## State of New Mexico Energy, Minerals and Natural Resources Department

Susana Martinez

Governor

David Martin
Cabinet Secretary-Designate

Brett F. Woods, Ph.D. Deputy Cabinet Secretary Jami Bailey, Division Director Oil Conservation Division



December 3, 2013

Ms. Terry Callahan C/O Linn Operating, Inc. 600 Travis, Suite 5100 Houston, TX 77002

## **RE:** Packer Setting Depth Exception

Injection Authority: Order No. R-10094; Caprock Maljamar Waterflood Unit Pool: Maljamar; Grayburg-San Andres Pool
Caprock Maljamar Unit Well No. 53 API 30-025-01477
Unit H, Sec 19, T17S, R33E, NMPM, Lea County, New Mexico

## Ms. Callahan:

Reference is made to your request on behalf of Linn Energy (OGRID 269324; the "operator") received by the Division on December 2, 2013, for the above named well. The operator applied for exception for setting the packer within 100 feet of the top of the approved injection interval.

It is our understanding that mechanical integrity testing conducted on this well following the replacement of tubing and packer system was only successful with the packer set at a depth of 3945 feet. This location of the packer is approximately 135 feet above the top of the perforations injection interval that begins at 4080 feet. The approved injection interval is perforations from 4080 feet to 4346 feet and open-hole completion from 4420 feet to 4595 feet.

For the reasons stated in the application and because it appears that correlative rights are protected, waste will not occur and this modification will not endanger any fresh water aquifer or the environment, the exception is granted. The packer location within this well shall not be set higher than 135 feet unless the operator receives written approval from the Division Director.

The Division Director may rescind this exception if it becomes apparent that the injected fluid is not being confined to the permitted interval or is endangering any fresh water aquifer.

Packer Setting Depth Exception Linn Operating, Inc. December 3, 2013 Page 2 of 2

Sincerely,

JAMI BAILEY

Director

JB/prg

cc: Oil Conservation Division - Hobbs Office

Case File 10932

Well File API 30-025-01477



600 Travis Street, Suite 5100 Houston, Texas 77002

Phone: (281) 840-4000 Fax: (281) 840-4001 REGELET OCD

7813 DEC -2 A 11: 47

November 25, 2013

EMNRD 1220 South St. Francis Drive Santa Fe, New Mexico 87505

Attn: Mr. Phillip Goetze

Re: Caprock Maljamar Unit #53

API # 30-025-01477 Lea County, New Mexico

Dear Mr. Goetze,

Per our conversation earlier today, below is a recap of the setting of the injection packer after completing the workover on the Caprock Maljamar Unit #53.

As per the regulations, the injection packer must be set no more than 100' from the top perforation. The packer that LINN pulled out of the hole was set at 3,939' and the top is at 4,080' (which was set by the previous operator and not in compliance). LINN attempted to set the packer at 3,976' but it did not hold. We came up hole one joint and set the packer at 3,945' and it held. LINN (Jess Hayes) called Maxey Brown at the Hobbs OCD District office and he recommended that we circulate packer fluid and prepare it for injection. On 11/18/2013, we notified the Hobbs OCD and was given approval to test the well and run an MIT chart that passed; Start 500#, Final 500#.

On 11/25/2013, I spoke to Phillip Goetze, EMNRD Santa Fe and received verbal approval to make an exception to set the packer at 3,945' and commence operations and return the well to injection.

Thank you for your help in this matter and please feel free to contact me at 281-840-4272.

Sincerely,

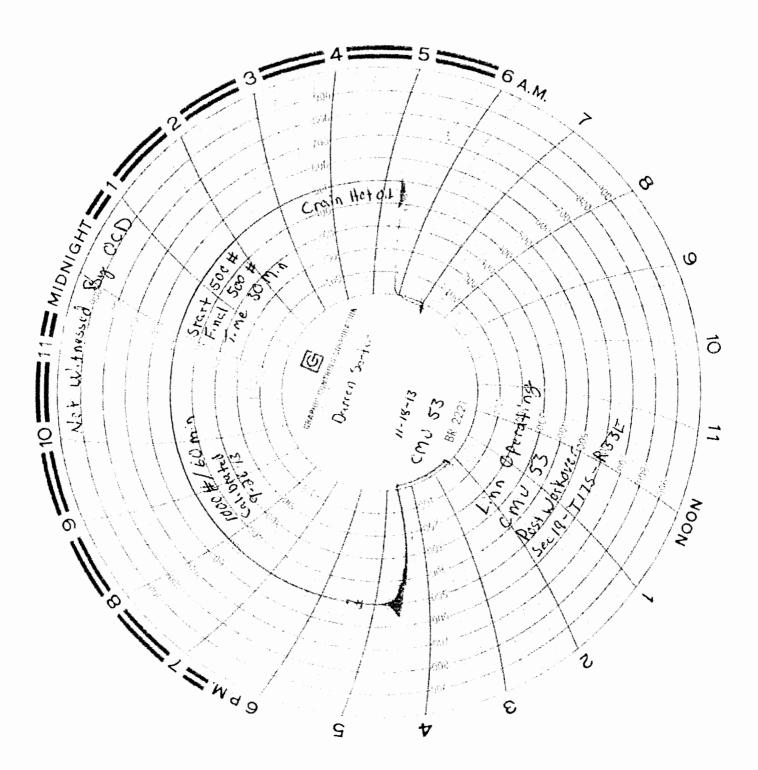
Terry B. Callahan

Regulatory Compliance Specialist, III

Cc:

Debra Gordon

Wellfile



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## Well Name: CMU #53 Well Name: CMU #53 30-025-01477 Current API No: 1980 FNL & 660 FEL Location Wellbore Diagram Spud Date 12/21/1957 H-19-175-33E WBD Update 11/12/13 K. Pena Block: Survey: 8-5/8", 24#, J-55 County: Surf Csg: Lat/Long: Field: 8-5/8", 24#, J-55 set @338' Cement Blend: Depth: Maljamar Grayburg San Andres Elevations: TOC: 4159 4166 Hole Size KB-GL Calc Int Csg: Logging Requirements: Cement Blend: Depth Date 12/21/1957 Spudded well. Drilled to 345' Set 8-5/8", 24#, 1-55 surf csg @338'. Circ'd 175sx to surf TD @4421'. 7-3/4" hole. LDDP, ran 137 jts of 5-1/2", 15.5#, 1-55 ST&C prod csg set @4420' Cmt'd w/550 Details of Perforations 1/13/1958 gals cmt. Ran temp survey, TOC@3625' Perf'd 4080-4252' and Frac'd w/25K gal acid and 12.5# sand (2/11/1958) Perf'd 4080-4252' and Frac'd w/25K gal acid and 12.5# sand 2/11/1958 2/19/1979 Bradenhead pressure survey 3/1/1995 Cleaned & deepened to 4597'. Acidized perfs 4080-4346' and OH 4420-4595 w/2500 gal 15% NEFE acid. Set 5-22-62 - new perfs shot b/t 4214-4346, completed w/ 1000 gal acid, 14K gal 3/15/1995 Drl new formation from 4560-4597'. TD @4597' water, and 14K# sand Well shut in NU BOP, POH w/AD-1 pkr, 2-3/8" TBG. Found hole in 23rd jt. TIH w/4-3/4" bit on 2-3/8" work string. Tag fill 6/16/1999 115' net perforated + 175' open hole 8/27/2001 8/28/2001 TIH w/pkr & 2-3/8" IPC tbg. Replaced 5 jts. Set pkr@3987' 8/21/2002 Hole in tbg. POH w/2-3/8" tby & RIH w/redressed AD-1 pkr@3965' & 2-3/8" IPC tbg 8/22/2002 TOC @3,625' MIRU. ND WH. RU BOP. POH w/2-3/8" tbg. Repair leak at pkr. Tested in hole w/redressed 2-3/8" x 5-1/2" 7/22/2003 MIT performed 1ag fill @ 3970'. CO 4431'. Worked through tight spot in casing @ 4150' Perform 3-stage block acid job, 5320 gal NeFe (details to the right). Recovered 531 bbl. Set pkr @ 3976', would not hold pressure. Set pkr @ 3945', held pressure. 3/12/2013 11/5/2013 Acid or Fracture Treatment (2/11/1958) Frac'd (Perfs 4080-4252') w/25K gal acid and 12.5# sand (5/25/1962) Treated perfs with 10K gais wtr, 500 gals acid, 10K# 20/40 sd (3/17/95) Acidized perfs 4080-4346' and OH 4420-4595 w/2500 gal 15% NEFE acid (11/7/2013) 3-stage acid job over perfs 4080-4346' w/ 5320 gal NEFE acid w/ 1750# stage #1 1774 gal @ 4 BPM @ 2900 psi w/ 750# rock salt, saw 200 psi increase. Stage #2 1774 gal @ 4 BPM @ 3200 psi w/ 1000# rock salt, saw 200 psi increase. Stage #3 1774 gal @ 4 BPM @ 3300 psi flush w/ 25 bbl. **Tubing Detail** Joints Description 2-3/8" IPC Rod Detail (top to bottom) Old Pkr Setting @ 3939 New Pkr Setting @ 3945\* 0 0 4080-92 4113-28 Pumping Unit: 4150'--Tight Spot in Casing 4168-73 4180-90 4214-26 4247-52 4261-68 Prod Csg: 5-1/2", 15.5#, J-55 Capacity (bbl/ft): 4287-4300 100 sx + 450 gals cealment Cement Blend: 4304-10 Temp Survey @ 3,625' 4420' TOC: 4338-46

TD: 4,597

Hole Size:

Cement Blend:

<u>Liner</u>