

US ROCKIES WATTENBERG PLANNING

WELD-NAD83-UTMFT13N

Milk 4-21HZ Pad

MILK 35N-28HZ

Plan A

Plan: Rev A0 Permit

Sperry Drilling Services

Proposal Report

13 October, 2014

Well Coordinates: 14,601,552.08 N, 1,732,197.27 E (40° 12' 17.99" N, 104° 40' 16.63" W)

Ground Level: 4,838.00 usft

Local Coordinate Origin:	Centered on Well MILK 35N-28HZ
Viewing Datum:	RKB = 17' @ 4855.00usft (D Rig)
TVDs to System:	N
North Reference:	True
Unit System:	Dec-Deg - API - US Survey Feet - Custom

Version: 5000.1 Build: 70

HALLIBURTON

Project: WELD-NAD83-UTMFT13N
 Site: Milk 4-21HZ Pad
 Well: MILK 35N-28HZ
 Wellbore: Plan A
 Design: Rev A0 Permit

US ROCKIES WATTENBERG PLANNING

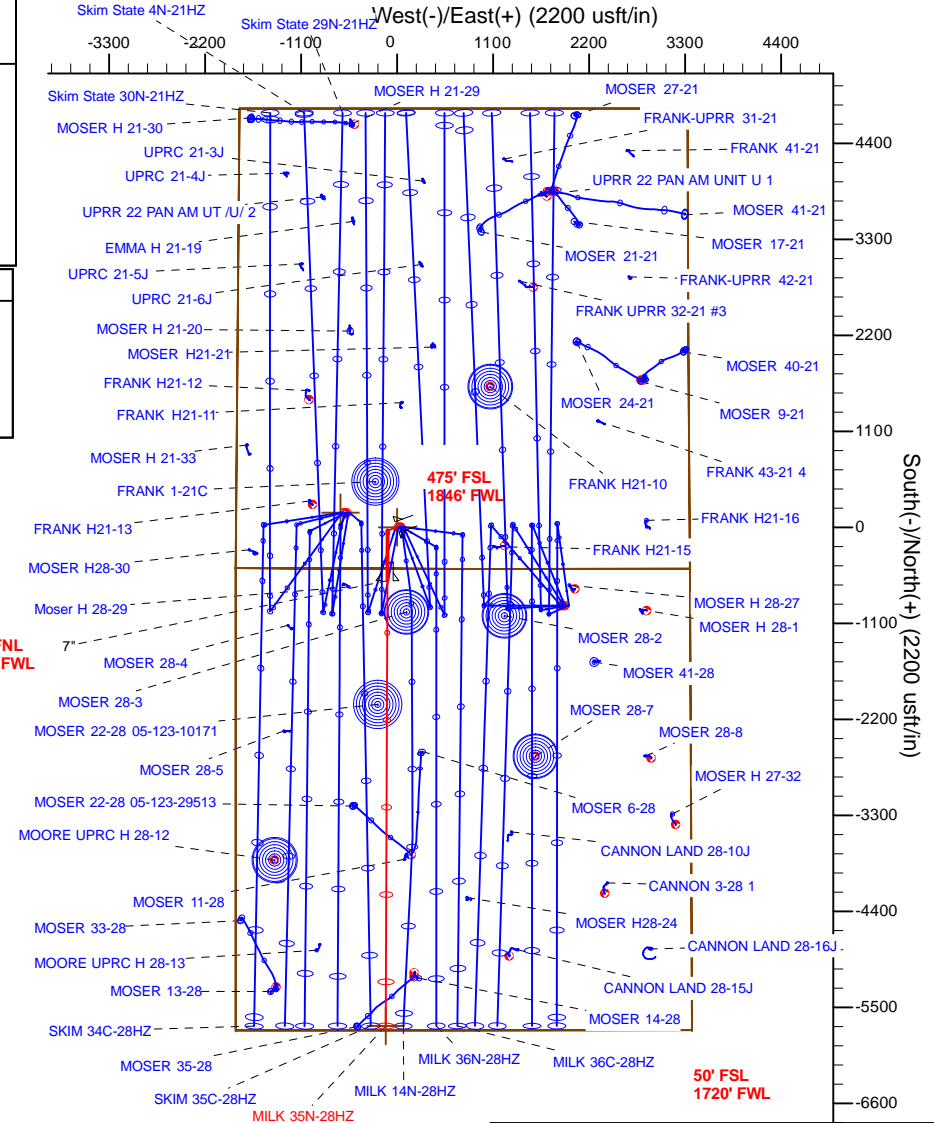
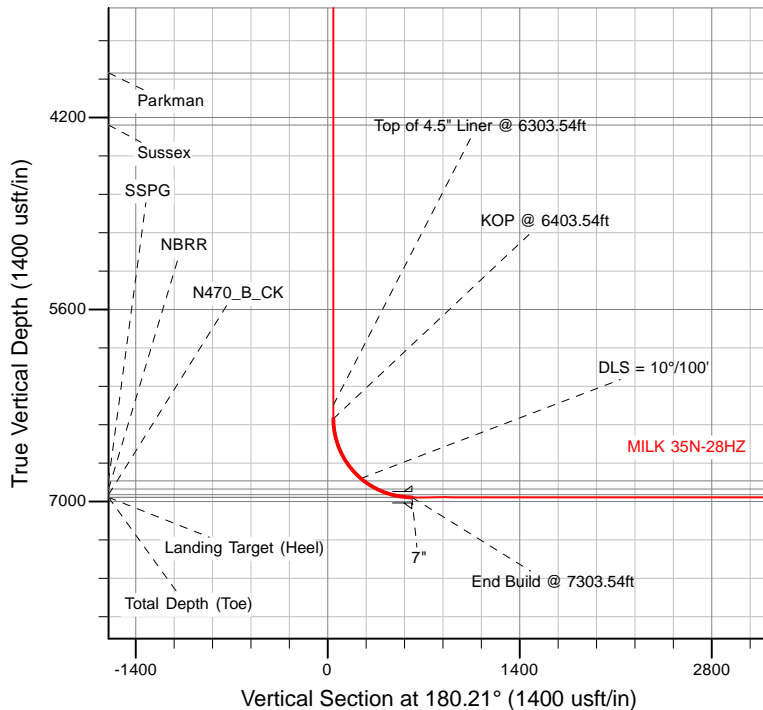


SECTION DETAILS

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	2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	0.00	
3	2500.00	10.00	250.00	2497.47	-14.89	-40.90	2.00	250.00	15.04	
4	2660.00	10.00	250.00	2655.03	-24.39	-67.01	0.00	0.00	24.63	
5	3160.00	0.00	0.00	3152.50	-39.27	-107.90	2.00	180.00	39.67	
6	6403.54	0.00	0.00	6396.04	-39.27	-107.90	0.00	0.00	39.67	
7	7303.54	90.00	180.21	6969.00	-612.23	-110.03	10.00	180.21	612.63	
8	12406.42	90.00	180.21	6969.00	-5715.07	-129.01	0.00	0.00	5715.50	MILK 35N-28HZ_Bhl

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Polygon
Sec. 28 and 21-T3N-R65W	--	-9.00	166.06	-648.33	40.205452	-104.673609
MILK 35N-28HZ_SHL		0.00	0.00	0.00	40.204996	-104.671287
MILK 35N-28HZ_Bhl	6969.00	-5715.07	-129.01	40.189302	-104.671749	



TVD		MD		WELL DETAILS: MILK 35N-28HZ	
6296.04		6303.54		Ground Level: 4838.00	
6396.04		6403.54		RKB = 17' @ 4855.00usft (D Rig)	
		Top of 4.5" Liner @ 6303.54ft		Plan: Rev A0 Permit (MILK 35N-28HZ/Plan A)	
		KOP @ 6403.54ft		Created By: Clint Eshelman Date: 10/13/2014	
				Reviewed: _____ Date: _____	



Plan Report for MILK 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
Sec. 28 and 21-T3N-R65W - MILK 35N-28HZ_SHL										
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
614.00	0.00	0.00	614.00	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
1,127.00	0.00	0.00	1,127.00	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
Begin Nudge @ 2000.00ft										
2,100.00	2.00	250.00	2,099.98	-0.60	-1.64	0.60	2.00	2.00	0.00	250.00
2,200.00	4.00	250.00	2,199.84	-2.39	-6.56	2.41	2.00	2.00	0.00	0.00
2,300.00	6.00	250.00	2,299.45	-5.37	-14.75	5.42	2.00	2.00	0.00	0.00
2,400.00	8.00	250.00	2,398.70	-9.54	-26.20	9.63	2.00	2.00	0.00	0.00
2,500.00	10.00	250.00	2,497.47	-14.89	-40.90	15.04	2.00	2.00	0.00	0.00
End Nudge @ 2500.00ft										
2,600.00	10.00	250.00	2,595.95	-20.82	-57.22	21.03	0.00	0.00	0.00	0.00
2,660.00	10.00	250.00	2,655.03	-24.39	-67.01	24.63	0.00	0.00	0.00	0.00
Begin Drop @ 2660.00ft										
2,700.00	9.20	250.00	2,694.47	-26.67	-73.27	26.94	2.00	-2.00	0.00	180.00
2,800.00	7.20	250.00	2,793.45	-31.55	-86.68	31.87	2.00	-2.00	0.00	180.00
2,900.00	5.20	250.00	2,892.86	-35.24	-96.82	35.60	2.00	-2.00	0.00	180.00
3,000.00	3.20	250.00	2,992.58	-37.75	-103.71	38.13	2.00	-2.00	0.00	180.00
3,100.00	1.20	250.00	3,092.50	-39.06	-107.31	39.45	2.00	-2.00	0.00	180.00
3,160.00	0.00	0.00	3,152.50	-39.27	-107.90	39.67	2.00	-2.00	183.33	180.00
End Drop @ 3160.00ft										
3,200.00	0.00	0.00	3,192.50	-39.27	-107.90	39.67	0.00	0.00	0.00	180.00
3,300.00	0.00	0.00	3,292.50	-39.27	-107.90	39.67	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,392.50	-39.27	-107.90	39.67	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,492.50	-39.27	-107.90	39.67	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,592.50	-39.27	-107.90	39.67	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,692.50	-39.27	-107.90	39.67	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,792.50	-39.27	-107.90	39.67	0.00	0.00	0.00	0.00
3,882.50	0.00	0.00	3,875.00	-39.27	-107.90	39.67	0.00	0.00	0.00	0.00
Parkman										
3,900.00	0.00	0.00	3,892.50	-39.27	-107.90	39.67	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	3,992.50	-39.27	-107.90	39.67	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,092.50	-39.27	-107.90	39.67	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,192.50	-39.27	-107.90	39.67	0.00	0.00	0.00	0.00
4,262.50	0.00	0.00	4,255.00	-39.27	-107.90	39.67	0.00	0.00	0.00	0.00
Sussex										



Plan Report for MILK 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 (°)
4,300.00	0.00	0.00	4,292.50	-39.27	-107.90	39.67	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,392.50	-39.27	-107.90	39.67	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,492.50	-39.27	-107.90	39.67	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,592.50	-39.27	-107.90	39.67	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,692.50	-39.27	-107.90	39.67	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,792.50	-39.27	-107.90	39.67	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,892.50	-39.27	-107.90	39.67	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	4,992.50	-39.27	-107.90	39.67	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,092.50	-39.27	-107.90	39.67	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,192.50	-39.27	-107.90	39.67	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,292.50	-39.27	-107.90	39.67	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,392.50	-39.27	-107.90	39.67	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,492.50	-39.27	-107.90	39.67	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,592.50	-39.27	-107.90	39.67	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,692.50	-39.27	-107.90	39.67	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,792.50	-39.27	-107.90	39.67	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,892.50	-39.27	-107.90	39.67	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	5,992.50	-39.27	-107.90	39.67	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,092.50	-39.27	-107.90	39.67	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,192.50	-39.27	-107.90	39.67	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,292.50	-39.27	-107.90	39.67	0.00	0.00	0.00	0.00
6,303.54	0.00	0.00	6,296.04	-39.27	-107.90	39.67	0.00	0.00	0.00	0.00
Top of 4.5" Liner @ 6303.54ft										
6,400.00	0.00	0.00	6,392.50	-39.27	-107.90	39.67	0.00	0.00	0.00	0.00
6,403.54	0.00	0.00	6,396.04	-39.27	-107.90	39.67	0.00	0.00	0.00	0.00
KOP @ 6403.54ft										
6,500.00	9.65	180.21	6,492.04	-47.37	-107.93	47.77	10.00	10.00	0.00	180.21
6,600.00	19.65	180.21	6,588.67	-72.63	-108.03	73.02	10.00	10.00	0.00	0.00
6,700.00	29.65	180.21	6,679.45	-114.27	-108.18	114.67	10.00	10.00	0.00	0.00
6,800.00	39.65	180.21	6,761.61	-171.05	-108.39	171.45	10.00	10.00	0.00	0.00
6,900.00	49.65	180.21	6,832.67	-241.24	-108.65	241.63	10.00	10.00	0.00	0.00
DLS = 10°/100'										
6,925.92	52.24	180.21	6,849.00	-261.36	-108.73	261.76	10.00	10.00	0.00	0.00
SSPG										
7,000.00	59.65	180.21	6,890.46	-322.69	-108.96	323.09	10.00	10.00	0.00	0.00
7,038.99	63.54	180.21	6,909.00	-356.98	-109.09	357.38	10.00	10.00	0.00	0.00
NBRR										
7,100.00	69.65	180.21	6,933.22	-412.94	-109.29	413.34	10.00	10.00	0.00	0.00
7,151.72	74.82	180.21	6,949.00	-462.18	-109.48	462.57	10.00	10.00	0.00	0.00
N470_B_CK										
7,200.00	79.65	180.21	6,959.67	-509.25	-109.65	509.65	10.00	10.00	0.00	0.00
7,300.00	89.65	180.21	6,968.99	-608.69	-110.02	609.09	10.00	10.00	0.00	0.00
7,303.54	90.00	180.21	6,969.00	-612.23	-110.03	612.63	10.00	10.00	0.00	0.00
End Build @ 7303.54ft - Landing Target (Heel) - 7"										
7,400.00	90.00	180.21	6,969.00	-708.69	-110.39	709.09	0.00	0.00	0.00	0.00
7,500.00	90.00	180.21	6,969.00	-808.69	-110.77	809.09	0.00	0.00	0.00	0.00
7,600.00	90.00	180.21	6,969.00	-908.69	-111.14	909.09	0.00	0.00	0.00	0.00
7,700.00	90.00	180.21	6,969.00	-1,008.68	-111.51	1,009.09	0.00	0.00	0.00	0.00
7,800.00	90.00	180.21	6,969.00	-1,108.68	-111.88	1,109.09	0.00	0.00	0.00	0.00
7,900.00	90.00	180.21	6,969.00	-1,208.68	-112.25	1,209.09	0.00	0.00	0.00	0.00
8,000.00	90.00	180.21	6,969.00	-1,308.68	-112.62	1,309.09	0.00	0.00	0.00	0.00
8,100.00	90.00	180.21	6,969.00	-1,408.68	-113.00	1,409.09	0.00	0.00	0.00	0.00
8,200.00	90.00	180.21	6,969.00	-1,508.68	-113.37	1,509.09	0.00	0.00	0.00	0.00
8,300.00	90.00	180.21	6,969.00	-1,608.68	-113.74	1,609.09	0.00	0.00	0.00	0.00
8,400.00	90.00	180.21	6,969.00	-1,708.68	-114.11	1,709.09	0.00	0.00	0.00	0.00
8,500.00	90.00	180.21	6,969.00	-1,808.68	-114.48	1,809.09	0.00	0.00	0.00	0.00
8,600.00	90.00	180.21	6,969.00	-1,908.68	-114.86	1,909.09	0.00	0.00	0.00	0.00
8,700.00	90.00	180.21	6,969.00	-2,008.68	-115.23	2,009.09	0.00	0.00	0.00	0.00



Plan Report for MILK 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	180.21	6,969.00	-2,108.68	-115.60	2,109.09	0.00	0.00	0.00	0.00
8,900.00	90.00	180.21	6,969.00	-2,208.68	-115.97	2,209.09	0.00	0.00	0.00	0.00
9,000.00	90.00	180.21	6,969.00	-2,308.68	-116.34	2,309.09	0.00	0.00	0.00	0.00
9,100.00	90.00	180.21	6,969.00	-2,408.68	-116.71	2,409.09	0.00	0.00	0.00	0.00
9,200.00	90.00	180.21	6,969.00	-2,508.67	-117.09	2,509.09	0.00	0.00	0.00	0.00
9,300.00	90.00	180.21	6,969.00	-2,608.67	-117.46	2,609.09	0.00	0.00	0.00	0.00
9,400.00	90.00	180.21	6,969.00	-2,708.67	-117.83	2,709.09	0.00	0.00	0.00	0.00
9,500.00	90.00	180.21	6,969.00	-2,808.67	-118.20	2,809.09	0.00	0.00	0.00	0.00
9,600.00	90.00	180.21	6,969.00	-2,908.67	-118.57	2,909.09	0.00	0.00	0.00	0.00
9,700.00	90.00	180.21	6,969.00	-3,008.67	-118.95	3,009.09	0.00	0.00	0.00	0.00
9,800.00	90.00	180.21	6,969.00	-3,108.67	-119.32	3,109.09	0.00	0.00	0.00	0.00
9,900.00	90.00	180.21	6,969.00	-3,208.67	-119.69	3,209.09	0.00	0.00	0.00	0.00
10,000.00	90.00	180.21	6,969.00	-3,308.67	-120.06	3,309.09	0.00	0.00	0.00	0.00
10,100.00	90.00	180.21	6,969.00	-3,408.67	-120.43	3,409.09	0.00	0.00	0.00	0.00
10,200.00	90.00	180.21	6,969.00	-3,508.67	-120.81	3,509.09	0.00	0.00	0.00	0.00
10,300.00	90.00	180.21	6,969.00	-3,608.67	-121.18	3,609.09	0.00	0.00	0.00	0.00
10,400.00	90.00	180.21	6,969.00	-3,708.67	-121.55	3,709.09	0.00	0.00	0.00	0.00
10,500.00	90.00	180.21	6,969.00	-3,808.67	-121.92	3,809.09	0.00	0.00	0.00	0.00
10,600.00	90.00	180.21	6,969.00	-3,908.66	-122.29	3,909.09	0.00	0.00	0.00	0.00
10,700.00	90.00	180.21	6,969.00	-4,008.66	-122.66	4,009.09	0.00	0.00	0.00	0.00
10,800.00	90.00	180.21	6,969.00	-4,108.66	-123.04	4,109.09	0.00	0.00	0.00	0.00
10,900.00	90.00	180.21	6,969.00	-4,208.66	-123.41	4,209.09	0.00	0.00	0.00	0.00
11,000.00	90.00	180.21	6,969.00	-4,308.66	-123.78	4,309.09	0.00	0.00	0.00	0.00
11,100.00	90.00	180.21	6,969.00	-4,408.66	-124.15	4,409.09	0.00	0.00	0.00	0.00
11,200.00	90.00	180.21	6,969.00	-4,508.66	-124.52	4,509.09	0.00	0.00	0.00	0.00
11,300.00	90.00	180.21	6,969.00	-4,608.66	-124.90	4,609.09	0.00	0.00	0.00	0.00
11,400.00	90.00	180.21	6,969.00	-4,708.66	-125.27	4,709.09	0.00	0.00	0.00	0.00
11,500.00	90.00	180.21	6,969.00	-4,808.66	-125.64	4,809.09	0.00	0.00	0.00	0.00
11,600.00	90.00	180.21	6,969.00	-4,908.66	-126.01	4,909.09	0.00	0.00	0.00	0.00
11,700.00	90.00	180.21	6,969.00	-5,008.66	-126.38	5,009.09	0.00	0.00	0.00	0.00
11,800.00	90.00	180.21	6,969.00	-5,108.66	-126.75	5,109.09	0.00	0.00	0.00	0.00
11,900.00	90.00	180.21	6,969.00	-5,208.66	-127.13	5,209.09	0.00	0.00	0.00	0.00
12,000.00	90.00	180.21	6,969.00	-5,308.66	-127.50	5,309.09	0.00	0.00	0.00	0.00
12,100.00	90.00	180.21	6,969.00	-5,408.65	-127.87	5,409.09	0.00	0.00	0.00	0.00
12,200.00	90.00	180.21	6,969.00	-5,508.65	-128.24	5,509.09	0.00	0.00	0.00	0.00
12,300.00	90.00	180.21	6,969.00	-5,608.65	-128.61	5,609.09	0.00	0.00	0.00	0.00
12,400.00	90.00	180.21	6,969.00	-5,708.65	-128.99	5,709.09	0.00	0.00	0.00	0.00
12,406.41	90.00	180.21	6,969.00	-5,715.06	-129.01	5,715.50	0.00	0.00	0.00	0.00
Total Depth (Toe)										
12,406.42	90.00	180.21	6,969.00	-5,715.07	-129.01	5,715.50	0.00	0.00	0.00	0.00
TD Well @ 12406.42ft - MILK 35N-28HZ_Bhl										

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,000.00	2,000.00	0.00	0.00	Begin Nudge @ 2000.00ft
2,500.00	2,497.47	-14.89	-40.90	End Nudge @ 2500.00ft
2,660.00	2,655.03	-24.39	-67.01	Begin Drop @ 2660.00ft
3,160.00	3,152.50	-39.27	-107.90	End Drop @ 3160.00ft
6,303.54	6,296.04	-39.27	-107.90	Top of 4.5" Liner @ 6303.54ft
6,403.54	6,396.04	-39.27	-107.90	KOP @ 6403.54ft
6,900.00	6,832.67	-241.24	-108.65	DLS = 10°/100'
7,303.54	6,969.00	-612.23	-110.03	End Build @ 7303.54ft
12,406.42	6,969.00	-5,715.07	-129.01	TD Well @ 12406.42ft

Plan Report for MILK 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)	180.21	Slot	0.00	0.00	0.00

Survey tool program

From (usft)	To (usft)	Survey/Plan	Survey Tool
0.00	7,303.54	Rev A0 Permit	MWD+IFR1
7,303.54	12,406.42	Rev A0 Permit	MWD+IFR1

Casing Details

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,127.00	1,127.00	9 5/8"	9-5/8	13-1/2
7,303.54	6,969.00	7"	7	8-3/4

Formation Details

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
614.00	614.00	Base Fox Hills		0.00	
1,127.00	1,127.00	Surface Csg Setting Depth		0.00	
3,882.50	3,875.00	Parkman		0.00	
4,262.50	4,255.00	Sussex		0.00	
6,925.92	6,849.00	SSPG		0.00	
7,038.99	6,909.00	NBRR		0.00	
7,151.72	6,949.00	N470_B_CK		0.00	
7,303.54	6,969.00	Landing Target (Heel)		0.00	
12,406.41	6,969.00	Total Depth (Toe)		0.00	

Targets associated with this wellbore

Target Name	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Shape
MILK 35N-28HZ_Bhl	6,969.00	-5,715.07	-129.01	Point
Sec. 28 and 21-T3N-R65W	-9.00	166.06	-648.33	Polygon
MILK 35N-28HZ_SHL	0.00	0.00	0.00	Point

North Reference Sheet for Milk 4-21HZ Pad - MILK 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' @ 4855.00usft (D Rig). Northing and Easting are relative to MILK 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: 0.99960963

Grid Coordinates of Well: 14,601,552.08 usft N, 1,732,197.27 usft E

Geographical Coordinates of Well: 40° 12' 17.99" N, 104° 40' 16.63" W

Grid Convergence at Surface is: 0.21°

Based upon Minimum Curvature type calculations, at a Measured Depth of 12,406.42usft the Bottom Hole Displacement is 5,716.53usft in the Direction of 181.29° (True).

Magnetic Convergence at surface is: -8.14° (11 October 2014, , IGRF2010)

