Submit 3 Copies to Appropriate District Office

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State of New Mexico Energy, Minerals and Natural Resources Department

<u>DISTRICT I</u> P.O. Box 1980, Hobbs, NM 88240	2	ISERVAT	St.	ISION	WELL API NO. 30-025-10903			
DISTRICT II P.O. Drawer DD, Artesia, NM 88210		Santa Fe, NM	87505		sIndicate Type of Leas	e STATE	FEE	
<u>DISTRICT III</u> 1000 Rio Brazcs Rd., Aztec, NM 87410					₀State Oil & Gas Leas			
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.)					∍Lease Name or Unit Agreement Name R. W. Cowden "C"			
IType of Well: OiL GAS WELL WELL S		OTHER						
₂Name of Operator Doyle Hartman					⊮WellNo. 4			
sAddress of Operator 500 N. Main St., Midland, Texas 79	9701				₀Pool name or Wildcat Jalmat (Gas)			
Well Location Unit Letter <u>C</u> : <u>990</u>	Feet From The	North	Line and	1980	Feet From The	West	Line	
Section 31	Township	23S	Range	37E	NMPM	Lea	County	
10Elevation (Show whether DF, RKB, RT, GR, etc.) 3328' DF								
¹¹ Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data								
NOTICE OF INTENTION TO:				SUBS	SUBSEQUENT REPORT OF:			
	PLUG AND	ABANDON		L WORK		ALTERING CAS		
	CHANGE P	ANS		ICE DRILLING O	PNS.	PLUG AND ANB		
PULL OR ALTER CASING			CASING	TEST AND CEME				
OTHER:				Return Jalma	at to Production	· · · · · · · · · · · · · · · · · · ·	X	

12Describe 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 details of completed operations, please refer to pages 2 of 4, 3 of 4 and 4 of 4, attached hereto.

I hereby certify that the information above is true and complete to the best SIGNATURE	• •	and belief. Production Analyst	DATE 04-16-01
TYPE OR PRINT NAME TRICIA Smith			TELEPHONE NO. 915-684-4011
(This space for State Use)		Oris etimen by Petil Kautz	Addition of the
APPROVED BY	TITLE	Petul Antonio	DATE 0 3 2001
CONDITIONS OF APPROVAL, IF ANY:			

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DETAILS OF COMPLETED OPERATIONS

Rigged up well service unit, on 1-31-01. Ran bottom-hole pressure bomb. Found PBTD at 3156'. Measured static pressure gradient, from 0' to 3150'. Found top of fluid at 2010'. BHP = 416 psig, at 3150'.

Ran Baker 5 1/2" Model "C" RBP and 5 1/2" Model "C" packer. Set RBP at 2952'. Pressure tested 5 1/2" O.D. casing, from 23' to 2952', to 2700 psi. Pressure held okay.

Moved off well service unit. Moved in bulldozer and track hoe. Dug 33' deep hole around well. Rigged up welder. Cut and removed corroded 8 5/8" O.D. casing. Cut and backed off corroded and defective 5 1/2" O.D. casing. Found good quality cement between 8 5/8" O.D. casing and 5 1/2" O.D. casing, at 32'.

Installed new threaded 5 1/2" O.D. x 31.8' tieback joint. Tightened 5 1/2" O.D. tieback joint. Welded around casing collar.

Using 8 5/8" slip x thread collar, installed new 8 5/8" O.D. x 32.0' tieback joint. Sealed 8 5/8" x 5 1/2" casing annulus with 8 5/8" x 5 1/2" x 0.5" welded steel seal ring.

Welded (1) 2" threaded collar to side of 8 5/8" O.D. casing, at bottom of 8 5/8" O.D. tieback joint. Welded (2) 2" threaded collars to side of 8 5/8" O.D. casing, at top of 8 5/8"O.D. tieback joint. Installed 2" riser back to surface, from bottom of 8 5/8" O.D. tieback joint.

Installed 54" O.D. x 32.6' corrugated steel cellar can. Backfilled around cellar can. Partially filled 54" O.D. steel cellar can with 16.5 cu.yds. of redi-mix concrete.

Moved well service unit back onto well. Ran bottom-hole drilling assembly. Cleaned out fill, to top of cement, at 3260'. Drilled cement, to top of CIBP, at 3288'. Drilled on 5 1/2" CIBP, for 2.63 hrs, before slips relaxed. Pushed remainder of CIBP to 3530'.

Set Halliburton 5 1/2" EZ-Drill Type SV retainer, at 3424'. Ran Baker 5 1/2" Model "C" packer, to 3250'. Pressure tested retainer to 1800 psi. Pressure held okay. Pulled packer.

Ran 2 3/8" O.D. tubing, with cementing stinger. Rigged up Halliburton. Stung into retainer. Established an injection rate of 3.5 BPM, at 2300 psi. Squeeze cemented open-hole interval with 425 sx of API Class-C cement containing 2% $CaCl_2$, 0.25 lb/sx Flocele, and 5 lbs/sx Gilsonite, at an average cementing rate of 4 BPM and average cementing pressure of 2300 psi. Final cementing rate was 1.5 BPM, at <u>3581</u> psi.

Set Baker 5 1/2" Model "C" packer at 130'. Pressured 5 1/2" O.D. casing, from 0' to 130', to 400 psi. Tied Halliburton to 2" riser. Cemented 8 5/8" x 5 1/2" annulus (from 0' to 32.5'), and filled



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remainder of 54" O.D. cellar can, by cementing down 2" riser and back out 2" wing outlets, at top of 8 5/8" O.D. casing, with 60 sxs of API Class "C" cement containing 2% CaCl₂.

After filling cellar can, closed 2" wing valves, at top of 8 5/8" O.D. casing. Pressured 8 5/8" x 5 1/2" annulus, to 360 psi. Closed 2" riser valve. Left 360 psi on 8 5/8" x 5 1/2" casing annulus. Released pressure on 5 1/2" O.D. casing. Rigged down Halliburton.

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

Rigged up Capitan Corporation wireline truck. Perforated (7) 0.44" x 23" cement test holes, from 3405' to 3411'. Ran Baker 5 1/2" Model "C" packer. Set packer at 3370'. Tested lower - wellbore cement integrity, by pressuring test perfs, from 3405' to 3411', to a bottom-hole pressure of 3332 psi (0.98 psi/ft). Cement tested okay, with no pressure leak off.

Set CIBP at 3399' and 3395' (above cement test perfs).

Perforated original Jalmat (Yates) producing interval, from 3000' to 3195' (700 original holes), with an additional (33) 0.44" x 23" holes, with one shot each at:

2993	3019	3043	3103	3166	3189
3003	3023	3046	3111	3169	3193
3005	3033	3071	3114	3172	3195
3007	3035	3077	3117	3174	
3009	3037	3079	3162	3176	
3017	3039	3101	3164	3179	

Spotted 750 gal of 15% MCA acid across and above perfs. Acidized perfs, from 2993' to 3195' (733 holes), in 3 stages, with an additional 9100 gal (total of 9850 gal) of 15% MCA acid and 620 ball sealers.

Ran and landed bottom of 2 3/8" O.D. production tubing at 3314' G.L. Ran 2" x 1 1/4" x 12' RHAC insert pump and 3/4" rod string. Started pumping well, at 9:30 P.M., CST, 2-16-01, at 8.8 x 64 x 1 1/4.

On 4-9-01, rigged up well service unit. Pulled rods and 2 3/8" O.D. production tubing. Ran Halliburton 5 1/2" x 4' PLS treating packer and 3 1/2" O.D., 9.3 lb/ft, N-80 frac tubing. Set treating packer at 2908' G.L.

Rigged up Halliburton. Fracture stimulated Jalmat (Yates) perfs, from 2993' to 3195' (733 holes), with 218,372 gal of foam (50.6% CO₂) and 540,280 lbs of 20/40, 10/20, and 8/16 frac sand, at an average treating rate of 39.45 BPM and average wellhead tubing pressure of 2949 psi.

Flowed well to blowdown tank, for 17.750 hrs.



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Pulled and laid down 3 1/2" O.D. frac tubing and Halliburton 5 1/2" PLS treating packer. Ran 2 3/8" O.D. production tubing. Hooked up air units. Cleaned out frac sand, to 3395'.

Raised and landed bottom of 2 3/8" O.D. production tubing at 3314' G.L. Ran 2" x 1/4" x 16' RHAC insert pump and 3/4" rod string. Resumed pumping well, at 12:00 P.M., 4-12-01, at 8.8 x 64 x 1 1/4.



