

FORM M-108 (R1)

DRILL HOLE LOG

MINE SUNRISE, WYOMING			DRILLER R. FUSH			MACHINE LONGYEAR 38			HOLE NO. 386		
LEVEL SURFACE			LOCATION SW 3/4 SEC. 19; T29N, R65W			DATE 6-3-69 TO 7-12-69					
LAT.		DEP.		ELEV.		ANGLE VERT.		BEARING		DOWN	
DATE	DRILLED			CORE		MATERIAL					REMARKS
	FROM	TO	FEET	FT.	IN.						
6-4-69	0	10	10	-	-	SOIL & SURFACE FLOAT & FRAGMENTS GRAY LESTONE, PROBABLY FROM HARTVILLE FM. SIMILAR TO 10-15; CHERT FRAGMENTS 24-29 SAME AS 15-24; 29-33 APIKAREE FM-SOFT SANDY SILTSTONE					
	10	15	5	5							
	15	24	9	9							
	24- 23	33	9	9							
6-5-69	33	41	8	8	SAME AS 29-33 " " " " ; LOCALLY CLAYEY						
	41	51	10	10							
	51	61	10	10							
	61	71	10	10							
6-6-69	71	81	10	10	" " " "						
	81	91	10	10							
	91	101	10	10							
	91-95 SAME AS 29-33; 95-101 HARTVILLE FM - SOFT WHITE LESTONE LOCALLY ARGILLACEOUS WITH OCCASIONAL SHALE SEAMS; SHALE MOSTLY ALTERED GREEN										
101						111	10	10			
111						119	8	8			
119						126	7	7			
6-7-69	126	136	10	10	SIMILAR TO 101-111; VERTICAL FRACTURES FILLED WITH WHITE CALCITE CRYSTALS; FERRUGINOUS SHALE ZONES MURDER-COLORED SHALE AND ARGILLACEOUS LESTONE						
	136	144	8	8							
	144	148	4	2							
	148	151	3	3							
6-8-69	151	161	10	10	GRAY QUARTZITIC SANDSTONE (SABAL?) SANDY, ARGILLACEOUS LESTONE, ALTERED GREEN ARGILLACEOUS LESTONE & FERRUGINOUS SHALE WITH XXX OCCASIONAL WHITE CHALKY LESTONE						
	161	171	10	10							
	171	181	10	10							
	181	191	10	10							
6-10-69	191	201	10	10	FERRUGINOUS SHALE, MOTTLED GREEN SOFT FERRUGINOUS SANDY SHALE, MOTTLED GREEN FERRUGINOUS & GREEN SHALE & OCCASIONAL GRAY DARKENOUS LESTONE						
	201	211	10	10							
	211	216	5	5							
	216	225	9	9							
6-12-69	225	235	10	10	" " " "						
	235	245	10	10							
	245	257	12	12							
	257	267	10	10							
6-14-69	267-	277	10	10	SAME AS 235-245 (CEDRUM GRAINED) " " " " " "						
	277	287	10	10							
	287	292	5	5							
	292	301	9	9							
6-15-69	301	311	10	10	" " " " " "						
	311	321	10	10							
	321	331	10	10							
	331	341	10	10							
6-15-69	341	351	10	10	" " " " " " NUMEROUS STYLOLITES						
	351	361	10	10							
	361	371	10	10							
	371	381	10	10							

Core ID by R.B. Fraher

98.9% core recovery

no analysis

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MINE SUNRISE, WYOMING			DRILLER R. RUSH			MACHINE LONGYEAR 38			HOLE NO. 386		
LEVEL SURFACE			LOCATION S1/4 S1/4 SEC. 19; T29N, R65W			DATE 6-3-69 TO 7-12-69					
LAT.		DEP.		ELEV.		ANGLE VERT.		BEARING DOWN			
DATE	DRILLED			CORE		MATERIAL	REMARKS				
	FROM	TO	FEET	FT.	IN.						
6-16-69	381	391	10	10		SAME AS 235-245					
	391	401	10	10		391-393 SAME AS 341-351; 393-400 BASAL HARTVILLE-GRAY QUARTZITIC SANDSTONE, MEDIUM GRAINED; OCCASIONAL ZONES OF ALTERED SHALE					
	401	411	10	10		SAME AS 393-401					
	411	421	10	10		" " " "					
	421	431	10	10		421-430 SAME AS 393-401; 430-431 RED MEDIUM GRAINED QUARTZITIC SANDSTONE					
6-17-69	431	441	10	10		SAME AS 430-431					
	441	451	10	10		RED QUARTZITIC SANDSTONE, MEDIUM GRAINED, OCCASIONAL CROSSBEDDING					
	451	461	10	10		SAME AS 441-451, LOCALLY GRITTY					
	461	471	10	10		" " " "					
	471	477	6	6		" " " "; FRACTURED ZONES FILLED WITH HIGHLY FERRUGINOUS SHALE					
6-18-69	477	485	8	8		477-483 SAME AS 471-477; 483-485 GUERNSEY FORMATION-FINE GRAINED MULTI-COLORED LIMESTONE					
	485	495	10	10		SAME AS 471-477					
	495	505	10	10		" " " "; LOCALLY CHERTY AND CAVERNOUS					
	505	515	10	10		SAME AS 495-505					
	515	525	10	10		" " " "; LITHOGRAPHIC					
6-19-69	525	528	3	3		" " " "					
	528	537	9	9		" " " "					
	537	547	10	10		" " " "; LOCALLY DOLICITIC AND GRANULAR					
	547	557	10	10		SAME AS 495-505; FINE GRAINED AND MASSIVE					
	557	565	8	7		WHITE FINE GRAINED MASSIVE, SLIGHTLY CHERTY LIMESTONE					
6-20-69	565	571	6	6		SAME AS 557-565; PINK DOLICITIC ZONES					
	571	581	10	10		WHITE LIMESTONE, LOCALLY ARGILLACEOUS					
	581	591	10	10		SAME AS 571-581					
	591	601	10	10		" " " "; THIN (5m) SEAMS OF FERRUGINOUS SHALE					
	601	611	10	10		601-605 SAME AS 591-601; 605-611 GRAY COLITIC LIMESTONE, LOCALLY CAVERNOUS					
6-21-69	611	621	10	10		SAME AS 601-621; SEAMS OF QUARTZITIC SANDSTONE					
	621	631	10	10		SAME AS 611-621					
	631	641	10	10		WHITE-PURPLE FINE GRAINED LIMESTONE					
	641	651	10	10		SAME AS 631-641					
	651	661	10	10		" " " "					
6-23-69	661	671	10	10		661-663 BASAL GUERNSEY-HARD MEDIUM GRAINED QUARTZITE & COARSE GRAINED TO CONGLOMERATIC QUARTZITE					
						663-671 PRECAMBRIAN SCHIST-GREEN SEDICITE SCHIST WITH HIGHLY FERRUGINOUS SEAMS; HIGHLY CONTORTED WITH BONDITAGE STRUCTURE COMMON; HIGHLY SILICEOUS IN MOST PLACES WITH ZONES OF WHITE QUARTZ; LOCAL HEMATITE STAIN IN SCHIST	16 CONTACT				
						SAME AS 663-671; SOMEWHAT LESS SILICEOUS					
	671	681	10	10		SEDICITE & BIOTITE SCHIST, VERY HIGHLY CONTORTED WITH VERY LOW GRADE HEMATITE REPLACEMENT;					
	681	690	9	9		MODERATELY TO HIGHLY SILICEOUS					
6-25-69	690	691	1	1		SIMILAR TO 681-690; SOMEWHAT DECOMPOSED; HEMATITE STAIN MOSTLY IN DECOMPOSED ZONES	OK HL				

DRILL HOLE LOG

MINE SUNRISE, WYOMING			DRILLER R. RUSH		MACHINE LONGYEAR 38		HOLE NO. 386	
LEVEL SURFACE			LOCATION S $\frac{1}{2}$ S $\frac{1}{2}$ SEC. 19; T29N, R65W				DATE 6-3-69 TO 7-12-69	
LAT.		DEP.		ELEV.		ANGLE VERT		BEARING
DATE	DRILLED			CORE		MATERIAL		REMARKS
	FROM	TO	FEET	FT.	IN.			
6-26-69	691	701	10	10		SILICEOUS, MODERATELY-HIGHLY CONTORTED MICA SCHIST; LESS HEMATITE STAIN THAN 690-691		
	701	711	10	10		SAME AS 691-701; LESS CONTORTED; BEDDING ANGLE 20° TO CORE AXIS		
	711	721	10	10		SILICEOUS & CONTORTED MICA SCHIST WITH SLIGHT HEMATITE STAIN		
	721	731	10	10		SAME AS 711-721; BANDS OF WHITE QUARTZ		
	731	741	10	10		" " " " ; HIGHLY CONTORTED; BOUNDARY STRUCTURE COMMON		
6-27-69	741	751	10	10		GREEN-GRAY SERPENTINE SCHIST WITH SEAMS OF PINK QUARTZ; DECOMPOSED ZONES		
	751	758	7	7		SILVERY GRAY SILICEOUS SERPENTINE SCHIST WITH BANDS OF PINK QUARTZ		
	758	767	9	9		SAME AS 751-758		
	767	777	10	10		SIMILAR TO 751-758; INCREASE IN PINK QUARTZ; UNIFORM BEDDING, DIPPING 45°		
	777	787	10	10		GRAY SERPENTINE SCHIST; TALC ZONES; HIGHLY SILICEOUS; NO HEMATITE STAIN		
	787	797	10	10		SIMILAR TO 777-787; ZONES OF MILKY WHITE QUARTZ		
6-30-69	797	807	10	10		GRAY SERPENTINE SCHIST WITH SEAMS OF MILKY WHITE QUARTZ; LOCALLY HIGH IN TALC		
	807	817	10	10		SIMILAR TO 797-807; SLIGHT HEMATITE STAIN LOCALLY		
	817	827	10	10		GRAY SERPENTINE SCHIST WITH WHITE QUARTZ SEAMS; MODERATELY NICACEOUS		
	827	837	10	10		SAME AS 817-827; OCCASIONAL SLIGHT HEMATITE STAIN		
	837	847	10	10		SAME AS 817-827; MODERATELY TO HIGHLY CONTORTED		
7-1-69	847	857	10	10		SAME AS 837-847		
	857	867	10	10		" " " "		
	867	877	10	10		" " " " ; QUARTZ INCREASING		
	877	887	10	10		" " " "		
	887	897	10	10		GRAY-GREENISH SERPENTINE SCHIST, LESS SILICEOUS THAN 877-887		
7-2-69	897	907	10	10		SAME AS 887-897		
	907	917	10	10		" " " " ; MORE SILICEOUS		
	917	927	10	10		" " " "		
	927	937	10	10		" " " "		
	937	947	10	10		" " " "		
7-3-69	947	957	10	10		" " " "		
	957	967	10	10		GREENISH TO SILVERY GRAY SERPENTINE SCHIST WITH THIN SEAMS OF QUARTZ		
	967	977	10	10		SAME AS 957-967; CALCITE VEIN APPROXIMATELY 12mm THICK DIPPING 70° TO CORE AXIS; MINERAL FRAGMENTS OF REGULAR HEMATITE EMBEDDED IN CALCITE; DARK RED HEMATITE STAIN ALONG CONTACT WITH SCHIST; OCCASIONAL PYRITE IN SCHIST ADJACENT TO VEIN		
7-5-69	977	987	10	10		SILVERY GRAY SERPENTINE SCHIST RICH IN BICHITE & MUSCOVITE; SEAMS OF MILKY WHITE QUARTZ		
	987	997	10	10		SAME AS 977-987; BEDDING 50° TO CORE AXIS		
	997	1007	10	10		" " " " ; RICH IN MICA		

DRILL HOLE LOG

MINE		SUNRISE, WYOMING		DRILLER		P. FUSH		MACHINE		LONGYEAR 38		HOLE NO.		386	
LEVEL		SURFACE		LOCATION		SW 1/4 SEC. 19; T29N; R65W		DATE		6-3-69 TO 7-12-69					
LAT.		DEP.		ELEV.		ANGLE		VERT.		BEARING		DOWN			
DATE	DRILLED			CORE		MATERIAL							REMARKS		
	FROM	TO	FEET	FT.	IN.										
7-6-69	1007	1015	8	8		SAME AS 977-987; BROKEN & CRUSHED									
	1015	1021	6	6		SIMILAR TO 1007-1015; POPE SILICEOUS									
7-7-69	1021	1031	10	10		SAME AS 1015-1021									
	1031	1041	10	10		" " " " ; ZONES OF WHITE QUARTZ; SEAMS									
						OF HEAVILY HEMATITE STAINED SCHIST									
	1041	1051	10	10		GRAY SERICITE SCHIST WITH QUARTZ SEAMS									
	1051	1061	10	10		SAME AS 1041-1051									
7-8-69	1061	1071	10	10		GRAY SERICITE SCHIST WITH DARK GREEN CHLORITIC ZONES									
	1071	1081	10	10		SIMILAR TO 1061-1071; HIGHLY SILICEOUS ZONES;									
						NEARLY HORIZONTAL BEDDING									
	1081	1091	10	10		SAME AS 1071-1081; HIGHLY CHLORITIC ZONES;									
						NON-MAGNETIC									
	1091	1101	10	10		SAME AS 1081-1091									
7-9-69	1101	1111	10	10		" " " "									
	1111	1121	10	10		" " " "									
	1121	1131	10	10		" " " " ; HIGHLY SILICEOUS									
	1131	1141	10	10		" " " "									
7-10-69	1141	1151	10	10		" " " " ; OCCASIONAL TALCY CONTORTED ZONES									
	1151	1161	10	10		SAME AS 1141-1151									
	1161	1171	10	10		" " " "									
	1171	1181	10	10		SAME AS 1151-1161; THIN SEAMS OF DARK CHLORITE									
						OR AEPHROLITE							SLIGHTLY MAGNETIC		
7-11-69	1181	1191	10	10		SAME AS 1161-1171; TALCY CONTORTED ZONES									
	1191	1201	10	10		" " " "									
	1201	1211	10	10		" " " "									
	1211	1221	10	10		" " " "									
7-12-69	1221	1231	10	10		" " " "									
	1231	1241	10	10		" " " "									
	1241	1245	4	4		" " " "									
SUMMARY															
0-29	SOIL, FLINT, FRAGMENTS OF UNDERLYING FORMATIONS														
29-95	ARIKAPPE F. - SOFT, TAN, SANDY SILTSTONE														
95-483	HARVILLE F. - SOFT, VARIOUSLY COLORED Limestones, locally argillaceous with shale seams; locally calcareous														
	HAS L. QUARTZITE MEMBER FROM 395-483.														
483-663	OVERSEY F. - MULTI-COLORED, FINE GRAINED Limestones, locally dolomitic and granular; occasionally argillaceous														
	O. G. WITH SHALE SEAMS; LOCALLY POLYCRIST; BASAL QUARTZITE MEMBER 661-663														
663-1245	FRODOBRIAN SCHIST-GREENISH SERICITE SCHIST WITH TEEFICATIONS SEAMS; HIGHLY CONTORTED WITH LENSES OF WHITE														
	QU RTZ; VERY LOW GRADE HEMATITE REPLACEMENT NEAR 661; REPOSED LOCALLY WITH HEMATITE STAIN MOSTLY CONFINED														
	TO DECOMPOSED ZONES; CALCITE VEIN AT 970' (APPROX. 12" THICK) WITH FRAGMENTS OF SERICITE HEMATITE IN														
	CALCITE; RED HEMATITE STAIN ALONG CONTACT BETWEEN VEIN AND COUNTRY ROCK; BECOMES MICACEOUS BETWEEN 970'														
	AND 1000'. SCATTERED HEMATITE STAIN BETWEEN 1000 AND 1031; BECOMES CHLORITIC NEAR 1061 AND GRADES INTO														
	SLIGHTLY MAGNETIC AEPHROLITE NEAR 1171'														