



310 Selby Street North
Osborne Park
Project: Redbank Mine SF Pit
Reference: WCV80823
Client: Redbank Copper Limited

Tel No: (08) 9241-1800
Fax No: (08) 9241-1999
Drilled by: Downer Edi
Logged by: Redbank Mines
Date: 1 September 2009

Latitude South: 8,096,754.41
Longitude East: 791,009.03
Elevation AHD (Ground): 168.00
Elevation AHD (Ground Water): 168.00
Ground Water Level (mbgl): Artesian

Depth (mbgl)	Depth (mAHd)	Monitor Bore	Depth (m)	Lithological Description	Hardness (1-10) Oxidation (1-5)	Remarks and Observations						
0.0	168.00	a r t e s i a n	0.0 - 15.0	Brown TRACHYTE, fine grained below 8.0mbgl, moderately hard and moderately oxidized.	Hardness: 6; Oxidation: 3	Caving.						
2.0	166.00		150mm DIA Solid Casing 50mm DIA PVC screen insert from top to bottom									
4.0	164.00											
6.0	162.00											
8.0	160.00											
10.0	158.00											
12.0	156.00											
14.0	154.00											
16.0	152.00								15.0 - 16.0	Cream CLAY.	Hardness: 2; Oxidation: 5	
18.0	150.00								16.0 - 23.0	Dark brown SANDSTONE, siliceous, quartzitic.		Water strike.
20.0	148.00								23.0 - 44.0	Red brown SILTSTONE, hematitic, medium grained, moderately weathered.	Hardness: 8; Oxidation: 3	
22.0	146.00											
24.0	144.00											
26.0	142.00											
28.0	140.00											
30.0	138.00											
32.0	136.00											
34.0	134.00											
36.0	132.00											
38.0	130.00											
40.0	128.00	44.0 - 47.0	SILTSTONE and oxidized TRACHYTE; very leached amygdaloidal TRACHYTE towards base of layer.	Hardness: 7; Oxidation: 4								
42.0	126.00	47.0 - 48.0	SANDSTONE, oxidized coarse grained.	Hardness: 7; Oxidation: 4								
44.0	124.00											
46.0	122.00											
48.0	120.00											



- Key:**
- Solid casing with lockable cap
 - Fill
 - Gravel
 - Bentonite seal
 - ▨ Screen with bottom end
 - ▼ Ground Water Level

Ground Water Description		
Field Measurements:	Units:	Sample Observations:
pH:	pH units	Date:
Electrical Conductivity:	mS/cm	Colour:
Salinity:	ppt	Sheen:
Dissolved Oxygen:	%	Odour:
Turbidity:	NTU	Silt:
Temperature:	°C	Filtration:

Borehole Number
B22 (SF)

Reference Number: SFMB09-001

Indicate additional ground water level measurements here: artesian.

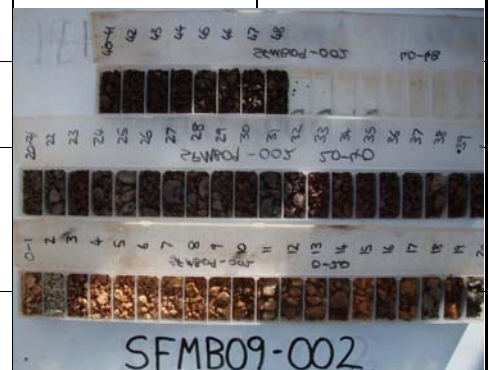


310 Selby Street North
Osborne Park
Project: Redbank Mine SF Pit
Reference: WCW80823
Client: Redbank Copper Limited

Tel No: (08) 9241-1800
Fax No: (08) 9241-1999
Drilled by: Downer Edi
Logged by: Redbank Mines
Date: 2 September 2009

Latitude South: 8,096,721.48
Longitude East: 791,244.61
Elevation AHD (Ground): 170.50
Elevation AHD (Ground Water): 169.18
Ground Water Level (mbgl): 1.32

Depth (mbgl)	Depth (mAHD)	Monitor Bore	Depth (m)	Lithological Description	Hardness (1-10) Oxidation (1-5)	Remarks and Observations
0.0	170.50		0.0 - 9.0	Brown and grey TRACHYTE, fine grained towards base of layer, moderately hard and moderately oxidized.	Hardness: 6; Oxidation: 3	
2.0	168.50		150mm DIA Solid Casing			
4.0	166.50					
6.0	164.50					
8.0	162.50					
10.0	160.50				50mm DIA PVC screen insert	
12.0	158.50		from top to bottom	Brown SANDSTONE, coarse grained, quartzitic.	Hardness: 6; Oxidation: 3	Water strike.
14.0	156.50		11.0 - 17.0	Brown TRACHYTE, moderately oxidized.	Hardness: 6; Oxidation: 3	
16.0	154.50					
18.0	152.50					
20.0	150.50		17.0 - 20.0	Green and brown TRACHYTE and SANDSTONE.		
22.0	148.50		20.0 - 25.0	Green and brown TRACHYTE, limonitic, oxidized..		
24.0	146.50		25.0 - 34.0	Red brown SILTSTONE, hematitic, moderately weathered.	Hardness: 8; Oxidation: 3	
26.0	144.50					
28.0	142.50					
30.0	140.50					
32.0	138.50		34.0 - 40.0	Red brown SANDSTONE, oxidized, iron rich, quartzitic.	Hardness: 8; Oxidation: 3	
34.0	136.50					
36.0	134.50					
38.0	132.50		40.0 - 44.0	Red brown SILTSTONE.	Hardness: 8; Oxidation: 3	
40.0	130.50					
42.0	128.50	44.0 - 48.0	Red brown TRACHYTE.	Hardness: 7; Oxidation: 4		
44.0	126.50					
46.0	124.50					
48.0	122.50					




Key: 	Ground Water Description			Borehole Number B21 (SF)
	Field Measurements: pH: Electrical Conductivity: Salinity: Dissolved Oxygen: Turbidity: Temperature:	Units: pH units mS/cm ppt % NTU °C	Sample Observations: Date: Colour: Sheen: Odour: Silt: Filtration:	
Indicate additional ground water level measurements here: 1.96 (Sept); 2.2 (Nov); 1.32 (Jan 2010).			Reference Number: SFMB09-002	



310 Selby Street North
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Tel No: (08) 9241-1800
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Drilled by: Downer Edi
Logged by: Redbank Mines
Date: 18 September 2009

Latitude South: 8,096,834.80
Longitude East: 791,418.78
Elevation AHD (Ground): 174.00
Elevation AHD (Ground Water): 169.00
Ground Water Level (mbgl): 5.00

Depth (mbgl)	Depth (mAHd)	Monitor Bore	Depth (m)	Lithological Description	Hardness (1-10) Oxidation (1-5)	Remarks and Observations	
0.0	174.00		0.0 - 4.0	Brown ALLUVIUM..	Hardness: 6; Oxidation: 3		
2.0	172.00						
4.0	170.00						
6.0	168.00		150mm DIA		Cream brown CLAY, oxidised.	Hardness: 6; Oxidation: 3	
8.0	166.00		Solid Casing		Brown SANDSTONE, coarse grained, quartzitic.		
10.0	164.00		50mm DIA PVC screen insert from top to bottom			Hardness: 6; Oxidation: 3	
12.0	162.00						
14.0	160.00			13.0 - 15.0	Brown TRACHYTE, oxidised.	Hardness: 6; Oxidation: 3	
16.0	158.00			15.0 - 16.0	Cream TRACHYTE and SILTSTONE	Hardness: 2; Oxidation: 5	
18.0	156.00			16.0 - 31.0	Dark brown, SILTSTONE, ferruginous, moderately weathered.		Large water strike.
20.0	154.00						
22.0	152.00						
24.0	150.00						
26.0	148.00						
28.0	146.00						
30.0	144.00						
32.0	142.00			31.0 - 35.0	Red brown TRACHYTE, highly oxidized.	Hardness: 8; Oxidation: 3	
34.0	140.00						
36.0	138.00			35.0 - 39.0	Red brown SANDSTONE, oxidized, quartzitic.	Hardness: 8; Oxidation: 3	
38.0	136.00						
40.0	134.00		39.0 - 40.0	Red brown Siltstone, oxidized.	Hardness: 8; Oxidation: 3		
42.0	132.00		41.0 - 48.0	Red brown TRACHYTE and SILTSTONE.	Hardness: 8; Oxidation: 3		
44.0	130.00						
46.0	128.00				Hardness: 7; Oxidation 4		
48.0	126.00						

- Key:**
- Solid casing with lockable cap
 - Fill
 - Gravel
 - Bentonite seal
 - Screen with bottom end
 - Ground Water Level

Ground Water Description		
Field Measurements:	Units:	Sample Observations:
pH:	pH units	Date:
Electrical Conductivity:	mS/cm	Colour:
Salinity:	ppt	Sheen:
Dissolved Oxygen:	%	Odour:
Turbidity:	NTU	Silt:
Temperature:	°C	Filtration:

Borehole Number
B20 (SF)

Indicate additional ground water level measurements here: 4.96 (Sept); 5.35 (Nov); 5.00 (Jan 2010).

Reference Number: SFMB09-003



310 Selby Street North
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Logged by: Redbank Mines
Date: 18 September 2009

Latitude South: 8,096,950.10
Longitude East: 791,269.30
Elevation AHD (Ground): 171.50
Elevation AHD (Ground Water): 168.19
Ground Water Level (mbgl): 3.31

Depth (mbgl)	Depth (mAHAD)	Monitor Bore	Depth (m)	Lithological Description	Hardness (1-10) Oxidation (1-5)	Remarks and Observations			
0.0	171.50		0.0 - 15.0	Pale brown to dark brown TRACHYTE, limonitic, ferruginous, fine grained, weathered and oxidized.	Hardness: 6; Oxidation: 3				
2.0	169.50								
4.0	167.50								
6.0	165.50								
8.0	163.50								
10.0	161.50								
12.0	159.50								
14.0	157.50								
16.0	155.50								
18.0	153.50								
20.0	151.50								
22.0	149.50								
24.0	147.50								
26.0	145.50								
28.0	143.50								
30.0	141.50								
32.0	139.50		15.0 - 31.0	Dark and red brown, SILTSTONE, ferruginous, oxidized, moderately weathered.	Hardness: 8; Oxidation: 3	Caving. Water strike.			
34.0	137.50								
36.0	135.50								
38.0	133.50								
40.0	131.50								
42.0	129.50								
44.0	127.50								
46.0	125.50								
48.0	123.50								
32.0	139.50			31.0 - 35.0		Dark and red brown, SANDSTONE, oxidized, quartzitic.	Hardness: 8; Oxidation: 3		
34.0	137.50								
36.0	135.50								
38.0	133.50								
40.0	131.50								
42.0	129.50								
44.0	127.50								
46.0	125.50								
48.0	123.50								
36.0	135.50			35.0 - 48.0	Dark red brown TRACHYTE, iron rich, oxidized, fine grained, mottled.	Hardness: 7; Oxidation: 4			
38.0	133.50								
40.0	131.50								
42.0	129.50								
44.0	127.50								
46.0	125.50								
48.0	123.50								

- Key:**
- Solid casing with lockable cap
 - Fill
 - Gravel
 - Bentonite seal
 - Screen with bottom end
 - Ground Water Level

Field Measurements:
pH:
Electrical Conductivity:
Salinity:
Dissolved Oxygen:
Turbidity:
Temperature:

Units:
pH units
mS/cm
ppt
%
NTU
°C

Ground Water Description
Sample Observations:
Date:
Colour:
Sheen:
Odour:
Silt:
Filtration:

Borehole Number
B23 (SF)

Indicate additional ground water level measurements here: 3.51 (Sept); 3.87 (Nov); 3.31 (Jan 2010).

Reference Number: SFMB09-004



310 Selby Street North
Osborne Park
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Reference: WCW80823
Client: Redbank Copper Limited

Tel No: (08) 9241-1800
Fax No: (08) 9241-1999
Drilled by: Downer Edi
Logged by: Redbank Mines
Date: 4 September 2009

Latitude South: 8,096,721.48
Longitude East: 791,244.61
Elevation AHD (Ground): 175.00
Elevation AHD (Ground Water): 168.97
Ground Water Level (mbgl): 6.03

Depth (mbgl)	Depth (mAH)	Monitor Bore	Depth (m)	Lithological Description	Hardness (1-10) Oxidation (1-5)	Remarks and Observations
0.0	175.00		0.0 - 7.0	Brown ALLUVIUM, well weathered.	Hardness: 6; Oxidation: 3	
2.0	173.00		150mm DIA Solid Casing			
4.0	171.00				50mm DIA PVC screen insert from top to bottom	Brown SANDSTONE, oxidized, weathered.
6.0	169.00		14.0 - 16.0	Brown, TRACHYTE, limonitic.		
8.0	167.00				16.0 - 19.0	Dark brown, SILTSTONE, ferruginous.
10.0	165.00		19.0 - 22.0	Brown TRACHYTE, oxidized.		
12.0	163.00				22.0 - 25.0	Dark brown SANDSTONE.
14.0	161.00		25.0 - 37.0	Red brown SILTSTONE, moderately weathered, ferruginous.		
16.0	159.00				37.0 - 41.0	Red brown TRACHYTE, oxidized, ferruginous.
18.0	157.00		41.0 - 44.0	Red brown TRACHYTE and SANDSTONE, coarse grained.		
20.0	155.00				44.0 - 48.0	Red brown TRACHYTE, oxidized, ferruginous.
22.0	153.00					
24.0	151.00					
26.0	149.00					
28.0	147.00					
30.0	145.00					
32.0	143.00					
34.0	141.00					
36.0	139.00					
38.0	137.00					
40.0	135.00					
42.0	133.00					
44.0	131.00					
46.0	129.00					
48.0	127.00					



- Key:**
- Solid casing with lockable cap
 - Fill
 - Gravel
 - Bentonite seal
 - Screen with bottom end
 - Ground Water Level

Ground Water Description			Borehole Number B26 (SF)
Field Measurements: pH: Electrical Conductivity: Salinity: Dissolved Oxygen: Turbidity: Temperature:	Units: pH units mS/cm ppt % NTU °C	Sample Observations: Date: Colour: Sheen: Odour: Silt: Filtration:	
Indicate additional ground water level measurements here: 5.83 (Sept); 5.98 (Nov); 6.03 (Jan 2010).			Reference Number: SFMB09-005

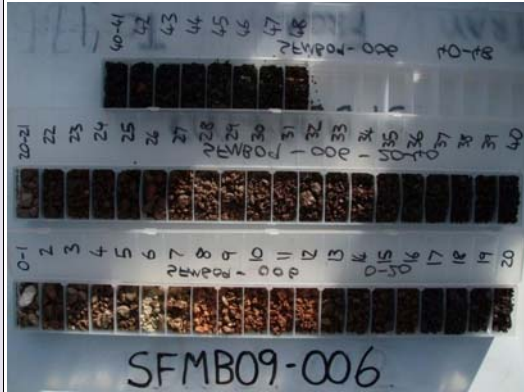


310 Selby Street North
Osborne Park
Project: Redbank Mine SF Pit
Reference: WCW80823
Client: Redbank Copper Limited

Tel No: (08) 9241-1800
Fax No: (08) 9241-1999
Drilled by: Downer Edi
Logged by: Redbank Mines
Date: 5 September 2009

Latitude South: 8,096,966.50
Longitude East: 791,153.59
Elevation AHD (Ground): 168.00
Elevation AHD (Ground Water): 168.00
Ground Water Level (mbgl): Artesian

Depth (mbgl)	Depth (mAHAD)	Monitor Bore	Depth (m)	Lithological Description	Hardness (1-10) Oxidation (1-5)	Remarks and Observations					
0.0	168.00	a r t e s i a n	0.0 - 5.0	Brown SANDSTONE, coarse grained, oxidized.	Hardness: 6; Oxidation: 3						
2.0	166.00										
4.0	164.00										
6.0	162.00			150mm DIA Solid Casing	Pale brown CLAY, limonitic.	Hardness: 6; Oxidation: 3					
8.0	160.00			50mm DIA PVC screen insert from top to bottom	Brown and dark brown TRACHYTE, limonitic, oxidized, weathered, ferruginous.	Hardness: 6; Oxidation: 3					
10.0	158.00										
12.0	156.00										
14.0	154.00										
16.0	152.00										
18.0	150.00										
20.0	148.00										
22.0	146.00						20.0 - 30.0	Dark brown SILTSTONE, hematitic, medium grained, moderately weathered.	Hardness: 7; Oxidation: 4	Water strike.	
24.0	144.00										
26.0	142.00										
28.0	140.00										
30.0	138.00			30.0 - 48.0	Dark brown TRACHYTE; oxidized, interlayered with small lenses of sandstone and siltstone..	Hardness: 7; Oxidation: 4	Caving.				
32.0	136.00										
34.0	134.00										
36.0	132.00										
38.0	130.00										
40.0	128.00										
42.0	126.00										
44.0	124.00										
46.0	122.00										
48.0	120.00										



- Key:**
- Solid casing with lockable cap
 - Fill
 - Gravel
 - Bentonite seal
 - Screen with bottom end
 - Ground Water Level

Ground Water Description			Borehole Number B24 (SF)
Field Measurements:	Units:	Sample Observations:	
pH:	pH units	Date:	
Electrical Conductivity:	mS/cm	Colour:	
Salinity:	ppt	Sheen:	
Dissolved Oxygen:	%	Odour:	
Turbidity:	NTU	Silt:	
Temperature:	°C	Filtration:	

Indicate additional ground water level measurements here: artesian.

Reference Number: SFMB09-006



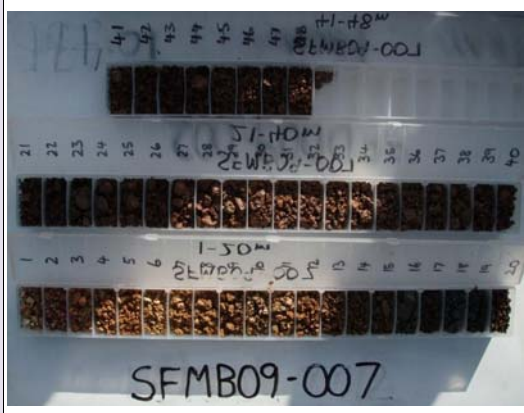
310 Selby Street North
 Osborne Park
Project: Redbank Mine SF Pit
Reference: WCW80823
Client: Redbank Copper Limited

Tel No: (08) 9241-1800
 Fax No: (08) 9241-1999
Drilled by: Downer Edi
Logged by: Redbank Mines
Date: 1 September 2009

Latitude South: 8,097,190.70
 Longitude East: 791,345.22
Elevation AHD (Ground): 170.00
Elevation AHD (Ground Water): 168.53
Ground Water Level (mbgl): 1.47

Depth (mbgl)	Depth (mAHd)	Monitor Bore	Depth (m)	Lithological Description	Hardness (1-10) Oxidation (1-5)	Remarks and Observations
0.0	170.00		0.0 - 48.0	Brown and dark brown TRACHYTE; ferruginous, oxidized, weathered.		
2.0	168.00	1.19				
4.0	166.00					
6.0	164.00					
8.0	162.00					
10.0	160.00					
12.0	158.00					
14.0	156.00					
16.0	154.00					
18.0	152.00					
20.0	150.00					Water strike, small.
22.0	148.00					
24.0	146.00					
26.0	144.00					
28.0	142.00					
30.0	140.00					
32.0	138.00					
34.0	136.00					
36.0	134.00					
38.0	132.00					
40.0	130.00					
42.0	128.00					
44.0	126.00					
46.0	124.00					
48.0	122.00					

150mm DIA Solid Casing
 50mm DIA PVC screen insert from top to bottom



Hardness: 6; Oxidation: 3

Hardness: 7; Oxidation: 4

- Key:**
- Solid casing with lockable cap
 - Fill
 - Gravel
 - Bentonite seal
 - ▨ Screen with bottom end
 - ▼ Ground Water Level

Ground Water Description			Borehole Number
Field Measurements: pH: Electrical Conductivity: Salinity: Dissolved Oxygen: Turbidity: Temperature:	Units: pH units mS/cm ppt % NTU °C	Sample Observations: Date: Colour: Sheen: Odour: Silt: Filtration:	
Indicate additional ground water level measurements here: 1.19 (Sept); 1.39 (Nov); 1.47 (Jan 2010).			B25 (SF) Reference Number: SFMB09-007

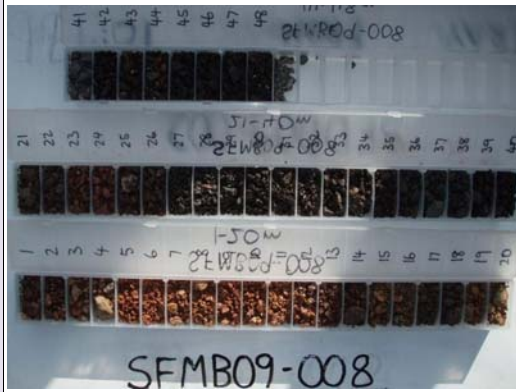


310 Selby Street North
Osborne Park
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Tel No: (08) 9241-1800
Fax No: (08) 9241-1999
Drilled by: Downer Edi
Logged by: Redbank Mines
Date: 6 September 2009

Latitude South: 8,097,603.50
Longitude East: 791,811.60
Elevation AHD (Ground): 175.50
Elevation AHD (Ground Water): 170.80
Ground Water Level (mbgl): 4.70

Depth (mbgl)	Depth (mAHd)	Monitor Bore	Depth (m)	Lithological Description	Hardness (1-10) Oxidation (1-5)	Remarks and Observations
0.0	175.50					
2.0	173.50		0.0 - 4.0	Brown ALLUVIUM, well weathered.	Hardness: 6; Oxidation: 3	
4.0	171.50	4.93	4.0 - 48.0	Brown and dark brown TRACHYTE; ferruginous, oxidized, weathered.	Hardness: 6; Oxidation: 3	Caving.
6.0	169.50		150mm DIA Solid Casing			
8.0	167.50		50mm DIA PVC screen insert from top to bottom			Water strike.
10.0	165.50					Caving.
12.0	163.50					
14.0	161.50					
16.0	159.50					
18.0	157.50					
20.0	155.50					
22.0	153.50					
24.0	151.50					
26.0	149.50					
28.0	147.50					
30.0	145.50					
32.0	143.50					
34.0	141.50					
36.0	139.50				Hardness: 7; Oxidation: 4	
38.0	137.50					
40.0	135.50					
42.0	133.50					
44.0	131.50					
46.0	129.50					
48.0	127.50					



- Key:**
- Solid casing with lockable cap
 - Fill
 - Gravel
 - Bentonite seal
 - Screen with bottom end
 - ▼ Ground Water Level

Ground Water Description			Borehole Number
Field Measurements: pH: Electrical Conductivity: Salinity: Dissolved Oxygen: Turbidity: Temperature:	Units: pH units mS/cm ppt % NTU °C	Sample Observations: Date: Colour: Sheen: Odour: Silt: Filtration:	
Indicate additional ground water level measurements here: 4.93 (Sept); 4.95 (Nov); 4.70 (Jan 2010).			B27 (SF)
			Reference Number: SFMB09-008

Depth (mbgl)	Depth (mAHd)	Monitor Bore	Depth (m)	Lithological Description	Hardness (1-10) Oxidation (1-5)	Remarks and Observations						
0.0	182.00		0.0 - 12.0	Light brown, TRACHYTE, limonitic and oxidized, often bleached with clay components and minor ferruginous clays at depth.	Hardness: 7; Oxidation: 3							
2.0	180.00		150mm DIA Solid Casing	0.0 - 12.0								
4.0	178.00											
6.0	176.00											
8.0	174.00											
10.0	172.00							50mm DIA PVC screen insert from top to bottom	13.0 - 38.0	Light and dark brown, TRACHYTE, limonitic and oxidized.	Hardness: 7; Oxidation: 3	Water strike.
12.0	170.00											
14.0	168.00											
16.0	166.00											
18.0	164.00											
20.0	162.00											
22.0	160.00								38.0 - 48.00	Dark brown TRACHYTE, oxidised.	Hardness: 8; Oxidation: 2	
24.0	158.00											
26.0	156.00											
28.0	154.00											
30.0	152.00											
32.0	150.00											
34.0	148.00											
36.0	146.00											
38.0	144.00											
40.0	142.00											
42.0	140.00											
44.0	138.00											
46.0	136.00											
48.0	134.00											

Key:

 Solid casing with lockable cap
 Fill
 Gravel
 Bentonite seal
 Screen with bottom end
 Ground Water Level

Ground Water Description

Field Measurements: pH: Electrical Conductivity: Salinity: Dissolved Oxygen: Turbidity: Temperature:	Units: pH units mS/cm ppt % NTU °C	Sample Observations: Date: Colour: Sheen: Odour: Silt: Filtration:
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Indicate additional ground water level measurements here:

Borehole Number
TSF 1 (SF)

Reference Number: SI-1

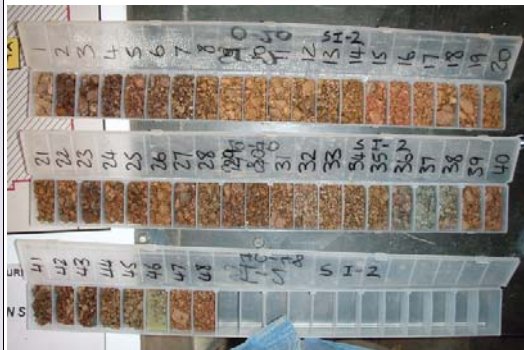


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Osborne Park
Project: Redbank Mine SF Pit
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Client: Redbank Copper Limited

Tel No: (08) 9241-1800
Fax No: (08) 9241-1999
Drilled by: Downer Edi
Logged by: Redbank Mines
Date: 18 September 2009

Latitude South: 8,097,155.00
Longitude East: 792,218.00
Elevation AHD (Ground): 186.10
Elevation AHD (Ground Water): 171.42
Ground Water Level (mbgl): 14.68

Depth (mbgl)	Depth (mAHD)	Monitor Bore	Depth (m)	Lithological Description	Hardness (1-10) Oxidation (1-5)	Remarks and Observations					
0.0	186.10		0.0 - 12.0	Light brown, TRACHYTE, limonitic and oxidized, often bleached with clay components and minor ferruginous clays at depth.	Hardness: 7; Oxidation: 3						
2.0	184.10		150mm DIA Solid Casing								
4.0	182.10										
6.0	180.10										
8.0	178.10										
10.0	176.10										
12.0	174.10										
13.0 - 40.0							50mm DIA PVC screen insert from top to bottom	Light and dark brown, TRACHYTE, limonitic and oxidized.		Hardness: 7; Oxidation: 3	Water strike.
14.0	172.10										
16.0	170.10										
18.0	168.10										
20.0	166.10										
22.0	164.10										
24.0	162.10										
26.0	160.10										
28.0	158.10										
30.0	156.10										
32.0	154.10										
34.0	152.10										
36.0	150.10										
38.0	148.10										
40.0	146.10										
40.0 - 48.0				Dark brown TRACHYTE, oxidised.		Hardness: 8; Oxidation: 2					
42.0	144.10										
44.0	142.10										
46.0	140.10										
48.0	138.10										



- Key:**
- Solid casing with lockable cap
 - Fill
 - Gravel
 - Bentonite seal
 - Screen with bottom end
 - Ground Water Level

Field Measurements:
pH:
Electrical Conductivity:
Salinity:
Dissolved Oxygen:
Turbidity:
Temperature:

Units:
pH units
mS/cm
ppt
%
NTU
°C

Ground Water Description
Sample Observations:
Date:
Colour:
Sheen:
Odour:
Silt:
Filtration:

Borehole Number
TSF 2 (SF)

Indicate additional ground water level measurements here:

Reference Number: SI-2

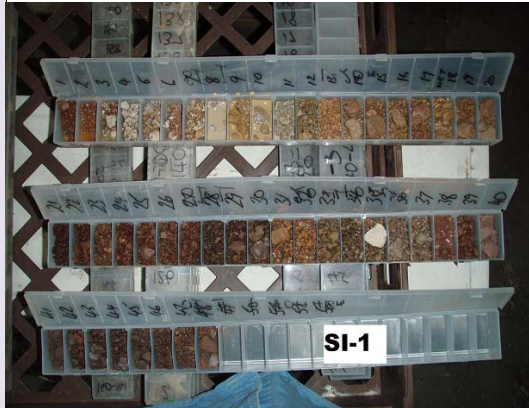


310 Selby Street North
 Osborne Park
Project: Redbank Mine SF Pit
Reference: WCW80823
Client: Redbank Copper Limited

Tel No: (08) 9241-1800
 Fax No: (08) 9241-1999
Drilled by: Downer Edi
Logged by: Redbank Mines
Date: 18 September 2009

Latitude South: 8,097,272.00
 Longitude East: 792,319.00
 Elevation AHD (Ground): 186.60
 Elevation AHD (Ground Water): 171.70
 Ground Water Level (mbgl): 14.90

Depth (mbgl)	Depth (mAHD)	Monitor Bore	Depth (m)	Lithological Description	Hardness (1-10) Oxidation (1-5)	Remarks and Observations	
0.0	186.60		0.0 - 12.0	Light brown, TRACHYTE, limonitic and oxidized, often bleached with clay components and minor ferruginous clays at depth.	Hardness: 7; Oxidation: 3		
2.0	184.60						
4.0	182.60						
6.0	180.60			150mm DIA Solid Casing			
8.0	178.60						
10.0	176.60						
12.0	174.60			50mm DIA PVC screen insert from top to bottom			
14.0	172.60						
16.0	170.60						
18.0	168.60			13.0 - 41.0	Light and dark brown, TRACHYTE, limonitic and oxidized.	Hardness: 7; Oxidation: 3	Water strike.
20.0	166.60						
22.0	164.60						
24.0	162.60						
26.0	160.60						
28.0	158.60						
30.0	156.60						
32.0	154.60						
34.0	152.60						
36.0	150.60						
38.0	148.60						
40.0	146.60						
42.0	144.60						
44.0	142.60						
46.0	140.60						
48.0	138.60						



- Key:**
- Solid casing with lockable cap
 - Fill
 - Gravel
 - Bentonite seal
 - Screen with bottom end
 - Ground Water Level

Ground Water Description			Borehole Number
Field Measurements: pH: Electrical Conductivity: Salinity: Dissolved Oxygen: Turbidity: Temperature:	Units: pH units mS/cm ppt % NTU °C	Sample Observations: Date: Colour: Sheen: Odour: Silt: Filtration:	
Indicate additional ground water level measurements here:			TSF 3 (SF) Reference Number: SI-3

Depth (mbgl)	Depth (mAHD)	Monitor Bore	Depth (m)	Lithological Description	Hardness (1-10) Oxidation (1-5)	Remarks and Observations						
0.0	0.00		0.0 - 26.0	Brown and dark brown TRACHYTE, oxidized.	Hardness 7; Oxidation: 3	No water encountered.						
2.0	-2.00		150mm DIA Solid Casing									
4.0	-4.00											
6.0	-6.00											
8.0	-8.00											
10.0	-10.00											
12.0	-12.00											
14.0	-14.00											
16.0	-16.00											
18.0	-18.00											
20.0	-20.00											
22.0	-22.00											
24.0	-24.00											
26.0	-26.00						26.0 - 37.0	Red brown SILTSTONE with interlayered chloritic amygdales.	Hardness 7; Oxidation: 4			
28.0	-28.00						50mm DIA PVC screen insert from top to bottom					
30.0	-30.00											
32.0	-32.00											
34.0	-34.00											
36.0	-36.00											
38.0	-38.00									37.0 - 66.0	Grey TRACHYTE, slightly oxidised and ferruginous at top of layer, hard rock below.	Hardness 8; Oxidation: 1
40.0	-40.00											
42.0	-42.00											
43.0	-43.00											
44.0	-44.00											
46.0	-46.00											
48.0	-48.00											
50.0	-50.00											
52.0	-52.00											
54.0	-54.00											
56.0	-56.00											
58.0	-58.00											
60.0	-60.00											
62.0	-62.00											
64.0	-64.00											
66.0	-66.00											

Key: 	Ground Water Description			Borehole Number B 31 (Bluff)
	Field Measurements: pH: Electrical Conductivity: Salinity: Dissolved Oxygen: Turbidity: Temperature:	Units: pH units mS/cm ppt % NTU °C	Sample Observations: Date: Colour: Sheen: Odour: Silt: Filtration:	
Indicate additional ground water level measurements here:			Reference Number: BLMB09-001	

Depth (mbgl) (mAHD)	Monitor Bore	Depth (m)	Lithological Description	Hardness (1-10) Oxidation (1-5)	Remarks and Observations
0.0		0.0 - 26.0	Brown and dark brown TRACHYTE, oxidized.		No water encountered.
2.0					
4.0					
6.0					
8.0					
10.0					
12.0					
14.0				Hardness 7; Oxidation: 3	
16.0					
18.0					
20.0					
22.0					
24.0					
26.0		26.0 - 37.0	Red brown SILTSTONE with interlayered chloritic amygdalae.		
28.0					
30.0					
32.0				Hardness 7; Oxidation: 4	
34.0					
36.0					
38.0		37.0 - 66.0	Grey TRACHYTE, slightly oxidised and ferruginous at top of layer, hard rock below.		
40.0					
42.0					
43.0					
44.0					
46.0					
48.0					
50.0					
52.0				Hardness 8; Oxidation: 1	
54.0					
56.0					
58.0					
60.0					
62.0					
64.0					
66.0					
68.0					
70.0					
72.0					
74.0					
76.0					
78.0					
80.0					
82.0				Hardness 9; Oxidation: 1	
84.0					
88.0					
90.0					
92.0					
94.0					
96.0					



Key:	Field Measurements:	Units:	Ground Water Description	Sample Observations:	Borehole Number
<ul style="list-style-type: none"> █ Solid casing with lockable cap █ Fill █ Gravel █ Bentonite seal █ Screen with bottom end ▼ Ground Water Level 	pH: Electrical Conductivity: Salinity: Dissolved Oxygen: Turbidity: Temperature:	pH units mS/cm ppt % NTU °C	Date: Colour: Sheen: Odour: Salt: Filtration:	Date: Colour: Sheen: Odour: Salt: Filtration:	B 32 (Bluff) Reference Number: BLMB09-002