

1625 N. French Dr., Hobbs, NM 88240

State of New Mexico
Energy, Minerals & Natural Resources

Form C-104

Revised August 1, 2011

District II

811 S. First St., Artesia, NM 88210

District III

1000 Rio Brazos Rd., Aztec, NM 87410

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

Oil Conservation Division

1220 South St. Francis Dr.

Santa Fe, NM 87505

Submit one copy to appropriate District Office

☐ AMENDED REPORT**I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT**

¹ Operator name and Address Marathon Oil Permian LLC 5555 San Felipe St., Houston, TX 77056		² OGRID Number 372098
		³ Reason for Filing Code/ Effective Date NW
⁴ API Number 30 - 015-46200	⁵ Pool Name WILLOW LAKE; BONE SPRING, WEST	⁶ Pool Code 96415
⁷ Property Code 325960	⁸ Property Name SOUTHERN COMFORT 36 SB STATE	⁹ Well Number 4H

II. ¹⁰ Surface Location

UI or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South Line	Feet from the	East/West line	County
O	36	24S	28E		302	SOUTH	1734	EAST	EDDY

¹¹ Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	25	24S	28E		2402	SOUTH	2067	EAST	EDDY
¹² Lse Code S	¹³ Producing Method Code F	¹⁴ Gas Connection Date	¹⁵ C-129 Permit Number	¹⁶ C-129 Effective Date	¹⁷ C-129 Expiration Date				

III. Oil and Gas Transporters

¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ O/G/W
16587	ORYX ENERGY CO	O
327139	SENDERO CARLSBAD MIDSTREAM LLC	G

IV. Well Completion Data

²¹ Spud Date 10/7/2019	²² Ready Date 4/1/2020	²³ TD 15836' / 8404'	²⁴ PBTB 15778 / 8400'	²⁵ Perforations 8238' - 15708'	²⁶ DHC, MC
²⁷ Hole Size	²⁸ Casing & Tubing Size	²⁹ Depth Set	³⁰ Sacks Cement		
17-1/2"	13-3/8", 54.5#, J55, STC	470'	535		
12-1/4"	9-5/8", 36#, J55, LTC	2701'	935		
8-3/4"	5-1/2", 17#, P110, BHT	15825'	3460		
	Tubing: 2-7/8"	7900'			

V. Well Test Data

³¹ Date New Oil 4/5/2020	³² Gas Delivery Date 4/5/2020	³³ Test Date 4/7/2020	³⁴ Test Length 24 hrs	³⁵ Tbg. Pressure 1010	³⁶ Csg. Pressure 735
³⁷ Choke Size 34	³⁸ Oil 1008	³⁹ Water 2165	⁴⁰ Gas 981		⁴¹ Test Method Flowing

⁴² I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature:

Printed name: Adrian Covarrubias

Title: Regulatory Professional

E-mail Address: acovarrubias@marathonoil.com

Date: 5/6/2020

Phone: 713-296-3368

OIL CONSERVATION DIVISION

Approved by:

Title:

BUSINESS OP. SPEC.

Approval Date:

12/10/2020

1625 N. French Dr., Hobbs, NM 88240
 Phone: (575) 393-6161 Fax: (575) 393-0720
District II
 811 S. First St., Artesia, NM 88210
 Phone: (575) 748-1283 Fax: (575) 748-9720
District III
 1000 Rio Brazos Road, Aztec, NM 87410
 Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
 1220 S. St. Francis Dr., Santa Fe, NM 87505
 Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico

Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

Revised August 1, 2011

Submit one copy to appropriate

District Office

☐ AMENDED REPORT
 As-Drilled

WELL LOCATION AND ACREAGE DEDICATION AS-DRILLED PLAT

¹ API Number 30-015-46200	² Pool Code 96415	³ Pool Name Willow Lake; Bone Spring, West
⁴ Property Code 325960	Property Name Southern Comfort 36 SB STATE	⁶ Well Number 4H
⁷ OGRID No. 372098	⁸ Operator Name MARATHON OIL PERMIAN LLC	⁹ Elevation 2932'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	36	24S	28E		302	SOUTH	1734	EAST	EDDY
¹¹ Bottom Hole Location If Different From Surface									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	25	24S	28E		2402	SOUTH	2067	EAST	EDDY
¹² Dedicated Acres 240.0	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.						

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

	CORNER COORDINATES NAD 83, SPCS NM EAST A - X: 631832.26' / Y: 432425.89' B - X: 633194.54' / Y: 432426.07' C - X: 633174.61' / Y: 424423.71' D - X: 631848.34' / Y: 424418.82'	CORNER COORDINATES NAD 27, SPCS NM EAST A - X: 590648.34' / Y: 432367.36' B - X: 592010.60' / Y: 432367.52' C - X: 591990.48' / Y: 424365.33' D - X: 590664.24' / Y: 424360.45'	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature: Date: 5/6/2020	
	LAST TAKE POINT/BOTTOM HOLE LOCATION 15836' MEASURED DEPTH IN FEET NAD 83, SPCS NM EAST X: 632483.03' / Y: 432164.69' LAT: 32.18775509N / LON: 104.03870277W NAD 27, SPCS NM EAST X: 591299.10' / Y: 432106.16' LAT: 32.18763254N / LON: 104.03821308W			Signature Adrian Covarrubias Printed Name
	FIRST TAKE POINT 8159' MEASURED DEPTH IN FEET NAD 83, SPCS NM EAST X: 632472.57' / Y: 424617.04' LAT: 32.16700751N / LON: 104.03880337W NAD 27, SPCS NM EAST X: 591288.46' / Y: 424558.66' LAT: 32.1668847N / LON: 104.03831435W			E-mail Address SURVEYOR CERTIFICATION I hereby certify that the well surface location shown on this plat was plotted from field notes of the as-staked surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. Data used for underground measurements were provided by others for reference only and does not constitute field measurements performed by R-Squared Global. FEBRUARY 6, 2020 Date of Survey Signature and Seal of Professional Surveyor:
	KICK OFF POINT 7775' MEASURED DEPTH IN FEET NAD 83, SPCS NM EAST X: 632483.17' / Y: 424529.05' LAT: 32.16676556N / LON: 104.03876988W NAD 27, SPCS NM EAST X: 591299.06' / Y: 424470.67' LAT: 32.16664274N / LON: 104.03828088W			Certificate Number LLOYD P. SHORT 21653
SURFACE HOLE LOCATION 302' FSL 1734' FEL, SECTION 36 NAD 83, SPCS NM EAST X: 632765.75' / Y: 424723.84' LAT: 32.16729888N / LON: 104.03785493W NAD 27, SPCS NM EAST X: 591581.64' / Y: 424665.45' LAT: 32.16717606N / LON: 104.03736594W				

Distances/areas relative to NAD 83 Combined Scale Factor: 0.999918652 Convergence Angle: 00°09'25.95151"

JAG 12/3/2020



Marathon Oil Permian LLC

Eddy County, New Mexico (NAD 27)

Sec 36, T24S, R28E

Southern Comfort 36 SB State #4H

Wellbore #1

Design: Wellbore #1

QES Survey Certification Report

17 December, 2019



Quintana Energy Services

11390 FM 830
Willis, TX 77318
Phone: (936) 856-4332
Fax: (936) 856-8678

**Survey Certification Sheet**

Company	Job Number	Date
Marathon Oil Permian LLC	WT-191796	12/17/2019

Lease	Well Name	County & State
Sec 36, T24S, R28E	Southern Comfort 36 SB State #4H	Eddy County, NM

API No.	Survey Depth Range	Survey Type
35-015-46200	426.9 feet to 15836 feet MD	MWD

Sidetrack Information	Directional Supervisor/Surveyor
Click here to enter text.	Austin Culver

Certification Statement

The data and calculations for this survey have been checked by me and conform to the standards and procedures set forth by Quintana Energy Services (QES). This report represents a true and correct directional survey of this well based on the original data obtained at the well site. Wellbore coordinates are calculated using minimum curvature.

Kristopher Ray
Regulatory Compliance Manager
Quintana Energy Services



QES
QES Survey Certification Report



Company:	Marathon Oil Permian LLC	Local Co-ordinate Reference:	Well Southern Comfort 36 SB State #4H
Project:	Eddy County, New Mexico (NAD 27)	TVD Reference:	WELL @ 2957.0usft (PD #101)
Site:	Sec 36, T24S, R28E	MD Reference:	WELL @ 2957.0usft (PD #101)
Well:	Southern Comfort 36 SB State #4H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Project	Eddy County, New Mexico (NAD 27)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site		Sec 36, T24S, R28E			
Site Position:		Northing:	424,665.45 usft	Latitude:	32° 10' 1.834 N
From:	Map	Easting:	591,581.64 usft	Longitude:	104° 2' 14.517 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.16 °

Well	Southern Comfort 36 SB State #4H					
Well Position	+N/-S	0.0 usft	Northing:	424,665.45 usft	Latitude:	32° 10' 1.834 N
	+E/-W	0.0 usft	Easting:	591,581.64 usft	Longitude:	104° 2' 14.517 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	2,932.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM_FILE	12/4/2019	6.97	59.87	47,829.30000000

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(usft)	(usft)	(usft)	(°)	
	0.0	0.0	0.0	357.90	

Survey Program	Date	12/17/2019			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
141.0	426.9	Surface Surveys (Wellbore #1)	MWD	OWSG MWD - Standard	
523.0	15,836.0	QES MWD Surveys (Wellbore #1)	MWD	OWSG MWD - Standard	

Survey								
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	
426.9	0.81	180.07	426.9	-5.1	1.3	5.2	165.17	
Tie-in @ 426.9' MD / 426.9' TVD								
523.0	1.05	160.18	523.0	-6.6	1.6	6.8	166.00	
617.0	1.10	165.01	616.9	-8.3	2.2	8.5	165.31	
711.0	1.10	177.67	710.9	-10.0	2.4	10.3	166.36	
805.0	1.05	170.11	804.9	-11.8	2.6	12.1	167.46	
899.0	1.19	171.87	898.9	-13.6	2.9	13.9	167.94	
993.0	1.01	216.17	992.9	-15.2	2.6	15.4	170.48	
1,118.0	1.63	265.21	1,117.8	-16.3	0.1	16.3	179.53	
1,212.0	1.45	254.57	1,211.8	-16.7	-2.3	16.9	188.00	
1,306.0	1.36	281.29	1,305.8	-16.8	-4.6	17.4	195.27	



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Site:	Sec 36, T24S, R28E	MD Reference:	WELL @ 2957.0usft (PD #101)
Well:	Southern Comfort 36 SB State #4H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey								
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	
1,399.0	1.45	280.68	1,398.7	-16.4	-6.8	17.7	202.64	
1,493.0	1.54	259.76	1,492.7	-16.4	-9.2	18.8	209.44	
1,582.0	2.81	242.09	1,581.7	-17.6	-12.3	21.5	215.04	
1,671.0	3.25	238.67	1,670.5	-19.9	-16.4	25.8	219.49	
1,761.0	3.30	242.71	1,760.4	-22.4	-20.9	30.7	222.96	
1,851.0	3.34	244.20	1,850.2	-24.8	-25.6	35.6	225.90	
1,940.0	3.12	244.11	1,939.1	-27.0	-30.1	40.4	228.13	
2,029.0	2.42	234.10	2,028.0	-29.1	-33.8	44.6	229.24	
2,119.0	2.33	223.20	2,117.9	-31.6	-36.6	48.3	229.20	
2,208.0	3.47	220.03	2,206.8	-34.9	-39.5	52.8	228.53	
2,297.0	3.30	210.28	2,295.6	-39.2	-42.6	57.9	227.34	
2,386.0	3.16	189.01	2,384.5	-43.9	-44.2	62.3	225.25	
2,476.0	3.60	182.42	2,474.3	-49.1	-44.8	66.5	222.33	
2,566.0	4.84	195.51	2,564.1	-55.6	-45.9	72.1	219.53	
2,638.0	5.36	207.82	2,635.8	-61.5	-48.3	78.2	218.12	
2,795.0	3.43	236.73	2,792.4	-70.6	-55.6	89.9	218.24	
2,885.0	3.30	243.59	2,882.2	-73.2	-60.2	94.8	219.43	
2,974.0	2.99	241.21	2,971.1	-75.5	-64.5	99.3	220.53	
3,064.0	3.34	242.44	3,060.9	-77.8	-68.9	103.9	221.52	
3,153.0	3.08	238.75	3,149.8	-80.2	-73.2	108.6	222.39	
3,243.0	3.03	238.14	3,239.7	-82.8	-77.3	113.3	223.06	
3,332.0	3.69	246.05	3,328.5	-85.2	-81.9	118.2	223.90	
3,422.0	3.21	242.97	3,418.4	-87.5	-86.8	123.3	224.79	
3,511.0	3.12	243.41	3,507.2	-89.7	-91.2	127.9	225.48	
3,601.0	2.99	245.35	3,597.1	-91.8	-95.5	132.5	226.15	
3,691.0	2.95	241.48	3,687.0	-93.9	-99.7	136.9	226.73	
3,780.0	2.73	245.78	3,775.9	-95.8	-103.7	141.2	227.25	
3,870.0	2.81	240.60	3,865.8	-97.8	-107.5	145.3	227.72	
3,959.0	2.77	247.10	3,954.7	-99.7	-111.4	149.5	228.18	
4,049.0	2.73	242.80	4,044.5	-101.5	-115.3	153.6	228.64	
4,139.0	2.51	239.72	4,134.5	-103.5	-118.9	157.7	228.97	
4,228.0	2.46	248.86	4,223.4	-105.2	-122.4	161.4	229.33	
4,317.0	2.59	241.57	4,312.3	-106.8	-125.9	165.1	229.70	
4,407.0	2.46	248.77	4,402.2	-108.5	-129.5	169.0	230.06	
4,497.0	3.34	246.22	4,492.1	-110.2	-133.7	173.3	230.50	
4,586.0	3.56	249.48	4,580.9	-112.2	-138.7	178.4	231.02	
4,676.0	3.43	247.89	4,670.8	-114.2	-143.8	183.7	231.54	
4,765.0	3.38	244.38	4,759.6	-116.4	-148.6	188.8	231.94	
4,855.0	3.56	244.73	4,849.4	-118.7	-153.6	194.1	232.29	
4,944.0	3.30	242.09	4,938.3	-121.1	-158.3	199.3	232.59	
5,034.0	3.38	242.97	5,028.1	-123.5	-163.0	204.5	232.84	
5,123.0	2.99	242.09	5,117.0	-125.8	-167.4	209.4	233.07	
5,213.0	4.26	237.00	5,206.8	-128.7	-172.2	215.0	233.23	
5,302.0	4.66	231.02	5,295.5	-132.8	-177.8	221.9	233.25	



QES
QES Survey Certification Report



Company:	Marathon Oil Permian LLC	Local Co-ordinate Reference:	Well Southern Comfort 36 SB State #4H
Project:	Eddy County, New Mexico (NAD 27)	TVD Reference:	WELL @ 2957.0usft (PD #101)
Site:	Sec 36, T24S, R28E	MD Reference:	WELL @ 2957.0usft (PD #101)
Well:	Southern Comfort 36 SB State #4H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey								
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	
5,391.0	4.18	230.14	5,384.3	-137.1	-183.1	228.8	233.17	
5,481.0	4.13	231.37	5,474.0	-141.3	-188.2	235.3	233.10	
5,571.0	3.87	227.59	5,563.8	-145.3	-192.9	241.6	233.01	
5,660.0	3.87	227.50	5,652.6	-149.4	-197.4	247.5	232.88	
5,750.0	3.65	224.95	5,742.4	-153.5	-201.6	253.4	232.73	
5,839.0	3.52	224.43	5,831.2	-157.4	-205.6	258.9	232.55	
5,929.0	3.30	222.85	5,921.1	-161.3	-209.3	264.2	232.37	
6,018.0	3.12	225.13	6,009.9	-164.9	-212.7	269.1	232.22	
6,108.0	3.30	224.25	6,099.8	-168.5	-216.3	274.1	232.08	
6,197.0	3.65	226.27	6,188.6	-172.3	-220.1	279.5	231.95	
6,287.0	3.60	225.48	6,278.5	-176.2	-224.2	285.1	231.83	
6,376.0	3.30	227.50	6,367.3	-179.9	-228.1	290.5	231.73	
6,466.0	3.08	227.77	6,457.2	-183.3	-231.8	295.5	231.66	
6,556.0	3.03	232.60	6,547.0	-186.4	-235.4	300.3	231.64	
6,645.0	2.86	240.77	6,635.9	-188.9	-239.2	304.8	231.71	
6,735.0	2.64	244.82	6,725.8	-190.9	-243.1	309.0	231.86	
6,825.0	2.95	248.95	6,815.7	-192.6	-247.1	313.3	232.07	
6,914.0	2.20	232.43	6,904.6	-194.4	-250.6	317.2	232.19	
7,004.0	2.68	222.41	6,994.5	-197.0	-253.4	321.0	232.13	
7,093.0	2.20	245.96	7,083.4	-199.3	-256.4	324.7	232.14	
7,183.0	2.51	274.00	7,173.4	-199.8	-259.9	327.8	232.44	
7,273.0	2.20	287.62	7,263.3	-199.2	-263.5	330.3	232.92	
7,362.0	2.11	281.56	7,352.2	-198.3	-266.7	332.4	233.37	
7,452.0	2.11	277.25	7,442.2	-197.8	-270.0	334.7	233.78	
7,542.0	2.29	276.19	7,532.1	-197.4	-273.4	337.2	234.18	
7,631.0	2.33	280.77	7,621.0	-196.9	-277.0	339.8	234.60	
7,690.0	2.24	287.88	7,680.0	-196.3	-279.3	341.3	234.90	
7,775.0	2.68	299.84	7,764.9	-194.8	-282.6	343.2	235.42	
7,864.0	7.47	348.18	7,853.6	-188.1	-285.6	341.9	236.63	
7,954.0	12.79	350.37	7,942.1	-172.5	-288.4	336.1	239.12	
8,043.0	17.49	353.98	8,028.0	-149.5	-291.5	327.6	242.85	
8,137.0	23.96	359.52	8,115.9	-116.3	-293.1	315.4	248.36	
8,193.0	27.38	359.87	8,166.4	-92.1	-293.2	307.4	252.57	
8,283.0	35.56	1.98	8,243.1	-45.1	-292.4	295.9	261.23	
8,372.0	47.30	3.38	8,309.7	13.6	-289.6	289.9	272.69	
8,461.0	58.20	3.65	8,363.5	84.2	-285.2	297.4	286.45	
8,551.0	68.75	3.38	8,403.6	164.5	-280.3	325.0	300.40	
8,640.0	79.43	0.31	8,428.0	249.9	-277.6	373.5	311.99	
8,730.0	93.67	0.57	8,433.4	339.5	-276.9	438.1	320.80	
8,819.0	94.46	0.66	8,427.1	428.2	-276.0	509.4	327.20	
8,909.0	93.63	1.18	8,420.7	518.0	-274.5	586.2	332.08	
8,999.0	93.58	0.75	8,415.1	607.8	-273.0	666.3	335.81	
9,088.0	90.15	1.27	8,412.2	696.7	-271.4	747.7	338.72	
9,178.0	90.24	1.54	8,411.9	786.7	-269.2	831.5	341.11	



QES
QES Survey Certification Report



Company:	Marathon Oil Permian LLC	Local Co-ordinate Reference:	Well Southern Comfort 36 SB State #4H
Project:	Eddy County, New Mexico (NAD 27)	TVD Reference:	WELL @ 2957.0usft (PD #101)
Site:	Sec 36, T24S, R28E	MD Reference:	WELL @ 2957.0usft (PD #101)
Well:	Southern Comfort 36 SB State #4H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey								
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	
9,268.0	91.78	1.45	8,410.3	876.7	-266.9	916.4	343.07	
9,357.0	93.05	0.57	8,406.5	965.6	-265.3	1,001.4	344.64	
9,446.0	92.79	0.04	8,402.0	1,054.4	-264.8	1,087.2	345.90	
9,536.0	92.62	359.60	8,397.7	1,144.3	-265.1	1,174.7	346.96	
9,625.0	92.18	358.81	8,394.0	1,233.3	-266.4	1,261.7	347.81	
9,714.0	91.69	0.48	8,391.0	1,322.2	-266.9	1,348.9	348.59	
9,804.0	91.56	0.04	8,388.5	1,412.2	-266.5	1,437.1	349.31	
9,893.0	91.60	359.43	8,386.0	1,501.1	-266.9	1,524.7	349.92	
9,982.0	91.52	0.83	8,383.6	1,590.1	-266.7	1,612.3	350.48	
10,071.0	89.32	3.38	8,382.9	1,679.0	-263.4	1,699.6	351.08	
10,161.0	87.56	2.33	8,385.4	1,768.9	-259.0	1,787.7	351.67	
10,250.0	87.47	1.98	8,389.2	1,857.7	-255.6	1,875.2	352.17	
10,339.0	88.84	3.03	8,392.1	1,946.6	-251.7	1,962.8	352.63	
10,429.0	89.85	2.24	8,393.1	2,036.5	-247.6	2,051.5	353.07	
10,518.0	90.29	2.06	8,393.0	2,125.4	-244.2	2,139.4	353.44	
10,608.0	90.24	1.27	8,392.6	2,215.4	-241.6	2,228.5	353.78	
10,697.0	90.37	0.57	8,392.1	2,304.4	-240.2	2,316.9	354.05	
10,786.0	90.37	359.78	8,391.6	2,393.4	-239.9	2,405.4	354.28	
10,876.0	90.15	359.52	8,391.1	2,483.4	-240.5	2,495.0	354.47	
10,965.0	90.11	359.08	8,390.9	2,572.4	-241.6	2,583.7	354.64	
11,055.0	90.20	358.55	8,390.7	2,662.3	-243.4	2,673.4	354.78	
11,144.0	89.89	357.93	8,390.6	2,751.3	-246.2	2,762.3	354.89	
11,233.0	90.15	357.67	8,390.6	2,840.2	-249.6	2,851.2	354.98	
11,322.0	89.54	356.88	8,390.8	2,929.1	-253.8	2,940.1	355.05	
11,412.0	89.01	356.26	8,392.0	3,019.0	-259.2	3,030.1	355.09	
11,501.0	89.63	357.49	8,393.0	3,107.8	-264.0	3,119.0	355.14	
11,591.0	91.25	358.02	8,392.3	3,197.7	-267.6	3,208.9	355.22	
11,680.0	90.90	357.67	8,390.7	3,286.7	-270.9	3,297.8	355.29	
11,770.0	90.42	357.41	8,389.6	3,376.6	-274.8	3,387.7	355.35	
11,859.0	89.80	356.26	8,389.5	3,465.4	-279.7	3,476.7	355.39	
11,949.0	89.71	358.55	8,389.9	3,555.3	-283.8	3,566.6	355.44	
12,038.0	89.27	0.66	8,390.6	3,644.3	-284.4	3,655.4	355.54	
12,128.0	89.10	0.22	8,391.9	3,734.3	-283.7	3,745.1	355.66	
12,218.0	88.92	0.31	8,393.5	3,824.3	-283.3	3,834.8	355.76	
12,307.0	88.66	0.13	8,395.4	3,913.3	-282.9	3,923.5	355.86	
12,397.0	89.36	2.06	8,396.9	4,003.2	-281.2	4,013.1	355.98	
12,487.0	91.08	1.89	8,396.6	4,093.2	-278.1	4,102.6	356.11	
12,576.0	91.30	1.71	8,394.7	4,182.1	-275.3	4,191.2	356.23	
12,665.0	91.25	1.80	8,392.7	4,271.1	-272.6	4,279.7	356.35	
12,755.0	91.34	1.18	8,390.7	4,361.0	-270.3	4,369.4	356.45	
12,844.0	91.25	1.01	8,388.7	4,450.0	-268.6	4,458.1	356.55	
12,934.0	90.95	0.48	8,387.0	4,539.9	-267.4	4,547.8	356.63	
13,024.0	91.08	0.48	8,385.4	4,629.9	-266.6	4,637.6	356.70	
13,113.0	91.08	0.48	8,383.7	4,718.9	-265.9	4,726.4	356.78	



QES
QES Survey Certification Report

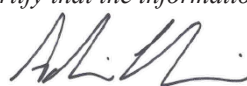


Company:	Marathon Oil Permian LLC	Local Co-ordinate Reference:	Well Southern Comfort 36 SB State #4H
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Well:	Southern Comfort 36 SB State #4H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey								
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	
13,202.0	90.81	0.48	8,382.2	4,807.9	-265.1	4,815.2	356.84	
13,292.0	90.90	0.13	8,380.9	4,897.9	-264.7	4,905.0	356.91	
13,381.0	91.03	359.78	8,379.4	4,986.9	-264.7	4,993.9	356.96	
13,470.0	89.27	359.69	8,379.2	5,075.9	-265.1	5,082.8	357.01	
13,560.0	89.19	359.25	8,380.4	5,165.8	-266.0	5,172.7	357.05	
13,649.0	88.84	359.25	8,381.9	5,254.8	-267.1	5,261.6	357.09	
13,738.0	88.44	358.81	8,384.0	5,343.8	-268.6	5,350.5	357.12	
13,828.0	88.62	358.55	8,386.3	5,433.7	-270.7	5,440.5	357.15	
13,917.0	88.18	358.55	8,388.8	5,522.7	-273.0	5,529.4	357.17	
14,006.0	91.12	359.34	8,389.3	5,611.6	-274.6	5,618.4	357.20	
14,096.0	90.11	1.01	8,388.4	5,701.6	-274.3	5,708.2	357.25	
14,185.0	90.46	1.10	8,387.9	5,790.6	-272.7	5,797.0	357.30	
14,274.0	90.02	0.66	8,387.6	5,879.6	-271.3	5,885.9	357.36	
14,364.0	88.70	359.87	8,388.6	5,969.6	-270.9	5,975.7	357.40	
14,453.0	91.21	359.69	8,388.6	6,058.6	-271.3	6,064.7	357.44	
14,543.0	91.12	0.04	8,386.8	6,148.6	-271.5	6,154.6	357.47	
14,632.0	89.67	359.34	8,386.2	6,237.6	-271.9	6,243.5	357.50	
14,722.0	92.13	0.04	8,384.8	6,327.5	-272.4	6,333.4	357.53	
14,812.0	91.56	359.87	8,381.9	6,417.5	-272.5	6,423.3	357.57	
14,901.0	91.16	359.69	8,379.8	6,506.5	-272.8	6,512.2	357.60	
14,991.0	90.15	359.60	8,378.7	6,596.5	-273.4	6,602.1	357.63	
15,081.0	90.37	359.60	8,378.3	6,686.5	-274.0	6,692.1	357.65	
15,170.0	89.58	359.43	8,378.4	6,775.5	-274.8	6,781.0	357.68	
15,260.0	88.92	359.34	8,379.5	6,865.4	-275.8	6,871.0	357.70	
15,349.0	88.48	359.25	8,381.6	6,954.4	-276.8	6,959.9	357.72	
15,439.0	88.13	359.16	8,384.2	7,044.4	-278.1	7,049.9	357.74	
15,529.0	87.52	359.08	8,387.6	7,134.3	-279.5	7,139.8	357.76	
15,618.0	87.16	358.81	8,391.8	7,223.2	-281.1	7,228.6	357.77	
15,708.0	87.21	359.87	8,396.2	7,313.1	-282.1	7,318.5	357.79	
15,781.0	86.51	359.69	8,400.2	7,386.0	-282.4	7,391.3	357.81	
15,836.0	86.51	359.69	8,403.5	7,440.8	-282.7	7,446.2	357.82	
TD @ 15836.0' MD / 8403.5' TVD								

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
426.9	426.9	-5.1	1.3	Tie-in @ 426.9' MD / 426.9' TVD
15,836.0	8,403.5	7,440.8	-282.7	TD @ 15836.0' MD / 8403.5' TVD

Checked By: _____ Approved By: _____ Date: _____

Submit To Appropriate District Office Two Copies District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Rd., Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505		State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505			Form C-105 Revised April 3, 2017					
WELL COMPLETION OR RECOMPLETION REPORT AND LOG								1. WELL API NO. 30-015-46200		
4. Reason for filing: ☒ COMPLETION REPORT (Fill in boxes #1 through #31 for State and Fee wells only) ☐ C-144 CLOSURE ATTACHMENT (Fill in boxes #1 through #9, #15 Date Rig Released and #32 and/or #33; attach this and the plat to the C-144 closure report in accordance with 19.15.17.13.K NMAC)								5. Lease Name or Unit Agreement Name SOUTHERN COMFORT 36 SB STATE		
7. Type of Completion: ☒ NEW WELL ☐ WORKOVER ☐ DEEPENING ☐ PLUGBACK ☐ DIFFERENT RESERVOIR ☐ OTHER								6. Well Number: 4H		
8. Name of Operator Marathon Oil Permian LLC						9. OGRID 372098				
10. Address of Operator 5555 San Felipe St., Houston, TX 77056						11. Pool name or Wildcat WILLOW LAKE; BONE SPRING, WEST				
12. Location	Unit Ltr	Section	Township	Range	Lot	Feet from the	N/S Line	Feet from the	E/W Line	County
Surface:	O	36	24S	28E		302	S	1734	E	EDDY
BH:	J	25	24S	28E		2402	S	2067	E	EDDY
13. Date Spudded 10/7/2019	14. Date T.D. Reached 12/17/2019		15. Date Rig Released 12/20/2019		16. Date Completed (Ready to Produce) 4/1/2020			17. Elevations (DF and RKB, RT, GR, etc.) 2932		
18. Total Measured Depth of Well 15836' / 8404'			19. Plug Back Measured Depth 15778' / 8400'		20. Was Directional Survey Made? Yes			21. Type Electric and Other Logs Run GR		
22. Producing Interval(s), of this completion - Top, Bottom, Name 8238' - 15708'; BONE SPRING										
23. CASING RECORD (Report all strings set in well)										
CASING SIZE		WEIGHT LB./FT.		DEPTH SET		HOLE SIZE		CEMENTING RECORD		AMOUNT PULLED
13-3/8"		54.5#, J55, STC		470'		17-1/2"		535		
9-5/8"		36#, J55, LTC		2701'		12-1/4"		935		
5-1/2"		17#, P110, BHT		15825'		8-3/4"		3460		
24. LINER RECORD						25. TUBING RECORD				
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET			
					2-7/8"	7900'	7893'			
26. Perforation record (interval, size, and number) 8238' - 15708', 0.36", 852 shots						27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.				
						DEPTH INTERVAL		AMOUNT AND KIND MATERIAL USED		
						8238' - 15708'		18,940,640 lbs - 40/70; 100 Mesh		
						8238' - 15708'		125 bbls - 15% HCl Acid		
28. PRODUCTION										
Date First Production 4/5/2020		Production Method (Flowing, gas lift, pumping - Size and type pump) FLOWING				Well Status (Prod. or Shut-in) PRODUCING				
Date of Test 4/7/2020	Hours Tested 24	Choke Size 34	Prod'n For Test Period	Oil - Bbl 1008	Gas - MCF 981	Water - Bbl. 2165	Gas - Oil Ratio			
Flow Tubing Press. 1010	Casing Pressure 735	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API - (Corr.)				
29. Disposition of Gas (Sold, used for fuel, vented, etc.) sold								30. Test Witnessed By		
31. List Attachments										
32. If a temporary pit was used at the well, attach a plat with the location of the temporary pit.								33. Rig Release Date:		
34. If an on-site burial was used at the well, report the exact location of the on-site burial:										
Latitude			Longitude			NAD83				
I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief										
Signature 			Printed Name Adrian Covarrubias			Title Regulatory Professional			Date 5/6/2020	
E-mail Address acovarrubias@marathonoil.com										

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well and not later than 60 days after completion of closure. When submitted as a completion report, this shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, items 11, 12 and 26-31 shall be reported for each zone.

Southeastern New Mexico		Northwestern New Mexico	
T. Anhy	T. Canyon	T. Ojo Alamo	T. Penn A"
T. Salt	T. Strawn	T. Kirtland	T. Penn. "B"
B. Salt 2588'	T. Atoka	T. Fruitland	T. Penn. "C"
T. Yates	T. Miss	T. Pictured Cliffs	T. Penn. "D"
T. 7 Rivers	T. Devonian	T. Cliff House	T. Leadville
T. Queen	T. Silurian	T. Menefee	T. Madison
T. Grayburg	T. Montoya	T. Point Lookout	T. Elbert
T. San Andres	T. Simpson	T. Mancos	T. McCracken
T. Glorieta	T. McKee	T. Gallup	T. Ignacio Otzte
T. Paddock	T. Ellenburger	Base Greenhorn	T. Granite
T. Blinebry	T. Gr. Wash	T. Dakota	
T. Tubb	T. Delaware Sand	T. Morrison	
T. Drinkard	T. Bone Springs 6372'	T. Todilto	
T. Abo	T. Lamar - 2719'	T. Entrada	
T. Wolfcamp	T. Bell Canyon - 2776'	T. Wingate	
T. Penn	T. Cherry Canyon - 3621'	T. Chinle	
T. Cisco (Bough C)	T.	T. Permian	

No. 1, from.....to.....
No. 2, from.....to.....
No. 3, from.....to.....
No. 4, from.....to.....

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from.....to.....feet.....
 No. 2, from.....to.....feet.....
 No. 3, from.....to.....feet.....

From	To	Thickness In Feet	Lithology

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 11763

CONDITIONS OF APPROVAL

Operator: MARATHON OIL PERMIAN LLC 5555 San Felipe St. Permian Regulatory Team Houston, TX77056		OGRID: 372098	Action Number: 11763	Action Type: C-104C
OCD Reviewer abustamante		Condition None		