

OIL CONSERVATION DIVISION

Ms. Ruby Williams
 USEPA, Multi-Media Planning &
 Permitting Division
 6 PDN
 1445 Ross Avenue
 Dallas, Texas 75202

Dear Ms. Williams:

As we have previously discussed, enclosed please find the following information regarding the Yates Petroleum Corporation David Ross "AIT" Federal Well No. 1 and the Devon Energy Corporation Todd "26" Federal Well No. 3:

- a) Wellbore schematics for both the David Ross "AIT" Federal Well No. 1 and the Todd "26" Federal Well No. 3 showing all pertinent construction and completion details;
- b) Copies of all information contained within the Division's well files. This includes all historic information on file with the Division on both of the subject wells;
- c) Copy of Division Permit No. SWD-120 which authorized injection into the Todd "26" Federal Well No. 3 on June 17, 1971;
- d) Copy of Division Permit No. SWD-419 which authorized injection into the David Ross "AIT" Federal Well No. 1 on May 22, 1991;
- e) Map of the WIPP area showing the location of both the David Ross "AIT" Federal Well No. 1 and the Todd "26" Federal Well No. 3 relative to WIPP;
- f) The results of a casing pressure test (MIT Test) conducted on the David Ross "AIT" Federal Well No. 1 on August 16, 1995. The results of the test indicate that the well has internal mechanical integrity.

We are still in the process of determining what additional tests will aid in the demonstration that these wells are not contributing to rising water levels in the Culebra formation. We will keep you advised of the status and the results of additional testing of these wells.

If you should have any questions, please contact me at (505) 827-8184.

Sincerely,

A handwritten signature in black ink that reads "David Catanach". The signature is written in a cursive style with a long horizontal line extending to the right.

David Catanach
Engineer

OIL CONSERVATION DIVISION

October 10, 1995

Ms. Ruby Williams
 USEPA, Multi-Media Planning &
 Permitting Division
 6 PDN
 1445 Ross Avenue
 Dallas, Texas 75202

Dear Ms. Williams:

With regards to the Yates Petroleum Corporation David Ross "AIT" Federal Well No. 1 and the Devon Energy Corporation (Nevada) Todd "26" Federal Well No. 3, enclosed please find a copy of correspondence sent to these companies on October 7, 1995. In this correspondence, the Division advised these companies that a radioactive tracer survey would be required to be run on the wells.

In addition, please find the results of a mechanical integrity pressure test conducted on the Todd "26" Federal Well No. 3 on August 16, 1995. As you can see from the test, the well demonstrates internal mechanical integrity.

I shall keep you informed of our progress in this matter. If you need anything further, please contact me at (505) 827-8184.

Sincerely,



David Catanach
 Engineer

OIL CONSERVATION DIVISION

Devon Energy Corporation (Nevada)
 20 N. Broadway
 Suite 1500
 Oklahoma City, Oklahoma 73102

Re: Todd "26" Federal Well
 No. 3, Section 26,
 T-23 South, R-31 East
 Eddy County, New Mexico

Dear Sir:

Division personnel recently attended a workshop held in Albuquerque, New Mexico, sponsored by the Environmental Evaluation Group (EEG) entitled the "Potential Effects of Oil and Gas Activities on WIPP". During the course of these proceedings, which was attended by representatives of EEG, Sandia Laboratory, NMED, DOE, BLM, NM Bureau of Mines, and EPA Region VI, it was brought to the attention of the Division that certain WIPP monitor wells completed in the Salado formation are exhibiting water level rises in the Culebra interval. This Culebra interval occurs at a depth of approximately 600-800 feet in this area. It was implied by some attendees that injection into the Todd "26" Federal Well No. 3 may be responsible, or at least contributing, to such water level rises.

Ms. Ruby Williams, Multi-Media Planning & Permitting Division, and Mr. Ray Leissner, New Mexico UIC Program Manager, EPA Region VI, recently contacted the Division and requested that testing be required on the Todd "26" Federal Well No. 3 in order to determine if this well is injecting out of zone and possibly contributing to the Culebra interval water level rises.

We have examined Division records which indicate that a mechanical integrity casing pressure test (MIT) was conducted on the Todd "26" Federal Well No. 3 on August 16, 1995, and that the well passed the test.

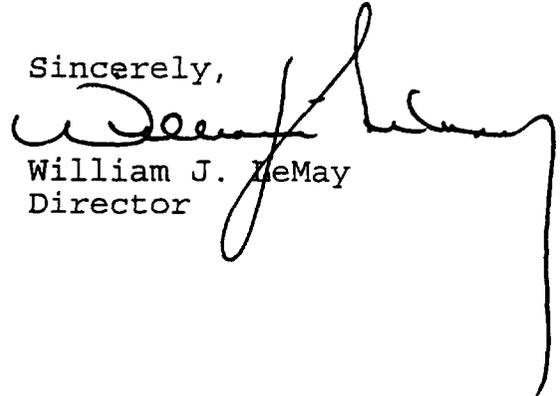
After consultation with Division staff, we have determined that a radioactive tracer survey should demonstrate whether the injected fluid within the subject well is migrating upward through channels in the vicinity of the wellbore. In order to comply with EPA's request, the Division is hereby ordering that a radioactive tracer survey be conducted on the Todd "26" Federal Well No. 3 within 60-days from the date of this letter.

Depending on the results of the tracer survey, additional tests may be required to be performed on the subject well.

Enclosed please find a recommended procedure to be utilized when conducting the survey. Please advise the supervisor of the Division's Artesia District Office of the date and time such survey will be conducted in order that the same may be witnessed.

If you should have any questions, please contact Mr. David Catanach at (505) 827-8184.

Sincerely,

A handwritten signature in black ink, appearing to read "William J. DeMay", written over the typed name and title.

William J. DeMay
Director

xc: OCD-Artesia
Ms. Ruby Williams
Mr. Ray Leissner
(EPA Region VI)



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

March 11, 1996

Ms. Ruby Williams
USEPA, Multi-Media Planning
& Permitting Division
6 PDN
1445 Ross Avenue
Dallas, Texas 75202

Re: Yates Petroleum Corporation
David Ross "AIT" Federal No. 1
Section 35, T-22S, R-31E, NMPM

Devon Energy Corporation
Todd "26" Federal No. 3
Section 26, T-23S, R-31E, NMPM

Eddy County, New Mexico

Dear Ms. Williams:

Please be advised that on November 13 and 20, 1995, radioactive tracer surveys were conducted, respectively, on the Todd "26" Federal Well No. 3 and David Ross "AIT" Federal Well No. 1. As you may recall, these wells, which are located in close proximity to the Waste Isolation Pilot Project (WIPP), were suspected to be contributing to water level rises in the Culebra interval. The radioactive tracer surveys were conducted in an effort to determine, in fact, whether or not these wells demonstrate external mechanical integrity.

The results of the tracer surveys (analysis attached), indicate no channeling behind the production casing and no vertical migration of fluid from the injection interval.

It is the opinion of the Division that no further testing of these wells is necessary.

If I can be of further assistance, please contact me at (505) 827-8184.

Sincerely,

A handwritten signature in cursive script that reads "David Catanach".

David Catanach
Engineer

xc: Mr. Ray Leissner
USEPA, Region VI

Mr. W. J. LeMay
Division Director

Files-SWD-120 ✓
SWD-419

OCD-Artesia



INJECTION PROFILE LOG ANALYSIS

Salt Water Disposal Wells Adjacent to WIPP

Yates Petroleum Corporation
David Ross 'AIT' Well No.1, November 20, 1995

Witnessed by: Bob Fant, Yates Petroleum Corporation
Ben Stone, New Mexico Oil Conservation Division
Ray Smith, New Mexico Oil Conservation Division

Well Status: Injecting at normal rate and pressure of 3154 bpd @ 840 psi.
Injection through perforated intervals: top - 4500', bottom - 5670'.

Procedure: RIH with 1 3/8" profile string consisting of collar locator, isotope ejector, gamma ray detector and temperature tools. Ran injecting temperature followed by gamma ray correlation. Depth correction made. Tracer studies followed beginning with tracer intensities (drag runs). Velocities began with a 'no flow' inside the pipe at 5674'. A downward channel check was made next followed by selective velocity shots across the perforated interval. Finally, an upward channel check was made followed by 100% shots above the perforations, a packer leak check and tubing drop shots to confirm the 100% rate. The well was shut-in and shut-in temperatures were run at 1 and 2 hour intervals. POH with logging tools.

Conclusion: Tracer studies indicate uniform fluid distribution across the perforated interval with the exception of the upper perfs from 4500-90'. This interval appears to be receiving no fluid injection. No upward channel is evident, however, temperatures indicated a slight channel down from the bottom perfs to approximately 5690'±. Temperatures confirm distribution of fluid across all other intervals.

Other: An injection profile had been run on this well in October of 1992. Results were very similar in every respect. No channel up from perfs and, in fact, the upper perfs were not taking any injection during this survey either.



INJECTION PROFILE LOG ANALYSIS

Salt Water Disposal Wells Adjacent to WIPP

Devon Energy Corporation
Todd '26' Federal Well No.3, November 13, 1995

Witnessed by: Dan Talley, Devon Energy Corporation
David Catanach, New Mexico Oil Conservation Division
Ben Stone, New Mexico Oil Conservation Division
Ray Smith, New Mexico Oil Conservation Division

Well Status: Injecting at normal rate and pressure of 1700 bpd @ 660 psi.
Injection through open hole interval: casing shoe - 4390', TD - 5508'.

Procedure & Conclusions: RIH with 1 3/8" profile string consisting of collar locator, isotope ejector, gamma ray detector, caliper and temperature tools. Ran injecting temperature followed by gamma ray correlation. Depth correction made. A caliper log was not run as the objective was to locate possible injection out of zone rather than exact flow rates in a given hole size. The objective could be met without hole size information. Tracer studies did not include tracer intensities (drag runs) for the same reason. Velocities began at 4829' (lowest possible depth with gamma ray detector). This shot indicated slight fluid movement below total depth, which is common in open-hole completions. After this, a series of upward channel checks were made, all of which indicated no channel up from the casing shoe. The well was shut-in and a 1 hour shut-in temperature was run. The anomaly from 4390' to approximately 4450' was cause to shoot some 'cross-flow' checks between 4300' and 4450' to further investigate. These checks indicated fluid to be static in the wellbore, leading to the conclusion that a 'washout' below the casing shoe caused anomaly due to a severe hole size change. Again, this is a common occurrence in openhole completions. As no fluid was exiting or entering this interval during injection or shut-in, the decision was made to not investigate further. POH with logging tools.

DEVON ENERGY CORPORATION

20 NORTH BROADWAY, SUITE 1500
OKLAHOMA CITY, OK 73102-8280

PLEASE REPLY TO:

WALTER M. FRANK
DISTRICT ENGINEER
CACTUS & TODD AREA'S
PHONE: (405) 552-4586
FAX: (405) 552-4550

TELECOPIER COVER LETTER

Date: April 30, 1997

Time: 10:28 AM

To the Attention of: Ben Stone

From: Wally Frank

Total Number of Pages (Including Cover Sheet): 2

Please call sender as soon as possible if transmission is impaired.

Comments: Ben, attached is a spreadsheet that contains monthly injection
the spreadsheet contains the cumulative injection volumes per well. The 36-1
injection began in September, 1994. Because of this I reported all wells from that
time. If I can provide further information please call me at the above number.


wally

Devon Energy Corporation (Nevada)
Todd Federal Lease Salt Water Disposal Wells

Todd 26 "G" Federal #2				Todd 26 "F" Federal #3				Todd 36 "F" State #1			
Date	Bbls	Cum Bbls	Press	Date	Bbls	Cum Bbls	Press	Date	Bbls	Cum Bbls	press
09/94	15,717	589,556	493	09/94	23,556	551,179	531	09/94	47,972	47,972	259
10/94	20,050	609,606	406	10/94	26,258	577,435	455	10/94	57,638	105,660	299
11/94	20,799	630,405	470	11/94	29,347	606,782	502	11/94	56,450	162,120	364
12/94	21,745	652,150	482	12/94	32,792	639,574	492	12/94	57,785	219,835	379
01/95	21,787	673,937	482	01/95	31,675	671,249	486	01/95	44,657	264,502	377
02/95	19,054	692,991	483	02/95	24,641	695,890	482	02/95	37,745	302,247	391
03/95	20,438	713,429	487	03/95	34,684	730,574	526	03/95	46,857	349,104	425
04/95	22,319	735,748	519	04/95	46,636	777,210	597	04/95	50,605	399,709	479
05/95	23,473	759,221	542	05/95	46,701	823,911	610	05/95	49,853	449,572	478
06/95	23,377	782,598	541	06/95	48,734	872,645	624	06/95	50,179	499,751	482
07/95	20,760	803,358	521	07/95	43,551	916,196	601	07/95	62,989	562,700	459
08/95	21,940	825,298	528	08/95	48,352	964,548	632	08/95	71,536	634,236	487
09/95	22,343	847,641	525	09/95	50,857	1,015,405	651	09/95	67,823	702,059	517
10/95	22,614	870,255	507	10/95	50,770	1,066,175	625	10/95	64,789	766,808	503
11/95	22,575	892,830	650	11/95	49,727	1,115,902	645	11/95	69,387	836,155	514
12/95	29,070	921,900	684	12/95	65,594	1,181,496	708	12/95	65,714	901,869	549
01/96	25,751	947,651	700	01/96	71,524	1,253,020	693	01/96	79,981	981,850	547
02/96	23,105	970,756	700	02/96	55,965	1,308,985	705	02/96	66,066	1,047,916	600
03/96	27,107	997,863	654	03/96	70,323	1,379,308	715	03/96	82,180	1,130,106	563
04/96	27,537	1,025,400	766	04/96	74,514	1,453,822	769	04/96	74,245	1,204,351	600
05/96	27,747	1,053,147	756	05/96	79,693	1,533,515	726	05/96	81,676	1,286,027	626
06/96	29,146	1,082,293	753	06/96	78,432	1,611,947	750	06/96	83,816	1,369,913	686
07/96	31,406	1,113,699	774	07/96	82,749	1,694,696	803	07/96	90,577	1,460,430	705
08/96	34,978	1,148,677	814	08/96	92,352	1,787,048	865	08/96	96,182	1,556,532	720
09/96	34,866	1,183,543	813	09/96	91,620	1,878,668	825	09/96	93,613	1,650,215	717
10/96	58,779	1,242,322	797	10/96	82,462	1,961,130	816	10/96	83,480	1,733,665	713
11/96	55,273	1,297,595	849	11/96	90,419	2,051,549	851	11/96	86,143	1,819,808	712
12/96	53,657	1,351,252	853	12/96	76,595	2,128,144	906	12/96	85,148	1,904,966	702
01/97	52,207	1,403,459	876	01/97	91,844	2,219,988	951	01/97	87,289	1,992,225	714
02/97	49,992	1,453,451	862	02/97	75,938	2,295,926	907	02/97	86,821	2,079,046	697
03/97	49,078	1,502,529	861	03/97	58,421	2,354,347	876	03/97	83,565	2,162,601	699