

NOV 20 2018

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EOG Resources - Artesia

Eddy County (NAD83)

Peace

Peace #3H

Lateral

Plan: Plan #1

Standard Planning Report

05 November, 2018



Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well Peace #3H
Company:	EOG Resources - Artesia	TVD Reference:	KB @ 3565.000usft (Planning Rigg)
Project:	Eddy County (NAD83)	MD Reference:	KB @ 3565.000usft (Planning Rigg)
Site:	Peace	North Reference:	Grid
Well:	Peace #3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral		
Design:	Plan #1		

Project	Eddy County (NAD83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
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 #3H		
Well Position	+N-S	-1,576.000 usft	Northing: 610,425.00 usft
	+E-W	-135.000 usft	Easting: 489,624.00 usft
Position Uncertainty	0.000 usft	Wellhead Elevation:	3,565.000 usft
			Ground Level: 3,547.000 usft

Wellbore	Lateral		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF2015	11/5/2018	7.27
			Dip Angle (°)
			60.31
			Field Strength (nT)
			47,982.73290033

Design	Plan #1		
Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth: 0.000
Vertical Section:	Depth From (TVD) (usft)	+N-S (usft)	+E-W (usft)
	0.000	0.000	0.000
			Direction (°)
			93.238

Plan Survey Tool Program	Date	11/5/2018
Depth From (usft)	Depth To (usft)	Survey (Wellbore)
1	0.000	8,057.084
		Plan #1 (Lateral)
		Tool Name
		MWD
		OWSG MWD - Standard
		Remarks

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
0.000	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	
1,552.104	0.00	0.000	1,552.104	0.000	0.000	0.00	0.00	0.00	0.00	
2,218.771	60.00	128.550	2,103.433	-198.370	248.939	9.00	9.00	0.00	128.55	
2,293.771	60.00	128.550	2,140.933	-238.848	299.735	0.00	0.00	0.00	0.00	
2,870.161	88.62	89.938	2,251.951	-345.812	632.477	12.00	7.07	-10.26	-61.45	
8,057.084	88.62	89.938	2,570.000	-340.000	6,010.000	0.00	0.00	0.00	0.00	[PEACE#3H]BHL1



Planning Report

Database: EDM 5000.14
Company: EOG Resources - Artesia
Project: Eddy County (NAD83)
Site: Peace
Well: Peace #3H
Wellbore: Lateral
Design: Plan #1

Local Co-ordinate Reference: Well Peace #3H
TVD Reference: KB @ 3585.000usft (Planning Rigg)
MD Reference: KB @ 3565.000usft (Planning Rigg)
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
1,552.104	0.00	0.000	1,552.104	0.000	0.000	0.000	0.00	0.00	0.00
START KOP 9°/100'									
1,600.000	4.31	128.550	1,599.955	-1.122	1.408	1.470	9.00	9.00	0.00
1,650.000	8.81	128.550	1,649.815	-4.682	5.875	6.130	9.00	9.00	0.00
1,700.000	13.31	128.550	1,698.673	-10.658	13.375	13.856	9.00	9.00	0.00
1,750.000	17.81	128.550	1,746.828	-18.015	23.862	24.898	9.00	9.00	0.00
1,800.000	22.31	128.550	1,793.783	-29.700	37.272	38.880	9.00	9.00	0.00
1,850.000	26.81	128.550	1,839.247	-42.649	53.521	55.844	9.00	9.00	0.00
1,900.000	31.31	128.550	1,882.941	-57.780	72.510	75.658	9.00	9.00	0.00
1,950.000	35.81	128.550	1,924.595	-75.002	94.121	98.207	9.00	9.00	0.00
2,000.000	40.31	128.550	1,963.853	-94.207	118.222	123.354	9.00	9.00	0.00
2,050.000	44.81	128.550	2,000.772	-115.277	144.663	150.944	9.00	9.00	0.00
2,100.000	49.31	128.550	2,034.824	-138.082	173.283	180.805	9.00	9.00	0.00
2,150.000	53.81	128.550	2,065.901	-162.482	203.903	212.755	9.00	9.00	0.00
2,200.000	58.31	128.550	2,093.809	-188.327	236.336	246.596	9.00	9.00	0.00
2,218.771	60.00	128.550	2,103.433	-198.370	248.939	259.746	9.00	9.00	0.00
START 76° TANGENT									
2,293.771	60.00	128.550	2,140.833	-238.848	299.736	312.748	0.00	0.00	0.00
END 80° TANGENT/START 12°/100' BR									
2,300.000	60.36	127.794	2,144.031	-242.188	303.984	317.178	12.00	5.77	-12.13
2,325.000	61.84	124.816	2,156.114	-255.141	321.621	335.519	12.00	5.94	-11.91
2,350.000	63.39	121.921	2,167.614	-267.345	340.159	354.717	12.00	6.19	-11.58
2,375.000	64.99	119.105	2,178.499	-278.767	359.548	374.719	12.00	6.41	-11.27
2,400.000	66.65	116.362	2,188.740	-289.376	379.733	395.471	12.00	6.62	-10.97
2,425.000	68.35	113.688	2,198.308	-299.142	400.660	416.916	12.00	6.81	-10.70
2,450.000	70.09	111.076	2,207.177	-308.038	422.271	438.996	12.00	6.97	-10.44
2,475.000	71.88	108.523	2,215.324	-316.040	444.508	461.649	12.00	7.12	-10.21
2,500.000	73.69	106.021	2,222.724	-323.127	467.308	484.813	12.00	7.28	-10.01
2,525.000	75.53	103.586	2,229.359	-328.278	490.610	508.426	12.00	7.37	-9.82
2,550.000	77.40	101.151	2,235.210	-334.478	514.351	532.421	12.00	7.47	-9.66
2,575.000	79.29	98.771	2,240.261	-338.711	538.463	556.735	12.00	7.56	-9.52
2,600.000	81.20	96.421	2,244.498	-341.966	562.883	581.299	12.00	7.63	-9.40
2,625.000	83.12	94.085	2,247.910	-344.234	587.542	606.047	12.00	7.69	-9.30
2,650.000	85.05	91.788	2,250.488	-345.510	612.373	630.911	12.00	7.73	-9.23
2,670.161	86.62	89.938	2,251.951	-345.812	632.477	651.000	12.00	7.76	-9.18

[PEACE#3H]EOC1 2670' MD(2252' TVD)



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Database: EDM 5000.14
Company: EOG Resources - Artesia
Project: Eddy County (NAD83)
Site: Peace
Well: Peace #3H
Wellbore: Lateral
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Local Co-ordinate Reference: Well Peace #3H
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North Reference: Grid
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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)
2,700.000	86.62	89.938	2,253.713	-345.780	682.264	680.737	0.00	0.00	0.00
2,800.000	86.62	89.938	2,259.617	-345.672	762.089	780.397	0.00	0.00	0.00
2,900.000	86.62	89.938	2,265.521	-345.564	861.915	880.057	0.00	0.00	0.00
3,000.000	86.62	89.938	2,271.425	-345.456	961.740	979.717	0.00	0.00	0.00
3,094.425	86.62	89.938	2,277.000	-345.354	1,056.001	1,073.821	0.00	0.00	0.00
[PEACE#3H]JUMP1 3094'MD(2277' TVD)									
3,100.000	86.62	89.938	2,277.329	-345.348	1,081.566	1,079.377	0.00	0.00	0.00
3,200.000	86.62	89.938	2,283.233	-345.240	1,161.391	1,179.037	0.00	0.00	0.00
3,300.000	86.62	89.938	2,289.138	-345.133	1,261.217	1,278.697	0.00	0.00	0.00
3,400.000	86.62	89.938	2,295.042	-345.025	1,361.042	1,378.357	0.00	0.00	0.00
3,500.000	86.62	89.938	2,300.946	-344.917	1,460.868	1,478.017	0.00	0.00	0.00
3,600.000	86.62	89.938	2,306.850	-344.809	1,560.693	1,577.677	0.00	0.00	0.00
3,700.000	86.62	89.938	2,312.754	-344.701	1,660.519	1,677.337	0.00	0.00	0.00
3,800.000	86.62	89.938	2,318.658	-344.593	1,760.344	1,776.998	0.00	0.00	0.00
3,900.000	86.62	89.938	2,324.562	-344.485	1,860.170	1,876.658	0.00	0.00	0.00
4,000.000	86.62	89.938	2,330.466	-344.377	1,959.995	1,976.318	0.00	0.00	0.00
4,100.000	86.62	89.938	2,336.370	-344.269	2,059.821	2,075.978	0.00	0.00	0.00
4,200.000	86.62	89.938	2,342.274	-344.162	2,159.646	2,175.638	0.00	0.00	0.00
4,300.000	86.62	89.938	2,348.178	-344.054	2,259.472	2,275.298	0.00	0.00	0.00
4,400.000	86.62	89.938	2,354.083	-343.946	2,359.297	2,374.958	0.00	0.00	0.00
4,500.000	86.62	89.938	2,359.987	-343.838	2,459.123	2,474.618	0.00	0.00	0.00
4,600.000	86.62	89.938	2,365.891	-343.730	2,558.948	2,574.278	0.00	0.00	0.00
4,700.000	86.62	89.938	2,371.795	-343.622	2,658.774	2,673.938	0.00	0.00	0.00
4,800.000	86.62	89.938	2,377.699	-343.514	2,758.599	2,773.598	0.00	0.00	0.00
4,900.000	86.62	89.938	2,383.603	-343.406	2,858.425	2,873.258	0.00	0.00	0.00
5,000.000	86.62	89.938	2,389.507	-343.298	2,958.250	2,972.918	0.00	0.00	0.00
5,100.000	86.62	89.938	2,395.411	-343.190	3,058.076	3,072.578	0.00	0.00	0.00
5,200.000	86.62	89.938	2,401.315	-343.083	3,157.901	3,172.238	0.00	0.00	0.00
5,300.000	86.62	89.938	2,407.219	-342.975	3,257.727	3,271.898	0.00	0.00	0.00
5,400.000	86.62	89.938	2,413.123	-342.867	3,357.552	3,371.558	0.00	0.00	0.00
5,500.000	86.62	89.938	2,419.027	-342.759	3,457.378	3,471.218	0.00	0.00	0.00
5,600.000	86.62	89.938	2,424.932	-342.651	3,557.203	3,570.878	0.00	0.00	0.00
5,700.000	86.62	89.938	2,430.836	-342.543	3,657.029	3,670.538	0.00	0.00	0.00
5,800.000	86.62	89.938	2,436.740	-342.435	3,756.854	3,770.198	0.00	0.00	0.00
5,900.000	86.62	89.938	2,442.644	-342.327	3,856.680	3,869.858	0.00	0.00	0.00
6,000.000	86.62	89.938	2,448.548	-342.219	3,956.505	3,969.518	0.00	0.00	0.00
6,100.000	86.62	89.938	2,454.452	-342.112	4,056.331	4,069.178	0.00	0.00	0.00
6,200.000	86.62	89.938	2,460.356	-342.004	4,156.156	4,168.838	0.00	0.00	0.00
6,300.000	86.62	89.938	2,466.260	-341.896	4,255.982	4,268.498	0.00	0.00	0.00
6,400.000	86.62	89.938	2,472.164	-341.788	4,355.807	4,368.159	0.00	0.00	0.00
6,500.000	86.62	89.938	2,478.068	-341.680	4,455.633	4,467.819	0.00	0.00	0.00
6,600.000	86.62	89.938	2,483.972	-341.572	4,555.458	4,567.479	0.00	0.00	0.00
6,700.000	86.62	89.938	2,489.876	-341.464	4,655.284	4,667.139	0.00	0.00	0.00
6,800.000	86.62	89.938	2,495.781	-341.356	4,755.109	4,766.799	0.00	0.00	0.00
6,900.000	86.62	89.938	2,501.685	-341.248	4,854.935	4,866.459	0.00	0.00	0.00
7,000.000	86.62	89.938	2,507.589	-341.141	4,954.760	4,966.119	0.00	0.00	0.00
7,100.000	86.62	89.938	2,513.493	-341.033	5,054.586	5,065.779	0.00	0.00	0.00
7,200.000	86.62	89.938	2,519.397	-340.925	5,154.411	5,165.439	0.00	0.00	0.00
7,300.000	86.62	89.938	2,525.301	-340.817	5,254.237	5,265.099	0.00	0.00	0.00
7,400.000	86.62	89.938	2,531.205	-340.709	5,354.062	5,364.759	0.00	0.00	0.00
7,500.000	86.62	89.938	2,537.109	-340.601	5,453.888	5,464.419	0.00	0.00	0.00
7,600.000	86.62	89.938	2,543.013	-340.493	5,553.713	5,564.079	0.00	0.00	0.00
7,700.000	86.62	89.938	2,548.917	-340.385	5,653.539	5,663.739	0.00	0.00	0.00



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 Wellbore: Lateral
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 MD Reference: KB @ 3565.000usft (Planning Rigg)
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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)
7,800.000	86.62	89.938	2,554.821	-340.277	5,753.364	5,763.399	0.00	0.00	0.00
7,900.000	86.62	89.938	2,560.725	-340.169	5,853.180	5,863.059	0.00	0.00	0.00
8,000.000	86.62	89.938	2,566.630	-340.062	5,953.015	5,962.719	0.00	0.00	0.00
8,057.084	86.62	89.938	2,570.000	-340.000	6,010.000	6,019.609	0.00	0.00	0.00

[PEACE#3H]BHL1 8057' MD(2570' TVD)

Design Targets

Target Name	- hit/miss target	- Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
[PEACE#3H]UMP1			0.00	0.000	2,277.000	-345.000	1,058.000	610,080.00	490,680.00	32° 40' 37.368 N	104° 29' 52.700 W
	- plan misses target center by 0.354usft at 3094.425usft MD (2277.000 TVD, -345.354 N, 1058.000 E)										
	- Point										
[PEACE#3H]BHL1			0.00	0.000	2,570.000	-340.000	6,010.000	610,085.00	495,634.00	32° 40' 37.490 N	104° 28' 54.737 W
	- plan hits target center										
	- Point										

Plan Annotations

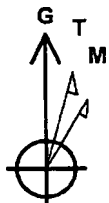
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,552.104	1,552.104	0.000	0.000	START KOP 9°/100'
2,218.771	2,103.433	-198.370	248.939	START 75' TANGENT
2,293.771	2,140.933	-238.848	299.736	END 60° TANGENT/START 12°/100' BR
2,670.161	2,251.951	-345.812	632.477	[PEACE#3H]EOC1 2670' MD(2252' TVD)
3,094.425	2,277.000	-345.354	1,056.001	[PEACE#3H]UMP1 3094' MD(2277' TVD)
8,057.084	2,570.000	-340.000	6,010.000	[PEACE#3H]BHL1 8057' MD(2570' TVD)

Project: Eddy County (NAD83)
 Site: Peace
 Well: Peace #3H
 Wellbore: Lateral
 Design: Plan #1
 Ground Elevation 3547.000
 Northing 610425.00
 Easting 489624.00

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: 47962.7nT
 Dip Angle: 60.31°
 Date: 11/5/2018
 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	1552.104	0.00	0.000	1552.104	0.000	0.000	0.00	0.00	0.000
4	2218.771	60.00	128.550	2103.433	-198.370	248.939	9.00	128.55	259.746
5	2293.771	60.00	128.550	2140.933	-238.848	299.735	0.00	0.00	312.748
6	2670.161	86.62	89.938	2251.951	-345.812	632.478	12.00	-61.45	651.000
7	8057.084	86.62	89.938	2570.000	-340.000	6010.000	0.00	0.00	6019.610

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting
[PEACE#3H]UMP1	2277.000	-345.000	1056.000	610080.00	490680.00
- plan misses target center by 0.354usft at 3094.425usft MD (2277.000 TVD, -345.354 N, 1056.000 E)					
[PEACE#3H]BHL1	2570.000	-340.000	6010.000	610085.00	495634.00
- plan hits target center					

