



DEPARTURE
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Departure
Energy Services (US) LP

Laramie Energy II, LLC

MESA CO

Sec 13-T9S-R95W (Hawxhurst 13-09 Pad)

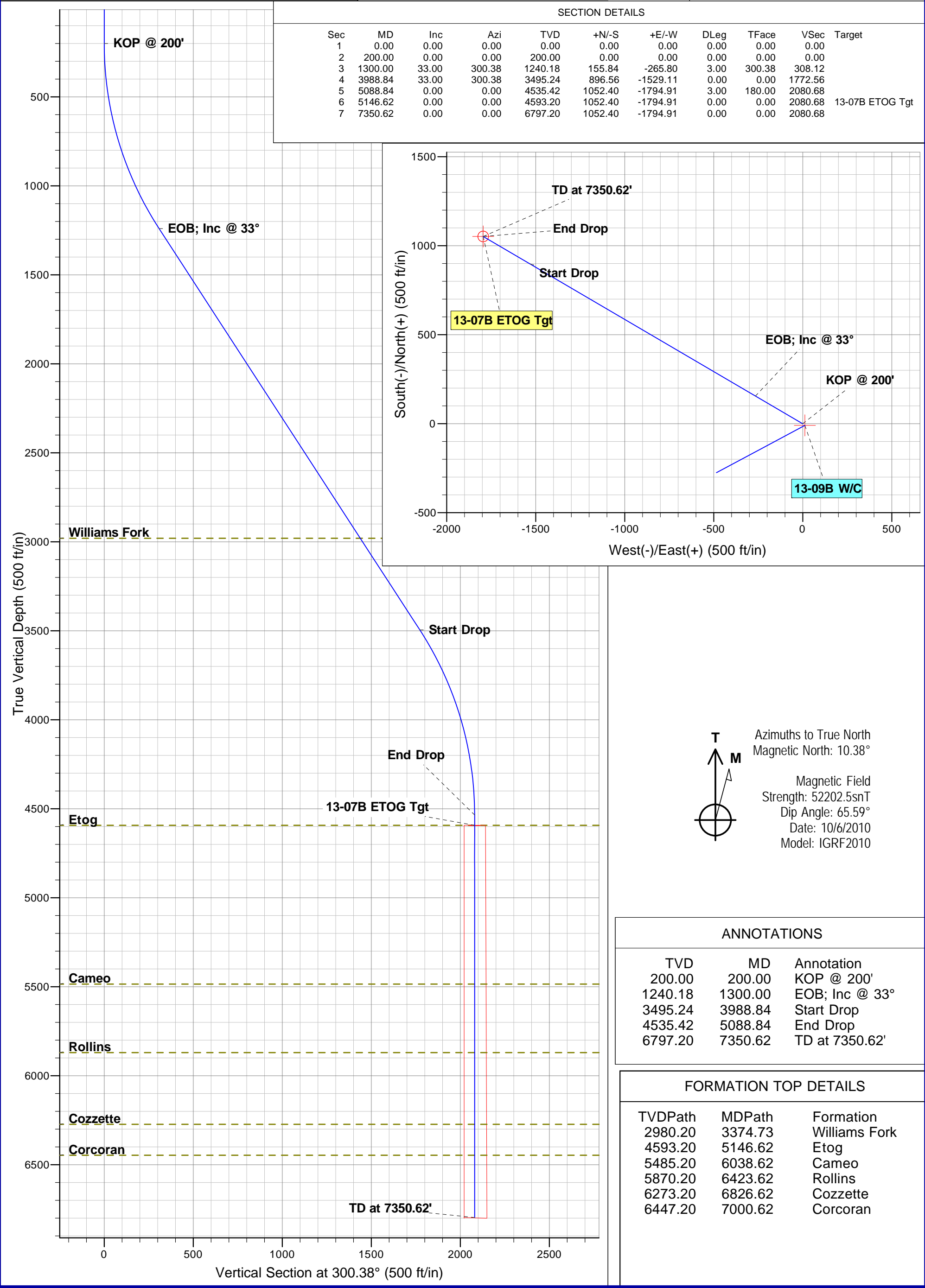
Hawxhurst 13-07B

DD

Plan: Plan #1

Planning Report

06 October, 2010



Database:	EDM 2003.21 DB	Local Co-ordinate Reference:	Well Hawxhurst 13-07B
Company:	Laramie Energy II, LLC	TVD Reference:	KB @ 6670.20ft (Est KB)
Project:	MESA CO	MD Reference:	KB @ 6670.20ft (Est KB)
Site:	Sec 13-T9S-R95W (Hawxhurst 13-09 Pad)	North Reference:	True
Well:	Hawxhurst 13-07B	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Project	MESA CO		
Map System:	Universal Transverse Mercator	System Datum:	Mean Sea Level
Geo Datum:	NAD83 Colorado - HARN		
Map Zone:	Zone 13N (108 W to 102 W)		

Site	Sec 13-T9S-R95W (Hawxhurst 13-09 Pad)				
Site Position:		Northing:	4,351,538.68 m	Latitude:	39° 16' 34.586 N
From:	Lat/Long	Easting:	246,950.68 m	Longitude:	107° 56' 0.643 W
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence:	-1.86 °

Well	Hawxhurst 13-07B					
Well Position	+N/-S	0.00 ft	Northing:	4,351,541.68 m	Latitude:	39° 16' 34.680 N
	+E/-W	0.00 ft	Easting:	246,947.15 m	Longitude:	107° 56' 0.794 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	6,649.20 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/6/2010	10.38	65.59	52,203

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	300.38

Plan Sections											
MD (ft)	Inc (°)	Azi (°)	TVD (ft)	SS (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	-6,670.20	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	-6,470.20	0.00	0.00	0.00	0.00	0.00	0.00	
1,300.00	33.00	300.38	1,240.18	-5,430.02	155.84	-265.80	3.00	3.00	0.00	300.38	
3,988.84	33.00	300.38	3,495.24	-3,174.96	896.56	-1,529.11	0.00	0.00	0.00	0.00	
5,088.84	0.00	0.00	4,535.42	-2,134.78	1,052.40	-1,794.91	3.00	-3.00	0.00	180.00	
5,146.62	0.00	0.00	4,593.20	-2,077.00	1,052.40	-1,794.91	0.00	0.00	0.00	0.00	13-07B ETOG Tgt
7,350.62	0.00	0.00	6,797.20	127.00	1,052.40	-1,794.91	0.00	0.00	0.00	0.00	

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Project:	MESA CO	MD Reference:	KB @ 6670.20ft (Est KB)
Site:	Sec 13-T9S-R95W (Hawxhurst 13-09 Pad	North Reference:	True
Well:	Hawxhurst 13-07B	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	SS (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
KOP @ 200'										
200.00	0.00	0.00	200.00	6,470.20	0.00	0.00	0.00	0.00	0.00	0.00
295.28	2.86	300.38	295.24	6,374.96	1.20	-2.05	2.38	3.00	3.00	0.00
393.70	5.81	300.38	393.37	6,276.83	4.96	-8.47	9.81	3.00	3.00	0.00
492.13	8.76	300.38	490.99	6,179.21	11.28	-19.24	22.30	3.00	3.00	0.00
590.55	11.72	300.38	587.83	6,082.37	20.13	-34.33	39.79	3.00	3.00	0.00
688.98	14.67	300.38	683.65	5,986.55	31.49	-53.70	62.25	3.00	3.00	0.00
787.40	17.62	300.38	778.18	5,892.02	45.33	-77.31	89.62	3.00	3.00	0.00
885.83	20.57	300.38	871.18	5,799.02	61.62	-105.09	121.82	3.00	3.00	0.00
984.25	23.53	300.38	962.40	5,707.80	80.31	-136.96	158.77	3.00	3.00	0.00
1,082.68	26.48	300.38	1,051.59	5,618.61	101.35	-172.85	200.37	3.00	3.00	0.00
1,181.10	29.43	300.38	1,138.52	5,531.68	124.68	-212.65	246.50	3.00	3.00	0.00
1,279.53	32.39	300.38	1,222.95	5,447.25	150.25	-256.26	297.06	3.00	3.00	0.00
EOB; Inc @ 33°										
1,300.00	33.00	300.38	1,240.18	5,430.02	155.84	-265.80	308.12	3.00	3.00	0.00
1,377.95	33.00	300.38	1,305.56	5,364.64	177.32	-302.42	350.57	0.00	0.00	0.00
1,476.38	33.00	300.38	1,388.11	5,282.09	204.43	-348.67	404.18	0.00	0.00	0.00
1,574.80	33.00	300.38	1,470.65	5,199.55	231.55	-394.91	457.79	0.00	0.00	0.00
1,673.23	33.00	300.38	1,553.20	5,117.00	258.66	-441.15	511.39	0.00	0.00	0.00
1,771.65	33.00	300.38	1,635.75	5,034.45	285.77	-487.40	565.00	0.00	0.00	0.00
1,870.08	33.00	300.38	1,718.29	4,951.91	312.89	-533.64	618.60	0.00	0.00	0.00
1,968.50	33.00	300.38	1,800.84	4,869.36	340.00	-579.88	672.21	0.00	0.00	0.00
2,066.93	33.00	300.38	1,883.38	4,786.82	367.12	-626.13	725.82	0.00	0.00	0.00
2,165.35	33.00	300.38	1,965.93	4,704.27	394.23	-672.37	779.42	0.00	0.00	0.00
2,263.78	33.00	300.38	2,048.48	4,621.72	421.34	-718.61	833.03	0.00	0.00	0.00
2,362.20	33.00	300.38	2,131.02	4,539.18	448.46	-764.86	886.63	0.00	0.00	0.00
2,460.63	33.00	300.38	2,213.57	4,456.63	475.57	-811.10	940.24	0.00	0.00	0.00
2,559.06	33.00	300.38	2,296.12	4,374.08	502.68	-857.34	993.85	0.00	0.00	0.00
2,657.48	33.00	300.38	2,378.66	4,291.54	529.80	-903.59	1,047.45	0.00	0.00	0.00
2,755.91	33.00	300.38	2,461.21	4,208.99	556.91	-949.83	1,101.06	0.00	0.00	0.00
2,854.33	33.00	300.38	2,543.76	4,126.44	584.03	-996.08	1,154.67	0.00	0.00	0.00
2,952.76	33.00	300.38	2,626.30	4,043.90	611.14	-1,042.32	1,208.27	0.00	0.00	0.00
3,051.18	33.00	300.38	2,708.85	3,961.35	638.25	-1,088.56	1,261.88	0.00	0.00	0.00
3,149.61	33.00	300.38	2,791.39	3,878.81	665.37	-1,134.81	1,315.48	0.00	0.00	0.00
3,248.03	33.00	300.38	2,873.94	3,796.26	692.48	-1,181.05	1,369.09	0.00	0.00	0.00
3,346.46	33.00	300.38	2,956.49	3,713.71	719.60	-1,227.29	1,422.70	0.00	0.00	0.00
Williams Fork										
3,374.73	33.00	300.38	2,980.20	3,690.00	727.38	-1,240.58	1,438.10	0.00	0.00	0.00
3,444.88	33.00	300.38	3,039.03	3,631.17	746.71	-1,273.54	1,476.30	0.00	0.00	0.00
3,543.31	33.00	300.38	3,121.58	3,548.62	773.82	-1,319.78	1,529.91	0.00	0.00	0.00
3,641.73	33.00	300.38	3,204.13	3,466.07	800.94	-1,366.02	1,583.52	0.00	0.00	0.00
3,740.16	33.00	300.38	3,286.67	3,383.53	828.05	-1,412.27	1,637.12	0.00	0.00	0.00
3,838.58	33.00	300.38	3,369.22	3,300.98	855.16	-1,458.51	1,690.73	0.00	0.00	0.00
3,937.01	33.00	300.38	3,451.76	3,218.44	882.28	-1,504.75	1,744.33	0.00	0.00	0.00
Start Drop										
3,988.84	33.00	300.38	3,495.24	3,174.96	896.56	-1,529.11	1,772.56	0.00	0.00	0.00
4,035.43	31.60	300.38	3,534.62	3,135.58	909.15	-1,550.58	1,797.46	3.00	-3.00	0.00
4,133.86	28.65	300.38	3,619.74	3,050.46	934.13	-1,593.19	1,846.86	3.00	-3.00	0.00
4,232.28	25.70	300.38	3,707.29	2,962.91	956.87	-1,631.97	1,891.80	3.00	-3.00	0.00
4,330.71	22.74	300.38	3,797.04	2,873.16	977.29	-1,666.79	1,932.17	3.00	-3.00	0.00
4,429.13	19.79	300.38	3,888.75	2,781.45	995.34	-1,697.59	1,967.87	3.00	-3.00	0.00

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Well:	Hawxhurst 13-07B	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey										
MD (ft)	Inc (°)	Azi (°)	TVD (ft)	SS (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,527.56	16.84	300.38	3,982.18	2,688.02	1,010.98	-1,724.27	1,998.80	3.00	-3.00	0.00
4,625.98	13.89	300.38	4,077.08	2,593.12	1,024.17	-1,746.76	2,024.87	3.00	-3.00	0.00
4,724.41	10.93	300.38	4,173.20	2,497.00	1,034.87	-1,765.00	2,046.02	3.00	-3.00	0.00
4,822.83	7.98	300.38	4,270.27	2,399.93	1,043.05	-1,778.95	2,062.19	3.00	-3.00	0.00
4,921.26	5.03	300.38	4,368.05	2,302.15	1,048.69	-1,788.57	2,073.33	3.00	-3.00	0.00
5,019.69	2.07	300.38	4,466.28	2,203.92	1,051.77	-1,793.83	2,079.43	3.00	-3.00	0.00
End Drop										
5,088.84	0.00	0.00	4,535.42	2,134.78	1,052.40	-1,794.91	2,080.68	3.00	-3.00	0.00
5,118.11	0.00	0.00	4,564.69	2,105.51	1,052.40	-1,794.91	2,080.68	0.00	0.00	0.00
Etoq - 13-07B ETOG Tgt										
5,146.62	0.00	0.00	4,593.20	2,077.00	1,052.40	-1,794.91	2,080.68	0.00	0.00	0.00
5,216.54	0.00	0.00	4,663.11	2,007.09	1,052.40	-1,794.91	2,080.68	0.00	0.00	0.00
5,314.96	0.00	0.00	4,761.54	1,908.66	1,052.40	-1,794.91	2,080.68	0.00	0.00	0.00
5,413.39	0.00	0.00	4,859.96	1,810.24	1,052.40	-1,794.91	2,080.68	0.00	0.00	0.00
5,511.81	0.00	0.00	4,958.39	1,711.81	1,052.40	-1,794.91	2,080.68	0.00	0.00	0.00
5,610.24	0.00	0.00	5,056.81	1,613.39	1,052.40	-1,794.91	2,080.68	0.00	0.00	0.00
5,708.66	0.00	0.00	5,155.24	1,514.96	1,052.40	-1,794.91	2,080.68	0.00	0.00	0.00
5,807.09	0.00	0.00	5,253.67	1,416.53	1,052.40	-1,794.91	2,080.68	0.00	0.00	0.00
5,905.51	0.00	0.00	5,352.09	1,318.11	1,052.40	-1,794.91	2,080.68	0.00	0.00	0.00
6,003.94	0.00	0.00	5,450.52	1,219.68	1,052.40	-1,794.91	2,080.68	0.00	0.00	0.00
Cameo										
6,038.62	0.00	0.00	5,485.20	1,185.00	1,052.40	-1,794.91	2,080.68	0.00	0.00	0.00
6,102.36	0.00	0.00	5,548.94	1,121.26	1,052.40	-1,794.91	2,080.68	0.00	0.00	0.00
6,200.79	0.00	0.00	5,647.37	1,022.83	1,052.40	-1,794.91	2,080.68	0.00	0.00	0.00
6,299.21	0.00	0.00	5,745.79	924.41	1,052.40	-1,794.91	2,080.68	0.00	0.00	0.00
6,397.64	0.00	0.00	5,844.22	825.98	1,052.40	-1,794.91	2,080.68	0.00	0.00	0.00
Rollins										
6,423.62	0.00	0.00	5,870.20	800.00	1,052.40	-1,794.91	2,080.68	0.00	0.00	0.00
6,496.06	0.00	0.00	5,942.64	727.56	1,052.40	-1,794.91	2,080.68	0.00	0.00	0.00
6,594.49	0.00	0.00	6,041.07	629.13	1,052.40	-1,794.91	2,080.68	0.00	0.00	0.00
6,692.91	0.00	0.00	6,139.49	530.71	1,052.40	-1,794.91	2,080.68	0.00	0.00	0.00
6,791.34	0.00	0.00	6,237.92	432.28	1,052.40	-1,794.91	2,080.68	0.00	0.00	0.00
Cozzette										
6,826.62	0.00	0.00	6,273.20	397.00	1,052.40	-1,794.91	2,080.68	0.00	0.00	0.00
6,889.76	0.00	0.00	6,336.34	333.86	1,052.40	-1,794.91	2,080.68	0.00	0.00	0.00
6,988.19	0.00	0.00	6,434.77	235.43	1,052.40	-1,794.91	2,080.68	0.00	0.00	0.00
Corcoran										
7,000.62	0.00	0.00	6,447.20	223.00	1,052.40	-1,794.91	2,080.68	0.00	0.00	0.00
7,086.61	0.00	0.00	6,533.19	137.01	1,052.40	-1,794.91	2,080.68	0.00	0.00	0.00
7,185.04	0.00	0.00	6,631.62	38.58	1,052.40	-1,794.91	2,080.68	0.00	0.00	0.00
7,283.46	0.00	0.00	6,730.04	-59.84	1,052.40	-1,794.91	2,080.68	0.00	0.00	0.00
TD at 7350.62'										
7,350.62	0.00	0.00	6,797.20	-127.00	1,052.40	-1,794.91	2,080.68	0.00	0.00	0.00

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Well:	Hawxhurst 13-07B	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Targets									
Target Name	Dip Angle	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (m)	Easting (m)	Latitude	Longitude
- hit/miss target									
- Shape									
13-07B ETOG Tot	0.00	0.00	4,593.20	1,052.40	-1,794.91	4,351,880.03	246,410.75	39° 16' 45.077 N	107° 56' 23.611 W
- plan hits target center									
- Circle (radius 30.00)									

Formations						
MD (ft)	TVD (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,374.73	2,980.20	Williams Fork		0.00		
5,146.62	4,593.20	Etog		0.00		
6,038.62	5,485.20	Cameo		0.00		
6,423.62	5,870.20	Rollins		0.00		
6,826.62	6,273.20	Cozzette		0.00		
7,000.62	6,447.20	Corcoran		0.00		

Plan Annotations				
MD (ft)	TVD (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
200.00	200.00	0.00	0.00	KOP @ 200'
1,300.00	1,240.18	155.84	-265.80	EOB; Inc @ 33°
3,988.84	3,495.24	896.56	-1,529.11	Start Drop
5,088.84	4,535.42	1,052.40	-1,794.91	End Drop
7,350.62	6,797.20	1,052.40	-1,794.91	TD at 7350.62'