

ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG - Tel: 0191 387 4700 Fax: 0191 387 4710
Regional Office: Unit 20, Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL - Tel: 01772 735 300 Fax: 01772 735 999

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- **S3_TPA_TP105**

Depth (m) :- **1.20**

Sample Type & No :- **B5**

Test Method

4.5kg Compaction

Single Sample

Test Results

Optimum Moisture Content (%) = **18**

Particle Density (Assumed) = **2.70**

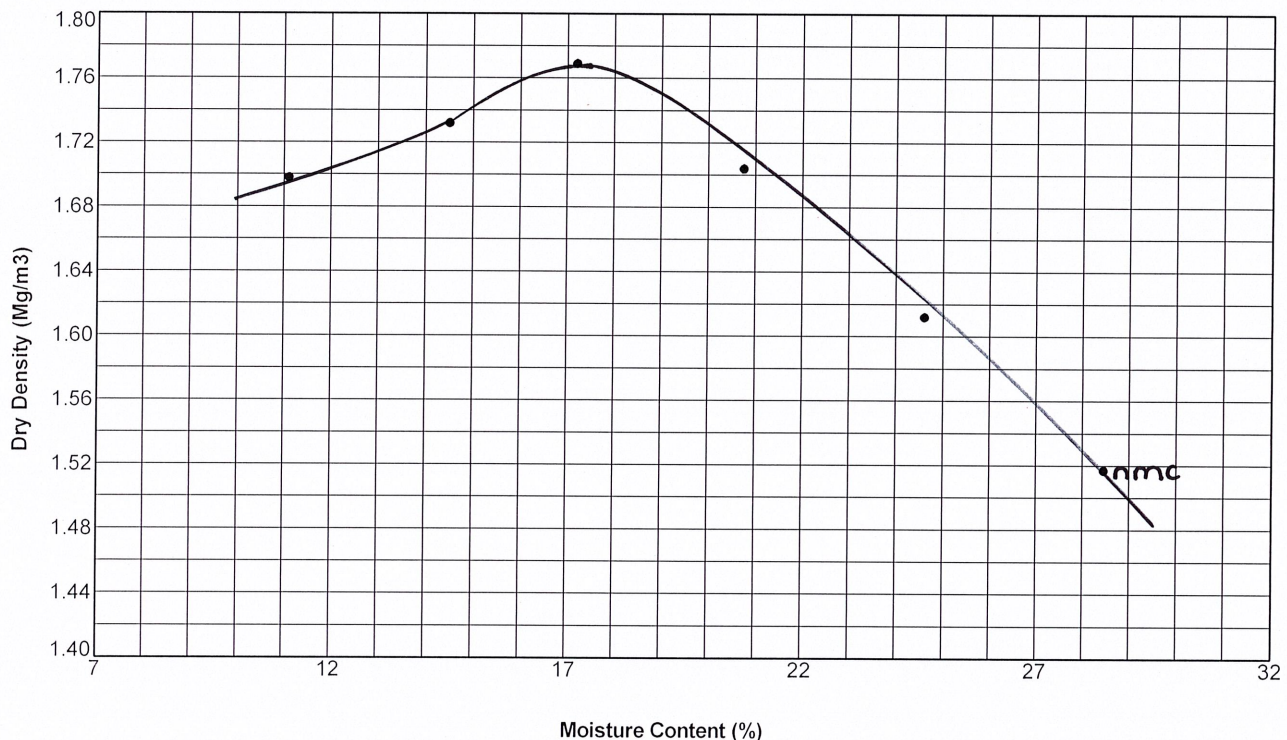
Maximum Dry Density (Mg/m³) = **1.77**

Retained on 20mm Sieve (%) = **0.4**

Date Tested = **26/10/2021**

Retained on 37.5mm Sieve (%) = **0.0**

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :-

Prairie Phase 4

Client :-

Tees Valley Combined Authority



Signed :- *msene*

Name

M. SELKIRK

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Date of issue :-
15/11/2021

Certificate No :-
COMP/4355/1

AEG Contract No. :-
4355



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MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- **S3_TPA_TP107**

Depth (m) :- **0.40**

Sample Type & No :- **B2**

Test Method

4.5kg Compaction

Single Sample

Test Results

Optimum Moisture Content (%) = **16**

Particle Density (Assumed) = **2.60**

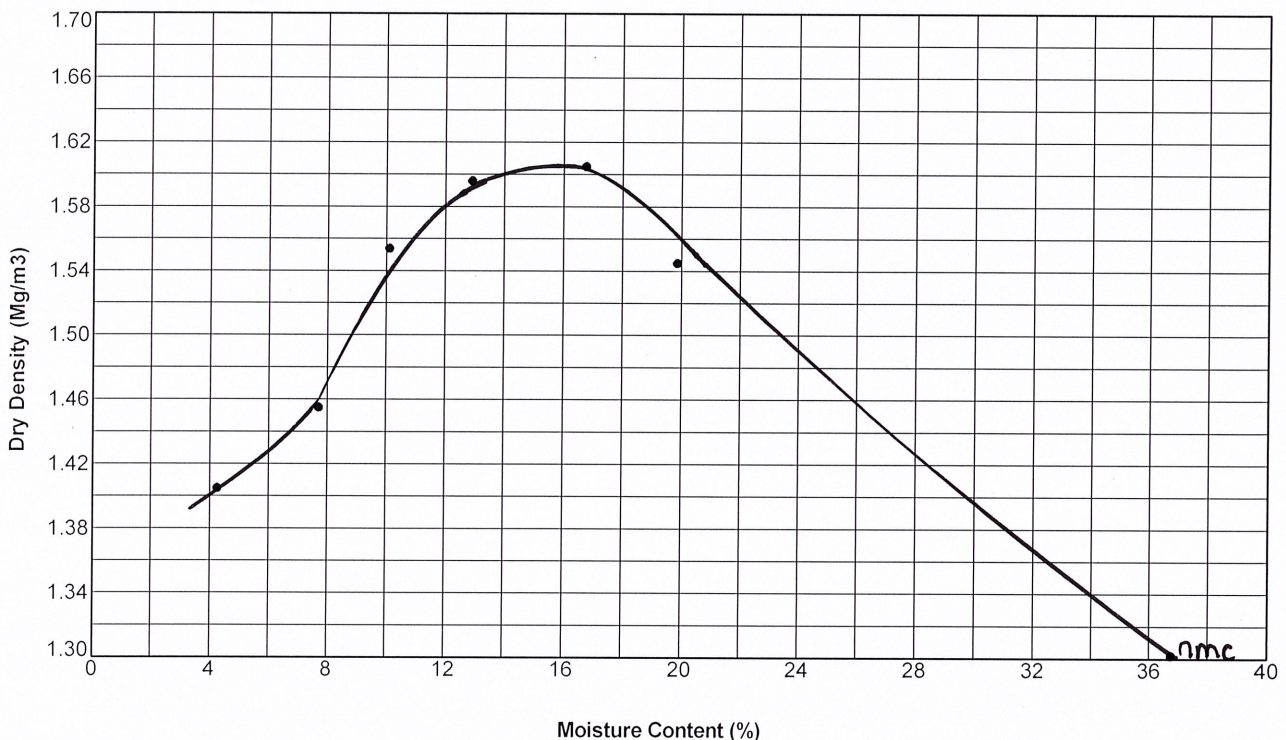
Maximum Dry Density (Mg/m³) = **1.61**

Retained on 20mm Sieve (%) = **18.0**

Date Tested = **23/10/2021**

Retained on 37.5mm Sieve (%) = **7.0**

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :-

Prairie Phase 4

Client :-

Tees Valley Combined Authority



Signed :-

msore

Name :-

M. SELKIRK

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MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- **S3_TPA_TP110**

Depth (m) :- **1.60**

Sample Type & No :- **B6**

Test Method

4.5kg Compaction

Single Sample

Test Results

Optimum Moisture Content (%) = **15**

Particle Density (Assumed) = **2.70**

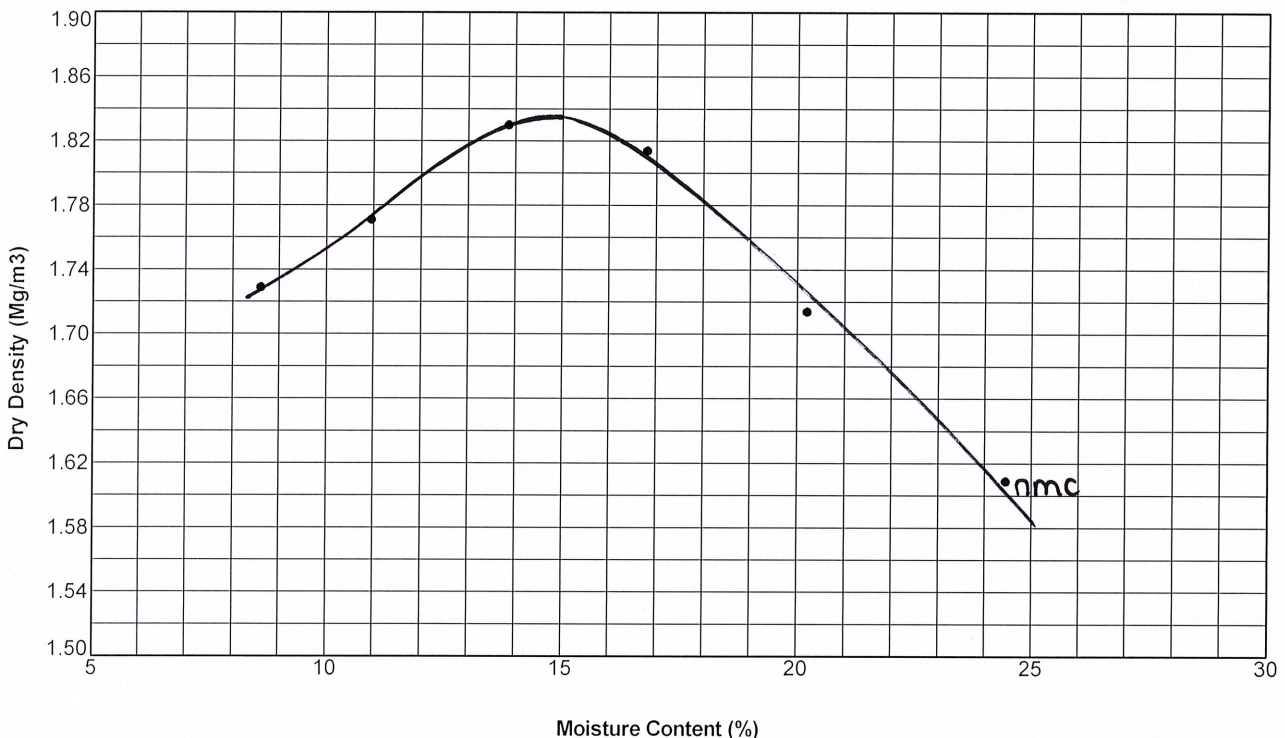
Maximum Dry Density (Mg/m³) = **1.83**

Retained on 20mm Sieve (%) = **0.0**

Date Tested = **28/10/2021**

Retained on 37.5mm Sieve (%) = **0.0**

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :-

Prairie Phase 4

Client :-

Tees Valley Combined Authority



Signed :- *msere*

Name :-

M. SELKIRK

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Determination of MCV/Moisture Relationship



ALLIED EXPLORATION & GEOTECHNICS LIMITED

Unit 25 Stella Gill Industrial Estate , Pelton Fell
 Chester-le-Street , Co Durham DH2 2RG
 a UKAS Testing Laboratory No.1367



MOISTURE CONDITION VALUE (BS 1377:PART4:1990 CLAUSE 5)

No. 1367

SITE: Prairie Phase 4

JOB No: 4355

CLIENT: Tees Valley Combined Authority

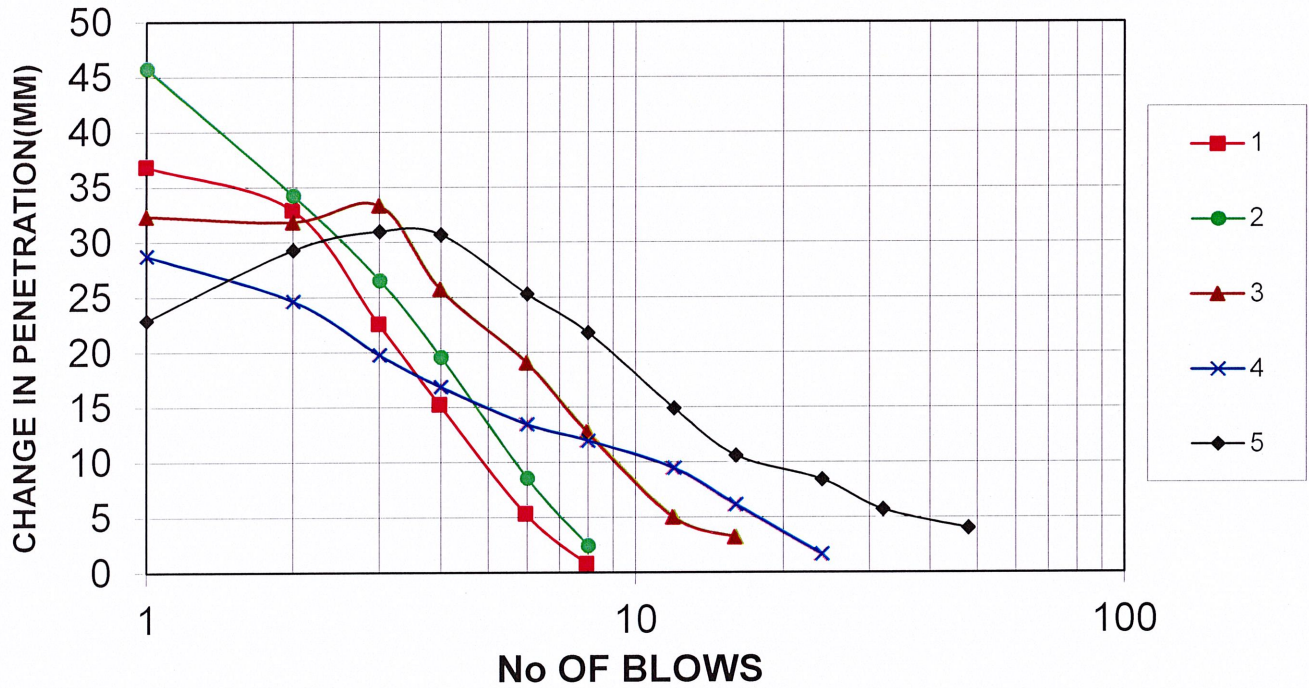
Depth: 1.50m

Sample No: S3_BHA04 B5

Specific Depth: N/A

For sample description please refer to sample description sheet.

CHANGE IN PENETRATION PLOT



Sample	1	2	3	4 (NAT)	5
MCV	7.9	8.6	10.9	12.4	15.8
M.C.(%)	28	27	25	23	22
MCV = 10 Log No. OF BLOWS @ 5MM PENETRATION					

Remarks: 0% Retained on 20mm sieve.

DATE TESTED: 11/11/2021

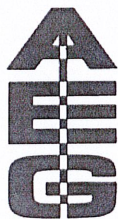
DATE OF ISSUE: 19/11/2021

APPROVED BY:

msore

NAME:

Michelle Selkirk



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 Chester-le-Street , Co Durham DH2 2RJ
 a UKAS Testing Laboratory No.1367

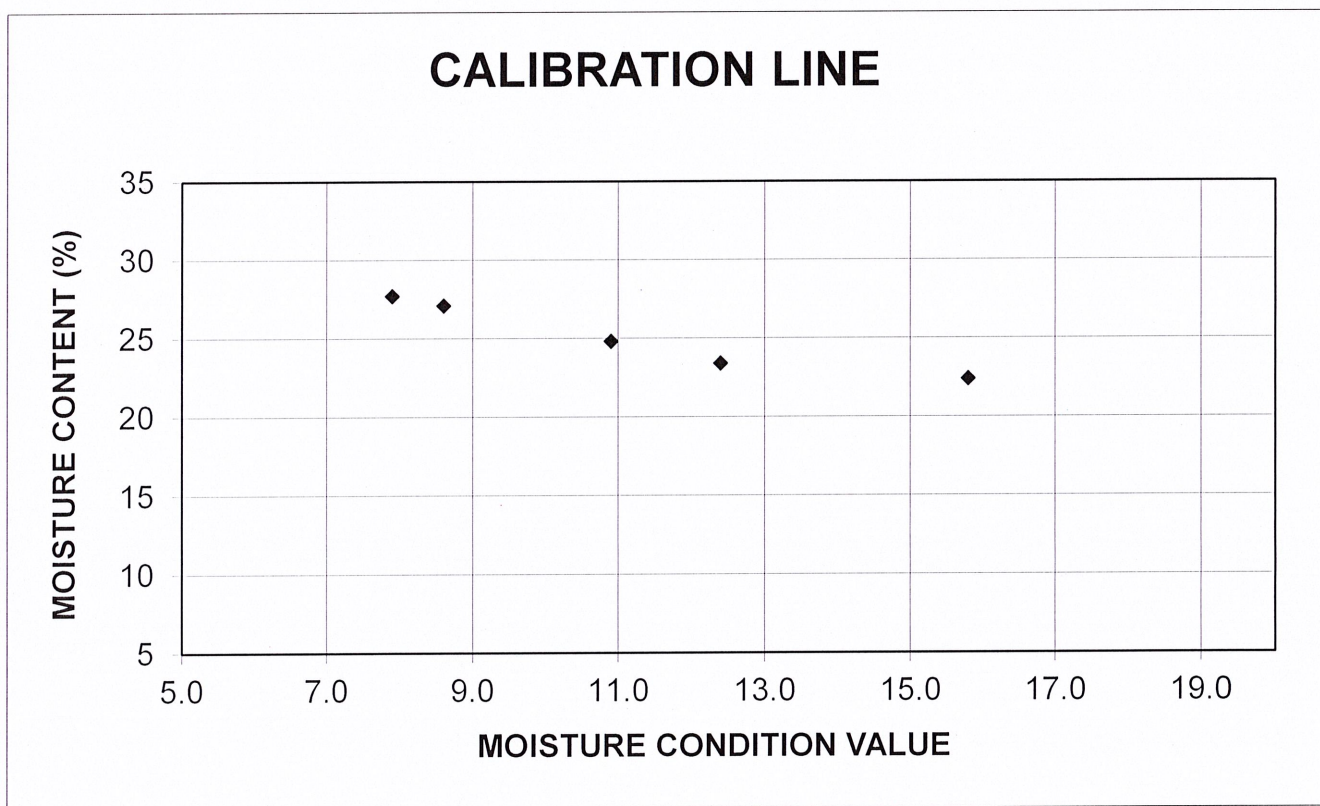


No. 1367

MOISTURE CONDITION VALUE (BS 1377:PART4:1990 CLAUSE 5)

SITE: Prairie Phase 4 **JOB No:** 4355
CLIENT: Tees Valley Combined Authority **Depth:** 1.50m
Sample No: S3_BHA04 B5 **Specific Depth:** N/A

For sample description please refer to sample description sheet.



Sample	1	2	3	4 (NAT)	5
MCV	7.9	8.6	10.9	12.4	15.8
M.C.(%)	28	27	25	23	22
MCV = 10 Log No. OF BLOWS @ 5MM PENETRATION					
INTERCEPT (MC% AXIS)			32.85	REMARKS:	
SLOPE			-0.699		
SENSITIVITY (1/SLOPE)			-1.431		



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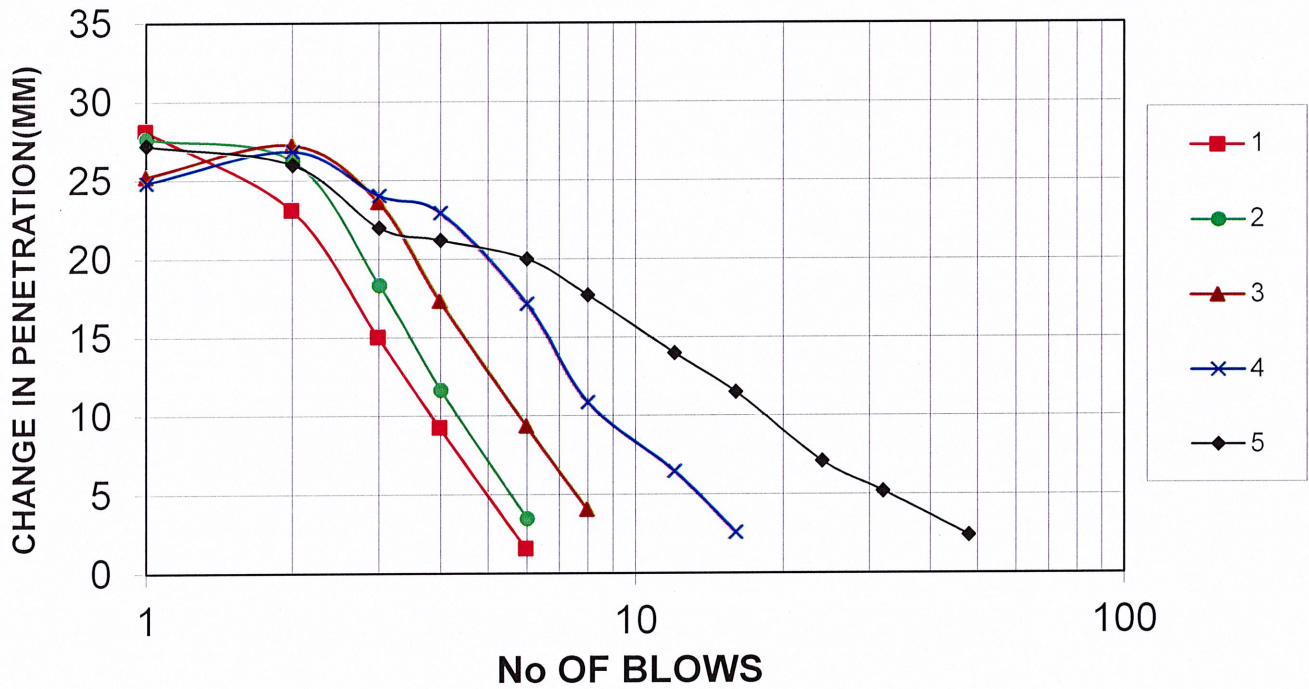
MOISTURE CONDITION VALUE (BS 1377:PART4:1990 CLAUSE 5)

No. 1367

SITE:	Prairie Phase 4	JOB No:	4355
CLIENT:	Tees Valley Combined Authority	Depth:	1.60m
Sample No:	S3_TPA_TP103 B5	Specific Depth:	N/A

For sample description please refer to sample description sheet.

CHANGE IN PENETRATION PLOT



Sample	1	2	3	4 (NAT)	5
MCV	7.0	7.6	8.8	11.3	15.1
M.C.(%)	30	29	26	25	22
MCV = 10 Log No. OF BLOWS @ 5MM PENETRATION					

Remarks: 0% Retained on 20mm sieve.

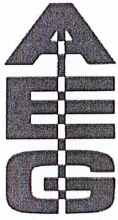
DATE TESTED: 11/11/2021

DATE OF ISSUE: 19/11/2021

APPROVED BY:

NAME:

Michelle Selkirk



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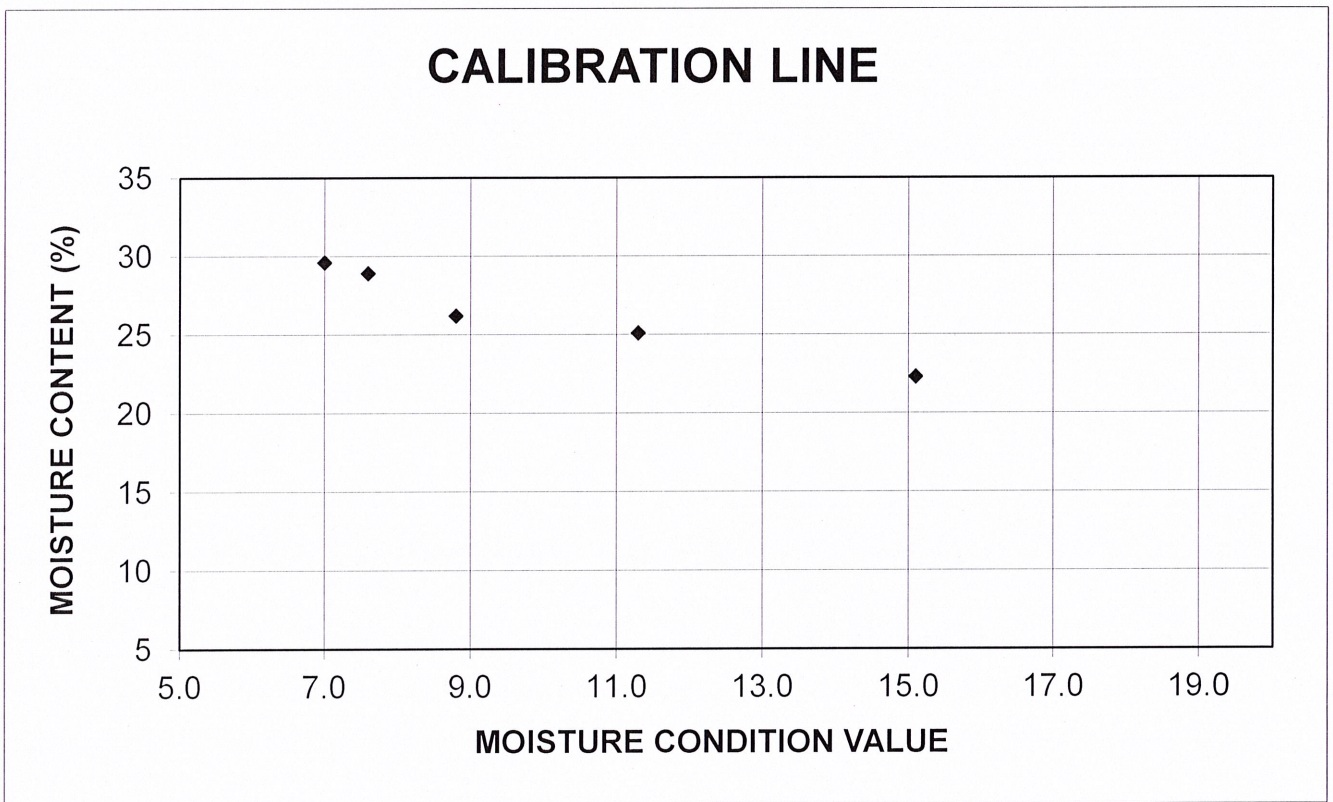
MOISTURE CONDITION VALUE (BS 1377:PART4:1990 CLAUSE 5)



No. 1367

SITE:	Prairie Phase 4	JOB No:	4355
CLIENT:	Tees Valley Combined Authority	Depth:	1.60m
Sample No:	S3_TPA_TP103 B5	Specific Depth:	N/A

For sample description please refer to sample description sheet.



Sample	1	2	3	4 (NAT)	5
MCV	7.0	7.6	8.8	11.3	15.1
M.C.(%)	30	29	26	25	22
MCV = 10 Log No. OF BLOWS @ 5MM PENETRATION					
INTERCEPT (MC% AXIS)			35.03	REMARKS:	
SLOPE			-0.865		
SENSITIVITY (1/SLOPE)			-1.156		

Determination of California Bearing Ratio



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DETERMINATION OF THE CALIFORNIA BEARING RATIO

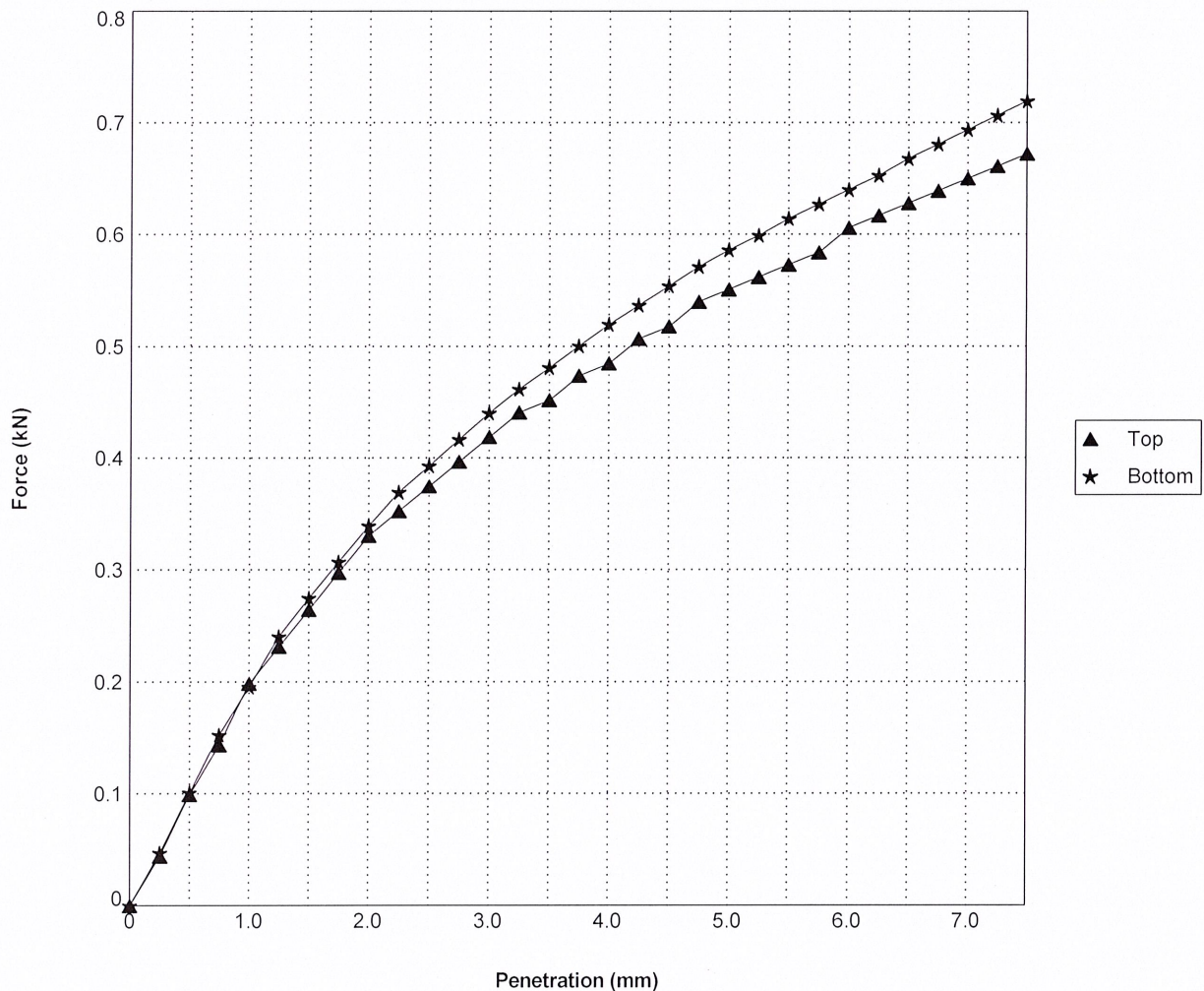
BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No.- **S3_BHA04**

Sample No.- **B5**

Depth (m)- **1.50**

"As Received" Moisture Content (%) :	27	Surcharge (Kg) :	6
Retained on 20mm (%) :	0.0	Seating Load (N) :	Top 50 / Bottom 10
Correction Needed :	No	Test Moisture Content (%) :	Top 28 / Bottom 27
Soaking Time (Days) :	N/A	Bulk Density (Mg/m ³) :	1.98
Swelling (mm) :	N/A	Dry Density (Mg/m ³) :	1.56
Date Tested :	04/11/2021	CBR Value (%) :	Top 2.8 / Bottom 3.0
Preparation Method :	4.5kg Compaction		
Remarks :			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :-

Prairie Phase 4

Client :-

Tees Valley Combined Authority



Signed :-

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Name :-

M. SELKIRK

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Date of issue :-

16/11/2021

Certificate No :-

CBR/4355/S3_BHA04/B5/1.50/1

AEG Contract No. :-

4355

