2R - 54

GENERAL CORRESPONDENCE

YEAR(S): 2005

Summary Report

Wayne Price
OCD-Santa Fe
1220 S. Saint Francis Dr.
Santa Fe, NM 87505

Report Date: April 5, 2005

Work Order: 5032513

Project Location: Sec 25-195-29E 990 FSl 666 FEL
Project Name: Way Farer State AIY #1

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
58204	Wayfarer 01	soil	2005-03-23	14:00	2005-03-25
58205	Wayfarer 02	soil	2005-03-23	14:10	2005-03-25
58206	Wayfarer 03	soil	2005-03-23	14:20	2005-03-25
58207	Wayfarer 04	soil	2005-03-23	15:05	2005-03-25

	BTEX				MTBE	TPH DRO	TPH GRO
Sample - Field Code	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	MTBE (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
58204 - Wayfarer 01	**0.725**	**4.39**	**1.35**	**20.4**		**5960**	**320**
58205 - Wayfarer 02	**1.98**	**10.7**	**5.06**	**73.5**		**18000**	**797**
58206 - Wayfarer 03	<0.0100	<0.0100	<0.0100	**0.0113**		<50.0	**9.68**
58207 - Wayfarer 04	<0.0100	**1.90**	**1.01**	**1.68**		**1510**	**240**

Sample: 58204 - Wayfarer 01

Param	Flag	Result	Units	RL
Chloride		**21.1**	mg/Kg	1.00

Sample: 58205 - Wayfarer 02

Param	Flag	Result	Units	RL
Chloride		**11.9**	mg/Kg	1.00

Sample: 58206 - Wayfarer 03

Param	Flag	Result	Units	RL
Chloride		**36.9**	mg/Kg	1.00

Sample: 58207 - Wayfarer 04

continued ...

sample 58207 continued ...

Param	Flag	Result	Units	RL

Param	Flag	Result	Units	RL
Chloride		**24.4**	mg/Kg	1.00

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
155 McCutcheon, Suite H El Paso, Texas 79932 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Wayne Price
OCD-Santa Fe
1220 S. Saint Francis Dr.
Santa Fe, NM 87505

Report Date: April 5, 2005

Work Order: 5032513

Project Location: Sec 25-195-29E 990 FSl 666 FEL
Project Name: Way Farer State AIY #1
Project Number: Way Farer State AIY #1

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
58204	Wayfarer 01	soil	2005-03-23	14:00	2005-03-25
58205	Wayfarer 02	soil	2005-03-23	14:10	2005-03-25
58206	Wayfarer 03	soil	2005-03-23	14:20	2005-03-25
58207	Wayfarer 04	soil	2005-03-23	15:05	2005-03-25

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 11 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Analytical Report

Sample: 58204 - Wayfarer 01

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	17005	Date Analyzed:	2005-03-30	Analyzed By:	MS
Prep Batch:	14987	Sample Preparation:	2005-03-30	Prepared By:	BL

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene	[1]	**0.725**	mg/Kg	50	0.00100
Toluene		**4.39**	mg/Kg	50	0.00100
Ethylbenzene		**1.35**	mg/Kg	50	0.00100
Xylene		**20.4**	mg/Kg	50	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[2]	0.578	mg/Kg	50	0.0200	58	61.8 - 113
4-Bromofluorobenzene (4-BFB)	[3]	1.80	mg/Kg	50	0.0200	180	75.8 - 111

Sample: 58204 - Wayfarer 01

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	16943	Date Analyzed:	2005-03-30	Analyzed By:	WB
Prep Batch:	14938	Sample Preparation:	2005-03-30	Prepared By:	WB

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**21.1**	mg/Kg	5	1.00

Sample: 58204 - Wayfarer 01

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	16966	Date Analyzed:	2005-03-29	Analyzed By:	DS
Prep Batch:	14954	Sample Preparation:	2005-03-29	Prepared By:	DS

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**5960**	mg/Kg	10	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	[4]	569	mg/Kg	10	15.0	379	57.5 - 139

Sample: 58204 - Wayfarer 01

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	17006	Date Analyzed:	2005-03-30	Analyzed By:	MS
Prep Batch:	14987	Sample Preparation:	2005-03-30	Prepared By:	BL

[1] Sample ran at dilution due to hydrocarbons with a retention time greater than xylene.
[2] Surrogate out due to peak interference.
[3] High surrogate recovery due to peak interference.
[4] High surrogate recovery due to peak interference.

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**320**	mg/Kg	50	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[5]	11.0	mg/Kg	50	0.0200	1100	70 - 130
4-Bromofluorobenzene (4-BFB)	[6]	9.42	mg/Kg	50	0.0200	942	70 - 130

Sample: 58205 - Wayfarer 02

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	17005	Date Analyzed:	2005-03-30	Analyzed By:	MS
Prep Batch:	14987	Sample Preparation:	2005-03-30	Prepared By:	BL

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene	[7]	**1.98**	mg/Kg	50	0.00100
Toluene		**10.7**	mg/Kg	50	0.00100
Ethylbenzene		**5.06**	mg/Kg	50	0.00100
Xylene	[8]	**73.5**	mg/Kg	50	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[9]	1.20	mg/Kg	50	0.0200	120	61.8 - 113
4-Bromofluorobenzene (4-BFB)	[10]	11.7	mg/Kg	50	0.0200	1170	75.8 - 111

Sample: 58205 - Wayfarer 02

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	16943	Date Analyzed:	2005-03-30	Analyzed By:	WB
Prep Batch:	14938	Sample Preparation:	2005-03-30	Prepared By:	WB

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**11.9**	mg/Kg	5	1.00

Sample: 58205 - Wayfarer 02

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	16966	Date Analyzed:	2005-03-29	Analyzed By:	DS
Prep Batch:	14954	Sample Preparation:	2005-03-29	Prepared By:	DS

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**18000**	mg/Kg	50	50.0

[5]High surrogate recovery due to peak interference.
[6]High surrogate recovery due to peak interference.
[7]Sample ran at dilution due to hydrocarbons with a retention time greater than xylene.
[8]Estimated concentration value greater than standard range.
[9]Surrogate out due to peak interference.
[10]Surrogate out due to peak interference.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	[11]	699	mg/Kg	50	3.00	466	57.5 - 139

Sample: 58205 - Wayfarer 02

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	17006	Date Analyzed:	2005-03-30	Analyzed By:	MS
Prep Batch:	14987	Sample Preparation:	2005-03-30	Prepared By:	BL

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**797**	mg/Kg	50	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[12]	43.8	mg/Kg	50	0.0200	4380	70 - 130
4-Bromofluorobenzene (4-BFB)	[13]	10.8	mg/Kg	50	0.0200	1080	70 - 130

Sample: 58206 - Wayfarer 03

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	17005	Date Analyzed:	2005-03-30	Analyzed By:	MS
Prep Batch:	14987	Sample Preparation:	2005-03-30	Prepared By:	BL

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	10	0.00100
Toluene		<0.0100	mg/Kg	10	0.00100
Ethylbenzene		<0.0100	mg/Kg	10	0.00100
Xylene		**0.0113**	mg/Kg	10	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.622	mg/Kg	10	0.100	62	61.8 - 113
4-Bromofluorobenzene (4-BFB)		0.762	mg/Kg	10	0.100	76	75.8 - 111

Sample: 58206 - Wayfarer 03

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	16943	Date Analyzed:	2005-03-30	Analyzed By:	WB
Prep Batch:	14938	Sample Preparation:	2005-03-30	Prepared By:	WB

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**36.9**	mg/Kg	5	1.00

[11]High surrogate recovery due to peak interference.
[12]High surrogate recovery due to peak interference.
[13]High surrogate recovery due to peak interference.

Sample: 58206 - Wayfarer 03

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	16966	Date Analyzed:	2005-03-29	Analyzed By:	DS
Prep Batch:	14954	Sample Preparation:	2005-03-29	Prepared By:	DS

Parameter	Flag	Result	RL	Units	Dilution	RL
DRO		<50.0		mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		167	mg/Kg	1	150	111	57.5 - 139

Sample: 58206 - Wayfarer 03

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	17006	Date Analyzed:	2005-03-30	Analyzed By:	MS
Prep Batch:	14987	Sample Preparation:	2005-03-30	Prepared By:	BL

Parameter	Flag	Result	RL	Units	Dilution	RL
GRO		**9.68**		mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[14]	2.21	mg/Kg	10	0.100	221	70 - 130
4-Bromofluorobenzene (4-BFB)	[15]	0.646	mg/Kg	10	0.100	65	70 - 130

Sample: 58207 - Wayfarer 04

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	17005	Date Analyzed:	2005-03-30	Analyzed By:	MS
Prep Batch:	14987	Sample Preparation:	2005-03-30	Prepared By:	BL

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		<0.0100		mg/Kg	10	0.00100
Toluene		**1.90**		mg/Kg	10	0.00100
Ethylbenzene		**1.01**		mg/Kg	10	0.00100
Xylene	[16]	**1.68**		mg/Kg	10	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[17]	0.493	mg/Kg	10	0.100	49	61.8 - 113
4-Bromofluorobenzene (4-BFB)	[18]	3.07	mg/Kg	10	0.100	307	75.8 - 111

[14]High surrogate recovery due to peak interference.
[15]Bfb surrogate recovery outside normal limits due to matrix interference. •
[16]Estimated concentration value greater than standard range.
[17]Surrogate out due to peak interference.
[18]High surrogate recovery due to peak interference.

Sample: 58207 - Wayfarer 04

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	16943	Date Analyzed:	2005-03-30	Analyzed By:	WB
Prep Batch:	14938	Sample Preparation:	2005-03-30	Prepared By:	WB

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**24.4**	mg/Kg	5	1.00

Sample: 58207 - Wayfarer 04

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	16966	Date Analyzed:	2005-03-29	Analyzed By:	DS
Prep Batch:	14954	Sample Preparation:	2005-03-29	Prepared By:	DS

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**1510**	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	[19]	254	mg/Kg	1	150	169	57.5 - 139

Sample: 58207 - Wayfarer 04

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	17006	Date Analyzed:	2005-03-30	Analyzed By:	MS
Prep Batch:	14987	Sample Preparation:	2005-03-30	Prepared By:	BL

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**240**	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[20]	0.569	mg/Kg	10	0.100	57	70 - 130
4-Bromofluorobenzene (4-BFB)	[21]	7.91	mg/Kg	10	0.100	791	70 - 130

Matrix Blank (1) QC Batch: 16943

Parameter	Flag	MDL Result	Units	RL
Chloride		1.72	mg/Kg	1

Method Blank (1) QC Batch: 16966

[19]High surrogate recovery due to peak interference.
[20]Surrogate out due to peak interference.
[21]High surrogate recovery due to peak interference.

Parameter	Flag	MDL Result	Units	RL
DRO		10.5	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		170	mg/Kg	1	150	113	57.5 - 139

Method Blank (1) QC Batch: 17005

Parameter	Flag	MDL Result	Units	RL
Benzene		0.000900	mg/Kg	0.001
Toluene		0.00100	mg/Kg	0.001
Ethylbenzene		<0.00235	mg/Kg	0.001
Xylene		<0.00251	mg/Kg	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.979	mg/Kg	10	0.100	98	45.3 - 112
4-Bromofluorobenzene (4-BFB)		1.05	mg/Kg	10	0.100	105	40.1 - 107

Method Blank (1) QC Batch: 17006

Parameter	Flag	MDL Result	Units	RL
GRO		<0.236	mg/Kg	0.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.929	mg/Kg	10	0.100	93	57.8 - 112
4-Bromofluorobenzene (4-BFB)		0.856	mg/Kg	10	0.100	86	33.4 - 131

Laboratory Control Spike (LCS-1) QC Batch: 16943

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	13.3	13.2	mg/Kg	1	12.5	1.72	93	1	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 16966

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
DRO	255	250	mg/Kg	1	250	<5.35	102	2	84 - 118	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	161	161	mg/Kg	1	150	107	108	57.5 - 139

Laboratory Control Spike (LCS-1) QC Batch: 17005

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Benzene	1.03	1.01	mg/Kg	10	0.100	<0.000690	103	2	74.8 - 116	20
Toluene	0.976	0.963	mg/Kg	10	0.100	<0.00100	98	1	78.9 - 112	20
Ethylbenzene	1.04	1.03	mg/Kg	10	0.100	<0.00235	104	1	77.6 - 114	20
Xylene	3.00	2.96	mg/Kg	10	0.300	<0.00251	100	1	81.1 - 113	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.710	0.992	mg/Kg	10	0.100	71	99	61.8 - 113
4-Bromofluorobenzene (4-BFB)	0.859	0.994	mg/Kg	10	0.100	86	99	75.8 - 111

Laboratory Control Spike (LCS-1) QC Batch: 17006

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO	10.1	9.44	mg/Kg	10	1.00	<0.236	101	7	79 - 111	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.748	0.990	mg/Kg	10	0.100	75	99	68.1 - 115
4-Bromofluorobenzene (4-BFB)	0.919	0.827	mg/Kg	10	0.100	92	83	68.7 - 130

Matrix Spike (MS-1) QC Batch: 16943 Spiked Sample: 57571

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	85.4	85.3	mg/Kg	5	12.5	24.4	98	0	60.9 - 143	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 16966 Spiked Sample: 58207

Param		MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
DRO	[22][23]	1540	1630	mg/Kg	1	250	1510	12	6	70 - 130	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

[22]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[23]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

Surrogate		MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	[24][25]	212	219	mg/Kg	1	150	141	146	57.5 - 139

Matrix Spike (MS-1) QC Batch: 17006 Spiked Sample: 57979

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO	16.3	17.5	mg/Kg	10	1.00	<0.236	163	7	0 - 277	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate		MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	[26][27]	0.408	0.433	mg/Kg	10	0.1	41	43	62 - 114
4-Bromofluorobenzene (4-BFB)		0.834	0.812	mg/Kg	10	0.1	83	81	66.9 - 136

Standard (ICV-1) QC Batch: 16943

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	12.5	11.5	92	90 - 110	2005-03-30

Standard (CCV-1) QC Batch: 16943

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	12.5	12.0	96	90 - 110	2005-03-30

Standard (ICV-1) QC Batch: 16966

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	244	97	57.5 - 139	2005-03-29

Standard (CCV-1) QC Batch: 16966

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	270	108	57.5 - 139	2005-03-29

[24]High surrogate recovery due to peak interference.
[25]High surrogate recovery due to peak interference.
[26]Surrogate recovery out of control on MS/MSD due to matrix interference. LCS/LCSD show method to be in control.
[27]Surrogate recovery out of control on MS/MSD due to matrix interference. LCS/LCSD show method to be in control.

Standard (ICV-1) QC Batch: 17005

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.101	101	85 - 115	2005-03-30
Toluene		mg/Kg	0.100	0.100	100	85 - 115	2005-03-30
Ethylbenzene		mg/Kg	0.100	0.102	102	85 - 115	2005-03-30
Xylene		mg/Kg	0.300	0.296	99	85 - 115	2005-03-30

Standard (CCV-1) QC Batch: 17005

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0999	100	85 - 115	2005-03-30
Toluene		mg/Kg	0.100	0.0988	99	85 - 115	2005-03-30
Ethylbenzene		mg/Kg	0.100	0.100	100	85 - 115	2005-03-30
Xylene		mg/Kg	0.300	0.288	96	85 - 115	2005-03-30

Standard (ICV-1) QC Batch: 17006

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	1.02	102	85 - 115	2005-03-30

Standard (CCV-1) QC Batch: 17006

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	1.01	101	85 - 115	2005-03-30

Page 1 of 1

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 5032513

Company Name: OCD — Phone #: 505-476-3487

Address: (Street, City, Zip) 1220 South St Francis — Fax #: Santa Fe, NM 87505

Contact Person: Wayne Price

Invoice to: (If different from above) Ed Martin

Project #: ~~WAYFARER~~ — Project Name: Way Farer State AIY #1

Project Location: Sec 25 -19S- 29E 990 FSL 666 FEL — Sampler Signature:

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	NaHSO4	H2SO4	NaOH	ICE	NONE	Mg Cl2	SAMPLING: DATE	TIME
58204	WAYFARER 01	1	40Z		✓								✓		✓	3/23	14:00
205	WAYFARER 02	1	40Z		✓								✓		✓	3/23	14:10
206	WAYFARER 03	1	40Z		✓								✓		✓	3/23	14:20
207 ~~027~~	WAYFARER 04	1	40Z		✓								✓		✓	3/23	15:05
208	WAY FARER 05	2	40ML	✓									✓			3/23	14:50
209	WAY FARER 06 (WINDMILL)	1	1L	✓									✓			3/23	14:50

ANALYSIS REQUEST (Circle or Specify Method No.)

~~8015~~ 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC-MS Vol 8260B/624	GC/MS Semi Vol 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	CHLORIDES	Gen Chem / OCD			Turn Around Time if different from standard	Hold
BTEX																				
	✓	✓													✓					
	✓	✓													✓					
	✓	✓													✓					
	✓	✓													✓					
✓																				
																✓				

Relinquished by: Wayne Price — Date: 3/29/05 — Time: 10:00 AM — Received by: — Date: — Time:

Relinquished by: — Date: — Time: — Received by: — Date: — Time:

Relinquished by: — Date: — Time: — Received at Laboratory by: Brenda Ward — Date: 3/25/05 — Time: 10:33

LAB USE ONLY
Intact Y (N)
Headspace Y (N)
Temp 3c °
Log-in Review

REMARKS:

Carrier # TNM&O 903-322-4277

Samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

ORIGINAL COPY

Summary Report

Wayne Price
OCD-Santa Fe
1220 S. Saint Francis Dr.
Santa Fe, NM 87505

Report Date: April 5, 2005

Work Order: 5032513

Project Location: Sec 25-195-29E 990 FSl 666 FEL
Project Name: Way Farer State AIY #1

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
58208	Wayfarer 05	water	2005-03-23	14:50	2005-03-25
58209	Wayfarer 06 (Windmill)	water	2005-03-23	14:50	2005-03-25

	BTEX				MTBE
Sample - Field Code	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)	MTBE (mg/L)
58208 - Wayfarer 05	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100

Sample: 58209 - Wayfarer 06 (Windmill)

Param	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1.00
Bicarbonate Alkalinity		**182**	mg/L as CaCo3	4.00
Total Alkalinity		**182**	mg/L as CaCo3	4.00
Specific Conductance		**3060**	μMHOS/cm	0.00
Chloride		**193**	mg/L	0.500
Fluoride		**2.13**	mg/L	0.200
Sulfate		**1550**	mg/L	0.500
Nitrate-N		**20.7**	mg/L	0.200
pH		**7.39**	s.u.	0.00
Dissolved Calcium		**613**	mg/L	0.500
Dissolved Magnesium		**46.9**	mg/L	0.500
Dissolved Potassium		**6.56**	mg/L	0.500
Dissolved Sodium		**98.4**	mg/L	0.500
Total Dissolved Solids		**2820**	mg/L	10.00

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
155 McCutcheon, Suite H El Paso, Texas 79932 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Wayne Price
OCD-Santa Fe
1220 S. Saint Francis Dr.
Santa Fe, NM 87505

Report Date: April 5, 2005

Work Order: 5032513

Project Location: Sec 25-195-29E 990 FSl 666 FEL
Project Name: Way Farer State AIY #1
Project Number: Way Farer State AIY #1

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
58208	Wayfarer 05	water	2005-03-23	14:50	2005-03-25
58209	Wayfarer 06 (Windmill)	water	2005-03-23	14:50	2005-03-25

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Dr. Blair Leftwich, Director

Analytical Report

Sample: 58208 - Wayfarer 05

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	16917	Date Analyzed:	2005-03-26	Analyzed By:	JG
Prep Batch:	14912	Sample Preparation:	2005-03-26	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
MTBE		<0.00100	mg/L	1	0.00100
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0886	mg/L	1	0.100	89	73.8 - 121
4-Bromofluorobenzene (4-BFB)		0.0749	mg/L	1	0.100	75	52.4 - 119

Sample: 58209 - Wayfarer 06 (Windmill)

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	16972	Date Analyzed:	2005-03-29	Analyzed By:	RS
Prep Batch:	14959	Sample Preparation:	2005-03-29	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		**182**	mg/L as CaCo3	1	4.00
Total Alkalinity		**182**	mg/L as CaCo3	1	4.00

Sample: 58209 - Wayfarer 06 (Windmill)

Analysis:	Conductivity	Analytical Method:	SM 2510B	Prep Method:	N/A
QC Batch:	16971	Date Analyzed:	2005-03-29	Analyzed By:	RS
Prep Batch:	14960	Sample Preparation:	2005-03-29	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Specific Conductance		**3060**	µMHOS/cm	1	0.00

Sample: 58209 - Wayfarer 06 (Windmill)

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	16960	Date Analyzed:	2005-03-25	Analyzed By:	RS
Prep Batch:	14940	Sample Preparation:	2005-03-25	Prepared By:	WB

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**193**	mg/L	5	0.500
Fluoride		**2.13**	mg/L	5	0.200
Sulfate		**1550**	mg/L	50	0.500

Sample: 58209 - Wayfarer 06 (Windmill)

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	16960	Date Analyzed:	2005-03-25	Analyzed By:	RS
Prep Batch:	14940	Sample Preparation:	2005-03-25	Prepared By:	WB

Parameter	Flag	RL Result	Units	Dilution	RL
Nitrate-N		**20.7**	mg/L	5	0.200

Sample: 58209 - Wayfarer 06 (Windmill)

Analysis:	pH	Analytical Method:	SM 4500-H+	Prep Method:	N/A
QC Batch:	16934 [a]	Date Analyzed:	2005-03-25	Analyzed By:	RS
Prep Batch:	14925	Sample Preparation:	2005-03-25	Prepared By:	RS

[a]sample run in laboratory

Parameter	*Flag*	RL Result	Units	Dilution	RL
pH		**7.39**	s.u.	1	0.00

Sample: 58209 - Wayfarer 06 (Windmill)

Analysis:	Salts, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	17087	Date Analyzed:	2005-04-04	Analyzed By:	TP
Prep Batch:	14955	Sample Preparation:	2005-03-29	Prepared By:	DS

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		**613**	mg/L	10	0.500
Dissolved Magnesium		**46.9**	mg/L	1	0.500
Dissolved Potassium		**6.56**	mg/L	1	0.500
Dissolved Sodium		**98.4**	mg/L	1	0.500

Sample: 58209 - Wayfarer 06 (Windmill)

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	16929	Date Analyzed:	2005-03-28	Analyzed By:	RS
Prep Batch:	14927	Sample Preparation:	2005-03-25	Prepared By:	RS

continued ...

sample 58209 continued...

Parameter	Flag	RL Result	Units	Dilution	RL

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		**2820**	mg/L	2	10.00

Method Blank (1) QC Batch: 16917

Parameter	Flag	MDL Result	Units	RL
MTBE		<0.000232	mg/L	0.001
Benzene		<0.000136	mg/L	0.001
Toluene		<0.000247	mg/L	0.001
Ethylbenzene		<0.000552	mg/L	0.001
Xylene		<0.00156	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0912	mg/L	1	0.100	91	73.8 - 121
4-Bromofluorobenzene (4-BFB)		0.0792	mg/L	1	0.100	79	52.4 - 113

Method Blank (1) QC Batch: 16929

Parameter	Flag	MDL Result	Units	RL
Total Dissolved Solids		<5.000	mg/L	10

Method Blank (1) QC Batch: 16960

Parameter	Flag	MDL Result	Units	RL
Nitrate-N		<0.0217	mg/L	0.2

Method Blank (1) QC Batch: 16960

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.337	mg/L	0.5
Fluoride		<0.0594	mg/L	0.2
Sulfate		<0.409	mg/L	0.5

Method Blank (1) QC Batch: 16971

Parameter	Flag	MDL Result	Units	RL
Specific Conductance		1.43	µMHOS/cm	

Method Blank (1) QC Batch: 16972

Parameter	Flag	MDL Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1
Bicarbonate Alkalinity		<4.00	mg/L as CaCo3	4
Total Alkalinity		<4.00	mg/L as CaCo3	4

Method Blank (1) QC Batch: 17087

Parameter	Flag	MDL Result	Units	RL
Dissolved Calcium		<0.102	mg/L	0.5
Dissolved Magnesium		<0.110	mg/L	0.5
Dissolved Potassium		<0.0454	mg/L	0.5
Dissolved Sodium		<0.0114	mg/L	0.5

Duplicate (1) QC Batch: 16929

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	6310	6780	mg/L	5	7	14.9

Duplicate (1) QC Batch: 16934

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
pH	7.71	7.72	s.u.	1	0	0.4

Duplicate (1) QC Batch: 16971

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Specific Conductance	48500	49300	µMHOS/cm	1	2	2.4

Duplicate (1) QC Batch: 16972

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Hydroxide Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Carbonate Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Bicarbonate Alkalinity	168	162	mg/L as CaCo3	1	4	20
Total Alkalinity	168	162	mg/L as CaCo3	1	4	4.6

Laboratory Control Spike (LCS-1) QC Batch: 16917

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
MTBE	0.0911	0.0866	mg/L	1	0.100	<0.000232	91	5	66.7 - 119	9.7
Benzene	0.0880	0.0848	mg/L	1	0.100	<0.000136	88	4	72.8 - 113	20
Toluene	0.0855	0.0826	mg/L	1	0.100	<0.000247	86	3	75.2 - 112	20
Ethylbenzene	0.0908	0.0876	mg/L	1	0.100	<0.000550	91	4	81 - 112	20
Xylene	0.293	0.283	mg/L	1	0.300	<0.00156	98	3	82.9 - 119	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0951	0.0937	mg/L	1	0.100	95	94	72.9 - 121
4-Bromofluorobenzene (4-BFB)	0.106	0.103	mg/L	1	0.100	106	103	77.8 - 119

Laboratory Control Spike (LCS-1) QC Batch: 16960

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Nitrate-N	2.41	2.38	mg/L	1	2.50	<0.0217	96	1	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 16960

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	11.8	11.8	mg/L	1	12.5	<0.337	94	0	90 - 110	20
Fluoride	2.36	2.40	mg/L	1	2.50	<0.0594	94	2	90 - 110	20
Sulfate	12.0	12.3	mg/L	1	12.5	<0.409	96	2	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 17087

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Dissolved Calcium	46.9	45.8	mg/L	1	50.0	<0.102	94	2	85 - 115	20
Dissolved Magnesium	45.3	43.8	mg/L	1	50.0	<0.110	91	3	85 - 115	20
Dissolved Potassium	47.0	46.0	mg/L	1	50.0	<0.0454	94	2	85 - 115	20
Dissolved Sodium	47.5	47.4	mg/L	1	50.0	<0.0114	95	0	85 - 115	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 16960 Spiked Sample: 58225

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Nitrate-N	12900	13000	mg/L	5000	2.50	<108	103	1	78.8 - 116	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 16960 Spiked Sample: 58225

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	104000	102000	mg/L	5000	12.5	43300	97	2	70.7 - 124	20
Fluoride	12200	11900	mg/L	5000	2.50	<297	98	2	70.9 - 126	20
Sulfate	73800	75300	mg/L	5000	12.5	15200	94	2	82.5 - 123	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 17087 Spiked Sample: 58168

Param		MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Dissolved Calcium		527	542	mg/L	1	50.0	481	92	3	75 - 125	20
Dissolved Magnesium	[1]	527	539	mg/L	1	50.0	492	70	2	75 - 125	20
Dissolved Potassium		175	172	mg/L	1	50.0	129	92	2	75 - 125	20
Dissolved Sodium	[2]	1820	1850	mg/L	1	50.0	1810	20	2	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (CCV-1) QC Batch: 16917

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.100	0.0877	88	85 - 115	2005-03-26
Benzene		mg/L	0.100	0.0883	88	85 - 115	2005-03-26
Toluene		mg/L	0.100	0.0850	85	85 - 115	2005-03-26
Ethylbenzene		mg/L	0.100	0.0903	90	85 - 115	2005-03-26
Xylene		mg/L	0.300	0.286	95	85 - 115	2005-03-26

Standard (CCV-2) QC Batch: 16917

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.100	0.0880	88	85 - 115	2005-03-26

continued...

[1] Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[2] Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

standard continued...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0860	86	85 - 115	2005-03-26
Toluene	[3]	mg/L	0.100	0.0840	84	85 - 115	2005-03-26
Ethylbenzene		mg/L	0.100	0.0890	89	85 - 115	2005-03-26
Xylene		mg/L	0.300	0.289	96	85 - 115	2005-03-26

Standard (ICV-1) QC Batch: 16929

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	994.0	99	90 - 110	2005-03-28

Standard (CCV-1) QC Batch: 16929

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1055	106	90 - 110	2005-03-28

Standard (ICV-1) QC Batch: 16934

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7.00	7.02	100	98 - 102	2005-03-25

Standard (CCV-1) QC Batch: 16934

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7.00	6.99	100	98 - 102	2005-03-25

Standard (ICV-1) QC Batch: 16960

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		mg/L	2.50	2.35	94	90 - 110	2005-03-25

Standard (ICV-1) QC Batch: 16960

[3] Toluene outside of control limits on CCV(ICV). CCV(ICV) component average is 89 which is within acceptable range. This is acceptable by Method 8000.

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	11.6	93	90 - 110	2005-03-25
Fluoride		mg/L	2.50	2.37	95	90 - 110	2005-03-25
Sulfate		mg/L	12.5	11.7	94	90 - 110	2005-03-25

Standard (CCV-1) QC Batch: 16960

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		mg/L	2.50	2.40	96	90 - 110	2005-03-25

Standard (CCV-1) QC Batch: 16960

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	11.8	94	90 - 110	2005-03-25
Fluoride		mg/L	2.50	2.44	98	90 - 110	2005-03-25
Sulfate		mg/L	12.5	12.3	98	90 - 110	2005-03-25

Standard (ICV-1) QC Batch: 16971

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Specific Conductance		µMHOS/cm	1410	1420	101	90 - 110	2005-03-29

Standard (CCV-1) QC Batch: 16971

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Specific Conductance		µMHOS/cm	1410	1390	98	90 - 110	2005-03-29

Standard (ICV-1) QC Batch: 16972

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Alkalinity		mg/L as CaCo3	250	240	96	90 - 110	2005-03-29

Standard (CCV-1) QC Batch: 16972

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Alkalinity		mg/L as CaCo3	250	242	97	90 - 110	2005-03-29

Standard (ICV-1) QC Batch: 17087

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	50.0	49.6	99	90 - 110	2005-04-04
Dissolved Magnesium		mg/L	50.0	49.0	98	90 - 110	2005-04-04
Dissolved Potassium		mg/L	50.0	48.6	97	90 - 110	2005-04-04
Dissolved Sodium		mg/L	50.0	49.5	99	90 - 110	2005-04-04

Standard (CCV-1) QC Batch: 17087

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	50.0	52.3	105	90 - 110	2005-04-04
Dissolved Magnesium		mg/L	50.0	52.2	104	90 - 110	2005-04-04
Dissolved Potassium		mg/L	50.0	53.8	108	90 - 110	2005-04-04
Dissolved Sodium		mg/L	50.0	54.6	109	90 - 110	2005-04-04

Page 1 of 1

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 5032513

Company Name: OCD
Phone #: 505-476-3487
Address: (Street, City, Zip) 1220 South St Francis Santa Fe, NM 87505
Fax #:
Contact Person: Wayne Price
Invoice to: (If different from above) Ed Martin
Project #: ~~Wayfarer~~
Project Name: Way Farer AIY #1 State
Project Location: Sec 25 -19S- 29E 990 FSL 666 FEL
Sampler Signature:

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	NaHSO4	H2SO4	NaOH	ICE	NONE	MeOH	SAMPLING: DATE	TIME
58204	Wayfarer 01	1	40Z		✓								✓	✓		3/23	14:00
205	Wayfarer 02	1	40Z		✓								✓	✓		3/23	14:10
206	Wayfarer 03	1	40Z		✓								✓	✓		3/23	14:20
~~207~~ 207029	Wayfarer 04	1	40Z		✓								✓	✓		3/23	15:05
208	Way Farer 05	2	40ML	✓									✓	✓		3/23	14:50
209	Way Farer 06 (Winomill)	1	1L	✓									✓			3/23	14:50

ANALYSIS REQUEST (Circle or Specify Method No.)

~~8021B/602~~	BTEX 8021B/602	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC-MS Vol 8260B/624	GC/MS Semi Vol 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	Chlorides	Clean Chem / OCD			Turn Around Time if different from standard	Hold
BTEX	✓	✓													✓					
	✓	✓													✓					
	✓	✓													✓					
	✓	✓													✓					
✓																				
																✓				

Relinquished by: Wayne Price Date: 3/29/05 Time: 10:00 AM
Received by: Date: Time:
Relinquished by: Date: Time:
Received by: Date: Time:
Relinquished by: Date: Time:
Received at Laboratory by: Brenda Ward Date: 3/25/05 Time: 10:33

LAB USE ONLY
Intact Y N
Headspace Y N
Temp 3°C
Log-in Review

REMARKS:

Carrier # TNM&O 903-322-4277

Samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

ORIGINAL COPY

58204-09

Page 1 of 1

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 5032513

Company Name: OCD
Phone #: 505-476-3487
Address: (Street, City, Zip) 1220 South St Francis Santa Fe, NM 87505
Fax #:
Contact Person: Wayne Price
Invoice to: (If different from above) Ed Martin
Project #: ~~Wayfarer~~
Project Name: Wayfarer AIY#1 State
Project Location: Sec 25 -19S- 29E 990 FSL 660 FEL
Sampler Signature:

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	NaHSO4	H2SO4	NaOH	ICE	NONE	My Cl	SAMPLING: DATE	TIME
58204	Wayfarer 01	1	4oz		✓								✓	✓		3/23	14:00
205	Wayfarer 02	1	4oz		✓								✓	✓		3/23	14:10
206	Wayfarer 03	1	4oz		✓								✓	✓		3/23	14:20
~~207~~ 209	Wayfarer 04	1	4oz		✓								✓	✓		3/23	15:05
208	Wayfarer 05	2	40mL	✓									✓		✓	3/23	14:50
209	Wayfarer 06 (Monitor)	1	1L	✓									✓			3/23	14:50

ANALYSIS REQUEST (Circle or Specify Method No.)

8021B/602 BTEX	BTEX 8021B/602	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC-MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	Chlorides	Gen Chem / OCD	Turn Around Time if different from standard	Hold
BTEX	✓	✓													✓	✓		
BTEX	✓	✓													✓			
BTEX	✓	✓													✓			
BTEX	✓	✓													✓			
																✓		

Relinquished by: Wayne Price Date: 3/29/05 Time: 10:00 AM
Received by: Date: Time:
Relinquished by: Date: Time:
Received by: Date: Time:
Relinquished by: Date: Time:
Received at Laboratory by: Brenda Ward Date: 3/25/05 Time: 10:33

LAB USE ONLY
Intact Y N
Headspace Y N
Temp 3°C
Log-in Review B

REMARKS:
~~Lab to change site~~ RV

Carrier # TNMTD 903-322-4297

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

ORIGINAL COPY

Price, Wayne

From: Price, Wayne
Sent: Wednesday, April 06, 2005 2:27 PM
To: Gum, Tim; Barton, Van; Bratcher, Mike
Cc: Sanchez, Daniel; MacQuesten, Gail; VonGonten, Glenn; Anderson, Roger
Subject: Yates Wayfarer -March 23, 2005 2R0054 (RBDMS)

Please find enclosed a copy of the laboratory results, sketch of site, inspection report with photos including recommendations.


Report_Packet_1.pdf


Wayfarer #1 sketch.bmp


Inspection of Wayfarer #1 Marc...

Findings and Conclusion:

The soils collected from the bottom of the excavated area (Wayfarer 01) and ramp area (Wayfarer 02) show moderate to high concentrations of hydrocarbons that exceed OCD guidance levels.

Wf 01 Gasoline Range Organics (GRO) i.e. condensate 320 mg/kg + Diesel Range Organics (DRO) 5960 mg/kg
Wf 02 Gasoline Range Organics (GRO) i.e. condensate 797 mg/kg + Diesel Range Organics (DRO) 18000 mg/kg

The Wf 01 sample had a benzene concentration of .177 mg/kg which exceeds the groundwater standard (.01 mg/kg) by 17 times and the 02 sample had a benzene concentration of 1.98 mg/kg which exceeds the groundwater standard by 198 times. Benzene is the most mobile of all of the hydrocarbon components observed and is highly toxic.

The middle of the playa lake bed was sampled Wf 03 and the results showed a trace of GRO hydrocarbons 9.68 mg/kg, no DRO and a very small trace of xylene .0113 mg/kg.

The soils collected from the excavated dirt pile (Wf 04) showed GRO and DRO concentrations of 240 mg/kg and 1510 mg/kg respectively, total BTEX component of 4.59 mg/kg with a Non-detect for the benzene.

The windmill water was sampled (Wf 05 and 06) and analyzed for BTEX and General chemistry. The water analysis results were all negative and the water chemistry suggest this water would be classified as calcium sulfate (slightly gypsum) commonly found in the under lying rustler formation. The water is considered to be protectable with a TDS of 2820. Unless demonstrated otherwise, OCD considers this water bearing formation to be hydraulically connected to the playa lake. Playa lakes are generally recharge points for such underlying groundwater.

OCD has recently reviewed the geology of this area at a nearby site and has determined that with a high degree of certainty that the impact area is hydraulically connected to the playa lake and the playa has fresh water directly below it. Condensate has moved vertically over 10-12 feet and there is highly saturated toxic soil still present.

Recommendations:

Yates should remove the remaining contamination in the impacted area until it meets OCD guidelines 100

mg/kg of TPH (GRO in this case). This should be done quickly because it appears this contamination (i.e. gas condensate) has move very rapidly through the vadose zone, and if not stopped soon, groundwater may be impacted. Also, under the NM surface water standards toxic pollutants such as benzene shall not be allowed in such waters.

After excavation, final bottom hole and side wall samples should be collected and sent to a certified lab and analyzed for BTEX and TPH (DRO&GRO). Chlorides do not appear to be an issue. Yates field TPH test should not be used because of the light volatile organics present.

The soils can either be properly disposed of off-site or properly remediated on-site. If remediated on site then some sort of berm should be placed around it so rainwater will not cause run-off into the playa lake. After any on-site remediation, soil samples should be collected below for confirmation to ensure that contaminants did not leach into the underlying soils. If remediated soils are placed back into the excavation, the clean-up standards shall be the guidelines or Yates shall demonstrate to the satisfaction of OCD that these soils will not be harmful to the environment. OCD Santa Fe can assist you in this decision making process, if you wish.

Good Luck.

Sincerely:

Wayne Price
New Mexico Oil Conservation Division
1220 S. Saint Francis Drive
Santa Fe, NM 87505
505-476-3487
fax: 505-476-3462
E-mail: WPRICE@state.nm.us

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
155 McCutcheon, Suite H El Paso, Texas 79932 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Wayne Price
OCD-Santa Fe
1220 S. Saint Francis Dr.
Santa Fe, NM 87505

Report Date: April 5, 2005

Work Order: 5032513

Project Location: Sec 25-195-29E 990 FSl 666 FEL
Project Name: Way Farer State AIY #1
Project Number: Way Farer State AIY #1

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
58204	Wayfarer 01	soil	2005-03-23	14:00	2005-03-25
58205	Wayfarer 02	soil	2005-03-23	14:10	2005-03-25
58206	Wayfarer 03	soil	2005-03-23	14:20	2005-03-25
58207	Wayfarer 04	soil	2005-03-23	15:05	2005-03-25

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Michael Abel

Dr. Blair Leftwich, Director

Analytical Report

Sample: 58204 - Wayfarer 01

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	17005	Date Analyzed:	2005-03-30	Analyzed By:	MS
Prep Batch:	14987	Sample Preparation:	2005-03-30	Prepared By:	BL

Parameter	Flag	Result	RL	Units	Dilution	RL
MTBE		**0.177**		mg/Kg	50	0.00100
Benzene	[1]	**0.725**		mg/Kg	50	0.00100
Toluene		**4.39**		mg/Kg	50	0.00100
Ethylbenzene		**1.35**		mg/Kg	50	0.00100
Xylene		**20.4**		mg/Kg	50	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[2]	0.578	mg/Kg	50	0.0200	58	61.8 - 113
4-Bromofluorobenzene (4-BFB)	[3]	1.80	mg/Kg	50	0.0200	180	75.8 - 111

Sample: 58204 - Wayfarer 01

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	16943	Date Analyzed:	2005-03-30	Analyzed By:	WB
Prep Batch:	14938	Sample Preparation:	2005-03-30	Prepared By:	WB

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**21.1**		mg/Kg	5	1.00

Sample: 58204 - Wayfarer 01

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	16966	Date Analyzed:	2005-03-29	Analyzed By:	DS
Prep Batch:	14954	Sample Preparation:	2005-03-29	Prepared By:	DS

Parameter	Flag	Result	RL	Units	Dilution	RL
DRO		**5960**		mg/Kg	10	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	[4]	569	mg/Kg	10	15.0	379	57.5 - 139

Sample: 58204 - Wayfarer 01

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	17006	Date Analyzed:	2005-03-30	Analyzed By:	MS
Prep Batch:	14987	Sample Preparation:	2005-03-30	Prepared By:	BL

[1] Sample ran at dilution due to hydrocarbons with a retention time greater than xylene.
[2] Surrogate out due to peak interference.
[3] High surrogate recovery due to peak interference.
[4] High surrogate recovery due to peak interference.

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**320**	mg/Kg	50	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[5]	11.0	mg/Kg	50	0.0200	1100	70 - 130
4-Bromofluorobenzene (4-BFB)	[6]	9.42	mg/Kg	50	0.0200	942	70 - 130

Sample: 58205 - Wayfarer 02

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	17005	Date Analyzed:	2005-03-30	Analyzed By:	MS
Prep Batch:	14987	Sample Preparation:	2005-03-30	Prepared By:	BL

Parameter	Flag	RL Result	Units	Dilution	RL
MTBE		<0.0500	mg/Kg	50	0.00100
Benzene	[7]	**1.98**	mg/Kg	50	0.00100
Toluene		**10.7**	mg/Kg	50	0.00100
Ethylbenzene		**5.06**	mg/Kg	50	0.00100
Xylene	[8]	**73.5**	mg/Kg	50	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[9]	1.20	mg/Kg	50	0.0200	120	61.8 - 113
4-Bromofluorobenzene (4-BFB)	[10]	11.7	mg/Kg	50	0.0200	1170	75.8 - 111

Sample: 58205 - Wayfarer 02

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	16943	Date Analyzed:	2005-03-30	Analyzed By:	WB
Prep Batch:	14938	Sample Preparation:	2005-03-30	Prepared By:	WB

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**11.9**	mg/Kg	5	1.00

Sample: 58205 - Wayfarer 02

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	16966	Date Analyzed:	2005-03-29	Analyzed By:	DS
Prep Batch:	14954	Sample Preparation:	2005-03-29	Prepared By:	DS

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**18000**	mg/Kg	50	50.0

[5]High surrogate recovery due to peak interference.
[6]High surrogate recovery due to peak interference.
[7]Sample ran at dilution due to hydrocarbons with a retention time greater than xylene.
[8]Estimated concentration value greater than standard range.
[9]Surrogate out due to peak interference.
[10]Surrogate out due to peak interference.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	[11]	699	mg/Kg	50	3.00	466	57.5 - 139

Sample: 58205 - Wayfarer 02

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	17006	Date Analyzed:	2005-03-30	Analyzed By:	MS
Prep Batch:	14987	Sample Preparation:	2005-03-30	Prepared By:	BL

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**797**	mg/Kg	50	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[12]	43.8	mg/Kg	50	0.0200	4380	70 - 130
4-Bromofluorobenzene (4-BFB)	[13]	10.8	mg/Kg	50	0.0200	1080	70 - 130

Sample: 58206 - Wayfarer 03

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	17005	Date Analyzed:	2005-03-30	Analyzed By:	MS
Prep Batch:	14987	Sample Preparation:	2005-03-30	Prepared By:	BL

Parameter	Flag	RL Result	Units	Dilution	RL
MTBE		<0.0100	mg/Kg	10	0.00100
Benzene		<0.0100	mg/Kg	10	0.00100
Toluene		<0.0100	mg/Kg	10	0.00100
Ethylbenzene		<0.0100	mg/Kg	10	0.00100
Xylene		**0.0113**	mg/Kg	10	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.622	mg/Kg	10	0.100	62	61.8 - 113
4-Bromofluorobenzene (4-BFB)		0.762	mg/Kg	10	0.100	76	75.8 - 111

Sample: 58206 - Wayfarer 03

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	16943	Date Analyzed:	2005-03-30	Analyzed By:	WB
Prep Batch:	14938	Sample Preparation:	2005-03-30	Prepared By:	WB

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**36.9**	mg/Kg	5	1.00

[11] High surrogate recovery due to peak interference.
[12] High surrogate recovery due to peak interference.
[13] High surrogate recovery due to peak interference.

Sample: 58206 - Wayfarer 03

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	16966	Date Analyzed:	2005-03-29	Analyzed By:	DS
Prep Batch:	14954	Sample Preparation:	2005-03-29	Prepared By:	DS

Parameter	Flag	Result	RL	Units	Dilution	RL
DRO		<50.0		mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		167	mg/Kg	1	150	111	57.5 - 139

Sample: 58206 - Wayfarer 03

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	17006	Date Analyzed:	2005-03-30	Analyzed By:	MS
Prep Batch:	14987	Sample Preparation:	2005-03-30	Prepared By:	BL

Parameter	Flag	Result	RL	Units	Dilution	RL
GRO		**9.68**		mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[14]	2.21	mg/Kg	10	0.100	221	70 - 130
4-Bromofluorobenzene (4-BFB)	[15]	0.646	mg/Kg	10	0.100	65	70 - 130

Sample: 58207 - Wayfarer 04

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	17005	Date Analyzed:	2005-03-30	Analyzed By:	MS
Prep Batch:	14987	Sample Preparation:	2005-03-30	Prepared By:	BL

Parameter	Flag	Result	RL	Units	Dilution	RL
MTBE		**0.0377**		mg/Kg	10	0.00100
Benzene		<0.0100		mg/Kg	10	0.00100
Toluene		**1.90**		mg/Kg	10	0.00100
Ethylbenzene		**1.01**		mg/Kg	10	0.00100
Xylene	[16]	**1.68**		mg/Kg	10	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[17]	0.493	mg/Kg	10	0.100	49	61.8 - 113
4-Bromofluorobenzene (4-BFB)	[18]	3.07	mg/Kg	10	0.100	307	75.8 - 111

[14]High surrogate recovery due to peak interference.
[15]Bfb surrogate recovery outside normal limits due to matrix interference. •
[16]Estimated concentration value greater than standard range.
[17]Surrogate out due to peak interference.
[18]*High* surrogate recovery due to peak interference.

Sample: 58207 - Wayfarer 04

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	16943	Date Analyzed:	2005-03-30	Analyzed By:	WB
Prep Batch:	14938	Sample Preparation:	2005-03-30	Prepared By:	WB

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**24.4**		mg/Kg	5	1.00

Sample: 58207 - Wayfarer 04

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	16966	Date Analyzed:	2005-03-29	Analyzed By:	DS
Prep Batch:	14954	Sample Preparation:	2005-03-29	Prepared By:	DS

Parameter	Flag	Result	RL	Units	Dilution	RL
DRO		**1510**		mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	[19]	254	mg/Kg	1	150	169	57.5 - 139

Sample: 58207 - Wayfarer 04

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	17006	Date Analyzed:	2005-03-30	Analyzed By:	MS
Prep Batch:	14987	Sample Preparation:	2005-03-30	Prepared By:	BL

Parameter	Flag	Result	RL	Units	Dilution	RL
GRO		**240**		mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[20]	0.569	mg/Kg	10	0.100	57	70 - 130
4-Bromofluorobenzene (4-BFB)	[21]	7.91	mg/Kg	10	0.100	791	70 - 130

Sample: 58207 - Wayfarer 04

Analysis:	TX1005	Analytical Method:	TX1005	Prep Method:	N/A
QC Batch:	16891	Date Analyzed:	2005-03-26	Analyzed By:	DS
Prep Batch:	14890	Sample Preparation:	2005-03-25	Prepared By:	DS

Parameter	Flag	Result	RL	Units	Dilution	RL
C6-C12		**755**		mg/Kg	1	50.0
>C12-C28		**1080**		mg/Kg	1	50.0

[19] High surrogate recovery due to peak interference.
[20] Surrogate out due to peak interference.
[21] High surrogate recovery due to peak interference.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	[22]	246	mg/Kg	1	150	164	73.8 - 148

Method Blank (2) QC Batch: 16891

Parameter	Flag	MDL Result	Units	RL
C6-C12		48.0	mg/Kg	50
>C12-C28		<13.0	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		190	mg/Kg	1	150	127	73.8 - 148

Matrix Blank (1) QC Batch: 16943

Parameter	Flag	MDL Result	Units	RL
Chloride		1.72	mg/Kg	1

Method Blank (1) QC Batch: 16966

Parameter	Flag	MDL Result	Units	RL
DRO		10.5	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		170	mg/Kg	1	150	113	57.5 - 139

Method Blank (1) QC Batch: 17005

Parameter	Flag	MDL Result	Units	RL
MTBE		<0.00160	mg/Kg	0.001
Benzene		0.000900	mg/Kg	0.001
Toluene		0.00100	mg/Kg	0.001
Ethylbenzene		<0.00235	mg/Kg	0.001
Xylene		<0.00251	mg/Kg	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.979	mg/Kg	10	0.100	98	45.3 - 112
4-Bromofluorobenzene (4-BFB)		1.05	mg/Kg	10	0.100	105	40.1 - 107

[22] High surrogate recovery due to peak interference.

Method Blank (1) QC Batch: 17006

Parameter	Flag	MDL Result	Units	RL
GRO		<0.236	mg/Kg	0.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.929	mg/Kg	10	0.100	93	57.8 - 112
4-Bromofluorobenzene (4-BFB)		0.856	mg/Kg	10	0.100	86	33.4 - 131

Laboratory Control Spike (LCS-2) QC Batch: 16891

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
C6-C12	232	252	mg/Kg	1	250	<7.12	93	8	62.1 - 127	20
>C12-C28	252	239	mg/Kg	1	250	<13.0	101	5	66.3 - 134	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	181	182	mg/Kg	1	150	121	121	73.8 - 148

Laboratory Control Spike (LCS-1) QC Batch: 16943

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	13.3	13.2	mg/Kg	1	12.5	1.72	93	1	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 16966

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
DRO	255	250	mg/Kg	1	250	<5.35	102	2	84 - 118	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	161	161	mg/Kg	1	150	107	108	57.5 - 139

Laboratory Control Spike (LCS-1) QC Batch: 17005

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
MTBE	0.973	0.937	mg/Kg	10	0.100	<0.00160	97	4	84.9 - 107	17

continued ...

control spikes continued...

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Benzene	1.03	1.01	mg/Kg	10	0.100	<0.000690	103	2	74.8 - 116	20
Toluene	0.976	0.963	mg/Kg	10	0.100	<0.00100	98	1	78.9 - 112	20
Ethylbenzene	1.04	1.03	mg/Kg	10	0.100	<0.00235	104	1	77.6 - 114	20
Xylene	3.00	2.96	mg/Kg	10	0.300	<0.00251	100	1	81.1 - 113	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.710	0.992	mg/Kg	10	0.100	71	99	61.8 - 113
4-Bromofluorobenzene (4-BFB)	0.859	0.994	mg/Kg	10	0.100	86	99	75.8 - 111

Laboratory Control Spike (LCS-1) QC Batch: 17006

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO	10.1	9.44	mg/Kg	10	1.00	<0.236	101	7	79 - 111	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.748	0.990	mg/Kg	10	0.100	75	99	68.1 - 115
4-Bromofluorobenzene (4-BFB)	0.919	0.827	mg/Kg	10	0.100	92	83	68.7 - 130

Matrix Spike (MS-1) QC Batch: 16943 Spiked Sample: 57571

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	85.4	85.3	mg/Kg	5	12.5	24.4	98	0	60.9 - 143	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 16966 Spiked Sample: 58207

Param		MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
DRO	[23][24]	1540	1630	mg/Kg	1	250	1510	12	6	70 - 130	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate		MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	[25][26]	212	219	mg/Kg	1	150	141	146	57.5 - 139

[23]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[24]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[25]High surrogate recovery due to peak interference.
[26]High surrogate recovery due to peak interference.

Matrix Spike (MS-1) QC Batch: 17006 Spiked Sample: 57979

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO	16.3	17.5	mg/Kg	10	1.00	<0.236	163	7	0 - 277	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate		MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	[27][28]	0.408	0.433	mg/Kg	10	0.1	41	43	62 - 114
4-Bromofluorobenzene (4-BFB)		0.834	0.812	mg/Kg	10	0.1	83	81	66.9 - 136

Standard (CCV-3) QC Batch: 16891

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
C6-C12		mg/Kg	250	232	93	75 - 125	2005-03-26
>C12-C28		mg/Kg	250	261	104	75 - 125	2005-03-26

Standard (CCV-4) QC Batch: 16891

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
C6-C12		mg/Kg	250	255	102	75 - 125	2005-03-26
>C12-C28		mg/Kg	250	245	98	75 - 125	2005-03-26

Standard (ICV-1) QC Batch: 16943

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	12.5	11.5	92	90 - 110	2005-03-30

Standard (CCV-1) QC Batch: 16943

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	12.5	12.0	96	90 - 110	2005-03-30

Standard (ICV-1) QC Batch: 16966

[27] Surrogate recovery out of control on MS/MSD due to matrix interference. LCS/LCSD show method to be in control.
[28] Surrogate recovery out of control on MS/MSD due to matrix interference. LCS/LCSD show method to be in control.

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	244	97	57.5 - 139	2005-03-29

Standard (CCV-1) QC Batch: 16966

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	270	108	57.5 - 139	2005-03-29

Standard (ICV-1) QC Batch: 17005

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/Kg	0.100	0.0940	94	85 - 115	2005-03-30
Benzene		mg/Kg	0.100	0.101	101	85 - 115	2005-03-30
Toluene		mg/Kg	0.100	0.100	100	85 - 115	2005-03-30
Ethylbenzene		mg/Kg	0.100	0.102	102	85 - 115	2005-03-30
Xylene		mg/Kg	0.300	0.296	99	85 - 115	2005-03-30

Standard (CCV-1) QC Batch: 17005

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/Kg	0.100	0.0908	91	85 - 115	2005-03-30
Benzene		mg/Kg	0.100	0.0999	100	85 - 115	2005-03-30
Toluene		mg/Kg	0.100	0.0988	99	85 - 115	2005-03-30
Ethylbenzene		mg/Kg	0.100	0.100	100	85 - 115	2005-03-30
Xylene		mg/Kg	0.300	0.288	96	85 - 115	2005-03-30

Standard (ICV-1) QC Batch: 17006

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	1.02	102	85 - 115	2005-03-30

Standard (CCV-1) QC Batch: 17006

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	1.01	101	85 - 115	2005-03-30

Page 1 of 1

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 5032513

Company Name: OCD
Phone #: 505-476-3487
Address: (Street, City, Zip) 1220 South St Francis Santa Fe, NM 87505
Fax #:
Contact Person: Wayne Price
Invoice to: (If different from above) Ed Martin
Project #: ~~Wayfarer~~
Project Name: Way Farer AIY #1 State
Project Location: Sec 25 -19S- 29E 990 FSL 666 FEL
Sampler Signature:

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	NaHSO4	H2SO4	NaOH	ICE	NONE	MeOH	SAMPLING: DATE	TIME
58204	Wayfarer 01	1	40Z		✓								✓	✓		3/23	14:00
205	Wayfarer 02	1	40Z		✓								✓	✓		3/23	14:10
206	Wayfarer 03	1	40Z		✓								✓	✓		3/23	14:20
207 ~~029~~	Wayfarer 04	1	40Z		✓								✓	✓		3/23	15:05
208	Way Farer 05	2	40ML	✓									✓	✓		3/23	14:50
209	Way Farer 06 (Windmill)	1	1L	✓									✓			3/23	14:50

ANALYSIS REQUEST (Circle or Specify Method No.)

~~8015B~~ 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC-MS Vol 8260B/624	GC/MS Semi Vol 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	Chlorides	Gen Chem / OCD			Turn Around Time if different from standard	Hold
BTEX	✓	✓													✓					
✓	✓	✓													✓					
	✓	✓													✓					
	✓	✓													✓					
✓																				
																✓				

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Wayne Price	3/29/05	10:00 AM			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by: Brenda Ward	3/25/05	10:33

LAB USE ONLY
Intact Y N
Headspace Y N
Temp 3c °
Log-in Review

REMARKS:

Carrier # TNM&O 903-322-4277

Samples consitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

ORIGINAL COPY

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
155 McCutcheon, Suite H El Paso, Texas 79932 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Wayne Price
OCD-Santa Fe
1220 S. Saint Francis Dr.
Santa Fe, NM 87505

Report Date: April 5, 2005

Work Order: 5032513

Project Location: Sec 25-195-29E 990 FSl 666 FEL
Project Name: Way Farer State AIY #1
Project Number: Way Farer State AIY #1

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
58208	Wayfarer 05	water	2005-03-23	14:50	2005-03-25
58209	Wayfarer 06 (Windmill)	water	2005-03-23	14:50	2005-03-25

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Dr. Blair Leftwich, Director

Analytical Report

Sample: 58208 - Wayfarer 05

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	16917	Date Analyzed:	2005-03-26	Analyzed By:	JG
Prep Batch:	14912	Sample Preparation:	2005-03-26	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
MTBE		<0.00100	mg/L	1	0.00100
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0886	mg/L	1	0.100	89	73.8 - 121
4-Bromofluorobenzene (4-BFB)		0.0749	mg/L	1	0.100	75	52.4 - 119

Sample: 58209 - Wayfarer 06 (Windmill)

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	16972	Date Analyzed:	2005-03-29	Analyzed By:	RS
Prep Batch:	14959	Sample Preparation:	2005-03-29	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		**182**	mg/L as CaCo3	1	4.00
Total Alkalinity		**182**	mg/L as CaCo3	1	4.00

Sample: 58209 - Wayfarer 06 (Windmill)

Analysis:	Conductivity	Analytical Method:	SM 2510B	Prep Method:	N/A
QC Batch:	16971	Date Analyzed:	2005-03-29	Analyzed By:	RS
Prep Batch:	14960	Sample Preparation:	2005-03-29	Prepared By:	RS

Parameter	Flag	RL Result	Units	Dilution	RL
Specific Conductance		**3060**	µMHOS/cm	1	0.00

Sample: 58209 - Wayfarer 06 (Windmill)

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	16960	Date Analyzed:	2005-03-25	Analyzed By:	RS
Prep Batch:	14940	Sample Preparation:	2005-03-25	Prepared By:	WB

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**193**	mg/L	5	0.500
Fluoride		**2.13**	mg/L	5	0.200
Sulfate		**1550**	mg/L	50	0.500

Sample: 58209 - Wayfarer 06 (Windmill)

Analysis:	NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	16960	Date Analyzed:	2005-03-25	Analyzed By:	RS
Prep Batch:	14940	Sample Preparation:	2005-03-25	Prepared By:	WB

Parameter	Flag	RL Result	Units	Dilution	RL
Nitrate-N		**20.7**	mg/L	5	0.200

Sample: 58209 - Wayfarer 06 (Windmill)

Analysis:	pH	Analytical Method:	SM 4500-H+	Prep Method:	N/A
QC Batch:	16934 [a]	Date Analyzed:	2005-03-25	Analyzed By:	RS
Prep Batch:	14925	Sample Preparation:	2005-03-25	Prepared By:	RS

[a] sample run in laboratory

Parameter	Flag	RL Result	Units	Dilution	RL
pH		**7.39**	s.u.	1	0.00

Sample: 58209 - Wayfarer 06 (Windmill)

Analysis:	Salts, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	17087	Date Analyzed:	2005-04-04	Analyzed By:	TP
Prep Batch:	14955	Sample Preparation:	2005-03-29	Prepared By:	DS

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		**613**	mg/L	10	0.500
Dissolved Magnesium		**46.9**	mg/L	1	0.500
Dissolved Potassium		**6.56**	mg/L	1	0.500
Dissolved Sodium		**98.4**	mg/L	1	0.500

Sample: 58209 - Wayfarer 06 (Windmill)

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	16929	Date Analyzed:	2005-03-28	Analyzed By:	RS
Prep Batch:	14927	Sample Preparation:	2005-03-25	Prepared By:	RS

continued ...

sample 58209 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		**2820**	mg/L	2	10.00

Method Blank (1) QC Batch: 16917

Parameter	Flag	MDL Result	Units	RL
MTBE		<0.000232	mg/L	0.001
Benzene		<0.000136	mg/L	0.001
Toluene		<0.000247	mg/L	0.001
Ethylbenzene		<0.000552	mg/L	0.001
Xylene		<0.00156	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0912	mg/L	1	0.100	91	73.8 - 121
4-Bromofluorobenzene (4-BFB)		0.0792	mg/L	1	0.100	79	52.4 - 113

Method Blank (1) QC Batch: 16929

Parameter	Flag	MDL Result	Units	RL
Total Dissolved Solids		<5.000	mg/L	10

Method Blank (1) QC Batch: 16960

Parameter	Flag	MDL Result	Units	RL
Nitrate-N		<0.0217	mg/L	0.2

Method Blank (1) QC Batch: 16960

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.337	mg/L	0.5
Fluoride		<0.0594	mg/L	0.2
Sulfate		<0.409	mg/L	0.5

Method Blank (1) QC Batch: 16971

Parameter	Flag	MDL Result	Units	RL
Specific Conductance		1.43	µMHOS/cm	

Method Blank (1) QC Batch: 16972

Parameter	Flag	MDL Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1
Bicarbonate Alkalinity		<4.00	mg/L as CaCo3	4
Total Alkalinity		<4.00	mg/L as CaCo3	4

Method Blank (1) QC Batch: 17087

Parameter	Flag	MDL Result	Units	RL
Dissolved Calcium		<0.102	mg/L	0.5
Dissolved Magnesium		<0.110	mg/L	0.5
Dissolved Potassium		<0.0454	mg/L	0.5
Dissolved Sodium		<0.0114	mg/L	0.5

Duplicate (1) QC Batch: 16929

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	6310	6780	mg/L	5	7	14.9

Duplicate (1) QC Batch: 16934

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
pH	7.71	7.72	s.u.	1	0	0.4

Duplicate (1) QC Batch: 16971

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Specific Conductance	48500	49300	µMHOS/cm	1	2	2.4

Duplicate (1) QC Batch: 16972

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Hydroxide Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Carbonate Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Bicarbonate Alkalinity	168	162	mg/L as CaCo3	1	4	20
Total Alkalinity	168	162	mg/L as CaCo3	1	4	4.6

Laboratory Control Spike (LCS-1) QC Batch: 16917

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
MTBE	0.0911	0.0866	mg/L	1	0.100	<0.000232	91	5	66.7 - 119	9.7
Benzene	0.0880	0.0848	mg/L	1	0.100	<0.000136	88	4	72.8 - 113	20
Toluene	0.0855	0.0826	mg/L	1	0.100	<0.000247	86	3	75.2 - 112	20
Ethylbenzene	0.0908	0.0876	mg/L	1	0.100	<0.000550	91	4	81 - 112	20
Xylene	0.293	0.283	mg/L	1	0.300	<0.00156	98	3	82.9 - 119	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0951	0.0937	mg/L	1	0.100	95	94	72.9 - 121
4-Bromofluorobenzene (4-BFB)	0.106	0.103	mg/L	1	0.100	106	103	77.8 - 119

Laboratory Control Spike (LCS-1) QC Batch: 16960

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Nitrate-N	2.41	2.38	mg/L	1	2.50	<0.0217	96	1	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 16960

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	11.8	11.8	mg/L	1	12.5	<0.337	94	0	90 - 110	20
Fluoride	2.36	2.40	mg/L	1	2.50	<0.0594	94	2	90 - 110	20
Sulfate	12.0	12.3	mg/L	1	12.5	<0.409	96	2	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 17087

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Dissolved Calcium	46.9	45.8	mg/L	1	50.0	<0.102	94	2	85 - 115	20
Dissolved Magnesium	45.3	43.8	mg/L	1	50.0	<0.110	91	3	85 - 115	20
Dissolved Potassium	47.0	46.0	mg/L	1	50.0	<0.0454	94	2	85 - 115	20
Dissolved Sodium	47.5	47.4	mg/L	1	50.0	<0.0114	95	0	85 - 115	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 16960 Spiked Sample: 58225

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Nitrate-N	12900	13000	mg/L	5000	2.50	<108	103	1	78.8 - 116	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 16960 Spiked Sample: 58225

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	104000	102000	mg/L	5000	12.5	43300	97	2	70.7 - 124	20
Fluoride	12200	11900	mg/L	5000	2.50	<297	98	2	70.9 - 126	20
Sulfate	73800	75300	mg/L	5000	12.5	15200	94	2	82.5 - 123	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 17087 Spiked Sample: 58168

Param		MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Dissolved Calcium		527	542	mg/L	1	50.0	481	92	3	75 - 125	20
Dissolved Magnesium	[1]	527	539	mg/L	1	50.0	492	70	2	75 - 125	20
Dissolved Potassium		175	172	mg/L	1	50.0	129	92	2	75 - 125	20
Dissolved Sodium	[2]	1820	1850	mg/L	1	50.0	1810	20	2	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (CCV-1) QC Batch: 16917

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.100	0.0877	88	85 - 115	2005-03-26
Benzene		mg/L	0.100	0.0883	88	85 - 115	2005-03-26
Toluene		mg/L	0.100	0.0850	85	85 - 115	2005-03-26
Ethylbenzene		mg/L	0.100	0.0903	90	85 - 115	2005-03-26
Xylene		mg/L	0.300	0.286	95	85 - 115	2005-03-26

Standard (CCV-2) QC Batch: 16917

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.100	0.0880	88	85 - 115	2005-03-26

continued ...

[1]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[2]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

standard continued ...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0860	86	85 - 115	2005-03-26
Toluene	[3]	mg/L	0.100	0.0840	84	85 - 115	2005-03-26
Ethylbenzene		mg/L	0.100	0.0890	89	85 - 115	2005-03-26
Xylene		mg/L	0.300	0.289	96	85 - 115	2005-03-26

Standard (ICV-1) QC Batch: 16929

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	994.0	99	90 - 110	2005-03-28

Standard (CCV-1) QC Batch: 16929

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1055	106	90 - 110	2005-03-28

Standard (ICV-1) QC Batch: 16934

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7.00	7.02	100	98 - 102	2005-03-25

Standard (CCV-1) QC Batch: 16934

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7.00	6.99	100	98 - 102	2005-03-25

Standard (ICV-1) QC Batch: 16960

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		mg/L	2.50	2.35	94	90 - 110	2005-03-25

Standard (ICV-1) QC Batch: 16960

[3]*Toluene outside of control limits on CCV(ICV). CCV(ICV) component average is 89 which is within acceptable range. This is acceptable by Method 8000.*

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	11.6	93	90 - 110	2005-03-25
Fluoride		mg/L	2.50	2.37	95	90 - 110	2005-03-25
Sulfate		mg/L	12.5	11.7	94	90 - 110	2005-03-25

Standard (CCV-1) QC Batch: 16960

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		mg/L	2.50	2.40	96	90 - 110	2005-03-25

Standard (CCV-1) QC Batch: 16960

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	11.8	94	90 - 110	2005-03-25
Fluoride		mg/L	2.50	2.44	98	90 - 110	2005-03-25
Sulfate		mg/L	12.5	12.3	98	90 - 110	2005-03-25

Standard (ICV-1) QC Batch: 16971

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Specific Conductance		µMHOS/cm	1410	1420	101	90 - 110	2005-03-29

Standard (CCV-1) QC Batch: 16971

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Specific Conductance		µMHOS/cm	1410	1390	98	90 - 110	2005-03-29

Standard (ICV-1) QC Batch: 16972

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Alkalinity		mg/L as CaCo3	250	240	96	90 - 110	2005-03-29

Standard (CCV-1) QC Batch: 16972

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Alkalinity		mg/L as CaCo3	250	242	97	90 - 110	2005-03-29

Standard (ICV-1) QC Batch: 17087

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	50.0	49.6	99	90 - 110	2005-04-04
Dissolved Magnesium		mg/L	50.0	49.0	98	90 - 110	2005-04-04
Dissolved Potassium		mg/L	50.0	48.6	97	90 - 110	2005-04-04
Dissolved Sodium		mg/L	50.0	49.5	99	90 - 110	2005-04-04

Standard (CCV-1) QC Batch: 17087

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	50.0	52.3	105	90 - 110	2005-04-04
Dissolved Magnesium		mg/L	50.0	52.2	104	90 - 110	2005-04-04
Dissolved Potassium		mg/L	50.0	53.8	108	90 - 110	2005-04-04
Dissolved Sodium		mg/L	50.0	54.6	109	90 - 110	2005-04-04

Page 1 of 1

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 5032513

Company Name: OCD
Phone #: 505-476-3487
Address: (Street, City, Zip) 1220 South St Francis Santa Fe, NM 87505
Fax #:
Contact Person: Wayne Price
Invoice to: (If different from above) Ed Martin
Project #: ~~Wayfarer~~
Project Name: Way Farer AIY #1 State
Project Location: Sec 25 -19S- 29E 990 FSL 666 FEL
Sampler Signature:

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	NaHSO4	H2SO4	NaOH	ICE	NONE	Mg Cl	SAMPLING: DATE	TIME
58204	Wayfarer 01	1	40Z		✓								✓			3/23	14:00
205	Wayfarer 02	1	40Z		✓								✓			3/23	14:10
206	Wayfarer 03	1	40Z		✓								✓			3/23	14:20
207	Wayfarer 04	1	40Z		✓								✓			3/23	15:05
208	Way Farer 05	2	40ML	✓									✓			3/23	14:50
209	Way Farer 06 (Windmill)	1	1L	✓									✓			3/23	14:50

ANALYSIS REQUEST (Circle or Specify Method No.)	
~~BTEX~~ 8021B/602	BTEX
BTEX 8021B/602	✓
TPH 418.1/TX1005	✓
PAH 8270C	
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	
TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
TCLP Volatiles	
TCLP Semi Volatiles	
TCLP Pesticides	
RCI	
GC-MS Vol 8260B/624	
GC/MS Semi Vol 8270C/625	
PCB's 8082/608	
Pesticides 8081A/608	
BOD, TSS, pH	
Chlorides	✓
Clen Chem / OCD	✓
Turn Around Time if different from standard	
Hold	

Relinquished by: Wayne Price Date: 3/29/05 Time: 10:00 AM
Received by: Date: Time:
Relinquished by: Date: Time:
Received by: Date: Time:
Relinquished by: Date: Time:
Received at Laboratory by: Brenda Waid Date: 3/25/05 Time: 10:33

LAB USE ONLY
Intact (Y) N
Headspace Y (N)
Temp 3°C
Log-in Review

REMARKS:

Carrier # TNM&O 903-322-4277

* samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

ORIGINAL COPY

Price, Wayne

From: Price, Wayne
Sent: Sunday, March 27, 2005 1:00 PM
To: Sanchez, Daniel; MacQuesten, Gail
Cc: MacQuesten, Gail; Gum, Tim; Barton, Van; Bratcher, Mike
Subject: Yates Wayfarer #1 2R0054

I have set up an environmental file for this site 2R0054. I have linked it to the well file so you should be able to see my inspection report with photos. I would like to be able to file all of the paper work associated in this file including the results of the NOV and clean-up. As soon as I get the results back I will send everyone a copy with my remediation recommendations. Thanks for all of the help.

Sincerely:

Wayne Price
New Mexico Oil Conservation Division
1220 S. Saint Francis Drive
Santa Fe, NM 87505
505-476-3487
fax: 505-476-3462
E-mail: WPRICE@state.nm.us

OCD Inspection of Yates Wayfarer #1 API- 30-015-26647
Date: March 23, 2005 OCD inspectors: Wprice, Mbratcher, Gvongonten

Inspection observation Notes: Visual oily stains with slight to moderate hydrocarbon odors noted in bottom of excavate areas and sidewalls in excavated area and ramp area. No stains in playa shoreline or bottom of playa. Soil piles had visual oily stains and moderate hydrocarbon odors. One small gravel pile was contaminated with very strong odors. Collected soil and water samples.

Excavated dirt pile-looking East

Battery-looking south

Just south of Battery excavated area looking south small playa lake (now dry) in background.

Standing on north side of excavated area looking SE. Windmill in background.

Same as above

Looking west-area where separator was removed.

Ramp into excavated area. Collected soil sample 0-6 inches deep of visually contaminated soil. Slight-Moderate hydrocarbon odor. Sample ID is Wayfarer #01.
Picture shows Wayne Price-OCD

Sam as above- Glen VonGoten OCD

Excavated area bottom hole. Collected soil sample 0-6" deep of visually contaminated soil in area that would be approximately below separator discharge pipe. Slight-Moderate hydrocarbon odor. Sample ID is Wayfarer #02. Picture shows Mike Bratcher OCD Artesia filed rep.

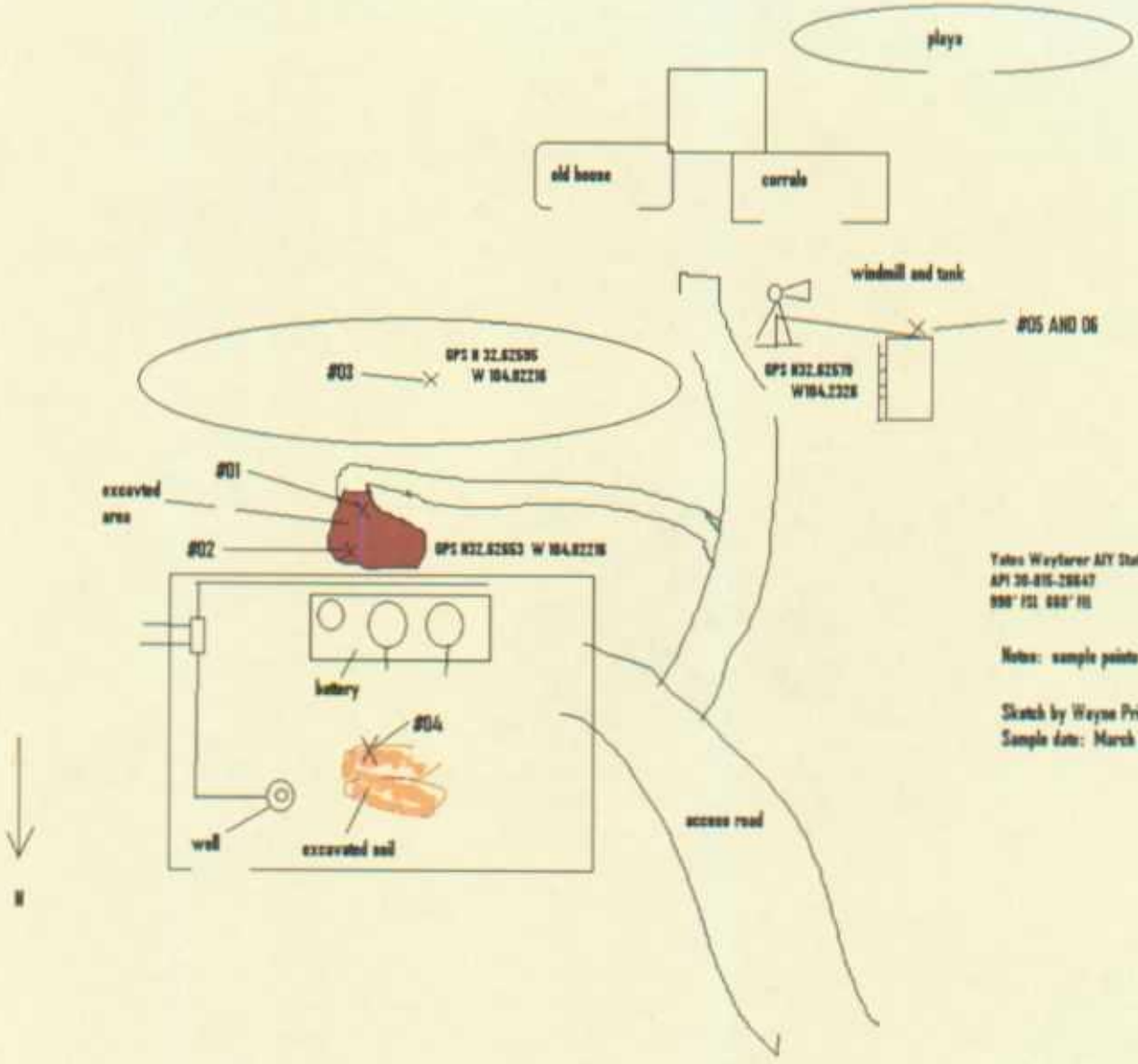
Standing near the grassy part of playa lake drainage area between battery and Playa.

Collected soil sample 12 inches deep in middle of playa lakebed. GPS reading N 32.62595 W 104.02216. No hydrocarbon odor or stains. Windmill located west in background. Sample ID# Wayfarer #03. Mike Bratcher OCD Artesia Field Rep.

Collecting soil sample from excavated soil pile. Sample ID# Wayfarer 04. Moderate Hydrocarbon odor. Gas well in background looking east.

Same as above except looking West.

Same as above except looking SW. Shows windmill in background. Sample ID for Soil was Wayfarer #04. Windmill was pumping due to 20-30 mph winds in area. Collected sample from windmill from outlet discharge pipe going into Tank. Sample ID # Wayfarer 05 and 06.


playa
old house
corrals
windmill and tank
#05 AND 06
GPS N 32.62595
W 104.82216
#03
GPS N32.62578
W104.2328
#01
excavted
area
#02
GPS N32.62553 W 104.82216
battery
#04
well
excavated soil
access road
N
Yates Waysterer AIY State #1
API 30-015-28647
Notes: sample points X
Sketch by Wayne Price-OCD
Sample date: March 23, 200

Page ____ of ____

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # ____________

Company Name: CCU Phone #: 505-476-3487

Address: (Street, City, Zip) 1220 South St Francis ... Santa Fe, NM 87505 Fax #:

Contact Person: Wayne Price

Invoice to: (If different from above) E. Martin

Project #: ~~Wayfarer~~ Project Name: Wayfarer State

Project Location: Sec 25 - 19S - 29E 990 FSL 660 FEL Sampler Signature: [signature]

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE		PRESERVATIVE METHOD: HCL	HNO3	$NaHSO_4$	H_2SO_4	NaOH	ICE	NONE	MgCl	SAMPLING: DATE	TIME	MTBE 8021B/602 (BTEX)	BTEX 8021B/602	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC-MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	Chlorides	Gen Chem/LCD			Turn Around Time if different from standard	Hold
	Wayfarer 01	1	4oz		✓									✓	✓		3/23	14:00		✓	✓													✓					
	Wayfarer 02	1	4oz		✓									✓	✓		3/23	14:10		✓	✓													✓					
	Wayfarer 03	1	4oz		✓									✓	✓		3/23	14:20		✓	✓													✓					
	Wayfarer 04	1	4oz		✓									✓	✓		3/23	14:[illegible]		✓	✓													✓					
	Wayfarer 05	2	40ml	✓										✓		✓	3/23	14:50	✓																				
	Wayfarer 06 (well [illegible])	1	1L	✓										✓			3/23	14:[illegible]																	✓				

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Wayne Price	3/29/05	10:00 AM			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp ____ °
Log-in Review ____

REMARKS:

Carrier # ____________

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

CHART COPY

3/23/2005 @ 12:45

- WAYNE EXPLAINED DP RENEWAL PROCESS. ? OK HOT OIL
- OK HOT OIL + 3 VACUUM TRUCK

505-677-2662

- 2 WATER WELLS @ SITE
- ~~DTW 90 & 95 @ WINDMILL~~

DRIVE TO WAMFAMER @ 13:40 "AIY" STATE #1

SOIL SAMPLE 1 @ RAMP AREA (PHOTO)
#2 BOTTOM OF PIT @ DISCHARGE AREA (PHOTO)

990 FSL, 660 FEL, SEC 25/19S/29E
EDDY CO, NM #U-1775

#3 MIDDLE OF PLAYA
50 STEPS FROM TANKS

3/23/2005 @ 16:00

ENERGY FIELD SVCES
FRONTIER GAS PLANT
(FORMERLY CONOCO CIP)
CONOCO RETAINED RESPONSIBILITY
@ LEA CO.

JOHN PRENTISS
RANDY MCCOLLUM

- GW-020
- COND + SW PLUME
- UST TESTED
- Q 5-YR TEST @ UNDERGROUND PIPING CL.
- WASTE WATER → LH
- NON-EXEMPT → CRI

700 X 900 56K ✓ 560,000

→ 9AC

- PLANT VISIT/INSPECTION @ 16:43

NOTICE OF VIOLATION

February , 2005

Yates Petroleum Corporation
105 South Fourth Street
Artesia, NM 88210

Certified Mail Return Receipt:

Gulf Insurance Co.
101 South 4th Street
Artesia, NM 88210-2195

Certified Mail Return Receipt:

RE: Wayfarer AIY State # 1, Unit letter P, Section 25, Township 19 South, Range 29 East, API # 30-015-26647

Gulf Insurance Co. Bond No. 58 59 56

Violation of Oil Conservation Division Rules:
19.15.2.50.A NMAC
19.15.3.116 NMAC
19.15.5.306 NMAC
19.15.1.13 NMAC
19.15.3.114.A NMAC

Dear Sirs:

An inspection and investigation of the Yates Petroleum Corporation's (Yates') Wayfarer AIY State # 1, API# 30-015-26647, located in Eddy County, New Mexico revealed numerous violations of Oil Conservation Division (OCD) rules. The investigation and its results are summarized below.

Background

On December 17, 2004, Ms. Becky Hunt of the Department of Interior/Bureau of Land Management notified OCD Deputy Inspector Mike Bratcher that she had received a complaint from Jimmy Richardson. Mr. Richardson, of Richardson Cattle Company, stated that he held the grazing lease for this area and that an oil tank was being drained

into his stock tank. Ms. Hunt's preliminary investigation found the area in question to be land owned by the State of New Mexico.

OCD Investigation

1. In response to the complaint from Mr. Richardson, Deputy Inspector Bratcher conducted a site inspection of the Wayfarer AIY State #1 on December 17, 2004, and observed the following:

a. The two-phase gas separator associated with the Wayfarer AIY State #1 has a "pop-off" line and a vent line.

b. The vent line is a 2" pipe that extends from the separator for a distance of approximately 40 feet.

c. The vent line passes through the fence that surrounds the location, and ends in a pasture.

d. Liquids had run from the end of the pipe and pooled in a natural depression that runs to a body of fresh water.

e. On the day of the site inspection, the visible contamination in the depression was 75 feet from the water line of a playa lake used by livestock and 400 feet from a windmill.

g. The Wayfarer AIY State #1 is operated on a plunger lift.

2. During his December 17, 2004 inspection, Deputy Inspector Bratcher spoke to a Yates representative at the site who told him the following:

a. The vent line had been installed over a year ago. Yates chose to vent the line to the pasture because if the line had vented to the water tank it would have blown out the water.

b. The Yates representative estimated that eight to ten barrels of liquids had been released from the line since it was installed.

3. During his December 17, 2004 inspection, Deputy Inspector Bratcher told Yates to stop releasing contaminants. Yates shut in the well. It remains shut in.

4. On December 20, 2004 Deputy Inspector Bratcher contacted Yates personnel by telephone and confirmed the following:

a. The vent line had been installed over a year ago.

b. A discharge from the vent line would occur three times during each 24-hour period when the plunger lift was operated, and each discharge would last approximately one hour.

5. Deputy Inspector Bratcher continued his investigation through OCD records, and established the following:

a. Yates is the operator of record for the well and associated facilities identified in this notice.

b. Yates had not applied for or obtained a permit to discharge into a pit at the site of the Wayfarer AIY State #1 well.

c. Yates had not requested an exception to the no-flare rule for this location, although Yates had requested such exceptions for other locations.

d. The first notice of the release provided by Yates to the OCD was a Form C-141 "Release Notification and Corrective Action," dated December 28, 2004 – eleven days after Deputy Inspector Bratcher spoke to Yates representatives about the release. The C-141 stated that the vent line released 8-10 barrels of condensate, and that Yates would excavate and remove visibly impacted soil, treat the excavated area and back fill to grade at a later date using clean soil. Yates titled the report a "final report." The OCD did not approve the December 28, 2004 C-141.

e. Yates filed a second C-141 with the OCD on January 11, 2005. In that notice, Yates reported the release of 8-10 barrels of condensate over an unknown period of time. Yates stated that it had excavated the area to a depth of 3 ½ to 4 feet, would send the soil to a land farm, and re-fill the area. Yates stated that tests conducted on soil samples on January 11, 2005 found 120 ppm TPH in soil opposite the pit area, and 150 ppm TPH at the end of the pit facing the lake bed. Yates titled the report a "final report."

f. By letter dated January 27, 2005, the OCD notified Yates that it had denied the January 11, 2005 C-141 because the samples showed TPH levels to be above acceptable levels for the site. The letter further provided,

> "At this time, we are requesting that as soon as weather conditions permit, another sampling event be performed. Samples obtained are to be tested for TPH, Chloride, and BTEX levels. Samples are to be obtained from areas known to be impacted, toward the lake playas to a point where any contaminants are non-detect or until the lake playas is reached. Further remediation actions will be determined based on analyticals of samples obtained."

Violations:

1. **OCD Rule 50.A [19.15.2.50.A NMAC]**, effective February 13, 2004, provides, in relevant part, that "discharge into, or construction of, any pit … is prohibited absent possession of a permit issued by the division, unless otherwise herein provided or unless the division grants an exemption pursuant to Subsection G of 19.15.2.50 NMAC." OCD Rule 7.P(3) [19.15.1.7.P(3) NMAC] defines "pit" as "any surface or sub-surface impoundment, man-made or natural depression, or diked area on the surface…."

Yates knowingly and willfully violated Rule 50.A by piping discharge from the separator into a natural depression without obtaining a pit permit. This violation continued over a period of approximately one year.

2. **OCD Rule 116 [19.15.3.116 NMAC]** requires notification to the OCD of any unauthorized release, and requires the responsible person to complete division-approved corrective action for releases that endanger public health or the environment.

A "Minor Release" requires written notice within 15 days. A "Minor Release" is a release of any volume, greater than 5 barrels but not more than 25 barrels; or greater than 50 mcf but less than 500 mcf of natural gases.

A "Major Release" requires both immediate verbal notice and written notice within 15 days. A "Major Release" is defined to include the unauthorized release of any volume which will reach a water course, results in substantial damage to property or the environment, or which may with reasonable probability be detrimental to water or cause an exceedance of the standards in Section 19, Subsection B, Paragraphs (1) and (2) or (3) of 19.15.1 NMAC.

Yates knowingly and willfully violated the notice requirements of Rule 116 as to the "Minor Release" of gas by failing to provide the OCD with notice of the unauthorized release of approximately 50 mcf of gas from the vent pipe three times a day for approximately one year.

Whether the release is considered a "Major Release" or a "Minor Release," Yates knowingly and willfully violated the notice requirements of Rule 116 as to the release of liquid wastes by failing to provide the OCD with notice of the unauthorized release of approximately 8-10 barrels of liquids that were allowed to pond, soak into the ground and flow near and toward the surface of water for a period of approximately one year.

Yates has not yet completed OCD-approved corrective action for the release of the liquids.

3. **OCD Rule 306 [19.15.5.306 NMAC]** provides, in relevant part, "No casinghead gas produced from any well in this state shall be flared or vented after 60 days following completion of the well…"

Yates knowingly and willfully violated Rule 306 by venting over 50 mcf of casinghead gas three times a day for approximately one year. Yates was aware of the requirements of Rule 306 because it has filed applications for exceptions to the rule on other locations, but did not file for an exception for the Wayfarer AIY State #1.

4. **OCD Rule 13.A [19.15.1.13.A NMAC]** provides that, "the production or handling of crude petroleum oil or natural gas of any type or in any form, or the handling of products thereof, in such a manner or under such conditions or in such amount as to constitute or result in waste is hereby prohibited."

Yates knowingly and willfully violated Rule 13.A by wasting gas through venting a minimum of 150 mcf/day of natural gas for approximately one year

5. **OCD Rule 13.B [19.15.1.13.B NMAC]** provides that, "All operators ... shall at all times conduct their operations in or related to the drilling, equipping, operating, producing, plugging and abandonment of oil, gas, injection, disposal, and storage wells or other facilities in a manner that will prevent waste of oil and gas, the contamination of fresh waters and shall not wastefully utilize oil or gas, or allow either to leak or escape from a natural reservoir, or from wells, tanks, containers, pipe or other storage, conduit or operating equipment."

Yates knowingly and willfully violated OCD Rule 13.B by

a. allowing gas and liquids to leak or escape from its operating equipment; and

b. failing to operate the facility in a manner that will prevent the contamination of fresh waters, because for a period of at least one year it directed discharge from the vent pipe into a depression that runs to a body of fresh water.

6. **OCD Rule 114.A [19.15.3.114.A NMAC]** provides, in relevant part, "...All flowing oil wells must be produced through an oil and gas separator of ample capacity and in good working order."

Yates knowingly and willfully violated Rule 114.A by

a. utilizing a gas separator that must vent each time the well flows; and

b. utilizing a gas separator that allows liquids to escape during the flowing period.

Compliance and Enforcement Actions

Yates's conduct warrants issuance of this "Notice of Violation" and assessment of civil penalties pursuant to NMSA 1978, Section 70-2-31(A) for violation of the OCD Rules described above. Section 70-2-31(A) authorizes penalties of up to one thousand dollars

($1,000) per day per violation for any knowing and willful violation of any provision of the "Oil and Gas Act" or any rule adopted pursuant to the Act. The statute specifically provides that in the case of a continuing violation, each day shall constitute a separate violation.

In view of the seriousness of these violations, and the continuing nature of these violations, the Artesia District Office of the OCD believes a penalty of $8,000 and corrective action by Yates are essential. The proposed penalty is based on one violation each of Rule 50.A, Rule 306.A, Rule 13.A and Rule 114.A, two violations of Rule 116 (one violation for failing to notify the OCD of the gas release, and one violation for failing to notify the OCD of the liquid release), and two violations of Rule 13.B (one violation for the allowing gas and liquids to leak or escape from its operating equipment, and one violation for failing to operate the facility in a manner that will prevent the contamination of fresh waters). The corrective action would include remediation of this site and a report from Yates identifying any other Yates wells with separators using vent lines in a similar configuration. Yates will be required to bring those wells into compliance within 90 days.

Unless the matter is satisfactorily resolved at an administrative conference we will request an enforcement hearing before an OCD Hearing Examiner or file suit in District Court, where we will seek a formal order requiring compliance with OCD rules, a civil penalty, and corrective action. Please note that because the rules were actually violated over a period of time, if this matter is litigated, the OCD may seek a penalty greater than the $8,000 penalty proposed in this notice.

The OCD may request an enforcement hearing before an OCD hearing examiner seeking an order requiring that the Wayfarer AIY State #1 well be plugged and abandoned pursuant to NMSA 1978, § 70-2-14(B). That statute provides:

> **"If any of the requirements of the Oil and Gas Act or the rules promulgated pursuant to that act have not been complied with, the oil conservation division, after notice and hearing, may order any well plugged and abandoned by the operator or surety or both in accordance with division rules. If the order is not complied with in the time period set out in the order, the financial assurance shall be forfeited."**

Please contact this office within ten (10) days to schedule an administrative conference to discuss this matter. OCD legal counsel may be present by telephone for this conference and you may bring legal counsel if you desire. If we do not hear from Yates within ten days, we will schedule the matter for hearing.

If you have any questions, you may contact me at 505-_____ ext ___.

MacQuesten, Gail

From: Barton, Van
Sent: Monday, March 21, 2005 1:05 PM
To: MacQuesten, Gail
Subject: FW: Water Well Testing

-----Original Message-----
From: Lisa Norton [mailto:lnorton@YPCNM.COM]
Sent: Monday, March 21, 2005 12:15 PM
To: Barton, Van
Cc: Gum, Tim; Bratcher, Mike; Dan Dolan
Subject: RE: Water Well Testing

Van,

On March 3 Yates received a letter requesting that a sample be taken from a water well located adjacent to the Wayfarer #1 well on or before March 18, 2005.

I responded to that letter on March 10 asking for two things - first, verification that Jimmy Richardson has legal authority to operate the well and second, an explanation of how you determined that sampling the well was necessary.

Your response dated March 17, 2005 did not provide any useful information to address either question.

The State Engineer's records indicate that a "Declaration of Ownership" was filed in 1950 by Snyder Ranches. They do not have any record of change of ownership of that well.

While Yates continues to believe that its operations have had no impact on the subject water well, we will agree to test the well once you have provided us with documentation from Mr. Richardson that he is the legal owner of the well.

Lisa Norton
Environmental Coordinator
Yates Petroleum Corp.
105 South 4th
Artesia, NM 88210
505-748-4185
505-365-8395 Cell
505-748-4654 Fax
lnorton@ypcnm.com

> -----Original Message-----
> **From:** Barton, Van [mailto:VBarton@state.nm.us]
> **Sent:** Thursday, March 17, 2005 1:34 PM
> **To:** Lisa Norton
> **Cc:** Gum, Tim; Bratcher, Mike; Dan Dolan
> **Subject:** 28 June 2004

YATES PETROLEUM CORPORATION

105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210-2118
TELEPHONE (505) 748-1471

Mr. Tim Gum
District II Supervisor, Oil Conservation Division
1301 West Grand Avenue
Artesia, NM 88210

Via: Certified Mail 7004 1160 0005 5321 5220

March 10, 2005

RE: Wayfarer AIY State #1 NOV
25-19-29 30-015-26647
Request for sampling of windmill

Dear Tim,

Yates Petroleum Corp. (Yates) received a letter dated March 2, 2005 from Van Barton (OCD Field Representative II) requesting that a water well adjacent to the above location be sampled. Yates has questions that will require clarification prior to scheduling the test.

First, the letter indicated that Jimmy Richardson would operate the well for the test. Apparently, Mr. Richardson has represented to you and others that he is the owner of the well. However, upon contacting the State Engineer's Office to obtain information on the well, Yates was told that the permit is held by Snyder Ranches. Yates requests your verification that Mr. Richardson does, in fact, have legal authority to operate the well.

Second, it is not clear to Yates on what basis you determined that sampling the well is necessary. The relatively small amount of liquids accidentally released and the information derived from the soil sampling and field investigation thus far does not seem to warrant sampling a well with groundwater at approximately 120 feet. Would you please explain why you believe that this information is necessary or would be useful? In addition, Yates requests any information that you may have on other operations that might be in the area that potentially could impact this well.

While Yates does not believe that its operations have impacted the water well, we have arranged to have the well sampled by Mr. David Boyer, P.G., Hydrogeologist, with Safety and Environmental Solutions once the above questions are answered.

If you have questions or need additional information, I can be reached at 505-748-4185.

Sincerely,

Lisa Norton
Environmental
Coordinator

Cc: Eric Hiser
Bill Carr
Chuck Moran
Gail Macquesten, OCD Santa Fe

New Mexico Office of the State Engineer

Well Reports and Downloads

Township: 19S Range: 29E Sections: 25

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) ○ Non-Domestic ○ Domestic ◉ All

Well / Surface Data Report | Avg Depth to Water Report | Water Column Report

Clear Form | WATERS Menu | Help

WELL / SURFACE DATA REPORT 03/18/2005

(quarters are 1=NW
(quarters are bigg

DB File Nbr	Use (acre ft per annum)	Diversion	Owner	Well Number	Source	Tws
CP 00821	STK	0	SNYDER RANCHES	CP 00821		19S

Record Count: 1

New Mexico Office of the State Engineer

Point of Diversion Summary

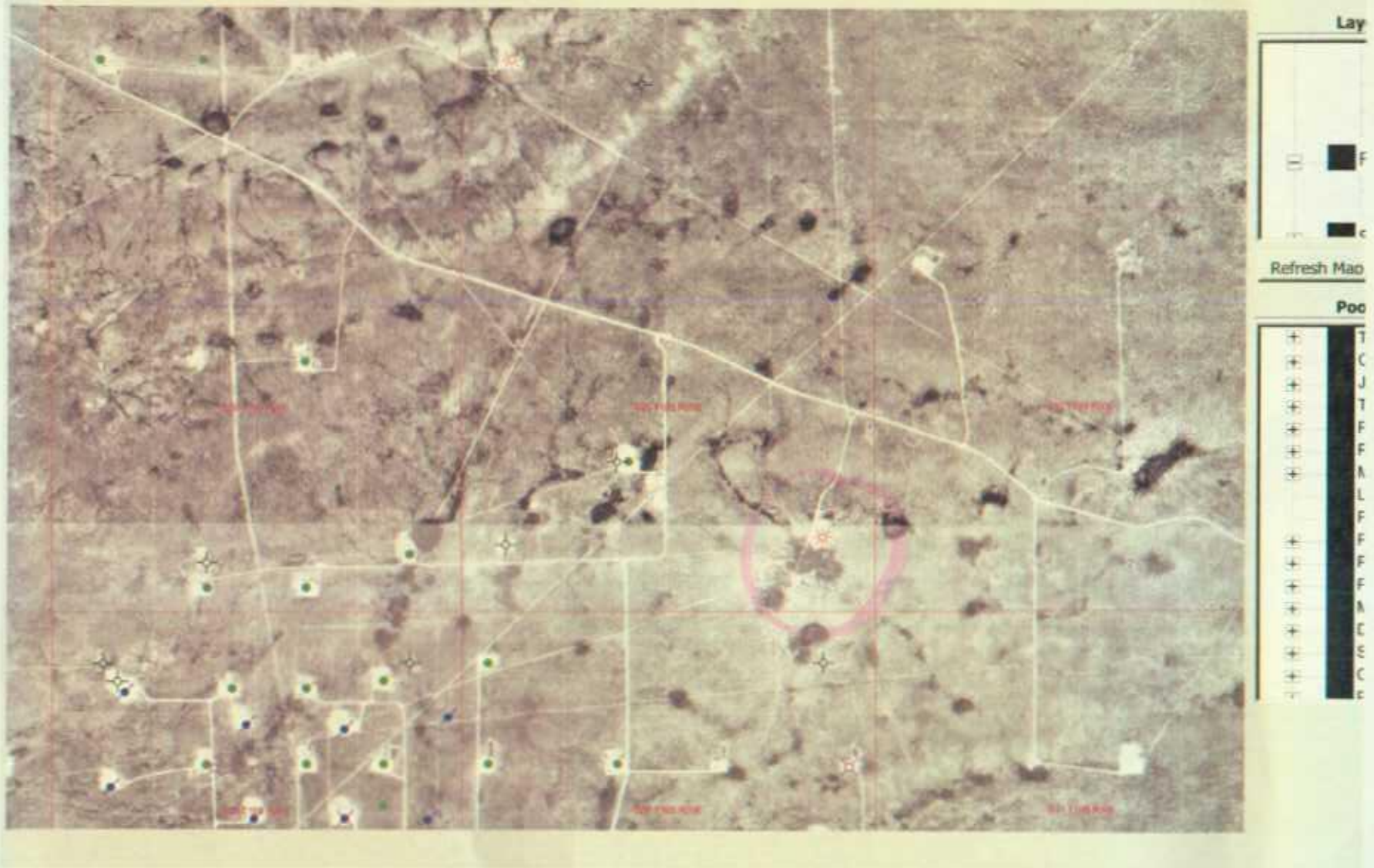
Back

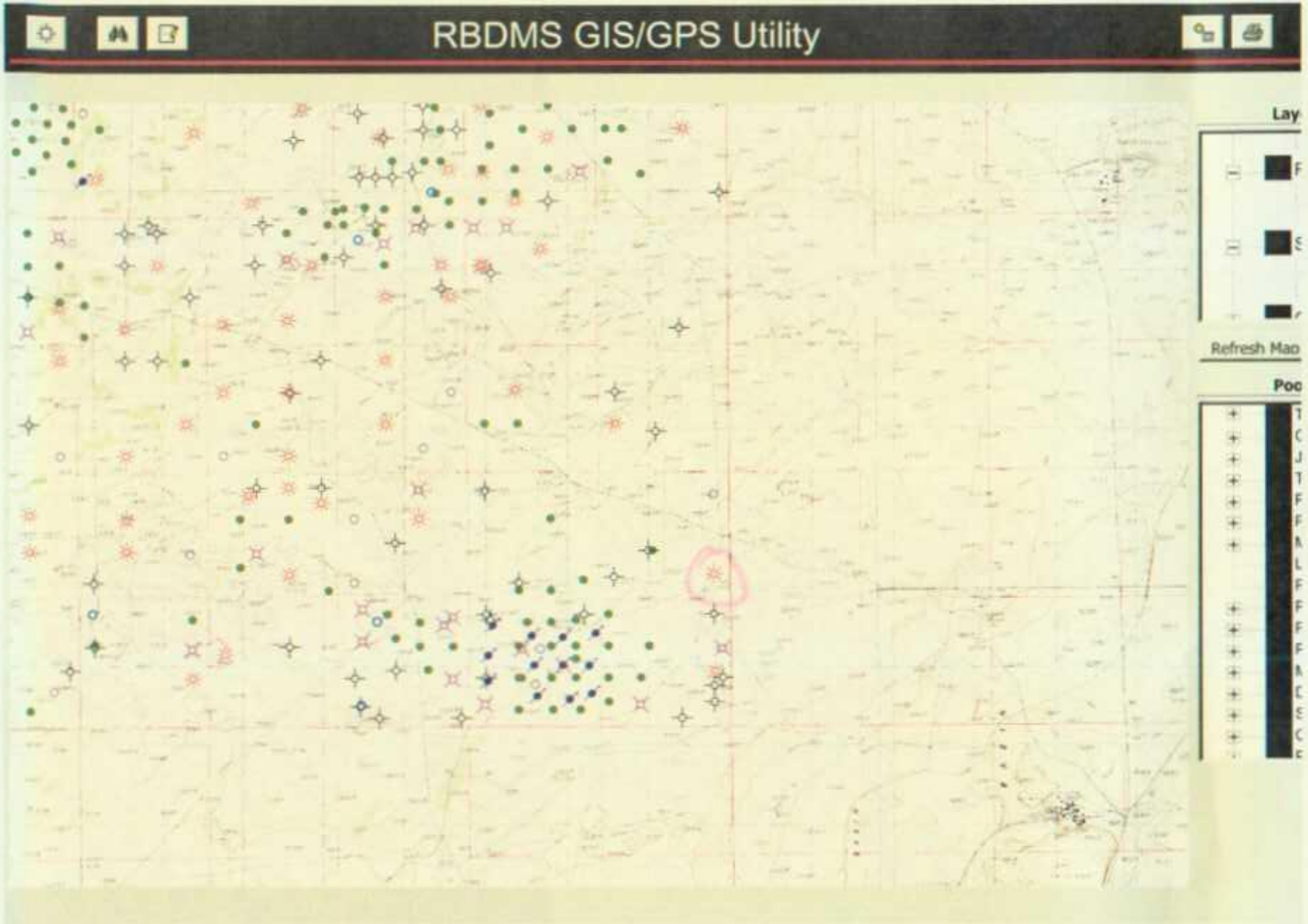
(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are biggest to smallest)

POD Number	Tws	Rng	Sec	q	q	q	Zone	X	Y
CP 00821	19S	29E	25	4	4				

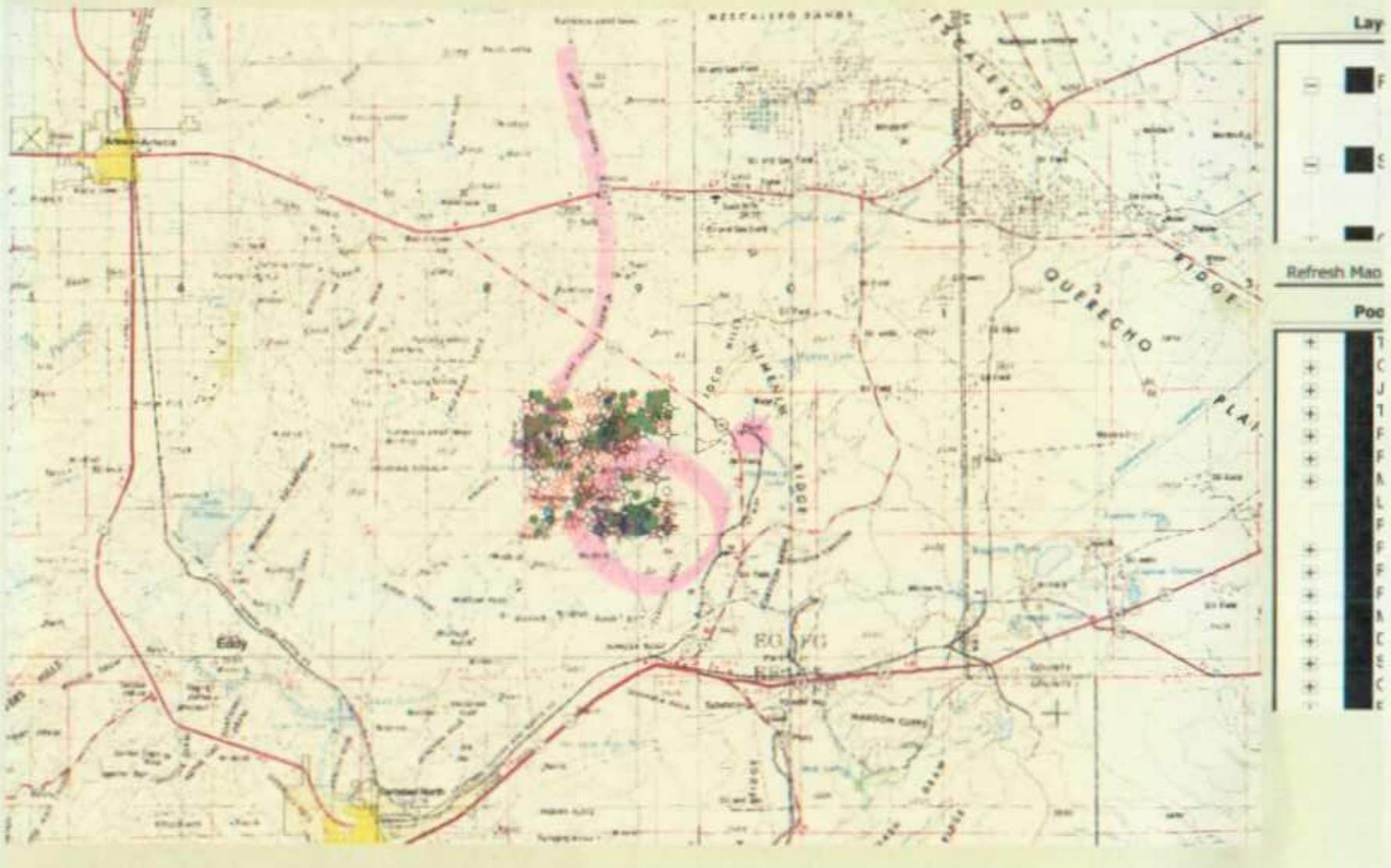
Driller Licence:
Driller Name:
Source:
Drill Start Date:
Drill Finish Date:
Log File Date:
PCW Received Date:
Pump Type:
Pipe Discharge Size:
Casing Size:
Estimated Yield:
Depth Well: 120
Depth Water:

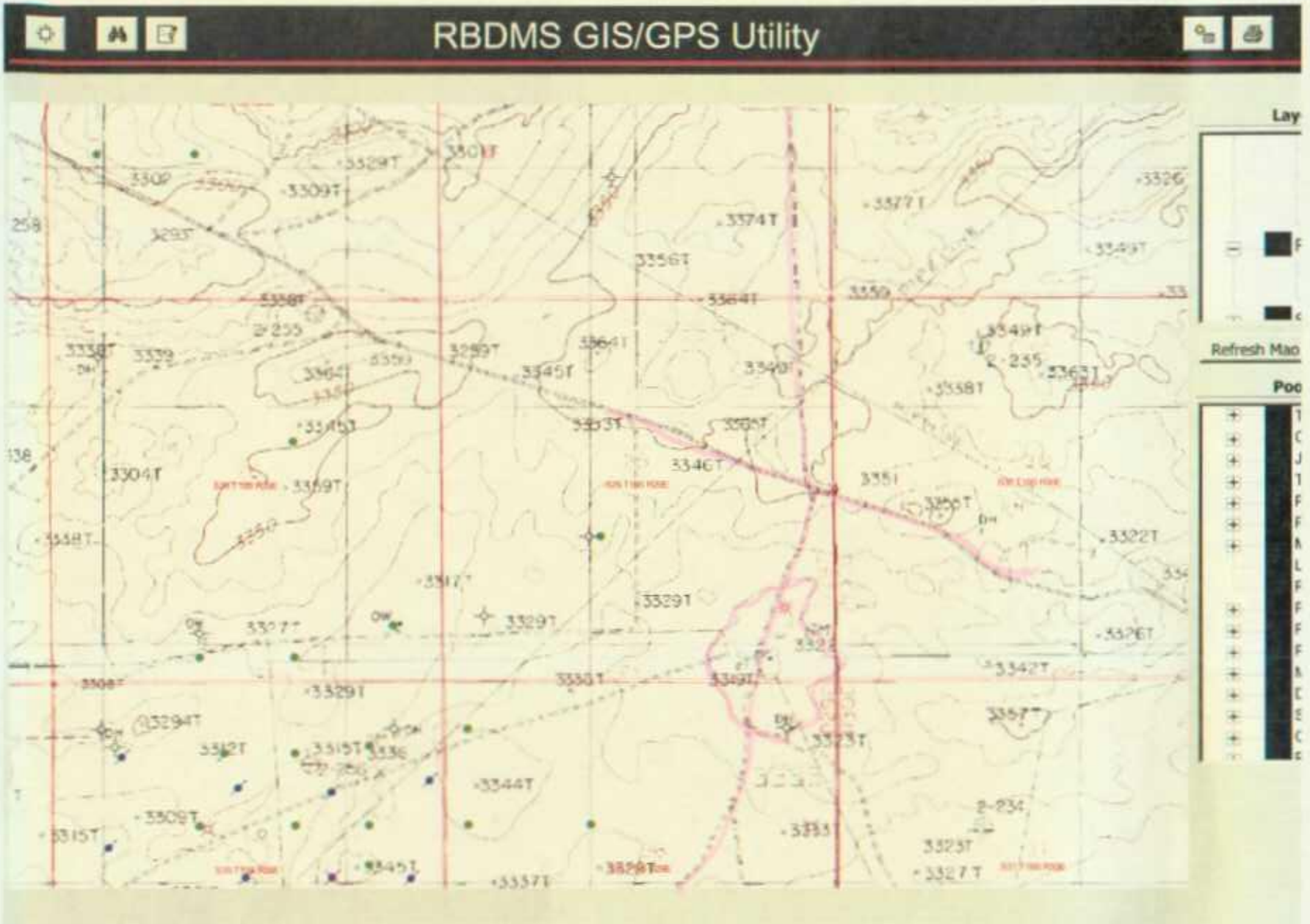
RBDMS GIS/GPS Utility




RBDMS GIS/GPS Utility
Lay
Refresh Map
Poo

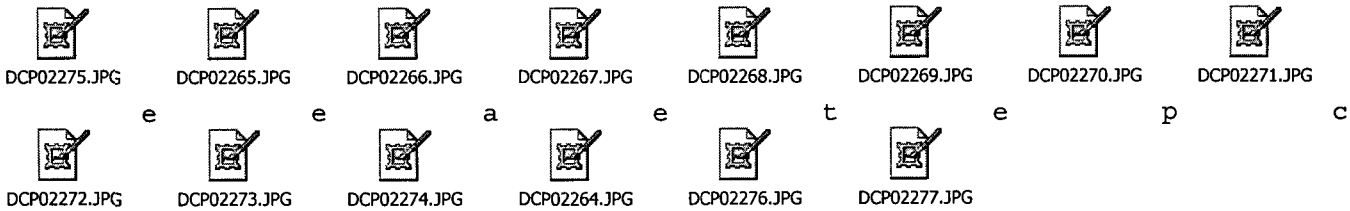
RBDMS GIS/GPS Utility




RBDMS GIS/GPS Utility
Lay
Refresh Map
Pool

Price, Wayne

From: Sanchez, Daniel
Sent: Thursday, March 17, 2005 3:06 PM
To: Price, Wayne
Subject: FW: DCP02275.JPG;DCP02265.JPG;DCP02266.JPG;DCP02267.JPG;DCP02268.JPG;DCP02269.JPG;D



e e a e t e p c

u e h t brought about the Yates N.O.V. Something to look at before tomorrows meeting with Mark.

-----Original Message-----
From: Barton, Van
Sent: Thursday, March 17, 2005 2:22 PM
To: Sanchez, Daniel
Subject: FW:
DCP02275.JPG;DCP02265.JPG;DCP02266.JPG;DCP02267.JPG;DCP02268.JPG;DCP0226
9.JPG;D

-----Original Message-----
From: Barton, Van
Sent: Friday, January 28, 2005 3:29 PM
To: Sanchez, Daniel
Subject:
DCP02275.JPG;DCP02265.JPG;DCP02266.JPG;DCP02267.JPG;DCP02268.JPG;DCP0226
9.JPG;D

DCP02275.JPG;DCP02265.JPG;DCP02266.JPG;DCP02267.JPG;DCP02268.JPG;DCP02269.JPG;DCP02270.JPG
;DCP02271.JPG;DCP02272.JPG;DCP02273.JPG;DCP02274.JPG;DCP02264.JPG;DCP02276.JPG;DCP02277.JP
G

LOOKING S IN DS


12. 17. 2004


12 17 2004


12 17 200


12. 17. 2004


12 17 2004


12 17 2004


12 17 2004

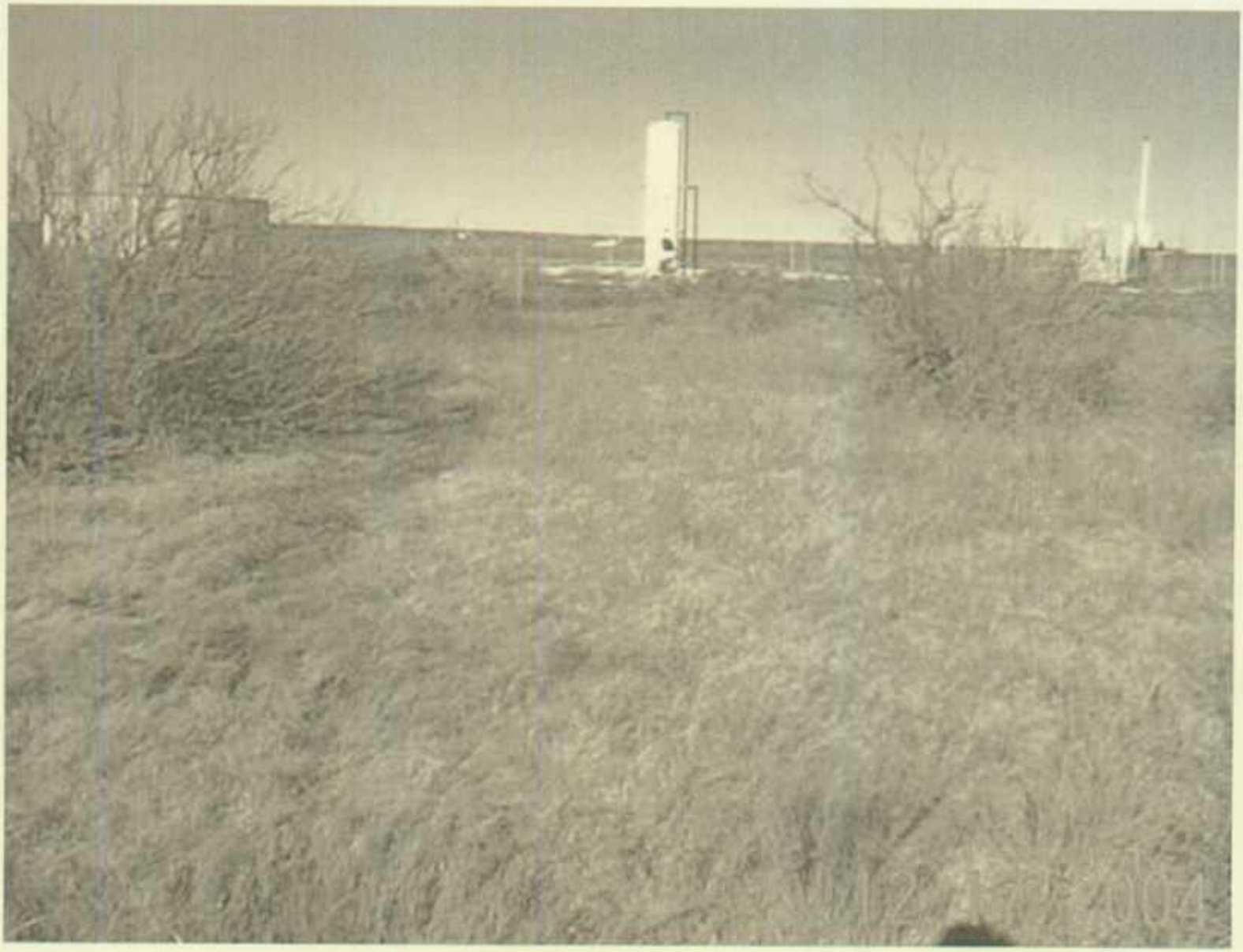

12.17.2004


12. 17. 2004


12 17 2004


12. 17


12 17 2004




12 17 2004

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 October 10, 2003

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

30-015-26647

Release Notification and Corrective Action

OPERATOR

☐ Initial Report X Final Report

Name of Company Yates Petroleum Corporation	Contact Dan Dolan
Address 105 South 4th Street, Artesia, N.M. 88210	Telephone No. 505-748-1471
Facility Name Wayfarer "AIY" #1	Facility Type Tank Battery

Surface Owner State	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
P	25	19s	29e	990'	South	660'	East	Eddy

Latitude 32.62689 Longitude 104.0215

NATURE OF RELEASE

Type of Release Condensate	Volume of Release 8-10 bbls	Volume Recovered 0
Source of Release Vent line from separator.	Date and Hour of Occurrence UK	Date and Hour of Discovery 12/17/2004
Was Immediate Notice Given? ☐ Yes ☐ No X Not Required	If YES, To Whom? ISSUE!!	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes X No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.* FALSIFYING REPORT

Describe Cause of Problem and Remedial Action Taken.
Vent line released 8-10 bbls condensate. Will excavated and removal visible impacted soil. Will treat excavated area and back fill to grade at later date using clean soil.

Describe Area Affected and Cleanup Action Taken.*
AREA WAS EXCAVATED TO 3½ TO 4', SOIL WILL BE SENT TO COMMERCIAL LAND FARM, AND [illegible] REFILLED WITH [illegible] DIRT.
SOUTH EAST SIDE OF PIT – 150 PPM TPH, PIT COMPOSITE 120 PPM TPH

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.

	OIL CONSERVATION DIVISION	
Signature:		
Printed Name: Dan Dolan	Approved by District Supervisor:	
Title: Environmental Regulatory Agent	Approval Date:	Expiration Date:
E-mail Address: ddolan@ypcnm.com	Conditions of Approval: DENIED	Attached ☐
Date: 1-11-05 Phone: 505-748-4181		

* Attach Additional Sheets If Necessary

YATES PETROLEUM CORPORATION

105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210-2118
TELEPHONE (505) 748-1471

I certify that on 1-11-05, a test was conducted on a soil sample from the WILDCATTER AIY #1, using EPA test Method 9074, and a Dexil Petro-FLAG test unit.

The results of that test were 120 ppm TPH
COMPOSITE OF PIT AREA

Daniel W. Dolan CWC
Environmental Regulatory Agent

YATES PETROLEUM CORPORATION

105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210-2118
TELEPHONE (505) 748-1471

I certify that on 1-11-05, a test was conducted on a soil sample from the

WAYMARK #14 #1, using EPA test Method 9074, and a Dexil

Petro-FLAG test unit.

The results of that test were 150 TPH ppm TPH

END OF PIT FACING CAVE BED

Daniel W. Dolan CWC
Environmental Regulatory Agent

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop
Cabinet Secretary

Mark E. Fesmire, P.E.
Director
Oil Conservation Division

Yates Petroleum Corp.
105 S. 4th St
Artesia, NM 88210

January 27,2005

Reference: Wayfarer AIY 001 P-25-19s-29e API: 30-015-26647

Operator,

This office is in receipt of a Final Report C-141 regarding a release that occurred over an undetermined period at the above referenced well site. The C-141 is being denied at this time due to the following:

Samples obtained and field tested on 1/11/05 shows TPH levels to be above recommended action levels for this site.

At this time, we are requesting that as soon as weather conditions permit, another sampling event be performed. Samples obtained are to be tested for TPH, Chloride, and BTEX levels. Samples are to be obtained from areas known to be impacted, toward the lake playas to a point where any contaminants are non-detect or until the lake playas is reached. Further remediation actions will be determined based on analyticals of samples obtained.

Please contact this office 24 hours prior to any samples being obtained or remediation work performed.

Thank you,

Mike Bratcher

Mike Bratcher
Compliance Officer
NMOCD District 2
1301 W. Grand Ave.
Artesia, NM 88210
(505) 748-1283 Ext 108
(505) 626-0857
mbratcher@state.nm.us