

1R - 427 - 142

REPORTS

DATE:

7-26-04

EME 0-35 South

1R0427-142

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	O-35 South	O	35	20S	36E	Lea	Moved 200 ft Northeast (outside battery)		

LAND TYPE: BLM _____ STATE _____ FEE LANDOWNER Tuffy Cooper OTHER _____

Depth to Groundwater 122 feet NMOCD SITE ASSESSMENT RANKING SCORE: 0

Date Started 3/22/2004 Date Completed 6/1/2004 OCD Witness No

Soil Excavated 13 cubic yards Excavation Length 10 Width 3 Depth 12 feet

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

FINAL ANALYTICAL RESULTS: Sample Date 3/22/2004, 6/1/2004 Sample Depth 12 ft

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

CHLORIDE FIELD TESTS

Sample Location	PID ppm	GRO mg/kg	DRO mg/kg	Chloride mg/kg
VERTICAL @ 12 ft	0.0	<10.0	<10.0	1070
33 ft East @ 12 ft (background)	XXX	<10.0	<10.0	128
SOIL BORE @ 38 ft	1.6	<10.0	<10.0	176

LOCATION	DEPTH (ft)	ppm
Vertical	5	147
at box	6	285
	7	318
	8	273
	9	699
	10	554
	11	936
	12	968
	13	1147
	14	876
Soil bore	15	626
at box	20	654
	21	652
	26	600
	31	300
	36	184
	37	184
	38	161

General Description of Remedial Action: This was the South box of 2 that were located inside an active production facility. Vertical delineation was conducted with a backhoe while chloride field tests were performed every foot. Chloride concentrations to 14 ft exhibited an ambiguous trend which warranted further investigation. A soil bore was initiated on 6/1/2004 and advanced to a depth of 38 ft where a conclusive trend of decline in chloride concentrations was observed (see graph). Some moisture was encountered around 33 ft so a bentonite plug was placed in the bore hole from 33-38 ft, as well as at the surface to 3 ft BGS. Chloride left in place at this site is not threatening to groundwater at 122 ft BGS. All PID field screening results were minimal and lab analysis confirmed TPH concentrations well below NMOCD guidelines. All excavations were backfilled and contoured to the surrounding surface. A new watertight junction box has been built outside the battery approximately 200 ft Northeast of this box.

enclosures: chloride graph, photos, lab results, PID field screenings, soil bore log, diagram

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

SITE SUPERVISOR Joe Gatts SIGNATURE *Joe Gatts* COMPANY RICE Operating Company

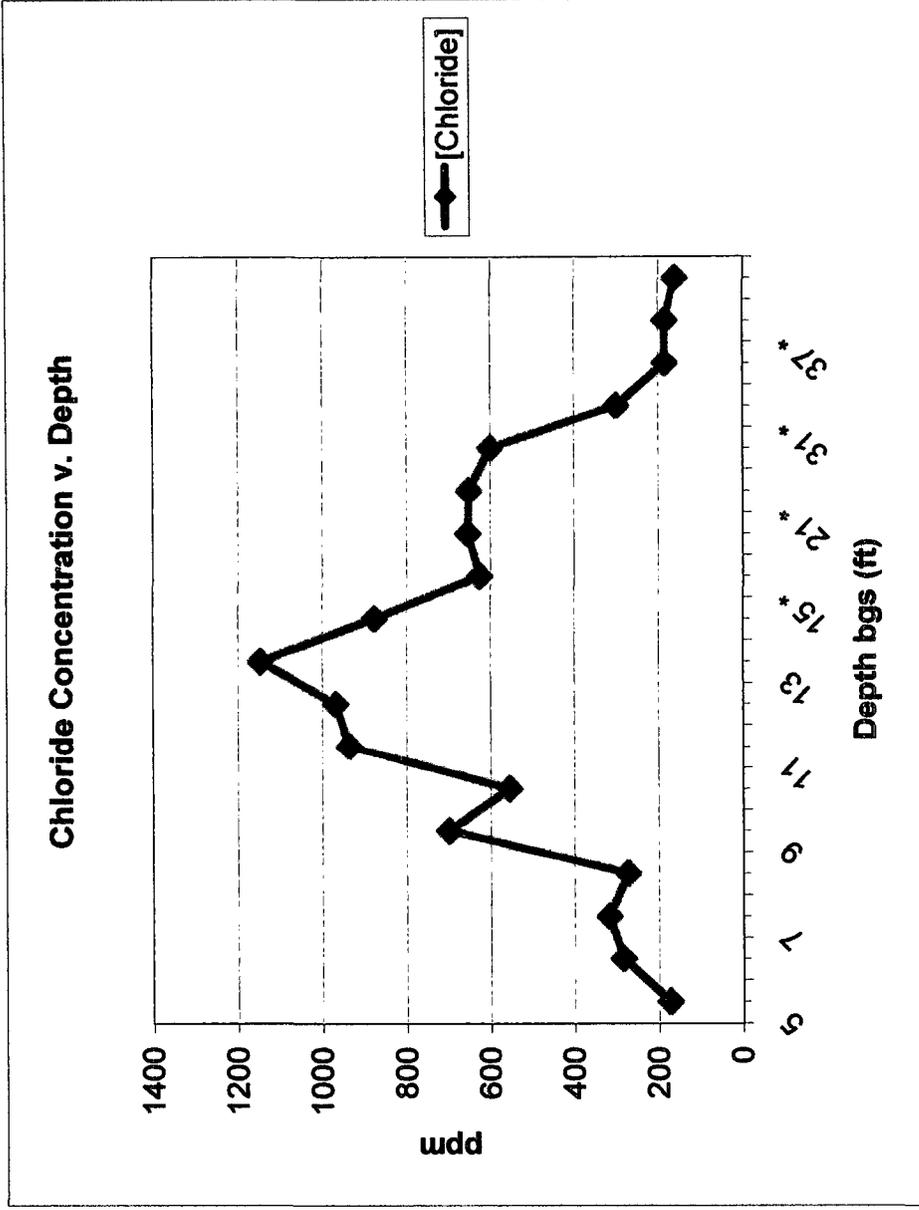
REPORT ASSEMBLED BY Kristin Farris Pope SIGNATURE *Kristin Farris Pope*

DATE 7/26/2004 TITLE Project Scientist

EME jct. O-35 South
T20S, R36E

Vertical Delineation at Source

Depth bgs (ft)	[Cl] ppm
5	174
6	285
7	318
8	273
9	699
10	554
11	936
12	968
13	1147
14	876
15 *	626
20 *	654
21 *	652
26 *	600
31 *	300
36 *	184
37 *	184
38 *	161



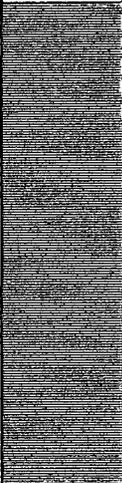
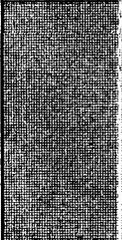
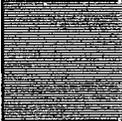
* Soil bore samples

Groundwater = 122 ft

LOG OF BORING

K. Farris
RICE Operating Company

Logger:	Israel Juarez; Mort Bates	Client:	SB-1
Driller:	Atkins Engineering Associates, Inc.	RICE Operating Company	
Drilling Method:	Hollow Stem Auger	Project Name:	
Start Date:	6/1/2004	jct. O-35 South	
End Date:	6/1/2004	Location:	
Notes:	Bored at the site of the O-35 South box TD = 38 ft Groundwater = 122 ft		
		EME SWD System Sec. 35, T20S, R36E Lea County, NM	

Depth (feet)	Split Spoon		Description	Lithology	Additional Notes			
	chloride	PID						
0.0			0-15 ft Clayey Sand w/Caliche: loose, tan dry		0-3 ft hydrated bentonite plug			
2.0								
4.0								
6.0								
8.0								
10.0								
12.0								
14.0								
16.0	626	4.0				15-23 ft Caliche: firm, white, dry		remainder of bore backfilled with drill cuttings
18.0								
20.0								
22.0	652	1.8						
24.0								
26.0								
26.0	600	1.7				23-27 Clayey Sand w/Caliche: firm, tan, dry		
28.0								
30.0								
30.0	300	1.2	27-30 ft Clayey Sand: loose, tan, dry					
32.0								
34.0			30-38 ft Silty Sand: loose, tan, damp		33-38 ft hydrated bentonite plug			
36.0								
36.0	184	1.9						
36.0	184	1.4						
38.0	161	1.6						

lab = 176 ppm Cl

EME jet. O-35 North & South

Unit 'O', Sec. 35, T20S, R36E

*** NOT TO SCALE ***



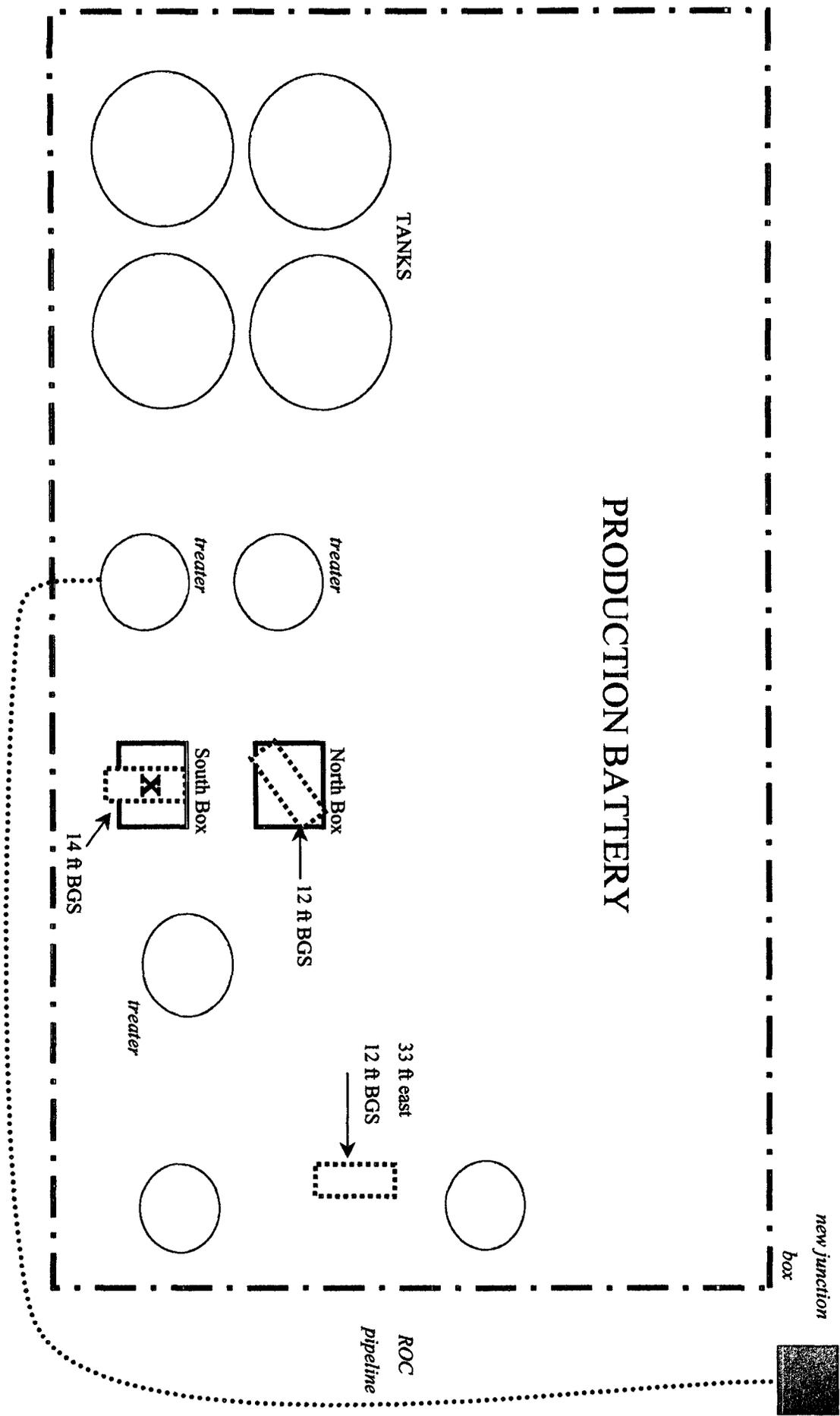
= Excavation trench



= Soil Bore Location

LEASE ROAD

PRODUCTION BATTERY



EME jct. O-35 South Box



Boxes inside battery (looking SW); South box on left 12/30/02



Vertical delineation with backhoe 3/22/04



Construction of new junction box 200 ft NE 9/26/03

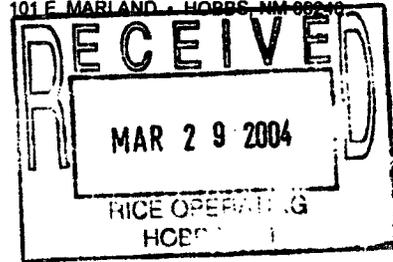


Soil bore at south box 6/1/04



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: 03/22/04
 Reporting Date: 03/23/04
 Project Number: NOT GIVEN
 Project Name: JCT. O-35
 Project Location: EME

Sampling Date: 03/22/04
 Sample Type: SOIL
 Sample Condition: COOL & INTACT
 Sample Received By: BC
 Analyzed By: BC/AH

LAB NO.	SAMPLE ID	GRO	DRO	Cl*
		(C ₈ -C ₁₀) (mg/Kg)	(>C ₁₀ -C ₂₈) (mg/Kg)	
	ANALYSIS DATE	03/22/04	03/22/04	03/23/04
H8550-1	NORTH BOX 12' BGS	<10.0	<10.0	160
H8550-2	SOUTH BOX 12' BGS	<10.0	<10.0	1070
H8550-3	33' EAST OF N. BOX 12' BGS	<10.0	<10.0	128
	Quality Control	843	835	980
	True Value QC	800	800	1000
	% Recovery	105	104	98.0
	Relative Percent Difference	5.6	1.1	2.0

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; Cl: Std. Methods 4500-Cl'B
 *Analyses performed on 1:4 w:v aqueous extracts.

Bryan J. Cook
 Chemist

3/23/04
 Date

H8550.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.



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

Company Name: RICE Operating		P.O. #:		BILLED		ANALYSIS REQUEST											
Project Manager: Kristin Farris		Company:															
Address: 122 W. Taylor		City:		State:		Zip:		Phone #:		Fax #:		Project Owner:		Project #:			
City: Hobbs		State: NM		Zip: 88240		Phone #:		Fax #:		Project Name:		Project Location:		Sampler Name:			
Phone #: (505) 393-9174		Fax #: (505) 397-1471		Project Name:		Project Location:		Sampler Name:		Project #:		Project Name:		Project Location:			
Project #:		Project Name:		Project Location:		Sampler Name:		Project #:		Project Name:		Project Location:		Sampler Name:			
Project Name: Jct. 0-35		Project Location: EME		Sampler Name: K. Farris		Project #:		Project Name:		Project Location:		Sampler Name:		Project #:			
Project Location: EME		Sampler Name: K. Farris		Project #:		Project Name:		Project Location:		Sampler Name:		Project #:		Project Name:			
Sampler Name: K. Farris		Project #:		Project Name:		Project Location:		Sampler Name:		Project #:		Project Name:		Project Location:			
FOR LAB USE ONLY		Project #:		Project Name:		Project Location:		Sampler Name:		Project #:		Project Name:		Project Location:			
Lab I.D. Sample I.D.		Project #:		Project Name:		Project Location:		Sampler Name:		Project #:		Project Name:		Project Location:			
N8550-1 North Box 12' bgs		Project #:		Project Name:		Project Location:		Sampler Name:		Project #:		Project Name:		Project Location:			
-2 South Box 14' bgs		Project #:		Project Name:		Project Location:		Sampler Name:		Project #:		Project Name:		Project Location:			
-3 33' East of North Box 12' bgs		Project #:		Project Name:		Project Location:		Sampler Name:		Project #:		Project Name:		Project Location:			

LAB NOTE: Utility and Demco's. Cardinal's liability and client's satisfaction remedy for any chain custody whether caused by container or form, shall be limited to the amount paid by the client for the analysis. 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 analysis. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruption, 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 claims are based upon any of the above stated reasons or otherwise.

Terms and Conditions: Incent will be charged on all accounts more than 30 days past due at the rate of 2.5% per annum from the original date of invoice, and all costs of collection, including attorney's fee.

Received By: Kristin Farris	Date: 04/22/03	Time: 4:30	Received By: (Lab Staff)	Date:	Time:
Delivered By: (Circle One) Joe. Roth	Delivered By: Kristin Farris	Checked By: Kristin Farris	Sample Condition:	Checked By: Kristin Farris	Checked By: Kristin Farris
Sampler - UPS - Bus - Other:	Sampler - UPS - Bus - Other:	Sampler - UPS - Bus - Other:	Sampler - UPS - Bus - Other:	Sampler - UPS - Bus - Other:	Sampler - UPS - Bus - Other:

Phone Result: Yes No Add'l Phone #:
 Fax Result: Yes No Add'l Fax #:

REMARKS:

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476.

SOIL BORE



**ARDINAL
LABORATORIES**

PHONE (325) 873-7001 • 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: 06/03/04
Reporting Date: 06/03/04
Project Number: NOT GIVEN
Project Name: EME JCT O-35 @ 38'
Project Location: NOT GIVEN

Sampling Date: 06/01/04
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: BC/AH

LAB NO.	SAMPLE ID	GRO (C ₈ -C ₁₀) (mg/Kg)	DRO (>C ₁₀ -C ₂₈) (mg/Kg)	Cl* (mg/Kg)
	ANALYSIS DATE	06/03/04	06/03/04	06/03/04
H8780-1	EME JCT O-35 @ 38'	<10.0	<10.0	176
	Quality Control	790	785	950
	True Value QC	800	800	1000
	% Recovery	98.8	98.2	95.0
	Relative Percent Difference	0.9	7.2	6.0

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

*Analysis performed on a 1:4 w:v aqueous extract.

Burgess A. Cash
Chemist

6/3/04
Date

H8780.XLS

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RICE OPERATING COMPANY
 122 WEST TAYLOR
 HOBBS, NEW MEXICO 88240
 PHONE: (505) 393-9174 FAX: (505) 397-1471
VOC FIELD TEST REPORT FORM
 MINI RAE PLUS CLASSIC PHOTOIONIZATION GAS DETECTOR

MODEL NO: PGM 761S
 CALIBRATION GAS
 GAS COMPOSITION: ISOBUTYLENE
 AIR
 LOT NO: 02-22-30
 EXP. DATE: 11/20/04
 METER READING
 ACCURACY: 99.8

SERIAL NO: 104412
 100 PPM
 BALANCE
 FILL DATE: 5/20/03
 ACCURACY: + or - 2%

SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE
EME	0-35	0	75	T205	R36E

SAMPLE	PID RESULT	SAMPLE	PID RESULT
N. Box 5' bsp	194	S. Box 10' bsp	0
N. Box 6' bsp	144	S. Box 11' bsp	0
N. Box 7' bsp	31	S. Box 12' bsp	0
N. Box 8' bsp	17	S. Box 13' bsp	0
N. Box 9' bsp	0	S. Box 14' bsp	0
N. Box 10' bsp	0		
N. Box 11' bsp	0		
N. Box 12' bsp	0		
S. Box 5' bsp	147		
S. Box 6' bsp	120		
S. Box 7' bsp	55		
S. Box 8' bsp	15		
S. Box 9' bsp	0		

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


 Signature

3/22/04
 Date