ENSECO Directional Drilling

JOB NO.:	10557-159	**FIELD:**	Powder Wash
Company:	Wexpro Company	**Township:**	11 N
LOCATION:		**Range**	97 W
RIG NAME:	SST-88		
STATE:	Colorado		
COUNTY:	Country		
WELL NAME:	Musser # 34		

MOTOR INFORMATION

Desc: Fixed bend Mud Motor

Bent Hsg/Sub: 1.5 / 0 **Bit to Bend: 7.04**

Pad OD: 6 3/4 **NB Stab:**

Slide Report for BHA # 2

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
2	3-Feb	Drilling	01:00	01:10	0.17	1547	1565	18	10	108.0	50	0	346	1300		0.00	0.00	0.00	
2	3-Feb	Drilling	01:30	02:30	1.00	1565	1641	76	10	76.0	50	0	346	1300		0.00	0.00	0.00	
2	3-Feb	Sliding	02:40	02:50	0.17	1641	1656	15	10	90.0	0	0	346	1300	360	0.00	0.00	0.00	
2	3-Feb	Drilling	02:50	03:00	0.17	1656	1672	16	10	96.0	50	0	346	1300		0.00	0.00	0.00	
2	3-Feb	Sliding	03:10	03:20	0.17	1672	1684	12	10	72.0	0	0	346	1300	340	0.00	0.00	0.00	
2	3-Feb	Drilling	03:20	03:30	0.17	1684	1704	20	10	120.0	50	0	346	1300		0.00	0.00	0.00	
2	3-Feb	Drilling	03:45	03:55	0.17	1704	1736	32	10	192.0	50	0	346	1300		0.00	0.00	0.00	
2	3-Feb	Drilling	04:15	04:55	0.67	1736	1799	63	10	94.5	50	0	346	1300		0.00	0.00	0.00	
2	3-Feb	Sliding	05:05	05:10	0.08	1799	1807	8	10	96.0	50	0	346	1300	-90	0.00	0.00	0.00	
2	3-Feb	Drilling	05:10	06:00	0.83	1807	1895	88	10	105.6	50	0	346	1300		0.00	0.00	0.00	
2	3-Feb	Drilling	06:15	07:20	1.08	1895	1990	95	10	87.7	50	0	346	1300		0.00	0.00	0.00	
2	3-Feb	Drilling	07:35	08:50	1.25	1990	2086	96	10	76.8	50	0	346	1300		0.00	0.00	0.00	
2	3-Feb	Sliding	09:10	09:15	0.08	2086	2094	8	10	96.0	0	0	346	1300	45	0.00	0.00	0.00	
2	3-Feb	Drilling	09:15	09:30	0.25	2094	2118	24	10	96.0	50	0	346	1300		0.00	0.00	0.00	
2	3-Feb	Drilling	10:00	10:40	0.67	2118	2181	63	10	94.5	50	0	346	1300		0.00	0.00	0.00	
2	3-Feb	Drilling	10:55	12:00	1.08	2181	2276	95	10	87.7	50	0	346	1300		0.00	0.00	0.00	
2	3-Feb	Drilling	12:10	13:40	1.50	2276	2372	96	12	64.0	50	0	346	1350		0.00	0.00	0.00	
2	3-Feb	Drilling	13:50	15:00	1.17	2372	2467	95	12	81.4	50	0	346	1350		0.00	0.00	0.00	
2	3-Feb	Sliding	15:15	15:20	0.08	2467	2474	7	10	84.0	0	0	346	1350	-90	0.00	0.00	0.00	
2	3-Feb	Drilling	15:20	16:35	1.25	2474	2563	89	12	71.2	50	0	346	1350		0.00	0.00	0.00	
2	3-Feb	Drilling	17:00	18:20	1.33	2563	2658	95	12	71.3	50	0	346	1350		0.00	0.00	0.00	
2	3-Feb	Drilling	18:35	20:00	1.42	2658	2753	95	12	67.1	50	0	346	1350		0.00	0.00	0.00	
2	3-Feb	Drilling	20:10	21:05	0.92	2753	2849	96	12	104.7	50	0	346	1350		0.00	0.00	0.00	
2	3-Feb	Drilling	21:15	22:40	1.42	2849	2944	95	12	67.1	50	0	346	1350		0.00	0.00	0.00	
2	3-Feb	Drilling	22:50	24:00	1.17	2944	3039	95	12	81.4	50	0	346	1350		0.00	0.00	0.00	
2	4-Feb	Drilling	00:15	01:35	1.33	3039	3135	96	12	72.0	50	0	346	1350		0.00	0.00	0.00	
2	4-Feb	Sliding	01:45	01:55	0.17	3135	3141	6	10	36.0	0	0	346	1350	90	0.00	0.00	0.00	

Slide Report for BHA # 2

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
2	4-Feb	Drilling	01:55	02:15	0.33	3141	3230	89	12	267.0	50	0	346	1350		0.00	0.00	0.00	
2	4-Feb	Sliding	02:25	02:35	0.17	3230	3236	6	10	36.0	0	0	346	1350	45	0.00	0.00	0.00	
2	4-Feb	Drilling	02:35	04:55	2.33	3236	3325	89	12	38.1	50	0	346	1350		0.00	0.00	0.00	
2	4-Feb	Drilling	05:05	06:15	1.17	3325	3421	96	12	82.3	50	0	346	1350		0.00	0.00	0.00	
2	4-Feb	Drilling	06:35	08:25	1.83	3421	3516	95	12	51.8	50	0	346	1350		0.00	0.00	0.00	
2	4-Feb	Drilling	08:35	10:15	1.67	3516	3612	96	12	57.6	50	0	346	1550		0.00	0.00	0.00	
2	4-Feb	Drilling	10:30	12:05	1.58	3612	3707	95	12	60.0	50	0	346	1550		0.00	0.00	0.00	
2	4-Feb	Drilling	12:15	14:00	1.75	3707	3802	95	12	54.3	50	0	346	1550		0.00	0.00	0.00	
2	4-Feb	Drilling	14:15	14:40	0.42	3802	3833	31	12	74.4	50	0	346	1550		0.00	0.00	0.00	
2	4-Feb	Drilling	15:15	16:35	1.33	3833	3897	64	12	48.0	50	0	346	1550		0.00	0.00	0.00	
2	4-Feb	Drilling	16:45	19:00	2.25	3897	3992	95	12	42.2	50	0	346	1550		0.00	0.00	0.00	
2	4-Feb	Drilling	19:20	21:15	1.92	3992	4087	95	12	49.6	50	0	346	1550		0.00	0.00	0.00	
2	4-Feb	Drilling	21:25	23:15	1.83	4087	4183	96	12	52.4	50	0	346	1550		0.00	0.00	0.00	
2	4-Feb	Drilling	23:25	24:00	0.58	4183	4215	32	12	54.9	50	0	346	1550		0.00	0.00	0.00	
2	5-Feb	Drilling	00:00	01:05	1.08	4215	4278	63	12	58.2	50	0	346	2050		0.00	0.00	0.00	
2	5-Feb	Drilling	01:15	03:10	1.92	4278	4374	96	12	50.1	50	0	346	2050		0.00	0.00	0.00	
2	5-Feb	Sliding	03:20	03:40	0.33	4374	4384	10	10	30.0	0	0	346	2050	-160	0.00	0.00	0.00	
2	5-Feb	Drilling	03:40	05:10	1.50	4384	4437	53	12	35.3	50	0	346	2050		0.00	0.00	0.00	
2	5-Feb	Drilling	05:20	07:50	2.50	4437	4565	128	12	51.2	50	0	346	2050		0.00	0.00	0.00	
2	5-Feb	Sliding	08:05	08:15	0.17	4565	4575	10	14	60.0	0	0	346	2050	180	0.00	0.00	0.00	
2	5-Feb	Drilling	08:15	09:50	1.58	4575	4660	85	12	53.7	50	0	346	2050		0.00	0.00	0.00	
2	5-Feb	Sliding	10:05	10:30	0.42	4660	4672	12	14	28.8	0	0	346	2050	180	0.00	0.00	0.00	
2	5-Feb	Drilling	10:30	12:30	2.00	4672	4755	83	12	41.5	50	0	346	2050		0.00	0.00	0.00	
2	5-Feb	Sliding	12:45	13:00	0.25	4755	4766	11	14	44.0	0	0	346	2050	180	0.00	0.00	0.00	
2	5-Feb	Drilling	13:00	14:45	1.75	4766	4851	85	12	48.6	50	0	346	2050		0.00	0.00	0.00	
2	5-Feb	Sliding	15:00	15:15	0.25	4851	4867	16	14	64.0	0	0	346	2050	180	0.00	0.00	0.00	
2	5-Feb	Drilling	15:15	15:30	0.25	4867	4883	16	12	64.0	50	0	346	2050		0.00	0.00	0.00	
2	5-Feb	Drilling	15:45	16:50	1.08	4883	4946	63	12	58.2	50	0	346	2050		0.00	0.00	0.00	
2	5-Feb	Sliding	17:05	17:25	0.33	4946	4966	20	14	60.0	0	0	346	2050	180	0.00	0.00	0.00	
2	5-Feb	Drilling	17:25	19:00	1.58	4966	5042	76	12	48.0	50	0	346	2050		0.00	0.00	0.00	
2	5-Feb	Sliding	19:10	19:30	0.33	5042	5056	14	14	42.0	0	0	346	2050	180	0.00	0.00	0.00	
2	5-Feb	Drilling	19:30	21:00	1.50	5056	5137	81	12	54.0	50	0	346	2050		0.00	0.00	0.00	
2	5-Feb	Sliding	21:10	21:25	0.25	5137	5151	14	14	56.0	0	0	346	2050	180	0.00	0.00	0.00	
2	5-Feb	Drilling	21:25	23:05	1.67	5151	5233	82	12	49.2	50	0	346	2050		0.00	0.00	0.00	
2	5-Feb	Sliding	23:15	23:30	0.25	5233	5249	16	14	64.0	0	0	346	2050	-100	0.00	0.00	0.00	

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#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
2	5-Feb	Drilling	23:30	24:00	0.50	5249	5266	17	12	34.0	50	0	346	2050		0.00	0.00	0.00	
2	6-Feb	Drilling	00:00	01:00	1.00	5266	5328	62	12	62.0	50	0	346	2050		0.00	0.00	0.00	
2	6-Feb	Sliding	01:10	01:35	0.42	5328	5344	16	14	38.4	0	0	346	2050	-100	0.00	0.00	0.00	
2	6-Feb	Drilling	01:35	02:45	1.17	5344	5423	79	12	67.7	50	0	346	2050		0.00	0.00	0.00	
2	6-Feb	Drilling	02:55	04:20	1.42	5423	5519	96	12	67.8	50	0	346	2050		0.00	0.00	0.00	
2	6-Feb	Drilling	04:30	06:45	2.25	5519	5614	95	12	42.2	50	0	346	2050		0.00	0.00	0.00	
2	6-Feb	Drilling	06:55	08:35	1.67	5614	5710	96	12	57.6	50	0	346	2050		0.00	0.00	0.00	
2	6-Feb	Drilling	08:50	11:00	2.17	5710	5805	95	12	43.8	50	0	346	2050		0.00	0.00	0.00	
2	6-Feb	Drilling	11:10	13:50	2.67	5805	5900	95	12	35.6	50	0	346	2050		0.00	0.00	0.00	
2	6-Feb	Drilling	14:25	16:50	2.42	5900	5996	96	12	39.7	50	0	346	2050		0.00	0.00	0.00	
2	6-Feb	Drilling	17:10	19:10	2.00	5996	6091	95	12	47.5	50	0	346	2050		0.00	0.00	0.00	
2	6-Feb	Drilling	19:20	20:55	1.58	6091	6186	95	12	60.0	50	0	346	2050		0.00	0.00	0.00	
2	6-Feb	Drilling	21:10	23:00	1.83	6186	6281	95	12	51.8	50	0	346	2050		0.00	0.00	0.00	
2	6-Feb	Drilling	23:20	24:00	0.67	6281	6305	24	12	36.0	50	0	346	2050		0.00	0.00	0.00	
2	7-Feb	Drilling	00:00	01:45	1.75	6305	6377	72	12	41.1	50	0	346	2050		0.00	0.00	0.00	
2	7-Feb	Drilling	01:55	03:40	1.75	6377	6472	95	12	54.3	50	0	346	2050		0.00	0.00	0.00	
2	7-Feb	Drilling	03:50	06:00	2.17	6472	6567	95	12	43.8	50	0	346	2050		0.00	0.00	0.00	
2	7-Feb	Drilling	06:25	07:00	0.58	6567	6599	32	12	54.9	50	0	346	2050		0.00	0.00	0.00	
2	7-Feb	Drilling	07:30	08:00	0.50	6599	6631	32	12	64.0	50	0	346	2050		0.00	0.00	0.00	
2	7-Feb	Drilling	08:15	10:05	1.83	6631	6695	64	12	34.9	50	0	346	2050		0.00	0.00	0.00	
2	7-Feb	Drilling	10:20	11:45	1.42	6695	6742	47	12	33.2	50	0	346	2050		0.00	0.00	0.00	
2	7-Feb	Drilling	15:45	16:40	0.92	6742	6758	16	12	17.5	50	0	346	2050		0.00	0.00	0.00	

Total Drilled:	5211	**Avg. Total ROP:**	55.98	**DEPTH% - TIME %**	
Total Rotary Drilled:	5010	**Avg. Rotary ROP:**	56.19	**Percent Rotary:**	96.14 - 95.79
Total Drilled Sliding:	201	**Avg. Slide ROP:**	51.32	**Percent Slide:**	3.86 - 4.21