3R - 350

GENERAL CORRESPONDENCE

YEAR(S):
1997-1994

Contract Environmental Services, Inc.
Post Office Box 3376
Farmington, NM 87499-3376
505/325-1198

April 23, 1997

New Mexico Oil Conservation Division
Mr. William Olson
2040 S. Pacheco
Santa Fe, NM 87505

RE: Closure Plan for Groundwater Monitoring Wells at Questar Energy Company's U.S. Argo #1E Well Site.

Dear Mr. Olson:

Contract Environmental Services, Inc. (CES) is pleased to present, on behalf of Questar Energy Company (QEC), the results of groundwater monitor well sampling at the U.S. Argo #1E well site located in Unit C, Section 18, T27N, R10W of San Juan County. These monitor wells have been sampled since they were installed in November of 1994. This letter report contains a summary of all groundwater sampling results and a closure plan for the monitoring wells.

Groundwater was encountered on this location while excavating contaminated soil from an unlined separator pit. Several test pits were dug in downgradient directions from the pit. From this information, a groundwater monitor well plan was developed and the monitor wells were installed. There are four (4) monitor wells on this location: one (1) upgradient and three (3) downgradient from the contamination source. To date, all of the monitor wells have passed the New Mexico Water Quality Control Commission's Drinking Water Standards for benzene, toluene, ethylbenzene, and total xylenes. Monitor well #1 was used as a background well and was therefore only sampled twice. The remaining monitor wells (mw-2,mw-3,mw-4) have passed these same standards on at least three consecutive sampling intervals. A summary of the sampling results is given below in Table 1. Also attached are analytical reports for each sample.

Monitor Well No.	Date Sampled	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (total) (ppb)
M.W. # 1	12/06/94	ND	ND	ND	ND
M.W. # 1	09/07/95	ND	ND	ND	ND
M.W. # 2	12/06/94	ND	0.3	ND	ND
M.W. # 2	09/07/95	ND	0.3	ND	ND
M.W. # 2	1/16/97	ND	ND	ND	ND
M.W. # 2	4/8/97	ND	ND	ND	1.0
M.W. # 3	12/06/94	113.7	0.5	ND	23.5
M.W. # 3[A]	12/13/94	661.3	2.3	99.7	4.5
M.W. # 3[B]	12/13/94	95.2	0.6	20.2	0.3
M.W. # 3[C]	12/13/94	73.9	ND	20.7	ND
M.W. # 3	04/03/95	24.4	ND	7.0	ND
M.W. # 3	04/11/95	78.2	3.5	24.5	9.0
M.W. # 3	09/07/95	ND	0.4	32.9	3.4
M.W. # 3	02/26/96	19.4	0.3	4.2	ND
M.W. # 3	03/08/96	6.4	0.4	4.8	ND
M.W. # 3	09/06/96	0.8	ND	0.8	0.2
M.W. # 3	1/16/97	0.6	ND	1.0	ND
M.W. # 3	4/8/97	2.3	ND	3.8	0.3

M.W. # 4	12/06/94	ND	ND	ND	ND
M.W. # 4	09/07/95	ND	ND	ND	ND
M.W. # 4	1/16/97	ND	ND	ND	ND
M.W. # 4	4/8/97	ND	ND	ND	ND

Notes: ND means sample was non-detectable, this method has a detection limit of 0.2 ppb.
A. Sample taken after 2 bails
B. Sample taken after 10 bails.
C. Sample taken after 20 bails.

Monitor well #3 had more rigorous analyses performed that included Cation / Anions, Metals, pH, TDS, EPA Method 8270, and others. These analyses are not presented in a Table format but are attached for your convenience.

Table 1. Results of all Monitor Well Samples.

All of the samples were taken with a clean and decontaminated PVC plastic ball-and-check bailer after purging three times the well volume of water, unless otherwise stated. Samples were analyzed using EPA Method 8020 for Aromatic Volatile Organics at an environmental laboratory. This method has a detection limit of 0.2 parts per billion (ppb). All water samples have been preserved chemically during collection with acid and cooled with ice packs while being transported to the laboratory.

It is our plan to abandon and plug these monitor wells at this time. The man-hole covers for each monitor well will be removed and the well casing cut off below the ground surface. The well casing will then be pumped full of an approved bentonite-grout-cement mixture to seal it to the surface. The mixing ratio will be approximately one-third (1/3) each. The area around each monitor well will be returned to the normal grade of the well pad. No further action is planned concerning groundwater at this location.

Contract Environmental Services, Inc. presents this plug and abandon plan for the U.S. Argo #1E monitor wells on behalf of Questar Energy Company for your approval. If you need any additional information, please do not hesitate to contact our offices at 505/325-1198, or stop by at 4200 Hawkins Road, Farmington.

Sincerely,

Shawn Adams

Attachments: Analytical Reports

Copies: Mr. Bill Liese, U.S. BLM Farmington Office
Mr. Denny Foust, NMOCD Aztec Office

jb:winword/argo2

OFF: (505) 325-8786

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Shawn Adams*	Date:	12/7/94
Company:	*Contract Environmental Services, Inc.*	*Lab ID:*	*2197*
Address:	*P.O. Box 505*	*Sample ID:*	*4290*
City, State:	*Kirtland, NM 87417*	*Job No.*	*2-1000*

Project Name:	***Questar Energy Co.***				
Project Location:	***ARGO-700 US ARGO #1E Upgradient MW #1***				
Sampled by:	SA	Date:	12/6/94	Time:	13:44
Analyzed by:	DLA	Date:	12/7/94		
Sample Matrix:	*Water*				

Aromatic Volatile Organics

Component	*Measured Concentration ug/L*	*Detection Limit Concentration ug/L*
Benzene	ND	*0.2*
Toluene	ND	*0.2*
Ethylbenzene	ND	*0.2*
m,p-Xylene	ND	*0.2*
o-Xylene	ND	*0.2*
	TOTAL 0.0 ug/L	

ND - Not Detectable

Method *- SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: DLA

Date: 12/7/94

OFF: (505) 325-8786

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Shawn Adams*	Date:	8-Sep-95
Company:	*Contract Environmental Services, Inc.*	*COC No.:*	*3180*
Address:	*P.O. Box 505*	*Sample No.*	*8105*
City, State:	*Kirtland, NM 87417*	*Job No.*	*2-1000*

Project Name:	***Questar Energy Company - US Argo 1E***				
Project Location:	***ARGO-200 MW Upgradient (MW1)***				
Sampled by:	SA	Date:	7-Sep-95	Time:	10:30
Analyzed by:	DC	Date:	7-Sep-95		
Type of Sample:	*Water*				

Aromatic Volatile Organics

Component	*Measured Concentration ug/L*	*Detection Limit Concentration ug/L*
Benzene	ND	0.2
Toluene	ND	0.2
Ethylbenzene	ND	0.2
m,p-Xylene	ND	0.2
o-Xylene	ND	0.2
	TOTAL 0.0 *ug/L*	

ND - Not Detectable

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by:

Date: 9/8/95

OFF: (505) 325-8786

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Shawn Adams*	Date:	12/7/94
Company:	*Contract Environmental Services, Inc.*	*Lab ID:*	*2197*
Address:	*P.O. Box 505*	*Sample ID:*	*4293*
City, State:	*Kirtland, NM 87417*	*Job No.*	*2-1000*

Project Name:	***Questar Energy Co.***				
Project Location:	***ARGO-703 US ARGO #1E WHEAD MW #2***				
Sampled by:	SA	Date:	12/6/94	Time:	16:48
Analyzed by:	DLA	Date:	12/7/94		
Sample Matrix:	*Water*				

Aromatic Volatile Organics

Component	***Measured Concentration ug/L***	***Detection Limit Concentration ug/L***
Benzene	ND	*0.2*
Toluene	0.3	*0.2*
Ethylbenzene	ND	*0.2*
m,p-Xylene	ND	*0.2*
o-Xylene	ND	*0.2*
	TOTAL *0.3 ug/L*	

ND - Not Detectable

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: DLA

Date: 12/7/94

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Shawn Adams*	Date:	8-Sep-95
Company:	*Contract Environmental Services, Inc.*	*COC No.:*	*3180*
Address:	*P.O. Box 505*	*Sample No.*	*8106*
City, State:	*Kirtland, NM 87417*	*Job No.*	*2-1000*

Project Name:	***Questar Energy Company - US Argo 1E***				
Project Location:	***ARGO-201 MW by WHEAD (MW2)***				
Sampled by:	SA	Date:	7-Sep-95	Time:	11:10
Analyzed by:	DC	Date:	7-Sep-95		
Type of Sample:	*Water*				

Aromatic Volatile Organics

Component	***Measured Concentration ug/L***	***Detection Limit Concentration ug/L***
Benzene	ND	0.2
Toluene	0.3	0.2
Ethylbenzene	ND	0.2
m,p-Xylene	ND	0.2
o-Xylene	ND	0.2
	TOTAL 0.3 *ug/L*	

ND - Not Detectable

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: Da K
Date: 9/8/95

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn:	*Shawn Adams*	Date:	20-Jan-97
Company:	*Contract Environmental Services, Inc.*	*COC No.:*	*6266*
Address:	*P.O. Box 505*	*Sample No.*	*13412*
City, State:	*Kirtland, NM 87417*	*Job No.*	*2-1000*

Project Name:	***Questar Energy Co. - US Argo #1E***				
Project Location:	***ARGO-200; Monitor Well***				
Sampled by:	JB	Date:	16-Jan-97	Time:	12:30
Analyzed by:	HR	Date:	17-Jan-97		
Sample Matrix:	*Liquid*				

Laboratory Analysis

Parameter	*Result*	*Unit of Measure*	*Detection Limit*	*Unit of Measure*
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	<0.2	ug/L	0.2	ug/L
o-Xylene	0.5	ug/L	0.2	ug/L
TOTAL	0.5	ug/L		

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: DaG
Date: 1/20/97

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Attn:	*Shawn Adams*	Date:	11-Apr-97
Company:	*Contract Environmental Services, Inc.*	COC No.:	*6305*
Address:	*P.O. Box 3376*	Sample No.:	*14131*
City, State:	*Farmington, NM 87499*	Job No.:	*2-1000*

Project Name:	***Questar Energy Co. - US Argo 1E***				
Project Location:	***ARGO-2000; MW-2***				
Sampled by:	JB	Date:	8-Apr-97	Time:	12:45
Analyzed by:	DC	Date:	10-Apr-97		
Sample Matrix:	*Liquid*				

Parameter	*Result*	*Unit of Measure*	*Detection Limit*	*Unit of Measure*
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	<0.2	ug/L	0.2	ug/L
o-Xylene	1.0	ug/L	0.2	ug/L
TOTAL	1.0	ug/L		

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved By:
Date: 4/11/97

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Shawn Adams*	Date:	12/7/94
Company:	*Contract Environmental Services, Inc.*	*Lab ID:*	*2197*
Address:	*P.O. Box 505*	*Sample ID:*	*4291*
City, State:	*Kirtland, NM 87417*	*Job No.*	*2-1000*

Project Name:	***Questar Energy Co.***				
Project Location:	***ARGO-701 US ARGO #1E BTWN MW #3***				
Sampled by:	SA	Date:	12/6/94	Time:	15:05
Analyzed by:	DLA	Date:	12/7/94		
Sample Matrix:	*Water*				

Aromatic Volatile Organics

Component	*Measured Concentration ug/L*	*Detection Limit Concentration ug/L*
Benzene	113.7	*0.2*
Toluene	0.5	*0.2*
Ethylbenzene	ND	*0.2*
m,p-Xylene	23.5	*0.2*
o-Xylene	ND	*0.2*
	TOTAL *137.8 ug/L*	

ND - Not Detectable

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: DaL
Date: 12/7/94

OFF: (505) 325-8786

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Shawn Adams*	Date:	12/14/94
Company:	*Contract Environmental Services, Inc.*	*Lab ID:*	*2553*
Address:	*P.O. Box 505*	*Sample ID:*	*4371*
City, State:	*Kirtland, NM 87417*	*Job No.*	*2-1000*

Project Name:	***Questar Energy Corporation***				
Project Location:	***MW3-A USARGO #1E***				
Sampled by:	SA	Date:	12/13/94	Time:	13:45
Analyzed by:	DLA	Date:	12/14/94		
Sample Matrix:	*Water*				

Aromatic Volatile Organics

Component	*Measured Concentration ug/L*	*Detection Limit Concentration ug/L*
Benzene	661.3	*0.2*
Toluene	2.3	*0.2*
Ethylbenzene	99.7	*0.2*
m,p-Xylene	ND	*0.2*
o-Xylene	4.5	*0.2*
	TOTAL *767.8 ug/L*	

ND - Not Detectable

Method *- SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: *Date:* 12/14/94

OFF: (505) 325-8786

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Shawn Adams*	Date:	12/14/94
Company:	*Contract Environmental Services, Inc.*	*Lab ID:*	*2553*
Address:	*P.O. Box 505*	*Sample ID:*	*4372*
City, State:	*Kirtland, NM 87417*	*Job No.*	*2-1000*

Project Name:	***Questar Energy Corporation***				
Project Location:	***MW3-B USARGO #1E***				
Sampled by:	SA	Date:	12/13/94	Time:	14:10
Analyzed by:	DLA	Date:	12/14/94		
Sample Matrix:	*Water*				

Aromatic Volatile Organics

Component	*Measured Concentration ug/L*	*Detection Limit Concentration ug/L*
Benzene	95.2	*0.2*
Toluene	0.6	*0.2*
Ethylbenzene	20.2	*0.2*
m,p-Xylene	ND	*0.2*
o-Xylene	0.3	*0.2*
	TOTAL 116.3 ug/L	

ND - Not Detectable

Method *- SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by:
Date: 12/14/94

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Shawn Adams*	Date:	12/14/94
Company:	*Contract Environmental Services, Inc.*	*Lab ID:*	*2553*
Address:	*P.O. Box 505*	*Sample ID:*	*4373*
City, State:	*Kirtland, NM 87417*	*Job No.*	*2-1000*

Project Name:	***Questar Energy Corporation***				
Project Location:	***MW3-C USARGO #1E***				
Sampled by:	SA	Date:	12/13/94	Time:	14:41
Analyzed by:	DLA	Date:	12/14/94		
Sample Matrix:	*Water*				

Aromatic Volatile Organics

Component	***Measured Concentration ug/L***	***Detection Limit Concentration ug/L***
Benzene	73.9	*0.2*
Toluene	ND	*0.2*
Ethylbenzene	20.7	*0.2*
m,p-Xylene	ND	*0.2*
o-Xylene	ND	*0.2*
	TOTAL *94.6 ug/L*	

ND - Not Detectable

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: [signature]
Date: 12/14/94

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Shawn Adams*	Date:	4/4/95
Company:	*Contract Environmental Services, Inc.*	*Lab ID:*	*2666*
Address:	*P.O. Box 505*	*Sample ID:*	*5767*
City, State:	*Kirtland, NM 87499*	*Job No.*	*2-1000*

Project Name:	***Questar Energy Company***				
Project Location:	***ARGO - 590A / ARGO - 590B USARGO 1E MW - 3***				
Sampled by:	SA	Date:	4/3/95	Time:	16:00
Analyzed by:	DLA	Date:	4/4/95		
Sample Matrix:	*Water*				

Aromatic Volatile Organics

Component	*Measured Concentration ug/L*	*Detection Limit Concentration ug/L*
Benzene	24.4	*0.2*
Toluene	ND	*0.2*
Ethylbenzene	7.0	*0.2*
m,p-Xylene	ND	*0.2*
o-Xylene	ND	*0.2*
	TOTAL *31.3 ug/L*	

ND - Not Detectable

Method *- SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: Jack
Date: 4/4/95

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Shawn Adams*	Date:	4/13/95
Company:	*Contract Environmental Services, Inc.*	*Lab ID:*	*2982*
Address:	*P.O. Box 505*	*Sample ID:*	*5864*
City, State:	*Kirtland, NM 87417*	*Job No.*	*2-1000*

Project Name:	***Questar Energy Company***				
Project Location:	***US ARGO #1E - MW#3***				
Sampled by:	SA	Date:	4/11/95	Time:	15:33
Analyzed by:	DC	Date:	4/12/95		
Sample Matrix:	*Water*				

Aromatic Volatile Organics

Component	***Measured Concentration ug/L***	***Detection Limit Concentration ug/L***
Benzene	78.2	*0.2*
Toluene	3.5	*0.2*
Ethylbenzene	24.5	*0.2*
m,p-Xylene	6.8	*0.2*
o-Xylene	2.2	*0.2*
	TOTAL 115.2 *ug/L*	

ND - Not Detectable

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: DaL
Date: 4/13/95

OFF: (505) 325-8786

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Shawn Adams*	Date:	8-Sep-95
Company:	*Contract Environmental Services, Inc.*	*COC No.:*	*3180*
Address:	*P.O. Box 505*	*Sample No.*	*8108*
City, State:	*Kirtland, NM 87417*	*Job No.*	*2-1000*

Project Name:	***Questar Energy Company - US Argo 1E***				
Project Location:	***ARGO-203 MW by Tank (MW3)***				
Sampled by:	SA	Date:	7-Sep-95	Time:	12:06
Analyzed by:	DC	Date:	7-Sep-95		
Type of Sample:	*Water*				

Aromatic Volatile Organics

Component	*Measured Concentration ug/L*	*Detection Limit Concentration ug/L*
Benzene	ND	0.2
Toluene	0.4	0.2
Ethylbenzene	32.9	0.2
m,p-Xylene	3.4	0.2
o-Xylene	ND	0.2
	TOTAL 36.7 *ug/L*	

ND - Not Detectable

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: DaL

Date: 9/8/95

ON SITE
TECHNOLOGIES, LTD.

OFF: (505) 325-8786

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Shawn Adams*	Date:	27-Feb-96
Company:	*Contract Environmental Services, Inc.*	*COC No.:*	*3197*
Address:	*P.O. Box 505*	*Sample No.*	*10330*
City, State:	*Kirtland, NM 87417*	*Job No.*	*2-1000*

Project Name:	***Questar Energy Co. - US Argo #1E***				
Project Location:	***ARGO-900 MW#3 After 3 Volumes***				
Sampled by:	SA	Date:	26-Feb-96	Time:	12:30
Analyzed by:	DC	Date:	27-Feb-96		
Type of Sample:	*Liquid*				

Aromatic Volatile Organics

Component	*Result*	*Units of Measure*	*Detection Limit*	*Units of Measure*
Benzene	19.4	*ug/L*	0.2	*ug/L*
Toluene	0.3	*ug/L*	0.2	*ug/L*
Ethylbenzene	4.2	*ug/L*	0.2	*ug/L*
m,p-Xylene	<0.2	*ug/L*	0.2	*ug/L*
o-Xylene	<0.2	*ug/L*	0.2	*ug/L*
TOTAL	23.8	*ug/L*		

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: [signature]
Date: 2/27/96

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn:	*Shawn Adams*	Date:	6-Sep-96
Company:	*Contract Environmental Services, Inc.*	*COC No.:*	*4432*
Address:	*P.O. Box 505*	*Sample No.*	*11983*
City, State:	*Kirtland, NM 87417*	*Job No.*	*2-1000*

Project Name:	***Questar Energy Co. - US Argo 1E***				
Project Location:	***ARGO-100; MW #3***				
Sampled by:	SA	Date:	4-Sep-96	Time:	12:18
Analyzed by:	DC	Date:	5-Sep-96		
Sample Matrix:	*Liquid*				

Laboratory Analysis

Parameter	*Result*	*Unit of Measure*	*Detection Limit*	*Unit of Measure*
Benzene	0.8	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	0.8	ug/L	0.2	ug/L
m,p-Xylene	0.2	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL	1.9	ug/L		

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: JaC

Date: 9/6/96

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn:	*Shawn Adams*	Date:	20-Jan-97
Company:	*Contract Environmental Services, Inc.*	*COC No.:*	*6266*
Address:	*P.O. Box 505*	*Sample No.*	*13413*
City, State:	*Kirtland, NM 87417*	*Job No.*	*2-1000*

Project Name:	***Questar Energy Co. - US Argo #1E***				
Project Location:	***ARGO-300; Monitor Well***				
Sampled by:	JB	Date:	16-Jan-97	Time:	13:30
Analyzed by:	HR	Date:	17-Jan-97		
Sample Matrix:	*Liquid*				

Laboratory Analysis

Parameter	*Result*	*Unit of Measure*	*Detection Limit*	*Unit of Measure*
Benzene	0.6	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	1.0	ug/L	0.2	ug/L
m,p-Xylene	<0.2	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL	1.7	ug/L		

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by:
Date: 1/20/97

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Attn:	*Shawn Adams*	Date:	11-Apr-97
Company:	*Contract Environmental Services, Inc.*	COC No.:	*6305*
Address:	*P.O. Box 3376*	Sample No.:	*14129*
City, State:	*Farmington, NM 87499*	Job No.:	*2-1000*

Project Name:	***Questar Energy Co. - US Argo 1E***				
Project Location:	***ARGO-3000; MW-3***				
Sampled by:	JB	Date:	8-Apr-97	Time:	11:40
Analyzed by:	DC	Date:	10-Apr-97		
Sample Matrix:	*Liquid*				

Parameter	*Result*	*Unit of Measure*	*Detection Limit*	*Unit of Measure*
Benzene	2.3	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	3.8	ug/L	0.2	ug/L
m,p-Xylene	0.3	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL	6.4	ug/L		

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved By: DAC

Date: 4/11/97

OFF: (505) 325-8786

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Shawn Adams*	Date:	12/7/94
Company:	*Contract Environmental Services, Inc.*	*Lab ID:*	*2197*
Address:	*P.O. Box 505*	*Sample ID:*	*4292*
City, State:	*Kirtland, NM 87417*	*Job No.*	*2-1000*

Project Name:	***Questar Energy Co.***				
Project Location:	***ARGO-702 US ARGO #1E Near MOI MW #4***				
Sampled by:	SA	Date:	12/6/94	Time:	16:08
Analyzed by:	DLA	Date:	12/7/94		
Sample Matrix:	*Water*				

Aromatic Volatile Organics

Component	*Measured Concentration ug/L*	*Detection Limit Concentration ug/L*
Benzene	ND	*0.2*
Toluene	ND	*0.2*
Ethylbenzene	ND	*0.2*
m,p-Xylene	ND	*0.2*
o-Xylene	ND	*0.2*
	TOTAL 0.0 ug/L	

ND - Not Detectable

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: DaL

Date: 12/7/94

OFF: (505) 325-8786

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Shawn Adams*	Date:	8-Sep-95
Company:	*Contract Environmental Services, Inc.*	*COC No.:*	*3180*
Address:	*P.O. Box 505*	*Sample No.*	*8107*
City, State:	*Kirtland, NM 87417*	*Job No.*	*2-1000*

Project Name:	***Questar Energy Company - US Argo 1E***				
Project Location:	***ARGO-202 MW by MOI (MW4)***				
Sampled by:	SA	Date:	7-Sep-95	Time:	11:38
Analyzed by:	DC	Date:	7-Sep-95		
Type of Sample:	*Water*				

Aromatic Volatile Organics

Component	***Measured Concentration ug/L***	***Detection Limit Concentration ug/L***
Benzene	ND	0.2
Toluene	ND	0.2
Ethylbenzene	ND	0.2
m,p-Xylene	ND	0.2
o-Xylene	ND	0.2
	TOTAL 0.0 *ug/L*	

ND - Not Detectable

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: Jack

Date: 9/8/95

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn:	*Shawn Adams*	Date:	20-Jan-97
Company:	*Contract Environmental Services, Inc.*	*COC No.:*	*6266*
Address:	*P.O. Box 505*	*Sample No.*	*13414*
City, State:	*Kirtland, NM 87417*	*Job No.*	*2-1000*

Project Name:	***Questar Energy Co. - US Argo #1E***				
Project Location:	***ARGO-400; Monitor Well***				
Sampled by:	JB	Date:	16-Jan-97	Time:	13:10
Analyzed by:	HR	Date:	17-Jan-97		
Sample Matrix:	*Liquid*				

Laboratory Analysis

Parameter	*Result*	*Unit of Measure*	*Detection Limit*	*Unit of Measure*
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	<0.2	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL	<0.2	ug/L		

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by:
Date: 1/20/97

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Attn:	*Shawn Adams*	Date:	11-Apr-97
Company:	*Contract Environmental Services, Inc.*	COC No.:	*6305*
Address:	*P.O. Box 3376*	Sample No.:	*14130*
City, State:	*Farmington, NM 87499*	Job No.:	*2-1000*

Project Name:	***Questar Energy Co. - US Argo 1E***				
Project Location:	***ARGO-4000; MW-4***				
Sampled by:	JB	Date:	8-Apr-97	Time:	12:25
Analyzed by:	DC	Date:	10-Apr-97		
Sample Matrix:	*Liquid*				

Parameter	*Result*	*Unit of Measure*	*Detection Limit*	*Unit of Measure*
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	<0.2	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL	<0.2	ug/L		

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved By:
Date: 4/11/97

Monitor Well #3

Rigorous Lab Analyses Data

ANALYTICA
ENVIRONMENTAL LABORATORY

BILLED TO CES, INC. 4/2/96
INV # 1412

PURGEABLE AROMATICS

Contract Environmental Services, Inc.

Project ID:	Argo - 950	Report Date:	03/14/96
Sample ID:	MW - 3	Date Sampled:	03/08/96
Lab ID:	2888	Date Received:	03/11/96
Sample Matrix:	Water	Date Analyzed:	03/12/96
Preservative:	Cool		
Condition:	Intact		

Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	6.44	0.20
Toluene	0.41	0.20
Ethylbenzene	4.79	0.20
m,p-Xylenes	ND	0.40
o-Xylene	ND	0.20

Total BTEX	**11.6**

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Trifluorotoluene	106	88 - 110%
Bromofluorobenzene	87	86 - 115%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:

Analyst

Review

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

API WATER ANALYSIS

Attn:	*Shawn Adams*	Date:	4/19/95
Company:	*Contract Environmental Services, Inc.*	*COC No.:*	*2982*
Address:	*P.O. Box 505*	*Sample ID:*	*5868*
City, State:	*Kirtland, NM 87417*	*Job No.:*	*2-1000*

Project Name:	***Questar Energy Company***				
Project Location:	***US ARGO #1E - MW#3***				
Sampled by:	SA	Date:	4/11/95	Time:	15:37
Analyzed by:	DC	Date:	4/19/95		

API RP-45 Laboratory Analysis

DISSOLVED SOLIDS

CATIONS

Sodium	*Na*	641	*mg/L*
Calcium	*Ca*	65.2	*mg/L*
Magnesium	*Mg*	5.0	*mg/L*
Potassium	*K*	3.5	*mg/L*

ANIONS

Chloride	*Cl*	9	*mg/L*
Sulfate	*SO4*	1,560	*mg/L*
Carbonate	*CO3*	<1	*mg/L*
Bicarbonate	*HCO3*	474	*mg/L*
Hyroxide	*OH*	<1	*mg/L*
Alkalinity (Total)		474	*mg/L*

Total Dissolved Solids		2,758	*mg/L*
Iron	*Fe (total)*	1.3	*mg/L*
Sulfide	*H2S*	*NT*	*mg/L*

OTHER PROPERTIES

pH	7.68
Specific Gravity 60/60 F	1.0022
Resistivity (ohm-meters) 60 F	0.3273
Total Hardness as CaCO3 ppm	183

Comments:

**ND:* *Not Detectable - Positive/Negative*
***NT:* *Not Analyzed*

Approved by: Da Cy
Date: 4/19/95

ILFC Laboratory Report

Sample Date: 4/12/95

On Site Technologies Limited

Registered Date/Time: 04/21/1995 11:41:25 AM

US Argo #1E

ARGO-901

Batch # **95185** Water ILFC # **10818**

EPA 8270

Analyte	MDL	Concentration	Date Analyzed	Analyst
Acenaphthene	1 ug/L	<1	April 20, 1995	Dean Dupree
Acenaphthylene	1 ug/L	<1		
Benzo (a) anthracene	1 ug/L	<1		
Benzo (a) pyrene	1 ug/L	<1		
Pyrene	1 ug/L	<1		
Benzo(b)fluoranthene	1 ug/L	<1		
Benzo(ghi)perylene	1 ug/L	<1		
Benzo(k)fluoranthene	1 ug/L	<1		
Chrysene	1 ug/L	<1		
Dibenzo(a,h)anthrace	1 ug/L	<1		
Fluoranthene	1 ug/L	<1		
Fluorene	1 ug/L	<1		
Indeno(1,2,3-cd)pyre	1 ug/L	<1		
Naphthalene	1 ug/L	<1		
Phenanthrene	1 ug/L	<1		

End of Analyses

CORE LABORATORIES

LABORATORY TESTS RESULTS
04/28/95

JOB NUMBER: 951106 CUSTOMER: ONSITE TECHNOLOGIES LIMITED ATTN: DAVE COX*******

CLIENT I.D.....: US ARGO #1E
DATE SAMPLED.....: 04/11/95
TIME SAMPLED.....: 15:33
WORK DESCRIPTION...: ARGO-902 US ARGO #1E

LABORATORY I.D...: 951106-0001
DATE RECEIVED....: 04/13/95
TIME RECEIVED....: 10:00
REMARKS.....: SAMPLED BY: S.A.

TEST DESCRIPTION	FINAL RESULT	LIMITS/*DILUTION	UNITS OF MEASURE	TEST METHOD	DATE	TECHN
ICP scan for 23 elements		*1		23 element scan	04/25/95	JEM
Silver (Ag), total	<5	5	mg/L	Scan		
Aluminum (Al), total	<5	5	mg/L	Scan		
Arsenic (As), total	<5	5	mg/L	Scan		
Barium (Ba), total	<5	5	mg/L	Scan		
Beryllium (Be), total	<5	5	mg/L	Scan		
Calcium (Ca), total	63	10	mg/L	Scan		
Cadmium (Cd), total	<5	5	mg/L	Scan		
Cobalt (Co), total	<5	5	mg/L	Scan		
Chromium (Cr), total	<5	5	mg/L	Scan		
Copper (Cu), total	<5	5	mg/L	Scan		
Iron (Fe), total	<5	5	mg/L	Scan		
Magnesium (Mg), total	6	5	mg/L	Scan		
Manganese (Mn), total	<5	5	mg/L	Scan		
Molybdenum (Mo), total	<5	5	mg/L	Scan		
Sodium (Na), total	538	100	mg/L	Scan		
Nickel (Ni), total	<5	5	mg/L	Scan		
Lead (Pb), total	<5	5	mg/L	Scan		
Antimony (Sb), total	<5	5	mg/L	Scan		
Selenium (Se), total	<5	5	mg/L	Scan		
Titanium (Ti), total	<5	5	mg/L	Scan		
Thallium (Tl), total	<5	5	mg/L	Scan		
Vanadium (V), total	<5	5	mg/L	Scan		
Zinc (Zn), total	<5	5	mg/L	Scan		
ICP Metals Digest	Completed			EPA 200.7	04/25/95	EBS
Boron (B), total	0.17	0.05	mg/L	EPA 200.7	04/25/95	JEM
Selenium (Se), total	<0.05	0.05	mg/L	EPA SW-846 6010	04/25/95	JEM
Mercury (Hg), total	<0.002	0.002	mg/L	EPA SW-846 7470	04/17/95	JJP

1733 NORTH PADRE ISLAND DRIVE
CORPUS CHRISTI, TX 78408
(512) 289-2673

CORE LABORATORIES

LABORATORY TESTS RESULTS
04/28/95

JOB NUMBER: 951106 CUSTOMER: ONSITE TECHNOLOGIES LIMITED ATTN: DAVE COX*******

CLIENT I.D.....: US ARGO #1E
DATE SAMPLED.....: 04/11/95
TIME SAMPLED.....: 15:33
WORK DESCRIPTION...: ARGO-903 US ARGO #1E

LABORATORY I.D...: 951106-0002
DATE RECEIVED....: 04/13/95
TIME RECEIVED....: 10:00
REMARKS.....: SAMPLED BY: S.A.

TEST DESCRIPTION	FINAL RESULT	LIMITS/*DILUTION	UNITS OF MEASURE	TEST METHOD	DATE	TECHN
Cyanide, Total (CN)	<0.02	0.02	mg/L	EPA 335.2	04/24/95	*LC

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CORPUS CHRISTI, TX 78408
(512) 289-2673

OIL CONSERVATION DIVISION
2040 S. Pacheco
Santa Fe, New Mexico 87505

August 7, 1995

CERTIFIED MAIL
RETURN RECEIPT NO. Z-765-962-383

Mr. Phil Emig
Questar Energy Company
P.O. Box 2330
Farmington, New Mexico 87499

RE: U.S. ARGO #1E REMEDIATION, QUESTAR ENERGY COMPANY

Dear Mr. Emig:

The New Mexico Oil Conservation Division (OCD) has reviewed Questar Energy Company's (QEC) June 9, 1995 "QUESTAR ENERGY COMPANY, U.S. ARGO #1E, MONITOR WELL #3 INTENSIVE WATER ANALYSES" which was submitted on behalf of QEC by their consultant Contract Environmental Services, Inc. This document contains the results of QEC's recent ground water quality sampling at QEC's U.S. Argo #1E well site located in Unit N, Sec. 18, T27N, R10W NMPM San Juan County, New Mexico. The document also requests permission for temporary discharge of ammonium nitrate to ground water to promote insitu biodegradation of contaminated ground water and to monitor ground water quality on a quarterly basis.

The OCD already approved this proposal on March 22, 1995. Therefore, additional OCD approval for the above referenced request is not necessary. However, the OCD would like to remind you that, under the conditions of the March 22, 1995 approval, OCD's temporary authorization to discharge ammonium nitrate to ground water expired on July 21, 1995. If QEC wishes to continue discharges to ground water, QEC is required to submit a New Mexico Water Quality Control Commission discharge plan application.

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

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

xc: OCD Aztec Office
Shawn Adams, Contract Environmental Services, Inc.

Contract Environmental Services, Inc.
Post Office Box 505
Kirtland, New Mexico 87417-0505
Phone (505) 325-1198

June 9, 1995

New Mexico Oil Conservation Division
Mr. Bill Olson
2040 South Pacheco
Santa Fe, New Mexico 87520

RE: Questar Energy Company, U.S. Argo #1E, Monitor Well #3, Intensive Water Analyses

Dear Mr. Olson,

In reviewing the most recent laboratory data of April 11, 1995 it became apparent the Benzene concentration in the groundwater from Monitor Well #3 is lessening. On December 6, 1994 the Benzene concentration measured 113.7 PPB; on December 13, 1994 the Benzene concentration measured 95.2 PPB; and for the most recent sampling on April 11, 1995 the Benzene concentration measured 78.2 PPB. Each of these sampling events followed removal of three well volumes prior to sampling. All other BTEX components, Toluene, Ethylbenzene, and Xylenes were well below the requirements in Title 20 Chapter 7 Part 1 Drinking Water Regulations from the New Mexico Environment Department, effective January 1, 1995.

The impact to groundwater at this location appears minimal. Therefore, we request that Questar Energy Company be allowed to abandon a groundwater remediation plan for this site and instead shift to monitoring the wells quarterly. We still plan to distribute a load (80 BBL) of water and 10PPM Nitrogen into the excavation to assist in remediation of the groundwater and soil. Quarterly monitoring would continue until Benzene concentrations decline to below required levels using the BTEX analysis. Once this task is accomplished, quarterly monitoring will cease and the monitor wells will be properly plugged.

If you have questions or require additional information, please don't hesitate to contact our offices at (505) 325-1198.

Sincerely,

Shawn A. Adams
Contract Environmental Services, Inc.

Copy: MR DENNY FOUST, AZTEC

Contract Environmental Services, Inc.
Post Office Box 505
Kirtland, New Mexico 87417-0505
Phone (505) 325-1198

New Mexico Oil Conservation Division
Mr. Bill Olson
2040 South Pacheco Street
Santa Fe, New Mexico 87505

Dear Mr. Olson:

This cover letter is to accompany the lab results sent to your office on May 24, 1995. Page 1 of the lab results is titled "**On Site Technologies, Ltd.**" "**Aromatic Volatile Organics**". The project name on page 1 is titled "**Questar Energy Company**" and the project location is titled "**U.S. Argo #1E - MW#3**". The date of the water sampling is "**4/11/95**".

This laboratory data is in response to your request that Questar Energy Company complete a detailed laboratory analysis of at least one of the four monitor wells on the U.S. Argo #1E well location. We chose to analyze MW#3 because it was the well with the highest contamination levels.

I inadvertently left this cover letter out of the package sent to your office on May 24, 1995. If you require additional information or have questions, please don't hesitate to contact our offices at 505-325-1198.

Sincerely

Shawn A. Adams
Contract Environmental Services, Inc.

Copy: Mr. Denny Foust, Farmington NMOCD Office

Bill -

Here is the lab results from the Questar Energy Company Well US Argo #1E from Monitor well #3. Let me know if I can do anything else for you!

Shawn Adams

CONTRACT ENVIRONMENTAL SERVICES, INC.

SHAWN A. ADAMS
Owner

Post Office Box 505
Kirtland, New Mexico 87417-0505 505-325-1198

ON SITE
TECHNOLOGIES, LTD.
OFF: (505) 325-8786
LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Shawn Adams*	Date:	4/13/95
Company:	*Contract Environmental Services, Inc.*	*Lab ID:*	*2982*
Address:	*P.O. Box 505*	*Sample ID:*	*5864*
City, State:	*Kirtland, NM 87417*	*Job No.*	*2-1000*

Project Name:	***Questar Energy Company***				
Project Location:	***US ARGO #1E - MW#3***				
Sampled by:	SA	Date:	4/11/95	Time:	15:33
Analyzed by:	DC	Date:	4/12/95		
Sample Matrix:	*Water*				

Aromatic Volatile Organics

Component	*Measured Concentration ug/L*	*Detection Limit Concentration ug/L*
Benzene	78.2	*0.2*
Toluene	3.5	*0.2*
Ethylbenzene	24.5	*0.2*
m,p-Xylene	6.8	*0.2*
o-Xylene	2.2	*0.2*
	TOTAL 115.2 *ug/L*	

ND - Not Detectable

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: Da 4
Date: 4/13/95

OFF: (505) 325-8786

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-5667

API WATER ANALYSIS

Attn:	*Shawn Adams*	Date:	4/19/95
Company:	*Contract Environmental Services, Inc.*	*COC No.:*	*2982*
Address:	*P.O. Box 505*	*Sample ID:*	*5868*
City, State:	*Kirtland, NM 87417*	*Job No.:*	*2-1000*

Project Name:	***Questar Energy Company***				
Project Location:	***US ARGO #1E - MW#3***				
Sampled by:	SA	Date:	4/11/95	Time:	15:37
Analyzed by:	DC	Date:	4/19/95		

API RP-45 Laboratory Analysis

DISSOLVED SOLIDS

CATIONS

Sodium	*Na*	641	*mg/L*
Calcium	*Ca*	65.2	*mg/L*
Magnesium	*Mg*	5.0	*mg/L*
Potassium	*K*	3.5	*mg/L*

ANIONS

Chloride	*Cl*	9	*mg/L*
Sulfate	*SO4*	1,560	*mg/L*
Carbonate	*CO3*	<1	*mg/L*
Bicarbonate	*HCO3*	474	*mg/L*
Hyroxide	*OH*	<1	*mg/L*
Alkalinity (Total)		474	*mg/L*

Total Dissolved Solids		2,758	*mg/L*
Iron	*Fe (total)*	1.3	*mg/L*
Sulfide	*H2S*	*NT*	*mg/L*

OTHER PROPERTIES

pH	7.68
Specific Gravity 60/60 F	1.0022
Resistivity (ohm-meters) 60 F	0.3273
Total Hardness as CaCO3 ppm	183

Comments:

**ND:* *Not Detectable - Positive/Negative*

***NT:* *Not Analyzed*

Approved by: Da Cy

Date: 4/19/95

ILFC Laboratory Report

Sample Date: 4/12/95

On Site Technologies Limited

Registered Date/Time: 04/21/1995 11:41:25 AM

US Argo #1E

ARGO-901

Batch # **95185** Water ILFC # 10818

EPA 8270

Analyte	MDL	Concentration	Date Analyzed	Analyst
Acenaphthene	1 ug/L	<1	April 20, 1995	Dean Dupree
Acenaphthylene	1 ug/L	<1		
Benzo (a) anthracene	1 ug/L	<1		
Benzo (a) pyrene	1 ug/L	<1		
Pyrene	1 ug/L	<1		
Benzo(b)fluoranthene	1 ug/L	<1		
Benzo(ghi)perylene	1 ug/L	<1		
Benzo(k)fluoranthene	1 ug/L	<1		
Chrysene	1 ug/L	<1		
Dibenzo(a,h)anthrace	1 ug/L	<1		
Fluoranthene	1 ug/L	<1		
Fluorene	1 ug/L	<1		
Indeno(1,2,3-cd)pyre	1 ug/L	<1		
Naphthalene	1 ug/L	<1		
Phenanthrene	1 ug/L	<1		

End of Analyses

CORELAB

CORE LABORATORIES

LABORATORY TESTS RESULTS
04/28/95

JOB NUMBER: 951106 CUSTOMER: ONSITE TECHNOLOGIES LIMITED ATTN: DAVE COX*******

CLIENT I.D.....: US ARGO #1E
DATE SAMPLED.....: 04/11/95
TIME SAMPLED.....: 15:33
WORK DESCRIPTION...: ARGO-902 US ARGO #1E

LABORATORY I.D...: 951106-0001
DATE RECEIVED....: 04/13/95
TIME RECEIVED....: 10:00
REMARKS.....: SAMPLED BY: S.A.

TEST DESCRIPTION	FINAL RESULT	LIMITS/*DILUTION	UNITS OF MEASURE	TEST METHOD	DATE	TECHN
ICP scan for 23 elements		*1		23 element scan	04/25/95	JEM
Silver (Ag), total	<5	5	mg/L	Scan		
Aluminum (Al), total	<5	5	mg/L	Scan		
Arsenic (As), total	<5	5	mg/L	Scan		
Barium (Ba), total	<5	5	mg/L	Scan		
Beryllium (Be), total	<5	5	mg/L	Scan		
Calcium (Ca), total	63	10	mg/L	Scan		
Cadmium (Cd), total	<5	5	mg/L	Scan		
Cobalt (Co), total	<5	5	mg/L	Scan		
Chromium (Cr), total	<5	5	mg/L	Scan		
Copper (Cu), total	<5	5	mg/L	Scan		
Iron (Fe), total	<5	5	mg/L	Scan		
Magnesium (Mg), total	6	5	mg/L	Scan		
Manganese (Mn), total	<5	5	mg/L	Scan		
Molybdenum (Mo), total	<5	5	mg/L	Scan		
Sodium (Na), total	538	100	mg/L	Scan		
Nickel (Ni), total	<5	5	mg/L	Scan		
Lead (Pb), total	<5	5	mg/L	Scan		
Antimony (Sb), total	<5	5	mg/L	Scan		
Selenium (Se), total	<5	5	mg/L	Scan		
Titanium (Ti), total	<5	5	mg/L	Scan		
Thallium (Tl), total	<5	5	mg/L	Scan		
Vanadium (V), total	<5	5	mg/L	Scan		
Zinc (Zn), total	<5	5	mg/L	Scan		
ICP Metals Digest	Completed			EPA 200.7	04/25/95	EBS
Boron (B), total	0.17	0.05	mg/L	EPA 200.7	04/25/95	JEM
Selenium (Se), total	<0.05	0.05	mg/L	EPA SW-846 6010	04/25/95	JEM
Mercury (Hg), total	<0.002	0.002	mg/L	EPA SW-846 7470	04/17/95	JJP

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CORPUS CHRISTI, TX 78408
(512) 289-2673

CORELAB

CORE LABORATORIES

LABORATORY TESTS RESULTS
04/28/95

JOB NUMBER: 951106 CUSTOMER: ONSITE TECHNOLOGIES LIMITED ATTN: DAVE COX*******

CLIENT I.D.....: US ARGO #1E
DATE SAMPLED.....: 04/11/95
TIME SAMPLED.....: 15:33
WORK DESCRIPTION...: ARGO-903 US ARGO #1E

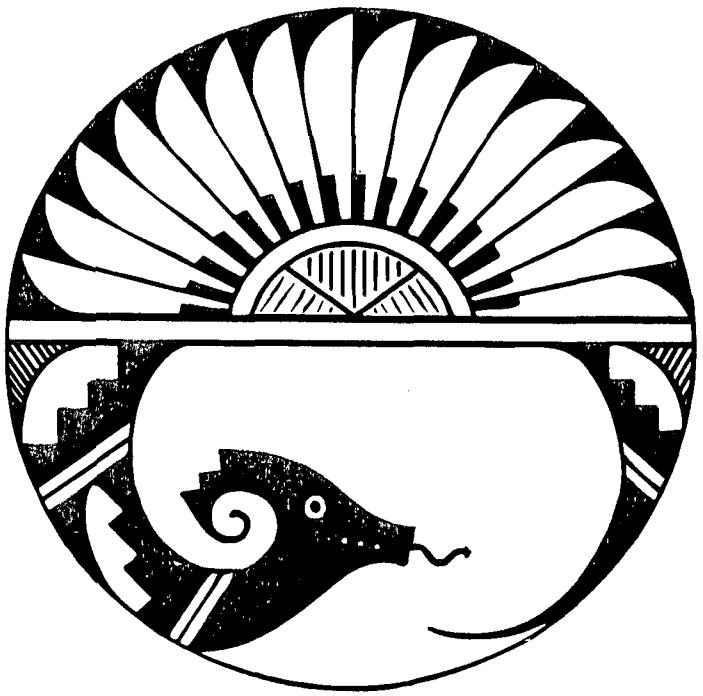
LABORATORY I.D...: 951106-0002
DATE RECEIVED....: 04/13/95
TIME RECEIVED....: 10:00
REMARKS.....: SAMPLED BY: S.A.

TEST DESCRIPTION	FINAL RESULT	LIMITS/*DILUTION	UNITS OF MEASURE	TEST METHOD	DATE	TECHN
Cyanide, Total (CN)	<0.02	0.02	mg/L	EPA 335.2	04/24/95	*LC

1733 NORTH PADRE ISLAND DRIVE
CORPUS CHRISTI, TX 78408
(512) 289-2673

Drinking Water Regulations

Title 20
Chapter 7
Part 1



New Mexico Environment Department

Drinking Water Bureau

Contaminant	MCL (mg/l)	MCL (μg/L)
1. Vinyl chloride	0.002	2
2. Benzene	0.005	5
3. Carbon tetrachloride	0.005	5
4. 1,2-Dichloroethane	0.005	5
5. Trichloroethylene	0.005	5
6. para-Dichlorobenzene	0.075	75
7. 1,1-Dichloroethylene	0.007	7
8. 1,1,1-Trichloroethane	0.2	200
9. cis-1,2-Dichloroethylene	0.07	70
10. 1,2-Dichloropropane	0.005	5
11. Ethylbenzene	0.7	700
12. Monochlorobenzene	0.1	100
13. o-Dichlorobenzene	0.6	600
14. Styrene	0.1	100
15. Tetrachloroethylene	0.005	5
16. Toluene	1	1000
17. trans-1,2-Dichloroethylene	0.1	100
18. Xylenes (total)	10	10000
19. Dichloromethane	0.005	5
20. 1,2,4-Trichlorobenzene	0.07	70
21. 1,1,2-Trichloroethane	0.005	5

204. [RESERVED]

205. MAXIMUM MICROBIOLOGICAL CONTAMINANT LEVELS.–

A. The MCL is based on the presence or absence of total coliforms in a sample, rather than coliform density.

1. For a system which collects at least 40 samples per month, if no more than 5.0 percent of the samples collected during a month are total coliform-positive, the system is in compliance with the MCL for total coliforms.

2. For a system which collects fewer than 40 samples/month, if no more than one sample collected during a month is total coliform-positive, the system is in compliance with the MCL for total coliforms.

B. Any fecal coliform-positive repeat sample or *E. coli*-positive repeat sample, or any total coliform-positive repeat sample following a fecal coliform-positive or *E. coli*-positive compliance sample constitutes a violation of the MCL for total coliforms. For purposes of the public notification requirements in Section 402 of this Part, this is a violation that may pose an acute risk to health.

206. MAXIMUM CONTAMINANT LEVELS FOR RADIUM-226, RADIUM-228, AND GROSS ALPHA PARTICLE RADIOACTIVITY.– The following are the maximum contaminant levels for radium-226, radium-228, and gross alpha particle radioactivity in community water systems:

13.	Pentachlorophenol	0.001	1
14.	Toxaphene	0.003	3
15.	2,4,5-TP	0.05	50
16.	Benzo[a]pyrene	0.0002	0.2
17.	Dalapon	0.2	200
18.	Di(2-ethylhexyl)adipate	0.4	400
19.	Di(2-ethylhexyl)phthalate	0.006	6
20.	Dinoseb	0.007	7
21.	Diquat	0.02	20
22.	Endothall	0.1	100
23.	Endrin	0.002	2
24.	Glyphosate	0.7	700
25.	Hexachlorobenzene	0.001	1
26.	Hexachlorocyclopentadiene	0.05	50
27.	Oxamyl (Vydate)	0.2	200
28.	Picloram	0.5	500
29.	Simazine	0.004	4
30.	2,3,7,8-TCDD (Dioxin)	3×10^{-8}	.00003

B. The following maximum contaminant level applies only to community water systems which serve a population of 10,000 or more individuals and which add a disinfectant to the water in any part of the drinking water treatment process. Compliance with the maximum contaminant level for trihalomethanes is calculated pursuant to Section 313.

Contaminant	MCL (mg/l)
Total trihalomethanes	0.10

C. The following maximum contaminant levels for organic contaminants apply to community and non-transient, non-community water systems.

202. MAXIMUM CONTAMINANT LEVELS FOR INORGANIC CONTAMINANTS.--

A. The maximum contaminant levels for inorganic contaminants specified in subsections A(1)-(2), A(4)-(8), A(10)-(16) of this Section apply to community water systems and non-transient, non-community water systems. The maximum contaminant levels specified in subsection A(3) and A(9) of this Section only apply to community water systems. The maximum contaminant levels specified in A(12)-(14) apply to community, non-transient non-community, and non-community water systems.

	Contaminant	MCL (mg/l)	MCL (μg/L)
1.	Antimony	0.006	6
2.	Asbestos	7 Million Fibers/liter (longer than 10 μm)	
3.	Arsenic	0.05	50
4.	Barium	2	2000
5.	Beryllium	0.004	4
6.	Cadmium	0.005	5
7.	Chromium	0.1	100
8.	Cyanide	0.2	200
9.	Fluoride	4.0	
10.	Mercury	0.002	2
11.	Nickel	0.1	100
12.	Nitrate (as N)	10	
13.	Nitrite (as N)	1	
14.	Total Nitrate and Nitrite (as N)	10	
15.	Selenium	0.05	50
16.	Thallium	0.002	2

203. MAXIMUM CONTAMINANT LEVELS FOR ORGANIC CONTAMINANTS.--

A. The following maximum contaminant levels for organic contaminants apply to community and non-transient, non-community water systems.

	Contaminant	MCL (mg/l)	MCL (μg/L)
1.	Alachlor	0.002	2
2.	Atrazine	0.003	3
3.	Carbofuran	0.04	40
4.	Chlordane	0.002	2
5.	Dibromochloropropane	0.0002	0.2
6.	2,4-D	0.07	70
7.	Ethylene dibromide	0.00005	0.05
8.	Heptachlor	0.0004	0.4
9.	Heptachlor epoxide	0.0002	0.2
10.	Lindane	0.0002	0.2
11.	Methoxychlor	0.04	40
12.	Polychlorinated biphenyls	0.0005	0.5

Contract Environmental Services, Inc.
Post Office Box 505
Kirtland, New Mexico 87417-0505
Phone (505) 325-1198

April 24, 1995

New Mexico Oil Conservation Division
Mr. Bill Olson
2040 South Pacheco
Santa Fe, New Mexico 87505

Dear Mr. Olson:

This letter is in response to the New Mexico Oil Conservation Division (NMOCD) letter dated March 22, 1995 concerning the U.S. Argo #1E Well Location. It provides the supplemental information you requested in paragraph 3. A complete record of all analyses and activities for this site are included. If you have questions or require additional information, please don't hesitate to contact our offices at (505) 325-1198 or stop by at 4200 Hawkins Road, Farmington.

Sincerely,

Shawn A. Adams
Contract Environmental Services, Inc.

Tabular Data from U.S. Argo #1E

Excavation #1

Sample No.	Date	Depth	Description	Results (PPM)
QEC-001	10/11/94	15'	Excavation #1	18,039 (PPM)
ARGO-100	10/25/94	16-17'	Excavation #1	B 239 (PPB)
				T 637 (PPB)
				E 649 (PPB)
				X 4913 (PPB)
ARGO-101	10/25/94	15-16'	Excavation #1	3,350 (PPM)

Test Pit #1 (near separator)

Sample No.	Date	Depth	Description	Results (PPM)
#1	10/20/94	5'	Field Headspace Test	4 (PPM)
#2	10/20/94	8'	Field Headspace Test	4 (PPM)
#3	10/20/94	10'	Field Headspace Test	5 (PPM)
#4	10/20/94	12-13'	Field Headspace Test	1617 (PPM)
#5	10/20/94	15-16'	Field Headspace Test	1492 (PPM)
ARG1E-009	10/20/94	15-16'	Lab Soil Clearance Test	1715 (PPM)

Test Pit #2 (near tank)

Sample No.	Date	Depth	Description	Results (PPM)
#1	10/20/94	5'	Field Headspace Test	5 (PPM)
#2	10/20/94	8'	Field Headspace Test	5 (PPM)
#3	10/20/94	12'	Field Headspace Test	3 (PPM)
#4	10/20/94	15'	Field Headspace Test	1 (PPM)
ARG1E-010	10/20/94	15-16'	Lab Soil Clearance Test	28 (PPM)

Test Pit #5

Sample No.	Date	Depth	Description	Results (PPM)
Continuous	1/11/95	To 14'	Visual inspection for line leak	None Detected
Continuous	1/11/95	To 14'	Odor inspection for line leak	None Detected

Test Pit #6

Sample No.	Date	Depth	Description	Results (PPM)
Continuous	1/11/95	To 15'	Visual inspection for line leak	None Detected
Continuous	1/11/95	To 15'	Odor inspection for line leak	None Detected

Test Pit #7

Sample No.	Date	Depth	Description	Results (PPM)
Continuous	1/11/95	To 13'	Visual inspection for line leak	None Detected
Continuous	1/11/95	To 13'	Odor inspection for line leak	None Detected

Monitor Well #1

Sample No.	Date	Depth	Description	Results (PPM)
#1	11/30/94	5-6.5'	Field Headspace Test	2.8 (PPM)
#2	11/30/94	10-12'	Field Headspace Test	3.2 (PPM)
#3	11/30/94	15-17'	Field Headspace Test	2.6 (PPM)
#4	11/30/94	20-22'	Field Headspace Test	3.5 (PPM)
#5	11/30/94	25-27'	Field Headspace Test	5.0 (PPM)
#6	11/30/94	30-32'	Field Headspace Test	1.6 (PPM)
ARGO-700	12/6/94	20'	Water Sample	B ND
				T ND
				E ND
				X ND

Monitor Well #2

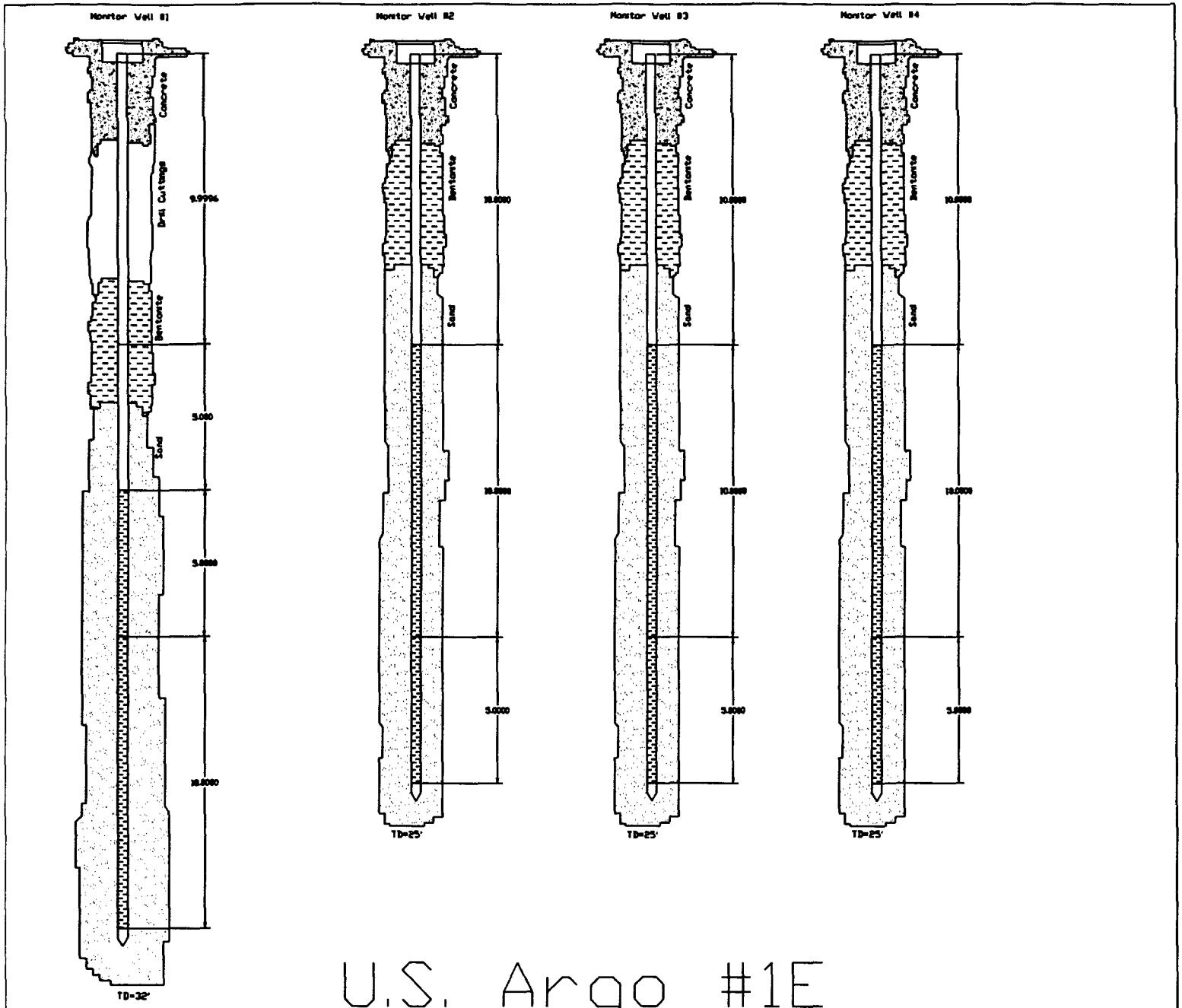
Sample No.	Date	Depth	Description	Results (PPM)
#1	11/30/94	5-7'	Field Headspace Test	3.7 (PPM)
#2	11/30/94	10-12'	Field Headspace Test	0
#3	11/30/94	15-17'	Field Headspace Test	0
#4	11/30/94	20-22'	Field Headspace Test	0
ARGO-703	12/6/94	15'	Water Sample	B ND (PPB)
				T 0.3 (PPB)
				E ND (PPB)
				X ND (PPB)

Monitor Well #3

Sample No.	Date	Depth	Description	Results (PPM)
#1	11/30/94	5-7'	Field Headspace Test	0
#2	11/30/94	10-12'	Field Headspace Test	0
#3	11/30/94	15-17'	Field Headspace Test	3 (PPM)
#4	11/30/94	20-22'	Field Headspace Test	2.5 (PPM)
#5	11/30/94	25-27'	Field Headspace Test	0
ARGO-701	12/6/94	15'	Water Sample	B 113.7 (PPB)
				T 0.5 (PPB)
				E ND
				X 23.5 (PPB)
MW3-A	12/14/94	15'	Water Sample-2 Bails	B 661.3 (PPB)
				T 2.3 (PPB)
				E 99.7 (PPB)
				X 4.5 (PPB)
MW3-B	12/14/94	15'	Water Sample-3 Volumes	B 95.2 (PPB)
				T 0.6 (PPB)
				E 20.2 (PPB)
				X 0.3 (PPB)
MW3-C	12/14/94	15'	Water Sample-6 Volumes	B 73.9 (PPB)
				T ND
				E 20.7 (PPB)
				X ND

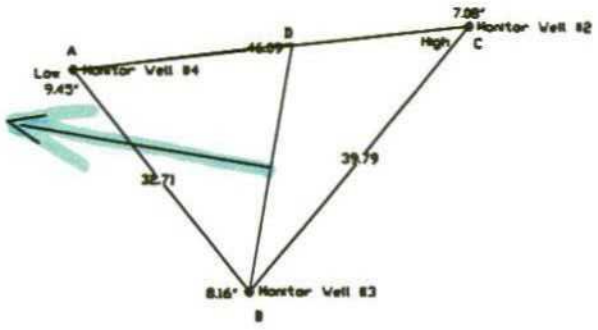
Monitor Well #4

Sample No.	Date	Depth	Description	Results (PPM)
#1	12/1/94	5-7'	Field Headspace Test	6 (PPM)
#2	12/1/94	10-12'	Field Headspace Test	6.1 (PPM)
#3	12/1/94	15-16'	Field Headspace Test	5.4 (PPM)
#4	12/1/94	20-22'	Field Headspace Test	6.8 (PPM)
ARGO-702	12/6/94	15'	Water Sample	B ND
				T ND
				E ND
				X ND


Monitor Well #1
Concrete
Drill Cuttings
9.9994
Bentonite
5.000
Sand
5.0000
10.0000
TD=32'
Monitor Well #2
Concrete
Bentonite
10.0000
Sand
10.0000
5.0000
TD=25'
Monitor Well #3
Concrete
Bentonite
10.0000
Sand
10.0000
5.0000
TD=25'
Monitor Well #4
Concrete
Bentonite
10.0000
Sand
10.0000
5.0000
TD=25'

U.S. Argo #1E

Questar Energy Company
U.S. Argo #1E



Monitor Well Survey Of December 9, 1994

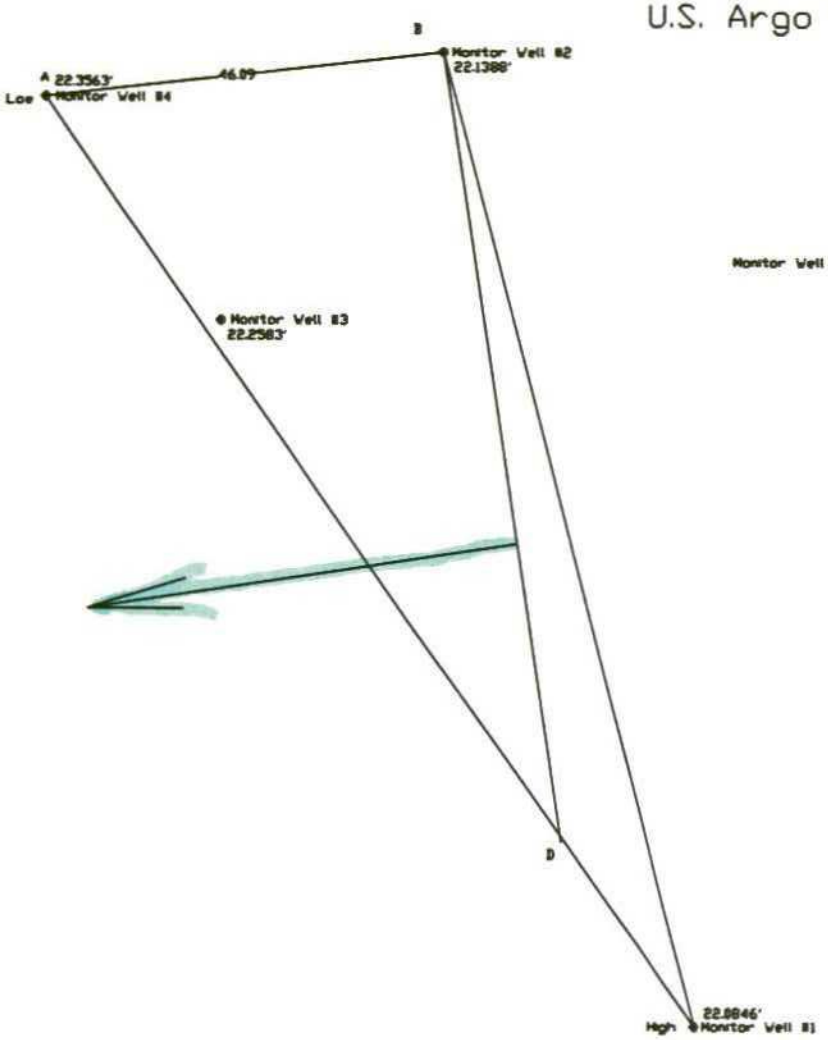
$$AD = AC\left(\frac{\text{diff AB}}{\text{diff AC}}\right)$$

$$AD = 46.09\left(\frac{1.29}{2.37}\right)$$

$$AD = 25.08'$$

●Monitor Well #1

Questar Energy Company
U.S. Argo #1E

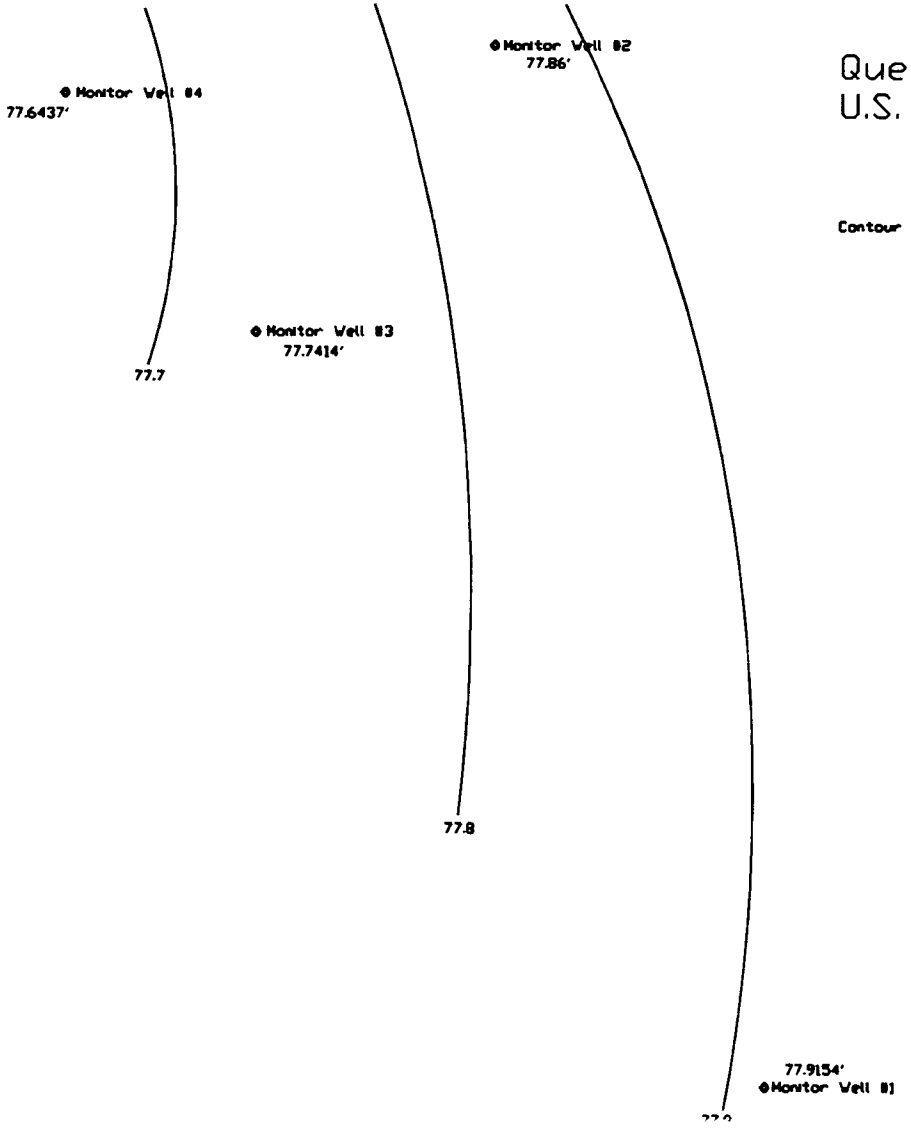


Monitor Well Survey Of April 11, 1995

$$AD = Ac\left(\frac{\text{diff AB}}{\text{diff Ac}}\right)$$

$$AD = 130.07\left(\frac{.2175}{.2717}\right)$$

$$AD = 104.12'$$



Questar Energy Company
U.S. Argo #1E

Contour lines are based on instrument elevation of 100' above sea level

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

TOTAL PETROLEUM HYDROCARBONS

Attn:	*Shawn Adams*	Date:	10/12/94
Company:	*Contract Env. Services, Inc.*	*Lab ID:*	*2187*
Address:	*P.O. Box 505*	*Sample No.*	*3523*
City, State:	*Kirtland, NM 87417-0505*	*Job No.*	*2-1000*

Project Name:	***Questar Energy Company***				
Project Location:	***QEC - 001***				
Sampled by:	SA	Date:	10/11/94	Time:	15:00
Analyzed by:	DLA	Date:	10/12/94		
Type of Sample:	*Soil*				

Laboratory Analysis

Laboratory Identification	***Sample Identification***	***Total Petroleum Hydrocarbons***
3523-2187	*Questar Energy Company* ***QEC - 001***	18,039 *mg/kg*

Method - *EPA Method 418.1 Total Petroleum Hydrocarbons*

Approved by:
Date: 10/13/94

OFF: (505) 325-8786

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TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Shawn Adams*	Date:	10/26/94
Company:	*Contract Env. Services, Inc.*	*Lab ID:*	*2238*
Address:	*P.O. Box 505*	*Sample ID:*	*3732*
City, State:	*Kirtland, NM 87417-0505*	*Job No.*	*2-1000*

Project Name:	***Questar Energy Company***			
Project Location:	***ARGO-100***			
Sampled by:	SA	Date:	10/25/94	Time:
Analyzed by:	DLA	Date:	10/26/94	
Sample Matrix:	*Water*			

Aromatic Volatile Organics

Component	*Measured Concentration ug/L*	*Detection Limit Concentration ug/L*
Benzene	239	*0.2*
Toluene	637	*0.2*
Ethylbenzene	549	*0.2*
m,p-Xylene	3,831	*0.2*
o-Xylene	1,082	*0.2*
	TOTAL *6,338 ug/L*	

ND - Not Detectable

Method *- SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by:
Date: 10/26/94

OFF: (505) 325-8786

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TECHNOLOGIES, LTD.

LAB: (505) 325-5667

TOTAL PETROLEUM HYDROCARBONS

Attn:	*Shawn Adams*	Date:	10/26/94
Company:	*Contract Env. Services, Inc.*	*Lab ID:*	*2238*
Address:	*P.O. Box 505*	*Sample No.*	*3733*
City, State:	*Kirtland, NM 87417-0505*	*Job No.*	*2-1000*

Project Name:	***Questar Energy Company***			
Project Location:	***ARGO-101 ARGO #1E; DEPTH 15-16' Exc #1***			
Sampled by:	SA	Date:	10/25/94	Time:
Analyzed by:	DC	Date:	10/26/94	
Type of Sample:	*Soil*			

Laboratory Analysis

Laboratory Identification	***Sample Identification***	***Total Petroleum Hydrocarbons***
3733-2238	*Questar Energy Company* ***ARGO-101 ARGO #1E; DEPTH 15-16' Exc #1***	3,350 *mg/kg*

Method - *EPA Method 418.1 Total Petroleum Hydrocarbons*

Approved by: Da Cx
Date: 10/26/94

OFF: (505) 325-8786

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TECHNOLOGIES, LTD.

LAB: (505) 325-5667

TOTAL PETROLEUM HYDROCARBONS

Attn:	*Shawn Adams*	Date:	10/21/94
Company:	*Contract Environmental Services, Inc.*	*Lab ID:*	*2191*
Address:	*P.O. Box 505*	*Sample No.*	*3676*
City, State:	*Kirtland, NM 87417*	*Job No.*	*2-1000*

Project Name:	***Questar Energy Company***				
Project Location:	***ARG1E-009 Soil Clearance 15-16' BGL ARGO #1E TP-1***				
Sampled by:	SA	Date:	10/20/94	Time:	15:00
Analyzed by:	DLA	Date:	10/21/94		
Type of Sample:	*Soil*				

Laboratory Analysis

Laboratory Identification	***Sample Identification***	***Total Petroleum Hydrocarbons***
3676-2191	*Questar Energy Company* ***ARG1E-009 Soil Clearance 15-16' BGL ARGO #1E TP-1***	1,715 *mg/kg*

Method - *EPA Method 418.1 Total Petroleum Hydrocarbons*

Approved by: Da Lf
Date: 10/21/94

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LAB: (505) 325-5667

TOTAL PETROLEUM HYDROCARBONS

Attn:	*Shawn Adams*	Date:	10/21/94
Company:	*Contract Environmental Services, Inc.*	*Lab ID:*	*2191*
Address:	*P.O. Box 505*	*Sample No.*	*3677*
City, State:	*Kirtland, NM 87417*	*Job No.*	*2-1000*

Project Name:	***Questar Energy Company***				
Project Location:	***ARG1E-010 Soil Clearance 15-16' BGL ARGO #1E TP-2***				
Sampled by:	SA	Date:	10/20/94	Time:	15:09
Analyzed by:	DLA	Date:	10/21/94		
Type of Sample:	*Soil*				

Laboratory Analysis

Laboratory Identification	***Sample Identification***	***Total Petroleum Hydrocarbons***
3677-2191	*Questar Energy Company* ***ARG1E-010 Soil Clearance 15-16' BGL ARGO #1E TP-2***	28 *mg/kg*

Method - *EPA Method 418.1 Total Petroleum Hydrocarbons*

Approved by: Dan K

Date: 10/21/94

OFF: (505) 325-8786

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TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Shawn Adams*	Date:	12/7/94
Company:	*Contract Environmental Services, Inc.*	*Lab ID:*	*2197*
Address:	*P.O. Box 505*	*Sample ID:*	*4290*
City, State:	*Kirtland, NM 87417*	*Job No.*	*2-1000*

Project Name:	***Questar Energy Co.***				
Project Location:	***ARGO-700 US ARGO #1E Upgradient MW #1***				
Sampled by:	SA	Date:	12/6/94	Time:	13:44
Analyzed by:	DLA	Date:	12/7/94		
Sample Matrix:	*Water*				

Aromatic Volatile Organics

Component	*Measured Concentration ug/L*	*Detection Limit Concentration ug/L*
Benzene	ND	*0.2*
Toluene	ND	*0.2*
Ethylbenzene	ND	*0.2*
m,p-Xylene	ND	*0.2*
o-Xylene	ND	*0.2*
	TOTAL 0.0 ug/L	

ND - Not Detectable

Method *- SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: DaL
Date: 12/7/94

OFF: (505) 325-8786

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TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Shawn Adams*	Date:	12/7/94
Company:	*Contract Environmental Services, Inc.*	*Lab ID:*	*2197*
Address:	*P.O. Box 505*	*Sample ID:*	*4293*
City, State:	*Kirtland, NM 87417*	*Job No.*	*2-1000*

Project Name:	***Questar Energy Co.***				
Project Location:	***ARGO-703 US ARGO #1E WHEAD MW #2***				
Sampled by:	SA	Date:	12/6/94	Time:	16:48
Analyzed by:	DLA	Date:	12/7/94		
Sample Matrix:	*Water*				

Aromatic Volatile Organics

Component	***Measured Concentration ug/L***	***Detection Limit Concentration ug/L***
Benzene	ND	*0.2*
Toluene	0.3	*0.2*
Ethylbenzene	ND	*0.2*
m,p-Xylene	ND	*0.2*
o-Xylene	ND	*0.2*
	TOTAL *0.3 ug/L*	

ND - Not Detectable

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: *Date:* 12/7/94

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TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Shawn Adams*	Date:	12/7/94
Company:	*Contract Environmental Services, Inc.*	*Lab ID:*	*2197*
Address:	*P.O. Box 505*	*Sample ID:*	*4291*
City, State:	*Kirtland, NM 87417*	*Job No.*	*2-1000*

Project Name:	***Questar Energy Co.***				
Project Location:	***ARGO-701 US ARGO #1E BTWN MW #3***				
Sampled by:	SA	Date:	12/6/94	Time:	15:05
Analyzed by:	DLA	Date:	12/7/94		
Sample Matrix:	*Water*				

Aromatic Volatile Organics

Component	***Measured Concentration ug/L***	***Detection Limit Concentration ug/L***
Benzene	113.7	*0.2*
Toluene	0.5	*0.2*
Ethylbenzene	ND	*0.2*
m,p-Xylene	23.5	*0.2*
o-Xylene	ND	*0.2*
	TOTAL 137.8 ug/L	

ND - Not Detectable

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: JaL
Date: 12/7/94

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Shawn Adams*	Date:	12/14/94
Company:	*Contract Environmental Services, Inc.*	*Lab ID:*	*2553*
Address:	*P.O. Box 505*	*Sample ID:*	*4371*
City, State:	*Kirtland, NM 87417*	*Job No.*	*2-1000*

Project Name:	***Questar Energy Corporation***				
Project Location:	***MW3-A USARGO #1E***				
Sampled by:	SA	Date:	12/13/94	Time:	13:45
Analyzed by:	DLA	Date:	12/14/94		
Sample Matrix:	*Water*				

Aromatic Volatile Organics

Component	***Measured Concentration ug/L***	***Detection Limit Concentration ug/L***
Benzene	661.3	*0.2*
Toluene	2.3	*0.2*
Ethylbenzene	99.7	*0.2*
m,p-Xylene	ND	*0.2*
o-Xylene	4.5	*0.2*
	TOTAL *767.8 ug/L*	

ND - Not Detectable

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: Jack
Date: 12/14/94

OFF: (505) 325-8786

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Shawn Adams*	Date:	12/14/94
Company:	*Contract Environmental Services, Inc.*	*Lab ID:*	*2553*
Address:	*P.O. Box 505*	*Sample ID:*	*4372*
City, State:	*Kirtland, NM 87417*	*Job No.*	*2-1000*

Project Name:	***Questar Energy Corporation***				
Project Location:	***MW3-B USARGO #1E***				
Sampled by:	SA	Date:	12/13/94	Time:	14:10
Analyzed by:	DLA	Date:	12/14/94		
Sample Matrix:	*Water*				

Aromatic Volatile Organics

Component	*Measured Concentration ug/L*	*Detection Limit Concentration ug/L*
Benzene	95.2	*0.2*
Toluene	0.6	*0.2*
Ethylbenzene	20.2	*0.2*
m,p-Xylene	ND	*0.2*
o-Xylene	0.3	*0.2*
	TOTAL 116.3 ug/L	

ND - Not Detectable

Method *- SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by:
Date: 12/14/94

OFF: (505) 325-8786

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Shawn Adams*	Date:	12/14/94
Company:	*Contract Environmental Services, Inc.*	*Lab ID:*	*2553*
Address:	*P.O. Box 505*	*Sample ID:*	*4373*
City, State:	*Kirtland, NM 87417*	*Job No.*	*2-1000*

Project Name:	***Questar Energy Corporation***				
Project Location:	***MW3-C USARGO #1E***				
Sampled by:	SA	Date:	12/13/94	Time:	14:41
Analyzed by:	DLA	Date:	12/14/94		
Sample Matrix:	*Water*				

Aromatic Volatile Organics

Component	*Measured Concentration ug/L*	*Detection Limit Concentration ug/L*
Benzene	73.9	*0.2*
Toluene	ND	*0.2*
Ethylbenzene	20.7	*0.2*
m,p-Xylene	ND	*0.2*
o-Xylene	ND	*0.2*
	TOTAL *94.6 ug/L*	

ND - Not Detectable

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: [signature]
Date: 12/14/94

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Shawn Adams*	Date:	12/7/94
Company:	*Contract Environmental Services, Inc.*	*Lab ID:*	*2197*
Address:	*P.O. Box 505*	*Sample ID:*	*4292*
City, State:	*Kirtland, NM 87417*	*Job No.*	*2-1000*

Project Name:	***Questar Energy Co.***				
Project Location:	***ARGO-702 US ARGO #1E Near MOI MW #4***				
Sampled by:	SA	Date:	12/6/94	Time:	16:08
Analyzed by:	DLA	Date:	12/7/94		
Sample Matrix:	*Water*				

Aromatic Volatile Organics

Component	***Measured Concentration ug/L***	***Detection Limit Concentration ug/L***
Benzene	ND	*0.2*
Toluene	ND	*0.2*
Ethylbenzene	ND	*0.2*
m,p-Xylene	ND	*0.2*
o-Xylene	ND	*0.2*
	TOTAL *0.0 ug/L*	

ND - Not Detectable

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: DaG
Date: 12/7/94

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

March 22, 1995

CERTIFIED MAIL
RETURN RECEIPT NO. P-667-242-227

Mr. Phil Emig
Questar Energy Company
P.O. Box 2330
Farmington, New Mexico 87499

RE: U.S. ARGO #1E REMEDIATION, QUESTAR ENERGY COMPANY

Dear Mr. Emig:

The New Mexico Oil Conservation Division (OCD) has completed a review of the Questar Energy Company's (QEC) January 27, 1995 "SOIL AND GROUND WATER ACTION PLAN, U.S. ARGO #1E" which was submitted on behalf of QEC by their consultant Contract Environmental Services, Inc. This document contains the results of QEC's investigation of soil and ground water contamination at QEC's U.S. Argo #1E well site located in Unit N, Sec. 18, T27N, R10W NMPM San Juan County, New Mexico. The document also contains a plan for temporary discharge of ammonium nitrate to ground water to promote insitu biodegradation of contaminated ground water.

Pursuant to New Mexico Water Quality Control Commission (WQCC) Regulation 3-106.B. you are hearby authorized to discharge without an approved discharge plan until July 21, 1995 with the following conditions:

1. QEC will provide the OCD with the following information which was omitted from the remedial action plan:

   a. All soil and ground water analytical sampling results of the excavations, test pits and monitor wells.

   b. A map showing the hydraulic gradient at the site.

   c. Completion diagrams for each monitor well.

2. QEC will sample ground water from all monitor wells on a quarterly basis. Ground water from the monitor wells will be sampled and analyzed for concentrations of benzene, toluene, ethylbenzene, xylene (BTEX), major cations and anions, heavy metals and polynuclear aromatic hydrocarbons using EPA approved methods.

   NOTE: The OCD will not require QEC to analyze ground water samples for metals and PAH's, if, QEC can provide an analysis of the produced water quality from this site showing that these constituents do not exceed New Mexico Water Quality Control Commission ground water standards.

3. QEC will submit quarterly reports on the remedial actions to the OCD by July 1, October 1, January 1, April 1 of each year until the project is complete. The first quarterly report will be due on July 1, 1995. The reports will contain:

   a. A description of all activities which occurred during the quarter.

   b. A summary of the laboratory analytic results of water quality sampling of the monitor wells. The results will be presented in tabular form and will show all past and present results for each monitor well.

   c. A water table elevation map using the water table elevation of the ground water in all monitor wells.

4. QEC 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.

5. All original documents submitted for approval will be submitted to the OCD Santa Fe Office with copies provided to the OCD Aztec District Office.

6. If QEC wishes to deviate from or modify the above referenced plan, QEC will submit the deviations or modifications to the OCD for approval prior to implementation.

Please be advised that OCD authorization does not relieve you of liability should your operation result in actual pollution of surface waters, ground waters or the environment which may be actionable under other laws and/or regulations. In addition, this authorization does not relieve you of responsibility for compliance with any other federal, state or local laws and/or regulations.

If you have any questions please, contact William Olson of my staff at (505)827-7154.

Sincerely,

William J. LeMay
Director

xc: OCD Aztec Office
Shawn Adams, Contract Environmental Services, Inc.

Bill Olson

From: Denny Foust
To: Bill Olson
Subject: QUESTAR ARGO #1E
Date: Wed, Mar 22, 1995 7:29AM
Priority: High

BILL, DO WE NEED TO NOTE QUESTAR WILL NEED A CISCHARGE PLAN IF TREATMENT RUNS BEYOND 120 DAYS OR CAN THIS WELL BE BROUGHT UNDER BLANKET DISCHARGE PLAN BY REQUEST?

March 21, 1995

CERTIFIED MAIL
RETURN RECEIPT NO. P-667-242-227

Mr. Phil Emig
Questar Energy Company
P.O. Box 2330
Farmington, New Mexico 87499

RE: U.S. ARGO #1E REMEDIATION, QUESTAR ENERGY COMPANY

Dear Mr. Emig:

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Pursuant to New Mexico Water Quality Control Commission (WQCC) Regulation 3-106.B. you are hearby authorized to discharge without an approved discharge plan until July 21, 1994 with the following conditions:

1. QEC will provide the OCD with the following information which was ommitted from remedial action plan:

a. All soil and ground water analytical sampling results of the excavations, test pits and monitor wells.

b. A map showing the hydraulic gradient at the site.

c. Monitor well completion diagrams for each monitor well.

2. QEC will sample ground water from all monitor wells on a quarterly basis. Ground water from the monitor wells will be sampled and analyzed for concentrations of benzene, toluene, ethylbenzene, xylene (BTEX), major cations and anions, heavy metals and polynuclear aromatic hydrocarbons using EPA approved methods.

NOTE: The OCD will not require QEC to analyze ground water samples for metals and PAH's, if, QEC can provide an analysis of the produced water quality from this site showing that these constituents do not exceed New Mexico Water Quality Control Commission ground water standards.

3. QEC will submit quarterly reports on the remedial actions to the OCD by July 1, October 1, January 1, April 1 of each year until the project is complete. The first quarterly report will be due on July 1, 1995. The reports will contain:

a. A description of all activities which occurred during the quarter.

b. A summary of the laboratory analytic results of water quality sampling of the monitor wells.

c. A water table elevation map using the water table elevation of the ground water in all monitor wells.

4. QEC 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.

5. All original documents submitted for approval will be submitted to the OCD Santa Fe Office with copies provided to the OCD Hobbs District Office.

6. If QEC wishes to deviate from or modify the above referenced plan, QEC will submit the deviations or modifications to the OCD for approval prior to implementation.

Please be advised that OCD authorization does not relieve you of liability should your operation result in actual pollution of surface waters, ground waters or the environment which may be actionable under other laws and/or regulations. In addition, this authorization does not relieve you of responsibility for compliance with any other federal, state or local laws and/or regulations.

If you have any questions please, contact William Olson of my staff at (505)827-7154.

Sincerely,

William J. LeMay
Director

xc: OCD Aztec Office
Shawn Adams, Contract Environmental Services, Inc.

ORIGINAL

Contract Environmental Services, Inc.
Post Office Box 505
Kirtland, New Mexico 87417-0505
Phone (505) 325-1198

January 27, 1995

New Mexico Oil Conservation Division
Mr. Bill Olsen
2040 S. Pacheco Street
Santa Fe, New Mexico 87505

RE: Soil And Groundwater Action Plan, U.S. Argo #1E

Dear Mr. Olsen:

Contract Environmental Services, Inc. (CES) is pleased to present this soil and groundwater remediation plan for the U.S. Argo #1E well location. This plan includes background information on investigations performed, supporting documentation, conclusions, and a "Plan Of Action".

Background Information

A total of five (5) backhoe test pits and four (4) monitor wells have been completed to date. Please notice the site plan (figure 1) attached for locations of each investigation. Test Pit #1 indicated significant contamination began at a depth of twelve (12) feet. Monitor Well #3 registered contamination slightly above drinking water standards for the State of New Mexico. All other test pits and monitor wells indicated no significant contamination present.

Test Pit #1 and #2 were excavated using a track-mounted backhoe. Test Pit #1 was located fifteen (15) feet east of Excavation #1. Test Pit #2 was located fifteen (15) feet east of Excavation #2. These two test pits were completed at the request of the Bureau Of Land Management (BLM).

At the request of the New Mexico Oil Conservation Division (NMOCD) four monitor wells were installed at the end of November to assess impacts to the groundwater. Only one of the monitor wells (#3) indicated any impact to groundwater. A water sample taken from Monitor Well #3 after three (3) well volumes were purged, measured a benzene level of 0.1137 Parts Per Million (PPM) and total xylenes of 0.0235 PPM. Drinking water standards are 0.01 PPM for benzene and 0.62 PPM for total xylenes. Benzene concentrations were 11.37 times the standard and total xylenes fall well below drinking water standards.

Most recently, a rubber tire backhoe was used to help define the plume of contamination. Test Pit #5 was investigated to determine if the underground flow line from the wellhead to the separator could have been a possible source of contamination. A trench was excavated immediately adjacent to the flow line. Portions of this excavation were taken to the fifteen (15) foot depth. It was determined through this investigation that the flow line was not a contributor to the contamination. Evidenced by no soil staining or hydrocarbon odors present during the investigation.

Test Pit #6 was investigated to determine how close to excavation #2 the contaminants had traveled. This test pit revealed no hydrocarbon odor or soil staining to a depth of fifteen (15) feet. The sandy nature of the soil would not allow excavation without collapsing the walls of the excavation.

Test Pit #7 was investigated thirteen (13) feet east of the fiberglass pit that is currently in place, moving closer to Excavation #1 from Test Pit #6. This investigation revealed no hydrocarbon odor or staining of the soil to a depth of thirteen (13) feet. At this depth, the soils were noticeably moister and groundwater was anticipated within twelve (12) to eighteen (18) inches. Again, the excavation would not remain open beyond the twelve to thirteen (12-13) foot depth due to the sandy nature of the soil.

Conclusions

Subsurface soil contamination appears to be limited to within fifteen (15) feet of Excavation #1. Groundwater contamination in the east direction was found to be only slightly above groundwater standards in one of the four monitor wells installed.

Plan Of Action

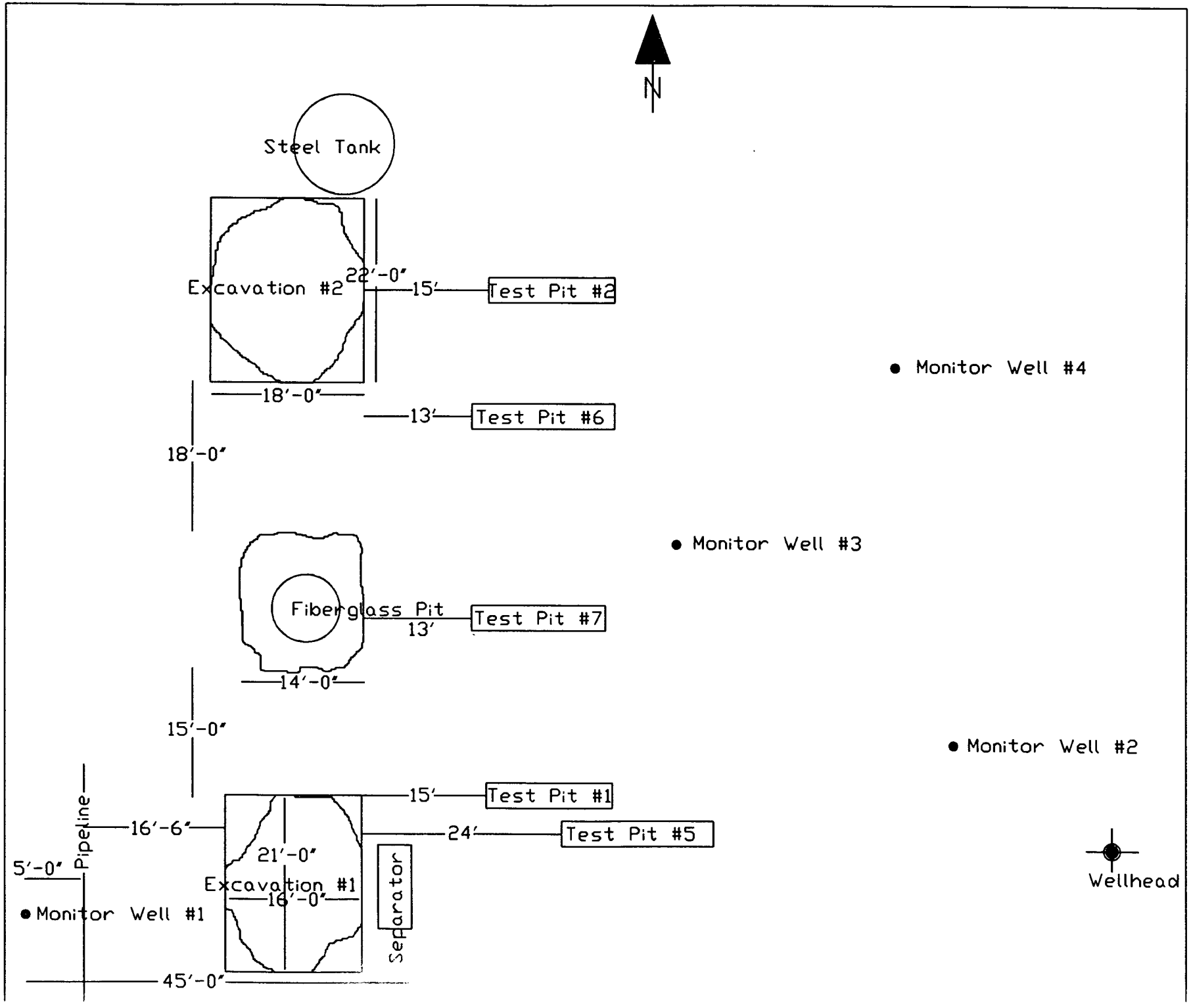
Contract Environmental Services, Inc. on behalf of Questar Energy would like to treat the original Excavation #1 with an eighty (80) barrel load of water mixed with ammonium nitrate in efforts to remediate contaminated soil and water. This mixture of ammonium nitrate will be administered in accordance with the conditions of your approval letter dated December 21, 1994. In this letter NMOCD calls for a thoroughly mixed solution with an ammonium nitrate to water solution not to exceed 10 mg/l nitrate. After sixty (60) days Monitor Well #3 would again be sampled to monitor the success of the fertilizer and water treatment.

Approximately two hundred fifty (250) cubic yards of contaminated soil from Excavation #1 and Excavation #2 is currently being soil farmed on location. Turning and aerating of these soils will continue until less than one hundred (100) Parts Per Million (PPM) Total Petroleum Hydrocarbons (TPH) is reached. If heavier hydrocarbons are present in the soil farm such as paraffins, CES will apply a Hydro-Sol solution at a ratio of 50:1 to 70:1 in liquid form directly to the soil farm. I have enclosed a material safety data sheet (MSDS) on the Hydro-Sol for your records. This treatment will help to break down the hydrocarbons. Ammonium nitrate (solid) fertilizer may be applied to soil farms to stimulate existing microorganism activity. Ten to twelve cubic yards of clean soil will then be placed in Excavation #1 and #2 prior to replacing remediated soil. The rest of the excavations would be filled with remediated soils from the soil farm area. Once backfilled, the excavation areas will be slightly domed to prevent water accumulation.

Contract Environmental Services, Inc. is pleased to present this "Plan Of Action" to the New Mexico Oil Conservation Division for the U.S. Argo #1E well location. If you have questions or require additional information, please don't hesitate to contact our offices or stop by at 4200 Hawkins Road, Farmington.

Sincerely,

Shawn A. Adams
Contract Environmental Services, Inc.


N
Steel Tank
Excavation #2
22'-0"
15'
Test Pit #2
18'-0"
13'
Test Pit #6
18'-0"
Monitor Well #4
Monitor Well #3
Fiberglass Pit
13'
Test Pit #7
14'-0"
15'-0"
Monitor Well #2
15'
Test Pit #1
16'-6"
24'
Test Pit #5
Pipeline
5'-0"
21'-0"
Excavation #1
16'-0"
Separator
Monitor Well #1
45'-0"
Wellhead

DATE: 10/20/94

LOCATION: US ARGO #1E

NOTES: TEST PIT #1 OUTSIDE SEPERATOR

Pit 15' from SEP. Pit

DEPTH	PID (PPM)
5'	4 PPM
8'	4 PPM
10'	5 PPM
12-13	1617 PPM
15-16	1492 PPM

TEST PIT OUTSIDE TANK ?

15' from TANK PIT OPENING

DEPTH	PID (PPM)
5'	5
8'	5
12'	3
15	1

DRAWING of TEST PITS PLACED ON 10/20/94 ARGO #1 following →

TOOK SOIL CLEARANCE SAMPLE FROM

Bottom of TP-1 ARGIE-009 1715 PPM

and TP-2 ARGIE-010 28 PPM

BOTTOM SAMPLE 15' DOWN TEST PIT #2

10/20/94 3:00 PM TANK PIT / ARGIE-010

TEST PIT #1 15-16' DEEP

10/20/94 2:00 PM TANK SIDE PIT

TEST PIT #1 ARGIE-009 1715 PPM

1:00 PM PIT #1 WALL SLUFFED OFF AND DROPPED ME IN THE HOLE, THEN MORE DIRT FELL IN ON TOP OF ME. EFFECTED [illegible] WAS SPILLED AND BACK I WAS ATTEMPTING TO MEASURE THE DEPTH OF THE HOLE WHEN IT SLUFFED OFF TAKING ME WITH IT. PHIL HANDED ME A SHOVEL TO DIG STEPS TO GET MYSELF OUT.

USED DADS EXCAVATOR FOR DIGGING EACH TEST PIT (#1, #2)

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Shawn Adams*	Date:	12/7/94
Company:	*Contract Environmental Services, Inc.*	*Lab ID:*	*2197*
Address:	*P.O. Box 505*	*Sample ID:*	*4291*
City, State:	*Kirtland, NM 87417*	*Job No.*	*2-1000*

Project Name:	***Questar Energy Co.***				
Project Location:	***ARGO-701 US ARGO #1E BTWN MW #3***				
Sampled by:	SA	Date:	12/6/94	Time:	15:05
Analyzed by:	DLA	Date:	12/7/94		
Sample Matrix:	*Water*				

Aromatic Volatile Organics

Component	***Measured Concentration ug/L***	***Detection Limit Concentration ug/L***
Benzene	113.7	*0.2*
Toluene	0.5	*0.2*
Ethylbenzene	ND	*0.2*
m,p-Xylene	23.5	*0.2*
o-Xylene	ND	*0.2*
	TOTAL 137.8 ug/L	

ND - Not Detectable

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: Jac
Date: 12/7/94

Hydro-Sol

Environmentally Safe, Nontoxic Substitute Solvents, Cleaners, & Degreasers

MATERIAL SAFETY DATA SHEET

May be used to comply with OSHA's Hazard Communication standard, 29 CFR 1910 1200 Standard must be consulted for specific requirements.

Identity *(As Used on label and List)*: Date Prepared: 8/21/92

SECTION I - Manufacturer

AMBASSADOR MANUFACTURING INC.
Rt. 1, Box 207 • St. David, AZ 85630

Telephone Numbers
Emergency - (602) 720-4310
Information - (602) 720-4310

Complies with OSHA 29 CFR XVII-1920. 1200 Section *(i)* "Trade Secrets." Contains No hazardous components under current OSHA definitions, No ingredients which are on the NTP list, or registered with IARC for carcinogens. The material mixture tested as a whole has been found to be: Nontoxic; Noncorrosive; Not an irritant; and Not a sensitizer in oral, dermal, or ocular tests.

SECTION III - Physical & Chemical Characteristics

Boiling Point:	98.8°C / 210°F	Melting Point & Odor:	None of either
Freezing Point:	-9.44°C / 15°F	Viscosity:	Approx. 110 CPS Brookfield
Vapor Pressure:	N/A	Vapor Density:	Heavier than air
Specific Gravity:	1.07	Solubility In Water:	Complete
Reactivity In Water:	None	% Volatiles By Volume:	None
Physical State:	Liquid	Evaporation Rate:	Slower than Ether
Ph Range:	9.3 to 10.1	Appearance:	Amber or artificial Colors

SECTION IV - Fire & Explosion Data

Flash Point:	None	Method Used:	PMCC 211.7 1979
Flammable Limits:	LEL-N/A UEL-N/A	Auto-Ignition Temperature:	None
Extinguisher Media:	None, decomposes without flame		
Special Fire Fighting Procedures:	None / Water can be used to cool container adjacent to fire		
Unusual Fire & Explosion Hazards:	None		

SECTION V - Physical Hazards *(Reactivity Data)*

Stability:	Stable	Incompatibility:	Will neutralize acids
Hazardous Polymerization:	Will not occur	Conditions To Avoid:	None known
Hazardous Decomposition Products:		Trace Nitrogen Oxides, Carbon monoxide, Carbon dioxide	

SECTION VI - Health Hazards

Acute:	None known	Chronic:	None known
Signs & Symptoms of Exposure:	May dry sensitive skin	Conditions Aggravated By Exposure:	None known
Chemicals Listed As Carcinogens:	None	Potential Carcinogens:	None
Emergency & First Aid Procedures:	None	Inhalation:	None
Eyes:	Rinse thoroughly with water	Skin:	Rinse thoroughly with water
Ingestion:	Drink large amount of water		

SECTION VII - Special Precautions and Spill / Leak Procedures

Precaution in Handling & Storage:	Keep container tightly sealed, will stratify at 32 F., if stratifies, thaw and remix.
Other Precautions:	Area of spill may become slippery, flush with water.
If Released or Spilled:	Wash into drain - safe for sewer disposal.
Waste Disposal Methods:	No special requirements known, consult federal, state, and local regulations.

More information on the back

SECTION VIII - Regulatory Guidelines

1. The Comprehensive Environmental Response, Compensation and Liability Act of 1980 *(CERCLA)* requires notifications of the National Response Center of releases of quantities of Hazardous Substances equal to or greater than the reported quantities (RQ) in CFR 302.4. Components present in this product at a level that require reporting under this statute are:

Chemical	CASNumber	RQ

•None•

2. The Superfund Amendments and Reauthorization Act of 1896 *(SARA)* Title III requires emergency planning based on Threshold Planning Quantities *(TPQs)*, and release reporting based on Reportable Quantities *(RQ)* in 40 CFR 355 *(SARA 302, 304, 311, and 312)*. Components present in this product at a level that require reporting under this statute are:
•None•
3. The Toxic Substance Control Act *(TSCA)*. Status: ..... All components of this product are on the TSCA inventory.
4. EPA Priority Pollutants: ..... None
5. RCRA Hazard Class: ..... *(if discarded)* Non-Hazardous.
6. DOT Hazardous Classification: ..... Non-Hazardous.

This MSDS is in compliance with the OSHA Hazardous Communication Regulation. All the information contained herein is the latest as of date, and is offered to the user as a guideline to safety under normal conditions. Follow instructions on label. Any use or method of application not in conformance with this MSDS and product label instructions is the total responsibility of the user.

- ☐ Listed on the EPA's NCP list as environmentally safe
- ☐ Exceeds USDA standards for use around food processing areas
- ☐ Nontoxic per Springborn and Hilltop tests
- ☐ Non-Corrosive / Passes hydrogen embrittlement tests
- ☐ Leaves less residue than most cleaners University of London
- ☐ Solubilizes hydrocarbon contaminants, does not emulsify.
- ☐ Accelerates the bioremediation of hazardous or toxic organic materials
- ☐ No d-Limonene or Tropical Oils
- ☐ Will not cause crazing on acrylics

AMBASSADOR MANUFACTURING INC.
RT. 1, Box 207 • St. David, AZ 85630 • (602) 720-4310 • Fax: (602) 720-4068

Contract Environmental Services, Inc.
Post Office Box 505
Kirtland, New Mexico 87417-0505
Phone (505) 325-1198

October 26, 1994

New Mexico Oil Conservation Division
Mr. Denny Foust
1000 Rio Brazos Road
Aztec, New Mexico 87410

Bureau of Land Management
Mr. Bill Liese
1235 La Plata Highway
Farmington, New Mexico 87401

RE: Groundwater Contact With Groundwater Contamination For Questar Energy Company On October 25, 1994.

Contract Environmental Services, Inc. (CES) has one well location that recently contacted groundwater during earthen pit investigation and remediation procedures. There is groundwater contamination. The well location is listed below:

1) U.S. Argo #1E Sec.18 T27N R10W U.L. N San Juan County, New Mexico

This written notice will serve as Questar Energy Company's 24 Hour Notice.

If you have questions or would like additional information, please don't hesitate to contact our offices at (505) 325-1198 or stop by at 4200 Hawkins Road, Farmington.

Sincerely,

Shawn A. Adams
Contract Environmental Services, Inc.

Contract Environmental Services, Inc.
Post Office Box 505
Kirtland, New Mexico 87417-0505
Phone (505) 325-1198

October 24, 1994

New Mexico Oil Conservation Division
Mr. Denny Foust
1000 Rio Brazos Road
Aztec, New Mexico 87410

Bureau of Land Management
Mr. Bill Liese
1235 La Plata Highway
Farmington, New Mexico 87401

RE: U.S. Argo #1E Earthen Pit Remediation, Plan Of Action

During a recent field investigation conducted at the request of the Bureau Of Land Management (BLM), it was discovered that horizontal migration of contaminants had occurred on the U.S. Argo #1E. Two test pits were excavated in a downgradient direction. One Test Pit (#1) was located 15' downgradient from Excavation #1. The other Test Pit (#2) was located simarlarly from Excavation #2.

Lateral migration was confirmed in only Test Pit #1. Contamination was noticed in this Test Pit first at a depth of 12' and continuing to a depth of 16' where the investigation was terminated. The silty sand of this area made further investigation very difficult.

In each of the Test Pits the soils were continually monitored during excavation at approximate 3-5' increments. The monitoring was conducted using the Environmental Instruments Photoionization Detector (PID) Model 580B. Table 1-1 presents the PID field data collected during both investigations.

Table 1-1.

Test Pit #1		Test Pit #2	
Depth	PID(PPM)	Depth	PID(PPM)
5'	4 PPM	5'	5 PPM
8'	4 PPM	8'	5 PPM
10'	5 PPM	12'	3 PPM
12-13'	1617 PPM	15'	1 PPM
15-16'	1492 PPM		

In each of the test pits, a final clearance soil sample was collected to be analyzed by an analytical laboratory. The soil samples were analyzed using Environmental Protection Agency (EPA) Method 418.1 for Total Petroleum Hydrocarbons (TPH). Table 1-2 presents the laboratory concentrations determined.

Table 1-2.

Test Pit #1		Test Pit #2	
Depth	TPH(PPM)	Depth	TPH(PPM)
15-16'	1715 PPM	15'	28 PPM

Conclusions:

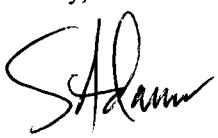
Test Pit #1 confirmed lateral migration of hydrocarbons has occurred in a downgradient direction from Excavation #1. The lateral extent of contamination migration has not completely been defined. The overburden does not contain significant amounts of hydrocarbons based on the PID survey conducted. The amount of overburden that would need to be removed to access the contamination is prohibitive. Contamination was found to be present from the 12' depth and continued until the excavation was terminated at the 16' depth. The sandy nature of the soil prevented further investigation from continuing. In addition, surface equipment and the presence of subsurface lines in that area make removal of soil unfavorable.

Recommendations:

This is a case where excavation of the earthen pit was unable to achieve complete removal. Due to the fact that there is nearby surface equipment and subsurface lines, we feel treatment insitu is one practical solution. Contract Environmental Services, Inc. (CES) would like to request on behalf of Questar Energy Company (QEC) that we be allowed to apply ammonium nitrate, manure, and water to the earthen excavation. The ammonium nitrate and manure would be added with a load of water to Test Pit #1 to be absorbed into the underlying soils in efforts to continue remediation.

Contract Environmental Services, Inc. appreciates this opportunity to present this Plan Of Action to NMOCD/BLM on behalf of Questar Energy Company. We look forward to working with your agency in developing a practical solution for remediation. If you have questions or would like additional information, please don't hesitate to contact our offices at (505) 325-1198 or stop by at 4200 Hawkins Road, Farmington.

Sincerely,



Shawn A. Adams
Contract Environmental Services, Inc.

Bill

OIL CONSERVATION DIVISION
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Contract Environmental Services, Inc.
Post Office Box 505
Kirtland, New Mexico 87417-0505
Phone (505) 325-1198

October 11, 1994

New Mexico Oil Conservation Division
Mr. Denny Foust
1000 Rio Brazos Road
Aztec, New Mexico 87410

Bureau of Land Management
Mr. Bill Liese
1235 La Plata Highway
Farmington, New Mexico 87401

RE: Groundwater Contact With Suspected Groundwater Contamination For Questar Energy Company On October 11, 1994.

Contract Environmental Services, Inc. (CES) has two well locations that recently contacted groundwater during earthen pit investigation and remediation procedures. There is reason to suspect groundwater contamination, but what level is not yet known. The two well locations are listed below:

1) U.S. Argo #1 Sec. 18 T27N R10W U.L. C San Juan County, New Mexico

2) U.S. Argo #3 Sec. 18 T27N R10W U.L. C San Juan County, New Mexico

This written notice will serve as Questar Energy Company's 24 Hour Notice.

If you have questions or would like additional information, please don't hesitate to contact our offices at (505) 325-1198 or stop by at 4200 Hawkins Road, Farmington.

Sincerely,

Shawn A. Adams
Contract Environmental Services, Inc.

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OCT 1 1 1994
OIL CON. DIV.
DIST. 3