

District I

1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720

District II

811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

Form C-101

August 1, 2011

Permit 289489

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address Redwood Operating LLC PO Box 1370 Artesia, NM 882111370		2. OGRID Number 330211
		3. API Number 30-015-47735
4. Property Code 329490	5. Property Name KAISER 18	6. Well No. 004H

7. Surface Location

UL - Lot F	Section 18	Township 18S	Range 27E	Lot Idn F	Feet From 2010	N/S Line N	Feet From 2008	E/W Line W	County Eddy
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8. Proposed Bottom Hole Location

UL - Lot E	Section 13	Township 18S	Range 26E	Lot Idn E	Feet From 2310	N/S Line N	Feet From 1	E/W Line W	County Eddy
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9. Pool Information

RED LAKE;GLORIETA-YESO	51120
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Additional Well Information

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type Private	15. Ground Level Elevation 3289
16. Multiple N	17. Proposed Depth 10455	18. Formation Blinebry	19. Contractor	20. Spud Date 12/15/2020
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ We will be using a closed-loop system in lieu of lined pits

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	12.25	9.625	36	1230	450	0
Prod	8.75	7	26	3600	200	0
Prod	8.75	5.5	17	10455	1900	0

Casing/Cement Program: Additional Comments

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22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	3000	3000	

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify I have complied with 19.15.14.9 (A) NMAC ☐ and/or 19.15.14.9 (B) NMAC ☒ if applicable. Signature:	OIL CONSERVATION DIVISION	
Printed Name: Electronically filed by Jerry Sherrell	Approved By: Kurt Simmons	
Title: Production Clerk	Title: Petroleum Specialist - A	
Email Address: jerrys@mec.com	Approved Date: 1/11/2021	Expiration Date: 1/11/2023
Date: 12/1/2020	Phone: 575-748-1288	Conditions of Approval Attached

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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

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number	² Pool Code 51120	³ Pool Name Red Lake; Gloria-Yeso
⁴ Property Code	⁵ Property Name KAISER 18	⁶ Well Number 4H
⁷ OGRID No. 330211	⁸ Operator Name REDWOOD OPERATING LLC	⁹ Elevation 3289.8

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
F	18	18 S	27 E		2010	NORTH	2008	WEST	EDDY

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	13	18 S	26 E		2310	NORTH	1	WEST	EDDY

¹² Dedicated Acres 200.86	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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.

NW CORNER SEC. 13 LAT. = 32.7551551°N LONG. = 104.3439789°W NWSP EAST (FT) N = 638457.46 E = 538064.84 N/4 CORNER SEC. 13 LAT. = 32.7552253°N LONG. = 104.3352170°W NWSP EAST (FT) N = 638482.83 E = 540758.42 NW CORNER SEC. 18 LAT. = 32.7552947°N LONG. = 104.3264684°W NWSP EAST (FT) N = 638508.14 E = 543447.93 NE CORNER SEC. 18 LAT. = 32.7550455°N LONG. = 104.3091549°W NWSP EAST (FT) N = 638418.25 E = 548770.45 LAST TAKE POINT 2310' FNL, 100' FWL LAT. = 32.7488099°N LONG. = 104.3436124°W NWSP EAST (FT) N = 636148.99 E = 538177.27 FIRST TAKE POINT 2310' FNL, 1220' FWL LAT. = 32.7488903°N LONG. = 104.3225913°W NWSP EAST (FT) N = 636178.24 E = 544640.06 BOTTOM OF HOLE LAT. = 32.7488073°N LONG. = 104.3439344°W NWSP EAST (FT) N = 636148.05 E = 538078.30 NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83). LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD83). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES MODIFIED TO THE SURFACE.		17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Jerry W. Sherrell</i> 11/30/2020 Signature Date <i>Jerry W. Sherrell</i> Printed Name <i>jerrysempc.com</i> E-mail Address	
18 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. NOVEMBER 12, 2020 Date of Survey <i>James F. Jaramila</i> Signature and Seal of Professional Surveyor: Certificate Number: 12797 Survey No. 8643		KAISER 18 4H ELEV. = 3289.8' LAT. = 32.7496779°N (NAD83) LONG. = 104.3200173°W NWSP EAST (FT) N = 636464.88 E = 545431.38 E/4 CORNER SEC. 18 LAT. = 32.7477901°N LONG. = 104.3093116°W NWSP EAST (FT) N = 635778.64 E = 548722.89	

Intent ☐ As Drilled ☐

API #		
Operator Name: REDWOOD OPERATING LLC	Property Name: KAISER 18	Well Number 4H

Kick Off Point (KOP)

UL F	Section 18	Township 18S	Range 27E	Lot	Feet 2010	From N/S NORTH	Feet 2008	From E/W WEST	County EDDY
Latitude 32.7496779					Longitude 104.3200173			NAD 83	

First Take Point (FTP)

UL F	Section 18	Township 18S	Range 27E	Lot 2	Feet 2310	From N/S NORTH	Feet 1220	From E/W WEST	County EDDY
Latitude 32.7488903					Longitude 104.3225913			NAD 83	

Last Take Point (LTP)

UL E	Section 13	Township 18S	Range 26E	Lot	Feet 2310	From N/S NORTH	Feet 100	From E/W WEST	County EDDY
Latitude 32.7488099					Longitude 104.3436124			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.

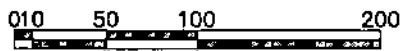
API #		
Operator Name:	Property Name:	Well Number

KZ 06/29/2018

NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83). LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD83). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES MODIFIED TO THE SURFACE

-

KAISER. 18 4H
ELEV. = 3289.8'
2.606± ACRES
LAT. = 32.7496779°N (NAD83)
LONG. = 104.3200173°W
NMSP EAST (FT)
N = 636464.88
E = 545431.38



SCALE 1" = 100'

DIRECTIONS TO LOCATION

FROM CR 39 (FOUR DINKUS) AND CR 44 (FANNING) GO EAST ON CALICHE ROAD 1.0 MILE, TURN RIGHT AND GO SOUTH 0.35 OF A MILE, TURN LEFT AND GO EAST 0.3 OF A MILE, BEND LEFT GO NORTHEAST 0.27 OF A MILE, TURN RIGHT GO SOUTH 523', TURN LEFT GO EAST 873', TURN RIGHT GO SOUTH 283' TO THE NORTHEAST PAD CORNER FOR THIS LOCATION.

I, FILMON F. JARAMILLO, NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY WAS MADE ACCORDING TO THE BEST OF MY KNOWLEDGE AND BELIEFS, AND THAT I MET THE MINIMUM STANDARDS FOR SUCH SURVEYING.

**REDWOOD OPERATING LLC
KAISER 18 4H
LOCATED 2010 FT. FROM THE NORTH LINE
AND 2008 FT. FROM THE WEST LINE OF
SECTION 18, TOWNSHIP 18 SOUTH,
RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO**

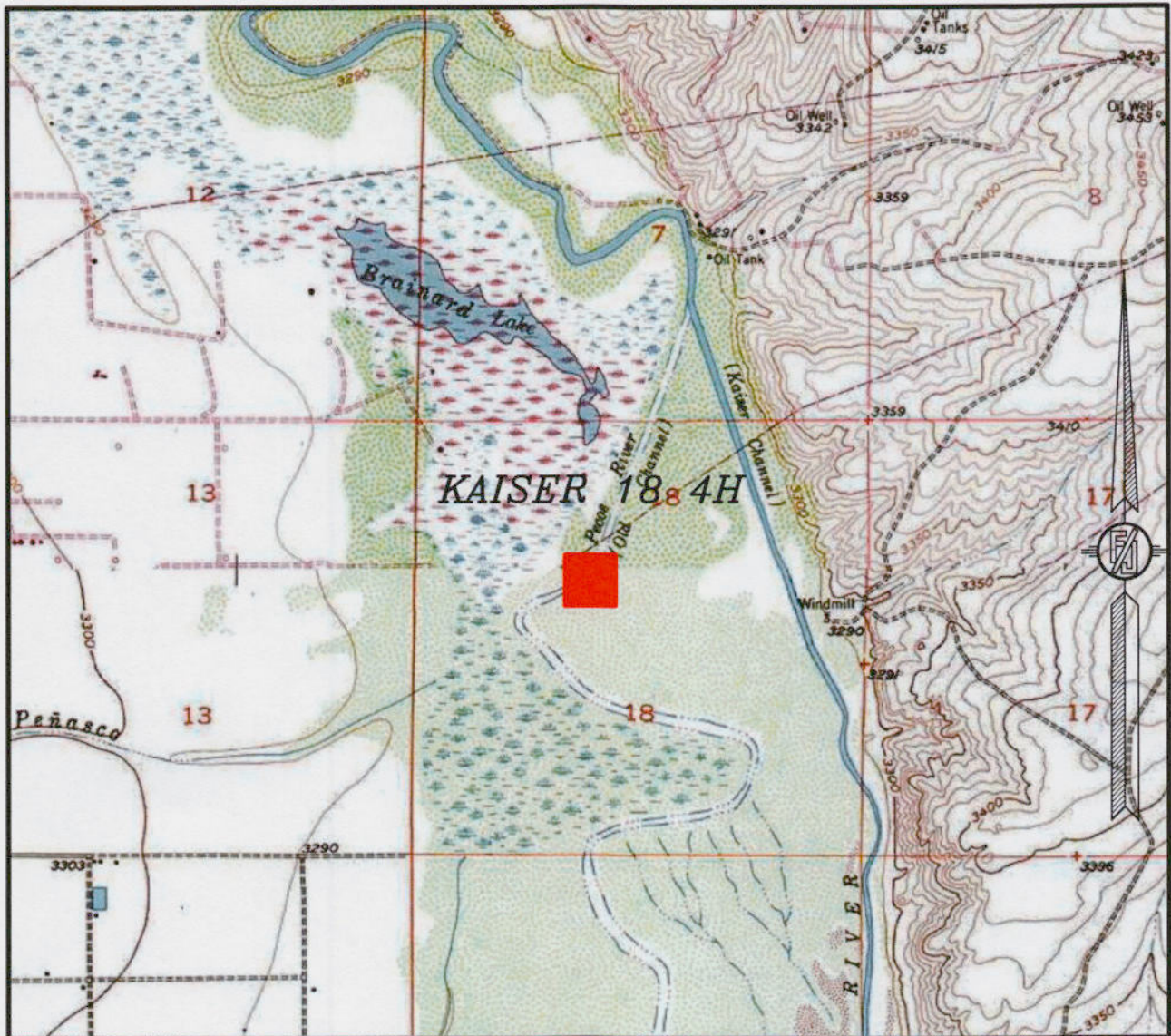
NOVEMBER 12, 2020

SURVEY NO. 8643

MADRON SURVEYING, INC. 301 SOUTH CANAL
(575) 234-3341 CARLSBAD, NEW MEXICO

301 SOUTH CANAL
(575) 234-3341

SECTION 18, TOWNSHIP 18 SOUTH, RANGE 27 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO
 LOCATION VERIFICATION MAP



USGS QUAD MAP:
 SPRING LAKE

NOT TO SCALE

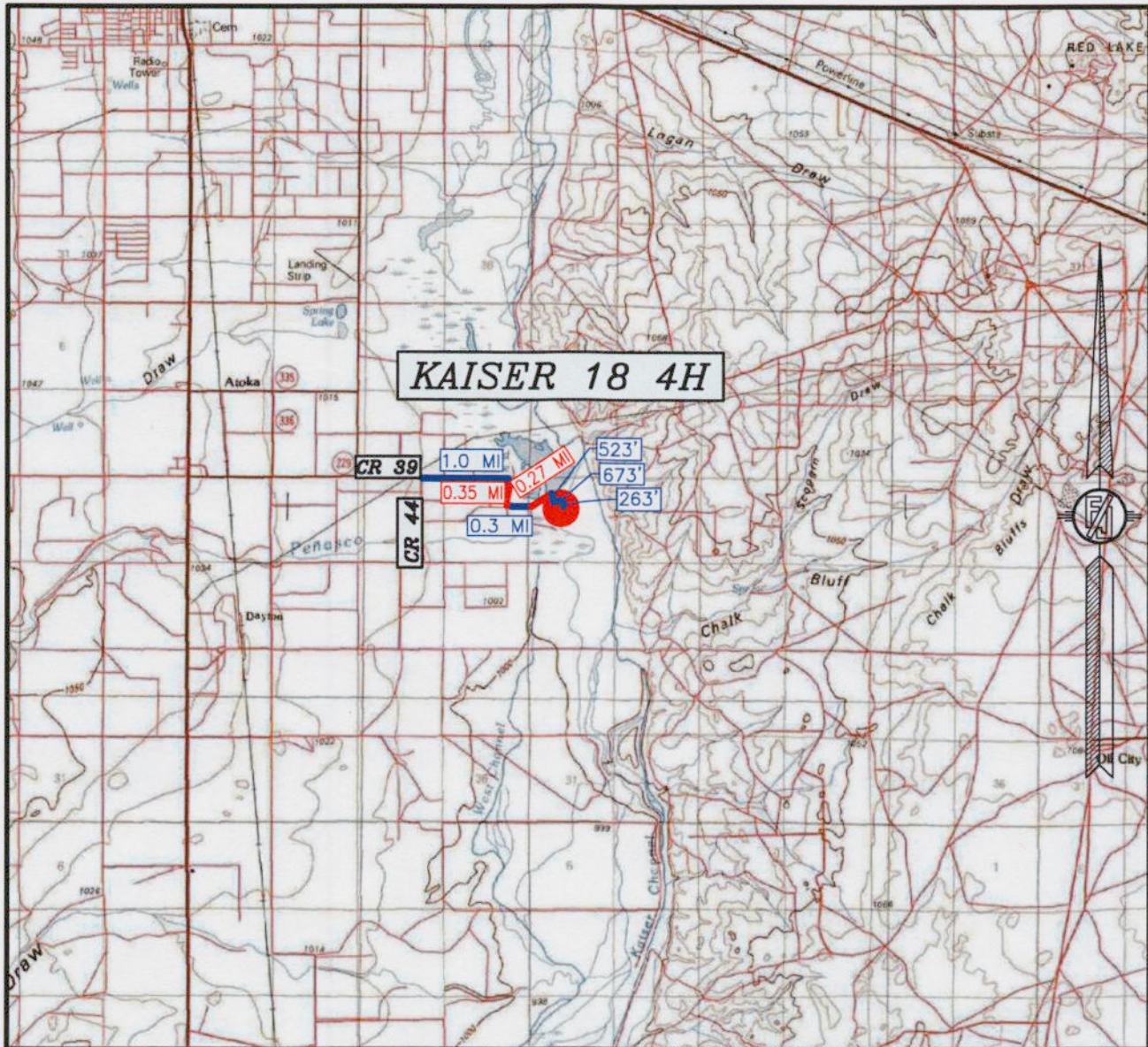
REDWOOD OPERATING LLC
KAISER 18 4H
 LOCATED 2010 FT. FROM THE NORTH LINE
 AND 2008 FT. FROM THE WEST LINE OF
 SECTION 18, TOWNSHIP 18 SOUTH,
 RANGE 27 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO

NOVEMBER 12, 2020

SURVEY NO. 8643

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO
 (575) 234-3341

SECTION 18, TOWNSHIP 18 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
VICINITY MAP



DISTANCES IN MILES

NOT TO SCALE

DIRECTIONS TO LOCATION

FROM CR 39 (FOUR DINKUS) AND CR 44 (FANNING) GO EAST ON CALICHE ROAD 1.0 MILE, TURN RIGHT AND GO SOUTH 0.35 OF A MILE, TURN LEFT AND GO EAST 0.3 OF A MILE, BEND LEFT GO NORTHEAST 0.27 OF A MILE, TURN RIGHT GO SOUTH 523', TURN LEFT GO EAST 673', TURN RIGHT GO SOUTH 263' TO THE NORTHEAST PAD CORNER FOR THIS LOCATION.

REDWOOD OPERATING LLC
KAISER 18 4H

LOCATED 2010 FT. FROM THE NORTH LINE
AND 2008 FT. FROM THE WEST LINE OF
SECTION 18, TOWNSHIP 18 SOUTH,
RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

NOVEMBER 12, 2020

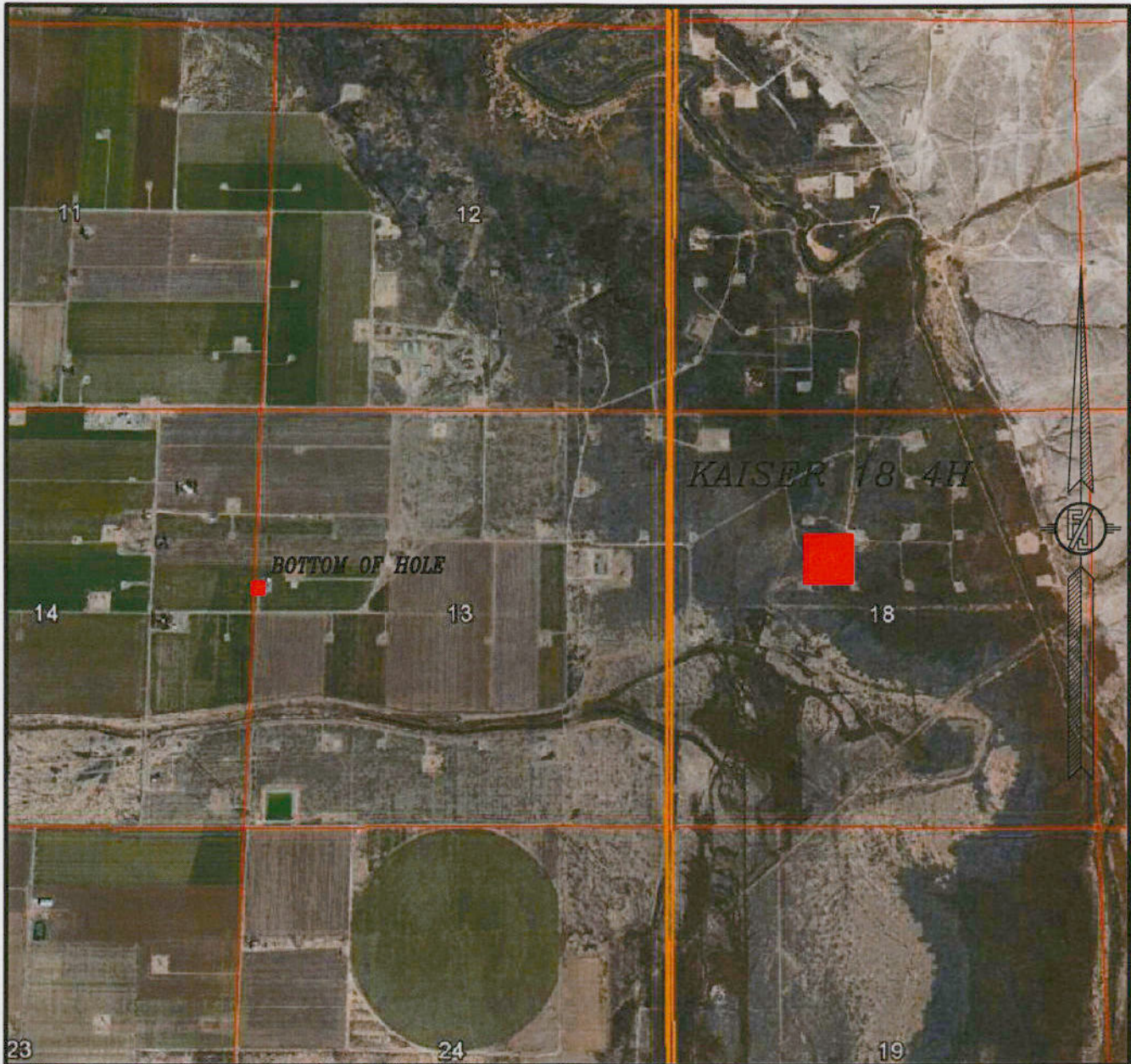
SURVEY NO. 8643

MADRON SURVEYING, INC. 301 SOUTH CANAL

(575) 234-3341

CARLSBAD, NEW MEXICO

SECTION 18, TOWNSHIP 18 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
AERIAL PHOTO



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
DECEMBER 2019

REDWOOD OPERATING LLC
KAISER 18 4H
LOCATED 2010 FT. FROM THE NORTH LINE
AND 2008 FT. FROM THE WEST LINE OF
SECTION 18, TOWNSHIP 18 SOUTH,
RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

NOVEMBER 12, 2020

SURVEY NO. 8643

MADRON SURVEYING, INC. 301 SOUTH CANAL
(575) 234-3341

CARLSBAD, NEW MEXICO

SECTION 18, TOWNSHIP 18 SOUTH, RANGE 27 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO
 ACCESS AERIAL ROUTE MAP



NOT TO SCALE
 AERIAL PHOTO:
 GOOGLE EARTH
 DECEMBER 2019

REDWOOD OPERATING LLC
KAISER 18 4H

LOCATED 2010 FT. FROM THE NORTH LINE
 AND 2008 FT. FROM THE WEST LINE OF
 SECTION 18, TOWNSHIP 18 SOUTH,
 RANGE 27 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO

NOVEMBER 12, 2020

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

GAS CAPTURE PLAN

Date: 1/11/2021

☒ Original

Operator & OGRID No.: [330211] Redwood Operating LLC

☐ Amended - Reason for
Amendment: _____

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomple to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
KAISER 18 #004H	30-015-47735	F-18-18S-27E	2010N 2008W	50	None	

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to DCP OPERATING COMPANY, LP and will be connected to DCP OPERATING COMPANY, LP Low Pressure gathering system located in Eddy County, New Mexico. It will require 0' of pipeline to connect the facility to Low Pressure gathering system. Redwood Operating LLC provides (periodically) to DCP OPERATING COMPANY, LP a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Redwood Operating LLC and DCP OPERATING COMPANY, LP have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at DCP OPERATING COMPANY, LP Processing Plant located in Sec. 06, Twn. 19S, Rng. 37E, Lea County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on DCP OPERATING COMPANY, LP system at that time. Based on current information, it is Redwood Operating LLC's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
 - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
 - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
 - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

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Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form APD Comments

Permit 289489

PERMIT COMMENTS

Operator Name and Address: Redwood Operating LLC [330211] PO Box 1370 Artesia, NM 882111370		API Number: 30-015-47735
		Well: KAISER 18 #004H
Created By	Comment	Comment Date
jwsherrell	H2S concentrations of wells in this area from surface to TD are low enough that a contingency plan is not required.	11/30/2020

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Santa Fe, NM 87505

Form APD Conditions

Permit 289489

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: Redwood Operating LLC [330211] PO Box 1370 Artesia, NM 882111370	API Number: 30-015-47735
	Well: KAISER 18 #004H

OCD Reviewer	Condition
ksimmons	Will require a directional survey with the C-104
ksimmons	Cement is required to circulate on both surface and intermediate1 strings of casing
kpickford	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
kpickford	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud
kpickford	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud 2)- Drilling Sundries Form C-103 (Casing and Cement test are to be submitted within 10 days 3)- Completion Reports & Logs are to be submitted within 45 days
kpickford	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system

Kaiser 18-4H, Plan 1

Operator Redwood Operating LLC	Units feet, °/100ft	10:49 Friday, November 20, 2020 Page 1 of 5
Field Red Lake	County Eddy	Vertical Section Azimuth 269.74
Well Name Kaiser 18-4H	State New Mexico	Survey Calculation Method Minimum Curvature
Plan 1	Country USA	Database Access
Location SL: 2010 FNL & 2008 FWL Section 18-T18S-R27E BHL: 2310 FNL & 1 FWL Section 13-T18S-26E	Map Zone UTM	Lat Long Ref
Site	Surface X 1849488	Surface Long
Slot Name	Surface Y 11888122.3	Surface Lat
Well Number	Surface Z 3307.8	Global Z Ref KB
Project	Ground Level 3289.8	Local North Ref Grid

DIRECTIONAL WELL PLAN

MD*	INC*	AZI*	TVD*	N*	E*	DLS*	V. S.*	MapE*	MapN*	SysTVD*
ft	deg	deg	ft	ft	ft	°/100ft	ft	ft	ft	ft
*** TIE (at MD = 2488.00)										
2488.00	0.00	0.0	2488.00	0.00	0.00		0.00	1849488.00	11888122.30	819.80
2500.00	0.00	0.0	2500.00	0.00	0.00	0.00	0.00	1849488.00	11888122.30	807.80
2550.00	0.00	0.0	2550.00	0.00	0.00	0.00	0.00	1849488.00	11888122.30	757.80
*** KOP 9 DEGREES (at MD = 2588.00)										
2588.00	0.00	0.0	2588.00	0.00	0.00	0.00	0.00	1849488.00	11888122.30	719.80
2600.00	0.96	243.5	2600.00	-0.04	-0.09	8.00	0.09	1849487.91	11888122.26	707.80
2650.00	4.96	243.5	2649.92	-1.20	-2.40	8.00	2.41	1849485.60	11888121.10	657.88
2700.00	8.96	243.5	2699.54	-3.90	-7.82	8.00	7.84	1849480.18	11888118.40	608.26
2750.00	12.96	243.5	2748.62	-8.14	-16.33	8.00	16.36	1849471.67	11888114.16	559.18
2800.00	16.96	243.5	2796.92	-13.90	-27.88	8.00	27.94	1849460.12	11888108.40	510.88
2850.00	20.96	243.5	2844.20	-21.15	-42.41	8.00	42.51	1849445.59	11888101.15	463.60
2900.00	24.96	243.5	2890.22	-29.85	-59.86	8.00	60.00	1849428.14	11888092.45	417.58
2950.00	28.96	243.5	2934.78	-39.96	-80.15	8.00	80.33	1849407.85	11888082.34	373.02
3000.00	32.96	243.5	2977.65	-51.43	-103.16	8.00	103.39	1849384.84	11888070.87	330.15
3050.00	36.96	243.5	3018.62	-64.22	-128.80	8.00	129.09	1849359.20	11888058.09	289.18
3100.00	40.96	243.5	3057.49	-78.24	-156.93	8.00	157.28	1849331.07	11888044.06	250.31
3150.00	44.96	243.5	3094.07	-93.44	-187.41	8.00	187.84	1849300.59	11888028.86	213.73
3200.00	48.96	243.5	3128.19	-109.74	-220.11	8.00	220.61	1849267.89	11888012.56	179.61
3250.00	52.96	243.5	3159.68	-127.07	-254.86	8.00	255.43	1849233.14	11887995.23	148.12
*** 55 DEGREE TANGENT (at MD = 3275.50)										
3275.50	55.00	243.5	3174.67	-136.27	-273.32	8.00	273.93	1849214.68	11887986.03	133.13
3300.00	55.00	243.5	3188.73	-145.23	-291.28	0.00	291.93	1849196.72	11887977.07	119.07
3350.00	55.00	243.5	3217.41	-163.50	-327.93	0.00	328.67	1849160.07	11887958.80	90.39
3400.00	55.00	243.5	3246.08	-181.78	-364.59	0.00	365.41	1849123.41	11887940.52	61.72
3450.00	55.00	243.5	3274.76	-200.05	-401.24	0.00	402.14	1849086.76	11887922.25	33.04
3500.00	55.00	243.5	3303.44	-218.33	-437.89	0.00	438.88	1849050.11	11887903.97	4.36
*** 12 DEGREE BUILD (at MD = 3525.50)										
3525.50	55.00	243.5	3318.07	-227.65	-456.59	0.00	457.62	1849031.41	11887894.65	-10.27
3550.00	57.29	245.7	3331.72	-236.37	-474.97	12.00	476.04	1849013.03	11887885.93	-23.92
3600.00	62.09	249.9	3356.95	-252.62	-514.92	12.00	516.07	1848973.08	11887869.68	-49.15
3650.00	66.99	253.7	3378.45	-266.68	-557.80	12.00	559.00	1848930.20	11887855.62	-70.65
3700.00	71.99	257.3	3395.97	-278.37	-603.12	12.00	604.38	1848884.88	11887843.93	-88.17
3750.00	77.04	260.6	3409.32	-287.58	-650.39	12.00	651.69	1848837.61	11887834.72	-101.52
3800.00	82.13	263.9	3418.35	-294.19	-699.10	12.00	700.43	1848788.90	11887828.11	-110.55
3850.00	87.25	267.0	3422.98	-298.15	-748.71	12.00	750.05	1848739.29	11887824.15	-115.18
*** LANDING POINT (at MD = 3893.85)										
3893.85	91.75	269.7	3423.36	-299.39	-792.53	12.00	793.88	1848695.48	11887822.91	-115.56
3900.00	91.75	269.7	3423.17	-299.42	-798.67	0.00	800.02	1848689.33	11887822.88	-115.37

Kaiser 18-4H, Plan 1

Operator Redwood Operating LLC	Units feet, °/100ft	10:49 Friday, November 20, 2020 Page 2 of 5
Field Red Lake	County Eddy	Vertical Section Azimuth 269.74
Well Name Kaiser 18-4H	State New Mexico	Survey Calculation Method Minimum Curvature
Plan 1	Country USA	Database Access
Location SL: 2010 FNL & 2008 FWL Section 18-T18S-R27E BHL: 2310 FNL & 1 FWL Section 13-T18S-26E	Map Zone UTM	Lat Long Ref
Site	Surface X 1849488	Surface Long
Slot Name	Surface Y 11888122.3	Surface Lat
Well Number	Surface Z 3307.8	Global Z Ref KB
Project	Ground Level 3289.8	Local North Ref Grid

DIRECTIONAL WELL PLAN

MD*	INC*	AZI*	TVD*	N*	E*	DLS*	V. S.*	MapE*	MapN*	SysTVD*
ft	deg	deg	ft	ft	ft	°/100ft	ft	ft	ft	ft
3950.00	91.75	269.7	3421.64	-299.65	-848.64	0.00	849.99	1848639.36	11887822.65	-113.84
4000.00	91.75	269.7	3420.12	-299.88	-898.62	0.00	899.97	1848589.38	11887822.43	-112.32
4050.00	91.75	269.7	3418.59	-300.10	-948.60	0.00	949.95	1848539.40	11887822.20	-110.79
4100.00	91.75	269.7	3417.06	-300.33	-998.57	0.00	999.92	1848489.43	11887821.97	-109.26
4150.00	91.75	269.7	3415.54	-300.56	-1048.55	0.00	1049.90	1848439.45	11887821.74	-107.74
4200.00	91.75	269.7	3414.01	-300.78	-1098.52	0.00	1099.88	1848389.48	11887821.52	-106.21
4250.00	91.75	269.7	3412.48	-301.01	-1148.50	0.00	1149.85	1848339.50	11887821.29	-104.68
4300.00	91.75	269.7	3410.96	-301.24	-1198.48	0.00	1199.83	1848289.52	11887821.06	-103.16
4350.00	91.75	269.7	3409.43	-301.46	-1248.45	0.00	1249.81	1848239.55	11887820.84	-101.63
4400.00	91.75	269.7	3407.90	-301.69	-1298.43	0.00	1299.78	1848189.57	11887820.61	-100.10
4450.00	91.75	269.7	3406.37	-301.92	-1348.41	0.00	1349.76	1848139.59	11887820.38	-98.57
4500.00	91.75	269.7	3404.85	-302.14	-1398.38	0.00	1399.74	1848089.62	11887820.16	-97.05
4550.00	91.75	269.7	3403.32	-302.37	-1448.36	0.00	1449.71	1848039.64	11887819.93	-95.52
4600.00	91.75	269.7	3401.79	-302.60	-1498.33	0.00	1499.69	1847989.67	11887819.70	-93.99
4650.00	91.75	269.7	3400.27	-302.82	-1548.31	0.00	1549.67	1847939.69	11887819.48	-92.47
4700.00	91.75	269.7	3398.74	-303.05	-1598.29	0.00	1599.64	1847889.71	11887819.25	-90.94
4750.00	91.75	269.7	3397.21	-303.28	-1648.26	0.00	1649.62	1847839.74	11887819.02	-89.41
4800.00	91.75	269.7	3395.69	-303.50	-1698.24	0.00	1699.60	1847789.76	11887818.80	-87.89
4850.00	91.75	269.7	3394.16	-303.73	-1748.21	0.00	1749.57	1847739.79	11887818.57	-86.36
4900.00	91.75	269.7	3392.63	-303.96	-1798.19	0.00	1799.55	1847689.81	11887818.34	-84.83
4950.00	91.75	269.7	3391.11	-304.18	-1848.17	0.00	1849.53	1847639.83	11887818.12	-83.31
5000.00	91.75	269.7	3389.58	-304.41	-1898.14	0.00	1899.50	1847589.86	11887817.89	-81.78
5050.00	91.75	269.7	3388.05	-304.64	-1948.12	0.00	1949.48	1847539.88	11887817.66	-80.25
5100.00	91.75	269.7	3386.52	-304.86	-1998.10	0.00	1999.46	1847489.90	11887817.44	-78.72
5150.00	91.75	269.7	3385.00	-305.09	-2048.07	0.00	2049.43	1847439.93	11887817.21	-77.20
5200.00	91.75	269.7	3383.47	-305.32	-2098.05	0.00	2099.41	1847389.95	11887816.98	-75.67
5250.00	91.75	269.7	3381.94	-305.54	-2148.02	0.00	2149.39	1847339.98	11887816.76	-74.14
5300.00	91.75	269.7	3380.42	-305.77	-2198.00	0.00	2199.37	1847290.00	11887816.53	-72.62
5350.00	91.75	269.7	3378.89	-306.00	-2247.98	0.00	2249.34	1847240.02	11887816.30	-71.09
5400.00	91.75	269.7	3377.36	-306.23	-2297.95	0.00	2299.32	1847190.05	11887816.08	-69.56
5450.00	91.75	269.7	3375.84	-306.45	-2347.93	0.00	2349.30	1847140.07	11887815.85	-68.04
5500.00	91.75	269.7	3374.31	-306.68	-2397.90	0.00	2399.27	1847090.10	11887815.62	-66.51
5550.00	91.75	269.7	3372.78	-306.91	-2447.88	0.00	2449.25	1847040.12	11887815.39	-64.98
5600.00	91.75	269.7	3371.26	-307.13	-2497.86	0.00	2499.23	1846990.14	11887815.17	-63.46
5650.00	91.75	269.7	3369.73	-307.36	-2547.83	0.00	2549.20	1846940.17	11887814.94	-61.93
5700.00	91.75	269.7	3368.20	-307.59	-2597.81	0.00	2599.18	1846890.19	11887814.71	-60.40
5750.00	91.75	269.7	3366.67	-307.81	-2647.79	0.00	2649.16	1846840.21	11887814.49	-58.87

Kaiser 18-4H, Plan 1

Operator Redwood Operating LLC	Units feet, °/100ft	10:49 Friday, November 20, 2020 Page 3 of 5
Field Red Lake	County Eddy	Vertical Section Azimuth 269.74
Well Name Kaiser 18-4H	State New Mexico	Survey Calculation Method Minimum Curvature
Plan 1	Country USA	Database Access
Location SL: 2010 FNL & 2008 FWL Section 18-T18S-R27E BHL: 2310 FNL & 1 FWL Section 13-T18S-26E	Map Zone UTM	Lat Long Ref
Site	Surface X 1849488	Surface Long
Slot Name	Surface Y 11888122.3	Surface Lat
Well Number	Surface Z 3307.8	Global Z Ref KB
Project	Ground Level 3289.8	Local North Ref Grid

DIRECTIONAL WELL PLAN

MD*	INC*	AZI*	TVD*	N*	E*	DLS*	V. S.*	MapE*	MapN*	SysTVD*
ft	deg	deg	ft	ft	ft	°/100ft	ft	ft	ft	ft
5800.00	91.75	269.7	3365.15	-308.04	-2697.76	0.00	2699.13	1846790.24	11887814.26	-57.35
5850.00	91.75	269.7	3363.62	-308.27	-2747.74	0.00	2749.11	1846740.26	11887814.03	-55.82
5900.00	91.75	269.7	3362.09	-308.49	-2797.71	0.00	2799.09	1846690.29	11887813.81	-54.29
5950.00	91.75	269.7	3360.57	-308.72	-2847.69	0.00	2849.06	1846640.31	11887813.58	-52.77
6000.00	91.75	269.7	3359.04	-308.95	-2897.67	0.00	2899.04	1846590.33	11887813.35	-51.24
6050.00	91.75	269.7	3357.51	-309.17	-2947.64	0.00	2949.02	1846540.36	11887813.13	-49.71
6100.00	91.75	269.7	3355.99	-309.40	-2997.62	0.00	2998.99	1846490.38	11887812.90	-48.19
6150.00	91.75	269.7	3354.46	-309.63	-3047.59	0.00	3048.97	1846440.41	11887812.67	-46.66
6200.00	91.75	269.7	3352.93	-309.85	-3097.57	0.00	3098.95	1846390.43	11887812.45	-45.13
6250.00	91.75	269.7	3351.41	-310.08	-3147.55	0.00	3148.92	1846340.45	11887812.22	-43.61
6300.00	91.75	269.7	3349.88	-310.31	-3197.52	0.00	3198.90	1846290.48	11887811.99	-42.08
6350.00	91.75	269.7	3348.35	-310.53	-3247.50	0.00	3248.88	1846240.50	11887811.77	-40.55
6400.00	91.75	269.7	3346.82	-310.76	-3297.48	0.00	3298.85	1846190.52	11887811.54	-39.02
6450.00	91.75	269.7	3345.30	-310.99	-3347.45	0.00	3348.83	1846140.55	11887811.31	-37.50
6500.00	91.75	269.7	3343.77	-311.21	-3397.43	0.00	3398.81	1846090.57	11887811.09	-35.97
6550.00	91.75	269.7	3342.24	-311.44	-3447.40	0.00	3448.78	1846040.60	11887810.86	-34.44
6600.00	91.75	269.7	3340.72	-311.67	-3497.38	0.00	3498.76	1845990.62	11887810.63	-32.92
6650.00	91.75	269.7	3339.19	-311.89	-3547.36	0.00	3548.74	1845940.64	11887810.41	-31.39
6700.00	91.75	269.7	3337.66	-312.12	-3597.33	0.00	3598.71	1845890.67	11887810.18	-29.86
6750.00	91.75	269.7	3336.14	-312.35	-3647.31	0.00	3648.69	1845840.69	11887809.95	-28.34
6800.00	91.75	269.7	3334.61	-312.58	-3697.29	0.00	3698.67	1845790.72	11887809.73	-26.81
6850.00	91.75	269.7	3333.08	-312.80	-3747.26	0.00	3748.64	1845740.74	11887809.50	-25.28
6900.00	91.75	269.7	3331.56	-313.03	-3797.24	0.00	3798.62	1845690.76	11887809.27	-23.76
6950.00	91.75	269.7	3330.03	-313.26	-3847.21	0.00	3848.60	1845640.79	11887809.04	-22.23
7000.00	91.75	269.7	3328.50	-313.48	-3897.19	0.00	3898.57	1845590.81	11887808.82	-20.70
7050.00	91.75	269.7	3326.97	-313.71	-3947.17	0.00	3948.55	1845540.83	11887808.59	-19.17
7100.00	91.75	269.7	3325.45	-313.94	-3997.14	0.00	3998.53	1845490.86	11887808.36	-17.65
7150.00	91.75	269.7	3323.92	-314.16	-4047.12	0.00	4048.50	1845440.88	11887808.14	-16.12
7200.00	91.75	269.7	3322.39	-314.39	-4097.09	0.00	4098.48	1845390.91	11887807.91	-14.59
7250.00	91.75	269.7	3320.87	-314.62	-4147.07	0.00	4148.46	1845340.93	11887807.68	-13.07
7300.00	91.75	269.7	3319.34	-314.84	-4197.05	0.00	4198.43	1845290.95	11887807.46	-11.54
7350.00	91.75	269.7	3317.81	-315.07	-4247.02	0.00	4248.41	1845240.98	11887807.23	-10.01
7400.00	91.75	269.7	3316.29	-315.30	-4297.00	0.00	4298.39	1845191.00	11887807.00	-8.49
7450.00	91.75	269.7	3314.76	-315.52	-4346.98	0.00	4348.36	1845141.02	11887806.78	-6.96
7500.00	91.75	269.7	3313.23	-315.75	-4396.95	0.00	4398.34	1845091.05	11887806.55	-5.43
7550.00	91.75	269.7	3311.71	-315.98	-4446.93	0.00	4448.32	1845041.07	11887806.32	-3.91
7600.00	91.75	269.7	3310.18	-316.20	-4496.90	0.00	4498.29	1844991.10	11887806.10	-2.38
7650.00	91.75	269.7	3308.65	-316.43	-4546.88	0.00	4548.27	1844941.12	11887805.87	-0.85

Kaiser 18-4H, Plan 1

Operator	Redwood Operating LLC	Units	feet, °/100ft	10:49 Friday, November 20, 2020	Page 4 of 5
Field	Red Lake	County	Eddy	Vertical Section Azimuth	269.74
Well Name	Kaiser 18-4H	State	New Mexico	Survey Calculation Method	Minimum Curvature
Plan	1	Country	USA	Database	Access
Location	SL: 2010 FNL & 2008 FWL Section 18-T18S-R27E BHL: 2310 FNL & 1 FWL Section 13-T18S-26E			Map Zone	UTM
Site				Surface X	1849488
Slot Name				Surface Y	11888122.3
Well Number				Surface Z	3307.8
Project				Ground Level	3289.8
				Lat Long Ref	
				Surface Long	
				Surface Lat	
				Global Z Ref	KB
				Local North Ref	Grid

DIRECTIONAL WELL PLAN

MD*	INC*	AZI*	TVD*	N*	E*	DLS*	V. S.*	MapE*	MapN*	SysTVD*
ft	deg	deg	ft	ft	ft	°/100ft	ft	ft	ft	ft
7700.00	91.75	269.7	3307.12	-316.66	-4596.86	0.00	4598.25	1844891.14	11887805.64	0.68
7750.00	91.75	269.7	3305.60	-316.88	-4646.83	0.00	4648.22	1844841.17	11887805.42	2.20
7800.00	91.75	269.7	3304.07	-317.11	-4696.81	0.00	4698.20	1844791.19	11887805.19	3.73
7850.00	91.75	269.7	3302.54	-317.34	-4746.78	0.00	4748.18	1844741.22	11887804.96	5.26
7900.00	91.75	269.7	3301.02	-317.56	-4796.76	0.00	4798.15	1844691.24	11887804.74	6.78
7950.00	91.75	269.7	3299.49	-317.79	-4846.74	0.00	4848.13	1844641.26	11887804.51	8.31
8000.00	91.75	269.7	3297.96	-318.02	-4896.71	0.00	4898.11	1844591.29	11887804.28	9.84
8050.00	91.75	269.7	3296.44	-318.24	-4946.69	0.00	4948.08	1844541.31	11887804.06	11.36
8100.00	91.75	269.7	3294.91	-318.47	-4996.67	0.00	4998.06	1844491.33	11887803.83	12.89
8150.00	91.75	269.7	3293.38	-318.70	-5046.64	0.00	5048.04	1844441.36	11887803.60	14.42
8200.00	91.75	269.7	3291.86	-318.93	-5096.62	0.00	5098.01	1844391.38	11887803.38	15.94
8250.00	91.75	269.7	3290.33	-319.15	-5146.59	0.00	5147.99	1844341.41	11887803.15	17.47
8300.00	91.75	269.7	3288.80	-319.38	-5196.57	0.00	5197.97	1844291.43	11887802.92	19.00
8350.00	91.75	269.7	3287.27	-319.61	-5246.55	0.00	5247.94	1844241.45	11887802.69	20.53
8400.00	91.75	269.7	3285.75	-319.83	-5296.52	0.00	5297.92	1844191.48	11887802.47	22.05
8450.00	91.75	269.7	3284.22	-320.06	-5346.50	0.00	5347.90	1844141.50	11887802.24	23.58
8500.00	91.75	269.7	3282.69	-320.29	-5396.47	0.00	5397.87	1844091.53	11887802.01	25.11
8550.00	91.75	269.7	3281.17	-320.51	-5446.45	0.00	5447.85	1844041.55	11887801.79	26.63
8600.00	91.75	269.7	3279.64	-320.74	-5496.43	0.00	5497.83	1843991.57	11887801.56	28.16
8650.00	91.75	269.7	3278.11	-320.97	-5546.40	0.00	5547.80	1843941.60	11887801.33	29.69
8700.00	91.75	269.7	3276.59	-321.19	-5596.38	0.00	5597.78	1843891.62	11887801.11	31.21
8750.00	91.75	269.7	3275.06	-321.42	-5646.36	0.00	5647.76	1843841.64	11887800.88	32.74
8800.00	91.75	269.7	3273.53	-321.65	-5696.33	0.00	5697.73	1843791.67	11887800.65	34.27
8850.00	91.75	269.7	3272.01	-321.87	-5746.31	0.00	5747.71	1843741.69	11887800.43	35.79
8900.00	91.75	269.7	3270.48	-322.10	-5796.28	0.00	5797.69	1843691.72	11887800.20	37.32
8950.00	91.75	269.7	3268.95	-322.33	-5846.26	0.00	5847.66	1843641.74	11887799.97	38.85
9000.00	91.75	269.7	3267.42	-322.55	-5896.24	0.00	5897.64	1843591.76	11887799.75	40.38
9050.00	91.75	269.7	3265.90	-322.78	-5946.21	0.00	5947.62	1843541.79	11887799.52	41.90
9100.00	91.75	269.7	3264.37	-323.01	-5996.19	0.00	5997.59	1843491.81	11887799.29	43.43
9150.00	91.75	269.7	3262.84	-323.23	-6046.16	0.00	6047.57	1843441.84	11887799.07	44.96
9200.00	91.75	269.7	3261.32	-323.46	-6096.14	0.00	6097.55	1843391.86	11887798.84	46.48
9250.00	91.75	269.7	3259.79	-323.69	-6146.12	0.00	6147.52	1843341.88	11887798.61	48.01
9300.00	91.75	269.7	3258.26	-323.91	-6196.09	0.00	6197.50	1843291.91	11887798.39	49.54
9350.00	91.75	269.7	3256.74	-324.14	-6246.07	0.00	6247.48	1843241.93	11887798.16	51.06
9400.00	91.75	269.7	3255.21	-324.37	-6296.05	0.00	6297.45	1843191.95	11887797.93	52.59
9450.00	91.75	269.7	3253.68	-324.59	-6346.02	0.00	6347.43	1843141.98	11887797.71	54.12
9500.00	91.75	269.7	3252.16	-324.82	-6396.00	0.00	6397.41	1843092.00	11887797.48	55.64

Kaiser 18-4H, Plan 1

Operator Redwood Operating LLC	Units feet, °/100ft	10:49 Friday, November 20, 2020 Page 5 of 5
Field Red Lake	County Eddy	Vertical Section Azimuth 269.74
Well Name Kaiser 18-4H	State New Mexico	Survey Calculation Method Minimum Curvature
Plan 1	Country USA	Database Access
Location SL: 2010 FNL & 2008 FWL Section 18-T18S-R27E BHL: 2310 FNL & 1 FWL Section 13-T18S-26E	Map Zone UTM	Lat Long Ref
Site	Surface X 1849488	Surface Long
Slot Name	Surface Y 11888122.3	Surface Lat
Well Number	Surface Z 3307.8	Global Z Ref KB
Project	Ground Level 3289.8	Local North Ref Grid

DIRECTIONAL WELL PLAN

MD*	INC*	AZI*	TVD*	N*	E*	DLS*	V. S.*	MapE*	MapN*	SysTVD*
ft	deg	deg	ft	ft	ft	°/100ft	ft	ft	ft	ft
9550.00	91.75	269.7	3250.63	-325.05	-6445.97	0.00	6447.38	1843042.03	11887797.25	57.17
9600.00	91.75	269.7	3249.10	-325.28	-6495.95	0.00	6497.36	1842992.05	11887797.03	58.70
9650.00	91.75	269.7	3247.57	-325.50	-6545.93	0.00	6547.34	1842942.07	11887796.80	60.23
9700.00	91.75	269.7	3246.05	-325.73	-6595.90	0.00	6597.31	1842892.10	11887796.57	61.75
9750.00	91.75	269.7	3244.52	-325.96	-6645.88	0.00	6647.29	1842842.12	11887796.34	63.28
9800.00	91.75	269.7	3242.99	-326.18	-6695.85	0.00	6697.27	1842792.15	11887796.12	64.81
9850.00	91.75	269.7	3241.47	-326.41	-6745.83	0.00	6747.24	1842742.17	11887795.89	66.33
9900.00	91.75	269.7	3239.94	-326.64	-6795.81	0.00	6797.22	1842692.19	11887795.66	67.86
9950.00	91.75	269.7	3238.41	-326.86	-6845.78	0.00	6847.20	1842642.22	11887795.44	69.39
10000.00	91.75	269.7	3236.89	-327.09	-6895.76	0.00	6897.17	1842592.24	11887795.21	70.91
10050.00	91.75	269.7	3235.36	-327.32	-6945.74	0.00	6947.15	1842542.26	11887794.98	72.44
10100.00	91.75	269.7	3233.83	-327.54	-6995.71	0.00	6997.13	1842492.29	11887794.76	73.97
10150.00	91.75	269.7	3232.31	-327.77	-7045.69	0.00	7047.10	1842442.31	11887794.53	75.49
10200.00	91.75	269.7	3230.78	-328.00	-7095.66	0.00	7097.08	1842392.34	11887794.30	77.02
10250.00	91.75	269.7	3229.25	-328.22	-7145.64	0.00	7147.06	1842342.36	11887794.08	78.55
10300.00	91.75	269.7	3227.72	-328.45	-7195.62	0.00	7197.03	1842292.38	11887793.85	80.08
10350.00	91.75	269.7	3226.20	-328.68	-7245.59	0.00	7247.01	1842242.41	11887793.62	81.60
10400.00	91.75	269.7	3224.67	-328.90	-7295.57	0.00	7296.99	1842192.43	11887793.40	83.13
10450.00	91.75	269.7	3223.14	-329.13	-7345.55	0.00	7346.96	1842142.45	11887793.17	84.66
*** TD (at MD = 10454.85)										
10454.85	91.75	269.7	3223.00	-329.15	-7350.40	0.00	7351.82	1842137.60	11887793.15	84.80