2R - 6

REPORTS

DATE:
OCT 1996

Clayton Mittelhauser

Clayton
ENVIRONMENTAL
CONSULTANTS

Remediation System Operations

1996 Third Quarterly Report

Amoco Pipeline Station
Artesia, New Mexico

Prepared for:
AMOCO CORPORATION
One Mid America Plaza
Suite 300
Oakbrook Terrace, Illinois 60181

Prepared by:
CLAYTON ENVIRONMENTAL CONSULTANTS, INC.
1240 Iroquois Drive, Suite 206
Naperville, Illinois 60563
708-369-0201

Project 64661.00 (2775)

October 30, 1996

TABLE OF CONTENTS

FIGURES

TABLES

TABLE OF CONTENTS
(continued)

APPENDICES

1.0 INTRODUCTION

This report summarizes the results of the remediation system operations for the period of July 15, 1996 through October 15, 1996.

The primary objectives of the remediation system continue to have been met since the system installation, namely:

- Approximately 131 gallons of product have been recovered.
- No free product has been observed in the downgradient wells.

It has become apparent that the only oil which is being recovered is the oil placed in the recovery tank from wells which have been bailed. Free product is not reaching the interception trench, and free product appeared in only one of the three wells (MW-10, MW-12, and MW-13) located directly north of the trench. In addition, the level in this well (MW-13) was only .02 feet.

The trench is currently serving to only prevent flow of water downgradient so that the soluble constituents in the water can be air stripped. The trench is accomplishing this objective quite well, as shown by the lack of BETX in the two downgradient wells (MW-12 and MW-14).

Two operational problems were encountered during the third quarter. First, the pump in the recovery trench failed for approximately three weeks. The pump has been replaced and is now fully operational. The results from the downgradient monitoring wells demonstrate that water did not bypass the trench when the pump failed. Second, the flow totalizer was not functioning correctly and will be repaired or replaced during the fourth quarter of 1996.

The 1996 Second Quarterly Report identified three maintenance items. First, Betz Water Management Group evaluated the scaling deposits and provided a revised formulation. The effectiveness of this revised formulation is currently being evaluated. Second, the report identified a need to clean accumulated deposits from the west sump. However, this work was deemed unnecessary due to the high water table that resulted in over 10 feet of water above the sediments. Finally, the report identified the need for new gaskets to prevent short circuiting. Replacement of the gaskets will be done in the fourth quarter. Please note, however, that replacement of the gaskets in the third quarter was not necessary, as demonstrated by the results from samples obtained 10/15/96 (non-detect for all BETX components leaving the air stripper).

The gate valve installed in the second quarter has prevented excess accumulation of water in the oil/water separator.

2.0 LABORATORY RESULTS

2.1 MONTHLY BETX RESULTS FOR THE INFLUENT AND EFFLUENT OF THE AIR STRIPPER

The monthly samples for the influent and effluent of the air stripper were taken on 8/2/96 and 10/15/96. The results from these sampling events are shown in Table 1. Samples were not obtained during September, 1996 since the pump in the interception trench was not functional, as discussed previously. All figures and tables are presented at the end of the text before the appendices. The analytical results are presented in Appendix A. The results show that all discharge requirements were met during the quarter. During the last sampling event on 10/15/96, the discharge from the air stripper showed no detectable quantities of BETX.

2.2 QUARTERLY BETX RESULTS FOR MONITORING WELLS WITH NO FREE PRODUCT

The quarterly BETX results for monitoring wells which did not contain free product are presented in Table 2. Please note that MW-10, located directly north of the interception trench, did not show any free product during this sampling event, as it did in all previous sampling events. The analytical results are presented in Appendix A for the samples taken on 9/30/96.

The two monitoring wells south of the interception trench (monitoring wells MW-11 and MW-14) continue to show no indication of free product.

3.0 PRODUCT THICKNESS

Product thickness measurements were taken in the monitoring wells during the September sampling event. Table 3 contains product thickness information. The free product thickness map is shown in Figure 7. The product thickness maps from April 16 and 17, 1996; November 25 and 26, 1995; October 2, 1995; June 16, 1995; February 9, 1995; and July 2, 1996 are shown in Figures 6, 5, 4, 3, 2, and 1. It is clear from the data that the product thickness is decreasing in all of the wells. However, it should be noted that the water levels were quite high during the third quarter, which may be preventing release of product into the wells.

4.0 FLUIDS PUMPED

The 1996 Second Quarterly Report showed that the average pumping rate was 3.04 gpm, based on continuous operation from April 16, 1996 to July 6, 1996.

During the third quarter of 1996, two problems were encountered. First, the totalizer was not functioning correctly and will be repaired or replaced during the fourth quarter. Second, the pump in the trench was not functioning for approximately three weeks. As discussed earlier, the pump has been replaced and is now operational. For these two reasons, it is only possible to provide an estimate of the fluids pumped during the quarter. There are 101 days between July 6, 1996 and October 15, 1996. Subtracting 21 days for when the pump was not functioning leaves 80 days. At an average pumping rate of 3.04 gpm, the total amount of water treated would be 350,208 gallons.

There is currently approximately .02 feet of product in the recovery tank. This represents approximately 8 gallons of recovered product, for a total recovery of 131 gallons. The recovered oil, however, is primarily coming from bailing wells with free product and placing the bailed product in the recovery tank. There is no recovery of free product coming from the interception trench, since no free product is reaching the interception trench. In addition, on September 30, 1996 there was no free product in two of the closest wells north of the trench (MW-10 and MW-12) and only .02 feet of product in the third closest well north of the trench (MW-13).

5.0 SOIL REMEDIATION

The soils were disked monthly from August through October 1996. All samples were taken approximately half way through the depth of the disked area. The results are contained in Appendix B. The June results and prior results of all sampling and analyses to that date are presented below (all results are expressed in mg/kg).

Designation	TPH (As Gas) (Modified Method 8015)					
	04/27/95	07/28/95	10/12/95	12/29/95	04/22/96	06/28/96
SS #1	<100	<100	<10	<100	Broken	<100
SS #2	<100	<10	<10	<100	<10	<100
SS #3	<100	<10	<10	<100	<10	<100
SS #4						<100
Average	<100	<100	<10	<100	<10	<100

Designation	TPH (As Diesel) (Modified Method 8015)					
	04/27/95	07/28/95	10/12/95	12/29/95	04/22/96	06/28/96
SS #1	3,410	3,410	<100	5,700	Broken	<100
SS #2	6,200	<10	<100	3,700	<10	<100
SS #3	7,940	<10	<100	3,200	<10	<100
SS #4						<100
Average	5,847	1,149	<100	4,200	<10	<100

Designation	TPH (As Oil) (Modified Method 8015)					
	04/27/95	07/28/95	10/12/95	12/29/95	04/22/96	06/28/96
SS #1	29,600	80,200	5,410	21,000	Broken	13,900
SS #2	58,800	6,460	8,400	21,000	3,500	11,000
SS #3	44,900	15,700	4,930	17,000	10,000	5,300
SS #4						8,600
Average	44,433	34,130	6,247	19,666	6,750	9,700

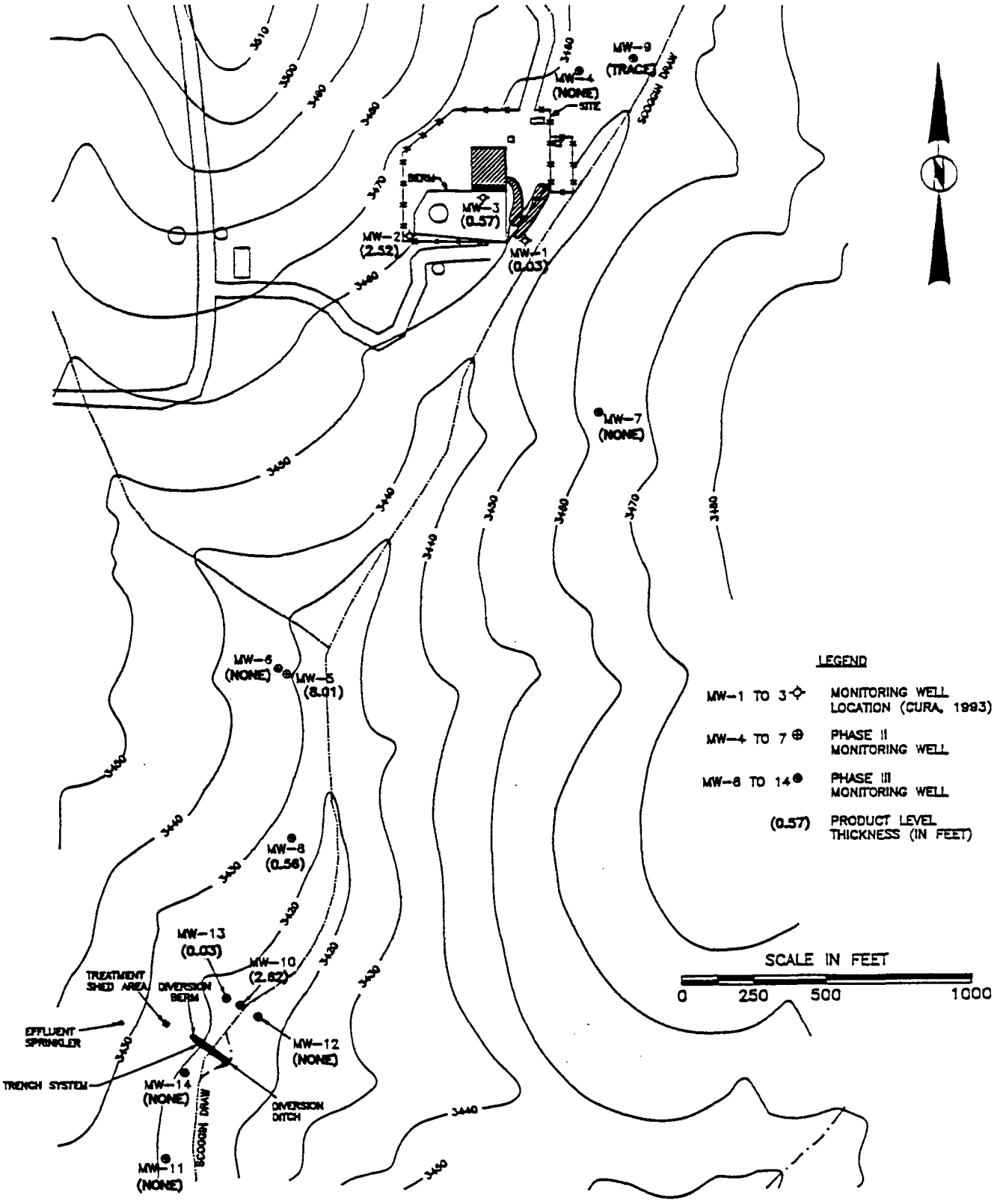
NOTE: *Cleanup objective is 5,000 mg/kg TPH.*

The cleanup objective has been met for TPH as gas and diesel, but not as oil.

A more comprehensive sampling program was undertaken on July 2, 1996. Nine samples were taken to determine its average TPH values. All nine samples had TPH values (as gas) and TPH values (as diesel) of less than 50 mg/kg. The TPH values (as oil) were: 12,000; 2,500; 8,900; 6,800; 160; 11,000; 9,500; 6,100; and 3,100 for an average TPH (as oil) value of 6,673.

A second comprehensive sampling program was undertaken on October 14, 1996. Nine samples were taken to determine the average TPH values. The results are provided in Appendix B. All nine samples had TPH values (as gas) of less than 10 mg/kg. The average TPH value (as diesel) was 1,333 due to an elevated value in one sample. The TPH values (as oil) were: 11,000; 4,100; 5,300; 2,100; 4,900; 3,200; 79; 800; and 26,000 for an average Tph (as oil) value of 6,386. If the anomalous values of 79 and 26,000 are discarded, the average value is 4,486 mg/kg.

FIGURES



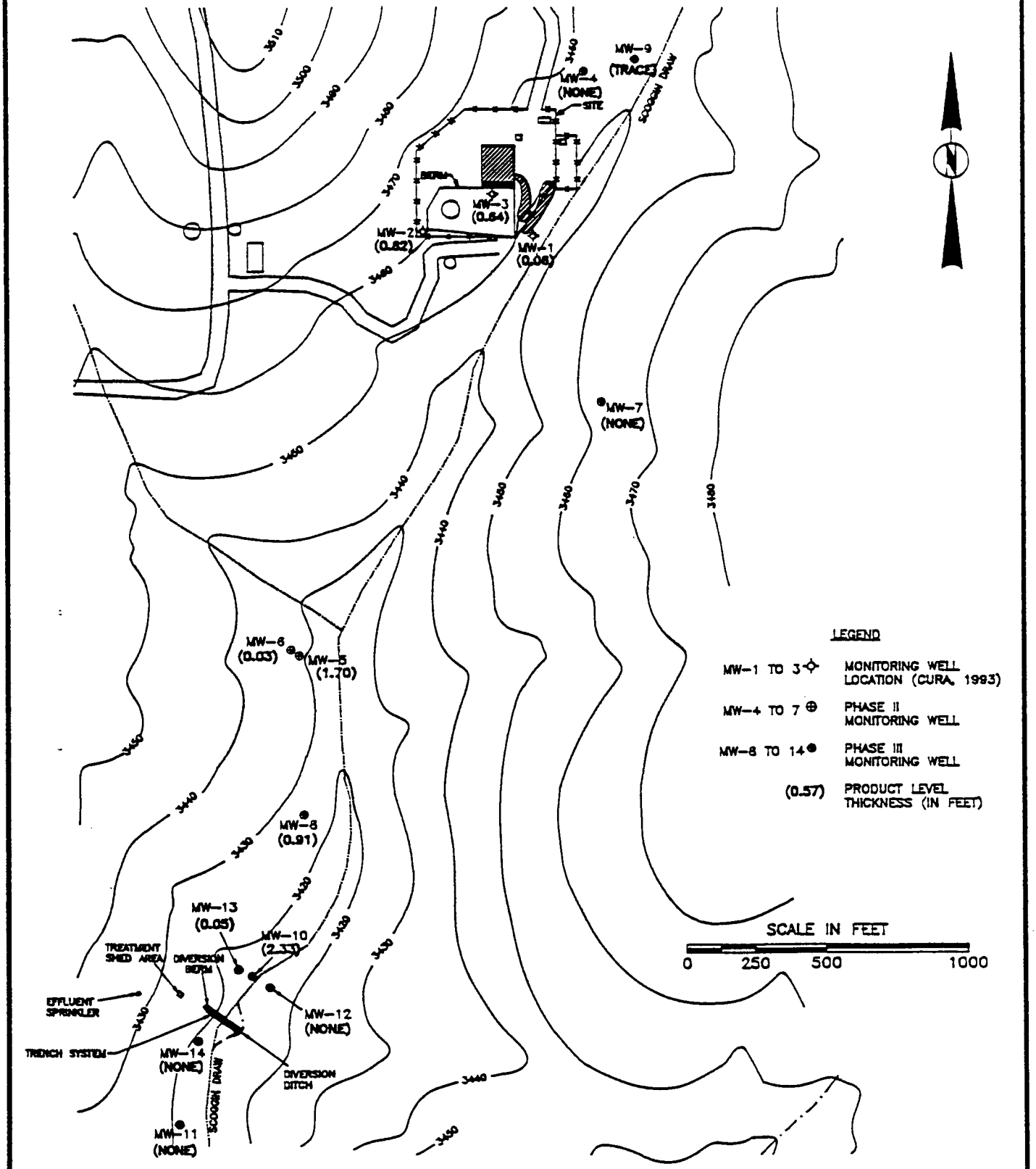
CHECK BY	HMM
DRAWN BY	BCP
DATE	5-3-95
SCALE	AS SHOWN
CAD NO.	2775.00-02
PRJ NO.	2775102C

FREE PRODUCT
THICKNESS MAP
FEBRUARY 9, 1995

AMOCO PIPELINE COMPANY
ARTESIA, NEW MEXICO

Clayton
ENVIRONMENTAL CONSULTANTS

FIGURE 1



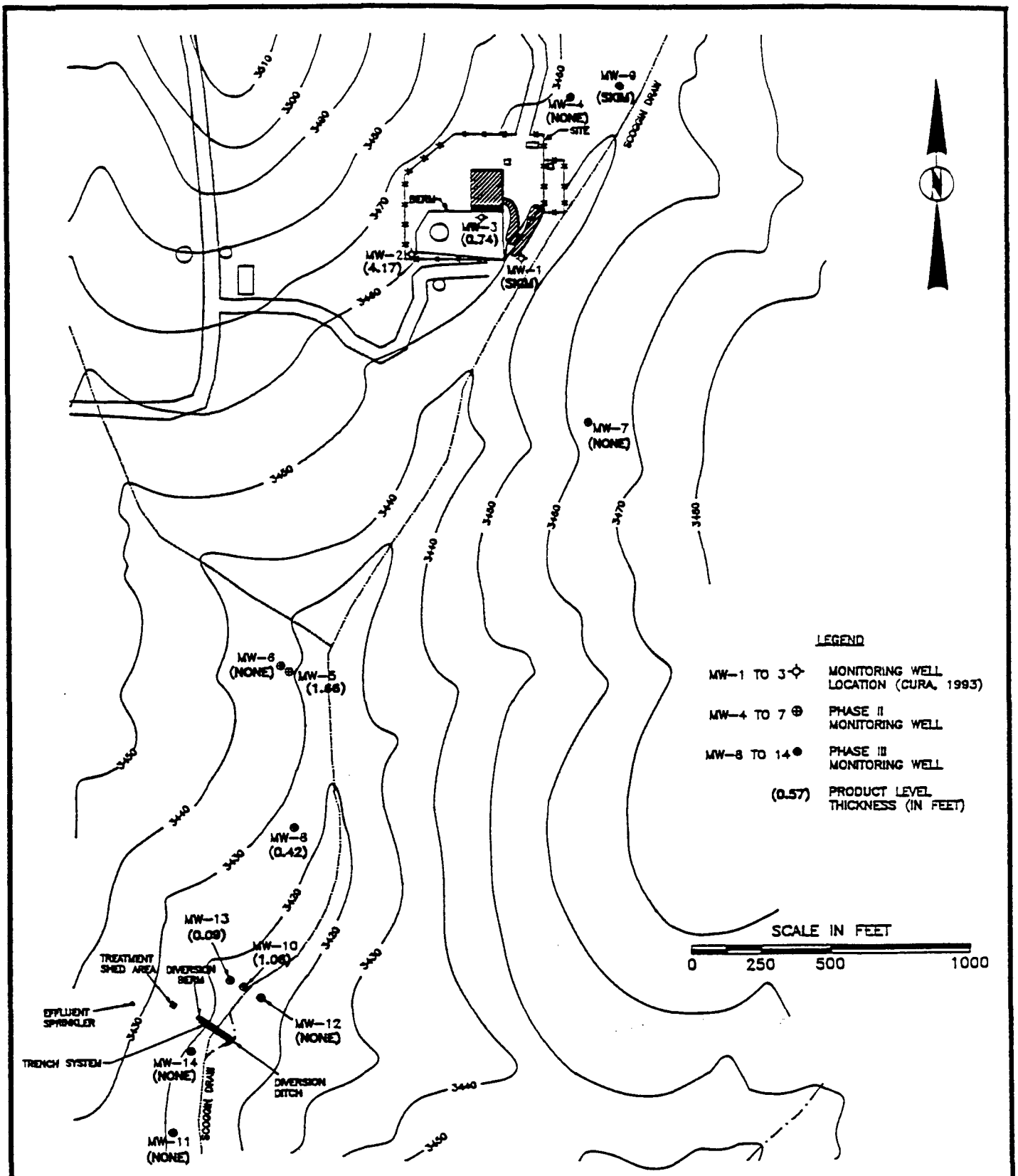
CHECK BY	HMM
DRAWN BY	BCP
DATE	7-25-95
SCALE	AS SHOWN
CAD NO.	2775102E
PRJ NO.	2775.00-02

FREE PRODUCT
THICKNESS MAP
JUNE 16, 1995

AMOCO PIPELINE COMPANY
ARTESIA, NEW MEXICO

Clayton
ENVIRONMENTAL CONSULTANTS

FIGURE 2



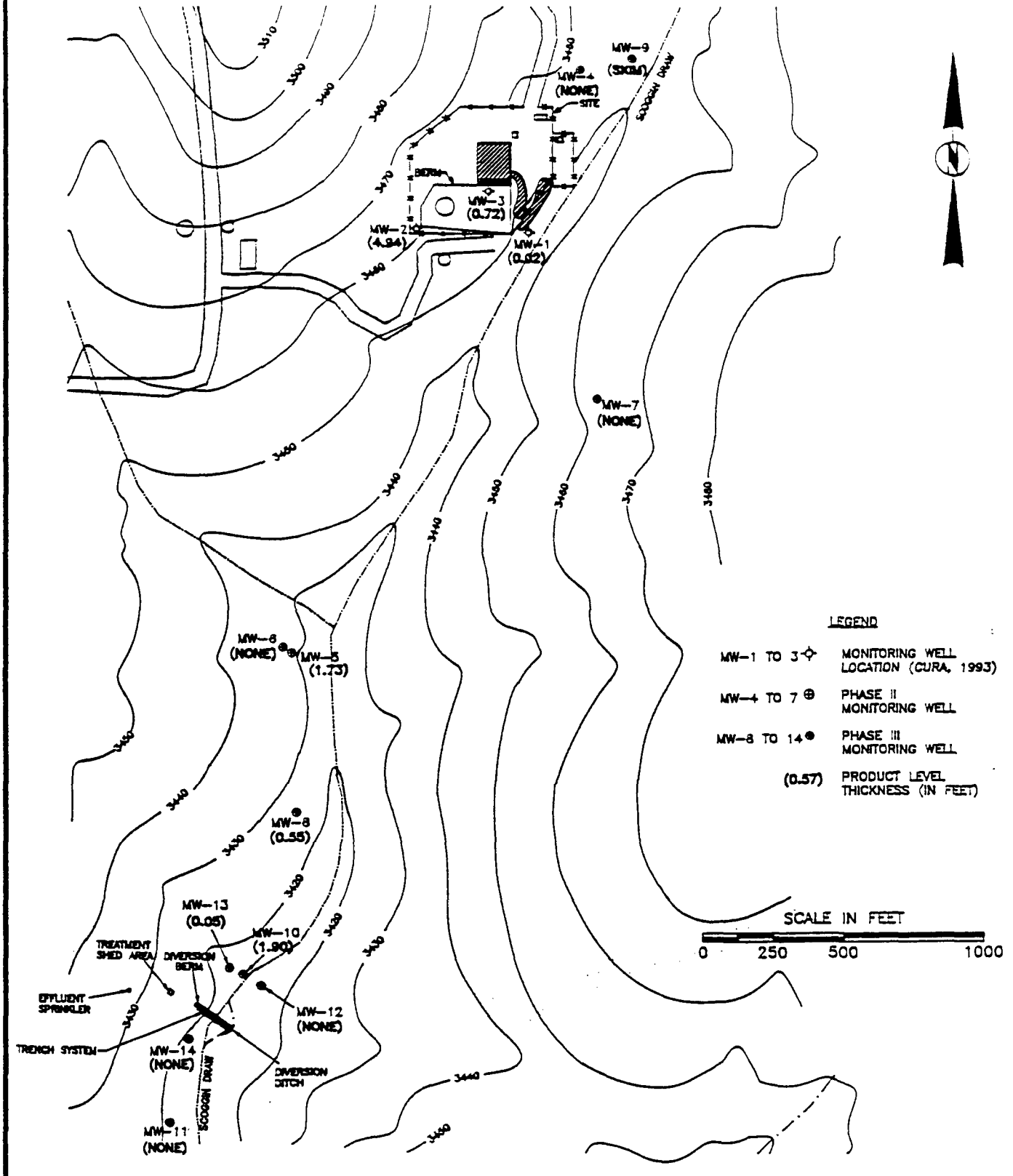
CHECK BY	HMM
DRAWN BY	BCP
DATE	10-16-95
SCALE	AS SHOWN
CAD NO.	2775.00-02
PRJ NO.	2775102F

FREE PRODUCT
THICKNESS MAP
OCTOBER 2, 1995

AMOCO PIPELINE COMPANY
ARTESIA, NEW MEXICO

Clayton
ENVIRONMENTAL CONSULTANTS

FIGURE 3



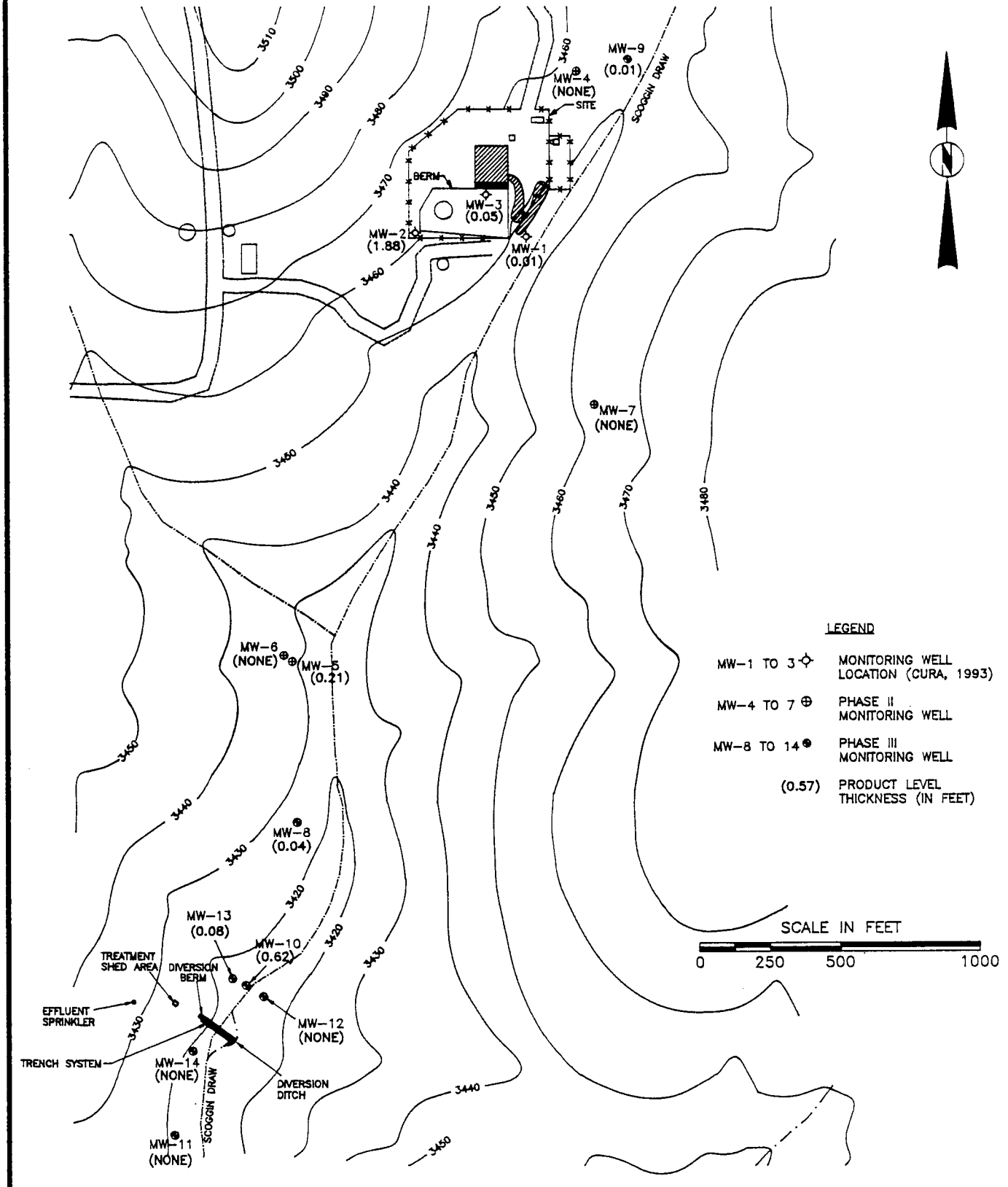
CHECK BY	HMM
DRAWN BY	BCP
DATE	1-12-96
SCALE	AS SHOWN
CAD NO.	2775.00-02
PRJ NO.	27751026

FREE PRODUCT
THICKNESS MAP
NOVEMBER 25-26, 1995

AMOCO PIPELINE COMPANY
ARTESIA, NEW MEXICO

Clayton
ENVIRONMENTAL CONSULTANTS

FIGURE 4



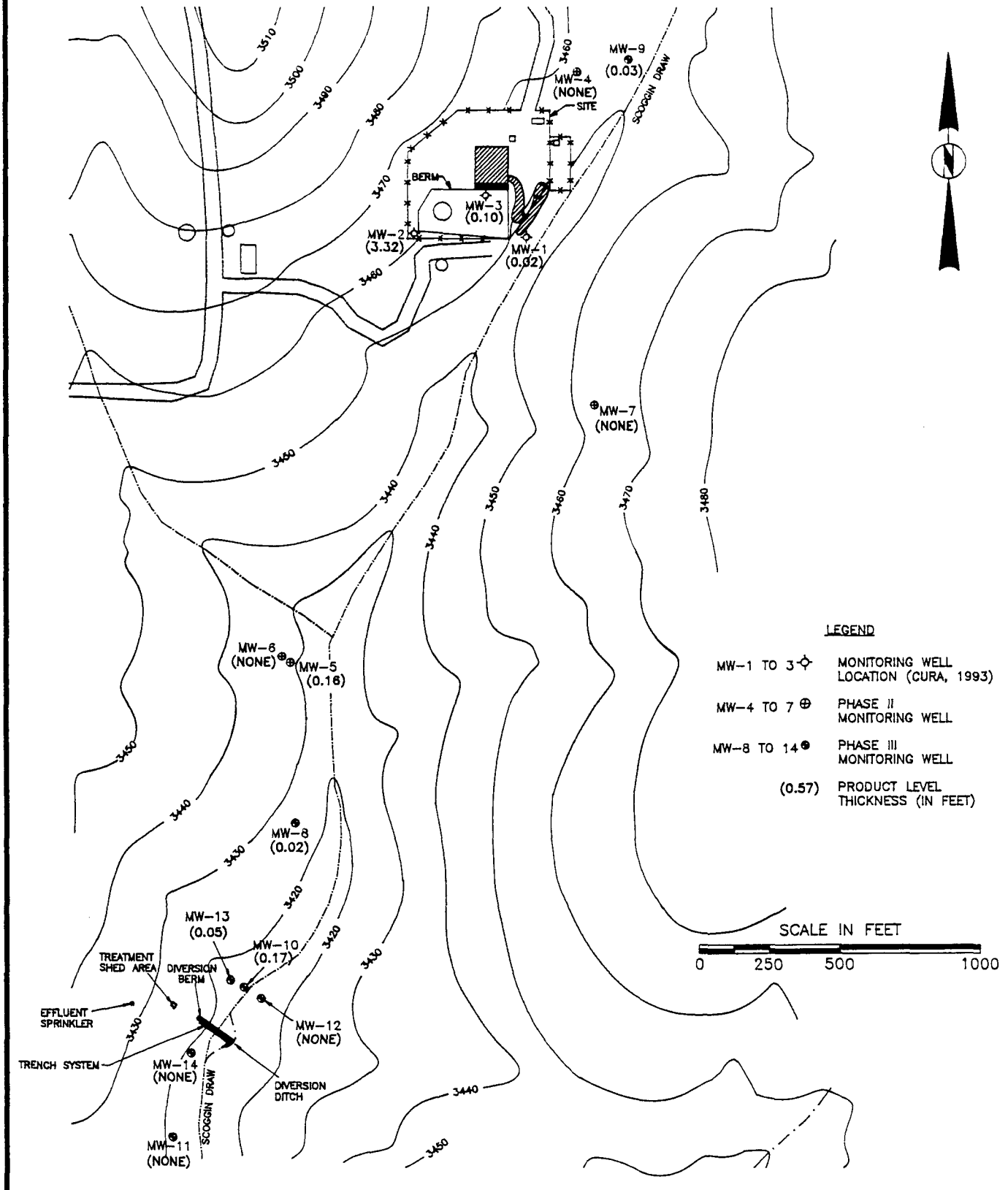
CHECK BY	HMM
DRAWN BY	BCP
DATE	4-24-96
SCALE	AS SHOWN
CAD NO.	2775.00-02
PRJ NO.	2775102H

FREE PRODUCT
THICKNESS MAP
APRIL 16-17, 1996

AMOCO PIPELINE COMPANY
ARTESIA, NEW MEXICO

Clayton
ENVIRONMENTAL CONSULTANTS

FIGURE 5



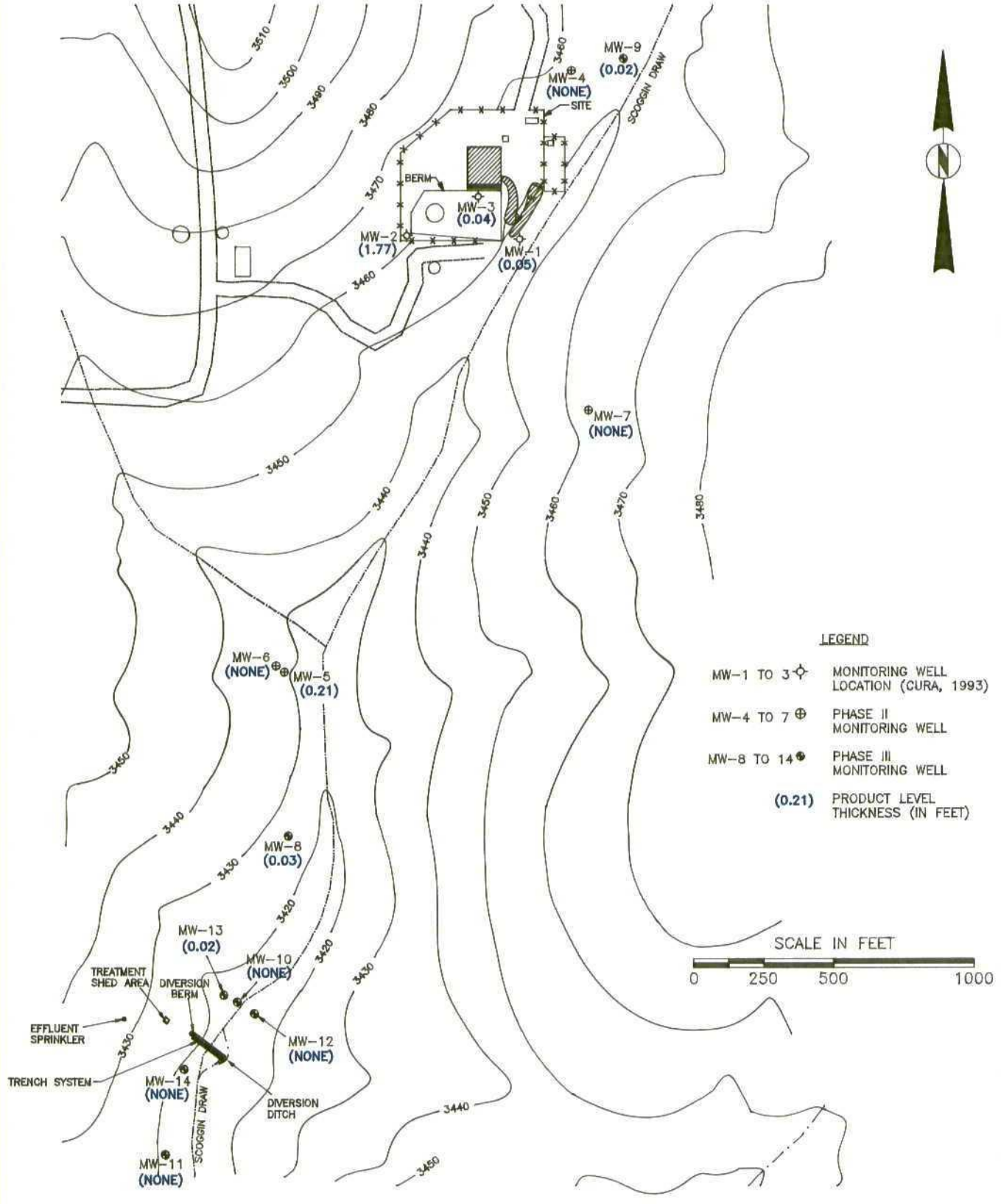
CHECK BY	HMM
DRAWN BY	BCP
DATE	7-16-96
SCALE	AS SHOWN
CAD NO.	2775.00-02
PRJ NO.	2775102I

FREE PRODUCT
THICKNESS MAP
JULY 2, 1996

AMOCO PIPELINE COMPANY
ARTESIA, NEW MEXICO

Clayton
ENVIRONMENTAL
CONSULTANTS

FIGURE 6



CHECK BY	HMM
DRAWN BY	BCP
DATE	10-9-96
SCALE	AS SHOWN
CAD NO.	2775.00-02
PRJ NO.	2775102J

FREE PRODUCT
THICKNESS MAP
SEPTEMBER 30, 1996

AMOCO PIPELINE COMPANY
ARTESIA, NEW MEXICO

Clayton
ENVIRONMENTAL CONSULTANTS

FIGURE 7

TABLES

TABLE 1

Monthly BETX Results for the Influent and Effluent of the Air Stripper

Amoco Pipeline Company
Artesia, New Mexico

INFLUENT														
Sample Date:	11/25/94	12/21/94	02/28/95	04/12/95	07/12/95	10/12/95	11/04/95	01/16/96	02/28/96	03/13/96	04/16/96	05/23/96	07/02/96	07/06/96
Benzene	2,970	3,070	3,060	3,300	2,700	1,900	2,100	2,000	2,400	2,800	2,200	2,400	1,900	2,000
Ethylbenzene	364	338	442	476	380	250	340	210	280	310	260	240	280	260
Toluene	808	1,220	1,350	1,130	420	190	81	29	<20	<25	20	61	160	170
Xylene	1,770	2,130	2,750	2,500	1,900	1,100	1,800	840	1,000	1,200	910	780	1,000	920
EFFLUENT														
Sample Date:	11/25/94	12/21/94	02/28/95	04/12/95	07/12/95	10/12/95	11/04/95	01/16/96	02/28/96	03/13/96	04/16/96	05/23/96	07/02/96	07/06/96
Benzene	1.8	6.6	3.3	3.6	4.6	<1.0	3.5	<1.0	540	160	220	<1.0	3.8	8.0
Ethylbenzene	<1.0	<1.0	1.4	2.8	1.5	<1.0	<1.0	<1.0	63	20	25	<1.0	<1	1.2
Toluene	<1.0	5.1	2.2	2.8	1.1	<1.0	<1.0	<1.0	<5	1.8	2.2	<1.0	<1	<1
Xylene	<1.0	5.7	6.6	14.5	6.5	<1.0	3.0	<1.0	240	80	99	<1.0	2.9	4.1

INFLUENT														
Sample Date:	8/2/96	10/15/96												
Benzene	1,200	2,400												
Ethylbenzene	210	290												
Toluene	160	<50												
Xylene	810	960												
EFFLUENT														
Sample Date:	8/2/96	10/15/96												
Benzene	9.3	<1												
Ethylbenzene	1.6	<1												
Toluene	<1.0	<1												
Xylene	7.9	<1												

NOTES: *1. All results are in ug/L.*
2. Permit effluent limits are benzene (10 ug/L), ethylbenzene (750 ug/L), xylene (620 ug/L), and toluene (750 ug/L).

TABLE 2

Quarterly BETX Results for Monitoring Wells With No Free Product

Amoco Pipeline Company
Artesia, New Mexico

WELL 4									
Sample Date:	11/25/94	12/22/94	02/16/95	06/16/95	10/02/95	11/26/95	04/17/96	07/05/96	09/30/96
Benzene	<1	<1	<1	54.4	9.8	4.7	6.3	5.0	<1
Ethylbenzene	<1	<1	<1	2.5	<1	1.3	<1.0	<1	<1
Toluene	<1	<1	<1	<1	<1	2.0	1.1	<1	<1
Xylene	<1	<1	<1	6.7	<1	3.8	3.6	2.0	<1
WELL 6									
Sample Date:	11/25/94	12/21/94	02/16/95	06/16/95	10/02/95	11/26/95	04/16/96	07/06/96	09/30/96
Benzene	FREE	FREE	2.2	FREE	3.1	5.8	<1	<1	<1
Ethylbenzene	PRODUCT	PRODUCT	<1	PRODUCT	<1	6.1	<1	<1	2.0
Toluene	PRESENT	PRESENT	<1	PRESENT	<1	<1.0	<1	<1	<1
Xylene			<1		2.5	19	3.7	<1	<1
WELL 7									
Sample Date:	11/25/94	12/22/94	02/16/95	06/16/95	10/02/95	11/26/95	04/17/96	07/06/96	09/30/96
Benzene	<1	1590	846	3100	880	3000	1900	1,800	170
Ethylbenzene	<1	39	20.9	58.7	17	51	130	160	<2
Toluene	<1	<10	<10	3.6	<10	4.6	<20	<10	<2
Xylene	<1	86.5	52.7	140	35	200	100	120	11
WELL 10									
Sample Date:	11/17/94	12/22/94	02/16/95	06/14/95	10/02/95	11/25/95	04/16/96	07/02/96	09/30/96
Benzene	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	62
Ethylbenzene	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.2
Toluene	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<1
Xylene	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.2
WELL 11									
Sample Date:	11/17/94	12/22/94	02/16/95	06/14/95	10/02/95	11/25/95	04/16/96	07/02/96	09/30/96
Benzene	<1	<1	<1	<1	<1	1.3	<1	<1	<1
Ethylbenzene	<1	<1	<1	<1	<1	2.1	1.1	<1	<1
Toluene	<1	<1	<1	<1	<1	5.3	2.8	<1	<1
Xylene	<1	<1	<1	<1	<1	6.1	3.7	<1	<1
WELL 12									
Sample Date:	11/17/94	12/22/94	02/16/95	06/16/95	10/02/95	11/26/95	04/16/96	07/02/96	09/30/96
Benzene	75	5.6	<1	<1	<1	1.1	1.5	4.1	30
Ethylbenzene	1	<1	<1	<1	<1	<1.0	1.8	<1	<1
Toluene	1.1	<1	<1	<1	<1	3.5	5.1	<1	<1
Xylene	1	<1	<1	<1	<1	5.1	5.8	1.2	<1
WELL 14									
Sample Date:	11/17/94	12/22/94	02/16/95	06/16/95	10/02/95	11/26/95	04/16/96	07/02/96	09/30/96
Benzene	<1	<1	<1	<1	<1	<1.0	<1	<1	<1
Ethylbenzene	<1	<1	<1	<1	<1	1.7	<1	<1	<1
Toluene	<1	<1	<1	<1	<1	3.6	1.7	<1	<1
Xylene	<1	<1	<1	<1	<1	6.8	2.4	<1	<1

NOTE: *All results are in ug/L.*

TABLE 3

Monitoring Well Water / Product Levels

Amoco Pipeline Company
Artesia, New Mexico

WELL IDENTIFICATION	DATE	DEPTH TO PRODUCT (feet)	DEPTH TO WATER (feet)	PRODUCT LEVEL THICKNESS (feet)	
MW-1	05/21/93		20.73	0.21	
	11/17/94	17.54	17.56	0.02	
	02/09/95	18.02	18.05	0.03	
	06/16/95	19.15	19.21	0.06	
	10/02/95	SKIM	16.48	SKIM	
	11/26/95	15.85	15.87	0.02	(1)
	04/16-17/96	14.32	14.33	0.01	
	07/06/96	15.55	15.57	0.02	
	09/30/96	11.70	11.75	0.05	
MW-2	05/21/93		27.56	1.75	
	11/17/94	23.28	26.67	3.39	
	02/09/95	23.98	26.50	2.52	
	06/16/95	25.63	26.45	0.82	
	10/02/95	22.01	26.18	4.17	
	11/26/95	21.23	26.17	4.94	(1)
	04/16-17/96	20.58	22.46	1.88	
	07/06/96	21.86	25.18	3.32	
	09/30/96	19.17	20.94	1.77	
MW-3	05/21/93		17.81	1.36	
	11/17/94	13.07	13.65	0.58	
	02/09/95	13.75	14.32	0.57	
	06/16/95	15.20	15.84	0.64	
	10/02/95	10.69	11.43	0.74	
	11/26/95	9.69	10.41	0.72	(1)
	04/16-17/96	9.58	9.63	0.05	
	07/06/96	11.70	11.80	0.10	
	09/30/96	8.71	8.75	0.04	
MW-4	11/17/94	NONE	28.28	NONE	
	02/09/95	NONE	28.51	NONE	
	06/16/95	NONE	29.58	NONE	
	10/02/95	NONE	24.42	NONE	
	11/26/95	NONE	22.61	NONE	
	04/16-17/96	NONE	20.63	NONE	
	07/06/96	NONE	26.44	NONE	
	09/30/96	NONE	21.88	NONE	
MW-5	11/17/94	16.22	24.19	7.97	
	02/09/95	16.84	24.85	8.01	(1)
	06/16/95	19.44	21.14	1.70	
	10/02/95	16.19	17.85	1.66	
	11/26/95	17.58	19.31	1.73	(1)
	04/16-17/96	17.04	17.25	0.21	
	07/06/96	16.20	16.36	0.16	
	09/30/96	11.17	11.38	0.21	

TABLE 3

Monitoring Well Water / Product Levels

Amoco Pipeline Company
Artesia, New Mexico

WELL IDENTIFICATION	DATE	DEPTH TO PRODUCT (feet)	DEPTH TO WATER (feet)	PRODUCT LEVEL THICKNESS (feet)	
MW-6	11/17/94	TRACE	14.53	TRACE	
	02/09/95	NONE	15.02	NONE	
	06/16/95	16.24	16.27	0.03	
	10/02/95	NONE	13.55	NONE	
	11/26/95	NONE	14.84	NONE	
	04/16-17/96	NONE	13.80	NONE	
	07/06/96	NONE	14.55	NONE	
	09/30/96	NONE	9.62	NONE	
MW-7	11/17/94	NONE	34.33	NONE	
	02/09/95	NONE	34.67	NONE	
	06/16/95	NONE	35.61	NONE	
	10/02/95	NONE	33.79	NONE	
	11/26/95	NONE	33.2	NONE	
	04/16-17/96	NONE	30.95	NONE	
	07/06/96	NONE	33.36	NONE	
	09/30/96	NONE	29.15	NONE	
MW-8	11/17/94	13.69	14.95	1.26	
	02/09/95	14.46	15.02	0.56	
	06/16/95	15.50	16.41	0.91	
	10/02/95	13.03	13.45	0.42	
	11/26/95	14.16	14.71	0.55	(1)
	04/16-17/96	13.66	13.70	0.04	
	07/05/96	13.05	13.07	0.02	(1)
	09/30/96	8.04	8.07	0.03	
MW-9	11/17/94	23.07	23.10	0.03	
	02/09/95	TRACE	23.41	TRACE	
	06/16/95	TRACE	24.65	TRACE	
	10/02/95	SKIM	20.73	SKIM	
	11/26/95	SKIM	19.52	SKIM	
	04/16-17/96	17.53	17.54	0.01	
	07/06/96	21.20	21.23	0.03	
	09/30/96	16.00	16.02	0.02	
MW-10	11/17/94	19.02	21.24	2.22	
	02/09/95	19.74	22.36	2.62	
	06/16/95	20.97	23.30	2.33	
	10/02/95	18.49	19.55	1.06	
	11/25/95	20.13	22.03	1.90	(1)
	04/16-17/96	20.26	20.88	0.62	
	07/05/96	19.86	20.03	0.17	(1)
	09/30/96	NONE	15.62	NONE	

TABLE 3

Monitoring Well Water / Product Levels

Amoco Pipeline Company
Artesia, New Mexico

WELL IDENTIFICATION	DATE	DEPTH TO PRODUCT (feet)	DEPTH TO WATER (feet)	PRODUCT LEVEL THICKNESS (feet)	
MW-11	11/17/94	NONE	19.34	NONE	
	02/09/95	NONE	19.61	NONE	
	06/16/95	NONE	20.08	NONE	
	10/02/95	NONE	19.74	NONE	
	11/25/95	NONE	19.94	NONE	
	04/16-17/96	NONE	19.68	NONE	
	07/06/96	NONE	19.75	NONE	
	09/30/96	NONE	18.65	NONE	
MW-12	11/17/94	NONE	16.47	NONE	
	02/09/95	NONE	16.78	NONE	
	06/16/95	NONE	17.28	NONE	
	10/02/95	NONE	16.03	NONE	
	11/25/95	NONE	16.63	NONE	
	04/16-17/96	NONE	16.55	NONE	
	07/06/96	NONE	16.45	NONE	
	09/30/96	NONE	13.81	NONE	
MW-13	11/17/94	20.41	20.49	0.08	
	02/09/95	20.84	20.87	0.03	
	06/16/95	21.35	21.40	0.05	
	10/02/95	19.35	19.44	0.09	
	11/25/95	21.53	21.58	0.05	(1)
	04/16-17/96	21.82	21.90	0.08	
	07/05/96	21.00	21.05	0.05	(1)
	09/30/96	16.40	16.42	0.02	
MW-14	11/17/94	NONE	18.11	NONE	
	02/09/95	NONE	18.45	NONE	
	06/16/95	NONE	18.93	NONE	
	10/02/95	NONE	18.63	NONE	
	11/26/95	NONE	18.83	NONE	
	04/16-17/96	NONE	18.55	NONE	
	07/06/96	NONE	18.58	NONE	
	09/30/96	NONE	17.63	NONE	

(1) Well bailed after level measurements taken.

APPENDIX A

LABORATORY RESULTS

- BETX Results For The Influent and Effluent Of The Air Stripper -- Samples Taken 8/2/96
- BETX Results For The Influent and Effluent Of The Air Stripper and MW-11 -- Samples Taken 10/15/96
- BETX Results for Monitoring Wells MW-4, MW-6, MW-7, MW-10, MW-12, and MW-14 -- Samples Taken 9/3/96

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

Mr. Hank Mittelhauser
CLAYTON/MITTELHAUSER
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

08/13/1996

NET Job Number: 96.06800

IEPA Cert. No.: 100221
WDNR Cert. No.: 999447130
A2LA Cert. No.: 0453-01

Enclosed is the Analytical and Quality Control reports for the following samples submitted to Bartlett Division of NET, Inc. for analysis.

Project Description: Facility 10195

Sample Number	Sample Description	Date Taken	Date Received
367614	Influent; grab	08/02/1996	08/05/1996
367615	Effluent; grab	08/02/1996	08/05/1996
367616	Trip Blank		08/05/1996

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. These results apply only to the samples analyzed. Reproduction of this report only in whole is permitted. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Procedures used follow NET Standard Operating Procedures which reference the methods listed on your report. Should you have questions regarding procedures or results, please do not hesitate to call. NET has been pleased to provide these analytical services for you.

This Quality Control report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Approved by:

Mary Pearson

Mary Pearson
Project Manager

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

ANALYTICAL REPORT

Mr. Hank Mittelhauser
CLAYTON/MITTELHAUSER
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

08/13/1996

Sample No. : 367614

NET Job No.: 96.06800

Sample Description: Influent; grab
Facility 10195

Date Taken: 08/02/1996
Time Taken: 19:20
IEPA Cert. No. 100221

Date Received: 08/05/1996
Time Received: 10:11
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run	Analytical Method
UST VOLATILES 8240 - AQUEOUS							
Benzene	1,200	ug/L	08/13/1996	1.0	llj	1592	8240 (1)
Ethyl Benzene	210	ug/L	08/13/1996	1.0	llj	1592	8240 (1)
Toluene	160	ug/L	08/13/1996	1.0	llj	1592	8240 (1)
Xylenes, Total	810	ug/L	08/13/1996	1.0	llj	1592	8240 (1)
Surr: Toluene-d8	104.8	%	08/13/1996	88-110	llj	1592	8240 (1)
Surr: Bromofluorobenzene	93.0	%	08/13/1996	86-115	llj	1592	8240 (1)
Surr: 1,2-Dichloroethane-d4	84.6	%	08/13/1996	76-114	llj	1592	8240 (1)

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

ANALYTICAL REPORT

Mr. Hank Mittelhauser
CLAYTON/MITTELHAUSER
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

08/13/1996

Sample No. : 367615

NET Job No.: 96.06800

Sample Description: Effluent; grab
Facility 10195

Date Taken: 08/02/1996
Time Taken: 19:25
IEPA Cert. No. 100221

Date Received: 08/05/1996
Time Received: 10:11
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run	Analytical Method
UST VOLATILES 8240 - AQUEOUS							
Benzene	9.3	ug/L	08/13/1996	1.0	11j	1592	8240 (1)
Ethyl Benzene	1.6	ug/L	08/13/1996	1.0	11j	1592	8240 (1)
Toluene	<1.0	ug/L	08/13/1996	1.0	11j	1592	8240 (1)
Xylenes, Total	7.9	ug/L	08/13/1996	1.0	11j	1592	8240 (1)
Surr: Toluene-d8	99.6	%	08/13/1996	88-110	11j	1592	8240 (1)
Surr: Bromofluorobenzene	94.4	%	08/13/1996	86-115	11j	1592	8240 (1)
Surr: 1,2-Dichloroethane-d4	89.8	%	08/13/1996	76-114	11j	1592	8240 (1)

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

ANALYTICAL REPORT

Mr. Hank Mittelhauser
CLAYTON/MITTELHAUSER
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

08/13/1996

Sample No. : 367616

NET Job No.: 96.06800

Sample Description: Trip Blank
Facility 10195

Date Taken:
Time Taken:
IEPA Cert. No. 100221

Date Received: 08/05/1996
Time Received: 10:11
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run	Analytical Method
UST VOLATILES 8240 - AQUEOUS							
Benzene	<1.0	ug/L	08/13/1996	1.0	llj	1592	8240 (1)
Ethyl Benzene	<1.0	ug/L	08/13/1996	1.0	llj	1592	8240 (1)
Toluene	<1.0	ug/L	08/13/1996	1.0	llj	1592	8240 (1)
Xylenes, Total	<1.0	ug/L	08/13/1996	1.0	llj	1592	8240 (1)
Surr: Toluene-d8	100.8	%	08/13/1996	88-110	llj	1592	8240 (1)
Surr: Bromofluorobenzene	93.4	%	08/13/1996	86-115	llj	1592	8240 (1)
Surr: 1,2-Dichloroethane-d4	85.2	%	08/13/1996	76-114	llj	1592	8240 (1)

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

QUALITY CONTROL REPORT

CONTINUING CALIBRATION VERIFICATION

CLAYTON/MITTELHAUSER
1240 Iroquois Drive
Suite 206
Naperville, IL 60563
Mr. Hank Mittelhauser

08/13/1996

NET Job Number: 96.06800

Analyte	Run Batch Number	CCV True Conc.	Conc. Found	Percent Recovery
UST VOLATILES 8240 - AQUEOUS				
Benzene	1592	50.0	45.4	90.8
Ethyl Benzene	1592	50.0	43.5	87.0
Toluene	1592	50.0	44.5	89.0
Xylenes, Total	1592	150	135	90.0

CCV - Continuing Calibration Verification

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

QUALITY CONTROL REPORT

BLANK ANALYSIS

CLAYTON/MITTELHAUSER
1240 Iroquois Drive
Suite 206
Naperville, IL 60563
Mr. Hank Mittelhauser

08/13/1996

NET Job Number: 96.06800

Analyte	Prep Batch Number	Run Batch Number	Blank Analysis Results	Units	Reporting Limit	Analytical Method
UST VOLATILES 8240 - AQUEOUS						8240 (1)
Benzene		1592	<1.0	ug/L	1.0	8240 (1)
Ethyl Benzene		1592	<1.0	ug/L	1.0	8240 (1)
Toluene		1592	<1.0	ug/L	1.0	8240 (1)
Xylenes, Total		1592	<1.0	ug/L	1.0	8240 (1)
Surr: 1,2-Dichloroethane-d4		1592	88.8	%	76-114	8240 (1)
Surr: Toluene-d8		1592	94.2	%	88-110	8240 (1)
Surr: Bromofluorobenzene		1592	97.2	%	86-115	8240 (1)

Advisory Control Limits for Blanks:

All compounds should be less than the Reporting Limit, except for phthalate esters, toluene, methylene chloride, acetone and chloroform should be less than 5 times the Reporting Limit.

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

QUALITY CONTROL REPORT

LABORATORY CONTROL STANDARD

CLAYTON/MITTELHAUSER
1240 Iroquois Drive
Suite 206
Naperville, IL 60563
Mr. Hank Mittelhauser

08/13/1996

NET Job Number: 96.06800

Analyte	Prep Batch Number	Run Batch Number	True Conc.	Conc. Found	LCS % Recovery
UST VOLATILES 8240 - AQUEOUS					
Benzene		1592	20.0	18.9	94.5
Ethyl Benzene		1592	20.0	20.8	104.0
Toluene		1592	20.0	19.1	95.5
Xylenes, Total		1592	60.0	57.0	95.0
Surr: 1,2-Dichloroethane-d4		1592	50.0	48.8	97.6
Surr: Toluene-d8		1592	50.0	48.6	97.2
Surr: Bromofluorobenzene		1592	50.0	48.5	97.0

NET Midwest, Bartlett Division

KEY TO ABBREVIATIONS and METHOD REFERENCES

<	:	Less than; When appearing in the results column indicates the analyte was not detected at or above the reported value.
mg/L	:	Concentration in units of milligrams of analyte per liter of sample. Measurement used for aqueous samples. Can also be expressed as parts per million (ppm).
ug/g	:	Concentration in units of micrograms of analyte per gram of sample. Measurement used for non-aqueous samples. Can also be expressed as parts per million (ppm) or mg/Kg.
ug/L	:	Concentration in units of micrograms of analyte per liter of sample. Measurement used for aqueous samples. Can also be expressed as parts per billion (ppb).
ug/Kg	:	Concentration in units of micrograms of analyte per kilogram of sample. Measurement used for non-aqueous samples. Can also be expressed as parts per billion (ppb).
B	:	Sample result flag indicating that the analyte was also found in the method blank analysis. The value after the B indicates the concentration found in the blank analysis.
D	:	Sample result flag indicating that the reported concentration is from an analysis performed at a dilution. The value following the D indicates the dilution factor of the analysis.
J	:	Sample result flag indicating that the reported concentration is below the routine reporting limit but greater than the Method Detection Limit. The value should be considered estimated.
TCLP	:	These initials appearing in front of an analyte name indicate that the Toxicity Characteristic Leaching Procedure (TCLP) was performed for this test.
%	:	Percent; To convert ppm to %, divide the result by 10,000. To convert % to ppm, multiply the result by 10,000.
Dry Weight (dw)	:	When indicated, the results are reported on a dry weight basis. The contribution of the moisture content in the sample is subtracted when calculating the concentration of the analyte.
ICP	:	Indicates analysis was performed using Inductively Coupled Plasma Spectroscopy.
AA	:	Indicates analysis was performed using Atomic Absorption Spectroscopy.
GFAA	:	Indicates analysis was performed using Graphite Furnace Atomic Absorption Spectroscopy.
PQL	:	Practical Quantitation Limit; the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions.

Method References

(1) Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", USEPA SW-846, 3rd Edition, 1986.

(2) ASTM "American Society for Testing Materials

(3) Methods 100 through 499: see "Methods for Chemical Analysis of Water and Wastes", USEPA, 600/4-79-020, Rev. 1983.

(4) See "Standard Methods for the Examination of Water and Wastewater", 17th Ed, APHA, 1989.

(5) Methods 600 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants", USEPA Federal Register Vol. 49 No. 209, October 1984.

(6) Methods 500 through 599: see "Methods for the Determination of Organic Compounds in Drinking Water," USEPA 600/4-88/039, Rev. 1988.

NATIONAL ENVIRONMENTAL TESTING, INC.

CHAIN OF CUSTODY RECORD

COMPANY Amoco Pipeline Co.
ADDRESS MC PCB 63062 PCB 7513 Chicago, IL 60680-7513
PHONE 312-856-7251 FAX 312-856-3131
PROJECT NAME/LOCATION Amoco Pipeline Co Artesia Station
PROJECT NUMBER Facility 10185
PROJECT MANAGER MR. Douglas Earney

REPORT TO: H. Mitteldhauser D. Earney
INVOICE TO:
P.O. NO.
NET QUOTE NO.

MBF Services

SAMPLED BY (PRINT NAME) Clayton M Barnhill
SIGNATURE Clayton M Barnhill
(PRINT NAME)
SIGNATURE

DATE	TIME	SAMPLE ID/DESCRIPTION	MATRIX	GRAB	COMP	# and Type of Containers: HCl	NaOH	HNO_3	H_2SO_4	OTHER	ANALYSES: BTEX 8260	8270
8/2/96	11:20	3 40ml VOA's Influent	H2O	X		X					X	
8/2/96	14:25	3 40ml VOA's Effluent	H2O	X		X					X	
		1 TRIP BLANK / 40ml VOA	H2O			X					X	

ANALYSES: 8260 8270

To assist us in selecting the proper method

Is this work being conducted for regulatory compliance monitoring? Yes ✓ No ____

Is this work being conducted for regulatory enforcement action? Yes ____ No ____

Which regulations apply: RCRA ____ NPDES Wastewater ____ UST ____ Drinking Water ____ Other ____ None ____

COMMENTS

2 Samples broken

CONDITION OF SAMPLE: BOTTLES INTACT? ~~YES~~ / NO
FIELD FILTERED? YES / NO N/A
COC SEALS PRESENT AND INTACT? YES / NO N/A
VOLATILES FREE OF HEADSPACE? YES / NO N/A
TEMPERATURE UPON RECEIPT: 29.0°
Bottles supplied by NET? (YES) / NO

SAMPLE REMAINDER DISPOSAL: RETURN SAMPLE REMAINDER TO CLIENT VIA ____
I REQUEST NET TO DISPOSE OF ALL SAMPLE REMAINDERS ____ DATE ____

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	RELINQUISHED BY:	DATE	TIME	RECEIVED FOR NET BY:
Clayton M Barnhill	8/3/96	9:41			8/5/96	1011	

METHOD OF SHIPMENT

REMARKS: Please Send Copy of Report Promptly to H. Mitteldhauser #2778

PT 1 - ORIGINAL - WHITE PT 2 - NET PROJECT MANAGER - YELLOW PT 3 - CUSTOMER COPY - PINK

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

10/21/1996

NET Job Number: 96.09752

IEPA Cert. No.: 100221
WDNR Cert. No.: 999447130
A2LA Cert. No.: 0453-01

Enclosed is the Analytical and Quality Control reports for the following samples submitted to Bartlett Division of NET, Inc. for analysis.

Project Description: Amoco Pipeline Artesia Station

Sample Number	Sample Description	Date Taken	Date Received
379331	Influent; Grab	10/15/1996	10/16/1996
379332	Effluent; Grab	10/15/1996	10/16/1996
379333	Trip Blank		10/16/1996

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. These results apply only to the samples analyzed. Reproduction of this report only in whole is permitted. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Procedures used follow NET Standard Operating Procedures which reference the methods listed on your report. Should you have questions regarding procedures or results, please do not hesitate to call. NET has been pleased to provide these analytical services for you.

This Quality Control report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Approved by:

Mary Pearson

Mary Pearson
Project Manager

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

ANALYTICAL REPORT

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

10/21/1996

Sample No. : 379331

NET Job No.: 96.09752

Sample Description: Influent; Grab
Amoco Pipeline Artesia Station

Date Taken: 10/15/1996
Time Taken: 11:15
IEPA Cert. No. 100221

Date Received: 10/16/1996
Time Received: 10:12
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run	Analytical Method
UST VOLATILES 8240 - AQUEOUS							
Benzene	2,400	ug/L	10/20/1996	1.0	llj	1662	8240 (1)
Ethyl Benzene	290	ug/L	10/20/1996	1.0	llj	1662	8240 (1)
Toluene	<50	ug/L	10/20/1996	1.0	llj	1662	8240 (1)
Xylenes, Total	960	ug/L	10/20/1996	1.0	llj	1662	8240 (1)
Surr: Toluene-d8	102.0	%	10/20/1996	88-110	llj	1662	8240 (1)
Surr: Bromofluorobenzene	96.8	%	10/20/1996	86-115	llj	1662	8240 (1)
Surr: 1,2-Dichloroethane-d4	83.8	%	10/20/1996	76-114	llj	1662	8240 (1)

VOA ANALYZED AT A 50X DILUTION.

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

ANALYTICAL REPORT

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

10/21/1996

Sample No. : 379332

NET Job No.: 96.09752

Sample Description: Effluent; Grab
Amoco Pipeline Artesia Station

Date Taken: 10/15/1996
Time Taken: 11:10
IEPA Cert. No. 100221

Date Received: 10/16/1996
Time Received: 10:12
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run	Analytical Method
UST VOLATILES 8240 - AQUEOUS							
Benzene	<1.0	ug/L	10/20/1996	1.0	llj	1662	8240 (1)
Ethyl Benzene	<1.0	ug/L	10/20/1996	1.0	llj	1662	8240 (1)
Toluene	<1.0	ug/L	10/20/1996	1.0	llj	1662	8240 (1)
Xylenes, Total	<1.0	ug/L	10/20/1996	1.0	llj	1662	8240 (1)
Surr: Toluene-d8	100.8	%	10/20/1996	88-110	llj	1662	8240 (1)
Surr: Bromofluorobenzene	94.6	%	10/20/1996	86-115	llj	1662	8240 (1)
Surr: 1,2-Dichloroethane-d4	79.0	%	10/20/1996	76-114	llj	1662	8240 (1)

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

ANALYTICAL REPORT

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

10/21/1996

Sample No. : 379333

NET Job No.: 96.09752

Sample Description: Trip Blank
Amoco Pipeline Artesia Station

Date Taken:
Time Taken:
IEPA Cert. No. 100221

Date Received: 10/16/1996
Time Received: 10:12
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run	Analytical Method
UST VOLATILES 8240 - AQUEOUS							
Benzene	<1.0	ug/L	10/20/1996	1.0	llj	1662	8240 (1)
Ethyl Benzene	<1.0	ug/L	10/20/1996	1.0	llj	1662	8240 (1)
Toluene	<1.0	ug/L	10/20/1996	1.0	llj	1662	8240 (1)
Xylenes, Total	<1.0	ug/L	10/20/1996	1.0	llj	1662	8240 (1)
Surr: Toluene-d8	99.8	%	10/20/1996	88-110	llj	1662	8240 (1)
Surr: Bromofluorobenzene	94.8	%	10/20/1996	86-115	llj	1662	8240 (1)
Surr: 1,2-Dichloroethane-d4	78.6	%	10/20/1996	76-114	llj	1662	8240 (1)

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

QUALITY CONTROL REPORT

CONTINUING CALIBRATION VERIFICATION

MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563
Mr. Hank Mittelhauser

10/21/1996

NET Job Number: 96.09752

Analyte	Run Batch Number	CCV True Conc.	Conc. Found	Percent Recovery
UST VOLATILES 8240 - AQUEOUS				
Benzene	1662	50.0	54.6	109.2
Ethyl Benzene	1662	50.0	53.7	107.4
Toluene	1662	50.0	52.0	104.0
Xylenes, Total	1662	150	154	102.7

CCV - Continuing Calibration Verification

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

QUALITY CONTROL REPORT

BLANK ANALYSIS

MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563
Mr. Hank Mittelhauser

10/21/1996

NET Job Number: 96.09752

Analyte	Prep Batch Number	Run Batch Number	Blank Analysis Results	Units	Reporting Limit	Analytical Method
UST VOLATILES 8240 - AQUEOUS						8240 (1)
Benzene		1662	<1.0	ug/L	1.0	8240 (1)
Ethyl Benzene		1662	<1.0	ug/L	1.0	8240 (1)
Toluene		1662	<1.0	ug/L	1.0	8240 (1)
Xylenes, Total		1662	<1.0	ug/L	1.0	8240 (1)
Surr: 1,2-Dichloroethane-d4		1662	79.2	%	76-114	8240 (1)
Surr: Toluene-d8		1662	97.2	%	88-110	8240 (1)
Surr: Bromofluorobenzene		1662	92.8	%	86-115	8240 (1)

Advisory Control Limits for Blanks:

All compounds should be less than the Reporting Limit, except for phthalate esters, toluene, methylene chloride, acetone and chloroform should be less than 5 times the Reporting Limit.

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

QUALITY CONTROL REPORT

LABORATORY CONTROL STANDARD

MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563
Mr. Hank Mittelhauser

10/21/1996

NET Job Number: 96.09752

Analyte	Prep Batch Number	Run Batch Number	True Conc.	Conc. Found	LCS % Recovery
UST VOLATILES 8240 - AQUEOUS					
Benzene		1662	20.0	22.6	113.0
Ethyl Benzene		1662	20.0	24.1	120.5
Toluene		1662	20.0	22.5	112.5
Xylenes, Total		1662	60.0	66.7	111.2
Surr: 1,2-Dichloroethane-d4		1662	50.0	40.8	81.6
Surr: Toluene-d8		1662	50.0	49.3	98.6
Surr: Bromofluorobenzene		1662	50.0	47.2	94.4

NET Midwest, Bartlett Division

KEY TO ABBREVIATIONS and METHOD REFERENCES

<	:	Less than; When appearing in the results column indicates the analyte was not detected at or above the reported value.
mg/L	:	Concentration in units of milligrams of analyte per liter of sample. Measurement used for aqueous samples. Can also be expressed as parts per million (ppm).
ug/g	:	Concentration in units of micrograms of analyte per gram of sample. Measurement used for non-aqueous samples. Can also be expressed as parts per million (ppm) or mg/Kg.
ug/L	:	Concentration in units of micrograms of analyte per liter of sample. Measurement used for aqueous samples. Can also be expressed as parts per billion (ppb).
ug/Kg	:	Concentration in units of micrograms of analyte per kilogram of sample. Measurement used for non-aqueous samples. Can also be expressed as parts per billion (ppb).
TCLP	:	These initials appearing in front of an analyte name indicate that the Toxicity Characteristic Leaching Procedure (TCLP) was performed for this test.
Surr:	:	These initials are the abbreviation for surrogate. Surrogates are compounds that are chemically similar to the compounds of interest. They are part of the method quality control requirements.
%	:	Percent; To convert ppm to %, divide the result by 10,000. To convert % to ppm, multiply the result by 10,000.
ICP	:	Indicates analysis was performed using Inductively Coupled Plasma Spectroscopy.
AA	:	Indicates analysis was performed using Atomic Absorption Spectroscopy.
GFAA	:	Indicates analysis was performed using Graphite Furnace Atomic Absorption Spectroscopy.
PQL	:	Practical Quantitation Limit; the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions.

Method References:

(1) Methods 1000 through 9999; see "Test Methods for Evaluating Solid Waste", USEPA SW-846, 3rd Edition, 1986.

(2) ASTM "American Society for Testing Materials"

(3) Methods 100 through 499; see "Methods for Chemical Analysis of Water and Wastes", USEPA, 600/4-79-020, Rev. 1983.

(4) See "Standard Methods for the Examination of Water and Wastewater", 17th Ed, APHA, 1989.

(5) Methods 600 through 625; see "Guidelines Establishing Test Procedures for the Analysis of Pollutants", USEPA Federal Register Vol. 49 No. 209, October 1984.

(6) Methods 500 through 599; see "Methods for the Determination of Organic Compounds in Drinking Water," USEPA 600/4-88/039, Rev. 1988.

(7) See "Methods for the Determination of Metals in Environmental Samples", Supplement I EPA-600/R-94/111, May 1994.

(8) See "Standard Methods for the Examination of Water and Wastewater", 18th Ed., APHA, 1992.

NATIONAL ENVIRONMENTAL TESTING, INC.

CHAIN OF CUSTODY RECORD

H. Mitzelhause
D. Eanney

COMPANY Amoco Pipeline Co.
ADDRESS MC PoB 63062 POB 7513 Chicago, IL 60680-7513
PHONE 312-856-7251 FAX 312-856-3731
PROJECT NAME/LOCATION Amoco Pipeline Artesia Station
PROJECT NUMBER Facility 10128
PROJECT MANAGER MR. Douglas Eanney

REPORT TO:
INVOICE TO:
P.O. NO.
NET QUOTE NO.

MBF Services

SAMPLED BY (PRINT NAME) Clayton M Barnhill
SIGNATURE
(PRINT NAME)
SIGNATURE

DATE	TIME	SAMPLE ID/DESCRIPTION	MATRIX	GRAB	COMP	# and Type of Containers: HCl	NaOH	HNO_3	H_2SO_4	OTHER	ANALYSES: BTEX 8020
10/5/96	11:15	3 VOAs Influent	H2O	X		X					X
10/5/96	11:20	3 VOAs Effluent	H2O	X		X					X
		TRIP BLANK	X	X		X					X

To assist us in selecting the proper method

Is this work being conducted for regulatory compliance monitoring? Yes ✓ No ___
Is this work being conducted for regulatory enforcement action? Yes ___ No ___
Which regulations apply: RCRA ___ NPDES Wastewater ___ UST ___ Drinking Water ___ Other ___ None ___

COMMENTS

CONDITION OF SAMPLE: BOTTLES INTACT? YES / NO
FIELD FILTERED? YES / NO
COC SEALS PRESENT AND INTACT? YES / NO
VOLATILES FREE OF HEADSPACE? YES / NO
TEMPERATURE UPON RECEIPT: 10.4°C
Bottles supplied by NET? YES / NO

SAMPLE REMAINDER DISPOSAL: RETURN SAMPLE REMAINDER TO CLIENT VIA ___
I REQUEST NET TO DISPOSE OF ALL SAMPLE REMAINDERS ___ DATE 10/15/96

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	RELINQUISHED BY:	DATE	TIME	RECEIVED FOR NET BY:
	10/15/96	14:02			10/16/96	10:12	Maria Perez

METHOD OF SHIPMENT: FEDEX

REMARKS: Please Send Copy of Report ASAP To. H. Mitzelhause # 2775

PT 1 - ORIGINAL - WHITE PT 2 - NET PROJECT MANAGER - YELLOW PT 3 - CUSTOMER COPY - PINK

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

10/11/1996

NET Job Number: 96.09225

IEPA Cert. No.: 100221
WDNR Cert. No.: 999447130
A2LA Cert. No.: 0453-01

Enclosed is the Analytical and Quality Control reports for the following samples submitted to Bartlett Division of NET, Inc. for analysis.

Project Description: Amoco Artesia Station

Sample Number	Sample Description	Date Taken	Date Received
377271	Monitor Well #10; Grab	09/30/1996	10/02/1996
377272	Monitor Well #14; Grab	09/30/1996	10/02/1996
377273	Monitor Well #12; Grab	09/30/1996	10/02/1996
377274	Monitor Well #11; Grab	09/30/1996	10/02/1996
377275	Trip Blank		10/02/1996

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. These results apply only to the samples analyzed. Reproduction of this report only in whole is permitted. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Procedures used follow NET Standard Operating Procedures which reference the methods listed on your report. Should you have questions regarding procedures or results, please do not hesitate to call. NET has been pleased to provide these analytical services for you.

This Quality Control report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Approved by:

Mary Pearson

Mary Pearson
Project Manager

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

ANALYTICAL REPORT

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

10/11/1996

Sample No. : 377271

NET Job No.: 96.09225

Sample Description: Monitor Well #10; Grab
Amoco Artesia Station

Date Taken: 09/30/1996
Time Taken: 14:15
IEPA Cert. No. 100221

Date Received: 10/02/1996
Time Received: 10:20
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run	Analytical Method
UST VOLATILES 8240 - AQUEOUS							
Benzene	62	ug/L	10/10/1996	1.0	llj	1652	8240 (1)
Ethyl Benzene	2.2	ug/L	10/10/1996	1.0	llj	1652	8240 (1)
Toluene	<1.0	ug/L	10/10/1996	1.0	llj	1652	8240 (1)
Xylenes, Total	2.3	ug/L	10/10/1996	1.0	llj	1652	8240 (1)
Surr: Toluene-d8	107.4	%	10/10/1996	88-110	llj	1652	8240 (1)
Surr: Bromofluorobenzene	99.2	%	10/10/1996	86-115	llj	1652	8240 (1)
Surr: 1,2-Dichloroethane-d4	95.8	%	10/10/1996	76-114	llj	1652	8240 (1)

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

ANALYTICAL REPORT

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

10/11/1996

Sample No. : 377272

NET Job No.: 96.09225

Sample Description: Monitor Well #14; Grab
Amoco Artesia Station

Date Taken: 09/30/1996
Time Taken: 13:00
IEPA Cert. No. 100221

Date Received: 10/02/1996
Time Received: 10:20
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run	Analytical Method
UST VOLATILES 8240 - AQUEOUS							
Benzene	<1.0	ug/L	10/10/1996	1.0	11j	1651	8240 (1)
Ethyl Benzene	<1.0	ug/L	10/10/1996	1.0	11j	1651	8240 (1)
Toluene	<1.0	ug/L	10/10/1996	1.0	11j	1651	8240 (1)
Xylenes, Total	<1.0	ug/L	10/10/1996	1.0	11j	1651	8240 (1)
Surr: Toluene-d8	105.6	%	10/10/1996	88-110	11j	1651	8240 (1)
Surr: Bromofluorobenzene	104.0	%	10/10/1996	86-115	11j	1651	8240 (1)
Surr: 1,2-Dichloroethane-d4	79.0	%	10/10/1996	76-114	11j	1651	8240 (1)

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

ANALYTICAL REPORT

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

10/11/1996

Sample No. : 377273

NET Job No.: 96.09225

Sample Description: Monitor Well #12; Grab
Amoco Artesia Station

Date Taken: 09/30/1996
Time Taken: 13:36
IEPA Cert. No. 100221

Date Received: 10/02/1996
Time Received: 10:20
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run	Analytical Method
UST VOLATILES 8240 - AQUEOUS							
Benzene	30	ug/L	10/10/1996	1.0	llj	1652	8240 (1)
Ethyl Benzene	<1.0	ug/L	10/10/1996	1.0	llj	1652	8240 (1)
Toluene	<1.0	ug/L	10/10/1996	1.0	llj	1652	8240 (1)
Xylenes, Total	<1.0	ug/L	10/10/1996	1.0	llj	1652	8240 (1)
Surr: Toluene-d8	104.2	%	10/10/1996	88-110	llj	1652	8240 (1)
Surr: Bromofluorobenzene	99.6	%	10/10/1996	86-115	llj	1652	8240 (1)
Surr: 1,2-Dichloroethane-d4	97.6	%	10/10/1996	76-114	llj	1652	8240 (1)

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

ANALYTICAL REPORT

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

10/11/1996

Sample No. : 377274

NET Job No.: 96.09225

Sample Description: Monitor Well #11; Grab
Amoco Artesia Station

Date Taken: 09/30/1996
Time Taken: 12:03
IEPA Cert. No. 100221

Date Received: 10/02/1996
Time Received: 10:20
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run	Analytical Method
UST VOLATILES 8240 - AQUEOUS							
Benzene	<1.0	ug/L	10/10/1996	1.0	llj	1651	8240 (1)
Ethyl Benzene	<1.0	ug/L	10/10/1996	1.0	llj	1651	8240 (1)
Toluene	<1.0	ug/L	10/10/1996	1.0	llj	1651	8240 (1)
Xylenes, Total	<1.0	ug/L	10/10/1996	1.0	llj	1651	8240 (1)
Surr: Toluene-d8	104.2	%	10/10/1996	88-110	llj	1651	8240 (1)
Surr: Bromofluorobenzene	102.4	%	10/10/1996	86-115	llj	1651	8240 (1)
Surr: 1,2-Dichloroethane-d4	81.0	%	10/10/1996	76-114	llj	1651	8240 (1)

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

ANALYTICAL REPORT

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

10/11/1996

Sample No. : 377275

NET Job No.: 96.09225

Sample Description: Trip Blank
Amoco Artesia Station

Date Taken:
Time Taken:
IEPA Cert. No. 100221

Date Received: 10/02/1996
Time Received: 10:20
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run	Analytical Method
UST VOLATILES 8240 - AQUEOUS							
Benzene	<1.0	ug/L	10/10/1996	1.0	llj	1651	8240 (1)
Ethyl Benzene	<1.0	ug/L	10/10/1996	1.0	llj	1651	8240 (1)
Toluene	<1.0	ug/L	10/10/1996	1.0	llj	1651	8240 (1)
Xylenes, Total	<1.0	ug/L	10/10/1996	1.0	llj	1651	8240 (1)
Surr: Toluene-d8	103.2	%	10/10/1996	88-110	llj	1651	8240 (1)
Surr: Bromofluorobenzene	103.8	%	10/10/1996	86-115	llj	1651	8240 (1)
Surr: 1,2-Dichloroethane-d4	81.2	%	10/10/1996	76-114	llj	1651	8240 (1)

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

QUALITY CONTROL REPORT

CONTINUING CALIBRATION VERIFICATION

MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563
Mr. Hank Mittelhauser

10/11/1996

NET Job Number: 96.09225

Analyte	Run Batch Number	CCV True Conc.	Conc. Found	Percent Recovery
UST VOLATILES 8240 - AQUEOUS				
Benzene	1651	50.0	58.3	116.6
Ethyl Benzene	1651	50.0	56.0	112.0
Toluene	1651	50.0	56.3	112.6
Xylenes, Total	1651	150	163	108.7

CCV - Continuing Calibration Verification

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

QUALITY CONTROL REPORT

BLANK ANALYSIS

MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563
Mr. Hank Mittelhauser

10/11/1996

NET Job Number: 96.09225

Analyte	Prep Batch Number	Run Batch Number	Blank Analysis Results	Units	Reporting Limit	Analytical Method
UST VOLATILES 8240 - AQUEOUS						8240 (1)
Benzene		1651	<1.0	ug/L	1.0	8240 (1)
Ethyl Benzene		1651	<1.0	ug/L	1.0	8240 (1)
Toluene		1651	<1.0	ug/L	1.0	8240 (1)
Xylenes, Total		1651	<1.0	ug/L	1.0	8240 (1)
Surr: 1,2-Dichloroethane-d4		1651	81.6	%	76-114	8240 (1)
Surr: Toluene-d8		1651	105.4	%	88-110	8240 (1)
Surr: Bromofluorobenzene		1651	105.4	%	86-115	8240 (1)
UST VOLATILES 8240 - AQUEOUS						8240 (1)
Benzene		1652	<1.0	ug/L	1.0	8240 (1)
Ethyl Benzene		1652	<1.0	ug/L	1.0	8240 (1)
Toluene		1652	<1.0	ug/L	1.0	8240 (1)
Xylenes, Total		1652	<1.0	ug/L	1.0	8240 (1)
Surr: 1,2-Dichloroethane-d4		1652	96.8	%	76-114	8240 (1)
Surr: Toluene-d8		1652	105.0	%	88-110	8240 (1)
Surr: Bromofluorobenzene		1652	98.8	%	86-115	8240 (1)

Advisory Control Limits for Blanks:

All compounds should be less than the Reporting Limit, except for phthalate esters, toluene, methylene chloride, acetone and chloroform should be less than 5 times the Reporting Limit.

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

QUALITY CONTROL REPORT

LABORATORY CONTROL STANDARD

MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563
Mr. Hank Mittelhauser

10/11/1996

NET Job Number: 96.09225

Analyte	Prep Batch Number	Run Batch Number	True Conc.	Conc. Found	LCS % Recovery
UST VOLATILES 8240 - AQUEOUS					
Benzene		1651	20.0	23.4	117.0
Ethyl Benzene		1651	20.0	22.1	110.5
Toluene		1651	20.0	22.4	112.0
Xylenes, Total		1651	60.0	66.4	110.7
Surr: 1,2-Dichloroethane-d4		1651	50.0	41.7	83.4
Surr: Toluene-d8		1651	50.0	51.3	102.6
Surr: Bromofluorobenzene		1651	50.0	50.2	100.4
UST VOLATILES 8240 - AQUEOUS					
Benzene		1652	20.0	23.3	116.5
Ethyl Benzene		1652	20.0	23.6	118.0
Toluene		1652	20.0	23.4	117.0
Xylenes, Total		1652	60.0	69.6	116.0
Surr: 1,2-Dichloroethane-d4		1652	50.0	48.5	97.0
Surr: Toluene-d8		1652	50.0	51.8	103.6
Surr: Bromofluorobenzene		1652	50.0	48.2	96.4

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
860 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

QUALITY CONTROL REPORT

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563
Mr. Hank Mittelhauser

10/11/1996

NET Job Number: 96.09225

Analyte	Prep Batch Number	Run Batch Number	Matrix Spike Result	Sample Result	Spike Amount	Units	Percent Recovery	MSD Result	MSD Spike Amount	Units	Percent Recovery	MS/MSD RPD
UST VOLATILES 8240 - AQUEOU												
Benzene		1651	22.7	<1.0	20.0	ug/L	113.5	26.2	20.0	ug/L	131.0	14.3
Ethyl Benzene		1651	22.3	<1.0	20.0	ug/L	111.5	22.8	20.0	ug/L	114.0	2.2
Toluene		1651	22.2	<1.0	20.0	ug/L	111.0	25.3	20.0	ug/L	126.5	13.1
Xylenes, Total		1651	66.0	<1.0	60.0	ug/L	110.0	68.0	60.0	ug/L	113.3	3.0

NOTE: Matrix Spike Samples may not be samples from this job.

Advisory Control Limits for MS/MSDs:

For Inorganic Parameters and GC Volatiles, the spike recovery should be 75 - 125% if the spike added value was greater than or equal to one fourth of the sample result value. If not, the control limits are not established. The RPD for the MS/MSD pair should be less than 20.

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference

NET Midwest, Bartlett Division

KEY TO ABBREVIATIONS and METHOD REFERENCES

<	:	Less than; When appearing in the results column indicates the analyte was not detected at or above the reported value.
mg/L	:	Concentration in units of milligrams of analyte per liter of sample. Measurement used for aqueous samples. Can also be expressed as parts per million (ppm).
ug/g	:	Concentration in units of micrograms of analyte per gram of sample. Measurement used for non-aqueous samples. Can also be expressed as parts per million (ppm) or mg/Kg.
ug/L	:	Concentration in units of micrograms of analyte per liter of sample. Measurement used for aqueous samples. Can also be expressed as parts per billion (ppb).
ug/Kg	:	Concentration in units of micrograms of analyte per kilogram of sample. Measurement used for non-aqueous samples. Can also be expressed as parts per billion (ppb).
TCLP	:	These initials appearing in front of an analyte name indicate that the Toxicity Characteristic Leaching Procedure (TCLP) was performed for this test.
Surr:	:	These initials are the abbreviation for surrogate. Surrogates are compounds that are chemically similar to the compounds of interest. They are part of the method quality control requirements.
%	:	Percent; To convert ppm to %, divide the result by 10,000. To convert % to ppm, multiply the result by 10,000.
ICP	:	Indicates analysis was performed using Inductively Coupled Plasma Spectroscopy.
AA	:	Indicates analysis was performed using Atomic Absorption Spectroscopy.
GFAA	:	Indicates analysis was performed using Graphite Furnace Atomic Absorption Spectroscopy.
PQL	:	Practical Quantitation Limit; the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions.

Method References

(1) Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", USEPA SW-846, 3rd Edition, 1986.

(2) ASTM "American Society for Testing Materials"

(3) Methods 100 through 499: see "Methods for Chemical Analysis of Water and Wastes", USEPA, 600/4-79-020, Rev. 1983.

(4) See "Standard Methods for the Examination of Water and Wastewater", 17th Ed, APHA, 1989.

(5) Methods 600 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants", USEPA Federal Register Vol. 49 No. 209, October 1984.

(6) Methods 500 through 599: see "Methods for the Determination of Organic Compounds in Drinking Water," USEPA 600/4-88/039, Rev. 1988.

(7) See "Methods for the Determination of Metals in Environmental Samples", Supplement I EPA-600/R-94/111, May 1994.

(8) See "Standard Methods for the Examination of Water and Wastewater", 18th Ed., APHA, 1992.

NATIONAL ENVIRONMENTAL TESTING, INC.

CHAIN OF CUSTODY RECORD

COMPANY Amoco Pipeline Co.
ADDRESS MC P06306Z POB 7513 Chicago IL 60680-7513
PHONE 312-856-7254 FAX 312-856-3731
PROJECT NAME/LOCATION Quarterly Monitor Well Sampling
PROJECT NUMBER Amoco Aurora Station
PROJECT MANAGER D. Earney

REPORT TO: H. Mithelman D. Earney.
INVOICE TO:
P.O. NO.
NET QUOTE NO.

MBE SERVICES

SAMPLED BY (PRINT NAME) Clayton M Bowman
SIGNATURE
(PRINT NAME)
SIGNATURE

DATE	TIME	SAMPLE ID/DESCRIPTION	MATRIX	GRAB	COMP	# and Type of Containers: HCl	NaOH	HNO_3	H_2SO_4	OTHER	ANALYSES: BTEX 8020
9/30/96	1445	Monitor Well Eco 2 Vials	H2O	X		X					X
9/30/96	13:00	Monitor Well #14 2 Vials	H2O	X		X					X
9/30/96	15:36	Monitor Well #12 2 Vials	H2O	X		X					X
9/30/96	12:03	Monitor Well #11 2 Vials	H2O	X		X					X
		Trip Blank	X	X		X					X

To assist us in selecting the proper method

Is this work being conducted for regulatory compliance monitoring? Yes ___ No ___

Is this work being conducted for regulatory enforcement action? Yes ___ No ___

Which regulations apply: RCRA ___ NPDES Wastewater ___ UST ___ Drinking Water ___ Other ___ None ___

COMMENTS

CONDITION OF SAMPLE: BOTTLES INTACT? YES / NO
FIELD FILTERED? YES / NO
COC SEALS PRESENT AND INTACT? (YES) / NO
VOLATILES FREE OF HEADSPACE? YES (NO)
TEMPERATURE UPON RECEIPT: 17.9°C
Bottles supplied by NET? (YES) / NO

SAMPLE REMAINDER DISPOSAL: RETURN SAMPLE REMAINDER TO CLIENT VIA ___ I REQUEST NET TO DISPOSE OF ALL SAMPLE REMAINDERS
DATE 10/1/96

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	RELINQUISHED BY:	DATE	TIME	RECEIVED FOR NET BY:
	10/1/96	15:54			10/2/96	10:20	

METHOD OF SHIPMENT: FED-Ex

REMARKS: Please Send Copy of Report to H. Mithelman @ 2775 ASAP

PT 1 - ORIGINAL - WHITE PT 2 - NET PROJECT MANAGER - YELLOW PT 3 - CUSTOMER COPY - PINK

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

10/11/1996

NET Job Number: 96.09224

IEPA Cert. No.: 100221
WDNR Cert. No.: 999447130
A2LA Cert. No.: 0453-01

Enclosed is the Analytical and Quality Control reports for the following samples submitted to Bartlett Division of NET, Inc. for analysis.

Project Description: Amoco Artesia Station

Sample Number	Sample Description	Date Taken	Date Received
377267	Monitor Well #6; Grab	09/30/1996	10/02/1996
377268	Monitor Well #7; Grab	09/30/1996	10/02/1996
377269	Monitor Well #4; Grab	09/30/1996	10/02/1996
377270	Trip Blank		10/02/1996

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. These results apply only to the samples analyzed. Reproduction of this report only in whole is permitted. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Procedures used follow NET Standard Operating Procedures which reference the methods listed on your report. Should you have questions regarding procedures or results, please do not hesitate to call. NET has been pleased to provide these analytical services for you.

This Quality Control report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Approved by:

Mary Pearson

Mary Pearson
Project Manager

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

ANALYTICAL REPORT

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

10/11/1996

Sample No. : 377267

NET Job No.: 96.09224

Sample Description: Monitor Well #6; Grab
Amoco Artesia Station

Date Taken: 09/30/1996
Time Taken: 15:10
IEPA Cert. No. 100221

Date Received: 10/02/1996
Time Received: 10:20
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run	Analytical Method
UST VOLATILES 8240 - AQUEOUS							
Benzene	<1.0	ug/L	10/10/1996	1.0	llj	1652	8240 (1)
Ethyl Benzene	2.0	ug/L	10/10/1996	1.0	llj	1652	8240 (1)
Toluene	<1.0	ug/L	10/10/1996	1.0	llj	1652	8240 (1)
Xylenes, Total	<1.0	ug/L	10/10/1996	1.0	llj	1652	8240 (1)
Surr: Toluene-d8	109.4	%	10/10/1996	88-110	llj	1652	8240 (1)
Surr: Bromofluorobenzene	93.6	%	10/10/1996	86-115	llj	1652	8240 (1)
Surr: 1,2-Dichloroethane-d4	95.8	%	10/10/1996	76-114	llj	1652	8240 (1)

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

ANALYTICAL REPORT

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

10/11/1996

Sample No. : 377268

NET Job No.: 96.09224

Sample Description: Monitor Well #7; Grab
Amoco Artesia Station

Date Taken: 09/30/1996
Time Taken: 16:40
IEPA Cert. No. 100221

Date Received: 10/02/1996
Time Received: 10:20
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run	Analytical Method
UST VOLATILES 8240 - AQUEOUS							
Benzene	170	ug/L	10/10/1996	1.0	llj	1652	8240 (1)
Ethyl Benzene	<2.0	ug/L	10/10/1996	1.0	llj	1652	8240 (1)
Toluene	<2.0	ug/L	10/10/1996	1.0	llj	1652	8240 (1)
Xylenes, Total	11	ug/L	10/10/1996	1.0	llj	1652	8240 (1)
Surr: Toluene-d8	103.0	%	10/10/1996	88-110	llj	1652	8240 (1)
Surr: Bromofluorobenzene	99.4	%	10/10/1996	86-115	llj	1652	8240 (1)
Surr: 1,2-Dichloroethane-d4	90.6	%	10/10/1996	76-114	llj	1652	8240 (1)

VOA ANALYZED AT A 2X DILUTION.

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

ANALYTICAL REPORT

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

10/11/1996

Sample No. : 377269

NET Job No.: 96.09224

Sample Description: Monitor Well #4; Grab
Amoco Artesia Station

Date Taken: 09/30/1996
Time Taken: 17:30
IEPA Cert. No. 100221

Date Received: 10/02/1996
Time Received: 10:20
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run	Analytical Method
UST VOLATILES 8240 - AQUEOUS							
Benzene	<1.0	ug/L	10/10/1996	1.0	llj	1652	8240 (1)
Ethyl Benzene	<1.0	ug/L	10/10/1996	1.0	llj	1652	8240 (1)
Toluene	<1.0	ug/L	10/10/1996	1.0	llj	1652	8240 (1)
Xylenes, Total	<1.0	ug/L	10/10/1996	1.0	llj	1652	8240 (1)
Surr: Toluene-d8	105.0	%	10/10/1996	88-110	llj	1652	8240 (1)
Surr: Bromofluorobenzene	96.4	%	10/10/1996	86-115	llj	1652	8240 (1)
Surr: 1,2-Dichloroethane-d4	94.6	%	10/10/1996	76-114	llj	1652	8240 (1)

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

ANALYTICAL REPORT

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

10/11/1996

Sample No. : 377270

NET Job No.: 96.09224

Sample Description: Trip Blank
Amoco Artesia Station

Date Taken:
Time Taken:
IEPA Cert. No. 100221

Date Received: 10/02/1996
Time Received: 10:20
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run	Analytical Method
UST VOLATILES 8240 - AQUEOUS							
Benzene	<1.0	ug/L	10/09/1996	1.0	llj	1651	8240 (1)
Ethyl Benzene	<1.0	ug/L	10/09/1996	1.0	llj	1651	8240 (1)
Toluene	<1.0	ug/L	10/09/1996	1.0	llj	1651	8240 (1)
Xylenes, Total	<1.0	ug/L	10/09/1996	1.0	llj	1651	8240 (1)
Surr: Toluene-d8	103.6	%	10/09/1996	88-110	llj	1651	8240 (1)
Surr: Bromofluorobenzene	100.4	%	10/09/1996	86-115	llj	1651	8240 (1)
Surr: 1,2-Dichloroethane-d4	82.6	%	10/09/1996	76-114	llj	1651	8240 (1)

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

QUALITY CONTROL REPORT

CONTINUING CALIBRATION VERIFICATION

MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563
Mr. Hank Mittelhauser

10/11/1996

NET Job Number: 96.09224

Analyte	Run Batch Number	CCV True Conc.	Conc. Found	Percent Recovery
UST VOLATILES 8240 - AQUEOUS				
Benzene	1651	50.0	58.3	116.6
Ethyl Benzene	1651	50.0	56.0	112.0
Toluene	1651	50.0	56.3	112.6
Xylenes, Total	1651	150	163	108.7

CCV - Continuing Calibration Verification

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

QUALITY CONTROL REPORT

BLANK ANALYSIS

MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563
Mr. Hank Mittelhauser

10/11/1996

NET Job Number: 96.09224

Analyte	Prep Batch Number	Run Batch Number	Blank Analysis Results	Units	Reporting Limit	Analytical Method
UST VOLATILES 8240 - AQUEOUS						8240 (1)
Benzene		1651	<1.0	ug/L	1.0	8240 (1)
Ethyl Benzene		1651	<1.0	ug/L	1.0	8240 (1)
Toluene		1651	<1.0	ug/L	1.0	8240 (1)
Xylenes, Total		1651	<1.0	ug/L	1.0	8240 (1)
Surr: 1,2-Dichloroethane-d4		1651	81.6	%	76-114	8240 (1)
Surr: Toluene-d8		1651	105.4	%	88-110	8240 (1)
Surr: Bromofluorobenzene		1651	105.4	%	86-115	8240 (1)
UST VOLATILES 8240 - AQUEOUS						8240 (1)
Benzene		1652	<1.0	ug/L	1.0	8240 (1)
Ethyl Benzene		1652	<1.0	ug/L	1.0	8240 (1)
Toluene		1652	<1.0	ug/L	1.0	8240 (1)
Xylenes, Total		1652	<1.0	ug/L	1.0	8240 (1)
Surr: 1,2-Dichloroethane-d4		1652	96.8	%	76-114	8240 (1)
Surr: Toluene-d8		1652	105.0	%	88-110	8240 (1)
Surr: Bromofluorobenzene		1652	98.8	%	86-115	8240 (1)

Advisory Control Limits for Blanks:

All compounds should be less than the Reporting Limit, except for phthalate esters, toluene, methylene chloride, acetone and chloroform should be less than 5 times the Reporting Limit.

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

QUALITY CONTROL REPORT

LABORATORY CONTROL STANDARD

MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563
Mr. Hank Mittelhauser

10/11/1996

NET Job Number: 96.09224

Analyte	Prep Batch Number	Run Batch Number	True Conc.	Conc. Found	LCS % Recovery
UST VOLATILES 8240 - AQUEOUS					
Benzene		1651	20.0	23.4	117.0
Ethyl Benzene		1651	20.0	22.1	110.5
Toluene		1651	20.0	22.4	112.0
Xylenes, Total		1651	60.0	66.4	110.7
Surr: 1,2-Dichloroethane-d4		1651	50.0	41.7	83.4
Surr: Toluene-d8		1651	50.0	51.3	102.6
Surr: Bromofluorobenzene		1651	50.0	50.2	100.4
UST VOLATILES 8240 - AQUEOUS					
Benzene		1652	20.0	23.3	116.5
Ethyl Benzene		1652	20.0	23.6	118.0
Toluene		1652	20.0	23.4	117.0
Xylenes, Total		1652	60.0	69.6	116.0
Surr: 1,2-Dichloroethane-d4		1652	50.0	48.5	97.0
Surr: Toluene-d8		1652	50.0	51.8	103.6
Surr: Bromofluorobenzene		1652	50.0	48.2	96.4

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

QUALITY CONTROL REPORT

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563
Mr. Hank Mittelhauser

10/11/1996

NET Job Number: 96.09224

Analyte	Prep Batch Number	Run Batch Number	Matrix Spike Result	Sample Result	Spike Amount	Units	Percent Recovery	MSD Result	MSD Spike Amount	Units	Percent Recovery	MS/MSD RPD
UST VOLATILES 8240 - AQUEOU												
Benzene		1651	22.7	<1.0	20.0	ug/L	113.5	26.2	20.0	ug/L	131.0	14.3
Ethyl Benzene		1651	22.3	<1.0	20.0	ug/L	111.5	22.8	20.0	ug/L	114.0	2.2
Toluene		1651	22.2	<1.0	20.0	ug/L	111.0	25.3	20.0	ug/L	126.5	13.1
Xylenes, Total		1651	66.0	<1.0	60.0	ug/L	110.0	69.0	60.0	ug/L	113.3	3.0

NOTE: Matrix Spike Samples may not be samples from this job.

Advisory Control Limits for MS/MSDs:

For Inorganic Parameters and GC Volatiles, the spike recovery should be 75 - 125% if the spike added value was greater than or equal to one fourth of the sample result value. If not, the control limits are not established. The RPD for the MS/MSD pair should be less than 20.

MS - Matrix Spike
MSD - Matrix Spike Duplicate
RPD - Relative Percent Difference

NET Midwest, Bartlett Division

KEY TO ABBREVIATIONS and METHOD REFERENCES

<	:	Less than; When appearing in the results column indicates the analyte was not detected at or above the reported value.
mg/L	:	Concentration in units of milligrams of analyte per liter of sample. Measurement used for aqueous samples. Can also be expressed as parts per million (ppm).
ug/g	:	Concentration in units of micrograms of analyte per gram of sample. Measurement used for non-aqueous samples. Can also be expressed as parts per million (ppm) or mg/Kg.
ug/L	:	Concentration in units of micrograms of analyte per liter of sample. Measurement used for aqueous samples. Can also be expressed as parts per billion (ppb).
ug/Kg	:	Concentration in units of micrograms of analyte per kilogram of sample. Measurement used for non-aqueous samples. Can also be expressed as parts per billion (ppb).
TCLP	:	These initials appearing in front of an analyte name indicate that the Toxicity Characteristic Leaching Procedure (TCLP) was performed for this test.
Surr:	:	These initials are the abbreviation for surrogate. Surrogates are compounds that are chemically similar to the compounds of interest. They are part of the method quality control requirements.
%	:	Percent; To convert ppm to %, divide the result by 10,000. To convert % to ppm, multiply the result by 10,000.
ICP	:	Indicates analysis was performed using Inductively Coupled Plasma Spectroscopy.
AA	:	Indicates analysis was performed using Atomic Absorption Spectroscopy.
GFAA	:	Indicates analysis was performed using Graphite Furnace Atomic Absorption Spectroscopy.
PQL	:	Practical Quantitation Limit; the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions.

Method References

(1) Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", USEPA SW-846, 3rd Edition, 1986.

(2) ASTM "American Society for Testing Materials"

(3) Methods 100 through 499: see "Methods for Chemical Analysis of Water and Wastes", USEPA, 600/4-79-020, Rev. 1983.

(4) See "Standard Methods for the Examination of Water and Wastewater", 17th Ed, APHA, 1989.

(5) Methods 600 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants", USEPA Federal Register Vol. 49 No. 209, October 1984.

(6) Methods 500 through 599: see "Methods for the Determination of Organic Compounds in Drinking Water," USEPA 600/4-88/039, Rev. 1988.

(7) See "Methods for the Determination of Metals in Environmental Samples", Supplement I EPA-600/R-94/111, May 1994.

(8) See "Standard Methods for the Examination of Water and Wastewater", 18th Ed., APHA, 1992.

NET NATIONAL ENVIRONMENTAL TESTING, INC.

CHAIN OF CUSTODY RECORD

COMPANY Amoco Pipeline Co.
ADDRESS MC Pob63062 POB 7513 Chicago, IL 60680-7513
PHONE 312-856-7254 FAX 312 856 3731
PROJECT NAME/LOCATION Quarterly Monitor Well Sampling
PROJECT NUMBER Amoco Artesia Station
PROJECT MANAGER MR. D. Earney

REPORT TO: H. M. Thacker / D. Earney
INVOICE TO:
P.O. NO.
NET QUOTE NO.

MBF SERVICES

SAMPLED BY (PRINT NAME) CLAYTON M BARNHILL (SIGNATURE) Clayton M Barnhill
(PRINT NAME) (SIGNATURE)

DATE	TIME	SAMPLE ID/DESCRIPTION	MATRIX	GRAB	COMP	# and Type of Containers: HCl	NaOH	HNO_3	H_2SO_4	OTHER	ANALYSES: BTEX 8020
9/30/96	15:10	Monitor Well #6 2 VOAS	H2O	X		X					X
9/30/96	16:40	Monitor Well #7 2 VOAS	H2O	X		X					X
9/30/96	17:30	Monitor Well #4 2 VOAS	H2O	X		X					X
		TRIP BLANK	X	X		X					X

To assist us in selecting the proper method
Is this work being conducted for regulatory compliance monitoring? Yes ✓ No
Is this work being conducted for regulatory enforcement action? Yes ___ No ___
Which regulations apply: RCRA ___ NPDES Wastewater ___ UST ___ Drinking Water ___ Other ___ None ___

COMMENTS

CONDITION OF SAMPLE: BOTTLES INTACT? (YES) / NO FIELD FILTERED? YES / NO
COC SEALS PRESENT AND INTACT? (YES) / NO VOLATILES FREE OF HEADSPACE? YES / NO
TEMPERATURE UPON RECEIPT: 17.4°C Bottles supplied by NET? (YES) / NO

SAMPLE REMAINDER DISPOSAL: RETURN SAMPLE REMAINDER TO CLIENT VIA ___ I REQUEST NET TO DISPOSE OF ALL SAMPLE REMAINDERS Clayton M Barnhill DATE 10/1/96

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	RELINQUISHED BY:	DATE	TIME	RECEIVED FOR NET BY:
Clayton M Barnhill	10/1/96	15:45			10/2/96	10:20	Maria Perez

METHOD OF SHIPMENT

REMARKS:

PT 1 - ORIGINAL - WHITE PT 2 - NET PROJECT MANAGER - YELLOW PT 3 - CUSTOMER COPY - PINK

APPENDIX B

LABORATORY RESULTS

- TPH Results For The Soils Remediation Area -- Samples Taken 10/14/96

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

10/28/1996

NET Job Number: 96.09851

IEPA Cert. No.: 100221
WDNR Cert. No.: 999447130
A2LA Cert. No.: 0453-01

Enclosed is the Analytical and Quality Control reports for the following samples submitted to Bartlett Division of NET, Inc. for analysis.

Project Description: Amoco Pipeline Co. Artesia Station

Sample Number	Sample Description	Date Taken	Date Received
379721	SS #1; Grab	10/14/1996	10/17/1996
379722	SS #2; Grab	10/14/1996	10/17/1996
379723	SS #3; Grab	10/14/1996	10/17/1996
379724	SS #4; Grab	10/14/1996	10/17/1996
379725	SS #5; Grab	10/14/1996	10/17/1996
379726	SS #6; Grab	10/14/1996	10/17/1996
379727	SS #7; Grab	10/14/1996	10/17/1996
379728	SS #8; Grab	10/14/1996	10/17/1996
379729	SS #9; Grab	10/14/1996	10/17/1996

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. These results apply only to the samples analyzed. Reproduction of this report only in whole is permitted. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Procedures used follow NET Standard Operating Procedures which reference the methods listed on your report. Should you have questions regarding procedures or results, please do not hesitate to call. NET has been pleased to provide these analytical services for you.

This Quality Control report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Approved by:

Mary Pearson

Mary Pearson
Project Manager

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
650 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

ANALYTICAL REPORT

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

10/28/1996

Sample No. : 379721

NET Job No.: 96.09851

Sample Description: SS #1; Grab
Amoco Pipeline Co. Artesia Station

Date Taken: 10/14/1996
Time Taken: 08:00
IEPA Cert. No. 100221

Date Received: 10/17/1996
Time Received: 12:15
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run		Analytical Method
Solids, Total	84.0	%	10/23/1996	0.1	tdw		1634	2540 (4)
Prep, TPH 8015M - NONAQUEOUS	extracted		10/19/1996		keh	160		8015M (1)
TPH MODIFIED 8015								
TPH as Gas	<10	mg/Kg	10/26/1996	10	tls	160	297	8015M (1)
TPH as Diesel	<10	mg/Kg	10/26/1996	10	tls	160	297	8015M (1)
TPH as Oil	11,000	mg/Kg	10/26/1996	10	tls	160	297	8015M (1)

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

ANALYTICAL REPORT

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

10/28/1996

Sample No. : 379722

NET Job No.: 96.09851

Sample Description: SS #2; Grab
Amoco Pipeline Co. Artesia Station

Date Taken: 10/14/1996
Time Taken: 08:00
IEPA Cert. No. 100221

Date Received: 10/17/1996
Time Received: 12:15
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run		Analytical Method
Solids, Total	89.7	%	10/23/1996	0.1	tdw		1634	2540 (4)
Prep, TPH 8015M - NONAQUEOUS	extracted		10/19/1996		keh	160		8015M (1)
TPH MODIFIED 8015								
TPH as Gas	<10	mg/Kg	10/25/1996	10	tls	160	297	8015M (1)
TPH as Diesel	<10	mg/Kg	10/25/1996	10	tls	160	297	8015M (1)
TPH as Oil	4,100	mg/Kg	10/25/1996	10	tls	160	297	8015M (1)

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

ANALYTICAL REPORT

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

10/28/1996

Sample No. : 379723

NET Job No.: 96.09851

Sample Description: SS #3; Grab
Amoco Pipeline Co. Artesia Station

Date Taken: 10/14/1996
Time Taken: 08:00
IEPA Cert. No. 100221

Date Received: 10/17/1996
Time Received: 12:15
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run		Analytical Method
Solids, Total	81.1	%	10/23/1996	0.1	tdw		1634	2540 (4)
Prep, TPH 8015M - NONAQUEOUS	extracted		10/19/1996		keh	160		8015M (1)
TPH MODIFIED 8015								
TPH as Gas	<10	mg/Kg	10/25/1996	10	tls	160	297	8015M (1)
TPH as Diesel	<10	mg/Kg	10/25/1996	10	tls	160	297	8015M (1)
TPH as Oil	5,300	mg/Kg	10/25/1996	10	tls	160	297	8015M (1)

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

ANALYTICAL REPORT

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

10/28/1996

Sample No. : 379724

NET Job No.: 96.09851

Sample Description: SS #4; Grab
Amoco Pipeline Co. Artesia Station

Date Taken: 10/14/1996
Time Taken: 08:00
IEPA Cert. No. 100221

Date Received: 10/17/1996
Time Received: 12:15
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run		Analytical Method
Solids, Total	84.1	%	10/23/1996	0.1	tdw		1634	2540 (4)
Prep, TPH 8015M - NONAQUEOUS	extracted		10/19/1996		keh	160		8015M (1)
TPH MODIFIED 8015								
TPH as Gas	<10	mg/Kg	10/25/1996	10	tls	160	297	8015M (1)
TPH as Diesel	<10	mg/Kg	10/25/1996	10	tls	160	297	8015M (1)
TPH as Oil	2,100	mg/Kg	10/25/1996	10	tls	160	297	8015M (1)

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

ANALYTICAL REPORT

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

10/28/1996

Sample No. : 379725

NET Job No.: 96.09851

Sample Description: SS #5; Grab
Amoco Pipeline Co. Artesia Station

Date Taken: 10/14/1996
Time Taken: 08:00
IEPA Cert. No. 100221

Date Received: 10/17/1996
Time Received: 12:15
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run		Analytical Method
Solids, Total	80.4	%	10/23/1996	0.1	tdw		1634	2540 (4)
Prep, TPH 8015M - NONAQUEOUS	extracted		10/19/1996		keh	160		8015M (1)
TPH MODIFIED 8015								
TPH as Gas	<10	mg/Kg	10/26/1996	10	tls	160	297	8015M (1)
TPH as Diesel	<10	mg/Kg	10/26/1996	10	tls	160	297	8015M (1)
TPH as Oil	4,900	mg/Kg	10/26/1996	10	tls	160	297	8015M (1)

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

ANALYTICAL REPORT

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

10/28/1996

Sample No. : 379726

NET Job No.: 96.09851

Sample Description: SS #6; Grab
Amoco Pipeline Co. Artesia Station

Date Taken: 10/14/1996
Time Taken: 08:00
IEPA Cert. No. 100221

Date Received: 10/17/1996
Time Received: 12:15
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run		Analytical Method
Solids, Total	85.4	%	10/23/1996	0.1	tdw		1634	2540 (4)
Prep, TPH 8015M - NONAQUEOUS	extracted		10/19/1996		keh	160		8015M (1)
TPH MODIFIED 8015								
TPH as Gas	<10	mg/Kg	10/26/1996	10	tls	160	297	8015M (1)
TPH as Diesel	<10	mg/Kg	10/26/1996	10	tls	160	297	8015M (1)
TPH as Oil	3,200	mg/Kg	10/26/1996	10	tls	160	297	8015M (1)

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

ANALYTICAL REPORT

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

10/28/1996

Sample No. : 379727

NET Job No.: 96.09851

Sample Description: SS #7; Grab
Amoco Pipeline Co. Artesia Station

Date Taken: 10/14/1996
Time Taken: 08:00
IEPA Cert. No. 100221

Date Received: 10/17/1996
Time Received: 12:15
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run		Analytical Method
Solids, Total	91.1	%	10/23/1996	0.1	tdw		1634	2540 (4)
Prep, TPH 8015M - NONAQUEOUS	extracted		10/19/1996		keh	160		8015M (1)
TPH MODIFIED 8015								
TPH as Gas	<10	mg/Kg	10/24/1996	10	tls	160	296	8015M (1)
TPH as Diesel	<10	mg/Kg	10/24/1996	10	tls	160	296	8015M (1)
TPH as Oil	79	mg/Kg	10/24/1996	10	tls	160	296	8015M (1)

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

ANALYTICAL REPORT

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

10/28/1996

Sample No. : 379728

NET Job No.: 96.09851

Sample Description: SS #8; Grab
Amoco Pipeline Co. Artesia Station

Date Taken: 10/14/1996
Time Taken: 08:00
IEPA Cert. No. 100221

Date Received: 10/17/1996
Time Received: 12:15
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run		Analytical Method
Solids, Total	92.4	%	10/23/1996	0.1	tdw		1634	2540 (4)
Prep, TPH 8015M - NONAQUEOUS	extracted		10/19/1996		keh	160		8015M (1)
TPH MODIFIED 8015								
TPH as Gas	<10	mg/Kg	10/26/1996	10	tls	160	297	8015M (1)
TPH as Diesel	<10	mg/Kg	10/26/1996	10	tls	160	297	8015M (1)
TPH as Oil	800	mg/Kg	10/26/1996	10	tls	160	297	8015M (1)

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

ANALYTICAL REPORT

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

10/28/1996

Sample No. : 379729

NET Job No.: 96.09851

Sample Description: SS #9; Grab
Amoco Pipeline Co. Artesia Station

Date Taken: 10/14/1996
Time Taken: 08:00
IEPA Cert. No. 100221

Date Received: 10/17/1996
Time Received: 12:15
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run		Analytical Method
Solids, Total	97.3	%	10/23/1996	0.1	tdw		1634	2540 (4)
Prep, TPH 8015M - NONAQUEOUS	extracted		10/19/1996		keh	160		8015M (1)
TPH MODIFIED 8015								
TPH as Gas	<10	mg/Kg	10/26/1996	10	tls	160	297	8015M (1)
TPH as Diesel	12,000	mg/Kg	10/26/1996	10	tls	160	297	8015M (1)
TPH as Oil	26,000	mg/Kg	10/26/1996	10	tls	160	297	8015M (1)

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

QUALITY CONTROL REPORT

CONTINUING CALIBRATION VERIFICATION

MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563
Mr. Hank Mittelhauser

10/28/1996

NET Job Number: 96.09851

Analyte	Run Batch Number	CCV True Conc.	Conc. Found	Percent Recovery
TPH MODIFIED 8015				
TPH as Gas	296	300	307	102.3
TPH as Diesel	296	300	315	105.0
TPH as Oil	296	300	324	108.0
TPH MODIFIED 8015				
TPH as Gas	296	300	312	104.0
TPH as Diesel	296	300	322	107.3
TPH as Oil	296	300	315	105.0
TPH MODIFIED 8015				
TPH as Gas	297	300	325	108.3
TPH as Diesel	297	300	309	103.0
TPH as Oil	297	300	274	91.3
TPH MODIFIED 8015				
TPH as Gas	297	300	279	93.0
TPH as Diesel	297	300	291	97.0
TPH as Oil	297	300	293	97.7

CCV - Continuing Calibration Verification

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

QUALITY CONTROL REPORT

BLANK ANALYSIS

MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563
Mr. Hank Mittelhauser

10/28/1996

NET Job Number: 96.09851

Analyte	Prep Batch Number	Run Batch Number	Blank Analysis Results	Units	Reporting Limit	Analytical Method
TPH MODIFIED 8015						8015M (1)
TPH as Gas	160	294	<10	mg/Kg	10	8015M (1)
TPH as Diesel	160	294	<10	mg/Kg	10	8015M (1)
TPH as Oil	160	294	<10	mg/Kg	10	8015M (1)

Advisory Control Limits for Blanks:

All compounds should be less than the Reporting Limit, except for phthalate esters, toluene, methylene chloride, acetone and chloroform should be less than 5 times the Reporting Limit.

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

QUALITY CONTROL REPORT

LABORATORY CONTROL STANDARD

MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563
Mr. Hank Mittelhauser

10/28/1996

NET Job Number: 96.09851

Analyte	Prep Batch Number	Run Batch Number	True Conc.	Conc. Found	LCS % Recovery
TPH MODIFIED 8015					
TPH as Gas	160	294	50	39	78.0
TPH as Diesel	160	294	50	36	72.0
TPH as Oil	160	294	50	36	72.0

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

QUALITY CONTROL REPORT

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563
Mr. Hank Mittelhauser

10/28/1996

NET Job Number: 96.09851

Analyte	Prep Batch Number	Run Batch Number	Matrix Spike Result	Sample Result	Spike Amount	Units	Percent Recovery	MSD Result	MSD Spike Amount	Units	Percent Recovery	MS/MSD RPD
TPH MODIFIED 8015												
TPH as Gas	160	294	37	<10	50	mg/Kg	74.0	26	50	mg/Kg	52.0	34.9
TPH as Diesel	160	294	44	<10	50	mg/Kg	88.0	40	50	mg/Kg	80.0	9.5
TPH as Oil	160	294	44	<10	50	mg/Kg	88.0	51	50	mg/Kg	102.0	14.6

NOTE: Matrix Spike Samples may not be samples from this job.

Advisory Control Limits for MS/MSDs:

For Inorganic Parameters and GC Volatiles, the spike recovery should be 75 - 125% if the spike added value was greater than or equal to one fourth of the sample result value. If not, the control limits are not established. The RPD for the MS/MSD pair should be less than 20.

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 West Bartlett Rd.
Bartlett, IL 60103
Tel: (630) 289-3100
Fax: (630) 289-5445

QUALITY CONTROL REPORT

DUPLICATES

MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563
Mr. Hank Mittelhauser

10/28/1996

NET Job Number: 96.09851

Analyte	Prep Batch Number	Run Batch Number	Original Analysis	Duplicate Analysis	Units	RPD
Solids, Total		1634	83.0	82.4	%	0.7
Solids, Total		1634	95.2	96.5	%	1.4
Solids, Total		1634	83.9	84.2	%	0.4
Solids, Total		1634	90.3	91.6	%	1.4
Solids, Total		1634	71.2	73.7	%	3.5
Solids, Total		1634	81.9	79.9	%	2.5

NOTE: Spikes and Duplicates may not be samples from this job.

RPD - Relative Percent Difference

Advisory Control Limits for Duplicates - RPD should be less than 20.

NET Midwest, Bartlett Division

KEY TO ABBREVIATIONS and METHOD REFERENCES

<	:	Less than; When appearing in the results column indicates the analyte was not detected at or above the reported value.
mg/L	:	Concentration in units of milligrams of analyte per liter of sample. Measurement used for aqueous samples. Can also be expressed as parts per million (ppm).
ug/g	:	Concentration in units of micrograms of analyte per gram of sample. Measurement used for non-aqueous samples. Can also be expressed as parts per million (ppm) or mg/Kg.
ug/L	:	Concentration in units of micrograms of analyte per liter of sample. Measurement used for aqueous samples. Can also be expressed as parts per billion (ppb).
ug/Kg	:	Concentration in units of micrograms of analyte per kilogram of sample. Measurement used for non-aqueous samples. Can also be expressed as parts per billion (ppb).
TCLP	:	These initials appearing in front of an analyte name indicate that the Toxicity Characteristic Leaching Procedure (TCLP) was performed for this test.
Surr:	:	These initials are the abbreviation for surrogate. Surrogates are compounds that are chemically similar to the compounds of interest. They are part of the method quality control requirements.
%	:	Percent; To convert ppm to %, divide the result by 10,000. To convert % to ppm, multiply the result by 10,000.
ICP	:	Indicates analysis was performed using Inductively Coupled Plasma Spectroscopy.
AA	:	Indicates analysis was performed using Atomic Absorption Spectroscopy.
GFAA	:	Indicates analysis was performed using Graphite Furnace Atomic Absorption Spectroscopy.
POL	:	Practical Quantitation Limit; the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions.

Method References

(1) Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", USEPA SW-846, 3rd Edition, 1986.

(2) ASTM "American Society for Testing Materials"

(3) Methods 100 through 499: see "Methods for Chemical Analysis of Water and Wastes", USEPA, 600/4-79-020, Rev. 1983.

(4) See "Standard Methods for the Examination of Water and Wastewater", 17th Ed, APHA, 1989.

(5) Methods 600 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants", USEPA Federal Register Vol. 49 No. 209, October 1984.

(6) Methods 500 through 599: see "Methods for the Determination of Organic Compounds in Drinking Water," USEPA 600/4-88/039, Rev. 1988.

(7) See "Methods for the Determination of Metals in Environmental Samples", Supplement I EPA-600/R-94/111, May 1994.

(8) See "Standard Methods for the Examination of Water and Wastewater", 18th Ed., APHA, 1992.

NATIONAL ENVIRONMENTAL TESTING, INC.

CHAIN OF CUSTODY RECORD

COMPANY Clayton Mittelhauser
ADDRESS 124a Iroquois DR. #206
PHONE (708) 369-0201 FAX (708) 369-1279
PROJECT NAME/LOCATION Amoco Pipeline Co Antioch
PROJECT NUMBER 2775.00-02
PROJECT MANAGER Hank Mittelhauser

REPORT TO: H. Mittelhauser
INVOICE TO: H Mittelhauser
P.O. NO.
NET QUOTE NO. MIRA

SAMPLED BY

(PRINT NAME) SIGNATURE
(PRINT NAME) SIGNATURE

DATE	TIME	SAMPLE ID/DESCRIPTION	MATRIX	GRAB	COMP	# and Type of Containers: HCl	NaOH	HNO_3	H_2SO_4	OTHER	ANALYSES: TPH Method 8015 (EPA)
10-14	8:00	SS # 1		X							X
10-14	8:00	SS # 2		X							X
10-14	8:00	SS # 3		X							X
10-14	8:00	SS # 4		X							X
10-14	8:00	SS # 5		X							X
10-14	8:00	SS # 6		X							X
10-14	8:00	SS # 7		X							X
10-14	8:00	SS # 8		X							X
10-14	8:00	SS # 9		X							X

To assist us in selecting the proper method

Is this work being conducted for regulatory compliance monitoring? Yes ___ No ___

Is this work being conducted for regulatory enforcement action? Yes ___ No ___

Which regulations apply: RCRA ___ NPDES Wastewater ___ UST ___ Drinking Water ___ Other ___ None ___

COMMENTS

Please designate EPA Method 8015 TPH Report

CONDITION OF SAMPLE: BOTTLES INTACT? YES / NO
FIELD FILTERED? YES / NO N/A
COC SEALS PRESENT AND INTACT? YES / NO N/A
VOLATILES FREE OF HEADSPACE? YES / NO
TEMPERATURE UPON RECEIPT: 20.0°
Bottles supplied by NET? YES / NO

SAMPLE REMAINDER DISPOSAL: RETURN SAMPLE REMAINDER TO CLIENT VIA ___
I REQUEST NET TO DISPOSE OF ALL SAMPLE REMAINDERS ___ DATE ___

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	RELINQUISHED BY:	DATE	TIME	RECEIVED FOR NET BY:
	10-14	8:30am			10/17/96	12:15	

METHOD OF SHIPMENT: Fed Exp

REMARKS: Questions to H. Mittelhauser @ (708) 369 0201

PT 1 - ORIGINAL - WHITE PT 2 - NET PROJECT MANAGER - YELLOW PT 3 - CUSTOMER COPY - PINK