3RP-311

Reports

Date: 2002



Environmental Services 188 County Road 4900 Bloomfield, New Mexico 87413 (505) 634-4956 (office) (505) 632-4781 (fax)

June 6, 2003

Mr. William Olson Hydrologist Oil Conservation Division 1220 S. St. Francis Dr. Santa Fe, NM 87505 District Copy For Scanning Only Has NOT been processed.



RE: 2002 GROUND WATER SUMMARY REPORT

Dear Mr. Olson:

Enclosed for your review is the 2002 Ground Water Summary Report. The report presents monitoring data for eleven sites having petroleum hydrocarbon impacted ground water, which resulted from the past use of unlined surface impoundments. The sites included in the report are listed in Table 1.

In 2002, seven sites achieved four or more consecutive quarters of water quality data meeting NMWQCC standards for BTEX. Williams submitted final closure reports for four of these sites and has received OCD closure approval on three of the sites. At your request, Williams has submitted a revised potentiometric surface map for the fourth site to allow completion of the OCD review. Final closure reports for the remaining three sites are currently being prepared and will be submitted soon. Table 2 lists the sites that have met the cleanup objectives in 2002.

Of the eleven active sites, seven have accumulations of LNAPL in one or more monitoring well. In 2002, passive collection devices were deployed in all wells containing measurable accumulations of LNAPL. Periodic emptying of the collection devices along with active bailing of LNAPL during the quarterly sampling events continues.

The remaining four active sites consist of three sites with concentrations of dissolved BTEX in excess of cleanup standards. At each of these sites, only the source area well exceeds the standards. The fourth site, Wilmerding 1M, has had dry wells since May 2001. The samples collected at that time contained no detectable BTEX. The hay field surrounding this site is being irrigated this season and it is anticipated that ground water levels will rise sufficiently to allow sample collection.

Thank you for your time to review this submittal. If you have any questions regarding the report, you may call me at (505) 634-4956.

Respectfully,

James P. Struke 6/6/03 JAMES P. STRUKS (FOR MARK B. HARVEY)

Mark B. Harvey Project Manager

Attachments Enclosure

Denny Foust, OCD Aztec District Office C: Bill Liess, BLM Farmington District Office

Table 1. List of Active Sites for 2002 Report

Count	Site Name	Unit Letter	Section	Township	Range	Longitude	Latitude	OCD Initial Notification
1	Chamberlain 1	F	14	32N	12W	-108.068853	36.990549	30-Sep-99
2	Davis 1	E	11	31N	12W	-108.068919	36.916257	2-Mar-99
3	Dogie East Pit	D	4	25N	6W	-107.478874	36.434196	7-Jul-97
4	Florance 40	G	21	30N	W8	-107.67775	36.800088	27-Jan-97
1000	Florance M 47X	G	- 5	30N	9W	-107.799823	36.843166	27-Jan-97
6	Honolulu Drip	В	15	26N	4W	-107.238469	36.492341	18-Jun-96
7	Ice Canyon Drip	J	13	26N	7W	-107.52226	36.484972	1-Dec-97
8	Jicarilla Contract 147-6	C	6	-25N	5W	-107.402363	36.433963	13-Aug-98
A STATE OF THE PARTY OF THE PAR	Patterson A Com A1	G	2	31N	12W	-108.061165	36.930755	2-Mar-99
10	Pritchard 2	J	6	30N	8W	-107.712068	36.837817	22-Feb-99
11	Wilmerding 1M	C	10	31N	13W	-108.193158	36.91846	5-Jun-98

Table 2. List of Sites Closed in 2002

Count	Site Name	Unit Letter	Section	Township	Range	Longitude	Latitude	OCD Initial Notification	Status
1	Blanco Wash Drip	J	31	27N	8W	-107.721574	36.530995	19-Feb-99 _	Approved
	Dogie North Pit	D	4	25N	- 6W	-107.479158	36.435784	7-Jul-97	Report Pending
	Florance 124	C	27	29N	9W	-107.76698	36.70209	12-Aug-96	Pending Approval
	Grenier 4A	M	7	31N	11W	-108.036001	36.910167	18-Oct-99	Report Pending
	Kaufman 1	Н	33 =	31N	13W	-108.202128	36.860121	9-Mar-00	Approved
	O' Shea 1M	F	3	31N	13W	-108.193596	36.932228	6-Jun-98	Report Pending
7	Zachry 18E	0	11	28N	.10W	-107.860007	36.670885	6-Sep-96	Approved

Site Summary Report

Site Name: Davis 1 Reporting Period: 2002

Location: Unit E, Sec 11, Twn 31N, Rng 12W Vulnerable Class: expanded

Canyon: Farmington Glade
OCD Ranking: 30
Operator: Burlington
Lead Agency: NMOCD

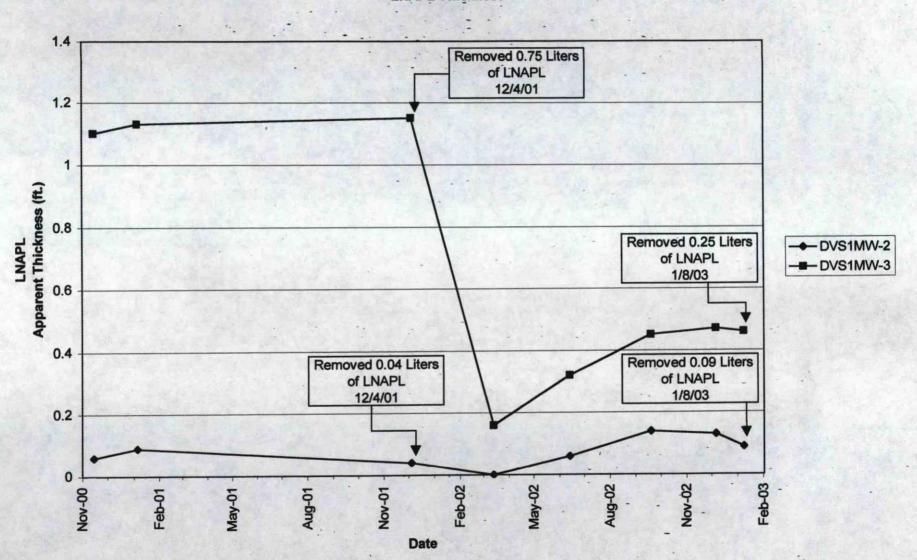
Status Narrative

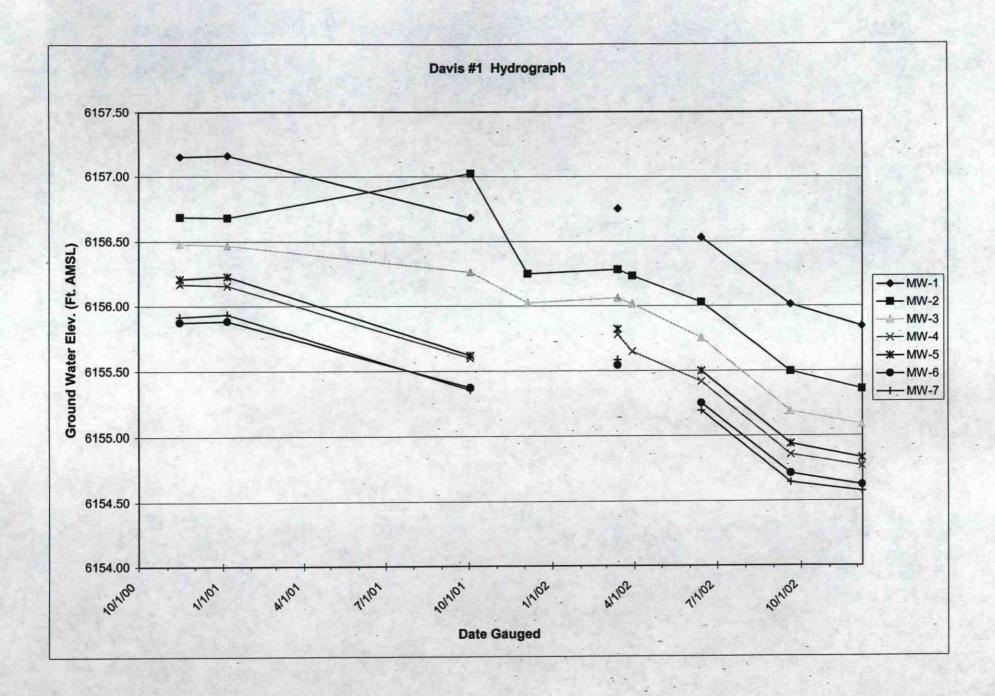
This site has seven monitoring wells installed and twelve quarters of ground water monitoring completed to date. Monitoring wells MW-2 and MW-3 contain measurable accumulations of LNAPL. The enclosed chart illustrates the variations in LNAPL thickness within each well. To date, 1-liter of LNAPL has been recovered in well MW-3 and 0.13-liter in MW-2. Dissolved total BTEX levels in downgradient well MW-5 have continued to increase. In the first quarter, total BTEX was 4,650 ppb. This level increased to 33,680 ppb in the fourth quarter. Concentrations of BTEX in well MW-4, which lies approximately 7 meters further downgradient of the source area than MW-5, have continued to remain below the method detection limit. In addition, sentinel wells, MW-6 and MW-7, have not contained any detectable BTEX. Laboratory analytical reports are enclosed along with a table summarizing the results.

Ground water flows to the west-northwest with an average hydraulic gradient of 0.006. No significant seasonal variations in flow direction or gradient occur. Figure 2 shows the potentiometric surface for each of the quarterly sampling events. The hydrograph illustrates an overall decrease in water table elevation over the last two years. Some moderation in the rate of water table elevation decline is evident during the fourth quarters of 2001 and 2002.



Davis 1 LNAPL Thickness





Analytical Data Summary

Site Name:

Davis 1

Reporting Period:

1/1/02 To 12/31/02

Well ID	Sample Date	Sample ID	Benzene ug/l	Toluene ug/l	Ethylbenzene ug/l	Xylene (Total) ug/l
MW-1	图图图图					NAME OF THE
A STATE OF THE STA	6/13/02	141313JUN02	ND	ND	ND .	ND
	9/19/02	134519SEP02	ND	ND	ŅD	ND
	12/6/02	110206DEC02	ND	3.3	ND	ND
MW-2						
	3/13/02	134213MAR02	12000	23000	870	7900
	12/6/02	111206DEC02	9300	19000	790	5400
MW-4		有数据的		20世前的		
	3/29/02	84829MAR02	, ND	ND	ND ·	ND
	6/13/02	153913JUN02	ND	ND	ND	, ND
	9/19/02	133219SEP02	ND	ND	ND	ND
	12/6/02	112106DEC02	ND	ND	ND	ND
MW-5						11年12年16年7月
	3/13/02	133413MAR02	3700	200	370	380
	1. 6/13/02	160613JUN02	4400	130	470	150
	9/19/02	135719SEP02	6700	480	480	320
	12/6/02	113006DEC02	20000	7600	780	5300
MW-6						
E MESSENSON NAMED ESSENTS	3/13/02	132113MAR02	ND	ND	ND	ND
	6/13/02	150213JUN02	ND	, ND	ND	ND
	9/19/02	131119SEP02	ND	ND	ND	ND
	12/6/02	113906DEC02	ND	ND	ND	ND ND
MW-7						
	3/13/02	131213MAR02	ND	ND	ND	NÞ
15.185	6/13/02	151913JUN02	ND	ND	ND	ND
	9/19/02	132119SEP02	ND	ND	ND	ND
	12/6/02	114806DEC02	ND	ND	ND	ND



> Phone: 913.599.5665 Fax: 913.599.1759

March 27, 2002

Mr. Jim Struhs MILE HIGH ENVIRONMENTAL 187 C.R. 4980 Bloomfield, NM 87413

RE: Lab Project Number: 6057267

Client Project ID: SJB-GW DVS 1

Dear Mr. Struhs:

Enclosed are the analytical results for sample(s) received by the laboratory on March 20, 2002. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Mary Jane Walls mjwalls@pacelabs.com Project Manager

myuallo

Kansas/NELAP Certification Number E-10116

Enclosures

REPORT OF LABORATORY ANALYSIS





> Phone: 913.599.5665 Fax: 913.599.1759

MILE HIGH ENVIRONMENTAL 187 C.R. 4980 Bloomfield, NM 87413 Lab Project Number: 6057267 Client Project ID: SJB-GW DVS 1

Attn: Mr. Jim Struhs Phone: (505)632-4457

Lab Sample No: 604988048 Project Sample Number: 6057267-001 Date Collected: 03/13/02 13:42

Client Sample ID: 134213MAR02 Matrix: Water Date Received: 03/20/02 10:35

Parameters	Results	Units	Report Limit	Analyzed	by	CAS No.	Ftnote Reg Limit
GC Volatiles							
Aromatic Volatile Organics	Prep/Method:	EPA 8021	/ EPA 8021				
Benzene	12000	ug/1	400	03/26/02 15:51	SHF	71-43-2	` 1
Ethylbenzene	870	ug/1	100	03/26/02 15:51	SHF	100-41-4	
Toluene	23000	ug/1	400	03/26/02 15:51	SHF	108-88-3	1
Xylene (Total)	7900	ug/1	250	03/26/02 15:51	SHF	1330-20-7	
a,a,a-Trifluorotoluene (S)	103	*		03/26/02 15:51	SHF	2164-17-2	2

Date: 03/27/02

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REPORT OF LABORATORY ANALYSIS





Client Sample ID: 133413MAR02

604988055

Lab Sample No:

Pace Analytical Services, Inc. 9608 Loiret Blvd. Lenexa, KS 66219

> Phone: 913.599.5665 Fax: 913.599.1759

Lab Project Number: 6057267 Client Project ID: SJB-GW DVS 1

Client Project ID: SJB-GW DVS I

Matrix: Water

Project Sample Number: 6057267-002

Date Collected: 03/13/02 13:34

Date Received: 03/20/02 10:35

Parameters	Results	Units	Report Limit	Analyzed	by	CAS No.	Ftnote	Reg Limit
GC Volatiles				THE STATE				
Aromatic Volatile Organics	Prep/Method:	EPA 8021	/ EPA 8021					*
Benzene	3700	ug/1	50.	03/26/02 09:03	SHF	71-43-2	3	4
Ethylbenzene	370	ug/1	10.	03/26/02 09:03	SHF	100-41-4	i i	
Toluene	200	ug/1	10.	03/26/02 09:03	SHF	108-88-3		
Xylene (Total)	380	ug/1	25.	03/26/02 09:03	SHF	1330-20-7		
a,a,a-Trifluorotoluene'(S)	104	. 4		03/26/02 09:03	SHF	2164-17-2	2 1	And the

Date: 03/27/02

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REPORT OF LABORATORY ANALYSIS





> Phone: 913.599.5665 Fax: 913.599.1759

Lab Project Number: 6057267 Client Project ID: SJB-GW DVS 1

Lab Sample No: 604988071 Project Sample Number: 6057267-003 Date Collected: 03/13/02 13:21

Client Sample ID: 132113MARO2 Matrix: Water

Date Received: 03/20/02 10:35

				The state of the s			
Parameters	Results	Units	Report Limit	Analyzed	by	CAS No. Ftno	te Reg Limit
GC Volatiles							
Aromatic Volatile Organics	Prep/Method:	EPA 8021	/ EPA 8021				
Benzene	ND	ug/1	2.0	03/26/02 09:32	SHF	71-43-2	Livery Street
Ethylbenzene	ND	ug/1	2.0	03/26/02 09:32	SHF	100-41-4	
Toluene	ND	ug/1	2.0	03/26/02 09:32	SHF	108-88-3	
Xylene (Total)	ND	ug/1	5.0	03/26/02 09:32	SHF	1330-20-7	
a,a,a-Trifluorotoluene (S)	103	*		03/26/02 09:32	SHF	2164-17-2	and the latest and th

Date: 03/27/02

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REPORT OF LABORATORY ANALYSIS





> Phone: 913.599.5665 Fax: 913.599.1759

Lab Project Number: 6057267 Client Project ID: SJB-GW DVS 1

Project Sample Number: 6057267-004 Date Collected: 03/13/02 13:12 604988089 Lab Sample No: Date Received: 03/20/02 10:35 Client Sample ID: 131213MAR02 Matrix: Water

Parameters	Kesuits	Units	Keport Limit	Analyzed	ру	LAS NO.	Finote	Reg Limit
GC Volatiles								
Aromatic Volatile Organics	Prep/Method:	EPA 8021	/ EPA 8021					
Benzene	ND	ug/1	2.0	03/26/02 10:01	SHF	71-43-2		San to
Ethylbenzene	ND	ug/1	2.0	03/26/02 10:01	SHF	100-41-4	W	
Toluene	ND	ug/1	2.0	03/26/02 10:01	SHF	108-88-3		
Xylene (Total)	ND	ug/1	5.0	03/26/02 10:01	SHF	1330-20-7		-0
a,a,a-Trifluorotoluene (S)	105	*		03/26/02 10:01	SHF	2164-17-2	1	

Date: 03/27/02

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REPORT OF LABORATORY ANALYSIS





Toluene

Xylene (Total)

a,a,a-Trifluorotoluene (S)

Pace Analytical Services, Inc. 9608 Loiret Blvd. Lenexa, KS 66219

> Phone: 913.599.5665 Fax: 913.599.1759

Lab Project Number: 6057267 Client Project ID: SJB-GW DVS 1

03/26/02 10:31 SHF 108-88-3

03/26/02 10:31 SHF 1330-20-7

03/26/02 10:31 SHF 2164-17-2

Lab Sample No: 604988097 Project Sample Number: 6057267-005 Date Collected: 03/13/02 00:00.
Client Sample ID: TRIPBLANK Matrix: Water Date Received: 03/20/02 10:35

Results **Parameters** Units Report Limit Analyzed Ftnote Reg Limit GC Volatiles Prep/Method: EPA 8021 / EPA 8021 Aromatic Volatile Organics ND 2.0 03/26/02 10:31 SHF 71-43-2 Benzene ug/1 ND **Ethylbenzene** ug/1 2.0 03/26/02 10:31 SHF

2.0

5.0

ND

ND

103

ug/1

ug/1

Date: 03/27/02

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REPORT OF LABORATORY ANALYSIS





> Phone: 913.599.5665 Fax: 913.599.1759

Lab Project Number: 6057267 Client Project ID: SJB-GW DVS 1

PARAMETER FOOTNOTES

ND Not detected at or above adjusted reporting limit

NC Not Calculable

- J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
- (S) Surrogate
- [1] Result from a 1:200 dilution on 3-26-02.
- [2] Elevated quantitation limits resulting from a dilution.
- [3] Result from a 1:25 dilution on 3-26-02.

Date: 03/27/02

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REPORT OF LABORATORY ANALYSIS





QUALITY CONTROL DATA

Pace Analytical Services, Inc. 9608 Loiret Blvd. Lenexa, KS 66219

Phone: 913.599.5665 Fax: 913.599.1759

Lab Project Number: 6057267 Client Project ID: SJB-GW DVS 1

QC Batch: 119682

Analysis Method: EPA 8021

QC Batch Method: EPA 8021

Analysis Description: Aromatic Volatile Organics

Associated Lab Samples:

604988048 604988055

604988071 604988089

604988097

METHOD BLANK: 604997049

Associated Lab Samples:

604988055

604988071

604988089

604988097

			Blank	Reporting	
Parameter		Units	Result	Limit	Footnotes
Benzene		ug/1	ND	2.0	
Ethylbenzene		ug/1	ND	2.0	
Toluene	1 1	ug/1	ND	2.0	
Xylene (Total)		ug/1	ND	5.0	
a,a,a-Trifluoroto	luene (S)	*	104		

604988048

LABORATORY CONTROL SAMPLE: 604997056

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Benzene	ug/1	. 20	22.56	113	
Ethylbenzene	ug/1	20	22.20	111	
Toluene	ug/1	20	22.39	112	
Xylene (Total)	ug/1	60	70.10	117	
a,a,a-Trifluorotoluene (S)				103	1

Date: 03/27/02

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REPORT OF LABORATORY ANALYSIS





> Phone: 913.599.5665 Fax: 913.599.1759

Lab Project Number: 6057267 Client Project ID: SJB-GW DVS 1

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D)Laboratory Control Sample (Duplicate)

MS(D)Matrix Spike (Duplicate)

DUP Sample Duplicate

ND Not detected at or above adjusted reporting limit

NC Not Calculable

J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit

RPD Relative Percent Difference

(S) Surrogate

[1] Insufficient sample volume received for the MS/MSD. Acceptable recovery of the LCS indicates the analytical system is in control.

Date: 03/27/02

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REPORT OF LABORATORY ANALYSIS





Phone: 913.599.5665 Fax: 913.599.1759

April 10, 2002

Mr. Jim Struhs MILE HIGH ENVIRONMENTAL 187 C.R. 4980 Bloomfield, NM 87413

Lab Project Number: 6057625

Client Project ID: SJB-GW

Dear Mr. Struhs:

Enclosed are the analytical results for sample(s) received by the laboratory on April 2, 2002. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

mjwalls@pacelabs.com

Project Manager .

Kansas/NELAP Certification Number E-10116

Enclosures

REPORT OF LABORATORY ANALYSIS





SAMPLE SUMMARY

Pace Analytical Services, Inc. 9608 Loiret Blvd. Lenexa, KS 66219

> Phone: 913.599.5665 Fax: 913.599.1759

Lab Project Number: 6057625 Client Project ID: SJB-GW

Project

Sample

Sample Number 6057625-001

Number 605018845

84829MAR02

Client Sample ID

Matrix. Water

03/29/02 08:48 04/02/02 09:00

Date Collected Date Received

REPORT OF LABORATORY ANALYSIS





SAMPLE ANALYTE COUNT

Pace Analytical Services, Inc. 9608 Loiret Blvd. Lenexa, KS 66219

> Phone: 913.599.5665 Fax: 913.599.1759

Lab Project Number: 6057625 Client Project ID: SJB-GW

Project Analysis Analysis Analytes
Sample Number Sample No Client Sample ID Code Analysis Description Reported
6057625-001 605018845 84829MAR02 8020 WPAC Aromatic Volatile Organics 5

REPORT OF LABORATORY ANALYSIS





Phone: 913.599.5665 Fax: 913.599.1759

MILE HIGH ENVIRONMENTAL 187 C.R. 4980 Bloomfield, NM 87413

Lab Project Number: 6057625 Client Project ID: SJB-GW

Attn: Mr. Jim Strubs Phone: (505)632-4457

Date Collected: 03/29/02 08:48 605018845 Project Sample Number: 6057625-001 Lab Sample No: Date Received: 04/02/02 09:00

Client Sample ID: 84829MAR02 Matrix: Water

								•
Parameters	Results	Units	Report Limit	Analyzed	by	CAS No.	Ftnote Reg Limit	
GC Volatiles				THE CONTRACT				- 1
Aromatic Volatile Organics	Prep/Method:	EPA 8021	/ EPA 8021		1 SPA			
Benzene	ND	ug/1	2.0	04/04/02 15:03	7:	1-43-2		
Ethylbenzene	ND	ug/1	2.0	04/04/02 15:03	10	00-41-4		
Toluene	ND ·	ug/1	2.0	04/04/02 15:03	10	08-88-3		
Xylene (Total)	ND	ug/1	5.0	04/04/02 15:03	13	330-20-7		
a,a,a-Trifluorotoluene (S)	101	*		04/04/02 15:03	2:	164-17-2		
							14	

Date: 04/10/02

Page: 1

REPORT OF LABORATORY ANALYSIS





> Phone: 913.599.5665 Fax: 913.599.1759

Lab Project Number: 6057625 Client Project ID: SJB-GW

PARAMETER FOOTNOTES

ND Not detected at or above adjusted reporting limit

NC Not Calculable

J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit

(S) Surrogate

Date: 04/10/02 Page: 2

REPORT OF LABORATORY ANALYSIS





QUALITY CONTROL DATA

Pace Analytical Services, Inc. 9608 Loiret Blvd. Lenexa, KS 66219

> Phone: 913.599.5665 Fax: 913.599.1759

Lab Project Number: 6057625 Client Project ID: SJB-GW

QC Batch: 120300

Analysis Method: EPA 8021

QC Batch Method: EPA 8021

Analysis Description: Aromatic Volatile Organics

Associated Lab Samples:

605018845

METHOD BLANK: 605022995

Associated Lab Samples:

605018845

		Blank	Reporting	
Parameter	Units	Result	Limit	Footnotes
Benzene	ug/1	ND	2.0	
Ethylbenzene	ug/1	ND '	2.0	
Toluene	ug/1	ND	2.0	
Xylene (Total)	ug/1	ND.	5.0	
a,a,a-Trifluorotoluene (S)	*	101		

LABORATORY CONTROL SAMPLE: 605023027

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Footnotes
Benzene	ug/1	20	20.14	101	84-122	
Ethylbenzene	ug/1	20	19.50	98	85-117	
Toluene	ug/1	20	20.31	102	87-117	
Xylene (Total)	ug/1	60	62.20	104	85-119	
a,a,a-Trifluorotoluene (S)			100	83-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 605023134 605023142

		605018654	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Footnotes
Benzene	ug/1	0	20.00	19.42	19.96	97	100	82-123	3	10	
Ethylbenzene	ug/1	0.8044	20.00	19.21	19.46	92	93	84-118	1	10	din cial
Toluene	ug/1	0.1659	20.00	19.83	20.20	98	100	82-117	2	10	
Xylene (Total)	ug/1	0.7264	60.00	60.46	61.97	100	102	84-121	2	13	
a,a,a-Trifluorotoluene (S)						99	99	83-115			

Date: 04/10/02

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REPORT OF LABORATORY ANALYSIS





> Phone: 913.599.5665 Fax: 913.599.1759

Lab Project Number: 6057625 Client Project ID: SJB-GW

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D)Laboratory Control Sample (Duplicate)

MS(D)Matrix Spike (Duplicate)

DUP Sample Duplicate

ND Not detected at or above adjusted reporting limit

NC Not Calculable

J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit

RPD Relative Percent Difference

(S) Surrogate

Date: 04/10/02 Page: 4

REPORT OF LABORATORY ANALYSIS





> Phone: 913.599.5665 Fax: 913.599.1759

June 24, 2002

Mr. Jim Struhs MILE HIGH ENVIRONMENTAL 187 C.R. 4980 Bloomfield, NM 87413

RE: Lab Project Number: 6059946

Client Project ID: DVS

Dear Mr. Struhs:

Enclosed are the analytical results for sample(s) received by the laboratory on June 20, 2002. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Mary Jane Walls mjwalls@pacelabs.com Project Manager

Kansas/NELAP Certification Number E-10116

Enclosures

REPORT OF LABORATORY ANALYSIS



SAMPLE SUMMARY

Pace Analytical Services, Inc. 9608 Loiret Blvd. Lenexa, KS 66219

> Phone: 913.599.5665 Fax: 913.599.1759

Lab Project Number: 6059946 Client Project ID: DVS1

Project Sample Number	Sample Number	Client Sample ID	Matrix	Date Collected	Date Received
6059946-001	605212448	141313JUNE02	Water	06/13/02 14:13	06/20/02 09:00
6059946-002	605212455	153913JUNE02	Water	06/13/02 15:39	06/20/02 09:00
6059946-003	605212463	160613JUNE02	Water	06/13/02 16:06	06/20/02 09:00
6059946-004	605212471	150213JUNE02	Water	06/13/02 15:02	06/20/02 09:00
6059946-005	605212489	151913JUNE02	Water	06/13/02 15:19	06/20/02 09:00

REPORT OF LABORATORY ANALYSIS



> Phone: 913.599.5665 Fax: 913.599.1759

Lab Project Number: 6059946 Client Project ID: DVS1

Lab Sample No: 605212448 Project Sample Number: 6059946-001 Date Collected: 06/13/02 14:13

Client Sample ID: 141313JUNE02 Matrix: Water Date Received: 06/20/02 09:00

Parameters	Results	Units	Report Limit	Analyzed	By CAS No.	Qual RegLmt
GC Volatiles						
Aromatic Volatile Organics	Method: EPA	8021				
Benzene	ND	ug/1	2.0	06/21/02 12:27	71-43-2	
Ethylbenzene	ND ND	ug/1	2.0	06/21/02 12:27	100-41-4	
Toluene	ND	ug/1	2.0	06/21/02 12:27	108-88-3	
Xylene (Total)	ND	ug/1	5.0	06/21/02 12:27	1330-20-7	
a,a,a-Trifluorotoluene (S)	106	*		06/21/02 12:27	98-08-8	

Date: 06/24/02

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REPORT OF LABORATORY ANALYSIS



Client Sample ID: 153913JUNE02

Lab Sample No:

605212455

Pace Analytical Services, Inc. 9608 Loiret Blvd. Lenexa, KS 66219

> Phone: 913.599.5665 Fax: 913.599.1759

Lab Project Number: 6059946 Client Project ID: DVS1

Project Sample Number: 6059946-002

Matrix: Water

Date Collected: 06/13/02 15:39

Date, Received: 06/20/02 09:00

Parameters	Results	Units	Report Limit	Analyzed	Ву	CAS No.	Qual	RegLmt
GC Volatiles								
Aromatic Volatile Organics	Method: EPA	8021						
Benzene	ND	ug/1	2.0	06/21/02 12:59		71-43-2		
Ethylbenzene	ND	ug/1	2.0	06/21/02 12:59		100-41-4		
Toluene	ND	ug/1	2.0	06/21/02 12:59		108-88-3	1	
Xylene (Total)	ND	ug/1	5.0	06/21/02 12:59		1330-20-7	1	
a,a,a-Trifluorotoluene (S)	104	*		06/21/02 12:59		98-08-8		

Date: 06/24/02

REPORT OF LABORATORY ANALYSIS



Client Sample ID: 160613JUNE02

Lab Sample No:

605212463

Pace Analytical Services, Inc. 9608 Loiret Blvd. Lenexa, KS 66219

> Phone: 913.599.5665 Fax: 913.599.1759

Lab Project Number: 6059946 Client Project ID: DVS1

Project Sample Number: 6059946-003

Matrix: Water

Date Collected: 06/13/02 16:06

Date Received: 06/20/02 09:00

Parameters	Results	Units	Report Limit	Analyzed	Ву	CAS No.	Qual	RegLmt
GC Volatiles				9 - 4 - 4 - 4				
Aromatic Volatile Organics	Method: EP	A 8021		A DESCRIPTION	-			
Benzene	4400	ug/1	100	06/21/02 13:29		71-43-2	1	
Ethylbenzene	470	ug/1	20.	06/21/02 13:29		100-41-4		
Toluene	130	ug/1	20.	06/21/02 13:29		108-88-3		
Xylene (Total)	150	ug/1	50.	06/21/02 13:29		1330-20-7		
a,a,a-Trifluorotoluene (S)	104	*		06/21/02 13:29		98-08-8	2	

Date: 06/24/02

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REPORT OF LABORATORY ANALYSIS



Client Sample ID: 150213JUNE02

605212471

Lab Sample No:

Pace Analytical Services, Inc. 9608 Loiret Blvd. Lenexa, KS 66219

> Phone: 913.599.5665 Fax: 913.599.1759

Lab Project Number: 6059946 Client Project ID: DVS1

Project Sample Number: 6059946-004 D

Matrix: Water

Date Collected: 06/13/02 15:02

Date Received: 06/20/02 09:00

Parameters	Results	Units	Report Limit	Analyzed	Ву	CAS No.	Qual	RegLmt	t
GC Volatiles									
Aromatic Volatile Organics	Method: EP	A 8021							
Benzene	ND	ug/1	2.0	06/21/02 13:58		71-43-2	1		
Ethylbenzene	ND	ug/1	2.0	06/21/02 13:58		100-41-4			
Toluene	ND	ug/1	2.0	06/21/02 13:58		108-88-3	1		
Xylene (Total)	ND	ug/1	5.0	06/21/02 13:58		1330-20-7	*		
a,a,a-Trifluorotoluene (S)	104	*		06/21/02 13:58		98-08-8		-	

Date: 06/24/02

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REPORT OF LABORATORY ANALYSIS



> Phone: 913.599.5665 Fax: 913.599.1759

Lab Project Number: 6059946 Client Project ID: DVS1

Lab Sample No: 605212489 Project Sample Number: 6059946-005

Client Sample ID: 151913JUNE02 Matrix: Water

Date Collected: 06/13/02 15:19

Date Received: 06/20/02 09:00

Parameters	Results	Units	Report Limit	Analyzed	Ву	CAS No.	Qual	RegLmt
GC Volatiles								-
Aromatic Volatile Organics	Method: EP	A 8021	172					
Benzene	ND	ug/1	2.0	06/21/02 14:28		71-43-2		
Ethylbenzene	ND ND	ug/1	2.0	06/21/02 14:28		100-41-4		
Toluene	ND	ug/1	2.0	06/21/02 14:28		108-88-3		
Xylene (Total)	ND	ug/1	5.0	06/21/02 14:28		1330-20-7	- Invi	
a,a,a-Trifluorotoluene (S)	105	*		06/21/02 14:28		98-08-8		ff you

Date: 06/24/02

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REPORT OF LABORATORY ANALYSIS



> Phone: 913.599.5665 Fax: 913.599.1759

Lab Project Number: 6059946 Client Project ID: DVS1

PARAMETER FOOTNOTES

ND Not detected at or above adjusted repor-	ting	TIMIT
---	------	-------

NC Not Calculable

J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit

MDL Adjusted Method Detection Limit

(S) Surrogate

[1] Result of a 1:50 dilution on 06/21/02.

[2] Elevated quantitation limits resulting from a dilution.

Date: 06/24/02 Page:

REPORT OF LABORATORY ANALYSIS



QUALITY CONTROL DATA

Pace Analytical Services, Inc. 9608 Loiret Blvd. Lenexa, KS 66219

> Phone: 913.**5**99.5665 Fax: 913.**5**99.1759

Lab Project Number: 6059946 Client Project ID: DVS1

QC Batch: 124756

Analysis Method: EPA 8021

QC Batch Method: EPA 8021

Analysis Description: Aromatic Volatile Organics

Associated Lab Samples:

605212448

605212463

605212471

605212489

METHOD BLANK: 605213867

Associated Lab Samples:

605212448 605212455

605212463

605212455

605212471

605212489

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Benzene	ug/1	ND	2.0	
Ethylbenzene	ug/1	ND	2.0	
Toluene	ug/1	ND	2.0	
Xylene (Total)	ug/1	ND	5.0	The Manager
a,a,a-Trifluorotoluene (S)	*	105	7.00	7

LABORATORY CONTROL SAMPLE: 605213875

Parameter	Units	Conc.	Result	% Rec	Limits	Footnotes
Benzene	ug/1	20.00	20.84	104	84-122	
Ethylbenzene	ug/1	20.00	19.43	97	85-117	
Toluene	ug/1	20.00	20.90	104	87-117	
Xylene (Total)	. ug/1	60.00	61.51	103	85-119	
a,a,a-Trifluorotoluene (S)	New Park	THE PARTY	ALL ER	105	83-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 605214295 605214303

		605212448	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Result	Result	% Rec	* Rec	Limits	RPD	RPD	Footnotes
Benzene	ug/1	0	20.00	20.87	20.86	104	104	82-123	0	10	
Ethylbenzene	ug/1	0.6632	20.00	19.57	19.59	94	95	84-118	0	10	
Toluene	ug/1	0.1954	20.00	20.97	20.92	104	104	82-117	0	10	
Xylene (Total)	ug/1	0.3424	60.00	61.58	61.48	102	102	84-121	. 0	13	
a,a,a-Trifluorotoluene (S)						104	106	83-115			

Date: 06/24/02

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REPORT OF LABORATORY ANALYSIS



> Phone: 913.599.5665 Fax: 913.599.1759

Lab Project Number: 6059946 Client Project ID: DVS1

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D) Laboratory Control Sample (Duplicate)

MS(D) Matrix Spike (Duplicate)

DUP Sample Duplicate

ND Not detected at or above adjusted reporting limit

NC Not Calculable

Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit

MDL Adjusted Method Detection Limit

RPD Relative Percent Difference

(S) Surrogate

Date: 06/24/02

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REPORT OF LABORATORY ANALYSIS



Phone: 913.599.5665 Fax: 913.599.1759

October 07, 2002

Mr. Jim Struhs MILE HIGH ENVIRONMENTAL 187 C.R. 4980 Bloomfield, NM 87413

RE: Lab Project Number: 6063154 Client Project ID: DVS1

Dear Mr. Struhs:

Enclosed are the analytical results for sample(s) received by the laboratory on September 26, 2002. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Mary Jane Walls
mjwalls@pacelabs.com
Project Manager

Kansas/NELAP Certification Number E-10116

Enclosures

REPORT OF LABORATORY ANALYSIS





SAMPLE SUMMARY

Pace Analytical Services, Inc. 9608 Loiret Blvd. Lemexa, KS 66219

> Phone: 913.599.5665 Fax: 913.599.1759

Lab Project Number: 6063154 Client Project ID: DVS1

Project Sample Number	Sample Number	Client Sample ID	Matrix	Date Collected	Date Received
6063154-001	605467901	131119SEP02	Water	09/19/02 13:11	09/26/02 09:15
6063154-002	605467919	132119SEP02	Water	09/19/02 13:21	09/26/02 09:15
6063154-003	605467927	133219SEP02	Water	09/19/02 13:32	09/26/02 09:15
6063154-004	605467935	134519SEP02	Water	09/19/02 13:45	09/26/02 09:15
6063154-005	605467943	135719SEP02	Water	09/19/02 13:57	09/26/02 09:15

REPORT OF LABORATORY ANALYSIS





SAMPLE ANALYTE COUNT

Pace Analytical Services, Inc. 9608 Loiret Blvd. Lenexa, KS 66219

> Phone: 913.599.5665 Fax: 913.599.1759

Lab Project Number: 6063154 Client Project ID: DVS1

Project Sample Number	Sample No	Client Sample ID		ysis de_	Analysis Description	Analyte's Reported
6063154-001	605467901	131119SEP02	8020	WPAC	Aromatic Volatile Organics	5
6063154-002	605467919	132119SEP02	8020	WPAC	Aromatic Volatile Organics	5
6063154-003	605467927	133219SEP02	8020	WPAC	Aromatic Volatile Organics	5
6063154-004	605467935	134519SEP02	8020	WPAC	Aromatic Volatile Organics	5
6063154-005	605467943	135719SEP02	8020	WPAC	Aromatic Volatile Organics	. 5

REPORT OF LABORATORY ANALYSIS





> Phone: 913.599.5665 Fax: 913.599.1759

Lab Project Number: 6063154 Client Project ID: DVS1

Lab Sample No: 605467901 Project Sample Number: 6063154-001 Date Collected: 09/19/02 13:11
Client Sample ID: 131119SEP02 Matrix: Water Date Received: 09/26/02 09:15

Parameters	Results	Units	Report Limit	DF	Analyzed	Ву	CAS No.	Qual	RegLmt
GC Volatiles									1
Aromatic Volatile Organics	Method: EPA	8021							
Benzene	ND	ug/1	2.0	1.0	10/02/02 20:41		71-43-2		
Ethylbenzene	ND	ug/1	2.0	1.0	10/02/02 20:41	NO	100-41-4		
Toluene	ND	ug/1	2.0	1.0	10/02/02 20:41		108-88-3		1
Xylene (Total)	ND	ug/1	5.0	1.0	10/02/02 20:41	-	1330-20-7		
a,a,a-Trifluorotoluene (S)	101	*		1.0	10/02/02 20:41		98-08-8	2 1	

Date: 10/07/02

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REPORT OF LABORATORY ANALYSIS





> Phone: 913.599.5665 Fax: 913.599.1759

Lab Project Number: 6063154 Client Project ID: DVS1

Lab Sample No: 605467919 Project Sample Number: 6063154-002

Client Sample ID: 132119SEP02

Matrix: Water

Date Collected: 09/19/02 13:21 Date Received: 09/26/02 09:15

D.,	CAC	M-	A 1	'n-		
						0.0
						1127
					1	

Parameters	Results	Units	Report Limit	DF	Analyzed	Ву	CAS No.	Qual	RegLmt
GC Volatiles									
Aromatic Volatile Organics	Method: EPA	8021							
Benzene	ND	ug/1	2.0	1.0	10/02/02 21:10		71-43-2		
Ethylbenzene	ND ND	ug/1	2.0	1.0	10/02/02 21:10		100-41-4		
Toluene	ND	. ug/1	2.0	1.0	10/02/02 21:10		108-88-3		
Xylene (Total)	ND	ug/1	5.0	1.0	10/02/02 21:10		1330-20-7		
a,a,a-Trifluorotoluene (S)	99	*		1.0	10/02/02 21:10		98-08-8	E- 5 "	

Date: 10/07/02

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REPORT OF LABORATORY ANALYSIS





> Phone: 913.599.5665 Fax: 913.599.1759

Lab Project Number: 6063154 Client Project ID: DVS1

Lab Sample No: 605467927 Project Sample Number: 6063154-003 Date Collected: 09/19/02 13:32 Client Sample ID: 133219SEP02 Matrix: Water Date Received: 09/26/02 09:15

arameters Results Units Report Limit DF Analyzed By CAS No. Qual RegLmt

Parameters •	Results	Units	Report Limit	DF	Analyzed	Ву	CAS No.	Qual	RegLmt
GC Volatiles				204					1
Aromatic Volatile Organics	Method: EPA 8	021							
Benzene	ND	ug/1	2.0	1.0 1	0/02/02 21:38	*	71-43-2		
Ethylbenzene	ND	ug/1	2.0	1.0 1	0/02/02 21:38		100-41-4		
Toluene	ND	ug/1	2.0	1.0	0/02/02 21:38		108-88-3		
Xylene (Total)	ND	ug/1	5.0	1.0	0/02/02 21:38		1330-20-7		
a,a,a-Trifluorotoluene (S)	102	*		1.0 1	0/02/02 21:38		98-08-8		

Date: 10/07/02

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REPORT OF LABORATORY ANALYSIS





> Phone: 913.599.5665 Fax: 913.599.1759

Lab Project Number: 6063154 Client Project ID: DVS1

Project Sample Number: 6063154-004 605467935 Date Collected: 09/19/02 13:45 Lab Sample No: Client Sample ID: 134519SEP02

Matrix: Water

Date Received: 09/26/02 09:15

Parameters	Results	Units	Report Limit	DF	Analyzed	Ву	CAS No.	Qual	RegLmt
GC Volatiles									
Aromatic Volatile Organics	Method: EPA	8021							
Benzene	ND	ug/1	2.0	1.0	10/02/02 22:07		71-43-2		
Ethylbenzene	ND ND	ug/1	2.0	1.0	10/02/02 22:07		100-41-4		
Toluene	ND	ug/1	2.0	1.0	10/02/02 22:07		108-88-3		4
Xylene (Total)	ND	ug/1	5.0	1.0	10/02/02 22:07		1330-20-7		
a,a,a-Trifluorotoluene (S)	100	*		1.0	10/02/02 22:07		98-08-8		

Date: 10/07/02

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REPORT OF LABORATORY ANALYSIS





> Phone: 913.599.5665 Fax: 913.599.1759

Lab Project Number: 6063154 Client Project ID: DVS1

Lab Sample No: 605467943 Project Sample Number: 6063154-005 Date Collected: 09/19/02 13:57
Client Sample ID: 135719SEP02 Matrix: Water Date Received: 09/26/02 09:15

Parameters '	Results	Units	Report Limit	DF	Analyzed	Ву	CAS No.	Qual	RegLmt
GC Volatiles									1
Aromatic Volatile Organics	Method: EPA	8021			1		K Fallanti.		THE RES
Benzene	6700	ug/1	200	100	10/03/02		71-43-2		
Ethylbenzene	480	ug/1	20.	10.0	10/02/02 22:35		100-41-4		
Toluene	480	ug/1	20.	10.0	10/02/02 22:35		108-88-3	1	
Xylene (Total)	320	ug/1	50.	10.0	10/02/02 22:35		1330-20-7		
a,a,a-Trifluorotoluene (S)	100	*		1.0	10/02/02 22:35		98-08-8	1	

Date: 10/07/02 Page: 5

REPORT OF LABORATORY ANALYSIS





> Phone: 913.599.5665 Fax: 913.599.1759

Lab Project Number: 6063154 Client Project ID: DVS1

PARAMETER FOOTNOTES

Dilution factor shown represents the factor applied to the reported result and reporting limit due to changes in sample preparation, dilution of the extract, or moisture content

ND Not detected at or above adjusted reporting limit

NC Not Calculable

J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit

MDL Adjusted Method Detection Limit

(S) Surrogate

[1] Elevated quantitation limits resulting from a dilution.

Date: 10/07/02

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REPORT OF LABORATORY ANALYSIS





QUALITY CONTROL DATA

Pace Analytical Services, Inc. 9608 Loiret Blvd. Lenexa, KS 66219

Phone: 913.599.5665 Fax: 913.599.1759

Lab Project Number: 6063154 Client Project ID: DVS1

QC Batch: 130915

Analysis Method: EPA 8021

QC Batch Method: EPA 8021

Analysis Description: Aromatic Volatile Organics

Associated Lab Samples:

605467901 605467919

605467927 605467935

605467943

METHOD BLANK: 605482827

Associated Lab Samples:

605467901 605467919

605467927

605467935

605467943

		Blank	Reporting	g
Parameter	Units	Result	Limit	Footnotes
Benzene	ug/1	ND	2.0	
Ethylbenzene	ug/1	ND	2.0	and the same
Toluene	ug/1	ND	2.0	-
Xylene (Total)	ug/1	ND	5.0	
a,a,a-Trifluorotoluene (S)	*	102		1.1

LABORATORY CONTROL SAMPLE: 605482835

		Spike	LCS	LCS	* Rec	
Parameter	Units	Conc.	Result	* Rec	Limits	Footnotes
Benzene	ug/1	20.00	21.50	107	84-122	
Ethylbenzene	ug/1	20.00	19.16	96	85-117	
Toluene	ug/1	20.00	20.08	100	87-117	
Xylene (Total)	ug/1	60.00	58.89	98	85-119	
a,a,a-Trifluorotoluene (5)				102	83-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 605486067 605486075

			605453604	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter		Units	Result	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Footnotes
Benzene		ug/1	0	20.00	19.80	20.13	99	101	82-123	2	10	
Ethylbenzene		ug/1	0	20.00	19.30	19.48	96	97	84-118	1	10	
Toluene		ug/1	0	20.00	19.52	19.97	98	100	82-117	2	10	
Xylene (Total)		ug/1	0	60.00	58.12	58.79	97	98	84-121	1	13	
a, a, a-Trifluorot	oluene (S)						101	102	83-115			

Date: 10/07/02

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REPORT OF LABORATORY ANALYSIS





> Phone: 913.599.5665 Fax: 913.599.1759

Lab Project Number: 6063154 Client Project ID: DVS1

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D) Laboratory Control Sample (Duplicate)

MS(D) Matrix Spike (Duplicate)

DUP Sample Duplicate

ND Not detected at or above adjusted reporting limit

NC Not Calculable

Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit

MDL Adjusted Method Detection Limit
RPD Relative Percent Difference

(S) Surrogate

Date: 10/07/02

. . . .

REPORT OF LABORATORY ANALYSIS





> Phone: 913.599.5665 Fax: 913.599.1759

December 20, 2002

Mr. Jim Struhs MILE HIGH ENVIRONMENTAL 187 C.R. 4980 Bloomfield, NM 87413

Lab Project Number: 6065825

Client Project ID: SJB-GW DVS1

Dear Mr. Struhs':

Enclosed are the analytical results for sample(s) received by the laboratory on December 17, 2002. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Mary Jane Walls mjwalls@pacelabs.com

Project Manager

Kansas/NELAP Certification Number E-10116

Enclosures

REPORT OF LABORATORY ANALYSIS





SAMPLE SUMMARY

Pace Analytical Services, Inc. 9608 Loiret Blvd. Lenexa, KS 66219

> Phone: 913.599.5665 Fax: 913.599.1759

Lab Project Number: 6065825 Client Project ID: SJB-GW DVS1

Project Sample Number	Sample Number	Client Sample	TD	Madada	Dath Callagend	Data Danstord
	A STATE OF THE STA		10	Matrix	Date Collected	Date Received
6065825-001	605681006	114806DEC02		Water	12/06/02 11:48	12/17/02 08:00
6065825-002	605681014	113906DEC02		Water	12/06/02 11:39	12/17/02 08:00
6065825-003	605681022	112106DEC02	rel	Water	12/06/02 11:21	12/17/02 08:00
6065825-004	605681030	111206DEC02		Water	12/06/02 11:12	12/17/02 08:00
6065825-005	605681048	110206DEC02		Water	12/06/02 11:02	12/17/02 08:00
6065825-006	605681055	113006DFC02		Water	12/06/02 11:30	12/17/02 08:00

REPORT OF LABORATORY ANALYSIS





Client Sample ID: 114806DEC02

Pace Analytical Services, Inc.

9608 Loiret Blvd. Lenexa, KS 66219

Phone: 913.599.5665 Fax: 913.599.1759

Lab Project Number: 6065825

Client Project ID: SJB-GW DVS1

Lab Sample No: 605681006 Project Sample Number: 6065825-001

Matrix: Water

Date Collected: 12/06/02 11:48

Date Received: 12/17/02 08:00

				A TRANSPORT			
Parameters	Results	Units	Report Limit	DF Analyzed	Ву	CAS No.	Qual RegLmt
GC Volatiles							
Aromatic Volatile Organics	Method: EPA	8021		The Name of Street			
Benzene	ND	ug/1	2.0	1.0 12/19/02 00:20	SHF	71-43-2	
Ethylbenzene	ND	ug/1	2.0	1.0 12/19/02 00:20	SHF	100-41-4	
Toluene	ND	ug/1	2.0	1.0 12/19/02 00:20	SHF	108-88-3	
Xylene (Total)	ND	ug/1	5.0	1.0 12/19/02 00:20	SHF	1330-20-7	
a,a,a-Trifluorotoluene (S)	93	*		1.0 12/19/02 00:20	SHF	98-08-8	

Date: 12/20/02 Page: 1 of 9

REPORT OF LABORATORY ANALYSIS





Pace Analytical Services, Inc.

9608 Loiret Blvd. Lenexa, KS 66219

Phone: 913.599.5665 Fax: 913.599.1759

Lab Project Number: 6065825

Client Project ID: SJB-GW DVS1

Lab Sample No: 605681014 Project Sample Number: 6065825-002 Date Collected: 12/06/02 11:39
Client Sample ID: 113906DEC02 Matrix: Water Date Received: 12/17/02 08:00

Parameters	Results	Units	Report Limit	DF	Analyzed	Ву	CAS No.	Qual Re	egLmt
GC Volatiles									
Aromatic Volatile Organics	Method: EPA	8021							
Benzene	ND ND	ug/1	2.0	1.0	12/19/02 00:49	SHF	71-43-2		
Ethylbenzene	ND	ug/1	2.0	1.0	12/19/02 00:49	SHF	100-41-4		
Toluene	ND	ug/1	2.0	1.0	12/19/02 00:49	SHF	108-88-3		*
Xylene (Total)	ND	ug/1	5.0	1.0	12/19/02 00:49	SHF	1330-20-7	WITH STATE OF	
a,a,a-Trifluorotoluene (S)	94	%		1.0	12/19/02 00:49	SHF	98-08-8		

Date: 12/20/02

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REPORT OF LABORATORY ANALYSIS





> Phone: 913.599.5665 Fax: 913.599.1759

Lab Project Number: 6065825 Client Project ID: SJB-GW DVS1

Lab Sample No: 605681022 Project Sample Number: 6065825-003 Date Collected: 12/06/02 11:21

Client Sample ID: 112106DEC02 Matrix: Water Date Received: 12/17/02 08:00

Parameters	Results	Units	Report Limit	DF	Analyzed	Ву	CAS No.	Qual	RegLmt
GC Volatiles				100					
Aromatic Volatile Organics	Method: EPA	8021							1
Benzene	ND	ug/1	2.0	1.0	12/19/02 01:17	SHF	71-43-2		
Ethylbenzene	ND	ug/1	2.0	1.0	12/19/02 01:17	SHF	100-41-4		
Toluene	ND	ug/1	2.0	1.0	12/19/02 01:17	SHF	108-88-3	- W	
Xylene (Total)	ND	ug/1	5.0	1.0	12/19/02 01:17	SHF	1330-20-7		
a,a,a-Trifluorotoluene (S)	94	*		1.0	12/19/02 01:17	SHF	98-08-8		

Date: 12/20/02

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REPORT OF LABORATORY ANALYSIS





> Phone: 913.599.5665 Fax: 913.599.1759

Lab Project Number: 6065825 Client Project ID: SJB-GW DVS1

Lab Sample No: 605681030 Date Collected: 12/06/02 11:12 Project Sample Number: 6065825-004 Client Sample ID: 111206DEC02

Matrix: Water

Date Received: 12/17/02 08:00

Parameters	Results	Units	Report Limit	DF	Analy	zed	By	CAS No.	Qual Re	egLmt
GC Volatiles										(Color
Aromatic Volatile Organics	Method: EP/	8021		1						
Benzene	9300	ug/1	200	100	12/19/02	15:06	SHF	71-43-2		
Ethylbenzene	790	ug/1	20.	10.0	12/19/02	01:46	SHF	100-41-4		
Toluene	19000	ug/1	200	100	12/19/02	15:06	SHF	108-88-3		
Xylene (Total)	5400	ug/1	50.	10.0	12/19/02	01:46	SHF	1330-20-7		
a,a,a-Trifluorotoluene (S)	94	*		1.0	12/19/02	01:46	SHF	98-08-8		

Date: 12/20/02

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REPORT OF LABORATORY ANALYSIS





Client Sample ID: 110206DEC02

Lab Sample No:

605681048

Pace Analytical Services, Inc. 9608 Loiret Blvd.

Lenexa, KS 66219 Phone: 913.599.5665 Fax: 913.599.1759

Lab Project Number: 6065825 Client Project ID: SJB-GW DVS1

Project Sample Number: 6065825-005

Matrix: Water

Date Collected: 12/06/02 11:02 Date Received: 12/17/02 08:00

Parameters	Results	Units	Report Limit	DF Analyzed	Ву	CAS No.	Qual	RegLmt
GC Volatiles								- ;
Aromatic Volatile Organics	Method: EPA	8021			H			
Benzene	ND	ug/1	2.0	1.0 12/19/02 15:35	SHF	71-43-2		
Ethylbenzene	ND	ug/1	2.0	1.0 12/19/02 15:35	SHF	100-41-4		
Toluene	3.3	ug/1	2.0	1.0 12/19/02 15:35	SHF	108-88-3	* 15	
Xylene (Total)	ND	ug/1	5.0	1.0 12/19/02 15:35	SHF	1330-20-7		
a,a,a-Trifluorotoluene (S)	97	%		1.0 12/19/02 15:35	SHF	98-08-8	1 96	

Date: 12/20/02

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REPORT OF LABORATORY ANALYSIS





605681055

Lab Sample No:

Pace Analytical Services, Inc. 9608 Loiret Blvd. Lenexa, KS 66219

> Phone: 913.599.5665 Fax: 913.599.1759

Lab Project Number: 6065825

Client Project ID: SJB-GW DVS1

Project Sample Number: 6065825-006

Date Collected: 12/06/02 11:30

Client Sample ID: 113006DEC02			Matrix: Water			Date Received: 12/17/02 08:			
Parameters	Results	Units	Report Limit	DF	Analyzed	Ву	CAS No.	Qual RegLmt	
GC Volatiles				978					
Aromatic Volatile Organics	Method: EPA	8021		·					
Benzene	20000	ug/1	400	200	12/19/02 12:15	SHF	71-43-2		
Ethylbenzene	780	ug/1	40.	20.0	12/19/02 02:42	SHF	100-41-4		
Toluene	7600	ug/1	400	200	12/19/02 12:15	SHF	108-88-3		
Xylene (Total)	5300	ug/1	100 '	20.0	12/19/02 02:42	SHF	1330-20-7		
a,a,a-Trifluorotoluene (S)	89	*		1.0	12/19/02 02:42	SHF	98-08-8		

Date: 12/20/02

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REPORT OF LABORATORY ANALYSIS





> Phone: 913.599.5665 Fax: 913.599.1759

Lab Project Number: 6065825 Client Project ID: SJB-GW DVS1

PARAMETER FOOTNOTES

Dilution factor shown represents the factor applied to the reported result and reporting limit due to changes in sample preparation, dilution of the extract, or moisture content

ND Not detected at or above adjusted reporting limit

NC Not Calculable

J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit

MDL Adjusted Method Detection Limit

(S) Surrogate

Date: 12/20/02 Page: 7 of 9

REPORT OF LABORATORY ANALYSIS





QUALITY CONTROL DATA

Pace Analytical Services, Inc. 9608 Loiret Blvd. Lenexa, KS 66219

Phone: 913.599.5665 Fax: 913.599.1759

Lab Project Number: 6065825 Client Project ID: SJB-GW DVS1

QC Batch: 135852

Analysis Method: EPA 8021

QC Batch Method: EPA 8021

Analysis Description: Aromatic Volatile Organics

Associated Lab Samples:

605681014

605681022 . 605681030

605681048

605681006 605681055

METHOD BLANK: 605685213

Associated Lab Samples:

605681006 605681014

605681022

605681030

605681048

605681055

		Blank	Reporting	
Parameter	Units	Result	Limit	Footnotes
Benzene	ug/1	ND	2.0	
Ethylbenzene	ug/1	ND	2.0	
Toluene	ug/1	ND	2.0	
Xylene (Total)	ug/1	ND	5.0	
a,a,a-Trifluorotoluene (S)	*	93		

LABORATORY CONTROL SAMPLE: 605685221

		Spike	LCS	LCS	* Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Footnotes
Benzene	ug/1	20.00	19.35	97	84-122	
Ethylbenzene	ug/1	20.00	20.86	104	85-117	
Toluene	ug/1	20.00	19.99	100	87-117	
Xylene (Total)	ug/1	60.00	67.17	112	85-119	
a,a,a-Trifluorotoluene (S)				90	83-115	1

Date: 12/20/02

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REPORT OF LABORATORY ANALYSIS





> Phone: 913.599.5665 Fax: 913.599.1759

Lab Project Number: 6065825 Client Project ID: SJB-GW DVS1

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D) Laboratory Control Sample (Duplicate)

MS(D) Matrix Spike (Duplicate)

DUP Sample Duplicate

ND Not detected at or above adjusted reporting limit

NC Not Calculable

J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit

MDL Adjusted Method Detection Limit

RPD Relative Percent Difference

(S) Surrogate

[1] Insufficient number of sample containers, there is no MS/MSD. Acceptable recovery of the LCS demonstrates the analytical system was in control.

Date: 12/20/02 Page: 9 of 9

REPORT OF LABORATORY ANALYSIS



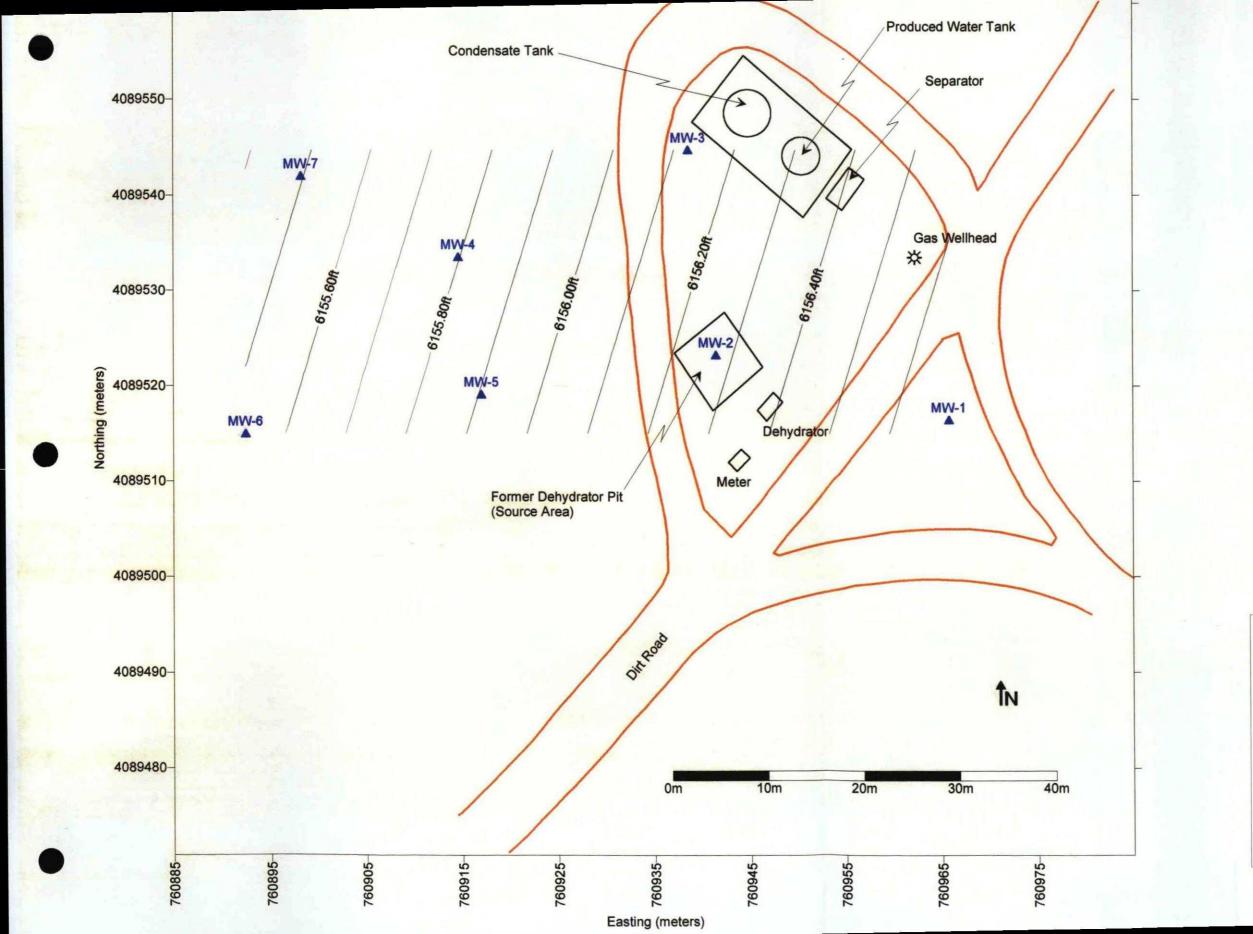


Figure 2
Potentiometric
Surface Map
Davis #1
(March 13, 2002)

LEGEND

MW-2

Monitoring Well

5585.20

Ground Water Elevation (ft. AMSL)

