

Submit 1 Copy To Appropriate District
Office
District I – (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II – (575) 748-1283
811 S. First St., Artesia, NM 88210
District III – (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV – (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM
87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
Revised July 18, 2013

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.) 1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐		WELL API NO. 30-025-47190
2. Name of Operator Kaiser-Francis Oil Company		5. Indicate Type of Lease STATE ☐ FEE ☐ FED ☐
3. Address of Operator P.O. Box 21468, Tulsa, OK 74121		6. State Oil & Gas Lease No.
4. Well Location Unit Letter <u>B</u> : <u>250</u> feet from the <u>North</u> line and <u>2,570</u> feet from the <u>East</u> line Section <u>31</u> Township <u>25S</u> Range <u>33E</u> NMPM County <u>Lea</u>		7. Lease Name or Unit Agreement Name Red Hills Federal
		8. Well Number 604H
		9. OGRID Number 12361
		10. Pool name or Wildcat Upper Wolfcamp
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3,410.4' GR		

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐
 TEMPORARILY ABANDON ☐
 PULL OR ALTER CASING ☐
 DOWNHOLE COMMINGLE ☐
 CLOSED-LOOP SYSTEM ☐

PLUG AND ABANDON ☐
 CHANGE PLANS ☐
 MULTIPLE COMPL ☐

OTHER:

FIELD/ POOL CHANGE

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐
 COMMENCE DRILLING OPNS. ☐
 CASING/CEMENT JOB ☐

ALTERING CASING ☐
 P AND A ☐

☒ OTHER:

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Kaiser-Francis Oil Company respectfully requests to change the field/pool for the Red Hills 602H.

Original field/pool: [97994] WC-025 G-06 S253329D; UPR BONE SPRIN
 Requested field/pool: [98158] WC-025 G-09 S253236A; UPR WOLFCAMP

Spud Date:

3/6/21

Rig Release Date:

4/4/21

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE

Christina Opfer

TITLE Regulatory Manager

DATE 8/3/2022

Type or print name

Christina Opfer

E-mail address ChristinaO@kfoc.net

PHONE 918-491-4468

For State Use Only

APPROVED BY: _____ TITLE _____ DATE _____

Conditions of Approval (if any):

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 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

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

☒ AMENDED REPORT
As-Drilled

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-47190	² Pool Code 98158	³ Pool Name Wildcat Upper Wolfcamp Oil Pool
⁴ Property Code 5467	⁵ Property Name RED HILLS FEDERAL	
⁷ OGRID No. 12361	⁸ Operator Name KAISER-FRANCIS OIL COMPANY	
	⁶ Well Number 604H	
	⁹ Elevation 3410.4	

¹⁰ Surface Location

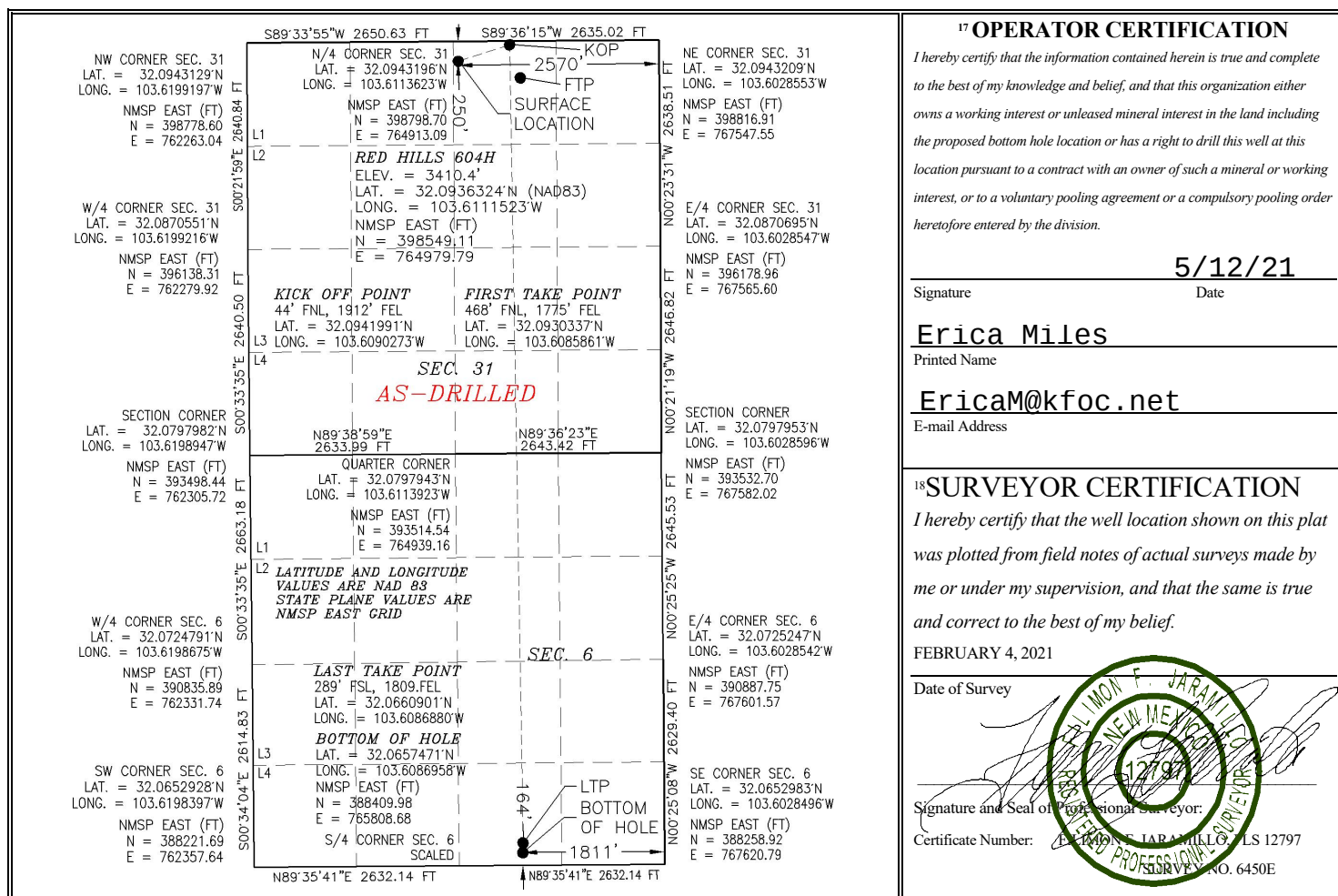
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	31	25 S	33 E		250	NORTH	2570	EAST	LEA

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
O	6	26 S	33 E		164	SOUTH	1811	EAST	LEA

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
640	-	-	R-21511

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.



Intent ☐ As Drilled ☒

API # 30-025-47190		
Operator Name: KAISER-FRANCIS OIL COMPANY	Property Name: RED HILLS FEDERAL	Well Number 604H

Kick Off Point (KOP)

UL B	Section 31	Township 25S	Range 33E	Lot	Feet 44	From N/S NORTH	Feet 1912	From E/W EAST	County LEA
Latitude 32.0941991					Longitude 103.6090273				NAD 83

First Take Point (FTP)

UL B	Section 31	Township 25S	Range 33E	Lot	Feet 468	From N/S NORTH	Feet 1775	From E/W EAST	County LEA
Latitude 32.0930337					Longitude 103.6085861				NAD 83

Last Take Point (LTP)

UL O	Section 6	Township 26S	Range 33E	Lot	Feet 289	From N/S SOUTH	Feet 1809	From E/W EAST	County LEA
Latitude 32.0660901					Longitude 103.6086880				NAD 83

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 # 30-025-45572		
Operator Name: Kaiser-Francis Oil Company	Property Name: Red Hills Federal	Well Number 401H

KZ 06/29/2018



KAISER FRANCIS OIL CO.

LEA COUNTY, N.M.

RED HILLS PAD 7

604H

HORIZONTAL

Survey: Survey #1

Standard Survey Report

08 August, 2020

Kaiser-Francis Oil Company



SB Directional Services

Survey Report

Kaiser-Francis Oil Company

Company:	KAISER FRANCIS OIL CO.	Local Co-ordinate Reference:	Well 604H
Project:	LEA COUNTY, N.M.	TVD Reference:	GE-KB @ 3433.00usft (CAC 166)
Site:	RED HILLS PAD 7	MD Reference:	GE-KB @ 3433.00usft (CAC 166)
Well:	604H	North Reference:	Grid
Wellbore:	HORIZONTAL	Survey Calculation Method:	Minimum Curvature
Design:	HORIZONTAL	Database:	EDM 5000.15 Single User Db

Project	LEA COUNTY, N.M.		
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	RED HILLS PAD 7		
Site Position:		Northing:	398,443.02 usft
From:	Map	Easting:	724,008.72 usft
Position Uncertainty:	0.00 usft	Slot Radius:	17-1/2 "
		Latitude:	32.09337
		Longitude:	-103.60999
		Grid Convergence:	0.38 °

Well	604H		
Well Position	+N/-S	0.00 usft	Northing: 398,491.46 usft
	+E/-W	0.00 usft	Easting: 723,793.40 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	3,410.40 usft
		Latitude:	32.09351
		Longitude:	-103.61068
		Ground Level:	3,410.40 usft

Wellbore	HORIZONTAL				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	07/20/20	6.66	59.81	47,506.73145227

Design	HORIZONTAL				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	180.00	

Survey Program	Date	08/08/20			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
181.00	23,096.00	Survey #1 (HORIZONTAL)	MWD	OWSG MWD - Standard	

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)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
RH SHL 604H										
181.00	0.62	334.73	181.00	0.89	-0.42	-0.89	0.34	0.34	0.00	
241.00	0.79	295.79	240.99	1.36	-0.93	-1.36	0.83	0.28	-64.90	
332.00	1.01	301.15	331.98	2.05	-2.18	-2.05	0.26	0.24	5.89	
423.00	0.48	309.15	422.97	2.70	-3.16	-2.70	0.59	-0.58	8.79	
515.00	1.05	344.04	514.96	3.76	-3.69	-3.76	0.77	0.62	37.92	
606.00	0.66	278.39	605.96	4.63	-4.44	-4.63	1.08	-0.43	-72.14	
697.00	0.31	282.34	696.95	4.76	-5.20	-4.76	0.39	-0.38	4.34	
787.00	0.44	265.03	786.95	4.79	-5.78	-4.79	0.19	0.14	-19.23	
887.00	0.84	245.34	886.94	4.45	-6.83	-4.45	0.45	0.40	-19.69	



SB Directional Services

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Kaiser-Francis Oil Company

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Site:	RED HILLS PAD 7	MD Reference:	GE-KB @ 3433.00usft (CAC 166)
Well:	604H	North Reference:	Grid
Wellbore:	HORIZONTAL	Survey Calculation Method:	Minimum Curvature
Design:	HORIZONTAL	Database:	EDM 5000.15 Single User Db

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)
960.00	1.14	284.72	959.93	4.41	-8.02	-4.41	0.99	0.41	53.95
1,062.00	1.93	285.33	1,061.90	5.12	-10.66	-5.12	0.77	0.77	0.60
1,122.00	1.71	273.82	1,121.87	5.45	-12.52	-5.45	0.71	-0.37	-19.18
1,182.00	1.45	268.19	1,181.84	5.48	-14.18	-5.48	0.50	-0.43	-9.38
1,244.00	0.88	244.11	1,243.83	5.25	-15.39	-5.25	1.19	-0.92	-38.84
1,304.00	0.22	163.08	1,303.83	4.94	-15.77	-4.94	1.46	-1.10	-135.05
1,364.00	0.44	122.03	1,363.83	4.71	-15.54	-4.71	0.52	0.37	-68.42
1,424.00	0.53	113.16	1,423.83	4.47	-15.09	-4.47	0.19	0.15	-14.78
1,485.00	0.44	148.57	1,484.82	4.16	-14.71	-4.16	0.50	-0.15	58.05
1,516.00	0.44	147.78	1,515.82	3.96	-14.58	-3.96	0.02	0.00	-2.55
1,613.00	0.62	142.51	1,612.82	3.23	-14.07	-3.23	0.19	0.19	-5.43
1,708.00	0.35	136.71	1,707.82	2.61	-13.55	-2.61	0.29	-0.28	-6.11
1,803.00	0.57	145.59	1,802.81	2.01	-13.09	-2.01	0.24	0.23	9.35
1,898.00	0.48	156.40	1,897.81	1.26	-12.66	-1.26	0.14	-0.09	11.38
1,993.00	0.70	122.82	1,992.80	0.58	-12.01	-0.58	0.42	0.23	-35.35
2,088.00	0.84	135.13	2,087.79	-0.23	-11.04	0.23	0.23	0.15	12.96
2,183.00	0.79	111.22	2,182.79	-0.96	-9.93	0.96	0.36	-0.05	-25.17
2,278.00	1.01	112.36	2,277.77	-1.52	-8.55	1.52	0.23	0.23	1.20
2,373.00	2.07	99.62	2,372.74	-2.12	-6.08	2.12	1.17	1.12	-13.41
2,468.00	2.29	98.83	2,467.67	-2.70	-2.52	2.70	0.23	0.23	-0.83
2,562.00	3.25	64.64	2,561.56	-1.85	1.75	1.85	1.99	1.02	-36.37
2,657.00	5.05	64.55	2,656.31	1.10	7.96	-1.10	1.89	1.89	-0.09
2,752.00	5.63	65.34	2,750.90	4.84	15.97	-4.84	0.62	0.61	0.83
2,848.00	5.54	61.65	2,846.44	9.01	24.33	-9.01	0.39	-0.09	-3.84
2,942.00	6.42	62.00	2,939.93	13.63	32.96	-13.63	0.94	0.94	0.37
3,038.00	8.22	70.53	3,035.15	18.44	44.17	-18.44	2.19	1.88	8.89
3,133.00	8.18	71.85	3,129.18	22.81	56.99	-22.81	0.20	-0.04	1.39
3,228.00	8.13	69.47	3,223.22	27.27	69.71	-27.27	0.36	-0.05	-2.51
3,323.00	7.82	68.51	3,317.30	31.99	82.01	-31.99	0.36	-0.33	-1.01
3,418.00	8.26	66.75	3,411.36	37.05	94.30	-37.05	0.53	0.46	-1.85
3,513.00	7.69	67.45	3,505.44	42.18	106.44	-42.18	0.61	-0.60	0.74
3,608.00	6.29	68.33	3,599.74	46.54	117.14	-46.54	1.48	-1.47	0.93
3,703.00	6.33	70.70	3,694.16	50.20	126.92	-50.20	0.28	0.04	2.49
3,798.00	6.33	67.10	3,788.58	53.96	136.69	-53.96	0.42	0.00	-3.79
3,893.00	6.55	65.87	3,882.98	58.22	146.46	-58.22	0.27	0.23	-1.29
3,988.00	6.68	64.73	3,977.35	62.79	156.40	-62.79	0.19	0.14	-1.20
4,083.00	6.15	66.75	4,071.75	67.16	166.07	-67.16	0.61	-0.56	2.13
4,178.00	6.24	67.63	4,166.20	71.13	175.52	-71.13	0.14	0.09	0.93
4,273.00	5.98	67.89	4,260.66	74.96	184.88	-74.96	0.28	-0.27	0.27
4,368.00	7.25	58.22	4,355.03	79.98	194.56	-79.98	1.77	1.34	-10.18
4,463.00	6.81	60.42	4,449.31	85.92	204.56	-85.92	0.54	-0.46	2.32
4,558.00	6.46	73.34	4,543.68	90.23	214.58	-90.23	1.61	-0.37	13.60
4,653.00	7.82	70.62	4,637.94	93.91	225.79	-93.91	1.47	1.43	-2.86



SB Directional Services

Survey Report

Kaiser-Francis Oil Company

Company:	KAISER FRANCIS OIL CO.	Local Co-ordinate Reference:	Well 604H
Project:	LEA COUNTY, N.M.	TVD Reference:	GE-KB @ 3433.00usft (CAC 166)
Site:	RED HILLS PAD 7	MD Reference:	GE-KB @ 3433.00usft (CAC 166)
Well:	604H	North Reference:	Grid
Wellbore:	HORIZONTAL	Survey Calculation Method:	Minimum Curvature
Design:	HORIZONTAL	Database:	EDM 5000.15 Single User Db

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)
4,748.00	9.01	65.78	4,731.92	99.10	238.67	-99.10	1.46	1.25	-5.09
4,843.00	7.91	65.43	4,825.89	104.87	251.40	-104.87	1.16	-1.16	-0.37
4,938.00	7.43	64.64	4,920.04	110.22	262.90	-110.22	0.52	-0.51	-0.83
4,974.00	7.16	65.25	4,955.74	112.16	267.04	-112.16	0.78	-0.75	1.69
5,024.00	6.99	67.19	5,005.36	114.64	272.67	-114.64	0.59	-0.34	3.88
5,119.00	7.87	63.15	5,099.57	119.82	283.81	-119.82	1.08	0.93	-4.25
5,214.00	8.44	59.37	5,193.61	126.31	295.61	-126.31	0.82	0.60	-3.98
5,309.00	10.95	64.73	5,287.24	133.72	309.77	-133.72	2.80	2.64	5.64
5,404.00	11.60	64.29	5,380.41	141.71	326.53	-141.71	0.69	0.68	-0.46
5,499.00	11.91	71.67	5,473.42	148.94	344.45	-148.94	1.61	0.33	7.77
5,594.00	11.38	69.82	5,566.47	155.25	362.55	-155.25	0.68	-0.56	-1.95
5,689.00	11.38	68.42	5,659.60	161.94	380.06	-161.94	0.29	0.00	-1.47
5,784.00	11.16	67.63	5,752.77	168.88	397.28	-168.88	0.28	-0.23	-0.83
5,879.00	10.33	65.61	5,846.10	175.90	413.54	-175.90	0.96	-0.87	-2.13
5,974.00	9.67	65.96	5,939.66	182.67	428.58	-182.67	0.70	-0.69	0.37
6,069.00	10.42	67.45	6,033.20	189.21	443.80	-189.21	0.84	0.79	1.57
6,164.00	10.24	68.07	6,126.66	195.66	459.57	-195.66	0.22	-0.19	0.65
6,259.00	10.24	71.06	6,220.15	201.55	475.39	-201.55	0.56	0.00	3.15
6,354.00	10.07	75.19	6,313.66	206.42	491.41	-206.42	0.79	-0.18	4.35
6,449.00	9.49	83.18	6,407.28	209.47	507.21	-209.47	1.55	-0.61	8.41
6,544.00	9.49	81.51	6,500.98	211.56	522.74	-211.56	0.29	0.00	-1.76
6,639.00	8.92	81.43	6,594.76	213.81	537.76	-213.81	0.60	-0.60	-0.08
6,735.00	8.40	79.93	6,689.67	216.15	552.03	-216.15	0.59	-0.54	-1.56
6,830.00	8.04	78.61	6,783.69	218.67	565.37	-218.67	0.43	-0.38	-1.39
6,925.00	7.30	80.55	6,877.84	220.97	577.84	-220.97	0.83	-0.78	2.04
7,020.00	6.95	80.46	6,972.11	222.92	589.46	-222.92	0.37	-0.37	-0.09
7,115.00	6.55	78.44	7,066.45	224.96	600.44	-224.96	0.49	-0.42	-2.13
7,210.00	5.54	87.58	7,160.92	226.24	610.33	-226.24	1.47	-1.06	9.62
7,305.00	5.23	90.39	7,255.50	226.40	619.24	-226.40	0.43	-0.33	2.96
7,400.00	3.43	90.04	7,350.23	226.37	626.41	-226.37	1.89	-1.89	-0.37
7,495.00	2.55	81.60	7,445.10	226.67	631.35	-226.67	1.03	-0.93	-8.88
7,590.00	2.51	86.00	7,540.00	227.13	635.51	-227.13	0.21	-0.04	4.63
7,685.00	1.32	94.70	7,634.95	227.18	638.68	-227.18	1.29	-1.25	9.16
7,780.00	0.84	109.38	7,729.93	226.86	640.42	-226.86	0.58	-0.51	15.45
7,875.00	0.79	107.62	7,824.92	226.43	641.71	-226.43	0.06	-0.05	-1.85
7,970.00	1.05	111.84	7,919.91	225.91	643.14	-225.91	0.28	0.27	4.44
7,971.14	1.05	111.84	7,921.05	225.90	643.16	-225.90	0.00	0.00	0.00
RH 604 VP									
8,065.00	0.97	116.58	8,014.90	225.23	644.66	-225.23	0.12	-0.09	5.05
8,160.00	1.01	130.29	8,109.88	224.33	646.02	-224.33	0.25	0.04	14.43
8,255.00	1.05	125.46	8,204.87	223.28	647.37	-223.28	0.10	0.04	-5.08
8,350.00	1.19	141.63	8,299.85	222.00	648.69	-222.00	0.36	0.15	17.02
8,445.00	1.01	138.20	8,394.83	220.60	649.86	-220.60	0.20	-0.19	-3.61



SB Directional Services

Survey Report

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Design:	HORIZONTAL	Database:	EDM 5000.15 Single User Db

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)
8,540.00	1.19	147.08	8,489.81	219.15	650.96	-219.15	0.26	0.19	9.35
8,635.00	1.41	149.72	8,584.79	217.31	652.08	-217.31	0.24	0.23	2.78
8,730.00	1.19	150.42	8,679.76	215.45	653.16	-215.45	0.23	-0.23	0.74
8,825.00	1.23	143.65	8,774.74	213.77	654.25	-213.77	0.16	0.04	-7.13
8,920.00	1.10	152.53	8,869.72	212.14	655.27	-212.14	0.23	-0.14	9.35
9,015.00	0.79	143.21	8,964.71	210.80	656.09	-210.80	0.36	-0.33	-9.81
9,110.00	0.92	154.11	9,059.70	209.59	656.81	-209.59	0.22	0.14	11.47
9,205.00	0.75	154.90	9,154.69	208.34	657.41	-208.34	0.18	-0.18	0.83
9,300.00	0.66	150.77	9,249.68	207.30	657.94	-207.30	0.11	-0.09	-4.35
9,395.00	0.18	329.10	9,344.68	206.95	658.13	-206.95	0.88	-0.51	187.72
9,490.00	0.57	298.60	9,439.68	207.31	657.64	-207.31	0.45	0.41	-32.11
9,585.00	0.88	311.96	9,534.67	208.02	656.68	-208.02	0.37	0.33	14.06
9,680.00	1.67	337.28	9,629.65	209.79	655.60	-209.79	1.00	0.83	26.65
9,775.00	1.23	341.93	9,724.62	212.03	654.75	-212.03	0.48	-0.46	4.89
9,870.00	1.05	308.54	9,819.60	213.55	653.76	-213.55	0.71	-0.19	-35.15
9,966.00	1.45	266.70	9,915.58	214.02	651.86	-214.02	1.01	0.42	-43.58
10,061.00	1.49	249.82	10,010.55	213.53	649.50	-213.53	0.46	0.04	-17.77
10,155.00	1.67	252.90	10,104.51	212.70	647.04	-212.70	0.21	0.19	3.28
10,250.00	1.32	266.17	10,199.48	212.22	644.63	-212.22	0.52	-0.37	13.97
10,345.00	1.14	297.46	10,294.46	212.59	642.69	-212.59	0.72	-0.19	32.94
10,440.00	0.26	295.97	10,389.45	213.12	641.66	-213.12	0.93	-0.93	-1.57
10,535.00	0.22	94.61	10,484.45	213.20	641.65	-213.20	0.50	-0.04	166.99
10,630.00	0.40	109.73	10,579.45	213.07	642.14	-213.07	0.21	0.19	15.92
10,725.00	0.79	65.61	10,674.44	213.23	643.05	-213.23	0.61	0.41	-46.44
10,821.00	1.19	44.69	10,770.43	214.21	644.36	-214.21	0.56	0.42	-21.79
10,916.00	2.42	350.20	10,865.39	216.89	644.71	-216.89	2.09	1.29	-57.36
11,011.00	0.53	45.30	10,960.35	219.17	644.68	-219.17	2.27	-1.99	58.00
11,106.00	1.01	134.16	11,055.35	218.90	645.59	-218.90	1.19	0.51	93.54
11,201.00	1.27	301.86	11,150.34	218.87	645.30	-218.87	2.39	0.27	176.53
11,296.00	1.14	222.84	11,245.33	218.74	643.76	-218.74	1.62	-0.14	-83.18
11,391.00	1.41	207.37	11,340.30	217.00	642.58	-217.00	0.46	0.28	-16.28
11,486.00	1.23	179.60	11,435.28	214.95	642.05	-214.95	0.69	-0.19	-29.23
11,581.00	0.48	54.80	11,530.27	214.16	642.38	-214.16	1.64	-0.79	-131.37
11,676.00	2.29	38.01	11,625.24	215.88	643.88	-215.88	1.93	1.91	-17.67
11,755.00	2.33	33.26	11,704.18	218.47	645.73	-218.47	0.25	0.05	-6.01
11,844.00	1.49	67.89	11,793.13	220.42	647.80	-220.42	1.56	-0.94	38.91
11,939.00	1.54	87.32	11,888.09	220.94	650.22	-220.94	0.54	0.05	20.45
12,034.00	1.45	102.08	11,983.06	220.75	652.67	-220.75	0.42	-0.09	15.54
12,129.00	1.80	109.64	12,078.02	220.00	655.25	-220.00	0.43	0.37	7.96
12,224.00	2.11	172.13	12,172.98	217.76	656.89	-217.76	2.15	0.33	65.78
12,319.00	6.59	182.50	12,267.68	210.58	656.89	-210.58	4.77	4.72	10.92
12,414.00	14.55	154.11	12,361.05	194.36	661.88	-194.36	9.77	8.38	-29.88
12,509.00	16.31	138.03	12,452.66	173.70	676.02	-173.70	4.85	1.85	-16.93
12,553.60	18.06	139.03	12,495.27	163.82	684.74	-163.82	3.98	3.92	2.25



SB Directional Services

Survey Report

Kaiser-Francis Oil Company

Company:	KAISER FRANCIS OIL CO.	Local Co-ordinate Reference:	Well 604H
Project:	LEA COUNTY, N.M.	TVD Reference:	GE-KB @ 3433.00usft (CAC 166)
Site:	RED HILLS PAD 7	MD Reference:	GE-KB @ 3433.00usft (CAC 166)
Well:	604H	North Reference:	Grid
Wellbore:	HORIZONTAL	Survey Calculation Method:	Minimum Curvature
Design:	HORIZONTAL	Database:	EDM 5000.15 Single User Db

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)
RH 604 FTP									
12,604.00	20.04	139.96	12,542.91	151.31	695.41	-151.31	3.98	3.93	1.84
12,698.00	36.53	149.72	12,625.44	114.55	720.07	-114.55	18.17	17.54	10.38
12,793.00	50.15	158.24	12,694.43	55.94	748.00	-55.94	15.58	14.34	8.97
12,888.00	65.05	167.65	12,745.27	-20.56	770.89	20.56	17.75	15.68	9.91
12,983.00	79.87	172.22	12,773.84	-109.49	786.53	109.49	16.26	15.60	4.81
13,087.00	91.34	176.79	12,781.80	-212.52	796.41	212.52	11.86	11.03	4.39
13,182.00	92.79	176.88	12,778.37	-307.31	801.65	307.31	1.53	1.53	0.09
13,231.26	93.15	177.93	12,775.82	-356.45	803.88	356.45	2.25	0.74	2.13
RH 604 LP									
13,277.00	93.49	178.90	12,773.17	-402.09	805.14	402.09	2.25	0.74	2.13
13,372.00	93.67	178.72	12,767.24	-496.89	807.11	496.89	0.27	0.19	-0.19
13,467.00	94.68	179.42	12,760.32	-591.62	808.65	591.62	1.29	1.06	0.74
13,562.00	90.07	176.79	12,756.39	-686.45	811.79	686.45	5.59	-4.85	-2.77
13,657.00	90.33	178.55	12,756.05	-781.37	815.65	781.37	1.87	0.27	1.85
13,752.00	91.43	179.42	12,754.59	-876.34	817.33	876.34	1.48	1.16	0.92
13,847.00	92.31	181.62	12,751.49	-971.28	816.47	971.28	2.49	0.93	2.32
13,942.00	90.68	182.94	12,749.02	-1,066.17	812.69	1,066.17	2.21	-1.72	1.39
14,037.00	89.23	183.64	12,749.09	-1,161.01	807.24	1,161.01	1.69	-1.53	0.74
14,131.00	90.20	180.83	12,749.56	-1,254.93	803.58	1,254.93	3.16	1.03	-2.99
14,226.00	88.92	182.06	12,750.29	-1,349.89	801.18	1,349.89	1.87	-1.35	1.29
14,321.00	91.74	182.24	12,749.74	-1,444.81	797.62	1,444.81	2.97	2.97	0.19
14,416.00	91.82	183.47	12,746.79	-1,539.65	792.89	1,539.65	1.30	0.08	1.29
14,511.00	89.71	180.83	12,745.52	-1,634.56	789.33	1,634.56	3.56	-2.22	-2.78
14,606.00	88.35	179.95	12,747.13	-1,729.54	788.68	1,729.54	1.71	-1.43	-0.93
14,701.00	89.05	179.07	12,749.28	-1,824.51	789.49	1,824.51	1.18	0.74	-0.93
14,796.00	88.97	178.81	12,750.93	-1,919.48	791.25	1,919.48	0.29	-0.08	-0.27
14,891.00	85.23	174.68	12,755.73	-2,014.17	796.63	2,014.17	5.86	-3.94	-4.35
14,985.00	90.86	177.14	12,758.94	-2,107.83	803.32	2,107.83	6.54	5.99	2.62
15,079.00	89.89	173.54	12,758.32	-2,201.50	810.96	2,201.50	3.97	-1.03	-3.83
15,174.00	92.00	173.45	12,756.76	-2,295.87	821.72	2,295.87	2.22	2.22	-0.09
15,269.00	89.10	175.65	12,755.85	-2,390.42	830.74	2,390.42	3.83	-3.05	2.32
15,364.00	90.15	177.58	12,756.47	-2,485.24	836.35	2,485.24	2.31	1.11	2.03
15,459.00	87.69	180.57	12,758.26	-2,580.20	837.88	2,580.20	4.08	-2.59	3.15
15,554.00	88.18	183.38	12,761.68	-2,675.07	834.61	2,675.07	3.00	0.52	2.96
15,649.00	90.86	185.31	12,762.48	-2,769.78	827.41	2,769.78	3.48	2.82	2.03
15,744.00	91.30	188.39	12,760.69	-2,864.07	816.09	2,864.07	3.27	0.46	3.24
15,839.00	87.03	190.50	12,762.07	-2,957.75	800.50	2,957.75	5.01	-4.49	2.22
15,934.00	87.65	187.86	12,766.48	-3,051.42	785.37	3,051.42	2.85	0.65	-2.78
16,029.00	83.47	183.64	12,773.84	-3,145.62	775.87	3,145.62	6.24	-4.40	-4.44
16,124.00	84.48	180.39	12,783.81	-3,240.02	772.55	3,240.02	3.56	1.06	-3.42
16,219.00	88.04	175.21	12,790.01	-3,334.70	776.20	3,334.70	6.61	3.75	-5.45
16,314.00	97.85	176.96	12,785.14	-3,429.23	782.67	3,429.23	10.49	10.33	1.84



SB Directional Services

Survey Report

Kaiser-Francis Oil Company

Company:	KAISER FRANCIS OIL CO.	Local Co-ordinate Reference:	Well 604H
Project:	LEA COUNTY, N.M.	TVD Reference:	GE-KB @ 3433.00usft (CAC 166)
Site:	RED HILLS PAD 7	MD Reference:	GE-KB @ 3433.00usft (CAC 166)
Well:	604H	North Reference:	Grid
Wellbore:	HORIZONTAL	Survey Calculation Method:	Minimum Curvature
Design:	HORIZONTAL	Database:	EDM 5000.15 Single User Db

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)	
16,409.00	97.71	176.79	12,772.28	-3,523.22	787.81	3,523.22	0.23	-0.15	-0.18	
16,504.00	94.64	175.73	12,762.06	-3,617.45	793.97	3,617.45	3.42	-3.23	-1.12	
16,599.00	92.35	178.11	12,756.27	-3,712.13	799.06	3,712.13	3.47	-2.41	2.51	
16,694.00	91.78	172.66	12,752.84	-3,806.72	806.70	3,806.72	5.76	-0.60	-5.74	
16,789.00	88.79	170.81	12,752.37	-3,900.72	820.35	3,900.72	3.70	-3.15	-1.95	
16,884.00	92.44	176.17	12,751.35	-3,995.05	831.12	3,995.05	6.83	3.84	5.64	
16,979.00	97.41	179.16	12,743.19	-4,089.58	834.98	4,089.58	6.10	5.23	3.15	
17,074.00	90.29	177.40	12,736.82	-4,184.26	837.83	4,184.26	7.72	-7.49	-1.85	
17,169.00	90.29	179.42	12,736.34	-4,279.21	840.47	4,279.21	2.13	0.00	2.13	
17,264.00	88.09	181.36	12,737.68	-4,374.19	839.82	4,374.19	3.09	-2.32	2.04	
17,359.00	86.81	181.01	12,741.91	-4,469.08	837.86	4,469.08	1.40	-1.35	-0.37	
17,454.00	86.37	182.06	12,747.56	-4,563.87	835.32	4,563.87	1.20	-0.46	1.11	
17,538.00	88.97	182.76	12,750.97	-4,647.72	831.79	4,647.72	3.21	3.10	0.83	
17,642.00	91.08	182.50	12,750.93	-4,751.61	827.02	4,751.61	2.04	2.03	-0.25	
17,737.00	90.55	181.09	12,749.57	-4,846.55	824.04	4,846.55	1.59	-0.56	-1.48	
17,832.00	91.69	180.74	12,747.72	-4,941.51	822.52	4,941.51	1.26	1.20	-0.37	
17,927.00	90.77	179.78	12,745.68	-5,036.49	822.09	5,036.49	1.40	-0.97	-1.01	
18,022.00	90.46	180.66	12,744.66	-5,131.48	821.73	5,131.48	0.98	-0.33	0.93	
18,117.00	89.89	181.01	12,744.37	-5,226.47	820.34	5,226.47	0.70	-0.60	0.37	
18,212.00	88.79	181.62	12,745.46	-5,321.44	818.16	5,321.44	1.32	-1.16	0.64	
18,307.00	88.26	181.01	12,747.91	-5,416.38	815.98	5,416.38	0.85	-0.56	-0.64	
18,402.00	88.09	181.18	12,750.93	-5,511.32	814.17	5,511.32	0.25	-0.18	0.18	
18,497.00	88.88	180.39	12,753.45	-5,606.27	812.87	5,606.27	1.18	0.83	-0.83	
18,592.00	88.66	180.04	12,755.48	-5,701.25	812.51	5,701.25	0.44	-0.23	-0.37	
18,687.00	89.10	179.86	12,757.34	-5,796.23	812.59	5,796.23	0.50	0.46	-0.19	
18,782.00	88.88	178.72	12,759.02	-5,891.21	813.77	5,891.21	1.22	-0.23	-1.20	
18,877.00	90.07	178.90	12,759.89	-5,986.18	815.74	5,986.18	1.27	1.25	0.19	
18,972.00	89.76	178.72	12,760.03	-6,081.16	817.72	6,081.16	0.38	-0.33	-0.19	
19,067.00	90.81	178.19	12,759.56	-6,176.12	820.28	6,176.12	1.24	1.11	-0.56	
19,162.00	90.68	177.58	12,758.32	-6,271.05	823.78	6,271.05	0.66	-0.14	-0.64	
19,258.00	91.21	177.58	12,756.74	-6,366.95	827.84	6,366.95	0.55	0.55	0.00	
19,353.00	91.30	178.37	12,754.66	-6,461.87	831.19	6,461.87	0.84	0.09	0.83	
19,448.00	90.81	179.51	12,752.91	-6,556.83	832.95	6,556.83	1.31	-0.52	1.20	
19,543.00	92.66	179.69	12,750.03	-6,651.78	833.61	6,651.78	1.96	1.95	0.19	
19,638.00	92.18	182.41	12,746.02	-6,746.67	831.87	6,746.67	2.90	-0.51	2.86	
19,733.00	92.35	181.09	12,742.26	-6,841.55	828.98	6,841.55	1.40	0.18	-1.39	
19,828.00	90.99	179.42	12,739.50	-6,936.51	828.55	6,936.51	2.27	-1.43	-1.76	
19,923.00	91.25	177.32	12,737.64	-7,031.44	831.25	7,031.44	2.23	0.27	-2.21	
20,018.00	90.33	179.86	12,736.33	-7,126.40	833.59	7,126.40	2.84	-0.97	2.67	
20,113.00	90.42	179.25	12,735.71	-7,221.39	834.33	7,221.39	0.65	0.09	-0.64	
20,208.00	91.65	179.16	12,733.99	-7,316.37	835.65	7,316.37	1.30	1.29	-0.09	
20,303.00	90.20	177.75	12,732.46	-7,411.31	838.21	7,411.31	2.13	-1.53	-1.48	
20,398.00	91.56	177.05	12,731.00	-7,506.20	842.52	7,506.20	1.61	1.43	-0.74	
20,492.00	93.98	176.00	12,726.45	-7,599.91	848.21	7,599.91	2.81	2.57	-1.12	



SB Directional Services

Survey Report

Kaiser-Francis Oil Company

Company:	KAISER FRANCIS OIL CO.	Local Co-ordinate Reference:	Well 604H
Project:	LEA COUNTY, N.M.	TVD Reference:	GE-KB @ 3433.00usft (CAC 166)
Site:	RED HILLS PAD 7	MD Reference:	GE-KB @ 3433.00usft (CAC 166)
Well:	604H	North Reference:	Grid
Wellbore:	HORIZONTAL	Survey Calculation Method:	Minimum Curvature
Design:	HORIZONTAL	Database:	EDM 5000.15 Single User Db

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)
20,587.00	93.76	177.67	12,720.04	-7,694.55	853.44	7,694.55	1.77	-0.23	1.76
20,682.00	90.81	176.96	12,716.26	-7,789.36	857.89	7,789.36	3.19	-3.11	-0.75
20,777.00	90.59	178.81	12,715.09	-7,884.28	861.39	7,884.28	1.96	-0.23	1.95
20,872.00	91.30	182.15	12,713.53	-7,979.25	860.60	7,979.25	3.59	0.75	3.52
20,967.00	91.60	181.01	12,711.12	-8,074.18	857.98	8,074.18	1.24	0.32	-1.20
21,062.00	90.73	180.83	12,709.19	-8,169.15	856.45	8,169.15	0.94	-0.92	-0.19
21,157.00	90.11	181.45	12,708.50	-8,264.13	854.56	8,264.13	0.92	-0.65	0.65
21,252.00	90.11	180.74	12,708.31	-8,359.11	852.75	8,359.11	0.75	0.00	-0.75
21,347.00	88.92	178.37	12,709.12	-8,454.09	853.49	8,454.09	2.79	-1.25	-2.49
21,442.00	89.54	177.49	12,710.39	-8,549.02	856.92	8,549.02	1.13	0.65	-0.93
21,537.00	89.01	177.58	12,711.60	-8,643.93	861.00	8,643.93	0.57	-0.56	0.09
21,632.00	89.27	176.96	12,713.02	-8,738.81	865.53	8,738.81	0.71	0.27	-0.65
21,727.00	88.44	181.27	12,714.92	-8,833.75	866.99	8,833.75	4.62	-0.87	4.54
21,822.00	89.93	181.45	12,716.27	-8,928.71	864.74	8,928.71	1.58	1.57	0.19
21,917.00	88.70	179.34	12,717.41	-9,023.70	864.08	9,023.70	2.57	-1.29	-2.22
22,013.00	90.11	181.18	12,718.41	-9,119.68	863.65	9,119.68	2.41	1.47	1.92
22,108.00	88.62	177.58	12,719.46	-9,214.65	864.68	9,214.65	4.10	-1.57	-3.79
22,202.00	89.89	180.39	12,720.68	-9,308.62	866.34	9,308.62	3.28	1.35	2.99
22,297.00	91.25	184.08	12,719.74	-9,403.53	862.64	9,403.53	4.14	1.43	3.88
22,392.00	92.84	184.35	12,716.35	-9,498.20	855.66	9,498.20	1.70	1.67	0.28
22,488.00	90.90	184.43	12,713.21	-9,593.87	848.31	9,593.87	2.02	-2.02	0.08
22,583.00	91.12	183.91	12,711.54	-9,688.60	841.41	9,688.60	0.59	0.23	-0.55
22,678.00	91.60	182.59	12,709.28	-9,783.42	836.02	9,783.42	1.48	0.51	-1.39
22,773.00	90.73	181.09	12,707.35	-9,878.35	832.97	9,878.35	1.83	-0.92	-1.58
22,868.00	91.47	180.92	12,705.53	-9,973.31	831.31	9,973.31	0.80	0.78	-0.18
22,963.00	93.05	180.74	12,701.78	-10,068.23	829.93	10,068.23	1.67	1.66	-0.19
23,036.00	93.98	180.57	12,697.31	-10,141.08	829.10	10,141.08	1.30	1.27	-0.23
LS 23036.00' MD & 12697.31' TVD									
23,094.69	93.98	180.57	12,693.23	-10,199.63	828.52	10,199.63	0.00	0.00	0.00
RH 604 BHL									
23,096.00	93.98	180.57	12,693.14	-10,200.94	828.50	10,200.94	0.00	0.00	0.00
PTB 23096.00' MD & 12693.14' TVD									

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
23,036.00	12,697.31	-10,141.08	829.10	LS 23036.00' MD & 12697.31' TVD
23,096.00	12,693.14	-10,200.94	828.50	PTB 23096.00' MD & 12693.14' TVD

Checked By: _____ Approved By: _____ Date: _____

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1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 131315

CONDITIONS

Operator: KAISER-FRANCIS OIL CO PO Box 21468 Tulsa, OK 74121146	OGRID: 12361
	Action Number: 131315
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	None	8/4/2022