

702

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
0-5				n/a	n/a	n/a	n/a												
5-10				n/a	n/a	n/a	n/a												
10-15				n/a	n/a	n/a	n/a												
15-20				n/a	n/a	n/a	n/a												
20-25				B	F	60°		1											
25-30				J5	F	60°		1											
30-35				J3	F	60°		2											
35-40				J5	F	60°													

LOGGED BY: SAND BOG S. FORTIN
 DATE: 10/09/84
 PROJECT No:

Goldier Associates

1907

Hole No. 1907
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DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BREGG/COUSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
25				B	F	∅													
				J5	F	∅													
30				B	F	60°													
				J5	F	60°													
35				B	F	≈50													
				J5	F	≈40													
40				B	F	60°													
				J5	F	60°													
					W														
45				B															
				J5															
50																			

LOGGED BY: T.M. SANDBERG
 DATE: 1984
 PROJECT No. 11

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Hole No. 1907
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702

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
50				B J5	C B	45°	2 1												
55				B J5	B B	60													
60				B J5	B B	60	3 4												
65				B J5	C C	60	2 3												
70				B J5	C C	60	2 4												

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Hole No. 1902
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702

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
75				B Js	C W B	50°													
80				B Js Jg	C C C	50°	5 1 1												
85				B Js	C C	50°	4 4												
90				B Js	C C	50°	3-B 2-Js												
95				Jg B	C C	55°	2 1												

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 DATE: 1984
 PROJECT No. 100

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DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
100				B	F	60°													
105				B _{js}	F _w	60°													
110				B	F _w	60°													
115				B	F _w	60°													
120				B _{js}	F _w	60°													

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DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BREGIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
130				B J _s	W F		3 1												
135				B	C F		2												
140				B	W		2												
145				B J _s	W F		3 1												
				B F	F		3												

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 DATE: 1984
 PROJECT No. 1902

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 SHEET 6 OF 27

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	9	6	3
150	✓			B	C F	60°	3											
155	✓			B	C F	60°	2	2										
160	✓			B	F B	86°	9	9										
165	✓			B	B	68°												
175	✓			B	B	70°												

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PERCENT CORE LOSS 25 50 75	FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	SPECIMEN BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			
	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3	
✓	J5 B	F C W	70°														225
✓	J5 B	W C F	70° ↓ 90°														230
✓	B	F	70°														235
✓	B	F W C	60°														245
	J5 B	F F	70° ↓ 15°		3' ↓ 2' long												275
																	280

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PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
✓			B J5	B F	60°		lat 291°			✓	✓	✓	✓	✓	✓	✓	✓	✓
✓			B	B F	60°					✓	✓	✓	✓	✓	✓	✓	✓	✓
✓			B	B	60°					✓	✓	✓	✓	✓	✓	✓	✓	✓
✓			B	B	60°							✓						
✓			B	B	60°							✓						

300
325
340
350
355

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PERCENT CORE LOSS	FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY						
	TYPE	FILLING	INCLINATION					4	3	2	75	50	25	9	6	3				
50.75	B J ₂	C P	70°			Diagonal lines														
	B J ₅	C F	60°			Dotted pattern														
	B J ₅	C F	55°			Dotted pattern														
	B	C F	55°			Dotted pattern														
	B	C F	55°			Dotted pattern														

350
360
390
400
420
425

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PERCENT CORE LOSS 25 50 75	FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/CRAVE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			
	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3	
✓	B	C	50°								✓	✓	✓	✓	✓	✓	425
✓	B	C	50°								✓	✓	✓	✓	✓	✓	430
✓	B	C	50°								✓	✓	✓	✓	✓	✓	435
✓	B	B W	50°								✓	✓	✓	✓	✓	✓	440
✓	B	B W F	50°								✓	✓	✓	✓	✓	✓	460
✓	B	B W F	50°								✓	✓	✓	✓	✓	✓	470

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1984

Hole No. 1402

SHEET 12

PERCENT CORE LOSS 25 50 75	FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE %	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			
	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3	
✓	B Js	C	50°					✓	✓	✓	✓	✓	✓	✓	✓	✓	470
✓	B	C	50°					✓	✓	✓	✓	✓	✓	✓	✓	✓	490
✓	B Js	C	50°					✓	✓	✓	✓	✓	✓	✓	✓	✓	500
✓	B	C	55° 					✓	✓	✓	✓	✓	✓	✓	✓	✓	505
✓	B	C	55° 					✓	✓	✓	✓	✓	✓	✓	✓	✓	520
✓	B	C	55° 					✓	✓	✓	✓	✓	✓	✓	✓	✓	540

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Golden Associates

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540

560

565

570

585

600

PERCENT CORE LOSS 25 50 75	FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY				
	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3		
✓	B J5	C F	60															
✓	B	C F	60															
✓	B	C F	60															
✓	B J5 J4	C F	55		Heald Fracture 1/4 displacement													
✓	B J5	C B F	60															

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600

610

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630

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650

PERCENT CORE LOSS 25 50 75	FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/COUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			
	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3	
✓	J _s B	C T B	60°					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	J _s B	C T B	50					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	J _s B	C B	45°					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	J _s B	C B	60°					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	J _s B		55°					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

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650

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700

PERCENT CORE LOSS	FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BREGEL/CORSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			
	25	50	75					TYPE	INFILLING	INCLINATION	4	3	2	75	50	25	9
✓				B Js	C W	45°											
✓				B Js	C B	50°											
✓				B Js	C B	50°											
✓				B Js	C B	50°											
✓				B Js	C B	50°											

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Calder Associates

PERCENT CORE LOSS 25 50 75	FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS 4 3 2	ROCK QUALITY DESIGNATION 75 50 25	NATURAL FRACTURE FREQUENCY 9 6 3	702
	TYPE	INFILLING	INCLINATION								
	B	C	50°								710
	B	C	50°								720
	B 25	C	50°								730
	B	C	50°								740
	B	C	50°								750

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Hole No. 1907

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702

PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/CORUSE BROKEN CORE	HARNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
✓			B	C	50						✓	✓	✓				✓	
✓			B	C	50°						✓	✓	✓				✓	
✓			B	C	55°						✓	✓	✓	✓	✓		✓	
✓			B	C	55°						✓	✓	✓	✓	✓		✓	
✓			B	C	55		area of sp. up clust				✓	✓	✓	✓	✓		✓	

250
760
770
780
790
800

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1984

Hole No. 1902

SHEET 18 22

702

500

510

520

530

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PERCENT CORE LOSS 25 50 75	FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE <input checked="" type="checkbox"/> BROKEN CORE <input checked="" type="checkbox"/>	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			
	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3	
✓	B	C	55					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	B	C	55					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	B	C	55					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	B	C	55					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	B	C	55					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

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1984

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Hole No. 1907

SHEET 19 27

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PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE IN BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			
25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3	
✓			B	B	60														
✓			B J5 J9	C B	60°														
✓			B J5 J9	C B	60°														
✓			B J5 J9	C B	55														
✓			B J5 J9	B C	50														

910
920
930
940
950

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Calder Associates

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950

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980

990

1000

PERCENT CORE LOSS 25 50 75	FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/COARSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
✓	B Js Ja	B C	45°					✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	B Ja Js	C B W	50°					✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	B Js	C	50°					✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	B Js	B C	60					✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	B Js	B	70					✓	✓	✓	✓	✓	✓	✓	✓	✓

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1058

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1100

PERCENT CORE LOSS 25 50 75	FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/COBBLES BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			
	TYPE	INFILLING	INCLINATION					1	3	2	75	50	25	9	6	3	
✓	B	B C	60°					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	B	C	60					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	B Jg	C B	60					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	B Js Jg	B C	45					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	B Js	B	70°							✓	✓	✓	✓	✓	✓	✓	✓

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DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/COARSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
	✓			B	L	50													
				B	C	45													

702

1210
END OF HOLE
1216
1220

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	SPECIAL CORES	BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			702 (per 30cm interval)
	25	50	75	TYPE	INFILLING	INCLINATION						4	3	2	75	50	25	9	6	3	
0.0								no core - casing													
1.5m																					
2.0m																					
4.5																					
6.0																					
7.5																					

LOGGED BY: JIM SANDBERG
 DATE: 5/10/84
 PROJECT No. 1908

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DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
1.5				B	B	47°													
2.0				B	B	50		SLICK CRUMBLY, BUT NO APPARENT CORE LOSS											
2.5				B	B	40		SLICK - 20 of these											
3.0																			
3.5																			
4.0								CRUMBLY COAL											

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 DATE: SEP 16 1984
 PROJECT No. 1500

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 SHEET 2 OF 4

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DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
0.0																			
1.5				B	B	37°		NUMEROUS thin coal stringers and interbeds											
12.0				J1	C			IRREGULAR - HEAVILY FRACTURED											
19.5				J1	B			IRREG - BROKEN TO CRUMBLY											
21.0																			
22.5																			

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DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/COARSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
22.5																			
24.0																			
25.5				B	B	60°		30 of these to 26.2m											
27.0																			
28.5				B	C	60°		15 of these											
30.0																			

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 DATE: 5/11/84
 PROJECT No. 1984

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Hole No. 1908
 SHEET 4 OF 54

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			702
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3	
UNSO.				R	C	60°		40 of these												
28.5																				
30.5																				
32.0																				
34.5				ST JC	C W	15° 120°		20 of these 10 of these to 38 m												
36.0																				
37.5																				

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 DATE: Sept 16 1984
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DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
39.0				B	W	60°	25 of these												
40.5				35	W	15	15 of these												
42.0																			
43.5				35	W	15	30 of these												
45.0				B	W	50°	BELOW THIS SIDE - 10 of these												

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 DATE: 6/2/84
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 SHEET 6 OF 54

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DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/COUSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
46.0				J R C	C	60° 150°	270°	IRREG - 30 of these 18 of these 5 of these											
46.5				J R C	C	60° 120°		BRX - small zone 2 of these 2 of these											
48.0				B B	B	60°		SLICK FISSILE, HEAVILY FRACTURED											
49.5				J R C	C	60°		BRX FISSILE											
51.0								SLICK, CRUMBLY											
52.5																			

LOGGED BY: T.M. SANDBERG
 DATE: Sept 8 1984
 PROJECT No. _____

Golder Associates

Hole No. 1908
 SHEET 7 OF 54

702

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/CORSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
52.5								SLICK. RUBBLE											
54.0																			
55.5																			
57.0				J	B	60		20 of these											
				J	W	60	150°	BLK 50 of these, ...frag, minor brv											
				J	R	55		6 of these											
				J	3	90		5 of these											
58.5				J	R	62		5 of these											
				J	R	30		SLICK 12 of these											
60.0																			

LOGGED BY: TOM SANDBERG
 DATE: 5-26-84
 PROJECT No. 1908

Golder Associates

Hole No. 1908
 SHEET 8 OF 54

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
60.0				B	B	62		6 of these											
				J1	B	30		SLICK 75 of these											
61.5				J1	B	55		17 of these											
				J1	B	30		2 sets 4 of these											
63.0				J5	B	50		2 sets - 4 of these											
				J1	B	30		SLICK 15 of these											
64.5				J5	C	180		1 of these											
				B	C	60		not fractured, though -											
								J9?											
66.0				J1	C	40		2 of these											
				B	B	60		SLICK - 15 of these											
67.5																			

702

LOGGED BY: T.M. SANDBERG
 DATE: NOV 7 1984
 PROJECT NO. 228

Golder Associates

Hole No. 1908
 SHEET 9 OF

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/COUSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
75.0				D	B	54°		SLICK - 25		<input type="checkbox"/>	<input type="checkbox"/>								
76.5										<input type="checkbox"/>	<input type="checkbox"/>								
78.0				JA B J B	C C C B	65 65 40 65	240°	<p>300' LAMINAE</p> <p>1 of these</p> <p>6 of these</p> <p>Parallel bedding, minor lugs</p> <p>4 of these</p>		<input type="checkbox"/>	<input type="checkbox"/>								
79.5				B	B	60		20 of these		<input type="checkbox"/>	<input type="checkbox"/>								
81.6										<input type="checkbox"/>	<input type="checkbox"/>								
82.5										<input type="checkbox"/>	<input type="checkbox"/>								

702

LOGGED BY: J.M. SANDBERG
 DATE: 11/19/84
 PROJECT No. 1111

Golder Associates

Hole No. 1908
 SHEET 11 OF 54

702

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
32.5				B	B	60		1 of these SLICK											
				B	E	60		3 of these											
34.0				B	B	60		3 of these											
				SS	W	20	unknown	2 of these											
35.5				B	C	60		5 of these											
				SH	W	20	240	3 of these											
				SH	C	50	180	2 of these											
37.0				J	B	42°		10 of these											
				SS	W	60°		2 of these											
38.5				B	C	50	20	19 of these											
40.0																			

LOGGED BY: J.M. SANDBERG
 DATE: 05/17/84
 PROJECT No. 1984

Golder Associates

Hole No. 1908
 SHEET 12 OF 54

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
90.0				J1	C	50°		8 of these	[Hand-drawn log showing vertical fracture patterns]	[Checked]									
				J5	W	30°		1 of these											
91.5				J1	B	65°		12 of these SLICK											
				J5	W	40°		12 of these											
93.0				B	B	55°		12 of these											
94.5				J1	C	20°	90° 270	3 of these											
				B	B	55°		6 of these											
				J5	W	20°	400 270	4 of these											
96				B	B	57°		4 of these											
				J5	W	30°	270												

702

LOGGED BY: J.M. SANDBERG
 DATE: 1/8/84
 PROJECT No. 1000000000

Golder Associates

Hole No. 1908
 SHEET 13 OF 84

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
000.5				B	W	50°		9 of these											
				B	W	50°		1 of these											
				JC	W	10	130°												
91.0				B	B	55°		4 of these											
				JC	W	30	180°	2 of these											
100.5				B	B	55°		4 of these											
102.0				B	B	60°		6 of these											
103.5				JC	C	50		1 of these											
105.0																			

702

LOGGED BY: J.M. SANDBERG
 DATE: 1/18/84
 PROJECT No. 1908

Goldier Associates

Hole No. 1908
 SHEET 14 OF 54

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/COARSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
105.0				J1 D B	C C W	47° 47° 47°		LAM. 2 of these 1 of these											
106.5				J9	C	47°		LAM - SLUMPS											
108.0				J9 B	C W	34° 36°		LAM - SLUMPS 2 of these											
109.5				J5	W	70°	300'	3 of these											
111.0				B J1	W B	45° 40°		HEAVILY FRACTURED SLICK											

702

702

LOGGED BY: JAM SANDBERG

DATE: 11/28/84
PROJECT No. 1908

Golden Associates

Hole No. 1908
SHEET 15 OF 54

702

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
12.5								BUDDLE											
14				J	B			CURVED, RUBBY											
				B	B	54°		FISSILE											
15.5				J	E	20		4 of these											
				J	E	45	120	SIDERITE? 26 of these											
				J	C	46		LAMINAR											
				J	C	46		5 of these											
				J	C	90		SLICK - 2 of these											
				J	C	43		2 of these											
				J	C	270	270°	3 of these											
				J	C	90		2 of these											
18.5				J	E	30°		8 of these, minor box											
				J	C	90°		4 of these											
20																			

LOGGED BY: J.M. SANDBERG
 DATE: 3-7-1984
 PROJECT No.:

Golder Associates

Hole No. 1908
 SHEET 16 OF 34

702

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
120				J5	W	20	120°	15 of these LAMINAE											
				J4	C	40		2 of these											
				J3	C	90													
121.5				J4	C	40		LAMINAE											
				J5	W	30°	150°	6 of these											
123				B	C	40°		8 of these											
124.5				J4	C	40°		LAM.											
				B	C	45°		3 of these											
				J3	C	90°		2 of these											
126				J4	C	40		LAM.											
				B	C	40		6 of these											

LOGGED BY: JIM SANDBERG

DATE: 10/3/84

Golden Associates

Hole No. 1908

SHEET 17 OF 34

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BREGIA/COUSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
118.25				B	⊖	40		10 of these											
129				S B	C B	58	180	14 of these											
135				S	C	40		IRREG - 7 of these											
142				B	⊖	40		9 of these											
153.5				B	⊖	40		10 of these											

702

LOGGED BY: JIM SANDBERG
 DATE: 11/19/84
 PROJECT No. 1902

Golder Associates

Hole No. 1902
 SHEET 18 OF 54

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/COUSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
135				B	B	40		9 of these											
136.5				B C	B C	40 40		5 of these 2 of these											
138.5				B	B	40		3 of these											
139.5				B	B	40		3 of these											
141				B	B	40		10 of these											

702

LOGGED BY: JIM SANDBERG
 DATE: 11/19/84
 PROJECT No. 1968

Golder Associates

Hole No. 1968
 SHEET 19 OF 32

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			702
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3	
142.5				B	B	40		3 of them												
144				B	B	40		10 of them												
145.5				B	B	43	240	9 of them 1 of them												
147				B	B	45		2 of them												
148.5				B	B	47		MORE THAN I CARE TO COUNT												

LOGGED BY: J.M. SANDBERG
 DATE: Sept 7, 1984
 PROJECT No. 101

Golder Associates

Hole No. 1908
 SHEET 20 OF 54

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIAGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					1	3	2	75	50	25	9	6	3
130				B	B	47°	MANY!												
137.5				B 32	B	47° 90°	LOTS 20 of these												
153				B 32	B	47° 90°	HEAVILY FRACTURED 30 of these												
164.5				B	B	47°	20 of these, local rubble												
156.9				B 35	B W	50°	SLICK - 20 of these												
157.5				B 35	B W	20°	SLICK. 12 these 100%												

702

LOGGED BY: JIM SANDBERG

DATE: SEP 14 1984

PROJECT No. 117

Golden Associates

Hole No. 1908

SHEET 21 OF 54

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			702
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3	
157.5				B	B	50	250°	SLICK - 20 of these		<input type="checkbox"/>										
			J5	W	23	3 of these														
			J9	C	50	SILTY LAM														
159				B	C	50	9 of these	IRREG												
			J5	E	50															
160.5				B	C	50	6 of these													
162				B	C	50	8 of these													
163.5				J2	C	90	260°	2 of these												
			J9	C	50	LAM														
			J5	W	26°	5 of these														
			B	C	50°	4 of these														

LOGGED BY: TIM SANDBERG
 DATE: SEP 10 1984

Golden Associates

Hole No. 1908
 SHEET 22 OF 54

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BREGG/CORRE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			702
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3	
163				B	B	55		SLICK - 5 of these												
				J1	C			IRREGA FINE INTERSECTING FRACTURE NETWORK												
166.5				B	C	54°		5 of these												
				54	C	54°		LAM												
				35	W	27°	27°	4 of these												
169				B	C	56°		12 of these												
174.5				B	C	52°		8 of these												
				53	W	23°	25°	2 of these												
				54	C	52°		LAM												
177				B	C	50°		4 of these												
				52	C	40°		2 of these												
				51	C			IRREGA - 1 of these												
182.5				35	W	25°	26°	3 of these												

LOGGED BY: JIM SANDBERG

DATE: SEP 10 1984

Golden Associates

Hole No. 1908

SHEET 23 OF 54

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BREGG/CORNER BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			702
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3	
172.5				R	B	55°	SLICK - HEAVILY FRACTURED													
174				B	B	50°	SLICK 20 of this													
175.5				B	B	50°	HEAVILY BROKEN, SOME CRUMBLY													
177				B	B	50°	20.0 fine													
178.5				B	B	45	HEAVILY BROKEN RUBBLE													
180							At least 25% core loss - core is very spread out													

LOGGED BY: JIM SANDBERG
DATE: SEP 11 1984

Golden Associates

Hole No. 1908
SHEET 24 OF 51

702

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIAGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
120								RUBBLE - possibly up to 50% core loss											
181.5								BROKEN EVERY WHICH WAY											
183																			
184.5				B	R	40		30 or 50											
186				B 32	R C	40 90		2 of these 3 of these											
187				B	R	60		24 of these - SLICK											

LOGGED BY: JIM SANDBERG

DATE: SEP 11 1984

Golden Associates

Hole No. 1908

SHEET 25 of 50

702

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/CORRE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
182.5				J4 B	C C	60 60		2 am 13 of these											
189				B J3	B C	60 60		14 of these 8 of these											
190.5																			
192				B J3	C C	60 60		5 of these 6 of these											
193.5				B J3	C C	60 60		2 of these 4 of these											
195				B J3	C C	60 60		4 of these 2 of these											

LOGGED BY: JIM SANDERS
 DATE: SEPT 10 1984

702

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/COARSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
195				SI	B			HIGHLY IRREGULAR INTENSE FRACTURE NETWORK SLICK.		<input checked="" type="checkbox"/>									
196.5				SI	C		IRREG	HEAVILY FRACTURED											
198				SI	C	40-60°		23 of these											
199.5				SI	C	30°		5 of these											
201				R	C	60°		12 of these											
202				SI	C	180° (colost)		2 of these											
202.5																			

LOGGED BY: JIM SANDBERG
 DATE: SEP 10 1984
 PROJECT NO: 1177

Golder Associates

Hole No. 1908
 SHEET 27 OF 51

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
202.5				J2	C	50°		8. of these											
204				J2	C	24°	210.	1. of these											
				J3	C	54°		LAM											
				B	C	84°		8. of these											
205.5				J1	C	130°		1. of these											
				B	C	64°		0. of these											
207				B	C	60°		0. of these											
208.5				B	C	50°		3. of these											
				J2	C	50°		LAM											

702

LOGGED BY: T.M. SANDBERG
 DATE: SEPT 10 1984

Goldor Associates

Hole No. 1908
 SHEET 29 OF 50

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/COARSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
217.5				B	R	50°		9 of them vpm											
219				B	C	50		3 of them											
220.5				B	C	50		4 of them											
222				B	R	50°		5 of them											
223.5				B	R	50°		3 of them - SLICK.											

702

LOGGED BY: JIM SANDBERG
DATE: SEPT 12 1984

Golden Associates

Hole No. 1908
SHEET 30 OF 51

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
210				JA	C	50		LAM											
				JA	C	18°	240	20 f these											
				B	C	50		0 f these											
211.5				JA	C	50		LAM											
				B	C	50		60 f these											
				M	C	10	120	20 f these											
213				JA	C	50°													
				M	C	10	120	10 f these											
				B	C	50		10 f these											
214.5				JA	C	50		LAM											
				JA	C	15	120	20 f these											
216				SI	C	10	120												
				B	C	50		10 f these											
				JA	C			LAM											

702

LOGGED BY: JIM SANDBERG

DATE: SEP 11 1984

Golden Associates

Hole No. 1908

SHEET 29 OF 54

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/COARSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			702
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3	
225				R	C	50°		12 of these												
265				B 5a	C	50 50		3 of these with												
288				B	B	55°		15 of these - SLICK												
295				B	B	55°		10 of these												
231				B	B	55°		25 of these												

LOGGED BY J.M. SANDBERG

DATE: SEP 12 1984

Golden Associates

Hole No. 1908

SHEET 31 OF 54

702

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
212.0				B	C	55		6 of these											
				TS	W	27	0°	1 of these											
234				B	B	55		15 of these											
235.5				B	B	55		20 of these - SLICK											
				TS	W	27	230	1 of these											
				TS	W	27	230	1 of these											
237				B	B	55		12 of these											
238.5				B	B	55		SLICK - 24 of these											
240																			

this is
MST

LOGGED BY: JIM SANDBERG
DATE: SEP 12 1984

Golden Associates

Hole No. 1908
SHEET 32 OF 50

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	60	25	9	6	3
240				B	R	56		10 of them										
241.5				B	R	50		28 of them SLICK										
243				B	R	55		13										
249.5				B ST	R C	55 40	180	9 of them 1 of them										
241				B	C	56		20 of them										

702

LOGGED BY: JIM SANDBERG
DATE: SEP 12 1984

Golden Associates

Hole No. 1908
SHEET 33 OF 54

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
243.5				B	S	52		10 of them											
249				B	B	52°		9 of them											
250.5				B	C	57°		12 of them											
				B	C	90°		6 of them											
252				B	C	57°		10 of them											
				B	C	57°	12256	4 of them											
253.5				B	C	57°		20 of them											
				B	C	57°	12256	20 of them											

702

702

LOGGED BY: JIM SANDBERG
DATE: SEPT 1984

Goldier Associates

Hole No. 1908
SHEET 34 OF 54

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	RECT/A/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
255				B3 B	C C	90 57		10 of these 4 of these											
256.5				B	C	56		3 of these											
258				B J2	C C	56 40		3 of these 6 of these											
259.5				J1 B3		Subparallel 40		2 long ones 12 of these											
261				B B1	C C	56 15	120	3 of these 1 of these											

702

LOGGED BY: JIM SANDBERG
DATE: SEP 11 1984

Golden Associates

Hole No. 1908
SHEET 35 OF 54

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/CORRECTION BROKEN CORE (%)	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
262.5				B	C	52°	30°	8 of these 1 of these	[Graphic Log]										
			JL	C	20°														
264				B	C	56°		6 of these 1 of these	[Graphic Log]										
			J3	C	90°														
265.5				B	C	54°		9 of these	[Graphic Log]										
267				B	C	58°		4 of these	[Graphic Log]										
268.5				B	C	58°		4 of these	[Graphic Log]										

702

LOGGED BY: JIM SANDBERG
 SEP 12 1984

Golden Associates

Hole No. 1908
 SHEET 36 OF 57

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/VOLUME BROKEN CORE (%)	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					1	2	3	75	50	25	9	6	3
270				R	C	50		3 of these											
271.5				G	C	50		7 of these											
273				R	R	60	270	9 of these slick 6 of these											
274.5				R	R	60		6 of these											
276				R	R	60		17 of these											
277.5																			

702

LOGGED BY: JAM SANDBERG

DATE: SEP 12 1984

PROJECT No.

Golden Associates

Hole No. 1908

SHEET 37 OF 54

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/COUSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
0-27.5				J3		70-90°	10 of these												
27.5-32.9				B	C	50°	7 of these												
32.9-39.5				B	C	46°	10 of these												
39.5-42.2				B	C	90°	6 of these												
42.2-48.5				B	C	46°	2 of these												
48.5-53.5				B	C	90°	3 of these												
53.5-58.5				B	C	47°	2 of these												

702

LOGGED BY JIM SANDBERG
DATE SEP 12 1984

Golden Associates

Hole No. 1908
SHEET 38 OF 54

DEPTH	PERCENT CORE LOSS 25 50 75			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
2885				B	C	50°	6 of these												
2865				B	C	50°	7 of these												
				B	C	40°	3 of these												
288				L	C	70°-90°-100°	26 of these												
2875				B	C	80°	5 of these												
287				B	C	100°	12 of these												

702

LOGGED BY: J.M. SANDBERG
 DATE: SEP 12 1984
 PROJECT NO: 101

Golder Associates

Hole No. 1908
 SHEET 39 OF 54

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
242.9				B	C			Not work of fine cracks. Not work of fine cracks.											
244				B	B	60°		2 of these											
				SS	C	90		4 of these											
				SS	W	20	270°	6 of these											
				B	C	50°		5 of these											
				SS	C	90°		1 of these											
				SS	W	30	270°	5 of these											
				B	C	57°		9 of these											
				SS	W	25	270°	5 of these											
				B	C	58		12 of these											
				SS	W	36	210	3 of these											

702

LOGGED BY: J. M. SANDBERG
DATE: SEP 12 1984

Golden Associates

Hole No. 1908
SHEET 40 OF 54

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/COARSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	5	2	75	50	25	9	6	3
300				R	C	54	240	13 of these 3 of these											
305				R	C	60		19 of these											
303				R	B	60		38 of these to 305.4											
304.5				R	B	54		HEAVILY FRACTURED, LOCALLY CRUMBLY											

702

LOGGED BY: J.M. SANDBERG
DATE: SEP 15 1984

Golder Associates

Hole No. 1908
SHEET 41 OF 54

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	70	50	25	9	6	3
107.5				D	B	54		20 of these, locally crumbly											
109				D	B	54		17 of these											
110.5																			
112				B	B	52		30 of these SLICK											
113.5				B	B	55		17 of these SLICK											
115																			

702

LOGGED BY: JIM SANDBERG
 DATE: SEP 11 1984

Golden Associates

Hole No. 1908
 SHEET 42 OF 54

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIAGE BROKEN CORE (%)	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	FILLING	INCLINATION					4	5	2	75	50	25	9	6	3
183.5				B	B	54°	20 of these												
186.5				B	B	53°	22 of these SLICK												
191.5				B	B	52°	HEAVILY FRACTURED SLICK.												
194.5				B	B	53°	30 of these												
197.5				B	B	50°	17 of these												

702

LOGGED BY: JIM SANDBERG
DATE: SEP 12 1984

Golden Associates

Hole No. 1908
SHEET 43 OF 54

702

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	5	2	75	50	25	9	6	3
322.5				B	B	59		24, locally crumbly											
324				B	B	53		HEAVILY FRACTURED SLICK											
				B	B	50													
325.5				B	B	53		5 of these - SLICK IRREG.											
				B	B	54		5 of these 6 of these IRREG.											
328.5				B	B	55		34 of these IRREG - 10 of these											

LOGGED BY: JAM SANDBERG
 DATE: SEP 13 1984

Golden Associates

Hole No. 1908
 SHEET 44 OF 54

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
330				B	B	55		30, locally crumbly											
331.5				B SI	B C	45	IRREG.	7 of these 20 of these											
333				B	B	44		8 of these											
334.5				B SI SI B	B C C C	90 180 40		FINE NETWORK OF CRACKS											
336				B SI	C C	42	IRREG.	4 of these FINE NETWORK											

702

LOGGED BY: JIM SANDBERG
DATE: SEP 13 1984
PROJECT NO. 1908

Golder Associates

Hole No. 1908
SHEET 45 OF 54

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/COARSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
337.5				B	C	43°	3 of these												
				SI	C		12 REG MANY												
339				B	C	42	4 of these												
				SI	C		12 REG more or less 90° to core	12 of these											
340.5				SI	C	40°	10 of these												
342				SI	C	90°	12 of these												
343.5				SI	C	80°	6 of these												

702

LOGGED BY: JAM SANDBERG
 DATE: SEPT 13 1984

Golden Associates

Hole No. 1908
 SHEET 46 OF 54

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
345				J3	C	90		3 of these											
446.5				J1	C	48°	1400	1 of these											
				B	B	57°		1 of these											
449				J	C	50	180	2 of these											
				B	C	40		2 of these											
				B	C	56°		3 of these											
449.5				B	B	50°		5 of these											
551				B	B	50°		12 of these											

702

LOGGED BY: JAM SANDBERG

DATE: MAR 8 1984

Golder Associates

Hole No. 1908

SHEET 47 OF 54

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
352.5				B	C	50°		5 of these											
				J1	C		IRREG	3 of these											
354				J1	C		IRREG	2 of these											
				B	B	57°		3 of these											
				J1		57°		LAM											
356.5				B	B	58°		9 of these											
				J1	B	48°		1 of these											
				J1	C	45°		1 of these											
357				B	B		IRREG	WISPY, CURVED - 10 of these											
				J1	C	40°		2 of these											
				J1	B	80°	0°	2 of these											
358.5				B	B	57°		8 of these											

702

LOGGED BY: T.M. SANDBERG
DATE: SEP 13 1984

Golden Associates

Hole No. 1908
SHEET 48 OF 54

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
360				B	B	57°	3.0 f. thin												
365				B 31	B C	55° 30°	20.0 f. thin 120°												
363								CRUMBLY RUBBLE											
365				J1	C	60-90	HIGHLY FRACTURED, WACKLY HEAVILY FRACTURED												
366				J1	C	60-90	SAME AS ABOVE												

702

LOGGED BY: JAM SANDBERG
DATE: SEP 16 1984

Golder Associates

Hole No. 1908
SHEET 49 OF 54

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE	BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			
	25	50	75	TYPE	INFILLING	INCLINATION						4	3	2	75	50	25	9	6	3	
27.5				B	C	50°		5 of these													
				S	C	90°		2 of these													
36.9				B	B	50°		10 of these													
				S	C		10222	F SMALL CUBES OF ROCK.													
40.5				B	C	55°		10 of these													
42				B	C	54°		10 of these													
43.5				B	C	55°		6 of these													

702

LOGGED BY: JIM SANDBERG
 DATE: SEP 10 1984

Golden Associates

Hole No. 1908
 SHEET 50 OF 54

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIAGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
375				J3	C	90		3 of these											
376.5				B	C	55°		4 of these											
				J1	C	30		Not possible to determine 1 of these (massive mst) 2 of these											
				J3	C	75°													
378				B	C	66°		8 of these											
				J3	C	90°		5 of these											
379.5				B	C	55°		5 of these											
381				B	C	55°		7 of these											
				J3	C	90°		3 of these											

702

LOGGED BY: J.M. SANDBERG
 DATE: SEP 13 1984

Golder Associates

Hole No. 1908
 SHEET 57 OF 54

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/COARSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
382.5				S3	C	90	5 of these												
384				B	C	540	4 of these												
				S3	C	90	1 of these												
385.5				B	C	550	2 of these												
				S3	C	90	1 of these												
387				B	B	50	10 of these - SLICK												
388.5				B	B	50	1 of these - SLICK												

702

LOGGED BY: JAM SANDBERG
 DATE: APRIL 13 1984

Golden Associates

Hole No. 1908
 SHEET 52 OF 54

702

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
300				B	B	20°		4 of these											
391.5				B	B	54°		2 of these											
				B	C	20°	30°	2 of these											
				B	C	20°	30°	2 of these											
				B	B	55°		2 of these											
44.5				B	B	50°		BROKEN TO COMBUST											
				B	B	50°													
				B	B	54°		15 of these											
				B	B	30°	120°	1 of these											

LOGGED BY: J.M. SANDBERG
 DATE: SEP 13 1984

Golder Associates

Hole No. 1908
 SHEET 53 OF 54

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/COARSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			702
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3	
397.5				B	B	55°		17 of these												
399				B SI	B B	60°	IRREG	HEAVILY BROKEN												
400.5				B	B	55°		14 of these												
402				B	B	50°		8 of these												
403.5				B	B	50°		10 of these												

LOGGED BY: JIM SANDBERG
 DATE: SEP 17 1984

Golden Associates

Hole No. 1908
 SHEET 54 OF 54

DEPTH FT.	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		702	PERMEABILITY
	25	50	75	TYPE	INFILLING	INCLINATION			4	3	2	75	50	25	15	10		
CASING TD 40'																		
40'				B	F	40°	BROKEN											
46'				B J ₂ J ₃	-	45°	BROKEN											
56'				B J ₂	-	50°	BROKEN											
64.5'				B J ₂	W P	50°	1/2 RUBBLE 1/2 STICK											
71'				B J ₂	W	45°	60% RUBBLE											
74.5'				B	P													
81.5'																		

LOGGED BY: G.L.
DATE: 5/7/84
PROJECT No. _____

Golder Associates **D.D.H. 909**

DDH 1909
Hole No. _____
SHEET 1 OF 26

DEPTH FT.	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION			4	3	2	75	50	25	15	10	5
91.5				B	W	55°	STICK = CORE > 1"										
102				B J3	W	35°	STICK										
107				B J3	W P	50°	STICK, 1 MINOR G.A.L. STICKER.										
116				B J3	W E	40°	STICK										
121				B	W P	45°	STICK										
125				B	W P	40°	1/2 FIDDLE 1/2 STICK										
130				B J3	W	38°	1/2 STICK, 1/3 FIDDLE										

702

LOGGED BY: G.L.
 DATE: 10/7/84
 PROJECT No. _____

Golder Associates

DDH 1309
 Hole No. _____
 SHEET 2 OF _____

DEPTH FT	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			702	PERMEABILITY
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	15	10	5		
130				B	W	45°	1/3 RUBBLE, 2/3 STICK	130												
140				B		MS 90°		140												
150				J3	W	SST 70°		150												
160				B	W	65°		160												
170				B		SS 80°		170												
180				J2		80°		180												
190				B	B	75°		190												
200				J2				200												

LOGGED BY: G.L.
DATE: 10/27/84
PROJECT No. _____

Golder Associates

DDA 1909
Hole No. _____
SHEET 3 OF 26

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			PERMEABILITY
	25	50	75	TYPE	INFILLING	INCLINATION			4	3	2	75	50	25	15	10	5	
176				D J2	B	60° 30°												
176				B 52	B	60°												
176				B	W	60°												
216				B	B W	55°												

702

LOGGED BY:
 DATE: 10/27/09
 PROJECT No.

Golder Associates

Hole No.
 SHEET 4 OF 26

DEPTH F	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			PERMEABILITY	
	25	50	75	TYPE	INFILLING	INCLINATION			4	3	2	75	50	25	15	10	5		
214				B	W	45°	X-BEDDING												
221				B	W	35°	ERRATIC 229-231												
236				B		35°													
246				J ₃		85°													
256				B		10°													
266				J ₃		45°													

702

LOGGED BY: PL
 DATE: 11/27/39
 PROJECT No. _____

Golder Associates

Hole No. _____
 SHEET 5 OF 26

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	15	10	5
271				B	W	55°												
271				J2														
				B		40°	COAL											
302				B	B	40°												
				W														
316																		

702

LOGGED BY: G.L.
 DATE: 1/7/89
 PROJECT No. _____

Golder Associates

DDH 1202
 Hole No. _____
 SHEET 10 OF 26

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/JOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			PERMEABILITY	
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	15	10	5		
				B	W	15														
526				B	W B	15	SUMP BEDDING													
536				B	W B	15	INT. BEDDING													
				B	W B	15	SUMP BEDDING INT. BEDDING													
				B	W B	15	INT. BEDDING													
				B	W B	15	INT. BEDDING													

702

LOGGED BY: G.L.
 DATE: 1/1/99
 PROJECT No. _____

Golder Associates

Hole No. _____
 SHEET 7 OF 26

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GYGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			PERMEABILITY	
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	15	10	5		
370				B	W	45°														
				B		55°														
				B		10°	COAL													
				B		80°														
				B	B	15°	CONIFEROUS													
				B	B	10°	CONIFEROUS													
				B		50°	COAL													

702

LOGGED BY: G.L.
 DATE: 1/10/89
 PROJECT No. _____

Golder Associates

DDH 121
 Hole No. _____
 SHEET 8 OF 10

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GYSGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			PERMEABILITY	
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	15	10	5		
414				B	B	30°														
416				B		45°	SILT INTERBEDS SLUMP BEDDING													
417				B	B	45°														
418							MISSING													
415				B	B	45°														
416																				

702

LOGGED BY: GL
 DATE: 1/7/91
 PROJECT No. _____

Golder Associates

Hole No. _____
 SHEET 9 OF 20

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	15	10	5
				B		50°	SILT INTERBEDS.											
				B J ₅	W		J ₅ = LONGITUDINAL FRACTURES											
				B J ₃		1° 8°	POORLY INDURATED											
				B J ₅ J ₃		10° 10°												
				B J ₃ J ₅		13° 25°												

702

LOGGED BY: S.L.
 DATE: 12/10/14
 PROJECT No. _____

Golder Associates

Hole No. _____
 SHEET 10 OF 26

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/COARSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			PERMEABILITY	
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	15	10	5		
				B J5	B	30°														
				B J5	B	40°														
				B J5	B W	10°														
				B		40°	ROBBLE COAL.													
				B J5 J5	B	50° 85°	CLUMP BEDS NET INTERBEDS													
				B	B W	55°														

702

LOGGED BY: SL
 DATE: 1/11/74
 PROJECT No. _____

Golder Associates

Hole No. DDH 100
 SHEET 11 OF 10

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY	702	PERMEABILITY
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25			
571				B														
581				B	B	40°	QUARTZITOUS											
591				B	B	70°												
601				J ₃		80°												
610				B		45°												
611				B	B	15°	COAL											
614				B	B	10°												
619				J ₃		60°												

LOGGED BY: G.L.
 DATE: 12/7/99
 PROJECT No. _____

Golder Associates

Hole No. 702
 SHEET 12 OF 16

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			PERMEABILITY
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	15	10	5	
11							COAL												
12				B T 3	B W	90° 80°													
13				B T 2	W	90° 80°	COAL												

702

LOGGED BY: SL
 DATE: 10/27/89
 PROJECT No. _____

Golder Associates

Hole No. 102
 SHEET 13 OF 26

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			PERMEABILITY	
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	15	10	5		
				B	B J ₃	50														
				B	W J ₅	15	MINDR X BEDS MST INTERBEDS													

702

LOGGED BY: GL
 DATE: 10/17/84
 PROJECT No. _____

Golder Associates

D.D. Hole No. 1209
 SHEET 11 OF 29

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/COARSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			PERMEABILITY
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	15	10	5	

702

LOGGED BY: G.L.
 DATE: 1/10/82
 PROJECT No. _____

Golder Associates

DD Hole No. 1202
 SHEET 15 OF 26

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/COLLECTOR BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			PERMEABILITY
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	15	10	5	
166				B J ₅	W	16°													
				B		45°													
				B J ₅		45°													
				B	W B	45°													

702

LOGGED BY: SL
 DATE: 16/1/89
 PROJECT No. _____

Golder Associates

DD Hole No. 1703
 SHEET 16 OF 26

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			PERMEABILITY
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	15	10	5	
				B J ₅		45°													
				B J ₃ J ₅	B	45°	SILTST INTERBEDS												

702

LOGGED BY: GL
 DATE: 12/27/81
 PROJECT No. _____

Golder Associates

DD Hole No. 1909
 SHEET 17 OF 26

DEPTH FT	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			702	PERMEABILITY
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	15	10	5		
				B	B		CAT UNBIDDS.													
				B		90°	COAL													
				B		45°	FRIABLE													
				B		45°	COAL													
				B	B	50°														

LOGGED BY: Gal
 DATE: 1/2/04
 PROJECT No. _____

Golder Associates

D.D. Hole No. 1207
 SHEET 19 OF 26

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS	ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			PERMEABILITY	
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25		15
721				B		55°	SHALY											
731				B		50°												
754				B J ₅	B W	15°												
762				B J ₂	B	70° 75°												

702

LOGGED BY: GL
 DATE: 2/1/84
 PROJECT No. _____

Golder Associates

DD Hole No. 1907
 SHEET 12 OF 26

DEPTH K	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			PERMEABILITY	
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	15	10	5		
772				B		50°	SST INTERBEDS													
				J ₃		75°														
786				B	B	65°														
				J ₅																
				B		60°														
				J ₅																
				B		7°														
				B		55°														

702

LOGGED BY: SL
 DATE: 23/02/24
 PROJECT No. _____

Golder Associates

DD Hole No. 1917
 SHEET 20 OF 26

DEPTH FT.	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			PERMEABILITY
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	15	10	5	
				B	W	4°	MUD. CLASTS @ 1035'												
				B	W	10°	MST INTERBEDS												
				J ₅															
				B	W	4°													
				J ₅															
				B	D	75°													
				J ₅															
				J ₃		75°													
				B		85°													

702

LOGGED BY: GL
 DATE: 2/16/04
 PROJECT No. _____

Golder Associates

DD Hole No. 1202
 SHEET 21 OF 26

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/COARSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			PERMEABILITY
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	15	10	5	
				B	W	55°													
				B	B	45°													
				J ₃		80°													
				B	B	45°													
				J ₃		80°													
				J ₅															
				B	P	35°													
				J ₃	W	80°	MST. PYRITE CLASTS AT 1135'-1137'												

702

LOGGED BY: GL
 DATE: 7/10/84
 PROJECT No. _____

Golder Associates

DD Hole No. 102
 SHEET 2.2 OF 26

DEPTH FT.	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			PERMEABILITY
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	15	10	5	
1141				B		45°	COAL												
1146				B		55°	ROSTED PYRITE SPECKS												
1153				B		50°	COAL												
1161				B		60°	MOOSE MIL. (BASAL) SST.												
				F3		25°													

702

LOGGED BY: G.L.
 DATE: 24/07/01
 PROJECT No. _____

Golder Associates

DD Hole No. 1902
 SHEET 23 OF 26

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			PERMEABILITY	
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	15	10	5		
				B		60	BASAL SST.													
				B ₃																
				B P		45	KIMM F.C. 1222'													

702

LOGGED BY: G.L.
 DATE: 2/24/09
 PROJECT No. _____

Golder Associates

DD Hole No. 1909
 SHEET 27 OF 26

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			PERMEABILITY	
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	15	10	5		
				B J ₃		60	BASALT													702

LOGGED BY:
DATE:
PROJECT No.

Golder Associates

DD Hole No.
SHEET 25 OF 26

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			PERMEABILITY	
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	15	10	5		

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LOGGED BY:
 DATE: 2/07/99
 PROJECT No.

Golder Associates

Hole No. 102
 SHEET 26 OF 26

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DF	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/COUSE <input type="checkbox"/> BROKEN CORE <input checked="" type="checkbox"/>	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	
							CASING									
-10				Jz	w	40°	SST INTERBEDS									
				Jz	w	10°										
-19				Jz	w	40°										
-20				Jz	w	48°										
				Jz	w	50°										
-30				Jg	w	50°										
				Jz	w	50°										
-40				Jz	w	50°										
				Jz	w	50°										

LOGGED BY: S.F.

DATE: _____

PROJECT No. _____

Golder Associates

1910

Hole No. 1910

SHEET 1 OF _____

702

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	
50				Jz	w	50°										
54				Jz	w	54°										
60				Jz	w	37°										
				Jz	w	40										
70				Jz	w	40										
				Jz	w	40										
				Jz	w	40										
				Jz	w	40										
80				Jz	w	40										
				Jz	w	40										
90				Jz	w	38°										
90g1				Jz	w	45										
100				Jz	3	26										

LOGGED BY: S.F.
DATE: _____

702

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS 4 3 2	ROCK QUALITY DESIGNATION 75 50 25	NATURAL FRACTURE FREQUENCY
	25	50	75	TYPE	INFILLING	INCLINATION						
100	0			J2	w	61°						
110	0			J2	w	40						
	0			J2	w	42						
120	0			J2	c	40	well indurated					
	0			J2	c	40	very broken					
130	0			J2	c	40						
	0			J2	c	40						
146	0			J2	c	40						
	0			J2		35						
150	0			J2		41						

LOGGED BY: _____
 DATE: _____
 PROJECT No. _____

702

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE <input type="checkbox"/> BROKEN CORE <input checked="" type="checkbox"/>	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY	
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25		
150	0			J ₃	w	41											
160	0			J ₃	w	51											
165	15			J ₃	w	54											3
170	0			J ₃	w	43											
175	18			J ₃	w	45											
180	5			J ₂	w	55											
185	5			J ₂	w	42											
190	0			J ₂	w	42											
195	0			J ₃	w	38											
200																	

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 DATE: _____
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Golder Associates

Hole No. _____
 SHEET _____ OF _____

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DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/SOUSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	15	10	5	
200	0			J3	W	48													
	0			J2	W	46													
210	0			J9	W		-12 of these												
	0			J3	B	46	-10 of these												
	0			J2	B		-1 of these												
	0			J2	W		-4 of these												
220	0			J3	B	42	-3 of these												
	0			J3	B	27	-3 of these												
	0			J5	W	15	-1 of these												
	0			B	B	50	-5												
	25			B															
230	0			J3	B	55													
	0			B		40													
	0			J5	B	25	-1												
	0			J2	B	58	-1												
	0			B		65	-4												
240	0			J2	B	45	-4												
	0			J2			-4												
	0			B	B		-1												
246				J5			-1												
250																			

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 DATE: _____
 PROJECT No. _____

Golder Associates

Hole No. _____
 SHEET _____ OF _____

702

DEPTH	PERCENT CORE LOSS 25 50 75			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			
				TYPE	INFILLING	INCLINATION			4	3	2	75	50	25	15	10	5	
250				B	B	35°	-4											
				J ₂	B		-2											
				J ₅	B	40	-1											
				B	B	30	-7											
				J ₅	B	30	-2											
				J ₉	B		-1											
260				B	B	30	-4											
				J ₅	B	30	-2											
				B	B	40	-3											
				J ₅	B	50	-2	some MST CLAST										
270				J ₅	B	20	-2											
				B	B	20	-3	more MST CLAST MST BAND A										
				J ₅	C	55		8" MST BAND AT 279'										
				J ₂	C	30		more MST CLAST										
280				B	C	30		1/2" MST BAND 280'										
				B	C	30	3											
				J ₅	C	53	3											
				J ₅	C	85	6											
				B														
290				B	C	28	-3											
				J ₅	C	50	-1											
				J ₅	C	66	-2											
				B	C	-48	-6											
300																		

LOGGED BY: _____
 DATE: _____
 PROJECT No. _____

Golder Associates

Hole No. _____
 SHEET _____ OF _____

702

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION			4	3	2	75	50	25	15	10	5
300				B	C	50	1										
				J5	C	47	3										
				B	C	50	1										
310				J5	C	59	4										
				B	B	50	5										
				J5	B	60	3										
				B	B	40	2										
320				J5	B	40	3										
				J5	B	40	3										
				B	B	40	2										
				J5	B	44	1	FAULT AREA AT									
330				B	B	44	3	Mst clast									
				J5	B	45	1										
				B	B	18	3										
				J5	C	80	1										
340				B	B	20	5										
				B	B	38	2	Band of SILT									
				J5	C	60	3	345'									
				B	B	38	3										
350				J5	B	75	2										

LOGGED BY: _____
 DATE: _____
 PROJECT No. _____

Golder Associates

Hole No. _____
 SHEET _____ OF _____

DEPTH	PERCENT CORE LOSS 25 50 75			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY				
				TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	15	10	5		
350				B	B	50	3													
				J5	B	40	1	MST CLAST												
				B	B	52	3													
360				J5	B	15	5													
				B	B	55	5													
				J5	B	55	6													
				J5	B	55	3													
370				B	B	45	2													
				J5	B	90	1													
				B	B	48	4													
				J5	B _w	5	7													
380				B	B	43	2													
				J5	C	65	5													
				B	W	46	1													
				J5	B	59	3													
390				B	B	33	1													
				J5	C	56	1													
				B	B	60	4													
				B	B	50	8													
400				J5	B	54	1													

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 DATE: _____
 PROJECT No. _____

Golder Associates.

Hole No. _____
 SHEET _____ OF _____

702

DEPTH	PERCENT CORE LOSS 25 50 75			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			
				TYPE	INFILLING	INCLINATION			4	3	2	75	50	25	15	45	5	
400				J5	B	85	3											
				B	B	43	2											
				B	B	38	5											
				J5	B	5	5											
410				B	B	50	4											
				J5	B	73	2											
				J5		25	5											
420				B		65	4											
				J5	B	16	4											
				B	B	40	3											
				B	B	40	4											
430				J5	B	10	1											
				B	B	25	3											
				B	W	45	3											
440				B	W	45	8											
450				J2	X	56												

LOGGED BY: _____
 DATE: _____
 PROJECT No. _____

Golder Associates

Hole No. _____
 SHEET _____ OF _____

DEPTH	PERCENT CORE LOSS 25 50 75			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	HARDNESS 4 3 2			ROCK QUALITY DESIGNATION 75 50 25			NATURAL FRACTURE FREQUENCY 15 10 5	
				TYPE	INFILLING	INCLINATION										
450				J ₂	B	56										
				J ₂	B	56										
460				J ₂	B	54										
				J ₂	B	50										
470				J ₂	B	63										
				J ₂	B	54										
480				J ₂	B	62										
				J ₂	B	52										
490				J ₂	B	50										
				J ₂	B	39										
500																

702

LOGGED BY: _____
 DATE: _____
 PROJECT No. _____

Golder Associates

Hole No. _____
 SHEET _____ OF _____

DEPTH	PERCENT CORE LOSS 25 50 75			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/COURSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
				TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	15	10	5
500				J ₂	C	40												
				J ₂	C	45												
510				J ₂	B	45												
				J ₂	B	45												
520				J ₂	B	48												
				J ₂	B	50												
530				J ₂	B	50												
				J ₂	B	45												
540				J ₂	B	45												
				J ₂	B	45												
550				J ₂	B	45												

702

LOGGED BY: _____
 DATE: _____
 PROJECT No. _____

Golder Associates

Hole No. _____
 SHEET _____ OF _____

DEPTH	PERCENT CORE LOSS 25 50 75			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			702	
				TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	15	10	5		
550				J ₂	B	49														
				J ₃	B	85	2													
				J ₂	B	46	3													
560				B	C	50	3													
				J ₅	C	85	2													
				B	B	50	3													
570				J ₅	C	83	4													
				B	C	60	2													
				B	C	58	6													
580																				
590				B	C	61														
				B	C	65														
				J ₅	C	20	1													
600				B	C	55														

LOGGED BY: _____
 DATE: _____
 PROJECT No. _____

Golder Associates

Hole No. _____
 SHEET _____ OF _____

DEPTH	PERCENT CORE LOSS 25 50 75			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/CORUSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			
				TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	5	10	5	
600				J5	C	20	1												
				B	C	60	2												
				J5	C	70	2												
610				B	C	60	2												
				B	C	58	3												
				B	C	51	3												
620				B	C	60	2												
				J5	C	80	2												
				B	C	58	3												
630				B	C	60													
				J5	C	60-80	3												
				B	C	50	2												
640				J5	C	80	2												
				B	C	55	3												
				B	C	55	5												
650																			

702

LOGGED BY: _____
 DATE: _____
 PROJECT No. _____

Golder Associates

Hole No. _____
 SHEET _____ OF _____

702

DEPTH	PERCENT CORE LOSS 25 50 75			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/CORUSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION 75 50 25			NATURAL FRACTURE FREQUENCY 5 10 5			
				TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	5	10	5	
650				B	B	59	8												
				J5	B	80	2												
				B	B	60	10												
				J5	B	90													
660				B	B	60													
				B	B	60													
670				B	B	55													
				B	B	50													
680				J5	B	20	1												
				B	B	60													
				B	C	55													
690				w	B	C	60												
				B	C	60													
700																			

LOGGED BY: _____
 DATE: _____
 PROJECT No. _____

Golder Associates

Hole No. _____
 SHEET _____ OF _____

DEPTH	PERCENT CORE LOSS 25 50 75			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/CORUSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
				TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	15	10	5
700				J2	B	52												
705				J2	B	51'												
710				J2	B	52												
715				J2	B	52												
720				J2	C	66												
725				J2	C	60												

702

LOGGED BY: _____
 DATE: _____
 PROJECT No. _____

Golder Associates

Hole No. _____
 SHEET _____ OF _____

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/COARSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	13	10	5
727				J ₂	C	60												
730				J ₂	C	58												
735				J ₂	C	61												
740				J ₂	C	62												
				J ₅	10		1											
				J ₂		43												
745																		
				J ₂		42												
756																		

702

LOGGED BY: _____
 DATE: _____
 PROJECT No. _____

Golder Associates

Hole No. _____
 SHEET _____ OF _____

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/SOUGE BROKEN CORE	HARDNESS	ROCK QUALITY DESIGNATION	NATURAL FRACTURE FREQUENCY	702
	25	50	75	TYPE	INFILLING	INCLINATION							
750		J		J ₂	B	45							
				J ₂	B	55							
				J ₂	B	55							
760				J ₂	C	58							
				J ₂	C ^w	60							
770				J ₂	C	60							
				J ₂	C	60							
780				J ₂	C	60							
				J ₂	C	60							
				J ₂	C	60							
790				B	C	60							
				J ₂	C	60							
				B	C	50							
800				J ₂	B	55							

LOGGED BY: _____
 DATE: _____
 PROJECT No. _____

Golder Associates

Hole No. _____
 SHEET _____ OF _____

702

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/CORUSE BROKEN CORE	HARDNESS	ROCK QUALITY DESIGNATION	NATURAL FRACTURE FREQUENCY
	25	50	75	TYPE	INFILLING	INCLINATION						
80.0				B	C	50						
				J5	C	30						
				B	C	35						
				J5	C	80°						
				B	C	33						
				J5	C	85						
				B	C	32						
				J5	C	40						
				B	B	35						
				J5	B	85						
				B	C	38°						
				J5	C	48						
				J5	C	60 ↓ 20						
				B	B	55°						
				J2	B	35						
				J2	B	35						

LOGGED BY: _____
 DATE: _____
 PROJECT: _____

702

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	15	10	5
850				J8	B	35												
				J5	C	85												
				B	C	50												
860				B	C	50												
				J5	C	60												
				B	C	50												
				J8	B	85												
870				J5	C	78												
				B	C	50												
				J5	C	85												
				B	C	50												
880				B	C	55												
				J8	C	70												
				B	C	58												
				J5	C	72												
890				B	C	59												
				J5	C	70												
				B	C	60												
900				J5	C	75												

LOGGED BY

702

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/CORUSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	15	10	5
900				J5	B	70												
				B	B	60												
				J5	B	70												
				B	B	60												
910				J5	B	70												
				B	B	60												
				J5	B	70												
				B	B	60												
				J5	B	70												
				B	B	60												
920				J5	B	10												
				B	B	60												
				J5	B	80												
				B	B	60												
930				J5	B	80												
				B	B	60												
				J5	B	80												
				B	B	60												
940				J5	B	80												
				B	B	60												
				J5	B	80												
				B	B	60												
				J5	B	80												
				B	B	60												

LOGGED BY: _____
 DATE: _____

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/CORUSE <input type="checkbox"/>	BROKEN CORE <input checked="" type="checkbox"/>	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY	
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25		
950				B	C	60												702
				J _s	C	85												
				B	B	60												
960				J _s	B	85												
				B	B	60												
				B	B	60												
970				B	B	60												
				B	B	60												
				B	B	60												
980				B	C	40												
990																		
1000																		

LOGGED BY: _____
DATE: _____
PROJECT No: _____

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			PERMEABILITY
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	4	3	2	
13'				J1	W	25°	350°	<p>logged on fractured plane 5 fractured of this type</p> <p>34 of these in the 38.2' unit</p>											702
			D	F	55°	0													
				J1	C	20°	345°	4 of these	<p>Note: Each division on the scale = 2' instead of one foot as on the example sheet</p>										core @ 13'
			D	C	60°	0	29 of these												
			J1	C	7°	120°	2 of these												

LOGGED BY: D'ANDREA
 DATE: 84/07/27
 PROJECT No. _____

Golder Associates

1911

Hole No. DDH-1911
 SHEET 1 OF ??

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			PERMEABILITY
	25	50	75	TYPE	INFILLING	INCLINATION			4	3	2	75	50	25	24	12	6	
102.6				J1	C	20	180°	4 of these										
		0%		B	B	50	—	6 " "										
108.8																		
111.1		60%		J1	C	20	0	4 of these										
				B	B	53	0	36 " "										
				J1	C	28	0	3 " "										
135.5				B	C	50	—	29										
				J1	C	20	0	4 of these										

702

LOGGED BY: D.T. D'ANDREA
 DATE: _____
 PROJECT No. _____

Golder Associates

Hole No. 1911
 SHEET 3 OF 32

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/COUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	24	12	6
168							10 of these											
177.11				S	C	15	300	2 of these										
				I	C	0	100	3 "										
				B	W	55	—	5 "										
183.11				B	B	55	—	6 "										
185.61				S	W	35	250	7 "										
				B	C	55	—	20 "										

702

LOGGED BY: D. ANDRE A
 DATE: 04/07/00
 PROJECT No. _____

Golder Associates

Hole No. 1911
 SHEET 4 OF 32

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY				
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	24	12	6	3	
							> from bedding													702
				B	B	50		118	of these											
				S	C	40	90°	8	" "											
				J	B	0	180	5	" "											

LOGGED BY: D.J. D'ANDREA
 DATE: 24/08/02
 PROJECT No. _____

Golder Associates

Hole No. 1911
 SHEET 5 OF 32

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/COARSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			PERMEABILITY
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	1'	2'	6'	

702

LOGGED BY: D.J. DANOREN
 DATE: 8/10/83
 PROJECT No. _____

Golder Associates

Hole No. 1911
 SHEET 6 OF 32

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			PERMEABILITY
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	74	12	6	

702

LOGGED BY: Dave D'ANDREA
 DATE: 84/08/03
 PROJECT No. _____

Golder Associates

Hole No. 1811
 SHEET 7 OF 32


DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG BRECCIA/CORUSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			PERMEABILITY
	25	50	75	TYPE	INFILLING	INCLINATION			4	3	2	75	50	25	24	17	6	
383.1																		

702

LOGGED BY: D. J. DAUREA
 DATE: 04/08/03
 PROJECT No. _____

Golder Associates

Hole No. 111
 SHEET B OF 32

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			PERMEABILITY
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	2'	12'	60'	
429.1							<i>Possible Fault Zone</i>												

702

LOGGED BY: _____
DATE: _____
PROJECT No. _____

Golder Associates

Hole No. 1911
SHEET 9 OF 32

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			PERMEABILITY
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	9	6	3	
425																			
430																			
435				B	C	63°	SLICKENSIDED 210° TO BEDDING HUNDREDS OF THEM		<input checked="" type="checkbox"/>										
440				J1	C	40°													
445				J5	W	35°	180° TO BEDDING. 10 of these		<input checked="" type="checkbox"/>										
450				B	C	62°													
455				J6	C	60°	SLICK		<input checked="" type="checkbox"/>										

702

LOGGED BY: TMS
 DATE: Aug 29 84
 PROJECT No. _____

Golder Associates

Hole No. 1911
 SHEET 10 OF 32

702

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	9	6	3
450				J1	C	30°												
				J1	C	60°	SLICK											
455				J1	C	20°	HEAVILY FRACTURED											
				J1	C	60°												
460				B	B	60°	CRUMBLY											
465																		
470																		
475																		

LOGGED BY: T. SANDBERG
 DATE: AUG. 29 89
 PROJECT No. _____

Golder Associates

Hole No. 1911
 SHEET 11 OF 32

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/COARSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	9	6	3
475				B	P	60												
480																		
485																		
490																		
495				B	B	60°												
500																		

702

LOGGED BY: TMS
 DATE: 11-12-29 24
 PROJECT No. 1111

Golder Associates

Hole No. 1911
 SHEET 12 OF 32

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	HARDNESS			ROCK QUALITY DESIGNATION	NATURAL FRACTURE FREQUENCY	702	
	25	50	75	TYPE	INFILLING	INCLINATION			4	3	2				75
500				B	B	60°	ROUGH COAL, BUT NO CORE LOSS								
505															
510															
515				B	B	SE	SLICK.								
520															
525															

GOOD
RECOVERED

LOGGED BY: _____
 DATE: _____
 PROJECT No. _____

Golder Associates

Hole No. _____
 SHEET 13 OF 32

702

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	
525				B	B	54°	SLICK.									
530																
535																
540				B	C	60										
545				B	B	60°	SLICK, MINOR GOUGED CORE									
550																

LOGGED BY: FMS
 DATE: Apr 29 84
 PROJECT No. 22

Golder Associates

Hole No. 1911
 SHEET 14 OF 32

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY	
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25		
550				B	B	50°	SLICK.										
555																	
560																	
565																	
570				B J1	B C	52° 20°	2 of these										
575																	

702

LOGGED BY: TMS
 DATE: Aug 24 84
 PROJECT No. _____

Golder Associates

Hole No. 1911
 SHEET 15 OF 32

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/COARSE BROKEN CORE <input checked="" type="checkbox"/>	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY	
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25		
575				B	C	58											702
580				B	B	60	Powdery										
585				B	B	58											
590				J5	W	70	2 of these										
595																	
600																	

LOGGED BY: JMS
 DATE: AUG 24 84
 PROJECT No.

Golder Associates

Hole No. 1911
 SHEET 16 OF 32

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3	
600				B	B	50°		SLICK.												702
605				B	C			IRREG. - MANY												
610																				
615																				
620				B	B	50°		RUBBLY												
625				B	B	50°		SLICK												

LOGGED BY: J.M. SANDBERG
 DATE: AUG 30 1984
 PROJECT No.

Golder Associates

Hole No. 1911
 SHEET 17 OF 37

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/COUSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
625				B	B	50°													
630																			
635				J1	B	30°		SLICK-CURVED 1 OF THESE											
				J1	B	30°		5 OF THESE											
				B	B	50°		1 of these											
640				B	B	50°		2 of these RUBBLE, SLICK											
645				B	B	57°													
				J1	C	62°	180°	10 F THESE											
650																			

702

LOGGED BY: T.M. SANDBERG
 DATE: Aug 30 1984
 PROJECT No. 1524

Golder Associates

Hole No. 1911
 SHEET 12 OF 12

702

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/COUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
650				J5	Z			IRREG, SPLAYED - SOME ARE TENSION GASHES & OF THESE 50% THESE											
655				B	B	50		SLICK.											
660				B	B	50		SLICK.											
665				B	B	50													
670				J3	C	90		POWDERY											
675				B	B	56		40% OF THESE											

LOGGED BY: T.M. SANDBERG
 DATE: Aug 30 1984
 PROJECT No.

Golder Associates

Hole No. 1941
 SHEET 11 of 0

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/COUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
675				B	B	55°	SLICK.												
680				B	C	50°													
685																			
690																			
695																			
700																			
				SI	C	38	POWDERY. HEAVILY FRACTURED												
				B	B	58°													

702

LOGGED BY: T.M. SANDBERG
 DATE: AUG 30 1984
 PROJECT No.

Golder Associates

Hole No. 19
 SHEET 20 OF 32

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DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3	
700				B	B	58														
705				J1	B	90		20 OF THESE BROKEN												
715				J3	B C	57° 90		4 OF THESE CORE "RINGED" BY VIBRATION OF CORE BARREL FROM HERE TO 957 FEET ----- -----												
720				J3	C	36°		1 OF THESE												
725				J3	C	40°		3 OF THESE												
730				J3	C	40°		6 OF THESE TO												
735				B	C	56°		5 OF THESE												

LOGGED BY: TAM SANDBERG
 DATE: 1984
 PROJECT No. 1984

Golder Associates

Hole No. 194
 SHEET 21 OF 32

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3	
225				B	C	55°	4 OF THESE	[Hand-drawn graphic log showing vertical fracture patterns]												
				J1	C	90°	2 OF THESE													
230				B	C	56°	3 OF THESE													
				J1	C	20°	1 OF THESE													
235				B	C	55°	10 OF THESE													
240				B	C	56°	2 OF THESE													
245				B	C	56°	4 OF THESE													
				J1	C	150°	1 OF THESE													
250				B	C	55°	10 OF THESE													

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LOGGED BY: TAM SANDBERG
 DATE: 12/30/1984
 PROJECT No. [unclear]

Golder Associates

Hole No. 19 11
 SHEET 22 OF 32

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/COARSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
750				B	B	50°		SLICK. 8 OF THESE											
				J3	C	40°		3 OF THESE											
755				B	C	54°		3 OF THESE											
				J3	C	40°		2 OF THESE											
760				B	C	50°		2 OF THESE											
				J1	C	34°		1 OF THESE											
765				B	C	50°		20 OF THESE											
770				B	C	54°		3 OF THESE											
775																			

700

LOGGED BY: T.M. SANDBERG
 DATE: AWA 30 1984
 PROJECT No. _____

Golder Associates

Hole No. 1911
 SHEET 23 OF 32

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
775				JS	E			BETWEEN 70° and 30° 2 OF THESE											
				B	C	54°		7 OF THESE											
780				JS	W	45°	180°	3 OF THESE											
				B	C	54°		3 OF THESE											
				JS	W	40°	180°	5 OF THESE											
785				A	E	94°		3 OF THESE											
				JS	B	45°	SUBPARALLEL	15 THESE - SLICK											
790																			
				B	B	47°		HUNDREDS! CRUMBLY											
795																			
800																			

700

LOGGED BY: T.M. SANDBERG
 DATE: AUG 30 1984
 PROJECT No. _____

Golder Associates

Hole No. 1911
 SHEET 24 OF 32

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/COARSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
800				B	B	47°		HEAVILY FRACTURED											
805																			
810				B	C	47°		3 of these											
				J3	C	90°		4 of these											
				J5	W	50°		1 of these											
815				B	C	47°		20 OF THESE											
				J3	C			12 REG - FRACTURE											
								10 OF THESE											
820				B	B	48°		10 OF THESE											
				J1	C	350°	240°	3 OF THESE											
				J3	C	40°		3 OF THESE											
825																			

700

LOGGED BY: TIM SANDBERG
 DATE: Aug 30 1984
 PROJECT No.

Golder Associates

Hole No. 1911
 SHEET 25 OF 32

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
825				B	C	45°	5 OF THESE												
				J1	B		MURBLE, SLICK												
				B	B	50	SLICKS												
830				J3	C	40°	1 REG. FRACTURE - 10 OF THESE												
835				B	C	60°	16 OF THESE												
				J3	C	40	3 OF THESE												
				B	C	60°	10 OF THESE												
				B	C	55°	10 OF THESE												
845				J3	C	90	5 OF THESE												
850																			

700

LOGGED BY: TAM SANDBERG
 DATE: ASG 30 1984
 PROJECT No.

Golder Associates

Hole No. 1911
 SHEET 26 OF 32

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/COARSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
850				B	C	58		12 OF THESE											
855				B	C	57		14 OF THESE											
				SI	C	120		HEAVILY FRACTURED CORE SPLIT											
860				B	C	58		15 OF THESE											
				SI	C	60		10 OF THESE											
865				B	C	60		15											
				SI	C	20		5											
870				B	C	60		5											
				SI	C			HACKLY - 2											
875																			

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LOGGED BY: T.M. SANDBERG
 DATE: AUG 30 1984
 PROJECT No.

Golder Associates

Hole No. 1911
 SHEET 27 OF 32

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
875				B	C	60		6 of these											
880				B	C	60		4 of these											
885				B	C	60		7 of these											
890				D	C	60		15 of these											
895				B	C	50°		10 of these											
900				B	C	10°		2 of these											

700

LOGGED BY: T.M. SANDBERG
 DATE: Aug 30 1984
 PROJECT No. 171

Golder Associates

Hole No. 1911
 SHEET 28 OF 32

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/COUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
1900				B	C	50°		MANY SLICK											
905				B	C	50°		16 of them											
910				J3				ROLLED AROUND IN CORE BARREL											
915				J	B	70		CRUMBLY RUBBLE											
920				B	B	50°		30 of them											

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LOGGED BY: T.M. SANDBERG
 DATE: APR 30 1984
 PROJECT No.

Golder Associates

Hole No. 1911
 SHEET 29 OF 32

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/COUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
925				B	B	55°		20 30											
930				B	C	50°		20											
935				B	C	52°													
940				B	C	45°	CAN'T GET INTACT PIECE TO MEASURE	20 HEAVILY FRACTURED											
945				B	C	58°		20 MODERATELY FRACTURED											
950				B	C	56°													

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LOGGED BY: TAM SANDBERG
 DATE: AUG 20 1984
 PROJECT No.

Golder Associates

Hole No. 19/1
 SHEET 30 OF 32

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
950				B	C	55		30											
955				B	C	55		10											
960				B	C	55		4											
965								Same											
970																			
975																			

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LOGGED BY: T.M. SANDBERG
 DATE: Aug 30 1984
 PROJECT No.

Golder Associates

Hole No. 1911
 SHEET 31 OF 32

DEPTH	PERCENT CORE LOSS			FRACTURES			ANGLE TO BEDDING	DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
875				R	✓	SS		S											
880																			
885																			
890																			
895																			
900																			

702

EOH!

LOGGED BY: TAM SANDBERG
 DATE: AUG 30 1984
 PROJECT No. _____

Golder Associates

Hole No. 19
 SHEET 32 OF 32

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	9	6	3	
0							ROTATION												
NO CORE TO 5 12 FEET 10	NO CORE TO 5 12 FEET 10																		
15				41 55 B	C W SS	37° 35° 55	3 of these SILTSTONE												
20				55 41 B	C C C	35 60	SILTSTONE 210 180°												
25				B J3	WF C	52 78													

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LOGGED BY: JOHN STORMANS
 DATE: 26, 27, JULY '84
 PROJECT No. _____

Golder Associates

Hole No. 1912
 SHEET 1 OF 39

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		702
	25	50	75	TYPE	INFILLING	INCLINATION				ROTATION	4	3	2	75	50	25	9	
25				B	C	39												
				J5	C	39	140° DISCONTINUOUS.											
				J1	F	38	SOFTNESS											
30				J1	F	70	210											
				J1	W	33	WEATHERED MATERIAL HERE											
				J1	C	21	CURVED.											
				B	F	62												
35				B	C	43												
	0%			J1	C	37	230											
				J1	C	22	180° CURVED											
40				J3	C	75												
				J1	C	45	190											
				B	C	37												
				J1	C	60												
45				B	C	56	SEVERAL BEDDING PLANES W. FILLED + F											
				J5	C	75	DISCONTINUOUS											
				J3		80	CURVED											
50				B	B	23	DISTURBED. BEDDING.											

LOGGED BY: J.S.
DATE: _____
PROJECT No. _____

DEPTH	PERCENT CORE LOSS 25 50 75			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
				TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	9	6	3
50				J3		65	SOME W NORMAL TO BEDDING											
				B		45	- DISTURBED											
				J6	F	50	80°											
				J5	W	50	180° HEALED											
55				J5	W	20	20°											
				J1	WF	42	260°											
				J1	WF	19	210°	6 OF THESE										
				B		59												
60				B		44												
				J3		75												
				J1	C	50	270°											
				J5	W	16	100° HEALED											
65				B	C	49												
				J1	C	35	200°											
				J3	C	80	10°											
				J1	W	37	40°											
70				B	B	45	B ONLY ALONG TO BEDDING PLANE											
				B		37	SOME SLICKENSIDES + PLANT FRAGMENTS ALONG											
75				J1		41	BEDDING											

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LOGGED BY: J.S.
 DATE: 30 JULY 80
 PROJECT No. _____

Golder Associates

Hole No. 1912
 SHEET 3 OF 39

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY					
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	9	6	3			
75				J1	C	27	210														702
				J1	C	55	180 30 these														
				B	C	45															
80				B	C	50															
				J5	W	32	0°														
85				B	C	47															
				J1	C	40	70° PLANAR														
				J3	C	78															
90				B	C	59															
				J5	C	29	150														
				J5	C	26	230	@ SAME PLACE													
				J5	W	15	105	2 of these Parallel													
95				B	C	51															
				J1	C	35	230														
100				B	C	45															

LOGGED BY: J.S.
DATE: 30 JULY '84
PROJECT No. _____

Golder Associates

Hole No. 1912
SHEET 4 OF 39

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY	702	PERMEABILITY
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25			
100				B	C	46	ROT											
				J5	C	10	DISCONTINUOUS 180°											
				J3	C	70°												
				J5	C	19	CURVED											
105				B	C	69												
				J1		35	250											
110	0%			B	C	48												
				J1	C	44	240 CURVED											
				J5	W	5	110° → FROM 114' - 116'											
115				B	C	59												
				J1	C	31	250											
120				B	C	30												
				J1	C	32	270											
125																		

LOGGED BY: J.S.
 DATE: 2 AUG
 PROJECT No. _____

Golder Associates

Hole No. 1912
 SHEET 5 OF 39

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY			PERMEABILITY	
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25					
125				B	C	52														
				J1	C	38	180°													
				J5	C	10°	260°	SLICKENSIDES												
130				B	C	56														
	0%																			
135				B	C	53														
140				B	C	57														
145				J5	C	12		DISCONTINUOUS												
150																				

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LOGGED BY: J.S.
 DATE: 2 AUG
 PROJECT No. _____

Golder Associates

Hole No. 1912
 SHEET 6 OF 39

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY
	25	50	75	TYPE	INFILLING	INCLINATION			4	3	2	75	50	25	
150							ROT.								
155															
160	0%														
165				B	c	43	PLANT REMAINS ALONG BEDDING.								
170															

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LOGGED BY: PSB
 DATE: 2/28/00
 PROJECT No. 101A

Golder Associates

Hole No. 1912
 SHEET 7 OF 39

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION			4	3	2	75	50	25	9	6	3
175							ROT										
180																	
185	0%			B	B	50	SLICKENSIDES. FW. OF SEAM										
190	0%			B	C	40											
195				B	C	50											
200																	

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LOGGED BY: J.S.
 DATE: 2 AUG.
 PROJECT No. _____

Golder Associates

Hole No. 1012
 SHEET 8 OF 89

702

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	1	6	3
200	0%			B	C	60	minor calcite veins - SLICKENSIDED COAL (CARBONACEOUS MUDSTONE MAINLY)											
205				B	C	40												
210				J5	W	20	3 of these - sealed with calcite core locally shattered - due to expansion? - J2?											
215				J2	C		shattered into cubes. Fair to poor average size massive siltstone.											
220				J2	C	40°	40cm of fissile core											
225				B	C	40°	sandy laminae drill induced along bedding											

LOGGED BY: JMS
 DATE: Aug 16
 PROJECT No. _____

Golder Associates

Hole No. 1912
 SHEET 9 OF 89

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE <input type="checkbox"/> BROKEN CORE <input checked="" type="checkbox"/>	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	1	6	3
225				B		40°	ROT.		<input type="checkbox"/>	<input checked="" type="checkbox"/>								
			S2															
				B		40°	Bedding fractures		<input type="checkbox"/>	<input checked="" type="checkbox"/>								
230				S2	C	40												
				B		40°	B. frac		<input type="checkbox"/>	<input checked="" type="checkbox"/>								
				S2														
235				J5	W	30°	- 2 ⊥ sets breaks core into pieces		<input type="checkbox"/>	<input checked="" type="checkbox"/>								
				S2	<	40												
				B		45	⊥ sets		<input type="checkbox"/>	<input checked="" type="checkbox"/>								
				S2		45												
245				B		45	Fissile		<input type="checkbox"/>	<input checked="" type="checkbox"/>								
				S2		45												
250																		

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LOGGED BY: J S TMS
 DATE: Aug 16
 PROJECT No. _____

Golder Associates

Hole No. 1912
 SHEET 10 OF 39

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY
	25	50	75	TYPE	INFILLING	INCLINATION			4	3	2	75	50	25	
250				B	C	45°	ROT.								
				B		50°	Sandy lam siltstone								
255				JS	W	30°									
				B		45°									
260				JS	W		Calcite bre								
				F		45°	Slicker								
				JS	W	30°	Very sandy siltstone massive								
265															
				JS		45°	2 ↓ Sels								
270															
				JS		45°	27 Sels - intense fracture cubes ~ 2mm x 2mm								
275															

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LOGGED BY: J.S. TMS
 DATE: Aug 16
 PROJECT No. _____

Golder Associates

Hole No. 1912
 SHEET 11 OF 39

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY	PERMEABILITY
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25		
275				J2		50°											
280				J2	C	50°	Bdy fract siltstone massive sst										
285				B J5	W	40° 30°	one of these										
290				B		40°											
295							Coal and org. rich mudstone Crumbled core					0%					
300				B J5	W	40° 40°	Two of these										

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LOGGED BY: TMS
 DATE: Aug 17
 PROJECT No. _____

Golder Associates

Hole No. 1912
 SHEET 12 OF 39

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY	PERMEABILITY
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25		
300							ROT.										
305				JS	W	50°	10 of these										
				B		40											
310				B		40											
				JS	W	50	5 of these										
				B													
315																	
				JS	W	50	6 of these										
				B		40											
320				B	B	40	5 of these										
325																	

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LOGGED BY: JMS
 DATE: Aug 17
 PROJECT No. _____

Golder Associates

Hole No. 1912
 SHEET 13 OF 29

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25			
325				B	B	40	3 of these											
330				B		40												
335				B	B	40	5 of these											
340				B		30												
345				B		30												
350				B	B	40	1 of these											

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LOGGED BY: J.S. JMS
 DATE: 1/25/79
 PROJECT No. _____

Golder Associates

Hole No. 1912
 SHEET 14 OF 39

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/COUGE <input type="checkbox"/>	BROKEN CORE <input checked="" type="checkbox"/>	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	
350				B	B	40	ROT.										
355				B	C	40											
360				B	C	40											
365				B	C	40											
370				B	C	40											
375				B	B	40	2 of these										

702

LOGGED BY: J.B. TMS
 DATE: 7/27/77
 PROJECT No. 17

Golder Associates

Hole No. 1912
 SHEET 15 OF 29

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25			
1875				B	C	40												
320				B	C	40												
365				B	C	40												
390				B	C	40												
395				B	C	40												
395							CRUMBLY COAL											

702

LOGGED BY: TMS
 DATE: 1/25/07
 PROJECT No. 712

Golder Associates

Hole No. 1912
 SHEET 16 OF 39

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	HARDNESS			ROCK QUALITY DESIGNATION	NATURAL FRACTURE FREQUENCY
	25	50	75	TYPE	INFILLING	INCLINATION			4	3	2		
400							ROT.						
405							5% LOSS CRUMBLY CORE SLICKENSIDED FRAGMENTS						
410													
415				R	R	45°	BITUMEN SLICKENSIDES						
420							1 SOLID FIVE FOOT PIECE OF CORE						
425													

702

LOGGED BY: S.T.M.S.
 DATE: Aug 20
 PROJECT No. 17

Golder Associates

Hole No. 1912
 SHEET 17 OF 39

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/COARSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	
425				B	B	60°	SLICKENSIDED BITUMEN									
430				B	C	60°										
435				B	C	50°										
440																
445				J B	W B	350 500	1 of these 4 of these									
450																

702

LOGGED BY: J.S. JMS
 DATE: Aug 20
 PROJECT No. _____

Golder Associates

Hole No. 1912
 SHEET 18 OF 39

DEPTH	PERCENT CORE LOSS 25 50 75			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG BRECCIA/GOUGE <input type="checkbox"/> BROKEN CORE <input checked="" type="checkbox"/>	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY
				TYPE	INFILLING	INCLINATION			4	3	2	75	50	25	
450				B	B, P	47°	ROT. 1 of these								
455				B	C	58°	6 of these								
				JS	W	150	1 of these								
460				B	C	48°									
465				B	C	45°	4 of these								
				JS	W	100	1 of these irregular								
470				B	C	45°									
				JS	C		IRREGULAR								
475															

FOA

LOGGED BY: JS - FMS
 DATE: FEB 28
 PROJECT No.

Golder Associates

Hole No. 1912
 SHEET 19 OF 89

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	HARDNESS			ROCK QUALITY DESIGNATION	NATURAL FRACTURE FREQUENCY	700	
	25	50	75	TYPE	INFILLING	INCLINATION			4	3	2				75
475				J5	C		1 IRREGULAR - 1 of these SOLID PIECE OF CORE								
480				J1	A	550	3 of these								
485				J5 F	W	520	4 of these RUBBLE - 0.3 FT. SLICK								
490				J1	W	52	1 of these								
495				J3			IRREGULAR - VIBRATION IN CORE BARREL								
500															

LOGGED BY: JMS
DATE: Aug 20
PROJECT No. _____

Golder Associates

Hole No. 1912
SHEET 20 OF 89

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION	NATURAL FRACTURE FREQUENCY
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2		
0-50							Solid unbroken core, no fractures, no veins, massive sandstone.							
50-55				F	A	56°	1 of these							
55-58				JS	W	50-60°	4 of these							
58-62				JS	C		IRREGULAR OPEN FRACTURE SOME CORE CRACKED BY VIBRATION							

700

LOGGED BY: T.M.
 DATE: Aug 20 1968
 PROJECT No.

Golder Associates

Hole No. 1912
 SHEET 21 OF 39

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE <input type="checkbox"/> BROKEN CORE <input checked="" type="checkbox"/>	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	
525				J1	A	48°	2 of these									
530				J1	A	48°	3 of these									
535				J1	A	48°	2 of these									
540							Solid core									
545				J3	C	40°	3 of these									

700

LOGGED BY: AVC
 DATE: MAY 20 80
 PROJECT No. 1017

Golder Associates

Hole No. 1017
 SHEET 22 OF 29

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE <input type="checkbox"/>	BROKEN CORE <input checked="" type="checkbox"/>	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	1	6	3
550				JS	SW	30°	4 of these												
560				JS	W	40°	1 of these												
				JS	C	20°	2 of these												
				B	C	35°													
570				B	C	35°													
				JS	W	50°	4 of these												
565				JS	W	60°	IRREGULAR 3 of these												
				JS	W	60°	4 of these												
570				B	B	42°	laminated SST SLICK SURFACES - MANY!												

700

LOGGED BY: AMS
 DATE: 1-25-20
 PROJECT No.

Golder Associates

Hole No. 1412
 SHEET 23 OF 31

DEPTH	PERCENT CORE LOSS 25 50 75			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE <input type="checkbox"/> BROKEN CORE <input checked="" type="checkbox"/>	HARDNESS			ROCK QUALITY DESIGNATION 75 50 25	NATURAL FRACTURE FREQUENCY 9 6 3		
	TYPE	INFILLING	INCLINATION	4	3	2										
575				B	R	42°	zone 1 Gt. wide									
				R	W	42°	5 of these									
				JS	U		curved, approx 240° to bedding									
580				JS	W	30°	8 of these massive SST									
585				B	C	42°	lam SST									
590				B	C	45°	lam SST, some cross bedding curved slickens									
595				R	C	42°	lam, some curved slickens									
				JS	W	57°	60° to bedding									

702

LOGGED BY: PTS
 DATE: 12-20-87
 PROJECT NO: 101

Golder Associates

Hole No. 1912
 SHEET 24 OF 29

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/COARSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	
600				R	N	42°										
605				J	B	42°	SLICK, CURVED									
				J	W		IRREGULAR, DISCONTINUOUS									
610				J	W	60°	20 of these massive calc. set buggy calcite vec.									
615				J	W	60°	15 of these									
620				J	W	60°	20 of these									

702

LOGGED BY: PHS
 DATE: Aug 31 84
 PROJECT No. 210

Golder Associates

Hole No. 1912
 SHEET 25 OF 39

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE <input type="checkbox"/>	BROKEN CORE <input checked="" type="checkbox"/>	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY	
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25		
625				J	C	60°	10 vuggy calc. vns											
630				J	C	50°	6 of these 210° to 60°											
635				J	C	40°												
640				J	C	40°	1 REG. 3 inch wide BRX											
645				J	C	70°	1 of these											
650				R	C	42°												

70

LOGGED BY: TMS
 DATE: Aug 7 1984
 PROJECT No.

Golder Associates

Hole No. 1012
 SHEET 26 OF 39

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE <input type="checkbox"/> BROKEN CORE <input checked="" type="checkbox"/>	HARDNESS			ROCK QUALITY DESIGNATION	NATURAL FRACTURE FREQUENCY	700
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2			
650				JS	W	26°	3 of these, 30° to 60°								
				B	C	40°									
655				JS	W	30°	4 of these								
				B	C	40°	SPLIT ALONG SILTY GRM.								
660				JS	W		LONGITUDINAL, MINOR BRK								
				B	C	40°	SLICK.								
665				JS	W	30°	130° to BDG.								
				B	C	40°									
670				JS	W	30°	6 of these 180° to BDG								
				B	C	40°	MINOR SLICK.								
675															

LOGGED BY: MS
DATE: 11/21/84
PROJECT No.

Golder Associates

Hole No. 1412
SHEET 27 OF 39

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE <input type="checkbox"/> BROKEN CORE <input checked="" type="checkbox"/>	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	
675				B	C	45	minor SLICK									
				JS	E	45	210 to BDC minor bry									
680				B	C	45	SLICK									
685				B	C	45	SLICK SANDY LAM. SILTSTONE									
690				JS	E	52	190 to BDC									
				B	B	45	SLICK									
695				B	C	30	IRREG									

702

LOGGED BY: TMS
 DATE: 11/21/84
 PROJECT No.:

Golder Associates

Hole No. 1962
 SHEET 28 OF 39

702

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE <input type="checkbox"/> BROKEN CORE <input checked="" type="checkbox"/>	HARDNESS	ROCK QUALITY DESIGNATION	NATURAL FRACTURE FREQUENCY
	25	50	75	TYPE	INFILLING	INCLINATION						
695				D	C	34°						
705				B	C	35°						
710				JS	W	60°	3 of these massive ss+					
715							massive					
720				JS	W	50°	5 of these massive ss+					
725												

LOGGED BY: JMS
 DATE: 4/21/84
 PROJECT No. 702

Golder Associates

Hole No. 702
 SHEET 29 OF 39

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE <input type="checkbox"/> BROKEN CORE <input checked="" type="checkbox"/>	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25			
725				B	B	36°	SLICK.											
730				B	B	36°	SLICK.											
735				JS	U		IRREG.											
740				JS			IRREG. 3 of them massive MSF											
745				JS			IRREG. 2 of them massive massive											
750				JS	W		IRREG.											

702

LOGGED BY: TMS
 DATE: AUG 21 84
 PROJECT No. _____

Golder Associates

Hole No. 1912
 SHEET 30 OF 39

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION	NATURAL FRACTURE FREQUENCY
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2		
750				J5	E		1 BRGA 2 of three							
765				J5	E		1 BRGA, VUGGY 1 of three							
760				J5	C		1 BRGA 3 of three							
765				J	W	40°	1 of three							
770														
775														

702

LOGGED BY: TMS
 DATE: 4/8/84
 PROJECT No. 211

Golder Associates

Hole No. 1912
 SHEET 31 OF 39

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE <input type="checkbox"/> BROKEN CORE <input checked="" type="checkbox"/>	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25			
775				SK	W	24	1 of these											
780				B JS	C C		Continual sandy limestone 1225G - 4 of these											
785				JS	C		1225G 3 of these											
790				B JS	C C	320	1225G - 1 of these											
795				JS	W	50	wavy											
800																		

702

LOGGED BY: JKS
 DATE: AUG 31 80
 PROJECT No. 32

Golder Associates

Hole No. 1912
 SHEET 32 OF 39

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/COGGE <input type="checkbox"/> BROKEN CORE <input checked="" type="checkbox"/>	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25			
785				JS	W	70, 20	Two sets, 5 of each											
805				B JT	C	44°	IRREG 2 of them											
810				JS	L		IRREG											
815				JS	C		90°											
820				B	C	35°												
825																		

702

LOGGED BY: JMS
 DATE: 12/21/89
 PROJECT No. 1212

Golder Associates

Hole No. 1W2
 SHEET 33 OF 89

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE <input type="checkbox"/> BROKEN CORE <input checked="" type="checkbox"/>	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	7	6	3
825				J3	C	40	3 of them											
830				B J3	C C	36	IRREG, DISCONT.											
835				J2?			IRREG, PLANAR											
840				J5	W	47												
845				J2	C		PLANAR, RANDOM											
850																		

702

LOGGED BY: TMS
 DATE: 7-28-89
 PROJECT No.:

Golder Associates

Hole No. 1912
 SHEET 34 OF 39

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	
850				J2	C	75° -90°	8 of these									
855				J2	C	40	CURVED, IRREG 3.6 these									
860				J2	C	20	3									
865				J2	C	25	1 of these									
870				J2	C	37										
875				J2	W	30	2 of these									

702

LOGGED BY: EM
 DATE: Aug 24 84
 PROJECT: No.

Golder Associates

Hole No. 1412
 SHEET 35 OF 89

702

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/CORUSE BROKEN CORE	HARDNESS			ROCK QUALITY DESIGNATION	NATURAL FRACTURE FREQUENCY	
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2			75
875							RUBBLY CORE, BUT GOOD RECOVERY								
880				JS	W		BRX								
885				JS JI	W B		BRX CURVED, 30° to 75°								
890				JI	B		CURVED, IREG 30° to longitudinal								
895				JI	B	30°	CALCITE BRX, SANDSTONE AND MUDSTONE CLASTS, HEAVILY SHEARED								
900															

Brownie Ridge Thrust

LOGGED BY: JMS
 DATE: Aug 21 84
 PROJECT No. _____

Golder Associates

Hole No. 142
 SHEET 36 OF 81

702

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE <input type="checkbox"/>	BROKEN CORE <input checked="" type="checkbox"/>	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY		
	25	50	75	TYPE	INFILLING	INCLINATION					4	3	2	75	50	25	9	6	3
8900				J2	B	50	MASSIVE SLT												
905				J2 B	B	60 60°	SLICK. - DIP UP CLASS OF SLT												
910				J2 B	B	20													
915				J2 B	B	80													
920				B	C	55°													

LOGGED BY: TMS
 DATE: 11/21/84
 PROJECT No. 111

Golder Associates

Hole No. 1912
 SHEET 37 OF 89

702

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE <input type="checkbox"/> BROKEN CORE <input checked="" type="checkbox"/>	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	
925				J1	B	60										
930				J1	B		EVERYWAY									
935																
940				B	B	60	SLICK									
945				B	B	60	SLICK									
950																

MSE
VERY MUDDY
CUTL

LOGGED BY: JMS
DATE: AUG 24 2011

702

DEPTH	PERCENT CORE LOSS			FRACTURES			DESCRIPTION AND REMARKS	GRAPHIC LOG	BRECCIA/GOUGE <input type="checkbox"/> BROKEN CORE <input checked="" type="checkbox"/>	HARDNESS			ROCK QUALITY DESIGNATION			NATURAL FRACTURE FREQUENCY
	25	50	75	TYPE	INFILLING	INCLINATION				4	3	2	75	50	25	
950							RUBBLY									
955																
960				J1	B		IRREG, SLICK									
965				J1	B	50	SLICK									
970				B	C	50										
975																

LOGGED BY: TK
 DATE: Aug 23 1974
 PROJECT No. 702

EOH / 976
 Golder Associates

Hole No. 1912
 SHEET 39 OF 39