

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

Governor **Betty Rivera Cabinet Secretary**

June 24, 2002

Lori Wrotenbery Director Oil Conservation Division

Pure Resource 500 West Illinois Midland, Texas 79701

Attn: Mr. Tejay Simpson

Injection Pressure Increase, 2/80 RE:

West Lovington Unit No. 28 (API No. 30-025-03895)

Lea County, New Mexico

Reference is made to your request received in this office on June 14, 2002, to increase the surface injection pressure on the above-referenced well. This request is based on a step rate test conducted on May 23, 2002. After reviewing this test, we feel an increase in injection pressure on this well is justified at this time.

You are therefore authorized to increase the surface injection pressure on the following well:

Well and Location	Maximum Surface Injection Pressure
West Lovington Unit No. 28	2300 PSIG

Located in SW/4 SE/4, Section 6, Township 17 South, Range 36 East, NMPM, Lea County, New Mexico.

This maximum surface injection pressure limit is valid only through the existing 2 3/8 inch plastic coated injection tubing.

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

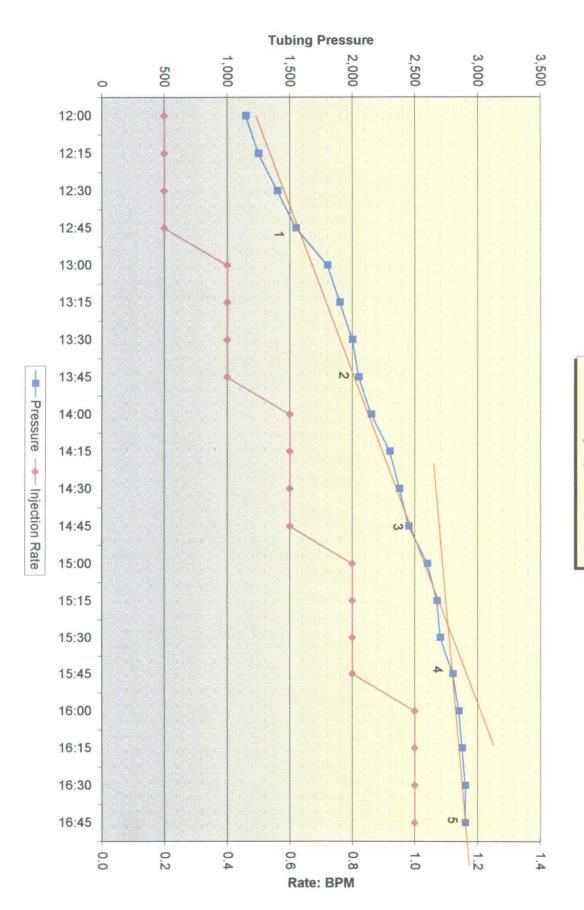
Director

cc:

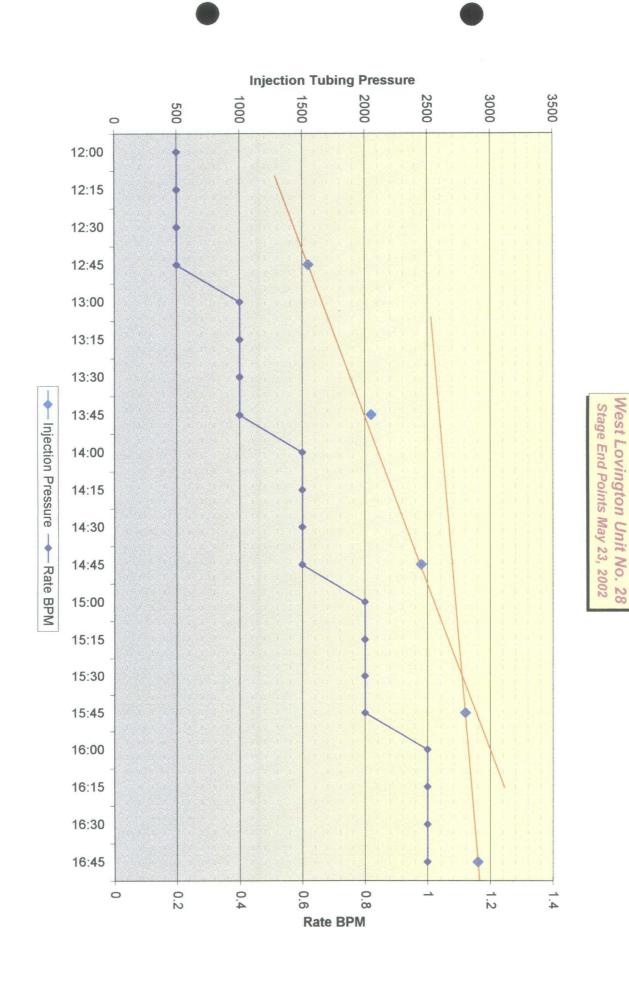
Oil Conservation Division – Hobbs

State Land Office - Santa Fe Files: WFX-622, IPI-2002

Unit Letter_O :660 feet from theSouth line and1980 feet from theEast line Section 6	District I 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Ave., Artesia, NM 88210 District III 1000 Rio Brazos Rd., Aztec, NM 87410 N 1220 South St. Francis Dr. District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505 SUNDRY-NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.) 1. Type of Well: Oil Well Gas Well Other Water Injection Well 2. Name of Operator Pure Resource 3. Address of Operator 500 West Illinois – Midland, Texas 79701	WELL API NO. 30-025-03895 5. Indicate Type of Lease STATE FEE 6. State Oil & Gas Lease No. B-4120-1 7. Lease Name or Unit Agreement Name:			
Section 6 Township 17S Range 36E NMPM Lea County 10. Elevation (Show whether DR, RKB, RT, GR, etc.) 11. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data NOTICE OF INTENTION TO: PERFORM REMEDIAL WORK PLUG AND ABANDON REMEDIAL WORK ALTERING CASING REMEDIAL WORK ALTERING CASING PULL OR ALTER CASING MULTIPLE CASING TEST AND CEMENT JOB OTHER: OTHER: Step Rate Injection Test 2. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompilation. 13 3/8" 48# casing set at 226' 8 5/8" Casing set at 4,718' Open Hole completion 4,718'-5,160' Injection packer at 4,660' A step rate injection test was performed May 23, 2002. Purpose of the survey is to provide justification for an increase in the maximum authorized injection pressure to 2,300 PSI. As indicated by the data, the existing frac pressure is presently in excess of 2,700 PSI. hereby certify that the information above is true and complete to the best of my knowledge and belief. IGNATURE	4. Well Location				
Section 6 Township 17S Range 36E NMPM Lea County 10. Elevation (Show whether DR, RKB, RT, GR, etc.) 11. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data NOTICE OF INTENTION TO: PERFORM REMEDIAL WORK PLUG AND ABANDON REMEDIAL WORK ALTERING CASING REMEDIAL WORK ALTERING CASING PULL OR ALTER CASING MULTIPLE CASING TEST AND CEMENT JOB OTHER: OTHER: Step Rate Injection Test 2. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompilation. 13 3/8" 48# casing set at 226' 8 5/8" Casing set at 4,718' Open Hole completion 4,718'-5,160' Injection packer at 4,660' A step rate injection test was performed May 23, 2002. Purpose of the survey is to provide justification for an increase in the maximum authorized injection pressure to 2,300 PSI. As indicated by the data, the existing frac pressure is presently in excess of 2,700 PSI. hereby certify that the information above is true and complete to the best of my knowledge and belief. IGNATURE	Unit Letter O : 660 feet from the South line and	1980 feet from the East line			
10. Elevation (Show whether DR, RKB, RT, GR, etc.) 11. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data NOTICE OF INTENTION TO: PERFORM REMEDIAL WORK PLUG AND ABANDON SUBSEQUENT REPORT OF: REMEDIAL WORK ALTERING CASING TEMPORARILY ABANDON CHANGE PLANS COMMENCE DRILLING OPINS PLUG AND ABANDONMENT PULL OR ALTER CASING MULTIPLE COMPLETION CASING TEST AND ABANDONMENT CEMENT JOB OTHER: Step Rate Injection Test 2. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompilation. 13 3/8* 48# casing set at 226' 85/8* 28# casing set at 1988' 5/4* casing set at 4,718' Open Hole completion 4,718'-5,160'		100 I out I out II out I			
11. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data NOTICE OF INTENTION TO: PERFORM REMEDIAL WORK PLUG AND ABANDON REMEDIAL WORK ALTERING CASING TEMPORARILY ABANDON CHANGE PLANS COMMENCE DRILLING OPNS PLUG AND ABANDONMENT PULL OR ALTER CASING MULTIPLE COMPLETION CASING TEST AND ABANDONMENT OTHER: Step Rate Injection Test 2. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompilation. 13 3/8" 48# casing set at 1226' 85/8" 28# casing set at 1988' 5/8" casing set at 11988' 5/8" casing set at 11988' 5/8" casing set at 4.660' A step rate injection test was performed May 23, 2002. Purpose of the survey is to provide justification for an increase in the maximum authorized injection pressure to 2,300 PSI. As indicated by the data, the existing frac pressure is presently in excess of 2,700 PSI. hereby certify that the information above is true and complete to the best of my knowledge and belief. IGNATURE TITLE: Area Foreman DATE: June 11, 2002 Type or print hange: Teley Shupson Telephone No.: 505-396-7503 This space for State use)					
NOTICE OF INTENTION TO: PERFORM REMEDIAL WORK PLUG AND ABANDON REMEDIAL WORK ALTERING CASING TEMPORARILY ABANDON CHANGE PLANS COMMENCE DRILLING OPNS PLUG AND ABANDONMENT PULL OR ALTER CASING MULTIPLE CASING TEST AND ABANDONMENT OTHER: Step Rate Injection Test 2. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompilation. 13 3/8" 48# casing set at 226' 8 5/8" 28# casing set at 1988' 5/8" Casing set at 4.718' Open Hole completion 4.718 -5,160' A step rate injection test was performed May 23, 2002. Purpose of the survey is to provide justification for an increase in the maximum authorized injection pressure to 2,300 PSI. As indicated by the data, the existing frac pressure is presently in excess of 2,700 PSI. hereby certify that the information above is true and complete to the best of my knowledge and belief. SIGNATURE The Suppose Telephone No.: 505-396-7503 This space for State use) APPPROVED BY TITLE DATE	10. Elevation (Snow whether DR, RKB, R1, C	GR, etc.)			
NOTICE OF INTENTION TO: PERFORM REMEDIAL WORK PLUG AND ABANDON REMEDIAL WORK ALTERING CASING TEMPORARILY ABANDON CHANGE PLANS COMMENCE DRILLING OPNS PLUG AND ABANDONMENT PULL OR ALTER CASING MULTIPLE CASING TEST AND ABANDONMENT OTHER: Step Rate Injection Test 2. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompilation. 13 3/8" 48# casing set at 226' 8 5/8" 28# casing set at 1988' 5/8" Casing set at 4.718' Open Hole completion 4.718 -5,160' A step rate injection test was performed May 23, 2002. Purpose of the survey is to provide justification for an increase in the maximum authorized injection pressure to 2,300 PSI. As indicated by the data, the existing frac pressure is presently in excess of 2,700 PSI. hereby certify that the information above is true and complete to the best of my knowledge and belief. SIGNATURE The Suppose Telephone No.: 505-396-7503 This space for State use) APPPROVED BY TITLE DATE	11. Check Appropriate Box to Indicate Nature of	Notice, Report or Other Data			
PERFORM REMEDIAL WORK PLUG AND ABANDON REMEDIAL WORK ALTERING CASING TEMPORARILY ABANDON CHANGE PLANS COMMENCE DRILLING OPNS PLUG AND ABANDONMENT PULL OR ALTER CASING MULTIPLE COMPLETION CASING TEST AND CEMENT JOB OTHER: Step Rate Injection Test Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompilation. 13 3/8" 48# casing set at 226' 8 5/8" 28# casing set at 1988' 5 ½" casing set at 4.718' Open Hole completion 4.718' -5.160'					
TEMPORARILY ABANDON CHANGE PLANS COMMENCE DRILLING OPNS PLUG AND ABANDONMENT PULL OR ALTER CASING MULTIPLE COMPLETION CASING TEST AND CEMENT JOB OTHER: Step Rate Injection Test 2. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompilation. 13 3/8" 48# casing set at 126' 83/8" 28# casing set at 1988' 5 ½" casing set at 4,718' Open Hole completion 4,718'-5,160'					
PULL OR ALTER CASING MULTIPLE COMPLETION CASING TEST AND CEMENT JOB OTHER: Step Rate Injection Test 2. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompilation. 13 3/8" 48# casing set at 1988' 5 ½" casing set at 1988' 5 ½" casing set at 4,718' Open Hole completion 4,718"-5,160' Injection packer at 4,660' A step rate injection test was performed May 23, 2002. Purpose of the survey is to provide justification for an increase in the maximum authorized injection pressure to 2,300 PSI. As indicated by the data, the existing frac pressure is presently in excess of 2,700 PSI. hereby certify that the information above is true and complete to the best of my knowledge and belief. IGNATURE TITLE: Area Foreman DATE: June 11, 2002 Telephone No.: 505-396-7503 This space for State use) APPPROVED BY TITLE DATE					
PULL OR ALTER CASING MULTIPLE COMPLETION CEMENT JOB OTHER: OTHER: Step Rate Injection Test Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompilation. 13 3/8" 48# casing set at 226' 8 5/8" 28# casing set at 1988' 5 ½" casing set at 4,718' Open Hole completion 4,718'-5,160' A step rate injection test was performed May 23, 2002. Purpose of the survey is to provide justification for an increase in the maximum authorized injection pressure to 2,300 PSI. As indicated by the data, the existing frac pressure is presently in excess of 2,700 PSI. hereby certify that the information above is true and complete to the best of my knowledge and belief. IGNATURE TITLE: Area Foreman DATE: June 11, 2002 Telephone No.: 505-396-7503 This space for State use)	TEMPORARILY ABANDON				
2. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompilation. 13 3/8" 48# casing set at 226' 8 5/8" 28# casing set at 1988' 5 ½" casing set at 4,718' Open Hole completion 4,718' -5,160' Injection packer at 4,660' A step rate injection test was performed May 23, 2002. Purpose of the survey is to provide justification for an increase in the maximum authorized injection pressure to 2,300 PSI. As indicated by the data, the existing frac pressure is presently in excess of 2,700 PSI. hereby certify that the information above is true and complete to the best of my knowledge and belief. SIGNATURE TITLE: Area Foreman DATE: June 11, 2002 Telephone No.: 505-396-7503 This space for State use) APPPROVED BY TITLE DATE		EST AND			
2. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompilation. 13 3/8" 48# casing set at 226' 8 5/8" 28# casing set at 1988' 5 ½" casing set at 4,718' Open Hole completion 4,718' -5,160' Injection packer at 4,660' A step rate injection test was performed May 23, 2002. Purpose of the survey is to provide justification for an increase in the maximum authorized injection pressure to 2,300 PSI. As indicated by the data, the existing frac pressure is presently in excess of 2,700 PSI. hereby certify that the information above is true and complete to the best of my knowledge and belief. SIGNATURE TITLE: Area Foreman DATE: June 11, 2002 Telephone No.: 505-396-7503 This space for State use) APPPROVED BY TITLE DATE	OTHER: OTHER: Other Retailment Test				
starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompilation. 13 3/8" 48# casing set at 226' 8 5/8" 28# casing set at 1988' 5 ½" casing set at 4,718' Open Hole completion 4,718'-5,160' Injection packer at 4,660' A step rate injection test was performed May 23, 2002. Purpose of the survey is to provide justification for an increase in the maximum authorized injection pressure to 2,300 PSI. As indicated by the data, the existing frac pressure is presently in excess of 2,700 PSI. hereby certify that the information above is true and complete to the best of my knowledge and belief. IGNATURE TITLE: Area Foreman DATE: June 11, 2002 Telephone No.: 505-396-7503 This space for State use) APPPROVED BY TITLE DATE					
recompilation. 13 3/8" 48# casing set at 226' 8 5/8" 28# casing set at 1988' 5 ½" casing set at 4,718' Open Hole completion 4,718'-5,160' Injection packer at 4,660' A step rate injection test was performed May 23, 2002. Purpose of the survey is to provide justification for an increase in the maximum authorized injection pressure to 2,300 PSI. As indicated by the data, the existing frac pressure is presently in excess of 2,700 PSI. hereby certify that the information above is true and complete to the best of my knowledge and belief. IGNATURE TITLE: Area Foreinan DATE: June 11, 2002 Telephone No.: 505-396-7503 This space for State use) APPPROVED BY TITLE DATE					
A step rate injection test was performed May 23, 2002. Purpose of the survey is to provide justification for an increase in the maximum authorized injection pressure to 2,300 PSI. As indicated by the data, the existing frac pressure is presently in excess of 2,700 PSI. hereby certify that the information above is true and complete to the best of my knowledge and belief. IGNATURE TITLE: Area Foreman DATE: June 11, 2002 Telephone No.: 505-396-7503 This space for State use) PPPROVED BY TITLE DATE	manammilation				
A step rate injection test was performed May 23, 2002. Purpose of the survey is to provide justification for an increase in the maximum authorized injection pressure to 2,300 PSI. As indicated by the data, the existing frac pressure is presently in excess of 2,700 PSI. hereby certify that the information above is true and complete to the best of my knowledge and belief. JIGNATURE TITLE: Area Foreman DATE: June 11, 2002 Telephone No.: 505-396-7503 This space for State use) DATE DATE	13 3/8" 48# casing set at 226' 8 5/8" 28# casing set at 1988' 5 ½" casing set at 4,718' Open Hole completion 4,718'-5,160'				
hereby certify that the information above is true and complete to the best of my knowledge and belief. SIGNATURE TITLE: Area Foreman DATE: June 11, 2002 Type or print name: Telay Shinpson This space for State use) APPPROVED BY TITLE DATE					
TITLE: Area Foreman DATE: June 11, 2002 Type or print name: Telay Simpson Telephone No.: 505-396-7503 This space for State use) APPPROVED BY TITLE DATE	maximum authorized injection pressure to 2,300 PSI. As indicated by the data, the existing frac pressure is presently in excess				
TITLE: Area Foreman DATE: June 11, 2002 Type or print name: Telay Simpson Telephone No.: 505-396-7503 This space for State use) APPPROVED BY TITLE DATE					
TITLE: Area Foreman DATE: June 11, 2002 Type or print name: Telay Simpson Telephone No.: 505-396-7503 This space for State use) APPPROVED BY TITLE DATE					
TITLE: Area Foreman DATE: June 11, 2002 Type or print name: Telay Simpson Telephone No.: 505-396-7503 This space for State use) APPPROVED BY TITLE DATE					
TITLE: Area Foreman DATE: June 11, 2002 Type or print name: Telay Simpson Telephone No.: 505-396-7503 This space for State use) APPPROVED BY TITLE DATE					
TITLE: Area Foreman DATE: June 11, 2002 Type or print name: Telay Simpson Telephone No.: 505-396-7503 This space for State use) APPPROVED BY TITLE DATE	handly contifue that the information above in true and consolate to the host of my language and half of				
Telephone No.: 505-396-7503 This space for State use) APPPROVED BY	nereby certify that the information above is the and complete to the best of my knowledge and benef.				
Telephone No.: 505-396-7503 This space for State use) APPPROVED BY	SIGNATURE TITLE: Area Foreman	DATE: June 11, 2002			
This space for State use) APPPROVED BY TITLE DATE					
APPPROVED BYDATE		<u> </u>			
ODUITODE OF SEPTOMAL IT ADM.	APPPROVED BYTITLE	DATE			



WLU No. 28 Step Rate Test May 23, 2002



West Lovington Unit No. 28 Step Rate Injection Test May 23, 2002

Time	Rate BPM	Pressure
11:45	0.0	850
12:00	0.2	1,150
12:15	0.2	1,250
12:30	0.2	1,400
12:45	0.2	1 <u>,</u> 550
13:00	0.4	1,800
13:15	0.4	1,900
13:30	0.4	2,000
13:45	0.4	2,050
14:00	0.6	2,150
14:15	0.6	2,300
14:30	0.6	2,375
14:45	0.6	2,450
15:00	8.0	2,600
15:15	8.0	2,675
15:30	8.0	2,700
15:45	8.0	2,800
16:00	1.0	2,850
16:15	1.0	2,875
16:30	1.0	2,900
16:45	1.0	2,900

