CONDITIONS OF APPROVAL, IF ANY:

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

Form C-103 Revised 1-1-89

DISTRICT I OIL CONSERVAT	ION DIVISION	WELL API NO.
P.O. Box 1980, Hobbs, NM 88240 2040 Pacheco S	t.	30-025-11863
DISTRICT II P.O. Drawer DD, Artesia, NM 88210	07000	sIndicate Type of Lease
		STATE X FEE
<u>DISTRICT III</u> 1000 Rio Brazos Rd., Aztec, NM 87410		₅State Oil & Gas Lease No.
		19276
SUNDRY NOTICES AND REPORTS ON W (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEP!		rLease Name or Unit Agreement Name
DIFFERENT RESERVOIR. USE "APPLICATION FOR F	PERMIT"	vreese usine or our Wheeliett usine
(FORM C-101) FOR SUCH PROPOSALS.)  (Type of Well:		
OIL GAS WELL THER		Amott Ramsay NCT-B
₂Name of Operator Doyle Hartman	entre de la constantina della	ĕWell No.
aAddress of Operator		Pool name or Wildcat
500 N. Main St., Midland, TX 79701		Jalmat (T-Y-7R)
√Well Location  Unit Letter A: 660' Feet From The North	Line and 660'	Feet From The East Line
Section 32 Township 25S	Range 37E	NMPM Lea County
toElevation (Show whether I	3004' GR	
11 Check Appropriate Box to Indicate	Nature of Notice, Re	port, or Other Data
NOTICE OF INTENTION TO:		SEQUENT REPORT OF:
PERFORM REMEDIAL WORK PLUG AND ABANDON	REMEDIAL WORK	ALTERING CASING
TEMPORARILY ABANDON CHANGE PLANS	COMMENCE DRILLING O	
PULL OR ALTER CASING	CASING TEST AND CEME	lead to the second seco
OTHER:	OTHER: Re-Enter & R	eturn Well to Active Producing Staus
12Describe Proposed or Completed Operations (Clearly state all pertinent details, and work) SEE RULE 1103.	give pertinent dates, including es	
For details of completed operations, please refer to pages 2 thru 11 attached	d hereto, and made a part h	ereof. 1234561
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I hereby certify that the information above is faue and complete to the best of my know	wledge and belief.	
SIGNATURE SIGNATURE	TITLE Engineer	DATE 10/29/2003
TYPE OR PRINT NAME Steve Hartman		IELEPHONE NO. (915) 684-4011
(This space for State Use)		
		MAY 0.2 a
APPROVED BY June 7 June 19	PETROLEUA	A ENGINEED DATE MAY 0.3 2884
CONDITIONS OF APPROVAL, IF ANY:		- MAI O SOUT

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## **Details of Completed Operations**

Moved in well service unit and reverse drilling equipment. Commenced drilling through upper cement plug on 10/29/01. Fell through upper plug at 29'.

Ran 189.33' bottom-hole drilling and cleanout assembly, consisting of 7 7/8" bit and (6) 4 3/4" O.D. drill collars, to 2411'. Hooked up power swivel. Circulated and rotated down to a hard bottom, at 3584' RKB (106 jts @ 31.68'jt + 30' of 107th jt + 189.33'BHA - 3'AGL + 10'KBC = 3584.41'). Circulated hole clean, with 2% KCl water. Pulled bottom-hole drilling assembly.

Rigged up Schlumberger. Logged well with DS-CNL-GR-CCL log and VDCBL-GR-CCL log.

Pressure tested 8 5/8" O.D. intermediate casing, to 500 psi. Pressure held okay.

Ran 2 3/8" O.D. tubing, to 3158'. Hooked up air units. Unloaded 2% KCl water from hole. Pulled 2 3/8" O.D. tubing.

Rigged up wireline truck. Perforated Seven Rivers Formation with (21) 0.44" x 23" holes, with one shot each, at:

2900	2965	3001	3051	3070
2902	2977	3029	3054	
2923	2988	3031	3057	
2925	2991	3033	3060	
2957	2999	3035	3068	

Ran Baker 8 5/8" Model "C" packer to 3088'. Spotted 250 gal of 15% MCA acid across perfs, from 2900' to 3070'. Raised and set 8 5/8" Model "C" packer at 2860'. Loaded tubing with an additional 350 gal of 15% MCA acid. Allowed acid to soak for 30 minutes.

Acidized perfs, from 2900' to 3070' (21 holes), with an additional 2000 gal of 15% MCA acid and 27 ball sealers, at an average treating rate of 7.3 BPM, and average treating pressure of 2758 psi.  $TP_{mx} = 3796$  psi (at ballout). ISIP = 290 psi. 5-min SIP = 0 psi.

Pulled 8 5/8" Model "C" packer.

Ran and landed bottom of 2 3/8" O.D. tubing at 3227' RKB (101 jts @ 31.68'/jt + 1.1'SN + 18'MA - 2' AGL + 10'KBC = 3226.78'). Ran 2" x 1 1/4" x 12' RHAC insert pump and 3/4" API Class "KD" rod string, consisting of (127) 3/4" x 25" Axelson S-87 rods. Commenced pump

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testing perfs, from 2900' to 3070' (21 holes), on 11-2-01, at 7.5 Spm x 64" x 1 1/4". Moved off well service unit.

## Tested well as follows:

Date: 11-7-01 Test Period: 24 hrs

Gas Rate = 0 MCFPD (casing shut in)

Water Rate = 83.25 BPD SICP = 262 psi

Date: 11-8-01

Gas Rate = 0 MCFPD (casing shut in)

SICP = 310 psi

Moved in and rigged up well service unit, on 11-8-01. Pulled rods and pump. Pulled 2 3/8" O.D. tubing.

Rigged up wireline truck. Perforated 8 5/8" O.D. casing, from 3094' to 3191', with (11) 0.44" x 23" holes, with one shot each at:

3094 3145 3191 3096 3160 3123 3162 3125 3187 3127 3189

Ran and set Halliburton 8 5/8" EZ-Drill retainer at 2884'. While setting retainer, hit fluid at 2200'.

Ran 2 3/8" O.D. tubing equipped with cementing stinger. Loaded 8 5/8" O.D. casing with 2% KCl water. Tested 2 3/8" O.D. tubing to 4000 psi. Pressured 8 5/8" O.D. casing to 500 psi. Squeeze cemented perfs, from 2900' to 3191', with a total of 1500 sx of cement, consisting of 1000 sx of API Class "C" Neat cement, followed by 250 sx of API Class "C" cement containing 2% CaCl<sub>2</sub>, 0.25 lb/sx Flocele, and 3 lb/sx Gilsonite, followed by 250 sx of API Class "C" cement containing 3% CaCl<sub>2</sub>, 0.25 lb/sx Flocele, and 3 lb/sx Gilsonite. Final cementing rate = 3.2 BPM, at 1566 psi. ISIP = 720 psi.

Pulled 2 3/8" O.D. tubing and cementing stinger.

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Ran 2 3/8" O.D. tubing to 2873'. Rigged up air units. Unloaded water from 8 5/8" O.D. casing. Pulled 2 3/8" O.D. tubing.

Rigged up wireline truck. Perforated Yates interval, from 2569' to 2811', with (20) 0.44" x 23" holes, with one shot each, at:

2569	2641	2778	2797
2571	2645	2785	2800
2629	2648	2789	2803
2632	2771	2792	2807
2635	2775	2795	2811

Ran 8 5/8" Model "C" RBP and 8 5/8" Model "C" packer. Set 8 5/8" Model "C" RBP at 2850'. Raised 8 5/8" Model "C" packer to 2825'. Spotted 300 gal of 15% MCA acid across and above lower perfs, from 2771' to 2811' (12 holes). Raised and set 8 5/8" Model "C" packer at 2733'. Acidized perfs, from 2771' to 2811', with an additional 2000 gal of 15% MCA acid and 17 ball sealers, at an average treating of 4.2 BPM and average treating pressure of 800 psi. Final treating rate was 4.2 BPM, at 1417 psi. ISIP = 13 psi. 10-sec SIP = 0 psi.

Raised and set 8 5/8" Model "C" RBP at 2700'. Raised 8 5/8" Model "C" packer to 2669'. Spotted 350 gal of 15% MCA acid across upper perfs, from 2569' to 2648' (8 holes).

Raised and set 8 5/8" O.D. Model "C' packer at 2509'. Acidized perfs, from 2569' to 2648' (8 holes), with an additional 1350 gal of 15% MCA acid and 12 ball sealers, at an average treating rate of 4.1 BPM and average treating pressure of 1114 psi. Final treating rate was 4.1 BPM, at 1378 psi. ISIP = 508 psi. 20-sec SIP = 0 psi.

Pulled 8 5/8" Model "C" packer and 8 5/8" Model "C" RBP.

Ran 2 3/8" O.D. tubing to 2870'. Rigged up air units. Unloaded 53 bbls of acid water to blowdown tank. Landed bottom of 2 3/8" O.D. tubing at 2846' RKB (89 jts @ 31.68'/jt + 1.1'SN + 18'MA - 3'AGL + 10'KBC = 2845.62').

Ran 2" x 1 1/4' x 12' RHAC insert pump and 3/4" API Class "KD" rod string consisting of (112) 3/4" x 25' Axelson S-87 rods. Commenced pump testing well at 10:30 a.m., 11-13-01, at 7.5 Spm x 64" x 1 1/4".

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Tested well as follows:

Date: 11-14-01
Test Time: 8:00 a.m.
Test Period: 21.5 hrs

Gas Rate = 0 MCFPD (casing shut in)

Water Rate = 13 BPDSICP = 24.25 psi

Opened casing through 0.250" orifice plate, at 9:30 a.m., 11-14-01. Tested well as follows:

Date: 11-14-01 Test Time: 11:45 a.m. Gas Rate = 17 MCFPD FCP = 2.3 psi

Pulled rods and tubing. Rigged up wireline truck. Perforated with (11) 0.44" x 23" holes, with one shot each, at:

2556 2604 2730 2563 2609 2577 2616 2581 2720 2597 2723

Ran 8 5/8" Model "C" RBP and 8 5/8" Model "C" packer. Set 8 5/8" Model "C" RBP at 2750'. Raised 8 5/8" Model "C" packer to 2740'. Spotted 300 gal of 15% MCA acid across and above perfs, from 2556' to 2730' (8 + 11 = 19 holes).

Raised and set 8 5/8" Model "C" packer at 2509'. Let acid soak for 30 minutes. Acidized perfs, from 2556' to 2730' (19 holes), with an additional 2000 gal of 15% MCA acid and 30 ball sealers, at an average treating rate of 6.0 BPM and average treating pressure of 2050 psi. ISIP = 520 psi.  $Tp_{mx} = 3200$  psi (at ballout). ISIP = 520 psi. 1-min SIP = 0 psi.

Pulled 8 5/8" Model "C" RBP and 8 5/8" Model "C" packer.

Ran and landed 2 3/8" O.D. tubing at 2846' RKB (89 jts @ 31.68'/jt + 1/1'SN + 18'MA - 3'AGL + 10' KBC = 2845.62'). Ran 2" x 1 1/4" x 12' RHAC insert pump and 3/4" API Class "KD" rod string. Commenced pump testing well at 10:30 p.m., 11-14-01, at 7.5 Spm x 64" x 1 1/4".

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Tested well as follows:

Date:

11-16-01

Test Time:

8:00 a.m.

Test Period:

24 hrs

Gas Rate

0 MCFPD (casing shut in)

Water Rate

4.2 BPD

SICP

31.3 psig.

Pulled rods and tubing.

Ran 2 3/8" O.D. tubing and 8 5/8" Model "C" packer. Set 8 5/8" Model "C" packer at 2383'. Loaded 8 5/8" O.D. casing with water. Pressured casing to 500 psi.

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Established an injection rate of 3.4 BPM, at 150 psig, down 2 3/8" O.D. tubing. Cemented perfs, from 2556' to 2811' (31 holes), with 500 sx of cement, consisting of 300 sx of API Class "C" Neat cement, followed by 200 sx of API Class "C" cement containing 2% CaCl<sub>2</sub>, 0.25 lb/sx Flocele, and 3 lb/sx Gilsonite. Displaced cement to 2544', with 19 bbls of water. Maximum cementing rate was 4.6 BPM. Final cement rate was 1.8 BPM, at 2454 psi. ISIP = 1646 psi. 5min SIP = 1142 psi.

Pulled 8 5/8" Model "C" packer.

Ran 373.30' bottom-hole drilling assembly consisting of 7 7/8" bit and (12) 4 3/4" O.D. drill collars. Tagged top of cement at 2547'. Drilled hard cement from 2547' to 2826'.

Drilled 8 5/8" EZ-Drill retainer, at 2884', and 305' of cement, from 2886' to 3191'. Fell out of cement at 3191'. Ran bottom-hole drilling assembly to PBTD, at 3577'. Loaded hole with clean 2% KCl water. Pulled bottom-hole drilling assembly.

Ran combination 7" O.D., 23 lb/ft x 5 1/2", 15.5 lb/ft casing string, with bottom of 5 1/2" O.D. casing shoe located at 3576', 5 1/2" O.D. float collar located at 3560', and 7" O.D. x 5 1/2" O.D. crossover located at 2466'. Installed (20) 8 5/8" x 5 1/2" centralizers, between 2466' and 3560'.

Hung combination 7" x 5 ½ casing string, and sealed 8 5/8" x 7" casing annulus by welding 7" O.D. casing to top of 8 5/8" O.D. casing. Installed 7" slip x thread collar. Installed 3" threaded outlet on side of 8 5/8" O.D. casing.

Pumped 150 bbls of water down 7" O.D. casing and back up 8 5/8" O.D. casing, at 3.5 BPM, at 525 psi.

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Pressured 7" O.D. casing, and 8 5/8" x 7" annulus, to 800 psi. Pumped water down 13 3/8" O.D. casing, at 4 BPM, at 300 psi. Cemented down 13 3/8" O.D. casing, with 500 sx of cement, consisting of 150 sx of API Class "C" cement containing 2% CaCl<sub>2</sub>, 0.25 lb/sx Flocele, and 3 lb/sx Gilsonite, followed by 350 sx of API Class "C" cement containing 2% CaCl<sub>2</sub>. Final cementing rate was 1.1 BPM, at 421 psi. ISIP = 228 psi.

Cemented down 7" O.D. casing, with a total of 550 sx of cement, consisting of 350 sx of API Class "C" cement, followed by 200 sx of API Class "C" cement containing 2% CaCl<sub>2</sub>. Displaced wiper plug with 119 bbls of water. Final displacement rate was 3.5 BPM, at 2016 psi. Maximum cementing rate was 7.4 BPM.

Shut 3" ball valve on side of 8 5/8" O.D. casing. Pressured 8 5/8" O.D. casing to 700 psi. Released pressure inside of 7" O.D. casing. Installed 7" x 2" swedge in top of 7" O.D. casing.

WOC for six days, from 11-20-01 to 11-26-01.

Installed B & M Oil Tool 7"  $\times$  2 3/8"  $\times$  3 1/2" Type MR tubinghead. Installed BOP. Ran 184.49' bottom-holed drilling assembly consisting of 4 3/4" bit, 5 1/2" casing scraper, and (6) 3 1/2" O.D. drill collars. Tagged wiper plug at 3410'.

Rigged up reverse drilling equipment. Drilled cement to 3567'. Circulated hole clean. Pulled bottom-hole drilling assembly.

Rigged up Schlumberger. Logged well with VDCBL-GR-CCL log, from 0' to 3573'.

Ran 2 3/8" O.D. tubing to 3226'. Rigged up air units. Blew hole dry. Pulled 2 3/8" O.D. tubing.

Rigged up wireline truck. Perforated 5 1/2" O.D. casing, with (24) 0.44" x 23" holes, with one shot each, at:

2564	2597	2641	2772	2799
2569	2601	2645	2776	2802
2572	2616	2649	2786	2807
2576	2632	2721	2790	2811
2581	2635	2729	2794	

Ran 5 1/2" Model "C" RBP and 5 1/2" Model "C" packer. Set 5 1/2" Model "C" RBP at 2834'. Raised 5 1/2" Model "C" packer to 2828'. Spotted 350 gal of 15% MCA acid across and above perfs.

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Raised and set 5 1/2" Model "C" packer at 2675'. Acidized perfs, from 2721' to 2811' (11 holes) with an additional 2200 gal of 15% MCA acid and 15 ball sealers, at an average rate of 5.0 BPM and average treating pressure of 1860 psi.  $TP_{mx} = 2900$  psi (at ballout). ISIP = 79 psi. 15-sec SIP = 0 psi.

Raised and set 5 1/2" Model "C" RBP at 2690'. Raised 5 1/2" Model "C" packer to 2665'. Spotted 200 gal of 15% MCA acid across perfs, from 2564' to 2649' (13 holes).

Raised and set 5 1/2" Model "C" packer at 2510'. Let acid soak for 30 minutes. Acidized perfs, from 2564' to 2649' (13 holes), with an additional 2450 gals of 15% MCA acid and 19 ball sealers, at an average treating rate of 5.0 BPM, and average treating pressure of 1920 psi.  $TP_{mx} = 2900$  psi (at ballout). ISIP - 723 psi. 15-sec SIP = 0 psi.

Pulled 5 1/2" Model "C" packer and 5 1/2" Model "C" RBP.

Ran and landed 2 3/8" O.D. tubing, at 3290' RKB (103 jts @ 31.68'/jt + 1.1'SN + 18'MA - 2'AGL + 10'KBC = 3290.14). Hooked up air unit. Recovered 27.5 bbls of load water.

Ran 2" x 1 1/4" x 12' RHAC insert pump and (130) 3/4" x 25' API Class "KD" rods. Started pumping well, at 7:00 p.m., 11-27-01, at 7.5 Spm x 64" x 1 1/4". Moved off well service unit.

Tested well as follows:

 Date:
 11-29-01

 Test Time:
 8:00 a.m.

 Test Period:
 24 hrs

 Gas Rate
 =
 16 MCFPD

 Water Rate
 =
 7.5 BWPD

 Orifice Plate
 =
 0.250"

 CP
 =
 1.5 psi

Moved in and rigged up well service unit, on 12-3-01. Pulled rods and pump. Raised and landed bottom of 2 3/8" O.D. tubing at 2436' RKB (76 jts @ 31.68/jt + 1.1'SN + 18'MA + 2'CBJ - 3'AGL + 10'KBC = 2435.78'). Installed heavy-duty frac valves. Made up flowing wellhead assembly.

Shut in well for overnight pressure buildup.

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**Pressure Buildup** 

	<u> </u>	ressure Dunau		1
<u>Date</u>	Time (CST)	Elapsed Time <u>(hrs)</u>	CP (psig)	<u>Remarks</u>
12-3-01	10:45 a.m.	0	0	Shut in well
12-3-01	11:00 a.m.	0.250	3	
12-3-01	11:15 a.m.	0.500	5	
12-3-01	11:30 a.m.	0.750	7.5	
12-3-01	11:45 a.m.	1.000	10.0	
12-3-01	12:00 p.m.	1.250	12.5	
12-3-01	1:00 p.m.	2.250	20.5	
12-3-01	2:00 p.m.	3.250	30.0	
12-3-01	3:00 p.m.	4.250	37.0	
12-3-01	4:00 p.m.	5.250	43.8	
12-3-01	5:00 p.m.	6.250	50.0	
12-3-01	6:00 p.m.	7.250	55.0	
12-3-01	7:00 p.m.	8.250	60.0	
12-3-01	8:00 p.m.	9.250	65.0	
12-3-01	9:00 p.m.	10.250	68.8	
12-3-01	10:00 p.m.	11.250	71.0	
12-3-01	11:00 p.m.	12.250	74.5	
12-4-01	12:00 a.m.	13.250	77.0	
12-4-01	1:00 a.m.	14.250	79.5	
12-4-01	2:00 a.m.	15.250	80.0	
12-4-01	3:00 a.m.	16.250	81.3	

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Test Period:

24 hrs

Gas Rate

0 MCFPD (Casing shut in)

Water Rate

118.2 BPD

**SICP** 

139.5 psig

Fluid Level

81 jts (2566')

Removed Lufkin C-114D-143-64 pumping unit. Installed C-228D-213-86 pumping unit, on 12-10-01.

Utilizing C-228D-213-86 pumping unit, tested well as follows, through orifice tester:

Date:

12-17-01

Test Time:

11:45 a.m.

Test Period:

24 hrs

Gas Rate

256 MCFPD

Water Rate Plunger Efficiency **203 BWPD** 

CP

99.5%

86.1 psig

 $CO_2$ 

11%

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On 12-18-01, rigged up Cardinal Surveys. Performed pumping down-hole production surveys (temperature, capacitance, and tracer surveys) via casing-tubing annulus. Continued cleaning up load and depleting water production.

## Performed potential test:

Date:

3-5-02

Test Time:

9:30 a.m.

Test Period:

23.5 hrs

Choke Size:

26/128

Gas Rate

Water Rate

322 MCFPD

Plunger Efficiency

**180 BWPD** 88.2%

CP

38.0 psig

6 %

 $CO_2$ 

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