

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**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.
NMNM112273

6. If Indian, Allottee or Tribe Name

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

SUBMIT IN TRIPLICATE - Other instructions on page 28. Well Name and No.
COLLINSOSCOPY FEDERAL 19. API Well No.
30-015-33758-00-S110. Field and Pool or Exploratory Area
BURTON FLAT DELAWARE11. County or Parish, State
EDDY COUNTY, NM1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other2. Name of Operator
OWL SWD OPERATING LLC
Contact: MATT THIEL
E-Mail: mthiel@owlinv.com3a. Address
8214 WESTCHESTER DRIVE SUITE 850
DALLAS, TX 752553b. Phone No. (include area code)
Ph: 214-292-20114. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Sec 7 T20S R30E Lot 4 1095FSL 430FWL

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 type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input checked="" 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 recomple 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 recompletion 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 determined that the site is ready for final inspection.

Well Plugged back to 5175', Perforated Gross Interval:
3752' - 5140', 4 spf, 0.42", 1920 holes and Acidized w/238 bbls 15% HCl.
See attached for Detailed Cement, Perforations, Acid & Step Rate Test Reports and Workover Summary
& WB Diagrams.

RECEIVED

Gc 11-8-18
Accepted for record - NMOC

NOV 06 2018

DISTRICT II-ARTESIA O.C.D.

Carlsbad Field Office
OCD Artesia

14. I hereby certify that the foregoing is true and correct. Electronic Submission #440306 verified by the BLM Well Information System For OWL SWD OPERATING LLC, sent to the Carlsbad Committed to AFMSS for processing by PRISCILLA PEREZ on 10/18/2018 (19PP0163SE)	
Name (Printed/Typed) MATT THIEL	Title CORPORATE DEVELOPEMENT
Signature (Electronic Submission)	Date 10/18/2018

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By ACCEPTED	ZOTA STEVENS Title PETROLEUM ENGINEER	Date 11/02/2018
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)

12-11-2018 ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED **
Note: Incorrect info - asked Owl's consulting firm to re-cashe paperwork with correct info. - JES.

OWL

Collinsoscopy Federal #1

Acidizing Summary:

Acidize Well: Pump 238 bbl acid @ 12 bbl/min 2280 psi, Pump Gel Water 50 bbl @ 12 bbl/min 2275 psi, Pump 238 bbl acid @ 12 bbl/min 2282 psi, Pump Gel water 50bbl @ 12 bbl/min 2278psi, Pump acid 238 bbl @ 12 bbl/min 2270 psi, Pump Gel Water 50 bbl @ 12 bbl/min 2280 psi, Pump Acid 238 bbl @ 2 bbl/min 2276 psi.

Pump 500 bbl flush @ 12 bbl/min Startup 1645 psi End 1915 psi, ISIP 743 psi, 5min 741 psi, 10min 737 psi

Step rate test results.

5-Minute Recorded Wellhead Pressures for Each SRT Pump Rate							
Rate (bbl/min)	Time (minutes)						
	0	5	10	15	20	25	30
0.5	716	713	712	711	711	710	709
0.75	713	712	712	711	709	708	706
1.11	715	713	712	713	713	712	713
2.22	745	752	755	757	760	761	763
3.33	820	824	826	828	839	836	839
4.44	919	922	924	929	934	930	936
5.56	1045	1036	1046	1046	1015	1004	997

COLLINSOSCOPY FED SWD #1**Perforations Shot**

Interval	Top Dep	Btm Dep	Net Pay
1	5,136'	5,140'	4'
2	5,116'	5,126'	10'
3	5,088'	5,093'	5'
4	5,066'	5,076'	10'
5	5,040'	5,050'	10'
6	5,016'	5,026'	10'
7	4,998'	5,008'	10'
8	4,986'	4,992'	6'
9	4,962'	4,972'	10'
10	4,942'	4,948'	6'
11	4,900'	4,920'	20'
12	4,888'	4,892'	4'
13	4,880'	4,886'	6'
14	4,872'	4,876'	4'
15	4,860'	4,870'	10'
16	4,836'	4,856'	20'
17	4,822'	4,830'	8'
18	4,812'	4,814'	2'
19	4,788'	4,798'	10'
20	4,775'	4,780'	5'
21	4,678'	4,688'	10'
22	4,638'	4,646'	8'
23	4,604'	4,612'	8'
24	4,590'	4,598'	8'
25	4,544'	4,564'	20'
26	4,490'	4,510'	20'
27	4,452'	4,472'	20'
28	4,410'	4,430'	20'
29	4,390'	4,398'	8'
30	4,354'	4,364'	10'
31	4,318'	4,328'	10'
32	4,280'	4,300'	20'
33	4,243'	4,247'	4'
34	4,222'	4,232'	10'
35	4,204'	4,214'	10'
36	4,168'	4,172'	4'
37	4,102'	4,116'	14'
38	4,088'	4,098'	10'
39	4,063'	4,068'	5'
40	4,024'	4,034'	10'
41	4,005'	4,008'	3'
42	3,990'	4,000'	10'
43	3,956'	3,960'	4'
44	3,936'	3,944'	8'
45	3,920'	3,924'	4'
46	3,888'	3,892'	4'
47	3,860'	3,870'	10'
48	3,836'	3,846'	10'
49	3,818'	3,826'	8'
50	3,768'	3,788'	20'
51	3,752'	3,762'	10'


TOTAL NET PAY - 480'**TOTAL PERFS (4 SPF)- 1,920**

2. *Chlorophyll a* and *Chlorophyll b* contents were determined by spectrophotometry using the method of Lichtenthaler and Whistler (1973).

1. *Journal of the American Medical Association*, 1990; 263: 1033-1036.

1. *Journal of the American Medical Association*, 1990; 263: 1033-1036.

Job Log

Customer:	OWL SWD	Cement Pump No.:	33666	Operator TRK No.:	96691
Address:		Ticket #:	1721-46266A	Bulk TRK No.:	37728
City, State, Zip:		Job Type:	PLUGBACK		
Service District:	MIDLAND	Well Type:	OIL		
Well Name and No.:	COLLINSOSCOPY FED 001 #2	Well Location:		County:	EDDY
				State:	NEW MEXICO
Type of Cmt	Sacks	Additives	Truck Loaded On		
CLASS C	50	NEAT	33666	Front	Back
			96691	Front	Back
			37728	Front	Back
Lead/Tail:	Weight #1 Gal.	Yield	Water Requirements	CU. FT.	Man Hours / Personnel
Lead:	14.8	1.32	6.31	66	Man Hours:
Tail:					# of Men on Job:
Time (am/pm)	(BPM)	Volume (BBLs)	Pumps T C	Pressure(PSI) Tubing Casing	Description of Operation and Materials
2:30PM					ARRIVE TO LOCATION
					TEST WATER
					JSA
					RIG UP EQUIPMENT
3:30PM				1000	PRESSURE TEST LINES
3:32PM	2	7		100	PUMP F/WATER SPACER
3:35PM	2.5	5.8		50	MIX & PUMP CMT @ 14.8 (25 SKS)
3:42PM	1.5	34		20-600	DISPLACEMENT
4:01PM				600	SHUT DOWN,RIG CREW P.O.O.H.
					REVERSE UNIT, REVERSED OUT
					WAIT ON CMT TO TAG
8:28PM	1.5	5		600	PUMP F/WATER SPACER
8:42PM	1.5	5.8		600	MIX & PUMP CMT @ 14.8 (25 SKS)
8:52PM	1	29		600-1200	DISPLACEMENT
9:22PM				1200	SHUT DOWN, RIG CREW P.O.O.H.
					REVERSE UNIT, REVERSED OUT
					RIG DOWN AND MOVE OUT
Size Hole		Depth			TYPE
Size & Wt. Csg.	5 1/2 17#	Depth		New / Used	Packer
tbgs	2 7/8	Depth	6037	5175	Retainer
Top Plugs		Type			Perfs
Customer Signature:				Basic Representative:	GABRIEL ESCALERA
				Basic Signature:	
				Date of Service:	8/20/2018

[illegible]

Job Log

[illegible]

Water 7661
16.5 DISD 1.5 cm or
Fetor

Field Ticket

Midland Yard #1721 - Phone 432.687.1994 - P.O. Box 10451 Midland, Texas 79702

[illegible]

Job Log

[illegible]

FRASER
FURNITURE

— *Journal of the American Medical Association*, 1997

© 2004 Blackwell Publishing Ltd, *Journal of Internal Medicine* 255: 105–112

Job Log

[illegible]

Field Ticket

Midland Yard #1721 - Phone 432.687.1994 - P.O. Box 10451 Midland, Texas 79702

[illegible]

Job Log

[illegible]

[illegible]

Job Log

Customer:	OWL SWD	Cement Pump No.:	27890	Operator TRK No.:	96599		
Address:		Ticket #:	1721-46292 A	Bulk TRK No.:	28891		
City, State, Zip:		Job Type:	PLUGBACK(SQUEEZE)				
Service District:	MIDLAND,TX	Well Type:	OIL & GAS(SWD)				
Well Name and No.:	COLLINSOSCOPY FEDERAL 001 #2	Well Location:	CARLSBAD	County:	EDDY	State:	NM
Type of Cmt	Sacks	Additives	Truck Loaded On				
CLASS C	60	3/10% C-15	27890	Front	Back		
			96599	Front	Back		
			28891	Front	Back		
Lead/Tail:	Weight #1 Gal.	Yield	Water Requirements	CU. FT.	Man Hours / Personnel		
Lead:	14.8	1.32	6.31	79.2	Man Hours:	12	
Tail:					# of Men on Job	3	
Time (am/pm)	(BPM)	Volume (BBLs)	Pumps T C	Pressure(PSI) Tubing Casing	Description of Operation and Materials		
1000A					ARRIVE		
1015A					SPOT EQUIP.		
1035A					RIG UP		
1200P					JSA		
1215P				4000	PSI TEST		
1220P	.7-1.2	7		0-2900	EST. RATE/CIRC.		
1233P	1.2-1.7	14.1		2900-2075	MIX & PUMP CMT @14.8(EOT/RET. 3487')		
1245P	1.7-.5	13.5		2075-4000	DISPLACE STG.1		
1255P				4000-1675	SHUT DOWN & WAIT 10MIN.		
105P	0.1	0.25		1675-4000	DISPLACE STG.2		
107P				4000-2400	SHUT DOWN & WAIT 10MIN.		
117P	0.1	0.2		2400-4000	DISPLACE STG.3		
119P				4000-0	SHUT DOWN & STING OUT		
125P		40-50			REV. HAND REV. OUT		
142P					CMT CREW WASH UP		
200P					RDMO		
Size Hole		Depth			TYPE		
Size & Wt. Csg.	5 1/2 & 17#	Depth	3547'	New / Used	Packer	Depth	
tbg.	2 7/8	Depth	3487'		Retainer	YES	Depth 3487'
Top Plugs		Type			Perfs	3500'-3508'	CIBP 3547'
Customer Signature:				Basic Representative:	LACY, J. MCNEIL III		
				Basic Signature:			
				Date of Service:	8/24/2018		

Workover Summary

Company: OWL SWD Operating
Well: Collinsoscopy Fed 1
Workover: Well Conversion to SWD
Work performed by: Integrated Petroleum Technologies

8/6/2018

Pull tested anchors on location (good test).

8/8/18

Spotted rig, frac tanks and equipment.

8/9/18

Spotted pump, tested & nipple up BOP's. Secured Well.

8/10/18

Ran in hole with retrieval tool and pulled out of hole with retrievable bridge plug (set at 2686'). Secured Well.

8/11/18

Made bit and scraper run (down to 3881') to CIBP but CIBP was not found in well. Ran in hole with test packer to 3550'. Annular held 900 psi, tubing pressured to 1500 psi then dropped to 0 psi. Made bit and scraper run to 5327' and tagged 3 times. Circulated 9.9# salt water to clean hole. Secured Well. Collected 40 bbl of oil back at surface at the end of the day.

8/13/18

Spoke with BLM who wanted to drill 50' past the tagged point at 5327' to see if there was good cement. Pulled out of hole with bit & scraper. Made up and ran in hole with bridge plug and packer.

Tested to 2000 psi between 4872' – 5000' (good test).

Moved packer to test between 4809' – 5000' and established injection rate of 4 BPM @ 1300 psi.

Released and pulled packer & bridge plug.

Tested to 2000 psi between 3540' – 4809' (good test). Release packer to test between 3446' – 4809' and established injection rate of 3 BPM @ 750 psi. Spotted sand on top of retrievable bridge plug, pulled packer and top off well. Secured Well.

8/14/18

Set cast iron cement retainer at 3446' and pressure tested casing to 1000 psi (good test). Stung into cement retainer and established injection rate of 2 BPM @ 800 psi. Pumped 200 sks of Class C neat cement @ 2.5 BPM and displace tubing with 20.5 bbls of fresh water. Reverse circulate tubing and secured well.

8/15/18

Stung into cement retainer and pressure tested to 1000 psi but pressure dropped to 600 psi in 10 minutes. Established injection rate of 1.0 BPM @ 3200 psi. Pumped 50 sks of Class C neat cement and hesitation squeezed last 5 bbls @ 1230 psi for 10 minutes. Cement successfully held 800 psi. Reverse circulated tubing. Secured well.

8/16/18

Pressure tested squeeze and noticed leak off at cement retainer. Pulled out of hole. Made up and ran in hole with collars and bit. Drilled off to perfs and did not find cement. Established injection rate of 1.0 BPM @ 2300 psi. Secured well.

8/17/18

Pulled out of hole with bit. Set cast iron cement retainer at 3444'. Pressure tested above retainer at 1000 psi (good test) and established injection rate through retainer at 1.0 BPM and 2300 psi. Squeezed perfs with 50 sks of Class C cement containing additive 10% C-15 for water loss. The last 3 bbls were staged to achieve a final squeeze pressure of 1520 psi. Circulated tubing and pulled out of hole. Made up bit and collar and ran in one joint. Secured well.

8/18/18

Ran in hole with bit and collars and tagged cement at 3436'. Pick up to 3431' and circulate. Drilled cement and shut down due to weather. Secured well.

8/19/18

Drilled retainer and cement down to top of bridge plug. Pressure tested casing to 1050 psi and observed 20 psi loss over 20 minutes (good test). Pulled out of hole with bit. Ran retrieval tool and washed over bridge plug to retrieve and pull out of hole. Ran in hole with bit and collars to ream out bridges from 5327' – 6037' (tagged retainer). Secured well.

8/20/18

Pulled out of hole with bit. Ran in hole with tubing and set balanced cement plug from 5800' – 6037'. Circulated tubing and pulled out of hole. Tagged top of cement @ 5801' and set a 25 sk balanced cement plug from 5175' – 5410'. Circulated and pulled tubing. Secured well.

8/21/18

Ran in and tag cement at 5175'. Pulled tubing out of hole. Rigged up wireline and ran in hole with CBL. Rigged up charges and ran in hole to perforate intervals between 4860' – 5140' shooting 4 spf. Secured well.

8/22/18

Perforated intervals between 3860' – 4688' shooting 4 spf. Ran in hole and set Permapack packer at 3725' and released wireline. Ran in hole with 3.5" internal coated tubing, spaced out, pumped packer fluid and tested backside. Nipped down BOP and nipped up wellhead and valve. Secured well.

8/23/18

Attempted multiple MIT pressure tests but annular failed to hold pressure. Pulled slips and pulled 40k into packer and slacked off 28k; repeated pull & slack twice and let set for 10 minutes. Pressured up to 2700 psi and established injection rate of 1.0 BPM. Notified office. Nipped down wellhead and nipped up and tested BOP. Released seal assembly and stood back tubing. Made up and ran in hole mechanical packer and pressure tested from 3486' – 3722' (good test). Secured well.

8/24/18

Pulled out of hole and laid down packer. Ran in and set retrievable bridge plug at 3547'. Ran in and set cement retainer at 3486'. Pressure tested lines, stung into cast iron cement retainer and squeezed perfs with 60 sks of Class C neat cement with 10% C-15 additive. Achieved 4000 psi squeeze and held pressure. Left 4000 psi on the squeeze, stung out, circulated tubing and pulled out of hole. Secured well.

8/25/18

Made up and ran in hole with bit and collars to tag cement at 3475'. Drilled cement and part of retainer when bit lost a cone. Pulled out of hole with bit. Made up and ran back in with mill and collars to mill cone and retainer. Circulated hole clean and pulled out of hole. Made up and ran in hole with new bit and collars. Only made 6". Secured well.

8/26/18

Pulled bit and collars, rigged up sand line and magnet. Made 3 runs and fished out small pieces of cone and large amount of cast iron until no more fish. Rigged down sand line and made up bit and collars and ran in hole. Drilled on cement retainer (only made 4"). Prepared for bit trip. Secured well.

8/27/18

Pulled out of hole with bit. Waited on new bit and stabilizers. Secured well.

8/28/18

Made up new bit and stabilized BHA. Drilled retainer and cement and pulled out of hole. Made up and ran in hole with packer to set at 3490' and test the perms between 3500' – 3508'. Both tubing and annulus test was good at 500 psi with no pressure bleed off. Tested casing from 3547' to surface at 560 psi; lost 20 psi over 30-minute test (good test). Bled off pressure and secured well.

8/29/18

Pulled packer out of the hole. Retrieved bridge plug. Made up and ran in hole with anchor seal assembly on 3.5" coated tubing and stung into packer. Circulate packer fluid, space out and land hanger. Nippled down BOP and nipped up wellhead. Pressured annulus to 550 psi. Secured well.

8/30/18

Performed MIT test at 590 psi, lost 15 psi over 30 minutes (good test). Witnessed by: Gilbert Cordero NMOCD Dist 2. Rigged down and demob. Spotted acid trucks and tested lines. Opened well and burst disk at 2507 psi. Acidized with 238 bbl acid at 12 BPM & 2280 psi.

Pumped 50 bbls of gel water at 12 BPM & 2275 psi.

Pumped acid with 238 bbl acid at 12 BPM & 2282 psi.

Pumped 50 bbls of gel water at 12 BPM & 2278 psi.

Pumped acid with 238 bbl acid at 12 BPM & 2270 psi.

Pumped 50 bbls of gel water at 12 BPM & 2280 psi.

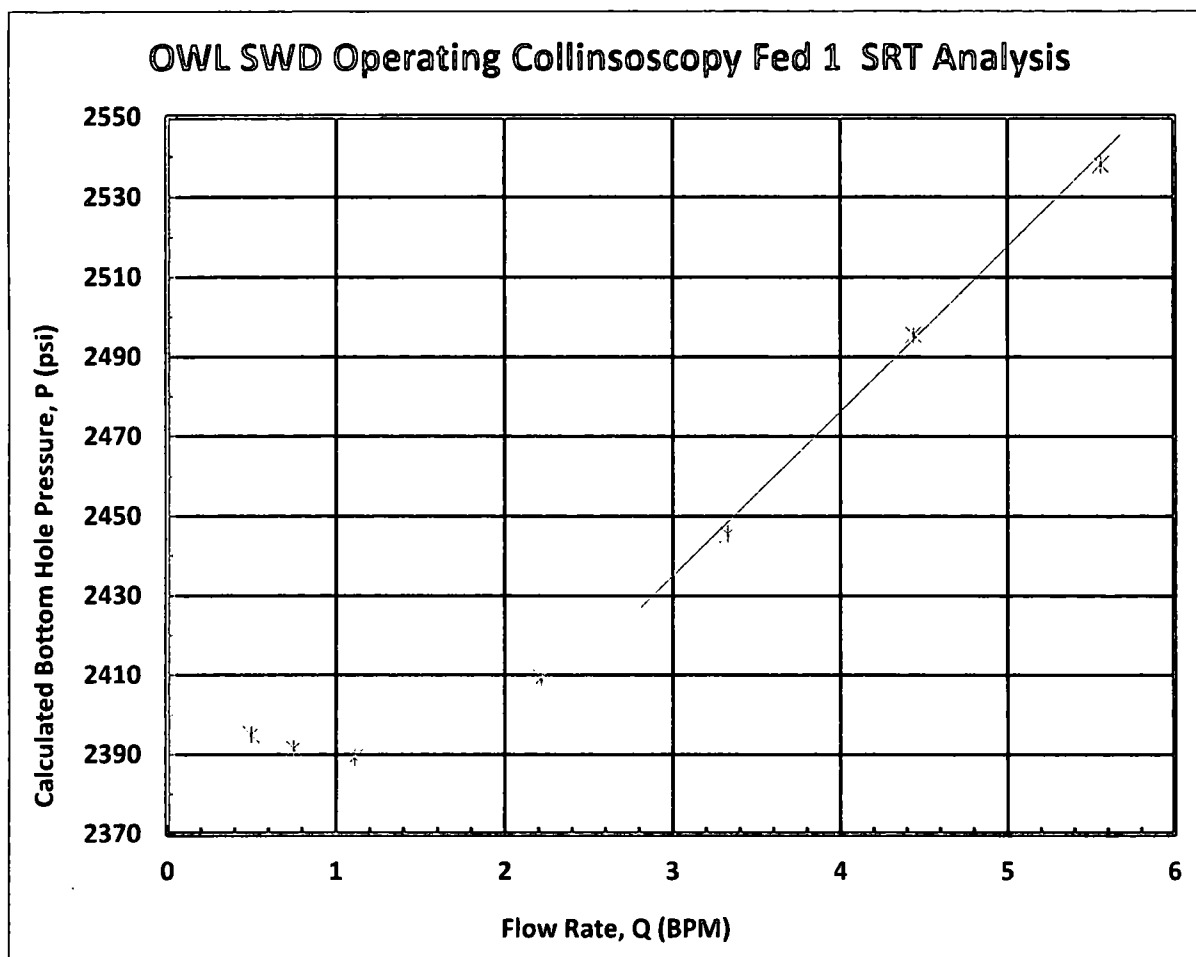
Pumped acid with 238 bbl acid at 2 BPM & 2276 psi (decrease rate to bottom of tank).

Pumped 500 bbls of salt water to flush at 12 BPM with a startup pressure of 1645 psi and end pressure of 1915 psi, ISIP 743 psi, 5-minute 741 psi, 10-minute 737 psi. Conducted step rate test at 0.5, 0.75, 1.11, 2.22, 3.33, 4.44 & 5.56 BPM. ISIP: 726 psi, 5-minute 712 psi. Pumped remaining fluid, 521 bbls @ 17 BPM @ 3040 psi. Shut in and secured well.

8/31/18

Cleaned up location.

The 7-step Step Rate Test was performed after the acidizing job to identify fracture gradient. In this case however, the rates were not high enough to produce pressures above the fracture gradient and thus, a breakover point was not identified.



The wellhead pressures were recorded in 5-minute intervals throughout each 30-minute rate step. The following table was created to document the corresponding rates pumped and pressures identified.

5-Minute Recorded Wellhead Pressures for Each SRT Pump Rate							
Rate (bbl/min)	Time (minutes)						
	0	5	10	15	20	25	30
0.5	716	713	712	711	711	710	709
0.75	713	712	712	711	709	708	706
1.11	715	713	712	713	713	712	713
2.22	745	752	755	757	760	761	763
3.33	820	824	826	828	839	836	839
4.44	919	922	924	929	934	930	936
5.56	1045	1036	1046	1046	1015	1004	997

A cost analysis was performed to identify the variation in costs between the estimate (for AFE purposes) and the actual completion costs collected on location. The initial estimated cost to re-enter the P&A and re-complete for salt water disposal operations was \$594,535. This is compared to the actual re-completion cost of \$760,988; resulting in a cost difference of \$166,453 between the estimated and actual recompletion.

The reason for this cost difference is based on several factors. Initially, only one squeeze job was planned for this recompletion. This means that four additional squeeze jobs were performed to ensure wellbore integrity and satisfy regulatory parties on location. The additional squeeze jobs led to:

Increased

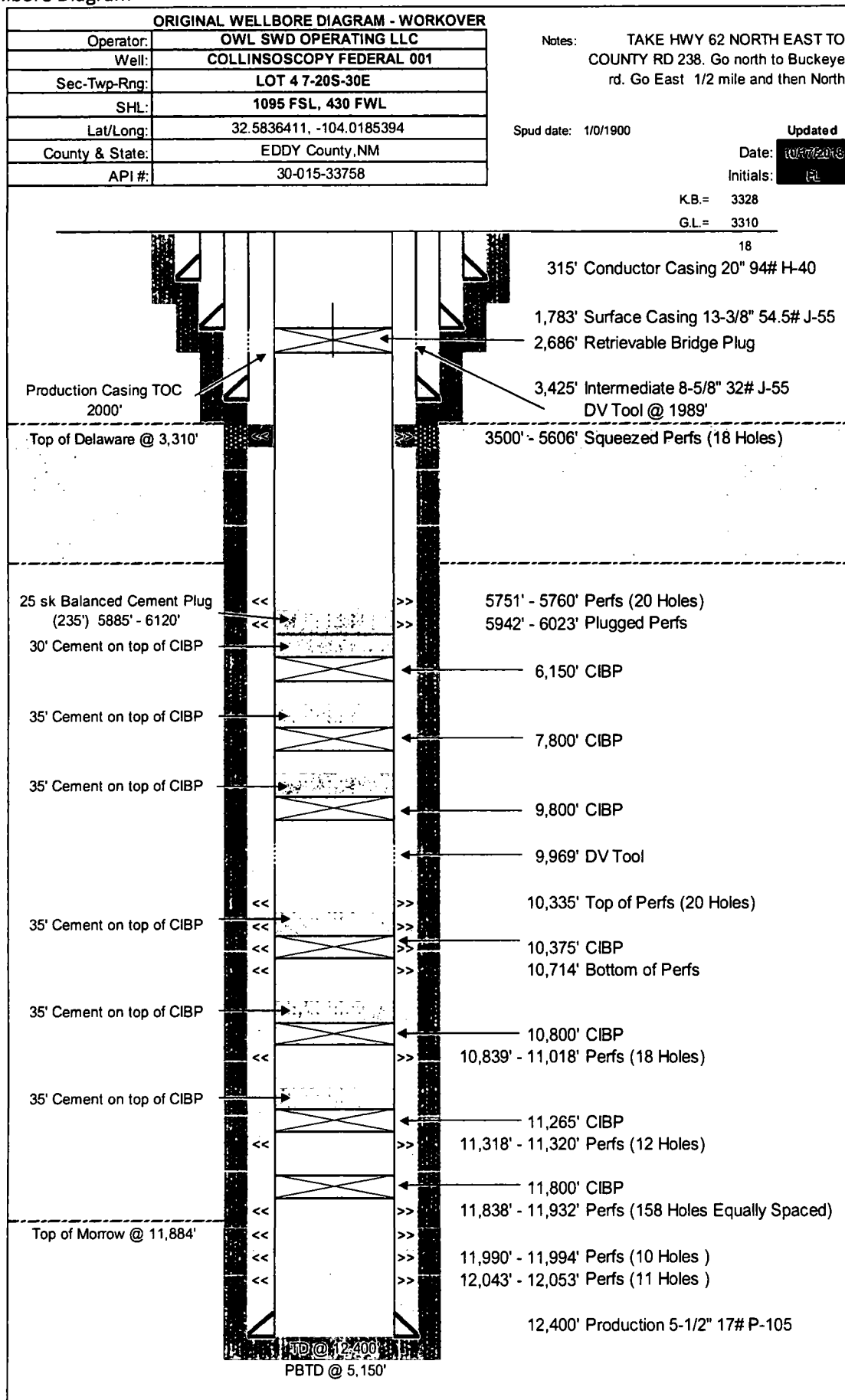
- Tool rental time
- Supervision
- Circulating fluid
- Trucking

Additional

- Rental tools
- Equipment purchases
- Surface rentals
(including acid tanks and transport)

Moreover, the step rate test was added to completion procedure after the cost estimate was submitted. After quoting the internally coated tubing, the initial manufacture identified manufacturing limitations and long lead times which led to using a more expensive internally coated tubing. Finally, the engineering cost was increased due to the engineer in the office quoting and prepping field services for deployment to location instead of the field supervisor.

Original Wellbore Diagram



As Built Wellbore Diagram

