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Chaparral Energy LLC  
701 Cedar Lake Blvd  
Oklahoma City, Oklahoma 73114

February 27, 2014

Mr. Phillip Goetz  
Oil Conservation Division  
Energy Minerals and  
Natural Resources Department  
1220 South Saint Francis Drive  
Santa Fe, New Mexico 87505

RE: Letter of Violation Dated (10-Oct-13)

Dear Mr. Goetz:

Chaparral Energy received the referenced letter of violation and has prepared a response for parts of the letter. This letter deals with the Packer setting depths for West Dollarhide Queen Sand Unit (WDQSU) Wells No. 021, 036, 037, 151 and 133.

**West Dollarhide Queen Sand Unit No. 021. M-30-24S-38E 30-025-12270**

**\*\*Packer Setting depth 106' above top perf. \*\*\*Operator in Violation of NMOCD Permit order WFX-570\*\*\* Operator must seek Approval from Phillip Goetz – OCD Santa Fe Prior to setting Packer more than 100' above top perf\*\*\***

**Response:** In February 1997 this well was placed in Temporary Abandonment Status by setting a CIBP at 3,600'. In April 2010 Chaparral was required to remove the well from TA status. Usually it takes two to three days of work to remove the CIBP and run the injection tubing and packer. Due to down hole well conditions this well took 8 days of time. We had difficulty in locating a packer seat. Well records show this well has 7.0" casing cemented up to 720' and 4-1/2" casing cemented to surface inside the 7.0" casing. On April 20, 2010 we had set the packer at 3,583' and did a 500 psi annulus pretest. On April 21, 2010 we placed packer fluid in the annulus flanged up the well and the annulus leaked. We tested at 61' higher and had a leak. Pulled 10' higher and it held. We had to use tubing subs to keep the packer at this depth. This ended up with the packer at 3,560'. The top perforation is at 3,666'. The annulus tested ok on April 21, 2010 with the packer set at 3,560'. Due to the well conditions Chaparral requests that NMOCD grant approval of setting the injection packer more than 100' above the top perforation. See (Attachment A) attached well bore schematic and Well History.

30-025-30355

WDQSU No. 133

Packer position to  
be determined following  
work over -

Status pending. *[Signature]* 03/25/14

RECEIVED OCD  
2014 MAR 10 PM 1:59

**West Dollarhide Queen Sand Unit No. 036. I-31-24S-38E 30-025-12288**

**\*\*Packer Setting depth 132' above top perf. \*\*\*Operator in Violation of NMOCD Permit order WFX-570\*\*\* Operator must seek Approval from Phillip Goetz – OCD Santa Fe Prior to setting Packer more than 100' above top perf\*\*\***

**Response:** It appears the previous wellbore schematic with a packer setting depth of 3,442' is in error. The correct setting depth should be 3,478.25'.

This well was drilled and completed in November 1952. 7.0" casing was set at 3,670' and cemented with 1,400 sx cement. In 1988 the well was deepened to 3,969', 4-1/2" casing was then run and cemented to surface at 3,950'. After the workover the top perforation was placed at 3,574'. When the well was initially placed on injection in 1988 the injection packer was placed at 3,472'. In a workover conducted by Oxy in March 1993 the packer was set with 113 joints at 3511.08. Chaparral has worked on the well one time since it was placed on injection. In June 2008 a tubing leak developed in the injection string. Thus a workover was required to repair the well. During the workover the 4-1/2" casing collapsed at the surface, right under the wellhead. The 4-1/2", 7.0" and 9-5/8" casings were all repaired during the workover. One joint of injection tubing was removed that had a hole in the tubing. 112 jts injection tubing and the packer were run back into the well and set at 3,478'. This places the packer 96' above the top injection perforation.

This setting depth was determined after a diligent search of the well file. A tubing detail of the injection tubing was located for the March 1993 workover conducted by Oxy. From this information and the workover conducted by Chaparral in 2008 we were able to determine the proper setting depth of the packer. The depth was determined by averaging the joint tally as listed in the Oxy March 25, 1993 workover report. Thus using an average of 30.95' for each joint of tubing and having one joint removed. Chaparral ran 112 jts in the well on June 6, 2008. Then adding the length of the Seating Nipple 1.10' the Packer of 2.75' and Kelly bushing depth of 8.00' totals up to 3,478.25'. This depth places the packer within 96' of the top perforation. See (Attachment B) attached well bore schematic and Well History. Thus with this additional information WDQSU No. 36 should not be in Violation of NMOCD Permit Order WFX-570.

**West Dollarhide Queen Sand Unit No. 037. L-32-24S-38E 30-025-12302**

**\*\*Packer Setting depth 117' above top perf. \*\*\*Operator in Violation of NMOCD Permit order WFX-570\*\*\* Operator must seek Approval from Phillip Goetz – OCD Santa Fe Prior to setting Packer more than 100' above top perf\*\*\***

**Response:** This well was initially drilled and completed in April and May of 1953. 7.0" casing was set at 3,662' and cemented with 200 sx cement. In March 1974 the well was plugged and abandoned. In

March 1981 the well was washed down to 1313' and the well replugged. In August 1989 the well was reentered and deepened to 3,900', 4-1/2" casing was then run and cemented to surface at 3,900'. After the workover the top perforation was set placed at 3,570'. In May 1997 a CIBP was set in the 4-1/2" casing at 3,690'. The last data in the well file indicates the injection packer is set at 3,494'. This places the packer only 76' above the top injection perforation. It appears the Chaparral wellbore schematic is in error. An updated wellbore schematic is attached see (Attachment C).

**West Dollarhide Queen Sand Unit No. 151. M-29-24S-38E 30-025-30306**

**\*\*Packer Setting depth 119' above top perf. \*\*\*Operator in Violation of NMOCD Permit order WFX-570\*\*\* Operator must seek Approval from Phillip Goetz – OCD Santa Fe Prior to setting Packer more than 100' above top perf\*\*\***

**RESPONSE:** This well was drilled by Sirgo Operating Inc. The well was spud on July 24, 1989. The well was drilled to a TD of 3,940'. On July 29, 1989 5-1/2" casing was run and set at 3,940' and cemented to surface with 1000 sx of cement. On August 14, 1989 2-3/8" injection tubing was run in the well and a packer was set at 3,537.8'. Since that time the well has not been pulled or worked on. This packer has been in this position before Chaparral became operator of the WDQSU in November 1, 2003.

It is possible to perform a workover and remove the tubing and packer. Chaparral could attempt to find a packer seat 20' deeper than the packer is located at however, experience in the field has taught us that corrosion can be a problem and could make it difficult in locating a packer seat at a deeper depth.

Due to the well conditions Chaparral requests that NMOCD grant approval of setting the injection packer more than 100' above the top perforation. See (Attachment D) attached well bore schematic and Well History.

**West Dollarhide Queen Sand Unit No. 133. D-31-24S-38E 30-025-30355**

LAST INJECTION 12/2012: SHUT IN/TA EXPIRED 2007; NO REPORT ON FILE TO DETERMINE STATUS CHANGE OF WELL; TA'D 2006 TBG/PKR IN HOLE; \*\*\*Operator in Violation of NMOCD Rule 19.15.25.12 (APPROVED TEMPORARY ABANDONMENT) \*\*\*\*\* UPON WORKOVER OPERATOR MUST SET PACKER ACCORDING TO OCD PERMIT WFX-570 – NOTE – IF PACKER CANNOT BE SET ACORDINGLY, OPERATOR MUST CONTACT OCD SANTA FE PHILLIP FOR PACKER SETTING APPROVAL.

**RESPONSE:** The WDQSU No. 133 was spud on February 3, 1990. 5-1/2" casing was run and cemented at 3,950' 850sx. Cement did not circulate. 1,036' of 1" tubing was run outside of the 5-1/2" casing and Cmt'd to surface w/170 sx. The well was completed in February 1990 as an injection well with the packer set at 3,558.04. The top perf is at 3,678'. This places the packer 119' above the top perforation. From Chaparrals records it appears that once the well was placed on injection in February 1990 it has

never been pulled apart. Chaparral took over operations of the WDQSU on November 1, 2003. The well was placed on Temporary Abandonment Status from Jan 24, 2007 to Jan 24, 2008. Chaparral has tested the flow line to the well and it is in working condition. Chaparral has also noticed that the well appears to have a tubing leak. Chaparral is preparing 3160-5 forms for the BLM to repair this well. During the workover Chaparral will make an attempt to set the packer within 100' of the top perforation, test the annulus and see if the annulus will hold. If the annulus will not hold due to rough casing within 100' of the top perforation Chaparral will have to move the packer to a location where the annulus will hold. Chaparral will not know this until work begins on the well. After the well is repaired and the Mechanical Integrity Testing is complete and approved Chaparral would like to return the well to active injection. See (Attachment E) attached well bore schematic and Well History.

The five question and response scenarios listed above deal directly with the letter of violation referenced above. Hopefully this information will successfully answer the questions raised in the letter of violation. If you have further questions please feel free to contact me at 405-426-4040. Also a response to Chaparral from the State of New Mexico is requested regarding these responses.

Sincerely,

A handwritten signature in black ink that reads "Billy W. Nievar". The signature is written in a cursive, flowing style.

Billy W. Nievar P.E.

KB: 3139.5

DF:

GL: 3128

Size: 12-1/4

8-5/8" ,24 #,J @400 ,250 sx

**Chaparral Energy, L.L.C.**

Well: West Dollarhide QSU ,133 ,4087.07

Operator: CELLC

Location: 400' FNL &amp; 1120' FWL, Lea Co., NM

Legal: Sec. 31-24S-38E

County: Lea, NM

LAT/Long: /

Dir:

Spud Date: 02/03/90

Drilling Finished: 02/07/90

Completion Date: 02/21/90

First Production:

**TUBING #1:**

Type	#Jts	Size	Wt#/f	Grade	Set@
IPC	119	2-3/8"	4.7	J	3558

**HISTORY:****Attachment E**

Packer 3559

SN 3558

3600'

AD-1 pkr

*Packer position  
TBD following  
workover  
3/91*

Size: 7-7/8

3678 -3680 Queen

3690 -3706 Queen

3712 -3714 Queen

3720 -3724 Queen

3735 -3738 Queen

3769 -3773 Queen

3778 -3783 Queen

3790 -3793 Queen

3808 -3813 Queen

3816 -3818 Queen

3834 -3840 Queen

3856 -3858 Queen

OPBTD: 3910'

TD: 3950

5-1/2" ,15.5# ,J @3950 ,3950sx

Input by: Traci/Greg

Approved by:

Last Update: 7/26/12

## WELL HISTORY

02/02/90 Build location. Line pits. Build fence around pits. Build vent pipe for road crossing. Deliver 8-5/8" surface csg, 5-1/2" prod csg & 2-3/8" tbg & inj wellhead.

02/03/90 400' WL survey: 1/4deg @ 400'. Ran 8-5/8" csg to 400'. Cmt w/ 250 sx. Class "C" 2% CaCl. Circ 75 sx. WOC. PD 7:15 pm. Cut off, weld on head & NU BOP. Test blind rams & manifold to 500# - okay. RIH. WOC & cut 56' drlg line. Test pipe rams to 500# - okay.

02/04/90 2264' Made 1864'. WL survey: 3/4 deg @ 640', 1-1/4 deg @ 952', 1-1/4 deg @ 1445', 1/2 deg @ 1820', 1-1/2 deg @ 2224'. Continue drlg.

02/05/90 3015' Made 751'. Continue drlg.

02/06/90 3750' Made 735'. Continue drlg.

02/07/90 3950' Made 200'. RIH w/ 5-1/2" csg to 3950'. Circ & cement w/ 650 sx PS Lite Q 15# sx of salt # 1/4# sk celloseal tailed w/200 sx class "C" + 2% CaCl.

02/08/90 Did not circ. Cmt. Did not pump plug. WOC & C. RUD & MO. Build fence around front of pit. Fill in mouse hole.

02/10/90 RU logging 7 mast truck & log wellfrom TD to 2000': GR, CCL, CNL. From TD to surface: GR, CCL, CBL.

02/12/90 Lay wtr line, set 4 guyline anchors, weld on 5-1/2" bell nipple, extend surface csg valve to ground level. Install 2-3/8" x 5-1/2" wellhead. Move cutoff 5-1/2" pipe to yard. Move 2-3/8" workstring to location. MIRU PU. PU on 5-1/2" csg & remove 5-1/2" csg slips. Set down 5-1/2" csg slips. Set down 5-1/2" csg & prepare to do 1" cmt job. SION.

02/13/90 RIH w/1" hydrill tbg between 8-5/8" x 5-1/2". Tag up @ 1036'. RU Western, break circ. w/ fresh water ( 13 bbls). Start cmt, pump 100 sx PS lite w/ 1/4# celoseal to 400'. POH w/ 19 jts tbg. (fluid fell in csg when we shut down). Continue to cmt from 434' w/ 70 sx PS Lite to surface (cmt stayed in pipe). 20,000# tension on csg. NU wellhead. RU & perf lower Queen zone from 3778-83', 3790-3793', 3816-3818', 3834-3840', 3 spf, 4" guns, 60 holes. Close well in & SION.

02/14/90 RIH w/ tbg & pkr to 3840'. RU & spot 1-1/2" bbls acid. PU & set pkr @ 3695'. Load & test backside to 500# - okay. RU & treat lower Queen zone w/2100 gal 15% HCL NEFE acid in 3 syates of 700 gal each blocking w/ rock salt in 2 stages of 400#. Had good block action. Avg BPM 4.4, Avg psi 2300#. Flush to bottom perf. ISIP 1300#, 5 min 1200#, 10 min 1200#, 15 min 1200#. SI for 30 min. Open well & flow down, swab back load (105 bbls). POH w/ tbg & pkr. RU & perf Upper Queen from 3678-3680', 3690-3706', 3712-3714', 3720-3724', 84 holes, 3 spf, 4" guns. RD perf. Close well in. SION.

02/15/90 RIH w/ RBP to 3763'. Set & test - okay. PU to 3724' & spot 1.5 bbls acid. Pull up to 3586' & set pkr. Load & test backside to 500# - okay. RU & acidize Upper Queen zone w/ 2100 gal 15% HCL NEFE acid in 3 stages of 700 gal ec. Blocking in 2 stages of 400# rock salt ec. Had good block action. Flush to bottom perfs. ISIP 1300#, 5 min 1250#, 10 min 1250#, 15 min 1200#. Avg rate 4.1 bpm. Avgpsi 2100#. Total load 106 bbls. SI for 30 min. Flow well down & swab back load. Unset pkr. RIH & unset RBP. POH & LD workstring & treating tools. Prep to run inj pkr & IPC tbg. SION.

02/16/90 Move workstring & MI IPC tbg. RIH w/ 5-1/2" x 2-3/8" IPC AD-1 pkr, 2-3/8" SN & 119 jts of 2-3/8" IPC tbg to 3558.04'. RU & pump 100 bbls 2% KCL w/ 1 drum WT-1270 pkr fluid. Set pkr in tension 15,000#. Load & test backside to 500# for 30 min. NU inj wellhead & fittings on header.

02/17/90 Test injection lines for leaks.

02/19/90 Cut ROW & ditch, lay pad. Inj line. Install fitting. Backfill ditch. Test line. Found 2 leaks. Start to repair leaks.

02/20/90 Repair leak on inj wellhead.

02/21/90 Start injecting water @ 250 BWPD @ 1200 psi.

04/06/10 TP 1300#, CP 0#. RU Rising Star. Establish rate of 1.7 BPM @ 1800# w/2 bbls PW. Pmp 500 gals NE FE HCL acid w/15 bbls PW flush. ISIP 1800#, 5 mins 1180#. Monitoring csg @ 0# whole job. RD Rising Star. Hook well up & open all valves. TP 1150#. MO Rising Star.