Submit 1 Copy To Appropriate District Office District 1 – (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 SUNDRY NOT (DO NOT USE THIS FORM FOR PROPA DIFFERENT RESERVOIR. USE "APPL PROPOSALS.) 1. Type of Well: Oil Well	State of New Me Energy, Minerals and Natu OIL CONSERVATION 1220 South St. Frar Santa Fe, NM 87 TICES AND REPORTS ON WELLS OSALS TO DRILL OR TO DEEPEN OR PLI ICATION FOR PERMIT" (FORM C-101) FO Gas Well C Other	xico ral Resources DIVISION neis Dr. 7505 JG BACK TO A DR SUCH	 WELL API NO. 30-015-21448 5. Indicate Type STATE 6. State Oil & Gi K-1020 7. Lease Name of ARTESIA STAT 8. Well Number 	Form C-103 Revised August 1, 2011 of Lease FEE as Lease No. or Unit Agreement Name E UNIT 901
Alamo Permian Resources. LLC			9. OGRID Numi 274841	ber
3. Address of Operator	Aldand TV 70701		10. Pool name o	r Wildcat
415 w. wall Street, Suite 500, N	1101ano, 1 X /9/01		Artesia: Queen-C	
Unit Letter A : 10	feet from the N line and 131) feet from the	E line	
Section 23	Township 18S Range	27E	NMPM	County EDDY
and the second se	11. Elevation (Show whether DR,	RKB, RT, GR, etc.))	
12. Check A	Appropriate Box to Indicate Na	ture of Notice, R	Report or Other	Data
NOTICE OF II	NTENTION TO: PLUG AND ABANDON CHANGE PLANS MULTIPLE COMPL	SUB REMEDIAL WORI COMMENCE DRI CASING/CEMEN	SEQUENT RE K LLING OPNS T JOB	PORT OF: ALTERING CASING P AND A
OTHER: Clean	Out, Add Perfs & Acidize 🛛	OTHER: ertinent details, and	give pertinent date	s. including estimated date
of starting any proposed we proposed completion or rec	ompletion.	For Multiple Com	pletions: Attach w NM OIL CC ARTESI NOV REC	Pellbore diagram of DNSERVATION A DISTRICT 1 4 2014 EIVED
I hereby certify that the information SIGNATURE <u>Carie</u> S Type or print name CARLESTO APPROVED BY	above is true and complete to the bes Stoker TITLE <u>Regul</u> DKER E-mail address: <u>caric@st</u> TITLE	st of my knowledge atory Affairs Coor okeroilfield.com	and belief. <u>dinator</u> DATE PHONE: <u>432.3</u> DA	1 <u>1/12/2014</u> <u>897.0673</u> TE <u>11/21 / 2014</u>
Conditions of Approval (if any):				/ /

ALAMO PERMIAN RESOURCES, LLC

ARTESIA STATE UNIT #901 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 February 1975 and completed in the QN-Loco Hills, GB-Upper Grayburg, and GB-Metex zones from 1,708'-1,894' (overall). The QN-Penrose SS was added in November 1985 from 1,460'-1,466'.

Alamo Permian last worked on the Artesia State Unit #901 well in August 2013. A copy of the Morning Report from that workover is included in the Workover Procedure Package. During the workover, the mud anchor was found to be partially plugged. Records show that 2-3/8" tubing was run with a TAC set @ 1,658' (with 9,000# tension), S/N @ 1,977', and EOT @ 1,943'.

See Wellbore Diagram for perforations detail - updated 10/22/2014.

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:	1,460' - 1,894' (434' Overall interval) - 42' of perforations	(86 perfs).
Planned New Perforations:	1,456' - 1,894' (438' Overall interval) - 65' of perforations	(130 perfs).
Total Perfs after W/O:	1,456' - 1,895' (438' Overall Interval) - 65' of perforations	(216 perfs).

 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 <u>PBTD at +/- 1,985'</u>. 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 +/- 1,985' to base of Surface Casing at 291'.

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

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

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

5. Perforate the **ARTESIA STATE UNIT #901** well over the following **8 intervals** using 3-1/8" Hollow-Carrier slick perforating guns with 19-grain charges:

Interval	Perf I	nterval				
<u>No.</u>	Тор	Bottom	No. of Ft	<u>SPF</u>	<u>No. of Perfs</u>	Zone
1	1,456'	1,472'	16'	2	32	QN – Penrose SS
2	1,708'	1,724'	16'	2	32	QN – Loco Hills SS
3	1,782'	1,785'	3,	2	6	GB – Upper Grayburg
4	1,816'	1,821'	5'	2	10	GB – Metex
5	1,825'	1,832'	7'	2	14	GB – Metex
6	1,839'	1,844'	5'	2	10	GB – Metex
7	1,856'	1,860'	4'	2	8	GB – Metex
8	1,885'	1,894'	<u>9'</u>	2	<u>18</u>	<u>GB – Metex</u>
TOTALS			65'		130 Perfs	

6. Acidize LOCO HILLS, UPPER GRAYBURG, & METEX Perforated Intervals from 1,708'- 1,894':

- 186' Overall;
- 49' of perforations

\$70 perforations (98 New + 72 Old perfs)

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

Acid Job Total:

- 8,500 gal 15% NEFE HCI (202.4 Bbls)
- 173.5 gal/ft of perfs
- 50:0 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 **1,950'**.
- > Set Treating Packer at approximately 1,600'.

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

STAGE 1: SPOT 3.0 Bbls 15% NEFE HCI (3.1 bbls) across Perfs from 1,708'-1,894' (186') inside the 4-1/2" 10.5# production casing in the well.

Pick up Retrievable Packer and Set at approx. 1,600'.

ACIDIZE STAGE 1 with a total of <u>3,400 gal 15% NEFE HCl (81.0 bbls)</u> + additives, increasing pump rate after breakdown to 5.0-6.0 BPM.

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

STAGE 2: PUMP 2,500 gal 15% NEFE HCI ACID (59.5 bbls) + additives at 5.0-6.0 BPM.

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

STAGE 3: PUMP 1,300 gal 15% NEFE HCI ACID (31.0 bbls) + additives at 5.0-6.0 BPM.

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

STAGE 4: PUMP 1,300 gal 15% NEFE HCI ACID (31.0 bbls) + additives at 5.0-6.0 BPM.

Pump +/- 11.0 Bbls Fresh Water to displace acid to bottom of perforations at 1,894'.

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 1,525'.

7. Acidize new PENROSE SANDSTONE perfs from 1,456' – 1,404':

- 16' Overall;
- 16' of perforations
- 46 Perforations (32 New + 14 Old perfs)

Acid Job Total:

- <u>2,400 gal 15% NEFE HCI (57.1 Bbls)</u>
- 150.0 gal/ft of perfs
- 52.2 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 1,525'.

Set Treating Packer at approximately 1,300'.

Spot **2.0 Bbls of 15% NEFE HCL** plus additives across Penrose Perfs (1456'-1,472') – Pull up to approximately 1,300' & reverse out tubing – Set Treating Packer at approximately 1,300'.

Pump a total of 2,400 gal 15% NEFE HCI plus additives down tubing at 5-6 BPM after acid is on perfs and perfs have broken down.

Pump +/- 8.0 Bbls Fresh Water to displace acid to bottom of perforations at 1,472'.

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.
- Trip in hole with 2-3/8" workstring with muleshoe on bottom & tag for fill to PBTD. Circulate hole clean with water truck using <u>Fresh Water</u> at least <u>at least 2 times around in order to dissolve rock salt</u>. 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. Suggested Tubing & Downhole Equipment configuration as follows:
 - 2-3/8" 4.7# J-55 Tubing to +/- 1,430' (Above Penrose Perfs: 1,456'-1,472')
 - 4-1/2"x2-3/8" TAC
 - 2-3/8" 4.7# J-55 Tubing to +/- 1,900'
 - Endurance Joint
 - 2-3/8" Seating Nipple (set at +/- 1,933' 39' Below Bottom Perf @ 1,894')
 - 4' 2-3/8" Slotted Sub
 - 1 jt 2-3/8" Mud Anchor Joint with Bull Plug on bottom.
 - Run similar Rod Configuration as was run on 08/21/2013 (3/4" KD Rods were new when run at this time)
 - 1"x3/4" Lift Sub
 - 20-150-12' RWBC Pump with 16' 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 October 22, 2014

ALAMO PERMIAN RESOURCES, LLC WELLBORE DIAGRAM



ARTESIA STATE UNIT #901 - WBDiagram - 10-22-14.xlsx

ARTESIA STATE UNIT #901

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

	PERFS	;	,	ACID JOB(S)			FRAC	JOB(S)			INI	TIAL POTE	NTIAL TES	Г
				ACID	ACID		FRAC FLUID	FLUID	SAND	SAND		TEST	OIL	GAS	WATER
TOP	BOTTOM	ZONE	DATE	GALS	TYPE	DATE	GALS	ΤΥΡΕ	<u>LBS</u>	<u>SIZE</u>	REMARKS	DATE	BOPD	MCFD	<u>BWPD</u>
1,708	1,714	QN-Loco Hills				8/28/1975	20,000	Gel Wtr	23,000	20/40		9/26/1975	3	0	20
1,716	1,722	QN-Loco Hills										All Zor	nes Commi	ngled	
1,782	1,785	GB-Upper GB		· · · · · · · · · · · · · · · · · · ·		8/28/1975	39,900	Gel Wtr	45,450	20/40					
1,818	1,821	GB-Metex													
1,826	1,832	GB-Metex													
1,841	1,844	GB-Metex													
1,856	1,859	GB-Metex													
1,885	1,888	GB-Metex													
1,891	1,894	GB-Metex													
1,460	1,466	QN-Penrose SS	11//1985	750	15% HCl	11//1985	25,000	Gel Wtr	25,000 19,000	20/40 10/20		NO TESTS			

TUBING & RODS DETAIL: 08/21/2013

	Descri	ption	Length	Depth
		KB	3.00	3.00*
Γ	52	jts 21/3" J55 EUE 8rd Tubing	165,1.91'	1654.91
	1	41/2"x21/2" TAC w/9K Tension	2.90'	1657.81
gui	8	jts 23%" J55 EUE 8rd Tubing	252.64'	1910.45'
- GP	1	Endurance Joint	31.78'	1942.23
- F	1	2%" Seating Nipple	1.10*	1943.33
	I	21/4" Slotted Sub	4.00`	1947.33
	1	PB MH with Bull Plug	29.87	1977.20
	1	11/4"x16.00' Polish Rod w/11/2" Liner	9.00*	
	2	34" Pony Subs: 4' and 6'	10,00*	
4	76	3/4" New KD Rods	1900.00'	
2	1	1°°x3/4°' Lift Sub	1.00'	
-	1	20-150-12' RWBC Pump	12.00'	
-	WWW, m. 90.17	Total	1932.00'	

MORNING REPORTS Page 8 of 8

FROM LAST WORKOVER ON WELL

	ARTESIA STATE UNIT #901. (formerly #001D)
AFE: n/a	AFE Est. Gross Cost: n/a	Perfs: 1460 - 1891' OA
API: 30-015-21448	Lease: K-1020	Spud: 02/10/75
A-23-18S-27E	10 FNL & 1310 FEL	P&A: n/a
Eddy Co., NM	Pool: 3230 - ARTESIA;Queen-Grayburg-SA	

OBJECTIVE: Check for fill; replace plugged mud anchor; RIH w/BHA.

08/19/13

RU Aztec Rig #523. Unhang well & POOH w/rods & pump. ND WH, NU BOP. Tag fill & TOOHw/tbg. No fill in wellbore but mud anchor partially plugged. RIH w/2-3/8" mud anchor w/bull plug,4.00' slotted sub, 2-3/8" new SN, enduro jt, 15 jts 2-3/8" tbg, TAC & tbg to surface. Test tbg to 600 psi,ok. Fish stdg valve. ND BOP, NU WH. RIH w/rods. LD 76 pitted & worn rods. SWI. SDFN.DC: \$3,850CTD: \$8,100from: S. Cockrum

08/20/13

HSm w/crew re fall protection & pressured lines. Wait on new rods. PU pump & RIH w/new ³/₄" rods. Spaced out well & HWO. Load & pressure pump to 600 psi. Well losing 200 psi in 5 mins. SDFN. Leaving well pumping to battery to clean trash out of pump.

DC: \$10,601 CTD: \$18,701

from: S. Cockrum

08/21/13

HSM w/crew re clean work area & overhead loads.

Well pumping, lowered rods to light tag. Pumping ok. Clean location. RDMO.

DC: \$1,000 CTD: \$19,701

from: S. Cockrum

	Descr	iption	Length	Depth
		КВ	3.00'	3.00'
	52	jts 2¾" J55 EUE 8rd Tubing	1651.91'	1654.91'
പ	1	4 ¹ / ₂ "x2 ³ / ₈ " TAC w/9K Tension	2.90'	1657.81'
i.	8	jts 23%" J55 EUE 8rd Tubing	252.64'	1910.45'
Lat	1	Endurance Joint	31.78'	1942.23'
ι,	1	2 ¹ / ₈ " Seating Nipple	1.10'	1.943.33'
	1	2 ³ / ₈ " Slotted Sub	4.00'	1947.33'
	ĺ	PB MH with Bull Plug	29.87'	1977.20'
	1	11/4"x16.00' Polish Rod w/11/2" Liner	9.00`	
	2	³ / ₄ " Pony Subs: 4' and 6'	10.00'	
sb	76	¾" New KD Rods	1900.00'	
Ro	1	1"x3/4" Lift Sub	1.00*	
	1	20-150-12' RWBC Pump	12.00'	
		Total	1932.00'	



Artesia State #901



Artesia State #901



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Artesia State #901

