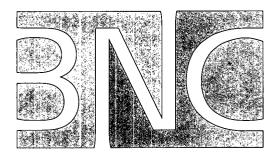


REPORTS

YEAR(S): 2003



BNC Environmental Services, Inc.

SOIL ASSESSMENT AND CLOSURE REPORT

DUKE ENERGY FIELD SERVICES, L.P. CP-1 COMPRESSOR STATION (GW-139) EDDY COUNTY, NEW MEXICO

BNC Job No. 1019

October 2, 2003



AUSTIN | DALLAS | HOUSTON | MIDLAND

BNC Environmental Services, Inc. BNC Engineering, LLC

SOIL ASSESSMENT AND CLOSURE REPORT

DUKE ENERGY FIELD SERVICES, L.P. CP-1 COMPRESSOR STATION (GW-139) EDDY COUNTY, NEW MEXICO

PREPARED FOR:

Mr. Steve Weathers **DUKE ENERGY FIELD SERVICES, L.P.** 370 17th Street, Ste. 900 Denver, Colorado 80202

PREPARED BY:

BNC Environmental Services, Inc. 2135 S Loop 250 West Midland, Texas 79703

Aaron M. Hale, Project Geologist

Thomas C. Larson, Senior Geologist

3602 Garden City Highway Midland, Texas 79706 915.686.0086 fax 915.686.0186 Mailing; PO Box 1271 Midland, Texas 79702

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INTRODUCTION

BNC Environmental Services, Inc. (BNC) has prepared this Soil Assessment and Closure Report on behalf of Duke Energy Field Services (DEFS). This report summarizes closure activities performed at the DEFS CP-1 compressor station located south of Highway 31, approximately 1.25 miles northeast of Loving in Eddy County, New Mexico. DEFS formerly operated a natural gas compressor on the site. DEFS notified the NMOCD in January 2003 of their intent not to renew their discharge permit (GW-139) for this compressor. The New Mexico Oil Conservation Division (NMOCD) requested that a closure workplan be submitted before the discharge permit expired in April, 2003. A closure workplan was prepared by BNC, submitted to the NMOCD and subsequently approved on April 28, 2003.

DEFS and BNC implemented the NMOCD approved site closure workplan in June, 2003. Site activities were conducted from June thru August, 2003. All soil assessment and closure activities were conducted in accordance with NMOCD guidelines and the BNC closure workplan.

BNC, on behalf of DEFS, respectfully requests written acknowledgement from the NMOCD regarding approved closure activities performed at this site.

i

SECTION I

PROJECT BACKGROUND

The site is located south of Highway 31, approximately 1.25 miles northeast of Loving in Eddy County, New Mexico (FIGURE 1). The site is known as the CP-1 Compressor Station. The legal description of the referenced property is NE ¼ of SE ¼ of Section 15, Township 23 South, Range 28 East. Site coordinates are Latitude 32° 18.254' N, Longitude 104° 4.099' W. The compressor pad is adjacent to the Bird Creek Resources Inc., Caviness-Payne No. 1 lease.

DEFS submitted a letter to the NMOCD on January 7, 2003 informing the NMOCD of their intent not to renew the discharge permit (GW-139) for the CP-1 Compressor Station. The NMOCD sent a letter reply on January 13, 2003 requesting a closure workplan. The NMOCD requested the closure workplan be submitted for review prior to the April 28, 2003 expiration of the discharge permit.

BNC performed a site visit on April 3, 2002 to document existing site conditions. The site contained a built up compressor pad and associated piping (PICTURE 1). The dimensions of the caliche and gravel compressor pad were approximately 25 feet by 50 feet by 1 foot (above grade). All DEFS electrical equipment starting at the local electric company's electric meter has been removed for salvage. DEFS has also removed the engine oil AST and the associated secondary containment equipment.

BNC prepared a closure workplan based on the NMOCD document "Guidelines for Remediation of Leaks, Spills and Releases" dated August 13, 1993. This closure was submitted to the NMOCD on April 11, 2003 and subsequently approved by the NMOCD in a letter reply on April 28, 2003 (APPENDIX A). A site chronology is presented in APPENDIX B.

SECTION II REGULATORY FRAMEWORK AND SITE RANKING

The NMOCD has regulatory jurisdiction over oil and gas production operations, including discharge permits and associated closure activities in the State of New Mexico. This project is being conducted under the regulatory guidance of the NMOCD, which requires that hydrocarbon-affected soils be remediated in such a manner that the potential for future affects to groundwater or the environment are minimized. The NMOCD clean up levels are determined on a site-by-site basis, and are based on ranking criteria, which is outlined in the NMOCD "Guidelines for Remediation of Spills, Leaks, and Releases", dated August 13, 1993. These ranking criteria guidelines are based on site characteristics consisting of: depth to groundwater, wellhead protection (useable water sources), and distance to surface water.

There are currently no monitor wells or water wells on the site to determine an exact depth to groundwater. BNC reviewed the New Mexico Office of the State Engineer and the Interstate Stream Commission document "New Mexico Water Resource Atlas" dated December 2002. Plate 12.2 of this document shows the site is situated between the groundwater elevation contours 2,900 and 3,000 feet above sea level. For site ranking purposes, the groundwater elevation at the site is assumed to be 2,950 feet above sea level. The surface elevation of the site is approximately 3,005 feet above sea level. The estimated depth to groundwater based on the above information is 55 feet below ground surface.

The compressor site is located within the confines of the Bird Creek Resources CP-1 crude oil well lease. The land surface within the area of the lease is relatively flat and covered by bermed AST tank pads and hardened caliche roads/parking areas. In general, adjacent properties are relatively flat with a low relief, hilly, sandy and dry topography. The Pecos River is the closest surface water to the site. The Pecos River is located approximately 4,000 feet northeast of the compressor site. Oil wells are present in the overall adjacent area. Wellhead protection areas appear to be greater than 1,000 feet from the release site.

•		
Criteria	Site Characteristics	Ranking Score
Depth to Ground Water	50-99 feet	10
Wellhead Protection Area	>1,000 feet	0

>1,000 feet Total Ranking Score

The table below illustrates the ranking criteria, used by the NMOCD and includes site specific characteristics at the CP-1 Compressor Station site.

Based on the CP-1 Compressor Station site characteristics and the "Guidelines for
Remediation of Spills, Leaks and Releases" the site has a ranking score of 10.
Consequently the ranking criteria clean-up levels of 10 mg/Kg Benzene, 50 mg/Kg total
BTEX, and 1,000 mg/Kg TPH are established for remediation activities at the site.

2

Distance to Surface Water

0 0

SECTION III

DEFS mobilized June 11, 2003 to the site with a backhoe and removed the ancillary piping associated with the former compressor and stockpiled the compressor pad material adjacent to the former compressor pad location (FIGURE 2 and PICTURE 2).

Confirmation Sampling

BNC conducted soil confirmation sampling on July 8, 2003. BNC contacted Mr. Mike Stubblefield of the NMOCD two days in advance of this soil collection event. Mr. Stubblefield was onsite to witness sample collection activities. Two grab soil samples (North Pad and South Pad) were collected from the ground surface in the area where the pad was located (FIGURE 3) and submitted to TraceAnalysis, Inc. of Lubbock, Texas for BTEX by EPA Method 8021B and Total Petroleum Hydrocarbon (TPH) by EPA Method 8015 Modified.

Analytical results indicated that both soil confirmation soil samples were below detection levels for BTEX and the diesel range organic (DRO) range of TPH. Total TPH (GRO – DRO) concentrations were below regulatory cleanup levels in both samples (TABLE I). Copies of the certified analytical reports and chain-of-custody documentation are attached in APPENDIX C.

Stockpiled Soils

The stockpiled compressor pad material was placed adjacent to the location of the former compressor pad. Approximately 20 yards of pad material was stockpiled. A composite sample was taken from the stockpile for waste characterization. This sample was submitted to TraceAnalysis for BTEX and TPH analysis.

Analytical results indicated the composite soil sample collected from the soil stockpile were below detection levels for BTEX and DRO TPH. Total TPH (GRO – DRO) concentration was below regulatory cleanup levels in the sample (TABLE 1). Copies of the certified analytical reports and chain-of-custody documentation are attached in APPENDIX C.

Field Sampling and Laboratory Protocol

Soil samples were obtained by personnel utilizing appropriate sampling tools and wearing clean, disposable gloves. Each sample selected for laboratory analysis was placed in a new sterile glass container equipped with a teflon-lined lid furnished by the analytical laboratory. The containers were filled to capacity with soil, limiting the amount of head-space present. Soil samples obtained from the remedial excavation and from the excavated spoils piles were submitted to TraceAnalysis, Inc. in Lubbock, Texas (TraceAnalysis) for analysis. Each container was immediately labeled, placed on ice in an insulated cooler, and chilled to a temperature of approximately 40°F (4°C). The cooler was sealed for shipment to the laboratory. Proper chain of custody documentation accompanied the samples to the laboratory.

The laboratory was responsible for proper analytical QA/QC procedures. These procedures are generally transmitted with the laboratory reports or are on file at the laboratory. Soil samples obtained from the remedial excavation were analyzed for TPH by EPA Modified Method 8015B (DRO-GRO) and for BTEX by EPA Method 8021B. Soil samples were analyzed within 14 days of their collection.





Site Restoration

DEFS and BNC mobilized to the site on August 26, 2003. A backhoe was utilized to spread the former compressor pad material onsite. No evidence of the compressor pad currently exists at this location (PICTURE 3).

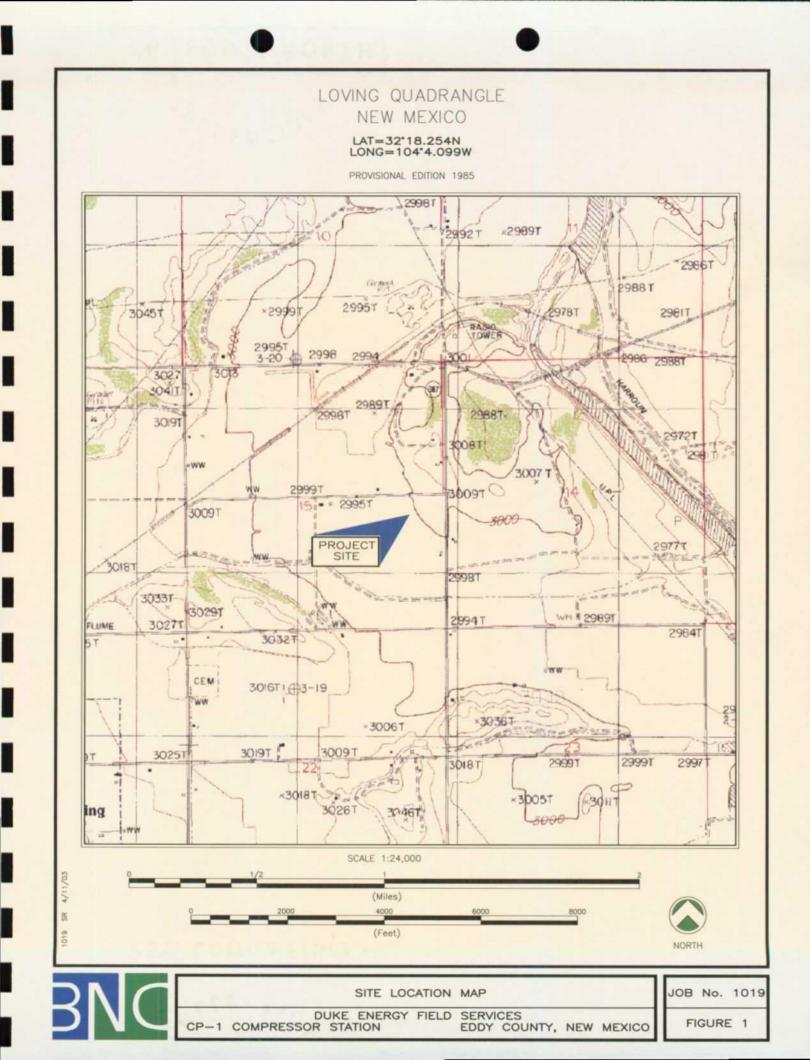
SECTION IV

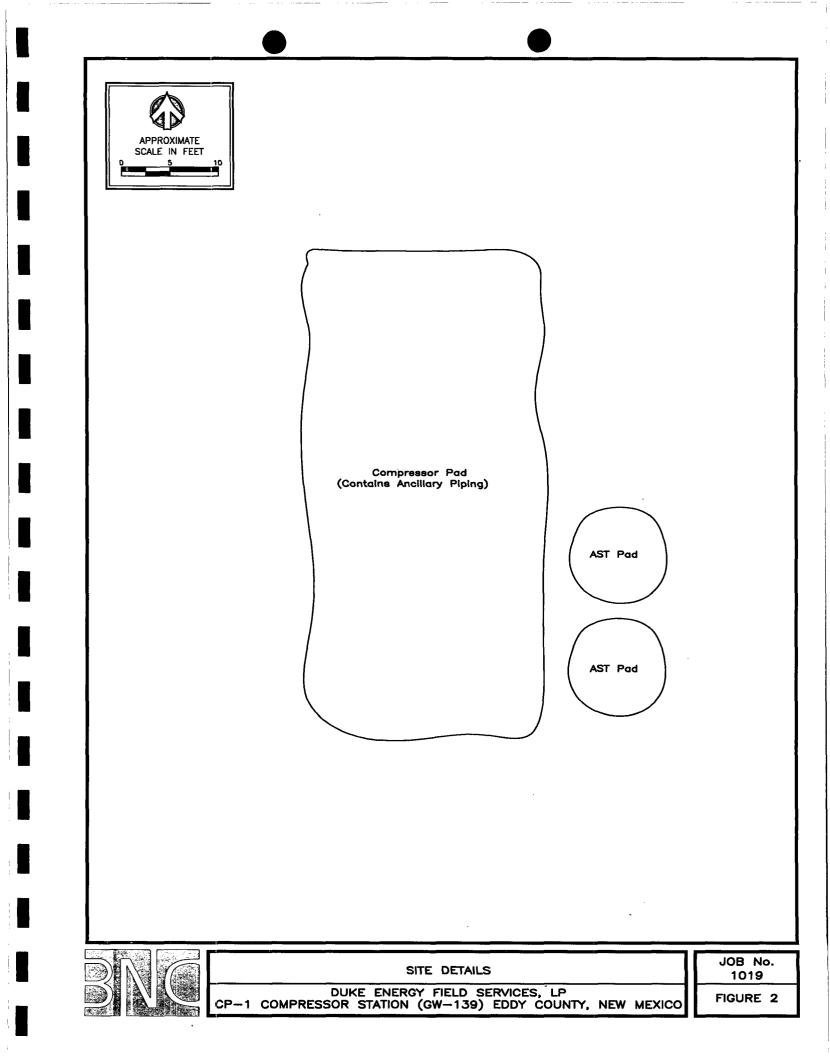
SUMMARY OF FINDINGS

Based on soil assessment and remediation activities performed to date, BNC presents the following summary of findings:

- All soil samples submitted for laboratory analysis were below NMOCD regulatory cleanup levels for BTEX and TPH. Sampling activities were witnessed by NMOCD personnel.
- All compressor pad equipment and ancillary piping were removed from the site to be recycled at other DEFS facilities.
- Hydrocarbon impacts were minimal.
- All site closure activities were performed in accordance with the NMOCD approved closure workplan prepared by BNC on April 11, 2003.

The results of the soil assessment and closure activities indicate that the former compressor pad site is eligible for NMOCD closure under the regulatory guidance of the NMOCD document "Guidelines for Remediation of Spills, Leaks, and Releases." No further action is recommended for this site. BNC, on behalf of DEFS, request written acknowledgement from the NMOCD concerning approved closure activities performed at this site.





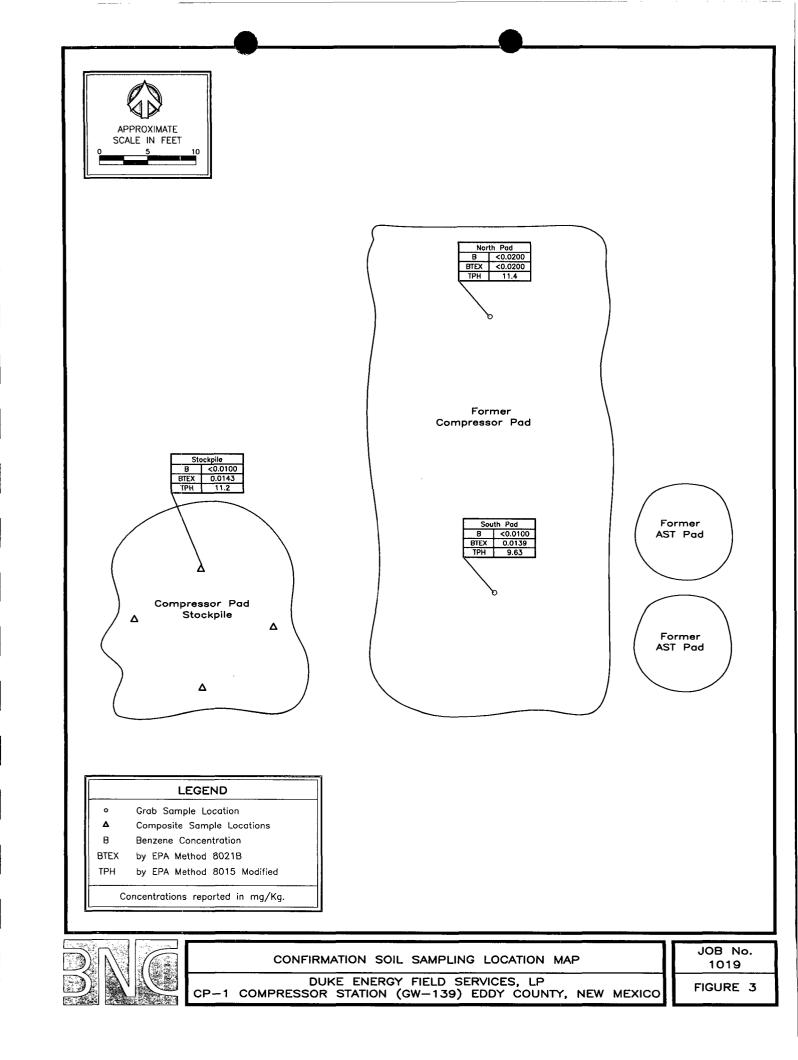


TABLE I

SUMMARY OF SOIL ANALYTICAL DATA – BTEX/TPH DUKE ENERGY FIELD SERVICES, LP CP-1 COMPRESSOR STATION (GW-139) EDDY COUNTY, NEW MEXICO

		DEPTH or			ETHYL-		TOTAL	TPH (8015 Modified)		
SAMPLE	PLE DATE TYPE BENZENE TOLUENE BENZENE	XYLENES	BTEX	TPH DRO	TPH GRO	TPH (GRO/DRO)				
ID		(feet)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
Nev	v Mexico Oil	Conservati	on Division	Recommen	ded Remed	liation Acti	on Levels (Total Rank	ing Score 1	0)
			10	-			50.0			1,000
			mg/Kg				mg/Kg			mg/Kg
				Pad Confi	rmation Sam	ples		16 B Maint		
	7/8/2003	surface	< 0.0200	< 0.0200	<0.0200	< 0.0200	<0.0200	<50.0	11.4	11.4
North Pad	11012003	ounace	10.02.00							
North Pad South Pad	7/8/2003	surface	<0.0100	0.0139	< 0.0100	< 0.0100	0.0139	<50.0	9.63	9.63
A DESIGNATION STATE	100000000000000000000000000000000000000	A REAL PROPERTY.		0.0139		<0.0100		<50.0	9.63	

Notes:

BTEX analysis by EPA Method 8021.

TPH analysis by EPA Method 8015 Modified.

DUKE ENERGY FIELD SERVICES CP-1 Compressor Station Eddy County, New Mexico



Picture 1. CP-1 Compressor pad prior to demolition.

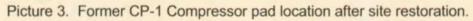


Picture 2. CP-1 Compressor pad after demolition.



DUKE ENERGY FIELD SERVICES CP-1 Compressor Station Eddy County, New Mexico









NEW MEXICO ENERGY, MILERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON Governor Joanna Prukop Cabinet Secretary

April 28, 2003

Lori Wrotenbery Director Oil Conservation Division

Mr. Stephen Weathers Duke Energy Field Services P.O. Box 5493 Denver, Colorado 80217

RE: Closure Work Plan C-1 Compressor Station Duke Energy Field Services Eddy County, New Mexico

Dear Mr. Weathers:

The New Mexico Oil Conservation Division (OCD) received the Closure Plan for the C-1 Compressor Station located in NE/4 SE/4 of Section 15, Township 23 South, Range 28 East, NMPM, Eddy County, New Mexico. The workplan, dated April 11, 2003, was submitted by your consultant, BNC Environmental Services, Inc. on behalf of Duke Energy Field Services. The Closure plan is hereby approved, with the following conditions:

- A notification will be provided to Mr. Stubblefield at least 48 hours prior to commencement of work.
- All of the items listed in the workplan, dated April 11, 2003, from BNC Environmental Services, Inc. on behalf of Duke Energy Field Services shall be adhered with during the closure process.
- Upon completion of the project a final report for the closure of the C-1 Compressor Station shall be submitted to the Santa Fe OCD office for approval within 30 days of final closure.

Note, that OCD approval does not limit Duke Energy Field Services to the work proposed should it later be found that contamination exists which is beyond the scope of this plan, or if Duke Energy Field Services has failed to completely define the extent of contamination. In addition, OCD approval does not relieve Duke Energy Field Services of responsibility for compliance with any other Federal, State, or other Local Laws and Regulations. Mr. Stephen Weathers Duke Energy Field Services April 28, 2003 Page 2

If you have any questions regarding this matter feel free to call me at (505)-476-3489.

Sincerely,

W. Jack Ford, C.P.G. Environmental Engineer Environmental Bureau, OCD

cc: OCD Artesia District Office Mr. Thomas C. Larson, BNC Environmental Services, Inc.

SITE CHRONOLOGY DUKE ENERGY FIELD SERVICES CP-1 COMPRESSOR STATION (GW-139) Eddy County, New Mexico

January 7, 2003	Duke Energy Field Services (DEFS) informs the New Mexico Oil Conservation Division (NMOCD) in writing of their intent not to renew the discharge permit for this facility.
January 13, 2003	The NMOCD requests that DEFS provide a closure workplan be submitted prior to the April 28, 2003 expiration of the discharge permit
April 3, 2003	BNC Environmental Services, Inc. (BNC) employee meets with DEFS personnel at the site to evaluate current conditions to develop a suitable closure workplan to satisfy NMOCD regulations.
April 11, 2003	BNC submits the closure workplan to DEFS for submittal to the NMOCD.
April 28, 2003	NMOCD approves the closure workplan.
May 13, 2003	BNC submits a cost estimate to DEFS to implement the NMOCD approved closure workplan.
May 20, 2003	DEFS authorizes BNC to proceed with the field activities in the closure workplan.
May 21, 2003	BNC stakes the work area and notifies the New Mexico One Call utility location service.
June 11, 2003	DEFS removes the ancillary piping and stockpiles the compressor pad material adjacent to the former compressor pad location.
July 8, 2003	BNC collects compressor pad confirmation samples and stockpile characterization sample.
July 11, 2003	All soil samples reported below NMOCD action levels. DEFS intends to spread soils onsite.
August 26, 2003	DEFS spreads the stockpile on the former location of the compressor station.

Report Date: July 11, 2003 1019

Work Order: 3070916 CP-1

Summary Report

Aaron Hale BNC Midland 2135 South Loop 250 West Midland, TX 79703 Report Date: July 11, 2003

Work Order: 3070916

Project Location: Loving,N.M. Project Name: CP-1 Project Number: 1019

			Date	Time	Date	
Sample	Description	Matrix	Taken	Taken	Received	
12344	North Pad	soil	2003-07-08	11:18	2003-07-09	
12345	South Pad	soil	2003-07-08	11:22	2003-07-09	
12346	Stockpile	soil	2003-07-08	11:15	2003-07-09	

	Benzene	Toluene	BTEX Ethylbenzene	Xylene (isomers)	TPH DRO DRO	TPH GRO GRO
Sample - Field Code	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
12344 - North Pad	< 0.0200	< 0.0200	< 0.0200	< 0.0200	<50.0	11.4
12345 - South Pad	< 0.0100	0.0139	< 0.0100	< 0.0100	<50.0	9.63
12346 - Stockpile	< 0.0100	0.0143	< 0.0100	< 0.0100	<50.0	11.2

TraceAnalysis, Inc. • 6701 Aberdeen Ave., Suite 9 • Lubbock, TX 79424-1515 • (806) 794-1296

6701 Aberdeen Avenue, Suite 9 155 McCutcheon, Suite H Analytical and Quality Control Report

Aaron Hale BNC Midland 2135 South Loop 250 West Midland, TX 79703 Report Date: July 11, 2003

Work Order: 3070916

Project Location: Loving,N.M. Project Name: CP-1 Project Number: 1019

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

			Date	Time	Date	
Sample	Description	Matrix	Taken	Taken	Received	
12344	North Pad	soil	2003-07-08	11:18	2003-07-09	
12345	South Pad	soil	2003-07-08	11:22	2003-07-09	
12346	Stockpile	soil	2003-07-08	11:15	2003-07-09	

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 8 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Report Date: July 11, 2003	Work Order: 3070916	Page Number: 2 of 8
1019	CP-1	Loving,N.M.

Analytical Report

Sample: 12344 - North Pad

Analysis: BTEX				S 8021B		Prep Method: S 5		
QC Batch: 2848		Date Analy	zed:	2003-07-09		Analyzed By:		
Prep Batch: 2570		Date Prepa	red:	2003-07-09		Prepared By:		
		R	L					
Parameter Fla	ag	Resu	lt	Units	Di	lution	RL	
Benzene		< 0.020	00	mg/Kg		20	0.00100	
Toluene		< 0.020	00	m mg/Kg		20	0.00100	
Ethylbenzene		< 0.020	00	m mg/Kg		20	0.00100	
Xylene (isomers)		< 0.020	00	mg/Kg		20	0.00100	
					Spike	Percent	Recovery	
Surrogate	Flag	Result	Units	B Dilution	Amount	Recovery	Limits	
Trifluorotoluene (TFT)	2	0.985	mg/K	g 20	0.0500	98	58.9 - 129	
4-Bromofluorobenzene (4-BFB)	3	1.10	mg/K	g 20	0.0500	110	44.4 - 133	

Sample: 12344 - North Pad

Analysis: QC Batch: Prep Batch:	TPH DRO 2865 2587		Analytical Metho Date Analyzed: Date Prepared:	od: Mod. 8 2003-07 2003-07	7-09	Prep M Analyz Prepare	*
			RL				
Parameter	Flag		Result	Units		Dilution	RL
DRO	*		<50.0	mg/I	Кg	1	50.0
					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane	e	90.5	mg/Kg	1	150	60	45 - 152

Sample: 12344 - North Pad

Analysis:TPH GROQC Batch:2850Prep Batch:2570			Date Analyzed:		S 8015B 2003-07-09 2003-07-09	Prep Method: S 50 Analyzed By: Prepared By:		
Parameter	Flag		RL Result		Units	Dil	ution	RL
GRO			11.4		mg/Kg		20	0.100
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotolu 4-Bromofluor	ene (TFT) robenzene (4-BFB)	4 5	1.29 1.02	mg/Kg mg/Kg	20 20	$0.0500 \\ 0.0500$	129 102	73 - 120 78 - 120

¹Sample diluted due to turbidity. ²Changed spike amount from 0.1 to 0.05 due to ³Changed spike amount from 0.1 to 0.05 due to

⁴High surrogate recovery due to peak interference. ⁵Changed spike amount from 0.1 to 0.05 due to dilution.

1019	: July 11, 2003		W	Vork Order CP	:: 3070916 -1		Page N	umber: 3 of Loving,N.M
Sample: 123	345 - South Pad						·	
Analysis: QC Batch: Prep Batch:	BTEX 2848 2570		Analytical M Date Analyz Date Prepar	zed:	S 8021B 2003-07-09 2003-07-09		Prep Metl Analyzed Prepared	By:
			R					
Parameter	F	lag	Resu		Units	D	ilution	RI
Benzene			< 0.010		mg/Kg		10	0.00100
Toluene			0.013		mg/Kg		10	0.00100
Ethylbenzene			< 0.010		mg/Kg		10	0.00100
Xylene (isom	ers)		< 0.010	<u> </u>	mg/Kg	<u>-</u> ,	10	0.00100
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotolue	ene (TFT)	- 100	1.16	mg/Kg		0.100	116	58.9 - 129
	obenzene (4-BFB)		1.15	mg/Kg		0.100	115	44.4 - 133
•	$2865 \\ 2587$		Date Pre	lyzed: pared:	2003-07-09		Prepare	d By: BP d By: WG
Prep Batch:	2587		Date Prej RL	•		Ţ	-	d By: WG
Prep Batch: Parameter			Date Prej	•	Units	I	Prepare Dilution	d By: WG
Prep Batch: Parameter DRO	2587 Flag		Date Prep RL Result <50.0	pared:	Units mg/Kg	Spike	Dilution 1 Percent	d By: WG RI 50.0 Recovery
Prep Batch: Parameter DRO Surrogate	2587 Flag Flag	Result	Date Prep RL Result <50.0 Units	pared:	Units mg/Kg ilution	Spike Amount	Dilution 1 Percent Recovery	d By: WG RI 50.0 Recovery Limits
Prep Batch: Parameter DRO Surrogate	2587 Flag Flag	Result 88.9	Date Prep RL Result <50.0	pared:	Units mg/Kg	Spike	Dilution 1 Percent	d By: WG RI 50.0 Recovery Limits
Prep Batch: Parameter DRO Surrogate n-Triacontano	2587 Flag Flag		Date Prep RL Result <50.0 Units	pared:	Units mg/Kg ilution	Spike Amount	Dilution 1 Percent Recovery	d By: WG RI 50.0 Recovery Limits
Prep Batch: Parameter DRO Surrogate n-Triacontano Sample: 12 Analysis:	2587 Flag e 345 - South Pad TPH GRO		Date Prep RL Result <50.0 Units mg/Kg Analytica	D	Units mg/Kg ilution 1 S 8015B	Spike Amount	Dilution 1 Percent Recovery 59 Prep Meth	d By: WG RI 50.0 Recovery Limits 45 - 152 nod: S 503:
Prep Batch: Parameter DRO Surrogate n-Triacontane Sample: 12 Analysis: QC Batch:	2587 Flag e 345 - South Pad TPH GRO 2850		Date Prep RL Result <50.0 Units mg/Kg Analytica Date Ana	D D l Method:	Units mg/Kg ilution 1 S 8015B 2003-07-09	Spike Amount	Dilution 1 Percent Recovery 59 Prep Meth Analyzed	d By: WG RI 50.0 Recovery Limits 45 - 152 nod: S 5038 By:
Prep Batch: Parameter DRO Surrogate n-Triacontan Sample: 12 Analysis: QC Batch:	2587 Flag e 345 - South Pad TPH GRO		Date Prep RL Result <50.0 Units mg/Kg Analytica	D D l Method:	Units mg/Kg ilution 1 S 8015B	Spike Amount	Dilution 1 Percent Recovery 59 Prep Meth	d By: WG RI 50.0 Recovery Limits 45 - 152 nod: S 5035 By:
Prep Batch: Parameter DRO Surrogate n-Triacontan Sample: 12: Analysis: QC Batch: Prep Batch:	2587 Flag e 345 - South Pad TPH GRO 2850 2570		Date Prep RL Result <50.0 Units mg/Kg Analytica Date Ana Date Prep RL	D D l Method:	Units mg/Kg ilution 1 S 8015B 2003-07-09 2003-07-09	Spike Amount 150	Dilution 1 Percent Recovery 59 Prep Meth Analyzed Prepared	d By: WG RI 50.0 Recovery Limits 45 - 152 nod: S 5035 By: By:
Prep Batch: Parameter DRO Surrogate n-Triacontand Sample: 12 Analysis: QC Batch: Prep Batch: Prep Batch:	2587 Flag e 345 - South Pad TPH GRO 2850		Date Prej RL Result <50.0 Units mg/Kg Analytica Date Ana Date Prej RL Result	D D l Method:	Units mg/Kg ilution 1 S 8015B 2003-07-09 2003-07-09 Units	Spike Amount 150	Dilution 1 Percent Recovery 59 Prep Meth Analyzed Prepared 1 Filution	d By: WG RI 50.0 Recovery Limits 45 - 152 nod: S 5035 By: By: RI
Prep Batch: Parameter DRO Surrogate n-Triacontand Sample: 12 Analysis: QC Batch: Prep Batch: Prep Batch:	2587 Flag e 345 - South Pad TPH GRO 2850 2570		Date Prep RL Result <50.0 Units mg/Kg Analytica Date Ana Date Prep RL	D D l Method:	Units mg/Kg ilution 1 S 8015B 2003-07-09 2003-07-09	Spike Amount 150	Dilution 1 Percent Recovery 59 Prep Meth Analyzed Prepared	d By: WG RI 50.0 Recovery Limits 45 - 152 nod: S 503: By: By: RI
Prep Batch: Parameter DRO Surrogate n-Triacontane Sample: 12: Analysis: QC Batch: Prep Batch: Prep Batch: Parameter GRO	2587 Flag e 345 - South Pad TPH GRO 2850 2570	88.9	Date Prep RL Result <50.0 Units mg/Kg Analytica Date Ana Date Prep RL Result 9.63	D D l Method:	Units mg/Kg ilution 1 S 8015B 2003-07-09 2003-07-09 Units	Spike Amount 150 D Spike	Dilution 1 Percent Recovery 59 Prep Meth Analyzed Prepared 1 filution 10 Percent	d By: WG RI 50.0 Recovery Limits 45 - 152 nod: S 5035 By: By: RI 0.100 Recovery
QC Batch: Prep Batch: Prep Batch: DRO Surrogate n-Triacontand Sample: 12: Analysis: QC Batch: Prep Batch: Prep Batch: Parameter GRO Surrogate Trifluorotolue	2587 Flag e 345 - South Pad TPH GRO 2850 2570 Flag		Date Prej RL Result <50.0 Units mg/Kg Analytica Date Ana Date Prej RL Result	D D l Method: pared:	Units mg/Kg ilution 1 S 8015B 2003-07-09 2003-07-09 2003-07-09 Units mg/Kg Dilution	Spike Amount 150 D Spike	Dilution 1 Percent Recovery 59 Prep Meth Analyzed Prepared 1 Filution 10	d By: WG RI 50.0 Recovery Limits 45 - 152 hod: S 5038 By: By: By: RI 0.100

Sample: 12346 - Stockpile

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method: S 5035
QC Batch:	2848	Date Analyzed:	2003-07-09	Analyzed By:
Prep Batch:	2570	Date Prepared:	2003-07-09	Prepared By:

Report Date: July 11, 1019	2003		er: 3070916 P-1	Page	Number: 4 of 8 Loving,N.M.
Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		< 0.0100	mg/Kg	10	0.00100
Toluene		0.0143	mg/Kg	10	0.00100
Ethylbenzene		< 0.0100	mg/Kg	10	0.00100
Xylene (isomers)		< 0.0100	mg/Kg	10	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.18	mg/Kg	10	0.100	118	58.9 - 129
4-Bromofluorobenzene (4-BFB)		1.15	mg/Kg	10	0.100	115	44.4 - 133

Sample: 12346 - Stockpile

Analysis: QC Batch: Prep Batch:	TPH DRO 2865 2587		Analytical Methoo Date Analyzed: Date Prepared:	l: Mod. 8 2003-07 2003-07	-09	Prep M Analyze Prepare	v
			\mathbf{RL}				
Parameter		Flag	Result	Uni	ts	Dilution	RL
DRO ,			<50.0	mg/k	g	1	50.0
Surrogate	Flag	Result	Units I	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontan	e	108	mg/Kg	1	150	72	45 - 152

Sample: 12346 - Stockpile

Analysis: QC Batch: Prep Batch:	TPH GRO 2850 2570		Analytical Date Anal Date Prep	yzed:	S 8015B 2003-07-09 2003-07-09		Prep Meth Analyzed I Prepared F	By:
Parameter	Flag		RL Result		Units	Dil	ution	RL
GRO	· · · · · · · · · · · · · · · · · · ·	······································	11.2		mg/Kg		10	0.100
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BF		6	1.26 1.10	mg/Kg mg/Kg	10 10	0.100 0.100	126 110	73 - 120 78 - 120

Method Blank (1) QC Batch: 2848

Parameter	Flag	Result	Units	RL
Benzene	······	<0.0100	mg/Kg	0.001
Toluene		< 0.0100	mg/Kg	0.001
Ethylbenzene		< 0.0100	mg/Kg	0.001
Xylene (isomers)		< 0.0100	mg/Kg	0.001

⁶High surrogate recovery due to peak interference.

1019	1, 2003	<u></u>	,,,,,, _	work	Order: 307 CP-1		Page Number: 5 of 8 Loving,N.M				
~		171		,	r T : 4 _		Spik		Percent	Recovery	
Surrogate	(m)	Flag	Result			Dilution	Amou		Recovery	Limits	
Trifluorotoluene (TF			1.16		ng/Kg	10	0.10 0.10		11 <u>6</u> 102	58.9 - 12	
4-Bromofluorobenzer	le (4-DFD)		1.03		ng/Kg	10	0.10	<u> </u>	103	44.4 - 13	
Method Blank (1)	QC Ba	tch: 2850									
Parameter		Flag			Result			Units		RI	
GRO	······	<u> </u>			1.25		r	ng/Kg		0.1	
Surrogate		Flag	Result		Units	Dilution	Spil Amo		Percent Recovery	Recovery Limits	
Trifluorotoluene (TF	T)		1.01	r	ng/Kg	10	0.10		101	73 - 120	
4-Bromofluorobenzer			0.984		ng/Kg	10	0.10		98	78 - 120	
DRO					<50.0	r, .,	Spike		ercent	50 Recovery	
Surrogate	Flag	Result	Unit	ts	Dilutio	n	Amount	\mathbf{Re}	covery	Limits	
n-Triacontane		102	mg/I	Кg	1		150		68	45 - 152	
Benzene Toluene Ethylbenzene Xylene (isomers) Percent recovery is b Surrogate	LCS Result 0.956 0.956 0.950 2.87 Dased on the	LCSD Result 0.979 0.976 0.978 2.92 spike resu L R	CS LO	Dil. 10 10 10 based CSD esult	Spike Amount 0.100 0.100 0.300 on the spil Units	Resu <0.00 <0.00 <0.00 <0.00 ke and spi Dil.	11 Red 131 96 365 96 492 95 314 96 ike duplica Spike Amount	2 2 3 2 tte result LCS Rec.	83.4 - 1 82.6 - 1 80.3 - 1 78.9 - 1 LCSD Rec.	12 36 14 40 14 39 Rec. Limit	
Param Benzene Toluene Ethylbenzene Xylene (isomers) Percent recovery is b Surrogate Trifluorotoluene (TF	LCS Result 0.956 0.956 0.950 2.87 Dased on the	LCSD Result 0.979 0.976 0.978 2.92 spike resu L R 1	Units mg/Kg mg/Kg mg/Kg lt. RPD is CCS L0 esult Ra 06 1	Dil. 10 10 10 based CSD esult .14	Spike Amount 0.100 0.100 0.300 on the spil Units mg/Kg	Result <0.00	11 Rec 131 96 365 96 492 95 314 96 ike duplica Spike <u>Amount</u> 0.100	2 2 3 2 tte result LCS Rec. 106	D Limit 83.4 - 1 82.6 - 1 80.3 - 1 78.9 - 1 LCSD Rec. 114	Limir 12 35 12 36 14 40 14 39 Rec. Limit 74.7 - 114	
Param Benzene Toluene Ethylbenzene Xylene (isomers) Percent recovery is b Surrogate Trifluorotoluene (TF	LCS Result 0.956 0.956 0.950 2.87 Dased on the	LCSD Result 0.979 0.976 0.978 2.92 spike resu L R 1	Units mg/Kg mg/Kg mg/Kg mg/Kg lt. RPD is CCS L0 esult Ro 06 1	Dil. 10 10 10 based CSD esult	Spike Amount 0.100 0.100 0.300 on the spil Units	Resu <0.00 <0.00 <0.00 <0.00 ke and spi Dil.	11 Red 131 96 365 96 492 95 314 96 ike duplica Spike Amount	2 2 3 2 tte result LCS Rec.	D Limit 83.4 - 11 82.6 - 11 80.3 - 11 78.9 - 11 LCSD Rec.	Limi 12 35 12 36 14 40 14 39 Rec. Limit 74.7 - 114	
Param Benzene Toluene Ethylbenzene Xylene (isomers) Percent recovery is b Surrogate	LCS Result 0.956 0.956 0.950 2.87 pased on the TT) ne (4-BFB) rol Spike (2000)	LCSD Result 0.979 0.976 0.978 2.92 spike resu I Ra 7 1 7 1 LCS-1)	Units mg/Kg mg/Kg mg/Kg lt. RPD is CCS L0 esult Ra .06 1 .10 1	Dil. 10 10 10 based CSD esult 14 16 ch: 28	Spike Amount 0.100 0.100 0.300 on the spil Units mg/Kg mg/Kg	Result <0.00	11 Rec 131 96 365 96 492 95 314 96 ike duplica Spike <u>Amount</u> 0.100	2 2 3 2 tte result LCS Rec. 106	D Limit 83.4 - 1 82.6 - 1 80.3 - 1 78.9 - 1 LCSD Rec. 114	Limit 12 35 12 36 14 40 14 39 Rec. Limit	
Param Benzene Toluene Ethylbenzene Xylene (isomers) Percent recovery is b Surrogate Trifluorotoluene (TF 4-Bromofluorobenzen Laboratory Contr	LCS Result 0.956 0.956 0.950 2.87 pased on the T) ne (4-BFB) rol Spike (1) CS LCS ult Resu	LCSD Result 0.979 0.976 0.978 2.92 spike resu I Ra 7 1 7 1 LCS-1) D It Un	Units mg/Kg mg/Kg mg/Kg lt. RPD is CS L0 esult Ro .06 1 .10 1 QC Bat	Dil. 10 10 based CSD esult 14 16	Spike Amount 0.100 0.100 0.300 on the spil Units mg/Kg mg/Kg	Result <0.00	It Red 131 96 365 96 492 95 314 96 ike duplica Spike Amount 0.100 0.100 .100	2 2 3 2 tte result LCS Rec. 106 110	D Limit 83.4 - 1 82.6 - 1 80.3 - 1 78.9 - 1 LCSD Rec. 114 116 Rec.	Limir 12 35 12 36 14 40 14 39 Rec. Limit 74.7 - 114 76.2 - 110 RPD Limit	

1 Units mg/Kg s Dil. g 10 g 10 g 10 g 10 g 10 g 10	Spike Amount 250 on the spik Dil.	Sp Amo 13 13 14 15 14 14 14 14 14 14 14 14 14 14 14 14 14	ike 1 50 ix lt Rec. 131 96 365 91	LCS Rec. 92	LCSD Rec. 114 116 Rec. Limit 68 - 126 LCSD Rec. 91 Rec. Limit 58 - 100 59 - 110 58.4 - 11	Rec. Limit 33 - 144 RPD Limit 7 22 0 20
1.14 1.16 Batch: 286 Dil. 1 0 is based Units mg/Kg s Dil. g 10 g 10 g 10 g 10 g 10	mg/Kg mg/Kg 65 55 50 65 65 65 65 65 65 65 65 65 65 65 65 65	10 10 10 Matrix Result <21.1 e and spi Sp Ame 15 15 15 15 15 15 15 15 15 15 15 15 15	0.100 0.100 Rec. 91 ke duplicat ike 1 bount 50 ix ht Rec. 131 96 365 91	108 116 RPD 4 e result. LCS Rec. 92 2 2	114 116 Rec. Limit 68 - 126 LCSD Rec. 91 Rec. Jimit 58 - 107 59 - 110	73.7 - 114 76.2 - 110 RPD Limit 20 Rec. Limit 33 - 144 RPD Limit 7 22 0 20
1.16 Batch: 286 Dil. 1 0 is based Units mg/Kg s Dil. g 10 g 10 g 10 g 10 g 10 g 10	mg/Kg 65 Spike Amount 250 on the spik Dil. 1 Spike Amount 0.100 0.100 0.100	10 Matrix Result <21.1 e and spi Sp Amo 13 13 14 14 14 14 14 14 14 14 14 14 14 14 14	0.100 Rec. 91 ke duplicat ike 1 pount 50 ix ht Rec. 131 96 365 91	116 RPD 4 e result. LCS Rec. 92 RPD 2 2 2	116 Rec. Limit 68 - 126 LCSD Rec. 91 Rec. Limit 58 - 107 59 - 110	76.2 - 110 RPD Limit 20 Rec. Limit 33 - 144 RPD Limit 7 22 0 20
Batch: 286 Dil. 1 Dis based Units mg/Kg s Dil. g 10 g 10 g 10 g 10 g 10 g 10	55 Spike Amount 250 on the spik Dil. 1 Spike Amount 0.100 0.100 0.100	Matrix Result <21.1 e and spi Sp Amo 13 13 14 15 14 15 14 14 15 14 14 14 14 14 14 14 14 14 14 14 14 14	Rec. 91 ke duplicat ike 1 ount 50 ix lt Rec. 131 96 365 91	RPD 4 e result. LCS Rec. 92 RPD 2 2 2	Rec. Limit 68 - 126 LCSD Rec. 91 Rec. Limit 58 - 107 59 - 110	RPD Limit 20 Rec. Limit 33 - 144 RPD Limit 7 22 0 20
Dil. 1 is based Units mg/Kg s Dil. g 10 g 10 g 10 g 10 g 10	Spike Amount 250 on the spik Dil. 5 1 Spike Amount 0.100 0.100 0.100	Result <21.1	91 ke duplicat ike 1 50 ix it Rec. 131 96 365 91	4 e result. LCS Rec. 92 RPD 2 2 2	Limit 68 - 126 LCSD Rec. 91 Rec. Limit 58 - 10 59 - 110	Limit 20 Rec. Limit 33 - 144 RPD Limit 7 22 0 20
1 Units mg/Kg s Dil. g 10 g 10 g 10 g 10 g 10	Amount 250 on the spik Dil. 1 Spike Amount 0.100 0.100 0.100	Result <21.1	91 ke duplicat ike 1 50 ix it Rec. 131 96 365 91	4 e result. LCS Rec. 92 RPD 2 2 2	Limit 68 - 126 LCSD Rec. 91 Rec. Limit 58 - 10 59 - 110	Limit 20 Rec. Limit 33 - 144 RPD Limit 7 22 0 20
1 Units mg/Kg s Dil. g 10 g 10 g 10 g 10 g 10	250 on the spik Dil. 5 1 Spike Amount 0.100 0.100 0.100	<21.1 e and spi Sp Amodeline Item of the spin series of th	91 ke duplicat ike 1 50 ix it Rec. 131 96 365 91	4 e result. LCS Rec. 92 RPD 2 2 2	68 - 126 LCSD Rec. 91 Rec. Limit 58 - 10 59 - 110	Rec. Limit 33 - 144 RPD Limit 7 22 0 20
Units mg/Kg s Dil. g 10 g 10 g 10 g 10 g 10	on the spik Dil. 1 Spike Amount 0.100 0.100 0.100	e and spi Sp Ame 1: 	ike duplicat ike 1 50 ix lt Rec. 131 96 365 91	e result. LCS Rec. 92 RPD 2 2 2	LCSD Rec. 91 Rec. Limit 58 - 107 59 - 110	Rec. Limit 33 - 144 RPD Limit 7 22 0 20
Units mg/Kg s Dil. g 10 g 10 g 10 g 10 g 10 g 10	Dil. 5 1 Spike Amount 0.100 0.100 0.100	Sp Amo 13 13 14 15 14 14 14 14 14 14 14 14 14 14 14 14 14	ike 1 50 ix lt Rec. 131 96 365 91	LCS Rec. 92 RPD 2 2 2	Rec. 91 Rec. Limit 58 - 107 59 - 110	Limit 33 - 144 RPD Limit 7 22 0 20
mg/Kg s Dil. g 10 g 10 g 10 g 10 g 10	Spike Amount 0.100 0.100 0.100	Ama 15 Matr Resu <0.00 <0.003 <0.004	ix 131 96 365 91	Rec. 92 RPD 2 2	Rec. 91 Rec. Limit 58 - 107 59 - 110	Limit 33 - 144 RPD Limit 7 22 0 20
mg/Kg s Dil. g 10 g 10 g 10 g 10 g 10	Spike Amount 0.100 0.100 0.100	Matr Resu <0.00 <0.003 <0.004	ix lt Rec. 131 96 365 91	92 RPD 2 2	91 Rec. Limit 58 - 107 59 - 110	33 - 144 RPD Limit 7 22 0 20
s Dil. g 10 g 10 g 10 g 10 g 10	Spike Amount 0.100 0.100 0.100	Matr Resu <0.001 <0.003 <0.004	ix lt Rec. 131 96 365 91	RPD 2 2	Rec. Limit 58 - 107 59 - 110	RPD Limit 7 22 0 20
g 10 g 10 g 10 g 10	Amount 0.100 0.100 0.100	Resu <0.003 <0.004	lt Rec. 131 96 365 91	$2 \\ 2$	Limit 58 - 107 59 - 110	Limit 7 22 0 20
g 10 g 10 g 10 g 10	0.100 0.100 0.100	<0.003 <0.004	365 91	$2 \\ 2$	59 - 110	7 22) 20
g 10 g 10 g 10	0.100	< 0.004			59 - 110) 20
g 10 g 10			492 86	4	584 - 11	2 15
Ÿ	0.300			-	00.4 - 11	0 10
) is based		< 0.00	314 86	4	54.3 - 11	4 19
	on the spik	e and spi	ke duplicat	e result.		
MSD			Spike	MS	MSD	Rec.
						Limit
						50.6 - 114 52 - 110
1.10	IIIg/ Ivg			108		52 - 110
	Spike	Matrix			Rec.	RPD
						Limit
					32.9 - 152	20
	on the spin	e and opi	-		MOD	T.
	Unite	Dil	-			Rec. Limit
						50.6 - 114
	e, e				107	52 - 110
	1.17 1.10 Dil. 1 10 is based MSD Result	1.10 mg/Kg 1.10 mg/Kg Dil. Amount 10 1.00 is based on the spik MSD Result Units 0.762 mg/Kg	1.17 mg/Kg 10 1.10 mg/Kg 10 Spike Matrix Dil. Amount Result 10 1.00 <0.381	Result Units Dil. Amount 1.17 mg/Kg 10 0.1 1.10 mg/Kg 10 0.1 1.10 mg/Kg 10 0.1 Dil. Amount Result Rec. 10 1.00 <0.381	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	ResultUnitsDil.AmountRec.Rec. 1.17 mg/Kg10 0.1 115117 1.10 mg/Kg10 0.1 108110Spike MatrixRec.Dil.AmountResultRec.RPD 10 1.00 <0.381 1158 $32.9 - 152$ is based on the spike and spike duplicate result.MSDSpikeMSMSDResultUnitsDil.AmountRec.Rec. 0.762 mg/Kg10 0.1 85 76

 ¹¹ High surrogate recovery due to prep. Average of ICV/CCV components within acceptable range.
 ¹²Low surrogate recovery due to matrix interference. LCS/LCSD show the method to be in control.
 ¹³High surrogate recovery due to peak interference.
 ¹⁴High surrogate recovery due to peak interference.

S MSD ult Resul 6 337 ed on the spi MS Result 86.6 QC Batch Flag QC Batc Flag	lt U m ike result MS Res 88 a: 2848 Units mg/L mg/L mg/L mg/L	g/Kg t. RPD is b SD sult b	1 Dased o Units ng/Kg 7s e c. 0 0 0 0 0 0 0	Spike Amount 250 n the spil Dil. 1 CCVs Found Conc. 0.0973 0.0987 0.0988 0.292 CCVs	Spik Amou 150 CC Pero Reco 9	e int Vs cent very 7 9 9	RPD 0 e result. MS Rec. 58 58 Percent Recovery Limit 85 - 1 85 - 2 85 - 1	very its 115 115 115	Ar 2000 2000	RPD Limit 20 Rec. Limit 33 - 144 Date nalyzed 03-07-09 03-07-09 03-07-09
ult Resul 6 337 ed on the spi MS Result 86.6 QC Batch Flag QC Batc	lt U m ike result Res 88 a: 2848 Units mg/L mg/L mg/L mg/L mg/L	g/Kg t. RPD is t SD sult t 3.1 m CCV True Cone 0.10 0.10 0.10 0.30	1 Dased o Units ng/Kg 7s e c. 0 0 0 0 0 0 0	Amount 250 In the spil Dil. 1 CCVs Found Conc. 0.0973 0.0988 0.292	Result <21.1 ke and spike Spik Amou 150 CC Pero Recco 9 9 9 9 9	134 duplicat e int Vs very 7 9 9	0 e result. MS Rec. 58 Perce Recov Lim 85 - 85 - 85 -	Lim 65 - 1 MSD Rec. 59 ent very its 115 115 115	Ar 2000 2000	Limi 20 Rec. Limit 33 - 144 Date halyzed 03-07-09 03-07-09 03-07-09
6 337 ed on the spi MS Result 86.6 QC Batch Flag QC Batc	m ike result Res 88 a: 2848 Units mg/L mg/L mg/L mg/L h: 2848	g/Kg t. RPD is t SD sult t 3.1 m CCV True Cone 0.10 0.10 0.10 0.30	1 Dased o Units ng/Kg 7s e c. 0 0 0 0 0 0 0	250 n the spil Dil. 1 CCVs Found Conc. 0.0973 0.0988 0.292	<21.1 ke and spike Spik Amou 150 CC Perc Recc 9 9 9 9 9	134 duplicat e int Vs very 7 9 9	0 e result. MS Rec. 58 Perce Recov Lim 85 - 85 - 85 -	65 - 1 MSD Rec. 59 ent very its 115 115 115	14 Ar 200 200 200	20 Rec. Limit 33 - 14 Date halyzed 03-07-09 03-07-09
ed on the spi MS Result 86.6 QC Batch Flag QC Batc	ike result M: Res 88 a: 2848 Units mg/L mg/L mg/L ch: 2848	t. RPD is b SD Sult U 3.1 m CCV True Cond 0.10 0.10 0.30	Dased o Units ng/Kg 7s e c. 0 0 0 0 0 0 0	n the spil Dil. 1 CCVs Found Conc. 0.0973 0.0987 0.0988 0.292	ke and spike Spik Amou 150 CC Perc Recc 9 9 9 9 9	duplicat e int Vs very 7 9 9	e result. MS Rec. 58 Perce Recov Lim 85 - 85 - 85 -	MSD Rec. 59 ent very its 115 115 115	Ar 200 200 200	Rec. Limit 33 - 14 Date halyzed 03-07-09 03-07-09 03-07-09
MS Result 86.6 QC Batch Flag QC Batc	Mi Res 88 n: 2848 Units mg/L mg/L mg/L mg/L h: 2848	SD sult 1 3.1 m CCV True Cond 0.10 0.10 0.10 0.30	Units ng/Kg 7s e c. 0 0 0 0 0 0	Dil. 1 CCVs Found Conc. 0.0973 0.0987 0.0988 0.292	Spik Amou 150 CC Pero Recco 9 9 9 9 9	e int Vs cent very 7 9 9	MS Rec. 58 Perce Recov Lim 85 - 85 - 85 -	Rec. 59 ent very its 115 115 115	Ar 200 200 200	Limit 33 - 14 Date nalyzed 03-07-09 03-07-09
Result 86.6 QC Batch Flag QC Batc	Res 88 n: 2848 Units mg/L mg/L mg/L mg/L h: 2848	sult 1 3.1 m CCV Trua Cond 0.10 0.10 0.30 CCV	ng/Kg Vs e c. 0 0 0 0 0 0 0	1 CCVs Found Conc. 0.0973 0.0987 0.0988 0.292	Amou 150 CC Pero Recco 9 9 9 9 9	Vs vent very 7 9 9	Rec. 58 Perce Recov Lim 85 - 85 - 85 -	Rec. 59 ent very its 115 115 115	Ar 200 200 200	Limit 33 - 14 Date nalyzed 03-07-09 03-07-09
86.6 QC Batch Flag QC Batc	88 units mg/L mg/L mg/L mg/L h: 2848	3.1 n CCV True Cond 0.10 0.10 0.30 CCV	ng/Kg Vs e c. 0 0 0 0 0 0 0	1 CCVs Found Conc. 0.0973 0.0987 0.0988 0.292	150 CC Pero Reco 9 9 9 9 9	Vs cent very 7 9 9	58 Perce Recov Lim 85 - 85 - 85 - 85 -	59 ent very its 115 115 115	Ar 200 200 200	33 - 14 Date nalyzed 03-07-09 03-07-09 03-07-09
QC Batch Flag QC Batc	units mg/L mg/L mg/L mg/L h: 2848	CCV True Cond 0.10 0.10 0.30 CCV	7s e c. 0 0 0 0 0 0	CCVs Found Conc. 0.0973 0.0987 0.0988 0.292	CC Pero Recco 9 9 9 9 9	Vs cent very 7 9 9	Perce Recov Lim 85 - 85 - 85 -	ent very its 115 115 115	Ar 200 200 200	Date nalyzed)3-07-0)3-07-0)3-07-0
Flag QC Batc	Units mg/L mg/L mg/L mg/L	True Cond 0.10 0.10 0.10 0.30 CCV	e c. <u>.</u> 0 0 0 0 0 7s	Found Conc. 0.0973 0.0987 0.0988 0.292	Pero Reco 9 9 9 9 9	cent very 7 9 9	Recov Lim 85 - 85 - 85 -	very its 115 115 115	Ar 200 200 200	nalyzed)3-07-0)3-07-0)3-07-0
QC Batc	mg/L mg/L mg/L mg/L	True Cond 0.10 0.10 0.10 0.30 CCV	e c. <u>.</u> 0 0 0 0 0 7s	Found Conc. 0.0973 0.0987 0.0988 0.292	Pero Reco 9 9 9 9 9	cent very 7 9 9	Recov Lim 85 - 85 - 85 -	very its 115 115 115	Ar 200 200 200	nalyzed)3-07-09)3-07-09)3-07-09
QC Batc	mg/L mg/L mg/L mg/L	Cond 0.10 0.10 0.30 CCV	c. 0 0 0 0	Conc. 0.0973 0.0987 0.0988 0.292	Reco 9 9 9 9	very 7 9 9	Lim 85 - 85 - 85 -	its 115 115 115 115	Ar 200 200 200	nalyzed)3-07-0)3-07-0)3-07-0
QC Batc	mg/L mg/L mg/L mg/L	0.10 0.10 0.30 CCV	0 0 0 0	0.0973 0.0987 0.0988 0.292	9 9 9 9	7 9 9	85 - 85 - 85 -	115 115 115	200 200 200)3-07-0)3-07-0)3-07-0
·	mg/L mg/L mg/L h: 2848	0.10 0.10 0.30 CCV	0 0 0	0.0987 0.0988 0.292	9 9 9	9 9	85 - 1 85 - 1	115 115	200 200)3-07-0)3-07-0
·	mg/L mg/L h: 2848	0.10 0.30 CCV	0 0 /s	0.0988 0.292	9	9	85 - 3	115	200) 3-07-0
·	mg/L h: 2848	0.30 CCV	0	0.292	9					
·	h: 2848			CCVs						
	mg/L mg/L mg/L mg/L		0 0	0.0915 0.0919 0.0911 0.275	9 9	2 1		$\frac{115}{115}$	200 200)3-07-0)3-07-0)3-07-0)3-07-0
QC Batch	n: 2850	CCVs	С	CVs	CCVs		Percer	nt		
		True								Date
Units		Conc.				у				nalyzed
mg/L		1.00	0	.950	95		85 - 11	15	200	3-07-09
	Flag	Result	U	nits	Dilution					.ecover Limit
	17	0.132			1			132		3 - 120
(4-BFB)	18	0.125			1	0.100		125		8 - 120
QC Bate	h: 2850	CCVs								Dete
Unite								•		Date nalyzed
						J				03-07-09
	Units mg/L (4-BFB) QC Bato Units	mg/L QC Batch: 2850 Units mg/L Flag 17	mg/L 0.30 QC Batch: 2850 CCVs True True Units Conc. mg/L 1.00 Flag Result 17 0.132 (4-BFB) 18 0.125 QC Batch: 2850 CCVs True True Units Conc.	$\begin{array}{c cccc} mg/L & 0.300 \\ \hline \\ QC Batch: 2850 \\ \hline \\ CCVs & C \\ \hline \\ True & Fe \\ \hline \\ Units & Conc. & C \\ \hline \\ mg/L & 1.00 & 0 \\ \hline \\ \hline \\ mg/L & 1.00 & 0 \\ \hline \\ \hline \\ mg/L & 1.00 & 0 \\ \hline \\ \hline \\ mg/L & 1.00 & 0 \\ \hline \\ \hline \\ mg/L & 1.00 & 0 \\ \hline \\ \hline \\ mg/L & 1.00 & 0 \\ \hline \\ \hline \\ mg/L & 1.00 & 0 \\ \hline \\ \hline \\ mg/L & 1.00 & 0 \\ \hline \\ \hline \\ mg/L & 1.00 & 0 \\ \hline \\ \hline \\ gC Batch: 2850 \\ \hline \\ CCVs & C \\ \hline \\ True & Fe \\ \hline \\ Units & Conc. & C \\ \hline \end{array}$	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

¹⁵MS and MSD recovery out of range due to peak interference. LCS and LCSD show process within control.
 ¹⁶MS and MSD recovery out of range due to peak interference. LCS and LCSD show process within control.
 ¹⁷High surrogate recovery due to peak interference.
 ¹⁸High surrogate recovery due to peak interference.

Report Da 1019	ate: July 11,	2003		ork Order: 3 CP-1	3070916		Page N	umber: 8 of 8 Loving,N.M.
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
	oluene (TFT)		0.117	mg/L	1	0.100	117	73 - 120
4-Bromoflu	uorobenzene ((4-BFB)	0.119	mg/L	1	0.100	119	78 - 120
Standard Param	(ICV-1) Flag	QC Batch: 2865 Units	CCVs True Conc.	CCVs Found Conc.	CCV Perce Recove	nt	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	229	· 92	· · · · · · · · · · · · ·	75 - 125	2003-07-09
Standard	(CCV-1)	QC Batch: 2865						
			CCVs	CCVs	CCV	s	Percent	
			True	Found	Perce	nt	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recove	ery	Limits	Analyzed
DRO		mg/Kg	250	230	92		75 - 125	2003-07-09

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					ndard	rom stai	terent fi	lib îi ər	niT bruc	Turn Arc							 				1	tsk.	~
EST																					d	1 p	
REQUEST																	 				_	ي م	
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