



Company: Swift Energy Operating, LLC
 Field: La Plata Co., CO
 Location: Sec.32-T34N-R12W
 Well: Waters 34-12-32 #1H
 Borehole: Lateral
 Plan: Rev 0



SECTION DETAILS

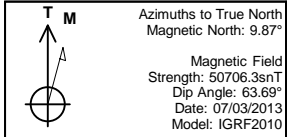
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Annotation
1	1520.87	0.00	0.00	1520.87	0.00	0.00	0.00	0.00	0.00	KOP, Build 8°/100' DLS
2	2655.62	90.78	276.01	2237.00	75.95	-721.96	8.00	276.01	725.95	LP, Hold to TD
3	6841.75	90.78	276.01	2180.00	513.84	-4884.74	0.00	0.00	4911.69	

WELL DETAILS: Waters 34-12-32 #1H

+N/-S	+E/-W	Northing	Ground Level:	6907.00
0.00	0.00	1187673.74	Easting	2218491.04
			Latitude	37° 9' 4.572 N
			Longitude	108° 10' 54.300 W

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
PBHL Waters 34-12-32 #1H	2180.00	513.84	-4884.74	Point

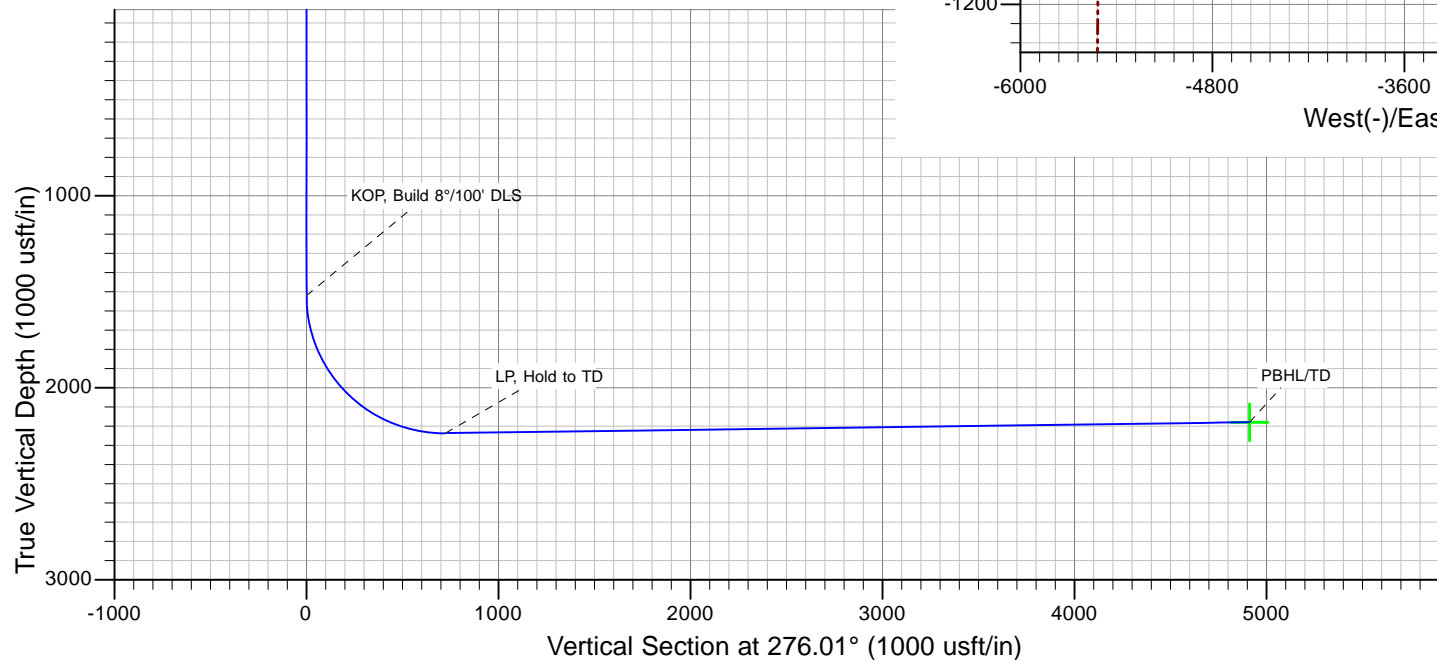
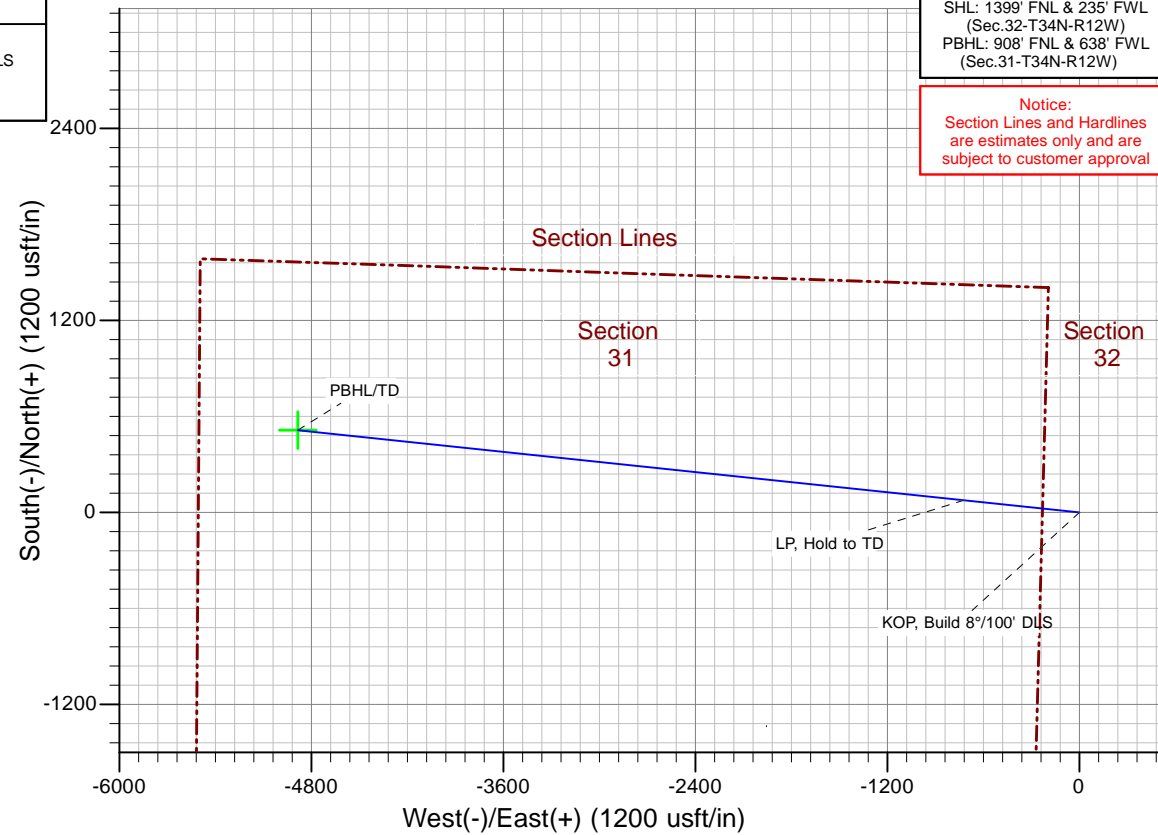


FORMATION TOP DETAILS

TVDPPath	MDPath	Formation
2127.00	2243.54	Smokey Hill Member
2180.00	2358.03	TD
2237.00	2636.16	Landing Point

SHL: 1399' FNL & 235' FWL
 (Sec.32-T34N-R12W)
 PBHL: 908' FNL & 638' FWL
 (Sec.31-T34N-R12W)

Notice:
 Section Lines and Hardlines
 are estimates only and are
 subject to customer approval





Swift Energy Operating, LLC

La Plata Co., CO

Sec.32-T34N-R12W

Waters 34-12-32 #1H

Pilot Hole

Plan: Rev 0

Standard Planning Report

03 July, 2013

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Waters 34-12-32 #1H
Company:	Swift Energy Operating, LLC	TVD Reference:	KB @ 6921.00usft (Original Well Elev)
Project:	La Plata Co., CO	MD Reference:	KB @ 6921.00usft (Original Well Elev)
Site:	Sec.32-T34N-R12W	North Reference:	True
Well:	Waters 34-12-32 #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Pilot Hole		
Design:	Rev 0		

Project	La Plata Co., CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Southern Zone		

Site	Sec.32-T34N-R12W			
Site Position:		Northing:	1,187,673.74 usft	Latitude: 37° 9' 4.572 N
From:	Lat/Long	Easting:	2,218,491.04 usft	Longitude: 108° 10' 54.300 W
Position Uncertainty:	0.00 usft	Slot Radius:	13.2000 in	Grid Convergence: -1.64 °

Well	Waters 34-12-32 #1H			
Well Position	+N/-S	0.00 usft	Northing:	1,187,673.74 usft
	+E/-W	0.00 usft	Easting:	2,218,491.04 usft
Position Uncertainty	0.00 usft		Wellhead Elevation:	6,921.00 usft
			Ground Level:	6,907.00 usft

Wellbore	Pilot Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	07/03/13	9.87	63.69	50,706

Design	Rev 0			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	0.00

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	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	
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00	

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Company:	Swift Energy Operating, LLC	TVD Reference:	KB @ 6921.00usft (Original Well Elev)
Project:	La Plata Co., CO	MD Reference:	KB @ 6921.00usft (Original Well Elev)
Site:	Sec.32-T34N-R12W	North Reference:	True
Well:	Waters 34-12-32 #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Pilot Hole		
Design:	Rev 0		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	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
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,131.00	0.00	0.00	1,131.00	0.00	0.00	0.00	0.00	0.00	0.00
Mancos Shale									
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,450.00	0.00	0.00	1,450.00	0.00	0.00	0.00	0.00	0.00	0.00
9 5/8" Csg									
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,190.00	0.00	0.00	2,190.00	0.00	0.00	0.00	0.00	0.00	0.00
Smokey Hill Member									
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,241.00	0.00	0.00	2,241.00	0.00	0.00	0.00	0.00	0.00	0.00
Smokey Hill Lower Res									
2,247.00	0.00	0.00	2,247.00	0.00	0.00	0.00	0.00	0.00	0.00
Upper Bentonite									
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,616.00	0.00	0.00	2,616.00	0.00	0.00	0.00	0.00	0.00	0.00
Blu Hill Member									
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,910.00	0.00	0.00	2,910.00	0.00	0.00	0.00	0.00	0.00	0.00
Bridge Creek									
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,170.00	0.00	0.00	3,170.00	0.00	0.00	0.00	0.00	0.00	0.00
Dakota Sands									
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
Pilot TD									

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Project:	La Plata Co., CO	MD Reference:	KB @ 6921.00usft (Original Well Elev)
Site:	Sec.32-T34N-R12W	North Reference:	True
Well:	Waters 34-12-32 #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Pilot Hole		
Design:	Rev 0		

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,450.00	1,450.00	9 5/8" Csg	9.6250	12.2500	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,131.00	1,131.00	Mancos Shale		0.00		
2,190.00	2,190.00	Smokey Hill Member		0.00		
2,241.00	2,241.00	Smokey Hill Lower Res		0.00		
2,247.00	2,247.00	Upper Bentonite		0.00		
2,616.00	2,616.00	Blu Hill Member		0.00		
2,910.00	2,910.00	Bridge Creek		0.00		
3,170.00	3,170.00	Dakota Sands		0.00		
3,500.00	3,500.00	Pilot TD		0.00		



Swift Energy Operating, LLC

La Plata Co., CO

Sec.32-T34N-R12W

Waters 34-12-32 #1H

Lateral

Plan: Rev 0

Standard Planning Report

03 July, 2013

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Well:	Waters 34-12-32 #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral		
Design:	Rev 0		

Project	La Plata Co., CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Southern Zone		

Site	Sec.32-T34N-R12W			
Site Position:		Northing:	1,187,673.74 usft	Latitude: 37° 9' 4.572 N
From:	Lat/Long	Easting:	2,218,491.04 usft	Longitude: 108° 10' 54.300 W
Position Uncertainty:	0.00 usft	Slot Radius:	13.2000 in	Grid Convergence: -1.64 °

Well	Waters 34-12-32 #1H			
Well Position	+N/-S	0.00 usft	Northing:	1,187,673.74 usft
	+E/-W	0.00 usft	Easting:	2,218,491.04 usft
Position Uncertainty	0.00 usft		Wellhead Elevation:	6,921.00 usft
			Ground Level:	6,907.00 usft

Wellbore	Lateral				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	07/03/13	9.87	63.69	50,706

Design	Rev 0			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	1,520.87
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	276.01

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
1,520.87	0.00	0.00	1,520.87	0.00	0.00	0.00	0.00	0.00	0.00	
2,655.62	90.78	276.01	2,237.00	75.95	-721.96	8.00	8.00	0.00	276.01	PBHL Waters 34-12-32
6,841.75	90.78	276.01	2,180.00	513.84	-4,884.74	0.00	0.00	0.00	0.00	PBHL Waters 34-12-32

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Waters 34-12-32 #1H
Company:	Swift Energy Operating, LLC	TVD Reference:	KB @ 6921.00usft (Original Well Elev)
Project:	La Plata Co., CO	MD Reference:	KB @ 6921.00usft (Original Well Elev)
Site:	Sec.32-T34N-R12W	North Reference:	True
Well:	Waters 34-12-32 #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral		
Design:	Rev 0		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,520.87	0.00	0.00	1,520.87	0.00	0.00	0.00	0.00	0.00	0.00
KOP, Build 8°/100' DLS									
1,600.00	6.33	276.01	1,599.84	0.46	-4.34	4.37	8.00	8.00	0.00
1,700.00	14.33	276.01	1,698.14	2.33	-22.16	22.28	8.00	8.00	0.00
1,800.00	22.33	276.01	1,792.99	5.62	-53.41	53.71	8.00	8.00	0.00
1,900.00	30.33	276.01	1,882.54	10.26	-97.49	98.03	8.00	8.00	0.00
2,000.00	38.33	276.01	1,965.05	16.15	-153.53	154.38	8.00	8.00	0.00
2,100.00	46.33	276.01	2,038.92	23.19	-220.45	221.66	8.00	8.00	0.00
2,200.00	54.33	276.01	2,102.70	31.24	-296.94	298.58	8.00	8.00	0.00
2,243.54	57.81	276.01	2,127.00	35.01	-332.86	334.70	8.00	8.00	0.00
Smokey Hill Member									
2,300.00	62.33	276.01	2,155.16	40.13	-381.51	383.62	8.00	8.00	0.00
2,358.03	66.97	276.01	2,180.00	45.62	-433.65	436.05	8.00	8.00	0.00
TD									
2,400.00	70.33	276.01	2,195.28	49.71	-472.52	475.13	8.00	8.00	0.00
2,500.00	78.33	276.01	2,222.26	59.77	-568.20	571.33	8.00	8.00	0.00
2,600.00	86.33	276.01	2,235.60	70.13	-666.68	670.36	8.00	8.00	0.00
2,636.16	89.22	276.01	2,237.00	73.91	-702.61	706.49	8.00	8.00	0.00
Landing Point									
2,655.62	90.78	276.01	2,237.00	75.95	-721.96	725.94	8.00	8.00	0.00
LP, Hold to TD									
2,700.00	90.78	276.01	2,236.40	80.59	-766.10	770.32	0.00	0.00	0.00
2,800.00	90.78	276.01	2,235.03	91.05	-865.54	870.31	0.00	0.00	0.00
2,900.00	90.78	276.01	2,233.67	101.51	-964.98	970.31	0.00	0.00	0.00
3,000.00	90.78	276.01	2,232.31	111.97	-1,064.42	1,070.30	0.00	0.00	0.00
3,100.00	90.78	276.01	2,230.95	122.43	-1,163.86	1,170.29	0.00	0.00	0.00
3,200.00	90.78	276.01	2,229.59	132.89	-1,263.31	1,270.28	0.00	0.00	0.00
3,300.00	90.78	276.01	2,228.23	143.35	-1,362.75	1,370.27	0.00	0.00	0.00
3,400.00	90.78	276.01	2,226.86	153.81	-1,462.19	1,470.26	0.00	0.00	0.00
3,500.00	90.78	276.01	2,225.50	164.27	-1,561.63	1,570.25	0.00	0.00	0.00
3,600.00	90.78	276.01	2,224.14	174.73	-1,661.08	1,670.24	0.00	0.00	0.00
3,700.00	90.78	276.01	2,222.78	185.19	-1,760.52	1,770.23	0.00	0.00	0.00
3,800.00	90.78	276.01	2,221.42	195.65	-1,859.96	1,870.22	0.00	0.00	0.00
3,900.00	90.78	276.01	2,220.06	206.11	-1,959.40	1,970.21	0.00	0.00	0.00
4,000.00	90.78	276.01	2,218.69	216.58	-2,058.84	2,070.20	0.00	0.00	0.00
4,100.00	90.78	276.01	2,217.33	227.04	-2,158.29	2,170.19	0.00	0.00	0.00
4,200.00	90.78	276.01	2,215.97	237.50	-2,257.73	2,270.18	0.00	0.00	0.00
4,300.00	90.78	276.01	2,214.61	247.96	-2,357.17	2,370.18	0.00	0.00	0.00
4,400.00	90.78	276.01	2,213.25	258.42	-2,456.61	2,470.17	0.00	0.00	0.00
4,500.00	90.78	276.01	2,211.89	268.88	-2,556.05	2,570.16	0.00	0.00	0.00
4,600.00	90.78	276.01	2,210.52	279.34	-2,655.50	2,670.15	0.00	0.00	0.00
4,700.00	90.78	276.01	2,209.16	289.80	-2,754.94	2,770.14	0.00	0.00	0.00
4,800.00	90.78	276.01	2,207.80	300.26	-2,854.38	2,870.13	0.00	0.00	0.00
4,900.00	90.78	276.01	2,206.44	310.72	-2,953.82	2,970.12	0.00	0.00	0.00
5,000.00	90.78	276.01	2,205.08	321.18	-3,053.26	3,070.11	0.00	0.00	0.00
5,100.00	90.78	276.01	2,203.72	331.64	-3,152.71	3,170.10	0.00	0.00	0.00
5,200.00	90.78	276.01	2,202.35	342.10	-3,252.15	3,270.09	0.00	0.00	0.00
5,300.00	90.78	276.01	2,200.99	352.56	-3,351.59	3,370.08	0.00	0.00	0.00
5,400.00	90.78	276.01	2,199.63	363.02	-3,451.03	3,470.07	0.00	0.00	0.00
5,500.00	90.78	276.01	2,198.27	373.48	-3,550.47	3,570.06	0.00	0.00	0.00
5,600.00	90.78	276.01	2,196.91	383.94	-3,649.92	3,670.05	0.00	0.00	0.00
5,700.00	90.78	276.01	2,195.55	394.41	-3,749.36	3,770.05	0.00	0.00	0.00
5,800.00	90.78	276.01	2,194.18	404.87	-3,848.80	3,870.04	0.00	0.00	0.00
5,900.00	90.78	276.01	2,192.82	415.33	-3,948.24	3,970.03	0.00	0.00	0.00

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Company:	Swift Energy Operating, LLC	TVD Reference:	KB @ 6921.00usft (Original Well Elev)
Project:	La Plata Co., CO	MD Reference:	KB @ 6921.00usft (Original Well Elev)
Site:	Sec.32-T34N-R12W	North Reference:	True
Well:	Waters 34-12-32 #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral		
Design:	Rev 0		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
6,000.00	90.78	276.01	2,191.46	425.79	-4,047.68	4,070.02	0.00	0.00	0.00	
6,100.00	90.78	276.01	2,190.10	436.25	-4,147.13	4,170.01	0.00	0.00	0.00	
6,200.00	90.78	276.01	2,188.74	446.71	-4,246.57	4,270.00	0.00	0.00	0.00	
6,300.00	90.78	276.01	2,187.38	457.17	-4,346.01	4,369.99	0.00	0.00	0.00	
6,400.00	90.78	276.01	2,186.01	467.63	-4,445.45	4,469.98	0.00	0.00	0.00	
6,500.00	90.78	276.01	2,184.65	478.09	-4,544.89	4,569.97	0.00	0.00	0.00	
6,600.00	90.78	276.01	2,183.29	488.55	-4,644.34	4,669.96	0.00	0.00	0.00	
6,700.00	90.78	276.01	2,181.93	499.01	-4,743.78	4,769.95	0.00	0.00	0.00	
6,800.00	90.78	276.01	2,180.57	509.47	-4,843.22	4,869.94	0.00	0.00	0.00	
6,841.75	90.78	276.01	2,180.00	513.84	-4,884.74	4,911.69	0.00	0.00	0.00	
PBHL Waters 34-12-32 #1H										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
- hit/miss target										
- Shape										
PBHL Waters 34-12-32 ;	0.00	3.53	2,180.00	513.84	-4,884.74	1,188,327.59	2,213,623.07	37° 9' 9.648 N	108° 11' 54.636 W	
- plan hits target center										
- Point										

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
2,243.54	2,127.00	Smokey Hill Member		0.00		
2,358.03	2,180.00	TD		0.00		
2,636.16	2,237.00	Landing Point		0.00		

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
1,520.87	1,520.87	0.00	0.00	KOP, Build 8"/100' DLS	
2,655.62	2,237.00	75.95	-721.96	LP, Hold to TD	
6,843.59				PBHL/TD	