



PLTP-01



PLTP-02



PLTP-03



PLTP-04



PLTP-05



PLTP-06



PLTP-07



PLTP-08



PLTP-09



PLTP-10



PLTP-11



PLTP-12



PLTP-13



RTP-10



RTP-11



RTP-12



RTP-13



RTP-14



RTP-15



RTP-16



RTP-17



RTP-19



RTP-20



RTP-21



RTP-22



RTP-24



RTP-25



RTP-26



RTP-27



RTP-28



RTP-29



RTP-30



RTP-31



RTP-32



RTP-33



RTP-34



RTP-35



RTP-36



RTP-37



RTP-38



RTP-39



RTP-40



2016 11 16

RTP-41



2016 11 14

RTP-42



RTP-44



RTP-45



RTP-46



RTP-47



RTP-48



RTP-49



RTP-50



RTP-51



RTP-52



RTP-53



RTP-54



RTP-55



RTP-56



RTP-57



RTP-58





**CLIENT** Hastings Technology Metals  
**JOB NUMBER** 112391.11

**JOB NAME** Yangibana Rare Earth Project  
**JOB LOCATION** Gifford Creek Station WA

**DATE STARTED** 27/10/16      **COMPLETED**      **R.L. SURFACE** 328.6      **DATUM** m AHD  
**LOCATION** 426447.2, 7352171      **INCLINATION** 90°      **BEARING** ---  
**EQUIPMENT** HQ Diamond Rig      **LOGGED BY** CJ      **CHECKED BY** JL  
**REMARKS** Diamond Drill Rig (HQ). Water level in hole 7.53 m 30 Oct. & 1 November 2016

Method	Water	TCR %	RQD %	RL (m)	Depth (m)	Graphic Log	Material Description Soil: type, USCS symbol, strength, plasticity or particle size, colour, secondary components, moisture condition Rock: type, weathering, colour, fabric, estimated strength, structure and bedding	Weathering	Estimated Strength					Is <sub>(50)</sub> MPa	D- diam- etral A- axial	Defect Spacing mm	Defect Description
									EL	V/L	L	M	H				
							<b>MEGA CRYSTALLINE GRANITE</b> Moderately weathered, pale pink and grey, massive coarse mineral texture, medium to very high strength <i>(continued)</i>	SW									
		100	41		318												
					11												
					317												
					12											11.87 m joint 75° dip, planar, rough with surface staining	
					316												
					13												
					315												
		100	81		14												
					314												
					15											joint surfaces predominantly irregular, rough with oxide staining	
					313												
					16												
					312												
		100	57		17												
					311												
					18											17.93 m - 18.91 m fractured zone 30 mm - 80 mm joint spacings	
					310												
		100	55		19												
					309												
					20												

MPAW/ATC CORED BOREHOLE YANGIBANA BOREHOLES.GPJ GINT AUSTRALIA GDT 21/3/17

**CLIENT** Hastings Technology Metals

**JOB NAME** Yangibana Rare Earth Project

**JOB NUMBER** 112391.11

**JOB LOCATION** Gifford Creek Station WA

**DATE STARTED** 27/10/16

**COMPLETED**

**R.L. SURFACE** 328.6

**DATUM** m AHD

**LOCATION** 426447.2 ,7352171

**INCLINATION** 90°

**BEARING** ---

**EQUIPMENT** HQ Diamond Rig

**LOGGED BY** CJ

**CHECKED BY** JL

**REMARKS** Diamond Drill Rig (HQ). Water level in hole 7.53 m 30 Oct. & 1 November 2016

Method	Water	TCR %	RQD %	RL (m)	Depth (m)	Graphic Log	Material Description Soil: type, USCS symbol, strength, plasticity or particle size, colour, secondary components, moisture condition  Rock: type, weathering, colour, fabric, estimated strength, structure and bedding	Weathering	Estimated Strength					Is <sub>(50)</sub> MPa D- diam- A- axial	Defect Spacing mm	Defect Description
									EL	V/L	L	M	H			
		100	55				<b>MEGA CRYSTALLINE GRANITE</b> Moderately weathered, pale pink and grey, massive coarse mineral texture, medium to very high strength <i>(continued)</i>	SW								
		100	71		21											
					22											
		100	75		23		<b>MEGA CRYSTALLINE GRANITE</b> Fresh, grey white and pale pink, very high to extremely high strength	FR								
					24											
					25											
		100	68		26											
					27											
		100	100		28											
					29											
		100	89		30											
					30											

27.0 - 29.3 m no fractures in core run (drilling only)

MPAW/ATC CORED BOREHOLE YANGIBANA BOREHOLES.GPJ GINT AUSTRALIA GDT 21/3/17

**CLIENT** Hastings Technology Metals  
**JOB NUMBER** 112391.11

**JOB NAME** Yangibana Rare Earth Project  
**JOB LOCATION** Gifford Creek Station WA

**DATE STARTED** 27/10/16      **COMPLETED**      **R.L. SURFACE** 328.6      **DATUM** m AHD  
**LOCATION** 426447.2 ,7352171      **INCLINATION** 90°      **BEARING** ---  
**EQUIPMENT** HQ Diamond Rig      **LOGGED BY** CJ      **CHECKED BY** JL  
**REMARKS** Diamond Drill Rig (HQ). Water level in hole 7.53 m 30 Oct. & 1 November 2016

Method	Water	TCR %	RQD %	RL (m)	Depth (m)	Graphic Log	Material Description Soil: type, USCS symbol, strength, plasticity or particle size, colour, secondary components, moisture condition Rock: type, weathering, colour, fabric, estimated strength, structure and bedding	Weathering	Estimated Strength					Is <sub>(50)</sub> MPa D- diam- A- axial	Defect Spacing mm 20 60 200 600 2000	Defect Description
									EL	VL	L	M	H			
							<b>MEGA CRYSTALLINE GRANITE</b> Fresh, grey white and pale pink, very high to extremely high strength ( <i>continued</i> )	FR								
		100	89		298											
					31											
					297											
					32											32.22 m joint 70° dip, undulate, rough, clean
					296											
					33											
					295											
		100	96		34		34.4 m - 34.65 m veins, 65° - 80° dip									
					294											
					35											
					293											35.5 m - 36.5 m no fractures in core run (drilling only)
		100	100		36											
					292											
					37											
					291											
		100	97		38											
					290											38.25 m joint, irregular, rough, tight and clean
					39											
					289											
		100	100		40											39.5 m - 40.5 m no fractures in core run (drilling only)

**CLIENT** Hastings Technology Metals  
**JOB NUMBER** 112391.11

**JOB NAME** Yangibana Rare Earth Project  
**JOB LOCATION** Gifford Creek Station WA

**DATE STARTED** 27/10/16      **COMPLETED**      **R.L. SURFACE** 328.6      **DATUM** m AHD  
**LOCATION** 426447.2 ,7352171      **INCLINATION** 90°      **BEARING** ---  
**EQUIPMENT** HQ Diamond Rig      **LOGGED BY** CJ      **CHECKED BY** JL  
**REMARKS** Diamond Drill Rig (HQ). Water level in hole 7.53 m 30 Oct. & 1 November 2016

Method	Water	TCR %	RQD %	RL (m)	Depth (m)	Graphic Log	Material Description Soil: type, USCS symbol, strength, plasticity or particle size, colour, secondary components, moisture condition Rock: type, weathering, colour, fabric, estimated strength, structure and bedding	Weathering	Estimated Strength						Is <sub>(50)</sub> MPa D- diam- A- axial	Defect Spacing mm	Defect Description
									EL	VL	L	M	H	VH			
		100	100			+ +	<b>MEGA CRYSTALLINE GRANITE</b> Fresh, grey white and pale pink, very high to extremely high strength ( <i>continued</i> )	FR									
				288			CTBH-01 terminated at 40.5m										
					41												
				287													
					42												
				286													
					43												
				285													
					44												
				284													
					45												
				283													
					46												
				282													
					47												
				281													
					48												
				280													
					49												
				279													
					50												

**CLIENT** Hastings Technology Metals

**JOB NAME** Yangibana Rare Earth Project

**JOB NUMBER** 112391.11

**JOB LOCATION** Gifford Creek Station WA

**DATE STARTED** 7/11/16

**COMPLETED**

**R.L. SURFACE** 329.1

**DATUM** m AHD

**LOCATION** 426838.8, 7352234

**INCLINATION** 90°

**BEARING** ---

**EQUIPMENT** RC Rig - Air Flush

**LOGGED BY** KF

**CHECKED BY** JL

**REMARKS** RC Rig (air flush). Groundwater strike at 54 m depth whilst drilling.

Method	Water	TCR %	RQD %	RL (m)	Depth (m)	Graphic Log	Material Description Soil: type, USCS symbol, strength, plasticity or particle size, colour, secondary components, moisture condition  Rock: type, weathering, colour, fabric, estimated strength, structure and bedding	Weathering	Estimated Strength						IS <sub>50</sub> MPa D- diam- etral A- axial	Defect Spacing mm	Defect Description	Well Details
									EU	VJ	L	M	H	VH				
				328	2	+	<b>GRANITE</b> Extremely / moderately weathered, dark grey and brown											
				326	4	+	<b>MEGA CRYSTALLINE GRANITE</b> Extremely / moderately weathered, grey											
				324	6	+	<b>GRANITE</b> Moderately weathered to fresh, dark grey											
				322	8	+	<b>MEGA CRYSTALLINE GRANITE</b> Moderately weathered / fresh, grey											
				320	10	+	<b>GRANITE</b> Moderately weathered to fresh, dark grey											
				318	12	+	<b>MEGA CRYSTALLINE GRANITE</b> Moderately weathered / fresh, grey											
				316	14	+	<b>GRANITE</b> Moderately weathered to fresh, dark grey											
				314	16	+	<b>MEGA CRYSTALLINE GRANITE</b> Moderately weathered / fresh, grey											
				312	18	+	<b>GRANITE</b> Slight weathered to fresh, dark grey											
				310	20	+												
				308	22	+												
				306	24	+	<b>MEGA CRYSTALLINE GRANITE</b> Moderately weathered / fresh, grey											
				304	26	+	<b>GRANITE</b> Slight weathered to fresh, dark grey											
				302	28	+												
				300	30	+												
				298	32	+												
				296	34	+												
				294	36	+												
				292	38	+												
				290	40	+												
				288	42	+												
				286	44	+												
				284	46	+												
				282	48	+												
				280	50	+												
				278	52	+												
				276	54	+												
				274	56	+												
				272	58	+	<b>MEGA CRYSTALLINE GRANITE</b> Slightly weathered / fresh, dark grey											
				270	60	+												
				268	62	+												
				266	64	+												
				264	66	+												
				262	68		CTBH-02 terminated at 66m											
				260	70													

MPAW/ATC CORED BOREHOLE YANGIBANA BOREHOLES.GPJ GINT AUSTRALIA GDT 21/3/17

CLIENT Hastings Technology Metals

JOB NAME Yangibana Rare Earth Project

JOB NUMBER 112391.11

JOB LOCATION Gifford Creek Station WA

DATE STARTED 29/10/16

COMPLETED

R.L. SURFACE 334.4

DATUM m AHD

LOCATION 427499.2, 7352255

INCLINATION 90°

BEARING ---

EQUIPMENT HQ Diamond Rig

LOGGED BY CJ

CHECKED BY JL

REMARKS Diamond Drill Rig (HQ). Groundwater depth not observed (drilling fluid)

Method	Water	TCR %	RQD %	RL (m)	Depth (m)	Graphic Log	Material Description Soil: type, USCS symbol, strength, plasticity or particle size, colour, secondary components, moisture condition Rock: type, weathering, colour, fabric, estimated strength, structure and bedding	Weathering	Estimated Strength					Defect Spacing mm	Defect Description		
									EL	VL	L	M	H			VH	EH
		75	0	334			<b>CLAY</b> Very stiff, medium to high plasticity, red brown, with sand										
					1		<b>CLAYEY SAND</b> Dense and weakly cemented, pale red brown, fine to coarse sand trace gravel	EW									
		86	0	333			<b>CLAYEY SAND (EXTREMELY WEATHERED GRANITE)</b> Very dense / dense, green grey and pale grey and black, with gravel										
					2		<b>MEGA CRYSTALLINE GRANITE</b> Highly weathered, dark green grey and black, massive, very low to medium strength.	HW									
		100	56	332			<b>GRANITE</b> Moderately weathered, dark green grey and pale grey, equigranular, massive, low to medium strength	MW									
					3		3.5 m becoming dark grey										
		100	58	330													
					4												
		100	82	329			5.5 m with irregular foliations										
					5												
		100	82	328													
					6												
		94	16	327			7.0 m - 8.1 m highly weathered, grey and green grey, very low / medium strength	HW									
					7		7.38 m - 8.1 m highly weathered, micaceous rubble core										
					8												
		100	92	326			<b>GRANITE</b> Moderately weathered to slightly weathered, dark green grey, white and black, equigranular, massive, low to medium strength	MW									
					9												
		100	92	325			9.5 m slightly weathered	SW									
					10												

MPAW/ATC CORED BOREHOLE YANGIBANA BOREHOLES.GPJ GINT AUSTRALIA GDT 21/3/17

joint surfaces predominantly irregular, planar and rough with staining and no infill.

7.38 m - 8.1 m highly fractured shear zone

9.36 m joint 40° dip, planar, clay infill

**CLIENT** Hastings Technology Metals

**JOB NAME** Yangibana Rare Earth Project

**JOB NUMBER** 112391.11

**JOB LOCATION** Gifford Creek Station WA

**DATE STARTED** 29/10/16

**COMPLETED**

**R.L. SURFACE** 334.4

**DATUM** m AHD

**LOCATION** 427499.2, 7352255

**INCLINATION** 90°

**BEARING** ---

**EQUIPMENT** HQ Diamond Rig

**LOGGED BY** CJ

**CHECKED BY** JL

**REMARKS** Diamond Drill Rig (HQ). Groundwater depth not observed (drilling fluid)

Method	Water	TCR %	RQD %	RL (m)	Depth (m)	Graphic Log	Material Description Soil: type, USCS symbol, strength, plasticity or particle size, colour, secondary components, moisture condition Rock: type, weathering, colour, fabric, estimated strength, structure and bedding	Weathering	Estimated Strength					Is <sub>(50)</sub> MPa D- diam- etral A- axial	Defect Spacing mm 20 60 200 600 2000	Defect Description
									EL	VL	L	M	H			
				324	11	+	<b>GRANITE</b> Moderately weathered to slightly weathered, dark green grey, white and black, equigranular, massive, low to medium strength ( <i>continued</i> )	SW								
	100	92		323	12	+										
				322	13	+	13.1 m dark green grey and white, medium to very high strength									
	100	65		320	14	+										
				319	15	+	14.6 m moderately weathered, dark green grey and pale grey,	MW/HW							14.65 m joint 75° dip, planar, rough tight	
				318	16	+	15.67 m - 15.80 m moderately to highly weathered zone becoming slightly to moderately weathered	SW/MW								
	100	67		317	17	+										
				316	18	+										
	100	57		315	19	+										
					20	+										

MPAW/ATC CORED BOREHOLE YANGIBANA BOREHOLES.GPJ GINT AUSTRALIA.GDT 21/3/17

**CLIENT** Hastings Technology Metals  
**JOB NUMBER** 112391.11

**JOB NAME** Yangibana Rare Earth Project  
**JOB LOCATION** Gifford Creek Station WA

**DATE STARTED** 29/10/16      **COMPLETED**      **R.L. SURFACE** 334.4      **DATUM** m AHD  
**LOCATION** 427499.2, 7352255      **INCLINATION** 90°      **BEARING** ---  
**EQUIPMENT** HQ Diamond Rig      **LOGGED BY** CJ      **CHECKED BY** JL  
**REMARKS** Diamond Drill Rig (HQ). Groundwater depth not observed (drilling fluid)

Method	Water	TCR %	RQD %	RL (m)	Depth (m)	Graphic Log	Material Description Soil: type, USCS symbol, strength, plasticity or particle size, colour, secondary components, moisture condition  Rock: type, weathering, colour, fabric, estimated strength, structure and bedding	Weathering	Estimated Strength					Is <sub>(50)</sub> MPa D- diam- etral A- axial	Defect Spacing mm	Defect Description		
									EL	VL	L	M	H				VH	EH
					314	+	<b>GRANITE</b> Moderately weathered to slightly weathered, dark green grey, white and black, equigranular, massive, low to medium strength ( <i>continued</i> )	SW/MW										21.25 - 21.5 m three subhorizontal fractures, irregular, rough
		100	57		21	+												
					313	+												22.55 m - 22.7 m highly fractured shear zone, clay infill in joints
		100	59		22	+												
					312	+												23
		100	76		23	+	<b>MEGA CRYSTALLINE GRANITE</b> Slightly weathered / fresh, pale grey and dark grey and pink crystalline texture, massive, very high to extremely high strength.	SW										
					311	+												24
		100	76		24	+												
					310	+	becoming fresh											25
					25	+		FR										
					309	+												26
		100	95		26	+												
					308	+												27
					27	+												
					307	+												28
					28	+												
					306	+												29
		100	100		29	+												
					305	+												30
					30	+												





**CLIENT** Hastings Technology Metals  
**JOB NUMBER** 112391.11

**JOB NAME** Yangibana Rare Earth Project  
**JOB LOCATION** Gifford Creek Station WA

**DATE STARTED** 29/10/16      **COMPLETED**      **R.L. SURFACE** 334.4      **DATUM** m AHD  
**LOCATION** 427499.2, 7352255      **INCLINATION** 90°      **BEARING** ---  
**EQUIPMENT** HQ Diamond Rig      **LOGGED BY** CJ      **CHECKED BY** JL  
**REMARKS** Diamond Drill Rig (HQ). Groundwater depth not observed (drilling fluid)

Method	Water	TCR %	RQD %	RL (m)	Depth (m)	Graphic Log	Material Description Soil: type, USCS symbol, strength, plasticity or particle size, colour, secondary components, moisture condition Rock: type, weathering, colour, fabric, estimated strength, structure and bedding	Weathering	Estimated Strength					Is <sub>(50)</sub> MPa D- diam- A- axial	Defect Spacing mm 20 60 200 600 2000	Defect Description
									EL	VL	L	M	H			
				284	+	<b>MEGA CRYSTALLINE GRANITE</b> Slightly weathered / fresh, pale grey and dark grey and pink crystalline texture, massive, very high to extremely high strength. <i>(continued)</i>	FR									
		100	100	283	+											
				282	+											
				281	+											
		100	100	280	+											
				279	+											
				278	+											
				277	+											
				276	+											
				275	+											
				274	+											
				273	+											
				272	+											
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				158	+											
				157	+											
				156	+											
				155	+											
				154	+											
				153	+											

CLIENT Hastings Technology Metals

JOB NAME Yangibana Rare Earth Project

JOB NUMBER 112391.11

JOB LOCATION Gifford Creek Station WA

DATE STARTED 1/11/16

COMPLETED

R.L. SURFACE 333.6

DATUM m AHD

LOCATION 426936.9, 7351880

INCLINATION 90°

BEARING ---

EQUIPMENT HQ Diamond Rig

LOGGED BY CJ

CHECKED BY JL

REMARKS Diamond Drill Rig (HQ). Groundwater depth not observed (drilling fluid)

Method	Water	TCR %	RQD %	RL (m)	Depth (m)	Graphic Log	Material Description Soil: type, USCS symbol, strength, plasticity or particle size, colour, secondary components, moisture condition Rock: type, weathering, colour, fabric, estimated strength, structure and bedding	Weathering	Estimated Strength					Defect Spacing mm	Defect Description
									EL	VL	L	M	H		
							<b>CLAYEY SAND</b> Medium dense/ dense, fine to coarse, red brown, trace gravel, medium plasticity								
		100	9		333	1	<b>SILTY GRAVEL (EXTREMELY WEATHERED GRANITE)</b> Very dense/weakly cemented, fine to coarse gravel lithorelicts, trace sand	EW							
					332	2	<b>GRANITE</b> Highly weathered, grey and green grey, foliated, very low / low strength 1.47 m becoming moderately to highly weathered, green grey and white, medium to very high strength	HW HW/MW							joints predominantly, rough, irregular with surface staining. 2.01 m - 2.52 m fractured zone, fractures irregular, rough, with very thin clay infill (1 mm - 2 mm)
		100	18		331	3								2.8 m - 3.67 m subvertical joint, irregular, rough, stained	
					330	4	<b>GRANITE</b> Slightly weathered, green grey and white, equi-crystalline, massive, very high/ extremely high strength	SW							
		100	71		329	5	4.47 m becoming pale grey and white mega crystalline granite, high to very high strength							4.67 m - 4.83 m joints 30° - 40° dip, irregular, rough	
					328	6									
		100	96		327	7	<b>GRANITE</b> Slightly weathered, white and dark grey, equigranular, poorly foliated, high to very high strength								
					326	8									
		96	94		325	9								joint 70° dip, rough, stained	
		100	71		324	10									
		97	81												

MPAW/ATC CORED BOREHOLE YANGIBANA BOREHOLES.GPJ GINT AUSTRALIA GDT 21/3/17

**CLIENT** Hastings Technology Metals  
**JOB NUMBER** 112391.11

**JOB NAME** Yangibana Rare Earth Project  
**JOB LOCATION** Gifford Creek Station WA

**DATE STARTED** 1/11/16      **COMPLETED**      **R.L. SURFACE** 333.6      **DATUM** m AHD  
**LOCATION** 426936.9, 7351880      **INCLINATION** 90°      **BEARING** ---  
**EQUIPMENT** HQ Diamond Rig      **LOGGED BY** CJ      **CHECKED BY** JL  
**REMARKS** Diamond Drill Rig (HQ). Groundwater depth not observed (drilling fluid)

Method	Water	TCR %	RQD %	RL (m)	Depth (m)	Graphic Log	Material Description Soil: type, USCS symbol, strength, plasticity or particle size, colour, secondary components, moisture condition  Rock: type, weathering, colour, fabric, estimated strength, structure and bedding	Weathering	Estimated Strength					Is <sub>(50)</sub> MPa D- diam- etral A- axial	Defect Spacing mm	Defect Description
									EL	VL	L	M	H			
		97	81	323	11	+	<b>GRANITE</b> Slightly weathered, white and dark grey, equigranular, poorly foliated, high to very high strength ( <i>continued</i> ) 10.46 m becoming pale grey, fine and medium grained	SW								10.44 m - 10.96 m irregular, rough, 5° - 25° dip
				322	12		CTBH-04 terminated at 11m									
				321	13											
				320	14											
				319	15											
				318	16											
				317	17											
				316	18											
				315	19											
				314	20											

CLIENT Hastings Technology Metals

JOB NAME Yangibana Rare Earth Project

JOB NUMBER 112391.11

JOB LOCATION Gifford Creek Station WA

DATE STARTED 26/10/16

COMPLETED

R.L. SURFACE 330.5

DATUM m AHD

LOCATION 427008.2, 7352741

INCLINATION 90°

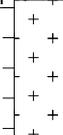
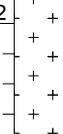
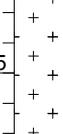
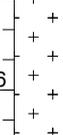
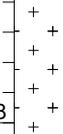
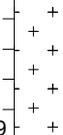
BEARING ---

EQUIPMENT HQ Diamond Rig

LOGGED BY CJ

CHECKED BY JL

REMARKS Diamond Drill Rig (HQ). Groundwater depth not observed (drilling fluid)

Method	Water	TCR %	RQD %	RL (m)	Depth (m)	Graphic Log	Material Description Soil: type, USCS symbol, strength, plasticity or particle size, colour, secondary components, moisture condition Rock: type, weathering, colour, fabric, estimated strength, structure and bedding	Weathering	Estimated Strength					Is <sub>(50)</sub> MPa D- diam- A- axial	Defect Spacing mm 20 60 200 600 2000	Defect Description
									EL	VL	L	M	H			
		37		330	1		<b>CLAYEY GRAVEL</b> Dense/very dense, fine to coarse, brown and grey, medium plasticity.									
		100	83	329	2		<b>GRANITE</b> Moderately weathered, grey and light grey, equigranular medium gravel, massive, medium/ high strength 1.2 m - 2.2 m dark grey and white, high / very high strength	MW								joints irregular, rough, clean or with slight iron oxide staining
		100	77	328	3		2.2 m - 5.95 m moderately weathered, green grey, massive, medium / high strength									
		100	65	326	4											
		100	47	325	5											
		100	47	325	6		5.95 m - 6.5 m highly weathered zone, closely fractured, low / medium strength	HW								5.3 m - 5.38 m highly fractured zone
		100	77	324	7		6.5 m moderately weathered, grey, white and crystalline, high/ very high strength	MW								6.54 m - 6.67 m closely fractured zone
		93	81	322	8		<b>GRANITE</b> Slightly weathered, grey and light grey, equigranular medium gravel, massive, medium/ very high strength	SW								
		100	96	321	9											
					10											8.65 m - 8.72 m closely fractured

MPAW/ATC CORED BOREHOLE YANGIBANA BOREHOLES.GPJ GINT AUSTRALIA.GDT 21/3/17

**CLIENT** Hastings Technology Metals  
**JOB NUMBER** 112391.11

**JOB NAME** Yangibana Rare Earth Project  
**JOB LOCATION** Gifford Creek Station WA

**DATE STARTED** 26/10/16      **COMPLETED**      **R.L. SURFACE** 330.5      **DATUM** m AHD  
**LOCATION** 427008.2, 7352741      **INCLINATION** 90°      **BEARING** ---  
**EQUIPMENT** HQ Diamond Rig      **LOGGED BY** CJ      **CHECKED BY** JL  
**REMARKS** Diamond Drill Rig (HQ). Groundwater depth not observed (drilling fluid)

Method	Water	TCR %	RQD %	RL (m)	Depth (m)	Graphic Log	Material Description Soil: type, USCS symbol, strength, plasticity or particle size, colour, secondary components, moisture condition Rock: type, weathering, colour, fabric, estimated strength, structure and bedding	Weathering	Estimated Strength					Is <sub>(50)</sub> MPa D- diam- A- axial	Defect Spacing mm	Defect Description
									EL	VL	L	M	H			
		100	96					SW								
		95	87	320			<b>GRANITE</b> Fresh, green grey and white, equigranular medium gravel, massive, very high/ extremely high strength	FR								
				319	11											
		100	97		12		11.98 m becoming dark grey with pink feldspar crystals									
				318			CTBH-05 terminated at 12.5m									
					13											
				317												
					14											
				316												
					15											
				315												
					16											
				314												
					17											
				313												
					18											
				312												
					19											
				311												
					20											

CLIENT Hastings Technology Metals

JOB NAME Yangibana Rare Earth Project

JOB NUMBER 112391.11

JOB LOCATION Gifford Creek Station WA

DATE STARTED 23/10/16

COMPLETED

R.L. SURFACE 330.2

DATUM m AHD

LOCATION 427418.3, 7353922

INCLINATION 90°

BEARING ---

EQUIPMENT HQ Diamond Rig

LOGGED BY CJ

CHECKED BY JL

REMARKS Diamond Drill Rig (HQ). Groundwater depth not observed (drilling fluid)

Method	Water	TCR %	RQD %	RL (m)	Depth (m)	Graphic Log	Material Description Soil: type, USCS symbol, strength, plasticity or particle size, colour, secondary components, moisture condition Rock: type, weathering, colour, fabric, estimated strength, structure and bedding	Weathering	Estimated Strength					Is <sub>(50)</sub> MPa D- diam- A- axial	Defect Spacing mm	Defect Description
									EL	VL	L	M	H			
					330		<b>CLAYEY SAND</b> Very dense / dense, fine to coarse, red brown and grey, medium plasticity.									
		100			329	1	<b>CLAYEY SAND (EXTREMELY WEATHERED GRANITE)</b> Dense/very dense, fine to coarse, pale grey and white, low / medium plasticity, with lithorelicts of low strength granite.	EW								
					328	2	1.9 m - 2.1 m red brown and pale grey									Core alternating between extremely weathered granite and highly weathered granite.
					328		<b>GRANITE</b> Highly weathered, grey and green grey, coarse gravel lithorelicts, very low to low strength.	HW								
		100			327	3	<b>CLAYEY SAND (EXTREMELY WEATHERED GRANITE)</b> Very dense, fine to coarse, pale grey and white, low / medium plasticity, with lithorelicts of very low strength granite.	EW								
					326	4	<b>GRANITE</b> Highly weathered, grey green and white, coarse texture massive, very low to low strength.	HW								Joints in highly weathered granite typically subhorizontal to 15° dip rough and planar. Defect spacing approx. 60 mm - 200 mm in highly weathered material.
		100	35		325	5										
					324	6	<b>CLAYEY SAND (EXTREMELY WEATHERED GRANITE)</b> Very dense, fine to coarse, grey and white, low / medium plasticity, with lithorelicts of low strength granite.	HW								
					324		<b>GRANITE</b> Highly weathered, grey green and white, coarse texture massive, very low to low strength.									
					323	7	<b>CLAYEY SAND (EXTREMELY WEATHERED GRANITE)</b> Very dense, fine to coarse, pale grey and white, low / medium plasticity, with lithorelicts of very low strength granite.	EW								
		100	58		323		<b>GRANITE</b> Highly weathered, grey green and white, coarse texture massive, very low to low strength.	HW								
					322	8										
					322		<b>CLAYEY SAND (EXTREMELY WEATHERED GRANITE)</b> Dense/very dense, fine to coarse, pale grey and white, low / medium plasticity, with lithorelicts of very low strength granite.	EW								
		100			321	9	<b>GRANITE</b> Highly weathered, grey green and white, coarse texture massive, low to medium strength.	HW								
					321											
		67			321	10		EW								

MPAWIATC CORED BOREHOLE YANGIBANA BOREHOLES.GPJ GINT AUSTRALIA GDT 21/3/17

**CLIENT** Hastings Technology Metals

**JOB NAME** Yangibana Rare Earth Project

**JOB NUMBER** 112391.11

**JOB LOCATION** Gifford Creek Station WA

**DATE STARTED** 23/10/16

**COMPLETED**

**R.L. SURFACE** 330.2

**DATUM** m AHD

**LOCATION** 427418.3, 7353922

**INCLINATION** 90°

**BEARING** ---

**EQUIPMENT** HQ Diamond Rig

**LOGGED BY** CJ

**CHECKED BY** JL

**REMARKS** Diamond Drill Rig (HQ). Groundwater depth not observed (drilling fluid)

Method	Water	TCR %	RQD %	RL (m)	Depth (m)	Graphic Log	Material Description		Weathering	Estimated Strength					Is(50) MPa	D- diam- etral A- axial	Defect Spacing mm	Defect Description	
							Soil: type, USCS symbol, strength, plasticity or particle size, colour, secondary components, moisture condition	Rock: type, weathering, colour, fabric, estimated strength, structure and bedding		EL	VL	L	M	H					VH
		67		320			<b>CLAYEY SAND (EXTREMELY WEATHERED GRANITE)</b> Very dense, fine to coarse, pale grey and white, low / medium plasticity, with lithorelicts of low strength granite. <i>(continued)</i>	EW											
				319	11														
		56		318	12														
				317	13														
		100		316	14			14.1 m becoming grey and white with core stones of low strength highly weathered granite											
		100		315	15														
				314	16			<b>GRANITE</b> Highly weathered, grey green and white, coarse texture massive, very low to medium strength.	HW										
		84		313	17			<b>CLAYEY SAND (EXTREMELY WEATHERED GRANITE)</b> Very dense, fine to coarse, grey and white, low / medium plasticity, with lithorelicts of very low strength granite.	EW										
				312	18			<b>GRANITE</b> Highly weathered, grey green and white, coarse texture, massive, very low to medium strength.	HW										
		67		311	19														
		57																	
		67			20														

MPAW/ATC CORED BOREHOLE YANGIBANA BOREHOLES.GPJ GINT AUSTRALIA GDT 21/3/17

**CLIENT** Hastings Technology Metals

**JOB NAME** Yangibana Rare Earth Project

**JOB NUMBER** 112391.11

**JOB LOCATION** Gifford Creek Station WA

**DATE STARTED** 23/10/16

**COMPLETED**

**R.L. SURFACE** 330.2

**DATUM** m AHD

**LOCATION** 427418.3, 7353922

**INCLINATION** 90°

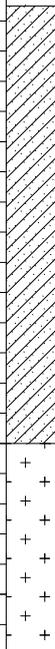
**BEARING** ---

**EQUIPMENT** HQ Diamond Rig

**LOGGED BY** CJ

**CHECKED BY** JL

**REMARKS** Diamond Drill Rig (HQ). Groundwater depth not observed (drilling fluid)

Method	Water	TCR %	RQD %	RL (m)	Depth (m)	Graphic Log	Material Description Soil: type, USCS symbol, strength, plasticity or particle size, colour, secondary components, moisture condition Rock: type, weathering, colour, fabric, estimated strength, structure and bedding	Weathering	Estimated Strength					Is <sub>(50)</sub> MPa D- diam- A- axial	Defect Spacing mm	Defect Description
									EL	VL	L	M	H			
		67		310	21		<b>CLAYEY SAND (EXTREMELY WEATHERED GRANITE)</b> Very dense, fine to coarse, grey and white, low / medium plasticity, with lithorelicts of very low strength granite. 20.7 m with very low to low strength granite core stones	EW								
		100	83	309	22											
		87		308	23											
		100	82	307	24		<b>GRANITE</b> Extremely to highly weathered, pale grey and white, coarse texture, massive, very low / low strength, with pockets of very dense clayey sand.	HW								
				306												
					25		PLBH-01 (CBT1) terminated at 24.5m									
				305												
					26											
				304												
					27											
				303												
					28											
				302												
					29											
				301												
					30											





**FIGURE**  
**BOREHOLE NUMBER PLBH-02 (CBT3)**  
 SHEET 2 OF 2

**CLIENT** Hastings Technology Metals  
**JOB NUMBER** 112391.11

**JOB NAME** Yangibana Rare Earth Project  
**JOB LOCATION** Gifford Creek Station WA

**DATE STARTED** 24/10/16      **COMPLETED**      **R.L. SURFACE** 336.3      **DATUM** m AHD  
**LOCATION** 427772.4, 7353841      **INCLINATION** 90°      **BEARING** ---  
**EQUIPMENT** HQ Diamond Rig      **LOGGED BY** CJ      **CHECKED BY** JL  
**REMARKS** Diamond Drill Rig (HQ). Groundwater depth not observed (drilling fluid)

Method	Water	TCR %	RQD %	RL (m)	Depth (m)	Graphic Log	Material Description Soil: type, USCS symbol, strength, plasticity or particle size, colour, secondary components, moisture condition Rock: type, weathering, colour, fabric, estimated strength, structure and bedding	Weathering	Estimated Strength					Is <sub>(50)</sub> MPa				Defect Spacing mm	Defect Description
									EL	VL	L	M	H	VH	EH	D- diam- etral A- axial	20		
		100	98	326	11	+	<b>MEGA-CRYSTALLINE GRANITE</b> Freshly weathered, pale green grey and white, coarse texture, massive, high to extremely high strength. <i>(continued)</i>	FR											
				325	12		PLBH-02 (CBT3) terminated at 11m												
				324	13														
				323	14														
				322	15														
				321	16														
				320	17														
				319	18														
				318	19														
				317	20														

**CLIENT** Hastings Technology Metals  
**JOB NUMBER** 112391.11

**JOB NAME** Yangibana Rare Earth Project  
**JOB LOCATION** Gifford Creek Station WA

**DATE STARTED** 25/10/16      **COMPLETED**      **R.L. SURFACE** 333.5      **DATUM** m AHD  
**LOCATION** 427601.8, 7353923      **INCLINATION** 90°      **BEARING** ---  
**EQUIPMENT** HQ Diamond Rig      **LOGGED BY** CJ      **CHECKED BY** JL  
**REMARKS** Diamond Drill Rig (HQ). Groundwater depth not observed (drilling fluid)

Method	Water	TCR %	RQD %	RL (m)	Depth (m)	Graphic Log	Material Description Soil: type, USCS symbol, strength, plasticity or particle size, colour, secondary components, moisture condition Rock: type, weathering, colour, fabric, estimated strength, structure and bedding	Weathering	Estimated Strength					Is <sub>(50)</sub> MPa D- diam- A- axial	Defect Spacing mm	Defect Description	
									EL	VL	L	M	H				VH
		95	0	333			<b>CLAYEY SAND</b> Very dense / dense, fine to coarse, red brown and grey, medium plasticity.	HW									
		92	0	332	1	+	<b>MEGA-CRYSTALLINE GRANITE</b> Highly weathered, red brown and grey, coarse texture massive, very low to low strength.										Joints in highly / moderately weathered rock mostly irregular or planar with rough and stained surfaces.
					2	+	<b>MEGA-CRYSTALLINE GRANITE</b> Moderately weathered, red brown and white and pale grey, coarse texture massive, low & medium strength.	MW									UCS = 4.68 MPa
		91	0	331	3	+											
					4	+	<b>GRANITE</b> Highly weathered, red brown and pale grey, coarse texture massive, low strength.	HW									
		93	0	329	5	+	4.9 - 5.5 m, pale brown, very low strength										
		100	0	328	6	+	5.5m - 6.6 m, pale pink and grey with pockets of clayey gravel, very low strength										
					7	+	6.6 m - 7.8 m pale yellow brown and green grey, very low strength										
		58	0	326	8	+											
					9	+	<b>CLAYEY SAND (EXTREMELY WEATHERED GRANITE)</b> Very dense, fine to coarse, pale grey and white, low plasticity, with lithorelicts of weathered granite.										
		45		325	10	+											
		100		324													

MPAWIATC CORED BOREHOLE YANGIBANA BOREHOLES.GPJ GINT AUSTRALIA GDT 21/3/17

**CLIENT** Hastings Technology Metals  
**JOB NUMBER** 112391.11

**JOB NAME** Yangibana Rare Earth Project  
**JOB LOCATION** Gifford Creek Station WA

**DATE STARTED** 25/10/16      **COMPLETED**      **R.L. SURFACE** 333.5      **DATUM** m AHD  
**LOCATION** 427601.8, 7353923      **INCLINATION** 90°      **BEARING** ---  
**EQUIPMENT** HQ Diamond Rig      **LOGGED BY** CJ      **CHECKED BY** JL  
**REMARKS** Diamond Drill Rig (HQ). Groundwater depth not observed (drilling fluid)

Method	Water	TCR %	RQD %	RL (m)	Depth (m)	Graphic Log	Material Description Soil: type, USCS symbol, strength, plasticity or particle size, colour, secondary components, moisture condition Rock: type, weathering, colour, fabric, estimated strength, structure and bedding	Weathering	Estimated Strength					Defect Spacing mm				Defect Description
									EL	VL	L	M	H	VH	EH	20	60	
		100		323	11		<b>CLAYEY SAND (EXTREMELY WEATHERED GRANITE)</b> Very dense, fine to coarse, pale grey and white, low plasticity, with lithorelicts of weathered granite. <i>(continued)</i>											
							PLBH-03 (CBT4) terminated at 11m											
				322	12													
				321	13													
				320	14													
				319	15													
				318	16													
				317	17													
				316	18													
				315	19													
				314	20													



**CLIENT** Hastings Technology Metals  
**JOB NUMBER** 112391.11

**JOB NAME** Yangibana Rare Earth Project  
**JOB LOCATION** Gifford Creek Station WA

**DATE STARTED** 26/10/16      **COMPLETED**      **R.L. SURFACE** 333.2      **DATUM** m AHD  
**LOCATION** 427602.7, 7354051      **INCLINATION** 90°      **BEARING** ---  
**EQUIPMENT** HQ Diamond Rig      **LOGGED BY** CJ      **CHECKED BY** JL  
**REMARKS** Diamond Drill Rig (HQ). Groundwater depth not observed (drilling fluid)

Method	Water	TCR %	RQD %	RL (m)	Depth (m)	Graphic Log	Material Description Soil: type, USCS symbol, strength, plasticity or particle size, colour, secondary components, moisture condition Rock: type, weathering, colour, fabric, estimated strength, structure and bedding	Weathering	Estimated Strength					Defect Spacing mm	Defect Description			
									EL	VL	L	M	H			VH	EH	20
				333			<b>CLAY</b> Very stiff, red brown and grey, with fine sand W>Wp.											
		100		332	1		1.2 m with grey weakly cemented claystone material											
		100		331	2	+	<b>EXTREMELY WEATHERED GRANITE (LATERITIZED)</b> Extremely weathered, red brown, massive, very low to medium strength	EW										
		100		330	3	+	<b>MEGA-CRYSTALLINE GRANITE</b> Extremely to highly weathered, purple red brown with white speckling, very low strength with pockets of stiff clay material	EW/HW										
		100	83	329	4	+	<b>MEGA-CRYSTALLINE GRANITE</b> Moderately weathered, white, black and red brown, massive, medium to high strength.	MW										fractures predominantly subhorizontal, irregular, rough and either stained or clean
		100	85	328	5	+	4.6 m with poorly developed veining 4.65 m becoming purple and white speckled 4.9 m predominantly white/cream with black crystals											UCS = 15.3 MPa
		95	78	327	6	+	7.1 m becoming white and brown, increasingly weathered, low to medium strength	MW/HW										below 7.3 m - joints mostly irregular, rough and clean.
		84		325	8	+	<b>GRANITE</b> Highly weathered to moderately weathered, greenish brown and grey, massive, fine and medium texture, medium to very high strength.											UCS = 8.65 MPa
		84		324	9	+	dark green grey											
					10	+												

MPAW/ATC CORED BOREHOLE YANGIBANA BOREHOLES.GPJ GINT AUSTRALIA GDT 21/3/17

PLBH-05 (CBT2) terminated at 10m





CTBH1 (0.00 - 10.10 m)



CTBH1 (10.10 - 20.30 m)



CTBH1 (20.30 - 29.80 m)



CTBH1 (29.80 - 39.50 m)



**CTBH1 (39.50 - 40.50 m)**



CTBH3 (0.00 - 09.50 m)



CTBH3 (09.50 - 20.30 m)



CTBH3 (20.30 - 30.50 m)