

# Appendix 15.

SLR Consulting Australia (2020f) *Rum Jungle Rehabilitation – Stage 2A- Geotechnical Investigation Waste Storage Facilities and Borrow Areas*. Report to the Department of Mines and Energy, Northern Territory. PART E.





STP-05 Looking South East



STP-05 Looking West



STP-05 Backfilled Looking South West



STP-05 Western Pit Wall



Spoil Pile 0.00m to 0.40m



Spoil Pile 0.40m to 1.00m



Spoil Pile 1.00m to 1.40m



Spoil Pile 1.40m to 2.30m

File Location: \\AU.SLR.Local\Corporate\Projects\SLR\





STP-06 Looking South



STP-06 Looking East



STP-06 Backfilled Looking South West



STP-06 EWestern Pit Wall



Spoil Pile 0.00m to 0.50m



Spoil Pile 0.50m to 1.00m



Spoil Pile 1.00m to 1.50m



Spoil Pile 1.50m to 2.00m

File Location: \\AU.SLR.Local\Corporate\Projects\SLR\



# TEST PIT EXCAVATION LOG

HOLE NO.: STP-07

PROJECT : Rum Jungle

LOCATION : Granular & Growth Borrow

FILE / JOB NO.: 680.10421

DATE STARTED : 11/07/19	POSITION : E: 719190, N: 8559750 (52 AMG84)	SURFACE ELEVATION : 93.82m (AHD)	LOGGED BY : BT
DATE COMPLETED : 11/07/19	RIG TYPE : 20t Excavator	ANGLE FROM HORIZONTAL : 90°	CHECKED BY : FC
DATE LOGGED : 11/07/19	DRILLER : C. McGregor	STABILITY : Stable	

DRILLING				MATERIAL				OBSERVATION						
METHOD & BUCKET TYPE	PENETRATION	WATER	SAMPLES TESTS REMARKS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	DCP RESULTS	ORIGIN	STRUCTURE & Other Observations		
Excavator 600mm Toothed Bucket	Groundwater Not Encountered		0.00m (ES)	93	[Pattern]	SW	SW - SAND with gravel, fine to coarse grained, well graded, grey; gravel, fine to medium grained, rounded to sub-rounded.	D		5, 10, 15, 20	Topsoil			
			0.01m (ES)											
			0.40m (B)											
			0.40m (ES)		[Pattern]	GW	GW - sandy GRAVEL trace silt, well graded, fine to coarse grained, yellow brown; sand, fine to coarse grained.							
			0.90m (ES)	1	[Pattern]		SC clayey SAND, medium plasticity, well graded, fine to medium grained, red brown, grey and orange brown; with occasional granite cobbles, <100mm, sub-rounded to sub-angular.							
			1.60m (B)	2	[Pattern]	SC					Residual Soil			
			2.70m (B)	3	[Pattern]		GRANITE, fine to medium grained, pale grey and red brown, extremely low strength, extremely weathered, EOH: 3.00m - Refusal				Extremely Weathered Bedrock			
				4										
				89										

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See Symbology & Classification notes for details of abbreviations & basis of descriptions.



Rum Jungle



5 Foelsche Street, Darwin, NT 0800



STP-07 Looking North



STP-07 Looking West



STP-07 Backfilled Looking South West



STP-07 Eastern Pit Wall



Spoil Pile 0.00m to 0.75m



Spoil Pile 0.75m to 1.50m



Spoil Pile 1.50m to 2.25m



Spoil Pile 2.25m to 3.00m

File Location: \\AU.SLR.Local\Corporate\Projects\SLR\

# SLR TEST PIT LOGS

## HAUL ROADS

SLR **OCTOBER 2019** INVESTIGATION



# TEST PIT EXCAVATION LOG

HOLE NO.: HR-SLR-TP01

PROJECT : Rum Jungle Geotechnical Investigation

LOCATION : Former Rum Jungle Mine Site

FILE / JOB NO.: 680.10421.02300

DATE STARTED : 02/10/19

POSITION : E: 717456, N: 8561615 (52 MGA94)

SURFACE ELEVATION : 75m (AHD)

LOGGED BY : FC

DATE COMPLETED : 02/10/19

RIG TYPE : 20T Excavator

ANGLE FROM HORIZONTAL : 90°

CHECKED BY : BT

DATE LOGGED : 02/10/19

DRILLER : C. McGregor

STABILITY : Stable

DRILLING				MATERIAL				OBSERVATION			
METHOD & BUCKET TYPE	PENETRATION	WATER	SAMPLES TESTS REMARKS	DEPTH (m)	GRAPHIC LOG CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION SOIL/ROCK TYPE; colour, grain characteristics, structure, minor components	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	DCP RESULTS	ORIGIN	STRUCTURE & Other Observations
Excavator 600mm Toothed Bucket	Groundwater Not Encountered	1.00m (B)		74	SW	SW silty gravelly SAND trace organic matter (root fibres less than 2mm diameter), low plasticity, well graded, fine to coarse grained, pale grey, brown and mottled orange; gravel, fine to medium grained, rounded to sub-angular.	D	St - Vst	5, 10, 15, 20	Topsoil	
					SW	SW clayey gravelly SAND, medium plasticity, well graded, fine to medium grained, orange brown; gravel, fine to medium grained, rounded to sub-angular, weathered granite. 0.7m: Increasing gravel content.					
				73	GW	GW - sandy GRAVEL trace silt, well sorted, fine to coarse grained, rounded to sub-angular, weathered granite, red brown mottled grey; sand, fine to coarse grained; frequent sub-rounded to subangular cobbles of weathered granite.	VD			Residual Soil	
						EOH: 2.20m - Target depth					
				72							
				71							
				70							

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See Symbology & Classification notes for details of abbreviations & basis of descriptions.



Rum Jungle Geotechnical Investigation



5 Foelsche Street, Darwin, NT 0800



Looking South



Looking East



Eastern Pit Wall



Spoil Pile



Spoil Pile

File Location: \\AU.SLR.Local\Corporate\Projects\SLR\



# TEST PIT EXCAVATION LOG

HOLE NO.: HR-SLR-TP02

PROJECT : Rum Jungle Geotechnical Investigation

LOCATION : Former Rum Jungle Mine Site FILE / JOB NO.: 680.10421.02300

DATE STARTED : 02/10/19	POSITION : E: 717372, N: 8561971 (52 MGA94)	SURFACE ELEVATION : 71m (AHD)	LOGGED BY : FC
DATE COMPLETED : 02/10/19	RIG TYPE : 20T Tracked Komatsu Excavator	ANGLE FROM HORIZONTAL : 90°	CHECKED BY : BT
DATE LOGGED : 02/10/19	DRILLER : C. McGregor	STABILITY : Stable	

DRILLING				MATERIAL				OBSERVATION					
METHOD & BUCKET TYPE	PENETRATION	WATER	SAMPLES TESTS REMARKS	RL (m)	DEPTH (m)	GRAPHIC LOG CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION SOIL/ROCK TYPE; colour, grain characteristics, structure, minor components	MOISTURE CONDITION CONSISTENCY / RELATIVE DENSITY	DCP RESULTS	ORIGIN	STRUCTURE & Other Observations		
Excavator 600mm Toothed Bucket	Groundwater Not Encountered			70	1	SW	SW gravelly SAND trace organic matter (root fibres less than 2mm diameter), well graded, fine to coarse grained, pale grey and brown mottle; gravel, fine to medium grained, rounded to sub-angular, weathered granite.	St - Vst	5	Topsoil			
				69	2	SW	SW clayey gravelly SAND, medium plasticity, well graded, fine to medium grained, red brown and mottled grey; gravel, fine to medium grained, weathered granite.  1.5m: Frequent sub-rounded cobble of weathered granite.	D VD	10 15 20			Residual Soil	
							EOH: 2.10m - Target depth						
				68	3								
				67	4								
66	5												

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See Symbology & Classification notes for details of abbreviations & basis of descriptions.



Rum Jungle Geotechnical Investigation



5 Foelsche Street, Darwin, NT 0800



Looking South East



Looking North East



Looking South East



Spoil Pile



Spoil Pile



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LANE COVE  
NEW SOUTH WALES 2066  
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Title:	SLR-HR-SLR-TP02 Photo Log	Drawn:	FC
Client:	DPIR	Reviewed:	BT
Project:	Rum Jungle Rehabilitation	Size:	A3      Version: 1.0
Project No.:	680.10421	Datum:	AHD
Status:	Design		
Date:	02/10/2019		





# TEST PIT EXCAVATION LOG

HOLE NO.: HR-SLR-TP03

PROJECT : Rum Jungle

LOCATION : Former Rum Jungle Mine Site

FILE / JOB NO.: 680.10421

DATE STARTED : 03/10/19

POSITION : E: 717529.01, N: 8562381.6 (52 AMG SURFACE ELEVATION : 80m (AHD))

LOGGED BY : FC

DATE COMPLETED : 03/10/19

RIG TYPE : 20T Tracked Komatsu Excavator ANGLE FROM HORIZONTAL : 90°

CHECKED BY : BT

DATE LOGGED : 03/10/19

DRILLER : C. McGregor

STABILITY : Stable

DRILLING				MATERIAL				OBSERVATION				
METHOD & BUCKET TYPE	PENETRATION	WATER	SAMPLES TESTS REMARKS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	DCP RESULTS	ORIGIN	STRUCTURE & Other Observations
Excavator 600mm Toothed Bucket	Groundwater Not Encountered			79	1	SM	SM - gravelly SAND with silt, poorly graded, fine to medium grained, orange brown; gravel, fine to medium grained, rounded to sub-rounded, weathered granite and quartz	VD		5	Basecourse	
		0.40m (D)				CL - CI	CL - CI - gravelly CLAY with sand, low to medium plasticity, red brown; gravel, fine to medium grained, rounded to sub-angular, weathered granite, meta-sediment and quartz; sand, fine to medium grained; occasional sub-rounded to sub-angular cobbles of meta-sediment and quartz	Vst		10		
		0.80m (D)				CH	CH - gravelly CLAY with sand, high plasticity, grey brown with red mottle; gravel, fine to coarse grained, rounded to sub-angular, weathered granite, breccia and quartz; sand, fine to medium grained	D		15		
		1.60m (D)				SP	SP - gravelly SAND with clay, poorly graded, fine to coarse grained, dark grey brown with green and red mottle; gravel, rounded to sub-angular, ironstone, weathered granite, quartz and meta-sediment	VD		20	Laterite	
				78	2	GP	GP - sandy GRAVEL trace clay, poorly graded, fine to coarse grained, rounded to sub-angular, ironstone, weathered granite, quartz and meta-sediment, pale grey and brown with green and red mottle; sand, fine to coarse grained; frequent lenses CLAY	D - M				
EOH: 2.00m - Target depth												
				77	3							
				76	4							
				75	5							

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See Symbology & Classification notes for details of abbreviations & basis of descriptions.



Rum Jungle



5 Foelsche Street, Darwin, NT 0800



Looking East



Looking East



Looking South



Spoil Pile



Spoil Pile



2 LINCOLN STREET  
LANE COVE  
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Title:	SLR-HR-SLR-TP03 Photo Log	Drawn:	FC
Client:	DPIR	Reviewed:	BT
Project:	Rum Jungle Rehabilitation	Size:	A3
Project No.:	680.10421	Version:	1.0
Status:	Design	Datum:	AHD
Date:	03/10/2019		

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# TEST PIT EXCAVATION LOG

HOLE NO.: HR-SLR-TP04

PROJECT : Rum Jungle

LOCATION : Former Rum Jungle Mine Site

FILE / JOB NO.: 680.10421

DATE STARTED : 03/10/19

POSITION : E: 717535.09, N: 8562615.37 (52 AM) SURFACE ELEVATION : 80m (AHD)

LOGGED BY : FC

DATE COMPLETED : 03/10/19

RIG TYPE : 20T Tracked Komatsu Excavator ANGLE FROM HORIZONTAL : 90°

CHECKED BY : BT

DATE LOGGED : 03/10/19

DRILLER : C. McGregor

STABILITY : Stable

DRILLING				MATERIAL				OBSERVATION					
METHOD & BUCKET TYPE	PENETRATION	WATER	SAMPLES TESTS REMARKS	RL (m)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY / RELATIVE DENSITY	DCP RESULTS	ORIGIN	STRUCTURE & Other Observations
Excavator 600mm Toothed Bucket	Groundwater Not Encountered	0.60m (B)		79	1		ML	ML - sandy SILT trace gravel, low plasticity, grey brown; sand, fine to coarse grained; gravel, fine to medium grained, rounded to sub-angular, siltstone, ironstone and quartz; frequent rootlets (<2mm diameter)	St		5 10 15 20	Topsoil	
				78	2		GW	MIXTURE OF SOIL AND COBBLES/BOULDERS (MATRIX SUPPORTED) GW sandy GRAVEL, well graded, fine to coarse grained, rounded to sub-angular, weathered granite, breccia and meta-sediments, orange brown with red mottle; sand, fine to coarse grained.  1.0m: Frequent cobbles.	D	VD		Fill	
				78	2			EOH: 2.00m - Target depth					
				77	3								
				76	4								
				75	5								

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See Symbology & Classification notes for details of abbreviations & basis of descriptions.



Rum Jungle



5 Foelsche Street, Darwin, NT 0800