

<b>WOODWARD-CLYDE CONSULTANTS</b> ROCKY MOUNTAIN REGION	<b>HOLE NO.</b> <b>TH-464</b>	<b>PROJECT NO.:</b> 21010-10185 <b>PROJECT NAME:</b> CHARACTERIZATION OF ROCK UNDERDRAIN MATERIAL <b>LOCATION:</b> N 644,400 E 1,273,500
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<b>DRILLING LOG</b>	<b>SHEET</b> 1 of 1	<b>ELEVATION: (MSL OR TBM)</b> 8050 MSL <b>DATE DRILLED</b> STARTED: 9-11-82 COMPLETED: 9-12-82
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<b>DRILL MANUFACTURER AND MODEL NUMBER:</b> LONGYEAR 44	<b>DIRECTION OF HOLE</b> <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED    DEGREES TO VERTICAL:
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<b>SIZE AND TYPE OF BIT(S):</b> 3.93" DIAMETER ROTARY BIT FROM 0 TO 9.5' NX DIAMOND CORING BIT FROM 9.5' TO 103'	<b>DRILLING FLUID:</b> AIR MIST
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<b>CASING:</b> 3.5" OD <b>DEPTH:</b> 10' LONG TO 9.5' DEPTH	<b>PIEZOMETER:</b> NONE <b>DEPTH:</b>	<b>WATER LEVEL</b> DEPTH: NOT DATE: ENCOUNTERED    DEPTH: DATE:
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ELEVATION	DEPTH	SYMBOL	CLASSIFICATION AND PHYSICAL CONDITION	POINT LOAD INDEX (PSI)	CORE						WEATHERING	HARDNESS	JOINTS	BEDDING	NOTES	WATER TESTS	DEPTH
					RECOV. (%)	RECOV. (FT.)	RQD	SHORTEST	AVERAGE	LONGEST							
8050	0		SILT, VERY SANDY, GRAVELLY, CLAYEY, BROWN (ML, SM).														0
	10		SILTSTONE WITH MINOR INTERBEDS OF MARLSTONE, POORLY CEMENTED, VERY LOW STRENGTH ROCK, SLIGHTLY TO MODERATELY WEATHERED, GENERALLY LAMINATED TO CLOSELY BEDDED (<1" TO 4"), CLOSELY JOINTED (2" TO 1'), JOINTS ARE ROUGH AND UNDULATING, SANDY, BROWN (UINTA FORMATION).	<77	80	2.8	17	<.1	0.3	0.6	S-M	3	80° 90° 30°	3°			10
	20		SANDSTONE WITH INTERBEDDED SILTSTONE AND MINOR INTERBEDS OF MARLSTONE, POORLY CEMENTED, VERY LOW STRENGTH ROCK, CONTAINS INTERBEDS OF HIGH STRENGTH, WELL CEMENTED CALCAREOUS SANDSTONE, SLIGHTLY TO MODERATELY WEATHERED, GENERALLY LAMINATED TO CLOSELY BEDDED (<1" TO 4"), CLOSELY TO MODERATELY CLOSELY JOINTED (6" TO 2'), JOINTS ARE ROUGH AND UNDULATING, VERY FINE GRAINED, BROWN, LOCALLY GREY (UINTA FORMATION).	<77	93	9.3	41	<.1	0.3	0.7	S-M	2-3	70° 45° 15° 60°	2°-3°			20
	30		30.0 - 32.5 VERY FRACTURED SILTSTONE	<77	98	9.3	36	<.1	0.3	0.9	S-M	2-3	50° 80° 80° 70° 40° 80°	2°-3°	<u>CUTTING TIME</u> INTERVAL TIME RATE (feet) (min) (ft/min)		30
	40		53 - 54 HIGH STRENGTH SANDSTONE	<77	92	6.0	69	<.1	.5	1.0	S-M	3	80° 60°	2°-3°	9.5-13 13.5 .26 13-23 33 .30 23-32.5 34.5 .28 32.5-39 22 .30 39-43 7 .57 43-53 38 .26 53-63 25.5 .39 63-73 30.5 .33 73-83 25 .40 83-93 27 .37 93-103 25 .40		40
	50		64.7 - 65 VERY FRACTURED SANDSTONE	<77	100	4.0	50	<.1	.3	.6	S-M	2-3	75° 50°	2°-3°			50
	60		70 - 71.5 VERY FRACTURED SANDSTONE	926 740	91	9.1	61	<.1	0.6	1.4	S-M	2-3	45° 90° 70° 60°	3°			60
	70		75 - 77.5 MARLSTONE BED	<77	97	9.7	81	<.1	1.2	1.6	U-S	3	80° 20°	3°-10°			70
	80		SANDSTONE WITH INTERBEDDED SILTSTONE AND MARLSTONE, AS ABOVE EXCEPT UNWEATHERED AND VERY WIDELY SPACED JOINTS, GREY (UINTA FORMATION).	<77	100	10	99	.1	.3	5.2	U	3	NONE	3°-20°			80
	90			<77	100	10	69	.2	.4	1.4	U	3	50° 60°	0°-10°			90
	100			<77													100

LEGEND  
SEE TH-462