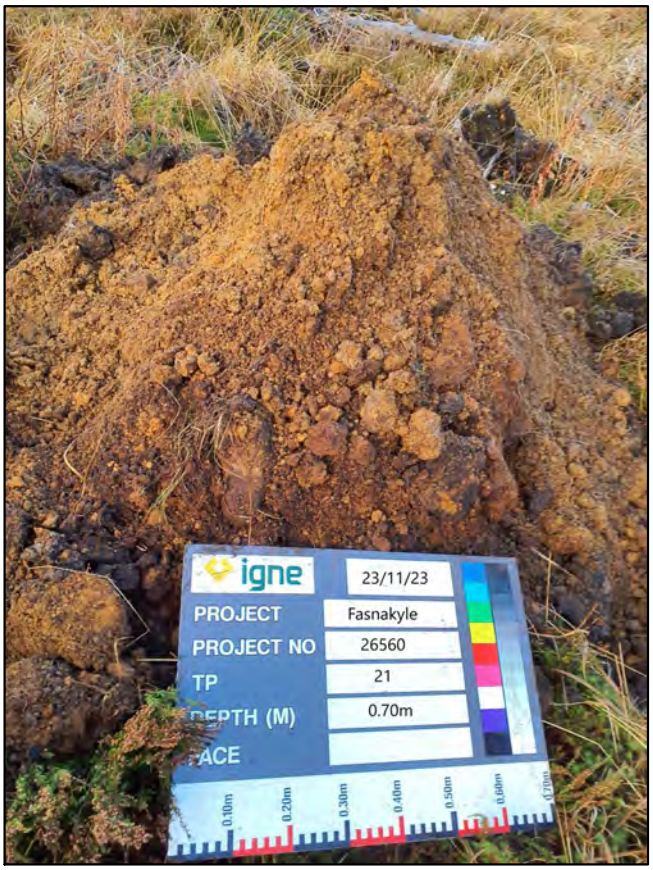
igne	Site: LT521 FASNAKYLE 400KV SUBSTATION Client: SSEN Transmission Engineer: Jacobs	Contract No: 26560 **Trial Pit No.** **TP21**

	Originator FP	Title: PHOTOGRAPHS OF TRIAL PITS		Fig No: C44
Chk & App FMR	Status FINAL			

igne	Site: LT521 FASNAKYLE 400KV SUBSTATION Client: SSEN Transmission Engineer: Jacobs	Contract No: 26560 **Trial Pit No.** **TP21**



	Originator FP	Title: PHOTOGRAPHS OF TRIAL PITS		Fig No: C44
Chk & App FMR	Status FINAL			

igne	Site: LT521 FASNAKYLE 400KV SUBSTATION Client: SSEN Transmission Engineer: Jacobs	Contract No: 26560 **Trial Pit No.** **TP22**

	Originator FP	Title: PHOTOGRAPHS OF TRIAL PITS		Fig No: C45
Chk & App FMR	Status FINAL			

igne	Site: LT521 FASNAKYLE 400KV SUBSTATION Client: SSEN Transmission Engineer: Jacobs	Contract No: 26560 **Trial Pit No.** **TP22**

	Originator FP	Title: PHOTOGRAPHS OF TRIAL PITS		Fig No: C45
Chk & App FMR	Status FINAL			

igne	Site: LT521 FASNAKYLE 400KV SUBSTATION	Contract No: 26560
	Client: SSEN Transmission	Trial Pit No. **TP23**
	Engineer: Jacobs	

	Originator FP	Title: PHOTOGRAPHS OF TRIAL PITS		Fig No: C46
Chk & App FMR	Status FINAL			

igne	Site: LT521 FASNAKYLE 400KV SUBSTATION Client: SSEN Transmission Engineer: Jacobs	Contract No: 26560 **Trial Pit No.** **TP23**

	Originator FP	Title: PHOTOGRAPHS OF TRIAL PITS		Fig No: C46
Chk & App FMR	Status FINAL			

igne	Site: LT521 FASNAKYLE 400KV SUBSTATION	Contract No: 26560
	Client: SSEN Transmission	Trial Pit No. **TP24**
	Engineer: Jacobs	

	Originator FP	Title: PHOTOGRAPHS OF TRIAL PITS		Fig No: C47
Chk & App FMR	Status FINAL			

igne	Site: LT521 FASNAKYLE 400KV SUBSTATION Client: SSEN Transmission Engineer: Jacobs	Contract No: 26560 **Trial Pit No.** **TP24**

	Originator FP	Title: PHOTOGRAPHS OF TRIAL PITS		Fig No: C47
Chk & App FMR	Status FINAL			

igne	Site: LT521 FASNAKYLE 400KV SUBSTATION	Contract No: 26560
	Client: SSEN Transmission Engineer: Jacobs	Trial Pit No. **TP25**

	Originator FP	Title: PHOTOGRAPHS OF TRIAL PITS		Fig No: C48
Chk & App FMR	Status FINAL			

igne	Site: LT521 FASNAKYLE 400KV SUBSTATION Client: SSEN Transmission Engineer: Jacobs	Contract No: 26560 **Trial Pit No.** **TP25**

	Originator FP	Title: PHOTOGRAPHS OF TRIAL PITS		Fig No: C48
Chk & App FMR	Status FINAL			

igne	Site: LT521 FASNAKYLE 400KV SUBSTATION	Contract No: 26560
	Client: SSEN Transmission	Trial Pit No. **TP26**
	Engineer: Jacobs	

	Originator FP	Title: PHOTOGRAPHS OF TRIAL PITS	Fig No: C49
Chk & App FMR	Status FINAL		

igne	Site: LT521 FASNAKYLE 400KV SUBSTATION Client: SSEN Transmission Engineer: Jacobs	Contract No: 26560 **Trial Pit No.** **TP26**

	Originator FP	Title: PHOTOGRAPHS OF TRIAL PITS		Fig No: C49
Chk & App FMR	Status FINAL			

igne	Site: LT521 FASNAKYLE 400KV SUBSTATION Client: SSEN Transmission Engineer: Jacobs	Contract No: 26560 **Trial Pit No.** **TP27**

	Originator FP	Title: PHOTOGRAPHS OF TRIAL PITS		Fig No: C50
Chk & App FMR	Status FINAL			

igne	Site: LT521 FASNAKYLE 400KV SUBSTATION	Contract No: 26560
	Client: SSEN Transmission	Trial Pit No. **TP28**
	Engineer: Jacobs	

	Originator FP	Title: PHOTOGRAPHS OF TRIAL PITS	Fig No: C51
Chk & App FMR	Status FINAL		

igne	Site: LT521 FASNAKYLE 400KV SUBSTATION Client: SSEN Transmission Engineer: Jacobs	Contract No: 26560 **Trial Pit No.** **TP28**

	Originator FP	Title: PHOTOGRAPHS OF TRIAL PITS		Fig No: C51
Chk & App FMR	Status FINAL			

igne	Site: LT521 FASNAKYLE 400KV SUBSTATION Client: SSEN Transmission Engineer: Jacobs	Contract No: 26560 **Trial Pit No.** **TP29**

	Originator FP	Title: PHOTOGRAPHS OF TRIAL PITS		Fig No: C52
Chk & App FMR	Status FINAL			

igne	Site: LT521 FASNAKYLE 400KV SUBSTATION Client: SSEN Transmission Engineer: Jacobs	Contract No: 26560 **Trial Pit No.** **TP29**

	Originator FP	Title: PHOTOGRAPHS OF TRIAL PITS		Fig No: C52
Chk & App FMR	Status FINAL			

igne	Site: LT521 FASNAKYLE 400KV SUBSTATION Client: SSEN Transmission Engineer: Jacobs	Contract No: 26560 **Trial Pit No.** **TP30**

	Originator: FP	Title: PHOTOGRAPHS OF TRIAL PITS	Fig No: C53
	Chk & App: FMR Status: FINAL		

igne	Site: LT521 FASNAKYLE 400KV SUBSTATION Client: SSEN Transmission Engineer: Jacobs	Contract No: 26560 **Trial Pit No.** **TP31**

	Originator: FP	Title: PHOTOGRAPHS OF TRIAL PITS	Fig No: C54
	Chk & App: FMR Status: FINAL		

igne	Site: LT521 FASNAKYLE 400KV SUBSTATION Client: SSEN Transmission Engineer: Jacobs	Contract No: 26560 **Trial Pit No.** **TP31**

	Originator FP	Title: PHOTOGRAPHS OF TRIAL PITS		Fig No: C54
Chk & App FMR	Status FINAL			

igne	Site: LT521 FASNAKYLE 400KV SUBSTATION	Contract No: 26560
	Client: SSEN Transmission	Trial Pit No. **TP32**
	Engineer: Jacobs	

Style: TP PHOTOS File: P:\GINTW\PROJECTS\26560.GPJ Printed: 07/03/2024 09:03:45 Raeburn Drilling and Geotechnical, Whistleberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raeburndrilling.com

	Originator: FP	Title: PHOTOGRAPHS OF TRIAL PITS	Fig No: C55
Chk & App: FMR	Status: FINAL		

igne	Site: LT521 FASNAKYLE 400KV SUBSTATION Client: SSEN Transmission Engineer: Jacobs	Contract No: 26560 **Trial Pit No.** **TP32**

	Originator FP	Title: PHOTOGRAPHS OF TRIAL PITS		Fig No: C55
Chk & App FMR	Status FINAL			

igne	Site: LT521 FASNAKYLE 400KV SUBSTATION Client: SSEN Transmission Engineer: Jacobs	Contract No: 26560 **Trial Pit No.** **TP33**

	Originator FP	Title: PHOTOGRAPHS OF TRIAL PITS		Fig No: C56
Chk & App FMR	Status FINAL			

igne	Site: LT521 FASNAKYLE 400KV SUBSTATION Client: SSEN Transmission Engineer: Jacobs	Contract No: 26560 **Trial Pit No.** **TP33**

	Originator FP	Title: PHOTOGRAPHS OF TRIAL PITS		Fig No: C56
Chk & App FMR	Status FINAL			

igne	Site: LT521 FASNAKYLE 400KV SUBSTATION Client: SSEN Transmission Engineer: Jacobs	Contract No: 26560 **Trial Pit No.** **TP34**

	Originator FP	Title: PHOTOGRAPHS OF TRIAL PITS		Fig No: C57
Chk & App FMR	Status FINAL			

igne	Site: LT521 FASNAKYLE 400KV SUBSTATION Client: SSEN Transmission Engineer: Jacobs	Contract No: 26560 **Trial Pit No.** **TP34**

	Originator FP	Title: PHOTOGRAPHS OF TRIAL PITS		Fig No: C57
Chk & App FMR	Status FINAL			

igne	Site: LT521 FASNAKYLE 400KV SUBSTATION Client: SSEN Transmission Engineer: Jacobs	Contract No: 26560 **Trial Pit No.** **TP35**

	Originator FP	Title: PHOTOGRAPHS OF TRIAL PITS		Fig No: C58
Chk & App FMR	Status FINAL			

igne	Site: LT521 FASNAKYLE 400KV SUBSTATION Client: SSEN Transmission Engineer: Jacobs	Contract No: 26560 **Trial Pit No.** **TP35**

	Originator FP	Title: PHOTOGRAPHS OF TRIAL PITS		Fig No: C58
Chk & App FMR	Status FINAL			

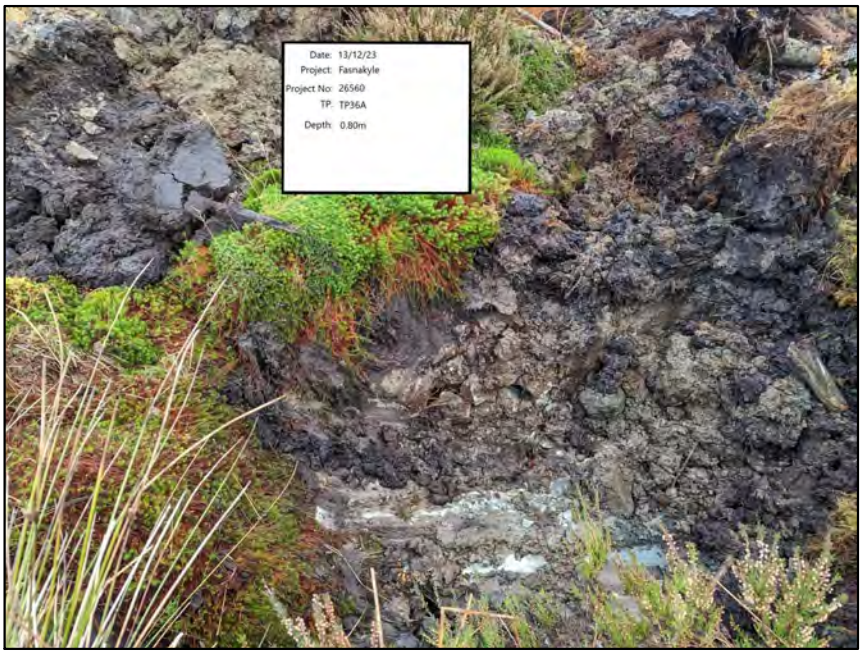
igne	Site: LT521 FASNAKYLE 400KV SUBSTATION	Contract No: 26560
	Client: SSEN Transmission	Trial Pit No. **TP36**
	Engineer: Jacobs	

	Originator FP	Title: PHOTOGRAPHS OF TRIAL PITS		Fig No: C59
Chk & App FMR	Status FINAL			

	Site: LT521 FASNAKYLE 400KV SUBSTATION	Contract No: 26560
	Client: SSEN Transmission Engineer: Jacobs	**Trial Pit No.** **TP36**

	Originator FP	Title: PHOTOGRAPHS OF TRIAL PITS		Fig No: C59
Chk & App FMR	Status FINAL			

igne	Site: LT521 FASNAKYLE 400KV SUBSTATION Client: SSEN Transmission Engineer: Jacobs	Contract No: 26560 **Trial Pit No.** **TP36A**



	Originator FP	Title: PHOTOGRAPHS OF TRIAL PITS		Fig No: C60
Chk & App FMR	Status FINAL			

igne	Site: LT521 FASNAKYLE 400KV SUBSTATION Client: SSEN Transmission Engineer: Jacobs	Contract No: 26560 **Trial Pit No.** **TP36A**

	Originator: FP	Title: PHOTOGRAPHS OF TRIAL PITS	Fig No: C60
Chk & App: FMR	Status: FINAL		

igne	Site: LT521 FASNAKYLE 400KV SUBSTATION Client: SSEN Transmission Engineer: Jacobs	Contract No: 26560 **Trial Pit No.** **TP37**

	Originator FP	Title: PHOTOGRAPHS OF TRIAL PITS		Fig No: C61
Chk & App FMR	Status FINAL			

igne	Site: LT521 FASNAKYLE 400KV SUBSTATION Client: SSEN Transmission Engineer: Jacobs	Contract No: 26560 **Trial Pit No.** **TP37**

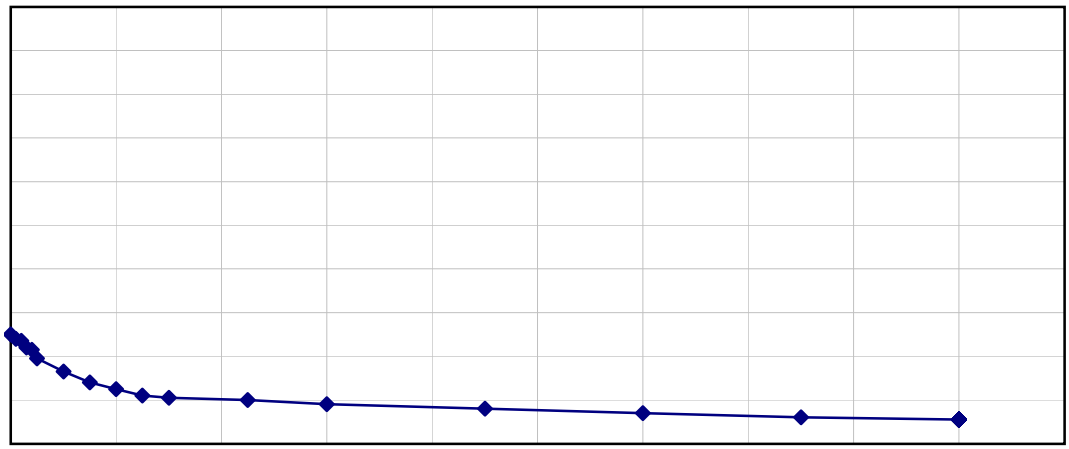
	Originator FP	Title: PHOTOGRAPHS OF TRIAL PITS		Fig No: C61
Chk & App FMR	Status FINAL			

APPENDIX D
IN-SITU TESTING

TP ID	Test Depth (m)	Date & Time of Test	Read Time	Ambient Soil Temperature (°C)	Strata Type	Ground-water Level (m)	NMC (%)	Thermal Conductivity (W/K m)	Thermal Resistivity (K m/W)	Remarks
TP01	1.1	29.11/23	150	6.9	SAND & GRAVEL	1.1		1.079	0.9267841	
TP08	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Unsuitable material
TP10	1.1	24.11.23	150	6.9	Gravelly SAND	1.75m	N/A	1.826	0.5476451	
TP12	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Unsuitable material
TP13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Unsuitable material
TP14	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Unsuitable material
TP15	1.1	27.11.23	150	7.3	PEAT	1.75m		1.325	0.754717	
TP19	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Unsuitable material
TP20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Unsuitable material
TP26	1.1	24.11.23	150	7.03	PEAT	0.30m		1.251	0.7993605	
TP27	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Unsuitable material
TP28	1.1	21.11.23	150	7.1	SAND & GRAVEL	2.90m	6.4	5.232	0.1911315	
TP30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Unsuitable material
TP34	1	21.11.23	150	7.05	SAND & GRAVEL	1.80m		0.717	1.3947001	
TP37	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Unsuitable material

Contract No 26560

INDETERMINATE



SOAKAWAY

Fig No: D2

APPENDIX E
MONITORING

Site: LT521 FASNAKYLE 400KV SUBSTATION

Contract No: 26560

Client: SSEN Transmission

Engineer: Jacobs

* Water level measurements taken from ground level.

Borehole No.	Surveyed Level (m OD)	Depth to Base of Standpipe (m)	Date	Atmospheric Pressure (mBar)	Gas Composition					Differential Pressure (Pa)	Flow (l/hr)	Depth to Water (m) (mBGL)	Depth (mOD)	Remarks
					CH_4 (%vol)	CO_2 (%vol)	O_2 (%vol)	H_2S (ppm)	CO (ppm)					
BH02	324.21		30/01/24 09:00	984	0.00	0.10	19.60	0.00	0.00	0.00	0.00	1.26	322.95	Dry, Overcast
	324.21		30/01/24 09:01		0.00	0.10	19.50	0.00	0.00					Dry, Overcast
	324.21		30/01/24 09:02		0.00	0.10	19.50	0.00	0.00					Dry, Overcast
	324.21		30/01/24 09:03		0.00	0.10	19.50	0.00	2.00					Dry, Overcast
	324.21		30/01/24 09:04		0.00	0.10	19.50	1.00	3.00					Dry, Overcast
	324.21		30/01/24 09:05		0.00	0.10	19.50	0.00	2.00					Dry, Overcast
	324.21		29/02/24 09:00	952	0.00	0.00	19.30	0.00	0.00	18.00	3.10	0.42	323.79	Overcast, raining
	324.21		29/02/24 09:01		0.00	0.00	19.00	0.00	1.00					Overcast, raining
	324.21		29/02/24 09:02		0.00	0.00	19.30	0.00	2.00					Overcast, raining
	324.21		29/02/24 09:03		0.00	0.00	19.20	0.00	1.00					Overcast, raining
	324.21		29/02/24 09:04		0.00	0.00	19.20	0.00	1.00					Overcast, raining
	324.21		29/02/24 09:05		0.00	0.00	19.10	0.00	0.00		2.90			Overcast, raining
	324.21		25/03/24 12:54	961	0.00	0.00	17.20	0.00	0.00	0.00	0.00	5.06	319.15	Overcast, occasional snow
	324.21		25/03/24 12:55		0.00	0.00	17.20	0.00	0.00					Overcast, occasional snow
	324.21		25/03/24 12:56		0.00	0.00	16.50	0.00	0.00					Overcast, occasional snow
	324.21		25/03/24 12:57		0.00	0.00	15.80	0.00	0.00					Overcast, occasional snow
	324.21		25/03/24 12:58		0.00	0.00	15.40	0.00	0.00					Overcast, occasional snow
	324.21		25/03/24 12:59		0.00	0.00	15.20	0.00	0.00					Overcast, occasional snow
	324.21		23/04/24 11:24	989	0.00	2.10	17.20	0.00	10.00	0.00	0.00	4.73	319.48	Dry, overcast and cool
	324.21		23/04/24 11:25		0.00	2.20	16.70	0.00	5.00					Dry, overcast and cool
	324.21		23/04/24 11:26		0.00	2.20	16.70	0.00	3.00					Dry, overcast and cool
	324.21		23/04/24 11:27		0.00	2.20	16.70	0.00	0.00					Dry, overcast and cool
	324.21		23/04/24 11:28		0.00	2.20	16.80	0.00	2.00					Dry, overcast and cool
	324.21		23/04/24 11:29		0.00	2.20	16.80	0.00	1.00					Dry, overcast and cool
BH04	325.02		01/02/24 09:00	987	0.00	0.00	19.20	0.00	0.00	0.00	0.40	0.43	324.59	Dry, Overcast
	325.02		01/02/24 09:01		0.00	0.00	19.30	0.00	0.00					Dry, Overcast
	325.02		01/02/24 09:02		0.00	0.00	19.20	0.00	0.00					Dry, Overcast
	325.02		01/02/24 09:03		0.00	0.00	19.20	0.00	0.00					Dry, Overcast
	325.02		01/02/24 09:04		0.00	0.00	19.20	0.00	0.00					Dry, Overcast
	325.02		01/02/24 09:05		0.00	0.00	19.20	0.00	0.00					Dry, Overcast
	325.02		29/02/24 09:00	952	0.00	0.00	19.30	0.00	0.00	0.00	0.00	0.42	324.60	Overcast, raining
	325.02		29/02/24 09:01		0.00	0.00	19.20	0.00	1.00					Overcast, raining
	325.02		29/02/24 09:02		0.00	0.00	19.30	0.00	0.00					Overcast, raining
	325.02		29/02/24 09:03		0.00	0.00	19.30	0.00	1.00					Overcast, raining
	325.02		29/02/24 09:04		0.00	0.00	19.20	0.00	0.00					Overcast, raining
	325.02		29/02/24 09:05		0.00	0.00	19.20	0.00	0.00		0.00			Overcast, raining
	325.02		25/03/24 13:49	961	0.00	0.00	18.10	0.00	0.00	-3.00	-0.40	0.54	324.48	Overcast, occasional snow
	325.02		25/03/24 13:50		0.00	0.00	17.80	0.00	0.00					Overcast, occasional snow
	325.02		25/03/24 13:51		0.00	0.00	17.80	0.00	0.00					Overcast, occasional snow
	325.02		25/03/24 13:52		0.00	0.00	17.80	0.00	0.00					Overcast, occasional snow
	325.02		25/03/24 13:53		0.00	0.00	17.70	0.00	0.00					Overcast, occasional snow
	325.02		25/03/24 13:54		0.00	0.00	17.70	0.00	0.00					Overcast, occasional snow
	325.02		23/04/24 12:14	988	0.00	1.40	19.00	0.00	0.00	0.00	0.00	0.58	324.44	Dry, overcast and cool
	325.02		23/04/24 12:15		0.00	2.00	17.10	0.00	0.00					Dry, overcast and cool

Originator: JMcM

Chk & App: FMR

Status: Final

Title: RESULTS OF GAS AND WATER LEVEL MONITORING IN STANDPIPES

Fig No: E2

Style: SPIPE MONITORING File: P:\GINTW\PROJECTS\26560.GPJ Printed: 23/05/2024 11:56:08 Raeburn Drilling and Geotechnical, Whisteberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raeburndrilling.com

Site: LT521 FASNAKYLE 400KV SUBSTATION

Contract No: 26560

Client: SSEN Transmission

Engineer: Jacobs

* Water level measurements taken from ground level.

Borehole No.	Surveyed Level (m OD)	Depth to Base of Standpipe (m)	Date	Atmospheric Pressure (mBar)	Gas Composition					Differential Pressure (Pa)	Flow (l/hr)	Depth to Water (m) (mBGL)	Depth (mOD)	Remarks
					CH_4 (%vol)	CO_2 (%vol)	O_2 (%vol)	H_2S (ppm)	CO (ppm)					
BH04	325.02		23/04/24 12:16		0.00	2.00	17.30	0.00	0.00					Dry, overcast and cool
	325.02		23/04/24 12:17		0.00	2.00	17.30	0.00	0.00					Dry, overcast and cool
	325.02		23/04/24 12:18		0.00	1.90	17.40	0.00	0.00					Dry, overcast and cool
	325.02		23/04/24 12:19		0.00	1.90	17.50	0.00	0.00					Dry, overcast and cool
BH08	334.07		12/01/23 00:00									0.00	334.07	
	334.07		15/12/23 00:00									0.00	334.07	
	334.07		19/12/23 00:00									0.00	334.07	
	334.07		30/01/24 00:00									0.30	333.77	Water level 0.30m above GL
	334.07		29/02/24 09:00									0.30	333.77	Water level 0.30m above GL
	334.07		25/03/24 12:40									0.20	333.87	Water level 0.20m above GL
	334.07		23/04/24 11:09									0.30	333.77	Water level 0.30m above GL
BH11	330.59		19/12/23 00:00									4.02	326.57	
	330.59		11/01/24 00:00									4.51	326.08	
	330.59		30/01/24 09:00	984	0.00	0.00	18.90	0.00	0.00	0.00	0.30	3.55	327.04	Dry, Overcast
	330.59		30/01/24 09:01		0.00	0.00	19.00	0.00	0.00					Dry, Overcast
	330.59		30/01/24 09:02		0.00	0.00	19.00	0.00	1.00					Dry, Overcast
	330.59		30/01/24 09:03		0.00	0.00	19.00	0.00	0.00					Dry, Overcast
	330.59		30/01/24 09:04		0.00	0.00	18.90	0.00	0.00					Dry, Overcast
	330.59		29/02/24 09:00	950	0.00	0.00	18.00	0.00	0.00	6.00	2.00	4.85	325.74	Overcast, raining
	330.59		29/02/24 09:01		0.00	0.00	19.20	1.00	0.00					Overcast, raining
	330.59		29/02/24 09:02		0.00	0.10	19.10	1.00	1.00					Overcast, raining
	330.59		29/02/24 09:03		0.00	0.00	19.20	1.00	0.00					Overcast, raining
	330.59		29/02/24 09:04		0.00	0.00	19.20	0.00	1.00					Overcast, raining
	330.59		29/02/24 09:05		0.00	0.00	19.10	0.00	0.00		1.30			Overcast, raining
	330.59		25/03/24 13:18	960	0.00	0.00	17.70	0.00	0.00	-2.00	-0.40	4.81	325.78	Overcast, occasional snow
	330.59		25/03/24 13:19		0.00	0.00	17.70	0.00	0.00					Overcast, occasional snow
	330.59		25/03/24 13:20		0.00	0.00	17.70	0.00	0.00					Overcast, occasional snow
	330.59		25/03/24 13:21		0.00	0.00	17.70	0.00	0.00					Overcast, occasional snow
	330.59		25/03/24 13:22		0.00	0.00	17.70	0.00	0.00					Overcast, occasional snow
	330.59		25/03/24 13:23		0.00	0.00	17.70	0.00	0.00					Overcast, occasional snow
	330.59		23/04/24 11:46	988	0.00	1.60	18.20	0.00	0.00	0.00	0.00	4.44	326.15	Dry, overcast and cool
	330.59		23/04/24 11:47		0.00	2.20	16.40	0.00	0.00					Dry, overcast and cool
	330.59		23/04/24 11:48		0.00	2.10	16.40	0.00	0.00					Dry, overcast and cool
	330.59		23/04/24 11:49		0.00	2.10	16.60	0.00	0.00					Dry, overcast and cool
	330.59		23/04/24 11:50		0.00	2.10	16.70	0.00	0.00					Dry, overcast and cool
	330.59		23/04/24 11:51		0.00	2.10	16.80	0.00	0.00					Dry, overcast and cool
BH14	306.06		15/12/23 00:00									0.15	305.91	
	306.06		19/12/23 00:00									0.11	305.95	
	306.06		11/01/24 00:00									0.36	305.70	
	306.06		31/01/24 09:00	962	0.00	0.00	19.30	0.00	0.00	0.00	0.00	0.27	305.79	Overcast, raining
	306.06		31/01/24 09:01		0.00	0.10	19.40	0.00	0.00					Overcast, raining
	306.06		31/01/24 09:02		0.00	0.10	19.30	0.00	0.00					Overcast, raining
	306.06		31/01/24 09:03		0.00	0.10	19.30	0.00	0.00					Overcast, raining
	306.06		31/01/24 09:04		0.00	0.10	19.30	0.00	1.00					Overcast, raining

Style: SPIPE MONITORING File: P:\GINTW\PROJECTS\26560.GPJ Printed: 23/05/2024 11:56:09 Raeburn Drilling and Geotechnical, Whisteberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raeburndrilling.com

Originator	Title:	Fig No:
JMcM	RESULTS OF GAS AND WATER LEVEL MONITORING IN STANDPIPES	E2
Chk & App: FMR	Status: Final	Sheet 2 of 7

Site: LT521 FASNAKYLE 400KV SUBSTATION

Contract No: 26560

Client: SSEN Transmission

Engineer: Jacobs

* Water level measurements taken from ground level.

Borehole No.	Surveyed Level (m OD)	Depth to Base of Standpipe (m)	Date	Atmospheric Pressure (mBar)	Gas Composition					Differential Pressure (Pa)	Flow (l/hr)	Depth to Water (m) (mBGL)	Depth (mOD)	Remarks
					CH_4 (%vol)	CO_2 (%vol)	O_2 (%vol)	H_2S (ppm)	CO (ppm)					
BH14	306.06		31/01/24 09:05		0.00	0.10	19.30	0.00	0.00					Overcast, raining
	306.06		28/02/24 09:00	961	0.00	0.00	19.30	0.00	1.00	0.00	0.00	0.22	305.84	Overcast, raining
	306.06		28/02/24 09:01		0.00	0.10	19.50	0.00	0.00					Overcast, raining
	306.06		28/02/24 09:02		0.00	0.10	19.50	0.00	0.00					Overcast, raining
	306.06		28/02/24 09:03		0.00	0.10	19.50	0.00	1.00					Overcast, raining
	306.06		28/02/24 09:04		0.00	0.10	19.40	0.00	0.00					Overcast, raining
	306.06		28/02/24 09:05		0.00	0.10	19.40	0.00	0.00		0.00			Overcast, raining
	306.06		26/03/24 08:42	960	0.00	0.00	17.60	0.00	0.00	-2.00	-0.30	0.24	305.82	Overcast, occasional snow
	306.06		26/03/24 08:43		0.00	0.00	17.70	0.00	0.00					Overcast, occasional snow
	306.06		26/03/24 08:44		0.00	0.00	17.70	0.00	0.00					Overcast, occasional snow
	306.06		26/03/24 08:45		0.00	0.00	17.70	0.00	0.00					Overcast, occasional snow
	306.06		26/03/24 08:46		0.00	0.00	17.70	0.00	0.00					Overcast, occasional snow
	306.06		26/03/24 08:47		0.00	0.00	17.70	0.00	0.00					Overcast, occasional snow
	306.06		22/04/24 16:48	997	0.00	0.40	15.00	0.00	0.00	0.00	0.00	0.27	305.79	Dry, sunny and mild
	306.06		22/04/24 16:49		0.00	1.00	19.50	0.00	0.00					Dry, sunny and mild
	306.06		22/04/24 16:50			1.10								Test terminated due to water
														ingress
BH16	325.42		19/12/23 00:00									0.54	324.88	
	325.42		12/01/24 00:00									0.62	324.80	
	325.42		01/02/24 09:00	987	0.00	0.00	18.90	0.00	1.00	2.00	0.80	0.62	324.80	Dry, Overcast
	325.42		01/02/24 09:01		0.00	0.00	19.20	0.00	1.00					Dry, Overcast
	325.42		01/02/24 09:02		0.00	0.00	19.10	0.00	0.00					Dry, Overcast
	325.42		01/02/24 09:03		0.00	0.00	19.10	0.00	0.00					Dry, Overcast
	325.42		01/02/24 09:04		0.00	0.00	19.10	0.00	0.00					Dry, Overcast
	325.42		01/02/24 09:05		0.00	0.00	19.10	0.00	0.00					Dry, Overcast
	325.42		28/02/24 09:00	962	0.00	0.10	19.60	0.00	0.00	0.00	0.00	0.70	324.72	Overcast, raining
	325.42		28/02/24 09:01		0.00	0.10	19.50	0.00	1.00					Overcast, raining
	325.42		28/02/24 09:02		0.00	0.10	19.50	0.00	2.00					Overcast, raining
	325.42		28/02/24 09:03		0.00	0.10	19.50	0.00	1.00					Overcast, raining
	325.42		28/02/24 09:04		0.00	0.10	19.50	1.00	1.00					Overcast, raining
	325.42		28/02/24 09:05		0.00	0.10	19.40	0.00	1.00		0.00			Overcast, raining
	325.42		25/03/24 13:37	960	0.00	0.00	17.80	0.00	0.00	-4.00	-0.40	0.70	324.72	Overcast, occasional snow
	325.42		25/03/24 13:38		0.00	0.00	17.80	0.00	0.00					Overcast, occasional snow
	325.42		25/03/24 13:39		0.00	0.00	17.80	0.00	0.00					Overcast, occasional snow
	325.42		25/03/24 13:40		0.00	0.00	17.70	0.00	0.00					Overcast, occasional snow
	325.42		25/03/24 13:41		0.00	0.00	17.70	0.00	0.00					Overcast, occasional snow
	325.42		25/03/24 13:42		0.00	0.00	17.70	0.00	0.00					Overcast, occasional snow
	325.42		23/04/24 12:03	989	0.00	1.60	20.10	0.00	0.00	0.00	0.00	1.10	324.32	Dry, overcast and cool
	325.42		23/04/24 12:04		0.00	2.10	17.40	0.00	0.00					Dry, overcast and cool
	325.42		23/04/24 12:05		0.00	2.00	17.50	0.00	0.00					Dry, overcast and cool
	325.42		23/04/24 12:06		0.00	2.00	17.60	0.00	0.00					Dry, overcast and cool
	325.42		23/04/24 12:07		0.00	2.00	17.60	0.00	1.00					Dry, overcast and cool
	325.42		23/04/24 12:08		0.00	2.00	17.70	0.00	0.00					Dry, overcast and cool
BH18	316.75		08/12/23 00:00									1.95	314.80	

Originator: JMcM

Chk & App: FMR

Status: Final

Title: RESULTS OF GAS AND WATER LEVEL MONITORING IN STANDPIPES

Fig No: E2

Site: LT521 FASNAKYLE 400KV SUBSTATION

Contract No: 26560

Client: SSEN Transmission

Engineer: Jacobs

* Water level measurements taken from ground level.

Borehole No.	Surveyed Level (m OD)	Depth to Base of Standpipe (m)	Date	Atmospheric Pressure (mBar)	Gas Composition					Differential Pressure (Pa)	Flow (l/hr)	Depth to Water (m) (mBGL)	Depth (mOD)	Remarks
					CH_4 (%vol)	CO_2 (%vol)	O_2 (%vol)	H_2S (ppm)	CO (ppm)					
BH18	316.75		15/12/23 00:00									1.98	314.77	
	316.75		19/12/23 00:00									1.96	314.79	
	316.75		11/01/24 00:00									2.00	314.75	
	316.75		31/01/24 09:00	962	0.00	0.10	19.40	0.00	1.00	0.00	0.00	0.50	316.25	Overcast, raining
	316.75		31/01/24 09:01		0.00	0.10	19.30	0.00	0.00					Overcast, raining
	316.75		31/01/24 09:02		0.00	0.10	19.30	0.00	0.00					Overcast, raining
	316.75		31/01/24 09:03		0.00	0.10	19.30	0.00	1.00					Overcast, raining
	316.75		31/01/24 09:04		0.00	0.10	19.30	0.00	1.00					Overcast, raining
	316.75		31/01/24 09:05		0.00	0.10	19.30	0.00	1.00					Overcast, raining
	316.75		28/02/24 09:00	966	0.00	0.10	18.20	0.00	0.00	5.00	1.30	1.84	314.91	Overcast, raining
	316.75		28/02/24 09:01		0.00	0.10	19.40	0.00	0.00					Overcast, raining
	316.75		28/02/24 09:02		0.00	0.10	19.40	0.00	0.00					Overcast, raining
	316.75		28/02/24 09:03		0.00	0.10	19.40	0.00	0.00					Overcast, raining
	316.75		28/02/24 09:04		0.00	0.10	19.30	0.00	0.00					Overcast, raining
	316.75		28/02/24 09:05		0.00	0.10	19.30	0.00	0.00		1.30			Overcast, raining
	316.75		26/03/24 08:59	958	0.00	0.00	17.80	0.00	0.00	-3.00	-0.40	1.87	314.88	Overcast, occasional snow
	316.75		26/03/24 09:00		0.00	0.00	17.80	0.00	0.00					Overcast, occasional snow
	316.75		26/03/24 09:01		0.00	0.00	17.80	0.00	0.00					Overcast, occasional snow
	316.75		26/03/24 09:02		0.00	0.00	17.80	0.00	0.00					Overcast, occasional snow
	316.75		26/03/24 09:03		0.00	0.00	17.80	0.00	0.00					Overcast, occasional snow
	316.75		26/03/24 09:04		0.00	0.00	17.70	0.00	0.00					Overcast, occasional snow
	316.75		22/04/24 09:00	992	0.00	0.60	19.60	0.00	0.00	-8.00	-2.10	1.59	315.16	Dry, sunny and mild
	316.75		22/04/24 09:01		0.00	0.00	8.80	0.00	0.00					Dry, sunny and mild
	316.75		22/04/24 09:02		0.00	0.00	7.00	0.00	0.00					Dry, sunny and mild
	316.75		22/04/24 09:03		0.00	0.00	0.40	0.00	0.00					Dry, sunny and mild
	316.75		22/04/24 09:04		0.00	0.00	6.00	0.00	0.00					Dry, sunny and mild
	316.75		22/04/24 09:05		0.00	0.00	6.20	0.00	0.00		-1.40			Dry, sunny and mild
BH21	326.49		01/12/23 00:00									0.25	326.24	
	326.49		08/12/23 00:00									0.33	326.16	
	326.49		15/12/23 00:00									0.36	326.13	
	326.49		19/12/23 00:00									0.30	326.19	
	326.49		12/01/24 00:00									0.35	326.14	
	326.49		31/01/24 09:00	961	0.00	0.10	19.10	0.00	1.00	0.00	0.00	0.28	326.21	Overcast, raining
	326.49		31/01/24 09:01		0.00	0.10	19.20	0.00	0.00					Overcast, raining
	326.49		31/01/24 09:02		0.00	0.10	19.20	0.00	1.00					Overcast, raining
	326.49		31/01/24 09:03		0.00	0.10	19.20	0.00	1.00					Overcast, raining
	326.49		31/01/24 09:04		0.00	0.10	19.20	0.00	0.00					Overcast, raining
	326.49		31/01/24 09:05		0.00	0.10	19.10	0.00	1.00					Overcast, raining
	326.49		28/02/24 09:00	962	0.00	0.10	19.10	0.00	0.00	0.00	0.00	0.27	326.22	Overcast, raining
	326.49		28/02/24 09:01		0.00	0.10	19.30	0.00	1.00					Overcast, raining
	326.49		28/02/24 09:02		0.00	0.10	19.40	0.00	1.00					Overcast, raining
	326.49		28/02/24 09:03		0.00	0.10	19.40	0.00	0.00					Overcast, raining
	326.49		28/02/24 09:04		0.00	0.10	19.40	0.00	0.00					Overcast, raining
	326.49		28/02/24 09:05		0.00	0.10	19.40	0.00	0.00		0.00			Overcast, raining

Originator: JMcM

Chk & App: FMR

Status: Final

Title: RESULTS OF GAS AND WATER LEVEL MONITORING IN STANDPIPES

Fig No: E2

Style: SPIPE MONITORING File: P:\GINTW\PROJECTS\26560.GPJ Printed: 23/05/2024 11:56:09 Raeburn Drilling and Geotechnical, Whisteberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raeburndrilling.com

Site: LT521 FASNAKYLE 400KV SUBSTATION

Contract No: 26560

Client: SSEN Transmission

Engineer: Jacobs

* Water level measurements taken from ground level.

Borehole No.	Surveyed Level (m OD)	Depth to Base of Standpipe (m)	Date	Atmospheric Pressure (mBar)	Gas Composition					Differential Pressure (Pa)	Flow (l/hr)	Depth to Water (m) (mBGL)	Depth (mOD)	Remarks
					CH_4 (%vol)	CO_2 (%vol)	O_2 (%vol)	H_2S (ppm)	CO (ppm)					
BH21	326.49		26/03/24 09:19	956	0.00	0.00	17.80	0.00	0.00	-0.30	-0.50	0.31	326.18	Overcast, occasional snow
	326.49		26/03/24 09:20		0.00	0.00	17.80	0.00	0.00					Overcast, occasional snow
	326.49		26/03/24 09:21		0.00	0.00	17.80	0.00	0.00					Overcast, occasional snow
	326.49		26/03/24 09:22		0.00	0.00	17.80	0.00	0.00					Overcast, occasional snow
	326.49		26/03/24 09:23		0.00	0.00	17.70	0.00	0.00					Overcast, occasional snow
	326.49		26/03/24 09:24		0.00	0.00	17.70	0.00	0.00					Overcast, occasional snow
	326.49		22/04/24 15:47	992	0.00	0.20	19.20	0.00	0.00	0.00	0.00	0.34	326.15	Dry, sunny and mild
	326.49		22/04/24 15:48		0.00	1.00	17.50	0.00	0.00					Dry, sunny and mild
	326.49		22/04/24 15:49		0.00	1.10	17.50	0.00	0.00					Dry, sunny and mild
	326.49		22/04/24 15:50		0.00	1.20	17.40	0.00	0.00					Dry, sunny and mild
	326.49		22/04/24 15:51		0.00	1.20	17.40	0.00	0.00					Dry, sunny and mild
	326.49		22/04/24 15:52		0.00	1.10	17.60	0.00	0.00					Dry, sunny and mild
BH22	333.84		31/01/24 09:00	966	0.00	0.00	19.00	0.00	0.00	0.00	0.00	0.69	333.15	Overcast, raining
	333.84		31/01/24 09:01		0.00	0.10	19.10	0.00	0.00					Overcast, raining
	333.84		31/01/24 09:02		0.00	0.10	19.10	0.00	0.00					Overcast, raining
	333.84		31/01/24 09:03		0.00	0.10	19.10	0.00	0.00					Overcast, raining
	333.84		31/01/24 09:04		0.00	0.10	19.00	0.00	0.00					Overcast, raining
	333.84		31/01/24 09:05		0.00	0.10	19.00	0.00	0.00					Overcast, raining
	333.84		28/02/24 09:00	960	0.00	0.00	19.60	0.00	0.00	0.00	0.00	0.83	333.01	Overcast, raining
	333.84		28/02/24 09:01		0.00	0.10	19.50	0.00	1.00					Overcast, raining
	333.84		28/02/24 09:02		0.00	0.10	19.50	0.00	0.00					Overcast, raining
	333.84		28/02/24 09:03		0.00	0.10	19.50	1.00	0.00					Overcast, raining
	333.84		28/02/24 09:04		0.00	0.10	19.50	0.00	1.00					Overcast, raining
	333.84		28/02/24 09:05		0.00	0.10	19.50	0.00	0.00		0.00			Overcast, raining
	333.84		25/03/24 14:22	960	0.00	0.00	17.80	0.00	0.00	-3.00	0.00	0.85	332.99	Overcast, occasional snow
	333.84		25/03/24 14:23		0.00	0.00	17.80	0.00	0.00					Overcast, occasional snow
	333.84		25/03/24 14:24		0.00	0.00	17.80	0.00	0.00					Overcast, occasional snow
	333.84		25/03/24 14:25		0.00	0.00	17.80	0.00	0.00					Overcast, occasional snow
	333.84		25/03/24 14:26		0.00	0.00	17.80	0.00	0.00					Overcast, occasional snow
	333.84		25/03/24 14:27		0.00	0.00	17.80	0.00	0.00					Overcast, occasional snow
	333.84		23/04/24 12:45	988	0.00	1.30	18.70	0.00	0.00	0.00	0.00	1.90	331.94	Dry, overcast and cool
	333.84		23/04/24 12:46		0.00	1.90	17.10	0.00	0.00					Dry, overcast and cool
	333.84		23/04/24 12:47		0.00	1.90	17.10	0.00	0.00					Dry, overcast and cool
	333.84		23/04/24 12:48		0.00	1.80	17.30	0.00	0.00					Dry, overcast and cool
	333.84		23/04/24 12:49		0.00	1.80	17.50	0.00	0.00					Dry, overcast and cool
	333.84		23/04/24 12:50		0.00	1.80	17.60	0.00	0.00					Dry, overcast and cool
BH23	316.00		12/01/23 00:00									0.30	315.70	
	316.00		08/12/23 00:00									0.25	315.75	
	316.00		15/12/23 00:00									0.00	316.00	
	316.00		19/12/23 00:00									0.06	315.94	
	316.00		01/02/24 09:00	984	0.00	0.00	19.20	0.00	0.00	0.00	0.00	0.00	316.00	Dry, Overcast
	316.00		01/02/24 09:01		0.00	0.00	19.30	0.00	0.00					Dry, Overcast
	316.00		01/02/24 09:02		0.00	0.00	19.20	0.00	0.00					Dry, Overcast
	316.00		01/02/24 09:03		0.00	0.00	19.20	0.00	0.00					Dry, Overcast

Style: SPIPE MONITORING File: P:\GINTW\PROJECTS\26560.GPJ Printed: 23/05/2024 11:56:09 Raeburn Drilling and Geotechnical, Whisteberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raeburndrilling.com

Originator	Title:	Fig No:
JMcM	RESULTS OF GAS AND WATER LEVEL MONITORING IN STANDPIPES	E2
Chk & App: FMR / Status: Final		Sheet 5 of 7

Site: LT521 FASNAKYLE 400KV SUBSTATION

Contract No: 26560

Client: SSEN Transmission

Engineer: Jacobs

* Water level measurements taken from ground level.

Borehole No.	Surveyed Level (m OD)	Depth to Base of Standpipe (m)	Date	Atmospheric Pressure (mBar)	Gas Composition					Differential Pressure (Pa)	Flow (l/hr)	Depth to Water (m) (mBGL)	Depth (mOD)	Remarks
					CH_4 (%vol)	CO_2 (%vol)	O_2 (%vol)	H_2S (ppm)	CO (ppm)					
BH23	316.00		01/02/24 09:04		0.00	0.00	19.20	0.00	0.00					Dry, Overcast
	316.00		01/02/24 09:05		0.00	0.00	19.20	0.00	0.00					Dry, Overcast
	316.00		28/02/24 09:00	966	0.00	0.10	20.20	0.00	1.00	5.00	1.50	0.21	315.79	Overcast, raining
	316.00		28/02/24 09:01		0.00	0.10	19.70	0.00	2.00					Overcast, raining
	316.00		28/02/24 09:02		0.00	0.10	19.70	0.00	1.00					Overcast, raining
	316.00		28/02/24 09:03		0.00	0.10	19.70	1.00	2.00					Overcast, raining
	316.00		28/02/24 09:04		0.00	0.10	19.60	1.00	1.00					Overcast, raining
	316.00		28/02/24 09:05		0.00	0.10	19.60	0.00	3.00		1.10			Overcast, raining
	316.00		26/03/24 09:37	957	0.00	0.00	17.70	0.00	0.00	0.00	0.00	0.17	315.83	Overcast, occasional snow
	316.00		26/03/24 09:38		0.00	0.00	17.80	0.00	0.00					Overcast, occasional snow
	316.00		26/03/24 09:39		0.00	0.00	17.70	0.00	0.00					Overcast, occasional snow
	316.00		26/03/24 09:40		0.00	0.00	17.70	0.00	0.00					Overcast, occasional snow
	316.00		26/03/24 09:41		0.00	0.00	17.60	0.00	0.00					Overcast, occasional snow
	316.00		26/03/24 09:42		0.00	0.00	17.60	0.00	0.00					Overcast, occasional snow
	316.00		22/04/24 17:04	991	0.00	0.40	18.70	0.00	0.00	0.00	6.60	0.18	315.82	Dry, sunny and mild
	316.00		22/04/24 17:05		0.00	0.40	19.30	0.00	0.00					Dry, sunny and mild
	316.00		22/04/24 17:06		0.00	0.50	19.20	0.00	0.00					Dry, sunny and mild
	316.00		22/04/24 17:07		0.00	0.50	19.10	0.00	0.00					Dry, sunny and mild
	316.00		22/04/24 17:08		0.00	0.50	19.00	0.00	0.00					Dry, sunny and mild
	316.00		22/04/24 17:09		0.00	0.50	19.00	0.00	0.00		-0.10			Dry, sunny and mild
BH25	332.05		31/01/24 09:00	966	0.00	0.10	19.20	0.00	0.00	0.00	0.00	0.16	331.89	Overcast, raining
	332.05		31/01/24 09:01		0.00	0.10	19.30	0.00	1.00					Overcast, raining
	332.05		31/01/24 09:02		0.00	0.10	19.30	0.00	1.00					Overcast, raining
	332.05		31/01/24 09:03		0.00	0.10	19.30	0.00	0.00					Overcast, raining
	332.05		31/01/24 09:04		0.00	0.10	19.30	0.00	0.00					Overcast, raining
	332.05		31/01/24 09:05		0.00	0.10	19.20	0.00	0.00					Overcast, raining
	332.05		28/02/24 09:00	961	0.00	0.00	19.30	0.00	1.00	7.00	1.60	0.20	331.85	Overcast, raining
	332.05		28/02/24 09:01		0.00	0.10	19.50	0.00	0.00					Overcast, raining
	332.05		28/02/24 09:02		0.00	0.10	19.40	0.00	0.00					Overcast, raining
	332.05		28/02/24 09:03		0.00	0.10	19.40	0.00	0.00					Overcast, raining
	332.05		28/02/24 09:04		0.00	0.10	19.40	0.00	0.00					Overcast, raining
	332.05		28/02/24 09:05		0.00	0.10	19.40	0.00	1.00		1.60			Overcast, raining
	332.05		25/03/24 14:41	960	0.00	0.00	17.80	0.00	0.00	-3.00	-0.40	0.18	331.87	Overcast, occasional snow
	332.05		25/03/24 14:42		0.00	0.00	17.80	0.00	0.00					Overcast, occasional snow
	332.05		25/03/24 14:43		0.00	0.00	17.80	0.00	0.00					Overcast, occasional snow
	332.05		25/03/24 14:44		0.00	0.00	17.80	0.00	0.00					Overcast, occasional snow
	332.05		25/03/24 14:45		0.00	0.00	17.80	0.00	0.00					Overcast, occasional snow
	332.05		25/03/24 14:46		0.00	0.00	17.80	0.00	0.00					Overcast, occasional snow
	332.05		23/04/24 13:00	987	0.00	1.20	18.80	0.00	0.00	0.00	0.00	0.27	331.78	Dry, overcast and cool
	332.05		23/04/24 13:01		0.00	1.90	17.10	0.00	0.00					Dry, overcast and cool
	332.05		23/04/24 13:02		0.00	1.80	17.10	0.00	0.00					Dry, overcast and cool
	332.05		23/04/24 13:03		0.00	1.80	17.20	0.00	0.00					Dry, overcast and cool
	332.05		23/04/24 13:04		0.00	1.80	17.40	0.00	0.00					Dry, overcast and cool
	332.05		23/04/24 13:05		0.00	1.80	17.60	0.00	0.00					Dry, overcast and cool

Raeburn Drilling and Geotechnical, Whisteberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raeburndrilling.com

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Originator	Title:	Fig No:
JMcM	RESULTS OF GAS AND WATER LEVEL MONITORING IN STANDPIPES	E2
Chk & App: FMR	Status: Final	Sheet 6 of 7

Site: LT521 FASNAKYLE 400KV SUBSTATION

Contract No: 26560

Client: SSEN Transmission

Engineer: Jacobs

* Water level measurements taken from ground level.

Borehole No.	Surveyed Level (m OD)	Depth to Base of Standpipe (m)	Date	Atmospheric Pressure (mBar)	Gas Composition					Differential Pressure (Pa)	Flow (l/hr)	Depth to Water (m) (mBGL)	Depth (mOD)	Remarks
					CH_4 (%vol)	CO_2 (%vol)	O_2 (%vol)	H_2S (ppm)	CO (ppm)					
BH26	315.06		24/11/23 00:00									0.30	314.76	
	315.06		01/12/23 00:00									0.33	314.73	
	315.06		08/12/23 00:00									0.51	314.55	
	315.06		15/12/23 00:00									0.80	314.26	
	315.06		19/12/23 00:00									0.75	314.31	
	315.06		12/01/24 00:00									0.47	314.59	
	315.06		01/02/24 00:00											Gas valve submerged
	315.06		28/02/24 00:00											Gas valve submerged
	315.06		25/03/24 00:00											Gas valve submerged
	315.06		22/04/24 09:00	994	0.00	0.10	19.60	0.00	0.00	0.00	0.00			Dry, sunny and mild
	315.06		22/04/24 09:01											Test terminated due to water
														ingress
BH27	331.69		12/01/23 00:00									0.16	331.53	
	331.69		19/12/23 00:00									0.34	331.35	
	331.69		09/01/24 00:00									0.43	331.26	
	331.69		01/02/24 09:00	986	0.00	0.00	18.90	0.00	0.00	0.00	0.40	0.17	331.52	Dry, Overcast
	331.69		01/02/24 09:01		0.00	0.00	19.00	0.00	0.00					Dry, Overcast
	331.69		01/02/24 09:02		0.00	0.00	19.20	0.00	1.00					Dry, Overcast
	331.69		01/02/24 09:03		0.00	0.00	19.00	0.00	0.00					Dry, Overcast
	331.69		01/02/24 09:04		0.00	0.00	19.10	0.00	0.00					Dry, Overcast
	331.69		01/02/24 09:05		0.00	0.00	19.00	0.00	1.00					Dry, Overcast
	331.69		28/02/24 09:00	962	0.00	0.00	19.60	0.00	0.00	0.00	0.00	0.19	331.50	Overcast, raining
	331.69		28/02/24 09:01		0.00	0.00	19.50	0.00	0.00					Overcast, raining
	331.69		28/02/24 09:02		0.00	0.00	19.50	0.00	0.00					Overcast, raining
	331.69		28/02/24 09:03		0.00	0.00	19.50	0.00	1.00					Overcast, raining
	331.69		28/02/24 09:04		0.00	0.10	19.50	0.00	0.00					Overcast, raining
	331.69		28/02/24 09:05		0.00	0.10	19.50	0.00	0.00		0.00			Overcast, raining
	331.69		25/03/24 14:05	960	0.00	0.00	17.80	0.00	0.00	-3.00	-0.40	0.24	331.45	Overcast, occasional snow
	331.69		25/03/24 14:06		0.00	0.00	17.80	0.00	0.00					Overcast, occasional snow
	331.69		25/03/24 14:07		0.00	0.00	17.80	0.00	0.00					Overcast, occasional snow
	331.69		25/03/24 14:08		0.00	0.00	17.80	0.00	0.00					Overcast, occasional snow
	331.69		25/03/24 14:09		0.00	0.00	17.80	0.00	0.00					Overcast, occasional snow
	331.69		25/03/24 14:10		0.00	0.00	17.80	0.00	0.00					Overcast, occasional snow
	331.69		23/04/24 12:30	989	0.00	1.30	18.60	0.00	0.00	0.00	-17.10	0.29	331.40	Dry, overcast and cool
	331.69		23/04/24 12:31		0.00	2.00	17.00	0.00	0.00					Dry, overcast and cool
	331.69		23/04/24 12:32		0.00	1.90	17.10	0.00	0.00					Dry, overcast and cool
	331.69		23/04/24 12:33		0.00	1.90	17.20	0.00	0.00					Dry, overcast and cool
	331.69		23/04/24 12:34		0.00	1.90	17.40	0.00	0.00					Dry, overcast and cool
	331.69		23/04/24 12:35		0.00	1.80	17.50	0.00	0.00		0.00			Dry, overcast and cool

Style: SPIPE MONITORING File: P:\GINTW\PROJECTS\26560.GPJ Printed: 23/05/2024 11:56:09 Raeburn Drilling and Geotechnical, Whisteberry Rd, Hamilton ML3 0HP Tel: 01698-711177 E-mail: enquiries@raeburndrilling.com

	Originator	Title:		Fig No:
	JMcM	RESULTS OF GAS AND WATER LEVEL MONITORING IN STANDPIPES		E2
Chk & App	Status			Sheet 7 of 7
FMR	Final			

igne

Borehole ID	Date	Well Volume	Parameter					
			pH	T (^{o}C)	EC (us/cm)	DO (mg/l)	DO (%)	REDOX (mV)
			PURGED DRY					
			PURGED DRY					
			PURGED DRY					

igne

Borehole ID	Date	Well Volume	Parameter					
			pH	T (^{o}C)	EC (us/cm)	DO (mg/l)	DO (%)	REDOX (mV)

APPENDIX F1
GEOTECHNICAL TESTING - SOILS

TEST	STANDARD
CLASSIFICATION TESTS	
Determination of water content	BS EN ISO 17892-1:2014
Determination of liquid limit	BS 1377 : 1990 : Part 2 : 4.3 and 4.4
Determination of liquid and plastic limits	BS EN ISO 17892-12:2018
Determination of bulk density	BS EN ISO 17892-2:2014
Determination of particle density	BS EN ISO 17892-3:2016
Determination of particle size distribution	BS EN ISO 17892-4:2016
CHEMICAL TESTS	
Determination of organic matter content	BS 1377 : 1990 : Part 3 : 3.4
Determination of mass loss on ignition	BS 1377 : 1990 : Part 3 : 4.3
Determination of sulphate content of soil and groundwater	BS 1377 : 1990 : Part 3 : 5.2, 5.3 and 5.5
Determination of chloride content	BS 1377 : 1990 : Part 3 : 7.2 and 7.3
Determination of pH value	BS 1377 : 1990 : Part 3 : 9.5
COMPACTION-RELATED TESTS	
Determination of dry density/moisture content relationship	BS 1377 : 1990 : Part 4 : 3.3 to 3.6
Determination of moisture condition value (MCV)	SDD Tech Memo SH7/83; SDD Appls Guide No.1 Rev. 1989
Determination of California Bearing Ratio (CBR)	BS 1377 : 1990 : Part 4 : 7.4
CONSOLIDATION AND STRENGTH TESTS	
Incremental loading oedemeter test	BS EN ISO 17892-5:2017
Unconfined compression test	BS EN ISO 17892-7:2018
Unconsolidated undrained triaxial test	BS EN ISO 17892-8:2018
Consolidated triaxial compression tests on water saturated soils	BS EN ISO 17892-9:2018
Lab Vane Tests	BS 1377 : 1990
Direct shear tests	BS EN ISO 17892-10:2019
Permeability tests	BS EN ISO 17892-11:2019
Fall cone test	BS EN ISO 17892-6:2017
ROCK TESTS	
Determination of point load strength	ISRM Commission on Testing Methods, 1985
Determination of unconfined compressive strength	ASTM D7012-14
LA Abrasion Tests	BS EN 1097-2-2010 and BS 818 : Part 2 : 1990
Magnesium Soundness Tests	BS EN 1367-2
Slake durability	ISRM Suggested methods
Rock porosity / density	ISRM Suggested methods

Exploratory Hole No.	Depth (m)	Sample Type	Test	Reason	Instruction
TP20	0.50	B	LSB	Insufficient sample. Have approx 17kg of material. Require >30kg passing 20mm sieve to carry out test. Sample sent for PSD, Comp & TR.	Cancel Test
TP13	0.40	B	Thermal Resistivity	Insufficient material passing 20mm. Approx 1.5kg requires min 6kg	Combine with bulk samples at 0.00m
TP19	0.60	B	Thermal Resistivity	Insufficent material amount passing 20mm 1040g from 13kg Need 6kg minimum	Cancel test
TP28	1.00	B	Thermal Resistivity	Insufficent material amount, only 2Kg need a minimum of 6Kg passing 20mm	Combine wth Bulk sample at 0.5m.
TP32	0.50	B	LSB	Insufficient sample. Have approx 25kg of material. Require >30kg passing 20mm sieve to carry out test. Sample sent for PSD, Comp & CBR.	Cancel Test
TP36A	0.50	B	Large Shearbox	Insufficient material. Need 30KG passing 20mm sieve.	Cancel test

igne

Site LT521 FASNAKYLE 400KV SUBSTATION

Client SSEN Transmission

Engineer Jacobs

Contract No 26560

Sample Identification				Lab Sample ID	Non Enginering Description	Water Content %
Exploratory Hole	Depth m	Sample Ref	Sample Type			
BH02	0.10		B	2013667	Brown very gravelly very silty very sandy PEAT. Gravel is fine to medium	338.0
BH12	0.50		B	2013669	Brown silty very gravelly SAND. Gravel is fine to coarse	39.5
BH17	0.50		D	2013177	Brown silty SAND with organic material	38.2
BH17	1.20-2.20		U	2013178	Dark brown fibrous PEAT	105.0
BH28	0.50		B	2013353	Dark brown fibrous PEAT	918.0
BH28	2.65		B	2013354	Dark brown fibrous PEAT	646.0
TP01	0.50		D	2013181	Dark brown fibrous PEAT	875.0
TP03	0.00-0.00		D	2013184	Dark brown fibrous PEAT	348.0
TP06	0.00-0.00		D	2012881	Brown fibrous PEAT	292.0
TP07	0.30		B	2013187	Brown slightly gravelly slightly sandy SILT. Gravel is fine to coarse	25.8
TP09	0.00-0.00		D	2013190	Dark brown fibrous PEAT	239.0
TP10	0.50		D	2012882	Brown fibrous PEAT	818.0
TP11	1.00		D	2013192	Dark brown fibrous PEAT	1353.0
TP13	0.30		D	2013196	Brown sandy SILT with organic material	102.0

Notes

Originator	Checked & Approved
TP	CD 05/03/2024

Determination of the Water Content

BS EN ISO 17892-1:2014

Figure F1

62 Rochsolloch Road, Airdrie, ML6 9BG

igne

Site: LT521 FASNAKYLE 400KV SUBSTATION

Client: SSEN Transmission

Engineer: Jacobs

Contract No 26560

Sample Identification				Lab Sample ID	Non Enginering Description	Water Content %
Exploratory Hole	Depth m	Sample Ref	Sample Type			
TP15	0.50		D	2013200	Brown fibrous PEAT	661.0
TP16	0.00-0.00		D	2013202	Brown gravelly silty SAND. Gravel is fine to coarse	19.3
TP17	1.00		D	2013206	Dark brown fibrous PEAT	1045.0
TP18	0.50		D	2012885	Brown fibrous PEAT	593.0
TP20	0.50		B	2012888	Brown silty very sandy fine to coarse GRAVEL with cobbles and organic matter	41.8
TP21	0.00-0.00		D	2012889	Brown fibrous PEAT	398.0
TP22	1.00		D	2012891	Brown fibrous PEAT	918.0
TP24	0.00-0.00		D	2012892	Brown fibrous PEAT	448.0
TP28	1.00		D	2012897	Brown silty very sandy fine to coarse GRAVEL	6.4
TP28	1.50		B	2012898	Brown silty SAND and GRAVEL with cobbles. Gravel is fine to coarse	7.3
TP28	2.50		D	2012899	Brown silty SAND and GRAVEL. Gravel is fine to coarse	10.7
TP32	0.50		B	2012902	Brown silty very sandy fine to coarse GRAVEL	12.7
TP36A	0.50		B	2013357	Brown silty SAND and GRAVEL woth organic material. Gravel is fine to coarse	24.1
TP36A	0.50		D	2013356	Brown silty SAND and GRAVEL woth organic material. Gravel is fine to coarse	27.2

Notes

Originator	Checked & Approved
TP	CD 05/03/2024

Determination of the Water Content

BS EN ISO 17892-1:2014

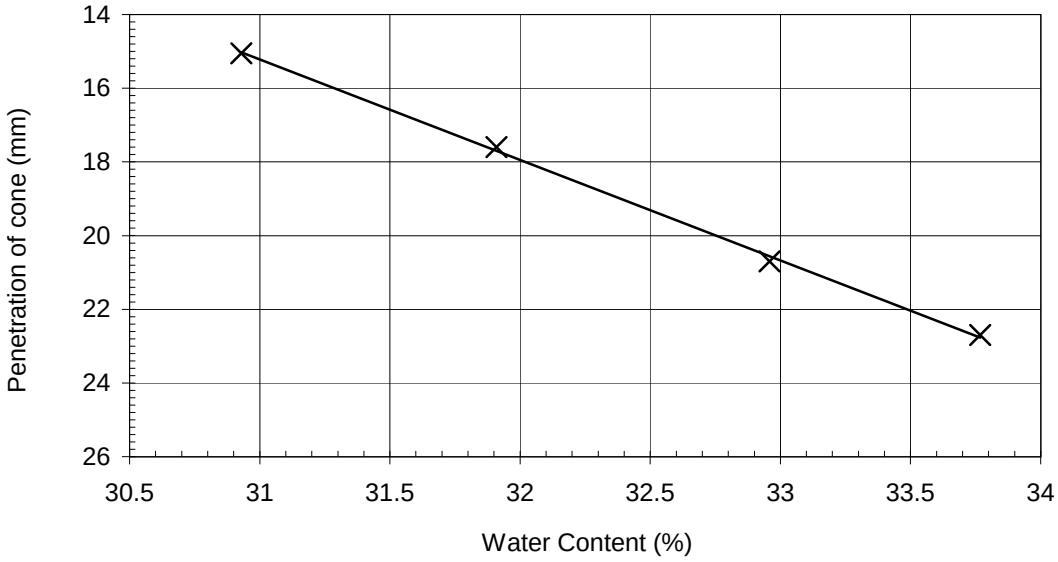
Figure F1

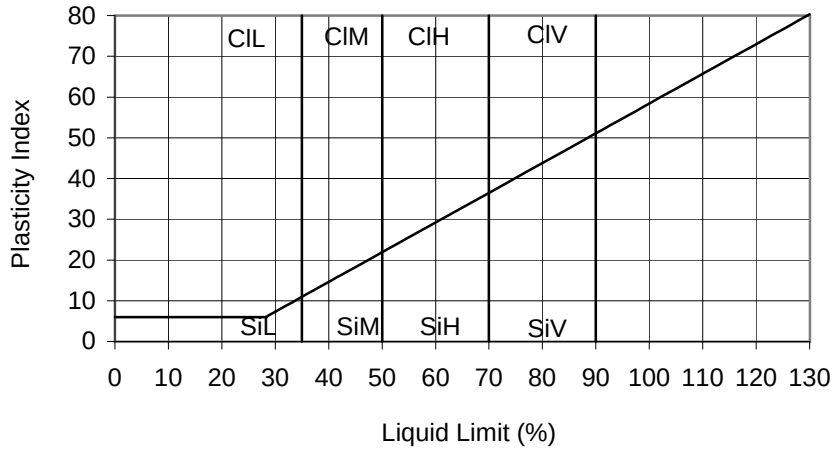
62 Rochsolloch Road, Airdrie, ML6 9BG

igne	Site	LT521 FASNAKYLE 400KV SUBSTATION	**Contract No. 26560**
	Client	SSEN Transmission	Hole ID BH12
	Engineer	Jacobs	Sample Ref Depth (m) 0.50 Sample Type B

Non Engineering Description : Brown silty very gravelly SAND. Gravel is fine to coarse

Preparation : Sample oven dried, Percentage retained on 425µm sieve measured by wet sieving





Sample was determined to be Non-Plastic after preparation
Liquid Limit was determined by mixing using increasing water content and 30° cone

Results :

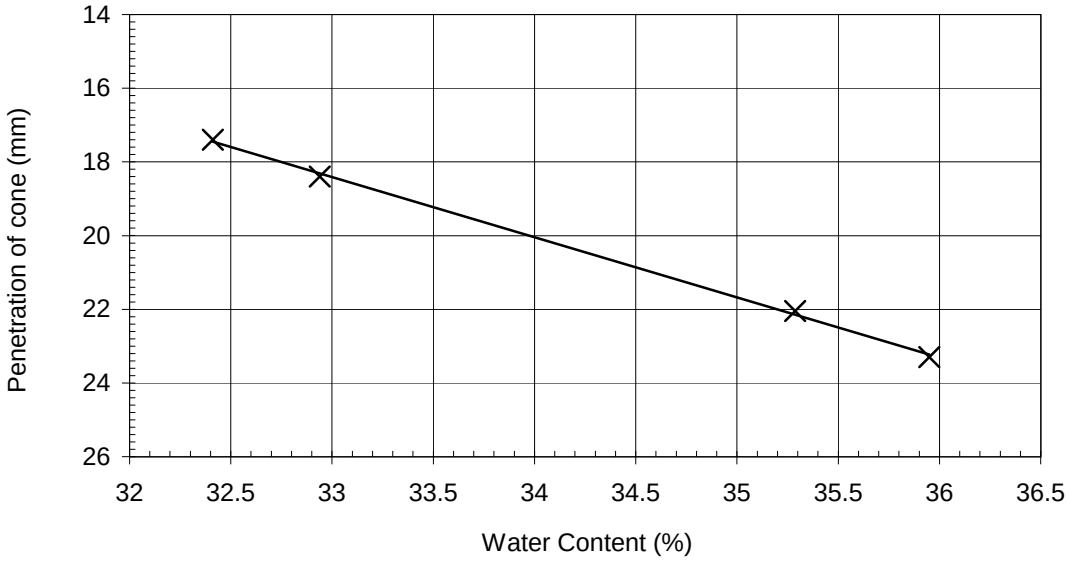
As Received Water Content : (BS EN ISO 17892-1:2014)	39.5	%
Percentage retained on 425µm sieve :	37	%
Liquid Limit :	33	%
Plastic Limit :	Non-Plastic	%
Equivalent water content of material passing 425µm sieve :	62.7	%

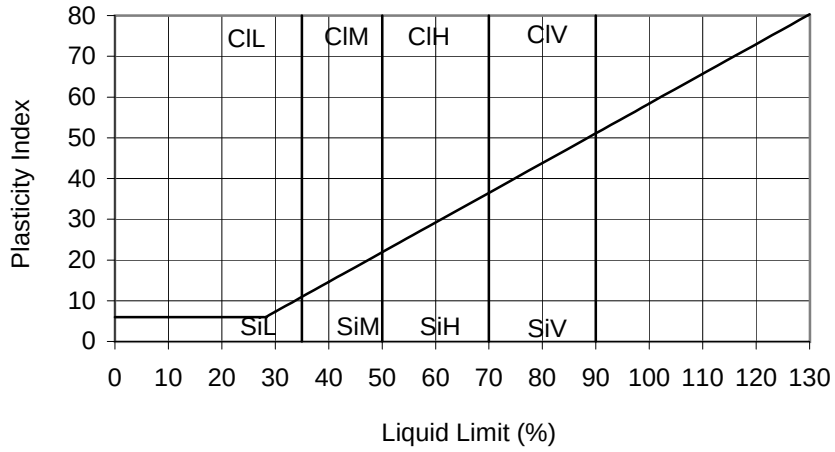
Originator	Checked & Approved	**Liquid Limit (Four Point Cone Penetrometer Method)** **Plastic Limit, Plasticity Index & Liquidity Index** BS EN ISO 17892-12:2018 Clause 5.3 BS EN ISO 17892-12:2018 Clause 5.5	**Figure F2**
NW	CD 05/03/2024		Sheet 1 of 1

igne	Site	LT521 FASNAKYLE 400KV SUBSTATION	**Contract No. 26560**
	Client	SSEN Transmission	Hole ID TP36A Sample Ref Depth (m) 0.50 Sample Type D
	Engineer	Jacobs	

Non Engineering Description : Brown silty SAND and GRAVEL woth organic material. Gravel is fine to coarse

Preparation : Sample oven dried, Percentage retained on 425µm sieve measured by wet sieving





Sample was determined to be Non-Plastic after preparation
Liquid Limit was determined by mixing using increasing water content and 30° cone

Results :

As Received Water Content : (BS EN ISO 17892-1:2014)	27.2	%
Percentage retained on 425µm sieve :	60	%
Liquid Limit :	34	%
Plastic Limit :	Non-Plastic	%
Equivalent water content of material passing 425µm sieve :	68.0	%

Originator	Checked & Approved	**Liquid Limit (Four Point Cone Penetrometer Method)** **Plastic Limit, Plasticity Index & Liquidity Index** BS EN ISO 17892-12:2018 Clause 5.3 BS EN ISO 17892-12:2018 Clause 5.5	**Figure F3**
NW	CD 05/03/2024		Sheet 1 of 1

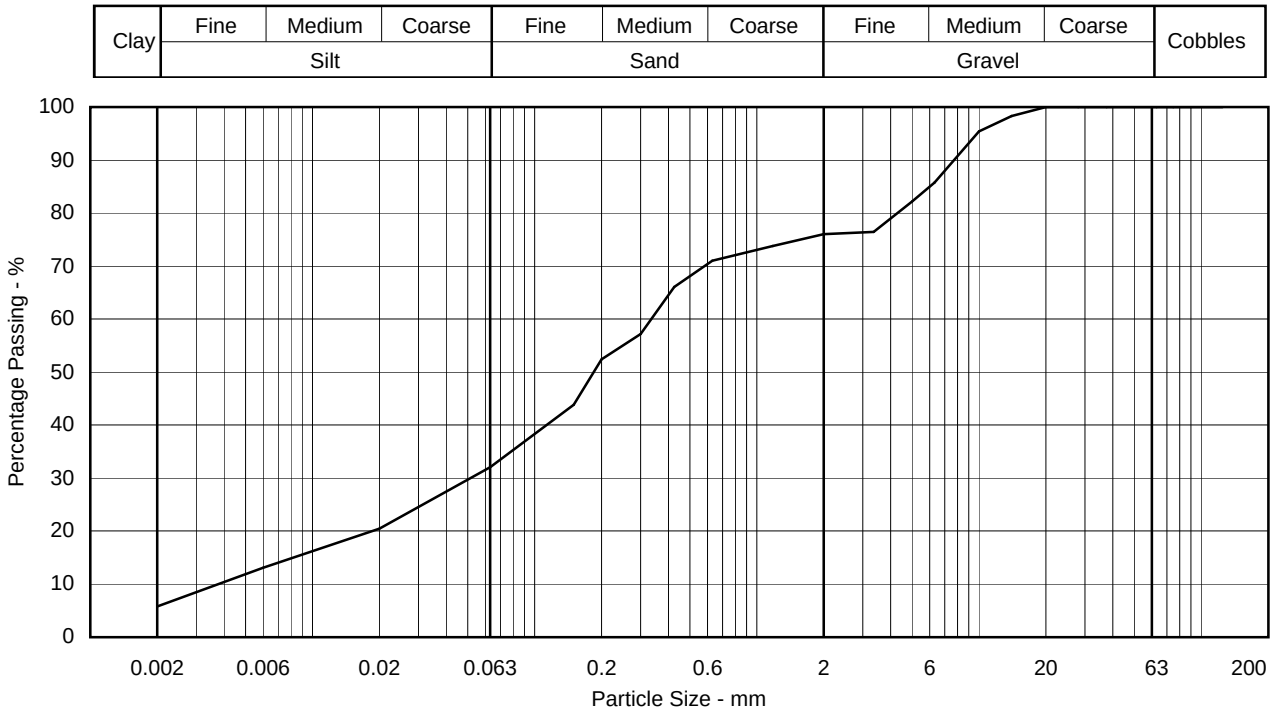
igne	Site LT521 FASNAKYLE 400KV SUBSTATION	**Contract No 26560**
	Client SSEN Transmission	Hole BH02
	Engineer Jacobs	Sample Ref
		Depth (m) 0.10
		Sample Type B

Particle Size	% Passing
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	100
37.5 mm	100
28.0 mm	100
20.0 mm	100
14.0 mm	98
10.0 mm	95
6.30 mm	86
5.00 mm	82
3.35 mm	76
2.00 mm	76
1.18 mm	74
630 µm	71
425 µm	66
300 µm	57
200 µm	52
150 µm	44
63 µm	32
20 µm	20
6 µm	13
2 µm	6

Non Engineering Description
Brown very gravelly very silty very sandy PEAT. Gravel is fine to medium

Sample Proportions - %	
Cobbles	0.0
Gravel	24.0
Sand	44.8
Silt	25.5
Clay	5.7
Particle Density - Assumed (Mg/m3)	2.65
Particle Diameter - mm	
D100	20
D60	0.34
D10	0.0038
Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5)	89.5

Notes
Sedimentation sample not pre-treated



Originator	Checked & Approved
RF	CD 05/03/2024

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4 2016 Clause 5.2 - Sieving Method
BS EN ISO 17892-4 2016 Clause 5.4 - Pipette Method

Figure F4

62 Rochsolloch Road, Airdrie, ML6 9BG

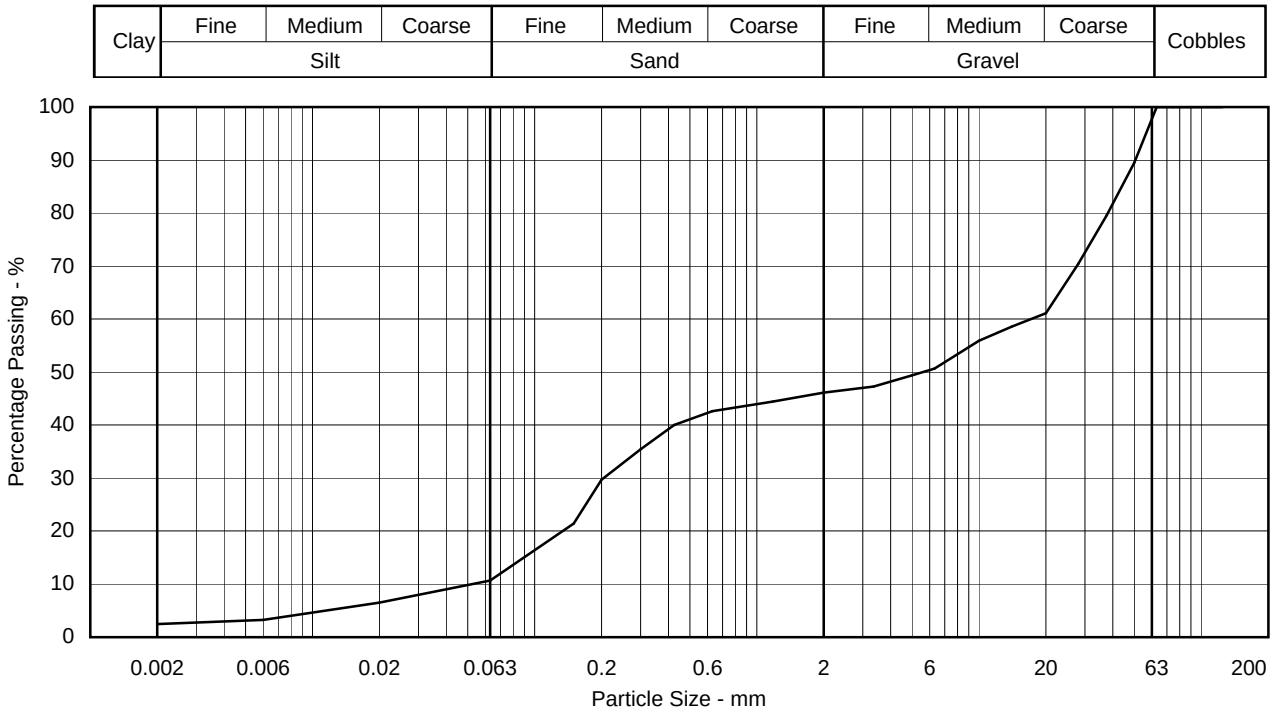
igne	Site	LT521 FASNAKYLE 400KV SUBSTATION	**Contract No** **26560**
	Client	SSEN Transmission	Hole BH03
	Engineer	Jacobs	Sample Ref Depth (m) 0.60 Sample Type B

Particle Size	% Passing
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	89
37.5 mm	80
28.0 mm	70
20.0 mm	61
14.0 mm	59
10.0 mm	56
6.30 mm	51
5.00 mm	49
3.35 mm	47
2.00 mm	46
1.18 mm	44
630 µm	43
425 µm	40
300 µm	35
200 µm	30
150 µm	21
63 µm	11
20 µm	6
6 µm	3
2 µm	2

Non Engineering Description
Brown silty very sandy fine to coarse GRAVEL

Sample Proportions - %	
Cobbles	0.0
Gravel	53.9
Sand	35.8
Silt	7.9
Clay	2.4
Particle Density - Assumed (Mg/m3)	2.65
Particle Diameter - mm	
D100	63
D60	17
D10	0.053
Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5)	320.8

Notes
Sample does not comply with BS EN ISO 17892-4 minimum mass requirements Sedimentation sample not pre-treated



Originator	Checked & Approved
RF	CD 05/03/2024

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4 2016 Clause 5.2 - Sieving Method
BS EN ISO 17892-4 2016 Clause 5.4 - Pipette Method

Figure F5

62 Rochsolloch Road, Airdrie, ML6 9BG

igne	Site LT521 FASNAKYLE 400KV SUBSTATION	**Contract No 26560**
	Client SSEN Transmission	Hole BH12
	Engineer Jacobs	Sample Ref Depth (m) 0.50 Sample Type B

Particle Size	% Passing
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	91
50.0 mm	91
37.5 mm	90
28.0 mm	85
20.0 mm	81
14.0 mm	79
10.0 mm	77
6.30 mm	74
5.00 mm	71
3.35 mm	68
2.00 mm	64
1.18 mm	58
630 µm	52
425 µm	48
300 µm	43
200 µm	32
150 µm	23
63 µm	12
20 µm	7
6 µm	5
2 µm	2

Non Engineering Description
Brown silty very gravelly SAND. Gravel is fine to coarse

Sample Proportions - %	
Cobbles	9.4
Gravel	26.8
Sand	51.7
Silt	9.6
Clay	2.5
Particle Density - Assumed (Mg/m3)	2.65
Particle Diameter - mm	
D100	75
D60	1.4
D10	0.037
Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5)	37.8

Notes
Sedimentation sample not pre-treated

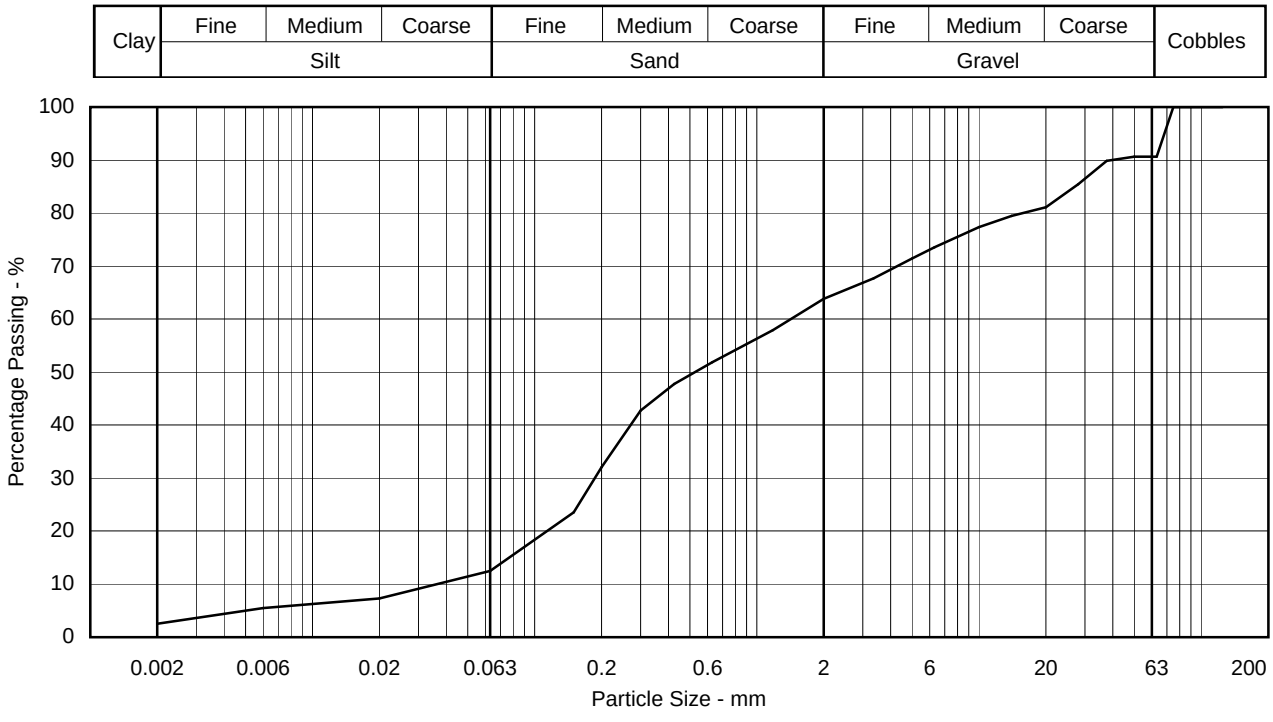


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Figure F6

62 Rochsolloch Road, Airdrie, ML6 9BG

igne	Site LT521 FASNAKYLE 400KV SUBSTATION	**Contract No 26560**
	Client SSEN Transmission	Hole BH14
	Engineer Jacobs	Sample Ref Depth (m) 0.20 Sample Type B

Particle Size	% Passing
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	86
37.5 mm	78
28.0 mm	77
20.0 mm	73
14.0 mm	73
10.0 mm	72
6.30 mm	70
5.00 mm	69
3.35 mm	68
2.00 mm	67
1.18 mm	65
630 µm	62
425 µm	60
300 µm	56
200 µm	42
150 µm	37
63 µm	26
20 µm	20
6 µm	14
2 µm	4

Non Engineering Description
Brown very silty SAND and GRAVEL woth organic material. Gravel is fine to coarse

Sample Proportions - %	
Cobbles	0.0
Gravel	33.2
Sand	40.9
Silt	21.6
Clay	4.3
Particle Density - Assumed (Mg/m3)	2.65
Particle Diameter - mm	
D100	63
D60	0.42
D10	0.0038
Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5)	110.5

Notes
Sample does not comply with BS EN ISO 17892-4 minimum mass requirements Sedimentation sample not pre-treated

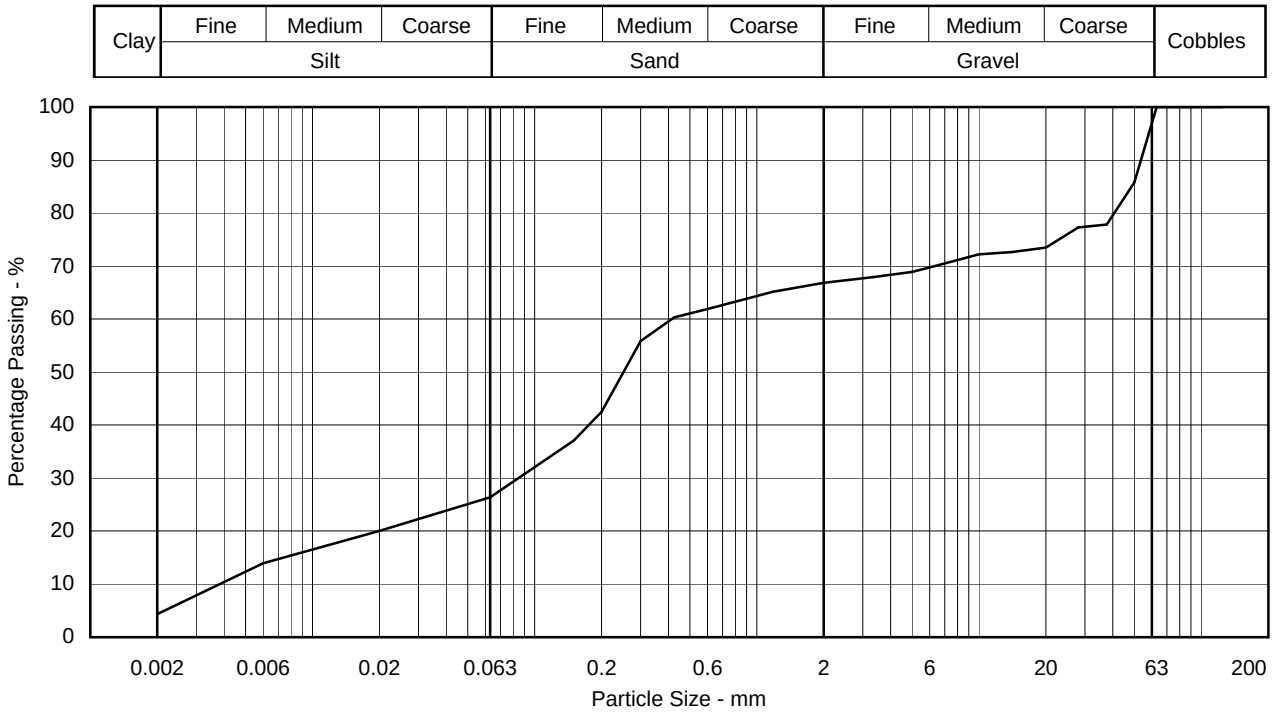

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Figure F7

62 Rochsolloch Road, Airdrie, ML6 9BG

igne	Site LT521 FASNAKYLE 400KV SUBSTATION	**Contract No 26560**
	Client SSEN Transmission	Hole BH16
	Engineer Jacobs	Sample Ref Depth (m) 0.40 Sample Type B

Particle Size	% Passing
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	100
37.5 mm	100
28.0 mm	100
20.0 mm	99
14.0 mm	95
10.0 mm	90
6.30 mm	75
5.00 mm	67
3.35 mm	66
2.00 mm	65
1.18 mm	63
630 µm	58
425 µm	52
300 µm	44
200 µm	34
150 µm	22
63 µm	9

Non Engineering Description
Brown silty very gravelly SAND. Gravel is fine to coarse

Sample Proportions - %	
Cobbles	0.0
Gravel	34.6
Sand	56.4
Silt & Clay	9.0
Particle Density - Assumed (Mg/m3)	2.65
Particle Diameter - mm	
D100	28
D60	0.79
D10	0.067
Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5)	11.8

Notes

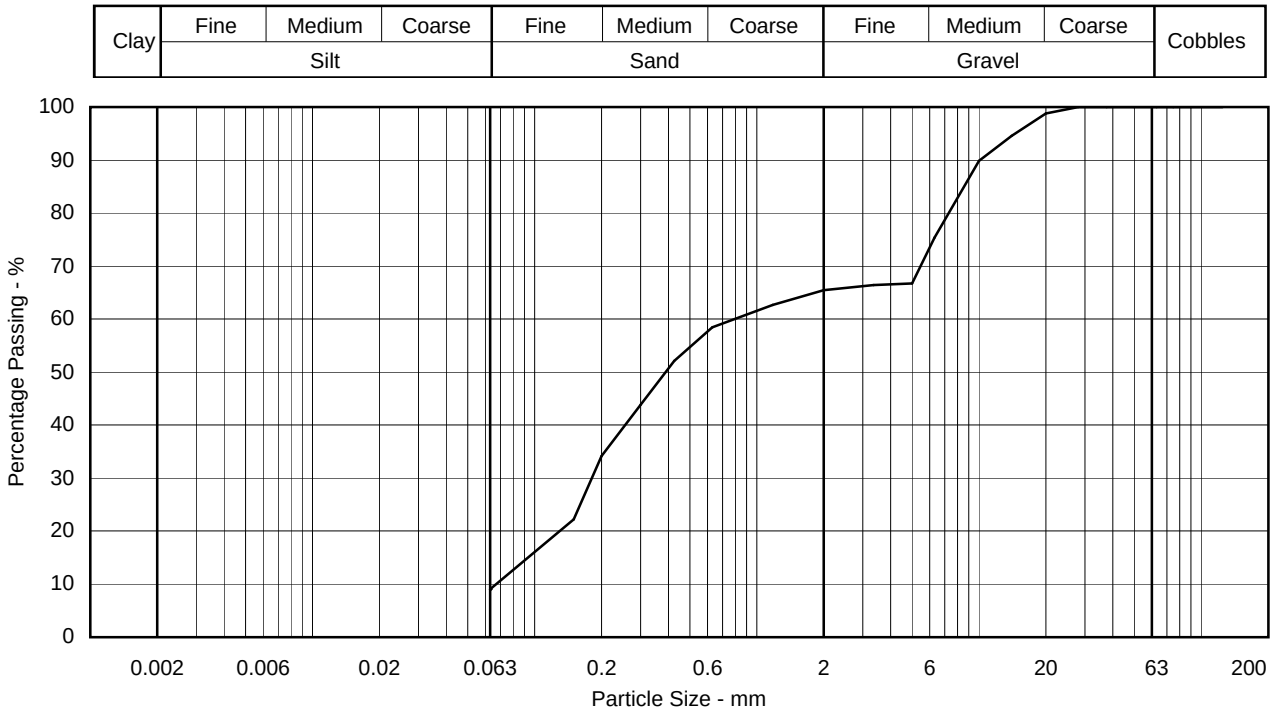

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Figure F8

62 Rochsolloch Road, Airdrie, ML6 9BG

igne	Site LT521 FASNAKYLE 400KV SUBSTATION	**Contract No 26560**
	Client SSEN Transmission	Hole BH18
	Engineer Jacobs	Sample Ref Depth (m) 0.60 Sample Type B

Particle Size	% Passing
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	96
50.0 mm	96
37.5 mm	92
28.0 mm	88
20.0 mm	84
14.0 mm	78
10.0 mm	75
6.30 mm	70
5.00 mm	67
3.35 mm	63
2.00 mm	60
1.18 mm	56
630 µm	51
425 µm	48
300 µm	45
200 µm	38
150 µm	30
63 µm	17
20 µm	10
6 µm	5
2 µm	2

Non Engineering Description
Brown silty SAND and GRAVEL with cobbles and pockets of clay. Gravel is fine to coarse

Sample Proportions - %	
Cobbles	4.0
Gravel	35.9
Sand	43.5
Silt	14.5
Clay	2.1
Particle Density - Assumed (Mg/m3)	2.65
Particle Diameter - mm	
D100	75
D60	2.0
D10	0.018
Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5)	111.1

Notes
Sedimentation sample not pre-treated

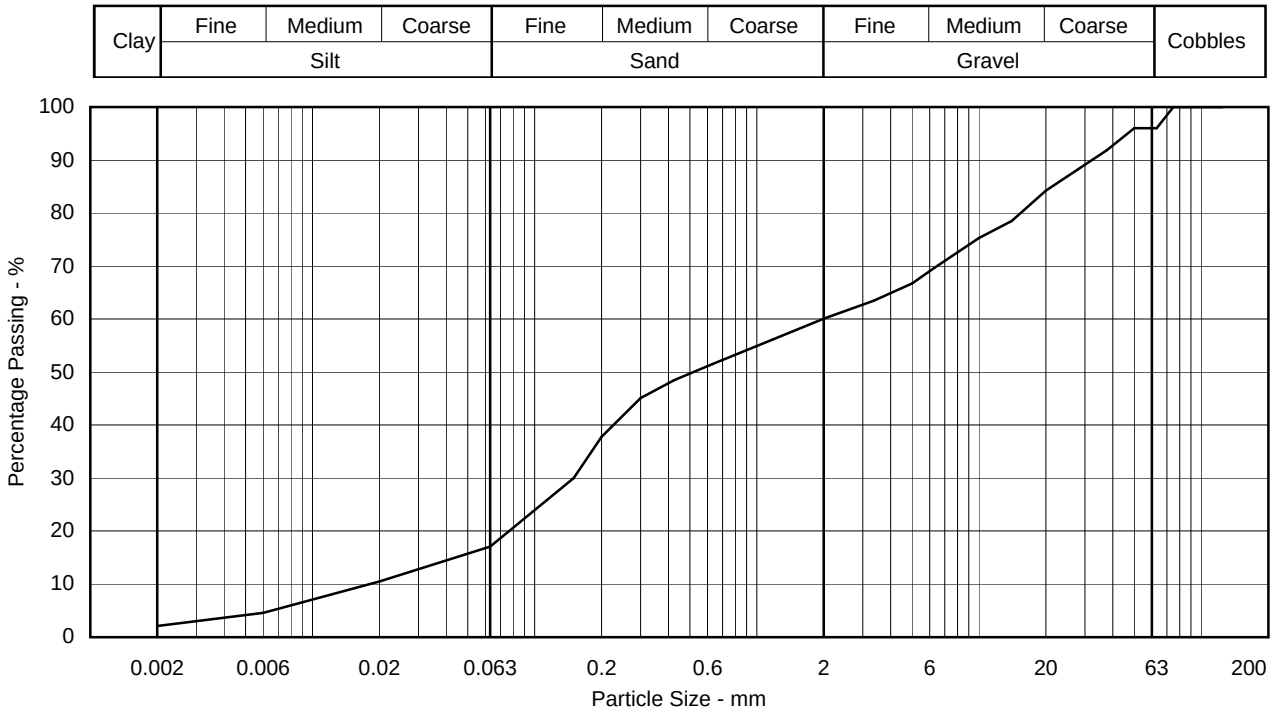

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Figure F9

62 Rochsolloch Road, Airdrie, ML6 9BG

igne	Site LT521 FASNAKYLE 400KV SUBSTATION	**Contract No 26560**
	Client SSEN Transmission	Hole BH18
	Engineer Jacobs	Sample Ref Depth (m) 2.30 Sample Type B

Particle Size	% Passing
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	100
37.5 mm	100
28.0 mm	100
20.0 mm	100
14.0 mm	98
10.0 mm	90
6.30 mm	80
5.00 mm	75
3.35 mm	73
2.00 mm	70
1.18 mm	65
630 µm	53
425 µm	44
300 µm	35
200 µm	27
150 µm	20
63 µm	15
20 µm	8
6 µm	4
2 µm	2

Non Engineering Description
Brown silty very gravelly SAND. Gravel is fine to medium

Sample Proportions - %	
Cobbles	0.0
Gravel	29.9
Sand	55.8
Silt	12.6
Clay	1.7
Particle Density - Assumed (Mg/m3)	2.65
Particle Diameter - mm	
D100	20
D60	0.91
D10	0.029
Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5)	31.4

Notes
Sedimentation sample not pre-treated

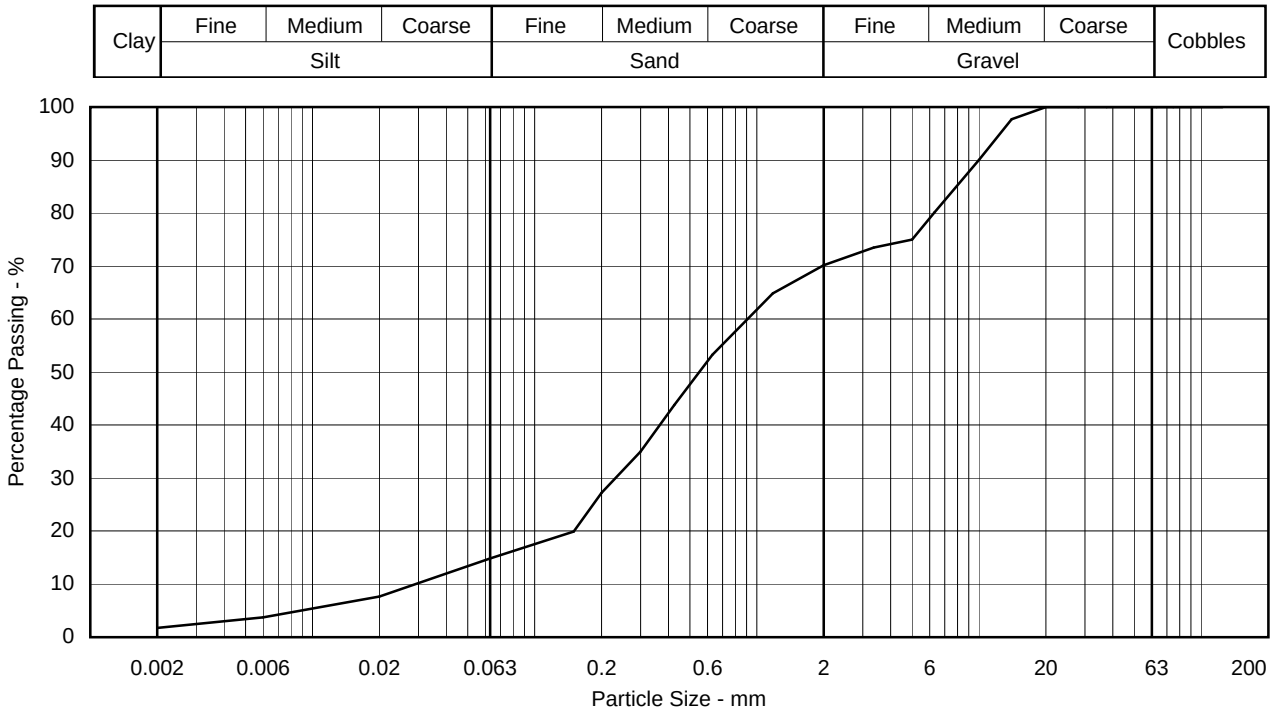

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Figure F10

62 Rochsolloch Road, Airdrie, ML6 9BG

igne	Site	LT521 FASNAKYLE 400KV SUBSTATION	**Contract No** **26560**
	Client	SSEN Transmission	Hole BH24A
	Engineer	Jacobs	Sample Ref Depth (m) 1.00 Sample Type B

Particle Size	% Passing
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	100
37.5 mm	100
28.0 mm	97
20.0 mm	94
14.0 mm	91
10.0 mm	88
6.30 mm	85
5.00 mm	83
3.35 mm	80
2.00 mm	77
1.18 mm	74
630 µm	70
425 µm	68
300 µm	65
200 µm	57
150 µm	49
63 µm	34
20 µm	16
6 µm	11
2 µm	6

Non Engineering Description
Brown very gravelly very silty SAND with cobbles and pockets of clay. Gravel is fine to coarse

Sample Proportions - %	
Cobbles	0.0
Gravel	23.4
Sand	43.5
Silt	26.6
Clay	6.5
Particle Density - Assumed (Mg/m3)	2.65
Particle Diameter - mm	
D100	38
D60	0.23
D10	0.0044
Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5)	52.3

Notes
Sedimentation sample not pre-treated

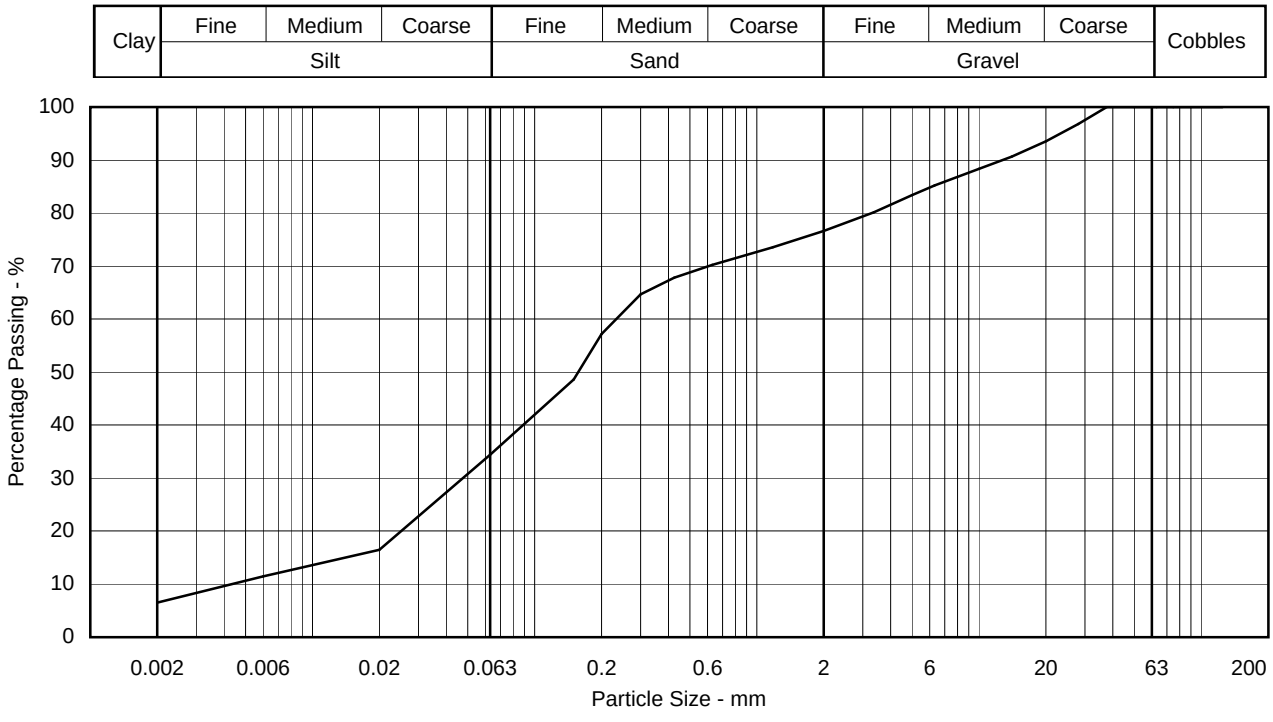

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Figure F11

62 Rochsolloch Road, Airdrie, ML6 9BG

igne	Site LT521 FASNAKYLE 400KV SUBSTATION	**Contract No 26560**
	Client SSEN Transmission	Hole BH27
	Engineer Jacobs	Sample Ref
		Depth (m) 1.20
		Sample Type B

Particle Size	% Passing
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	100
37.5 mm	100
28.0 mm	100
20.0 mm	98
14.0 mm	90
10.0 mm	71
6.30 mm	51
5.00 mm	41
3.35 mm	39
2.00 mm	36
1.18 mm	31
630 µm	27
425 µm	21
300 µm	15
200 µm	10
150 µm	8
63 µm	6

Non Engineering Description
Brown silty very sandy fine to coarse GRAVEL

Sample Proportions - %	
Cobbles	0.0
Gravel	64.5
Sand	29.5
Silt & Clay	6.0
Particle Density - Assumed (Mg/m3)	2.65
Particle Diameter - mm	
D100	38
D60	7.8
D10	0.19
Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5)	41.1

Notes

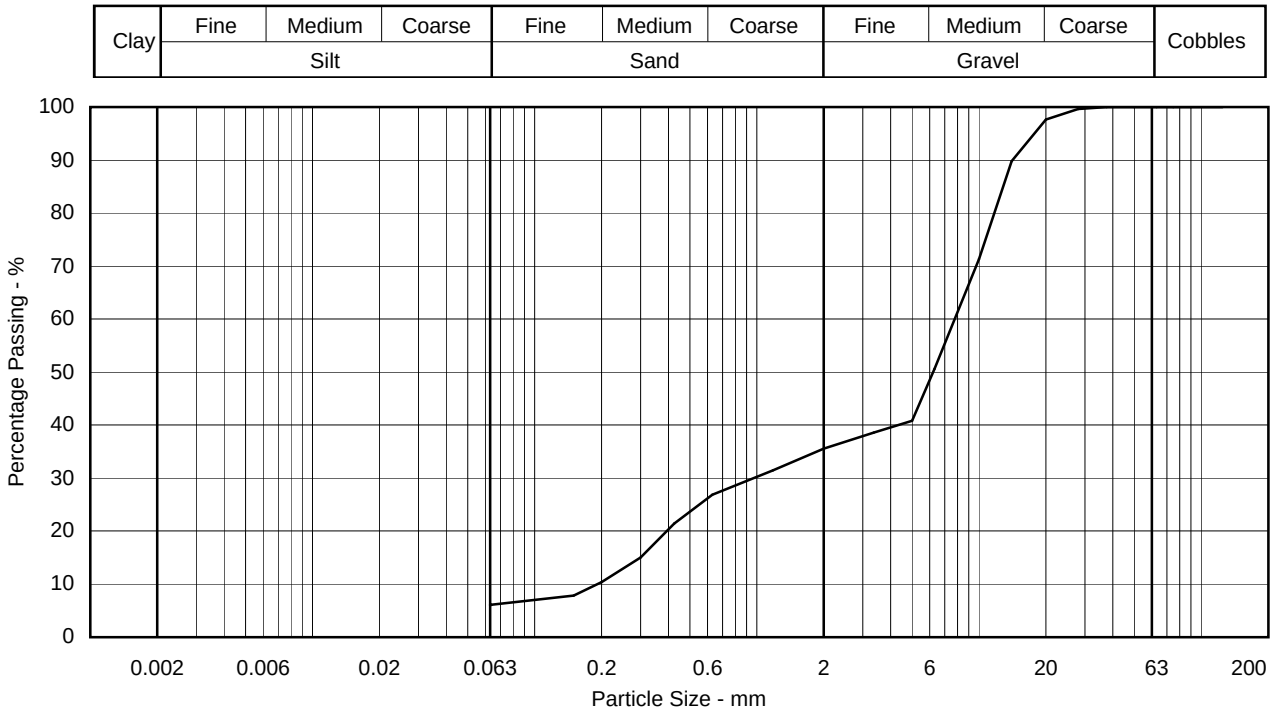

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Figure F12

62 Rochsolloch Road, Airdrie, ML6 9BG

igne	Site LT521 FASNAKYLE 400KV SUBSTATION	**Contract No 26560**
	Client SSEN Transmission	Hole BH28
	Engineer Jacobs	Sample Ref
		Depth (m) 3.95
		Sample Type B

Particle Size	% Passing
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	100
37.5 mm	100
28.0 mm	100
20.0 mm	100
14.0 mm	91
10.0 mm	70
6.30 mm	54
5.00 mm	49
3.35 mm	46
2.00 mm	42
1.18 mm	36
630 µm	30
425 µm	23
300 µm	14
200 µm	9
150 µm	4
63 µm	2

Non Engineering Description
Grey slightly silty very sandy fine to coarse GRAVEL

Sample Proportions - %	
Cobbles	0.0
Gravel	58.2
Sand	40.0
Silt & Clay	1.8
Particle Density - Assumed (Mg/m3)	2.65
Particle Diameter - mm	
D100	20
D60	7.5
D10	0.22
Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5)	34.1

Notes

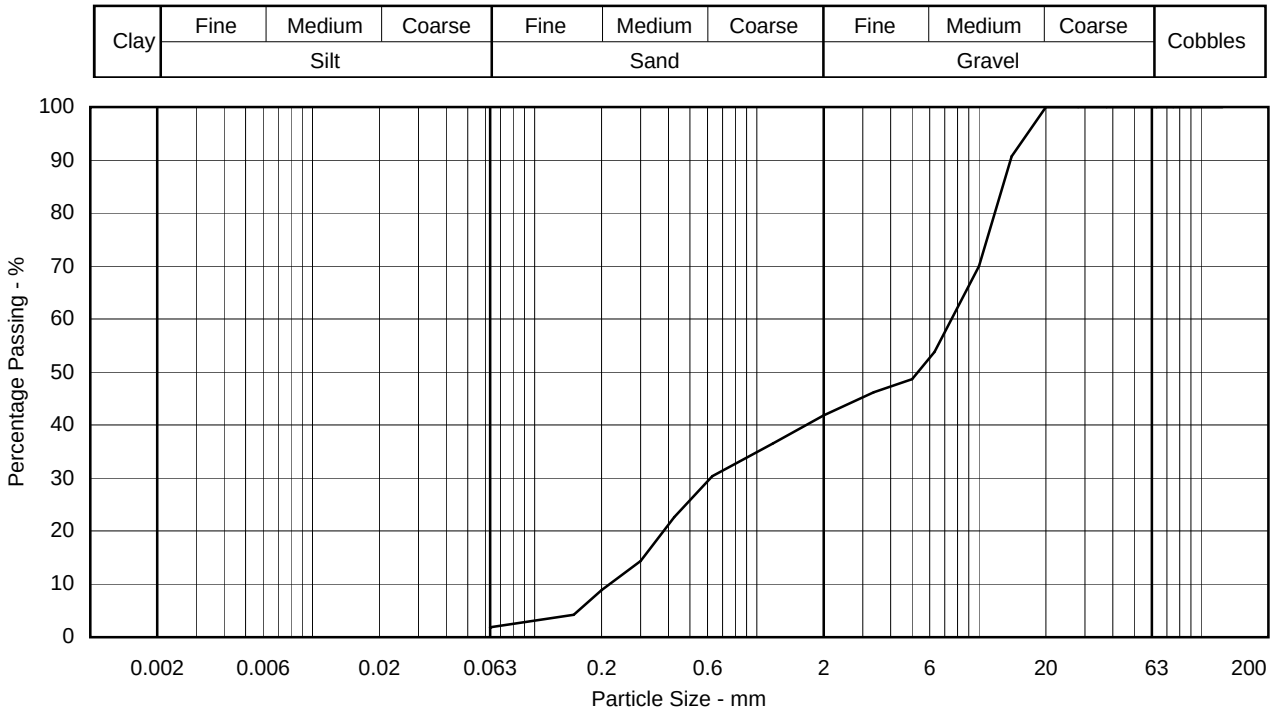

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Figure F13

62 Rochsolloch Road, Airdrie, ML6 9BG

igne	Site LT521 FASNAKYLE 400KV SUBSTATION	**Contract No 26560**
	Client SSEN Transmission	Hole TP05
	Engineer Jacobs	Sample Ref Depth (m) 0.50 Sample Type B

Particle Size	% Passing
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	88
37.5 mm	83
28.0 mm	79
20.0 mm	73
14.0 mm	72
10.0 mm	70
6.30 mm	69
5.00 mm	67
3.35 mm	64
2.00 mm	60
1.18 mm	54
630 µm	48
425 µm	40
300 µm	31
200 µm	24
150 µm	19
63 µm	17
20 µm	8
6 µm	4
2 µm	2

Non Engineering Description
Brown silty SAND and GRAVEL. Gravel is fine to coarse

Sample Proportions - %	
Cobbles	0.0
Gravel	39.9
Sand	44.1
Silt	13.6
Clay	2.3
Particle Density - Assumed (Mg/m3)	2.65
Particle Diameter - mm	
D100	63
D60	2.0
D10	0.026
Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5)	76.9

Notes
Sample does not comply with BS EN ISO 17892-4 minimum mass requirements Sedimentation sample not pre-treated

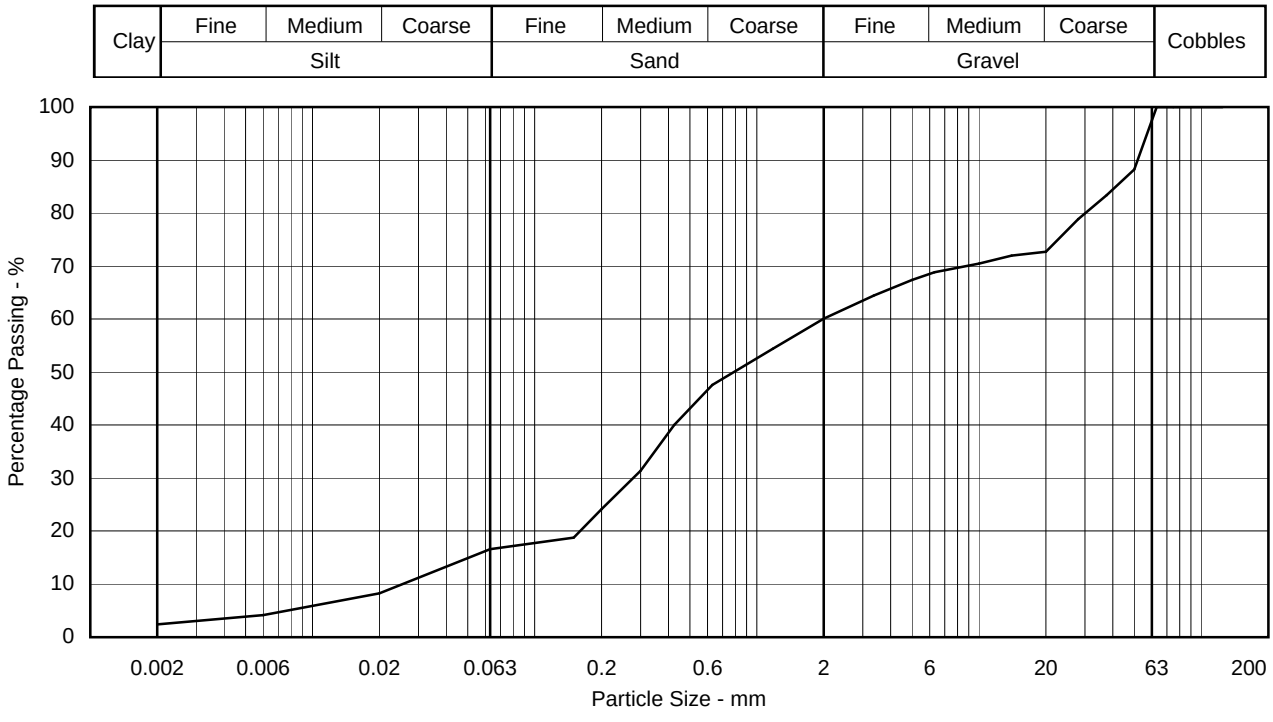

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Figure F14

62 Rochsolloch Road, Airdrie, ML6 9BG

igne	Site LT521 FASNAKYLE 400KV SUBSTATION	**Contract No 26560**
	Client SSEN Transmission	Hole TP10
	Engineer Jacobs	Sample Ref Depth (m) 1.50 Sample Type B

Particle Size	% Passing
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	91
37.5 mm	84
28.0 mm	76
20.0 mm	64
14.0 mm	55
10.0 mm	49
6.30 mm	44
5.00 mm	42
3.35 mm	39
2.00 mm	37
1.18 mm	35
630 µm	33
425 µm	30
300 µm	27
200 µm	21
150 µm	15
63 µm	8

Non Engineering Description
Brown silty very sandy fine to coarse GRAVEL

Sample Proportions - %	
Cobbles	0.0
Gravel	62.6
Sand	29.5
Silt & Clay	7.8
Particle Density - Assumed (Mg/m3)	2.65
Particle Diameter - mm	
D100	63
D60	17
D10	0.081
Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5)	209.9

Notes

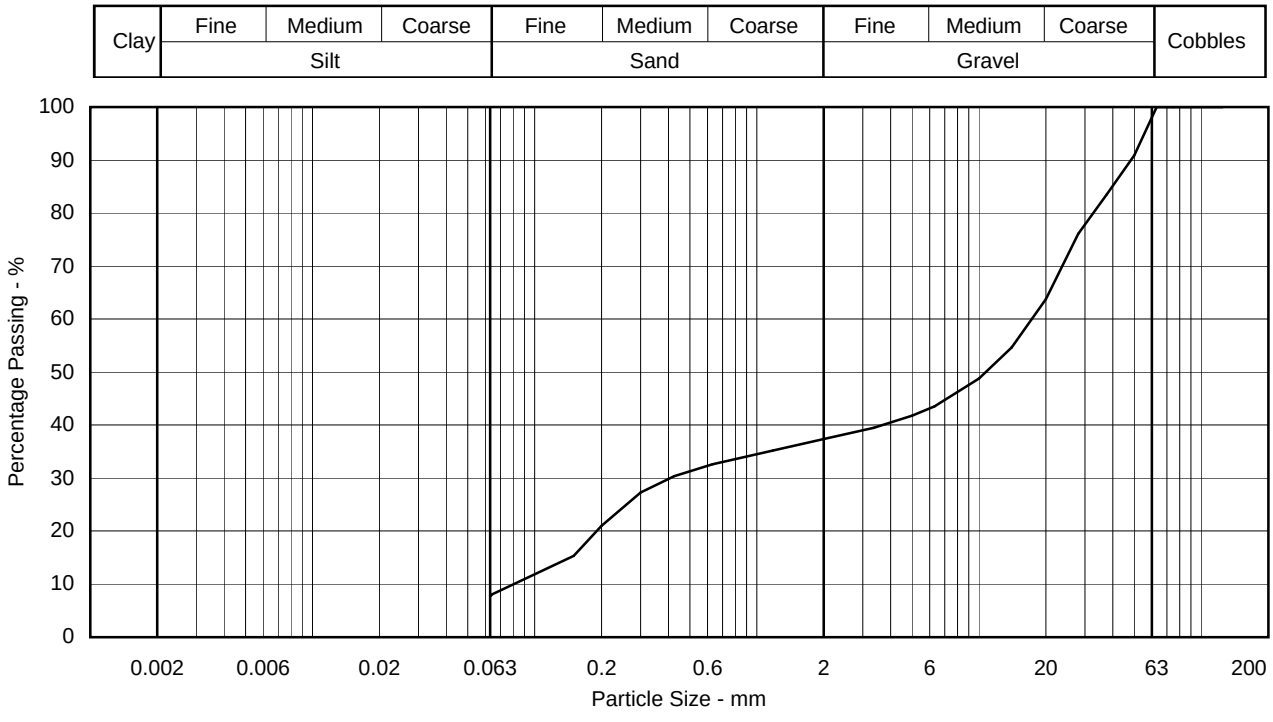

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Figure F15

62 Rochsolloch Road, Airdrie, ML6 9BG

igne	Site LT521 FASNAKYLE 400KV SUBSTATION	**Contract No 26560**
	Client SSEN Transmission	Hole TP12
	Engineer Jacobs	Sample Ref Depth (m) 0.50 Sample Type B

Particle Size	% Passing
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	100
37.5 mm	96
28.0 mm	91
20.0 mm	87
14.0 mm	75
10.0 mm	68
6.30 mm	64
5.00 mm	61
3.35 mm	60
2.00 mm	58
1.18 mm	54
630 µm	49
425 µm	42
300 µm	28
200 µm	19
150 µm	10
63 µm	4

Non Engineering Description
Brown slightly silty SAND and GRAVEL. Gravel is fine to coarse

Sample Proportions - %	
Cobbles	0.0
Gravel	42.5
Sand	53.4
Silt & Clay	4.1
Particle Density - Assumed (Mg/m3)	2.65
Particle Diameter - mm	
D100	50
D60	3.3
D10	0.14
Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5)	23.6

Notes

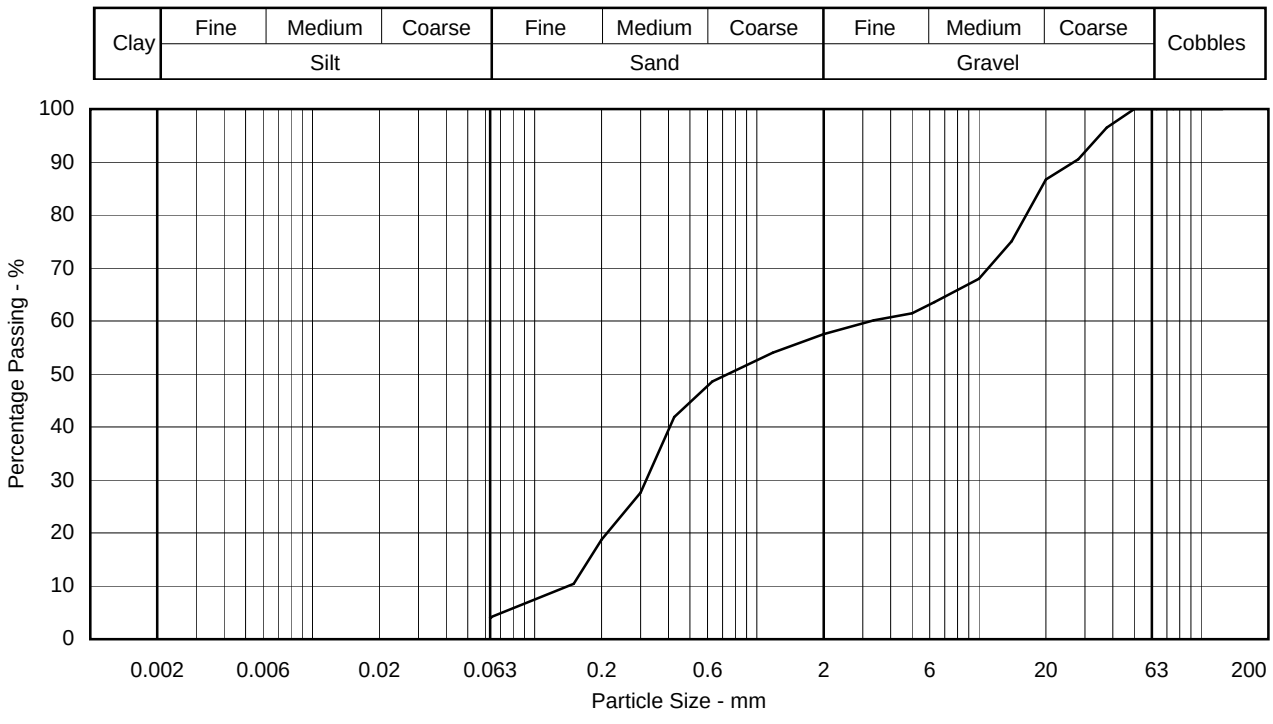

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Figure F16

62 Rochsolloch Road, Airdrie, ML6 9BG

igne	Site LT521 FASNAKYLE 400KV SUBSTATION	**Contract No 26560**
	Client SSEN Transmission	Hole TP14
	Engineer Jacobs	Sample Ref Depth (m) 0.50 Sample Type B

Particle Size	% Passing
125.0 mm	100
90.0 mm	100
75.0 mm	85
63.0 mm	85
50.0 mm	79
37.5 mm	74
28.0 mm	67
20.0 mm	58
14.0 mm	56
10.0 mm	52
6.30 mm	47
5.00 mm	45
3.35 mm	42
2.00 mm	38
1.18 mm	33
630 µm	26
425 µm	19
300 µm	12
200 µm	7
150 µm	4
63 µm	3

Non Engineering Description
Briwn slightly silty SAND and GRAVEL with cobbles. Gravel is fine to coarse

Sample Proportions - %	
Cobbles	15.1
Gravel	46.6
Sand	35.4
Silt & Clay	2.8
Particle Density - Assumed (Mg/m3)	2.65
Particle Diameter - mm	
D100	90
D60	21
D10	0.26
Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5)	80.8

Notes

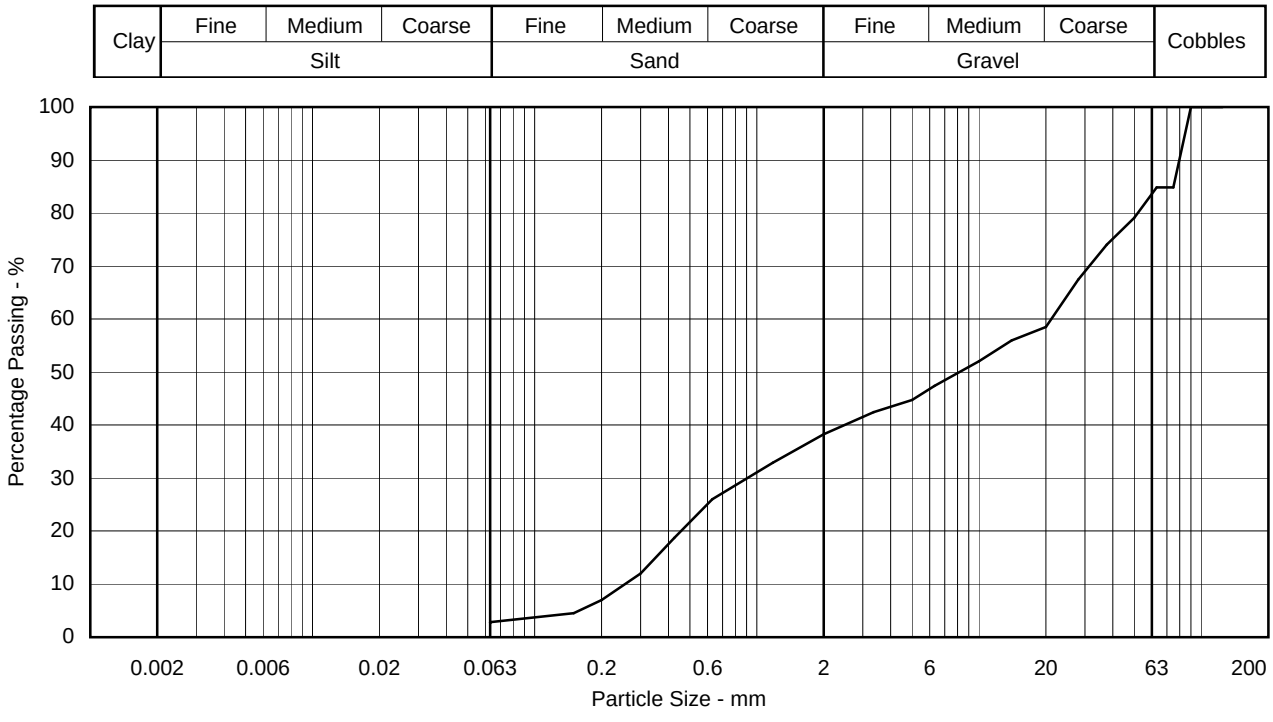

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Figure F17

62 Rochsolloch Road, Airdrie, ML6 9BG

igne	Site LT521 FASNAKYLE 400KV SUBSTATION	**Contract No 26560**
	Client SSEN Transmission	Hole TP16
	Engineer Jacobs	Sample Ref Depth (m) 0.50 Sample Type B

Particle Size	% Passing
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	94
50.0 mm	91
37.5 mm	90
28.0 mm	89
20.0 mm	87
14.0 mm	82
10.0 mm	73
6.30 mm	60
5.00 mm	55
3.35 mm	51
2.00 mm	47
1.18 mm	44
630 µm	37
425 µm	31
300 µm	23
200 µm	16
150 µm	10
63 µm	4

Non Engineering Description
Briwn slightly silty SAND and GRAVEL with cobbles. Gravel is fine to coarse

Sample Proportions - %	
Cobbles	6.0
Gravel	46.5
Sand	43.5
Silt & Clay	4.0
Particle Density - Assumed (Mg/m3)	2.65
Particle Diameter - mm	
D100	75
D60	6.4
D10	0.15
Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5)	42.7

Notes

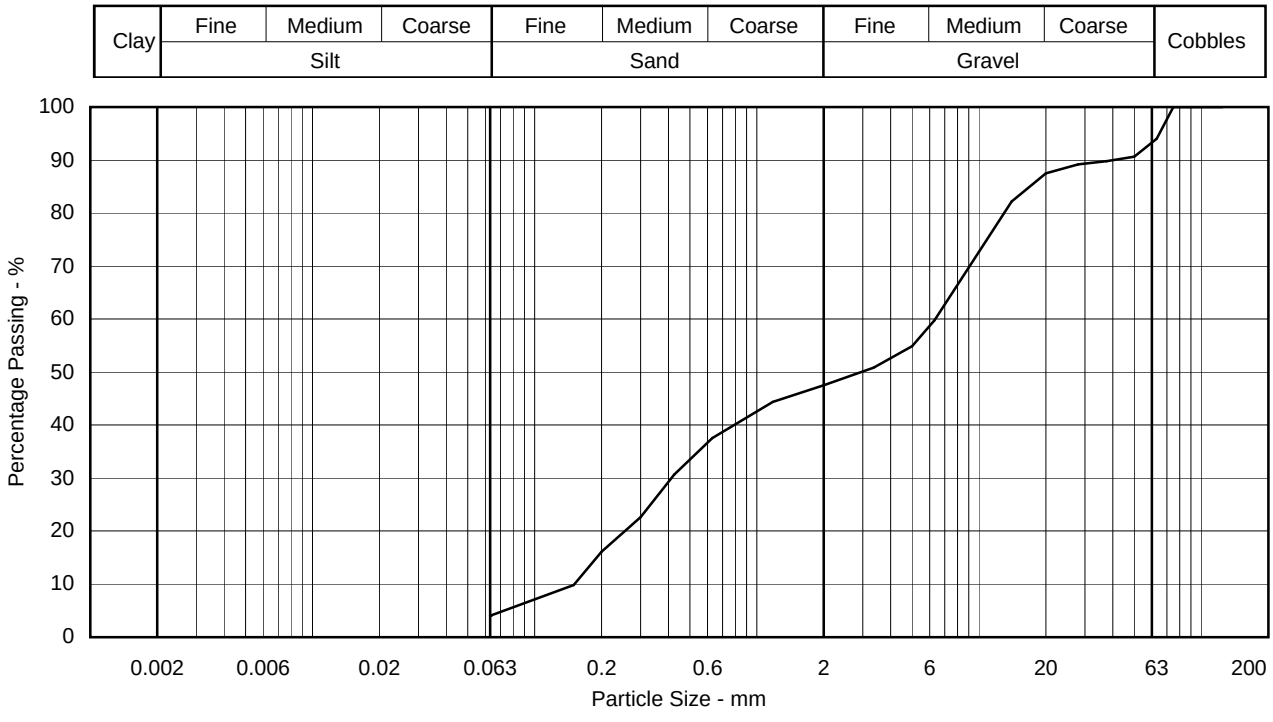

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Figure F18

62 Rochsolloch Road, Airdrie, ML6 9BG

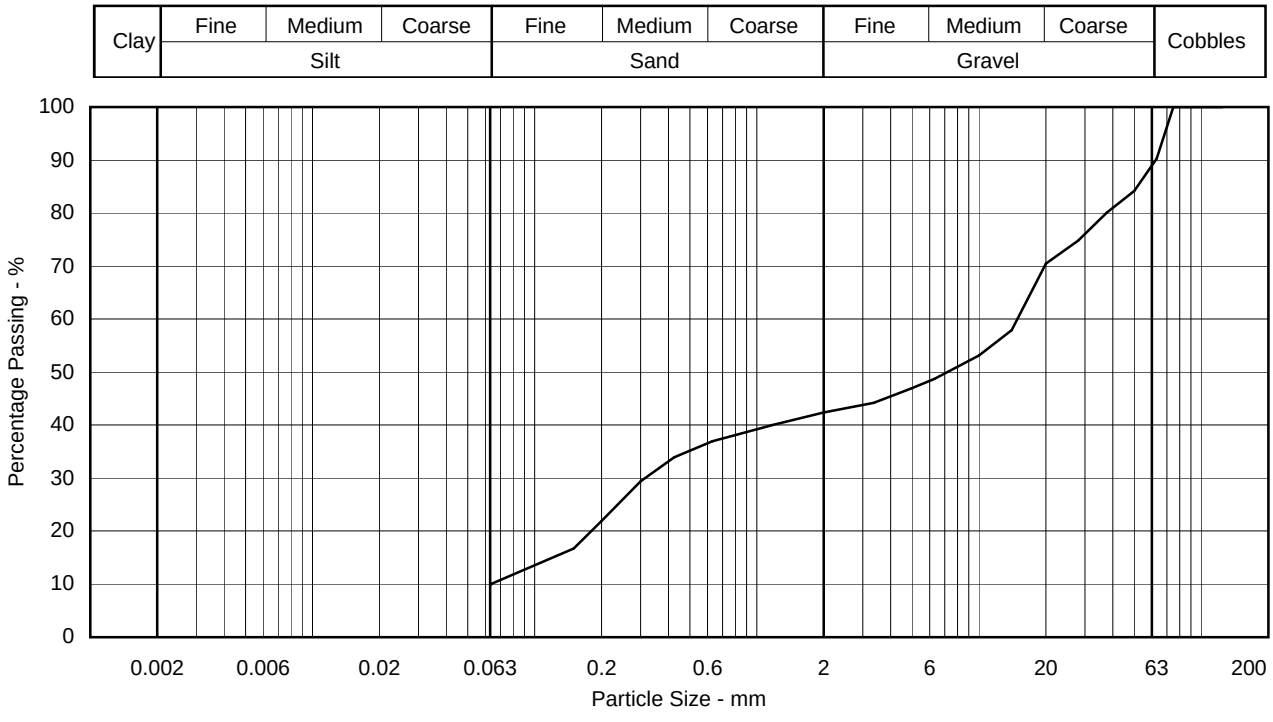
igne	Site	LT521 FASNAKYLE 400KV SUBSTATION	**Contract No** **26560**
	Client	SSEN Transmission	Hole TP20
	Engineer	Jacobs	Sample Ref Depth (m) 0.50 Sample Type B

Particle Size	% Passing
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	90
50.0 mm	84
37.5 mm	80
28.0 mm	75
20.0 mm	70
14.0 mm	58
10.0 mm	53
6.30 mm	49
5.00 mm	47
3.35 mm	44
2.00 mm	42
1.18 mm	40
630 µm	37
425 µm	34
300 µm	29
200 µm	22
150 µm	17
63 µm	10

Non Engineering Description
Brown silty very sandy fine to coarse GRAVEL with cobbles and organic matter

Sample Proportions - %	
Cobbles	9.7
Gravel	47.9
Sand	32.4
Silt & Clay	9.9
Particle Density - Assumed (Mg/m3)	2.65
Particle Diameter - mm	
D100	75
D60	15
D10	0.064
Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5)	234.4

Notes



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SG	CD 05/03/2024

PARTICLE SIZE DISTRIBUTION
BS EN ISO 17892-4 2016 Clause 5.2 - Sieving Method

Figure F19

62 Rochsolloch Road, Airdrie, ML6 9BG

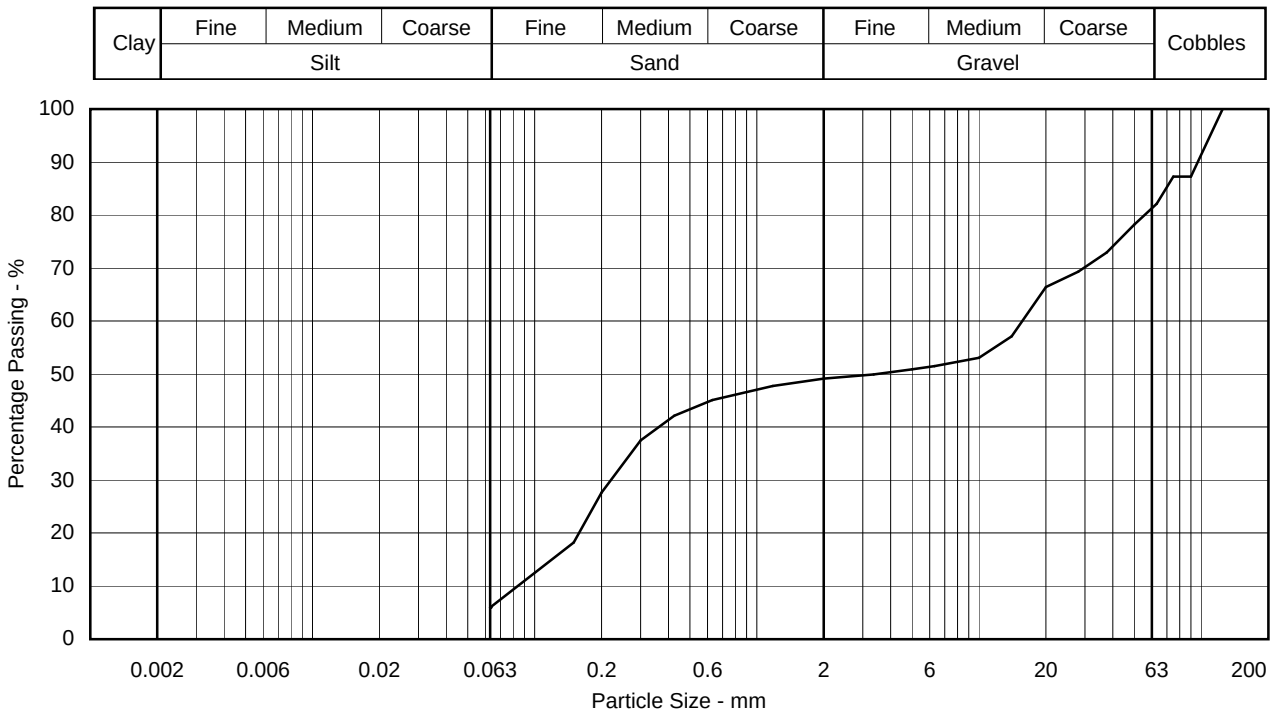
igne	Site	LT521 FASNAKYLE 400KV SUBSTATION	**Contract No** **26560**
	Client	SSEN Transmission	Hole TP25
	Engineer	Jacobs	Sample Ref Depth (m) 0.50 Sample Type B

Particle Size	% Passing
125.0 mm	100
90.0 mm	87
75.0 mm	87
63.0 mm	82
50.0 mm	78
37.5 mm	73
28.0 mm	69
20.0 mm	66
14.0 mm	57
10.0 mm	53
6.30 mm	51
5.00 mm	51
3.35 mm	50
2.00 mm	49
1.18 mm	48
630 µm	45
425 µm	42
300 µm	37
200 µm	28
150 µm	18
63 µm	6

Non Engineering Description
Brown silty SAND and GRAVEL with cobbles. Gravel is fine to coarse

Sample Proportions - %	
Cobbles	17.9
Gravel	33.0
Sand	43.2
Silt & Clay	5.9
Particle Density - Assumed (Mg/m3)	2.65
Particle Diameter - mm	
D100	125
D60	16
D10	0.084
Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5)	190.5

Notes



Originator	Checked & Approved
SG	CD 05/03/2024

PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4 2016 Clause 5.2 - Sieving Method

Figure F20

62 Rochsolloch Road, Airdrie, ML6 9BG

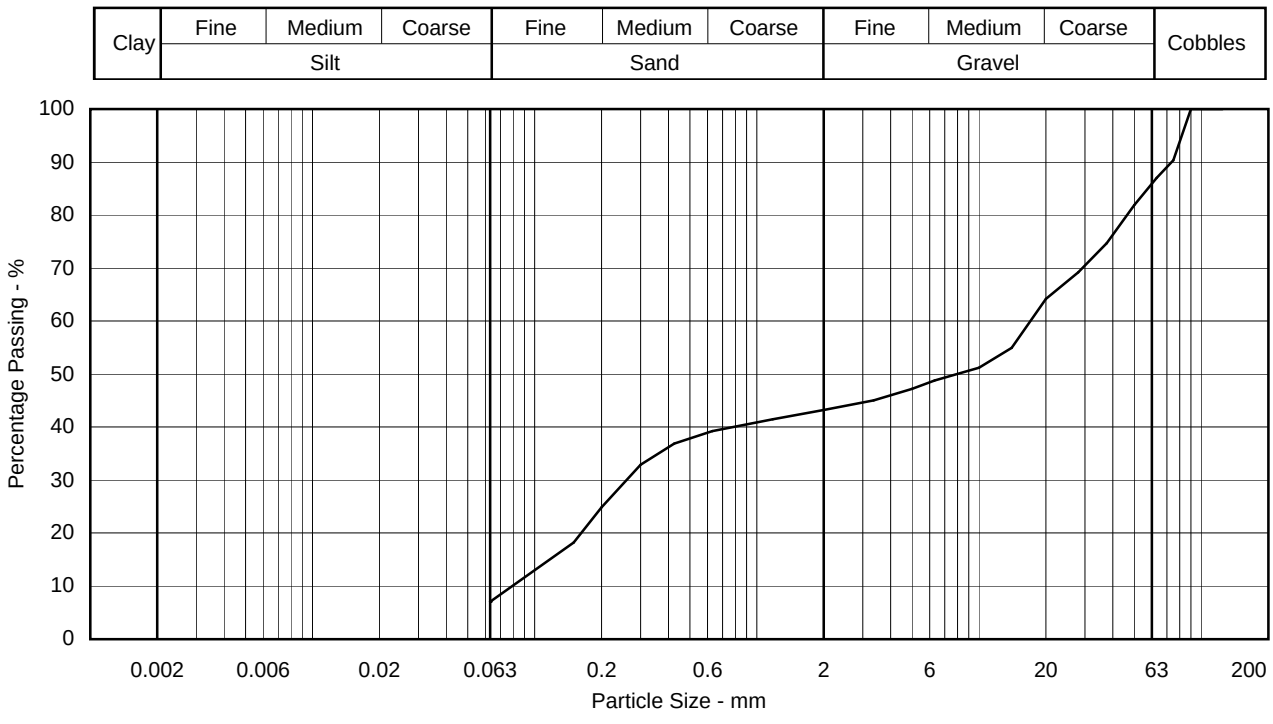
igne	Site	LT521 FASNAKYLE 400KV SUBSTATION	**Contract No** **26560**
	Client	SSEN Transmission	Hole TP28
	Engineer	Jacobs	Sample Ref Depth (m) 1.50 Sample Type B

Particle Size	% Passing
125.0 mm	100
90.0 mm	100
75.0 mm	90
63.0 mm	87
50.0 mm	82
37.5 mm	75
28.0 mm	69
20.0 mm	64
14.0 mm	55
10.0 mm	51
6.30 mm	49
5.00 mm	47
3.35 mm	45
2.00 mm	43
1.18 mm	41
630 µm	39
425 µm	37
300 µm	33
200 µm	25
150 µm	18
63 µm	7

Non Engineering Description
Brown silty SAND and GRAVEL with cobbles. Gravel is fine to coarse

Sample Proportions - %	
Cobbles	13.0
Gravel	43.8
Sand	36.2
Silt & Clay	7.0
Particle Density - Assumed (Mg/m3)	2.65
Particle Diameter - mm	
D100	90
D60	17
D10	0.079
Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5)	215.2

Notes



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PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4 2016 Clause 5.2 - Sieving Method

Figure F21

62 Rochsolloch Road, Airdrie, ML6 9BG

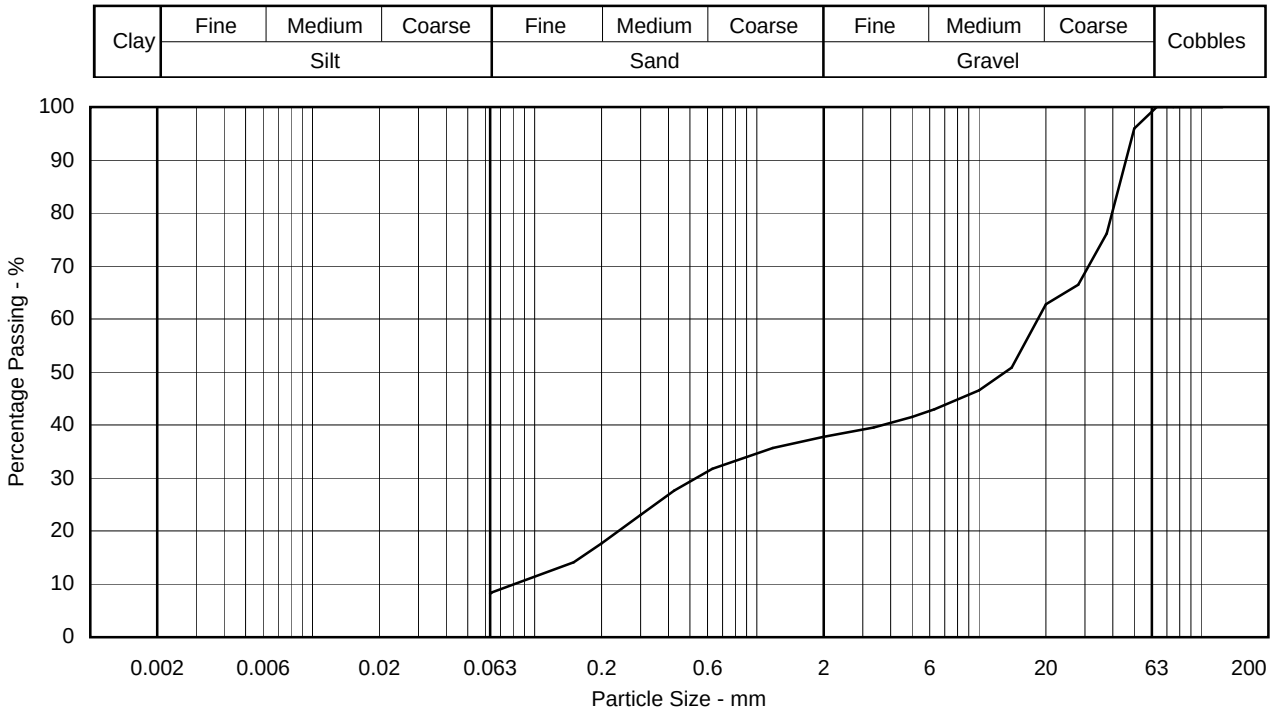
igne	Site LT521 FASNAKYLE 400KV SUBSTATION	**Contract No 26560**
	Client SSEN Transmission	Hole TP29
	Engineer Jacobs	Sample Ref Depth (m) 1.00 Sample Type B

Particle Size	% Passing
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	96
37.5 mm	76
28.0 mm	66
20.0 mm	63
14.0 mm	51
10.0 mm	47
6.30 mm	43
5.00 mm	41
3.35 mm	40
2.00 mm	38
1.18 mm	36
630 µm	32
425 µm	28
300 µm	23
200 µm	18
150 µm	14
63 µm	8

Non Engineering Description
Brown silty very sandy fine to coarse GRAVEL

Sample Proportions - %	
Cobbles	0.0
Gravel	62.2
Sand	29.5
Silt & Clay	8.3
Particle Density - Assumed (Mg/m3)	2.65
Particle Diameter - mm	
D100	63
D60	18
D10	0.082
Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5)	219.5

Notes
Sample does not comply with BS EN ISO 17892-4 minimum mass requirements



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PARTICLE SIZE DISTRIBUTION
BS EN ISO 17892-4 2016 Clause 5.2 - Sieving Method

Figure F22

62 Rochsolloch Road, Airdrie, ML6 9BG

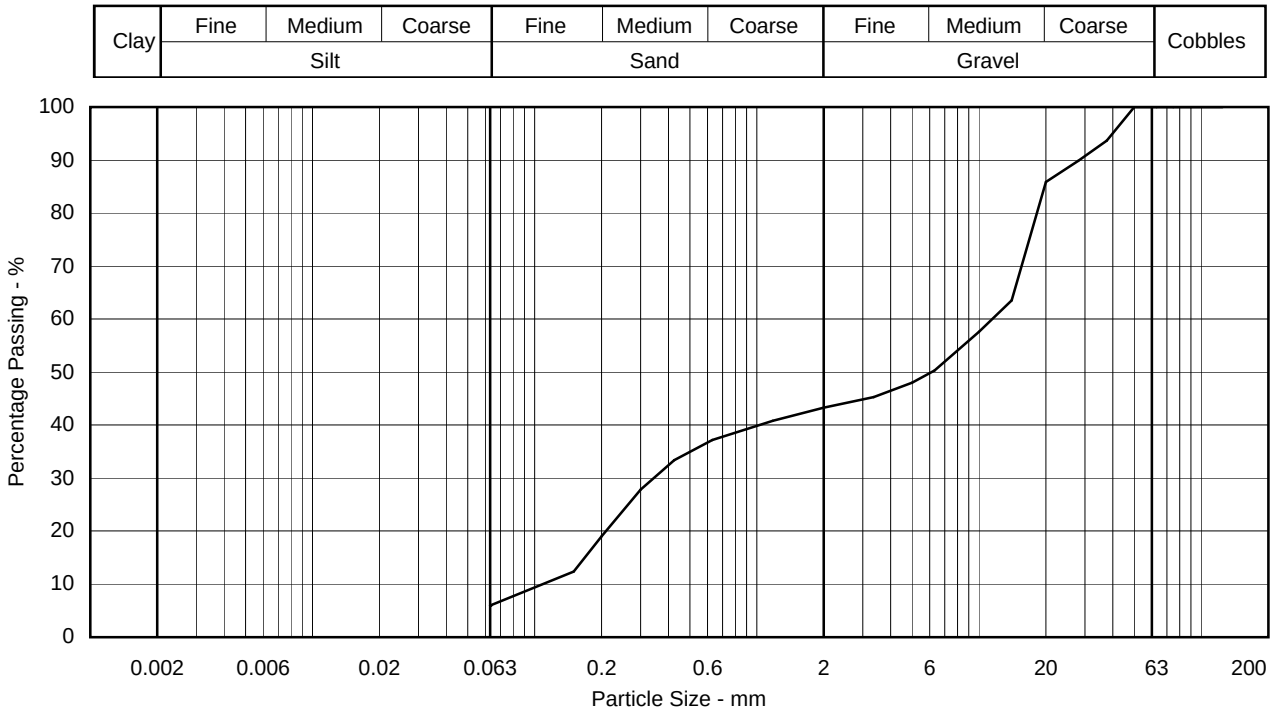
igne	Site LT521 FASNAKYLE 400KV SUBSTATION	**Contract No 26560**
	Client SSEN Transmission	Hole TP32
	Engineer Jacobs	Sample Ref Depth (m) 0.50 Sample Type B

Particle Size	% Passing
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	100
37.5 mm	94
28.0 mm	90
20.0 mm	86
14.0 mm	64
10.0 mm	58
6.30 mm	50
5.00 mm	48
3.35 mm	45
2.00 mm	43
1.18 mm	41
630 µm	37
425 µm	33
300 µm	28
200 µm	19
150 µm	12
63 µm	6

Non Engineering Description
Brown silty very sandy fine to coarse GRAVEL

Sample Proportions - %	
Cobbles	0.0
Gravel	56.7
Sand	37.4
Silt & Clay	5.9
Particle Density - Assumed (Mg/m3)	2.65
Particle Diameter - mm	
D100	50
D60	11
D10	0.11
Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5)	100.0

Notes



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PARTICLE SIZE DISTRIBUTION
BS EN ISO 17892-4 2016 Clause 5.2 - Sieving Method

Figure F23

62 Rochsolloch Road, Airdrie, ML6 9BG

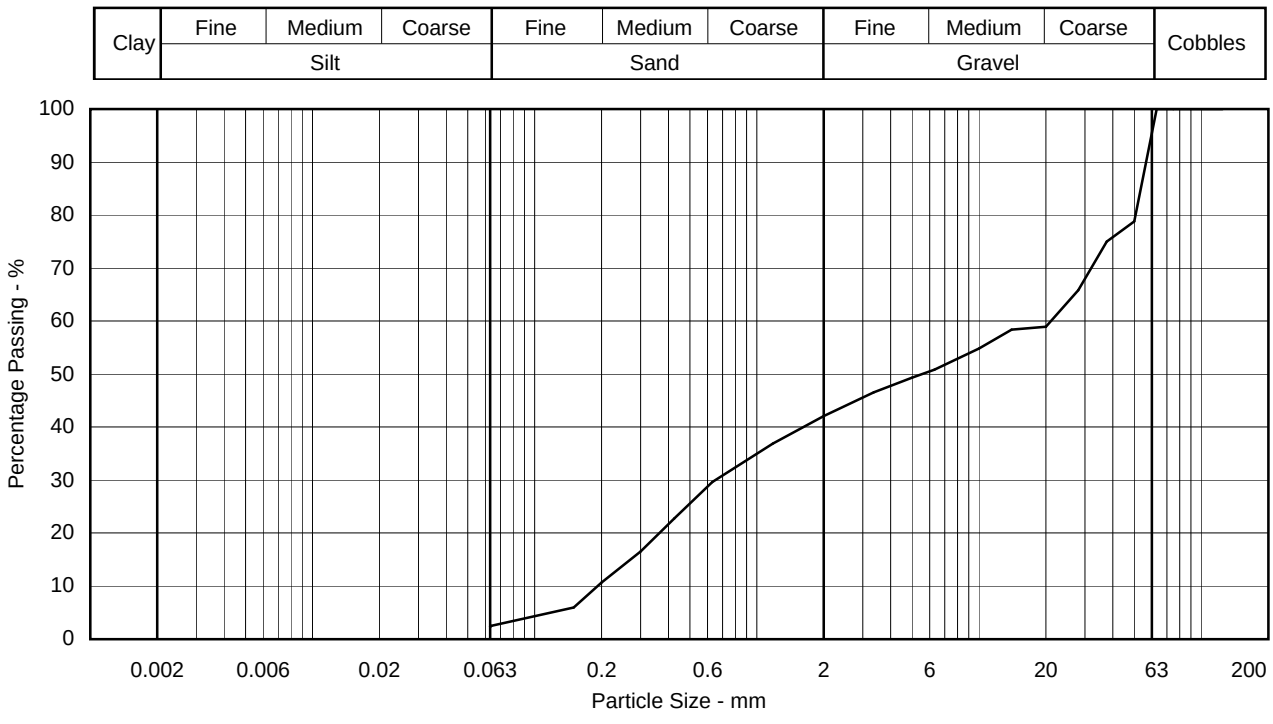
igne	Site LT521 FASNAKYLE 400KV SUBSTATION	**Contract No 26560**
	Client SSEN Transmission	Hole TP33
	Engineer Jacobs	Sample Ref Depth (m) 0.50 Sample Type B

Particle Size	% Passing
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	79
37.5 mm	75
28.0 mm	66
20.0 mm	59
14.0 mm	58
10.0 mm	55
6.30 mm	51
5.00 mm	49
3.35 mm	47
2.00 mm	42
1.18 mm	37
630 µm	30
425 µm	23
300 µm	16
200 µm	11
150 µm	6
63 µm	2

Non Engineering Description
Brown slightly silty very sandy fine to coarse GRAVEL

Sample Proportions - %	
Cobbles	0.0
Gravel	57.9
Sand	39.6
Silt & Clay	2.4
Particle Density - Assumed (Mg/m3)	2.65
Particle Diameter - mm	
D100	63
D60	21
D10	0.19
Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5)	110.5

Notes
Sample does not comply with BS EN ISO 17892-4 minimum mass requirements



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PARTICLE SIZE DISTRIBUTION
BS EN ISO 17892-4 2016 Clause 5.2 - Sieving Method

Figure F24

62 Rochsolloch Road, Airdrie, ML6 9BG

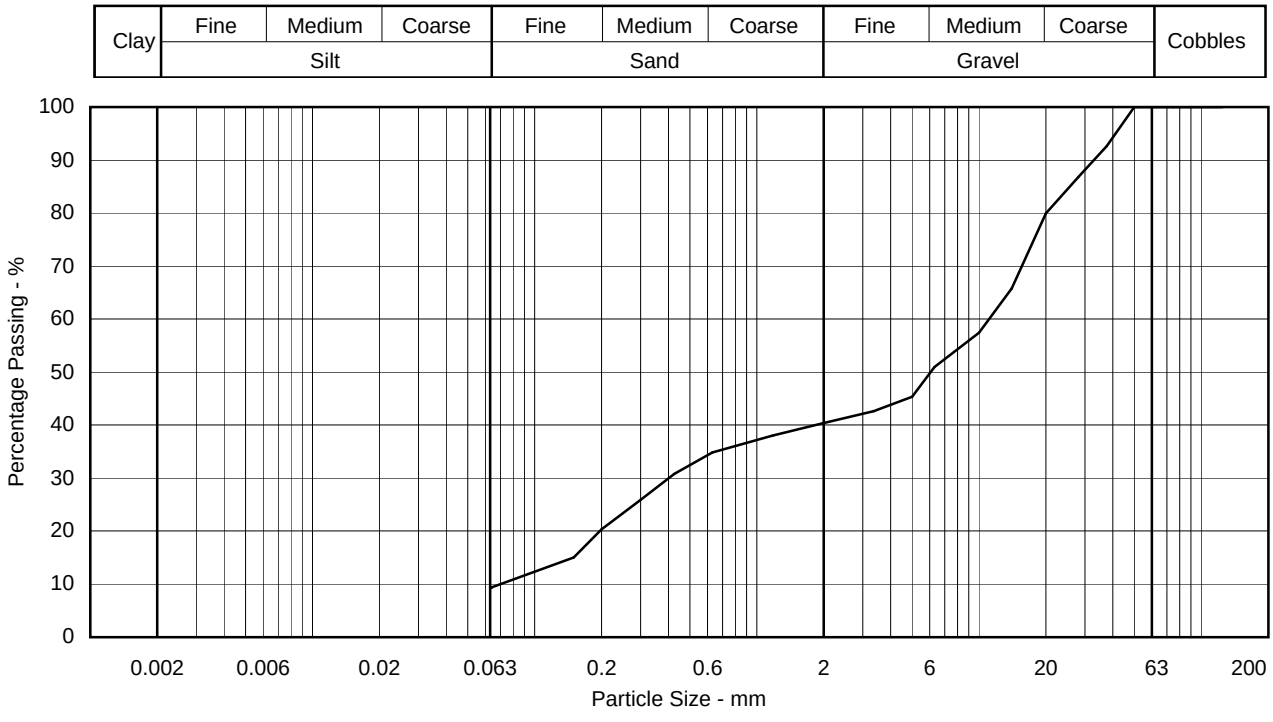
igne	Site LT521 FASNAKYLE 400KV SUBSTATION	**Contract No 26560**
	Client SSEN Transmission	Hole TP34
	Engineer Jacobs	Sample Ref Depth (m) 0.50 Sample Type B

Particle Size	% Passing
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	100
37.5 mm	93
28.0 mm	87
20.0 mm	80
14.0 mm	66
10.0 mm	57
6.30 mm	51
5.00 mm	45
3.35 mm	43
2.00 mm	40
1.18 mm	38
630 µm	35
425 µm	31
300 µm	26
200 µm	20
150 µm	15
63 µm	9

Non Engineering Description
Brown silty very sandy fine to coarse GRAVEL

Sample Proportions - %	
Cobbles	0.0
Gravel	59.6
Sand	31.1
Silt & Clay	9.2
Particle Density - Assumed (Mg/m3)	2.65
Particle Diameter - mm	
D100	50
D60	11
D10	0.071
Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5)	154.9

Notes



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PARTICLE SIZE DISTRIBUTION

BS EN ISO 17892-4 2016 Clause 5.2 - Sieving Method

Figure F25

62 Rochsolloch Road, Airdrie, ML6 9BG

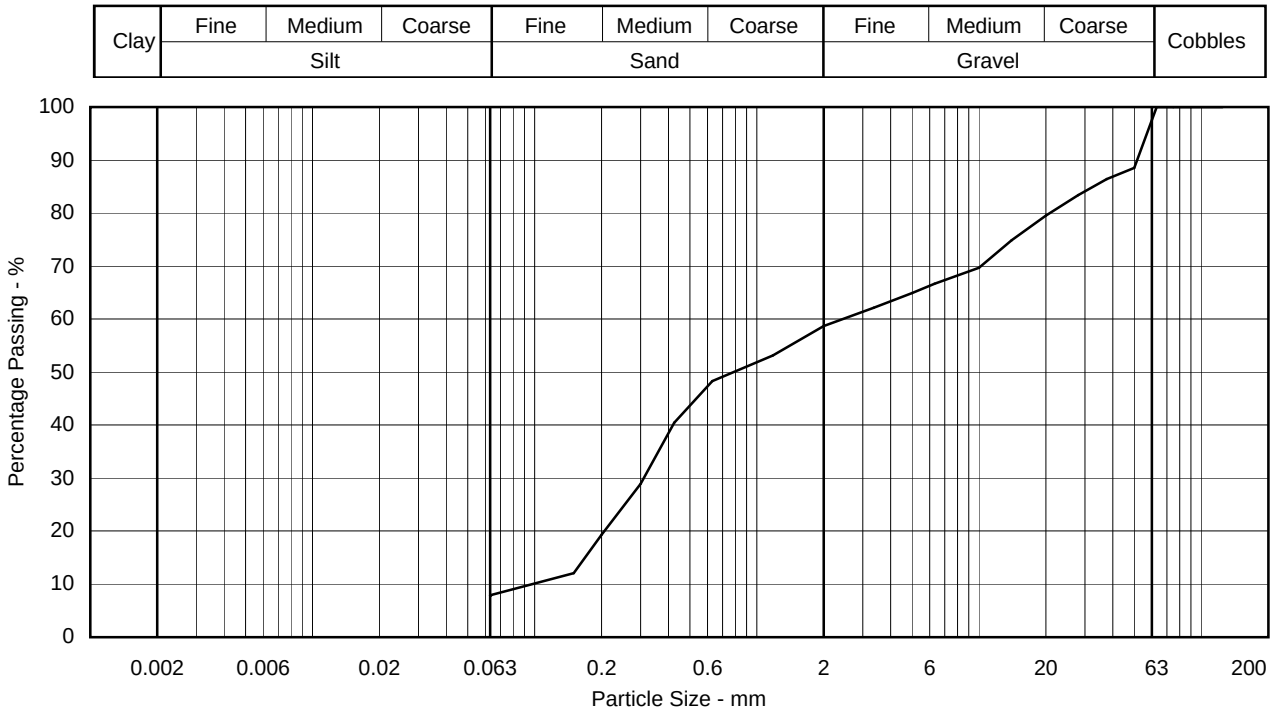
igne	Site LT521 FASNAKYLE 400KV SUBSTATION	**Contract No 26560**
	Client SSEN Transmission	Hole TP36A
	Engineer Jacobs	Sample Ref Depth (m) 0.50 Sample Type B

Particle Size	% Passing
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	89
37.5 mm	86
28.0 mm	83
20.0 mm	80
14.0 mm	75
10.0 mm	70
6.30 mm	67
5.00 mm	65
3.35 mm	62
2.00 mm	59
1.18 mm	53
630 µm	48
425 µm	40
300 µm	29
200 µm	19
150 µm	12
63 µm	8

Non Engineering Description
Brown silty SAND and GRAVEL woth organic material. Gravel is fine to coarse

Sample Proportions - %	
Cobbles	0.0
Gravel	41.3
Sand	50.9
Silt & Clay	7.8
Particle Density - Assumed (Mg/m3)	2.65
Particle Diameter - mm	
D100	63
D60	2.4
D10	0.099
Uniformity Coefficient (SHW series 600, Table 6/1, footnote 5)	24.2

Notes
Sample does not comply with BS EN ISO 17892-4 minimum mass requirements



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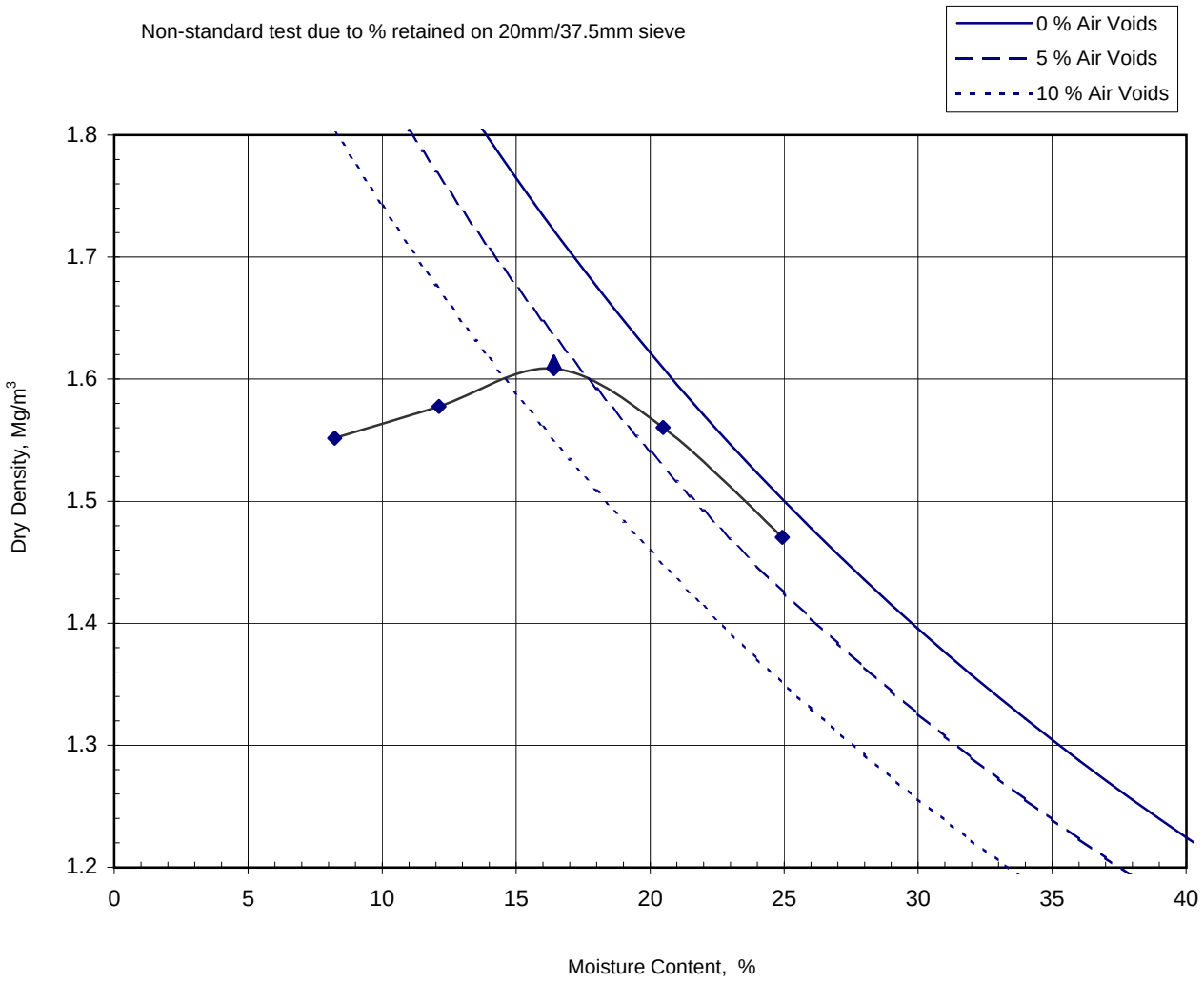
PARTICLE SIZE DISTRIBUTION
BS EN ISO 17892-4 2016 Clause 5.2 - Sieving Method

Figure F26

62 Rochsolloch Road, Airdrie, ML6 9BG

igne	Site	LT521 FASNAKYLE 400KV SUBSTATION	**Contract No** **26560**
	Client	SSEN Transmission	Hole TP20
	Engineer	Jacobs	Sample Ref Depth (m) 0.50 Sample Type B

Non-standard test due to % retained on 20mm/37.5mm sieve

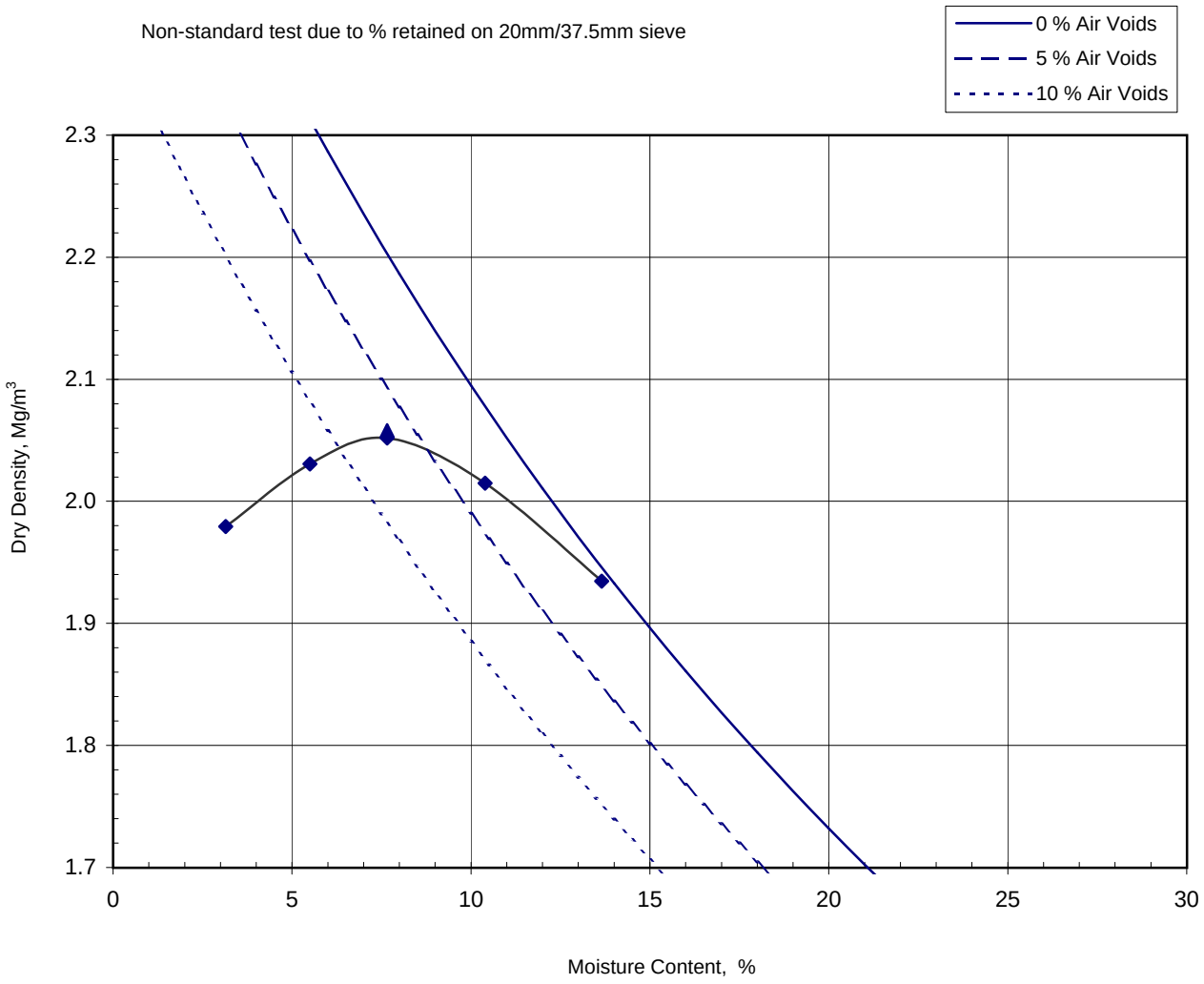


Non Engineering Description		Brown silty very sandy fine to coarse GRAVEL with cobbles and organic matter
Preparation		Oven dried
Test Method		4.5kg Rammer for soils with some coarse gravel-size particles
Samples Used		Single
Mass Retained on 37.5 mm Sieve	%	20
Mass Retained on 20.0 mm Sieve	%	30
Particle Density - Assumed	Mg/m³	2.40
Natural Moisture Content	%	42
Maximum Dry Density	Mg/m³	1.61
Optimum Moisture Content	%	16.4

Originator	Checked & Approved	**Moisture Content / Dry Density Relationship** BS1377:Part 4:1990 Clause 3.6	**Figure F27**
SM	CD 05/03/2024		Sheet 1 of 1

igne	Site	LT521 FASNAKYLE 400KV SUBSTATION	**Contract No** **26560**
	Client	SSEN Transmission	Hole TP28
	Engineer	Jacobs	Sample Ref Depth (m) 1.50 Sample Type B

Non-standard test due to % retained on 20mm/37.5mm sieve



Non Engineering Description		Brown silty SAND and GRAVEL with cobbles. Gravel is fine to coarse
Preparation		Oven dried
Test Method		4.5kg Rammer for soils with some coarse gravel-size particles
Samples Used		Single
Mass Retained on 37.5 mm Sieve	%	25
Mass Retained on 20.0 mm Sieve	%	36
Particle Density - Assumed	Mg/m³	2.65
Natural Moisture Content	%	7.3
Maximum Dry Density	Mg/m³	2.06
Optimum Moisture Content	%	7.7

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RF	CD 05/03/2024

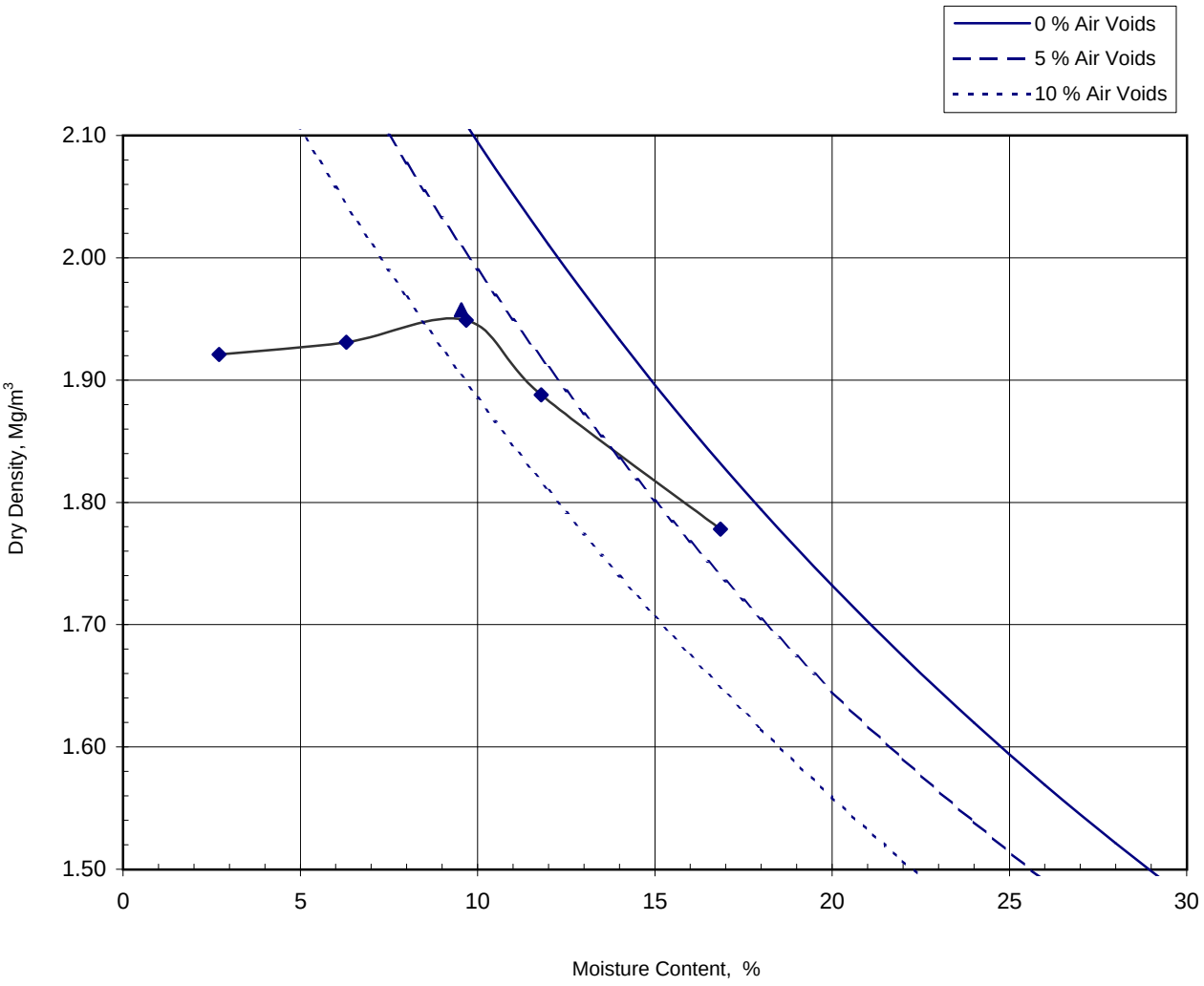
Moisture Content / Dry Density Relationship

BS1377:Part 4:1990 Clause 3.6

Figure F28

62 Rochsolloch Road, Airdrie, ML6 9BG

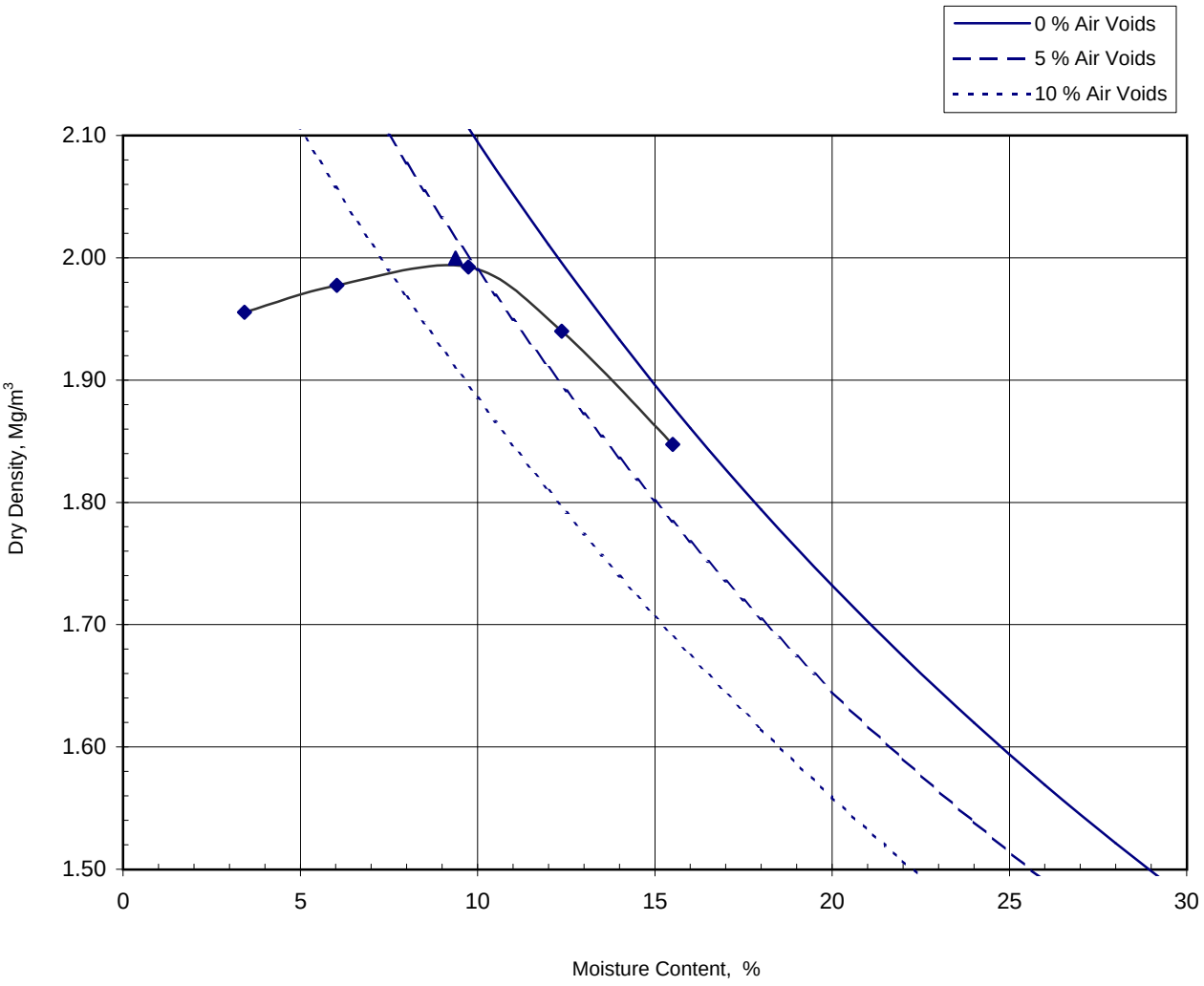
igne	Site	LT521 FASNAKYLE 400KV SUBSTATION	**Contract No** **26560**
	Client	SSEN Transmission	Hole TP32
	Engineer	Jacobs	Sample Ref Depth (m) 0.50 Sample Type B



Non Engineering Description		Brown silty very sandy fine to coarse GRAVEL
Preparation		Oven dried
Test Method		4.5kg Rammer for soils with some coarse gravel-size particles
Samples Used		Single
Mass Retained on 37.5 mm Sieve	%	6
Mass Retained on 20.0 mm Sieve	%	14
Particle Density - Assumed	Mg/m³	2.65
Natural Moisture Content	%	13
Maximum Dry Density	Mg/m³	1.96
Optimum Moisture Content	%	9.5

Originator	Checked & Approved	**Moisture Content / Dry Density Relationship** BS1377:Part 4:1990 Clause 3.6	**Figure F29**
RF	CD 05/03/2024		Sheet 1 of 1

igne	Site	LT521 FASNAKYLE 400KV SUBSTATION	**Contract No** **26560**
	Client	SSEN Transmission	Hole TP36A
	Engineer	Jacobs	Sample Ref Depth (m) 0.50 Sample Type B



Non Engineering Description		Brown silty SAND and GRAVEL woth organic material. Gravel is fine to coarse
Preparation		Oven dried
Test Method		4.5kg Rammer for soils with some coarse gravel-size particles
Samples Used		Single
Mass Retained on 37.5 mm Sieve	%	9
Mass Retained on 20.0 mm Sieve	%	19
Particle Density - Assumed	Mg/m³	2.65
Natural Moisture Content	%	24
Maximum Dry Density	Mg/m³	2.00
Optimum Moisture Content	%	9.4

Originator	Checked & Approved	**Moisture Content / Dry Density Relationship** BS1377:Part 4:1990 Clause 3.6	**Figure F30**
RF	CD 05/03/2024		Sheet 1 of 1

igne	Site	LT521 FASNAKYLE 400KV SUBSTATION	**Contract No** **26560**
	Client	SSEN Transmission	Hole ID TP28
	Engineer	Jacobs	Sample No
			Depth (m) 1.50
			Sample Type B

Non Engineering Description: Brown silty SAND and GRAVEL with cobbles. Gravel is fine to coarse

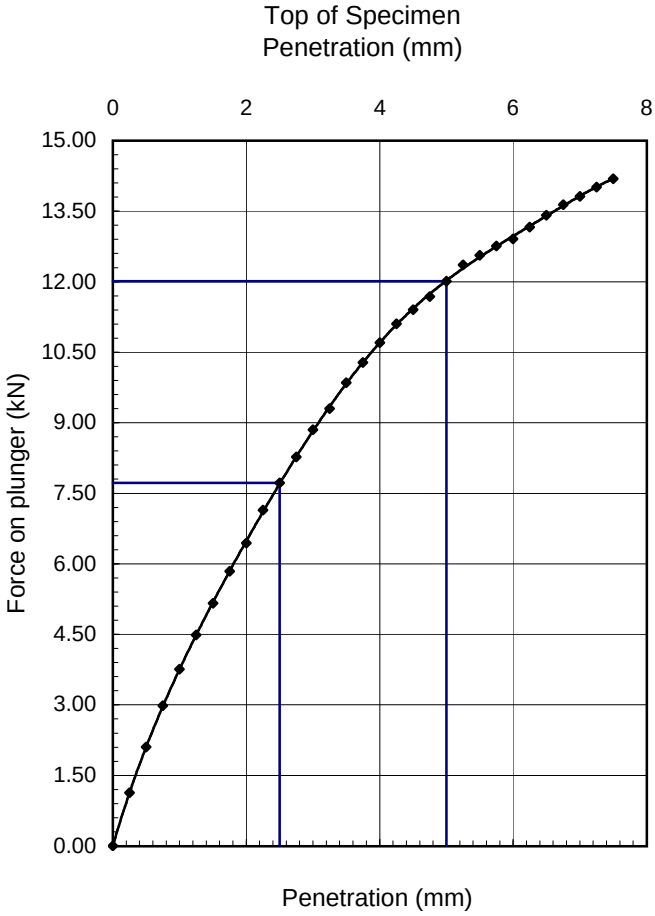
Preparation Details:

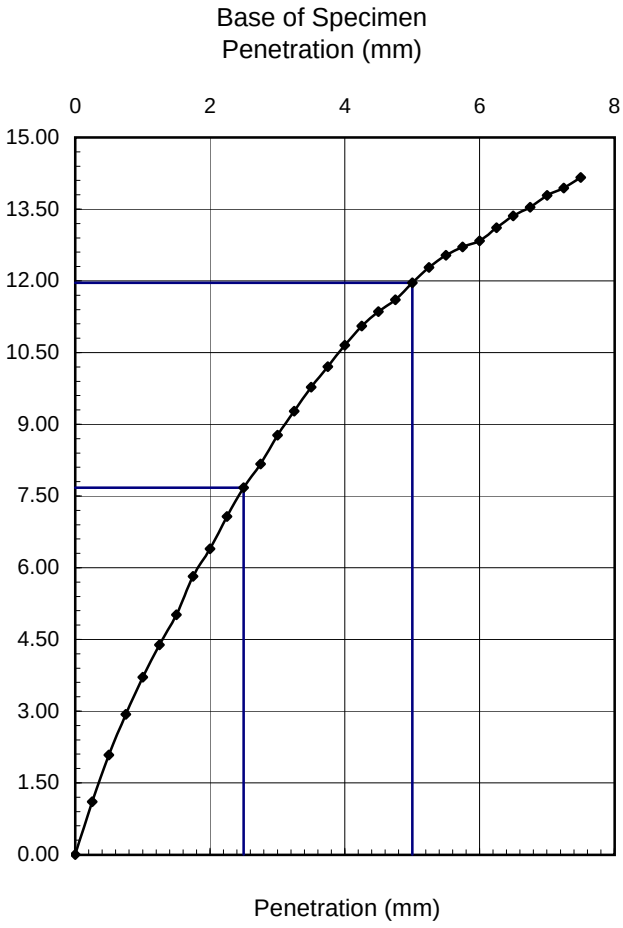
Specimen was prepared at Natural Moisture Content
Compaction using 4.5kg compactive effort

Specimen Bulk Density	2.20	Mg/m³
Specimen Dry Density	2.01	Mg/m³
Mass of sample > 20 mm	36.0	%

Specimen Unsoaked

Test Details:	**Top**		**Base**	
Surcharge:	2.0	kg	2.0	kg
Seating Load:	250	N	250	N
Moisture Content:	9.4	%	9.5	%
CBR Value:	60.0	%	59.8	%





Non-standard test due to % retained on 20mm sieve

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CALIFORNIA BEARING RATIO
BS1377 : Part 4 : Clause 7 : 1990

Figure No F31

Sheet 1 of 1

igne	Site	LT521 FASNAKYLE 400KV SUBSTATION	**Contract No** **26560**
	Client	SSEN Transmission	Hole ID TP32
	Engineer	Jacobs	Sample No
			Depth (m) 0.50
			Sample Type B

Non Engineering Description: Brown silty very sandy fine to coarse GRAVEL

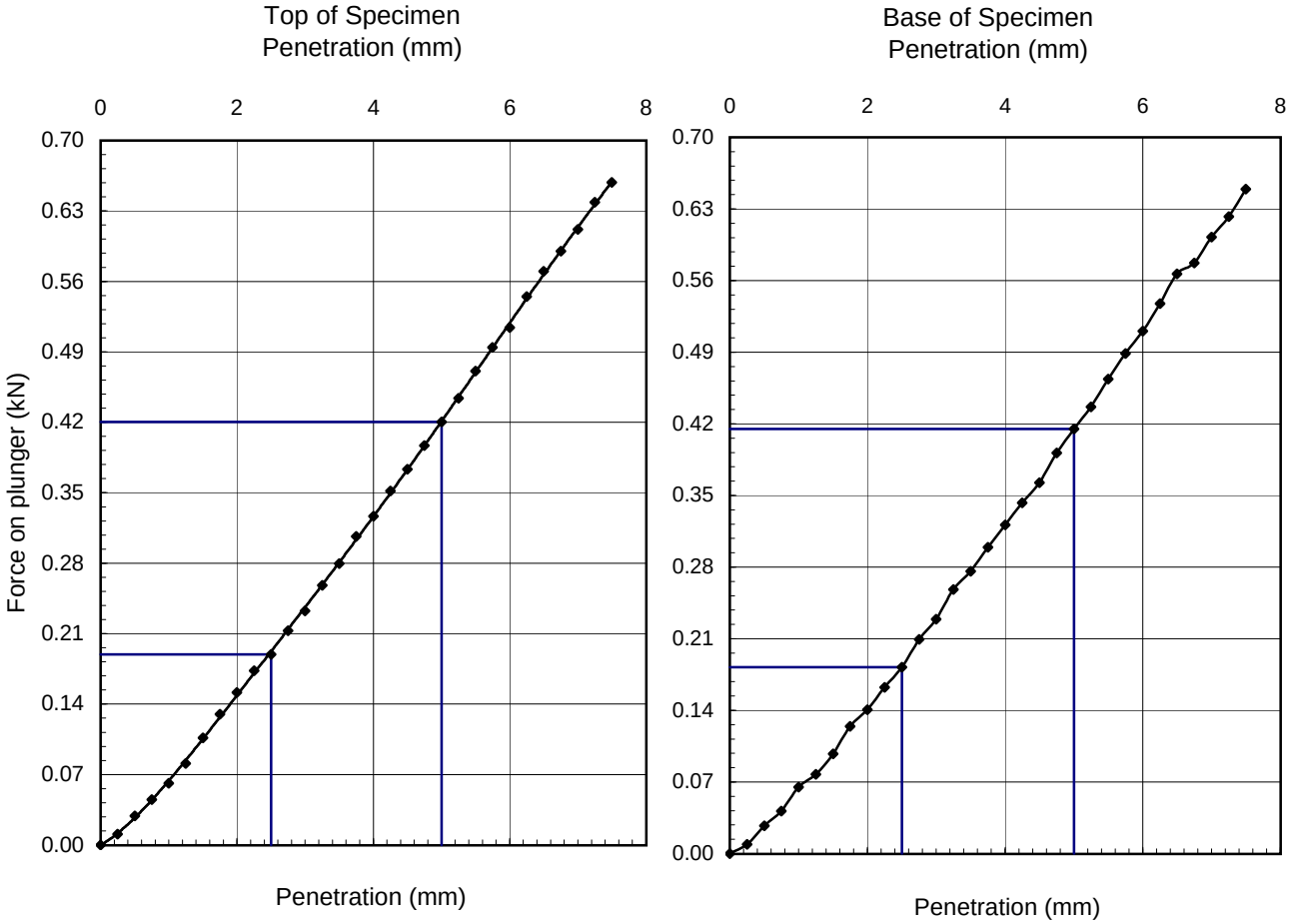
Preparation Details:

Specimen was prepared at Natural Moisture Content
Compaction using 4.5kg compactive effort

Specimen Bulk Density	2.05	Mg/m³
Specimen Dry Density	1.75	Mg/m³
Mass of sample > 20 mm	13.6	%

Specimen Unsoaked

Test Details:	**Top**		**Base**	
Surcharge:	2.0	kg	2.0	kg
Seating Load:	10	N	10	N
Moisture Content:	17	%	17	%
CBR Value:	2.1	%	2.1	%



Non-standard test due to % retained on 20mm sieve

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CALIFORNIA BEARING RATIO
BS1377 : Part 4 : Clause 7 : 1990

Figure No F32

Sheet 1 of 1

igne	Site	LT521 FASNAKYLE 400KV SUBSTATION	**Contract No** **26560**
	Client	SSEN Transmission	Hole ID TP36A
	Engineer	Jacobs	Sample No Depth (m) 0.50 Sample Type B

Non Engineering Description: Brown silty SAND and GRAVEL woth organic material. Gravel is fine to coarse

Preparation Details:

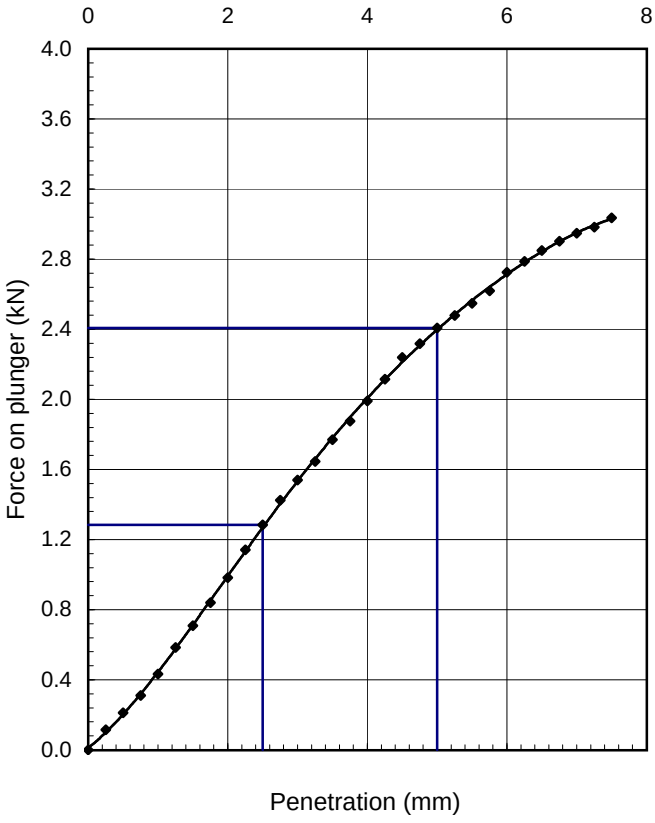
Specimen was prepared at Natural Moisture Content
Compaction using 4.5kg compactive effort

Specimen Bulk Density	2.20	Mg/m³
Specimen Dry Density	1.79	Mg/m³
Mass of sample > 20 mm	20.0	%

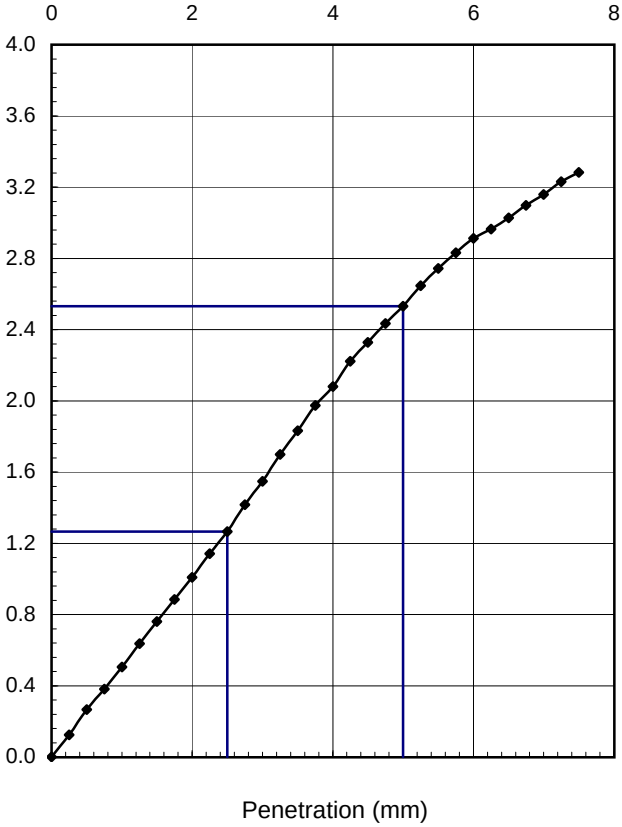
Specimen Unsoaked

Test Details:	**Top**		**Base**	
Surcharge:	2.0	kg	2.0	kg
Seating Load:	50	N	50	N
Moisture Content:	23	%	24	%
CBR Value:	12.0	%	12.7	%

Top of Specimen Penetration (mm)



Base of Specimen Penetration (mm)



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CALIFORNIA BEARING RATIO
BS1377 : Part 4 : Clause 7 : 1990

Figure No F33

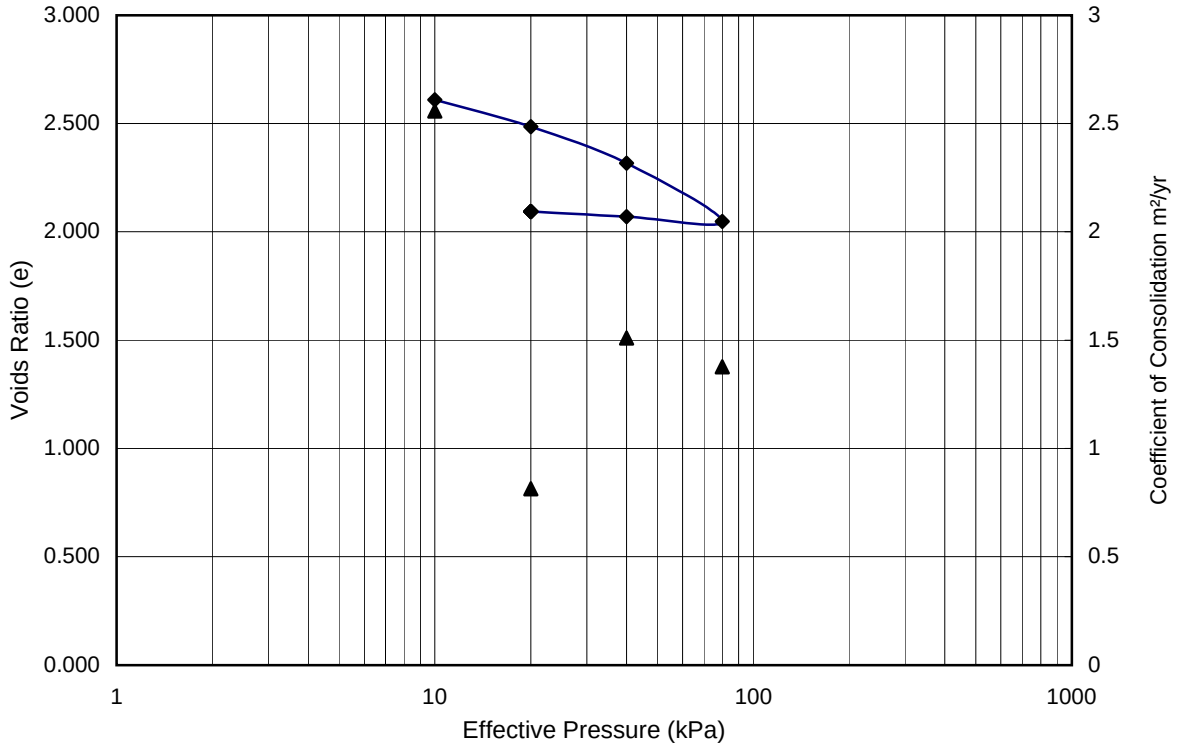
Sheet 1 of 1

igne	Site	LT521 FASNAKYLE 400KV SUBSTATION	**Contract No** **26560**
	Client	SSEN Transmission	Hole ID BH17
	Engineer	Jacobs	Sample Ref Depth 1.20-2.20 Sample Type U

Non Engineering Description: Dark brown fibrous PEAT

Initial Water Content	110 %	Final Water Content	88.6 %
Initial Voids Ratio	2.877	Final Voids Ratio	2.094
Initial Bulk Density	1.44 Mg/m³	Specific Gravity	2.65 (assumed)
Initial Dry Density	0.68 Mg/m³	Degree of saturation	102 %
Specimen Dimensions	20.07mm x 74.70mm dia		
Laboratory temperature	20±2°C		

Pressure Range kPa	M_v m²/MN	C_v (t90) m²/year	C_v (t50) m²/year	Voids ratio (e)	C_{sec}
0 - 10	6.886	2.56	2.44	2.610	
10 - 20	3.462	0.81	0.91	2.485	
20 - 40	2.411	1.51	1.58	2.317	
40 - 80	2.024	1.38	1.47	2.049	
80 - 40	0.179	swelled	swelled	2.070	
40 - 20	0.378	swelled	swelled	2.094	



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INCREMENTAL LOADING OEDOMETER TEST
BS EN ISO 17892-5:2017, Root time curve fitting

Figure No F34

62 Rochsolloch Road, Airdrie, ML6 9BG

Specimen Details

Specimen Number

Application Pressure Stage

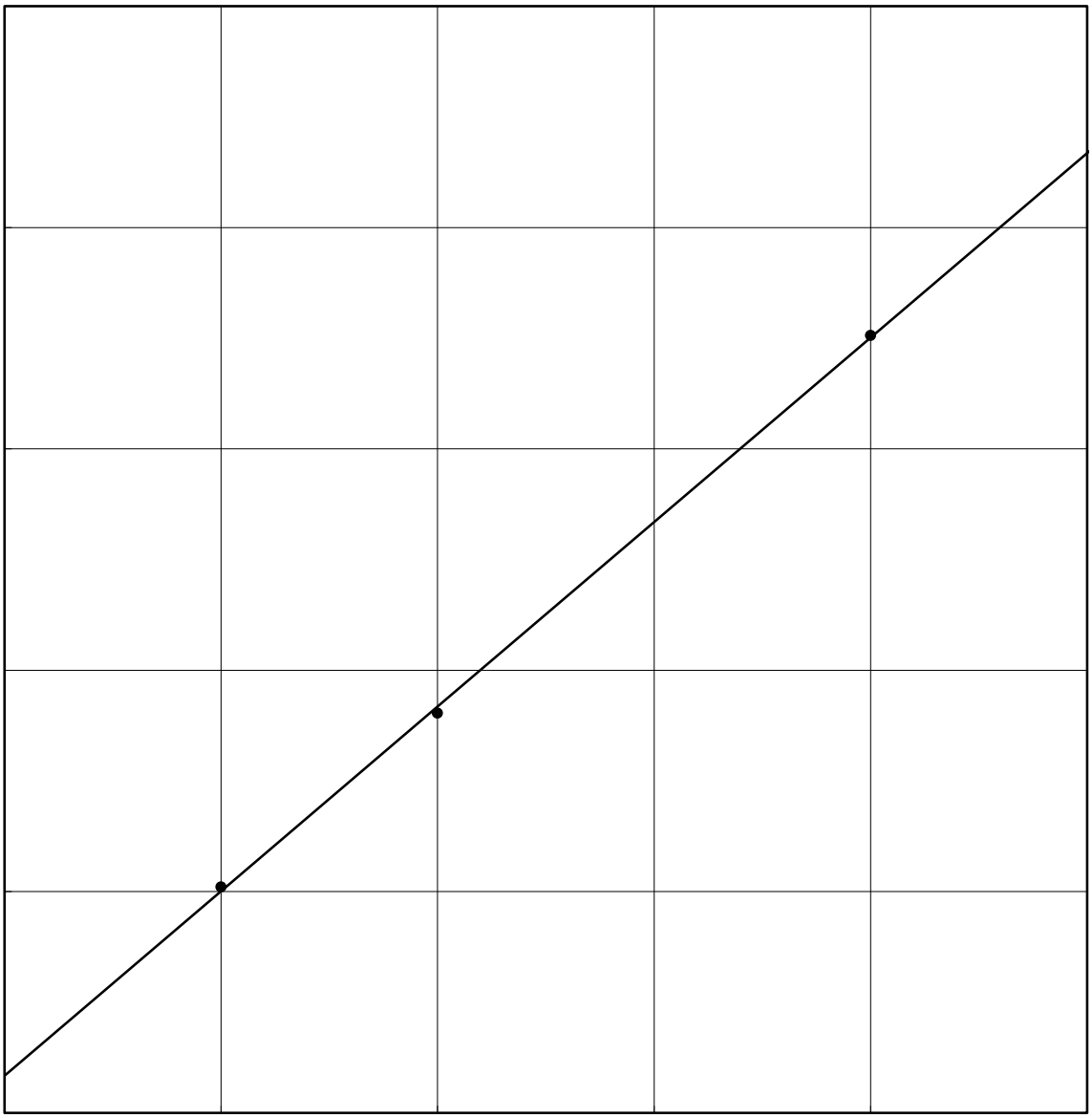
Shearing Stage

Peak Conditions:

Residual Conditions:

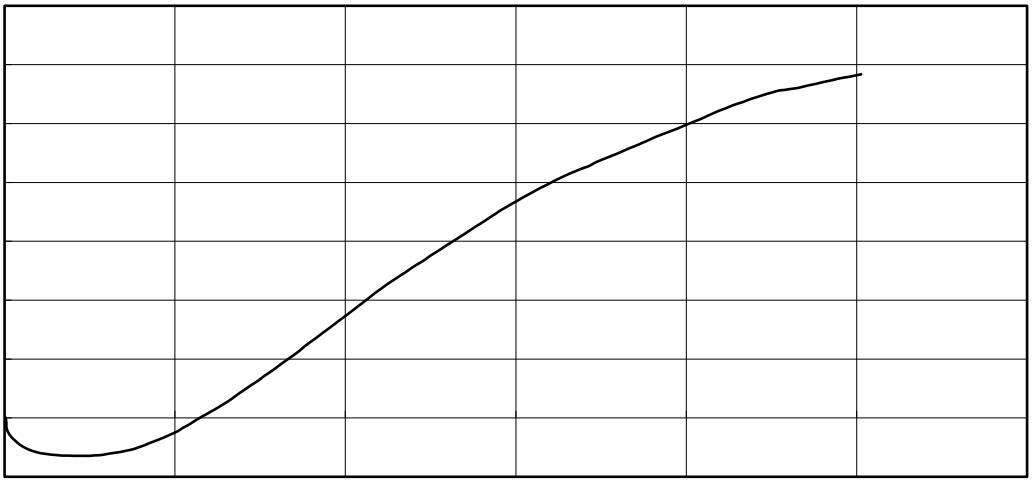
Shear Strength Parameters

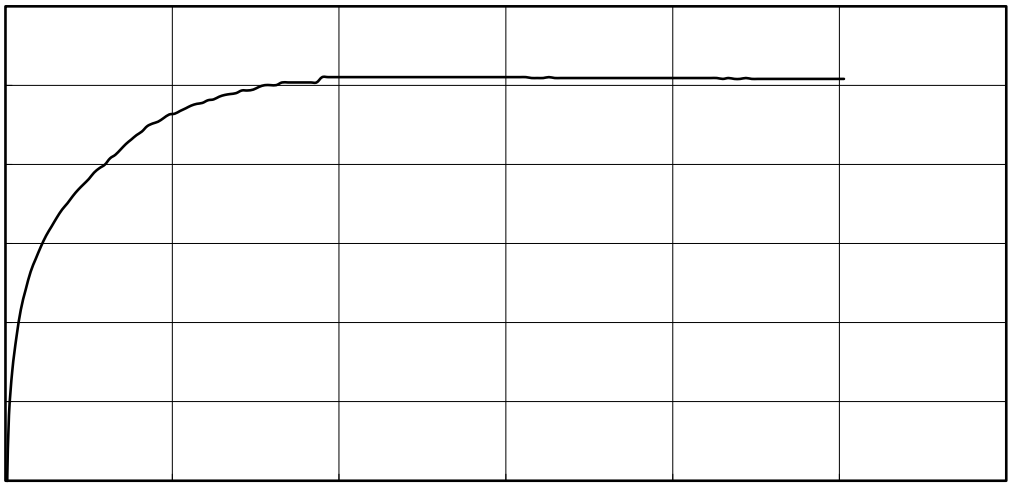
8
40



Shear Strength Parameters (linear tangent interpretation)

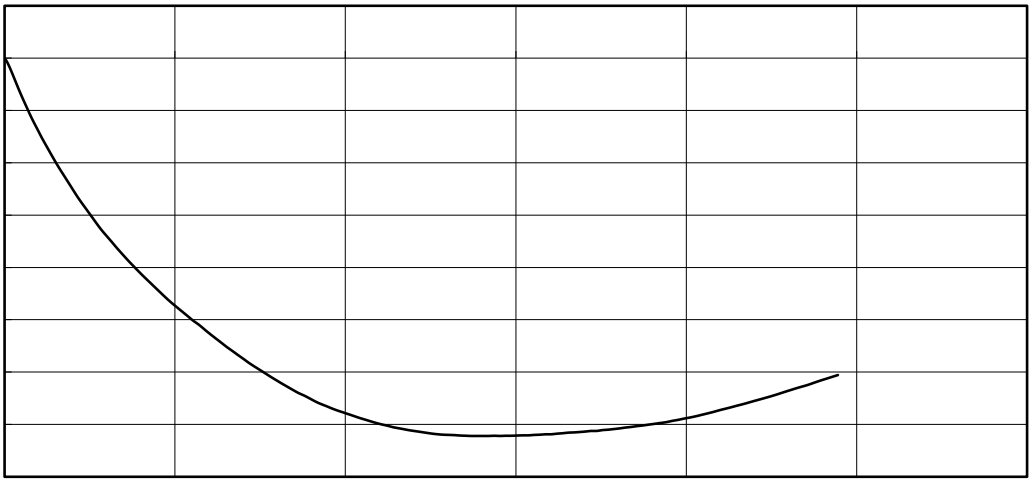
°

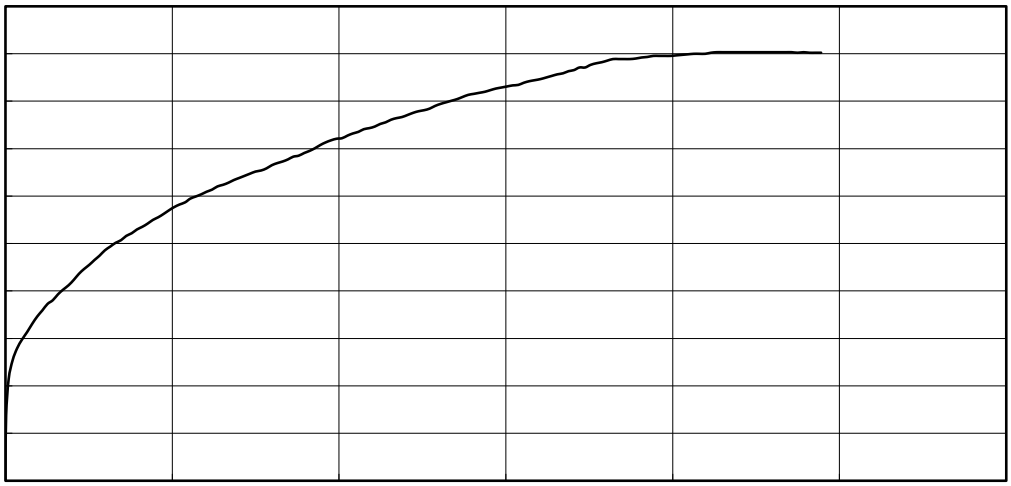




Shear Strength by Direct Shear (large shearbox)

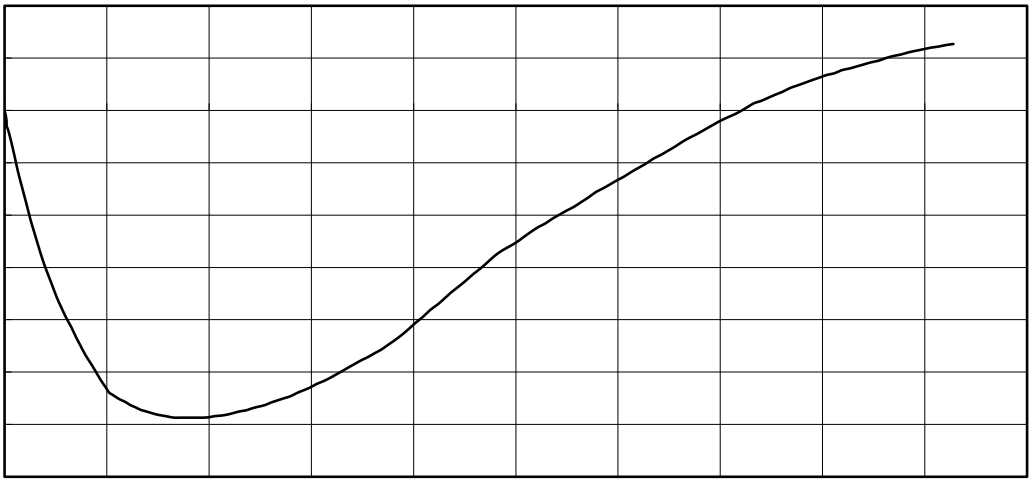
Figure F35

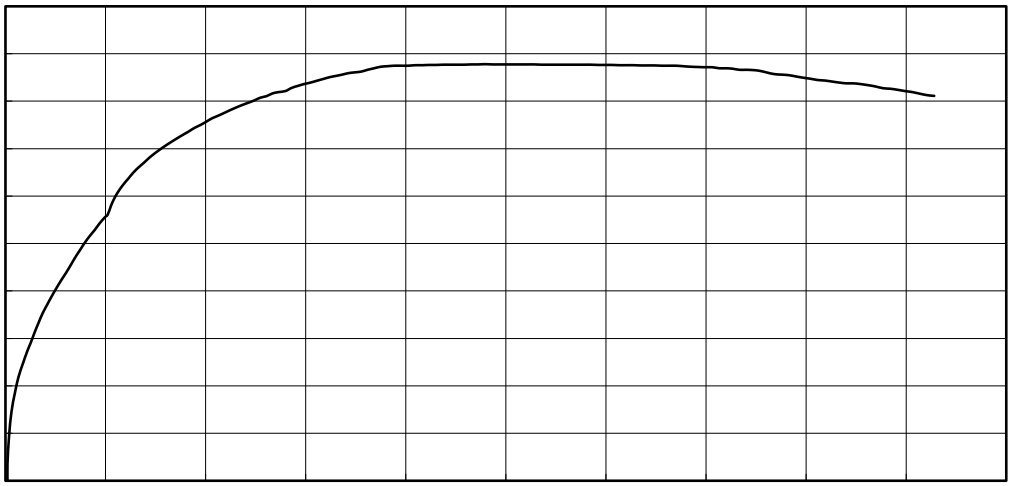




Shear Strength by Direct Shear (large shearbox)

Figure F35





Shear Strength by Direct Shear (large shearbox)

Figure F35

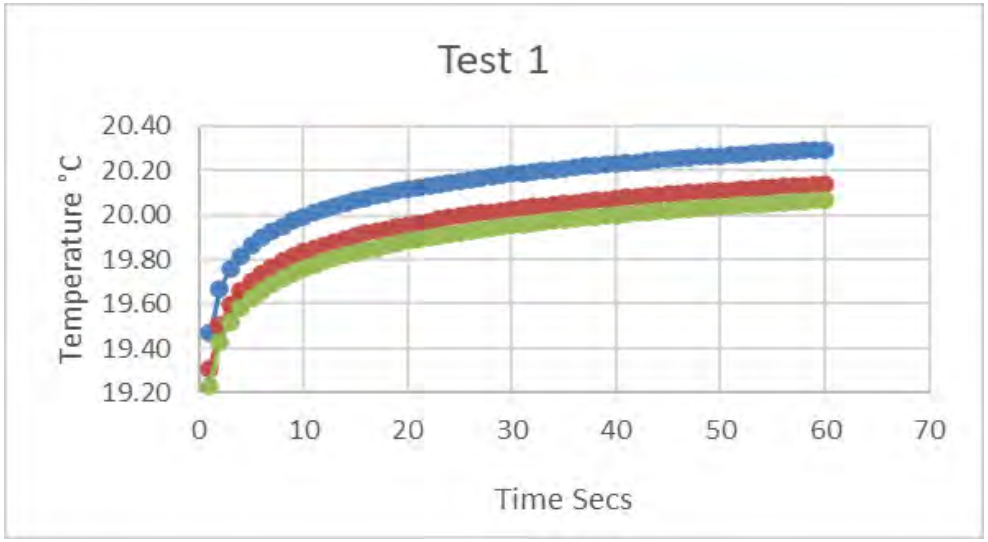
igne

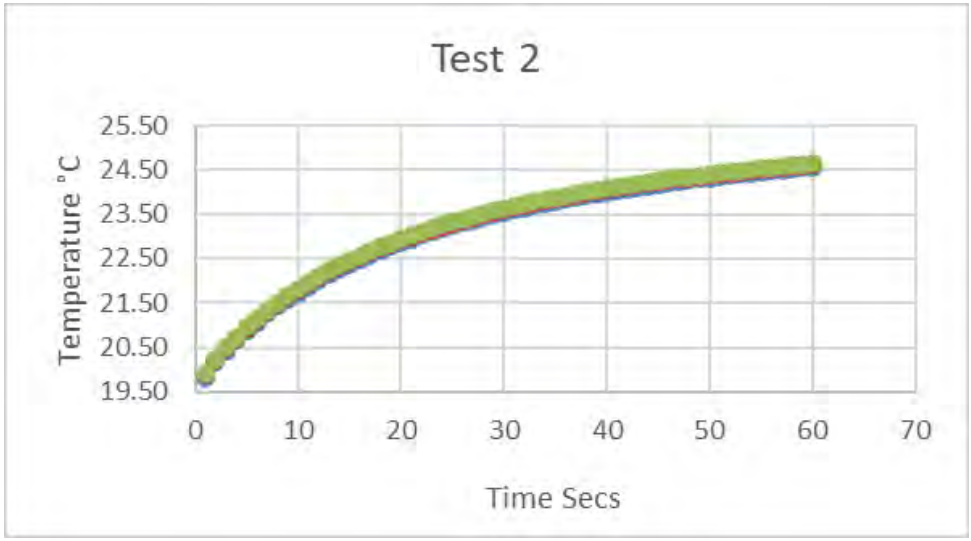
Contract No

																			Thermal Conductivity	Thermal Resistivity	
																			W/mK	mK/W	
																			1.81	0.55	
																			0.23	4.32	
																			U	U	

SUMMARY OF THERMAL CONDUCTIVITY / RESISTIVITY TESTS

Figure F36





SUMMARY OF THERMAL CONDUCTIVITY / RESISTIVITY TESTS

Figure F36

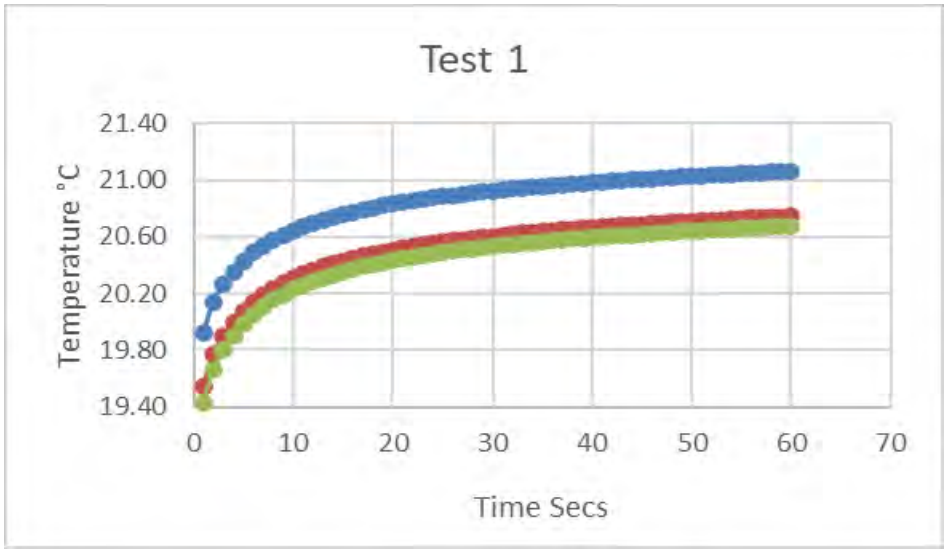
igne

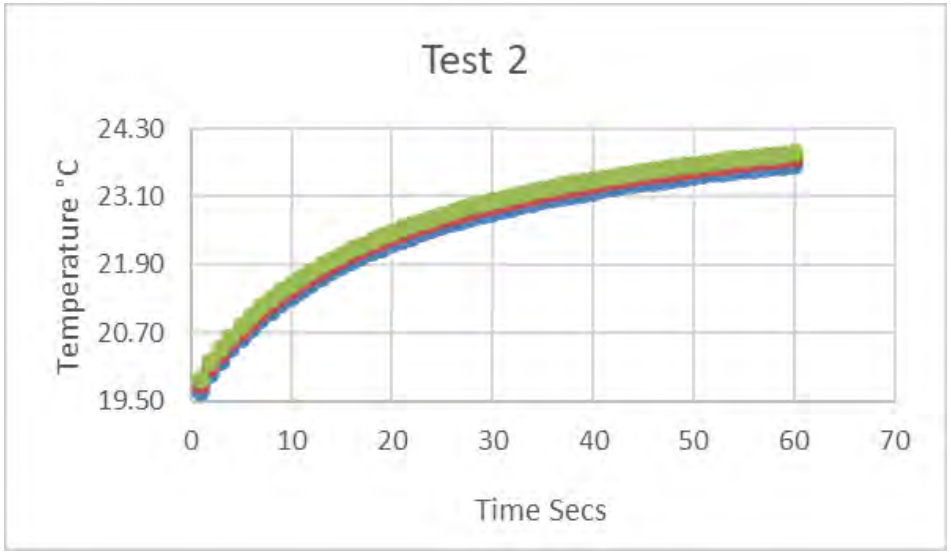
Contract No

																			Thermal Conductivity	Thermal Resistivity	
																			W/mK	mK/W	
																			1.68	0.59	
																			0.28	3.59	
																			U	U	

SUMMARY OF THERMAL CONDUCTIVITY / RESISTIVITY TESTS

Figure F37





SUMMARY OF THERMAL CONDUCTIVITY / RESISTIVITY TESTS

Figure F37

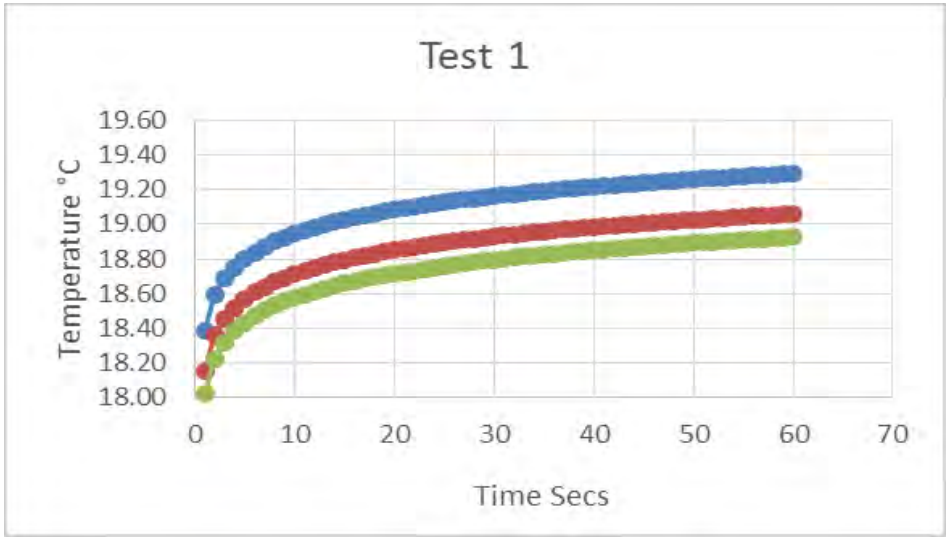
igne

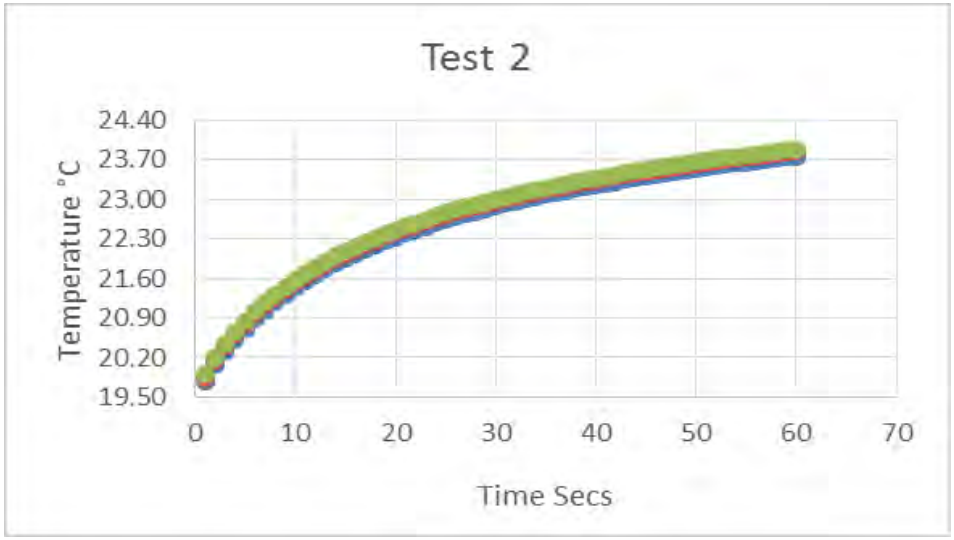
Contract No

																			Thermal Conductivity W/mK	Thermal Resistivity mK/W	
																			U	U	

SUMMARY OF THERMAL CONDUCTIVITY / RESISTIVITY TESTS

Figure F38





SUMMARY OF THERMAL CONDUCTIVITY / RESISTIVITY TESTS

Figure F38

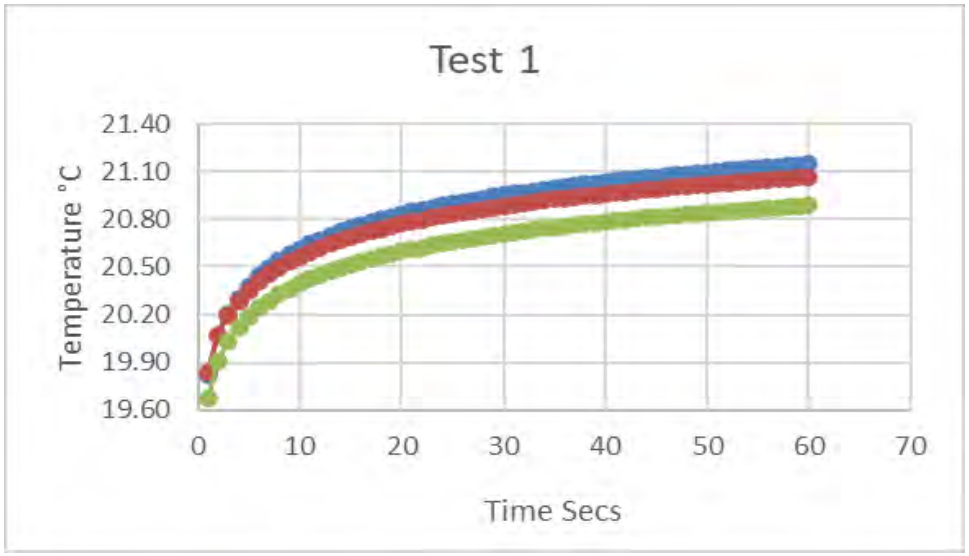
igne

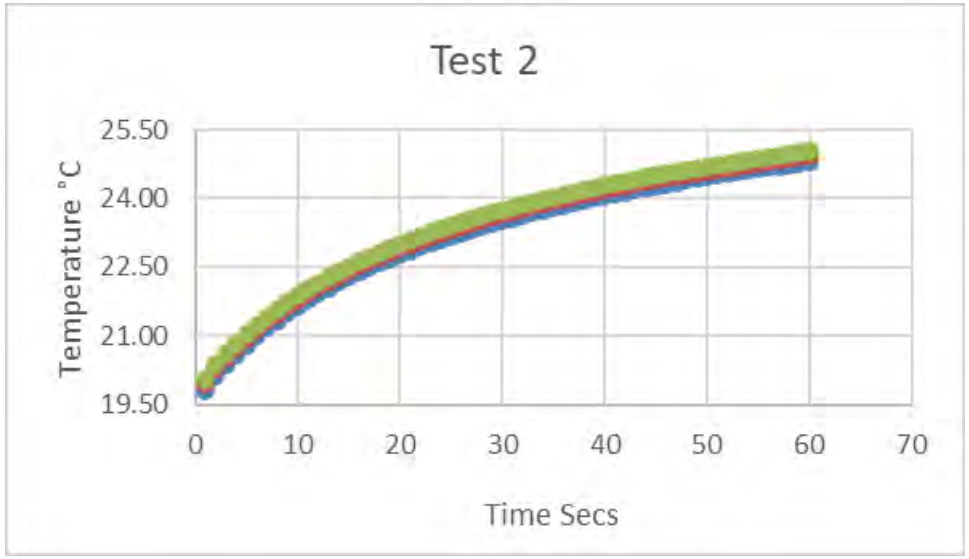
Contract No

																			Thermal Conductivity W/mK	Thermal Resistivity mK/W	
																			1.39	0.74	
																			0.16	6.37	
																			U	U	

SUMMARY OF THERMAL CONDUCTIVITY / RESISTIVITY TESTS

Figure F39





SUMMARY OF THERMAL CONDUCTIVITY / RESISTIVITY TESTS

Figure F39

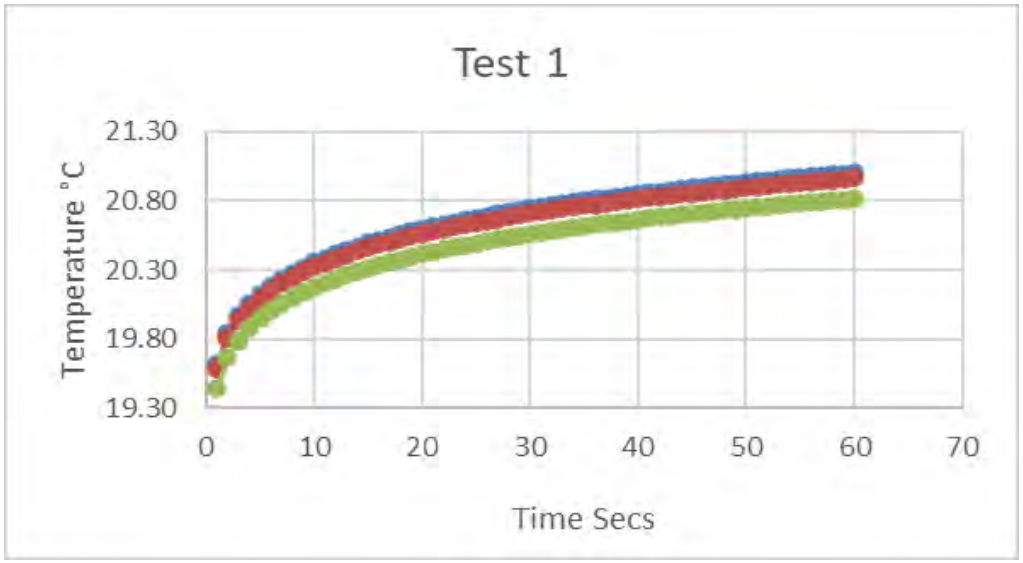
igne

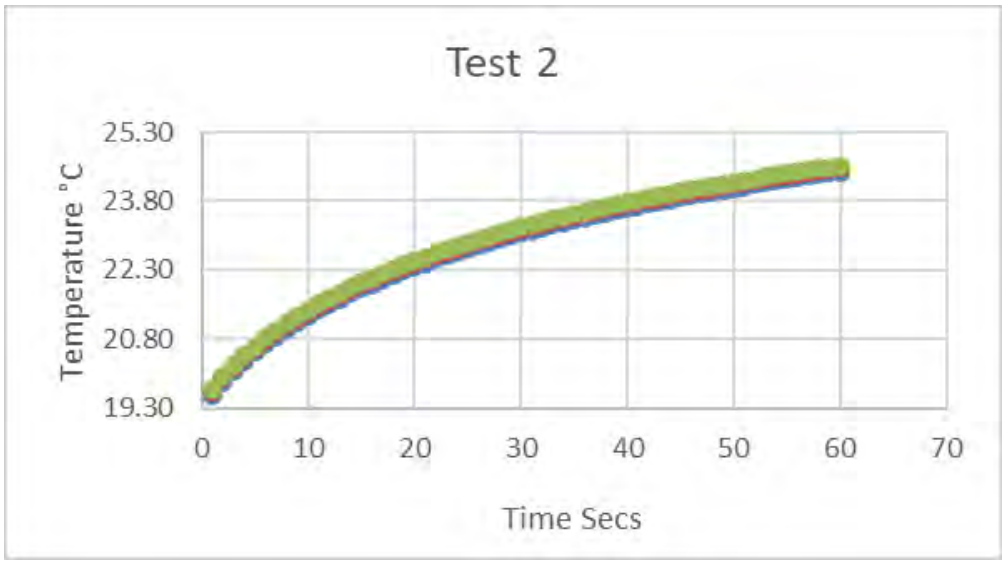
Contract No

																			Thermal Conductivity	Thermal Resistivity	
																			W/mK	mK/W	
																			0.77	1.30	
																			0.14	7.20	
																			U	U	

SUMMARY OF THERMAL CONDUCTIVITY / RESISTIVITY TESTS

Figure F40





SUMMARY OF THERMAL CONDUCTIVITY / RESISTIVITY TESTS

Figure F40

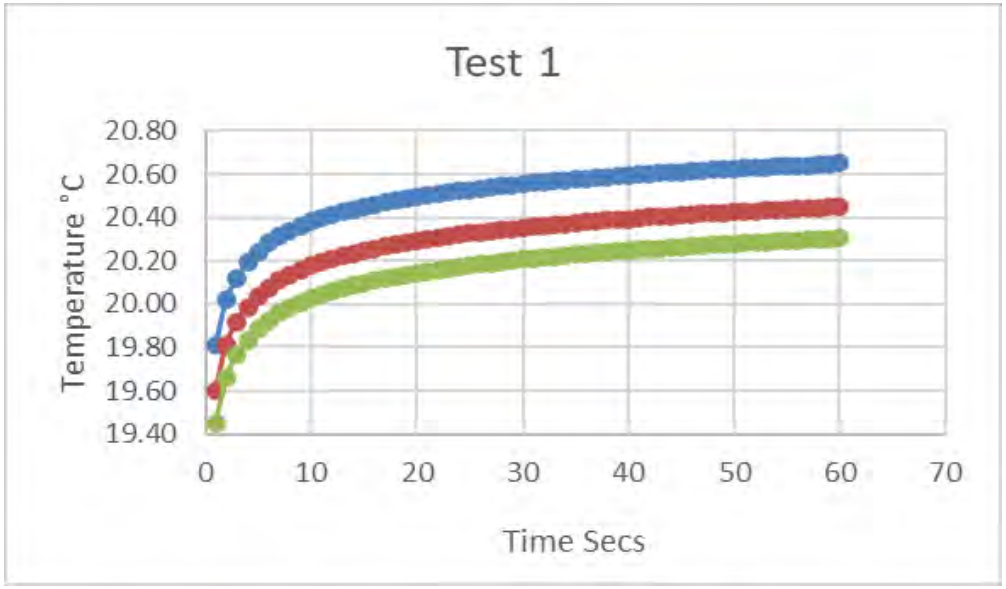
igne

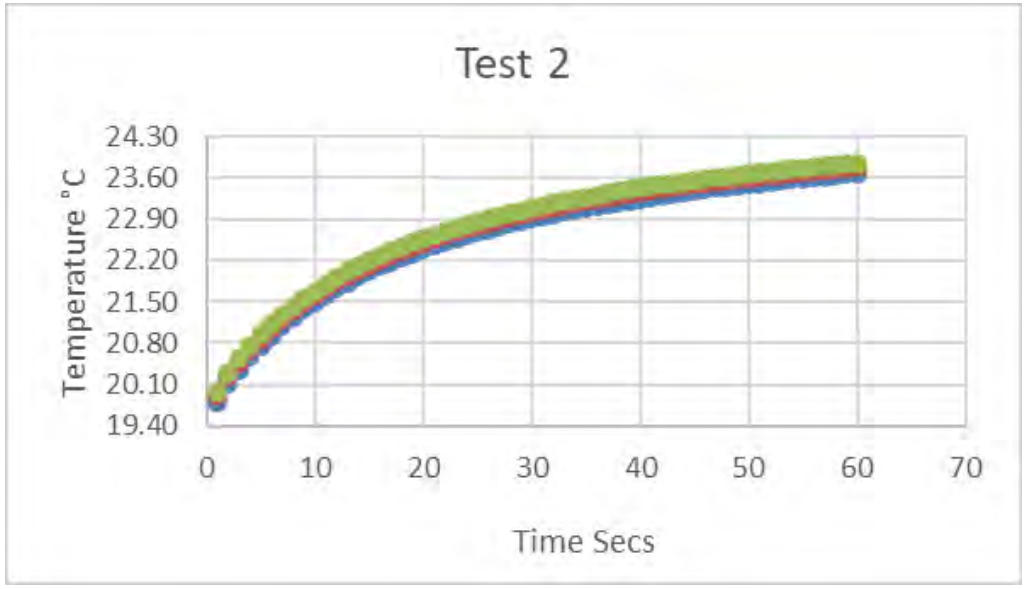
Contract No

																			Thermal Conductivity	Thermal Resistivity	
																			W/mK	mK/W	
																			2.16	0.46	
																			0.31	3.17	
																			U	U	

SUMMARY OF THERMAL CONDUCTIVITY / RESISTIVITY TESTS

Figure F41





SUMMARY OF THERMAL CONDUCTIVITY / RESISTIVITY TESTS

Figure F41

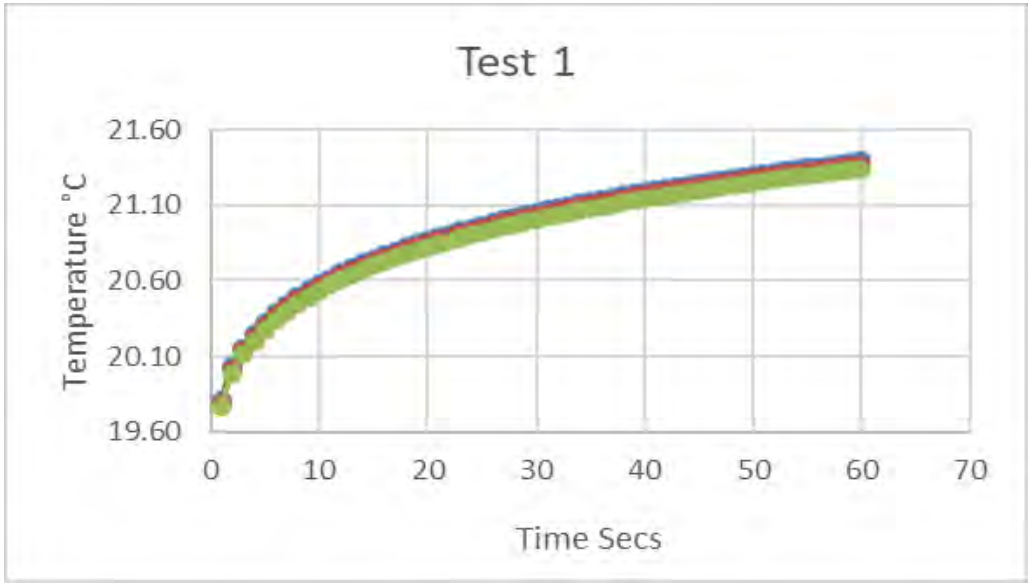
igne

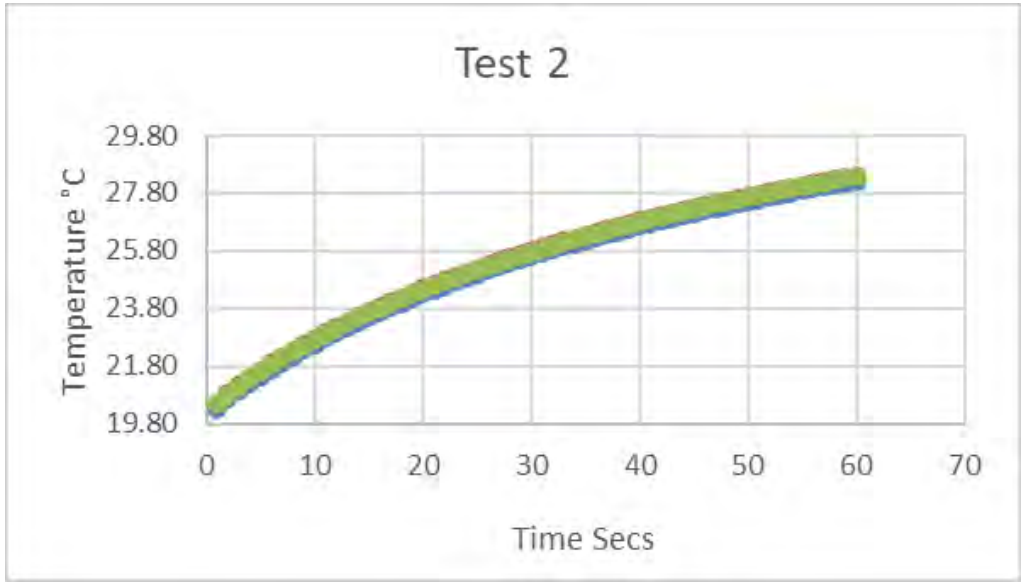
Contract No

																			Thermal Conductivity	Thermal Resistivity	
																			W/mK	mK/W	
																			0.55	1.77	
																			0.06	16.66	
																			U	U	

SUMMARY OF THERMAL CONDUCTIVITY / RESISTIVITY TESTS

Figure F42





SUMMARY OF THERMAL CONDUCTIVITY / RESISTIVITY TESTS

Figure F42

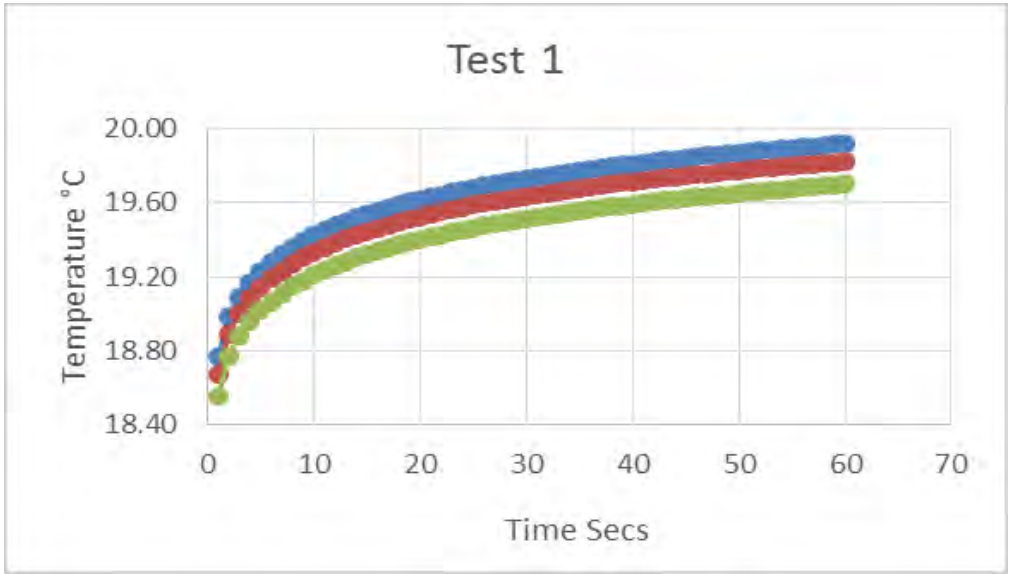
igne

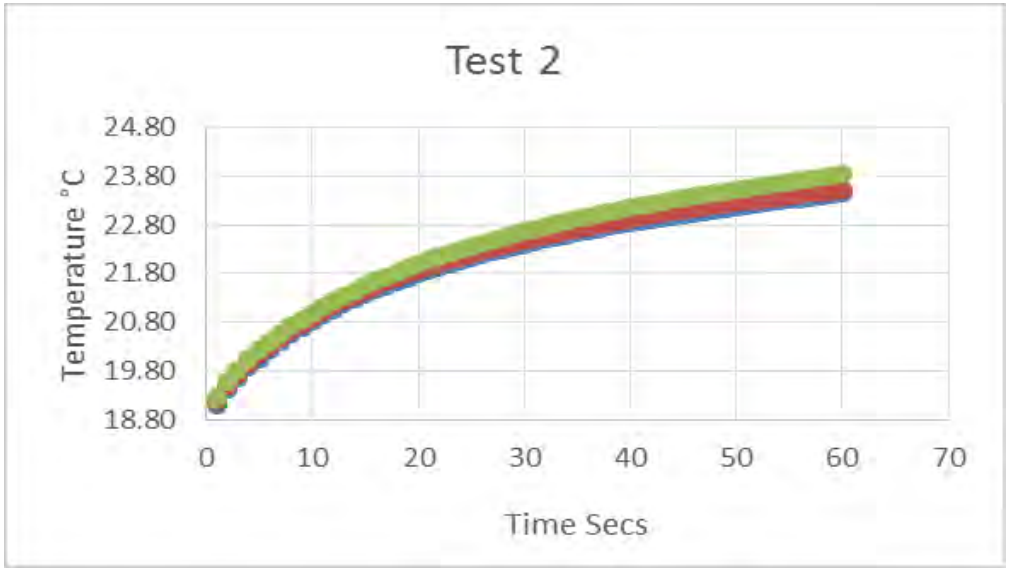
Contract No

																			Thermal Conductivity	Thermal Resistivity	
																			W/mK	mK/W	
																			1.11	0.89	
																			0.19	5.22	
																			U	U	

SUMMARY OF THERMAL CONDUCTIVITY / RESISTIVITY TESTS

Figure F43





SUMMARY OF THERMAL CONDUCTIVITY / RESISTIVITY TESTS

Figure F43

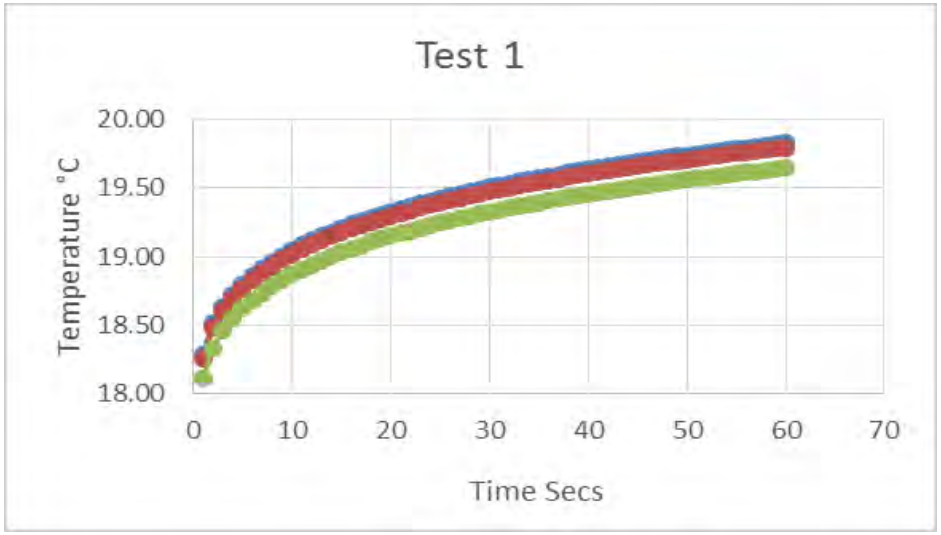
igne

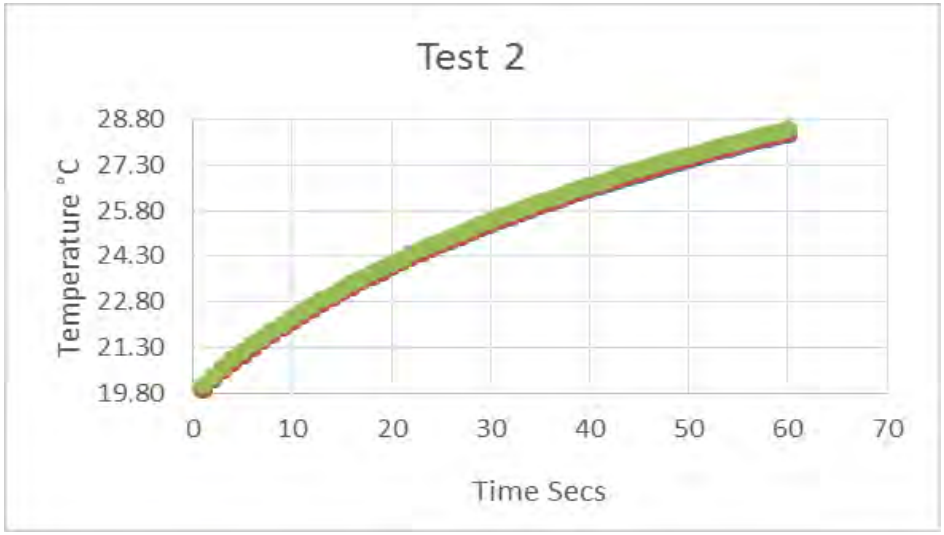
Contract No

																			Thermal Conductivity	Thermal Resistivity	
																			W/mK	mK/W	
																			0.59	1.68	
																			0.04	22.25	
																			U	U	

SUMMARY OF THERMAL CONDUCTIVITY / RESISTIVITY TESTS

Figure F44





SUMMARY OF THERMAL CONDUCTIVITY / RESISTIVITY TESTS

Figure F44

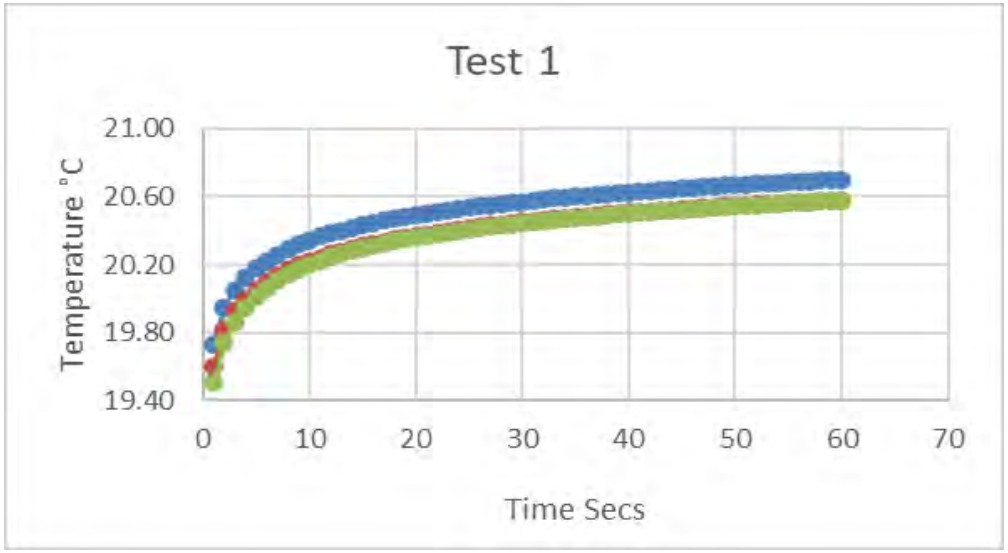
igne

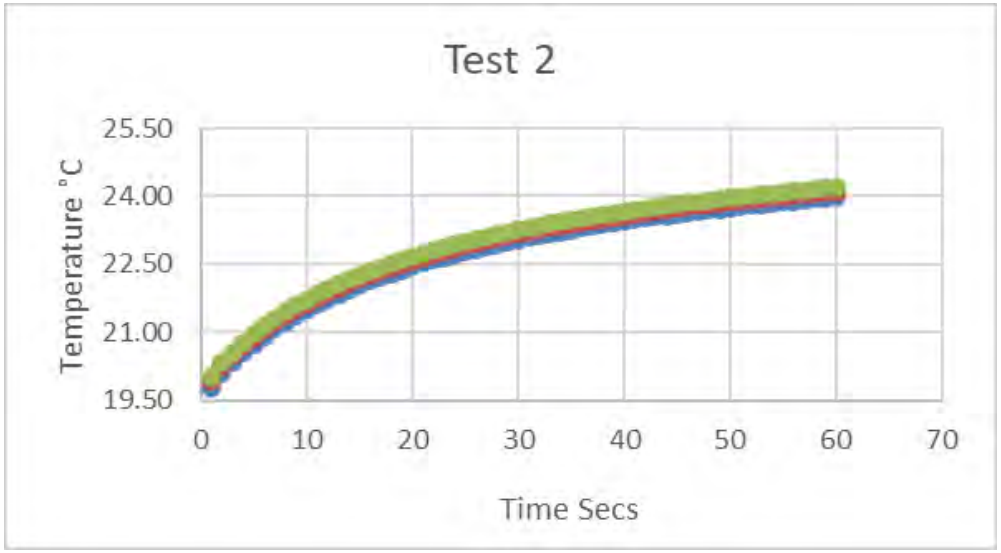
Contract No

																			Thermal Conductivity	Thermal Resistivity	
																			W/mK	mK/W	
																			1.66	0.60	
																			0.24	4.15	
																			U	U	

SUMMARY OF THERMAL CONDUCTIVITY / RESISTIVITY TESTS

Figure F45





SUMMARY OF THERMAL CONDUCTIVITY / RESISTIVITY TESTS

Figure F45

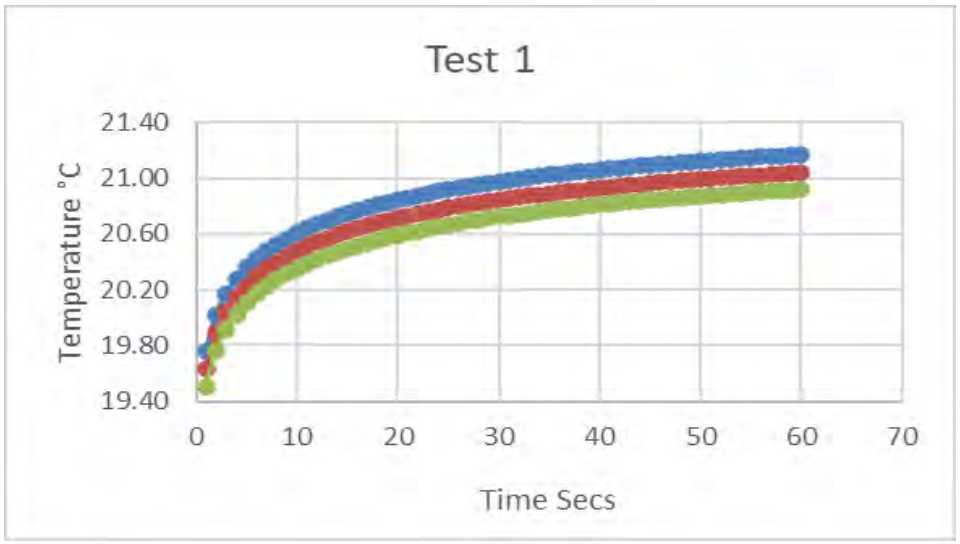
igne

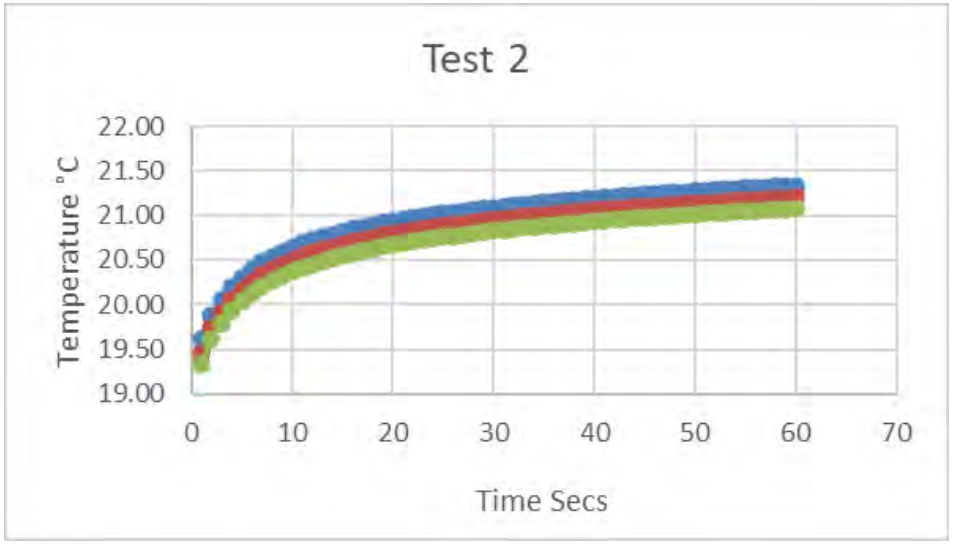
Contract No

																			Thermal Conductivity	Thermal Resistivity	
																			W/mK	mK/W	
																			1.16	0.85	
																			0.88	1.13	
																			U	U	

SUMMARY OF THERMAL CONDUCTIVITY / RESISTIVITY TESTS

Figure F46





SUMMARY OF THERMAL CONDUCTIVITY / RESISTIVITY TESTS

Figure F46

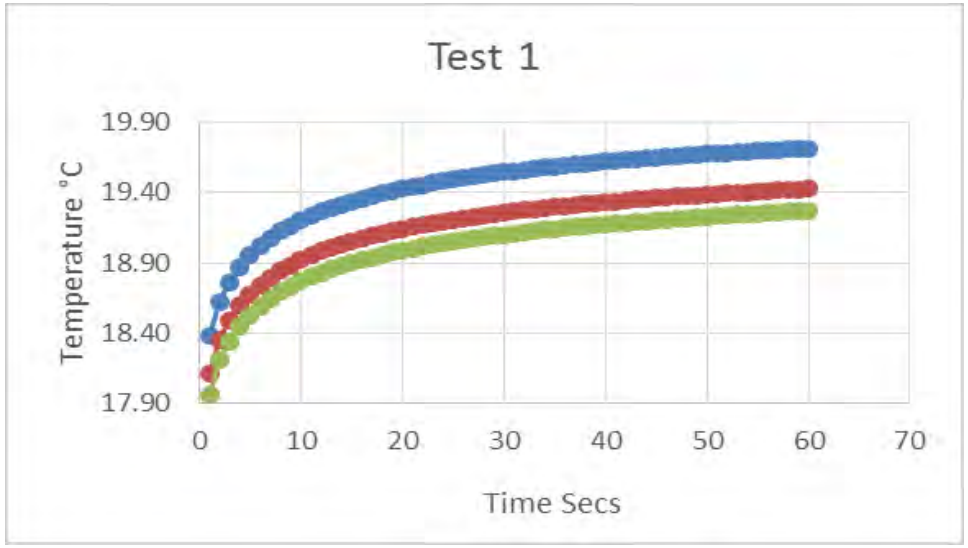
igne

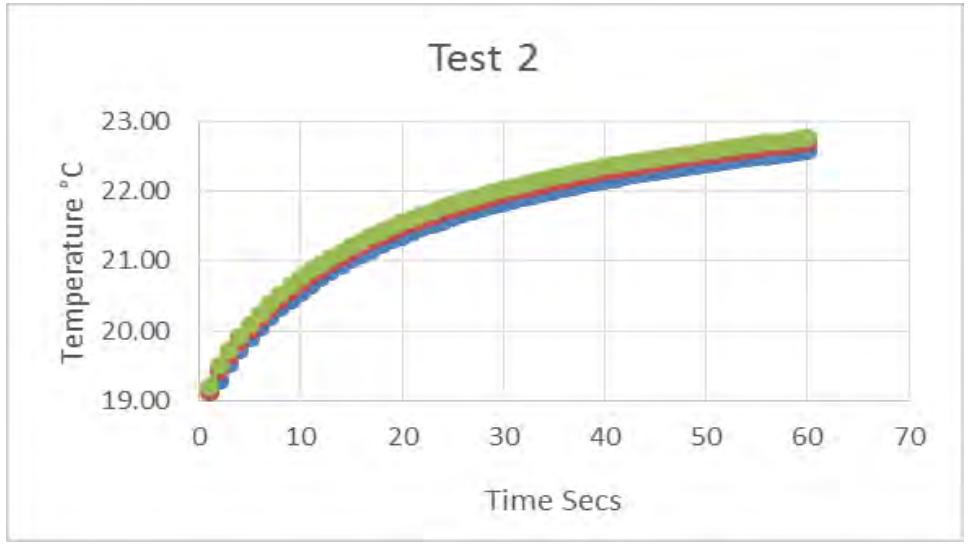
Contract No

																			Thermal Conductivity W/mK	Thermal Resistivity mK/W	
																			1.38	0.72	
																			0.31	3.17	
																			U	U	

SUMMARY OF THERMAL CONDUCTIVITY / RESISTIVITY TESTS

Figure F47





SUMMARY OF THERMAL CONDUCTIVITY / RESISTIVITY TESTS

Figure F47

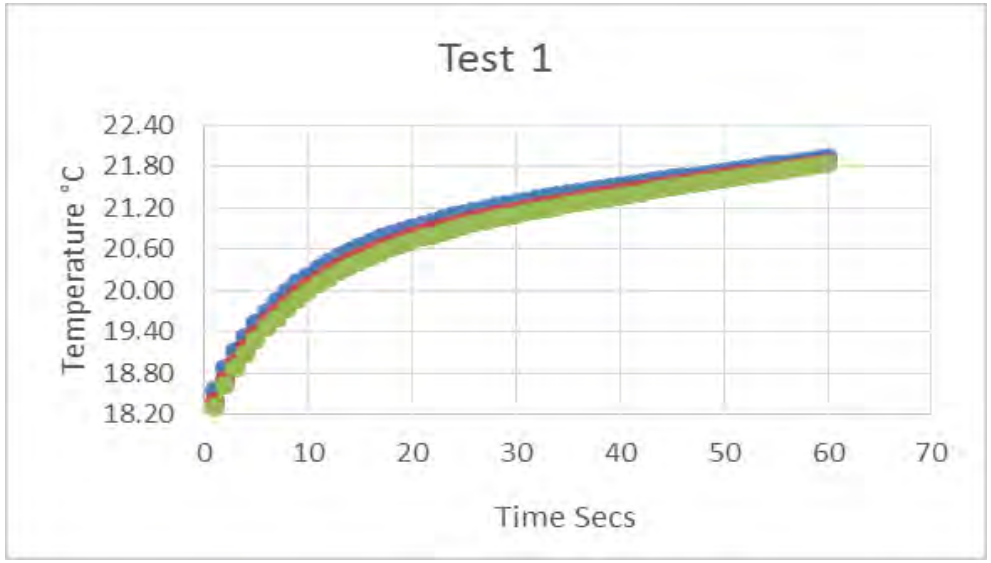
igne

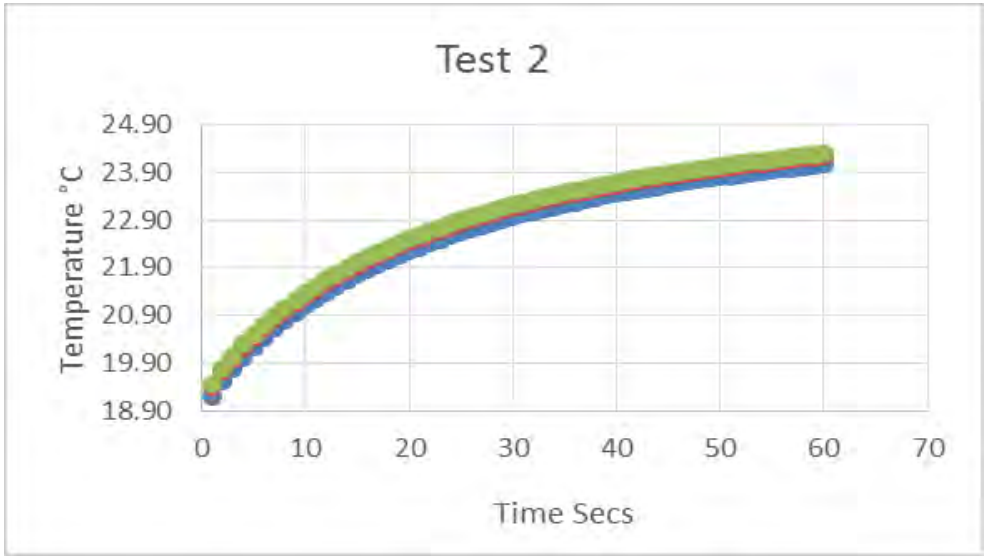
Contract No

																			Thermal Conductivity W/mK	Thermal Resistivity mK/W	
																			0.27	3.71	
																			0.21	4.67	
																			U	U	

SUMMARY OF THERMAL CONDUCTIVITY / RESISTIVITY TESTS

Figure F48





SUMMARY OF THERMAL CONDUCTIVITY / RESISTIVITY TESTS

Figure F48

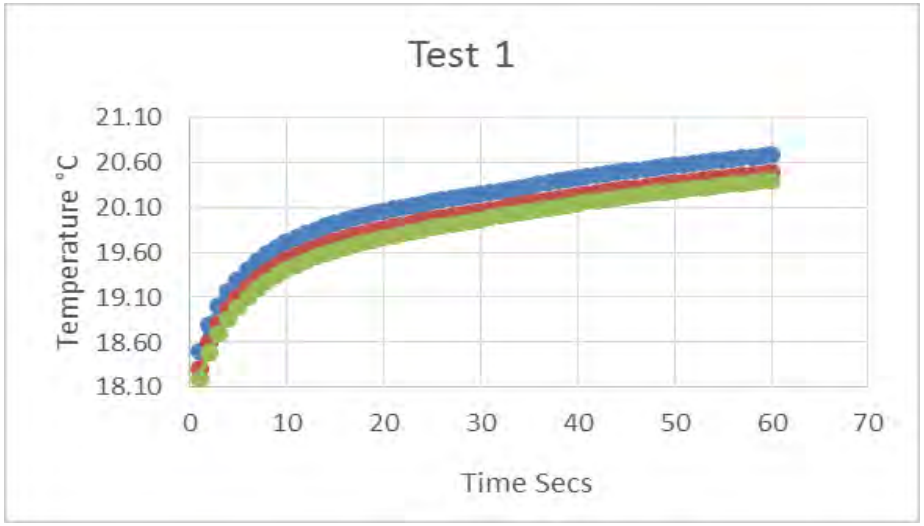
igne

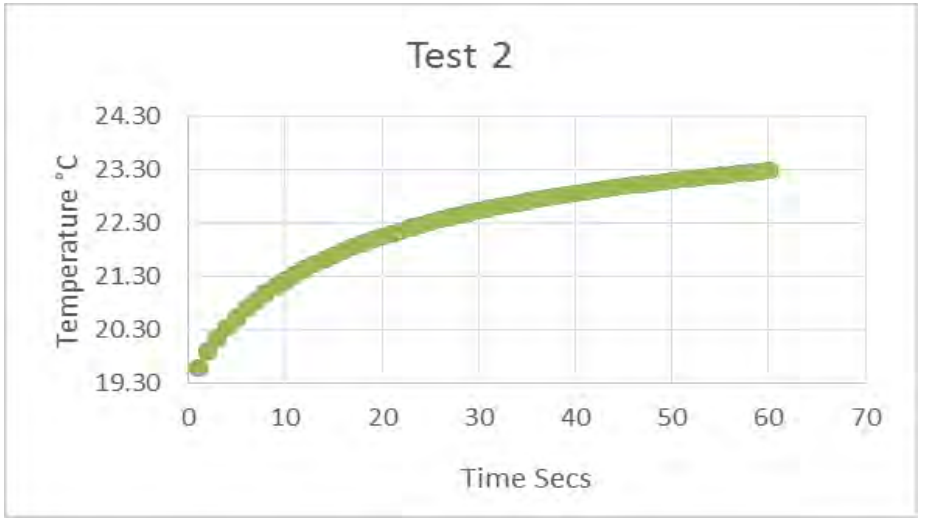
Contract No

																			Thermal Conductivity	Thermal Resistivity	
																			W/mK	mK/W	
																			0.32	3.09	
																			0.30	3.27	
																			U	U	

SUMMARY OF THERMAL CONDUCTIVITY / RESISTIVITY TESTS

Figure F49





SUMMARY OF THERMAL CONDUCTIVITY / RESISTIVITY TESTS

Figure F49

Certificate of Analysis

Certificate Number 23-29964-0 *Issued:*

Client Terra Tek
62 Rochsolloch Road
Airdrie
ML6 9BG

Our Reference 23-29964-0

Client Reference ~ A15075-1

Order No ~ AL013848

Contract Title ~ (not supplied)

Description 8 Soil samples.

Date Received 20-Dec-23

Date Started 20-Dec-23

Date Completed 18-Mar-24

Test Procedures Identified by prefix DETSn (details on request).

Notes **This report supersedes 23-29964, amendments made**

Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

Kirk Bridgewood
General Manager

2139

Summary of Chemical Analysis
Soil Samples

Our Ref 23-29964-0
Client Ref ~ A15075-1
Contract Title ~

	Lab No	Sample ID ~	Depth ~	Other ID ~	Sample Type ~	Sampling Date ~	Sampling Time ~
	2280028	TP10	0.50	2012882	SOIL	24/11/2023	n/s
	2280029	TP18	0.50	2012885	SOIL	23/11/2023	n/s
	2280030	TP19	0.50	2012886	SOIL	23/11/2023	n/s
	2280031	TP21	0.00	2012889	SOIL	23/11/2023	n/s
	2280032	TP22	0.50	2012890	SOIL	24/11/2023	n/s
	2280033	TP24	0.00	2012892	SOIL	22/11/2023	n/s
	2280034	TP26	1.00	2012895	SOIL	22/11/2023	n/s
	2280035	TP22	1.00	2012891	SOIL	24/11/2023	n/s

Test	Method	LOD	Units								
Inorganics											
pH	DETSC 2008#		pH			4.5		3.9		4.2	
Organic matter	DETSC 2002#	0.1	%	19	17		23		24		19
Sulphate Aqueous Extract as SO4 (2:1)	DETSC 2076#	10	mg/l			45		77		47	
Sulphur as S, Total	DETSC 2320	0.01	%			0.06		0.35		0.59	
Sulphate as SO4, Total	DETSC 2321#	0.01	%			0.12		0.26		0.27	

Information in Support of the Analytical Results

Our Ref 23-29964-0
Client Ref ~ A15075-1
Contract ~

Containers Received & Deviating Samples

Lab No	Sample ID ~	Date Sampled ~	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
2280028	TP10 0.50 SOIL	24/11/23	PT 500ml		
2280029	TP18 0.50 SOIL	23/11/23	PT 500ml		
2280030	TP19 0.50 SOIL	23/11/23	PT 500ml	Total Sulphur ICP (7 days), pH + Conductivity (7 days)	
2280031	TP21 0.00 SOIL	23/11/23	PT 500ml		
2280032	TP22 0.50 SOIL	24/11/23	PT 500ml	Total Sulphur ICP (7 days), pH + Conductivity (7 days)	
2280033	TP24 0.00 SOIL	22/11/23	PT 500ml		
2280034	TP26 1.00 SOIL	22/11/23	PT 500ml	Total Sulphur ICP (7 days), pH + Conductivity (7 days)	
2280035	TP22 1.00 SOIL	24/11/23	PT 500ml		

Key: P-Plastic T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

Key:

~ Sample details are provided by the client and can affect the validity of the results

***** -not accredited.

-MCERTS (accreditation only applies if report carries the MCERTS logo).

$ -subcontracted.

n/s -not supplied.

I/S -insufficient sample.

U/S -unsuitable sample.

t/f -to follow.

nd -not detected.

End of Report

Certificate of Analysis

Certificate Number 24-00916-0-1 *Issued:*

Client Terra Tek
62 Rochsolloch Road
Airdrie
ML6 9BG

Our Reference 24-00916-0-1

Client Reference ~ A15075-2

Order No ~ (not supplied)

Contract Title ~ (not supplied)

Description 20 Soil samples.

Date Received 17-Jan-24

Date Started 17-Jan-24

Date Completed 18-Mar-24

Test Procedures Identified by prefix DETSn (details on request).

Notes **This report supersedes 24-00916, amendments made**

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Approved By

Kirk Bridgewood
General Manager

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Summary of Chemical Analysis
Soil Samples

Our Ref 24-00916-0-1
Client Ref ~ A15075-2
Contract Title ~

			Lab No	2287345	2287346	2287347	2287348	2287349	2287350	2287351	2287352	2287353	2287354	2287355
			Sample ID ~	TP13	TP15	TP16	TP16	TP17	TP17	TP19	TP21	TP22	TP23	TP24
			Depth ~	0.30	0.50	0.50	0.80	1.00	2.00	0.70	0.70	2.00	0.70	0.50
			Other ID ~	2013196	2013200	2013203	2013205	2013206	2013207	2013210	2013211	2013212	2013213	2013214
			Sample Type ~	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Sampling Date ~	29/11/2023	27/11/2023	27/11/2023	27/11/2023	27/11/2023	27/11/2023	23/11/2023	23/11/2023	24/11/2023	22/11/2023	22/11/2023
			Sampling Time ~	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**											
Inorganics														
pH	DETSC 2008#		pH			6.3	7.0		5.5	5.6	5.5	5.5	6.5	5.4
Organic matter	DETSC 2002#	0.1	%	17	18			13						
Sulphate Aqueous Extract as SO4 (2:1)	DETSC 2076#	10	mg/l			24	26		27	< 10	12	27	11	< 10
Sulphur as S, Total	DETSC 2320	0.01	%			0.02	0.03		0.30	0.03	0.01	0.05	< 0.01	0.01
Sulphate as SO4, Total	DETSC 2321#	0.01	%			0.03	0.03		0.51	0.04	0.02	0.04	0.02	0.02

Summary of Chemical Analysis
Soil Samples

Our Ref 24-00916-0-1
Client Ref ~ A15075-2
Contract Title ~

	Lab No	Sample ID ~	Depth ~	Other ID ~	Sample Type ~	Sampling Date ~	Sampling Time ~
	2287356	BH17	0.50	2013177	SOIL	30/11/2023	n/s
	2287357	TP01	0.50	2013181	SOIL	29/11/2023	n/s
	2287358	TP02	0.00	2013183	SOIL	29/11/2023	n/s
	2287359	TP03	0.00	2013184	SOIL	04/12/2023	n/s
	2287360	TP07	0.00	2013186	SOIL	29/11/2023	n/s
	2287361	TP08	0.00	2013188	SOIL	04/12/2023	n/s
	2287362	TP09	0.20	2013191	SOIL	28/11/2023	n/s
	2287363	TP11	1.00	2013192	SOIL	04/12/2023	n/s
	2287364	TP12	0.00	2013193	SOIL	29/11/2023	n/s
Test	**Method**	**LOD**	**Units**				
Inorganics							
pH	DETSC 2008#		pH			4.3	
Organic matter	DETSC 2002#	0.1	%	13	14		21
Sulphate Aqueous Extract as SO4 (2:1)	DETSC 2076#	10	mg/l			47	
Sulphur as S, Total	DETSC 2320	0.01	%				
Sulphate as SO4, Total	DETSC 2321#	0.01	%				

4.5	4.6	4.5		4.3				
			22					
22	37	13		15				

Information in Support of the Analytical Results

Our Ref 24-00916-0-1
Client Ref ~ A15075-2
Contract ~

Containers Received & Deviating Samples

Lab No	Sample ID ~	Date Sampled ~	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
2287345	TP13 0.30 SOIL	29/11/23	PT 500ml	Organic Matter (Manual) (28 days)	
2287346	TP15 0.50 SOIL	27/11/23	PT 500ml	Organic Matter (Manual) (28 days)	
2287347	TP16 0.50 SOIL	27/11/23	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
2287348	TP16 0.80 SOIL	27/11/23	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
2287349	TP17 1.00 SOIL	27/11/23	PT 500ml	Organic Matter (Manual) (28 days)	
2287350	TP17 2.00 SOIL	27/11/23	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
2287351	TP19 0.70 SOIL	23/11/23	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
2287352	TP21 0.70 SOIL	23/11/23	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
2287353	TP22 2.00 SOIL	24/11/23	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
2287354	TP23 0.70 SOIL	22/11/23	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
2287355	TP24 0.50 SOIL	22/11/23	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
2287356	BH17 0.50 SOIL	30/11/23	PT 500ml	Organic Matter (Manual) (28 days)	
2287357	TP01 0.50 SOIL	29/11/23	PT 500ml	Organic Matter (Manual) (28 days)	
2287358	TP02 0.00 SOIL	29/11/23	PT 500ml	Anions 2:1 (30 days), pH + Conductivity (7 days)	
2287359	TP03 0.00 SOIL	04/12/23	PT 500ml	Organic Matter (Manual) (28 days)	
2287360	TP07 0.00 SOIL	29/11/23	PT 500ml	Anions 2:1 (30 days), pH + Conductivity (7 days)	
2287361	TP08 0.00 SOIL	04/12/23	PT 500ml	Anions 2:1 (30 days), pH + Conductivity (7 days)	
2287362	TP09 0.20 SOIL	28/11/23	PT 500ml	Anions 2:1 (30 days), pH + Conductivity (7 days)	
2287363	TP11 1.00 SOIL	04/12/23	PT 500ml	Organic Matter (Manual) (28 days)	
2287364	TP12 0.00 SOIL	29/11/23	PT 500ml	Anions 2:1 (30 days), pH + Conductivity (7 days)	

Key: P-Plastic T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Information in Support of the Analytical Results

Our Ref 24-00916-0-1
Client Ref ~ A15075-2
Contract ~

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.
Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.
The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-
Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

Key:

~ Sample details are provided by the client and can affect the validity of the results
***** -not accredited.
# -MCERTS (accreditation only applies if report carries the MCERTS logo).
$ -subcontracted.
n/s -not supplied.
I/S -insufficient sample.
U/S -unsuitable sample.
t/f -to follow.
nd -not detected.

End of Report

Certificate of Analysis

Certificate Number	24-00918-0
Issued:	
Client	Terra Tek 62 Rochsolloch Road Airdrie ML6 9BG
Our Reference	24-00918-0
Client Reference	A15075-3
Order No	(not supplied)
Contract Title	(not supplied)
Description	4 Soil samples.
Date Received	17-Jan-24
Date Started	17-Jan-24
Date Completed	04-Mar-24
Test Procedures	Identified by prefix DETSn (details on request).
Notes	**This report supersedes 24-00918, amendments made** Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

Kirk Bridgewood
General Manager

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Summary of Chemical Analysis
Soil Samples

Our Ref 24-00918-0
Client Ref A15075-3
Contract Title

			Lab No	2287371	2287372	2287373	2287374
			.Sample ID	BH14	BH28	BH28	TP36A
			Depth	0.80	0.50	2.65	0.50
			Other ID	201352	2013353	2013354	2013356
			Sample Type	SOIL	SOIL	SOIL	SOIL
			Sampling Date	14/12/2023	14/12/2023	14/12/2023	13/12/2023
			Sampling Time	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**				
Inorganics							
pH	DETSC 2008#		pH	5.9			
Organic matter	DETSC 2002#	0.1	%		21	23	4.6
Sulphate Aqueous Extract as SO4 (2:1)	DETSC 2076#	10	mg/l	36			
Sulphur as S, Total	DETSC 2320	0.01	%	0.03			
Sulphate as SO4, Total	DETSC 2321#	0.01	%	0.05			

Key: # -MCERTS (accreditation only applies if report carries the MCERTS logo). n/s -not supplied.

Information in Support of the Analytical Results

Our Ref 24-00918-0
Client Ref A15075-3
Contract

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
2287371	BH14 0.80 SOIL	14/12/23	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
2287372	BH28 0.50 SOIL	14/12/23	PG	Organic Matter (Manual) (28 days)	
2287373	BH28 2.65 SOIL	14/12/23	PG	Organic Matter (Manual) (28 days)	
2287374	TP36A 0.50 SOIL	13/12/23	PT 500ml	Organic Matter (Manual) (28 days)	

Key: P-Plastic T-Tub G-Bag

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Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

End of Report

Certificate of Analysis

Certificate Number	24-01789-0
Issued:	
Client	Terra Tek 62 Rochsolloch Road Airdrie ML6 9BG
Our Reference	24-01789-0
Client Reference	A15075-4
Order No	(not supplied)
Contract Title	A15075-4
Description	3 Soil samples.
Date Received	26-Jan-24
Date Started	29-Jan-24
Date Completed	04-Mar-24
Test Procedures	Identified by prefix DETSn (details on request).
Notes	**This report supersedes 24-01789, amendments made** Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

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Kirk Bridgewood
General Manager

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Summary of Chemical Analysis
Soil Samples

Our Ref 24-01789-0
Client Ref A15075-4
Contract Title A15075-4

			Lab No	2292216	2292217	2292218
			.Sample ID	BH02	BH12	BH16
			Depth	0.10	0.50	0.40
			Other ID	2013667	2013669	2013670
			Sample Type	SOIL	SOIL	SOIL
			Sampling Date	09/01/2024	19/12/2023	18/12/2023
			Sampling Time	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**			
Inorganics						
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	57		
Organic matter	DETSC 2002#	0.1	%	> 25	2.4	2.1

Key: # -MCERTS (accreditation only applies if report carries the MCERTS logo). n/s -not supplied.

Information in Support of the Analytical Results

Our Ref 24-01789-0
Client Ref A15075-4
Contract A15075-4

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
2292216	BH02 0.10 SOIL	09/01/24	PG		
2292217	BH12 0.50 SOIL	19/12/23	PG	Organic Matter (Manual) (28 days)	
2292218	BH16 0.40 SOIL	18/12/23	PG	Organic Matter (Manual) (28 days)	

Key: P-Plastic G-Bag

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Soil Analysis Notes

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Disposal

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Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

End of Report