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P.O. Box 750 | Conroe, TX 77305 | Phone: 936-441-7266
www.prodirectional.com


ConocoPhillips

SEMU No. 253 (OH)
Lea County, NM

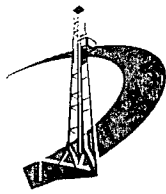
October 14, 2014

Job No. LNM 5114314

Survey Completion Report

APR 21 2015

PM



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Professional Directional Ltd.

P.O. Box 750 | Conroe, TX 77305 | (936) 441-7266

October 14, 2014

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Survey Certification Form:

This is to certify surveys from **1,441'MD** to a depth of **4,237'MD** are true and correct MWD Surveys.
These surveys were taken from **10/08/2014** through **10/10/2014**.

Sincerely,

John Jordan | Well Planning

PRODIRECTIONAL



Conoco Phillips

Lea County, N.M.

SEMU

No. 253

OH

Survey: ProDirectional

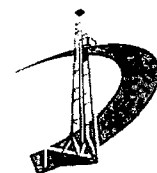
Survey Report

14 October, 2014

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Professional Directional
Wellpath Report



Company: Conoco Phillips
Project: Lea County, N.M.
Site: SEMU
Well: No. 253
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well No. 253
TVD Reference: WELL @ 3557.00usft (Original Well Elev)
MD Reference: WELL @ 3557.00usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Well_Planner1

Project Lea County, N.M.

Map System: US State Plane 1927 (Exact solution)
Geo Datum: NAD 1927 (NADCON CONUS)
Map Zone: New Mexico East 3001

System Datum: Mean Sea Level

Site SEMU

Site Position:	From: Map	Northing:	569,250.22 usft	Latitude:	32° 33' 35.417 N
		Easting:	850,159.22 usft	Longitude:	103° 11' 48.625 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.61 °

Well No. 253

Well Position	+N/-S	0.00 usft	Northing:	571,106.46 usft	Latitude:	32° 33' 53.638 N
	+E/-W	0.00 usft	Easting:	851,520.23 usft	Longitude:	103° 11' 32.492 W
Position Uncertainty	0.00 usft		Wellhead Elevation:	usft	Ground Level:	3,544.00 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	User Defined	8/5/2014	7.20	60.48	48,569

Design OH

Audit Notes:

Version: 1.0 Phase: ACTUAL Tie On Depth: 0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	32.87

Survey Program Date 10/14/2014

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
1,441.00	4,237.00	Survey #1 (OH)	MWD	MWD - Standard



Professional Directional Wellpath Report



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Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	TFace (°)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	571,106.46	851,520.23	0.00
1,441.00	0.30	95.80	1,440.99	-0.38	3.75	1.72	0.02	571,106.08	851,523.98	95.80
ProDirectional First Survey: 1,441' MD										
1,547.00	2.20	56.10	1,546.96	0.73	5.72	3.71	1.87	571,107.19	851,525.95	-45.26
1,681.00	5.10	54.10	1,680.68	5.65	12.68	11.63	2.17	571,112.11	851,532.91	-3.51
1,860.00	8.60	50.20	1,858.37	18.89	29.41	31.83	1.97	571,125.35	851,549.64	-9.51
2,038.00	11.20	42.30	2,033.72	40.20	51.28	61.59	1.64	571,146.66	851,571.51	-31.51
2,217.00	12.50	37.40	2,208.90	68.45	74.74	98.05	0.92	571,174.91	851,594.97	-40.16
2,396.00	11.40	28.20	2,384.04	99.43	94.87	135.00	1.23	571,205.89	851,615.10	-124.45
2,575.00	9.90	33.60	2,559.95	127.84	111.75	168.02	1.01	571,234.30	851,631.98	149.00
2,754.00	9.00	26.20	2,736.53	153.22	126.44	197.32	0.84	571,259.68	851,646.67	-130.14
2,933.00	10.80	32.10	2,912.86	179.99	141.54	228.00	1.15	571,286.45	851,661.77	32.33
3,112.00	9.90	30.00	3,088.95	207.53	158.14	260.13	0.55	571,313.99	851,678.37	-158.29
3,291.00	9.50	28.50	3,265.39	233.83	172.89	290.23	0.26	571,340.29	851,693.12	-148.45
3,470.00	10.80	26.90	3,441.58	261.77	187.52	321.64	0.74	571,368.23	851,707.75	-13.03
3,648.00	12.00	25.30	3,616.07	293.38	202.98	356.57	0.70	571,399.84	851,723.21	-15.55
3,827.00	10.80	30.90	3,791.54	324.59	219.54	391.78	0.91	571,431.05	851,739.77	140.03
4,006.00	9.90	36.20	3,967.63	351.40	237.24	423.90	0.73	571,457.86	851,757.47	135.97
4,178.00	10.20	34.30	4,136.99	375.91	254.56	453.89	0.26	571,482.37	851,774.79	-48.80
Last Survey: 4,178' MD, 4,136.99' TVD										
4,237.00	10.20	34.30	4,195.06	384.54	260.45	464.33	0.00	571,491.00	851,780.68	0.00
PTB: 4,237' MD										



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Wellpath Report



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Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,441.00	1,440.99	-0.38	3.75	ProDirectional First Survey: 1,441' MD
4,178.00	4,136.99	375.91	254.56	Last Survey: 4,178' MD, 4,136.99' TVD
4,237.00	4,195.06	384.54	260.45	PTB: 4,237' MD