

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

Form C-103
Revised July 18, 2013

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

HOBBBS OCD
DEC 21 2018
RECEIVED

WELL API NO. 30-025-06463
5. Indicate Type of Lease STATE ☒ FEE ☐
6. State Oil & Gas Lease No. B1-1349
7. Lease Name or Unit Agreement Name Northeast Drinkard Unit (NEDU) [22503]
8. Well Number 502
9. OGRID Number 873
10. Pool name or Wildcat Eunice; B-T-D, North [22900]
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3468' GL

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 ☐
2. Name of Operator Apache Corporation
3. Address of Operator 303 Veterans Airpark Lane, Suite 1000 Midland, TX 79705
4. Well Location Unit Letter M : 660 feet from the South line and 660 feet from the West line Section 10 Township 21S Range 37E NMPM County Lea

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: CTI ☒	

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 convert this well to injection, per the attached procedure. We are still evaluating which scenario will be the most operational and cost effective.

We are concurrently submitting an Application for Injection to Santa Fe.

Spud Date: 9/24/1948

Rig Release Date: 11/5/1948

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 12/17/2018

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 12/27/18
Conditions of Approval (if any): May not inject prior to C-105 approval
Must notify OCD Hobbs prior to MIT

NEDU 502: (API: 30-025-06463)

OBJECTIVE: CONVERT TO DRINKARD INJECTOR

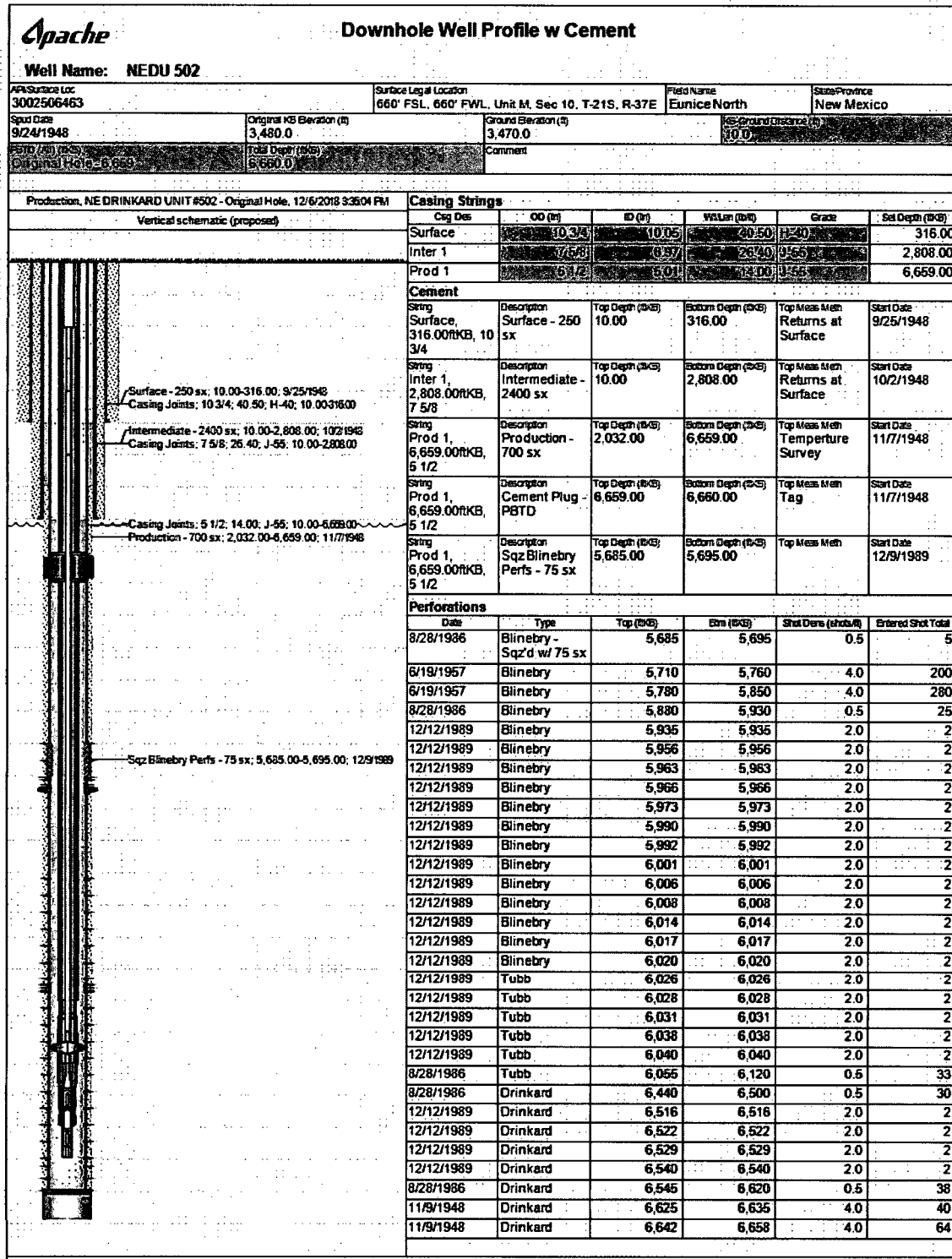
Scenario 1: Dual Packer Isolation

1. POOH w rods and production tubing.
2. PU workstring and RIH w/ bit or mill and clean out well to PBTD at 6659'. Deepen well to new TD at 6670' POOH.
3. Make casing scraper run to casing shoe POOH.
4. Run casing inspection log and cement bond log from top of Drinkard to surface. POOH.
5. RIH w/ wireline and perforate Drinkard formation f/ 6470'-6660' (actual depths TBD). 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 600-800' of 2-3/8" IPC externally coated tubing w/ 5-1/2" hydraulic packer on top and tie into permanent packer. Pressure up tubing to set hydraulic packer at 5670'. Test casing to 500 psi.
9. Perform MIT for NMOCD.
10. Open well up for injection.
11. RIH w 5 1/2" injection packer and ~6450' of 2-3/8" IPC tubing. Set packer within 20' of top perf.
12. Circulate packer fluid and test backside to 500 psi.
13. Perform MIT for NMOCD.

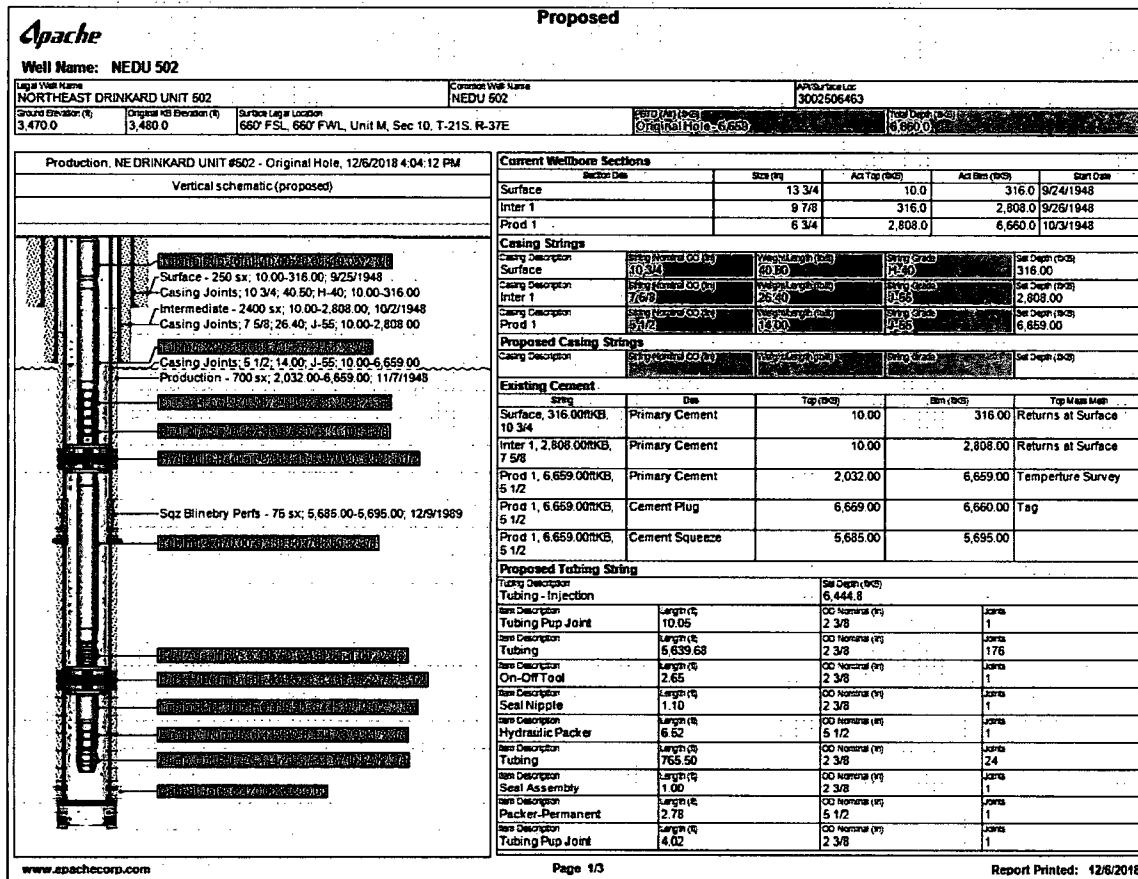
Scenario 2: Cement 4" FJ liner from Blinebry to TD

1. POOH w rods, pump and production tubing.
2. PU workstring and RIH w/ bit and clean out well to PBTD to 6659'. Continue to clean out/deepen well to 6670'. 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. PU and 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 to 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 (depths dependent on log eval). POOH

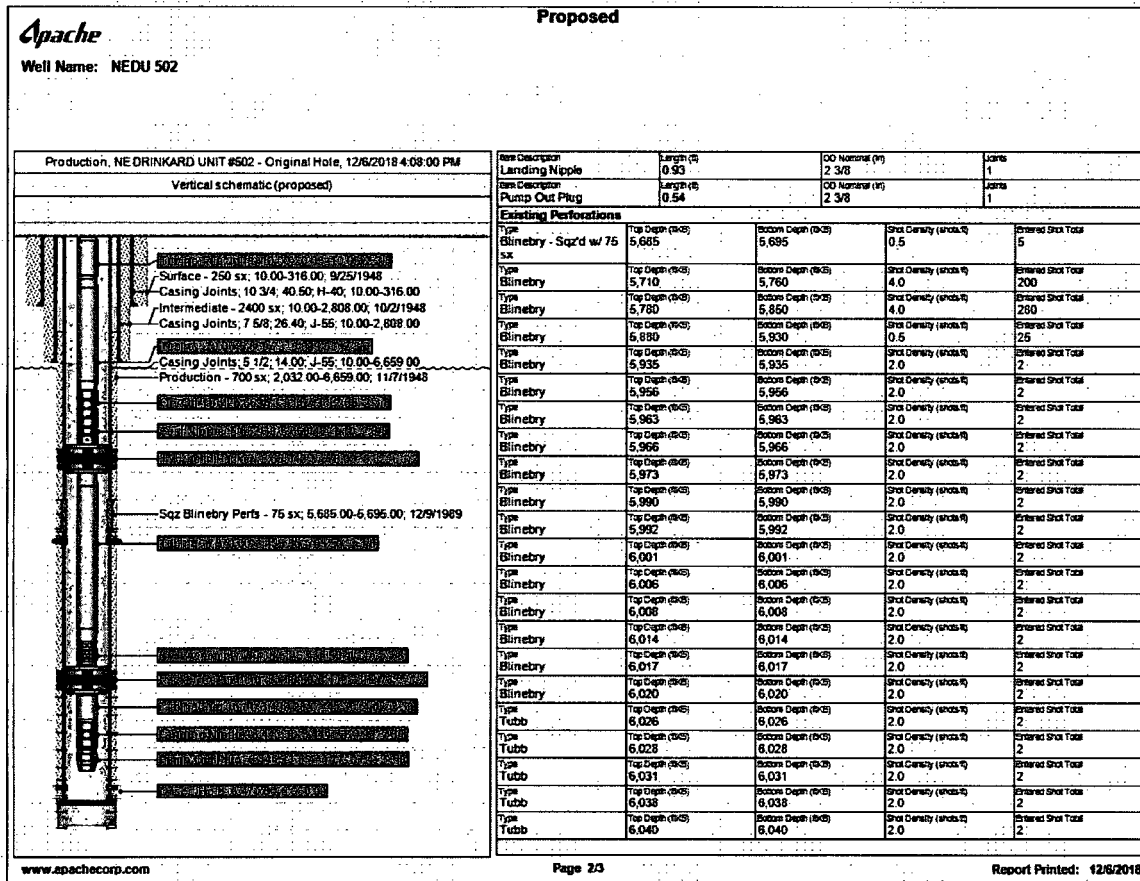
10. PU 4" treating packer w/ ~40 jts of 2-3/8" followed by remaining 2-7/8" workstring to surface. Set packer ~100' above top perf and load backside.
11. Acid stimulate Drinkard formation w/ 5000 gals 15% HCl using 1.1 SG ball sealers for diversion. Release packer and knock off balls. POOH.
12. RIH w 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



Scenario 1: Dual Packer Proposed WBD



Scenario 1: Dual Packer Proposed WBD



Scenario 2: FJ Liner Proposed WBD

Apache

Well Name: NEDU 502

Legal Well Name: NORTHEAST DRINKARD UNIT 502
 Common Well Name: NEDU 502
 APN Surface Loc: 3002506463

Ground Elevation (ft): 3,470.0
 Original KB Elevation (ft): 3,480.0
 Surface Legal Location: 660' FSL, 660' FWL, Unit M, Sec 10, T-21S, R-37E
 APN (A/L) (Acres):
 Original Hole: 6,659'

Proposed

Production: NEDRINKARD UNIT #502 - Original Hole, 12/6/2018 3:59:11 PM

Vertical schematic (proposed)

Surface - 250 sx; 10.00-316.00; 9/25/1948
 Casing Joints: 10 3/4: 40.50; H-40: 10.00-316.00
 Intermediate - 2400 sx; 10.00-2,808.00; 10/2/1948
 Casing Joints: 7 5/8: 26.40; J-55: 10.00-2,808.00
 Casing Joints: 5 1/2: 14.00; J-55: 10.00-6,659.00
 Liner Cement: 1,249.00-6,659.00
 Production - 700 sx; 2,032.00-6,659.00; 11/7/1948

Sqz Blinbery Perfs - 75 sx; 5,685.00-5,695.00; 12/6/1989
 FJ Liner; 4; 11.60; FJ; 5,410.00-6,659.00

Current Wellbore Sections				
Section Desc	Size (in)	Act Top (ft)	Act Bot (ft)	Start Date
Surface	13 3/4	10.0	316.0	9/24/1948
Inter 1	9 7/8	316.0	2,808.0	9/26/1948
Prod 1	6 3/4	2,808.0	6,660.0	10/3/1948

Casing Strings				
Casing Description	String Nominal OD (in)	Weight/Length (lb/ft)	Casing Grade	Set Depth (ft)
Surface	10 3/4	20.60	J-55	316.00
Casing Description	String Nominal OD (in)	Weight/Length (lb/ft)	Casing Grade	Set Depth (ft)
Inter 1	7 5/8	26.40	J-55	2,808.00
Casing Description	String Nominal OD (in)	Weight/Length (lb/ft)	Casing Grade	Set Depth (ft)
Prod 1	6 3/4	18.00	J-55	6,659.00
Casing Description	String Nominal OD (in)	Weight/Length (lb/ft)	Casing Grade	Set Depth (ft)
Prod Liner 1	4	13.00	J-55	6,659.00

Proposed Casing Strings				
Casing Description	String Nominal OD (in)	Weight/Length (lb/ft)	Casing Grade	Set Depth (ft)

Existing Cement				
String	Desc	Top (ft)	Bot (ft)	Top Uses Met
Prod Liner 1, 6,659.00ftKB, 4	Primary Cement	1,249.00	6,659.00	Returns at Surface
Surface, 316.00ftKB, 10 3/4	Primary Cement	10.00	316.00	Returns at Surface
Inter 1, 2,808.00ftKB, 7 5/8	Primary Cement	10.00	2,808.00	Returns at Surface
Prod 1, 6,659.00ftKB, 5 1/2	Primary Cement	2,032.00	6,659.00	Temperature Survey
Prod 1, 6,659.00ftKB, 5 1/2	Cement Plug	6,659.00	6,660.00	Tag
Prod 1, 6,659.00ftKB, 5 1/2	Cement Squeeze	5,685.00	5,695.00	

Proposed Tubing String				
Tubing Description	Length (ft)	OD Nominal (in)	OD Nominal (in)	Joints
Tubing - Injection			6,370.0	
1505 IPC Lined Tubing	6,350.08	2 3/8		197
On/Off Tool w/ Profile Nipple	2.65	2 3/8		1
Lok-Set Injection Packer	7.25	4		1

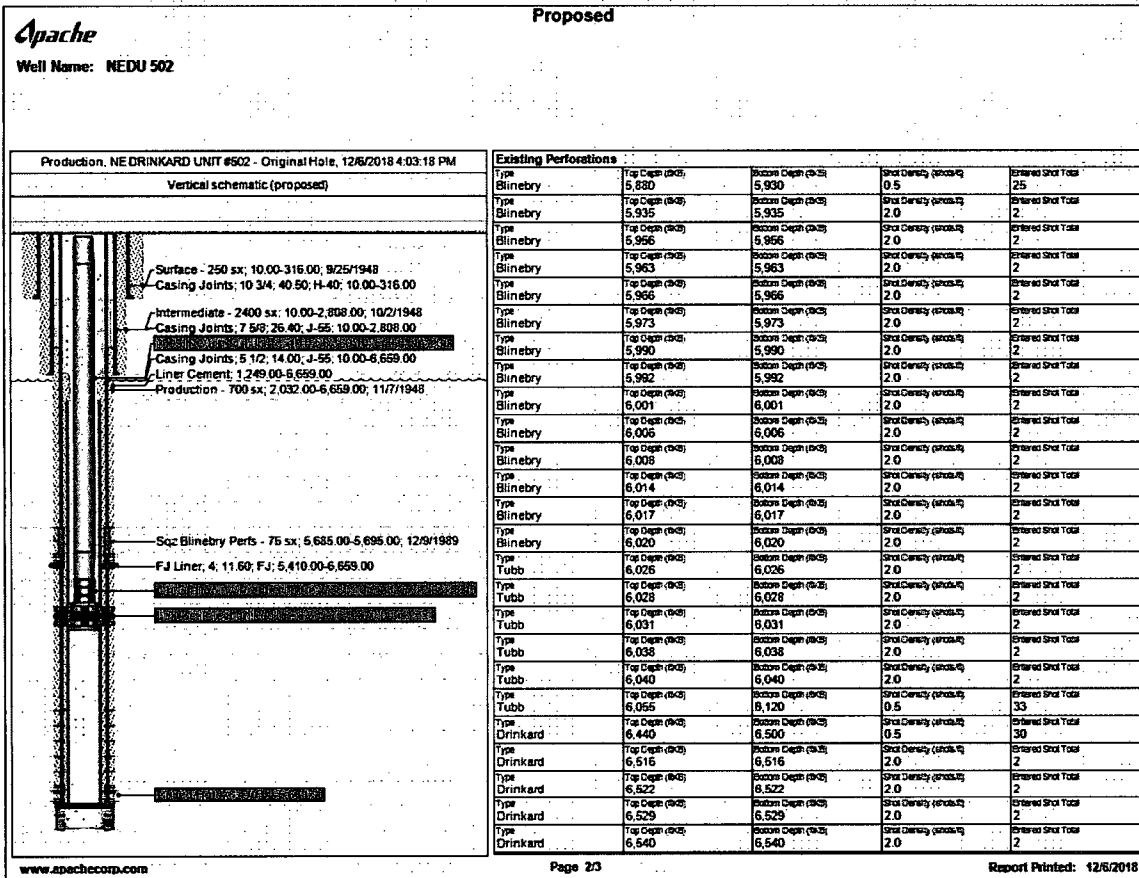
Existing Perforations				
Type	Top Depth (ft)	Bottom Depth (ft)	Grain Density (grains/sq ft)	Screened Shot Total
Blinbery - Sqz'd w/ 75 sx	5,685	5,695	0.5	5
Type	Top Depth (ft)	Bottom Depth (ft)	Grain Density (grains/sq ft)	Screened Shot Total
Blinbery	5,710	5,760	4.0	200
Type	Top Depth (ft)	Bottom Depth (ft)	Grain Density (grains/sq ft)	Screened Shot Total
Blinbery	5,780	5,850	4.0	280

www.apachecorp.com

Page 1/3

Report Printed: 12/6/2018

Scenario 2: FJ Liner Proposed WBD



Scenario 2: FJ Liner Proposed WBD (Shrinkage and Settlement)

