

Form 3160-5  
(June 2019)UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB No. 1004-0137  
Expires: October 31, 2021**SUNDRY NOTICES AND REPORTS ON WELLS**  
**Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.**

5. Lease Serial No. NMNM0542015

6. If Indian, Allottee or Tribe Name

**SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator NOVO OIL AND GAS NORTHERN DELAWARE LLC

3a. Address 228 ST. CHARLES AVENUE, SUITE 912, NEW  
3b. Phone No. (include area code)  
(504) 523-18314. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
SEC 14/T23S/R28E/NMP

7. If Unit of CA/Agreement, Name and/or No.

8. Well Name and No. OVATION FED COM 1318/212H

9. API Well No. 3001549073

10. Field and Pool or Exploratory Area  
PURPLE SAGE/WOLFCAMP (GAS)11. Country or Parish, State  
EDDY/NM

## 12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION				
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off	
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity	
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other	
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon		
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal		

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleation in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has detennined that the site is ready for final inspection.)

8/5/2023 - 8/7/2023: Workover to repair hole in tubing and replace necessary tubing and gas lift system. See attachments.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)  
LINDA GOOD / Ph: (405) 590-4809Contractor  
Title

Signature

Date 08/24/2023

**THE SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

JONATHON W SHEPARD / Ph: (575) 234-5972 / Accepted

Petroleum Engineer  
Title

Date 08/25/2023

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office CARLSBAD

Title 18 U.S.C Section 1001 and Title 43 U.S.C Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

## GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

## SPECIFIC INSTRUCTIONS

*Item 4* - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

*Item 13*: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

## NOTICES

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c) and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

**BURDEN HOURS STATEMENT:** Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

## Additional Information

### Location of Well

0. SHL: SENE / 1575 FNL / 702 FEL / TWSP: 23S / RANGE: 28E / SECTION: 14 / LAT: 32.308532 / LONG: -104.0518325 ( TVD: 0 feet, MD: 0 feet )

PPP: SWNW / 2272 FNL / 162 FWL / TWSP: 23S / RANGE: 28E / SECTION: 13 / LAT: 32.0 / LONG: -104.0490362 ( TVD: 9600 feet, MD: 9845 feet )

BHL: NENE / 2270 FNL / 130 FEL / TWSP: 23S / RANGE: 29E / SECTION: 18 / LAT: 32.3061459 / LONG: -104.0157988 ( TVD: 9882 feet, MD: 20124 feet )

Well Name: OVATION FED COM 1318	Well Location: T23S / R28E / SEC 14 / SENE / 32.308532 / -104.0518325	County or Parish/State: EDDY / NM
Well Number: 212H	Type of Well: CONVENTIONAL GAS WELL	Allottee or Tribe Name:
Lease Number: NMNM0542015	Unit or CA Name:	Unit or CA Number:
US Well Number: 300154907300X1	Well Status: Drilling Well	Operator: NOVO OIL AND GAS NORTHERN DELAWARE LLC

Subsequent Report

Sundry ID: 2747823

Type of Submission: Subsequent Report      Type of Action: Workover Operations

Date Sundry Submitted: 08/24/2023      Time Sundry Submitted: 12:22

Date Operation Actually Began: 08/05/2023

Actual Procedure: 8/5/2023 - 8/7/2023: Workover to repair hole in tubing and replace necessary tubing and gas lift system. See attachments.

SR Attachments

Actual Procedure

Ovation\_Fed\_Com\_1318\_212H\_tbg\_workover\_procedure\_revised\_and\_WBD\_attachments\_20230824115131.pdf

Well Name: OVATION FED COM 1318	Well Location: T23S / R28E / SEC 14 / SENE / 32.308532 / -104.0518325	County or Parish/State: EDDY / NM
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Lease Number: NMNM0542015	Unit or CA Name:	Unit or CA Number:
US Well Number: 300154907300X1	Well Status: Drilling Well	Operator: NOVO OIL AND GAS NORTHERN DELAWARE LLC

Operator

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

Operator Electronic Signature: LINDA GOOD	Signed on: AUG 24, 2023 11:51 AM
Name: NOVO OIL AND GAS NORTHERN DELAWARE LLC	
Title: Contractor	
Street Address: 1001 WEST WILSHIRE BLVE SUITE 206	
City: OKLAHOMA CITY	State: OK
Phone: (405) 590-4809	
Email address: JCARTER@NOVOOG.COM	

Field

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

BLM Point of Contact

BLM POC Name: JONATHON W SHEPARD	BLM POC Title: Petroleum Engineer
BLM POC Phone: 5752345972	BLM POC Email Address: jshepard@blm.gov
Disposition: Accepted	Disposition Date: 08/25/2023
Signature: Jonathon Shepard	

Novo Oil &amp; Gas, LLC

CAPITAL WORKOVER PROCEDURE

Well	Property Number	AFE Number
OVATION FED COM 1318 212H	30015-10068	4500069

Responsibility Paul Jobe – Senior Operations Engineer  
Brad Walls – Production Superintendent  
Aaron Cattley – Senior Operations Engineer  
Aaron Roberge – Completion Superintendent  
Rocky Garlow – Completion Superintendent

Procedure Date: August 5, 2023 - Edited August 24, 2023

**OVATION FED COM 1318 212H**  
**API #: 30-015-49073**

**WOLFCAMP XY INTERVAL**

**GPS Coordinates: 32.30853198, -104.05183249**

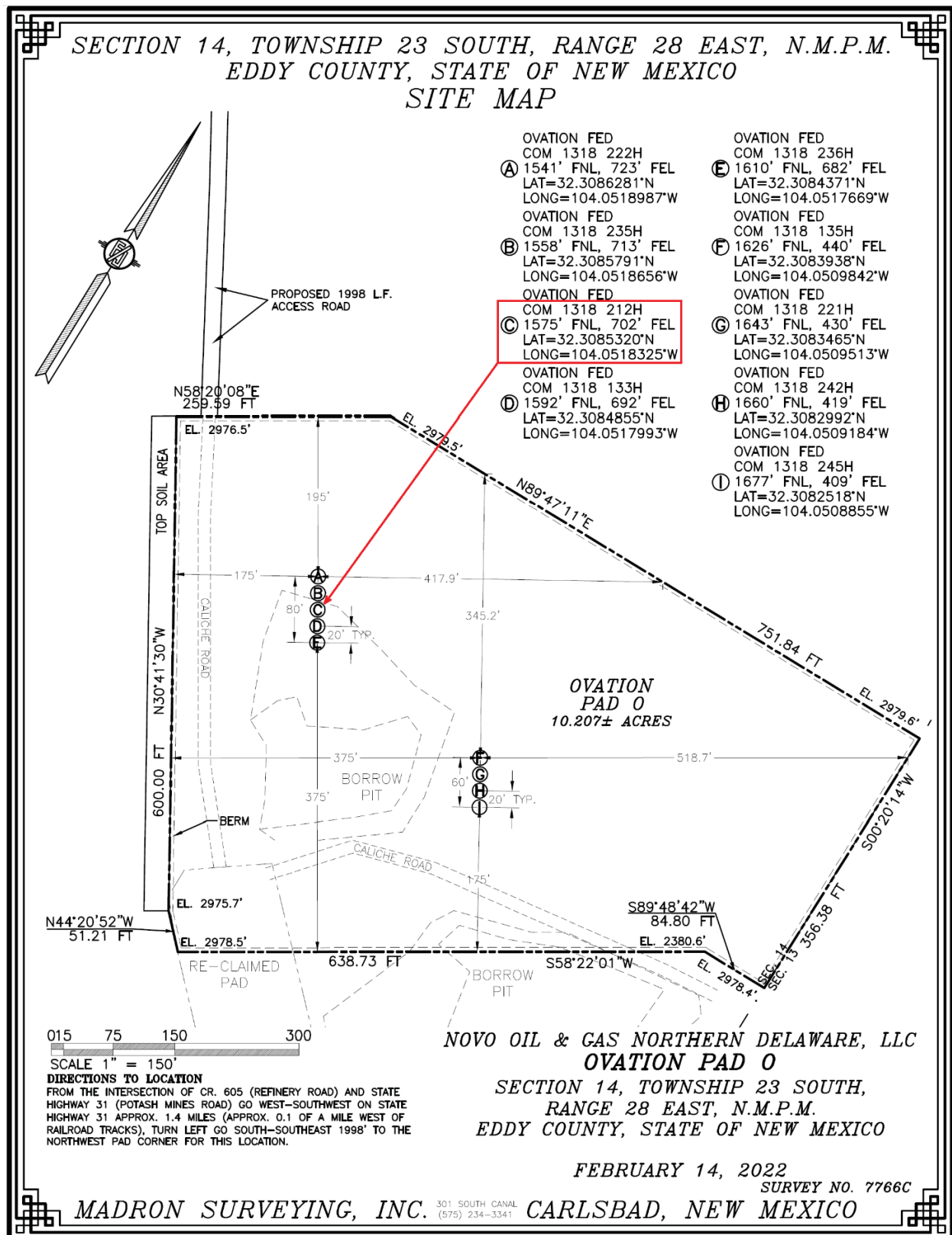
Eddy County, NM

Directions: From Carlsbad, Travel South on Highway 285 for 7.7 miles. Turn left on New Mexico State Road 31(Potash Mines Rd) and travel 3.9 miles Turn right on to lease road and go 0.25 miles to location.

OVATION FED COM 1318 222H WORKOVER

Novo Oil &amp; Gas, LLC

## Wellsite Layout – Ovation Fed Com 1318 Pad O



OVATION FED COM 1318 222H WORKOVER



Novo Oil & Gas, LLC

## **OVATION FED COM 1318 212H Workover Background and Scope**

### **Executive Summary:**

Production from the Ovation Fed Com 1318 212H began November 1, 2022, and the well flowed up tubing until December 28, 2022 when gas-lift injection was initialized. Since that time production from the well has been assisted by the gas-lift system via annular gas injection. Through multiple Crestwood downtime and pressure events since April 4, 2023, the well has struggled to maintain consistent flow. Since the beginning of July 2023, the pressure differential between tubing and casing has steadily diminished to the point where they have equalized. The well was shut-in July 9 to evaluate fluid level and it level was found to be at 1,500 ft from surface. A test of the tubing and casing pressures indicate either a hole in the tubing or a cut gas-lift valve. Either of those preclude any measurable production contribution from the reservoir.

### **Scope of Workover:**

This workover is being proposed to remove and inspect the existing tubing, gas-lift system, packer and BHA, replace all joints and components that are damaged beyond reuse, then rerun tubing and gas-lift back into the well and return the well to production utilizing annular gas injection.

- Due to the deviated trajectory of this well, there is potential that we will not be able to deliver enough torque to unset the packer. This has been the case with other workovers on this pad. If this scenario is encountered the scope of the workover will include running free-point calculations, cutting tubing, then running the hole with fishing tools and work-string to retrieve tubing and packer. Historically we have been free all the way to the packer, just unable to deliver enough torque through the production tubing to unset the packer.

OVATION FED COM 1318 222H WORKOVER



Novo Oil &amp; Gas, LLC

## OVATION FED COM 1318 212H Workover Procedure

Casing: 5 1/2" 20# P-110 set at 20,080 ft  
Liner: None  
Tubing: 2-7/8", 6.5 #/ft L80 tubing and gas-lift system. EOT @ 9,575.59 ft  
Elevation: 2,980 ft GL 3,006.90 KB  
Average Lateral TVD: 9,823 ft

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### Pre-Job safety meeting

Before any work is performed there will be a tailgate safety meeting held to discuss the job details, hazards and inspection of equipment. Make sure all safety equipment in proper place: chock blocks, grounding cables, and fire extinguishers.

- Fall protection is required when working at heights. A man lift will be used when deemed appropriate by Novo company representative. Fall protection is required at all times while working from a man lift.
  - Well and tubing string information will be given by the Novo company representative.
  - Understanding of max pull capabilities of workover rig, and weight of tubing in well, as well as weight of work string.
  - Proper PPE required to perform work
  - Designated smoking area
  - Emergency evacuation procedure and designated muster areas
  - Job procedures and designated duties and responsibilities
  - Contingency plans specific to each vendor involved in operations
- 

8/5/2023:

1. MIRU WOR.
2. MIRU auxiliary equipment.
3. Kill well with weighted brine.
4. Install back-pressure valve, remove tree, install and test BOPs.
5. Remove back-pressure valve.

8/6/2023:

6. Unset packer at 9,555 ft and pull out of the hole with the existing tubing and gas-lift system, packer and BHA. NOTE: Inspect tubing as it comes out of the hole to locate the hole in the tubing and to determine how many joints need to be replaced when re-running tubing and gas-lift system. If the tubing is in bad shape as it comes out of the well, lay down and contact Audra Manning with JD Rush to have a new tubing string delivered to location. Also contact Champion-X to provide gas-lift system replacement.
7. NOTE: If packer will not unset and we cannot J off the packer, we will move into tubing recovery mode, running free-point calculations, cutting tubing below deepest gas-lift mandrel and pulling out of the hole with tubing and gas-lift system, then going back in with overshot and jars to get the packer and remaining tubing. IF THIS CONTINGENCY BECOMES NECESSARY, WE WILL HAVE A CALL TO DISCUSS PRIOR TO CUTTING TUBING.

OVATION FED COM 1318 222H WORKOVER

Novo Oil &amp; Gas, LLC

8. RIH with gauge-ring/junk-basket combo to 9,400 ft ensure casing is clear, then POOH with same.

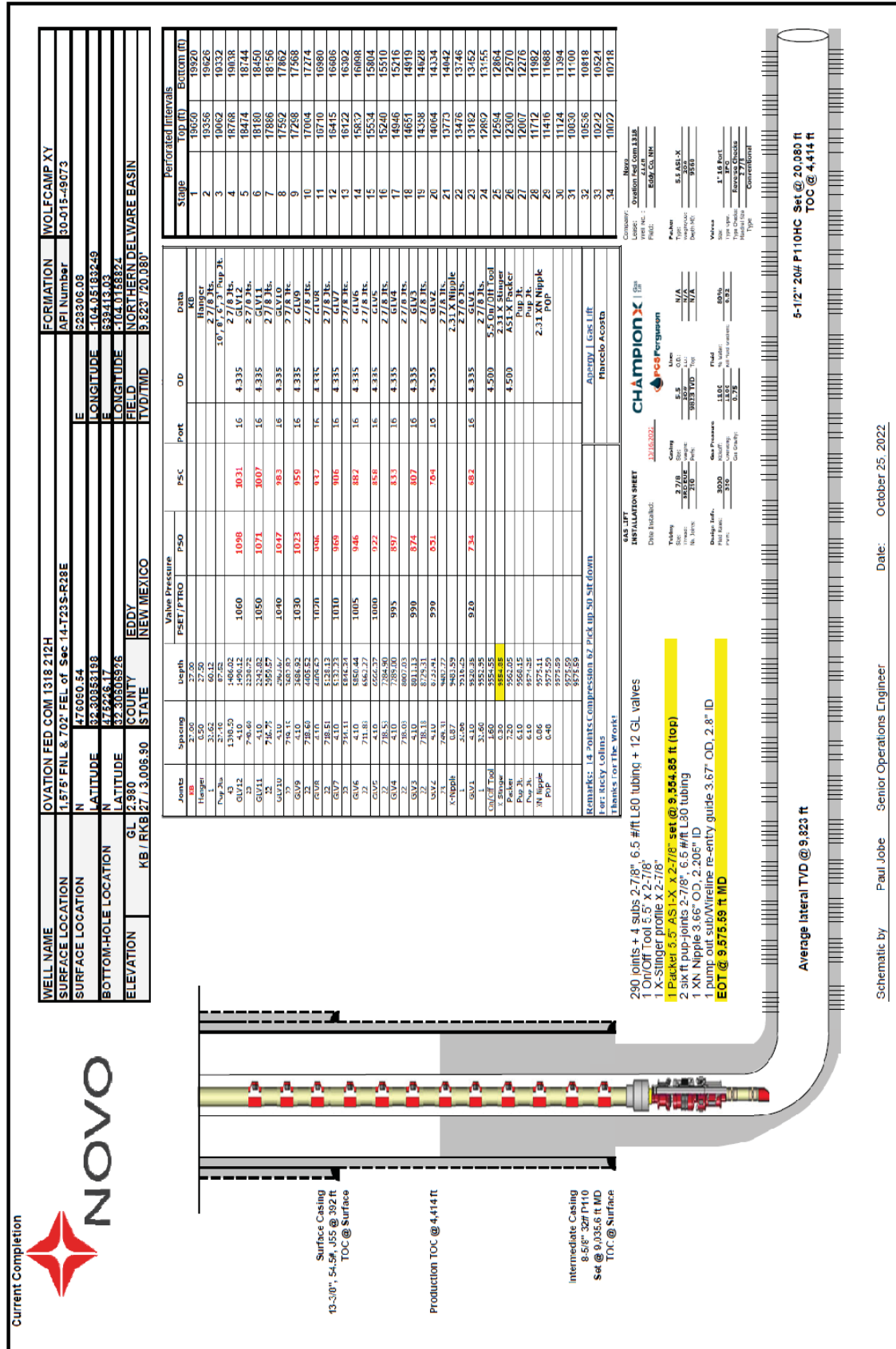
8/7/2023:

9. Run in hole on wireline with packer and BHA as below and **set packer** at **9,360 ft**.
  - 1 AS1X packer 2-7/8" x 5-1/2" 20 #/ft
  - Stringer nipple in top of packer with 2.31" ID profile
  - 2 pup-joints 2-7/8", 6.5 #/ft L80 tubing
  - 1 XN-Nipple 3.66" OD, 2.2" ID x profile x 2-7/8"
  - 1 pump out sub/Wireline re-entry guide 3.67" OD, 2.8" ID
10. Pick up and run-in hole with 2-7/8, 6.5#/ft L80 production tubing and gas-lift system as described in attached Gas Lift Design. Actual tubing depths will be as per on location calculations for depths based on actual tubing lengths.
11. **Sting into packer at 9,360 ft.**
12. EOT @ ~9,381 ft.
13. Space out and land tubing in tubing head, install back-pressure valve in tubing, remove BOP, and reinstall wellhead.
14. Remove back-pressure valve.
15. Rig up pump truck and pump through tubing and BHA to ensure all is clear.
16. Rig down and move off workover rig and auxiliary equipment.
17. Finalize surface connections.
18. Return well to production and gas-lift injection.

OVATION FED COM 1318 222H WORKOVER

Novo Oil &amp; Gas, LLC

## Current Well Schematic – Ovation Fed Com 1318 212H:



Ovation Fed Com 1318 222H Workover

Novo Oil &amp; Gas, LLC

**Gas Lift Installation Calculation Sheet – depths dependent on actual tubing lengths**

OVATION FED COM 1318 212H - UPDATED DESIGN - PACKER AT 9,360 FT				
Item	Description	Length each (ft)	Length (ft)	MD (ft)
46	joints 2-7/8", 6.5 #/ft EUE L80 tubing	32.67	1502.82	1502.82
1	GLV-12 top	4.1	4.1	1502.82
22	joints 2-7/8", 6.5 #/ft EUE L80 tubing	32.67	718.74	2225.66
1	GLV-11 top	4.1	4.1	2225.66
21	joints 2-7/8", 6.5 #/ft EUE L80 tubing	32.67	686.07	2916
1	GLV-10 top	4.1	4.1	2916
23	joints 2-7/8", 6.5 #/ft EUE L80 tubing	32.67	751.41	3671
1	GLV-9 top	4.1	4.1	3671
21	joints 2-7/8", 6.5 #/ft EUE L80 tubing	32.67	686.07	4362
1	GLV-8 top	4.1	4.1	4362
22	joints 2-7/8", 6.5 #/ft EUE L80 tubing	32.67	718.74	5084
1	GLV-7 top	4.1	4.1	5084
21	joints 2-7/8", 6.5 #/ft EUE L80 tubing	32.67	686.07	5775
1	GLV-6 top	4.1	4.1	5775
22	joints 2-7/8", 6.5 #/ft EUE L80 tubing	32.67	718.74	6497
1	GLV-5 top	4.1	4.1	6497
22	joints 2-7/8", 6.5 #/ft EUE L80 tubing	32.67	718.74	7220
1	GLV-4 top	4.1	4.1	7220
21	joints 2-7/8", 6.5 #/ft EUE L80 tubing	32.67	686.07	7910
1	GLV-3 top	4.1	4.1	7910
22	joints 2-7/8", 6.5 #/ft EUE L80 tubing	32.67	718.74	8633
1	GLV-2 top	4.1	4.1	8633
21	joints 2-7/8", 6.5 #/ft EUE L80 tubing	32.67	686.07	9323
1	GLV (OV)-1 top	4.1	4.1	9323
1	joints 2-7/8", 6.5 #/ft EUE L80 tubing	32.67	32.67	9360
1	On/Off Tool 5.5" x 2 7/8"	2	2	9362
1	Packer 5.5" AS1-X x 2-7/8" w/ 2.31" ID profile - t	6	6	9362
2	pup-joints 2-7/8", 6.5 #/ft EUE L80 tubing	6	12	9380
1	XN-Nipple 3.66" OD, 2.2" ID x profile x 2-7/8"	0.82	0.82	9380
1	Pump-out Plug/Wireline re-entry guide	0.42	0.42	9381

OVATION FED COM 1318 222H WORKOVER

Novo Oil &amp; Gas, LLC

**Cost Estimate**

Ovation Fed Com 1318 212H

July 26, 2023

Acct Code	Category	Description	Unit Cost	Unit	Total Cost
706	Workover Rig	COMPLETION/WORKOVER RIG	\$20,000	4	\$80,000
708	Tool & Equipment Rental	SLICKLINE	\$8,000.00	3	\$24,000
712	Tool & Equipment Rental	GAS BUSTER - WO FLOWBACK IRON	\$300.00	4	\$1,200
712	Tool & Equipment Rental	PORTABLES	\$500	4	\$2,000
712	Tool & Equipment Rental	TELEHANDLER	\$300	4	\$1,200
712	Tool & Equipment Rental	CRANE	\$4,500	4	\$18,000
712	Tool & Equipment Rental	FLOWBACK IRON/CREW	\$4,500	4	\$18,000
713	Fuel & Power	FUEL FOR ON LOCATION EQUIPMENT	\$3.0390	4000	\$12,156
717	Trucking	FUEL TRUCKING (PER HOUR)	\$150	8	\$1,200
717	Trucking	TRUCKING	\$2,500	4	\$10,000
721	Cased hole wireline	CASED HOLE WL GR/JB COMBO	\$15,000	1	\$15,000
722	Downhole Tools & Service	5-1/2" PACKER	\$20,000	1	\$20,000
722	Downhole Tools & Service	GAS LIFT SYSTEM	\$25,000	1	\$25,000
722	Downhole Tools & Service	FISHING TOOLS	\$12,000	3	\$36,000
722	Downhole Tools & Service	TUBING CUTTERS	\$12,000	3	\$36,000
726	Supervision	CONSULTING SERVICES/SUPERVISION	\$1,800	8	\$14,400
727	Contract Labor/Services	PACKER HAND	\$1,550	2	\$3,100
727	Contract Labor/Services	GAS LIFT SYSTEM HAND	\$1,550	2	\$3,100
727	Contract Labor/Services	TORQUE AND TEST	\$2,500	2	\$5,000
727	Contract Labor/Services	PRESSURE PUMPING SERVICES	\$8,500.00	4	\$34,000
727	Contract Labor/Services	WELLHEAD	\$3,600.00	2	\$7,200
727	Contract Labor/Services	MILEAGE	\$2.50	1200	\$3,000
727	Contract Labor/Services	PRODUCTION TUBING INSPECTION	\$10,000.00	1	\$10,000
751	Vaccum truck	VACUUM TRUCK	\$2,100	4	\$8,400
752	Water	10 PPG BRINE FOR KILLING WELL	\$12.00	400	\$4,800
752	Water	WATER FOR TREATING, ETC.	\$1.50	1000	\$1,500
755	Production Tubing	PRODUCTION TUBING - 2-7/8"	\$9.00	9360	\$84,240
	<b>NOTE: 2-7/8" PRODUCTION TUBING IS FROM JD RUSH</b>				
747	Contingencies (Miscellaneous)			10%	\$478,496
	<b>Workover Total</b>				<b>\$47,850</b>
					<b>\$526,346</b>

OVATION FED COM 1318 222H WORKOVER

Current Completion



WELL NAME	OVATION FED COM 1318 212H			FORMATION	WOLFCAMP XY
SURFACE LOCATION	1,575' FNL & 702' FEL of Sec 14-T23S-R28E			API Number	30-015-49073
SURFACE LOCATION	N	476090.54	E	628306.08	
	LATITUDE	32.30853198	LONGITUDE	-104.05183249	
BOTTOM-HOLE LOCATION	N	475226.17	E	639413.03	
	LATITUDE	32.30606926	LONGITUDE	-104.0158824	
ELEVATION	GL 2,980	COUNTY	EDDY	FIELD	NORTHERN DELWARE BASIN
	KB / RKB 27 / 3,006.90	STATE	NEW MEXICO	1VD/1MD	9,823' / 20,080'

Joints	Spacing	Depth	Valve Pressure		PSC	Port	OD	Data
			PSET/PTRO	PSO				
KB	27.00	27.00						KB
Hanger	0.50	27.50						Hanger
1	32.62	60.12						2 7/8 Jts.
Pup Jts.	27.40	87.52						10", 8", 6", 3" Pup Jt.
43	1398.50	1486.02						2 7/8 Jts.
GLV12	4.10	1490.12	1060	1098	1031	16	4.335	GLV12
23	748.60	2238.72						2 7/8 Jts.
GLV11	4.10	2242.82	1050	1071	1007	16	4.335	GLV11
22	716.75	2959.57						2 7/8 Jts.
GLV10	4.10	2963.67	1040	1047	983	16	4.335	GLV10
22	719.15	3682.82						2 7/8 Jts.
GLV9	4.10	3686.92	1030	1023	959	16	4.335	GLV9
22	718.60	4405.52						2 7/8 Jts.
GLV8	4.10	4409.62	1020	996	932	16	4.335	GLV8
22	718.51	5128.13						2 7/8 Jts.
GLV7	4.10	5132.23	1010	969	906	16	4.335	GLV7
22	714.11	5846.34						2 7/8 Jts.
GLV6	4.10	5850.44	1005	946	882	16	4.335	GLV6
22	711.83	6562.27						2 7/8 Jts.
GLV5	4.10	6566.37	1000	922	858	16	4.335	GLV5
22	718.53	7284.90						2 7/8 Jts.
GLV4	4.10	7289.00	995	897	833	16	4.335	GLV4
22	718.03	8007.03						2 7/8 Jts.
GLV3	4.10	8011.13	990	874	807	16	4.335	GLV3
22	718.18	8729.31						2 7/8 Jts.
GLV2	4.10	8733.41	990	851	784	16	4.335	GLV2
23	749.31	9482.72						2 7/8 Jts.
X-Nipple	0.87	9483.59						2.31 X Nipple
1	32.66	9516.25						2 7/8 Jts.
GLV1	4.10	9520.35	920	734	682	16	4.335	GLV1
1	32.60	9552.95						2 7/8 Jts.
On/Off Tool	1.60	9554.55					4.500	5.5 On/Off Tool
X Stinger	0.30	9554.85						2.31 X Stinger
Packer	7.20	9562.05					4.500	AS1-X Packer
Pup Jt.	6.10	9568.15						Pup Jt.
Pup Jt.	6.10	9574.25						Pup Jt.
XN Nipple	0.86	9575.11						2.31 XN Nipple
POP	0.48	9575.59						POP
		9575.59						
		9575.59						

Remarks: 14 Points Compression 62 Pick up 50 Sit down  
For: Ricky Collins  
Thanks For The Work!

Apergy | Gas Lift  
Marcelo Acosta

Perforated Intervals		
Stage	Top (ft)	Bottom (ft)
1	19650	19920
2	19356	19626
3	19062	19332
4	18768	19038
5	18474	18744
6	18180	18450
7	17886	18156
8	17592	17862
9	17298	17568
10	17004	17274
11	16710	16980
12	16415	16686
13	16122	16392
14	15832	16098
15	15534	15804
16	15240	15510
17	14946	15216
18	14651	14919
19	14358	14628
20	14064	14334
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22	13476	13746
23	13182	13452
24	12892	13155
25	12594	12864
26	12300	12570
27	12007	12276
28	11712	11982
29	11416	11688
30	11124	11394
31	10830	11100
32	10536	10818
33	10242	10524
34	10022	10218

Surface Casing  
13-3/8", 54.5#, J55 @ 392 ft  
TOC @ Surface

Production TOC @ 4,414 ft

Intermediate Casing  
8-5/8" 32# P110  
Set @ 9,035.6 ft MD  
TOC @ Surface

290 joints + 4 subs 2-7/8", 6.5 #/ft L80 tubing + 12 GL valves  
1 On/Off Tool 5.5" x 2-7/8"  
1 X-Stinger profile x 2-7/8"  
**1 Packer 5.5" AS1-X x 2-7/8" set @ 9,554.85 ft (top)**  
2 six ft pup-joints 2-7/8", 6.5 #/ft L80 tubing  
1 XN-Nipple 3.66" OD, 2.205" ID  
1 pump out sub/Wireline re-entry guide 3.67" OD, 2.8" ID  
**EOT @ 9,575.59 ft MD**

GAS LIFT  
INSTALLATION SHEET  
Date Installed: 10/16/2022

CHAMPION X | Gas Lift  
PCS Ferguson

Tubing	Casing	Liner
Size: 2 7/8	Size: 5.5	O.D.: N/A
Thread: 8RD EUE	Weight: 20#	I.D.: N/A
No. Joints: 290	Perfs: 9823 TVD	Top: N/A

Design Info.	Gas Pressure	Fluid
Fluid Rates: 3000	Injection: 1100	% Water: 80%
PVH: 350	Operating: 1100	Kil Fluid Gradient: 0.52
	Gas Gravity: 0.75	

Company: Novo  
Lease: Ovation Fed Com 1318  
Well No.: 212H  
Field: Eddy Co, NM

Packer	5.5 AS1-X
Type: 20#	
Weight/OD: 9560	

Valves	1" 16 Port
Type: IPO	
Type Check: Reverse Checks	
Manifold Size: 2 7/8	
Type: Conventional	

Average lateral TVD @ 9,823 ft

5-1/2" 20# P110HC Set @ 20,080 ft  
TOC @ 4,414 ft

Schematic by Paul Jobe Senior Operations Engineer

Date: October 25, 2022



Novo Oil &amp; Gas, LLC

CAPITAL WORKOVER PROCEDURE

Well	Property Number	AFE Number
OVATION FED COM 1318 212H	30015-10068	4500069

Responsibility Paul Jobe – Senior Operations Engineer  
Brad Walls – Production Superintendent  
Aaron Cattley – Senior Operations Engineer  
Aaron Roberge – Completion Superintendent  
Rocky Garlow – Completion Superintendent

Procedure Date: August 5, 2023 - Edited August 24, 2023

**OVATION FED COM 1318 212H**  
**API #: 30-015-49073**

**WOLFCAMP XY INTERVAL**

**GPS Coordinates: 32.30853198, -104.05183249**

Eddy County, NM

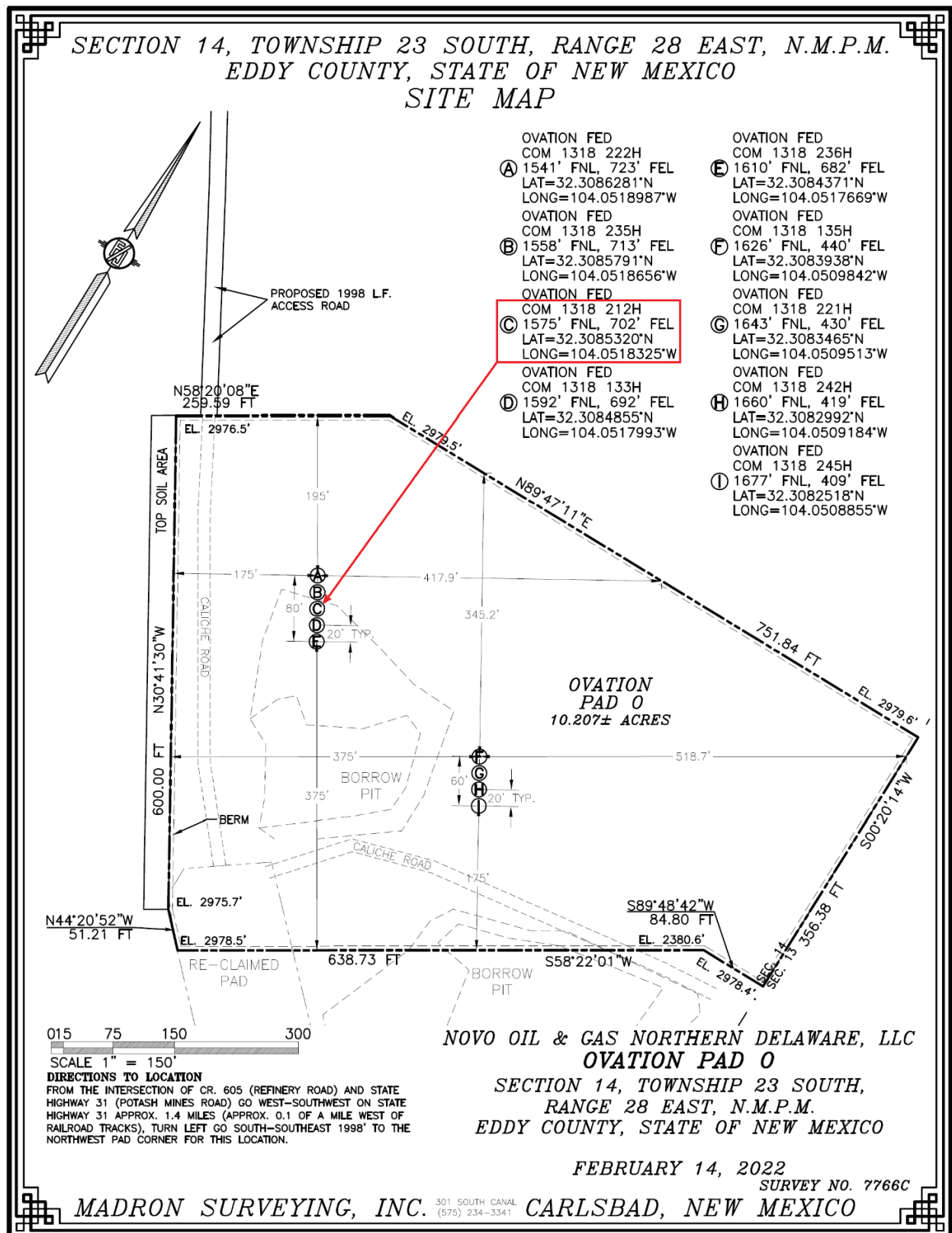
Directions: From Carlsbad, Travel South on Highway 285 for 7.7 miles. Turn left on New Mexico State Road 31(Potash Mines Rd) and travel 3.9 miles Turn right on to lease road and go 0.25 miles to location.

OVATION FED COM 1318 222H WORKOVER



Novo Oil &amp; Gas, LLC

## Wellsite Layout – Ovation Fed Com 1318 Pad O



OVATION FED COM 1318 222H WORKOVER

Novo Oil & Gas, LLC

## **OVATION FED COM 1318 212H Workover Background and Scope**

### **Executive Summary:**

Production from the Ovation Fed Com 1318 212H began November 1, 2022, and the well flowed up tubing until December 28, 2022 when gas-lift injection was initialized. Since that time production from the well has been assisted by the gas-lift system via annular gas injection. Through multiple Crestwood downtime and pressure events since April 4, 2023, the well has struggled to maintain consistent flow. Since the beginning of July 2023, the pressure differential between tubing and casing has steadily diminished to the point where they have equalized. The well was shut-in July 9 to evaluate fluid level and it level was found to be at 1,500 ft from surface. A test of the tubing and casing pressures indicate either a hole in the tubing or a cut gas-lift valve. Either of those preclude any measurable production contribution from the reservoir.

### **Scope of Workover:**

This workover is being proposed to remove and inspect the existing tubing, gas-lift system, packer and BHA, replace all joints and components that are damaged beyond reuse, then rerun tubing and gas-lift back into the well and return the well to production utilizing annular gas injection.

- Due to the deviated trajectory of this well, there is potential that we will not be able to deliver enough torque to unset the packer. This has been the case with other workovers on this pad. If this scenario is encountered the scope of the workover will include running free-point calculations, cutting tubing, then running the hole with fishing tools and work-string to retrieve tubing and packer. Historically we have been free all the way to the packer, just unable to deliver enough torque through the production tubing to unset the packer.

OVATION FED COM 1318 222H WORKOVER

Novo Oil &amp; Gas, LLC

## OVATION FED COM 1318 212H Workover Procedure

Casing: 5 1/2" 20# P-110 set at 20,080 ft  
Liner: None  
Tubing: 2-7/8", 6.5 #/ft L80 tubing and gas-lift system. EOT @ 9,575.59 ft  
Elevation: 2,980 ft GL 3,006.90 KB  
Average Lateral TVD: 9,823 ft

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### Pre-Job safety meeting

Before any work is performed there will be a tailgate safety meeting held to discuss the job details, hazards and inspection of equipment. Make sure all safety equipment in proper place: chock blocks, grounding cables, and fire extinguishers.

- Fall protection is required when working at heights. A man lift will be used when deemed appropriate by Novo company representative. Fall protection is required at all times while working from a man lift.
  - Well and tubing string information will be given by the Novo company representative.
  - Understanding of max pull capabilities of workover rig, and weight of tubing in well, as well as weight of work string.
  - Proper PPE required to perform work
  - Designated smoking area
  - Emergency evacuation procedure and designated muster areas
  - Job procedures and designated duties and responsibilities
  - Contingency plans specific to each vendor involved in operations
- 

8/5/2023:

1. MIRU WOR.
2. MIRU auxiliary equipment.
3. Kill well with weighted brine.
4. Install back-pressure valve, remove tree, install and test BOPs.
5. Remove back-pressure valve.

8/6/2023:

6. Unset packer at 9,555 ft and pull out of the hole with the existing tubing and gas-lift system, packer and BHA. NOTE: Inspect tubing as it comes out of the hole to locate the hole in the tubing and to determine how many joints need to be replaced when re-running tubing and gas-lift system. If the tubing is in bad shape as it comes out of the well, lay down and contact Audra Manning with JD Rush to have a new tubing string delivered to location. Also contact Champion-X to provide gas-lift system replacement.
7. NOTE: If packer will not unset and we cannot J off the packer, we will move into tubing recovery mode, running free-point calculations, cutting tubing below deepest gas-lift mandrel and pulling out of the hole with tubing and gas-lift system, then going back in with overshot and jars to get the packer and remaining tubing. IF THIS CONTINGENCY BECOMES NECESSARY, WE WILL HAVE A CALL TO DISCUSS PRIOR TO CUTTING TUBING.

OVATION FED COM 1318 222H WORKOVER

Novo Oil &amp; Gas, LLC

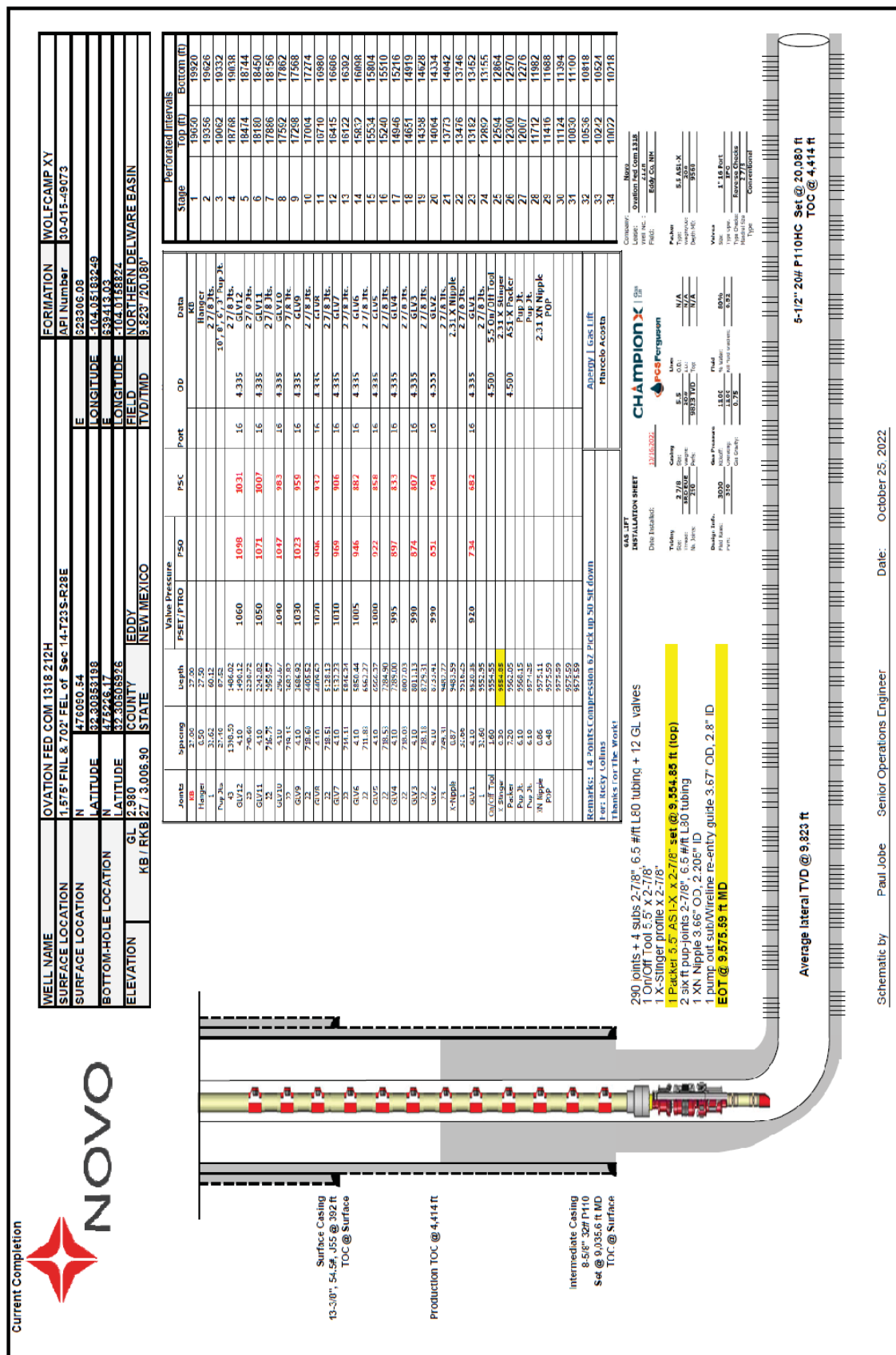
8. RIH with gauge-ring/junk-basket combo to 9,400 ft ensure casing is clear, then POOH with same.

8/7/2023:

9. Run in hole on wireline with packer and BHA as below and **set packer** at **9,360 ft**.
  - 1 AS1X packer 2-7/8" x 5-1/2" 20 #/ft
  - Stringer nipple in top of packer with 2.31" ID profile
  - 2 pup-joints 2-7/8", 6.5 #/ft L80 tubing
  - 1 XN-Nipple 3.66" OD, 2.2" ID x profile x 2-7/8"
  - 1 pump out sub/Wireline re-entry guide 3.67" OD, 2.8" ID
10. Pick up and run-in hole with 2-7/8, 6.5#/ft L80 production tubing and gas-lift system as described in attached Gas Lift Design. Actual tubing depths will be as per on location calculations for depths based on actual tubing lengths.
11. **Sting into packer at 9,360 ft.**
12. EOT @ ~9,381 ft.
13. Space out and land tubing in tubing head, install back-pressure valve in tubing, remove BOP, and reinstall wellhead.
14. Remove back-pressure valve.
15. Rig up pump truck and pump through tubing and BHA to ensure all is clear.
16. Rig down and move off workover rig and auxiliary equipment.
17. Finalize surface connections.
18. Return well to production and gas-lift injection.

OVATION FED COM 1318 222H WORKOVER

### Current Well Schematic – Ovation Fed Com 1318 212H:



OVATION FED COM 1318 222H WORKOVER

Novo Oil &amp; Gas, LLC

**Gas Lift Installation Calculation Sheet – depths dependent on actual tubing lengths**

OVATION FED COM 1318 212H - UPDATED DESIGN - PACKER AT 9,360 FT				
Item	Description	Length each (ft)	Length (ft)	MD (ft)
46	joints 2-7/8", 6.5 #/ft EUE L80 tubing	32.67	1502.82	1502.82
1	GLV-12 top	4.1	4.1	1502.82
22	joints 2-7/8", 6.5 #/ft EUE L80 tubing	32.67	718.74	2225.66
1	GLV-11 top	4.1	4.1	2225.66
21	joints 2-7/8", 6.5 #/ft EUE L80 tubing	32.67	686.07	2916
1	GLV-10 top	4.1	4.1	2916
23	joints 2-7/8", 6.5 #/ft EUE L80 tubing	32.67	751.41	3671
1	GLV-9 top	4.1	4.1	3671
21	joints 2-7/8", 6.5 #/ft EUE L80 tubing	32.67	686.07	4362
1	GLV-8 top	4.1	4.1	4362
22	joints 2-7/8", 6.5 #/ft EUE L80 tubing	32.67	718.74	5084
1	GLV-7 top	4.1	4.1	5084
21	joints 2-7/8", 6.5 #/ft EUE L80 tubing	32.67	686.07	5775
1	GLV-6 top	4.1	4.1	5775
22	joints 2-7/8", 6.5 #/ft EUE L80 tubing	32.67	718.74	6497
1	GLV-5 top	4.1	4.1	6497
22	joints 2-7/8", 6.5 #/ft EUE L80 tubing	32.67	718.74	7220
1	GLV-4 top	4.1	4.1	7220
21	joints 2-7/8", 6.5 #/ft EUE L80 tubing	32.67	686.07	7910
1	GLV-3 top	4.1	4.1	7910
22	joints 2-7/8", 6.5 #/ft EUE L80 tubing	32.67	718.74	8633
1	GLV-2 top	4.1	4.1	8633
21	joints 2-7/8", 6.5 #/ft EUE L80 tubing	32.67	686.07	9323
1	GLV (OV)-1 top	4.1	4.1	9323
1	joints 2-7/8", 6.5 #/ft EUE L80 tubing	32.67	32.67	9360
1	On/Off Tool 5.5" x 2 7/8"	2	2	9362
1	Packer 5.5" AS1-X x 2-7/8" w/ 2.31" ID profile - t	6	6	9362
2	pup-joints 2-7/8", 6.5 #/ft EUE L80 tubing	6	12	9380
1	XN-Nipple 3.66" OD, 2.2" ID x profile x 2-7/8"	0.82	0.82	9380
1	Pump-out Plug/Wireline re-entry guide	0.42	0.42	9381

OVATION FED COM 1318 222H WORKOVER



Novo Oil &amp; Gas, LLC

## Cost Estimate

Ovation Fed Com 1318 212H  
July 26, 2023

Acct Code	Category	Description	Unit Cost	Unit	Total Cost
706	Workover Rig	COMPLETION/WORKOVER RIG	\$20,000	4	\$80,000
708	Tool & Equipment Rental	SLICKLINE	\$8,000.00	3	\$24,000
712	Tool & Equipment Rental	GAS BUSTER - WO FLOWBACK IRON	\$300.00	4	\$1,200
712	Tool & Equipment Rental	PORTABLES	\$500	4	\$2,000
712	Tool & Equipment Rental	TELEHANDLER	\$300	4	\$1,200
712	Tool & Equipment Rental	CRANE	\$4,500	4	\$18,000
712	Tool & Equipment Rental	FLOWBACK IRON/CREW	\$4,500	4	\$18,000
713	Fuel & Power	FUEL FOR ON LOCATION EQUIPMENT	\$3.0390	4000	\$12,156
717	Trucking	FUEL TRUCKING (PER HOUR)	\$150	8	\$1,200
717	Trucking	TRUCKING	\$2,500	4	\$10,000
721	Cased hole wireline	CASED HOLE WL GR/JB COMBO	\$15,000	1	\$15,000
722	Downhole Tools & Service	5-1/2" PACKER	\$20,000	1	\$20,000
722	Downhole Tools & Service	GAS LIFT SYSTEM	\$25,000	1	\$25,000
722	Downhole Tools & Service	FISHING TOOLS	\$12,000	3	\$36,000
722	Downhole Tools & Service	TUBING CUTTERS	\$12,000	3	\$36,000
726	Supervision	CONSULTING SERVICES/SUPERVISION	\$1,800	8	\$14,400
727	Contract Labor/Services	PACKER HAND	\$1,550	2	\$3,100
727	Contract Labor/Services	GAS LIFT SYSTEM HAND	\$1,550	2	\$3,100
727	Contract Labor/Services	TORQUE AND TEST	\$2,500	2	\$5,000
727	Contract Labor/Services	PRESSURE PUMPING SERVICES	\$8,500.00	4	\$34,000
727	Contract Labor/Services	WELLHEAD	\$3,600.00	2	\$7,200
727	Contract Labor/Services	MILEAGE	\$2.50	1200	\$3,000
727	Contract Labor/Services	PRODUCTION TUBING INSPECTION	\$10,000.00	1	\$10,000
751	Vaccum truck	VACUUM TRUCK	\$2,100	4	\$8,400
752	Water	10 PPG BRINE FOR KILLING WELL	\$12.00	400	\$4,800
752	Water	WATER FOR TREATING, ETC.	\$1.50	1000	\$1,500
755	Production Tubing	PRODUCTION TUBING - 2-7/8"	\$9.00	9360	\$84,240
	<b>NOTE: 2-7/8" PRODUCTION TUBING IS FROM JD RUSH</b>				
747	Contingencies (Miscellaneous)			10%	\$478,496
	<b>Workover Total</b>				<b>\$47,850</b>
					<b>\$526,346</b>

OVATION FED COM 1318 222H WORKOVER



Current Completion



NOVO

WELL NAME		OVATION FED COM 1318 212H		FORMATION	WOLFCAMP XY
SURFACE LOCATION		1,575' FNL & 702' FEL of Sec 14-T23S-R28E		API Number	30-015-49073
SURFACE LOCATION		N	476090.54	E	628306.08
LATITUDE		32.30853198	LONGITUDE		-104.05183249
BOTTOM-HOLE LOCATION		N	475226.17	E	639413.03
LATITUDE		32.30606926	LONGITUDE		-104.0158824
ELEVATION		GL 2,980	COUNTY	EDDY	FIELD
KB / RKB		27 / 3,006.90	STATE	NEW MEXICO	NORTHERN DELWARE BASIN
				TVD/TMD	9,823' /20.080'

GAS LIFT  
INSTALLATION SHEET

Date Installed: 8/6/2023

Tubing		Casing	Liner
Size:	2.875"	Size:	5.5"
Thread:	EUE	Weight:	20#
No. Joints:	283	Perfs:	
Design Info.		Gas Pressure	Fluid
Fluid Rates:	3000	Kickoff:	% Water: 80%
PWH:	350	Operating:	Kill Fluid Gradient: 0.52
		Gas Gravity:	0.75

Company: Novo Oil & Gas  
Lease: Ovation Fed C  
Well No.: 212H  
Field: Northern DelawarePacker Type: Wireline Set  
Weight/OD: 20-23# / 4.3  
Depth MD:Valves Size: 1" 16 P  
Type: IPO  
Type Oper: Reverse Cl  
Mandrel Size: 2.875  
Type: Conventi

Joints	Spacing	Depth	Valve Pressure		Surface Pressure		Port	OD	Data
			PSET/PTRO	PSO (Opening)	PSC (Closing)				
KB	26.00	26.00							Tubing Ha
Hanger	0.50	26.50					2.875	2.875" L-80	
1	32.80	59.30					2.875	2.875" L-80	6.5
SUBS	3.00	62.30					2.875	2.875" L-80	6.5
44	1443.62	1505.92					4.335	2.875" L-80	6.5
GLV #12	4.10	1510.02	1070	1099	1035	16	2.875	2.875" L-80	6.5
21	688.11	2198.13					4.335	2.875" L-80	6.5
GLV #11	4.10	2202.23	1060	1075	1011	16	2.875	2.875" L-80	6.5
22	721.49	2923.72					4.335	2.875" L-80	6.5
GLV #10	4.10	2927.82	1050	1048	984	16	2.875	2.875" L-80	6.5
21	688.23	3616.05					4.335	2.875" L-80	6.5
GLV #9	4.10	3620.15	1040	1025	961	16	2.875	2.875" L-80	6.5
22	721.09	4341.24					4.335	2.875" L-80	6.5
GLV #8	4.10	4345.34	1030	998	934	16	2.875	2.875" L-80	6.5
22	721.08	5066.42					4.335	2.875" L-80	6.5
GLV #7	4.10	5070.52	1025	975	911	16	2.875	2.875" L-80	6.5
22	720.89	5791.41					4.335	2.875" L-80	6.5
GLV #6	4.10	5795.51	1015	948	884	16	2.875	2.875" L-80	6.5
21	687.99	6483.50					4.335	2.875" L-80	6.5
GLV #5	4.10	6487.60	1010	923	860	16	2.875	2.875" L-80	6.5
22	720.47	7208.07					4.335	2.875" L-80	6.5
GLV #4	4.10	7212.17	1005	898	834	16	2.875	2.875" L-80	6.5
21	679.30	7891.47					4.335	2.875" L-80	6.5
GLV #3	4.10	7895.57	1000	872	808	16	2.875	2.875" L-80	6.5
22	720.68	8616.25					4.335	2.875" L-80	6.5
GLV #2	4.10	8620.35	995	843	781	16	2.875	2.875" L-80	6.5
20	654.27	9274.62					4.335	2.875" L-80	6.5
X-NIPPLE	0.87	9275.49					3.680	X-Nip 2	
1	32.78	9308.27					2.875	2.875" L-80	
GLV #1	4.10	9312.37	925	728	681	16	4.335	2.875" L-80	
1	32.70	9345.07					2.875	2.875" L-80	
ON/OFF	1.45	9346.52					4.500	2.31X S	
STINGER	1.30	9347.82					4.500	4.5 ON/O	
ASI-X	4.35	9352.17					4.500	ASI-X 4.3	
SUB	6.10	9358.27					2.875	2.875" L-80	
SUB	6.12	9364.39					2.875	2.875" L-80	
XN-NIPPLE	0.95	9365.34					3.680	2.31XN Nip(2	
P.O.P.	0.45	9365.79					3.680	Pump ou	
		9365.79							
		9365.79							
		9365.79							
		9365.79							
		9365.79							

Remarks: 68 up; 65 N ; 60 Down with 15 points on packer

Company Rep: Mike James

Service Rep: Waldo

Perforated Intervals		
Stage	Top (ft)	Bottom (ft)
1	19650	19920
2	19356	19626
3	19062	19332
4	18768	19038
5	18474	18744
6	18180	18450
7	17886	18156
8	17592	17862
9	17298	17568
10	17004	17274
11	16710	16980
12	16415	16686
13	16122	16392
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25	12594	12864
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27	12007	12276
28	11712	11982
29	11416	11688
30	11124	11394
31	10830	11100
32	10536	10818
33	10242	10524
34	10022	10218

283 joints + 1 sub 2-7/8", 6.5 #/ft L80 tubing + 12 GL valves, 1 On/Off Tool 5.5" x 2-7/8", 1 X-Stinger profile x 2-7/8", 1 Packer 5.5" AS1-X x 2-7/8" set @ 9,347.82 ft (top) (9,352.17 ft bottom), 2 six ft pup-joints 2-7/8", 6.5 #/ft L80 tubing, 1 XN-Nipple 3.66" OD, 2.205" ID, 1 pump out sub/Wireline re-entry guide 3.67" OD, 2.8" ID,

Surface Casing  
13-3/8", 54.5#, J55 @ 392 ft  
TOC @ Surface

Production TOC @ 4,414 ft

Intermediate Casing  
8-5/8" 32# P110  
Set @ 9,035.6 ft MD  
TOC @ Surface

Average lateral TVD @ 9,823 ft

5-1/2" 20# P110HC Set @ 20,080 ft  
TOC @ 4,414 ft

Schematic by

Paul Jobe

Senior Operations Engineer

Date:

August 7, 2023

**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 258350

CONDITIONS

Operator: NOVO OIL & GAS NORTHERN DELAWARE, LLC 1001 West Wilshire Blvd Oklahoma City, OK 73116	OGRID: 372920
	Action Number: 258350
	Action Type: [C-103] Sub. Workover (C-103R)

CONDITIONS

Created By	Condition	Condition Date
dmcclure	None	9/5/2023