

RECEIVED February 9, 2009

JUN 10 2009 HOBBSOCD

**AMARILLO** 921 North Bivins Amarillo, Texas 79107 Phone 806 467,0607

Fax 806 467.0622

**AUSTIN** 3003 Tom Gary Cove Building C-100 Round Rock, Texas 78664 Phone 512 989 3428 Fax 512 989.3487

**MIDLAND** 2901 State Highway 349 Midland, Texas 79706 Phone 432 522 2133 Fax 432 522.2180

> SAN ANTONIO 17170 Jordan Road Suite 102 Selma, Texas 78154 Phone 210 579.0235 Fax 210.568 2191

**TULSA** 9906 East 43rd Street Suite G Tulsa, Oklahoma 74146 Phone 918.742 0871 Fax 918 742.0876

HOBBS 318 East Taylor Street Hobbs, New Mexico 88241 Phone 505 393.4261 Fax 505 393 4658

> **TYLER** 719 West Front Street Suite 255 Tyler, Texas 75702 Phone 903 531 9971 Fax 903.531.9979

HOUSTON 3233 West 11th Street Suite 400 Houston, Texas 77008 Phone 713 861.0081 Fax 713 868.3208

**NVIRONMENTAL CONSULTING ENGINEERING** DRILLING CONSTRUCTION **EMERGENCY RESPONSE** 

Larry Johnson New Mexico Oil Conservation Division District 1 office 1625 French Dr. Hobbs, New Mexico 88240

Re: Request for pit closure of the Paloma Federal Com #1 pit.

In December of 2009 Talon/LPE was contracted by Mewbourne Oil Company to perform the pit closure activities at the Paloma 21 Fed Com #1, API# 30-25-38817, Unit M Sec 21- T20S-R36E, in Lea county New Mexico. The C-144 for this pit closure was submitted to Paul Kautz and approved on September 29, 2008.

Talon contacted Paul Kautz on December 2, 2008 to give forty eight notice of intent to proceed with trench burial and was given verbal permission to proceed. Talon mixed all drill cuttings from the reserve pit at a ratio not more than 3:1 to stabilize the soil in preparation for trench burial. Upon completion of mixing the drill cuttings, Eb Taylor with Talon called Paul Kautz on December 18, 2008 to notify him of the planned sampling of the drill cuttings. Eb Taylor received a call from Jeff Leking on December 19, 2008 and the sampling event was scheduled for December 22, 2008 at 8:30 AM. Jeff did not show up and the sampling event proceeded. A five point composite sample was collected from the drill cuttings and the samples were sent to Trace Analysis and analyzed in compliance with 19.15.17.13NMAC for official analytical results. When analytical results were reviewed, it was determined that the drill cuttings could be buried on site (see attached analytical). Talon/LPE excavated a burial cell in the south side of the reserve pit approximately 150' x 40' x 20', and lined it with a 20 mil liner. Once the drill cuttings were placed in the burial cell, a 20 mil cap was placed on top to seal the burial cell. On January 9, 2009 Eb Taylor with Talon/LPE collected a five point composition sample from the pit floor and sent them to Trace Analysis to be analyzed in compliance with 19.15.17.13NMAC for official analytical (see attached analytical). The area was backfilled and contoured to the surrounding area.

A burial marker was placed at 32° 33' 176 N 103° 21' 967 W.

This property is owned by the Dale Cooper family trust and a deed notice was filed with the Lea county New Mexico County Clerk.

After review of attached documents and analysis by the NMOCD, Talon/LPE, and Mewbourne Oil Company we are requesting that this pit be considered properly closed.

Respectfully submitted,

Eb Taylor

R RECORD ONLY

Toll Free 866 742.0742 www.talonlpe.com

State of New Mexico District I 1625 N French Dr., Hobbs, NM 88240
District II
1301 W Grand Avenue, Artesia, NM 88210
District III
District III
O 2009 Oil Conservation Division District III
1000 Rio Brazos Road, Aztec, NM 87410

JUN 10 2009 Oil Conservation Division
District IV 1220 S. St. Francis Dr., Santa Fe, NM 875440BBSOCD South St. Francis Dr.

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office. For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

Proposed Alternative Method Permit or Closure Plan Application									
Type of action:  Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method  x Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method  Modification to an existing permit  Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method									
Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request									
Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.									
Operator: Mewbourne Oil CompanyOGRID #:14744									
Address: P.O. Box 5270, Hobbs NM 88241									
Facility or well name: Paloma 21 Federal Com #1									
API Number: 30-025-38817OCD Permit Number:									
U/L or Qtr/Qtr M Section 21 Township 20S Range 36E County: Lea									
Center of Proposed Design: Latitude N 32° 32'11" Longitude W 103° 21`55" NAD: x 1927  1983  Surface Owner: Federal State x Private Tribal Trust or Indian Allotment									
x Pit: Subsection F or G of 19.15.17.11 NMAC  Temporary: x Drilling x Workover  Permanent Emergency Cavitation P&A  x Lined Unlined Liner type: Thickness 20 mil x LLDPE HDPE PVC Other  x String-Reinforced  Liner Seams: x Welded x Factory Other Volume: 14400 bbl Dimensions: L 120' x W 100' x D 8'  3.									
Closed-loop System: Subsection H of 19.15.17.11 NMAC									
Type of Operation: P&A Drilling a new well Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)									
☐ Drying Pad ☐ Above Ground Steel Tanks ☐ Haul-off Bins ☐ Other									
Lined Unlined Liner type: Thicknessmil LLDPE HDPE PVC Other									
Liner Seams:  Welded Factory Other									
4.    Below-grade tank: Subsection I of 19.15.17.11 NMAC									
Volume:bbl Type of fluid:									
Tank Construction material:									
Secondary containment with leak detection   Visible sidewalls. liner, 6-inch lift and automatic overflow shut-off									
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other									
Liner type: Thicknessmil									
5.  Alternative Method:									

Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks)								
Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)								
Four foot height, four strands of barbed wire evenly spaced between one and four feet								
Alternate. Please specify								
7.								
Netting: Subsection E of 19.15 17.11 NMAC (Applies to permanent pits and permanent open top tanks)								
Screen Netting Other								
Monthly inspections (If netting or screening is not physically feasible)								
8. Signs: Subsection C of 19.15.17.11 NMAC								
12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers								
Signed in compliance with 19.15.3.103 NMAC								
Administrative Approvals and Exceptions:								
Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.  Please check a box if one or more of the following is requested, if not leave blank:								
Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environm	nental Bureau office for							
consideration of approval.  Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approva	al.							
material are provided below. Requests regarding changes to certain siting criteria may require administrative approval fi office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for cons Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not above-grade tanks associated with a closed-loop system.	sideration of approval.							
Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.  - NM Office of the State Engineer - iWATERS database search; USGS: Data obtained from nearby wells	☐ Yes ☐ No							
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, lake (measured from the ordinary high-water mark).  - Topographic map; Visual inspection (certification) of the proposed site	, or playa Yes No							
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial applicat (Applies to temporary, emergency, or cavitation puts and below-grade tanks)  - Visual inspection (certification) of the proposed site: Aerial photo; Satellite image	ion. Yes No							
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial applica (Applies to permanent puts)	ation. Yes No							
- Visual inspection (certification) of the proposed site: Aerial photo; Satellite image	□ Vas □ Na							
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial ap  - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	r stock Polication.							
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal or adopted pursuant to NMSA 1978, Section 3-27-3, as amended.  - Written confirmation or verification from the municipality; Written approval obtained from the municipality	dinance Yes No							
Within 500 feet of a wetland.  - US Fish and Wildlife Wetland Identification map: Topographic map; Visual inspection (certification) of the proposed	d site							
Within the area overlying a subsurface mine.  - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☐ No							
<ul> <li>Within an unstable area.</li> <li>Engineering measures incorporated into the design; NM Bureau of Geology &amp; Mineral Resources; USGS; NM Geologogy; Topographic map</li> </ul>	ogical Yes No							
Within a 100-year floodplain. - FEMA man	☐ Yes ☐ No							

Temporary Pits. Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC  Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.  Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC  Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC  Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC  Design Plan - based upon the appropriate requirements of 19.15.17.12 NMAC  Closure Plan (Please complete Boxes 14 through 18. if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC  Previously Approved Design (attach copy of design) API Number:  or Permit Number:
Treviously Approved Besign (attach copy of design) Art Number.
Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC  Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.  Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9  Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC  Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC  Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC  Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
Previously Approved Design (attach copy of design) API Number:
Previously Approved Operating and Maintenance Plan API Number: (Applies only to closed-loop system that use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC  Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.  Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC  Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC  Climatological Factors Assessment  Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC  Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC  Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC  Quality Control/Quality Assurance Construction and Installation Plan  Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC  Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC  Nuisance or Hazardous Odors. including H <sub>2</sub> S, Prevention Plan  Emergency Response Plan  Oil Field Waste Stream Characterization  Monitoring and Inspection Plan  Erosion Control Plan  Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
Proposed Closure: 19.15.17.13 NMAC  Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.  Type: Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank Closed-loop System Alternative  Proposed Closure Method: Waste Excavation and Removal
<ul> <li>☐ Waste Removal (Closed-loop systems only)</li> <li>☐ On-site Closure Method (Only for temporary pits and closed-loop systems)</li> <li>☐ In-place Burial ☐ On-site Trench Burial</li> <li>☐ Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)</li> </ul>
Vaste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the losure plan. Please indicate, by a check mark in the box, that the documents are attached.  Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC  Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC  Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)  Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC  Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC

Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Instructions: Please indentify the facility or facilities for the disposal of liquids,								
facilities are required.  Disposal Facility Name:	Disposal Facility Permit Number:							
Disposal Facility Name:	Disposal Facility Permit Number:							
Will any of the proposed closed-loop system operations and associated activities occur on or in areas that will not be used for future service and operations?  Yes (If yes, please provide the information below) No								
Required for impacted areas which will not be used for future service and operation  Soil Backfill and Cover Design Specifications based upon the appropriate Re-vegetation Plan - based upon the appropriate requirements of Subsection Site Reclamation Plan - based upon the appropriate requirements of Subsection	e requirements of Subsection H of 19.15.17.13 NMA L of 19.15.17.13 NMAC	С						
Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the provided below. Requests regarding changes to certain siting criteria may require considered an exception which must be submitted to the Santa Fe Environmenta demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC.	e administrative approval from the appropriate dist I Bureau office for consideration of approval. Justi	rict office or may be						
Ground water is less than 50 feet below the bottom of the buried waste.  - NM Office of the State Engineer - iWATERS database search; USGS; Dat	a obtained from nearby wells	☐ Yes ☐ No ☐ NA						
Ground water is between 50 and 100 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS: Data	a obtained from nearby wells	☐ Yes ☐ No ☐ NA						
Ground water is more than 100 feet below the bottom of the buried waste.  - NM Office of the State Engineer - iWATERS database search; USGS; Data	a obtained from nearby wells	☐ Yes ☐ No ☐ NA						
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other sig lake (measured from the ordinary high-water mark).  - Topographic map; Visual inspection (certification) of the proposed site	nificant watercourse or lakebed, sinkhole, or playa	☐ Yes ☐ No						
Within 300 feet from a permanent residence, school. hospital, institution, or church - Visual inspection (certification) of the proposed site; Aerial photo; Satellite		☐ Yes ☐ No						
Within 500 horizontal feet of a private, domestic fresh water well or spring that less watering purposes, or within 1000 horizontal feet of any other fresh water well or s  - NM Office of the State Engineer - iWATERS database: Visual inspection (	pring, in existence at the time of initial application.	Yes No						
Within incorporated municipal boundaries or within a defined municipal fresh water adopted pursuant to NMSA 1978, Section 3-27-3, as amended.  - Written confirmation or verification from the municipality: Written approv	·	☐ Yes ☐ No						
Within 500 feet of a wetland US Fish and Wildlife Wetland Identification map; Topographic map; Visua	al inspection (certification) of the proposed site	☐ Yes ☐ No						
Within the area overlying a subsurface mine Written confirmation or verification or map from the NM EMNRD-Mining	and Mineral Division	☐ Yes ☐ No						
<ul> <li>Within an unstable area.</li> <li>Engineering measures incorporated into the design: NM Bureau of Geology Society; Topographic map</li> </ul>	& Mineral Resources; USGS; NM Geological	☐ Yes ☐ No						
Within a 100-year floodplain. - FEMA map		☐ Yes ☐ No						
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the by a check mark in the box, that the documents are attached.  Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of Construction/Design Plan of Burial Trench (if applicable) based upon the ap Construction/Design Plan of Temporary Pit (for in-place burial of a drying pa Protocols and Procedures - based upon the appropriate requirements of 19.15  Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection I Disposal Facility Name and Permit Number (for liquids, drilling fluids and do Soil Cover Design - based upon the appropriate requirements of Subsection I Re-vegetation Plan - based upon the appropriate requirements of Subsection I Site Reclamation Plan - based upon the appropriate requirements of Subsection I	nirements of 19.15.17.10 NMAC Subsection F of 19.15.17.13 NMAC propriate requirements of 19.15.17.11 NMAC ad) - based upon the appropriate requirements of 19. 17.13 NMAC nirements of Subsection F of 19.15.17.13 NMAC Subsection F of 19.15.17.13 NMAC fill cuttings or in case on-site closure standards cannot of 19.15.17.13 NMAC of 19.15.17.13 NMAC	15.17.11 NMAC						

Operator Application Certification:  I hereby certify that the information submitted with this applie	cation is true, accurate and complete to the best of my knowledge and belief
Name (Print):	Title:
Signature:	Date:
e-mail address:	Telephone:
20.	lan)  Closure Plan (only)  OCD Conditions (see attachment)
OCD Representative Signature:	Approval Date:
Title:	OCD Permit Number:
	closure plan prior to implementing any closure activities and submitting the closure report. within 60 days of the completion of the closure activities. Please do not complete this
	x Closure Completion Date:01/21/2009
If different from approved plan, please explain.	nod
23. Closure Report Regarding Waste Removal Closure For Clo Instructions: Please indentify the facility or facilities for whe two facilities were utilized.	osed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: ere the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than
Disposal Facility Name:	Disposal Facility Permit Number:
Disposal Facility Name:	
	es performed on or in areas that will not be used for future service and operations?
Required for impacted areas which will not be used for future s  Site Reclamation (Photo Documentation)  Soil Backfilling and Cover Installation  Re-vegetation Application Rates and Seeding Technique	·
mark in the box, that the documents are attached.  x Proof of Closure Notice (surface owner and division)  x Proof of Deed Notice (required for on-site closure)  x Plot Plan (for on-site closures and temporary pits)  Confirmation Sampling Analytical Results (if applicable x Waste Material Sampling Analytical Results (required for Disposal Facility Name and Permit Number x Soil Backfilling and Cover Installation  Re-vegetation Application Rates and Seeding Technique x Site Reclamation (Photo Documentation)	on-site closure)
On-site Closure Location: Latitude 32* 33 1/6 N	Longitude 103° 21`967` NAD: x1927 🗌 1983
Operator Closure Certification:  I hereby certify that the information and attachments submitted	with this closure report is true, accurate and complete to the best of my knowledge and le closure requirements and conditions specified in the approved closure plan.
Name (Print):	Title:
Signature:	Date:
e-mail address:	Telephone:

Subinit To Appropries  Two Copies  District I  1625 N French Dr				State of New Mexico Energy, Minerals and Natural Resources						Form C-105 July 17, 2008 1. WELL API NO.					orm C-105 July 17, 2008		
District II 1301 W Grand Av District III 1000 Rto Brazos R District IV	d . Aztec,	NM 87410		Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505						7 ision   30-025-38817   2 Type of Lease   X FED/INDIAN   STATE   FEE   X FED/INDIAN				AN			
WELL COMPLETION OR RECOMPLETION REPORT AND LOG								5 Lease Nam									
x C-144 CLOSURE ATTACHMENT (Fill in boxes #1 through #9, #15 Date Rig Released and #32 and/or #33, attach this and the plat to the C-144 closure report in accordance with 19 15 17.13.K NMAC)									6. Well Num	oer. 2	l Federal	Com#1					
7 Type of Completion: x NEW WELL WORKOVER DEEPENING PLUGBACK DIFFERENT RESERVOIR 8. Name of Operator Mewbourne Oil Company 10. Address of Operator 11. Pool name or Wildcat										•							
P.O Box 5270 H	•	v Mayica	88241									11. 1 Ooi name	OI W	nucai			
12.Location	Unit Ltr	<del></del>	tion	Towns	ship	Range	Lot			eet from t	he	N/S Line	Feet	t from the	E/W L	ine	County
Surface: BH:																	
13. Date Spudded	I 14 D	ate T D.	Reached	15.1	Date Rig	I g Released Zらんら	J		16. E	ate Compl	leted	(Ready to Prod	luce)		L '. Elevatı Γ, GR, et		and RKB,
18. Total Measure	ed Depth	of Well		19. I		ck Measured Dep	oth		20. V	Vas Direct	ional	l Survey Made <sup>9</sup>	1	21 Type	e Electri	and Ot	her Logs Run
22 Producing Inte	erval(s).	of this co	npletion - T	Top, Bo	ttom, Na	ame				<u> </u>				l			
23.						ING REC	OR	D (R	epoi	t all str	ring	gs set in we	ell)				
CASING SIZ	ZE	WE	GHT LB /I	T		DEPTH SET			HOL	E SIZE		CEMENTIN	G RE	CORD	AM	IOUNT	PULLED
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						,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,											
24. SIZE	ТОР		LROT	TOM	LIN	ER RECORD SACKS CEMI	ENIT	SCRI	CEN		25 SIZ	TUBING RECORD  E DEPTH SET PACKER SE			ED CIET		
	1.0.		150.	10		OTICKS CEMI	C111	Jeki	13121		512	L		a moei		TACKI	
26 Perforation i	record (ir	nterval, si	ze, and nun	ıber)		<u> </u>		27 /	ACID	TOHS	FR A	ACTURE, CE	MEN	IT SOLIE	EFZE E	TC	
			,	,						TERVAL	1107	AMOUNT A					
28.					<del></del> -		PRC	DDU-	CT	ON			·				
Date First Product	ion		Producti	on Meth	od <i>(Flo</i>	wing, gas lift, pi						Well Status	(Proa	or Shut-i	n)		
Date of Test	Hours	Tested	Chol	Thoke Size Prod'n For Oil - Bbl Gas - MCF Water - Bbl Gas - Test Period					Gas - O	ıl Ratio							
Flow Tubing Press	Casing	Pressure		ulated 2 Rate	4-	Oil - Bbl		G	Gas - N	ICF	 	Vater - Bbl		Oil Grav	rity - AP	I - (Corr	•)
29 Disposition of Gas (Sold, used for fuel vented, etc.)  30. Test Witnessed By																	
31. List Attachments																	
32. If a temporary p	oit was u	sed at the	well, attacl	a plat	with the	location of the t	empo	rary pit	t	······································						•	
33. If an on-site burial was used at the well, report the exact location of the on-site burial  Latitude 32° 33°176" N Longitude 103° 21°961" W NAD 1927 1983																	
I hereby certify	that th	e inforn	iation sh	own o	n both	sides of this j	form	is tru	ie and	d comple	ete t	to the best of	my l	knowled	ge and	helief	0 1927 1983
Signature	1. M. f	June			P	rinted Name	You	nig		Title	e	Lo, d wall	۰۰۰،	+		Date	6/10/09
E-mail Address	/					·····		ر_				Man	Nege				,09

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#### **Deed Notification**

Drill cuttings produced during the drilling operations on the Mewbourne Oil Company Paloma 21 Fed. Com #1 well located in Unit letter M of Section 21, T20S, R36E, of Lea County, New Mexico are buried on this property. A steel marker placed at 32° 33.174 N, 103° 21.969 W marks the center of the burial site. The contents are encapsulated in a 20 mil string reinforced LLDPE liner and extend from 4 feet to 18 feet below ground level. The burial location extends 20 feet to the south, 20 feet to the north, 60 feet to the east, and 60 feet to the west of the marker.



M.M. Young)
District Maxinger
11-56, M. M.

Menbourne Oil Company



STATE OF NEW MEXICO COUNTY OF LEA FILED Jackie L. Lathan notary

Commission expires 7/18/2012

JUN 102	1
and recorded in Book	
Page Pat Chappelle, Lea County Clerk Ru	Deputy

SECTION 21, TOWNSHIP 20 SOUTH, RANGE 36 EAST, N.M.P.M., NEW MEXICO. LEA COUNTY, 3610.0° 600' 3611.4 150' NORTH OFF SET 3610.8' MEWBOURNE OIL COMPANY PALOMA "21" FEDERAL COM #1 ELEV. - 3613' LAT N.: 32\*33'11.24"
LONG W.: 103\*212'55.25"
N.: 566293.741
E.: 798261.241 (NAD-27) 150' SOUTH OFF SET 3614.4' 3614.2 3616<sup>-9</sup> 600 PROPOSED LEASE ROAD ·11 28 400 FEET 200 200 0 SCALE: 1" = 200 DRIVING DIRECTIONS MEWBOURNE OIL COMPANY FROM THE JUNCTION MADDOX, AND TUFFY COOPER, GO WEST 0.9 MILES TO HOUSE, CONTINUE WEST 1.9 MILES WEST TO LEASE ROAD, GO 0.2 MILES NORTHWEST; THENCE 0.7 MILES WEST TO DRY HOLE, FROM DRY HOLE GO WEST 0.2 MILES TO PALOMA 28 #1 LOCATION AND PROPOSED LEASE ROAD. REF PALOMA "21" FEDERAL COM #1 / WELL PAD TOPO THE PALOMA "21" FEDERAL COM #1 LOCATED 660' FROM THE SOUTH LINE AND 660' FROM THE WEST LINE OF SECTION 21, TOWNSHIP 20 SOUTH, RANGE 36 EAST, BASIN SURVEYS P.O BOX 1786-HOBBS, NEW MEXICO N.M.P.M., LEA COUNTY, NEW MEXICO. J. SMALL W.O. Number 18965 Drawn By: Sheets Sheet Survey Date: 12-21-2007

Disk: JMS 18965W

Date: 12-24-2007

# MEWBOURNE OIL COMPANY 701 S. CECIL PO BOX 5270 HOBBS, NM 88240 (575) 393-5905 (575) 397-6252 FAX

July 30, 2008

Dale Cooper Family Trust Box 6 Monument, NM 88265

Dear Clay Cooper:

This letter is to inform the surface owner that the wells listed below will require a temporary pit to be constructed & closed, as required by the NMOCD, adjacent to the well site location.

Paloma 21 Fed Com #2
Unit Letter M
Unit Letter L
Sec 21, T20S, R36E
Lea Co., NM
Paloma 21 Fed Com #2
Unit Letter L
Sec 21, T20S, R36E
Lea Co., NM

Thank you,

Charles Martin

SENDER: COMPLETE THIS SECTION  Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits.  Article Addressed to:  Clay Coper Dale Cooper Family trust	A. Signature  X. Betty R. C. Date of Delivery  B. Received by (Printed Name)  C. Date of Delivery  Betty R. Copy 8-1-08  D. Is delivery address different from item 1? Yes  If YES, enter delivery address below:
Box b Monument, NM 88265	3. Service Type  ☐ Certified Mail ☐ Express Mall ☐ Registered ☐ Insured Mail ☐ C.O.D.  4. Restricted Delivery? (Extra Fee) ☐ Yes
2. Article Number 7007 251	



1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-08-02686

Request or PO Number:

812238

Client Sample ID: 183416 SPLP EXTRACT

ARS Sample ID:

ARS1-08-02686-001 12/30/2008

Sample Collection Date: 12/22/08 08 45

Date Received: Report Date:

01/06/09 10:31

Sample Matrix:	Aqueou

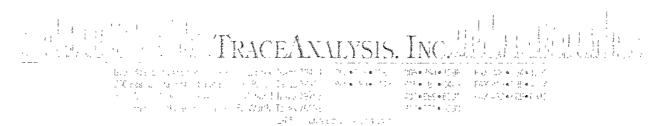
Analysis Description RA-226	Analysis Results 0 067	Analysis Error +/- 2 s 0 134	MDC	DLC ,	Analysis Units L	Analysis Test Method ARS-010/EPA 904.0	Analysis Date/Time 1/5/09 16.50	Analysis Technician GJ	Tracer/Chem Recovery 95 12%
RA-228	-0 575	0 557	1 063 ,	0.493	pCı/L	ARS-010/EPA 904.0	1/2/09 14.02	GJ .	63.20%
m — no 4 = 1	- 1			- ^	*		-		~ ~ !

NOTES: For RA-228, the LCSD fell outside the acceptance criteria biased low; however, the samples did meet duplicate criteria. Data is being reported as valid per technical review.

Notes American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658

NELAP Certificate # E87558



# Certifications

**WBENC:** 237019

HUB: 1752439743100-86536

**DBE:** VN 20657

NCTRCA WFWB38444Y0909

# **NELAP Certifications**

**Lubbock:** T104704219-08-TX

El Paso: T104704221-08-TX

Midland: T104704392-08-TX

LELAP-02003 Kansas E-10317 LELAP-02002

# Analytical and Quality Control Report

Eb Taylor Talon LPE-Hobbs 318 E Taylor Hobbs, NM, 88240

Report Date: December 30, 2008

Work Order: 8122318 

Project Location: Lea County, NM

Project Name: Paloma 21 Fed. Com. #1 Project Number: MEWBOU036 Pit

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

			$\operatorname{Date}$	$\operatorname{Time}$	$\operatorname{Date}$
Sample	Description	Matrix	Taken	Taken	Received
183416	Insitu Cuttings	soil	2008-12-22	08:45	2008-12-23

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

Michael abel

Dr. Blair Leftwich, Director

# Standard Flags

 ${f B}\,$  - The sample contains less than ten times the concentration found in the method blank.

# Case Narrative

Samples for project Paloma 21 Fed. Com. #1 were received by TraceAnalysis, Inc. on 2008-12-23 and assigned to work order 8122318 Samples for work order 8122318 were received intact at a temperature of 4.6 deg. C.

Samples were analyzed for the following tests using their respective methods.

Test	Method
BTEX	S 8021B
Chloride (Titration)	SM 4500-Cl B
MTBE	S 8021B
SPLP Ag	S 6010B
SPLP As	S 6010B
SPLP Ba	S 6010B
SPLP Cd	S 6010B
SPLP Cl	E 300.0
SPLP Cr	S 6010B
SPLP Cyanide	SM $4500$ -CN C.E
SPLP Fluoride	E 300.0
SPLP Hg	S 7470A
SPLP NO3 (IC)	E 300.0
SPLP PAH	S 8270C
SPLP Pb	S 6010B
SPLP PCB	S 8082
SPLP Se	S 6010B
SPLP U	S 6010B
SPLP Volatiles	S 8260B
TPH 418.1	E 418.1
TPH DRO	Mod. 8015B
TPH GRO	S 8015B

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 8122318 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

MEWBOU036 Pit

Work Order: 8122318 Paloma 21 Fed. Com. #1 Page Number: 4 of 44 Lea County, NM

# Analytical Report

#### Sample: 183416 - Insitu Cuttings

Laboratory: Lubbock

Analysis: BTEX QC Batch: 55469 Prep Batch. 47407

Analytical Method. Date Analyzed: Sample Preparation. 2008-12-23

 $\le 8021B$ 2008-12-23 Prep Method. S 5035 Analyzed By: ERPrepared By. ER

RI

		1612			
Parameter	Flag	Result	Units	Dilution	RL
MTBE		< 0 0100	mg/Kg	1	0.0100
Benzene		0.0104	$_{ m ing/Kg}$	1	0.0100
Toluene		0.0681	mg/Kg	1	0.0100
Ethylbenzene		0.162	mg/Kg	1	0.0100
Xylene		0.108	${ m mg/Kg}$	1	0.0100

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		1.00	mg/Kg	1	1.00	100	59 - 136.1
4-Bromofluorobenzene (4-BFB)		1.23	${ m mg/Kg}$	1	1.00	123	54.4 - 176.2

#### Sample: 183416 - Insitu Cuttings

Laboratory: Lubbock

Analysis: SPLP Ag QC Batch: 55520 Prep Batch: 47446

Analytical Method: S 6010B Date Analyzed: 2008-12-26 SPLP Extraction: 2008-12-24 Sample Preparation: 2008-12-25

Prep Method. SPLP 1312 Analyzed By. RRPrepared By: KV

Prepared By: KV

Parameter	Flag	RL Result	Units	Dilution	RL
SPLP Silver		< 0.00300	mg/L	1	0.00300

### Sample: 183416 - Insitu Cuttings

Laboratory: Lubbock

Analysis: SPLP As QC Batch: 55520 Prep Batch: 47446

Analytical Method. S 6010B Date Analyzed: 2008-12-26 SPLP Extraction: 2008-12-24 Sample Preparation: 2008-12-25

Prep Method: SPLP 1312 Analyzed By: RRPrepared By: KV

Prepared By: KV

RLParameter Flag Result Units Dilution RLSPLP Arsenic < 0.0100 mg/L 0.0100 Report Date. December 30, 2008 MEWBOU036 Pit

Work Order, 8122318 Paloma 21 Fed. Com. #1 Page Number: 5 of 44 Lea County, NM

Sample: 183416 - Insitu Cutting	ıgs
---------------------------------	-----

Laboratory. Analysis:

OC Batch:

Lubbock SPLP Ba 55520

Analytical Method: Date Analyzed:

S 6010B 2008-12-26 2008-12-24

Prep Method. SPLP 1312 Analyzed By: RRKV

Prep Batch: 47446 SPLP Extraction: Sample Preparation: 2008-12-25 Prepared By. Prepared By: KV

1

RL

Parameter SPLP Barium Result 0.369

Units mg/L Dilution RL

### Sample: 183416 - Insitu Cuttings

Laboratory:

Lubbock

SPLP Cd Analysis. QC Batch: 55520

Analytical Method:

S 6010B

Prep Method: **SPLP 1312** 

Prep Batch: 47446

Date Analyzed 2008-12-26 SPLP Extraction: 2008-12-24 Sample Preparation: 2008-12-25

Analyzed By: RRPrepared By. KVPrepared By: KV

RL

Flag Parameter SPLP Cadmium

Flag

Result < 0 00500

Dilution Units

RL0.00500

0.100

#### Sample: 183416 - Insitu Cuttings

Laboratory:

Lubbock

SPLP Cl Analysis: QC Batch: 55608 Prep Batch: 47527

Analytical Method: Date Analyzed: SPLP Extraction:

E 300.0 2008-12-30 2008-12-28

2008-12-30

Prep Method: **SPLP 1312** 

Analyzed By: RDPrepared By: RDPrepared By: RD

RL

Sample Preparation:

Parameter SPLP Chloride Flag

Result 55.3

Units

mg/L

mg/L

RL0.500

#### Sample: 183416 - Insitu Cuttings

Laboratory:

Lubbock

Analysis: SPLP Cr QC Batch: 55520 Prep Batch: 47446

Analytical Method: Date Analyzed:

SPLP Extraction:

Sample Preparation:

S 6010B 2008-12-26 2008-12-24 2008-12-25

Prep Method: **SPLP 1312** 

Analyzed By: RRPrepared By: KVPrepared By: KV

Dilution

10

MEWBOU036 Pit

Work Order: 8122318 Paloma 21 Fed. Com. #1 Page Number: 6 of 44 Lea County, NM

		RL			
Parameter	Flag	Result	Units	Dilution	RL
SPLP Chromium		0.00500	mg/L	1	0.00500

#### Sample: 183416 - Insitu Cuttings

Laboratory: Lubbock

Analysis: SPLP Cyanide QC Batch: 55619 Prep Batch: 47538

Analytical Method: SM 4500-CN C,E Date Analyzed:

SPLP Extraction.

Sample Preparation:

RL

2008-12-29 2008-12-28 2008-12-29

SPLP 1312 Prep Method: Analyzed By: SS

Prepared By: SS Prepared By: SS

Flag Parameter Result Units Dilution RLSPLP Cyanide < 2.00 mg/Kg 2.00

# Sample: 183416 - Insitu Cuttings

Laboratory. Lubbock

Analysis: SPLP Fluoride QC Batch: 55608 Prep Batch: 47527

Analytical Method: E 300.0Date Analyzed: 2008-12-30 2008 - 12 - 28SPLP Extraction: Sample Preparation: 2008-12-30

Prep Method: SPLP 1312 Analyzed By: RDPrepared By. RDPrepared By: RD

RL

Parameter Flag Result Units Dilution RLSPLP Fluoride 0.223mg/L 0.200

#### Sample: 183416 - Insitu Cuttings

Laboratory: Lubbock

Analysis: SPLP Hg QC Batch: 55514 Prep Batch: 47443

Analytical Method. S 7470A Date Analyzed: 2008-12-25 Sample Preparation: 2008-12-24

Prep Method. N/ATPAnalyzed By: Prepared By: TP

RLParameter Flag Result Units Dilution RLSPLP Mercury < 0.000200 mg/L 0.000200 Report Date: December 30, 2008 MEWBOU036 Pit

Work Order: 8122318

Paloma 21 Fed. Com. #1

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#### Sample: 183416 - Insitu Cuttings

Laboratory: Lubbock

SPLP NO3 (IC) Analysis: Analytical Method:  $\to 300.0$ Prep Method: SPLP 1312

QC Batch: 55608Date Analyzed. 2008-12-30 Analyzed By: RDPrep Batch 47527 SPLP Extraction: 2008-12-28 Prepared By: RDRD

Sample Preparation: 2008-12-30 Prepared By.

BI

		ILL			
Parameter	Flag	Result	Units	Dilution	RL
Nitrate-N		< 0.200	$\mathrm{mg/L}$	1	0.200

# Sample: 183416 - Insitu Cuttings

Laboratory. Lubbock

Analysis: SPLP PAH S 8270C Analytical Method: Prep Method. SPLP 1312

QC Batch: 55563 Date Analyzed: 2008-12-29 Analyzed By: MNPrep Batch: 47490 SPLP Extraction: 2008-12-28 Prepared By: MN Sample Preparation: 2008-12-29 Prepared By: MN

RL

Parameter	Flag	Result	Units	Dilution	RL
Naphthalene		< 0.000200	mg/L	1	0.000200
Acenaphthylene		< 0.000200	$_{ m mg/L}$	1	0.000200
Acenaphthene		< 0.000200	mg/L	1	0.000200
Dibenzofuran		< 0.000200	mg/L	1	0.000200
Fluorene		< 0.000200	m mg/L	1	0.000200
Anthracene		< 0.000200	m mg/L	1	0.000200
Phenanthrene		< 0.000200	mg/L	1	0.000200
Fluoranthene		< 0.000200	$_{ m mg/L}$	1	0.000200
Pyrene		< 0.000200	mg/L	1	0.000200
Benzo(a)anthracene		< 0.000200	m mg/L	1	0.000200
Chrysene		< 0.000200	m mg/L	1	0.000200
Benzo(b)fluoranthene		< 0.000200	$_{ m mg/L}$	1	0.000200
$\operatorname{Benzo}(k)$ fluoranthene		< 0.000200	$_{ m mg/L}$	1	0.000200
Benzo(a)pyrene		< 0.000200	mg/L	1	0.000200
Indeno(1,2,3-cd)pyrene		< 0.000200	$ m mg/\dot{L}$	1	0.000200
Dibenzo(a,h)anthracene		< 0.000200	$_{ m mg/L}$	1	0.000200
Benzo(g,h,i)perylene		< 0.000200	mg/L	1	0.000200

Surrogate	Flag	Result	Units	Dilution	$egin{array}{c}  ext{Spike} \  ext{Amount} \end{array}$	Percent Recovery	Recovery Limits
2-Fluorobiphenyl		0.0558	mg/L	1	0.0800	70	37.4 - 123
Nitrobenzene-d5		0.0551	mg/L	1	0.0800	69	34.3 - 130
Terphenyl-d14		0.0594	mg/L	1	0.0800	74	10 - 252

MEWBOU036 Pit Paloma 21 Fed. Com #1 Page Number: 8 of 44 Lea County, NM

KV

0.0100

Prepared By:

1

#### Sample: 183416 - Insitu Cuttings

La	bor	atory:	Lubbock
			anra ar

Analysis: SPLP Pb Analytical Method: S 6010B Prep Method. SPLP 1312 QC Batch: 55520 Date Analyzed: 2008-12-26 Analyzed By. RRPrep Batch 47446 SPLP Extraction: 2008-12-24 Prepared By. KV

Work Order: 8122318

2008-12-25

mg/L

Sample Preparation:

< 0.0100

RLResult Units Dilution RL

# Sample: 183416 - Insitu Cuttings

Flag

Laboratory Lubbock

Parameter

SPLP Lead

SPLP PCB Analysis: Analytical Method: S 8082 Prep Method. SPLP 1312 QC Batch. 55549 Date Analyzed: 2008-12-29 Analyzed By: DS Prep Batch: 47476 SPLP Extraction. 2008-12-28 Prepared By: DS Prepared By: DS

Sample Preparation: 2008-12-29

RL

Parameter	Flag	Result	$_{ m Units}$	Dilution	RL
Total PCB		< 0.000500	mg/L	1	0.000500
Aroclor 1016 (PCB-1016)		< 0.000500	mg/L	1	0.000500
Aroclor 1221 (PCB-1221)		< 0.000500	mg/L	1	0.000500
Aroclor 1232 (PCB-1232)		< 0.000500	mg/L	1	0.000500
Aroclor 1242 (PCB-1242)		< 0.000500	$_{ m mg/L}$	1	0.000500
Aroclor 1248 (PCB-1248)		< 0.000500	mg/L	1	0.000500
Aroclor 1254 (PCB-1254)		< 0.000500	$_{ m mg/L}$	1	0.000500
Aroclor 1260 (PCB-1260)		< 0.000500	mg/L	1	0.000500
Aroclor 1268 (PCB-1268)		< 0.000500	mg/L	1	0.000500

					$\operatorname{Spike}$	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	${f Amount}$	Recovery	Limits
Deca chlorobiphenyl		0.000585	$\mathrm{mg/L}$	1	0.000500	117	10 - 128

### Sample: 183416 - Insitu Cuttings

Laboratory: Lubbock

Analysis: SPLP Se Analytical Method: S 6010B Prep Method: SPLP 1312 QC Batch: 55520Date Analyzed: 2008-12-26 Analyzed By: RRPrep Batch: 47446 SPLP Extraction: 2008-12-24 Prepared By: KV

Sample Preparation: 2008-12-25 Prepared By: KV Report Date. December 30, 2008 MEWBOU036 Pit

Flag

Parameter

 $Carbon\ Disulfide$ 

2-Butanone (MEK)

1,1-Dichloroethene

Methylene chloride

trans-1,2-Dichloroethene

 ${\bf Acrylonitrile}$ 

2-Hexanone

MTBE

Iodomethane (methyl iodide)

4-Methyl-2-pentanone (MIBK)

trans 1,4-Dichloro-2-butene

Work Order: 8122318 Paloma 21 Fed. Com. #1

Units

RLResult Page Number: 9 of 44 Lea County, NM

RL

Dilution

SPLP Seleni	ium	< 0.0500	mg/L		1	0.0500
Sample: 18	83416 - Insitu Cuttings					
Laboratory.	Lubbock	,				
Analysis:	SPLP U	Analytical Method:	S 6010B		Prep Method:	SPLP 1312
QC Batch:	55520	Date Analyzed:	2008-12-26		Analyzed By:	RR
Prep Batch:	47446	SPLP Extraction:	2008-12-24		Prepared By:	KV
		Sample Preparation:	2008-12-25		Prepared By:	KV
		m RL				
Parameter	Flag	Result	Units		Dilution	RL
SPLP U		< 0.0500	mg/L		1	0.0500
Analysis: QC Batch: Prep Batch:	SPLP Volatiles 55564 47491	Analytical Method Date Analyzed. SPLP Extraction Sample Preparation	2008-12-28 2008-12-27		Prep Method: Analyzed By: Prepared By: Prepared By:	SPLP 1312 KB KB KB
			RL			
Parameter		$\operatorname{Flag}$	Result	Units	Dilution	RL
Bromochloro	methane		< 1.00	$\mu \mathrm{g/L}$	1	1.00
Dichlorodıflu	oromethane		< 1.00	$\mu \mathrm{g}/\mathrm{L}$	1	1.00
Chlorometha	ne (methyl chloride)	•	< 1.00	$\mu \mathrm{g}/\mathrm{L}$	1	1.00
Vinyl Chlorid	de		< 1.00	$\mu \mathrm{g}/\mathrm{L}$	1	1.00
Bromometha	ne (methyl bromide)		< 5.00	$\mu { m g}/{ m L}$	1	5.00
Chloroethane			< 1.00	$\mu { m g}/{ m L}$	1	1.00
Trichlorofluor	romethane		< 1.00	$\mu \mathrm{g}/\mathrm{L}$	1	1.00
Acetone			11.1	$\mu { m g}/{ m L}$	1	10.0
r	(			,		<b>=</b> 00

< 5.00

< 1.00

< 1.00

< 5.00

< 5.00

< 5.00

< 10.0

< 1.00

< 5.00

< 1.00

< 1.00

 $\mu g/L$ 

 $\mu \mathrm{g/L}$ 

 $\mu g/L$ 

 $\mu g/L$ 

 $\mu \mathrm{g/L}$ 

 $\mu g/L$ 

 $\mu g/L$ 

 $\mu g/L$ 

 $\mu \mathrm{g/L}$ 

 $\mu \mathrm{g/L}$ 

 $\mu \mathrm{g}/\mathrm{L}$ 

continued ...

1

1

1

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10.0

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1.00

1.00

Report Date: December 30, 2008 MEWBOU036 Pit

Work Order: 8122318 Paloma 21 Fed. Com. #1 Page Number: 10 of 44 Lea County, NM

sample 183416 continued . . .

		RL			
Parameter	Flag	Result	Units	Dilution	· RL
1,1-Dichloroethane		<1.00	$\mu \mathrm{g/L}$	1	1.00
cis-1,2-Dichloroethene		< 1.00	$\mu { m g/L}$	1	1.00
2,2-Dichloropropane		< 1.00	$\mu \mathrm{g}/\mathrm{L}$	Ī	1.00
1,2-Dichloroethane (EDC)		< 1.00	μg/L	1	1.00
Chloroform		< 1.00	$\mu \mathrm{g}/\mathrm{L}$	1	1.00
1,1,1-Trichloroethane		< 1.00	$\mu \mathrm{g/L}$	1	1.00
1,1-Dichloropropene		< 1.00	$\mu \mathrm{g/L}$	1	1.00
Benzene		< 1 00	$\mu \mathrm{g/L}$	1	1.00
Carbon Tetrachloride		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1	1.00
1,2-Dichloropropane		<1.00	$\mu \mathrm{g}/\mathrm{L}$	Ī	1.00
Trichloroethene (TCE)		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1	1.00
Dibromomethane (methylene bromide)		<1.00	$\mu \mathrm{g}/\mathrm{L}$	î	1.00
Bromodichloromethane		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1	1.00
2-Chloroethyl vinyl ether		< 5.00	$\mu \mathrm{g}/\mathrm{L}$	1	5.00
cis-1.3-Dichloropropene		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1	1.00
trans-1,3-Dichloropropene		<1.00	$\mu_{ m g}/{ m L}$	1	1.00
Toluene		<1.00	$\mu_{\rm g}/{ m L}$	1	1.00
1.1,2-Trichloroethane		<1.00	$\mu_{ m g/L}$	1	1.00 $1.00$
1,3-Dichloropropane		<1.00	$\mu_{ m g/L}$ $\mu_{ m g/L}$	1	1.00
Dibromochloromethane		<1.00	$\mu_{ m g/L}$	1	1.00
1,2-Dibromoethane (EDB)		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1	1.00
Tetrachloroethene (PCE)		<b>2.53</b>	$\mu_{ m g/L}$	1	1.00
Chlorobenzene		<1.00	$\mu_{ m g/L}$ $\mu_{ m g/L}$	1	1.00
1,1,1,2-Tetrachloroethane		<1.00	$\mu_{ m g/L} \ \mu_{ m g/L}$	1	1.00 $1.00$
Ethylbenzene		<1.00	$\mu_{ m g/L} \ \mu_{ m g/L}$	1	1.00
m,p-Xylene		<1.00	$\mu_{ m g/L} \ \mu_{ m g/L}$	1	
Bromoform		<1.00			1.00
Styrene		<1.00	$\mu g/L$	1	1.00
o-Xylene		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1	1.00
1,1,2,2-Tetrachloroethane		<1.00	$\mu \mathrm{g/L}$	1	1.00
2-Chlorotoluene		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1 1	1.00
1,2,3-Trichloropropane		<1.00	$\mu g/L$		1.00
Isopropylbenzene		<1.00 <1.00	$\mu \mathrm{g/L}$	1	1.00
Bromobenzene		<1.00 <1.00	$\mu g/L$	1	1.00
n-Propylbenzene		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1	1.00
1,3,5-Trimethylbenzene		<1.00 <1.00	$\mu \mathrm{g}/\mathrm{L}$	1	1.00
tert-Butylbenzene		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1	1.00
1,2,4-Trimethylbenzene		<1.00 <1.00	$\mu \mathrm{g}/\mathrm{L}$	1	1.00
1,4-Dichlorobenzene (para)		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1	1.00
sec-Butylbenzene			$\mu \mathrm{g/L}$	1	1.00
1,3-Dichlorobenzene (meta)		<1.00	$\mu \mathrm{g/L}$	1	1.00
p-Isopropyltoluene		<1.00	$\mu \mathrm{g/L}$	1	1.00
4-Chlorotoluene		<1.00	$\mu \mathrm{g/L}$	1	1.00
4-Omorotonene		<1.00	$\mu { m g/L}$	1	1.00

continued ...

MEWBOU036 Pit

Work Order: 8122318 Page Number: 11 of 44 Paloma 21 Fed. Com. #1 Lea County, NM

CM

CM

#### sample 183416 continued ...

		RL			
Parameter	Flag	Result	Units	Dilution	RL
1,2-Dichlorobenzene (ortho)		< 1.00	$\mu { m g/L}$	1	1.00
n-Butylbenzene		< 1.00	$\mu \mathrm{g}/\mathrm{L}$	1	1 00
1,2-Dibromo-3-chloropropane		< 5.00	$\mu { m g/L}$	1	5.00
1,2,3-Trichlorobenzene		< 5.00	$\mu { m g/L}$	1	5.00
1,2,4-Trichlorobenzene		< 5.00	$\mu { m g/L}$	1	5.00
Naphthalene		< 5.00	$\mu { m g}/{ m L}$	1	5.00
Hexachlorobutadiene		< 5.00	$\mu { m g}/{ m L}$	1	5.00

					$\operatorname{Spike}$	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Dibromofluoromethane		52.3	$\mu \mathrm{g/L}$	1	50.0	105	70 - 130
Toluene-d8		50.5	$\mu { m g}/{ m L}$	1	50.0	101	70 - 130
4-Bromofluorobenzene (4-BFB)		45.9	$\mu \mathrm{g}/\mathrm{L}$	1	50.0	92	70 - 130

#### Sample: 183416 - Insitu Cuttings

Laboratory: Lubbock

Analysis: TPH 418.1 Analytical Method: E 418.1 Prep Method: N/A QC Batch: 55597 Date Analyzed: 2008-12-30 Analyzed By: Prep Batch. 47512 Sample Preparation: 2008-12-30 Prepared By:

RLResult Parameter Flag Units Dilution RLTRPHC 191 mg/Kg 10.0

# Sample: 183416 - Insitu Cuttings

Laboratory: Lubbock

Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A QC Batch: 55481 Date Analyzed: 2008-12-23 Analyzed By: Prep Batch: 47416 Sample Preparation: 2008-12-23 Prepared By:

RLFlag Parameter Result Units Dilution RLDRO < 50.0 mg/Kg 50.0

•					$\mathbf{Spike}$	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		101	${ m mg/Kg}$	1	100	101	57.5 - 139

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Sample: 183416 - Insitu Cuttings

Laboratory: Lubbock

Analysis: TPH GRO QC Batch: 55470 Prep Batch: 47407 Analytical Method: S 8015B Date Analyzed: 2008-12-

Work Order: 8122318

Date Analyzed: 2008-12-23 Sample Preparation: 2008-12-23 Prep Method: S 5035 Analyzed By: ER

ER

Prepared By.

RL

Parameter	Flag	Result	Units	Dilution	RL
GRO		12.2	mg/Kg	1	1.00

					$\operatorname{Spike}$	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		1.00	mg/Kg	1	1 00	100	55 3 - 161.9
4-Bromofluorobenzene (4-BFB)		1.18	${ m mg/Kg}$	1	1 00	118 .	45.6 - 214.7

Method Blank (1) QC Batch: 55469

QC Batch: 55469 Prep Batch: 47407

 $\overline{\text{MTBE}}$ 

Benzene

Toluene

Xylene

Ethylbenzene

Date Analyzed: 2008-12-23 QC Preparation: 2008-12-23

Analyzed By: ER Prepared By: ER

0.01

Parameter Flag Resu

MDL Result Units RL< 0.00260 0.01 mg/Kg mg/Kg 0.01< 0.00347mg/Kg < 0.00525 0.01< 0.00607 mg/Kg 0.01

mg/Kg

	•				$_{ m Spike}$	Percent	Recovery
Surrogate	$\operatorname{Flag}$	Result	Units	Dilution	${f Amount}$	Recovery	Limits
Trifluorotoluene (TFT)		0.981	mg/Kg	1	1.00	98	69.3 - 110.2
4-Bromofluorobenzene (4-BFB)		0.959	${ m mg/Kg}$	1	1.00	96	24.4 - 114.6

< 0.00724

Method Blank (1) QC Batch: 55470

QC Batch: 55470 Prep Batch: 47407 Date Analyzed: 2008-12-23 QC Preparation: 2008-12-23 Analyzed By: ER Prepared By: ER

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Surrogate	Flag	Result	Units	Dilution	$\begin{array}{c} {\rm Spike} \\ {\rm Amount} \end{array}$	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.03	mg/Kg	1	1.00	103	83 3 - 108.5
4-Bromofluorobenzene (4-BFB)		0.904	mg/Kg	1	1.00	90	34.5 - 105.8

Method Blank (1)

QC Batch: 55481

QC Batch:

55481

Date Analyzed:

2008-12-23

Analyzed By:

Prep Batch: 47416

QC Preparation: 2008-12-23

Prepared By:

MDL

Flag Parameter Units Result RL $\overline{DRO}$ <14 5 mg/Kg 50

					$_{ m Spike}$	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		99.0	m mg/Kg	1	100	99	72.4 - 150

Method Blank (1)

QC Batch: 55514

QC Batch: Prep Batch: 47443

55514

Date Analyzed. QC Preparation:

2008-12-25 2008-12-24 Analyzed By: TP

Prepared By: TP

MDL

Parameter	Flag	Result	Units	RL
SPLP Mercury		< 0.0000251	mg/L	0.0002

Method Blank (1)

QC Batch: 55520

QC Batch:

55520

Date Analyzed:

2008-12-26

Analyzed By: RR

Prep Batch: 47446

QC Preparation. 2008-12-24 Prepared By:

KV

Parameter Flag SPLP Cadmium

MDL Result

Units RL< 0.00140 0.005 mg/L

Method Blank (1)

QC Batch: 55520

QC Batch:

55520

Date Analyzed:

2008-12-26

Analyzed By: RR

Prep Batch: 47446

QC Preparation:

2008-12-24

Prepared By: KV

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Parameter	Flag		MDL Result	Units		$_{ m RL}$
SPLP Lead	riag		00320	mg/L		$\frac{\kappa_L}{0.01}$
						0.01
Method Blank (1)	QC Batch: 55520					
QC Batch: 55520		Date Analyzed.	2008-12-26		Analyzed By:	
Prep Batch 47446		QC Preparation:	2008-12-24		Prepared By:	KV
Parameter	Flag		MDL Result	Units		RL
SPLP Selenium	1 105		(0.0131	mg/L		0.05
				9,		
Method Blank (1)	QC Batch: 55520					
QC Batch: 55520		Date Analyzed:	2008-12-26		Analyzed By:	RR
Prep Batch 47446		QC Preparation.	2008-12-24		Prepared By:	KV
m.			MDL			
Parameter SPLP Arsenic	Flag		Result	Units		RL
SPLP Arsenic		<0	0.00430	mg/L		0.01
Method Blank (1)	QC Batch: 55520					
QC Batch: 55520		Date Analyzed:	2008-12-26		Analyzed By:	RR
Prep Batch: 47446		QC Preparation:	2008-12-24		Prepared By:	KV
•		• •			1	
Parameter	Flag		MDL Result	Unita		DI
SPLP Barium	riag		).00170	Units mg/L		$\frac{RL}{0.1}$
JI Darrum			5.00170	mg/L		0.1
Method Blank (1)	QC Batch: 55520					
QC Batch: 55520		Date Analyzed:	2008-12-26		Analyzed By:	RR
Prep Batch: 47446		QC Preparation:	2008-12-24		Prepared By:	KV
			MDL			
Parameter	Flag		Result	Units		RL
SPLP Chromium		<0	0.000900	m mg/L		0.005

MEWBOU036 Pit	30, 2008		Order: 8122318 1 Fed Com. #1	1		umber: 15 Lea County	
Method Blank (1)	QC Batch: 55520						
QC Batch: 55520 Prep Batch: 47446		Date Analyzed: QC Preparation:	2008-12-26 2008-12-24			yzed By. ared By.	RR KV
			MDL .				
Parameter	Flag		Result	Un	nits		RL
SPLP Silver		<0.0	00210	mg	g/L		0.003
Method Blank (1)	QC Batch: 55520						
QC Batch: 55520		Date Analyzed.	2008-12-26		Anal	yzed By:	RR
Prep Batch: 47446		QC Preparation:				ared By:	KV
	Dl.		ADL esult	Un	iita		RL
Paramotor							
Parameter SPLP U Method Blank (1)	Flag  QC Batch: 55549		)105	mg			0.05
SPLP U  Method Blank (1)  QC Batch: 55549		<0.0	2008-12-29		,/L Ana	lyzed By	0.05
SPLP U  Method Blank (1)  QC Batch: 55549		<0.0	2008-12-29 2008-12-29		,/L Ana	lyzed By: ared By:	0.05
Method Blank (1) QC Batch: 55549 Prep Batch. 47476	QC Batch: 55549	<0.0 Date Analyzed: QC Preparation.	2008-12-29	mg	,/L Ana	pared By:	DS DS
Method Blank (1)  QC Batch: 55549  Prep Batch. 47476		<0.0 Date Analyzed: QC Preparation.	2008-12-29 2008-12-29 MDL	mg	Ana Prep Units	pared By:	DS DS
SPLP U  Method Blank (1)  QC Batch: 55549  Prep Batch: 47476  Parameter  Total PCB	QC Batch: 55549 Fl:	<0.0 Date Analyzed: QC Preparation.	2008-12-29 2008-12-29 MDL Result	mg	Ana Prep	pared By:	DS DS RL .0005
SPLP U  Method Blank (1)  QC Batch: 55549  Prep Batch: 47476  Parameter  Total PCB  Aroclor 1016 (PCB-1016)  Aroclor 1221 (PCB-1221)	QC Batch: 55549	<0.0 Date Analyzed: QC Preparation.	2008-12-29 2008-12-29 MDL Result <0.000125	mg	Ana. Prep Units mg/L mg/L mg/L	0 0 0	DS DS RL .0005
SPLP U  Method Blank (1)  QC Batch: 55549  Prep Batch: 47476  Parameter  Total PCB  Aroclor 1016 (PCB-1016)  Aroclor 1221 (PCB-1221)  Aroclor 1232 (PCB-1232)	QC Batch: 55549 Fla	<0.0 Date Analyzed: QC Preparation.	2008-12-29 2008-12-29 MDL Result <0.000125 <0.000122 <0.000118 <0.0000459	mg	Ana. Preputation Units mg/L mg/L mg/L mg/L mg/L	0 0 0. 0.	DS DS DS RL .0005 .0005
Method Blank (1) QC Batch: 55549 Prep Batch: 47476  Parameter Total PCB Aroclor 1016 (PCB-1016) Aroclor 1221 (PCB-1221) Aroclor 1232 (PCB-1232) Aroclor 1242 (PCB-1242)	QC Batch: 55549	<0.0 Date Analyzed: QC Preparation.	2008-12-29 2008-12-29 MDL Result <0.000125 <0.000122 <0.000118 <0.0000459 <0.000125	mg	Ana Prep Units mg/L mg/L mg/L mg/L mg/L mg/L	0 0 0. 0. 0.	DS DS RL .0005 .0005 .0005
Method Blank (1)  QC Batch: 55549  Prep Batch: 47476  Parameter  Total PCB  Aroclor 1016 (PCB-1016)  Aroclor 1221 (PCB-1221)  Aroclor 1232 (PCB-1232)  Aroclor 1242 (PCB-1242)  Aroclor 1248 (PCB-1248)	QC Batch: 55549	<0.0 Date Analyzed: QC Preparation.	2008-12-29 2008-12-29 MDL Result <0.000125 <0.000122 <0.000118 <0.0000459 <0.000125 <0.000125	mg	Ana Prep Units mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0 0 0 0 0 0 0	DS DS DS O005 0005 0005 0005
Method Blank (1)  QC Batch: 55549  Prep Batch: 47476  Parameter  Total PCB  Aroclor 1016 (PCB-1016)  Aroclor 1221 (PCB-1221)  Aroclor 1232 (PCB-1232)  Aroclor 1242 (PCB-1242)  Aroclor 1248 (PCB-1248)  Aroclor 1254 (PCB-1254)	QC Batch: 55549	<0.0 Date Analyzed: QC Preparation.	2008-12-29 2008-12-29 MDL Result <0.000125 <0.000122 <0.000145 <0.0000459 <0.000125 <0.0000546 <0.0000569	mg	Ana Prep Units mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0 0 0 0 0 0 0 0	DS DS RL
Method Blank (1)  QC Batch: 55549 Prep Batch: 47476  Parameter Total PCB Aroclor 1016 (PCB-1016) Aroclor 1221 (PCB-1221) Aroclor 1232 (PCB-1232) Aroclor 1242 (PCB-1242) Aroclor 1248 (PCB-1248) Aroclor 1254 (PCB-1254) Aroclor 1254 (PCB-1260)	QC Batch: 55549	<0.0 Date Analyzed: QC Preparation.	2008-12-29 2008-12-29 MDL Result <0.000125 <0.000122 <0.000118 <0.0000459 <0.000125 <0.000125	mg	Ana Prep Units mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0 0 0 0 0 0 0 0	DS DS RL
Method Blank (1)  QC Batch: 55549  Prep Batch: 47476  Parameter  Total PCB  Aroclor 1016 (PCB-1016)  Aroclor 1221 (PCB-1221)  Aroclor 1232 (PCB-1232)  Aroclor 1242 (PCB-1242)  Aroclor 1248 (PCB-1248)	QC Batch: 55549	<0.0 Date Analyzed: QC Preparation.	2008-12-29 2008-12-29 MDL Result <0.000125 <0.000122 <0.0001459 <0.000125 <0.0000546 <0.0000546 <0.0000569 <0.0000331	mg	Ana Prep Units mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.	DS DS DS 0.0005 0.0005 0.0005 0.0005
Method Blank (1)  QC Batch: 55549 Prep Batch: 47476  Parameter Total PCB Aroclor 1016 (PCB-1016) Aroclor 1221 (PCB-1221) Aroclor 1232 (PCB-1232) Aroclor 1242 (PCB-1242) Aroclor 1248 (PCB-1248) Aroclor 1254 (PCB-1254) Aroclor 1254 (PCB-1260)	QC Batch: 55549	<0.0  Date Analyzed: QC Preparation.	2008-12-29 2008-12-29 MDL Result <0.000125 <0.000122 <0.0001459 <0.000125 <0.0000546 <0.0000546 <0.0000569 <0.0000331	mg	Ana Prep Units mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0	DS DS O0055 0005 0005 0005

Date Analyzed: 2008-12-29 QC Preparation: 2008-12-29 Analyzed By: MN Prepared By: MN

Method Blank (1)

QC Batch: 55563 Prep Batch: 47490 QC Batch: 55563

 ${\bf MEWBOU036~Pit}$ 

Work Order: 8122318 Paloma 21 Fed. Com. #1

MDLRLParameter Flag Units Result Naphthalene 0.0002 < 0.0000853 mg/L Acenaphthylene < 0.0000768 mg/L0.0002Acenaphthene < 0.000103 0.0002mg/L Dibenzofuran < 0.000200mg/L 0.0002Fluorene < 0.0000861 mg/L 0.0002Anthracene < 0.000170mg/L 0.0002Phenanthrene < 0.0000884 mg/L 0.0002Fluoranthene < 0.0000969 mg/L 0.0002Pyrene < 0.0000855mg/L 0.0002Benzo(a)anthracene < 0.0000703 0.0002mg/LChrysene < 0.000113 mg/L 0.0002Benzo(b)fluoranthene < 0.000134 mg/L 0.0002Benzo(k)fluoranthene < 0.000227 0.0002mg/LBenzo(a)pyrene < 0.000200 0.0002mg/L Indeno(1,2,3-cd)pyrene < 0.000253 0.0002mg/L Dibenzo(a,h)anthracene < 0.000180 0.0002mg/L Benzo(g,h,i)perylene < 0.000158 mg/L 0.0002

					Spike	Percent	Recovery
Surrogate	$\operatorname{Flag}$	Result	Units	Dilution	Amount	Recovery	Limits
2-Fluorobiphenyl		0.0406	mg/L	1	0.0800	51	10 - 146
Nitrobenzene-d5		0.0398	mg/L	1	0.0800	50	10 - 141
Terphenyl-d14		0.0537	${ m mg/L}$	1	0.0800	67	10 - 266

# Method Blank (1)

QC Batch: 55564

QC Batch: 55564 Prep Batch: 47491 Date Analyzed: 2008-12-28 QC Preparation: 2008-12-28 Analyzed By: KB Prepared By: KB

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		$\operatorname{MDL}$		
Parameter	$\operatorname{Flag}$	Result	Units	$\operatorname{RL}$
Bromochloromethane		< 0.177	$\mu { m g}/{ m L}$	1
Dichlorodifluoromethane		< 0.208	$\mu { m g}/{ m L}$	1
Chloromethane (methyl chloride)		< 0.134	$\mu { m g}/{ m L}$	1
Vinyl Chloride		< 0.135	$\mu \mathrm{g}/\mathrm{L}$	1
Bromomethane (methyl bromide)		< 1.23	$\mu { m g}/{ m L}$	5
Chloroethane		< 0.182	$\mu { m g}/{ m L}$	1
Trichlorofluoromethane		< 0.0610	$\mu { m g}/{ m L}$	1
Acetone		< 5.50	$\mu { m g}/{ m L}$	10
Iodomethane (methyl iodide)	•	< 0.107	$\mu { m g}/{ m L}$	5
Carbon Disulfide		0.0700	$\mu { m g}/{ m L}$	1
Acrylonitrile		< 0.0970	$\mu \mathrm{g}/\mathrm{L}$	1
2-Butanone (MEK)		< 0.531	$\mu { m g}/{ m L}$	5
4-Methyl-2-pentanone (MIBK)		< 0.421	$\mu { m g}/{ m L}$	5

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method	blank	continued	
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method blank continued		MDL		
Parameter	Flag	Result	Units	RL
2-Hexanone		< 0.168	$\mu \mathrm{g/L}$	5
trans 1,4-Dichloro-2-butene		< 0.517	$\mu { m g/L}$	10
1,1-Dichloroethene		< 0.136	$\mu \mathrm{g/L}$	1
Methylene chloride		< 0.649	$\mu { m g}/{ m L}$	5
MTBE		< 0.123	$\mu { m g/L}$	1
trans-1,2-Dichloroethene		< 0.126	$\mu { m g/L}$	1
1,1-Dichloroethane		< 0.0600	$\mu { m g/L}$	1
cis-1,2-Dichloroethene		< 0.151	$\mu { m g}/{ m L}$	1
2,2-Dichloropropane		< 0.180	$\mu \mathrm{g}/\mathrm{L}$	1
1,2-Dichloroethane (EDC)		< 0 113	$\mu \mathrm{g}/\mathrm{L}$	1
Chloroform		< 0.141	$\mu \mathrm{g}/\mathrm{L}$	1
1,1,1-Trichloroethane		< 0.116	$\mu \mathrm{g/L}$	1
1,1-Dichloropropene		< 0.0540	$\mu { m g}/{ m L}$	1
Benzene		< 0.146	$\mu \mathrm{g/L}$	1
Carbon Tetrachloride		< 0.0790	$\mu \mathrm{g}/\mathrm{L}$	1
1,2-Dichloropropane		< 0.111	$\mu \mathrm{g}/\mathrm{L}$	1
Trichloroethene (TCE)		< 0 117	$\mu \mathrm{g}/\mathrm{L}$	i
Dibromomethane (methylene bromide)		< 0.140	$\mu \mathrm{g}/\mathrm{L}$	1
Bromodichloromethane	•	< 0.161	$\mu \mathrm{g/L}$	1
2-Chloroethyl vinyl ether		< 0.388	$\mu \mathrm{g}/\mathrm{L}$	õ
cis-1,3-Dichloropropene		< 0.0890	$\mu \mathrm{g/L}$	1
trans-1,3-Dichloropropene		< 0.0760	$\mu \mathrm{g}/\mathrm{L}$	1
Toluene		< 0.0600	$\mu \mathrm{g/L}$	1
1,1,2-Trichloroethane		< 0.135	$\mu_{ m g/L}$	1
1,3-Dichloropropane		< 0.0990	$\mu \mathrm{g}/\mathrm{L}$	1
Dibromochloromethane		< 0.0900	$\mu \mathrm{g}/\mathrm{L}$	1
1,2-Dibromoethane (EDB)		< 0.0700	$\mu \mathrm{g/L}$	1
Tetrachloroethene (PCE)		< 0.270	$\mu \mathrm{g/L}$	$\overline{1}$
Chlorobenzene		0.0700	$\mu \mathrm{g}/\mathrm{L}$	1
1,1,1,2-Tetrachloroethane		< 0.0990	$\mu \mathrm{g}/\mathrm{L}$	1
Ethylbenzene		< 0.0360	$\mu \mathrm{g}/\mathrm{L}$	1
m,p-Xylene		< 0.0940	$\mu \mathrm{g/L}$	1
Bromoform		< 0.0570	$\mu \mathrm{g}/\mathrm{L}$	1
Styrene		< 0.0910	$\mu { m g}/{ m L}$	1
o-Xylene		< 0.0960	$\mu \mathrm{g}/\mathrm{L}$	1
1,1,2,2-Tetrachloroethane		< 0.125	$\mu { m g/L}$	$ar{1}$
2-Chlorotoluene		0.0900	$\mu { m g}/{ m L}$	1
1,2,3-Trichloropropane		< 0.458	$\mu { m g}/{ m L}$	1
Isopropylbenzene		0.100	$\mu { m g}/{ m L}$	1
Bromobenzene		< 0.106	$\mu { m g}/{ m L}$	1
n-Propylbenzene		0.150	$\mu { m g/L}$	1
1,3,5-Trimethylbenzene		0.0900	$\mu { m g}/{ m L}$	1
tert-Butylbenzene		< 0.107	$\mu \mathrm{g/L}$	1
1,2,4-Trimethylbenzene		0.100	$\mu \mathrm{g}/\mathrm{L}$	1
· · ·			F-0/-	··· 1

continued ...

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		MDL		
Parameter	$\operatorname{Flag}$	Result	Units	RL
1.4-Dichlorobenzene (para)		< 0 217	$\mu \mathrm{g/L}$	1
sec-Butylbenzene		0.180	$\mu\mathrm{g}/\mathrm{L}$	1
1,3-Dichlorobenzene (meta)		0.100	$\mu { m g}/{ m L}$	1
p-Isopropyltoluene		0.150	$\mu\mathrm{g}/\mathrm{L}$	1
4-Chlorotoluene		0.100	$\mu \mathrm{g}/\mathrm{L}$	1
1,2-Dichlorobenzene (ortho)		< 0 100	$\mu\mathrm{g}/\mathrm{L}$	1
n-Butylbenzene		0.220	$\mu \mathrm{g}/\mathrm{L}$	1
1,2-Dibromo-3-chloropropane		< 0 690	$\mu\mathrm{g/L}$	5
1,2,3-Trichlorobenzene		0.150	$\mu { m g}/{ m L}$	5
1,2,4-Trichlorobenzene		< 0.155	$\mu { m g}/{ m L}$	5
Naphthalene		< 0.594	$\mu\mathrm{g}/\mathrm{L}$	5
Hexachlorobutadiene		0.570	$\mu { m g}/{ m L}$	5

					Spike	Percent	Recovery
Surrogate	$\operatorname{Flag}$	Result	Units	Dilution	Amount	Recovery	Limits
Dibromofluoromethane		50.4	$\mu \mathrm{g/L}$	1	50.0	101	70 - 130
Toluene-d8		50.3	$\mu { m g}/{ m L}$	1	50.0	101	70 - 130
4-Bromofluorobenzene (4-BFB)		46.6	$\mu { m g}/{ m L}$	1	50.0	93	70 - 130

Method Blank (1)

QC Batch: 55597

QC Batch: 55597

Date Analyzed: 2008-12-30

Analyzed By: CM Prepared By: CM

Prep Batch: 47512

Parameter

TRPHC

Nitrate-N

QC Preparation. 2008-12-30

Method Blank (1)

QC Batch: 55608

QC Batch: 55608 Prep Batch: 47527 Date Analyzed: 2008-12-30 QC Preparation: 2008-12-30

Analyzed By: RD Prepared By: RD

Parameter Flag

Method Blank (1)

QC Batch: 55608

QC Batch: 55608 Prep Batch: 47527 Date Analyzed: 2008-12-30 QC Preparation: 2008-12-30

Analyzed By: RD Prepared By: RD

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		$\mathrm{MDL}$		
Parameter	Flag	Result	Units	RL
SPLP Chloride		< 0.137	mg/L	0.5
Method Blank (1)	QC Batch: 55608			
QC Batch 55608		Date Analyzed: 2008-12-30		Analyzed By: RD
Prep Batch. 47527		QC Preparation: 2008-12-30		Prepared By: RD
		MDL		
Parameter	Flag	Result	Units	RL
SPLP Fluoride		< 0.0889	mg/L	0.2
Method Blank (1)	QC Batch: 55619			
QC Batch 55619		Date Analyzed: 2008-12-29		Analyzed By. SS
Prep Batch 47538		QC Preparation: 2008-12-29		Prepared By. SS
		MDL		
Parameter	Flag	Result	Units	RL
SPLP Cyanide		<1.94	mg/Kg	2

# Laboratory Control Spike (LCS-1)

QC Batch: 55469 Prep Batch: 47407 Date Analyzed: 2008-12-23 QC Preparation. 2008-12-23 Analyzed By: ER Prepared By: ER

Param	LCS Result	$_{ m Units}$	Dil.	Spike Amount	Matrix Result	Rec.	$egin{array}{c} { m Rec.} \\ { m Limit} \end{array}$
MTBE	1.09	mg/Kg	1	1.00	< 0.00260	109	77.5 - 118.4
Benzene	1.02	mg/Kg	1	1.00	< 0.00347	102	80.5 - 115.5
Toluene	1.02	mg/Kg	1	1.00	< 0.00525	102	80 - 114.7
Ethylbenzene	1.01	mg/Kg	1	1.00	< 0.00607	101	77.1 - 114.2
Xylene	3.05	mg/Kg	1	3.00	< 0.00724	102	77.6 - 114.5

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

	LCSD			Spike	Matrix		$\operatorname{Rec}$ .		RPD
Param	Result	Units	Dil.	${f Amount}$	Result	Rec.	$\operatorname{Limit}$	RPD	Limit
MTBE	1.09	mg/Kg	1	1.00	< 0.00260	109	77.5 - 118.4	0	20
Benzene	1.02	mg/Kg	1	1.00	< 0.00347	102	80.5 - 115.5	0	20
Toluene	1.02	${ m mg/Kg}$	1	1.00	< 0.00525	102	80 - 114.7	0	20
Ethylbenzene	1.01	mg/Kg	1	1.00	< 0.00607	101	77.1 - 114.2	0	20

continued . . .

Work Order. 8122318 Paloma 21 Fed. Com. #1

Report Date: December 30, 2008

MEWBOU036 Pit

control spikes continued . . . Rec. RPD LCSD Spike Matrix Units Dil Amount Result Rec. Limit RPD Limit Result Param 3.00 < 0.00724 102 77.6 - 114.5 20 3.06 mg/Kg Xylene 1

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	$\operatorname{Result}$	Result	$\operatorname{Units}$	$D_{1}l.$	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	1.00	0 946	mg/Kg	1	1.00	100	95	74 2 - 114.7
4-Bromofluorobenzene (4-BFB)	1.01	0.980	mg/Kg	1	1.00	101	98	69.7 - 118.7

#### Laboratory Control Spike (LCS-1)

OC Batch: Prep Batch: 47407

55470

Date Analyzed. 2008-12-23 QC Preparation. 2008-12-23 Analyzed By. ER Prepared By. ER

	LCS			Spike	Matrix		Rec.
Param	Result	Umts	Dil.	Amount	Result	Rec.	Limit
GRO	9.96	mg/Kg	1	10.0	< 0.144	100	73.1 - 114.7

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

	LCSD			Spike	Matrix		$\mathrm{Rec.}$		RPD
Param	Result	Units	D1l.	Amount	Result	Rec.	Limit	RPD	Limit
GRO	9.89	mg/Kg	1	10.0	< 0.144	99	73.1 - 114.7	1	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	$\mathbf{A}\mathbf{mount}$	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	0.978	0 959	mg/Kg	1	1.00	98	96	77.4 - 111.4
4-Bromofluorobenzene (4-BFB)	0.964	0.944	mg/Kg	1	1.00	96	94	70.3 - 116.1

# Laboratory Control Spike (LCS-1)

QC Batch: 55481 Prep Batch: 47416 Date Analyzed: QC Preparation: 2008-12-23

2008 - 12 - 23

Analyzed By: Prepared By:

	LCS			$_{ m Spike}$	Matrix		Rec.
Param	Result	Units	Dil.	${f Amount}$	Result	Rec.	Limit
DRO	267	mg/Kg	1	250	<14.5	107	73.4 - 123

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

	LCSD			$_{ m Spike}$	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	$\operatorname{Limit}$	RPD	Limit
DRO	265	mg/Kg	1	250	<14.5	106	73.4 - 123	1	20

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

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	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	$\operatorname{Limit}$
n-Triacontane	95.5	98.1	mg/Kg	1	100	96	98	57.5 - 139

#### Laboratory Control Spike (LCS-1)

QC Batch:

55514

Date Analyzed:

2008-12-25

Analyzed By: TP

Prep Batch. 47443

QC Preparation:

2008-12-24

Prepared By: TP

	LCS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
SPLP Mercury	0.00103	mg/L	1	0.00100	< 0.0000251	103	85 - 115

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

	LCSD			$_{ m Spike}$	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	$\operatorname{Limit}$
SPLP Mercury	0.000994	mg/L	1	0.00100	< 0.0000251	99	85 - 115	4	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:

55520

Date Analyzed.

2008-12-26

Analyzed By: RR

Prep Batch: 47446

QC Preparation: 2008-12-24

Prepared By: KV

	LCS			. Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	$\mathrm{Rec.}$	Limit
SPLP Cadmium	0.246	mg/L	1	0.250	< 0.00140	98	85 - 115

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

	LCSD			$_{ m Spike}$	Matrix		Rec.		RPD
Param	Result	Units.	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
SPLP Cadmium	0.240	m mg/L	1	0.250	< 0.00140	96	85 - 115	2	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:

55520

Date Analyzed:

2008-12-26

Analyzed By: RR

Prep Batch: 47446

QC Preparation:

2008-12-24

Prepared By: KV

LCS Spike Matrix Rec. Param Result Units Dil. Amount Result Rec. Limit SPLP Lead 0.503 mg/L0.500 < 0.00320 101 85 - 115

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

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	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	$\mathbf{A}\mathbf{m}\mathbf{o}\mathbf{u}\mathbf{n}\mathbf{t}$	Result	Rec.	$_{ m Limit}$	RPD	Limit
SPLP Lead	0.495	mg/L	1	0.500	< 0.00320	99	85 - 115	2	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:

55520

Date Analyzed:

2008-12-26

Analyzed By: RR Prepared By: KV

Prep Batch. 47446

QC Preparation: 2008-12-24

	LCS			$_{ m Spike}$	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
SPLP Selenium	0.455	mg/L	1	0.500	< 0.0131	91	85 - 115

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

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	$_{ m Units}$	Dil.	Amount	Result	Rec.	Limit	RPD	$\operatorname{Limit}$
SPLP Selenium	0 444	ing/L	1	0.500	< 0.0131	89	85 - 115	2	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: Prep Batch: 47446

55520

Date Analyzed:

2008-12-26 QC Preparation: 2008-12-24 Analyzed By: RR

Prepared By: KV

	LCS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	$\mathbf{Amount}$	Result	Rec.	$\operatorname{Limit}$
SPLP Arsenic	0.471	mg/L	1	0.500	< 0.00430	94	85 - 115

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

	LCSD			$\operatorname{Spike}$	Matrix		${ m Rec.}$		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$	RPD	Limit
SPLP Arsenic	0.462	mg/L	1	0.500	< 0.00430	92	85 - 115	2	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:

55520

Date Analyzed:

2008-12-26

Analyzed By: RR

Prep Batch: 47446

QC Preparation: 2008-12-24

Prepared By: KV

 $continued \dots$ 

MEWBOU036 Pit

Work Order: 8122318 Paloma 21 Fed. Com. #1 Page Number: 23 of 44 Lea County, NM

control spikes continued . . .

	LCS			$_{ m Spike}$	Matrix		$\mathrm{Rec.}$
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
	LCS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
SPLP Barium	0.981	mg/L	1	1.00	< 0 00170	98	85 - 115

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

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	${f Amount}$	Result	Rec.	$_{ m Limit}$	RPD	Limit
SPLP Barium	0.962	mg/L	1	1.00	< 0.00170	96	85 - 115	2	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: 55520 Prep Batch: 47446

Date Analyzed: 2008-12-26 QC Preparation. 2008-12-24 Analyzed By: RR Prepared By: KV

	LCS			$_{ m Spike}$	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
SPLP Chromium	0.0900	mg/L	1	0.100	< 0.000900	90	85 - 115

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

	LCSD			$_{ m Spike}$	Matrix		${ m Rec.}$		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
SPLP Chromium	0.0870	mg/L	1	0.100	< 0.000900	87	85 - 115	3	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: 55520 Prep Batch: 47446

Date Analyzed:

2008-12-26 QC Preparation: 2008-12-24

Analyzed By: RR Prepared By: KV

	LCS			$\operatorname{Spike}$	Matrix		${ m Rec.}$
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
SPLP Silver	0.114	${ m mg/L}$	1	0.125	< 0.00210	91	85 - 115

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

	$_{ m LCSD}$	*		$_{ m Spike}$	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	$\operatorname{Limit}$
SPLP Silver	0.112	${ m mg/L}$	1	0.125	< 0.00210	90	85 - 115	2	20

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

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#### Laboratory Control Spike (LCS-1)

QC Batch:

55520

Date Analyzed:

2008-12-26

Analyzed By: RR

Prep Batch: 47446

QC Preparation: 2008-12-24

Prepared By: KV

	LCS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
SPLP U	0.476	mg/L	1	0.500	< 0 0105	95	90 - 110

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

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	${f A}{f m}{f o}{f u}{f r}{f t}$	Result	Rec.	$\operatorname{Limit}$	RPD	Limit
SPLP U	0.458	mg/L	1	0.500	< 0.0105	92	90 - 110	4	

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:

55549

Date Analyzed:

2008-12-29

Analyzed By: DS

Prep Batch: 47476

QC Preparation: 2008-12-29

Prepared By: DS

	LCS			$_{ m Spike}$	Matrix		$\operatorname{Rec}$
Param '	Result	Units	Dil.	Amount	Result	Rec.	$\operatorname{Limit}$
Aroclor 1260 (PCB-1260)	0.00218	mg/L	1	0.00200	< 0.0000331	109	10 - 128

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

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	$\operatorname{Limit}$	RPD	Limit
Aroclor 1260 (PCB-1260)	0.00235	mg/L	1	0.00200	< 0.0000331	118	10 - 128	8	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	$\mathbf{Limit}$
Deca chlorobiphenyl	0.000500	0.000499	mg/L	1	0.000500	100	100	10 - 128

# Laboratory Control Spike (LCS-1)

QC Batch:

55563

Date Analyzed:

2008-12-29

Analyzed By: MN

Prep Batch: 47490

QC Preparation: 2008-12-29

Prepared By: MN

	LCS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	${f Amount}$	Result	Rec.	$\mathbf{Limit}$
Naphthalene	0.0450	mg/L	1	0.0800	< 0.0000853	56	10 - 141
Acenaphthylene	0.0585	${ m mg/L}$	1	0.0800	< 0.0000768	73	10 - 152

continued ...

control spikes continued . . .

	LCS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	$\operatorname{Rec}$	$\operatorname{Limit}$
Acenaphthene	0.0574	mg/L	1	0.0800	< 0.000103	72	10 - 151
Dibenzofuran	0.0538	$\mathrm{mg/L}$	1	0.0800	< 0.000200	67	10 - 148
Fluorene	0.0651	mg/L	1	0.0800	< 0.0000861	81	10 - 172
Anthracene	0.0550	mg/L	1	0.0800	< 0.000170	69	19.6 - 172
Phenanthrene	0.0573	mg/L	1	0.0800	< 0.0000884	72	22.5 - 172
Fluoranthene	0.0592	$\mathrm{mg/L}$	1	0.0800	< 0.0000969	74	17.3 - 187
Pyrene	0.0614	mg/L	1	0.0800	< 0.0000855	77	14.9 - 199
Benzo(a)anthracene .	0.0595	mg/L	1	0.0800	< 0.0000703	74	19.4 - 185
Chrysene	0.0631	mg/L	1	0.0800	< 0.000113	79	18.4 - 188
Benzo(b)fluoranthene	0.0592	mg/L	1	0.0800	< 0.000134	74	10 - 193
Benzo(k)fluoranthene	0.0623	mg/L	1	0.0800	< 0.000227	78	27.8 - 196
Benzo(a)pyrene	0.0688	$\mathrm{mg/L}$	1	0.0800	< 0.000200	86	12.4 - 205
Indeno(1.2,3-cd)pyrene	0.0612	mg/L	1	0.0800	< 0.000253	76	10 - 198
Dibenzo(a.h)anthracene	0.0603	${ m mg/L}$	1	0.0800	< 0.000180	75	10 - 172
Benzo(g,h,i)perylene	0.0700	$\mathrm{mg/L}$	1	0.0800	< 0.000158	88	10 - 186

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

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	$\operatorname{Result}$	Rec.	$\operatorname{Limit}$	RPD	Limit
Naphthalene	0.0456	mg/L	1	0.0800	< 0.0000853	57	10 - 141	1	20
Acenaphthylene	0.0595	mg/L	1	0.0800	< 0.0000768	74	10 - 152	2	20
Acenaphthene	0.0580	mg/L	1	0.0800	< 0.000103	72	10 - 151	1	20
Dibenzofuran	0.0541	mg/L	1	0.0800	< 0.000200	68	10 - 148	1	20
Fluorene	0.0650	mg/L	1	0.0800	< 0.0000861	81	10 - 172	0	20
Anthracene .	0.0550	mg/L	1	0.0800	< 0.000170	69	19.6 - 172	0	20
Phenanthrene	0.0584	mg/L	1	0.0800	< 0.0000884	73	22.5 - 172	2	20
Fluoranthene	0.0593	mg/L	1	0.0800	< 0.0000969	74	17.3 - 187	0	20
Pyrene	0.0613	mg/L	1	0.0800	< 0.0000855	77	14.9 - 199	0	20
Benzo(a)anthracene	0.0594	mg/L	1	0.0800	< 0.0000703	74	19.4 - 185	0	20
Chrysene	0.0634	mg/L	1	0.0800	< 0.000113	79	18.4 - 188	0	20
Benzo(b)fluoranthene	0.0616	mg/L	1	0.0800	< 0.000134	77	10 - 193	4	20
Benzo(k)fluoranthene	0.0654	mg/L	1	0.0800	< 0.000227	82	27.8 - 196	5	20
Benzo(a)pyrene	0.0712	mg/L	1	0.0800	< 0.000200	89	12.4 - 205	3	20
Indeno(1,2,3-cd)pyrene	0.0639	mg/L	1	0.0800	< 0.000253	80	10 - 198	4	20
Dibenzo(a,h)anthracene	0.0631	mg/L	1	0.0800	< 0.000180	79	10 - 172	4	20 ·
Benzo(g,h,i)perylene	0.0736	mg/L	1	0.0800	< 0.000158	92	10 - 186	5	20

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

	LCS	LCSD			$\operatorname{Spike}$	LCS	LCSD	${ m Rec.}$
Surrogate	$\operatorname{Result}$	Result	$_{ m Units}$	Dil.	${f Amount}$	Rec.	Rec.	$\operatorname{Limit}$
2-Fluorobiphenyl	0.0514	0.0522	mg/L	1	0.0800	64	65	10 - 165
Nitrobenzene-d5	0.0526	0.0531	mg/L	1	0.0800	66	66	10 - 157
Terphenyl-d14	0.0601	0.0608	m mg/L	1	0.0800	75	76	10 - 220

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### Laboratory Control Spike (LCS-1)

QC Batch: Prep Batch: 47491

55564

Date Analyzed:

2008-12-28

Analyzed By: KB

QC Preparation: 2008-12-28

Prepared By. KB

	LCS			Spike	Matrix		Rec
Param	Result	$_{ m Umts}$	Dil.	Amount	Result	$\operatorname{Rec}$ .	Limit
1.1-Dichloroethene	55.9	$\mu { m g/L}$	1	50.0	< 0.136	112	70 - 130
Benzene	54.9	$\mu { m g}/{ m L}$	1	50.0	< 0 146	110	70 - 130
Trichloroethene (TCE)	52.7	$\mu { m g}/{ m L}$	1	50.0	< 0.117	105	70 - 130
Toluene	55.4	$\mu { m g}/{ m L}$	1	50.0	< 0.0600	111	70 - 130
Chlorobenzene	52.7	$\mu { m g}/{ m L}$	1	50.0	0.07	105	70 - 130

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

	LCSD			Spike	Matrix		$\operatorname{Rec}$ .		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	$\operatorname{Limit}$	RPD	Limit
1,1-Dichloroethene	57.4	$\mu g/L$	1	50.0	< 0.136	115	70 - 130	3	
Benzene	56.8	$\mu { m g}/{ m L}$	1	50.0	< 0.146	114	70 - 130	3	
Trichloroethene (TCE)	52.9	$\mu { m g}/{ m L}$	1	50.0	< 0.117	106	70 - 130	0	
Toluene	55 8	$\mu { m g/L}$	1	50.0	< 0.0600	112	70 - 130	1	
Chlorobenzene	53.4	$\mu { m g}/{ m L}$	1	50.0	0.07	107	70 - 130	1	

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

	LCS	LCSD			$_{ m Spike}$	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	$\operatorname{Limit}$
Dibromofluoromethane	51.5	51.0	$\mu \mathrm{g/L}$	1	50.0	103	102	70 - 130
Toluene-d8	47.8	49.3	$\mu { m g}/{ m L}$	1	50.0	96	99	70 - 130
4-Bromofluorobenzene (4-BFB)	50.9	50.7	$\mu { m g}/{ m L}$	1	50.0	102	101	70 - 130

### Laboratory Control Spike (LCS-1)

QC Batch.

55597 Prep Batch: 47512 Date Analyzed:

2008-12-30 QC Preparation: 2008-12-30

Analyzed By: CM Prepared By: CM

	LCS			$_{ m Spike}$	Matrix		Rec.
Param	Result	Units	Dil.	${f Amount}$	Result	$\operatorname{Rec}$ .	Limit
TRPHC	272	mg/Kg	1	250	< 5.28	109	75.5 - 136

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

	LCSD			$\operatorname{Spike}$	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
TRPHC	282	mg/Kg	1	250	< 5.28	113	75.5 - 136	4	20

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Laboratory Control Spike (LCS-1)

QC Batch: Prep Batch: 47527

55608

Date Analyzed:

2008-12-30

QC Preparation: 2008-12-30

Analyzed By: RD

Prepared By: RD

	LCS			Spike	Matrix		Rec.
Param	Result	Units ·	Dil.	Amount	Result	Rec.	$_{ m Limit}$
Nitrate-N	2.27	mg/L	1	2.50	< 0.0700	91	90 - 110

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

	LCSD			$_{ m Spike}$	Matrix		${ m Rec.}$		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Nitrate-N	2.32	mg/L	1	2.50	< 0.0700	93	90 - 110	2	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:

55608

Date Analyzed.

2008-12-30

Analyzed By. RD

Prep Batch: 47527

QC Preparation: 2008-12-30

Prepared By: RD

	LCS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	$\operatorname{Limit}$
SPLP Chloride	11.4	mg/L	1	12.5	< 0.137	91	90 - 110

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

	LCSD			Spike	Matrix		$\mathrm{Rec}.$		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$	RPD	Limit
SPLP Chloride	11.5	mg/L	1	12.5	< 0.137	92	90 - 110	1	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: Prep Batch: 47527

Date Analyzed:

2008-12-30

Analyzed By: RD Prepared By: RD

	LCS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
SPLP Fluoride	2.31	mg/L	1	2.50	< 0.0889	92	90 - 110

QC Preparation: 2008-12-30

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

	LCSD			$_{ m Spike}$	Matrix		Rec.		RPD
Param	Result	Units	Dil.	${f Amount}$	Result	Rec.	Limit	RPD	Limit
SPLP Fluoride	$2.\overline{27}$	mg/L	1	2.50	< 0.0889	91	90 - 110	2	20

MEWBOU036 Pit

Work Order: 8122318 Paloma 21 Fed. Com. #1 Page Number: 28 of 44 Lea County, NM

### Laboratory Control Spike (LCS-1)

QC Batch:

55619

Date Analyzed:

2008-12-29

Analyzed By: SS

Prep Batch: 47538 QC Preparation: 2008-12-29 Prepared By. SS

	LCS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	${f Amount}$	Result	Rec.	Limit
SPLP Cyanide	12.4	mg/Kg	1	12.0	< 1.94	103	

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

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
SPLP Cyanide	12.4	mg/Kg	1	12.0	< 1.94	103	-	0	

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

Matrix Spike (MS-1) Spiked Sample: 183395

QC Batch: Prep Batch: 47407

55469

Date Analyzed.

2008-12-23 QC Preparation. 2008-12-23 Analyzed By: ER

Prepared By: ER

	MS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
MTBE	1.03	mg/Kg	1	1.00	< 0.00260	103	10.4 - 161.1
Benzene	1.22	mg/Kg	1	1.00	< 0.00347	122	42.9 - 130.7
Toluene	1.28	${ m mg/Kg}$	1	1.00	< 0.00525	128	46.9 - 135.4
Ethylbenzene	1.34	${ m mg/Kg}$	1	1.00	< 0.00607	134	48.3 - 149.3
Xylene	4.05	mg/Kg	1	3.00	< 0.00724	135	48.8 - 150.9

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

	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
MTBE	1.07	mg/Kg	1	1.00	< 0.00260	107	10.4 - 161.1	4	20
Benzene	1.24	$\mathrm{mg}/\mathrm{Kg}$	1	1.00	< 0.00347	124	42.9 - 130.7	2	20
Toluene	1.32	${ m mg/Kg}$	1	1.00	< 0.00525	132	46.9 - 135.4	3	20
Ethylbenzene	1.38	mg/Kg	1	1.00	< 0.00607	138	48.3 - 149.3	3	20
Xylene	4.20	${ m mg/Kg}$	1	3.00	< 0.00724	<b>14</b> 0	48.8 - 150.9	4	20

	MS	MSD			$_{ m Spike}$	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	${f Amount}$	Rec.	Rec.	$\operatorname{Limit}$
Trifluorotoluene (TFT)	1.35	1.36	mg/Kg	1	1	135	136	63.2 - 128.3
4-Bromofluorobenzene (4-BFB)	1.31	1.38	$\mathrm{mg}/\mathrm{Kg}$	1	1	131	138	61.5 - 161.2

<sup>&</sup>lt;sup>1</sup>Matrix spike recovery out of control limits. Use LCS/LCSD to demonstrate analysis is under control.

 $<sup>^2</sup>$ Matrix spike recovery out of control limits. Use LCS/LCSD to demonstrate analysis is under control.

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Work Order: 8122318 Paloma 21 Fed. Com. #1 Page Number: 29 of 44 Lea County, NM

Matrix Spike (MS-1)

Spiked Sample: 183396

QC Batch: Prep Batch: 47407

55470

Date Analyzed:

2008-12-23

QC Preparation: 2008-12-23

Analyzed By: ER Prepared By: ER

	MS			Spike	Matrix		Rec.
Paranı	Result	$_{ m Units}$	Dil.	Amount	Result	Rec.	$\operatorname{Limit}$
GRO	13.6	mg/Kg	1	10.0	< 0.144	136	48 9 - 155 8

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

	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	$_{ m Limit}$
GRO	14.1	mg/Kg	1	10.0	< 0.144	141	48.9 - 155.8	4	20

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

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	$\operatorname{Limit}$
Trifluorotoluene (TFT)  3 4	1.46	1.46	mg/Kg	1	1	146	146	41.8 - 145.4
4-Bromofluorobenzene (4-BFB)	1.53	1.55	${ m mg/Kg}$	1	1	153	155	50.3 - 197.8

Matrix Spike (MS-1) Spiked Sample: 183416

QC Batch.

55481

Date Analyzed:

2008-12-23

Analyzed By:

Prep Batch: 47416

QC Preparation: 2008-12-23

Prepared By.

	MS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
DRO	252	${ m mg/Kg}$	1	250	<14.5	101	0 - 197

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

	MSD			$_{ m Spike}$	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
DRO	252	mg/Kg	1	250	<14.5	101	0 - 197	0	20

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

	MS	MSD			Spike	MS	MSD	${ m Rec.}$
Surrogate	Result	Result	Units	Dil.	Amount	$\mathrm{Rec}.$	Rec.	Limit
n-Triacontane	91.0	89.9	mg/Kg	1	100	91	90	57.5 - 139

Spiked Sample: 183416 Matrix Spike (MS-1)

QC Batch: 55514 Date Analyzed:

Prep Batch: 47443

2008-12-25

Analyzed By: TP

QC Preparation: 2008-12-24

Prepared By: TP

<sup>&</sup>lt;sup>3</sup>Matrix spike recovery out of control limits. Use LCS/LCSD to demonstrate analysis is under control. <sup>4</sup>Matrix spike recovery out of control limits. Use LCS/LCSD to demonstrate analysis is under control.

MEWBOU036 Pit

Work Order. 8122318 Paloma 21 Fed Com. #1 Page Number. 30 of 44 Lea County, NM

	MS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	$\operatorname{Limit}$
SPLP Mercury	0.00123	mg/L	1	0.00100	0.000132	110	85 - 115

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

	MSD			Spike	Matrix		$\operatorname{Rec}$		RPD
Param	Result	Units	Dıl.	Amount	Result	Rec.	$_{ m Limit}$	RPD	Limit
SPLP Mercury	0.00119	mg/L	1	0 00100	0.000132	106	85 - 115	3	20

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

Matrix Spike (MS-1)

Spiked Sample: 183416

QC Batch. 55520 Date Analyzed.

2008-12-26

Analyzed By: RR

Prep Batch: 47446

QC Preparation: 2008-12-24

Prepared By: KV

	MS			$_{ m Spike}$	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	$\operatorname{Limit}$
SPLP Cadmium	0.243	mg/L	1	0.250	< 0.00140	97	75 - 125

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

	MSD			Spike	Matrix		$\mathrm{Rec.}$		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
SPLP Cadmium	0.243	m mg/L	1	0.250	< 0.00140	97	75 - 125	0	20

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

Matrix Spike (MS-1)

Spiked Sample: 183416

QC Batch: 55520 Prep Batch: 47446

Date Analyzed: QC Preparation: 2008-12-24

2008-12-26

Analyzed By. RR Prepared By: KV

	MS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
SPLP Lead	0.489	mg/L	1	0.500	< 0.00320	98	75 - 125

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

	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$	RPD	Limit
SPLP Lead	0.489	mg/L	1	0.500	< 0.00320	98	75 - 125	0	20

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

Matrix Spike (MS-1) Spiked Sample: 183416

QC Batch: 55520 Prep Batch: 47446 Date Analyzed: 2008-12-26 QC Preparation: 2008-12-24

Analyzed By: RR Prepared By: KV

MEWBOU036 Pit

Work Order. 8122318 Paloma 21 Fed. Com. #1 Page Number: 31 of 44 Lea County, NM

	MS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
SPLP Selenium	0.465	$\mathrm{mg/L}$	1	0.500	< 0.0131	93	75 - 125

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

	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dīl.	Amount	Result	Rec.	Limit	RPD	Limit
SPLP Selenium	0.462	mg/L	1	0.500	< 0.0131	92	75 - 125	I	20

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

Matrix Spike (MS-1) Spiked Sample: 183416

QC Batch: 55520 Date Analyzed:

2008-12-26

Analyzed By. RR

Prep Batch: 47446

QC Preparation: 2008-12-24

Prepared By: KV

	MS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	$\operatorname{Limit}$
SPLP Arsenic	0.482	mg/L	1	0.500	< 0.00430	96	75 - 125

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

	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	$\operatorname{Dil}$	Amount	Result	Rec.	Limit	RPD	Limit
SPLP Arsenic	0.484	mg/L	1	0.500	< 0.00430	97	75 - 125	0	20

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

Matrix Spike (MS-1) Spiked Sample: 183416

QC Batch: 55520 Prep Batch: 47446

Date Analyzed:

2008-12-26 QC Preparation: 2008-12-24

Analyzed By: RR Prepared By: KV

	MS			$_{ m Spike}$	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	$\operatorname{Limit}$
SPLP Barium	1.34	mg/L	1	1.00	0.369	97	75 - 125

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

	MSD			$_{ m Spike}$	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	$\mathbf{Limit}$	RPD	Limit
SPLP Barium	1.33	mg/L	1	1.00	0.369	96	75 - 125	1	20

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

Matrix Spike (MS-1) Spiked Sample: 183416

QC Batch: 55520 Prep Batch: 47446 Date Analyzed:

2008-12-26

Analyzed By: RR

QC Preparation: 2008-12-24

Prepared By: KV

MEWBOU036 Pit

Work Order: 8122318 Paloma 21 Fed. Com #1 Page Number 32 of 44 Lea County, NM

	MS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
SPLP Chromium	0.0930	${ m mg/L}$	1	0.100	0.005	88	75 - 125

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

	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	$\operatorname{Limit}$
SPLP Chromium	0.0920	mg/L	1	0.100	0.005	87	75 - 125	1	20

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

Matrix Spike (MS-1)

Spiked Sample: 183416

QC Batch: 55520 Prep Batch. 47446 Date Analyzed.

2008-12-26

Analyzed By. RR

QC Preparation: 2008-12-24

Prepared By: KV

	MS			$_{ m Spike}$	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
SPLP Silver	0.115	mg/L	1	0.125	< 0.00210	92	75 - 125

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

	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
SPLP Silver	0.115	mg/L	1	0.125	< 0.00210	92	75 - 125	0	20

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

Matrix Spike (MS-1)

Spiked Sample. 183416

QC Batch: 55520 Prep Batch. 47446 Date Analyzed: 2
QC Preparation: 2

2008-12-26 2008-12-24

Analyzed By: RR Prepared By: KV

MS Spike Matrix Rec. Param Result Units Dil. Amount Result Rec. Limit SPLP U 0.456mg/L 0.500 < 0.010591 90 - 110

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

	MSD			Spike	Matrix		$\mathrm{Rec}.$		RPD
Param	Result	Units	Dil.	$\overline{\text{Amount}}$	Result	Rec.	Limit	RPD	$\operatorname{Limit}$
SPLP U	0.476	mg/L	1	0.500	< 0.0105	95	90 - 110	4	

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

Matrix Spike (MS-1) Spiked Sample: 183416

QC Batch: 55564 Prep Batch: 47491 Date Analyzed: 2008-12-28 QC Preparation: 2008-12-28

Analyzed By: KB Prepared By: KB

MEWBOU036 Pit

Work Order: 8122318 Paloma 21 Fed. Com. #1 Page Number 33 of 44 Lea County, NM

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	$rac{ m Rec.}{ m Limit}$
1.1-Dichloroethene		50.4	μg/L	1	50.0	< 0.136	101	70 - 130
Benzene		49.7	$\mu { m g}/{ m L}$	1	50.0	< 0.146	99	70 - 130
Trichloroethene (TCE)	5	79.2	$\mu { m g}/{ m L}$	1	50.0	< 0.117	158	70 - 130
Toluene		50.2	$\mu \mathrm{g}/\mathrm{L}$	1	$50 \ 0$	0.69	99	70 - 130
Chlorobenzene		47.0	$\mu { m g}/{ m L}$	1	50.0	< 0.0540	94	70 - 130

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

		MSD			$\operatorname{Spike}$	Matrix		Rec.		RPD
Param		Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
1,1-Dichloroethene		45.8	μg/L	1	50.0	< 0.136	92	70 - 130	10	
Benzene		48.4	$\mu { m g}/{ m L}$	1	50.0	< 0.146	97	70 - 130	3	
Trichloroethene (TCE)	6	75.7	$\mu { m g/L}$	1	50.0	< 0.117	151	70 - 130	4	
Toluene		47.9	$\mu { m g/L}$	1	50.0	0.69	94	70 - 130	5	
Chlorobenzene		46.3	$\mu { m g/L}$	1	50.0	< 0.0540	93	70 - 130	2	

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

	MS	MSD			$_{ m Spike}$	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	$\operatorname{Limit}$
Dibromofluoromethane	52.2	49.4	$\mu \mathrm{g/L}$	1	50	104	99	70 - 130
Toluene-d8	49.0	49.4	$\mu \mathrm{g}/\mathrm{L}$	1	50	98	99	70 - 130
4-Bromofluorobenzene (4-BFB)	50.9	50.3	$\mu { m g}/{ m L}$	1	50	102	101	70 - 130

Matrix Spike (MS-1) Spiked Sample: 183416

QC Batch: 55597 Prep Batch: 47512 Date Analyzed: 2008-12-30 QC Preparation: 2008-12-30

Analyzed By: CM Prepared By: CM

	MS			Spike	Matrix		Rec.
Param	Result	Units	$D_{1}$ l.	Amount	Result	$\operatorname{Rec}$ .	$\operatorname{Limit}$
TRPHC	502	${ m mg/Kg}$	1	250	191	124	10 - 354

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

	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	$\operatorname{Limit}$	RPD	Limit
TRPHC	512	mg/Kg	1	250	191	128	10 - 354	2	20

<sup>&</sup>lt;sup>5</sup>Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

<sup>6</sup>Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control. RPD within RPD limits.

MEWBOU036 Pit

Work Order: 8122318 Paloma 21 Fed. Com #1 Page Number. 34 of 44 Lea County, NM

Matrix Spike (MS-1)

Spiked Sample: 183416

QC Batch: 55608 Prep Batch: 47527 Date Analyzed:

2008-12-30

Analyzed By: RD

QC Preparation: 2008-12-30 Prepared By. RD

MS Matrix Spike Rec. Param Result Units Dil. Result Limit Amount Rec. Nitrate-N < 0.700 73.6 - 122 23.010 25.092 mg/L

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

	MSD			$_{ m Spike}$	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	$\operatorname{Limit}$
Nitrate-N	22.1	mg/L	10	25.0	< 0.700	88	73.6 - 122	4	20

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

Matrix Spike (MS-1)

Spiked Sample: 183416

QC Batch: 55608

Date Analyzed:

2008-12-30

Analyzed By: RD

Prep Batch: 47527

QC Preparation: 2008-12-30

Prepared By: RD

	MS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	$\operatorname{Limit}$
SPLP Chloride	161	mg/L	10	120	55.3	88	49.8 - 149

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

	MSD			$_{ m Spike}$	Matrix		Rec.		RPD
Param	Result	Units	Dil.	${f Amount}$	Result	Rec.	$\operatorname{Limit}$	RPD	$\operatorname{Limit}$
SPLP Chloride	170	${ m mg/L}$	10	125	55.3	92	49.8 - 149	5	20

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

Matrix Spike (MS-1)

Spiked Sample: 183416

QC Batch: 55608 Date Analyzed:

2008-12-30

Analyzed By: RD RD

Prep Batch: 47527

QC Preparation:

2008-12-30

Prepared By:

	MS			$_{ m Spike}$	Matrix		$\mathrm{Rec.}$
Param	Result	Units	Dil.	Amount	Result	Rec.	$\operatorname{Limit}$
SPLP Fluoride	20.0	m mg/L	10	25.0	< 0.889	79	63.5 - 127

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

 $continued \dots$ 

MEWBOU036 Pit

Work Order: 8122318 Paloma 21 Fed. Com. #1 Page Number. 35 of 44 Lea County, NM

matrix spikes continued . . .

Param	· · · · · · · · · · · · · · · · · · ·	MSD Result	Units	Dil	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Param		MSD Result	Units	Dil.	Spike	Matrix	Dag	Rec.	מממ	RPD
					Amount	Result	Rec.	Limit	RPD	Limit
SPLP Fluoride	,	25.2	mg/L	10	25.0	< 0.889	100	63.5 - 127	23	20

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

Matrix Spike (MS-1)

Spiked Sample: 183416

QC Batch

Date Analyzed:

2008-12-29

Analyzed By: SS

Prep Batch. 47538

QC Preparation 2008-12-29 Prepared By: SS

	MS			Spike	Matrix		Rec.
Param	Result	Units	Dil	Amount	Result	Rec.	Limit
SPLP Cyanide	13 2	mg/Kg	1	12.0	< 1.94	110	-

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

	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	$\operatorname{Dil}$	Amount	Result	Rec.	Limit	RPD	Limit
SPLP Cyanide	12.7	mg/Kg	1	12.0	< 1.94	106	_	4	

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

### Standard (CCV-2)

QC Batch: 55469

Date Analyzed: 2008-12-23

Analyzed By: ER

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	$\begin{array}{c} \text{Date} \\ \text{Analyzed} \end{array}$
MTBE	7,20.7	mg/Kg	0.100	0.0954	95	80 - 120	2008-12-23
Benzene		mg/Kg	0.100	0.0963	96	80 - 120	2008-12-23
Toluene		${ m mg/Kg}$	0.100	0.0968	97	80 - 120	2008-12-23
Ethylbenzene		${ m mg/Kg}$	0.100	0.0934	93	80 - 120	2008-12-23
Xylene		mg/Kg	0.300	0.284	95	80 - 120	2008-12-23

### Standard (CCV-3)

QC Batch: 55469

Date Analyzed: 2008-12-23

Analyzed By: ER

<sup>&</sup>lt;sup>7</sup>Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

Work Order: 8122318 Paloma 21 Fed. Com. #1 Page Number: 36 of 44 Lea County, NM

Param	$\operatorname{Flag}$	Units	CCVs True Conc	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/Kg	0.100	0.104	104	80 - 120	2008-12-23
Benzene		mg/Kg	0.100	0.101	101	80 - 120	2008-12-23
Toluene		mg/Kg	0.100	0.101	101	80 - 120	2008-12-23
Ethylbenzene		mg/Kg	0.100	0.0995	100	80 - 120	2008-12-23
Xylene		$\mathrm{mg}/\mathrm{Kg}$	0.300	0.306	102	80 - 120	2008-12-23

### Standard (CCV-2)

QC Batch: 55470

Date Analyzed: 2008-12-23

Analyzed By: ER

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/Kg	1 00	0.878	88	80 - 120	2008-12-23

### Standard (CCV-3)

QC Batch: 55470

Date Analyzed: 2008-12-23

Analyzed By: ER

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	$_{ m Units}$	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/Kg	1.00	1.07	107	80 - 120	2008-12-23

### Standard (CCV-1)

QC Batch: 55481

Date Analyzed: 2008-12-23

Analyzed By:

			CCVs	CCVs	CCVs	Percent	
			$\operatorname{True}$	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	263	105	85 - 115	2008-12-23

### Standard (CCV-2)

QC Batch: 55481

Date Analyzed: 2008-12-23

Analyzed By:

			$\mathrm{CCVs}$	$\mathrm{CCVs}$	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	264	106	85 - 115	2008-12-23

Report	Date:	December	30,	2008
MEWB	OU03	6 Pit		

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Standard (ICV-1)	Sta	ndard	(ICV-	$\cdot 1)$
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OC	Batch:	55514
$\omega$	Daten.	00014

Date	Analyzed.	2008-12-25

Analyzed By. TP

			ICVs	ICVs	ICVs	Percent	
÷			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
SPLP Mercury		mg/L	0.00100	0 000972	97	90 - 110	2008-12-25

### Standard (CCV-1)

QC Batch: 55514

Date Analyzed: 2008-12-25

Analyzed By: TP

			CCVs True	$\begin{array}{c} { m CCVs} \\ { m Found} \end{array}$	$\begin{array}{c} { m CCVs} \\ { m Percent} \end{array}$	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
SPLP Mercury		mg/L	0.00100	0.000958	96	80 - 120	2008-12-25

### Standard (ICV-1)

QC Batch: 55520

Date Analyzed: 2008-12-26

Analyzed By. RR

			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	$\operatorname{Conc}$	Conc.	Recovery	Limits	Analyzed
SPLP Cadmium		mg/L	1.00	1.02	102	90 - 110	2008-12-26

### Standard (ICV-1)

QC Batch: 55520

Date Analyzed: 2008-12-26

Analyzed By: RR

	,		ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
SPLP Lead		mg/L	1 00	1.03	103	90 - 110	2008-12-26

### Standard (ICV-1)

QC Batch: 55520

Date Analyzed: 2008-12-26

Analyzed By: RR

			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
SPLP Selenium		mg/L	1.00	1.02	102	90 - 110	2008-12-26

Work Order: 8122318 Paloma 21 Fed. Com. #1 Page Number. 38 of 44 Lea County, NM

Standard (IC	7 V - 1	L)
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QC Batch. 55520

Date Analyzed: 2008-12-26

Analyzed By: RR

			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
SPLP Arsenic		${ m mg/L}$	1.00	1.01	101	90 - 110	2008-12-26

### Standard (ICV-1)

QC Batch: 55520

Date Analyzed: 2008-12-26

Analyzed By: RR

			ICVs True	ICVs Found	ICVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
SPLP Barium		m mg/L	1.00	1.05	105	90 - 110	2008-12-26

### Standard (ICV-1)

QC Batch: 55520

Date Analyzed: 2008-12-26

Analyzed By: RR

			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
SPLP Chromium		$\mathrm{mg/L}$	1.00	1.03	103	90 - 110	2008-12-26

### Standard (ICV-1)

QC Batch: 55520

Date Analyzed: 2008-12-26

Analyzed By: RR

			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
SPLP Silver		$\mathrm{mg/L}$	0.125	0.125	100	90 - 110	2008-12-26

### Standard (ICV-1)

QC Batch: 55520

Date Analyzed: 2008-12-26

Analyzed By: RR

Param Flag Units Conc. Conc. Recovery			
CDI D II	Percent	Found Percer	ent Recovery Date
	Recovery	Conc. Recove	very Limits Analyzed
SPLP U mg/L 1.00 0.954 95 96	95	0.954 95	90 - 110 2008-12-26

Work Order: 8122318 Paloma 21 Fed. Com. #1 Page Number. 39 of 44 Lea County, NM

Standard (	(CCV-1)

QC Batch: 5	5520
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Date Analyzed: 2008-12-26

Analyzed By: RR

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
SPLP Cadmium		$_{ m mg/L}$	1.00	1.01	101	90 - 110	2008-12-26

### Standard (CCV-1)

QC Batch: 55520

Date Analyzed: 2008-12-26

Analyzed By. RR

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
SPLP Lead		mg/L	1.00	1.02	102	90 - 110	2008-12-26

### Standard (CCV-1)

QC Batch: 55520

Date Analyzed: 2008-12-26

Analyzed By: RR

			CCVs	CCVs	CCVs	Percent	The state of the s
Param	Flag	Units	True Conc.	Found Conc.	Percent Recovery	Recovery Limits	$egin{array}{c} { m Date} \\ { m Analyzed} \end{array}$
SPLP Selenium		mg/L	1.00	0.998	100	90 - 110	2008-12-26

### Standard (CCV-1)

QC Batch: 55520

Date Analyzed: 2008-12-26

Analyzed By. RR

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
SPLP Arsenic		m mg/L	1.00	0.992	99	90 - 110	2008-12-26

### Standard (CCV-1)

QC Batch: 55520

Date Analyzed: 2008-12-26

Analyzed By: RR

		$\mathrm{CCVs}$	CCVs	CCVs	Percent	
		$\operatorname{True}$	Found	Percent	Recovery	Date
Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
	$\mathrm{mg/L}$	1.00	1.03	103	90 - 110	2008-12-26
	Flag		True Flag Units Conc.	True Found Flag Units Conc. Conc.	True Found Percent Flag Units Conc. Conc. Recovery	True Found Percent Recovery Flag Units Conc. Conc. Recovery Limits

Report	Date:	December	30.	2008
MEWB	OU03	6 Pit		

Work Order: 8122318 Paloma 21 Fed. Com. #1 Page Number: 40 of 44 Lea County, NM

QC Bate	:h: 5	5520
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Date Analyzed: 2008-12-26

Analyzed By: RR

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	$_{ m Units}$	Conc.	Conc.	Recovery	Limits	Analyzed
SPLP Chromium		${ m mg/L}$	1.00	1.01	101	90 - 110	2008-12-26

### Standard (CCV-1)

QC Batch: 55520

Date Analyzed: 2008-12-26

Analyzed By: RR

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc	Recovery	Limits	Analyzed
SPLP Silver		mg/L	0.125	0.123	98	90 - 110	2008-12-26

### Standard (CCV-1)

QC Batch: 55520

Date Analyzed: 2008-12-26

Analyzed By. RR

D	T31	<b>7</b> 7 • .	CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	$\operatorname{Limits}$	Analyzed
SPLP U		$_{ m mg/L}$	1.00	0.928	93	90 - 110	2008-12-26

### Standard (ICV-1)

QC Batch: 55549

Date Analyzed: 2008-12-29

Analyzed By: DS

Param	Flag	${ m Units}$	ICVs True Conc.	ICVs Found Conc.	$egin{array}{l}  ext{ICVs} \  ext{Percent} \  ext{Recovery} \end{array}$	Percent Recovery Limits	$\begin{array}{c} \text{Date} \\ \text{Analyzed} \end{array}$
Aroclor 1242 (PCB-1242)	8	mg/L	0.400	0.318	80	85 - 115	2008-12-29
Aroclor 1254 (PCB-1254)		$_{ m mg/L}$	0.400	0.403	101	85 - 115	2008-12-29
Aroclor 1260 (PCB-1260)		$_{ m mg/L}$	0.400	0.436	109	85 - 115	2008-12-29

					$\operatorname{Spike}$	Percent	Recovery
Surrogate	Flag	Result	$\operatorname{Units}$	Dilution	${f Amount}$	Recovery	$\operatorname{Limit}$
Deca chlorobiphenyl		0.115	m mg/L	1	0.100	115	85 - 115

<sup>&</sup>lt;sup>8</sup>Aroclor 1242 (PCB-1242) outside of control limits on CCV(ICV). CCV(ICV) component average is 101% which is within acceptable range. This is acceptable by Method 8000.

Work Order: 8122318 Paloma 21 Fed. Com. #1 Page Number: 41 of 44 Lea County, NM

### Standard (CCV-1)

QC	Batch:	55549
		t

Date	Anal	vzed	2008-	12 - 29
Dave	Ana	H Zeu	2000-	コムームヨ

Analyzed By. DS

			CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc	Conc.	Recovery	Limits	Analyzed
Aroclor 1242 (PCB-1242)	9	mg/L	0.400	0.283	71	85 - 115	2008-12-29
Aroclor 1254 (PCB-1254)		mg/L	0.400	0.421	105	85 - 115	2008-12-29
Aroclor 1260 (PCB-1260)		mg/L	0.400	0.447	112	85 - 115	2008-12-29

					Spike	Percent	Recovery
Surrogate	$\operatorname{Flag}$	Result	Units	Dilution	Amount	Recovery	Linnt
Deca chlorobiphenyl		0.112	mg/L	1	0.100	112	85 - 115

### Standard (CCV-1)

QC Batch: 55563

Date Analyzed: 2008-12-29

Analyzed By: MN

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Naphthalene		mg/L	60.0	60.2	100	80 - 120	2008-12-29
Acenaphthylene		${ m mg/L}$	60 0	61.2	102	80 - 120	2008-12-29
Acenaphthene		${ m mg/L}$	60.0	60.5	101	80 - 120	2008-12-29
Dibenzofuran		mg/L	60.0	63.9	106	80 - 120	2008-12-29
Fluorene		$\mathrm{mg/L}$	60.0	67.5	112	80 - 120	2008-12-29
Anthracene		mg/L	$60\ 0$	61.0	102	80 - 120	2008-12-29
Phenanthrene		mg/L	60.0	59.6	99	80 - 120	2008-12-29
Fluoranthene		mg/L	60.0	58.8	98	80 - 120	2008-12-29
Pyrene		mg/L	60.0	58.4	97	80 - 120	2008-12-29
Benzo(a)anthracene		mg/L	60.0	56.9	95	80 - 120	2008-12-29
Chrysene		mg/L	60.0	60.1	100	80 - 120	2008-12-29
Benzo(b)fluoranthene		${ m mg/L}$	60.0	59.8	100	80 - 120	2008-12-29
Benzo(k)fluoranthene		mg/L	60.0	59.2	99	80 - 120	2008-12-29
Benzo(a)pyrene		mg/L	60.0	65.1	108	80 - 120	2008-12-29
Indeno(1,2,3-cd)pyrene		${ m mg/L}$	60.0	58.4	97	80 - 120	2008-12-29
Dibenzo(a,h)anthracene		$_{ m mg/L}$	60.0	58.9	98	80 - 120	2008-12-29
Benzo(g,h,i)perylene		mg/L	60.0	66.9	112	80 - 120	2008-12-29

				$\operatorname{Spike}$	Percent	$\operatorname{Recovery}$
Flag	Result	$\operatorname{Units}$	Dilution	${f Amount}$	Recovery	$\operatorname{Limit}$
	54.9	mg/L	1	60.0	92	80 - 120
	64.4	mg/L	1	60.0	107	80 - 120
	56.5	mg/L	1	60.0	94	80 - 120
	Flag	54.9 64.4	$\begin{array}{ccc} 54.9 & & \mathrm{mg/L} \\ 64.4 & & \mathrm{mg/L} \end{array}$	$\begin{array}{ccc} 54.9 & { m mg/L} & 1 \\ 64.4 & { m mg/L} & 1 \end{array}$	Flag         Result         Units         Dilution         Amount           54.9         mg/L         1         60.0           64.4         mg/L         1         60.0	Flag         Result         Units         Dilution         Amount         Recovery           54.9         mg/L         1         60.0         92           64.4         mg/L         1         60.0         107

<sup>&</sup>lt;sup>9</sup>Aroclor 1242 (PCB-1242) outside of control limits on CCV(ICV). CCV(ICV) component average is 100% which is within acceptable range. This is acceptable by Method 8000.

Work Order: 8122318 Paloma 21 Fed. Com. #1 Page Number: 42 of 44 Lea County, NM

Standard (	(CCV-1)
Standard	1 O O V - 1 1

QC Batch: 55564

Date Analyzed: 2008-12-28

Analyzed By: KB

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Vinyl Chloride		$\mu { m g/L}$	50.0	50.7	101	80 - 120	2008-12-28
1,1-Dichloroethene		$\mu { m g}/{ m L}$	50.0	60.1	120	80 - 120	2008-12-28
Chloroform		$\mu { m g}/{ m L}$	50.0	57.1	114	80 - 120	2008-12-28
1,2-Dichloropropane		$\mu { m g}/{ m L}$	50.0	58.7	117	80 - 120	2008-12-28
Toluene		$\mu { m g}/{ m L}$	50.0	56.2	112	80 - 120	2008-12-28
Chlorobenzene		$\mu { m g}/{ m L}$	50.0	53 7	107	80 - 120	2008-12-28
Ethylbenzene	<u> </u>	$\mu \mathrm{g/L}$	50.0	54.4	109	80 - 120	2008-12-28

### Standard (ICV-1)

QC Batch: 55597

Date Analyzed. 2008-12-30

Analyzed By: CM

			ICVs	ICVs	ICVs	Percent	
			$\operatorname{True}$	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
TRPHC		${ m mg/Kg}$	100	97.2	97	80 - 120	2008-12-30

### Standard (CCV-1)

QC Batch: 55597

Date Analyzed: 2008-12-30

Analyzed By: CM

			CCVs True	$\begin{array}{c} { m CCVs} \\ { m Found} \end{array}$	$rac{ ext{CCVs}}{ ext{Percent}}$	Percent Recovery	Date
Param	$\operatorname{Flag}$	Units	Conc.	Conc.	Recovery	Limits	Analyzed
TRPHC		m mg/Kg	100	84.0	84	80 - 120	2008-12-30

### Standard (ICV-1)

QC Batch: 55608

Date Analyzed: 2008-12-30

Analyzed By: RD

			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	$\operatorname{Flag}$	$\operatorname{Units}$	Conc.	Conc.	Recovery	Limits	Analyzed
Nitrate-N		m mg/L	2.50	2.27	91	90 - 110	2008-12-30

### Standard (ICV-1)

QC Batch: 55608

Date Analyzed: 2008-12-30

Analyzed By: RD

Work Order. 8122318 Paloma 21 Fed. Com. #1 Page Number: 43 of 44 Lea County, NM

			ICVs True	ICVs Found	ICVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
SPLP Chloride		mg/L	12.5	11.5	92	90 - 110	2008-12-30

### Standard (ICV-1)

QC Batch: 55608

Date Analyzed: 2008-12-30

Analyzed By. RD

			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
SPLP Fluoride		mg/L	2.50	2.26	90	90 - 110	2008-12-30

### Standard (CCV-1)

QC Batch: 55608

Date Analyzed: 2008-12-30

Analyzed By: RD

			CCVs True	$\begin{array}{c} { m CCVs} \\ { m Found} \end{array}$	$\begin{array}{c} {\rm CCVs} \\ {\rm Percent} \end{array}$	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Nitrate-N		mg/L	2.50	2.28	91	90 - 110	2008-12-30

### Standard (CCV-1)

QC Batch: 55608

Date Analyzed: 2008-12-30

Analyzed By: RD

_	-		CCVs True	${ m CCVs}$ Found	${ m CCVs} \ { m Percent}$	Percent Recovery	Date
Param	Flag	Units	Conc.	$\operatorname{Conc.}$	$\operatorname{Recovery}$	Limits	Analyzed
SPLP Chloride		mg/L	12.5	11.6	93	90 - 110	2008-12-30

### Standard (CCV-1)

QC Batch: 55608

Date Analyzed: 2008-12-30

Analyzed By: RD

			$\mathrm{CCVs}$	CCVs	CCVs	$\operatorname{Percent}$	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
SPLP Fluoride		${ m mg/L}$	2.50	2.41	96	90 - 110	2008-12-30

### Standard (ICV-1)

QC Batch: 55619

Date Analyzed: 2008-12-29

Analyzed By: SS

Work Order: 8122318 Paloma 21 Fed. Com. #1 Page Number. 44 of 44 Lea County, NM

			ICVs	ICVs	ICVs	Percent	T-
			True	Found	$\operatorname{Percent}$	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
SPLP Cyanide		mg/Kg	0.120	< 1.94	0	=	2008-12-29

Standard (CCV-1)

QC Batch: 55619

Date Analyzed: 2008-12-29

Analyzed By. SS

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
SPLP Cyanide		mg/Kg	0.120	<1.94	0	=	2008-12-29

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email: lab@traceanalysis.com							161 (806) 794-1296 Fax (806) 794-1298 1 (800) 378-1296					Tel (432) 689-6301 Fax (432) 689 6313					Tel (915) 585-3443 Tel (817) 201 Fax (915) 585-4944 1 (888) 588 3443				exas 7 201-52	7 <b>6132</b> 160									
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C. The standards are not intended as maximum ranges and concentrations for use, and nothing herein contained shall be construed as limiting the use of waters containing higher ranges and concentrations.

[2-18-77; 20.6.2.3101 NMAC - Rn, 20 NMAC 6.2.III.3101, 1-15-01]

20.6.2.3102: [RESERVED]

unfiltered soncentrations of the contaminants.

[12-1-95; 20.6.2.3102 NMAC - Rn, 20 NMAC 6 2.III.3102, 1-15-01]

20.6.2.3103 STANDARDS FOR GROUND WATER OF 10,000 mg/I TDS CONCENTRATION OR LESS: The following standards are the allowable pH range and the maximum allowable concentration in ground water for the contaminants specified unless the existing condition exceeds the standard or unless otherwise provided in Subsection D of Section 20.6.2.3109 NMAC. Regardless of whether there is one contaminant or more than one contaminant present in ground water, when an existing pH or concentration of any water contaminant exceeds the standard specified in Subsection A, B, or C of this section, the existing pH or concentrations shall be the allowable limit, provided that the discharge at such concentrations will not result in concentrations at any place of withdrawal for present or reasonably foreseeable future use in excess of the standards of this section. These standards shall apply to the dissolved portion of the contaminants specified with a definition of dissolved being that given in the publication "methods for chemical analysis of water and waste of the U.S. environmental protection agency," with the exception that standards for mercury, organic compounds and non-aqueous phase liquids shall apply to the total

A. Human Health Standards-Ground water shall meet the standards of Subsection A and B of this section miless otherwise provided. If more than one water contaminant affecting human health is present, the toxic pollutant criteria as set forth in the definition of toxic pollutant in Section 20.6.2.1101 NMAC for the combination of contaminants, or the Human Health Standard of Subsection A of Section 20.6.2.3103 NMAC for each contaminant shall apply, whichever is more stringent. Non-aqueous phase liquid shall not be present floating atop of or immersed within ground water, as can be reasonably measured.

(1)	Arsenic (As)	0.1 mg/l
(2)	Вапит (Ва)	1.0 mg/l
(3)	Cadmium (Cd)	0.01 mg/l
(4)	Chromium (Cr)	0.05 mg/l
(5)	Cyanide (CN)	0.2 mg/l
(6)	Fluoride (F)	1.6 mg/l
(7)	Lead (Pb)	0.05 mg/l
(8)	Total Mercury (Hg)	0.002 mg/l
(9)	Nitrate (NO <sub>3</sub> as N)	10.0 mg/l
(10)	Selenium (Se)	0.05 mg/l
(11)	Silver (Ag)	0.05 mg/l
(12)	Uranium (U)	
(13)	Radioactivity: Combined Radium-226 & Radium-228	30 pCi/l
(14)	Benzene	
(15)	Polychlorinated biphenyls (PCB's)	
(16)	Toluene	0.75 mg/l
(17)	Carbon Tetrachloride	0.01 mg/l
(18)	1,2-dichloroethane (EDC)	0.01 mg/l
(19)	1,1-dichloroethylene (1,1-DCE)	0.005 mg/l
(20)	1,1,2,2-tetrachloroethylene (PCE)	0.02 mg/l
(21)	1,1,2-trichloroethylene (TCE)	0.1 mg/l
(22)	ethylbenzene	
(23)	total xylenes	0.62 mg/l
(24)	methylene chloride	
(25)	chloroform	
(26)	1,i-dichloroethane.	
(27)	ethylene dibromide (EDB)	0.0001 mg/l
(28)	1,1,1-trichloroethane.	0.06 mg/l
(29)	1,1,2-trichloroethane.	0.01 mg/l
(30)	1,1,2,2-tetrachloroethane	0.01 mg/i
(31)	vinyl chloride	0.001 mg/l

20.6.2 NMAC

12



	(22)	DATE	
Ą	(32)	parameter in the second of the	
	(33)	benzo-a-pyrene	0.0007 mg/l
age A	В.	Other Standards for Domestic Water Supply	
Concession of the St.	(1)	Chloride (Cl)	250.0 mg/l
ŕ	(2)	Copper (Cu)	
	(3)	Iron (Fe)	1.0 mg/l
	(4)	Manganese (Mn)	
	(6)	Phenols	0.005 mg/l
	(7)	Sulfate (SO <sub>4</sub> )	600.0 mg/l
	(8)	Total Dissolved Solids (TDS)	
	(9)	Zinc (Zn)	10.0 mg/l
	(10)	pH	between 6 and 9
	C.	Standards for Irrigation Use - Ground water shall meet the	he standards of Subsection A, B,
and C	of this sec	tion unless otherwise provided.	
	(1)	Aluminum (Al)	5.0 mg/l
	(2)	Boron (B)	0.75 mg/l
	(3)	Cobalt (Co)	
	(4)	Molybdenum (Mo)	1.0 mg/l

[Note: For purposes of application of the amended numeric uranium standard to past and current water discharges (as of 9-26-04), the new standard will not become effective until June 1, 2007. For any new water discharges, the uranium standard is effective 9-26-04.]

20.6.2.3104 DISCHARGE PERMIT REQUIRED: Unless otherwise provided by this Part, no person shall cause or allow effluent or leachate to discharge so that it may move directly of indirectly into ground water unless he is discharging pursuant to a discharge permit issued by the secretary. When a permit has been issued, discharges must be consistent with the terms and conditions of the permit. In the event of a transfer of the ownership, control, or possession of a facility for which a discharge permit is in effect, the transferee shall have authority to discharge under such permit, provided that the transferee has complied with Section 20.6.2.3111 NMAC, regarding transfers. [2-18-77, 12-24-87, 12-1-95; Rn & A, 20.6.2.3104 NMAC - 20 NMAC 6.2.III.3104, 1-15-01; A, 12-1-01]

## **20.6.2.3105 EXEMPTIONS FROM DISCHARGE PERMIT REQUIREMENT:** Sections 20.6.2.3104 and 20.6.2.3106 NMAC do not apply to the following:

- A. Effluent or leachate which conforms to all the listed numerical standards of Section 20.6 2.3103 NMAC and has a total nitrogen concentration of 10 mg/l or less, and does not contain any toxic pollutant. To determine conformance, samples may be taken by the agency before the effluent or leachate is discharged so that it may move directly or indirectly into ground water; provided that if the discharge is by seepage through non-natural or altered natural materials, the agency may take samples of the solution before or after seepage. If for any reason the agency does not have access to obtain the appropriate samples, this exemption shall not apply;
- B. Effluent which is discharged from a sewerage system used only for disposal of household and other domestic waste which is designed to receive and which receives 2,000 gallons or less of liquid waste per day;
- C. Water used for irrigated agriculture, for watering of lawns, trees, gardens or shrubs, or for irrigation for a period not to exceed five years for the revegetation of any disturbed land area, unless that water is received directly from any sewerage system;
- D. Discharges resulting from the transport or storage of water diverted, provided that the water diverted has not had added to it after the point of diversion any effluent received from a sewerage system, that the source of the water diverted was not mine workings, and that the secretary has not determined that a hazard to public health may result;
- E. Effluent which is discharged to a watercourse which is naturally perennial; discharges to dry arroyos and ephemeral streams are not exempt from the discharge permit requirement, except as otherwise provided in this section;
- F. Those constituents which are subject to effective and enforceable effluent limitations in a National Pollutant Discharge Elimination System (NPDES) permit, where discharge onto or below the surface of the ground so that water contaminants may move directly or indirectly into ground water occurs downstream from the outfall

20.6.2 NMAC 13

## Certifications

**WBENC:** 237019

HUB:

1752439743100-86536

**DBE**: VN 20657

NCTRCA WFWB38444Y0909

### **NELAP Certifications**

**Lubbock:** T104704219-08-TX

El Paso: T104704221-08-TX

Midland: T104704392-08-TX

LELAP-02003 Kansas E-10317 LELAP-02002

## Analytical and Quality Control Report

Eb Taylor Talon LPE-Hobbs 318 E Taylor Hobbs, NM, 88240

Report Date: January 6, 2009

Work Order:

8122318

Project Location: Lea County, NM

Project Name:

Paloma 21 Fed. Com. #1

Project Number: MEWBOU036 Pit

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

			Date	$\operatorname{Time}$	Date
Sample	Description	Matrix	Taken	Taken	Received
183416	Insitu Cuttings	soil	2008-12-22	08:45	2008-12-23

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

Michael Abrel
Dr. Blair Leftwich, Director

### Standard Flags

 $\,B\,$  -  $\,$  The sample contains less than ten times the concentration found in the method blank.

## Case Narrative

Samples for project Paloma 21 Fed. Com. #1 were received by TraceAnalysis, Inc. on 2008-12-23 and assigned to work order 8122318. Samples for work order 8122318 were received intact at a temperature of 4.6 deg. C.

Samples were analyzed for the following tests using their respective methods.

Test	Method					
Chloride (Titration)	SM 4500-Cl B					

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 8122318 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

MEWBOU036 Pit

Work Order: 8122318 Paloma 21 Fed. Com #1 Page Number: 4 of 5 Lea County, NM

## Analytical Report

Sample Preparation:

Sample: 183416 - Insitu Cuttings

Laboratory:

Lubbock

Analysis: QC Batch:

Prep Batch:

Chloride (Titration)

55646

47555

Date Analyzed:

Analytical Method: SM 4500-Cl B

2008-12-31 2008-12-31 Prep Method: N/A

Analyzed By: KV

Prepared By: KV

RL

Parameter Chloride

Flag

Result 996

Units mg/Kg Dilution 10 RL

3.25

Method Blank (1)

QC Batch: 55646

QC Batch: Prep Batch. 47555

55646

Date Analyzed. QC Preparation: 2008-12-31

2008-12-31

Analyzed By: KV Prepared By.

KV

MDL

Parameter

Chloride

Flag

Result < 1.80

Units mg/Kg

RL3.25

Matrix Spike (MS-1)

Spiked Sample: 183579

QC Batch: Prep Batch.

55646

Date Analyzed.

2008-12-31

Analyzed By: KV

Prepared By: KV

47555

QC Preparation:

2008-12-31

Matrix

Rec.

Param Chloride

MS Result Units 620 mg/Kg

Dil. 10

Amount 500

Spike

119

Result 119

Rec.

Limit 74.7 - 123.2

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

Param	
Chlorida	

Result 616

MSD

Units Dil. mg/Kg 10

Spike Matrix Amount Result

Rec.

99

Rec. Limit

74.7 - 123.2

100

RPD

RPD Limit

20

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

Standard (ICV-1)

QC Batch: 55646

Date Analyzed: 2008-12-31

500

Analyzed By: KV

MEWBOU036 Pit

Work Order: 8122318 Paloma 21 Fed. Com. #1 Page Number: 5 of 5 Lea County, NM

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride	· ·	ing/Kg	100	100	100	85 - 115	2008-12-31

Standard (CCV-1)

QC Batch: 55646

Date Analyzed: 2008-12-31

Analyzed By. KV

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		m mg/Kg	100	99.8	100	85 - 115	2008-12-31

AB Order ID #	_812231	8

Δ.		
Page	of	

# TraceAnalysis, Inc.

email: lab@traceanalysis.com

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

5002 Basin Street, Suite A1 Midland, Texas 79703 Fel (432) 689-6301 Fax (432) 689 6313

200 East Sunset Rd Suite E El Paso, Texas 79922 Tel (915) 585-3443 Fax (915) 585-3444 1 (888) 588-3443 6015 Harris Pkwy Suite 110 Ft Worth, Texas 76132 Tel (817) 201-5260

Company Name:						Pł	none	#.				1 (800	0) 378-129	6													-3443								
Address: (Street City 7in) (432) 238-4388											ANALYSIS REQUEST																								
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C. The standards are not intended as maximum ranges and concentrations for use, and nothing herein contained shall be construed as limiting the use of waters containing higher ranges and concentrations. [2-18-77, 20.6.2.3101 NMAC - Rn, 20 NMAC 6.2.III.3101, 1-15-01]

20.6.2.3102: [RESERVED]

20.6.2.3103

[12-1-95; 20.6.2.3102 NMAC - Rn, 20 NMAC 6 2.III.3102, 1-15-01]

LESS: The following standards are the allowable pH range and the maximum allowable concentration in ground water for the contaminants specified unless the existing condition exceeds the standard or unless otherwise provided in Subsection D of Section 20.6.2.3109 NMAC. Regardless of whether there is one contaminant or more than one contaminant present in ground water, when an existing pH or concentration of any water contaminant exceeds the standard specified in Subsection A, B, or C of this section, the existing pH or concentration shall be the allowable limit provided that the discharge at such concentrations will not result in concentrations at any place of withdrawal

STANDARDS FOR GROUND WATER OF 10,000 mg/I TDS CONCENTRATION OR

standard specified in Subsection A, B, or C of this section, the existing pH or concentration shall be the allowable limit, provided that the discharge at such concentrations will not result in concentrations at any place of withdrawal for present or reasonably foresceable future use in excess of the standards of this section. These standards shall apply to the dissolved portion of the contaminants specified with a definition of dissolved being that given in the publication "methods for chemical analysis of water and waste of the U.S. environmental protection agency," with the exception that standards for mercury, organic compounds and non-aqueous phase liquids shall apply to the total unfiltered soncentrations of the contaminants.

Human Health Standards-Ground water shall meet the standards of Subsection A and B of this section miless otherwise provided. If more than one water contaminant affecting human health is present, the toxic pollutant criteria as set forth in the definition of toxic pollutant in Section 20.6.2.1101 NMAC for the combination of contaminants, or the Human Health Standard of Subsection A of Section 20.6.2.3103 NMAC for each contaminant shall apply, whichever is more stringent. Non-aqueous phase liquid shall not be present floating atop

( ' '	Old Ontidan ( Olympia)	
(5)	Cyanide (CN)	0.2 mg/t
(6)	Fluoride (F)	1.6 mg/l
(7)	Lead (Pb)	0.05 mg/l
(8)	Total Mercury (Hg).	0.002 mg/l
(9)	Nitrate (NO, as N)	10.0 mg/l
(10)	Selenium (Se)	0.05 mg/l
(11)	Silver (Ag)	0.05 mg/l
(12)	Uranium (U)	
(13)	Radioactivity: Combined Radium-226 & Radium-228	30 pCi/l
(14)	Benzene	
(15)	Polychlorinated biphenyls (PCB's)	0.001 mg/l
(16)	Toluene	
(17)	Carbon Tetrachloride	
(18)	1,2-dichloroethane (EDC)	l/mg/l
(19)	1,1-dichloroethylene (1,1-DCE)	
(20)	1,1,2,2-tetrachloroethylene (PCE)	0.02 mg/l
(21)	1,1,2-trichloroethylene (TCE)	0.1 mg/l
(22)	ethylbenzene	0.75 mg/l
(23)	total xylenes	
(24)	methylene chloride	0.1 mg/l
(25)	chloroform	0.1 mg/l
(26)	1,i-dichloroethane	
(27)	ethylene dibromide (EDB)	0.0001 mg/l
(28)	1,1,1-trichloroethane	0.06 mg/l
(29)	1,1,2-trichloroethane	
(30)	1,1,2,2-tetrachloroethane	0.01 mg/i
(31)	vinyl chloride	0.001 mg/l

20.6.2 NMAC



(32	PAHs: total naphthalene plus monomethylnaphthalenes	0.03 mg/1
(33	B) benzo-a-pyrene	0.0007 mg/l
B.	Other Standards for Domestic Water Supply	_
(1)	Chloride (Cl)	250 0 mg/l
(2)	Copper (Cu)	1.0 mg/l
(3)	Iron (Fe)	1.0 mg/l
(4)	Manganese (Mn)	0.2 mg/l
(6)	Phenols	0.005 mg/l
(7)	Sulfate (SO <sub>4</sub> )	
(8)	Total Dissolved Solids (TDS)	1000 0 mg/l
(9)	Zinc (Zn)	
(10	) pH	between 6 and 9
C.	Standards for Irrigation Use - Ground water shall meet th	e standards of Subsec

C. Standards for Irrigation Use - Ground water shall meet the standards of Subsection A, B and C of this section unless otherwise provided.

(1)	Aluminum (Al)	5.0 mg/1
(2)	Boron (B)	0.75 mg/l
(3)	Cobalt (Co)	0.05 mg/l
(4)	Molybdenum (Mo)	1.0 mg/l
	Nickel (Nr)	

[2-18-77, 1-29-82, 11-17-83, 3-3-86, 12-1-95; 20.6.2.3103 NMAC - Rn, 20 NMAC 6.2.III.3103, 1-15-01; A, 9-26-04]

[Note: For purposes of application of the amended numeric uranium standard to past and current water discharges (as of 9-26-04), the new standard will not become effective until June 1, 2007. For any new water discharges, the uranium standard is effective 9-26-04.]

20.6.2.3104 DISCHARGE PERMIT REQUIRED: Unless otherwise provided by this Part, no person shall cause or allow effluent or leachate to discharge so that it may move directly of indirectly into ground water unless he is discharging pursuant to a discharge permit issued by the secretary. When a permit has been issued, discharges must be consistent with the terms and conditions of the permit. In the event of a transfer of the ownership, control, or possession of a facility for which a discharge permit is in effect, the transferee shall have authority to discharge under such permit, provided that the transferee has complied with Section 20.6.2.3111 NMAC, regarding transfers. [2-18-77, 12-24-87, 12-1-95; Rn & A, 20.6.2.3104 NMAC - 20 NMAC 6.2.III.3104, 1-15-01; A, 12-1-01]

## 20.6.2.3105 EXEMPTIONS FROM DISCHARGE PERMIT REQUIREMENT: Sections 20.6.2.3104 and 20.6.2.3106 NMAC do not apply to the following:

- A. Effluent or leachate which conforms to all the listed numerical standards of Section 20.6.2.3103 NMAC and has a total nitrogen concentration of 10 mg/l or less, and does not contain any toxic pollutant. To determine conformance, samples may be taken by the agency before the effluent or leachate is discharged so that it may move directly or indirectly into ground water; provided that if the discharge is by seepage through non-natural or altered natural materials, the agency may take samples of the solution before or after seepage. If for any reason the agency does not have access to obtain the appropriate samples, this exemption shall not apply;
- B. Effluent which is discharged from a sewerage system used only for disposal of household and other domestic waste which is designed to receive and which receives 2,000 gallons or less of liquid waste per day;
- C. Water used for irrigated agriculture, for watering of lawns, trees, gardens or shrubs, or for irrigation for a period not to exceed five years for the revegetation of any disturbed land area, unless that water is received directly from any sewerage system;
- D. Discharges resulting from the transport or storage of water diverted, provided that the water diverted has not had added to it after the point of diversion any effluent received from a sewerage system, that the source of the water diverted was not mine workings, and that the secretary has not determined that a hazard to public health may result;
- E. Effluent which is discharged to a watercourse which is naturally perennial; discharges to dry arroyos and ephemeral streams are not exempt from the discharge permit requirement, except as otherwise provided in this section;
- F. Those constituents which are subject to effective and enforceable effluent limitations in a National Pollutant Discharge Elimination System (NPDES) permit, where discharge onto or below the surface of the ground so that water contaminants may move directly or indirectly into ground water occurs downstream from the outfall

20.6.2 NMAC 13



### Certifications

**WBENC:** 237019

HUB: 1752439743100-86536

NCTRCA WFWB38444Y0909

**NELAP Certifications** 

Lubbock: T104704219-08-TX

LELAP-02003

Kansas E-10317

El Paso: T104704221-08-TX

LELAP-02002

Midland: T104704392-08-TX

**DBE:** VN 20657

## Analytical and Quality Control Report

Eb Taylor Talon LPE-Hobbs 318 E Taylor Hobbs, NM, 88240

Report Date: January 14, 2009

Work Order: 9011205 

Project Location: Lea County, NM

Project Name:

Paloma 21 Fed. Com. #1

Project Number: MEWBOU036 Pit

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

	•		$\operatorname{Date}$	${f Time}$	Date
Sample	Description	Matrix	Taken	Taken	Received
184415	Floor Composite	soil	2009-01-09	11:00	2009-01-12

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

Blair fatural

Dr. Blair Leftwich, Director

### Standard Flags

 $\, B \,$  - The sample contains less than ten times the concentration found in the method blank.

1

## Case Narrative

Samples for project Paloma 21 Fed. Com. #1 were received by TraceAnalysis, Inc. on 2009-01-12 and assigned to work order 9011205. Samples for work order 9011205 were received intact at a temperature of 1.9 deg. C.

Samples were analyzed for the following tests using their respective methods.

Test	Method
BTEX	S 8021B
Chloride (Titration)	SM 4500-Cl B
Total BTEX	S 8021B
TPH 418.1	E 418.1
TPH DRO	Mod. 8015B
TPH GRO	S 8015B

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 9011205 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Report Date: January 14, 2009 MEWBOU036 Pit

Work Order: 9011205 Paloma 21 Fed. Com. #1 Page Number: 4 of 13 Lea County, NM

## **Analytical Report**

### Sample: 184415 - Floor Composite

Laboratory: Midland

Analysis. BTEX, Total BTEX QC Batch: 55937 Prep Batch: 47810

Analytical Method: Date Analyzed:

RL

S 8021B2009-01-12 2009 - 01 - 12Sample Preparation:

Prep Method: S 5035 Analyzed By: MEPrepared By: ME

Parameter	$\operatorname{Flag}$	Result	Units	Dilution	RL
Benzene		< 0.0100	mg/Kg	1	0.0100
Toluene		< 0.0100	$\mathrm{mg}/\mathrm{Kg}$	1	0.0100
Ethylbenzene		< 0.0100	${ m mg/Kg}$	1	0.0100
Xylene		< 0.0100	mg/Kg	1	0.0100
Total BTEX		< 0.0600	mg/Kg	1	0.0600

					Spike	Percent	Recovery
Surrogate	$\operatorname{Flag}$	Result	Units	Dilution	$\mathbf{A}\mathbf{mount}$	Recovery	Limits
Trifluorotoluene (TFT)		0.945	mg/Kg	1	1.00	94	68 - 136.9
4-Bromofluorobenzene (4-BFB)		0.955	mg/Kg	1	1 00	96	48.2 - 155

### Sample: 184415 - Floor Composite

Laboratory.

Midland

Analysis: Chloride (Titration) QC Batch: 55915 Prep Batch: 47790

Analytical Method: Date Analyzed:

SM 4500-Cl B 2009-01-12

Prep Method: N/A Analyzed By: ARPrepared By. AR

Result Parameter Flag

Sample Preparation: 2009-01-12

Units

mg/Kg

Dilution RL50 4.00

### Sample: 184415 - Floor Composite

Laboratory: Lubbock

Chloride

Analysis: TPH 418.1 QC Batch: 55969 Prep Batch: 47840

Analytical Method: Date Analyzed: Sample Preparation:

RL

< 200

E 418.1 2009-01-14 2009-01-14 Prep Method: N/AAnalyzed By: CMPrepared By: CM

		m RL			
Parameter	$\operatorname{Flag}$	Result	Units	Dilution	RL
TRPHC		<10.0	m mg/Kg	1	10.0

MEWBOU036 Pit

Work Order: 9011205 Paloma 21 Fed. Com. #1 Page Number: 5 of 13 Lea County, NM

Sample: 184415 - Floor Composite

Laboratory:

Midland

Analysis: QC Batch:

TPH DRO 55932

Analytical Method: Date Analyzed:

Mod. 8015B 2009-01-12

Prep Method.

N/AAnalyzed By: AGAG

Prep Batch: 47809

Sample Preparation: 2009-01-12 Prepared By:

RL

Units

mg/Kg

Parameter  $\overline{\mathrm{DRO}}$ 

Result < 50.0

Units mg/Kg

100

Dilution RL50.0

Surrogate n-Triacontane Result

83.3

Dilution

Spike Percent Amount Recovery

83

Recovery Limits 10 - 250.4

Sample: 184415 - Floor Composite

Flag

Laboratory:

Midland

Analysis: QC Batch: TPH GRO 55938

Analytical Method:

S 8015B 2009-01-12

Analyzed By:

Prep Method: S 5035 ME

Prep Batch: 47810

Date Analyzed: Sample Preparation:

2009-01-12

Prepared By: ME

RL

Parameter

Flag Result  $\overline{GRO}$ < 1.00

Flag

Units mg/Kg

RL

1.00

Spike Percent Recovery Surrogate Recovery Flag Result Units Dilution Amount Limits Trifluorotoluene (TFT) 0.912 mg/Kg 1 91 67.5 - 135.2 1.00 4-Bromofluorobenzene (4-BFB) 0.871mg/Kg 1.00 1 87 63.8 - 141

Method Blank (1)

QC Batch: 55915

QC Batch:

55915

Date Analyzed:

Flag

2009-01-12

Units

mg/Kg

Dilution

Analyzed By: AR

RL

4

Prep Batch: 47790

Parameter

Chloride

QC Preparation: 2009-01-12

MDL

Result

< 2.01

Prepared By:

AR

Method Blank (1)

QC Batch: 55932

QC Batch: 55932 Prep Batch: 47809

Date Analyzed: QC Preparation:

2009-01-12 2009-01-12

Analyzed By: AG Prepared By: AG

Report Date: January 14, 2009  $\widetilde{\text{MEWBOU036}}$  Pit

Work Order: 9011205 Paloma 21 Fed. Com. #1 Page Number: 6 of 13 Lea County, NM

Parameter	Flag		MDL Result		U	nits		RI
DRO			<15.8			g/Kg		50
Surrogate	Flag Result	Units	Dilu	tion	Spike Amount	Percent Recovery	Reco Lim	
n-Triacontane	67.5	mg/Kg	<u> </u>		100	68	30.9 -	
Method Blank (1)	QC Batch: 559	37						
QC Batch 55937 Prep Batch 47810		Date An QC Prep		009-01-12 009-01-12			yzed By: ared By:	ME ME
			МІ	)L				
Parameter	Flag		Rest	ılt	U	nits		RL
Benzene		· <del></del>	< 0.005	80	m		0.01	
on t			< 0.004	70	m		0.01	
Toluene			< 0.00530			mg/Kg		
			< 0.005	90	1118	o/ **o		
Toluene Ethylbenzene Xylenc			<0.005			g/Kg		0.01
Ethylbenzene							Reco	
Ethylbenzene	Flag	Result			mį	g/Kg	Reco <sup>*</sup>	very
Ethylbenzene Xylenc		Result 0.961	< 0.01	36	m <sub>g</sub> Spike	g/Kg Percent		its

Method Blank	(1)	) QC	Batch:	55938
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QC Batch: 55938 Prep Batch: 47810 Date Analyzed: QC Preparation: 2009-01-12

2009-01-12

Analyzed By: ME Prepared By: ME

MDLParameter Flag Result Units RL $\overline{\text{GRO}}$ < 0.442 mg/Kg

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	$\begin{array}{c} { m Recovery} \\ { m Limits} \end{array}$
Trifluorotoluene (TFT)		0.912	mg/Kg	1	1.00	91	39.2 - 135.2
4-Bromofluorobenzene (4-BFB)		0.832	mg/Kg	1	1.00	83	16.8 - 138.1

#### Method Blank (1) QC Batch: 55969

QC Batch: 55969 Date Analyzed: 2009-01-14 Prep Batch: 47840 QC Preparation: 2009-01-14

Analyzed By: CM Prepared By: CM

MEWBOU036 Pit

Work Order: 9011205 Paloma 21 Fed. Com #1 Page Number: 7 of 13 Lea County, NM

		MDL		
Parameter	$\operatorname{Flag}$	Result	Units	RL
TRPHC		< 5 28	m mg/Kg	10

### Laboratory Control Spike (LCS-1)

QC Batch:

55915

Date Analyzed:

2009-01-12

Analyzed By. AR

Prep Batch: 47790

QC Preparation: 2009-01-12

Prepared By. AR

	LCS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
Chloride	98.2	mg/Kg	1	100	< 2.01	98	85 - 115

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

	LCSD			$_{ m Spike}$	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Chloride	100	mg/Kg	1	100	< 2.01	100	85 - 115	2	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:

55932

Date Analyzed:

2009-01-12

Analyzed By: AG Prepared By:

Prep Batch 47809 QC Preparation: 2009-01-12

	rcs			Бріке	Matrix		ĸec.
Param .	Result	Units	Dil.	Amount	Result	Rec.	Limit
DRO	259	mg/Kg	1	250	<15.8	104	27.8 - 152.1

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

	LCSD			$\operatorname{Spike}$	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
DRO	258	mg/Kg	1	250	<15.8	103	27.8 - 152.1	0	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	$\operatorname{Limit}$
n-Triacontane	89.4	91.2	mg/Kg	1	100	89	91	38 - 130.4

### Laboratory Control Spike (LCS-1)

QC Batch:

55937

Date Analyzed:

2009-01-12

Analyzed By: ME

Prep Batch: 47810

QC Preparation: 2009-01-12

Prepared By: ME

MEWBOU036 Pit

Work Order: 9011205 Paloma 21 Fed. Com. #1 Page Number: 8 of 13 Lea County, NM

Param	LCS Result	Units	Dil.	$\begin{array}{c} {\rm Spike} \\ {\rm Amount} \end{array}$	Matrix Result	Rec.	Rec. Limit
Benzene	0.990	mg/Kg	1	1.00	< 0.00580	99	73 3 - 116 6
Toluene	0.985	mg/Kg	1	1.00	< 0.00470	98	78.6 - 115 1
Ethylbenzene	0.984	mg/Kg	1	1.00	< 0.00530	98	77.4 - 114.9
Xylene	2.95	mg/Kg	1	3.00	< 0.0136	. 98	78.2 - 114.7

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

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	$\operatorname{Limit}$	RPD	Limit
Benzene	1.02	mg/Kg	1	1.00	< 0.00580	102	73.3 - 116 6	3	20
Toluene	1.02	mg/Kg	1	1.00	< 0.00470	102	78.6 - 115.1	4	20
Ethylbenzene	1.03	mg/Kg	1	1.00	< 0.00530	103	77.4 - 114.9	5	20
Xylene	3.08	mg/Kg	1	3.00	< 0.0136	103	78 2 - 114.7	4	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit .
Trifluorotoluene (TFT)	0.921	0.966	mg/Kg	1	1.00	92	97	45 - 124.2
4-Bromofluorobenzene (4-BFB)	0.931	0.937	mg/Kg	1	1.00	93	94	47.2 - 130.4

### Laboratory Control Spike (LCS-1)

QC Batch:

55938 Prep Batch: 47810 Date Analyzed: QC Preparation:

2009-01-12 2009-01-12

Analyzed By. ME Prepared By. ME

LCS Spike Matrix Rec. Param Result Units Dil. Result Limit Amount Rec.  $\overline{\text{GRO}}$ 7.21 72 57.5 - 106.4 mg/Kg 1 10.0 < 0.442

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

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	${f Amount}$	Result	Rec.	Limit	RPD	$\operatorname{Limit}$
GRO	7.18	mg/Kg	1 '	10.0	< 0.442	72	57.5 - 106.4	0	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	$\operatorname{Result}$	Result	$\operatorname{Units}$	Dil.	${f Amount}$	$\mathrm{Rec}.$	${ m Rec.}$	$\operatorname{Limit}$
Trifluorotoluene (TFT)	0.900	0.917	mg/Kg	1	1.00	90	92	63.8 - 134.3
4-Bromofluorobenzene (4-BFB)	0.851	0.868	mg/Kg	1	1.00	85	87	53.3 - 123.6

### Laboratory Control Spike (LCS-1)

QC Batch: Prep Batch: 47840 Date Analyzed: 2009-01-14 QC Preparation: 2009-01-14 Analyzed By: CM Prepared By: CM

MEWBOU036 Pit

Work Order: 9011205 Paloma 21 Fed. Com. #1 Page Number: 9 of 13 Lea County, NM

	LCS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
TRPHC	273	mg/Kg	1	250	< 5.28	109	75 5 - 136

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

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
TRPHC	269	mg/Kg	1	250	< 5.28	108	75.5 - 136	1	20

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

Matrix Spike (MS-1) Spiked Sample: 184439

55915

Date Analyzed:

2009-01-12

Analyzed By: AR

QC Batch: Prep Batch: 47790

QC Preparation: 2009-01-12

Prepared By: AR

	MS			$_{ m Spike}$	Matrix		Rec.
Param	$\operatorname{Result}$	Units	Dil.	Amount	Result	Rec.	Limit
Chloride	18900	mg/Kg	50	5000	14300	92	85 - 115

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

	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	$\operatorname{Limit}$	RPD	Limit
Chloride	19400	mg/Kg	50	5000	14300	102	85 - 115	3	20

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

Matrix Spike (MS-1) Spiked Sample: 184415

QC Batch: 55932

Date Analyzed:

2009-01-12

Analyzed By: AG

Prep Batch: 47809

QC Preparation: 2009-01-12

Prepared By: AG

	MS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
DRO	219	mg/Kg	1	250	<15.8	88	18 - 179.5

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

	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
DRO	217	mg/Kg	1	250	<15.8	87	18 - 179.5	1	20

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	$\operatorname{Limit}$
n-Triacontane	83.0	86.0	mg/Kg	1	100	83	86	34.1 - 158

Work Order: 9011205 MEWBOU036 Pit Paloma 21 Fed. Com. #1 Page Number: 10 of 13 Lea County, NM

Matrix Spike (MS-1) Spiked Sample: 184415

QC Batch: 55937 Date Analyzed: 2009-01-12 Analyzed By: ME Prep Batch: 47810 QC Preparation: 2009-01-12 Prepared By: ME

	MS			Spike	Matrix		Rec.
Param	Result	$_{ m Units}$	Dil.	Amount	Result	Rec.	Limit
Benzene	1.00	mg/Kg	1	1.00	< 0.00580	100	62.2 - 134.3
Toluene	1.02	mg/Kg	1	1.00	< 0.00470	102	62.6 - 145.4
Ethylbenzene	1.04	mg/Kg	1	1.00	< 0.00530	104	64.6 - 146.4
Xylene	3.14	mg/Kg	1	3.00	< 0 0136	105	64.3 - 148.8

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

	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	$_{ m Lim}$ 1 $^{ m t}$	RPD	Limit
Benzene	1.01	mg/Kg	1	1.00	< 0.00580	101	62.2 - 134.3	1	20
Toluene	1.04	${ m mg/Kg}$	1	1.00	< 0.00470	104	62 6 - 145.4	$^2$	20
Ethylbenzene	1.07	mg/Kg	1	1.00	< 0.00530	107	64.6 - 146.4	3	20
Xylene	3.20	mg/Kg	1	3.00	< 0.0136	107	64.3 - 148.8	2	20

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

	MS	MSD			$\operatorname{Spike}$	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	0.952	0.920	mg/Kg	1	1	95	92	38.8 - 127.5
4-Bromofluorobenzene (4-BFB)	0.979	0.953	mg/Kg	1	1	98	95	49.3 - 142.4

Matrix Spike (MS-1) Spiked Sample: 184414

QC Batch: 55938 Date Analyzed: 2009-01-12Analyzed By: ME Prep Batch: 47810 QC Preparation: 2009-01-12 Prepared By: ME

	MS			$_{ m Spike}$	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
GRO	7.59	mg/Kg	1	10.0	< 0.442	76	10 - 139.3

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

	MSD			$_{ m Spike}$	Matrix		$\operatorname{Rec.}$		RPD
Param	Result	$\operatorname{Units}$	Dil.	${f Amount}$	Result	Rec.	$\operatorname{Limit}$	RPD	$\operatorname{Limit}$
GRO	7.78	mg/Kg	1	10.0	< 0.442	78	10 - 139.3	2	20

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	$_{ m Units}$	Dil.	${f Amount}$	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	0.921	0.902	mg/Kg	1	1	92	90	21.3 - 119
4-Bromofluorobenzene (4-BFB)	0.920	0.904	mg/Kg	1	1	92	90	52.5 - 154

MEWBOU036 Pit

Work Order: 9011205 Paloma 21 Fed. Com. #1 Page Number: 11 of 13 Lea County, NM

Matrix Spike (MS-1)

Spiked Sample: 184569

QC Batch: Prep Batch: 47840

55969

Date Analyzed:

2009-01-14

QC Preparation: 2009-01-14

Analyzed By: CM

Prepared By. CM

	MS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	$\operatorname{Limit}$
TRPHC	402	mg/Kg	1	250	104	119	10 - 354

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

	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
TRPHC	412	$\mathrm{mg}/\mathrm{Kg}$	1	250	104	123	10 - 354	2	20

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

Standard (ICV-1)

QC Batch: 55915

Date Analyzed: 2009-01-12

Analyzed By. AR

			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent '	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		mg/Kg	100	99.3	99	85 - 115	2009-01-12

Standard (CCV-1)

QC Batch: 55915

Date Analyzed: 2009-01-12

Analyzed By: AR

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		${ m mg/Kg}$	100	101	101	85 - 115	2009-01-12

Standard (ICV-1)

QC Batch: 55932

Date Analyzed: 2009-01-12

Analyzed By: AG

			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		${ m mg/Kg}$	250	258	103	85 - 115	2009-01-12

Standard (CCV-1)

QC Batch: 55932

Date Analyzed: 2009-01-12

Analyzed By: AG

MEWBOU036 Pit

Work Order: 9011205 Paloma 21 Fed. Com. #1

Page Number: 12 of 13 Lea County, NM

			CCVs True	CCVs Found	$\begin{array}{c} { m CCVs} \\ { m Percent} \end{array}$	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	238	95	85 - 115	2009-01-12

### Standard (ICV-1)

QC Batch: 55937

Date Analyzed: 2009-01-12

Analyzed By: ME

			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		mg/Kg	0.100	0.108	108	85 - 115	2009-01-12
Toluene		${ m mg/Kg}$	0.100	0.107	107	85 - 115	2009-01-12
Ethylbenzene		${ m mg/Kg}$	0.100	0.108	108	85 - 115	2009-01-12
Xylene		mg/Kg	0.300	0.324	108	85 - 115	2009-01-12

### Standard (CCV-1)

QC Batch: 55937

Date Analyzed 2009-01-12

Analyzed By: ME

Param	Flag ·	${ m Units}$	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	$\begin{array}{c} \text{Date} \\ \text{Analyzed} \end{array}$
Benzene		mg/Kg	0.100	0.105	105	85 - 115	2009-01-12
Toluene		${ m mg/Kg}$	0.100	0.106	106	85 - 115	2009-01-12
Ethylbenzene		mg/Kg	0.100	0.106	106	85 - 115	2009-01-12
Xylene		mg/Kg	0.300	0.316	105	85 - 115	2009-01-12

### Standard (ICV-1)

QC Batch: 55938

Date Analyzed: 2009-01-12

Analyzed By. ME

			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/Kg	1.00	0.993	99	85 - 115	2009-01-12

### Standard (CCV-1)

QC Batch: 55938

 $Date\ Analyzed:\ \ 2009\text{-}01\text{-}12$ 

Analyzed By: ME

Report Date: January 14, 2009 MEWBOU036 Pit

Work Order: 9011205 Paloma 21 Fed. Com. #1 Page Number: 13 of 13 Lea County, NM

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	$\operatorname{Flag}$	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/Kg	1 00	0.881	88	85 - 115	2009-01-12
Standard	(ICV-1)						
QC Batch:	55969		Date Ana	$ \frac{1}{2009-01} $	1-14	Anal	yzed By: CM
			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	$\operatorname{Flag}$	Units	Conc.	Conc	Recovery	Limits	Analyzed
TRPHC		mg/Kg	100	95.5	96	80 - 120	2009-01-14
Standard	(CCV-1)						
QC Batch:	55969		Date Ana	lyzed: 2009-01	-14	Anal	yzed By: CM
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
$\Gamma$ RPHC		${ m mg/Kg}$	100	98.8	99	80 - 120	2009-01-14

LAB Order ID # 90/1205	LAB Order ID #_	9011205
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## TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 Tei (806) 794-1296 Fax (806) 794-1298

5002 Basin Street, Suite A1 Midland, Texas 79703 Tel (432) 689-6301 Fax (432) 689-6313 200 East Sunset Rd , Suite E El Paso, Texas 79922 Tel (915) 585-3443 Fax (915) 585-4944 1 (888) 588-3443

6015 Harris Pkwy , Suite 110 Ft. Worth, Texas 76132 Tel (817) 201-5260

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