



**NM OIL CONSERVATION
ARTESIA DISTRICT**

NOV 20 2018

RECEIVED

EOG Resources - Artesia

Eddy County (NAD83)

Peace

Peace #1H

Lateral

Plan: Plan #1

Standard Planning Report

29 October, 2018



Planning Report

Database: EDM 5000.14
Company: EOG Resources - Artesia
Project: Eddy County (NAD83)
Site: Peace
Well: Peace #1H
Wellbore: Lateral
Design: Plan #1

Local Co-ordinate Reference: Well Peace #1H
TVD Reference: KB @ 3578.000usft (Planning Rig)
MD Reference: KB @ 3578.000usft (Planning Rig)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project	Eddy County (NAD83)	System Datum:	Mean Sea Level
Map System:	US State Plane 1983		
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Peace				
Site Position:		Northing:	612,001.00 usft	Latitude:	32° 40' 56.363 N
From:	Map	Easting:	489,759.00 usft	Longitude:	104° 30' 3.511 W
Position Uncertainty:	0.000 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.09 °

Well	Peace #1H					
Well Position	+N/-S	0.000 usft	Northing:	612,001.00 usft	Latitude:	32° 40' 56.363 N
	+E/-W	0.000 usft	Easting:	489,759.00 usft	Longitude:	104° 30' 3.511 W
Position Uncertainty		0.000 usft	Wellhead Elevation:	3,578.000 usft	Ground Level:	3,560.000 usft

Wellbore	Lateral					
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength	
	IGRF2015	10/26/2018	(°)	(°)	(nT)	
			7.27	60.32	47,968.05269834	

Design	Plan #1				
Audit Notes:					
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.000	
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(usft)	(usft)	(usft)	(°)	
	0.000	0.000	0.000	90.634	

Plan Survey Tool Program	Date	10/29/2018			
Depth From	Depth To	Survey (Wellbore)	Tool Name	Remarks	
(usft)	(usft)				
1	0.000	7,868.964 Plan #1 (Lateral)	MWD		
			OWSG MWD - Standard		

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(usft)	(usft)	Rate	Rate	Rate	(°)	
(usft)			(usft)			(°/100usft)	(°/100usft)	(°/100usft)		
0.000	0.00	0.000	0.000	0.000	0.000	0.00	0.00	0.00	0.00	
1,250.000	0.00	0.000	1,250.000	0.000	0.000	0.00	0.00	0.00	0.00	
1,612.541	0.00	0.000	1,612.541	0.000	0.000	0.00	0.00	0.00	0.00	
2,279.208	60.00	98.145	2,163.870	-45.098	315.099	9.00	9.00	0.00	98.15	
2,354.208	60.00	98.145	2,201.370	-54.300	379.398	0.00	0.00	0.00	0.00	
2,594.758	87.80	89.954	2,267.529	-69.279	607.537	12.00	11.56	-3.41	-17.15	
7,869.107	87.80	89.954	2,470.000	-65.048	5,877.999	0.00	0.00	0.00	0.00 [PEACE#1H]BHL1	



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 MD Reference: KB @ 3578.000usft (Planning Rig)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

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)
0.000	0.00	0.000	0.000	0.000	0.000	0.000	0.00	0.00	0.00
100.000	0.00	0.000	100.000	0.000	0.000	0.000	0.00	0.00	0.00
200.000	0.00	0.000	200.000	0.000	0.000	0.000	0.00	0.00	0.00
300.000	0.00	0.000	300.000	0.000	0.000	0.000	0.00	0.00	0.00
400.000	0.00	0.000	400.000	0.000	0.000	0.000	0.00	0.00	0.00
500.000	0.00	0.000	500.000	0.000	0.000	0.000	0.00	0.00	0.00
600.000	0.00	0.000	600.000	0.000	0.000	0.000	0.00	0.00	0.00
700.000	0.00	0.000	700.000	0.000	0.000	0.000	0.00	0.00	0.00
800.000	0.00	0.000	800.000	0.000	0.000	0.000	0.00	0.00	0.00
900.000	0.00	0.000	900.000	0.000	0.000	0.000	0.00	0.00	0.00
1,000.000	0.00	0.000	1,000.000	0.000	0.000	0.000	0.00	0.00	0.00
1,100.000	0.00	0.000	1,100.000	0.000	0.000	0.000	0.00	0.00	0.00
1,200.000	0.00	0.000	1,200.000	0.000	0.000	0.000	0.00	0.00	0.00
1,250.000	0.00	0.000	1,250.000	0.000	0.000	0.000	0.00	0.00	0.00
1,300.000	0.00	0.000	1,300.000	0.000	0.000	0.000	0.00	0.00	0.00
1,400.000	0.00	0.000	1,400.000	0.000	0.000	0.000	0.00	0.00	0.00
1,500.000	0.00	0.000	1,500.000	0.000	0.000	0.000	0.00	0.00	0.00
1,600.000	0.00	0.000	1,600.000	0.000	0.000	0.000	0.00	0.00	0.00
1,612.541	0.00	0.000	1,612.541	0.000	0.000	0.000	0.00	0.00	0.00
KOP 9°/100' BUILD RATE									
1,650.000	3.37	98.145	1,649.978	-0.156	1.091	1.092	9.00	9.00	0.00
1,700.000	7.87	98.145	1,699.725	-0.850	5.938	5.947	9.00	9.00	0.00
1,750.000	12.37	98.145	1,748.934	-2.094	14.633	14.658	9.00	9.00	0.00
1,800.000	16.87	98.145	1,797.303	-3.882	27.124	27.166	9.00	9.00	0.00
1,850.000	21.37	98.145	1,844.532	-6.202	43.333	43.399	9.00	9.00	0.00
1,900.000	25.87	98.145	1,890.331	-9.040	63.161	63.257	9.00	9.00	0.00
1,950.000	30.37	98.145	1,934.417	-12.378	86.484	86.616	9.00	9.00	0.00
2,000.000	34.87	98.145	1,976.519	-16.198	113.159	113.332	9.00	9.00	0.00
2,050.000	39.37	98.145	2,016.377	-20.470	143.023	143.240	9.00	9.00	0.00
2,100.000	43.87	98.145	2,053.744	-25.174	175.889	176.157	9.00	9.00	0.00
2,150.000	48.37	98.145	2,088.392	-30.279	211.557	211.879	9.00	9.00	0.00
2,200.000	52.87	98.145	2,120.106	-35.753	249.808	250.186	9.00	9.00	0.00
2,250.000	57.37	98.145	2,148.691	-41.583	290.400	290.842	9.00	9.00	0.00
2,279.208	60.00	98.145	2,163.870	-45.098	315.099	315.579	9.00	9.00	0.00
START 75° TANGENT									
2,300.000	60.00	98.145	2,174.266	-47.649	332.924	333.431	0.00	0.00	0.00
2,354.208	60.00	98.145	2,201.370	-54.300	379.398	379.974	0.00	0.00	0.00
END 60° TANGENT/START 12°/100' BR									
2,375.000	62.39	97.315	2,211.388	-56.749	397.448	398.052	12.00	11.48	-3.99
2,400.000	65.26	96.383	2,222.415	-59.418	419.722	420.354	12.00	11.50	-3.81
2,425.000	68.14	95.455	2,232.302	-61.780	442.559	443.216	12.00	11.53	-3.63
2,450.000	71.03	94.582	2,241.020	-63.827	465.897	466.575	12.00	11.55	-3.49
2,475.000	73.92	93.739	2,248.547	-65.555	489.671	490.367	12.00	11.56	-3.37
2,500.000	76.81	92.921	2,254.862	-66.959	513.817	514.528	12.00	11.57	-3.27
2,525.000	79.71	92.121	2,259.947	-68.035	538.268	538.988	12.00	11.58	-3.20
2,550.000	82.61	91.336	2,263.789	-68.779	562.957	563.683	12.00	11.59	-3.14
2,575.000	85.51	90.582	2,266.376	-69.190	587.816	588.548	12.00	11.60	-3.10
2,594.758	87.80	89.954	2,267.528	-69.279	607.537	608.266	12.00	11.60	-3.08
[PEACE#1H]EOC1 2595°MD(2268° TVD)									
2,600.000	87.80	89.954	2,267.731	-69.275	612.777	613.506	0.00	0.00	0.00
2,700.000	87.80	89.954	2,271.569	-69.195	712.703	713.425	0.00	0.00	0.00
2,800.000	87.80	89.954	2,275.408	-69.114	812.630	813.345	0.00	0.00	0.00
2,900.000	87.80	89.954	2,279.247	-69.034	912.556	913.264	0.00	0.00	0.00



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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)
2,908.467	87.80	89.954	2,279.572	-69.027	921.017	921.724	0.00	0.00	0.00
[PEACE#1H]JUMP1 2908'MD(2280' TVD)									
3,000.000	87.80	89.954	2,283.086	-68.954	1,012.482	1,013.183	0.00	0.00	0.00
3,100.000	87.80	89.954	2,286.924	-68.874	1,112.408	1,113.102	0.00	0.00	0.00
3,200.000	87.80	89.954	2,290.763	-68.793	1,212.335	1,213.022	0.00	0.00	0.00
3,300.000	87.80	89.954	2,294.602	-68.713	1,312.261	1,312.941	0.00	0.00	0.00
3,400.000	87.80	89.954	2,298.441	-68.633	1,412.187	1,412.860	0.00	0.00	0.00
3,500.000	87.80	89.954	2,302.280	-68.553	1,512.113	1,512.779	0.00	0.00	0.00
3,600.000	87.80	89.954	2,306.118	-68.473	1,612.040	1,612.699	0.00	0.00	0.00
3,700.000	87.80	89.954	2,309.957	-68.392	1,711.966	1,712.618	0.00	0.00	0.00
3,800.000	87.80	89.954	2,313.796	-68.312	1,811.892	1,812.537	0.00	0.00	0.00
3,900.000	87.80	89.954	2,317.635	-68.232	1,911.818	1,912.456	0.00	0.00	0.00
4,000.000	87.80	89.954	2,321.473	-68.152	2,011.745	2,012.378	0.00	0.00	0.00
4,100.000	87.80	89.954	2,325.312	-68.071	2,111.671	2,112.295	0.00	0.00	0.00
4,200.000	87.80	89.954	2,329.151	-67.991	2,211.597	2,212.214	0.00	0.00	0.00
4,300.000	87.80	89.954	2,332.990	-67.911	2,311.523	2,312.133	0.00	0.00	0.00
4,400.000	87.80	89.954	2,336.829	-67.831	2,411.450	2,412.053	0.00	0.00	0.00
4,500.000	87.80	89.954	2,340.667	-67.751	2,511.376	2,511.972	0.00	0.00	0.00
4,600.000	87.80	89.954	2,344.506	-67.670	2,611.302	2,611.891	0.00	0.00	0.00
4,700.000	87.80	89.954	2,348.345	-67.590	2,711.228	2,711.810	0.00	0.00	0.00
4,800.000	87.80	89.954	2,352.184	-67.510	2,811.155	2,811.730	0.00	0.00	0.00
4,900.000	87.80	89.954	2,356.023	-67.430	2,911.081	2,911.649	0.00	0.00	0.00
5,000.000	87.80	89.954	2,359.861	-67.349	3,011.007	3,011.568	0.00	0.00	0.00
5,100.000	87.80	89.954	2,363.700	-67.269	3,110.934	3,111.487	0.00	0.00	0.00
5,200.000	87.80	89.954	2,367.539	-67.189	3,210.860	3,211.407	0.00	0.00	0.00
5,300.000	87.80	89.954	2,371.378	-67.109	3,310.786	3,311.326	0.00	0.00	0.00
5,400.000	87.80	89.954	2,375.216	-67.029	3,410.712	3,411.245	0.00	0.00	0.00
5,500.000	87.80	89.954	2,379.055	-66.948	3,510.639	3,511.164	0.00	0.00	0.00
5,600.000	87.80	89.954	2,382.894	-66.868	3,610.565	3,611.084	0.00	0.00	0.00
5,700.000	87.80	89.954	2,386.733	-66.788	3,710.491	3,711.003	0.00	0.00	0.00
5,800.000	87.80	89.954	2,390.572	-66.708	3,810.417	3,810.922	0.00	0.00	0.00
5,900.000	87.80	89.954	2,394.410	-66.627	3,910.344	3,910.841	0.00	0.00	0.00
6,000.000	87.80	89.954	2,398.249	-66.547	4,010.270	4,010.761	0.00	0.00	0.00
6,100.000	87.80	89.954	2,402.088	-66.467	4,110.196	4,110.680	0.00	0.00	0.00
6,200.000	87.80	89.954	2,405.927	-66.387	4,210.122	4,210.599	0.00	0.00	0.00
6,300.000	87.80	89.954	2,409.765	-66.306	4,310.049	4,310.518	0.00	0.00	0.00
6,400.000	87.80	89.954	2,413.604	-66.226	4,409.975	4,410.438	0.00	0.00	0.00
6,500.000	87.80	89.954	2,417.443	-66.146	4,509.901	4,510.357	0.00	0.00	0.00
6,600.000	87.80	89.954	2,421.282	-66.066	4,609.827	4,610.278	0.00	0.00	0.00
6,700.000	87.80	89.954	2,425.121	-65.986	4,709.754	4,710.195	0.00	0.00	0.00
6,800.000	87.80	89.954	2,428.959	-65.905	4,809.680	4,810.115	0.00	0.00	0.00
6,900.000	87.80	89.954	2,432.798	-65.825	4,909.606	4,910.034	0.00	0.00	0.00
7,000.000	87.80	89.954	2,436.637	-65.745	5,009.532	5,009.953	0.00	0.00	0.00
7,100.000	87.80	89.954	2,440.476	-65.665	5,109.459	5,109.872	0.00	0.00	0.00
7,200.000	87.80	89.954	2,444.314	-65.584	5,209.385	5,209.792	0.00	0.00	0.00
7,300.000	87.80	89.954	2,448.153	-65.504	5,309.311	5,309.711	0.00	0.00	0.00
7,400.000	87.80	89.954	2,451.992	-65.424	5,409.237	5,409.630	0.00	0.00	0.00
7,500.000	87.80	89.954	2,455.831	-65.344	5,509.164	5,509.549	0.00	0.00	0.00
7,600.000	87.80	89.954	2,459.670	-65.264	5,609.090	5,609.469	0.00	0.00	0.00
7,700.000	87.80	89.954	2,463.508	-65.183	5,709.016	5,709.388	0.00	0.00	0.00
7,800.000	87.80	89.954	2,467.347	-65.103	5,808.942	5,809.307	0.00	0.00	0.00
7,869.107	87.80	89.954	2,470.000	-65.048	5,877.899	5,878.359	0.00	0.00	0.00
[PEACE#1H]BHL1 7869'MD(2470' TVD)									



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Design Targets

Target Name

- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
[PEACE#1H]JUMP1	0.00	0.000	2,280.000	-69.000	921.000	611,932.00	490,680.00	32° 40' 55.694 N	104° 29' 52.733 W
- plan misses target center by 0.429usft at 2908.467usft MD (2279.572 TVD, -69.027 N, 921.016 E)									
- Point									
[PEACE#1H]BHL1	0.00	0.000	2,470.000	-65.000	5,878.000	611,936.00	495,637.00	32° 40' 55.806 N	104° 28' 54.733 W
- plan misses target center by 0.048usft at 7869.108usft MD (2470.000 TVD, -65.048 N, 5877.999 E)									
- Point									

Plan Annotations

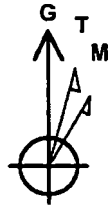
Measured Depth	Vertical Depth	Local Coordinates		Comment
(usft)	(usft)	+N/-S (usft)	+E/-W (usft)	
1,812.541	1,812.541	0.000	0.000	KOP 9°/100' BUILD RATE
2,279.208	2,163.870	-45.098	315.099	START 75' TANGENT
2,354.208	2,201.370	-54.300	379.398	END 60° TANGENT/START 12°/100' BR
2,594.756	2,267.529	-69.279	607.537	[PEACE#1H]EOC1 2595'MD(2268' TVD)
2,908.467	2,279.572	-69.027	921.017	[PEACE#1H]JUMP1 2908'MD(2280' TVD)
7,869.107	2,470.000	-65.048	5,877.999	[PEACE#1H]BHL1 7869'MD(2470' TVD)

Project: Eddy County (NAD83)
 Site: Peace
 Well: Peace #1H
 Wellbore: Lateral
 Design: Plan #1
 Ground Elevation 3560.000
 Northing 612001.00
 Easting 489759.00

PROJECT DETAILS: Eddy County (NAD83)

Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level



Azimuths to Grid North
 True North: 0.09°
 Magnetic North: 7.36°

Magnetic Field
 Strength: 47968.1snT
 Dip Angle: 60.32°
 Date: 10/26/2018
 Model: IGRF2015

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
1	0.000	0.00	0.000	0.000	0.000	0.000	0.00	0.00	0.000
2	1250.000	0.00	0.000	1250.000	0.000	0.000	0.00	0.00	0.000
3	1612.541	0.00	0.000	1612.541	0.000	0.000	0.00	0.00	0.000
4	2279.208	60.00	98.145	2163.870	-45.098	315.099	9.00	98.14	315.579
5	2354.208	60.00	98.145	2201.370	-54.300	379.396	0.00	0.00	379.973
6	2594.756	87.80	89.954	2267.529	-69.279	607.537	12.00	-17.15	608.266
7	7869.108	87.80	89.954	2470.000	-65.048	5877.999	0.00	0.00	5878.359

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting
[PEACE#1H]JUMP1	2280.000	-69.000	921.000	611932.00	490680.00
- plan misses target center by 0.429usft at 2908.467usft MD (2279.572 TVD, -69.027 N, 921.016 E)					
[PEACE#1H]BHL1	2470.000	-65.000	5878.000	611936.00	495637.00
- plan misses target center by 0.048usft at 7869.108usft MD (2470.000 TVD, -65.048 N, 5877.999 E)					

