

3R - 19

# APPROVALS

YEAR(S):

1996-1993



STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION  
2040 S. PACHECO  
SANTA FE, NEW MEXICO 87505  
(505) 827-7131

May 10, 1996

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. P-269-269-149**

Mr. B.D. Shaw  
Amoco Production Company  
200 Amoco Court  
Farmington, New Mexico 87401

**RE: GROUND WATER MONITORING  
AMOCO GCU-181 WELL SITE**

Dear Mr. Shaw:

The New Mexico Oil Conservation Division (OCD) has reviewed Amoco's March 18, 1996 "GROUNDWATER SAMPLING, AMOCO GCU-181 WELL LOCATION, SAN JUAN COUNTY, NEW MEXICO, UNIT F, SECTION 34, T29N, R12W" which was submitted on behalf of Amoco by their consultant Blagg Engineering, Inc. This document contains Amoco's proposal to install 2 additional well points and to modify the ground water sampling program for the site.

The above referenced plan is approved with the following conditions:

1. The ground water from monitor wells MW-7, MW-10B, MW-32A, MW-41, MW-45 and MW-46 will be sampled and analyzed quarterly for benzene, ethylbenzene, toluene, xylene (BTEX), total dissolved solids (TDS) and major cations and anions using appropriate EPA methods.
2. Amoco will submit an annual report on the monitoring activities to the OCD by February 2 each year. The annual report will contain:
  - a. A description of all monitoring and remedial activities which have occurred including conclusions and recommendations.
  - b. A summary of all past and present quarterly laboratory analytic results of ground water quality sampling and copies of the laboratory analyses.
  - c. Quarterly water table elevation maps using the water table elevation of ground water in all site monitor wells.
3. Amoco will notify the OCD at least 48 hours in advance of all scheduled activities such that the OCD has the opportunity to witness the events and/or split samples.

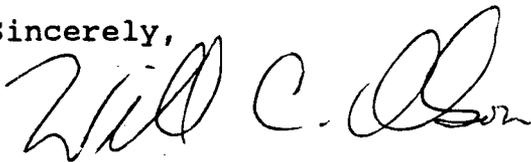
Mr. B.D. Shaw  
May 10, 1996  
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4. All original documents will be submitted to the OCD Santa Fe Office with copies provided to the OCD Aztec Office.

Please be advised that OCD approval does not relieve Amoco of liability if the remedial actions fail to adequately remediate contamination at the site, or if contamination exists which is beyond the scope of the plan. In addition, OCD approval does not relieve Amoco of responsibility for compliance with any other federal, state or local laws and/or regulations.

If you have any questions, please contact me at (505) 827-7154.

Sincerely,



William C. Olson  
Hydrogeologist  
Environmental Bureau

xc: OCD Aztec Office  
Robert E. O'Neill, Blagg Engineering, Inc.

P 269 269 149

PS Form 3800, April 1995

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STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION



BRUCE KING  
GOVERNOR

ANITA LOCKWOOD  
CABINET SECRETARY

January 18, 1994

POST OFFICE BOX 2088  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO 87504  
(505) 827-5800

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. P-667-241-894**

Mr. B.D. Shaw  
Amoco Production Company  
200 Amoco Court  
Farmington, New Mexico 87401

**RE: SOIL AND GROUND WATER REMEDIATION  
AMOCO GCU COM I-181 WELL SITE  
SAN JUAN COUNTY, NEW MEXICO**

Dear Mr. Shaw:

The New Mexico Oil Conservation Division (OCD) has reviewed Amoco's January 4, 1994 response to the OCD's December 21, 1993 request for information regarding Amoco's remedial actions at the Gallegos Canyon Unit Com I #181 well site.

The OCD agrees with your statement that Amoco needs flexibility in day to day operation decision making for remedial activities at Amoco's lease sites. The OCD has always considered flexibility crucial to the effective implementation of all remedial actions. For this reason, flexibility for field based decision making for soil cleanups was incorporated into Amoco's approved pit closure plan. Due to the rapid changes in ground water cleanup technology, flexibility is also crucial for ground water remedial actions. However, for remedial actions involving ground water, state laws and regulations do not allow a person to unilaterally introduce known ground water contaminants directly or indirectly into ground water without specific approval by the state.

In this instance, Amoco placed a known contaminant directly into ground water without OCD approval. Therefore, the OCD's September 16, 1993 remedial action plan approval is hereby modified as follows:

1. Amoco will not allow any water contaminants to be introduced directly or indirectly into ground water as part of a remedial action without the explicit approval of the OCD.

Mr. B.D. Shaw  
January 18, 1994  
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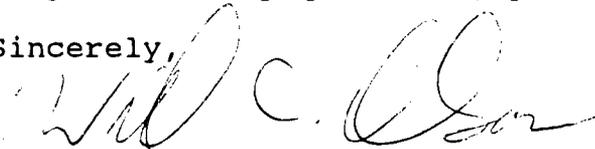
2. Amoco's quarterly ground water quality monitoring will include analysis of the concentrations of nitrate and fecal coliform in ground water from the trenches and the monitor wells. Analyses will be conducted using EPA approved methods.

To date the OCD has not received the monitor well work plans nor the December 1993 quarterly monitoring report. Amoco was to supply these items to OCD as conditions of OCD's September 16, 1993 approval. Please supply the OCD with these items by February 25, 1994.

The OCD shares Amoco's concern over the need to be flexible and to apply common sense in the application of effective remedial techniques. Cost effective, practical solutions to ground water remediation cases are beneficial to both the public and to industry. The OCD welcomes any ideas or discussion of mechanisms that can achieve this purpose. In order to avoid future occurrences of this nature at this site and other sites, it is incumbent upon Amoco to contact the OCD to discuss and receive approval for all discharges of water contaminants to ground water.

If you have any questions, please contact me at (505) 827-5885.

Sincerely,



William C. Olson  
Hydrogeologist  
Environmental Bureau

xc: OCD Aztec Office



STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION



BRUCE KING  
GOVERNOR

ANITA LOCKWOOD  
CABINET SECRETARY

September 16, 1993

POST OFFICE BOX 2088  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO 87504  
(505) 827-5800

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. P-667-242-383**

Mr. B.D. Shaw  
Amoco Production Company  
200 Amoco Court  
Farmington, New Mexico 87401

**RE: GROUND WATER REMEDIATION PROPOSAL  
AMOCO GCU-181 WELL SITE  
SAN JUAN COUNTY, NEW MEXICO**

Dear Mr. Shaw:

The New Mexico Oil Conservation Division (OCD) has completed a review of Amoco's August 1993 "PROPOSED REMEDIAL ACTION PLAN, AMOCO PRODUCTION COMPANY, GALLEGOS CANYON UNIT #181". This document contains Amoco's proposal to remediate petroleum contaminated ground water at the GCU-181 well site.

The above referenced remediation plan is hereby approved with the following conditions:

1. Amoco will supply OCD with the ground water investigation information requested in OCD's May 25, 1993 correspondence. ✓
2. In order to complete definition of the plume and demonstrate containment during remediation, Amoco will submit a proposal to install additional monitor wells north and east of downgradient monitor wells MW-10 and MW-7.
3. Amoco will submit a plan to replace strategically located monitor wells which will be destroyed during the trenching process.
4. Amoco will monitor ground water quality from monitor wells MW-13, MW-15, MW-17, MW-25 and MW-31 on a quarterly basis. Ground water samples will be analyzed for pH, specific conductivity, benzene, toluene, ethylbenzene and xylenes. A quarterly report containing a water table elevation map and the analytical results of sampling of the monitor wells, trenches and landfarmed soils will be submitted to OCD on December 1, March 1, June 1, and September 1 of each year.

Mr. B.D. Shaw  
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5. On December 1, 1994, Amoco will provide OCD with an analysis of the effectiveness of the remedial action.

The OCD considers this remedial approach to be an alternate technology which will be evaluated to determine it's effectiveness. If an evaluation determines that the remedial action is ineffective, Amoco will be required to submit an alternate remedial action plan.

Please be advised that OCD approval does not relieve Amoco of liability if contamination exists which is beyond the scope of the plan. In addition, OCD approval does not relieve Amoco of responsibility for compliance with any other federal, state or local laws and/or regulations.

If you have any questions, please contact me at (505) 827-5885.

Sincerely,



William C. Olson  
Hydrogeologist  
Environmental Bureau

xc: OCD Aztec Office  
Michael K. Lane, Envirotech, Inc.