

US ROCKIES WATTENBERG PLANNING

WELD-NAD83-UTMFT13N

Skim 35-21HZ Pad

SKIM 35N-28HZ

Plan A

Plan: Rev A0 Permit

Sperry Drilling Services

Proposal Report

11 October, 2014

Well Coordinates: 14,601,715.29 N, 1,731,623.43 E (40° 12' 19.62" N, 104° 40' 24.02" W)

Ground Level: 4,847.00 usft

Local Coordinate Origin:

Centered on Well SKIM 35N-28HZ

Viewing Datum:

RKB = 17' @ 4864.00usft (D Rig)

TVDs to System:

N

North Reference:

True

Unit System:

API - Planning Rockies

Version: 5000.1 Build: 70

HALLIBURTON

Project: WELD-NAD83-UTMFT13N
 Site: Skim 35-21HZ Pad
 Well: SKIM 35N-28HZ
 Wellbore: Plan A
 Design: Rev A0 Permit

US ROCKIES WATTENBERG PLANNING

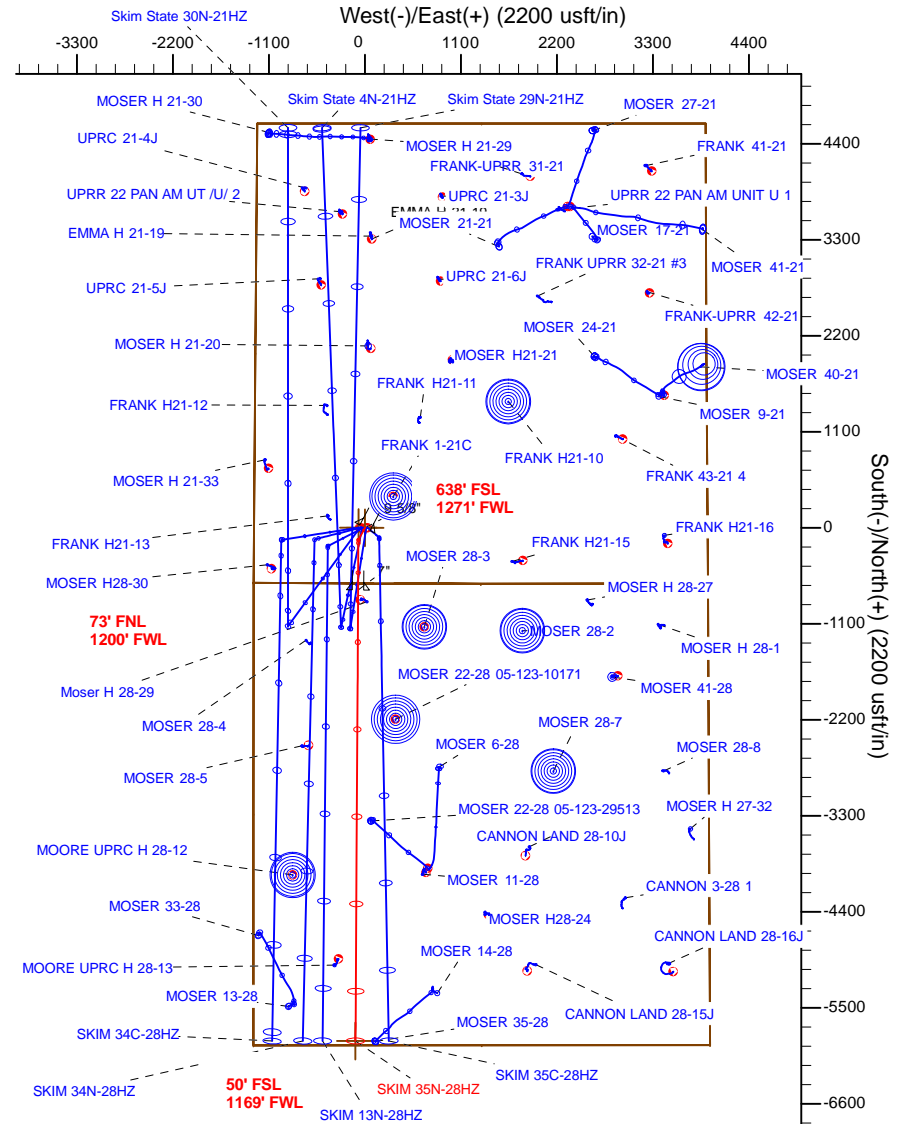
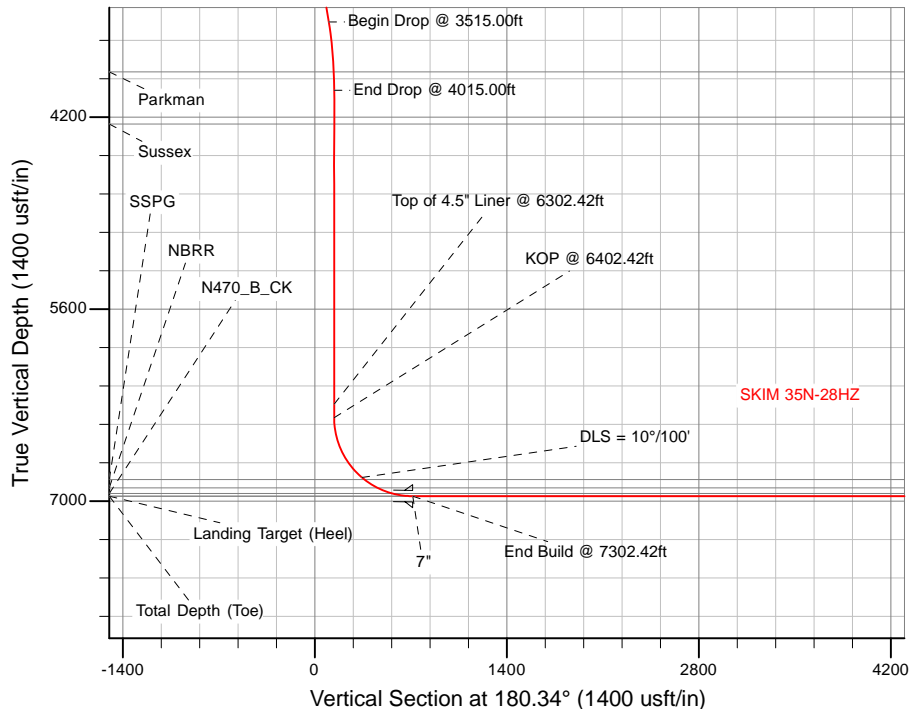


SECTION DETAILS

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	2600.00	0.00	0.00	2600.00	0.00	0.00	0.00	0.00	0.00	
3	3100.00	10.00	208.00	3097.47	-38.43	-20.43	2.00	208.00	38.55	
4	3515.00	10.00	208.00	3506.16	-102.06	-54.26	0.00	0.00	102.38	
5	4015.00	0.00	0.00	4003.63	-140.48	-74.70	2.00	180.00	140.93	
6	6402.42	0.00	0.00	6391.05	-140.48	-74.70	0.00	0.00	140.93	
7	7302.42	90.00	180.34	6964.00	-713.43	-78.09	10.00	180.34	713.88	
8	12469.47	90.00	180.34	6964.00	-5880.40	-108.64	0.00	0.00	5880.94	SKIM 35N-28HZ_BHL

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Polygon
Sec. 28 and 21-T3N-R65W	--	0.00	0.73	-75.11	40.205452	-104.673609
SKIM 35N-28HZ_SHL		0.00	0.00	0.00	40.205450	-104.673340
SKIM 35N-28HZ_BHL	6964.00	-5880.40	-108.64	40.189302	-104.673729	



TVD	MD	
6291.05	6302.42	Top of 4.5" Liner @ 6302.42ft
6391.05	6402.42	KOP @ 6402.42ft

WELL DETAILS: SKIM 35N-28HZ

Ground Level: 4847.00

RKB = 17' @ 4864.00usft (D Rig)

Plan: Rev A0 Permit (SKIM 35N-28HZ/Plan A)

Created By: Clint Eshelman Date: 10/11/2014
 Reviewed: _____ Date: _____



Plan Report for SKIM 35N-28HZ - Rev A0 Permit

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)	Toolface Azimuth (°)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SKIM 35N-28HZ_SHL - Sec. 28 and 21-T3N-R65W										
100.00	0.00	0.00	100.00	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	0.00
300.00	0.00	0.00	300.00	0.00	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	0.00
500.00	0.00	0.00	500.00	0.00	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	0.00
623.00	0.00	0.00	623.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Base Fox Hills										
700.00	0.00	0.00	700.00	0.00	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	0.00
900.00	0.00	0.00	900.00	0.00	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	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,136.00	0.00	0.00	1,136.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Surface Csg Setting Depth - 9 5/8"										
1,200.00	0.00	0.00	1,200.00	0.00	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	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	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	0.00
1,700.00	0.00	0.00	1,700.00	0.00	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	0.00
1,900.00	0.00	0.00	1,900.00	0.00	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	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	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	0.00
2,500.00	0.00	0.00	2,500.00	0.00	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	0.00
Begin Nudge @ 2600.00ft										
2,700.00	2.00	208.00	2,699.98	-1.54	-0.82	1.55	2.00	2.00	0.00	208.00
2,800.00	4.00	208.00	2,799.84	-6.16	-3.28	6.18	2.00	2.00	0.00	0.00
2,900.00	6.00	208.00	2,899.45	-13.86	-7.37	13.90	2.00	2.00	0.00	0.00
3,000.00	8.00	208.00	2,998.70	-24.62	-13.09	24.69	2.00	2.00	0.00	0.00
3,100.00	10.00	208.00	3,097.47	-38.43	-20.43	38.55	2.00	2.00	0.00	0.00
End Nudge @ 3100.00ft										
3,200.00	10.00	208.00	3,195.95	-53.76	-28.58	53.93	0.00	0.00	0.00	0.00
3,300.00	10.00	208.00	3,294.43	-69.09	-36.74	69.31	0.00	0.00	0.00	0.00
3,400.00	10.00	208.00	3,392.91	-84.42	-44.89	84.69	0.00	0.00	0.00	0.00
3,500.00	10.00	208.00	3,491.39	-99.76	-53.04	100.07	0.00	0.00	0.00	0.00
3,515.00	10.00	208.00	3,506.16	-102.06	-54.26	102.38	0.00	0.00	0.00	0.00
Begin Drop @ 3515.00ft										
3,600.00	8.30	208.00	3,590.08	-113.99	-60.61	114.35	2.00	-2.00	0.00	-180.00
3,700.00	6.30	208.00	3,689.26	-125.21	-66.58	125.60	2.00	-2.00	0.00	180.00
3,800.00	4.30	208.00	3,788.83	-133.36	-70.91	133.78	2.00	-2.00	0.00	180.00
3,881.32	2.67	208.00	3,869.99	-137.73	-73.23	138.16	2.00	-2.00	0.00	-180.00
Parkman										
3,900.00	2.30	208.00	3,888.66	-138.45	-73.61	138.88	2.00	-2.00	0.00	180.00
4,000.00	0.30	208.00	3,988.63	-140.45	-74.68	140.89	2.00	-2.00	0.00	180.00
4,015.00	0.00	0.00	4,003.63	-140.48	-74.70	140.93	2.00	-2.00	0.00	180.00
End Drop @ 4015.00ft										
4,100.00	0.00	0.00	4,088.63	-140.48	-74.70	140.93	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,188.63	-140.48	-74.70	140.93	0.00	0.00	0.00	0.00
4,261.37	0.00	0.00	4,249.99	-140.48	-74.70	140.93	0.00	0.00	0.00	0.00
Sussex										



Plan Report for SKIM 35N-28HZ - Rev A0 Permit

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)	Tooface Azimuth (°)
4,300.00	0.00	0.00	4,288.63	-140.48	-74.70	140.93	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,388.63	-140.48	-74.70	140.93	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,488.63	-140.48	-74.70	140.93	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,588.63	-140.48	-74.70	140.93	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,688.63	-140.48	-74.70	140.93	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,788.63	-140.48	-74.70	140.93	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,888.63	-140.48	-74.70	140.93	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	4,988.63	-140.48	-74.70	140.93	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,088.63	-140.48	-74.70	140.93	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,188.63	-140.48	-74.70	140.93	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,288.63	-140.48	-74.70	140.93	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,388.63	-140.48	-74.70	140.93	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,488.63	-140.48	-74.70	140.93	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,588.63	-140.48	-74.70	140.93	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,688.63	-140.48	-74.70	140.93	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,788.63	-140.48	-74.70	140.93	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,888.63	-140.48	-74.70	140.93	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	5,988.63	-140.48	-74.70	140.93	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,088.63	-140.48	-74.70	140.93	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,188.63	-140.48	-74.70	140.93	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,288.63	-140.48	-74.70	140.93	0.00	0.00	0.00	0.00
6,302.42	0.00	0.00	6,291.05	-140.48	-74.70	140.93	0.00	0.00	0.00	0.00
Top of 4.5" Liner @ 6302.42ft										
6,400.00	0.00	0.00	6,388.63	-140.48	-74.70	140.93	0.00	0.00	0.00	0.00
6,402.42	0.00	0.00	6,391.05	-140.48	-74.70	140.93	0.00	0.00	0.00	0.00
KOP @ 6402.42ft										
6,500.00	9.76	180.34	6,488.15	-148.77	-74.75	149.22	10.00	10.00	0.00	180.34
6,600.00	19.76	180.34	6,584.73	-174.22	-74.90	174.66	10.00	10.00	0.00	0.00
6,700.00	29.76	180.34	6,675.43	-216.04	-75.14	216.48	10.00	10.00	0.00	0.00
6,800.00	39.76	180.34	6,757.48	-272.98	-75.48	273.42	10.00	10.00	0.00	0.00
6,900.00	49.76	180.34	6,828.40	-343.30	-75.90	343.74	10.00	10.00	0.00	0.00
DLS = 10°/100'										
6,924.77	52.24	180.34	6,843.99	-362.55	-76.01	362.99	10.00	10.00	0.00	0.00
SSPG										
7,000.00	59.76	180.34	6,886.03	-424.87	-76.38	425.31	10.00	10.00	0.00	0.00
7,037.82	63.54	180.34	6,903.99	-458.15	-76.58	458.59	10.00	10.00	0.00	0.00
NBRR										
7,100.00	69.76	180.34	6,928.62	-515.20	-76.91	515.65	10.00	10.00	0.00	0.00
7,150.52	74.81	180.34	6,943.99	-563.31	-77.20	563.76	10.00	10.00	0.00	0.00
N470_B_CK										
7,200.00	79.76	180.34	6,954.87	-611.56	-77.48	612.01	10.00	10.00	0.00	0.00
7,300.00	89.76	180.34	6,964.00	-711.01	-78.07	711.46	10.00	10.00	0.00	0.00
7,302.42	90.00	180.34	6,964.00	-713.43	-78.09	713.88	10.00	10.00	0.00	0.00
End Build @ 7302.42ft - Landing Target (Heel) - 7"										
7,400.00	90.00	180.34	6,964.00	-811.01	-78.66	811.46	0.00	0.00	0.00	0.00
7,500.00	90.00	180.34	6,964.00	-911.01	-79.25	911.46	0.00	0.00	0.00	0.00
7,600.00	90.00	180.34	6,964.00	-1,011.01	-79.85	1,011.46	0.00	0.00	0.00	0.00
7,700.00	90.00	180.34	6,964.00	-1,111.01	-80.44	1,111.46	0.00	0.00	0.00	0.00
7,800.00	90.00	180.34	6,964.00	-1,211.00	-81.03	1,211.46	0.00	0.00	0.00	0.00
7,900.00	90.00	180.34	6,964.00	-1,311.00	-81.62	1,311.46	0.00	0.00	0.00	0.00
8,000.00	90.00	180.34	6,964.00	-1,411.00	-82.21	1,411.46	0.00	0.00	0.00	0.00
8,100.00	90.00	180.34	6,964.00	-1,511.00	-82.80	1,511.46	0.00	0.00	0.00	0.00
8,200.00	90.00	180.34	6,964.00	-1,611.00	-83.39	1,611.46	0.00	0.00	0.00	0.00
8,300.00	90.00	180.34	6,964.00	-1,711.00	-83.99	1,711.46	0.00	0.00	0.00	0.00
8,400.00	90.00	180.34	6,964.00	-1,810.99	-84.58	1,811.46	0.00	0.00	0.00	0.00
8,500.00	90.00	180.34	6,964.00	-1,910.99	-85.17	1,911.46	0.00	0.00	0.00	0.00
8,600.00	90.00	180.34	6,964.00	-2,010.99	-85.76	2,011.46	0.00	0.00	0.00	0.00
8,700.00	90.00	180.34	6,964.00	-2,110.99	-86.35	2,111.46	0.00	0.00	0.00	0.00



Plan Report for SKIM 35N-28HZ - Rev A0 Permit

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)	Toolface Azimuth (°)
8,800.00	90.00	180.34	6,964.00	-2,210.99	-86.94	2,211.46	0.00	0.00	0.00	0.00
8,900.00	90.00	180.34	6,964.00	-2,310.98	-87.53	2,311.46	0.00	0.00	0.00	0.00
9,000.00	90.00	180.34	6,964.00	-2,410.98	-88.13	2,411.46	0.00	0.00	0.00	0.00
9,100.00	90.00	180.34	6,964.00	-2,510.98	-88.72	2,511.46	0.00	0.00	0.00	0.00
9,200.00	90.00	180.34	6,964.00	-2,610.98	-89.31	2,611.46	0.00	0.00	0.00	0.00
9,300.00	90.00	180.34	6,964.00	-2,710.98	-89.90	2,711.46	0.00	0.00	0.00	0.00
9,400.00	90.00	180.34	6,964.00	-2,810.98	-90.49	2,811.46	0.00	0.00	0.00	0.00
9,500.00	90.00	180.34	6,964.00	-2,910.97	-91.08	2,911.46	0.00	0.00	0.00	0.00
9,600.00	90.00	180.34	6,964.00	-3,010.97	-91.67	3,011.46	0.00	0.00	0.00	0.00
9,700.00	90.00	180.34	6,964.00	-3,110.97	-92.27	3,111.46	0.00	0.00	0.00	0.00
9,800.00	90.00	180.34	6,964.00	-3,210.97	-92.86	3,211.46	0.00	0.00	0.00	0.00
9,900.00	90.00	180.34	6,964.00	-3,310.97	-93.45	3,311.46	0.00	0.00	0.00	0.00
10,000.00	90.00	180.34	6,964.00	-3,410.97	-94.04	3,411.46	0.00	0.00	0.00	0.00
10,100.00	90.00	180.34	6,964.00	-3,510.96	-94.63	3,511.46	0.00	0.00	0.00	0.00
10,200.00	90.00	180.34	6,964.00	-3,610.96	-95.22	3,611.46	0.00	0.00	0.00	0.00
10,300.00	90.00	180.34	6,964.00	-3,710.96	-95.81	3,711.46	0.00	0.00	0.00	0.00
10,400.00	90.00	180.34	6,964.00	-3,810.96	-96.41	3,811.46	0.00	0.00	0.00	0.00
10,500.00	90.00	180.34	6,964.00	-3,910.96	-97.00	3,911.46	0.00	0.00	0.00	0.00
10,600.00	90.00	180.34	6,964.00	-4,010.96	-97.59	4,011.46	0.00	0.00	0.00	0.00
10,700.00	90.00	180.34	6,964.00	-4,110.95	-98.18	4,111.46	0.00	0.00	0.00	0.00
10,800.00	90.00	180.34	6,964.00	-4,210.95	-98.77	4,211.46	0.00	0.00	0.00	0.00
10,900.00	90.00	180.34	6,964.00	-4,310.95	-99.36	4,311.46	0.00	0.00	0.00	0.00
11,000.00	90.00	180.34	6,964.00	-4,410.95	-99.95	4,411.46	0.00	0.00	0.00	0.00
11,100.00	90.00	180.34	6,964.00	-4,510.95	-100.55	4,511.46	0.00	0.00	0.00	0.00
11,200.00	90.00	180.34	6,964.00	-4,610.94	-101.14	4,611.46	0.00	0.00	0.00	0.00
11,300.00	90.00	180.34	6,964.00	-4,710.94	-101.73	4,711.46	0.00	0.00	0.00	0.00
11,400.00	90.00	180.34	6,964.00	-4,810.94	-102.32	4,811.46	0.00	0.00	0.00	0.00
11,500.00	90.00	180.34	6,964.00	-4,910.94	-102.91	4,911.46	0.00	0.00	0.00	0.00
11,600.00	90.00	180.34	6,964.00	-5,010.94	-103.50	5,011.46	0.00	0.00	0.00	0.00
11,700.00	90.00	180.34	6,964.00	-5,110.94	-104.09	5,111.46	0.00	0.00	0.00	0.00
11,800.00	90.00	180.34	6,964.00	-5,210.93	-104.68	5,211.46	0.00	0.00	0.00	0.00
11,900.00	90.00	180.34	6,964.00	-5,310.93	-105.28	5,311.46	0.00	0.00	0.00	0.00
12,000.00	90.00	180.34	6,964.00	-5,410.93	-105.87	5,411.46	0.00	0.00	0.00	0.00
12,100.00	90.00	180.34	6,964.00	-5,510.93	-106.46	5,511.46	0.00	0.00	0.00	0.00
12,200.00	90.00	180.34	6,964.00	-5,610.93	-107.05	5,611.46	0.00	0.00	0.00	0.00
12,300.00	90.00	180.34	6,964.00	-5,710.93	-107.64	5,711.46	0.00	0.00	0.00	0.00
12,400.00	90.00	180.34	6,964.00	-5,810.92	-108.23	5,811.46	0.00	0.00	0.00	0.00
12,469.46	90.00	180.34	6,964.00	-5,880.38	-108.64	5,880.92	0.00	0.00	0.00	0.00
Total Depth (Toe)										
12,469.47	90.00	180.34	6,964.00	-5,880.39	-108.64	5,880.93	0.01	0.00	0.00	0.00
TD Well @ 12469.47ft - SKIM 35N-28HZ_BHL										

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,600.00	2,600.00	0.00	0.00	Begin Nudge @ 2600.00ft
3,100.00	3,097.47	-38.43	-20.43	End Nudge @ 3100.00ft
3,515.00	3,506.16	-102.06	-54.26	Begin Drop @ 3515.00ft
4,015.00	4,003.63	-140.48	-74.70	End Drop @ 4015.00ft
6,302.42	6,291.05	-140.48	-74.70	Top of 4.5" Liner @ 6302.42ft
6,402.42	6,391.05	-140.48	-74.70	KOP @ 6402.42ft
6,900.00	6,828.40	-343.30	-75.90	DLS = 10°/100'
7,302.42	6,964.00	-713.43	-78.09	End Build @ 7302.42ft
12,469.47	6,964.00	-5,880.39	-108.64	TD Well @ 12469.47ft



Plan Report for SKIM 35N-28HZ - Rev A0 Permit

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin +N/_S (usft)	Origin +E/-W (usft)	Start TVD (usft)
User	No Target (Freehand)	180.34	Slot	0.00	0.00	0.00

Survey tool program

From (usft)	To (usft)	Survey/Plan	Survey Tool
0.00	7,302.42	Rev A0 Permit	MWD+IFR1
7,302.42	12,469.47	Rev A0 Permit	MWD+IFR1

Casing Details

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,136.00	1,136.00	9 5/8"	9-5/8	13-1/2
7,302.42	6,964.00	7"	7	8-3/4

Formation Details

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
623.00	623.00	Base Fox Hills		0.00	
1,136.00	1,136.00	Surface Csg Setting Depth		0.00	
3,881.32	3,869.99	Parkman		0.00	
4,261.37	4,249.99	Sussex		0.00	
6,924.77	6,843.99	SSPG		0.00	
7,037.82	6,903.99	NBRR		0.00	
7,150.52	6,943.99	N470_B_CK		0.00	
7,302.42	6,964.00	Landing Target (Heel)		0.00	
12,469.46	6,964.00	Total Depth (Toe)		0.00	

Targets associated with this wellbore

Target Name	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Shape
SKIM 35N-28HZ_BHL	6,964.00	-5,880.40	-108.64	Point
SKIM 35N-28HZ_SHL	0.00	0.00	0.00	Point
Sec. 28 and 21-T3N-R65W	0.00	0.73	-75.11	Polygon

North Reference Sheet for Skim 35-21HZ Pad - SKIM 35N-28HZ - Plan A

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to True North Reference.
 Vertical Depths are relative to RKB = 17' @ 4864.00usft (D Rig). Northing and Easting are relative to SKIM 35N-28HZ
 Coordinate System is Universal Transverse Mercator (US Survey Feet), Zone 13N (108 W to 102 W) using datum North American Datum 1983, ellipsoid
 Projection method is Transverse Mercator (Gauss-Kruger)
 Central Meridian is -105.00°, Longitude Origin:0.000000°, Latitude Origin:0.000000°
 False Easting: 1,640,416.67usft, False Northing: 0.00usft, Scale Reduction: 0.99960951

Grid Coordinates of Well: 14,601,715.29 usft N, 1,731,623.43 usft E
 Geographical Coordinates of Well: 40° 12' 19.62" N, 104° 40' 24.02" W
 Grid Convergence at Surface is: 0.21°

Based upon Minimum Curvature type calculations, at a Measured Depth of 12,469.47usft
 the Bottom Hole Displacement is 5,881.40usft in the Direction of 181.06° (True).

Magnetic Convergence at surface is: -8.14° (10 October 2014, , IGRF2010)

