

U064  
23-105-24E  
Uintah County, UT

X-5 CORE LOG

## WHITE RIVER SHALE PROJECT

HOLE: X-5

Depth	MM	FRX	PP	0	Gal/ 50 Ton	Lith	Rock Description
681	+130		.65.75		6.9		
682					6.0		Oil Shale - low to medium grade,
683					6.7		brown to dark brown,
684					8.9		thinly laminated
685					12.8		
686			.63		11.7		
687					11.4		
688			.83		9.4		
689					10.1		
690					11.2		
691	+120				26.1		Oil Shale - high grade,
692			.40		24.2		dark brown
693			.17		9.6		
694					7.0		
695			.07.91		1.8	TLT	Marlstone - light gray, hard
696			.69		2.9	TLT	
697			.36		10.1		Oil Shale - medium grade,
698					24.3		light to medium brown,
699			.28		11.6		finely laminated
700	+110		.79		9.1		
701					13.1		
702					8.9		
703			.50		13.6		
704					17.9		704.4-.50 Sandstone layer,
705					12.5		oil saturated
706		90°	.64		9.6		Oil Shale - medium grade,
707			.45		10.9		light brown with darker bands
708					8.8		
709					8.5		
710	+100	90°	.35		11.6		
711					14.2		
712			.07.12.84		16.2		
713			.29		11.9		
714			.02		10.9		
715			.10.59		11.5		
716			.36		9.7		
717			.23		12.5		
718			.38		10.8		
719			.35		11.3		
720			.13.35		11.3		720.30-.35 Sandstone layers,
721	+90		.62		12.9		721.62-722.00 oil saturated
722			.70.85		10.9		Oil Shale - medium grade,
723			.83		11.2		light brown with darker bands
724			.83		13.8		
725		90°	.22.53.67		11.1		725.22-.60 Sandstone layer,
726			.40		8.7		oil saturated
727					14.1		
728					15.4		728.20-.30 Sandstone layer,
729					10.5		oil saturated
730			.22		10.0		Oil Shale - medium grade,

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Depth	±MM	FRX	PP	0	Gal/ 50 Ton	Lith	Rock Description
731	+80		.43		6.2		light to medium brown
732					5.5		
733			.79		10.5		
734					17.0		
735			.72		11.5		
736			.85		9.8		736.85-.95 Sandstone layer
737					10.0		oil saturated
738					8.4		
739			.55		15.6		739.55-.65 Sandstone layer
740			.52		10.2		oil saturated
741	+70		.25		5.3		740.52-742.28 Upper Wavy Bed
742			.28.65		4.2		sandstone layer with interbedded
743					3.4		shale, buff to medium brown,
744			.52		11.3		contorted bedding
745					14.0		
746			.72		16.2		
747					15.0		Oil Shale - low to medium grade,
748					20.2		brown to dark brown,
749					13.7		thinly laminated
750			.64		10.1		
751	+60		.29		9.0		
752					6.5		
753					9.5		
754					12.4		
755					12.7		
756					6.8		
757					7.2		
758					8.5		
759			.53		5.8		
760			.61		10.1		
761	+50				16.4		
762			.03		12.9		
763			.35		9.2		
764					9.0		
765			.16		13.7		
766					14.7		
767			.26.75		17.8		
768			.40		11.8		
769					12.1		
770		90	.82		13.1		
771	+40		.40.70		13.8		
772			.55		17.2		
773			.92		32.1		Oil Shale - high grade, black
774					14.4		
775			.70		14.8		
776			.75		27.0		Oil Shale - high grade,
777					21.0		dark brown
778					7.2		Oil Shale - low grade,
779			.28.65		5.2		light brown
780			.22.87		5.0		

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Depth	±MM	FRX	PP	0	Gal/ 50 Ton	Lith	Rock Description
781	+30		.11.30.70		2.4	TLT	Marlstone - light grav. hard
782			.55		6.8		Oil Shale - low grade,
783			.17.83		4.1		light brown, calcareous
784			.00.66		4.7		
785			.20.44		2.5	TLT	Marlstone - light gray, hard
786			.08.69		1.4	TLT	
787			.54		0.9	TLT	
788			.77		4.1		Bottom 'A' Groove
789					13.4		
790			.95		14.0		Oil Shale - medium to high grade,
791	+20				13.8		brown to black,
792			.09.57.91		18.5		thinly laminated
793			.34.42		14.5		
794			.30.69		16.5		
795			.20		33.1		
796			.10.75		16.0		
797			.55		17.4		
798			.83		32.6		
799			.66		24.6		
800					26.0		Oil Shale - medium grade,
801	+10				43.6		brown with dark brown bands
802			.25.43		38.4		
803			.25		25.1		
804					19.9		Oil Shale - medium grade,
805			.90		18.8		medium brown
806					10.9		
807					19.2		
808					10.7		
809			.78		17.3		
810			.64		13.4		
811	0		.50.80		14.9	+++	811.48-.90 Mahogany Marker
812			.90		11.7		sandstone layer, oil saturated
813					48.9		Oil Shale - medium grade,
814			.65		27.4		dark brown
815					9.5		Oil Shale - medium grade, brown
816			.00.88		13.7		
817			.05.72		16.0		
818			.20.63		20.2		
819			.11.55.85		23.5		
820			.07.58		16.4		
821	-10				35.1		Oil Shale - high grade,
822			.00		33.1		dark brown to black
823			.12		46.4		
824			.30.37.45		49.3		'Mahogany Zone'
825			.22.50.60		79.3		
826			.05.15.35		71.8		
827			.10.37		43.0		
828			.45.75		34.4		
829			.69		57.5		
830			.90		35.0		

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Depth	±MM	FRX	PP	0	Gal/ 50 Ton	Lith	Rock Description
831	-20		.95		20.4		Oil Shale - medium to high grade,
832			.11.45		19.4		brown to black, thinly laminated
833			.55		29.3		
834			.26		35.9		
835			.40		16.2		
836			.35		16.9		
837			.08.80		45.4		Oil Shale - high grade,
838			.86		38.5		medium to dark brown
839					37.8		839.74 Parting Plane
840			.67		30.5		filled with Gilsonite
841	-30				20.0		
842					33.3		Oil Shale - medium to high grade,
843					34.9		brown to black
844					18.7		
845			.06		14.7		
846			.21.27		32.4		
847			.94		21.0		
848					30.0		
849					13.3		Oil Shale - low grade, light brown
850			.12.93		10.3		
851	-40				10.7		
852			.23.60		10.6		
853			.13		10.5		
854			.58		12.7		
855			.30		23.0		
856			.52		26.6		Oil Shale - medium grade,
857			.40		23.7		medium to dark brown
858			.15.95		36.1		
859			.57		29.4		
860			.63.94		21.4		
861	-50		.72		19.8		
862					33.4		
863			.50				
864							863.70-865.00 Lost Core Zone
865			.71		13.1		Oil Shale - low to medium grade,
866			.42		16.1		light brown to brown
867					25.0		
868					10.2		Oil Shale - low grade,
869			.53.64		9.5		buff to light brown
870			.48.79		7.3		
871	-60		.27		4.7		
872					8.2		
873			.33		20.0		
874			.45.92		9.2		874.92-875.30 Sandstone layer,
875					7.4		oil saturated
876			.41		16.8		
877			.48		34.2		Oil Shale - high grade, black
878					11.1		Oil Shale - medium grade,
879			.78		7.9		medium brown
880			.22		12.1		

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HOLE: X-5

Depth	±MM	FRX	PP	O	Gal/ 50 Ton	Lith	Rock Description
881	-70		.50		37.8		Oil Shale - high grade,
882			.86		24.9		dark brown to black
883					7.2		
884			.20, .24, .52		4.3		
885			.04, .17, .56		2.8		Marlstone - light gray, hard
886			.36		3.6		Oil Shale - low grade,
887			.53		5.4		buff to light brown
888			.09, .93		21.4		888, 90-890.30 Sandstone layer,
889			.08		15.5		oil saturated
890					19.1		
891	-80				15.5		890-891 Bedding @ 70°
892			.72		12.5		
893					7.3		Top 'B' Groove
894			.22, .54		7.2		
895					6.0		Oil Shale - low grade,
896			.74		7.6		buff to brown,
897					5.6		thinly laminated
898			.78		6.2		
899					6.4		
900					6.5		
901	-90				6.4		
902			.20		10.0		
903					7.2		
904					4.7		
905					4.9		
906		I	.20		8.2		
907		I 90°			9.3		
908					8.2		
909			.88		8.5		
910		I 70°			8.8		
911	-100				7.8		
912					9.5		
913			.28, .63		8.9		
914					8.9		
915			.00, .55		6.4		
916					5.5		
917			.54		6.4		
918			.09		7.3		
919			.25, .32, .65		7.2		
920					3.5		
921	-110				2.6		Marlstone - light gray, hard
922		I			4.2		Oil Shale - low grade,
923		I 90°	.13, .77		3.5		buff to light brown
924			.30, .50		6.0		
925					2.9		Marlstone - light gray, hard
926			.25		2.1		
927		I 45°	.45		1.9		
928			.91		1.8		
929					2.9		