TPI

Christian.Combs@chk.com

e-mail Address

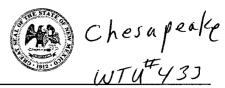
APP NO. 1011 756616

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505



ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE **Application Acronyms:** [NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling] [DHC-Downhole Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement] [PC-Pool Commingling] [PMX-Pressure Maintenance Expansion] [WFX-Waterflood Expansion] [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase] [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response] Cose/2272 R-11375 TYPE OF APPLICATION - Check Those Which Apply for [A] [1] Location - Spacing Unit - Simultaneous Dedication [A] \square NSL \square NSP \square SD Check One Only for [B] or [C] Commingling - Storage - Measurement ☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS OLM Injection - Disposal - Pressure Increase - Enhanced Oil Recovery [C]□ WFX □ PMX □ SWD 🗹 IPI □ EOR □ PPR [D] Other: Specify NOTIFICATION REQUIRED TO: - Check Those Which Apply, or Does Not Apply [2] Working, Royalty or Overriding Royalty Interest Owners [A] [B]Offset Operators, Leaseholders or Surface Owner Application is One Which Requires Published Legal Notice [C] WFX-791 [D]Notification and/or Concurrent Approval by BLM or SLO U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office [E] For all of the above, Proof of Notification or Publication is Attached, and/or, [F]Waivers are Attached [3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE. **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative [4] approval is accurate and complete to the best of my knowledge. I also understand that no action will be taken on this application until the required information and notifications are submitted to the Division. Note: Statement must be completed by an individual with managerial and/or supervisory capacity. Christian Combs Manager-Regulatory, S. Division 4/26/10 Print or Type Name Signature Title Date



Operations Department

4/23/10

Terry Warnell (NMOCD) 1220 South St. Francis Drive Santa Fe, NM 87505 (505) 476-3466

RE: West Teas (Yates-Seven Rivers) Unit Waterflood Injector Pressure Increase

Mr. Terry Warnell,

Chesapeake Energy respectfully requests to increase the injection pressure on the WTU 433. Step rate tests have been performed, and the results are summarized in the table below. More detailed information in regards to the test and wellbore is enclosed.

1	Well API		Current Limit	Fracture Pressure	Requested Inj. Pressure Limit	SRT Date
	WTU 433	3002532032	968 psi	1708 psi	1658 psi	5/30/08

Note: All pressures are surface pressures

1650

Feel free to contact me if you have any questions or need any other information. Thank you for your time, I appreciate it.

Regards

Mr. Shannon Glancy

Production Engineer (Permian)
Charanaska Energy Corporation

Chesapeake Energy Corporation

Office: (405) 935-8109 Cell: (405) 415-5299 Fax: (405) 849-8109 3230/51

Step Rate Test



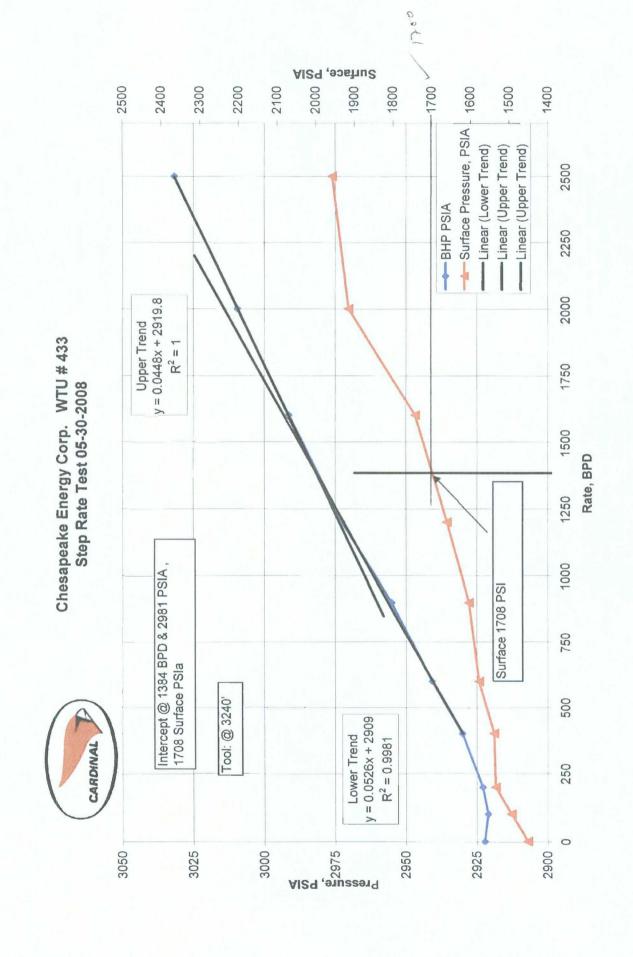
Cardinal Surveys Company

May 30, 2008

Chesapeake Energy Corp. WTU # 433 Field: West Teas Lea County, NM SC 57244 File # 18723 Intercept @ 1384 BPD & 2981 PSIA, 1708 Surf. PSIA

Downhole PSI Tool Ser. No. Surface PSI Gauge Ser. No. Tool @ 3240'

Start		End	Rate	
Time		Time	BPD	Comments
1	7:58 AM	8:30 AM		0 On Bottom
2	8:30 AM	9:30 AM	10	00
3	9:30 AM	10:30 AM	20	00
4	10:30 AM	11:30 AM	40	00
5	11:30 AM	12:30 PM	60	00
6	12:30 PM	1:30 PM	90	00
7	1:30 PM	2:30 PM	120	00
8	2:30 PM	3:30 PM	160	00
9	3:30 PM	4:30 PM	200	00
10	4:30 PM	5:30 PM	250	00
11	5:30 PM	5:45 PM		0 Fall Off



Step Rate Test

Chesapeake Energy WTU # 433 Field: West Teas Lea County, NM



Upper	Trend								2991.4	3009.5	3031.7	
Lower	Trend				2930.2	2940.8	2955.1	2972.7				
Avg.	BPD	0	113	182	403	629	936	1222	1644	1980	2575	0
Delta	BBL	0	4.7	7.6	16.8	26.2	39	50.9	68.5	82.5	107.3	0
Cum	BBL	0	4.7	12.3	29.1	55.3	94.3	145.2	213.7	296.2	403.5	403.5
Surf	PSIA	1451.9	1494.5	1535.4	1539.3	1578.3	1603.8	16612	1743.1	1915.5	1958.1	1623.1
4. Pressure	PSIA	2922.3	2921.1	2923	2930.2	2940.8	2955.1	2972.7	2991.4	3009.5	3031.7	3013
Step B.	BPD	0	100	100	200	200	300	300	400	400	200	-2500
Last Rate	BPD	0	100	200	400	009	006	1200	1600	2000	2500	0
	Min	32	9	9	9	9	09	9	9	9	90	15
	E Time	8:30 AM	9:30 AM	10:30 AM	11:30 AM	12:30 PM	1:30 PM	2:30 PM	3:30 PM	4:30 PM	5:30 PM	5.45 PM
	S Time	7:58 AM	8:30 AM	9:30 AM	10:30 AM	11:30 AM	12:30 PM	1:30 PM	2:30 PM	3:30 PM	4:30 PM	5:30 PM
		-		ო				7		တ	10	Ξ

0.0526 2909 0.0448 2919.8

int point: 1384.6154 BPD 2981.8308 Psia



Chesapeake Energy Corp. WTU # 433 Step Rate Test 05-30-2008







CONFIDENTIAL

Spud Date: 11/8/1994 Initial Compl. Date: API#: 3002532032 CHK Propterty #: 890172 1st Prod Date: 12/7/2001

Report Printed: 4/23/2010

WTU 433

Field: WEST TEAS County: LEA **NEW MEXICO** State:

SEC 4, 20S-33E, 1650 FSL & 1980 FEL Location: KB 3,573.40

Elevation: GL 3,556.40

KB Height: 17.00

PBTD: Original Hole - 3460.0 TD: 3,550.0 Well Config: - Original Hole, 4/23/2010 6:05:51 PM Schematic - Actual fiKB (MD) fika (TVD) 17 Original Hole, 12 1/4, 17-1,368 1,387 8 5/8" 32# & 24# K-55 Surf Csg, 1,368 Cmt w/ 710 sx. Clrc w/ 258 1,388 1-1, Tubing, 2 3/8, 17, 3,116.0 Original Hole, 7 7/8, 1,368-3,550 3,133 1-2, Packer, 2 3/8, 3,133, 3.0 3,135 DV Tool, 3,135 3,136 3,230 3,230-3,250, 12/19/1994 3,250 3,260 CIBP w/ 5' cmt cap, 3,265 3,265 3.267 3,272 3,272-3,276, 12/19/1994] 3,276 3,288 3,288-3,292, 12/19/1994 3,292 3,460 3,549 5 1/2" 15.5# K-55 Prod Csg, 3,550 Cmt 1st stg w/ 130 sx. Circ w/ 20 sx. Cmt 2nd stg w/ 650 sx. Circ, 3,550 3,550



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop
Cabinet Secretary

Mark E. Fesmire, P.E.

Director

Oil Conservation Division

October 19, 2004

Division Order No. IPI-244

Chesapeake Operating Company c/o Kellahin & Kellahin P.O. Box 2265 Santa Fe, New Mexico 87504

Attention: Mr. W. Thomas Kellahin

RE: Injection Pressure Increase

West Teas (Yates-Seven Rivers) Unit Waterflood Project

Lea County, New Mexico

Dear Mr. Kellahin:

Reference is made to your request on behalf of Chesapeake Operating Company received by the Division on September 29, 2004 to increase the surface injection pressure on seven wells within the West Teas (Yates-Seven Rivers) Unit Waterflood Project. This request is based upon step rate tests recently conducted on these wells. The results of the step rate tests for the West Teas (Yates-Seven Rivers) Unit Wells No. 433, 912, 913, 921, 924 and 945 show that an increase in the surface injection pressure for these wells is justified and will not result in the fracturing of the injection formation and confining strata. The step rate test results for the West Teas (Yates-Seven Rivers) Unit Well No. 941 is inconclusive, and therefore your request to increase the surface injection pressure for this well is hereby denied.

You are therefore authorized to increase the surface injection pressure on the following wells all located in Township 20 South, Range 33 East, NMPM, Lea County, New Mexico:

WELL NAME & NUMBER	MAXIMUM SURFACE INJECTION PRESSURE
West Teas (Yates-Seven Rivers) Unit No. 433 API No. 30-025-32032, Unit J, Section 4	968 PSIG
West Teas (Yates-Seven Rivers) Unit No. 912 API No. 30-025-29971, Unit E, Section 9	1200 PSIG
West Teas (Yates-Seven Rivers) Unit No. 913 API No. 30-025-29972, Unit L, Section 9	903 PSIG

WELL NAME & NUMBER	MAXIMUM SURFACE INJECTION PRESSURE				
West Teas (Yates-Seven Rivers) Unit No. 921 API No. 30-025-31896, Unit C, Section 9	998 PSIG				
West Teas (Yates-Seven Rivers) Unit No. 924 API No. 30-025-36073, Unit F, Section 9	1197 PSIG				
West Teas (Yates-Seven Rivers) Unit No. 945 API No. 30-025-36079, Unit H, Section 9	1200 PSIG				

The Division Director may rescind this injection pressure increase if it becomes apparent that the injected fluid is not being confined to the injection zone or is endangering any fresh water aquifers.

Sincerely,

Mark E. Fesmire, P.E.

Director

cc.

Oil Conservation Division - Hobbs

File: WFX-791

File: Case No. 12272