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

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

Form C-103
Revised August 1, 2011

WELL API NO. 30-025-39997

5. Indicate Type of Lease STATE [X] FEE [ ]

6. State Oil & Gas Lease No.

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.)

HOBBS OCD
OCT 24 2014
RECEIVED

7. Lease Name or Unit Agreement Name
East Vacuum GB-SA Unit Tract 3333

1. Type of Well: Oil Well [X] Gas Well [ ] Other

8. Well Number 508

2. Name of Operator ConocoPhillips Company

9. OGRID Number 217817

3. Address of Operator P. O. Box 51810 Midland, TX 79710

10. Pool name or Wildcat
Vacuum; GB-SA

4. Well Location
Unit Letter G : 2434 feet from the North line and 2224' feet from the East line
Section 33 Township 17S Range 35E NMPM County Lea

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)*
3943' GR

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK [ ]	PLUG AND ABANDON [ ]	REMEDIAL WORK [ ]	ALTERING CASING [ ]
TEMPORARILY ABANDON [ ]	CHANGE PLANS [ ]	COMMENCE DRILLING OPNS. [ ]	P AND A [ ]
PULL OR ALTER CASING [ ]	MULTIPLE COMPL [ ]	CASING/CEMENT JOB [ ]	
DOWNHOLE COMMINGLE [ ]			
OTHER: gel & cmt squeeze [X]		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.

ConocoPhillips Company request to perform a Gel & cmt squeeze @ 4621'-4712' per attached procedure.

Spud Date: Rig Release Date:

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

SIGNATURE Rhonda Rogers TITLE Staff Regulatory Technician DATE 10/22/2014

Type or print name Rhonda Rogers E-mail address: rogerrs@conocophillips.com PHONE: (432)688-9174

For State Use Only

APPROVED BY: Mahey Brown TITLE Dist. Supervisor DATE 10/27/2014

Conditions of Approval (if any):

OCT 27 2014

EVGSAU 3333-508
API# 30-025-39997
Gel and Cement squeeze & Artificial Lift Re-Run

August 15th, 2014

1. **Objective**

Pull packer and tubing. Squeeze off perforations (4,621' – 4,712') to reduce gas production. Test squeeze. Runback SLB ESP.

Existing Perforations:
San Andres: 4,621' – 4,832' (211' net) Main hole

This project will proceed in 2 phases:

Phase 1 – Fill void with 2000 bbls of gel across perforations from 4712-4717'. Then, depending on wells response, perform cement squeeze on the same interval.

Phase 2 – Re-install the previous ESP. The existing Schlumberger pump assembly never had any signification run time and the equipment will be tested in shop and certified for rerunning. We expect a potential uplift of 68 BPD.

2. **Recommended Procedure**

a. Before rigging up:

- P&S to ensure delivery of BIW system for GT-6 Well head (require: upper, lower, and mandrel)
- Shut in supporting injectors 1 week before rig-up (EVGSAU 3315-503, EVGSAU 3315-507, EVGSAU 3333-504, EVGSAU 3333-506) Notify field (Chad Wiley)
- Ensure CCL is available in field office
- RU Slickline and RIH to confirm PBTD – use to calculate estimated required sand for sand back.
- Prior to scheduling work have Gel mix water prepared and tested by Gel mixing company – Baker Hughes (GelTec). Have testing results reported to Alex Freeman and David Smith.

b. Phase 1: Gel placement

Activity	‖ Parallel activities ☞ Things to remember ⓘ Information
1. Have Safety meeting. MIRU pulling unit. Kill well	☞ A prejob meeting will be held together with relevant people ☞ Contractor supervisor together with process technician shall verify X-mas tree and DHS valves status before and after pumping
2. NDWH, NUBOP, MIRU tubing scanner. MI tubing racks	
3. TOOH 2 7/8" 6.5# J-55 tubing and packer. Scan tubing COOH – kick out blue or worse. LD tubing on racks and LD packer. RD tubing scanner and MO	☞ Use 2 3/8" workstring to have smaller volume to clean when flush
4. PU 2 3/8" 6.5# J-55 workstring	

5. MIRU Hydro-tester	
6. RIH to 4,712' Hydro-test to 5000 psi while TIH.	
7. Execute sand plugback on lower intervals target top of sand is 4,717' ± 5'. Tag to confirm top. TOOH	☞ Approximate 9 bbl. sand according to most recent PBTD
8. RU wireline and PU Composite BP, RIH on wireline and Set BP just above sand top in blank pipe. TOOH and RD wireline	☞ Interval should be between 4,712' – 4,717'
9. PU workstring and retainer to set for operation. TIH with retainer on 2 3/8" workstring to ±4,570'	☞ Set CIRC at or above 4570'. Last completion packer was set at 4467' ☞ 2011 completion; expected good casing for deeper set. ☞ Tubing volume above packer = 17.6 bbl ☞ Casing volume below packer = 5.6 bbl
10. Circulate 10 ppg brine to provide protection from casing collapse during gel job and squeeze	☞ PT annulus to 500psi ☞ Hold and monitor 500 psi on annulus for gel job and cement squeeze ☞ 17.50 Bls to flush 2 3/8" tubing
11. Complete well with wellhead for fullbore pumping	☞ Leave on the BOP stack and just have tubing with TIW valve on top this will allow us to go to a higher pressure during pumping.
12. Execute pump in step test to establish maximum pump rate at or below 1000 psi pump pressure. Start pumping at 1 BPM, and increase rate in 1 BPM steps with 50 Bbls minimum each stage.	☞ Do not exceed 5 BPM. ☞ Report rates and pressures to engineering for evaluation of fullbore treatments. ☞ **Based on results we could alter plans at this point**
13. MIRU two - 500 Bbls tanks for water storage for the Marcit Gel mixing supply. a. Fill mix water tanks with 1% KCl water.	☞ Contractor supervisor together with process technician shall verify X-mas tree and DHS valves status before and after pumping ☞ Tanks need to be VERY clean and tested prior to filling with mix water ☞ KCl must be Real potassium chloride, not a clay fix substitute.
14. MIRU service company	☞ Baker Hughes (Gel-Tec) ☞ Ensure BH leaves Halliburton enough room to rig up cement so after the gel job is complete we can switch to cement pumping as quickly as possible
15. Mix and pump the following HMW HPAM Gel with chrome acetate crosslinker system.	☞
16. a. Pump 100 Bbls of 1% KCl water ahead of gel to flush wellbore fluids and establish a baseline pressure response.	☞ Pump at maximum possible rate under 1500 psi
b. Pump 1200 Bbls of 5000 ppm HMW HPAM gel with chrome acetate crosslinker.	☞ Pump at maximum possible rate under 1500 psi. Do not take pressure above 1500

c. Pump 800 Bbls of 7000 ppm HMW HPAM gel with chrome acetate crosslinker d. Carefully monitor and report all pressure responses. e. Follow all gel with 30 Bbl water flush. f. Continue to monitor annulus pressure throughout gel treatment	psi. ☞ Have automatic electronic monitoring of rates and pressure active and functioning before arriving on location. ☞ Data may be used to alter cement treatment to follow, so accurate reporting of data is very important. ☞ Gel will be pumped 24/7 – **arrange for relief personal if necessary** ☞ Begin rigging up Halliburton so they will be ready to pump cement when the gel is pumped away
17. Based on Marcit Gel treating pressure response, modify the treatment design to adjust for fillup volume or restriction of the VSC.	☞ Estimate job completion timing and attempt to have Halliburton ready to pump as soon a gel treatment is completed. ☞ Presuming the 2000 Bbls of Marcit Gel pumps without restriction – RU Halliburton to execute 750 Bbls foamed cement solution. ☞ If small volume of gel generates large pressure increase – RU Halliburton for small 50 Bbls cement Sqz.

<u>If</u> the treating pressure response allows and remains below frac pressure and gel gets injected in large volumes continue with the large cement job below (otherwise skip to the next section where and preform a cement squeeze)

1. MIRU Halliburton cementing services while pumping cement.	☞ Be ready to pump cement as close to completion of gel treatment as possible ☞ Stage the cement job the day before if need be
2. Squeeze well a. Prepare to pump ~750 bbl. of 50/50 Poz/Neat cement. b. Desired Properties: i. Fluid Loss between 200 and 500 CC for 30 Min API Test ii. Thickening time at reservoir Temp and Pressure of ~ 4 to 6 Hrs c. Report all cement testing results to David Smith and Alex Freeman – prior to job. d. Monitor annulus pressure throughout cement procedure	☞ Mix water should be fresh water and we can use the 2 x 500 bbl. tanks spotted for the gel treatment.
3. Pump cement down workstring at 1.5 BPM to 4 BPM.	☞ Note and monitor all pressure changes for indication of void space fill-up.

4. **If** well pressure starts to increase rapidly: a. Switch to displacement water, and divert to flush and monitor pressure for potential hesitation Sqz. b. Perform Hesitation sqz to optimize cement through perfs and enhance potential Sqz Success.	☞ Note flush volume equals ± 17.6 Bls with retainer at 4570' ☞ Maximum squeeze pressure 200 psi
5. **If** well does not lock up while pumping cement: a. Switch to water displacement and pump displace to just 3 Bbls above retainer. Monitor pressure, if on Vaccum, unsting from retainer.	☞ If all cement is pumped into the reservoir
6. Reverse out excess cement. Until return show to be clean. POOH with 2 3/8" workstring. SD Pumping and RDMO cement pumping company.	☞ Cement top estimate should be provided from cement pumping operations. Should be just above the cement retainer 10 to 20'.
7. TIH w/ 7" 23# bit, bit sub & drill collars to ~ 30' above top of cement top. Start circulating and tag the top of hard cement. Report tag depth to Engineering.	☞
8. Drill out cement and cement retainer with 7" 23# bit, bit sub and drill collars to 4,702', or 10' above top of Composite BP and sand plug.	☞
9. Before penetrating top of BP and sand back – PT cement squeeze to 500 psi	☞
10. **If** pressure test holds, proceed with drilling out cement cap and composite BP. Cleanout fill to PBTD at 4,943'	☞
11. **If** pressure test fails execute injectivity test and report results to engineering.	☞
12. POOH with 7" 23# bit, bit sub and drill collars and 2 3/8" work string LD. Release workstring	☞

If the treating pressure response changes abnormally and remains close frac pressure and gel gets injected in small volumes:

1. MIRU Halliburton cementing services	☞ Be ready to pump cement as close to completion of gel treatment as possible ☞ Stage the cement job the day before if need be
2. Squeeze well a. Prepare to pump ~50 bbl. of Class C / Premium Plus cement. b. Desired Properties: iii. Fluid Loss between 200 and 500 CC for 30 Min API Test iv. Thickening time at reservoir Temp and Pressure of ~ 2 to 3 Hrs c. Report all cement testing results to David Smith and Alex Freeman – prior to job. d. Monitor annulus pressure throughout cement procedure	☞ Be ready to pump cement as close to completion of gel treatment as possible ☞ Stage the cement job the day before if need be ☞ Mix water should be fresh water and we can use the 2 x 500 bbl. tanks spotted for the gel treatment. ☞ Monitor annulus pressure during treatment, maintain 500psi to prevent casing collapse above retainer.

3. Pump cement down workstring at 1.5 BPM to 2 BPM.	☞ Note and monitor all pressure changes for indication of void space fill-up.
4. **If** well pressure starts to increase rapidly: a. Switch to displacement water, and divert to flush and monitor pressure for potential hesitation Sqz. b. Perform Hesitation sqz to optimize cement through perfs and enhance potential Sqz Success.	☞ Note flush volume equals ± 17.6 Bls with retainer at 4570' ☞ Maximum squeeze pressure 200 psi
5. **If** well does not lock up while pumping cement: a. Switch to water displacement and pump displace to just 3 Bbls above retainer. Monitor pressure, if on Vaccum, unsting from retainer.	
6. Reverse out excess cement. Until return show to be clean. POOH with 2 3/8" workstring. SD Pumping and RDMO cement pumping company.	☞ Cement top estimate should be provided from cement pumping operations. Should be just above the cement retainer 10 to 20'.
7. TIH w/ 7" 23# bit, bit sub & drill collars to ~ 30' above top of cement top. Start circulating and tag the top of hard cement. Report tag depth to Engineering.	
8. Drill out cement and cement retainer with 7" 23# bit, bit sub and drill collars to 4,702', or 10' above top of Composite BP and sand plug. Before penetrating top of BP and sand back – PT cement squeeze to 500 psi	
9. **If** pressure test holds, proceed with drilling out cement cap and composite BP. Cleanout fill to PBTD at 4,943'	
10. **If** pressure test fails execute injectivity test and report results to engineering.	
11. POOH with 7" 23# bit, bit sub and drill collars and 2 3/8" work string LD. Release workstring	

c. ***Phase 2- ESP run***

Activity	**II Parallel activities** **☞ Things to remember** **ⓘ Information**
1. PU production string.	☞ A prejob meeting will be held together with relevant people ☞ Contractor supervisor together with process technician shall verify X-mas tree and DHS valves status before and after pumping
2. RU tubing hydro-testers. TIH w/ bit and scraper sized for 7" 23# casing. Test tubing to 5000 psig below slips and clean out to PBTD (4943'). RD tubing hydro-testers. Circulate well clean.	☞ If specified depth is not attainable notify PE with findings.