



Site: Sec 24-T9S-R95W (Hawxhurst 24-9 Pad)
Well: Hawxhurst 19-13A
Wellbore: Wellbore #1
Design: Plan #1

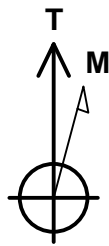
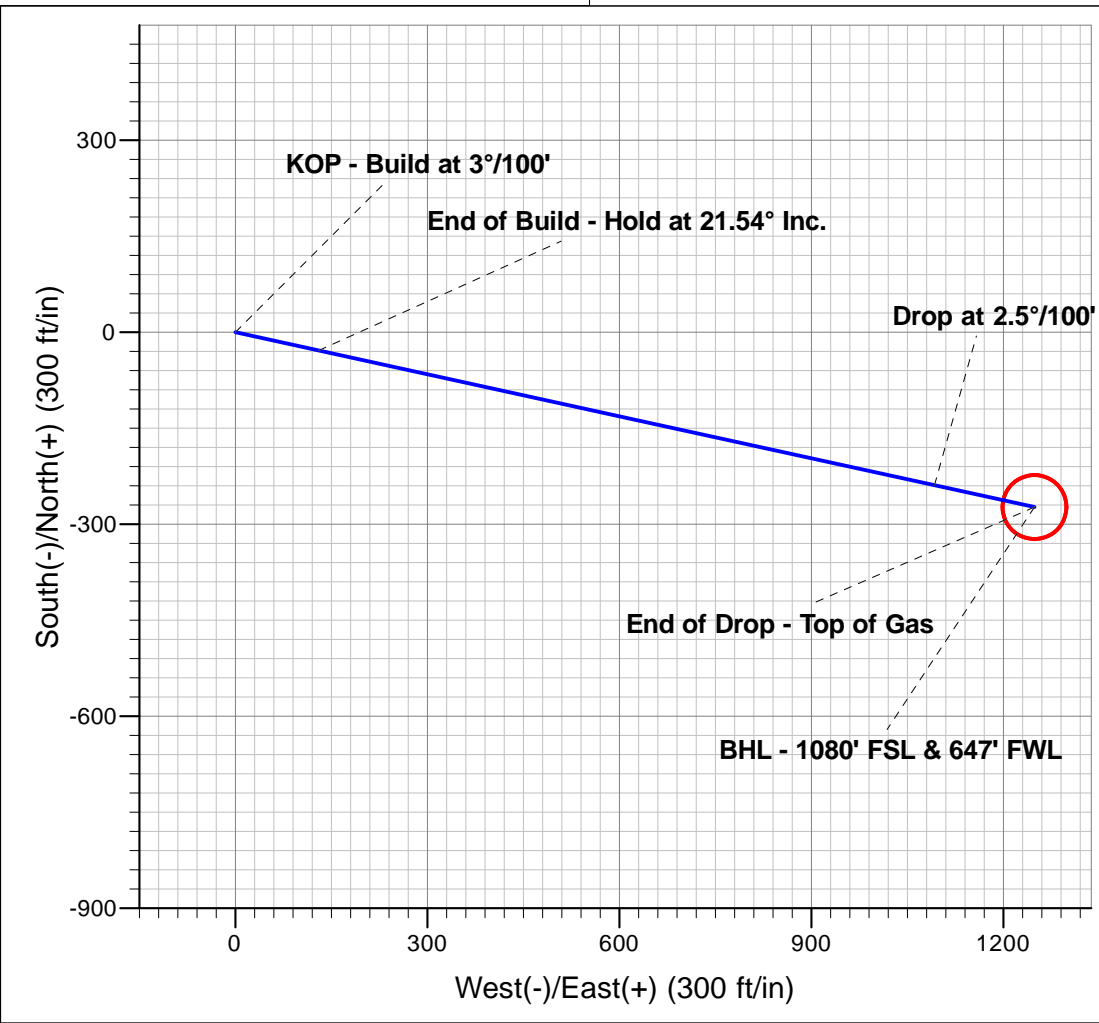
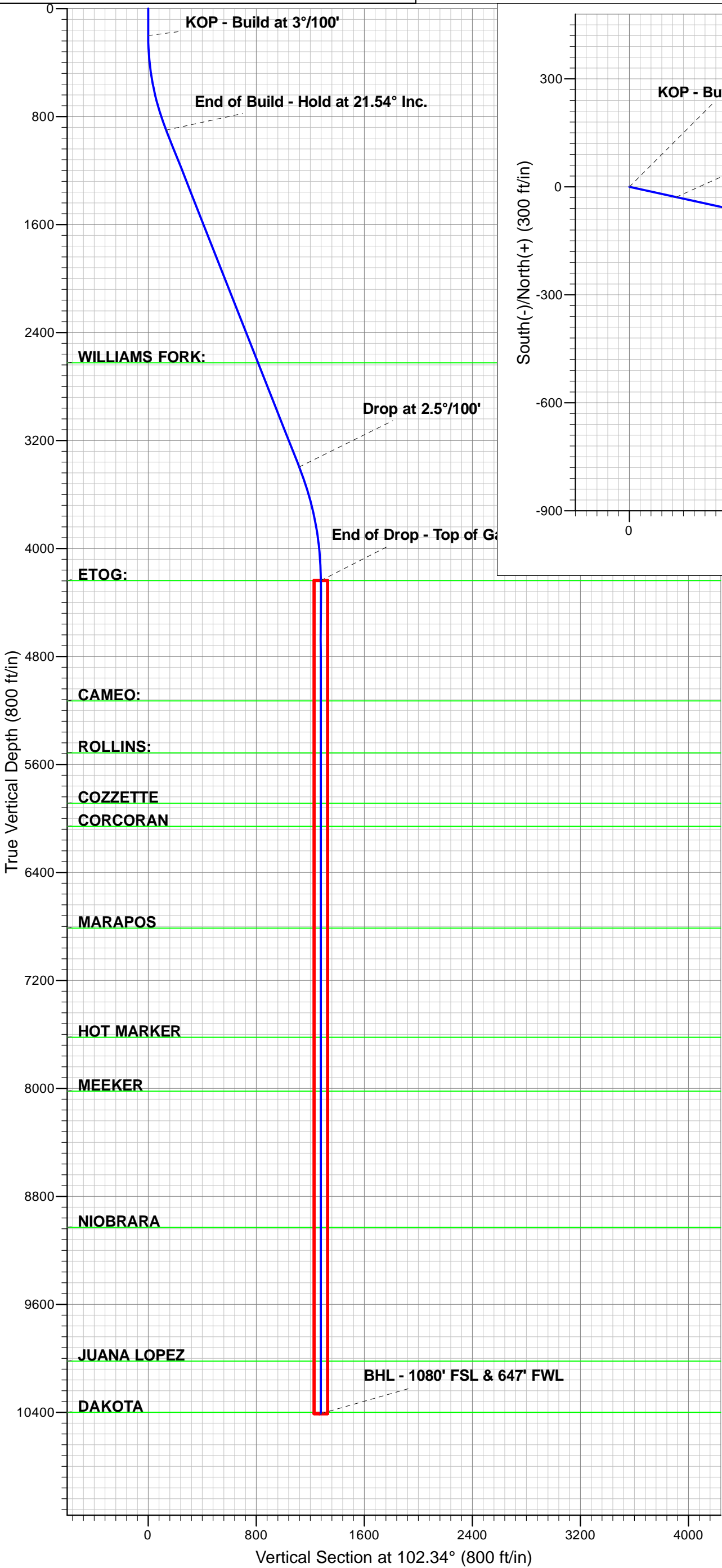
Reference Details - WELL CENTRE
Geodetic System: US State Plane 1983
Ellipsoid: GRS 1980
Zone: Colorado Central Zone
Northing: 1528638.45
Easting: 2310486.75
Latitude: 39° 15' 34.05582 N
Longitude: 107° 56' 7.69200 W
Grid Convergence: 1.54° East
Ground Elevation: 6354.00
KB Elevation: WELL @ 6375.00ft (Original Well Elev)



Departure
Energy Services (US) LP

Denver, Colorado
Phone: 303.542.2000

Casper, Wyoming
Phone: 307.265.2231
Fax: 307.472.5064
www.departureus.com



Azimuths to True North
Magnetic North: 10.27°

Magnetic Field
Strength: 52106.1snT
Dip Angle: 65.55°
Date: 08/25/2011
Model: IGRF2010



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Laramie Energy II, LLC

Mesa County, Colorado

Sec 24-T9S-R95W

Hawxhurst 19-13A

S- Well

Well Plan #1

Job Number: TBA

Well Plan Report

August 25, 2011

Database:	EDM Depart	Local Co-ordinate Reference:	Well Hawxhurst 19-13A
Company:	Laramie Energy II, LLC	TVD Reference:	WELL @ 6375.00ft (Original Well Elev)
Project:	MESA, CO	MD Reference:	WELL @ 6375.00ft (Original Well Elev)
Site:	Sec 24-T9S-R95W (Hawxhurst 24-9 Pad)	North Reference:	True
Well:	Hawxhurst 19-13A	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Project	MESA, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site		Sec 24-T9S-R95W (Hawxhurst 24-9 Pad)			
Site Position:		Northing:	1,528,625.77 ft	Latitude:	39° 15' 33.92280 N
From:	Lat/Long	Easting:	2,310,457.52 ft	Longitude:	107° 56' 8.05920 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	-1.54 °

Well	Hawxhurst 19-13A					
Well Position	+N/-S	13.46 ft	Northing:	1,528,638.46 ft	Latitude:	39° 15' 34.05582 N
	+E/-W	28.88 ft	Easting:	2,310,486.75 ft	Longitude:	107° 56' 7.69200 W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	6,354.00 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	08/25/11	10.27	65.55	52,106

Design	Plan #1			
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	102.34

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
917.88	21.54	102.34	901.10	-28.49	130.26	3.00	3.00	0.00	102.34	
3,600.78	21.54	102.34	3,396.68	-238.93	1,092.39	0.00	0.00	0.00	0.00	
4,462.24	0.00	0.00	4,238.00	-273.12	1,248.70	2.50	-2.50	0.00	180.00	Hawxhurst 19-13A TC
10,634.24	0.00	0.00	10,410.00	-273.12	1,248.70	0.00	0.00	0.00	0.00	Hawxhurst 19-13A Bt

Database:	EDM Depart	Local Co-ordinate Reference:	Well Hawxhurst 19-13A
Company:	Laramie Energy II, LLC	TVD Reference:	WELL @ 6375.00ft (Original Well Elev)
Project:	MESA, CO	MD Reference:	WELL @ 6375.00ft (Original Well Elev)
Site:	Sec 24-T9S-R95W (Hawxhurst 24-9 Pad)	North Reference:	True
Well:	Hawxhurst 19-13A	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
KOP - Build at 3°/100'										
300.00	3.00	102.34	299.95	-0.56	2.56	2.62	3.00	3.00	0.00	
400.00	6.00	102.34	399.63	-2.24	10.22	10.46	3.00	3.00	0.00	
500.00	9.00	102.34	498.77	-5.02	22.97	23.51	3.00	3.00	0.00	
600.00	12.00	102.34	597.08	-8.92	40.77	41.74	3.00	3.00	0.00	
700.00	15.00	102.34	694.31	-13.91	63.57	65.08	3.00	3.00	0.00	
800.00	18.00	102.34	790.18	-19.97	91.32	93.48	3.00	3.00	0.00	
900.00	21.00	102.34	884.43	-27.10	123.92	126.85	3.00	3.00	0.00	
917.88	21.54	102.34	901.10	-28.49	130.26	133.34	3.00	3.00	0.00	
End of Build - Hold at 21.54° Inc.										
1,000.00	21.54	102.34	977.48	-34.93	159.71	163.48	0.00	0.00	0.00	
1,100.00	21.54	102.34	1,070.50	-42.78	195.57	200.19	0.00	0.00	0.00	
1,200.00	21.54	102.34	1,163.52	-50.62	231.43	236.90	0.00	0.00	0.00	
1,300.00	21.54	102.34	1,256.54	-58.46	267.29	273.61	0.00	0.00	0.00	
1,400.00	21.54	102.34	1,349.55	-66.31	303.15	310.32	0.00	0.00	0.00	
1,500.00	21.54	102.34	1,442.57	-74.15	339.02	347.03	0.00	0.00	0.00	
1,600.00	21.54	102.34	1,535.59	-81.99	374.88	383.74	0.00	0.00	0.00	
1,700.00	21.54	102.34	1,628.61	-89.84	410.74	420.45	0.00	0.00	0.00	
1,800.00	21.54	102.34	1,721.63	-97.68	446.60	457.16	0.00	0.00	0.00	
1,900.00	21.54	102.34	1,814.65	-105.53	482.46	493.87	0.00	0.00	0.00	
2,000.00	21.54	102.34	1,907.66	-113.37	518.32	530.58	0.00	0.00	0.00	
2,100.00	21.54	102.34	2,000.68	-121.21	554.19	567.29	0.00	0.00	0.00	
2,200.00	21.54	102.34	2,093.70	-129.06	590.05	604.00	0.00	0.00	0.00	
2,300.00	21.54	102.34	2,186.72	-136.90	625.91	640.71	0.00	0.00	0.00	
2,400.00	21.54	102.34	2,279.74	-144.74	661.77	677.42	0.00	0.00	0.00	
2,500.00	21.54	102.34	2,372.76	-152.59	697.63	714.13	0.00	0.00	0.00	
2,600.00	21.54	102.34	2,465.78	-160.43	733.49	750.83	0.00	0.00	0.00	
2,700.00	21.54	102.34	2,558.79	-168.28	769.36	787.54	0.00	0.00	0.00	
2,771.18	21.54	102.34	2,625.00	-173.86	794.88	813.67	0.00	0.00	0.00	
WILLIAMS FORK:										
2,800.00	21.54	102.34	2,651.81	-176.12	805.22	824.25	0.00	0.00	0.00	
2,900.00	21.54	102.34	2,744.83	-183.96	841.08	860.96	0.00	0.00	0.00	
3,000.00	21.54	102.34	2,837.85	-191.81	876.94	897.67	0.00	0.00	0.00	
3,100.00	21.54	102.34	2,930.87	-199.65	912.80	934.38	0.00	0.00	0.00	
3,200.00	21.54	102.34	3,023.89	-207.49	948.66	971.09	0.00	0.00	0.00	
3,300.00	21.54	102.34	3,116.90	-215.34	984.53	1,007.80	0.00	0.00	0.00	
3,400.00	21.54	102.34	3,209.92	-223.18	1,020.39	1,044.51	0.00	0.00	0.00	
3,500.00	21.54	102.34	3,302.94	-231.03	1,056.25	1,081.22	0.00	0.00	0.00	
3,600.00	21.54	102.34	3,395.96	-238.87	1,092.11	1,117.93	0.00	0.00	0.00	
3,600.78	21.54	102.34	3,396.68	-238.93	1,092.39	1,118.21	0.00	0.00	0.00	
Drop at 2.5°/100'										
3,700.00	19.06	102.34	3,489.74	-246.28	1,126.01	1,152.63	2.50	-2.50	0.00	
3,800.00	16.56	102.34	3,584.94	-252.82	1,155.88	1,183.21	2.50	-2.50	0.00	
3,900.00	14.06	102.34	3,681.38	-258.46	1,181.67	1,209.60	2.50	-2.50	0.00	
4,000.00	11.56	102.34	3,778.89	-263.19	1,203.32	1,231.77	2.50	-2.50	0.00	
4,100.00	9.06	102.34	3,877.27	-267.02	1,220.79	1,249.65	2.50	-2.50	0.00	
4,200.00	6.56	102.34	3,976.33	-269.92	1,234.06	1,263.24	2.50	-2.50	0.00	
4,300.00	4.06	102.34	4,075.90	-271.89	1,243.09	1,272.48	2.50	-2.50	0.00	
4,400.00	1.56	102.34	4,175.77	-272.94	1,247.88	1,277.38	2.50	-2.50	0.00	
4,462.24	0.00	0.00	4,238.00	-273.12	1,248.70	1,278.22	2.50	-2.50	0.00	
End of Drop - Top of Gas - ETOG:										
4,500.00	0.00	0.00	4,275.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00	

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Well:	Hawxhurst 19-13A	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,600.00	0.00	0.00	4,375.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
4,700.00	0.00	0.00	4,475.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
4,800.00	0.00	0.00	4,575.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
4,900.00	0.00	0.00	4,675.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
5,000.00	0.00	0.00	4,775.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
5,100.00	0.00	0.00	4,875.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
5,200.00	0.00	0.00	4,975.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
5,300.00	0.00	0.00	5,075.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
5,354.24	0.00	0.00	5,130.00	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
CAMEO:									
5,400.00	0.00	0.00	5,175.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
5,500.00	0.00	0.00	5,275.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
5,600.00	0.00	0.00	5,375.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
5,700.00	0.00	0.00	5,475.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
5,739.24	0.00	0.00	5,515.00	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
ROLLINS:									
5,800.00	0.00	0.00	5,575.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
5,900.00	0.00	0.00	5,675.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
6,000.00	0.00	0.00	5,775.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
6,100.00	0.00	0.00	5,875.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
6,112.24	0.00	0.00	5,888.00	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
COZZETTE									
6,200.00	0.00	0.00	5,975.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
6,283.24	0.00	0.00	6,059.00	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
CORCORAN									
6,300.00	0.00	0.00	6,075.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
6,400.00	0.00	0.00	6,175.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
6,500.00	0.00	0.00	6,275.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
6,600.00	0.00	0.00	6,375.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
6,700.00	0.00	0.00	6,475.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
6,800.00	0.00	0.00	6,575.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
6,900.00	0.00	0.00	6,675.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
7,000.00	0.00	0.00	6,775.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
7,037.24	0.00	0.00	6,813.00	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
MARAPOS									
7,100.00	0.00	0.00	6,875.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
7,200.00	0.00	0.00	6,975.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
7,300.00	0.00	0.00	7,075.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
7,400.00	0.00	0.00	7,175.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
7,500.00	0.00	0.00	7,275.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
7,600.00	0.00	0.00	7,375.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
7,700.00	0.00	0.00	7,475.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
7,800.00	0.00	0.00	7,575.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
7,846.24	0.00	0.00	7,622.00	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
HOT MARKER									
7,900.00	0.00	0.00	7,675.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
8,000.00	0.00	0.00	7,775.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
8,100.00	0.00	0.00	7,875.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
8,200.00	0.00	0.00	7,975.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
8,245.24	0.00	0.00	8,021.00	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
MEEKER									
8,300.00	0.00	0.00	8,075.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
8,400.00	0.00	0.00	8,175.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00

Database:	EDM Depart	Local Co-ordinate Reference:	Well Hawxhurst 19-13A
Company:	Laramie Energy II, LLC	TVD Reference:	WELL @ 6375.00ft (Original Well Elev)
Project:	MESA, CO	MD Reference:	WELL @ 6375.00ft (Original Well Elev)
Site:	Sec 24-T9S-R95W (Hawxhurst 24-9 Pad)	North Reference:	True
Well:	Hawxhurst 19-13A	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,500.00	0.00	0.00	8,275.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
8,600.00	0.00	0.00	8,375.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
8,700.00	0.00	0.00	8,475.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
8,800.00	0.00	0.00	8,575.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
8,900.00	0.00	0.00	8,675.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
9,000.00	0.00	0.00	8,775.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
9,100.00	0.00	0.00	8,875.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
9,200.00	0.00	0.00	8,975.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
9,255.24	0.00	0.00	9,031.00	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
NIOBRARA									
9,300.00	0.00	0.00	9,075.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
9,400.00	0.00	0.00	9,175.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
9,500.00	0.00	0.00	9,275.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
9,600.00	0.00	0.00	9,375.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
9,700.00	0.00	0.00	9,475.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
9,800.00	0.00	0.00	9,575.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
9,900.00	0.00	0.00	9,675.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
10,000.00	0.00	0.00	9,775.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
10,100.00	0.00	0.00	9,875.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
10,200.00	0.00	0.00	9,975.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
10,245.24	0.00	0.00	10,021.00	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
JUANA LOPEZ									
10,300.00	0.00	0.00	10,075.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
10,400.00	0.00	0.00	10,175.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
10,500.00	0.00	0.00	10,275.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
10,600.00	0.00	0.00	10,375.76	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
10,624.24	0.00	0.00	10,400.00	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
DAKOTA									
10,634.24	0.00	0.00	10,410.00	-273.12	1,248.70	1,278.22	0.00	0.00	0.00
BHL - 1080' FSL & 647' FWL									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Hawxhurst 19-13A TOG - hit/miss target - Shape	0.00	0.00	4,238.00	-273.12	1,248.70	1,528,331.96	2,311,727.68	39° 15' 31.35596 N	107° 55' 51.81600 W
Hawxhurst 19-13A BHL - plan hits target center - Point	0.00	0.00	10,410.00	-273.12	1,248.70	1,528,331.96	2,311,727.68	39° 15' 31.35596 N	107° 55' 51.81600 W

Database:	EDM Depart	Local Co-ordinate Reference:	Well Hawxhurst 19-13A
Company:	Laramie Energy II, LLC	TVD Reference:	WELL @ 6375.00ft (Original Well Elev)
Project:	MESA, CO	MD Reference:	WELL @ 6375.00ft (Original Well Elev)
Site:	Sec 24-T9S-R95W (Hawxhurst 24-9 Pad)	North Reference:	True
Well:	Hawxhurst 19-13A	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
2,771.18	2,625.00	WILLIAMS FORK:				
4,462.24	4,238.00	ETOG:				
5,354.24	5,130.00	CAMEO:				
5,739.24	5,515.00	ROLLINS:				
6,112.24	5,888.00	COZZETTE				
6,283.24	6,059.00	CORCORAN				
7,037.24	6,813.00	MARAPOS				
7,846.24	7,622.00	HOT MARKER				
8,245.24	8,021.00	MEEKER				
9,255.24	9,031.00	NIOBRARA				
10,245.24	10,021.00	JUANA LOPEZ				
10,624.24	10,400.00	DAKOTA				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
200.00	200.00	0.00	0.00	KOP - Build at 3°/100'	
917.88	901.10	-28.49	130.26	End of Build - Hold at 21.54° Inc.	
3,600.78	3,396.68	-238.93	1,092.39	Drop at 2.5°/100'	
4,462.24	4,238.00	-273.12	1,248.70	End of Drop - Top of Gas	
10,634.24	10,410.00	-273.12	1,248.70	BHL - 1080' FSL & 647' FWL	