Permit No. Wirt-433

CORE ANALYSIS REPORT

Reservoir Evaluation Well 8
Cow Run Sand, Weva Oil Company, A. E. MacIntosh Farm Well 8,
Ann's Run Pool, Spring Creek District, Wirt County, West Virginia

First Cow Run Sand

Date core received - 6/15-21/62
Core received - 686.0 - 782.0 feet
Total footage received - 96.0 feet
Datum - ground level

Type of core - 4" rotary
Coring fluid - water-base mud
Condition of core - wrapped ; some oil

Sample No.	Depth, ft.	Horizontal air permeability, md.	Porosity, percent	Fluid saturation, percent pore space		Oil content, bbl./acre-foot
				Oil	Water	
684	732.0	0.3	7.6	17.2	50.6	101
685	732.7	0.2	7.5	17.2	45.7	100
686	733.0	0.4	9.1	14.2	51.2	100
687	733.6	0.4	8.9	16.4	50.1	113
688	734.0	0.4	9.3	13.8	48.6	100
689	734.5	0.9	8.1	16.2	57.8	102
690	735.0	0.5	8.1	15.2	58.8	96
691	735.5	0.8	9.0	12.9	55.4	90
692	736.0	0.5	8.6	12.6	52.5	84
693	736.5	0.3	7.4	19.0	56.0	109
→ 694	737.0	0.4	6.9	24.7	58.9	132
695	737.7	0.6	7.8	21.3	62.5	129
696	738.0	0.7	8.2	13.4	51.2	85
697	738.4	1.6	9.6	6.1	60.4	45
698	739.0	3.8	8.9	11.6	48.3	80
699	739.5	3.1	9.0	5.1	56.7	36
700	740.0	4.4	9.8	8.5	50.7	65
701	740.5	1.9	9.0	10.7	53.5	75
702	741.0	3.2	10.3	9.7	49.5	77
703	741.5	5.8	10.0	6.9	49.0	54
704	742.0	2.4	8.8	14.1	52.7	96
705	742.5	1.4	9.0	24.9	49.1	175
706	743.0	1.6	8.9	7.5	58.3	52
707	743.5	3.9	9.7	11.8	48.8	89
708	744.0	0.6	9.0	15.0	50.4	104
709	744.5	2/0.1	1.3	3.5	--	4
710	745.0	-0.1	0.4	67.9	--	22
711	745.5	0.3	7.9	12.4	55.2	76
712	746.0	-0.1	2.3	33.6	--	61
713	746.5	0.2	8.1	15.7	52.9	99
714	747.0	0.1	6.6	14.1	55.8	72
715	747.6	1.5	10.9	4.5	55.3	38
716	748.0	1.1	10.1	5.3	58.1	41
717	748.5	1.4	9.7	4.6	55.2	34
718	749.0	1.2	9.5	6.9	53.1	50
719	749.6	1.3	9.8	8.5	52.8	65
720	750.0	2.5	10.2	8.3	48.1	66
721	750.5	1.8	10.6	5.2	48.0	43
722	751.0	2.4	10.2	3.5	50.6	28
723	751.4	1.2	9.0	9.2	61.2	65
724	752.0	1.1	8.9	13.6	44.5	94
725	752.5	0.6	8.1	14.9	54.4	94
726	753.0	0.6	8.2	8.4	60.2	53
727	753.5	0.5	8.1	14.0	51.4	88
728	754.0	0.9	12.0	1.0	40.1	9
729	754.5	0.8	9.3	10.4	52.6	75
730	755.0	0.9	10.0	5.3	49.0	41
731	755.5	1.2	10.2	2.8	51.8	22

1/ Core water salinity determined by leaching crushed core sample with distilled water, measuring water resistivity, and converting to equivalent NaCl concentration.
2/ - indicates "less than."

First Cow Run Sand (con.)

Sample No.	Depth, ft.	Horizontal air permeability, md.	Porosity, percent	Fluid saturation, percent pore space		Oil content, bbl./acre-foot	eq
				Oil	Water		
732	756.0	0.4	5.2	17.9	80.4	72	
733	756.5	0.9	8.3	13.6	56.1	87	
734	757.0	0.6	7.9	8.8	54.8	54	
735	757.6	0.6	7.8	11.1	58.2	67	
736	758.0	0.3	6.1	13.5	73.0	64	
737	758.5	2/-0.1	15.8	0.6	17.4	7	
738	759.0	0.5	8.2	21.7	56.8	138	
739	759.5	0.3	8.1	16.7	55.4	106	
740	760.0	0.2	5.4	11.6	65.4	49	
741	760.4	-0.1	2.8	14.3	--	32	
742	761.1	0.7	7.8	15.5	58.6	94	
743	761.5	0.4	6.2	23.2	71.1	112	
744	762.0	0.3	6.6	17.0	66.8	87	
745	762.5	0.2	5.7	3.4	70.9	15	
746	763.1	0.1	5.2	17.8	75.4	72	
747	763.5	0.4	6.6	19.1	70.9	97	
748	764.0	0.3	6.5	17.6	74.2	89	
749	764.5	0.3	7.5	26.4	52.3	154	
750	765.0	0.2	6.4	17.8	72.8	88	
751	765.5	0.3	6.8	20.4	62.5	108	
752	766.0	-0.1	3.8	15.6	--	47	
753	766.5	-0.1	1.6	16.3	--	22	
754	767.0	1.0	2.7	9.4	--	20	
755	767.5	0.1	7.3	16.6	67.5	94	
756	768.0	0.5	8.9	17.7	54.3	122	
757	768.5	0.9	10.1	12.0	53.5	94	
758	769.0	1.5	10.2	15.4	48.5	122	
759	769.5	1.2	9.3	15.4	54.0	111	
760	770.0	1.0	8.9	14.8	54.4	102	
761	770.5	1.0	9.4	18.2	56.7	134	
762	771.1	0.4	7.9	15.9	67.0	97	
763	771.5	0.2	3.7	10.5	89.4	30	
764	772.0	0.2	5.8	11.0	86.3	49	
765	772.5	-0.1	2.3	10.2	--	18	
766	776.0	-0.1	5.7	5.1	--	23	
767	776.5	-0.1	5.9	9.6	--	43	
768	777.0	-0.1	6.2	1.1	--	5	
769	777.5	-0.1	5.6	0.0	--	0	
AVERAGE		0.8	7.7	13.2	56.8	64	

1/ Core water salinity determined by leaching crushed core sample with distilled water, measuring water resistivity, and converting to equivalent NaCl concentration.

2/ - indicates "less than."

Second Cow Run Sand

Date core received - 6/21/62
Core received - 870.9 - 927.5 feet
Total footage received - 56.6 feet
Datum - ground level

Type of core - rotary
Coring fluid - water-base mud
Condition of core - wrapped i
some oil

Sample No.	Depth, ft.	Horizontal air permeability, md.	Porosity, percent	Fluid saturation, percent pore space		Oil content, bbl./acre-foot	e
				Oil	Water		
770	871.0	.8	10.4	3.3	70.5	27	
771	871.5	1.0	10.7	3.1	67.1	26	
772	872.0	.7	10.5	5.2	65.5	43	
773	872.6	.7	10.5	7.6	64.8	62	
774	873.0	.1	2.3	--	--	--	
775	873.6	.2	6.6	4.4	76.1	23	
776	874.0	.5	10.0	5.1	73.4	39	
777	874.5	.4	9.0	7.2	76.3	50	
778	875.0	.4	8.3	7.9	74.9	51	
779	875.5	.3	8.3	1.0	75.5	6	
780	875.9	.5	10.4	5.0	61.5	40	
781	876.6	1.0	10.8	5.3	61.9	44	
782	877.0	1.0	10.2	2.0	75.6	16	
783	877.5	1.7	10.0	2.5	63.1	20	
784	878.0	.5	9.8	16.3	65.5	124	
785	878.6	.8	10.5	4.3	66.5	35	
786	879.0	.5	10.2	8.1	62.6	64	
787	879.5	.4	9.1	5.6	73.9	40	
788	880.0	.4	8.5	2.9	82.5	19	
789	880.6	.5	9.5	5.8	74.1	43	
790	881.0	.9	11.2	4.1	63.9	35	
791	881.5	.9	10.6	4.7	67.1	39	
792	882.0	.9	9.8	4.1	70.9	31	
793	882.5	.8	9.7	6.2	73.7	47	
794	883.0	1.0	10.1	2.7	71.3	21	
795	883.5	.6	8.7	7.4	72.8	50	
796	884.0	.4	7.9	9.0	71.4	55	
797	884.5	.3	8.8	6.9	67.3	47	
798	885.2	.5	8.1	8.4	80.0	53	
799	885.5	.3	8.0	7.0	82.4	43	
800	886.0	.8	10.6	5.1	63.6	42	
801	886.5	.5	10.4	6.0	60.5	49	
802	887.0	.6	9.6	6.5	67.6	49	
803	887.5	.5	9.4	11.0	65.8	80	
804	888.0	.6	9.5	8.4	67.4	62	
805	888.4	.7	9.2	8.2	64.5	59	
806	889.0	.9	10.7	8.6	62.0	71	
807	889.7	.7	10.4	10.3	63.4	83	
808	890.0	1.4	9.9	8.6	51.2	66	
809	890.5	1.3	10.1	9.9	62.7	77	
810	891.0	2.0	8.7	8.9	58.2	60	
811	891.5	.5	7.8	3.8	82.8	23	
812	892.0	-0.1	.2	--	--	---	
813	892.5	--	--	--	--	---	
814	893.0	.8	8.9	11.7	61.4	81	
815	893.4	.6	8.2	9.1	75.1	58	
816	894.0	.2	4.7	--	--	--	
817	894.5	.7	7.7	13.8	62.4	82	
818	895.0	.3	8.5	8.0	50.0	52	
819	895.5	.7	10.1	6.8	63.8	53	
820	896.0	.7	9.8	4.1	68.3	31	
821	896.5	.6	8.9	11.3	63.3	77	
822	897.0	.8	10.9	6.4	45.2	54	
823	897.4	.6	8.6	11.0	54.9	73	
824	898.0	.3	7.6	5.5	77.1	32	
825	898.5	.6	7.2	11.1	78.3	62	
826	899.0	.8	7.0	6.1	73.1	33	
827	899.5	.1	5.7	--	--	--	

1/ Core water salinity determined by leaching crushed core sample with distilled water, measuring water resistivity, and converting to equivalent NaCl concentration.
2/ - indicates "less than."

Second Cow Run Sand (con.)

Sample No.	Depth, ft.	Horizontal air permeability, md.	Porosity, percent	Fluid saturation, percent pore space		Oil content, bbl./acre-foot	equ
				Oil	Water		
828	900.0	2/-0.1	7.8	5.6	70.5	34	
829	900.5	1.9	10.7	7.2	50.1	60	
830	900.9	.5	7.8	7.6	75.5	45	
831	901.5	-0.1	3.9	6.0	55.8	18	
832	902.1	-0.1	3.8	3.8	--	11	
833	902.5	.3	8.5	3.7	70.3	24	
834	903.0	.2	7.0	--	85.7	--	
835	903.7	.2	6.8	1.0	75.4	3	
836	904.1	.3	8.2	10.7	72.0	68	
837	904.5	.4	8.6	10.8	62.3	72	
838	905.0	.4	8.7	7.6	65.8	51	
839	905.5	.4	7.6	6.6	70.3	39	
840	906.0	.2	7.0	--	75.8	--	
841	906.5	.6	7.6	4.5	78.8	27	
842	907.0	.3	7.0	--	82.1	--	
843	907.5	.2	6.2	1.0	88.5	3	
844	908.0	.2	6.0	--	85.6	1	
845	908.5	.9	8.0	3.6	83.3	22	
846	909.0	.1	6.0	1.2	91.1	5	
847	909.5	.6	9.0	14.4	66.3	97	
848	910.0	1.0	9.0	9.1	65.5	65	
849	910.5	.5	8.3	8.7	68.4	56	
850	911.0	.8	9.7	10.0	58.0	75	
851	911.5	.6	9.7	10.1	59.9	76	
852	912.0	.5	9.0	10.9	60.4	77	
853	912.5	.4	8.2	1.0	74.3	4	
854	912.9	.2	7.2	--	85.4	--	
855	913.5	.5	9.0	9.2	64.7	64	
856	914.1	.7	9.3	13.7	57.8	99	
857	914.5	.3	7.7	--	82.0	--	
858	915.0	.4	8.4	13.1	63.8	86	
859	915.5	.4	7.8	13.6	69.6	83	
860	916.0	1.1	8.9	20.4	60.2	--	
861	916.5	.8	9.2	19.9	59.3	--	
862	917.0	.9	8.8	22.0	59.5	--	
863	917.5	1.7	9.5	19.0	54.6	--	
864	918.0	1.4	9.8	17.4	53.4	--	
865	918.5	1.3	8.8	24.1	59.1	--	
866	919.0	2.9	10.3	18.7	48.8	--	
867	919.5	1.3	9.8	17.3	57.5	--	
868	920.0	3.2	10.7	20.5	46.1	--	
869	920.5	3.4	10.2	21.4	51.2	--	
870	921.0	1.6	9.3	21.1	58.7	--	
871	921.5	1.8	10.7	18.8	55.8	--	
872	922.0	7.1	11.8	21.1	42.2	--	
873	922.4	4.8	10.7	20.6	47.2	--	
AVERAGE		1.0	8.3	8.1	67.0	58.7	

1/ Core water salinity determined by leaching crushed core sample with distilled water, measuring water resistivity, and converting to equivalent NaCl concentration.

2/ - indicates "less than."

7-6-62