

Results of Directional Survey

API number:	30-025-41227		
OGRID:		Operator:	MURCHISON OIL & GAS INC
		Property:	JACKSON UNIT # 12H

surface	ULSTR:	A	16	T	24S	R	33E
				200	FNL	960	FEL

BH Loc	ULSTR:	P	16	T	24S	R	33E
15744	MD	11220.3	TVD	331	FSL	882	FEL
				4949	FNL		

Top Perf/OH	ULSTR:	A	16	T	24S	R	33E
11319	MD	11189.8	TVD	531	FNL	890	FEL

Bot Perf/OH	ULSTR:	P	16	T	24S	R	33E
15640	MD	11216.3	TVD	435	FSL	879	FEL
				4845	FNL		

	MD	N/S	E/W	VD
	11317	-329.60	70.30	11189
TOP PERFS/OH	11319	-331.44	70.09	11189.75
	11349	-359.00	66.90	11201.00
	15551	-4555.80	82.90	11213.80
BOT PERFS/OH	15640	-4644.71	80.84	11216.33
	15646	-4650.70	80.70	11216.50

NEXT TO LAST	15743	-4747.60	78.10	11220.20
LAST READING	15744	-4748.60	78.10	11220.30
TD	15744	-4748.60	78.10	11220.30

Surface Location	200	FN	960	FE
Projected BHL	4949	FN	882	FE
Location of				
Top Perfs/OH	531	FN	890	FE
Bottom Perfs/OH	4845	FN	879	FE

SUMMARY of Subsurface Locations

Surface Location	A-16-24S-33E	200	FN	960	FE	Vert. Depth
Top Perfs/OH	A-16-24S-33E	531	FN	890	FE	11189.75
Bottom Perfs/OH	P-16-24S-33E	4845	FN	879	FE	11216.33
Projected TD	P-16-24S-33E	4949	FN	882	FE	11220.30

JAN 27 2014

Murchison Oil and Gas

Jackson Unit Section 16

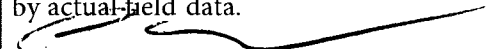
Jackson Unit 12H

Survey: Jackson Unit12H

MOJO Standard Survey

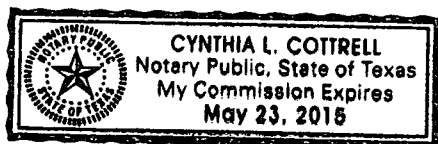
08 October, 2013

This survey is correct to the best of my knowledge and is supported by actual field data.

 (Signature)

Notarized this date 11th of October,
2013. Cynthia L. Cottrell Notary

Signature County of Collin State of Texas



Company:	Murchison Oil and Gas	Local Co-ordinate Reference:	Well Jackson Unit 12H
Project:	Jackson Unit Section 16	TVD Reference:	WELL @ 3641.9usft (Original Well Elev)
Site:	Jackson Unit 12H	MD Reference:	WELL @ 3641.9usft (Original Well Elev)
Well:	Jackson Unit 12H	North Reference:	Grid
Wellbore:	Jackson Unit 12H	Survey Calculation Method:	Minimum Curvature
Design:	Jackson Unit 12H	Database:	EDM 5000.1 Single User Db

Project Jackson Unit Section 16			
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		Using geodetic scale factor

Site Jackson Unit 12H			
Site Position:		Northing:	446,181.90 usft
From:	Lat/Long	Easting:	776,824.93 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 13' 27.611 N
		Longitude:	103° 34' 18.541 W
		Grid Convergence:	0.41 °

Well Jackson Unit 12H			
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty		0.0 usft	Wellhead Elevation:
			usft
			Latitude:
			32° 13' 27.611 N
			Longitude:
			103° 34' 18.541 W
			Ground Level:
			3,619.9 usft

Wellbore Jackson Unit 12H					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	05/07/2013	7.33	60.14	48,409

Design Jackson Unit 12H				
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	179.38

Survey Program Date 08/10/2013				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
200.0	15,744.0	Jackson Unit12H (Jackson Unit 12H)	MWD	MWD - Standard

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Well:	Jackson Unit 12H	North Reference:	Grid
Wellbore:	Jackson Unit 12H	Survey Calculation Method:	Minimum Curvature
Design:	Jackson Unit 12H	Database:	EDM 5000.1 Single User Db

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
0.0	0.00	0.00	0.0	-3,641.9	0.0	0.0	0.0	0.00	446,181.90	776,824.93	
200.0	0.10	70.29	200.0	-3,441.9	0.1	0.2	-0.1	0.05	446,181.96	776,825.10	
400.0	0.38	347.92	400.0	-3,241.9	0.8	0.2	-0.8	0.19	446,182.66	776,825.12	
600.0	0.31	241.16	600.0	-3,041.9	1.2	-0.4	-1.2	0.28	446,183.05	776,824.51	
800.0	0.19	208.55	800.0	-2,841.9	0.6	-1.1	-0.6	0.09	446,182.50	776,823.88	
1,000.0	0.32	289.84	1,000.0	-2,641.9	0.5	-1.7	-0.5	0.17	446,182.40	776,823.19	
1,200.0	0.48	277.64	1,200.0	-2,441.9	0.8	-3.1	-0.8	0.09	446,182.70	776,821.84	
1,276.0	0.50	270.03	1,276.0	-2,365.9	0.8	-3.7	-0.9	0.09	446,182.74	776,821.19	
Rustler											
1,285.0	0.50	269.18	1,285.0	-2,356.9	0.8	-3.8	-0.9	0.09	446,182.74	776,821.11	
13 3/8"											
1,400.0	0.55	259.17	1,400.0	-2,241.9	0.7	-4.9	-0.8	0.09	446,182.63	776,820.06	
1,600.0	0.62	341.80	1,600.0	-2,041.9	1.6	-6.1	-1.6	0.39	446,183.48	776,818.78	
1,800.0	0.59	340.31	1,800.0	-1,841.9	3.6	-6.8	-3.7	0.02	446,185.47	776,818.10	
2,000.0	0.59	295.23	2,000.0	-1,641.9	5.0	-8.1	-5.1	0.23	446,186.88	776,816.82	
2,200.0	0.62	335.12	2,199.9	-1,442.0	6.4	-9.5	-6.5	0.21	446,188.30	776,815.43	
2,400.0	0.58	290.71	2,399.9	-1,242.0	7.7	-10.9	-7.9	0.23	446,189.64	776,814.03	
2,600.0	0.72	325.18	2,599.9	-1,042.0	9.1	-12.6	-9.3	0.20	446,191.03	776,812.37	
2,800.0	0.90	312.45	2,799.9	-842.0	11.2	-14.4	-11.4	0.13	446,193.12	776,810.49	
3,000.0	0.61	349.33	2,999.9	-642.0	13.3	-15.8	-13.5	0.28	446,195.23	776,809.13	
3,200.0	0.95	2.83	3,199.9	-442.0	16.0	-15.9	-16.2	0.19	446,197.93	776,809.02	
3,400.0	1.40	12.53	3,399.8	-242.1	20.1	-15.3	-20.2	0.25	446,201.97	776,809.63	
3,600.0	1.38	26.99	3,599.8	-42.1	24.6	-13.7	-24.8	0.18	446,206.51	776,811.25	
3,800.0	1.21	24.33	3,799.7	157.8	28.7	-11.7	-28.8	0.09	446,210.58	776,813.22	
4,000.0	0.55	346.04	3,999.7	357.8	31.5	-11.1	-31.7	0.42	446,213.43	776,813.86	
4,200.0	0.60	299.59	4,199.7	557.8	33.0	-12.2	-33.1	0.23	446,214.88	776,812.71	
4,400.0	0.15	181.62	4,399.7	757.8	33.2	-13.1	-33.4	0.34	446,215.13	776,811.80	

Company:		Murchison Oil and Gas				Local Co-ordinate Reference:			Well Jackson Unit 12H		
Project:		Jackson Unit Section 16				TVD Reference:			WELL @ 3641.9usft (Original Well Elev)		
Site:		Jackson Unit 12H				MD Reference:			WELL @ 3641.9usft (Original Well Elev)		
Well:		Jackson Unit 12H				North Reference:			Grid		
Wellbore:		Jackson Unit 12H				Survey Calculation Method:			Minimum Curvature		
Design:		Jackson Unit 12H				Database:			EDM 5000.1 Single User Db		

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
4,600.0	2.21	111.83	4,599.6	957.7	31.5	-9.6	-31.6	1.08	446,213.44	776,815.37	
4,800.0	3.55	107.03	4,799.4	1,157.5	28.3	-0.1	-28.3	0.68	446,210.19	776,824.87	
5,000.0	4.79	106.43	4,998.8	1,356.9	24.1	13.9	-24.0	0.62	446,206.02	776,838.80	
5,200.0	3.50	103.80	5,198.3	1,556.4	20.3	27.8	-20.0	0.65	446,202.20	776,852.74	
5,223.0	3.45	106.26	5,221.3	1,579.4	19.9	29.2	-19.6	0.69	446,201.84	776,854.08	
9 5/8"											
5,227.7	3.44	106.78	5,226.0	1,584.1	19.9	29.4	-19.5	0.69	446,201.76	776,854.35	
Delaware											
5,317.0	3.30	117.00	5,315.1	1,673.2	17.9	34.3	-17.5	0.69	446,199.82	776,859.21	
5,410.0	3.50	118.30	5,407.9	1,766.0	15.4	39.2	-14.9	0.23	446,197.26	776,864.09	
5,505.0	3.40	121.90	5,502.8	1,860.9	12.5	44.1	-12.0	0.25	446,194.39	776,869.03	
5,600.0	3.10	122.60	5,597.6	1,955.7	9.6	48.7	-9.1	0.32	446,191.52	776,873.59	
5,694.0	3.30	125.50	5,691.5	2,049.6	6.7	53.0	-6.1	0.27	446,188.58	776,877.93	
5,790.0	3.30	132.30	5,787.3	2,145.4	3.2	57.3	-2.6	0.41	446,185.12	776,882.23	
5,885.0	3.00	130.30	5,882.2	2,240.3	-0.2	61.2	0.9	0.34	446,181.67	776,886.14	
5,979.0	1.80	116.00	5,976.1	2,334.2	-2.5	64.4	3.2	1.42	446,179.43	776,889.35	
6,074.0	1.00	104.40	6,071.1	2,429.2	-3.3	66.6	4.0	0.89	446,178.57	776,891.49	
6,168.0	0.80	93.40	6,165.0	2,523.1	-3.6	68.0	4.3	0.28	446,178.33	776,892.94	
6,203.0	0.80	95.88	6,200.0	2,558.1	-3.6	68.5	4.4	0.10	446,178.29	776,893.43	
Cherry Canyon											
6,264.0	0.80	100.20	6,261.0	2,619.1	-3.7	69.3	4.5	0.10	446,178.17	776,894.27	
6,358.0	0.80	99.90	6,355.0	2,713.1	-4.0	70.6	4.7	0.00	446,177.94	776,895.56	
6,452.0	0.70	85.40	6,449.0	2,807.1	-4.0	71.9	4.8	0.23	446,177.87	776,896.78	
6,546.0	0.80	89.30	6,543.0	2,901.1	-4.0	73.1	4.8	0.12	446,177.93	776,898.01	
6,641.0	0.80	94.80	6,638.0	2,996.1	-4.0	74.4	4.8	0.08	446,177.88	776,899.33	
6,735.0	0.80	77.00	6,732.0	3,090.1	-3.9	75.7	4.7	0.26	446,177.97	776,900.63	
6,831.0	0.80	68.80	6,828.0	3,186.1	-3.5	77.0	4.4	0.12	446,178.37	776,901.90	
6,925.0	0.70	69.10	6,922.0	3,280.1	-3.1	78.1	3.9	0.11	446,178.81	776,903.05	

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Well: Jackson Unit 12H		North Reference: Grid	
Wellbore: Jackson Unit 12H		Survey Calculation Method: Minimum Curvature	
Design: Jackson Unit 12H		Database: EDM 5000.1 Single User Db	

Survey										
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7,021.0	0.50	52.90	7,018.0	3,376.1	-2.6	79.0	3.5	0.27	446,179.27	776,903.93
7,116.0	0.40	59.80	7,113.0	3,471.1	-2.2	79.6	3.1	0.12	446,179.69	776,904.55
7,211.0	0.50	60.70	7,208.0	3,566.1	-1.8	80.3	2.7	0.11	446,180.06	776,905.20
7,307.0	0.50	73.80	7,304.0	3,662.1	-1.5	81.0	2.4	0.12	446,180.38	776,905.97
7,401.0	0.30	88.10	7,398.0	3,756.1	-1.4	81.7	2.3	0.24	446,180.50	776,906.61
7,496.0	0.30	122.70	7,493.0	3,851.1	-1.5	82.1	2.4	0.19	446,180.37	776,907.06
7,569.0	0.53	136.54	7,566.0	3,924.1	-1.9	82.5	2.8	0.34	446,180.03	776,907.46
Brushy Canyon										
7,591.0	0.60	138.60	7,588.0	3,946.1	-2.0	82.7	2.9	0.34	446,179.87	776,907.60
7,686.0	0.90	135.80	7,682.9	4,041.0	-2.9	83.5	3.8	0.32	446,178.96	776,908.45
7,780.0	0.70	141.90	7,776.9	4,135.0	-3.9	84.4	4.8	0.23	446,177.98	776,909.32
7,875.0	0.80	111.10	7,871.9	4,230.0	-4.6	85.4	5.5	0.43	446,177.28	776,910.30
7,971.0	0.80	116.00	7,967.9	4,326.0	-5.2	86.6	6.1	0.07	446,176.75	776,911.53
8,066.0	0.70	145.70	8,062.9	4,421.0	-5.9	87.5	6.9	0.42	446,175.98	776,912.45
8,161.0	0.60	151.70	8,157.9	4,516.0	-6.8	88.1	7.8	0.13	446,175.06	776,913.01
8,256.0	0.70	130.60	8,252.9	4,611.0	-7.7	88.8	8.6	0.27	446,174.24	776,913.69
8,351.0	0.80	127.90	8,347.9	4,706.0	-8.4	89.7	9.4	0.11	446,173.46	776,914.65
8,446.0	0.90	107.20	8,442.9	4,801.0	-9.1	91.0	10.1	0.34	446,172.83	776,915.89
8,541.0	1.00	99.60	8,537.9	4,896.0	-9.4	92.5	10.4	0.17	446,172.47	776,917.42
8,636.0	1.00	90.30	8,632.9	4,991.0	-9.6	94.1	10.6	0.17	446,172.33	776,919.06
8,731.0	0.90	87.80	8,727.8	5,085.9	-9.5	95.7	10.6	0.11	446,172.35	776,920.64
8,826.0	0.90	91.40	8,822.8	5,180.9	-9.5	97.2	10.6	0.06	446,172.36	776,922.13
8,921.0	0.80	102.00	8,917.8	5,275.9	-9.7	98.6	10.8	0.20	446,172.21	776,923.52
9,016.0	0.80	107.60	9,012.8	5,370.9	-10.0	99.9	11.1	0.08	446,171.87	776,924.81
9,111.0	0.70	143.50	9,107.8	5,465.9	-10.7	100.9	11.8	0.50	446,171.20	776,925.78
9,122.2	0.72	142.08	9,119.0	5,477.1	-10.8	100.9	11.9	0.26	446,171.09	776,925.87
Bone Spring										

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9,205.0	0.90	133.90	9,201.8	5,559.9	-11.7	101.7	12.8	0.26	446,170.23	776,926.66
9,245.2	1.27	125.15	9,242.0	5,600.1	-12.1	102.3	13.3	1.01	446,169.75	776,927.25
Avalon Shale										
9,300.0	1.80	119.20	9,296.8	5,654.9	-12.9	103.6	14.0	1.01	446,168.98	776,928.50
9,395.0	1.50	130.10	9,391.7	5,749.8	-14.4	105.8	15.6	0.46	446,167.46	776,930.75
9,489.0	1.00	104.60	9,485.7	5,843.8	-15.4	107.6	16.6	0.78	446,166.46	776,932.48
9,584.0	1.80	89.30	9,580.7	5,938.8	-15.6	109.8	16.8	0.92	446,166.27	776,934.78
9,679.0	2.10	81.00	9,675.6	6,033.7	-15.3	113.1	16.6	0.43	446,166.56	776,937.99
9,773.0	1.70	84.80	9,769.6	6,127.7	-14.9	116.2	16.2	0.45	446,166.95	776,941.08
9,868.0	0.40	91.50	9,864.5	6,222.6	-14.8	117.9	16.1	1.37	446,167.07	776,942.81
9,964.0	0.70	276.90	9,960.5	6,318.6	-14.8	117.6	16.0	1.14	446,167.13	776,942.57
10,059.0	1.10	279.40	10,055.5	6,413.6	-14.5	116.2	15.8	0.42	446,167.35	776,941.09
10,148.0	0.70	253.90	10,144.5	6,502.6	-14.6	114.8	15.8	0.63	446,167.34	776,939.73
10,204.5	0.53	259.07	10,201.0	6,559.1	-14.7	114.2	15.9	0.32	446,167.19	776,939.14
1st Bone Spring Sand										
10,249.0	0.40	266.20	10,245.5	6,603.6	-14.8	113.9	16.0	0.32	446,167.15	776,938.78
10,343.0	0.60	219.40	10,339.5	6,697.6	-15.2	113.2	16.4	0.47	446,166.74	776,938.14
10,438.0	0.50	212.40	10,434.5	6,792.6	-15.9	112.7	17.1	0.13	446,166.01	776,937.60
10,533.0	0.30	271.70	10,529.5	6,887.6	-16.2	112.2	17.4	0.45	446,165.67	776,937.13
10,627.0	0.50	254.31	10,623.5	6,981.6	-16.3	111.6	17.5	0.24	446,165.56	776,936.49
7"										
10,628.0	0.50	254.20	10,624.5	6,982.6	-16.3	111.6	17.5	0.24	446,165.56	776,936.49
10,724.0	0.60	186.90	10,720.5	7,078.6	-17.0	111.1	18.2	0.64	446,164.95	776,936.02
10,782.0	6.50	197.30	10,778.4	7,136.5	-20.4	110.1	21.6	10.19	446,161.51	776,935.01
10,813.0	11.00	201.40	10,809.0	7,167.1	-24.8	108.5	26.0	14.65	446,157.08	776,933.41
10,845.0	14.90	200.80	10,840.2	7,198.3	-31.5	105.9	32.7	12.19	446,150.39	776,930.83
10,876.0	19.30	195.70	10,869.8	7,227.9	-40.2	103.1	41.3	14.98	446,141.72	776,928.03
10,907.0	23.40	190.70	10,898.7	7,256.8	-51.2	100.6	52.2	14.46	446,130.74	776,925.50

Company: Murchison Oil and Gas		Local Co-ordinate Reference:					Well Jackson Unit 12H			
Project: Jackson Unit Section 16		TVD Reference:					WELL @ 3641.9usft (Original Well Elev)			
Site: Jackson Unit 12H		MD Reference:					WELL @ 3641.9usft (Original Well Elev)			
Well: Jackson Unit 12H		North Reference:					Grid			
Wellbore: Jackson Unit 12H		Survey Calculation Method:					Minimum Curvature			
Design: Jackson Unit 12H		Database:					EDM 5000.1 Single User Db			

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
10,939.0	28.10	187.20	10,927.5	7,285.6	-64.9	98.4	66.0	15.43	446,117.01	776,923.37	
10,949.9	29.57	187.09	10,937.0	7,295.1	-70.1	97.8	71.1	13.56	446,111.81	776,922.72	
2nd Bone Spring Sand											
10,970.0	32.30	186.90	10,954.3	7,312.4	-80.4	96.5	81.4	13.56	446,101.54	776,921.46	
11,002.0	36.20	186.60	10,980.7	7,338.8	-98.2	94.4	99.3	12.20	446,083.66	776,919.35	
11,034.0	39.30	185.50	11,006.0	7,364.1	-117.7	92.4	118.7	9.91	446,064.18	776,917.29	
11,065.0	39.00	185.80	11,030.1	7,388.2	-137.2	90.4	138.2	1.14	446,044.70	776,915.36	
11,097.0	41.00	185.40	11,054.6	7,412.7	-157.7	88.4	158.6	6.30	446,024.23	776,913.36	
11,129.0	46.70	184.00	11,077.6	7,435.7	-179.8	86.6	180.7	18.07	446,002.15	776,911.56	
11,160.0	50.80	186.10	11,098.1	7,456.2	-203.0	84.6	203.9	14.17	445,978.94	776,909.49	
11,192.0	51.70	186.40	11,118.1	7,476.2	-227.8	81.8	228.6	2.91	445,954.13	776,906.77	
11,223.0	50.30	186.10	11,137.6	7,495.7	-251.7	79.2	252.6	4.58	445,930.19	776,904.15	
11,255.0	53.50	186.80	11,157.4	7,515.5	-276.7	76.4	277.5	10.15	445,905.17	776,901.32	
11,286.0	59.20	186.50	11,174.5	7,532.6	-302.4	73.4	303.1	18.40	445,879.55	776,898.33	
11,317.0	65.20	186.50	11,189.0	7,547.1	-329.6	70.3	330.3	19.35	445,852.31	776,895.23	
11,349.0	70.50	186.70	11,201.0	7,559.1	-359.0	66.9	359.7	16.57	445,822.88	776,891.83	
11,380.0	74.60	186.90	11,210.3	7,568.4	-388.4	63.4	389.0	13.24	445,793.53	776,888.32	
11,412.0	80.40	187.00	11,217.3	7,575.4	-419.4	59.6	420.0	18.13	445,762.53	776,884.54	
11,444.0	86.00	184.70	11,221.0	7,579.1	-451.0	56.4	451.6	18.90	445,730.93	776,881.31	
11,475.0	88.00	183.10	11,222.7	7,580.8	-481.9	54.3	482.4	8.26	445,700.05	776,879.21	
11,507.0	89.80	180.20	11,223.3	7,581.4	-513.8	53.4	514.4	10.66	445,668.08	776,878.29	
11,570.0	93.20	173.90	11,221.6	7,579.7	-576.7	56.6	577.3	11.36	445,605.22	776,881.52	
11,664.0	90.90	175.70	11,218.3	7,576.4	-670.2	65.1	670.9	3.11	445,511.68	776,890.03	
11,759.0	90.40	178.90	11,217.2	7,575.3	-765.1	69.6	765.8	3.41	445,416.81	776,894.51	
11,853.0	89.60	179.40	11,217.2	7,575.3	-859.1	71.0	859.8	1.00	445,322.82	776,895.90	
11,948.0	89.60	180.80	11,217.9	7,576.0	-954.1	70.8	954.8	1.47	445,227.83	776,895.74	
12,044.0	91.20	180.20	11,217.2	7,575.3	-1,050.1	70.0	1,050.8	1.78	445,131.84	776,894.90	

Company:	Murchison Oil and Gas	Local Co-ordinate Reference:	Well Jackson Unit 12H
Project:	Jackson Unit Section 16	TVD Reference:	WELL @ 3641.9usft (Original Well Elev)
Site:	Jackson Unit 12H	MD Reference:	WELL @ 3641.9usft (Original Well Elev)
Well:	Jackson Unit 12H	North Reference:	Grid
Wellbore:	Jackson Unit 12H	Survey Calculation Method:	Minimum Curvature
Design:	Jackson Unit 12H	Database:	EDM 5000.1 Single User Db

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
12,138.0	89.80	181.20	11,216.4	7,574.5	-1,144.1	68.8	1,144.7	1.83	445,037.86	776,893.75
12,233.0	89.30	180.90	11,217.1	7,575.2	-1,239.0	67.1	1,239.7	0.61	444,942.88	776,892.01
12,327.0	90.00	179.40	11,217.7	7,575.8	-1,333.0	66.8	1,333.7	1.76	444,848.89	776,891.76
12,422.0	90.60	179.60	11,217.2	7,575.3	-1,428.0	67.7	1,428.7	0.67	444,753.90	776,892.59
12,517.0	91.00	179.20	11,215.9	7,574.0	-1,523.0	68.7	1,523.7	0.60	444,658.92	776,893.59
12,612.0	88.70	181.90	11,216.1	7,574.2	-1,618.0	67.7	1,618.6	3.73	444,563.94	776,892.68
12,707.0	89.10	179.50	11,217.9	7,576.0	-1,713.0	66.6	1,713.6	2.56	444,468.97	776,891.52
12,803.0	88.10	181.20	11,220.3	7,578.4	-1,808.9	66.0	1,809.5	2.05	444,373.01	776,890.93
12,898.0	88.50	180.40	11,223.1	7,581.2	-1,903.9	64.7	1,904.5	0.94	444,278.07	776,889.60
12,992.0	88.80	179.90	11,225.3	7,583.4	-1,997.9	64.4	1,998.4	0.62	444,184.09	776,889.36
13,087.0	90.00	179.00	11,226.3	7,584.4	-2,092.8	65.3	2,093.4	1.58	444,089.11	776,890.27
13,181.0	90.60	177.20	11,225.8	7,583.9	-2,186.8	68.5	2,187.4	2.02	443,995.17	776,893.39
13,276.0	89.70	178.40	11,225.6	7,583.7	-2,281.7	72.1	2,282.4	1.58	443,900.24	776,897.03
13,370.0	89.40	180.40	11,226.3	7,584.4	-2,375.7	73.1	2,376.4	2.15	443,806.26	776,898.02
13,464.0	89.80	179.30	11,227.0	7,585.1	-2,469.7	73.3	2,470.3	1.25	443,712.27	776,898.26
13,558.0	91.20	180.70	11,226.1	7,584.2	-2,563.7	73.3	2,564.3	2.11	443,618.28	776,898.26
13,654.0	91.00	180.90	11,224.3	7,582.4	-2,659.7	72.0	2,660.3	0.29	443,522.31	776,896.92
13,748.0	90.80	181.20	11,222.8	7,580.9	-2,753.6	70.3	2,754.2	0.38	443,428.34	776,895.20
13,844.0	90.40	181.60	11,221.8	7,579.9	-2,849.6	67.9	2,850.2	0.59	443,332.37	776,892.86
13,938.0	89.70	180.80	11,221.7	7,579.8	-2,943.6	66.0	2,944.1	1.13	443,238.40	776,890.89
14,034.0	90.60	177.80	11,221.5	7,579.6	-3,039.6	67.1	3,040.1	3.26	443,142.42	776,892.06
14,129.0	91.30	177.20	11,219.9	7,578.0	-3,134.5	71.3	3,135.0	0.97	443,047.53	776,896.20
14,224.0	91.30	177.30	11,217.8	7,575.9	-3,229.3	75.8	3,230.0	0.11	442,952.67	776,900.76
14,318.0	90.20	178.10	11,216.5	7,574.6	-3,323.2	79.6	3,323.9	1.45	442,858.75	776,904.53
14,413.0	89.70	178.10	11,216.6	7,574.7	-3,418.2	82.8	3,418.9	0.53	442,763.81	776,907.68
14,509.0	90.30	178.20	11,216.6	7,574.7	-3,514.1	85.9	3,514.9	0.63	442,667.86	776,910.78
14,605.0	90.70	179.20	11,215.8	7,573.9	-3,610.1	88.0	3,610.8	1.12	442,571.89	776,912.96

Company:	Murchison Oil and Gas	Local Co-ordinate Reference:	Well Jackson Unit 12H
Project:	Jackson Unit Section 16	TVD Reference:	WELL @ 3641.9usft (Original Well Elev)
Site:	Jackson Unit 12H	MD Reference:	WELL @ 3641.9usft (Original Well Elev)
Well:	Jackson Unit 12H	North Reference:	Grid
Wellbore:	Jackson Unit 12H	Survey Calculation Method:	Minimum Curvature
Design:	Jackson Unit 12H	Database:	EDM 5000.1 Single User Db

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
14,699.0	90.40	180.30	11,214.9	7,573.0	-3,704.1	88.4	3,704.8	1.21	442,477.90	776,913.37
14,794.0	90.60	179.50	11,214.0	7,572.1	-3,799.1	88.6	3,799.8	0.87	442,382.91	776,913.53
14,888.0	88.30	179.60	11,214.9	7,573.0	-3,893.1	89.3	3,893.8	2.45	442,288.93	776,914.27
14,983.0	88.00	181.00	11,218.0	7,576.1	-3,988.0	88.8	3,988.8	1.51	442,193.98	776,913.77
15,078.0	88.40	179.50	11,221.0	7,579.1	-4,083.0	88.4	4,083.7	1.63	442,099.04	776,913.36
15,172.0	91.50	180.10	11,221.1	7,579.2	-4,177.0	88.8	4,177.7	3.36	442,005.05	776,913.69
15,267.0	91.30	180.30	11,218.7	7,576.8	-4,271.9	88.4	4,272.6	0.30	441,910.08	776,913.36
15,362.0	91.20	181.40	11,216.7	7,574.8	-4,366.9	87.0	4,367.6	1.16	441,815.12	776,911.95
15,457.0	91.70	181.20	11,214.3	7,572.4	-4,461.8	84.9	4,462.5	0.57	441,720.18	776,909.79
15,551.0	88.90	181.20	11,213.8	7,571.9	-4,555.8	82.9	4,556.4	2.98	441,626.21	776,907.83
15,646.0	87.80	181.50	11,216.5	7,574.6	-4,650.7	80.7	4,651.3	1.20	441,531.28	776,905.59
15,743.0	87.80	181.50	11,220.2	7,578.3	-4,747.6	78.1	4,748.2	0.00	441,434.39	776,903.05
Projection To Bit										
15,744.0	87.80	181.50	11,220.3	7,578.4	-4,748.6	78.1	4,749.2	0.00	441,433.39	776,903.02

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
10,627.0	10,623.5	7"	7	8-1/2	
1,285.0	1,285.0	13 3/8"	13-3/8	17-1/2	
5,223.0	5,221.3	9 5/8"	9-5/8	12-1/4	
15,743.0	11,220.2	4 1/2"	4-1/2	6-1/4	

Company:	Murchison Oil and Gas	Local Co-ordinate Reference:	Well Jackson Unit 12H
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Well:	Jackson Unit 12H	North Reference:	Grid
Wellbore:	Jackson Unit 12H	Survey Calculation Method:	Minimum Curvature
Design:	Jackson Unit 12H	Database:	EDM 5000.1 Single User Db

Formations				
Measured Depth (usft)	Vertical Depth (usft)	Name	Dip (°)	
9,122.2	9,119.0	Bone Spring	0.00	
10,949.9	10,937.0	2nd Bone Spring Sand	0.00	
9,245.2	9,242.0	Avalon Shale	0.00	
10,204.5	10,201.0	1st Bone Spring Sand	0.00	
1,276.0	1,276.0	Rustler	0.00	
5,227.7	5,226.0	Delaware	0.00	
7,569.0	7,566.0	Brushy Canyon	0.00	
6,203.0	6,200.0	Cherry Canyon	0.00	

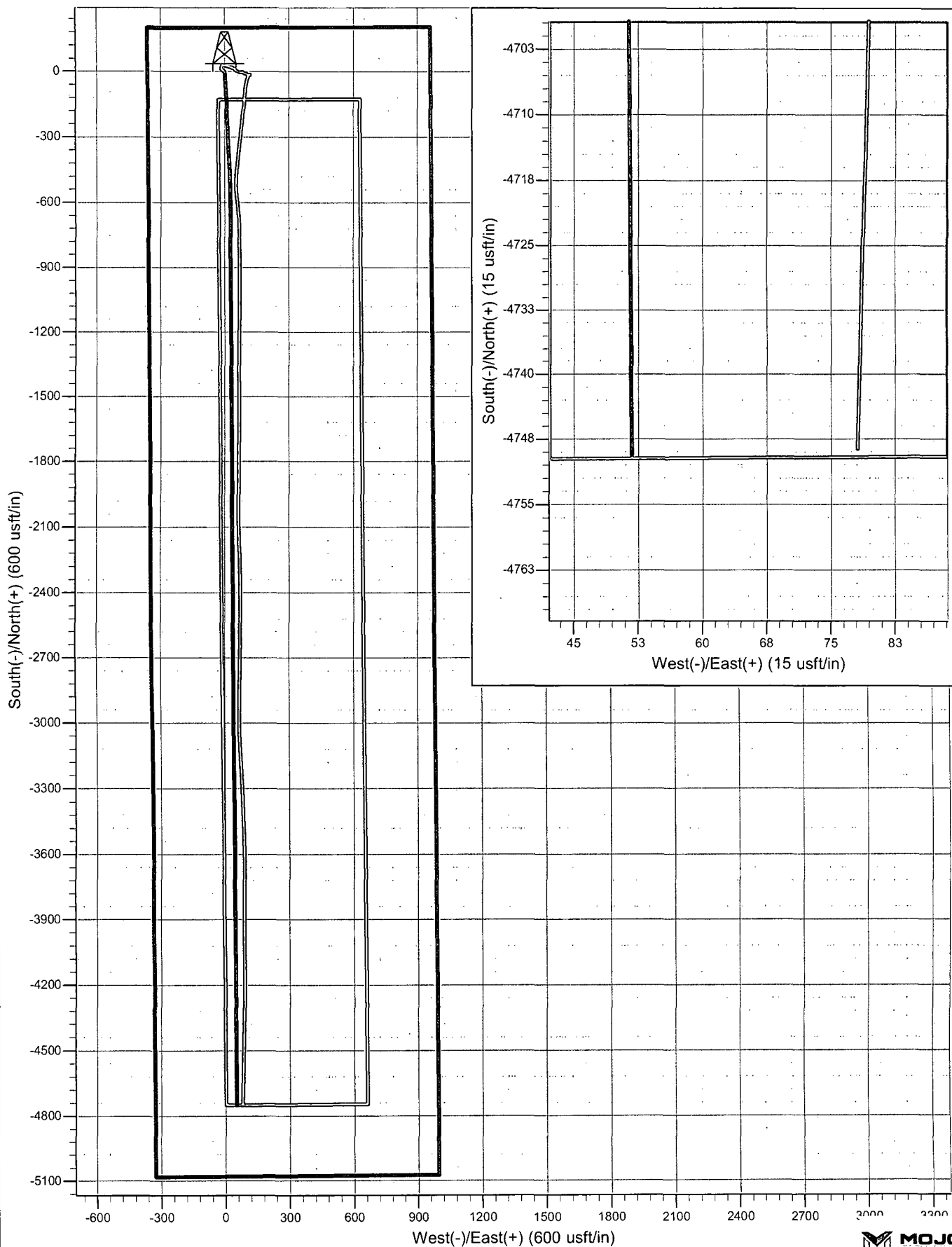
Checked By: _____	Approved By: _____	Date: _____
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Project: Jackson Unit Section 16
Site: Jackson Unit 12H
Well: Jackson Unit 12H
Wellbore: Jackson Unit 12H
Design: Jackson Unit 12H



Azimuths to Grid North
True North: -0.41°
Magnetic North: 6.93°

Magnetic Field
Strength: 48409.4nT
Dip Angle: 60.14°
Date: 05/07/2013
Model: IGRF2010



Project: Jackson Unit Section 16
 Site: Jackson Unit 12H
 Well: Jackson Unit 12H
 Wellbore: Jackson Unit 12H
 Design: Jackson Unit 12H

 MURCHISON OIL & GAS, INC.



Azimuths to Grid North:
 True North: -0.41°
 Magnetic North: 6.93°
 Magnetic Field
 Strength: 48409.4nT
 Dip Angle: 60.14°
 Date: 05/07/2013
 Model: IGRF2010

