



NEW MEXICO ENERGY, MINERALS  
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505  
(505) 827-7131

December 18, 1997

SWD-511  
PDEV0020900511

Strata Production Company  
P.O. Drawer 1030  
Roswell, New Mexico 88201-1030

Attn: Ms. Carol J. Garcia

**RE: Injection Pressure Increase,  
Nash Draw Unit Well No.4,  
Eddy County, New Mexico**

Dear Ms. Garcia:

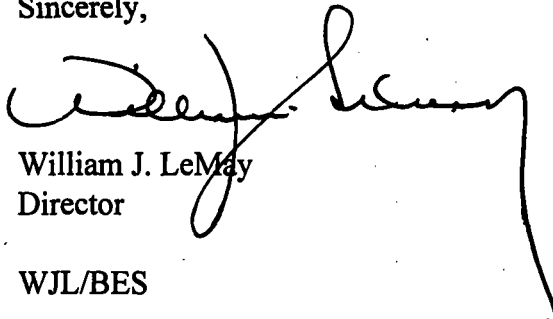
Reference is made to your request dated August 26, 1997 to increase the surface injection pressure on the above referenced well. This request is based on a step rate test conducted on July 10, 1997. The results of the test have been reviewed by my staff and we feel an increase in injection pressure on 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
Nash Draw Unit Well No.4	1262 PSIG
Located in "" of Section 13, Township 23 South, Range 29 East, Eddy County, New Mexico.	

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.

Sincerely,

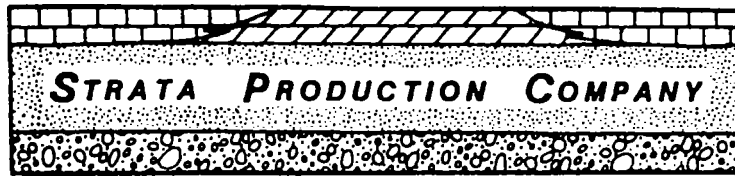


William J. LeMay  
Director

WJL/BES

cc: Oil Conservation Division - Hobbs  
Files. SWD-511, PSI-X 2nd QTR98

POST OFFICE DRAWER 1030  
ROSWELL, NM 88202-1030



TELEPHONE (505) 622-1127  
FACSIMILE (505) 623-3533

200 WEST FIRST STREET, ROSWELL PETROLEUM BUILDING, SUITE 700  
ROSWELL, NEW MEXICO 88201

AUG 29 1997

August 26, 1997

RECEIVED

AUG 27 1997

OIL CON. DIV.  
DIST. 2

Oil Conservation Division  
ATTN: Betty Rollins  
811 S. First Street  
Artesia, New Mexico 88210

RE: Nash Draw Unit #4 SWD-511  
A-Section 13-23S-29E  
Eddy County, New Mexico

Dear Betty:

Pursuant to our telephone conversation on August 18, 1997, please find enclosed herewith the Administrative Application Coversheet for Injection Pressure Increase and Step Rate Injection Test dated July 10, 1997.

Strata requests approval to increase the injection pressure from the original maximum of 648 psi to 1500 psi to maintain safety factors above surface due to produced water from additional wells drilled since the approval of Administrative Order SWD-511 and the projected drilling program for this area.

The Step Rate Injection test indicates that the increased pressure will not result in migration of the injected fluid from the Bell Canyon formation. The Step Rate Injection Test was witnessed by an OCD representative the same day that the casing integrity test was conducted.

Should you have any questions, please contact this office.

Sincerely,

STRATA PRODUCTION COMPANY

*Carol J. Garcia*

Carol J. Garcia  
Production Records Manager

CJG:ms  
Enclosures

DATE  
CLASS  
REVISION  
LABEL  
TYPE

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

Application Acronyms:

[NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]  
[DD-Directional Drilling] [SD-Simultaneous Dedication]  
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]  
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]  
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]  
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]  
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

RECEIVED

[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Directional Drilling

☐ NSL ☐ NSP ☐ DD ☐ SD

AUG 27 1997

OIL CON. DIV.  
DIST. 2

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement

☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery

☐ WFX ☐ PMX ☐ SWD ☒ IPI ☐ EOR ☐ PPR

[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☐ Offset Operators, Leaseholders or Surface Owner

[C] ☐ Application is One Which Requires Published Legal Notice

[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] INFORMATION / DATA SUBMITTED IS COMPLETE - Statement of Understanding

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I further verify that all applicable API Numbers are included. I understand that any omission of data, information or notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with supervisory capacity.

Carol J. Garcia

Print or Type Name

Carol J. Garcia

Signature

Production Records Manager 8/26/97

Title

Date

# WEST-TEST, INC.

A SUBSIDIARY OF JOHN WEST ENGINEERING COMPANY  
Hobbs, New Mexico

## STEP RATE INJECTION TEST

CLIENT: STRATA PRODUCTION COMPANY

DATE: JULY 10, 1997

WELL NAME: NASH UNIT NO. 4  
EDDY COUNTY, NEW MEXICO

W.O. #: 97-14-1148

PERFS = 3240-3734

PACKER DEPTH = 3104

BHP GAUGE DEPTH = SURFACE ONLY

STEP NO. & REMARKS	TIME	(1) SURFACE TUBING PRESS. (psig)	(2) CUMMULATIVE VOL. INJECTED (bbls)	(3) INJECTION RATE (bbls/day)	(4) FRICTION HEAD LOSS (psi)	(5) CORRECTED TUBING PRESS. (psi) (1)-(4)	(6) INJECTION RATE (gpm) (3)/34.2857	(7) MEASURED BHP (psi)
1	9:20	738.5				738.5		
	9:25	899.5	2.4	691.2	15.190	884.3	20.16	
	9:30	972.2	4.8	691.2	15.190	957.0	20.16	
	9:35	1043.6	7.1	662.4	14.040	1029.6	19.32	
2				681.6				
	9:40	1147.2	10.3	921.6	25.864	1121.3	26.88	
	9:45	1193.1	13.5	921.6	25.864	1167.2	26.88	
	9:50	1230.0	17.1	1036.8	32.161	1197.8	30.24	
3				960.0				
	9:55	1259.2	21.2	1180.8	40.909	1218.3	34.44	
	10:00	1269.3	25.4	1209.6	42.774	1226.5	35.28	
	10:05	1243.5	29.6	1209.6	42.774	1200.7	35.28	
4				1200.0				
	10:10	1257.3	34.2	1324.8	50.614	1206.7	38.64	
	10:15	1290.4	38.8	1324.8	50.614	1239.8	38.64	
	10:20	1271.0	43.5	1353.6	52.669	1218.3	39.48	
5				1334.4				
	10:25	1302.8	48.9	1555.2	68.093	1234.7	45.36	
	10:30	1312.8	54.3	1555.2	68.093	1244.7	45.36	
	10:35	1313.9	59.7	1555.2	68.093	1245.8	45.36	
6				1555.2				
	10:40	1350.8	66.3	1900.8	98.703	1252.1	55.44	
	10:45	1337.8	72.9	1900.8	98.703	1239.1	55.44	
	10:50	1333.8	79.3	1843.2	93.241	1240.6	53.76	
				1881.6				

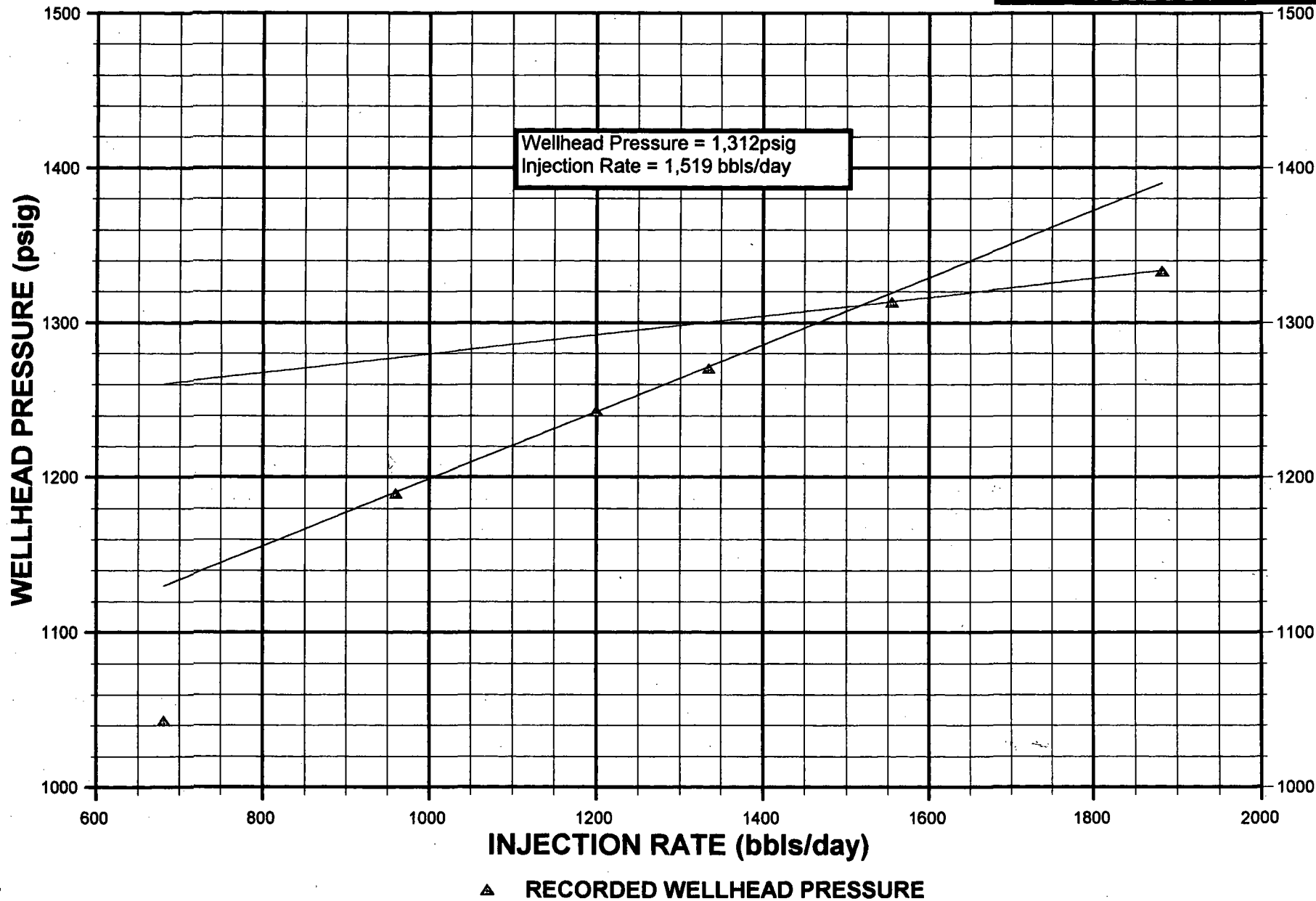
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FALLOFF	10:51	1248.0				1248.0		
	10:52	1237.7				1237.7		
	10:53	1233.9				1233.9		
	10:54	1230.0				1230.0		
	10:55	1227.4				1227.4		
	11:00	1213.2				1213.2		
	11:05	1202.8				1202.8		

# STEP RATE INJECTION TEST

STRATA PRODUCTION COMPANY

Well Name:  
NASH UNIT No. 4  
EDDY COUNTY, NEW MEXICO

Wellhead Pressure = 1,312psig  
Injection Rate = 1,519 bbls/day



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W.O. #: 97-14-1148

EDDY COUNTY, NEW MEXICO

PERFS = 3240-3734

PACKER DEPTH = 3104

BHP GAUGE DEPTH = SURFACE ONLY

STEP NO. & REMARKS	TIME	(1) SURFACE TUBING PRESS. (psig)	(2) CUMMULATIVE VOL. INJECTED (bbls)	(3) INJECTION RATE (bbls/day)	(4) FRICTION HEAD LOSS (psi)	(5) CORRECTED TUBING PRESS. (psi) (1)-(4)	(6) INJECTION RATE (gpm) (3)/34.2857	(7) MEASURED BHP (psi)
	9:20	738.5				738.5		
	9:25	899.5	2.4	691.2	15.190	884.3	20.16	
	9:30	972.2	4.8	691.2	15.190	957.0	20.16	
1	9:35	1043.6	7.1	662.4	14.040	1029.6	19.32	
				681.6				
	9:40	1147.2	10.3	921.6	25.864	1121.3	26.88	
	9:45	1193.1	13.5	921.6	25.864	1167.2	26.88	
2	9:50	1230.0	17.1	1036.8	32.161	1197.8	30.24	
				960.0				
	9:55	1259.2	21.2	1180.8	40.909	1218.3	34.44	
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3	10:05	1243.5	29.6	1209.6	42.774	1200.7	35.28	
				1200.0				
	10:10	1257.3	34.2	1324.8	50.614	1206.7	38.64	
	10:15	1290.4	38.8	1324.8	50.614	1239.8	38.64	
4	10:20	1271.0	43.5	1353.6	52.669	1218.3	39.48	
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	10:45	1337.8	72.9	1900.8	98.703	1239.1	55.44	
6	10:50	1333.8	79.3	1843.2	93.241	1240.6	53.76	
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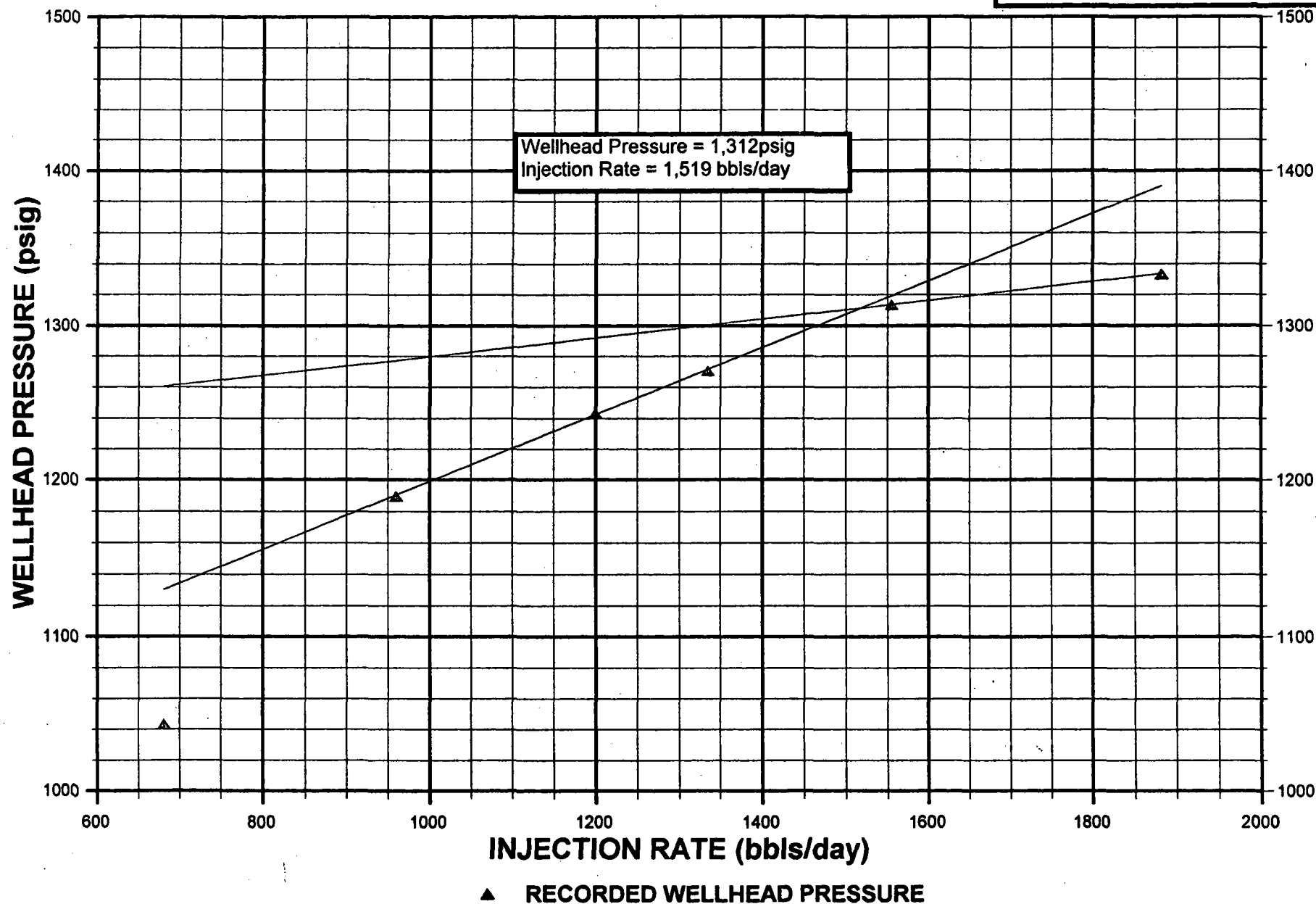
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	10:54	1230.0				1230.0		
	10:55	1227.4				1227.4		
	11:00	1213.2				1213.2		
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STRATA PRODUCTION COMPANY

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NASH UNIT No. 4  
EDDY COUNTY, NEW MEXICO

