

HOLE NO. X-10 SHEET 1 OF 5 DATE: 12/29/74 LOGGED BY: Moulton T.D. 1092.

DEPTH	LOG	PP	PP	PP	CORE REC.	LITH.	DESCRIPTION
835							OIL SHALE, dark brown to black, medium to high grade w
836							zones of low grade
837)
838			37)
839			14.75)
840			10.68) OIL SHALE, high grade zone
841	+130		69	6.7)
842			10	14.9)
843			91	20.3)
844			70	8.7)
845			25	7.4			
846			9	03.90			
847			90	12.3			OIL SHALE, low to medium grade
848			37	05			
849				27.8			
850			85	8.5			
851	+120		53	7.3			
852			30	6.9			OIL SHALE, high grade zone
853			40.93	6.7			
854		190°	75	9.7			OIL SHALE, high grade zone
855			05.45	13.0			
856			35	12.9			
857			00.40	10.2			OIL SHALE, low to medium grade
858		190°	00.46	9.7			
859				11.4			
860				15.6			
861	+110			33.6			861.65-861.83. SANDSTONE, tuffaceous, oil saturated
862			87	10.8			
863				9.1			
864			83	2.7			
865				4.0			
866				7.9			OIL SHALE, moderate grade, badly broken
867				20.9			
868			40	10.3			
869			95	12.9			869.6-869.8 SANDSTONE, tuffaceous; oil saturated
870			73	10.1			
871	100			13.8			871.8-872.25 SANDSTONE, tuffaceous; oil saturated
872		45°		12.6			
873		5°		12.3			SHALE, low grade
874				9.9			
875			18.44	9.6			875.00-875.18 SANDSTONE, tuffaceous; oil saturated
876		90°	70	7.6			
877				8.8			OIL SHALE, low to medium grade
878			07	12.5			
879			40	18.0			879.40-879.85 SANDSTONE, tuffaceous; oil saturated
880			84	11.8			
881	+90	45°		10.4			
882			61	10.0			OIL SHALE, low grade
883				9.6			
884				12.6			

Drilled 31.00 Ft.
Recovered 30.25 Ft.

867.25

Drilled 31.00 Ft.
Recovered 30.63 Ft.

COMMENTS:

HOLE NO. X-10 SHEET 2 OF 6 DATE: 12/30/74 LOGGED BY: Moulton T.D. 1022

DEPTH	+CM	FRX	PP	W/L	CORE	LITH.	DESCRIPTION
885			00	10.7			OIL SHALE, low to medium grade
886			50	11.6			
887			00	13.8			
888			88	9.4			888.46-888.88 SANDSTONE, tuffaceous; oil saturated
889				12.5			
890				12.5			
891	+80			9.7			891.89-891.95 SANDSTONE, tuffaceous; oil saturated
892			40.50	9.3			892.10-892.20 SANDSTONE, tuffaceous; oil saturated
893				15.9			
894				10.9			
895				12.1			OIL SHALE, low to medium grade
896				8.4			896.38-896.53 SANDSTONE, tuffaceous; oil saturated
897			55	6.4			
898				6.1			
899				10.8			
900				15.0			OIL SHALE, cream to light brown, low grade
901	-70			11.2			
902			44	9.1			
903				9.5			
904				11.2			904.90-905.00 SANDSTONE, tuffaceous; oil saturated
905			50	16.6			905.65-907.85 UPPER WAVY BED, SANDSTONE, tuffaceous
906				5.5			contorted bedding, tan-red brown with limonite stain;
907				5.3			some thin, irregular, intermittent inclusions of dark
908				10.8			material (gray-black); moderately undulating upper part
909			30.76	11.3			907.85-909.00 OIL SHALE, gray-dark gray, finely
910				12.4			laminated with very thin hair-like stringers of darker
911	+60			16.6			material (dark gray-black)-some contain fine white
912				15.4			crystals
913			70	20.3			
914			21.48	11.4			OIL SHALE, low to medium grade with thin bands of darker
915				9.1			material
916				6.8			
917			05	9.0			
918				13.4			
919				10.5			
920				5.9			
921	+50			6.9			
922				8.7			
923				5.3			
924				14.8			
925				13.8			
926				9.1			
927				10.5			
928			16	26.3			OIL SHALE, medium grade with areas of high grade
929			29	35.6			
930				12.7			
931	+40			12.9			
932				13.6			
933				14.8			
934			58	25.0			

Drilled 31.00 Ft.
Recovered 30.28 Ft.

COMMENTS:

HOLE NO. X-10 SHEET 3 OF 6 DATE: 12/30/74 LOGGED BY: Moulton, T.D. 1092.

DEPTH	+VSS	FRK	2P	VAL/TON	CORE REC.	LITH.	DESCRIPTION
935				25.8			OIL SHALE, low to medium grade with areas or beds that
936				14.0			are pitted
937			.23	17.4			Banded area
938				31.3			
939		X ^{1/5}		3.3			
940			.71	8.1			
941	+30		.72	2.8			
942			.71, .93	5.2			942-945, MARLSTONE, buff-light gray with a few thin dark
943			.78	5.2			colored bands; very calcareous
944			.95, .65	5.9			942.8 & 943.1, irregular vugs of white chalky material;
945			.29, .83	4.4			non-calcareous or nearly so; contorted bedding around
946			.41	2.2			perimeter (soft sediment deposition)
947				1.7			
948				2.0			
949				4.3			
950				13.2			
951	+20			16.4			
952			.41	27.2			
953			.86	25.2			
954				12.8			
955			.17, .58	11.7			
956			.85	19.7			956, SANDSTONE, tuffaceous, oil saturated
957			.25	31.1			956.85-957.25, SANDSTONE, tuffaceous, oil saturated
958			.30, .73	27.8	958.73) Badly Fractured Zone (Mechanical)
959				27.2)
960				43.2			OIL SHALE, cream to dark brown with bands of black color
961	+10		.33	38.3			shale; medium grade with bands of high grade; some
962				22.7			narrow sand layers & lenses
963				18.8			
964				12.5			
965			.00	12.3			
966				21.1			
967				16.2			OIL SHALE, low grade
968			.59	9.6			
969				13.0			
970			.44	10.6			970.9-971.4 MAHOGANY MARKER, SANDSTONE, tuffaceous; oil
971	0		.33	14.0			saturated layer
972			.66	10.3			
973				9.3			
974				10.7			OIL SHALE, low grade
975			.00	13.1			
976			.27, .87	12.9			
977			.14, .87	38.5			
978			.92, .95	45.8			978-980, OIL SHALE, medium to high grade zone
979				24.7			
980				22.2			980-985, OIL SHALE, medium grade with some interbedded
981	-10			23.1			high grade
982				15.7			
983				17.0			
984				25.7			

Drilled 31.00 Ft.
Recovered 30.57 Ft.

Drilled 30.00 Ft.
Recovered 30.23 Ft.

COMMENTS:

HOLE NO. X-10 SHEET 4 OF 6 DATE: 12/31/74 LOGGED BY: Moulton, T.D. 1022

DEPTH	± INCH	FRK	PP	AL/TON	CORE REC.	LITH.	DESCRIPTION
985				38.8			985-989 OIL SHALE, high grade zone (NANOGANY ZONE?)
986				37.0			
987				59.5			
988				41.9			OIL SHALE, dark brown-black, medium to high grade; SAND layers (oil saturated) found in some areas
989				50.9			
990			.00	24.9			
991	-20			24.5			
992				46.9			
993				23.5			
994				15.0			
995				21.8			
996			.10	42.5			996.6-999.0 OIL SHALE, black; high grade
997			.15	36.1			
998			.00	48.4			998.00-998.52 OIL SHALE, banded - high grade (SECTION OF CORE TO SUN OIL)
999				20.3			
1000				29.1			
1001	-30		.65	25.9			
1002			.90	14.6			
1003				15.4			
1004				24.6			1004-1007, OIL SHALE, medium to high grade
1005				40.9			
1006			.92	16.3			
1007				10.2			
1008				10.9			OIL SHALE, low grade
1009			.30	10.8			
1010				18.1			
1011	-40			34.8			
1012				31.6			
1013				27.4			OIL SHALE, low to medium grade with some SANDSTONE layers towards the bottom
1014				22.8			
1015			.84	23.5			
1016				36.8			
1017				20.4			
1018				19.0			
1019			.28	13.6			OIL SHALE, cream to dark brown with some black zones
1020				10.3			low to medium grade; oil saturated SAND layers present along with pitted areas in shale; leached SANDSTONES
1021	-50			12.3			
1022			.36	22.5			
1023				16.5			
1024			.78	11.0			
1025			.67	9.8			
1026			.66	3.6			
1027			.23	5.4			
1028			.78	13.8			1028-1029, OIL SHALE, higher grade zone
1029			.77	12.9			
1030		[90°	.30	7.7			1030.25-1030.60 SANDSTONE, buffaceous; oil saturated
1031	-60		.85*	12.8			
1032			.12	7.2			
1033			.59	9.8			
1034				29.1			OIL SHALE, low grade

Drilled 30.00 Ft.
Recovered 30.28 Ft.

COMMENTS: * Irregular parting plane in SANDSTONE layer.

HOLE NO. X-10 SHEET 5 OF 6 DATE: 12/31/74 LOGGED BY: Moulton T.D. 1092

DEPTH	+ -MC	PRX	PP	WAL/ TUN	CORE REC.	LITH.	DESCRIPTION
1035				9.8			
1036			.39	29.8			
1037			.13	21.9			
1038			.84	6.4			
1039			.40	3.2			OIL SHALE, low grade
1040			.02, 60	3.0			
1041	-70			3.5			
1042			.47	12.3			
1043			.74	26.9			1043.40-1044.77. SANDSTONE, tuffaceous; contorted-some
1044				17.0			
1045			.23	11.9			
1046				6.7			OIL SHALE, low grade
1047				5.5			
1048			.22	3.8			
1049			.41	5.6	1049.41		
1050				5.1			OIL SHALE, low grade with oil saturated SAND layers; so
1051	-80			4.4			higher grade bands are visible
1052			.94	7.6			
1053				3.0			
1054			.95	8.5			
1055				7.5			
1056				4.2			
1057				2.7			
1058			.71	6.0			
1059			.40	6.5			1059.32-1059.54. SANDSTONE, tuffaceous, oil saturated;
1060				6.7			SULFIDES present
1061	-90			6.9			OIL SHALE, bands of high grade
1062			.87	7.7			
1063			.00	8.2			1063-1067, oil saturated zone
1064			.62, 86	8.2			1064.62-1064.86. SANDSTONE, tuffaceous; oozing oil
1065				6.9			
1066				6.5			
1067				6.4			
1068			.10	3.7			
1069				6.0			
1070				7.6			1070-1075, Oil oozing bands; very saturated
1071	-100		.10, 52	8.3			
1072			.61, 72	3.2			
1073				3.8			
1074				3.2			
1075			.90	4.3			
1076		90°		3.6			
1077				3.3			OIL SHALE, low grade
1078				3.9			
1079				3.9			
1080			.86	5.0	1079.80		OIL SHALE, higher grade zone
1081	-110	90°	.3	3.1			
1082				1.8			
1083			.40, 55	4.6			
1084			.86, 17.48	6.4			OIL SHALE, low grade

COMMENTS:

PROJECT: White River Shale Project

HOLE NO. X-10 SHEET 6 OF 6 DATE: 1/1/75 LOGGED BY: Moulton, T.D. 1092

[illegible]

COMMENTS:

H/OCE No. X-10

Order 1546.3.5 April 1 Nov. 50092

Dpth	Flow	Sp Cond.	Temp.	H ₂ S	(methylene) CH ₄	Comments
B0'	0	-	-	0	0	
95'	0	-	-	0	0	
312	Trace	-	-	0	0	
345	-	-	-	0	0	
420	-	-	-	0	0	
430	35.4	1200	47° 7.5	"	"	1st flow mainly (see note-black)
460	2.9	1275	40.5° 7.0	"	"	
490	4.9	880	39° 6.5	"	"	
520	3.9	640	34.5 7.0	"	"	
550	4.9	750	37° 7.0	"	"	
580	4.9	650	37° "	"	"	
610	3.9	50	35° "	"	"	
640	2.9	60	34° 6.5	"	"	
670	44.4	450	35.5° "	None	-	No gas to 840' Flow meas. exagg. by froth
700	141	<50	32.5° 7.5	"	"	
730	12.5	1400	36.5 8.0	"	"	
760	31.4	1250	" 7.5	"	"	
790	67.8	<50	41° "	"	"	
820	110	\$725	40.5° "	"	"	
840	7.3	2000	41° 8.5	"	"	True reading, no froth Downs - C.C. time of starting mix-up
<no record 902						
917	16.0	<50	43° 8.0	0	0	Est Q -- too much foam --- May 976
937	Too much foam	1600	46° 8.0	0	0	" " " " " Bath. too low for Sp. G.
972	n/5-20	200	48° "	0	0	
1002	"	-	-	0	0	
1032	Frozen	-	-	0	0	
1054	"	1800	48° "	"	"	
1084	"	1600	46° "	"	"	
TD-1098'						