Submit 1 Copy To Appropriate District Office	State of New M			Form C-103			
District I - (575) 393-6161	Energy, Minerals and Nat	ural Resources	WELL API NO.	Revised August 1, 2011			
1625 N. French Dr., Hobbs, NM 88240 <u>District II</u> – (575) 748-1283	OH CONCEDUATION	A DIMIGION	30-015-02649				
811 S. First St., Artesia, NM 88210	OIL CONSERVATION		5. Indicate Type of Lease				
<u>District III</u> ~ (505) 334-6178 1000 Rio Brazos Rd., Aztec, NM 87410	1220 South St. Fra		STATE S FEE				
<u>District IV</u> ~ (505) 476-3460	Santa Fe, NM 8	37505	6. State Oil & Gas Lease No.				
1220 S. St. Francis Dr., Santa Fe, NM 87505	1220 S. St. Francis Dr., Santa Fe, NM						
SUNDRY NOT (DO NOT USE THIS FORM FOR PROPO DIFFERENT RESERVOIR. USE "APPLI		LUG BACK TO A		Unit Agreement Name GRAYBURG UNIT			
PROPOSALS.) 1. Type of Well: Oil Well	Gas Well Other Injecti	on Well 🗵	8. Well Number ()12			
2. Name of Operator			9. OGRID Number	•			
Alamo Permian Resources. LLC		;	274841				
3. Address of Operator	U. U. T. T. V. FOROL		10. Pool name or Wildcat				
415 W. Wall Street, Suite 500, M	idland, TX 79701		Artesia; Queen-Gra	yburg-San Andres			
4. Well Location							
Unit Letter L: 1650	feet from the S line and 99		W line				
Section 8	Township 18S Rang			County EDDY			
**	11. Elevation (Show whether Di	R, RKB, RT, GR, etc.					
	ppropriate Box to Indicate N		•				
	NTENTION TO:		BSEQUENT REP				
PERFORM REMEDIAL WORK	PLUG AND ABANDON 🔲	REMEDIAL WOF	_				
TEMPORARILY ABANDON	CHANGE PLANS		_	P AND A			
PULL OR ALTER CASING	MULTIPLE COMPL	CASING/CEMEN	II JOB 🗍				
DOWNHOLE COMMINGLE							
OTHER: CLEAN OUT, ADD PER	RFS, ACIDIZE	OTHER:					
13 Describe proposed or compl	eted operations. (Clearly state all p	pertinent details, and	l give pertinent dates	including estimated date			
	rk). SEE RULE 19.15.7.14 NMAC						
•	,						
				•			
SEE ATTACHED							
			-	CONSERVATION			
				SIA DISTRICT			
			SEI	P 1 9 2014			
			DI	ECEIVED			
			N.	ECEIVED			
Therefore and Code and Code at		. 6 1 11	11.11.0				
I hereby certify that the information a	· .	,					
SIGNATURE Que.	Jible TITLE Regi	ılatory Affairs Coo	rdinator DATE_09	<u>)/15/2014</u>			
Type or print name CARIE STO	KER E-mail address: carie@	stokeroilfield.com	PHONE: 432.66	<u>4.7659</u>			
APPROVED BY:	title Dist	#Superva	SST DATE	9-25-2014			
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.

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

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 (<u>pseale@alamoresources.com</u>) and Tom Fekete (<u>jordanrubicon@msn.com</u>) 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	Perf Ir	nterval			
<u>No.</u>	Тор	Bottom	No. of Ft	SPF	No. of Perfs
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'	<u>8'</u>	2	<u>16</u>
TOTALS			159'		318

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

Acid Jeb Total: 15,000 gal 15% NEFE HCI (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 <u>295 gal of 15% NEFE HCI (7.0 bbls)</u> 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 HCI 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 HCI 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 HCI 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 <u>Fresh Water</u> in order to dissolve rock salt <u>at least 2 times around</u>, 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 perfs.
- 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 <u>produced water from WAGU station</u> 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. <u>DO NOT EXCEED 1,500 psig pumping pressure during test</u> 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.: Spudded: State E-7179 9/7/1957 API No.: 30-015-02649 Drlg Stopped: 10/7/1957 Completed: 10/11/1957 CABLE TOOLS LAT: LONG: 10" HOLE TOC Est'd @ 228' TOPS DEPTH, ft Calc'd (75% SF) SALT Surface Csg: SEVEN RIVERS 8-5/8" 26# 441' Csg LOCO HILLS 1,966 Csg Set @ 441' GRAYBURG 1,982 Cmt'd w/ 30 sx 2,070 **METEX** 2,186 **PREMIER** 2,268 **SAN ANDRES** LOVINGTON TOC Est'd @ 1,735' Calucated (75% SF) 2-3/8" 4.7# J-55 **PC Tubing** ??? Pkr @ 1,901' PERFS: Zone SPF - # Holes <u>Date</u> QN - "1,650" 8" HOLE GB - Zone 12 GB - Zone 11 GB - Zone 10 GB - Zone 9 2114 - 2120' GB - Zone 8 6' 4 spf - 24 holes 04/01/60 GB - Zone 7 GB - Zone 6 GB - Zone 5 GB - Zone 4 2204 - 2210' GB - Zone 3 6' 4 spf - 24 holes 04/01/60 2236 - 22381 2' 4 spf - 8 holes 10/07/57 GB - Zone 2 **Production Csg:** 2245 - 2253' GB - Zone 1 8' 4 spf - 32 holes 10/07/57 5 1/2" 14# J-55 2,273' Csg TOTALS: 22' -- 88 holes Csg Set @ 2,273! 2.273' PBTD Cmt'd w/ 100 sx 2,273' TD

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

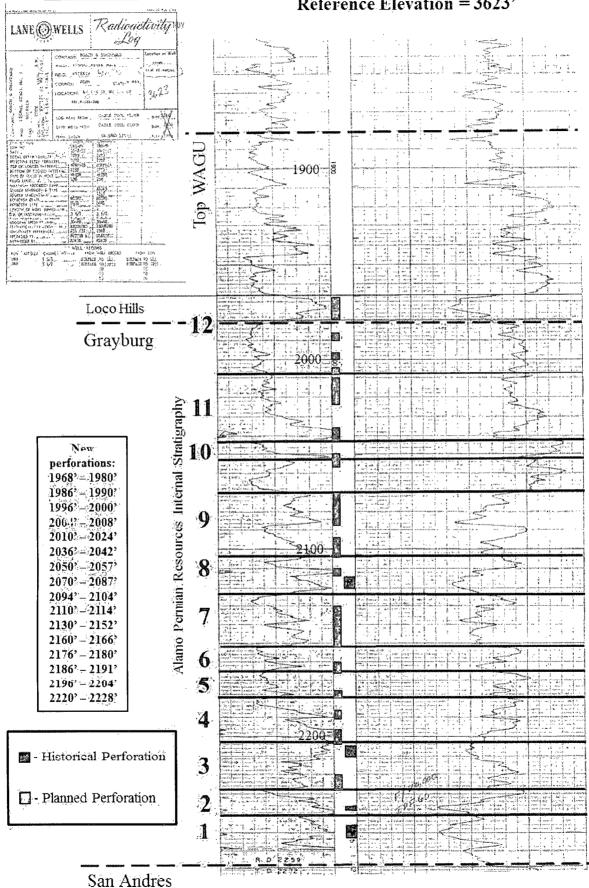
WAGU No. 012 WIW

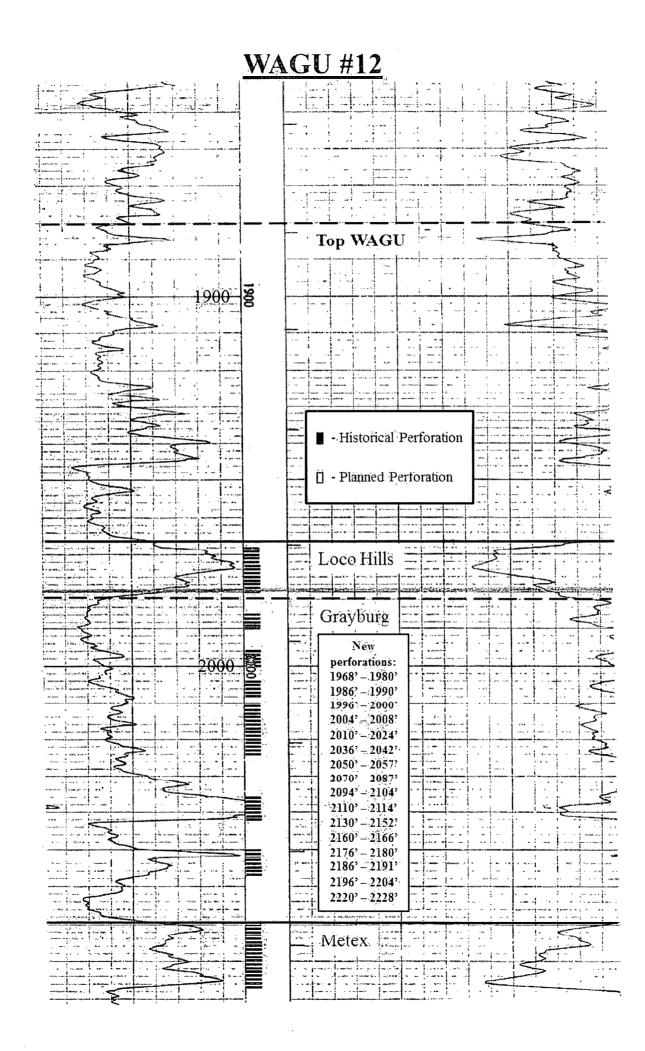
WELL PERFORATION, ACID JOB, FRAC JOB, & WELL TEST DETAILS

PERFS ACID JOB			ACID JOB(S)	ı	FRAC JOB(S)						INITIAL POTENTIAL TEST				
				ACID	ACID		FRAC FLUID	FLUID	SAND	SAND		TEST	OIL	GAS	WATER
TOP	BOTTOM	ZONE	DATE	GALS	TYPE	DATE	GALS	TYPE	LBS	SIZE	REMARKS	DATE	BOPD	MCFD	BWPD
2,236	2,238	Grayburg									Pre-Frac Test	10/10/1957	12.5	0	0
2,245	2,253	Grayburg											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 Repo	ted		
2,204	2,210	Premier									New Perfs				



T-18-S, R-28-E, Sec. 8 1650' FSL & 990' FWL Reference Elevation = 3623'





WAGU #12

