	61.05	100.17	Fracture 60+ °	GWK
DC34	25.07	31.66	356.67	Fracture>30<60 °	GWK

Table E1: WellCAD® - Orientation Pick Data – Joints and Fractures

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature	Lithology
DC34	25.28	44.02	354.01	Fracture>30<60 °	GWK
DC34	25.32	77.4	342.4	Joint Open 60+ °	GWK
DC34	25.34	30.07	355.01	Fracture>30<60 °	GWK
DC31	25.82	17.16	209.02	Fracture <30 °	ARG
DC37	5	25.95	62.54	Joint Open <30 °	GRBX
DC37	5.12	63.54	228.09	Joint Open 60+ °	MSS
DC37	5.92	26.25	121.86	Fracture <30 °	LVFS
DC37	6	44.64	50.04	Fracture>30<60 °	LVFS
DC37	6.12	43.07	107.34	Fracture>30<60 °	LVFS
DC37	6.48	53.03	238.07	Fracture>30<60 °	LVFS
DC37	6.54	80.59	255.05	Fracture 60+ °	LVFS
DC37	7.08	68.71	212.62	Fracture 60+ °	CM
DC37	7.14	62.56	234.61	Fracture 60+ °	CM
DC37	7.57	67.8	272.08	Fracture 60+ °	CSS
DC37	7.57	45.09	280.13	Fracture>30<60 °	CSS
DC37	8.03	68.07	243.11	Fracture 60+ °	MSS
DC37	8.29	80.19	222.72	Fracture 60+ °	LFSS
DC37	8.81	76.78	219.32	Fracture 60+ °	LMSS
DC37	9.11	44.85	224.75	Fracture>30<60 °	VFSS
DC37	9.17	62.04	262.06	Fracture 60+ °	VFSS
DC37	10.04	71.77	330.05	Fracture 60+ °	CO
DC37	10.59	61.4	340.27	Fracture 60+ °	CO
DC37	10.96	57.44	343.58	Fracture>30<60 °	CO
DC37	11.37	49.92	105.64	Fracture>30<60 °	CO
DC37	11.37	60.15	353.93	Fracture 60+ °	CO
DC37	11.48	54.86	102.02	Fracture>30<60 °	CO
DC37	11.8	65.76	132.26	Fracture 60+ °	CQ
DC37	12.61	57.99	96.96	Fracture>30<60 °	CO
DC37	13.44	51.94	53.61	Fracture>30<60 °	CM
DC37	13.72	42.06	290.79	Fracture>30<60 °	CM
DC37	14.4	40.29	140.94	Fracture>30<60 °	CSS
DC37	14.57	78.09	126.13	Fracture 60+ °	CSS
DC37	15.27	77.38	294.37	Fracture 60+ °	GRBX
DC37	15.37	53.16	313.06	Fracture>30<60 °	GRBX
DC37	16.1	57.86	348.74	Fracture>30<60 °	GRBX

Table E1: WellCAD® - Orientation Pick Data – Joints and Fractures

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature	Lithology
DC37	16.77	78.06	290.98	Fracture 60+ °	GRBX
DC37	17.38	78.8	301.18	Fracture 60+ °	GRBX
DC37	18.27	30.79	146.3	Fracture>30<60 °	LC
DC37	18.4	35.96	153.24	Fracture>30<60 °	CM
DC37	18.73	40.07	10.55	Fracture>30<60 °	VFSS
DC37	18.74	80.96	357.39	Fracture 60+ °	VFSS
DC37	19.35	69.27	352.28	Fracture 60+ °	LFSS
DC37	19.51	84.32	5.97	Fracture 60+ °	LFSS
DC37	19.93	25.4	47.92	Fracture <30 °	VCSS
DC37	20.03	79.45	40.06	Fracture 60+ °	VCSS
DC37	20.9	3.35	151.69	Fracture <30 °	VCSS
DC37	21.1	70.38	31.7	Fracture 60+ °	VCSS
DC37	21.27	69.29	60.44	Fracture 60+ °	VCSS
DC37	21.53	71.59	258.68	Fracture 60+ °	VCSS
DC37	21.71	66.63	330.11	Fracture 60+ °	VCSS
DC37	21.94	65.58	163.11	Fracture 60+ °	VCSS
DC37	22.03	43.52	157.32	Fracture>30<60 °	VCSS
DC37	22.23	48.72	158.06	Fracture>30<60 °	VCSS
DC37	22.3	70.81	34.87	Fracture 60+ °	VCSS
DC37	22.34	47.02	162.38	Fracture>30<60 °	VCSS
DC37	22.46	14.48	253.79	Fracture <30 °	VCSS
DC37	22.65	7.4	3.36	Fracture <30 °	VCSS
DC37	22.87	66.89	338.6	Fracture 60+ °	VCSS
DC37	23.37	47.69	314.57	Fracture>30<60 °	VCSS
DC37	23.37	68.48	186.42	Fracture 60+ °	VCSS
DC37	23.54	53.03	178.67	Fracture>30<60 °	VCSS
DC37	23.8	50.64	323.06	Fracture>30<60 °	MSS
DC37	23.93	40.36	115.95	Fracture>30<60 °	MSS
DC37	24.09	65.47	306.28	Fracture 60+ °	MSS
DC39	4.03	85.51	164.01	Fracture 60+ °	PBBX
DC39	4.45	53.57	172.21	Fracture>30<60 °	PBBX
DC39	6.32	16.46	257.57	Fracture <30 °	PBBX
DC39	8.17	11.43	89.41	Fracture <30 °	PBBX
DC39	10.06	31.01	291.14	Fracture <30 °	MSS
DC39	10.25	28.58	29.54	Fracture <30 °	PBBX

Table E1: WellCAD® - Orientation Pick Data – Joints and Fractures

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature	Lithology
DC39	11.09	79.7	243.21	Fracture 60+ °	MSS
DC39	12.85	81.25	253.42	Fracture 60+ °	GRBX
DC39	13.22	41.12	20.12	Fracture>30<60 °	GRBX
DC39	13.49	59.87	120.69	Fracture>30<60 °	CM
DC39	14.61	74.08	0.6	Fracture 60+ °	CO
DC39	16.21	20.57	151.57	Fracture <30 °	HCM
DC39	17.03	79.26	353.8	Fracture 60+ °	GRBX
DC39	17.35	43.93	209.87	Fracture>30<60 °	GRBX
DC39	17.51	59.66	12.22	Fracture>30<60 °	VCSS
DC39	18.21	19.07	146.98	Fracture <30 °	GRBX
DC39	18.96	85.07	355.67	Fracture 60+ °	GRBX
DC39	19.68	44.52	292.28	Fracture>30<60 °	CZN
DC39	19.85	24.84	121.55	Fracture <30 °	CZN
DC39	19.92	56.36	141.42	Fracture>30<60 °	CZN
DC39	20.02	32.82	335.93	Fracture>30<60 °	CZN
DC39	20.11	46.81	124.33	Fracture>30<60 °	VFSS
DC39	20.52	85.51	175.94	Fracture 60+ °	GRBX
DC39	20.68	47.88	206.48	Fracture>30<60 °	GRBX
DC39	21.57	27.21	173.83	Fracture <30 °	CM
DC39	22.33	38.95	179.78	Fracture>30<60 °	CQ
DC39	25.44	24.57	4.9	Fracture <30 °	LMSS
DC39	33.63	72.69	158.19	Joint Open 60+ °	GRBX
DC39	34.12	77.97	198.99	Joint Open 60+ °	GRBX
DC39	36.64	80.58	229.57	Fracture 60+ °	VCSS
DC39	36.75	79.19	244.85	Fracture 60+ °	VCSS
DC39	38.66	75.97	241.47	Fracture 60+ °	VCSS
DC39	38.81	68.89	248.25	Fracture 60+ °	GRBX
DC39	39.65	7.66	66.15	Fracture <30 °	GRBX
DC39	39.84	7.09	234.18	Fracture <30 °	CSS
DC39	39.96	12.99	165.19	Fracture <30 °	GRBX
DC39	40.19	73.87	248.23	Fracture 60+ °	GRBX
DC39	44.96	73.19	122.46	Fracture 60+ °	VCSS
DC39	45.13	64.97	136.47	Fracture 60+ °	PBCG
DC39	45.58	68.59	132.9	Fracture 60+ °	PBCG
DC39	45.79	41.08	127.94	Fracture>30<60 °	PBCG

Table E1: WellCAD® - Orientation Pick Data – Joints and Fractures

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature	Lithology
DC39	46.08	8.42	141.86	Fracture <30 °	PBCG
DC39	46.16	39.95	115.61	Fracture>30<60 °	PBCG
DC39	46.29	5.34	163.09	Fracture <30 °	VCSS
DC41	8.15	84.12	352.46	Fracture 60+ °	GRBX
DC41	10.22	64.35	356.03	Fracture 60+ °	CQ
DC41	10.34	62.61	349.14	Fracture 60+ °	CO
DC41	10.53	63.45	359.49	Fracture 60+ °	CQ
DC41	10.82	56.16	349.59	Fracture>30<60 °	CM
DC41	11	70.57	66.25	Fracture 60+ °	CO
DC41	11.24	75.16	42.49	Fracture 60+ °	CO
DC41	11.78	45.73	64.17	Fracture>30<60 °	CM
DC41	12.02	46.91	358.23	Fracture>30<60 °	CM
DC41	12.19	46.5	85.28	Fracture>30<60 °	CM
DC41	12.34	65.92	78.49	Fracture 60+ °	ZSS
DC41	12.52	69.31	37.17	Fracture 60+ °	ZSS
DC41	12.6	64.14	239.59	Fracture 60+ °	ZSS
DC41	12.99	44.88	91.5	Fracture>30<60 °	CM
DC41	13.44	76.56	59.67	Fracture 60+ °	CM
DC41	13.51	57.59	49.95	Fracture>30<60 °	CM
DC41	13.75	75.17	69.95	Fracture 60+ °	ZSS
DC41	14.11	8.24	189.93	Fracture <30 °	CM
DC41	20.29	54.9	60.12	Fracture>30<60 °	HCM
DC41	20.78	13.86	153	Fracture <30 °	HCM
DC41	21.11	15.46	118.32	Fracture <30 °	CM
DC41	21.2	16.61	203.9	Fracture <30 °	CM
DC41	21.35	39.79	236.97	Fracture>30<60 °	CM
DC41	21.52	54.3	258.15	Fracture>30<60 °	LVFS
DC41	21.92	61.87	274.9	Fracture 60+ °	LVFS
DC41	22.16	52.26	8.51	Fracture>30<60 °	LVFS
DC41	22.2	74.25	349.5	Fracture 60+ °	LVFS
DC41	23.13	82.19	10.03	Fracture 60+ °	LVFS
DC41	23.53	64.98	8.25	Fracture 60+ °	VFSS
DC41	23.64	58.53	335.14	Fracture>30<60 °	VFSS
DC41	23.85	34.64	17.43	Fracture>30<60 °	CM
DC41	23.93	20.75	141.75	Fracture <30 °	CM

Table E1: WellCAD® - Orientation Pick Data – Joints and Fractures

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature	Lithology
DC41	24.35	67.04	274.98	Joint Open 60+ °	GRBX
DC41	24.62	69.38	359.53	Joint Open 60+ °	GRBX
DC41	24.94	15.35	103.49	Fracture <30 °	GRBX
DC41	25.08	15.87	42.66	Fracture <30 °	GRBX
DC41	25.23	13.57	7.46	Fracture <30 °	GRBX
DC41	25.63	42.49	337.11	Fracture>30<60 °	GRBX
DC41	25.86	64.79	334.92	Fracture 60+ °	GRBX
DC41	26.48	83.21	349.38	Fracture 60+ °	LCSS
DC41	27.34	10.23	125.09	Fracture <30 °	CSS
DC41	27.42	15.99	141.38	Fracture <30 °	GRBX
DC41	27.66	16.01	152.11	Fracture <30 °	GRBX
DC41	28.12	8.59	159.24	Fracture <30 °	GRBX
DC41	28.4	48.01	20.62	Fracture>30<60 °	GRBX
DC41	28.77	22.45	150.23	Fracture>30<60 °	GRBX
DC41	29.03	8.38	114.83	Fracture <30 °	GRBX
DC41	29.11	18.67	93.61	Fracture <30 °	GRBX
DC41	30.2	79.35	180.58	Fracture 60+ °	GRBX
DC41	30.78	76.63	355.65	Fracture 60+ °	GRBX
DC41	31.1	79.69	340.44	Fracture 60+ °	GRBX
DC41	31.74	56.94	353.61	Fracture>30<60 °	GRBX
DC41	32.02	56.16	4.13	Fracture>30<60 °	GRBX
DC41	32.71	39.93	64.45	Fracture>30<60 °	GRBX
DC41	34.14	6.87	262.12	Fracture <30 °	LVFS
DC41	34.18	26.19	76.73	Fracture>30<60 °	LVFS
DC41	34.29	27.64	313.19	Fracture>30<60 °	LVFS
DC41	34.36	34.17	112.51	Fracture>30<60 °	GRBX
DC41	35.31	77.32	139.99	Fracture 60+ °	VCSS
DC41	35.71	22.48	262.73	Fracture <30 °	GRBX
DC41	35.78	34.24	199.75	Fracture>30<60 °	ZSS
DC41	35.92	25.95	251.43	Fracture <30 °	ZSS
DC41	35.98	5.8	343.14	Fracture <30 °	VCSS
DC41	36.2	76.06	349.39	Fracture 60+ °	VCSS
DC41	37.35	81.8	33.76	Fracture 60+ °	PBCG
DC41	37.78	47.94	0.11	Fracture>30<60 °	GRBX
DC41	37.92	6.51	213.34	Fracture <30 °	PBCG

Table E1: WellCAD® - Orientation Pick Data – Joints and Fractures

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature	Lithology
DC41	37.98	9.06	164.61	Fracture <30 °	PBCG
DC41	38.06	43.31	23.45	Fracture>30<60 °	PBCG
DC41	42.03	19.97	154.15	Fracture <30 °	PBCG
DC41	42.42	64.1	68.48	Fracture 60+ °	PBCG
DC41	42.5	66.07	20.49	Fracture 60+ °	PBCG
DC41	43.04	83.15	20.34	Fracture 60+ °	PBCG
DC43	5.69	32.83	157.12	Fracture>30<60 °	CSS
DC43	5.76	70	52.72	Fracture 60+ °	PBBX
DC43	5.95	70.99	23.49	Fracture 60+ °	PBBX
DC43	6.15	36.06	108.73	Fracture>30<60 °	PBBX
DC43	6.28	53.2	289.98	Fracture>30<60 °	PBBX
DC43	7.23	71.28	25.4	Fracture 60+ °	PBBX
DC43	7.79	7.24	210.86	Fracture <30 °	VCSS
DC43	7.83	17.99	318.64	Fracture <30 °	PBBX
DC43	7.84	21.74	176.76	Fracture <30 °	PBBX
DC43	7.9	21.5	231.91	Fracture <30 °	PBBX
DC43	8.96	10.26	214.25	Fracture <30 °	PBBX
DC43	8.99	9.3	255.25	Fracture <30 °	GRBX
DC43	9.23	7.41	124.65	Fracture <30 °	GRBX
DC43	9.34	6.44	149.7	Fracture <30 °	GRBX
DC43	9.37	7.4	116.21	Fracture <30 °	GRBX
DC43	9.69	35.54	194.49	Fracture>30<60 °	PBBX
DC43	9.82	47.95	255.56	Fracture>30<60 °	PBBX
DC43	10.23	41.38	298.6	Fracture>30<60 °	PBBX
DC43	10.45	31.75	139.74	Fracture>30<60 °	PBBX
DC43	10.62	4.7	279.04	Fracture <30 °	PBBX
DC43	11.31	7.09	69.45	Fracture <30 °	PBBX
DC43	12.08	40.89	79.41	Fracture>30<60 °	PBBX
DC43	12.68	13.46	331.27	Fracture <30 °	PBBX
DC43	12.73	31.01	48.78	Fracture>30<60 °	PBBX
DC43	12.79	35.49	357.94	Fracture>30<60 °	PBBX
DC43	12.89	31.78	82.81	Fracture>30<60 °	PBBX
DC43	12.98	19.01	55.6	Fracture <30 °	CSS
DC43	13.42	67.1	321.5	Fracture 60+ °	CSS
DC43	13.96	25.47	105.44	Fracture <30 °	GRBX

Table E1: WellCAD® - Orientation Pick Data – Joints and Fractures

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature	Lithology
DC43	14.15	77.36	261.69	Fracture 60+ °	GRBX
DC43	14.23	18.06	263.44	Fracture <30 °	GRBX
DC43	14.31	80.64	254.91	Fracture 60+ °	GRBX
DC43	14.55	7.24	342.34	Fracture <30 °	GRBX
DC43	17.63	43.83	163.14	Fracture>30<60 °	LMSS
DC43	18.56	66.37	357.46	Fracture 60+ °	CSS
DC43	18.89	52.92	250.74	Fracture>30<60 °	LVFS
DC43	19.06	53.42	71.71	Fracture>30<60 °	LVFS
DC43	19.27	54.1	71.67	Fracture>30<60 °	LVFS
DC43	19.38	51.08	80.42	Fracture>30<60 °	CM
DC43	20.26	69.79	71.27	Fracture 60+ °	GRBX
DC43	20.86	72.11	195.33	Fracture 60+ °	GRBX
DC43	21.43	65	223.98	Fracture 60+ °	GRBX
DC43	21.62	75.35	85.35	Fracture 60+ °	GRBX
DC43	21.78	22.98	333.36	Fracture <30 °	VCSS
DC43	21.87	17.16	146.73	Fracture <30 °	CM
DC43	22	24.46	112.87	Fracture <30 °	VCSS
DC43	22.85	79.62	333.48	Fracture 60+ °	PBBX
DC43	23.16	73.57	324.87	Fracture 60+ °	PBBX
DC43	25.14	44.05	261.91	Fracture>30<60 °	PBBX
DC43	25.83	59.06	233.8	Fracture>30<60 °	PBBX
DC43	26	52.13	252.06	Fracture>30<60 °	PBBX
DC43	26.1	9.34	331.84	Fracture <30 °	PBBX
DC43	26.16	49.18	104.81	Fracture>30<60 °	PBBX
DC43	26.36	24.81	127.39	Fracture <30 °	PBBX
DC43	26.78	80.76	263.36	Fracture 60+ °	PBBX
DC43	29.34	23.28	13.42	Fracture <30 °	VCSS
DC43	29.42	31.5	20.51	Fracture>30<60 °	VCSS
DC43	29.59	23.45	72.95	Fracture <30 °	PBBX
DC43	30.37	16.31	250.9	Fracture <30 °	PBBX
DC43	30.56	79.38	251.38	Fracture 60+ °	PBBX
DC43	31.11	10.75	222.58	Fracture <30 °	PBBX
DC43	31.33	8.08	167.81	Fracture <30 °	PBBX
DC43	31.36	8.92	157.34	Fracture <30 °	PBBX
DC43	31.54	21.14	45.16	Fracture <30 °	PBBX

Table E1: WellCAD® - Orientation Pick Data – Joints and Fractures

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature	Lithology
DC43	31.81	83.2	249.77	Fracture 60+ °	PBBX
DC43	33.01	80.36	236.04	Fracture 60+ °	VCSS
DC43	35.52	26.92	83.3	Fracture <30 °	PBBX
DC43	35.6	26.14	55.02	Fracture <30 °	PBBX
DC43	36.49	41.54	207.68	Fracture>30<60 °	PBBX
DC43	36.87	81.87	247.63	Fracture 60+ °	PBBX
DC43	37.34	45.47	251.57	Fracture>30<60 °	PBBX
DC43	37.48	26.85	221.52	Fracture <30 °	PBBX
DC43	38.16	39.89	185.76	Fracture>30<60 °	PBBX
DC43	38.34	9.23	341.16	Fracture <30 °	PBBX
DC43	38.44	16.25	236.95	Fracture <30 °	PBBX
DC43	38.49	13.85	225.94	Fracture <30 °	PBBX
DC43	38.83	56.22	262.33	Fracture>30<60 °	PBBX
DC43	38.85	49.94	277.29	Fracture>30<60 °	PBBX
DC43	39.01	51.63	272.15	Fracture>30<60 °	PBBX
DC43	39.85	58.42	243.41	Fracture>30<60 °	PBBX
DC43	40.07	72.99	87.25	Fracture 60+ °	PBBX
DC43	41.49	71.6	354.1	Fracture 60+ °	PBBX
DC43	42.79	30.77	170.25	Fracture>30<60 °	PBBX
DC43	43.97	80.6	14.83	Fracture 60+ °	VCSS
DC43	44.79	42.81	104.91	Fracture>30<60 °	CM
DC43	46.64	86.22	81.66	Fracture 60+ °	GRBX
DC43	48.2	14.07	77.43	Fracture <30 °	GRBX
DC43	48.47	17.59	78.88	Fracture <30 °	PBBX
DC43	48.57	14.3	325.39	Fracture <30 °	PBBX
DC43	48.58	83.04	93.81	Fracture 60+ °	PBBX
DC43	49.19	76.22	73.42	Fracture 60+ °	PBBX
DC44	6.35	55.73	80.32	Fracture>30<60 °	PBBX
DC44	6.62	43.66	69.58	Fracture>30<60 °	PBBX
DC44	7.19	55.22	342.13	Fracture>30<60 °	GRBX
DC44	7.72	47.09	2.19	Fracture>30<60 °	PBBX
DC44	8.41	41.06	214.84	Fracture>30<60 °	PBBX
DC44	8.79	45.51	218.45	Fracture>30<60 °	PBBX
DC44	9.19	16.91	313.43	Fracture <30 °	LC
DC44	10.06	54.14	201.28	Fracture>30<60 °	CM

Table E1: WellCAD® - Orientation Pick Data – Joints and Fractures

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature	Lithology
DC44	10.26	39.71	222.59	Fracture>30<60 °	LC
DC44	10.45	37.28	316.19	Fracture>30<60 °	CM
DC44	11	65.56	21.69	Fracture 60+ °	PBBX
DC44	11.32	46.89	228.88	Fracture>30<60 °	CM
DC44	11.91	31.18	182.9	Fracture>30<60 °	LC
DC44	13.03	71.08	338.74	Fracture 60+ °	MSS
DC44	13.25	18.66	153.15	Fracture <30 °	FSS
DC44	14.15	68.02	350.96	Fracture 60+ °	GRBX
DC44	14.69	66.72	338.55	Fracture 60+ °	GRBX
DC44	15.76	60.36	23.72	Fracture 60+ °	MSS
DC44	19.48	58.61	334.64	Fracture>30<60 °	PBBX
DC44	28.73	68.12	304.87	Fracture 60+ °	PBBX
DC44	31.79	26.4	298.79	Fracture <30 °	CM
DC44	32.04	49.37	123.82	Fracture>30<60 °	CM
DC44	33.07	80.22	182.79	Fracture 60+ °	CM
DC44	33.51	21.23	152.57	Fracture <30 °	CM
DC44	33.71	68.35	203.27	Fracture 60+ °	CM
DC44	36.4	82.72	37.04	Fracture 60+ °	GRBX
DC44	37.13	67.71	116.22	Fracture 60+ °	GRBX
DC44	40.72	34.95	142.54	Fracture>30<60 °	PBBX
DC44	40.88	33.72	318.64	Fracture>30<60 °	PBBX
DC44	45.26	6.14	135.15	Fracture <30 °	LVFS
DC44	45.3	32.57	334.21	Fracture>30<60 °	LVFS
DC44	5.93	34.9	339.07	Fracture>30<60 °	GRBX
DC44	6.08	41.18	49.57	Fracture>30<60 °	PBBX
DC44	6.13	78.9	105.56	Fracture 60+ °	PBBX
DC44	6.2	28.92	358.46	Fracture <30 °	PBBX
DC44	6.24	60.33	95.17	Fracture 60+ °	PBBX
DC44	6.4	41.46	345.65	Fracture>30<60 °	PBBX
DC44	6.42	61.19	49.37	Fracture 60+ °	PBBX
DC44	6.44	45.96	90.76	Fracture>30<60 °	PBBX
DC44	6.45	45.04	13.42	Fracture>30<60 °	PBBX
DC44	6.51	42.06	6.41	Fracture>30<60 °	PBBX
DC44	6.6	30.97	156.28	Fracture>30<60 °	PBBX
DC44	6.68	46.38	336.3	Fracture>30<60 °	PBBX

Table E1: WellCAD® - Orientation Pick Data – Joints and Fractures

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature	Lithology
DC44	6.69	47.97	139.8	Fracture>30<60 °	PBBX
DC44	6.79	29.19	9.85	Fracture <30 °	PBBX
DC44	6.95	46.28	74.36	Fracture>30<60 °	PBBX
DC44	7.07	50.76	106.16	Fracture>30<60 °	GRBX
DC44	7.14	46.01	57.41	Fracture>30<60 °	GRBX
DC44	7.18	48.24	36.11	Fracture>30<60 °	GRBX
DC44	7.6	38.45	32.94	Fracture>30<60 °	GRBX
DC44	8.23	22.87	328.2	Fracture <30 °	PBBX
DC44	8.34	21.91	9.25	Fracture <30 °	PBBX
DC44	8.49	25.09	355.89	Fracture <30 °	PBBX
DC44	8.56	38.43	211.27	Fracture>30<60 °	PBBX
DC44	8.63	13.71	353.87	Fracture <30 °	PBBX
DC44	8.66	14.8	81.75	Fracture <30 °	PBBX
DC44	8.73	71.1	8.58	Fracture 60+ °	PBBX
DC44	8.84	57.63	210.13	Fracture>30<60 °	LC
DC44	8.95	70.15	25.72	Fracture 60+ °	LC
DC44	9.18	34.93	176.35	Fracture>30<60 °	LC
DC44	9.2	27.77	0.78	Fracture <30 °	VCSS
DC44	9.45	41.55	224.57	Fracture>30<60 °	CM
DC44	9.58	39.34	239.08	Fracture>30<60 °	CM
DC44	9.66	29.7	190.75	Fracture <30 °	CM
DC44	9.79	26.27	230.68	Fracture <30 °	CM
DC44	9.87	72.4	69.93	Fracture 60+ °	CM
DC44	10.12	41.42	209.56	Fracture>30<60 °	CM
DC44	10.34	59.4	330.51	Fracture>30<60 °	VFSS
DC44	10.38	65.94	160.18	Fracture 60+ °	CM
DC44	10.39	37.23	224.48	Fracture>30<60 °	CM
DC44	10.48	40.8	287.35	Fracture>30<60 °	CM
DC44	10.58	49.52	168.5	Fracture>30<60 °	CM
DC44	10.9	73.96	170.63	Fracture 60+ °	PBBX
DC44	10.93	49.3	178.93	Fracture>30<60 °	PBBX
DC44	11.03	55.71	174.23	Fracture>30<60 °	PBBX
DC44	11.19	45.25	347.4	Fracture>30<60 °	CQ
DC44	11.26	46.1	343.12	Fracture>30<60 °	CM
DC44	11.33	35.02	157.25	Fracture>30<60 °	CM

Table E1: WellCAD® - Orientation Pick Data – Joints and Fractures

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature	Lithology
DC44	11.42	23.12	166.55	Fracture <30 °	LC
DC44	11.62	66.13	235.55	Fracture 60+ °	LC
DC44	11.65	38.96	203.69	Fracture>30<60 °	LC
DC44	11.92	33.88	191.87	Fracture>30<60 °	LC
DC44	12	13.46	197.69	Fracture <30 °	LC
DC44	12.05	26.37	12.79	Fracture <30 °	LC
DC44	12.1	17.51	165.07	Fracture <30 °	LC
DC44	12.28	51.8	2.95	Fracture>30<60 °	CM
DC44	12.5	63.64	333.64	Fracture 60+ °	FSS
DC44	12.55	40.64	163.37	Fracture>30<60 °	CSS
DC44	12.71	34.48	166.5	Fracture>30<60 °	CSS
DC44	12.87	30.37	167.46	Fracture>30<60 °	VFSS
DC44	12.94	53.47	9.29	Fracture>30<60 °	VFSS
DC44	13.29	34.97	165.69	Fracture>30<60 °	LFSS
DC44	13.32	23.4	155.48	Fracture <30 °	LFSS
DC44	13.4	19.97	171.36	Fracture <30 °	LFSS
DC44	13.46	23.36	166.34	Fracture <30 °	LFSS
DC44	13.54	35.62	167.75	Fracture>30<60 °	LFSS
DC44	13.65	67.29	153.76	Fracture 60+ °	LFSS
DC44	13.66	39.84	313.32	Fracture>30<60 °	LFSS
DC44	13.8	37.81	238.48	Fracture>30<60 °	GRBX
DC44	14.14	71.07	0.46	Fracture 60+ °	GRBX
DC44	14.51	67.94	347.6	Fracture 60+ °	GRBX
DC44	15.06	36.32	162.85	Fracture>30<60 °	LC
DC44	15.14	57.82	336.7	Fracture>30<60 °	LC
DC44	15.17	12.26	139.46	Fracture <30 °	LC
DC44	15.27	25.52	168.94	Fracture>30<60 °	CM
DC44	15.44	66.59	336.78	Fracture 60+ °	MSS
DC44	15.45	62.06	143.6	Fracture 60+ °	MSS
DC44	15.62	59.29	152.27	Fracture>30<60 °	MSS
DC44	15.71	58.79	152.31	Fracture>30<60 °	MSS
DC44	15.82	37.38	340.61	Fracture>30<60 °	MSS
DC44	16.17	38.11	185	Fracture>30<60 °	CSS
DC44	16.22	27.67	251.82	Fracture <30 °	CSS
DC44	16.4	61.67	6.66	Fracture 60+ °	VCSS

Table E1: WellCAD® - Orientation Pick Data – Joints and Fractures

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature	Lithology
DC44	16.49	22.61	27.62	Fracture <30 °	VCSS
DC44	16.51	27.23	249.79	Fracture <30 °	VCSS
DC44	16.57	26.01	178.96	Fracture <30 °	VCSS
DC44	17.14	48.65	308.46	Fracture>30<60 °	CM
DC44	17.24	43.34	332.97	Fracture>30<60 °	CM
DC44	17.29	11.98	201.84	Fracture <30 °	CM
DC44	17.35	39	220.74	Fracture>30<60 °	CM
DC44	17.51	46.75	340.22	Fracture>30<60 °	CM
DC44	17.71	69.58	183.23	Joint Open 60+ °	PBBX
DC44	17.84	59.55	6.7	Fracture>30<60 °	PBBX
DC44	17.94	30.89	46.46	Fracture>30<60 °	PBBX
DC44	18.03	67.64	349.64	Fracture 60+ °	PBBX
DC44	18.88	25.01	333.65	Fracture <30 °	PBBX
DC44	18.94	21.84	152.05	Fracture <30 °	PBBX
DC44	19.21	55.45	145.99	Fracture>30<60 °	PBBX
DC44	19.28	40.07	271.94	Fracture>30<60 °	PBBX
DC44	19.52	56.81	332.37	Fracture>30<60 °	LC
DC44	19.83	42.57	160.94	Fracture>30<60 °	PBBX
DC44	20.02	37.42	269.33	Fracture>30<60 °	PBBX
DC44	20.13	22.58	247.38	Fracture <30 °	PBBX
DC44	20.33	53.16	137.74	Fracture>30<60 °	LC
DC44	20.49	28.91	138.97	Fracture <30 °	LC
DC44	20.62	49.85	349.29	Fracture>30<60 °	LC
DC44	21.13	51.21	19.82	Fracture>30<60 °	LC
DC44	21.22	60.44	216.55	Fracture 60+ °	GRBX
DC44	21.91	59.19	64.24	Fracture>30<60 °	PBBX
DC44	22.39	70.74	197.84	Fracture 60+ °	PBBX
DC44	22.48	63.51	42.88	Fracture 60+ °	PBBX
DC44	22.7	63.36	25.87	Fracture 60+ °	PBBX
DC44	22.87	31.11	177.41	Fracture>30<60 °	PBBX
DC44	22.96	7.35	331.18	Fracture <30 °	PBBX
DC44	23.14	44.26	332.11	Fracture>30<60 °	PBBX
DC44	23.21	37.16	193.02	Fracture>30<60 °	PBBX
DC44	23.94	43.37	203.66	Fracture>30<60 °	LC
DC44	24.2	18.73	80.63	Fracture <30 °	VCSS

Table E1: WellCAD® - Orientation Pick Data – Joints and Fractures

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature	Lithology
DC44	24.95	49.1	355.88	Fracture>30<60 °	GRBX
DC44	25.25	59.76	40.98	Fracture>30<60 °	CM
DC44	25.69	60.51	47.21	Fracture 60+ °	PBBX
DC44	27.67	77.05	351.68	Fracture 60+ °	PBBX
DC44	28.89	78.2	336.85	Fracture 60+ °	PBBX
DC44	29.83	63.61	317.43	Fracture 60+ °	GRBX
DC44	30.52	78.6	336.86	Fracture 60+ °	GRBX
DC44	31.77	31.08	62.66	Fracture>30<60 °	CM
DC44	35.29	25.31	348.6	Fracture <30 °	GRBX
DC44	35.41	25.19	348.47	Fracture <30 °	GRBX
DC45	5.53	12.71	83.12	Fracture <30 °	PBBX
DC45	6.08	36.88	359.96	Fracture>30<60 °	PBBX
DC45	6.16	27.15	345.77	Fracture <30 °	PBBX
DC45	6.21	4.26	318.33	Fracture <30 °	PBBX
DC45	6.29	84.56	0.29	Fracture 60+ °	PBBX
DC45	7.52	32.97	52.77	Fracture>30<60 °	PBBX
DC45	7.67	38.43	187.74	Fracture>30<60 °	PBBX
DC45	7.67	38.42	18.89	Fracture>30<60 °	PBBX
DC45	7.83	46.21	209.19	Fracture>30<60 °	PBBX
DC45	7.91	15.08	30.91	Fracture <30 °	PBBX
DC45	7.97	41	22.93	Fracture>30<60 °	PBBX
DC45	8.1	64.45	17.77	Fracture 60+ °	PBBX
DC45	8.24	36.96	4.32	Fracture>30<60 °	PBBX
DC45	8.33	21.56	97.21	Fracture <30 °	PBBX
DC45	8.47	24.48	149.22	Fracture <30 °	PBBX
DC45	8.53	45.17	132.08	Fracture>30<60 °	PBBX
DC45	8.56	49.5	359.24	Fracture>30<60 °	PBBX
DC45	8.58	8.08	323.88	Fracture <30 °	PBBX
DC45	8.63	27.79	11.41	Fracture <30 °	PBBX
DC45	9.78	8.29	240.01	Fracture <30 °	GRBX
DC45	10.03	11.47	269.75	Fracture <30 °	GRBX
DC45	10.42	6.14	291.29	Fracture <30 °	GRBX
DC45	10.57	7.81	34.28	Fracture <30 °	GRBX
DC45	10.63	2.67	335.78	Fracture <30 °	GRBX
DC45	10.67	11.92	246.62	Fracture <30 °	GRBX

Table E1: WellCAD® - Orientation Pick Data – Joints and Fractures

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature	Lithology
DC45	10.99	8.35	61.88	Fracture <30 °	GRBX
DC45	11.85	36.87	164.77	Fracture>30<60 °	PBBX
DC45	11.97	39.9	189.97	Fracture>30<60 °	PBBX
DC45	12.6	55.32	13.82	Fracture>30<60 °	FSS
DC45	12.75	60.27	40.92	Fracture 60+ °	VFSS
DC45	12.9	72.57	51.09	Fracture 60+ °	VFSS
DC45	13.02	61.64	38.77	Fracture 60+ °	VFSS
DC45	13.04	22.05	319.82	Fracture <30 °	VFSS
DC45	14.64	14.24	140.56	Fracture <30 °	VFSS
DC45	14.86	15.4	327.08	Fracture <30 °	GRBX
DC45	15.03	22.51	161.67	Fracture <30 °	GRBX
DC45	15.12	16.3	127.26	Fracture <30 °	GRBX
DC45	15.18	13.65	49.72	Fracture <30 °	FSS
DC45	16.05	66.05	231.19	Fracture 60+ °	GRBX
DC45	16.29	55.18	237.27	Fracture>30<60 °	GRBX
DC45	16.44	74.31	59.47	Fracture 60+ °	GRBX
DC45	16.52	82.55	71.88	Fracture 60+ °	GRBX
DC45	17.59	50.78	237.11	Fracture>30<60 °	GRBX
DC45	18.13	68.65	269.41	Fracture 60+ °	GRBX
DC45	18.82	75.26	212.43	Fracture 60+ °	GRBX
DC45	19.63	29.32	123.81	Fracture <30 °	CM
DC45	20.1	57.98	277.81	Fracture>30<60 °	PBBX
DC45	20.46	14.52	13.76	Fracture <30 °	VCSS
DC45	21.22	17.47	354.12	Fracture <30 °	PBBX
DC45	22.58	11.04	22.44	Fracture <30 °	PBBX
DC45	22.94	80.91	65.63	Fracture 60+ °	PBBX
DC45	23.07	17.25	52.98	Fracture <30 °	VFSS
DC45	23.17	22.55	165.64	Fracture <30 °	PBBX
DC45	23.18	51.32	101.48	Fracture>30<60 °	PBBX
DC45	23.31	51.35	344.18	Fracture>30<60 °	PBBX
DC45	23.49	21.3	78.15	Fracture <30 °	PBBX
DC45	25.25	7.96	44.46	Fracture <30 °	GRBX
DC45	25.38	51.62	3.34	Fracture>30<60 °	PBBX
DC45	25.42	65.2	153.33	Fracture 60+ °	PBBX
DC45	25.56	26.05	69.59	Fracture <30 °	PBBX

Table E1: WellCAD® - Orientation Pick Data – Joints and Fractures

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature	Lithology
DC45	25.64	32.6	38.07	Fracture>30<60 °	PBBX
DC45	25.76	18.94	50.54	Fracture <30 °	PBBX
DC45	25.8	15.79	69.11	Fracture <30 °	PBBX
DC45	25.88	24.17	354.36	Fracture <30 °	PBBX
DC45	26.44	14.3	96.46	Fracture <30 °	CM
DC45	26.55	26.08	89.74	Fracture <30 °	CM
DC45	26.62	17.91	100.22	Fracture <30 °	CM
DC45	26.71	15.97	145.28	Fracture <30 °	CM
DC45	26.76	16.13	120.14	Fracture <30 °	CM
DC45	26.94	84.36	50.8	Fracture 60+ °	CM
DC45	27.14	24.03	77.78	Fracture <30 °	VFSS
DC45	27.2	10.34	143.38	Fracture <30 °	VFSS
DC45	27.33	11.85	69.24	Fracture <30 °	VFSS
DC45	30.41	82.49	84.35	Fracture 60+ °	PBBX
DC45	30.63	9.67	139.43	Fracture <30 °	PBBX
DC45	31.46	20.66	26.9	Fracture <30 °	CM
DC45	32.46	17.2	116.17	Fracture <30 °	PBBX
DC45	33.37	16.79	153.34	Fracture <30 °	PBBX
DC45	33.54	22.16	16.54	Fracture <30 °	PBBX
DC45	33.56	15.84	248.44	Fracture <30 °	PBBX
DC45	36.38	20.87	65.65	Fracture <30 °	PBBX
DC45	36.56	13.86	91.1	Fracture <30 °	PBBX
DC45	37.58	6.79	105.44	Fracture <30 °	PBBX
DC45	39.43	5.7	162.85	Fracture <30 °	PBBX
DC45	39.5	8.7	102.81	Fracture <30 °	GRBX
DC45	39.66	3.55	163.81	Fracture <30 °	PBBX
DC45	39.76	8.23	230.62	Fracture <30 °	PBBX
DC45	40.43	15.52	216.26	Fracture <30 °	GRBX
DC45	41.41	15.64	128.5	Fracture <30 °	GRBX
DC45	41.9	28.24	287.76	Fracture <30 °	GRBX
DC45	5.55	7.2	205.71	Fracture <30 °	PBBX
DC45	5.66	68.86	107.52	Fracture 60+ °	PBBX
DC45	5.97	78.58	94.96	Fracture 60+ °	PBBX
DC45	6.07	82.32	103.32	Fracture 60+ °	PBBX
DC45	7.55	31.49	160.15	Fracture>30<60 °	PBBX

Table E1: WellCAD® - Orientation Pick Data – Joints and Fractures

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature	Lithology
DC45	7.66	33.49	325.78	Fracture>30<60 °	PBBX
DC45	7.98	79.2	128.46	Fracture 60+ °	PBBX
DC45	7.98	44.1	129.98	Fracture>30<60 °	PBBX
DC45	8.28	69.08	303.53	Fracture 60+ °	PBBX
DC45	8.34	15.33	175.53	Fracture <30 °	PBBX
DC45	8.48	29.37	266.65	Fracture <30 °	PBBX
DC45	9.31	69.72	55.3	Fracture 60+ °	PBBX
DC45	11	8.68	75.44	Fracture <30 °	PBBX
DC45	11.97	28.78	358.43	Fracture <30 °	PBBX
DC45	12.01	15.5	249.2	Fracture <30 °	PBBX
DC45	12.41	66.88	101.36	Fracture 60+ °	FSS
DC45	12.54	54.35	101.41	Fracture>30<60 °	GRBX
DC45	12.7	69.72	97.14	Fracture 60+ °	VFSS
DC45	12.77	77.28	99.19	Fracture 60+ °	VFSS
DC45	12.85	75.32	90.83	Fracture 60+ °	VFSS
DC45	12.92	56.94	97.21	Fracture>30<60 °	VFSS
DC45	12.93	75.1	95.01	Fracture 60+ °	VFSS
DC45	13.02	57.39	82.73	Fracture>30<60 °	VFSS
DC45	13.93	22.99	73.96	Fracture <30 °	VFSS
DC45	13.96	25.98	69.66	Fracture <30 °	CM
DC45	14.13	17.88	96.17	Fracture <30 °	CM
DC45	14.18	14.99	192.46	Fracture <30 °	CM
DC45	14.29	10.5	73.28	Fracture <30 °	CM
DC45	14.5	66.53	282.14	Fracture 60+ °	VFSS
DC45	14.65	9.56	189.13	Fracture <30 °	VFSS
DC45	14.66	69.24	67.92	Fracture 60+ °	VFSS
DC45	14.79	38.47	148.52	Fracture>30<60 °	VFSS
DC45	15.92	84	227.39	Fracture 60+ °	GRBX
DC45	17.06	24.13	354.35	Fracture <30 °	GRBX
DC45	17.89	8.46	63.43	Fracture <30 °	GRBX
DC45	19.63	45.84	154.99	Fracture>30<60 °	PBBX
DC45	19.74	18.85	38.05	Fracture <30 °	PBBX
DC45	19.79	16.35	119.48	Fracture <30 °	PBBX
DC45	20.47	10.12	47.86	Fracture <30 °	PBBX
DC45	21.18	8.55	74.51	Fracture <30 °	PBBX

Table E1: WellCAD® - Orientation Pick Data – Joints and Fractures

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature	Lithology
DC45	21.25	6.92	351.04	Fracture <30 °	PBBX
DC45	22.99	12.51	2.1	Fracture <30 °	VFSS
DC45	23.16	30.68	133.74	Fracture>30<60 °	PBBX
DC45	23.27	63.73	30.37	Fracture 60+ °	PBBX
DC45	23.59	80.28	27.75	Fracture 60+ °	PBBX
DC45	24.56	6.91	86.22	Fracture <30 °	GRBX
DC45	25.26	12.48	80.16	Fracture <30 °	GRBX
DC45	25.4	55.06	337.65	Fracture>30<60 °	PBBX
DC45	25.43	14.02	159.6	Fracture <30 °	PBBX
DC45	25.57	33.38	85.28	Fracture>30<60 °	PBBX
DC45	25.65	37.01	64.75	Fracture>30<60 °	PBBX
DC45	25.89	17	44.57	Fracture <30 °	PBBX
DC45	26.23	24.59	113.91	Fracture <30 °	CM
DC45	26.27	23.08	115.83	Fracture <30 °	CM
DC45	26.35	12.55	108.3	Fracture <30 °	CM
DC45	26.45	16.13	105.95	Fracture <30 °	CM
DC45	26.71	10.72	117.99	Fracture <30 °	CM
DC45	26.77	14.25	133.32	Fracture <30 °	CM
DC45	27.53	10.05	77.48	Fracture <30 °	GRBX
DC45	29.08	9.86	164.58	Fracture <30 °	GRBX
DC45	30.08	6.04	126.89	Fracture <30 °	PBBX
DC45	30.39	83.62	65.42	Fracture 60+ °	PBBX
DC45	31.45	29.92	20.22	Fracture <30 °	PBBX
DC45	32.43	13.63	107.84	Fracture <30 °	CM
DC45	32.47	17.37	93.82	Fracture <30 °	PBBX
DC45	33.44	10.49	259.94	Fracture <30 °	PBBX
DC45	33.55	21.51	324.2	Fracture <30 °	PBBX
DC45	33.58	21.38	185.71	Fracture <30 °	PBBX
DC45	34.46	14.59	182.58	Joint Open <30 °	PBBX
DC45	36.41	4.01	140.43	Fracture <30 °	PBBX
DC45	36.42	31.58	283.02	Joint Open >30<60 °	PBBX
DC45	36.42	45.67	71.68	Joint Open >30<60 °	PBBX
DC45	36.49	10.21	73.74	Fracture <30 °	PBBX
DC45	36.57	6.46	79.14	Fracture <30 °	PBBX
DC45	36.89	15.78	81.94	Fracture <30 °	PBBX

Table E1: WellCAD® - Orientation Pick Data – Joints and Fractures

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature	Lithology
DC45	37.59	12.26	109.82	Fracture <30 °	PBBX
DC45	39.45	17.11	143.17	Joint Open <30 °	PBBX
DC45	39.51	8.59	101.27	Fracture <30 °	PBBX
DC45	39.65	25.06	254.73	Fracture <30 °	PBBX
DC45	41.32	26.6	161.58	Fracture <30 °	PBBX
DC45	41.46	70.5	343.77	Fracture 60+ °	PBBX
DC45	41.84	51.7	235.59	Fracture>30<60 °	GRBX
DC45	41.85	39.44	342.88	Fracture>30<60 °	GRBX
DC45	42.71	15.94	118.96	Fracture <30 °	CM
DC45	42.93	12.61	102.26	Fracture <30 °	CM
DC45	43.04	28.11	241.6	Fracture <30 °	VFSS
DC45	43.37	49.38	319.08	Joint Open >30<60 °	VFSS
DC45	43.52	19.31	319.88	Fracture <30 °	VFSS
DC45	43.98	8.83	92.74	Fracture <30 °	VFSS
DC45	44.14	29.61	276.56	Fracture <30 °	VFSS
DC45	45.9	4.47	315.26	Fracture <30 °	GRBX
DC45	46.04	4.63	324.34	Fracture <30 °	GRBX
DC45	46.59	16.07	211.9	Fracture <30 °	GRBX
DC45	51.45	9.24	205.8	Fracture <30 °	CM
DC45	51.53	12.72	114.62	Joint Open <30 °	CM
DC45	51.63	17.88	122.56	Joint Open <30 °	PBBX
DC45	52.36	59.84	63.84	Joint Open >30<60 °	PBBX
DC45	52.69	8.61	143.11	Fracture <30 °	PBBX
DC45	52.79	10.97	90.85	Fracture <30 °	PBBX
DC45	53.37	42.41	37.63	Fracture>30<60 °	PBBX
DC45	53.84	46.94	70.42	Fracture>30<60 °	PBBX
DC45	54.18	36.96	279.82	Joint Open >30<60 °	PBBX
DC45	54.58	27.55	67.11	Fracture <30 °	CM
DC45	55.51	8.55	345.35	Joint Open <30 °	PBCG
DC45	56.04	10.42	153.57	Fracture <30 °	PBCG
DC45	57.22	40.11	109.69	Fracture>30<60 °	PBCG
DC45	57.33	8	302.66	Fracture <30 °	PBCG
DC45	57.39	29.63	286.27	Joint Open <30 °	PBCG
DC45	57.49	10.82	94.94	Fracture <30 °	PBCG
DC45	58.4	6.73	348.81	Fracture <30 °	PBCG

Table E1: WellCAD® - Orientation Pick Data – Joints and Fractures

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature	Lithology
DC45	58.45	23.13	135.43	Joint Open <30 °	PBBX
DC45	58.89	21.09	159.18	Fracture <30 °	VCSS
DC45	59.03	10.8	141.37	Fracture <30 °	VCSS
DC45	59.17	19.84	107.46	Fracture <30 °	PBCG
DC45	59.76	13.75	177.57	Fracture <30 °	PBCG
DC45	60.95	38.92	121.85	Fracture>30<60 °	PBCG
DC45	61.27	26.34	53.4	Fracture <30 °	PBCG
DC45	61.53	28.25	339.28	Fracture <30 °	PBCG

TABLE E2 – WellCAD® – BEDDING DISCONTINUITY DATA

Table E2: WellCAD® Discontinuity Data - Bedding				
Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC16	4.14	18.28	172.82	BCM Sandstone Bedding
DC16	4.24	27.77	163.44	BCM Sandstone Bedding
DC16	5.38	12.73	124.96	BCM Sandstone Bedding
DC16	5.56	46.12	129.17	BCM Sandstone Bedding
DC16	5.78	4.94	329.66	BCM Sandstone Bedding
DC16	5.86	5.8	156.79	BCM Sandstone Bedding
DC16	6.01	12.7	160.06	BCM Carbonaceous Mudstone Bedding
DC16	6.09	12.49	153.19	BCM Carbonaceous Mudstone Bedding
DC16	6.13	14.09	137.2	BCM Carbonaceous Mudstone Bedding
DC16	6.3	15.73	142.32	BCM Carbonaceous Mudstone Bedding
DC16	6.62	22.48	161.72	BCM Carbonaceous Mudstone Bedding
DC16	6.78	18.98	143.53	BCM Carbonaceous Mudstone Bedding
DC16	6.93	22.1	128.95	BCM Carbonaceous Mudstone Bedding
DC16	7.01	17.58	149.78	BCM Carbonaceous Mudstone Bedding
DC16	7.17	22.41	153.3	BCM Carbonaceous Mudstone Bedding
DC16	7.3	22.57	157.37	BCM Carbonaceous Mudstone Bedding
DC16	7.37	17.41	137.25	BCM Carbonaceous Mudstone Bedding
DC16	7.46	27.45	155.13	BCM Carbonaceous Mudstone Bedding
DC16	7.54	14.41	151.88	BCM Sandstone Bedding
DC16	7.63	24.27	148.05	BCM Sandstone Bedding
DC16	7.92	17.58	140.98	BCM Sandstone Bedding
DC16	8.15	8.82	114.99	BCM Sandstone Bedding
DC16	8.21	12.63	130.26	BCM Sandstone Bedding
DC16	8.24	24.13	140.12	BCM Sandstone Bedding
DC16	8.48	14.78	131.88	BCM Sandstone Bedding
DC16	8.86	12.63	138.25	BCM Sandstone Bedding
DC16	9.04	16.48	165.63	BCM Sandstone Bedding
DC16	9.24	25.97	166.9	BCM Sandstone Bedding
DC16	9.35	11.5	192.32	BCM Sandstone Bedding
DC16	9.42	22.88	158.31	BCM Sandstone Bedding
DC16	9.56	36.48	148.9	BCM Sandstone Bedding
DC16	10.02	14.97	169.38	BCM Sandstone Bedding
DC16	10.88	9.55	150.6	BCM Sandstone Bedding
DC16	11.13	16.52	149.55	BCM Sandstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC16	11.47	23.01	174.37	BCM Sandstone Bedding
DC16	12.03	11.43	163.12	BCM Sandstone Bedding
DC16	12.8	3.68	222.32	BCM Sandstone Bedding
DC16	13.01	20.34	296.44	BCM Sandstone Bedding
DC16	13.18	21.03	160.4	BCM Sandstone Bedding
DC16	13.3	23.1	244.26	BCM Sandstone Bedding
DC16	13.34	21.1	239.55	BCM Sandstone Bedding
DC16	13.43	25.07	264.19	BCM Sandstone Bedding
DC16	13.65	23.04	193.81	BCM Sandstone Bedding
DC16	13.66	27.76	206.48	BCM Sandstone Bedding
DC16	13.73	8.36	226.08	BCM Sandstone Bedding
DC16	13.91	9.79	232.45	BCM Sandstone Bedding
DC16	13.93	42.25	88.89	BCM Sandstone Bedding
DC16	14.12	21.9	87.15	BCM Sandstone Bedding
DC16	14.3	17.98	147.73	BCM Sandstone Bedding
DC16	14.41	18.44	187.93	BCM Sandstone Bedding
DC16	15.41	11.03	181.07	BCM Sandstone Bedding
DC16	15.56	11.16	201.95	BCM Sandstone Bedding
DC16	15.8	11.12	175.68	BCM Sandstone Bedding
DC16	16.1	11.01	258.81	BCM Sandstone Bedding
DC16	16.28	20.84	166.77	BCM Sandstone Bedding
DC16	16.33	22.17	168.28	BCM Sandstone Bedding
DC16	16.52	13.65	174.99	BCM Carbonaceous Mudstone Bedding
DC16	17.85	26.96	143.59	BCM Carbonaceous Mudstone Bedding
DC16	18.05	16.07	202.8	BCM Carbonaceous Mudstone Bedding
DC16	18.28	25.24	174.35	BCM Carbonaceous Mudstone Bedding
DC16	18.43	22.82	166.21	BCM Carbonaceous Mudstone Bedding
DC16	18.61	5.69	150.25	BCM Carbonaceous Mudstone Bedding
DC16	18.74	18.38	205.72	BCM Sandstone Bedding
DC16	18.84	15.94	192.79	BCM Sandstone Bedding
DC16	19.62	4.53	355.01	BCM Sandstone Bedding
DC16	20.86	12.89	314.58	BCM Sandstone Bedding
DC16	20.99	5.2	308.43	BCM Sandstone Bedding
DC16	21.15	5.27	308.47	BCM Sandstone Bedding
DC16	21.88	13.76	180.19	BCM Sandstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC16	22.18	13.48	241.32	BCM Sandstone Bedding
DC16	22.53	18.58	205.51	BCM Sandstone Bedding
DC16	23.6	15.79	246.84	BCM Sandstone Bedding
DC16	24.08	15.29	303.02	BCM Sandstone Bedding
DC16	24.16	15.54	280.37	BCM Sandstone Bedding
DC16	24.25	13.52	238.27	BCM Sandstone Bedding
DC16	24.84	12.54	47.52	BCM Sandstone Bedding
DC16	25.13	39.74	278.72	BCM Sandstone Bedding
DC16	25.24	13.6	175.91	BCM Sandstone Bedding
DC16	25.4	29.53	190.37	BCM Carbonaceous Mudstone Bedding
DC16	25.5	23.03	193.59	BCM Carbonaceous Mudstone Bedding
DC16	26.69	27.24	173.47	BCM Sandstone Bedding
DC16	27.35	5.33	110.52	BCM Sandstone Bedding
DC16	27.8	15.73	173.2	BCM Coal Measures Bedding
DC16	28.79	5.59	179.33	BCM Coal Measures Bedding
DC16	29.21	2.93	152.5	BCM Coal Measures Bedding
DC16	30.27	7.99	194.84	BCM Coal Measures Bedding
DC16	30.69	5.36	118.29	BCM Coal Measures Bedding
DC16	30.95	5.38	123.35	BCM Coal Measures Bedding
DC16	32.38	13.02	169.98	BCM Coal Measures Bedding
DC16	32.96	17.96	161.46	BCM Carbonaceous Mudstone Bedding
DC16	33.46	15.62	173.6	BCM Carbonaceous Mudstone Bedding
DC16	34.21	15.46	170.02	BCM Carbonaceous Mudstone Bedding
DC16	34.35	15.43	157.87	BCM Carbonaceous Mudstone Bedding
DC16	34.41	24.71	145.91	BCM Carbonaceous Mudstone Bedding
DC16	34.73	20.26	175.23	BCM Carbonaceous Mudstone Bedding
DC16	36.22	2.71	178.02	BCM Carbonaceous Mudstone Bedding
DC16	36.84	20.19	173.31	BCM Carbonaceous Mudstone Bedding
DC16	37.02	17.95	174.82	BCM Carbonaceous Mudstone Bedding
DC16	37.66	5.13	100.75	BCM Coal Measures Bedding
DC16	38.19	10.4	148.84	BCM Coal Measures Bedding
DC16	38.83	20.1	110.22	BCM Coal Measures Bedding
DC16	38.98	36.16	152.84	BCM Coal Measures Bedding
DC16	39.2	7.86	106.48	BCM Coal Measures Bedding
DC16	39.43	20.04	203.02	BCM Coal Measures Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC19	2.07	10.14	132.12	BCM Coal Measures Bedding
DC19	2.14	13.47	166.65	BCM Coal Measures Bedding
DC19	2.36	14.43	186.53	BCM Coal Measures Bedding
DC19	2.44	10.71	263	BCM Coal Measures Bedding
DC19	2.51	10.51	239.26	BCM Carbonaceous Mudstone Bedding
DC19	2.56	7.47	224.87	BCM Carbonaceous Mudstone Bedding
DC19	2.71	5.56	187.86	BCM Carbonaceous Mudstone Bedding
DC19	2.77	6.3	232.61	BCM Carbonaceous Mudstone Bedding
DC19	2.84	6.9	171.19	BCM Carbonaceous Mudstone Bedding
DC19	2.97	7.67	193.17	BCM Carbonaceous Mudstone Bedding
DC19	3.04	10.9	210.14	BCM Coal Measures Bedding
DC19	3.12	11.4	154.05	BCM Coal Measures Bedding
DC19	3.13	10.3	149.44	BCM Coal Measures Bedding
DC19	3.18	2.83	224.17	BCM Coal Measures Bedding
DC19	3.26	7.2	278.62	BCM Coal Measures Bedding
DC19	3.38	6.15	308.27	BCM Coal Measures Bedding
DC19	3.74	2.91	226.02	BCM Coal Measures Bedding
DC19	4.05	7.64	349.9	BCM Carbonaceous Mudstone Bedding
DC19	4.23	13.83	90.65	BCM Carbonaceous Mudstone Bedding
DC19	4.43	14.77	127.82	BCM Carbonaceous Mudstone Bedding
DC19	4.55	3.24	178.53	BCM Coal Measures Bedding
DC19	4.62	8.7	211.37	BCM Coal Measures Bedding
DC19	4.66	6.55	205.49	BCM Coal Measures Bedding
DC19	5.06	7.66	198.73	BCM Coal Measures Bedding
DC19	5.14	10.07	94.69	BCM Carbonaceous Mudstone Bedding
DC19	5.22	9.99	87.59	BCM Carbonaceous Mudstone Bedding
DC19	5.39	4.65	156.74	BCM Carbonaceous Mudstone Bedding
DC19	5.57	4.86	169.69	BCM Coal Measures Bedding
DC19	5.6	3.02	241.46	BCM Carbonaceous Mudstone Bedding
DC19	5.65	7.41	263.41	BCM Sandstone Bedding
DC19	5.69	5.38	322.05	BCM Sandstone Bedding
DC19	5.82	14.29	327.88	BCM Sandstone Bedding
DC19	5.89	10.59	85.8	BCM Sandstone Bedding
DC19	6.1	10.11	164.06	BCM Sandstone Bedding
DC19	6.23	8.85	111.58	BCM Sandstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC19	6.29	15.78	132.22	BCM Sandstone Bedding
DC19	6.44	9.89	111.28	BCM Sandstone Bedding
DC19	6.55	8.81	128.09	BCM Sandstone Bedding
DC19	6.78	22.74	300.42	BCM Sandstone Bedding
DC19	6.84	11.42	146.07	BCM Sandstone Bedding
DC19	6.95	7.2	103.94	BCM Sandstone Bedding
DC19	7.12	7.06	133.34	BCM Sandstone Bedding
DC19	7.21	10.13	149.08	BCM Sandstone Bedding
DC19	7.31	8.08	150.95	BCM Sandstone Bedding
DC19	7.47	0.5	77.8	BCM Sandstone Bedding
DC19	7.56	4.17	214.74	BCM Coal Measures Bedding
DC19	8.24	5.04	67.31	BCM Coal Measures Bedding
DC19	8.62	6.21	73.06	BCM Coal Measures Bedding
DC19	8.9	12.46	152.85	BCM Coal Measures Bedding
DC19	9.28	20.05	281.45	BCM Coal Measures Bedding
DC19	9.74	17.35	8.24	BCM Coal Measures Bedding
DC19	9.81	6.01	150.38	BCM Carbonaceous Mudstone Bedding
DC19	10.03	6.24	109.2	BCM Carbonaceous Mudstone Bedding
DC19	10.26	9.79	146.12	BCM Carbonaceous Mudstone Bedding
DC19	10.35	12.48	110.57	BCM Carbonaceous Mudstone Bedding
DC19	10.43	9.72	133.38	BCM Carbonaceous Mudstone Bedding
DC19	10.58	11.9	261.6	BCM Carbonaceous Mudstone Bedding
DC19	10.69	15.16	286.43	BCM Carbonaceous Mudstone Bedding
DC19	10.79	6.99	83.57	BCM Carbonaceous Mudstone Bedding
DC19	11.04	16.47	182.88	BCM Carbonaceous Mudstone Bedding
DC19	11.34	11.26	343.12	BCM Carbonaceous Mudstone Bedding
DC19	11.38	8.84	185.23	BCM Carbonaceous Mudstone Bedding
DC19	11.59	6.74	356.97	BCM Carbonaceous Mudstone Bedding
DC19	11.7	6.19	235.63	BCM Carbonaceous Mudstone Bedding
DC19	11.84	11.74	262.63	BCM Carbonaceous Mudstone Bedding
DC19	11.89	9.81	232.14	BCM Carbonaceous Mudstone Bedding
DC19	12	9.09	238.43	BCM Carbonaceous Mudstone Bedding
DC19	12.11	7.38	276.01	BCM Carbonaceous Mudstone Bedding
DC19	12.28	5.56	258.5	BCM Carbonaceous Mudstone Bedding
DC19	12.37	9.09	226.13	BCM Carbonaceous Mudstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC19	12.41	6.34	245.43	BCM Carbonaceous Mudstone Bedding
DC19	12.47	9.25	254.77	BCM Carbonaceous Mudstone Bedding
DC19	12.6	14.54	235.2	BCM Sandstone Bedding
DC19	12.79	13.7	38.36	BCM Sandstone Bedding
DC19	12.87	15.15	36.21	BCM Sandstone Bedding
DC19	13.02	9.68	56.83	BCM Sandstone Bedding
DC19	13.18	10.4	349.37	BCM Sandstone Bedding
DC19	13.26	7	343.07	BCM Sandstone Bedding
DC19	13.39	6.86	50.93	BCM Sandstone Bedding
DC19	13.59	11.83	190.49	BCM Sandstone Bedding
DC19	13.67	17.87	2.7	BCM Sandstone Bedding
DC19	13.82	13.27	356.96	BCM Sandstone Bedding
DC19	13.88	12.46	3.94	BCM Sandstone Bedding
DC19	13.96	15.62	345.69	BCM Sandstone Bedding
DC19	14.05	14.44	312.79	BCM Sandstone Bedding
DC19	14.35	10.94	245.57	BCM Sandstone Bedding
DC19	14.42	6.92	62.16	BCM Sandstone Bedding
DC19	14.64	6.73	100.42	BCM Sandstone Bedding
DC19	14.85	10.26	285.47	BCM Sandstone Bedding
DC19	15.01	8.21	230.71	BCM Sandstone Bedding
DC19	15.17	9.64	61.61	BCM Sandstone Bedding
DC19	15.3	15.09	4.91	BCM Sandstone Bedding
DC19	15.79	11.88	178.07	BCM Sandstone Bedding
DC19	16.01	11.9	171.81	BCM Sandstone Bedding
DC19	16.05	14.72	147.24	BCM Sandstone Bedding
DC19	16.29	12.27	324.03	BCM Sandstone Bedding
DC19	17.2	8.74	170.28	BCM Sandstone Bedding
DC19	18.11	12.23	353	BCM Carbonaceous Mudstone Bedding
DC19	18.18	9.5	232.88	BCM Carbonaceous Mudstone Bedding
DC19	18.22	13.08	233.09	BCM Carbonaceous Mudstone Bedding
DC19	18.25	12.21	242.38	BCM Carbonaceous Mudstone Bedding
DC19	18.3	6.3	64.64	BCM Carbonaceous Mudstone Bedding
DC19	18.34	11.29	5.18	BCM Carbonaceous Mudstone Bedding
DC19	18.43	12.27	353.63	BCM Carbonaceous Mudstone Bedding
DC19	18.48	7.7	52.4	BCM Carbonaceous Mudstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC19	18.54	9.42	10.68	BCM Carbonaceous Mudstone Bedding
DC19	18.65	15.7	214.84	BCM Carbonaceous Mudstone Bedding
DC19	18.72	3.75	258.92	BCM Carbonaceous Mudstone Bedding
DC19	18.81	3.41	146.08	BCM Carbonaceous Mudstone Bedding
DC19	18.99	1.07	189.14	BCM Carbonaceous Mudstone Bedding
DC19	19.21	8.67	223.54	BCM Carbonaceous Mudstone Bedding
DC19	19.52	20.73	200.25	BCM Carbonaceous Mudstone Bedding
DC19	19.65	17.47	216.85	BCM Carbonaceous Mudstone Bedding
DC19	20.35	15.92	281.26	BCM Sandstone Bedding
DC19	20.5	39.59	99.73	BCM Sandstone Bedding
DC19	20.6	37.47	129.25	BCM Sandstone Bedding
DC19	20.83	37.13	67.27	BCM Sandstone Bedding
DC19	16.2	26.06	204.79	BCM Sandstone Bedding
DC19	16.32	14.68	216.08	BCM Sandstone Bedding
DC19	16.59	20.91	251.7	BCM Sandstone Bedding
DC19	16.78	16.57	204.56	BCM Sandstone Bedding
DC19	16.88	17.53	300.93	BCM Sandstone Bedding
DC19	16.92	27.58	219.84	BCM Sandstone Bedding
DC19	17.46	12.59	262.76	BCM Sandstone Bedding
DC19	17.71	14.08	254.1	BCM Sandstone Bedding
DC19	17.82	9.15	232.22	BCM Sandstone Bedding
DC19	17.99	12.42	270.87	BCM Sandstone Bedding
DC19	18.1	13.95	279.8	BCM Sandstone Bedding
DC19	18.2	5.67	249.04	BCM Carbonaceous Mudstone Bedding
DC19	18.28	5.13	292	BCM Carbonaceous Mudstone Bedding
DC19	18.45	5.13	302.32	BCM Carbonaceous Mudstone Bedding
DC19	18.54	13.81	13.92	BCM Carbonaceous Mudstone Bedding
DC19	18.65	14.55	215.41	BCM Carbonaceous Mudstone Bedding
DC19	18.78	7.48	118.38	BCM Carbonaceous Mudstone Bedding
DC19	19.34	7.4	117.78	BCM Carbonaceous Mudstone Bedding
DC19	19.67	16.42	214.01	BCM Carbonaceous Mudstone Bedding
DC19	19.86	24.25	231.28	BCM Sandstone Bedding
DC19	19.98	9.49	181.92	BCM Sandstone Bedding
DC19	20.23	25.1	51.8	BCM Sandstone Bedding
DC19	20.4	11.03	234.76	BCM Sandstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC19	21.25	16.29	222.3	BCM Sandstone Bedding
DC19	22.08	15.99	172.75	BCM Sandstone Bedding
DC19	22.55	5.64	231.19	BCM Coal Measures Bedding
DC19	22.75	7.65	203.62	BCM Coal Measures Bedding
DC19	22.87	11.11	233.52	BCM Coal Measures Bedding
DC19	23.09	27.19	72.26	BCM Sandstone Bedding
DC19	23.74	10.81	52.08	BCM Sandstone Bedding
DC19	23.92	5.82	225.08	BCM Sandstone Bedding
DC19	24.16	15.44	321.08	BCM Sandstone Bedding
DC19	24.39	5.02	296.45	BCM Sandstone Bedding
DC19	25.35	4.16	143.26	BCM Sandstone Bedding
DC19	25.47	19.28	52.06	BCM Sandstone Bedding
DC19	25.79	30.64	349.21	BCM Sandstone Bedding
DC19	26.68	32.16	350.8	BCM Sandstone Bedding
DC19	26.79	38.48	357.82	BCM Sandstone Bedding
DC19	27.28	25.35	344.09	BCM Sandstone Bedding
DC19	28.4	3.89	206.37	BCM Sandstone Bedding
DC19	28.63	9.21	146.48	BCM Sandstone Bedding
DC19	28.87	56.78	61.13	Crush Zone
DC19	30.3	52.13	64.51	Crush Zone
DC19	30.87	8.84	268.26	BCM Sandstone Bedding
DC19	31.21	14.44	164.78	Crush Zone
DC19	32.49	14.34	331.23	BCM Sandstone Bedding
DC19	32.69	5.48	144.7	BCM Sandstone Bedding
DC19	32.88	7.27	310.65	BCM Sandstone Bedding
DC19	33.55	21.94	254.35	BSM Greenland Group Greywacke
DC20	4.88	21.99	77.63	BCM Sandstone Bedding
DC20	5.12	36.1	47	BCM Sandstone Bedding
DC20	5.26	28.09	86.75	BCM Sandstone Bedding
DC20	5.92	8.13	161.83	BCM Coal Measures Bedding
DC20	6.07	5.83	23.12	BCM Coal Measures Bedding
DC20	8.34	7.68	89.72	BCM Carbonaceous Mudstone Bedding
DC20	8.65	25.49	74.17	BCM Carbonaceous Mudstone Bedding
DC20	8.76	11.18	205.95	BCM Carbonaceous Mudstone Bedding
DC20	10.23	41.69	81.71	BSM Greenland Group Greywacke

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC20	10.43	26.86	69.93	BSM Greenland Group Greywacke
DC20	10.64	25.4	70.17	BSM Greenland Group Greywacke
DC20	10.75	28.38	78.55	BSM Greenland Group Greywacke
DC20	10.91	26.86	83.76	BSM Greenland Group Greywacke
DC20	11.69	9.87	146.83	BSM Greenland Group Greywacke
DC20	12.66	34.54	82.04	BSM Greenland Group Greywacke
DC20	12.77	27.49	90.82	BSM Greenland Group Greywacke
DC20	12.82	20.56	74.31	BSM Greenland Group Greywacke
DC20	13.18	20.66	81.23	BSM Greenland Group Greywacke
DC20	13.31	36.51	65.33	BSM Greenland Group Greywacke
DC22	3.01	28.1	237.79	BCM Sandstone Bedding
DC22	3.11	30.5	246.12	BCM Sandstone Bedding
DC22	3.19	17.53	240.18	BCM Sandstone Bedding
DC22	3.29	21.93	259.41	BCM Sandstone Bedding
DC22	3.38	22.56	223.93	BCM Sandstone Bedding
DC22	3.81	17.93	202.55	BCM Sandstone Bedding
DC22	4.44	12.67	273.05	BCM Sandstone Bedding
DC22	5.37	7.92	210.26	BCM Sandstone Bedding
DC22	5.46	13.17	217.45	BCM Sandstone Bedding
DC22	5.98	7.5	321.83	BCM Sandstone Bedding
DC22	6.23	6.42	145.92	BCM Sandstone Bedding
DC22	6.76	10.59	234.47	BCM Sandstone Bedding
DC22	9.59	28.1	138.89	BCM Carbonaceous Mudstone Bedding
DC22	9.84	11.43	119.12	BCM Carbonaceous Mudstone Bedding
DC22	9.92	21.21	103.29	BCM Carbonaceous Mudstone Bedding
DC22	10.01	16.4	121.4	BCM Sandstone Bedding
DC22	11.03	8.08	218.38	BCM Coal Measures Bedding
DC22	11.58	51.22	101.43	BCM Carbonaceous Mudstone Bedding
DC22	11.8	25.71	111.97	BCM Carbonaceous Mudstone Bedding
DC22	11.85	13.4	207.36	BCM Carbonaceous Mudstone Bedding
DC22	12.17	77.75	75.53	BCM Carbonaceous Mudstone Bedding
DC22	12.34	8.05	233.65	BCM Carbonaceous Mudstone Bedding
DC22	12.54	13.92	206.79	BCM Carbonaceous Mudstone Bedding
DC22	12.67	13.05	243.42	BCM Carbonaceous Mudstone Bedding
DC22	12.86	25.66	206.74	BCM Carbonaceous Mudstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC22	13.03	13.11	211.75	BCM Sandstone Bedding
DC22	13.28	7.76	200.62	BCM Sandstone Bedding
DC22	13.53	10.55	293.71	BCM Sandstone Bedding
DC22	13.67	4.25	186.03	BCM Sandstone Bedding
DC22	13.74	5.94	101.09	BCM Sandstone Bedding
DC22	13.85	25.51	24.21	BCM Sandstone Bedding
DC22	13.96	19.33	280.7	BCM Sandstone Bedding
DC22	14.08	19.37	279.01	BCM Sandstone Bedding
DC22	14.14	13.12	219.83	BCM Sandstone Bedding
DC22	14.24	6.11	149.7	BCM Sandstone Bedding
DC22	14.82	18.38	91.55	BCM Sandstone Bedding
DC22	15.75	28.38	323.03	BCM Sandstone Bedding
DC22	15.84	27.02	303.79	BCM Sandstone Bedding
DC22	16.37	17.82	318.85	BCM Sandstone Bedding
DC22	16.45	27.29	317.91	BCM Sandstone Bedding
DC22	16.73	23.54	114.07	BCM Sandstone Bedding
DC22	17.06	26.59	158.66	BCM Sandstone Bedding
DC22	17.49	12.45	7.48	BCM Sandstone Bedding
DC22	18.19	6.91	336.26	BCM Sandstone Bedding
DC22	18.27	6.09	135.73	BCM Sandstone Bedding
DC22	18.83	15.15	200.63	BCM Sandstone Bedding
DC22	19.02	7.64	245.97	BCM Sandstone Bedding
DC22	19.15	31.84	285.57	BCM Sandstone Bedding
DC22	19.51	2.34	199.19	BCM Sandstone Bedding
DC22	19.63	18.44	234.51	BCM Sandstone Bedding
DC22	19.81	39.05	327.04	BCM Sandstone Bedding
DC22	20.09	22.62	334.24	BCM Sandstone Bedding
DC22	20.38	25.37	341.91	BCM Sandstone Bedding
DC22	20.75	28.89	77.51	BCM Sandstone Bedding
DC22	21.19	9.79	164.16	BCM Coal Measures Bedding
DC22	21.85	24.32	260.47	BCM Coal Measures Bedding
DC22	22.3	6.13	175.86	BCM Sandstone Bedding
DC22	22.62	25.76	51.68	BCM Sandstone Bedding
DC22	22.75	8.53	355.64	BCM Sandstone Bedding
DC22	22.81	17.54	336.2	BCM Sandstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC22	22.87	14.14	330.84	BCM Sandstone Bedding
DC22	22.94	10.49	0.67	BCM Sandstone Bedding
DC22	23.39	1.71	282.38	BCM Sandstone Bedding
DC22	23.51	7.58	122.78	BCM Sandstone Bedding
DC22	23.75	9.79	173.14	BCM Sandstone Bedding
DC22	23.93	15.97	346.7	BSM Greenland Group Greywacke
DC22	24.1	12.99	114.99	BSM Greenland Group Greywacke
DC22	24.21	15.13	219.36	BSM Greenland Group Greywacke
DC22	24.46	8.64	22.1	BSM Greenland Group Greywacke
DC22	25.97	21.91	246.9	BSM Greenland Group Greywacke
DC22	26.81	19.23	18.09	BSM Greenland Group Greywacke
DC22	26.85	10.53	45.09	BSM Greenland Group Greywacke
DC22	27.51	14.39	51.7	BSM Greenland Group Greywacke
DC22	27.58	16.12	26.73	BSM Greenland Group Greywacke
DC22	27.8	3.63	305.68	BSM Greenland Group Greywacke
DC22	28.35	14.32	62.16	BSM Greenland Group Greywacke
DC22	28.55	15.87	28.47	BSM Greenland Group Greywacke
DC22	28.64	51.07	85.54	BSM Greenland Group Greywacke
DC22	28.85	27.37	343.17	BSM Greenland Group Greywacke
DC22	29.13	18.2	314.93	BSM Greenland Group Greywacke
DC22	29.84	7.98	167.67	BSM Greenland Group Greywacke
DC22	30.3	12.61	38.81	BSM Greenland Group Greywacke
DC22	30.73	22.84	24.06	BSM Greenland Group Greywacke
DC22	31.09	19.31	4.81	BSM Greenland Group Greywacke
DC22	31.35	19.37	51.46	BSM Greenland Group Greywacke
DC22	31.45	25.22	48.46	BSM Greenland Group Greywacke
DC22	31.55	19.43	61.96	BSM Greenland Group Greywacke
DC23	9.04	7.89	230.71	BCM Sandstone Bedding
DC23	9.25	9.61	353.65	BCM Sandstone Bedding
DC23	9.45	9.3	198.44	BCM Sandstone Bedding
DC23	9.7	3	181.04	BCM Sandstone Bedding
DC23	9.89	7.82	233.04	BCM Sandstone Bedding
DC23	9.93	4.73	249.1	BCM Sandstone Bedding
DC23	10.2	4.73	241.2	BCM Sandstone Bedding
DC23	10.32	9.01	249.37	BCM Sandstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC23	10.44	10.05	251.06	BCM Sandstone Bedding
DC23	10.48	12.42	277.82	BCM Sandstone Bedding
DC23	10.55	23.15	62.88	BCM Sandstone Bedding
DC23	10.68	15.29	256.4	BCM Sandstone Bedding
DC23	10.77	27.09	254.08	BCM Sandstone Bedding
DC23	12.81	15.17	152.11	BCM Carbonaceous Mudstone Bedding
DC23	13.45	31.37	227.39	BCM Carbonaceous Mudstone Bedding
DC23	13.79	22.73	225.79	BCM Carbonaceous Mudstone Bedding
DC23	14.05	9.19	243.12	BCM Carbonaceous Mudstone Bedding
DC23	14.95	30.26	225.89	BCM Sandstone Bedding
DC23	15.15	15.61	339.64	BCM Sandstone Bedding
DC23	15.2	14.55	149.5	BCM Sandstone Bedding
DC23	15.44	9.59	141.66	BCM Sandstone Bedding
DC23	16.02	27.1	199.83	BCM Sandstone Bedding
DC23	16.27	6.28	143.41	BCM Sandstone Bedding
DC23	16.63	14.57	181.42	BCM Sandstone Bedding
DC23	16.83	13.02	147.13	BCM Sandstone Bedding
DC23	17.62	10.79	167.72	BCM Sandstone Bedding
DC23	17.87	13.33	138.62	BCM Sandstone Bedding
DC23	18.05	18.77	260.3	BCM Sandstone Bedding
DC23	18.25	15.9	213.18	BCM Sandstone Bedding
DC23	18.78	20.92	133.29	BCM Sandstone Bedding
DC23	19.78	13.07	173.22	BCM Sandstone Bedding
DC23	19.96	6.91	285.48	BCM Sandstone Bedding
DC23	20.04	21.82	229.5	BCM Sandstone Bedding
DC23	20.11	19.65	220.35	BCM Sandstone Bedding
DC23	20.17	27.99	232.5	BCM Sandstone Bedding
DC23	20.26	26.68	242.62	BCM Sandstone Bedding
DC23	20.66	22.34	187.38	BCM Sandstone Bedding
DC23	21.16	16.12	318.91	BCM Sandstone Bedding
DC23	21.75	17.28	235.86	BCM Sandstone Bedding
DC23	21.82	39.47	251.83	BCM Sandstone Bedding
DC23	21.91	22.88	305.27	BCM Sandstone Bedding
DC23	22.03	22.27	225.85	BCM Sandstone Bedding
DC23	22.14	27.1	270.67	BCM Sandstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC23	22.86	18.2	303.36	BCM Sandstone Bedding
DC23	23.44	63.82	44.28	Crush Zone
DC23	23.63	43.74	30.5	Crush Zone
DC23	23.75	34.46	203.12	Crush Zone
DC23	24.14	11.93	240.61	BCM Coal Measures Bedding
DC23	24.68	6.46	145.02	BCM Coal Measures Bedding
DC23	25.65	10.92	138.37	BCM Coal Measures Bedding
DC23	26.04	18.28	113.07	BCM Coal Measures Bedding
DC23	26.64	43.39	155.88	BCM Coal Measures Bedding
DC23	27.08	9.44	88.45	BCM Coal Measures Bedding
DC23	28.24	9.4	81.21	BCM Coal Measures Bedding
DC23	28.6	7.98	355.14	BCM Coal Measures Bedding
DC23	29.8	4.7	149.52	BCM Coal Measures Bedding
DC23	30.21	7.2	106.99	BCM Coal Measures Bedding
DC23	31.24	15.89	54.83	BCM Coal Measures Bedding
DC23	31.57	15.93	221.09	BCM Coal Measures Bedding
DC23	32.33	12.85	167.95	BCM Coal Measures Bedding
DC23	32.46	12.6	164.24	BCM Coal Measures Bedding
DC23	32.59	25.71	179.15	BCM Coal Measures Bedding
DC23	32.83	31.31	21.2	BCM Coal Measures Bedding
DC23	36.41	18.3	90.4	BCM Coal Measures Bedding
DC23	36.47	13.36	141.19	BCM Coal Measures Bedding
DC23	36.6	22.39	190.58	BCM Coal Measures Bedding
DC23	36.82	34.96	132.24	BCM Coal Measures Bedding
DC23	38.86	27.5	352	BCM Sandstone Bedding
DC23	39.7	9.04	186.17	BCM Sandstone Bedding
DC24	7.26	30.14	107.53	BCM Sandstone Bedding
DC24	7.4	44.39	110.21	BCM Sandstone Bedding
DC24	7.55	35.04	108	BCM Sandstone Bedding
DC24	7.85	30.59	144.86	BCM Sandstone Bedding
DC24	8.34	17.07	138.75	BCM Sandstone Bedding
DC24	8.56	15.6	146.81	BCM Sandstone Bedding
DC24	8.75	19.92	94.21	BCM Sandstone Bedding
DC24	9.94	39.51	152.17	BCM Sandstone Bedding
DC24	10.21	31.98	138.24	BCM Sandstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC24	10.37	41.35	146.41	BCM Sandstone Bedding
DC24	10.72	32.76	231.76	BCM Sandstone Bedding
DC24	10.99	44.34	223.32	BCM Sandstone Bedding
DC24	11.59	11.91	139.46	BCM Sandstone Bedding
DC24	11.7	12.32	159.91	BCM Sandstone Bedding
DC24	11.85	10.39	157.39	BCM Sandstone Bedding
DC24	12.09	26.33	133.46	BCM Sandstone Bedding
DC24	12.19	28.06	145.82	BCM Sandstone Bedding
DC24	14.54	12.12	152.42	BCM Carbonaceous Mudstone Bedding
DC24	14.93	26.19	118.28	BCM Carbonaceous Mudstone Bedding
DC24	16.42	22.48	151.32	BCM Coal Measures Bedding
DC24	16.59	22.98	173.79	BCM Coal Measures Bedding
DC24	17.05	22.78	171.55	BCM Coal Measures Bedding
DC24	17.33	38.93	24.26	BCM Carbonaceous Mudstone Bedding
DC24	17.39	39.67	26.69	BCM Carbonaceous Mudstone Bedding
DC24	17.41	34.29	62.79	BCM Carbonaceous Mudstone Bedding
DC24	17.53	39.37	140.24	BCM Carbonaceous Mudstone Bedding
DC24	17.69	30.42	93.72	BCM Carbonaceous Mudstone Bedding
DC24	17.8	44.89	111.87	BCM Coal Measures Bedding
DC24	17.91	50.32	75.02	BCM Coal Measures Bedding
DC24	18.04	11.42	199.47	BCM Carbonaceous Mudstone Bedding
DC24	18.44	23.69	326.3	BCM Carbonaceous Mudstone Bedding
DC24	18.55	6.31	325.52	BCM Carbonaceous Mudstone Bedding
DC24	18.68	22.69	174.04	BCM Carbonaceous Mudstone Bedding
DC24	18.78	12.3	160.6	BCM Coal Measures Bedding
DC24	19.05	24.58	191.14	BCM Coal Measures Bedding
DC24	19.18	28.57	165.85	BCM Coal Measures Bedding
DC24	19.33	32.13	192.65	BCM Coal Measures Bedding
DC24	19.53	27.22	174.47	BCM Coal Measures Bedding
DC24	20.35	18.73	280.2	BCM Coal Measures Bedding
DC24	21.78	11.91	317.78	BSM Greenland Group Greywacke
DC24	22.11	13.37	64.02	BSM Greenland Group Greywacke
DC24	22.86	48.45	136.1	BSM Greenland Group Greywacke
DC26	3.46	20.49	120.42	BCM Sandstone Bedding
DC26	3.73	24.32	31.53	BCM Sandstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC26	4.84	20.92	139.87	BCM Carbonaceous Mudstone Bedding
DC26	4.94	6.83	36.59	BCM Carbonaceous Mudstone Bedding
DC26	5.02	10.57	16.79	BCM Carbonaceous Mudstone Bedding
DC26	5.29	8.55	159.16	BCM Carbonaceous Mudstone Bedding
DC26	5.5	19.47	116.03	BCM Carbonaceous Mudstone Bedding
DC26	7.37	27.37	131.1	BCM Sandstone Bedding
DC26	7.46	29.79	143.26	BCM Sandstone Bedding
DC26	7.53	30.61	87.08	BCM Sandstone Bedding
DC26	7.74	37.07	281.76	BCM Sandstone Bedding
DC26	8.05	9.85	125.11	BCM Sandstone Bedding
DC26	8.18	16.71	99.98	BCM Sandstone Bedding
DC26	8.41	14.04	81.77	BCM Coal Measures Bedding
DC26	9.1	6.94	111.59	BCM Coal Measures Bedding
DC26	10.56	20.47	1.7	BCM Carbonaceous Mudstone Bedding
DC26	11.16	42.25	20.82	BCM Carbonaceous Mudstone Bedding
DC26	11.81	22.72	15.85	BCM Carbonaceous Mudstone Bedding
DC26	12.56	21	105.42	BCM Carbonaceous Mudstone Bedding
DC26	12.69	26.22	97.03	BCM Carbonaceous Mudstone Bedding
DC26	12.72	34.22	95.08	BCM Carbonaceous Mudstone Bedding
DC26	13.29	25.69	264.17	BCM Carbonaceous Mudstone Bedding
DC26	13.46	19.09	20.06	BCM Carbonaceous Mudstone Bedding
DC26	13.55	14.91	19.84	BCM Carbonaceous Mudstone Bedding
DC26	13.62	15.64	61.19	BCM Carbonaceous Mudstone Bedding
DC26	13.83	12.91	49.39	BCM Carbonaceous Mudstone Bedding
DC26	15.18	29.76	58.26	BCM Coal Measures Bedding
DC26	15.32	8.66	241.46	BCM Coal Measures Bedding
DC26	15.64	5.01	331.5	BCM Sandstone Bedding
DC26	15.76	4.38	172.25	BCM Sandstone Bedding
DC26	17.61	10.04	46.25	BCM Coal Measures Bedding
DC26	17.66	18.81	50.79	BCM Sandstone Bedding
DC26	18.09	7.32	272.09	BCM Sandstone Bedding
DC26	18.29	22.62	59.19	BCM Carbonaceous Mudstone Bedding
DC26	18.37	3.66	226.08	BCM Carbonaceous Mudstone Bedding
DC26	18.67	5.06	88.55	BCM Carbonaceous Mudstone Bedding
DC26	18.75	14.53	46.91	BCM Carbonaceous Mudstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC26	18.8	18.99	37.67	BCM Coal Measures Bedding
DC26	18.92	16.28	35.3	BCM Coal Measures Bedding
DC26	19.02	26.87	321.82	BCM Coal Measures Bedding
DC26	19.23	15.92	333.59	BCM Coal Measures Bedding
DC26	19.56	30.36	232.34	BCM Coal Measures Bedding
DC26	19.68	33.06	250.13	BSM Greenland Group Greywacke
DC26	19.85	16.93	351.99	BSM Greenland Group Greywacke
DC26	19.98	26.68	152.58	BSM Greenland Group Greywacke
DC26	20.2	29.4	175.07	BSM Greenland Group Greywacke
DC26	20.33	37.06	84	BSM Greenland Group Greywacke
DC26	20.71	18.8	233.21	BSM Greenland Group Greywacke
DC26	21.08	9.49	113.34	BSM Greenland Group Greywacke
DC26	21.26	13.26	255.99	BSM Greenland Group Greywacke
DC26	22.06	14.69	187.16	BSM Greenland Group Greywacke
DC26	22.18	22.05	209.63	BSM Greenland Group Greywacke
DC26	22.3	15.72	333.71	BSM Greenland Group Greywacke
DC27	6.1	7.55	159.36	BCM Sandstone Bedding
DC27	6.14	5.68	164.67	BCM Sandstone Bedding
DC27	6.39	7.61	150.94	BCM Sandstone Bedding
DC27	6.95	7.02	219.7	BCM Sandstone Bedding
DC27	7.04	8.76	285.5	BCM Sandstone Bedding
DC27	7.08	5.12	288.47	BCM Carbonaceous Mudstone Bedding
DC27	7.45	10.52	256.11	BCM Carbonaceous Mudstone Bedding
DC27	7.63	11.16	174.18	BCM Carbonaceous Mudstone Bedding
DC27	7.76	14.43	2.9	BCM Carbonaceous Mudstone Bedding
DC27	7.94	12.98	166.98	BCM Sandstone Bedding
DC27	8	10.59	318.11	BCM Sandstone Bedding
DC27	8.09	19.97	56.2	BCM Sandstone Bedding
DC27	8.19	8.74	277.21	BCM Sandstone Bedding
DC27	8.62	8.78	264.72	BCM Sandstone Bedding
DC27	8.65	6.95	286.76	BCM Sandstone Bedding
DC27	8.75	12.37	284.19	BCM Sandstone Bedding
DC27	9	14.05	294.89	BCM Sandstone Bedding
DC27	9.1	17.6	315.75	BCM Sandstone Bedding
DC27	9.19	14.02	286.06	BCM Sandstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC27	9.35	7.05	340.85	BCM Sandstone Bedding
DC27	9.49	12.5	339.26	BCM Sandstone Bedding
DC27	9.6	14.11	321.35	BCM Sandstone Bedding
DC27	9.68	14.41	347.38	BCM Sandstone Bedding
DC27	9.8	15.86	311.86	BCM Sandstone Bedding
DC27	9.88	14.22	317.82	BCM Sandstone Bedding
DC27	9.94	14.28	337.31	BCM Sandstone Bedding
DC27	10.05	15.95	326.33	BCM Sandstone Bedding
DC27	10.1	15.88	312.31	BCM Sandstone Bedding
DC27	10.23	17.61	326.09	BCM Sandstone Bedding
DC27	10.32	14.28	331.8	BCM Sandstone Bedding
DC27	10.42	7.85	122.18	BCM Sandstone Bedding
DC27	10.51	16.69	130.3	BCM Sandstone Bedding
DC27	10.68	18.48	95.48	BCM Sandstone Bedding
DC27	10.88	6.88	237.2	BCM Sandstone Bedding
DC27	10.98	17.76	210.94	BCM Sandstone Bedding
DC27	11.56	14.18	246.64	BCM Sandstone Bedding
DC27	11.7	8.65	308.88	BCM Sandstone Bedding
DC27	12.08	8.85	306.11	BCM Sandstone Bedding
DC27	12.25	7.16	246.01	BCM Sandstone Bedding
DC27	12.37	10.74	270.22	BCM Sandstone Bedding
DC27	12.5	7.39	195.8	BCM Sandstone Bedding
DC27	12.66	17.69	277.12	BCM Sandstone Bedding
DC27	13.14	9.79	100.74	BCM Sandstone Bedding
DC27	13.21	34.75	76.97	BCM Sandstone Bedding
DC27	13.32	25.27	301.14	BCM Sandstone Bedding
DC27	13.45	12.24	306.98	BCM Sandstone Bedding
DC27	13.51	20.7	297.77	BCM Sandstone Bedding
DC27	13.58	17.4	297.82	BCM Sandstone Bedding
DC27	13.69	19.07	294.47	BCM Sandstone Bedding
DC27	13.96	15.93	326.29	BCM Sandstone Bedding
DC27	14.35	8.96	327.64	BCM Sandstone Bedding
DC27	14.77	14.4	345.71	BCM Sandstone Bedding
DC27	14.97	22.48	310.23	BCM Sandstone Bedding
DC27	15.07	5.16	317.97	BCM Sandstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC27	15.21	18.11	160.69	BCM Sandstone Bedding
DC27	15.45	19.21	320.79	BCM Sandstone Bedding
DC27	15.77	10.65	307.2	BCM Sandstone Bedding
DC27	15.8	8.93	323.53	BCM Sandstone Bedding
DC27	15.86	6.99	292.87	BCM Sandstone Bedding
DC27	16.27	5.75	166	BCM Sandstone Bedding
DC27	16.74	12.49	317.06	BCM Sandstone Bedding
DC27	16.83	8.8	299.05	BCM Sandstone Bedding
DC27	16.92	8.82	310.54	BCM Sandstone Bedding
DC27	17.06	20.72	254.75	BCM Sandstone Bedding
DC27	17.19	19.19	259.91	BCM Sandstone Bedding
DC27	17.66	21.07	254.36	BCM Sandstone Bedding
DC27	18.15	14.28	257.33	BCM Sandstone Bedding
DC27	18.19	15.88	269.82	BCM Coal Measures Bedding
DC27	18.3	27.44	254.33	BCM Coal Measures Bedding
DC27	18.68	19.33	308.55	BCM Coal Measures Bedding
DC27	19.29	11.5	123.26	BCM Coal Measures Bedding
DC27	19.56	27.06	238.88	BSM Greenland Group Greywacke
DC27	20.94	14.97	93.68	BCM Sandstone Bedding
DC27	24.33	18.07	329.35	BSM Greenland Group Greywacke
DC27	24.69	18.13	322.17	BSM Greenland Group Greywacke
DC30	5.62	8.15	206.94	BCM Sandstone Bedding
DC30	6.19	11.24	216.86	BCM Sandstone Bedding
DC30	6.23	2.72	268.72	BCM Sandstone Bedding
DC30	6.28	23.35	276.09	BCM Sandstone Bedding
DC30	6.39	10.64	231.54	BCM Sandstone Bedding
DC30	6.83	34.91	260.92	BCM Sandstone Bedding
DC30	6.92	24.22	248.89	BCM Sandstone Bedding
DC30	7.14	17.04	205.3	BCM Sandstone Bedding
DC30	7.21	12.51	186.48	BCM Sandstone Bedding
DC30	7.39	18.49	221.06	BCM Sandstone Bedding
DC30	7.52	11.74	225.09	BCM Sandstone Bedding
DC30	7.63	16.35	240.34	BCM Sandstone Bedding
DC30	7.76	8.33	208.66	BCM Sandstone Bedding
DC30	7.99	42.29	236.39	BCM Sandstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC30	8.09	26.94	204.52	BCM Sandstone Bedding
DC30	8.25	15.7	263.44	BCM Sandstone Bedding
DC30	8.28	20.55	256.44	BCM Sandstone Bedding
DC30	8.5	8.62	189.05	BCM Sandstone Bedding
DC30	8.77	6.71	187.74	BCM Sandstone Bedding
DC30	9.03	5.8	220.25	BCM Sandstone Bedding
DC30	9.13	11.79	265.55	BCM Sandstone Bedding
DC30	9.25	8.26	201.04	BCM Sandstone Bedding
DC30	9.56	8.96	166.36	BCM Sandstone Bedding
DC30	9.7	18.9	260.47	BCM Sandstone Bedding
DC30	9.83	10.31	194.66	BCM Sandstone Bedding
DC30	10	8.97	166.63	BCM Sandstone Bedding
DC30	10.24	2.49	279.98	BCM Sandstone Bedding
DC30	10.42	8.14	93.04	BCM Sandstone Bedding
DC30	10.62	9.47	220.45	BCM Sandstone Bedding
DC30	11.02	13.22	217.27	BCM Sandstone Bedding
DC30	11.09	7.01	171.08	BCM Sandstone Bedding
DC30	11.22	7.2	141.64	BCM Sandstone Bedding
DC30	11.32	12.06	194.94	BCM Sandstone Bedding
DC30	11.35	10.14	207.42	BCM Sandstone Bedding
DC30	11.87	5.58	138.79	BCM Sandstone Bedding
DC30	12.33	13.14	214.17	BCM Sandstone Bedding
DC30	12.47	19.6	149.92	BCM Carbonaceous Mudstone Bedding
DC30	12.68	9.14	164.14	BCM Carbonaceous Mudstone Bedding
DC30	12.75	7.82	215.67	BCM Carbonaceous Mudstone Bedding
DC30	12.88	8.2	199.91	BCM Carbonaceous Mudstone Bedding
DC30	13.02	7.99	208.04	BCM Carbonaceous Mudstone Bedding
DC30	13.15	7.37	228.39	BCM Carbonaceous Mudstone Bedding
DC30	13.32	8.2	201.12	BCM Carbonaceous Mudstone Bedding
DC30	13.41	10.61	184	BCM Carbonaceous Mudstone Bedding
DC30	13.55	8.17	203.85	BCM Carbonaceous Mudstone Bedding
DC30	13.61	10.51	187.44	BCM Carbonaceous Mudstone Bedding
DC30	13.65	9.95	206.05	BCM Carbonaceous Mudstone Bedding
DC30	13.75	9.58	215.92	BCM Carbonaceous Mudstone Bedding
DC30	13.85	7.82	216.95	BCM Carbonaceous Mudstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC30	13.9	4.5	254.97	BCM Coal Measures Bedding
DC30	14.58	10.13	197.79	BCM Carbonaceous Mudstone Bedding
DC30	14.62	12.15	192.02	BCM Carbonaceous Mudstone Bedding
DC30	14.74	7.09	236.47	BCM Carbonaceous Mudstone Bedding
DC30	14.82	8.18	201.04	BCM Carbonaceous Mudstone Bedding
DC30	14.95	10.59	179.71	BCM Carbonaceous Mudstone Bedding
DC30	15.03	12.02	194.14	BCM Carbonaceous Mudstone Bedding
DC30	15.22	10.55	183.54	BCM Carbonaceous Mudstone Bedding
DC30	15.3	11.89	197.28	BCM Carbonaceous Mudstone Bedding
DC30	15.43	7.37	152.36	BCM Carbonaceous Mudstone Bedding
DC30	15.47	7.4	148.6	BCM Coal Measures Bedding
DC30	16.94	1.93	343.28	BCM Coal Measures Bedding
DC30	18.84	8.99	134.85	BCM Coal Measures Bedding
DC30	18.93	7.33	159.84	BCM Coal Measures Bedding
DC30	18.96	7.29	148.05	BCM Coal Measures Bedding
DC30	19.01	8.39	195.99	BCM Coal Measures Bedding
DC30	19.16	6.77	241.63	BCM Coal Measures Bedding
DC30	19.33	12.69	152.89	BCM Coal Measures Bedding
DC30	19.43	8.34	92.36	BCM Coal Measures Bedding
DC30	19.56	5.53	163.34	BCM Coal Measures Bedding
DC30	19.66	9.22	150.33	BCM Coal Measures Bedding
DC30	19.85	12.11	193.87	BCM Coal Measures Bedding
DC30	20	19.63	130.68	BCM Coal Measures Bedding
DC30	20.15	3.67	341.94	BCM Coal Measures Bedding
DC30	20.27	6.28	27.29	BCM Coal Measures Bedding
DC30	20.31	6.83	104.97	BCM Carbonaceous Mudstone Bedding
DC30	20.89	7.62	70.79	BCM Carbonaceous Mudstone Bedding
DC30	21.35	5.6	148.72	BCM Carbonaceous Mudstone Bedding
DC30	21.84	5.61	66.49	BCM Carbonaceous Mudstone Bedding
DC30	22	3.66	313.44	BCM Carbonaceous Mudstone Bedding
DC30	22.11	11.59	265.71	BCM Carbonaceous Mudstone Bedding
DC30	22.17	7.15	171.44	BCM Carbonaceous Mudstone Bedding
DC30	23.09	7.42	152.94	BCM Coal Measures Bedding
DC30	23.5	5.66	155.05	BCM Coal Measures Bedding
DC30	25.41	7.69	144.91	BCM Coal Measures Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC30	25.54	7.55	125.31	BCM Coal Measures Bedding
DC30	25.78	9.13	107.05	BCM Coal Measures Bedding
DC30	27.17	1.64	341.24	BCM Coal Measures Bedding
DC30	27.72	2.1	132.7	BCM Coal Measures Bedding
DC30	28.83	3.5	138.53	BCM Coal Measures Bedding
DC30	28.87	3.46	142.5	BCM Coal Measures Bedding
DC30	29.49	4.49	103.99	BCM Coal Measures Bedding
DC30	31.2	5.37	155.58	BCM Coal Measures Bedding
DC30	31.61	1.13	347.74	BCM Coal Measures Bedding
DC30	31.85	4.65	0.52	BCM Coal Measures Bedding
DC30	31.95	2.59	45.28	BCM Coal Measures Bedding
DC30	32.15	5.68	144.86	BCM Coal Measures Bedding
DC30	33.96	9.25	150.67	BCM Coal Measures Bedding
DC30	34.02	8.64	178.2	BCM Coal Measures Bedding
DC30	34.13	21.58	110.8	BCM Coal Measures Bedding
DC30	34.22	13.06	114.67	BCM Sandstone Bedding
DC30	34.46	12.74	96.84	BCM Sandstone Bedding
DC30	34.48	12.71	101.05	BCM Sandstone Bedding
DC30	34.54	9.34	156.26	BCM Sandstone Bedding
DC30	34.62	13.12	155.1	BCM Sandstone Bedding
DC30	34.95	7	175.06	BCM Sandstone Bedding
DC30	35.24	8.75	179.38	BCM Sandstone Bedding
DC30	35.55	8.61	183.82	BCM Sandstone Bedding
DC30	36.35	7.01	174.08	BCM Sandstone Bedding
DC30	36.63	40.48	189.71	BCM Sandstone Bedding
DC30	38.1	4.84	180.66	BCM Sandstone Bedding
DC30	38.31	13.82	196.46	BCM Sandstone Bedding
DC30	39.15	7.52	157.63	BCM Sandstone Bedding
DC30	39.65	7.75	150.12	BCM Sandstone Bedding
DC30	40.13	4.31	119.97	BCM Sandstone Bedding
DC31	2.32	5.44	319.37	BCM Coal Measures Bedding
DC31	2.42	19.42	309.36	BCM Coal Measures Bedding
DC31	2.55	23.17	88.2	BCM Coal Measures Bedding
DC31	2.64	26.9	91.3	BCM Coal Measures Bedding
DC31	2.89	8.03	264.17	BCM Coal Measures Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC31	3.18	18.66	271.34	BCM Sandstone Bedding
DC31	3.24	19.14	180.05	BCM Sandstone Bedding
DC31	3.7	22.48	185.25	BCM Sandstone Bedding
DC31	3.77	22.3	181.67	BCM Sandstone Bedding
DC31	3.88	13.99	181.52	BCM Sandstone Bedding
DC31	4	35.43	227.66	BCM Sandstone Bedding
DC31	4.54	8.37	264.27	BCM Carbonaceous Mudstone Bedding
DC31	4.78	6.35	284.74	BCM Carbonaceous Mudstone Bedding
DC31	5.78	9.27	302.91	BCM Coal Measures Bedding
DC31	5.91	10.65	52.11	BCM Coal Measures Bedding
DC31	6.14	18.88	259.87	BCM Sandstone Bedding
DC31	6.81	17.24	232.9	BCM Sandstone Bedding
DC31	7.29	26.72	165.5	BCM Sandstone Bedding
DC31	7.48	32.06	162.96	BCM Sandstone Bedding
DC31	9.39	25.89	253.98	BCM Sandstone Bedding
DC31	10.33	28.8	242.43	BCM Sandstone Bedding
DC31	10.43	34.24	237.39	BCM Sandstone Bedding
DC31	10.57	16.97	341.88	BCM Sandstone Bedding
DC31	11.09	44.9	225.96	BCM Sandstone Bedding
DC31	11.18	38.85	237.5	BCM Sandstone Bedding
DC31	11.35	38.7	242.65	BCM Sandstone Bedding
DC31	11.78	29.62	269.34	BCM Sandstone Bedding
DC31	11.86	26.98	262.31	BCM Sandstone Bedding
DC31	11.96	39	243.16	BCM Sandstone Bedding
DC31	12.12	30.86	282.22	BCM Sandstone Bedding
DC31	12.2	29.84	263.95	BCM Sandstone Bedding
DC31	12.28	30.03	261.14	BCM Sandstone Bedding
DC31	12.36	35.71	260.93	BCM Sandstone Bedding
DC31	12.4	7.53	319.48	BCM Sandstone Bedding
DC31	13.77	19.3	242.92	BCM Coal Measures Bedding
DC31	13.95	4.39	22.3	BCM Coal Measures Bedding
DC31	14.27	36.66	229.37	BCM Coal Measures Bedding
DC31	14.35	6.27	10.59	BCM Coal Measures Bedding
DC31	15.44	14.52	327.78	BCM Coal Measures Bedding
DC31	16.43	4.98	146.68	BCM Coal Measures Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC31	19.94	24.78	180.29	BCM Sandstone Bedding
DC31	20.15	8.93	324.73	BCM Sandstone Bedding
DC31	20.27	12.4	322.98	BCM Sandstone Bedding
DC31	20.67	18.04	170.04	BCM Sandstone Bedding
DC31	20.85	20.9	145.61	BCM Sandstone Bedding
DC31	23.6	7.87	176.15	BCM Sandstone Bedding
DC31	23.7	4.93	199.41	BCM Sandstone Bedding
DC31	23.89	7.74	161.34	BCM Sandstone Bedding
DC31	23.98	7.05	138.54	BCM Sandstone Bedding
DC31	24.06	9.27	149.56	BCM Sandstone Bedding
DC31	24.21	13.32	175.44	BCM Sandstone Bedding
DC31	24.3	39.47	162.89	BCM Sandstone Bedding
DC31	24.44	12.28	234.73	BCM Sandstone Bedding
DC31	24.59	27.64	156.89	BCM Sandstone Bedding
DC31	24.73	17.96	319.34	BCM Sandstone Bedding
DC31	25.23	28.3	124.77	BCM Sandstone Bedding
DC31	25.95	46.43	35.07	BSM Greenland Group Greywacke
DC31	26.36	29.77	317.34	BSM Greenland Group Greywacke
DC31	26.61	25.19	16.25	BSM Greenland Group Greywacke
DC31	26.98	11.83	73.09	BSM Greenland Group Greywacke
DC31	27.31	23.46	334.34	BSM Greenland Group Greywacke
DC32	8.52	10.44	145.56	BCM Sandstone Bedding
DC32	8.63	12.22	135.86	BCM Sandstone Bedding
DC32	8.83	11.53	296.52	BCM Sandstone Bedding
DC32	8.89	4.89	118.59	BCM Sandstone Bedding
DC32	9.16	4.59	81.63	BCM Sandstone Bedding
DC32	9.22	5.35	345.61	BCM Carbonaceous Mudstone Bedding
DC32	9.31	4.36	262.27	BCM Carbonaceous Mudstone Bedding
DC32	9.34	6.21	217.51	BCM Carbonaceous Mudstone Bedding
DC32	9.53	13.73	48.25	BCM Carbonaceous Mudstone Bedding
DC32	9.81	18.22	312.82	BCM Carbonaceous Mudstone Bedding
DC32	9.88	11.15	319.91	BCM Carbonaceous Mudstone Bedding
DC32	10.01	5.05	119.1	BCM Carbonaceous Mudstone Bedding
DC32	10.31	6.63	68.84	BCM Carbonaceous Mudstone Bedding
DC32	10.82	7.29	340.1	BCM Carbonaceous Mudstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC32	13.71	4.99	126.22	BCM Sandstone Bedding
DC32	13.83	11.26	337.01	BCM Sandstone Bedding
DC32	14.44	6.07	213.98	BCM Sandstone Bedding
DC32	15.32	9.68	289.05	BCM Sandstone Bedding
DC32	15.56	43.17	283.38	BCM Sandstone Bedding
DC32	16.72	14.49	141.36	BCM Sandstone Bedding
DC32	16.87	19.8	154.39	BCM Sandstone Bedding
DC32	18.53	16.93	221.59	BCM Carbonaceous Mudstone Bedding
DC32	18.75	14.84	306.29	BCM Carbonaceous Mudstone Bedding
DC32	18.83	16.29	333.25	BCM Carbonaceous Mudstone Bedding
DC32	19.03	14.57	332.61	BCM Carbonaceous Mudstone Bedding
DC32	19.3	5.78	182.63	BCM Carbonaceous Mudstone Bedding
DC32	19.68	6.15	263.12	BCM Carbonaceous Mudstone Bedding
DC32	19.82	1.18	78.73	BCM Carbonaceous Mudstone Bedding
DC32	20.22	7.23	344.57	BCM Sandstone Bedding
DC32	20.52	7.54	313.66	BCM Sandstone Bedding
DC32	20.91	7.53	163.29	BCM Sandstone Bedding
DC32	21.12	10.72	112.67	BCM Sandstone Bedding
DC32	21.38	34.41	332.86	BCM Sandstone Bedding
DC32	21.72	6.94	57.63	BCM Sandstone Bedding
DC32	21.96	5	58.4	BCM Coal Measures Bedding
DC32	22.26	10.68	70.15	BCM Coal Measures Bedding
DC32	22.4	10.68	80.62	BCM Coal Measures Bedding
DC32	22.73	6.91	67.47	BCM Coal Measures Bedding
DC32	23.2	9.67	275.35	BCM Coal Measures Bedding
DC32	23.61	5.79	303.27	BCM Coal Measures Bedding
DC32	24.08	8.79	48.62	BCM Coal Measures Bedding
DC32	24.25	10.82	78.63	BCM Coal Measures Bedding
DC32	24.73	2.03	177.76	BCM Coal Measures Bedding
DC32	25.67	10.95	136.75	BCM Coal Measures Bedding
DC32	25.78	1.78	135.74	BSM Greenland Group Greywacke
DC32	26.57	9.45	187.99	BSM Greenland Group Greywacke
DC32	27.2	7	103.11	BCM Sandstone Bedding
DC32	28.07	5.18	30.16	BCM Sandstone Bedding
DC32	28.27	5.25	6.35	BCM Sandstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC32	28.39	17.98	337.5	BCM Sandstone Bedding
DC32	28.53	28.76	358.5	BSM Greenland Group Greywacke
DC32	28.59	30.19	5.38	BSM Greenland Group Greywacke
DC32	28.68	25.92	336.41	BSM Greenland Group Greywacke
DC32	28.76	7.71	256.28	BSM Greenland Group Greywacke
DC32	28.82	21.03	25.84	BSM Greenland Group Greywacke
DC32	29.34	3.34	20.15	BSM Greenland Group Greywacke
DC32	29.55	1.92	345.88	BSM Greenland Group Greywacke
DC32	29.91	12.76	339.11	BSM Greenland Group Greywacke
DC32	30	14.71	340.63	BSM Greenland Group Greywacke
DC32	30.17	16.63	342.63	BSM Greenland Group Greywacke
DC32	30.52	1.4	95.7	BSM Greenland Group Greywacke
DC32	30.72	5.44	131.15	BSM Greenland Group Greywacke
DC34	10.29	2.86	169.67	BCM Sandstone Bedding
DC34	10.39	13.2	153.88	BCM Sandstone Bedding
DC34	10.46	21.73	162.61	BCM Sandstone Bedding
DC34	10.55	15.26	172.68	BCM Sandstone Bedding
DC34	10.62	13.19	174.98	BCM Sandstone Bedding
DC34	11.49	11.43	68.75	BCM Coal Measures Bedding
DC34	11.53	14.98	346.97	BCM Coal Measures Bedding
DC34	11.62	3.54	313.66	BCM Coal Measures Bedding
DC34	11.99	7.25	141.81	BCM Coal Measures Bedding
DC34	12.16	7.36	156.64	BCM Coal Measures Bedding
DC34	12.19	7.44	153.52	BCM Coal Measures Bedding
DC34	13.3	4.1	277.18	BCM Coal Measures Bedding
DC34	13.42	16.83	64.4	BCM Coal Measures Bedding
DC34	13.58	3.93	202.18	BCM Coal Measures Bedding
DC34	13.76	1.7	131.4	BCM Coal Measures Bedding
DC34	14.13	16.47	283.19	BCM Coal Measures Bedding
DC34	14.57	4.55	76.48	BCM Coal Measures Bedding
DC34	15.05	6.61	19.36	BCM Coal Measures Bedding
DC34	15.23	1.8	130.5	BCM Coal Measures Bedding
DC34	16.76	5.52	139.9	BCM Coal Measures Bedding
DC34	17.65	11.7	192.69	BCM Coal Measures Bedding
DC34	17.72	11.93	240.58	BCM Carbonaceous Mudstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC34	17.94	11.9	242.39	BCM Carbonaceous Mudstone Bedding
DC34	18.02	16.82	257.07	BCM Carbonaceous Mudstone Bedding
DC34	18.74	20.4	245.36	BCM Carbonaceous Mudstone Bedding
DC34	19.13	9.46	260.44	BCM Carbonaceous Mudstone Bedding
DC34	19.18	10.83	220.9	BCM Carbonaceous Mudstone Bedding
DC34	19.24	19.49	223.94	BCM Carbonaceous Mudstone Bedding
DC34	19.42	8.65	227.6	BCM Carbonaceous Mudstone Bedding
DC34	19.61	11.91	242.45	BCM Carbonaceous Mudstone Bedding
DC34	19.67	10.68	223.21	BCM Carbonaceous Mudstone Bedding
DC34	19.79	29.9	231.47	BCM Carbonaceous Mudstone Bedding
DC34	19.86	28.07	198.56	BCM Carbonaceous Mudstone Bedding
DC34	19.94	10.03	186.89	BCM Carbonaceous Mudstone Bedding
DC34	20.02	20.65	15.9	BCM Carbonaceous Mudstone Bedding
DC34	20.58	5.11	161.91	BCM Carbonaceous Mudstone Bedding
DC34	20.95	7.27	149.02	BCM Carbonaceous Mudstone Bedding
DC34	21.27	8.4	179.39	BCM Carbonaceous Mudstone Bedding
DC34	21.78	19.54	159.44	BCM Carbonaceous Mudstone Bedding
DC34	21.83	8.78	162.05	BCM Carbonaceous Mudstone Bedding
DC34	22.87	11.23	261.59	BSM Greenland Group Greywacke
DC34	23.06	16.53	338.86	BCM Carbonaceous Mudstone Bedding
DC34	23.89	17.28	4.16	BSM Greenland Group Greywacke
DC34	24.03	26.33	355.21	BSM Greenland Group Greywacke
DC34	24.06	25.04	0.88	BSM Greenland Group Greywacke
DC34	24.12	17.27	2.64	BSM Greenland Group Greywacke
DC34	24.23	9.37	37.66	BSM Greenland Group Greywacke
DC34	24.77	35.82	204.08	BSM Greenland Group Greywacke
DC37	3.02	26.17	30.12	BCM Sandstone Bedding
DC37	3.08	14.99	31.2	BCM Sandstone Bedding
DC37	3.22	17.22	358.55	BCM Sandstone Bedding
DC37	3.38	25.8	67.74	BCM Sandstone Bedding
DC37	3.51	14.79	67.39	BCM Sandstone Bedding
DC37	3.6	21.33	71.2	BCM Sandstone Bedding
DC37	3.77	24.4	90.8	BCM Sandstone Bedding
DC37	3.96	26.1	14.18	BCM Sandstone Bedding
DC37	4.12	16.33	46.74	BCM Sandstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC37	4.23	21.75	131.62	BCM Sandstone Bedding
DC37	4.42	20.82	333.58	BCM Sandstone Bedding
DC37	4.51	24.45	19.69	BCM Sandstone Bedding
DC37	4.7	27.73	349.93	BCM Sandstone Bedding
DC37	4.79	18.76	2.69	BCM Sandstone Bedding
DC37	4.9	22.28	354.75	BCM Sandstone Bedding
DC37	5.09	9.93	29.11	BCM Sandstone Bedding
DC37	5.21	13.45	28.82	BCM Carbonaceous Mudstone Bedding
DC37	5.29	16.71	34.89	BCM Carbonaceous Mudstone Bedding
DC37	5.37	10.93	334.72	BCM Carbonaceous Mudstone Bedding
DC37	5.48	21.75	21.09	BCM Carbonaceous Mudstone Bedding
DC37	5.58	17.74	347.28	BCM Carbonaceous Mudstone Bedding
DC37	5.69	23.19	37.24	BCM Carbonaceous Mudstone Bedding
DC37	5.78	19.94	45.62	BCM Carbonaceous Mudstone Bedding
DC37	5.86	16.88	40.26	BCM Carbonaceous Mudstone Bedding
DC37	6.04	18.55	99.63	BCM Carbonaceous Mudstone Bedding
DC37	6.21	20.01	45.79	BCM Carbonaceous Mudstone Bedding
DC37	6.34	21.59	47.78	BCM Carbonaceous Mudstone Bedding
DC37	6.4	21.61	62.35	BCM Carbonaceous Mudstone Bedding
DC37	6.46	18.51	49.81	BCM Carbonaceous Mudstone Bedding
DC37	6.66	18.48	44.78	BCM Carbonaceous Mudstone Bedding
DC37	7.14	18.22	59.24	BCM Carbonaceous Mudstone Bedding
DC37	7.25	21.56	51.92	BCM Carbonaceous Mudstone Bedding
DC37	7.37	17.36	123.09	BCM Carbonaceous Mudstone Bedding
DC37	7.67	30.66	27.63	BCM Carbonaceous Mudstone Bedding
DC37	7.8	24.04	337.36	BCM Carbonaceous Mudstone Bedding
DC37	8.04	22.1	56.98	BCM Carbonaceous Mudstone Bedding
DC37	8.13	22.12	51.9	BCM Carbonaceous Mudstone Bedding
DC37	8.28	26.63	38.65	BCM Carbonaceous Mudstone Bedding
DC37	8.37	13.83	50.06	BCM Carbonaceous Mudstone Bedding
DC37	8.52	15.51	39.97	BCM Carbonaceous Mudstone Bedding
DC37	8.84	32.84	255.24	BCM Carbonaceous Mudstone Bedding
DC37	9.01	19.14	53.23	BCM Carbonaceous Mudstone Bedding
DC37	9.23	15.69	49.37	BCM Coal Measures Bedding
DC37	9.68	6.95	159.54	BCM Coal Measures Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC37	9.85	8.67	165.36	BCM Coal Measures Bedding
DC37	11.78	6.78	113.85	BCM Coal Measures Bedding
DC37	11.96	12.21	131.1	BCM Coal Measures Bedding
DC37	12.05	19.03	145.99	BCM Coal Measures Bedding
DC37	12.36	11.06	252.22	BCM Coal Measures Bedding
DC37	12.81	8.79	147.78	BCM Coal Measures Bedding
DC37	12.98	28.24	149.89	BCM Coal Measures Bedding
DC37	13.1	20.67	173.7	BCM Coal Measures Bedding
DC37	13.24	29.09	79.16	BCM Sandstone Bedding
DC37	13.36	30.45	97.98	BCM Sandstone Bedding
DC37	13.53	22.11	124.76	BCM Sandstone Bedding
DC37	13.66	12.12	149.27	BCM Sandstone Bedding
DC37	13.85	27.48	321.26	BCM Sandstone Bedding
DC37	13.96	20.54	115.42	BCM Sandstone Bedding
DC37	14.1	20.55	93.42	BCM Sandstone Bedding
DC37	14.22	25.18	123	BCM Sandstone Bedding
DC37	14.44	20.62	144.85	BCM Sandstone Bedding
DC37	14.58	12.37	135.84	BCM Sandstone Bedding
DC37	14.74	10.5	122.21	BCM Sandstone Bedding
DC37	16.4	17.44	90.43	BCM Coal Measures Bedding
DC37	16.62	8.93	61.59	BCM Coal Measures Bedding
DC37	16.98	16.52	339.71	BCM Coal Measures Bedding
DC37	17.51	29.67	144.47	BCM Coal Measures Bedding
DC37	17.55	26.78	160.91	BCM Sandstone Bedding
DC37	17.7	46.14	164.16	BCM Sandstone Bedding
DC37	17.75	46.85	137.51	BCM Sandstone Bedding
DC37	17.92	38.52	153.06	BCM Sandstone Bedding
DC37	17.98	32.15	156.66	BCM Sandstone Bedding
DC37	18.17	33.49	165.22	BCM Sandstone Bedding
DC37	18.22	18.93	153.48	BCM Sandstone Bedding
DC37	18.82	10.34	111.42	BCM Sandstone Bedding
DC37	19.12	3.32	144.81	BCM Sandstone Bedding
DC37	19.16	19.21	146.49	BCM Sandstone Bedding
DC37	19.48	30.96	148.07	BCM Sandstone Bedding
DC37	20.35	7.25	189.99	BCM Sandstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC37	20.5	7.6	333.07	BCM Sandstone Bedding
DC37	20.72	7.03	161.77	BCM Sandstone Bedding
DC37	21.06	20.68	109.94	BCM Sandstone Bedding
DC37	21.2	26	220.24	BCM Sandstone Bedding
DC37	21.29	16.43	236.55	BCM Sandstone Bedding
DC37	23.07	12.81	213.23	BCM Sandstone Bedding
DC37	23.19	28.93	329.63	BCM Sandstone Bedding
DC37	23.35	33.62	138.59	BCM Sandstone Bedding
DC37	23.7	38.92	299.06	BCM Sandstone Bedding
DC37	23.93	11.09	269.68	BCM Sandstone Bedding
DC37	24.06	20.69	168.03	BCM Sandstone Bedding
DC37	24.21	28.45	219.85	BCM Coal Measures Bedding
DC39	2.98	2.4	157.83	BCM Sandstone Bedding
DC39	3.21	17.86	290.99	BCM Sandstone Bedding
DC39	3.33	13.87	323.9	BCM Sandstone Bedding
DC39	3.39	18.68	333.68	BCM Sandstone Bedding
DC39	3.54	21.98	332.95	BCM Sandstone Bedding
DC39	3.88	11.15	200.45	BCM Sandstone Bedding
DC39	4	11.35	155.39	BCM Sandstone Bedding
DC39	4.64	5.89	177.88	BCM Sandstone Bedding
DC39	4.81	12.53	183.89	BCM Sandstone Bedding
DC39	5.01	11.21	144.87	BCM Sandstone Bedding
DC39	5.75	7.12	182.48	BCM Sandstone Bedding
DC39	5.85	6.22	137.39	BCM Sandstone Bedding
DC39	6.23	12.24	28.56	BCM Sandstone Bedding
DC39	6.7	12.2	257.79	BCM Sandstone Bedding
DC39	6.82	22.04	330.67	BCM Sandstone Bedding
DC39	7.15	26.7	235.22	BCM Sandstone Bedding
DC39	7.56	11.48	337.36	BCM Sandstone Bedding
DC39	7.93	8.72	272.77	BCM Sandstone Bedding
DC39	8.12	1.66	208.07	BCM Sandstone Bedding
DC39	8.28	1.5	287.1	BCM Sandstone Bedding
DC39	8.46	22.39	266.25	BCM Sandstone Bedding
DC39	8.58	22.28	256.81	BCM Sandstone Bedding
DC39	8.72	19.11	266.67	BCM Sandstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC39	8.88	25.49	271.57	BCM Sandstone Bedding
DC39	9.01	32.21	227.89	BCM Sandstone Bedding
DC39	9.28	31.21	257.15	BCM Sandstone Bedding
DC39	9.45	25.25	258.08	BCM Sandstone Bedding
DC39	9.55	22.1	250.11	BCM Sandstone Bedding
DC39	10.15	19.2	156.45	BCM Sandstone Bedding
DC39	10.33	19.72	322.71	BCM Sandstone Bedding
DC39	10.51	3.91	80.17	BCM Sandstone Bedding
DC39	10.6	12.62	341.82	BCM Sandstone Bedding
DC39	10.72	8.11	307.94	BCM Sandstone Bedding
DC39	10.85	5.97	318.57	BCM Sandstone Bedding
DC39	10.95	6.13	307.77	BCM Sandstone Bedding
DC39	11.03	17.74	340.86	BCM Sandstone Bedding
DC39	11.12	4.88	278.65	BCM Sandstone Bedding
DC39	11.51	5.98	85.65	BCM Sandstone Bedding
DC39	11.68	11.89	127.22	BCM Sandstone Bedding
DC39	12.02	2.24	318.67	BCM Sandstone Bedding
DC39	12.25	2.59	88.08	BCM Sandstone Bedding
DC39	13.29	17.91	91.66	BCM Coal Measures Bedding
DC39	13.46	29.72	114.58	BCM Coal Measures Bedding
DC39	13.58	12.82	185.84	BCM Coal Measures Bedding
DC39	13.72	13.9	132.82	BCM Coal Measures Bedding
DC39	13.94	28.65	125.05	BCM Coal Measures Bedding
DC39	14.01	18.14	113.39	BCM Coal Measures Bedding
DC39	14.18	16.3	204.34	BCM Coal Measures Bedding
DC39	14.29	15.74	169.57	BCM Coal Measures Bedding
DC39	14.36	17.5	164.12	BCM Coal Measures Bedding
DC39	14.84	7.37	179.21	BCM Coal Measures Bedding
DC39	14.97	22.37	157.27	BCM Coal Measures Bedding
DC39	15.2	12.28	164.06	BCM Coal Measures Bedding
DC39	15.75	3.83	177.4	BCM Coal Measures Bedding
DC39	15.85	7.26	163.77	BCM Coal Measures Bedding
DC39	15.96	7.68	179.03	BCM Coal Measures Bedding
DC39	16.08	9	161.59	BCM Coal Measures Bedding
DC39	16.14	6.24	195.79	BCM Coal Measures Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC39	16.36	7.8	183.67	BCM Coal Measures Bedding
DC39	16.54	7.8	186.21	BCM Coal Measures Bedding
DC39	16.65	7.67	179.85	BCM Sandstone Bedding
DC39	17.44	7.75	182.46	BCM Sandstone Bedding
DC39	17.74	8.48	224.75	BCM Sandstone Bedding
DC39	19.71	13.39	233.52	BCM Sandstone Bedding
DC39	20.31	25.45	140.51	BCM Sandstone Bedding
DC39	20.96	20.6	23.82	BCM Sandstone Bedding
DC39	21.26	3.34	163.16	BCM Sandstone Bedding
DC39	21.37	6.96	162.8	BCM Sandstone Bedding
DC39	21.52	10.41	142.69	BCM Coal Measures Bedding
DC39	21.81	10.4	137.54	BCM Coal Measures Bedding
DC39	21.96	11.02	171.73	BCM Coal Measures Bedding
DC39	22.12	9.04	159.63	BCM Coal Measures Bedding
DC39	22.44	16.88	148.2	BCM Coal Measures Bedding
DC39	22.88	9.69	197.23	BCM Coal Measures Bedding
DC39	23.91	4.76	322.54	BCM Carbonaceous Mudstone Bedding
DC39	24.12	7.1	291.92	BCM Carbonaceous Mudstone Bedding
DC39	24.38	10.21	252.34	BCM Carbonaceous Mudstone Bedding
DC39	24.55	11.92	240.82	BCM Carbonaceous Mudstone Bedding
DC39	24.66	3.11	310.91	BCM Carbonaceous Mudstone Bedding
DC39	24.93	6.39	150.73	BCM Carbonaceous Mudstone Bedding
DC39	25.26	10.04	153.48	BCM Carbonaceous Mudstone Bedding
DC39	25.84	10.78	18.59	BCM Carbonaceous Mudstone Bedding
DC39	26.22	6.93	32.83	BCM Sandstone Bedding
DC39	26.33	12.11	291.62	BCM Sandstone Bedding
DC39	26.53	6.18	85.26	BCM Sandstone Bedding
DC39	26.83	17.1	163	BCM Sandstone Bedding
DC39	27.54	6.42	69.72	BCM Sandstone Bedding
DC39	27.78	10.09	118.77	BCM Sandstone Bedding
DC39	28.33	8.23	270.51	BCM Sandstone Bedding
DC39	28.65	8.23	60.05	BCM Sandstone Bedding
DC39	28.73	17.81	349.58	BCM Sandstone Bedding
DC39	28.9	25.18	128.66	BCM Sandstone Bedding
DC39	29.02	17.64	159.18	BCM Sandstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC39	29.58	18.54	112.59	BCM Sandstone Bedding
DC39	29.94	11.25	187.59	BCM Sandstone Bedding
DC39	30.08	18.88	140.78	BCM Sandstone Bedding
DC39	30.57	43.41	204.8	BCM Sandstone Bedding
DC39	30.65	39	172.19	BCM Sandstone Bedding
DC39	30.79	33.07	46.63	BCM Sandstone Bedding
DC39	30.9	12.47	170.83	BCM Sandstone Bedding
DC39	31.1	24.12	151.95	BCM Sandstone Bedding
DC39	31.31	23.08	183.73	BCM Sandstone Bedding
DC39	31.63	20.27	115.5	BCM Sandstone Bedding
DC39	31.68	30.37	97.16	BCM Sandstone Bedding
DC39	32.13	7.18	152.7	BCM Sandstone Bedding
DC39	32.33	10.92	161.83	BCM Sandstone Bedding
DC39	33.31	20.05	78.52	BCM Sandstone Bedding
DC39	34.19	2.26	310.18	BCM Sandstone Bedding
DC39	34.36	13.87	266.95	BCM Sandstone Bedding
DC39	34.77	10.23	218.56	BCM Sandstone Bedding
DC39	34.98	20.97	147.53	BCM Sandstone Bedding
DC39	35.09	26.14	167.27	BCM Sandstone Bedding
DC39	35.28	79.32	141.06	BCM Sandstone Bedding
DC39	35.62	11.24	170.86	BCM Sandstone Bedding
DC39	35.75	13.83	119.17	BCM Sandstone Bedding
DC39	35.83	13.14	79.59	BCM Sandstone Bedding
DC39	36.06	2.82	123.27	BCM Sandstone Bedding
DC39	36.15	20.72	347.81	BCM Sandstone Bedding
DC39	36.28	4.13	50.68	BCM Sandstone Bedding
DC39	36.44	11.25	49.41	BCM Sandstone Bedding
DC39	36.51	9.64	82.27	BCM Sandstone Bedding
DC39	36.75	18.17	57.25	BCM Sandstone Bedding
DC39	37.02	10.17	189.12	BCM Sandstone Bedding
DC39	37.32	7.96	178.37	BCM Sandstone Bedding
DC39	37.7	11.29	68.3	BCM Sandstone Bedding
DC39	37.92	11.62	100.8	BCM Sandstone Bedding
DC39	38.12	13.17	82.69	BCM Sandstone Bedding
DC39	38.29	14.54	69.43	BCM Sandstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC39	38.33	11.41	77.76	BCM Sandstone Bedding
DC39	38.61	9.56	82.01	BCM Sandstone Bedding
DC39	39.07	8.73	146.18	BCM Sandstone Bedding
DC39	40.43	8.4	283.46	BCM Sandstone Bedding
DC39	40.49	9.86	295.67	BCM Sandstone Bedding
DC39	40.73	4.23	57.16	BCM Sandstone Bedding
DC39	40.88	5.98	47.85	BCM Sandstone Bedding
DC39	41.13	12.89	56.53	BCM Sandstone Bedding
DC39	41.41	11.62	114.38	BCM Sandstone Bedding
DC39	41.64	12.99	163.06	BCM Sandstone Bedding
DC39	43.14	9.04	63.25	BCM Sandstone Bedding
DC39	43.43	21.47	118.77	BCM Sandstone Bedding
DC39	43.58	32.19	49.94	BCM Sandstone Bedding
DC39	43.67	21.08	87.82	BCM Sandstone Bedding
DC39	43.91	20.96	87.8	BCM Sandstone Bedding
DC39	44.07	10.83	77.48	BCM Sandstone Bedding
DC39	44.29	10.32	287.92	BCM Sandstone Bedding
DC39	44.43	14.33	268.82	BCM Sandstone Bedding
DC39	44.56	12.65	228.56	BCM Sandstone Bedding
DC39	44.62	7.64	106.73	BCM Sandstone Bedding
DC39	44.72	9.12	58.48	BCM Sandstone Bedding
DC39	44.85	18.43	121.22	BCM Sandstone Bedding
DC39	46.44	6.04	184.17	BCM Sandstone Bedding
DC39	46.59	9.47	179.53	BCM Sandstone Bedding
DC39	46.71	13.17	122.05	BCM Sandstone Bedding
DC39	46.75	6.9	160.51	BCM Sandstone Bedding
DC39	46.84	6.28	133.83	BCM Sandstone Bedding
DC39	47.13	6.32	199.52	BCM Sandstone Bedding
DC39	47.41	9.15	250.86	BCM Sandstone Bedding
DC39	47.64	7.94	191.12	BCM Sandstone Bedding
DC39	48.36	16.54	238.09	BCM Sandstone Bedding
DC39	48.76	19.15	139.92	BCM Sandstone Bedding
DC41	7.71	25.2	120.65	BCM Sandstone Bedding
DC41	7.92	5.58	79.12	BCM Sandstone Bedding
DC41	8.05	13.37	308.56	BCM Sandstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC41	8.1	24.51	237.95	BCM Sandstone Bedding
DC41	8.45	10.14	288.73	BCM Sandstone Bedding
DC41	8.83	6.89	143.84	BCM Coal Measures Bedding
DC41	8.94	27.26	342.4	BCM Coal Measures Bedding
DC41	9.02	4.12	311.66	BCM Coal Measures Bedding
DC41	9.17	28.62	153.75	BCM Coal Measures Bedding
DC41	9.68	22.58	166.66	BCM Coal Measures Bedding
DC41	9.87	8.81	254.01	BCM Coal Measures Bedding
DC41	10.52	11.54	291.49	BCM Coal Measures Bedding
DC41	10.7	14.46	240.75	BCM Coal Measures Bedding
DC41	10.81	11.13	232.11	BCM Coal Measures Bedding
DC41	11.1	11.79	208.03	BCM Coal Measures Bedding
DC41	11.55	5.19	251.28	BCM Coal Measures Bedding
DC41	11.69	8.9	249.13	BCM Carbonaceous Mudstone Bedding
DC41	11.76	7.87	217.53	BCM Carbonaceous Mudstone Bedding
DC41	11.83	4	337.82	BCM Carbonaceous Mudstone Bedding
DC41	11.91	3.23	171.39	BCM Carbonaceous Mudstone Bedding
DC41	11.97	7.66	319.26	BCM Carbonaceous Mudstone Bedding
DC41	12.04	8.33	266.33	BCM Carbonaceous Mudstone Bedding
DC41	12.09	10.51	241.45	BCM Carbonaceous Mudstone Bedding
DC41	12.13	6.22	210.54	BCM Carbonaceous Mudstone Bedding
DC41	13	10.98	232.04	BCM Carbonaceous Mudstone Bedding
DC41	13.21	14.67	338.21	BCM Carbonaceous Mudstone Bedding
DC41	13.35	11.59	209.63	BCM Carbonaceous Mudstone Bedding
DC41	13.37	11.46	211.59	BCM Carbonaceous Mudstone Bedding
DC41	14.16	17.62	158.43	BCM Carbonaceous Mudstone Bedding
DC41	14.2	6.87	165.2	BCM Carbonaceous Mudstone Bedding
DC41	14.27	1.5	140.2	BCM Carbonaceous Mudstone Bedding
DC41	14.35	17.69	134.6	BCM Carbonaceous Mudstone Bedding
DC41	14.44	24.26	331.5	BCM Carbonaceous Mudstone Bedding
DC41	14.55	22.8	307.36	BCM Carbonaceous Mudstone Bedding
DC41	14.62	24.59	216.51	BCM Carbonaceous Mudstone Bedding
DC41	14.69	34.27	149.4	BCM Carbonaceous Mudstone Bedding
DC41	14.74	1.5	139.6	BCM Carbonaceous Mudstone Bedding
DC41	15.09	5.16	151.6	BCM Coal Measures Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC41	15.24	3.34	142.09	BCM Coal Measures Bedding
DC41	15.43	3.92	208.46	BCM Sandstone Bedding
DC41	16.01	21.73	282	BCM Sandstone Bedding
DC41	16.12	18.43	263.89	BCM Sandstone Bedding
DC41	16.65	40.25	269.28	BCM Sandstone Bedding
DC41	16.82	29.46	265.25	BCM Sandstone Bedding
DC41	17.04	15.32	274.17	BCM Sandstone Bedding
DC41	17.27	15.35	265.03	BCM Sandstone Bedding
DC41	17.53	3.2	150.11	BCM Sandstone Bedding
DC41	17.56	6.74	161.05	BCM Sandstone Bedding
DC41	17.75	3.05	156.95	BCM Sandstone Bedding
DC41	17.95	8.44	172.7	BCM Sandstone Bedding
DC41	18.41	8.58	116.59	BCM Sandstone Bedding
DC41	18.5	4.88	117.8	BCM Sandstone Bedding
DC41	18.58	17.51	31.97	BCM Sandstone Bedding
DC41	18.66	16.81	342.03	BCM Sandstone Bedding
DC41	19.68	22.28	117.99	BCM Sandstone Bedding
DC41	19.91	20.63	135.42	BCM Sandstone Bedding
DC41	20.13	10.49	137.32	BCM Carbonaceous Mudstone Bedding
DC41	20.17	0.98	43.49	BCM Carbonaceous Mudstone Bedding
DC41	20.5	20.14	78.79	BCM Carbonaceous Mudstone Bedding
DC41	20.54	20.22	88.61	BCM Carbonaceous Mudstone Bedding
DC41	20.62	15.62	167.68	BCM Carbonaceous Mudstone Bedding
DC41	20.96	31.41	205.56	BCM Carbonaceous Mudstone Bedding
DC41	21	26.21	205.28	BCM Carbonaceous Mudstone Bedding
DC41	21.63	8.55	136.89	BCM Carbonaceous Mudstone Bedding
DC41	21.77	12.03	152.54	BCM Carbonaceous Mudstone Bedding
DC41	22.3	15.53	154.62	BCM Carbonaceous Mudstone Bedding
DC41	22.5	17.21	160.59	BCM Carbonaceous Mudstone Bedding
DC41	22.92	10.23	154.33	BCM Carbonaceous Mudstone Bedding
DC41	23.34	13.73	164.46	BCM Carbonaceous Mudstone Bedding
DC41	23.68	8.65	142.54	BCM Carbonaceous Mudstone Bedding
DC41	24.09	10.25	126.04	BCM Sandstone Bedding
DC41	24.55	4.05	82.99	BCM Sandstone Bedding
DC41	24.74	8.45	153.67	BCM Sandstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC41	24.84	15.65	33.89	BCM Sandstone Bedding
DC41	27.08	2.55	22.44	BCM Sandstone Bedding
DC41	27.2	15.31	106.43	BCM Sandstone Bedding
DC41	27.26	11.42	89.02	BCM Sandstone Bedding
DC41	28.93	9.7	100.56	BCM Sandstone Bedding
DC41	28.98	10.21	120.82	BCM Sandstone Bedding
DC41	31.48	0.56	322.51	BCM Sandstone Bedding
DC41	31.53	1.58	83.63	BCM Sandstone Bedding
DC41	31.67	0.46	305.32	BCM Sandstone Bedding
DC41	32.27	4.81	37.78	BCM Sandstone Bedding
DC41	32.85	2.37	28.91	BCM Sandstone Bedding
DC41	33.16	5.2	159.29	BCM Sandstone Bedding
DC41	33.35	10.12	113.79	BCM Sandstone Bedding
DC41	33.53	19.66	246.69	BCM Sandstone Bedding
DC41	33.72	29.38	90.28	BCM Sandstone Bedding
DC41	33.88	28.54	53.5	BCM Sandstone Bedding
DC41	33.98	21.73	81.22	BCM Sandstone Bedding
DC41	34.43	4.55	33.7	BCM Sandstone Bedding
DC41	34.52	8.24	33.65	BCM Sandstone Bedding
DC41	34.6	18.46	15.13	BCM Sandstone Bedding
DC41	34.97	10.75	64.06	BCM Sandstone Bedding
DC41	35.33	3.97	337.18	BCM Sandstone Bedding
DC41	35.48	2.13	334.35	BCM Sandstone Bedding
DC41	35.61	10.32	118.52	BCM Sandstone Bedding
DC41	36.03	8.71	195.7	BCM Sandstone Bedding
DC41	36.49	19.66	156.05	BCM Sandstone Bedding
DC41	36.97	6.19	98.23	BCM Sandstone Bedding
DC41	37.42	4.59	276.85	BCM Sandstone Bedding
DC41	37.54	9.24	340.24	BCM Sandstone Bedding
DC41	38.35	14.31	258.96	BCM Sandstone Bedding
DC41	38.57	6.65	206.55	BCM Sandstone Bedding
DC41	38.66	7.23	173.61	BCM Sandstone Bedding
DC41	38.84	4.73	203.7	BCM Sandstone Bedding
DC41	39.23	5.36	134.12	BCM Sandstone Bedding
DC41	39.56	12.98	321.38	BCM Sandstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC41	39.71	8.55	205.57	BCM Sandstone Bedding
DC41	39.88	9.3	172.77	BCM Sandstone Bedding
DC41	40.22	9.18	179.27	BCM Sandstone Bedding
DC41	40.38	12.47	112.11	BCM Sandstone Bedding
DC41	40.57	1.98	305.63	BCM Sandstone Bedding
DC41	40.7	3.84	343.01	BCM Sandstone Bedding
DC41	40.85	11.08	168.31	BCM Sandstone Bedding
DC41	40.99	5.58	132.28	BCM Sandstone Bedding
DC41	41.18	5.26	126.87	BCM Sandstone Bedding
DC41	41.37	12.78	182.43	BCM Sandstone Bedding
DC41	41.65	20	153.89	BCM Sandstone Bedding
DC41	41.89	16.31	311.02	BCM Sandstone Bedding
DC41	42.14	14.97	21.21	BCM Sandstone Bedding
DC41	42.38	23.89	216.83	BCM Sandstone Bedding
DC41	42.73	9.74	291.84	BCM Sandstone Bedding
DC41	42.86	28.36	221.55	BCM Sandstone Bedding
DC41	43.2	25.33	159.04	BCM Sandstone Bedding
DC41	43.43	15.28	155.3	BCM Sandstone Bedding
DC43	3.89	1.87	300.48	BCM Carbonaceous Mudstone Bedding
DC43	3.96	1.95	19.82	BCM Carbonaceous Mudstone Bedding
DC43	4.04	5.35	312.13	BCM Carbonaceous Mudstone Bedding
DC43	4.16	6.78	19.91	BCM Carbonaceous Mudstone Bedding
DC43	4.23	13.64	5.35	BCM Carbonaceous Mudstone Bedding
DC43	4.27	11.93	50.5	BCM Carbonaceous Mudstone Bedding
DC43	4.31	9.85	15.45	BCM Carbonaceous Mudstone Bedding
DC43	4.34	7.82	21.62	BCM Carbonaceous Mudstone Bedding
DC43	4.37	5.15	78.07	BCM Carbonaceous Mudstone Bedding
DC43	4.41	8.85	90.55	BCM Carbonaceous Mudstone Bedding
DC43	4.49	4.65	62.6	BCM Carbonaceous Mudstone Bedding
DC43	4.58	28.84	125.59	BCM Sandstone Bedding
DC43	4.64	5.76	18.17	BCM Sandstone Bedding
DC43	4.68	8.28	72.53	BCM Sandstone Bedding
DC43	4.83	8.11	137.8	BCM Sandstone Bedding
DC43	4.91	4.72	128.92	BCM Sandstone Bedding
DC43	4.95	7.98	131.05	BCM Sandstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC43	5.08	8.45	77.54	BCM Sandstone Bedding
DC43	5.12	8.69	113.87	BCM Sandstone Bedding
DC43	5.16	8.38	109.78	BCM Sandstone Bedding
DC43	5.37	7.31	142.84	BCM Sandstone Bedding
DC43	5.59	5.98	134.59	BCM Sandstone Bedding
DC43	5.63	6.05	167.52	BCM Sandstone Bedding
DC43	6.42	8.1	97.76	BCM Sandstone Bedding
DC43	6.48	18.74	45.06	BCM Sandstone Bedding
DC43	6.54	19.85	53.5	BCM Sandstone Bedding
DC43	6.68	29.12	68.95	BCM Sandstone Bedding
DC43	6.83	6.17	282.5	BCM Sandstone Bedding
DC43	6.89	7.85	224.05	BCM Sandstone Bedding
DC43	7.1	16.54	283.43	BCM Sandstone Bedding
DC43	7.21	19.4	282.61	BCM Sandstone Bedding
DC43	7.28	21.26	244.68	BCM Sandstone Bedding
DC43	7.46	13.25	251.92	BCM Sandstone Bedding
DC43	7.54	12.9	236.7	BCM Sandstone Bedding
DC43	7.59	15.55	203.88	BCM Sandstone Bedding
DC43	7.65	17.26	222.72	BCM Sandstone Bedding
DC43	7.77	13.02	267.51	BCM Sandstone Bedding
DC43	7.98	26.34	175.73	BCM Sandstone Bedding
DC43	8.11	8.75	79.53	BCM Sandstone Bedding
DC43	8.2	10.71	65.51	BCM Sandstone Bedding
DC43	8.27	7.55	182.69	BCM Sandstone Bedding
DC43	8.46	7.42	341.47	BCM Sandstone Bedding
DC43	8.69	8.71	163.94	BCM Sandstone Bedding
DC43	10.01	20.99	216.3	BCM Sandstone Bedding
DC43	10.05	18.31	209.26	BCM Sandstone Bedding
DC43	10.18	19.59	138.61	BCM Sandstone Bedding
DC43	10.79	13.56	20.56	BCM Sandstone Bedding
DC43	10.96	9.71	334.15	BCM Sandstone Bedding
DC43	11.08	11.5	4.23	BCM Sandstone Bedding
DC43	11.18	11.9	32.17	BCM Sandstone Bedding
DC43	11.39	18.05	229.55	BCM Sandstone Bedding
DC43	11.47	4.77	225.95	BCM Sandstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC43	11.67	3.09	328.47	BCM Sandstone Bedding
DC43	11.79	8.75	297.8	BCM Sandstone Bedding
DC43	11.87	7.94	329.67	BCM Sandstone Bedding
DC43	11.93	10.34	335.92	BCM Sandstone Bedding
DC43	11.96	10.41	324.58	BCM Sandstone Bedding
DC43	12.3	1.12	315.44	BCM Sandstone Bedding
DC43	12.47	19.4	251.31	BCM Sandstone Bedding
DC43	12.62	9.52	313.66	BCM Sandstone Bedding
DC43	13.09	21.2	313.26	BCM Sandstone Bedding
DC43	13.35	11.49	308.78	BCM Sandstone Bedding
DC43	13.6	20.29	323.89	BCM Sandstone Bedding
DC43	13.73	20.44	313.94	BCM Sandstone Bedding
DC43	13.81	16.09	275.52	BCM Sandstone Bedding
DC43	13.87	21.82	269.6	BCM Sandstone Bedding
DC43	13.9	20.9	271.2	BCM Sandstone Bedding
DC43	14.77	4.13	332.59	BCM Coal Measures Bedding
DC43	15.04	5.82	64.24	BCM Coal Measures Bedding
DC43	16.27	8.52	29.32	BCM Coal Measures Bedding
DC43	16.57	10.79	102.49	BCM Coal Measures Bedding
DC43	16.75	9.45	82.58	BCM Coal Measures Bedding
DC43	17.12	6.24	163.11	BCM Carbonaceous Mudstone Bedding
DC43	17.22	5.2	199.07	BCM Carbonaceous Mudstone Bedding
DC43	17.26	6.34	144.34	BCM Carbonaceous Mudstone Bedding
DC43	17.32	6.44	156.72	BCM Carbonaceous Mudstone Bedding
DC43	17.36	3.21	170.06	BCM Carbonaceous Mudstone Bedding
DC43	17.58	7.45	150.59	BCM Carbonaceous Mudstone Bedding
DC43	17.64	10.61	161.86	BCM Carbonaceous Mudstone Bedding
DC43	17.72	12.65	160.42	BCM Carbonaceous Mudstone Bedding
DC43	17.8	9.53	153.25	BCM Carbonaceous Mudstone Bedding
DC43	17.93	8.54	171.11	BCM Carbonaceous Mudstone Bedding
DC43	18.11	6.41	161.31	BCM Carbonaceous Mudstone Bedding
DC43	18.2	9.99	141.79	BCM Carbonaceous Mudstone Bedding
DC43	18.33	11.08	132.02	BCM Carbonaceous Mudstone Bedding
DC43	18.36	9.34	140.54	BCM Carbonaceous Mudstone Bedding
DC43	18.5	35.35	114.36	BCM Carbonaceous Mudstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC43	18.63	9.6	127.07	BCM Carbonaceous Mudstone Bedding
DC43	18.67	26.17	122.95	BCM Coal Measures Bedding
DC43	19.53	5.27	279.41	BCM Coal Measures Bedding
DC43	19.62	6.69	217.01	BCM Coal Measures Bedding
DC43	19.73	6.46	216.87	BCM Coal Measures Bedding
DC43	19.77	6.17	235.68	BCM Coal Measures Bedding
DC43	19.81	5.98	240.47	BCM Coal Measures Bedding
DC43	19.88	5.39	268.5	BCM Coal Measures Bedding
DC43	19.93	4.86	244.06	BCM Coal Measures Bedding
DC43	19.97	9.41	229.94	BCM Coal Measures Bedding
DC43	20.02	7.82	251.02	BCM Coal Measures Bedding
DC43	20.07	8.72	171.32	BCM Sandstone Bedding
DC43	20.62	9.78	243.98	BCM Sandstone Bedding
DC43	20.69	1.11	300.99	BCM Sandstone Bedding
DC43	20.78	1.35	286.58	BCM Sandstone Bedding
DC43	21.04	9.76	304.82	BCM Sandstone Bedding
DC43	21.12	11.09	291.13	BCM Sandstone Bedding
DC43	21.25	5.93	19.09	BCM Sandstone Bedding
DC43	21.31	1.38	85.97	BCM Sandstone Bedding
DC43	21.54	10.78	106.62	BCM Sandstone Bedding
DC43	22.08	10.71	285.31	BCM Sandstone Bedding
DC43	22.25	0.92	37.07	BCM Sandstone Bedding
DC43	22.28	1.01	312.01	BCM Sandstone Bedding
DC43	22.32	3.22	325.67	BCM Sandstone Bedding
DC43	22.35	6.23	24.07	BCM Sandstone Bedding
DC43	22.4	9.34	87.03	BCM Sandstone Bedding
DC43	22.57	11.59	358.36	BCM Sandstone Bedding
DC43	23.26	25.21	173.18	BCM Coal Measures Bedding
DC43	23.52	18.94	79.8	BCM Coal Measures Bedding
DC43	23.59	13.13	78.5	BCM Coal Measures Bedding
DC43	24.05	16.12	83.16	BCM Coal Measures Bedding
DC43	24.09	18.06	84.26	BCM Coal Measures Bedding
DC43	24.12	20.75	78.3	BCM Sandstone Bedding
DC43	24.32	6.98	127.17	BCM Sandstone Bedding
DC43	24.5	11.28	332.01	BCM Sandstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC43	24.63	9.93	342.21	BCM Sandstone Bedding
DC43	26.76	17.19	76.5	BCM Sandstone Bedding
DC43	27.06	11.44	92.29	BCM Sandstone Bedding
DC43	27.08	12.18	119.4	BCM Sandstone Bedding
DC43	27.26	10.56	104.47	BCM Sandstone Bedding
DC43	27.3	6.23	139.78	BCM Sandstone Bedding
DC43	27.36	5.79	208.67	BCM Sandstone Bedding
DC43	27.74	2.81	317.94	BCM Sandstone Bedding
DC43	28.07	10.9	346.75	BCM Sandstone Bedding
DC43	28.53	7.79	343.17	BCM Sandstone Bedding
DC43	28.65	9.24	318.2	BCM Sandstone Bedding
DC43	28.8	1.83	256.35	BCM Sandstone Bedding
DC43	29.1	10.27	173.54	BCM Sandstone Bedding
DC43	29.13	12.39	177.39	BCM Sandstone Bedding
DC43	29.17	22.08	156.63	BCM Sandstone Bedding
DC43	29.76	3.56	14.76	BCM Sandstone Bedding
DC43	29.85	6.33	135.18	BCM Sandstone Bedding
DC43	29.98	6.43	226.86	BCM Sandstone Bedding
DC43	30.19	3.8	170.53	BCM Sandstone Bedding
DC43	30.24	8.39	128.9	BCM Sandstone Bedding
DC43	30.29	5.97	161.74	BCM Sandstone Bedding
DC43	32.25	18.09	40.33	BCM Sandstone Bedding
DC43	32.37	26.06	167.39	BCM Sandstone Bedding
DC43	32.58	28.19	245.07	BCM Sandstone Bedding
DC43	33.32	16.08	5.01	BCM Sandstone Bedding
DC43	33.54	10.7	84.56	BCM Sandstone Bedding
DC43	33.68	25.68	28.61	BCM Sandstone Bedding
DC43	34	37.21	17.27	BCM Sandstone Bedding
DC43	34.13	29.68	19.08	BCM Sandstone Bedding
DC43	34.28	26.91	26.53	BCM Sandstone Bedding
DC43	34.58	25.72	20.98	BCM Sandstone Bedding
DC43	34.77	13.46	56.74	BCM Sandstone Bedding
DC43	35.08	17.04	66.06	BCM Sandstone Bedding
DC43	35.29	21.25	96.49	BCM Sandstone Bedding
DC43	35.73	12.78	30.72	BCM Sandstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC43	35.76	17.03	65.81	BCM Sandstone Bedding
DC43	35.86	28.16	64.6	BCM Sandstone Bedding
DC43	36.12	28.87	42.37	BCM Sandstone Bedding
DC43	37.82	27.71	179.12	BCM Sandstone Bedding
DC43	39.5	6.46	70.28	BCM Sandstone Bedding
DC43	40.38	27.66	98.51	BCM Sandstone Bedding
DC43	40.66	38.32	156.33	BCM Sandstone Bedding
DC43	41.15	22.47	139.57	BCM Sandstone Bedding
DC43	41.64	27.42	156.65	BCM Sandstone Bedding
DC43	42.4	12.45	150.68	BCM Sandstone Bedding
DC43	42.68	10.44	163.95	BCM Sandstone Bedding
DC43	42.85	4.28	348.31	BCM Sandstone Bedding
DC43	42.93	8.7	157.15	BCM Sandstone Bedding
DC43	43.13	6.17	359.38	BCM Sandstone Bedding
DC43	43.57	11.84	18.7	BCM Sandstone Bedding
DC43	43.62	10.75	51.65	BCM Sandstone Bedding
DC43	44.42	19.97	347.48	BCM Sandstone Bedding
DC43	44.59	10.32	160.58	BCM Sandstone Bedding
DC43	44.78	5.33	257.78	BCM Sandstone Bedding
DC43	45	1.2	163.8	BCM Sandstone Bedding
DC43	45.06	6.31	337.4	BCM Sandstone Bedding
DC43	45.2	21.71	343.65	BCM Sandstone Bedding
DC43	47.05	20.92	79.28	BCM Sandstone Bedding
DC43	47.1	19.01	70.95	BCM Sandstone Bedding
DC43	48.05	13.13	30.31	BCM Sandstone Bedding
DC43	49.28	8.17	130.85	BCM Sandstone Bedding
DC44	9.45	38.27	296.18	BCM Coal Measures Bedding
DC44	9.64	23.38	197.29	BCM Coal Measures Bedding
DC44	9.77	13.11	230.93	BCM Coal Measures Bedding
DC44	9.84	35.32	218.86	BCM Coal Measures Bedding
DC44	12.52	40.39	156.77	BCM Carbonaceous Mudstone Bedding
DC44	12.53	67.84	333.68	BCM Carbonaceous Mudstone Bedding
DC44	12.7	27.29	202.75	BCM Carbonaceous Mudstone Bedding
DC44	13.76	45.39	210.59	BCM Carbonaceous Mudstone Bedding
DC44	13.87	21.48	213.44	BCM Carbonaceous Mudstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC44	14.88	14.29	149.3	BCM Sandstone Bedding
DC44	15	25.26	296	BCM Sandstone Bedding
DC44	15.21	57.45	148	BCM Sandstone Bedding
DC44	15.41	61.4	131.81	BCM Sandstone Bedding
DC44	15.6	57.78	149.06	BCM Sandstone Bedding
DC44	15.8	25.67	13.8	BCM Sandstone Bedding
DC44	15.99	35.45	187.35	BCM Sandstone Bedding
DC44	16.11	27.4	318.09	BCM Sandstone Bedding
DC44	16.23	29.57	272.51	BCM Sandstone Bedding
DC44	16.49	30.93	281.39	BCM Sandstone Bedding
DC44	16.73	19.02	128.37	BCM Coal Measures Bedding
DC44	16.85	20.46	207.62	BCM Coal Measures Bedding
DC44	17.12	57.09	315.66	BCM Carbonaceous Mudstone Bedding
DC44	17.17	16	314.83	BCM Carbonaceous Mudstone Bedding
DC44	17.33	35.54	213.95	BCM Carbonaceous Mudstone Bedding
DC44	17.48	44.31	336.55	BCM Carbonaceous Mudstone Bedding
DC44	17.58	14.7	230.73	BCM Sandstone Bedding
DC44	18.02	24.49	324.55	BCM Sandstone Bedding
DC44	18.31	24.11	340.67	BCM Sandstone Bedding
DC44	18.95	33.34	113.98	BCM Sandstone Bedding
DC44	19.96	26.07	286.05	BCM Sandstone Bedding
DC44	20.14	24.98	280.8	BCM Sandstone Bedding
DC44	20.42	34.47	191.22	BCM Sandstone Bedding
DC44	21.11	25.08	57.77	BCM Sandstone Bedding
DC44	21.87	43.99	60.73	BCM Sandstone Bedding
DC44	22.54	40.37	189.04	BCM Sandstone Bedding
DC44	23.23	27.14	154.54	BCM Sandstone Bedding
DC44	24.42	42.48	331.9	BCM Sandstone Bedding
DC44	25.29	56.27	358.01	BCM Sandstone Bedding
DC44	25.68	63.13	46.15	BCM Sandstone Bedding
DC44	26.67	25.97	46.36	BCM Sandstone Bedding
DC44	27.01	38.26	259.45	BCM Sandstone Bedding
DC44	27.67	32.15	166.2	BCM Sandstone Bedding
DC44	28.24	6.42	330.07	BCM Sandstone Bedding
DC44	29.75	12.22	168.73	BCM Sandstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC44	30.17	44.55	255.72	BCM Sandstone Bedding
DC44	31.03	33.45	255.52	BCM Sandstone Bedding
DC44	32.32	37.24	146.52	BCM Carbonaceous Mudstone Bedding
DC44	32.67	4.72	327.08	BCM Carbonaceous Mudstone Bedding
DC44	32.76	8.16	142.21	BCM Carbonaceous Mudstone Bedding
DC44	33.12	26.64	181.73	BCM Coal Measures Bedding
DC44	33.26	23.57	162.58	BCM Coal Measures Bedding
DC44	33.38	30.65	169.88	BCM Coal Measures Bedding
DC44	33.98	6.87	90.2	BCM Coal Measures Bedding
DC44	34.5	4.84	78.14	BCM Carbonaceous Mudstone Bedding
DC44	34.89	6.29	34.37	BCM Carbonaceous Mudstone Bedding
DC44	35.06	9.9	20.37	BCM Carbonaceous Mudstone Bedding
DC44	35.19	17.79	72.94	BCM Sandstone Bedding
DC44	35.37	6.92	84.77	BCM Coal Measures Bedding
DC44	35.93	6.39	348.47	BCM Coal Measures Bedding
DC44	36.23	8.22	23.69	BCM Coal Measures Bedding
DC44	37.37	20.89	167.7	BCM Coal Measures Bedding
DC44	37.55	33.32	42.91	BCM Sandstone Bedding
DC44	37.62	22.15	257.89	BCM Sandstone Bedding
DC44	37.74	8.49	335.92	BCM Sandstone Bedding
DC44	37.87	23.62	9.25	BCM Sandstone Bedding
DC44	38.09	4.82	337.59	BCM Sandstone Bedding
DC44	38.2	17.23	338.11	BCM Sandstone Bedding
DC44	38.46	18.56	28.7	BCM Sandstone Bedding
DC44	38.77	10.21	244.06	BCM Sandstone Bedding
DC44	38.98	16.89	359.96	BCM Sandstone Bedding
DC44	39.2	32.94	32.27	BCM Sandstone Bedding
DC44	39.7	1.2	201.1	BCM Sandstone Bedding
DC44	40.07	17.31	158.27	BCM Sandstone Bedding
DC44	40.26	15.42	265.92	BCM Sandstone Bedding
DC44	41.83	17.11	36.35	BCM Sandstone Bedding
DC44	42.84	13.72	252.14	BCM Sandstone Bedding
DC44	43.37	12.14	338.45	BCM Sandstone Bedding
DC44	43.76	13.72	355.43	BCM Sandstone Bedding
DC44	43.86	11.95	11.9	BCM Sandstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC44	43.97	18.08	336.53	BCM Sandstone Bedding
DC44	44.34	18.15	323.27	BCM Sandstone Bedding
DC44	44.76	19.67	148.68	BCM Sandstone Bedding
DC44	45.38	4.83	332.79	BCM Sandstone Bedding
DC44	45.92	11.99	29.13	BCM Sandstone Bedding
DC44	7.45	39.11	89.42	BCM Sandstone Bedding
DC44	7.77	31.95	332.7	BCM Sandstone Bedding
DC44	7.98	35.51	341.22	BCM Sandstone Bedding
DC44	9.26	4.61	181.36	BCM Sandstone Bedding
DC44	10.69	19.67	158.97	BCM Coal Measures Bedding
DC44	10.84	24.29	181.04	BCM Coal Measures Bedding
DC44	11.82	26.04	159.21	BCM Coal Measures Bedding
DC44	12.77	26.04	159.23	BCM Carbonaceous Mudstone Bedding
DC44	12.81	23.06	179.28	BCM Carbonaceous Mudstone Bedding
DC44	12.93	6.87	160.19	BCM Carbonaceous Mudstone Bedding
DC44	12.98	19.81	198.92	BCM Carbonaceous Mudstone Bedding
DC44	13.04	23.13	188.95	BCM Carbonaceous Mudstone Bedding
DC44	13.09	24.64	185.35	BCM Carbonaceous Mudstone Bedding
DC44	13.17	18.35	178.78	BCM Carbonaceous Mudstone Bedding
DC44	13.24	26.04	183.48	BCM Carbonaceous Mudstone Bedding
DC44	13.89	23.38	223	BCM Sandstone Bedding
DC44	14.89	16.23	175.52	BCM Coal Measures Bedding
DC44	14.99	14.16	157.57	BCM Coal Measures Bedding
DC44	16.02	22.74	191.74	BCM Carbonaceous Mudstone Bedding
DC44	16.25	30.96	267.49	BCM Carbonaceous Mudstone Bedding
DC44	16.63	10.75	166.64	BCM Carbonaceous Mudstone Bedding
DC44	16.76	8.48	202.85	BCM Carbonaceous Mudstone Bedding
DC44	16.82	26.44	194.72	BCM Carbonaceous Mudstone Bedding
DC44	16.87	25.25	196.78	BCM Coal Measures Bedding
DC44	17.01	14.55	240.6	BCM Coal Measures Bedding
DC44	17.52	17.15	192.15	BCM Coal Measures Bedding
DC44	17.59	15.07	220.59	BCM Sandstone Bedding
DC44	18.09	27.21	296.51	BCM Sandstone Bedding
DC44	18.21	10.33	180.56	BCM Sandstone Bedding
DC44	18.34	14.03	175.06	BCM Sandstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC44	18.54	20.26	82.34	BCM Sandstone Bedding
DC44	18.72	7.42	337.71	BCM Sandstone Bedding
DC44	19.17	25.42	310.46	BCM Carbonaceous Mudstone Bedding
DC44	19.68	23.69	340.14	BCM Sandstone Bedding
DC44	21.51	58.76	287.55	BCM Carbonaceous Mudstone Bedding
DC44	23.73	6.8	73.73	BCM Sandstone Bedding
DC44	25.33	29.56	40.36	BCM Coal Measures Bedding
DC44	26.6	10.34	67.27	BCM Carbonaceous Mudstone Bedding
DC44	27.03	27.04	281.37	BCM Carbonaceous Mudstone Bedding
DC44	36.28	20.39	41.28	BCM Sandstone Bedding
DC44	40.83	8.62	71.53	BCM Sandstone Bedding
DC44	45.28	7.99	22.96	BCM Sandstone Bedding
DC44	45.42	12.18	335.48	BCM Sandstone Bedding
DC44	49.33	10.18	192.44	BCM Sandstone Bedding
DC45	4.61	14.41	84.62	BCM Sandstone Bedding
DC45	4.71	26.28	85.44	BCM Sandstone Bedding
DC45	4.79	21.32	75.66	BCM Sandstone Bedding
DC45	5.06	12.62	106.96	BCM Sandstone Bedding
DC45	5.29	18.04	93.99	BCM Sandstone Bedding
DC45	6.42	8.57	62.62	BCM Sandstone Bedding
DC45	6.54	13.63	249.33	BCM Sandstone Bedding
DC45	6.79	8.91	115.99	BCM Sandstone Bedding
DC45	6.98	16.25	86.27	BCM Sandstone Bedding
DC45	7.27	18.01	88.03	BCM Carbonaceous Mudstone Bedding
DC45	7.33	33.54	129.82	BCM Sandstone Bedding
DC45	8.72	21.47	200.61	BCM Sandstone Bedding
DC45	8.81	14.03	57.46	BCM Sandstone Bedding
DC45	9.13	21.3	73.76	BCM Sandstone Bedding
DC45	9.38	24.13	161.53	BCM Sandstone Bedding
DC45	9.59	17.99	103.79	BCM Sandstone Bedding
DC45	10.79	13.33	291.02	BCM Sandstone Bedding
DC45	11.22	8.04	259.16	BCM Sandstone Bedding
DC45	11.52	19.22	234.88	BCM Sandstone Bedding
DC45	12.4	31.83	212.72	BCM Sandstone Bedding
DC45	12.49	37.11	18.98	BCM Sandstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC45	13.92	25.21	41.31	BCM Carbonaceous Mudstone Bedding
DC45	14.71	17.62	149.02	BCM Carbonaceous Mudstone Bedding
DC45	17.28	8.32	343.72	BCM Sandstone Bedding
DC45	17.95	8.21	253.25	BCM Sandstone Bedding
DC45	18.86	12.63	5.99	BCM Sandstone Bedding
DC45	19.05	18.96	331.02	BCM Sandstone Bedding
DC45	19.52	16.13	135.27	BCM Sandstone Bedding
DC45	19.74	17.15	326.74	BCM Sandstone Bedding
DC45	21.35	13.97	347.52	BCM Sandstone Bedding
DC45	21.64	6.19	49.54	BCM Carbonaceous Mudstone Bedding
DC45	21.77	6.92	125.55	BCM Carbonaceous Mudstone Bedding
DC45	22.99	13.99	352.32	BCM Carbonaceous Mudstone Bedding
DC45	23.98	14.45	112.18	BCM Sandstone Bedding
DC45	26.12	34.76	126.51	BCM Carbonaceous Mudstone Bedding
DC45	26.23	27.64	95.75	BCM Carbonaceous Mudstone Bedding
DC45	27.52	20.5	57.26	BCM Sandstone Bedding
DC45	27.92	12.48	249.87	BCM Sandstone Bedding
DC45	28.49	6.81	275.91	BCM Sandstone Bedding
DC45	29.02	12.39	243.95	BCM Sandstone Bedding
DC45	29.5	10.77	290.37	BCM Sandstone Bedding
DC45	29.96	5.95	134.85	BCM Sandstone Bedding
DC45	30.18	10.02	109.13	BCM Sandstone Bedding
DC45	30.98	9.6	143.49	BCM Sandstone Bedding
DC45	31.34	15.71	75.85	BCM Carbonaceous Mudstone Bedding
DC45	31.39	17.41	77.78	BCM Carbonaceous Mudstone Bedding
DC45	32.22	4.94	279.17	BCM Sandstone Bedding
DC45	32.42	11.65	123.58	BCM Carbonaceous Mudstone Bedding
DC45	36.48	7.76	145.97	BCM Sandstone Bedding
DC45	38.47	12.56	74.17	BCM Sandstone Bedding
DC45	38.76	10.18	27.45	BCM Sandstone Bedding
DC45	42.56	24.69	89.91	BCM Carbonaceous Mudstone Bedding
DC45	42.9	27.91	92.03	BCM Carbonaceous Mudstone Bedding
DC45	5.01	12.69	10.77	BCM Sandstone Bedding
DC45	5.13	17.38	340.65	BCM Sandstone Bedding
DC45	5.25	13.26	27.57	BCM Sandstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC45	5.39	10.22	236.35	BCM Sandstone Bedding
DC45	5.68	5.19	129.33	BCM Sandstone Bedding
DC45	6.01	9.79	271.88	BCM Sandstone Bedding
DC45	6.52	15.54	42.94	BCM Sandstone Bedding
DC45	6.67	26.07	143.44	BCM Sandstone Bedding
DC45	6.94	14.31	68.76	BCM Sandstone Bedding
DC45	7.1	12.29	226.01	BCM Sandstone Bedding
DC45	7.2	8.02	278.65	BCM Sandstone Bedding
DC45	7.3	9.86	177	BCM Carbonaceous Mudstone Bedding
DC45	7.36	26.78	242.3	BCM Carbonaceous Mudstone Bedding
DC45	7.48	9.62	180.77	BCM Sandstone Bedding
DC45	7.83	10.9	9.8	BCM Sandstone Bedding
DC45	8.67	32.66	33.8	BCM Sandstone Bedding
DC45	9.12	18.09	95.49	BCM Sandstone Bedding
DC45	9.21	10.71	85.02	BCM Sandstone Bedding
DC45	9.26	17.66	66.78	BCM Sandstone Bedding
DC45	9.44	7.17	110	Crush Zone
DC45	9.61	3.26	8.81	Crush Zone
DC45	9.66	20.67	333.18	BCM Sandstone Bedding
DC45	9.74	16.93	299.7	BCM Sandstone Bedding
DC45	9.79	15.22	309.59	BCM Sandstone Bedding
DC45	9.94	17.49	336.26	BCM Sandstone Bedding
DC45	10.07	8.05	316.34	BCM Sandstone Bedding
DC45	10.12	17.77	210.58	BCM Sandstone Bedding
DC45	10.16	8.84	218.1	BCM Sandstone Bedding
DC45	10.22	1.52	29.76	BCM Sandstone Bedding
DC45	10.33	10.59	72.63	BCM Sandstone Bedding
DC45	10.41	10.68	218.76	BCM Sandstone Bedding
DC45	10.5	6.68	345.93	BCM Sandstone Bedding
DC45	10.6	7.77	32.25	BCM Sandstone Bedding
DC45	10.69	11.58	309.63	BCM Sandstone Bedding
DC45	10.8	12.34	355.53	BCM Sandstone Bedding
DC45	10.86	8.16	320.17	BCM Sandstone Bedding
DC45	11.1	6.88	358.14	BCM Sandstone Bedding
DC45	11.23	8	290.66	BCM Sandstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC45	11.33	17.13	327.22	BCM Sandstone Bedding
DC45	11.41	28.59	349.58	BCM Sandstone Bedding
DC45	11.58	11.77	311.94	BCM Sandstone Bedding
DC45	11.69	10.57	142.21	BCM Sandstone Bedding
DC45	11.81	7.64	188.9	BCM Sandstone Bedding
DC45	12.45	45.2	99.32	Crush Zone
DC45	15.09	12.09	58.81	BCM Sandstone Bedding
DC45	15.19	10.48	83.22	BCM Sandstone Bedding
DC45	15.35	22.42	348.06	BCM Sandstone Bedding
DC45	15.49	15.66	353.6	BCM Sandstone Bedding
DC45	15.72	13.74	331.93	BCM Sandstone Bedding
DC45	15.88	22.75	1.09	BCM Sandstone Bedding
DC45	16.09	17.34	342.21	BCM Sandstone Bedding
DC45	16.43	6.83	145.11	BCM Sandstone Bedding
DC45	18.92	10.15	333.08	BCM Sandstone Bedding
DC45	21.64	5.13	87.37	BCM Coal Measures Bedding
DC45	21.78	8.84	144.23	BCM Coal Measures Bedding
DC45	24.43	7.08	122.86	BCM Sandstone Bedding
DC45	25.18	10.3	243.19	BCM Sandstone Bedding
DC45	26.12	36.04	138.01	BCM Coal Measures Bedding
DC45	26.58	17.59	70.78	BCM Carbonaceous Mudstone Bedding
DC45	27.94	11.29	204.07	BCM Coal Measures Bedding
DC45	28.05	27.06	299.06	BCM Coal Measures Bedding
DC45	28.6	8.64	283.69	BCM Coal Measures Bedding
DC45	28.76	15.82	264.16	BCM Coal Measures Bedding
DC45	29.42	18.11	217.12	BCM Sandstone Bedding
DC45	29.53	18	209.64	BCM Sandstone Bedding
DC45	29.71	22.68	220.16	BCM Sandstone Bedding
DC45	29.9	8.82	227.44	BCM Sandstone Bedding
DC45	30.62	5.87	136.63	BCM Sandstone Bedding
DC45	31.35	20.7	49.36	BCM Coal Measures Bedding
DC45	31.4	10.19	51.8	BCM Coal Measures Bedding
DC45	38.36	8.79	56.18	BCM Sandstone Bedding
DC45	38.98	10.8	63.31	BCM Sandstone Bedding
DC45	39.34	8.12	137.69	BCM Sandstone Bedding

Table E2: WellCAD® Discontinuity Data - Bedding

Drillhole#	Depth (m bgl)	Dip (°)	Dip Direction (°)	Discontinuity Feature
DC45	40.44	16.19	183.41	BCM Sandstone Bedding
DC45	40.88	21.14	195.39	BCM Sandstone Bedding
DC45	42.37	14.67	175.95	BCM Sandstone Bedding
DC45	42.57	17.9	90.18	BCM Coal Measures Bedding
DC45	44.18	4.98	110.13	BCM Sandstone Bedding
DC45	44.24	8.43	212.88	BCM Sandstone Bedding
DC45	44.5	19.92	177.39	BCM Sandstone Bedding
DC45	44.81	6.73	44.51	BCM Sandstone Bedding
DC45	45.14	8.87	64.78	BCM Sandstone Bedding
DC45	45.31	16.23	106.19	BCM Sandstone Bedding
DC45	51.36	6.52	331.86	BCM Coal Measures Bedding
DC45	54.31	26.06	137.58	Crush Zone
DC45	54.48	19.33	355.6	Crush Zone
DC45	54.66	24.83	149.58	BCM Carbonaceous Mudstone Bedding
DC45	54.78	17.9	89.85	BCM Sandstone Bedding
DC45	56.8	17.93	148.39	Crush Zone
DC45	58.11	16.29	122.95	BCM Sandstone Bedding

Proposed Mount Fred South - Mine Pit Staging – Pits and Sumps

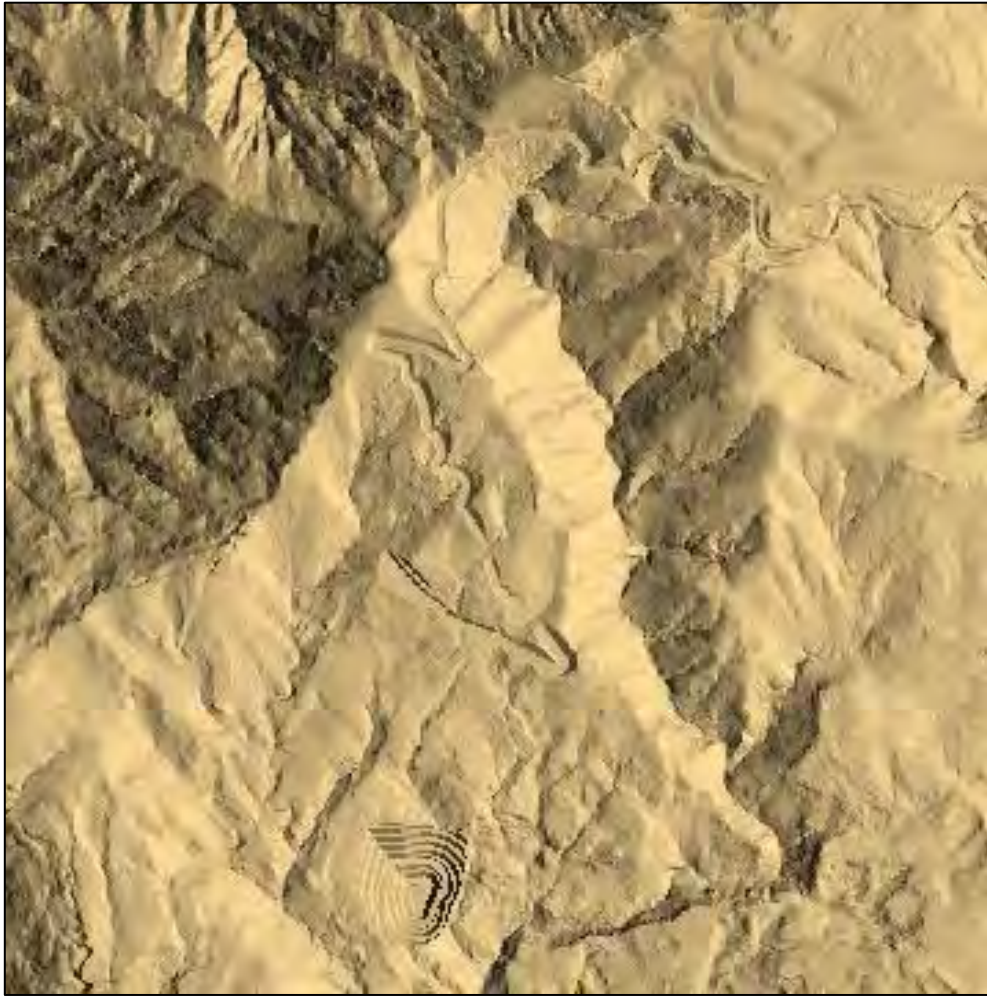


Figure F12: Stage 1– July 2028

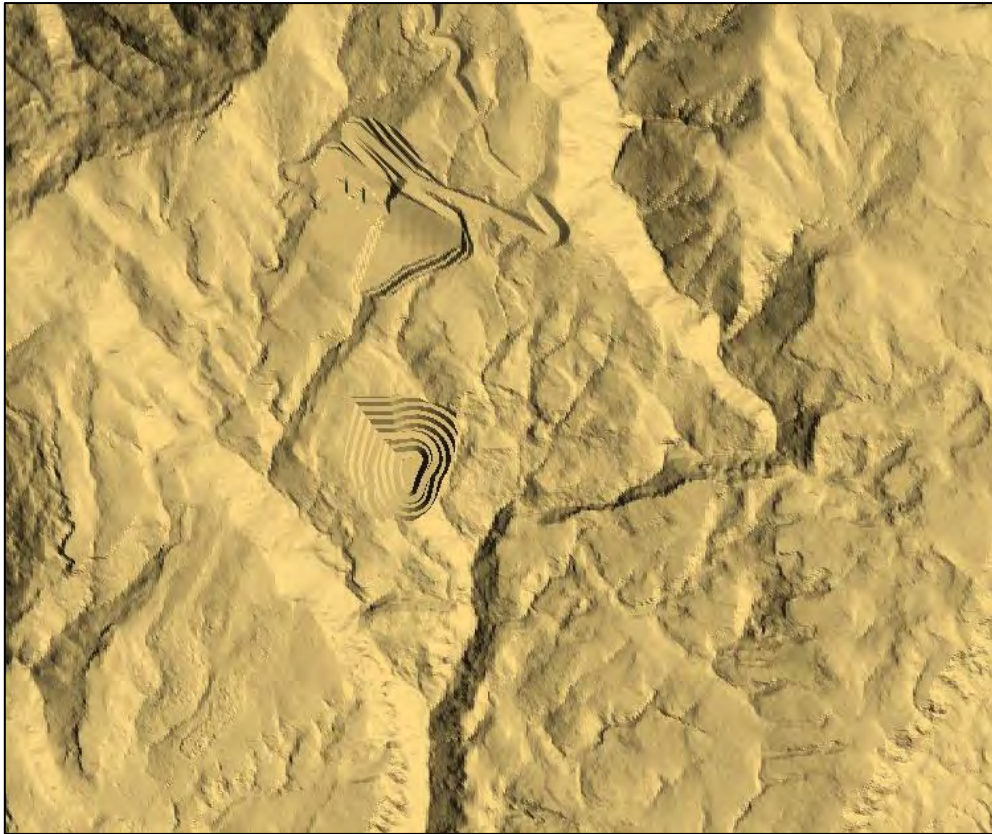


Figure F13: Stage 2 – July 2029

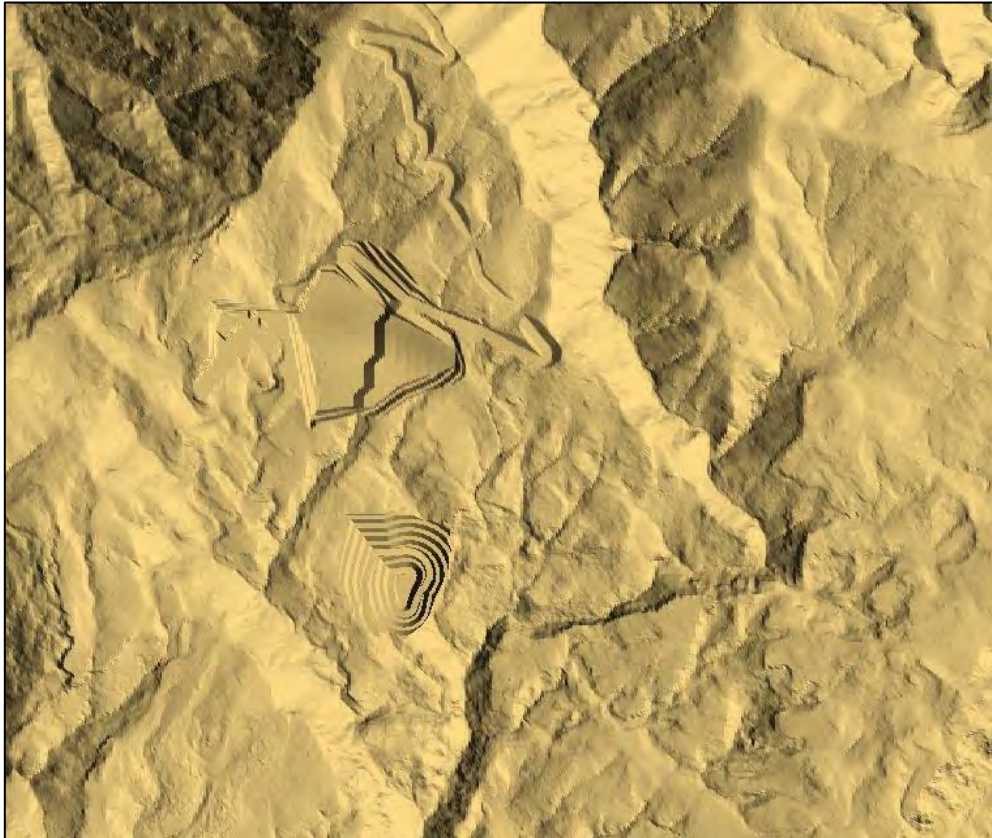


Figure F14: Stage 3 - July 2030

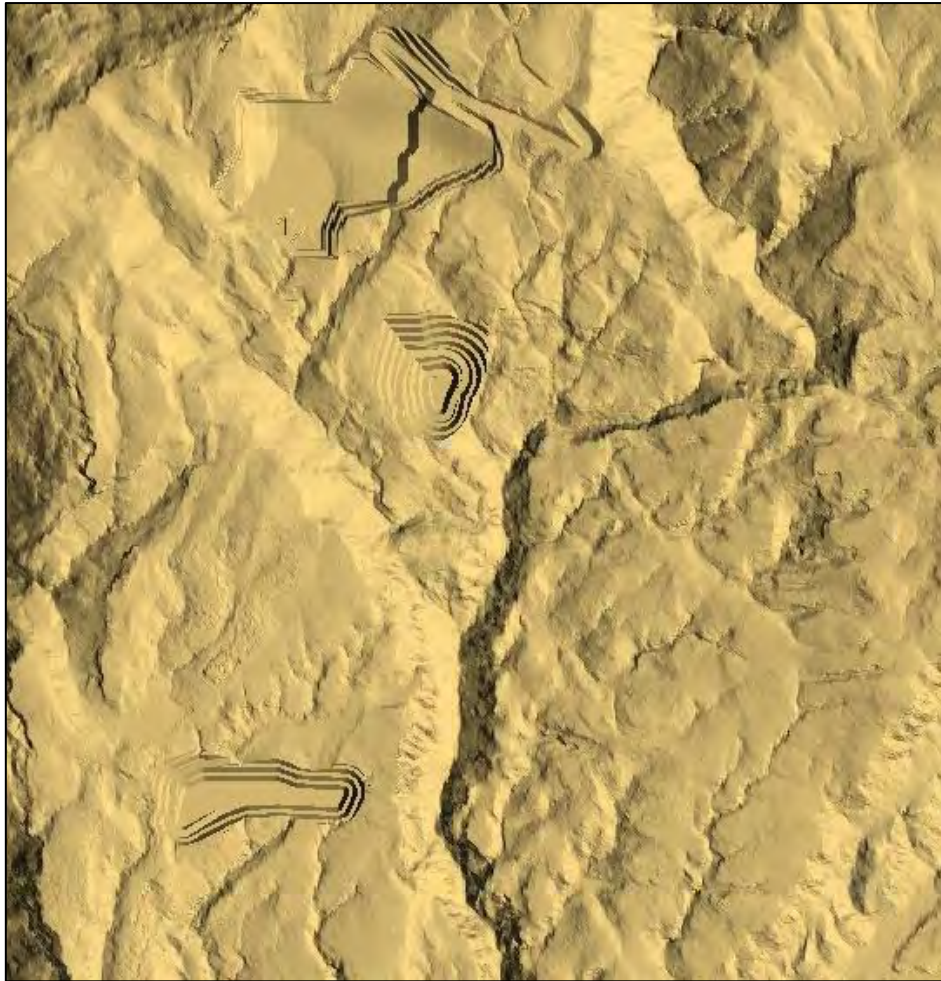


Figure F15: Stage 4 – July 2031

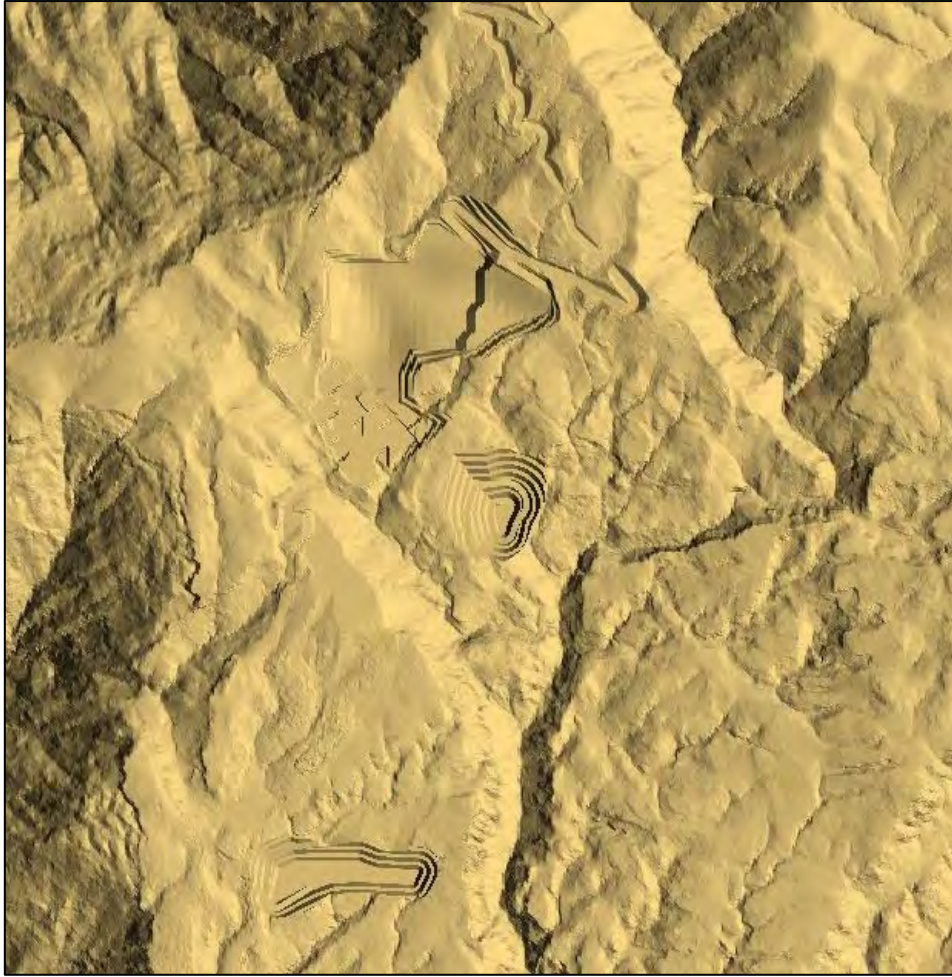


Figure F16: Stage 5 - July 2032

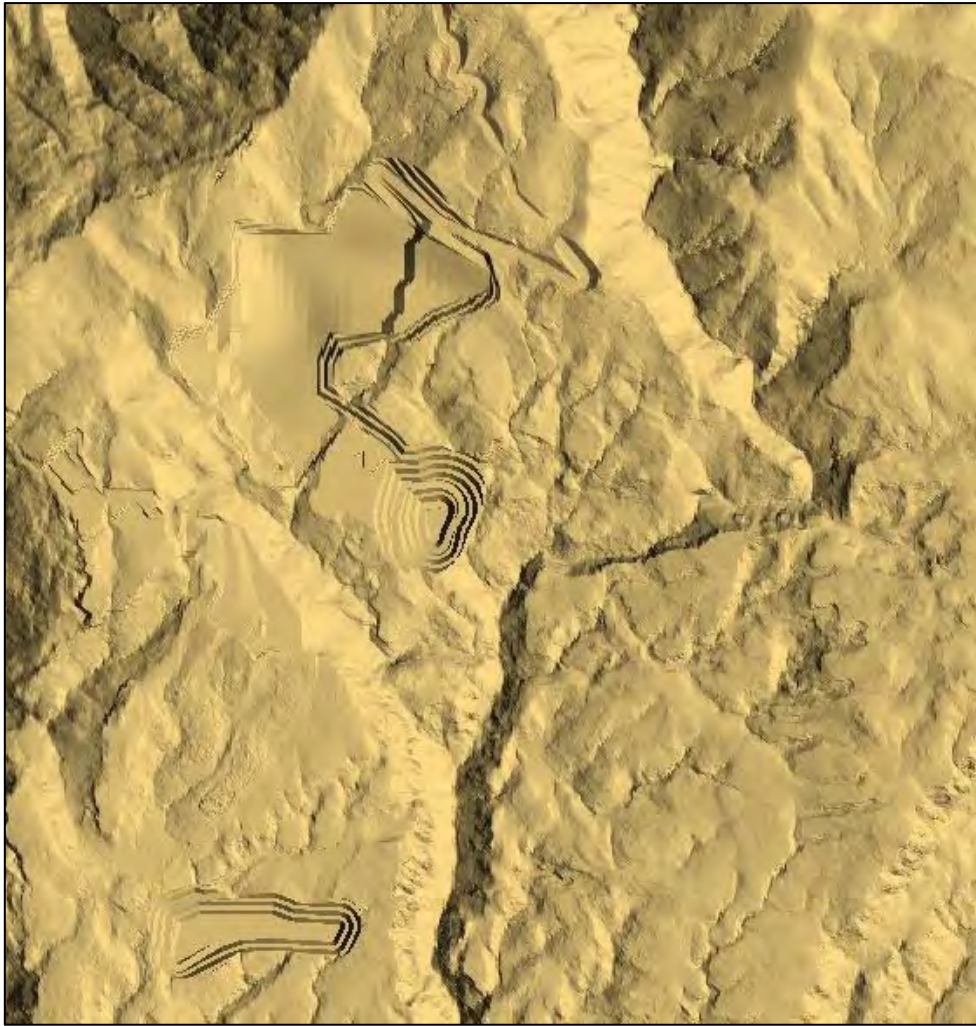


Figure F17: Stage 6 - July 2033

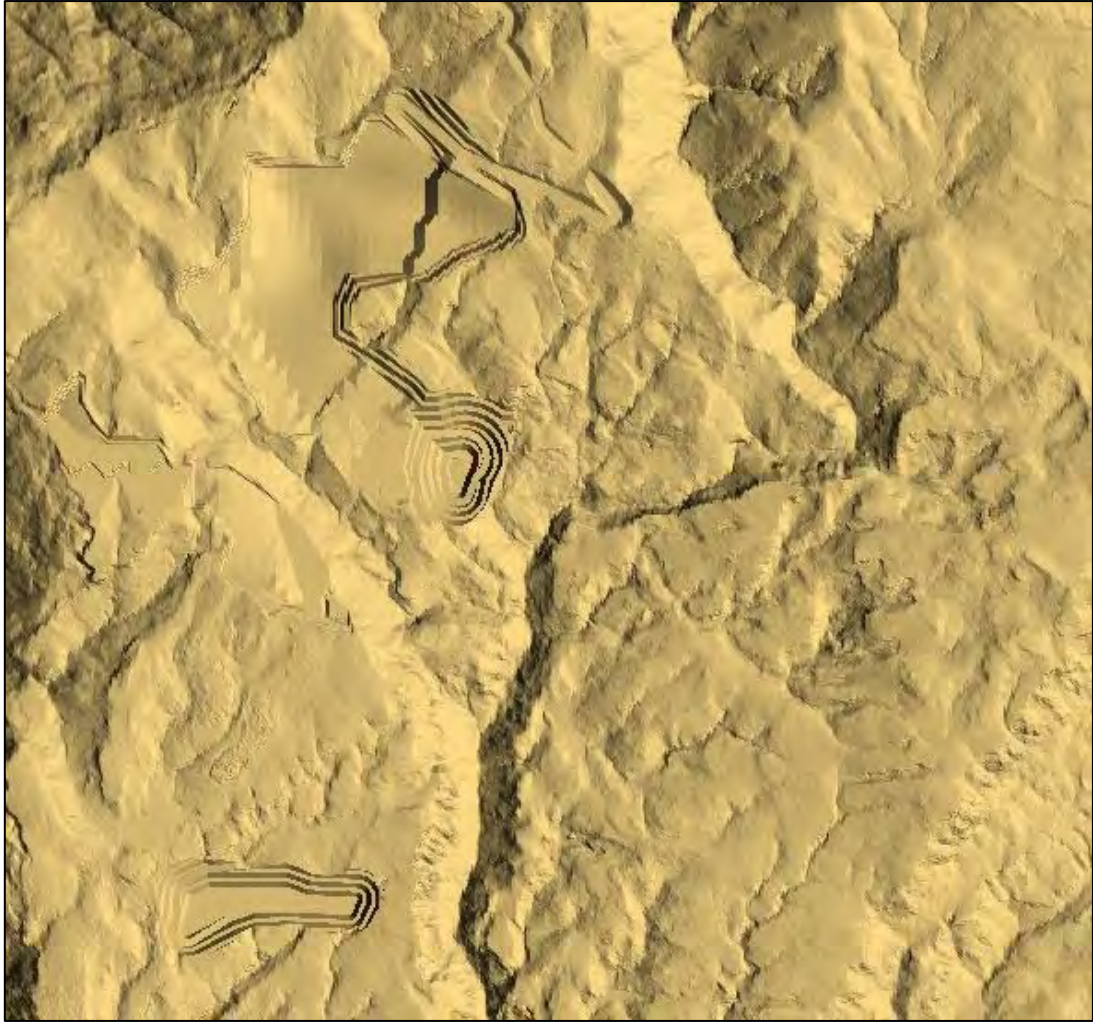


Figure F18: Stage 7 - July 2034

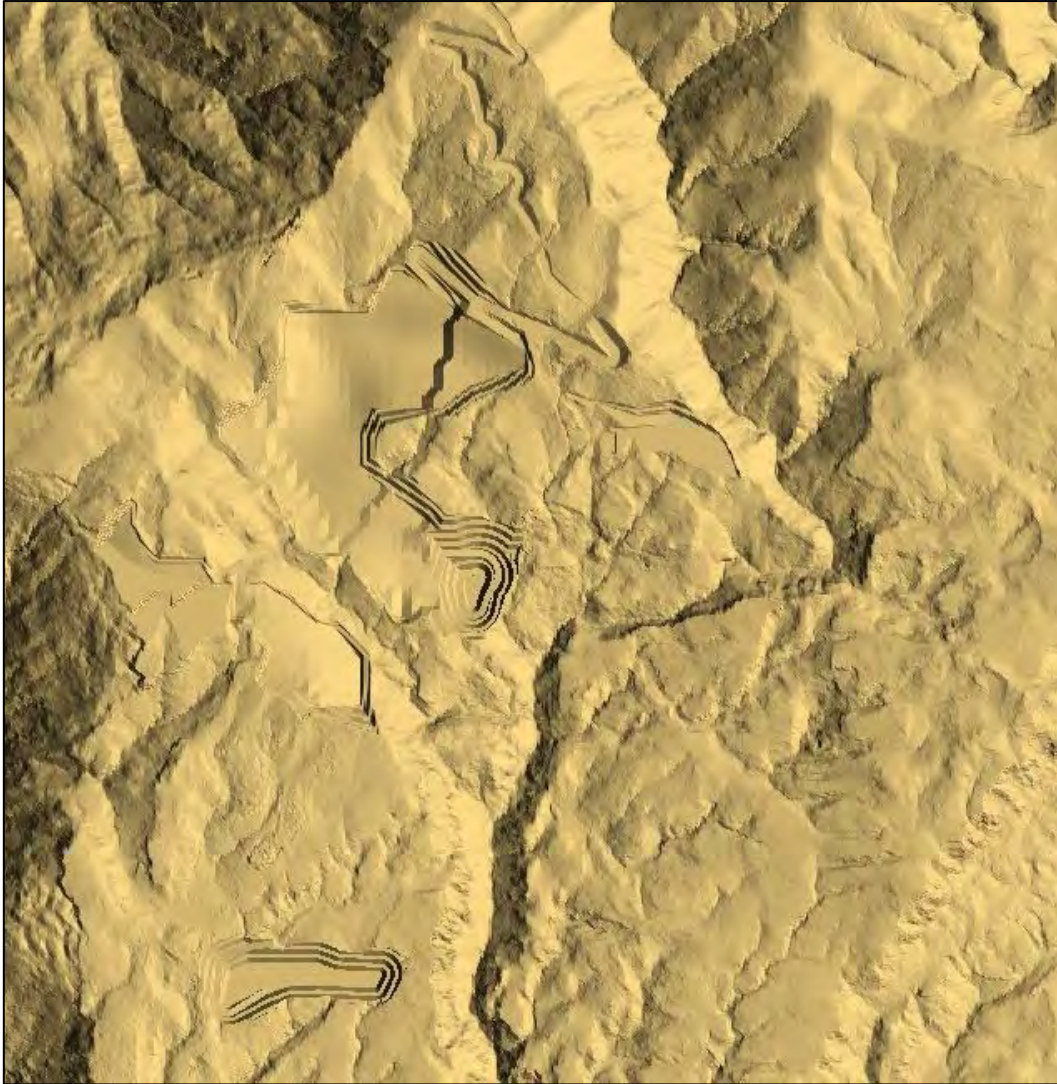


Figure F19: Stage 8 - July 2035

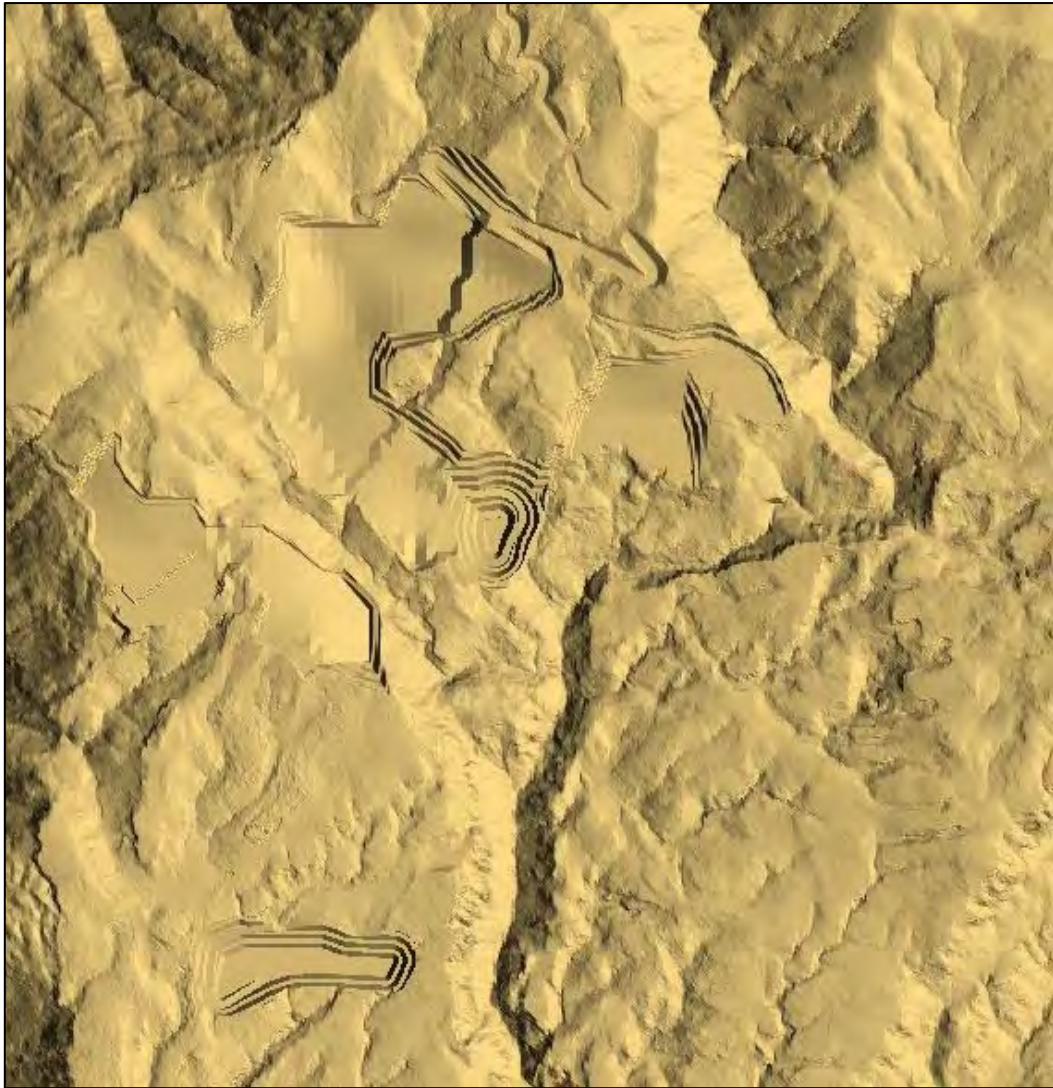


Figure F20: Stage 9 - July 2036

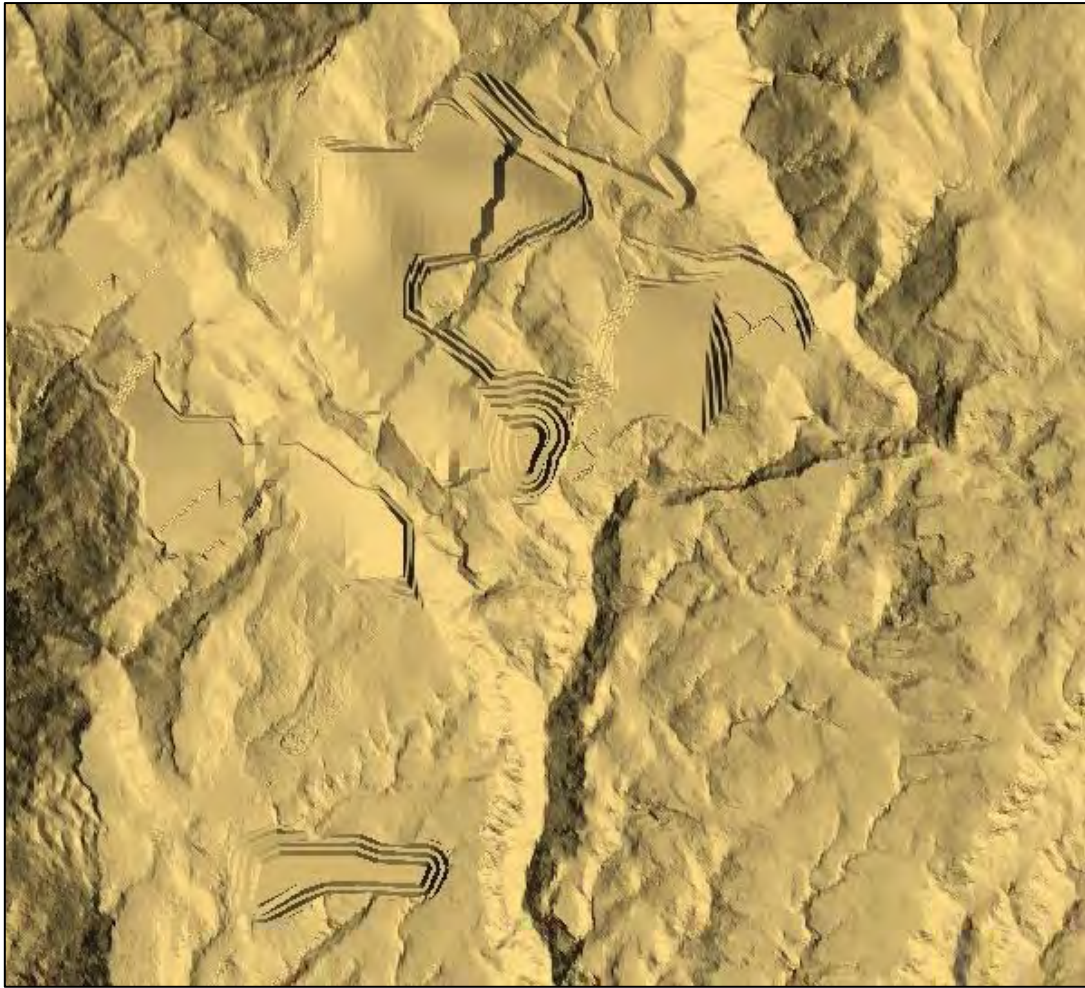


Figure F21: Stage 10 – July 2037

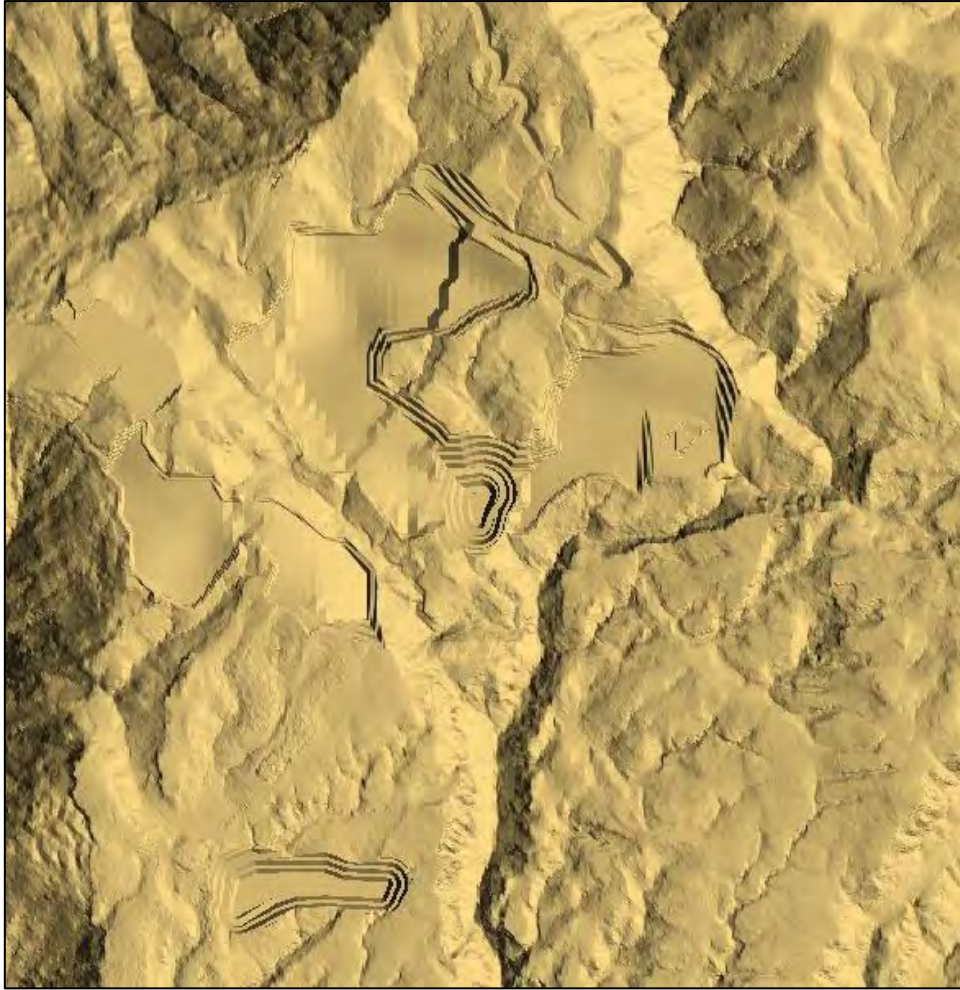


Figure F22: Stage 11 – July 2038

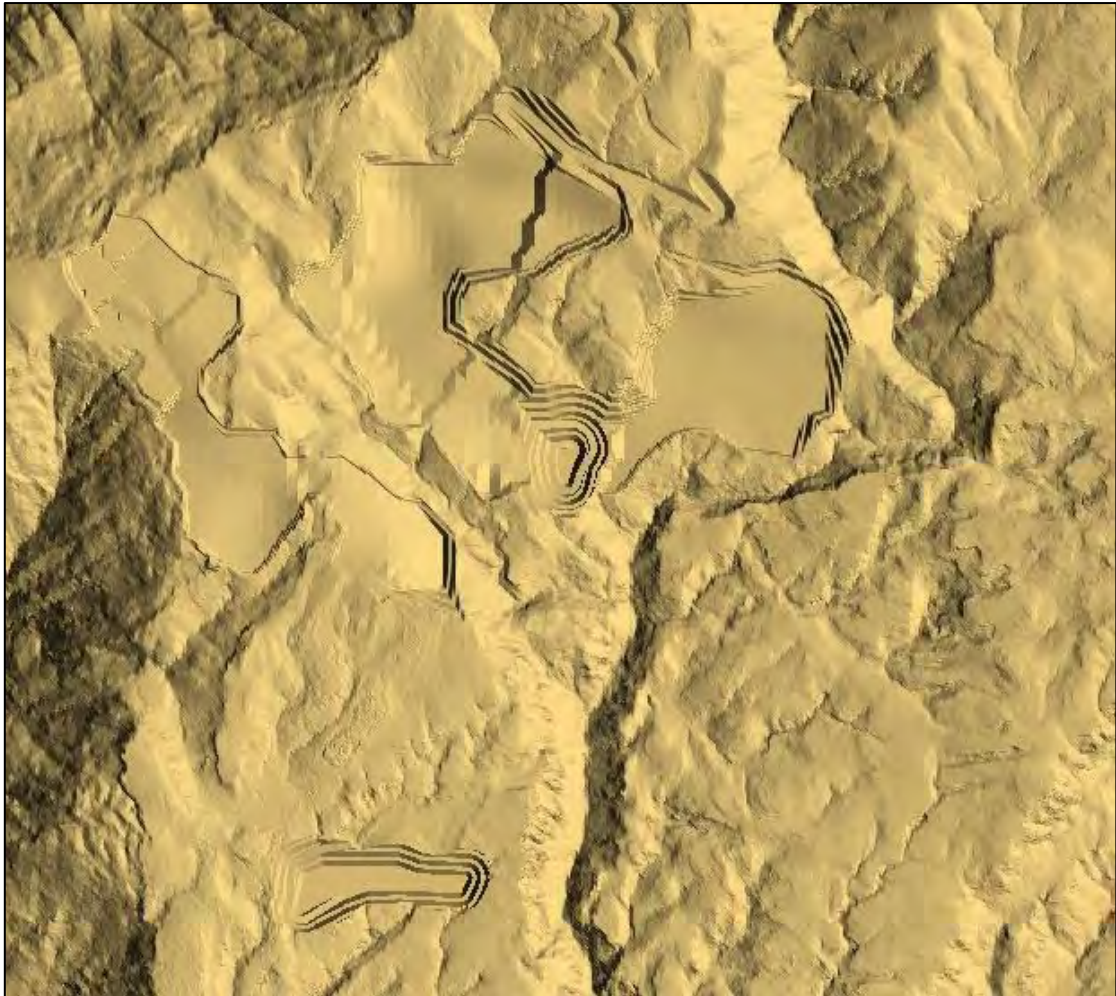


Figure F23: Stage 12 - July 2039

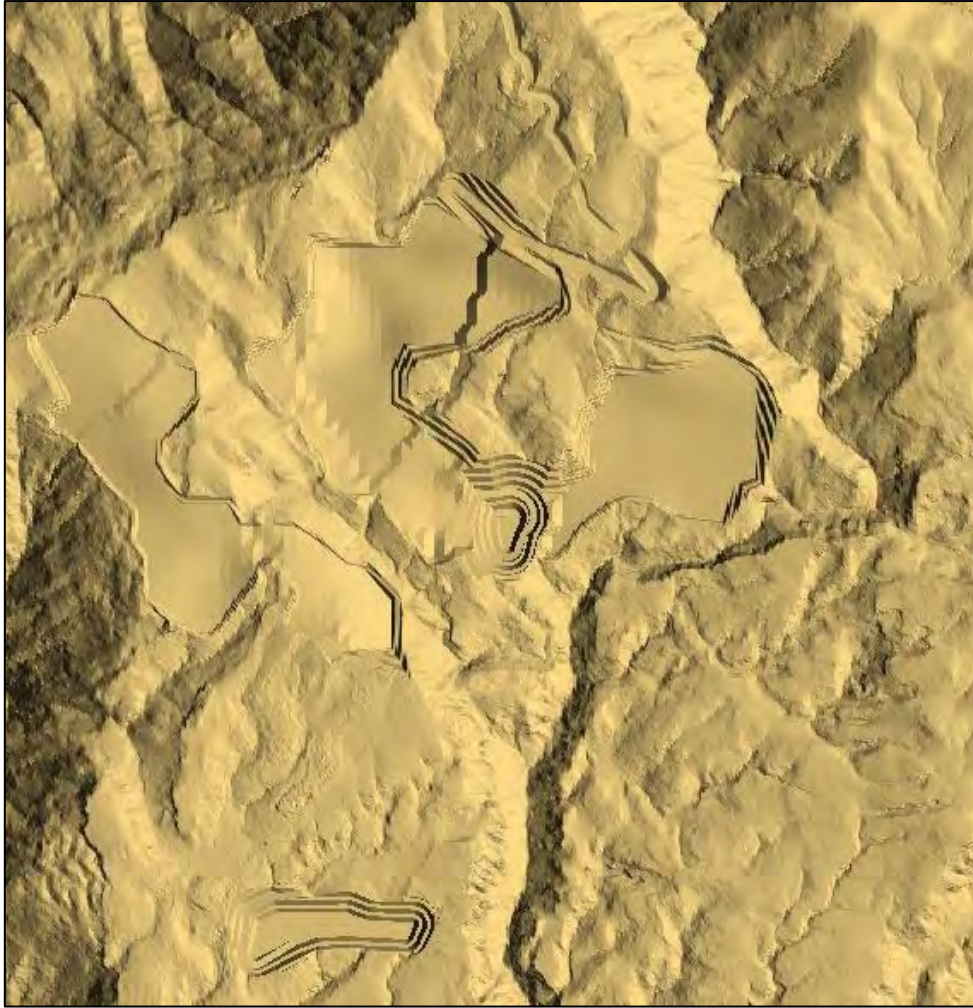


Figure F24: Stage 13 – July 2040

Mount Fred South – Staging – Waste Dump Construction

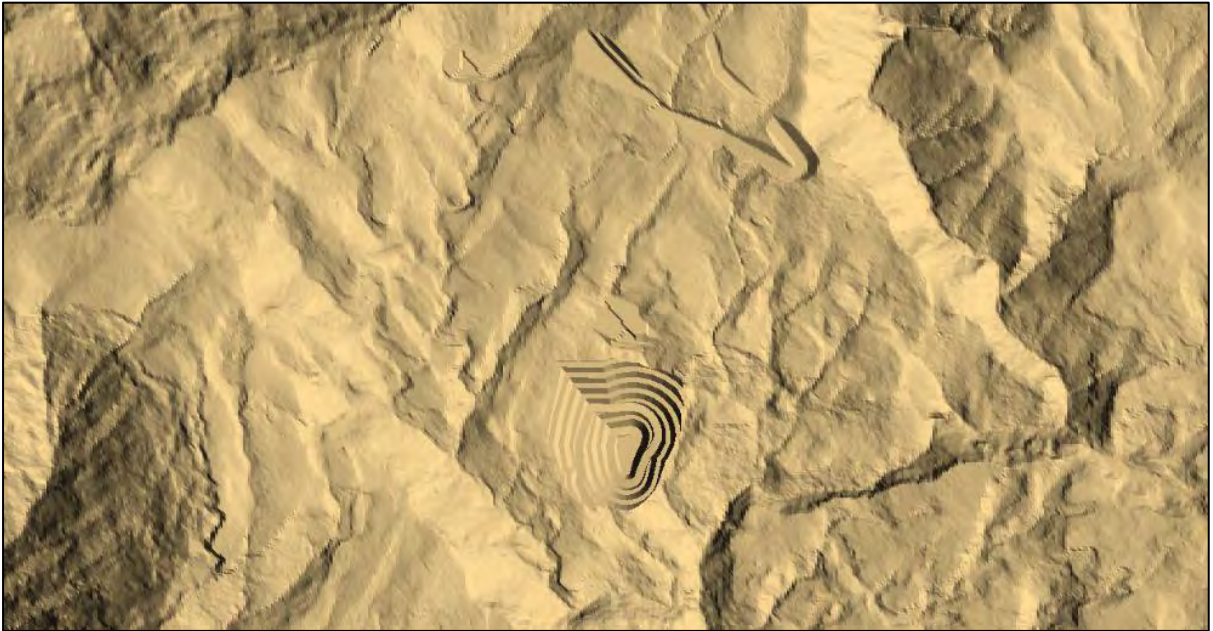


Figure F1: Stage 1 – July 2028

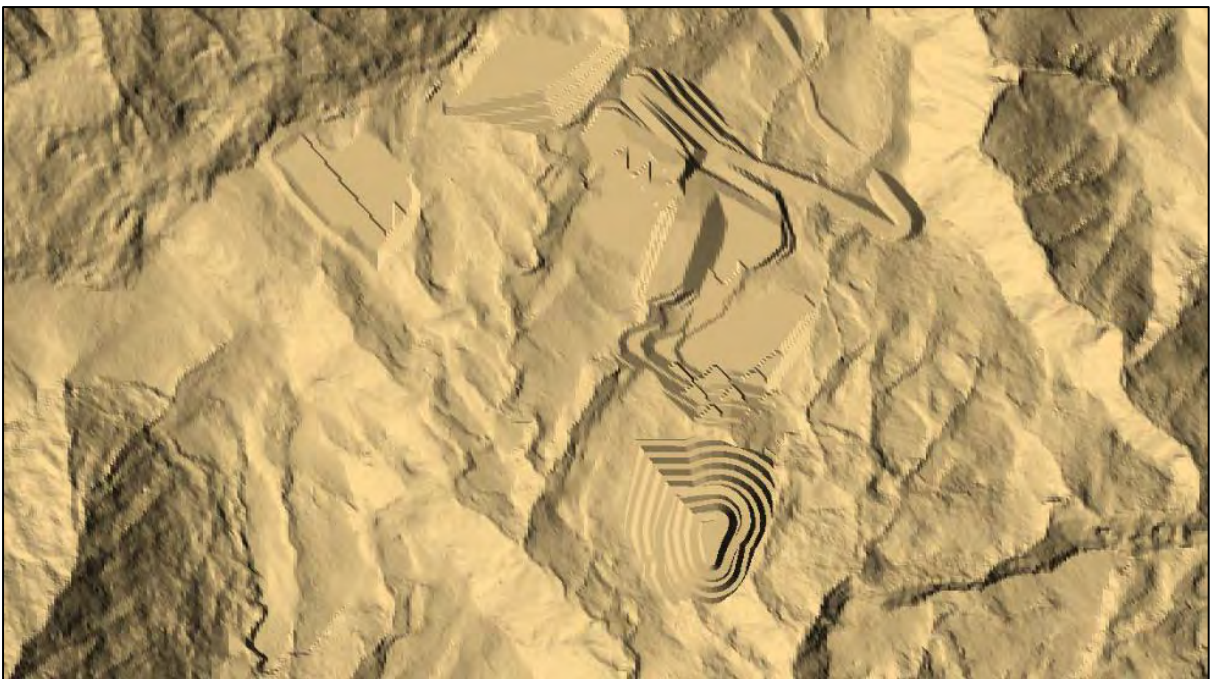


Figure F2: Stage 2 - July 2029

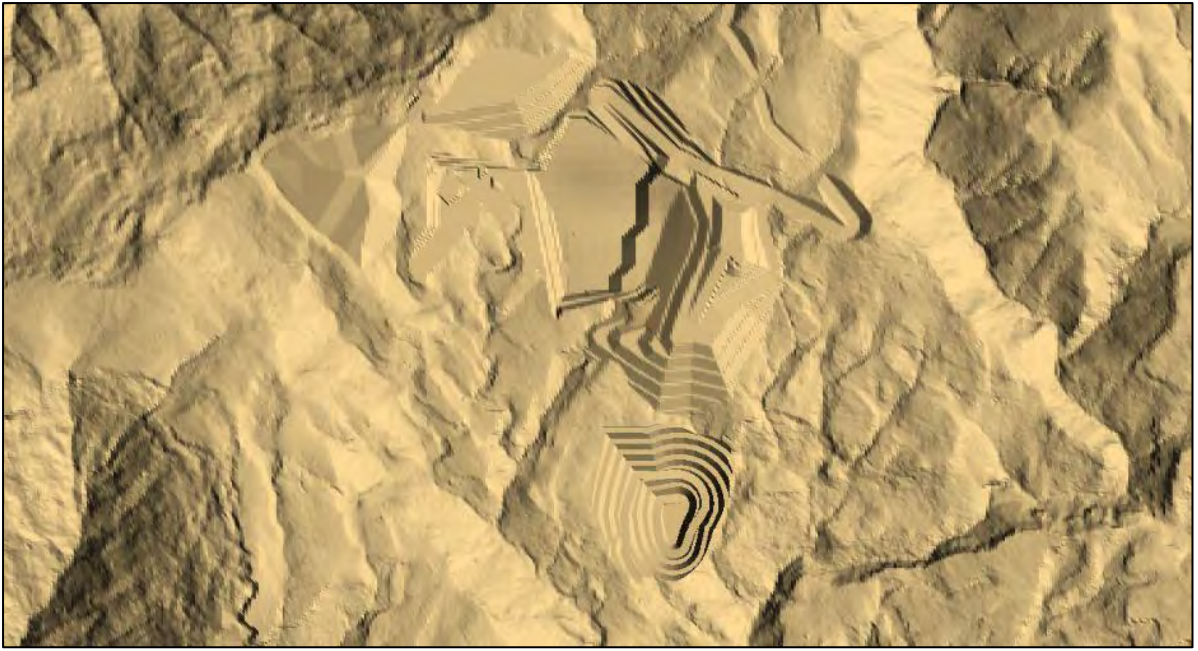


Figure F3: Stage 3 – July 2030

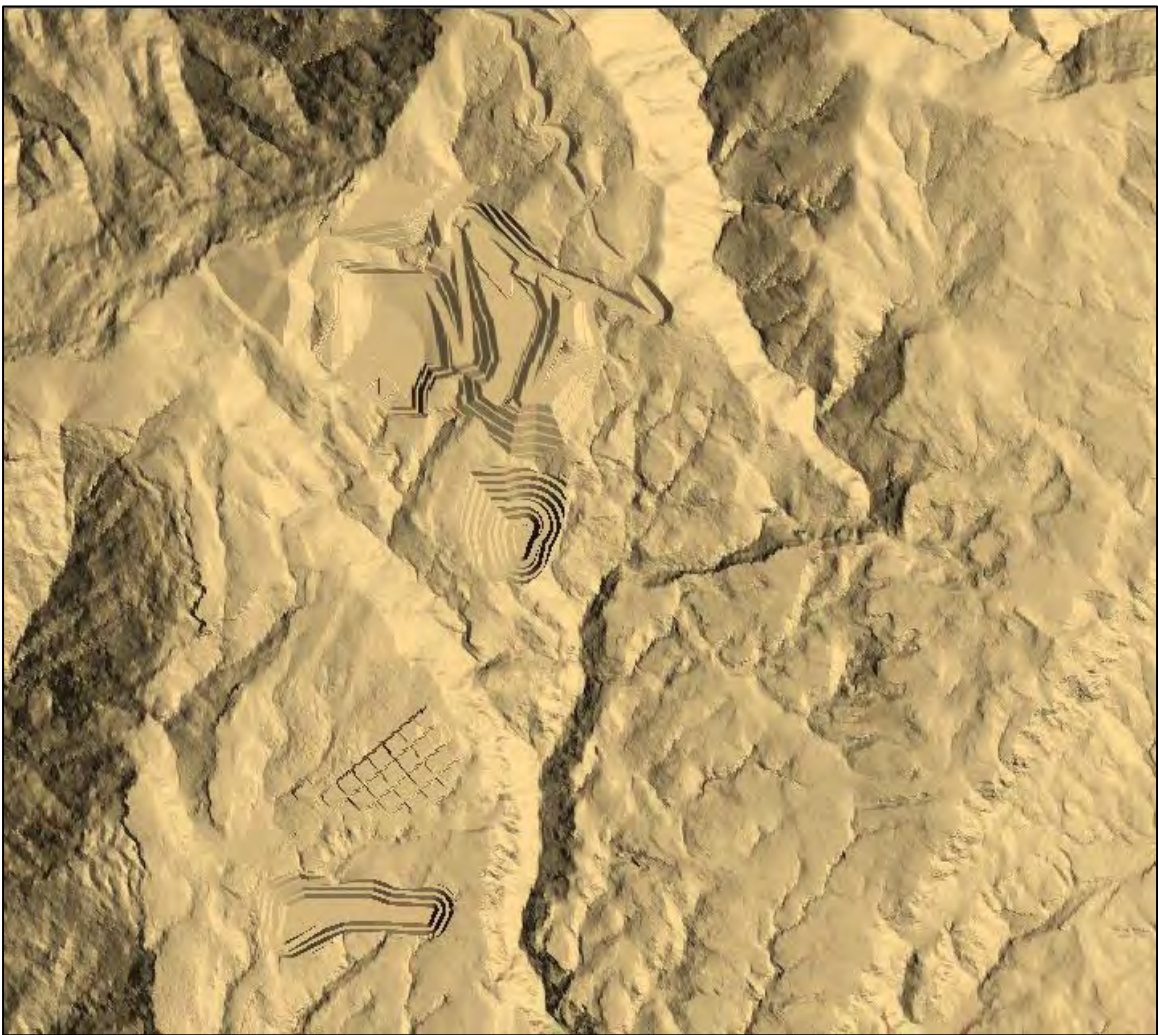


Figure F4: Stage 4 – July 2031

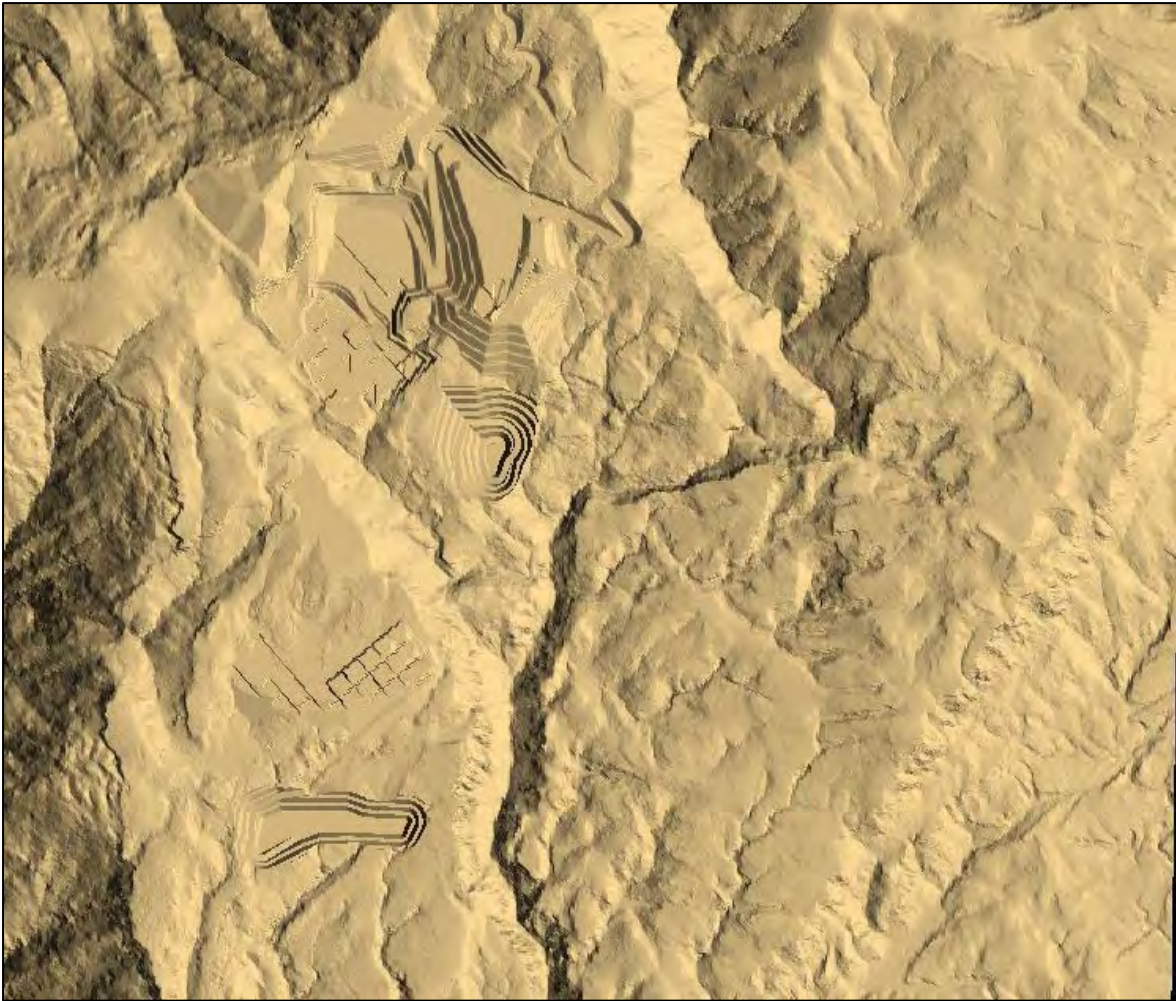


Figure F5: Stage 5 – July 2032

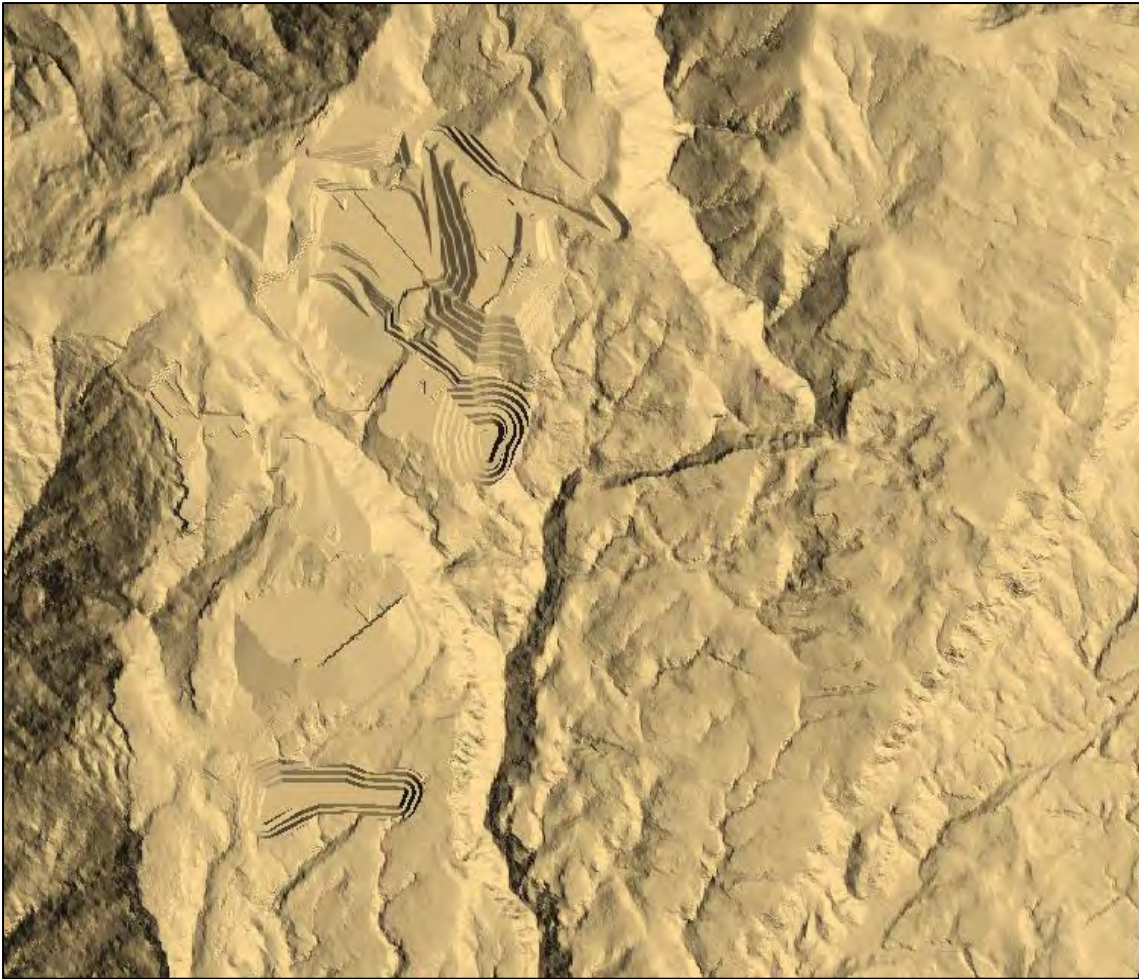


Figure F6: Stage 6 – July 2033

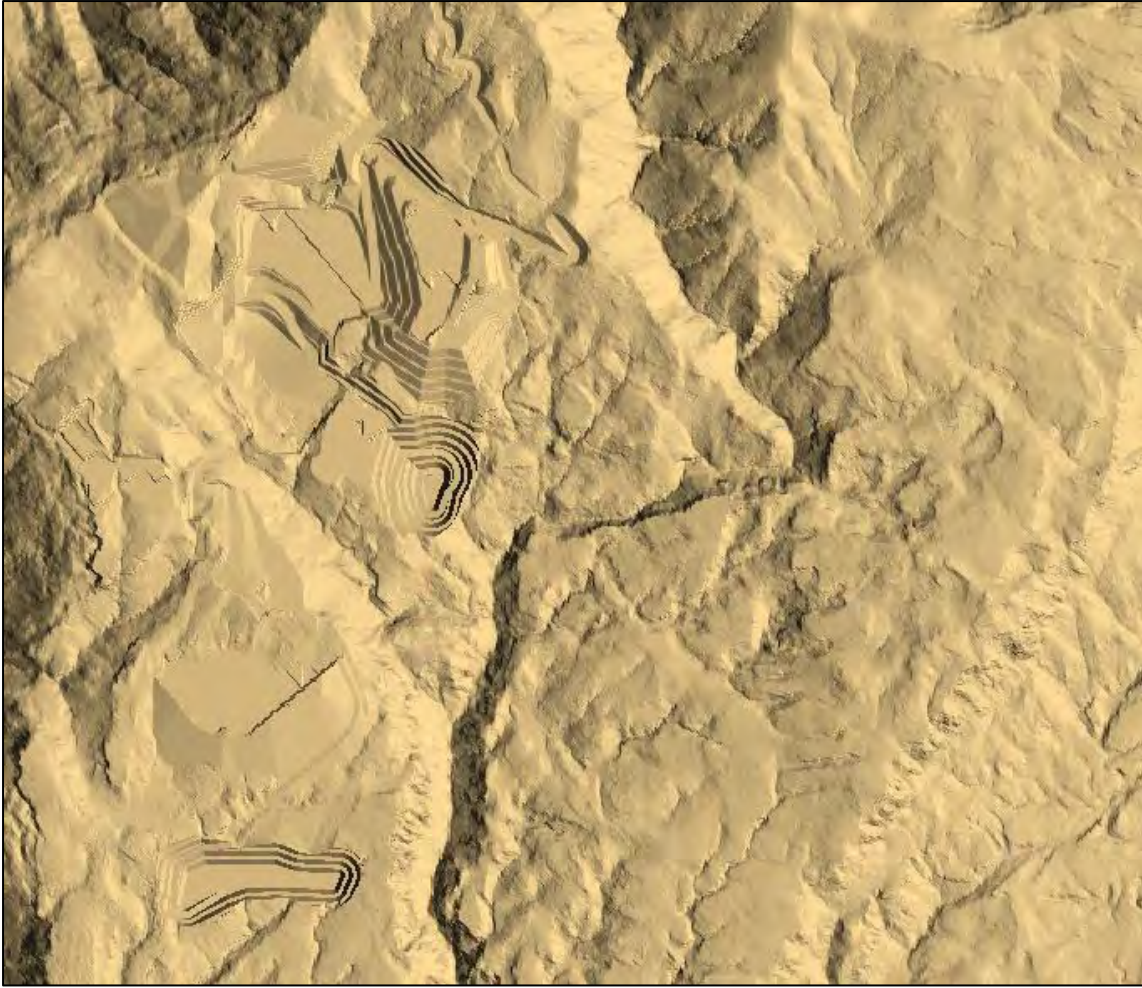


Figure F7: Stage 7 – July 2034

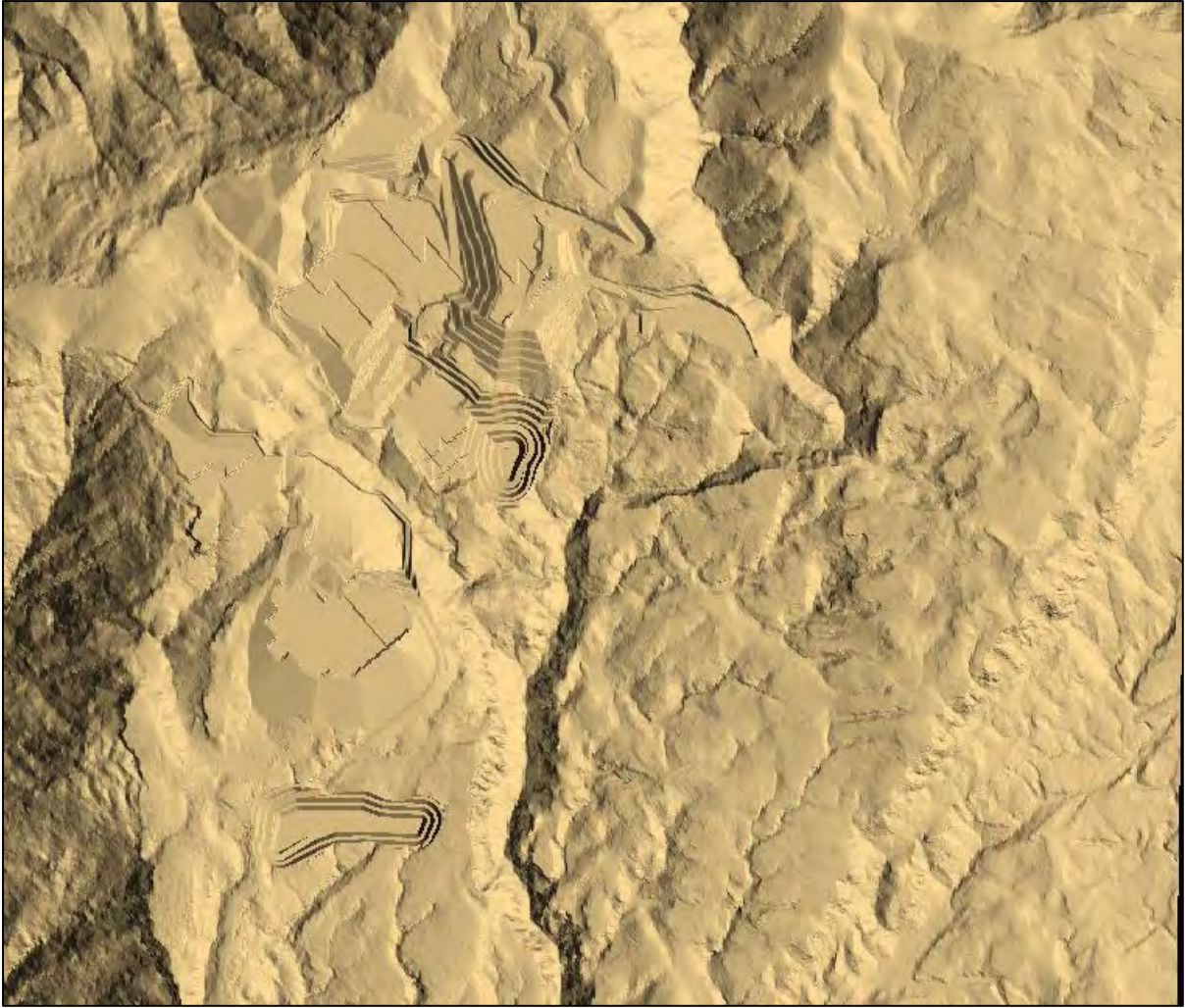


Figure F8: Stage 8 – July 2035

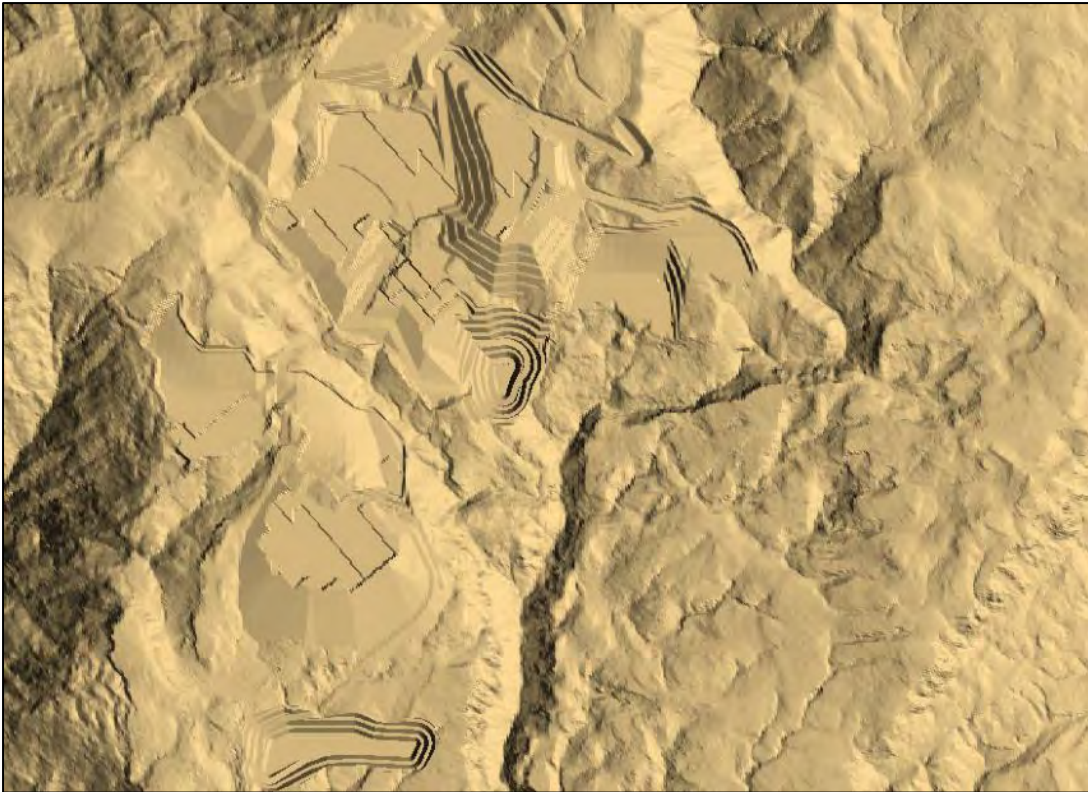


Figure F9: Stage 9 – July 2036

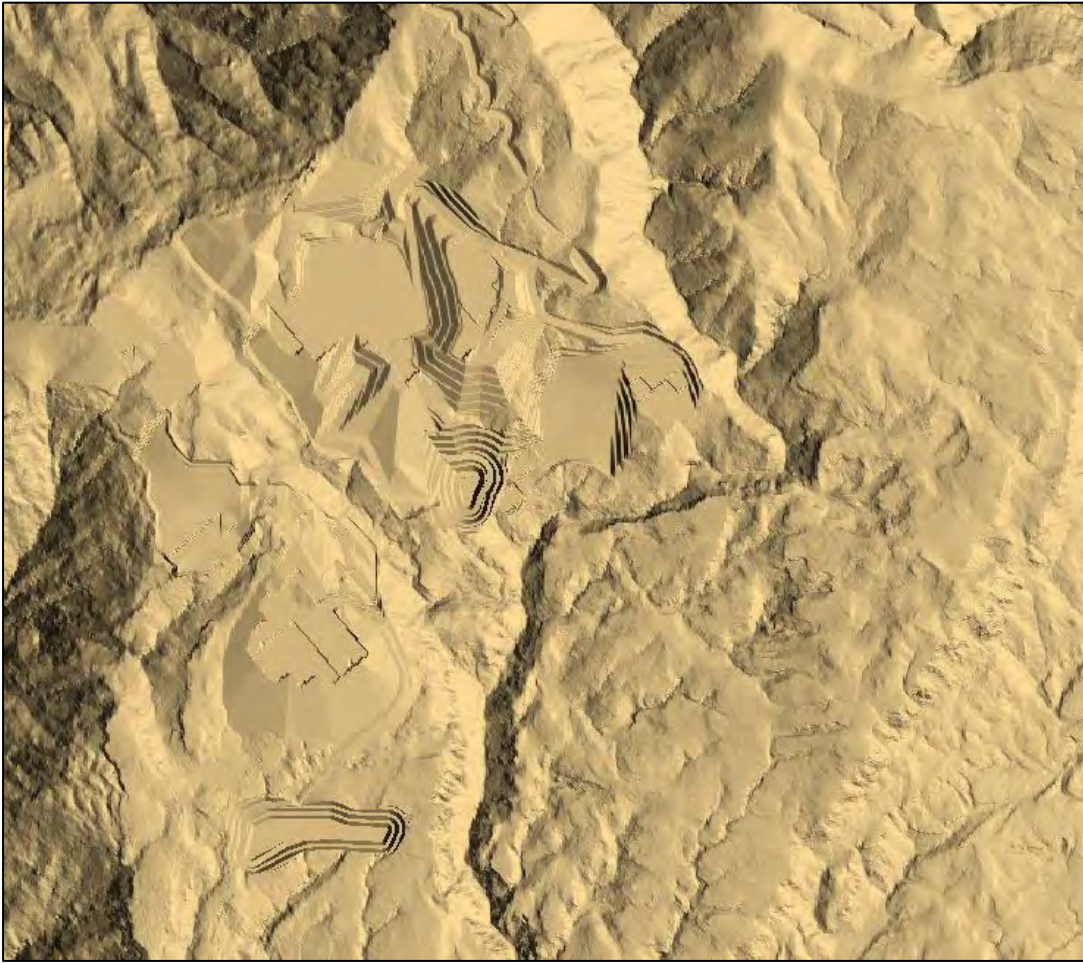


Figure F10: Stage 10 – July 2037

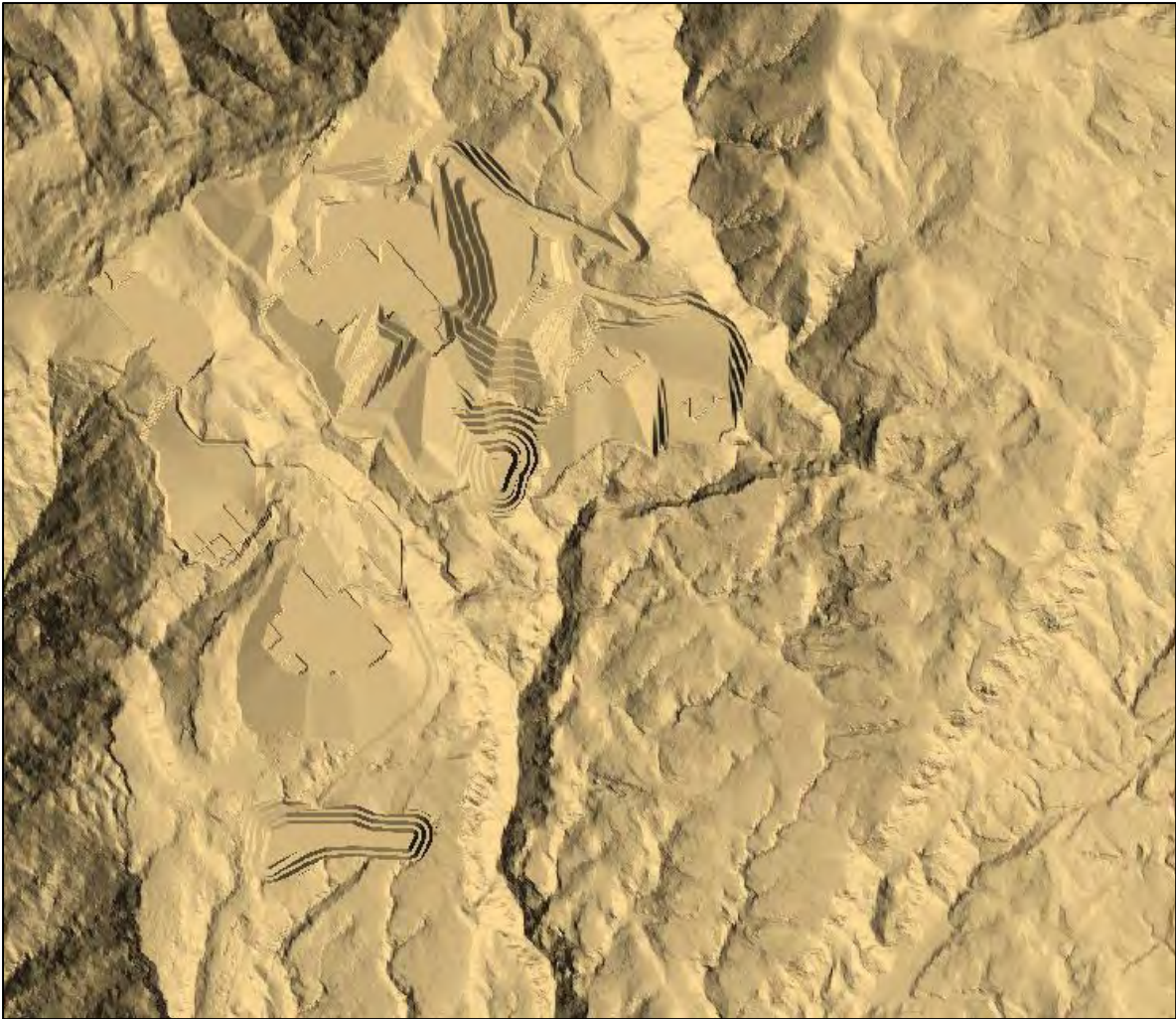


Figure F11: Stage 11 – July 2038

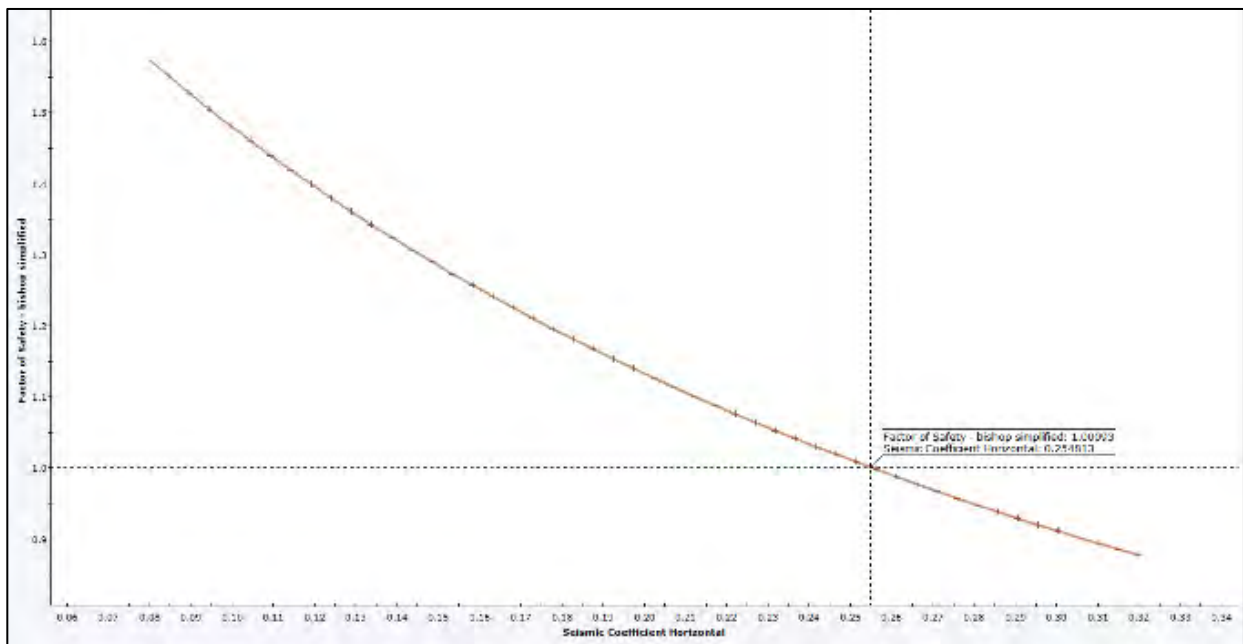


Figure G1 – Section 100 – East Pit – Northwestern Highwall

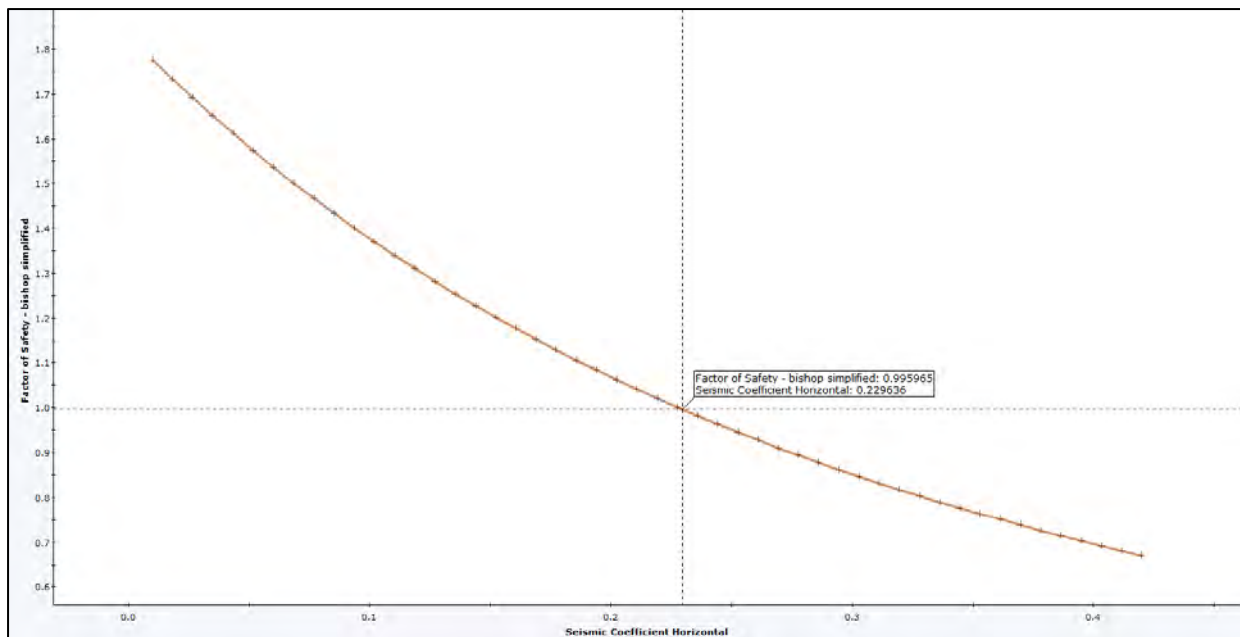


Figure G2 Section 100 East Pit South-Eastern Highwall

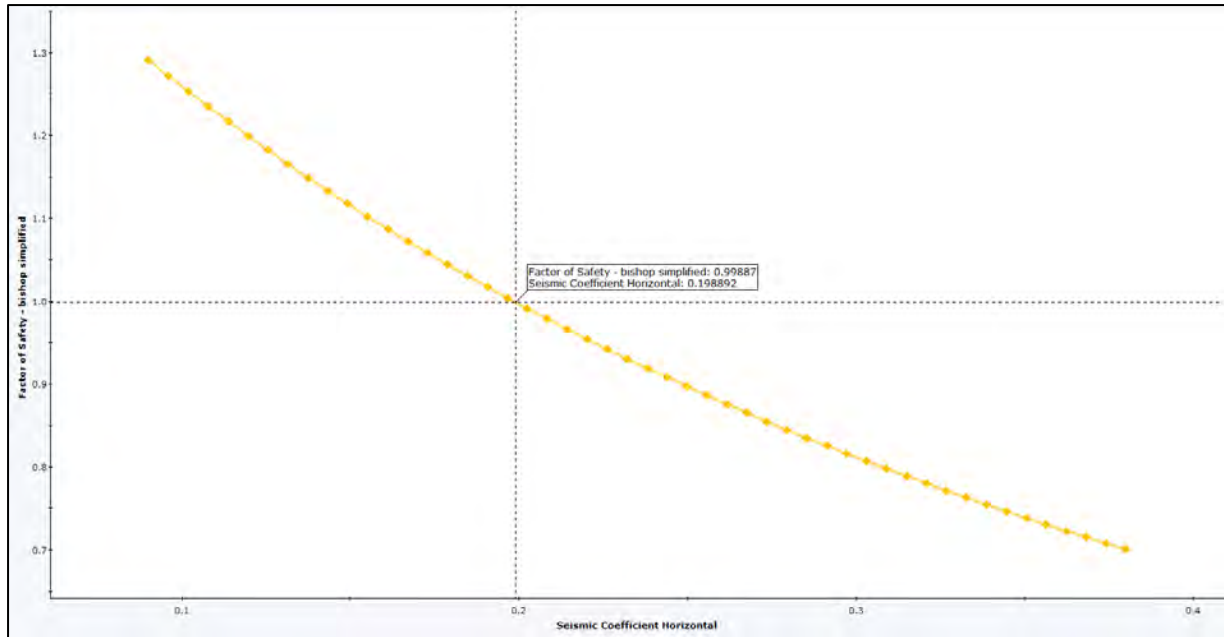


Figure G3 Section 101- East Pit Highwall

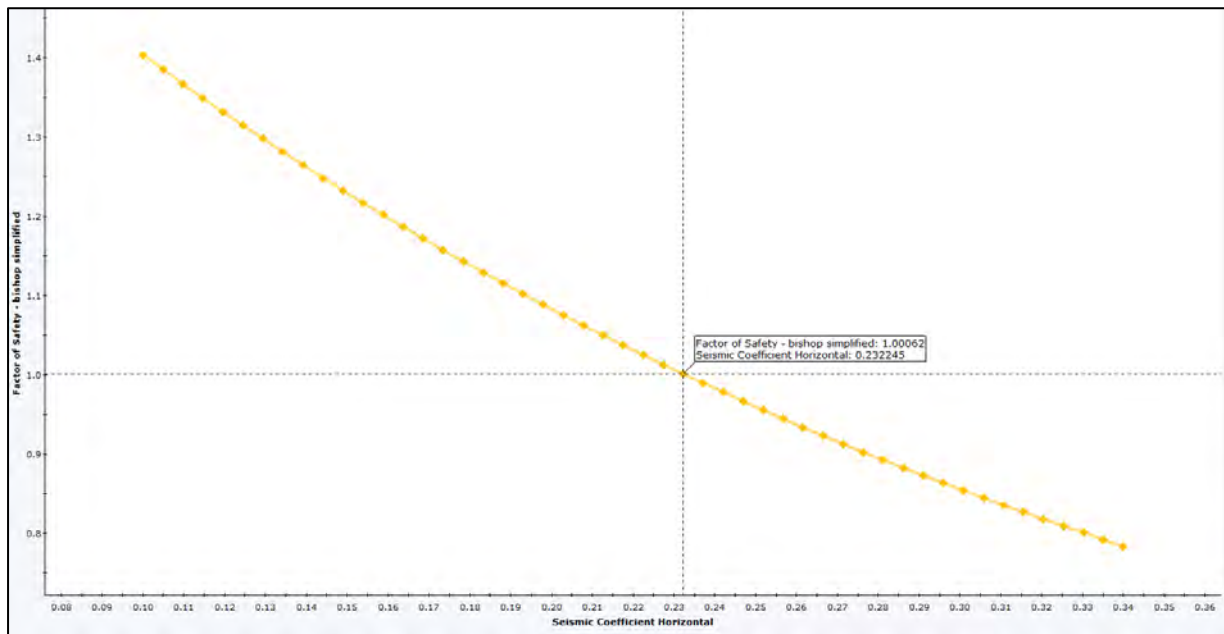


Figure G4 Section 102 - East Pit Northern Highwall

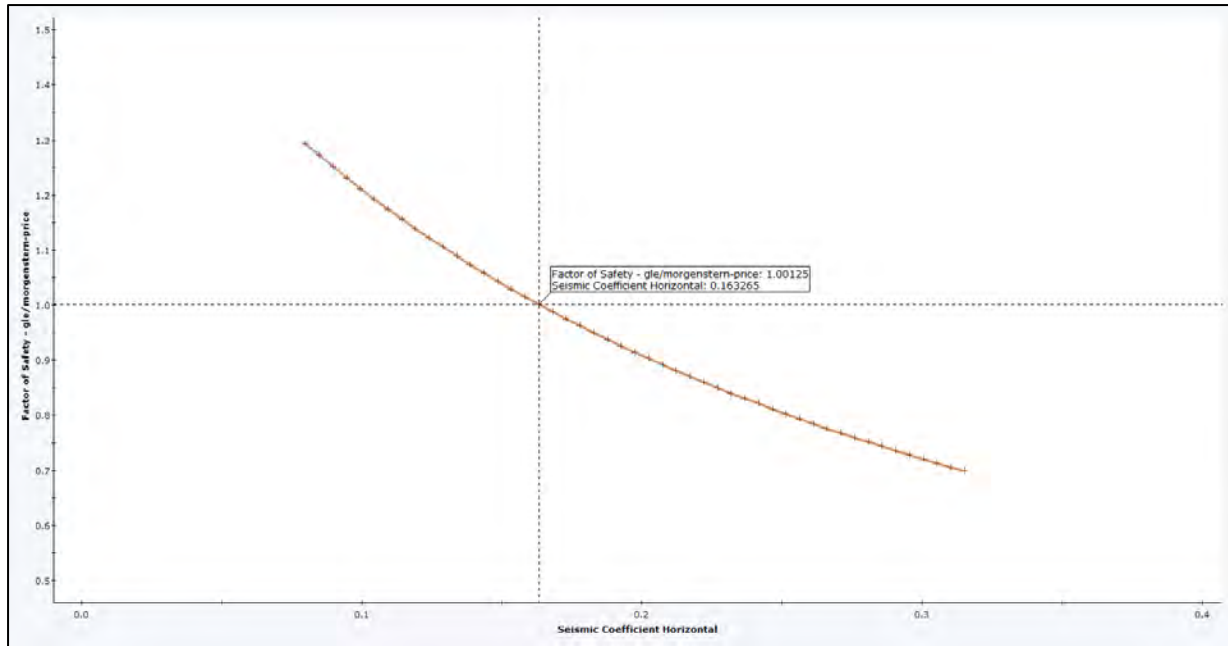


Figure G5: Section 104 – East Pit Highwall (North)

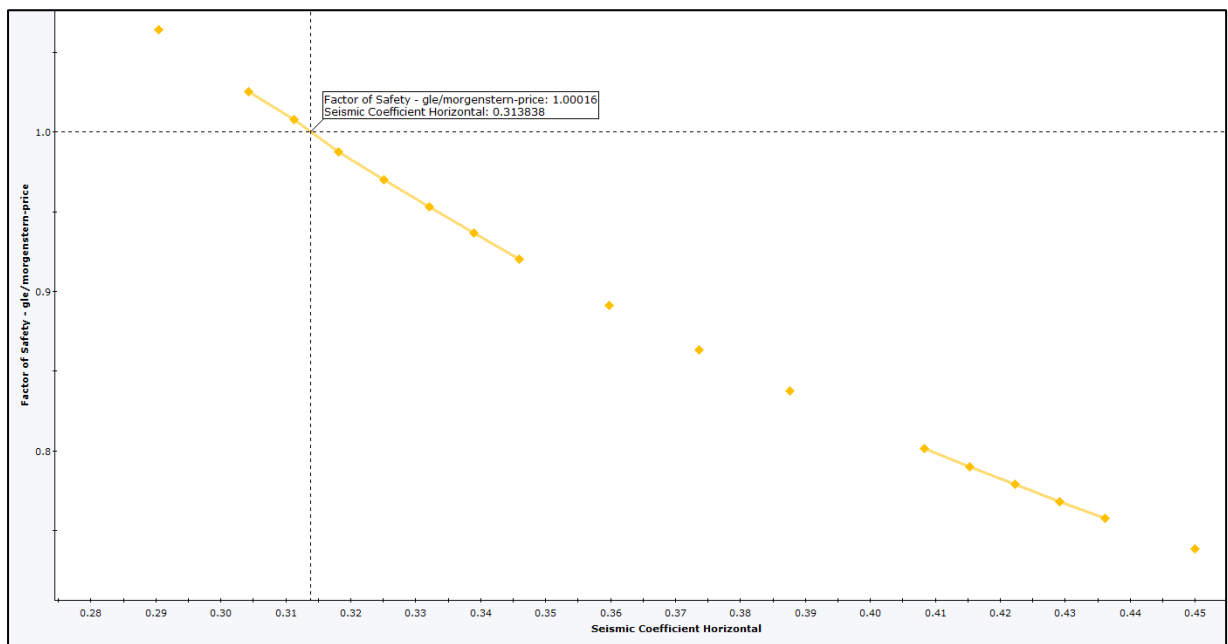


Figure G6: Section 105 – East Pit Highwall (Northeast)

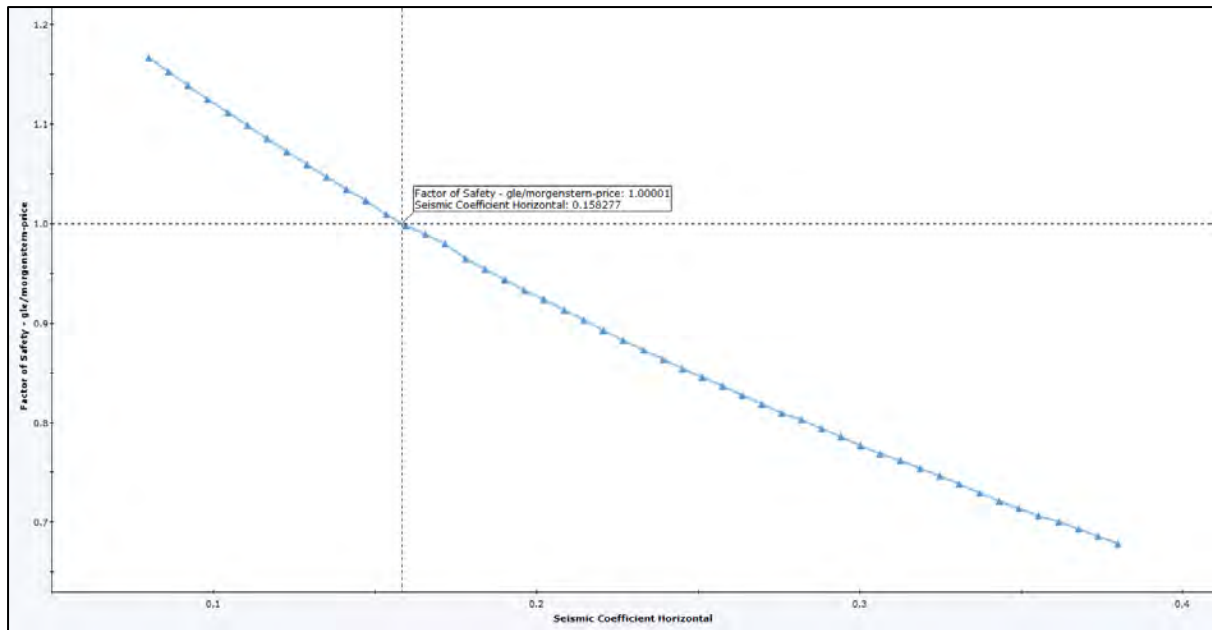


Figure G7: Section 106 East Pit Highwall – Eastern Side of Pit

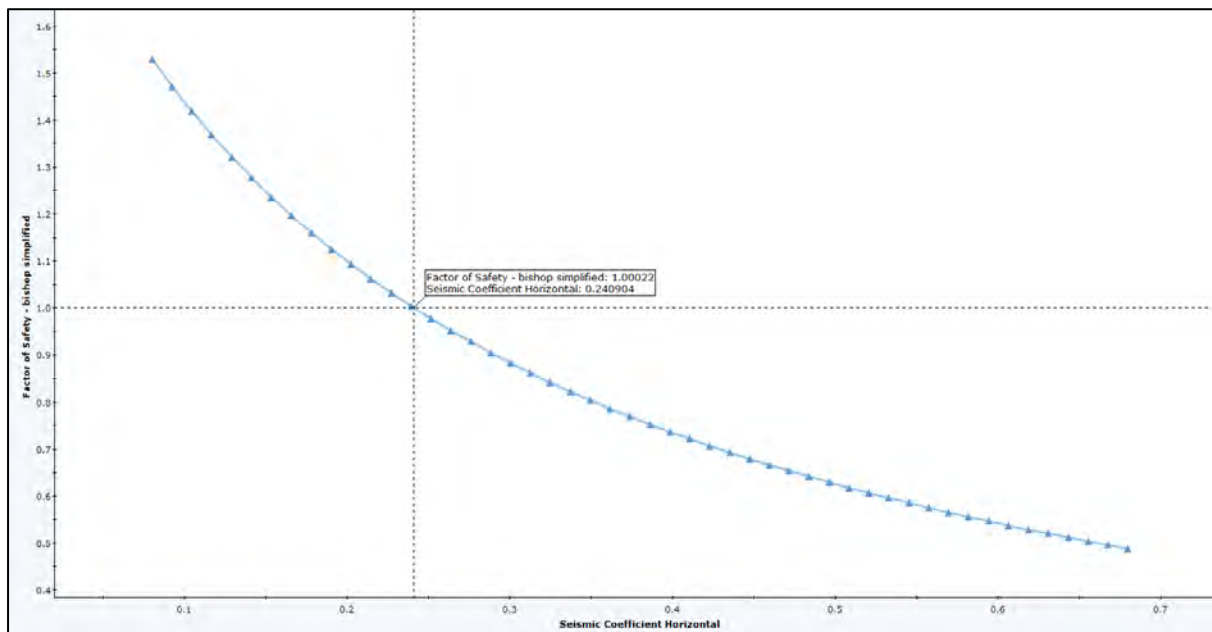


Figure G8: Section 106 East Pit Highwall – Eastern Side of Pit



Photograph 1: BTM photograph taken 18 October 2023. Example of dense vegetation in the vicinity of the proposed Mount Fred South Project.



Photograph 2: BTM photograph taken 18 October 2023. Example of BCM sandstone outcrop.



Photograph 3: BTM photograph taken 18 October 2023. Example of shallow surface collapse over suspected historic underground workings.



Photograph 4: Photograph taken 18 October 2023. Example of coal outcrop with sandstone overburden.



Photograph 5: BTM photograph taken 18 October 2023. Example of vegetation over the BCM sandstone pavement.



Photograph 6: BTM photograph taken 18 October 2023. Example of sandstone pavement, near suspected collapsed underground workings.



Photograph 7: BTM photograph taken 18 October 2023. Example of an adit in the historic underground workings.



Photograph 8: BTM photograph taken 18 October 2023. Example of an adit in the historic underground workings. Adit roof propped with timber poles.



Photograph 9: BTM photograph taken 18 October 2023. Coal seam outcrop at surface.



Photograph 10: BTM photograph taken 18 October 2023. Example of roof collapse into historic underground workings.

APPENDIX I

Glossary of Abbreviations

General:

ALT – Advance Logic Technology

ATV – Acoustic Tele-Viewer

BTM – Bathurst Mining Limited

DC – Deep Creek

GNS – New Zealand Institute of Geological and Nuclear Sciences

HGG – Hydro Geochem Group

IANZ – International Accreditation New Zealand

MFS – Mount Fred South

NZGS – New Zealand Geological Society

OTV – Optical Tele-viewer

PDP – Pattle Delamore Partners Limited

URS – United Research Services Corporation

Technical:

AMD - Acid Mine Drainage

ASTM – American Society for Testing and Materials

BOD – Basis of Design

D – Disturbance Factor

DAC – Design Acceptance Criteria

DC# - Deep Creek Drillhole Number

ELF – Engineered Landform

EP – Exploration Permit

F1 – Fault Group 1 (Generally NW – SE trending)

F2 – Fault Group 2 (Generally NE -SW trending)

FoS – Factor of Safety

g/cc – grams per cubic centimetre

gm – global mean of structure orientations

GSI – Geological Strength Index

GW – Groundwater

HW – Highwall

ILF – Infill Engineered Landform

kN/m³- kilonewtons per cubic metre

kPa -kilopascal

LL -Liquid Limit

m – metre

m bgl – metres below existing ground level

m btoc – metres below top of casing

mm - millimetre

MP – Mining Permit

MPa -megapascal

M RL – metres reduced level

NZSM – New Zealand Seismic Model

NZTM – New Zealand Transverse Mercator Projection

NZVD2016 – New Zealand Vertical Datum 2016

RQD -Rock Quality Designation

Sct# – Cross -Section Number

SW - Stormwater

t/m³ – tons per cubic metre

U/G – Underground Workings

UCS – Unconfined Compressive Strength

Lithology:

ARG – Argillite

BCM – Brunner Coal Measures

BSM – Basement Rock

CM - Coal Measures –

CO – Coal

CQ – High ash coal

CSS – Coarse grained Sandstone

FSS – Fine grained Sandstone

GBB – Greenland Group Basement

GRBX – Granular Breccia

GRCG - Granular Conglomerate

GWK - Greywacke

HCM – Highly Carbonaceous Mudstone

LC – Lost Core

LCSS – laminated coarse Sandstone

LFSS – Laminated Fine Sandstone

LMSS – Laminated Medium Sandstone

LVFS – Laminated Very Fine Sandstone

M1 – Mangatangi Coal Seam 1 (Lower)

M2 - Mangatangi Coal Seam 2 (Middle)

M3 - Mangatangi Coal Seam 3 (Upper)

MSS – Medium Grained Sandstone

MST – Mudstone

PBBX - Proximal Bedding Breccia

PBCG – Proximal Bedding Conglomerate

VCSS – Very Coarse Sandstone

VFSS – Very fine Sandstone

ZSS – Siltstone

Structure:

BPS – Bedding Plane Shear

FT - Fault

FZ – Fault Zone

ZC, CSH or CZN – Crush Zone

