

OPERATOR
WELL/LEASE
COUNTY

MEWBOURNE OIL COMPANY
WEST DRAW 5 NC 1H
EDDY

RECEIVED

SEP 25 2012

NMOCD ARTESIA

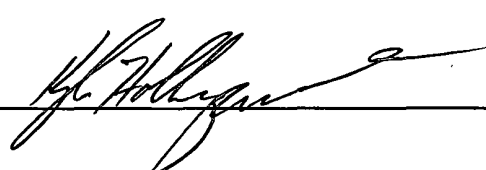
STATE OF NEW MEXICO
DEVIATION REPORT

30-015-40290

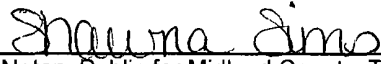
248	1.15
687	0.51
1,000	1.45
1,300	1.07
1,675	1.10

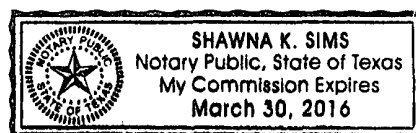
STATE OF TEXAS

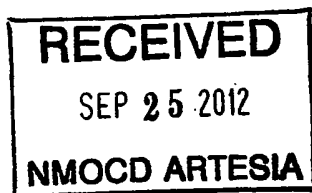
COUNTY OF MIDLAND

BY: 

The foregoing instrument was acknowledged before me on 8/20/12, by
Kyle Hollingsworth on behalf of Patterson-UTi Drilling Company LLC.


Notary Public for Midland County, Texas
My Commission Expires:





Company: Mewbourne Oil Company

Lease/Well: West Draw 5 NC / No. 001

Location: SEC8 T20S R25E

Rig Name: Patterson UTI #101

State/County: New Mexico / Eddy

Latitude: 32.60

GRID North is 0.10 Degrees West of True North

VS-Azi: 0.63 Degrees



Depth Reference : RKB=18.5'

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: ... draw 5 nc #1h_gyro survey.ut

Minimum Curvature Method

Report Date/Time: 8/14/2012 / 15:17

Vaughn Energy Services

Gardendale, Texas

432-563-5444

Surveyor: Colby Ware

West Draw 5 NC No. 001H / API 30-015-40290

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.32	99.27	100.00	-0.05	0.28	-0.04	0.28	99.27	0.32
200.00	0.24	100.04	200.00	-0.13	0.76	-0.12	0.77	99.47	0.09
300.00	0.41	101.32	300.00	-0.23	1.32	-0.22	1.34	100.06	0.18
400.00	0.41	92.94	399.99	-0.32	2.03	-0.30	2.06	99.03	0.06
500.00	0.38	94.11	499.99	-0.37	2.72	-0.34	2.75	97.63	0.03
600.00	0.44	96.22	599.99	-0.43	3.44	-0.39	3.47	97.14	0.06
700.00	0.30	115.76	699.99	-0.58	4.06	-0.54	4.10	98.20	0.19
800.00	0.51	141.01	799.98	-1.04	4.57	-0.99	4.68	102.83	0.27
900.00	0.87	138.54	899.98	-1.95	5.35	-1.89	5.69	110.05	0.37
1000.00	1.24	137.93	999.96	-3.32	6.57	-3.25	7.37	116.82	0.37
1100.00	1.32	135.06	1099.94	-4.94	8.11	-4.85	9.50	121.35	0.10
1200.00	1.14	128.01	1199.91	-6.38	9.72	-6.27	11.62	123.27	0.23
1300.00	1.00	129.70	1299.89	-7.55	11.18	-7.43	13.49	124.04	0.15
1400.00	0.96	130.10	1399.88	-8.65	12.49	-8.51	15.19	124.70	0.04
1500.00	0.87	131.35	1499.87	-9.69	13.70	-9.54	16.78	125.27	0.09
1600.00	0.92	128.68	1599.85	-10.70	14.90	-10.53	18.34	125.67	0.06
1700.00	0.90	123.93	1699.84	-11.63	16.18	-11.46	19.93	125.72	0.08
1800.00	0.58	124.33	1799.83	-12.35	17.24	-12.16	21.21	125.62	0.32

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1900.00	0.53	130.08	1899.83	-12.94	18.01	-12.74	22.18	125.69	0.07
2000.00	0.22	132.28	1999.83	-13.37	18.51	-13.16	22.83	125.83	0.31
2082.00	0.63	134.78	2081.82	-13.79	18.95	-13.58	23.44	126.05	0.50



Stryker Energy Directional Services, LLC

SURVEY CALCULATION REPORT

Minimum Curvature Calculations

Operator: Mewbourne Oil
 Lease Name: West Draw 5 NC #1H
 Job Number: S12-114
 Comments: Tie-In to Stryker Gyro Multi-Shot
 Survey Company: Stryker MWD

Target KBTVD: 2,711 Feet
 Target Angle: 90.63 Degrees
 Section Plane: 0.63 Degrees
 Declination Corrected to Grid: 8.03 Degrees
 Bit to Survey Offset: 47 Feet

Survey No.	Measured Depth	Drift (Degrees)	Azimuth (Degrees)	Course Length	TVD (Feet)	Vertical Section	+N/-S (Feet)	+E/-W (Feet)	BUR	DLS	KBTVD	
											+Above -Below	Target
T/I	2,082	0.6	134.8	N/A	2,081.8	-13.6	-13.8	19.0	N/A	N/A	-629.6	629.6
1	2,169	0.4	88.9	87	2,168.8	-13.9	-14.1	19.6	-0.3	0.5	-542.6	542.6
2	2,201	2.4	5.5	32	2,200.8	-13.2	-13.5	19.8	6.3	7.5	-510.6	510.6
3	2,233	6.2	0.4	32	2,232.7	-10.8	-11.1	19.8	11.9	11.9	-478.7	478.7
4	2,265	11.0	359.5	32	2,264.3	-6.1	-6.3	19.8	15.0	15.0	-447.0	447.0
5	2,296	15.8	359.7	31	2,294.5	1.1	0.9	19.8	15.5	15.5	-416.8	416.8
6	2,327	19.2	0.0	31	2,324.0	10.4	10.2	19.8	11.0	11.0	-387.1	387.1
7	2,358	22.3	0.2	31	2,353.0	21.4	21.2	19.8	10.0	10.0	-358.0	358.0
8	2,390	24.7	359.9	32	2,382.4	34.2	34.0	19.8	7.5	7.5	-328.5	328.5
9	2,420	27.0	359.5	30	2,409.4	47.3	47.0	19.7	7.7	7.7	-301.4	301.4
10	2,452	29.7	358.9	32	2,437.5	62.5	62.2	19.5	8.4	8.5	-273.1	273.1
11	2,483	32.1	358.6	31	2,464.1	78.4	78.2	19.2	7.7	7.8	-246.3	246.3
12	2,514	34.4	358.4	31	2,490.1	95.3	95.1	18.7	7.4	7.4	-220.2	220.2
13	2,545	37.5	358.2	31	2,515.1	113.5	113.3	18.2	10.0	10.0	-194.9	194.9
14	2,576	40.1	357.9	31	2,539.3	132.9	132.7	17.5	8.4	8.4	-170.5	170.5
15	2,608	42.9	358.4	32	2,563.3	154.1	153.9	16.8	8.7	8.8	-146.3	146.3
16	2,639	47.1	359.9	31	2,585.2	176.0	175.9	16.5	13.5	14.0	-124.2	124.2
17	2,671	51.1	0.6	32	2,606.1	200.2	200.0	16.6	12.5	12.6	-103.0	103.0
18	2,702	54.3	0.6	31	2,624.9	224.9	224.7	16.9	10.3	10.3	-83.9	83.9
19	2,733	58.3	0.6	31	2,642.1	250.6	250.5	17.1	12.9	12.9	-66.4	66.4
20	2,764	63.5	0.0	31	2,657.2	277.7	277.5	17.3	16.8	16.9	-51.1	51.1
21	2,796	67.5	359.2	32	2,670.5	306.8	306.7	17.1	12.5	12.7	-37.5	37.5
22	2,828	71.5	358.8	32	2,681.7	336.8	336.6	16.6	12.5	12.6	-25.9	25.9
23	2,859	75.5	359.3	31	2,690.5	366.5	366.3	16.1	12.9	13.0	-16.8	16.8
24	2,890	80.3	359.9	31	2,697.0	396.8	396.6	15.9	15.5	15.6	-10.0	10.0
25	2,922	84.4	0.3	32	2,701.2	428.5	428.3	15.9	12.8	12.9	-5.4	5.4
26	2,950	86.6	0.6	28	2,703.4	456.4	456.3	16.1	7.9	7.9	-2.9	2.9
27	3,009	90.9	1.0	59	2,704.7	515.4	515.2	17.0	7.3	7.3	-0.9	0.9
28	3,041	90.8	0.8	32	2,704.2	547.4	547.2	17.5	-0.3	0.7	-1.0	1.0
29	3,073	90.7	0.2	32	2,703.8	579.4	579.2	17.7	-0.3	1.9	-1.1	1.1
30	3,136	90.5	359.9	63	2,703.1	642.4	642.2	17.8	-0.3	0.6	-1.1	1.1
31	3,199	90.2	0.4	63	2,702.8	705.4	705.2	18.0	-0.5	0.9	-0.8	0.8
32	3,263	89.9	0.0	64	2,702.7	769.4	769.2	18.2	-0.5	0.8	-0.1	0.1
33	3,327	90.6	0.1	64	2,702.4	833.4	833.2	18.2	1.1	1.1	0.3	-0.3



Stryker Energy Directional Services, LLC

SURVEY CALCULATION REPORT Minimum Curvature Calculations

Operator: Mewbourne Oil
Lease Name: West Draw 5 NC #1H
Job Number: S12-114
Comments: Tie-In to Stryker Gyro Multi-Shot
Survey Company: Stryker MWD

Target KBTVD: 2,711 Feet
Target Angle: 90.63 Degrees
Section Plane: 0.63 Degrees
Declination Corrected to Grid: 8.03 Degrees
Bit to Survey Offset: 47 Feet

Survey No.	Measured Depth	Drift (Degrees)	Azimuth (Degrees)	Course Length	TVD (Feet)	Vertical Section	+N/-S (Feet)	+E/-W (Feet)	BUR	DLS	KBTVD	
											+Above -Below	Target
34	3,390	90.4	0.4	63	2,701.9	896.3	896.2	18.5	-0.3	0.6	0.4	-0.4
35	3,454	90.0	0.5	64	2,701.7	960.3	960.2	19.0	-0.6	0.6	0.9	-0.9
36	3,518	90.9	0.8	64	2,701.1	1024.3	1,024.2	19.7	1.4	1.5	1.1	-1.1
37	3,581	90.9	1.1	63	2,700.2	1087.3	1,087.2	20.8	0.0	0.5	0.8	-0.8
38	3,645	90.5	1.8	64	2,699.4	1151.3	1,151.1	22.4	-0.6	1.3	0.7	-0.7
39	3,709	91.6	1.4	64	2,698.2	1215.3	1,215.1	24.2	1.7	1.8	0.3	-0.3
40	3,772	91.2	1.9	63	2,696.7	1278.3	1,278.1	26.0	-0.6	1.0	-0.6	0.6
41	3,836	91.3	0.5	64	2,695.3	1342.3	1,342.0	27.3	0.2	2.2	-1.3	1.3
42	3,900	91.3	359.9	64	2,693.8	1406.2	1,406.0	27.6	0.0	0.9	-2.0	2.0
43	3,964	89.6	359.5	64	2,693.3	1470.2	1,470.0	27.2	-2.7	2.7	-1.8	1.8
44	4,028	89.0	359.2	64	2,694.1	1534.2	1,534.0	26.5	-0.9	1.0	-0.3	0.3
45	4,091	89.9	0.6	63	2,694.7	1597.2	1,597.0	26.4	1.4	2.6	1.0	-1.0
46	4,154	90.1	0.9	63	2,694.7	1660.2	1,660.0	27.2	0.3	0.6	1.7	-1.7
47	4,217	89.5	0.8	63	2,694.9	1723.2	1,723.0	28.2	-1.0	1.0	2.6	-2.6
48	4,281	91.3	1.5	64	2,694.5	1787.2	1,787.0	29.4	2.8	3.0	2.8	-2.8
49	4,344	90.8	2.3	63	2,693.3	1850.1	1,849.9	31.5	-0.8	1.5	2.4	-2.4
50	4,408	91.5	0.2	64	2,692.0	1914.1	1,913.9	32.9	1.1	3.5	1.8	-1.8
51	4,471	91.5	359.9	63	2,690.4	1977.1	1,976.9	33.0	0.0	0.5	0.8	-0.8
52	4,535	91.3	0.3	64	2,688.8	2041.1	2,040.8	33.1	-0.3	0.7	0.0	0.0
53	4,597	91.0	1.1	62	2,687.6	2103.1	2,102.8	33.8	-0.5	1.4	-0.6	0.6
54	4,661	90.7	1.4	64	2,686.6	2167.1	2,166.8	35.2	-0.5	0.7	-0.8	0.8
55	4,724	90.3	1.3	63	2,686.1	2230.0	2,229.8	36.7	-0.6	0.7	-0.7	0.7
56	4,788	89.8	0.6	64	2,686.0	2294.0	2,293.8	37.8	-0.8	1.3	0.0	0.0
57	4,851	91.1	1.3	63	2,685.5	2357.0	2,356.8	38.8	2.1	2.3	0.2	-0.2
58	4,914	91.0	1.4	63	2,684.4	2420.0	2,419.7	40.3	-0.2	0.2	-0.3	0.3
59	4,977	91.1	1.6	63	2,683.2	2483.0	2,482.7	42.0	0.2	0.4	-0.8	0.8
60	5,041	91.4	359.9	64	2,681.8	2547.0	2,546.7	42.8	0.5	2.7	-1.5	1.5
61	5,105	91.1	359.9	64	2,680.4	2611.0	2,610.7	42.7	-0.5	0.5	-2.2	2.2
62	5,168	90.8	0.8	63	2,679.4	2674.0	2,673.6	43.1	-0.5	1.5	-2.5	2.5
63	5,232	90.5	0.2	64	2,678.7	2737.9	2,737.6	43.6	-0.5	1.0	-2.5	2.5
64	5,295	90.3	359.9	63	2,678.2	2800.9	2,800.6	43.7	-0.3	0.6	-2.3	2.3
65	5,359	89.9	0.3	64	2,678.1	2864.9	2,864.6	43.8	-0.6	0.9	-1.7	1.7
66	5,422	89.6	0.6	63	2,678.4	2927.9	2,927.6	44.3	-0.5	0.7	-0.7	0.7
67	5,486	90.5	0.0	64	2,678.3	2991.9	2,991.6	44.6	1.4	1.7	-0.1	0.1



Stryker Energy Directional Services, LLC

SURVEY CALCULATION REPORT Minimum Curvature Calculations

Operator: Mewbourne Oil
Lease Name: West Draw 5 NC #1H
Job Number: S12-114
Comments: Tie-In to Stryker Gyro Multi-Shot
Survey Company: Stryker MWD

Target KBTVD: 2,711 Feet
Target Angle: 90.63 Degrees
Section Plane: 0.63 Degrees
Declination Corrected to Grid: 8.03 Degrees
Bit to Survey Offset: 47 Feet

Survey No.	Measured Depth	Drift (Degrees)	Azimuth (Degrees)	Course Length	TVD (Feet)	Vertical Section	+N/-S (Feet)	+E/-W (Feet)	BUR	DLS	KBTVD	
											+Above -Below	Target
68	5,547	90.3	0.8	61	2,677.9	3052.9	3,052.6	45.1	-0.3	1.4	0.2	-0.2
69	5,608	90.1	0.5	61	2,677.7	3113.9	3,113.6	45.7	-0.3	0.6	0.6	-0.6
70	5,669	89.5	0.4	61	2,677.9	3174.9	3,174.6	46.2	-1.0	1.0	1.5	-1.5
71	5,730	90.6	1.8	61	2,677.8	3235.9	3,235.6	47.4	1.8	2.9	2.1	-2.1
72	5,791	91.0	1.2	61	2,677.0	3296.9	3,296.6	49.0	0.7	1.2	2.0	-2.0
73	5,853	91.1	1.9	62	2,675.9	3358.9	3,358.5	50.7	0.2	1.1	1.5	-1.5
74	5,915	91.3	359.7	62	2,674.6	3420.9	3,420.5	51.5	0.3	3.6	0.9	-0.9
75	5,976	91.2	0.5	61	2,673.2	3481.9	3,481.5	51.6	-0.2	1.3	0.2	-0.2
76	6,038	91.3	359.7	62	2,671.9	3543.8	3,543.5	51.8	0.2	1.3	-0.4	0.4
77	6,100	91.2	0.6	62	2,670.5	3605.8	3,605.5	51.9	-0.2	1.5	-1.1	1.1
78	6,162	91.4	0.9	62	2,669.1	3667.8	3,667.4	52.7	0.3	0.6	-1.8	1.8
79	6,223	91.4	0.1	61	2,667.6	3728.8	3,728.4	53.3	0.0	1.3	-2.7	2.7
80	6,285	91.3	0.7	62	2,666.2	3790.8	3,790.4	53.7	-0.2	1.0	-3.4	3.4
81	6,349	90.0	359.9	64	2,665.4	3854.8	3,854.4	54.0	-2.0	2.4	-3.5	3.5
82	6,412	90.0	0.2	63	2,665.4	3917.8	3,917.4	54.1	0.0	0.5	-2.8	2.8
83	6,476	90.1	0.6	64	2,665.4	3981.8	3,981.4	54.5	0.2	0.6	-2.1	2.1
84	6,540	89.9	0.5	64	2,665.4	4045.8	4,045.4	55.1	-0.3	0.3	-1.4	1.4
85	6,604	90.0	359.7	64	2,665.4	4109.7	4,109.4	55.3	0.2	1.3	-0.7	0.7
86	6,667	89.8	0.6	63	2,665.5	4172.7	4,172.4	55.4	-0.3	1.5	0.1	-0.1
87	6,731	89.9	0.6	64	2,665.7	4236.7	4,236.4	56.1	0.2	0.2	1.0	-1.0
88	6,795	89.7	359.8	64	2,665.9	4300.7	4,300.4	56.3	-0.3	1.3	1.9	-1.9
89	6,859	90.8	359.7	64	2,665.7	4364.7	4,364.4	56.0	1.7	1.7	2.4	-2.4
90	6,922	90.9	359.1	63	2,664.7	4427.7	4,427.4	55.4	0.2	1.0	2.1	-2.1
91	6,986	91.0	359.4	64	2,663.7	4491.7	4,491.4	54.5	0.2	0.5	1.8	-1.8
92	7,050	91.0	359.2	64	2,662.5	4555.7	4,555.3	53.8	0.0	0.3	1.4	-1.4
93	7,113	91.2	359.4	63	2,661.3	4618.6	4,618.3	53.0	0.3	0.4	0.8	-0.8
94	7,177	91.3	359.8	64	2,659.9	4682.6	4,682.3	52.5	0.2	0.6	0.1	-0.1
95	7,241	91.6	0.0	64	2,658.3	4746.6	4,746.3	52.4	0.5	0.6	-0.8	0.8
96	7,304	90.8	1.2	63	2,657.0	4809.6	4,809.3	53.1	-1.3	2.3	-1.4	1.4
97	7,368	90.7	1.8	64	2,656.2	4873.5	4,873.2	54.8	-0.2	1.0	-1.5	1.5
98	7,431	90.6	2.0	63	2,655.5	4936.5	4,936.2	56.8	-0.2	0.4	-1.6	1.6
99	7,493	90.5	2.5	62	2,654.9	4998.5	4,998.1	59.3	-0.2	0.8	-1.5	1.5
TD	7,538	90.5	3.5	45	2,654.5	5043.5	5,043.1	61.6	0.0	2.2	-1.4	1.4



Stryker Energy Directional Services, LLC

SURVEY CALCULATION REPORT Minimum Curvature Calculations

Operator: Mewbourne Oil
Lease Name: West Draw 5 NC #1H
Job Number: S12-114
Comments: Tie-In to Stryker Gyro Multi-Shot
Survey Company: Stryker MWD

Target KBTVD: 2,711 Feet
Target Angle: 90.63 Degrees
Section Plane: 0.63 Degrees
Declination Corrected to Grid: 8.03 Degrees
Bit to Survey Offset: 47 Feet

Survey	Measured	Drift	Azimuth	Course	TVD	Vertical	+N/-S	+E/-W				
No.	Depth	(Degrees)	(Degrees)	Length	(Feet)	Section	(Feet)	(Feet)	BUR	DLS	KBTVD	Target
Closure Distance @ Bit :						5043.5 Feet						
Closure Direction @ Bit :						0.7 Degrees						
Distance from Section Line @ Bit :						6.2 Feet Right of Section Line						

	T-1	T-2	T-3	T-4	T-5	T-6	T-7	T-8	T-9	T-10	T-11	T-12
MD :	2,997	3,498	3,998	4,498	4,998	5,498	5,998	6,498	6,998	7,498		
TVD :	2,706	2,701	2,695	2,689	2,480	2,679	2,673	2,668	2,662	2,657		
Angle :	90.63	90.63	90.63	90.63	90.63	90.630	90.630	90.63	90.63	90.63		
KBTVD:	2711.00	2711.00	2711.00	2711.00	2711.00	2711.00	2711.00	2711.00	2711.00	2711.00		

Operating Company Mewbourne
Well Name & Number WEST DRAW 5 NC 1H
Sales Ticket Number 4707060
Date 8/12/2012

Company Rep Russel Berryman
Field
BOT Service Rep John Davis
District Location Odessa, Texas, USA



	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse	
Casing	7.000	26.00	J-55	6.276	6.151	LT&C	0.03826	2,997.00	9,960	6,230	
Top Liner	4.500	11.60	J-55	4.000	3.795	LT&C	0.01492	4,717.64	12,410	10,680	
Bott Liner											
TVD		2,661.00		KOP		2,188.00		Open Hole	6.125	Casing Vol. (bbl)	106.5
Carry Fluid Weight (ppg)			8.4		Propan Content (ppa)				Max Drill Out Size		0

	Comm. Number	Description	Depth	Length	OD	ID	Ball Seat ID	Shear Press.	Max Rate (BPM)	Displ. (BBL)
Liner Top	1	JR Setting Sleeve_RH Profile	2782.36							

Zone Length										
20		JR Sleeve_S3 Hyd Set Packer	2782.36	8 60	5.813	3.875				
		4-1/2-13.5 LTC Nipple	2790.96	6.08	5 000	3 920				
		8 Joints of 4-1/2-11.60 J-55 Casing	2797.04	333.48	5 000	4.000				
	20	3.625 Frac Sleeve	3130.52	3 90	5.750		3.525	1524	253	106
		2 Joints of 4-1/2-11.60 J-55 Casing	3134.42	84 06	5 000	4.000				
19		L-80 Open Hole Packer	3218.48	3.89	5.820	3.875		2154		
		3 Joints of 4-1/2-11.60 J-55 Casing	3222.37	127.03	5 000	4.000				
	19	3.500 Frac Sleeve	3349.40	3.90	5.750		3.400	1524	236	106
		3 Joints of 4-1/2-11 60 J-55 Casing	3353.30	127.98	5.000	4 000				
		L-80 Open Hole Packer	3481.28	3.89	5.820	3.875		2154		
18		2 Joints of 4-1/2-11 60 J-55 Casing	3485.17	84.47	5.000	4 000				
	18	3 375 Frac Sleeve	3569.64	3 90	5.750		3.275	1524	219	106
		3 Joints of 4-1/2-11.60 J-55 Casing	3573.54	127 60	5 000	4 000				
		L-80 Open Hole Packer	3701.14	3.89	5.820	3.875		2154		
		3 Joints of 4-1/2-11.60 J-55 Casing	3705.03	120 68	5 000	4 000				
17	17	3.250 Frac Sleeve	3825.71	3.90	5.750		3.150	1524	202	106
		3 Joints of 4-1/2-11.60 J-55 Casing	3829.61	120 08	5.000	4.000				
		L-80 Open Hole Packer	3949.69	3.89	5.820	3.875		2154		
		3 Joints of 4-1/2-11.60 J-55 Casing	3953.58	122.23	5.000	4.000				
	16	3 125 Frac Sleeve	4075.81	3.90	5.750		3.025	1524	186	106
16		2 Joints of 4-1/2-11.60 J-55 Casing	4079.71	85 30	5 000	4 000				
		L-80 Open Hole Packer	4165.01	3.89	5.820	3.875		2154		

Operating Company Mewbourne
 Well Name & Number WEST DRAW 5 NC 1H
 Sales Ticket Number 4707060
 Date 8/12/2012

Company Rep Russel Berryman
 Field
 BOT Service Rep John Davis
 District Location Odessa, Texas, USA



	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse	
Casing	7.000	26.00	J-55	6.276	6.151	LT&C	0.03826	2,997.00	9,960	6,230	
Top Liner	4.500	11.60	J-55	4.000	3.795	LT&C	0.01492	4,717.64	12,410	10,680	
Bott Liner											
TVD		2,661.00		KOP		2,188.00		Open Hole	6.125	Casing Vol. (bbl)	106.5
Carry Fluid Weight (ppg)			8.4		Propant Content (ppa)				Max Drill Out Size		0

	Comm. Number	Description	Depth	Length	OD	ID	Ball Seat ID	Shear Press	Max Rate (BPM)	Displ. (BBL)
15		3 Joints of 4-1/2-11 60 J-55 Casing	4168.90	125 31	5 000	4 000				
	15	3.000 Frac sleeve	4294 21	3 90	5.750		2.900	1524	171	106
		2 Joints of 4-1/2-11.60 J-55 Casing	4298 11	84.60	5.000	4.000				
14		L-80 Open Hole Packer	4382.71	3.89	5.820	3 875		2154		
		3 Joints of 4-1/2-11.60 J-55 Casing	4386 60	126 25	5.000	4.000				
	14	2.875 Frac Sleeve	4512.85	3 90	5.750		2.775	1524	157	106
13		2 Joints of 4-1/2-11 60 J-55 Casing	4516.75	83 70	5.000	4.000				
		L-80 Open Hole Packer	4600.45	3.89	5.820	3.875		2154		
		3 Joints of 4-1/2-11 60 J-55 Casing	4604 34	127.34	5.000	4.000				
12	13	2.750 Frac Sleeve	4731.68	3.90	5.750		2.650	1524	143	106
		2 Joints of 4-1/2-11.60 J-55 Casing	4735 58	85.19	5.000	4 000				
		L-80 Open Hole Packer	4820.77	3 89	5.820	3.875		2154		
11		3 Joints of 4-1/2-11.60 J-55 Casing	4824 66	127 91	5 000	4 000				
	12	2.625 Frac Sleeve	4952.57	3 90	5 750		2 525	1524	130	106
		3 Joints of 4-1/2-11.60 J-55 Casing	4956.47	123 88	5 000	4.000				
10		L-80 Open Hole Packer	5080.35	3 89	5.820	3.875		2154		
		3 Joints of 4-1/2-11.60 J-55 Casing	5084.24	123.71	5 000	4 000				
	11	2.500 Frac Sleeve	5207.95	3 90	5.750		2 400	1524	117	106
9		2 Joints of 4-1/2-11.60 J-55 Casing	5211.85	85.26	5 000	4 000				
		L-80 Open Hole Packer	5297.11	3.89	5.820	3.875		2154		
		3 Joints of 4-1/2-11.60 J-55 Casing	5301.00	127 88	5 000	4.000				
9	10	2.375 Frac Sleeve	5428.88	3.90	5.750		2.275	1524	105	106
		2 Joints of 4-1/2-11 60 J-55 Casing	5432.78	83.57	5.000	4 000				
		L-80 Open Hole Packer	5516.35	3.89	5.820	3.875		2154		
		3 Joints of 4-1/2-11.60 J-55 Casing	5520.24	127 50	5 000	4 000				
	9	2 250 Frac Sleeve	5647 74	3 90	5.750		2.150	1524	94	106

Operating Company Mewbourne
 Well Name & Number WEST DRAW 5 NC 1H
 Sales Ticket Number 4707060
 Date 8/12/2012

Company Rep Russel Berryman
 Field
 BOT Service Rep John Davis
 District Location Odessa, Texas, USA



	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse	
Casing	7.000	26.00	J-55	6 276	6.151	LT&C	0.03826	2,997.00	9,960	6,230	
Top Liner	4.500	11.60	J-55	4.000	3.795	LT&C	0.01492	4,717.64	12,410	10,680	
Bott Liner											
TVD		2,661.00		KOP		2,188.00		Open Hole	6.125	Casing Vol. (bbl)	106.5
Carry Fluid Weight (ppg)			8.4		Propan Content (ppa)				Max Drill Out Size		0

	Comm. Number	Description	Depth	Length	OD	ID	Ball Seat ID	Shear Press.	Max Rate (BPM)	Displ. (BBL)
8		3 Joints of 4-1/2-11.60 J-55 Casing	5651.64	128.05	5.000	4.000				
		L-80 Open Hole Packer	5779.69	3.89	5.820	3.875		2154		
		3 Joints of 4-1/2-11.60 J-55 Casing	5783.58	120.79	5.000	4.000				
	8	2.125 Frac Sleeve	5904.37	3.90	5.750		2.025	1524	84	106
		2 Joints of 4-1/2-11.60 J-55 Casing	5908.27	85.25	5.000	4.000				
7		L-80 Open Hole Packer	5993.52	3.89	5.820	3.875		2154		
		3 Joints of 4-1/2-11.60 J-55 Casing	5997.41	127.99	5.000	4.000				
	7	2.000 Frac Sleeve	6125.40	3.90	5.750		1.900	1524	74	106
		3 Joints of 4-1/2-11.60 J-55 Casing	6129.30	123.77	5.000	4.000				
		L-80 Open Hole Packer	6253.07	3.89	5.820	3.875		2154		
6		2 Joints of 4-1/2-11.60 J-55 Casing	6256.96	85.05	5.000	4.000				
	6	1.875 Frac Sleeve	6342.01	3.90	5.750		1.775	1524	64	106
		3 Joints of 4-1/2-11.60 J-55 Casing	6345.91	127.89	5.000	4.000				
		L-80 Open Hole Packer	6473.80	3.89	5.820	3.875		2154		
		2 Joints of 4-1/2-11.60 J-55 Casing	6477.69	85.21	5.000	4.000				
5	5	1.750 Frac Sleeve	6562.90	3.90	5.750		1.650	1524	55	106
		3 Joints of 4-1/2-11.60 J-55 Casing	6566.80	127.22	5.000	4.000				
		L-80 Open Hole Packer	6694.02	3.89	5.820	3.875		2154		
		3 Joints of 4-1/2-11.60 J-55 Casing	6697.91	127.91	5.000	4.000				
	4	1.625 Frac Sleeve	6825.82	3.90	5.750		1.525	1524	47	106
4		2 Joints of 4-1/2-11.60 J-55 Casing	6829.72	85.21	5.000	4.000				
		L-80 Open Hole Packer	6914.93	3.89	5.820	3.875		2154		
		3 Joints of 4-1/2-11.60 J-55 Casing	6918.82	127.56	5.000	4.000				
	3	1.500 DBL Ball Frac Sleeve	7046.38	3.90	5.750		1.400	1524	40	106
		2 Joints of 4-1/2-11.60 J-55 Casing	7050.28	85.32	5.000	4.000				
3		L-80 Open Hole Packer	7135.60	3.89	5.820	3.875		2154		

Company Rep	Russel Berryman
Field	
BOT Service Rep	John Davis
District Location	Odessa, Texas, USA

[illegible]