

LEA COUNTY PLANNING DEPARTMENT 1000 W. 1ST AVENUE, SUITE 100, DENVER, CO 80202-1000 TEL: 303.733.1000 FAX: 303.733.1001

Robert E. Landreth
Lea County
Rainbow 16 State
#1
OH

RECEIVED
JUN 02 2010
HOBBSOCD

Plan: Plan #1

Pathfinder X & Y Planning Report

08 April, 2010

PATHFINDER

30-025-39719

Robert E. Landreth

PROJECT DETAILS: Lea County
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1858
Zone: New Mexico East 3001
System Datum: Mean Sea Level
Local North: Grid

Project: Lea County
Site: Rainbow 16 State
Well: #1
Wellbore: OH
Plan: Plan #1 (#1/OH)



Azimuths to Grid North
True North: -0.51°
Magnetic North: 7.10°

Magnetic Field
Strength: 48731.7 nT
Dip Angle: 60.18°
Date: 04/08/2010
Model: IGRF200510

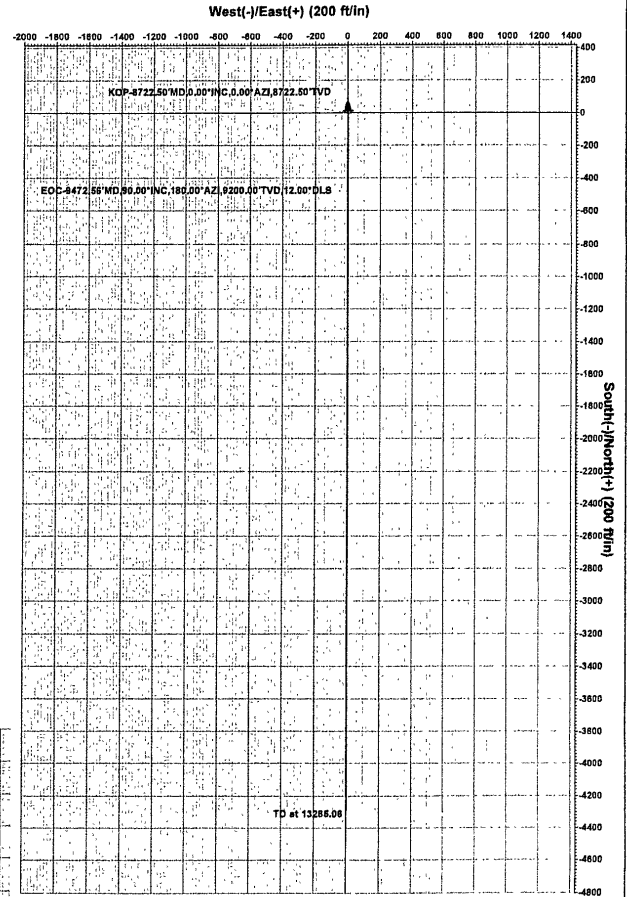
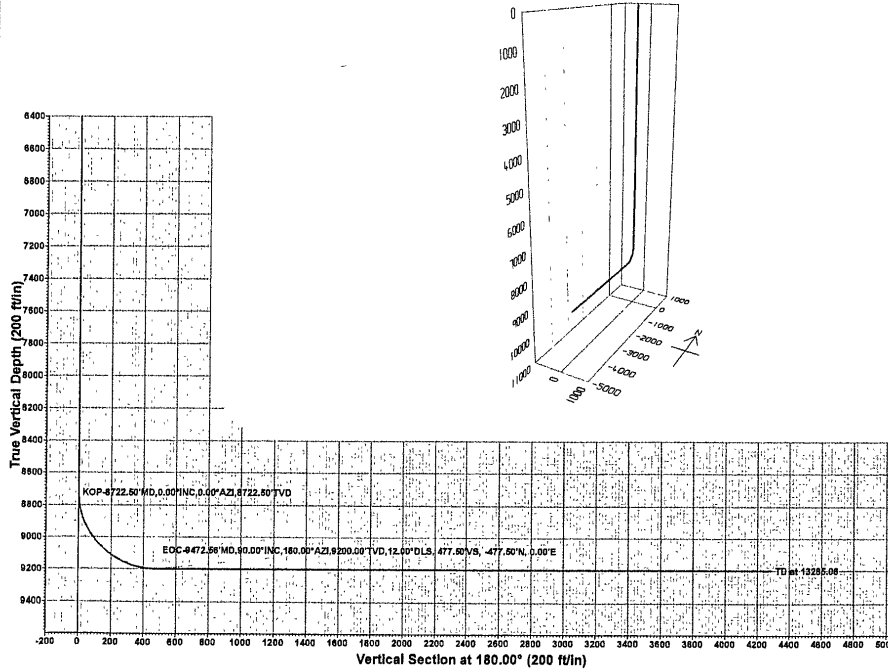
PATHFINDER

WELL DETAILS: #1							
Ground Elevation: 3232.00							
RKB Elevation: WELL @ 3260.00ft (18" KB Correction)							
Rig Name: 18" KB Correction							
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot	
0.00	6.00	411781.600	795281.600	32° 7' 42.374 N	103° 22' 11.687 W		

LEGEND

← Plan #1

SECTION DETAILS											
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target	
1	8722.50	0.00	0.00	8722.50	0.00	0.00	0.00	0.00	0.00	0.00	
2	9472.50	90.00	180.00	9200.00	-477.50	0.00	12.00	180.00	477.50		
3	13285.00	90.00	180.00	9200.00	-4285.00	0.00	0.00	0.00	4285.00		



Plan: Plan #1 (#1/OH)
Created By: Nate Bingham Date: 14 Apr 08 2010
Checked: _____ Date: _____

Pathfinder
Pathfinder X & Y Planning Report



Company: Robert E. Landreth
Project: Lea County
Site: Rainbow 16 State
Well: #1
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #1
TVD Reference: WELL @ 3250.00ft (18' KB Correction)
MD Reference: WELL @ 3250.00ft (18' KB Correction)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland Database

Project:	Lea County		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site		Rainbow 16 State			
Site Position:		Northing:		411,781.400 ft	
From:		Easting:		798,261.500 ft	
Position Uncertainty:		Slot Radius:		"	
Map				Latitude:	
0.00 ft				32° 7' 42.374 N	
				Longitude:	
				103° 22' 11.487 W	
				Grid Convergence:	
				0.51 °	

Well	#1					
Well Position	+N/-S	0.00 ft	Northing:	411,781.400 ft	Latitude:	32° 7' 42.374 N
	+E/-W	0.00 ft	Easting:	798,261.500 ft	Longitude:	103° 22' 11.487 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	3,232.00 ft

Wellbore		OH			
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF200510	04/08/2010	7.62	60.18	48,732

Design:	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	8,722.50
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	180.00

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Survey Tool Program Date 04/08/2010

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	8,722.50	Plan #1 (Pilot Hole)		
8,722.50	13,285.06	Plan #1 (OH)		

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
0.00	0.00	0.00	0.00	-3,250.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
100.00	0.00	0.00	100.00	-3,150.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
200.00	0.00	0.00	200.00	-3,050.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
300.00	0.00	0.00	300.00	-2,950.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
400.00	0.00	0.00	400.00	-2,850.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
500.00	0.00	0.00	500.00	-2,750.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
600.00	0.00	0.00	600.00	-2,650.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
700.00	0.00	0.00	700.00	-2,550.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
800.00	0.00	0.00	800.00	-2,450.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
900.00	0.00	0.00	900.00	-2,350.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
1,000.00	0.00	0.00	1,000.00	-2,250.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
1,100.00	0.00	0.00	1,100.00	-2,150.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
1,200.00	0.00	0.00	1,200.00	-2,050.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
1,300.00	0.00	0.00	1,300.00	-1,950.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
1,400.00	0.00	0.00	1,400.00	-1,850.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
1,500.00	0.00	0.00	1,500.00	-1,750.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
1,600.00	0.00	0.00	1,600.00	-1,650.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
1,700.00	0.00	0.00	1,700.00	-1,550.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
1,800.00	0.00	0.00	1,800.00	-1,450.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
1,900.00	0.00	0.00	1,900.00	-1,350.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
2,000.00	0.00	0.00	2,000.00	-1,250.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50

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2,100.00	0.00	0.00	2,100.00	-1,150.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
2,200.00	0.00	0.00	2,200.00	-1,050.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
2,300.00	0.00	0.00	2,300.00	-950.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
2,400.00	0.00	0.00	2,400.00	-850.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
2,500.00	0.00	0.00	2,500.00	-750.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
2,600.00	0.00	0.00	2,600.00	-650.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
2,700.00	0.00	0.00	2,700.00	-550.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
2,800.00	0.00	0.00	2,800.00	-450.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
2,900.00	0.00	0.00	2,900.00	-350.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
3,000.00	0.00	0.00	3,000.00	-250.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
3,100.00	0.00	0.00	3,100.00	-150.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
3,200.00	0.00	0.00	3,200.00	-50.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
3,300.00	0.00	0.00	3,300.00	50.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
3,400.00	0.00	0.00	3,400.00	150.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
3,500.00	0.00	0.00	3,500.00	250.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
3,600.00	0.00	0.00	3,600.00	350.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
3,700.00	0.00	0.00	3,700.00	450.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
3,800.00	0.00	0.00	3,800.00	550.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
3,900.00	0.00	0.00	3,900.00	650.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
4,000.00	0.00	0.00	4,000.00	750.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
4,100.00	0.00	0.00	4,100.00	850.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
4,200.00	0.00	0.00	4,200.00	950.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
4,300.00	0.00	0.00	4,300.00	1,050.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
4,400.00	0.00	0.00	4,400.00	1,150.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
4,500.00	0.00	0.00	4,500.00	1,250.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
4,600.00	0.00	0.00	4,600.00	1,350.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
4,700.00	0.00	0.00	4,700.00	1,450.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50

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4,800.00	0.00	0.00	4,800.00	1,550.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
4,900.00	0.00	0.00	4,900.00	1,650.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
5,000.00	0.00	0.00	5,000.00	1,750.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
5,100.00	0.00	0.00	5,100.00	1,850.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
5,200.00	0.00	0.00	5,200.00	1,950.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
5,300.00	0.00	0.00	5,300.00	2,050.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
5,400.00	0.00	0.00	5,400.00	2,150.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
5,500.00	0.00	0.00	5,500.00	2,250.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
5,600.00	0.00	0.00	5,600.00	2,350.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
5,700.00	0.00	0.00	5,700.00	2,450.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
5,800.00	0.00	0.00	5,800.00	2,550.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
5,900.00	0.00	0.00	5,900.00	2,650.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
6,000.00	0.00	0.00	6,000.00	2,750.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
6,100.00	0.00	0.00	6,100.00	2,850.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
6,200.00	0.00	0.00	6,200.00	2,950.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
6,300.00	0.00	0.00	6,300.00	3,050.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
6,400.00	0.00	0.00	6,400.00	3,150.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
6,500.00	0.00	0.00	6,500.00	3,250.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
6,600.00	0.00	0.00	6,600.00	3,350.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
6,700.00	0.00	0.00	6,700.00	3,450.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
6,800.00	0.00	0.00	6,800.00	3,550.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
6,900.00	0.00	0.00	6,900.00	3,650.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
7,000.00	0.00	0.00	7,000.00	3,750.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
7,100.00	0.00	0.00	7,100.00	3,850.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
7,200.00	0.00	0.00	7,200.00	3,950.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
7,300.00	0.00	0.00	7,300.00	4,050.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
7,400.00	0.00	0.00	7,400.00	4,150.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50

Pathfinder
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Design: Plan #1

Local Co-ordinate Reference: Well #1
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Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
7,500.00	0.00	0.00	7,500.00	4,250.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
7,600.00	0.00	0.00	7,600.00	4,350.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
7,700.00	0.00	0.00	7,700.00	4,450.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
7,800.00	0.00	0.00	7,800.00	4,550.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
7,900.00	0.00	0.00	7,900.00	4,650.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
8,000.00	0.00	0.00	8,000.00	4,750.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
8,100.00	0.00	0.00	8,100.00	4,850.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
8,200.00	0.00	0.00	8,200.00	4,950.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
8,300.00	0.00	0.00	8,300.00	5,050.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
8,400.00	0.00	0.00	8,400.00	5,150.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
8,500.00	0.00	0.00	8,500.00	5,250.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
8,600.00	0.00	0.00	8,600.00	5,350.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
8,700.00	0.00	0.00	8,700.00	5,450.00	0.00	0.00	0.00	0.00	411,781.40	798,261.50
8,722.50	0.00	0.00	8,722.50	5,472.50	0.00	0.00	0.00	0.00	411,781.40	798,261.50
KOP-8722.50' MD, 0.00° INC, 0.00° AZI, 8722.50' TVD										
8,725.00	0.30	180.00	8,725.00	5,475.00	-0.01	0.00	0.01	12.00	411,781.39	798,261.50
8,750.00	3.30	180.00	8,749.98	5,499.98	-0.79	0.00	0.79	12.00	411,780.61	798,261.50
8,775.00	6.30	180.00	8,774.89	5,524.89	-2.88	0.00	2.88	12.00	411,778.52	798,261.50
8,800.00	9.30	180.00	8,799.66	5,549.66	-6.28	0.00	6.28	12.00	411,775.12	798,261.50
8,825.00	12.30	180.00	8,824.21	5,574.21	-10.96	0.00	10.96	12.00	411,770.44	798,261.50
8,850.00	15.30	180.00	8,848.49	5,598.49	-16.92	0.00	16.92	12.00	411,764.48	798,261.50
8,875.00	18.30	180.00	8,872.42	5,622.42	-24.15	0.00	24.15	12.00	411,757.25	798,261.50
8,900.00	21.30	180.00	8,895.94	5,645.94	-32.61	0.00	32.61	12.00	411,748.79	798,261.50
8,925.00	24.30	180.00	8,918.98	5,668.98	-42.30	0.00	42.30	12.00	411,739.10	798,261.50
8,950.00	27.30	180.00	8,941.49	5,691.49	-53.18	0.00	53.18	12.00	411,728.22	798,261.50
8,975.00	30.30	180.00	8,963.40	5,713.40	-65.22	0.00	65.22	12.00	411,716.18	798,261.50
9,000.00	33.30	180.00	8,984.64	5,734.64	-78.39	0.00	78.39	12.00	411,703.01	798,261.50

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WELL @ 3250.00ft (18' KB Correction)
WELL @ 3250.00ft (18' KB Correction)
Grid
Minimum Curvature
Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
9,025.00	36.30	180.00	9,005.17	5,755.17	-92.66	0.00	92.66	12.00	411,688.74	798,261.50
9,050.00	39.30	180.00	9,024.92	5,774.92	-107.98	0.00	107.98	12.00	411,673.42	798,261.50
9,075.00	42.30	180.00	9,043.84	5,793.84	-124.31	0.00	124.31	12.00	411,657.09	798,261.50
9,100.00	45.30	180.00	9,061.89	5,811.89	-141.61	0.00	141.61	12.00	411,639.79	798,261.50
9,125.00	48.30	180.00	9,079.00	5,829.00	-159.83	0.00	159.83	12.00	411,621.57	798,261.50
9,150.00	51.30	180.00	9,095.14	5,845.14	-178.92	0.00	178.92	12.00	411,602.48	798,261.50
9,175.00	54.30	180.00	9,110.25	5,860.25	-198.83	0.00	198.83	12.00	411,582.57	798,261.50
9,200.00	57.30	180.00	9,124.30	5,874.30	-219.51	0.00	219.51	12.00	411,561.89	798,261.50
9,225.00	60.30	180.00	9,137.25	5,887.25	-240.89	0.00	240.89	12.00	411,540.51	798,261.50
9,250.00	63.30	180.00	9,149.07	5,899.07	-262.92	0.00	262.92	12.00	411,518.48	798,261.50
9,275.00	66.30	180.00	9,159.71	5,909.71	-285.53	0.00	285.53	12.00	411,495.87	798,261.50
9,300.00	69.29	180.00	9,169.16	5,919.16	-308.68	0.00	308.68	12.00	411,472.72	798,261.50
9,325.00	72.29	180.00	9,177.38	5,927.38	-332.28	0.00	332.28	12.00	411,449.12	798,261.50
9,350.00	75.29	180.00	9,184.36	5,934.36	-356.29	0.00	356.29	12.00	411,425.11	798,261.50
9,375.00	78.29	180.00	9,190.07	5,940.07	-380.62	0.00	380.62	12.00	411,400.78	798,261.50
9,400.00	81.29	180.00	9,194.50	5,944.50	-405.22	0.00	405.22	12.00	411,376.18	798,261.50
9,425.00	84.29	180.00	9,197.63	5,947.63	-430.02	0.00	430.02	12.00	411,351.38	798,261.50
9,450.00	87.29	180.00	9,199.47	5,949.47	-454.95	0.00	454.95	12.00	411,326.45	798,261.50
9,472.56	90.00	180.00	9,200.00	5,950.00	-477.50	0.00	477.50	12.00	411,303.90	798,261.50
EOC-9472.56°MD,90.00°INC,180.00°AZI,9200.00°TVD,12.00°DLS,477.50°VS,-477.50°N,0.00°E										
9,500.00	90.00	180.00	9,200.00	5,950.00	-504.94	0.00	504.94	0.00	411,276.46	798,261.50
9,600.00	90.00	180.00	9,200.00	5,950.00	-604.94	0.00	604.94	0.00	411,176.46	798,261.50
9,700.00	90.00	180.00	9,200.00	5,950.00	-704.94	0.00	704.94	0.00	411,076.46	798,261.50
9,800.00	90.00	180.00	9,200.00	5,950.00	-804.94	0.00	804.94	0.00	410,976.46	798,261.50
9,900.00	90.00	180.00	9,200.00	5,950.00	-904.94	0.00	904.94	0.00	410,876.46	798,261.50
10,000.00	90.00	180.00	9,200.00	5,950.00	-1,004.94	0.00	1,004.94	0.00	410,776.46	798,261.50
10,100.00	90.00	180.00	9,200.00	5,950.00	-1,104.94	0.00	1,104.94	0.00	410,676.46	798,261.50

Pathfinder
Pathfinder X & Y Planning Report



Company: Robert E. Landreth
Project: Lea County
Site: Rainbow 16 State
Well: #1
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #1
TVD Reference: WELL @ 3250.00ft (18' KB Correction)
MD Reference: WELL @ 3250.00ft (18' KB Correction)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
10,200.00	90.00	180.00	9,200.00	5,950.00	-1,204.94	0.00	1,204.94	0.00	410,576.46	798,261.50
10,300.00	90.00	180.00	9,200.00	5,950.00	-1,304.94	0.00	1,304.94	0.00	410,476.46	798,261.50
10,400.00	90.00	180.00	9,200.00	5,950.00	-1,404.94	0.00	1,404.94	0.00	410,376.46	798,261.50
10,500.00	90.00	180.00	9,200.00	5,950.00	-1,504.94	0.00	1,504.94	0.00	410,276.46	798,261.50
10,600.00	90.00	180.00	9,200.00	5,950.00	-1,604.94	0.00	1,604.94	0.00	410,176.46	798,261.50
10,700.00	90.00	180.00	9,200.00	5,950.00	-1,704.94	0.00	1,704.94	0.00	410,076.46	798,261.50
10,800.00	90.00	180.00	9,200.00	5,950.00	-1,804.94	0.00	1,804.94	0.00	409,976.46	798,261.50
10,900.00	90.00	180.00	9,200.00	5,950.00	-1,904.94	0.00	1,904.94	0.00	409,876.46	798,261.50
11,000.00	90.00	180.00	9,200.00	5,950.00	-2,004.94	0.00	2,004.94	0.00	409,776.46	798,261.50
11,100.00	90.00	180.00	9,200.00	5,950.00	-2,104.94	0.00	2,104.94	0.00	409,676.46	798,261.50
11,200.00	90.00	180.00	9,200.00	5,950.00	-2,204.94	0.00	2,204.94	0.00	409,576.46	798,261.50
11,300.00	90.00	180.00	9,200.00	5,950.00	-2,304.94	0.00	2,304.94	0.00	409,476.46	798,261.50
11,400.00	90.00	180.00	9,200.00	5,950.00	-2,404.94	0.00	2,404.94	0.00	409,376.46	798,261.50
11,500.00	90.00	180.00	9,200.00	5,950.00	-2,504.94	0.00	2,504.94	0.00	409,276.46	798,261.50
11,600.00	90.00	180.00	9,200.00	5,950.00	-2,604.94	0.00	2,604.94	0.00	409,176.46	798,261.50
11,700.00	90.00	180.00	9,200.00	5,950.00	-2,704.94	0.00	2,704.94	0.00	409,076.46	798,261.50
11,800.00	90.00	180.00	9,200.00	5,950.00	-2,804.94	0.00	2,804.94	0.00	408,976.46	798,261.50
11,900.00	90.00	180.00	9,200.00	5,950.00	-2,904.94	0.00	2,904.94	0.00	408,876.46	798,261.50
12,000.00	90.00	180.00	9,200.00	5,950.00	-3,004.94	0.00	3,004.94	0.00	408,776.46	798,261.50
12,100.00	90.00	180.00	9,200.00	5,950.00	-3,104.94	0.00	3,104.94	0.00	408,676.46	798,261.50
12,200.00	90.00	180.00	9,200.00	5,950.00	-3,204.94	0.00	3,204.94	0.00	408,576.46	798,261.50
12,300.00	90.00	180.00	9,200.00	5,950.00	-3,304.94	0.00	3,304.94	0.00	408,476.46	798,261.50
12,400.00	90.00	180.00	9,200.00	5,950.00	-3,404.94	0.00	3,404.94	0.00	408,376.46	798,261.50
12,500.00	90.00	180.00	9,200.00	5,950.00	-3,504.94	0.00	3,504.94	0.00	408,276.46	798,261.50
12,600.00	90.00	180.00	9,200.00	5,950.00	-3,604.94	0.00	3,604.94	0.00	408,176.46	798,261.50
12,700.00	90.00	180.00	9,200.00	5,950.00	-3,704.94	0.00	3,704.94	0.00	408,076.46	798,261.50
12,800.00	90.00	180.00	9,200.00	5,950.00	-3,804.94	0.00	3,804.94	0.00	407,976.46	798,261.50

Pathfinder
Pathfinder X & Y Planning Report



Company: Robert E. Landreth
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MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
12,900.00	90.00	180.00	9,200.00	5,950.00	-3,904.94	0.00	3,904.94	0.00	407,876.46	798,261.50
13,000.00	90.00	180.00	9,200.00	5,950.00	-4,004.94	0.00	4,004.94	0.00	407,776.46	798,261.50
13,100.00	90.00	180.00	9,200.00	5,950.00	-4,104.94	0.00	4,104.94	0.00	407,676.46	798,261.50
13,200.00	90.00	180.00	9,200.00	5,950.00	-4,204.94	0.00	4,204.94	0.00	407,576.46	798,261.50
13,285.06	90.00	180.00	9,200.00	5,950.00	-4,290.00	0.00	4,290.00	0.00	407,491.40	798,261.50

TD at 13285.06

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
8,722.50	8,722.50	0.00	0.00	KOP-8722.50'MD,0.00°INC,0.00°AZI,8722.50'TVD
9,472.56	9,200.00	-477.50	0.00	EOC-9472.56'MD,90.00°INC,180.00°AZI,9200.00'TVD,12.00°DLS, 477
13,285.06	9,200.00	-4,290.00	0.00	TD at 13285.06

Checked By: _____ Approved By: _____ Date: _____