

## MINT PROPERTY

**ZONE:** \_\_\_\_\_

SECTION: \_\_\_\_\_

Grid East	Grid North	Easting	Northing	Elev.	Depth (m)
		505767	6852200		465.42

HOLE: DDH-M12-04

**CLAIM:** YD57207

Contractor: Platinum Drilling

Drill: 1

Core size: NQ2 Reduced at: \_\_\_\_\_ (m)

Casing depth: 15.24 (m) in / **out**

Drilling dates: July 12 - July 18, 2012

Geology logged by: Nick Bueckert

**TARGET:** \_\_\_\_\_

SURVEY							
Depth (m)	Azimuth	Dip	Method	Depth (m)	Azimuth	Dip	Method
0	270	-60		298	275	-59.4	Ranger
38.7	271.1	-58.4	Ranger	359	277	-59.5	Ranger
115	272.1	-58.8	Ranger	420	277.9	-59.3	Ranger
267.5	275.7	-59.6	Ranger	450.5	278.8	-59	Ranger

[illegible]

## SAMPLES

Numbers: M677442-M677586

Total: 180

Batch: 14-18

Date Sent: August 1, 2012

Certificate:

## COMMENTS

EOH @ 465.42m

## Geology Log

Hole: DDH -M12-04

Logger: Nick Bueckert

Date: August 2012

GENERAL INTERVAL			DETAILED INTERVAL			LITHOLOGY					ALTERATION							MINERALS			Photo	DETAILED DESCRIPTION	
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Rock Type	Grain Size	Shade	Colour	Texture	Propylitic	Argillic	Phyllic	Potassic	Silic	Limonitic	Other		Pyrite	Other			
																	Type	Intensity		Type			Conc. (%)
0.00	13.75	13.75	0.00																				Casing actually to 15.24m (not 13.75m), core recovery begins at 13.75m
13.75	114.22					PP	mg	md	gy	po							2 pro	2		1 di			PLAGIOCLASE PORPHYRY Core intensely fractured and rubblely. Fracture surfaces are oxidized. Several zones of pervasive oxidation. Rock looks to be medium-grained and crowded plagioclase- or Kspar-phyrlic +/- mafics+/- magnetite. Groundmass is typically brown and crystalline. Where texture changes from porphyritic to aphanitic, mafics are altered to chlorite and feldspar content decrease. Highly intermittent propylitic (dominant) and potassic alteration is weak to moderate and locally strong. Breccias are present. The Intermediate Porphyry Dike is present +/- quartz. Felsic zones with white milky crystalline matrix are centimetre-scale (<60cm) and metre-scale toward the bottom of the interval.
								lt	gy	an							5 pot	3					
								lt	gn														
								dk	gy														
								lt	bn														
			13.75	24.68		PP		md	gy	po							3 pro	1					PLAGIOCLASE PORPHYRY - Unaltered plagioclase porphyry is dominant with propylitic altered plagioclase porphyry. Chlorite locally present; matrix variably felsic and mafics are absent; Fractures are oxidized. Core colour changes from medium grey to light beige-green approximately every 40cm. No veining present. Core is fractured.
								lt	gn														
			24.68	44.05		PP		lt	gn	po							3 pro	1		1 di			PLAGIOCLASE PORPHYRY +/- BRECCIA - Oxidized fractures and veinlets; core is highly fractured. Intermittent propylitic and potassic alteration zones (10-70cm) and minor breccia zones are present. Matrix-supported breccia (60% matrix) and clast-supported breccia (15% matrix) throughout; width of breccia zones unknown (core is rubble), Zones of potassic alteration are black, aphanitic, and variably magnetic. Plagioclase and a yellow weathered mineral present, yellow weathered mineral are present. Calcite veinlets are common throughout interval.
								md	gy	bx							pot						
								dk	gy	an													
			44.05	44.42		IPD		md	bn	po							3			1 di			INTERMEDIATE PORPHYRY DIKE - plagioclase is coarse- to very coarse-grained; chlorite is present
																							PLAGIOCLASE PORPHYRY BRECCIA - propylitic (?) and sericitic (?) alteration - Increase in oxidation (streaky); core is highly fractured. ?Clast-supported? breccia (approximately 10-25%) Subrounded clasts (5-8cm) are whiteish and chlorite-phyrlic; matrix is crystalline and dark grey (difficult to see colouration due to pervasive oxidation). Trace disseminated pyrite mineralization. Calcite and pyrite veinlets are common.
			44.42	48.79		PP		md	gy	bx							4 pro	1		1 di			
										an							ser	1					
			48.79	50.10		PP				or							5 ser	2					PLAGIOCLASE PORPHYRY - FAULT? Sericitic alteration(?) - Strong pervasive oxidation throughout interval; core crumbley and fractured. Whiteish host rock with stockwork stringers (?); texture and mineralogy unrecognizable (due to oxidation).
										wh													
			50.10	54.95		FEL				or	bx						4 ser						FELSITE (?)- FELSIC BRECCIA - Sericitic alteration(?) - Pervasive oxidation throughout interval. Clasts are chlorite-phyrlic (very coarse-grained to amygdaloidal-like) in white-grey crystalline groundmass. Minor calcite veinlets present.

n = none, t= <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

## Geology Log

GENERAL INTERVAL			DETAILED INTERVAL			LITHOLOGY					ALTERATION							MINERALS			Photo	DETAILED DESCRIPTION																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Rock Type	Grain Size	Shade	Colour	Texture	Propylitic	Argillic	Phyllic	Potassic	Silic	Limonitic	Other		Pyrite	Other																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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GENERAL INTERVAL			DETAILED INTERVAL			LITHOLOGY					ALTERATION								MINERALS			Photo	DETAILED DESCRIPTION	
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Rock Type	Grain Size	Shade	Colour	Texture	Propylitic	Argillic	Phyllic	Potassic	Silic	Limonitic	Other		Pyrite	Other				
																	Type	Intensity		Type	Conc. (%)			
114.22	210.22					F-A		lt	gy									pro	5	3 di			FELSITE-A (DIORITE-GRANODIORITE) - Sericite altered felsite-A alternating with potassic altered plagioclase porphyry? Alternating intense propylitic+/- magnetite+carbonate and weak sericite alteration. Disseminated pyrite throughout interval. Host rock is white and green flecked, grey quartz present (<7%) in matrix. Plagioclase is destroyed in propylitic alteration; calcite stringers throughout interval; local quartz-bearing intrusive; host rock has metre-scale zones of increased mafic abundance (<20%)	
						PP		dk	gn									ser	1	qz	7			
			114.22	121.72		PP	fg	dk	gn	an								pro	5	2 di				PLAGIOCLASE PORPHYRY - intense propylitic alteration; primary mineralogy completely replaced by chlorite and epidote; core is carbonaceous; calcite stringers present; disseminated pyrite throughout interval; core is variabley magnetic
			121.72	128.75		F-A	cg	md	gy	ma							1 ser	1	1 di					FELSITE-A (DIORITE-GRANODIORITE) - Grey and white flecked, massive coarse-grained granodiorite with weak sericite alteration; quartz is present (<7%) in matrix; mafics (20%) are greenish; disseminated pyrite throughout interval; oxidized fracture surfaces and decrease in carbonate stringers.
																			qz	7				
			128.75	130.55		PP		md	gn	an							1 pro	4	1 di					PLAGIOCLASE PORPHYRY - same as 114.22m - 121.72m interval with lighter green colour; mafics present; oxidized fractures; core is not magnetic
			130.55	145.39		F-A		md	gy	ma							1 ser	1	qz	7				FELSITE-A (DIORITE-GRANODIORITE) -- same as 121.72m - 128.75m; sericite alteration; oxidized fracture surfaces
			145.39	154.80		PP		dk	gn	an							1 pro	5	1 di					PLAGIOCLASE PORPHYRY - same as 114.22m - 121.72m interval with minor zones of light green colouration; magnetite+pyrite+carbonate stringers present
																			mt					
			154.80	164.80		FEL		md	gy	ma							3 ser	1	2 di					FELSITE(?) - same as 114.22m - 121.72m interval except more felsic; rock looks like Felsite but is less altered = hostrock? Kspar phenocrysts locally present, quartz present (<7%), pyrite stringers infrequent; minor zones of decreased mafics and increased pyrite grain size to 7mm blebs. Zones of 'Felsite' (<20cm) are very coarse-grained and chlorite is 100% replaced by pyrite. Weak pervasive oxidation throughout
																			3 bl					
																			qz	7				
			164.80	165.20		F-A												ser	3	cc	3			FELSITE-A (DIORITE-GRANODIORITE) - Clay altered, gougey oxidized core. Chalcocite? Occurs with pyrite in veinlets. Core is too fractured to get veinlet orientation
						FEL																		
			165.20	210.27		F-A			wh	ma								ser						FELSITE-A (DIORITE-GRANODIORITE) - Increase in stringer frequency and netted stringers (see secondary structures log)
								lt	gy															
								lt	gn															
			202.45	202.46		F-A																		Irregular clast(?) rimmed with chalcocite. Clast has massive texture similar to host rock but is yellowish. Clast 8cm wide - xenolith?
			202.46	210.27		F-A			wh	ma								ser						FELSITE-A (DIORITE-GRANODIORITE) - Increase in stringer frequency and netted stringers (see secondary structures log)
																								FELSITE-A (DIORITE-GRANODIORITE) TO FELSITE - see contact log. Fractures have pervasive oxidation <1cm. Minor sulphide stringers. Zone of intense sericite and clay alteration (50cm) hosts 4cm black band = sulphide/chalcocite?
			210.27	213.87		F-A			wh	an								ser	1	2 di				
						FEL												ser	5	cc	1			

n = none, t = <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

## Geology Log

GENERAL INTERVAL			DETAILED INTERVAL			LITHOLOGY					ALTERATION								MINERALS			Photo	DETAILED DESCRIPTION	
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Rock Type	Grain Size	Shade	Colour	Texture	Propylitic	Argillic	Phyllic	Potassic	Silic	Limonitic	Other		Pyrite	Other				
																	Type	Intensity		Type	Conc. (%)			
																				cc	100		INTERMEDIATE PORPHYRY DIKE - Coarse-grained felspar; very coarse-grained mafics in grey matrix. Zones (3m) of pink pervasive oxidation. Core crumbly to rubblely. Lower contact is rubble - location uncertain	
			213.87	219.18		IPD		md	gy	po														x
									pk															
																								INTERMEDIATE PORPHYRY DIKE(?) - zone of silicification; Grey silified zone at contact with propylitic alteration; core rubble and oxidized. Dense stockwork limonite stringers; pyrite mineralization on fracture surfaces
			219.18	221.59		IPD		md	gy	ma						4	5			1	di		x	
																								PLAGIOCLASE PORPHYRY (formerly DIABASE DIKE? - similar looking core was called propylitic altered Plagioclase Porphyry from 114.22m onward). Black aphanitic and brecciated, magnetite-rich, carbonate-rich dike? Potassic alteration? Metre-scale breccia zones are difficult to distinguish as clast-matrix margin is discrete; clasts (1-3cm) are subrounded, black, massive and variably magnetic. Matrix (40-50%) is fine-grained quartz-carbonate-magnetite-bearing. Calcite veinlets frequent; pyrite veinlets infrequent
			221.59	233.78		PP				bk	an							pot	5					
										bx														
																								INTERMEDIATE PORPHYRY DIKE - chlorite-phyrlic, milky white matrix with medium-grained quartz <10%. More felsic than typical intermediate porphyry dike
			233.78	235.79		IPD				bg	po									1	di			
										wh										qz		10		
																								PLAGIOCLASE PORPHYRY (formerly DIABASE DIKE?) - same as 221.59m - 233.78m interval. Disseminated highly reflective silver coloured mineral - galena? (1%). Breccias very hard to distinguish. Core carbonaceous. Carbonate stringers frequent. Local quartz veinlets (sheeted). Altered Plagioclase porphyry? (Evidence - 20cm zone of typical plagioclase porphyry breccia with black, very fine-grained magnetite matrix (<50%)).
			235.79	244.48		PP				bk	an							pot	5	1	di		x	
										bx										mg		50		
										ma										gn		1		
																								PLAGIOCLASE PORPHYRY (formerly DIABASE DIKE?) - (breccia) (?) - 20cm zone of typical plagioclase porphyry breccia with black, very fine-grained magnetite matrix
			244.48	244.89		PP				bk	an							pot	5		mg	50	x	
										bx														
																								PLAGIOCLASE PORPHYRY (formerly DIABASE DIKE?) - same as 221.59m - 233.78m interval. Disseminated highly reflective silver coloured mineral - galena? (1%). Breccias very hard to distinguish. Core carbonaceous. Carbonate stringers frequent. Local quartz veinlets (sheeted). Altered Plagioclase porphyry? (Evidence - 20cm zone of typical plagioclase porphyry breccia with black, very fine-grained magnetite matrix which is described above)
			244.89	249.89		PP				bk	an							pot	5	1	di		x	
										bx										mg		50		
										ma										gn		1		
																								INTERMEDIATE PORPHYRY DIKE - weak silicification and propylitic alteration; epidote+chlorite+pyrite present but not abundant
			249.89	250.48		IPD		md	gy	po						2		pro	2					
																								PLAGIOCLASE PORPHYRY (formerly DIABASE DIKE?) Magnetic core; black aphanitic to brecciated to massive (down interval); early sericite alteration with propylitic overprint (chlorite+sericite+pyrite present); chlorite on fracture surfaces; magnetite throughout interval; minor calcite stringers and quartz-pyrite veins present.
			250.48	252.59		PP				bk	an							pot	5	1	di			
										ma								pro	2					

## Geology Log

GENERAL INTERVAL			DETAILED INTERVAL			LITHOLOGY					ALTERATION							MINERALS			Photo	DETAILED DESCRIPTION		
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Rock Type	Grain Size	Shade	Colour	Texture	Propylitic	Argillic	Phyllic	Potassic	Silic	Limonitic	Other		Pyrite	Other				
																	Type	Intensity		Type			Conc. (%)	
										bx								ser	1					PLAGIOCLASE PORPHYRY - Silicified - Light and dark grey patchy silica flooded plagioclase porphyry; chlorite and pyrite present; coarse-grained plagioclase in siliceous matrix
			252.59	253.29		PP		md	gy	pa						3		pro	1	1 di	mg	3		PLAGIOCLASE PORPHYRY (formerly DIABASE DIKE?) - same as 250.48m - 252.59m interval; brecciated(?) carbonate stringers and magnetite veinlets present
			253.29	254.40		PP				bk	bx							pot	5					
																		pro	2					
			254.40	256.33		PP		md	gy	po						3		pro	2	3 di				PLAGIOCLASE PORPHYRY - silica flooded
																								PLAGIOCLASE PORPHYRY (formerly DIABASE DIKE?) - same as 250.48m - 252.59m interval; transition into silicified plagioclase porphyry with very coarse-grained chlorite and patchy bleaching
			256.33	261.03		PP				bk						4		pot	5	2 di				
								md		pu								pro	2					
																								PLAGIOCLASE PORPHYRY-A - similar to FELSITE-A but with increase in mafics, chlorite and pyrite abundance, quartz absent with Plagioclase Porphyry plagioclase-phyric texture. Magnetite stringers present. Oxidized fractures; minor gouge.
			261.03	270.77		PP-A		md	gy	po						3		pro	1		mt	st		
																		ser	1					
			270.77	280.10		IPD		lt	gn	po							2							INTERMEDIATE PORPHYRY DIKE - same as 233.78m - 235.79m interval; oxidized fractures; oxidized calcite stringers are frequent
			280.10	292.40		PP-A		md	gy	po						3		pro	1	3 di				PLAGIOCLASE PORPHYRY-A - Local silica flooding and local sericitic alteration - Mafics and chlorite <20%. Patchy white zones are aphanitic (similar to Felsite-A). Bottom 3m of interval is typical plagioclase porphyry with an increase in chlorite grain size from coarse-grained to very coarse-grained, an increase in magnetite disseminations and stringers. minor magnetite stringers throughout interval. Magnetite selvage/envelope (3mm) around calcite stringers.
										pa								ser	1		mg	4		
																		ser	3					
			292.40	296.41		PP		md	gn	bk	bx					5		pro	3		mg	60		PLAGIOCLASE PORPHYRY - Silica flooded +/- breccia - chlorite abundant; Patchy black and green coloured zones (~50cm); black zones strongly magnetic (magnetite <60%). Black clast in silica flooding is subrounded. Texture is highly variable from brecciated to very coarse-grained massive to aphanitic. Plagioclase porphyry texture/mineralogy variably distinct
										pa								pot	4					
			296.41	310.94		PP-A		md	gy	ma								pro	2	3 di				PLAGIOCLASE PORPHYRY-A - Top of the interval is similar to Felsite-A with a gradual textural/phase change and increase in chlorite and mafics. Texture changes from massive to porphyritic (plagioclase-phyric). Quartz is absent except for in zones of patchy silica flooding. Minor magnetite 'streaks,' breccia zones (cm-scale) host magnetite-rich (<40%) matrix and rounded clasts 0.5cm - 3cm; strong sericite alteration at bottom of interval (70cm) where core is rubblely and clay altered.
								lt	gn	po								ser	1		mg	40		
										bx								pot	5					
			310.94	317.03		PP				bk	po							pot	3	1 st				PLAGIOCLASE PORPHYRY -potassic alteration(?) - Black with white flecks; coarse-grained crowded plagioclase phenocrysts occur in black, variably magnetic matrix. Rock type is observed in DDH-M12-02 near the Volcanic 1 (andesite) - Plagioclase Porphyry contact. Stockwork calcite+/- pyrite stringers are frequent throughout interval

n = none, t = <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

## Geology Log

GENERAL INTERVAL			DETAILED INTERVAL			LITHOLOGY					ALTERATION							MINERALS			Photo	DETAILED DESCRIPTION	
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Rock Type	Grain Size	Shade	Colour	Texture	Propylitic	Argillic	Phyllic	Potassic	Silic	Limonitic	Other		Pyrite	Other			
																	Type	Intensity		Type			Conc. (%)
									wh									pro	1		2 di		
																					mg	7	
			317.03	318.50		PP		lt	gy	bx								ser	4		ak	2	
																		pro	2				
			318.50	325.61		PP			bk	po								pot	3		1 di		
									wh									pro	1		mg	5	
																					mg	7	
			325.61	327.59		V1		md	gn	ma								pro	2		1 di		
327.59	352.65					PP		md	gy	bx								pro	3		mg		
								dk	gy	pa													
										vu													
352.65	465.42					PP		md	gy	ma					5			pro	3		2 di		
									pk	pa								pot	3		mg	st	
										po								ser	2				
										bx													
			352.65	388.67		PP		md	gy	ma					5			pro	3		2 di		
									pk	pa								pot	3		mg	st	
										po								ser	2				
										bx													
			388.67	389.23		PP			wh	po					5			ser	2		2 di		
									gn	bx											qz	6	
									gy														
			389.23	391.32		PP															8 bl		
																					cc	3	

n = none, t = <1%, w = 1-3%, f = 3-5%, m = 5-7%, ms = 7-10%, s = 10-15%, l = 15-20%, (write % for >20%)

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From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Rock Type	Grain Size	Shade	Colour	Texture	Propylitic	Argillic	Phyllic	Potassic	Silic	Limonitic	Other		Pyrite	Other			
																	Type	Intensity		Type	Conc. (%)		
			391.32	394.48		PP			wh	po					5		ser	2	2 di				PLAGIOCLASE PORPHYRY - New phase/alteration type? Milky white matrix with grey and green; porphyritic quartz, feldspar and chlorite. Disseminated pyrite and sericite on fractures. Sodic alteration? Bottom of interval cobble breccia with plagioclase porphyry clasts (0.8 - 2cm) in siliceous matrix (60-70%)
									gn	bx									qz		6		
									gy														
			394.48	396.48		PP-A		md	gy	bx					5		ser	2					PLAGIOCLASE PORPHYRY-A - type case
										ma							pro	1					
			396.48	412.55		PP		md	gy	bx					5		ser	2					PLAGIOCLASE PORPHYRY - silicified matrix-supported breccia. Subrounded to rounded clasts (1-2cm) of chlorite-phyric plagioclase porphyry in sugary crystalline siliceous matrix. Stockwork calcite veinlets. No potassic alteration development.
										ma							pro	1					
			412.55	416.78		FEL			wh	an							ser	5	2 di			x	FELSITE - typical case - pyrite+/-chalcopyrite(?) veins present (see secondary structures log); sericitic alteration locally intense
																		5 vn					
																			cc		3		FELSITE - silicified breccia - Interval resembles 394.48m - 412.55m interval except clasts here have the same texture as Felsite. Matrix supported (55%) cobble breccia with faint clast-matrix margins occurs throughout interval as does minor crackle breccia with matrix-hosted chalcocite(?) (black very fine-grained sulphide).
			416.78	419.82		FEL			gy	bx					5		ser	5	1 di				
			419.82	423.88		IPD		lt	bn	po									cc		3		Intermediate Porphyry Dike - Plagioclase phyrical with brown, medium-grained matrix. A very fine-grained black mineral occurs on fracture surfaces (sulphide?)
			423.88	449.76		PP		md	gy	pa					5		ser	3	4 di				PLAGIOCLASE PORPHYRY (?) - silicified breccia +/- clayey sericite alteration (<50cm zones) - Clast-supported (35cm) hosts elevated chalcocite(?) in matrix. Patchy potassic (Kspar present) and propylitic alteration occurs throughout interval. Trace blebby arsenopyrite intergrown with pyrite and Cu-sulphide(?) is present. Black stringers and pyrite stringers are infrequent. Some black stringers have 1.5 cm wide envelopes. Carbonate present throughout interval
									bg	bx									4 st				
																			as		2		
																			cp		1		
																			cc		2		INTERMEDIATE PORPHYRY DIKE - same as 419.82m - 423.88m interval - Dark grey clay altered mineral present
			449.76	453.05		IPD		lt	bn	po													
			453.05	461.15		PP		lt	gy	ma					5		ser	4	1 cc		5		PLAGIOCLASE PORPHYRY - Variably silicified and brecciated host rock. Dark grey clayey mineral occurs throughout breccia matrix. Clasts are rounded in silicified zones. Chlorite present throughout. Chalcocite (?) <5%
								md	gy	bx													
			461.42	465.42		DD			bk														DIABASE DIKE - same as dike seen in DDH-M12-02. Diabase is magnetic, hornblende-phyric and hosts calcite infilled pits. Epidote on fracture surfaces. EOH @ 465.42m
				EOH																			



## Contact Log

**Hole: DDH-M12-04    Logger Name: Nick Bueckert**

**Date: August 2012**

Depth (m)	DESCRIPTION
44.05	PLAGIOCLASE PORPHYRY (propylitic alteration) - INTERMEDIATE PORPHYRY DIKE - 50 degrees to coarse axis - sharp contact. From dark grey, aphanitic to medium grey porphyritic texture
44.42	INTERMEDIATE PORPHYRY DIKE - PLAGIOCLASE PORPHYRY - orientation unknown (core is fractured) - contact is irregular; grain decrease from coarse-grained to medium-grained
114.22-164.80	PLAGIOCLASE PORPHYRY (propylitic alteration) - FELSITE-A (sericite alteration) - no preferred orientation to core axis; lithologies alternate over interval; Contacts are sharp and irregular
210.27	FELSITE-A (sericite alteration) - FELSITE (strong sericite alteration) - 90 degrees to core axis - contact is a phase change or increase in alteration. Mafics and chlorite out, pyrite present. Plagioclase phenocrysts out. Texture change from massive to aphanitic with quartz-eyes in milky felspar matrix. Texture change is gradational over 1m. Colour change from greyish white to white
213.87	FELSITE - INTERMEDIATE PORPHYRY DIKE - 25 degrees to core axis - contact is sharp; texture change from aphanitic to porphyritic; colour change from white to grey with yellow specks + pink
219.80, 221.59	INTERMEDIATE PORPHYRY DIKE - SILICIFIED ZONE - DIABASE DIKE(?) - orientation unknown (core is crumbly at both contacts); core oxidized; contact not observed
233.78	DIABASE DIKE(?) - INTERMEDIATE PORPHYRY DIKE - 45 degrees to core axis - contact is sharp, very irregular; Intermediate Porphyry Dike makes 2cm undulations into Diabase Dike. Flow banding in Intermediate Porphyry Dike - quartz bands (8cm) then plagioclase bands
235.79	INTERMEDIATE PORPHYRY DIKE - DIABASE DIKE(?) - 45 degrees to core axis - contact is sharp, undulatory; disseminated chalcocite(?)
249.89	DIABASE DIKE(?) - PLAGIOCLASE PORPHYRY (propylitic alteration) - 50 degrees to core axis - contact is sharp/weakly gradational; colour and texture change from black+aphanitic to medium grey+porphyritic; plagioclase grains are elongate in Plagioclase Porphyry for 1cm along contact; epidote present in Plagioclase Porphyry
250.89?	PLAGIOCLASE PORPHYRY (propylitic alteration) -DIABASE DIKE(?) - orientation unknown (core is rubble); colour change only, from medium grey to dark purple
256.33	PLAGIOCLASE PORPHYRY - DIABASE DIKE(?) - 20 degrees to core axis - contact is irregular; colour change from medium grey to dark purple
261.03	DIABASE DIKE(?) - PLAGIOCLASE PORPHYRY-A (propylitic > sericite alteration) - 90 degrees to core axis - gradational colour change from purple to grey
270.77	PLAGIOCLASE PORPHYRY-A - INTERMEDIATE PORPHYRY DIKE - contact sharp, undulatory with deep, rounded undulations; texture change from aphanitic to porphyritic
280.10	INTERMEDIATE PORPHYRY DIKE - PLAGIOCLASE PORPHYRY-A - 25 degrees to core axis - (60 degree at steepest angle, 20 degrees at shallowest angle) contact is undulatory; tight crustiform-like boundary
292.40	PLAGIOCLASE PORPHYRY-A - PLAGIOCLASE PORPHYRY (propylitic alteration) - 45 degrees to core axis - gradual darkening in colour; contact at fractured core surface (fractured at 45 degrees to core axis)
296.41	PLAGIOCLASE PORPHYRY (propylitic alteration) - FELSITE-A - no distinct contact (likely decrease in silicification of Plagioclase Porphyry)

## Contact Log

[illegible]

## Secondary Structure Log

**Hole: DDH-M12-04**
**Logger Name:**
**Nick Bueckert**
**Date: August 2012**

2° Structure Type	From (m)	To (m)	Attitude (TCA)	Attitude (TRFE)	Count	MINERALS		DESCRIPTION	Photo
						Type	Conc. (%)		
VT	29.50	29.66	65		3.00	li	80	Sheeted calcite-limonite veinlets (0.5-0.7cm) with calcite stringers inbetween	
VT/ST	24.68	44.05	60		8/M	li		Calcite-limonite veinlets and stringers	
VT			45		2/m				
			20		<1/m				
VT	44.00	44.01	30		1.00	py	5	Two 'braided' pyrite-limonite-calcite veinlets	
VT/ST	44.42	48.79	15		3.00	py	3	Stockwork pyrite+/-limonite+/-calcite veinlets that overprint breccia	
						li	3		
			40		10/M				
FT?	48.79	50.10			1.00			FAULT? Strong pervasive oxidation throughout interval; core crumbly and fractured. Whiteish host rock with stockwork stringers (?); orientation, texture and mineralogy unrecognizable (due to oxidation)	
VT/ST	56.88	80.30	50		8/m	py	4	Calcite-limonite+/-pyrite veinlets at 50 degrees to core axis are dominant and consistent throughout interval.	
						li	4		
ST	80.30	85.68	60		4/m	mg	100	Magnetite stringers locally at 45 degrees to core axis	
ST	145.39	154.80	50		1.00	mg	50-100	Magnetite stringers hosting local pyrite clots; carbonate locally present. Magnetite scavenged from chlorite alteration? Why does pyrite coexist with magnetite? Carbonate veinlets are present (35-50 degrees to core axis)	
						py	<50		
VT	156.49	162.01	50		11.00	py	100	Pyrite veinlets are offset (8mm) by carbonate-limonite stringers oriented at 30 degrees to core axis	
VT	174.86	175.15	15		1.00	py	50	Pyrite veinlet (3mm) with increaseing disseminated pyrite abundance in selvage moving uphole - 'blowout'; disseminated pyrite 'blowout' does not appear to be within a vein.	
ST	198.21	204.32	50-70		10/m	py	100	Pyrite stringers - feldspar+pyrite selvage (1cm) with sericitic envelope (6mm)	
VT	198.21	204.32	60		1.00	py	20	Pyrite+milky quartz veinlet with pyrite stringers; quartz is blebby (boudinage-like)	
ST	198.21	204.32	45		1.00	cc?	100	One black sulphide stringer (chalcocite?)	
ST	198.21	204.32	30		4.00	py	5	Pyrite and limonite stringers cross-cut pyrite stringers and veinlets	
NE	199.74	199.97	30		10/m	py	5	Dense netted pyrite stringers	
ST	210.77	213.87	80		1	cc?	100	Chalcocite(?) mineralized stringers/fractures	
			60		1	cc?	100		
			10		1	cc?	100		
ST	244.48	249.58	50		15.00			Carbonate stringers 40-60 degrees to core axis is dominant; also at 10-25 degrees to core axis	
VT	240.60	240.69	60		3.00	py	40	Sheeted quartz-magnetite-pyrite veinlets offset by carbonate stringers	
						mt	40		
VN	252.19	252.47	40		3.00	py	20	Quartz-pyrite vein (1.5cm) hosting 2mm of pyrite (midline) and cross-cut by carbonate veinlet (0-25 degrees to core axis)	
ST	261.03	270.77	40		7.00	mt		Magnetite+/- pyrite stringers present	
			<25		2.00	mt			

Secondary Structure Log

2° Structure Type	From (m)	To (m)	Attitude (TCA)	Attitude (TRFE)	Count	MINERALS		DESCRIPTION	Photo
						Type	Conc. (%)		
ST	352.65	465.42			10/m	ct	100	Stockwork calcite << anhydrite/gypsum stringers. Rare calcite veinlets are crosscut by anhydrite/gypsum stringers (8mm offset). Rare magnetite stringers as well as chlorite+/-pyrite stringers.	
					<1/m	mt	100		
					<1/m	gy?	100		
VT	412.55	416.78	35		4.00	py	5	Sheeted pyrite+/-chalcocite(?) veins (1cm) with wide (1.5-4cm) dark grey sericite and plagioclase-rich envelopes. Veins and envelopes are offset (mm-scale)	
						cc?	3		
	423.88	449.76	30		<2/m	py	2	Black stringers and pyrite stringers are infrequent. Some black stringers have 1.5 cm wide envelopes.	

# Sample Log

Hole: DDH-M12-04

Date: August 2012

From (m)	To (m)	Interval (m)	Recovery (m)	Recovery (%)	Sample Number	Batch	Au (g/t)	Ag (g/t)	As (ppm)	Comments
13.75	17.37	3.62	3.00	82.9	M677442	14				Casing to 13.75. Rubble
17.37	20.90	3.53	3.00	85.0	M677443	14				
20.90	24.86	3.96	3.00	75.8	M677444	14				
24.86	28.50	3.64	3.00	82.4	M677445	14				
28.50	32.61	4.11	3.00	73.0	M677446	14				
					M677447	14				COARSE REJECT DUPLICATE
32.61	36.44	3.83	3.00	78.3	M677448	14				
36.44	39.83	3.39	3.00	88.5	M677449	14				
39.83	43.19	3.36	3.00	89.3	M677450	14				
43.19	46.75	3.56	3.00	84.3	M677451	14				
					M677452	14				STANDARD ML-2
46.75	48.73	1.98	1.90	96.0	M677453	14				
48.73	50.90	2.17	1.94	89.4	M677454	14				
50.90	54.34	3.44	3.00	87.2	M677455	14				Fault? Very oxidized core
54.34	58.20	3.86	3.00	77.7	M677456	14				
					M677457	14				BLANK
58.20	62.60	4.40	3.00	68.2	M677458	14				Poor recovery
62.60	66.43	3.83	3.00	78.3	M677459	14				
66.43	69.74	3.31	3.00	90.6	M677460	14				
69.74	73.00	3.26	2.90	89.0	M677461	14				Plagioclase Porphyry(?) breccia
					M677462	14				1/4 DUPLICATE
73.00	76.34	3.34	3.00	89.8	M677463	14				
										1 piece sawed - potassic alteration (Plagioclase Porphyry or mafic volcanics?)
76.34	79.47	3.13	3.00	95.8	M677464	14				
79.47	82.74	3.27	3.00	91.7	M677465	14				
82.74	85.82	3.08	3.00	97.4	M677466	14				
					M677467	14				STANDARD ML-2
85.82	89.05	3.23	3.00	92.9	M677468	14				
89.05	92.84	3.79	3.00	79.2	M677469	14				intrusive; Poor recovery
92.84	96.62	3.78	3.00	79.4	M677470	14				
96.62	99.66	3.04	3.00	98.7	M677471	14				
99.66	102.71	3.05	2.80	91.8	M677472	14				
					M677473	14				BLANK
102.71	106.02	3.31	2.87	86.7	M677474	14				
106.02	109.35	3.33	3.00	90.1	M677475	14				
109.35	111.33	1.98	1.98	100	M677476	14				
111.33	114.22	2.89	2.51	86.9	M677477	14				
114.22	117.95	3.73	3.01	80.7	M677478	15				
										1 piece sawed- Plagioclase Porphyry (intense propylitic)- Plagioclase Porphyry-A (sericite)
117.95	121.00	3.05	3.05	100	M677479	15				
121.00	124.25	3.25	3.05	93.8	M677480	15				
124.25	127.43	3.18	3.00	94.3	M677481	15				

## Sample Log

From (m)	To (m)	Interval (m)	Recovery (m)	Recovery (%)	Sample Number	Batch	Au (g/t)	Ag (g/t)	As (ppm)	Comments
127.43	130.43	3.00	3.00	100	M677482	15				
					M677483	15				STANDARD ML-2
130.43	133.56	3.13	3.00	95.8	M677484	15				
133.56	136.66	3.10	3.00	96.8	M677485	15				
136.66	139.73	3.07	3.00	97.7	M677486	15				
139.73	142.90	3.17	2.95	93.1	M677487	15				
					M677488	15				COARSE REJECT DUPLICATE
142.90	146.04	3.14	3.00	95.5	M677489	15				
146.04	149.11	3.07	3.00	97.7	M677490	15				
149.11	152.05	2.94	2.94	100	M677491	15				
152.05	154.85	2.80	2.69	96.1	M677492	15				
154.85	157.85	3.00	3.00	100	M677493	15				
					M677494	15				BLANK
157.85	159.60	1.75	1.75	100	M677495	15				
159.60	162.68	3.08	3.00	97.4	M677496	15				
162.68	166.05	3.37	3.00	89.0	M677497	15				
166.05	169.18	3.13	3.00	95.8	M677498	15				
					M677499	15				STANDARD ML-2
169.18	172.30	3.12	3.00	96.2	M677500	15				
172.30	174.32	2.02	2.00	99.0	M677501	15				
174.32	175.86	1.54	1.54	100	M677502	15				
175.86	178.91	3.05	2.94	96.4	M677503	15				
					M677504	15				BLANK
178.91	181.96	3.05	2.85	93.4	M677505	15				
181.96	185.01	3.05	2.90	95.1	M677506	15				
185.01	188.06	3.05	2.86	93.8	M677507	15				
188.06	191.11	3.05	2.95	96.7	M677508	15				
191.11	194.16	3.05	3.05	100	M677509	15				
					M677510	15				1/4 DUPLICATE
194.16	197.21	3.05	3.05	100	M677511	15				
197.21	199.74	2.53	2.43	96.0	M677512	15				
199.74	202.45	2.71	2.60	95.9	M677513	15				
202.45	204.62	2.17	2.10	96.8	M677514	16				
204.62	207.84	3.22	3.00	93.2	M677515	16				
207.84	210.42	2.58	2.50	96.9	M677516	16				
210.42	213.21	2.79	2.50	89.6	M677517	16				
213.21	216.26	3.05	2.95	96.7	M677518	16				
					M677519	16				BLANK
216.26	219.21	2.95	2.60	88.1	M677520	16				
219.21	222.75	3.54	3.00	84.7	M677521	16				
222.75	226.23	3.48	3.00	86.2	M677522	16				
226.23	229.70	3.47	3.00	86.5	M677523	16				
					M677524	16				STANDARD ML-2
229.70	232.70	3.00	3.00	100	M677525	16				
232.70	234.00	1.30	1.30	100	M677526	16				
234.00	235.79	1.79	1.78	99.4	M677527	16				
235.79	238.86	3.07	3.00	97.7	M677528	16				1 piece sawed- diabase dike; breccia
238.86	242.06	3.20	3.05	95.3	M677529	16				

## Sample Log

From (m)	To (m)	Interval (m)	Recovery (m)	Recovery (%)	Sample Number	Batch	Au (g/t)	Ag (g/t)	As (ppm)	Comments
					M677530	16				COARSE REJECT DUPLICATE
242.06	245.37	3.31	3.00	90.6	M677531	16				1 piece sawed- crackle breccia with magnetite-rich matrix
245.37	248.56	3.19	3.00	94.0	M677532	16				
248.56	251.85	3.29	3.00	91.2	M677533	16				1 piece sawed- Contact - Diabase Dike?- Plagioclase Porphyry
251.85	255.41	3.56	3.00	84.3	M677534	16				
					M677535	16				BLANK
255.41	258.17	2.76	2.45	88.8	M677536	16				
258.17	261.21	3.04	2.70	88.8	M677537	16				
261.21	264.50	3.29	2.94	89.4	M677538	16				
264.50	267.80	3.30	2.51	76.1	M677539	16				
					M677540	16				1/4 DUPLICATE
267.80	270.77	2.97	2.81	94.6	M677541	16				
270.77	274.10	3.33	2.96	88.9	M677542	16				
274.10	277.52	3.42	3.00	87.7	M677543	16				
277.52	280.11	2.59	2.30	88.8	M677544	16				
					M677545	16				STANDARD ML-2
280.11	283.50	3.39	3.00	88.5	M677546	16				
283.50	286.76	3.26	3.00	92.0	M677547	16				
286.76	289.90	3.14	3.00	95.5	M677548	16				
289.90	292.40	2.50	2.39	95.6	M677549	16				
292.40	294.74	2.34	2.08	88.9	M677550	17				row sawed - magnetite-rich zone
294.74	296.86	2.12	2.12	100	M677551	17				
296.86	300.13	3.27	3.00	91.7	M677552	17				1 piece sawed Felsite-A
300.13	303.19	3.06	3.00	98.0	M677553	17				
303.19	306.51	3.32	3.00	90.4	M677554	17				1 piece sawed- magnetite streaks in Plagioclase Porphyry
306.51	308.52	2.01	1.90	94.5	M677555	17				
					M677556	17				1/4 DUPLICATE
308.52	309.98	1.46	1.35	92.5	M677557	17				
309.98	313.03	3.05	2.38	78.0	M677558	17				
313.03	316.48	3.45	3.00	87.0	M677559	17				1 piece sawed Plagioclase Porphyry with black matrix; magnetite-rich
316.48	319.12	2.64	2.47	93.6	M677560	17				
					M677561	17				BLANK
319.12	322.17	3.05	2.87	94.1	M677562	17				
322.17	325.22	3.05	2.95	96.7	M677563	17				sample sawed - Volcanic 1 + Plagioclase Porphyry
325.22	328.27	3.05	2.79	91.5	M677564	17				
328.27	331.31	3.04	2.67	87.8	M677565	17				
331.31	334.36	3.05	2.71	88.9	M677566	17				
					M677567	17				STANDARD ML-2
334.36	337.77	3.41	3.00	88.0	M677568	17				
337.77	340.46	2.69	2.16	80.3	M677569	17				
340.46	343.51	3.05	2.28	74.8	M677570	17				
343.51	346.55	3.04	2.27	74.7	M677571	17				
346.55	349.60	3.05	2.50	82.0	M677572	17				
					M677573	17				COARSE REJECT DUPLICATE

## Sample Log

From (m)	To (m)	Interval (m)	Recovery (m)	Recovery (%)	Sample Number	Batch	Au (g/t)	Ag (g/t)	As (ppm)	Comments
349.60	352.65	3.05	2.89	94.8	M677574	17				
352.65	355.70	3.05	2.20	72.1	M677575	17				
355.70	358.75	3.05	2.45	80.3	M677576	17				1 piece sawed; potassic alteration (Kspar)
					M677577	17				BLANK
358.75	361.81	3.06	2.86	93.5	M677578	17				
361.81	364.84	3.03	3.03	100	M677579	17				
364.84	367.89	3.05	2.94	96.4	M677580	17				
367.89	370.95	3.06	2.93	95.8	M677581	17				
370.95	374.00	3.05	2.87	94.1	M677582	17				
					M677583	17				STANDARD ML-2
374.00	377.04	3.04	3.04	100	M677584	17				1 piece sawed; potassic altered (Kspar)
377.04	380.09	3.05	2.45	80.3	M677585	17				
380.09	383.13	3.04	2.15	70.7	M677586	18				
383.13	386.18	3.05	2.51	82.3	M677587	18				
386.18	389.23	3.05	2.87	94.1	M677588	18				
389.23	390.53	1.30	1.30	100	M677589	18				
					M677590	18				BLANK
390.53	392.27	1.74	1.56	89.7	M677591	18				1 piece sawed- chlorite-phyric white matrix silica? Sodic altered?
392.27	395.32	3.05	2.57	84.3	M677592	18				
395.32	398.37	3.05	2.75	90.2	M677593	18				
398.37	401.42	3.05	2.50	82.0	M677594	18				
					M677595	18				STANDARD ML-2
401.42	404.47	3.05	2.73	89.5	M677596	18				
404.47	407.51	3.04	2.38	78.3	M677597	18				
407.51	410.56	3.05	2.90	95.1	M677598	18				1 piece sawed silica breccia
410.56	412.75	2.19	2.09	95.4	M677599	18				
412.75	415.15	2.40	2.23	92.9	M677600	18				1 piece sawed- Felsite - with breccia; veinlet + selvage
					M677601	18				1/4 DUPLICATE
415.15	417.18	2.03	1.80	88.7	M677602	18				1 sawed; contact Felsite-Plagioclase Porphyry (silica flooded)
417.18	420.34	3.16	3.00	94.9	M677603	18				
420.34	423.55	3.21	3.00	93.5	M677604	18				
423.55	425.81	2.26	1.70	75.2	M677605	18				
425.81	428.85	3.04	2.42	79.6	M677606	18				
					M677607	18				STANDARD ML-2
428.85	431.90	3.05	2.15	70.5	M677608	18				
431.90	434.95	3.05	2.57	84.3	M677609	18				
434.95	438.00	3.05	2.46	80.7	M677610	18				
438.00	441.05	3.05	2.75	90.2	M677611	18				
					M677612	18				COARSE REJECT DUPLICATE
441.05	444.10	3.05	2.42	79.3	M677613	18				
444.10	447.15	3.05	2.60	85.2	M677614	18				
447.15	450.19	3.04	2.83	93.1	M677615	18				1 piece sawed silica flooded Plagioclase Porphyry



## Sample Log

From (m)	To (m)	Interval (m)	Recovery (m)	Recovery (%)	Sample Number	Batch	Au (g/t)	Ag (g/t)	As (ppm)	Comments
450.19	453.05	2.86	2.70	94.4	M677616	18				
453.05	456.29	3.24	2.56	79.0	M677617	18				
					M677618	18				BLANK
456.29	459.33	3.04	2.57	85	M677619	18				
459.33	461.95	2.62	2.00	76.3	M677620	18				
461.95	465.42	3.47	3.10	89.3	M677621	18				EOH @ 465.42m; 1 piece sawed - Diabase Dike

## Density Log

**Hole:** DDH-M12-04      **Date:** August 2012

[illegible]

# Geotechnical Log

Hole: DDH-M12-04

Tech Name:

Liz Bueckert

Date: July 29th

From (m)	To (m)	Interval (m)	Recovery (m)	Recovery (%)	RQD (m)	RQD (%)	Strength	Joint Sets				DESCRIPTION
								Freq (/m)	Attitude (tca)	Shape	Roughness	
13.75	14.32	0.57	0.55	0.57	nil		2s	n/a	n/a			all rubble - no average frequency or attitude
14.32	17.37	3.05	2.55		0.2		2s	n/a	n/a			all rubble - no average frequency or attitude
17.37	20.42	3.05	1.97		nil		2s	0.25	60	2	1	mostly rubble one attitude taken
20.42	23.47	3.05	2		0.15		2s	0.19	n/a		1	mostly rubble to irregular to find an attitude
23.47	26.52	3.05	2.66		0.75		2s	0.19	70	1	1	mostly rubble - attitude based on one measurement
26.52	29.57	3.05	2.38		0.14		2s	0.11	65	1	1	irregular - rubble
29.57	32.61	3.04	2.3		0.52		2s	0.25	70	1	1	mostly rubble
32.61	35.66	3.05	2.28		0.66		2s	0.22	65	2	1	rubble
35.66	38.71	3.05	2.67		0.32		2s	0.13	60	2	1	rubble
38.71	41.76	3.05	2.46		1.04		2s	0.17	65	2	1	
41.76	44.81	3.05	2.39		0.62		2s	0.12	60	1	1	
44.81	47.85	3.04	2.55		0.88		2s	0.13	55	2	1	
47.85	50.9	3.05	2.85		1.42		2s	0.17	60	2	1	
50.9	53.95	3.05	2.32		1.61		2s	0.16	60	2	1	
53.95	57	3.05	2.39		0.5		2s	0.18	70	2	1	sections of rubble
57	60.05	3.05	2.63		0.73		2s	0.2	60	2	1	sections of rubble
60.05	63.1	3.05	2.19		nil		2s	n/a	n/a	2	1	all rubble - no average frequency or attitude
63.1	66.15	3.05	2.15		nil		2s	n/a	n/a	2	1	mostly rubble
66.15	69.19	3.04	2.25		0.63		2s	0.13	60	2	1	rubble
69.19	72.23	3.04	2.53		0.95		2s	0.15	60	2	1	rubble section
72.23	75.28	3.05	2.7		1.06		2s	0.13	60	2	1	
75.28	78.3	3.02	2.72		1.9		3s	0.19	60	1	1	
78.3	81.38	3.08	2.78		1.48		3s	0.17	65	1	1	
81.38	84.42	3.04	2.43		1.22		3s	0.14	60	1	1	
84.42	87.47	3.05	2.58		1.63		3s	0.19	60	1	1	
87.47	90.52	3.05	2.9		1.98		3s	0.16	70	1	1	
90.52	93.57	3.05	2.55		1.45		3s	0.16	70	1	1	
93.57	96.62	3.05	2.16		0.5		3s	0.19	70	2	1	all rubble - no average frequency or attitude
96.62	99.66	3.04	2.48		1.72		3s	0.16	60	1	1	rubble
99.66	102.71	3.05	2.5		1.47		3s	0.16	70	1	1	
102.71	105.76	3.05	2.59		1.09		3s	0.12	60	2	1	
105.76	108.81	3.05	2.43		1.3		3s	0.2	70	2	1	
108.81	111.86	3.05	2.85		2.09		3s	0.21	60	1	1	
111.86	114.9	3.04	2.7		1.54		3s	0.23	60	2	1	
114.9	117.95	3.05	2.65		1.1		3s	0.14	55	2	1	
117.95	121	3.05	3		2.05		3s	0.15	60	1	1	
121	124.05	3.05	2.72		2.32		3s	0.27	65	1	1	
124.05	127.1	3.05	2.71		2		3s	0.19	65	1	1	
127.1	130.15	3.05	2.88		2.37		3s	0.15	60	1	1	
130.15	133.2	3.05	2.74		2.21		3s	0.14	60	1	1	
133.2	136.25	3.05	2.34		0.62		3s	0.16	60	2	1	
136.25	139.3	3.05	2.9		2.83		3s	0.43	60	1	1	
139.3	142.35	3.05	2.76		2.29		3s	0.3	60	1	1	
142.35	148.43	6.08	2.81		2		3s	0.19	60	1	1	
148.43	151.48	3.05	2.67		1.25		3s	0.16	65	2	1	
151.48	154.53	3.05	2.79		2.5		3s	0.17	60	1	1	
154.53	157.58	3.05	2.8		2		3s	0.19	60	2	1	
157.58	160.62	3.05	2.73		1.9		3s	0.17	60	1	1	
160.62	163.67	3.05	2.83		1.63		3s	0.16	60	1	1	
163.67	166.72	3.05	2.37		1.17		3s	0.19	60	1	1	
166.72	169.77	3.05	2.65		1.73		3s	0.18	55	2	1	
169.77	172.82	3.05	2.55		1.56		3s	0.2	60	1	1	
172.82	175.86	3.04	2.84		2.55		3s	0.27	60	1	1	
175.86	178.91	3.05	2.83		2.38		3s	0.3	60	1	1	
178.91	181.96	3.05	2.7		1.25		3s	0.27	55	2	1	

# Geotechnical Log

181.96	185.01	3.05	2.71		2.16		3s	0.25	60	2	1		
185.01	188.06	3.05	2.71		2.2		3s	0.25	60	1	1		
188.06	191.11	3.05	2.82		2.52		3s	0.25	60	1	1		
191.11	194.16	3.05	3.01		2.54		3s	0.23	60	2	1		
194.16	197.21	3.05	2.84		2.16		3s	0.2	60	1	1		
197.21	200.25	3.04	2.75		2.3		3s	0.21	55	2	1		
200.25	203.3	3.05	2.82		1.83		3s	0.17	65	2	1		
203.3	206.35	3.05	2.58		1.7		3s	0.17	50	1	1		
206.35	209.4	3.05	2.78		1.96		3s	0.16	65	2	1		
209.4	212.45	3.05	2.58		1.28		3s	0.18	70	1	1		
212.45	215.49	3.05	2.99		1.4		3s	0.15	70	2	1		
215.49	218.54	3.05	2.6		1.2		3s	0.11	n/a	2	1		
218.54	221.59	3.05	2.08		0.55		3s	0.25	70	2	1		
221.59	224.63	3.04	2.58		1.11		3s	0.15	n/a	2	1		
224.63	227.68	3.05	2.27		0.37		3s	0.16	60	2	1		
227.68	230.73	3.05	2.58		1.06		3s	0.15	45	2	1		
230.73	233.78	3.05	2.84		1.82		3s	0.17	n/a	1	1		
233.78	236.82	3.04	2.94		1.99		3s	0.18	60	1	1		
236.82	239.87	3.05	2.9		1.75		3s	0.15	55	1	1		
239.87	242.92	3.05	2.74		1.24		3s	0.17	40	2	1		
242.92	245.97	3.05	2.94		1.37		3s	0.14	45	1	1		
245.97	249.02	3.05	2.79		1.22		3s	0.13	60	1	1		
249.02	252.07	3.05	2.57		1.2		3s	0.17	65	2	1		
252.07	255.12	3.05	2.56		1.16		3s	0.25	50	2	1		
255.12	258.17	3.05	2.54		0.94		3s	0.17	70	1	1		
258.17	261.21	3.04	2.68		0.86		3s	0.13	70	2	1		
264.26	267.31	3.05	2.65		1.04		3s	0.16	60	2	1		
267.31	270.36	3.05	2.56		0.85		3s	0.17	55	2	1		
270.36	273.41	3.05	2.27		0.95		3s	0.12	65	1	1		
273.41	276.46	3.05	2.4		0.96		3s	0.19	60	1	1		
276.46	279.5	3.04	2.24		1.02		3s	0.16	60	2	1		
279.5	282.55	3.05	2.95		1.05		3s	0.15	60	2	1		
282.55	285.6	3.05	2.39		1.06		3s	0.14	n/a	2	1		
285.6	288.65	3.05	2.59		0.7		3s	0.16	60	1	1		
288.65	291.7	3.05	2.54		1.63		3s	0.14	n/a	2	1		
291.7	294.74	3.04	2.68		1.26		3s	0.15	65	2	1		
294.74	297.89	3.15	2.99		1.1		3s	0.15	n/a	2	1		
297.79	300.83	3.04	2.77		2.14		3s	0.17	60	2	1		
300.83	303.88	3.05	2.75		1.7		3s	0.19	55	2	1		
303.88	306.93	3.05	2.81		1.78		3s	0.16	60	2	1		
306.93	309.98	3.05	2.63		1.8		3s	0.17	n/a	2	1		tca range from 40 - 60
309.98	313.03	3.05	2.43		0.37		3s	0.15	65	2	1		
313.03	316.08	3.05	2.83		1.32		3s	0.18	60	2	1		
316.08	319.12	3.04	2.97		1.31		3s	0.17	55	2	1		
319.12	322.17	3.05	2.81		1.91		3s	0.2	n/a	1	1		tca range from 40 - 70
322.17	325.22	3.05	2.9		1.67		3s	0.14	60	2	1		
325.22	328.27	3.05	2.84		2		3s	0.2	75	2	1		
328.27	331.31	3.04	2.44		0.8		3s	0.12	75	2	1		
331.31	334.36	3.05	2.91		1.04		3s	0.12	n/a	2	1		tca range from 45 - 80
334.36	337.41	3.05	2.99		1.03		3s	0.13	65	2	1		
337.41	340.46	3.05	2.8		0.22		3s	0.12	75	2	1		
340.46	343.51	3.05	2.76		null		3s	0.23	n/a	2	1		all rubble contains no similar tca - frequency lower than noted due to rubble
343.51	346.55	3.04	2.22		null		3s	0.19	n/a	2	1		all rubble contains no similar tca - frequency lower than noted due to rubble
346.55	349.6	3.05	2.42		0.8		3s	0.19	60	2	1		
349.6	352.65	3.05	2.82		0.76		3s	0.2	65	2	1		
352.65	355.7	3.05	2.73		0.42		3s	0.19	65	2	1		
355.7	358.75	3.05	2.84		1		3s	0.15	65	2	1		
358.75	361.8	3.05	2.83		1.57		3s	0.17	55	2	1		
361.8	364.84	3.04	3.04		1.32		3s	0.21	65	2	1		
364.84	367.89	3.05	2.79		2.22		3s	0.27	55	2	1		

## Geotechnical Log

367.89	370.95	3.06	2.83		2.35		3s	0.21	60	1	1		
370.95	374	3.05	2.85		2.18		3s	0.21	60	1	1		
374	377.04	3.04	2.45		0.3		3s	0.19	60	1	1		
377.04	380.09	3.05	2.34		0.36		3s	0.19	70	2	1		
380.09	383.14	3.05	2.43		0.78		3s	0.5	60	2	1		
383.14	386.18	3.04	0.5		0.5		3s	0.22	70	2	1		
386.18	389.23	3.04	3.03		1.74		3s	0.17	55	2	1		
389.23	392.27	3.04	2.98		1.73		3s	0.16	55	1	1		
392.27	395.32	3.05	2.76		1.26		3s	0.11	75	2	1		
395.32	398.37	3.05	2.83		0.6		3s	0.12	n/a	2	1		tca range from 55 - 80
398.37	401.42	3.05	2.61		0.57		3s	0.25	60	2	1		
401.42	404.47	3.05	2.6		0.4		3s	0.12	60	2	1		
404.47	407.51	3.04	2.37		0.8		3s	0.19	70	2	1		
407.51	410.56	3.05	2.79		1.73		3s	0.17	65	2	1		
410.56	413.61	3.05	2.66		1.65		3s	0.2	55	2	1		
413.61	416.66	3.05	2.98		1.93		3s	0.2	60	1	1		
416.66	419.71	3.05	2.63		2.17		3s	0.18	60	2	1		
419.71	422.76	3.05	2.83		2		3s	0.19	60	1	1		
422.76	425.81	3.05	2.39		1.5		3s	0.17	60	2	1		
425.81	428.85	3.04	2.21		0.5		3s	0.12	60	2	1		
428.85	431.9	3.05	2.74		0.31		3s	0.21	65	2	1		
431.9	434.95	3.05	2.57		0.34		3s	0.12	70	2	1		
434.95	438	3.05	2.82		0.47		3s	0.14	65	2	1		
438	441.05	3.05	2.51		1		3s	0.19	65	2	1		
441.05	444.1	3.05	2.56		0.9		3s	0.13	65	2	1		
444.1	447.15	3.05	3.04		0.71		3s	0.12	65	2	1		
447.15	450.19	3.04	3		1.92		3s	0.16	55	1	1		
450.19	453.24	3.05	2.65		1.41		3s	0.16	57	2	1		range 45 - 70
453.24	456.29	3.05	2.66		0.82		3s	0.13	55	1	1		range 40 - 70
456.29	459.33	3.04	2.52		0.76		3s	0.14	65	1	1		
459.33	462.38	3.05	2.7		null		3s	0.15	70	2	1		
462.38	465.42 (EOH)	3.04			2.44		3s	0.25	50	2	1		

## Magnetic Susceptibility Log

Depth (m)	Magnetic Susceptibility	DESCRIPTION
14	0.489	
15	0.317	
16	0.489	
17	0.538	
18	0.636	
19	0.232	
20	0.161	
21	0.149	
22	0.583	
23	0.316	
24	0.015	
25	0.616	
26	0.414	
27	0.496	
28	0.527	
29	0.451	
30	3.749	
31	0.570	
32	0.351	
33	0.462	
34	0.340	
35	0.848	
36	0.435	
37	14.470	
38	4.173	
39	0.234	
40	4.357	
41	0.216	
42	0.413	
43	2.378	
44	0.445	
45	0.388	
46	0.348	
47	0.127	
48	0.136	
49	0.158	
50	0.100	
51	0.179	
52	0.052	
53	0.047	
54	0.256	
55	0.050	
56	0.631	
57	0.362	
58	0.279	
60	0.192	
61	0.319	
62	0.167	
63	0.332	
64	0.665	
65	0.922	
66	1.591	
67	0.421	

## Magnetic Susceptibility Log

Depth (m)	Magnetic Susceptibility	DESCRIPTION
68	0.408	
69	0.973	
70	0.270	
71	0.100	
72	0.211	
73	0.280	
74	0.816	
75	2.655	
76	0.136	
77	0.044	
78	0.601	
79	0.545	
80	9.668	
81	0.450	
82	2.166	
83	1.035	
84	15.940	
85	1.222	
86	0.926	
87	1.002	
88	0.687	
89	0.444	
90	1.052	
91	0.156	
92	0.539	
93	0.421	
94	0.011	
95	0.234	
96	0.567	
97	0.481	
98	0.270	
99	0.211	
100	0.454	
101	0.639	
102	0.302	
103	0.273	
104	0.730	
105	0.480	
106	0.444	
107	0.269	
108	0.671	
109	0.712	
110	0.003	
111	0.211	
112	0.408	
113	0.141	
114	0.055	
115	0.302	
116	0.237	
117	0.303	
118	1.652	
119	0.253	
120	1.892	
121	0.231	

## Magnetic Susceptibility Log

Depth (m)	Magnetic Susceptibility	DESCRIPTION
122	0.434	
123	0.215	
124	0.175	
125	0.260	
126	0.140	
127	0.058	
128	0.205	
129	0.217	
130	0.366	
131	0.144	
132	0.125	
133	0.126	
134	0.138	
135	0.170	
136	0.067	
137	0.222	
138	0.162	
139	0.314	
140	0.277	
141	0.045	
142	0.060	
143	0.143	
144	0.110	
145	0.044	
146	3.798	
147	4.895	
148	0.229	
149	0.340	
150	3.347	
151	0.691	
152	2.549	
153	0.276	
154	0.291	
155	0.146	
156	0.028	
157	0.052	
158	0.064	
159	0.055	
160	0.091	
161	0.086	
162	0.156	
163	0.039	
164	0.052	
165	0.049	
166	0.081	
167	0.121	
168	0.321	
169	0.124	
170	0.071	
171	0.067	
172	0.055	
173	0.346	
174	0.420	
175	0.098	



## Magnetic Susceptibility Log

Depth (m)	Magnetic Susceptibility	DESCRIPTION
176	0.232	
177	0.179	
178	0.941	
179	0.110	
180	0.044	
181	0.036	
182	0.350	
183	0.217	
184	0.295	
185	0.126	
186	0.122	
187	0.039	
188	0.090	
189	0.056	
190	0.116	
191	0.147	
192	0.160	
193	0.065	
194	0.174	
195	0.111	
196	0.081	
197	0.199	
198	0.200	
199	0.127	
200	0.116	
201	0.214	
202	0.195	
203	0.195	
204	0.432	
205	0.174	
206	0.527	
207	0.229	
208	0.150	
209	0.136	
210	0.048	
211	0.056	
212	0.022	
213	0.447	
214	0.548	
215	0.283	
216	0.198	
217	0.370	
218	0.374	
219	0.251	
220	0.176	
221	0.225	
222	0.426	
223	6.743	
224	1.955	
225	0.387	
226	4.288	
227	11.010	
228	2.925	
229	0.532	

## Magnetic Susceptibility Log

Depth (m)	Magnetic Susceptibility	DESCRIPTION
230	2.801	
231	0.825	
232	3.546	
233	4.852	
234	0.202	
235	0.386	
236	1.149	
237	0.882	
238	3.605	
239	4.607	
240	0.912	
241	8.004	
242	7.236	
243	42.690	
244	22.450	
245	71.900	
246	25.080	
247	25.770	
248	30.940	
249	9.163	
250	2.195	
251	1.875	
252	0.544	
253	0.299	
254	0.371	
255	7.242	
256	1.279	
257	20.780	
258	1.009	
259	0.917	
260	0.465	
261	0.151	
262	0.243	
263	1.467	
264	0.102	
265	0.249	
266	1.116	
267	1.215	
268	0.293	
269	0.232	
270	0.123	
271	0.193	
272	0.242	
273	0.186	
274	0.172	
275	0.099	
276	0.262	
277	0.215	
278	0.235	
279	0.206	
280	0.122	
281	0.197	
282	0.367	
283	0.784	

## Magnetic Susceptibility Log

Depth (m)	Magnetic Susceptibility	DESCRIPTION
284	0.223	
285	0.179	
286	0.421	
287	4.406	
288	18.280	
289	4.061	
290	3.765	
291	38.070	
292	4.460	
293	7.672	
294	20.430	
295	0.809	
296	3.056	
297	0.502	
298	0.150	
299	0.055	
300	0.062	
301	0.243	
302	0.637	
303	0.226	
304	0.953	
305	6.340	
306	10.350	
307	14.690	
308	24.150	
309	5.490	
310	3.869	
311	5.607	
312	13.360	
313	1.168	
314	17.770	
315	8.546	
316	3.586	
317	0.423	
318	0.675	
319	1.625	
320	11.970	
321	0.690	
322	0.201	
323	1.357	
324	1.089	
325	1.641	
326	0.041	
327	0.379	
328	0.352	
329	0.326	
330	0.310	
331	12.310	
332	0.176	
333	0.236	
334	0.286	
335	0.370	
336	0.194	
337	0.260	

## Magnetic Susceptibility Log

Depth (m)	Magnetic Susceptibility	DESCRIPTION
338	0.257	
339	0.135	
340	0.030	
341	0.732	
342	0.989	
343	0.267	
344	0.434	
345	0.033	
346	0.022	
347	0.404	
348	0.701	
349	0.787	
350	0.126	
351	0.174	
352	0.290	
353	0.539	
354	0.216	
355	0.470	
356	0.047	
357	0.226	
358	0.413	
359	0.037	
360	0.292	
361	0.073	
362	0.049	
363	0.215	
364	0.293	
365	0.289	
366	0.103	
367	0.280	
368	0.347	
369	0.140	
370	0.191	
371	0.088	
372	0.238	
373	0.470	
374	0.216	
375	0.143	
376	4.963	
377	0.080	
378	0.145	
379	0.375	
380	0.384	
381	0.116	
382	2.987	
383	0.383	
384	0.121	
385	0.233	
386	2.332	
387	2.967	
388	1.800	
389	0.153	
390	0.113	
391	0.005	

## Magnetic Susceptibility Log

Depth (m)	Magnetic Susceptibility	DESCRIPTION
392	0.229	
393	0.044	
394	0.222	
395	0.124	
396	0.470	
397	0.848	
398	0.010	
399	0.143	
400	0.484	
401	0.374	
402	0.019	
403	0.041	
404	0.016	
405	0.131	
406	0.163	
407	5.368	
408	0.058	
409	1.580	
410	0.155	
411	0.223	
412	0.043	
413	0.066	
414	0.034	
415	0.377	
416	0.356	
417	0.101	
418	0.043	
419	0.422	
420	0.152	
421	0.759	
422	0.237	
423	0.166	
424	0.200	
425	0.164	
426	2.832	
427	0.267	
428	0.134	
429	0.564	
430	0.139	
431	0.116	
432	0.575	
433	2.076	
434	1.018	
435	0.157	
436	0.323	
437	0.221	
438	0.044	
439	0.710	
440	0.194	
441	0.148	
442	0.467	
443	0.096	
444	0.371	
445	0.147	

## Magnetic Susceptibility Log

Depth (m)	Magnetic Susceptibility	DESCRIPTION
446	0.143	
447	0.160	
448	0.730	
449	0.051	
450	0.669	
451	0.682	
452	0.529	
453	0.493	
454	0.816	
455	0.248	
456	0.059	
457	0.165	
458	0.096	
459	0.273	
460	0.186	
461	0.526	
462	1.897	
463	4.129	
464	6.598	
465	16.130	

## Box Log

Hole:

Date:

Box #	From (m)	To (m)
1	13.75	17.69
2	17.69	24.03
3	24.03	29.01
4	29.01	34.69
5	34.69	39.00
6	39.00	44.81
7	44.81	50.10
8	50.10	56.17
9	56.17	60.59
10	60.59	66.02
11	66.02	71.05
12	71.05	75.90
13	75.90	81.38
14	81.38	86.62
15	86.62	92.25
16	92.25	97.13
17	97.13	102.71
18	102.71	107.64
19	107.64	113.04
20	113.04	118.42
21	118.42	124.05
22	124.05	129.53
23	129.53	134.62
24	134.62	139.83
25	139.83	145.57
26	145.57	151.00
27	151.00	156.49
28	156.49	162.01
29	162.01	167.85
30	167.85	173.02
31	173.02	178.82
32	178.82	184.53
33	184.53	190.64
34	190.64	196.28
35	196.28	202.06
36	202.06	207.48
37	207.48	212.95
38	212.95	218.45
39	218.45	223.50
40	223.50	228.80
41	228.80	234.43
42	234.43	240.02
43	240.02	245.48
44	245.48	250.48
45	250.48	255.66
46	255.66	261.09

## Box Log

47	261.09	266.05
48	266.05	271.68
49	271.68	276.68
50	276.60	276.60
51	281.68	286.82
52	286.82	291.85
53	291.85	296.85
54	296.90	302.16
55	302.16	307.42
56	307.42	312.65
57	312.65	318.03
58	318.03	323.62
59	323.62	323.62
60	329.00	329.00
61	334.24	334.24
62	339.24	339.24
63	343.72	348.37
64	348.37	352.76
65	352.76	358.02
66	358.02	363.17
67	363.17	368.57
68	368.57	374.43
69	374.43	379.78
70	379.78	384.31
71	384.31	389.77
72	389.77	392.2
73	392.2	399.81
74	399.81	399.81
75	405.07	405.07
76	410.78	410.78
77	416.12	416.12
78	421.5	421.5
79	426.68	426.68
80	431.9	431.9
81	436.4	436.4
82	441.11	441.11
83	446.06	446.06
84	451.19	451.19
85	456.42	456.42
86	461.05	465.42 (EOH)