

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION
2040 Pacheco St.
Santa Fe, NM 87505

WELL API NO.	30-025-09226
Indicate Type of Lease	STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
State Oil & Gas Lease No.	B-1327
Lease Name or Unit Agreement Name	Mexico "E" Com (Formerly Hobbs "K" No. 2)
Well No.	3
Pool name or Wildcat	Jalmat / Langlie Mattix

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.)	
Type of Well: OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER	
Name of Operator Doyle Hartman	
Address of Operator 500 N. Main St., Midland, TX 79701	
Well Location Unit Letter M : 660' Feet From The South Line and 660' Feet From The West Line Section 2 Township 23S Range 36E NMPM Lea County	
Elevation (Show whether DF, RKB, RT, GR, etc.) 3461' RKB	

11

Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

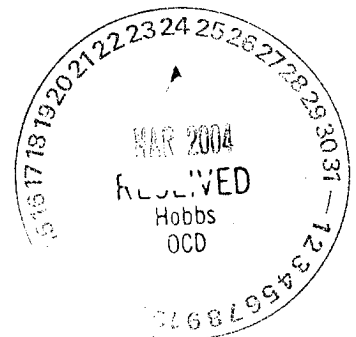
PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐
OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ PLUG AND ANBANDONMENT ☐
Casing & Cement Repair ☒
OTHER: Perforate, Acidize & Frac Y-7R-Qn ☒

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 details of completed wellbore repair and reserve enhancement operations, and review of upper long-string cementing and bond log results, please refer to pages 2 of 8 thru 8 of 8 attached hereto, and made a part hereof.



I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Steve Hartman TITLE Engineer DATE 03/22/2004

TYPE OR PRINT NAME Steve Hartman TELEPHONE NO. (432) 684-4011

(This space for State Use)

APPROVED BY [Signature] TITLE PETROLEUM ENGINEER DATE JUN 25 2004
CONDITIONS OF APPROVAL, IF ANY:

Page 2 of 8
NMOCD Form C-103 dated March 22, 2004
Doyle Hartman
Mexico "E" Com No. 3
(Formerly Hobbs "K" No. 2)
M-2-23S-36E
API No. 30-025-09226

Details of Completed Wellbore Repair and Reserve Enhancement Operations

On 10-14-02, 5 1/2" CP = 17 psi and 8 5/8" CP= 0 psi. Moved in well service unit. Pulled and laid down rods and pump. Laid down old 2 3/8" O.D. tubing string.

Ran 5 1/2" Model "C" RBP and 5 1/2" Model "C" packer. Set 5 1/2" Model "C" RBP at 3490'. Set 5 1/2" Model "C" packer at 3458'. Tested 5 1/2" Model "C" RBP to 2500 psi. Tested okay.

Pressure tested 5 1/2" O.D. casing, from surface to 3490'. Pumped into well at 3 BPM, at 500 psi. Observed blow on 8 5/8" O.D. casing. Located defective 5 1/2" O.D. casing, between 463' and 527'. Circulated 30 bbls of water down 5 1/2" O.D. casing and back up 8 5/8" x 5 1/2" casing annulus. Pulled and laid down 2 7/8" O.D. work string. Poured 4 sx of frac sand on top of 5 1/2" Model "C" RBP.

Moved off well service unit. Moved off American C-57D pumping unit. Moved in trackhoe. Dug out around well. Found holes in 8 5/8" O.D. casing, from surface down to a depth of 6.5'.

Replaced upper 5.8' of 5 1/2" O.D. casing and upper 7' of 8 5/8" O.D. casing. Sealed 8 5/8" x 5 1/2" casing annulus with 8 5/8" x 5 1/2" x 1/2" welded steel seal ring. Installed high-pressure 2" threaded tap on side of 8 5/8" O.D. casing. Wrapped exposed casing and piping with corrosion-resistant tape. Installed 52" O.D. x 8' corrugated steel cellar can. Backfilled around cellar can.

Installed Halliburton 5 1/2" cementing head. Established injection down 5 1/2" O.D. casing, at a rate of 5 BPM, at 950 psi. Mixed and pumped 525 sx of API Class "C" cement containing 3% CaCl₂, 5 lb/sx Gilsonite, 0.25 lb/sx Flocele, at an average pump rate of 6 BPM, and average pump pressure of 800 psi. Obtained cement returns back to surface after pumping 60 bbls (255 sx) of cement slurry. Shut 8 5/8" x 5 1/2" annulus valve. Squeezed away remaining 66 bbls (280 sx) of slurry. After closing 8 5/8" x 5 1/2" annulus valve, observed cement slowly rising into bottom of cellar can, on outside of 8 5/8" O.D. casing. Displaced cement with 9.8 bbls of water.

Ran 2 7/8" tubing and 178.19' bottom-hole drilling assembly. Tagged top of cement at 387'. Drilled cement from 387' to 521'. Fell out of cement at 521'. Circulated hole clean. Pulled 178.19' bottom-hole drilling assembly.

Ran 5 1/2" casing scraper to 601'. Pulled 5 1/2" casing scraper.

Ran 2 7/8" O.D. work string. Circulated sand off of 5 1/2" Model "C" packer. Unloaded water from hole, to blowdown tank. Blew hole dry. Recovered 5 1/2" Model "C" RBP.

Page 3 of 8
NMOCD Form C-103 dated March 22, 2004
Doyle Hartman
Mexico "E" Com No. 3
(Formerly Hobbs "K" No. 2)
M-2-23S-36E
API No. 30-025-09226

Ran 532.58' bottom-hole drilling and cleanout assembly. Cleaned out wellbore to 3700'. Drilled 4 3/4" hole to 3710'. Circulated hole clean and dry. Tripped out of hole.

Installed 4 3/4" button bit. Tripped into hole with 532.58' bottom-hole drilling assembly. Drilled 4 3/4" hole to 3828'. Encountered increased water influx at 3822'. Circulated hole clean. Pulled 532.58' bottom-hole drilling assembly.

Ran 198.05' string-mill assembly to 3828'. Circulated hole clean. Pulled string-mill assembly.

Rigged up Schlumberger. Logged well with SAS-CNL-GR-CCL log and VDCBL-GR-CCL log. Found good cement placement, from surface to 520'.

Re-ran 198.05' string-mill assembly. Rotated 4 3/4" string-mill assembly, from 3700' to 3828'. Pulled string-mill assembly.

Ran and set 4 1/2" O.D., 11.6 lb/ft, J-55, FJ liner, from 3306' to 3823'. Ran and set 5 1/2" Model "C" packer at 3168'. Squeezed 4 1/2" O.D. flush-joint liner into place utilizing a total of 2000 cu. ft. (1500 sx) of cement slurry, consisting of 700 sx of API Class "C" cement containing 2.5% CaCl₂, followed by 700 sx of API Class "C" cement containing 2.5% CaCl₂, 5 lb/sx Gilsonite, 0.25 lb/sx Flocele, followed by 100 sx of API Class "C" neat cement. Mixed and pumped cement at an average pump rate of 10 BPM, and average pump pressure of 4000 psi.

Displaced cement with 19.6 bbls of water, in 6 stages. Final displacement pressure, on 6th stage, was 3789 psi. Pulled 5 1/2" Model "C" packer.

Installed Halliburton 5 1/2" cementing head. Re-squeezed casing hole (at approximately 520') with 1150 cu. ft. (875 sx) of cement slurry, consisting of 700 sx of API Class "C" cement containing 3% CaCl₂, 5 lb/sx Gilsonite, 0.25 lb/sx Flocele, followed by 175 sx of API Class "C" cement containing 2.5% CaCl₂, 5 lb/sx Gilsonite, 0.25 lb/sx Flocele. Mixed and pumped cement at an average pump rate of 7 BPM and average pump pressure of 1550 psi. Displaced cement with 9.8 bbls of water. 10-min SIP = 1190 psi. 15-min SIP = 1188 psi. Filled cellar can with cement.

Ran work string equipped with 178.76' bottom-hole drilling assembly. Tagged top of cement at 386'. Drilled cement from 386' to 568'. Fell through hard cement at 526'. Circulated hole clean.

Lowered work string. Tagged cement at 3161'. Drilled cement from 3161' to top of 4 1/2" O.D. FJL, at 3306'. Circulated hole clean. Pulled and laid down 2 7/8" O.D. work string and large-bore bottom-hole drilling assembly.

Page 4 of 8
NMOCD Form C-103 dated March 22, 2004
Doyle Hartman
Mexico "E" Com No. 3
(Formerly Hobbs "K" No. 2)
M-2-23S-36E
API No. 30-025-09226

Ran 2 3/8" O.D. tubing and 176.78' small-bore bottom-hole drilling assembly consisting of 3 7/8" blade bit and (6) 3 1/2" O.D. drill collars. Drilled cement from 3306' to 3815'. Circulated hole clean.

Pulled and laid down small-bore bottom-hole drilling assembly.

Picked up and ran 4 7/8" bit and 5 1/2" casing scraper, to 3306' (top of 4 1/2" O.D. liner). Pulled 5 1/2" casing scraper and 4 7/8" bit.

Ran 3 7/8" bit and 4 1/2" casing scraper to 3815'. Circulated hole clean. Pulled 4 1/2" casing scraper and 3 7/8" bit.

Ran and set 5 1/2" Model "C" packer, at 3000'. Tested wellbore, from 3000' to 3815', to 3000 psi, for 20 minutes. Pressure held okay. Pulled 5 1/2" Model "C" packer.

Ran 2 3/8" O.D. tubing to 3604'. Hooked up air unit. Unloaded water from hole, to blowdown tank. Pulled 2 3/8" O.D. tubing.

Select-fire perforated lower portion of Y-7R-Qn gas interval with (12) 0.38" x 17" holes, with one shot each at:

3446	3479	3542	3578
3450	3526	3549	3581
3477	3533	3567	3589

Ran 4 1/2" Model "C" packer to 3610'. Pumped 100 gal of 15% MCA acid down tubing, followed by 0.5 bbls of 2% KCl water. Allowed acid to fall and equalize.

Raised and set 4 1/2" Model "C" packer at 3398'. Pumped 200 gal of 15% MCA acid down tubing. Let acid soak for 15 minutes. Acidized perms, from 3446' to 3589' (12 holes), with an additional 1638 gal (total of 1938 gal) of 15% MCA acid and 17 ball sealers, an average treating rate of 3.8 BPM and average treating pressure of 2030 psi. Maximum treating pressure = 3000 psi (at balloff, on 12th ball). Balls would not surge off.

Pumped 20 bbls of 2% KCl water down casing. Released packer. Lowered packer and knocked off balls. Pulled 2 3/8" O.D. tubing and 4 1/2" Model "C" packer.

Select-fire perforated middle portion of Y-7R-Qn gas interval, from 3363' to 3410', with (6) 0.38"

Page 5 of 8
NMOCD Form C-103 dated March 22, 2004
Doyle Hartman
Mexico "E" Com No. 3
(Formerly Hobbs "K" No. 2)
M-2-23S-36E
API No. 30-025-09226

x 17" holes, with one shot each at:

3363	3395
3366	3408
3391	3410

Ran and set 4 1/2" Model "C" packer at 3332'. Acidized perms, from 3363' to 3589', with 400 gal of 15% MCA acid and 13 ball sealers, followed by 1100 gal of 15% MCA acid and 8 ball sealers, at an average treating rate of 4 BPM and average treating pressure of 600 psi. Final treating pressure = 1220 psi (on 21st ball).

Pumped 3 bbls of 2% KCl water down 5 1/2" O.D. casing. Released 4 1/2" Model "C" packer. Pulled and laid down 4 1/2" Model "C" packer.

Select-fire perforated upper portion of Y-7R-Qn gas interval, from 2985' to 3199', with (16) 0.45" x 23" holes, with one shot each at:

2985	3019	3086	3199
3000	3025	3128	
3009	3038	3131	
3013	3043	3147	
3016	3071	3197	

Ran 5 1/2" Model "C" RBP and 5 1/2" Model "C" packer. Set 5 1/2" Model "C" RBP at 3225'. Raised 5 1/2" Model "C" packer to 3220'. Pumped 400 gal of 15% MCA acid down tubing, followed by 0.5 bbls of 2% KCl water. Allowed acid to fall and equalize.

Raised and set 5 1/2" Model "C" packer at 2946'. Pumped 200 gal of 15% MCA acid down tubing. Let acid soak for 15 minutes.

Acidized perms from 2985' to 3199' (16 holes), with an additional 2200 gal (total of 2800 gal) of 15% MCA acid and 22 ball sealers, at an average treating rate of 5.0 BPM and average treating pressure of 1761 psi. Flushed acid with 18 bbls of 2% KCl water. Maximum treating pressure = 2922 psi (at ballout, on 22nd ball). Final displacement rate = 3.7 BPM, at 2587 psi. ISIP = 1204 psi. 1-min SIP = 0 psi. Pulled and laid down 5 1/2" Model "C" packer and 5 1/2" Model "C" RBP.

Ran 4 1/2" Model "C" RBP and 4 1/2" Model "C" packer. Set 4 1/2" Model "C" RBP at 3420'. Raised and set 4 1/2" Model "C" packer at 3332'. Tested middle perms, from 3363' to 3410' (6 holes),

Page 6 of 8
NMOCD Form C-103 dated March 22, 2004
Doyle Hartman
Mexico "E" Com No. 3
(Formerly Hobbs "K" No. 2)
M-2-23S-36E
API No. 30-025-09226

by pumping 4 bbls of 2% KCl water, followed by an additional 5 bbls of 2% KCl water and 10 ball sealers. Balled off with 6 balls on 6 holes.

Lowered 4 1/2" Model "C" packer and knocked off balls. Reset 4 1/2" Model "C" packer at 3332'. Pumped away remaining 200 gal of 15% MCA acid. Flushed acid with 14 bbls of 2% KCl water. Pulled and laid down 4 1/2" Model "C" packer.

Ran 2 3/8" O.D. tubing. Landed bottom of 2 3/8" O.D. tubing at 3745' RKB (112 jts @ 33.2'/jt + 1.1'SN + 18'MA - 3'AGL + 10'KBC = 3744.5'). Ran 2" x 1 1/4" x 12' RHAC insert pump and 3/4" API Class "KD" rod string. Commenced pumping and cleaning up well at 6:15 P.M., 10-31-02, at 8.3 Spm x 64" x 1 1/4". 13.75-hr SICP = 68 psig. Max SICP = 75 psig (after 5.75-hr shutin). Opened 5 1/2" O.D. casing through orifice tester.

Shut in 5 1/2" O.D. casing, on 11-3-02. 15.5-hr SICP = 43.5 psig.

Pulled rods and pump. Pulled 2 3/8" O.D. tubing. Ran 3 1/2" O.D., 9.3 lb/ft, N-80 frac string and 5 1/2" PLS full-bore frac packer. While running into hole, tested frac string to 7500 psi. Set 5 1/2" PLS full-bore frac packer at 2952'. Shut in well for pressure buildup. 16.25-hr SICP = 45 psig.

Rigged up Halliburton, on 11-5-02. Performed CO₂ foam frac down 3 1/2" O.D. frac tubing, with 217,152 gal of gelled water and CO₂ (52.2% CO₂) and 500,000 lb of frac sand (10% 20/40, 15% 10/20, 75% 8/16). ATR = 40.4 BPM. ATP = 2780 psi.

ISIP =	621 psig
5-min SIP =	604 psig
10-min SIP =	588 psig
15-min SIP =	573 psig

Left well shut in for 80 minutes, before opening well to blowdown tank. Cleaned well up to blowdown tank for 17.5 hours.

Killed well, by pumping 15 bbls of 2% KCl water down 5 1/2" O.D. casing and releasing packer. Pulled and laid down 3 1/2" O.D frac string and 5 1/2" PLS treating packer.

Ran 2 3/8" O.D. tubing (equipped with 1.1'SN and 18'MA) to 3073'. Circulated hole with air. Observed no fluid returns.

Lowered tubing. Tagged top of frac sand at 3249'. Hooked up air and foam unit. Commenced

Page 7 of 8
NMOCD Form C-103 dated March 22, 2004
Doyle Hartman
Mexico "E" Com No. 3
(Formerly Hobbs "K" No. 2)
M-2-23S-36E
API No. 30-025-09226

pumping foam and cleaning out frac sand. Added second air unit. Cleaned out wellbore to PBTD of 3815'. Circulated hole clean and dry. Pulled 23 jts of tubing.

Flowed well up backside, to blowdown tank, for 10 hrs. FCP = 9 psig and FTP = 52 psig, at 8:00 A.M., 11-7-02.

Lowered tubing. Tagged frac sand at 3807' (8' of fill). Cleaned out fill. Circulated with foam and air for an additional 70 minutes.

Made 16-joint short trip. Observed no additional sand fill.

Raised and landed bottom of 2 3/8" O.D. tubing string at 3711' RKB (111 jts @ 33.2'/jt + 1.1'SN + 18'MA - 3'AGL + 10'KBC = 3711.3'). Ran 2" x 1 1/4" x 12' RHAC insert pump and 3/4" API Class "KD" rod string. While running rods and pump, 1-hr SICP = 64.8 psig. Commenced pumping and cleaning up well, at 3:00 P.M., CST, 11-7-02. Left well shut in overnight. 18-hr SICP = 61 psig. Opened casing through orifice tester.

On 12-5-02, tested well at a rate of 262 MCFPD + 21 BWPD. Choke = 42/128. FCP = 33.6 psig. LP = 14.8 psig.

Total wellbore repair and reserve enhancement cost = \$525,888.

Page 8 of 8

NMOCD Form C-103 dated March 22, 2004

Doyle Hartman

Mexico "E" Com No. 3

(Formerly Hobbs "K" No. 2)

M-2-23S-36E

API No. 30-025-09226

Mexico "E" Com No. 3
Upper Long-String
Cementing and Bond Log Results

A review of the VDCBL cement bond log, that was run, in the Mexico "E" Com No. 3 well, on 10-23-02, after the Mexico "E" Com No. 3 was squeezed down the 5 1/2" O.D. casing, with 525 sx, on 10-16-02, documents the placement of cement, on the outside of the 5 1/2" O.D. long string, from surface to 520'. After the cement set, corresponding to the 525-sx squeeze job, hard cement was drilled, from 387' to 521'. Fell out of cement at 521'.

On 10-26-02, a followup squeeze job was performed down 5 1/2" O.D. casing, utilizing an additional 875 sx of cement. After waiting on cement overnight, cement was drilled, from 386' to 440', before shutting down for the remainder of day, for the cement to reach full strength. Hard cement was then drilled from 440' to 526'. Fell out of cement at 526'.

By finding the bottom of the hard cement, at 526' (after the second drillout), when combined with (1) a cement fallout point of 521' (after first drillout), (2) a previously confirmed casing leak location between 463' and 527', and (3) a shift in the VDCBL cement bond log amplitude curve, at approximately 520', documents that the cement slurry exit point, for the two squeeze jobs, was at approximately 520', with the single casing hole being thoroughly squeezed, in two steps, with a total of 1400 sx of cement ($525 \text{ sx} + 875 \text{ sx} = 1400 \text{ sx}$).

The 10-23-02 VDCBL cement bond log found the top of the original long-string cement job at 2650'.