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



Title:	SLR-STP-05 Photo Log
Client:	DPIR
Project:	Rum Jungle Rehabilitation
Project No.:	680.10421
Status:	Design
Date:	09/07/2019

Reviewed:	CDM		
Size:	A3	Version:	1.0
Datum:	None		



SLR

DATE STARTED: 11/07/19

PROJECT : Rum Jungle Rehabilitation LOCATION : Granular & Growth Borrow

SURFACE ELEVATION: 99.19m (AHD)

LOGGED BY : BT CHECKED BY : FC

HOLE NO.: STP-06

FILE / JOB NO.: 680.10421

DATE COMPLETED : 11/07/19 RIG TYPE : 20t Excavator ANGLE FROM HORIZONTAL : 90°

POSITION : E: 718815, N: 8559161 (52 AMG84)

F					: 11/07/19					LER : C. McGregor			Stable		HECKED BY . FC
				DR	ILLING					MATERIAL				0	BSERVATION
	METHOD&	BUCKET TYPE	F 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	CONSISTENCY / RELATIVE DENSITY	.5 10 DCP 15 RESULTS 20	ORIGIN	STRUCTURE & Other Observations
					0.00m (ES) 0.01m (ES)	66			SM	SM - silty SAND trace gravel, fine to medium grained, brown and grey; silt, medium plasticity; gravel, fine to medium grained, sub-angular. SW - gravelly SAND, fine to coarse grained, orange brown; gravel, fine to medium grained, sub-rounded to sub-angular.	D	L - MD		Topsoil	
rotovova	Excavatol	600mm Toothed Bucket		Groundwater Not Encountered	0.70m (B) 0.70m (ES)	-	1 -		sw	MIXTURE OF SOIL AND COBBLES/BOULDERS (MATRIX SUPPORTED) SW gravelly SAND, well graded, fine to coarse grained, orange brown; gravel, fine to coarse grained, subrounded to sub-angular; cobbles; <100mm, sub-rounded to sub-angular, granite.		VD		Residual Soil	
		600mr		Groundw		86	2			META SANDSTONE, fine to medium grained, yellow brown and red brown, extremely low strength, extremely weathered, moisture within defects. EOH: 2.00m - Refusal				Extremely Weathered Bedrock	1.5m: Recovered as cobbles <200-300mm, sub-angular to angular.
						76									
ZO19 1:50:59 PIM						96	3 -								
IN CORE-GS By Geroc - 16st Pit Excavation Without Photo - ZZ/1Z/2019 1:50:39 PM						95	4 -								



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



Title:	SLR-STP-06 Photo Log
Client:	DPIR
Project:	Rum Jungle Rehabilitation
Project No.:	680.10421
Status:	Design
Date:	09/07/2019
-	

Reviewed:	CDM		
Size:	А3	Version:	1.0
Datum:	None		



DATE STARTED: 11/07/19

TEST PIT EXCAVATION LOG

Page 1 of 1

HOLE NO.: STP-07

LOGGED BY : BT

SURFACE ELEVATION: 93.82m (AHD)

PROJECT : Rum Jungle LOCATION : Granular & Growth Borrow FILE / JOB NO.: 680.10421

POSITION : E: 719190, N: 8559750 (52 AMG84)

				0:11/07/19			-		ION : E: 7 19 190, N: 8009700 (02 AMG84) SURFACE E					OGGED BY : BI
): 11/07/19					YPE : 20t Excavator ANGLE FROM HO				Ch	HECKED BY : FC
D.	AIE	E LO): 11/07/19 ILLING				DKIL	LER : C. McGregor MATERIAL	STABI	LIIY:	Stable	O	BSERVATION
METHOD& BUCKET TYPE	1 1	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	CONSISTENCY / RELATIVE DENSITY	DCP B RESULTS	ORIGIN	STRUCTURE 8 Other Observation:
	EA.	#W-I		0.00m (ES) 0.01m (ES)				SW	SW - SAND with gravel, fine to coarse grained, well graded, grey; gravel, fine to medium grained, rounded to sub-rounded. GW - sandy GRAVEL trace silt, well graded, fine to coarse grained, yellow brown; sand, fine to coarse grained.	D	_ <u>~</u>	5 10 10 10 10 10 10 10 10 10 10 10 10 10	Topsoil	
				0.40m (B) 0.40m (ES)	93		ania	GW	CC clause CAND and time plantists and based of fine to medium		MD			
	et		itered	0.90m (ES)		1 -	-		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.		D			
	600mm Toothed Bucket		Groundwater Not Encountered	1.60m (B)	-	-				М			Residual Soil	
			S G		6	2 -		sc			VD			
				2.70m (B)	16	-	++++		GRANITE, fine to medium grained, pale grey and red brown,				Extremely Weathered	
					-	3			extremely low strength, extremely weathered,. EOH: 3.00m - Refusal				Bedrock	
					06	4 -	-							
					-		-							
					68									



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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



Title:	SLR-STP-07 Photo Log
Client:	DPIR
Project:	Rum Jungle Rehabilitation
Project No.:	680.10421
Status:	Design
Date:	09/07/2019

Reviewed:	CDM		
Size:	А3	Version:	1.0
Datum:	None		



SLR TEST PIT LOGS HAUL ROADS

SLR OCTOBER 2019 INVESTIGATION



Page 1 of 1

HOLE NO.: HR-SLR-TP01

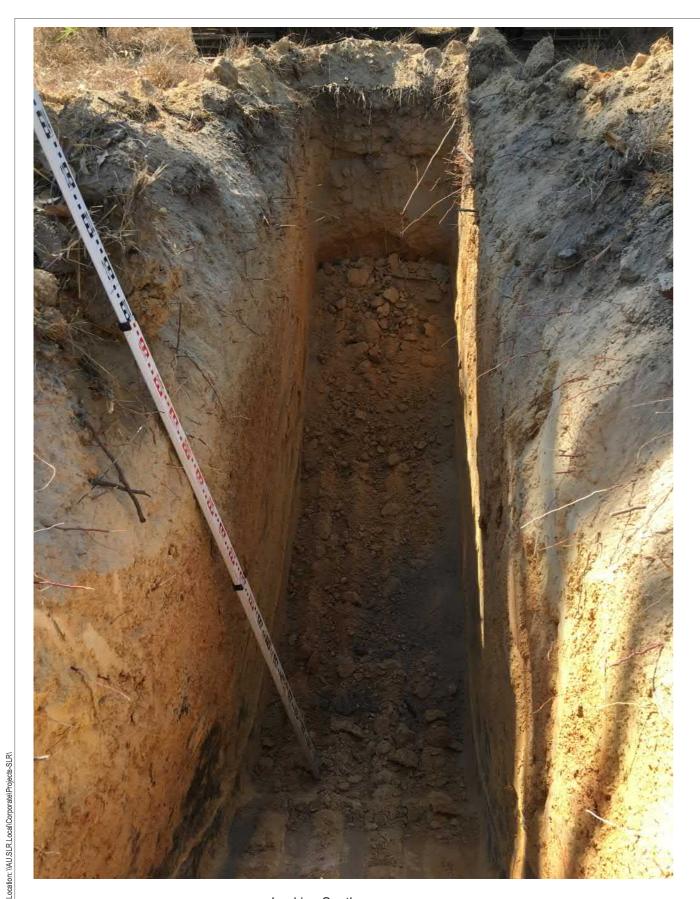
PROJECT : Rum Jungle Geotechnical Investigation LOCATION : Former Rum Jungle Mine Site FILE / JOB NO.: 680.10421.02300

DATE STARTED: 02/10/19 POSITION : E: 717456, N: 8561615 (52 MGA94) SURFACE ELEVATION: 75m (AHD) LOGGED BY : FC

}					: 02/10/19			-		: E: 717456, N: 8561615 (52 MGA94) SURFACE E					LOGGED BY : FC
-					: 02/10/19					: 20T Excavator ANGLE FROM HO				С	HECKED BY : BT
ŀ		DAI	L LU		: 02/10/19 ILLING			וואט	LLEK	: C. McGregor MATERIAL	JIABI	LIIY:	Stable	0	BSERVATION
	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	CONSISTENCY / RELATIVE DENSITY	5 10 DCP 15 RESULTS 20	ORIGIN	STRUCTURE & Other Observations
	1	•	¥wri						0	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		St - VSt	1 1 1	Topsoil	
						-	_		sw	grained, rounded to sub-angular. 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.					
	Excavator	600mm Toothed Bucket		Groundwater Not Encountered	1.00m (B)	74	1 -			O.7m: Increasing gravel content. GW - sandy GRAVEL trace silt, well sorted, fine to coarse grained, rounded to sub-angular, weathered granite, red brown	D				
	Exca	600mm Too		Groundwater N		73	2 -		GW	grainet, founded to sub-angular, weathered grainet, fed blown 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	3 -								
William - 15/01/2000 - 15/01/20						77	4 -								
CONTROL BY COLORS - 1 CONTROL BY EXCHANGED						02	5 -								



SLR

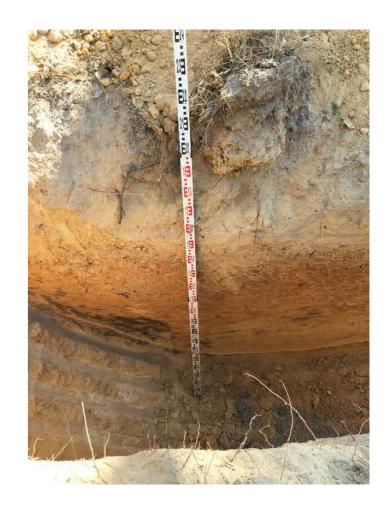








Spoil Pile



Eastern Pit Wall



Spoil Pile

Looking South



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on third party data. SLR Consulting Australia Pty Ltd does
not guarantee the accuracy of such information.

Title:	SLR-HR-SLR-TP01 Photo Log	Dra
Client:	DPIR	Re
Project:	Rum Jungle Rehabilitation	Siz
Project No.:	680.10421	Da
Status:	Design	
Date:	02/10/2019	

Drawn:	FC		
Reviewed:	BT		
Size:	А3	Version:	1.0
Datum:	AHD		



SLR^ॐ

TEST PIT EXCAVATION LOG

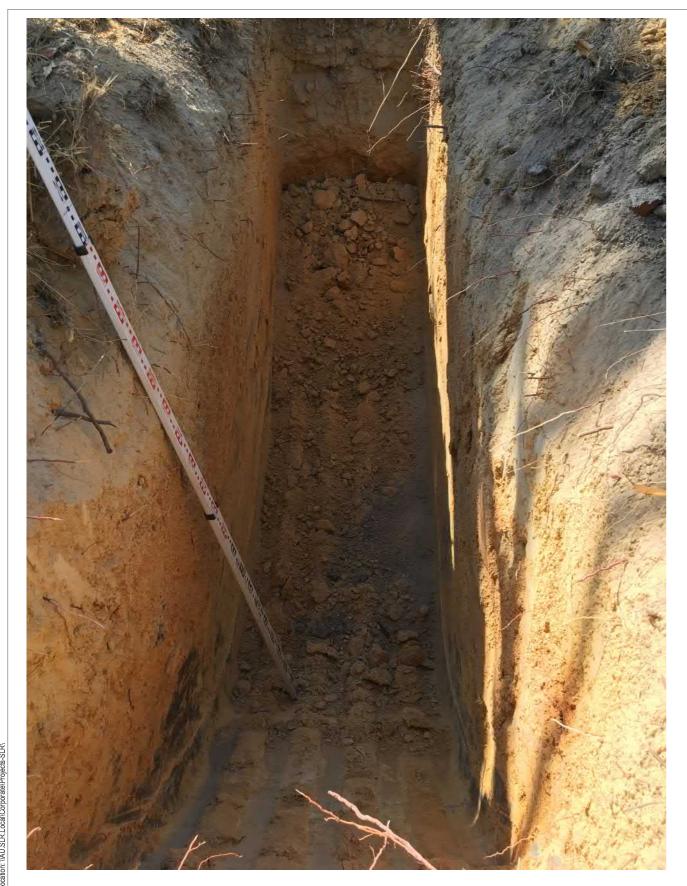
HOLE NO.: HR-SLR-TP02

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

t					: 02/10/19					: C. McGregor			Stable	<u> </u>	TECKED BT . BT
					ILLING					MATERIAL				0	BSERVATION
	METHOD&	BUCKET TYPE	F 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	CONSISTENCY / RELATIVE DENSITY	. 5 . 10 DCP . 15 RESULTS . 20	ORIGIN	STRUCTURE & Other Observations
									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		Topsoil	
	Excavator	600mm Toothed Bucket		Groundwater Not Encountered		02	1 -		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		Residual Soil	
	_	,				69	2 -	000000000000000000000000000000000000000		EOH: 2.10m - Target depth					
IN CONTENS BY GROOT I BRIT IT EXCHANGION WITHOUT PRIOR I 13/01/2/2/14:18:38 PM						89 29 39	-								
CORE-G															







Looking North East



Spoil Pile



Looking South East



Spoil Pile

Looking South East



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not guarantee the accuracy of such information.

Title:	SLR-HR-SLR-TP02 Photo Log
Client:	DPIR
Project:	Rum Jungle Rehabilitation
Project No.:	680.10421
Status:	Design
Date:	02/10/2019

Reviewed:	BT		
Size:	A3	Version:	1.0
Datum:	AHD		



TEST PIT EXCAVATION LOG

Page 1 of 1

HOLE NO.: HR-SLR-TP03

PROJECT : Rum Jungle LOCATION : Former Rum Jungle Mine Site FILE / JOB NO.: 680.10421

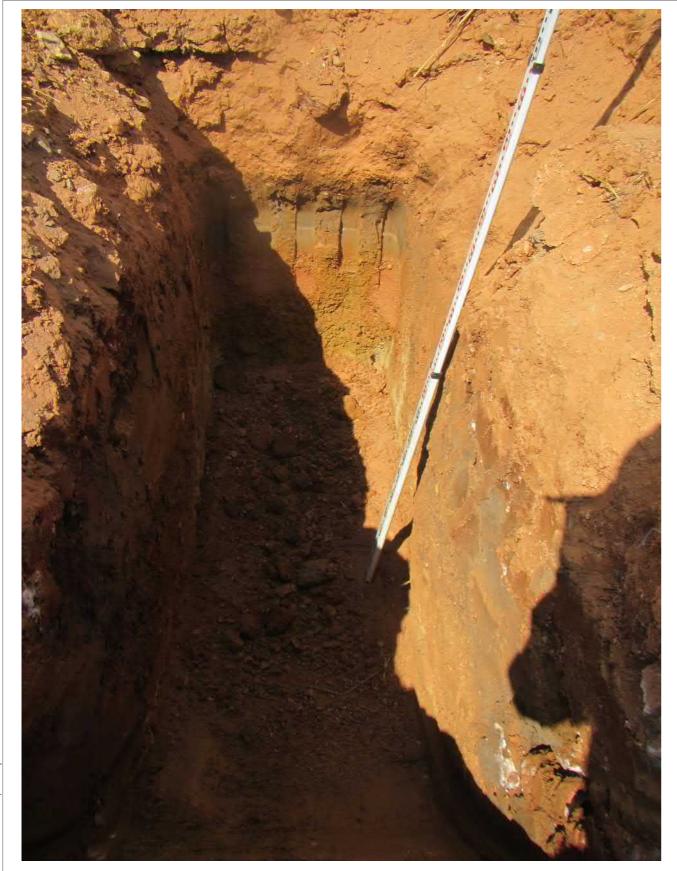
DATE STARTED: 03/10/19 POSITION: E: 717529.01, N: 8562381.6 (52 AMG SURFACE ELEVATION: 80m (AHD) LOGGED BY: FC

DATE COMPLETED: 03/10/19 RIG TYPE: 20T Tracked Komatsu Excavato: ANGLE FROM HORIZONTAL: 90° CHECKED BY: BT

					: 03/10/19					YPE : 20T Tracked Komatsu Excavato⊦ANGLE FROM HOF LER : C. McGregor			Stable	C	HECKED BY : BT	
					LLING					MATERIAL				0	BSERVATION	
METHOD&	BUCKET TYPE		F 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	CONSISTENCY / RELATIVE DENSITY	5 10 DCP 15 RESULTS 20	ORIGIN	STRUCTURE & Other Observations	
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		Basecourse		
	<u> </u>	16		ered	0.40m (D)	-	<u>-</u>		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				
Excavator	600mm Toothed Blicket	DOCI IEGO DOCU		Groundwater Not Encountered	0.80m (D)	62	1 -		СН	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	D				
Δ	F mmUU9			Groundwate					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					Laterite	
					1.60m (D)	-	-					VD				
						78	2 -	00000	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					
						77	3 -			EOH: 2.00m - Target depth						
						92	4 -									
						75	5 -									



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Looking South

Looking East





Looking East Spoil Pile Spoil Pile

2 LINCOLN STREET
LANE COVE
NEW SOUTH WALES 2066
AUSTRALIA
T: 61 2 9428 8100
F: 61 2 9428 8100
www.slrconsulting.com

Title:	SLR-HR-SLR-TP03 Photo Log
Client:	DPIR
Project:	Rum Jungle Rehabilitation
Project No.:	680.10421
Status:	Design
Date:	03/10/2019

Reviewed:	ВТ		
Size:	A3	Version:	1.0
Datum:	AHD		



TEST PIT EXCAVATION LOG

Page 1 of 1

HOLE NO.: HR-SLR-TP04

LOGGED BY : FC

PROJECT: Rum Jungle LOCATION : Former Rum Jungle Mine Site FILE / JOB NO.: 680.10421 POSITION : E: 717535.09, N: 8562615.37 (52 AMC SURFACE ELEVATION : 80m (AHD)

DATE STARTED: 03/10/19

LOGGED BY : FC					-				· · · · · · · · · · · · · · · · · · ·	11ON : E: 717535.09, N: 85626					: 03/10/19				<u> </u>
CHECKED BY : BT	CI				-					YPE : 20T Tracked Komatsu					: 03/10/19				Δ
OBSERVATION	^		!	bie	Stal	1 Y :	ıLİ	TABII	MATERIAL	LER : C. McGregor	υKIL				: 03/10/19 LLING		E LO	υA	
STRUCTURE 8 Other Observation		0	15 RESULTS	0 DCP		RELATIVE DENSITY	, XONTEGIONOO	MOISTURE	DESCRIPTION our, grain characteristics, or components	1	CLASSIFICATION SYMBOL	GRAPHIC LOG	DEPTH (m)	RL (m)	SAMPLES TESTS REMARKS	WATER	PENETRATION	BUCKET TYPE	
Topsoil	Topsoil	- 2	1 2			St	T		ne to medium grained, rounded to and quartz; frequent rootlets LES/BOULDERS (MATRIX //EL, well graded, fine to coarse , weathered granite, breccia and	ML - sandy SILT trace gravel, lor fine to coarse grained; gravel, fir sub-angular, siltstone, ironstone (<2mm diameter) MIXTURE OF SOIL AND COBB	ML	NO AND			0.60m (B)	ncountered	37		
Fill	Fill					VD		D		1.0m: Frequent cobbles.	GW	AND AND AND AND AND	1 =	62		Groundwater Not Encountered		600mm Toothed Bucket	
				-						EOH: 2.00m - Target depth		•.53	2 -	- 28					
													3	777					
														92					
														75					



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