

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 August 1, 2011

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

WELL API NO. 30-015-21988
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No. K-1020
7. Lease Name or Unit Agreement Name ARTESIA STATE UNIT
8. Well Number 905
9. OGRID Number 274841
10. Pool name or Wildcat Artesia; Queen-Grayburg-San Andres

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 <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Injection Well <input type="checkbox"/>	
2. Name of Operator Alamo Permian Resources, LLC	
3. Address of Operator 415 W. Wall Street, Suite 500, Midland, TX 79701	
4. Well Location Unit Letter A : 1270 feet from the N line and 50 feet from the E line Section 23 Township 18S Range 27E NMPM County EDDY	
11. Elevation (Show whether DR, RKB, RT, GR, etc.)	

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
DOWNHOLE COMMINGLE <input type="checkbox"/>			
OTHER: CLEAN OUT, ADD PERFS, & ACIDIZE <input checked="" type="checkbox"/>		OTHER: <input type="checkbox"/>	

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.

SEE ATTACHED

new: 1822-1842; 1904-2024
1572-2024 (Queen)

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

SIGNATURE Carie Stoker TITLE Regulatory Affairs Coordinator DATE 12/16/2014

Type or print name CARIE STOKER E-mail address: carie@stokeroilfield.com PHONE: 432.664.7659

APPROVED BY: JDade TITLE Dist & Supervisor DATE 1/27/2015

Conditions of Approval (if any):

Provide C105 subsequent to workover procedure

ALAMO PERMIAN RESOURCES, LLC

ARTESIA STATE UNIT #905 CLEAN-OUT, ADD PERFS, & ACIDIZE PROCEDURE

1. MIRU PU & BOP's. Be sure well is dead and blown down. If well tries to flow back – flow well back either into vacuum truck(s) if flowback is weak, or down flowline Artesia State Unit Battery, if flowback appears to be strong. In either case, take flowback to Artesia State Unit Battery production gun barrel or inlet production tank.
2. **THIS WELL HAS 4-1/2" 10.5# J-55 PRODUCTION CASING.**
We will need to use the 2-3/8" workstring for this workover.

This well was originally drilled by Anadarko Production Company in January & February 1977 and completed in the QN-Locho Hills, GB-Upper Grayburg, and GB-Metex zones from 1,822'-2,024' (202' overall).

Alamo Permian Resources has never worked on the Artesia State Unit #905 since the acquisition from CBS Operating Corp. in November 2010. The last workover on the well was a pump repair job by CBS Operating in September 2006, which followed a pump & tubing repair job in July 2003. Copies of the Morning Reports from those workovers are included in the Workover Procedure Package. According to these reports, that the 2-3/8" tubing was run without a TAC, with S/N @ +/- 2,025', and EOT @ 2,025'.

See Wellbore Diagram for perforations detail – updated 12/10/2014.

PROVIDE A DETAILED TALLY & DESCRIPTION OF TUBING, PUMP, RODS, TAC AND ANY OTHER DOWNHOLE EQUIPMENT PULLED FROM THIS WELL IN THE MORNING REPORT FOR OUR RECORDS.

Visually inspect Tubing, Pump, Rods, & TAC coming out of hole. Send Pump & TAC in for Repair/Replacement depending on condition.

Current Perforations: 1,822' – 2,024' (202' Overall interval) – 56' of perforations (112 perfs).
Planned New Perforations: 1,572' – 2,024' (452' Overall interval) – 91' of perforations (182 perfs).
Total Perfs after W/O: 1,572' – 2,024' (452' Overall Interval) – 91' of perforations (294 perfs).

3. Run in hole with a 3-1/2" mill tooth skirted rock bit and 4-1/2" rotating casing scraper on 2-3/8" workstring and clean out wellbore to **PBTD at +/- 2,038'**. Catch samples of any material recovered from well and send to Tech Management for analysis. Note any bridges or hard streaks in report. While at TD, circulate hole clean using clean produced water from Artesia State Unit or WAGU Water Injection Station. POOH with bit and scraper.

REMEMBER: Very hard, dehydrated Fill has been encountered in all Artesia State Unit WIW's worked on during this program. This hard compacted Fill is made up of Iron Sulfide, Formation Sand, Frac Sand, Scale, Paraffin, and Asphaltenes. Drilling it out has required the use of Aztec Well Service's reverse unit & power swivel with a bit and 4-6 Drill Collars.

If excessive paraffin is encountered, pour 10 gal of diesel down tubing and cut paraffin from tubing string with paraffin knife – pouring additional 5 gal diesel down tubing every knife run; or circulate well with hot water & paraffin solvent chemicals to clean paraffin out of tubing string. Paraffin, iron sulfide, sand, rust, and scale have been recovered in many of these old wells while cleaning out to bottom.

4. **RU Warrior Energy Service Corp.** logging company and run cased-hole GRN/CCL log for perforating correlation from PBTD at +/- 2,038' to base of Surface Casing at 307'.

Log should show porosity based on Sandstone Matrix, Dolomite Matrix, & Limestone Matrix.

Email log directly from wellsite to **BOTH**: Pat Seale at pseale@alamoresources.com and Tom Fekete at jordanrubicon@msn.com.

We will review GRN/CCL log and perms for correlation to old GRN/CCL log run on 03/19/1974, prior to perforating.

5. Perforate the **ARTESIA STATE UNIT #905** well over the following **8 intervals** using 3-1/8" Hollow-Carrier slick perforating guns with 19-grain charges:

Interval No.	Perf Interval		No. of Ft	SPF	No. of Perfs	Zone
	Top	Bottom				
1	1,572'	1,594'	22'	2	44	QN – Penrose SS
2	1,822'	1,842'	20'	2	40	QN – Loco Hills SS
3	1,890'	1,894'	4'	2	8	GB – Upper Grayburg
4	1,904'	1,908'	4'	2	8	GB – Upper Grayburg
5	1,914'	1,920'	6'	2	12	GB – Upper Grayburg
6	1,932'	1,938'	6'	2	12	GB – Metex
7	1,947'	1,951'	4'	2	8	GB – Metex
8	1,958'	1,965'	7'	2	14	GB – Metex
9	1,976'	1,980'	4'	2	8	GB – Metex
10	2,002'	2,012'	10'	2	20	GB – Metex
11	2,020'	2,024'	4'	2	8	<u>GB – Metex</u>
TOTALS			91'		182 Perfs	

6. **Acidize LOCO HILLS, UPPER GRAYBURG, & METEX Perforated Intervals from 1,822'- 2,024':**

- 202' Overall;
- 69' of perforations
- 250 perforations (138 New +112 Old perms)

in 4 Stages using Rock Salt for Diversion of acid during Job.

Acid Job Total:

- **10,000 gal 15% NEFE HCl (238.1 Bbls)**
- **144.9 gal/ft of perms**
- **40.0 gal/perf)**

with acid booster, anti-sludge, paraffin solvent, scale inhibitor, and demulsifiers, **pumped at 5.0-6.0 BPM.**

- Run in hole with Treating Packer on 2-3/8" workstring with Retrievable Bridge Plug setting tool and RBP below packer.
- Set Retrievable Bridge Plug at approximately **2,032'**.
- Set Treating Packer at approximately **1,750'**.

Acidize the perforations in 4 Stages using Rock Salt as diverting agent between Stages:

STAGE 1: **SPOT 3.5 Bbls 15% NEFE HCl (219.5')** across Perfs from 1,822'-2,024' (202') inside the 4-1/2" 10.5# production casing in the well.

Pick up Retrievable Packer and Set at approx. 1,750'.

ACIDIZE STAGE 1 with a total of 4,000 gal 15% NEFE HCl (95.2 bbls) + additives, increasing pump rate after breakdown to 5.0-6.0 BPM.

PUMP 400# ROCK SALT in Artesia State Unit or WAGU produced water as Diverting Agent between Stage 1 and Stage 2.

STAGE 2: **PUMP 3,000 gal 15% NEFE HCl ACID (71.4 bbls) + additives at 5.0-6.0 BPM.**

PUMP 400# ROCK SALT in Artesia State Unit or WAGU produced water as Diverting Agent between Stage 2 and Stage 3.

STAGE 3: **PUMP 1,500 gal 15% NEFE HCl ACID (35.7 bbls) + additives at 5.0-6.0 BPM.**

PUMP 400# ROCK SALT in Artesia State Unit or WAGU produced water as Diverting Agent between Stage 3 and Stage 4.

STAGE 4: **PUMP 1,500 gal 15% NEFE HCl ACID (35.7 bbls) + additives at 5.0-6.0 BPM.**

Pump +/- 11.1 Bbls Fresh Water to displace acid to bottom of perforations at 2,024'.

Shut-in well and record Shut-In Pressures: Initial Shut-in; 5-minute S/I; 10-minute S/I; & 15-minute S/I.

Leave well Shut-in for 4 hours for acid to spend.

Flow back well into vacuum trucks until it lays down and dies. If well flows back more than 2 truck loads of water – hook up well to line and flowback to Artesia State Unit production Battery until it dies.

Truck any Oil recovered during Flowback to Artesia State Unit production Battery.

Release Treating Packer and unseat Retrievable Bridge Plug.

Re-Set Retrievable Bridge Plug at approximately 1,650'.

7. Acidize new PENROSE SANDSTONE perms from 1,572' – 1,594':

- 22' Overall;
- 22' of perforations
- 44 Perforations (44 New + 0 Old perms)

Acid Job Total:

- 2,500 gal 15% NEFE HCl (59.5 Bbls)
- 113.6 gal/ft of perms
- 56.8 gal/perf)

with acid booster, anti-sludge, paraffin solvent, scale inhibitor, and demulsifiers, pumped at 5.0-6.0 BPM.

Re-Set Retrievable Bridge Plug at approximately 1,650'.

Set Treating Packer at approximately 1,400'.

Spot 2.0 Bbls of 15% NEFE HCL (125.4') plus additives across Penrose Perfs (1,572'-1,594') – Pull up to approximately 1,400' & reverse out tubing – Set Treating Packer at approximately 1,400'.

Pump a total of **2,500 gal 15% NEFE HCl plus additives** down tubing at **5-6 BPM** after acid is on perfs and perfs have broken down.

Pump +/- **7.0 Bbls Fresh Water** to displace acid to bottom of perforations at 1,594'.

Shut-in well and record Shut-In Pressures: Initial Shut-in; 5-minute S/I; 10-minute S/I; & 15-minute S/I.

Shut well in 4 hours for acid to spend.

8. Open well up to flow back into vacuum trucks on location initially. Take the first 2 truckloads of flow back to commercial disposal site.

If well should continue to flow back – tie well in to flowline and flow back to the Artesia State Unit production Battery until it dies. May need to put pulling unit rig on standby during these flowback times in order to keep workover costs down.

Truck any Oil recovered during Flowback to Artesia State Unit production Battery.

9. Release Retrievable Treating Packer, go down and retrieve RBP & POOH with RBP, packer, and workstring. Have water truck on hand to kill well if it tries to come in during trip.

10. Trip in hole with 2-3/8" workstring with muleshoe on bottom & tag for fill to **PBTD**. Circulate hole clean with water truck using **Fresh Water** at least **at least 2 times around in order to dissolve rock salt**. POOH with workstring and muleshoe.

11. Run in hole with 2-3/8" 4.7# J-55 Production Tubing string and 4-1/2"x2-3/8" TAC.

Run Tubing & Downhole Equipment configuration as follows:

- 2-3/8" 4.7# J-55 Tubing to +/- 1,500' (Above Penrose Perfs: 1,572'-1,594')
- 4-1/2"x2-3/8" TAC
- 2-3/8" 4.7# J-55 Tubing to +/- 1,962'
- Endurance Joint
- 2-3/8" Seating Nipple (set at +/- 1,994' – 48' Above Bottom Perf @ 2,024')
- 2-3/8" x 2-7/8" X-Over
- 4' – 2-7/8" Slotted Sub
- 1 jt - 2-7/8" Mud Anchor Joint with Bull Plug on bottom. (EOT @ approx. 2,030')
- Run similar Rod Configuration to what was run in Artesia State Unit #501. May need to replace some or all rods & couplings, or install KD Rods at this time, depending of condition of equipment in hole.
- 1' x 3/4" Lift Sub
- 20-150-12' RWBC Pump with 12' – 1" Gas Anchor on bottom (run into Mud Anchor).

Pressure test tubing to 5,000 psig while going in hole.

12. Check Pump for good pump action.
13. RDMO Pulling Unit rig.
14. Return well to Production and report Daily Production Tests to Midland Office.

*H. Patrick Seale
December 10, 2014.*

ALAMO PERMIAN RESOURCES, LLC

WELLBORE DIAGRAM

Lease/Well No.:

ARTESIA STATE UNIT #905

ELEVATION, GL: 3,561 ft

Location:

1,270' FNL & 50' FEL

UL: A, SEC: 23, T: 18-S, R: 27-E

FIELD: ARTESIA: QN-GB-SA

EDDY County, NM

LEASE No.:

State B-10568

Spudded: 1/30/1977

API No.:

30-015-21988

Drig Stopped: 2/4/1977

Completed: 3/17/1977

ROTARY DRILG RIG

LAT:

LONG:

12-1/4" HOLE

Surface Csg:

8-5/8" 24# J-55

Csg Set @ 307'

Cmt'd w/ 150' sx

+ 4 sx Redi-Mix

7-7/8" HOLE

Well Last Pulled By

CBS Operating

07/22/2003:

64 jts 2-3/8" Tbg

No TAC

S/N @ 2,025' +/-

EOT @ 2,025' +/-

7/22/2003

Production Csg:

4-1/2" 10.5# J-55

Csg Set @ 2,040'

Cmt'd w/ 600 sx

TOC @ Surface

Topped Off - 5 sx

307' Csg

TOC @ Surface

Circulated 100 sx

TOPS (TEF)

DEPTH, ft

YATES

SEVEN RIVERS

PENROSE

1,570

LOCO HILLS

1,822

GRAYBURG

1,842

METEX

1,930

PREMIER

NDE

SAN ANDRES

NDE

PERFS:

Zone

SPF - # Holes

Date

QN - Penrose SS 0' 2 spf - 0 holes

1822 - 1842'

QN - Loco Hills 20' 2 spf - 40 holes

03/17/77

1904 - 1908'

GB - Upper GB 4' 2 spf - 8 holes

03/17/77

1916 - 1920'

GB - Upper GB 4' 2 spf - 8 holes

03/17/77

1947 - 1951'

GB - Metex 4' 2 spf - 8 holes

03/17/77

1959 - 1965'

GB - Metex 6' 2 spf - 12 holes

03/17/77

1976 - 1980'

GB - Metex 4' 2 spf - 8 holes

03/17/77

2002 - 2012'

GB - Metex 10' 2 spf - 20 holes

03/17/77

2020 - 2024'

GB - Metex 4' 2 spf - 8 holes

03/17/77

2,040' Csg

TOTALS: 56' -- 112 holes

2,038' PBDT

2,040' TD

Cumulative Prod. (10/31/14):

OIL 15,389* MBO

GAS 0.000 MMCF

WATER 96,646* MBW

INJECT. 0.000 MBW

Drilled by ANADARKO PROD. CO. as the Artesia State Unit Tract 9 Well #5.

WELL HAS AMERICAN D-80A PUMPING UNIT - 42" STROKE

* ACTUAL CUMM's 10/31/2014: 18.031 MBO, 0 MMCF, 104,793 MBW (NMOCD).

HPS: 12/10/2014

ARTESIA STATE UNIT #905

WELL PERFORATION, ACID JOB, FRAC JOB, & WELL TEST DETAILS

[illegible]

#905

ARTESIA STATE WELL NO. 9-5

1270' FNL & 50' FEL UL A

SEC. 23 T18S R27E

EDDY COUNTY, NM

API NO. 30-015-21988

CBS OPERATING CORP.
MORNING REPORTS.

1/3

LAST WORK ON WELL

September 12, 2006

MI & RU Reliable Well Service. Tried to unseat pump. Rods were parted. POH with rods, had 3/4" body break. Picked up 3/4" fishing tool. RIH with rods, fished rods. POH. Replaced 3/4" rod with new one. Respaced well, good pump action. Rigged down and moved out.

CBS OPERATING CORP.
MORNING REPORTS

2/3

#905

ARTESIA STATE UNIT WELL NO. 9-5

API NO. 30-015-21988

1270' FNL & 50' FEL

UL A-23-18S-27E

EDDY COUNTY, NEW MEXICO

July 22, 2003

MI & RU Basic Energy Services. POH with rods and pump. Picked up 1 joint tubing and tagged bottom. Well was 3' off bottom. Well had little iron on bottom. POH with tubing. Rigged up kill truck and tested tubing back in hole. Replaced 5 jts. of tubing. Ran pump & rods in hole - 20' off bottom. Could not get pump jack to run. Laid down on pole. Rigged down and moved out.

CBS OPERATING CORP.
MORNING REPORTS

3/3

DATE 7-22/03

#905

LEASE Artesia State Tract 9 WELL # 5

ROD DATA

F/G _____

1" _____

7'8 _____

3/4 out 80 / in 79

5'8 _____

K-BARS _____ SIZE

PUMP SIZE out 12 in 12

GAS ANCHOR _____

POLISH ROD 20 ft 1 1/4

LINER _____

SUBS out 1x2 1x4 1x4

SHEAR TOOL _____

Subs in: 1x2, 1x2, 1x4, 1x4, 1x8

TUBING DATA

CASING SIZE _____

2 7/8 TBG JTS _____

2 3/8 TBG JTS out 65 in 64

TAC DEPTH _____

TAC TENSION _____

SEATING NIPPLE at 2025' by rodcount

PERF NIPPLE _____

MUD ANCHOR _____

New Tubing 4

2 - 2 3/8 subs 8 ft

20 ft off bottom

INJECTION WELL

CASING SIZE _____

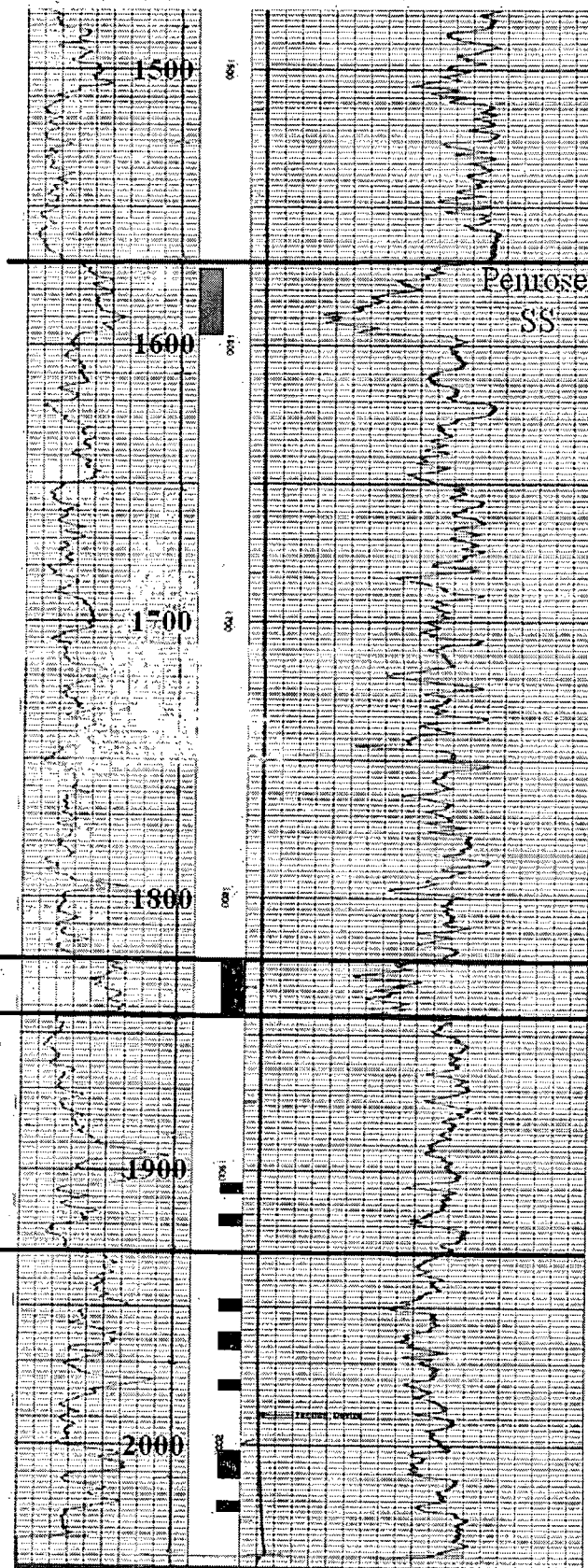
2 7/8 TBG JTS _____

2 3/8 TBG JTS _____

PACKER WHAT KIND _____

PACKER DEPTH _____

Reference Elevation = 3561'




Loco Hills SS

Grayburg Fm.

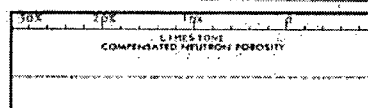
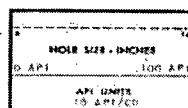
Mètex

■ - Historical Perforation

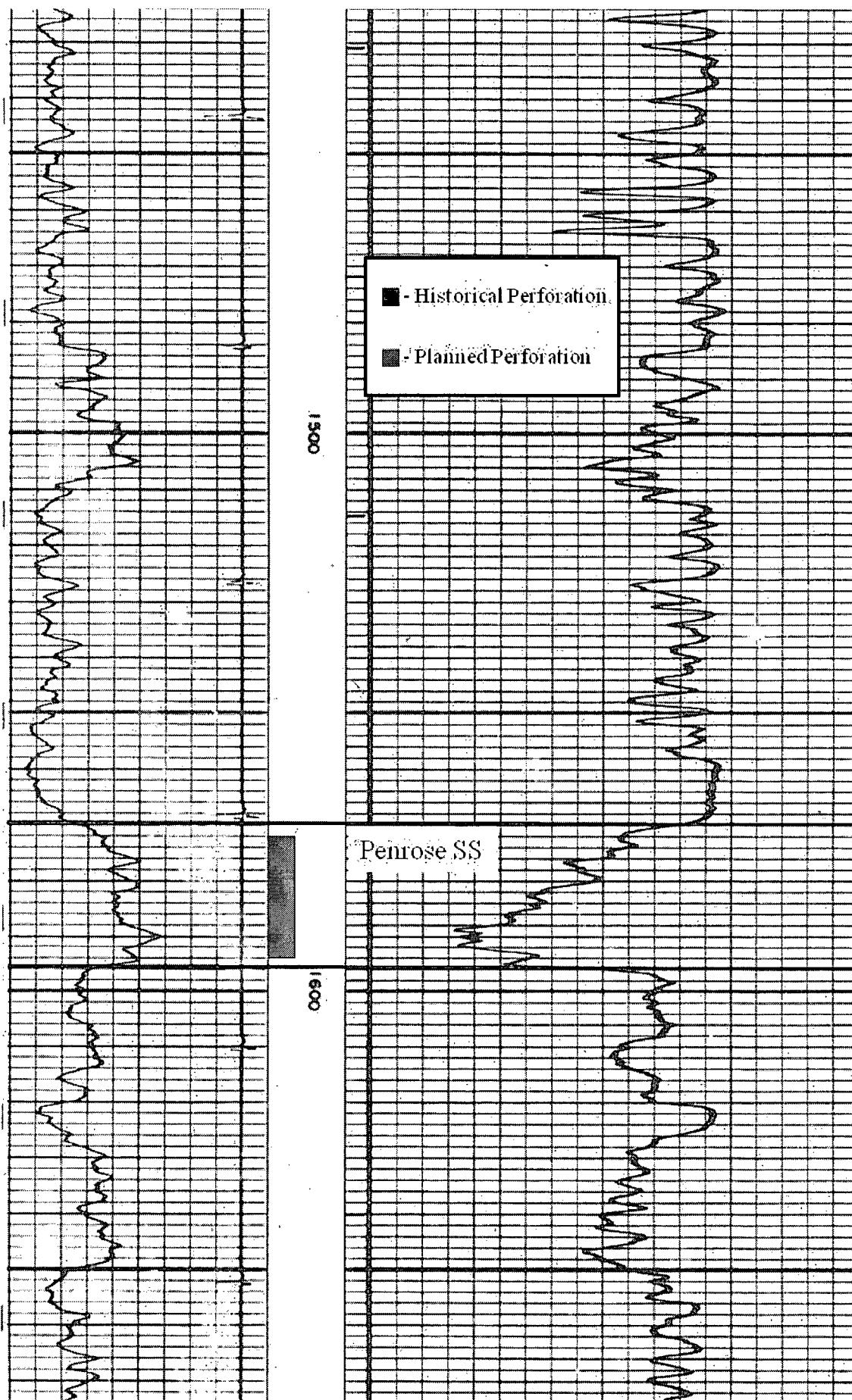
 - Planned Perforation

NDE for Premier

(6/30/2014)



Artesia State #905



Artesia State #905

