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1000 Rio Brazos Rd., Aztec, NM 87410
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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. 30-025-06465
5. Indicate Type of Lease STATE ☒ FEE ☐
6. State Oil & Gas Lease No. B-935
7. Lease Name or Unit Agreement Name Northeast Drinkard Unit (NEDU) / 22503
8. Well Number 506
9. OGRID Number 873
10. Pool name or Wildcat Eunice; B-T-D, North (22900)

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well ☐ Gas Well ☐ Other Injection

2. Name of Operator
Apache Corporation

3. Address of Operator
303 Veterans Airpark Lane, Suite 1000 Midland, TX 79705

4. Well Location
Unit Letter O : 660 feet from the South line and 1980 feet from the East line
Section 10 Township 21S Range 37E NMPM County Lea

11. Elevation (Show whether DR, RKB, RT, GR, etc.)
3452' GL

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

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☒ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐
DOWNHOLE COMMINGLE ☐
CLOSED-LOOP SYSTEM ☐
OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐
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.

Apache intends to isolate the Drinkard for injection, per the attached. We are still evaluating which scenario will be the most operational and cost effective.

Spud Date: 1/19/1951 Rig Release Date: 3/6/1951

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

SIGNATURE Reesa Fisher TITLE Sr. Staff Reg Analyst DATE 11/16/2018

Type or print name Reesa Fisher E-mail address: Reesa.Fisher@apachecorp.com PHONE: (432) 818-1062

For State Use Only

APPROVED BY: [Signature] TITLE Petroleum Engineer DATE 11/21/18
Conditions of Approval (if any):

NEDU 506W: (API: 30-025-06465)

OBJECTIVE: ISOLATE DRINKARD FOR INJECTION

Dual Packer Isolation

1. POOH w 2-3/8" injection tubing and 5-1/2" injection packer
2. PU workstring and RIH w bit and clean out well to PBTD at ~6730' (CIBP @ 6744').
3. Make casing scraper run to around 6670' (Below Bottom Perf). POOH.
4. Run casing inspection log and cement bond log from top of Drinkard to surface. POOH.
5. RIH to perforate Drinkard formation f/ 6560-6670'. POOH.
6. RIH w/ workstring and treating packer to acid stimulate Drinkard formation w/ 5000 gals 15% HCl using rock salt for diversion. POOH.
7. MIRU wireline. RIH w/ 5-1/2" permanent packer and set in good casing between Blinebry and Drinkard (Depth dependent on casing inspection log)
8. PU 700-800' of 2-3/8" IPC externally coated tubing w/ 5-1/2" hydraulic packer on top and tie into permanent packer. Ensure hydraulic packer is at or within 100' of top perf. Pressure up tubing to set hydraulic packer. Test casing to 500 psi.
9. Perform MIT for NMOCD and return well on injection.

Scenario 2: Cement 4" FJ liner from Blinebry to TD

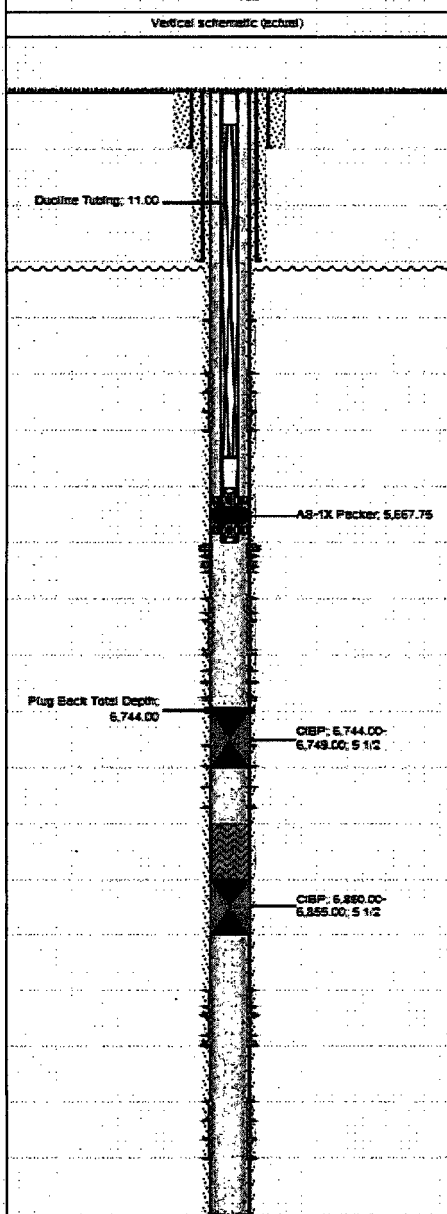
1. POOH w 2-3/8" injection tubing and 5-1/2" injection packer
2. PU workstring and RIH w/ bit and clean out well to PBTD at 6730' (CIBP @ 6744'). POOH.
3. MIRU cement and casing crew and PU 1500' of 4" casing (including float shoe, float collar, landing collar and liner hanger) using 2-7/8" L-80 workstring.
4. RIH and tag TD. Set TOL around 250-300' above top Blinebry perf. Pump spacer followed by 50-100 SX of cement. Flush with fresh water.
5. Release workstring from liner. Reverse circulate to clean hole. POOH
6. If no cement circulated to surface, PU packer and attempt squeeze liner top or RIH w/ liner packer and sting into tie back tool. Set liner packer and test casing.
7. PU bit and drill out cement to float collar. Pressure test casing. Continue drilling out cement if needed to perforate. POOH.
8. MIRU wireline. Run CBL from PBTD to surface
9. PU wireline guns and perforate Drinkard formation f/6560'—6670' (Depths TBD). POOH.
10. PU 4" treating packer w/ ~40 jts of 2-3/8" followed by remaining 2-7/8" workstring to surface. Set packer ~100' above top perf and load backside.
11. Acid stimulate Drinkard formation w/ 5000 gals 15% HCl using 1.1 SG ball sealers for diversion. Release packer and knock off balls. POOH.
12. RIH w 4" injection packer and ~6500' of 2-3/8" IPC tubing. Set packer within 20' of top perf. Circulate packer fluid and test backside to 500 psi
13. Perform MIT for NMOCD.

Apache		Downhole Well Profile w Cement						
Well Name: NEDU 506W								
API Surface Loc 3002506465		Surface Legal Location 660' FSL, 1980' FEL, Unit O, Sec 10, T-21S, R-37E		Field Name BRUNSON				
State/Province New Mexico		Original KB Elevation (ft) 3,463.0		Ground Elevation (ft) 3,452.0				
Borehole (ft) 1/19/1951		Total Depth (ft) 7,673.0		KB-Gravel Distance (ft) 11.0				
Original Hole - 6,744		Comment						
Injection, NORTHEAST DRINKARD UNIT 506 - Original Note, 10/22/2018 11:17:58 AM								
Vertical schematic (actual)		Casing Strings						
		Csg Des	OD (in)	Wt/Len (lb/ft)	Grade	Set Depth (ftKB)		
		Surface	10 3/4	40.50	H-20	342.00		
		Inter 1	7 5/8	26.70	J-55	3,098.00		
		Prod 1	5 1/2	15.50	J-55	7,673.00		
		Cement						
		String	Description	Top Depth (ftKB)	Bottom Depth (ftKB)	Top Meas Meth	Start Date	
		Surface	Surface - 300	11.00	342.00	Returns at Surface	1/20/1951	
		String	Intermediate - 1600	11.00	3,098.00	Returns at Surface	1/27/1951	
		String	Production - 485	2,945.00	7,673.00	Temperature Survey	3/9/1951	
		String	2nd Stage	5,445.00	5,445.00	Top Meas Meth	3/20/1951	
		String	Cm'd Utilized Perfs	7,620.00	7,655.00	Top Meas Meth	5/9/1963	
		String	Sqz Ellenberger Perfs - 100 sx	7,461.00	7,573.00	Top Meas Meth	11/26/1963	
		String	Sqz Drinkard Perfs - 100 sx	6,477.00	6,500.00	Top Meas Meth	3/28/1989	
		String	Sqz Blinbry Perfs - 50 sx	5,646.00	5,664.00	Top Meas Meth	3/29/1989	
		String	Cement on CIBP	6,815.00	6,850.00	Top Meas Meth	4/3/1989	
		Perforations						
		Date	Type	Prop?	Top (ftKB)	Bot (ftKB)	Shot Desc (shots/ft)	Entered Shot Total
		3/9/1951	Paddock Sqz'd	No	5,455	5,455	4.0	4
		5/7/1986	Blinbry Sqz'd	No	5,646	5,664	0.5	9
		4/3/1989	Blinbry	No	5,709	5,709	1.0	1
		12/1/1963	Blinbry	No	5,710	5,710	1.0	1
		12/1/1963	Blinbry	No	5,712	5,712	1.0	1
		4/3/1989	Blinbry	No	5,715	5,715	1.0	1
		4/3/1989	Blinbry	No	5,719	5,719	1.0	1
		4/3/1989	Blinbry	No	5,723	5,723	1.0	1
		12/1/1963	Blinbry	No	5,733	5,733	1.0	1
		4/3/1989	Blinbry	No	5,734	5,734	1.0	1
		12/1/1963	Blinbry	No	5,736	5,736	1.0	1
		4/3/1989	Blinbry	No	5,739	5,739	1.0	1
		4/3/1989	Blinbry	No	5,741	5,741	1.0	1
		4/3/1989	Blinbry	No	5,769	5,769	1.0	1
		4/3/1989	Blinbry	No	5,773	5,773	1.0	1
		4/3/1989	Blinbry	No	5,775	5,775	1.0	1
		4/3/1989	Blinbry	No	5,779	5,779	1.0	1
		12/1/1963	Blinbry	No	5,781	5,781	1.0	1



Downhole Well Profile w Cement

Well Name: NEDU 506W

Injection, NORTH-EAST DRINKARD UNIT SC6 - Original Note: 10/22/2018 11:18:52
AM

Perforations

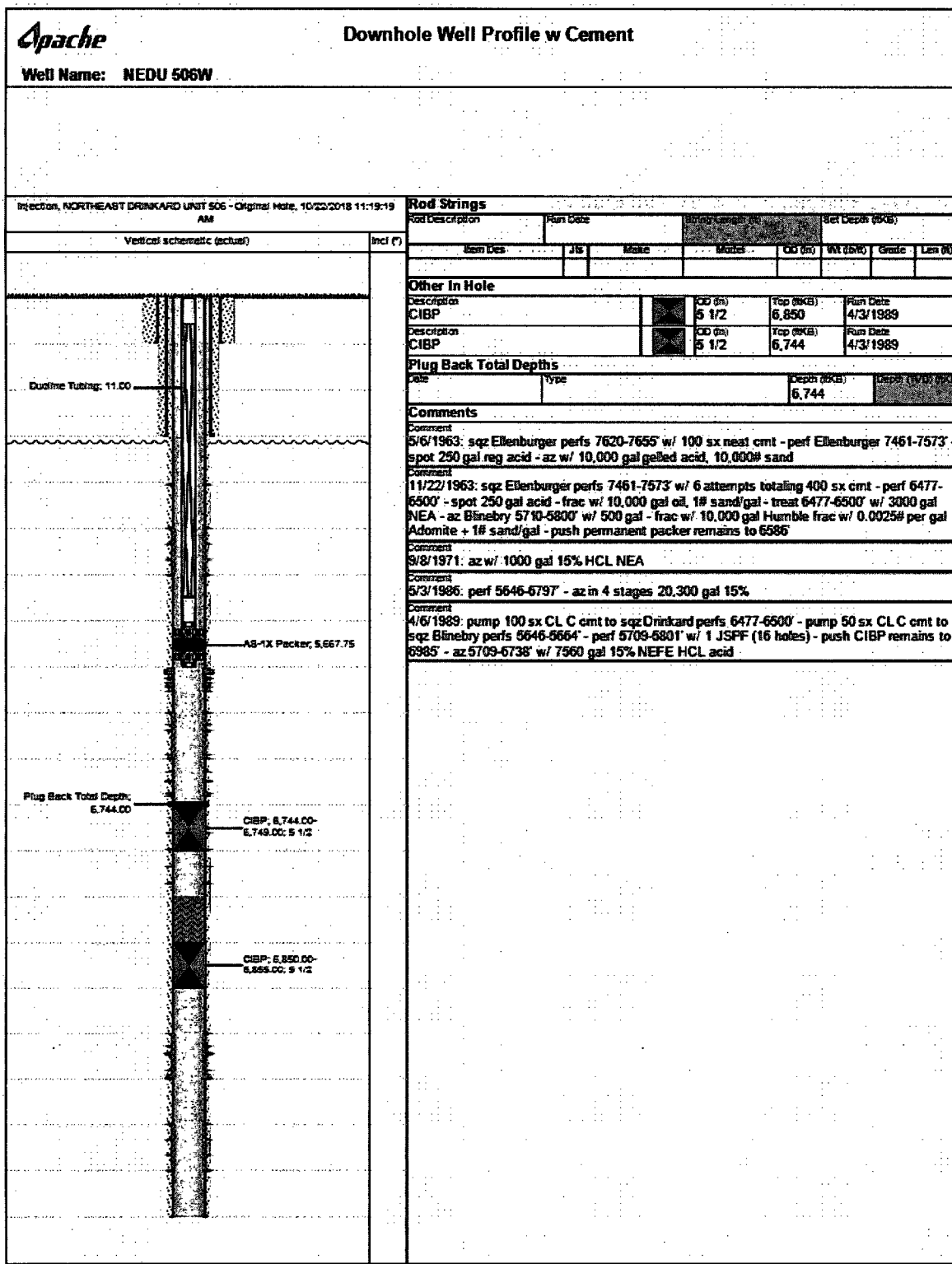
Date	Type	Prop?	Top (ftGS)	Bot (ftGS)	Shot Dens (shots/ft)	Entered Shot Total
12/1/1963	Blindbry	No	5,783	5,783	1.0	1
4/3/1989	Blindbry	No	5,783	5,783	1.0	1
4/3/1989	Blindbry	No	5,785	5,785	1.0	1
4/3/1989	Blindbry	No	5,791	5,791	1.0	1
12/1/1963	Blindbry	No	5,800	5,800	1.0	1
4/3/1989	Blindbry	No	5,801	5,801	1.0	1
5/7/1986	Blindbry	No	5,860	5,872	0.5	6
5/7/1986	Blindbry	No	5,880	5,908	0.5	14
5/7/1986	Blindbry	No	5,940	5,964	0.5	12
5/7/1986	Blindbry	No	5,982	6,002	0.5	10
5/7/1986	Tubb	No	6,034	6,072	0.5	19
5/7/1986	Tubb	No	6,096	6,110	0.5	8
11/26/1963	Drinkard Sq'd	No	6,477	6,477	1.0	1
11/26/1963	Drinkard Sq'd	No	6,483	6,483	1.0	1
11/26/1963	Drinkard Sq'd	No	6,486	6,486	1.0	1
11/26/1963	Drinkard Sq'd	No	6,498	6,498	1.0	1
11/26/1963	Drinkard Sq'd	No	6,500	6,500	1.0	1
5/7/1986	Drinkard	No	6,572	6,620	0.5	24
5/7/1986	Drinkard	No	6,620	6,686	0.5	33
5/7/1986	Drinkard	No	6,700	6,738	0.5	18
5/7/1986	Drinkard	No	6,747	6,797	0.5	25
5/13/1963	Einbrgr Sq'd	No	7,461	7,461	1.0	1
5/13/1963	Einbrgr Sq'd	No	7,493	7,493	1.0	1
5/13/1963	Einbrgr Sq'd	No	7,507	7,507	1.0	1
5/13/1963	Einbrgr Sq'd	No	7,512	7,512	1.0	1
5/13/1963	Einbrgr Sq'd	No	7,515	7,515	1.0	1
5/13/1963	Einbrgr Sq'd	No	7,552	7,552	1.0	1
5/13/1963	Einbrgr Sq'd	No	7,565	7,565	1.0	1
5/13/1963	Einbrgr Sq'd	No	7,569	7,569	1.0	1
5/13/1963	Einbrgr Sq'd	No	7,573	7,573	1.0	1
3/14/1951	Einbrgr Sq'd	No	7,620	7,655	4.0	140

Proposed Perforations

Date	Type	Prop?	Top (ftGS)	Bot (ftGS)	Shot Dens (shots/ft)	Entered Shot Total

Tubing Strings

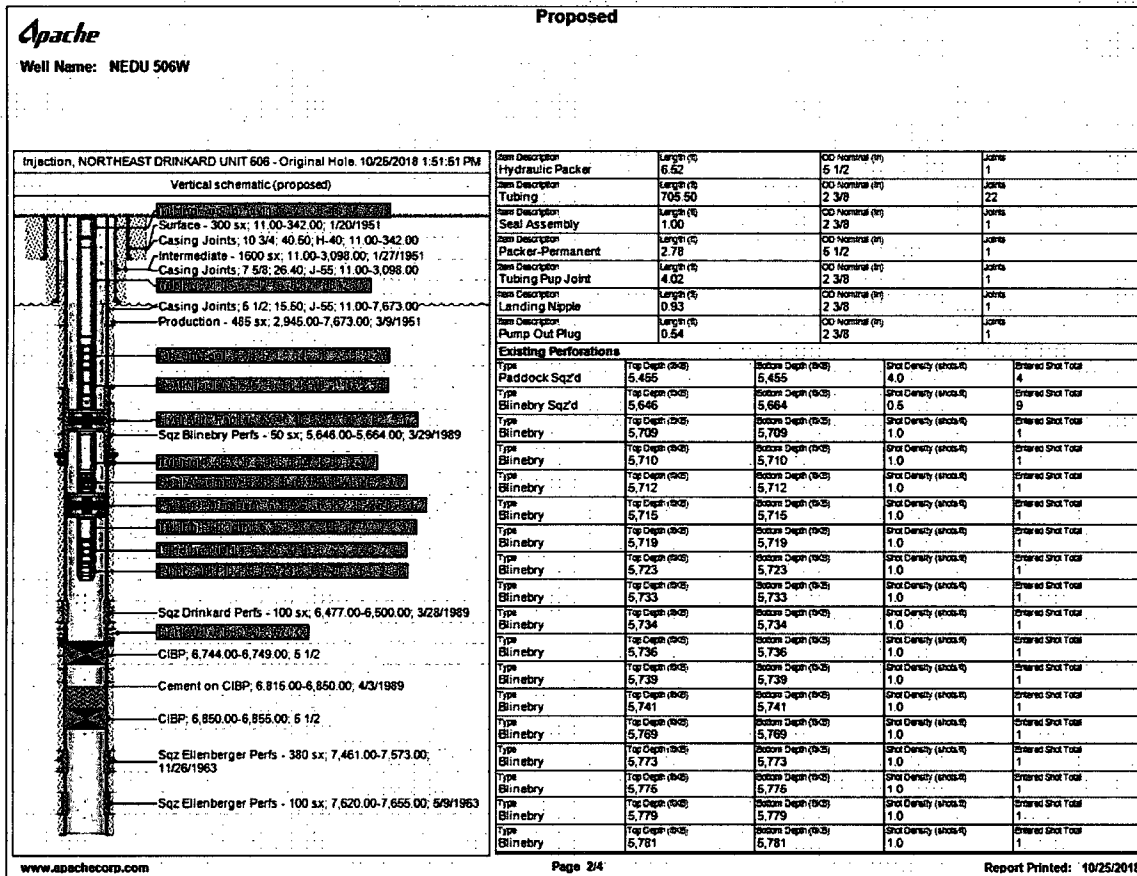
Tubing Description	Run Date	String Length (ft)	Set Depth (ftGS)				
Tubing - Injection	4/5/2010	5,667.75	5,675.0				
Item Desc	Qty	Make	Model	OD (in)	WT (lb/ft)	Grade	Len (ft)
Duoline Tubing	17			2 3/8			5,666
	5						75
AS-1X Packer	1			2 3/8			7.25



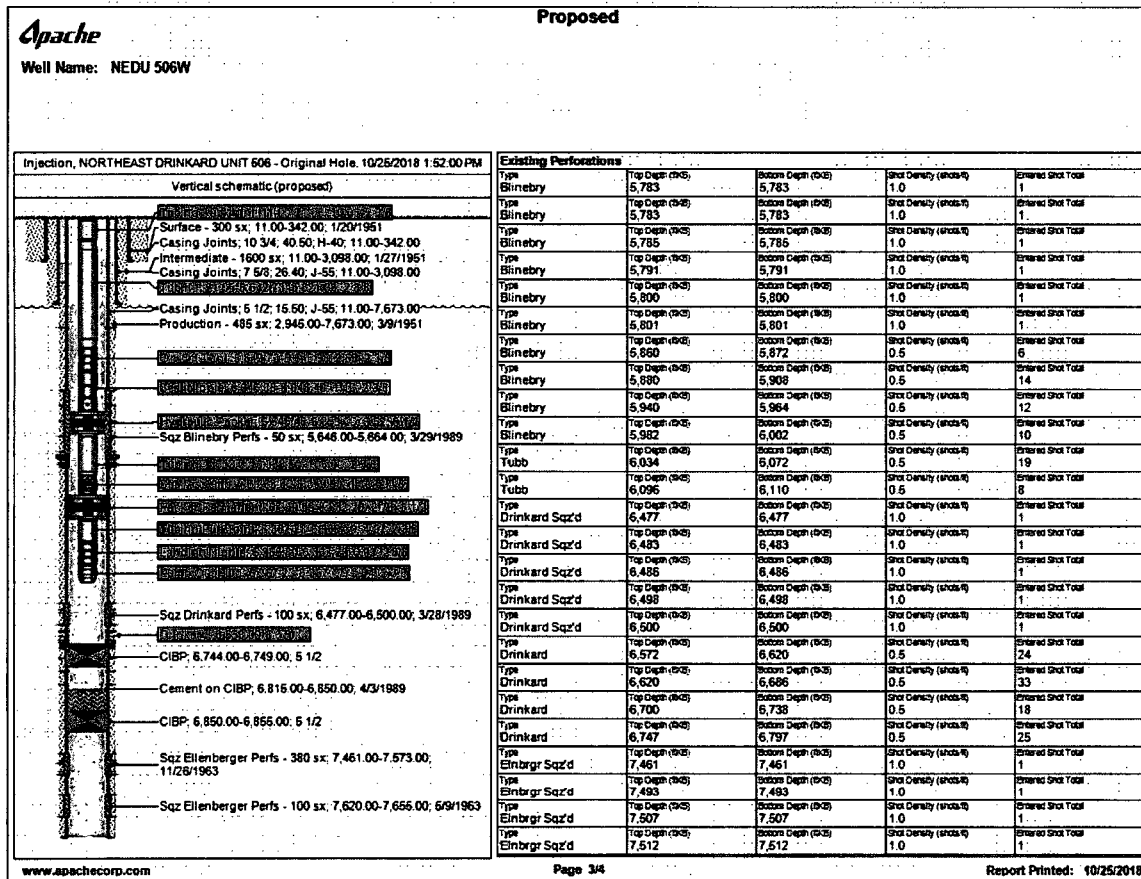
Scenario 1: Dual Packer Proposed WBD ()

Apache		Proposed		
Well Name: NEDU 506W				
Log# Well Name NORTHEAST DRINKARD UNIT 506W		Common Well Name NEDU 506W		
Ground Elevation (ft) 3,452.0		APR Surface Loc 3002506465		
Original Hgt Elevation (ft) 3,463.0	Surface Log# Location 660' FSL, 1980' FEL, Unit O, Sec 10, T-21S, R-37E	Perfor (in) (ft) Original Hole: 6 3/4	Test Depth (ft) 12,673.0	
Injection, NORTHEAST DRINKARD UNIT 506 - Original Hole, 10/25/2018 1:51:07 PM				
Vertical schematic (proposed)				
Surface - 300 sx; 11.00-342.00; 1/20/1951 Casing Joints; 10 3/4; 40.50; H-40; 11.00-342.00 Intermediate - 1600 sx; 11.00-3,098.00; 1/27/1951 Casing Joints; 7 5/8; 26.40; J-55; 11.00-3,098.00 Casing Joints; 5 1/2; 15.50; J-55; 11.00-7,673.00 Production - 485 sx; 2,945.00-7,673.00; 3/9/1951 Sqz Blinzeby Perfs - 50 sx; 5,646.00-5,664.00; 3/29/1989 Sqz Drinkard Perfs - 100 sx; 6,477.00-6,500.00; 3/28/1989 CIBP; 6,744.00-6,749.00; 5 1/2 Cement on CIBP; 6,815.00-6,850.00; 4/3/1989 CIBP; 6,850.00-6,855.00; 5 1/2 Sqz Ellenberger Perfs - 380 sx; 7,461.00-7,573.00; 11/26/1963 Sqz Ellenberger Perfs - 100 sx; 7,620.00-7,665.00; 5/9/1963				
Current Wellbore Sections				
Section Data	Size (in)	Act Top (ft)	Act Bot (ft)	Start Date
Surface	16	11.0	342.0	1/19/1951
Inter 1	9 7/8	342.0	3,098.0	1/21/1951
Prod 1	6 3/4	3,098.0	7,673.0	1/28/1951
Casing Strings				
Casing Description	Size (in)	Act Top (ft)	Act Bot (ft)	Set Depth (ft)
Surface	10 3/4	11.0	342.0	342.00
Inter 1	9 7/8	342.0	3,098.0	3,098.00
Prod 1	6 3/4	3,098.0	7,673.0	7,673.00
Proposed Casing Strings				
Casing Description	Size (in)	Act Top (ft)	Act Bot (ft)	Set Depth (ft)
Surface	10 3/4	11.0	342.0	342.00
Inter 1	9 7/8	342.0	3,098.0	3,098.00
Prod 1	6 3/4	3,098.0	7,673.0	7,673.00
Existing Cement				
String	Date	Top (ft)	Bot (ft)	Top Mass (ft)
Surface, 342.00ftKB, 10 3/4	Primary Cement	11.00	342.00	Returns at Surface
Inter 1, 3,098.00ftKB, 7 5/8	Primary Cement	11.00	3,098.00	Returns at Surface
Prod 1, 7,673.00ftKB, 5 1/2	Primary Cement	2,945.00	7,673.00	Temperature Survey
Prod 1, 7,673.00ftKB, 5 1/2	Cement Squeeze	5,445.00	5,445.00	
Prod 1, 7,673.00ftKB, 5 1/2	Cement Squeeze	7,620.00	7,655.00	
Prod 1, 7,673.00ftKB, 5 1/2	Cement Squeeze	7,461.00	7,673.00	
Prod 1, 7,673.00ftKB, 5 1/2	Cement Plug	6,815.00	6,850.00	
Prod 1, 7,673.00ftKB, 5 1/2	Cement Squeeze	5,646.00	5,664.00	
Prod 1, 7,673.00ftKB, 5 1/2	Cement Squeeze	6,477.00	6,500.00	
Proposed Tubing String				
Tubing Description	Length (ft)	Set Depth (ft)	OD Nominal (in)	Joints
Tubing - Injection	6,367.8	6,367.8	2 3/8	1
Tubing Pup Joint	10.05	2 3/8	2 3/8	1
Tubing	5,621.68	2 3/8	2 3/8	174
On-Off Tool	2.65	2 3/8	2 3/8	1
Seal Nipple	1.10	2 3/8	2 3/8	1

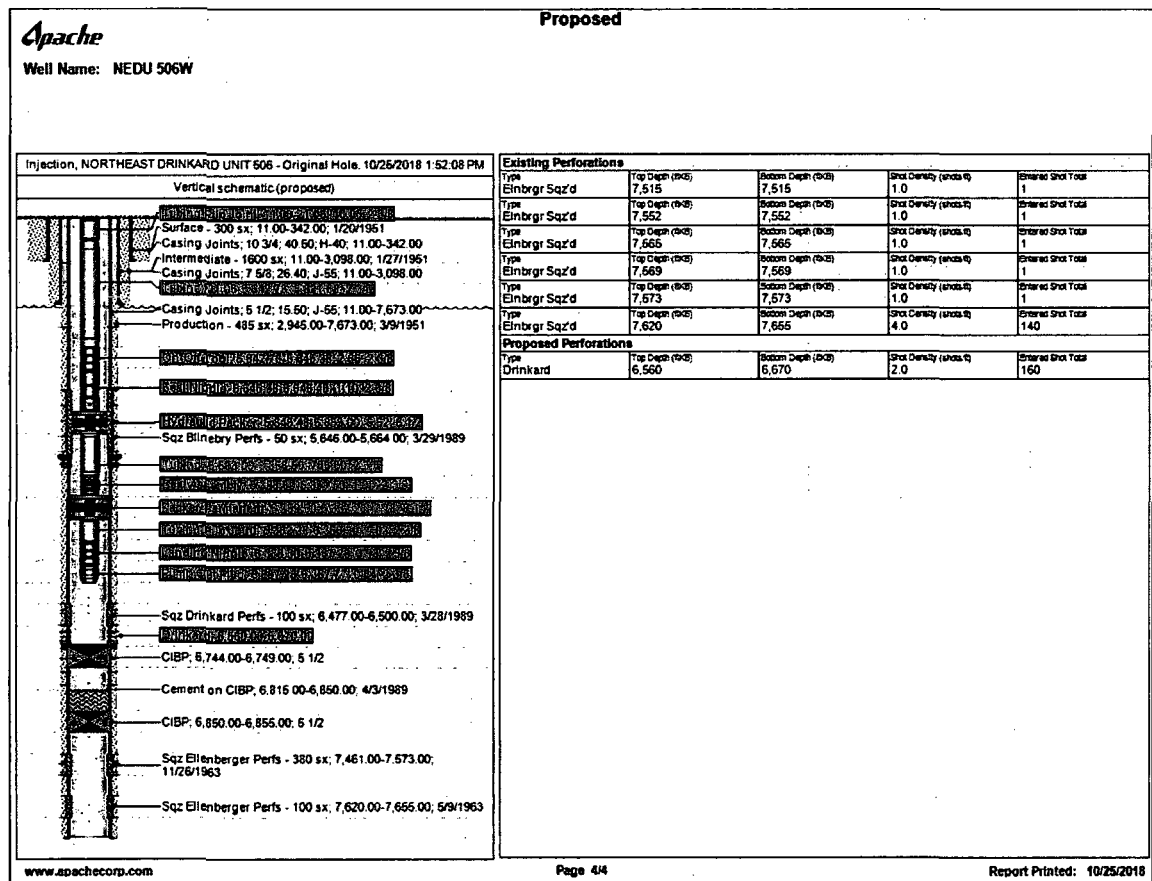
Scenario 1: Dual Packer Proposed WBD



Scenario 1: Dual Packer Proposed WBD ()



Scenario 1: Dual Packer Proposed WBD (Proposed Gravel in Yellow)



Scenario 2: FJ Liner Proposed WBD



Proposed

Well Name: NEDU 506W

Common Well Name: NEDU 506W

API Surface Loc: 3002506465

Legal Well Name: NORTHEAST DRINKARD UNIT 506W

Surface Legal Location: 660' FSL, 1980' FEL, Unit O, Sec 10, T-21S, R-37E

Perd (ft) (Nom): Original Hole: 6,744

Total Depth (ft): 7,673.0

Ground Elevation (ft): 3,452.0

Original KB Elevation (ft): 3,453.0

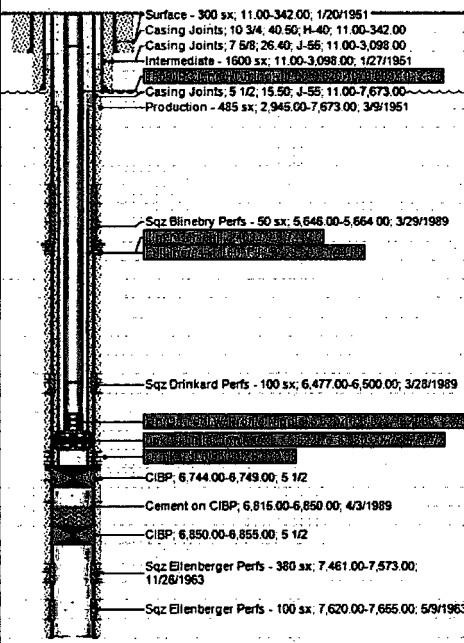
Surface Legal Location: 660' FSL, 1980' FEL, Unit O, Sec 10, T-21S, R-37E

Perd (ft) (Nom): Original Hole: 6,744

Total Depth (ft): 7,673.0

Injection, NORTHEAST DRINKARD UNIT 506 - Original Hole, 10/25/2018 1:57:02 PM

Vertical schematic (proposed)



Section	Size (in)	Act Top (ft)	Act Bot (ft)	Start Date
Surface	15	11.0	342.0	1/19/1951
Inter 1	9 7/8	342.0	3,098.0	1/21/1951
Prod 1	6 3/4	3,098.0	7,673.0	1/28/1951

Casing Description	String Nominal OD (in)	Weight (lb/ft)	String Grade	Set Depth (ft)
Surface	10 3/4	40.50	J-55	342.00
Inter 1	9 7/8	26.40	J-55	3,098.00
Prod 1	6 3/4	15.50	J-55	7,673.00

Proposed Casing String	String Nominal OD (in)	Weight (lb/ft)	String Grade	Set Depth (ft)
Prod Lnr 1	6 3/4	11.50	J-55	6,744.00

Existing Cement	Top (ft)	Bot (ft)	Top Measurement Method
Surface, 342.00ftKB, 10 3/4	11.00	342.00	Returns at Surface
Inter 1, 3,098.00ftKB, 7 5/8	11.00	3,098.00	Returns at Surface
Prod 1, 7,673.00ftKB, 5 1/2	2,945.00	7,673.00	Temperature Survey
Prod 1, 7,673.00ftKB, 5 1/2	5,445.00	5,445.00	
Prod 1, 7,673.00ftKB, 5 1/2	7,620.00	7,665.00	
Prod 1, 7,673.00ftKB, 5 1/2	7,461.00	7,573.00	
Prod 1, 7,673.00ftKB, 5 1/2	6,815.00	6,850.00	
Prod 1, 7,673.00ftKB, 5 1/2	5,646.00	5,664.00	
Prod 1, 7,673.00ftKB, 5 1/2	6,477.00	6,500.00	

Proposed Cement	Description	Top Depth (ft)	Bottom Depth (ft)	Top Measurement Method
Prod Lnr 1, 6,744.00ftKB, 4	Primary Liner Cement	5,409.00	6,744.00	Returns at Surface

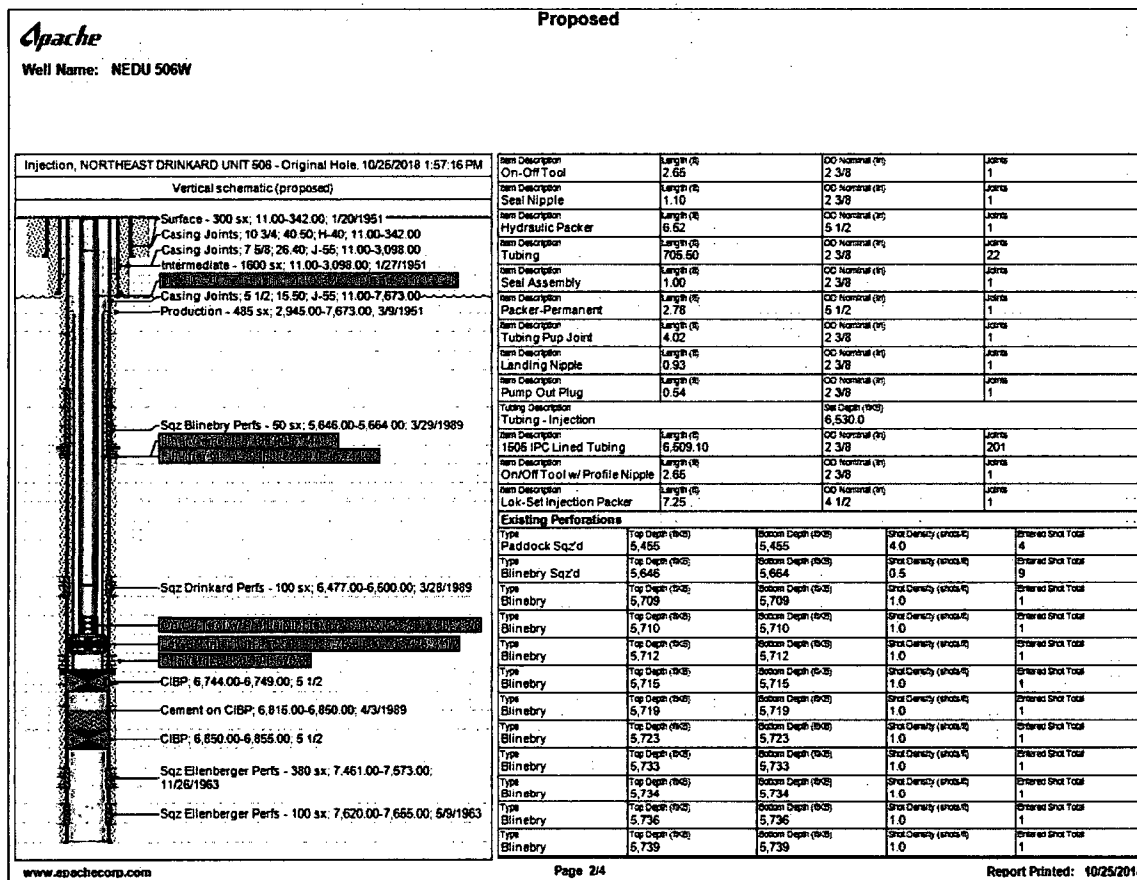
Proposed Tubing String	Length (ft)	OD Nominal (in)	Joints
Tubing - Injection	10.06	2 3/8	1
Tubing Pup Joint	5,621.68	2 3/8	174

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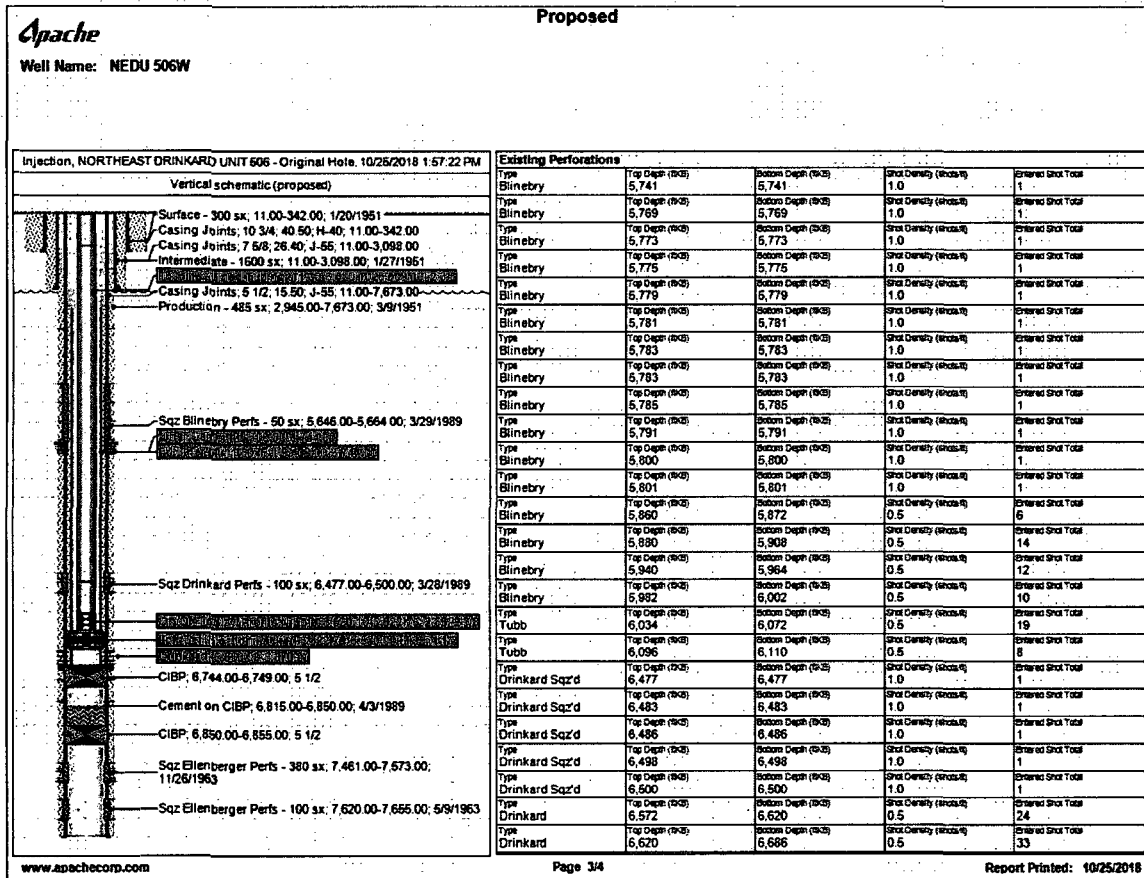
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Report Printed: 10/25/2018

Scenario 2: FJ Liner Proposed WBD



Scenario 2: FJ Liner Proposed WBD **(Proposed Changes in Yellow)**



Scenario 2: FJ Liner Proposed WBD

