

**Maddox Com #777 (drilled 1992)**

*I - 17.302-80*

Encountered 10' drilling break from 1075-1085'. Well began to flow gas, gauged at 1.2 mmcf/d. The gas sample taken was contaminated with air.

Will run neutron, gamma ray and cement bond log to identify producing zone and correlate with offset wells.

**Potential Sources of Gas**

Gas presence in the zone may be a natural phenomenon. Several gas kicks were recorded in the area in the 1950's in zones shallower than the Fruitland. Some areas of the Basin have Nacimiento gas production.

The twin Mesaverde well (Maddox Com #1A) did not kick at the same depth in 1977, however, indicating that if the sand is present in both wells, the gas may have migrated into the sand in recent years. The Maddox Com #1A has cement to surface on all casing strings.

The Maddox Com #1 and Delhi Com #1 both had casing failures at about 1000' which could have allowed gas to migrate and charge shallow sands. Both casing failures were repaired in the 1960's.

The Maddox #1 does not have cement coverage across the Fruitland coal, but this well lies outside the prolific Fruitland coal area. A noise log and CBL will be run in this well to determine if cross flow is taking place between the Fruitland and shallower zones.

Delhi Com #1 encountered gas flow in the top of the Kirtland @ 1525' in 1955 while drilling. The primary cement job covered the Fruitland coal (TS) but did not isolate this Kirtland sand from shallower zones. A subsequent casing repair in the 1960's may not have isolated this Kirtland sand from sands deeper than 950'. This well will be evaluated further.

The only well in the area with Bradenhead pressure is the Stanolind Gas Com #1. The Bradenhead initially had 250 psi but blew down to a slight blow in 10 minutes. The well is being evaluated for remedial repair. At the present time it is estimated the Fruitland coal is isolated from shallower sands by the primary cement job.

All other wells are not considered to be sources for shallow zone charging since the Bradenhead pressures are 0 psi and have good cement coverage across the Fruitland coal.

**SUMMARY OF EVENTS SURROUNDING THE  
SHALLOW BLOWOUT ON THE JOHNSTON FEDERAL #15R**

1. 12-22-92 Had blowout on Johnston Federal #15R @ 557 feet. Flowed well for 10 hours to deplete zone but pressure and rate (160 psi SIWHP, 1950 MCFD, 9 BWPD) remained constant. Gas analysis shows FTC gas and fresh water.
2. 12-23-92 SIWHP on JF15R was 160 psi. Opened bradenheads on surrounding wells in an attempt to identify culprit. Bradenhead on JF15 had 160 psi SI pressure and flowed. Bradenhead on JF6 was open and mud-filled. Bradenhead on JF6A had 170 psi and blew down immediately. When bradenhead on JF15 was opened an immediate drawdown was noted at the JF15R.
3. 12-24-27 Christmas Holiday.
4. 12-28-92 Emergency procedure written for JF15 to attempt to identify and remedy any casing leak and/or bradenhead flow problem.
5. 12-29-92 Moved on and removed rods and pump from the JF15.
6. 12-30-92 Schlumberger set cement retainer on JF15. The retainer mechanically failed after setting and the well had to be killed with water in order to remove the tubing from the hole.
7. 12-31-92 A second cement retainer was set in JF15 and pressure tested, CBL and noise logs were run. Upon completion it was attempted to run a wireline plug and load the hole in the JF6 in order to allow CBL and noise logs to be run. The plug didn't pressure test.
8. 1-2-92 Set wireline plug in JF6 and pressure tested.
9. 1-3-92 Attempted to run noise and CBL logs in JF6 but plug failed and both logs were of poor quality.
10. 1-4-92 a.) JF15R is making 25-30 foot flare and is yet to penetrate the middle or lower coal.  
b.) JF15 is still being produced through the bradenhead since failure to do so results in gas and water flowing up the back of the surface casing and bubbling through the ground. The JF 15 is currently producing approx. 250 MCFD, 200 BWPD into a frac tank on location.  
c.) JF6 is having the wireline-set-plug removed.  
d.) JF6A had 145 psi on bradenhead that blew down immediately and did not flow over a 0.5 hour time period.
- 11.) 1-5-92 JF6 had cast iron BP installed and pressure tested. The logs were being run as of 5:30 PM. Information should be available by the morning of 1-6-92.

**Recommendations:**

1. Move on JF6 with a workover rig in order to set a cast iron bridge plug, load the hole, and obtain log data. Alan Alexander is of the opinion that this can be justified as an emergency procedure (the limit w/o an AFE is \$5000). Upon successful definition of the problem proceed with a P&A and redrill package.
2. Upon successful completion of the JF15R move to P&A the JF15 as soon as possible.
3. Diagnose problems on JF6A and proceed accordingly. Possibilities include: wellhead leak, micro annulus in cement, or cement shrinkage. Run CBL on the JF6A, find TOC, and squeeze.

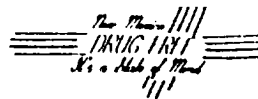
JF6 - Noise Log showed gas entry @ 2700' (FTC) gas entry = 500'

TOWNSHIP			30N	RANGE			8W	NM1M		
6	5	4	3	2	1					
7	8	9	10	11	12					
18	17	16	15	14	13					
19	20	21	22	23	24					
30	29	28	27	26	25					
31	32	33	34	35	36					

- 1) E-8-30N-8W HOWELL A #302
- 2) E-8-30N-8W HOWELL A #1A
- 3) B-16-30N-8W STANOLIND GAS COM #300
- 4) D-16-30N-8W DELHI COM #1A
- ✓ 5) G-16-30N-8W STANOLIND GAS COM #1
- 6) J-16-30N-8W STANOLIND GAS COM #1A
- ✓ 7) K-16-30N-8W DELHI COM #1
- 8) K-16-30N-8W DELHI COM #300
- 9) F-17-30N-8W HOWELL COM K #301
- 10) F-17-30N-8W HOWELL K #4A
- ✓ 11) H-17-30N-8W HOWELL K #4
- ~~12) E-17-30N-8W MADDOX COM #1A~~
- 13) M-17-30N-8W HOWELL C #5
- 14) ~~N-17-30N-8W MADDOX COM #1~~
- 15) E-21-30N-8W HOWELL K #
- 16) E-21-30N-8W HOWELL K #1A
- ✓ 17) K-21-30N-8W HOWELL K #1



STATE OF NEW MEXICO



ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

AZTEC DISTRICT OFFICE

BRUCE KING  
GOVERNOR

ANITA LOCKWOOD  
CABINET SECRETARY

1000 RIO BRAZOS ROAD  
AZTEC, NEW MEXICO 87410  
(505) 334-6178

## FAX TRANSMITTAL SHEET

DATE: 1/4/93

TO: JOHN CALDWELL

MERIDIAN

326-9725

FROM: DIANNA FAIRHURST

FAX: 505-334-6170

COMMENTS: \*SEE DIAGRAM FOR MERIDIAN WELLS WITHIN 1  
MILE RADIUS OF THE MERIDIAN MADDOX COM #777, I-17-30N-8W  
WHICH REQUIRE IMMEDIATE BRADENHEAD TESTING. THESE WELLS  
ARE SCHEDULED FOR 1993, HOWEVER WE WOULD LIKE TO  
PRIORITY TEST THESE WELLS BY FEBRUARY 1, 1993.

NUMBER OF PAGES INCLUDING COVER: 2