



APPENDIX 8-1

Dynamic Cone Penetration Results

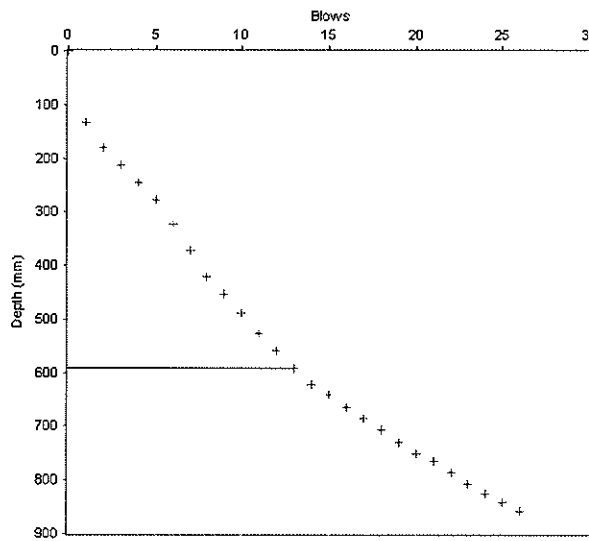
DCP Layer Strength Analysis Report

Project Name: UMMA q010.1 DCP Testing

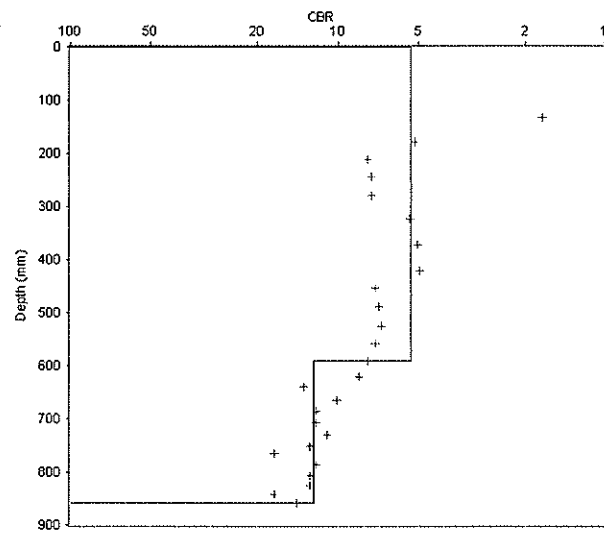
Chainage (km): 1.000
 Direction:
 Location/Offset: Verge
 Cone Angle: 60 degrees
 Zero Error (mm): 130
 Test Date: 01/07/2022

Surface Type: Unpaved
 Thickness (mm): 0
 Base Type:
 Thickness (mm):
 Surface Moisture: Dry
 Moisture adjustment factor: Not adjusted

Layer Boundaries: Chainage 1.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	45.46	5	591	591
2	20.62	12	268	859

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

DCP Layer Strength Analysis Report

Project Name: UMMA q010.1 DCP Testing

Chainage (km): 2.000

Direction:

Location/Offset: Verge

Cone Angle: 60 degrees

Zero Error (mm): 130

Test Date: 01/07/2022

Surface Type: Unpaved

Thickness (mm): 0

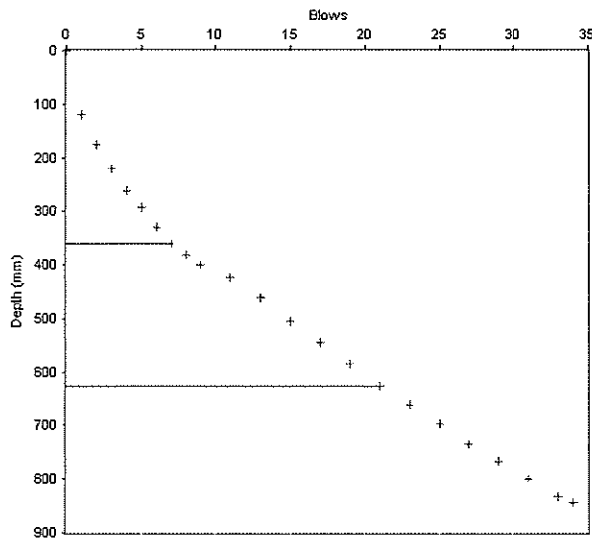
Base Type:

Thickness (mm):

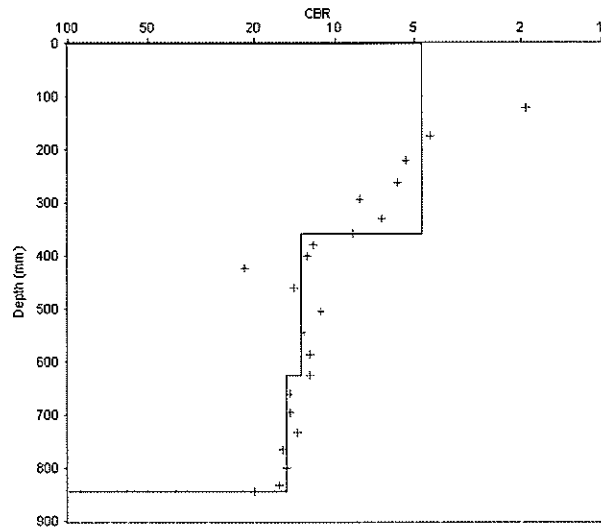
Surface Moisture: Dry

Moisture adjustment factor: Not adjusted

Layer Boundaries: Chainage 2.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	51.29	5	359	359
2	19.07	13	267	626
3	16.85	15	219	845

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

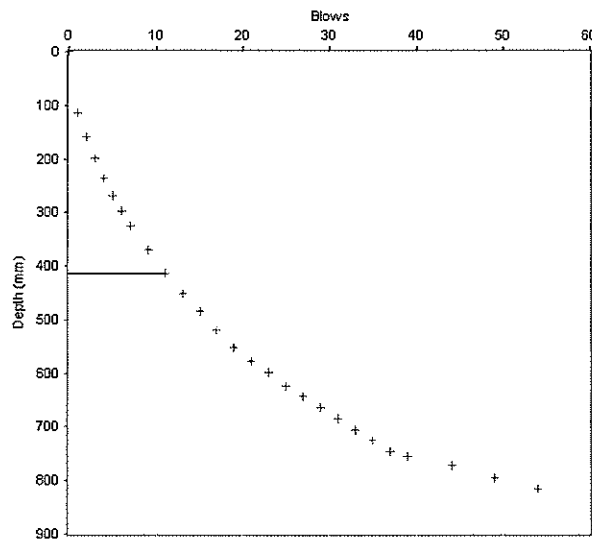
DCP Layer Strength Analysis Report

Project Name: UMMA q010.1 DCP Testing

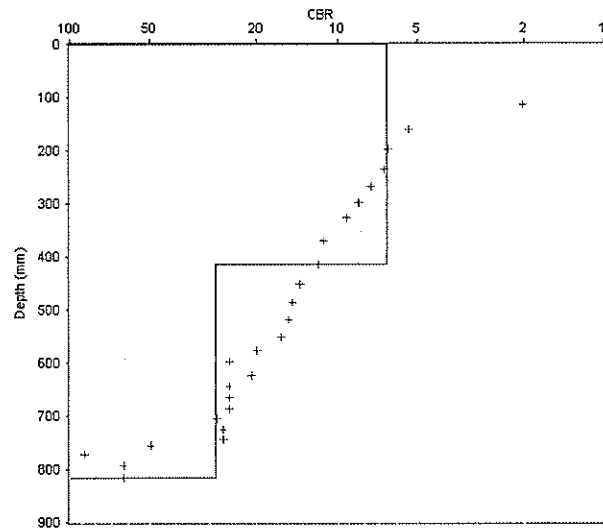
Chainage (km): 3.000
 Direction:
 Location/Offset: Verge
 Cone Angle: 60 degrees
 Zero Error (mm): 116
 Test Date: 01/07/2022

Surface Type: Unpaved
 Thickness (mm): 0
 Base Type:
 Thickness (mm):
 Surface Moisture: Dry
 Moisture adjustment factor: Not adjusted

Layer Boundaries: Chainage 3.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	37.55	7	413	413
2	9.37	28	403	816

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

DCP Layer Strength Analysis Report

Project Name: UMMA q010.1 DCP Testing

Chainage (km): 4.000

Direction:

Location/Offset: Verge

Cone Angle: 60 degrees

Zero Error (mm): 130

Test Date: 01/07/2022

Surface Type:

Unpaved

Thickness (mm):

0

Base Type:

Thickness (mm):

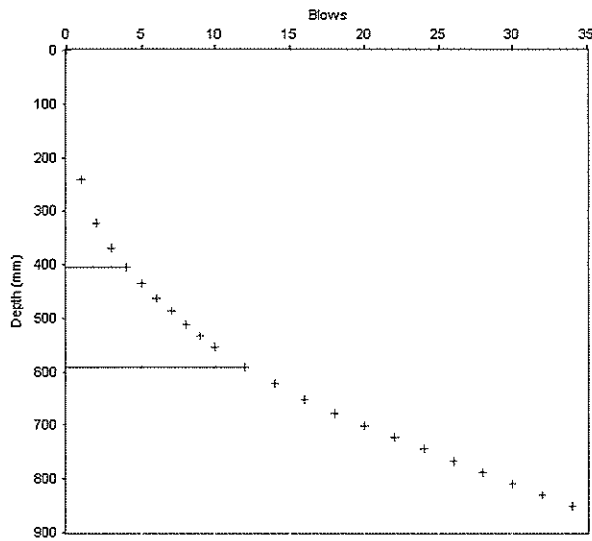
Surface Moisture:

Dry

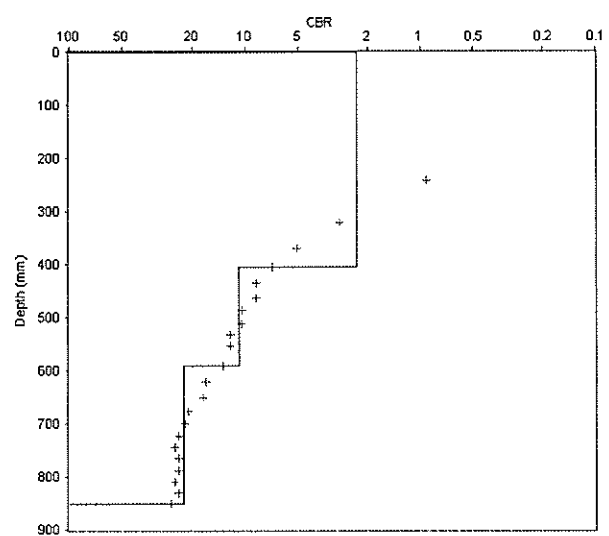
Moisture adjustment factor:

Not adjusted

Layer Boundaries: Chainage 4.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	101.25	2	405	405
2	23.25	11	186	591
3	11.82	22	260	851

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

DCP Layer Strength Analysis Report

Project Name: UMMA q010.1 DCP Testing

Chainage (km): 5.000

Direction:

Location/Offset: Verge

Cone Angle: 60 degrees

Zero Error (mm): 126

Test Date: 01/07/2022

Surface Type:

Unpaved

Thickness (mm):

0

Base Type:

Thickness (mm):

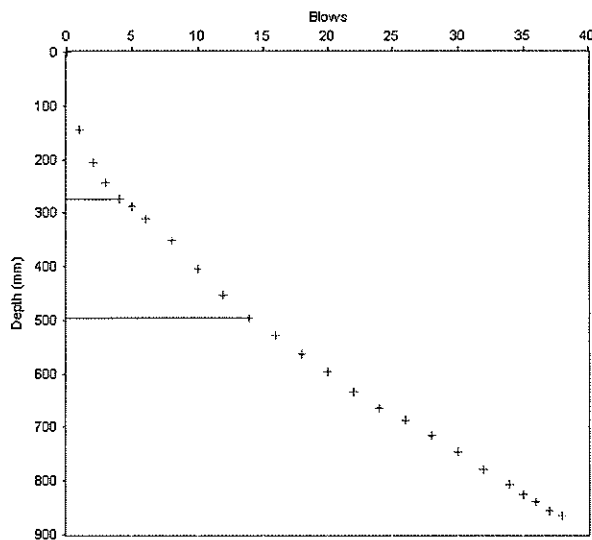
Surface Moisture:

Dry

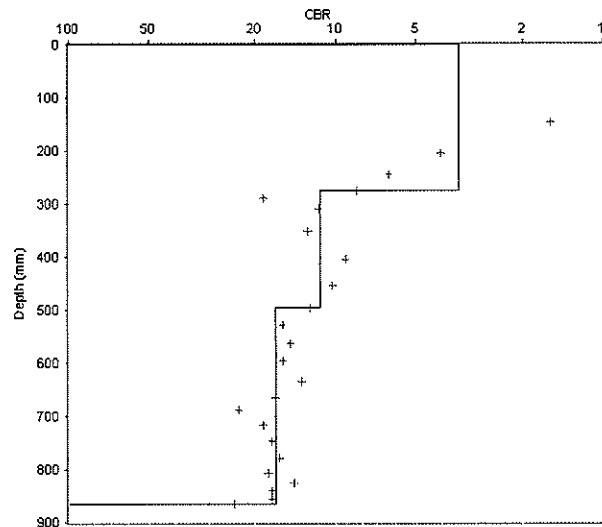
Moisture adjustment factor:

Not adjusted

Layer Boundaries: Chainage 5.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	68.50	3	274	274
2	22.10	11	221	495
3	15.46	17	371	866

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

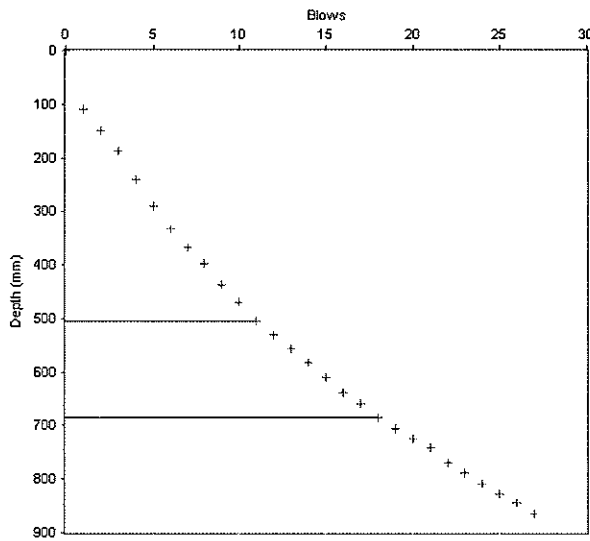
DCP Layer Strength Analysis Report

Project Name: UMMA q010.1 DCP Testing

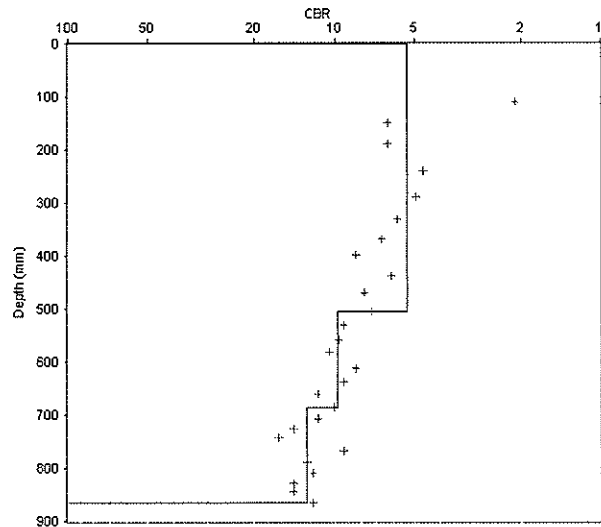
Chainage (km): 6.000
 Direction:
 Location/Offset: Verge
 Cone Angle: 60 degrees
 Zero Error (mm): 122
 Test Date: 01/07/2022

Surface Type: Unpaved
 Thickness (mm): 0
 Base Type:
 Thickness (mm):
 Surface Moisture: Dry
 Moisture adjustment factor: Not adjusted

Layer Boundaries: Chainage 6.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	45.82	5	504	504
2	25.86	10	181	685
3	20.11	13	181	866

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

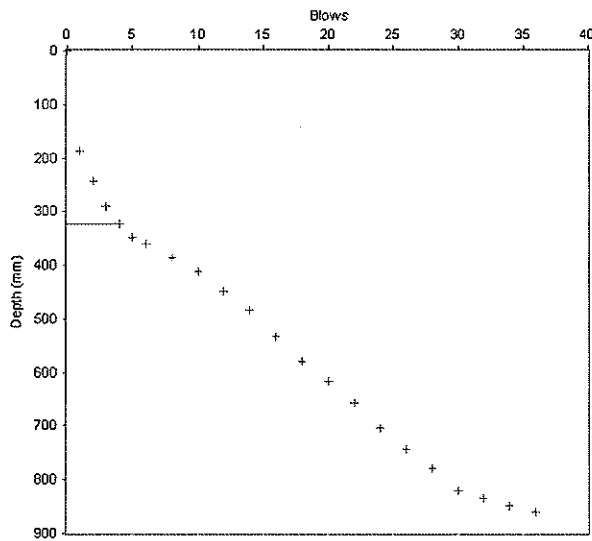
DCP Layer Strength Analysis Report

Project Name: UMMA q010.1 DCP Testing

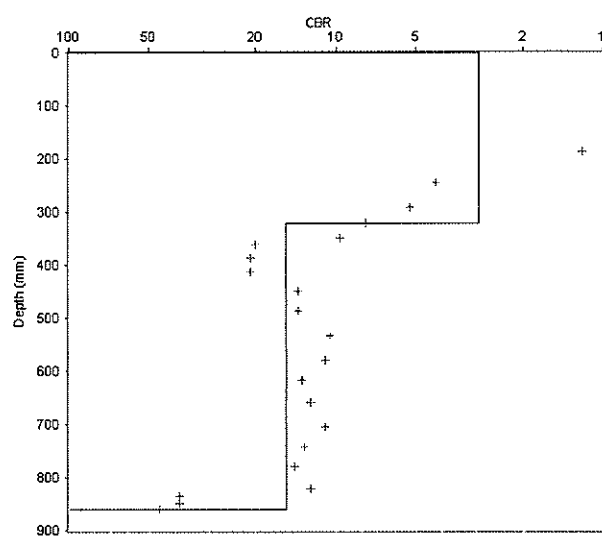
Chainage (km): 7.000
 Direction:
 Location/Offset: Verge
 Cone Angle: 60 degrees
 Zero Error (mm): 122
 Test Date: 01/07/2022

Surface Type: Unpaved
 Thickness (mm): 0
 Base Type:
 Thickness (mm):
 Surface Moisture: Dry
 Moisture adjustment factor: Not adjusted

Layer Boundaries: Chainage 7.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	80.50	3	322	322
2	16.81	15	538	860

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

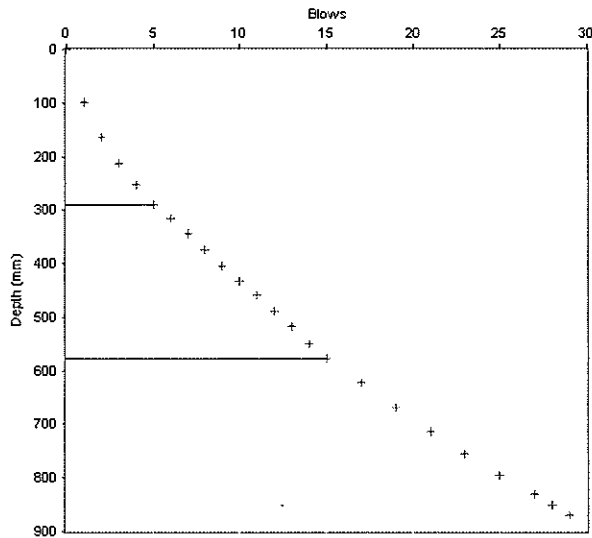
DCP Layer Strength Analysis Report

Project Name: UMMA q010.1 DCP Testing

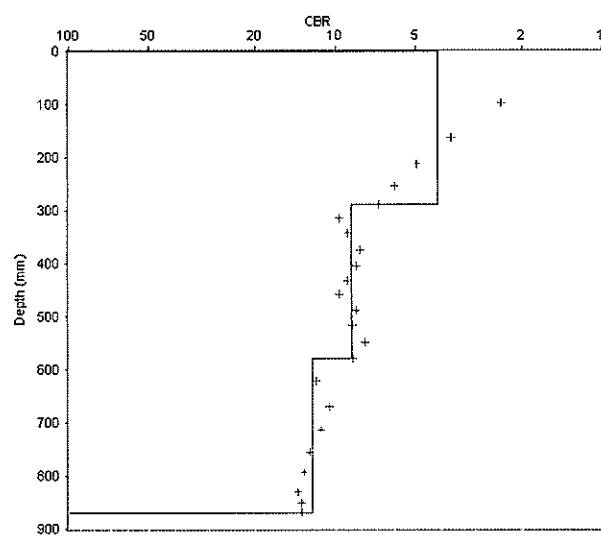
Chainage (km): 8.000
 Direction:
 Location/Offset: Verge
 Cone Angle: 60 degrees
 Zero Error (mm): 111
 Test Date: 30/06/2022

Surface Type: Unpaved
 Thickness (mm): 0
 Base Type:
 Thickness (mm):
 Surface Moisture: Dry
 Moisture adjustment factor: Not adjusted

Layer Boundaries: Chainage 8.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	57.80	4	289	289
2	28.90	9	289	578
3	20.79	12	291	869

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

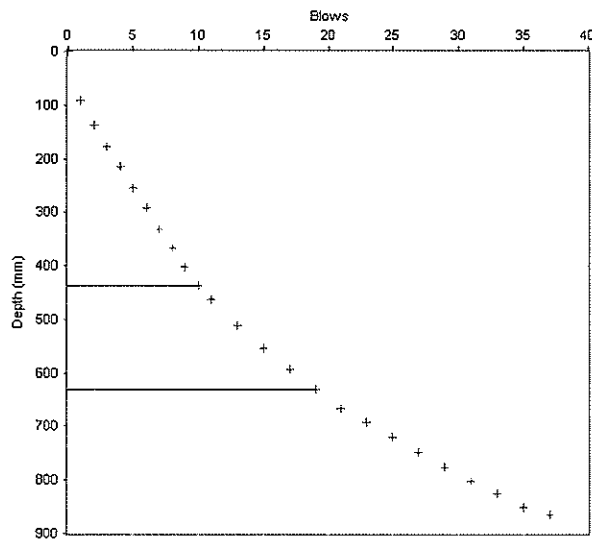
DCP Layer Strength Analysis Report

Project Name: UMMA q010.1 DCP Testing

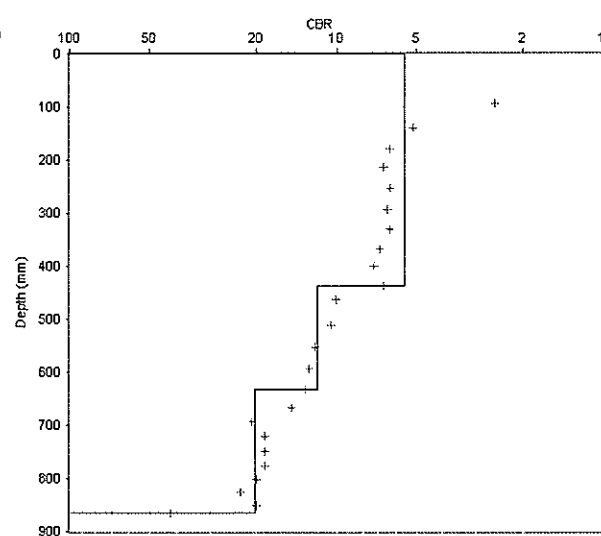
Chainage (km): 9.000
 Direction:
 Location/Offset: Verge
 Cone Angle: 60 degrees
 Zero Error (mm): 119
 Test Date: 01/07/2022

Surface Type: Unpaved
 Thickness (mm): 0
 Base Type:
 Thickness (mm):
 Surface Moisture: Dry
 Moisture adjustment factor: Not adjusted

Layer Boundaries: Chainage 9.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	43.80	6	438	438
2	21.56	12	194	632
3	12.89	20	232	864

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

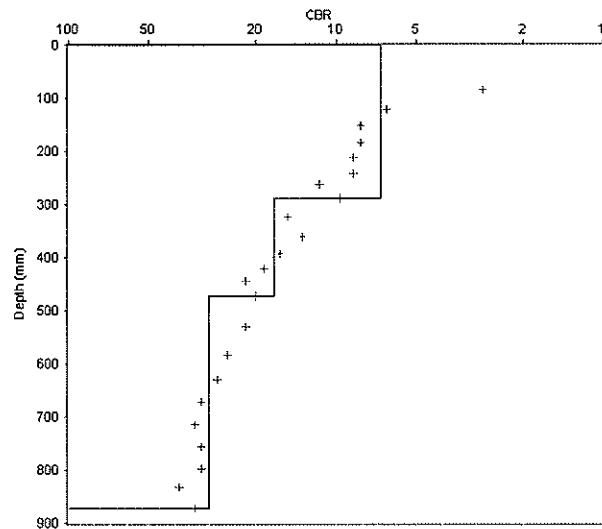
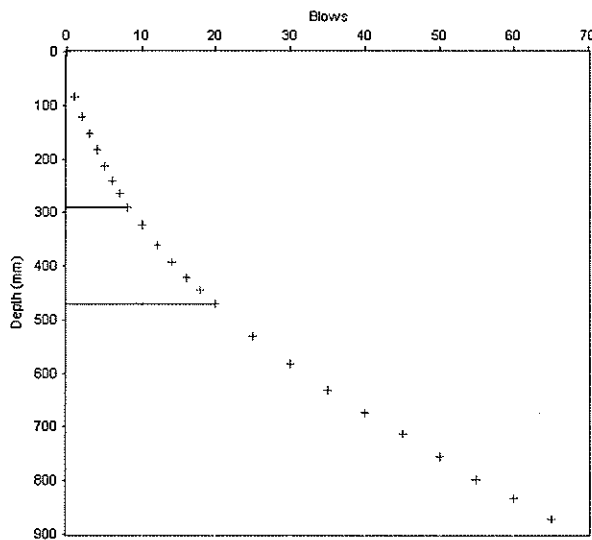
DCP Layer Strength Analysis Report

Project Name: UMMA q010.2 DCP Testing

Chainage (km): 10.000
 Direction:
 Location/Offset: Verge
 Cone Angle: 60 degrees
 Zero Error (mm): 109
 Test Date: 01/07/2022

Surface Type: Unpaved
 Thickness (mm): 0
 Base Type:
 Thickness (mm):
 Surface Moisture: Dry
 Moisture adjustment factor: Not adjusted

Layer Boundaries: Chainage 10.000



Layer Boundaries Chart

CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	36.13	7	289	289
2	15.17	17	182	471
3	8.91	30	401	872

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

DCP Layer Strength Analysis Report

Project Name: UMMA q010.2 DCP Testing

Chainage (km): 11.000

Direction:

Location/Offset: Verge

Cone Angle: 60 degrees

Zero Error (mm): 105

Test Date: 01/07/2022

Surface Type:

Unpaved

Thickness (mm):

0

Base Type:

Thickness (mm):

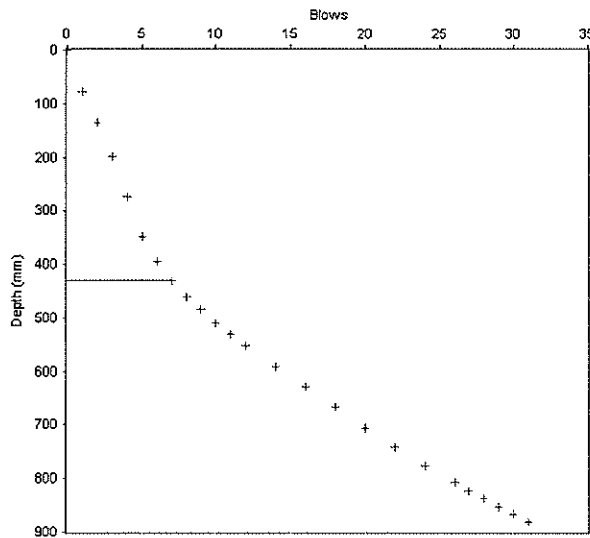
Surface Moisture:

Dry

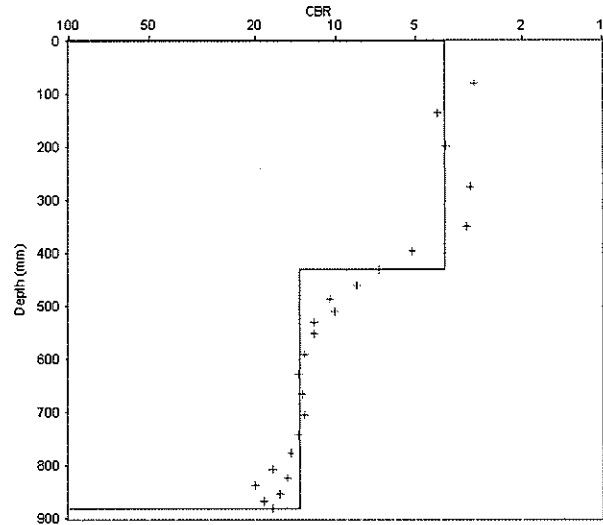
Moisture adjustment factor:

Not adjusted

Layer Boundaries: Chainage 11.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	61.57	4	431	431
2	18.79	14	451	882

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

DCP Layer Strength Analysis Report

Project Name: UMMA q010.2 DCP Testing

Chainage (km): 12.000

Direction:

Location/Offset: Verge

Cone Angle: 60 degrees

Zero Error (mm): 120

Test Date: 01/07/2022

Surface Type:

Unpaved

Thickness (mm):

0

Base Type:

Thickness (mm):

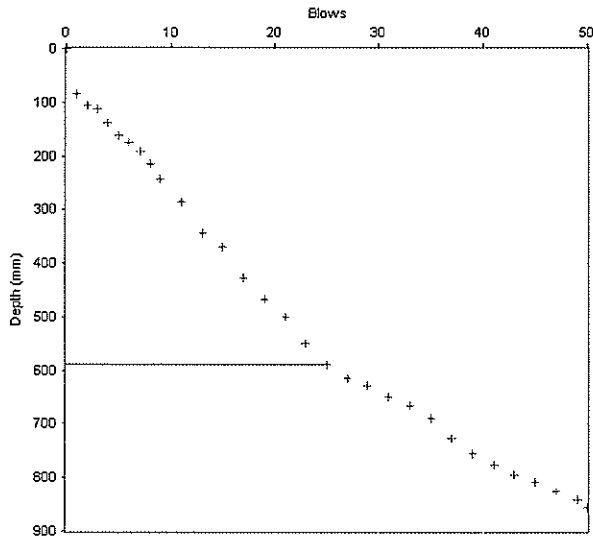
Surface Moisture:

Dry

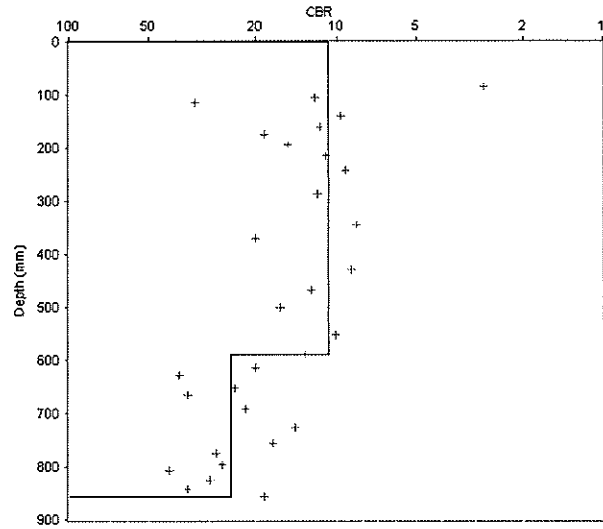
Moisture adjustment factor:

Not adjusted

Layer Boundaries: Chainage 12.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	23.56	11	589	589
2	10.64	25	266	855

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

DCP Layer Strength Analysis Report

Project Name: UMMA q010.2 DCP Testing

Chainage (km): 13.000

Direction:

Location/Offset: Verge

Cone Angle: 60 degrees

Zero Error (mm): 118

Test Date: 01/07/2022

Surface Type:

Unpaved

Thickness (mm):

0

Base Type:

Thickness (mm):

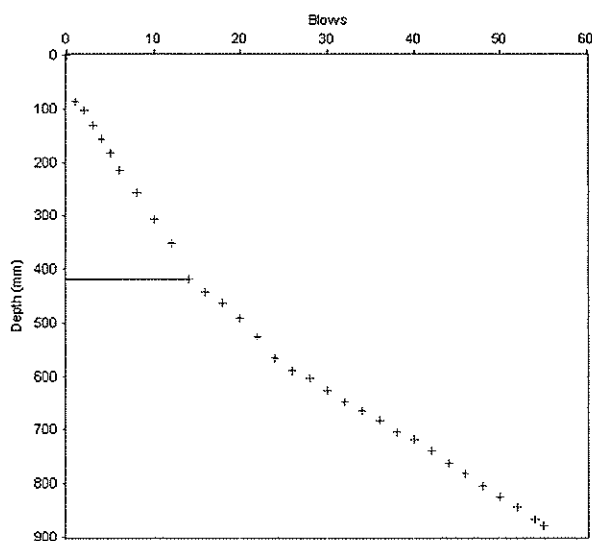
Surface Moisture:

Dry

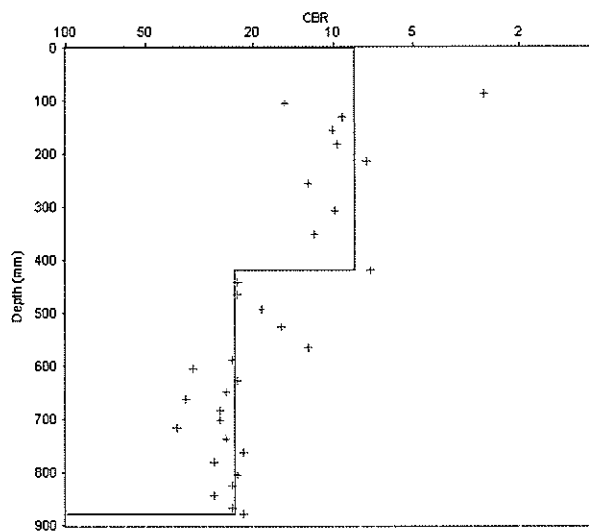
Moisture adjustment factor:

Not adjusted

Layer Boundaries: Chainage 13.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	29.86	8	418	418
2	11.24	23	461	879

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

DCP Layer Strength Analysis Report

Project Name: UMMA q010.2 DCP Testing

Chainage (km): 14.000

Direction:

Location/Offset: Verge

Cone Angle: 60 degrees

Zero Error (mm): 121

Test Date: 30/06/2022

Surface Type: Unpaved

Thickness (mm): 0

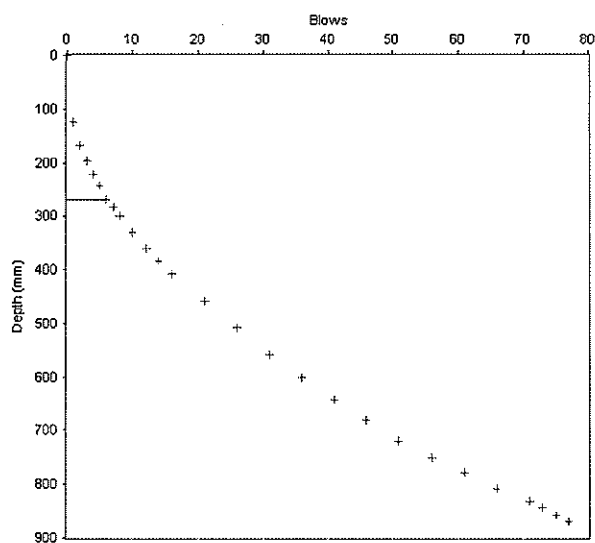
Base Type:

Thickness (mm):

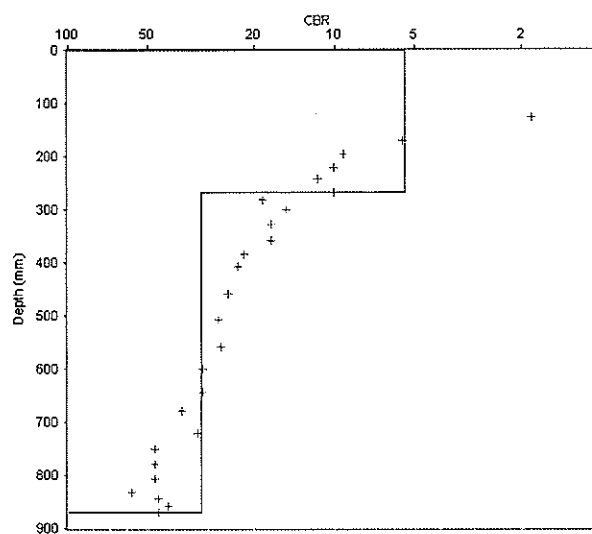
Surface Moisture: Dry

Moisture adjustment factor: Not adjusted

Layer Boundaries: Chainage 14.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	44.67	5	268	268
2	8.46	32	601	869

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

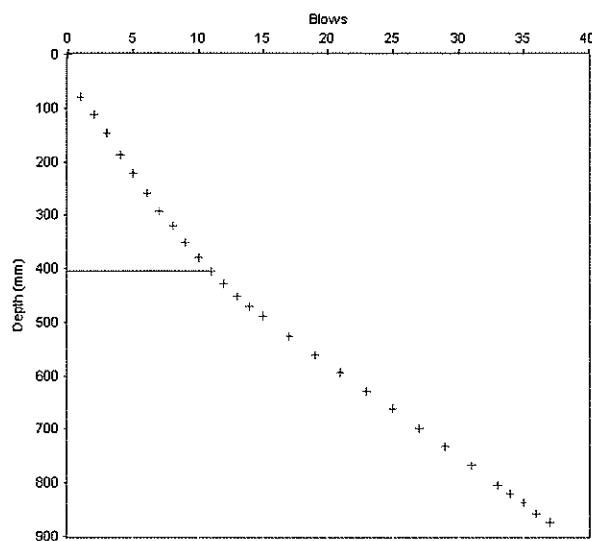
DCP Layer Strength Analysis Report

Project Name: UMMA q010.2 DCP Testing

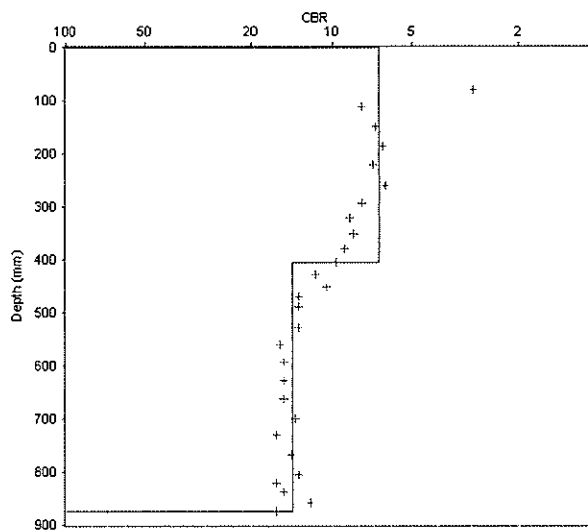
Chainage (km): 15.000
 Direction:
 Location/Offset: Verge
 Cone Angle: 60 degrees
 Zero Error (mm): 110
 Test Date: 30/06/2022

Surface Type: Unpaved
 Thickness (mm): 0
 Base Type:
 Thickness (mm):
 Surface Moisture: Dry
 Moisture adjustment factor: Not adjusted

Layer Boundaries, Chainage 15.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	36.82	7	405	405
2	18.08	14	470	875

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

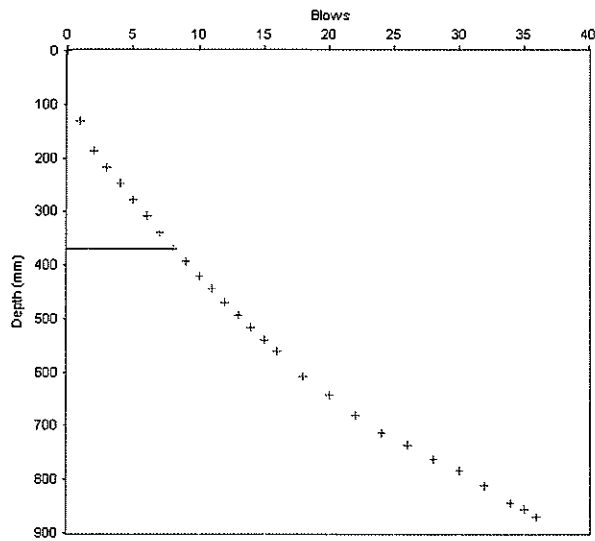
DCP Layer Strength Analysis Report

Project Name: UMMA q010.2 DCP Testing

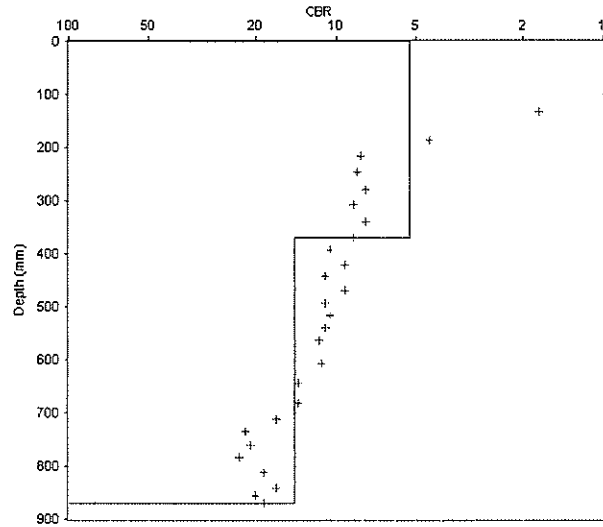
Chainage (km): 16.000
 Direction:
 Location/Offset: Verge
 Cone Angle: 60 degrees
 Zero Error (mm): 120
 Test Date: 30/06/2022

Surface Type: Unpaved
 Thickness (mm): 0
 Base Type:
 Thickness (mm):
 Surface Moisture: Dry
 Moisture adjustment factor: Not adjusted

Layer Boundaries: Chainage 16.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	46.13	5	369	369
2	17.89	14	501	870

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

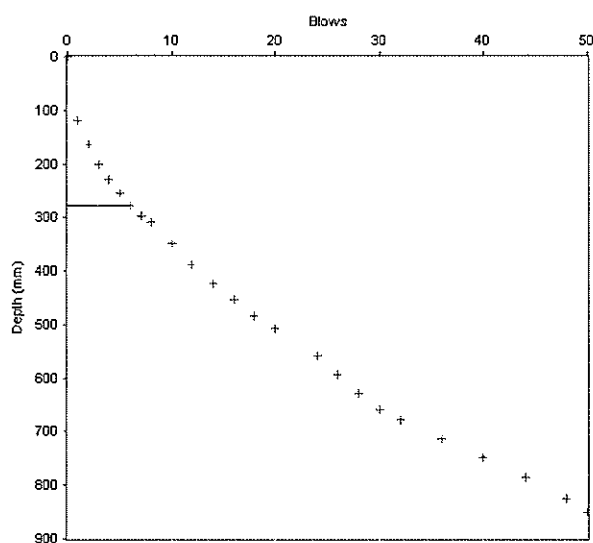
DCP Layer Strength Analysis Report

Project Name: UMMA q010.2 DCP Testing

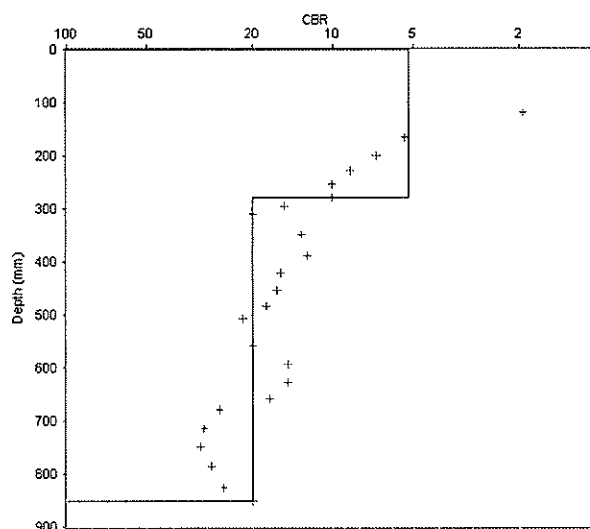
Chainage (km): 17.000
 Direction:
 Location/Offset: Verge
 Cone Angle: 60 degrees
 Zero Error (mm): 111
 Test Date: 30/06/2022

Surface Type: Unpaved
 Thickness (mm): 0
 Base Type:
 Thickness (mm):
 Surface Moisture: Dry
 Moisture adjustment factor: Not adjusted

Layer Boundaries: Chainage 17.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	46.50	5	279	279
2	13.02	20	573	852

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

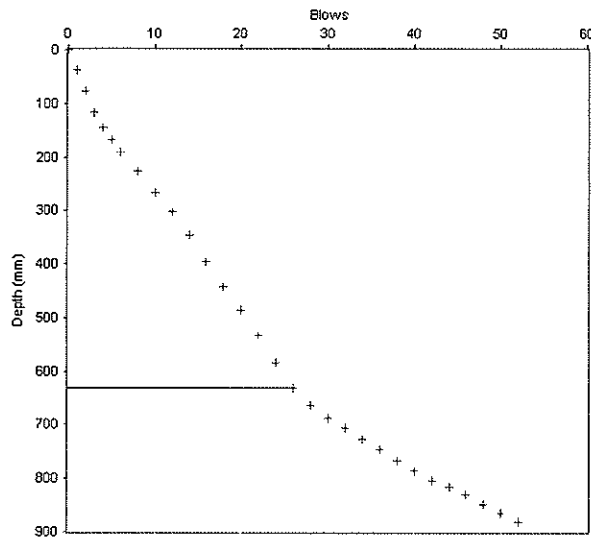
DCP Layer Strength Analysis Report

Project Name: UMMA q010.2 DCP Testing

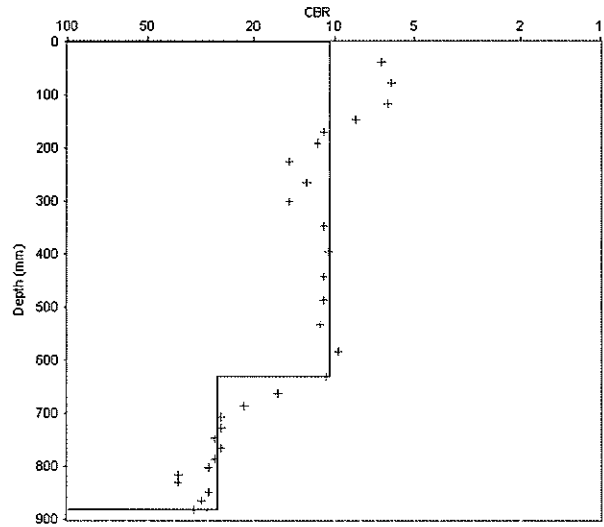
Chainage (km): 18.000
 Direction:
 Location/Offset: Verge
 Cone Angle: 60 degrees
 Zero Error (mm): 104
 Test Date: 30/06/2022

Surface Type: Unpaved
 Thickness (mm): 0
 Base Type:
 Thickness (mm):
 Surface Moisture: Dry
 Moisture adjustment factor: Not adjusted

Layer Boundaries: Chainage 18.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	24.27	10	631	631
2	9.65	27	251	882

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

DCP Layer Strength Analysis Report

Project Name: UMMA q010.3 DCP Testing

Chainage (km): 19.000

Direction:

Location/Offset: Verge

Cone Angle: 60 degrees

Zero Error (mm): 116

Test Date: 30/06/2022

Surface Type: Unpaved

Thickness (mm): 0

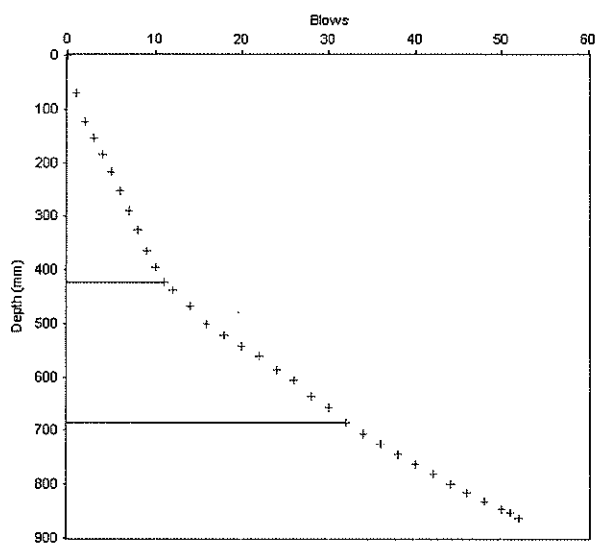
Base Type:

Thickness (mm):

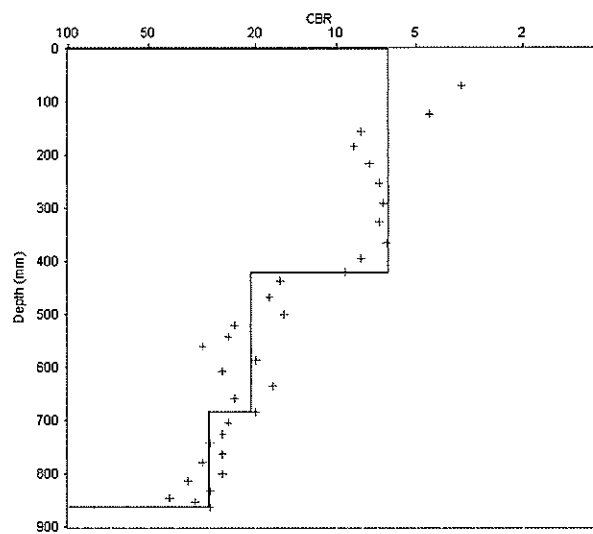
Surface Moisture: Dry

Moisture adjustment factor: Not adjusted

Layer Boundaries: Chainage 19.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	38.36	6	422	422
2	12.48	21	262	684
3	8.95	30	179	863

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

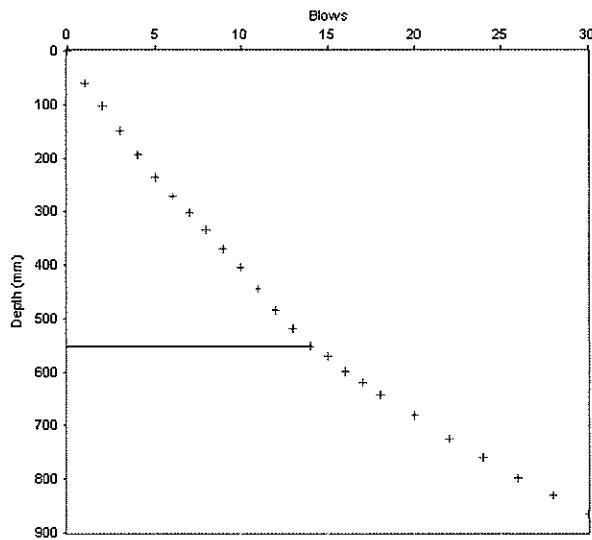
DCP Layer Strength Analysis Report

Project Name: UMMA q010.3 DCP Testing

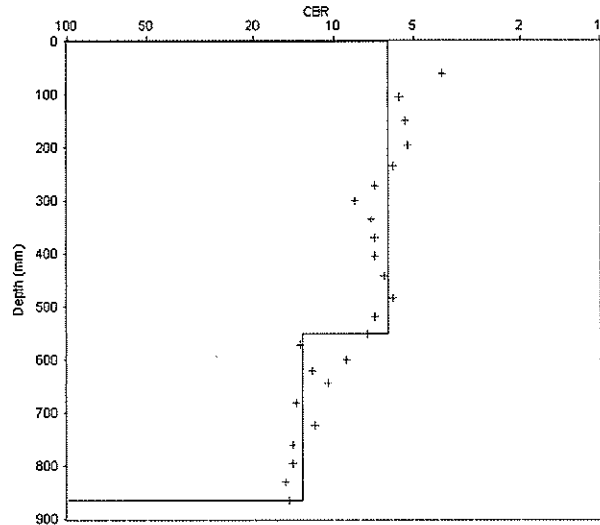
Chainage (km): 20.000
 Direction:
 Location/Offset: Verge
 Cone Angle: 60 degrees
 Zero Error (mm): 111
 Test Date: 30/06/2022

Surface Type: Unpaved
 Thickness (mm): 0
 Base Type:
 Thickness (mm):
 Surface Moisture: Dry
 Moisture adjustment factor: Not adjusted

Layer Boundaries: Chainage 20.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	39.43	6	552	552
2	19.56	13	313	865

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

DCP Layer Strength Analysis Report

Project Name: UMMA q010.3 DCP Testing

Chainage (km): 21.000

Direction:

Location/Offset: Verge

Cone Angle: 60 degrees

Zero Error (mm): 130

Test Date: 30/06/2022

Surface Type:

Unpaved

Thickness (mm):

0

Base Type:

Thickness (mm):

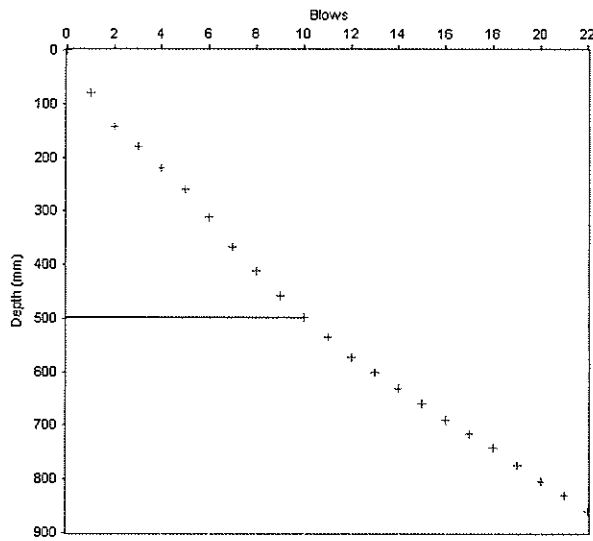
Surface Moisture:

Dry

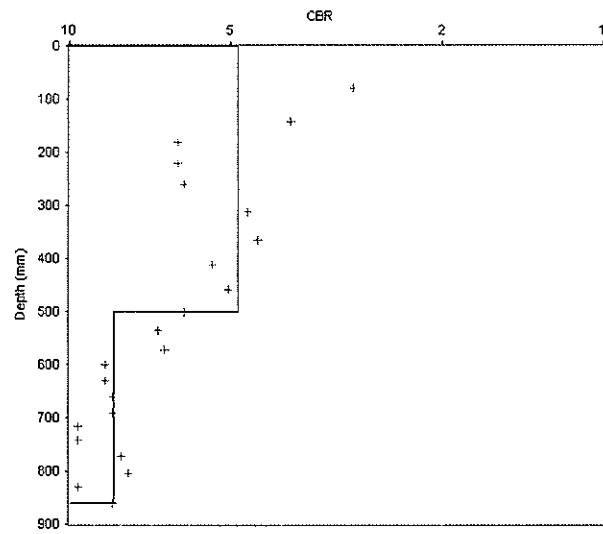
Moisture adjustment factor:

Not adjusted

Layer Boundaries: Chainage 21.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	49.90	5	499	499
2	30.17	8	362	861

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

DCP Layer Strength Analysis Report

Project Name: UMMA q010.3 DCP Testing

Chainage (km): 22.000

Direction:

Location/Offset: Verge

Cone Angle: 60 degrees

Zero Error (mm): 120

Test Date: 30/06/2022

Surface Type: Unpaved

Thickness (mm): 0

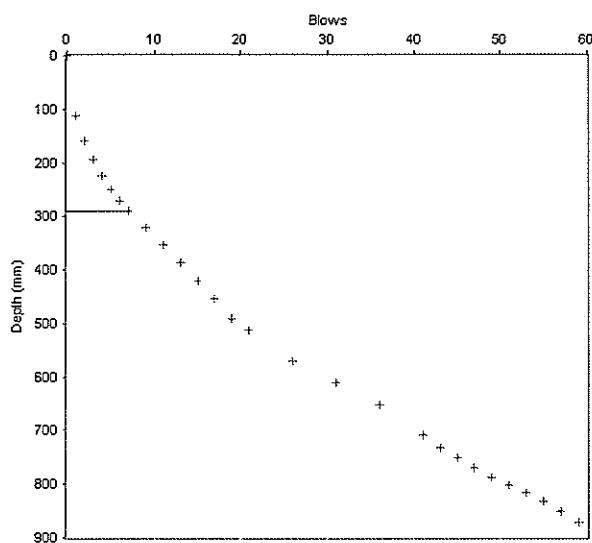
Base Type:

Thickness (mm):

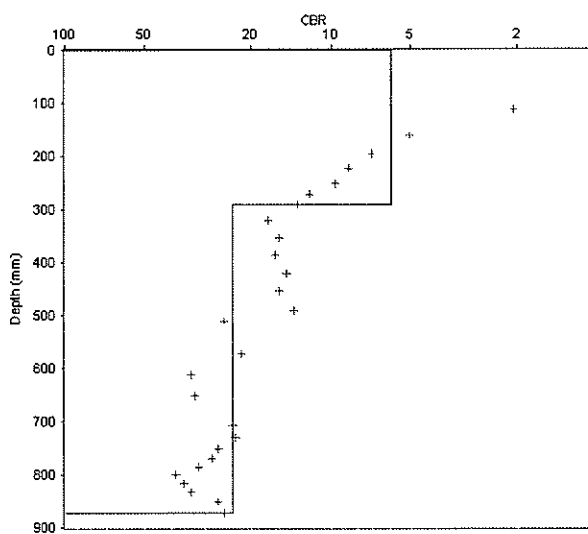
Surface Moisture: Dry

Moisture adjustment factor: Not adjusted

Layer Boundaries: Chainage 22.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	41.43	6	290	290
2	11.21	23	583	873

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

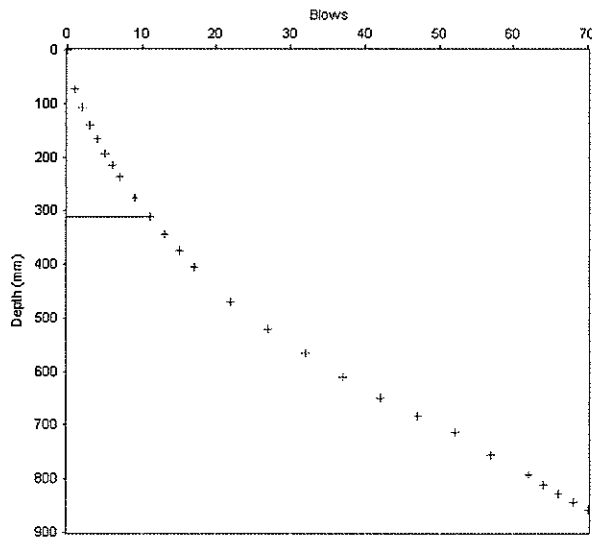
DCP Layer Strength Analysis Report

Project Name: UMMA q010.3 DCP Testing

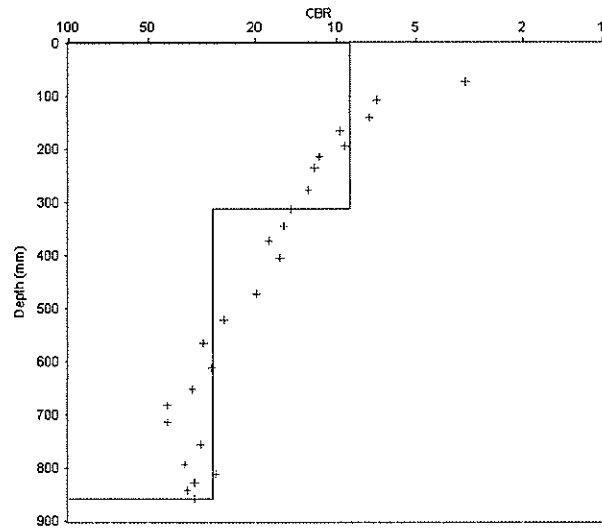
Chainage (km): 23.000
 Direction:
 Location/Offset: Verge
 Cone Angle: 60 degrees
 Zero Error (mm): 118
 Test Date: 30/06/2022

Surface Type: Unpaved
 Thickness (mm): 0
 Base Type:
 Thickness (mm):
 Surface Moisture: Dry
 Moisture adjustment factor: Not adjusted

Layer Boundaries: Chainage 23.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	28.27	9	311	311
2	9.29	29	548	859

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

DCP Layer Strength Analysis Report

Project Name: UMMA q010.3 DCP Testing

Chainage (km): 24.000

Direction:

Location/Offset: Verge

Cone Angle: 60 degrees

Zero Error (mm): 120

Test Date: 30/06/2022

Surface Type:

Unpaved

Thickness (mm):

0

Base Type:

Thickness (mm):

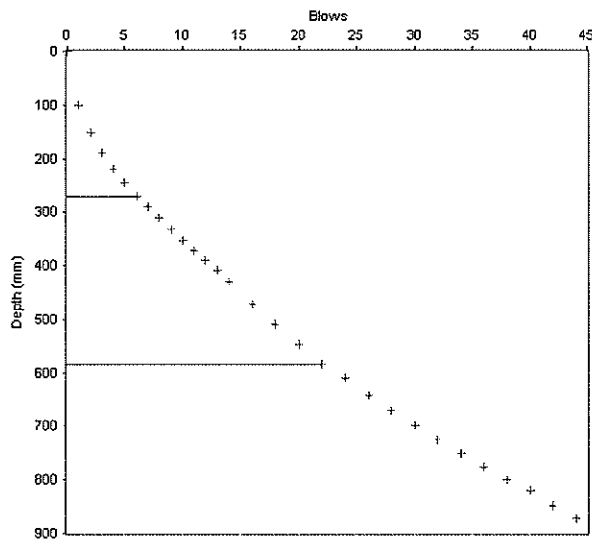
Surface Moisture:

Dry

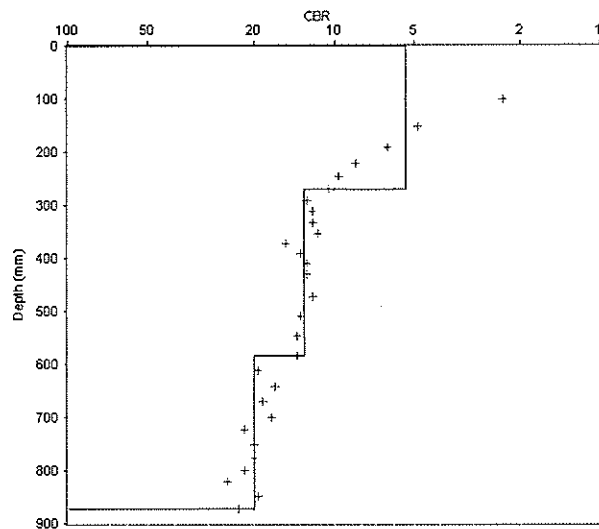
Moisture adjustment factor:

Not adjusted

Layer Boundaries: Chainage 24.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	45.00	5	270	270
2	19.63	13	314	584
3	13.05	20	287	871

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

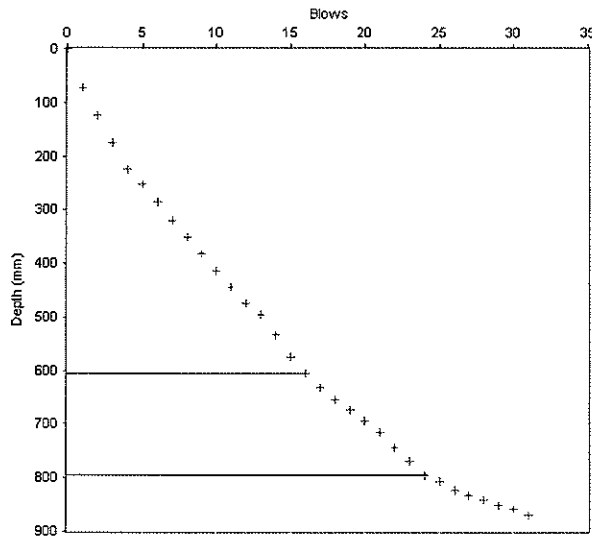
DCP Layer Strength Analysis Report

Project Name: UMMA q010.3 DCP Testing

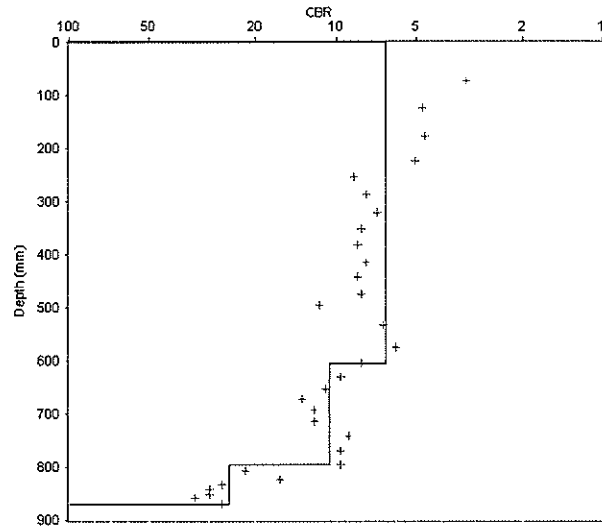
Chainage (km): 25.000
 Direction:
 Location/Offset: Verge
 Cone Angle: 60 degrees
 Zero Error (mm): 117
 Test Date: 30/06/2022

Surface Type: Unpaved
 Thickness (mm): 0
 Base Type:
 Thickness (mm):
 Surface Moisture: Dry
 Moisture adjustment factor: Not adjusted

Layer Boundaries: Chainage 25.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	37.81	6	605	605
2	23.75	11	190	795
3	10.57	25	74	869

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

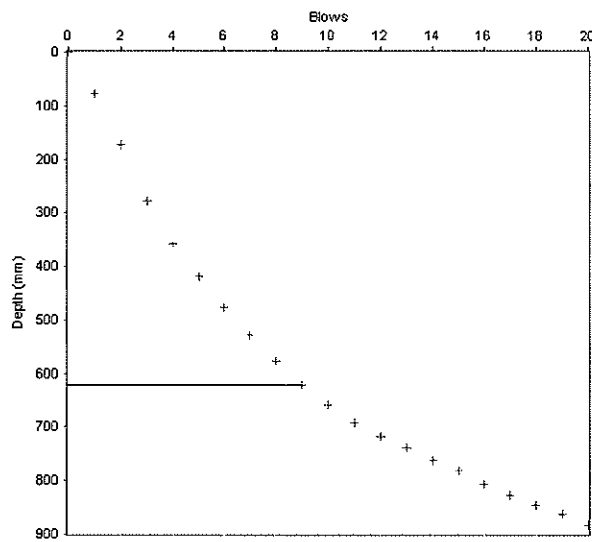
DCP Layer Strength Analysis Report

Project Name: UMMA q010.3 DCP Testing

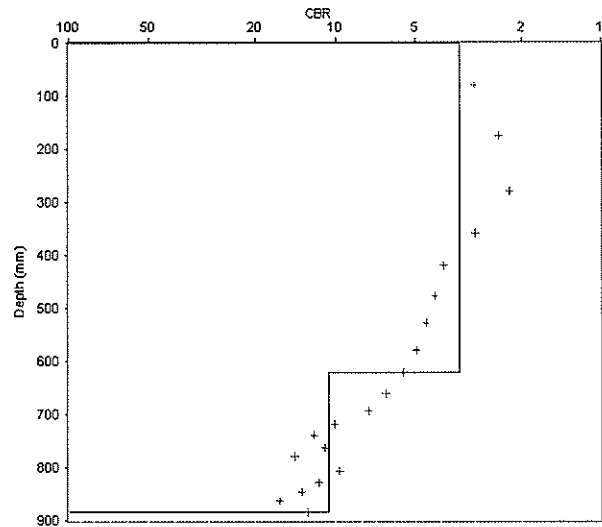
Chainage (km): 26.000
 Direction:
 Location/Offset: Verge
 Cone Angle: 60 degrees
 Zero Error (mm): 113
 Test Date: 30/06/2022

Surface Type: Unpaved
 Thickness (mm): 0
 Base Type:
 Thickness (mm):
 Surface Moisture: Dry
 Moisture adjustment factor: Not adjusted

Layer Boundaries: Chainage 26.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	69.11	3	622	622
2	23.73	11	261	883

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

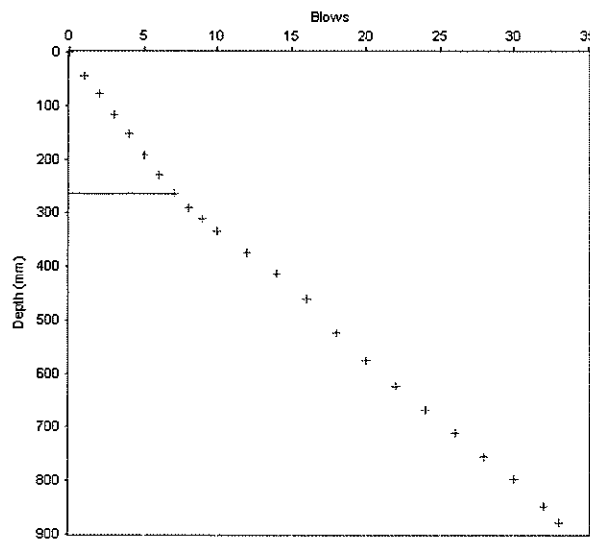
DCP Layer Strength Analysis Report

Project Name: UMMA q010.3 DCP Testing

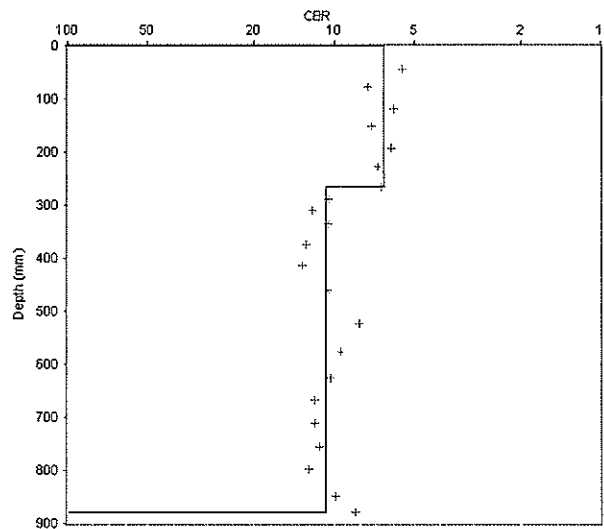
Chainage (km): 27.000
 Direction:
 Location/Offset: Verge
 Cone Angle: 60 degrees
 Zero Error (mm): 105
 Test Date: 30/06/2022

Surface Type: Unpaved
 Thickness (mm): 0
 Base Type:
 Thickness (mm):
 Surface Moisture: Dry
 Moisture adjustment factor: Not adjusted

Layer Boundaries: Chainage 27.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	37.86	6	265	265
2	23.58	11	613	878

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

DCP Layer Strength Analysis Report

Project Name: UMMA q010.4 DCP Testing

Chainage (km): 28.000

Direction:

Location/Offset: Verge

Cone Angle: 60 degrees

Zero Error (mm): 105

Test Date: 30/06/2022

Surface Type: Unpaved

Thickness (mm): 0

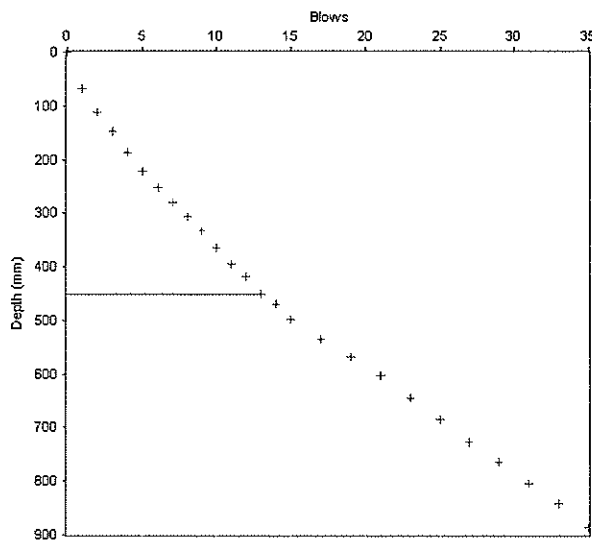
Base Type:

Thickness (mm):

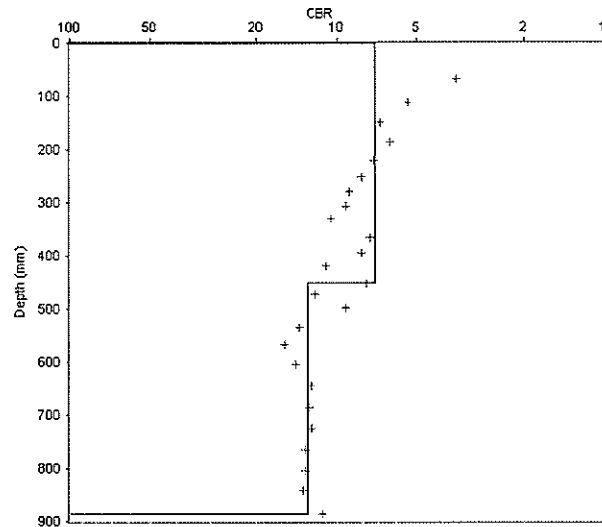
Surface Moisture: Dry

Moisture adjustment factor: Not adjusted

Layer Boundaries: Chainage 28.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	34.62	7	450	450
2	19.86	13	437	887

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

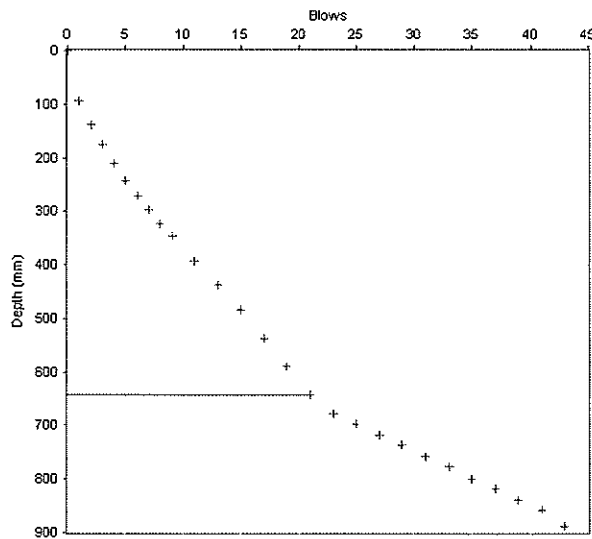
DCP Layer Strength Analysis Report

Project Name: UMMA q010.4 DCP Testing

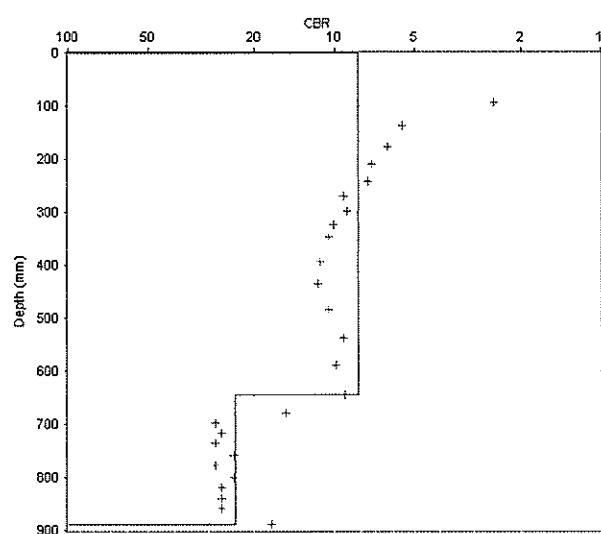
Chainage (km): 29.000
 Direction:
 Location/Offset: Verge
 Cone Angle: 60 degrees
 Zero Error (mm): 103
 Test Date: 30/06/2022

Surface Type: Unpaved
 Thickness (mm): 0
 Base Type:
 Thickness (mm):
 Surface Moisture: Dry
 Moisture adjustment factor: Not adjusted

Layer Boundaries: Chainage 29.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	30.67	8	644	644
2	11.14	24	245	889

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

DCP Layer Strength Analysis Report

Project Name: UMMA q010.4 DCP Testing

Chainage (km): 30.000

Direction:

Location/Offset: Verge

Cone Angle: 60 degrees

Zero Error (mm): 114

Test Date: 01/07/2022

Surface Type: Unpaved

Thickness (mm): 0

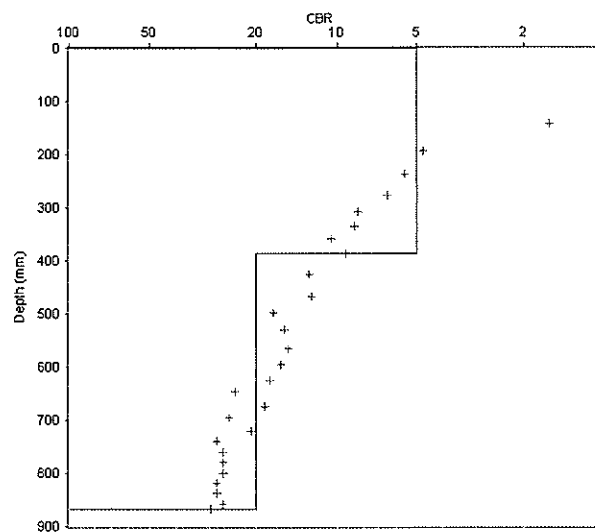
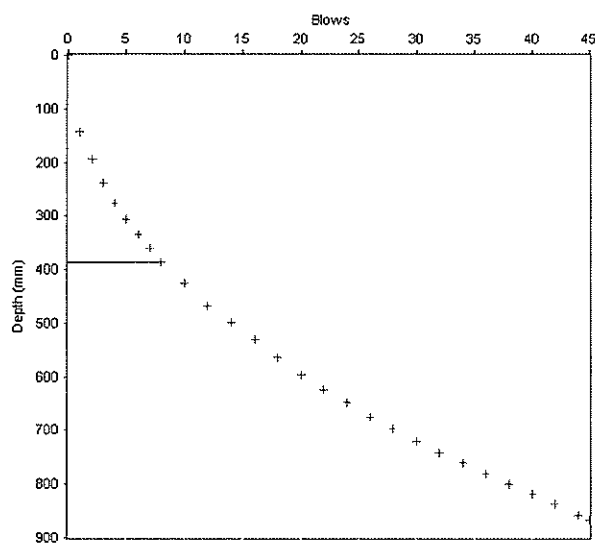
Base Type:

Thickness (mm):

Surface Moisture: Dry

Moisture adjustment factor: Not adjusted

Layer Boundaries: Chainage 30.000



Layer Boundaries Chart

CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	48.25	5	386	386
2	13.00	20	481	867

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

DCP Layer Strength Analysis Report

Project Name: UMMA q010.4 DCP Testing

Chainage (km): 31.000

Direction:

Location/Offset: Verge

Cone Angle: 60 degrees

Zero Error (mm): 112

Test Date: 01/07/2022

Surface Type:

Unpaved

Thickness (mm):

0

Base Type:

Thickness (mm):

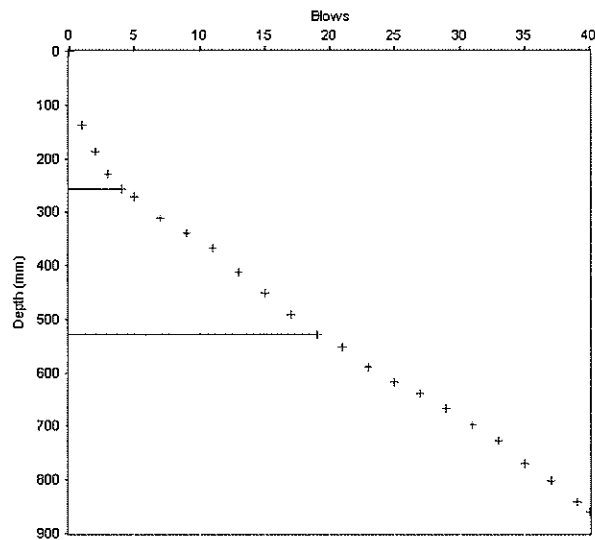
Surface Moisture:

Dry

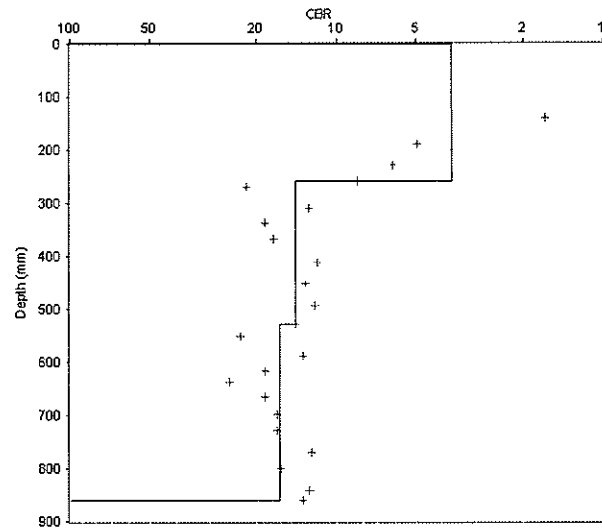
Moisture adjustment factor:

Not adjusted

Layer Boundaries: Chainage 31.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	64.50	4	258	258
2	18.00	14	270	528
3	15.81	16	332	860

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

DCP Layer Strength Analysis Report

Project Name: UMMA q010.4 DCP Testing

Chainage (km): 32.000

Direction:

Location/Offset: Verge

Cone Angle: 60 degrees

Zero Error (mm): 115

Test Date: 01/07/2022

Surface Type:

Unpaved

Thickness (mm):

0

Base Type:

Thickness (mm):

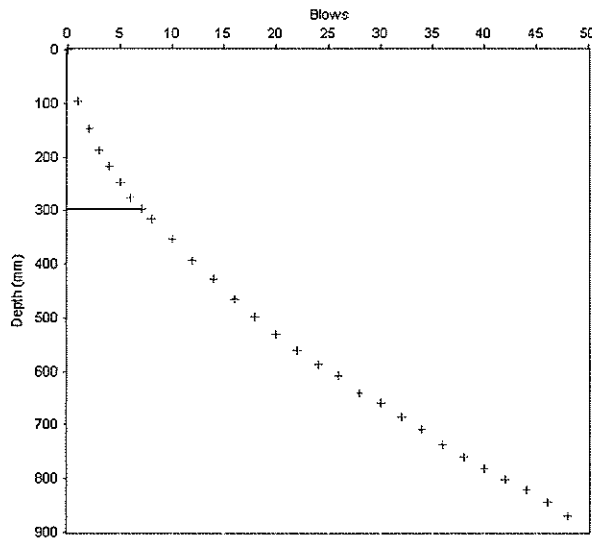
Surface Moisture:

Dry

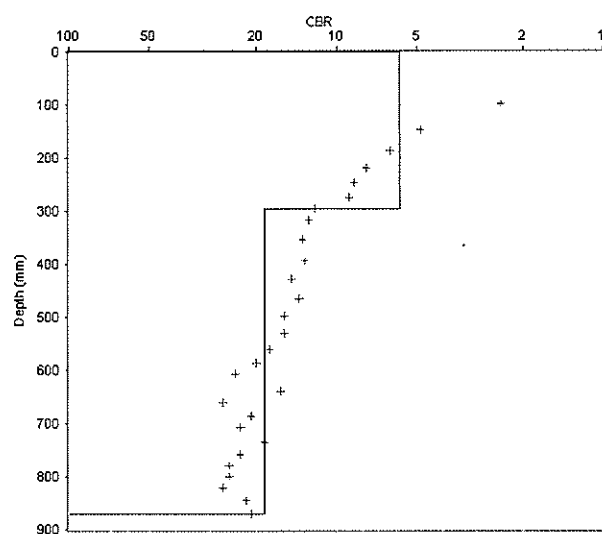
Moisture adjustment factor:

Not adjusted

Layer Boundaries: Chainage 32.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	42.29	6	296	296
2	14.00	19	574	870

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

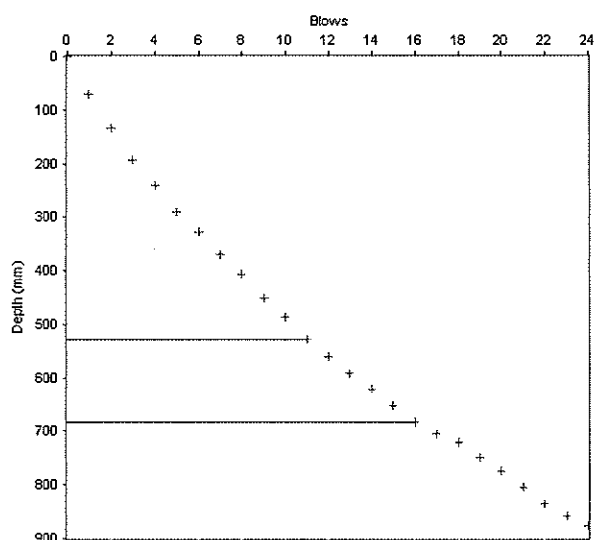
DCP Layer Strength Analysis Report

Project Name: UMMA q010.4 DCP Testing

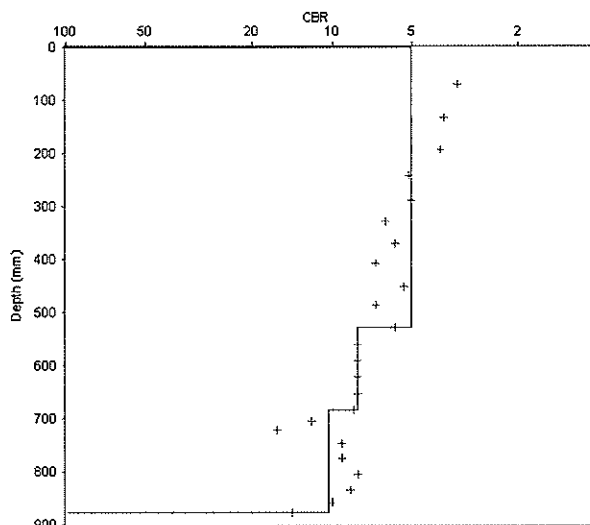
Chainage (km): 33.000
 Direction:
 Location/Offset: Verge
 Cone Angle: 60 degrees
 Zero Error (mm): 117
 Test Date: 30/06/2022

Surface Type: Unpaved
 Thickness (mm): 0
 Base Type:
 Thickness (mm):
 Surface Moisture: Dry
 Moisture adjustment factor: Not adjusted

Layer Boundaries: Chainage 33.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	48.09	5	529	529
2	30.80	8	154	683
3	24.25	10	194	877

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

DCP Layer Strength Analysis Report

Project Name: UMMA q010.4 DCP Testing

Chainage (km): 34.000

Direction:

Location/Offset: Verge

Cone Angle: 60 degrees

Zero Error (mm): 105

Test Date: 30/06/2022

Surface Type: Unpaved

Thickness (mm): 0

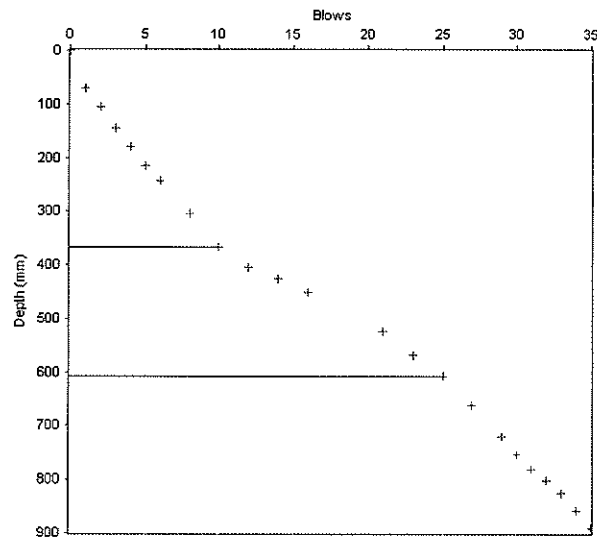
Base Type:

Thickness (mm):

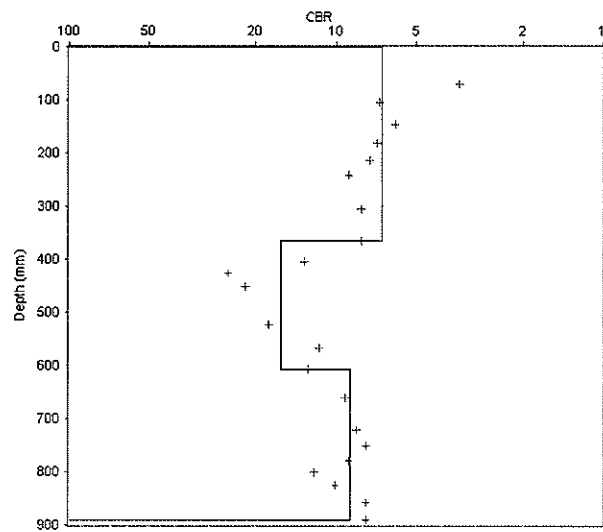
Surface Moisture: Dry

Moisture adjustment factor: Not adjusted

Layer Boundaries: Chainage 34.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	36.60	7	366	366
2	16.07	16	241	607
3	28.30	9	283	890

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

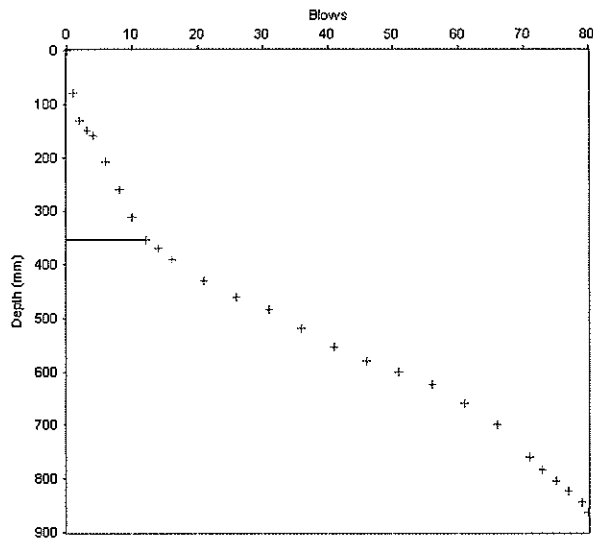
DCP Layer Strength Analysis Report

Project Name: UMMA q010.4 DCP Testing

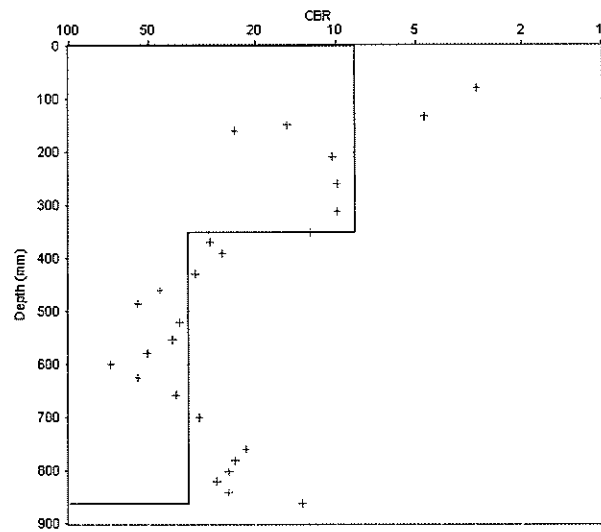
Chainage (km): 35.000
 Direction:
 Location/Offset: Verge
 Cone Angle: 60 degrees
 Zero Error (mm): 120
 Test Date: 30/06/2022

Surface Type: Unpaved
 Thickness (mm): 0
 Base Type:
 Thickness (mm):
 Surface Moisture: Dry
 Moisture adjustment factor: Not adjusted

Layer Boundaries: Chainage 35.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	29.33	8	352	352
2	7.50	36	510	862

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

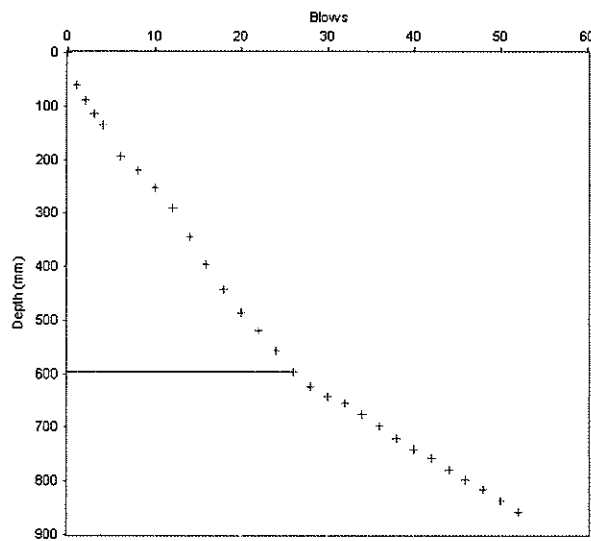
DCP Layer Strength Analysis Report

Project Name: UMMA q010.4 DCP Testing

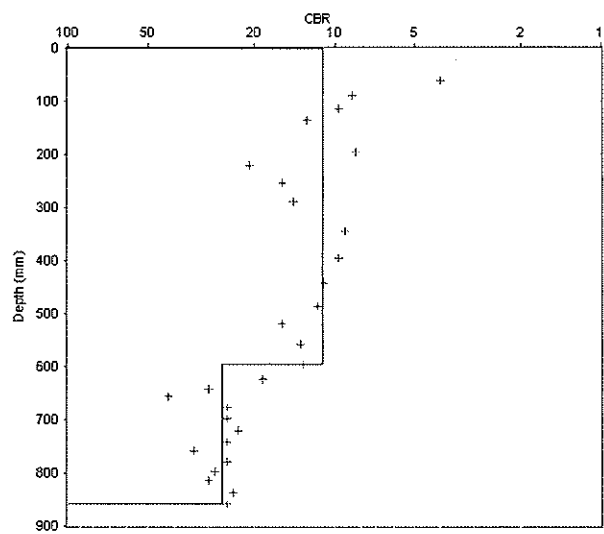
Chainage (km): 36.000
 Direction:
 Location/Offset: Verge
 Cone Angle: 60 degrees
 Zero Error (mm): 115
 Test Date: 30/06/2022

Surface Type: Unpaved
 Thickness (mm): 0
 Base Type:
 Thickness (mm):
 Surface Moisture: Dry
 Moisture adjustment factor: Not adjusted

Layer Boundaries: Chainage 36.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	22.92	11	596	596
2	10.08	26	262	858

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

DCP Layer Strength Analysis Report

Project Name: q010 DCP Testing

Chainage (km): 37.000

Direction:

Location/Offset: Verge

Cone Angle: 60 degrees

Zero Error (mm): 112

Test Date: 30/06/2022

Surface Type:

Unpaved

Thickness (mm):

0

Base Type:

Thickness (mm):

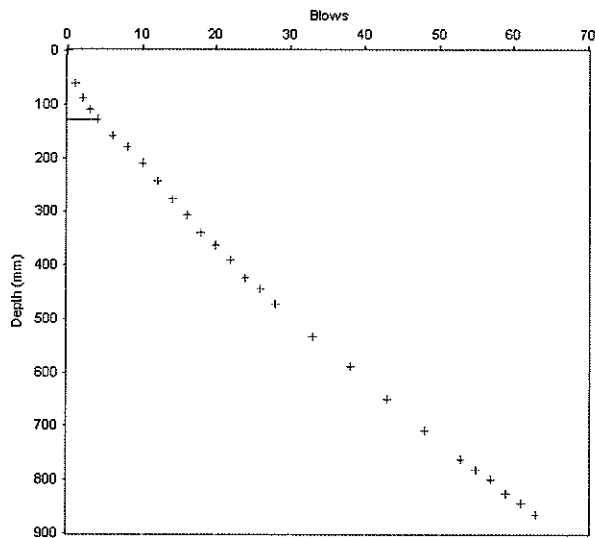
Surface Moisture:

Dry

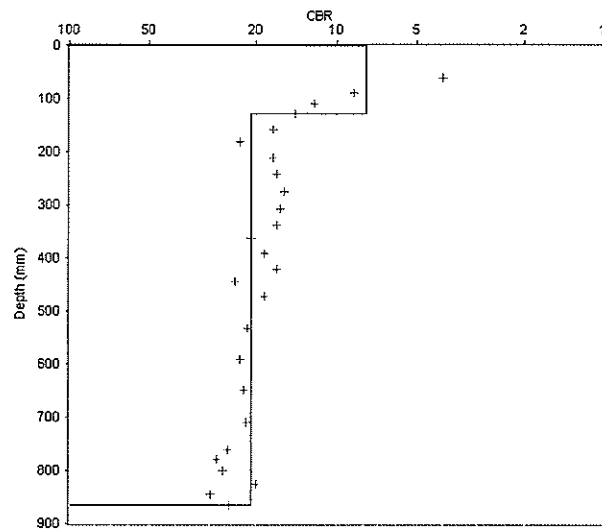
Moisture adjustment factor:

Not adjusted

Layer Boundaries: Chainage 37.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	32.00	8	128	128
2	12.49	21	737	865

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

DCP Layer Strength Analysis Report

Project Name: q010 DCP Testing

Chainage (km): 38.000

Direction:

Location/Offset: Verge

Cone Angle: 60 degrees

Zero Error (mm): 111

Test Date: 30/06/2022

Surface Type:

Unpaved

Thickness (mm):

0

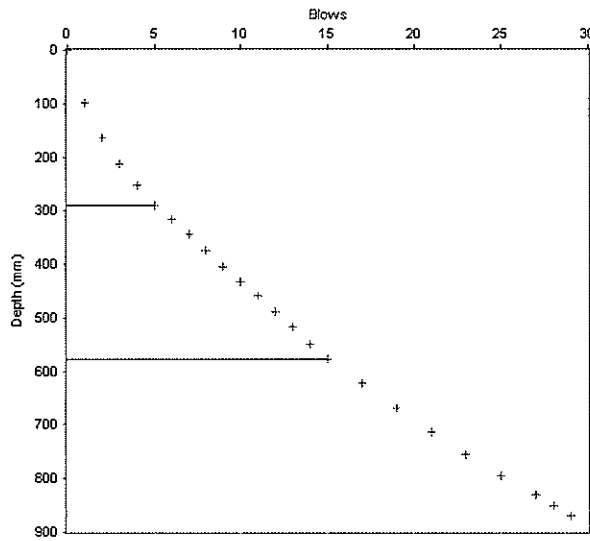
Base Type:

Thickness (mm):

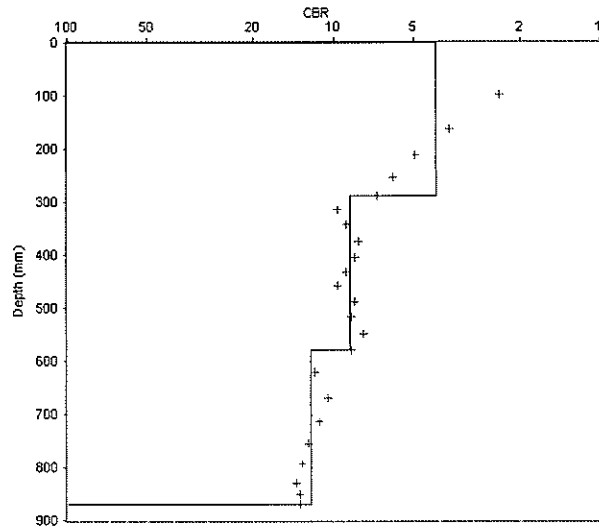
Surface Moisture: Dry

Moisture adjustment factor: Not adjusted

Layer Boundaries: Chainage 38.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	57.80	4	289	289
2	28.90	9	289	578
3	20.79	12	291	869

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

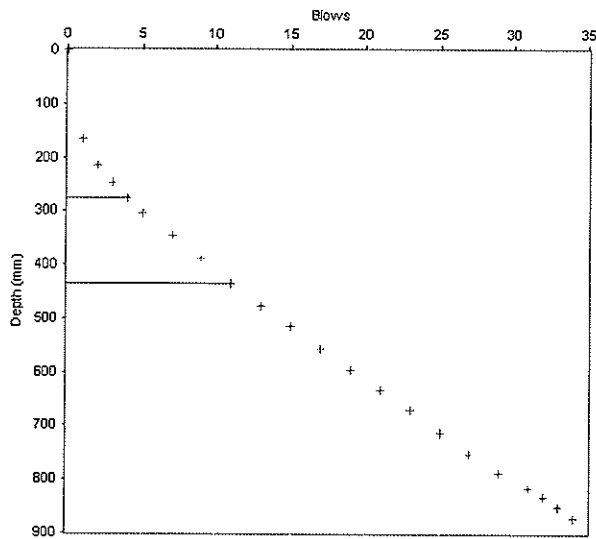
DCP Layer Strength Analysis Report

Project Name: q010 DCP Testing

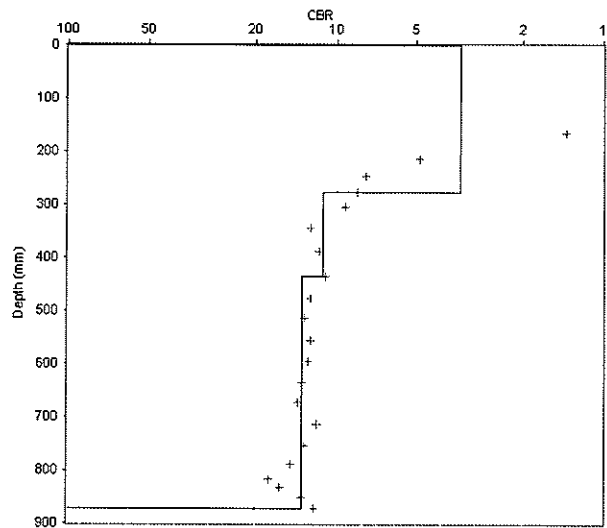
Chainage (km): 39.000
 Direction:
 Location/Offset: Verge
 Cone Angle: 60 degrees
 Zero Error (mm): 115
 Test Date: 01/07/2022

Surface Type: Unpaved
 Thickness (mm): 0
 Base Type:
 Thickness (mm):
 Surface Moisture: Dry
 Moisture adjustment factor: Not adjusted

Layer Boundaries: Chainage 39.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	69.25	3	277	277
2	22.57	11	158	435
3	19.04	13	438	873

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

DCP Layer Strength Analysis Report

Project Name: q010 DCP Testing

Chainage (km): 40.000

Direction:

Location/Offset: Verge

Cone Angle: 60 degrees

Zero Error (mm): 113

Test Date: 01/07/2022

Surface Type:

Unpaved

Thickness (mm):

0

Base Type:

Thickness (mm):

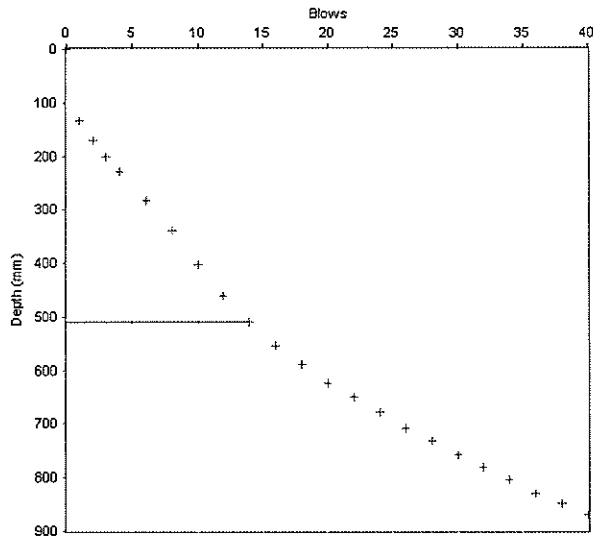
Surface Moisture:

Dry

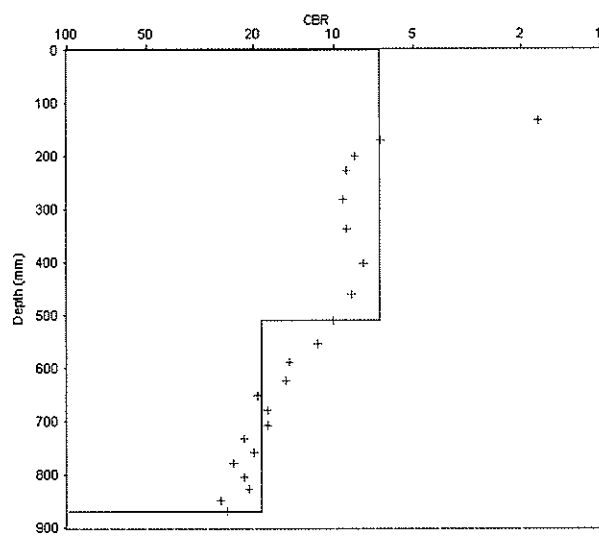
Moisture adjustment factor:

Not adjusted

Layer Boundaries: Chainage 40.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	36.43	7	510	510
2	13.85	19	360	870

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

DCP Layer Strength Analysis Report

Project Name: q010 DCP Testing

Chainage (km): 41.000

Direction:

Location/Offset: Verge

Cone Angle: 60 degrees

Zero Error (mm): 116

Test Date: 01/07/2022

Surface Type: Unpaved

Thickness (mm): 0

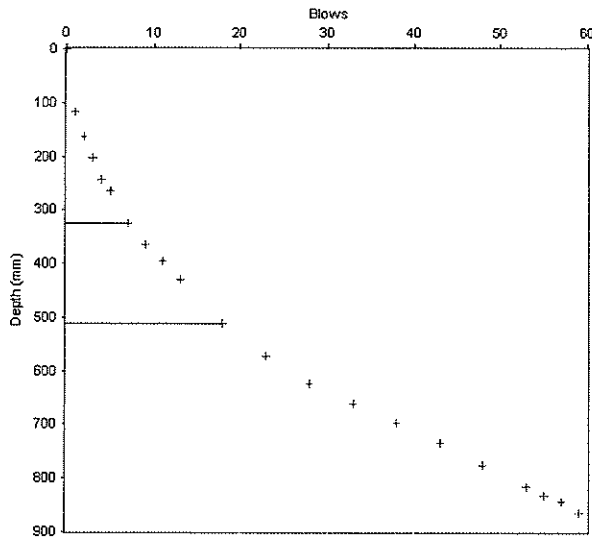
Base Type:

Thickness (mm):

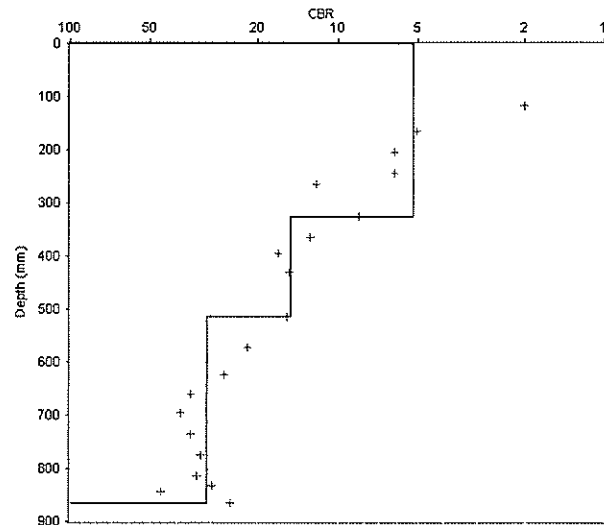
Surface Moisture: Dry

Moisture adjustment factor: Not adjusted

Layer Boundaries: Chainage 41.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	46.43	5	325	325
2	17.09	15	188	513
3	8.61	31	353	866

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by

DCP Layer Strength Analysis Report

Project Name: q010 DCP Testing

Chainage (km): 42.000

Direction:

Location/Offset: Verge

Cone Angle: 60 degrees

Zero Error (mm): 111

Test Date: 01/07/2022

Surface Type: Unpaved

Thickness (mm): 0

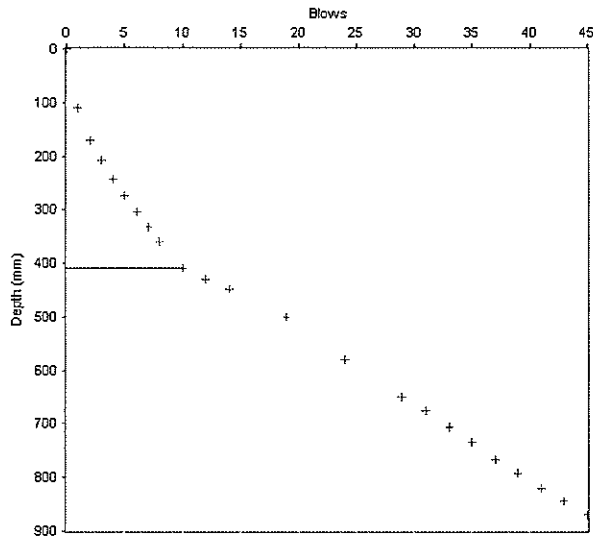
Base Type:

Thickness (mm):

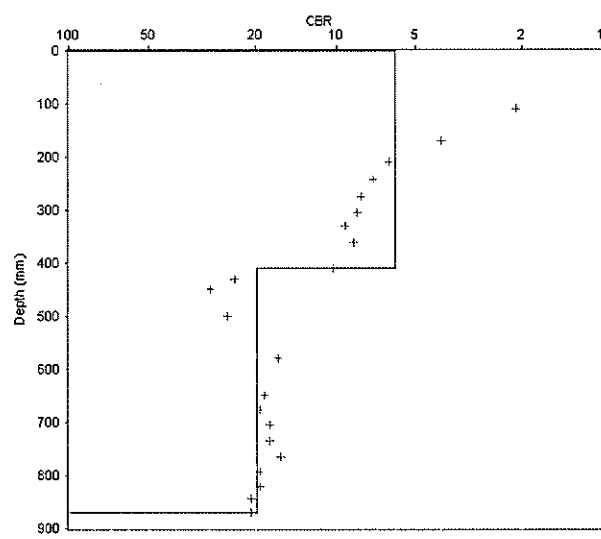
Surface Moisture: Dry

Moisture adjustment factor: Not adjusted

Layer Boundaries: Chainage 42.000



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	40.90	6	409	409
2	13.17	20	461	870

CBR Relationship:

TRL equation: $\log_{10}(\text{CBR}) = 2.48 - 1.057 \times \log_{10}(\text{Strength})$

Report produced by



Project:	
✕ DCP Test	
▬ Umma More - Site infrastructure	
Project:	
Umma More	
Drawing:	
DCP Test Locations	
Scale:	Reference:
1:10,000 @ A3	