ENSECO Directional Drilling

SDI Job #:	11255-159	FIELD:	Jacks Draw
COMPANY:	Wexpro Company	Sec-Twn-Rng:	
LOCATION:	Moffat Co., Colorado	SD District	
RIG NAME:	SST 88		
STATE:	Colorado		
COUNTY:	Country		
WELL NAME:	Jacks Draw Unit # 20		

MOTOR INFORMATION

Desc: 8 inch Adj Motor

Bent Hsg/Sub: 2.1 / 0 Bit to Bend: 8.6

PAD OD: 8.25 NB Stab:

Slide Report for BHA # 1

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
1	18-Oct	Drilling	03:00	03:15	0.25	110	140	30	10	120.0	45	0	307	500		0.00	0.00	0.00	
1	18-Oct	Drilling	04:15	04:50	0.58	140	232	92	10	157.7	45	0	328	650		0.00	0.00	0.00	
1	18-Oct	Drilling	05:05	05:30	0.42	232	322	90	10	216.0	45	0	328	650		0.00	0.00	0.00	
1	18-Oct	Sliding	05:45	05:50	0.08	322	347	25	10	300.0	45	0	328	1500		0.00	0.00	0.00	
1	18-Oct	Drilling	05:50	06:15	0.42	347	414	67	10	160.8	45	0	328	1500		0.00	0.00	0.00	
1	18-Oct	Sliding	06:35	06:45	0.17	414	420	6	10	36.0	45	0	328	1500	140	0.00	0.00	0.00	
1	18-Oct	Drilling	06:45	07:05	0.33	420	505	85	10	255.0	45	0	328	1500		0.00	0.00	0.00	
1	18-Oct	Sliding	07:20	07:25	0.08	505	511	6	10	72.0	45	0	328	1500	140	0.00	0.00	0.00	
1	18-Oct	Drilling	07:25	07:50	0.42	511	596	85	10	204.0	45	0	328	1500		0.00	0.00	0.00	
1	18-Oct	Sliding	08:10	08:20	0.17	596	602	6	10	36.0	45	0	328	1500	45R	0.00	0.00	0.00	
1	18-Oct	Drilling	08:20	08:50	0.50	602	688	86	10	172.0	45	0	328	1800		0.00	0.00	0.00	
1	18-Oct	Sliding	09:05	09:20	0.25	688	700	12	10	48.0	45	0	328	1800	45R	0.00	0.00	0.00	
1	18-Oct	Drilling	09:20	09:40	0.33	700	779	79	10	237.0	45	0	328	1800		0.00	0.00	0.00	
1	18-Oct	Drilling	09:50	10:10	0.33	779	870	91	10	273.0	45	0	328	1800		0.00	0.00	0.00	
1	18-Oct	Sliding	10:20	10:30	0.17	870	887	17	10	102.0	45	0	328	1800	5L	0.00	0.00	0.00	
1	18-Oct	Drilling	10:30	10:50	0.33	887	966	79	10	237.0	45	0	328	1800		0.00	0.00	0.00	
1	18-Oct	Sliding	11:00	11:20	0.33	966	988	22	10	66.0	45	0	328	1800	30L	0.00	0.00	0.00	
1	18-Oct	Drilling	11:20	11:30	0.17	988	1001	13	10	78.0	45	0	328	1800		0.00	0.00	0.00	
1	18-Oct	Drilling	13:00	13:20	0.33	1001	1161	160	10	480.0	45	0	328	1800		0.00	0.00	0.00	
1	18-Oct	Sliding	13:30	13:45	0.25	1161	1089	-72	10	-288.0	45	0	328	1800	30L	0.00	0.00	0.00	
1	18-Oct	Drilling	13:45	14:00	0.25	1089	1157	68	10	272.0	45	0	328	1800		0.00	0.00	0.00	
1	18-Oct	Sliding	14:10	14:40	0.50	1157	1197	40	10	80.0	45	0	328	1800	10R	0.00	0.00	0.00	
1	18-Oct	Drilling	14:40	14:55	0.25	1197	1252	55	10	220.0	45	0	328	1800		0.00	0.00	0.00	
1	18-Oct	Sliding	15:05	15:15	0.17	1252	1272	20	10	120.0	45	0	328	2100	20R	0.00	0.00	0.00	
1	18-Oct	Drilling	15:15	15:35	0.33	1272	1347	75	10	225.0	45	0	328	2100		0.00	0.00	0.00	
1	18-Oct	Sliding	15:45	16:15	0.50	1347	1387	40	10	80.0	45	0	328	2100	20R	0.00	0.00	0.00	
1	18-Oct	Drilling	16:15	16:30	0.25	1387	1443	56	10	224.0	45	0	328	2100		0.00	0.00	0.00	

Slide Report for BHA # 1

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
1	18-Oct	Sliding	16:40	17:00	0.33	1443	1468	25	10	75.0	45	0	656	2100	20R	0.00	0.00	0.00	
1	18-Oct	Drilling	17:00	17:30	0.50	1468	1535	67	15	134.0	45	0	656	2100		0.00	0.00	0.00	

Total Drilled:	1425	Avg. Total ROP:	158.33		DEPTH% - TIME %
Total Rotary Drilled:	1278	Avg. Rotary ROP:	213.00	Percent Rotary:	89.68 - 66.67
Total Drilled Sliding:	147	Avg. Slide ROP:	49.00	Percent Slide:	10.32 - 33.33

ENSECO Directional Drilling

SDI Job #:	11255-159	FIELD:	Jacks Draw
COMPANY:	Wexpro Company	Sec-Twn-Rng:	Sec 28-T12N-R97W
LOCATION:	Moffat Co., Colorado	SD District	
RIG NAME:	SST 88		
STATE:	Colorado		
COUNTY:	Country		
WELL NAME:	Jacks Draw Unit # 20		

MOTOR INFORMATION

Desc: 6 1/2 inch Adj. Motor

Bent Hsg/Sub: 1.83 / 0 Bit to Bend: 5.96

PAD OD: 6.75 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	20-Oct	Drilling	11:15	11:35	0.33	1535	1555	20	15	60.0	35	0	328	1050		0.00	0.00	0.00	
2	20-Oct	Drilling	12:00	12:25	0.42	1555	1587	32	20	76.8	35	0	369	1275		0.00	0.00	0.00	
2	20-Oct	Sliding	13:20	13:25	0.08	1587	1597	10	20	120.0	0	0	369	1275	20R	0.00	0.00	0.00	
2	20-Oct	Drilling	13:25	14:25	1.00	1597	1682	85	20	85.0	35	0	369	1275		0.00	0.00	0.00	
2	20-Oct	Drilling	14:35	15:45	1.17	1682	1777	95	20	81.4	45	0	389	1400		0.00	0.00	0.00	
2	20-Oct	Sliding	15:55	16:05	0.17	1777	1786	9	20	54.0	0	0	389	1400	-60	0.00	0.00	0.00	
2	20-Oct	Drilling	16:05	17:30	1.42	1786	1873	87	20	61.4	45	0	389	1400		0.00	0.00	0.00	
2	20-Oct	Sliding	17:40	17:45	0.08	1873	1878	5	20	60.0	45	0	389	1400	-60	0.00	0.00	0.00	
2	20-Oct	Drilling	17:45	19:15	1.50	1878	1968	90	20	60.0	45	0	389	1400		0.00	0.00	0.00	
2	20-Oct	Drilling	19:25	19:55	0.50	1968	1994	26	20	52.0	45	0	389	1400		0.00	0.00	0.00	
2	20-Oct	Drilling	20:05	21:20	1.25	1994	2064	70	20	56.0	45	0	389	1400		0.00	0.00	0.00	
2	20-Oct	Sliding	21:45	22:05	0.33	2064	2072	8	20	24.0	45	0	389	1400	100L	0.00	0.00	0.00	
2	20-Oct	Drilling	22:05	23:25	1.33	2072	2159	87	20	65.3	45	0	389	1400		0.00	0.00	0.00	
2	20-Oct	Sliding	23:35	24:00	0.42	2159	2171	12	20	28.8	45	0	389	1400	120L	0.00	0.00	0.00	
2	21-Oct	Drilling	00:00	01:40	1.67	2171	2255	84	20	50.4	45	0	389	1400		0.00	0.00	0.00	
2	21-Oct	Sliding	01:50	02:10	0.33	2255	2270	15	20	45.0	45	0	389	1400	120L	0.00	0.00	0.00	
2	21-Oct	Drilling	02:10	03:25	1.25	2270	2350	80	20	64.0	45	0	389	1400		0.00	0.00	0.00	
2	21-Oct	Drilling	03:35	06:50	3.25	2350	2445	95	20	29.2	45	0	389	1400		0.00	0.00	0.00	

Total Drilled:	910	Avg. Total ROP:	52.75		DEPTH% - TIME %
Total Rotary Drilled:	851	Avg. Rotary ROP:	53.75	Percent Rotary:	93.52 - 91.79
Total Drilled Sliding:	59	Avg. Slide ROP:	41.65	Percent Slide:	6.48 - 8.21

ENSECO Directional Drilling

SDI Job #:	11255-159
COMPANY:	Wexpro Company
LOCATION:	Moffat Co., Colorado
RIG NAME:	SST 88
STATE:	Colorado
COUNTY:	Country
WELL NAME:	Jacks Draw Unit # 20

FIELD:	Jacks Draw
Sec-Twn-Rng:	Sec 28-T12N-R97W
SD District	

MOTOR INFORMATION

Desc: 6 1/2 inch Adj Motor

Bent Hsg/Sub: 1.83 / 0 Bit to Bend: 5.96

PAD OD: 6.75 NB Stab:

Slide Report for BHA # 3

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
3	21-Oct	Sliding	11:35	11:40	0.08	2445	2453	8	20	96.0	0	0	389	1400	-30	0.00	0.00	0.00	
3	21-Oct	Drilling	11:40	12:35	0.92	2453	2541	88	12	96.0	60	0	389	1400		0.00	0.00	0.00	
3	21-Oct	Drilling	12:45	13:40	0.92	2541	2636	95	12	103.6	60	0	389	1400		0.00	0.00	0.00	
3	21-Oct	Drilling	13:50	14:30	0.67	2636	2731	95	12	142.5	60	0	389	1400		0.00	0.00	0.00	
3	21-Oct	Sliding	14:40	14:45	0.08	2731	2738	7	20	84.0	0	0	389	1400	40R	0.00	0.00	0.00	
3	21-Oct	Drilling	14:45	15:40	0.92	2738	2827	89	12	97.1	60	0	389	1400		0.00	0.00	0.00	
3	21-Oct	Drilling	15:50	16:40	0.83	2827	2922	95	12	114.0	60	0	389	1400		0.00	0.00	0.00	
3	21-Oct	Drilling	16:50	17:35	0.75	2922	3018	96	12	128.0	60	0	389	1400		0.00	0.00	0.00	
3	21-Oct	Sliding	17:45	18:10	0.42	3018	3025	7	20	16.8	60	0	389	1400	60R	0.00	0.00	0.00	
3	21-Oct	Drilling	18:10	18:50	0.67	3025	3113	88	12	132.0	60	0	389	1400		0.00	0.00	0.00	
3	21-Oct	Drilling	19:00	20:10	1.17	3113	3208	95	12	81.4	60	0	389	1400		0.00	0.00	0.00	
3	21-Oct	Sliding	20:20	20:40	0.33	3208	3220	12	20	36.0	60	0	389	1400	45R	0.00	0.00	0.00	
3	21-Oct	Drilling	20:40	21:35	0.92	3220	3304	84	12	91.6	60	0	389	1400		0.00	0.00	0.00	
3	21-Oct	Sliding	21:45	22:00	0.25	3304	3314	10	20	40.0	60	0	389	1400	70R	0.00	0.00	0.00	
3	21-Oct	Drilling	22:00	22:50	0.83	3314	3400	86	12	103.2	60	0	389	1400		0.00	0.00	0.00	
3	21-Oct	Sliding	23:00	23:25	0.42	3400	3415	15	20	36.0	60	0	389	1400	50R	0.00	0.00	0.00	
3	21-Oct	Drilling	23:25	24:00	0.58	3415	3472	57	12	97.7	60	0	389	1400		0.00	0.00	0.00	
3	22-Oct	Drilling	00:00	00:20	0.33	3472	3495	23	12	69.0	60	0	389	1400		0.00	0.00	0.00	
3	22-Oct	Drilling	00:30	01:25	0.92	3495	3591	96	12	104.7	60	0	389	1400		0.00	0.00	0.00	
3	22-Oct	Drilling	01:35	02:45	1.17	3591	3686	95	12	81.4	60	0	389	1400		0.00	0.00	0.00	
3	22-Oct	Drilling	03:55	04:10	0.25	3686	3781	95	12	380.0	60	0	389	1400		0.00	0.00	0.00	
3	22-Oct	Sliding	04:20	04:40	0.33	3781	3788	7	20	21.0	60	0	389	1400	60L	0.00	0.00	0.00	
3	22-Oct	Drilling	04:40	05:35	0.92	3788	3877	89	12	97.1	60	0	389	1400		0.00	0.00	0.00	
3	22-Oct	Sliding	05:45	06:05	0.33	3877	3885	8	20	24.0	0	0	389	1400	70L	0.00	0.00	0.00	
3	22-Oct	Drilling	06:05	07:00	0.92	3885	3972	87	12	94.9	60	0	389	1400		0.00	0.00	0.00	
3	22-Oct	Drilling	07:10	08:30	1.33	3972	4068	96	12	72.0	60	0	389	1400		0.00	0.00	0.00	
3	22-Oct	Sliding	08:55	09:10	0.25	4068	4078	10	20	40.0	0	0	389	1400	-45	0.00	0.00	0.00	

Slide Report for BHA # 3

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
3	22-Oct	Drilling	09:10	10:05	0.92	4078	4163	85	12	92.7	60	0	389	1400		0.00	0.00	0.00	
3	22-Oct	Sliding	10:20	10:30	0.17	4163	4173	10	20	60.0	0	0	389	1400	-90	0.00	0.00	0.00	
3	22-Oct	Drilling	10:30	11:25	0.92	4173	4259	86	12	93.8	60	0	348	1525		0.00	0.00	0.00	
3	22-Oct	Sliding	11:40	11:55	0.25	4259	4269	10	20	40.0	0	0	348	1525	-65	0.00	0.00	0.00	
3	22-Oct	Drilling	11:55	12:45	0.83	4269	4354	85	12	102.0	60	0	348	1525		0.00	0.00	0.00	
3	22-Oct	Sliding	13:00	13:10	0.17	4354	4364	10	20	60.0	0	0	348	1525	-90	0.00	0.00	0.00	
3	22-Oct	Drilling	13:10	14:15	1.08	4364	4450	86	12	79.4	60	0	348	1525		0.00	0.00	0.00	
3	22-Oct	Drilling	14:25	15:35	1.17	4450	4545	95	12	81.4	60	0	348	1525		0.00	0.00	0.00	
3	22-Oct	Sliding	16:20	16:25	0.08	4545	4552	7	20	84.0	0	0	348	1525	140	0.00	0.00	0.00	
3	22-Oct	Drilling	16:25	17:15	0.83	4552	4640	88	12	105.6	60	0	348	1525		0.00	0.00	0.00	
3	22-Oct	Sliding	17:25	17:35	0.17	4640	4650	10	20	60.0	0	0	348	1525	140	0.00	0.00	0.00	
3	22-Oct	Drilling	17:35	18:15	0.67	4650	4736	86	12	129.0	60	0	348	1525		0.00	0.00	0.00	
3	22-Oct	Sliding	18:20	19:05	0.75	4736	4746	10	12	13.3	60	0	348	1525		0.00	0.00	0.00	
3	22-Oct	Drilling	19:05	20:15	1.17	4746	4831	85	12	72.9	60	0	348	1525		0.00	0.00	0.00	
3	22-Oct	Sliding	20:30	20:55	0.42	4831	4841	10	12	24.0	60	0	348	1525	160R	0.00	0.00	0.00	
3	22-Oct	Drilling	20:55	22:10	1.25	4841	4926	85	12	68.0	60	0	348	1525		0.00	0.00	0.00	
3	22-Oct	Sliding	22:20	22:50	0.50	4926	4936	10	12	20.0	60	0	348	1525	180	0.00	0.00	0.00	
3	22-Oct	Drilling	22:50	23:50	1.00	4936	5021	85	12	85.0	60	0	348	1525		0.00	0.00	0.00	
3	23-Oct	Sliding	00:00	00:25	0.42	5021	5033	12	12	28.8	60	0	348	1525	160L	0.00	0.00	0.00	
3	23-Oct	Drilling	00:25	01:35	1.17	5033	5117	84	12	72.0	60	0	348	1525		0.00	0.00	0.00	
3	23-Oct	Sliding	01:45	02:20	0.58	5117	5128	11	12	18.9	60	0	348	1525	160R	0.00	0.00	0.00	
3	23-Oct	Drilling	02:20	02:50	0.50	5128	5212	84	12	168.0	60	0	348	1525		0.00	0.00	0.00	
3	23-Oct	Sliding	04:20	04:40	0.33	5212	5224	12	12	36.0	60	0	348	1525	160R	0.00	0.00	0.00	
3	23-Oct	Drilling	04:50	06:25	1.58	5224	5308	84	12	53.1	60	0	348	1525		0.00	0.00	0.00	
3	23-Oct	Sliding	06:40	06:55	0.25	5308	5315	7	12	28.0	0	0	348	1775	170	0.00	0.00	0.00	
3	23-Oct	Drilling	06:55	07:50	0.92	5315	5403	88	12	96.0	60	0	348	1775		0.00	0.00	0.00	
3	23-Oct	Drilling	08:00	09:20	1.33	5403	5498	95	12	71.3	60	0	348	1775		0.00	0.00	0.00	
3	23-Oct	Drilling	09:30	10:20	0.83	5498	5592	94	12	112.8	60	0	348	1775		0.00	0.00	0.00	
3	23-Oct	Drilling	10:30	11:10	0.67	5592	5687	95	12	142.5	60	0	348	1775		0.00	0.00	0.00	
3	23-Oct	Drilling	11:20	12:15	0.92	5687	5782	95	12	103.6	60	0	348	1775		0.00	0.00	0.00	
3	23-Oct	Drilling	12:25	13:30	1.08	5782	5878	96	12	88.6	60	0	348	1775		0.00	0.00	0.00	
3	23-Oct	Drilling	13:40	15:20	1.67	5878	5973	95	12	57.0	60	0	348	1775		0.00	0.00	0.00	
3	23-Oct	Sliding	15:30	15:55	0.42	5973	5983	10	12	24.0	0	0	348	1775	-170	0.00	0.00	0.00	
3	23-Oct	Drilling	15:55	17:10	1.25	5983	6069	86	12	68.8	60	0	348	1775		0.00	0.00	0.00	
3	23-Oct	Drilling	17:30	18:35	1.08	6069	6164	95	12	87.7	60	0	348	1775		0.00	0.00	0.00	

Slide Report for BHA # 3

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
3	23-Oct	Sliding	18:45	19:20	0.58	6164	6176	12	12	20.6	60	0	348	1775	315M	0.00	0.00	0.00	
3	23-Oct	Drilling	19:20	20:25	1.08	6176	6260	84	12	77.5	60	0	348	1775		0.00	0.00	0.00	
3	23-Oct	Drilling	20:35	22:05	1.50	6260	6355	95	12	63.3	60	0	348	1775		0.00	0.00	0.00	
3	23-Oct	Drilling	22:15	23:50	1.58	6355	6450	95	12	60.0	60	0	348	1775		0.00	0.00	0.00	
3	24-Oct	Drilling	00:00	01:55	1.92	6450	6546	96	12	50.1	60	0	348	1775		0.00	0.00	0.00	
3	24-Oct	Sliding	02:05	02:35	0.50	6546	6554	8	12	16.0	60	0	348	1775	315M	0.00	0.00	0.00	
3	24-Oct	Drilling	02:35	04:05	1.50	6554	6641	87	12	58.0	60	0	348	1775		0.00	0.00	0.00	
3	24-Oct	Drilling	04:15	05:45	1.50	6641	6737	96	12	64.0	60	0	348	1775		0.00	0.00	0.00	
3	24-Oct	Drilling	05:55	07:35	1.67	6737	6832	95	12	57.0	60	0	348	1775		0.00	0.00	0.00	
3	24-Oct	Drilling	07:45	09:35	1.83	6832	6928	96	12	52.4	60	0	348	1775		0.00	0.00	0.00	
3	24-Oct	Drilling	09:45	11:40	1.92	6928	7023	95	12	49.6	60	0	348	1775		0.00	0.00	0.00	

Total Drilled:	4578	Avg. Total ROP:	75.77		DEPTH% - TIME %
Total Rotary Drilled:	4345	Avg. Rotary ROP:	83.03	Percent Rotary:	94.91 - 86.62
Total Drilled Sliding:	233	Avg. Slide ROP:	28.82	Percent Slide:	5.09 - 13.38

SDI Job #:	11255-159	FIELD:	Jacks Draw
COMPANY:	Wexpro Company	Sec-Twn-Rng:	Sec 28-T12N-R97W
LOCATION:	Moffat Co., Colorado	SD District	
RIG NAME:	SST 88		
STATE:	Colorado		
COUNTY:	Country		/
WELL NAME:	Jacks Draw Unit # 20		

Slide Report for all BHA's

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
1	18-Oct	Drilling	03:00	03:15	0.25	110	140	30	10	120.0	45	0	307	500		0.00	0.00	0.00	
1	18-Oct	Drilling	04:15	04:50	0.58	140	232	92	10	157.7	45	0	328	650		0.00	0.00	0.00	
1	18-Oct	Drilling	05:05	05:30	0.42	232	322	90	10	216.0	45	0	328	650		0.00	0.00	0.00	
1	18-Oct	Sliding	05:45	05:50	0.08	322	347	25	10	300.0	45	0	328	1500		0.00	0.00	0.00	
1	18-Oct	Drilling	05:50	06:15	0.42	347	414	67	10	160.8	45	0	328	1500		0.00	0.00	0.00	
1	18-Oct	Sliding	06:35	06:45	0.17	414	420	6	10	36.0	45	0	328	1500	140	0.00	0.00	0.00	
1	18-Oct	Drilling	06:45	07:05	0.33	420	505	85	10	255.0	45	0	328	1500		0.00	0.00	0.00	
1	18-Oct	Sliding	07:20	07:25	0.08	505	511	6	10	72.0	45	0	328	1500	140	0.00	0.00	0.00	
1	18-Oct	Drilling	07:25	07:50	0.42	511	596	85	10	204.0	45	0	328	1500		0.00	0.00	0.00	
1	18-Oct	Sliding	08:10	08:20	0.17	596	602	6	10	36.0	45	0	328	1500	45R	0.00	0.00	0.00	
1	18-Oct	Drilling	08:20	08:50	0.50	602	688	86	10	172.0	45	0	328	1800		0.00	0.00	0.00	
1	18-Oct	Sliding	09:05	09:20	0.25	688	700	12	10	48.0	45	0	328	1800	45R	0.00	0.00	0.00	
1	18-Oct	Drilling	09:20	09:40	0.33	700	779	79	10	237.0	45	0	328	1800		0.00	0.00	0.00	
1	18-Oct	Drilling	09:50	10:10	0.33	779	870	91	10	273.0	45	0	328	1800		0.00	0.00	0.00	
1	18-Oct	Sliding	10:20	10:30	0.17	870	887	17	10	102.0	45	0	328	1800	5L	0.00	0.00	0.00	
1	18-Oct	Drilling	10:30	10:50	0.33	887	966	79	10	237.0	45	0	328	1800		0.00	0.00	0.00	
1	18-Oct	Sliding	11:00	11:20	0.33	966	988	22	10	66.0	45	0	328	1800	30L	0.00	0.00	0.00	
1	18-Oct	Drilling	11:20	11:30	0.17	988	1001	13	10	78.0	45	0	328	1800		0.00	0.00	0.00	
1	18-Oct	Drilling	13:00	13:20	0.33	1001	1161	160	10	480.0	45	0	328	1800		0.00	0.00	0.00	
1	18-Oct	Sliding	13:30	13:45	0.25	1161	1089	-72	10	-288.0	45	0	328	1800	30L	0.00	0.00	0.00	
1	18-Oct	Drilling	13:45	14:00	0.25	1089	1157	68	10	272.0	45	0	328	1800		0.00	0.00	0.00	
1	18-Oct	Sliding	14:10	14:40	0.50	1157	1197	40	10	80.0	45	0	328	1800	10R	0.00	0.00	0.00	
1	18-Oct	Drilling	14:40	14:55	0.25	1197	1252	55	10	220.0	45	0	328	1800		0.00	0.00	0.00	
1	18-Oct	Sliding	15:05	15:15	0.17	1252	1272	20	10	120.0	45	0	328	2100	20R	0.00	0.00	0.00	
1	18-Oct	Drilling	15:15	15:35	0.33	1272	1347	75	10	225.0	45	0	328	2100		0.00	0.00	0.00	
1	18-Oct	Sliding	15:45	16:15	0.50	1347	1387	40	10	80.0	45	0	328	2100	20R	0.00	0.00	0.00	
1	18-Oct	Drilling	16:15	16:30	0.25	1387	1443	56	10	224.0	45	0	328	2100		0.00	0.00	0.00	

Slide Report for all BHA's

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
1	18-Oct	Sliding	16:40	17:00	0.33	1443	1468	25	10	75.0	45	0	656	2100	20R	0.00	0.00	0.00	
1	18-Oct	Drilling	17:00	17:30	0.50	1468	1535	67	15	134.0	45	0	656	2100		0.00	0.00	0.00	
2	20-Oct	Drilling	11:15	11:35	0.33	1535	1555	20	15	60.0	35	0	328	1050		0.00	0.00	0.00	
2	20-Oct	Drilling	12:00	12:25	0.42	1555	1587	32	20	76.8	35	0	369	1275		0.00	0.00	0.00	
2	20-Oct	Sliding	13:20	13:25	0.08	1587	1597	10	20	120.0	0	0	369	1275	20R	0.00	0.00	0.00	
2	20-Oct	Drilling	13:25	14:25	1.00	1597	1682	85	20	85.0	35	0	369	1275		0.00	0.00	0.00	
2	20-Oct	Drilling	14:35	15:45	1.17	1682	1777	95	20	81.4	45	0	389	1400		0.00	0.00	0.00	
2	20-Oct	Sliding	15:55	16:05	0.17	1777	1786	9	20	54.0	0	0	389	1400	-60	0.00	0.00	0.00	
2	20-Oct	Drilling	16:05	17:30	1.42	1786	1873	87	20	61.4	45	0	389	1400		0.00	0.00	0.00	
2	20-Oct	Sliding	17:40	17:45	0.08	1873	1878	5	20	60.0	45	0	389	1400	-60	0.00	0.00	0.00	
2	20-Oct	Drilling	17:45	19:15	1.50	1878	1968	90	20	60.0	45	0	389	1400		0.00	0.00	0.00	
2	20-Oct	Drilling	19:25	19:55	0.50	1968	1994	26	20	52.0	45	0	389	1400		0.00	0.00	0.00	
2	20-Oct	Drilling	20:05	21:20	1.25	1994	2064	70	20	56.0	45	0	389	1400		0.00	0.00	0.00	
2	20-Oct	Sliding	21:45	22:05	0.33	2064	2072	8	20	24.0	45	0	389	1400	100L	0.00	0.00	0.00	
2	20-Oct	Drilling	22:05	23:25	1.33	2072	2159	87	20	65.3	45	0	389	1400		0.00	0.00	0.00	
2	20-Oct	Sliding	23:35	24:00	0.42	2159	2171	12	20	28.8	45	0	389	1400	120L	0.00	0.00	0.00	
2	21-Oct	Drilling	00:00	01:40	1.67	2171	2255	84	20	50.4	45	0	389	1400		0.00	0.00	0.00	
2	21-Oct	Sliding	01:50	02:10	0.33	2255	2270	15	20	45.0	45	0	389	1400	120L	0.00	0.00	0.00	
2	21-Oct	Drilling	02:10	03:25	1.25	2270	2350	80	20	64.0	45	0	389	1400		0.00	0.00	0.00	
2	21-Oct	Drilling	03:35	06:50	3.25	2350	2445	95	20	29.2	45	0	389	1400		0.00	0.00	0.00	
3	21-Oct	Sliding	11:35	11:40	0.08	2445	2453	8	20	96.0	0	0	389	1400	-30	0.00	0.00	0.00	
3	21-Oct	Drilling	11:40	12:35	0.92	2453	2541	88	12	96.0	60	0	389	1400		0.00	0.00	0.00	
3	21-Oct	Drilling	12:45	13:40	0.92	2541	2636	95	12	103.6	60	0	389	1400		0.00	0.00	0.00	
3	21-Oct	Drilling	13:50	14:30	0.67	2636	2731	95	12	142.5	60	0	389	1400		0.00	0.00	0.00	
3	21-Oct	Sliding	14:40	14:45	0.08	2731	2738	7	20	84.0	0	0	389	1400	40R	0.00	0.00	0.00	
3	21-Oct	Drilling	14:45	15:40	0.92	2738	2827	89	12	97.1	60	0	389	1400		0.00	0.00	0.00	
3	21-Oct	Drilling	15:50	16:40	0.83	2827	2922	95	12	114.0	60	0	389	1400		0.00	0.00	0.00	
3	21-Oct	Drilling	16:50	17:35	0.75	2922	3018	96	12	128.0	60	0	389	1400		0.00	0.00	0.00	
3	21-Oct	Sliding	17:45	18:10	0.42	3018	3025	7	20	16.8	60	0	389	1400	60R	0.00	0.00	0.00	
3	21-Oct	Drilling	18:10	18:50	0.67	3025	3113	88	12	132.0	60	0	389	1400		0.00	0.00	0.00	
3	21-Oct	Drilling	19:00	20:10	1.17	3113	3208	95	12	81.4	60	0	389	1400		0.00	0.00	0.00	
3	21-Oct	Sliding	20:20	20:40	0.33	3208	3220	12	20	36.0	60	0	389	1400	45R	0.00	0.00	0.00	
3	21-Oct	Drilling	20:40	21:35	0.92	3220	3304	84	12	91.6	60	0	389	1400		0.00	0.00	0.00	
3	21-Oct	Sliding	21:45	22:00	0.25	3304	3314	10	20	40.0	60	0	389	1400	70R	0.00	0.00	0.00	
3	21-Oct	Drilling	22:00	22:50	0.83	3314	3400	86	12	103.2	60	0	389	1400		0.00	0.00	0.00	

Slide Report for all BHA's

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
3	21-Oct	Sliding	23:00	23:25	0.42	3400	3415	15	20	36.0	60	0	389	1400	50R	0.00	0.00	0.00	
3	21-Oct	Drilling	23:25	24:00	0.58	3415	3472	57	12	97.7	60	0	389	1400		0.00	0.00	0.00	
3	22-Oct	Drilling	00:00	00:20	0.33	3472	3495	23	12	69.0	60	0	389	1400		0.00	0.00	0.00	
3	22-Oct	Drilling	00:30	01:25	0.92	3495	3591	96	12	104.7	60	0	389	1400		0.00	0.00	0.00	
3	22-Oct	Drilling	01:35	02:45	1.17	3591	3686	95	12	81.4	60	0	389	1400		0.00	0.00	0.00	
3	22-Oct	Drilling	03:55	04:10	0.25	3686	3781	95	12	380.0	60	0	389	1400		0.00	0.00	0.00	
3	22-Oct	Sliding	04:20	04:40	0.33	3781	3788	7	20	21.0	60	0	389	1400	60L	0.00	0.00	0.00	
3	22-Oct	Drilling	04:40	05:35	0.92	3788	3877	89	12	97.1	60	0	389	1400		0.00	0.00	0.00	
3	22-Oct	Sliding	05:45	06:05	0.33	3877	3885	8	20	24.0	0	0	389	1400	70L	0.00	0.00	0.00	
3	22-Oct	Drilling	06:05	07:00	0.92	3885	3972	87	12	94.9	60	0	389	1400		0.00	0.00	0.00	
3	22-Oct	Drilling	07:10	08:30	1.33	3972	4068	96	12	72.0	60	0	389	1400		0.00	0.00	0.00	
3	22-Oct	Sliding	08:55	09:10	0.25	4068	4078	10	20	40.0	0	0	389	1400	-45	0.00	0.00	0.00	
3	22-Oct	Drilling	09:10	10:05	0.92	4078	4163	85	12	92.7	60	0	389	1400		0.00	0.00	0.00	
3	22-Oct	Sliding	10:20	10:30	0.17	4163	4173	10	20	60.0	0	0	389	1400	-90	0.00	0.00	0.00	
3	22-Oct	Drilling	10:30	11:25	0.92	4173	4259	86	12	93.8	60	0	348	1525		0.00	0.00	0.00	
3	22-Oct	Sliding	11:40	11:55	0.25	4259	4269	10	20	40.0	0	0	348	1525	-65	0.00	0.00	0.00	
3	22-Oct	Drilling	11:55	12:45	0.83	4269	4354	85	12	102.0	60	0	348	1525		0.00	0.00	0.00	
3	22-Oct	Sliding	13:00	13:10	0.17	4354	4364	10	20	60.0	0	0	348	1525	-90	0.00	0.00	0.00	
3	22-Oct	Drilling	13:10	14:15	1.08	4364	4450	86	12	79.4	60	0	348	1525		0.00	0.00	0.00	
3	22-Oct	Drilling	14:25	15:35	1.17	4450	4545	95	12	81.4	60	0	348	1525		0.00	0.00	0.00	
3	22-Oct	Sliding	16:20	16:25	0.08	4545	4552	7	20	84.0	0	0	348	1525	140	0.00	0.00	0.00	
3	22-Oct	Drilling	16:25	17:15	0.83	4552	4640	88	12	105.6	60	0	348	1525		0.00	0.00	0.00	
3	22-Oct	Sliding	17:25	17:35	0.17	4640	4650	10	20	60.0	0	0	348	1525	140	0.00	0.00	0.00	
3	22-Oct	Drilling	17:35	18:15	0.67	4650	4736	86	12	129.0	60	0	348	1525		0.00	0.00	0.00	
3	22-Oct	Sliding	18:20	19:05	0.75	4736	4746	10	12	13.3	60	0	348	1525		0.00	0.00	0.00	
3	22-Oct	Drilling	19:05	20:15	1.17	4746	4831	85	12	72.9	60	0	348	1525		0.00	0.00	0.00	
3	22-Oct	Sliding	20:30	20:55	0.42	4831	4841	10	12	24.0	60	0	348	1525	160R	0.00	0.00	0.00	
3	22-Oct	Drilling	20:55	22:10	1.25	4841	4926	85	12	68.0	60	0	348	1525		0.00	0.00	0.00	
3	22-Oct	Sliding	22:20	22:50	0.50	4926	4936	10	12	20.0	60	0	348	1525	180	0.00	0.00	0.00	
3	22-Oct	Drilling	22:50	23:50	1.00	4936	5021	85	12	85.0	60	0	348	1525		0.00	0.00	0.00	
3	23-Oct	Sliding	00:00	00:25	0.42	5021	5033	12	12	28.8	60	0	348	1525	160L	0.00	0.00	0.00	
3	23-Oct	Drilling	00:25	01:35	1.17	5033	5117	84	12	72.0	60	0	348	1525		0.00	0.00	0.00	
3	23-Oct	Sliding	01:45	02:20	0.58	5117	5128	11	12	18.9	60	0	348	1525	160R	0.00	0.00	0.00	
3	23-Oct	Drilling	02:20	02:50	0.50	5128	5212	84	12	168.0	60	0	348	1525		0.00	0.00	0.00	
3	23-Oct	Sliding	04:20	04:40	0.33	5212	5224	12	12	36.0	60	0	348	1525	160R	0.00	0.00	0.00	

Slide Report for all BHA's

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
3	23-Oct	Drilling	04:50	06:25	1.58	5224	5308	84	12	53.1	60	0	348	1525		0.00	0.00	0.00	
3	23-Oct	Sliding	06:40	06:55	0.25	5308	5315	7	12	28.0	0	0	348	1775	170	0.00	0.00	0.00	
3	23-Oct	Drilling	06:55	07:50	0.92	5315	5403	88	12	96.0	60	0	348	1775		0.00	0.00	0.00	
3	23-Oct	Drilling	08:00	09:20	1.33	5403	5498	95	12	71.3	60	0	348	1775		0.00	0.00	0.00	
3	23-Oct	Drilling	09:30	10:20	0.83	5498	5592	94	12	112.8	60	0	348	1775		0.00	0.00	0.00	
3	23-Oct	Drilling	10:30	11:10	0.67	5592	5687	95	12	142.5	60	0	348	1775		0.00	0.00	0.00	
3	23-Oct	Drilling	11:20	12:15	0.92	5687	5782	95	12	103.6	60	0	348	1775		0.00	0.00	0.00	
3	23-Oct	Drilling	12:25	13:30	1.08	5782	5878	96	12	88.6	60	0	348	1775		0.00	0.00	0.00	
3	23-Oct	Drilling	13:40	15:20	1.67	5878	5973	95	12	57.0	60	0	348	1775		0.00	0.00	0.00	
3	23-Oct	Sliding	15:30	15:55	0.42	5973	5983	10	12	24.0	0	0	348	1775	-170	0.00	0.00	0.00	
3	23-Oct	Drilling	15:55	17:10	1.25	5983	6069	86	12	68.8	60	0	348	1775		0.00	0.00	0.00	
3	23-Oct	Drilling	17:30	18:35	1.08	6069	6164	95	12	87.7	60	0	348	1775		0.00	0.00	0.00	
3	23-Oct	Sliding	18:45	19:20	0.58	6164	6176	12	12	20.6	60	0	348	1775	315M	0.00	0.00	0.00	
3	23-Oct	Drilling	19:20	20:25	1.08	6176	6260	84	12	77.5	60	0	348	1775		0.00	0.00	0.00	
3	23-Oct	Drilling	20:35	22:05	1.50	6260	6355	95	12	63.3	60	0	348	1775		0.00	0.00	0.00	
3	23-Oct	Drilling	22:15	23:50	1.58	6355	6450	95	12	60.0	60	0	348	1775		0.00	0.00	0.00	
3	24-Oct	Drilling	00:00	01:55	1.92	6450	6546	96	12	50.1	60	0	348	1775		0.00	0.00	0.00	
3	24-Oct	Sliding	02:05	02:35	0.50	6546	6554	8	12	16.0	60	0	348	1775	315M	0.00	0.00	0.00	
3	24-Oct	Drilling	02:35	04:05	1.50	6554	6641	87	12	58.0	60	0	348	1775		0.00	0.00	0.00	
3	24-Oct	Drilling	04:15	05:45	1.50	6641	6737	96	12	64.0	60	0	348	1775		0.00	0.00	0.00	
3	24-Oct	Drilling	05:55	07:35	1.67	6737	6832	95	12	57.0	60	0	348	1775		0.00	0.00	0.00	
3	24-Oct	Drilling	07:45	09:35	1.83	6832	6928	96	12	52.4	60	0	348	1775		0.00	0.00	0.00	
3	24-Oct	Drilling	09:45	11:40	1.92	6928	7023	95	12	49.6	60	0	348	1775		0.00	0.00	0.00	

Total Drilled:	6913	Avg. Total ROP:	79.77		DEPTH% - TIME %
Total Rotary Drilled:	6474	Avg. Rotary ROP:	87.29	Percent Rotary:	93.65 - 85.58
Total Drilled Sliding:	439	Avg. Slide ROP:	35.12	Percent Slide:	6.35 - 14.42