Thermal Conductivity Report

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Accredited for compliance with ISO/IEC 17025 - Testing

NATA
WORLD RECOGNISED ACCREDITATION

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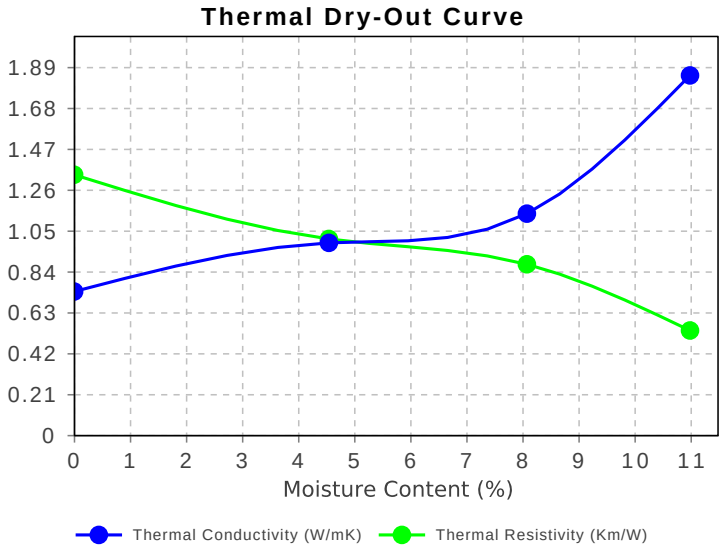
Report Number: **P244010-1**
Issue Number: 1
Date Issued: 21/02/2024
Client: P. F. Formation
1 Patricia Fay Drive, Maroota NSW 2765
Contact: Joshua Graham
Project Number: P244010
Project Name: Laboratory Testing - Maroota
Project Location: 1 Patricia Fay Drive, Maroota
Work Request: 32069
Sample Number: 24-32069A
Date Sampled: 01/02/2024
Dates Tested: 02/02/2024 - 14/02/2024
Sample Location: **PF-TR01**
Material: SAND; yellow

Determination of Thermal Conductivity (ASTM D5334)	
Specimen Type	Remoulded
Maximum Dry Density (t/m^3)	1.951
Optimum Moisture Content (%)	11.0
Method of Compactive Effort	Standard
Target Density Ratio (%)	95
Target Moisture Ratio (%)	100
Achieved Density Ratio (%)	95
Achieved Moisture Ratio (%)	99
Field Moisture Content (%)	14
Placement Moisture Content (%)	11
Material Retained on 37.5 mm (%)	0
Material Retained on 19 mm (%)	0
Oversize Material Included	N/A
Diameter of Needle (mm)	2.4
Length of Needle (mm)	100
Method of Needle Insertion	Pushed
Type of Grease Used	Thermal



Sample Remoulding				
Point	OMC	2	3	Zero
Target Moisture Content (%)	11.0	8.0	4.5	0.0
Mass of Soil (g)	3467.0	3345.0	3250.0	3117.0
Wet Density (t/m^3)	2.06	1.99	1.93	1.86
Dry Density (t/m^3)	1.86	1.84	1.85	1.86
Average Specimen Diameter (mm)	102	102	102	102
Average Specimen Length (mm)	200	200	200	200
Time (s)	60.0	60.0	60.0	60.0
Start Temperature (^{o}C)	31.20	30.80	25.80	28.20
Thermal Conductivity (W/mK)	1.85	1.14	0.99	0.74
Thermal Resistivity (mK/W)	0.54	0.88	1.01	1.34