



Caza Petroleum

Lea County
Moore Cowbell "27" State
#1H
OH

RECEIVED

DEC 21 2009
HOBBSD

Plan: Plan #1

Pathfinder X & Y Planning Report

18 December, 2009

PATHFINDER



Company:	Caza Petroleum	Local Co-ordinate Reference:	Well #1H
Project:	Lea County	TVD Reference:	WELL @ 4361.50ft (26.5'KB Correction)
Site:	Moore Cowbell "27" State	MD Reference:	WELL @ 4361.50ft (26.5'KB Correction)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	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	Moore Cowbell "27" State				
Site Position:		Northing:	816,927.280 ft	Latitude:	33° 14' 38.943 N
From:	Map	Easting:	693,692.810 ft	Longitude:	103° 41' 59.313 W
Position Uncertainty:	0.00 ft	Slot Radius:	"	Grid Convergence:	0.35 °

Well		#1H				
Well Position	+N/-S	0.00 ft	Northing:	816,927.280 ft	Latitude:	33° 14' 38.943 N
	+E/-W	0.00 ft	Easting:	693,692.810 ft	Longitude:	103° 41' 59.313 W
Position Uncertainty	0.00 ft		Wellhead Elevation:	ft	Ground Level:	4,335.00 ft

Wellbore	OH
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	11/30/2009	7.90	61.16	49,392

Design	Plan #1
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Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	269.60

Survey Tool Program		Date 12/18/2009		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	12,502.23	Plan #1 (OH)	MWD	MWD - Standard



Pathfinder Energy Services
Pathfinder X & Y Planning Report



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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)		
0.00	0.00	0.00	0.00	-4,361.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81		
100.00	0.00	0.00	100.00	-4,261.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81		
200.00	0.00	0.00	200.00	-4,161.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81		
300.00	0.00	0.00	300.00	-4,061.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81		
400.00	0.00	0.00	400.00	-3,961.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81		
500.00	0.00	0.00	500.00	-3,861.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81		
600.00	0.00	0.00	600.00	-3,761.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81		
700.00	0.00	0.00	700.00	-3,661.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81		
800.00	0.00	0.00	800.00	-3,561.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81		
900.00	0.00	0.00	900.00	-3,461.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81		
1,000.00	0.00	0.00	1,000.00	-3,361.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81		
1,100.00	0.00	0.00	1,100.00	-3,261.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81		
1,200.00	0.00	0.00	1,200.00	-3,161.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81		
1,300.00	0.00	0.00	1,300.00	-3,061.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81		
1,400.00	0.00	0.00	1,400.00	-2,961.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81		
1,500.00	0.00	0.00	1,500.00	-2,861.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81		
1,600.00	0.00	0.00	1,600.00	-2,761.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81		
1,700.00	0.00	0.00	1,700.00	-2,661.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81		
1,800.00	0.00	0.00	1,800.00	-2,561.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81		
1,900.00	0.00	0.00	1,900.00	-2,461.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81		
2,000.00	0.00	0.00	2,000.00	-2,361.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81		
2,100.00	0.00	0.00	2,100.00	-2,261.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81		
2,200.00	0.00	0.00	2,200.00	-2,161.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81		
2,300.00	0.00	0.00	2,300.00	-2,061.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81		
2,400.00	0.00	0.00	2,400.00	-1,961.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81		
2,500.00	0.00	0.00	2,500.00	-1,861.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81		
2,600.00	0.00	0.00	2,600.00	-1,761.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81		



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Planned Survey											
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2,700.00	0.00	0.00	2,700.00	-1,661.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
2,800.00	0.00	0.00	2,800.00	-1,561.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
2,900.00	0.00	0.00	2,900.00	-1,461.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
3,000.00	0.00	0.00	3,000.00	-1,361.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
3,100.00	0.00	0.00	3,100.00	-1,261.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
3,200.00	0.00	0.00	3,200.00	-1,161.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
3,300.00	0.00	0.00	3,300.00	-1,061.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
3,400.00	0.00	0.00	3,400.00	-961.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
3,500.00	0.00	0.00	3,500.00	-861.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
3,600.00	0.00	0.00	3,600.00	-761.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
3,700.00	0.00	0.00	3,700.00	-661.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
3,800.00	0.00	0.00	3,800.00	-561.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
3,900.00	0.00	0.00	3,900.00	-461.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
4,000.00	0.00	0.00	4,000.00	-361.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
4,100.00	0.00	0.00	4,100.00	-261.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
4,200.00	0.00	0.00	4,200.00	-161.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
4,300.00	0.00	0.00	4,300.00	-61.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
4,400.00	0.00	0.00	4,400.00	38.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
4,500.00	0.00	0.00	4,500.00	138.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
4,600.00	0.00	0.00	4,600.00	238.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
4,700.00	0.00	0.00	4,700.00	338.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
4,800.00	0.00	0.00	4,800.00	438.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
4,900.00	0.00	0.00	4,900.00	538.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
5,000.00	0.00	0.00	5,000.00	638.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
5,100.00	0.00	0.00	5,100.00	738.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
5,200.00	0.00	0.00	5,200.00	838.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
5,300.00	0.00	0.00	5,300.00	938.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	



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5,400.00	0.00	0.00	5,400.00	1,038.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
5,500.00	0.00	0.00	5,500.00	1,138.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
5,600.00	0.00	0.00	5,600.00	1,238.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
5,700.00	0.00	0.00	5,700.00	1,338.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
5,800.00	0.00	0.00	5,800.00	1,438.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
5,900.00	0.00	0.00	5,900.00	1,538.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
6,000.00	0.00	0.00	6,000.00	1,638.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
6,100.00	0.00	0.00	6,100.00	1,738.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
6,200.00	0.00	0.00	6,200.00	1,838.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
6,300.00	0.00	0.00	6,300.00	1,938.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
6,400.00	0.00	0.00	6,400.00	2,038.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
6,500.00	0.00	0.00	6,500.00	2,138.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
6,600.00	0.00	0.00	6,600.00	2,238.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
6,700.00	0.00	0.00	6,700.00	2,338.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
6,800.00	0.00	0.00	6,800.00	2,438.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
6,900.00	0.00	0.00	6,900.00	2,538.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
7,000.00	0.00	0.00	7,000.00	2,638.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
7,100.00	0.00	0.00	7,100.00	2,738.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
7,200.00	0.00	0.00	7,200.00	2,838.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
7,300.00	0.00	0.00	7,300.00	2,938.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
7,400.00	0.00	0.00	7,400.00	3,038.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
7,500.00	0.00	0.00	7,500.00	3,138.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
7,600.00	0.00	0.00	7,600.00	3,238.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
7,700.00	0.00	0.00	7,700.00	3,338.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
7,800.00	0.00	0.00	7,800.00	3,438.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
7,900.00	0.00	0.00	7,900.00	3,538.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	
8,000.00	0.00	0.00	8,000.00	3,638.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81	



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Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
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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)
8,100.00	0.00	0.00	8,100.00	3,738.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81
8,200.00	0.00	0.00	8,200.00	3,838.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81
8,300.00	0.00	0.00	8,300.00	3,938.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81
8,313.00	0.00	0.00	8,313.00	3,951.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81
KOP-8313.00°MD,0.00°INC,0.00°AZI,8313.00°TVD										
8,339.00	0.00	0.00	8,339.00	3,977.50	0.00	0.00	0.00	0.00	816,927.28	693,692.81
8,350.00	1.87	269.60	8,350.00	3,988.50	0.00	-0.18	0.18	17.00	816,927.28	693,692.63
8,375.00	6.12	269.60	8,374.93	4,013.43	-0.01	-1.92	1.92	17.00	816,927.27	693,690.89
8,400.00	10.37	269.60	8,399.67	4,038.17	-0.04	-5.51	5.51	17.00	816,927.24	693,687.30
8,425.00	14.62	269.60	8,424.07	4,062.57	-0.08	-10.91	10.91	17.00	816,927.20	693,681.90
8,450.00	18.87	269.60	8,448.00	4,086.50	-0.13	-18.11	18.11	17.00	816,927.15	693,674.70
8,475.00	23.12	269.60	8,471.34	4,109.84	-0.19	-27.07	27.07	17.00	816,927.09	693,665.74
8,500.00	27.37	269.60	8,493.95	4,132.45	-0.26	-37.73	37.73	17.00	816,927.02	693,655.08
8,525.00	31.62	269.60	8,515.70	4,154.20	-0.35	-50.03	50.04	17.00	816,926.93	693,642.78
8,550.00	35.87	269.60	8,536.48	4,174.98	-0.45	-63.92	63.92	17.00	816,926.83	693,628.89
8,575.00	40.12	269.60	8,556.18	4,194.68	-0.55	-79.30	79.31	17.00	816,926.73	693,613.51
8,600.00	44.37	269.60	8,574.68	4,213.18	-0.67	-96.11	96.11	17.00	816,926.61	693,596.70
8,625.00	48.62	269.60	8,591.89	4,230.39	-0.80	-114.24	114.24	17.00	816,926.48	693,578.57
8,650.00	52.87	269.60	8,607.71	4,246.21	-0.93	-133.59	133.59	17.00	816,926.35	693,559.22
8,675.00	57.12	269.60	8,622.04	4,260.54	-1.08	-154.06	154.07	17.00	816,926.20	693,538.75
8,700.00	61.37	269.60	8,634.82	4,273.32	-1.23	-175.54	175.54	17.00	816,926.05	693,517.27
8,725.00	65.62	269.60	8,645.98	4,284.48	-1.38	-197.91	197.91	17.00	816,925.90	693,494.90
8,750.00	69.87	269.60	8,655.44	4,293.94	-1.54	-221.04	221.04	17.00	816,925.74	693,471.77
8,775.00	74.12	269.60	8,663.17	4,301.67	-1.71	-244.81	244.82	17.00	816,925.57	693,448.00
8,800.00	78.37	269.60	8,669.11	4,307.61	-1.88	-269.09	269.09	17.00	816,925.40	693,423.72
8,816.82	81.23	269.60	8,672.09	4,310.59	-1.99	-285.63	285.64	17.00	816,925.29	693,407.18

Build to 8816.82°MD,86.00°INC,4.02°AZI,8647.84°TVD, 17.07° DLS



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8,825.00	82.62	269.60	8,673.24	4,311.74	-2.05	-293.74	293.74	17.00	816,925.23	693,399.07
8,844.88	86.00	269.60	8,675.21	4,313.71	-2.19	-313.51	313.52	17.00	816,925.09	693,379.30
8,896.82	88.60	269.60	8,677.66	4,316.16	-2.55	-365.39	365.40	5.00	816,924.73	693,327.42
EOC-8896.82°MD,90.00°INC,4.02°AZI,8650.63°TVD,5.00°DLS,392.18°VS,391.22°N,27.49°E										
8,900.00	88.76	269.60	8,677.73	4,316.23	-2.57	-368.57	368.58	5.00	816,924.71	693,324.24
8,924.88	90.00	269.60	8,678.00	4,316.50	-2.75	-393.45	393.46	5.00	816,924.53	693,299.36
8,959.54	88.95	269.60	8,678.32	4,316.82	-2.99	-428.11	428.12	3.04	816,924.29	693,264.70
9,000.00	88.95	269.60	8,679.06	4,317.56	-3.27	-468.56	468.57	0.00	816,924.01	693,224.25
9,100.00	88.95	269.60	8,680.90	4,319.40	-3.98	-568.54	568.55	0.00	816,923.30	693,124.27
9,200.00	88.95	269.60	8,682.74	4,321.24	-4.68	-668.52	668.54	0.00	816,922.60	693,024.29
9,300.00	88.95	269.60	8,684.58	4,323.08	-5.39	-768.50	768.52	0.00	816,921.89	692,924.31
9,400.00	88.95	269.60	8,686.42	4,324.92	-6.09	-868.48	868.50	0.00	816,921.19	692,824.33
9,500.00	88.95	269.60	8,688.26	4,326.76	-6.80	-968.46	968.48	0.00	816,920.48	692,724.35
9,600.00	88.95	269.60	8,690.10	4,328.60	-7.50	-1,068.44	1,068.47	0.00	816,919.78	692,624.37
9,700.00	88.95	269.60	8,691.94	4,330.44	-8.20	-1,168.42	1,168.45	0.00	816,919.08	692,524.39
9,800.00	88.95	269.60	8,693.78	4,332.28	-8.91	-1,268.40	1,268.43	0.00	816,918.37	692,424.41
9,900.00	88.95	269.60	8,695.62	4,334.12	-9.61	-1,368.38	1,368.42	0.00	816,917.67	692,324.43
10,000.00	88.95	269.60	8,697.46	4,335.96	-10.32	-1,468.36	1,468.40	0.00	816,916.96	692,224.45
10,100.00	88.95	269.60	8,699.30	4,337.80	-11.02	-1,568.34	1,568.38	0.00	816,916.26	692,124.47
10,200.00	88.95	269.60	8,701.13	4,339.63	-11.73	-1,668.33	1,668.37	0.00	816,915.55	692,024.48
10,300.00	88.95	269.60	8,702.97	4,341.47	-12.43	-1,768.31	1,768.35	0.00	816,914.85	691,924.50
10,400.00	88.95	269.60	8,704.81	4,343.31	-13.13	-1,868.29	1,868.33	0.00	816,914.15	691,824.52
10,491.73	88.95	269.60	8,706.50	4,345.00	-13.78	-1,960.00	1,960.05	0.00	816,913.50	691,732.81
10,503.62	89.30	269.60	8,706.68	4,345.18	-13.86	-1,971.89	1,971.94	3.00	816,913.42	691,720.92
10,600.00	89.30	269.60	8,707.85	4,346.35	-14.54	-2,068.26	2,068.31	0.00	816,912.74	691,624.55
10,700.00	89.30	269.60	8,709.07	4,347.57	-15.25	-2,168.25	2,168.30	0.00	816,912.03	691,524.56
10,800.00	89.30	269.60	8,710.29	4,348.79	-15.95	-2,268.24	2,268.29	0.00	816,911.33	691,424.57



Company:	Caza Petroleum	Local Co-ordinate Reference:	Well #1H
Project:	Lea County	TVD Reference:	WELL @ 4361.50ft (26.5'KB Correction)
Site:	Moore Cowbell "27" State	MD Reference:	WELL @ 4361.50ft (26.5'KB Correction)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	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)
10,900.00	89.30	269.60	8,711.50	4,350.00	-16.66	-2,368.23	2,368.29	0.00	816,910.62	691,324.58
11,000.00	89.30	269.60	8,712.72	4,351.22	-17.36	-2,468.22	2,468.28	0.00	816,909.92	691,224.59
11,100.00	89.30	269.60	8,713.94	4,352.44	-18.07	-2,568.21	2,568.27	0.00	816,909.21	691,124.60
11,200.00	89.30	269.60	8,715.15	4,353.65	-18.77	-2,668.20	2,668.26	0.00	816,908.51	691,024.61
11,300.00	89.30	269.60	8,716.37	4,354.87	-19.48	-2,768.19	2,768.26	0.00	816,907.80	690,924.62
11,400.00	89.30	269.60	8,717.59	4,356.09	-20.18	-2,868.18	2,868.25	0.00	816,907.10	690,824.63
11,500.00	89.30	269.60	8,718.81	4,357.31	-20.89	-2,968.17	2,968.24	0.00	816,906.39	690,724.64
11,600.00	89.30	269.60	8,720.02	4,358.52	-21.59	-3,068.16	3,068.23	0.00	816,905.69	690,624.65
11,700.00	89.30	269.60	8,721.24	4,359.74	-22.30	-3,168.15	3,168.23	0.00	816,904.98	690,524.66
11,800.00	89.30	269.60	8,722.46	4,360.96	-23.00	-3,268.14	3,268.22	0.00	816,904.28	690,424.67
11,900.00	89.30	269.60	8,723.67	4,362.17	-23.71	-3,368.13	3,368.21	0.00	816,903.57	690,324.68
12,000.00	89.30	269.60	8,724.89	4,363.39	-24.41	-3,468.12	3,468.20	0.00	816,902.87	690,224.69
12,100.00	89.30	269.60	8,726.11	4,364.61	-25.12	-3,568.11	3,568.20	0.00	816,902.16	690,124.70
12,200.00	89.30	269.60	8,727.32	4,365.82	-25.82	-3,668.10	3,668.19	0.00	816,901.46	690,024.71
12,300.00	89.30	269.60	8,728.54	4,367.04	-26.52	-3,768.09	3,768.18	0.00	816,900.76	689,924.72
12,400.00	89.30	269.60	8,729.76	4,368.26	-27.23	-3,868.08	3,868.18	0.00	816,900.05	689,824.73
12,502.23	89.30	269.60	8,731.00	4,369.50	-27.95	-3,970.30	3,970.40	0.00	816,899.33	689,722.51



Pathfinder Energy Services
Pathfinder X & Y Planning Report



Company:	Caza Petroleum	Local Co-ordinate Reference:	Well #1H
Project:	Lea County	TVD Reference:	WELL @ 4361.50ft (26.5'KB Correction)
Site:	Moore Cowbell "27" State	MD Reference:	WELL @ 4361.50ft (26.5'KB Correction)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	Midland Database

Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
TGT1@1960°VS(Mc# - plan hits target - Point	0.00	0.00	8,706.50	-13.78	-1,960.00	816,913.500	691,732.810	33° 14' 38.924 N	103° 42' 22.391 W
TGT0(MC#1H) - plan hits target - Point	0.00	0.00	8,678.50	-2.79	-400.00	816,924.490	693,292.810	33° 14' 38.939 N	103° 42' 4.023 W
PBHL(MC#1H) - plan hits target - Point	0.00	0.00	8,731.00	-27.95	-3,970.30	816,899.330	689,722.510	33° 14' 38.902 N	103° 42' 46.062 W

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
8,313.00	8,313.00	0.00	0.00	KOP-8313.00°MD,0.00°INC,0.00°AZI,8313.00°TVD
8,816.82	8,669.53	-2.01	-288.60	Build to 8816.82°MD,86.00° INC,4.02°AZI,8647.84°TVD, 17.07° DLS
8,896.82	8,674.73	-2.57	-368.39	EOC-8896.82°MD,90.00°INC,4.02°AZI,8650.63°TVD,5.00°DLS, 392.18"
12,808.51				TD at 12808.51

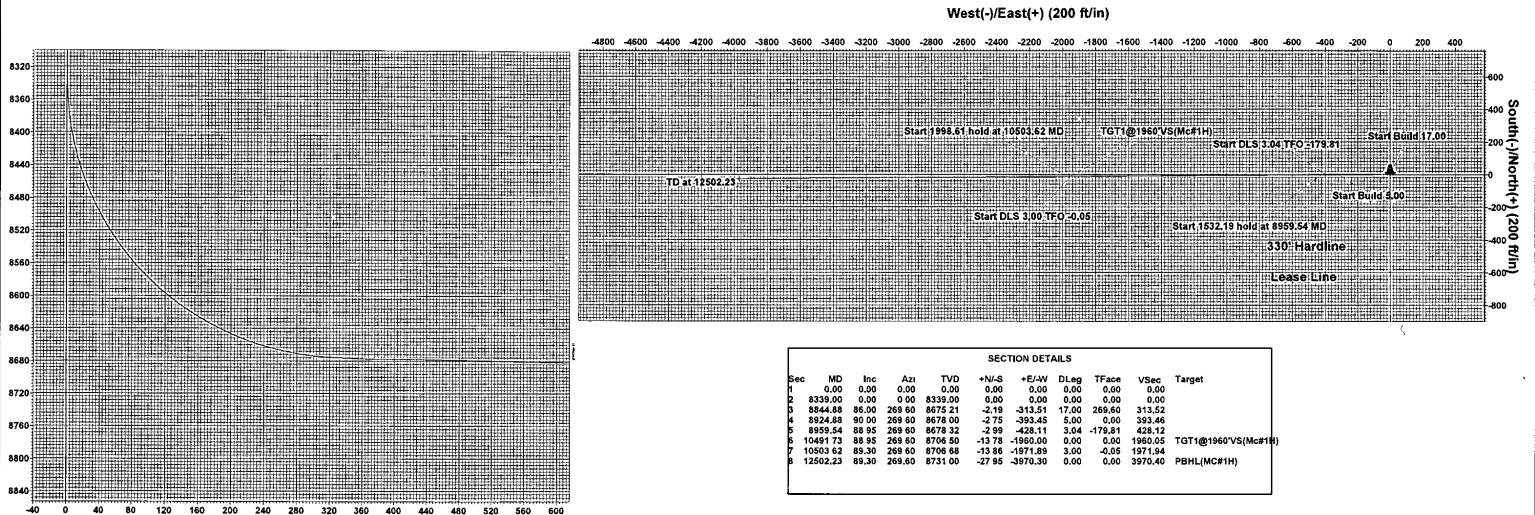
Checked By: _____	Approved By: _____	Date: _____
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Azimuths to Grid North
True North: -0.35°
Magnetic North: 7.55°

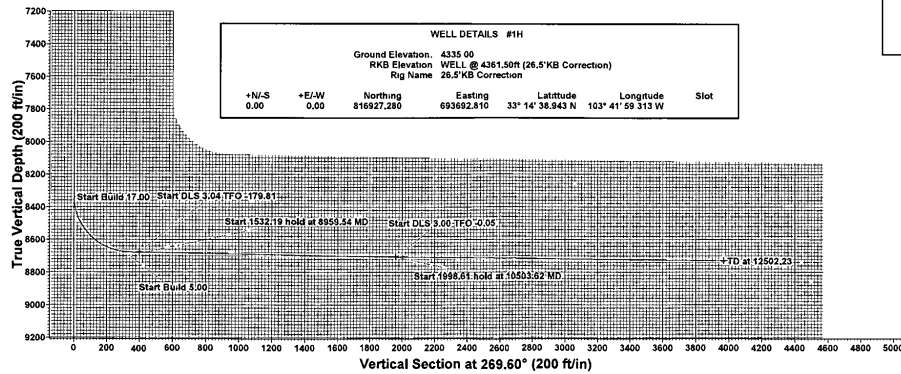
Magnetic Field
Strength: 49392.1snT
Dip Angle: 61.16°
Date: 11/30/2009
Model: IGRF200510

PATHFINDER



SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	8339.00	0.00	0.00	8339.00	0.00	0.00	0.00	0.00	0.00	
3	8944.88	86.00	269.60	8675.21	-2.19	-313.51	17.00	269.60	313.52	
4	8924.88	90.00	269.60	8678.00	-2.75	-393.45	5.00	0.00	393.46	
5	8959.54	88.95	269.60	8678.32	-2.99	-428.11	3.04	-179.81	428.12	
6	10491.73	88.95	269.60	8706.50	-13.78	-1960.00	0.00	0.00	1960.05	TGT1@1960°VS(Mc#1H)
7	10503.62	89.30	269.60	8706.68	-13.86	-1971.89	3.00	-0.05	1971.94	
8	12502.23	89.30	269.60	8731.00	-27.95	-3970.30	0.00	0.00	3970.40	PBHL(MC#1H)

PROJECT DETAILS: Lea County
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level
Local North: Grid



WELL DETAILS #1H						
Ground Elevation: 4335.00						
RKB Elevation: WELL @ 4361.50ft (26.5'KB Correction)						
Rig Name: 26.5'KB Correction						
+N-S	+E-W	North	East	Latitude	Longitude	Slot
0.00	0.00	816927.280	693892.810	33° 14' 38.843 N	103° 41' 59.313 W	

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)					
Name	TVD	+N-S	+E-W	North	East
TGT0(MC#1H)	76.50	-2.79	-400.00	816924.490	693292.810
TGT1@1960°VS(Mc#1H)	-13.78	-1960.00	816913.500	691732.810	Point
PBHL(MC#1H)	100	-27.95	-3970.30	816899.330	689722.510

Project: Lea County
Site: Moore Cowbell "27" State
Well: #1H
Wellbore: OH
Plan: Plan #1 (#1H/OH)

Plan Plan #1 (#1H/OH)			
Created By: Nate Bingham	Date: 18 17, December 18 2009		
Checked: _____	Date: _____		