

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. 30-015-02649
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No. E-7179
7. Lease Name or Unit Agreement Name WEST ARTESIA GRAYBURG UNIT
8. Well Number 012
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 L : 1650 feet from the S line and 990 feet from the W line  
 Section 8 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.

**DENIED**

**RECEIVED**  
 MAY 27 2014  
**NMOCD ARTESIA**

SEE ATTACHED

PLANNED PERFORATIONS ARE OUTSIDE OF PERMIT ZONE. PLEASE APPLY FOR A CHANGE OF THIS PERMIT AND GET APPROVAL FROM SANTA FE UCD BEFORE PERFORMING WORK.  
 OR PROVIDE APPROVED PERMIT NUMBER.  
 RT - NMOCD - ARTESIA  
 6/4/14

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 05/23/2014

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

APPROVED BY: **DENIED** TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
 Conditions of Approval (if any):

ALAMO PERMIAN RESOURCES, LLC

**WAGU #012 WIW -- CLEAN-OUT, ADD PERFS, & ACIDIZE PROCEDURE**

1. MIRU PU & BOP's. Be sure well is dead and blown down. Flow well back to WAGU Water Station inlet tank to flow well down prior to workover.
2. Unseat tension Injection Packer (probably Model AD-1) set in well during last workover at 1,901' on 2-3/8" 4.7# J-55 IPC injection tubing string. Do not have amount of tension used to set packer.
3. POOH with 2-3/8" 4.7# J-55 IPC internally-coated injection tubing and 5-1/2"x2-3/8" tension injection packer and internally-coated injection tubing string. Visually inspect tubing, & injection packer while coming out of hole. Send Injection Packer in for Repair/Replacement depending on condition.

**Have 2-3/8" workstring on location – DO NOT USE internally-coated tubing string from well as workstring during workover.**

4. Run in hole with 4-3/4" mill tooth skirted rock bit and 5-1/2" rotating casing scraper on 2-3/8" workstring and clean out wellbore to PBTD at approximately 2,273'.

Catch samples of any material recovered from well and send to Tech Management for chemical 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 & scraper.

**REMEMBER:** Paraffin has been encountered in offset WAGU wells. If excessive paraffin is encountered, either pour 10-gal 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 and paraffin solvent chemicals to clean paraffin out of tubing string and casing. Paraffin, iron sulfide, sand, rust, and scale have been recovered in WAGU wells while cleaning out to bottom.

5. **Current Perforations:** 2,114' – 2,253' (139' Overall interval) – 22' of perforations (88 holes).  
**Planned New Perforations:** 1,968' – 2,253' (285' Overall interval) – 159' of perforations (318 holes).  
**Total Perfs after W/O:** 1,968'- 2,253' (285' Overall Interval) – 159' of perforations (406 holes).

See Wellbore Diagram for perforations detail – updated 05/21/2014.

6. RU Logging Company and run GRN/CCL log for perforating correlation from PBTD to base of Surface Casing at 441'. Have log emailed in to Pat Seale ([pseale@alamoresources.com](mailto:pseale@alamoresources.com)) and Tom Fekete ([fordannubicon@msn.com](mailto:fordannubicon@msn.com)) upon completion of logging, in order for correlation of GRN/CCL log to original open-hole log run in well for perforating.

7. Perforate the WAGU #012 WIW well over the following **18 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
	Top	Bottom			
1	1,968'	1,980'	12'	2	24
2	1,986'	1,990'	4'	2	8
3	1,996'	2,000'	4'	2	8
4	2,004'	2,008'	4'	2	8
5	2,010'	2,024'	14'	2	28
6	2,036'	2,042'	6'	2	12
7	2,050'	2,057'	7'	2	14
8	2,070'	2,087'	17'	2	34
9	2,094'	2,104'	10'	2	20
10	2,110'	2,120'	10'	2	20
11	2,130'	2,152'	22'	2	44
12	2,160'	2,166'	6'	2	12
13	2,176'	2,180'	4'	2	8
14	2,186'	2,191'	5'	2	10
15	2,196'	2,210'	14'	2	28
16	2,220'	2,228'	8'	2	16
17	2,236'	2,240'	4'	2	8
18	2,245'	2,253'	8'	2	16
<b>TOTALS</b>			<b>159'</b>		<b>318</b>

8. Acidize Perforated Intervals using **Rock Salt for Diversion of acid during Job.**

**Acid Job Total: 15,000 gal 15% NEFE HCl** (94.3 gal/ft of perfs – 39.9 gal/perf) with acid booster, anti-sludge, paraffin solvent, scale inhibitor, and demulsifiers, **pumped at 5.0-6.0 BPM.**

Trip in hole with rental 5-1/2"x2-3/8" retrievable treating packer on workstring. Set packer above perforations at approximately 1,900'. Acidize the perforations in 4 Stages using Rock Salt as diverting agent between Stages:

**STAGE 1:** **SPOT 295 gal of 15% NEFE HCl (7.0 bbls)** across Perfs from 1,968'-2,253' (285'). Pick up packer and set at +/- 1,900'.

**ACIDIZE with 4,705 gal 15% NEFE HCl (112.0 bbls) + additives, increasing pump rate after breakdown to 5.0-6.0 BPM.**

**A TOTAL OF 5,000 gal acid (119.1 bbls) in STAGE 1.**

**PUMP 400# ROCK SALT** in WAGU produced water as Diverting Agent between Stage 1 and Stage 2.

**STAGE 2:** **PUMP 4,000 gal 15% NEFE HCl ACID (95.2 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 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 3 and Stage 4.

**STAGE 4: PUMP 3,000 gal 15% NEFE HCl ACID (71.4 bbls) + additives at 5.0-6.0 BPM.**

Pump +/- 16.0 Bbls **Fresh Water** to displace acid to bottom of perforations at 2,253'.

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.

9. 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.
10. Release treating packer & POOH with packer and workstring. Have water truck on hand to kill well if it tries to come in during trip out of hole.
11. Trip in hole with 2-3/8" workstring with muleshoe on bottom & tag for fill. Circulate hole clean with water truck using **Fresh Water** in order to dissolve rock salt – **at least 2 times around**, and then circulate with clean produced water from the WAGU Water Station. POOH with workstring and muleshoe.
12. Run in hole with redressed/new Baker Model AD-1 2-3/8"x5-1/2" tension packer on 2-3/8" 4.7# J-55 IPC injection tubing string to +/- 1,900'. Pressure test 2-3/8" tubing going in hole to 5,000 psig.
13. Pump & circulate approx. 75 Bbls of packer fluid into tbg/csg annulus – get clear returns. Set Baker Model AD-1 tension packer above injection perms.
14. ND BOP and NU injection wellhead.
15. Notify Richard Inge of NMOCD 24 hours in advance of running MIT on injection well.

Rig up pump truck with chart pressure recorder to be able to record on a 1-hour/1,000 psig chart for MIT Test. Pressure up on annulus to 500 psig with pump truck – Hold and record pressure for 1 hour (60 minutes) for MIT, or as directed by NMOCD.

Have NMOCD REPRESENTATIVE on-site as a WITNESS for the MIT, IF POSSIBLE. If representative is not available, have chart to send to NMOCD.

16. Run Injection Test on well using produced water from WAGU station and pump truck. Have pressure chart recorder on truck for test. Pump into well at the following rates, allowing pump in pressure to stabilize before going to next rate. Record pump-in rates, volumes pumped, initial pressure, and final pressure for each Test Rate. DO NOT EXCEED 1,500 psig pumping pressure during test – if 1,500 psig is reached do not attempt next rate. Test Rates:

- 0.25 BPM
- 0.50 BPM
- 0.75 BPM
- 1.00 BPM
- 1.50 BPM
- 2.00 BPM

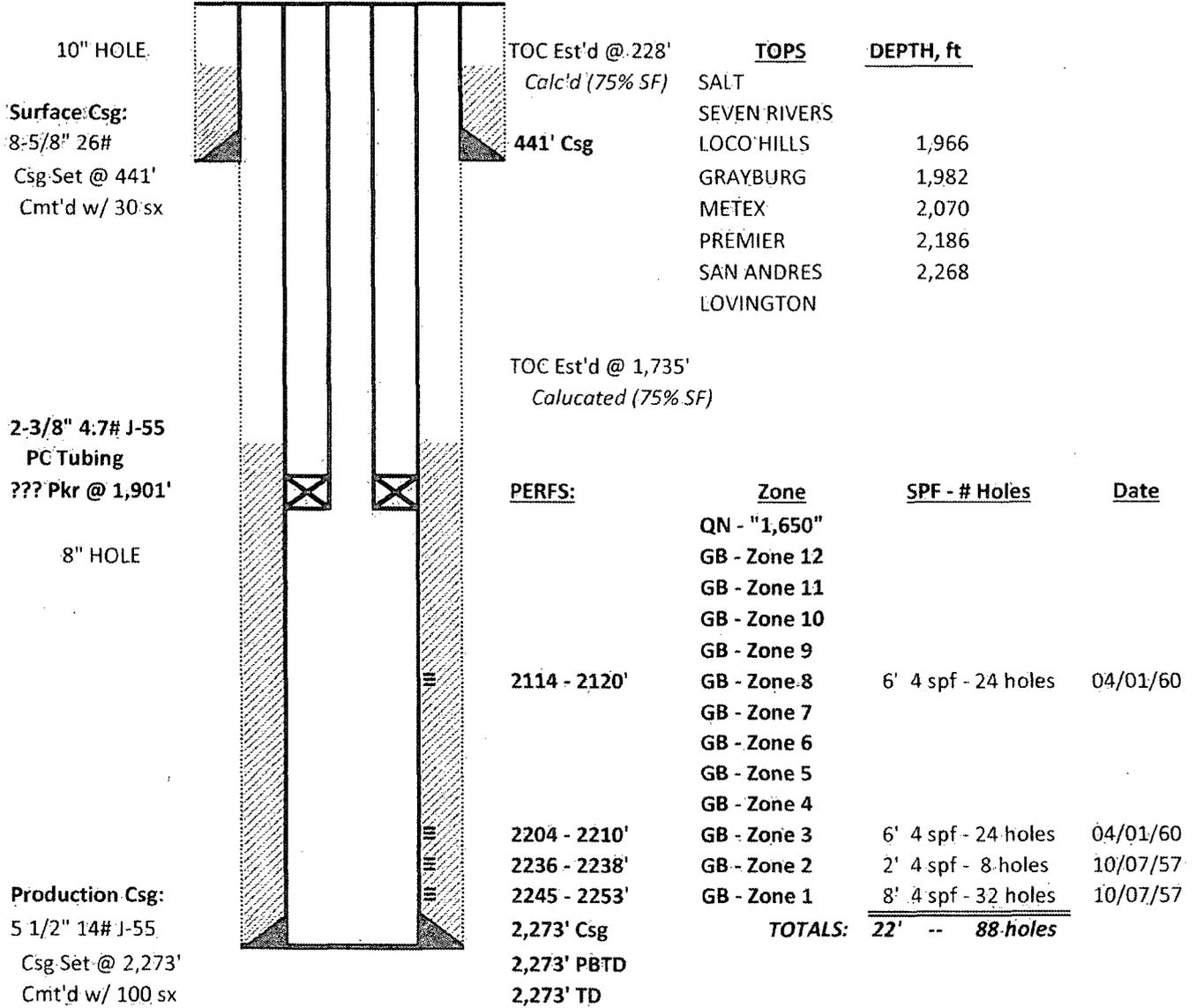
17. Once NMOCD approves MIT test run, hook well up to injection line and begin water injection.

H. Patrick Seale  
May 21, 2014

**ALAMO PERMIAN RESOURCES, LLC  
WELLBORE DIAGRAM**

Lease/Well No.: **WAGU No. 012 WIW** ELEVATION, GL: 3,618 ft  
 Location: 1,650' FSL & 990' FWL  
 UL: L, SEC: 8 T: 18-S, R: 28-E FIELD: **ARTESIA: QN-GB-SA**  
 EDDY County, NM  
 LEASE No.: State: E-7179 Spudded: 9/7/1957  
 API No.: **30-015-02649** Drlg Stopped: 10/7/1957  
 Completed: 10/11/1957  
 LAT:  
 LONG:

**CABLE TOOLS**



Originally Drilled as the Signal State #1 by Roach & Sheppard  
 Renamed WAGU Tract 5 #12 - 03/21/68.  
 Initial Water Injection: 04/25/71 with packer @ 2189' & perforations 2114-20',  
 2204-10', 2236-38', & 2245-53'.

**Cumulative Prod. (03/31/14):**  
 OIL 50.656 MBO  
 GAS 3.836 MMCF  
 WATER 18.433 MBW  
 INJECT. 563.160 MBW

HPS: 05/21/2014

WAGU No.012 WIW

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

PERFS			ACID JOB(S)		FRAC JOB(S)					INITIAL POTENTIAL TEST					
TOP	BOTTOM	ZONE	DATE	ACID GALS	ACID TYPE	DATE	FRAC FLUID GALS	FLUID TYPE	SAND LBS	SAND SIZE	REMARKS	TEST DATE	OIL BOPD	GAS MCFD	WATER BWPD
2,236	2,238	Grayburg										10/10/1957	12.5	0	0
2,245	2,253	Grayburg									Pre-Frac Test		Flowing		
2,236	2,238	Grayburg				10/11/1957	20,000	Gelled Oil	30,000	20/40		10/11/1957	60	0	0
2,245	2,253	Grayburg											Flowing		
2,114	2,120	Metex				4/1/1960	20,000	Gelled Oil	40,000	20/40	Isolated	No Test Reported			
2,204	2,210	Premier									New Perfs				