

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

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 COG Operating 600 West Illinois Ave. Midland, TX 79701		² OGRID Number 229137	
		³ Reason for Filing Code/ Effective Date NW/6.21.2021	
⁴ API Number 30 – 015-47308	⁵ Pool Name Wolfcamp		⁶ Pool Code 98220
⁷ Property Code 330184	⁸ Property Name Tomahawk WC Unit		⁹ Well Number 704H

II. ¹⁰ Surface Location

UL or lot no. N	Section 20	Township 24S	Range 28E	Lot Idn	Feet from the 500	North/South Line S	Feet from the 1618	East/West line W	County EDDY
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¹¹ Bottom Hole Location

UL or lot no. N	Section 32	Township 24S	Range 28E	Lot Idn	Feet from the 202	North/South line S	Feet from the 1624	East/West line W	County EDDY
¹² Lse Code S	¹³ Producing Method Code P		¹⁴ Gas Connection Date 6/21/2021		¹⁵ C-129 Permit Number		¹⁶ C-129 Effective Date		¹⁷ C-129 Expiration Date

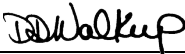
III. Oil and Gas Transporters

¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ O/G/W
214984	OXY USA Inc. P.O. Box 4294 Houston, TX 77210-4294	O
3730564	Crestwood New Mexico Pipeline 811 Main St. Suite 3400 Houston, TX 77002	G

IV. Well Completion Data

²¹ Spud Date 8/2/2020	²² Ready Date 6/21/2021	²³ TD 20148	²⁴ PBTD 19980	²⁵ Perforations 9665-19982	²⁶ DHC, MC
²⁷ Hole Size		²⁸ Casing & Tubing Size	²⁹ Depth Set		³⁰ Sacks Cement
14.75		10.75	840		900
9.875/8.75		7.625	8815		1050
6.75		5.5	20128		1300
tubing		2.875	9480		

V. Well Test Data

³¹ Date New Oil 6/21/2021	³² Gas Delivery Date 6/21/2021	³³ Test Date 6/16/2021	³⁴ Test Length 24hrs	³⁵ Tbg. Pressure 581	³⁶ Csg. Pressure 1223
³⁷ Choke Size 36/64	³⁸ Oil 799	³⁹ Water 5503	⁴⁰ Gas 1705		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: 			OIL CONSERVATION DIVISION		
Printed name: Danielle D. Walkup			Approved by:		
Title: Regulatory Coordinator			Title:		
E-mail Address: d.d.walkup@conocophillips.com			Approval Date:		
Date: 3/14/2022		Phone: 432-688-9053			

DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

DISTRICT II
511 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) 478-3460 Fax: (505) 478-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-47308	Pool Code 98220	Pool Name Purple Sage; Wolfcamp (Gas)
Property Code 330184	Property Name TOMAHAWK WC UNIT	Well Number 704H
GRID No 229137	Operator Name COG OPERATING, LLC	Elevation 3047.3'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	20	24-S	28-E		500	SOUTH	1618	WEST	EDDY

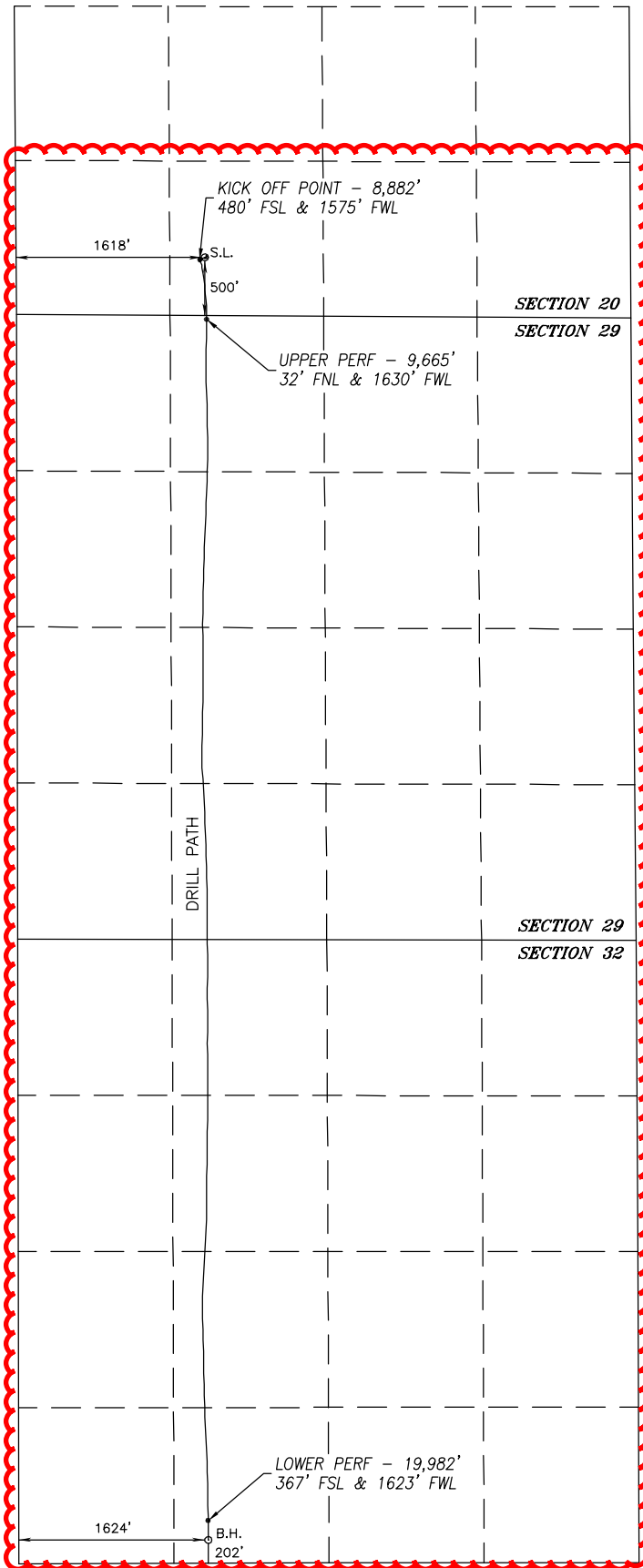
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	32	24-S	28-E		202	SOUTH	1624	WEST	EDDY
Dedicated Acres 1280	Joint or Infill	Consolidation Code	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

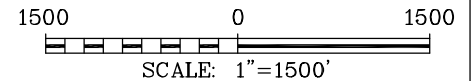
SEE PAGE 2

Property Code 330184	Property Name TOMAHAWK WC UNIT	Well Number 704H
OGRID No. 229137	Operator Name COG OPERATING, LLC	Elevation 3047.3'



NAD 83 NME
SURFACE LOCATION
Y=435591.1 N
X=609495.3 E
LAT.=32.197325° N
LONG.=104.112988° W

SURFACE INFO AND BOREPATH SHOWN HEREON
IS BASED ON DIRECTIONAL SURVEY REPORT
PROVIDED BY COG OPERATING, LLC FOR THE
TOMAHAWK WC UNIT 704H SUPPLIED TO
HARCROW SURVEYING, LLC ON MAY 14, 2021



OPERATOR CERTIFICATION

I hereby certify that the information 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 mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

D. Walkup

5/26/2022

Signature

Date

Danielle D Walkup

Printed Name

d.d.walkup@conocophillips.com

E-mail Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

JAN. 30, 2020/SEPT. 15, 2020

Date of Survey/Date of Geographic Survey

Signature & Seal of Professional Surveyor



Chad Hargrow

5/18/21

Certificate No. CHAD HARGROW 17777

PAGE 2 OF 2

W.O. # 21-508

DRAWN BY: WN

NAD 83 NME
BOTTOM
HOLE LOCATION
Y=424585.5 N
X=609524.5 E
LAT.=32.167072° N
LONG.=104.112967° W

Intent ☐ As Drilled ☐

API #		
Operator Name:	Property Name:	Well Number

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Is this well the defining well for the Horizontal Spacing Unit? ☐Is this well an infill well? ☐

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #		
Operator Name:	Property Name:	Well Number

KZ 06/29/2018

DELAWARE BASIN WEST

TOMAHAWK PROSPECT (NM-E)

TOMAHAWK FEDERAL PROJECT (TOMAHAWK 2428)

TOMAHAWK FEDERAL UNIT #704H

OWB

Design: AWP

Standard Survey Report

03 September, 2020

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well TOMAHAWK FEDERAL UNIT #704H
Project:	TOMAHAWK PROSPECT (NM-E)	TVD Reference:	KB=24' @ 3071.3usft (E 155)
Site:	TOMAHAWK FEDERAL PROJECT (TOMAHAWK 2428)	MD Reference:	KB=24' @ 3071.3usft (E 155)
Well:	TOMAHAWK FEDERAL UNIT #704H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	edm

Project	TOMAHAWK PROSPECT (NM-E)		
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		

Well	TOMAHAWK FEDERAL UNIT #704H, ACTIVE			
Well Position	+N/-S	0.0 usft	Northing:	435,532.80 usft
	+E/-W	0.0 usft	Easting:	568,311.90 usft
Position Uncertainty		3.0 usft	Wellhead Elevation:	usft
			Latitude:	32° 11' 49.934 N
			Longitude:	104° 6' 44.982 W
			Ground Level:	3,047.3 usft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	7/10/2020	6.90	59.82	47,521.03116815

Design	AWP				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	179.88	

Survey Program	Date 9/3/2020				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
100.0	8,707.0	GYRO-INTER (OWB)	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4	
8,818.0	20,148.0	MWD-CURVE/LAT (OWB)	MWD+IFR1+FDIR	OWSG MWD + IFR1 + FDIR Correction	

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)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
100.0	0.20	101.47	100.0	0.0	0.2	0.0	0.20	0.20	0.00	
125.0	0.22	72.04	125.0	0.0	0.3	0.0	0.43	0.08	-117.72	
150.0	0.26	73.26	150.0	0.0	0.4	0.0	0.16	0.16	4.88	
175.0	0.36	52.35	175.0	0.1	0.5	-0.1	0.60	0.40	-83.64	
200.0	0.15	47.66	200.0	0.1	0.6	-0.1	0.84	-0.84	-18.76	
225.0	0.25	154.03	225.0	0.1	0.6	-0.1	1.30	0.40	425.48	
250.0	0.24	156.33	250.0	0.0	0.7	0.0	0.06	-0.04	9.20	
275.0	0.28	162.85	275.0	-0.1	0.7	0.1	0.20	0.16	26.08	
300.0	0.29	131.76	300.0	-0.2	0.8	0.2	0.61	0.04	-124.36	
325.0	0.34	147.54	325.0	-0.3	0.8	0.3	0.40	0.20	63.12	
350.0	0.35	122.94	350.0	-0.4	1.0	0.4	0.59	0.04	-98.40	
375.0	0.29	116.99	375.0	-0.5	1.1	0.5	0.27	-0.24	-23.80	
400.0	0.42	122.73	400.0	-0.6	1.2	0.6	0.54	0.52	22.96	

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well TOMAHAWK FEDERAL UNIT #704H
Project:	TOMAHAWK PROSPECT (NM-E)	TVD Reference:	KB=24' @ 3071.3usft (E 155)
Site:	TOMAHAWK FEDERAL PROJECT (TOMAHAWK 2428)	MD Reference:	KB=24' @ 3071.3usft (E 155)
Well:	TOMAHAWK FEDERAL UNIT #704H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	edm

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)
425.0	0.61	123.48	425.0	-0.7	1.4	0.7	0.76	0.76	3.00
450.0	0.67	123.04	450.0	-0.8	1.6	0.8	0.24	0.24	-1.76
475.0	0.73	121.00	475.0	-1.0	1.9	1.0	0.26	0.24	-8.16
500.0	0.84	119.07	500.0	-1.2	2.2	1.2	0.45	0.44	-7.72
525.0	0.97	114.81	525.0	-1.3	2.5	1.3	0.59	0.52	-17.04
550.0	1.14	111.38	550.0	-1.5	3.0	1.5	0.73	0.68	-13.72
575.0	1.13	112.36	575.0	-1.7	3.4	1.7	0.09	-0.04	3.92
600.0	1.15	107.84	600.0	-1.9	3.9	1.9	0.37	0.08	-18.08
625.0	1.15	106.88	625.0	-2.0	4.4	2.0	0.08	0.00	-3.84
650.0	1.19	105.47	650.0	-2.2	4.9	2.2	0.20	0.16	-5.64
675.0	1.16	102.86	675.0	-2.3	5.3	2.3	0.25	-0.12	-10.44
700.0	1.01	87.07	700.0	-2.3	5.8	2.3	1.33	-0.60	-63.16
725.0	1.08	79.54	724.9	-2.3	6.3	2.3	0.62	0.28	-30.12
750.0	1.09	72.86	749.9	-2.2	6.7	2.2	0.51	0.04	-26.72
775.0	1.17	65.72	774.9	-2.0	7.2	2.0	0.65	0.32	-28.56
800.0	1.09	68.77	799.9	-1.8	7.6	1.8	0.40	-0.32	12.20
825.0	1.05	63.21	824.9	-1.6	8.1	1.6	0.44	-0.16	-22.24
850.0	1.19	48.94	849.9	-1.3	8.5	1.4	1.24	0.56	-57.08
875.0	1.15	43.86	874.9	-1.0	8.8	1.0	0.44	-0.16	-20.32
900.0	1.07	49.81	899.9	-0.7	9.2	0.7	0.56	-0.32	23.80
925.0	1.08	47.49	924.9	-0.3	9.5	0.4	0.18	0.04	-9.28
950.0	1.14	44.12	949.9	0.0	9.9	0.0	0.35	0.24	-13.48
975.0	1.17	41.37	974.9	0.4	10.2	-0.3	0.25	0.12	-11.00
1,000.0	1.14	34.50	999.9	0.8	10.5	-0.7	0.57	-0.12	-27.48
1,025.0	1.02	26.81	1,024.9	1.2	10.8	-1.1	0.75	-0.48	-30.76
1,050.0	1.01	21.34	1,049.9	1.6	11.0	-1.5	0.39	-0.04	-21.88
1,075.0	1.00	15.97	1,074.9	2.0	11.1	-2.0	0.38	-0.04	-21.48
1,100.0	0.93	22.69	1,099.9	2.4	11.2	-2.4	0.53	-0.28	26.88
1,125.0	0.93	21.38	1,124.9	2.8	11.4	-2.7	0.09	0.00	-5.24
1,150.0	0.86	19.97	1,149.9	3.1	11.5	-3.1	0.29	-0.28	-5.64
1,175.0	0.96	19.97	1,174.9	3.5	11.7	-3.5	0.40	0.40	0.00
1,200.0	1.01	13.11	1,199.9	3.9	11.8	-3.9	0.51	0.20	-27.44
1,225.0	1.06	7.07	1,224.9	4.3	11.9	-4.3	0.48	0.20	-24.16
1,250.0	0.96	358.90	1,249.9	4.8	11.9	-4.8	0.70	-0.40	-32.68
1,275.0	0.86	353.42	1,274.9	5.2	11.9	-5.2	0.53	-0.40	-21.92
1,300.0	0.98	347.16	1,299.9	5.6	11.8	-5.6	0.63	0.48	-25.04
1,325.0	0.92	340.13	1,324.8	6.0	11.7	-5.9	0.52	-0.24	-28.12
1,350.0	0.97	336.97	1,349.8	6.4	11.5	-6.3	0.29	0.20	-12.64
1,375.0	1.06	334.42	1,374.8	6.8	11.3	-6.7	0.40	0.36	-10.20
1,400.0	1.03	336.15	1,399.8	7.2	11.2	-7.2	0.17	-0.12	6.92
1,425.0	1.10	333.20	1,424.8	7.6	11.0	-7.6	0.36	0.28	-11.80
1,450.0	1.11	329.10	1,449.8	8.0	10.7	-8.0	0.32	0.04	-16.40

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well TOMAHAWK FEDERAL UNIT #704H
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Well:	TOMAHAWK FEDERAL UNIT #704H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	edm

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)	
1,475.0	1.20	329.60	1,474.8	8.5	10.5	-8.4	0.36	0.36	2.00	
1,500.0	1.25	326.62	1,499.8	8.9	10.2	-8.9	0.32	0.20	-11.92	
1,525.0	1.31	323.82	1,524.8	9.4	9.9	-9.3	0.35	0.24	-11.20	
1,550.0	1.33	320.72	1,549.8	9.8	9.5	-9.8	0.30	0.08	-12.40	
1,575.0	1.28	322.39	1,574.8	10.3	9.2	-10.2	0.25	-0.20	6.68	
1,600.0	1.36	326.26	1,599.8	10.7	8.8	-10.7	0.48	0.32	15.48	
1,625.0	1.39	326.42	1,624.8	11.2	8.5	-11.2	0.12	0.12	0.64	
1,650.0	1.37	327.77	1,649.8	11.7	8.2	-11.7	0.15	-0.08	5.40	
1,675.0	1.30	336.41	1,674.8	12.2	7.9	-12.2	0.85	-0.28	34.56	
1,700.0	1.12	332.54	1,699.8	12.7	7.7	-12.7	0.79	-0.72	-15.48	
1,725.0	1.03	358.99	1,724.8	13.2	7.5	-13.2	2.00	-0.36	105.80	
1,750.0	1.05	32.26	1,749.8	13.6	7.7	-13.6	2.38	0.08	133.08	
1,775.0	1.28	51.81	1,774.8	14.0	8.0	-13.9	1.82	0.92	78.20	
1,800.0	1.85	64.87	1,799.7	14.3	8.6	-14.3	2.68	2.28	52.24	
1,825.0	2.03	75.34	1,824.7	14.6	9.4	-14.6	1.59	0.72	41.88	
1,850.0	2.28	81.55	1,849.7	14.8	10.3	-14.7	1.37	1.00	24.84	
1,875.0	2.28	81.72	1,874.7	14.9	11.3	-14.9	0.03	0.00	0.68	
1,900.0	2.37	80.33	1,899.7	15.1	12.3	-15.0	0.42	0.36	-5.56	
1,925.0	2.35	81.75	1,924.6	15.2	13.3	-15.2	0.25	-0.08	5.68	
1,950.0	1.84	101.00	1,949.6	15.2	14.2	-15.2	3.45	-2.04	77.00	
1,975.0	1.62	123.05	1,974.6	15.0	14.9	-14.9	2.78	-0.88	88.20	
2,000.0	1.63	124.53	1,999.6	14.6	15.5	-14.5	0.17	0.04	5.92	
2,025.0	1.83	127.66	2,024.6	14.1	16.1	-14.1	0.88	0.80	12.52	
2,050.0	2.24	124.30	2,049.6	13.6	16.8	-13.6	1.71	1.64	-13.44	
2,075.0	2.75	122.00	2,074.6	13.0	17.7	-13.0	2.08	2.04	-9.20	
2,100.0	3.08	122.86	2,099.5	12.3	18.8	-12.3	1.33	1.32	3.44	
2,125.0	3.62	121.95	2,124.5	11.5	20.0	-11.5	2.17	2.16	-3.64	
2,150.0	3.91	122.57	2,149.4	10.7	21.4	-10.6	1.17	1.16	2.48	
2,175.0	4.11	123.00	2,174.4	9.7	22.9	-9.7	0.81	0.80	1.72	
2,200.0	4.10	124.25	2,199.3	8.7	24.4	-8.7	0.36	-0.04	5.00	
2,225.0	3.77	133.26	2,224.2	7.7	25.7	-7.6	2.80	-1.32	36.04	
2,250.0	3.59	135.96	2,249.2	6.5	26.9	-6.5	1.00	-0.72	10.80	
2,275.0	3.63	137.60	2,274.1	5.4	27.9	-5.3	0.44	0.16	6.56	
2,300.0	3.67	139.25	2,299.1	4.2	29.0	-4.1	0.45	0.16	6.60	
2,325.0	3.51	142.05	2,324.0	3.0	30.0	-2.9	0.95	-0.64	11.20	
2,350.0	3.44	145.18	2,349.0	1.8	30.9	-1.7	0.81	-0.28	12.52	
2,375.0	2.92	150.96	2,374.0	0.6	31.6	-0.5	2.44	-2.08	23.12	
2,400.0	1.77	190.23	2,398.9	-0.3	31.9	0.4	7.65	-4.60	157.08	
2,425.0	1.68	239.67	2,423.9	-0.9	31.5	1.0	5.78	-0.36	197.76	
2,450.0	1.75	250.19	2,448.9	-1.2	30.8	1.3	1.29	0.28	42.08	
2,475.0	1.69	250.93	2,473.9	-1.5	30.1	1.5	0.26	-0.24	2.96	
2,500.0	1.72	250.38	2,498.9	-1.7	29.4	1.8	0.14	0.12	-2.20	
2,525.0	1.77	255.53	2,523.9	-1.9	28.7	2.0	0.66	0.20	20.60	

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well TOMAHAWK FEDERAL UNIT #704H
Project:	TOMAHAWK PROSPECT (NM-E)	TVD Reference:	KB=24' @ 3071.3usft (E 155)
Site:	TOMAHAWK FEDERAL PROJECT (TOMAHAWK 2428)	MD Reference:	KB=24' @ 3071.3usft (E 155)
Well:	TOMAHAWK FEDERAL UNIT #704H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	edm

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)	
2,550.0	1.75	254.03	2,548.9	-2.1	27.9	2.2	0.20	-0.08	-6.00	
2,575.0	1.73	254.27	2,573.9	-2.4	27.2	2.4	0.09	-0.08	0.96	
2,600.0	1.76	253.98	2,598.9	-2.6	26.5	2.6	0.13	0.12	-1.16	
2,625.0	1.73	254.69	2,623.8	-2.8	25.7	2.8	0.15	-0.12	2.84	
2,650.0	1.75	252.14	2,648.8	-3.0	25.0	3.0	0.32	0.08	-10.20	
2,675.0	1.78	252.01	2,673.8	-3.2	24.3	3.3	0.12	0.12	-0.52	
2,700.0	1.76	251.01	2,698.8	-3.5	23.5	3.5	0.15	-0.08	-4.00	
2,725.0	1.72	250.65	2,723.8	-3.7	22.8	3.8	0.17	-0.16	-1.44	
2,750.0	1.67	252.95	2,748.8	-3.9	22.1	4.0	0.34	-0.20	9.20	
2,775.0	1.70	250.01	2,773.8	-4.2	21.4	4.2	0.37	0.12	-11.76	
2,800.0	1.72	247.18	2,798.8	-4.4	20.7	4.5	0.35	0.08	-11.32	
2,825.0	1.68	246.56	2,823.7	-4.7	20.1	4.8	0.18	-0.16	-2.48	
2,850.0	1.71	248.63	2,848.7	-5.0	19.4	5.1	0.27	0.12	8.28	
2,875.0	1.79	244.61	2,873.7	-5.3	18.7	5.4	0.59	0.32	-16.08	
2,900.0	1.75	250.59	2,898.7	-5.6	18.0	5.7	0.76	-0.16	23.92	
2,925.0	1.74	251.91	2,923.7	-5.9	17.2	5.9	0.17	-0.04	5.28	
2,950.0	1.72	254.98	2,948.7	-6.1	16.5	6.1	0.38	-0.08	12.28	
2,975.0	1.68	255.59	2,973.7	-6.3	15.8	6.3	0.18	-0.16	2.44	
3,000.0	1.63	253.07	2,998.7	-6.5	15.1	6.5	0.35	-0.20	-10.08	
3,025.0	1.62	250.58	3,023.7	-6.7	14.4	6.7	0.29	-0.04	-9.96	
3,050.0	1.67	252.35	3,048.7	-6.9	13.7	6.9	0.29	0.20	7.08	
3,075.0	1.74	253.55	3,073.6	-7.1	13.0	7.2	0.31	0.28	4.80	
3,100.0	1.70	248.63	3,098.6	-7.4	12.3	7.4	0.61	-0.16	-19.68	
3,125.0	1.71	246.76	3,123.6	-7.7	11.6	7.7	0.23	0.04	-7.48	
3,150.0	1.76	248.42	3,148.6	-7.9	10.9	8.0	0.28	0.20	6.64	
3,175.0	1.72	251.94	3,173.6	-8.2	10.2	8.2	0.46	-0.16	14.08	
3,200.0	1.83	251.92	3,198.6	-8.4	9.5	8.5	0.44	0.44	-0.08	
3,225.0	1.75	251.55	3,223.6	-8.7	8.7	8.7	0.32	-0.32	-1.48	
3,250.0	1.65	251.41	3,248.6	-8.9	8.0	8.9	0.40	-0.40	-0.56	
3,275.0	1.69	251.42	3,273.5	-9.2	7.4	9.2	0.16	0.16	0.04	
3,300.0	1.63	250.97	3,298.5	-9.4	6.7	9.4	0.25	-0.24	-1.80	
3,325.0	1.62	250.01	3,323.5	-9.6	6.0	9.6	0.12	-0.04	-3.84	
3,350.0	1.55	247.12	3,348.5	-9.9	5.4	9.9	0.42	-0.28	-11.56	
3,375.0	1.69	243.18	3,373.5	-10.2	4.7	10.2	0.72	0.56	-15.76	
3,400.0	1.68	246.76	3,398.5	-10.5	4.0	10.5	0.42	-0.04	14.32	
3,425.0	1.71	250.21	3,423.5	-10.8	3.4	10.8	0.43	0.12	13.80	
3,450.0	1.69	250.46	3,448.5	-11.0	2.7	11.0	0.09	-0.08	1.00	
3,475.0	1.63	248.32	3,473.5	-11.3	2.0	11.3	0.35	-0.24	-8.56	
3,500.0	1.62	246.16	3,498.5	-11.5	1.3	11.5	0.25	-0.04	-8.64	
3,525.0	1.23	267.78	3,523.4	-11.7	0.7	11.7	2.63	-1.56	86.48	
3,550.0	0.85	302.45	3,548.4	-11.6	0.3	11.6	2.87	-1.52	138.68	
3,575.0	0.79	308.19	3,573.4	-11.4	0.0	11.4	0.41	-0.24	22.96	

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well TOMAHAWK FEDERAL UNIT #704H
Project:	TOMAHAWK PROSPECT (NM-E)	TVD Reference:	KB=24' @ 3071.3usft (E 155)
Site:	TOMAHAWK FEDERAL PROJECT (TOMAHAWK 2428)	MD Reference:	KB=24' @ 3071.3usft (E 155)
Well:	TOMAHAWK FEDERAL UNIT #704H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	edm

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)	
3,600.0	0.83	309.17	3,598.4	-11.2	-0.3	11.2	0.17	0.16	3.92	
3,625.0	0.89	313.79	3,623.4	-10.9	-0.5	10.9	0.37	0.24	18.48	
3,650.0	0.91	309.66	3,648.4	-10.7	-0.8	10.7	0.27	0.08	-16.52	
3,675.0	0.91	311.80	3,673.4	-10.4	-1.1	10.4	0.14	0.00	8.56	
3,700.0	1.06	309.69	3,698.4	-10.1	-1.5	10.1	0.62	0.60	-8.44	
3,725.0	1.00	315.45	3,723.4	-9.8	-1.8	9.8	0.48	-0.24	23.04	
3,750.0	1.04	314.60	3,748.4	-9.5	-2.1	9.5	0.17	0.16	-3.40	
3,775.0	0.93	317.48	3,773.4	-9.2	-2.4	9.2	0.48	-0.44	11.52	
3,800.0	0.87	305.48	3,798.4	-8.9	-2.7	8.9	0.79	-0.24	-48.00	
3,825.0	0.94	307.63	3,823.4	-8.7	-3.0	8.7	0.31	0.28	8.60	
3,850.0	1.02	313.93	3,848.4	-8.4	-3.3	8.4	0.54	0.32	25.20	
3,875.0	0.96	316.03	3,873.4	-8.1	-3.6	8.1	0.28	-0.24	8.40	
3,900.0	0.93	311.19	3,898.4	-7.8	-3.9	7.8	0.34	-0.12	-19.36	
3,925.0	1.08	303.05	3,923.4	-7.6	-4.3	7.6	0.83	0.60	-32.56	
3,950.0	1.21	296.67	3,948.4	-7.3	-4.7	7.3	0.73	0.52	-25.52	
3,975.0	1.37	293.34	3,973.4	-7.1	-5.2	7.1	0.71	0.64	-13.32	
4,000.0	1.36	288.59	3,998.4	-6.9	-5.8	6.9	0.45	-0.04	-19.00	
4,025.0	1.26	292.88	4,023.4	-6.7	-6.3	6.7	0.56	-0.40	17.16	
4,050.0	1.33	288.32	4,048.4	-6.5	-6.8	6.5	0.50	0.28	-18.24	
4,075.0	1.35	286.86	4,073.4	-6.3	-7.4	6.3	0.16	0.08	-5.84	
4,100.0	1.13	295.09	4,098.3	-6.1	-7.9	6.1	1.13	-0.88	32.92	
4,125.0	1.34	291.29	4,123.3	-5.9	-8.4	5.9	0.90	0.84	-15.20	
4,150.0	1.29	291.79	4,148.3	-5.7	-8.9	5.7	0.21	-0.20	2.00	
4,175.0	1.28	298.54	4,173.3	-5.4	-9.4	5.4	0.61	-0.04	27.00	
4,200.0	1.22	320.47	4,198.3	-5.1	-9.9	5.1	1.92	-0.24	87.72	
4,225.0	1.09	330.40	4,223.3	-4.7	-10.1	4.7	0.95	-0.52	39.72	
4,250.0	1.08	325.90	4,248.3	-4.3	-10.4	4.3	0.34	-0.04	-18.00	
4,275.0	1.12	329.57	4,273.3	-3.9	-10.7	3.9	0.32	0.16	14.68	
4,300.0	1.04	326.26	4,298.3	-3.5	-10.9	3.5	0.41	-0.32	-13.24	
4,325.0	1.19	327.61	4,323.3	-3.1	-11.2	3.1	0.61	0.60	5.40	
4,350.0	1.16	328.08	4,348.3	-2.6	-11.4	2.6	0.13	-0.12	1.88	
4,375.0	0.86	334.18	4,373.3	-2.3	-11.7	2.2	1.27	-1.20	24.40	
4,400.0	0.16	324.83	4,398.3	-2.1	-11.8	2.0	2.81	-2.80	-37.40	
4,425.0	0.32	166.46	4,423.3	-2.1	-11.8	2.1	1.89	0.64	-633.48	
4,450.0	0.57	171.91	4,448.3	-2.3	-11.7	2.3	1.01	1.00	21.80	
4,475.0	0.67	170.00	4,473.3	-2.6	-11.7	2.5	0.41	0.40	-7.64	
4,500.0	0.44	179.41	4,498.3	-2.8	-11.7	2.8	0.99	-0.92	37.64	
4,525.0	0.37	169.37	4,523.3	-3.0	-11.6	3.0	0.40	-0.28	-40.16	
4,550.0	0.44	190.22	4,548.3	-3.2	-11.6	3.1	0.65	0.28	83.40	
4,575.0	0.37	172.76	4,573.3	-3.3	-11.6	3.3	0.56	-0.28	-69.84	
4,600.0	0.49	163.55	4,598.3	-3.5	-11.6	3.5	0.55	0.48	-36.84	
4,625.0	0.46	190.28	4,623.3	-3.7	-11.6	3.7	0.89	-0.12	106.92	
4,650.0	0.45	198.85	4,648.3	-3.9	-11.6	3.9	0.27	-0.04	34.28	

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well TOMAHAWK FEDERAL UNIT #704H
Project:	TOMAHAWK PROSPECT (NM-E)	TVD Reference:	KB=24' @ 3071.3usft (E 155)
Site:	TOMAHAWK FEDERAL PROJECT (TOMAHAWK 2428)	MD Reference:	KB=24' @ 3071.3usft (E 155)
Well:	TOMAHAWK FEDERAL UNIT #704H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	edm

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)
4,675.0	0.44	199.89	4,673.3	-4.1	-11.7	4.1	0.05	-0.04	4.16
4,700.0	0.54	211.37	4,698.3	-4.3	-11.8	4.3	0.56	0.40	45.92
4,725.0	0.52	203.70	4,723.3	-4.5	-11.9	4.5	0.29	-0.08	-30.68
4,750.0	0.63	218.16	4,748.3	-4.7	-12.0	4.7	0.73	0.44	57.84
4,775.0	0.58	225.34	4,773.3	-4.9	-12.2	4.9	0.36	-0.20	28.72
4,800.0	0.71	224.99	4,798.3	-5.1	-12.4	5.1	0.52	0.52	-1.40
4,825.0	0.73	231.02	4,823.3	-5.3	-12.7	5.3	0.31	0.08	24.12
4,850.0	0.72	226.80	4,848.3	-5.5	-12.9	5.5	0.22	-0.04	-16.88
4,875.0	0.79	224.06	4,873.3	-5.7	-13.1	5.7	0.31	0.28	-10.96
4,900.0	0.86	223.33	4,898.3	-6.0	-13.4	6.0	0.28	0.28	-2.92
4,925.0	0.88	222.29	4,923.3	-6.3	-13.6	6.2	0.10	0.08	-4.16
4,950.0	0.98	220.91	4,948.3	-6.6	-13.9	6.6	0.41	0.40	-5.52
4,975.0	1.08	227.10	4,973.3	-6.9	-14.2	6.9	0.60	0.40	24.76
5,000.0	0.92	224.05	4,998.3	-7.2	-14.5	7.2	0.67	-0.64	-12.20
5,025.0	1.03	221.28	5,023.2	-7.5	-14.8	7.5	0.48	0.44	-11.08
5,050.0	1.05	225.45	5,048.2	-7.8	-15.1	7.8	0.31	0.08	16.68
5,075.0	0.99	228.70	5,073.2	-8.2	-15.4	8.1	0.33	-0.24	13.00
5,100.0	1.08	216.30	5,098.2	-8.5	-15.7	8.5	0.96	0.36	-49.60
5,125.0	1.09	227.82	5,123.2	-8.8	-16.1	8.8	0.87	0.04	46.08
5,150.0	0.91	226.35	5,148.2	-9.1	-16.4	9.1	0.73	-0.72	-5.88
5,175.0	1.19	225.61	5,173.2	-9.4	-16.7	9.4	1.12	1.12	-2.96
5,200.0	1.16	229.09	5,198.2	-9.8	-17.1	9.8	0.31	-0.12	13.92
5,225.0	1.07	228.10	5,223.2	-10.1	-17.5	10.1	0.37	-0.36	-3.96
5,250.0	1.19	226.57	5,248.2	-10.5	-17.8	10.4	0.49	0.48	-6.12
5,275.0	1.36	230.47	5,273.2	-10.8	-18.2	10.8	0.76	0.68	15.60
5,300.0	1.09	228.94	5,298.2	-11.2	-18.6	11.1	1.09	-1.08	-6.12
5,325.0	1.04	225.64	5,323.2	-11.5	-19.0	11.4	0.32	-0.20	-13.20
5,350.0	1.22	224.22	5,348.2	-11.8	-19.3	11.8	0.73	0.72	-5.68
5,375.0	1.31	227.59	5,373.2	-12.2	-19.7	12.2	0.47	0.36	13.48
5,400.0	1.32	228.96	5,398.2	-12.6	-20.2	12.6	0.13	0.04	5.48
5,425.0	1.39	224.04	5,423.2	-13.0	-20.6	13.0	0.54	0.28	-19.68
5,450.0	1.39	226.57	5,448.2	-13.4	-21.0	13.4	0.25	0.00	10.12
5,475.0	1.31	217.99	5,473.2	-13.9	-21.4	13.8	0.87	-0.32	-34.32
5,500.0	1.48	224.77	5,498.1	-14.3	-21.8	14.3	0.95	0.68	27.12
5,525.0	1.49	223.78	5,523.1	-14.8	-22.3	14.7	0.11	0.04	-3.96
5,550.0	1.54	222.78	5,548.1	-15.3	-22.7	15.2	0.23	0.20	-4.00
5,575.0	1.62	223.24	5,573.1	-15.8	-23.2	15.7	0.32	0.32	1.84
5,600.0	1.57	221.90	5,598.1	-16.3	-23.7	16.2	0.25	-0.20	-5.36
5,625.0	1.64	226.06	5,623.1	-16.8	-24.1	16.7	0.54	0.28	16.64
5,650.0	1.54	223.69	5,648.1	-17.3	-24.6	17.2	0.48	-0.40	-9.48
5,675.0	1.54	223.46	5,673.1	-17.8	-25.1	17.7	0.02	0.00	-0.92
5,700.0	1.49	219.05	5,698.1	-18.3	-25.5	18.2	0.51	-0.20	-17.64

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well TOMAHAWK FEDERAL UNIT #704H
Project:	TOMAHAWK PROSPECT (NM-E)	TVD Reference:	KB=24' @ 3071.3usft (E 155)
Site:	TOMAHAWK FEDERAL PROJECT (TOMAHAWK 2428)	MD Reference:	KB=24' @ 3071.3usft (E 155)
Well:	TOMAHAWK FEDERAL UNIT #704H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	edm

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)
5,725.0	1.63	220.26	5,723.1	-18.8	-26.0	18.7	0.58	0.56	4.84
5,750.0	1.61	224.57	5,748.1	-19.3	-26.4	19.2	0.49	-0.08	17.24
5,775.0	1.64	221.28	5,773.0	-19.8	-26.9	19.8	0.39	0.12	-13.16
5,800.0	1.76	224.22	5,798.0	-20.4	-27.4	20.3	0.59	0.48	11.76
5,825.0	1.66	225.64	5,823.0	-20.9	-28.0	20.8	0.43	-0.40	5.68
5,850.0	1.58	223.38	5,848.0	-21.4	-28.5	21.3	0.41	-0.32	-9.04
5,875.0	1.72	221.84	5,873.0	-21.9	-28.9	21.9	0.59	0.56	-6.16
5,900.0	1.73	221.21	5,898.0	-22.5	-29.4	22.4	0.09	0.04	-2.52
5,925.0	1.78	225.20	5,923.0	-23.0	-30.0	23.0	0.53	0.20	15.96
5,950.0	1.82	222.88	5,948.0	-23.6	-30.5	23.5	0.33	0.16	-9.28
5,975.0	1.65	223.53	5,973.0	-24.2	-31.0	24.1	0.68	-0.68	2.60
6,000.0	1.81	221.81	5,997.9	-24.7	-31.5	24.7	0.67	0.64	-6.88
6,025.0	1.68	221.00	6,022.9	-25.3	-32.0	25.2	0.53	-0.52	-3.24
6,050.0	1.68	222.56	6,047.9	-25.8	-32.5	25.8	0.18	0.00	6.24
6,075.0	1.88	228.74	6,072.9	-26.4	-33.1	26.3	1.11	0.80	24.72
6,100.0	2.06	227.23	6,097.9	-27.0	-33.7	26.9	0.75	0.72	-6.04
6,125.0	2.08	224.72	6,122.9	-27.6	-34.4	27.5	0.37	0.08	-10.04
6,150.0	2.25	225.63	6,147.9	-28.2	-35.0	28.2	0.69	0.68	3.64
6,175.0	2.28	223.03	6,172.8	-29.0	-35.7	28.9	0.43	0.12	-10.40
6,200.0	2.60	230.23	6,197.8	-29.7	-36.5	29.6	1.77	1.28	28.80
6,225.0	2.38	229.31	6,222.8	-30.4	-37.3	30.3	0.89	-0.88	-3.68
6,250.0	2.40	228.55	6,247.8	-31.1	-38.1	31.0	0.15	0.08	-3.04
6,275.0	2.47	228.54	6,272.8	-31.8	-38.9	31.7	0.28	0.28	-0.04
6,300.0	2.50	229.41	6,297.7	-32.5	-39.7	32.4	0.19	0.12	3.48
6,325.0	2.34	221.46	6,322.7	-33.2	-40.5	33.1	1.49	-0.64	-31.80
6,350.0	2.27	210.69	6,347.7	-34.0	-41.1	33.9	1.75	-0.28	-43.08
6,375.0	1.80	182.34	6,372.7	-34.8	-41.4	34.8	4.38	-1.88	-113.40
6,400.0	1.53	121.74	6,397.7	-35.4	-41.1	35.3	6.78	-1.08	-242.40
6,425.0	1.78	102.48	6,422.7	-35.7	-40.4	35.6	2.42	1.00	-77.04
6,450.0	1.89	100.67	6,447.6	-35.8	-39.6	35.7	0.50	0.44	-7.24
6,475.0	1.80	104.40	6,472.6	-36.0	-38.9	35.9	0.60	-0.36	14.92
6,500.0	1.84	97.54	6,497.6	-36.2	-38.1	36.1	0.89	0.16	-27.44
6,525.0	1.63	100.47	6,522.6	-36.3	-37.3	36.2	0.91	-0.84	11.72
6,550.0	1.50	94.38	6,547.6	-36.4	-36.7	36.3	0.84	-0.52	-24.36
6,575.0	1.19	72.74	6,572.6	-36.3	-36.1	36.2	2.36	-1.24	-86.56
6,600.0	1.26	33.07	6,597.6	-36.0	-35.7	35.9	3.34	0.28	-158.68
6,625.0	1.07	28.00	6,622.6	-35.6	-35.4	35.5	0.86	-0.76	-20.28
6,650.0	1.11	20.10	6,647.6	-35.1	-35.2	35.1	0.62	0.16	-31.60
6,675.0	1.06	6.42	6,672.6	-34.7	-35.1	34.6	1.05	-0.20	-54.72
6,700.0	1.08	351.95	6,697.6	-34.2	-35.1	34.1	1.08	0.08	-57.88
6,725.0	1.13	352.95	6,722.6	-33.7	-35.2	33.7	0.21	0.20	4.00
6,750.0	1.13	350.73	6,747.6	-33.2	-35.3	33.2	0.18	0.00	-8.88
6,775.0	0.99	339.16	6,772.5	-32.8	-35.4	32.7	1.02	-0.56	-46.28

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well TOMAHAWK FEDERAL UNIT #704H
Project:	TOMAHAWK PROSPECT (NM-E)	TVD Reference:	KB=24' @ 3071.3usft (E 155)
Site:	TOMAHAWK FEDERAL PROJECT (TOMAHAWK 2428)	MD Reference:	KB=24' @ 3071.3usft (E 155)
Well:	TOMAHAWK FEDERAL UNIT #704H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	edm

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)	
6,800.0	1.01	342.65	6,797.5	-32.4	-35.5	32.3	0.26	0.08	13.96	
6,825.0	1.08	337.78	6,822.5	-32.0	-35.7	31.9	0.45	0.28	-19.48	
6,850.0	1.34	352.26	6,847.5	-31.5	-35.8	31.4	1.60	1.04	57.92	
6,875.0	2.13	13.80	6,872.5	-30.7	-35.7	30.6	4.05	3.16	86.16	
6,900.0	2.43	21.31	6,897.5	-29.8	-35.4	29.7	1.69	1.20	30.04	
6,925.0	2.48	22.77	6,922.5	-28.8	-35.0	28.7	0.32	0.20	5.84	
6,950.0	2.50	25.90	6,947.5	-27.8	-34.6	27.7	0.55	0.08	12.52	
6,975.0	2.62	25.88	6,972.4	-26.8	-34.1	26.7	0.48	0.48	-0.08	
7,000.0	2.62	24.78	6,997.4	-25.7	-33.6	25.7	0.20	0.00	-4.40	
7,025.0	2.64	25.23	7,022.4	-24.7	-33.1	24.6	0.11	0.08	1.80	
7,050.0	2.60	27.67	7,047.4	-23.7	-32.6	23.6	0.47	-0.16	9.76	
7,075.0	2.57	31.31	7,072.3	-22.7	-32.1	22.6	0.67	-0.12	14.56	
7,100.0	2.41	28.89	7,097.3	-21.8	-31.5	21.7	0.77	-0.64	-9.68	
7,125.0	2.54	29.56	7,122.3	-20.8	-31.0	20.8	0.53	0.52	2.68	
7,150.0	2.39	32.03	7,147.3	-19.9	-30.4	19.8	0.74	-0.60	9.88	
7,175.0	2.25	31.67	7,172.2	-19.0	-29.9	19.0	0.56	-0.56	-1.44	
7,200.0	2.25	32.97	7,197.2	-18.2	-29.4	18.1	0.20	0.00	5.20	
7,225.0	2.16	28.58	7,222.2	-17.4	-28.9	17.3	0.77	-0.36	-17.56	
7,250.0	2.03	27.57	7,247.2	-16.6	-28.4	16.5	0.54	-0.52	-4.04	
7,275.0	1.80	28.47	7,272.2	-15.8	-28.1	15.8	0.93	-0.92	3.60	
7,300.0	1.58	28.22	7,297.2	-15.2	-27.7	15.1	0.88	-0.88	-1.00	
7,325.0	1.61	29.30	7,322.1	-14.6	-27.4	14.5	0.17	0.12	4.32	
7,350.0	1.53	32.11	7,347.1	-14.0	-27.0	13.9	0.44	-0.32	11.24	
7,375.0	1.49	33.31	7,372.1	-13.4	-26.7	13.4	0.20	-0.16	4.80	
7,400.0	1.52	33.68	7,397.1	-12.9	-26.3	12.8	0.13	0.12	1.48	
7,425.0	1.48	34.89	7,422.1	-12.3	-25.9	12.3	0.20	-0.16	4.84	
7,450.0	1.45	32.50	7,447.1	-11.8	-25.6	11.8	0.27	-0.12	-9.56	
7,475.0	1.45	39.53	7,472.1	-11.3	-25.2	11.3	0.71	0.00	28.12	
7,500.0	1.00	54.61	7,497.1	-10.9	-24.8	10.9	2.20	-1.80	60.32	
7,525.0	0.88	61.18	7,522.1	-10.7	-24.5	10.7	0.64	-0.48	26.28	
7,550.0	0.91	69.63	7,547.1	-10.6	-24.1	10.5	0.54	0.12	33.80	
7,575.0	0.84	73.95	7,572.1	-10.4	-23.8	10.4	0.38	-0.28	17.28	
7,600.0	0.66	88.95	7,597.1	-10.4	-23.4	10.3	1.06	-0.72	60.00	
7,625.0	0.55	113.66	7,622.1	-10.4	-23.2	10.4	1.12	-0.44	98.84	
7,650.0	0.47	135.26	7,647.1	-10.5	-23.0	10.5	0.83	-0.32	86.40	
7,675.0	0.37	187.97	7,672.1	-10.7	-22.9	10.7	1.53	-0.40	210.84	
7,700.0	0.38	226.20	7,697.1	-10.8	-23.0	10.8	0.98	0.04	152.92	
7,725.0	0.70	236.28	7,722.1	-11.0	-23.2	10.9	1.33	1.28	40.32	
7,750.0	0.95	238.28	7,747.1	-11.2	-23.5	11.1	1.01	1.00	8.00	
7,775.0	1.09	235.26	7,772.1	-11.4	-23.9	11.4	0.60	0.56	-12.08	
7,800.0	1.11	234.72	7,797.1	-11.7	-24.3	11.6	0.09	0.08	-2.16	
7,825.0	1.15	234.25	7,822.1	-12.0	-24.7	11.9	0.16	0.16	-1.88	

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well TOMAHAWK FEDERAL UNIT #704H
Project:	TOMAHAWK PROSPECT (NM-E)	TVD Reference:	KB=24' @ 3071.3usft (E 155)
Site:	TOMAHAWK FEDERAL PROJECT (TOMAHAWK 2428)	MD Reference:	KB=24' @ 3071.3usft (E 155)
Well:	TOMAHAWK FEDERAL UNIT #704H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	edm

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)
7,850.0	1.10	236.81	7,847.1	-12.3	-25.1	12.2	0.28	-0.20	10.24
7,875.0	1.19	238.43	7,872.0	-12.5	-25.5	12.5	0.38	0.36	6.48
7,900.0	0.99	244.44	7,897.0	-12.8	-25.9	12.7	0.92	-0.80	24.04
7,925.0	1.19	243.54	7,922.0	-13.0	-26.3	12.9	0.80	0.80	-3.60
7,950.0	1.19	239.59	7,947.0	-13.2	-26.8	13.2	0.33	0.00	-15.80
7,975.0	1.11	243.04	7,972.0	-13.5	-27.2	13.4	0.42	-0.32	13.80
8,000.0	1.13	245.05	7,997.0	-13.7	-27.7	13.6	0.18	0.08	8.04
8,025.0	1.07	243.74	8,022.0	-13.9	-28.1	13.8	0.26	-0.24	-5.24
8,050.0	0.99	238.23	8,047.0	-14.1	-28.5	14.0	0.51	-0.32	-22.04
8,075.0	1.06	230.85	8,072.0	-14.4	-28.9	14.3	0.60	0.28	-29.52
8,100.0	0.99	227.36	8,097.0	-14.6	-29.2	14.6	0.38	-0.28	-13.96
8,125.0	1.04	226.06	8,122.0	-14.9	-29.5	14.9	0.22	0.20	-5.20
8,150.0	1.03	222.62	8,147.0	-15.3	-29.8	15.2	0.25	-0.04	-13.76
8,175.0	1.02	215.66	8,172.0	-15.6	-30.1	15.6	0.50	-0.04	-27.84
8,200.0	0.99	204.18	8,197.0	-16.0	-30.3	15.9	0.81	-0.12	-45.92
8,225.0	0.95	206.08	8,222.0	-16.4	-30.5	16.3	0.21	-0.16	7.60
8,250.0	0.96	203.48	8,247.0	-16.8	-30.7	16.7	0.18	0.04	-10.40
8,275.0	0.91	199.95	8,272.0	-17.1	-30.9	17.1	0.31	-0.20	-14.12
8,300.0	0.88	205.00	8,297.0	-17.5	-31.0	17.4	0.34	-0.12	20.20
8,325.0	0.88	206.62	8,322.0	-17.8	-31.2	17.8	0.10	0.00	6.48
8,350.0	0.97	207.38	8,347.0	-18.2	-31.4	18.1	0.36	0.36	3.04
8,375.0	0.89	200.51	8,372.0	-18.6	-31.5	18.5	0.55	-0.32	-27.48
8,400.0	1.01	226.69	8,397.0	-18.9	-31.7	18.8	1.78	0.48	104.72
8,425.0	1.23	239.35	8,422.0	-19.2	-32.1	19.1	1.32	0.88	50.64
8,450.0	1.37	249.52	8,447.0	-19.4	-32.6	19.4	1.08	0.56	40.68
8,475.0	1.34	258.51	8,471.9	-19.6	-33.2	19.5	0.86	-0.12	35.96
8,500.0	1.56	272.13	8,496.9	-19.6	-33.8	19.6	1.63	0.88	54.48
8,525.0	1.69	279.93	8,521.9	-19.6	-34.5	19.5	1.03	0.52	31.20
8,550.0	1.78	280.91	8,546.9	-19.4	-35.3	19.4	0.38	0.36	3.92
8,575.0	1.69	281.63	8,571.9	-19.3	-36.0	19.2	0.37	-0.36	2.88
8,600.0	1.55	275.82	8,596.9	-19.2	-36.7	19.1	0.86	-0.56	-23.24
8,625.0	1.34	273.12	8,621.9	-19.1	-37.4	19.0	0.88	-0.84	-10.80
8,650.0	1.13	271.97	8,646.9	-19.1	-37.9	19.0	0.85	-0.84	-4.60
8,675.0	1.10	267.00	8,671.9	-19.1	-38.4	19.0	0.40	-0.12	-19.88
8,700.0	1.19	257.79	8,696.9	-19.2	-38.9	19.1	0.82	0.36	-36.84
8,707.0	1.21	255.39	8,703.9	-19.2	-39.0	19.1	0.77	0.29	-34.29
8,818.0	1.57	273.74	8,814.8	-19.4	-41.7	19.3	0.51	0.32	16.53
8,882.0	1.25	214.25	8,878.8	-19.9	-42.9	19.8	2.23	-0.50	-92.95
8,929.0	8.11	160.17	8,925.6	-23.5	-42.1	23.4	15.84	14.60	-115.06
8,977.0	14.68	158.25	8,972.7	-32.3	-38.7	32.2	13.71	13.69	-4.00
9,024.0	21.41	156.17	9,017.3	-45.7	-33.0	45.6	14.38	14.32	-4.43
9,072.0	27.14	166.44	9,061.1	-64.4	-26.9	64.3	14.79	11.94	21.40
9,119.0	32.18	173.57	9,101.9	-87.3	-23.0	87.2	13.07	10.72	15.17

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well TOMAHAWK FEDERAL UNIT #704H
Project:	TOMAHAWK PROSPECT (NM-E)	TVD Reference:	KB=24' @ 3071.3usft (E 155)
Site:	TOMAHAWK FEDERAL PROJECT (TOMAHAWK 2428)	MD Reference:	KB=24' @ 3071.3usft (E 155)
Well:	TOMAHAWK FEDERAL UNIT #704H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	edm

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)
9,167.0	35.21	171.76	9,141.9	-113.7	-19.6	113.6	6.65	6.31	-3.77
9,214.0	38.54	169.01	9,179.5	-141.5	-14.8	141.4	7.91	7.09	-5.85
9,261.0	42.07	168.76	9,215.3	-171.3	-9.0	171.3	7.52	7.51	-0.53
9,308.0	48.51	172.66	9,248.4	-204.2	-3.6	204.2	14.91	13.70	8.30
9,356.0	52.67	176.69	9,278.8	-241.1	-0.2	241.1	10.82	8.67	8.40
9,403.0	59.86	176.94	9,304.9	-280.1	1.9	280.1	15.30	15.30	0.53
9,451.0	66.05	175.92	9,326.7	-322.8	4.6	322.8	13.03	12.90	-2.13
9,498.0	73.09	174.54	9,343.1	-366.6	8.3	366.7	15.23	14.98	-2.94
9,545.0	81.59	173.40	9,353.4	-412.2	13.1	412.2	18.24	18.09	-2.43
9,592.0	93.34	178.81	9,355.5	-459.0	16.3	459.0	27.51	25.00	11.51
9,643.2	93.56	180.93	9,352.4	-510.1	16.4	510.1	4.16	0.43	4.15
FTP @ 9643.2'MD									
9,687.0	93.74	182.75	9,349.6	-553.7	15.0	553.8	4.16	0.42	4.15
9,734.0	87.07	180.64	9,349.3	-600.7	13.6	600.7	14.88	-14.19	-4.49
9,828.0	85.98	180.56	9,355.0	-694.5	12.6	694.5	1.16	-1.16	-0.09
9,922.0	87.15	180.67	9,360.6	-788.3	11.6	788.4	1.25	1.24	0.12
10,016.0	86.99	179.74	9,365.4	-882.2	11.3	882.2	1.00	-0.17	-0.99
10,111.0	91.66	180.01	9,366.5	-977.2	11.5	977.2	4.92	4.92	0.28
10,206.0	90.39	178.88	9,364.8	-1,072.2	12.4	1,072.2	1.79	-1.34	-1.19
10,300.0	87.97	177.32	9,366.2	-1,166.1	15.5	1,166.1	3.06	-2.57	-1.66
10,393.0	92.16	179.51	9,366.1	-1,259.0	18.1	1,259.1	5.08	4.51	2.35
10,488.0	91.85	178.61	9,362.8	-1,354.0	19.6	1,354.0	1.00	-0.33	-0.95
10,583.0	88.18	178.42	9,362.7	-1,448.9	22.1	1,448.9	3.87	-3.86	-0.20
10,677.0	87.31	178.34	9,366.4	-1,542.8	24.7	1,542.8	0.93	-0.93	-0.09
10,773.0	90.19	180.70	9,368.5	-1,638.7	25.5	1,638.8	3.88	3.00	2.46
10,867.0	91.11	181.71	9,367.5	-1,732.7	23.6	1,732.8	1.45	0.98	1.07
10,962.0	89.84	181.20	9,366.7	-1,827.7	21.2	1,827.7	1.44	-1.34	-0.54
11,057.0	89.94	181.64	9,366.9	-1,922.7	18.8	1,922.7	0.47	0.11	0.46
11,152.0	91.22	182.59	9,365.9	-2,017.6	15.3	2,017.6	1.68	1.35	1.00
11,246.0	91.73	182.32	9,363.5	-2,111.5	11.3	2,111.5	0.61	0.54	-0.29
11,341.0	91.30	182.33	9,361.0	-2,206.4	7.4	2,206.4	0.45	-0.45	0.01
11,436.0	91.19	182.43	9,358.9	-2,301.2	3.5	2,301.2	0.16	-0.12	0.11
11,530.0	91.01	182.05	9,357.1	-2,395.2	-0.2	2,395.2	0.45	-0.19	-0.40
11,625.0	89.97	181.68	9,356.3	-2,490.1	-3.3	2,490.1	1.16	-1.09	-0.39
11,720.0	91.36	181.67	9,355.2	-2,585.1	-6.1	2,585.0	1.46	1.46	-0.01
11,815.0	91.04	181.83	9,353.2	-2,680.0	-9.0	2,680.0	0.38	-0.34	0.17
11,909.0	90.53	181.39	9,351.9	-2,773.9	-11.6	2,773.9	0.72	-0.54	-0.47
12,004.0	89.71	181.10	9,351.7	-2,868.9	-13.7	2,868.9	0.92	-0.86	-0.31
12,098.0	88.58	180.87	9,353.1	-2,962.9	-15.3	2,962.9	1.23	-1.20	-0.24
12,192.0	88.30	181.46	9,355.7	-3,056.8	-17.2	3,056.8	0.69	-0.30	0.63
12,287.0	88.28	179.19	9,358.5	-3,151.8	-17.7	3,151.7	2.39	-0.02	-2.39
12,381.0	88.09	179.69	9,361.5	-3,245.7	-16.8	3,245.7	0.57	-0.20	0.53

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well TOMAHAWK FEDERAL UNIT #704H
Project:	TOMAHAWK PROSPECT (NM-E)	TVD Reference:	KB=24' @ 3071.3usft (E 155)
Site:	TOMAHAWK FEDERAL PROJECT (TOMAHAWK 2428)	MD Reference:	KB=24' @ 3071.3usft (E 155)
Well:	TOMAHAWK FEDERAL UNIT #704H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	edm

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)	
12,476.0	88.26	179.58	9,364.5	-3,340.7	-16.2	3,340.6	0.21	0.18	-0.12	
12,570.0	91.90	180.16	9,364.4	-3,434.7	-16.0	3,434.6	3.92	3.87	0.62	
12,665.0	92.76	179.84	9,360.5	-3,529.6	-16.0	3,529.5	0.97	0.91	-0.34	
12,759.0	92.93	180.01	9,355.8	-3,623.5	-15.9	3,623.4	0.26	0.18	0.18	
12,854.0	91.75	179.75	9,352.0	-3,718.4	-15.7	3,718.3	1.27	-1.24	-0.27	
12,949.0	89.00	180.97	9,351.3	-3,813.4	-16.3	3,813.3	3.17	-2.89	1.28	
13,043.0	92.06	181.03	9,350.5	-3,907.3	-17.9	3,907.3	3.26	3.26	0.06	
13,138.0	92.55	181.17	9,346.7	-4,002.3	-19.7	4,002.2	0.54	0.52	0.15	
13,233.0	91.32	180.10	9,343.5	-4,097.2	-20.8	4,097.1	1.72	-1.29	-1.13	
13,328.0	88.45	182.30	9,343.6	-4,192.2	-22.8	4,192.1	3.81	-3.02	2.32	
13,422.0	85.97	180.96	9,348.2	-4,286.0	-25.4	4,285.9	3.00	-2.64	-1.43	
13,517.0	85.67	176.70	9,355.1	-4,380.7	-23.5	4,380.6	4.48	-0.32	-4.48	
13,611.0	85.23	175.54	9,362.6	-4,474.2	-17.2	4,474.1	1.32	-0.47	-1.23	
13,706.0	89.28	177.40	9,367.2	-4,568.9	-11.3	4,568.8	4.69	4.26	1.96	
13,801.0	88.92	177.17	9,368.6	-4,663.8	-6.8	4,663.7	0.45	-0.38	-0.24	
13,896.0	89.95	177.38	9,369.6	-4,758.6	-2.3	4,758.6	1.11	1.08	0.22	
13,991.0	90.42	177.63	9,369.3	-4,853.5	1.8	4,853.5	0.56	0.49	0.26	
14,085.0	88.92	177.67	9,369.8	-4,947.5	5.7	4,947.5	1.60	-1.60	0.04	
14,179.0	90.85	178.30	9,370.0	-5,041.4	9.0	5,041.4	2.16	2.05	0.67	
14,274.0	91.01	178.38	9,368.5	-5,136.4	11.7	5,136.4	0.19	0.17	0.08	
14,368.0	90.02	177.90	9,367.6	-5,230.3	14.8	5,230.3	1.17	-1.05	-0.51	
14,462.0	91.96	179.16	9,366.0	-5,324.2	17.2	5,324.3	2.46	2.06	1.34	
14,557.0	90.11	179.72	9,364.3	-5,419.2	18.1	5,419.2	2.03	-1.95	0.59	
14,651.0	86.62	178.84	9,367.0	-5,513.2	19.3	5,513.2	3.83	-3.71	-0.94	
14,746.0	87.35	179.48	9,372.0	-5,608.0	20.7	5,608.0	1.02	0.77	0.67	
14,841.0	88.55	179.67	9,375.4	-5,703.0	21.4	5,703.0	1.28	1.26	0.20	
14,936.0	88.43	179.72	9,377.9	-5,797.9	21.9	5,797.9	0.14	-0.13	0.05	
15,030.0	89.43	179.97	9,379.6	-5,891.9	22.2	5,891.9	1.10	1.06	0.27	
15,125.0	91.01	179.74	9,379.2	-5,986.9	22.4	5,986.9	1.68	1.66	-0.24	
15,219.0	90.41	179.82	9,378.1	-6,080.9	22.8	6,080.9	0.64	-0.64	0.09	
15,313.0	91.12	180.50	9,376.8	-6,174.9	22.5	6,174.9	1.05	0.76	0.72	
15,407.0	89.67	180.01	9,376.2	-6,268.9	22.1	6,268.9	1.63	-1.54	-0.52	
15,503.0	90.30	179.93	9,376.2	-6,364.9	22.1	6,364.9	0.66	0.66	-0.08	
15,597.0	89.28	179.41	9,376.5	-6,458.9	22.7	6,458.9	1.22	-1.09	-0.55	
15,692.0	88.28	179.94	9,378.6	-6,553.8	23.2	6,553.9	1.19	-1.05	0.56	
15,787.0	87.97	180.64	9,381.7	-6,648.8	22.7	6,648.8	0.81	-0.33	0.74	
15,882.0	86.38	180.03	9,386.4	-6,743.7	22.2	6,743.7	1.79	-1.67	-0.64	
15,977.0	88.54	179.43	9,390.6	-6,838.6	22.6	6,838.6	2.36	2.27	-0.63	
16,072.0	88.43	179.46	9,393.1	-6,933.5	23.5	6,933.6	0.12	-0.12	0.03	
16,167.0	90.41	179.07	9,394.0	-7,028.5	24.8	7,028.5	2.12	2.08	-0.41	
16,261.0	91.53	179.69	9,392.5	-7,122.5	25.8	7,122.5	1.36	1.19	0.66	
16,356.0	92.82	180.54	9,388.8	-7,217.4	25.6	7,217.5	1.63	1.36	0.89	
16,451.0	92.94	180.65	9,384.1	-7,312.3	24.6	7,312.3	0.17	0.13	0.12	

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well TOMAHAWK FEDERAL UNIT #704H
Project:	TOMAHAWK PROSPECT (NM-E)	TVD Reference:	KB=24' @ 3071.3usft (E 155)
Site:	TOMAHAWK FEDERAL PROJECT (TOMAHAWK 2428)	MD Reference:	KB=24' @ 3071.3usft (E 155)
Well:	TOMAHAWK FEDERAL UNIT #704H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	edm

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)	
16,547.0	92.57	180.78	9,379.5	-7,408.2	23.4	7,408.2	0.41	-0.39	0.14	
16,642.0	92.14	181.26	9,375.6	-7,503.1	21.7	7,503.1	0.68	-0.45	0.51	
16,736.0	90.66	180.61	9,373.3	-7,597.0	20.2	7,597.1	1.72	-1.57	-0.69	
16,831.0	85.39	180.54	9,376.5	-7,691.9	19.2	7,692.0	5.55	-5.55	-0.07	
16,925.0	85.17	180.65	9,384.3	-7,785.6	18.3	7,785.6	0.26	-0.23	0.12	
17,020.0	87.02	180.83	9,390.7	-7,880.4	17.0	7,880.4	1.96	1.95	0.19	
17,115.0	87.20	180.71	9,395.5	-7,975.3	15.8	7,975.3	0.23	0.19	-0.13	
17,209.0	86.51	180.34	9,400.7	-8,069.1	14.9	8,069.1	0.83	-0.73	-0.39	
17,303.0	89.71	180.81	9,403.8	-8,163.0	13.9	8,163.1	3.44	3.40	0.50	
17,398.0	90.68	180.82	9,403.5	-8,258.0	12.6	8,258.0	1.02	1.02	0.01	
17,492.0	90.92	181.46	9,402.1	-8,352.0	10.7	8,352.0	0.73	0.26	0.68	
17,587.0	91.54	182.76	9,400.1	-8,446.9	7.2	8,446.9	1.52	0.65	1.37	
17,681.0	92.06	184.05	9,397.2	-8,540.7	1.7	8,540.7	1.48	0.55	1.37	
17,776.0	91.08	183.88	9,394.6	-8,635.4	-4.9	8,635.4	1.05	-1.03	-0.18	
17,869.0	91.55	183.38	9,392.4	-8,728.2	-10.8	8,728.2	0.74	0.51	-0.54	
17,964.0	90.95	183.01	9,390.3	-8,823.1	-16.1	8,823.0	0.74	-0.63	-0.39	
18,058.0	89.10	181.38	9,390.3	-8,917.0	-19.7	8,916.9	2.62	-1.97	-1.73	
18,153.0	90.29	181.10	9,390.8	-9,012.0	-21.8	9,011.9	1.29	1.25	-0.29	
18,247.0	88.88	178.04	9,391.5	-9,105.9	-21.0	9,105.9	3.58	-1.50	-3.26	
18,341.0	88.31	177.64	9,393.8	-9,199.8	-17.5	9,199.8	0.74	-0.61	-0.43	
18,435.0	88.50	178.02	9,396.4	-9,293.7	-13.9	9,293.7	0.45	0.20	0.40	
18,530.0	89.68	179.06	9,397.9	-9,388.7	-11.5	9,388.6	1.66	1.24	1.09	
18,626.0	89.14	179.07	9,398.9	-9,484.7	-10.0	9,484.6	0.56	-0.56	0.01	
18,720.0	92.34	179.11	9,397.7	-9,578.6	-8.5	9,578.6	3.40	3.40	0.04	
18,815.0	92.73	178.65	9,393.5	-9,673.5	-6.6	9,673.5	0.63	0.41	-0.48	
18,909.0	92.56	178.18	9,389.2	-9,767.4	-4.0	9,767.4	0.53	-0.18	-0.50	
19,002.0	93.20	178.34	9,384.5	-9,860.2	-1.2	9,860.2	0.71	0.69	0.17	
19,095.0	90.39	177.47	9,381.6	-9,953.1	2.2	9,953.1	3.16	-3.02	-0.94	
19,191.0	91.26	177.72	9,380.2	-10,049.0	6.2	10,049.0	0.94	0.91	0.26	
19,286.0	90.21	177.34	9,379.0	-10,143.9	10.3	10,143.9	1.18	-1.11	-0.40	
19,379.0	91.80	177.62	9,377.3	-10,236.8	14.4	10,236.8	1.74	1.71	0.30	
19,473.0	92.46	177.66	9,373.8	-10,330.7	18.3	10,330.7	0.70	0.70	0.04	
19,568.0	89.01	178.47	9,372.6	-10,425.6	21.5	10,425.6	3.73	-3.63	0.85	
19,662.0	88.51	178.66	9,374.7	-10,519.5	23.8	10,519.6	0.57	-0.53	0.20	
19,757.0	88.67	178.88	9,377.0	-10,614.5	25.9	10,614.5	0.29	0.17	0.23	
19,852.0	89.03	179.70	9,378.9	-10,709.5	27.1	10,709.5	0.94	0.38	0.86	
19,947.0	89.26	179.75	9,380.3	-10,804.4	27.5	10,804.5	0.25	0.24	0.05	
20,018.5	89.08	179.54	9,381.4	-10,875.9	28.0	10,876.0	0.39	-0.26	-0.30	
LTP @ 20018.5'MD										
20,041.0	89.02	179.47	9,381.7	-10,898.4	28.2	10,898.5	0.39	-0.26	-0.30	
20,090.0	89.09	179.60	9,382.5	-10,947.4	28.6	10,947.5	0.30	0.14	0.27	
LAST MWD @ 20090'MD										
20,148.0	89.09	179.60	9,383.5	-11,005.4	29.0	11,005.5	0.00	0.00	0.00	

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well TOMAHAWK FEDERAL UNIT #704H
Project:	TOMAHAWK PROSPECT (NM-E)	TVD Reference:	KB=24' @ 3071.3usft (E 155)
Site:	TOMAHAWK FEDERAL PROJECT (TOMAHAWK 2428)	MD Reference:	KB=24' @ 3071.3usft (E 155)
Well:	TOMAHAWK FEDERAL UNIT #704H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	edm

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)
PTD @ 20148'MD									

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
9,643.2	9,352.4	-510.1	16.4	FTP @ 9643.2'MD	
20,018.5	9,381.4	-10,875.9	28.0	LTP @ 20018.5'MD	
20,090.0	9,382.5	-10,947.4	28.6	LAST MWD @ 20090'MD	
20,148.0	9,383.5	-11,005.4	29.0	PTD @ 20148'MD	

Checked By: _____ Approved By: _____ Date: _____

Well Name: TOMAHAWK WC UNIT	Well Location: T24S / R28E / SEC 20 / SESW / 32.197325 / -104.112988	County or Parish/State: EDDY / NM
Well Number: 704H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM102909	Unit or CA Name:	Unit or CA Number:
US Well Number: 3001547308	Well Status: Drilling Well	Operator: COG OPERATING LLC

Subsequent Report

Type of Submission: Subsequent Report	Type of Action: Hydraulic Fracturing
Date Sundry Submitted: 06/29/2021	Time Sundry Submitted: 08:23
Date Operation Actually Began: 11/24/2020	

Actual Procedure: Actual Procedure: 11/24/2020 Test 9 5/8" x 5 1/2" annulus to 1500# 12/3/2020 Set CBD @ 20,000' and test csg to 9525psi. Good Test. 4/12/2021 – 4/29/2021 Perf 9,665 – 19,980' (1008) Frac w/ 49,290,066# sand & 24,937,836 gal fluid. 5/10/21 – 5/12/2021 Drilled out CPFs. Clean down to PBTD @ 19980'. 5/13/2021 Set 2 7/8 6.5# L-80tbg @ 9,643'. Packer @9,480'. Installed gas lift system. 6/21/2021 - Began flowback, testing, and date of first production.

Received by OCD: 8/30/2022 3:25:26 PM

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Well Name: TOMAHAWK WC UNIT	Well Location: T24S / R28E / SEC 20 / SESW / 32.197325 / -104.112988	County or Parish/State: EDDY / NM
Well Number: 704H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM102909	Unit or CA Name:	Unit or CA Number:
US Well Number: 3001547308	Well Status: Drilling Well	Operator: COG OPERATING LLC

Operator Certification

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a submission of Form 3160-5 or a Sundry Notice.

Operator Electronic Signature: DANIELLE WALKUP	Signed on: JUN 29, 2021 08:23 AM
Name: COG OPERATING LLC	
Title: Regulatory Technician	
Street Address: 600 W. ILLINOIS	
City: MIDLAND	State: TX
Phone: (432) 253-9685	
Email address: D.D.WALKUP@CONOCOPHILLIPS.COM	

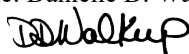
Field Representative

Representative Name:		
Street Address:		
City:	State:	Zip:
Phone:		
Email address:		

Submit To Appropriate District Office Two Copies <u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 <u>District II</u> 811 S. First St., Artesia, NM 88210 <u>District III</u> 1000 Rio Brazos Rd., Aztec, NM 87410 <u>District IV</u> 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. 30-015-47308		
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)								2. Type of Lease ☐ STATE ☒ FEE ☐ FED/INDIAN		
								3. State Oil & Gas Lease No.		
7. Type of Completion: ☒ NEW WELL ☐ WORKOVER ☐ DEEPENING ☐ PLUGBACK ☐ DIFFERENT RESERVOIR ☐ OTHER								5. Lease Name or Unit Agreement Name Tomahawk WC Unit		
8. Name of Operator COG Operating						9. OGRID 229137				
10. Address of Operator 600 W. Illinois Ave Midland, TX 79701						11. Pool name or Wildcat Purple Sage/Wolfcamp				
12. Location	Unit Ltr	Section	Township	Range	Lot	Feet from the	N/S Line	Feet from the	E/W Line	County
Surface:	N	20	24S	28E		500	S	1618	W	EDDY
BH:	N	32	24S	28E		202	S	1624	W	EDDY
13. Date Spudded 8/2/2020	14. Date T.D. Reached 8/29/2020		15. Date Rig Released 8/31/2021		16. Date Completed (Ready to Produce) 6/21/2021			17. Elevations (DF and RKB, RT, GR, etc.) 3047		
18. Total Measured Depth of Well 20148			19. Plug Back Measured Depth 19980		20. Was Directional Survey Made? Y			21. Type Electric and Other Logs Run		
22. Producing Interval(s), of this completion - Top, Bottom, Name WOLFCAMP										
23. CASING RECORD (Report all strings set in well)										
CASING SIZE		WEIGHT LB./FT.		DEPTH SET		HOLE SIZE		CEMENTING RECORD		AMOUNT PULLED
10.75		45.50		840		14.75		900 SKS		
7.625		29.70		8815		9.875/8.75		1050 SKS		
5.5		20.0		20128		6.75		1300 SKS		
24. LINER RECORD										
SIZE	TOP	BOTTOM		SACKS CEMENT		SCREEN		25. TUBING RECORD		
								SIZE	DEPTH SET	PACKER SET
								2.875	9480	
26. Perforation record (interval, size, and number) 9665-19982						27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.				
						DEPTH INTERVAL		AMOUNT AND KIND MATERIAL USED		
						9665-19982		FRAC W/ 26,410,660LBS TOTAL PROPPANT IN 593,758BBLs CLEAN FLUID		
28. PRODUCTION										
Date First Production 6/21/2021		Production Method (<i>Flowing, gas lift, pumping - Size and type pump</i>) GAS LIFT					Well Status (<i>Prod. or Shut-in</i>) PRODUCING			
Date of Test 6/21/2021	Hours Tested 24	Choke Size 36/64	Prod'n For Test Period	Oil - Bbl 799	Gas - MCF 1705	Water - Bbl. 5503	Gas - Oil Ratio 2133			
Flow Tubing Press. 581	Casing Pressure 1223	Calculated 24- Hour Rate	Oil - Bbl. 799	Gas - MCF 1705	Water - Bbl. 5503	Oil Gravity - API - (<i>Corr.</i>) 45.5				
29. Disposition of Gas (<i>Sold, used for fuel, vented, etc.</i>) SOLD								30. Test Witnessed By		
31. List Attachments COMPLETION PACKET										
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

Printed Name: Danielle D. Walkup

Signature 

Title Regulatory Coord.

Date: 3/14/2022

E-mail Address: d.d.walkup@conocophillips.com

INSTRUCTIONS

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.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico			Northwestern New Mexico	
T. Rustler	541	T. Canyon	T. Ojo Alamo	T. Penn A"
T. Salt	928	T. Strawn	T. Kirtland	T. Penn. "B"
B. Salt	2289	T. Atoka	T. Fruitland	T. Penn. "C"
T. Lamar	2483	T. Miss	T. Pictured Cliffs	T. Penn. "D"
T. Bell Canyon	2521	T. Devonian	T. Cliff House	T. Leadville
T. Cherry Canyon	3333	T. Silurian	T. Menefee	T. Madison
T. Brushy Canyon	4495	T. Montoya	T. Point Lookout	T. Elbert
T. Bone Spring Lime	6027	T. Simpson	T. Mancos	T. McCracken
T. First Bone Spring	7004	T. McKee	T. Gallup	T. Ignacio Otzte
T. 2 nd Bone Spring	7822	T. Ellenburger	Base Greenhorn	T. Granite
T. 3 rd Bone Spring	8914	T. Gr. Wash	T. Dakota	
T. Wolfcamp	9335	T. Delaware Sand	T. Morrison	
		T. Bone Springs	T. Todilto	
		T.	T. Entrada	
		T.	T. Wingate	
		T.	T. Chinle	
		T.	T. Permian	

OIL OR GAS SANDS OR ZONES

No. 1, from.....to.....

No. 3, from.....to.....

No. 2, from.....to.....

No. 4, from.....to.....

IMPORTANT WATER SANDS

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.....

LITHOLOGY RECORD (Attach additional sheet if necessary)

From	To	Thickness In Feet	Lithology	From	To	Thickness In Feet	Lithology
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U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Well Completion Print Report

03/17/2022

Operator Name COG OPERATING LLC	Well Name TOMAHAWK WC UNIT	Well Number 704H	US Well Number 3001547308
SHL SESW Sec 20 24S 28E	County EDDY	State NM	Lease Number(s) NMNM102909
Well Type OIL WELL	Well Status Drilling Well	Agreement Name	Agreement Number(s)
Allottee/Tribe Name	Well Pad Name Tomahawk Federal Unit	Well Pad Number 703H, 704H and 705H	ID 10400055548

Section 1 - General

Well Completion Report Id: 78131 **Submission Date:** N/A until DB Work

BLM Office: Carlsbad Field Office **User:** DANIELLE D WALKUP **Title:** Regulatory Technician

Federal/Indian: FEDERAL **Lease Number:** NMNM102909 **Lease Acres:**

Agreement in place?: NO **Federal or Indian Agreement:**

Agreement Number: **Agreement Name:**

Keep this Well Completion Report confidential?: YES

APD Operator: COG OPERATING LLC

Section 2 - Well Information

Field/Pool or Exploratory: Field/Pool **Pool Name:** PURPLE SAGE WOLFCAMP **Field Name:** Malaga

Well Type: OIL WELL

Spud Date: 08-02-2020

Date Total Measured Depth Reached: 08-29-2021

Drill & Abandon or Ready To Produce: READY TO PRODUCE

Well Class: HORIZONTAL

Section 3 - Geologic Formations

Formation Name	Lithology	Describe Lithology	Elevation	TVD	MD	Mineral Resources	Describe Mineral Resources
QUATERNARY	ALLUVIUM		3047	0	0	NONE	
RUSTLER	ANHYDRITE		2642	551	551	USEABLE WATER	

Operator Name COG OPERATING LLC	Well Name TOMAHAWK WC UNIT	Well Number 704H	US Well Number 3001547308
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Section 3 - Geologic Formations

Formation Name	Lithology	Describe Lithology	Elevation	TVD	MD	Mineral Resources	Describe Mineral Resources
TOP SALT	SALT		2116	928	928	NONE	
BASE OF SALT	SALT		765	2288	2289	NONE	
LAMAR	LIMESTONE		558	2482	2483	NONE	
BELL CANYON	SANDSTONE		522	2520	2521	NONE	
CHERRY CANYON	SANDSTONE		-1484	3331	3333	NATURAL GAS, OIL	
BRUSHY CANYON	SANDSTONE		-1457	4494	4495	NATURAL GAS, OIL	
BONE SPRING LIME	LIMESTONE		-2974	6025	6027	NATURAL GAS, OIL	
BONE SPRING 1ST	SANDSTONE		-3932	7001	7004	NATURAL GAS, OIL	
BONE SPRING 2ND	SANDSTONE		-4676	7820	7822	NATURAL GAS, OIL	
BONE SPRING 3RD	SANDSTONE		-5852	8911	8914	NATURAL GAS, OIL	
WOLFCAMP	SHALE		-6276	9265	9335	NATURAL GAS, OIL	

Completion and Completed Intervals

Operator Name COG OPERATING LLC	Well Name TOMAHAWK WC UNIT	Well Number 704H	US Well Number 3001547308
SHL SESW Sec 20 24S 28E	County EDDY	State NM	Lease Number(s) NMNM102909
Well Type OIL WELL	Well Status Drilling Well	Agreement Name	Agreement Number(s)
Allottee/Tribe Name	Well Pad Name Tomahawk Federal Unit	Well Pad Number 703H, 704H and 705H	ID 10400055548

Completion Data

Wellbore Code	Completion Code	Interval Number	Case Number	Lease Number	Well Completion Type	Describe Well Completion Type	Completion Status	Date Completed	Date First Produced	Formation	Interval Top (MD)	Interval Bottom (MD)	Interval Perforated?	Perforation Size	Number of Holes	Status of Interval
00	S1	1	NMNM102909	NMNM102909	NEW		DRG	06-21-2021	06-21-2021	WOLFCA MP	9665	19982	Y	.43	1008	OPEN

Treatment Data

Wellbore Code	Completion Code	Interval Number	Interval Treated?	Treatment Type	Totle Fluid (bbls)	Total Proppant (lbs)	Treatment Remarks
00	S1	1	Y	FRAC	593758	26410660	

Production Data

Wellbore Code	Completion Code	Interval Number	API Oil Gravity	Gas Gravity	Production Method	Describe Production	Disposition of Gas	Describe Disposition
00	S1	1	45.5		GAS LIFT		SOLD	

Test Data

Wellbore Code	Completion Code	Interval Number	Test Date	Hours Tested	24-Hour Rate Oil (bbls)	24-Hour Rate Gas (MCF)	24-Hour Rate Water(BWPD)	Gas-Oil Ratio (SCF/Bbl)	Choke Size	Tubing Pressure	Tubing Pressure Shut-In (psi)	Casing Pressure (psi)

Operator Name COG OPERATING LLC	Well Name TOMAHAWK WC UNIT	Well Number 704H	US Well Number 3001547308
SHL SESW Sec 20 24S 28E	County EDDY	State NM	Lease Number(s) NMNM102909
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Allottee/Tribe Name	Well Pad Name Tomahawk Federal Unit	Well Pad Number 703H, 704H and 705H	ID 10400055548

Test Data

Wellbore Code	Completion Code	Interval Number	Test Date	Hours Tested	24-Hour Rate Oil (bbls)	24-Hour Rate Gas (MCF)	24-Hour Rate Water(BWPD)	Gas-Oil Ratio (SCF/Bbl)	Choke Size	Tubing Pressure	Tubing Pressure Shut-In (psi)	Casing Pressure (psi)
00	S1	1	06/20/2021	24	799	1705	5503	2133	36/64	581		1223

Well Location

Survey Type: RECTANGULAR

Survey Number:

Datum: NAD83

Vertical Datum: NAVD88

Reference Datum: GL

State	Meridian	County	Latitude	Longitude	Elevation (MSL)	Lease Type	Lease Number	Plug TVD (ft)	Plug MID (ft)	Plug Type	NS-Foot	NS-Indicator	EW-Foot	EW-Indicator	Township	Range	Section	Aliquot/Lot/Tract
SHL	NEW MEXICO	NEW MEXICO PRINCIPAL	EDDY	32.197325	-104.112988	3047	FEE	FEE			500	FSL	1618	FWL	24S	28E	20	SESW
KOP Wellbore 00	NEW MEXICO	NEW MEXICO PRINCIPAL	EDDY	32.197325	-104.112988	-5832	FEE	FEE			480	FSL	1575	FWL	24S	28E	20	SESW
PPP Wellbore 00	NEW MEXICO	NEW MEXICO PRINCIPAL	EDDY	32.177553	-104.112984	-6305	FEDERAL	NMNM102909			32	FNL	1630	FWL	24S	28E	32	SENW
PPP Wellbore 00	NEW MEXICO	NEW MEXICO PRINCIPAL	EDDY	32.184913	-104.112983	-6343	FEDERAL	NMNM110829			1319	FSL	1618	FWL	24S	28E	29	SESW
PPP Wellbore 00	NEW MEXICO	NEW MEXICO PRINCIPAL	EDDY	32.195923	-104.11298	-6305	FEE	FEE			32	FNL	1630	FWL	24S	28E	29	NENW

Operator Name COG OPERATING LLC	Well Name TOMAHAWK WC UNIT	Well Number 704H	US Well Number 3001547308
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	State	Meridian	County	Latitude	Longitude	Elevation (MSL)	Lease Type	Lease Number	Plug TVD (ft)	Plug MID (ft)	Plug Type	NS-Foot	NS-Indicator	EW-Foot	EW-Indicator	Township	Range	Section	Aliquot/Lot/Tract
PPP Well bore 00	NEW MEXICO	NEW MEXICO PRINCIPAL	EDDY	32.188592	-104.112982	-6340	FEDERAL	NMNM 92757				2639	FSL	1618	FWL	24S	28E	29	NESW
EXIT Well bore 00	NEW MEXICO	NEW MEXICO PRINCIPAL	EDDY	32.167425	-104.112986	-6333	STATE	STATE				367	FNL	1623	FWL	24S	28E	29	sesw
BHL Well bore 00	NEW MEXICO	NEW MEXICO PRINCIPAL	EDDY	32.167067	-104.112986	-6336	STATE	STATE				202	FSL	1624	FWL	24S	28E	29	SESW

Casing, Liner and Tubing

Casing and Liner

Wellbore Code	Casing String Type	Hole Size	Top Setting Depth (MD)	Bottom Setting Depth (MD)	Casing Size	Wt(lbs/ft)	Casing Grade	Describe Other Casing Grade	Joint	Other Joint	Amount Pulled (ft)
00	SURFACE	14.75	0	850	10.75	45.5	J-55		ST&C		
00	INTERMEDIATE	9.875	0	8815	7.625	29.7	HCL-80		OTHER	BTC	

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Casing and Liner

Wellbore Code	Casing String Type	Hole Size	Top Setting Depth (MD)	Bottom Setting Depth (MD)	Casing Size	Wt(lbs/ft)	Casing Grade	Describe Other Casing Grade	Joint	Other Joint	Amount Pulled (ft)
00	PRODUCT ION	6.75	0	20148	5.5	20	P-110		OTHER	SF Torq	

Cementing

Wellbore Code	Casing String Type	Stage Tool Depth	Cement Lead Type	Cement Lead Qty (sks)	Cement Lead Yield (cu.ft/sks)	Cement Lead Top (MD)	Cement Tail Type	Cement Tail Qty (sks)	Cement Tail Yield(cu.ft/sks)	Cement Tail Top (MD)	Total (Lead + Tail) Cement Slurry Volume (bbls)
00	SURFACE		Class C +4% Gel	900	1.75	0	Class C + 2% CaCl2	200	1.34		328.2
00	INTERMEDIATE		NeoCem	850	2.8	0	Class H	200	1.1		463.1
00	PRODUCT ION		Lead: 35:65:6 H Blend	460	2.17	8570	Tail: 50:50:2 Class H	840	1.4	20125	387.2

Tubing

Wellbore Code	Tubing Size	Describe Other	Tubing Setting Depth (MD/ft)	Packer Depth (MD/ft)	Tubing Weight	Tubing Grade	Describe Other	Tubing Coupling	Describe Other
00	2.875		9480		6	L-80			

Logs

Wellbore Code	Log Upload	Was Well Cored?	Was DST Run?	Directional Survey?	Geologic Report Completed?	Wellbore Diagram

Operator Name COG OPERATING LLC	Well Name TOMAHAWK WC UNIT	Well Number 704H	US Well Number 3001547308
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Allottee/Tribe Name	Well Pad Name Tomahawk Federal Unit	Well Pad Number 703H, 704H and 705H	ID 10400055548

Logs

Wellbore Code	Log Upload	Was Well Cored?	Was DST Run?	Directional Survey?	Geologic Report Completed?	Wellbore Diagram
00	YES	NO	NO	YES	NO	YES

Operator Certification

I hereby certify that the foregoing and attached information is complete and correct as determined from all available records. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Well Completion Reports through this system satisfies regulations requiring a submission of Form 3160-4 or a Well Completion Report.

Name: COG OPERATING LLC

Signed By: DANIELLE D WALKUP

Title: Regulatory Technician

Signed on: 03/17/2022

Street Address: 600 W. ILLINOIS

City: MIDLAND

State: TX

Zip: 79701

Phone: (432)253-9685

Email address: D.D.WALKUP@CONOCOPHILLIPS.COM

Field Representative

Representative Name:

Street Address:

City:

State:

Zip:

Phone:

Extension:

Email address:

Attachments

Operator Name COG OPERATING LLC	Well Name TOMAHAWK WC UNIT	Well Number 704H	US Well Number 3001547308
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300154730800_TOMAHAWK_FEDERAL_UNIT_704H_CNL_20220310151505.pdf

Tomahawk_WC_Unit_704H_WBD_20220310151517.pdf

TOMAHAWK_FEDERAL_UNIT_704H_FINAL_SVY_RPT_20220314092314.pdf

TOMAHAWK_WC_UNIT_704H_ASDRILLED_C102_NAD_83_20220314092339.pdf



CURRENT WELL SKETCH

API: 30-015-47308
SPUD: 8/2/2020
FRR: 8/31/2020
RIG: Mc Vay 8

Tomahawk WC Unit 704H
Purple Sage; Wolfcamp
Eddy County

Sec 20 T/B 24S R/Svy 28E
SHL: 500' FSL & 1,618' FWL
BHL: 202' FSL & 1,624' FWL (est.)
Sec 32 T/B 24S R/Svy 28E
GL: 3,047'
KB: 3,071'
ZERO: 24'

HOLE SIZE	MW	BHST	Evaluation
14.75"	8.4 (ppg)		No Logs
9.875" x 8.750"	9.1 (ppg)		No Logs
6.75"	11.5 (ppg)	155°F (est.)	Mud and Cased-Hole logs

Surface Casing @ 840'
10.75" 45.5 ppf J55 BTC
Circulated 346 sx cement

Intermediate Casing @ 8,800'
7.625" 29.7 ppf L80 EHC BTC
7.625" 29.7 ppf P110 CY TLFJ
Circulated: 324 sx cement

Surface - 5,939'
5,939' - 8,800'

KOP @ 8,882'
EOC @ 9,643'
EOL @ 20,128'
TD @ 20,148'

Average TVD in Lateral 9,374'

Notes: Wet Shoe

Production Casing @ 20,128'
5.5" 20 ppf P110 RY CDCHTQ
5.5" 20 ppf RYS 110 Eagle SFH
PBTD (LC) 20,080'
MJ: 8,570'
Floation Collar: 8,591'
Circulated: 111 sx cement

Surface - 8,593'
8,593' - 20,128'

Updated by P. Herring
Date: 11/19/2020

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/oed/contact-us>

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

ACKNOWLEDGMENTS

Action 139588

ACKNOWLEDGMENTS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 139588
	Action Type: [C-104] Completion Packet (C-104C)

ACKNOWLEDGMENTS

☒	I hereby certify that the required Water Use Report has been, or will be, submitted for this wells completion.
☒	I hereby certify that the required FracFocus disclosure has been, or will be, submitted for this wells completion.

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

CONDITIONS

Action 139588

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 139588
	Action Type: [C-104] Completion Packet (C-104C)

CONDITIONS

Created By	Condition	Condition Date
crystal.walker	None	10/29/2025