Form 3160-5 (August 2007)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB NO. 1004-013 Expires: July 31, 201				
5. Lease Serial No.				

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

DE Bl		Expires: July 31, 2010 5. Lease Serial No. NMNM052 6. If Indian, Allottee or Tribe Name					
SUNDRY							
Do not use thi							
abandoned wei							
SUBMIT IN TRI	PLICATE - Other instru	ctions on reverse	side.		7. If Unit or CA/Agree 891007465B	ement, Name and/or No.	
	D.		/				
1. Type of Well		8 Well Name and No. MRU 354					
Oil Well Gas Well Oth Name of Operator	915	9. API Well No.					
LINN OPERATING INCORPO		30-025-20692-00-S1					
3a. Address 600 TRAVIS STREET SUITE HOUSTON, TX 77002	3b Phone No (include area code) Ph: 281-840-4272 RECEIVED			PEARL On -			
4. Location of Well (Footage, Sec., T	., R., M., or Survey Description	n) /			11. County or Parish, and State		
Sec 35 T19S R34E SWNE 19	80FNL 1980FEL					LEA COUNTY, NM	
12. CHECK APPE	ROPRIATE BOX(ES) T	O INDICATE NA	TURE OF N	IOTICE, RI	EPORT, OR OTHE	R DATA	
TYPE OF SUBMISSION			TYPE OF	ACTION			
Notice of Intent	☐ Acidize	Deepen	····	Product	ion (Start/Resume)	☐ Water Shut-Off	
_	Alter Casing	Fracture	Treat	Reclam	ation	☐ Well Integrity	
☐ Subsequent Report	Casing Repair	☐ New Cor	struction	Recomp	olete	Other	
☐ Final Abandonment Notice	Change Plans	Plug and	ig and Abandon	☐ Tempor	arily Abandon	Workover Operations	
_	Convert to Injection	_		□ Water I	Disposal		
If the proposal is to deepen directions. Attach the Bond under which the wo following completion of the involved testing has been completed. Final Al determined that the site is ready for f	rk will be performed or provid operations If the operation re- pandonment Notices shall be final inspection)	e the Bond No. on file esults in a multiple con iled only after all requi	with BLM/BIA apletion or reco ements, includ	Required su mpletion in a ing reclamatio	bsequent reports shall be new interval, a Form 316 in, have been completed,	e filed within 30 days 50-4 shall be filed once and the operator has	
AND RTI.	1 4 TOE HAT ENOUTHO	MITOT I EIG TO	OUNI AUL,	AOIDIZE VV	LLL, 1(11) VV/ 1 1(1)	0 4000	
Non Routine Equipment Need 4?, 11.34#, L-80 Ultra Flush J Lift Nubbins and Stabbing Cup 4? Packer New Wellhead components for		SEE ATTACHED FOR CONDITIONS OF APPROVAL					
Casing Crew	A 4: LING						
Cementing Services			JBJECT 1				
Procedure:		A	PPROVA	L BY ST.	ATE		
14. I hereby certify that the foregoing is	Electronic Submission # For LINN OPER	ATING INCORPORA	ATED, sent to	the Hobbs	-		
	d to AFMSS for processin CALLAHAN	1	WEATHERFORD on 07/18/2012 (12BMW0141SE) Title REGULATORY SPECIALIST III				
· · · · · · · · · · · · · · · · · · ·					,		
Signature (Electronic S	Submission)	Date	07/17/20)12 A D [DOVED		
	THIS SPACE FO	OR FEDERAL O	RSTATE				
Approved Dr.				SE	P 1 0 2012	Date	
Approved By	d Americal addition and the	Tit		UE OE	1 0 2012	J Date	
Conditions of approval, if any, are attache certify that the applicant holds legal or equivalent would entitle the applicant which would entitle the applicant to confi	utable title to those rights in th	s not warrant or ne subject lease Off	ice		EY W. INGRAM	1.	
Title 18 U.S.C Section 1001 and Title 43	U.S.C. Section 1212, make it	a crime for any person	knowingly and		ake to any department of	ragericy of the United	
States any false, fictitious or fraudulent s	statements or representations a	s to any matter within	its jurisdiction.		J - 1 - 1 - 1 - 1		

Additional data for EC transaction #143054 that would not fit on the form

32. Additional remarks, continued

- Test anchors prior to rigging up.
 MIRU WO Rig and record casing and tubing pressure.
- 3. Bleed pressure off of well.
- 4. NU BOP.
- 5. Unseat packer and TOOH with tubing and packer (tubing may be already unset and packer may be already POOH).
- 6. RIH with workstring and bit to TD (or top of fish if present) and circulate clean. POOH LD bit. 7. RIH & set composite plug at 4552? with 10? cmt on top. TOOH with work string.
- 8. TIH with packer and set 10? above cement plug and pressure test plug to 500 PSI.
- 9. Release packer and establish circulation with work string and brine fluid to load the hole.
- 10. TOOH with workstring and LD packer.
 11. PU and TIH with 4?, 11.34#, L-80, Ultra Flush Joint Casing and lightly tag TOC @ 4540?.
 12. After tagging TOC pull up 5? to set end of casing at 4535?.
- 13. Establish circulation with brine fluid.
- 14. Rig up cement company.15. Pump Class ?C? cement until circulation is obtained and then displace with wiper plug and brine water. Shut BH valve prior to bumping plug. 16. ND BOP
- 17. Set slips for 4? casing
- 18. Install bowl for 2-3/8? tubing.

- 19. Install bowl for 2-570: tability.
 19. NU BOP.
 20. WOC.
 21. PU bit and workstring and drill out cement and composite plug.
 22. Bleed well pressure down or kill well as necessary.
 22. In bit and Stand back workstring.
- 23. LD bit and Stand back workstring.
- 24 PU and RIH with workstring and packer.
- 25. Perform Acid Job
- 26. POOH and LD workstring and packer.
- 27. PU 1 jts of 2-3/8? IPC tail pipe, 4? injection packer (Arrowset with on off tool), 2-3/8? IPC injection tubing, and TIH with packer landed at 4500? (unset).
- 28. ND BOP.
- 29. Circulate packer fluid.
- 30. Set packer at 4500?.
- 31. NU WH. 32. Conduct mock MIT to 500 PSI.
- 33. Notify foreman that the well is ready for a witnessed MIT.
- 34. RDMO.

Attached you will find the Wellbore Diagram, a copy of the Procedures and Liner Specs

4562, 4668, 4890, 94, 4902, 10, 54', 68', 5003' (2/73) 9 Holes 4579-80' 2 Holes 4582-83' 2 Holes 4587-88' 2 Holes 4590' Description 2-3/8": J-55 EUE Brd:IRC:TĎg Proposéd Mescalero Ridge Unit #35-4 W/W 30-025-20692 2/21/1964 5/8/2012 D. Kennard Rod Detail (top to bottom) Description 10 3/4 8 5/8", 23# H-40 Surface cs Cmt w/100 sxs·23# H-40 Tubing Detail 4616-20' 5 Holes 4717-19' 3 Holes 4842-47' 6 Holes 5087-93' 7 Holes 5184-5190' 7 Holes set @ 3300′ 5-1/2′, 15 54, J-55 Production Casing w/350 sx from 5200′ to TOC @ 3300′ by Temp Survey 5 1/2" 15.5# 1-55 Circ to Surface Cmt w/350 sxs Details of Perforations ead Čement Blend: ail Cèment Blend: Hole Stře: Prod Gg: Capacity (bbl/ft): Práflušh: Prof. Crit. Cepacity (bb//ft): Cement Blend: fürfür: Çement Blend: Retüms: TOC: Pumping Unit ement Blend Spud Date: WBD Update: Joints 145 Rods Hole Street Hole Size: Réturns: Refurns: API No ë Proposed Pld @ 4500! Squeezed w/200 sxs 8/81 908' Csg Leak set @ 218' 4579'-80' 4582'-83' 4717!-19 4842'-47' 5184'-90' N PBTD @ 5200° 4587'-88' £6-,1805 4562 4590 Proposed Wellbore Diagram Picopaid Unit Caing 4":11,844-1480 Fluth Joint 84: 84 4535 Cmt Clicto surface Clais C Cament Replaced Pkr. Baker Lácset Pkr & on/off tool w/1 781 profile nipple @ 4490.59°. Displaced annulu: w/120 bbls Pkr filid. 2% KCL Fw tested to 6209 Fish @ 4678' (OLD PKR) Well file noted that fish should have been removed 8/81. Drilled to TD of 5203 : Ran 5-1/2" 15.5# 1-55 rgs to 5200' & cmrtd w/950 sis TOC 3900' [formp siurvely] Perfö 4579-80', 4582-89', 4587-86', 4580', 4616-20', 4717-19', 4842-47', 5087-89', 5184-90' w/1159F [35 Holes] Trated 4579-90' w/120 gals acid & frac'd w/110000# SD in 13500 gals lease oil. Trated 4616-20' w/250 gals acid & frac'd w/1000# SD in 13600 gals lease oil. Trated 4717-47', w/120 gals acid & frac'd w/1000# SD in 13504 gals lease oil. Trated 4717-47', w/120 gals w/1200# SD in 13574 gals lease oil. Trated 4717-47', w/120 gals w/1200# SD in 13574 gals lease oil. Trated 4717-47', w/10500# SD in 1402# gals lease oil. Trated 4717-47', w/10500# SD in 1402# gals lease oil. Trated 4717-47', w/10500# SD in 1402# gals lease oil. Trated 4717-47', w/10500# SD in 1402# gals lease oil. Trated 4717-47', w/10500# SD in 1402# gals lease oil. Trated 4717-47', w/10500# SD in 1402# gals lease oil. Cleaned out to \$203' (TD); Found hole in cag @ 908'. Saz'd hole @ 908' w/200 sxs + adds. @ 1400# for 1/2 hi. Traaled perfs 4717'-5190 w/500 gats 05-30, Treated porfs 4562'-4620' w/1500 gats 0550, Set top Pkr 4484' BTM @ 4623'. Clean out to 519st Perl @ 4562', 4608', 4890', 94', 4902', 10', 54', 68', & 5003' w/11SPF acidtsed perfs 4562'-5190' w/salt block, scale inhibitor & 5000 gais 15% NE - Di... Sot top Pkr @ 4500' BTM @ 4530'. Filled tog/csg annulus w/corrosion inhibitor Return to inj Workovers Convertad to water Injection without additional perfs. BTM Pkr @ 4530' Top @ 4550' Fish @ 4678.65 [55.65' balow where bottom Pir was sat in 1981). Part of old Pkr Location: 1980 FNL, 1980 FEL SEC35-T19S-R34E Mescalero Ridge Unit #35-4 WIW Elevations: Pearl Queen ogging Requirements: 3715 3/28-29/1990 KB-GL Calc: ck W/log? Doté 3/15/1964 Well Name: 5-6/1974 Survey: County: Lat/Long: Field: 2/1979 8/1981 Footuge: 3/1990

lê

MRU 35-4

EDDY COUNTY, NM

30-025-20692

07/16/2012

Project Scope: Install 4" Flush Joint Liner from top perforation to surface

Non Routine Equipment Needs:

4", 11.34#, L-80 Ultra Flush Joint – Purchased Lift Nubbins and Stabbing Cup – Rental 4" Packer New Wellhead components for 4" Liner

Casing Crew
Cementing Services

Procedure:

- 1. Test anchors prior to rigging up.
- 2. MIRU WO Rig and record casing and tubing pressure.
- 3. Bleed pressure off of well.
- 4. NU BOP.
- 5. Unseat packer and TOOH with tubing and packer (tubing may be already unset and packer may be already POOH).
- 6. RIH with workstring and bit to TD (or top of fish if present) and circulate clean, POOH LD bit.
- 7. RIH & set composite plug at 4552' with 10' cmt on top. TOOH with work string.
- 8. TIH with packer and set 10' above cement plug and pressure test plug to 500 PSI.
- 9. Release packer and establish circulation with work string and brine fluid to load the hole.
- 10. TOOH with workstring and LD packer.
- 11. PU and TIH with 4", 11.34#, L-80, Ultra Flush Joint Casing and lightly tag TOC @ 4540'.
- 12. After tagging TOC pull up 5' to set end of casing at 4535'.
- 13. Establish circulation with brine fluid.
- 14. Rig up cement company.
- 15. Pump Class "C" cement until circulation is obtained and then displace with wiper plug and brine water. Shut BH valve prior to bumping plug.
- 16. ND BOP

Contact Information:

Jennifer Charbonneau – Asset Engineer Cell – 281-785-4090 Office – 281-840-4050

Bob Akin - Foreman Cell - 575-390-8007

- 17. Set slips for 4" casing.
- 18. Install bowl for 2-3/8" tubing.
- 19. NU BOP.
- 20. WOC.
- 21. PU bit and workstring and drill out cement and composite plug.
- 22. Bleed well pressure down or kill well as necessary.
- 23. LD bit and Stand back workstring.
- 24. PU and RIH with workstring and packer.
- 25. Perform Acid Job
- 26. POOH and LD workstring and packer.
- 27. PU 1 jts of 2-3/8" IPC tail pipe, 4" injection packer (Arrowset with on off tool), 2-3/8" IPC injection tubing, and TIH with packer landed at 4500' (unset).
- 28. ND BOP.
- 29. Circulate packer fluid.
- 30. Set packer at 4500'.
- 31. NU WH.
- 32. Conduct mock MIT to 500 PSI.
- 33. Notify foreman that the well is ready for a witnessed MIT.
- 34. RDMO.

Conditions of Approval

Linn Operating Incorporated Mescalero Ridge Unit 354 API 30-025-20692

September 10, 2012

Subject to like approval by State.

- 1. Surface disturbance beyond the existing pad shall have prior approval.
- 2. 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.
- 3. Functional H₂S monitoring equipment shall be on location.
- 4. A minimum 2000 (2M) BOPE to be used. All blowout preventer (BOP) and related equipment (BOPE) shall comply with reasonable well control requirements. A two ram system with a blind ram and a pipe ram designed for the work string shall be adequate. Tapered work strings will require an additional pipe ram. The manifold shall comply with Onshore Oil and Gas Order #2 (attachment 1, 2M diagrams of choke manifold equipment). The accumulator system shall have an immediately available power source to close the rams and retain 200 psi above pre-charge. The pre-charge test shall follow requirements in Onshore Order #2.
- 5. 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.
- 6. Provide BLM with an electronic copy (Adobe Acrobat Document) of a cement bond log for the 4" liner from 4500' or below to top of cement.
- 7. Class "C" for cementing liner to be mixed 14.8 ppg, 1.32 ft³/sx, 6.3 gal/sx water.
- 8. Prior to drilling out the 4" liner shoe (operator step 21), perform a BLM PET witnessed (charted) casing integrity test of 1500 psig. Pressure leakoff shall be addressed before continuing with workover. Include a copy of the chart in the subsequent sundry for this workover.
- 9. Workover approval is good for 90 days (completion to be within 90 days of approval). A detailed justification is necessary for an extension of that date.
- 10. Submit subsequent sundry of work completed. This item shall be reported in the next unit plan of development.

PRS/WWI 091012

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. Repair that seal any time more than five barrels of packer fluid is replaced within 30 days.
- 2) The minimum test pressure should be 500 psig for 30 minutes or 300 psig for 60 minutes, with 200 psig differentials 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). 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 calibrated 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) At least 24 hours before the test, contact: Andy Cortez acortez@blm.gov, (phone 575-393-3612 or 575-631-5801). If no answer, leave a voice mail with the API#, workover purpose, and a call back phone number. Note the contact notification method, time, & date in your subsequent report.
- 5) Submit a subsequent Sundry Form 3160-5 relating the MIT activity. 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. List (by date) descriptions of daily activity of any previously unreported wellbore workover.
- 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 the 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.
- 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 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. List (by date) descriptions of daily activity of any previously unreported wellbore workover.

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

§ 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.