

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. 30-015-23842
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>
6. State Oil & Gas Lease No. FEE
7. Lease Name or Unit Agreement Name JENNINGS
8. Well Number 001
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 ☒ Gas Well ☐ Other ☐ Injection Well ☐

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 : 406 feet from the N line and 330 feet from the E line

Section 18

Township 18S

Range 28E

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:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐
DOWNHOLE COMMINGLE ☐

OTHER: CLEAN OUT, ADD PERFS, ACIDIZE

☒

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.

SEE ATTACHED

NM OIL CONSERVATION
ARTESIA DISTRICT

JUL 23 2014

RECEIVED

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 07/21/2014

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

APPROVED BY: R. Dade TITLE Dist. H. Supervisor DATE 7/24/14

Conditions of Approval (if any):

ALAMO PERMIAN RESOURCES, LLC

JENNINGS FEE #001 -- 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 water truck(s) if flowback is weak, or via temporary poly line to WAGU Water Station inlet tank, if flowback appears to be strong. In either case, take flowback to WAGU Water Station inlet water 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.

Description of downhole equipment run in well during last workover on April 5, 2014:

	Description	Length	Depth
Tubing	KB	6.00'	6.00'
	51 jts 2 3/8" J55 EUE 8rd Tubing	1604.46'	1610.46'
	1 4 1/2"x2 3/8" TAC w/12K Tension	2.90'	1613.36'
	27 jts 2 3/8" J55 EUE 8rd Tubing	849.42'	2462.78'
	1 2 3/8" Endurance Joint	32.14'	2494.92'
	1 2 3/8" Standard Seating Nipple	1.10'	2496.02'
	1 2 3/8" Muleshoe Joint	15.00'	2511.02'
Rods	1 1 1/4"x16' Polish Rod w/1 1/2" Liner	16.00'	
	2 3/4" Pony Subs, 1ea: 2', 6'	8.00'	
	98 3/4" Rods	2450.00'	
	1 20-150-10 RWBC Pump w/LS	11.00'	

TAC Set @ 1,613.36' with 12,000# tension
Seating Nipple @ 2,496.02'
EOT @ 2,511.02'

Provide a detailed Tally & Description of all tubing, downhole equipment, pump, and rods pulled from the well in the Morning Report.

Pull out of hole with rods and pump. Pull out of hole with 2-3/8" tubing string & TAC.

Visually inspect rods, tubing, & TAC while coming out of hole. Send Pump and TAC in for Repair/Replacement depending on condition of each.

Current Perforations: 1,725' – 2,596' (871' Overall Interval) – 71' of perforations (91 holes).
Planned New Perforations: 1,948' – 2,242' (294' Overall Interval) – 82' of perforations (164 holes).
Total Perfs after W/O: 1,725' - 2,596' (871' Overall Interval) – 116' of perforations (255 holes).

See Wellbore Diagram for perforations detail – updated 07/03/2014.

Last workover/repair job on well found hard bottom @ 2,571' inside 4-1/2" casing as PBTD.

Bottom 3 sets of Existing Perforations from 2,580' – 2,596' are covered and not treatable. Effective Total Perforations adding New Perforations are from:

1,725' - 2,558' (833' Overall Interval) – 110' of perforations (249 holes).

- 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 2,571'. 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 WAGU Water Injection Station. POOH with bit and scraper.

REMEMBER: Paraffin has been encountered in offset wells. 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 WAGU wells while cleaning out to bottom.

EXCESSIVE PARAFFIN was encountered in the Jennings #1 well during the last repair job workover from March 31 – April 5, 2014. The well was hot-water treated 4 times in attempts to clean out tubing and pump which were plugged with paraffin. After the well was first hung back on the well would not pump due to the pump being packed with paraffin after just being run into the tubing. Then after pump was re-run, it had to be pulled again because the bottom 10' of the muleshoe joint was found to be plugged with paraffin, sand, and scale. Circulating well with hot water & paraffin solvent chemicals may be necessary.

- RU Logging Company and run GRN/CCL log for perforating correlation from PBTD at +/- 2,571' to base of Surface Casing at 518'. Email log directly from wellsite to 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 in 1981, prior to perforating.

- Perforate the JENNINGS FEE #001 well over the following **9 intervals** using 3-1/8" Hollow-Carrier slick perforating guns with 19-grain charges:

<u>Interval No.</u>	<u>Perf Interval</u>		<u>No. of Ft</u>	<u>SPF</u>	<u>No. of Perfs</u>
	<u>Top</u>	<u>Bottom</u>			
1	1,948'	1,966'	21'	2	42
2	2,026'	2,031'	5'	2	10
3	2,070'	2,076'	6'	2	12
4	2,100'	2,106'	6'	2	12
5	2,121'	2,124'	3'	2	6
6	2,128'	2,132'	4'	2	8
7	2,180'	2,189'	9'	2	18
8	2,209'	2,213'	4'	2	8
9	2,218'	2,242'	<u>24'</u>	2	<u>48</u>
TOTALS			82'		164

- Acidize lower San Andres Intervals from 2,369' – 2,558':** (189' Overall Interval – 18' of perforations & 22 perforations) utilizing the Plug & Packer Method with a Retrieable Bridge Plug and Rental Treating Packer.

Acid Job Total: 1,000 gal 15% NEFE HCl (23.8 Bbls) (55.6 gal/ft of perms – 45.5 gal/perf) with acid booster, anti-sludge, paraffin solvent, scale inhibitor, and demulsifiers, **pumped at 1.0-2.0 BPM.**

Run in hole with Treating Packer on 2-3/8" workstring with Retrieable Bridge Plug setting tool and RBP below packer.

Set Retrieable Bridge Plug at approximately **2,565'**.
Set Treating Packer at approximately **2,340'**.

Pump **1,000 gal 15% NEFE HCl plus additives** down tubing at 1-2 BPM.

Pump +/- 12.5 Bbls **Fresh Water** to displace acid to bottom of perforations at 2,558'.

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 3 hours for acid to spend. Flow back well into water trucks until it lays down and dies.

Release Treating Packer and unseat Retrievable Bridge Plug.

Set Retrievable Bridge Plug at approximately 2,260'.

7. **Acidize Penrose & Grayburg (WAGU) Perforated Intervals from 1,725'- 2,242' (517' Overall; 92' of perforations— 227 perfs) in 4 Stages using Rock Salt for Diversion of acid during Job.**

Acid Job Total: 11,000 gal 15% NEFE HCl (119.6 gal/ft of perfs – 48.5 gal/perf) with acid booster, anti-sludge, paraffin solvent, scale inhibitor, and demulsifiers, **pumped at 5.0-6.0 BPM.**

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

STAGE 1: **SPOT 330 gal 15% NEFE HCl (7.9 bbls)** across Perfs from 1,725'-2,242' (517') inside the 4-1/2" 10.5# production casing in the well.

Pick up Retrievable Packer and Set at +/- 1,700'.

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 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 WAGU produced water as Diverting Agent between Stage 2 and Stage 3.

STAGE 3: **PUMP 2,000 gal 15% NEFE HCl ACID (47.6 bbls) + additives at 5.0-6.0 BPM.**

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

STAGE 4: **PUMP 2,000 gal 15% NEFE HCl ACID (47.6 bbls) + additives at 5.0-6.0 BPM.**

Pump +/- 15.5 Bbls **Fresh Water** to displace acid to bottom of perforations at 2,242'.

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.

8. Open well up to flow back into water 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 flow back to the WAGU Water Station inlet tank until it dies. May need to put pulling unit rig on standby during these flowback times in order to keep workover costs down.
9. Release Retrievable Treating Packer & POOH with 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" tubing & 4-1/2"x2-3/8" TAC.

Be sure to replace Muleshoe Joint below Seating Nipple with 2-3/8" Slotted Sub with X-overs to 2-3/8" EUE J-55 8rd Mud Anchor with BP on bottom.

Also replace insert pump with 1-3/4" tubing pump in well (for 2-3/8" tbg).

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

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

Set TAC at +/- 1,900'. Run pump & rods. Check pump for good pump action. RDMO Pulling Unit rig.

If necessary, due to presence of excessive paraffin in tubing which interferes with pump performance, circulate well with hot water and paraffin solvent chemicals to clean casing, tubing, rods, and pump of paraffin.

13. Return well to production and report daily tests to Midland Office.

H. Patrick Seale
July 17, 2014

ALAMO PERMIAN RESOURCES, LLC
WELLBORE DIAGRAM

Lease/Well No.: **JENNINGS FEE No. 001**

ELEVATION, GL: 3,603 ft

Location: 406' FNL & 330' FEL

UL: A, SEC: 18, T: 18-S, R: 28-E

FIELD: **ARTESIA: QN-GB-SA**

EDDY County, NM

LEASE No.: FEE Lease

Spudded: 6/27/1981

API No.: **30-015-23842**

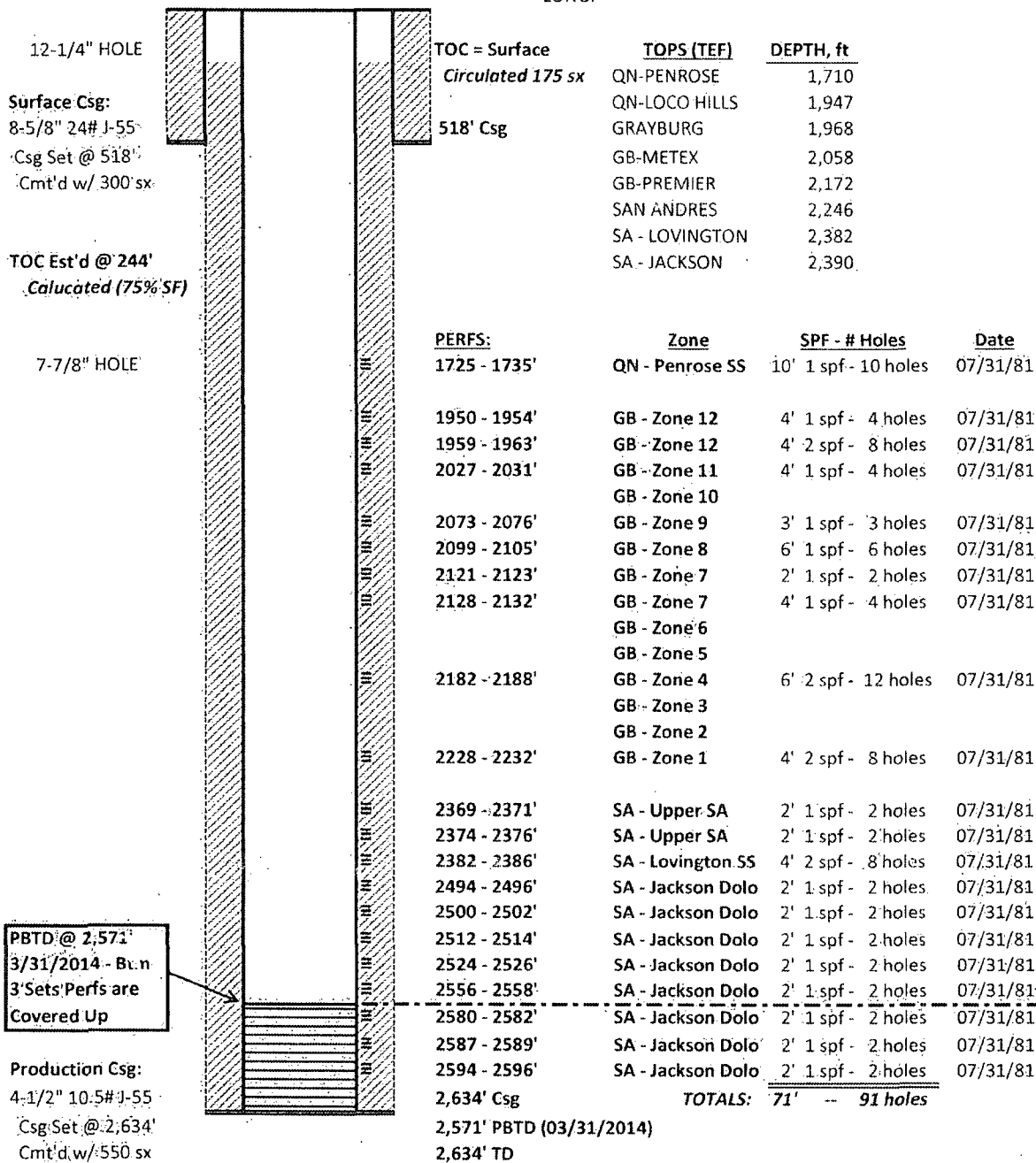
Drig Stopped: 7/12/1981

Completed: 7/31/1981

LAT:

LONG:

ROTARY RIG



Originally Drilled as JENNINGS #1 by MARBOB ENERGY CORPORATION in 1981.

Cumulative Prod. (05/31/14):

OIL	24,302	MMBO
GAS	7,278	MMCF
WATER	31,810	MBW
INJECT.	---	MBW

HPS: 07/03/2014

JENNINGS FEE No. 001

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

[illegible]

Jennings #1

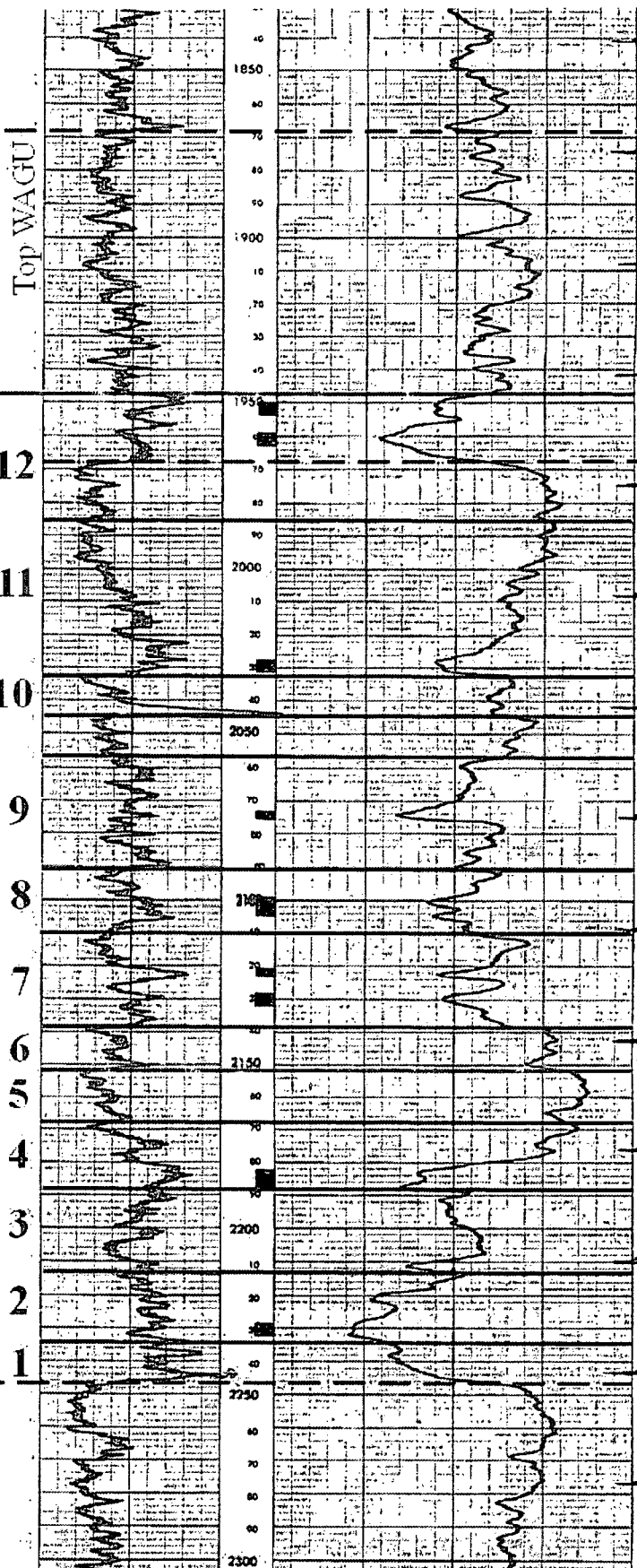
30-015-23842

T-18-S, R-28-E, Sec. 18

406' FNL & 330' FEL

Reference Elevation = 3603'

GEO		<i>Gamma-Ray</i>	
<i>Neutron Log</i>			
WELL NAME: JENNINGS #1 WELL NO.: 30-015-23842 LOCATION: T-18-S, R-28-E, Sec. 18 DEPTH: 406' FNL & 330' FEL DATE: 10/15/77 LOG NO.: 1001			
LOG TYPE: Gamma-Ray Neutron Log LOG SCALE: 0 to 100% LOG INTERVAL: 1' to 10'			
LOG DESCRIPTION: Gamma-Ray Neutron Log showing formation characteristics and lithology.			
LOG DATA: (Table with columns for Depth, Gamma-Ray, Neutron, and Lithology)			



Loco Hills

Grayburg

Also perforated:

Penrose SS: 1723-35

Upper San Andres: 2369-71,
2374-76

Lovington SS: 2382-86,
and San Andres "Jackson":

2494-96, 2500-02, 2512-14,
2524-26, 2556-58, 2580-82,
2587-89, 2594-96.

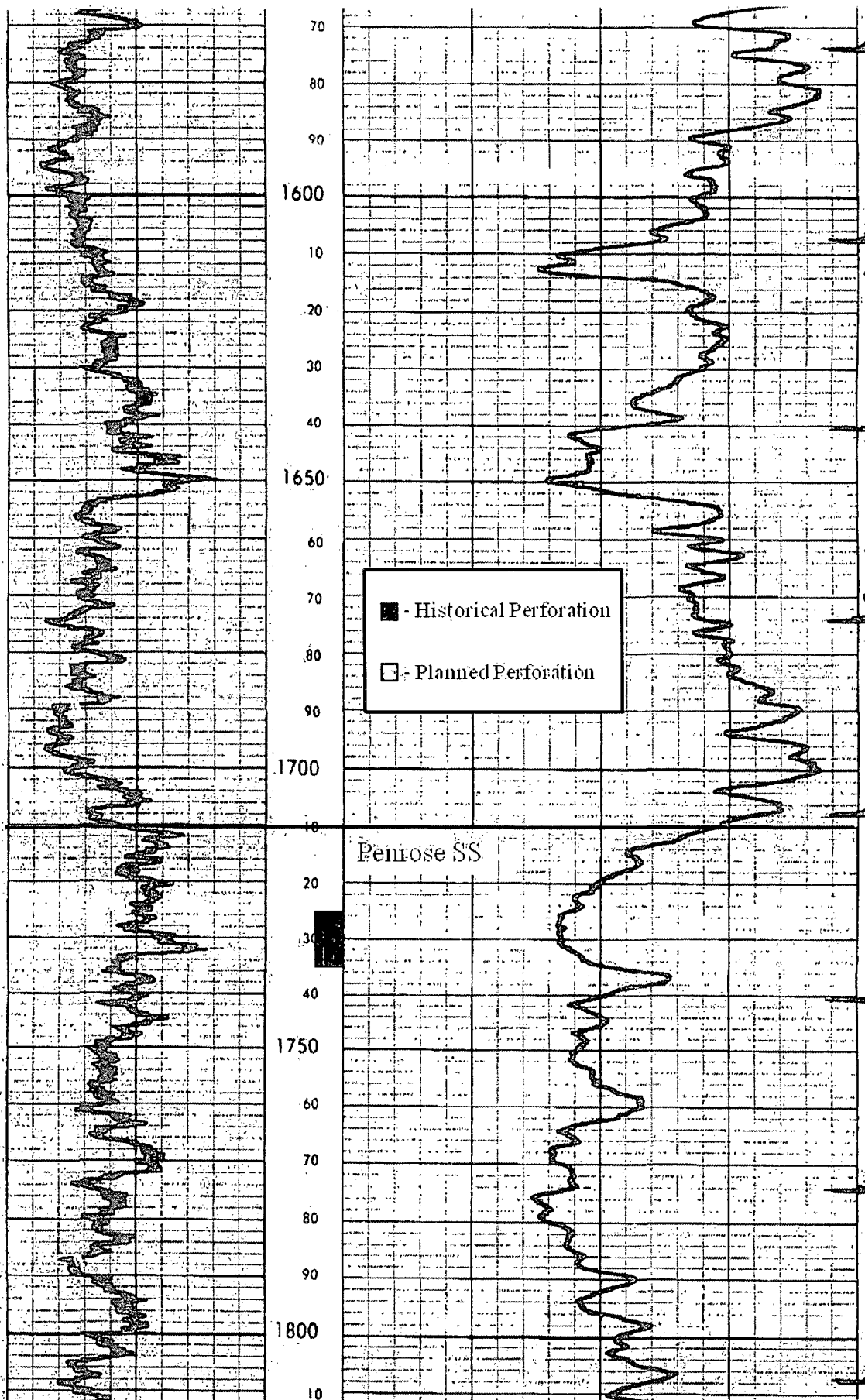
☒ Historical Perforation

☐ Planned Perforation

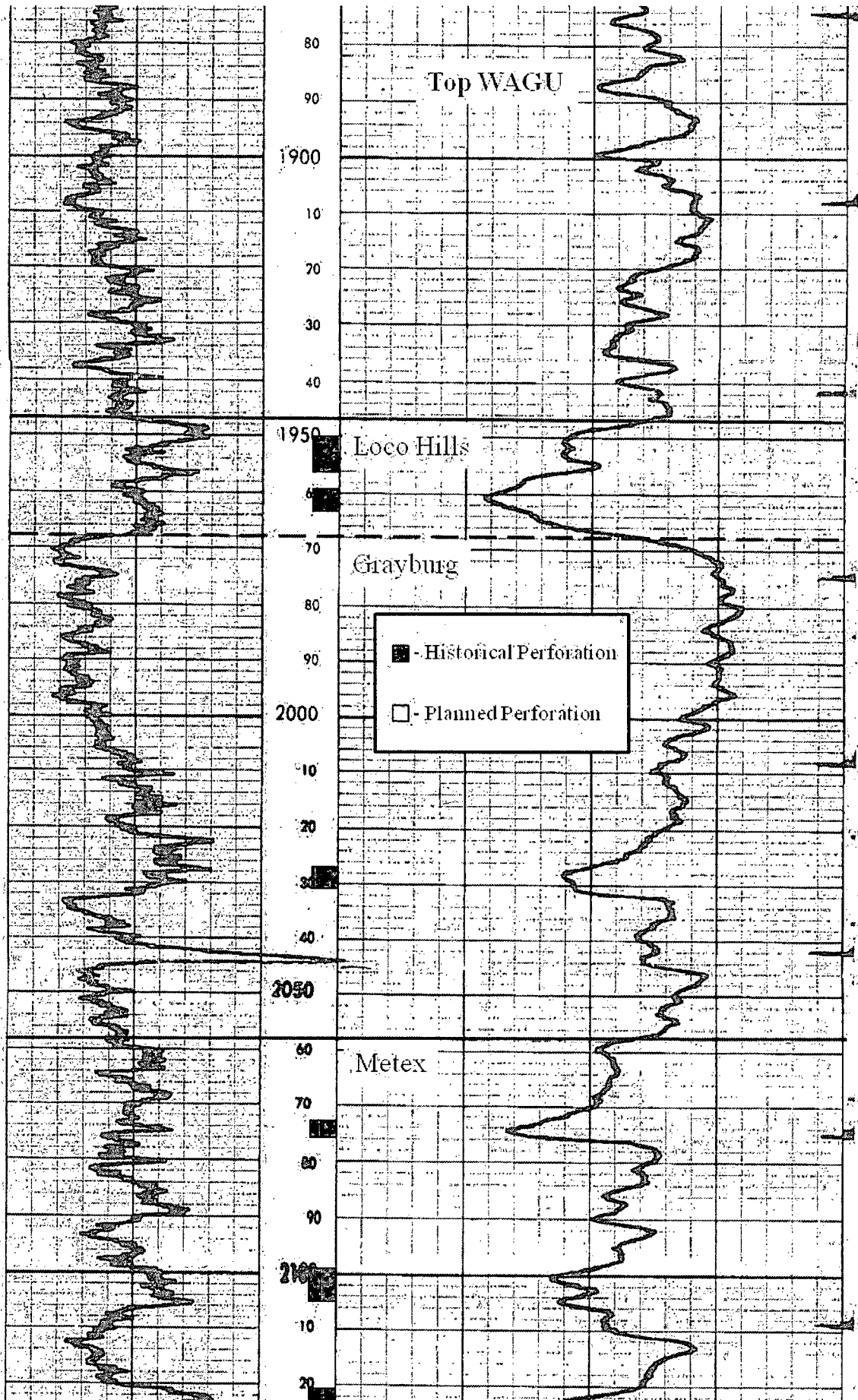
San Andres

(6/30/2014)

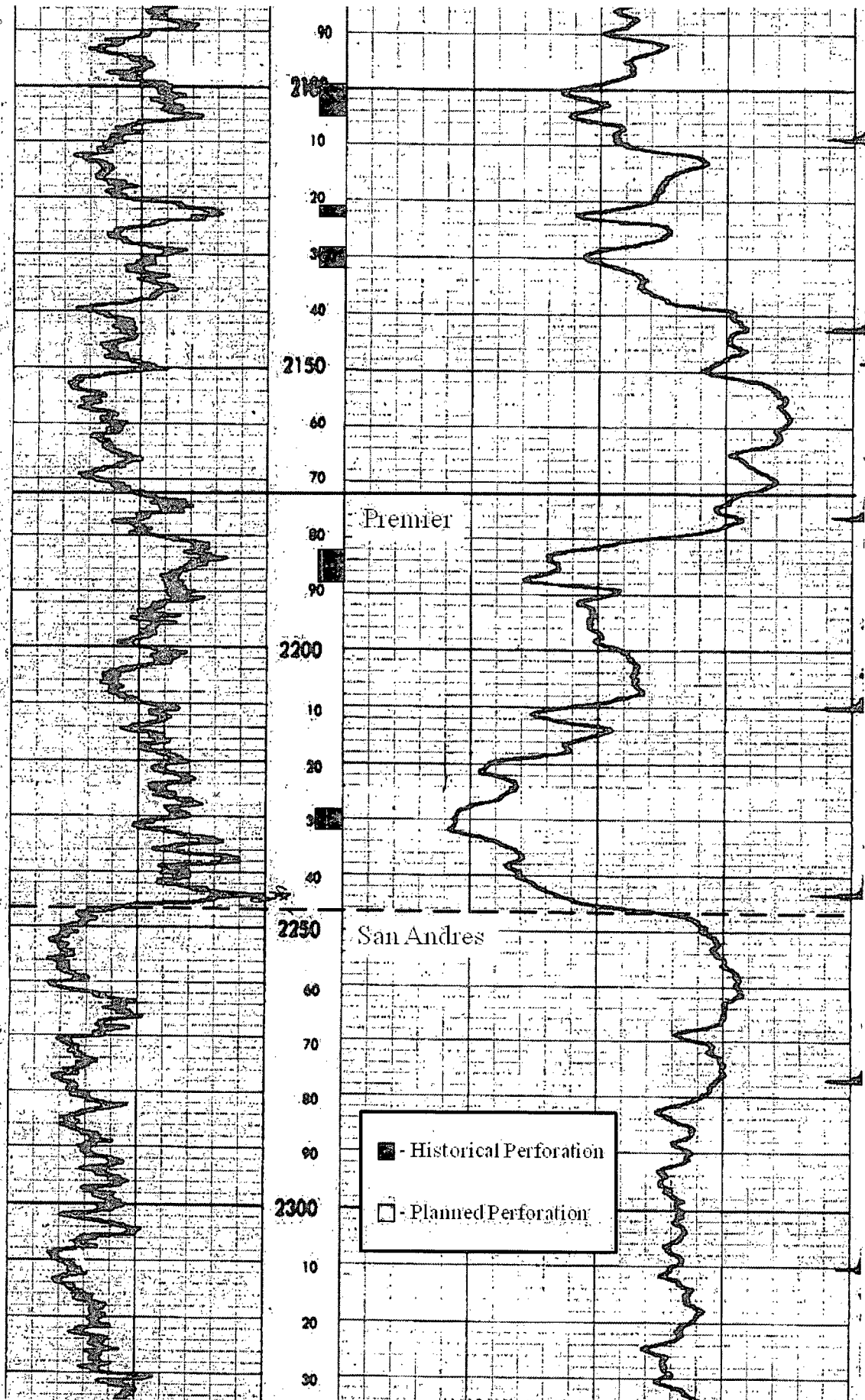
Jennings #1



Jennings #1



Jennings #1



Jennings #1

