

2R - 55

**REPORTS
DATE:**

FEB 2003



ENVIRONMENTAL PLUS, INC. *Micro-Plan* *Minimac*™
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES

February 26, 2003

Mr. Jack Ford
New Mexico Oil Conservation Division
P.O. Box 6429
1220 S. Saint Francis Drive
Santa Fe, New Mexico 88505

RECEIVED

MAR 18 2003
Environmental Bureau
Oil Conservation Division

Subject: Final C-141 and Closure Plan Implementation Documentation

Re: Duke A-14
UL-M (SW¼ of the SW¼) of Section 10 T18S R27E
Latitude 32° 45' 22.923"N
Longitude 104° 16' 16.287"W
Eddy County New Mexico

Dear Mr. Ford,

This letter report is being submitted by Environmental Plus, Inc. (EPI) of Eunice, New Mexico on behalf of Mr. Steve Weathers, Duke Energy Field Services, to document acceptable implementation of the closure proposal submitted by Duke Energy Field Services for the above referenced site and subsequently approved by your office. A final New Mexico Oil Conservation Division (NMOCD) form C-141 is also included.

On February 10th, EPI began dewatering the excavation by pumping the water onto the ground surface south of the excavation. On February 14th the dewatered excavation was backfilled with the remediated soil, compacted, and contoured to grade. Mike Stubblefield, Environmental Engineer, NMOCD Artesia Office, observed the activities several times during the project as did Mr. Jim Carr with the New Mexico State Land Office. Photographs of the site during implementation of the project are attached. Based on this documentation, Duke Energy Field Services requests that the NMOCD require "no further action" at this site.

All official communication should be addressed to Mr. Steve Weathers at the address below.

Mr. Steve Weathers
P.O. Box 5493
370 17th Street Suite 900
Duke Energy Field Services
Denver, Colorado 80217

SWWeathers@Duke-Energy.com

ENVIRONMENTAL PLUS, INC.



ENVIRONMENTAL PLUS, INC. *Micro-Blaze* *Minidisc*TM
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES

If there are any questions please call Mr. Ben Miller or myself at the office or at 505.390.0288 and 505.390.7864, respectively, or Mr. Weathers at 303.619.3042.

Sincerely,

Pat McCasland
EPI Technical Services Manager

cc: Mike Stubblefield, NMOCD Artesia NM
Steve Weathers, Duke Energy Field Services, Denver CO
Lynn Ward, Duke Energy Field Services, Midland TX
Ben Miller, EPI Vice President and General Manager
Sherry Miller, EPI President
file

ENVIRONMENTAL PLUS, INC.

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised March 17, 1999

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Duke Energy Field Services	Contact Steve Weathers
Address P.O. Box 5493 Denver, Colorado 80217	Telephone No. 303.605.1718
Facility Name A-14	Facility Type Natural Gas Pipeline

Surface Owner: State of New Mexico	Mineral Owner	Lease No.
------------------------------------	---------------	-----------

LOCATION OF RELEASE

Unit Letter M	Section 10	Township 18S	Range 27E	Feet from the	North/South Line	Feet from the	East/West Line	County: Lea Lat. 32° 45' 22.923" N Lon. 104° 16' 16.287" W
------------------	---------------	-----------------	--------------	---------------------	---------------------	---------------------	-------------------	--

NATURE OF RELEASE

Type of Release Natural Gas Condensate	Volume of Release ? barrels	Volume Recovered ? barrels
Source of Release 14" Steel pipeline	Date and Hour of Occurrence 9-17-02	Date and Hour of Discovery 9-17-02
Was Immediate Notice Given? ☐ Yes ☐ No ☐ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☐ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
Corroded pipe. Line repair clamp installed.

Describe Area Affected and Cleanup Action Taken.*

Area = 6,639 ft² (60' x 100') Ground water occurs at ~6.0 feet below ground surface. The site rank is 20 points. Remedial Goals: TPH 8015m = 100 mg/Kg, Benzene = 10 mg/Kg, and the sum of Benzene, Ethyl Benzene, Toluene, and Xylenes = 50 mg/Kg. 1,227 yd³ of soil was remediated to below the remedial goals. With NMOCD approval supported by laboratory data, the excavation was dewatered and the backfilled with the remediated soil and contoured in accordance with the closure proposal. See attached closure plan implementation documentation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: <i>Steve Weathers</i>	OIL CONSERVATION DIVISION	
Printed Name: Steve Weathers	Approved by District Supervisor:	
Title: Environmental Director	Approval Date:	Expiration Date:
Date: 2.26.03 Phone: 505.397.5716	Conditions of Approval:	Attached ☐

* Attach Additional Sheets If Necessary



DUKE ENERGY FIELD SERVICES A-14
SW/4 OF THE SW/4 UL-M SECTION 10 T18S R27E
EDDY COUNTY NEW MEXICO

UNIVERSAL TRANSVERSE MERCATOR
13 NORTH
NAD 1983 HPEN (NEW MEXICO)

SCALE 1:4,500

RT21615A.COR

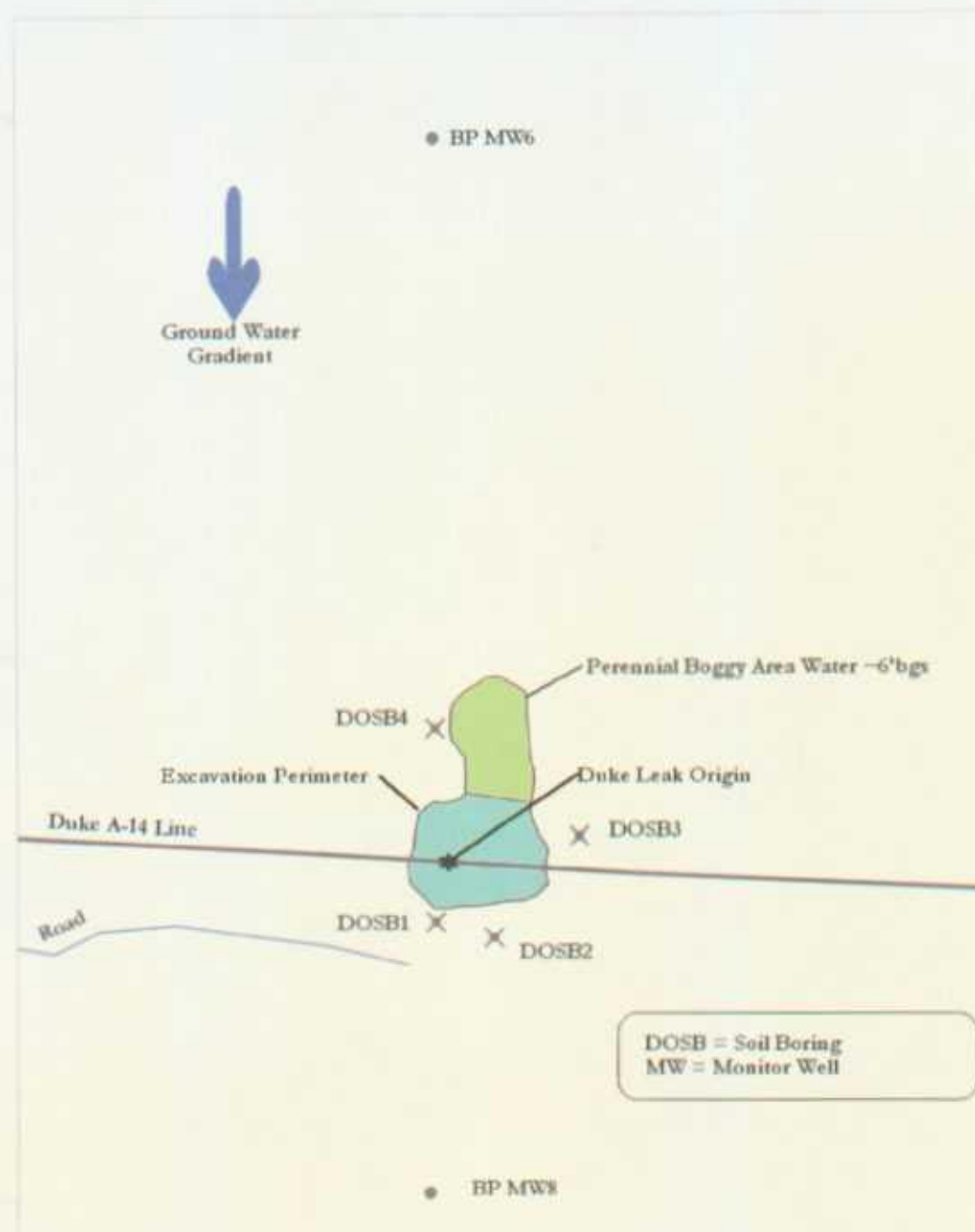
12/17/2002

N



FEET





DUKE ENERGY FIELD SERVICES A-14
SW/4 OF THE SW/4 UL-M SECTION 10 T18S R27E
EDDY COUNTY NEW MEXICO

UNIVERSAL TRANSVERSE MERCATOR
13 NORTH
NAD 1983 HPGN (NEW MEXICO)

SCALE 1:1,200

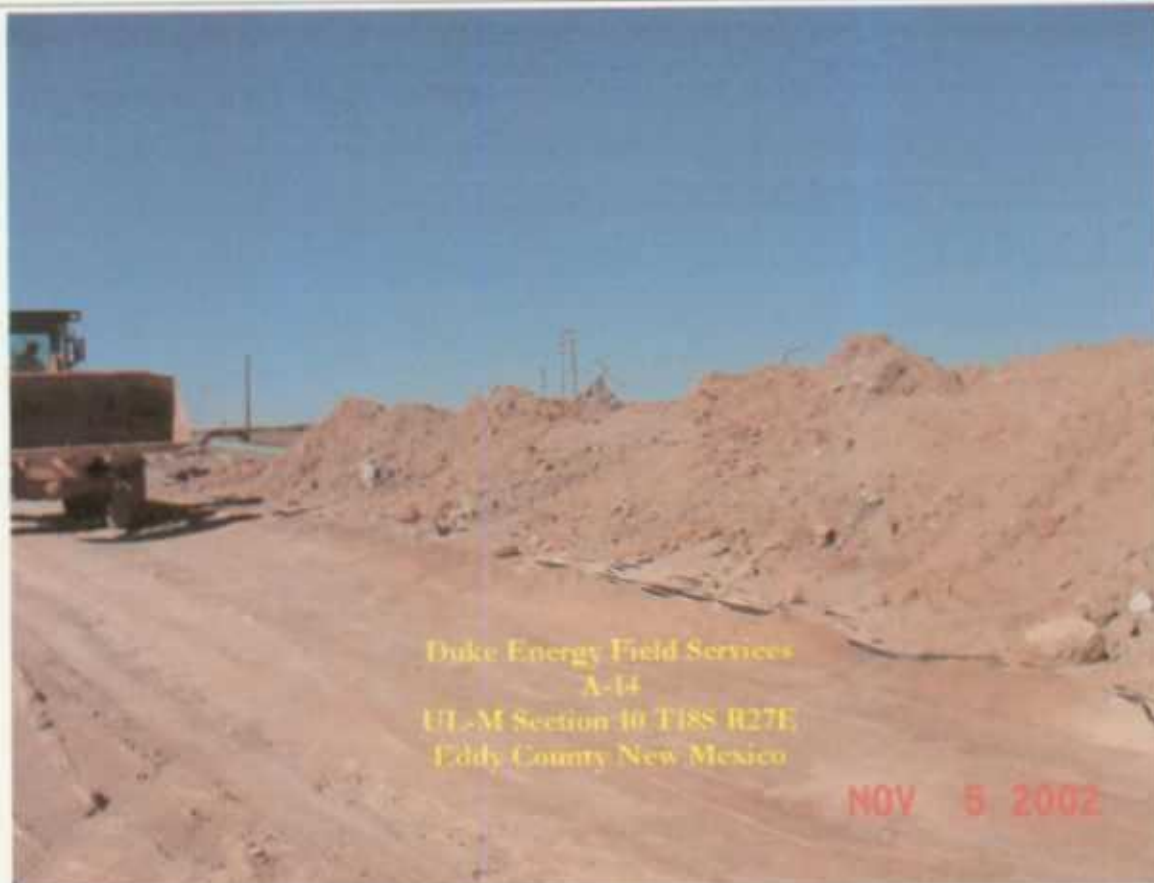
R121615A.COR

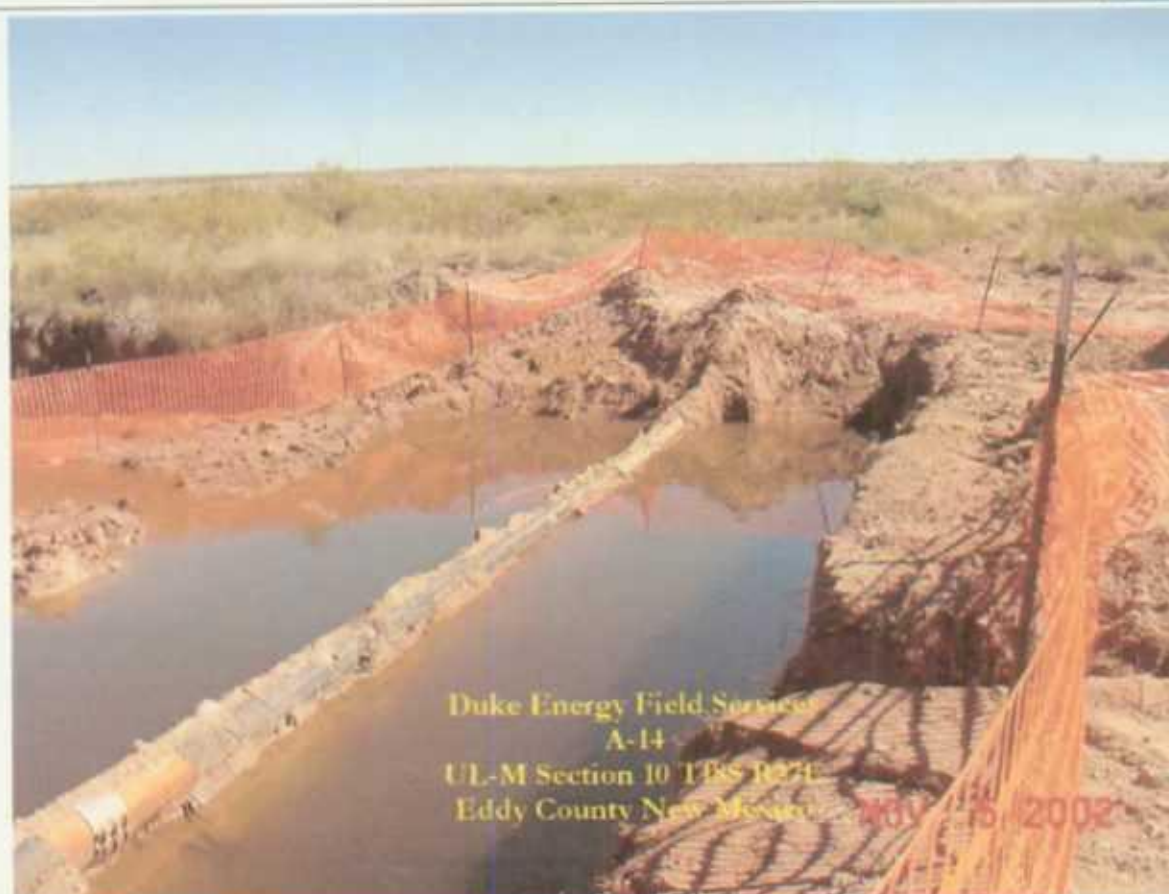
12/17/2002

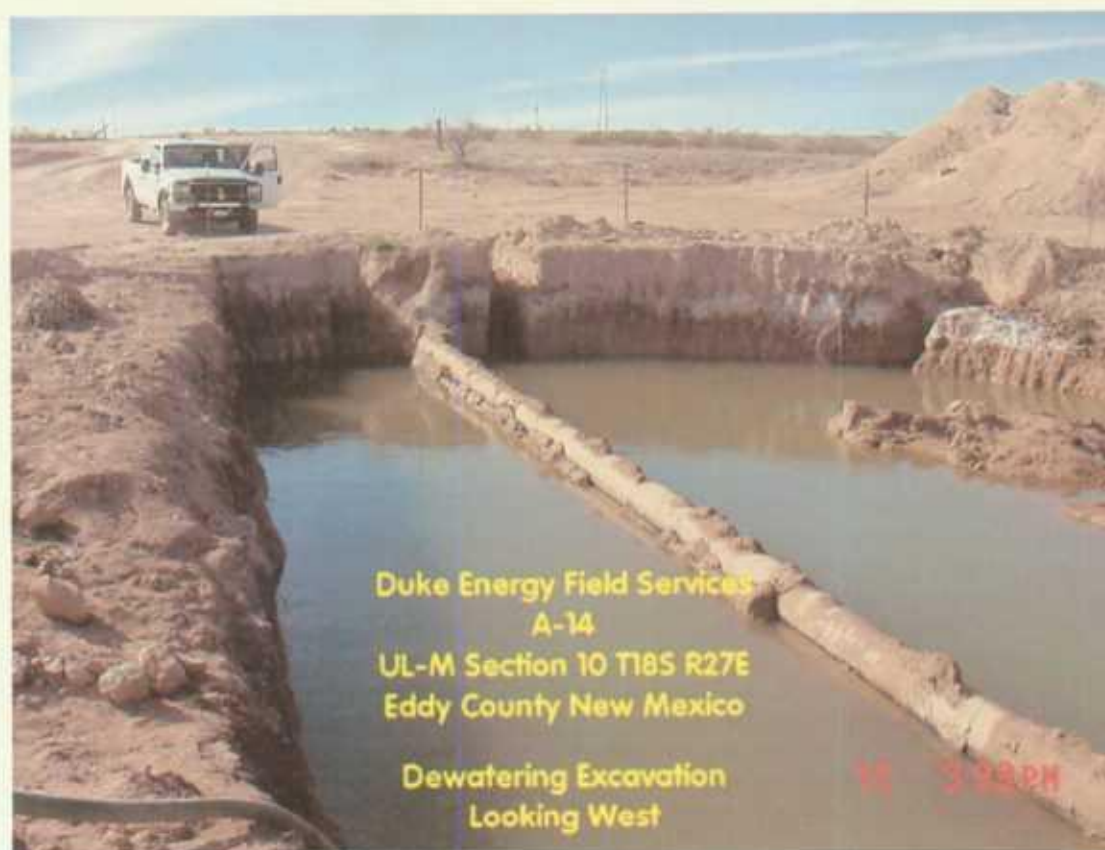
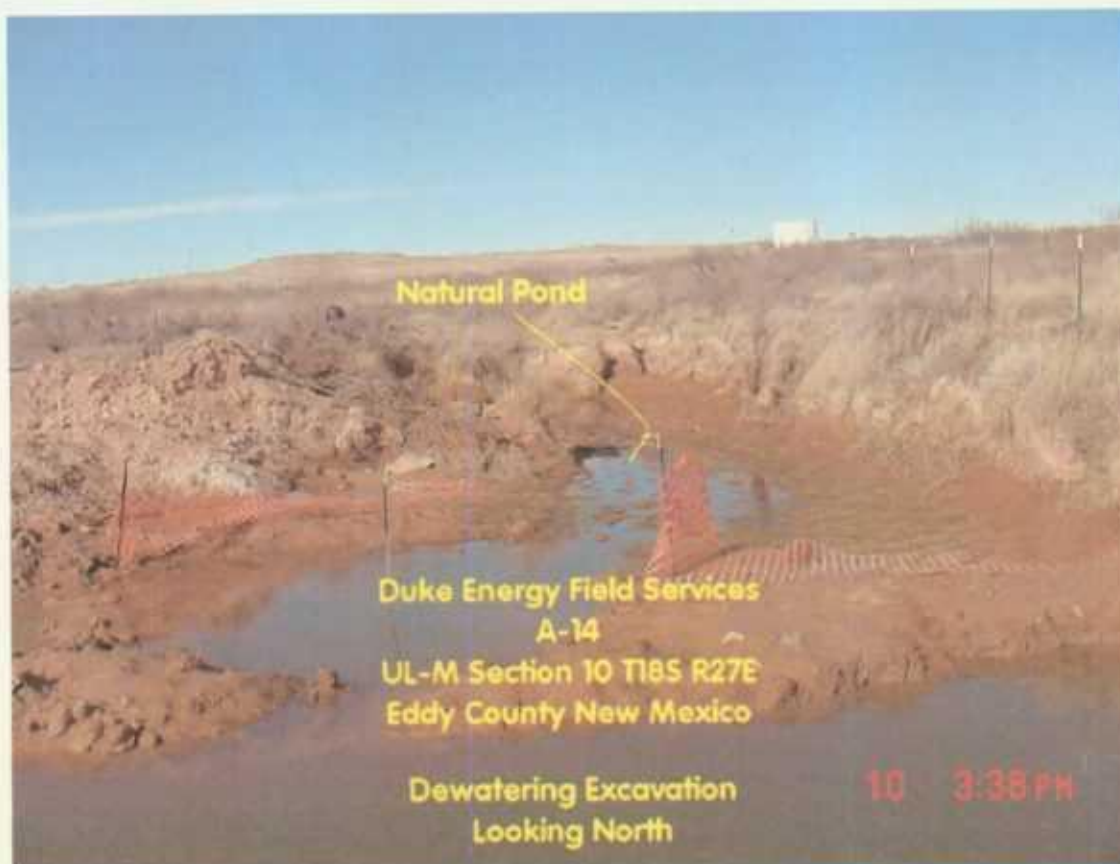


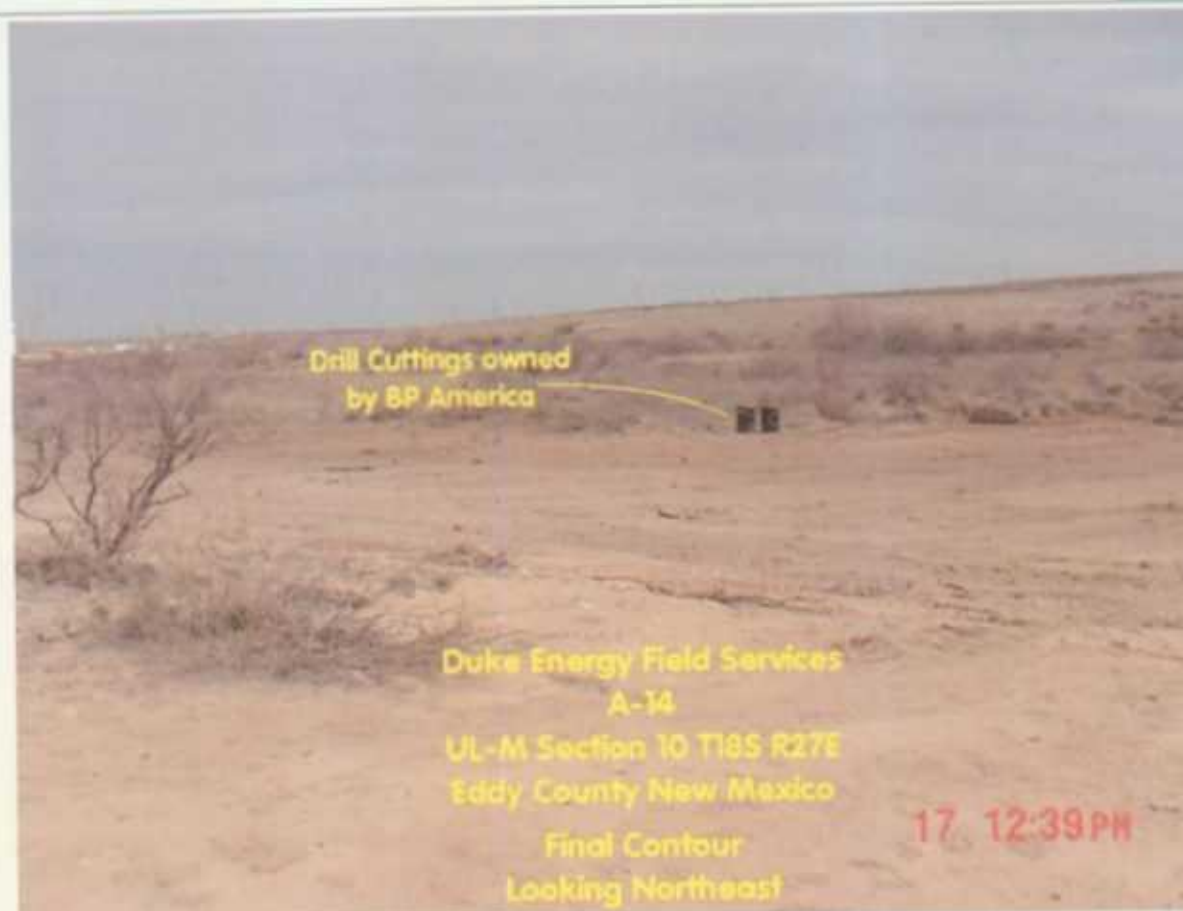
FEET

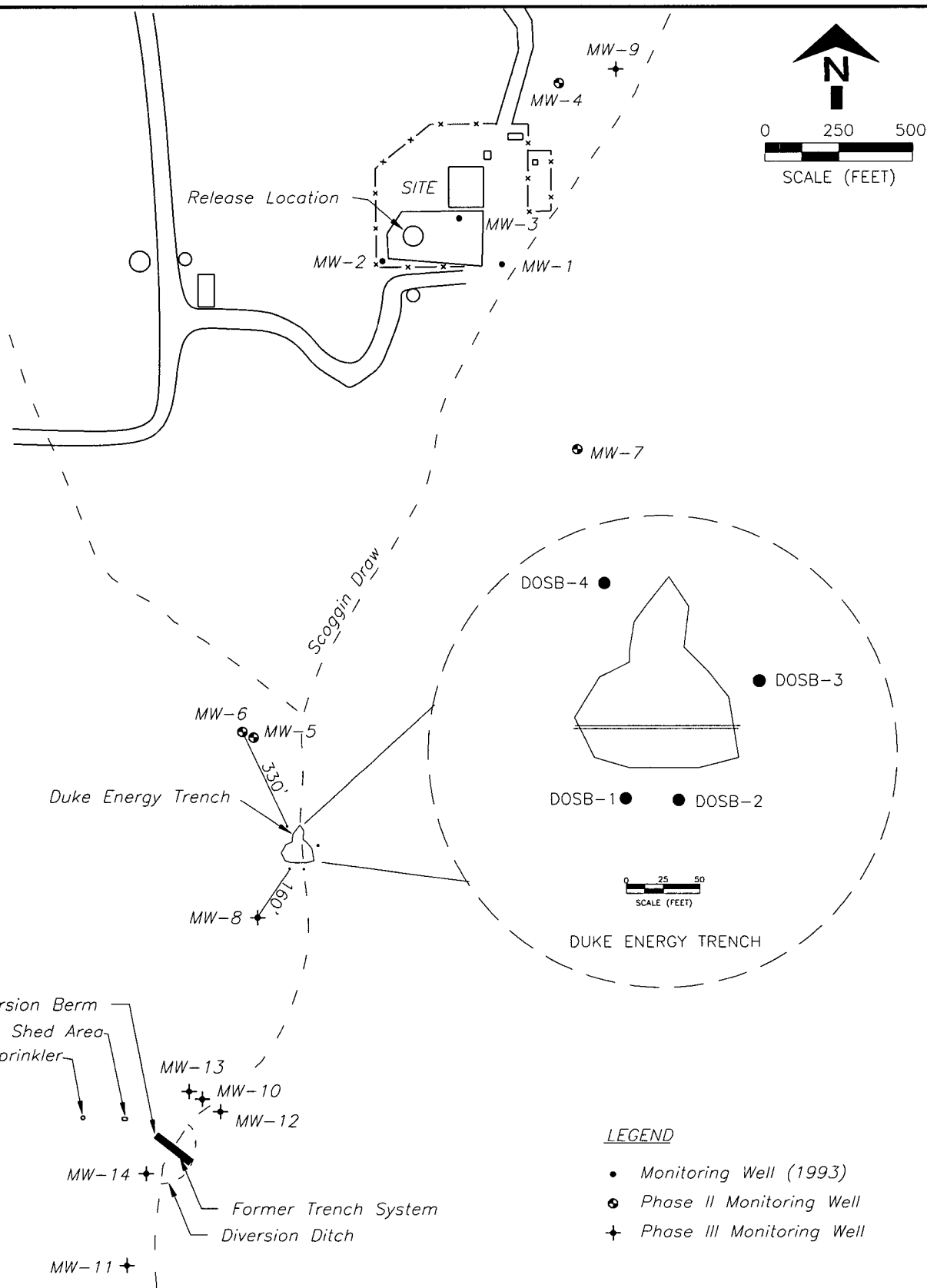












LEGEND

- Monitoring Well (1993)
- ⊕ Phase II Monitoring Well
- ✦ Phase III Monitoring Well

BASCOR Environmental, Inc.
consulting engineers and scientists



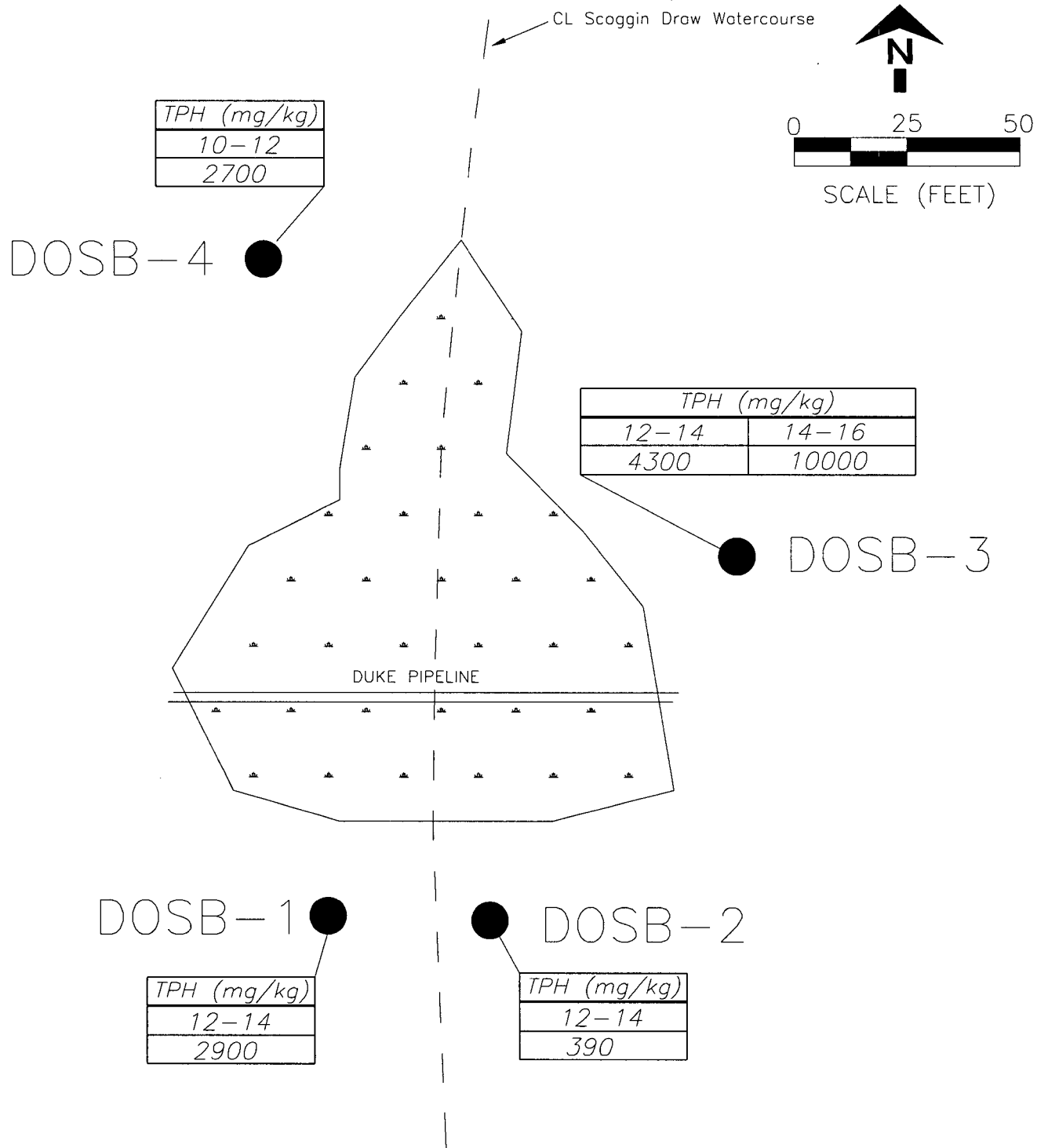
BP PIPELINES (NORTH AMERICA) INC.

Artesia Station, New Mexico

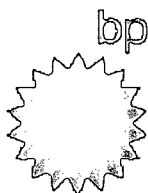
DUKE ENERGY TRENCH LOCATION

DRAWN	SJ SENN	CHECKED	RB SENN	APPROVED	SJ SENN	DATE	1-14-03
FILENAME:	C:\...AP98223\DUKEENERGYTRENCHINVESTIGATION.DWG			REFERENCE FILES:	NONE		

FIGURE 1



BASCOR Environmental, Inc.
consulting engineers and scientists



BP PIPELINES (NORTH AMERICA) INC.

Artesia Station, New Mexico

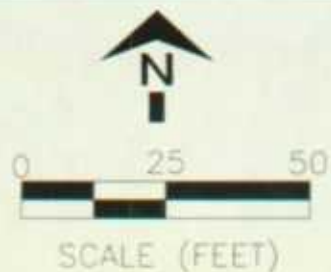
DUKE ENERGY TRENCH DETAILS

DRAWN	SJ SENN	CHECKED	RB SENN	APPROVED	SJ SENN	DATE	1-14-03
FILENAME: C:\...AP98223\DUKEENERGYTRENCHDETAILS.DWG				REFERENCE FILES: NONE		FIGURE 2	









DOSB-4

DOSB-3

DOSB-1

DOSB-2

LINE ARTLINE



BASCOR Environmental, Inc.
consulting engineers and scientists



BP PIPELINES (NORTH AMERICA) INC.

Artesia Station, New Mexico

DUKE ENERGY TRENCH PHOTO ORIENTATION

DRAWN	SJ SENN	CHECKED	RB SENN	APPROVED	SJ SENN	DATE	1-14-03
FILENAME:	C:\LAP98223\DUKEENERGYTRENCHPICTURES.DWG			REFERENCE FILES:	NONE		

FIGURE 3

Torkelson Geochemistry
2528 S. Columbia Place
Tulsa, OK 74114-3233
(916) 749-6005

December 18, 2002

Re: Geochemical Analysis of Soil Boring Samples
BP Artesia Station 12/16/02

Ladies and Gentlemen:

Enclosed are five soil samples taken from soil borings drilled on 12/16/02 at BP Artesia Station, Eddy County, New Mexico for Bascor Environmental by Clayton M. Barnhill, PG. Mr Randy Senn would like a fingerprint analysis of the type of hydrocarbon saturated in the samples. The samples are labeled as follows:

- 1.) DOSB-1 12'-14' 12/16/02 @ 14:21 hour
- 2.) DOSB-2 10'-12' 12/16/02 @ 13:00 hour
- 3.) DOSB-3 12'-14' 12/16/02 @ 11:07 hour
- 4.) DOSB-3 14'-16' 12/16/02 @ 11:30 hour
- 5.) DOSB-4 10'-12' 12/16/02 @ 15:20 hour

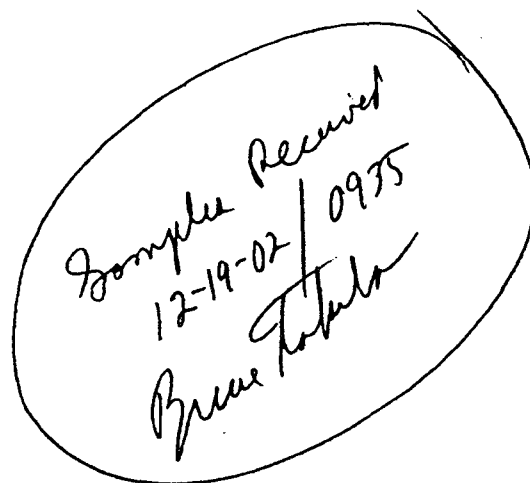
Bascor Environmental, Inc., attention Randy or Sam Senn, is to be billed for the analysis costs at: Bascor Environmental, Inc. 800 West Central Road, Suite 104N, Mt. Prospect, Illinois 60056-2384 Phone: (847) 577-1980 Fax: (847) 5787-1982 Email: Randy.Senn @Bascor.com

Your earliest consideration of these analyses would be most appreciated. If you have any questions, please call Randy or Sam Senn @ (847) 577-1980. Thank you.

Sincerely,

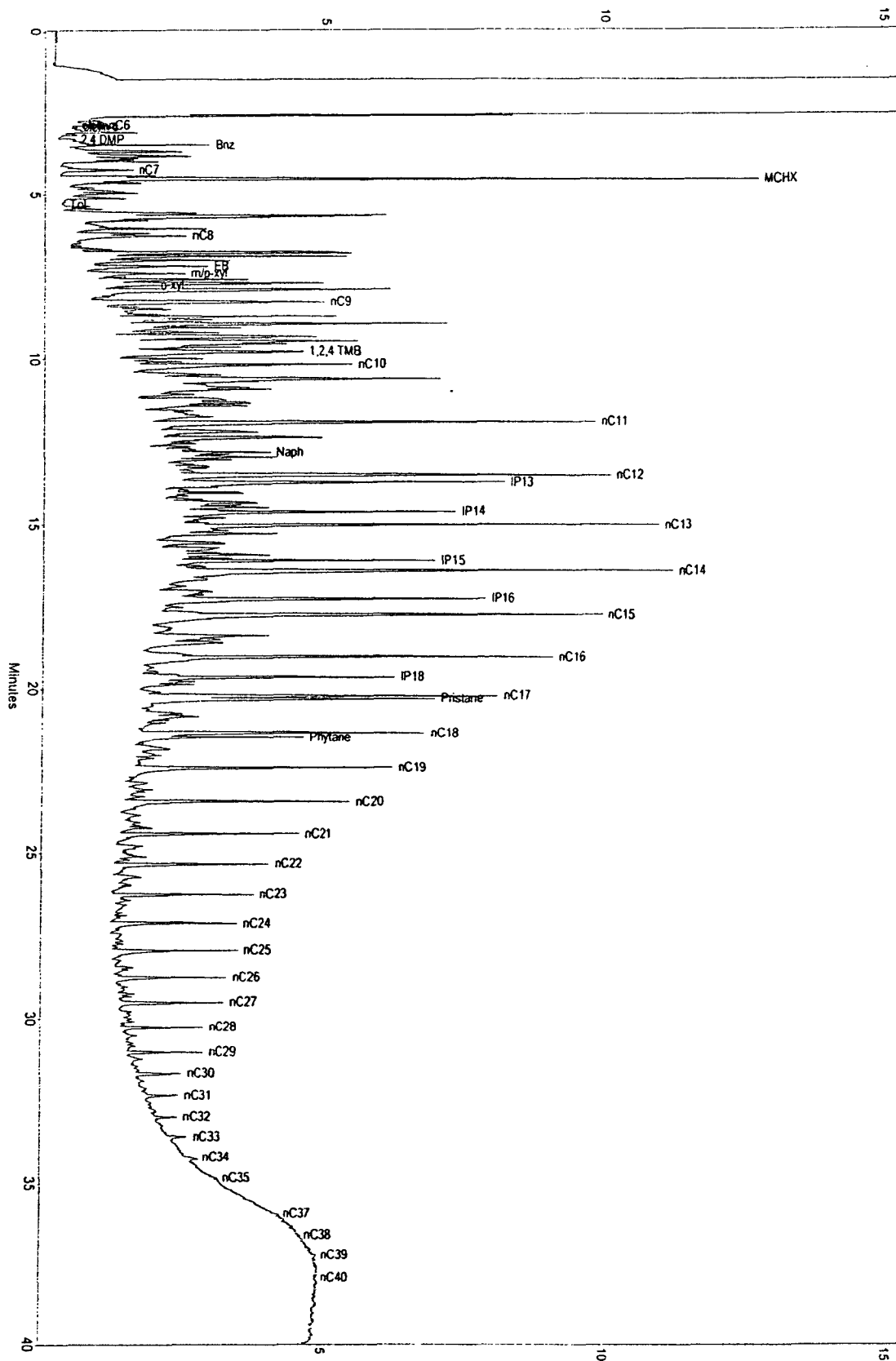


Clayton M. Barnhill, PG



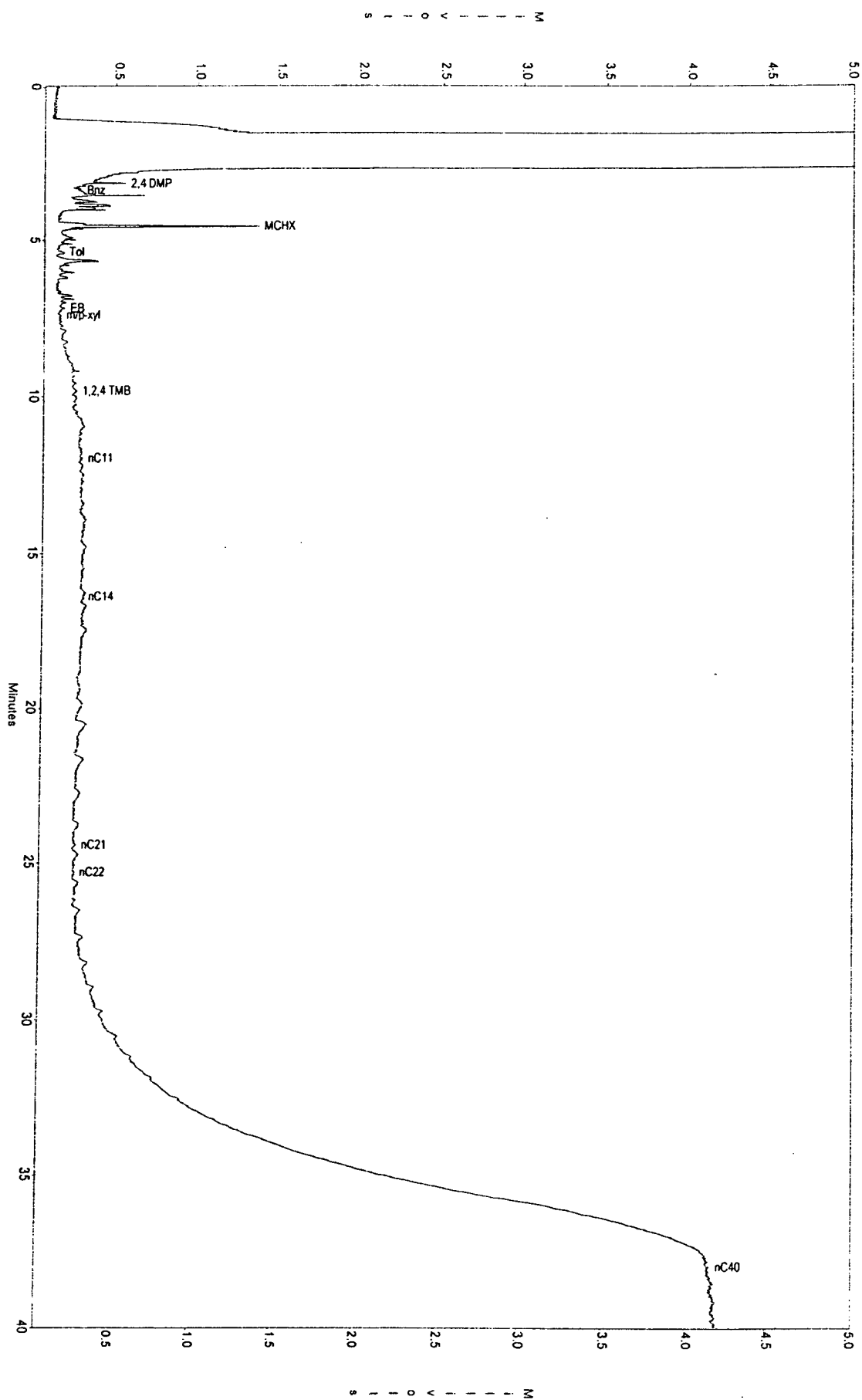
BP Artesia Station, Eddy County, New Mexico
 Sample ID : DOSB-1 12-14'
 Acquired : Dec 28, 2002 13:00:10

c:\exchrom\chrom\0225611-12-14.sl -- Channel A



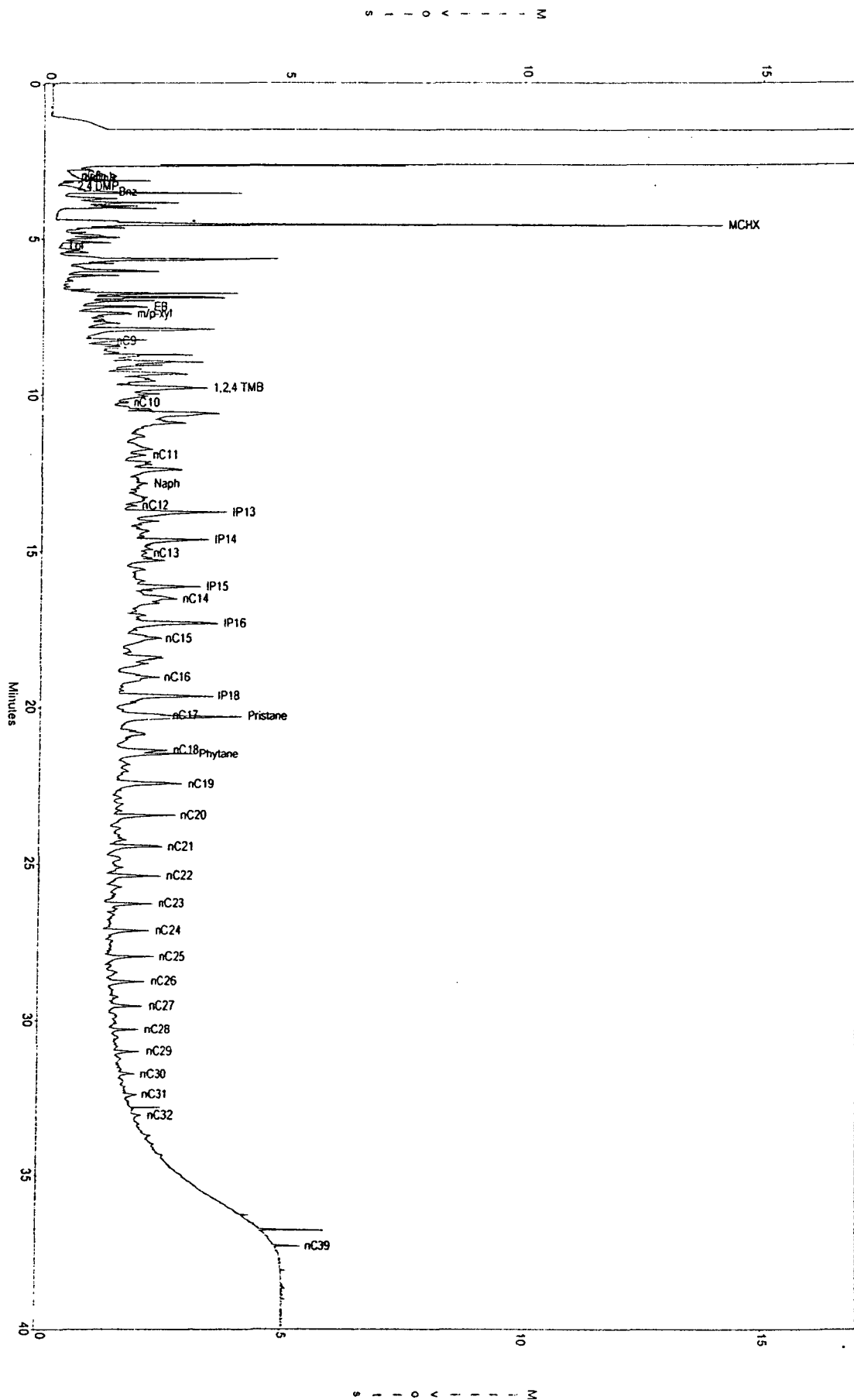
BP Artesia Station, Eddy County, New Mexico
Sample ID : DOSB-2-10-12'
Acquired : Dec 28, 2002 17:01:36

c:\echem\chrom\022562-10-12.sl -- Channel A



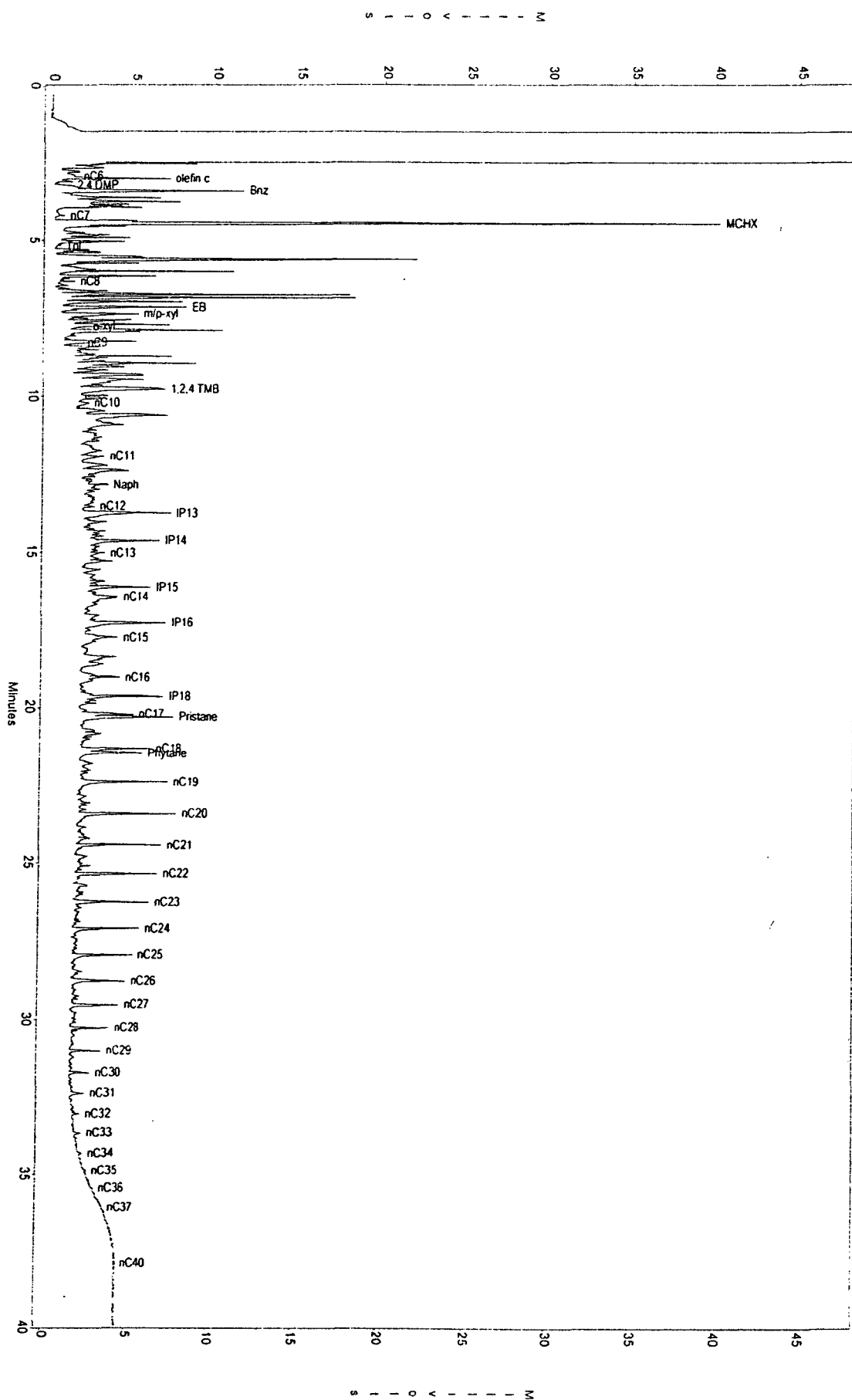
BP Artesia Station, Eddy County, New Mexico
Sample ID : DOSB-3 12-14'
Acquired : Dec 30, 2002 09:29:13

c:\ezchrom\chrom\025613-12-14.s12 -- Channel A



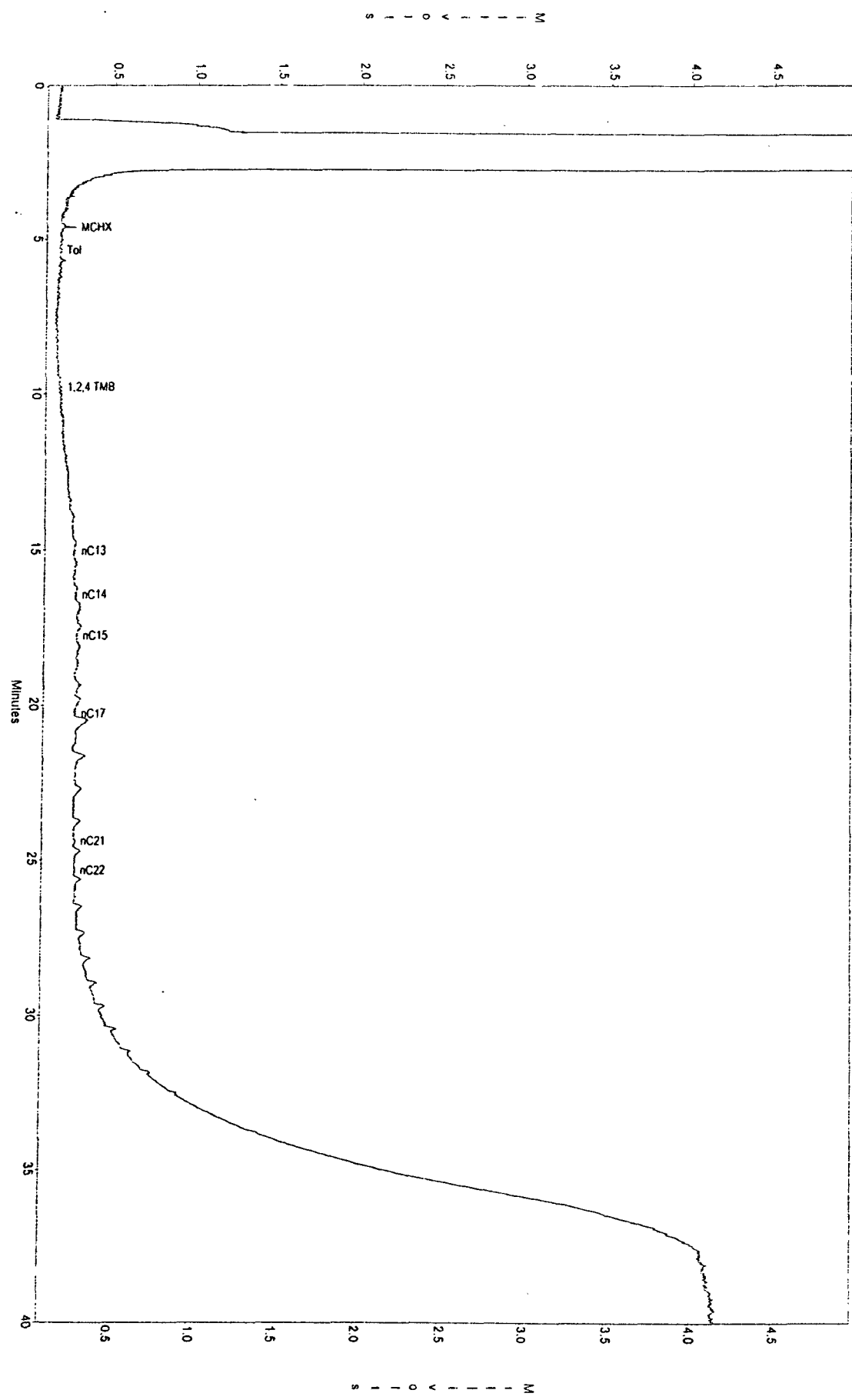
BP Artesia Station, Eddy County, New Mexico
 Sample ID : DOSB-3 14-16
 Acquired : Dec 28, 2002 15:27:08

c:\chrom\chrom1022563-14-16.s1 -- Channel A



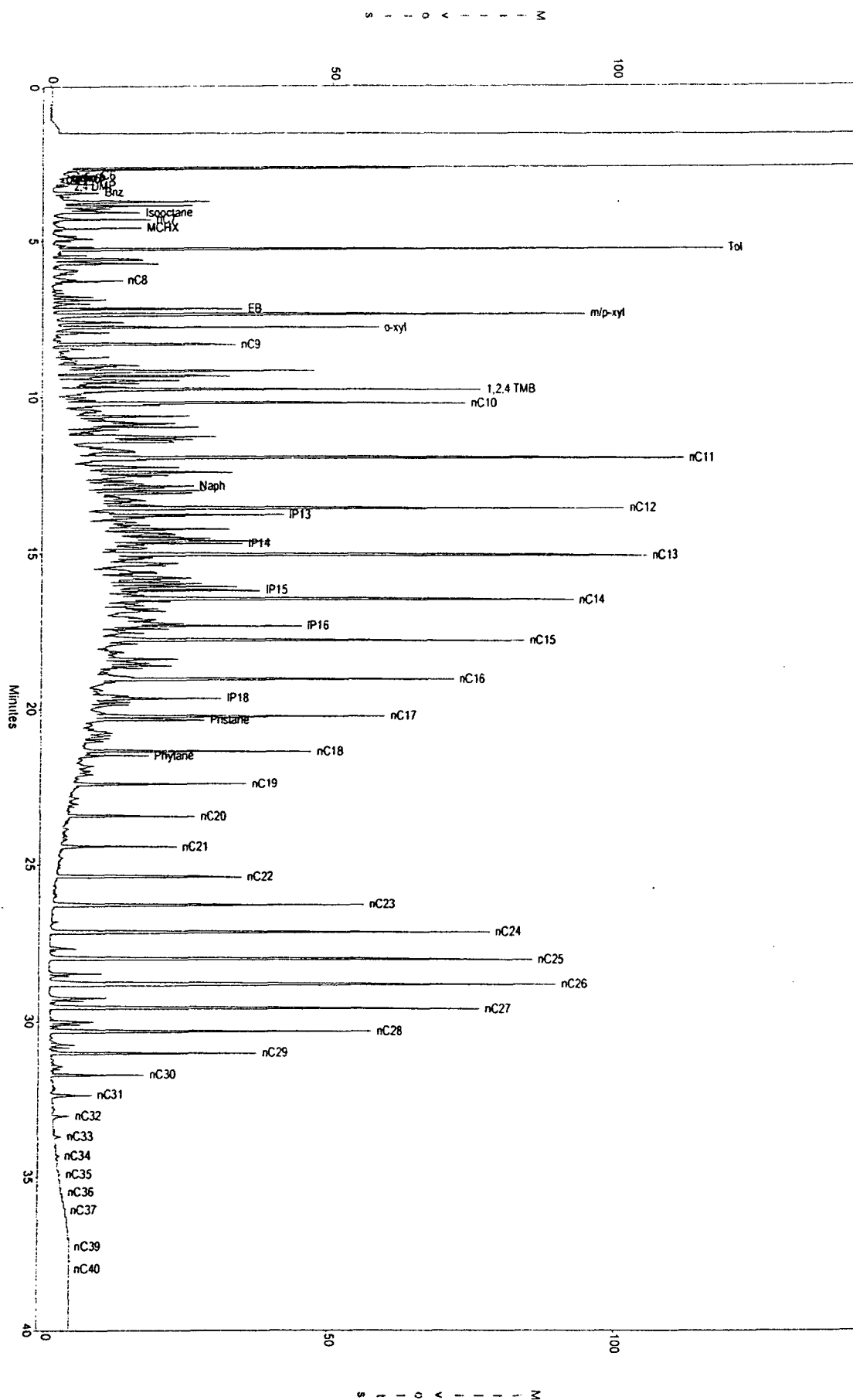
BP Artesia Station, Eddy County, New Mexico
Sample ID : DOSB-4 10-12
Acquired : Dec 28, 2002 16:14:14

c:\ezchrom\chrom\025614-10-12.s1 -- Channel A



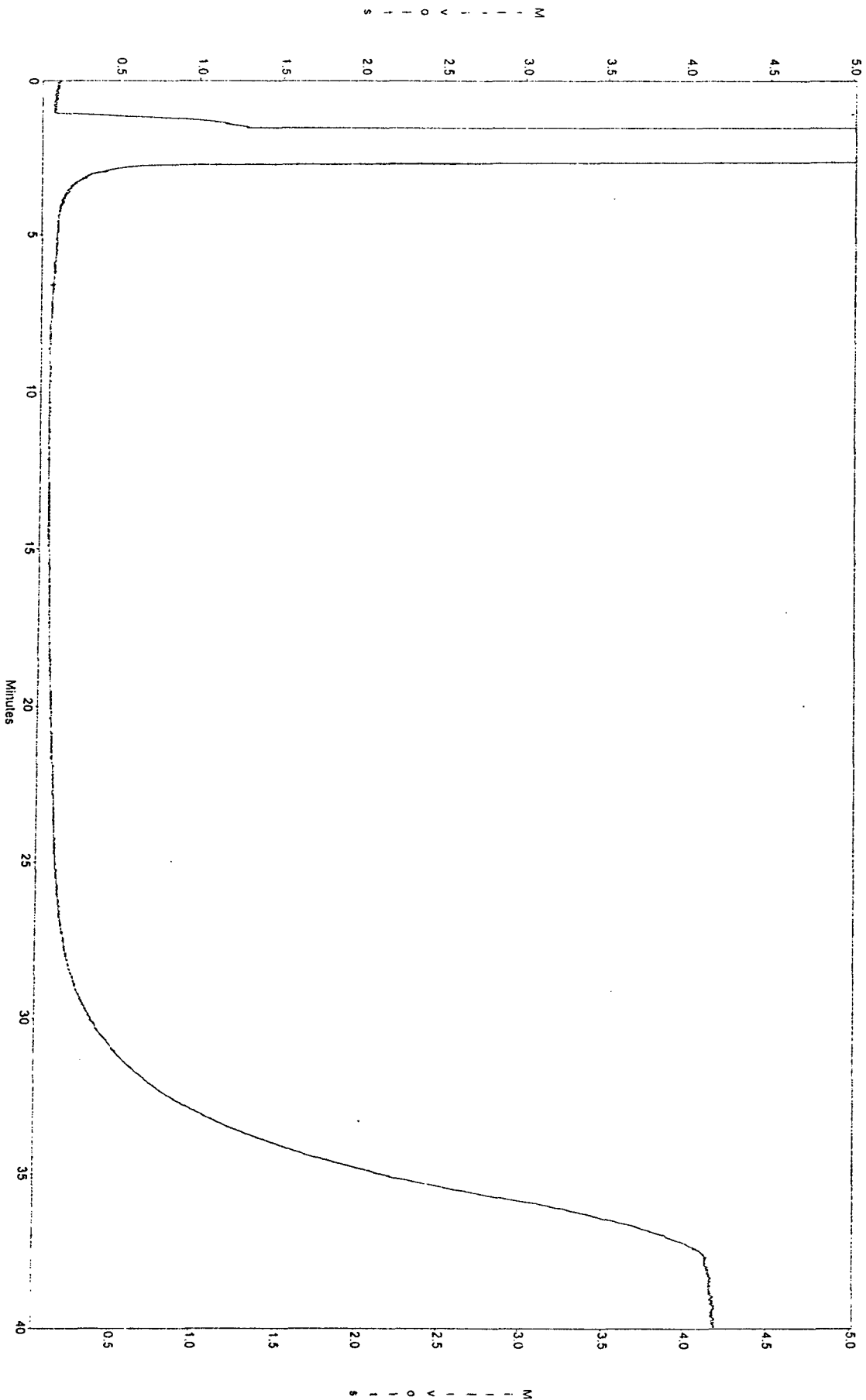
BP Artesia Station, Eddy County, New Mexico
 Sample ID : Gas/Dies/Max std
 Acquired : Dec 28, 2002 10:40:32

c:\chemchrom\chrom102258\gasdies\max std -- Channel A



BP Artesia Station, Eddy County, New Mexico
Sample ID : Blank
Acquired : Dec 28, 2002 17:49:19

c:\ezchrom\chrom\02256\blank.s - Channel A





Hall Environmental Analysis Laboratory

COVER LETTER

January 02, 2003

Samm Senn
Bascor Environmental, Inc.
800 W Central Road Ste. 104N
Prospect, IL 60056
TEL: (847) 577-1980
FAX (847) 577-1982

RE: BP Artesia Station

Order No.: 0212095

Dear Samm Senn:

Hall Environmental Analysis Laboratory received 5 samples on 12/17/2002 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

Hall Environmental Analysis Laboratory

Date: 02-Jan-03

CLIENT: Bascor Environmental, Inc.

Project: BP Artesia Station

Lab Order: 0212095

CASE NARRATIVE

Analytical Comments for METHOD 8021BTEX_S, SAMPLES 0212095-1, 2,4 ,5: High surrogate recoveries due to matrix interference.

Analytical Comments for METHOD 8310_S, SAMPLES 0212095-1, 2, 4: Surrogates out of range due to sample dilution.

Hall Environmental Analysis Laboratory

Date: 02-Jan-03

CLIENT: Bascor Environmental, Inc.

Client Sample ID: DOSB-3 12'-14'

Lab Order: 0212095

Collection Date: 12/16/2002 11:07:00 AM

Project: BP Artesia Station

Lab ID: 0212095-01

Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
EPA METHOD 418.1: TPH						Analyst: GT
Petroleum Hydrocarbons, TR	4300	400		mg/Kg	20	12/20/2002
EPA METHOD 8021B: VOLATILES						Analyst: NB
Benzene	ND	0.50		mg/Kg	20	12/19/2002 10:59:45 AM
Toluene	7.4	0.50		mg/Kg	20	12/19/2002 10:59:45 AM
Ethylbenzene	5.9	0.50		mg/Kg	20	12/19/2002 10:59:45 AM
Xylenes, Total	11	0.50		mg/Kg	20	12/19/2002 10:59:45 AM
Surr: 4-Bromofluorobenzene	120	74-118	S	%REC	20	12/19/2002 10:59:45 AM
EPA METHOD 8310: PAHS						Analyst: GT
Naphthalene	ND	1.0		mg/Kg	10	12/25/2002 2:48:16 AM
1-Methylnaphthalene	2.6	1.0		mg/Kg	10	12/25/2002 2:48:16 AM
2-Methylnaphthalene	1.6	1.0		mg/Kg	10	12/25/2002 2:48:16 AM
Acenaphthylene	ND	1.0		mg/Kg	10	12/25/2002 2:48:16 AM
Acenaphthene	ND	1.0		mg/Kg	10	12/25/2002 2:48:16 AM
Fluorene	ND	0.60		mg/Kg	10	12/25/2002 2:48:16 AM
Phenanthrene	0.62	0.12		mg/Kg	10	12/25/2002 2:48:16 AM
Anthracene	ND	0.12		mg/Kg	10	12/25/2002 2:48:16 AM
Fluoranthene	ND	0.12		mg/Kg	10	12/25/2002 2:48:16 AM
Pyrene	ND	0.10		mg/Kg	10	12/25/2002 2:48:16 AM
Benz(a)anthracene	ND	0.016		mg/Kg	10	12/25/2002 2:48:16 AM
Chrysene	ND	0.080		mg/Kg	10	12/25/2002 2:48:16 AM
Benzo(b)fluoranthene	ND	0.040		mg/Kg	10	12/25/2002 2:48:16 AM
Benzo(k)fluoranthene	ND	0.010		mg/Kg	10	12/25/2002 2:48:16 AM
Benzo(a)pyrene	ND	0.016		mg/Kg	10	12/25/2002 2:48:16 AM
Dibenz(a,h)anthracene	ND	0.022		mg/Kg	10	12/25/2002 2:48:16 AM
Benzo(g,h,i)perylene	ND	0.040		mg/Kg	10	12/25/2002 2:48:16 AM
Indeno(1,2,3-cd)pyrene	ND	0.050		mg/Kg	10	12/25/2002 2:48:16 AM
Surr: Benzo(e)pyrene	115	68.4-105	S	%REC	10	12/25/2002 2:48:16 AM

Qualifiers:
 ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 02-Jan-03

CLIENT: Bascor Environmental, Inc.**Client Sample ID:** DOSB-3 14'-16'**Lab Order:** 0212095**Collection Date:** 12/16/2002 11:30:00 AM**Project:** BP Artesia Station**Lab ID:** 0212095-02**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
EPA METHOD 418.1: TPH						Analyst: GT
Petroleum Hydrocarbons, TR	10000	400		mg/Kg	20	12/20/2002
EPA METHOD 8021B: VOLATILES						Analyst: NB
Benzene	1.0	0.50		mg/Kg	20	12/19/2002 11:30:26 AM
Toluene	12	0.50		mg/Kg	20	12/19/2002 11:30:26 AM
Ethylbenzene	15	0.50		mg/Kg	20	12/19/2002 11:30:26 AM
Xylenes, Total	41	0.50		mg/Kg	20	12/19/2002 11:30:26 AM
Surr: 4-Bromofluorobenzene	137	74-118	S	%REC	20	12/19/2002 11:30:26 AM
EPA METHOD 8310: PAHS						Analyst: GT
Naphthalene	ND	2.5		mg/Kg	10	12/25/2002 3:36:16 AM
1-Methylnaphthalene	4.8	2.5		mg/Kg	10	12/25/2002 3:36:16 AM
2-Methylnaphthalene	4.4	2.5		mg/Kg	10	12/25/2002 3:36:16 AM
Acenaphthylene	ND	2.5		mg/Kg	10	12/25/2002 3:36:16 AM
Acenaphthene	ND	2.5		mg/Kg	10	12/25/2002 3:36:16 AM
Fluorene	ND	1.5		mg/Kg	10	12/25/2002 3:36:16 AM
Phenanthrene	0.94	0.30		mg/Kg	10	12/25/2002 3:36:16 AM
Anthracene	ND	0.30		mg/Kg	10	12/25/2002 3:36:16 AM
Fluoranthene	ND	0.30		mg/Kg	10	12/25/2002 3:36:16 AM
Pyrene	ND	0.25		mg/Kg	10	12/25/2002 3:36:16 AM
Benz(a)anthracene	ND	0.040		mg/Kg	10	12/25/2002 3:36:16 AM
Chrysene	ND	0.20		mg/Kg	10	12/25/2002 3:36:16 AM
Benzo(b)fluoranthene	ND	0.10		mg/Kg	10	12/25/2002 3:36:16 AM
Benzo(k)fluoranthene	ND	0.025		mg/Kg	10	12/25/2002 3:36:16 AM
Benzo(a)pyrene	ND	0.040		mg/Kg	10	12/25/2002 3:36:16 AM
Dibenz(a,h)anthracene	ND	0.055		mg/Kg	10	12/25/2002 3:36:16 AM
Benzo(g,h,i)perylene	ND	0.10		mg/Kg	10	12/25/2002 3:36:16 AM
Indeno(1,2,3-cd)pyrene	ND	0.13		mg/Kg	10	12/25/2002 3:36:16 AM
Surr: Benzo(e)pyrene	140	68.4-105	S	%REC	10	12/25/2002 3:36:16 AM

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 02-Jan-03

CLIENT: Bascor Environmental, Inc.

Client Sample ID: DOSB-2 12'-14'

Lab Order: 0212095

Collection Date: 12/16/2002 12:30:00 PM

Project: BP Artesia Station

Lab ID: 0212095-03

Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
EPA METHOD 418.1: TPH						Analyst: GT
Petroleum Hydrocarbons, TR	390	20		mg/Kg	1	12/20/2002
EPA METHOD 8021B: VOLATILES						Analyst: NB
Benzene	0.10	0.10		mg/Kg	4	12/18/2002 2:14:52 PM
Toluene	0.79	0.10		mg/Kg	4	12/18/2002 2:14:52 PM
Ethylbenzene	0.34	0.10		mg/Kg	4	12/18/2002 2:14:52 PM
Xylenes, Total	2.2	0.10		mg/Kg	4	12/18/2002 2:14:52 PM
Surr: 4-Bromofluorobenzene	114	74-118		%REC	4	12/18/2002 2:14:52 PM
EPA METHOD 8310: PAHS						Analyst: GT
Naphthalene	ND	0.050		mg/Kg	1	12/25/2002 4:24:16 AM
1-Methylnaphthalene	0.12	0.050		mg/Kg	1	12/25/2002 4:24:16 AM
2-Methylnaphthalene	0.11	0.050		mg/Kg	1	12/25/2002 4:24:16 AM
Acenaphthylene	ND	0.050		mg/Kg	1	12/25/2002 4:24:16 AM
Acenaphthene	ND	0.050		mg/Kg	1	12/25/2002 4:24:16 AM
Fluorene	ND	0.030		mg/Kg	1	12/25/2002 4:24:16 AM
Phenanthrene	0.036	0.0060		mg/Kg	1	12/25/2002 4:24:16 AM
Anthracene	ND	0.0060		mg/Kg	1	12/25/2002 4:24:16 AM
Fluoranthene	ND	0.0060		mg/Kg	1	12/25/2002 4:24:16 AM
Pyrene	ND	0.0050		mg/Kg	1	12/25/2002 4:24:16 AM
Benz(a)anthracene	ND	0.00080		mg/Kg	1	12/25/2002 4:24:16 AM
Chrysene	0.0040	0.0040		mg/Kg	1	12/25/2002 4:24:16 AM
Benzo(b)fluoranthene	ND	0.0020		mg/Kg	1	12/25/2002 4:24:16 AM
Benzo(k)fluoranthene	ND	0.00050		mg/Kg	1	12/25/2002 4:24:16 AM
Benzo(a)pyrene	ND	0.00080		mg/Kg	1	12/25/2002 4:24:16 AM
Dibenz(a,h)anthracene	ND	0.0011		mg/Kg	1	12/25/2002 4:24:16 AM
Benzo(g,h,i)perylene	ND	0.0020		mg/Kg	1	12/25/2002 4:24:16 AM
Indeno(1,2,3-cd)pyrene	0.0032	0.0025		mg/Kg	1	12/25/2002 4:24:16 AM
Surr: Benzo(e)pyrene	88.6	68.4-105		%REC	1	12/25/2002 4:24:16 AM

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 02-Jan-03

CLIENT: Bascor Environmental, Inc.

Client Sample ID: DOSB-1 12'-14'

Lab Order: 0212095

Collection Date: 12/16/2002 2:21:00 PM

Project: BP Artesia Station

Lab ID: 0212095-04

Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
EPA METHOD 418.1: TPH						Analyst: GT
Petroleum Hydrocarbons, TR	2900	400		mg/Kg	20	12/20/2002
EPA METHOD 8021B: VOLATILES						Analyst: NB
Benzene	1.7	0.25		mg/Kg	10	12/18/2002 2:45:29 PM
Toluene	6.8	0.25		mg/Kg	10	12/18/2002 2:45:29 PM
Ethylbenzene	5.0	0.25		mg/Kg	10	12/18/2002 2:45:29 PM
Xylenes, Total	22	0.25		mg/Kg	10	12/18/2002 2:45:29 PM
Surr: 4-Bromofluorobenzene	133	74-118	S	%REC	10	12/18/2002 2:45:29 PM
EPA METHOD 8310: PAHS						Analyst: GT
Naphthalene	ND	2.5		mg/Kg	5	12/25/2002 6:00:14 AM
1-Methylnaphthalene	3.4	2.5		mg/Kg	5	12/25/2002 6:00:14 AM
2-Methylnaphthalene	3.0	2.5		mg/Kg	5	12/25/2002 6:00:14 AM
Acenaphthylene	ND	2.5		mg/Kg	5	12/25/2002 6:00:14 AM
Acenaphthene	ND	2.5		mg/Kg	5	12/25/2002 6:00:14 AM
Fluorene	ND	1.5		mg/Kg	5	12/25/2002 6:00:14 AM
Phenanthrene	0.71	0.30		mg/Kg	5	12/25/2002 6:00:14 AM
Anthracene	ND	0.30		mg/Kg	5	12/25/2002 6:00:14 AM
Fluoranthene	ND	0.30		mg/Kg	5	12/25/2002 6:00:14 AM
Pyrene	ND	0.25		mg/Kg	5	12/25/2002 6:00:14 AM
Benz(a)anthracene	ND	0.040		mg/Kg	5	12/25/2002 6:00:14 AM
Chrysene	ND	0.20		mg/Kg	5	12/25/2002 6:00:14 AM
Benzo(b)fluoranthene	ND	0.10		mg/Kg	5	12/25/2002 6:00:14 AM
Benzo(k)fluoranthene	ND	0.025		mg/Kg	5	12/25/2002 6:00:14 AM
Benzo(a)pyrene	ND	0.040		mg/Kg	5	12/25/2002 6:00:14 AM
Dibenz(a,h)anthracene	ND	0.055		mg/Kg	5	12/25/2002 6:00:14 AM
Benzo(g,h,i)perylene	ND	0.10		mg/Kg	5	12/25/2002 6:00:14 AM
Indeno(1,2,3-cd)pyrene	ND	0.13		mg/Kg	5	12/25/2002 6:00:14 AM
Surr: Benzo(e)pyrene	136	68.4-105	S	%REC	5	12/25/2002 6:00:14 AM

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 02-Jan-03

CLIENT: Bascor Environmental, Inc.

Client Sample ID: DOSB-4 10'-12'

Lab Order: 0212095

Collection Date: 12/16/2002 3:20:00 PM

Project: BP Artesia Station

Lab ID: 0212095-05

Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
EPA METHOD 418.1: TPH						Analyst: GT
Petroleum Hydrocarbons, TR	2700	400		mg/Kg	20	12/20/2002
EPA METHOD 8021B: VOLATILES						Analyst: NB
Benzene	0.78	0.25		mg/Kg	10	12/18/2002 3:16:05 PM
Toluene	3.7	0.25		mg/Kg	10	12/18/2002 3:16:05 PM
Ethylbenzene	3.6	0.25		mg/Kg	10	12/18/2002 3:16:05 PM
Xylenes, Total	12	0.25		mg/Kg	10	12/18/2002 3:16:05 PM
Surr: 4-Bromofluorobenzene	123	74-118	S	%REC	10	12/18/2002 3:16:05 PM
EPA METHOD 8310: PAHS						Analyst: GT
Naphthalene	0.12	0.050		mg/Kg	1	12/25/2002 6:48:13 AM
1-Methylnaphthalene	0.60	0.050		mg/Kg	1	12/25/2002 6:48:13 AM
2-Methylnaphthalene	0.57	0.050		mg/Kg	1	12/25/2002 6:48:13 AM
Acenaphthylene	ND	0.050		mg/Kg	1	12/25/2002 6:48:13 AM
Acenaphthene	ND	0.050		mg/Kg	1	12/25/2002 6:48:13 AM
Fluorene	0.054	0.030		mg/Kg	1	12/25/2002 6:48:13 AM
Phenanthrene	0.14	0.0060		mg/Kg	1	12/25/2002 6:48:13 AM
Anthracene	ND	0.0060		mg/Kg	1	12/25/2002 6:48:13 AM
Fluoranthene	ND	0.0060		mg/Kg	1	12/25/2002 6:48:13 AM
Pyrene	ND	0.0050		mg/Kg	1	12/25/2002 6:48:13 AM
Benz(a)anthracene	ND	0.00080		mg/Kg	1	12/25/2002 6:48:13 AM
Chrysene	ND	0.0040		mg/Kg	1	12/25/2002 6:48:13 AM
Benzo(b)fluoranthene	ND	0.0020		mg/Kg	1	12/25/2002 6:48:13 AM
Benzo(k)fluoranthene	ND	0.00050		mg/Kg	1	12/25/2002 6:48:13 AM
Benzo(a)pyrene	ND	0.00080		mg/Kg	1	12/25/2002 6:48:13 AM
Dibenz(a,h)anthracene	ND	0.0011		mg/Kg	1	12/25/2002 6:48:13 AM
Benzo(g,h,i)perylene	ND	0.0020		mg/Kg	1	12/25/2002 6:48:13 AM
Indeno(1,2,3-cd)pyrene	0.0099	0.0025		mg/Kg	1	12/25/2002 6:48:13 AM
Surr: Benzo(e)pyrene	103	68.4-105		%REC	1	12/25/2002 6:48:13 AM

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 02-Jan-03

CLIENT: Bascor Environmental, Inc.

Work Order: 0212095

Project: BP Artesia Station

QC SUMMARY REPORT

Method Blank

Sample ID	MB-2907	Batch ID: 2907	Test Code: E418.1	Units: mg/Kg	Analysis Date	12/20/2002	Prep Date	12/19/2002				
Client ID:		Run ID:	BUCK IR_021220A		SeqNo:	154312						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR		ND	20									

Sample ID	Reagent Blank 5m	Batch ID: R6754	Test Code: SW8021	Units: µg/L	Analysis Date	12/18/2002 9:29:27 AM	Prep Date					
Client ID:		Run ID: PIDFID_021218A			SeqNo:	153965						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methyl tert-butyl ether (MTBE)		ND	2.5									
Benzene		ND	0.50									
Toluene		ND	0.50									
Ethylbenzene		ND	0.50									
1,2,4-Trimethylbenzene		ND	0.50									
1,3,5-Trimethylbenzene		ND	0.50									
Xylenes, Total		ND	0.50									
Surr: 4-Bromofluorobenzene		18.02	0	20	0	90.1	74	118	0			

Sample ID	Reagent Blank 5m	Batch ID: R6759	Test Code: SW8021	Units: µg/L	Analysis Date	12/19/2002 9:24:11 AM	Prep Date					
Client ID:		Run ID: PIDFID_021219A			SeqNo: 154123							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methyl tert-butyl ether (MTBE)		ND	2.5									
Benzene		ND	0.50									
Toluene		ND	0.50									
Ethylbenzene		ND	0.50									
1,2,4-Trimethylbenzene		ND	0.50									
1,3,5-Trimethylbenzene		ND	0.50									
Xylenes, Total		ND	0.50									
Surr: 4-Bromofluorobenzene		18.45	0	20	0	92.3	74	118	0			

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

I

CLIENT: Bascor Environmental, Inc.

Work Order: 0212095

Project: BP Artesia Station

QC SUMMARY REPORT

Method Blank

Sample ID MB-2903 Batch ID: 2903 Test Code: SW8310 Units: mg/Kg Analysis Date 12/25/2002 2:00:15 AM Prep Date 12/18/2002

Client ID: Run ID: HUGO_021224A SeqNo: 155424

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	0.050									
1-Methylnaphthalene	ND	0.050									
2-Methylnaphthalene	ND	0.050									
Acenaphthylene	ND	0.050									
Acenaphthene	ND	0.050									
Fluorene	ND	0.030									
Phenanthrene	0.00125	0.0060									J
Anthracene	ND	0.0060									
Fluoranthene	ND	0.0060									
Pyrene	ND	0.0050									
Benz(a)anthracene	ND	0.00080									
Chrysene	ND	0.0040									
Benzo(b)fluoranthene	0.00075	0.0020									J
Benzo(k)fluoranthene	0.00025	0.00050									J
Benzo(a)pyrene	0.00025	0.00080									J
Dibenz(a,h)anthracene	ND	0.0011									
Benzo(g,h,i)perylene	0.00075	0.0020									J
Indeno(1,2,3-cd)pyrene	ND	0.0025									
Surr: Benzo(e)pyrene	0.5455	0	0.625	0	87.3	68.4	105	0			

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Date: 02-Jan-03

CLIENT: Bascor Environmental, Inc.

Work Order: 0212095

Project: BP Artesia Station

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	LCS-2907	Batch ID: 2907	Test Code: E418.1		Units: mg/Kg		Analysis Date 12/20/2002		Prep Date 12/19/2002			
Client ID:			Run ID:	BUCK IR_021220A		SeqNo: 154313						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR		99	20	102	0	97.1	82	114	0			

Sample ID		BTEX Std 87.5ng		Batch ID: R6759		Test Code: SW8021		Units: mg/Kg		Analysis Date		12/19/2002 9:54:38 AM		Prep Date									
Client ID:				Run ID:		PIDFID_021219A				SeqNo:		154126											
Analyte		Result		PQL		SPK value		SPK Ref Val		%REC		LowLimit		HighLimit		RPD Ref Val		%RPD		RPDLimit		Qual	
Benzene		0.8605		0.025		0.875		0		98.3		77		122		0							
Toluene		0.8545		0.025		0.875		0		97.7		81		115		0							
Ethylbenzene		0.897		0.025		0.875		0		103		84		117		0							
Xylenes, Total		2.689		0.025		2.625		0		102		84		116		0							

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

/

QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: Bascor Environmental, Inc.

Work Order: 0212095

Project: BP Artesia Station

Sample ID LCS-2903 Batch ID: 2903 Test Code: SW8310 Units: mg/Kg Analysis Date 12/24/2002 12:20:06 P Prep Date 12/18/2002

Client ID: Run ID: HUGO_021224A SeqNo: 155342

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	0.54	0.050	1	0	54.0	38.4	102	0			
1-Methylnaphthalene	0.5708	0.050	1	0	57.1	39.5	103	0			
2-Methylnaphthalene	0.569	0.050	1	0	56.9	40.3	103	0			
Acenaphthylene	0.547	0.050	1	0	54.7	41.5	101	0			
Acenaphthene	0.6043	0.050	1	0	60.4	45.3	101	0			
Fluorene	0.0615	0.030	0.1	0	61.5	50.9	96.6	0			
Phenanthrene	0.0375	0.0060	0.0503	0	74.6	59.7	105	0			
Anthracene	0.03675	0.0060	0.0503	0	73.1	60.2	103	0			
Fluoranthene	0.085	0.0060	0.1003	0	84.7	67.3	110	0			
Pyrene	0.08875	0.0050	0.1	0	88.8	68.7	113	0			
Benz(a)anthracene	0.00925	0.00080	0.01	0	92.5	70.4	115	0			
Chrysene	0.0455	0.0040	0.0503	0	90.5	75.2	111	0			
Benzo(b)fluoranthene	0.01325	0.0020	0.0125	0	106	73.9	124	0			
Benzo(k)fluoranthene	0.00575	0.00050	0.00625	0	92.0	73.7	114	0			
Benzo(a)pyrene	0.006	0.00080	0.00628	0	95.5	70.7	115	0			
Dibenz(a,h)anthracene	0.01175	0.0011	0.0125	0	94.0	76.9	118	0			
Benzo(g,h,i)perylene	0.012	0.0020	0.0125	0	96.0	75.4	119	0			
Indeno(1,2,3-cd)pyrene	0.02343	0.0025	0.0251	0	93.3	81.9	115	0			

Qualifiers: NID - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345-3975 Fax 505.345.4107
www.hallenvironmental.com

Client: <u>BASCO Environmental</u>		Project Name: <u>BP Artesia Station</u>						
ATTN: <u>SAM SENN</u>		Project #: <u>DUKE ENERGY</u>						
Address: <u>800 West Central Road</u>		<u>TRUCK EXPLORATION</u>						
<u>Suite 104N</u>		Project Manager: <u>SAM SENN, PE</u>						
Phone #: <u>847-577-1980</u>		Sampler: <u>CM BARNETT, PE</u>						
Fax #: <u>847-577-1982</u>		Samples Col'd?: ☒ Yes ☐ No						
Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative			HEAL No.
					HgCl ₂	HCl	None	
12/16/01	11:07	SOIL	DO 5B-3 12'-14'	2/400/6			X	DEB095-1
12/16/01	11:30	SOIL	DO 5B-3 14'-16'					-2
12/16/01	12:30	SOIL	DO 5B-2 12'-14'					-3
12/16/01	14:12	SOIL	DO 5B-1 12'-14'					-4
12/16/01	15:20	SOIL	DO 5B-4 16'-18'					-5
Date: <u>12/17/01</u>	Time: <u>0600</u>	Relinquished By: (Signature) <u>[Signature]</u>		Received By: (Signature) <u>[Signature]</u>	12/17/02			
Date: <u>12/17/01</u>	Time: <u>0600</u>	Relinquished By: (Signature) <u>[Signature]</u>		Received By: (Signature) <u>[Signature]</u>	12/17/02			

(BTEX + MTBE + TMBs) (8021)	X	X	X	X	X
BTEX + MTBE + TPH (Gasoline Only)					
TPH Method 8015B MOD (Gas/Diesel)					
TPH Method 418.1	X	X	X	X	X
Volatiles Full List (8021)					
EDB (Method 504.1)					
EDC (Method 8021)					
8310 (PNA or PAH)	X	X	X	X	X
RCRA 8 Metals					
Cations (Na, K, Ca, Mg)					
Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)					
8081 Pesticides / PCB's (8082)					
8260 (VOA)					
8270 (Semi-VOA)					
Air Bubbles or Headspace (Y or N)					

Remarks:

Remarks: Bill Bascom Directly
For Analysis Costs
Any Questions please Call
Sam Seann @ 847-577-1980