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

HOBBS OCD
DEC 21 2018
RECEIVED

Form C-103
Revised July 18, 2013

WELL API NO. 30-025-09914	
5. Indicate Type of Lease STATE ☑ FEE ☐	
6. State Oil & Gas Lease No. B0 -1481-0018	
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 Northeast Drinkard Unit (NEDU) [22503]
1. Type of Well: Oil Well ☑ Gas Well ☐ Other	8. Well Number 602
2. Name of Operator Apache Corporation	9. OGRID Number 873
3. Address of Operator 303 Veterans Airpark Lane, Suite 1000 Midland, TX 79705	10. Pool name or Wildcat Eunice; B-T-D, North [22900]
4. Well Location Unit Letter E : 1980 feet from the North line and 660 feet from the West line Section 15 Township 21S Range 37E NMPM County Lea	
	11. Elevation *(Show whether DR, RKB, RT, GR, etc.)* 3475' GL

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: CTI ☑		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: 4/11/1948 Rig Release Date: 5/16/1948

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 12/18/2018

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-108 approval
Must notify OCD Hobbs prior to MIT

NEDU 602: (API: 30-025-09914)

OBJECTIVE: CONVERT TO DRINKARD INJECTOR

Cement 4" FJ liner from Blinebry to TD

1. POOH w rods and 2-7/8" production tubing.
2. PU workstring and RIH w/ bit or mill and clean out well to CIBP at 6644'. Drill out CIBP and continue to TD at 6669'
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 NM

Current WBD

Apache

Downhole Well Profile w Cement

Well Name: NEDU 602

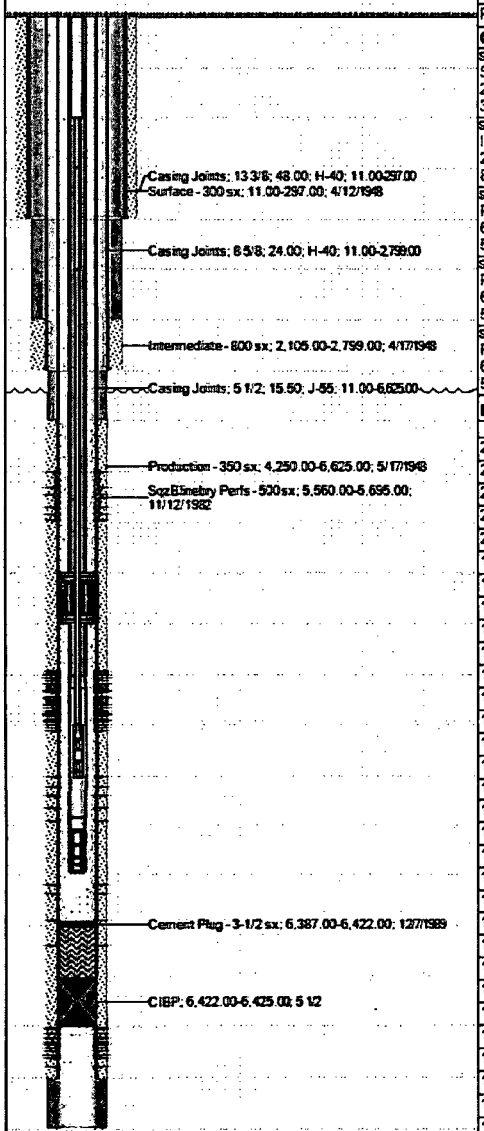
API/Surface Loc	Surface Legal Location	Field Name	State/Province
3002509914	1980' FNL, 660' FWL, Unit E, Sec 15, T-21S, R-37E	Eunice North	New Mexico

Spud Date	Original KB Elevation (ft)	Ground Elevation (ft)	KB-Ground Distance (ft)
4/11/1948	3,462.0	3,451.0	11.0

PBTD (All) (ftKB)	Total Depth (ftKB)	Comment
Original Hole - 6,387.0	6,669.0	

Production, NE DRINKARD UNIT #602 - Original Hole, 12/7/2013 9:10:47 AM

Vertical schematic (proposed)



Casing Strings

Csg Des	OD (in)	ID (in)	Wt/Len (lb/ft)	Grade	Set Depth (ftKB)
Surface	13 3/8	12.72	48.00	H-40	297.00
Inter 1	8 5/8	8.10	24.00	H-40	2,799.00
Prod 1	5 1/2	4.95	15.50	J-55	6,625.00

Cement

String	Description	Top Depth (ftKB)	Bottom Depth (ftKB)	Top Meas Meth	Start Date
Surface, 297.00ftKB, 13 3/8	Surface - 300 sx	11.00	297.00	Returns at Surface	4/12/1948
Inter 1, 2,799.00ftKB, 8 5/8	Intermediate - 800 sx	2,105.00	2,799.00	Calculated	4/17/1948
Prod 1, 6,625.00ftKB, 5 1/2	Production - 350 sx	4,250.00	6,625.00	Temperture Survey	5/17/1948
Prod 1, 6,625.00ftKB, 5 1/2	Sqz Blinebry Perfs - 500 sx	5,560.00	5,695.00		11/12/1982
Prod 1, 6,625.00ftKB, 5 1/2	Cement Plug - 3-1/2 sx	6,387.00	6,422.00	Tag	12/7/1989

Perforations

Date	Type	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Entered Shot Total
2/3/1953	Blinebry Sqz'd	5,560	5,600	2.0	80
2/3/1953	Blinebry Sqz'd	5,620	5,640	2.0	40
2/3/1953	Blinebry Sqz'd	5,655	5,665	2.0	20
2/3/1953	Blinebry Sqz'd	5,675	5,685	2.0	20
2/3/1953	Blinebry Sqz'd	5,690	5,695	2.0	10
12/7/1989	Tubb	6,091	6,091	2.0	2
12/7/1989	Tubb	6,095	6,095	2.0	2
12/7/1989	Tubb	6,098	6,098	2.0	2
12/7/1989	Tubb	6,102	6,102	2.0	2
12/7/1989	Tubb	6,105	6,105	2.0	2
12/7/1989	Tubb	6,114	6,114	2.0	2
12/7/1989	Tubb	6,119	6,119	2.0	2
12/7/1989	Tubb	6,127	6,127	2.0	2
12/7/1989	Tubb	6,141	6,141	2.0	2
12/7/1989	Tubb	6,144	6,144	2.0	2
12/7/1989	Tubb	6,148	6,148	2.0	2
12/7/1989	Tubb	6,154	6,154	2.0	2
12/7/1989	Tubb	6,161	6,161	2.0	2
12/7/1989	Tubb	6,165	6,165	2.0	2
12/7/1989	Tubb	6,169	6,169	2.0	2
12/7/1989	Tubb	6,174	6,174	2.0	2
12/7/1989	Tubb	6,178	6,178	2.0	2
12/7/1989	Tubb	6,197	6,197	2.0	2
12/7/1989	Tubb	6,200	6,200	2.0	2
12/7/1989	Tubb	6,202	6,202	2.0	2
12/7/1989	Tubb	6,210	6,210	2.0	2
12/7/1989	Tubb	6,215	6,215	2.0	2
12/7/1989	Tubb	6,220	6,220	2.0	2
12/7/1989	Tubb	6,224	6,224	2.0	2
12/7/1989	Tubb	6,230	6,230	2.0	2
12/7/1989	Tubb	6,233	6,233	2.0	2
12/7/1989	Tubb	6,241	6,241	2.0	2

Current WBD

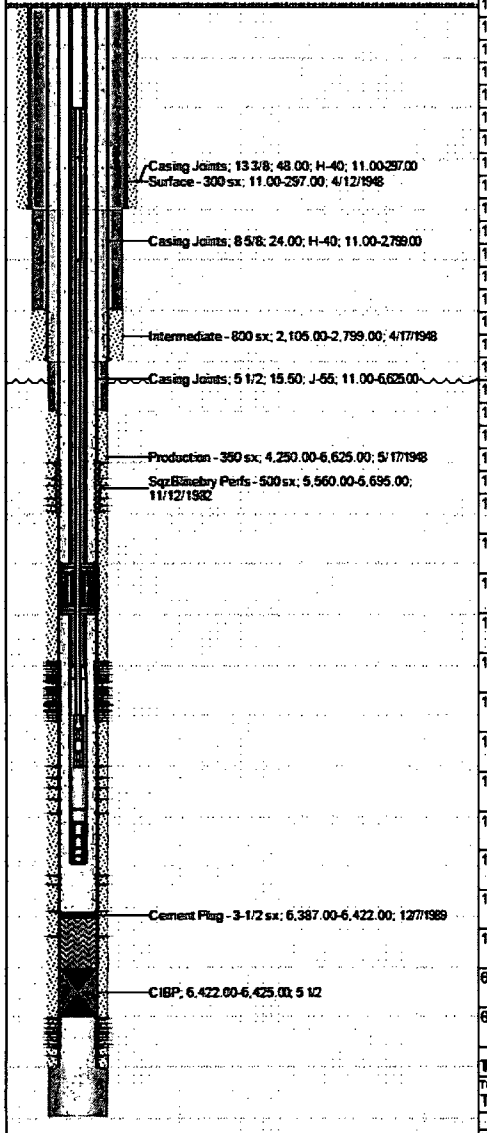
Apache

Downhole Well Profile w Cement

Well Name: NEDU 602

Production, NE DRINKARD UNIT #602 - Original Hole, 12/7/2018 9:12:25 AM

Vertical schematic (proposed)



Perforations

Date	Type	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Entered Shot Total
12/7/1989	Tubb	6,246	6,246	2.0	2
12/7/1989	Tubb	6,258	6,258	2.0	2
12/7/1989	Tubb	6,263	6,263	2.0	2
12/7/1989	Tubb	6,268	6,268	2.0	2
11/23/1982	Tubb	6,269	6,269	2.0	2
11/23/1982	Tubb	6,274	6,274	2.0	2
11/23/1982	Tubb	6,276	6,276	2.0	2
11/23/1982	Tubb	6,278	6,278	2.0	2
11/23/1982	Tubb	6,292	6,292	2.0	2
11/12/1982	Tubb	6,295	6,295	2.0	2
12/7/1989	Tubb	6,300	6,300	2.0	2
12/7/1989	Tubb	6,303	6,303	2.0	2
11/23/1982	Tubb	6,313	6,313	2.0	2
11/23/1982	Tubb	6,315	6,315	2.0	2
11/23/1982	Tubb	6,316	6,316	2.0	2
11/23/1982	Tubb	6,330	6,330	2.0	2
11/23/1982	Tubb	6,340	6,340	2.0	2
12/7/1989	Tubb	6,349	6,349	2.0	2
11/23/1982	Tubb	6,359	6,359	2.0	2
11/23/1982	Tubb	6,371	6,371	2.0	2
12/7/1989	Tubb	6,378	6,378	2.0	2
11/23/1982	Tubb	6,380	6,380	2.0	2
11/23/1982	Tubb	6,386	6,386	2.0	2
11/23/1982	Tubb	6,401	6,401	2.0	2
11/23/1982	Tubb - Abandoned	6,430	6,430	2.0	2
11/23/1982	Drinkard - Abandoned	6,438	6,438	2.0	2
11/23/1982	Drinkard - Abandoned	6,451	6,451	2.0	2
11/23/1982	Drinkard - Abandoned	6,469	6,469	2.0	2
11/23/1982	Drinkard - Abandoned	6,478	6,478	2.0	2
11/23/1982	Drinkard - Abandoned	6,487	6,487	2.0	2
11/23/1982	Drinkard - Abandoned	6,491	6,491	2.0	2
11/23/1982	Drinkard - Abandoned	6,499	6,499	2.0	2
11/23/1982	Drinkard - Abandoned	6,507	6,507	2.0	2
11/23/1982	Drinkard - Abandoned	6,522	6,522	2.0	2
11/23/1982	Drinkard - Abandoned	6,535	6,535	2.0	2
11/23/1982	Drinkard - Abandoned	6,539	6,539	2.0	2
6/27/1951	Drinkard - Abandoned	6,550	6,565	4.0	60
6/27/1951	Drinkard - Abandoned	6,580	6,590	4.0	40

Tubing Strings

Tubing Description	Run Date	String Length (ft)	Set Depth (ftKB)
Tubing	12/1/2001	[redacted]	6,375.6

Item Des	Jts	Make	Model	OD (in)	Wt (lb/ft)	Grade	Len (ft)
Tubing Sub	1			2 3/8			10.00

rrent WBD

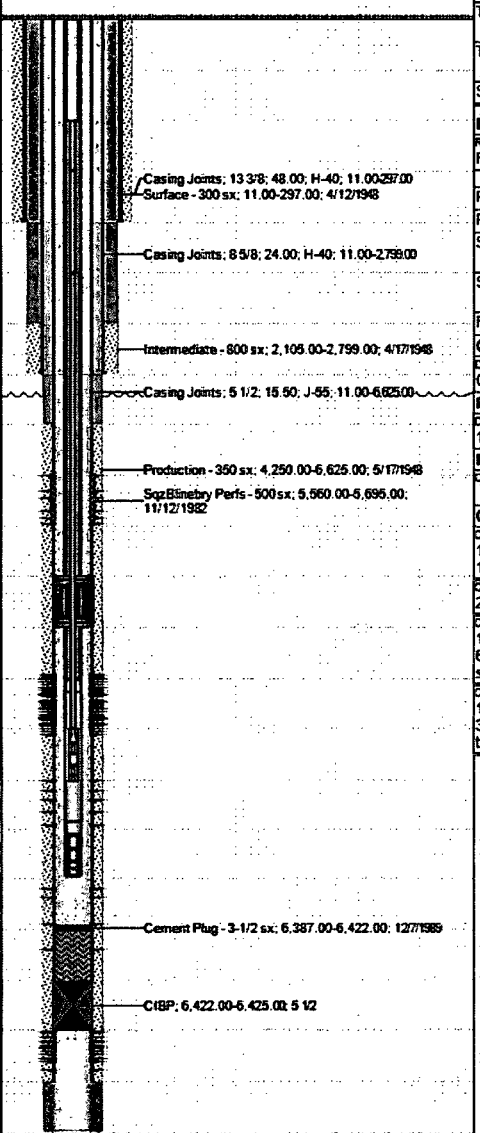
Apache

Downhole Well Profile w Cement

Well Name: NEDU 602

Production, NE DRINKARD UNIT #602 - Original Hole, 12/7/2018 9:12:42 AM

Vertical schematic (proposed)



Item Des	Jts	Make	Model	OD (in)	Wt (lb/ft)	Grade	Len (ft)
Tubing	193		T&C Non-Upset	2 3/8	4.70	J-55	5,981.00
Anchor/catcher	1		Baker	5 1/2	23.00	N-80	2.90
Tubing	3		T&C Non-Upset	2 3/8	4.70	J-55	93.80
Tubing	9		101 Nylon - NonUpset	2 3/8	4.70	J-55	275.80
Seat Nipple	1			2 3/8	5.10	SS	1.10

Rod Strings

Rod Description	Run Date	String Length (ft)	Set Depth (ftKB)
Rod	7/12/2010	6319.0	6,330.0

Item Des	Jts	Make	Model	OD (in)	Wt (lb/ft)	Grade	Len (ft)
Polished Rod	1		Sprayloy	1 1/2	6.10	PRS	26.00
Pony Rod	1		Fuli	7/8	2.90	KD	2.00
Sucker Rod	78		S87 W/SM CPLG/SLIM	7/8	2.15	KD	1,950.00
Sucker Rod	173		S87 W/SM CPLG/SLIM	3/4	1.60	KD	4,325.00
Rod Pump	1			1 1/4			16.00

Other In Hole

Description	OD (in)	Top (ftKB)	Run Date
CIBP	5 1/2	6,422	12/7/1989

Plug Back Total Depths

Date	Type	Depth (ftKB)	Depth (TVD) (ftKB)
12/20/1989	Cement Plug	6,387	

Failed Component Links & Details

Category	Description	Failure Depth (ftKB)	Casing Run Date	Failure Date

Comments

Comment
1948: D/C. Az Drinkard OH w/ 1000 gals acid
1951: Perf Drinkard. Az w/ 2500 gals acid

Comment
2/5/1953: perf Blinebry 5560-5695' w/ 2 JSPF - az 5560-5695' w/ 6000 gal 15% acid

Comment
11/12/1982: sqz Blinebry perfs w/ 250 sx CL C cmt - C/O fill 6655-6669' - perf Drinkard 6269-6539' w/ 2 SPF - az Drinkard w/ 5000 gal 15% HCL - resqz Blinebry perfs 5560-5695' w/ 250 sx CL C cmt - az Drinkard w/ 5000 gal 15% HCL acid

Comment
12/20/1989: C/O to 6662' (PBTD) - set CIBP @ 6422' & dump 3-1/2 sx cmt on top (35') - dump 300 gal Xylene down tbg - perf 6091-6378' w/ 2 JSPF (70 holes) - az Tubb gas perfs w/ 31.5 tons CO2 & 1911 gal 20% HCL acid

Scenario 1: FJ Liner Proposed WBD ([redacted])

Proposed

Apache

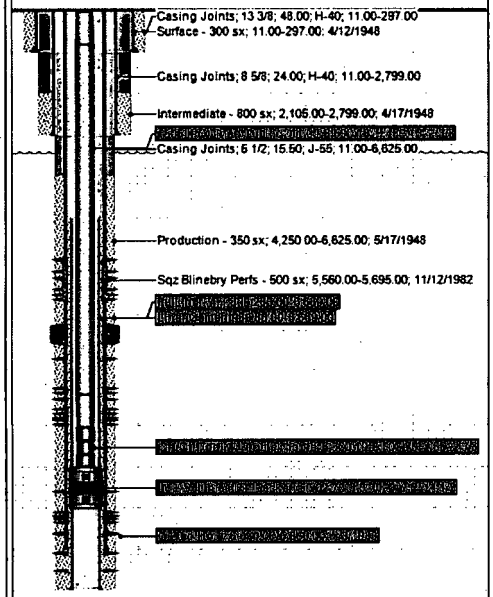
Well Name: NEDU 602

Legal Well Name	Common Well Name	API/Surface Loc
NORTHEAST DRINKARD UNIT 602	NEDU 602	3002509914

Ground Elevation (ft)	Original KB Elevation (ft)	Surface Legal Location	PBTD (All) (ftKB)	Total Depth (ftKB)
3,451.0	3,462.0	1980' FNL, 660' FWL, Unit E, Sec 15, T-21S, R-37E		6,669.0

Production, NE DRINKARD UNIT #602 - Original Hole, 12/7/2018 10:06:06 AM

Vertical schematic (proposed)



Current Wellbore Sections

Section Des	Size (in)	Act Top (ftKB)	Act Btm (ftKB)	Start Date
Surface	16	11.0	297.0	4/11/1948
Inter 1	12 1/4	297.0	2,799.0	4/13/1948
Prod 1	7 7/8	2,799.0	6,669.0	4/19/1948

Casing Strings

Casing Description	String Nominal OD (in)	Weight/Length (lb/ft)	String Grade	Set Depth (ftKB)
Surface	13 3/8	48.00	H-40	297.00
Inter 1	8 5/8	24.00	H-40	2,799.00
Prod 1	5 1/2	15.50	J-55	6,625.00

Proposed Casing Strings

Casing Description	String Nominal OD (in)	Weight/Length (lb/ft)	String Grade	Set Depth (ftKB)
Prod Lnr 1	4		P	6,669.00

Existing Cement

String	Des	Top (ftKB)	Btm (ftKB)	Top Meas Meth
Surface, 297.00ftKB, 13 3/8	Primary Cement	11.00	297.00	Returns at Surface
Inter 1, 2,799.00ftKB, 8 5/8	Primary Cement	2,105.00	2,799.00	Calculated
Prod 1, 6,625.00ftKB, 5 1/2	Primary Cement	4,250.00	6,625.00	Temperture Survey
Prod 1, 6,625.00ftKB, 5 1/2	Cement Squeeze	5,560.00	5,695.00	
Prod 1, 6,625.00ftKB, 5 1/2	Cement Plug	6,387.00	6,422.00	Tag

Proposed Cement

String	Description	Top Depth (ftKB)	Bottom Depth (ftKB)	Top Measurement Method
Prod Lnr 1, 6,669.00ftKB, 4	Primary Liner Cement	5,285.00	6,669.00	Returns at Surface

Proposed Tubing String

Tubing Description		Set Depth (ftKB)	
Tubing - Injection		6,510.0	
Item Description	**Length (ft)**	**OD Nominal (in)**	**Joints**
1505 IPC Lined Tubing	6,489.10	2 3/8	201
On/Off Tool w/ Profile Nipple	2.65	2 3/8	1
Lok-Set Injection Packer	7.25	4 1/2	1

Existing Perforations

Type	Top Depth (ftKB)	Bottom Depth (ftKB)	Shot Density (shots/ft)	Entered Shot Total
Blinebry Sqz'd	5,560	5,600	2.0	80
Blinebry Sqz'd	5,620	5,640	2.0	40
Blinebry Sqz'd	5,655	5,685	2.0	20

Scenario 1: FJ Liner Proposed WBD ([redacted])

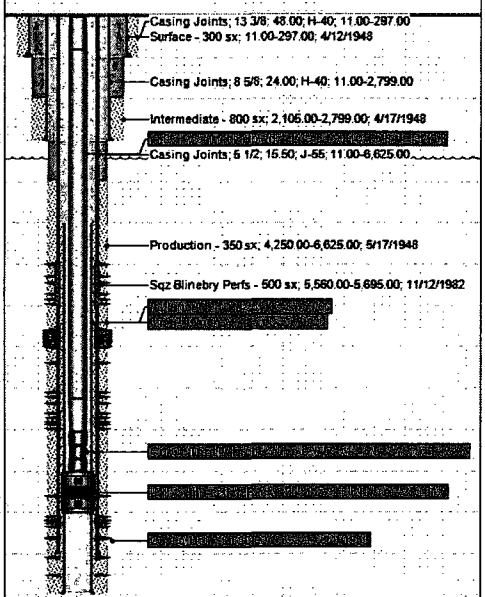
Proposed

Apache

Well Name: NEDU 602

Production, NEDRINKARD UNIT #602 - Original Hole, 12/7/2018 10:06:22 AM

Vertical schematic (proposed)



Existing Perforations

Type	Top Depth (ftKB)	Bottom Depth (ftKB)	Shot Density (shots/ft)	Entered Shot Total
Blinebry Sqz'd	5,675	5,685	2.0	20
Blinebry Sqz'd	5,690	5,695	2.0	10
Tubb	6,091	6,091	2.0	2
Tubb	6,095	6,095	2.0	2
Tubb	6,098	6,098	2.0	2
Tubb	6,102	6,102	2.0	2
Tubb	6,105	6,105	2.0	2
Tubb	6,114	6,114	2.0	2
Tubb	6,119	6,119	2.0	2
Tubb	6,127	6,127	2.0	2
Tubb	6,141	6,141	2.0	2
Tubb	6,144	6,144	2.0	2
Tubb	6,148	6,148	2.0	2
Tubb	6,154	6,154	2.0	2
Tubb	6,161	6,161	2.0	2
Tubb	6,165	6,165	2.0	2
Tubb	6,169	6,169	2.0	2
Tubb	6,174	6,174	2.0	2
Tubb	6,178	6,178	2.0	2
Tubb	6,197	6,197	2.0	2
Tubb	6,200	6,200	2.0	2
Tubb	6,202	6,202	2.0	2
Tubb	6,210	6,210	2.0	2
Tubb	6,215	6,215	2.0	2
Tubb	6,220	6,220	2.0	2

Scenario 1: FJ Liner Proposed WBD ([redacted])

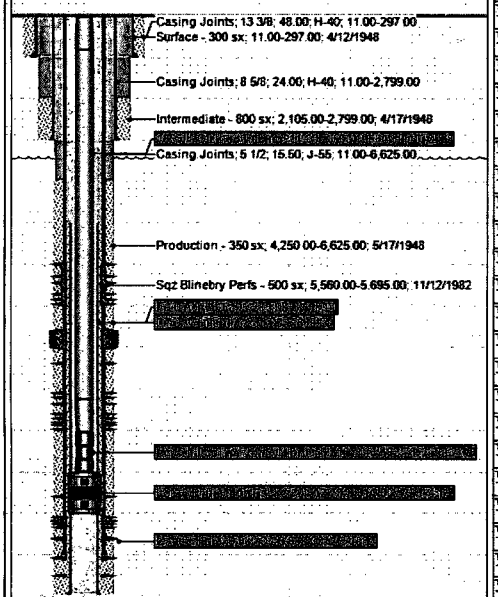
Proposed

Apache

Well Name: NEDU 602

Production, NE DRINKARD UNIT #602 - Original Hole, 12/7/2018 10:06:29 AM

Vertical schematic (proposed)



Existing Perforations

Type	Top Depth (ftKB)	Bottom Depth (ftKB)	Shot Density (shots/ft)	Entered Shot Total
Tubb	6,224	6,224	2.0	2
Tubb	6,230	6,230	2.0	2
Tubb	6,233	6,233	2.0	2
Tubb	6,241	6,241	2.0	2
Tubb	6,246	6,246	2.0	2
Tubb	6,258	6,258	2.0	2
Tubb	6,263	6,263	2.0	2
Tubb	6,268	6,268	2.0	2
Tubb	6,269	6,269	2.0	2
Tubb	6,274	6,274	2.0	2
Tubb	6,276	6,276	2.0	2
Tubb	6,278	6,278	2.0	2
Tubb	6,292	6,292	2.0	2
Tubb	6,295	6,295	2.0	2
Tubb	6,300	6,300	2.0	2
Tubb	6,303	6,303	2.0	2
Tubb	6,313	6,313	2.0	2
Tubb	6,315	6,315	2.0	2
Tubb	6,316	6,316	2.0	2
Tubb	6,330	6,330	2.0	2
Tubb	6,340	6,340	2.0	2
Tubb	6,349	6,349	2.0	2
Tubb	6,359	6,359	2.0	2
Tubb	6,371	6,371	2.0	2
Tubb	6,378	6,378	2.0	2

Scenario 1: FJ Liner Proposed WBD ([redacted])

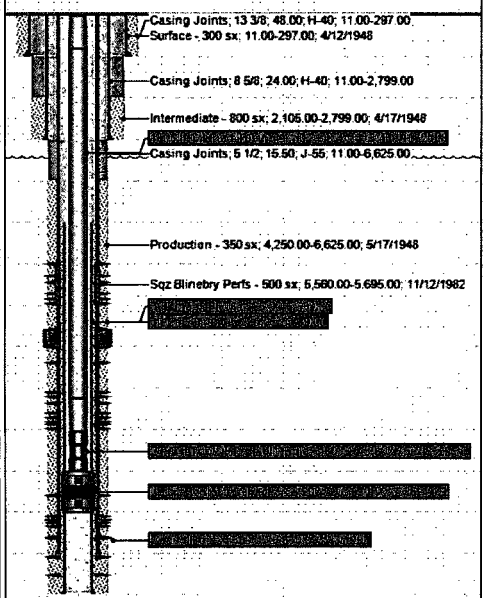
Proposed

Apache

Well Name: NEDU 602

Production, NE DRINKARD UNIT #602 - Original Hole, 12/7/2018 10:06:35 AM

Vertical schematic (proposed)



Existing Perforations

Type	Top Depth (ftKB)	Bottom Depth (ftKB)	Shot Density (shots/ft)	Entered Shot Total
Tubb	6,380	6,380	2.0	2
Tubb	6,386	6,386	2.0	2
Tubb	6,401	6,401	2.0	2
Tubb - Abandoned	6,430	6,430	2.0	2
Drinkard - Abandoned	6,438	6,438	2.0	2
Drinkard - Abandoned	6,451	6,451	2.0	2
Drinkard - Abandoned	6,469	6,469	2.0	2
Drinkard - Abandoned	6,478	6,478	2.0	2
Drinkard - Abandoned	6,487	6,487	2.0	2
Drinkard - Abandoned	6,491	6,491	2.0	2
Drinkard - Abandoned	6,499	6,499	2.0	2
Drinkard - Abandoned	6,607	6,607	2.0	2
Drinkard - Abandoned	6,522	6,522	2.0	2
Drinkard - Abandoned	6,535	6,535	2.0	2
Drinkard - Abandoned	6,539	6,539	2.0	2
Drinkard - Abandoned	6,550	6,565	4.0	60
Drinkard - Abandoned	6,580	6,590	4.0	40

Proposed Perforations

Type	Top Depth (ftKB)	Bottom Depth (ftKB)	Shot Density (shots/ft)	Entered Shot Total
Cased Hole	6,530	6,650	2.0	240

Scenario 1: FJ Liner Proposed WBD ([redacted])

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