

1R - 427 - 45

REPORTS

DATE:

2-23-2004

EME T-5

1R0427-75

**FINAL
REPORT**

**RICE OPERATING COMPANY
JUNCTION BOX FINAL REPORT**

BOX LOCATION

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	BOX DIMENSIONS - FEET		
							Length	Width	Depth
EME	T-5	T	5	21 S	36 E	Lea	box eliminated		

LAND TYPE: BLM _____ STATE X FEE LANDOWNER _____ OTHER _____

Depth to Groundwater 200 feet NMOCD SITE ASSESSMENT RANKING SCORE: 0

Date Started 10/14/2003 Date Completed 10/23/2003 OCD Witness No

Soil Excavated 224 cubic yards Excavation Length 20 Width 25 Depth 12 feet

Soil Disposed 0 cubic yards Offsite Facility n/a Location n/a

FINAL ANALYTICAL RESULTS: Sample Date 10/20/2003 Sample Depth 12 ft bgs

Procure 5-point composite sample of bottom and 4-point composite sample of sidewalls. TPH, BTEX and Chloride laboratory test results completed by using an approved lab and testing procedures pursuant to NMOCD guidelines.

Sample Location	Benzene mg/kg	Toluene mg/kg	Ethyl Benzene mg/kg	Total Xylenes mg/kg	GRO mg/kg	DRO mg/kg	Chloride mg/kg
SIDEWALLS	<0.005	<0.005	<0.005	<0.015	<10.0	<10.0	see individual wall results
BOTTOM	<0.005	<0.005	<0.005	<0.015	<10.0	<10.0	352
REMEDIATED	<0.005	<0.005	<0.005	<0.015	<10.0	<10.0	256

General Description of Remedial Action: This box was surrounded by healthy vegetation when it was eliminated. A 20 x 25 x 12-ft-deep excavation was produced with a backhoe while chloride and VOC's were delineated vertically and laterally. Although the greatest source of impact was found 10 ft west of the junction, chloride concentrations exhibited a conclusive trend of decline (see graphs). BTEX and TPH concentrations were well below NMOCD guidelines. Although the west wall exhibited elevated PID readings, a composite under laboratory conditions confirmed BTEX concentrations below NMOCD guidelines (see lab results and PID readings). The excavated soil was landfarmed on site and then backfilled into the hole. A new junction box is not required at this site as the pipeline has been re-plumbed straight through with poly pipe. The disturbed surface is expected to return to productive capacity at a normal rate.

enclosures: chloride graphs, photos, lab results, PID readings

CHLORIDE FIELD TESTS

LOCATION	DEPTH (ft)	ppm
Vertical	8	546
	10	678
	12	600
	14	425
10 ft West	6	3403
	8	1314
	10	880
	12	696
	14	355

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

DATE 2/23/2004 PRINTED NAME Kristin Farris

SIGNATURE *Kristin Farris* TITLE Project Scientist

EME jct. T-5

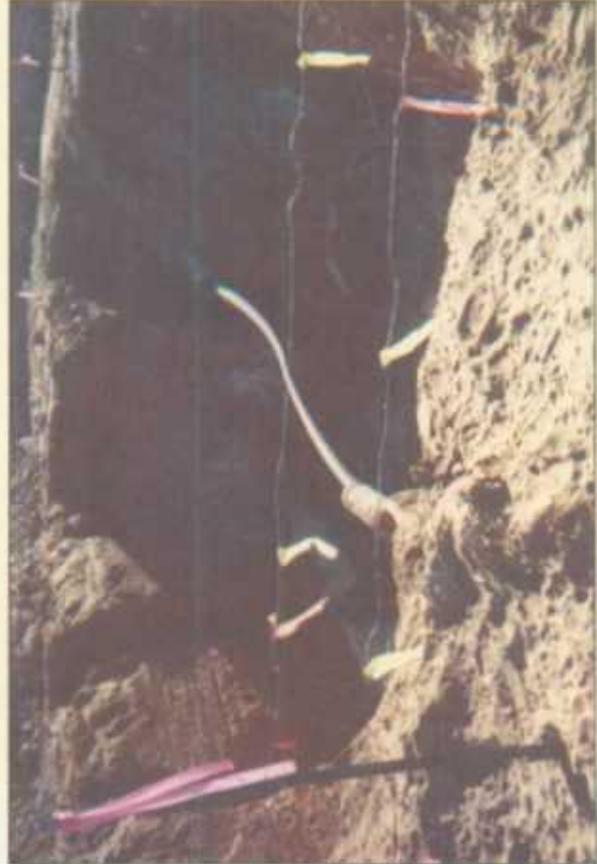


Undisturbed Junction Box

October 2003



Excavation



20 x 25 x 12-ft deep Excavation



Seeding Disturbed Surface

12/18/2003

CHLORIDE CONCENTRATION CURVE

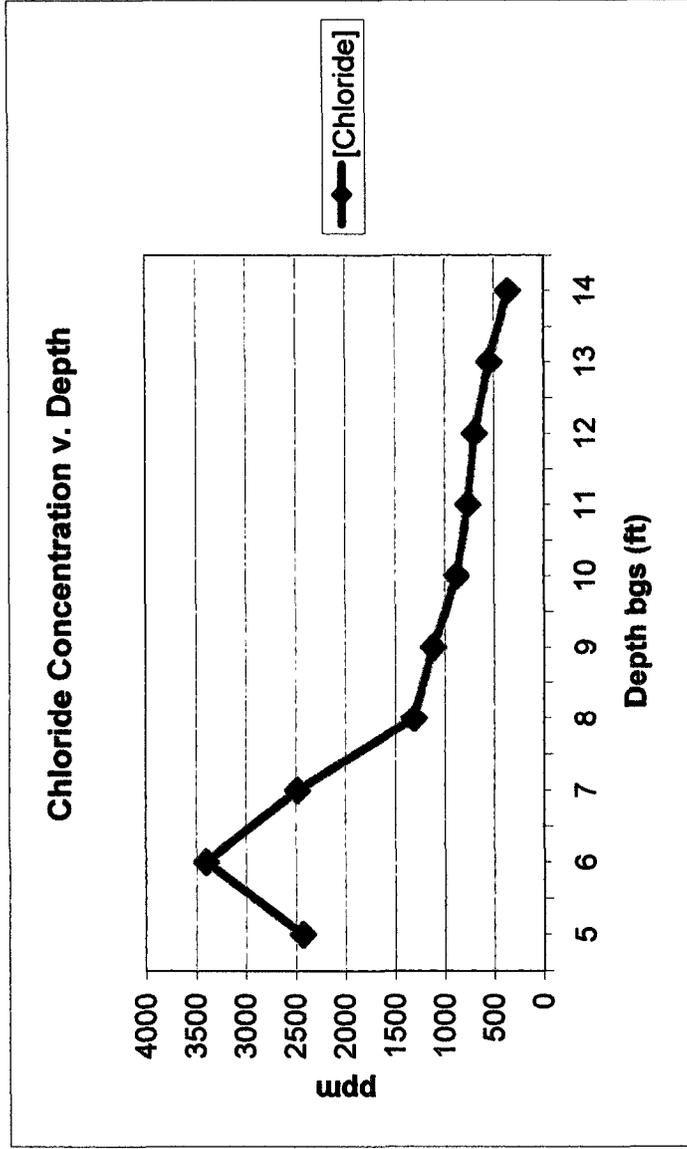
RICE Operating Company

EME jct. T-5
T21S, R36E

10 ft West of Junction

Depth bgs (ft)	[Cl ⁻] ppm
5	2431
6	3403
7	2484
8	1314
9	1117
10	880
11	764
12	696
13	547
14	355

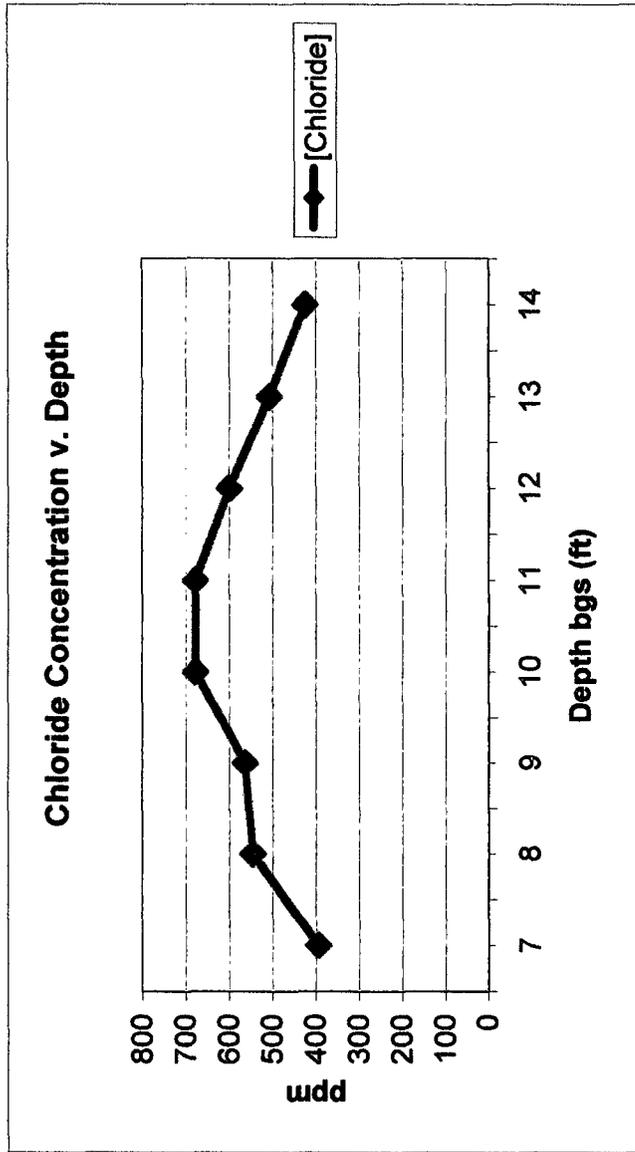
Groundwater = 200 ft



EME jct. T-5
T21S, R36E

Depth bgs (ft)	[Cl ⁻] ppm
7	395
8	546
9	564
10	678
11	678
12	600
13	508
14	425

Groundwater = 200 ft





ARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
RICE OPERATING CO.
ATTN: KRISTIN FARRIS
122 W. TAYLOR
HOBBS, NM 88240
FAX TO: (505) 397-1471

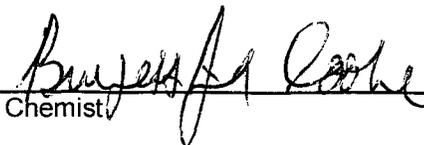
Receiving Date: 10/21/03
Reporting Date: 10/22/03
Project Number: NOT GIVEN
Project Name: EMET-5
Project Location: LEA CO., NM

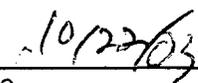
Sampling Date: 10/20/03
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: BC/AH

LAB NUMBER	SAMPLE ID	GRO (C ₆ -C ₁₀) (mg/Kg)	DRO (>C ₁₀ -C ₂₈) (mg/Kg)	Cl* (mg/Kg)
ANALYSIS DATE		10/21/03	10/21/03	10/22/03
H8104-1	BOTTOM 12'	<10.0	<10.0	352
H8104-2	REMEDIAED BACKFILL	<10.0	49.0	256
H8104-3	10' NORTH WALL	<10.0	<10.0	176
H8104-4	10' SOUTH WALL	<10.0	<10.0	176
H8104-5	10' EAST WALL	<10.0	<10.0	96
H8104-6	15' WEST SAMPLE 1	<10.0	<10.0	256
H8104-7	15' WEST SAMPLE 2	<10.0	234	720
H8104-8	15' WEST SAMPLE 3	<10.0	576	688
H8104-9	15' WEST SAMPLE 4	<10.0	33.3	752
H8104-10	15' WEST SAMPLE 5	<10.0	<10.0	128
H8104-11	COMPOSITE OF 6-10	<10.0	350	496
Quality Control		761	816	976
True Value QC		800	800	1000
% Recovery		95.1	102	97.6
Relative Percent Difference		1.9	3.6	1.6

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; Cl: Std. Methods 4500-ClB

*Analyses performed on 1:4 w:v aqueous extracts.


Chemist


Date

H8104A.XLS

PLEASE NOTE: **Liability and Damages.** Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.



ARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

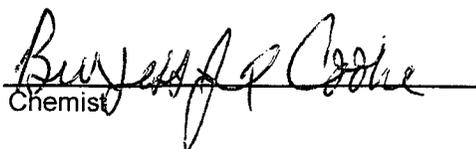
ANALYTICAL RESULTS FOR
RICE OPERATING CO.
ATTN: KRISTIN FARRIS
122 W. TAYLOR
HOBBS, NM 88240
FAX TO: (505) 397-1471

Receiving Date: 10/21/03
Reporting Date: 10/23/03
Project Number: NOT GIVEN
Project Name: EME T-5
Project Location: LEA CO., NM

Analysis Date: 10/21/03 & 10/22/03
Sampling Date: 10/20/03
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: BC

LAB NO.	SAMPLE ID	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
H8104-1	BOTTOM 12'	<0.005	<0.005	<0.005	<0.015
H8104-2	REMEDIAED BACKFILL	<0.005	<0.005	<0.005	<0.015
H8104-3	10' NORTH WALL	<0.005	<0.005	<0.005	<0.015
H8104-4	10' SOUTH WALL	<0.005	<0.005	<0.005	<0.015
H8104-5	10' EAST WALL	<0.005	<0.005	<0.005	<0.015
H8104-6	15' WEST SAMPLE 1	<0.005	<0.005	<0.005	<0.015
H8104-7	15' WEST SAMPLE 2	<0.005	<0.005	<0.005	<0.015
H8104-8	15' WEST SAMPLE 3	<0.005	0.008	<0.005	<0.015
H8104-9	15' WEST SAMPLE 4	<0.005	<0.005	<0.005	<0.015
H8104-10	15' WEST SAMPLE 5	<0.005	<0.005	<0.005	<0.015
H8104-11	COMPOSITE OF 6-10	<0.005	<0.005	<0.005	<0.015
Quality Control		0.107	0.099	0.094	0.276
True Value QC		0.100	0.100	0.100	0.300
% Recovery		107	99.3	93.9	92.2
Relative Percent Difference		6.1	0.6	6.6	8.5

METHOD: EPA SW-846 8260


Chemist

10/23/03
Date

PLEASE NOTE: **Liability and Damages.** Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.

H8104B2.XLS



CARDINAL LABORATORIES, INC.

2111 Beechwood, Abilene, TX 79603 101 East Marland, Hobbs, NM 88240
 (915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page of

ANALYSIS REQUEST

Company Name: Rice Operating Company
 Project Manager: Kristin Farris
 Address: 122 W Taylor
 City: Lasias State: NM Zip: 88240
 Phone #: 505-393-9174
 Fax #: 505-397-1471
 Project #: Project Owner:
 Project Name: EME T5
 Project Location:
 FOR LAB USE ONLY

LAB I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	ANALYSIS
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :			
AB104-1	BOTTOM 12'	C	1							10/20/03	11:11	TPH, 8015M
-2	REMEDIA TED BACKHILL	C	1							10/17/03	11:20	CHLORIDES
-3	10' NORTH WALL	C	1							10/20/03	10:15	BTEX
-4	10' SOUTH WALL	C	1							10/20/03	12:50	
-5	10' EAST WALL	C	1							10/20/03	12:15	
-6	15' WEST SPC #1	C	1							10/20/03	1:00	
-7	SPC #2	C	1							10/20/03	1:17	
-8	SPC #3	C	1							10/20/03	1:22	
-9	SPC #4	C	1							10/20/03	1:22	
-10	SPC #5	C	1							10/20/03	1:29	

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable services. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

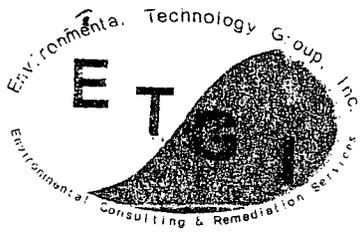
Sampler Relinquished: Date: 10-21-03 Time:
 Relinquished By:
 Received By: Date: 10-21-03 Time:
 Received By: (Lab Staff)

Delivered By: (Circle One) UPS - UPS - Bus - Other:
 Sample Condition: Cool Intact Yes No
 Checked By: (Initials)

Phone Result: Yes No Additional Fax #:
 Fax Result: Yes No
 REMARKS:

RECEIVED
 OCT 24 2003
 RICE OPERATING
 HOBBS, NM

* Cardinal cannot accept verbal changes. Please fax written changes to 915-673-7020.



ENVIRONMENTAL TECHNOLOGY GROUP, INC.

2540 WEST MARLAND

HOBBS, NEW MEXICO 88240

PHONE: (505) 397-4882 FAX: (505) 397-4701

VOC FIELD TEST REPORT FORM

MINI RAE PLUS CLASSIC PHOTOIONIZATION GAS DETECTOR

MODEL NO: PGM 761S

SERIAL NO: 103999

CALIBRATION GAS

GAS COMPOSITION: ISOBUTYLENE

100 PPM

AIR

BALANCE

LOT NO: 67401

FILL DATE: 10-20-03

EXP. DATE: 11/04

ACCURACY: 100ppm ± 2%

METER READING

ACCURACY: 100.8

SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE
<i>EME</i>	<i>T-5</i>	<i>T</i>	<i>5</i>	<i>215</i>	<i>36E</i>

SAMPLE	PID RESULT	SAMPLE	PID RESULT
<i>10' North</i>		<i>10' South</i>	
<i>Sample 1</i>	<i>3.4</i>	<i>Sample 1</i>	<i>0.0</i>
<i>Sample 2</i>	<i>0.0</i>	<i>Sample 2</i>	<i>0.0</i>
<i>Sample 3</i>	<i>0.0</i>	<i>Sample 3</i>	<i>0.0</i>
<i>Sample 4</i>	<i>0.0</i>	<i>Sample 4</i>	<i>0.0</i>
<i>Sample 5</i>	<i>0.0</i>	<i>Sample 5</i>	<i>0.0</i>
<i>10' East</i>		<i>15' West</i>	
<i>Sample 1</i>	<i>0.0</i>	<i>Sample 1</i>	<i>0.0</i>
<i>Sample 2</i>	<i>0.0</i>	<i>Sample 2</i>	<i>36.7</i>
<i>Sample 3</i>	<i>7.9</i>	<i>Sample 3</i>	<i>186</i>
<i>Sample 4</i>	<i>0.0</i>	<i>Sample 4</i>	<i>1.9</i>
<i>Sample 5</i>	<i>0.0</i>	<i>Sample 5</i>	<i>.1</i>

I certify that I have calibrated the above instrument in accordance to the manufacture operation manual.

Gary Stark

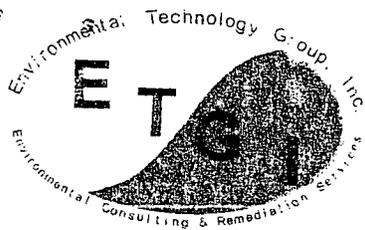
Signature

Field Tech

Title

10-20-03

Date



ENVIRONMENTAL TECHNOLOGY GROUP, INC.

2540 WEST MARLAND

HOBBS, NEW MEXICO 88240

PHONE: (505) 397-4882 FAX: (505) 397-4701

VOC FIELD TEST REPORT FORM

MINI RAE PLUS CLASSIC PHOTOIONIZATION GAS DETECTOR

MODEL NO: PGM 761S

SERIAL NO: 103999

CALIBRATION GAS

GAS COMPOSITION: ISOBUTYLENE

100 PPM

AIR

BALANCE

LOT NO: 67401

FILL DATE: _____

EXP. DATE: 11/04

ACCURACY: 100ppm ± 2%

METER READING

ACCURACY: 100.8

SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE
<u>EME</u>	<u>T-5</u>	<u>T</u>	<u>5th</u>	<u>015</u>	<u>36E</u>

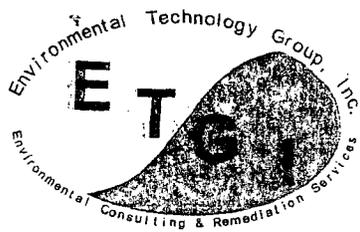
SAMPLE	PID RESULT	SAMPLE	PID RESULT
<u>Bottom 12</u>		<u>Bottom 13</u>	
<u>Sample 1</u>	<u>56.7</u>	<u>Sample 6</u>	<u>45.9</u>
<u>Sample 2</u>	<u>41.5</u>	<u>Sample 8</u>	<u>53.4</u>
<u>Sample 3</u>	<u>1296</u>		
<u>Sample 4</u>	<u>3.2</u>		
<u>Sample 5</u>	<u>.1</u>	<u>Bottom 14</u>	
		<u>Sample 7</u>	<u>3.5</u>

I certify that I have calibrated the above instrument in accordance to the manufacture operation manual.

[Signature]
Signature

Field Tech
Title

10.00.03
Date



ENVIRONMENTAL TECHNOLOGY GROUP, INC.

2540 WEST MARLAND

HOBBS, NEW MEXICO 88240

PHONE: (505) 397-4882 FAX: (505) 397-4701

VOC FIELD TEST REPORT FORM

MINI RAE PLUS CLASSIC PHOTOIONIZATION GAS DETECTOR

MODEL NO: PGM 761S

SERIAL NO: 103999

CALIBRATION GAS

GAS COMPOSITION: ISOBUTYLENE
AIR

100 PPM

BALANCE

LOT NO: 67401

FILL DATE: 10-14-03

EXP. DATE: 11104

ACCURACY: 100ppm ± 2%

METER READING

ACCURACY: 100.4

SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE
EME	T5	T	5	T215	R36E

Vertical 10' north 1' at center

SAMPLE	PID RESULT	SAMPLE	PID RESULT
12'	459		
13'	435		
14'	95.0		

I certify that I have calibrated the above instrument in accordance to the manufacture operation manual.

[Signature]

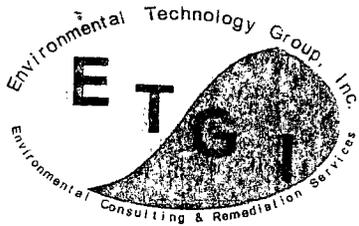
Signature

Field Tech

Title

10.14.03

Date



ENVIRONMENTAL TECHNOLOGY GROUP, INC.

2540 WEST MARLAND

HOBBS, NEW MEXICO 88240

PHONE: (505) 397-4882 FAX: (505) 397-4701

VOC FIELD TEST REPORT FORM

MINI RAE PLUS CLASSIC PHOTOIONIZATION GAS DETECTOR

MODEL NO: PGM 761S

SERIAL NO: 103999

CALIBRATION GAS

GAS COMPOSITION: ISOBUTYLENE

100 PPM

AIR

BALANCE

LOT NO: 62401

FILL DATE: 10-14-03

EXP. DATE: 11/04

ACCURACY: 100ppm ± 2%

METER READING

ACCURACY: 100.1

SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE
<u>EM5</u>	<u>T-5</u>	<u>7</u>	<u>5</u>	<u>T215</u>	<u>R36E</u>

Laterally 14' South 10' from center

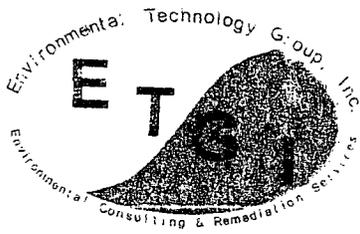
SAMPLE	PID RESULT	SAMPLE	PID RESULT
<u>12'</u>	<u>241</u>		
<u>13'</u>	<u>35.9</u>		
<u>14'</u>	<u>20.1</u>		

I certify that I have calibrated the above instrument in accordance to the manufacture operation manual.

[Signature]
Signature

Field Tech
Title

10-14-03
Date



ENVIRONMENTAL TECHNOLOGY GROUP, INC.

2540 WEST MARLAND

HOBBS, NEW MEXICO 88240

PHONE: (505) 397-4882 FAX: (505) 397-4701

VOC FIELD TEST REPORT FORM

MINI RAE PLUS CLASSIC PHOTOIONIZATION GAS DETECTOR

MODEL NO: PGM 761S

SERIAL NO: 103999

CALIBRATION GAS

GAS COMPOSITION: ISOBUTYLENE

100 PPM

AIR

BALANCE

LOT NO: 67401

FILL DATE: 10-16-03

EXP. DATE: 11-04

ACCURACY: 100ppm ± 2%

METER READING

ACCURACY: 100.3

SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE
<u>EME</u>	<u>T-5</u>	<u>T</u>	<u>5</u>	<u>21</u>	<u>36</u>

Lateral 14 North 10' from center

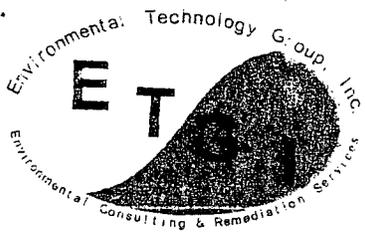
SAMPLE	PID RESULT	SAMPLE	PID RESULT
<u>12'</u>	<u>10.5</u>		
<u>13'</u>	<u>170</u>		
<u>14'</u>	<u>27.4</u>		

I certify that I have calibrated the above instrument in accordance to the manufacture operation manual.

[Signature]
Signature

Field Tech
Title

10-16-03
Date



ENVIRONMENTAL TECHNOLOGY GROUP, INC.

2540 WEST MARLAND

HOBBS, NEW MEXICO 88240

PHONE: (505) 397-4882 FAX: (505) 397-4701

VOC FIELD TEST REPORT FORM

MINI RAE PLUS CLASSIC PHOTOIONIZATION GAS DETECTOR

MODEL NO: PGM 761S

SERIAL NO: 103999

CALIBRATION GAS

GAS COMPOSITION: ISOBUTYLENE

100 PPM

AIR

BALANCE

LOT NO: 67401

FILL DATE: 10-16-03

EXP. DATE: 11/04

ACCURACY: 100ppm ± 2%

METER READING

ACCURACY: 100.1

SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE
EME	7-5	T	5	21	36

Laterally 14' west 10' from center

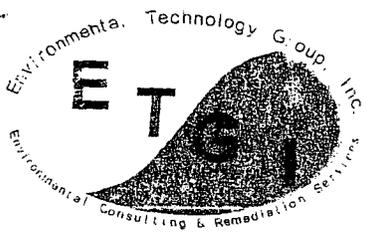
SAMPLE	PID RESULT	SAMPLE	PID RESULT
12'	457		
13'	327		
14'	158		

I certify that I have calibrated the above instrument in accordance to the manufacture operation manual.

[Signature]
Signature

[Title]
Title

10-23-03
Date



ENVIRONMENTAL TECHNOLOGY GROUP, INC.

2540 WEST MARLAND

HOBBS, NEW MEXICO 88240

PHONE: (505) 397-4882 FAX: (505) 397-4701

VOC FIELD TEST REPORT FORM

MINI RAE PLUS CLASSIC PHOTOIONIZATION GAS DETECTOR

MODEL NO: PGM 761S

SERIAL NO: 103999

CALIBRATION GAS

GAS COMPOSITION: ISOBUTYLENE

100 PPM

AIR

BALANCE

LOT NO: 67401

FILL DATE: 10-17-03

EXP. DATE: 11/24

ACCURACY: 100ppm ± 2%

METER READING

ACCURACY: 100.8

SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE
EME	T-5	T	5	21	36

Composite sample 20x20x12

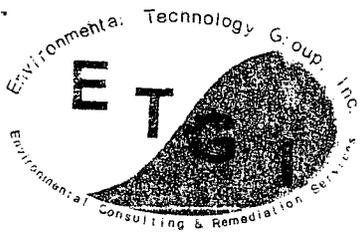
SAMPLE	PID RESULT	SAMPLE	PID RESULT
Bottom 12'	243		
4 Well	22.4		
Remediated well	116		
N.W. LL 10'	2.4		
S.W. LL 10'	2.9		
W. LL 10'	116		
S.W. LL 10'	17.5		

I certify that I have calibrated the above instrument in accordance to the manufacture operation manual.

[Signature]
Signature

Field Tech
Title

10-17-03
Date



ENVIRONMENTAL TECHNOLOGY GROUP, INC.

2540 WEST MARLAND

HOBBS, NEW MEXICO 88240

PHONE: (505) 397-4882 FAX: (505) 397-4701

VOC FIELD TEST REPORT FORM

MINI RAE PLUS CLASSIC PHOTOIONIZATION GAS DETECTOR

MODEL NO: PGM 761S

SERIAL NO: 103999

CALIBRATION GAS

GAS COMPOSITION: ISOBUTYLENE

100 PPM

AIR

BALANCE

LOT NO: 67401

FILL DATE: 10-17-03

EXP. DATE: 11-10-04

ACCURACY: 100ppm ± 2%

METER READING

ACCURACY: 100.4

SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE
EME	T-5	T	5	21	36

Lateral dig 14' west 15'

SAMPLE	PID RESULT	SAMPLE	PID RESULT
12'	508		
13'	369		
14'	246		

I certify that I have calibrated the above instrument in accordance to the manufacture operation manual.

[Signature]
Signature

Field Tech
Title

10-17-03
Date