Monitoring Well Conversion

(OCD Comments)

EOG Resources Inc (OGRID 7377)
Ross Gulch 8 No.3
(SWD-1311)
Action ID 254154

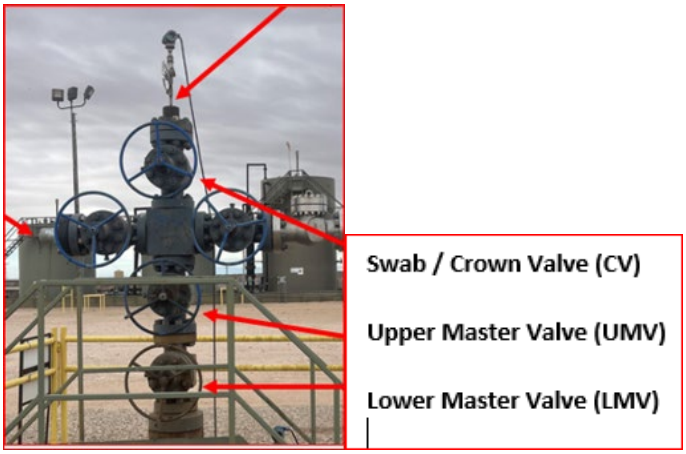
May 13, 2024

From: Harris, Anthony, EMNRD
To: Jordan Kessler; Goetze, Phillip, EMNRD
Cc: Wrinkle, Justin, EMNRD; Gebremichael, Million, EMNRD; Patrick Padilla; Tyler Burns
Subject: RE: [EXTERNAL] Ross Gulch monitoring well conversion request
Date: Monday, February 19, 2024 2:34:00 PM
Attachments: image001.png
image002.png
image005.png
image003.png

Good Day Jordan

We have some questions regarding the proposed running procedure for the gauge and the dual packoff assembly. To avoid any confusion, I wish to clarify the following terminology

- **Swab/Crown Valve**: (**CV**) Uppermost valve in the image below
- **Flow Cross**: 4-way Block below the crown valve with side outlets for wing & kill valves
- **Upper Master Valve**: (**UMV**) Manual valve below the flow cross
- **Lower Master Valve**: (**LMV**) Manual Valve below the Upper valve (ie. lowermost valve in below image)



I have pasted a copy of your procedure below, and inserted questions / items to clarify in red text.

Procedure

(Top Perf: 4,062' Bottom Perf: 5,517'– Casing:7" 26# HC L80 8RD)

Contact Jose Sandoval to get gauge and running unit on location

Tally Production Systems – 432-888-0075

1. MIRU Modified Wireline Unit. Prep to run real-time bottom hole pressure gauge (RT BHPG) and cable.
2. NU 5K BOP and new swap valve packer. Function test all valves and pressure test connections before proceeding.
    - Please provide a stack-up drawing to illustrate the pressure control equipment utilized for deployment and retrieval of the gauge.
        - It is assumed both packoffs will be pre-installed below the BOP during deployment and/or retrieval? Please confirm
        - What is the estimated weight of the BOP's and Pressure control

equipment that will be transferred to the packoff assemblies?
- Please confirm the packoffs are designed to handle the compressive and shear loads transmitted via the BOP and Pressure control equipment during rigup, pressure testing, deployment and retrieval.

- Prior to installing the BOP, will the gauge and cable already be deployed below the crown valve?
  - Note: The gauge is ~ 14" long and OD=0.75". Since the Packoff ID= 0.25", the only option appears to deploy the gauge below the crown valve (ie. hung across the flow cross and UMV) while rigging up the BOP? Please confirm
  - Barrier protocol - Please confirm which valves will be open / closed during rigup and pressure testing of the BOP and lubricator

3. TIH 0.75" OD BHPG and 0.25" OD cabling. Stop at 4,020'.
   - How is depth control achieved to ensure the gauge is placed at 4020 ft?
4. Secure cabling. NU double swap packer. ND Lubricator, RD Wireline Unit.
   - Is this different from the swab valve packer that was installed in Step 2?
   - How is the packer installed when the BOP and lubricator are already rigged up on the well?
   - No mention of rigging down BOP. Please confirm when BOP will be removed. Presumably after pressure seal is confirmed in Step 5?
5. Check for leaks and increase packing fluid as needed to confirm pressure seal.
   - How is pressure seal confirmed? Via inflow test? How do you confirm if there is no pressure on the wellhead at the time?
   - Are there any other pressure tests planned to confirm the packoff seal integrity?
6. Remove wheels from lower and upper master valves and place near wellhead. Wheels are removed to avoid accidental cutting of the wire hanging in the well.
7. RDMO
8. Turn over well to SWD Foreman – Adrian Flores. All injection capabilities are to be removed from the well site.
   a. Disconnect injection line from wellhead - LOTO
   b. Remove power to pumps - LOTO
   c. Remove inlet valve to facility - LOTO

Additional items:

1. Please provide a procedure detailing how the cable and gauge will be recovered assuming **positive** pressure on the well
2. For the benefit of OCD inspectors who will visit the site, please provide the following:
   a. Details of what the entire stack-up assembly will look like once the gauge has been deployed.
   b. Details on what the OCD Inspectors need to check during visits to the well
      i. Packoff pressure ?
      ii. Level / quantity of Packing fluid in the reservoir?
      iii. Packing fluid pump ?
      iv. Surface readout panel?
      v. Other items?

Thanks and Regards

Regards
Tony Harris
Petroleum Specialist

Anthony.harris@emnrd.nm.gov
505 549 8131.

From: Jordan Kessler <Jordan_Kessler@eogresources.com>
Sent: Friday, February 16, 2024 10:55 AM
To: Goetze, Phillip, EMNRD <phillip.goetze@emnrd.nm.gov>
Cc: Wrinkle, Justin, EMNRD <Justin.Wrinkle@emnrd.nm.gov>; Harris, Anthony, EMNRD <Anthony.Harris@emnrd.nm.gov>; Gebremichael, Million, EMNRD <Million.Gebremichael@emnrd.nm.gov>; Patrick Padilla <Patrick_Padilla@eogresources.com>; Tyler Burns <Tyler_Burns@eogresources.com>
Subject: RE: [EXTERNAL] Ross Gulch monitoring well conversion request

Hi Phil,

Please see attached:

1. Updated letter addressing your additional questions below;
2. Gauge Run Procedure; and
3. Diagram illustrating well control protocol.

Please let Tyler and I know what additional questions you have. We would propose MITs every 3 years, and annual bradenheads.

Thanks,
Jordan

From: Goetze, Phillip, EMNRD <phillip.goetze@emnrd.nm.gov>
Sent: Tuesday, January 2, 2024 12:43 PM
To: Jordan Kessler <Jordan_Kessler@eogresources.com>
Cc: Wrinkle, Justin, EMNRD <Justin.Wrinkle@emnrd.nm.gov>; Harris, Anthony, EMNRD <Anthony.Harris@emnrd.nm.gov>; Gebremichael, Million, EMNRD <Million.Gebremichael@emnrd.nm.gov>; Patrick Padilla <Patrick_Padilla@eogresources.com>
Subject: RE: [EXTERNAL] Ross Gulch monitoring well conversion request

Good afternoon Jordan. Hopefully, the New Year as well as Christmas was enjoyable. I am following up on our review of EOG's submittal with one more request of details. This information request revolves around the wellhead and proposed monitoring equipment to be placed in the well. Specifically:

1. No details were provided on how this gauge will be hung in the well (i.e. Is a gauge hanger run to hang/support the weight of the gauge and cable? If no gauge hanger is planned, is the gauge and cable suspended from surface?). Also related to this subject, no details were provided to document how EOG will achieve a pressure seal around the cable at surface.
2. Please provide details on well inspection frequency (to verify packoff is not leaking) and well control protocol for this well. This should include an overview of the barrier(s) (closed and closeable) available for well control, a procedure to follow if a leak is observed in the packoff / stuffing box and a procedure if the packoff has to be replaced with positive pressure on the well (noting that the master valve cannot be closed below the packoff if there is a cable across the valve).

These requested items are an effort on our part to standardize and address possible issues with wellhead completions for this type of well, especially since this information is to be provided to our field inspectors. Additionally, OCD must consider how the wells will be monitored with respect to passive testing such as annual bradenhead tests or the periodic use of active mechanical integrity testing. If you need assistance on the content of our request, please contact Tony Harris at your convenience. Thanks. PRG

From: Jordan Kessler <Jordan_Kessler@eogresources.com>
Sent: Friday, December 1, 2023 12:16 PM
To: Goetze, Phillip, EMNRD <phillip.goetze@emnrd.nm.gov>
Cc: Patrick Padilla <Patrick_Padilla@eogresources.com>
Subject: [EXTERNAL] Ross Gulch monitoring well conversion request

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Phil,

Happy Friday! I hope you're doing well. Patrick asked me to put together a letter requesting conversion of the Ross Gulch 3 SWD into a DMG monitoring well. I've included a request to rescind our injection authority, a detailed procedure for the conversion, and answers to a series of questions that you had posed.

Please let me know what more information you need to process this request.

Thanks,
Jordan

Jordan Kessler
Senior Regulatory Advisor
eog resources
125 Lincoln Avenue, Suite 213
Santa Fe, NM 87501
Mobile: (432) 488-6108
Office: (575) 748-4158
jordan_kessler@eogresources.com

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

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

Form C-103
Revised July 18, 2013

WELL API NO. 30-015-39736

5. Indicate Type of Lease STATE ☐ FEE ☒

6. State Oil & Gas Lease No.

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.)

7. Lease Name or Unit Agreement Name: ROSS GULCH 8

1. Type of Well: Oil Well ☐ Gas Well ☐ Other SALT WATER DISPOSAL

8. Well Number: 3

2. Name of Operator: EOG RESOURCES INC

9. OGRID Number: 7377

3. Address of Operator: PO BOX 2267 MIDLAND, TX 79702

10. Pool name or Wildcat: SWD; DELAWARE

4. Well Location
Unit Letter K : 2440 feet from the SOUTH line and 2440 feet from the WEST line
Section 08 Township 26S Range 31E NMPM County LEA

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)*: 3261' GR

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

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☒	COMMENCE DRILLING OPNS.	☐	P AND A	☐
PULL OR ALTER CASING	☐	MULTIPLE COMPL	☐	CASING/CEMENT JOB	☐		
DOWNHOLE COMMINGLE	☐						
CLOSED-LOOP SYSTEM	☐						
OTHER: COVERT SWD TO MONITOR WELL	☐			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.

EOG PROPOSES TO CANCEL INJECTION PERMIT NO SWD-1311.

EOG WOULD LIKE TO CONVERT THIS WELL TO A MONITOR WELL THAT WOULD MEASURE RESERVOIR PRESSURE AND EVAULATE THE IMPACT OF OTHER SALT WATER DISPOSAL WELLS THAT ARE INJECTING INTO THE DELAWARE MOUNTAIN GROUP. THIS DATA WILL BE USED TO UNDERSTAND AND MITIGATE SHALLOW DRILLING CHALLENGES IN THE IMMEDIATE AREA.

A REAL -TIME GAUGE WILL BE INSTALLED AND HANG OFF A CABLE NEAR THE END OF THE TUBING. THE CABLE WILL BE BROUGHT TO THE SURFACE THROUGH STUFFING BOX-PRESSURE CONTAINED EQUIPMENT. THIS WILL ALLOW THE SCADA EQUIPMENT TO POLL 5 SEC BOTTOM HOLE PRESS AND TEMP DATA.

PLEASE REFERENCE ATTACHED CURRENT AND PROPOSED WELLBORE DIAGRAMS

Spud Date: 02/20/2012 Rig Release Date: 03/04/2012

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

SIGNATURE KAY MADDOX TITLE Senior Regulatory Specialist DATE 08/18/2023

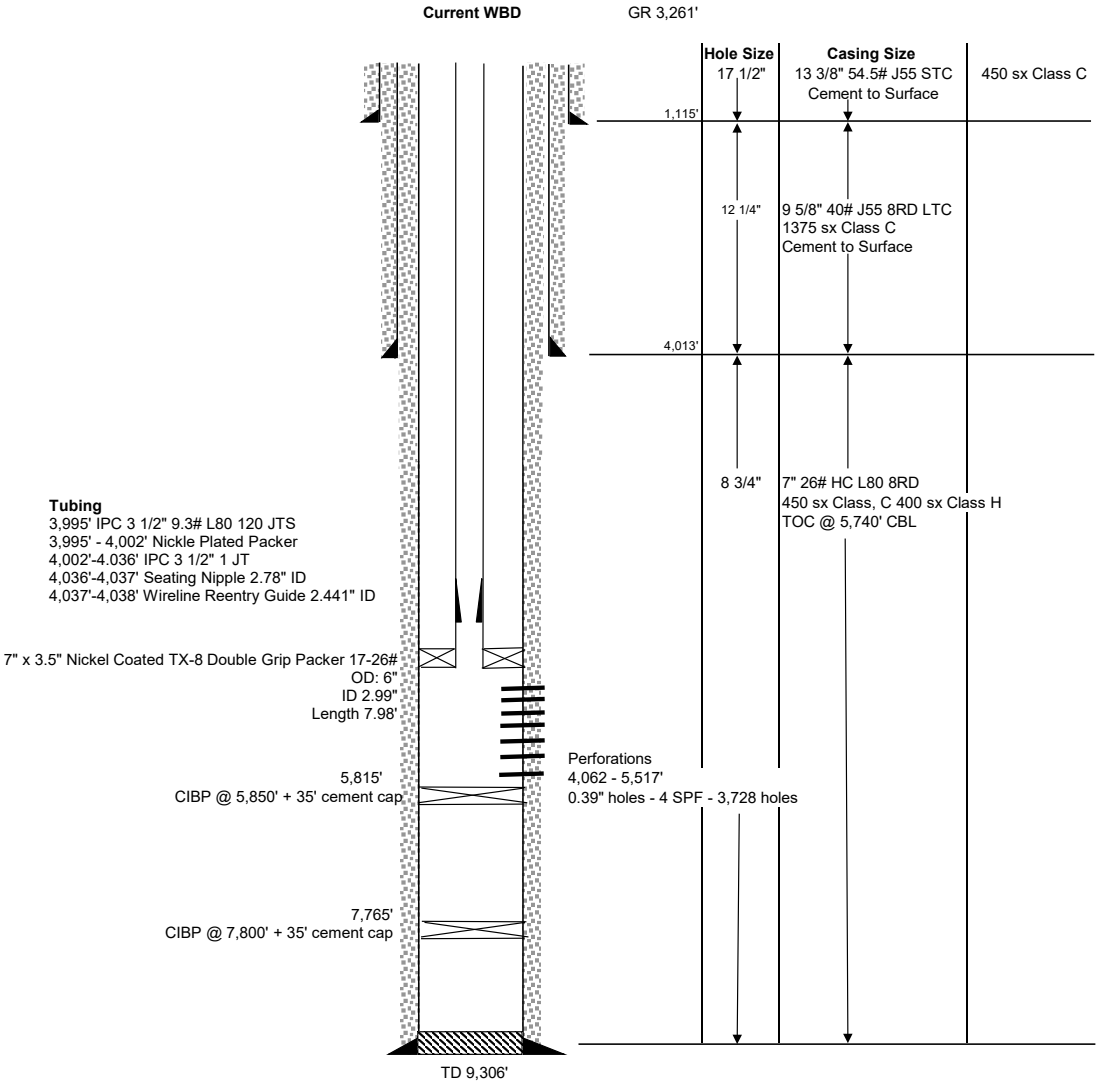
Type or print name Kay Maddox E-mail address: kay_maddox@eogresources.com PHONE: 432-638-8475

For State Use Only

APPROVED BY: _____ TITLE _____ DATE _____
Conditions of Approval (if any):

eog resources

Ross Gulch 8 #3 SWD
32.0568161,-103.8011627
API 30-015-39736
Eddy County, New Mexico
Max Permited Injection Pressure: 800 psi
Permitted Injection Zone 4000-6400'
ODesser Edit 8/31/2021



Casing (3 items)

Detail	Size	Weight	Grade	TOC	Depth
SURFACE	13.375	54.5	J-55	0	1115
INTERMEDIATE #1	9.625	40	J-55	0	4015
PRODUCTION	7	26	HCL80	0	9300

Perforations (No items found)

Stage	Top	Bottom	Num Perfs

Tubing (6 items)

Component	Name	# Items	Length	Top MD	Bot MD	Description
KB	KB	1	25.0	00.0	25.0	0 0 0 KB
Tubing	Tubing	120	3,970.0	25.0	3,995.0	3.5 9.3 L-80 2.992 Tubing
Packer	Arrowset Packer	1	08.0	3,995.0	4,003.0	7 0 0 Packer
Tubing	Tubing	1	33.2	4,003.0	4,036.2	3.5 9.3 L-80 2.992 Tubing
Seating Nipple	chanical Top Lock	1	01.1	4,036.2	4,037.3	3.5 0 2.78 Seating Nipple
Wireline Entry Gu	reline Entry Guide	1	00.6	4,037.3	4,037.9	3.5 0 2.441 Wireline Entry Guide

Rods (No items found)

Component	Name	# Items	Length	Top MD	Bot MD	Description

Other Equipment (No items found)

Component	Name	Length	Top MD	Bot MD

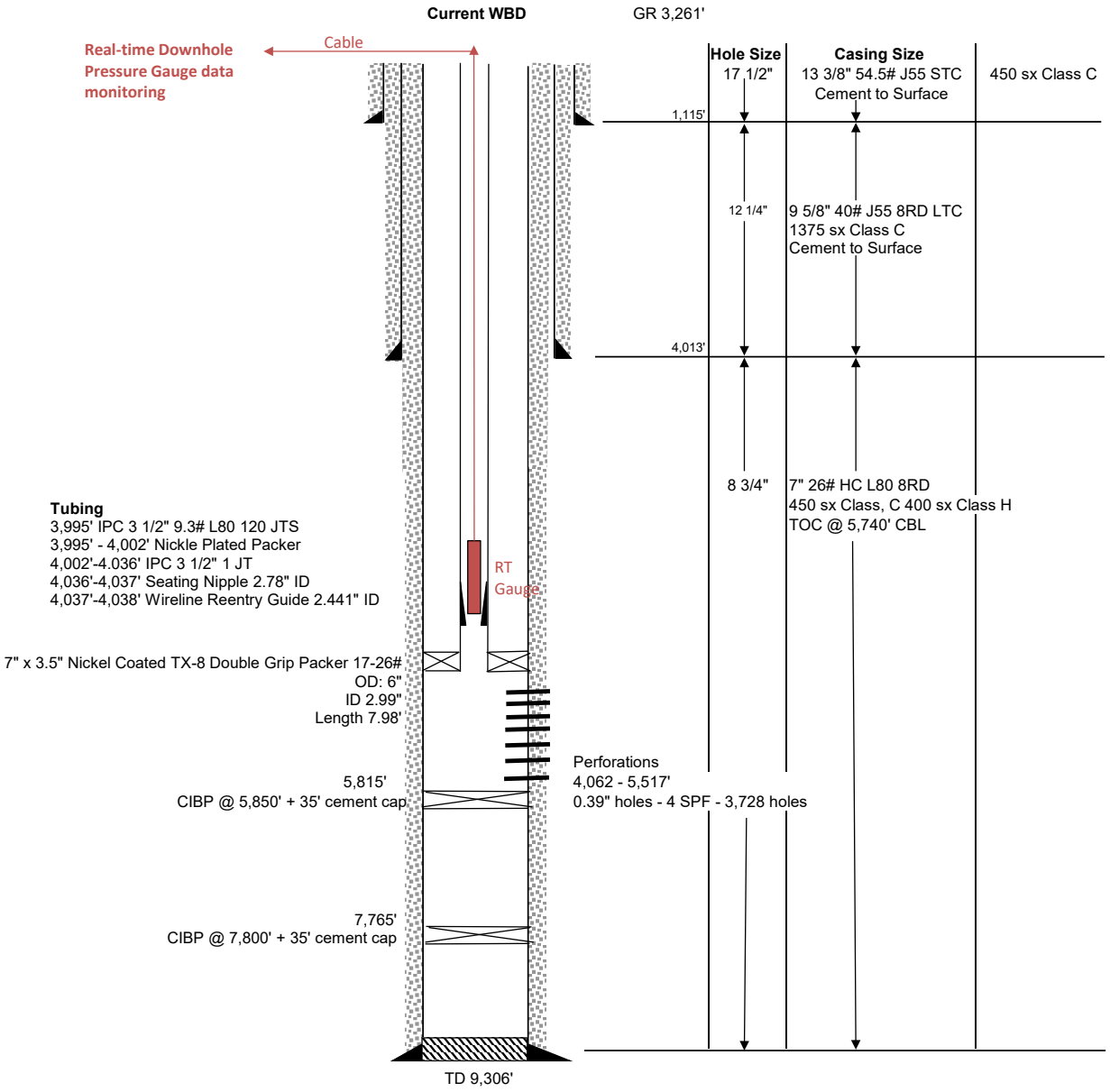
Item	Name	Ran In	Pulled	Length	# of Items	Joint #	Top Depth (Ft)	Bottom Depth (ft)	Inclination	OD (inch)	ID (inch)	Grade	Wt (lb)	Connection Type	Max OD (inch)	Run Condition	Run Date	Pull Date	Material	Mfg	Model
KB	KB	☑	☐	25.00	1		0	25		0	0		0	8RND EUE	0	New	8/19/2021		Please Se	Please Select	
Tubing	Tubing	☑	☐	3,970.00	120	120	25	3995	1.65	3.5	2.992	L-80	9.3	8RND EUE	0	New	8/19/2021		Please Se	Please Select	
Packer	Arrowset P	☑	☐	7.98	1		3995	4002.98	1.65	7	0		0	8RND EUE	0	New	8/19/2021		Please Se	Please Select	603-72
Tubing	Tubing	☑	☐	33.20	1	121	4002.98	4036.18	1.65	3.5	2.992	L-80	9.3	8RND EUE	0	New	8/19/2021		Please Se	Please Select	
Seating Nipple	Mechanica	☑	☐	1.07	1		4036.18	4037.25	1.65	3.5	2.78		0	8RND EUE	4.5	New	8/19/2021		Please Se	Please Select	N14-30
Wireline Entry Guide	Wireline Er	☑	☐	0.60	1		4037.25	4037.85	1.65	3.5	2.441		0	8RND EUE	0	New	8/19/2021		Please Se	Please Select	

8/15/2023

eog resources

Monitor Well Reclassification Porposal
August 2023

Ross Gulch 8 #3 SWD
32.0568161,-103.8011627
API 30-015-39736
Eddy County, New Mexico
Max Permited Injection Pressure: 800 psi
Permitted Injection Zone 4000-6400'
ODesser Edit 8/31/2021

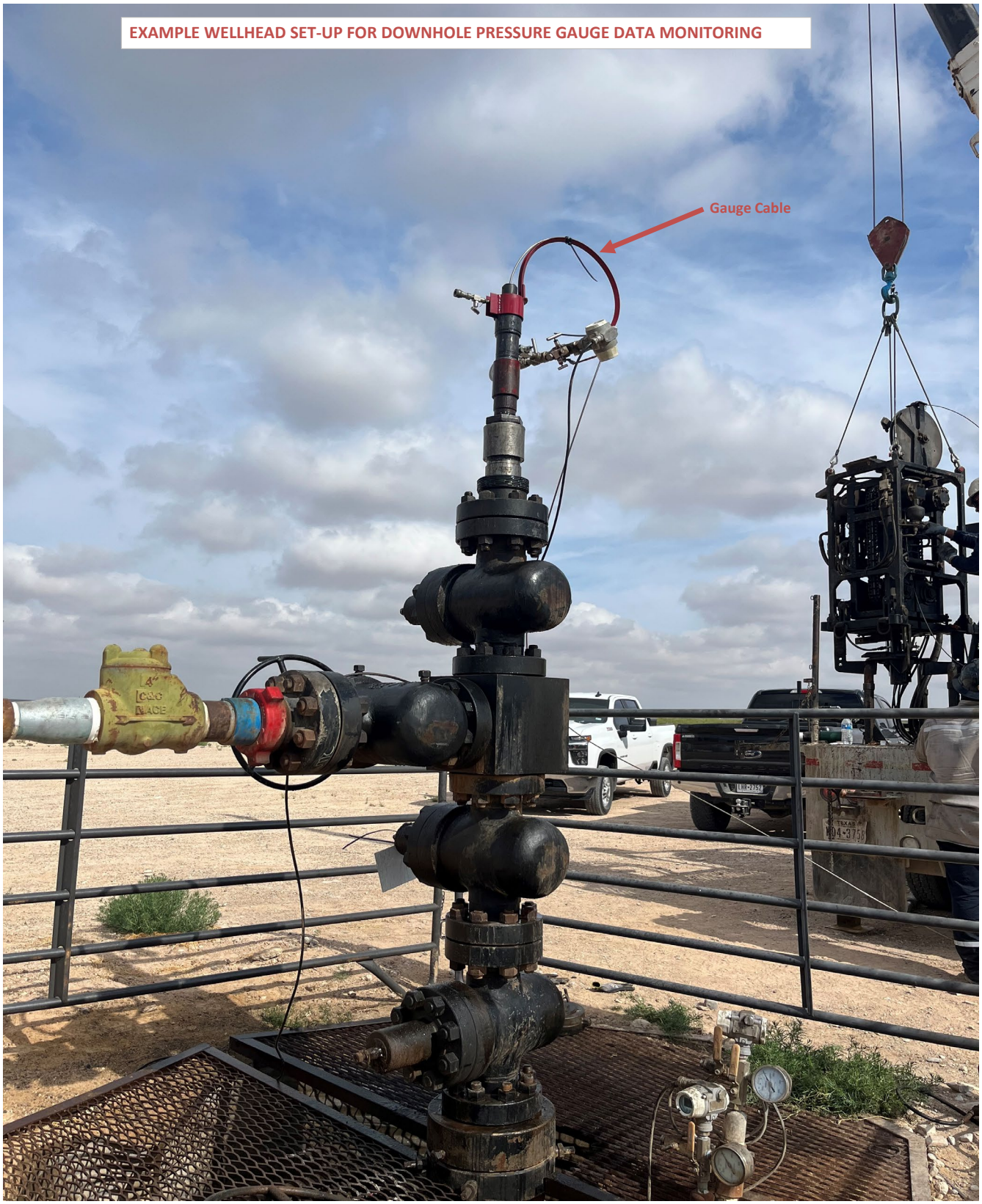


Casing (3 items)

Detail	Size	Weight	Grade	TOC	Depth
SURFACE	13.375	54.5	J-55	0	1115

8/15/2023

EXAMPLE WELLHEAD SET-UP FOR DOWNHOLE PRESSURE GAUGE DATA MONITORING



From: Jordan Kessler
To: Goetze, Phillip, EMNRD
Cc: Wrinkle, Justin, EMNRD; Harris, Anthony, EMNRD; Gebremichael, Million, EMNRD; Patrick Padilla; Tyler Burns
Subject: RE: [EXTERNAL] Ross Gulch monitoring well conversion request
Date: Friday, February 16, 2024 10:57:51 AM
Attachments: image001.png
L. OCD re Ross Gulch 3 well conversion updated.docx
Ross Gluch.pptx
Ross Gulch 8 #3 SWD RT Gauge Run Procedure TB 12424.docx

Hi Phil,

Please see attached:

1. Updated letter addressing your additional questions below;
2. Gauge Run Procedure; and
3. Diagram illustrating well control protocol.

Please let Tyler and I know what additional questions you have. We would propose MITs every 3 years, and annual bradenheads.

Thanks,
Jordan

From: Goetze, Phillip, EMNRD <phillip.goetze@emnrd.nm.gov>
Sent: Tuesday, January 2, 2024 12:43 PM
To: Jordan Kessler <Jordan_Kessler@eogresources.com>
Cc: Wrinkle, Justin, EMNRD <Justin.Wrinkle@emnrd.nm.gov>; Harris, Anthony, EMNRD <Anthony.Harris@emnrd.nm.gov>; Gebremichael, Million, EMNRD <Million.Gebremichael@emnrd.nm.gov>; Patrick Padilla <Patrick_Padilla@eogresources.com>
Subject: RE: [EXTERNAL] Ross Gulch monitoring well conversion request

Good afternoon Jordan. Hopefully, the New Year as well as Christmas was enjoyable. I am following up on our review of EOG's submittal with one more request of details. This information request revolves around the wellhead and proposed monitoring equipment to be placed in the well. Specifically:

1. No details were provided on how this gauge will be hung in the well (i.e. Is a gauge hanger run to hang/support the weight of the gauge and cable? If no gauge hanger is planned, is the gauge and cable suspended from surface?). Also related to this subject, no details were provided to document how EOG will achieve a pressure seal around the cable at surface.
2. Please provide details on well inspection frequency (to verify packoff is not leaking) and well control protocol for this well. This should include an overview of

the barrier(s) (closed and closeable) available for well control, a procedure to follow if a leak is observed in the packoff / stuffing box and a procedure if the packoff has to be replaced with positive pressure on the well (noting that the master valve cannot be closed below the packoff if there is a cable across the valve).

These requested items are an effort on our part to standardize and address possible issues with wellhead completions for this type of well, especially since this information is to be provided to our field inspectors. Additionally, OCD must consider how the wells will be monitored with respect to passive testing such as annual bradenhead tests or the periodic use of active mechanical integrity testing. If you need assistance on the content of our request, please contact Tony Harris at your convenience. Thanks. PRG

From: Jordan Kessler <Jordan_Kessler@eogresources.com>
Sent: Friday, December 1, 2023 12:16 PM
To: Goetze, Phillip, EMNRD <phillip.goetze@emnrd.nm.gov>
Cc: Patrick Padilla <Patrick_Padilla@eogresources.com>
Subject: [EXTERNAL] Ross Gulch monitoring well conversion request

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Phil,

Happy Friday! I hope you're doing well. Patrick asked me to put together a letter requesting conversion of the Ross Gulch 3 SWD into a DMG monitoring well. I've included a request to rescind our injection authority, a detailed procedure for the conversion, and answers to a series of questions that you had posed.

Please let me know what more information you need to process this request.

Thanks,
Jordan

Jordan Kessler
Senior Regulatory Advisor
eog resources
125 Lincoln Avenue, Suite 213
Santa Fe, NM 87501
Mobile: (432) 488-6108
Office: (575) 748-4158
jordan_kessler@eogresources.com

P.O. Box 2267, Midland, Texas 79702
Phone: (432) 686-3600 Fax: (432) 686-3773

November 20, 2023

Oil Conservation Division
New Mexico Energy, Minerals and Natural Resources Department
Attn: Phillip Goetze
Horizon Building
8801 Horizon Blvd., Suite 260
Albuquerque, NM 87113

DELIVERED VIA ELECTRONIC MAIL

RE: **Notice of Intent to Cancel SWD Injection Authority and Convert to Monitoring Well: Ross Gulch 8 #3 SWD**

EOG Resources, Inc. ("EOG") is the operator of the Ross Gulch 8 No. 3 SWD (API. No. 30-015-39736) ("Well"), a saltwater disposal well located in Section 8, Township 26 South, Range 31 East, NMPM, Eddy County, New Mexico. EOG received administrative authority from the Oil Conservation Division ("Division") for injection pursuant to SWD-1311, and commenced injection into the Delaware Mountain Group formation through the Well in 2012.

Following conversations with the Division, EOG requests 1) cancellation of the injection authority authorized by SWD-1311; and 2) permission to convert the Well into a pressure monitoring well. ***Attachment 1*** outlines EOG's proposed procedure for converting the Well into a pressure monitoring well, including a wellbore diagram and a gauge data sheet for the bottom pressure monitoring gauge. ***Attachment 2*** includes responses to questions posed by the Division.

As a pressure monitoring well, EOG understands that the Well will be considered an active well, and accordingly, that the Well will not contribute to EOG's inactive well count for purposes of NMAC 19.15.5.9. EOG consents to periodic MIT testing of the Well, with a frequency to be specified by the Division.

If you have any questions, please contact me at (432) 688-6108 or jordan_kessler@eogresources.com.

Sincerely,

Jordan Kessler
Senior Regulatory Advisor, EOG Resources Inc.

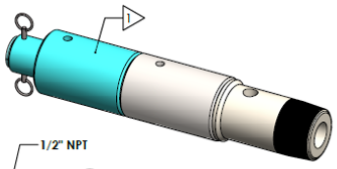
Attachment 1

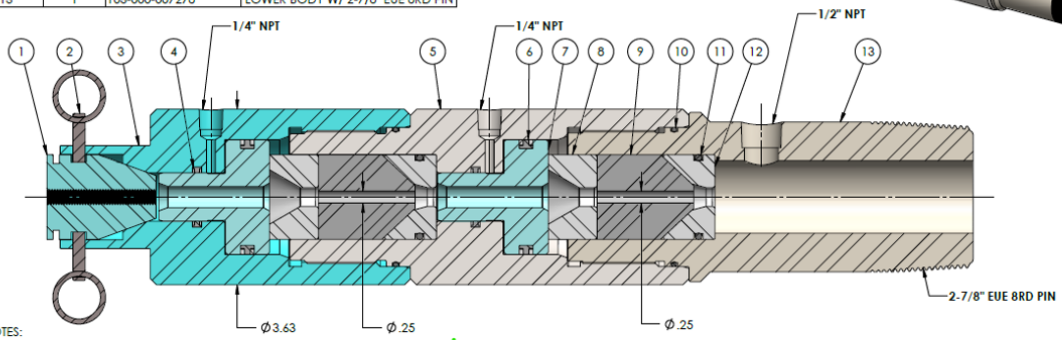
- The gauge would hang in the Ross Gulch SWD right around 4,000' near the end of tubing – see WBD pictorial below.
- The gauge will be hanging on a cable that is then led up through the top of the swap valve where a dual packing is set.
- The cable is thread through the dual packing that is rated to 5,000 psi, in-kind rating to the tree.
- The rest of the cable spool sets near the wellhead as pictured. We can cut this but chose to keep the reel if we moved this gauge to another well that needed more length.
- We set a camera trailer facing the wellhead to maintain visual. This will be monitored continuously by our control room in Midland.
- In the event of a leak detected from the camera, control room will dispatch an operator to control leak.
- We will perform an on-site visual inspection for leaks daily.
- The gauge cable is wired up to our PLC that brings in the real-time data polling every 2 seconds.
    - Pressure & Temperature data is brought into Cygnet where it is archived and trend-able. See screenshot below of Cygnet.
- Casing valves are unaffected. We can perform MITs.
- In the event of a well control event, we will pump a kill fluid into the wellbore via the wing valve connection.
- In the event of a single failed packoff, we will kill the well and install a new dual packoff.
- We will disconnect the injection line to prevent any ability for water to go downhole. You will see a physical separation between the injection line leading to the well and the tree.

ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
1	1	103-025-006	1/4" SLIPS
2	2	103PINA	LINCH PIN WITH KEY ASSEMBLY
3	1	203-150-002	TOP CUP UPPER BODY
4	2	525-110-282R	ROD T-SEAL
5	1	203-150-011	MIDDLE BODY
6	2	525-110-466P	PISTON T-SEAL
7	2	203-1538-020	ACTUATION PISTON
8	2	103-1538-018	SPACER SOLID
9	2	100-025-003HNBR	PACKING
10	2	500-110-192	O-RING
11	2	500-110-298	O-RING
12	2	103-038-002	SOLID INSERT
13	1	103-000-007278	LOWER BODY W/ 2-7/8" EUE 8RD PIN

Triple J Coil Tubing Products, LLC
10030 Fairbanks N. Houston
Houston, Texas 77064
Phone: (281) 897-0101
FAX: (281) 897-0102
jmckee@tjctp.com

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	2/22/2021	CS





NOTES:

1. STENCIL REQUIREMENTS:
   - MARK WITH 1/4" LOW IMPACT DOT:
     - ASSEMBLY #
     - SERIAL #
     - DATE OF MANUFACTURE
2. TRACEABILITY REQUIREMENTS:
   - FILL OUT FORM QF-045
     - QUANTITIES
     - PART NUMBERS
     - LOT / BATCH #
     - SERIAL NUMBERS
     - CURE / HEAT DATE
     - EXPIRATION DATE

Triple J Coil Tubing Products, LLC
CONFIDENTIAL

APPROVED

UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± .125 ONE DECIMAL PLACE .X ± .030 TWO PLACE DECIMAL .XX ± .010 THREE PLACE DECIMAL .XXX ± .005	DRAWN	JM	02/22/2021
	CHECKED	CS	02/22/2021
	PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF TRIPLE J COIL TUBING PRODUCTS. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF TRIPLE J COIL TUBING PRODUCTS IS PROHIBITED.		
INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5			
MATERIAL: 4130			
FINISH			
DO NOT SCALE DRAWING			

TRIPLE J COIL TUBING PRODUCTS, LLC

TITLE:
1/4" CAPILLARY HANGER, DOUBLE PACKOFF W/ TOP CUP X 2-7/8" EUE 8RD PIN

SIZE	DWG. NO.	REV
B	203-025-278TCDPNA	A

WEIGHT: 40.05 LBS SHEET 1 OF 1

0.75" Piezo Perm

Application

DataCan's Multi-Gauge Piezo Bottom Pressure Tool can be used on its own or at the bottom of a multi-gauge pressure system. This tool comes in a standard version as well as a pressure testable version for quality assurance.

Benefits

The Multi-Gauge Piezo Bottom Pressure Tool is easy to install and produces high quality reservoir data in real time. It's fully welded construction, dual protection metal to metal seal design, and hermetically sealed electronics make it a very reliable product. This is the final gauge in a multi-gauge system. Alternatively, this gauge can be used on it's own as a single gauge in a single gauge system.

The Crimp-y-doo, at the heart of DataCan's new gauge design, ensures correct wire prep and prevents the TEC conductor from pulling up into the armor. If you find yourself assembling a gauge without a crimpy-doo, you just better crimp-y-don't!

Features

- Fully Welded Construction
- Hermetically Sealed
- Corrosion Resistant - NACE MR0175
- Slim 0.75" Diameter
- Pressure Testable Option

Multi-Gauge Piezo Bottom Pressure Tool - Standard

Pressure	Temperature	Part No.					
		1/8" Wire		1/4" Wire		4mm Wire	
		SS	Inconel	SS	Inconel	SS	Inconel
750 psi	150°C	111542	111548	111530	111536	111554	111560
1,500 psi		111543	111549	111531	111537	111555	111561
3,000 psi		111544	111550	111532	111538	111556	111562
6,000 psi		111545	111551	111533	111539	111557	111563
10,000 psi		111546	111552	111534	111540	111558	111564
15,000 psi		111547	111553	111535	111541	111559	111565

Multi-Gauge Piezo Bottom Pressure Tool - Pressure Testable

Pressure	Temperature	Part No.					
		1/8" Wire		1/4" Wire		4mm Wire	
		SS	Inconel	SS	Inconel	SS	Inconel
750 psi	150°C	112166	112172	112154	112160	112178	112184
1,500 psi		112167	112173	112155	112161	112179	112185
3,000 psi		112168	112174	112156	112162	112180	112186
6,000 psi		112169	112175	112157	112163	112181	112187
10,000 psi		112170	112176	112158	112164	112182	112188
15,000 psi		112171	112177	112159	112165	112183	112189

Accessories

Accessory Type	Part No.		
	1/8" Wire	1/4" Wire	4mm Wire
Redress Kit Sweet	112758	112756	112760
Redress Kit Sour	112759	112757	112761

Specifications

	Pressure	Temperature
Accuracy Up To	0.03% F.S.	0.5°C
Resolution	0.0003% F.S.	0.005°C
Drift	< 3 psi / year	< 0.1°C / year

Manuals

Permanent Downhole Gauge - User Manual

Visit Us: DataCan.ca Email: Info@DataCan.ca Canada: +1 (403) 352.2245 USA: +1 (281) 974.7010

Attachment 2

1. Please clarify the pressure equipment: is it a real-time system or a down-hole recorder that is periodically pulled? The wellbore diagram for the NOI shows real time.

    - This is a real-time system. It is not pulled periodically but rather we are able to receive 5 second polled data in real-time and captured through Cygnet.

2. In your summary, would you please specify the size of the gauge cable, and whether the Master valve and/or swab valve are capable of cutting the cable if circumstances required the well to be shut-in with the gauge cable across those valves. A question was raised whether the well could be shut-in properly should there be a downhole issue especially if there is no backpressure valve in the tubing hanger profile due to a cable running to surface.

    - Gauge Size: 0.25" OD X .035" Wall, 16AMG Solid, FEP/Poly, 316 SS
    - While specs are not published for master valves regarding cutting wire – it is accepted as something these gate valves are able to accomplish. I believe due to the size of the wire we would not have a problem cutting to achieve isolation. It is advised from our internal wellhead experts to have additional shear pins on-hand which we can certainly store on location should an issue arise requiring us to shut the master valves.

3. Current reservoir conditions: Any information on the current reservoir pressure would be beneficial including the expected static water level in the tubing. Also a statement on the performance of the well when it was operated as a SWD would be helpful.

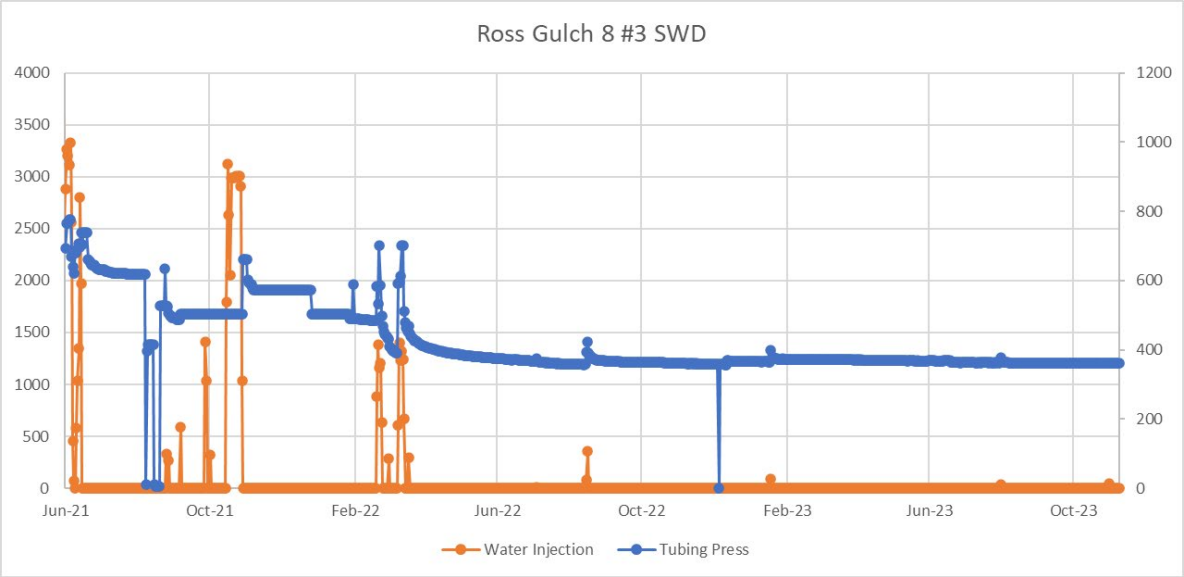
    - Water level is at surface. Estimated bottom-hole pressure is 2,239 psi.
    - We have only injected 179 barrels this year due to injection permit reductions.
    - In 2022 we could inject ~1,230 barrels per day at an average 600 psi injection pressure.
    - We have not performed recent well-work or acidizing to gain additional injection productivity due to seismicity response area curtailments.

4. No details were provided on how this gauge will be hung in the well (i.e. Is a gauge hanger run to hang/support the weight of the gauge and cable? If no gauge hanger is planned, is the gauge and cable suspended from surface?). Also related to this subject, no details were provided to document how EOG will achieve a pressure seal around the cable at surface.

    - The gauge will be suspended from surface supported by the tensile strength of the cable, 2500 lbs/ft, which we believe is sufficient to withstand the weight of the gauge & cable, 404 lb. We will have a dual mechanical wireline seal (packoff) at surface with packing fluid. (see diagram above) We will pressure test the seal by increasing the pressure with a hydraulic pump.

5. Please provide details on well inspection frequency (to verify packoff is not leaking) and well control protocol for this well. This should include an overview of the barrier(s) (closed and closeable) available for well control, a procedure to follow if a leak is observed in the packoff / stuffing box and a procedure if the packoff has to be replaced with positive pressure on the well (noting that the master valve cannot be closed below the packoff if there is a cable across the valve).

   - We will have continuous monitoring via the camera to our control room.
   - We will visually inspect daily on-site.
   - In the event of a well control event, we will pump a kill fluid into the wellbore via the wing valve connection.
   - In the event of a single failed packoff, we will kill the well and install a new dual packoff.



Ross Gulch 8 #3 SWD
Real Time Gauge Run

API #: 30-015-39736
Location: Eddy County, NM
Lat/Long: 32.0568161, -103.8011627
H2S: ND

Perforations: 4,062 – 5,517' (3 stages)
Injection Formation: Bell Canyon
Injection Zone: 4000 – 6400, packer must be set no higher than 100' above injection zone.
Maximum Wellhead Injection Pressure: 800 psi

Executive Summary: Running real-time pressure & temperature gauge to sit above the wireline reentry guide for continuous monitoring.

Procedure
(Top Perf: 4,062' Bottom Perf: 5,517'– Casing:7" 26# HC L80 8RD)
Contact Jose Sandoval to get gauge and running unit on location
Tally Production Systems – 432-888-0075

1. MIRU Modified Wireline Unit. Prep to run real-time bottom hole pressure gauge (RT BHPG) and cable.
2. NU 5K BOP and new swap valve packer. Function test all valves and pressure test connections before proceeding.
3. TIH 0.75" OD BHPG and 0.25" OD cabling. Stop at 4,020'.
4. Secure cabling. NU double swap packer. ND Lubricator, RD Wireline Unit.
5. Check for leaks and increase packing fluid as needed to confirm pressure seal.
6. Remove wheels from lower and upper master valves and place near wellhead. Wheels are removed to avoid accidental cutting of the wire hanging in the well.
7. RDMO
8. Turn over well to SWD Foreman – Adrian Flores. All injection capabilities are to be removed from the well site.
    a. Disconnect injection line from wellhead - LOTO
    b. Remove power to pumps - LOTO
    c. Remove inlet valve to facility - LOTO

Kerry Fortner, Compliance Officer A
Office: 575-393-6161 ext. 120
Cell: 575-263-6633
Kerry.fortner@state.nm.us

Gary Robinson, Compliance Officer A
Office: 575-393-6161 ext.106
Cell: 575-263-4507

Ross Gulch 8 #3 SWD

Olivia Desser 11/28/2023

Gary.robinson@state.nm.us

Production Engineer: Olivia Desser 11/30/2023

Emergency Contact

Emergency Contact Information

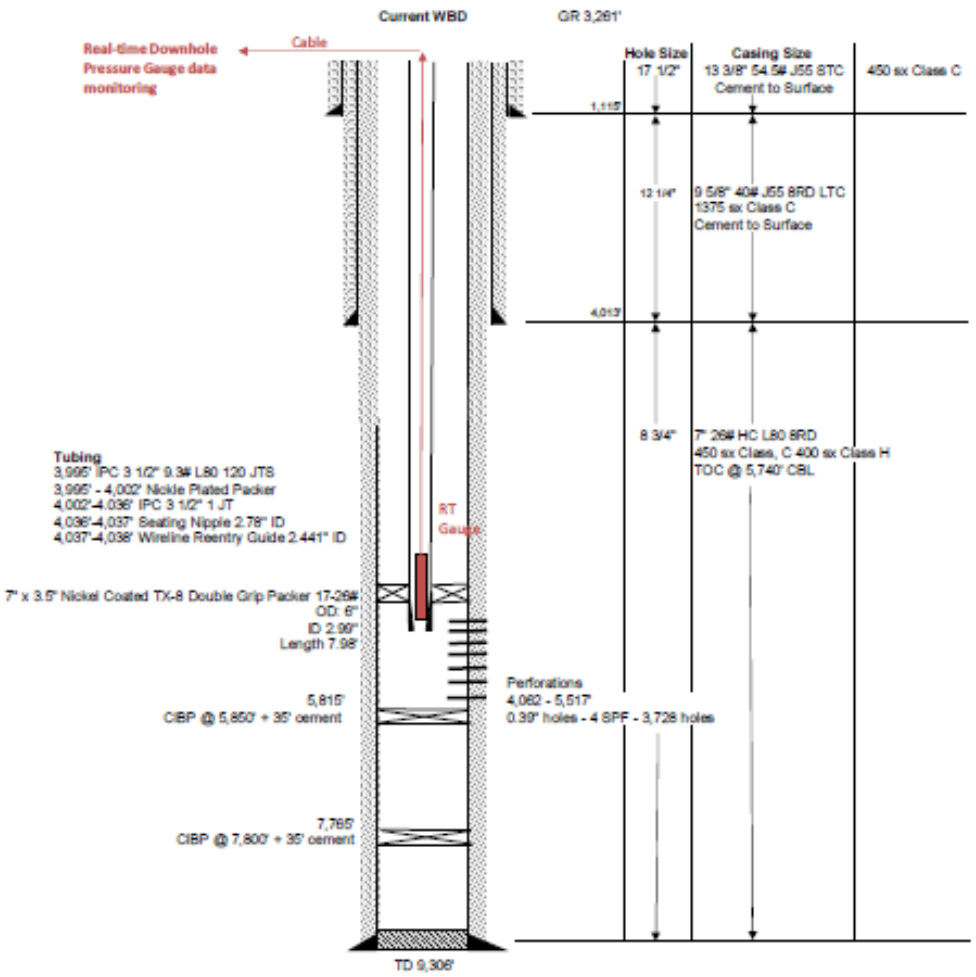
In the event of an accident/safety incident involving EOG employees or contract personnel contact:			
Name	**Title**	**Cell**	**Office**
Brian Chandler	Safety Manager	817-239-0251	817-806-0486
Ashley Mayfield	Sr. Safety Rep	432-258-7998	432-686-3662
In the event of a spill or environmental release contact:			
Name	**Title**	**Cell**	**Office**
Paige Jordan	Environmental Rep	281-624-7374	432-686-3745
Andrea Guerrero	Environmental Rep	432-385-6568	432-848-9154
Doug Lowrie	Environmental Manager	432-425-6923	432-686-3755
Production Department Contacts:			
Name	**Title**	**Cell**	**Office**
Joe Justus	Water Resources Superintendent	817-733-3645	
Adrian Flores	SWD Foreman	432-250-9848	
Ron Willett	Production Advisor	432-230-2135	432-686-3775
Tim Singley	Sr. Production Superintendent	601-731-4718	432-686-6900
Olivia Desser	Production Engineer	443-797-9314	432-238-8639
Kent Caudle	Chemical Advisor EOG	432-210-9260	
Police/Fire/Hospital Contacts			
Fire			911
Sheriff (Eddy County)			575-887-7551
Sheriff (Lea County)			575-396-3611
Hospital – Carlsbad Medical Center (Carlsbad, NM)			575-887-4100
Hospital – Lea Regional Medical Center (Hobbs, NM)			575-492-5000
Hospital – Nor-Lea General Hospital (Lovington, NM)			575-396-6611
Hospital – Winkler County Memorial Hospital (Kermit, TX)			432-586-5864

Ross Gulch 8 #3 SWD

Olivia Desser 11/28/2023

Ross Gulch 8 #3 SWD
32.0568161,-103.8011627
API 30-015-39736
Eddy County, New Mexico
Max Permited Injection Pressure: 800 psi
Permitted Injection Zone 4000-6400'
ODesser Edit 8/31/2021

Monitor Well Reclassification Porposal
August 2023



Casing (3 items)

Detail	Size	Weight	Grade	TOC	Depth
SURFACE	13.375	54.5	J-55	0	1115
INTERMEDIATE #1	9.625	40	J-55	0	4015
PRODUCTION	7	26	HCL80	0	9300

Perforations (No items found)

Stage	Top	Bottom	Num Perfs

Tubing (6 items)

Component	Name	# Items	Length	Top MD	Bot MD	Description
KB	KB	1	25.0	00.0	25.0	0 0 0 KB
Tubing	Tubing	120	3,970.0	25.0	3,995.0	3.5 9.3 L-80 2.992 Tubing
Packer	Arrowset Packer	1	08.0	3,995.0	4,003.0	7 0 0 Packer
Tubing	Tubing	1	33.2	4,003.0	4,036.2	3.5 9.3 L-80 2.992 Tubing
Seating Nipple	chanical Top Lock	1	01.1	4,036.2	4,037.3	3.5 0 2.78 Seating Nipple
Wireline Entry G	reline Entry Guide	1	00.6	4,037.3	4,037.9	3.5 0 2.441 Wireline Entry Guide

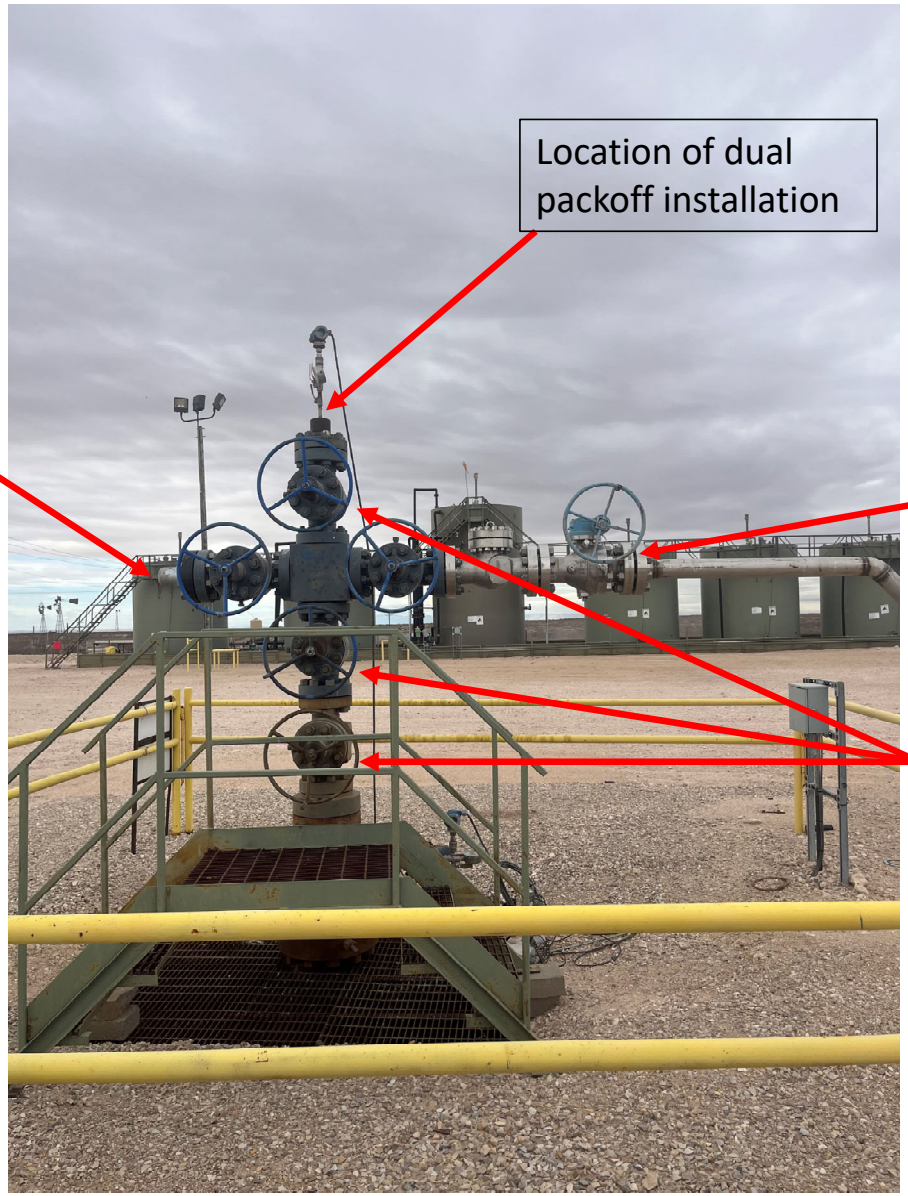
Rods (No items found)

Component	Name	# Items	Length	Top MD	Bot MD	Description

Other Equipment (No items found)

Component	Name	Length	Top MD	Bot MD

Item	Name	Ran In	Pulled	Length	# of Items	Joint #	Top Depth (FT)	Bottom Depth (ft)	Inclination	OD (inch)	ID (inch)	Grade	Wt (lb)	Connection Type	Max OD (inch)	Pipe Condition	Run Date	Pull Date	Material	Mfg	Model
KB		☑	☐	25.00	1		0	25		0	0		0	8RND EUE	0	New	8/15/2021		Please S	Please Select	
Tubing	Tubing	☑	☐	3,970.00	120	120	25	3995		3.5	2.992	L-80	9.3	8RND EUE	0	New	8/15/2021		Please S	Please Select	
Packer	Arrowset P	☑	☐	7.55	1		3995	4002.55		7	0		0	8RND EUE	0	New	8/15/2021		Please S	Please Select	803-72
Tubing	Tubing	☑	☐	33.20	1	121	4002.55	4035.75		3.5	2.992	L-80	9.3	8RND EUE	0	New	8/15/2021		Please S	Please Select	
Seating Nipple	Mechanica	☑	☐	1.07	1		4035.75	4037.25		3.5	2.78		0	8RND EUE	4.5	New	8/15/2021		Please S	Please Select	N14-32
Wireline Entry Guide	Wireline Gi	☑	☐	0.60	1		4037.25	4037.85		3.5	2.441		0	8RND EUE	0	New	8/15/2021		Please S	Please Select	



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

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

CONDITIONS

Action 344016

CONDITIONS

Operator: EOG RESOURCES INC 5509 Champions Drive Midland, TX 79706	OGRID: 7377
	Action Number: 344016
	Action Type: [IM-SD] Well File Support Doc (ENG) (IM-AWF)

CONDITIONS

Created By	Condition	Condition Date
anthony.harris	None	5/14/2024