



# TEST PIT/BOREHOLE LOG SOIL

No: \_\_\_\_\_

Page: 1 of 1

Client: **TAS MAGNESITE**  
Project: **ARTHUR RIVER**  
Job No: **ARO30**  
Location: **13/5/11**

to: **19/5/11**

Contractor Co: **EDmill**  
Contractor: **Diamond**  
Type: **-60**  
Inclination: **330**  
Bearing: **330**

Easting: **369671.1**  
Northing: **5437659.9**  
Grid Ref: **MGA SS**  
Collar RL: **180.6**  
Logged by: **CCA** Checked by: \_\_\_\_\_

Depth (m)	Method	Water	Group Symbol	MATERIAL DESCRIPTION Type, colour, particle size and shape, structure	Moisture	Consistency / Density	In situ Testing	FIELD TESTS & NOTES	Sampling / Run	Lab. Testing
0.00			GW	NO RECOVERY - triconed.						
0.25			GW	GRAVEL, white to pale grey. From fine sands to 10 cm. Mostly quartzite, with some coarse sandstone clasts. Glacials						
0.50										
0.75										
1.00										
1.25										
1.50										
1.75										
2.00										
2.25										
2.50										

End of soil log - refer to rock

consistency:  
VS very soft  
S soft  
F firm  
ST stiff  
VST very stiff  
H hard

relative density:  
VL very loose  
L loose  
MD medium dense  
D dense  
VD very dense

moisture:  
D Dry  
M Moist  
W Wet

water:  
water level  
level risen to  
water inflow

sampling:  
intact sample from core  
intact tube sample

notes:

Disturbed sample  
WS Water Sample  
BS Bulk Sample  
AS Auger Sample

soil classification:  
soil is classified in accordance with AS1728  
unless otherwise noted

## CORE LOG SHEET

Client: **TAS MAGNESITE**  
 Project: **ARTHUR RIVER**  
 Location: **ARO30**

LOCATION No.

SHEET 1 OF 7

Position: , Surface RL: Inclination/Bearing: **160/330** Processed:  
 Contractor: **Edrill** Rig Type: **Diamond** Checked:  
 Date Started: **13/5/11** Date Completed: **19/5/11** Logged by: **CCA** Date:

DRILLING				MATERIAL						ADDITIONAL DATA		
SCALE (m)	Method	Run	Water	Depth / (RL) metres	Graphic Log	Description ROCK TYPE, colour, grain size, structure	Weathering	Estimated Strength	Core Recovery (%)	Defect Spacing (mm)	Samples & Tests	SCALE (m)
									20 80 100 1000		Joints, partings, seams, zones and veins Fracture type, orientation, infilling or coating, shape, roughness, other In situ test results	
				18.8		MAGNESITE, brown. Small (24mm) angular quartz grains in groundmass	MWH				More weathered parts filled w clay.	
				19.0		NO RECOVERY, weathered zone						
				24.7		MAGNESITE, pink.	VL				Weathered to clay at top - bottom of weathered zone above	
				25.0		NO RECOVERY						
				26.0		MAGNESITE, pale pink/brown	FR VH				Broken	
				28.5		POOR RECOVERY fine to medium sand dark. Sandy magnesite	KWEL S				Weathered zone.	
				32.3		MAGNESITE, as for above magnesite	FR VH				Limonite on many fractures	
				35.0		POOR RECOVERY, weathered zone Dark sands and weathered magnesite	KWEL S					
				36.0		MAGNESITE, as above but slightly darker colour. Sandy texture	FR VH				Much limonite on fractures. Some parts rubble.	
				38.6		NO RECOVERY						
				41.4		MAGNESITE, as above	FR VH				Less limonite staining, some fractures following veins, systematic. Shattered	
				43.1								

See standard sheets for details of abbreviations & basis of descriptions



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## CORE LOG SHEET

Client: **TAS MAGNESITE**  
 Project: **ARTHUR RIVER**  
 Location: **ARO30**

LOCATION No.

SHEET 2 OF 7

Position: , Surface RL: Inclination\Bearing: **60/330** Processed:  
 Contractor: **Edrill** Rig Type: **Diamond** Checked:  
 Date Started: **13/5/11** Date Completed: **19/5/11** Logged by: **CCA** Date:

DRILLING				MATERIAL							ADDITIONAL DATA	
SCALE (m)	Method	Run	Water	Depth / (RL) metres	Graphic Log	Description ROCK TYPE, colour, grain size, structure	Weathering	Estimated Strength	Core Recovery (%)	Defect Spacing (mm)	Samples & Tests	SCALE (m)
									20 80 100			
										1000		
											Joints, partings, seams, zones and veins Fracture type, orientation, infilling or coating, shape, roughness, other Insitu test results	
				43.1		MAGNESITE, as above but lighter MW L in colour, weathering to clay			15		Highly shattered, angular fragments.	
				43.6		NO RECOVERY						
				46.4		MAGNESITE, pink light brown slightly sandy texture	MW VH			40	Rubble at top.	
				46.8		FAULT, grey schist, angular quartz gravel	EL		35		Shear fabric at base	
				49.1		MAGNESITE, sandy texture as above	MW H		50		Highly shattered, some fragments starting to weather to clay	
				50.5		MAGNESITE, pale pink to white	FR VH			60	Very broken in parts. Minor limonite on fractures near top.	
				55.0		FAULT, white, filled with magnesite fragments and white clay	FR L		15			
				55.1		MAGNESITE, as above, but stronger pink stain	FR VH			40	Very broken and shattered in parts.	
				58.8		FAULT, pink/pale brown & magnesite clays			20			
				59.9		MAGNESITE, as above.	FR H		60		Extremely shattered.	
				59.9		MAGNESITE, as above.	FR VH		15		Less broken	
				62.3								

See standard sheets for details of abbreviations & basis of descriptions



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## CORE LOG SHEET

Client: **TAS MAGNESITE**Project: **ARTHUR RIVER**Location: **ARO30**

LOCATION No.

SHEET **3** OF **7**

Position:

Surface RL:

Inclination/Bearing: **60/330**

Processed:

Contractor: **Edwill**Rig Type: **Diamond**

Checked:

Date Started: **13/5/11**Date Completed: **19/5/11**Logged by: **CCA**

Date:

## DRILLING

## MATERIAL

## ADDITIONAL DATA

SCALE (m)	Method	Run	Water	Depth (RL) metres	Graphic Log	Description ROCK TYPE, colour, grain size, structure	Weathering	Estimated Strength	Core Recovery (%)	Defect Spacing (mm)	Samples & Tests	Additional Data	SCALE (m)
									20 80 100 1000			Joints, partings, seams, zones and veins Fracture type, orientation, infilling or coating, shape, roughness, other Insitu test results	
				62.3		MAGNESITE, as above.	SW M					Extremely shattered, slightly softer than above.	
				62.9		MAGNESITE, pale brown/pink, spotted white.	SW H			80		Shattered. Slightly sandy texture.	
				63.5		NO RECOVERY						Extremely shattered.	
				66.2		MAGNESITE, pale pink.	MW M			80		Extremely shattered, some surfaces weathering to clay.	
1				67.2		FAULT, white clays with fine, angular magnesite fragments.	WL			25			
				67.4		MAGNESITE, as above.	MW H			15		Shattered. Competent rock hard, v. minor clay developing on some fractures.	
				68.1		MAGNESITE, as above but slightly darker.	FR VH			70		Less broken than above.	
				70.3		MAGNESITE, light brown/dark pink, mottled white.	FR VH			60		Limonite on fractures. SRC 8-10	
2				71.0		MAGNESITE, as above but slightly more pale.	FR VH			130		Slipstick at top shows movement. SRC 8-10	
				71.4		MAGNESITE, pale pink.	SW H			10		Shattered, some weathering on surfaces, slightly softer rock.	
				71.9		MAGNESITE, as above.	FR VH			110		Softens slightly towards base.	
				73.0		NO RECOVERY							
				73.4		MAGNESITE, light brown, sandy texture.	MW			100		Shattered and highly weathered at base.	
3				74.1									

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## CORE LOG SHEET

Client: **TAS MAGNESITE**  
 Project: **ARTHUR RIVER**  
 Location: **ARO30**

LOCATION No.

SHEET **4** OF **7**

Position: , Surface RL: Inclin\Bearing: **16/330** Processed:   
 Contractor: **Edrill** Rig Type: **Diamond** Checked:   
 Date Started: **13/5/11** Date Completed: **19/5/11** Logged by: **CCA** Date:

DRILLING				MATERIAL						ADDITIONAL DATA		
SCALE (m)	Method	Run	Water	Depth / (RL) metres	Graphic Log	Description ROCK TYPE, colour, grain size, structure	Weathering	Estimated Strength	Core Recovery (%)	Defect Spacing (mm)	Samples & Tests	SCALE (m)
								20 40 60 80 100 1200			Joints, partings, seams, zones and veins Fracture type, orientation, infilling or coating, shape, roughness, other Insitu test results	
				74.1		MAGNESITE, pale pink to white.	HW H			80	Parts of groundmass weathering towards clay. Broken.	
				77.1		MAGNESITE, pale pink	FR VH			120	Fractures typically along carbonate veins. JRC 4-6	
				78.6		MAGNESITE, pink to pale pink	HW M			65	Several small cavities/weathered zones throughout. Broken	
				81.1		FAULT, grey magnesite clay and shattered magnesite	HW L			100	Several faulted parts interspersed by shattered magnesite held together by clay.	
				82.1		MAGNESITE, very pale pink to white	HW H			100	Shattered. Some remnant carbonate veins visible where groundmass has been weathered away.	
				83.5		MAGNESITE, pale pink to light brown stain	HW H			30	Generally hard, but some groundmass weathered away. Shattered in parts.	
				85.1		MAGNESITE, pale brown/pink	HW M				Very broken. Parts showing weathering.	
				85.8		MAGNESITE, pink/brown to grey, intensely veined	HW M			15	Groundmass weathering to clay. Broken. Brown stain increasing in most weathered zones	
				86.2		MAGNESITE, pale pink, stained pale brown/pink	FR VH			50	Very broken, intensely veined	
				94.2		Siltstone, green banded with white carbonate. V. fine-grained	HW M			100	~40% white carbonate	
				94.4		FAULT, grey/pale green clays	HW XL					
				94.7		angular siltstone frags						

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## CORE LOG SHEET

Client : **TAS MAGNESITE**  
 Project : **ARTHUR RIVER**  
 Location : **ARO36**

LOCATION No.

SHEET 5 OF 7

Position : , Surface RL : Inclination/Bearing : **60/330** Processed :  
 Contractor : **Edrill** Rig Type : **Diamond** Checked :  
 Date Started : **13/5/11** Date Completed : **19/5/11** Logged by : **CCA** Date :

DRILLING				MATERIAL						ADDITIONAL DATA		
SCALE (m)	Method	Run	Water	Depth / (RL) metres	Graphic Log	Description ROCK TYPE, colour, grain size, structure	Weathering	Estimated Strength	Core Recovery (%)	Defect Spacing (mm)	Samples & Tests	SCALE (m)
								20	80	100	1000	
				94.7		SILTSTONE, green, very fine-grained, intensely foliated.	HW L			20	Carbonate veins following foliations. Faulted. Falling apart along foliations and large veins.	
				95.4		FAULT, grey to pale pink clays, highly decomposed rock	XW VL			40	Clays from decomposing siltstone and magnesite. Heavily carbonated.	
				95.8		MAGNESITE, pink, stained white	MW H			65	Small zone (40cm) near top where groundmass has weathered to clay. Very broken	
				97.0		FAULT, grey to pale pink clays and shattered, highly weathered rock.	XW VL			65	Shattered, angular magnesite fragments weathering to clay	
				98.2		MAGNESITE, pale pink, mottled pink/pale brown	MW H			100	Some weathering along fractures. Weak limonite on some fractures.	
				98.6		MAGNESITE, grey mottled white	MW H			100	Shattered	
				98.8		MAGNESITE, pale pink, mottled pink/pale brown.	FH VH			40	Very broken. Small, localized slightly weathered zones. Most fractures from drilling (fresh)	
				100.4		POOR RECOVERY MAGNESITE, pink (w/white)	MW VL			30	shattered magnesite to limonite on fractures. Mostly weathered zone.	
				106.7		MAGNESITE, pink/pale brown, mottled white	MW H				Zones with no mottling more weathered.	
				107.4		NO RECOVERY						
				108.6		MAGNESITE, pink, mottled white	MW H			80	Weathering decreasing to depth	
				109.0								

Joints, partings, seams, zones and veins

Fracture type, orientation, infilling or coating, shape, roughness, other

Insitu test results

Carbonate veins following foliations. Faulted. Falling apart along foliations and large vein

Clays from decomposing siltstone and magnesite. Heavily carbonated

Small zone (202m) near top where groundmass has weathered to clay. Very broken

Shattered, angular magnesite fragments weathering to clay

Some weathering along fractures. Weak limonite on some fractures.

Shattered

Very broken. Small, localized slightly weathered zones. Most fractures from drilling (fresh)

shattered magnesite to limonite on fractures. Mostly weathered zone.

Zones with no mottling more weathered.

Weathering decreasing to depth.

See standard sheets for details of abbreviations & basis of descriptions



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## CORE LOG SHEET

Client: **FAS MAGNESITE**Project: **ARTHUR RIVER**Location: **ARO30**

LOCATION No.

SHEET **6** OF **7**

Position:

Surface RL:

Inclination\Bearing: **60/338**

Processed:

Contractor: **Edrill**Rig Type: **Diamond**

Checked:

Date Started: **13/5/11**Date Completed: **19/5/11**Logged by: **CCA**

Date:

## DRILLING

## MATERIAL

## ADDITIONAL DATA

SCALE (m)	Method	Run	Water	Depth / (RL) metres	Graphic Log	Description ROCK TYPE, colour, grain size, structure	Weathering	Estimated Strength	Core Recovery (%)	Defect Spacing (mm)	Samples & Tests	Additional Data Joints, partings, seams, zones and veins Fracture type, orientation, infilling or coating, shape, roughness, other Insitu test results	SCALE (m)
				107.0		MAGNESITE, weathered zone Pink magnesite rubble, remnant carbonate veins	XW VL		33			Rubble	
				109.3		MAGNESITE, pale pink	MW H			100		Much of groundmass slightly softer than fresh rock.	
				110.3		POOR RECOVERY, MAGNESITE, pink	XW L		25			Multiple 'cavities' with some coherent rock in-between.	
				113.5		MAGNESITE, pink	MW VH		95	200		JRC 8-10. Some groundmass weathered away, minor limestone on some fractures	
				116.5		MAGNESITE, pale pink	FR VH			1000		Several large, cross-cutting carbonate veins. (20-400mm)	
				119.5		MAGNESITE, pink/pale brown.	MW H			130		Rock significantly softer than that above. Top bound by linear carbonate vein.	
				120.2		MAGNESITE, grey POOR RECOVERY	XW VL		15			Often hard but crumbly rubble.	
				121.4		MAGNESITE, pink	MW VH			200		Remnant carbonate veins present. Weathered at top, fresh at base.	
				122.3		MAGNESITE, <del>white</del> grey veins	FR VH			1000		Massive	
				123.7		MAGNESITE, mottled white	FR VH			1000		Clear carbonate veins forming groundmass	
				125.6		MAGNESITE, very pale pink	FR VH						
				128.6		MAGNESITE, <del>of</del> colourless/pale grey	FR VH			200		Clasts often appear aligned.	
				129.1		MAGNESITE, pink	MW M			50		Very broken. Weathering increasing towards base. Unconformity on fractures	
				130.2								Some slicken lines indicating movement	

See standard sheets for details of abbreviations &amp; basis of descriptions



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## CORE LOG SHEET

Client: **TAS MAGNESITE**  
 Project: **ARTHUR RIVER**  
 Location: **ARO30**

LOCATION No.

SHEET 7 OF 7

Position: , Surface RL: Inclination/Bearing: **1-60/330** Processed:  
 Contractor: **Edrill** Rig Type: **Diamond** Checked:  
 Date Started: **13/5/11** Date Completed: **19/5/11** Logged by: **CCA** Date:

DRILLING				MATERIAL							ADDITIONAL DATA		
SCALE (m)	Method	Run	Water	Depth / (RL) metres	Graphic Log	Description ROCK TYPE, colour, grain size, structure	Weathering	Estimated Strength	Core Recovery (%)	Defect Spacing (mm)	Samples & Tests	SCALE (m)	
								20	80	10	100	1000	
				130.2		MAGNESITE, pale grey. Clear carbonate crystals in groundmass (8mm) & pale pink clasts.	FR VH						
				130.7		MAGNESITE, pale pink	FR VH						
				131.7		MAGNESITE, pale brown/pink, mottled white.	HW M						
				132.8		MAGNESITE, pale pink	FR VH						
				135.0		MAGNESITE, pale pink. As above, but more weathered.	HW H						
				137.2		MAGNESITE, pale pink to pink	MW VH						
				139.0		MAGNESITE, pink	HW M						
				140.0		NO RECOVERY							
				143.2									
						E.O.H.							

Top bounded by carbonate vein (and bottom).

Fractures along veins.

Shattered, highly weathered and core lost at top to some clay. Competent base.

Small zones weathering to clays.

Some clasts starting to weather softer than fresh rock.

Very broken, weathering away.

See standard sheets for  
 details of abbreviations  
 & basis of descriptions



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