GW - 109R

REPORTS

YEAR(S):

1996 - 1994

FAX (505) 625-8060

Phone (505) 623-2761

Transwestern Pipeline Company
TECHNICAL OPERATIONS
6381 North Main • Roswell, New Mexico 88201

October 16, 1996

Mr. William C. Olson
Environmental Bureau
New Mexico Oil Conservation Division
2040 S. Pacheco St.
Santa Fe, New Mexico 87505

RE: Semi-annual Report of Ground Water Remediation Activities
Transwestern Pipeline Company WT-1 Compressor Station Dehy Area
Lea County, New Mexico

Dear Bill,

The attached report is submitted pursuant to the NMOCD's requirement for semi-annual reporting of ground water remediation activities at the subject facility.

If you have any questions or comments regarding this report, please contact me at (505) 625-8022 or George Robinson at (713) 646-7327.

Sincerely,

Larry Campbell

Larry Campbell
Division Environmental Specialist

LC/sls

xc w/attachment:	Wayne Price	NMOCD Hobbs District Office
	Randy Smith	TW Operations
	George Robinson	Cypress Engineering Services

ENRON
Transwestern Pipeline Company

P. O. Box 1188 Houston, Texas 77251-1188 (713) 853-6161

April 30, 1996

Mr. William C. Olson
Environmental Bureau
New Mexico Oil Conservation Division
2040 S. Pacheco St.
Santa Fe, New Mexico 87505

RE: Semi-annual Report of Groundwater Remediation Activities
Transwestern Pipeline Company WT-1 Compressor Station Dehy Area
Lea County, New Mexico

Dear Bill,

The attached report is submitted pursuant to the NMOCD's requirements for semi-annual reporting of groundwater remediation activities at the subject facility.

If you have any questions or comments regarding this report, please contact me at (505) 625-8022 or George Robinson at (713) 646-7327.

Sincerely,

Larry Campbell

Larry Campbell
Division Environmental Specialist

LC/sls

xc w/attachments:

Wayne Price	NMOCD Hobbs District Office
Randy Smith	TW Operations
George Robinson	Cypress Engineering Services

ENRON
OPERATIONS CORP.

P. O. Box 1188 Houston, Texas 77251-1188 (713) 853-6161

March 27, 1996

Mr. William C. Olson
Environmental Bureau
New Mexico Oil Conservation Division
2040 S. Pacheco St.
Santa Fe, New Mexico 87505

RE: Corrective Action Plan for the Engine Room Drain Pit Area
WT-1 Compressor Station
Transwestern Pipeline Company

Dear Bill,

In November, 1995, Transwestern submitted to your office a Phase II assessment report for this site. This report presented the most recent assessment work completed to delineate affected ground water in the vicinity of a former impoundment located at the subject facility. Transwestern indicated with the transmittal letter which accompanied the report that Transwestern would follow-up with a "Corrective Action Plan" (CAP) for affected soil and ground water at the site. As previously indicated, due to several complicating factors, Transwestern anticipated that development of a CAP would require a considerable effort in order to develop a sound plan. In light of this, Transwestern had set a target date of March 31, 1996, to submit the CAP to your office for review and approval. Unfortunately, due to a number of factors, Transwestern is unable to meet the target date and respectfully requests that the submittal of the CAP be postponed until late 1996.

Although Transwestern is requesting a postponement of the CAP, Transwestern remains fully committed to remediation of the site. If you have any questions or comments regarding this issue, please contact me at (713) 646-7644 or George Robinson at (713) 646-7327.

Sincerely,

Bill Kendrick
Manager, Projects Group

gcr/BK

xc: Jerry Sexton NMOCD Hobbs District Office

Verbal approval to George Robinson on 3/29/96 at 1400 hrs.
Will Olson

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

March 13, 1996

CERTIFIED MAIL
RETURN RECEIPT NO: Z-765-962-552

Mr. Larry Campbell
Transwestern Pipeline Company
6381 North Main
Roswell, New Mexico 88201

RE: GROUND WATER MONITORING REPORTS
EUNICE STATION
THOREAU STATION
WT-1 STATION
ATOKA-1 STATION
BELL LAKE PLANT

Dear Mr. Campbell:

The New Mexico Oil Conservation Division (OCD) has completed a review of Transwestern Pipeline Company's (TPC) January 11, 1996 "REPORTING REQUIREMENTS FOR GROUND WATER REMEDIATION PROJECTS, TRANSWESTERN PIPELINE COMPANY". This document contains TPC's request to change the reporting frequency and ground water monitoring report submission dates for the Eunice Station, Thoreau Station, WT-1 Station, Atoka 1 Station and Bell Lake Plant.

The above referenced request is approved.

Please be advised that OCD approval does not relieve TPC of liability should contamination exist which is outside the scope of work plan, or if the proposed work plan fails to the adequately remediate or monitor contamination at the sites. In addition, OCD approval does not relieve TPC of responsibility for compliance with any other federal, state or local laws and/or regulations.

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

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

xc: OCD Artesia District Office
George Robinson, Cypress Engineering Services, Inc.

FAX (505) 625-8060

Phone (505) 623-2761

Transwestern Pipeline Company
TECHNICAL OPERATIONS
6381 North Main • Roswell, New Mexico 88201

January 11, 1996

Mr. William C. Olson
Environmental Bureau
New Mexico Oil Conservation Division
2040 S. Pacheco St.
Santa Fe, New Mexico 87505

RE: Reporting Requirements for Ground Water Remediation Projects
Transwestern Pipeline Company

Dear Bill,

In the course of the past year, the NMOCD has approved several soil and ground water remediation plans submitted by Transwestern. Each of these plans include reporting requirements with specific dates for submittal of reports. Due to timing considerations, Transwestern proposes to modify the reporting schedule as shown below:

Project Site	Project Objective	Reporting Frequency	Current Reporting Dates	Proposed Reporting Dates
NNG Eunice Station	ground water monitoring	semi-annual	Jan. 1 & Jul. 1	Feb. 1 & Aug. 1
TW Thoreau Station	ground water remediation	semi-annual	Jan. 1 & Jul. 1	Feb. 1 & Aug. 1
TW WT-1 Station (Dehy Area)	ground water remediation	semi-annual	Feb. 1 & Aug. 1	Mar. 1 & Sep. 1
TW Atoka-1 Station	ground water remediation	semi-annual	Mar. 1 & Sep. 1	Mar. 1 & Sep. 1
Highlands Bell Lake Plant (formerly a TW asset)	ground water remediation	annual	Jul. 31	Mar. 1

The primary motivation for these changes is to avoid a January 1st reporting date which is difficult to achieve due to the inevitable end of the year rush and holiday season.

If you have any questions or comments regarding this issue, please contact me at (505) 625-8022 or George Robinson at (713) 646-7327.

Sincerely,

Larry Campbell

Larry Campbell
Division Environmental Specialist

gcr/LC

xc: George Robinson Cypress Engineering Services, Inc.

ENRON
OPERATIONS CORP.

P. O. Box 1188 Houston, Texas 77251-1188 (713) 853-6161

November 9, 1995

Mr. William C. Olson
Environmental Bureau
New Mexico Oil Conservation Division
2040 S. Pacheco St.
Santa Fe, New Mexico 87505

RE: Phase II Assessment Report for the Engine Room Drain Pit Area
WT-1 Compressor Station
Transwestern Pipeline Company

Dear Bill,

Enclosed is one copy of the subject report. This completes all proposed assessment activities for this site. Transwestern will now focus on developing a Corrective Action Plan for affected soil and ground water at the site. This plan will be submitted to your office for review and approval. However, due to several complicating factors, such as the physical properties of the contaminants, the presence of discontinuous clay lenses above the water table, and some question over the regulatory status of the former impoundments, Transwestern will require a considerably longer time period in order to develop a sound plan. In light of this, Transwestern has set a target date of March 31, 1995 to submit the this plan to your office for review and approval.

If you have any questions regarding the enclosed report, please contact me at (713) 646-7644 or George Robinson at (713) 646-7327.

Sincerely,

Bill Kendrick
Manager, Projects Group

gcr/BK

xc w/enclosure: Jerry Sexton NMOCD Hobbs District Office

ENRON
OPERATIONS CORP.

P. O. Box 1188 Houston, Texas 77251-1188 (713) 853-6161

November 15, 1995

Mr. William C. Olson
Environmental Bureau
New Mexico Oil Conservation Division
2040 S. Pacheco St.
Santa Fe, New Mexico 87505

RE: Final Disposition of Investigation Derived Wastes
Transwestern Pipeline Company WT-1 Compressor Station

Dear Bill,

Your office recently issued an approval for final disposition of investigation derived waste at the subject facility with the condition that TW provide the name and location of the waste disposal facility to which the wastes are taken. In response to this condition, the following information is provided below:

Rollins OPC
5756 Alba Street
Los Angeles, CA 90059

In addition to the requested information, the EPA ID number for this facility is CAD050806850.

If you have any additional questions regarding this issue, please contact me at (713) 646-7644 or George Robinson at (713) 646-7327.

Sincerely,

Bill Kendrick
EOC Environmental Affairs
Manager, Projects Group

gcr/BK

NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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

November 7, 1995

CERTIFIED MAIL
RETURN RECEIPT NO: Z-765-962-510

Mr. Bill Kendrick
ENRON Operations Corp.
P.O. Box 1188
Houston, Texas 77251-1188

RE: TRANSWESTERN PIPELINE CO. WT-1 COMPRESSOR STATION

Dear Mr. Kendrick:

The New Mexico Oil Conservation Division (OCD) has completed a review of Transwestern Pipeline Company's (TPC) October 26, 1995 "FINAL DISPOSITION OF INVESTIGATION DERIVED WASTES, TRANSWESTERN PIPELINE COMPANY WT-1 COMPRESSOR STATION". This document contains TPC's request to dispose of contaminated soils from soil borings and ground water monitor wells at the WT-1 Compressor Station at a hazardous waste disposal facility.

The above referenced request is approved with the following condition:

1. ENRON will supply the OCD with the name and location of the hazardous waste disposal facility to which the wastes are taken.

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

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

xc: Jerry Sexton, OCD Hobbs District Supervisor
Wayne Price, OCD Hobbs District
George Robinson, Cypress Engineering Services, Inc.

Z 765 962 510

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PS Form **3800**, March 1993

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ENRON
OPERATIONS CORP.

P. O. Box 1188 Houston, Texas 77251-1188 (713) 853-6161

October 26, 1995

Mr. William C. Olson
Environmental Bureau
New Mexico Oil Conservation Division
2040 S. Pacheco St.
Santa Fe, New Mexico 87505

RE: Final Disposition of Investigation Derived Wastes
Transwestern Pipeline Company WT-1 Compressor Station

Dear Bill,

During the course of the September 1995 subsurface assessment activities at the subject facility, five drums of potentially contaminated soil and ground water were collected from soil borings and ground water monitor wells. This water is currently stored at the site pending final disposition. The source, quantity, and proposed disposition of each drum is summarized below in Table 1. The proposed disposition is based on laboratory analysis of soil and ground water samples. A summary of the analytical results are attached. A copy of the laboratory reports will be included with the investigation summary report due to be submitted to your office by November 10, 1995.

Table 1. Source, quantity, and proposed disposition of investigation derived waste collected from monitor wells and soil borings located in the former engine room drain pit area.

Source	Quantity	Proposed Disposition
Cuttings from two soil borings located at the former engine room drain pit area	One 55 gallon drum	Contains low concentrations of chlorinated compounds; utilizing most conservative approach, proposed disposal at a hazardous waste disposal facility
Cuttings from two soil borings located at the former filter pit area	One 55 gallon drum	Contains low concentrations of chlorinated compounds; utilizing most conservative approach, proposed disposal at a hazardous waste disposal facility
Purge water from nine ground water monitor wells located in the vicinity of the former engine room pit area	Three 55 gallon drums	Contains low concentrations of chlorinated compounds; utilizing most conservative approach, proposed disposal at a hazardous waste disposal facility

TPC, as operator of the subject facility, will implement the proposed disposition of investigation derived wastes upon review and approval by your office. If you have any questions regarding this proposal, please contact me at (713) 646-7644 or George Robinson at (713) 646-7327.

Sincerely,

Marc N. Phillips

for: Bill Kendrick
EOC Environmental Affairs
Manager, Projects Group

gcr/BK

Table 1. Summary of Analytical Results for Ground-Water Samples
WT-1 Compressor Station
Page 1 of 2

Analyte	Monitor Well (Sample Date)								
	MW-1 (09/14/95)	MW-4 (09/12/95)	MW-5 (09/12/95)	MW-6 (09/12/95)	MW-7 (09/12/95)	MW-8 (09/13/95)	MW-14 (09/13/95)	MW-15 (09/14/95)	MW-16 (09/14/95)
Volatile Organic Compounds (µg/L) by EPA Method 8240									
Acetone	**2,000**	<100	**1,000**	<100	<100	<100	<100	<100	<100
Benzene	**13**	<1	**12**	**2**	**6**	**18**	**1**	<1	<1
Bromodichloromethane	<5	<5	<5	<5	<5	<5	<5	<5	<5
Bromoform (tribromomethane)	<5	<5	<5	<5	<5	<5	<5	<5	<5
Bromomethane	<10	<10	<10	<10	<10	<10	<10	<10	<10
Methyl ethyl ketone (2-Butanone)	**400**	<100	**200**	<100	<100	<100	<100	<100	<100
Carbon disulfide	<5	<5	<5	<5	<5	<5	<5	<5	<5
Carbon tetrachloride	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chlorobenzene	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chloroethane	<10	<10	**100**	<10	<10	<10	<10	<10	<10
2-Chloroethylvinyl ether	<10	<10	<10	<10	<10	<10	<10	<10	<10
Chloroform (trichloromethane)	<5	**6**	<5	<5	<5	<5	<5	<5	<5
Chloromethane (methyl chloride)	<10	<10	<10	<10	<10	<10	<10	<10	<10
Dibromochloromethane (chlorodibromomethane)	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1-Dichloroethane (1,1-DCA)	**730**	<5	**200**	**17**	**22**	**92**	**24**	<5	**6**
1,2-Dichloroethane (ethylene chloride)	**13**	<5	**7**	<5	<5	<5	<5	<5	<5
1,1-Dichloroethene (vinylidene chloride)	**9**	<5	<5	<5	<5	<5	<5	**5**	<5
trans-1,2-Dichloroethene	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2-Dichloropropane (propylene chloride)	<5	<5	<5	<5	<5	<5	<5	<5	<5
cis-1,3-Dichloropropene	<5	<5	<5	<5	<5	<5	<5	<5	<5

Bold values highlight concentrations above reporting limits

Table 1. Summary of Analytical Results for Ground-Water Samples
WT-1 Compressor Station
Page 2 of 2

Analyte	Monitor Well (Sample Date)								
	MW-1 (09/14/95)	MW-4 (09/12/95)	MW-5 (09/12/95)	MW-6 (09/12/95)	MW-7 (09/12/95)	MW-8 (09/13/95)	MW-14 (09/13/95)	MW-15 (09/14/95)	MW-16 (09/14/95)
trans-1,3-Dichloropropene	<5	<5	<5	<5	<5	<5	<5	<5	<5
Ethylbenzene	**8**	<5	<5	<5	<5	<5	<5	<5	<5
2-Hexanone	<50	<50	<50	<50	<50	<50	<50	<50	<50
Methylene chloride (dichloromethane)	**170**	<5	**190**	<5	<5	<5	<5	<5	<5
4-Methyl-2-pentanone (MIBK)	**1,800**	<50	**520**	<50	<50	<50	<50	<50	<50
Styrene	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane (1,1,2,2-PCA)	<5	<5	<5	<5	<5	<5	<5	<5	<5
Tetrachloroethene (PCE)	**19**	<5	<5	<5	<5	<5	<5	<5	**6**
Toluene	**90**	<5	**24**	<5	<5	<5	<5	<5	<5
1,1,1-Trichloroethane (1,1,1-TCA)	**57**	<5	<5	<5	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethene (TCE)	**24**	<5	**67**	**21**	**13**	**45**	**11**	<5	<5
Vinyl acetate	<50	<50	<50	<50	<50	<50	<50	<50	<50
Vinyl chloride	<10	<10	<10	<10	<10	<10	<10	<10	<10
Xylene(s)	**110**	<5	**24**	<5	<5	<5	<5	<5	<5

Bold values highlight concentrations above reporting limits

Table 2. Summary of Analytical Results for Soil Samples
WT-1 Compressor Station
Page 1 of 7

Analyte	Sample No. (Sample Date)			
	Drain Pit-1 @12'-17' (09/13/95)	Drain Pit-2 @12'-17' (09/13/95)	Filter Pit-1 @4'-8' (09/14/95)	Filter Pit-3 @4'-8' (09/14/95)
Volatile Organic Compounds (µg/kg) by EPA Method 8240				
Acetone	**7,500 J**	**800**	**400**	**200**
Acetonitrile	<500	<500	<100	<100
Acrolein (propenal)	<200	<200	<50	<50
Acrylonitrile	<100	<100	<20	<20
Allyl chloride	<100	<100	<20	<20
Benzene	<20	<20	<5	**22**
Benzyl chloride	<20	<20	<5	<5
Bromobenzene	<20	<20	<5	<5
Bromochloromethane	<20	<20	<5	<5
Bromodichloromethane	<20	<20	<5	<5
Bromoform (tribromomethane)	<20	<20	<5	<5
Bromomethane	<50	<50	<10	<10
Methyl ethyl ketone (2-Butanone)	<500	<500	<100	<100
Carbon disulfide	**40**	<20	<5	<5
Carbon tetrachloride	<20	<20	<5	<5
Chlorobenzene	<20	<20	<5	<5
Chloroethane	<50	<50	**40**	<10
2-Chloroethylvinyl ether	<20	<20	<5	<5
Chloroform (trichloromethane)	<20	<20	<5	<5
Chloromethane (methyl chloride)	<20	<20	<5	<5
2-Chloro-1,3-butadiene (chloroprene)	<20	<20	<5	<5
Dibromochloromethane (chlorodibromomethane)	<20	<20	<5	<5
1,2-Dibromo-3-chloropropane (DBCP)	<20	<20	<5	<5
1,2-Dibromoethane (EDB)	<20	<20	<5	<5
Dibromomethane (methylene bromide)	<20	<20	<5	<5
trans-1,4-Dichloro-2-butene	<200	<200	<50	<50
Dichlorodifluoromethane (Freon 12)	<50	<50	<10	<10
1,1-Dichloroethane (1,1-DCA)	**800**	<20	**51**	**16**
1,2-Dichloroethane (ethylene chloride)	<20	<20	<5	<5

J = Estimated value less than practical quantitation limit

Bold values highlight concentrations above reporting limits

Table 2. Summary of Analytical Results for Soil Samples
WT-1 Compressor Station
Page 2 of 7

Analyte	Sample No. (Sample Date)			
	Drain Pit-1 @12'-17' (09/13/95)	Drain Pit-2 @12'-17' (09/13/95)	Filter Pit-1 @4'-8' (09/14/95)	Filter Pit-3 @4'-8' (09/14/95)
1,1-Dichloroethene (vinylidene chloride)	**30**	<20	<5	<5
cis-1,2-Dichloroethene	<20	<20	**7**	<5
trans-1,2-Dichloroethene	<20	<20	<5	<5
1,2-Dichloropropane (propylene chloride)	<20	<20	<5	<5
cis-1,3-Dichloropropene	<20	<20	<5	<5
trans-1,3-Dichloropropene	<20	<20	<5	<5
Ethylbenzene	**80**	**40**	**50**	**6**
Ethyl methacrylate	<20	<20	<5	<5
2-Hexanone	<20	<20	<5	<5
Iodomethane	<20	<20	<5	<5
Isobutyl alcohol	<200	<200	<50	<50
Methylacrylonitrile	<200	<200	<50	<50
Methylene chloride (dichloromethane)	**170**	<20	<5	<5
Methyl methacrylate	<20	<20	<5	<5
4-Methyl-2-pentanone (MIBK)	<200	<200	**50**	<50
Pentachloroethane	<20	<20	<5	<5
Propionitrile	<500	<500	<100	<100
Styrene	<20	<20	<5	<5
1,1,1,2-Tetrachloroethane (1,1,1,2-PCA)	<20	<20	<5	<5
1,1,2,2-Tetrachloroethane (1,1,2,2-PCA)	<20	<20	<5	<5
Tetrachloroethene (PCE)	**10,000**	**380**	<5	<5
Toluene	**100**	**30**	**15**	<5
1,1,1-Trichloroethane (1,1,1-TCA)	**3,600**	<20	<5	<5
1,1,2-Trichloroethane	<20	<20	<5	<5
Trichloroethene (TCE)	<20	<20	**48**	<5
Trichlorofluoromethane (Freon 11)	<50	<50	<10	<10
1,2,3-Trichloropropane	<20	<20	<5	<5
Vinyl acetate	<200	<200	<50	<50
Vinyl chloride	<50	<50	<10	<10
Xylene(s)	**550**	**260**	**290**	**30**

Bold values highlight concentrations above reporting limits

Table 2. Summary of Analytical Results for Soil Samples
WT-1 Compressor Station
Page 3 of 7

Analyte	Sample No. (Sample Date)			
	Drain Pit-1 @12'-17' (09/13/95)	Drain Pit-2 @12'-17' (09/13/95)	Filter Pit-1 @4'-8' (09/14/95)	Filter Pit-3 @4'-8' (09/14/95)
Semivolatile Organic Compounds (µg/kg) by EPA Method 8270				
Acenaphthene	<16,000	<16,000	<82,000	<33,000
Acenaphthylene	<16,000	<16,000	<82,000	<33,000
Acetophenone (methyl phenyl ketone)	<16,000	<16,000	<82,000	<33,000
4-Aminobiphenyl	<16,000	<16,000	<82,000	<33,000
Aniline	<16,000	<16,000	<82,000	<33,000
Anthracene	<16,000	<16,000	<82,000	<33,000
Benzidine	<82,500	<82,500	<412,000	<165,000
Benzoic acid	<82,500	<82,500	<412,000	<165,000
Benzo(a)anthracene	<16,000	<16,000	<82,000	<33,000
Benzo(b)fluoranthene	<16,000	<16,000	<82,000	<33,000
Benzo(j)fluoranthene	<16,000	<16,000	<82,000	<33,000
Benzo(k)fluoranthene	<16,000	<16,000	<82,000	<33,000
Benzo(g,h,i)perylene	<16,000	<16,000	<82,000	<33,000
Benzo(a)pyrene	<16,000	<16,000	<82,000	<33,000
Benzyl alcohol (phenyl methanol)	<33,000	<33,000	<160,000	<66,000
Bis(2-chloroethoxy)methane	<16,000	<16,000	<82,000	<33,000
Bis(2-chloroethyl)ether	<16,000	<16,000	<82,000	<33,000
Bis(2-chloroisopropyl)ether	<16,000	<16,000	<82,000	<33,000
Bis(2-ethylhexyl)phthalate	<16,000	<16,000	<82,000	<33,000
4-Bromophenyl phenyl ether	<16,000	<16,000	<82,000	<33,000
Butyl benzyl phthalate	<16,000	<16,000	<82,000	<33,000
4-Chloroaniline	<16,000	<16,000	<82,000	<33,000
Chlorobenzilate	<16,000	<16,000	<82,000	<33,000
1-Chloronaphthalene	<16,000	<16,000	<82,000	<33,000
2-Chloronaphthalene	<16,000	<16,000	<82,000	<33,000
4-Chloro-3-methylphenol	<16,000	<16,000	<82,000	<33,000
2-Chlorophenol	<16,000	<16,000	<82,000	<33,000
4-Chlorophenyl phenyl ether	<16,000	<16,000	<82,000	<33,000
Chrysene	<16,000	<16,000	<82,000	<33,000

Bold values highlight concentrations above reporting limits

Table 2. Summary of Analytical Results for Soil Samples
WT-1 Compressor Station
Page 4 of 7

Analyte	Sample No. (Sample Date)			
	Drain Pit-1 @12'-17' (09/13/95)	Drain Pit-2 @12'-17' (09/13/95)	Filter Pit-1 @4'-8' (09/14/95)	Filter Pit-3 @4'-8' (09/14/95)
Diallate	<16,000	<16,000	<82,000	<33,000
Dibenz(a,j)acridine	<16,000	<16,000	<82,000	<33,000
Dibenz(a,h)anthracene	<16,000	<16,000	<82,000	<33,000
Dibenzofuran	<16,000	<16,000	<82,000	<33,000
Di-n-butyl phthalate	<16,000	<16,000	<82,000	<33,000
1,2-Dichlorobenzene	<16,000	<16,000	<82,000	<33,000
1,3-Dichlorobenzene	<16,000	<16,000	<82,000	<33,000
1,4-Dichlorobenzene	<16,000	<16,000	<82,000	<33,000
3,3-Dichlorobenzidine	<16,000	<16,000	<82,000	<33,000
2,4-Dichlorophenol	<16,000	<16,000	<82,000	<33,000
2,6-Dichlorophenol	<16,000	<16,000	<82,000	<33,000
Diethyl phthalate	<16,000	<16,000	<82,000	<33,000
p-Dimethylaminoazobenzene	<16,000	<16,000	<82,000	<33,000
Phosphorodithionic acid (Dimethoate)	<33,000	<33,000	<160,000	<66,000
7,12-Dimethylbenz(a)anthracene	<16,000	<16,000	<82,000	<33,000
α-,α-Dimethylphenethylamine	<16,000	<16,000	<82,000	<33,000
2,4-Dimethylphenol	<16,000	<16,000	<82,000	<33,000
Dimethyl phthalate	<16,000	<16,000	<82,000	<33,000
2-Methyl-4,6-dinitrophenol	<82,500	<82,500	<412,000	<165,000
2,4-Dinitrophenol	<82,500	<82,500	<412,000	<165,000
2,4-Dinitrotoluene	<16,000	<16,000	<82,000	<33,000
2,6-Dinitrotoluene	<16,000	<16,000	<82,000	<33,000
Dinoseb (DNBP)	<16,000	<16,000	<82,000	<33,000
Di-n-octyl phthalate	<16,000	<16,000	<82,000	<33,000
Diphenylamine	<16,000	<16,000	<82,000	<33,000
1,2-Diphenylhydrazine	<16,000	<16,000	<82,000	<33,000
Disulfoton	<16,000	<16,000	<82,000	<33,000
Ethyl methane sulfonate	<16,000	<16,000	<82,000	<33,000
Fluoranthene	<16,000	<16,000	<82,000	<33,000
Fluorene	<16,000	<16,000	<82,000	<33,000

Bold values highlight concentrations above reporting limits

Table 2. Summary of Analytical Results for Soil Samples
WT-1 Compressor Station
Page 5 of 7

Analyte	Sample No. (Sample Date)			
	Drain Pit-1 @12'-17' (09/13/95)	Drain Pit-2 @12'-17' (09/13/95)	Filter Pit-1 @4'-8' (09/14/95)	Filter Pit-3 @4'-8' (09/14/95)
Hexachlorobenzene	<16,000	<16,000	<82,000	<33,000
Hexachlorobutadiene	<16,000	<16,000	<82,000	<33,000
Hexachlorocyclopentadiene	<16,000	<16,000	<82,000	<33,000
Hexachloroethane (perchloroethane)	<16,000	<16,000	<82,000	<33,000
Hexachlorophene	<160,000	<160,000	<820,000	<330,000
Hexachloropropene	<16,000	<16,000	<82,000	<33,000
Indeno(1,2,3-cd)pyrene	<16,000	<16,000	<82,000	<33,000
Isodrin	<16,000	<16,000	<82,000	<33,000
Isophorone	<16,000	<16,000	<82,000	<33,000
Isosafrole	<16,000	<16,000	<82,000	<33,000
Kepone	<82,500	<82,500	<412,000	<165,000
Methapyrilene	<16,000	<16,000	<82,000	<33,000
3-Methylcholanthrene	<16,000	<16,000	<82,000	<33,000
Methyl methane sulfonate	<16,000	<16,000	<82,000	<33,000
2-Methylnaphthalene	<16,000	<16,000	<82,000	<33,000
3&4-Methylphenol (m&p-cresol)	<16,000	<16,000	<82,000	<33,000
2-Methylphenol (o-cresol)	<16,000	<16,000	<82,000	<33,000
Naphthalene	<16,000	<16,000	<82,000	<33,000
1,4-Naphthoquinone	<16,000	<16,000	<82,000	<33,000
1-Naphthylamine	<16,000	<16,000	<82,000	<33,000
2-Naphthylamine	<16,000	<16,000	<82,000	<33,000
2-Nitroaniline (o-Nitroaniline)	<82,500	<82,500	<412,000	<165,000
3-Nitroaniline (m-Nitroaniline)	<82,500	<82,500	<412,000	<165,000
4-Nitroaniline (p-Nitroaniline)	<82,500	<82,500	<412,000	<165,000
Nitrobenzene	<16,000	<16,000	<82,000	<33,000
2-Nitrophenol	<16,000	<16,000	<82,000	<33,000
4-Nitrophenol	<82,500	<82,500	<412,000	<165,000
4-Nitroquinoline-1-oxide	<16,000	<16,000	<82,000	<33,000
n-Nitrosodi-n-butylamine	<16,000	<16,000	<82,000	<33,000
n-Nitrosodiethylamine	<16,000	<16,000	<82,000	<33,000

Bold values highlight concentrations above reporting limits

Table 2. Summary of Analytical Results for Soil Samples
WT-1 Compressor Station
Page 6 of 7

Analyte	Sample No. (Sample Date)			
	Drain Pit-1 @12'-17' (09/13/95)	Drain Pit-2 @12'-17' (09/13/95)	Filter Pit-1 @4'-8' (09/14/95)	Filter Pit-3 @4'-8' (09/14/95)
n-Nitrosomethylethylamine	<16,000	<16,000	<82,000	<33,000
n-Nitrosomorpholine	<16,000	<16,000	<82,000	<33,000
n-Nitrosodimethylamine	<16,000	<16,000	<82,000	<33,000
n-Nitrosodiphenylamine	<16,000	<16,000	<82,000	<33,000
n-Nitrosodi-n-propylamine	<16,000	<16,000	<82,000	<33,000
n-Nitrosopiperidine	<16,000	<16,000	<82,000	<33,000
n-Nitrosopyrolidine	<16,000	<16,000	<82,000	<33,000
5-Nitro-o-toluidine	<16,000	<16,000	<82,000	<33,000
Ethyl parathion	<16,000	<16,000	<82,000	<33,000
Pentachlorobenzene	<16,000	<16,000	<82,000	<33,000
Pentachloronitrobenzene	<16,000	<16,000	<82,000	<33,000
Pentachlorophenol	<82,500	<82,500	<412,000	<165,000
Phenacetin	<16,000	<16,000	<82,000	<33,000
Phenanthrene	<16,000	<16,000	<82,000	<33,000
Phenol (carbolic acid)	<16,000	<16,000	<82,000	<33,000
p-Phenylenediamine	<16,000	<16,000	<82,000	<33,000
Phorate	<16,000	<16,000	<82,000	<33,000
2-Picoline	<16,000	<16,000	<82,000	<33,000
Pronamide	<16,000	<16,000	<82,000	<33,000
Pyridine (azabenzene)	<16,000	<16,000	<82,000	<33,000
Pyrene	<16,000	<16,000	<82,000	<33,000
Safrole	<16,000	<16,000	<82,000	<33,000
1,2,4,5-Tetrachlorobenzene	<16,000	<16,000	<82,000	<33,000
2,3,4,6-Tetrachlorophenol	<16,000	<16,000	<82,000	<33,000
o-Toluidine	<16,000	<16,000	<82,000	<33,000
1,2,4-Trichlorobenzene	<16,000	<16,000	<82,000	<33,000
2,4,5-Trichlorophenol	<16,000	<16,000	<82,000	<33,000
2,4,6-Trichlorophenol	<16,000	<16,000	<82,000	<33,000
0,0,0-Triethyl phosphorothioate	<16,000	<16,000	<82,000	<33,000
1,3,5-Trinitrobenzene	<16,000	<16,000	<82,000	<33,000

Bold values highlight concentrations above reporting limits

Table 2. Summary of Analytical Results for Soil Samples
WT-1 Compressor Station
Page 7 of 7

Analyte	Sample No. (Sample Date)			
	Drain Pit-1 @12'-17' (09/13/95)	Drain Pit-2 @12'-17' (09/13/95)	Filter Pit-1 @4'-8' (09/14/95)	Filter Pit-3 @4'-8' (09/14/95)
PCBs (µg/kg) by EPA Method 8080				
PCB-1016 (Aroclor-1016)	<170	<170	<170	<170
PCB-1221 (Aroclor-1221)	<170	<170	<170	<170
PCB-1232 (Aroclor-1232)	<170	<170	<170	<170
PCB-1242 (Aroclor-1242)	<170	<170	<170	<170
PCB-1248 (Aroclor-1248)	<170	<170	<170	<170
PCB-1254 (Aroclor-1254)	<170	<170	<170	<170
PCB-1260 (Aroclor-1260)	<170	<170	<170	<170
PCB-1262 (Aroclor-1262)	<170	<170	<170	<170
PCB-1268 (Aroclor-1268)	<170	<170	<170	<170
Metals (mg/kg) by EPA Methods 6010 and 7471 (for Mercury)				
Aluminum (Al)	**4,480**	**3,830**	**1,230**	**1,200**
Antimony (Sb)	<10	<10	<10	**90**
Arsenic (As)	<5	<5	**6**	**46**
Barium (Ba)	**280**	**330**	**118**	**146**
Beryllium (Be)	<0.5	<0.5	<0.5	<0.5
Cadmium (Cd)	<0.5	<0.5	**2.3**	**8.4**
Chromium (Cr)	**7**	**7**	**22**	**31**
Cobalt (Co)	<3	<3	<3	**14**
Copper (Cu)	**8**	**6**	**103**	**86**
Lead (Pb)	**9**	<5	**66**	**27**
Mercury (Hg)	**0.40**	**0.24**	**0.12**	**0.05**
Nickel (Ni)	<4	<4	<4	**18**
Selenium (Se)	<10	<10	**10**	**130**
Silver (Ag)	<1	<1	<1	**8**
Thallium (Tl)	<10	<10	**20**	**260**
Tin (Sn)	<5	<5	**22**	**66**
Vanadium (V)	**38**	**30**	<5	**21**
Zinc (Zn)	**59**	**59**	**121**	**607**
Miscellaneous (mg/kg) by EPA Methods 9010, 9030, and 418.1, respectively				
Total cyanide	<0.4	<0.4	<0.4	<0.4
Total sulfide	**840**	**1,260**	**2,430**	**1,430**
Total petroleum hydrocarbons	**55,000**	**19,000**	**280,000**	**72,000**

Bold values highlight concentrations above reporting limits

ENRON
OPERATIONS CORP.

P. O. Box 1188 Houston, Texas 77251-1188 (713) 853-6161

October 20, 1995

Mr. William C. Olson
Environmental Bureau
New Mexico Oil Conservation Division
2040 S. Pacheco St.
Santa Fe, New Mexico 87505

RE: Phase II Assessment Report for the Engine Room Drain Pit Area
WT-1 Compressor Station
Transwestern Pipeline Company

Dear Bill,

The purpose of this letter is to inform your office that the subject report will be submitted to your office for review by November 10, 1995.

Please contact me at (713) 646-7644 or George Robinson at (713) 646-7327 if this schedule presents a problem.

Sincerely,

Bill Kendrick

Bill Kendrick
Manager, Projects Group

gcr/BK

NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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

August 30, 1995

CERTIFIED MAIL
RETURN RECEIPT NO: Z-765-962-404

Mr. Bill Kendrick
ENRON Operations Corp.
P.O. Box 1188
Houston, Texas 77251-1188

RE: TRANSWESTERN PIPELINE CO. WT-1 COMPRESSOR STATION

Dear Mr. Kendrick:

The New Mexico Oil Conservation Division (OCD) has completed a review of Transwestern Pipeline Company's (TPC) August 10, 1995 correspondence and July 25, 1995 "CONCEPTUAL CORRECTIVE ACTION PLAN FOR SOIL REMEDIATION, WT-1 COMPRESSOR STATION, DEHYDRATION AREA, CARLSBAD, NEW MEXICO". These documents contain TPC's remedial action plan for contaminated ground water and soils related to disposal activities at the WT-1 Compressor Station former dehydration area.

The remedial action plan, as contained in the above referenced documents, is approved with the following conditions:

1. All ground water sampling and analysis will be conducted according to EPA methods.

2. The semiannual reports will be submitted to the OCD by February 1, 1996 and August 1, 1996. Subsequent annual reports will be submitted to the OCD on February 1 of each respective year. The reports will contain:

   a. A description of all activities which occurred during the reporting period including as built construction details of any remediation systems installed.

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

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

   d. If free phase product is present, a product thickness map.

3. TPC will notify the OCD at least one week in advance of all scheduled activities such that the OCD has the opportunity to witness the events and/or split samples.

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

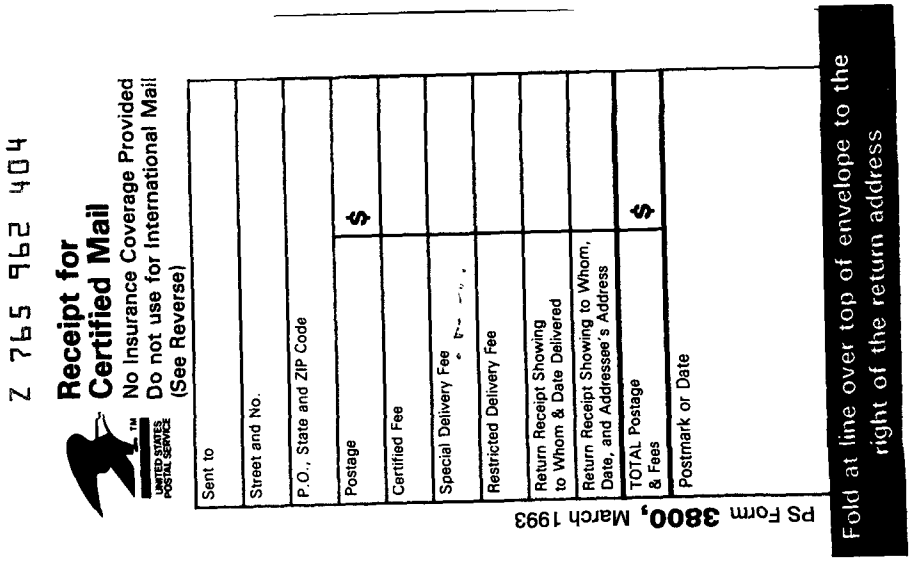
Please be advised that OCD approval does not relieve TPC of liability should contamination exist which is outside the scope of work plan, or if the proposed work plan fails to the adequately remediate contamination at the site. In addition, OCD approval does not relieve TPC of responsibility for compliance with any other federal, state or local laws and/or regulations.

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

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

xc: Jerry Sexton, OCD Hobbs District Supervisor
Wayne Price, OCD Hobbs District
George Robinson, Cypress Engineering Services, Inc.



ENRON
OPERATIONS CORP.

P. O. Box 1188 Houston, Texas 77251-1188 (713) 853-6161

August 10, 1995

Mr. Bill Olson
Environmental Bureau
New Mexico Oil Conservation Division
2040 S. Pacheco St.
Santa Fe, New Mexico 87505

RE: TW Atoka-1 Station Remediation Plan; and
TW WT-1 Station Dehydration Unit Area Remediation Plan; and
TW Bell Lake Plant Assessment and Remediation Plan

Dear Bill,

Enclosed are copies of the three subject remediation plans. Also enclosed are copies of the following supporting documents for the Bell Lake plan:

1. Brown & Caldwell. 1994. *Subsurface Investigation, Transwestern Bell Lake Plant, Jal, New Mexico.* April 1994.
2. Brown & Caldwell. 1995. *Final Monitoring Well Installation and Intrinsic Bioremediation Evaluation Report, Transwestern Pipeline Company Bell Lake Plant, Lea County, New Mexico.* July 1995.

Transwestern will implement the proposed corrective action activities upon review and approval of your office.

If you have any questions regarding any of the plans, please contact me at (713) 646-7644 or George Robinson at (713) 646-7327.

Sincerely,

Bill Kendrick

Bill Kendrick
EOC Environmental Affairs
Manager, Projects Group

gcr/BK

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

August 16, 1995

CERTIFIED MAIL
RETURN RECEIPT NO: Z-765-962-392

Mr. Bill Kendrick
ENRON Operations Corp.
P.O. Box 1188
Houston, Texas 77251-1188

RE: GROUND WATER INVESTIGATION WORK PLAN
ENGINE ROOM DRAIN AND FILTER PIT AREA
WT-1 COMPRESSOR STATION

Dear Mr. Kendrick:

The New Mexico Oil Conservation Division (OCD) has completed a review of Transwestern Pipeline Company's (TPC) July 13, 1995 "ENGINE ROOM DRAIN AND FILTER PIT AREA, WT-1 COMPRESSOR STATION, TRANSWESTERN PIPELINE COMPANY". This document contains TPC's proposed work plan for investigation of the extent of ground water contamination related to the former engine room drain and filter pit areas at TPC's WT-1 Compressor Station.

The above referenced work plan is approved with the following conditions:

1. All wastes generated will be disposed of only at sites approved by the OCD.

2. TPC will submit a report on the investigation to the OCD by October 27, 1995. The report will contain:

   a. A description of all activities which occurred during the investigation, conclusions and recommendations.

   b. A summary of the laboratory analytic results of soil samples from the boreholes and water quality sampling of the monitor wells.

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

   d. A geologic log for each borehole and monitor well and as built well completion diagrams for each monitor well.

3. TPC will notify the OCD at least one week in advance of scheduled activities such that the OCD has the opportunity to witness the events and/or split samples.

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

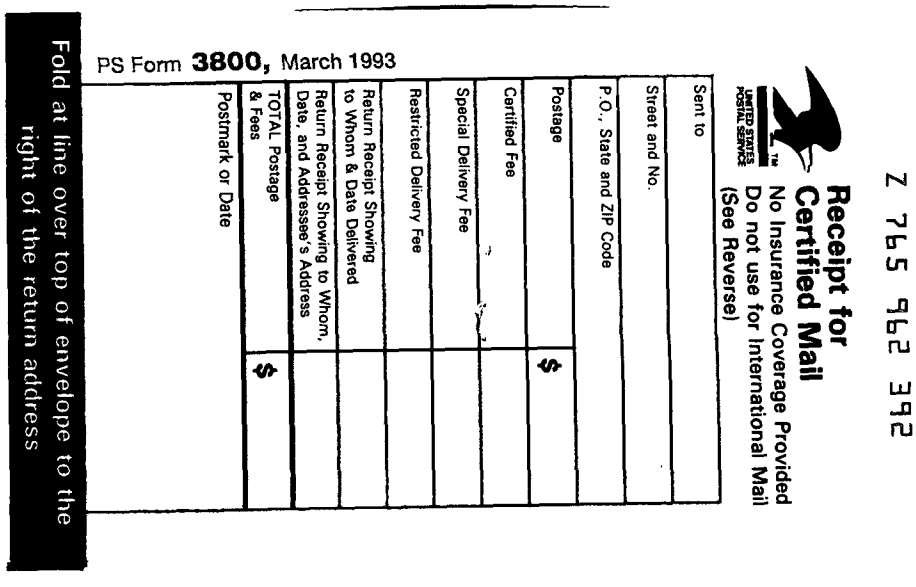
Please be advised that OCD approval does not relieve TPC of liability should their actions fail to adequately determine the extent of contamination related to TPC's activities, or, if contamination exists which is outside the scope of the work plan. In addition, OCD approval does not relieve TPC of responsibility for compliance with any other federal, state or local laws and/or regulations.

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

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

xc: Jerry Sexton, OCD Hobbs District Supervisor
Wayne Price, OCD Hobbs District Office
George Robinson, Cypress Engineering Services, Inc.



ENRON
OPERATIONS CORP.

P. O. Box 1188 Houston, Texas 77251-1188 (713) 853-6161

July 13, 1995

Mr. William C. Olson
Environmental Bureau
New Mexico Oil Conservation Division
2040 S. Pacheco St.
Santa Fe, New Mexico 87505

RE: Engine Room Drain and Filter Pit Area
WT-1 Compressor Station
Transwestern Pipeline Company

Dear Bill,

In a letter dated May 26, 1995, your office requested that Transwestern submit, by August 31, 1995:

1. A ground water remediation work plan; and
2. A work plan to complete the definition of the extent of dissolved phase ground water contamination at the site.

In order to facilitate development of an effective remediation work plan, Transwestern proposes to first implement a Phase II assessment plan designed to further assess the potential impact to soil and to complete the delineation of dissolved phase ground water contaminants as required under item #2 above.

The scope of the Phase II assessment includes the collection of soil samples from within the former engine room drain pit and filter pit areas. Four soil borings will be drilled for collection of soil samples; two drilled within the boundary of the former engine room drain pit area and two within the former filter pit area. The location of the four soil borings are indicated on the attached diagram. Each boring will be drilled to a depth of approximately 15 feet below ground surface. The most highly impacted soil sample collected from each boring will be delivered to a lab for analysis for VOCs (by Method 8240), SVOCs (by Method 8270), metals (by Method 6010), and TPH (by Method 418.1).

The scope of the Phase II assessment also includes the installation of three additional ground water monitor wells as indicated on the attached diagram. The objective is to complete the delineation of dissolved phase ground water contaminants by establishing a perimeter around affected ground water such that water samples collected from wells at the perimeter contain contaminant concentrations less than NMWQCC standards. Each well will be completed as a two inch diameter monitor well with approximately ten feet of

well screen below the water table and five feet of screen above the water table. Ground water samples will be collected from each of the three monitor wells and delivered to a lab for analysis for VOCs (by Method 8010/8020), metals (by Method 6010), and major cations/anions.

The procedures for installation of monitor wells, collection of soil and ground water samples, abandonment of soil borings, etc., will follow those procedures outlined in the Phase I work plan which was submitted in November 1994.

Transwestern will implement the Phase II work plan within thirty days of approval by the NMOCD. We anticipate that a Phase II assessment report can be submitted to the NMOCD by September 15, 1995. A remediation work plan will subsequently be prepared and submitted to the NMOCD no later than October 31, 1995.

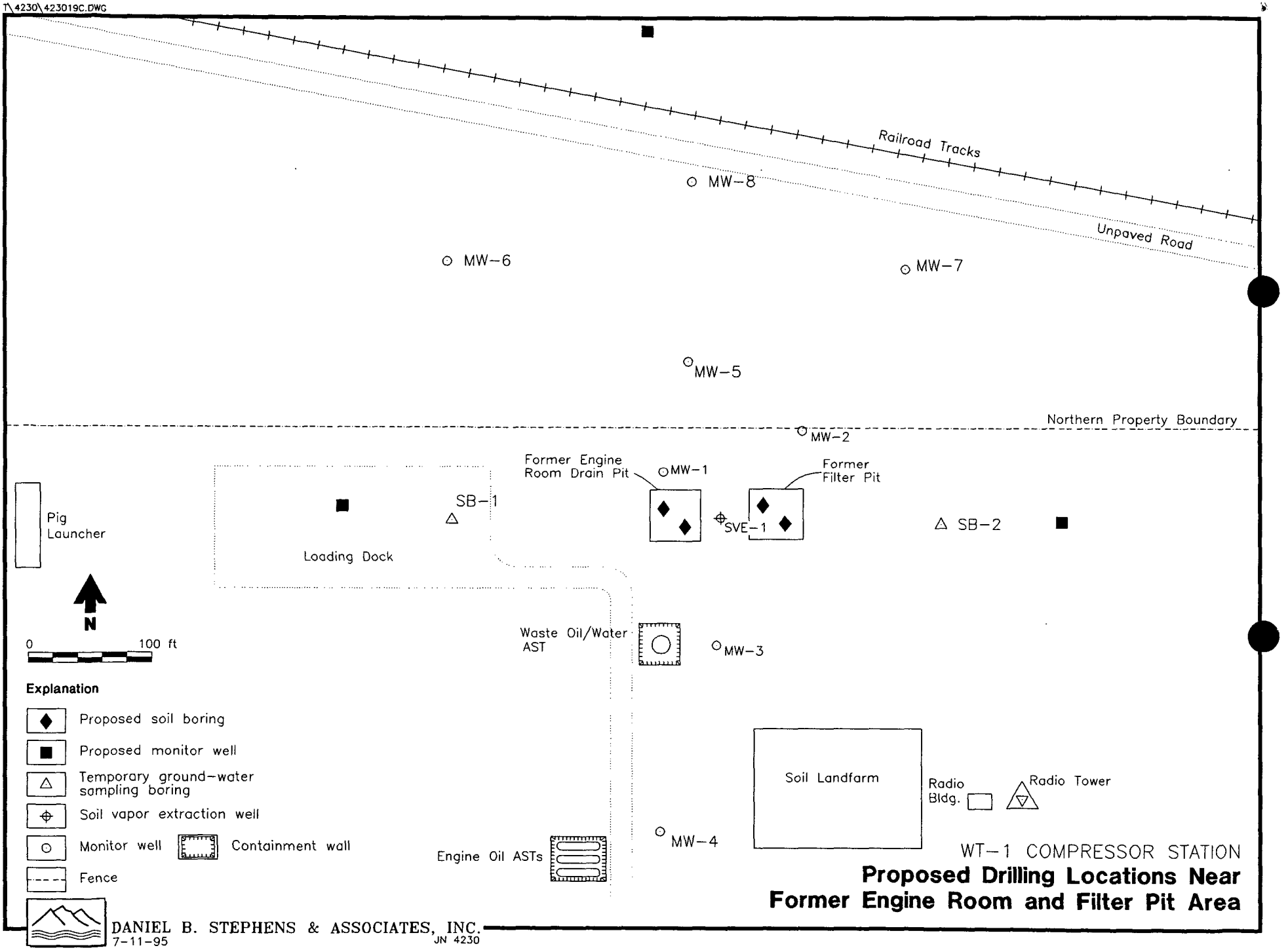
If you have any questions regarding this work plan and/or schedule, please contact George Robinson at (713) 646-7327.

Sincerely,

Bill Kendrick
Manager, Projects Group

gcr/BK

T\4230\423019C.DWG



WT-1 COMPRESSOR STATION

Proposed Drilling Locations Near Former Engine Room and Filter Pit Area

DANIEL B. STEPHENS & ASSOCIATES, INC.
7-11-95
JN 4230

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

June 2, 1995

CERTIFIED MAIL
RETURN RECEIPT NO: P-667-242-272

Mr. Bill Kendrick
ENRON Operations Corp.
P.O. Box 1188
Houston, Texas 77251-11881

RE: TRANSWESTERN PIPELINE CO. WT-1 COMPRESSOR STATION

Dear Mr. Kendrick:

The New Mexico Oil Conservation Division (OCD) has completed a review of Transwestern Pipeline Company's (TPC) March 28, 1995 "SUPPLEMENTAL ENVIRONMENTAL INVESTIGATION WT-1 COMPRESSOR STATION, DEHYDRATION AREA". This document contains the results of TPC's remedial and investigation actions at the WT-1 Compressor Station.

The OCD approves of the remedial and investigation actions conducted to date. However, the report does not include recommendations for remediation of contaminated ground water or for remaining contaminated soils at the facility. Therefore, the OCD requires that TPC submit, by August 18, 1995, a plan to address remaining soil and ground water contamination at the site.

Please submit all original documents to the OCD Santa Fe Office with copies provided to the OCD Hobbs Office.

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

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

xc: Jerry Sexton, OCD Hobbs District Supervisor
Wayne Price, OCD Hobbs District
George Robinson, Cypress Engineering Services, Inc.

P 667 242 272

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

May 26, 1995

CERTIFIED MAIL
RETURN RECEIPT NO: P-667-242-265

Mr. Bill Kendrick
ENRON Operations Corp.
P.O. Box 1188
Houston, Texas 77251-1188

RE: ENGINE ROOM DRAIN AND FILTER PIT AREA
WT-1 COMPRESSOR STATION
TRANSWESTERN PIPELINE CO.

Dear Mr. Kendrick:

The New Mexico Oil Conservation Division (OCD) has completed a review of Transwestern Pipeline Company's (TPC) March 28, 1995 "SUPPLEMENTAL ENVIRONMENTAL INVESTIGATION, WT-1 COMPRESSOR STATION, FORMER ENGINE ROOM DRAIN AND FILTER PIT AREA". This document contains the results of TPC's investigation of soil and ground water contamination related to the WT-1 Compressor Station's former engine room drain and filter pit area.

The investigation actions taken to date are satisfactory. However, the report does not include recommendations for remediation of contaminated ground water or for completely defining the extent of dissolved phase ground water contamination related to these source areas. Therefore, the OCD requires that TPC submit, by August 31, 1995:

1. A ground water remediation work plan.

2. A work plan to complete the definition of the extent of dissolved phase ground water contamination at the site.

Please submit all original documents to the OCD Santa Fe Office with copies provided to the OCD Hobbs Office.

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

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

xc: Jerry Sexton, OCD Hobbs District Supervisor
Wayne Price, OCD Hobbs District Office

P 647 242 265

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PS Form **3800**, June 1990

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Bill Olson

From: Bill Olson
To: Jerry Sexton
Cc: Wayne Price
Subject: ENRON WT-1 Compressor
Date: Tuesday, May 23, 1995 2:40PM
Priority: High

Attached is a draft letter requesting submission of a remediation work plan for ENRON's WT-1 Compressor Station. Please provide me with any comments by 2:30pm on 5/25/95. Thanks!

<<File Attachment: REMEDY2.REQ>>

Bill Olson

From: POSTOFFICE
To: Bill Olson
Subject: Registered: Wayne Price
Date: Tuesday, May 23, 1995 3:08PM

[013] ***** CONFIRMATION OF REGISTERED MAIL *****
Your message:

TO: Wayne Price DATE: 05-23-95
SUBJECT: ENRON WT-1 Compressor TIME: 14:37

Was accessed on 05-23-95 15:08

Bill Olson

From: Jerry Sexton
Date sent: Wednesday, May 24, 1995 10:27AM
To: Bill Olson
Subject: Registered: Jerry Sexton

Your message
To: Jerry Sexton
Subject: ENRON WT-1 Compressor
Date: Tuesday, May 23, 1995 2:40PM
was accessed on
Date: Wednesday, May 24, 1995 10:27AM

ENRON
OPERATIONS CORP.

P. O. Box 1188 Houston, Texas 77251-1188 (713) 853-6161

January 26, 1995

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FEB 06 1995

Environmental Bureau
Oil Conservation Division

Mr. William C. Olson
Environmental Bureau
New Mexico Oil Conservation Division
2040 S. Pacheco St.
Santa Fe, New Mexico 87505

RE: Final Disposition of Investigation Derived Wastes
Transwestern Pipeline Company WT-1 Compressor Station
Lea County, New Mexico

Dear Bill,

In the course of the subsurface investigation at the subject facility, approximately 82 gallons of potentially contaminated ground water was collected from thirteen ground water monitor wells or soil borings. This water is currently stored in nine drums at the site. The source, quantity, and proposed disposition of water in each drum is summarized below in Table 1 and Table 2. The proposed disposition is based on laboratory analysis of ground water samples from each monitor well or soil boring. A summary of the analytical results and a copy of the laboratory reports are attached.

Table 1. Source, quantity, and proposed disposition of investigation derived waste water collected from monitor wells and soil borings located in the former engine room drain pit area.

Source	Quantity (gallons)	Proposed Disposition
MW-1 & -3	10	Contains low concentrations of chlorinated compounds; proposed disposal at a hazardous waste disposal facility
MW-4	15	Contains low concentrations of chlorinated compounds; proposed disposal at a hazardous waste disposal facility
MW-5 & SVE-1A	12	Contains low concentrations of chlorinated compounds; proposed disposal at a hazardous waste disposal facility
MW-6, -7, & -8	15	Contains low concentrations of chlorinated compounds; proposed disposal at a hazardous waste disposal facility
SB-1	5	Contains low concentrations of chlorinated compounds; proposed disposal at a hazardous waste disposal facility
SB-2	5	Contains low concentrations of chlorinated compounds; proposed disposal at a hazardous waste disposal facility
Total	62	

2/9/95
Verbal Approval
to George Robinson
WO Olson

Table 2. Source, quantity, and proposed disposition of investigation derived waste water collected from monitor wells and soil borings located in the former dehydration unit area.

Source	Quantity (gallons)	Proposed Disposition
MW-9	10	Contains low concentrations of chlorinated compounds; proposed disposal at a hazardous waste disposal facility
MW-10	5	Contains concentration of benzene greater than 0.500 mg/L; proposed disposal at a hazardous waste disposal facility
MW-12	5	Contains low concentrations of chlorinated compounds; proposed disposal at a hazardous waste disposal facility
Total	20	

Since the contents of all nine drums will be disposed of at a hazardous waste disposal facility, the contents will be combined into two of the nine drums prior to disposal.

Note that the chlorinated compounds detected in ground water samples from MW-9 and MW-12 are trihalomethane compounds which are typical drinking water disinfection byproducts which result from chlorination. The source of these compounds in ground water at the site is most likely a result of the operation of an electrical ground bed well used for corrosion control. The ground bed well at the WT-1 Station is located near to the former dehydration unit area. Ground bed wells produce low concentrations of chlorine gas which can migrate up the wellbore to shallow ground water and result in the production of trihalomethane compounds. Assuming this is the true source of the chlorinated compounds, the concentrations present are low and would not result in the collected ground water being classified as a hazardous waste. However, in an overabundance of caution, TPC has chosen to dispose of the water containing trihalomethane compounds at a hazardous waste disposal facility, particularly due to the small volume involved.

Other investigation derived wastes include soil cuttings collected from drilling activities during the November 1994 investigation activities and during two prior investigations. These wastes were segregated into four piles as described in Table 3 below and stockpiled on-site on plastic. The source, quantity, and proposed disposition of each soil pile is also summarized in Table 3. The proposed disposition is based on laboratory analysis of two composite soil samples; one sample collected from soil originating from each of the two investigation areas. A copy of the analytical results are attached.

Table 3. Source, quantity, and proposed disposition of investigation derived waste soil collected from monitor wells and soil borings.

Source	Quantity (cu. yds.)	Proposed Disposition
former engine room drain pit area; Nov. 1994 investigation	2	Non-detect for TCLP organics and TCLP RCRA metals; proposed disposal by spreading on-site
former engine room drain pit area; Oct. 1992 investigation	2	Non-detect for TCLP organics and TCLP RCRA metals; proposed disposal by spreading on-site
former dehydration unit area; Nov. 1993 investigation	2	Non-detect for TCLP organics and TCLP RCRA metals; proposed disposal by spreading on-site
former dehydration unit area; Nov. 1994 investigation	2	Non-detect for TCLP organics and TCLP RCRA metals; proposed disposal by spreading on-site
Total	8	

TPC, as operator of the subject facility, will implement the proposed disposition of investigation derived wastes upon review and approval by your office. If you have any questions regarding this proposal, please contact me at (713) 646-7644 or George Robinson at (713) 646-7327.

Sincerely,

Bill Kendrick
EOC Environmental Affairs
Manager, Projects Group

gcr/BK

Table 1. Summary of Ground-Water Analyses for Organic Constituents
Former Engine Room Drain and Filter Pits
Page 1 of 2

Constituent	Detection Limit	Well/Boring No. (Sample Date) MW-1 (11/15/94)	MW-3 (11/16/94)	MW-4 (12/01/94)	MW-5 (12/01/94)	MW-6 (11/30/94)	MW-7 (11/22/94)	MW-8 (11/30/94)	SB-1 (11/22/94)	SB-2 (11/19/94)	SVE-1A (11/19/94)	NMWQCC Standard
Total petroleum hydrocarbons by EPA method 8015 modified (mg/L)												
Gasoline range (C_6-C_{16})	0.05	1.6[a]	ND	ND	0.35	ND	ND	ND	0.13	0.16	0.98	None
Diesel range (C_{16}-C_{36})	1.0	16[b]	ND	ND	6.9[c]	ND	ND	ND	ND	1.5[b]	3.5[d]	None
Aromatic VOCs by EPA method 8020 (µg/L)												
Benzene	0.5	**12**[e]	5.0	ND	**20**	1.8	7.0	**12**	**16**	**24**	**12**	10
Toluene	0.5	100[e]	ND	ND	19	ND	ND	ND	29	ND	18	750
Ethylbenzene	0.5	10[e]	ND	ND	8.3	ND	ND	ND	2.1	3.2	4.6	750
Total xylenes	0.5	110[e]	0.5	ND	26	0.5	ND	ND	19	0.7	15	620
Halogenated VOCs by EPA method 8010 (µg/L)												
Bromodichloromethane	0.2	ND[e]	NA	0.2	ND	ND	ND	ND	ND	ND	ND	None
Chloroethane	0.2	ND[e]	NA	ND	8.9	0.5	ND	0.5	ND	2.2	35	None
Chloroform	0.2	ND[e]	NA	7.6	ND	ND	ND	ND	ND	ND	ND	100
1,2-Dichlorobenzene	0.2	ND[e]	NA	ND	0.5	0.2	ND	0.4	ND	ND	ND	None
1,1-Dichloroethane	0.2	**690**[e]	NA	0.9	18	13	23	**71**	5.8	21	**120**	25
1,2-Dichloroethane	0.2	6.7[e]	NA	ND	1.1	ND	0.3	0.9	ND	ND	5.3	10

Notes: All analyses performed by Hall Environmental Analysis Laboratory, Albuquerque, NM
Bold values indicate concentration exceeds NMWQCC ground-water standard

NMWQCC = New Mexico Water Quality Control Commission
ND = Not detected
VOCs = Volatile organic compounds
NA = Not analyzed

[a] Sample analyzed at 2x dilution
[b] C14-C26 non-characteristic diesel range hydrocarbons
[c] Non-characteristic diesel range hydrocarbons
[d] C14-C26 non-characteristic diesel range hydrocarbons; detection limit = <1.0 µg/L
[e] Sample analyzed at 10x dilution

Table 1. Summary of Ground-Water Analyses for Organic Constituents
Former Engine Room Drain and Filter Pits
Page 2 of 2

Constituent	Detection Limit	Well/Boring No. (Sample Date) MW-1 (11/15/94)	MW-3 (11/16/94)	MW-4 (12/01/94)	MW-5 (12/01/94)	MW-6 (11/30/94)	MW-7 (11/22/94)	MW-8 (11/30/94)	SB-1 (11/22/94)	SB-2 (11/19/94)	SVE-1A (11/19/94)	NMWQCC Standard
Halogenated VOCs by EPA method 8010 (µg/L) (cont.)												
1,1-Dichloroethene	0.2	2.2[e]	NA	4.7	ND	2.9	2.3	1.3	ND	1.8	1.0	5
cis-1,2-Dichloroethene	0.2	2.8[e]	NA	ND	12	6.8	7.3	18	0.5	0.3	20	None
Dichloromethane	2.0	420[e]	NA	ND	43	ND	ND	ND	ND	ND	900	None
Tetrachloroethene	0.2	16[e]	NA	0.5	0.8	0.4	0.4	ND	0.3	ND	4.6	20
1,1,1-Trichloroethane	0.2	ND[e]	NA	ND	ND	ND	1.6	ND	ND	ND	6.8	60
Trichloroethene	0.2	28[e]	NA	ND	3.2	15	14	17	1.5	8.4	16	100
Vinyl chloride	0.2	ND[e]	NA	ND	ND	ND	0.3	0.2	ND	ND	**1.2**	1
Polynuclear aromatic hydrocarbons by EPA method 8100 (µg/L)												
Naphthalene	0.5	7.0[f]	NA	ND	ND	ND	ND	ND	ND	ND	ND	
1-Methylnaphthalene	0.5	ND[f]	NA	ND	ND	ND	ND	ND	ND	1.0	ND	30[g]
2-Methylnaphthalene	0.5	ND[f]	NA	ND	ND	ND	ND	ND	ND	2.2	ND	
Fluorene	0.5	ND[f]	NA	ND	ND	ND	ND	ND	0.8	0.9	ND	None

Notes: All analyses performed by Hall Environmental Analysis Laboratory, Albuquerque, NM
Bold values indicate concentration exceeds NMWQCC ground-water standard

NMWQCC = New Mexico Water Quality Control Commission
ND = Not detected
VOCs = Volatile organic compounds
NA = Not analyzed

[e] Sample analyzed at 10x dilution
[f] Detection limit = 5.0 µg/L
[g] NMWQCC standard is for total naphthalene, which includes naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene

Table 2. Summary of Ground-Water Analyses for Inorganic Constituents Former Engine Room Drain and Filter Pits

Constituent	Detection Limit	Well No. (Sample Date) MW-4 (12/01/94)	MW-5 (12/01/94)	MW-6 (11/30/94)	MW-7 (11/22/94)	MW-8 (11/30/94)	SB-1 (11/22/94)	SB-2 (11/19/94)	SVE-1A (11/19/94)	NMWQCC Standard
Major ions (mg/L)										
Calcium	0.1	332	185	293	323	247	275	248	293	None
Potassium	1.0	5.9	6.1	7.1	7.9	6.0	9.4	13.4	6.5	None
Magnesium	0.1	153	200	197	148	137	209	143	383	None
Sodium	0.1	353	326	267	244	221	322	279	339	None
Total alkalinity (as $CaCO_3$)	1.0	273	1,080	624	327	441	492	460	1,940	None
Chloride	0.5	**540**	**360**	**700**	**400**	**590**	**750**	**610**	**290**	250
NO_2/NO_3-N, total	0.06	**20**	ND	ND	6.8	0.44	0.28	0.12	0.07	10.0
Sulfate	5	**1,000**	ND	410	**920**	330	450	460	5	600
Total dissolved solids	10	**2,800**	**2,000**	**2,400**	**2,400**	**1,900**	**2,300**	**2,100**	**4,200**	1,000
Metals (mg/L)										
Silver	0.010	ND	ND	ND	ND	ND	ND	ND	ND	0.05
Arsenic	0.005	0.007	0.036	ND	0.006	0.006	0.005	ND	0.039	0.1
Barium	0.01	0.025	**17.3**	0.109	0.032	0.052	0.085	0.094	**49.8**	1.0
Cadmium	0.0005	ND	ND	ND	ND	ND	ND	ND	ND	0.01
Chromium	0.010	ND	ND	ND	ND	ND	ND	0.013	ND	0.05
Copper	0.010	ND	ND	ND	0.014	0.014	0.010	0.013	ND	1.0
Iron	0.050	ND	0.097	ND	ND	ND	ND	ND	0.090	1.0
Mercury	0.0002	ND	ND	ND	ND	ND	ND	ND	ND	0.002
Manganese	0.010	0.024	0.112	**0.562**	0.069	0.136	**0.254**	**0.231**	0.082	0.2
Lead	0.002	ND	ND	ND	ND	ND	ND	ND	ND	0.05
Selenium	0.005	0.020	ND	ND	0.008	ND	ND	ND	ND	0.05
Zinc	0.050	ND	ND	ND	ND	ND	4.73	1.15	ND	10

Notes: All analyses performed by Analytical Technologies, Inc., Albuquerque, NM
Bold values indicate concentration exceeds NMWQCC ground-water standard.
Metals samples were field filtered.

NMWQCC = New Mexico Water Quality Control Commission
ND = Not detected

Table 3. Summary of Ground-Water Analyses for Organic Constituents Former Dehydration Area

Constituent	Detection Limit	Well/Boring No. (Sample Date) MW-9 (11/21/94)	MW-10 (11/18/94)	MW-12 (11/17/94)	MW-13 (12/01/94)	NMWQCC Standard
Total petroleum hydrocarbons by EPA method 8015 modified (mg/L)						
Gasoline range (C_6-C_{16})	0.05	ND	69[a]	ND	ND	None
Diesel range (C_{16}-C_{36})	1.0	ND	10[b]	ND	ND	None
Aromatic VOCs by EPA method 8020 (µg/L)						
Benzene	0.5	**12**	**9,000**[c]	ND	ND	10
Toluene	0.5	ND	**16,000**[c]	1.9	ND	750
Ethylbenzene	0.5	ND	620[c]	ND	ND	750
Total xylenes	0.5	ND	**8,500**[c]	3.1	ND	620
Halogenated VOCs by EPA method 8010 (µg/L)						
Bromodichloromethane	0.2	1.4	ND[c]	3.5	ND	None
Chloroform	0.2	27	ND[c]	26	ND	100
Polynuclear aromatic hydrocarbons by EPA method 8100 (µg/L)						
Naphthalene	0.5	ND	**850**[d]	ND[e]	ND[f]	30[g]
1-Methylnaphthalene	0.5	0.7	**200**[d]	ND[e]	ND[f]	
2-Methylnaphthalene	0.5	ND	**220**[d]	ND[e]	ND[f]	
Acenaphthene	0.5	ND	14[d]	ND[e]	ND[f]	None

Notes: All analyses performed by Hall Environmental Analysis Laboratory, Albuquerque, NM
Bold values indicate concentration exceeds NMWQCC ground-water standard

NMWQCC = New Mexico Water Quality Control Commission
ND = Not detected
VOCs = Volatile organic compounds

[a] Sample analyzed at 50x dilution
[b] Detection limit = 5.0 mg/L
[c] Sample analyzed at 25x dilution
[d] Detection limit = 10 µg/L
[e] Sampled on 11/18/94
[f] Sampled on 11/30/94
[g] NMWQCC standard is for total naphthalene, which includes naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene

Table 4. Summary of Ground-Water Analyses for Inorganic Constituents Former Dehydration Area

Constituent	Detection Limit	Well No. (Sample Date) MW-9 (11/21/94)	MW-10 (11/18/94)	MW-12 (11/18/94)	MW-13 (12/01/94)	NMWQCC Standard
Major ions (mg/L)						
Calcium	0.1	452	348	506	491	None
Potassium	1.0	9.6	5.6	12.6	9.3	None
Magnesium	0.1	222	201	244	184	None
Sodium	0.1	295	165	247	116	None
Total alkalinity (as $CaCO_3$)	1.0	326	804	228	273	None
Chloride	0.5	**860**	**650**	**980**	**340**	250
NO_2/NO_3 - N, total	0.06	8.4	ND	**17**	NA	10.0
Sulfate	5	**850**	12	**1,100**	**1,400**	600
Total dissolved solids	10	**2,800**	**2,500**	**3,300**	**2,900**	1,000
Metals (mg/L)						
Silver	0.010	ND	ND	ND	ND	0.05
Arsenic	0.005	ND	0.019	ND	0.006	0.1
Barium	0.01	0.043	0.580	0.049	0.048	1.0
Cadmium	0.0005	ND	ND	ND	ND	0.01
Chromium	0.010	ND	ND	ND	ND	0.05
Copper	0.010	ND	ND	0.012	ND	1.0
Iron	0.050	ND	**1.87**	**1.22**	ND	1.0
Mercury	0.0002	ND	ND	ND	ND	0.002
Manganese	0.010	**0.229**	**2.41**	**0.352**	ND	0.2
Lead	0.002	ND	ND	ND	ND	0.05
Selenium	0.005	0.009	ND	0.016	0.009	0.05
Zinc	0.050	0.092	0.057	0.082	ND	10

Notes: All analyses performed by Analytical Technologies, Inc., Albuquerque, NM
Bold values indicate concentration exceeds NMWQCC ground-water standard.
Metals samples were field filtered.

NMWQCC = New Mexico Water Quality Control Commission
ND = Not detected
NA = Not analyzed

Results for sample: SB-1

Date collected: 11/22/94	Date received: 11/23/94
Date extracted: NA	Date analyzed: 11/23/94
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: ENRON WT-1	Heal #: 9411059-2
Project Manager: Bob Marley	Sampled by:Clarence Pigman
Matrix: Aqueous	

Test: EPA 8010/8020

Analyte:	Results	Detection Limit	Units
Benzene	16	0.5	PPB (UG/L)
Bromodichloromethane	nd	0.2	PPB (UG/L)
Bromoform	nd	1.0	PPB (UG/L)
Bromomethane	nd	1.0	PPB (UG/L)
Carbon Tetrachloride	nd	0.2	PPB (UG/L)
Chlorobenzene	nd	0.2	PPB (UG/L)
Chloroethane	nd	0.2	PPB (UG/L)
Chloroform	nd	0.2	PPB (UG/L)
Chloromethane	nd	0.2	PPB (UG/L)
2-Chloroethylvinyl Ether	nd	1.0	PPB (UG/L)
Dibromochloromethane	nd	0.2	PPB (UG/L)
1,3-Dichlorobenzene	nd	0.2	PPB (UG/L)
1,2-Dichlorobenzene	nd	0.2	PPB (UG/L)
1,4-Dichlorobenzene	nd	0.2	PPB (UG/L)
Dichlorodifluoromethane	nd	0.2	PPB (UG/L)
1,1-Dichloroethane	5.8	0.2	PPB (UG/L)
1,2-Dichloroethane	nd	0.2	PPB (UG/L)
1,1-Dichloroethene	nd	0.2	PPB (UG/L)
1,2-Dichloroethene (Cis)	0.5	0.2	PPB (UG/L)
1,2-Dichloroethene (Trans)	nd	0.2	PPB (UG/L)
1,2-Dichloropropane	nd	0.2	PPB (UG/L)
cis-1,3-Dichloropropene	nd	0.2	PPB (UG/L)
trans-1,3-Dichloropropene	nd	0.2	PPB (UG/L)
Ethylbenzene	2.1	0.5	PPB (UG/L)
Dichloromethane	nd	2.0	PPB (UG/L)
1,1,2,2-Tetrachloroethane	nd	0.2	PPB (UG/L)
Tetrachloroethene (PCE)	0.3	0.2	PPB (UG/L)
Toluene	29	0.5	PPB (UG/L)
1,1,1-Trichloroethane	nd	0.2	PPB (UG/L)
1,1,2-Trichloroethane	nd	0.2	PPB (UG/L)
Trichloroethene (TCE)	1.5	0.2	PPB (UG/L)
Vinyl Chloride	nd	0.2	PPB (UG/L)
Xylenes (Total)	19	0.5	PPB (UG/L)
Trichlorofluoromethane	nd	0.2	PPB (UG/L)

BFB (Surrogate) Recovery = 91%
BCM (Surrogate) Recovery = 119 %
Dilution Factor = 1

Results for sample: SB-1

Date collected: 11/22/94	Date received: 11/23/94
Date extracted: 11/29/94	Date analyzed: 11/29,12/1/94
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: ENRON WT-1	Heal #: 9411059-2
Project Manager: Bob Marley	Sampled by:Clarence Pigman
Matrix: Aqueous	

Test: EPA 504.1

Compound	Result	Detection Limit	Units
EDB	nd	0.01	PPB (UG/L)

Dilution Factor = 1

Test: EPA 8015 Modified

Compound	Result	Detection Limit	Units
Gasoline	0.13	0.05	PPM (MG/L)

BFB (Surrogate) Recovery = 104 %

Dilution Factor = 1

Test: EPA 8015 Modified

Compound	Result	Detection Limit	Units
Diesel	nd	1.0	PPM (MG/L)

DNOP (Surrogate) Recovery = 117 %

Dilution Factor = 1

Results for sample: SB-1

Date collected: 11/22/94	Date received: 11/23/94
Date extracted: 11/23/94	Date analyzed: 12/02/94
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: ENRON WT-1	Heal #: 9411059-2
Project Manager: Bob Marley	Sampled by:Clarence Pigman
Matrix: Aqueous	

Test: EPA 8100

Compound	Result	Detection limit	Units
Naphthalene	nd	0.5	PPB (UG/L)
2-Methyl Naphthalene	nd	0.5	PPB (UG/L)
1-Methyl Naphthalene	nd	0.5	PPB (UG/L)
Acenaphthalene	nd	0.5	PPB (UG/L)
Acenaphthene	nd	0.5	PPB (UG/L)
Fluorene	0.8	0.5	PPB (UG/L)
Phenanthrene	nd	0.5	PPB (UG/L)
Anthracene	nd	0.5	PPB (UG/L)
Fluoranthrene	nd	0.5	PPB (UG/L)
Pyrene	nd	0.5	PPB (UG/L)
Benzo (a) anthracene	nd	0.5	PPB (UG/L)
Chrysene	nd	0.5	PPB (UG/L)
Benzo (b) fluoranthene	nd	0.5	PPB (UG/L)
Benzo (k) fluoranthene	nd	0.5	PPB (UG/L)
Benzo (a) pyrene	nd	0.5	PPB (UG/L)
Indeno (1,2,3-cd) pyrene	nd	1.0	PPB (UG/L)
Dibenzo (a,h) anthracene	nd	1.0	PPB (UG/L)
Benzo (g,h,i) perylene	nd	1.0	PPB (UG/L)

Hexadecane (Surrogate) Recovery = 73 %

Dilution Factor = 1

Results for sample: MW-1

Date collected: 11/15/94	Date received: 11/18/94
Date extracted: NA	Date analyzed: 11/21/94
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: ENRON WT-1	Heal #: 9411046-6
Project Manager: Bob Marley	Sampled by: RH/CP
Matrix: Aqueous	

Test: EPA 8010/8020

Analyte:	Results	Detection Limit	Units
Benzene	12	5.0	PPB (UG/L)
Bromodichloromethane	nd	2.0	PPB (UG/L)
Bromoform	nd	10	PPB (UG/L)
Bromomethane	nd	10	PPB (UG/L)
Carbon Tetrachloride	nd	2.0	PPB (UG/L)
Chlorobenzene	nd	2.0	PPB (UG/L)
Chloroethane	nd	2.0	PPB (UG/L)
Chloroform	nd	2.0	PPB (UG/L)
Chloromethane	nd	2.0	PPB (UG/L)
2-Chloroethylvinyl Ether	nd	10	PPB (UG/L)
Dibromochloromethane	nd	2.0	PPB (UG/L)
1,3-Dichlorobenzene	nd	2.0	PPB (UG/L)
1,2-Dichlorobenzene	nd	2.0	PPB (UG/L)
1,4-Dichlorobenzene	nd	2.0	PPB (UG/L)
Dichlorodifluoromethane	nd	2.0	PPB (UG/L)
1,1-Dichloroethane	690	2.0	PPB (UG/L)
1,2-Dichloroethane	6.7	2.0	PPB (UG/L)
1,1-Dichloroethene	2.2	2.0	PPB (UG/L)
1,2-Dichloroethene (Cis)	2.8	2.0	PPB (UG/L)
1,2-Dichloroethene (Trans)	nd	2.0	PPB (UG/L)
1,2-Dichloropropane	nd	2.0	PPB (UG/L)
cis-1,3-Dichloropropene	nd	2.0	PPB (UG/L)
trans-1,3-Dichloropropene	nd	2.0	PPB (UG/L)
Ethylbenzene	10	5.0	PPB (UG/L)
Dichloromethane	420	20	PPB (UG/L)
1,1,2,2-Tetrachloroethane	nd	2.0	PPB (UG/L)
Tetrachloroethene (PCE)	16	2.0	PPB (UG/L)
Toluene	100	5.0	PPB (UG/L)
1,1,1-Trichloroethane	nd	2.0	PPB (UG/L)
1,1,2-Trichloroethane	nd	2.0	PPB (UG/L)
Trichloroethene (TCE)	28	2.0	PPB (UG/L)
Vinyl Chloride	nd	2.0	PPB (UG/L)
Xylenes (Total)	110	5.0	PPB (UG/L)
Trichlorofluoromethane	nd	2.0	PPB (UG/L)

BFB (Surrogate) Recovery = 93 %
BCM (Surrogate) Recovery = 97 %
Dilution Factor = 10

Results for sample: MW-1

Date collected: 11/15/94	Date received: 11/18/94
Date extracted: 11/22/94	Date analyzed: 11/30/94
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: ENRON WT-1	Heal #: 9411046-6
Project Manager: Bob Marley	Sampled by: RH/CP
Matrix: Aqueous	

Test: EPA 8100

Compound	Result	Detection limit	Units
Naphthalene	7.0	5.0	PPB (UG/L)
2-Methyl Naphthalene	nd	5.0	PPB (UG/L)
1-Methyl Naphthalene	nd	5.0	PPB (UG/L)
Acenaphthalene	nd	5.0	PPB (UG/L)
Acenaphthene	nd	5.0	PPB (UG/L)
Fluorene	nd	5.0	PPB (UG/L)
Phenanthrene	nd	5.0	PPB (UG/L)
Anthracene	nd	5.0	PPB (UG/L)
Fluoranthrene	nd	0.5	PPB (UG/L)
Pyrene	nd	0.5	PPB (UG/L)
Benzo (a) anthracene	nd	0.5	PPB (UG/L)
Chrysene	nd	0.5	PPB (UG/L)
Benzo (b) fluoranthene	nd	0.5	PPB (UG/L)
Benzo (k) fluoranthene	nd	0.5	PPB (UG/L)
Benzo (a) pyrene	nd	0.5	PPB (UG/L)
Indeno (1,2,3-cd) pyrene	nd	1.0	PPB (UG/L)
Dibenzo (a,h) anthracene	nd	1.0	PPB (UG/L)
Benzo (g,h,i) perylene	nd	1.0	PPB (UG/L)

Hexadecane (Surrogate) Recovery = 80 %

Dilution Factor = 1

Results for sample: MW-1

Date collected: 11/15/94	Date received: 11/18/94
Date extracted: 11/22/94	Date analyzed: 11/21,22/94
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: ENRON WT-1	Heal #: 9411046-6
Project Manager: Bob Marley	Sampled by: RH/CP
Matrix: Aqueous	

Test: EPA 504.1

Compound	Result	Detection Limit	Units
EDB	nd	0.01	PPB (UG/L)

Dilution Factor = 1

Test: EPA 8015 Modified

Compound	Result	Detection Limit	Units
Gasoline	1.6	0.1	PPM (MG/L)

BFB (Surrogate) Recovery = 103 %

Dilution Factor = 2

Test: EPA 8015 Modified

Compound	Result	Detection Limit	Units
Diesel	16*	1.0	PPM (MG/L)

DNOP (Surrogate) Recovery = 120 %

Dilution Factor = 1

*C14-C26 non-characteristic diesel range hydrocarbons

Results for sample: SB-2

Date collected: 11/19/94	Date received: 11/20/94
Date extracted: NA	Date analyzed: 11/21/94
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: ENRON WT-1	HEAL #: 9411052-5
Project Manager: Bob Marley	Sampled by: Rene Hill
Matrix: Aqueous	

Test: EPA 8010/8020

Analyte:	Results	Detection Limit	Units
Benzene	24	0.5	PPB (UG/L)
Bromodichloromethane	nd	0.2	PPB (UG/L)
Bromoform	nd	1.0	PPB (UG/L)
Bromomethane	nd	1.0	PPB (UG/L)
Carbon Tetrachloride	nd	0.2	PPB (UG/L)
Chlorobenzene	nd	0.2	PPB (UG/L)
Chloroethane	2.2	0.2	PPB (UG/L)
Chloroform	nd	0.2	PPB (UG/L)
Chloromethane	nd	0.2	PPB (UG/L)
2-Chloroethylvinyl Ether	nd	1.0	PPB (UG/L)
Dibromochloromethane	nd	0.2	PPB (UG/L)
1,3-Dichlorobenzene	nd	0.2	PPB (UG/L)
1,2-Dichlorobenzene	nd	0.2	PPB (UG/L)
1,4-Dichlorobenzene	nd	0.2	PPB (UG/L)
Dichlorodifluoromethane	nd	0.2	PPB (UG/L)
1,1-Dichloroethane	21	0.2	PPB (UG/L)
1,2-Dichloroethane	nd	0.2	PPB (UG/L)
1,1-Dichloroethene	1.8	0.2	PPB (UG/L)
1,2-Dichloroethene (Cis)	0.3	0.2	PPB (UG/L)
1,2-Dichloroethene (Trans)	nd	0.2	PPB (UG/L)
1,2-Dichloropropane	nd	0.2	PPB (UG/L)
cis-1,3-Dichloropropene	nd	0.2	PPB (UG/L)
trans-1,3-Dichloropropene	nd	0.2	PPB (UG/L)
Ethylbenzene	3.2	0.5	PPB (UG/L)
Dichloromethane	nd	2.0	PPB (UG/L)
1,1,2,2-Tetrachloroethane	nd	0.2	PPB (UG/L)
Tetrachloroethene (PCE)	nd	0.2	PPB (UG/L)
Toluene	nd	0.5	PPB (UG/L)
1,1,1-Trichloroethane	nd	0.2	PPB (UG/L)
1,1,2-Trichloroethane	nd	0.2	PPB (UG/L)
Trichloroethene (TCE)	8.4	0.2	PPB (UG/L)
Vinyl Chloride	nd	0.2	PPB (UG/L)
Xylenes (Total)	0.7	0.5	PPB (UG/L)
Trichlorofluoromethane	nd	0.2	PPB (UG/L)

BFB (Surrogate) Recovery = 93 %
BCM (Surrogate) Recovery = 88 %
Dilution Factor = 1

Results for sample: SB-2

Date collected: 11/19/94	Date received: 11/20/94
Date extracted: 11/21,23/94	Date analyzed: 11/21,23,30/94
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: ENRON WT-1	HEAL #: 9411052-5
Project Manager: Bob Marley	Sampled by: Rene Hill
Matrix: Aqueous	

Test: EPA 504.1

Compound	Result	Detection Limit	Units
EDB	nd	0.01	PPB (UG/L)

Dilution Factor = 1

Test: EPA 8015 Modified

Compound	Result	Detection Limit	Units
Gasoline	0.16	0.05	PPM (MG/L)

BFB (Surrogate) Recovery = 107 %

Dilution Factor = 1

Test: EPA 8015 Modified

Compound	Result	Detection Limit	Units
Diesel	1.5*	1.0	PPM (MG/L)

DNOP (Surrogate) Recovery = 118 %

Dilution Factor = 1

* C-14-C26 Non-characteristic diesel range hydrocarbons

Results for sample: SB-2

Date collected: 11/19/94	Date received: 11/20/94
Date extracted: 11/22/94	Date analyzed: 11/30/94
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: ENRON WT-1	HEAL #: 9411052-5
Project Manager: Bob Marley	Sampled by: Rene Hill
Matrix: Aqueous	

Test: EPA 8100

Compound	Result	Detection limit	Units
Naphthalene	nd	0.5	PPB (UG/L)
2-Methyl Naphthalene	2.2	0.5	PPB (UG/L)
1-Methyl Naphthalene	1.0	0.5	PPB (UG/L)
Acenaphthalene	nd	0.5	PPB (UG/L)
Acenaphthene	nd	0.5	PPB (UG/L)
Fluorene	0.9	0.5	PPB (UG/L)
Phenanthrene	nd	0.5	PPB (UG/L)
Anthracene	nd	0.5	PPB (UG/L)
Fluoranthrene	nd	0.5	PPB (UG/L)
Pyrene	nd	0.5	PPB (UG/L)
Benzo (a) anthracene	nd	0.5	PPB (UG/L)
Chrysene	nd	0.5	PPB (UG/L)
Benzo (b) fluoranthene	nd	0.5	PPB (UG/L)
Benzo (k) fluoranthene	nd	0.5	PPB (UG/L)
Benzo (a) pyrene	nd	0.5	PPB (UG/L)
Indeno (1,2,3-cd) pyrene	nd	1.0	PPB (UG/L)
Dibenzo (a,h) anthracene	nd	1.0	PPB (UG/L)
Benzo (g,h,i) perylene	nd	1.0	PPB (UG/L)

Hexadecane (Surrogate) Recovery = 69 %

Dilution Factor = 1

Results for sample: MW-3

Date collected: 11/16/94	Date received: 11/18/94
Date extracted: 11/22/94	Date analyzed: 11/22/94
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: ENRON WT-1	Heal #: 9411046-5
Project Manager: Bob Marley	Sampled by: RH/CP
Matrix: Aqueous	

Test: EPA 8020

Compound	Result	Detection Limit	Units
Benzene	5.0	0.5	PPB (UG/L)
Toluene	nd	0.5	PPB (UG/L)
Ethylbenzene	nd	0.5	PPB (UG/L)
Total Xylenes	0.5	0.5	PPB (UG/L)

BFB (Surrogate) Recovery = 96 %

Dilution Factor = 1

Test: EPA 8015 Modified

Compound	Result	Detection Limit	Units
Gasoline	nd	0.05	PPM (MG/L)

BFB (Surrogate) Recovery = 102 %

Dilution Factor = 1

Test: EPA 8015 Modified

Compound	Result	Detection Limit	Units
Diesel	nd	1.0	PPM (MG/L)

DNOP (Surrogate) Recovery = 122 %

Dilution Factor = 1

Results for sample: MW-4

Date collected: 12/1/94	Date received: 12/2/94
Date extracted: NA	Date analyzed: 12/5/94
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: ENRON WT-1	HEAL #: 9412007-1
Project Manager: Bob Marley	Sampled by: BM/CP
Matrix: Aqueous	

Test: EPA 8010/8020

Analyte:	Results	Detection Limit	Units
Benzene	nd	0.5	PPB (UG/L)
Bromodichloromethane	0.2	0.2	PPB (UG/L)
Bromoform	nd	1.0	PPB (UG/L)
Bromomethane	nd	1.0	PPB (UG/L)
Carbon Tetrachloride	nd	0.2	PPB (UG/L)
Chlorobenzene	nd	0.2	PPB (UG/L)
Chloroethane	nd	0.2	PPB (UG/L)
Chloroform	7.6	0.2	PPB (UG/L)
Chloromethane	nd	0.2	PPB (UG/L)
2-Chloroethylvinyl Ether	nd	1.0	PPB (UG/L)
Dibromochloromethane	nd	0.2	PPB (UG/L)
1,3-Dichlorobenzene	nd	0.2	PPB (UG/L)
1,2-Dichlorobenzene	nd	0.2	PPB (UG/L)
1,4-Dichlorobenzene	nd	0.2	PPB (UG/L)
Dichlorodifluoromethane	nd	0.2	PPB (UG/L)
1,1-Dichloroethane	0.9	0.2	PPB (UG/L)
1,2-Dichloroethane	nd	0.2	PPB (UG/L)
1,1-Dichloroethene	4.7	0.2	PPB (UG/L)
1,2-Dichloroethene (Cis)	nd	0.2	PPB (UG/L)
1,2-Dichloroethene (Trans)	nd	0.2	PPB (UG/L)
1,2-Dichloropropane	nd	0.2	PPB (UG/L)
cis-1,3-Dichloropropene	nd	0.2	PPB (UG/L)
trans-1,3-Dichloropropene	nd	0.2	PPB (UG/L)
Ethylbenzene	nd	0.5	PPB (UG/L)
Dichloromethane	nd	2.0	PPB (UG/L)
1,1,2,2-Tetrachloroethane	nd	0.2	PPB (UG/L)
Tetrachloroethene (PCE)	0.5	0.2	PPB (UG/L)
Toluene	nd	0.5	PPB (UG/L)
1,1,1-Trichloroethane	nd	0.2	PPB (UG/L)
1,1,2-Trichloroethane	nd	0.2	PPB (UG/L)
Trichloroethene (TCE)	nd	0.2	PPB (UG/L)
Vinyl Chloride	nd	0.2	PPB (UG/L)
Xylenes (Total)	nd	0.5	PPB (UG/L)
Trichlorofluoromethane	nd	0.2	PPB (UG/L)

BFB (Surrogate) Recovery = 92 %
BCM (Surrogate) Recovery = 85 %
Dilution Factor = 1

Results for sample: MW-4

Date collected: 12/1/94	Date received: 12/2/94
Date extracted: 12/5,6/94	Date analyzed: 12/5,6,7/94
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: ENRON WT-1	HEAL #: 9412007-1
Project Manager: Bob Marley	Sampled by: BM/CP
Matrix: Aqueous	

Test: EPA 504.1

Compound	Result	Detection Limit	Units
EDB	nd	0.01	PPB (UG/L)

Dilution Factor = 1

Test: EPA 8015 Modified

Compound	Result	Detection Limit	Units
Gasoline	nd	0.05	PPM (MG/L)

BFB (Surrogate) Recovery = 97 %

Dilution Factor = 1

Test: EPA 8015 Modified

Compound	Result	Detection Limit	Units
Diesel	nd	1.0	PPM (MG/L)

DNOP (Surrogate) Recovery = 117 %

Dilution Factor = 1

Results for sample: MW-4

Date collected: 12/1/94	Date received: 12/2/94
Date extracted: 12/7/94	Date analyzed: 12/9/94
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: ENRON WT-1	HEAL #: 9412007-1
Project Manager: Bob Marley	Sampled by: BM/CP
Matrix: Aqueous	

Test: EPA 8100

Compound	Result	Detection limit	Units
Naphthalene	nd	0.5	PPB (UG/L)
2-Methyl Naphthalene	nd	0.5	PPB (UG/L)
1-Methyl Naphthalene	nd	0.5	PPB (UG/L)
Acenaphthalene	nd	0.5	PPB (UG/L)
Acenaphthene	nd	0.5	PPB (UG/L)
Fluorene	nd	0.5	PPB (UG/L)
Phenanthrene	nd	0.5	PPB (UG/L)
Anthracene	nd	0.5	PPB (UG/L)
Fluoranthrene	nd	0.5	PPB (UG/L)
Pyrene	nd	0.5	PPB (UG/L)
Benzo (a) anthracene	nd	0.5	PPB (UG/L)
Chrysene	nd	0.5	PPB (UG/L)
Benzo (b) fluoranthene	nd	0.5	PPB (UG/L)
Benzo (k) fluoranthene	nd	0.5	PPB (UG/L)
Benzo (a) pyrene	nd	0.5	PPB (UG/L)
Indeno (1,2,3-cd) pyrene	nd	1.0	PPB (UG/L)
Dibenzo (a,h) anthracene	nd	1.0	PPB (UG/L)
Benzo (g,h,i) perylene	nd	1.0	PPB (UG/L)

Hexadecane (Surrogate) Recovery = 80 %

Dilution Factor = 1

Results for sample: MW-5

Date collected: 12/1/94	Date received: 12/2/94
Date extracted: NA	Date analyzed: 12/6/94
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: ENRON WT-1	Heal #: 9412007-2
Project Manager: Bob Marley	Sampled by:BM/CP
Matrix: Aqueous	

Test: EPA 8010/8020

Analyte:	Results	Detection Limit	Units
Benzene	20	0.5	PPB (UG/L)
Bromodichloromethane	nd	0.2	PPB (UG/L)
Bromoform	nd	1.0	PPB (UG/L)
Bromomethane	nd	1.0	PPB (UG/L)
Carbon Tetrachloride	nd	0.2	PPB (UG/L)
Chlorobenzene	nd	0.2	PPB (UG/L)
Chloroethane	8.9	0.2	PPB (UG/L)
Chloroform	nd	0.2	PPB (UG/L)
Chloromethane	nd	0.2	PPB (UG/L)
2-Chloroethylvinyl Ether	nd	1.0	PPB (UG/L)
Dibromochloromethane	nd	0.2	PPB (UG/L)
1,3-Dichlorobenzene	nd	0.2	PPB (UG/L)
1,2-Dichlorobenzene	0.5	0.2	PPB (UG/L)
1,4-Dichlorobenzene	nd	0.2	PPB (UG/L)
Dichlorodifluoromethane	nd	0.2	PPB (UG/L)
1,1-Dichloroethane	18	0.2	PPB (UG/L)
1,2-Dichloroethane	1.1	0.2	PPB (UG/L)
1,1-Dichloroethene	nd	0.2	PPB (UG/L)
1,2-Dichloroethene (Cis)	12	0.2	PPB (UG/L)
1,2-Dichloroethene (Trans)	nd	0.2	PPB (UG/L)
1,2-Dichloropropane	nd	0.2	PPB (UG/L)
cis-1,3-Dichloropropene	nd	0.2	PPB (UG/L)
trans-1,3-Dichloropropene	nd	0.2	PPB (UG/L)
Ethylbenzene	8.3	0.5	PPB (UG/L)
Dichloromethane	43	2.0	PPB (UG/L)
1,1,2,2-Tetrachloroethane	nd	0.2	PPB (UG/L)
Tetrachloroethene (PCE)	0.8	0.2	PPB (UG/L)
Toluene	19	0.5	PPB (UG/L)
1,1,1-Trichloroethane	nd	0.2	PPB (UG/L)
1,1,2-Trichloroethane	nd	0.2	PPB (UG/L)
Trichloroethene (TCE)	3.2	0.2	PPB (UG/L)
Vinyl Chloride	nd	0.2	PPB (UG/L)
Xylenes (Total)	26	0.5	PPB (UG/L)
Trichlorofluoromethane	nd	0.2	PPB (UG/L)

BFB (Surrogate) Recovery = 100
BCM (Surrogate) Recovery = 102 %
Dilution Factor = 1

Results for sample: MW-5

Date collected: 12/1/94	Date received: 12/2/94
Date extracted: 12/5,6/94	Date analyzed: 12/5,6,7/94
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: ENRON WT-1	Heal #: 9412007-2
Project Manager: Bob Marley	Sampled by:BM/CP
Matrix: Aqueous	

Test: EPA 504.1

Compound	Result	Detection Limit	Units
EDB	nd	0.01	PPB (UG/L)

Dilution Factor = 1

Test: EPA 8015 Modified

Compound	Result	Detection Limit	Units
Gasoline	0.35	0.05	PPM (MG/L)

BFB (Surrogate) Recovery = 111 %

Dilution Factor = 1

Test: EPA 8015 Modified

Compound	Result	Detection Limit	Units
Diesel	6.9*	1.0	PPM (MG/L)

DNOP (Surrogate) Recovery = 112 %

Dilution Factor = 1

* Non-characteristic diesel range H-C

Results for sample: MW-5

Date collected: 12/1/94	Date received: 12/2/94
Date extracted: 12/7/94	Date analyzed: 12/9/94
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: ENRON WT-1	Heal #: 9412007-2
Project Manager: Bob Marley	Sampled by:BM/CP
Matrix: Aqueous	

Test: EPA 8100

Compound	Result	Detection limit	Units
Naphthalene	nd	0.5	PPB (UG/L)
2-Methyl Naphthalene	nd	0.5	PPB (UG/L)
1-Methyl Naphthalene	nd	0.5	PPB (UG/L)
Acenaphthalene	nd	0.5	PPB (UG/L)
Acenaphthene	nd	0.5	PPB (UG/L)
Fluorene	nd	0.5	PPB (UG/L)
Phenanthrene	nd	0.5	PPB (UG/L)
Anthracene	nd	0.5	PPB (UG/L)
Fluoranthrene	nd	0.5	PPB (UG/L)
Pyrene	nd	0.5	PPB (UG/L)
Benzo (a) anthracene	nd	0.5	PPB (UG/L)
Chrysene	nd	0.5	PPB (UG/L)
Benzo (b) fluoranthene	nd	0.5	PPB (UG/L)
Benzo (k) fluoranthene	nd	0.5	PPB (UG/L)
Benzo (a) pyrene	nd	0.5	PPB (UG/L)
Indeno (1,2,3-cd) pyrene	nd	1.0	PPB (UG/L)
Dibenzo (a,h) anthracene	nd	1.0	PPB (UG/L)
Benzo (g,h,i) perylene	nd	1.0	PPB (UG/L)

Hexadecane (Surrogate) Recovery = 84 %

Dilution Factor = 1

Results for sample: MW-6

Date collected: 11/30/94	Date received: 12/2/94
Date extracted: NA	Date analyzed: 12/5/94
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: ENRON WT-1	HEAL #: 9412007-3
Project Manager: Bob Marley	Sampled by: BM/CP
Matrix: Aqueous	

Test: EPA 8010/8020

Analyte:	Results	Detection Limit	Units
Benzene	1.8	0.5	PPB (UG/L)
Bromodichloromethane	nd	0.2	PPB (UG/L)
Bromoform	nd	1.0	PPB (UG/L)
Bromomethane	nd	1.0	PPB (UG/L)
Carbon Tetrachloride	nd	0.2	PPB (UG/L)
Chlorobenzene	nd	0.2	PPB (UG/L)
Chloroethane	0.5	0.2	PPB (UG/L)
Chloroform	nd	0.2	PPB (UG/L)
Chloromethane	nd	0.2	PPB (UG/L)
2-Chloroethylvinyl Ether	nd	1.0	PPB (UG/L)
Dibromochloromethane	nd	0.2	PPB (UG/L)
1,3-Dichlorobenzene	nd	0.2	PPB (UG/L)
1,2-Dichlorobenzene	0.2	0.2	PPB (UG/L)
1,4-Dichlorobenzene	nd	0.2	PPB (UG/L)
Dichlorodifluoromethane	nd	0.2	PPB (UG/L)
1,1-Dichloroethane	13	0.2	PPB (UG/L)
1,2-Dichloroethane	nd	0.2	PPB (UG/L)
1,1-Dichloroethene	2.9	0.2	PPB (UG/L)
1,2-Dichloroethene (Cis)	6.8	0.2	PPB (UG/L)
1,2-Dichloroethene (Trans)	nd	0.2	PPB (UG/L)
1,2-Dichloropropane	nd	0.2	PPB (UG/L)
cis-1,3-Dichloropropene	nd	0.2	PPB (UG/L)
trans-1,3-Dichloropropene	nd	0.2	PPB (UG/L)
Ethylbenzene	nd	0.5	PPB (UG/L)
Dichloromethane	nd	2.0	PPB (UG/L)
1,1,2,2-Tetrachloroethane	nd	0.2	PPB (UG/L)
Tetrachloroethene (PCE)	0.4	0.2	PPB (UG/L)
Toluene	nd	0.5	PPB (UG/L)
1,1,1-Trichloroethane	nd	0.2	PPB (UG/L)
1,1,2-Trichloroethane	nd	0.2	PPB (UG/L)
Trichloroethene (TCE)	15	0.2	PPB (UG/L)
Vinyl Chloride	nd	0.2	PPB (UG/L)
Xylenes (Total)	0.5	0.5	PPB (UG/L)
Trichlorofluoromethane	nd	0.2	PPB (UG/L)

BFB (Surrogate) Recovery = 96 %
BCM (Surrogate) Recovery = 103 %
Dilution Factor = 1

Results for sample: MW-6

Date collected: 11/30/94	Date received: 12/2/94
Date extracted: 12/5,6/94	Date analyzed: 12/5,6,7/94
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: ENRON WT-1	HEAL #: 9412007-3
Project Manager: Bob Marley	Sampled by: BM/CP
Matrix: Aqueous	

Test: EPA 504.1

Compound	Result	Detection Limit	Units
EDB	nd	0.01	PPB (UG/L)

Dilution Factor = 1

Test: EPA 8015 Modified

Compound	Result	Detection Limit	Units
Gasoline	nd	0.05	PPM (MG/L)

BFB (Surrogate) Recovery = 96 %

Dilution Factor = 1

Test: EPA 8015 Modified

Compound	Result	Detection Limit	Units
Diesel	nd	1.0	PPM (MG/L)

DNOP (Surrogate) Recovery = 116 %

Dilution Factor = 1

Results for sample: MW-6

Date collected: 11/30/94	Date received: 12/2/94
Date extracted: 12/7/94	Date analyzed: 12/9/94
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: ENRON WT-1	HEAL #: 9412007-3
Project Manager: Bob Marley	Sampled by: BM/CP
Matrix: Aqueous	

Test: EPA 8100

Compound	Result	Detection limit	Units
Naphthalene	nd	0.5	PPB (UG/L)
2-Methyl Naphthalene	nd	0.5	PPB (UG/L)
1-Methyl Naphthalene	nd	0.5	PPB (UG/L)
Acenaphthalene	nd	0.5	PPB (UG/L)
Acenaphthene	nd	0.5	PPB (UG/L)
Fluorene	nd	0.5	PPB (UG/L)
Phenanthrene	nd	0.5	PPB (UG/L)
Anthracene	nd	0.5	PPB (UG/L)
Fluoranthrene	nd	0.5	PPB (UG/L)
Pyrene	nd	0.5	PPB (UG/L)
Benzo (a) anthracene	nd	0.5	PPB (UG/L)
Chrysene	nd	0.5	PPB (UG/L)
Benzo (b) fluoranthene	nd	0.5	PPB (UG/L)
Benzo (k) fluoranthene	nd	0.5	PPB (UG/L)
Benzo (a) pyrene	nd	0.5	PPB (UG/L)
Indeno (1,2,3-cd) pyrene	nd	1.0	PPB (UG/L)
Dibenzo (a,h) anthracene	nd	1.0	PPB (UG/L)
Benzo (g,h,i) perylene	nd	1.0	PPB (UG/L)

Hexadecane (Surrogate) Recovery = 64 %

Dilution Factor = 1

Results for sample: MW-7

Date collected: 11/22/94	Date received: 11/23/94
Date extracted: NA	Date analyzed: 11/23/94
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: *ENRON WT-1*	*HEAL #: 9411059-3*
Project Manager: Bob Marley	Sampled by: Clarence Pigman
Matrix: Aqueous	

Test: EPA 8010/8020

Analyte:	Results	Detection Limit	Units
Benzene	7.0	0.5	PPB (UG/L)
Bromodichloromethane	nd	0.2	PPB (UG/L)
Bromoform	nd	1.0	PPB (UG/L)
Bromomethane	nd	1.0	PPB (UG/L)
Carbon Tetrachloride	nd	0.2	PPB (UG/L)
Chlorobenzene	nd	0.2	PPB (UG/L)
Chloroethane	nd	0.2	PPB (UG/L)
Chloroform	nd	0.2	PPB (UG/L)
Chloromethane	nd	0.2	PPB (UG/L)
2-Chloroethylvinyl Ether	nd	1.0	PPB (UG/L)
Dibromochloromethane	nd	0.2	PPB (UG/L)
1,3-Dichlorobenzene	nd	0.2	PPB (UG/L)
1,2-Dichlorobenzene	nd	0.2	PPB (UG/L)
1,4-Dichlorobenzene	nd	0.2	PPB (UG/L)
Dichlorodifluoromethane	nd	0.2	PPB (UG/L)
1,1-Dichloroethane	23	0.2	PPB (UG/L)
1,2-Dichloroethane	0.3	0.2	PPB (UG/L)
1,1-Dichloroethene	2.3	0.2	PPB (UG/L)
1,2-Dichloroethene (Cis)	7.3	0.2	PPB (UG/L)
1,2-Dichloroethene (Trans)	nd	0.2	PPB (UG/L)
1,2-Dichloropropane	nd	0.2	PPB (UG/L)
cis-1,3-Dichloropropene	nd	0.2	PPB (UG/L)
trans-1,3-Dichloropropene	nd	0.2	PPB (UG/L)
Ethylbenzene	nd	0.5	PPB (UG/L)
Dichloromethane	nd	2.0	PPB (UG/L)
1,1,2,2-Tetrachloroethane	nd	0.2	PPB (UG/L)
Tetrachloroethene (PCE)	0.4	0.2	PPB (UG/L)
Toluene	nd	0.5	PPB (UG/L)
1,1,1-Trichloroethane	1.6	0.2	PPB (UG/L)
1,1,2-Trichloroethane	nd	0.2	PPB (UG/L)
Trichloroethene (TCE)	14	0.2	PPB (UG/L)
Vinyl Chloride	0.3	0.2	PPB (UG/L)
Xylenes (Total)	nd	0.5	PPB (UG/L)
Trichlorofluoromethane	nd	0.2	PPB (UG/L)

BFB (Surrogate) Recovery = 90 %
BCM (Surrogate) Recovery = 97 %
Dilution Factor = 1

Results for sample: MW-7

Date collected: 11/22/94	Date received: 11/23/94
Date extracted: 11/29/94	Date analyzed: 11/29,12/01/94
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: ENRON WT-1	HEAL #: 9411059-3
Project Manager: Bob Marley	Sampled by: Clarence Pigman
Matrix: Aqueous	

Test: EPA 504.1

Compound	Result	Detection Limit	Units
EDB	nd	0.01	PPB (UG/L)

Dilution Factor = 1

Test: EPA 8015 Modified

Compound	Result	Detection Limit	Units
Gasoline	nd	0.05	PPM (MG/L)

BFB (Surrogate) Recovery = 109 %

Dilution Factor = 1

Test: EPA 8015 Modified

Compound	Result	Detection Limit	Units
Diesel	nd	1.0	PPM (MG/L)

DNOP (Surrogate) Recovery = 117 %

Dilution Factor = 1

Results for sample: MW-7

Date collected: 11/22/94	Date received: 11/23/94
Date extracted: 11/23/94	Date analyzed: 12/02/94
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: ENRON WT-1	HEAL #: 9411059-3
Project Manager: Bob Marley	Sampled by: Clarence Pigman
Matrix: Aqueous	

Test: EPA 8100

Compound	Result	Detection limit	Units
Naphthalene	nd	0.5	PPB (UG/L)
2-Methyl Naphthalene	nd	0.5	PPB (UG/L)
1-Methyl Naphthalene	nd	0.5	PPB (UG/L)
Acenaphthalene	nd	0.5	PPB (UG/L)
Acenaphthene	nd	0.5	PPB (UG/L)
Fluorene	nd	0.5	PPB (UG/L)
Phenanthrene	nd	0.5	PPB (UG/L)
Anthracene	nd	0.5	PPB (UG/L)
Fluoranthrene	nd	0.5	PPB (UG/L)
Pyrene	nd	0.5	PPB (UG/L)
Benzo (a) anthracene	nd	0.5	PPB (UG/L)
Chrysene	nd	0.5	PPB (UG/L)
Benzo (b) fluoranthene	nd	0.5	PPB (UG/L)
Benzo (k) fluoranthene	nd	0.5	PPB (UG/L)
Benzo (a) pyrene	nd	0.5	PPB (UG/L)
Indeno (1,2,3-cd) pyrene	nd	1.0	PPB (UG/L)
Dibenzo (a,h) anthracene	nd	1.0	PPB (UG/L)
Benzo (g,h,i) perylene	nd	1.0	PPB (UG/L)

Hexadecane (Surrogate) Recovery = 69 %

Dilution Factor = 1

Results for sample: MW- 8

Date collected: 11/30/94	Date received: 12/2/94
Date extracted: NA	Date analyzed: 12/5/94
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: ENRON WT-1	HEAL #: 9412007-4
Project Manager: Bob Marley	Sampled by: BM/CP
Matrix: Aqueous	

Test: EPA 8010/8020

Analyte:	Results	Detection Limit	Units
Benzene	12	0.5	PPB (UG/L)
Bromodichloromethane	nd	0.2	PPB (UG/L)
Bromoform	nd	1.0	PPB (UG/L)
Bromomethane	nd	1.0	PPB (UG/L)
Carbon Tetrachloride	nd	0.2	PPB (UG/L)
Chlorobenzene	nd	0.2	PPB (UG/L)
Chloroethane	0.5	0.2	PPB (UG/L)
Chloroform	nd	0.2	PPB (UG/L)
Chloromethane	nd	0.2	PPB (UG/L)
2-Chloroethylvinyl Ether	nd	1.0	PPB (UG/L)
Dibromochloromethane	nd	0.2	PPB (UG/L)
1,3-Dichlorobenzene	nd	0.2	PPB (UG/L)
1,2-Dichlorobenzene	0.4	0.2	PPB (UG/L)
1,4-Dichlorobenzene	nd	0.2	PPB (UG/L)
Dichlorodifluoromethane	nd	0.2	PPB (UG/L)
1,1-Dichloroethane	71	0.2	PPB (UG/L)
1,2-Dichloroethane	0.9	0.2	PPB (UG/L)
1,1-Dichloroethene	1.3	0.2	PPB (UG/L)
1,2-Dichloroethene (Cis)	18	0.2	PPB (UG/L)
1,2-Dichloroethene (Trans)	nd	0.2	PPB (UG/L)
1,2-Dichloropropane	nd	0.2	PPB (UG/L)
cis-1,3-Dichloropropene	nd	0.2	PPB (UG/L)
trans-1,3-Dichloropropene	nd	0.2	PPB (UG/L)
Ethylbenzene	nd	0.5	PPB (UG/L)
Dichloromethane	nd	2.0	PPB (UG/L)
1,1,2,2-Tetrachloroethane	nd	0.2	PPB (UG/L)
Tetrachloroethene (PCE)	nd	0.2	PPB (UG/L)
Toluene	nd	0.5	PPB (UG/L)
1,1,1-Trichloroethane	nd	0.2	PPB (UG/L)
1,1,2-Trichloroethane	nd	0.2	PPB (UG/L)
Trichloroethene (TCE)	17	0.2	PPB (UG/L)
Vinyl Chloride	0.2	0.2	PPB (UG/L)
Xylenes (Total)	nd	0.5	PPB (UG/L)
Trichlorofluoromethane	nd	0.2	PPB (UG/L)

BFB (Surrogate) Recovery = 94 %
BCM (Surrogate) Recovery = 108 %
Dilution Factor = 1

Results for sample: MW-8

Date collected: 11/30/94	Date received: 12/2/94
Date extracted: 12/5,6/94	Date analyzed: 12/5,6,7/94
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: ENRON WT-1	HEAL #: 9412007-4
Project Manager: Bob Marley	Sampled by: BM/CP
Matrix: Aqueous	

Test: EPA 504.1

Compound	Result	Detection Limit	Units
EDB	nd	0.01	PPB (UG/L)

Dilution Factor = 1

Test: EPA 8015 Modified

Compound	Result	Detection Limit	Units
Gasoline	nd	0.05	PPM (MG/L)

BFB (Surrogate) Recovery = 103 %

Dilution Factor = 1

Test: EPA 8015 Modified

Compound	Result	Detection Limit	Units
Diesel	nd	1.0	PPM (MG/L)

DNOP (Surrogate) Recovery = 114 %

Dilution Factor = 1

Results for sample: MW-8

Date collected: 11/30/94	Date received: 12/2/94
Date extracted: 12/7/94	Date analyzed: 12/9/94
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: ENRON WT-1	HEAL #: 9412007-4
Project Manager: Bob Marley	Sampled by: BM/CP
Matrix: Aqueous	

Test: EPA 8100

Compound	Result	Detection limit	Units
Naphthalene	nd	0.5	PPB (UG/L)
2-Methyl Naphthalene	nd	0.5	PPB (UG/L)
1-Methyl Naphthalene	nd	0.5	PPB (UG/L)
Acenaphthalene	nd	0.5	PPB (UG/L)
Acenaphthene	nd	0.5	PPB (UG/L)
Fluorene	nd	0.5	PPB (UG/L)
Phenanthrene	nd	0.5	PPB (UG/L)
Anthracene	nd	0.5	PPB (UG/L)
Fluoranthrene	nd	0.5	PPB (UG/L)
Pyrene	nd	0.5	PPB (UG/L)
Benzo (a) anthracene	nd	0.5	PPB (UG/L)
Chrysene	nd	0.5	PPB (UG/L)
Benzo (b) fluoranthene	nd	0.5	PPB (UG/L)
Benzo (k) fluoranthene	nd	0.5	PPB (UG/L)
Benzo (a) pyrene	nd	0.5	PPB (UG/L)
Indeno (1,2,3-cd) pyrene	nd	1.0	PPB (UG/L)
Dibenzo (a,h) anthracene	nd	1.0	PPB (UG/L)
Benzo (g,h,i) perylene	nd	1.0	PPB (UG/L)

Hexadecane (Surrogate) Recovery = 79 %

Dilution Factor = 1

Results for sample: MW-9

Date collected: 11/21/94	Date received: 11/23/94
Date extracted: NA	Date analyzed: 11/23/94
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: ENRON WT-1	HEAL #: 9411059-1
Project Manager: Bob Marley	Sampled by: Clarence Pigman
Matrix: Aqueous	

Test: EPA 8010/8020

Analyte:	Results	Detection Limit	Units
Benzene	12	0.5	PPB (UG/L)
Bromodichloromethane	1.4	0.2	PPB (UG/L)
Bromoform	nd	1.0	PPB (UG/L)
Bromomethane	nd	1.0	PPB (UG/L)
Carbon Tetrachloride	nd	0.2	PPB (UG/L)
Chlorobenzene	nd	0.2	PPB (UG/L)
Chloroethane	nd	0.2	PPB (UG/L)
Chloroform	27	0.2	PPB (UG/L)
Chloromethane	nd	0.2	PPB (UG/L)
2-Chloroethylvinyl Ether	nd	1.0	PPB (UG/L)
Dibromochloromethane	nd	0.2	PPB (UG/L)
1,3-Dichlorobenzene	nd	0.2	PPB (UG/L)
1,2-Dichlorobenzene	nd	0.2	PPB (UG/L)
1,4-Dichlorobenzene	nd	0.2	PPB (UG/L)
Dichlorodifluoromethane	nd	0.2	PPB (UG/L)
1,1-Dichloroethane	nd	0.2	PPB (UG/L)
1,2-Dichloroethane	nd	0.2	PPB (UG/L)
1,1-Dichloroethene	nd	0.2	PPB (UG/L)
1,2-Dichloroethene (Cis)	nd	0.2	PPB (UG/L)
1,2-Dichloroethene (Trans)	nd	0.2	PPB (UG/L)
1,2-Dichloropropane	nd	0.2	PPB (UG/L)
cis-1,3-Dichloropropene	nd	0.2	PPB (UG/L)
trans-1,3-Dichloropropene	nd	0.2	PPB (UG/L)
Ethylbenzene	nd	0.5	PPB (UG/L)
Dichloromethane	nd	2.0	PPB (UG/L)
1,1,2,2-Tetrachloroethane	nd	0.2	PPB (UG/L)
Tetrachloroethene (PCE)	nd	0.2	PPB (UG/L)
Toluene	nd	0.5	PPB (UG/L)
1,1,1-Trichloroethane	nd	0.2	PPB (UG/L)
1,1,2-Trichloroethane	nd	0.2	PPB (UG/L)
Trichloroethene (TCE)	nd	0.2	PPB (UG/L)
Vinyl Chloride	nd	0.2	PPB (UG/L)
Xylenes (Total)	nd	0.5	PPB (UG/L)
Trichlorofluoromethane	nd	0.2	PPB (UG/L)

BFB (Surrogate) Recovery = 93 %
BCM (Surrogate) Recovery = 90 %
Dilution Factor = 1

Results for sample: MW-9

Date collected: 11/21/94	Date received: 11/23/94
Date extracted: 11/29/94	Date analyzed: 11/29,12/01/94
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: ENRON WT-1	HEAL #: 9411059-1
Project Manager: Bob Marley	Sampled by: Clarence Pigman
Matrix: Aqueous	

Test: EPA 504.1

Compound	Result	Detection Limit	Units
EDB	nd	0.01	PPB (UG/L)

Dilution Factor = 1

Test: EPA 8015 Modified

Compound	Result	Detection Limit	Units
Gasoline	nd	0.05	PPM (MG/L)

BFB (Surrogate) Recovery = 101 %

Dilution Factor = 1

Test: EPA 8015 Modified

Compound	Result	Detection Limit	Units
Diesel	nd	1.0	PPM (MG/L)

DNOP (Surrogate) Recovery = 111 %

Dilution Factor = 1

Results for sample: MW-9

Date collected: 11/21/94	Date received: 11/23/94
Date extracted: 11/23/94	Date analyzed: 12/02/94
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: ENRON WT-1	HEAL #: 9411059-1
Project Manager: Bob Marley	Sampled by: Clarence Pigman
Matrix: Aqueous	

Test: EPA 8100

Compound	Result	Detection limit	Units
Naphthalene	nd	0.5	PPB (UG/L)
2-Methyl Naphthalene	nd	0.5	PPB (UG/L)
1-Methyl Naphthalene	0.7	0.5	PPB (UG/L)
Acenaphthalene	nd	0.5	PPB (UG/L)
Acenaphthene	nd	0.5	PPB (UG/L)
Fluorene	nd	0.5	PPB (UG/L)
Phenanthrene	nd	0.5	PPB (UG/L)
Anthracene	nd	0.5	PPB (UG/L)
Fluoranthrene	nd	0.5	PPB (UG/L)
Pyrene	nd	0.5	PPB (UG/L)
Benzo (a) anthracene	nd	0.5	PPB (UG/L)
Chrysene	nd	0.5	PPB (UG/L)
Benzo (b) fluoranthene	nd	0.5	PPB (UG/L)
Benzo (k) fluoranthene	nd	0.5	PPB (UG/L)
Benzo (a) pyrene	nd	0.5	PPB (UG/L)
Indeno (1,2,3-cd) pyrene	nd	1.0	PPB (UG/L)
Dibenzo (a,h) anthracene	nd	1.0	PPB (UG/L)
Benzo (g,h,i) perylene	nd	1.0	PPB (UG/L)

Hexadecane (Surrogate) Recovery = 83 %

Dilution Factor = 1

Results for sample: MW-10

Date collected: 11/18/94	Date received: 11/20/94
Date extracted: NA	Date analyzed: 11/21/94
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: ENRON WT-1	HEAL #: 9411052-1
Project Manager: Bob Marley	Sampled by: Rene Hill
Matrix: Aqueous	

Test: EPA 8010/8020

Analyte:	Results	Detection Limit	Units
Benzene	9,000	13	PPB (UG/L)
Bromodichloromethane	nd	5.0	PPB (UG/L)
Bromoform	nd	25	PPB (UG/L)
Bromomethane	nd	25	PPB (UG/L)
Carbon Tetrachloride	nd	5.0	PPB (UG/L)
Chlorobenzene	nd	5.0	PPB (UG/L)
Chloroethane	nd	5.0	PPB (UG/L)
Chloroform	nd	5.0	PPB (UG/L)
Chloromethane	nd	5.0	PPB (UG/L)
2-Chloroethylvinyl Ether	nd	25	PPB (UG/L)
Dibromochloromethane	nd	5.0	PPB (UG/L)
1,3-Dichlorobenzene	nd	5.0	PPB (UG/L)
1,2-Dichlorobenzene	nd	5.0	PPB (UG/L)
1,4-Dichlorobenzene	nd	5.0	PPB (UG/L)
Dichlorodifluoromethane	nd	5.0	PPB (UG/L)
1,1-Dichloroethane	nd	5.0	PPB (UG/L)
1,2-Dichloroethane	nd	5.0	PPB (UG/L)
1,1-Dichloroethene	nd	5.0	PPB (UG/L)
1,2-Dichloroethene (Cis)	nd	5.0	PPB (UG/L)
1,2-Dichloroethene (Trans)	nd	5.0	PPB (UG/L)
1,2-Dichloropropane	nd	5.0	PPB (UG/L)
cis-1,3-Dichloropropene	nd	5.0	PPB (UG/L)
trans-1,3-Dichloropropene	nd	5.0	PPB (UG/L)
Ethylbenzene	620	13	PPB (UG/L)
Dichloromethane	nd	50	PPB (UG/L)
1,1,2,2-Tetrachloroethane	nd	5.0	PPB (UG/L)
Tetrachloroethene (PCE)	nd	5.0	PPB (UG/L)
Toluene	16,000	13	PPB (UG/L)
1,1,1-Trichloroethane	nd	0.2	PPB (UG/L)
1,1,2-Trichloroethane	nd	5.0	PPB (UG/L)
Trichloroethene (TCE)	nd	5.0	PPB (UG/L)
Vinyl Chloride	nd	5.0	PPB (UG/L)
Xylenes (Total)	8,500	13	PPB (UG/L)
Trichlorofluoromethane	nd	5.0	PPB (UG/L)

BFB (Surrogate) Recovery = 103 %
BCM (Surrogate) Recovery = 85 %
Dilution Factor = 25

Results for sample: MW-10

Results for sample: MW-10

Date collected: 11/18/94	Date received: 11/20/94
Date extracted: 11/21,23/94	Date analyzed: 11/21,23,30/94
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: ENRON WT-1	HEAL #: 9411052-1
Project Manager: Bob Marley	Sampled by: Rene Hill
Matrix: Aqueous	

Test: EPA 504.1

Compound	Result	Detection Limit	Units
EDB	nd	0.01	PPB (UG/L)

Dilution Factor = 1

Test: EPA 8015 Modified

Compound	Result	Detection Limit	Units
Gasoline	69	2.5	PPM (MG/L)

BFB (Surrogate) Recovery = 120 %

Dilution Factor = 50

Test: EPA 8015 Modified

Compound	Result	Detection Limit	Units
Diesel	10	5.0	PPM (MG/L)

DNOP (Surrogate) Recovery = 104 %

Dilution Factor = 1

Results for sample: MW-10

Date collected: 11/18/94	Date received: 11/20/94
Date extracted: 11/22/94	Date analyzed: 11/30/94
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: ENRON WT-1	HEAL #: 9411052-1
Project Manager: Bob Marley	Sampled by: Rene Hill
Matrix: Aqueous	

Test: EPA 8100

Compound	Result	Detection limit	Units
Naphthalene	850	10	PPB (UG/L)
2-Methyl Naphthalene	220	10	PPB (UG/L)
1-Methyl Naphthalene	200	10	PPB (UG/L)
Acenaphthalene	nd	10	PPB (UG/L)
Acenaphthene	14	10	PPB (UG/L)
Fluorene	nd	10	PPB (UG/L)
Phenanthrene	nd	10	PPB (UG/L)
Anthracene	nd	10	PPB (UG/L)
Fluoranthrene	nd	0.5	PPB (UG/L)
Pyrene	nd	0.5	PPB (UG/L)
Benzo (a) anthracene	nd	0.5	PPB (UG/L)
Chrysene	nd	0.5	PPB (UG/L)
Benzo (b) fluoranthene	nd	0.5	PPB (UG/L)
Benzo (k) fluoranthene	nd	0.5	PPB (UG/L)
Benzo (a) pyrene	nd	0.5	PPB (UG/L)
Indeno (1,2,3-cd) pyrene	nd	1.0	PPB (UG/L)
Dibenzo (a,h) anthracene	nd	1.0	PPB (UG/L)
Benzo (g,h,i) perylene	nd	1.0	PPB (UG/L)

Hexadecane (Surrogate) Recovery = 105 %

Dilution Factor = 1

Results for sample: MW-12

Date collected: 11/17/94	Date received: 11/18/94
Date extracted: NA	Date analyzed: 11/18/94
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: ENRON WT-1	HEAL #: 9411046-4
Project Manager: Bob Marley	Sampled by: RH/CP
Matrix: Aqueous	

Test: EPA 8010/8020

Analyte:	Results	Detection Limit	Units
Benzene	nd	0.5	PPB (UG/L)
Bromodichloromethane	3.5	0.2	PPB (UG/L)
Bromoform	nd	1.0	PPB (UG/L)
Bromomethane	nd	1.0	PPB (UG/L)
Carbon Tetrachloride	nd	0.2	PPB (UG/L)
Chlorobenzene	nd	0.2	PPB (UG/L)
Chloroethane	nd	0.2	PPB (UG/L)
Chloroform	26	0.2	PPB (UG/L)
Chloromethane	nd	0.2	PPB (UG/L)
2-Chloroethylvinyl Ether	nd	1.0	PPB (UG/L)
Dibromochloromethane	nd	0.2	PPB (UG/L)
1,3-Dichlorobenzene	nd	0.2	PPB (UG/L)
1,2-Dichlorobenzene	nd	0.2	PPB (UG/L)
1,4-Dichlorobenzene	nd	0.2	PPB (UG/L)
Dichlorodifluoromethane	nd	0.2	PPB (UG/L)
1,1-Dichloroethane	nd	0.2	PPB (UG/L)
1,2-Dichloroethane	nd	0.2	PPB (UG/L)
1,1-Dichloroethene	nd	0.2	PPB (UG/L)
1,2-Dichloroethene (Cis)	nd	0.2	PPB (UG/L)
1,2-Dichloroethene (Trans)	nd	0.2	PPB (UG/L)
1,2-Dichloropropane	nd	0.2	PPB (UG/L)
cis-1,3-Dichloropropene	nd	0.2	PPB (UG/L)
trans-1,3-Dichloropropene	nd	0.2	PPB (UG/L)
Ethylbenzene	nd	0.5	PPB (UG/L)
Dichloromethane	nd	2.0	PPB (UG/L)
1,1,2,2-Tetrachloroethane	nd	0.2	PPB (UG/L)
Tetrachloroethene (PCE)	nd	0.2	PPB (UG/L)
Toluene	1.9	0.5	PPB (UG/L)
1,1,1-Trichloroethane	nd	0.2	PPB (UG/L)
1,1,2-Trichloroethane	nd	0.2	PPB (UG/L)
Trichloroethene (TCE)	nd	0.2	PPB (UG/L)
Vinyl Chloride	nd	0.2	PPB (UG/L)
Xylenes (Total)	3.1	0.5	PPB (UG/L)
Trichlorofluoromethane	nd	0.2	PPB (UG/L)

BFB (Surrogate) Recovery = 92 %
BCM (Surrogate) Recovery = 113 %
Dilution Factor = 1

Results for sample: MW-12

Date collected: 11/17/94	Date received: 11/18/94
Date extracted: 11/22/94	Date analyzed: 11/18,22/94
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: ENRON WT-1	HEAL #: 9411046-4
Project Manager: Bob Marley	Sampled by: RH/CP
Matrix: Aqueous	

Test: EPA 504.1

Compound	Result	Detection Limit	Units
EDB	nd	0.01	PPB (UG/L)

Dilution Factor = 1

Test: EPA 8015 Modified

Compound	Result	Detection Limit	Units
Gasoline	nd	0.05	PPM (MG/L)

BFB (Surrogate) Recovery = 100 %

Dilution Factor = 1

Test: EPA 8015 Modified

Compound	Result	Detection Limit	Units
Diesel	nd	1.0	PPM (MG/L)

DNOP (Surrogate) Recovery = 123 %

Dilution Factor = 1

Results for sample: MW-12

Date collected: 11/18/94	Date received: 11/20/94
Date extracted: 11/22/94	Date analyzed: 11/30/94
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: ENRON WT-1	Heal #: 9411052-2
Project Manager: Bob Marley	Sampled by: Rene Hill
Matrix: Aqueous	

Test: EPA 8100

Compound	Result	Detection limit	Units
Naphthalene	nd	0.5	PPB (UG/L)
2-Methyl Naphthalene	nd	0.5	PPB (UG/L)
1-Methyl Naphthalene	nd	0.5	PPB (UG/L)
Acenaphthalene	nd	0.5	PPB (UG/L)
Acenaphthene	nd	0.5	PPB (UG/L)
Fluorene	nd	0.5	PPB (UG/L)
Phenanthrene	nd	0.5	PPB (UG/L)
Anthracene	nd	0.5	PPB (UG/L)
Fluoranthrene	nd	0.5	PPB (UG/L)
Pyrene	nd	0.5	PPB (UG/L)
Benzo (a) anthracene	nd	0.5	PPB (UG/L)
Chrysene	nd	0.5	PPB (UG/L)
Benzo (b) fluoranthene	nd	0.5	PPB (UG/L)
Benzo (k) fluoranthene	nd	0.5	PPB (UG/L)
Benzo (a) pyrene	nd	0.5	PPB (UG/L)
Indeno (1,2,3-cd) pyrene	nd	1.0	PPB (UG/L)
Dibenzo (a,h) anthracene	nd	1.0	PPB (UG/L)
Benzo (g,h,i) perylene	nd	1.0	PPB (UG/L)

Hexadecane (Surrogate) Recovery = 83 %

Dilution Factor = 1

Results for sample: MW-13

Date collected: 12/1/94	Date received: 12/2/94
Date extracted: NA	Date analyzed: 12/5/94
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: ENRON WT-1	HEAL #: 9412007-5
Project Manager: Bob Marley	Sampled by: BM/CP
Matrix: Aqueous	

Test: EPA 8010/8020

Analyte:	Results	Detection Limit	Units
Benzene	nd	0.5	PPB (UG/L)
Bromodichloromethane	nd	0.2	PPB (UG/L)
Bromoform	nd	1.0	PPB (UG/L)
Bromomethane	nd	1.0	PPB (UG/L)
Carbon Tetrachloride	nd	0.2	PPB (UG/L)
Chlorobenzene	nd	0.2	PPB (UG/L)
Chloroethane	nd	0.2	PPB (UG/L)
Chloroform	nd	0.2	PPB (UG/L)
Chloromethane	nd	0.2	PPB (UG/L)
2-Chloroethylvinyl Ether	nd	1.0	PPB (UG/L)
Dibromochloromethane	nd	0.2	PPB (UG/L)
1,3-Dichlorobenzene	nd	0.2	PPB (UG/L)
1,2-Dichlorobenzene	nd	0.2	PPB (UG/L)
1,4-Dichlorobenzene	nd	0.2	PPB (UG/L)
Dichlorodifluoromethane	nd	0.2	PPB (UG/L)
1,1-Dichloroethane	nd	0.2	PPB (UG/L)
1,2-Dichloroethane	nd	0.2	PPB (UG/L)
1,1-Dichloroethene	nd	0.2	PPB (UG/L)
1,2-Dichloroethene (Cis)	nd	0.2	PPB (UG/L)
1,2-Dichloroethene (Trans)	nd	0.2	PPB (UG/L)
1,2-Dichloropropane	nd	0.2	PPB (UG/L)
cis-1,3-Dichloropropene	nd	0.2	PPB (UG/L)
trans-1,3-Dichloropropene	nd	0.2	PPB (UG/L)
Ethylbenzene	nd	0.5	PPB (UG/L)
Dichloromethane	nd	2.0	PPB (UG/L)
1,1,2,2-Tetrachloroethane	nd	0.2	PPB (UG/L)
Tetrachloroethene (PCE)	nd	0.2	PPB (UG/L)
Toluene	nd	0.5	PPB (UG/L)
1,1,1-Trichloroethane	nd	0.2	PPB (UG/L)
1,1,2-Trichloroethane	nd	0.2	PPB (UG/L)
Trichloroethene (TCE)	nd	0.2	PPB (UG/L)
Vinyl Chloride	nd	0.2	PPB (UG/L)
Xylenes (Total)	nd	0.5	PPB (UG/L)
Trichlorofluoromethane	nd	0.2	PPB (UG/L)

BFB (Surrogate) Recovery = 95 %
BCM (Surrogate) Recovery = 94 %
Dilution Factor = 1

Results for sample: MW-13

Date collected: 12/1/94	Date received: 12/2/94
Date extracted: 12/5,6/94	Date analyzed: 12/5,6,7/94
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: ENRON WT-1	HEAL #: 9412007-5
Project Manager: Bob Marley	Sampled by: BM/CP
Matrix: Aqueous	

Test: EPA 504.1

Compound	Result	Detection Limit	Units
EDB	nd	0.01	PPB (UG/L)

Dilution Factor = 1

Test: EPA 8015 Modified

Compound	Result	Detection Limit	Units
Gasoline	nd	0.05	PPM (MG/L)

BFB (Surrogate) Recovery = 99 %

Dilution Factor = 1

Test: EPA 8015 Modified

Compound	Result	Detection Limit	Units
Diesel	nd	1.0	PPM (MG/L)

DNOP (Surrogate) Recovery = 117 %

Dilution Factor = 1

Results for sample: MW-13

Date collected: 11/30/94	Date received: 12/2/94
Date extracted: 12/7/94	Date analyzed: 12/9/94
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: ENRON WT-1	HEAL #: 9412007-5
Project Manager: Bob Marley	Sampled by: BM/CP
Matrix: Aqueous	

Test: EPA 8100

Compound	Result	Detection limit	Units
Naphthalene	nd	0.5	PPB (UG/L)
2-Methyl Naphthalene	nd	0.5	PPB (UG/L)
1-Methyl Naphthalene	nd	0.5	PPB (UG/L)
Acenaphthalene	nd	0.5	PPB (UG/L)
Acenaphthene	nd	0.5	PPB (UG/L)
Fluorene	nd	0.5	PPB (UG/L)
Phenanthrene	nd	0.5	PPB (UG/L)
Anthracene	nd	0.5	PPB (UG/L)
Fluoranthrene	nd	0.5	PPB (UG/L)
Pyrene	nd	0.5	PPB (UG/L)
Benzo (a) anthracene	nd	0.5	PPB (UG/L)
Chrysene	nd	0.5	PPB (UG/L)
Benzo (b) fluoranthene	nd	0.5	PPB (UG/L)
Benzo (k) fluoranthene	nd	0.5	PPB (UG/L)
Benzo (a) pyrene	nd	0.5	PPB (UG/L)
Indeno (1,2,3-cd) pyrene	nd	1.0	PPB (UG/L)
Dibenzo (a,h) anthracene	nd	1.0	PPB (UG/L)
Benzo (g,h,i) perylene	nd	1.0	PPB (UG/L)

Hexadecane (Surrogate) Recovery = 86 %

Dilution Factor = 1

Results for sample: SVE-1-MW 4

Date collected: 11/19/94	Date received: 11/20/94
Date extracted: NA	Date analyzed: 11/21/94
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: ENRON WT-1	HEAL #: 9411052-4
Project Manager: Bob Marley	Sampled by: Rene Hill
Matrix: Aqueous	

Test: EPA 8010/8020

Analyte:	Results	Detection Limit	Units
Benzene	12	0.5	PPB (UG/L)
Bromodichloromethane	nd	0.2	PPB (UG/L)
Bromoform	nd	1.0	PPB (UG/L)
Bromomethane	nd	1.0	PPB (UG/L)
Carbon Tetrachloride	nd	0.2	PPB (UG/L)
Chlorobenzene	nd	0.2	PPB (UG/L)
Chloroethane	35	0.2	PPB (UG/L)
Chloroform	nd	0.2	PPB (UG/L)
Chloromethane	nd	0.2	PPB (UG/L)
2-Chloroethylvinyl Ether	nd	1.0	PPB (UG/L)
Dibromochloromethane	nd	0.2	PPB (UG/L)
1,3-Dichlorobenzene	nd	0.2	PPB (UG/L)
1,2-Dichlorobenzene	nd	0.2	PPB (UG/L)
1,4-Dichlorobenzene	nd	0.2	PPB (UG/L)
Dichlorodifluoromethane	nd	0.2	PPB (UG/L)
1,1-Dichloroethane	120	0.2	PPB (UG/L)
1,2-Dichloroethane	5.3	0.2	PPB (UG/L)
1,1-Dichloroethene	1.0	0.2	PPB (UG/L)
1,2-Dichloroethene (Cis)	20	0.2	PPB (UG/L)
1,2-Dichloroethene (Trans)	nd	0.2	PPB (UG/L)
1,2-Dichloropropane	nd	0.2	PPB (UG/L)
cis-1,3-Dichloropropene	nd	0.2	PPB (UG/L)
trans-1,3-Dichloropropene	nd	0.2	PPB (UG/L)
Ethylbenzene	4.6	0.5	PPB (UG/L)
Dichloromethane	900	2.0	PPB (UG/L)
1,1,2,2-Tetrachloroethane	nd	0.2	PPB (UG/L)
Tetrachloroethene (PCE)	4.6	0.2	PPB (UG/L)
Toluene	18	0.5	PPB (UG/L)
1,1,1-Trichloroethane	6.8	0.2	PPB (UG/L)
1,1,2-Trichloroethane	nd	0.2	PPB (UG/L)
Trichloroethene (TCE)	16	0.2	PPB (UG/L)
Vinyl Chloride	1.2	0.2	PPB (UG/L)
Xylenes (Total)	15	0.5	PPB (UG/L)
Trichlorofluoromethane	nd	0.2	PPB (UG/L)

BFB (Surrogate) Recovery = 96 %
BCM (Surrogate) Recovery = 111 %
Dilution Factor = 1

Results for sample: SVE-1-MW A

Date collected: 11/19/94	Date received: 11/20/94
Date extracted: 11/21,23/94	Date analyzed: 11/21,23,12/2/94
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: ENRON WT-1	HEAL #: 9411052-4
Project Manager: Bob Marley	Sampled by: Rene Hill
Matrix: Aqueous	

Test: EPA 504.1

Compound	Result	Detection Limit	Units
EDB	nd	0.01	PPB (UG/L)

Dilution Factor = 1

Test: EPA 8015 Modified

Compound	Result	Detection Limit	Units
Gasoline	0.98	0.05	PPM (MG/L)

BFB (Surrogate) Recovery = 104 %

Dilution Factor = 1

Test: EPA 8015 Modified

Compound	Result	Detection Limit	Units
Diesel	3.5 *	<1.0	PPM (MG/L)

DNOP (Surrogate) Recovery = 124 %

Dilution Factor = 1

*C14-C26 non-characteristic diesel range H-C

Results for sample: SVE-1-MW

Date collected: 11/19/94	Date received: 11/20/94
Date extracted: 11/22/94	Date analyzed: 11/30/94
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: ENRON WT-1	HEAL #: 9411052-4
Project Manager: Bob Marley	Sampled by: Rene Hill
Matrix: Aqueous	

Test: EPA 8100

Compound	Result	Detection limit	Units
Naphthalene	nd	0.5	PPB (UG/L)
2-Methyl Naphthalene	nd	0.5	PPB (UG/L)
1-Methyl Naphthalene	nd	0.5	PPB (UG/L)
Acenaphthalene	nd	0.5	PPB (UG/L)
Acenaphthene	nd	0.5	PPB (UG/L)
Fluorene	nd	0.5	PPB (UG/L)
Phenanthrene	nd	0.5	PPB (UG/L)
Anthracene	nd	0.5	PPB (UG/L)
Fluoranthrene	nd	0.5	PPB (UG/L)
Pyrene	nd	0.5	PPB (UG/L)
Benzo (a) anthracene	nd	0.5	PPB (UG/L)
Chrysene	nd	0.5	PPB (UG/L)
Benzo (b) fluoranthene	nd	0.5	PPB (UG/L)
Benzo (k) fluoranthene	nd	0.5	PPB (UG/L)
Benzo (a) pyrene	nd	0.5	PPB (UG/L)
Indeno (1,2,3-cd) pyrene	nd	1.0	PPB (UG/L)
Dibenzo (a,h) anthracene	nd	1.0	PPB (UG/L)
Benzo (g,h,i) perylene	nd	1.0	PPB (UG/L)

Hexadecane (Surrogate) Recovery = 59 %

Dilution Factor = 1

Analytical Technologies, Inc.

TCLP VOLATILE ORGANICS

Method 8240

Sample ID

DEHY

Lab Name: Analytical Technologies, Inc.
Client Name: ATI-NM
Client Project ID: SDM -- 412312
Lab Sample ID: 94-12-049-02

Date Collected: 11/30/94
Date Extracted: 12/08/94
Date Analyzed: 12/15/94

Sample Matrix: TCLP Leachate
Sample Volume: 0.5 mL

EPA HW Number	Analyte	CAS Number	Result (mg/L)	Detection Limit (mg/L)
D043	Vinyl chloride	75-01-4	ND	0.1
D029	1,1-Dichloroethylene	75-35-4	ND	0.1
D022	Chloroform	67-66-3	ND	0.1
D028	1,2-Dichloroethane	107-06-2	ND	0.1
D035	Methyl ethyl ketone	78-93-3	ND	0.1
D019	Carbon tetrachloride	56-23-5	ND	0.1
D040	Trichloroethylene	79-01-6	ND	0.1
D018	Benzene	71-43-2	ND	0.1
D039	Tetrachloroethylene	127-18-4	ND	0.1
D021	Chlorobenzene	108-90-7	ND	0.1

SURROGATE RECOVERIES

Analyte	% Recovery	% Rec Limits
1,2-Dichloroethane-d4	107	76 - 114
Toluene-d8	100	88 - 110
Bromofluorobenzene	102	86 - 115

ND = Not Detected

Analytical Technologies, Inc.

GENERAL CHEMISTRY RESULTS

ATI I.D. : 411373

CLIENT : D.B. STEPHENS & ASSOCIATES
PROJECT # : 4230
PROJECT NAME : ENRON WT-1 (MW-1)

DATE RECEIVED : 11/18/94
REPORT DATE : 12/12/94

PARAMETER	UNITS	04
CARBONATE (CACO3)	MG/L	<1
BICARBONATE (CACO3)	MG/L	1610
HYDROXIDE (CACO3)	MG/L	<1
TOTAL ALKALINITY (AS CACO3)	MG/L	1610
CHLORIDE (EPA 325.2)	MG/L	190
NO2/NO3-N, TOTAL (353.2)	MG/L	<0.06
SULFATE (EPA 375.2)	MG/L	<5
T. DISSOLVED SOLIDS (160.1)	MG/L	2900

Analytical Technologies, Inc.

METALS RESULTS

ATI I.D. : 411373

CLIENT : D.B. STEPHENS & ASSOCIATES
PROJECT # : 4230
PROJECT NAME : ENRON WT-1 (MW-1)

DATE RECEIVED : 11/18/94
REPORT DATE : 12/12/94

PARAMETER	UNITS	04
SILVER (EPA 200.7/6010)	MG/L	<0.010
ARSENIC (EPA 206.2/7060)	MG/L	0.110
BARIUM (EPA 200.7/6010)	MG/L	24.0
CALCIUM (EPA 200.7/6010)	MG/L	485
CADMIUM (EPA 213.2/7131)	MG/L	<0.0005
CHROMIUM (EPA 200.7/6010)	MG/L	<0.010
COPPER (EPA 200.7/6010)	MG/L	<0.010
IRON (EPA 200.7/6010)	MG/L	0.325
MERCURY (EPA 245.1/7470)	MG/L	<0.0002
POTASSIUM (EPA 200.7/6010)	MG/L	59.1
MAGNESIUM (EPA 200.7/6010)	MG/L	175
MANGANESE (EPA 200.7/6010)	MG/L	0.100
SODIUM (EPA 200.7/6010)	MG/L	216
LEAD (EPA 239.2/7421)	MG/L	<0.002
SELENIUM (EPA 270.2/7740)	MG/L	<0.005
ZINC (EPA 200.7/6010)	MG/L	<0.050

Analytical Technologies, Inc.

GENERAL CHEMISTRY RESULTS

ATI I.D. : 411383

CLIENT : D.B. STEPHENS & ASSOCIATES
PROJECT # : 4230
PROJECT NAME : ENRON WT-1

DATE RECEIVED : 11/21/94
REPORT DATE : 12/13/94

PARAMETER	UNITS	01 (MW-10)	02 (MW-12)	03	04 (SVE-1A)	05 (SB3-2)
CARBONATE (CACO3)	MG/L	<1	<1	<1	<1	<1
BICARBONATE (CACO3)	MG/L	804	228	1910	1940	460
HYDROXIDE (CACO3)	MG/L	<1	<1	<1	<1	<1
TOTAL ALKALINITY (AS CACO3)	MG/L	804	228	1910	1940	460
CHLORIDE (EPA 325.2)	MG/L	650	980	270	290	610
NO2/NO3-N, TOTAL (353.2)	MG/L	<0.06	17	0.08	0.07	0.12
SULFATE (EPA 375.2)	MG/L	12	1100	5	5	460
T. DISSOLVED SOLIDS (160.1)	MG/L	2500	3300	4300	4200	2100

Analytical Technologies, Inc.

METALS RESULTS

ATI I.D. : 411383

CLIENT : D.B. STEPHENS & ASSOCIATES
PROJECT # : 4230
PROJECT NAME : ENRON WT-1

DATE RECEIVED : 11/21/94
REPORT DATE : 12/13/94

PARAMETER	UNITS	01 (MW-10)	02 (MW-12)	03	04 (SVE-1A)	05 (SB-2)
SILVER (EPA 200.7/6010)	MG/L	<0.010	<0.010	<0.010	<0.010	<0.010
ARSENIC (EPA 206.2/7060)	MG/L	0.019	<0.005	0.038	0.039	<0.005
BARIUM (EPA 200.7/6010)	MG/L	0.580	0.049	56.2	49.8	0.094
CALCIUM (EPA 200.7/6010)	MG/L	348	506	298	293	248
CADMIUM (EPA 213.2/7131)	MG/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
CHROMIUM (EPA 200.7/6010)	MG/L	<0.010	<0.010	<0.010	<0.010	0.013
COPPER (EPA 200.7/6010)	MG/L	<0.010	0.012	<0.010	<0.010	0.013
IRON (EPA 200.7/6010)	MG/L	1.87	1.22	0.139	0.090	<0.050
MERCURY (EPA 245.1/7470)	MG/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
POTASSIUM (EPA 200.7/6010)	MG/L	5.6	12.6	7.2	6.5	13.4
MAGNESIUM (EPA 200.7/6010)	MG/L	201	244	392	383	143
MANGANESE (EPA 200.7/6010)	MG/L	2.41	0.352	0.078	0.082	0.231
SODIUM (EPA 200.7/6010)	MG/L	165	247	342	339	279
LEAD (EPA 239.2/7421)	MG/L	<0.002	<0.002	<0.002	<0.002	<0.002
SELENIUM (EPA 270.2/7740)	MG/L	<0.005	0.016	<0.005	<0.005	<0.005
ZINC (EPA 200.7/6010)	MG/L	0.057	0.082	<0.050	<0.050	1.15

Analytical Technologies, Inc.

GENERAL CHEMISTRY RESULTS

ATI I.D. : 411818

CLIENT : D.B. STEPHENS & ASSOCIATES
PROJECT # : 4230
PROJECT NAME : ENRON WT-1 (MW-9) (SB-1)

DATE RECEIVED : 11/23/94
REPORT DATE : 12/12/94

PARAMETER	UNITS	01	02	03 (MW-7)
CARBONATE (CACO3)	MG/L	<1	<1	<1
BICARBONATE (CACO3)	MG/L	326	492	327
HYDROXIDE (CACO3)	MG/L	<1	<1	<1
TOTAL ALKALINITY (AS CACO3)	MG/L	326	492	327
CHLORIDE (EPA 325.2)	MG/L	860	750	400
NITRITE (EPA 354.1)	MG/L	1.3	<0.05	<0.05
NITRATE AS N (EPA 353.2)	MG/L	8.4	0.28	6.8
SULFATE (EPA 375.2)	MG/L	850	450	920
T. DISSOLVED SOLIDS (160.1)	MG/L	2800	2300	2400

Analytical Technologies, Inc.

METALS RESULTS

ATI I.D. : 411818

CLIENT : D.B. STEPHENS & ASSOCIATES
PROJECT # : 4230
PROJECT NAME : ENRON WT-1

DATE RECEIVED : 11/23/94
REPORT DATE : 12/12/94

PARAMETER	UNITS	01 (MW-9)	02 (SB-1)	03 (MW-7)
SILVER (EPA 200.7/6010)	MG/L	<0.010	<0.010	<0.010
ARSENIC (EPA 206.2/7060)	MG/L	<0.005	0.005	0.006
BARIUM (EPA 200.7/6010)	MG/L	0.043	0.085	0.032
CALCIUM (EPA 200.7/6010)	MG/L	452	275	323
CADMIUM (EPA 213.2/7131)	MG/L	<0.0005	<0.0005	<0.0005
CHROMIUM (EPA 200.7/6010)	MG/L	<0.010	<0.010	<0.010
COPPER (EPA 200.7/6010)	MG/L	<0.010	0.010	0.014
IRON (EPA 200.7/6010)	MG/L	<0.050	<0.050	<0.050
MERCURY (EPA 245.1/7470)	MG/L	<0.0002	<0.0002	<0.0002
POTASSIUM (EPA 200.7/6010)	MG/L	9.6	9.4	7.9
MAGNESIUM (EPA 200.7/6010)	MG/L	222	209	148
MANGANESE (EPA 200.7/6010)	MG/L	0.229	0.254	0.069
SODIUM (EPA 200.7/6010)	MG/L	295	322	244
LEAD (EPA 239.2/7421)	MG/L	<0.002	<0.002	<0.002
SELENIUM (EPA 270.2/7740)	MG/L	0.009	<0.005	0.008
ZINC (EPA 200.7/6010)	MG/L	0.092	4.73	<0.050

Analytical Technologies, Inc.

GENERAL CHEMISTRY RESULTS

ATI I.D. : 412312

CLIENT : D.B. STEPHENS & ASSOCIATES
PROJECT # : 4230.2
PROJECT NAME : ENRON-WT1

DATE RECEIVED : 12/02/94
REPORT DATE : 12/22/94

PARAMETER	UNITS	01 (MW-4)	02 (MW-5)	03 (MW-6)	04 (MW-8)	05 (MW-13)
CARBONATE (CACO3)	MG/L	<1	<1	<1	<1	<1
BICARBONATE (CACO3)	MG/L	273	1080	624	441	273
HYDROXIDE (CACO3)	MG/L	<1	<1	<1	<1	<1
TOTAL ALKALINITY (AS CACO3)	MG/L	273	1080	624	441	273
CHLORIDE (EPA 325.2)	MG/L	540	360	700	590	340
NO2/NO3-N, TOTAL (353.2)	MG/L	20	<0.06	<0.06	0.44	-
SULFATE (EPA 375.2)	MG/L	1000	<5	410	330	1400
T. DISSOLVED SOLIDS (160.1)	MG/L	2800	2000	2400	1900	2900

Analytical Technologies, Inc.

METALS RESULTS

ATI I.D. : 412312

CLIENT : D.B. STEPHENS & ASSOCIATES
PROJECT # : 4230.2
PROJECT NAME : ENRON-WT1

DATE RECEIVED : 12/02/94
REPORT DATE : 12/22/94

PARAMETER	UNITS	01 (MW-4)	02 (MW-5)	03 (MW-6)	04 (MW-8)	05 (MW-13)
SILVER (EPA 200.7/6010)	MG/L	<0.010	<0.010	<0.010	<0.010	<0.010
ARSENIC (EPA 206.2/7060)	MG/L	0.007	0.036	<0.005	0.006	0.006
BARIUM (EPA 200.7/6010)	MG/L	0.025	17.3	0.109	0.052	0.048
CALCIUM (EPA 200.7/6010)	MG/L	332	185	293	247	491
CADMIUM (EPA 213.2/7131)	MG/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
CHROMIUM (EPA 200.7/6010)	MG/L	<0.010	<0.010	<0.010	<0.010	<0.010
COPPER (EPA 200.7/6010)	MG/L	<0.010	<0.010	<0.010	0.014	<0.010
IRON (EPA 200.7/6010)	MG/L	<0.050	0.097	<0.050	<0.050	<0.050
MERCURY (EPA 245.1/7470)	MG/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
POTASSIUM (EPA 200.7/6010)	MG/L	5.9	6.1	7.1	6.0	9.3
MAGNESIUM (EPA 200.7/6010)	MG/L	153	200	197	137	184
MANGANESE (EPA 200.7/6010)	MG/L	0.024	0.112	0.562	0.136	<0.010
SODIUM (EPA 200.7/6010)	MG/L	353	326	267	221	116
LEAD (EPA 239.2/7421)	MG/L	<0.002	<0.002	<0.002	<0.002	<0.002
SELENIUM (EPA 270.2/7740)	MG/L	0.020	<0.005	<0.005	<0.005	0.009
ZINC (EPA 200.7/6010)	MG/L	<0.050	<0.050	<0.050	<0.050	<0.050

Analytical Technologies, Inc.

TCLP METALS

cuttings from Former Engine Room Drain Pit Investigation

Sample ID

Pit

Lab Name: Analytical Technologies, Inc.

Client Name: ATI-NM

Client Project ID: SDM -- 412312

Lab Sample ID: 94-12-049-01

Sample Matrix: TCLP Leachate

Date Collected: 11/30/94

Prep Date: 12/12, 14/94

Date Analyzed: 12/12, 14/94

EPA HW Number	CAS Number	Analyte	Method	Concentration (mg/L)	Detection Limit (mg/L)
D004	7440-38-2	Arsenic	6010	ND	0.06
D005	7440-39-3	Barium	6010	ND	0.9
D006	7440-43-9	Cadmium	6010	ND	0.005
D007	7440-47-3	Chromium	6010	ND	0.01
D008	7439-92-1	Lead	6010	ND	0.05
D009	7439-97-6	Mercury	7470	ND	0.002
D010	7782-49-2	Selenium	6010	ND	0.1
D011	7440-22-4	Silver	6010	ND	0.01

ND = Not Detected

Analytical Technologies, Inc.

TCLP VOLATILE ORGANICS

Method 8240

Sample ID

Pit

Lab Name: Analytical Technologies, Inc.
Client Name: ATI-NM
Client Project ID: SDM -- 412312
Lab Sample ID: 94-12-049-01

Date Collected: 11/30/94
Date Extracted: 12/08/94
Date Analyzed: 12/15/94

Sample Matrix: TCLP Leachate
Sample Volume: 0.5 mL

EPA HW Number	Analyte	CAS Number	Result (mg/L)	Detection Limit (mg/L)
D043	Vinyl chloride	75-01-4	ND	0.1
D029	1,1-Dichloroethylene	75-35-4	ND	0.1
D022	Chloroform	67-66-3	ND	0.1
D028	1,2-Dichloroethane	107-06-2	ND	0.1
D035	Methyl ethyl ketone	78-93-3	ND	0.1
D019	Carbon tetrachloride	56-23-5	ND	0.1
D040	Trichloroethylene	79-01-6	ND	0.1
D018	Benzene	71-43-2	ND	0.1
D039	Tetrachloroethylene	127-18-4	ND	0.1
D021	Chlorobenzene	108-90-7	ND	0.1

SURROGATE RECOVERIES

Analyte	% Recovery	% Rec Limits
1,2-Dichloroethane-d4	107	76 - 114
Toluene-d8	98	88 - 110
Bromofluorobenzene	101	86 - 115

ND = Not Detected

Analytical Technologies, Inc.

TCLP METALS

cuttings from — Former Dehydration Area Investigation

Sample ID

DEHY

Lab Name: Analytical Technologies, Inc.

Client Name: ATI-NM

Client Project ID: SDM -- 412312

Lab Sample ID: 94-12-049-02

Sample Matrix: TCLP Leachate

Date Collected: 11/30/94

Prep Date: 12/12, 14/94

Date Analyzed: 12/12, 14/94

EPA HW Number	CAS Number	Analyte	Method	Concentration (mg/L)	Detection Limit (mg/L)
D004	7440-38-2	Arsenic	6010	ND	0.06
D005	7440-39-3	Barium	6010	ND	0.9
D006	7440-43-9	Cadmium	6010	ND	0.005
D007	7440-47-3	Chromium	6010	ND	0.01
D008	7439-92-1	Lead	6010	ND	0.05
D009	7439-97-6	Mercury	7470	ND	0.002
D010	7782-49-2	Selenium	6010	ND	0.1
D011	7440-22-4	Silver	6010	ND	0.01

ND = Not Detected

STATE OF NEW MEXICO
NMOCD District I

INTER-OFFICE MEMO

To file: Transwestern Pipeline Co.

Date: 12/19/94
Time: 10:00 am

Telephone call:____ Meeting:___ Other:__XX__ On site visit

Person called or attending:

Wayne Price - NMOCD
Jeremy Sanders- Pecos Valley
Rich Jones- Transwestern Pipeline.

REFERENCE: WT-1 Compressor Station GW-109

Subject: Site visit-on going remediation project

Comments:

Soil shredding operation in progress. Took soil sample from dehyd-pit at 16 " deep and tested. This soil sample represents the freshly remediated soil that has been run thur the shredding process and placed back into the old pit. See attached figure for location.

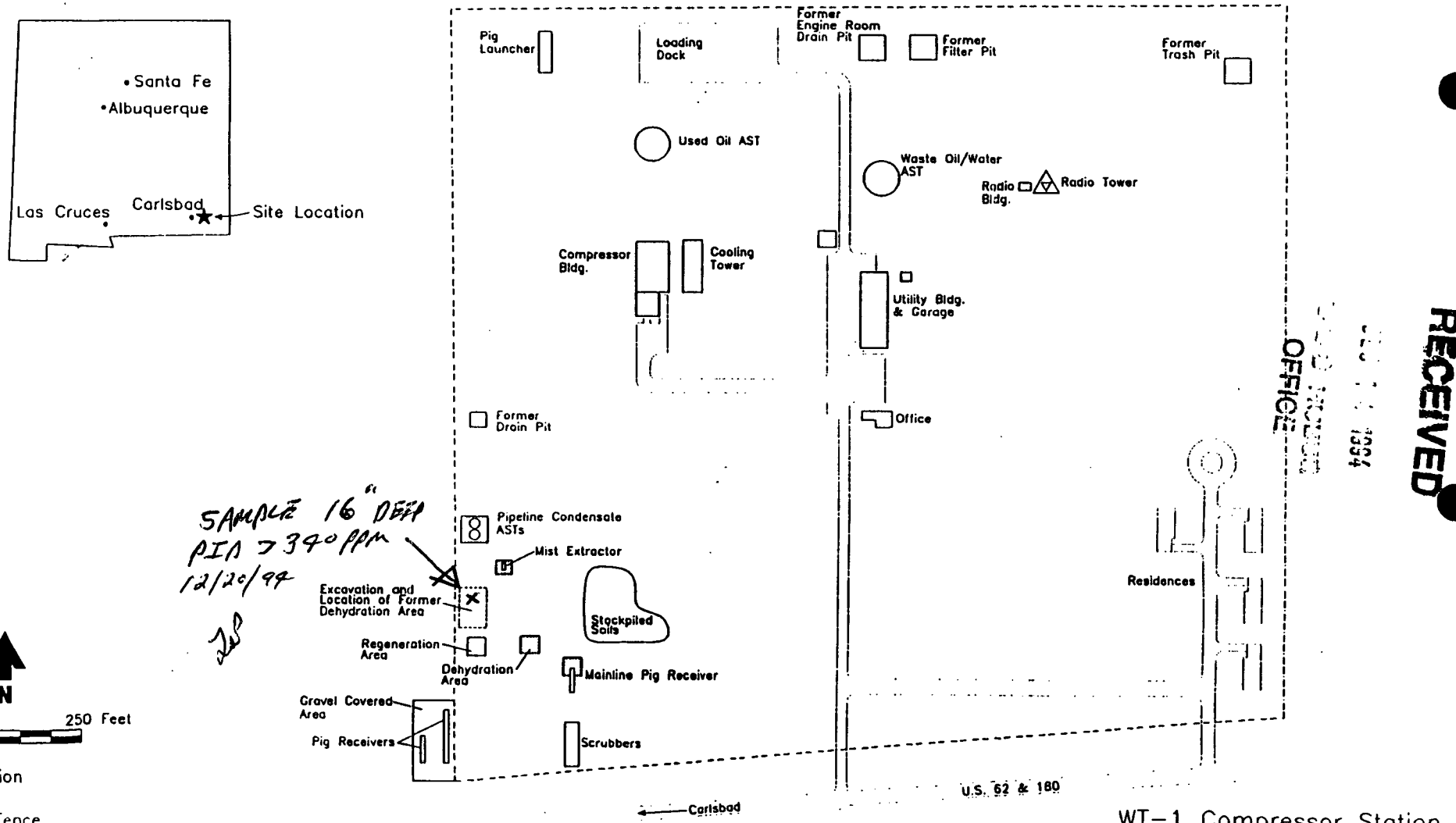
PID headspace using PID for voc's > 340 ppm.

Site remediation plan called for fertilizer to be added to soil as it is shredded. No fertilizer being added at this time. Pecos field rep. indicated they had ran out.

Wayne Price
NMOCD Environmental Engineer-District I

cc: Bill Olson-Santa Fe
Jerry Sexton-Hobbs

F:\4230\4230C01



RECEIVED

OFFICE

WT-1 Compressor Station

Site Map

DANIEL B. STEPHENS & ASSOCIATES, INC.

11-94

JN 4230

Daniel B. Stephens & Associates, Inc.
Environmental Scientists and Engineers
6020 Academy NE, #100
Albuquerque, NM 87109
(505) 822-9400
FAX: (505) 822-8877

Date 12/9/94 Project No. 4230.1

Sent to Bill Olson OCD Sent from Bob Marley

Total Pages Including Cover Page 5

Fax No. 1-505-827-8177

Remarks

B.O,

Please find enclosed Preliminary results from Analytical Technologies Inc. for Soils @ at Transwestern Pipeline Company WT-1 Compressor station.

Regards,

Bob Marley

Gave Verbal Approval to Robinson George on 12/9/94 Will Olson

WT-1 Delay Area
8240 by TCLP

411909 01 S.F...1 T824 11/21/94

LAB: MS
TEST: T824/T624
BLANK #: _____

T824

PRELIMINARY

Benzene	<10 UG/L	(10
Carbon Tetrachloride	<10 UG/L	(10
Chlorobenzene	<10 UG/L	(10
Chloroform	<10 UG/L	(10
1,2-Dichloroethane	<10 UG/L	(10
1,1-Dichloroethene	<10 UG/L	(10
2-Butanone	<100 UG/L	(100
Tetrachloroethene	<10 UG/L	(10
Trichloroethene	<10 UG/L	(10
Vinyl Chloride	<10 UG/L	(10
Dibromofluoromethane	103 %	
Bromofluorobenzene	103 %	
Toluene-d8	100 %	

DATE EXTRACTED: 11/21/94
DATE ANALYZED: 11/24/94

ANALYST'S INITIALS: [illegible]

Monument Junction Pig Trap
8240 by TCLP

411373-02 0.5ml T824 11/21/94

LAB: MS
TEST: T824/T624
BLANK #: _____

T824

PRELIMINARY

Benzene	<10 UG/L	(10
Carbon Tetrachloride	<10 UG/L	(10
Chlorobenzene	<10 UG/L	(10
Chloroform	<10 UG/L	(10
1,2-Dichloroethane	<10 UG/L	(10
1,1-Dichloroethene	<10 UG/L	(10
2-Butanone	<100 UG/L	(100
Tetrachloroethene	<10 UG/L	(10
Trichloroethene	<10 UG/L	(10
Vinyl Chloride	<10 UG/L	(10
Dibromofluoromethane	103 %	
Bromofluorobenzene	103 %	
Toluene-d8	99 %	

DATE EXTRACTED: 11/21/94
DATE ANALYZED: 11/29/94 ANALYST'S INITIALS: MN

Hat Mesa Field
Compressor unit

411373-03 0.5ml T824 11/21/94

LAB: MS
TEST: T824/T624
BLANK #: _____

T824

PRELIMINARY

Benzene	<10 UG/L	(10
Carbon Tetrachloride	<10 UG/L	(10
Chlorobenzene	<10 UG/L	(10
Chloroform	<10 UG/L	(10
1,2-Dichloroethane	<10 UG/L	(10
1,1-Dichloroethene	<10 UG/L	(10
2-Butanone	<100 UG/L	(100
Tetrachloroethene	<10 UG/L	(10
Trichloroethene	<10 UG/L	(10
Vinyl Chloride	<10 UG/L	(10
Dibromofluoromethane	104 %	
Bromofluorobenzene	102 %	
Toluene-d8	100 %	

DATE EXTRACTED: 11/21/94
DATE ANALYZED: 11/24/94 ANALYST'S INITIALS: WN

METALS RESULTS

ATI I.D. : 411373

CLIENT : D.B. STEPHENS & ASSOCIATES
PROJECT # : 4230
PROJECT NAME : ENRON WT-1

DATE RECEIVED : 11/18/94
REPORT DATE : 11/29/94

PARAMETER	UNITS	01	02	03
SILVER (TCLP 1311/6010)	MG/L	<0.05	<0.05	<0.05
ARSENIC (TCLP 1311/6010)	MG/L	<0.1	<0.2	<0.1
BARIUM (TCLP 1311/6010)	MG/L	0.69	0.67	0.78
CADMIUM (TCLP 1311/6010)	MG/L	<0.05	<0.05	<0.05
CHROMIUM (TCLP 1311/6010)	MG/L	<0.10	<0.10	<0.10
MERCURY (TCLP 1311/7470)	MG/L	<0.002	0.003	<0.002
LEAD (TCLP 1311/6010)	MG/L	<0.10	<0.20	<0.10
SELENIUM (TCLP 1311/6010)	MG/L	<0.1	<0.2	<0.1

PRELIMINARY

#1 WT-1 Dehy Area
#2 Monument Junction Pig Trap
#3 Hat Mesa Field Compressor Unit

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

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

December 8, 1994

CERTIFIED MAIL
RETURN RECEIPT NO: P-667-242-184

Mr. Bill Kendrick
ENRON Operations Corp.
P.O. Box 1188
Houston, Texas 77251-1188

RE: WORK PLAN FOR REMEDIATION OF CONTAMINATED SOILS
WT-1 COMPRESSOR STATION
TRANSWESTERN PIPELINE CO.

Dear Mr. Kendrick:

The New Mexico Oil Conservation Division (OCD) has completed a review of Transwestern Pipeline Company's (TPC) December 2, 1994 "TREATMENT AND FINAL DISPOSITION OF SOIL AND CONCRETE DEBRIS AT THE TRANSWESTERN PIPELINE COMPANY WT-1 COMPRESSOR STATION". This document contains TPC's proposed work plan for onsite treatment of contaminated soils generated during remedial actions at TPC's WT-1 Compressor Station.

The above referenced work plan is approved with the following conditions:

1. Prior to implementing the remedial actions, TPC will provide to the OCD for approval the analyses which demonstrate that the soils are characteristically non-hazardous

2. Upon completion of the remedial actions, TPC will:

   a. analyze the remediated soils for benzene, toluene, ethylbenzene, xylene and total petroleum hydrocarbons concentrations to determine the final remediation level achieved.

   b. submit to the OCD a report containing the results of the remedial actions.

3. TPC will notify the OCD at least one week in advance of scheduled activities such that the OCD has the opportunity to witness the events and/or split samples.

4. All original documents will be sent to the OCD Santa Fe Office with copies sent to the OCD Hobbs Office.

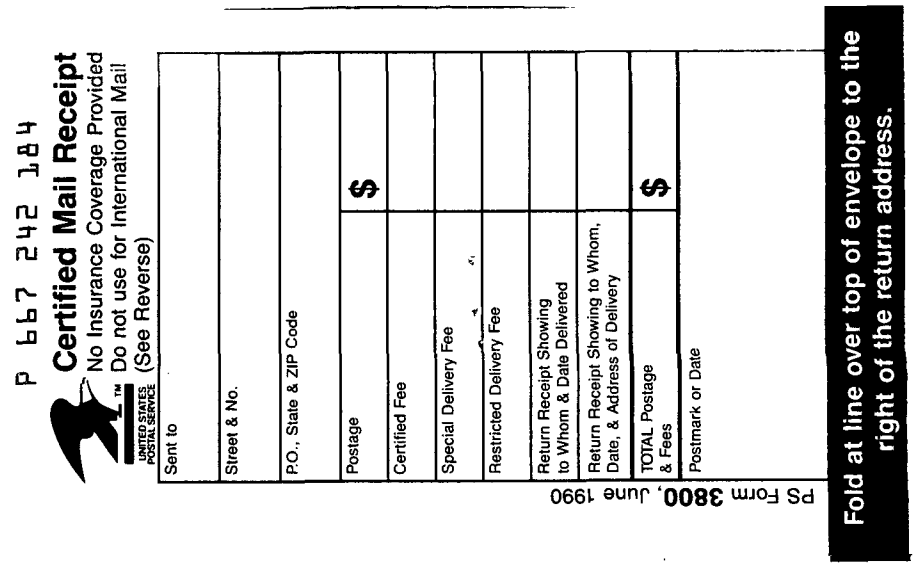
Please be advised that OCD approval does not relieve TPC of liability should their actions fail to adequately remediate contaminants related to TPC's activities. In addition, OCD approval does not relieve TPC of responsibility for compliance with any other federal, state or local laws and/or regulations.

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

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

xc: Jerry Sexton, OCD Hobbs District Supervisor
Wayne Price, OCD Hobbs District Office
George Robinson, Cypress Engineering Sevices, Inc.



ENRON
OPERATIONS CORP.

P. O. Box 1188 Houston, Texas 77251-1188 (713) 853-6161

December 2, 1994

Mr. William C. Olson
Environmental Bureau
New Mexico Oil Conservation Division
2040 S. Pacheco St.
Santa Fe, New Mexico 87505

RE: Treatment and Final Disposition of Soil and Concrete Debris at the Transwestern Pipeline Company WT-1 Compressor Station

Dear Bill,

The purpose of this letter is to request approval for the proposed treatment and final disposition of soil which contains elevated TPH concentrations and the final disposition of concrete debris stockpiled on-site. The volume and origin of the stockpiled soil and debris is described in Table 1 below:

Table 1. Volume and origin of stockpiled soil and debris at the WT-1 Compressor Station.

Origin	Description	Volume cu. yds.
WT-1 Dehy Area	soil excavated from the former WT-1 dehydration area	2300
WT-1 Dehy Area	soil remaining to be excavated from the former WT-1 dehydration area	1000
WT-1 Landfarm	soil from the cleanup of lube oil spills around the WT-1 engine room; this soil is currently managed in an on-site landfarm	850
Hat Mesa Field Compressor Unit	soil containing lube oil from a cleanup around the compressor engine foundation	20
Monument Junction Pig Trap	soil containing natural gas condensate from a cleanup around the pig trap	20
South Carlsbad Compressor Station	concrete debris from the removal of a compressor engine foundation	15
Total Volume of Soil & Debris		4205

The following discussion presents a brief description of the origin, contaminant concentrations, hazardous characteristics, and proposed treatment and/or final disposition of each of the soil and concrete debris stockpiles described in Table 1.

WT-1 Dehy Area Soil

The dehy area soil was excavated from an area located on the Western boundary of the subject facility, Figure 1. This area was the former location of three dehydration reboilers and a pipeline pig receiver blowdown impoundment. Approximately 2300 cubic yards of soil were excavated in the summer of 1992 and stockpiled on-site. Several soil samples were recently collected from the stockpiled soil and delivered to a laboratory for analysis for TPH (EPA Method 418.1) and for BTEX compounds (EPA Method 8020). The results are presented in Table 2 below:

Table 2. Analytical results for soil samples collected from the WT-1 Dehy Area soil.

Sample ID	TPH mg/kg	Benzene mg/kg	Toluene mg/kg	Ethylbenzene mg/kg	Xylene(s) mg/kg	Total BTEX mg/kg
SP-1	4500	< 0.010	< 0.010	< 0.010	< 0.010	< 0.040
SP-2	4500	< 0.010	< 0.010	< 0.010	< 0.010	< 0.040
SP-3	4500	< 0.010	< 0.010	< 0.010	< 0.010	< 0.040
SP-4	2000	< 0.010	< 0.010	< 0.010	< 0.010	< 0.040
SP-5	4400	0.012	0.064	0.036	0.285	0.397
SP-8	3600	< 0.010	< 0.010	< 0.010	< 0.010	< 0.040

A single composite soil sample was also recently collected from the stockpiled soil and delivered to a laboratory for analysis for hazardous characteristics. A TCLP extract (EPA Method 1311) of the sample was analyzed for volatile organics (EPA Method 8240) and for the eight RCRA metals (EPA Method 6010). Results indicated that all constituents were below detection limits with the exception of barium which was detected at a concentration of 0.66 mg/L in the TCLP extract, well below the RCRA regulatory level for barium of 100 mg/L.

WT-1 Landfarm Soil

Approximately 850 cubic yards of soil, which was generated from the cleanup of lube oil spills around the WT-1 engine room, is currently managed in an on-site landfarm. Soil samples were collected from the landfarm soil in order to determine if the clean-up criteria had been met. The clean-up criteria for the landfarm soil was established at 100 mg/kg TPH concentration. The results of laboratory analysis are presented in Table 3 below:

Table 3. Analytical results for soil samples collected from the Landfarm Area soil.

Sample ID	TPH mg/kg	Benzene mg/kg	Toluene mg/kg	Ethylbenzene mg/kg	Xylene(s) mg/kg	Total BTEX mg/kg
LF-1	350	< 0.010	< 0.010	< 0.010	< 0.010	< 0.040
LF-2	200	NA	NA	NA	NA	NA
LF-3	110	< 0.010	< 0.010	< 0.010	< 0.010	< 0.040
LF-4	160	NA	NA	NA	NA	NA
LF-5	150	< 0.010	< 0.010	< 0.010	< 0.010	< 0.040
LF-6	210	NA	NA	NA	NA	NA
LF-7	620	< 0.010	< 0.010	< 0.010	< 0.010	< 0.040
LF-8	150	NA	NA	NA	NA	NA
Geometric Mean Conc.	209					

Analysis for hazardous characteristics were not run for this soil since this would have been completed prior to the issuance of a landfarm permit by the NMOCD.

Although the mean TPH concentration is greater than the permitted cleanup criteria, TPC proposes to cease operation of the on-site landfarm and to process the soil along with the dehy area excavated soil. It is apparent from the results presented in Table 3, with all BTEX compounds below detection limits, that the landfarm area soil no longer could pose a threat to ground water resources.

Hat Mesa Field Compressor Unit Soil

Also included in the WT-1 soil stockpile is approximately 20 cubic yards of soil that was recently hauled in from the Hat Mesa field compressor unit which is located approximately ten miles southeast of the WT-1 Station. This soil contains lube oil and was generated from a cleanup around a compressor engine foundation. A soil sample was

recently collected from the stockpiled soil and delivered to a laboratory for analysis for TPH (EPA Method 418.1) and for BTEX compounds (EPA Method 8020). The results are presented in Table 4 below:

Table 4. Analytical results for soil samples collected from the Hat Mesa soil.

Sample ID	TPH mg/kg	Benzene mg/kg	Toluene mg/kg	Ethylbenzene mg/kg	Xylene(s) mg/kg	Total BTEX mg/kg
SP-6R	590	< 0.010	< 0.010	< 0.010	< 0.010	< 0.040

A single composite soil sample was recently collected from the Hat Mesa stockpiled soil and delivered to a laboratory for analysis for hazardous characteristics. A TCLP extract (EPA Method 1311) of the sample was analyzed for volatile organics (EPA Method 8240) and for the eight RCRA metals (EPA Method 6010). Results indicated that all constituents were below detection limits with the exception of barium which was detected at a concentration of 0.98 mg/L in the TCLP extract, well below the RCRA regulatory level for barium of 100 mg/L.

Monument Junction Pig Trap Soil

Also included in the WT-1 soil stockpile is approximately 20 cubic yards of soil that was hauled in from the Monument Junction pig trap site which is located approximately fifteen miles south of the WT-1 Station. This soil contains natural gas condensate and was generated from a cleanup around a pig trap. A soil sample was recently collected from the stockpiled soil and delivered to a laboratory for analysis for TPH (EPA Method 418.1) and for BTEX compounds (EPA Method 8020). The results are presented in Table 5 below:

Table 5. Analytical results for soil samples collected from the Monument Junction soil.

Sample ID	TPH mg/kg	Benzene mg/kg	Toluene mg/kg	Ethylbenzene mg/kg	Xylene(s) mg/kg	Total BTEX mg/kg
SP-7R	4500	0.029	0.026	< 0.010	0.118	< 0.183

A single composite soil sample was recently collected from the Monument Junction stockpiled soil and delivered to a laboratory for analysis for hazardous characteristics. A TCLP extract (EPA Method 1311) of the sample was analyzed for volatile organics (EPA Method 8240) and for the eight RCRA metals (EPA Method 6010). Results indicated that all constituents were below detection limits with the exception of barium which was detected at a concentration of 0.67 mg/L in the TCLP extract, and mercury which was detected at a concentration of 0.003 mg/L in the TCLP extract, well below the RCRA regulatory levels for barium and mercury of 100 mg/L of 0.2 mg/L, respectively.

South Carlsbad Station Concrete Debris

Approximately 20 cubic yards of concrete debris from the removal of a compressor engine foundation at the South Carlsbad Station is currently stockpiled at the WT-1 Station. The concrete debris appears to be clean; i.e., free from either hydrocarbon impacted liquids, sludges, and/or soil.

Excavation Soil Samples

Soil samples were collected from the excavation area in order to determine if additional excavation might be necessary. The results of laboratory analysis are presented in Table 6 below:

Table 6. Analytical results for soil samples collected from the Excavation Area soil.

Sample ID	TPH mg/kg	Benzene mg/kg	Toluene mg/kg	Ethylbenzene mg/kg	Xylene(s) mg/kg	Total BTEX mg/kg
EN-1	4300	< 0.010	< 0.010	< 0.010	< 0.010	< 0.040
EE-1	3700	< 0.010	< 0.010	< 0.010	< 0.010	< 0.040
EW-1	4500	0.105	0.288	0.050	0.414	0.857
ES-1	240	< 0.010	< 0.010	< 0.010	< 0.010	< 0.040
ES-2	< 5	< 0.010	< 0.010	< 0.010	< 0.010	< 0.040

Soil samples collected from South of the excavation area (ES-1 & ES-2) are relatively clean and therefore excavation is not proposed to extend any further South. The TPH concentration is apparently elevated to the East and West of the excavation (EE-1 & EW-1); however, Transwestern does not propose to extend the excavation in these directions because the current excavation is already bounded by the facility boundary on the West and gas pipelines on the East. Prior excavation activities extended the North wall of the excavation to the approximate center of a former pipeline pig receiver blowdown impoundment. This was a concrete surface impoundment which has been backfilled for several years. Transwestern proposes to extend the excavation area to the North approximately 20-30 feet in order to remove potentially impacted soil and concrete debris in this area. This will generate an additional 800 to 1000 cubic yards of impacted soil.

Proposed Final Disposition for Concrete Debris

The concrete debris stockpiled on-site will be placed in the bottom of the excavation area and will be buried in-place.

Proposed Soil Treatment and Final Disposition

Transwestern proposes to process all of the stockpiled soil described above through a Kolberg soil screening plant. A copy of a brochure from the equipment manufacturer is attached. The contractor providing the labor and equipment will be Pecos Valley Field Service out of Pecos, Texas. Pecos Valley Field Service was selected due to their prior experience operating this type of equipment. During the screening process, a water based nutrient solution will be sprayed on the soil as the soil exits the screening plant. The nutrient solution will consist of a 50/50 mixture of the commonly available fertilizers indicated below (or a comparable brand and formulation):

Miracle-Gro; 36-6-6
Total Nitrogen 36%
1.2% Ammoniacal Nitrogen
1.9% Nitrate Nitrogen
32.9% Urea Nitrogen
Phosphoric Acid (P_2O_5)..... 6%
Soluble Potash (K_2O) 6%
Chelated Iron..... 0.325%

and, Miracle-Gro; 18-24-16
Total Nitrogen..... 18%
6.3% Ammoniacal Nitrogen
5.0% Nitrate Nitrogen
6.7% Urea Nitrogen
Phosphoric Acid (P_2O_5) 24%
Soluble Potash (K_2O)..... 16%
Chelated Iron 0.10%
Copper 0.05%
Manganese..... 0.05%
Zinc 0.05%

Prior experience with this method of processing soil has indicated that, within a period of two to three months after processing, BTEX concentrations can be reduced to below detection levels and TPH concentrations can reasonably be expected to be reduced to approximately 50% of the original concentration. Transwestern has proposed this action because it is a cost effective method to reduce the potential for future leaching of hydrocarbon compounds to ground water to a level commensurate with the specific conditions and environmental setting of the WT-1 Station site. The specific conditions and setting include such factors as: 1) the lack of current ground water use in the

area; 2) the limited amount of storm water infiltration in the area; 3) the relatively low initial TPH and BTEX concentrations; and 4) the effectiveness of the soil shredding process to further reduce BTEX concentrations.

The processed soil, with the exception of the landfarm area soil, will be placed directly back into the excavated area as it exits the soil screening plant. The soil from the landfarm area will either be spread out over a large area on-site or stockpiled for future use as backfill material.

Transwestern will complete the additional excavation activities and implement the proposed soil treatment upon approval of this proposal by your office. If you have any questions regarding this proposal, please contact George Robinson at (713) 646-7327.

Sincerely,

Bill Kendrick
Projects Group Manager
EOC Environmental Affairs

gcr/BK/attachments

xc: Wayne Price NMOCD Hobbs District Office

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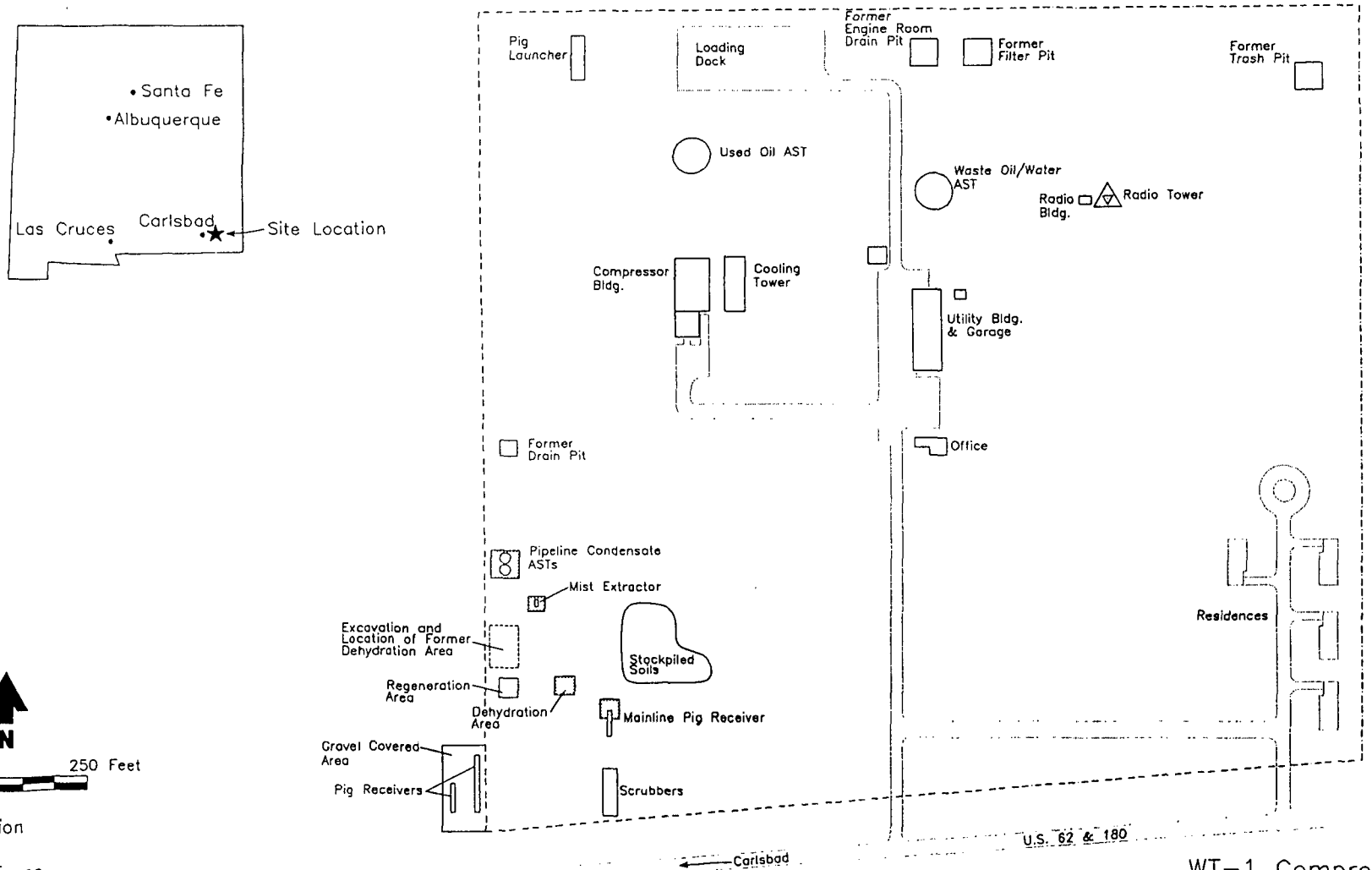


WT-1 Compressor Station

Site Map

Figure 1

DANIEL B. STEPHENS & ASSOCIATES, INC.

11-94

JN 4230

KOLBERG®

BULLETIN 271-A

MODEL 271 SHREDDER SCREENING PLANT

30" x 40' CONVEYOR ● 4' x 8' 2-DECK SCREEN

MULTIPLE APPLICATIONS

- ● TOP SOIL
- ● COMPOST
- ● SLUDGE PROCESS
- ● CLAY
- ○ NURSERY
- ○ REMEDIATION
- ○ RECYCLED ASPHALT
- ○ PEAT
- ○ AGLIME
- ○ SAND & GRAVEL
- ○ LANDFILLS
- ○ COAL
- ● ASH

SCREENING PLANTS WITH FLEXIBILITY

PORTEC™

Construction Equipment Division

KOLBERG PRODUCTS

KOLBERG®

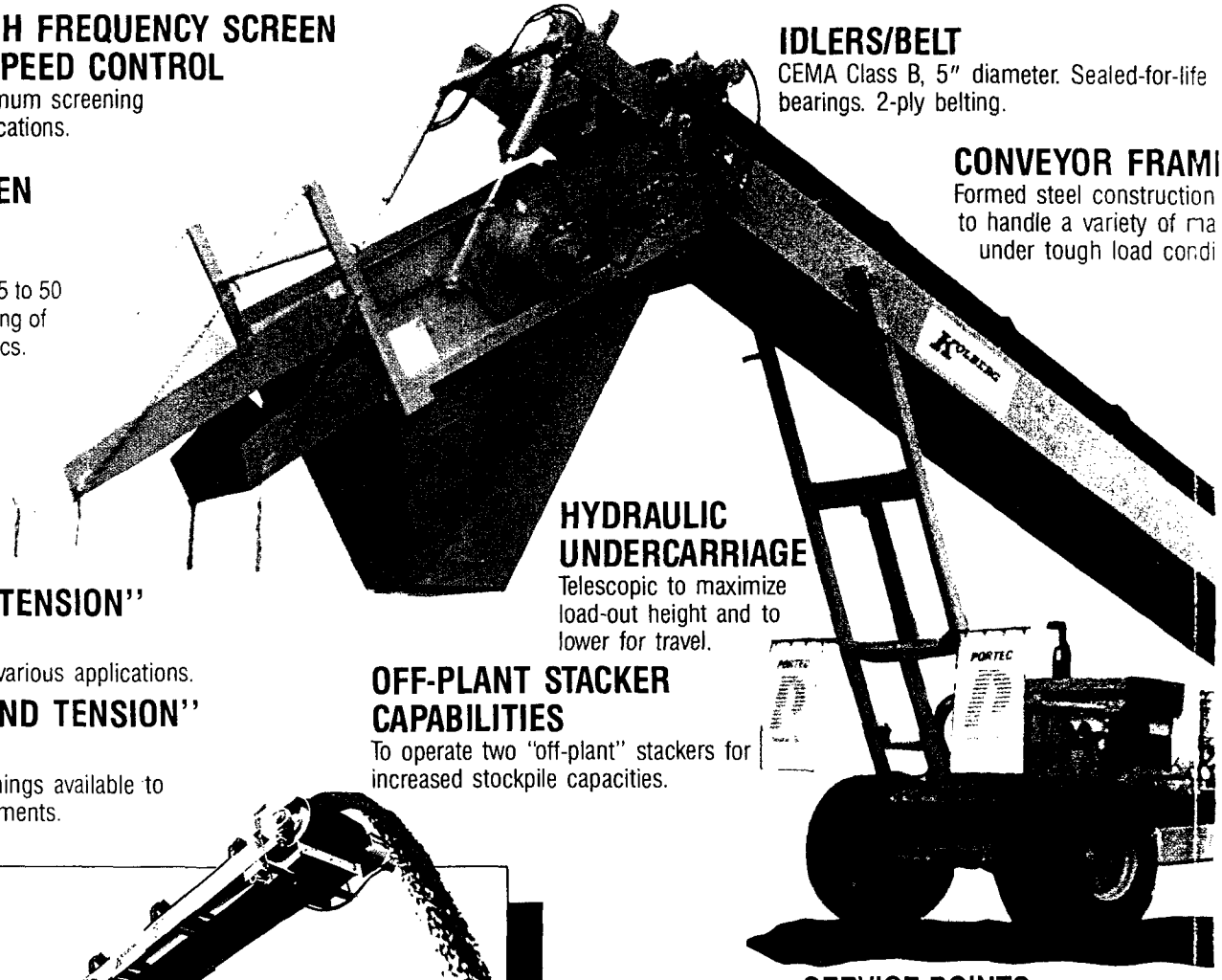
MODEL 271 SHREDDER S

30" x 40' CONVEYOI

ADJUSTABLE MATERIAL SPREADER
Evenly spreads material onto the screen cloth for maximum screening capability.

4' x 8' 2-DECK HIGH FREQUENCY SCREEN WITH VARIABLE SPEED CONTROL
Designed to provide maximum screening efficiency in multiple applications.

HYDRAULIC SCREEN ADJUST
Allows for quick "On the Fly" screen pitch adjustment of 15 to 50 degrees for optimum screening of various material characteristics.



IDLERS/BELT
CEMA Class B, 5" diameter. Sealed-for-life bearings. 2-ply belting.

CONVEYOR FRAMI
Formed steel construction to handle a variety of ma under tough load condi

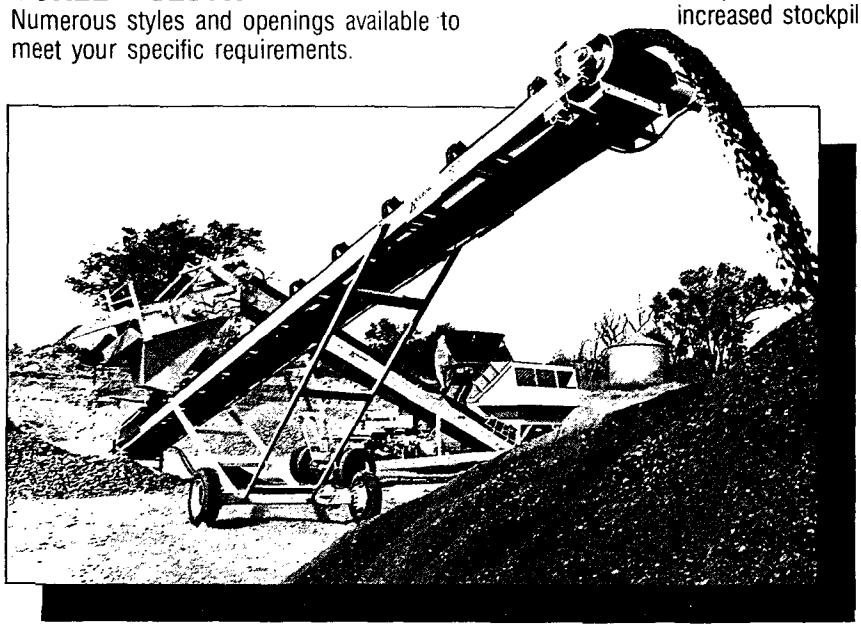
HYDRAULIC UNDERCARRIAGE
Telescopic to maximize load-out height and to lower for travel.

TOP DECK "SIDE TENSION" SCREEN CLOTH
Wide range of choice for various applications.

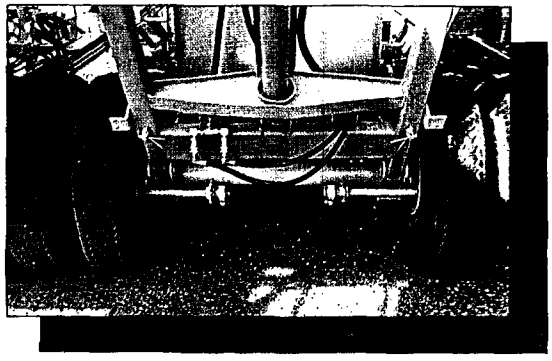
BOTTOM DECK "END TENSION" SCREEN CLOTH
Numerous styles and openings available to meet your specific requirements.

OFF-PLANT STACKER CAPABILITIES
To operate two "off-plant" stackers for increased stockpile capacities.

SERVICE POINTS: Remote grease z



SERIES 2 PORTABLE STACKING CONVEYOR
These optional stacking conveyors are ideally suited as companion stackers for the Model 271 screening plant. Available in 24" widths, 40' and 50' lengths and 30" width x 50' length. Reference the Kolberg Series 2 brochure for more detailed information.



HIGHWAY PORTABLE
Heavy-duty chassis, featuring single axle, dual wheels, air brakes, mud flaps, brake, tail and turn lights.

SCREENING PLANT

OR ● 4'x8' 2-DECK SCREEN

STANDARD FEATURES

life ball

AME
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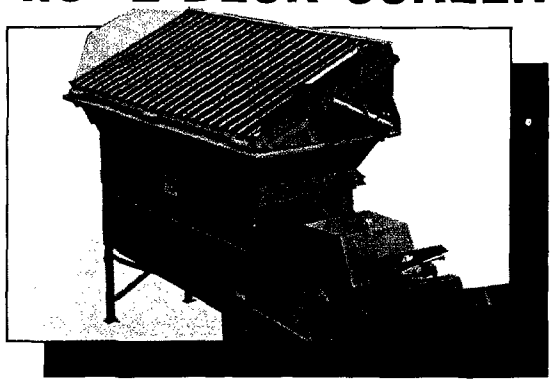
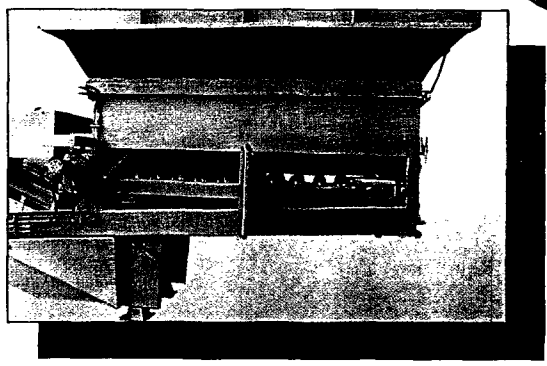
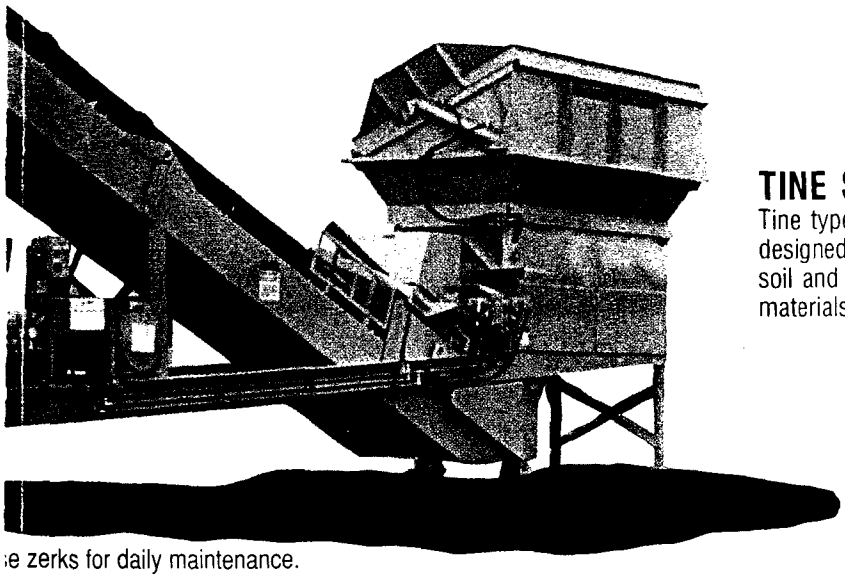


SELF-RELIEVING HOPPER/GRIZZLY
9 cu. yd. capacity designed to reduce material bridging and equipped with a rugged hydraulic activated sloped grizzly. Optional hopper wings are shown in photos.

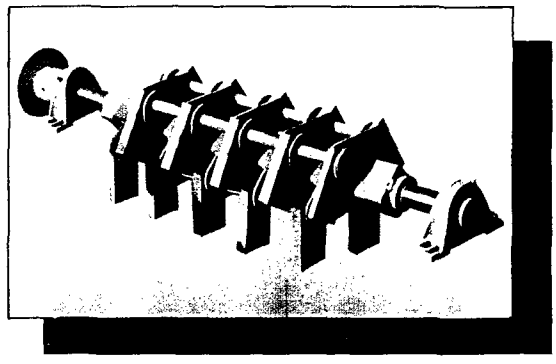


VARIABLE SPEED BELT FEEDER
9' - 6" long roller belt designed for precise material metering. Enclosed with easy access doors.

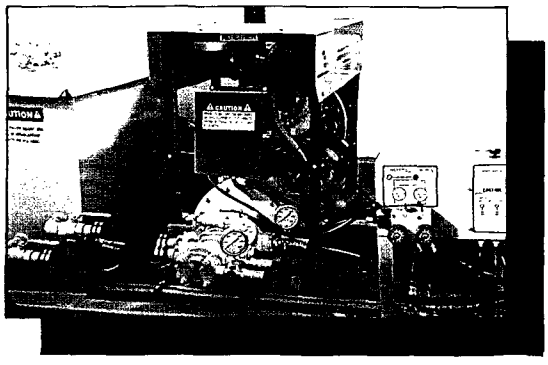


e zerks for daily maintenance.

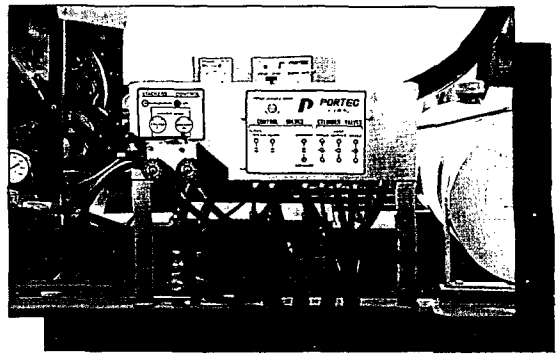
TINE SHREDDER
Tine type shredder is designed for use in top soil and other related materials.



MILL SHREDDER
An optional mill type shredder is available.

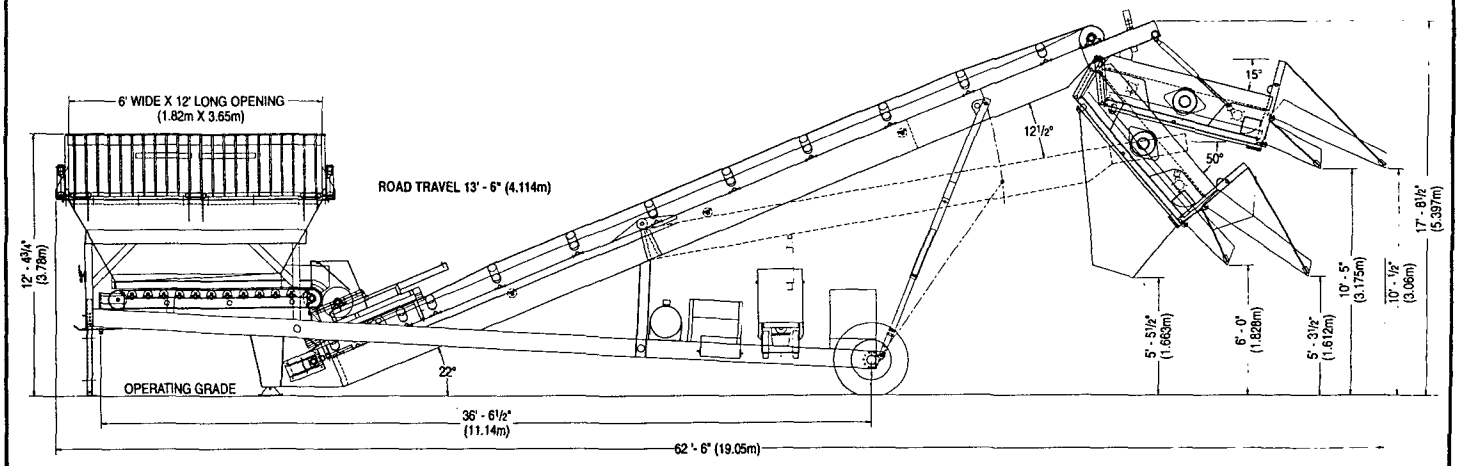


POWER UNIT
68 HP water cooled diesel with instrumentation, electric start and "high temperature/low oil" shut-down system to prevent engine damage.



CONTROL CENTER
Instrumentation and controls mounted at ground level for ease of operation.

STANDARD SPECIFICATIONS



SPECIFICATIONS AND/OR DIMENSIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

VIBRATING SCREEN:
4′ x 8′ 2-Deck high frequency with variable speed control. Adjustable eccentrics provide maximum screening efficiency in multiple applications.

SCREEN SPRINGS: Rubber shear springs enable screen to function vigorously at any angle.

CHUTE/SUPPORTS: Chute Support frame complete with a 6′ - 0″ (1.82m) long top and 3′ - 0″ (.914m) long bottom chute plus a fines collecting hopper.

HOPPER/BELT FEEDER:
SELF-RELIEVING HOPPER: Reduces material bridging and increases material flow with long, steep side walls. Hopper capacity of 9 cu. yd. heaped, and heavy ¼″ (6.35mm) plate steel construction and telescopic support legs for increased stability.

SLOPED GRIZZLY DUMP: Hydraulic activated cylinders and heavy duty 5½" (139.7mm) clear opening grizzly.

BELT FEEDER: Heavy-duty 9' - 6" (2.89m) long roller belt design with variable speed hydraulic drive for precise material metering.

SHREDDER CAPABILITIES:
THE SHREDDER: A "Tine" type shredder is included and designed for use in top soil and related applications.

SHREDDER HOUSING: Hydraulically slides "open" and "closed" for inspection and operation.

UNIQUE INTERCHANGEABILITY: A "Mill" design shredder is available for interchangeability or can be supplied in lieu of the standard "soil tiller."

POWER AND DRIVE SYSTEM:
POWER UNIT: A water cooled diesel produces 68 HP and is equipped with all instrumentation, electric start, battery, 45 gallon lockable fuel tank, and "high temperature/low oil" shut-down system.

DRIVES: All hydraulic with instrumentation and controls conveniently mounted at ground level to operate the main belt, screen, screen pitch, belt feeder, shredder, grizzly dump and conveyor lift. 100 gallon lockable Hydraulic Reservoir is also included.

AMPLE POWER: The diesel/hydraulic power unit is designed to operate two additional "off-plant" conveyors. (Conveyors not included).

HEAVY-DUTY CHASSIS/UNDERCARRIAGE:
TRUCK TYPE CHASSIS: Designed for dependable legal highway portability featuring a single axle with dual wheels, a king pin towing attachment, air brakes and a two speed landing gear.

UNDERCARRIAGE MEMBERS: Telescopic tubular design with hydraulic lift to elevate the conveyor to a maximum 22 degree operating incline, maximizing load-out height.

BASIC CONVEYOR:
CONVEYOR: 30″ (762mm) wide x 40′ (12.92m) long rigidly formed steel construction designed to handle a variety of material under tough load conditions. The conveyor frame also has a hinge design for lower travel dimensions.

CONVEYOR COMPONENTS:
HEAD PULLEY: Rubber lagged.
TAIL PULLEY: Self cleaning wing.
TROUGHING IDLERS: are 35 degree CEMA B type spaced on 4' - 0" (1.21m) centers.

RETURN IDLERS: are spaced on 10'0" (3.048m) centers.
TAKE-UP: are heavy-duty screw type with protective rod covers.
BELT CLEANER: positive cleaning with spring tensions.
PAINT: Standard enamel Portec beige.

HIGHLY MOBILE TRAVEL: Width = 8' - 6" (2.590m)
Height = 13' - 6" (4.114m) **Weight** = 22,000 lbs. (Approx.)

These well balanced machines can be moved quickly and easily.

STANDARD OPTIONS:

- REMOTE CONTROL GRIZZLY DUMP
- WET SCREEN WITH SPRAY BARS
- COMPOSITE HOPPER LINERS
- "AR" STEEL LINERS
- FEED HOPPER WINGS

PORTEC™
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ISSUE DATE 12/93

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

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

November 14, 1994

CERTIFIED MAIL
RETURN RECEIPT NO. P-667-242-172

Mr. Bill Kendrick
ENRON Operations Corp.
P.O. Box 1188
Houston, Texas 77251-1188

RE: INVESTIGATION WORK PLAN
TRANSWESTERN WT-1 COMPRESSOR STATION
LEA COUNTY, NEW MEXICO

Dear Mr. Kendrick:

The New Mexico Oil Conservation Division (OCD) has completed a review of ENRON Operations Corp. November 3, 1994 "SOIL AND GROUND WATER INVESTIGATION, WT-1 COMPRESSOR STATION, LEA COUNTY, NEW MEXICO". This document contains ENRON's work plan for installation of additional monitor wells for defining the extent of contamination related to releases of contaminants from unlined pits at the Transwestern WT-1 Compressor Station.

The OCD approves of the above referenced work plan with the following conditions:

1. All wastes generated during the investigations will be stored onsite and analyzed for hazardous characteristics. Prior to disposal, the results of these analyses and the proposed disposal location will be submitted to the OCD for approval.

2. Initial ground water samples from all monitor wells will be analyzed for aromatic and purgeable organics, polynuclear aromatic hydrocarbons, major cations and anions and New Mexico Water Quality Control Commission (WQCC) metals using appropriate EPA methods.

NOTE: Since there is no ground water standard for Total Petroleum Hydrocarbons (TPH) in the WQCC regulations, the OCD does not require that ENRON analyze ground water for TPH concentrations.

3. ENRON will submit the proposed report on the site investigations to the OCD by April 1, 1995.

4. ENRON will notify the OCD at least 72 hours in advance of all scheduled activities such that the OCD has the opportunity to witness the events and/or split samples.

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

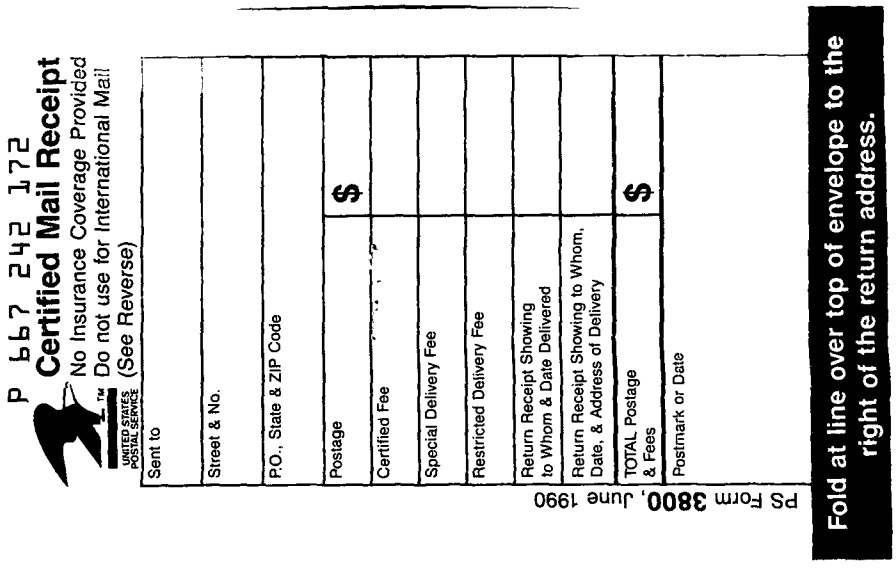
Please be advised that OCD approval does not relieve ENRON of liability should the investigation activities determine that contamination exists which is beyond the scope of the work plan or if the closure activities fail to adequately determine the extent of contamination related to ENRON's activities. In addition, OCD approval does not relieve ENRON of responsibility for compliance with any other federal, state or local laws and/or regulations.

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

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

xc: Jerry Sexton, OCD Hobbs District Supervisor
Wayne Price, OCD Hobbs Office



ENRON
OPERATIONS CORP.

P. O. Box 1188 Houston, Texas 77251-1188 (713) 853-6161

November 3, 1994

Mr. William C. Olson
Environmental Bureau
New Mexico Oil Conservation Division
2040 S. Pacheco St.
Santa Fe, New Mexico 87505

RE: Soil and Ground Water Investigation
WT-1 Compressor Station
Lea County, New Mexico

Dear Bill,

Enclosed are two copies of a work plan for the subject facility. The work plan outlines Transwestern Pipeline Company's (TPC) intended activities associated with the delineation of petroleum hydrocarbons in subsurface soil and ground water beneath the facility. TPC will implement the work plan within thirty days of approval by the NMOCD.

If you have any questions regarding this work plan, please contact George Robinson at (713) 646-7327.

Sincerely,

Bill Kendrick
Manager, Projects Group

gcr/BK

WORK PLAN FOR SUBSURFACE INVESTIGATION TRANSWESTERN PIPELINE COMPANY WT-1 COMPRESSOR STATION NEAR CARLSBAD, NEW MEXICO

1. INTRODUCTION

Daniel B. Stephens & Associates, Inc. (DBS&A) has prepared this work plan for the investigation of hydrocarbon-impacted soil and ground water at Transwestern Pipeline Company's (TPC) WT-1 Compressor Station. TPC is a subsidiary of ENRON Operations Corp. (EOC). This scope of work is designed to complete the subsurface investigatory work by determining the extent of contamination originating from the former waste pits and dehydration areas located along the northern and western property boundaries, respectively. The general site layout, including the locations of buildings, former waste pits, and the current aboveground storage tanks (ASTs) is provided as Figure 1. The site is located approximately 30 miles east of Carlsbad, New Mexico along U.S. Highway 62.

As part of routine system maintenance, waste liquids are removed from the gas pipeline and engines. Former use of the waste pits and dehydration area resulted in the release of hydrocarbons to the subsurface. Presently, all waste liquids removed from the pipeline system are collected and stored in ASTs within secondary containment prior to off-site disposal.

Section 2 of this work plan summarizes the previously completed work, including efforts to define the extent of subsurface impacts and corrective actions completed by TPC. A detailed discussion of the proposed hydrogeologic investigation and description of field activities and report preparation are provided in Section 3.

2. PREVIOUS INVESTIGATIONS AND CORRECTIVE ACTION

To date, three previous hydrogeologic investigations have been undertaken to evaluate subsurface impacts. A synopsis of these investigations is provided in Section 2.1. In addition, TPC has constructed an impervious cap for the subject waste pits and has initiated measures to remedy impacted soil near the former dehydration unit; these efforts are discussed in Section 2.2.

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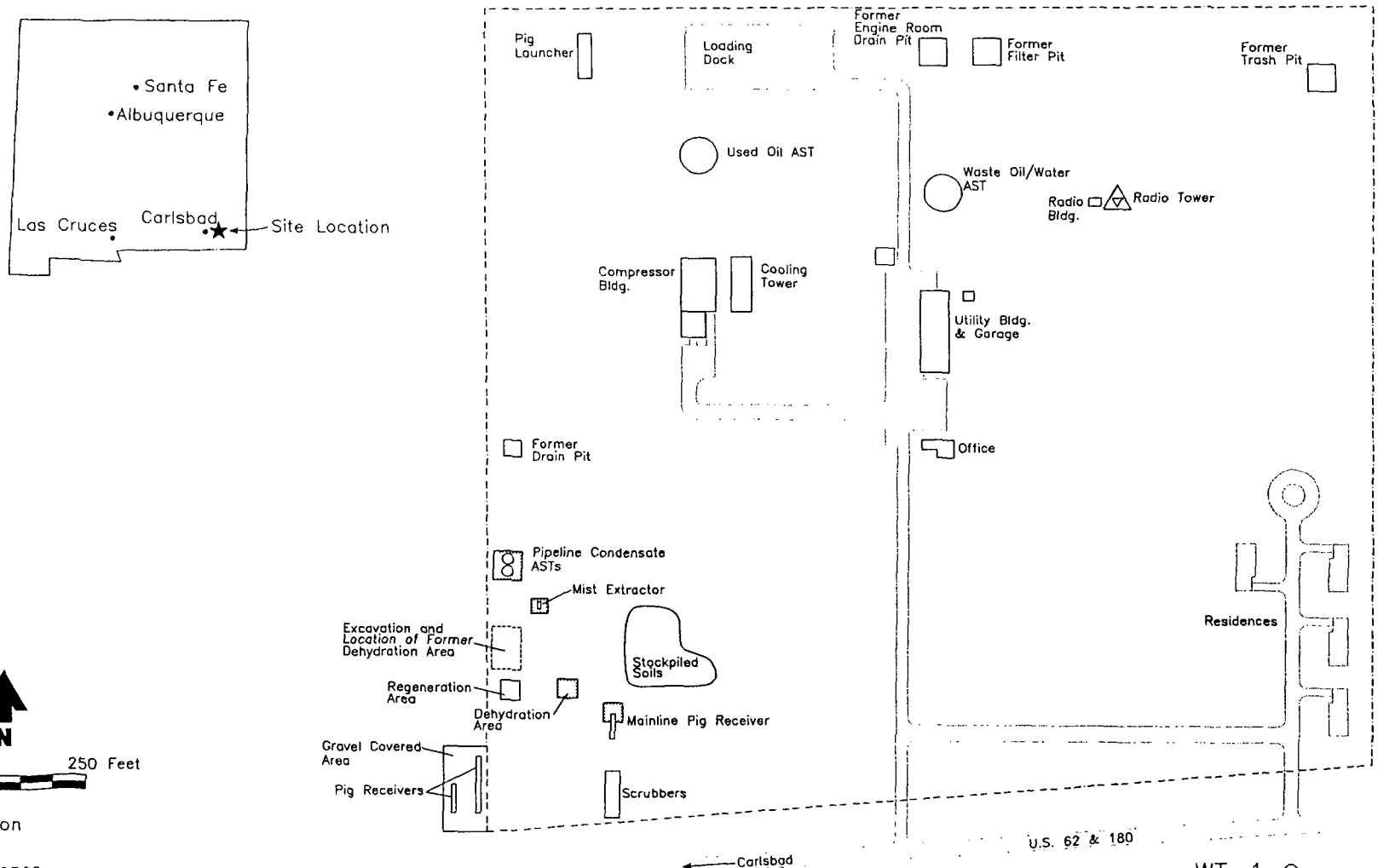

WT-1 Compressor Station

Site Map

Figure 1

DANIEL B. STEPHENS & ASSOCIATES, INC.

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JN 4230

2.1 Previous Hydrogeologic Investigations

Three previous hydrogeologic investigations have been conducted to evaluate soil and ground-water impacts at the facility. Two of the investigations were conducted near the former waste pits (Metric Corporation, 1991; Brown & Root Environmental, 1993). The third investigation was conducted near the former dehydration area (Brown & Caldwell, 1993). As discussed in these previous investigation reports, the site is underlain by partially- to well-indurated sandy limestone (caliche) and sandstone. Locally the depth to ground water ranges from approximately 45 to 55 feet below ground surface (bgs); ground-water flows generally toward the north.

The first investigation was performed by Metric Corporation in October 1991. Metric advanced a total of 6 soil borings (BH-1 through BH-6) to investigate subsurface conditions near the former engine room drain and filter pits, trash pit, and drain pit (Figures 1 and 2). Metric tested soil samples for the presence of volatile organic compounds (VOCs) using an organic vapor meter (OVM) and selected 2 to 3 samples from each soil boring (based on the OVM field screen) for submission to an analytical laboratory for chemical analysis. Soil samples were analyzed for total recoverable petroleum hydrocarbons (TRPH) using EPA method 418.1; benzene, toluene, ethylbenzene, and xylene (BTEX) using EPA method 8020; and select organic compounds and metals using the toxic characteristic leaching procedure (TCLP).

Metric determined that actionable soil impacts were limited primarily to the engine room drain and filter pit area shown in Figure 2. The New Mexico Oil Conservation Division (OCD, 1993) regulatory guideline of 100 mg/kg total petroleum hydrocarbons (TPH) was exceeded for soils collected from soil borings BH-1, BH-2, and BH-4 located near the former pits. However, the OCD regulatory guideline of 50 mg/kg for total BTEX and the Environmental Protection Agency TCLP limits (40 CFR 261.24[b]) were not exceeded in any of the analyzed soils.

During the period of August through October 1992, Brown & Root Environmental advanced 28 soil borings and installed 3 monitor wells (MW-1 through MW-3 on Figure 2) to delineate the extent of subsurface impacts identified by Metric. Soil and ground-water samples were collected at each drilling location and analyzed for TPH, BTEX, and target organic compounds and metals

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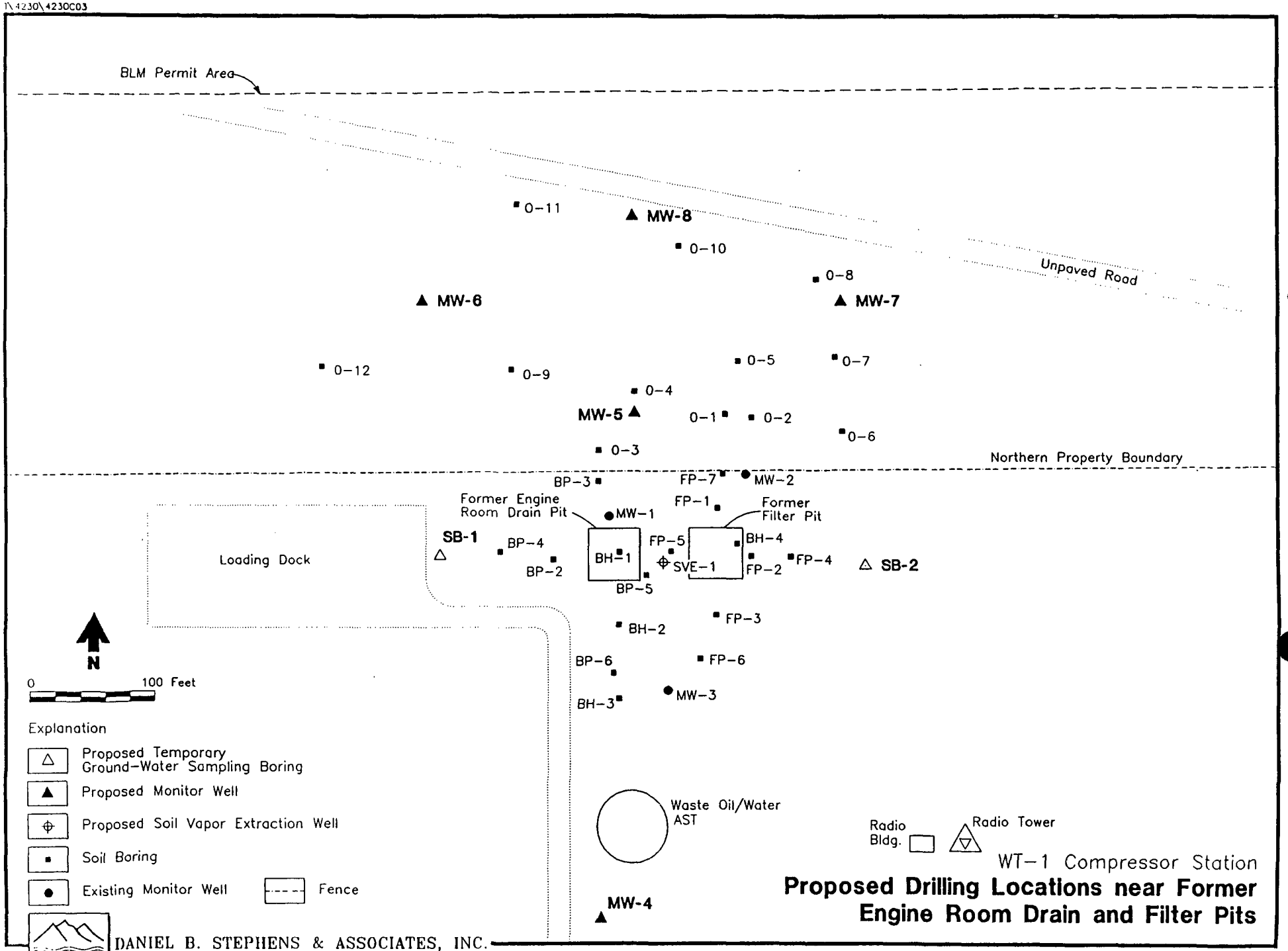

WT-1 Compressor Station

Proposed Drilling Locations near Former Engine Room Drain and Filter Pits

DANIEL B. STEPHENS & ASSOCIATES, INC.
10-94
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by the TCLP method. In order to drill off-site, TPC acquired access from the U.S. Bureau of Land Management (BLM) for an area extending 300 feet north and west of the site fencelines.

Brown & Root confirmed that actionable soil contamination is limited to the area immediately surrounding the engine room drain and filter pits and that ground-water impacts extend off-site to the north. Several core samples collected from soil borings near the former pits contained phase-separated hydrocarbons (PSH). Soil boring O-3 and monitor well MW-2 had measurable thicknesses of PSH in contact with the water table. Total BTEX concentrations ranged from non-detectable to over 1900 µg/L for ground-water samples collected during their investigation. With the exception of samples collected from soil boring BP-2, soil and ground-water samples did not exceed TCLP limits for the analyzed organic and metal compounds.

In November 1993, Brown & Caldwell investigated potential subsurface impacts originating from the former dehydration area located near the southwest corner of the site (Figure 1). Eight soil borings (B-1 through B-8 on Figure 3) were advanced to the water table and soil and ground-water samples were collected for analysis of TPH and BTEX. Soil samples collected from B-1, B-2, and B-7 were impacted above OCD guidelines for BTEX and TPH. Ground-water samples collected from each open soil boring exceeded the New Mexico Water Quality Control Commission (WQCC) regulation standards for BTEX. Benzene concentrations ranged from 720 µg/L to 5,800 µg/L.

2.2 Corrective Action

In order to prevent continued hydrocarbon releases to the subsurface, TPC has (1) decommissioned the engine room drain and filter pits, (2) excavated soils near the former dehydration units, and (3) constructed secondary concrete containment walls around each waste storage area. The pits were decommissioned by placing an impermeable soil/cement cap over each pit thereby eliminating direct infiltration of precipitation into the pits. Along the western property boundary approximately 3,000 cubic yards of hydrocarbon-contaminated soils were removed from beneath the former dehydration units. These soils are currently stockpiled within the southwestern portion of the site (Figure 1).

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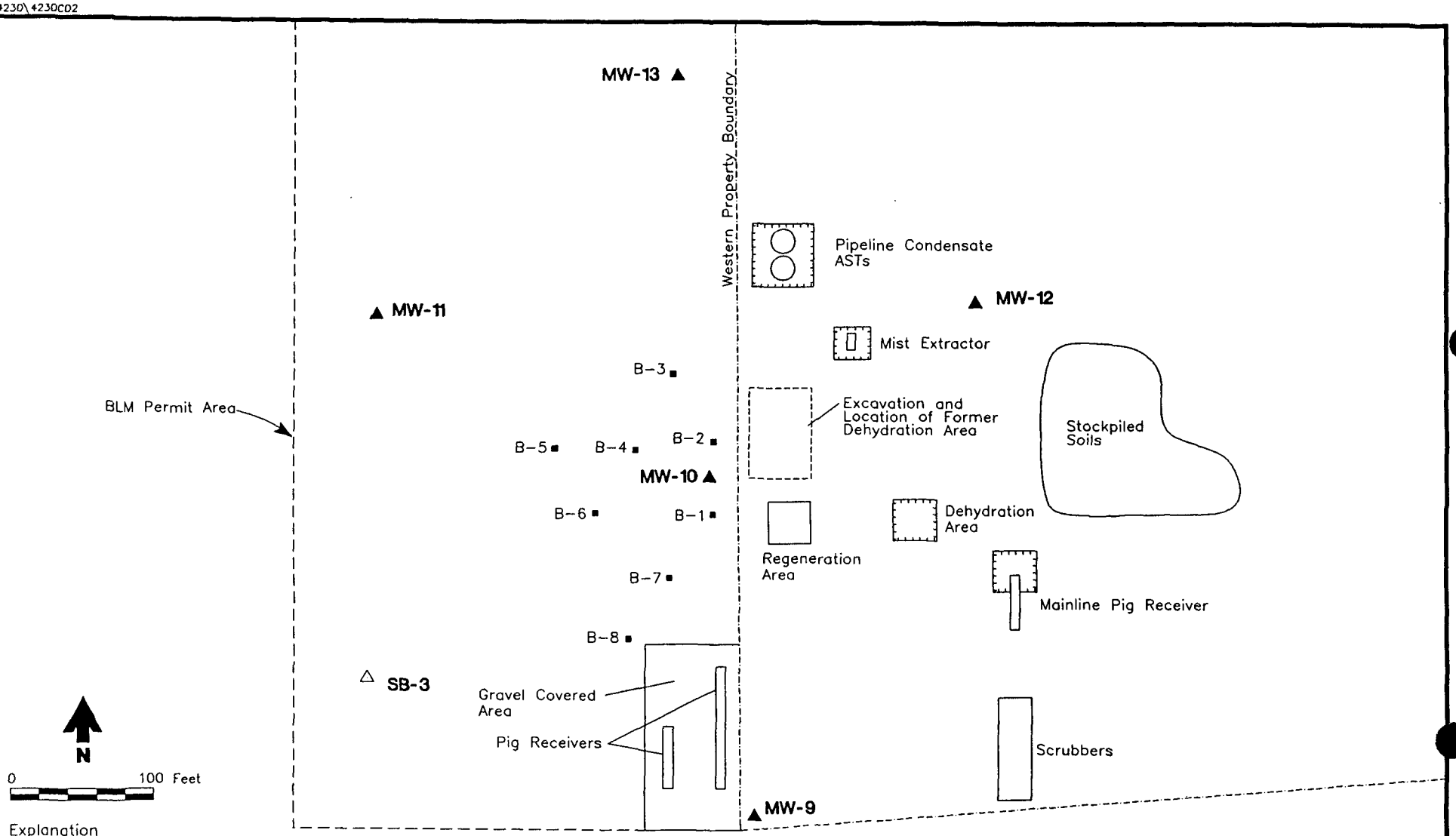

Figure 3

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10-94
JN 4230

WT-1 COMPRESSOR STATION

Proposed Drilling Locations near Former Dehydration Area

3. SCOPE OF WORK

The proposed scope of work is designed to determine (1) the areal extent of the subsurface contamination identified along the northern and western fencelines, (2) the vertical extent and hydraulic characteristics of the ground-water system, and (3) soil vapor extraction (SVE) parameters for future remedial designs. The investigation will include the following field activities:

- Drilling and sampling three temporary borings
- Installing and sampling approximately 10 monitor wells
- Sampling existing monitor wells
- Installing one SVE well
- Conducting three short-duration SVE pilot tests
- Conducting four to six slug tests in selected monitor wells to determine hydraulic characteristics

All field work will be conducted in accordance with DBS&A standard operating procedures and a site-specific health and safety plan to be developed for the field program. Field activities and report preparation are described in detail in Sections 3.1 and 3.2, respectively.

3.1 Field Activities

A total of 13 drilling locations have been selected to establish the distribution of hydrocarbons in ground water, the direction of ground-water flow, and hydraulic characteristics. In addition, one SVE well will be installed to evaluate remedial options. The proposed drilling locations are depicted in Figures 2 and 3. Off-site drilling locations are within the BLM permit area. The rationale for the proposed drilling locations are set forth in Table 1.

Precise drilling locations will be determined in the field based on the location of underground utilities and gas transmission lines. Upon approval from EOC, additional drilling locations (beyond the proposed 13) will be selected, as necessary, to define the areal extent of each plume.

Table 1. Drilling Location Rationale

Boring/Monitor Well Number	Rationale
Engine Room Drain and Filter Pits Area	
MW-4	Establish background water quality upgradient of former pits
MW-5	Monitor off-site area where highest hydrocarbon concentrations are present
MW-6	Monitor water quality in distal portion of plume
MW-7	Monitor water quality in distal portion of plume
MW-8	Monitor water quality in distal portion of plume
SB-1	Establish lateral extent of plume
SB-2	Establish lateral extent of plume
SVE-1	Establish the extent of halogenated VOCs in soil and determine SVE design parameters
Dehydration Area	
MW-9	Establish background water quality upgradient of former dehydration area
MW-10	Monitor off-site area where highest hydrocarbon concentrations are present
MW-11	Establish lateral extent of plume
MW-12	Establish lateral extent of plume
MW-13	Monitor estimated terminus of plume
SB-3	Establish lateral extent of plume

Drilling, Soil Sampling, and Monitor Well Construction Methods. Drilling will be accomplished by Eades Drilling Company of Hobbs, New Mexico, using an air-rotary drill rig. Core and/or grab samples will be collected at 5-foot intervals for geologic logging. The soil samples will be tested for the presence of VOCs using an OVM equipped with a photoionization detector (PID). The soil sample yielding the highest PID reading above background readings and a sample immediately above the water table will be retained for laboratory analysis of TPH (EPA method 8015 modified) and BTEX. Soil samples collected from SVE-1 will be retained for laboratory analysis of halogenated VOCs (EPA method 8010). In order to determine proper disposal of drill cuttings generated during the present and past investigations, one composite soil sample will be collected and analyzed for BTEX and TPH. The above samples will be analyzed by Hall Environmental Analysis Laboratory (HEAL) located in Albuquerque, New Mexico.

All sampling equipment will be decontaminated prior to use by washing with Liquinox® detergent, followed by a deionized water rinse. Drilling equipment will be steam cleaned before each boring is drilled.

Monitor wells will be drilled to a depth of 10 feet below the water table and a 2-inch-diameter monitor well will be constructed to evaluate ground-water quality. Each monitor well will consist of 15 feet of 2-inch, 0.010-inch machine-slotted polyvinyl chloride (PVC) screen, approximately 40 to 50 feet of flush-threaded 2-inch PVC blank casing, and 17 feet of 12-20 silica sand filter pack. A bentonite seal will be emplaced on top of the filter pack, followed by a cement-bentonite grout to the ground surface. The surface completion for each well will consist of a 12-inch-diameter flush-grade vault set in a 2-foot by 2-foot by 4-inch-thick concrete pad.

The SVE well will be drilled to a depth of 5 feet below the water table and a 2-inch diameter well will be constructed to evaluate SVE design parameters. The SVE well will contain two screened zones consisting of approximately 10 feet of 2-inch, 0.010-inch machine slotted PVC screen placed adjacent to the zone of highest VOC concentrations and near the water table. The annulas surrounding the screened intervals will be completed with 12-20 silica sand filter pack. A bentonite seal will separate the two screened zones. The upper bentonite seal will be followed by a cement-bentonite grout to surface, whereupon the surface will be completed as described for the monitor wells.

Temporary ground-water sampling borings will also be drilled to a depth of 10 feet below the water table, whereupon a 2-inch-diameter galvanized steel pipe attached to a well screen will be installed. Following collection of ground-water samples, the temporary well will be removed from the open boring so that the hole can be abandoned with a cement-bentonite slurry mixture poured from the surface. One of the temporary borings will be drilled beyond the sampling interval to evaluate the vertical extent of the ground-water system.

After the drilling program, all borings and wells will be surveyed relative to the plant grid system and mean sea level by John W. West Engineering Co. of Hobbs, New Mexico. Additionally, monitor wells installed during previous investigations will be surveyed so that accurate determination of ground-water flow directions can be made.

Prior to ground-water sampling, each well will be developed by the surge and bail method until the wells yield relatively sediment-free ground water. During development, field parameters (pH, temperature, and electrical conductivity) will be measured and recorded every half casing volume. All purged ground water will be contained in 55-gallon drums and upon receipt of the analytical results, will be appropriately disposed of by TPC personnel.

Ground-Water Sampling. Ground-water samples will be collected from all monitor wells and temporary wells by hand-bailing with dedicated, disposable polyethylene bailers. Prior to collecting samples, water levels will be measured and the presence of phase-separated hydrocarbons (PSH) will be determined. Each well containing no PSH will then be bailed until approximately three casing volumes have been purged. As described above, field parameters will be measured and recorded every half casing volume during purging.

Ground-water samples collected from monitor wells MW-1, MW-4, MW-5, MW-8, MW-9, MW-10, and MW-13 will be analyzed for BTEX and purgeable halocarbons (EPA method 8010/8020), TPH (EPA method 8015 modified), polynuclear aromatic hydrocarbons (EPA method 8100), major ions, total dissolved solids, and the WQCC Section 3-103 metals. Ground-water samples collected from monitor wells MW-2, MW-3, MW-6, MW-7, MW-11, MW-12 and borings SB-1, SB-2, and SB-3 will be analyzed for BTEX and TPH only. Samples will be shipped to HEAL for the analysis

of organic compounds and to Analytical Technologies, Inc. (ATI) for the analysis of inorganic compounds.

In order to check intralaboratory precision, quality assurance/quality control samples consisting of trip blanks and sample replicates will comprise approximately 5 to 10 percent of the total number of water and soil samples.

Soil Vapor Extraction Pilot Tests. Three short-term SVE pilot tests will be conducted to (1) determine operational parameters (e.g., relative air permeability of soils and contaminant concentrations in soil gas) and (2) assess whether an SVE system is a viable technology for the removal of PSH by vapor means. The short-term tests will be conducted on monitor wells MW-2 and MW-10 and vapor well SVE-1 (Figures 2 and 3) using AcuVac Remediation of Houston, Texas. AcuVac uses an internal combustion engine to supply vacuum to the well head and to destroy extracted soil vapors.

During the pilot tests, the following parameters will be recorded: (1) induced vacuum in surrounding wells to determine the radius of influence, (2) SVE well air flow rates to determine soil permeability and hydrocarbon mass extraction rates, (3) percent well vapor as engine fuel to determine supplemental fuel consumption rates and potential mass extraction rates, and (4) hydrocarbon vapor concentrations as measured with a Horiba engine analyzer. In addition, soil vapor samples will be collected in stainless steel canisters and will be analyzed for BTEX, extended refinery gases (aliphatics and branched paraffins), and fixed gases ($O_2/N_2/CO_2$) by Core Laboratories in Houston, Texas.

Determination of Hydraulic Characteristics. Slug withdrawal (rising head) tests will be used to determine the in-situ hydraulic properties of the shallow portion of the ground-water system so that contaminant transport rates can be evaluated. Slug testing will provide an expedient means of determining the local hydraulic conductivity; however, estimates of specific yield cannot be obtained by this method. Specific yield will be estimated based on the observed grain size distributions.

The spatial variability in hydraulic conductivity will be evaluated by conducting slug tests in four to six monitor wells. The procedure will consist of submerging a sealed bailer of a known volume below the water table, allowing the water level to equilibrate, and then quickly removing the bailer, thereby creating a slug withdrawal. Recovery of the water level to initial static conditions will be recorded at frequent intervals using pressure transducers and a data logger.

3.2 Investigation Report Preparation

At the conclusion of the field investigation, DBS&A will prepare a report that summarizes the findings of the investigatory activities. The report will include:

- Site history and background and regional hydrogeologic framework
- Site characterization, to include soil stratigraphy, hydrogeology, geology, and surface drainage
- Figures, tables, and descriptive text that delineate the areal extent of soil and groundwater impacts based on current and past investigations
- Estimates of potential contaminant volumes and masses
- Detailed soil boring logs, well construction diagrams, copies of analytical laboratory reports, chain of custody documentation, and documentation of field activities

The report will be presented to EOC in draft form. Following review and comment by EOC, DBS&A will incorporate EOC's comments and finalize the report.

4. REFERENCES

Brown and Caldwell. 1994. Subsurface Investigation, Transwestern WT-1 Compressor Station, Lea County, New Mexico. April 1994.

Brown & Root Environmental. 1993. Volume I: Final Report, Site Investigation, Transwestern Pipeline Company Compressor Station WT-1, Carlsbad, New Mexico. February 1993.

Metric Corporation. 1991. Shallow Subsurface Investigation at WT-1 Compressor Station, Lea County, New Mexico. Prepared for Transwestern Pipeline Company, Roswell, New Mexico, December 1991.

New Mexico Oil Conservation Division (OCD). 1993. Unlined Surface Impoundment Closure Guidelines (February 1993). Tab 7b. *In* Environmental Regulations, State of New Mexico Energy, Minerals, and Natural Resources Department, Oil Conservation Division, Santa Fe, New Mexico.

Phone (505) 623-2761
FAX (505) 625-8060

Transwestern Pipeline Company
TECHNICAL OPERATIONS
P. O. Box 1717 • Roswell, New Mexico 88202-1717

May 12, 1994

Mr. Roger Anderson
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Re: Subsurface investigation ,Wt-1 Compressor Station

Dear Mr. Anderson:

Enclosed find one (1) copy of the report describing a subsurface investigation at the above referenced facility. The area of concern at the facility is a historic site where dehydration activities had once occurred. Brown and Root Environmental was contracted to perform the drilling investigation.

The dehydration activities, which are designed to remove liquids and impurities from the in coming natural gas, have since been relocated to another site at the facility and have been contained in concrete secondary containment.

At your convenience, review this report. Transwestern Pipeline Company will be contacting your agency in the near future to discuss remediation activities and formal closure of this area.

Should you require any additional information concerning review of this report prior to the meeting, contact our Roswell Technical Operations at 625-8022.

Sincerely,

Larry Campbell

Larry Campbell
Division Environmental Specialist

xc: Greg McIlwain w/o attachments
Rich Jolly "
Merlyn Coffman "
file

Transwestern Pipeline Company
TECHNICAL OPERATIONS
P. O. Box 1717 • Roswell, New Mexico 88202-1717

Phone (505) 623-2761
FAX (505) 625-8060

April 30, 1993

Mr. Roger Anderson
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Dear Mr. Anderson:

As a result of the April 1, 1993 meeting between Transwestern Pipeline Company (TPC) and the Oil Conservation Division (OCD), presented herein is a remediation plan to correct identified environmental concerns at the Wt-1 Compressor Station. This plan has been submitted to your agency as per your request, and addresses those environmental deficiencies identified during that meeting and in a report by Brown & Root Environmental entitled "Site Investigation Transwestern Pipeline Company Compressor Station Wt-1 Carlsbad, New Mexico".

In this meeting, three areas of environmental concern were targeted for further investigation and/or remediation. Each of the items discussed and the proposed action to address each concern are presented below:

1. Product Removal From Groundwater

Sampling results indicated the presence of free product in the groundwater underlying the Burn Collection Area, Filter Collection Area and north of the Wt-1 property boundary. In compliance with the OCD regulations pertaining to water quality in New Mexico, all free product associated with the groundwater will be removed, and properly disposed.

2. Burn Collection Area and Filter Collection Area Closure

The burn Collection Area and Filter Collection Area last received wastes in the mid 1980's. Each area was then backfilled and mounded with native soil. It is Transwestern's contention that the existing non hazardous hydrocarbon contamination levels in the soil and subsurface sandstone materials will have no adverse impact to the surrounding area. This facility is located in a remote area, approximately 30 miles from the nearest town, Carlsbad, New Mexico. The land use of the area is livestock grazing and wildlife habitat. There are presently no wells within 1 mile of the site.

Based upon the above site information, Transwestern Pipeline proposes to close each of the above collection areas without excavation of the hydrocarbon contamination. The closure activities will consist of grading the existing Collection Areas to approximate the adjacent level conditions. A synthetic liner material will be placed over each Collection Area. A soil/cement mixture consisting of approximately 3 percent cement will be mounded over the underlying liner material to an approximate height of 6 inches. The installation of this impermeable cap over the two areas will ensure that vertical migration of the contaminants will be eliminated. A monitoring program for the groundwater impacted from these features will be submitted to the OCD upon completion of the closure.

3. Definition of Offsite Plume Determination

To more closely define the extent of the offsite groundwater contamination, additional drilling will be conducted. Upon completion of this subsurface investigation, Transwestern will present to the OCD, a map which depicts the horizontal extent or plume of the hydrocarbon contamination.

A plan which addresses remediation of the impacted groundwater offsite of the Wt-1 property will be submitted to the OCD pending further definition of the contamination extent.

As a compliance notification, TPC will submit sampling results and completion reports for each of the above environmental concerns as they are addressed.

Should you require additional information concerning the proposed actions, contact our Roswell Technical Operations at 625-8022.

Sincerely,

Larry Campbell
Division Environmental Specialist

xc: Greg McIlwain
Rich Jolly
Merlyn Coffman
Lou Soldano Enron Legal
file

Phone (505) 623-2761
FAX (505) 625-8060

Transwestern Pipeline Company
TECHNICAL OPERATIONS
P. O. Box 1717 • Roswell, New Mexico 88202-1717

March 19, 1993

Mr. Roger Anderson
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Dear Mr. Anderson:

Enclosed find one (1) copy each of the following reports describing surface impoundment studies which were conducted for the following Transwestern Pipeline Company facilities:

"Shallow Subsurface Investigation at the Eunice Compressor Station Lea County, New Mexico" METRIC Corporation

"Site Investigation Transwestern Pipeline Company Compressor Station Wt-1 Carlsbad, New Mexico" Brown & Root Environ.

This information has been submitted to your agency in preparation of the agreed upon meeting with Transwestern on April 1, 1993 in Santa Fe. At your convenience, review each document prior to this meeting.

Sincerely,

Larry Campbell

Larry Campbell
Division Environmental Specialist

xc: Greg McIlwain w\o attachments
Rich Jolly " "
Lou Soldano " "
Jim Meyers " "
file

OCD/ENRON 4/1/93 Meeting 1:00 pm

Bill Olson - OCD
Roger Anderson - OCD
Larry Campbell - ENRON

Eunice Station

discuss Dec 1991 Invest. report

Want to consider insitu bioremediation for shallow cont. except for Blt-14 area
Will put MW in Blt-14 for determining gradient (hydraulic)
Will put in boring in old drain pit to dry caliche to look at source potential
Will give three phase work plan on this

Carlsbad WT-1

O-3, MW-2 have floating product

Will submit workplan on additional G.W. monitoring, product removal and risk approach for soil contaminants

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

February 4, 1992

BRUCE KING
GOVERNOR

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

CERTIFIED MAIL
RETURN RECEIPT NO. P-327-278-287

Mr. Larry Campbell, Compliance Environmentalist
Transwestern Pipeline Company
P.O. Box 1717
Roswell, New Mexico 88202-1717

Re: Remediation Site Closure
Compressor Station WT-1
Lea County, New Mexico

Dear Mr. Campbell:

The Oil Conservation Division (OCD) has received your request, dated January 16, 1992, for approval to close the previously approved remediation site at Compressor Station WT-1. Based on the information contained in your request, closure of the remediation site is approved.

If you have any questions, please call me at (505) 827-5812.

Sincerely:

Roger C. Anderson
Acting Bureau Chief

xc: OCD Hobbs Office
Chris Eustice - OCD

FAX (505) 625-8060 Phone (505) 623-2761

Transwestern Pipeline Company
TECHNICAL OPERATIONS
P. O. Box 1717 • Roswell, New Mexico 88202-1717

January 16, 1992

Mr. Roger Anderson
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Dear Mr. Anderson:

Transwestern Pipeline Company requests closure from your agency concerning a remediation site which is located at a remote mainline Compressor Station Wt-1, located approximately 35 miles west of Hobbs, New Mexico. The site in question is an area at the facility where Transwestern had operated a "mist extractor or muffler" to reduce pressures and releases of pipeline liquids to the adjacent soil which occurred during pigging operations.

During certain periods of operation, extremely large amounts of liquids would overflow the mist extractor resulting in contamination to the adjacent soil. In light of this, the mist extractor has been moved to another area of the facility with concrete secondary containment.

Transwestern is currently in the process of removing the contaminated soil and placing it into the OCD approved onsite landfarm. This material has been tested and is nonhazardous, contaminated only with hydrocarbons. The attached analyses report of 08/29/91 will confirm the nonhazardous status.

The removal of this nonhazardous soil has resulted in an excavation area with dimensions of 65'x 40' and approximately 12' deep. A sample of the soil collected on 12/20/91 at the bottom of the pit showed the TRPH concentrations to be 640 Mg/Kg.

To continue with further additional soil removal would be an increased burden for Transwestern, resulting in larger equipment to be brought onsite to remove the remaining small volume of contaminated soil in the bottom of the pit. Because of the low level of hydrocarbon present, and the increased costs required to remove the residual contaminated soil, the following closure plan for this site is proposed:

1) Clean fill material will be replaced into the excavation area to existing ground level. This material will be packed to eliminate any potential settling which may occur through time.

2) A soil-cement mixture will be placed and mounded over the replacement soil to an approximate "cap" thickness of 4 inches.

As Transwestern Pipeline Company is in the process of completing environmental remediation projects initiated in 1991, we would appreciate your immediate attention in this matter.

If you should require any additional information in this matter, contact me at 625-8022.

Sincerely,

Larry Campbell

Larry Campbell
Compliance Environmentalist

ASSAIGAI
ANALYTICAL LABORATORIES, INC. • 7300 Jefferson, N.E. • Albuquerque, New Mexico 87109

Assaigai Analytical Labs
7300 Jefferson NE
Albuquerque, NM 87109

Attn: SYED RIZVI
Phone: (505)345-8964

ENRON/TRANSWESTERN PIPELINE
HOBBS PLANT
1626 WEST MARLAND
HOBBS, NM 88240
Attn: MIKE KNEESE

Order #: 91-12-112
Date: 12/20/91 15:47
Work ID: WT-1 HOBBS 9000
Date Received: 12/12/91
Date Completed: 12/20/91

Purchase Order: 060-E5160D
Invoice Number: 912937

SAMPLE IDENTIFICATION

Sample Number	Sample Description
01	WT-1 OLD MUFFLER SITE 013
02	WT-1 OILY WASTE WATER 014

COPY

TEST RESULTS BY SAMPLE

Sample: 01A WT-1 OLD MUFFLER SITE 013 Collected: 12/09/91 13:00

Test Description	Result	Limit	Units	Analyzed	By
BENZENE,TOLUENE,EBENZ,XYLE					
BENZENE	<0.1	0.1	MG/KG	12/12/91	SS
TOLUENE	<0.1	0.1	MG/KG	12/12/91	SS
ETHYL BENZENE	<0.1	0.1	MG/KG	12/12/91	SS
XYLENES	<0.1	0.1	MG/KG	12/12/91	SS
TOTAL REC PET HYDROCARBONS	640	5.0	MG/KG	12/16/91	PV

Assaigai Analytical Labs
7300 Jefferson NE
Albuquerque, NM 87109

Attn: SYED RIZVI
Phone: (505)345-8964

ENRON/TRANSWESTERN PIPELINE
P.O. BOX TT
HWY 622-180 MILE MARKER 63
CARLSBAD, N.M. 88220
Attn: MICHAEL KNEESE
Invoice Number: 911726

Order #: 91-08-221
Date: 08/29/91 12:40
Work ID: WT-1 COMPRESSOR STATION 8049
Date Received: 08/21/91
Date Completed: 08/29/91

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
09	WT-1 MKJ Mist Extractor & Receiver		

MKJ
46,000 TRPH

Test Description	Result	Limit	Units	Analyzed	By
SELENIUM	<0.005	0.005	MG/L	08/22/91	JB
SILVER	0.039	0.010	MG/L	08/22/91	JB
TCLP ORGANICS ENRON LIST		0.001			
BENZENE	<0.02	0.02	MG/L	08/26/91	SS
CARBON TETRACHLORIDE	<0.02	0.02	MG/L	08/26/91	SS
CHLOROBENZENE	<0.02	0.02	MG/L	08/26/91	SS
CHLOROFORM	<0.02	0.02	MG/L	08/26/91	SS
1,2-DICHLOROETHANE	<0.02	0.02	MG/L	08/26/91	SS
1,1-DICHLOROETHYLENE	<0.02	0.02	MG/L	08/26/91	SS
METHYL ETHYL KETONE	<0.02	0.02	MG/L	08/26/91	SS
TETRACHLOROETHYLENE	<0.02	0.02	MG/L	08/26/91	SS
TRICHLOROETHYLENE	<0.02	0.02	MG/L	08/26/91	SS
VINYL CHLORIDE	<0.02	0.02	MG/L	08/26/91	SS
O-CRESOL	<0.001	0.001	MG/L	08/26/91	SS
M-CRESOL	<0.001	0.001	MG/L	08/26/91	SS
P-CRESOL	<0.001	0.001	MG/L	08/26/91	SS
1,4-DICHLOROBENZENE	<0.001	0.001	MG/L	08/26/91	SS
2,4-DINITROTOLUENE	<0.001	0.001	MG/L	08/26/91	SS
HEXACHLOROBENZENE	<0.001	0.001	MG/L	08/26/91	SS
HEXACHLORO-1,3-BUTADIENE	<0.001	0.001	MG/L	08/26/91	SS
HEXACHLOROETHANE	<0.001	0.001	MG/L	08/26/91	SS
NITROBENZENE	<0.001	0.001	MG/L	08/26/91	SS
PENTACHLOROPHENOL	<0.001	0.001	MG/L	08/26/91	SS
PYRIDINE	<0.001	0.001	MG/L	08/26/91	SS
2,4,5-TRICHLOROPHENOL	<0.001	0.001	MG/L	08/26/91	SS
2,4,6-TRICHLOROPHENOL	<0.001	0.001	MG/L	08/26/91	SS

Test Description	Result	Limit	Units	Analyzed	By
Surrogates					
NITROBENZENE-d5	75	Min: 35	Max: 114		
2-FLUOROBIPHENYL	64	Min: 43	Max: 116		
TERPHENYL-d14	69	Min: 33	Max: 141		
PHENOL-d5	58	Min: 10	Max: 94		
2-FLUOROPHENOL	66	Min: 21	Max: 100		
TOTAL REC PET HYDROCARBONS	46,000	5.0	MG/KG	08/23/91	PV

ASSAIGAI
ANALYTICAL LABORATORIES, INC. • 7300 Jefferson, N.E. • Albuquerque, New Mexico 87109

TOTAL REC PET HYDROCARBONS **Minimum: 5.0** **Maximum: 100**
Method: EPA 418.1

Sample	Sample Description	Result	Units	Extracted	Analyzed	By
09A	WT-1 MKJ	46,000	MG/KG	08/23/91	08/23/91	PV

Sample: 09A WT-1 MKJ Collected: 08/19/91 12:50

Test Description	Result	Limit	Units	Analyzed	By
BENZENE,TOLUENE,EBENZ,XYLE		0.1			
BENZENE	<0.1	0.1	MG/KG	08/22/91	KH
TOLUENE	<0.1	0.1	MG/KG	08/22/91	KH
ETHYL BENZENE	<0.1	0.1	MG/KG	08/22/91	KH
XYLENES	<0.1	0.1	MG/KG	08/22/91	KH
TCLP METALS ENRON LIST		0.0002			
ARSENIC	0.027	0.005	MG/L	08/22/91	JB
BARIUM	<0.50	0.50	MG/L	08/22/91	JB
CADMIUM	<0.003	0.003	MG/L	08/22/91	JB
CHROMIUM	0.05	0.02	MG/L	08/22/91	JB
LEAD	0.34	0.10	MG/L	08/22/91	JB
MERCURY	0.0003	0.0002	MG/L	08/22/91	JB

State of New Mexico
ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT
Santa Fe, New Mexico 87505

OIL CONSERVATION DIVISION

November 19, 1991

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

MATTHEW BACA
DEPUTY SECRETARY

CERTIFIED MAIL
RETURN RECEIPT NO. P-756-903-833

Mr. Larry Campbell
Transwestern Pipeline Company
Technical Operations
P.O. Box 1717
Roswell, New Mexico 88202-1717

RE: PIPELINE LIQUIDS PIT CLOSURE
TRANSWESTERN SOUTH CARLSBAD COMPRESSOR STATION
EDDY COUNTY, NEW MEXICO

Dear Mr. Campbell:

The New Mexico Oil Conservation Division (OCD) has completed a review of the November 13, 1991 Transwestern Pipeline Company's soil boring and sampling investigation report of potential releases of contaminants from the concrete lined pipeline liquids pit at the Transwestern South Carlsbad Compressor Station.

Based on the results of the above investigation report, the OCD approves of Transwestern's plan to close the concrete lined pit by excavating the concrete for disposal at the Eddy County landfill and backfilling the excavation with clean fill.

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

Sincerely,

William C. Olson
Hydrogeologist

cc: OCD Artesia Office

VILLAGRA BUILDING - 408 Galisteo
Forestry and Resources Conservation Division
P.O. Box 1948 87504-1948
827-5830

Park and Recreation Division
P.O. Box 1147 87504-1147
827-7465

2040 South Pacheco
Office of the Secretary
827-5950

Administrative Services
827-5925

Energy Conservation & Management
827-5900

Mining and Minerals
827-5970

LAND OFFICE BUILDING - 310 Old Santa Fe Trail
Oil Conservation Division
P.O. Box 2088 87504-2088
827-5800

FAX (505) 625-8060 Phone (505) 623-2761

Transwestern Pipeline Company
TECHNICAL OPERATIONS
P. O. Box 1717 • Roswell, New Mexico 88202-1717

November 13, 1991

Mr. Roger Anderson
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Dear Mr. Anderson:

Enclosed for your review is a soil boring and sampling report for Transwestern Pipeline Company South Carlsbad Compressor Station. This study was performed to determine the potential for release of organic contamination which may have occurred from the facilities concrete lined pipeline liquids pit which was present onsite. The only wastes which were placed into this pit were pipeline liquids generated from the natural gas transmission in the area. This facility is located in the gathering area for exploration and production of oil and gas and therefore, this waste stream is exempt from RCRA Subtitle C regulation.

As presented in the report, a single borehole was sampled to the depth of the underlying hard caliche layer to intercept any horizontal movement of organic constituents which may have been released from the pit.

Based upon the negative results for contamination at this field compressor station site, Transwestern is requesting from the OCD formal closure of the concrete lined pit at this facility and approval to dispose of the concrete material in the County landfill. Pending approval of this request, Transwestern will implement construction activities and install an above ground tank with concrete secondary containment.

If you may require any additional information, please contact me at 625-8022.

Sincerely,

Larry Campbell

Larry Campbell
Compliance Environmentalist

xc: Bill Nolan
Omer Parker
Doc Alpers
File

METRIC
Corporation ENVIRONMENTAL ENGINEERING AND SCIENCE

8429 WASHINGTON PLACE NE, SUITE A
ALBUQUERQUE, NEW MEXICO 87113
(505) 828-2801

October 24, 1991

Mr. Lawrence T. Campbell
Transwestern Pipeline Company
6381 N. Main Street
P.O. Box 1717
Roswell, NM 88202-1717

RE: South Carlsbad Compressor Station Subsurface Investigation

Dear Mr. Campbell:

This letter report presents the results of a shallow subsurface investigation conducted at the South Carlsbad Compressor Station in Eddy County, New Mexico. In August 1991, METRIC assisted Transwestern Pipeline Company in conducting comprehensive soil boring at the site in order to assess the presence of organic constituents which may exist in the vicinity of a former disposal pit. The disposal pit is located in the north corner of the site (FIGURE 1). A single borehole location (BH-1) was drilled adjacent to and down dip from the disposal pit.

Borehole drilling was provided by METRIC Corporation using a CME-55 auger drilling rig equipped with 3 1/4 inch hollow stem augers and a CME continuous sampling system. Augers and continuous samplers were steam cleaned to eliminate contamination within the sampling borehole.

Drilling was conducted to the depth of an underlying hard caliche layer. Soil cores withdrawn using the continuous sampler were scanned with a portable organic vapor analyzer (OVA) in order to guide sample selection. Samples were taken at depth intervals which indicated an OVA reading and were collected in 8 ounce glass jars, placed on ice and shipped by Federal Express overnight delivery to Assaigai Laboratories in Albuquerque, New Mexico. The samples were analyzed for total recoverable petroleum hydrocarbons (TRPH). A borehole log is attached.

Analyses for TRPH were conducted in BH-1 at depth intervals of 3.5' to 4.0' and 19.0' to 19.3'. A laboratory report is attached. The TRPH, analytical results indicated no TRPH concentrations above detection limits at either depth interval. The diagram attached

shows OVA and analytical results at BH-1. No groundwater was encountered at the site during boring activities.

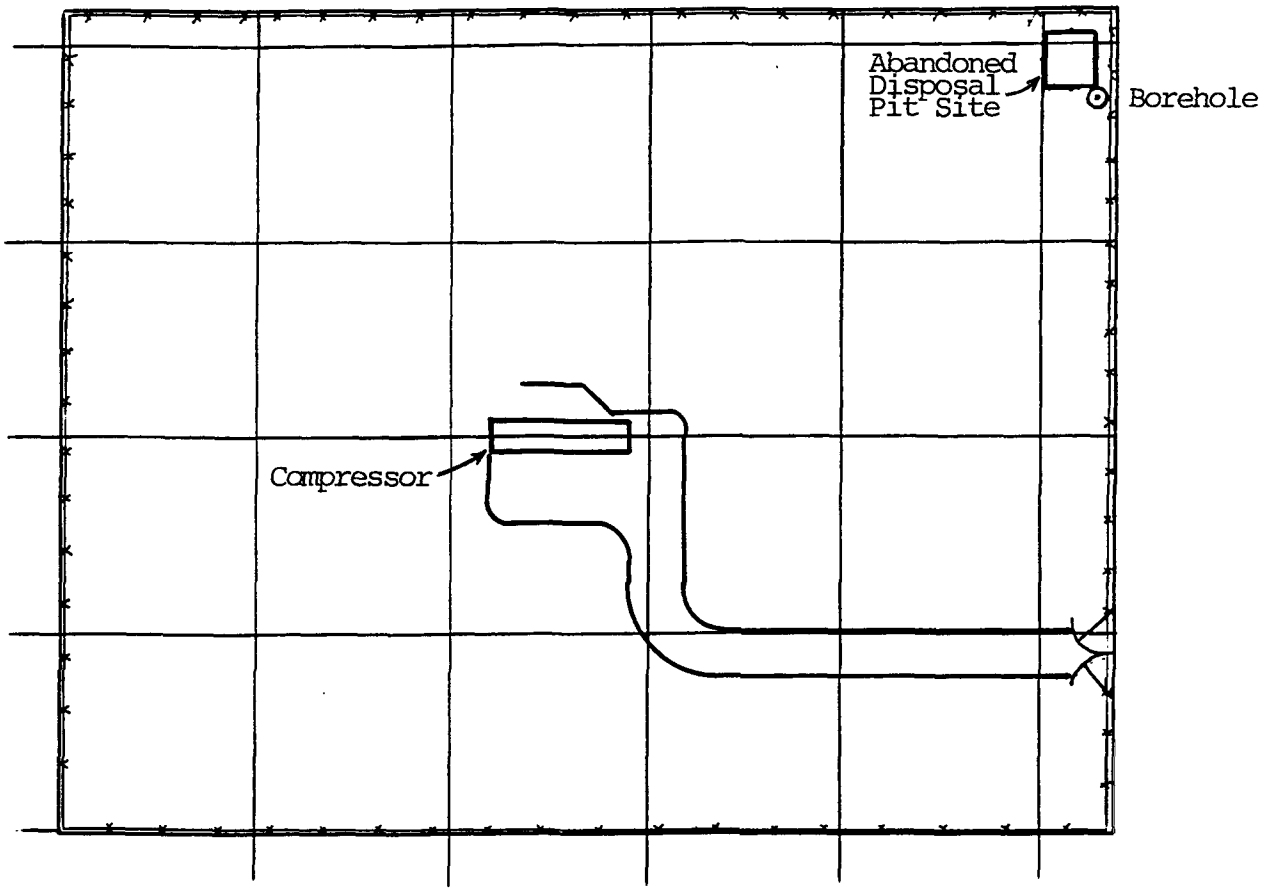
We hope this information is useful in your environmental management of the South Carlsbad Compressor Station Site.

Sincerely,

Peter H. Metzner
President

PHM:cjs

enclosures



SCALE: 1" = 50'

FIGURE 1

BOREHOLE LOCATION

ABANDONED DISPOSAL PIT

SOUTH CARLSBAD COMPRESSOR STATION

METRIC
Corporation

SAMPLE LOG

Borehole Number BH-1 **Borehole Location** _____

Property Owner Transwestern Pipeline Company

Sample Logger Don Briggs, METRIC Corporation

Driller METRIC Corporation

Drilling Medium Hollow Stem Auger

Date of Completion 8-20-91 **Ground Elev.** _____

Depth (feet)	Thickness (feet)	Stratigraphic Description
0 - 2.8	2.8	Brown silty clay sand
2.8 - 4.0	1.2	Tan silty sand
4.0 - 7.6	3.6	Tan silty clay sand
7.6 - 7.8	0.2	No recovery
7.8 - 9.3	1.5	Tan silty clay sand
9.3 - 17.8	8.5	No recovery
17.8 - 19.6	1.8	Caliche, hard

Assaigai Analytical Labs
7300 Jefferson NE
Albuquerque, NM 87109

Attn: SYED RIZVI
Phone: (505)345-8964

ENRON/TRANSWESTERN PIPELINE
HOBBS PLANT
2626 WEST MARLAND
HOBBS, NM 88240
Attn: MICHAEL KNEESE
Invoice Number: 911894

Order #: 91-08-253
Date: 09/16/91 14:04
Work ID: HOBBS - BUFFALO WALLOW 8072
Date Received: 08/23/91
Date Completed: 09/13/91

SAMPLE IDENTIFICATION

Sample Number	Sample Description
01	BH-1 30.0 - 30.3
03	BH-2 - 42.8 - 43.0
05	BH-2 0 - 1.0
07	BH-1 19.9 - 20.2
09	BH-2 - 15.0 - 15.3
11	BH-1 19.0 - 19.29
13	BH-1 15.0 - 15.5

Sample Number	Sample Description
02	BH-1 - 45.2 - 45.5
04	BH-2 51.2 - 51.4
06	BH-1 8.8 - 9.2
08	BH-1 3.5 - 4.0
10	BH-2 30.0 - 30.3
12	BH-1 36.5 - 36.7

Test Description	Result	Limit	Units	Analyzed	By
PYRIDINE	<0.001	0.001	MG/L	09/11/91	SS
2,4,5-TRICHLOROPHENOL	<0.001	0.001	MG/L	09/11/91	SS
2,4,6-TRICHLOROPHENOL	<0.001	0.001	MG/L	09/11/91	SS
Surrogates					
NITROBENZENE-d5	75	Min: 35	Max: 114		
2-FLUOROBIPHENYL	70	Min: 43	Max: 116		
TERPHENYL-d14	88	Min: 33	Max: 141		
PHENOL-d5	57	Min: 10	Max: 94		
2-FLUOROPHENOL	60	Min: 21	Max: 100		
TOTAL REC PET HYDROCARBONS	28	5.0	MG/KG	09/09/91	PV

Sample: 08A BH-1 3.5 - 4.0 **Collected:**

Test Description	Result	Limit	Units	Analyzed	By
TOTAL REC PET HYDROCARBONS	<5.0	5.0	MG/KG	09/09/91	PV

Carlsbad

Sample: 09A BH-2 - 15.0 - 15.3 **Collected:**

Test Description	Result	Limit	Units	Analyzed	By
BENZENE,TOLUENE,EBENZ,XYLE		0.1			
BENZENE	<0.1	0.1	MG/KG	09/06/91	DD
TOLUENE	<0.1	0.1	MG/KG	09/06/91	DD
ETHYL BENZENE	<0.1	0.1	MG/KG	09/06/91	DD
XYLENES	<0.1	0.1	MG/KG	09/06/91	DD

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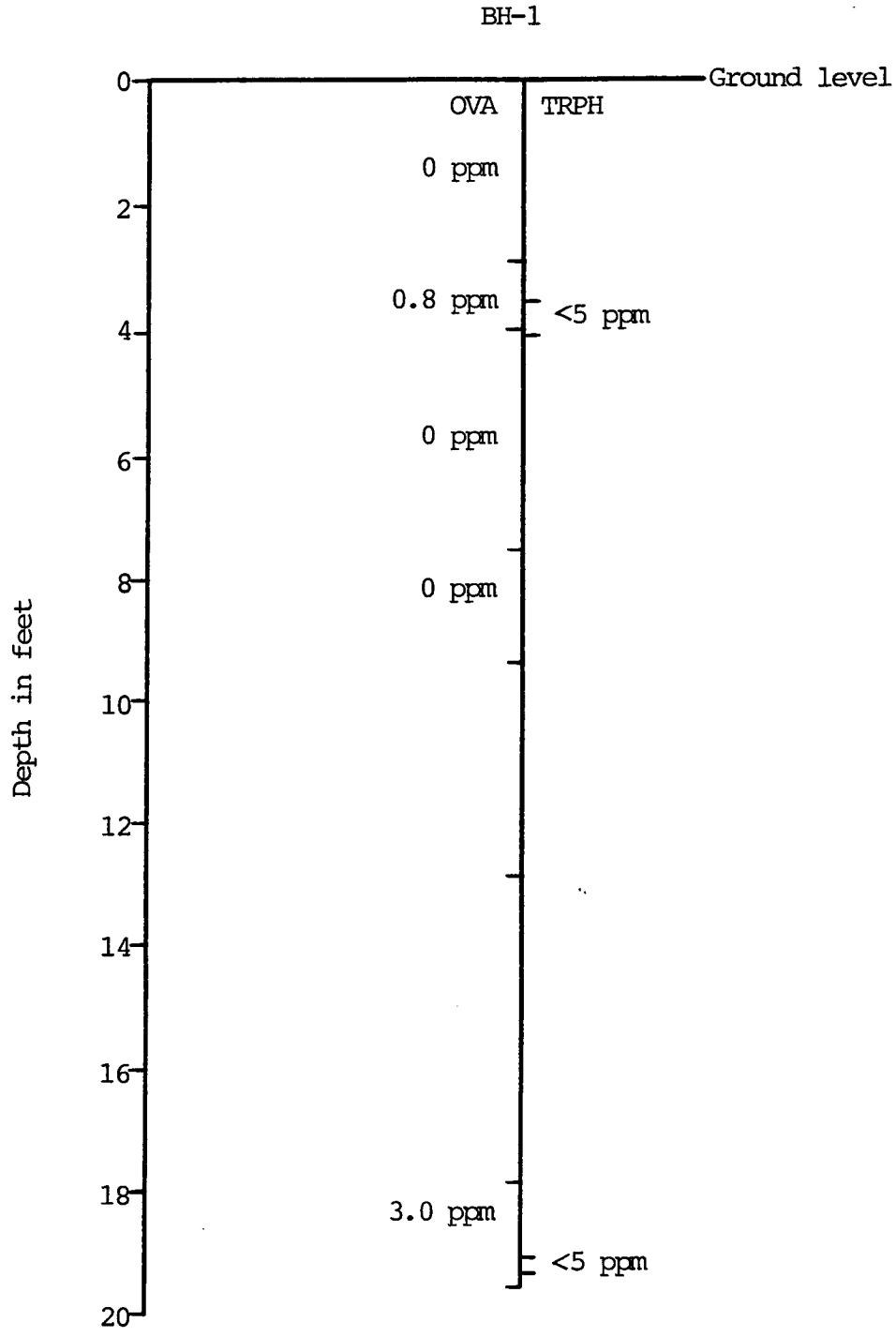
Sample: 11A BH-1 19.0 - 19.29 Collected:

Test Description	Result	Limit	Units	Analyzed	By
TOTAL REC PET HYDROCARBONS	<5.0	5.0	MG/KG	09/09/91	PV

Sample: 12A BH-1 36.5 - 36.7 Collected:

Test Description	Result	Limit	Units	Analyzed	By
BENZENE,TOLUENE,EBENZ,XYLE		0.1			
BENZENE	<0.1	0.1	MG/KG	09/06/91	DD
TOLUENE	<0.1	0.1	MG/KG	09/06/91	DD
ETHYL BENZENE	<0.1	0.1	MG/KG	09/06/91	DD
XYLENES	<0.1	0.1	MG/KG	09/06/91	DD
TCLP F SERIES ENRON LIST					
METHYLENE CHLORIDE	<0.02	0.02	MG/L	09/06/91	SS
1,1,1-TRICHLOROETHANE	<0.02	0.02	MG/L	09/06/91	SS
TRICHLORO-TRIFLUOROETHANE	<0.02	0.02	MG/L	09/06/91	SS
ORTHO-DICHLOROBENZENE	<0.02	0.02	MG/L	09/06/91	SS
TRICHLOROFLUOROMETHANE	<0.02	0.02	MG/L	09/06/91	SS
XYLENE	<0.02	0.02	MG/L	09/06/91	SS
ACETONE	<10	10	MG/L	09/06/91	SS
ETHYL ACETATE	<10	10	MG/L	09/06/91	SS
ETHYL BENZENE	<0.02	0.02	MG/L	09/06/91	SS
ETHYL ETHER	<0.02	0.02	MG/L	09/06/91	SS
METHYL ISOBUTYL KETONE	<0.02	0.02	MG/L	09/06/91	SS
n-BUTYL ALCOHOL	<10	10	MG/L	09/06/91	SS



ANALYTICAL RESULTS AND ORGANIC VAPOR ANALYZER
RESULTS AT BH-1
SOUTH CARLSBAD COMPRESSOR STATION