

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

OCD-HOBBS  
HOBBS OCD

FORM APPROVED  
OMB NO. 1004-0135  
Expires: July 31, 2010

**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.*

(MAR 16 2015)

RECEIVED

**SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		8. Well Name and No. MALJAMAR SWD 30 2
2. Name of Operator COG OPERATING LLC		9. API Well No. 30-025-40310
3a. Address ONE CONCHO CENTER 600 W ILLINOIS AVE MIDLAND, TX 79701		10. Field and Pool, or Exploratory SWD;WOLFCAMP
3b. Phone No. (include area code) Ph: 432-685-4332		11. County or Parish, and State LEA COUNTY, NM
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 30 T17S R32E Mer NMP 1350FNL 770FEL		

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

COG Operating LLC, respectfully requests for approval to test this well for water disposal.  
Please see attached procedure.

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

SUBJECT TO LIKE  
APPROVAL BY STATE

WITNESS

14. I hereby certify that the foregoing is true and correct.  
**Electronic Submission #294398 verified by the BLM Well Information System  
For COG OPERATING LLC, sent to the Hobbs  
Committed to AFMSS for processing by PAUL SWARTZ on 03/10/2015 ()**

Name (Printed/Typed) KANICIA CASTILLO	Title PREPARER
Signature (Electronic Submission)	Date 03/10/2015

APPROVED

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By _____	Title _____	Date MAR 10 2015
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		
Office BUREAU OF LAND MANAGEMENT CARLSBAD FIELD OFFICE		

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\*

MAR 17 2015

### Well Information

Name: Maljamar SWD 30 #2

API: 30-025-40310

Location: 1350 FNL; 770 FEL, Sec 30, T17S, R32E, Lea Co. NM

Permit: SWD 1286

Elevation: GR: 3917; KB 3930

BHT: 121°

Base Log: Schlumberger Triple/Combo Log

Current Status: TA

Objective: The objective of this procedure is to perf & acidize the Maljamar SWD 30 #2 in the Wolfcamp, run in hole with injection equipment, and put well on injection.

### Well History

11-17-2011: Spud

12-15-2011: Install capping flange, Release Rig, TA well

7-29-2014: Passed MIT Test, witnesses by OCD rep. Mark Whitaker

### Procedure

- Please make sure well sign is on location
- Contact BLM/Paul Swartz & OCD/Richard Inge 24 hrs before RU and schedule witness for casing test. Please report thorough contact record in PERC
- Check status of well head.
- PJSM/LOTO
- MIRU WSU & kill truck
- ND well head/capping flange
- NU & function test BOP w/ hydraulic accumulator, pipe rams, & blind rams
- PU 6-1/8" mill tooth bit, 4 x 4-1/4" drill collars, & 3-1/2" 9.3# L-80 work-string
- RU swivel, Drill out DVT @ 8,016'
- Test casing, good test move forward (**BLM representative should be contacted to witness test**)
- Tag float collar @ 10,259'
- Pickle tubing with 250 gal 15% acid, spot acid to btm
- Circulate hole clean
- POOH and LD collars and bit
- RU Allied and run GR/CCL/**CBL**. Use OH SBL Triple/Combo Log to tie in GR. Log to PBSD to surface CSG @ 740'.
- Submit electronic copy (Adobe Acrobat Document) of **CBL** to [pswartz@blm.gov](mailto:pswartz@blm.gov).

- Wolfcamp is from 9,050' - 10,200'
- Acid breakdown will be in two stages separated by RBP
- **Lower Wolfcamp Interval:**
- Perforate f/ 10,097' – 10,011' (86', 51 holes, 3/SPF)
- Perf w/ 4" CSG gun w/ EHD 0.45"
- See attached perforation depths
- Please list each perforation in PERC
- TIH w/ 7" x 3-1/2" treating packer (Tarrent County Tools), SN, & 3-1/2" L-80 work-string
- Set Treating Packer @ +/- 9,960'
- Perform swab test to verify no commercial hydrocarbon
- **Acid Breakdown/Ball out**
- MIRU Elite Well Services for Acid Job
- **Max Pressure: 5,800 psi**
- **Max Rate: 4-5 BPM**
- Total Acid Job: 6,550 gals 15% NE-FE w/ 120 7/8" RCN, BS
  - Spot 250 gals 15% NE-FE acid
  - POOH w/ 4 JTS, reverse 4 bbl
  - Hold 500# on the back side during acid job
  - Break down pressure is 5,111 psig
  - Roll pumps to breakdown; record ISIP @ 5, 10, & 15 min
  - Ball-out formation 4-5 BPM w/ the following schedule

Gals (15% NE-FE)	Ball Sealers (S.G. 1.3)
900	None
900	40
900	None
900	40
900	None
900	40
900	None

6,300

120

- Flush to top perf w/ FW
- POOH

- **Upper Wolfcamp Interval:**
- Perforate f/ 9,875' – 9,640' (235', 111 holes, 3/SPF)
- Perf w/ 4" CSG gun w/ EHD 0.45"
- See attached perforation depths
- Please list each perforation in PERC
- RIH w/ RBP w/ extended neck ball catcher & Treating Packer, set RBP @ +/- 9,940'
- Pull up +/- 100' above perfs set Treating Packer @ 9,500'
- Perform swab test to verify no commercial hydrocarbon
- **Acid Breakdown/Ball out**
- **Max Pressure: 5,800 psi**
- **Max Rate: 4-5 BPM**
- Total Acid Job: 14,000 gals 15% NE-FE w/ 125 7/8" RCN, BS
- Spot 250 gals 15% NE-FE acid
- POOH w/ 4 JTS, reverse 4 bbl
- Hold 500# on the back side during acid job
- Break down pressure is 5,111 psig
- Roll pumps to breakdown; record ISIP @ 5, 10, & 15 min
- Ball-out formation 4-5 BPM w/ the following schedule

Gals (15% NE-FE)	Ball Sealers (S.G. 1.3)
1,250	None
1,250	40
1,250	None
1,250	40
1,250	None
1,250	40
1,250	None
1,250	40
1,250	None
1,250	40
1,250	None

13,750                      200

- Flush to top perf w/ FW
- TIH and pull RBP w/ extended neck ball catcher
- POOH/LD WS, SN, Packer, RBP
- TIH w/ BHA
  - 6' sub with pump out plug
  - 7" x 3-1/2" Arrow set 1-X w/ non/Carbide Slips NP
  - T2 on/off tool 2.813 Profile Nipple Nickel Plated
  - +/- 298 JTS 3-1/2" L-80 Glassbore CLS TBG
  - Set packer +/- 9,550' (<100' above top perfs)
- Release packer @ O/O tool, PU and reverse circulate annular capacity with packer fluid
- Latch onto packer, wait ~ 1 hour top off backside with packer fluid
- Flange up Downing Std COG SENM SWD well head (diagram attached)
- **SI well over night, prep for MIT**

- Contact BLM/Paul Swartz & OCD/Richard Inge to witness and complete Mechanical Integrity Test to BLM/OCD specifications. Please report thorough contact record in PERC
  - Bring chart to Susan Lopez
- ND BOP and NU WH
- Contact Jason Barnett and turn over to injection
- **Perform Step Rate Test** – Prior to requesting an increase in injection pressure. (Notify BLM/Paul Swartz & OCD/Richard Inge with Notice of Intent, prior to completing test)
- **Follow and Submit all BLM requirements outlined in the COA regarding “Step Rate Tests”**
- Document the wells stabilized psig/ft from surface to top perf.
  - Have water tanks on location full of produced water ~ 1000 bbls
  - Max Pump rate is 10 BPM
  - Put 100 psi on annulus
  - Record initial shut in pressure and TBG before starting
  - Step rate schedule below

Rate (BPM)	Time (mins)	Fluid needed/stage (BBLS)
0.2	30	15
0.4	30	22.5
0.8	30	30
1.6	30	45
2.4	30	60
3.2	30	120
4.0	30	180

- Collect shut-in pressure data for 30 minutes. Report data VS pressure data to engineer Paul Swartz (BLM) – 575-234-5985

Hobbs Field Office – 575-393-3612

Richard Inge (OCD) – 575-626-0831

## Conditions of Approval

### COG Operating LLC

Maljamar - 02, API 3002540310  
T17S-R32E, Sec 30, 1350FNL & 770FEL  
March 09, 2015

1. Due to being within the Lesser Prairie Chicken habitat, this workover activity will be restricted to the hours of 9:00am through 3:00am for the period of March 1 through June 15. Exceptions to these restrictions may be granted by BLM's Johnny Chopp <jchopp@blm.gov> 575.234.2227 or Bob Ballard <bballard@blm.gov> 575.234.5973.
2. Subject to like approval by the New Mexico Oil Conservation Division.
3. Notify BLM 575-200-7902 Eddy Co. as work begins. Some procedures are to be witnessed. If there is no response, call 575-361-2822, leave a voice mail with the API#, workover purpose, and a call back phone number. Note the contact, time, & date in your subsequent report.
4. Before casing or a liner is added, replaced, or repaired prior BLM approval of the design is required. Use notice of intent Form 3160-5.
5. **Provide BLM with an electronic copy (Adobe Acrobat Document) cement bond log record from 10200 taken with 0psig casing pressure. The CBL may be attached to a pswartz@blm.gov email. The CFO BLM on call engineer may be reached at 575-706-2779.**
6. Surface disturbance beyond the existing pad shall have prior approval.
7. A closed loop system is required. The operator shall properly dispose of drilling/circulating contents at an authorized disposal site. Tanks are required for all operations, no excavated pits.
8. Functional H<sub>2</sub>S monitoring equipment shall be on location.
9. 3000 (3M) Blow Out Prevention Equipment to be used. All BOPE and workover procedures shall establish fail safe well control. Blind ram(s) and pipe ram(s) designed to close on all workstring diameters used is required equipment. A manual BOP closure system (hand wheels) shall be available for use regardless of BOP design. Function test the installed BOPE to 500psig when well conditions allow. Related equipment, (choke manifolds, kill trucks, gas vent or flare lines, etc.) shall be employed when needed for reasonable well control requirements.
10. All waste (i.e. trash, salts, chemicals, sewage, gray water, etc.) created as a result of work over operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area. Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

11. File intermediate **subsequent sundry** Form 3160-5 within 30 days of any interrupted workover procedures and a complete workover subsequent sundry
12. Submit the BLM Form 3160-4 **Recompletion Report** within 30 days of the date all BLM approved procedures are complete.
13. Workover approval is good for 90 days (completion to be within 90 days of approval). A legitimate request is necessary for extension of that date.
14. The operator shall test for oil and gas production from the injection zone. Demonstrate that paying quantities of hydrocarbons are not produced when the well has a pumped off fluid level. Open hole logs may support the evaluation. BLM agreement is to be obtained prior completion as a disposal well.
15. Approval is granted for disposal of water produced from the lease, communitization, or unit agreement of this well only. Disposal fluid from another operator, lease, communitization, or unit agreement require BLM surface right-of-way agreement **approvals** and if applicable, authorization from the surface owner.
16. Disposal of water from another operator requires that the well be designated as a commercial well and BLM surface right-of-way agreement **approvals**.
17. If the well is to receive off-lease water or commercial disposal, the operator shall provide proof of surface right-of-way approval prior to injection.
18. Provide a site security diagram for the water disposal facility upstream of this well. Document the lease name and the lease number of the source(s) of production water disposed to that facility with the diagram.

An inactive/shut-in well bore is a non-producing completion that is capable of “beneficial use” i.e. production in **paying quantities** or of service use.

19. Submit evidence to support your determination that the well has been returned to active “beneficial use” for BLM approval on the Sundry Notice Form 3160-5 (the original and 3 copies) before 09/15/2015.
20. Should “beneficial use” not be achieved submit for BLM approval a plan for plug and abandonment.

#### **Well with a Packer - Operations**

- 1) Conduct a Mechanical Integrity Test of the tubing/casing annulus after a tubing, packer or casing seal is established.
- 2) The minimum test pressure should be 500 psig for 30 minutes or 300 psig for 60 minutes, with a minimum 200 psig differential between tubing and casing pressure (at test time) but no more than 70% of casing burst pressure as described by Onshore Order 2.III.B.1.h. (The tubing or reservoir pressure may need to be reduced). **Verify all annular casing vents are plumbed to surface and those valves open to the surface during this pressure test.** An

alternate method for a BLM approved MIT is to have the fluid filled system open to atmospheric pressure and have a loss of less than five barrels in 30 days witnessed by a BLM authorized officer.

- 3) Document the pressure test on a one hour full rotation calibrated (within 6 months) recorder chart registering within 25 to 85 per cent of its full range. Greater than 10% pressure leakoff will be viewed as a failed MIT. Less than 10% pressure leakoff will be evaluated site specifically and may restrict injection approval.
- 4) Make arrangements 24 hours before the test for BLM to witness. In Lea County phone 575-393-3612. If no answer, leave a voice mail or email with the API#, workover purpose, and a call back phone number
- 5) Submit a subsequent Sundry Form 3160-5 relating the dated daily wellbore and MIT activities. Include a copy of the recorded MIT pressure chart. List the name of the BLM witness, or the notified person and date of notification. NMOCD is to retain the original recorded MIT chart.
- 6) Use of tubing internal protection, tubing on/off equipment just above the packer, a profile nipple, and an in line tubing check valve below the packer or between the on/off tool and packer is a "Best Management Practice". The setting depths and descriptions of each are to be included in the subsequent sundry.
- 7) **Submit the original subsequent sundry with three copies to BLM Carlsbad.**
- 8) Compliance with a NMOCD Administrative Order is required, submit documentation of that authorization.
  - a) . Approved injection pressure compliance is required.
  - b) If injection pressure exceeds the approved pressure you are required to reduce that pressure and notify the BLM within 24 hours.
  - c) When injection pressure is within 50 psig of the maximum pressure, install automation equipment that will prevent exceeding that maximum. Submit a subsequent report (Sundry Form 3160-5) describing the installed automation equipment within 30 days.
- 9) Unexplained significant variations of rate or pressure to be reported within 5 days of notice.
- 10) The casing/tubing annulus is required to be monitored for communication with injection fluid or loss of casing integrity. A BLM inspector may request verification of a full annular fluid level at any time.
- 11) A "Best Management Practice" is to maintain the annulus full of packer fluid at atmospheric pressure. Equipment that will display on site, continuous open to the air fluid level is necessary to achieve this goal.
- 12) Loss of packer fluid above five barrels per month indicates a developing problem. Notify BLM Carlsbad Field Office, Petroleum Engineering within 5 days.
- 13) A suggested format for monthly records documenting that the casing annulus is fluid filled is available from the BLM Carlsbad Field Office.

- 14) Gain of annular fluid pressure requires notification within 24 hours. Cease injection and maintain a production casing pressure of 0psia. Notify the BLM's authorized officer ("Paul R. Swartz" <[pswartz@blm.gov](mailto:pswartz@blm.gov)>, cell phone 575-200-7902). If there is no response phone 575-361-2822.
- 15) Submit a (Sundry Form 3160-5) subsequent report (daily reports) describing all wellbore activity and Mechanical Integrity Test as per item 1) above. Include the date(s) of the well work, and the setting depths of installed equipment: internally corrosive protected tubing, tubing on/off equipment just above the packer, and an in line tubing check valve below the packer or between the on/off tool and packer. The setting depths and descriptions of each are to be included in the subsequent sundry.
- 16) A request for increased wellhead pressures is to be accompanied by a step rate test. PRIOR to a Step Rate Test BLM – CFO is requiring a Notice of Intent.**

Access information for use of Form 3160-5 "Sundry Notices and Reports on Wells"

NM Fed Regs & Forms - [http://www.blm.gov/nm/st/en/prog/energy/oil\\_and\\_gas.html](http://www.blm.gov/nm/st/en/prog/energy/oil_and_gas.html)

§ 43 CFR 3162.3-2 Subsequent Well Operations.

§ 43 CFR 3160.0-9 (c)(1) Information collection.

§ 3162.4-1 (c) Well records and reports.