

SRC ENERGY

WELD COUNTY (NAD83, TRUE NORTH)

5N-66W-29 SANFORD 21-29 PAD

SANFORD 5N-30B-M

Wellbore #1

Plan: Design #1

Standard Planning Report

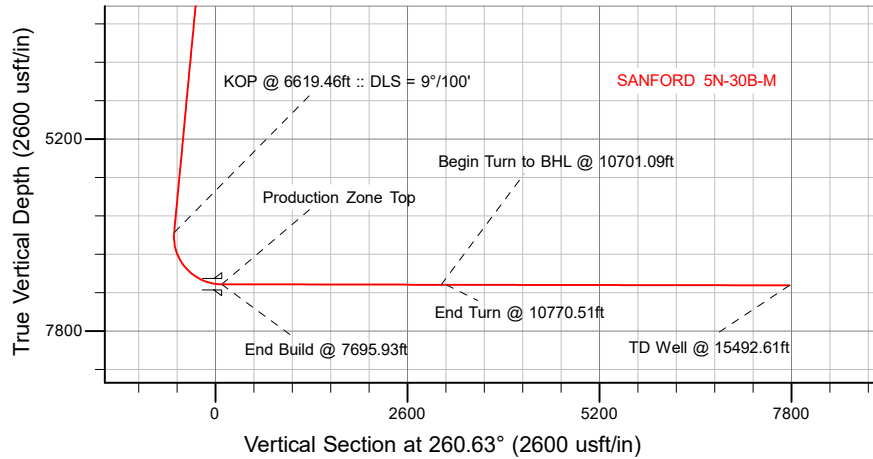
25 October, 2018

Project: WELD COUNTY (NAD83, TRUE NORTH)
Site: 5N-66W-29 SANFORD 21-29 PAD
Well: SANFORD 5N-30B-M
Wellbore: Wellbore #1
Design: Design #1

SRC ENERGY

CASING DETAILS

TVD	MD	Name
1800.00	1830.54	9 5/8"
7168.00	7695.93	Production Zone Top



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	
3	848.00	12.96	146.45	842.49	-60.82	40.33	2.00	146.45	-29.89	
4	6619.46	12.96	146.45	6466.93	-1139.55	755.68	0.00	0.00	-559.97	
5	7695.93	89.90	269.28	7168.00	-1282.85	126.67	9.00	122.18	83.99	
6	10701.09	89.90	269.28	7173.39	-1320.85	-2878.25	0.00	0.00	3054.96	Sanford 5N-30B-M_target
7	10770.51	89.90	270.66	7173.51	-1320.89	-2947.67	2.00	90.01	3123.46	
8	15492.61	89.90	270.66	7182.00	-1266.18	-7669.44	0.00	0.00	7773.26	Sanford 5N-30B-M_BHL

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
Sanford 5N-30B-M_BPZ	0.00	-1266.21	-7569.42	40.371995	-104.831538
Sanford 5N-30B-M_SHL	0.00	0.00	0.00	40.375474	-104.804371
Sanford 5N-30B-M_BHL	7182.00	-1266.18	-7669.44	40.371995	-104.831897

WELL DETAILS: SANFORD 5N-30B-M

GL = 4904'

RIB = 4' @ 4908.00usft (RIG)

Plan: Design #1 (SANFORD 5N-30B-M/Wellbore #1)

Date: 10/25/2015

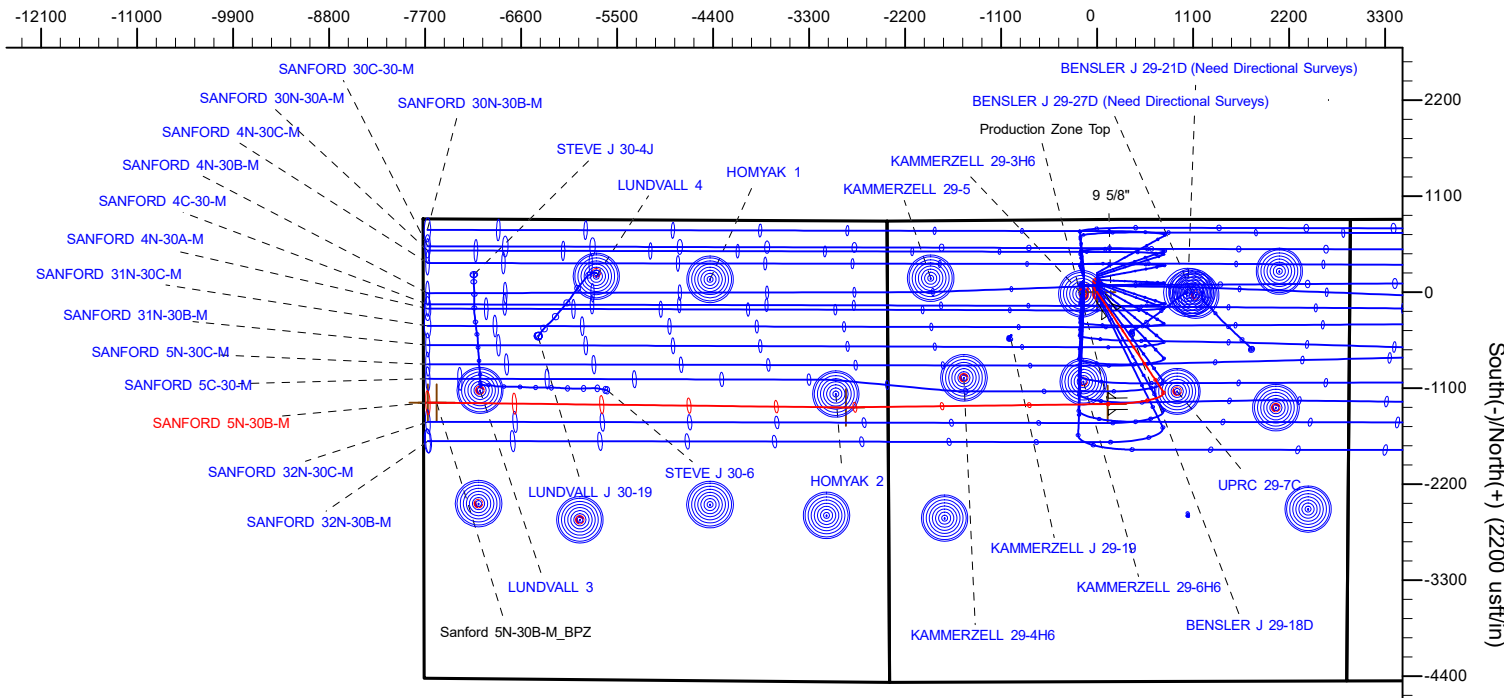
SHL
831' FNL
2392' FWL

LP
2113' FNL
2489' FWL
40.371957° Lat
-104.803936° Long

BPZ
2104' FNL
150' FWL

BHL
2104' FNL
50' FWL

West(-)/East(+) (2200 usft/in)



T Azimuths to True North
M Magnetic North: 8.09°
Magnetic Field
Strength: 52221.8snT
Dip Angle: 66.79°
Date: 10/20/2018
Model: IGRF2015

Hewlett-Packard

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well SANFORD 5N-30B-M
Company:	SRC ENERGY	TVD Reference:	RIB = 4' @ 4908.00usft (RIG)
Project:	WELD COUNTY (NAD83, TRUE NORTH)	MD Reference:	RIB = 4' @ 4908.00usft (RIG)
Site:	5N-66W-29 SANFORD 21-29 PAD	North Reference:	True
Well:	SANFORD 5N-30B-M	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project	WELD COUNTY (NAD83, TRUE NORTH)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	5N-66W-29 SANFORD 21-29 PAD			
Site Position:		Northing:	1,380,603.61 usft	Latitude: 40.376075
From:	Lat/Long	Easting:	3,193,654.99 usft	Longitude: -104.804914
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence: 0.45 °

Well	SANFORD 5N-30B-M			
Well Position	+N/-S	-218.95 usft	Northing:	1,380,385.85 usft
	+E/-W	151.29 usft	Easting:	3,193,807.98 usft
Position Uncertainty		3.28 usft	Wellhead Elevation:	Latitude: 40.375474
				Longitude: -104.804371
				Ground Level: 4,904.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	10/20/2018	8.09	66.79	52,221.76469111

Design	Design #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	260.63

Plan Survey Tool Program	Date	10/25/2018		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	1,800.00	Design #1 (Wellbore #1)	SRC Energy_ISCWSA REV 2
				Fixed:v2:crustal field declinatio
2	1,800.00	15,492.61	Design #1 (Wellbore #1)	SRC Energy_ISCWSA REV 2
				Fixed:v2:Rockies, crustal dec +

Hewlett-Packard

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Wellbore:	Wellbore #1		
Design:	Design #1		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	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	
848.00	12.96	146.45	842.49	-60.82	40.33	2.00	2.00	0.00	146.45	
6,619.46	12.96	146.45	6,466.93	-1,139.55	755.68	0.00	0.00	0.00	0.00	
7,695.93	89.90	269.28	7,168.00	-1,282.85	126.67	9.00	7.15	11.41	122.18	
10,701.09	89.90	269.28	7,173.39	-1,320.85	-2,878.25	0.00	0.00	0.00	0.00	Sanford 5N-30B-M_ta
10,770.51	89.90	270.66	7,173.51	-1,320.89	-2,947.67	2.00	0.00	2.00	90.01	
15,492.61	89.90	270.66	7,182.00	-1,266.18	-7,669.44	0.00	0.00	0.00	0.00	Sanford 5N-30B-M_B

Hewlett-Packard

Planning Report

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Company:	SRC ENERGY	TVD Reference:	RIB = 4' @ 4908.00usft (RIG)
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Site:	5N-66W-29 SANFORD 21-29 PAD	North Reference:	True
Well:	SANFORD 5N-30B-M	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
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
Begin Nudge @ 200.00ft									
300.00	2.00	146.45	299.98	-1.45	0.96	-0.71	2.00	2.00	0.00
400.00	4.00	146.45	399.84	-5.82	3.86	-2.86	2.00	2.00	0.00
500.00	6.00	146.45	499.45	-13.08	8.67	-6.43	2.00	2.00	0.00
600.00	8.00	146.45	598.70	-23.24	15.41	-11.42	2.00	2.00	0.00
700.00	10.00	146.45	697.47	-36.27	24.05	-17.82	2.00	2.00	0.00
800.00	12.00	146.45	795.62	-52.17	34.60	-25.64	2.00	2.00	0.00
848.00	12.96	146.45	842.49	-60.82	40.33	-29.89	2.00	2.00	0.00
Hold Tangent @ 848.00ft									
900.00	12.96	146.45	893.16	-70.54	46.78	-34.66	0.00	0.00	0.00
1,000.00	12.96	146.45	990.62	-89.23	59.17	-43.85	0.00	0.00	0.00
1,100.00	12.96	146.45	1,088.07	-107.92	71.57	-53.03	0.00	0.00	0.00
1,200.00	12.96	146.45	1,185.52	-126.61	83.96	-62.22	0.00	0.00	0.00
1,300.00	12.96	146.45	1,282.97	-145.30	96.35	-71.40	0.00	0.00	0.00
1,400.00	12.96	146.45	1,380.43	-163.99	108.75	-80.58	0.00	0.00	0.00
1,500.00	12.96	146.45	1,477.88	-182.68	121.14	-89.77	0.00	0.00	0.00
1,600.00	12.96	146.45	1,575.33	-201.37	133.54	-98.95	0.00	0.00	0.00
1,700.00	12.96	146.45	1,672.79	-220.06	145.93	-108.14	0.00	0.00	0.00
1,800.00	12.96	146.45	1,770.24	-238.75	158.33	-117.32	0.00	0.00	0.00
1,830.54	12.96	146.45	1,800.00	-244.46	162.11	-120.13	0.00	0.00	0.00
9 5/8"									
1,900.00	12.96	146.45	1,867.69	-257.45	170.72	-126.51	0.00	0.00	0.00
2,000.00	12.96	146.45	1,965.14	-276.14	183.12	-135.69	0.00	0.00	0.00
2,100.00	12.96	146.45	2,062.60	-294.83	195.51	-144.88	0.00	0.00	0.00
2,200.00	12.96	146.45	2,160.05	-313.52	207.91	-154.06	0.00	0.00	0.00
2,300.00	12.96	146.45	2,257.50	-332.21	220.30	-163.25	0.00	0.00	0.00
2,400.00	12.96	146.45	2,354.95	-350.90	232.70	-172.43	0.00	0.00	0.00
2,500.00	12.96	146.45	2,452.41	-369.59	245.09	-181.61	0.00	0.00	0.00
2,600.00	12.96	146.45	2,549.86	-388.28	257.49	-190.80	0.00	0.00	0.00
2,700.00	12.96	146.45	2,647.31	-406.97	269.88	-199.98	0.00	0.00	0.00
2,800.00	12.96	146.45	2,744.76	-425.66	282.27	-209.17	0.00	0.00	0.00
2,900.00	12.96	146.45	2,842.22	-444.35	294.67	-218.35	0.00	0.00	0.00
3,000.00	12.96	146.45	2,939.67	-463.04	307.06	-227.54	0.00	0.00	0.00
3,100.00	12.96	146.45	3,037.12	-481.73	319.46	-236.72	0.00	0.00	0.00
3,200.00	12.96	146.45	3,134.58	-500.43	331.85	-245.91	0.00	0.00	0.00
3,300.00	12.96	146.45	3,232.03	-519.12	344.25	-255.09	0.00	0.00	0.00
3,400.00	12.96	146.45	3,329.48	-537.81	356.64	-264.28	0.00	0.00	0.00
3,500.00	12.96	146.45	3,426.93	-556.50	369.04	-273.46	0.00	0.00	0.00
3,600.00	12.96	146.45	3,524.39	-575.19	381.43	-282.64	0.00	0.00	0.00
3,700.00	12.96	146.45	3,621.84	-593.88	393.83	-291.83	0.00	0.00	0.00
3,800.00	12.96	146.45	3,719.29	-612.57	406.22	-301.01	0.00	0.00	0.00
3,900.00	12.96	146.45	3,816.74	-631.26	418.62	-310.20	0.00	0.00	0.00
4,000.00	12.96	146.45	3,914.20	-649.95	431.01	-319.38	0.00	0.00	0.00
4,100.00	12.96	146.45	4,011.65	-668.64	443.40	-328.57	0.00	0.00	0.00
4,200.00	12.96	146.45	4,109.10	-687.33	455.80	-337.75	0.00	0.00	0.00
4,300.00	12.96	146.45	4,206.56	-706.02	468.19	-346.94	0.00	0.00	0.00
4,400.00	12.96	146.45	4,304.01	-724.72	480.59	-356.12	0.00	0.00	0.00
4,500.00	12.96	146.45	4,401.46	-743.41	492.98	-365.31	0.00	0.00	0.00
4,600.00	12.96	146.45	4,498.91	-762.10	505.38	-374.49	0.00	0.00	0.00
4,700.00	12.96	146.45	4,596.37	-780.79	517.77	-383.68	0.00	0.00	0.00

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Planning Report

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Company:	SRC ENERGY	TVD Reference:	RIB = 4' @ 4908.00usft (RIG)
Project:	WELD COUNTY (NAD83, TRUE NORTH)	MD Reference:	RIB = 4' @ 4908.00usft (RIG)
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Well:	SANFORD 5N-30B-M	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,800.00	12.96	146.45	4,693.82	-799.48	530.17	-392.86	0.00	0.00	0.00
4,900.00	12.96	146.45	4,791.27	-818.17	542.56	-402.04	0.00	0.00	0.00
5,000.00	12.96	146.45	4,888.72	-836.86	554.96	-411.23	0.00	0.00	0.00
5,100.00	12.96	146.45	4,986.18	-855.55	567.35	-420.41	0.00	0.00	0.00
5,200.00	12.96	146.45	5,083.63	-874.24	579.75	-429.60	0.00	0.00	0.00
5,300.00	12.96	146.45	5,181.08	-892.93	592.14	-438.78	0.00	0.00	0.00
5,400.00	12.96	146.45	5,278.53	-911.62	604.54	-447.97	0.00	0.00	0.00
5,500.00	12.96	146.45	5,375.99	-930.31	616.93	-457.15	0.00	0.00	0.00
5,600.00	12.96	146.45	5,473.44	-949.01	629.32	-466.34	0.00	0.00	0.00
5,700.00	12.96	146.45	5,570.89	-967.70	641.72	-475.52	0.00	0.00	0.00
5,800.00	12.96	146.45	5,668.35	-986.39	654.11	-484.71	0.00	0.00	0.00
5,900.00	12.96	146.45	5,765.80	-1,005.08	666.51	-493.89	0.00	0.00	0.00
6,000.00	12.96	146.45	5,863.25	-1,023.77	678.90	-503.07	0.00	0.00	0.00
6,100.00	12.96	146.45	5,960.70	-1,042.46	691.30	-512.26	0.00	0.00	0.00
6,200.00	12.96	146.45	6,058.16	-1,061.15	703.69	-521.44	0.00	0.00	0.00
6,300.00	12.96	146.45	6,155.61	-1,079.84	716.09	-530.63	0.00	0.00	0.00
6,400.00	12.96	146.45	6,253.06	-1,098.53	728.48	-539.81	0.00	0.00	0.00
6,500.00	12.96	146.45	6,350.51	-1,117.22	740.88	-549.00	0.00	0.00	0.00
6,600.00	12.96	146.45	6,447.97	-1,135.91	753.27	-558.18	0.00	0.00	0.00
6,619.46	12.96	146.45	6,466.93	-1,139.55	755.68	-559.97	0.00	0.00	0.00
KOP @ 6619.46ft :: DLS = 9°/100'									
6,700.00	10.95	180.67	6,545.82	-1,154.74	760.59	-562.34	9.00	-2.50	42.49
6,800.00	14.30	219.96	6,643.56	-1,173.74	752.53	-551.29	9.00	3.35	39.29
6,900.00	21.19	239.38	6,738.83	-1,192.45	728.99	-525.02	9.00	6.89	19.42
7,000.00	29.22	249.07	6,829.27	-1,210.41	690.56	-484.18	9.00	8.03	9.69
7,100.00	37.66	254.79	6,912.66	-1,227.18	638.18	-429.76	9.00	8.44	5.71
7,200.00	46.29	258.64	6,986.95	-1,242.35	573.14	-363.12	9.00	8.63	3.86
7,300.00	55.01	261.52	7,050.31	-1,255.53	497.03	-285.88	9.00	8.72	2.87
7,400.00	63.79	263.83	7,101.17	-1,266.42	411.75	-199.96	9.00	8.78	2.32
7,500.00	72.59	265.82	7,138.29	-1,274.73	319.38	-107.47	9.00	8.81	1.99
7,600.00	81.42	267.62	7,160.75	-1,280.27	222.19	-10.68	9.00	8.83	1.80
7,695.93	89.90	269.28	7,168.00	-1,282.85	126.66	83.99	9.00	8.83	1.72
End Build @ 7695.93ft - Production Zone Top									
7,700.00	89.90	269.28	7,168.01	-1,282.90	122.60	88.01	0.00	0.00	0.00
7,800.00	89.90	269.28	7,168.19	-1,284.16	22.60	186.88	0.00	0.00	0.00
7,900.00	89.90	269.28	7,168.37	-1,285.43	-77.39	285.74	0.00	0.00	0.00
8,000.00	89.90	269.28	7,168.55	-1,286.69	-177.38	384.60	0.00	0.00	0.00
8,100.00	89.90	269.28	7,168.73	-1,287.96	-277.37	483.46	0.00	0.00	0.00
8,200.00	89.90	269.28	7,168.91	-1,289.22	-377.36	582.32	0.00	0.00	0.00
8,300.00	89.90	269.28	7,169.09	-1,290.49	-477.36	681.19	0.00	0.00	0.00
8,400.00	89.90	269.28	7,169.27	-1,291.75	-577.35	780.05	0.00	0.00	0.00
8,500.00	89.90	269.28	7,169.45	-1,293.01	-677.34	878.91	0.00	0.00	0.00
8,600.00	89.90	269.28	7,169.62	-1,294.28	-777.33	977.77	0.00	0.00	0.00
8,700.00	89.90	269.28	7,169.80	-1,295.54	-877.32	1,076.64	0.00	0.00	0.00
8,800.00	89.90	269.28	7,169.98	-1,296.81	-977.32	1,175.50	0.00	0.00	0.00
8,900.00	89.90	269.28	7,170.16	-1,298.07	-1,077.31	1,274.36	0.00	0.00	0.00
9,000.00	89.90	269.28	7,170.34	-1,299.34	-1,177.30	1,373.22	0.00	0.00	0.00
9,100.00	89.90	269.28	7,170.52	-1,300.60	-1,277.29	1,472.09	0.00	0.00	0.00
9,200.00	89.90	269.28	7,170.70	-1,301.87	-1,377.28	1,570.95	0.00	0.00	0.00
9,300.00	89.90	269.28	7,170.88	-1,303.13	-1,477.27	1,669.81	0.00	0.00	0.00
9,400.00	89.90	269.28	7,171.06	-1,304.40	-1,577.27	1,768.67	0.00	0.00	0.00
9,500.00	89.90	269.28	7,171.24	-1,305.66	-1,677.26	1,867.54	0.00	0.00	0.00
9,600.00	89.90	269.28	7,171.42	-1,306.93	-1,777.25	1,966.40	0.00	0.00	0.00
9,700.00	89.90	269.28	7,171.60	-1,308.19	-1,877.24	2,065.26	0.00	0.00	0.00

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Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well SANFORD 5N-30B-M
Company:	SRC ENERGY	TVD Reference:	RIB = 4' @ 4908.00usft (RIG)
Project:	WELD COUNTY (NAD83, TRUE NORTH)	MD Reference:	RIB = 4' @ 4908.00usft (RIG)
Site:	5N-66W-29 SANFORD 21-29 PAD	North Reference:	True
Well:	SANFORD 5N-30B-M	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,800.00	89.90	269.28	7,171.78	-1,309.45	-1,977.23	2,164.12	0.00	0.00	0.00
9,900.00	89.90	269.28	7,171.95	-1,310.72	-2,077.23	2,262.99	0.00	0.00	0.00
10,000.00	89.90	269.28	7,172.13	-1,311.98	-2,177.22	2,361.85	0.00	0.00	0.00
10,100.00	89.90	269.28	7,172.31	-1,313.25	-2,277.21	2,460.71	0.00	0.00	0.00
10,200.00	89.90	269.28	7,172.49	-1,314.51	-2,377.20	2,559.57	0.00	0.00	0.00
10,300.00	89.90	269.28	7,172.67	-1,315.78	-2,477.19	2,658.43	0.00	0.00	0.00
10,400.00	89.90	269.28	7,172.85	-1,317.04	-2,577.18	2,757.30	0.00	0.00	0.00
10,500.00	89.90	269.28	7,173.03	-1,318.31	-2,677.18	2,856.16	0.00	0.00	0.00
10,600.00	89.90	269.28	7,173.21	-1,319.57	-2,777.17	2,955.02	0.00	0.00	0.00
10,700.00	89.90	269.28	7,173.39	-1,320.84	-2,877.16	3,053.88	0.00	0.00	0.00
10,701.09	89.90	269.28	7,173.39	-1,320.85	-2,878.25	3,054.96	0.00	0.00	0.00
Begin Turn to BHL @ 10701.09ft									
10,770.51	89.90	270.66	7,173.51	-1,320.89	-2,947.67	3,123.46	2.00	0.00	2.00
End Turn @ 10770.51ft									
10,800.00	89.90	270.66	7,173.57	-1,320.55	-2,977.16	3,152.50	0.00	0.00	0.00
10,900.00	89.90	270.66	7,173.75	-1,319.39	-3,077.15	3,250.97	0.00	0.00	0.00
11,000.00	89.90	270.66	7,173.93	-1,318.23	-3,177.14	3,349.44	0.00	0.00	0.00
11,100.00	89.90	270.66	7,174.11	-1,317.07	-3,277.14	3,447.90	0.00	0.00	0.00
11,200.00	89.90	270.66	7,174.29	-1,315.91	-3,377.13	3,546.37	0.00	0.00	0.00
11,300.00	89.90	270.66	7,174.47	-1,314.75	-3,477.12	3,644.84	0.00	0.00	0.00
11,400.00	89.90	270.66	7,174.65	-1,313.59	-3,577.12	3,743.31	0.00	0.00	0.00
11,500.00	89.90	270.66	7,174.83	-1,312.44	-3,677.11	3,841.78	0.00	0.00	0.00
11,600.00	89.90	270.66	7,175.01	-1,311.28	-3,777.10	3,940.25	0.00	0.00	0.00
11,700.00	89.90	270.66	7,175.19	-1,310.12	-3,877.09	4,038.72	0.00	0.00	0.00
11,800.00	89.90	270.66	7,175.36	-1,308.96	-3,977.09	4,137.19	0.00	0.00	0.00
11,900.00	89.90	270.66	7,175.54	-1,307.80	-4,077.08	4,235.66	0.00	0.00	0.00
12,000.00	89.90	270.66	7,175.72	-1,306.64	-4,177.07	4,334.12	0.00	0.00	0.00
12,100.00	89.90	270.66	7,175.90	-1,305.49	-4,277.07	4,432.59	0.00	0.00	0.00
12,200.00	89.90	270.66	7,176.08	-1,304.33	-4,377.06	4,531.06	0.00	0.00	0.00
12,300.00	89.90	270.66	7,176.26	-1,303.17	-4,477.05	4,629.53	0.00	0.00	0.00
12,400.00	89.90	270.66	7,176.44	-1,302.01	-4,577.05	4,728.00	0.00	0.00	0.00
12,500.00	89.90	270.66	7,176.62	-1,300.85	-4,677.04	4,826.47	0.00	0.00	0.00
12,600.00	89.90	270.66	7,176.80	-1,299.69	-4,777.03	4,924.94	0.00	0.00	0.00
12,700.00	89.90	270.66	7,176.98	-1,298.53	-4,877.03	5,023.41	0.00	0.00	0.00
12,800.00	89.90	270.66	7,177.16	-1,297.38	-4,977.02	5,121.88	0.00	0.00	0.00
12,900.00	89.90	270.66	7,177.34	-1,296.22	-5,077.01	5,220.35	0.00	0.00	0.00
13,000.00	89.90	270.66	7,177.52	-1,295.06	-5,177.01	5,318.81	0.00	0.00	0.00
13,100.00	89.90	270.66	7,177.70	-1,293.90	-5,277.00	5,417.28	0.00	0.00	0.00
13,200.00	89.90	270.66	7,177.88	-1,292.74	-5,376.99	5,515.75	0.00	0.00	0.00
13,300.00	89.90	270.66	7,178.06	-1,291.58	-5,476.98	5,614.22	0.00	0.00	0.00
13,400.00	89.90	270.66	7,178.24	-1,290.43	-5,576.98	5,712.69	0.00	0.00	0.00
13,500.00	89.90	270.66	7,178.42	-1,289.27	-5,676.97	5,811.16	0.00	0.00	0.00
13,600.00	89.90	270.66	7,178.60	-1,288.11	-5,776.96	5,909.63	0.00	0.00	0.00
13,700.00	89.90	270.66	7,178.78	-1,286.95	-5,876.96	6,008.10	0.00	0.00	0.00
13,800.00	89.90	270.66	7,178.96	-1,285.79	-5,976.95	6,106.57	0.00	0.00	0.00
13,900.00	89.90	270.66	7,179.14	-1,284.63	-6,076.94	6,205.03	0.00	0.00	0.00
14,000.00	89.90	270.66	7,179.32	-1,283.47	-6,176.94	6,303.50	0.00	0.00	0.00
14,100.00	89.90	270.66	7,179.50	-1,282.32	-6,276.93	6,401.97	0.00	0.00	0.00
14,200.00	89.90	270.66	7,179.68	-1,281.16	-6,376.92	6,500.44	0.00	0.00	0.00
14,300.00	89.90	270.66	7,179.86	-1,280.00	-6,476.92	6,598.91	0.00	0.00	0.00
14,400.00	89.90	270.66	7,180.04	-1,278.84	-6,576.91	6,697.38	0.00	0.00	0.00
14,500.00	89.90	270.66	7,180.22	-1,277.68	-6,676.90	6,795.85	0.00	0.00	0.00
14,600.00	89.90	270.66	7,180.40	-1,276.52	-6,776.90	6,894.32	0.00	0.00	0.00
14,700.00	89.90	270.66	7,180.58	-1,275.37	-6,876.89	6,992.79	0.00	0.00	0.00

Hewlett-Packard

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well SANFORD 5N-30B-M
Company:	SRC ENERGY	TVD Reference:	RIB = 4' @ 4908.00usft (RIG)
Project:	WELD COUNTY (NAD83, TRUE NORTH)	MD Reference:	RIB = 4' @ 4908.00usft (RIG)
Site:	5N-66W-29 SANFORD 21-29 PAD	North Reference:	True
Well:	SANFORD 5N-30B-M	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
14,800.00	89.90	270.66	7,180.76	-1,274.21	-6,976.88	7,091.26	0.00	0.00	0.00	
14,900.00	89.90	270.66	7,180.94	-1,273.05	-7,076.87	7,189.72	0.00	0.00	0.00	
15,000.00	89.90	270.66	7,181.11	-1,271.89	-7,176.87	7,288.19	0.00	0.00	0.00	
15,100.00	89.90	270.66	7,181.29	-1,270.73	-7,276.86	7,386.66	0.00	0.00	0.00	
15,200.00	89.90	270.66	7,181.47	-1,269.57	-7,376.85	7,485.13	0.00	0.00	0.00	
15,300.00	89.90	270.66	7,181.65	-1,268.41	-7,476.85	7,583.60	0.00	0.00	0.00	
15,400.00	89.90	270.66	7,181.83	-1,267.26	-7,576.84	7,682.07	0.00	0.00	0.00	
15,492.61	89.90	270.66	7,182.00	-1,266.18	-7,669.44	7,773.26	0.00	0.00	0.00	
TD Well @ 15492.61ft										

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,830.54	1,800.00	9 5/8"	9-5/8	13-1/2	
7,695.93	7,168.00	Production Zone Top	5-1/2	8-1/2	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
200.00	200.00	0.00	0.00	Begin Nudge @ 200.00ft	
848.00	842.49	-60.82	40.33	Hold Tangent @ 848.00ft	
6,619.46	6,466.93	-1,139.55	755.68	KOP @ 6619.46ft :: DLS = 9°/100'	
7,695.93	7,168.00	-1,282.85	126.67	End Build @ 7695.93ft	
10,701.09	7,173.39	-1,320.85	-2,878.25	Begin Turn to BHL @ 10701.09ft	
10,770.51	7,173.51	-1,320.89	-2,947.67	End Turn @ 10770.51ft	
15,492.61	7,182.00	-1,266.18	-7,669.44	TD Well @ 15492.61ft	