SITE INFORMATION

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Site: GJ West COOP #125 Company: COG Operating LLC Section, Township and Range Unit P - Sec 28 Lease Number: 30-015-03163 County: Eddy County GPS: N 32.80022 Surface Owner: State Mineral Owner: Directions: From intersection of Co Rd 219 and Hwy 82 in L Release Data: From intersection of Co Rd 219 and Hwy 82 in L Release Data: From intersection of Co Rd 219 and Hwy 82 in L Release Data: From intersection of Co Rd 219 and Hwy 82 in L Release: Produced water Source of Contamination: Steel line ruptured Fluids Recovered: 0 bbls Official Communication: Steel line ruptured Name: Pat Ellis Company: COG Operating, LLC Address: 550 W. Texas Ave. Ste. 1300 P.O. Box City: Midland Texas, 79701 N Phone number: (432) 686-3023 Fax: (432) 684-7137	ort								
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Acceptable Soil RRAL (mg/kg)BenzeneTotal BTEX10505,000	JUN 03 2011 NMOCD ARTESIA								

May 24, 2011

Mr. Mike Bratcher Environmental Engineer Specialist Oil Conservation Division, District 2 1301 West Grand Avenue Artesia, New Mexico 88210

Re: Closure Report for the COG Operating LLC., GJ West COOP Unit #125 flowline, Unit P, Section 28, Township 17 South, Range 29 East, Eddy County, New Mexico.

Mr. Bratcher:

Tetra Tech, Inc. (Tetra Tech) was contacted by COG Operating LLC. (COG) to assess a spill from the GJ West COOP Unit #125 flowline located in Unit P, Section 28, Township 17 South, Range 29 East, Eddy County, New Mexico (Site). The spill site coordinates are N 32.80022°, W 104.07126°. The site location is shown on Figures 1 and 2.

Background

According to the State of New Mexico C-141 Initial Report, the leak was discovered on June 24, 2010. Approximately fifty (50) barrels of produced fluids was release from a ruptured steel flow line. Zero (0) barrels of released fluids were recovered. The spill is located in the pasture northwest of the GJ West COOP Unit #125 unit. The spill migrated east down a natural wash approximately 900', with an average width of 5'. The initial C-141 form is enclosed in Appendix A.

Groundwater

No water wells were listed within Section 28. According to the NMOCD groundwater map, the average depth to groundwater in this area is greater than 150' below surface. The well report data is shown in Appendix B.

Regulatory

A risk-based evaluation was performed for the Site in accordance with the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills and Releases, dated August 13, 1993. The guidelines require a risk-based evaluation of the site to determine recommended remedial action levels (RRAL) for benzene, toluene, ethylbenzene and xylene (collectively referred to as BTEX) and total petroleum hydrocarbons (TPH) in soil. The proposed RRAL for benzene was determined to be 10 parts per million (ppm) or milligrams per kilogram (mg/kg) and 50 ppm for total BTEX (sum of benzene, toluene, ethylbenzene, and xylene). Based upon the depth to groundwater, the proposed RRAL for TPH is 5,000 mg/kg.

Soil Assessment and Analytical Results

On August 6, 2010, Tetra Tech personnel inspected and sampled the spill area. A total of eleven (11) auger holes (AH-1 through AH-11) were installed using a stainless steel hand auger to assess the impacted soils. To assess the spill area, the auger holes were spaced 75' to 80' apart. Select samples were analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B and chloride by EPA method 300.0. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix C. The results of the sampling are summarized in Table 1. The auger hole locations are shown on Figure 3.

Referring to Table 1, the areas of auger holes (AH-1, AH-2, AH-4, AH-5, AH-7, AH-8 and AH-9) exceeded TPH RRAL at depths ranging from 1' to 7' below surface and all were vertically defined. Auger hole (AH-1) exceeded the total BTEX from surface to a total depth of 7' below surface and declined below the RRAL at 8' below surface.

Elevated chloride concentrations were detected in the majority of the auger hole locations. All of the auger holes were vertically defined, except for AH-1, AH-2, AH-4 and AH-5. On the auger holes defined, the chloride impact depths ranged from 2' to 9' below surface. The remaining auger holes were not vertically defined and required additional delineation.

In order to delineate the chloride impact, soil borings were installed utilizing an air rotary drilling rig. On November 30, 2010, Tetra Tech personnel supervised the installation of four (4) soil borings (SB-1 through SB-4) near the auger holes which were not vertically defined. Samples were collected to total depths of 30' bgs (SB-2), 40' bgs (SB-1 and SB-4), and 50' bgs (SB-3).



Referring to Table 1, the chloride concentrations declined with depth and were all vertically defined. Soil borings (SB-1, SB-2, SB-3 and SB-4) were vertically defined at depths of 25', 15', 25' and 40', respectively.

Remedial Work and Closure Request

Tetra Tech personnel oversaw the excavation of the site from February 25 through March 8, 2011, based on the NMOCD approved workplan. The excavation measured approximately 900' x 5'-10' wide with pooling areas measuring approximately 30' x 30'. The final excavation depths were achieved or exceeded as stated in the approved work plan. Approximately 5,200 yards³ were removed and hauled to CRI Inc. for proper disposal. Photos of the excavation are attached. The excavation depths are highlighted in Table 1 and shown on Figure 4.

Once excavated, the site was backfilled with clean material to grade. A copy of the C-141 (Final) is included in Appendix A.

Based on the remedial activities performed at this site, COG request closure of this site. If you require any additional information or have any questions or comments concerning this report, please call at (432) 682-4559.

Respectfully submitted, TETRA TECH

Kim Dorey Staff II Geologist

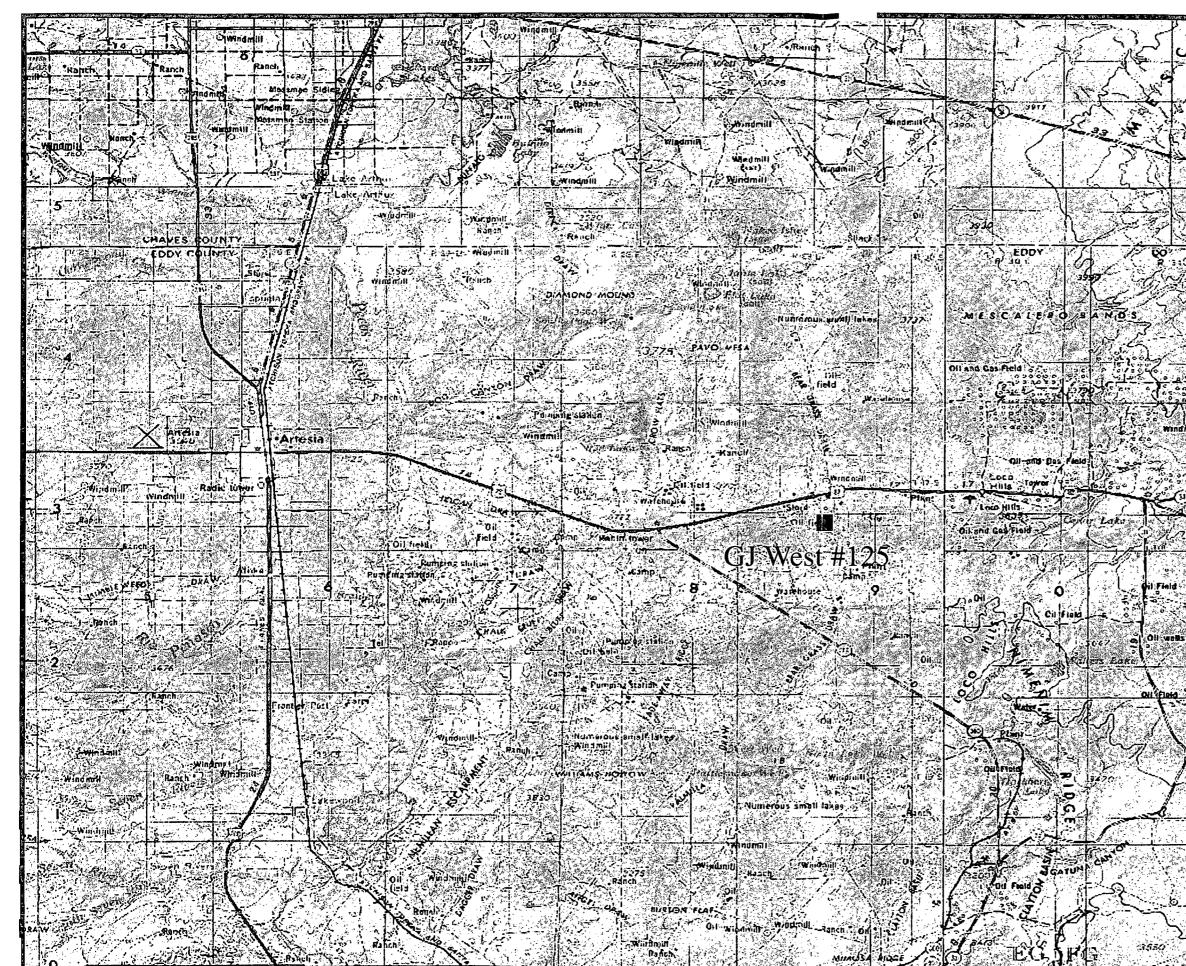
cc: Pat Ellis - COG

FIGURES

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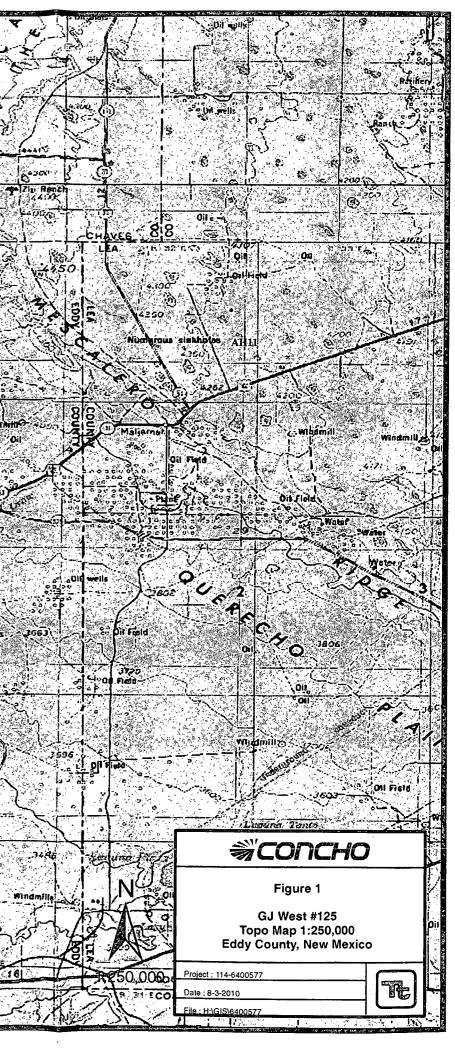
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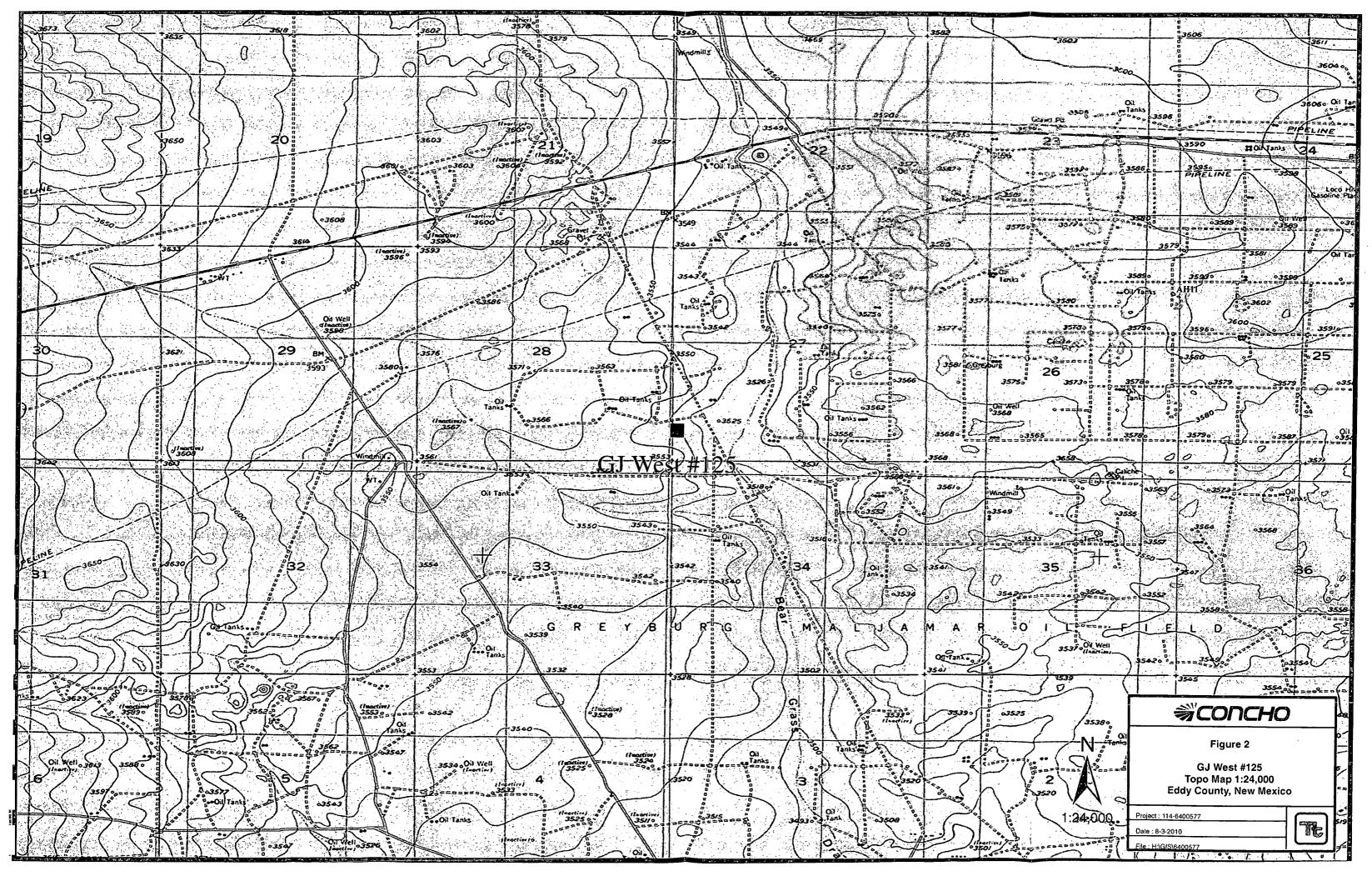
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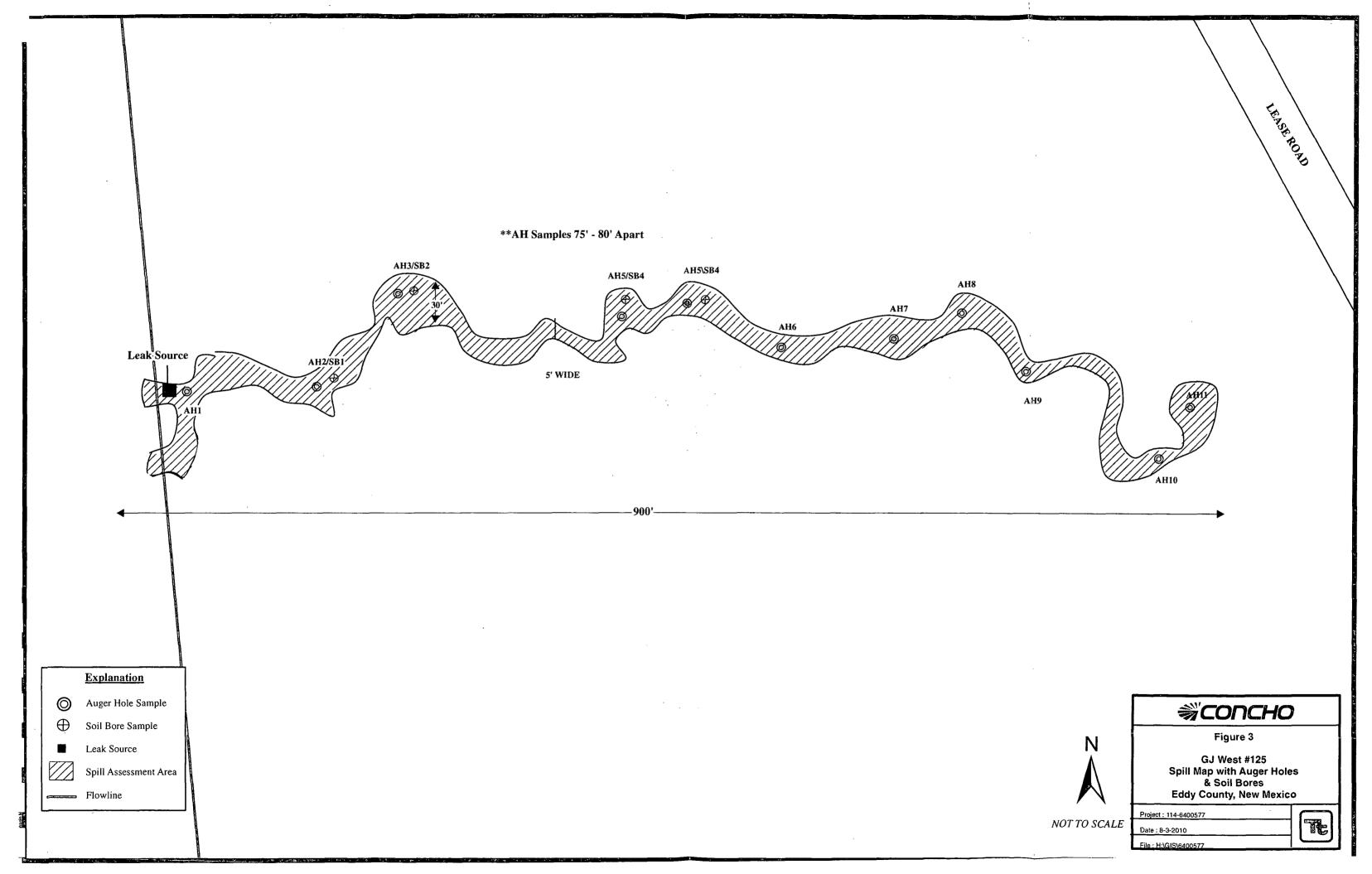


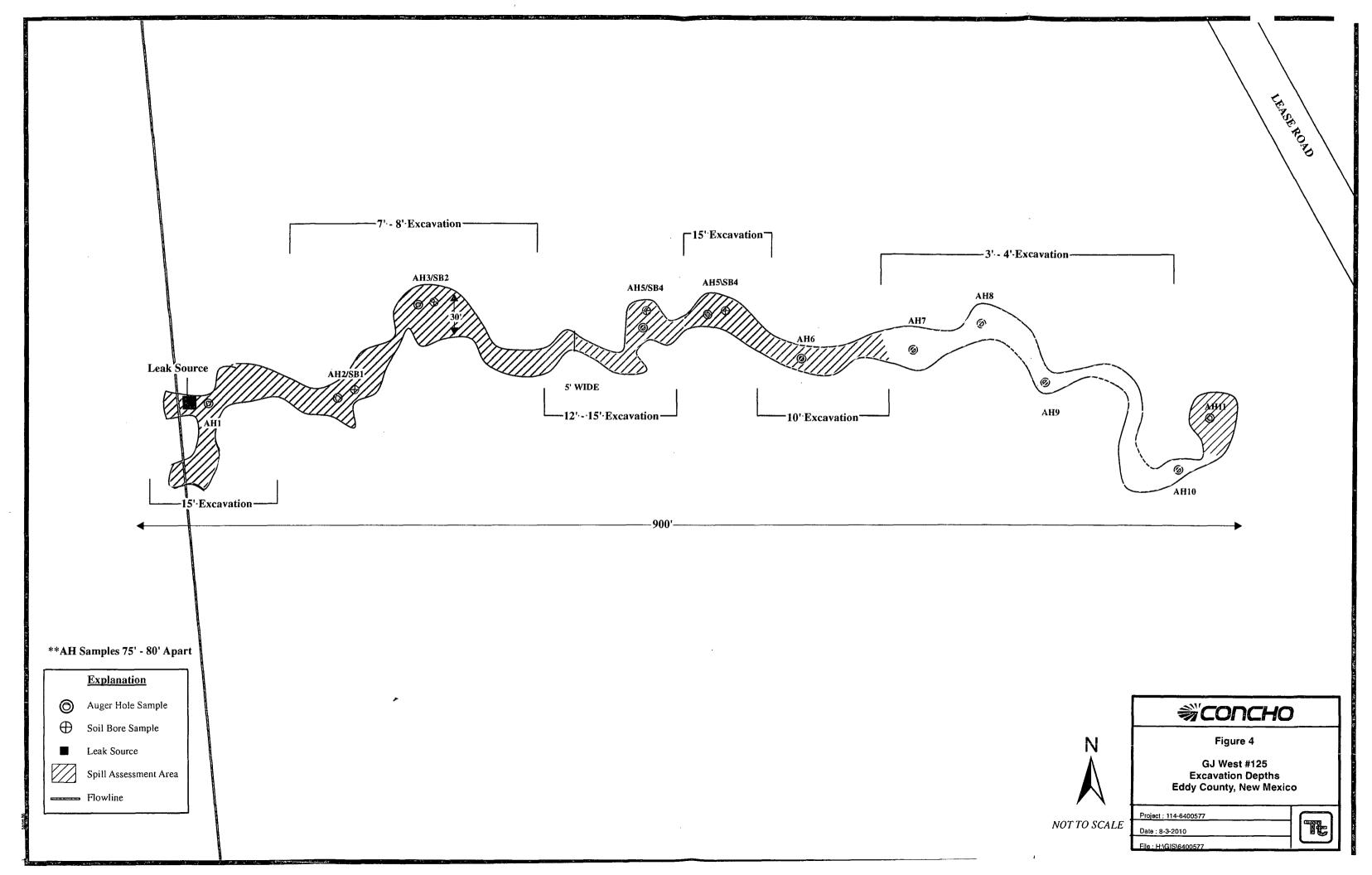
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Sample	Querral Data	Sample	Soi	I Status	Т	FPH (mg/	′kg)	Benzene	Toluene	Ethlybenzene	Xylene	Chloride
ID	Sample Date	Depth (ft)	In-Situ	Removed	GRO	DRO	Total	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
AH-1	8/6/2010	0-1'		X	618	7,630	8,248	3.45	34.1	15.5	38.8	1,490
	ŝi.	1-1.5'		X	3,340	6,820	10,160		-	-	-	6,670
	\$1	2-2.5'		X	2,140	6,990	18,408					5,740
	ti ti	3-3.5'	e'	X	2,670	7,190	9,860	-	-	e,		5,640
	II	4-4.5'		X	1,580	1,140	2,720	-	-		<u>-</u> ,	13,000
	ti .	5-5.5'		X .	2,050	1,810	3,860		-	-		11,500
	и	6-6.5'		X	3,340	2,150	5,490					11,800
	u	7-7.5'	7.	X	3.05	58.2	61.25	_	- , ,		=	7,140
_	n	8-8.5'		X		-	-	-	-	-	-	13,500
	11	9-9.5'		X			-		-	· · ·	-	11,700
SB-1	11/30/2010	0-1'		X	-	. .	-	- 67	, _	÷ .	-	<200
		3'		X	-		-	_ * *		-	-	244
		, 5'		X	-	-	-	0.70	1.29	3.78	11,90	9,280
		7		X				<0.0200	<0.0200	<0.0200	0.261	13,400
		10'	4	X			-	- 11 - 11 - 11 - 11 - 11 - 11 - 11 - 1	-			10,900
		15'	19 19	. X	-	-	-	-	-	-		12,800
		20'	Х		-	-		-	-		-	2,060
	[25'	Х	· · · · · · · · · · · · · · · · · · ·	-	-	-	-	-	-	-	<200
		30'	Х		-	-	-	-	-	-	-	<200
		40'	Х		-	-	-	-	-	-	-	259

.

Sample		Sample	Soi	I Status	Т	PH (mg	/kg)	Benzene	Toluene	Ethlybenzene	Xylene	Chloride
ID	Sample Date	Depth (ft)	In-Situ	Removed	GRO	DRO	Total	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
AH-2	8/6/2010	0-1'		X .	357	7,060	7,417	<1.00	1.69	2.85	7.66	350
	u	1-1.5'		Xar	379	1,230	1,609					3,680,
	11	2-2.5		X	671	2,290	9,026					7,790
	"	3-3.5		×	817	2,050	, 2,867					10,300
SB-2	11/30/2010	• 		X								<200 <u>-</u>
· · · ·		3'		X		(204)						<200
	· · · · · · · · · · · · · · · · · · ·	5'		X						A CONTRACTOR	ې د افغانو سې کې د د د د د د د د د د د د د د د د د د	15,000
		7		X		3.0.1						722
		10'	X							1		1,010
·		15'	X							· ·		942
		20'	X									<200
		25'	X									<200
		30'	X							i		<200
AH-3	8/6/2010	Ó-1'	X		153	1,400	.1,553 , ⁴	<0.400	2.26	2.11	8.16	2,050
	II	1-1.5	X		1,460	1,490	2,950		A PARTY AND A BA	新学校 中的社会	A Bone in the	5,230
	11	·» 2-2.5'	X. (86.1	205	291.1	م م م م م م م م م م م م م م م م م م م				14,100
	11	3-3.5	× .		31.2	97.0	128.2					13,300
	11	4-4.5'	X									8,660
	. "	- 5-5.5'	· X .									3,940
	11	6-6.5	X									2,200
	IJ	7-7.5	Χ.									• 1,150
	13	8-8.5'	X		-	-	-	-	-	-	-	726
	u	9-9.5'	X		-	-	-	-	-	-1	-	332

Sample		Sample	Soi	l Status	т	PH (mg/	′kg)	Benzene	Toluene	Ethlybenzene	Xylene	Chloride
ID	Sample Date	Depth (ft)	In-Situ	Removed	GRO	DRO	Total	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
AH-4	8/9/2010	0-1'		X	458	4,700	5,158	<0.400	2.06	2.26	6.61	3,100
	"	1-1.5'	2	X	465	2,920	3,385	الم				8,350
	n	2-2.5'		X					1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		د از میکند. معرف میکند میکند. معرف میکند میکند.	13,400
	B	3-3.5'	م من	X								15,000
	n	4-4.5'	i de la compañía de l Compañía de la compañía de la compañí	X								13,400
	n	5-5.5'		, X				in the state of the				7,060
	EL	6-6.5		X		میں 						6,590
	n	7-7.5'		X								4;380
		8-8.5		X					-			3,870
	n	9-9.5'		X				-				4,630
SB-3	11/30/2010	0-1'		X								7.17
		3'		X	838	2,660	3,498					2,260
				X		1.12.43						5,230
		7		X		د من اور شر مراجع						4,240
		10'		X	ې د د بورۍ ده وړ. د د بورۍ ده وړ.							9,020
		15'	X		-	-	-	-	-	-		5,690
		20'	X		-	-	-	-	-	-	-	416
		25'	X		-	-	-	-	-	-	-	<200
		30'	X		-	-	-	-	-		-	219
		40'	X		-	-	-	-	-	-	-	525
		50'	X .		-	-	-	-	-	-	-	520

Sample		Sample	Soi	l Status	Т	PH (mg	/kg)	Benzene	Toluene	Ethlybenzene	Xylene	Chloride
ID	Sample Date	Depth (ft)	In-Situ	Removed	GRO	DRO	Total	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
AH-5	8/9/2010	0-1'		X	954	4,690	5,644	<1.00	<1.00	<1.00	4.32	721
	10	1-1.5		X	1,000	5,240	6,240		-		(**** 5. * 21 -	1,730
	0	2-2.5'		X	a	- <u>-</u>						6,420
	11	3-3.5		X	-		-	-	-	-	-	9,170
	u	4-4.5'		X	ي. 1. روع	- 1	-	. ≜ 1,00	•		-	11,500
	u	5-5.5'		X		-	-	-	•		-	6,590
	u	6-6.5'		X		-	- 				-	6,740
	n	7-7.5'	,	X		-	-	-	•		-	9,070
	11	8-8.5'		X	- 2.	· -	-	- : -	-		-	15,000
	и	. 9-9.5'		X	-	-	-	-		•	-	3,840
SB-4	11/30/2010	3'		X	838	2,660	3,498	-				978
		5'		X	-	-	•	-	-	-	-	7,510
		7'		X	-	-		-	-		•	10,300
		10'		X			Saget = en t				9 * 194 8 - 1 ³ * •	7,060
		15'		X	-	-	4. 	-	-			4,010
		20'	Х	· · · · · ·	-	-	-	-	-	•	-	1,280
		25'	Х	• =	-	-	-	-	-	-	-	1,020
		30'	X		-	-	-	-	-	-	-	308
		40'	X					· ·				228

.

Sample		Sample	Soi	l Status	Т	PH (mg/	′kg)	Benzene	Toluene	Ethlybenzene	Xylene	Chloride
ID	Sample Date	Depth (ft)	In-Situ	Removed	GRO	DRO	Total	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
AH-6	8/9/2010	0-1'		Х	827	3,930	4,757	<1.00	<1.00	<1.00	10.1	2,140
	1 1	1-1.5'		X	-	-	-		2010 - 100 -			9,490
	ü	2-2.5'		X		-		-		an a	-	9,020
	u	3-3.5'		X							-	10,100
	11	4-4.5'		X		-	4	•		- +		9,880
	в	5-5.5		X		· -	-	-	-			1,950
	11	6-6.5'	· .	Х	•	-	s ¹ ept	-	-		-	5,070
	11	7-7.5		X and	алан - Сал -	-	-		•	-	-	5,670
	H	8-8.5'		X	-		-	-	•	-		2,240
		8.5-9'		X .	,	-		-			2 <u>-</u>	687
AH-7	8/9/2010	0-1'	X	4	36.8	5,030	5,066.8	<0.0200	<0.0200	<0.0200	0.379	1,990
		1-1.5'	X		559	2,830	3,389	-	-	-	-	3,920
	u	2-2.5	X	· · · ·		-	-		-	-	-	392
	ti -	3-3.5'	X		•	-				-	-	<200
		4-4.5'	Х		-	-	-	-	-	-	-	214
AH-8	8/9/2010	0-1'		Χ.	1,330	4,470	5,800	<1.00	<1.00	<1:00	9.66	1,160
	н	1-1.5		Χ.	868	4,460	5,328					3,630
	n n	2-2.5'		X	681	5,120	11,128	<0.400	1.26	1.85	17.8	5,020
	u u	3-3.5'		X	<2.00	<50.0	<50.0	-	•		-	517
		4-4.5'	X		<2.00	<50.0	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<200
	11	5-5.5'	X		-	-	-	-	-		-	<200
	0	6-6.5'	X		-	-	-	-	-	-	-	305
		7-7.5'	X		-	-	-	-	-	-	-	269

Sample	Comple Date	Sample	Soi	I Status	Т	PH (mg/	′kg)	Benzene	Toluene	Ethlybenzene	Xylene (mg/kg)	ng/kg) (mg/kg)
ID	Sample Date	Depth (ft)	In-Situ	Removed	GRO	DRO	Total	(mg/kg)	(mg/kg)	(mg/kg)		
AH-9	8/9/2010	0-1'	X		486	5,770	6,256	<1.00	<1.00	<1.00	2.73	
	a	1-1.5'	X		636	2,860	3,496	2. <u>-</u>	-	•		5,370
	11	2-2.5'	X			× -						6,080
	81	3-3.5'	X				_	· · ·	•		-	3,440
	11	4-4.5'	X			_			-		_	1,170
	11	5-5.5'	Х		-	-	-	-	-	*	-	573
	IJ	6-6.5'	Х		_	-	-	-	-	_	-	563
AH-10	8/9/2010	0-1'	Χ.		<2.00	<50.0	<50.0	-	-	~=		639
	n	1-1.5'	X		-	-		-	-		-	1,460
	u	2-2.5'	X		-	-	_	-	-	-	-	1,410
	0	3-3.5'	X		•	-	-	-	-		-	<200
	11	4-4.5'	Х			-	-	-	-	-	-	<200
	n	5-5.5'	Х		-	-	•	-	-	-	-	<200
	it	6-6.5'	Х		-	-	-	-	-	-	-	<200
AH-11	8/9/2010	0-1'	Х		<2.00	<50.0	<50.0	-	-	-	-	<200
	13	1-1.5'	Х		-	-	-	-	-		-	231

BEB Below Excavation Bottom

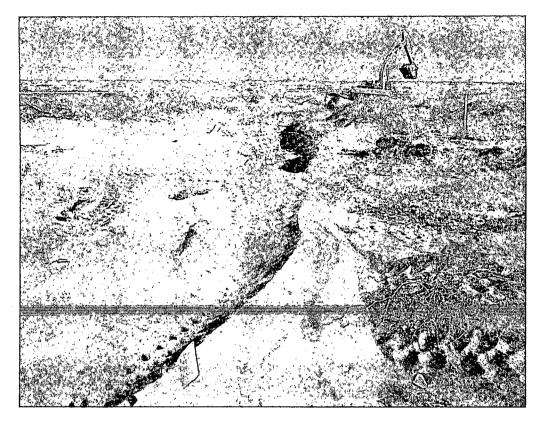
(--) Not Analyzed

.

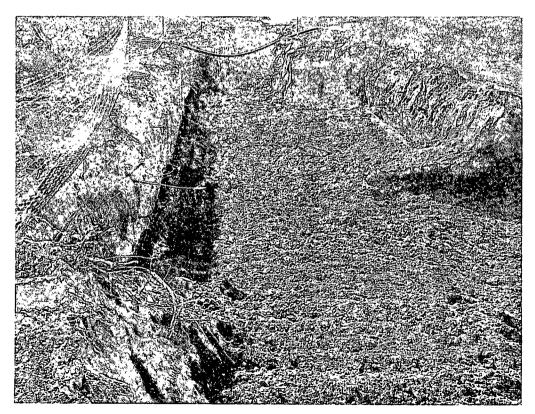
Excavation depths

PHOTOGRAPHS

COG Operating LLC GJ West COOP Unit #125 Eddy County, New Mexico



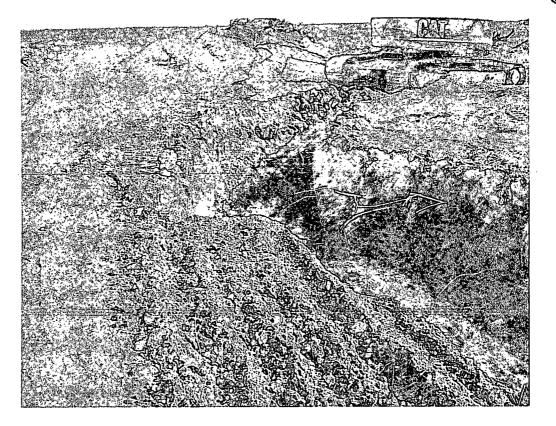
View east from source across footprint (2/25/11)



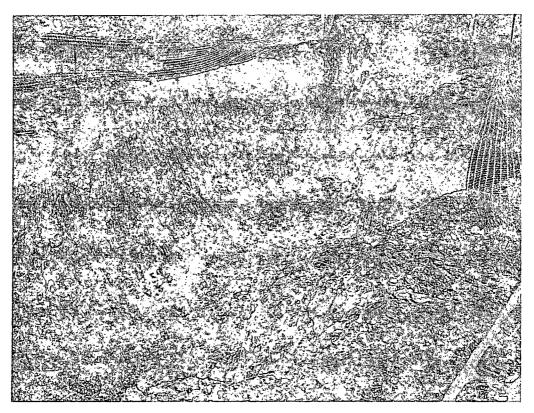
Final depth approximately 7-8' near SB-2

COG Operating LLC GJ West COOP Unit #125 Eddy County, New Mexico



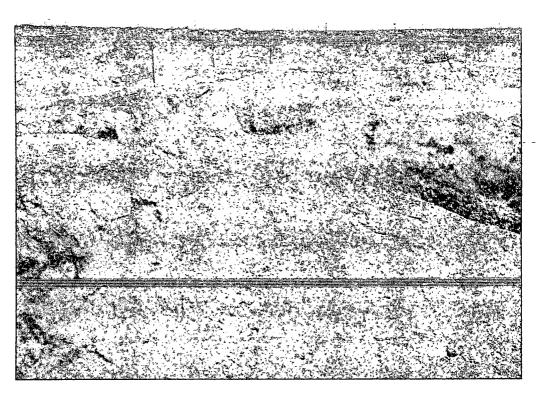




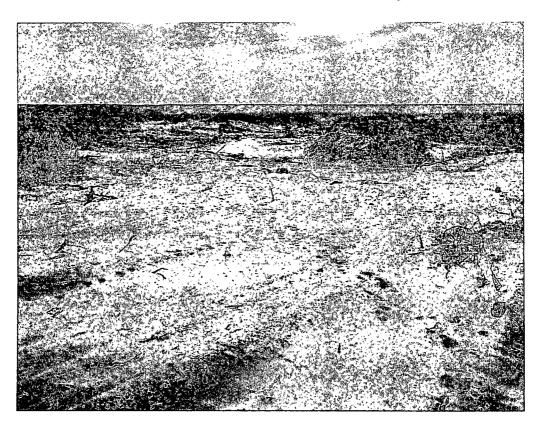


Area near SB-4 at approximately 12-15' bgs

COG Operating LLC GJ West COOP Unit #125 Eddy County, New Mexico



View of area from AH-6 at 10-11' towards area AH-7 through AH-10 at 3-4' bgs



Post excavation and backfilled with clean material (3/8/11)

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

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

Release Notification and Corrective Action

		OPERATOR	Initial Report	Final Report
Name of Company COG Operating	LLC	Contact Pat Ellis		
Address 550 W. Texas, Suite 1300 M	idland, Texas 79701	Telephone No. (432) 685-4332		
Facility Name GJ West COOP Unit #	125	Facility Type Well (Flowline)		
Surface Owner: State	Mineral Own	er	Lease No. API# 3	0-015-03163

Surface Owner: State

LOCATION	OF	RELEASE
LUCATION	UT	NELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
Р	28	175	29E					Eddy

Latitude N 32 48.015° Longitude W 104 04.276°

Type of Release: Produced Fluids	Volume of Release 50 bbls	Volume Re	ecovered 0 bbls						
Source of Release: Flowline	Date and Hour of Occurrence	Date and H	lour of Discovery						
	6/24/10	6/24/10 1:	00 p.m.						
Was Immediate Notice Given?	If YES, To Whom?	- -							
Yes 🗌 No 🗋 Not Required									
By Whom? Josh Russo	Date and Hour 6/25/10 9:19 a.m.								
Was a Watercourse Reached?	If YES, Volume Impacting the Wa	If YES, Volume Impacting the Watercourse.							
🗌 Yes 🖾 No	N/A								
If a Watercourse was Impacted, Describe Fully.*	, · · · · · · · · · · · · · · · · · · ·								
N/A									
Describe Cause of Problem and Remedial Action Taken.*			······································						
The cause of this release was due to a ruptured flowline. The flowline h	as been repaired and put back into serv	vice.							
Describe Area Affected and Cleanup Action Taken.*									
Tetra Tech inspected site and collected samples to define spills extent.									
disposal. Site was then brought up to surface grade with clean backfill r	naterial. Tetra Tech prepared closure	report and sub	mitted to NMOCD for review.						
I hereby certify that the information given above is true and complete to	the best of my knowledge and underst	and that pursu	ant to NMOCD rules and						
regulations all operators are required to report and/or file certain release	notifications and perform corrective a	ctions for relea	ases which may endanger						
public health or the environment. The acceptance of a C-141 report by t									
should their operations have failed to adequately investigate and remedi-									
or the environment. In addition, NMOCD acceptance of a C-141 report	does not relieve the operator of respon	sibility for co	mpliance with any other						
federal, state, or local laws and/or regulations.									
1/b	OIL CONSER	VATION							
Π_{Λ} in (<u>OIL CONSER</u>	VATION							
Signature:									
	A managed has Distantiat Case of the								
Printed Name: Ike Tavarez (Acp T for CoG)	Approved by District Supervisor:								
Title: Project Manager	Approval Date:	Expiration D	ate.						
	rippioval Date.	Expliantin D							
E-mail Address: Ike.Tavarez@TetraTech.com	Conditions of Approval:		Attached D						
Date: 5.24-11 Phone: (432) 682-4559			Attached						
Filone. (452) 062-4539									

* Attach Additional Sheets If Necessary

NATURE OF RELEASE

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

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

Release Notification and Corrective Action

			OPERATOR	۵	Initial Report	Final Report
Name of Company	COG OPERATING L	LC	Contact	Pat Ellis	· · · · · · · · · · · · · · · · · · ·	
Address 550 V	V. Texas, Suite 100, Midlan	d, TX 79701	Telephone No.	432-230-0077	,	
Facility Name	GJ WEST COOP UNI	Т #125	Facility Type	Well (Flowlin	e)	
Surface Owner	State	Mineral Owner			Lease No. API# 3	80-015-03163

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County	
Р	28	175	29E					Eddy	

Latitude 32 48.015 Longitude 104 04.276

NATURE OF RELEASE

Type of Release Produced Fluids	Volume of Release 50bbls	Volume Recovered Obbls		
Source of Release Flowline	Date and Hour of Occurrence 06/24/2010	Date and Hour of Discovery 06/24/2010 1:00 p.m.		
Was Immediate Notice Given?	If YES, To Whom? Mike Bratcher—OCD			
By Whom? Josh Russo	Date and Hour 06/25/2010	9:19 a.m.		
Was a Watercourse Reached?	If YES, Volume Impacting the W	atercourse.		
If a Watercourse was Impacted, Describe Fully.*		9:19 a.m. atercourse. JUN 03 2011 JUN 03 2011 JUN 03 2011 JUN 03 2011		
Describe Cause of Problem and Remedial Action Taken.*		CD AH		
The cause of this release was due to a ruptured flowline. The flowline ha	s been repaired and put back into ser	vice. NMOCC		
Describe Area Affected and Cleanup Action Taken.*				
The ruptured GJ West Coop #125 flowline released 50bbls of produced f truck. The dimensions of the spill area are 750' long and no greater than #4, which is 150' northwest of the spill site, API # 30-015-03173, Unit P 104.07228) Tetra Tech will sample the spill site area to delineate any post to the NMODC for approval prior to any significant remediation work.	15' wide. (The closest well location , Sec. 28-T17S-R29E, 990 FSL 330 F ssible contamination from the release	to the release site is the GJ West Coop Unit EL, Eddy County, NM, GPS 32.80096 – and we will present a remediation work plan		
I hereby certify that the information given above is true and complete to tregulations all operators are required to report and/or file certain release republic health or the environment. The acceptance of a C-141 report by the should their operations have failed to adequately investigate and remediat or the environment. In addition, NMOCD acceptance of a C-141 report of federal, state, or local laws and/or regulations.	notifications and perform corrective a the NMOCD marked as "Final Report" te contamination that pose a threat to	ctions for releases which may endanger does not relieve the operator of liability ground water, surface water, human health		
	OIL CONSER	VATION DIVISION		
Signature:				
	Approved by District Supervisor:			
Títle: HSE Coordinator	Approval Date:	Expiration Date:		
	Conditions of Approval:	Attached 🔲		
Date: 06/28/2010 Phone: 432-212-2399				

* Attach Additional Sheets If Necessary

APPENDIX B

Water Well Data Average Depth to Groundwater (ft) COG - GJ West COOP Unit #125 Eddy County, New Mexico

29 East

16 South

	16 Sc	outh	28	East	
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

	17	South	:	28 East	
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22 79	23	24
30	29	28	27	26	25
31	32	33	34 53	35	36

	18 Sc	outh	28	East	
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35 65	36

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19 110	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

	16 Sc	outh	30	East	
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

	17 Se	outh	29		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28 SITE	27	26	25
31	32	33	34	35	36

		South	:	29 East	t
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

30 East

17 South

	18	South	;	30 East	t
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

New Mexico State Engineers Well Reports

USGS Well Reports

Geology and Groundwater Conditions in Southern Eddy, County, NM

NMOCD - Groundwater Data

Field water level

New Mexico Water and Infrastructure Data System

APPENDIX C

Summary Report

Ike Tavarez Tetra Tech 1910 N. Big Spring Street Midland, TX 79705

Report Date: June 9, 2010

.

Work Order: 10052814

Project Location:Eddy County, NMProject Name:COG/GJ West Co-op South Water DistributionProject Number:114-6400524

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
233113	AH-1 0-1'	soil	2010-05-24	00:00	2010-05-27
233114	AH-1 1-1.5'	soil	2010-05-24	00:00	2010-05-27
233115	AH-1 2-2.5'	soil	2010-05-24	00:00	2010-05-27
233116	AH-1 3-3.5'	soil	2010-05-24	00:00	2010-05-27
233117	AH-1 4-4.5'	soil	2010-05-24	00:00	2010-05-27
233118	AH-1 5-5.5'	soil	2010-05-24	00:00	2010-05-27
233119	AH-1 6-6.5'	soil	2010-05-24	00:00	2010-05-27
233120	AH-1 7-7.5'	soil	2010-05-24	00:00	2010-05-27
233121	AH-1 8-8.5'	soil	2010-05-24	00:00	2010-05-27
233122	AH-1 9-9.5'	soil	2010-05-24	00:00	2010-05-27
233123	AH-2 0-1'	soil	2010-05-24	00:00	2010-05-27
233124	AH-2 1-1.5'	soil	2010-05-24	00:00	2010-05-27
233125	AH-2 2-2.5'	soil	2010-05-24	00:00	2010-05-27
233126	AH-2 3-3.5'	soil	2010-05-24	00:00	2010-05-27
233127	AH-2 4-4.5'	soil	2010-05-24	00:00	2010-05-27
233128	AH-2 5-5.5'	soil	2010-05-24	00:00	2010-05-27
233129	AH-2 6-6.5'	soil	2010-05-24	00:00	2010-05-27
233130	AH-2 7-7.5'	soil	2010-05-24	00:00	2010-05-27
233131	AH-2 8-8.5'	soil	2010-05-24	00:00	2010-05-27
233132	AH-2 9-9.5'	soil	2010-05-24	00:00	2010-05-27
233133	AH-3 0-1'	soil	2010-05-24	00:00	2010-05-27
233134	AH-4 0-1'	soil	2010-05-24	00:00	2010-05-27
233135	AH-4 1-1.5'	soil	2010-05-24	00:00	2010-05-27
233136	AH-4 2-2.5'	soil	2010-05-24	00:00	2010-05-27
233137	AH-4 3-3.5'	soil	2010-05-24	00:00	2010-05-27
233138	AH-4 4-4.5'	soil	2010-05-24	00:00	2010-05-27
233139	AH-4 5-5.5'	soil	2010-05-24	00:00	2010-05-27
233140	AH-4 6-6.5'	soil	2010-05-24	00:00	2010-05-27
233141	AH-4 7-7.5'	soil	2010-05-24	00:00	2010-05-27
233142	AH-4 8-8.5'	soil	2010-05-24	00:00	2010-05-27

· · · ·	June 9, 2010	Work C	Date Time		e Number: 2 of 6
			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
233143	AH-4 9-9.5'	soil	2010-05-24	00:00	2010-05-27
		TI	PH DRO - NEW		TPH GRO
Sample - Field	Code		DRO		GRO
233113 - AH		<u></u>	(mg/Kg) <50.0		(mg/Kg) <1.00
233123 - AH			77.3		17.2
233133 - AH			66.0		5.93
233134 - AH			<50.0		<1.00
Sample: 233	113 - AH-1 0-1'				
Param	Flag	R	lesult	Units	\mathbf{RL}
Chloride			7520	mg/Kg	4.00
Sample: 233	114 - AH-1 1-1.5'				
Param	Flag	R	lesult	Units	RL
Chloride			2950	mg/Kg	4.00
Param	115 - AH-1 2-2.5' Flag		esult	Units mg/Kg	RL 4.00
Param Chloride Sample: 233 Param		R	4830 esult	mg/Kg Units	4.00 RL
Param Chloride Sample: 233 Param	Flag 116 - AH-1 3-3.5'	R	4830	mg/Kg	4.00
Param Chloride Sample: 233 Param Chloride	Flag 116 - AH-1 3-3.5'	R	4830 esult	mg/Kg Units	4.00 RL
Param Chloride Sample: 233 Param Chloride Sample: 233	Flag 116 - AH-1 3-3.5' Flag 117 - AH-1 4-4.5'	R	4830 esult 5670	mg/Kg Units mg/Kg	4.00 RL 4.00
Param Chloride Sample: 233 Param Chloride Sample: 233 Param	Flag 116 - AH-1 3-3.5' Flag	R	4830 esult	mg/Kg Units	4.00 RL 4.00 RL
Param Chloride Sample: 233 Param Chloride Sample: 233 Param Chloride	Flag 116 - AH-1 3-3.5' Flag 117 - AH-1 4-4.5' Flag	R	4830 .esult 5670 esult	mg/Kg Units mg/Kg Units	4.00 RL 4.00
Param Chloride Sample: 233 Param Chloride Sample: 233 Param Chloride	Flag 116 - AH-1 3-3.5' Flag 117 - AH-1 4-4.5'	R 	4830 .esult 5670 esult	mg/Kg Units mg/Kg Units	4.00 RL 4.00 RL

Report Date: June 9, 2010

Sample: 233119 - AH	[-1 6-6.5'			
Param	Flag	Result	Units	RL
Chloride		6040	mg/Kg	4.00
Sample: 233120 - AH	I-1 7-7.5 [°]			
Param	Flag	Result	Units	RL
Chloride		6410	mg/Kg	4.00
Sample: 233121 - AH	[-1 8-8.5'			
Param	Flag	Result	Units	RL
Chloride		6000	mg/Kg	4.00
Sample: 233122 - AH	[-1 9-9.5'			
Param	Flag	Result	Units	RL
Chloride		6300	mg/Kg	4.00
Sample: 233123 - AH	[-2 0-1'			
Param	Flag	Result	Units	\mathbf{RL}
Chloride		11100	mg/Kg	4.00
Sample: 233124 - AH	-2 1-1.5'			
Param	Flag	Result	Units	\mathbf{RL}
Chloride		11000	mg/Kg	4.00
Sample: 233125 - AH	-2 2-2.5'			
Param	Flag	Result	Units	RL
Chloride		3220	mg/Kg	4.00
Sample: 233126 - AH	-2 3-3.5'			
Param	Flag	Result	Units	\mathbf{RL}
Chloride	<u> </u>	3490	mg/Kg	4.00

Report Date: June 9, 2010 Work Order: 10052814 Page Number: 4 of 6 Sample: 233127 - AH-2 4-4.5' Param Result Units RLFlag 4.00 Chloride 4610 mg/Kg Sample: 233128 - AH-2 5-5.5' Param Flag Result Units RL4520 mg/Kg 4.00 Chloride Sample: 233129 - AH-2 6-6.5' Param Result Units RL Flag Chloride 4310 4.00 mg/Kg Sample: 233130 - AH-2 7-7.5' Param Flag Result Units RLChloride 2290 mg/Kg 4.00 Sample: 233131 - AH-2 8-8.5' Result Units RLParam Flag mg/Kg Chloride 25704.00 Sample: 233132 - AH-2 9-9.5' Param Result Units RLFlag Chloride 3150 4.00 mg/Kg Sample: 233133 - AH-3 0-1' Param Flag Result Units RLChloride 18300 mg/Kg 4.00 Sample: 233134 - AH-4 0-1' Param Flag Result Units RLChloride 15700 mg/Kg 4.00

Report Date: June 9, 2010	Work Order: 10052814	Pag	e Number: 5 of 6
Sample: 233135 - AH-4 1-1.5'			
Param Flag	Result	Units	RL
Chloride	4250	mg/Kg	4.00
Sample: 233136 - AH-4 2-2.5'			
Param Flag	Result	Units	RL
Chloride	5250	mg/Kg	4.00
Sample: 233137 - AH-4 3-3.5'			
Param Flag	Result	Units	\mathbf{RL}
Chloride	5990	mg/Kg	4.00
Sample: 233138 - AH-4 4-4.5'			
Param Flag	Result	Units	\mathbf{RL}
Chloride	8990	mg/Kg	4.00
Sample: 233139 - AH-4 5-5.5'			
Param Flag	Result	Units	RL
Chloride	8240	mg/Kg	4.00
Sample: 233140 - AH-4 6-6.5'			
Param Flag	Result	Units	\mathbf{RL}
Chloride	7470	mg/Kg	4.00
Sample: 233141 - AH-4 7-7.5'			
Param Flag	Result	Units	RL
Chloride	6750	mg/Kg	4.00
Sample: 233142 - AH-4 8-8.5'			
Param Flag	Result	Units	RL
Chloride	5170	mg/Kg	4.00

Sample: 233143 - AH-4 9-9.5'

Param	Flag	Result	Units	RL
Chloride		4850	mg/Kg	4.00



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WBENC: 237019

HUB:1752439743100-86536NCTRCAWFWB38444Y0909

Certifications

DBE: VN 20657

NELAP Certifications

Lubbock: T104704219-08-TX LELAP-02003 Kansas E-10317 El Paso: T104704221-08-TX LELAP-02002 Midland: T104704392-08-TX

Analytical and Quality Control Report

Ike Tavarez Tetra Tech 1910 N. Big Spring Street Midland, TX, 79705

Report Date: June 9, 2010

Work Order: 10052814

Project Location:Eddy County, NMProject Name:COG/GJ West Co-op South Water DistributionProject Number:114-6400524

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

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
233113	AH-1 0-1'	soil	2010-05-24	00:00	2010-05-27
233114	AH-1 1-1.5'	soil	2010-05-24	00:00	2010-05-27
233115	AH-1 2-2.5'	soil	2010-05-24	00:00	2010-05-27
233116	AH-1 3-3.5'	soil	2010-05-24	00:00	2010-05-27
233117	AH-1 4-4.5'	soil	2010-05-24	00:00	2010-05-27
233118	AH-1 5-5.5'	soil	2010-05-24	00:00	2010-05-27
233119	AH-1 6-6.5'	soil	2010-05-24	00:00	2010-05-27
233120	AH-1 7-7.5'	soil	2010-05-24	00:00	2010-05-27
233121	AH-1 8-8.5'	soil	2010-05-24	00:00	2010-05-27
233122	AH-1 9-9.5'	soil	2010-05-24	00:00	2010-05-27

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
233123	AH-2 0-1'	soil	2010-05-24	00:00	2010-05-27
233124	AH-2 1-1.5'	soil	2010-05-24	00:00	2010-05-27
233125	AH-2 2-2.5'	soil	2010-05-24	00:00	2010-05-27
233126	AH-2 3-3.5'	soil	2010-05-24	00:00	2010-05-27
233127	AH-2 4-4.5'	soil	2010-05-24	00:00	2010-05-27
233128	AH-2 5-5.5'	soil	2010-05-24	00:00	2010-05-27
233129	AH-2 6-6.5'	soil	2010-05-24	00:00	2010-05-27
233130	AH-2 7-7.5'	soil	2010-05-24	00:00	2010-05-27
233131	AH-2 8-8.5'	soil	2010-05-24	00:00	2010-05-27
233132	AH-2 9-9.5'	soil	2010-05-24	00:00	2010-05-27
233133	AH-3 0-1'	soil	2010-05-24	00:00	2010-05-27
233134	AH-4 0-1'	soil	2010-05-24	00:00	2010-05-27
233135	AH-4 1-1.5'	soil	2010-05-24	00:00	2010-05-27
233136	AH-4 2-2.5'	soil	2010-05-24	00:00	2010-05-27
233137	AH-4 3-3.5'	soil	2010-05-24	00:00	2010-05-27
233138	AH-4 4-4.5'	soil	2010-05-24	00:00	2010-05-27
233139	AH-4 5-5.5'	soil	2010-05-24	00:00	2010-05-27
233140	AH-4 6-6.5'	soil	2010-05-24	00:00	2010-05-27
233141	AH-4 7-7.5'	soil	2010-05-24	00:00	2010-05-27
233142	AH-4 8-8.5'	soil	2010-05-24	00:00	2010-05-27
233143	AH-4 9-9.5'	soil	2010-05-24	00:00	2010-05-27

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

Blain Lefturch

Dr. Blair Leftwich, Director Dr. Michael Abel, Project Manager

Standard Flags

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

Case Narrative

Samples for project COG/GJ West Co-op South Water Distribution were received by TraceAnalysis, Inc. on 2010-05-27 and assigned to work order 10052814. Samples for work order 10052814 were received intact at a temperature of 3.1 C.

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

		Prep	Prep	\mathbf{QC}	Analysis
Test	Method	Batch	Date	Batch	Date
Chloride (Titration)	SM 4500-Cl B	60412	2010-06-01 at 12:05	70559	2010-06-02 at 13:06
Chloride (Titration)	SM 4500-Cl B	60413	2010-06-01 at 12:06	70597	2010-06-03 at 14:03
Chloride (Titration)	SM 4500-Cl B	60414	2010-06-01 at 12:06	70598	2010-06-03 at 14:04
Chloride (Titration)	SM 4500-Cl B	60450	2010-06-03 at 09:49	70599	2010-06-03 at 14:05
TPH DRO - NEW	S 8015 D	60419	2010-06-01 at 13:52	70544	2010-06-01 at 13:52
TPH GRO	S 8015 D	60437	2010-06-02 at 14:15	70574	2010-06-02 at 16:59

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 10052814 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.

Analytical Report

Sample: 233113 - AH-1 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70559	Date Analyzed:	2010-06-02	Analyzed By:	AR
Prep Batch:	60412	Sample Preparation:	2010-06-01	Prepared By:	\mathbf{AR}
		RL			
Parameter	Flag	Result	Units	Dilution	\mathbf{RL}
Chloride		7520	mg/Kg	100	4.00

Sample: 233113 - AH-1 0-1'

Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH DRO - N 70544 60419	NEW	Date A	nalyzed:	S 8015 D 2010-06-01 2010-06-01	Prep M Analyz Prepare	с с,
_	_	_	RL				
Parameter	F	lag	Result	U U	nits	Dilution	RL
DRO			<50.0	mg	/Kg	1	50.0
					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane		106	mg/Kg	1	100	106	70 - 130

Sample: 233113 - AH-1 0-1'

Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH GRO 70574 60437		Date Ana	l Method: lyzed: reparation:	S 8015 D 2010-06-02 2010-06-02		Prep Me Analyze Preparec	d By: AG
			RL					
Parameter	Flag		Result		Units		Dilution	RL
GRO			<1.00		mg/Kg		1	1.00
						Spike	Percent	Recovery
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotolue	ene (TFT)		1.78	mg/Kg	1	2.00	89	50.3 - 155
4-Bromofluor	obenzene (4-BFB)		1.58	mg/Kg	1	2.00	79	51.7 - 131.1

Sample: 233114 - AH-1 1-1.5'

Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration) 70559 60412	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2010-06-02 2010-06-01	Prep Method: Analyzed By: Prepared By:	ÁR
		RL			
Parameter	\mathbf{Flag}	Result	Units	Dilution	RL
Chloride		2950	mg/Kg	100	4.00

Sample: 233115 - AH-1 2-2.5'

Laboratory: Analysis: QC Batch: Prep Batch:	Chloride (Titration) 70559	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2010-06-02 2010-06-01	Prep Method: Analyzed By: Prepared By:	AR
		\mathbf{RL}			
Parameter	Flag	Result	Units	Dilution	\mathbf{RL}
Chloride		4830	mg/Kg	100	4.00

Sample: 233116 - AH-1 3-3.5'

Laboratory:	Midland		.		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	'
QC Batch:	70559	Date Analyzed:	2010-06-02	Analyzed By:	AR
Prep Batch:	60412	Sample Preparation:	2010-06-01	Prepared By:	\mathbf{AR}
		RL			
Parameter	Flag	Result	Units	Dilution	RL
Chloride		5670 1	ng/Kg	100	4.00

Sample: 233117 - AH-1 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70559	Date Analyzed:	2010-06-02	Analyzed By:	AR
Prep Batch:	60412	Sample Preparation:	2010-06-01	Prepared By:	AR
		RL			
Parameter	Flag	Result	Units	Dilution	RL
Chloride		5290	mg/Kg	100	4.00

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Sample: 233118 - AH-1 5-5.5'

Chloride		5560	mg/Kg	100	4.00
Parameter	Flag	RL Result	Units	Dilution	RL
Prep Batch:	60412	Sample Preparation:	2010-06-01	Prepared By:	AR
QC Batch:	70559	Date Analyzed:	2010-06-02	Analyzed By:	
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	
Laboratory:	Midland				

Sample: 233119 - AH-1 6-6.5'

Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration) 70559 60412	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2010-06-02 2010-06-01	Prep Method: Analyzed By: Prepared By:	AR
Parameter	Flag	RL Result	Units	Dilution	\mathbf{RL}
Chloride		6040	mg/Kg	100	4.00

Sample: 233120 - AH-1 7-7.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70559	Date Analyzed:	2010-06-02	Analyzed By:	AR
Prep Batch:	60412	Sample Preparation:	2010-06-01	Prepared By:	\mathbf{AR}
		RL			
Parameter	Flag	Result	Units	Dilution	\mathbf{RL}
Chloride		6410 r	ng/Kg	100	4.00

Sample: 233121 - AH-1 8-8.5'

•

Laboratory: Analysis: QC Batch: Prep Batch:	Chloride (Titration) 70559	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2010-06-02 2010-06-01	Prep Method: Analyzed By: Prepared By:	AR
		RL			
Parameter	Flag	Result	Units	Dilution	\mathbf{RL}
Chloride		6000	mg/Kg	100	4.00

Sample: 233122 - AH-1 9-9.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70597	Date Analyzed:	2010-06-03	Analyzed By:	AR
Prep Batch:	60413	Sample Preparation:	2010-06-01	Prepared By:	AR
		RL			
Parameter	Flag	Result	Units	Dilution	\mathbf{RL}
Chloride		6300	mg/Kg	100	4.00

Sample: 233123 - AH-2 0-1'

Laboratory: Analysis: QC Batch: Prep Batch:	Chloride (Titration) 70597	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2010-06-03 2010-06-01	Prep Method: Analyzed By: Prepared By:	AR
		RL			
Parameter	Flag	Result	Units	Dilution	RL
Chloride		11100	mg/Kg	100	4.00

Sample: 233123 - AH-2 0-1'

Laboratory:	Midland						
Analysis:	TPH DRO - N	VEW	Analyti	cal Method:	S 8015 D	Prep M	lethod: N/A
QC Batch:	70544		Date A	nalyzed:	2010-06-01	Analyz	ed By: kg
Prep Batch:	60419		Sample	Preparation:	2010-06-01	Prepare	
			\mathbf{RL}				
Parameter	F	lag	Result	1	Units	Dilution	RL
DRO	······································		77.3	m	g/Kg	1	50.0
					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane		124	mg/Kg	1	100	124	70 - 130

Sample: 233123 - AH-2 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	70574	Date Analyzed:	2010-06-02	Analyzed By:	AG
Prep Batch:	60437	Sample Preparation:	2010-06-02	Prepared By:	AG

Report Date: June 9, 2010 114-6400524		CO		ork Order: 1 Co-op Sout	.0052814 h Water Dist	ribution		umber: 8 of 23 ly County, NM
Parameter	Flag		RL Result		Units		Dilution	RL
GRO			17.2		mg/Kg		5	1.00
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (T 4-Bromofluorobenz	,		5.44 5.16	mg/Kg mg/Kg	5 5	5.00 5.00	109 103	50.3 - 155 51.7 - 131.1

Sample: 233124 - AH-2 1-1.5'

•

Chloride		11000	mg/Kg	100	4.00
Parameter	Flag	RL Result	Units	Dilution	RL
QC Batch: Prep Batch:	70597	Date Analyzed: Sample Preparation:	2010-06-03	Analyzed By: Prepared By:	AR
Laboratory: Analysis:	Midland Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A

Sample: 233125 - AH-2 2-2.5'

Chloride		3220	mg/Kg	100	4.00
Parameter	Flag	RL Result	Units	Dilution	RL
QC Batch: Prep Batch:	70597 60413	Date Analyzed: Sample Preparation:	2010-06-03 2010-06-01	Analyzed By: Prepared By:	
Laboratory: Analysis:	Midland Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	

Sample: 233126 - AH-2 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70597	Date Analyzed:	2010-06-03	Analyzed By:	AR
Prep Batch:	60413	Sample Preparation	: 2010-06-01	Prepared By:	AR
		\mathbf{RL}			
Parameter	Flag	Result	Units	Dilution	RL
Chloride		3490	mg/Kg	100	4.00

Sample: 233127 - AH-2 4-4.5'

Chloride		4610	mg/Kg	100	4.00
Parameter	Flag	RL Result	Units	Dilution	RL
Prep Batch:	60413	Sample Preparation:	2010-06-01	Prepared By:	AR
QC Batch:	70597	Date Analyzed:	2010-06-03	Analyzed By:	AR
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	,
Laboratory:	Midland				

Sample: 233128 - AH-2 5-5.5'

Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration) 70597 60413	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2010-06-03 2010-06-01	Prep Method: Analyzed By: Prepared By:	AR
		ŔL			
Parameter	Flag	Result	Units	Dilution	\mathbf{RL}
Chloride		4520	mg/Kg	100	4.00

Sample: 233129 - AH-2 6-6.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70597	Date Analyzed:	2010-06-03	Analyzed By:	AR
Prep Batch:	60413	Sample Preparation:	2010-06-01	Prepared By:	AR
		RL			
Parameter	Flag	Result	Units	Dilution	\mathbf{RL}
Chloride		4310	mg/Kg	100	4.00

Sample: 233130 - AH-2 7-7.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70597	Date Analyzed:	2010-06-03	Analyzed By:	AR
Prep Batch:	60413	Sample Preparation:	2010-06-01	Prepared By:	AR
		RL			
Parameter	Flag	Result	Units	Dilution	RL
Chloride		2290	mg/Kg	100	4.00

Sample: 233131 - AH-2 8-8.5'

Chloride		2570	mg/Kg	100	4.00
Parameter	Flag	RL Result	Units	Dilution	RL
Prep Batch:	60413	Sample Preparati	on: 2010-06-01	Prepared By:	AR
QC Batch:	70597	Date Analyzed:	2010-06-03	Analyzed By:	
Analysis:	Chloride (Titration)	Analytical Metho	d: SM 4500-Cl B	Prep Method:	
Laboratory:	Midland				

Sample: 233132 - AH-2 9-9.5'

Laboratory: Analysis: QC Batch: Prep Batch:	Chloride (Titration) 70598	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2010-06-03 2010-06-03	Prep Method: Analyzed By: Prepared By:	\mathbf{AR}
		RL			
Parameter	Flag	Result	Units	Dilution	\mathbf{RL}
Chloride		3150	mg/Kg	100	4.00

Sample: 233133 - AH-3 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70598	Date Analyzed:	2010-06-03	Analyzed By:	\mathbf{AR}
Prep Batch:	60414	Sample Preparation:	2010-06-03	Prepared By:	\mathbf{AR}
		RL			
Parameter	Flag	Result	Units	Dilution	RL
Chloride		18300 1	ng/Kg	100	4.00

Sample: 233133 - AH-3 0-1'

Laboratory: Analysis: QC Batch: Prep Batch:	TPH DRO - NEW 70544	Analytical M Date Analyz Sample Prej	zed: 2010-06-01	Prep Method: Analyzed By: Prepared By:	kg
Parameter	Flag	RL Result	Units	Dilution	\mathbf{RL}
DRO		66.0	mg/Kg	1	50.0

Report Date: June 9, 2010 114-6400524		CO	Work Order: 10052814 G/GJ West Co-op South Water Distribution			Page Number: 11 of 23 Eddy County, NM		
Surrogate	Flag	Result	Units	Dilu	ition	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		119	mg/Kg		1	100	119	70 - 130
Sample: 2331	33 - AH-3 0-1	,						
0	Aidland TPH GRO		Analytica	l Method:	S 8015 D		Prep Me	ethod: S 5035
•	0574 0437		Date Ana Sample P	lyzed: reparation:	2010-06-0 2010-06-0		Analyze Preparec	
			RL					
Parameter	Flag	5	Result	<u></u>	Units		Dilution	RL
GRO			5.93		mg/Kg		5	1.00
						Spike	Percent	Recovery
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene	e (TFT)		5.63	mg/Kg	5	5.00	113	50.3 - 155
4-Bromofluorob	enzene (4-BFB)	5.17	mg/Kg	5	5.00	103	51.7 - 131.1

Sample: 233134 - AH-4 0-1'

Chloride		15700	mg/Kg	100	4.00
Parameter	Flag	RL Result	Units	Dilution	RL
Prep Batch:	60414	Sample Preparation:	2010-06-03	Prepared By:	AR
Analysis: QC Batch:	Chloride (Titration) 70598	Analytical Method: Date Analyzed:	SM 4500-Cl B 2010-06-03	Prep Method: Analyzed By:	,
Laboratory:					NT / A

Sample: 233134 - AH-4 0-1'

Laboratory: Analysis: QC Batch: Prep Batch:	TPH DRO - NEW 70544	Analytical Met Date Analyzed: Sample Prepara	2010-06-01	Prep Method: Analyzed By: Prepared By:	N/A kg kg
		RL			
Parameter	Flag	Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Report Date: June 9, 2010 114-6400524			Work Order: 10052814 OG/GJ West Co-op South Water Distribution			Page Number: 12 of 23 Eddy County, NM	
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		113	mg/Kg	1	100	113	70 - 130
Sample: 23 Laboratory: Analysis: QC Batch: Prep Batch:	3134 - AH-4 Midland TPH GRO 70574 60437	0-1'	Analytical M Date Analyz Sample Prej	zed: 2010-	06-02	Prep Me Analyzed Prepared	l By: AG
Parameter	1	Flag	RL Result	U	nits	Dilution	RL
GRO			<1.00	mg/		1	1.00
Surrorato		Flog	Regult	Unite Dilu	Spike	Percent	Recovery

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		1.87	mg/Kg	1	2.00	94	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.66	mg/Kg	1	2.00	83	51.7 - 131.1

Sample: 233135 - AH-4 1-1.5'

Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration) 70598 60414	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2010-06-03 2010-06-03	Prep Method: Analyzed By: Prepared By:	ÁR
		RL			
Parameter	Flag	Result	Units	Dilution	\mathbf{RL}
Chloride		4250	mg/Kg	100	4.00

Sample: 233136 - AH-4 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70598	Date Analyzed:	2010-06-03	Analyzed By:	AR
Prep Batch:	60414	Sample Preparation	: 2010-06-03	Prepared By:	AR
		RL			
Parameter	Flag	Result	Units	Dilution	RL
Chloride		5250	mg/Kg	100	4.00

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Sample: 233137 - AH-4 3-3.5'

Chloride		5990 1	mg/Kg	100	4.00
Parameter	Flag	RL Result	Units	Dilution	RL
Prep Batch:	60414	Sample Preparation:	2010-06-03	Prepared By:	AR
QC Batch:	70598	Date Analyzed:	2010-06-03	Analyzed By:	
Laboratory: Analysis:	Midland Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A

Sample: 233138 - AH-4 4-4.5'

Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration) 70598 60414	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2010-06-03 2010-06-03	Prep Method: Analyzed By: Prepared By:	AR
_		RL		D .1.	
Parameter	Flag	Result	Units	Dilution	RL
Chloride		8990	mg/Kg	100	4.00

Sample: 233139 - AH-4 5-5.5'

Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration) 70598 60414	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2010-06-03 2010-06-03	Prep Method: Analyzed By: Prepared By:	AR
		\mathbf{RL}			
Parameter	Flag	\mathbf{Result}	Units	Dilution	\mathbf{RL}
Chloride		8240 1	mg/Kg	100	4.00

Sample: 233140 - AH-4 6-6.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70598	Date Analyzed:	2010-06-03	Analyzed By:	AR
Prep Batch:	60414	Sample Preparation:	2010-06-03	Prepared By:	AR
		RL			
Parameter	Flag	Result	Units	Dilution	RL
Chloride		7470	mg/Kg	100	4.00

Sample: 233141 - AH-4 7-7.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70598	Date Analyzed:	2010-06-03	Analyzed By:	\mathbf{AR}
Prep Batch:	60414	Sample Preparation	: 2010-06-03	Prepared By:	\mathbf{AR}
		RL			
Parameter	Flag	Result	Units	Dilution	RL
Chloride		6750	mg/Kg	100	4.00

Sample: 233142 - AH-4 8-8.5'

Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration) 70599 60450	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2010-06-03 2010-06-03	Prep Method: Analyzed By: Prepared By:	ÁR
Danamatar	Flag	RL	Unito	Dilution	\mathbf{RL}
Parameter Chloride	Flag	Result 5170	Units mg/Kg	100	4.00

Sample: 233143 - AH-4 9-9.5'

Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration) 70599 60450	Analytical Method Date Analyzed: Sample Preparatio	2010-06-03	Prep Method: Analyzed By: Prepared By:	N/A AR AR
		RL			
Parameter	Flag	Result	Units	Dilution	RL
Chloride		4850	mg/Kg	100	4.00
Method Bla	ank (1) QC Batch: 7054	14			
OC Batch	70544	Data Analyzad: 20	10-06-01	Analyzed By	·· ka

DRO			<5.	.86	mg/Kg		50
Parameter		Flag	Res	ult	Units		RL
			MI	DL			
r rep batch:	00419		QC Preparation:	2010-00-01		r repared by:	кд
Prep Batch:	60/10		QC Preparation:	2010 06 01		Prepared By:	b a
QC Batch: 70544		Date Analyzed:	2010-06-01		Analyzed By:	kg	

Result	Units	Dilu	tion	Spike Amount	Percent Recovery	Li	covery mits
95.4	mg/Kg	1		100	95	70	- 130
QC Batch: 70559					а 	•	
	Date Analyze	ed: 20	10-06-02		Analyz	ed By:	AR
	•		10-06-01				AR
		MDL					
Flag							$\frac{RL}{4}$
		<2.18		mg/ j	<u>Ag</u>		4
QC Batch: 70574							
							AG
	QC Preparat	ion: 20	10-06-02		Prepar	ed By:	AG
		MDL					
Flag		Result					RL
		< 0.396		mg/1	Kg		1
Flag	Rogult	Unite	Dilution	Spike	Percent		overy
Tiag			1				- 145
BFB)			1	2.00	80		120.5
QC Batch: 70597	Data Analyza	d. 20	10-06-03		Analyz	od By:	٨R
						-	
Flag				Unit	s		RL
							4
	QC Batch: 70559 Flag QC Batch: 70574 Flag Flag 3FB)	QC Batch: 70559 Date Analyza QC Preparat Flag QC Batch: 70574 Date Analyza QC Preparat Flag Flag Result Flag Result 3FB) 1.60 m QC Batch: 70597 QC Batch: 70597 Date Analyza QC Preparat	QC Batch: 70559 Date Analyzed: 20 QC Preparation: 20 MDL Flag Result <2.18 QC Batch: 70574 Date Analyzed: 20 QC Preparation: 20 MDL Flag Result Units <0.396 Flag Result Units <0.396 Flag Result Units 2.06 mg/Kg 3FB) 1.60 mg/Kg QC Batch: 70597 Date Analyzed: 20 QC Preparation: 20 MDL MDL	QC Batch: 70559 Date Analyzed: 2010-06-02 QC Preparation: 2010-06-01 MDL MDL Flag Result <2.18	QC Batch: 70559 Date Analyzed: 2010-06-02 QC Preparation: 2010-06-01 MDL Flag Result Uni MDL QC Batch: 70574 Date Analyzed: 2010-06-02 QC Preparation: 2010-06-02 MDL Flag Result Units Dilution Amount 3FB) 1.60 mg/Kg 1 2.00 QC Batch: 70597 QC Batch: 70597 Date Analyzed: 2010-06-03 QC Preparation: 2010-06-01 MDL Flag Result Units Dilution Amount 3FB 1.60 mg/Kg 1 2.00 QC Preparation: 2010-06-03 QC Preparation: 2010-06-01 MDL Flag Result Units Dilution Amount MDL MDL Flag Result Units Dilution Amount MDL MDL MDL MDL MDL MDL MDL MDL	QC Batch: 70559 Date Analyzed: 2010-06-02 QC Preparation: 2010-06-01 Flag MDL Flag QC Batch: 70574 QC Batch: 70574 Date Analyzed: 2010-06-02 QC Preparation: 2010-06-02 MDL Flag Result Units MDL Flag Result Units Variable Composition: 2010-06-02 Preparation: 2010-06-02 Spike Percent Flag Result Units Dilution Amount Recovery 2.06 mg/Kg 1 2.00 80 QC Batch: 70597 Date Analyzed: 2010-06-03 QC Preparation: 2010-06-03 QC Preparation: 2010-06-01 Preparation: 20	QC Batch: 70559 Date Analyzed: 2010-06-02 QC Preparation: 2010-06-01 Flag MDL Flag QC Batch: 70574 Date Analyzed: 2010-06-02 QC Preparation: 2010-06-02 Prepared By: MDL Flag Flag Result Units CO.396 MDL Flag Prepared By: MDL Flag Prepared By: MDL Flag Co.396 MDL Spike Percent Recovery Lin 2.00 Spike Percent Recovery Lin 2.00 Spike Percent Recovery Lin 2.00 Spike Percent Recovery Lin 2.00 Spike Percent Recovery Lin 2.00 So 62 - QC Batch: 70597 Date Analyzed: 2010-06-03 QC Preparation: 2010-06-01 Prepared By: MDL Flag MDL Flag Result MDL Flag MDL Flag Result MDL Vits

QC Batch:	70598	Date Analyzed:	2010-06-03	Analyzed By:	AR
Prep Batch:	60414	QC Preparation:	2010-06-01	Prepared By:	AR

Report Date: 114-6400524	ate: June 9, 2010Work Order: 10052814224COG/GJ West Co-op South Water Distribution									Page Number: 16 of 2 Eddy County, N							
					M												
Parameter		F	lag		Res			Units			RL						
Chloride		<u> </u>			<2.	.18		mg/K	g		4						
Method Bla	nk (1)	QC Bate	:h: 70599														
QC Batch:	70599			Date An	alvzed:	2010-06-	-03		Analy	yzed By:	AR						
Prep Batch:	60450				paration:	2010-06-			•	ared By:							
Parameter		F	lag		MI Res			Units			RL						
Chloride		I.			<2.			mg/K			4						
-	60419			5	paration:	2010-06	Spike	Matrix	-		ec.						
Param DRO		<u></u>	Resu 265		Jnits	Dil.	Amount 250	Result <5.86	Rec. 106		mit • 133.4						
Percent recov	ery is based	on the sp		·	g/Kg based on t					07.4 -	• 133.4						
			LCSD			Spike	Matrix	_	Rec.		RPD						
Param			Result	Units	Dil.	Amount	\mathbf{Result}	Rec.	Limit	RPD	Limit						
		·····				Amount			7 4 1 1 2 2 4								
DRO	ery is based	on the sp	277	mg/Kg	1	250	<5.86	111 57	7.4 - 133.4 sult.	4	20						
DRO	ery is based	-	277 bike result.	mg/Kg	1	250	<5.86 and spike d	111 57 uplicate res	sult.	4							
DRO	-	on the sp LCS Result	277	mg/Kg RPD is b	1	250	<5.86	111 57		4	20 Rec. Limit						
DRO Percent recov	-	LCS	277 bike result. LCSD	mg/Kg RPD is b Un	1 based on t	250 .he spike a	<5.86 and spike d Spike	111 57 uplicate res LCS	sult. LCSD	4	Rec.						
DRO Percent recov Surrogate		LCS Result 98.0	277 bike result. LCSD Result 99.8	mg/Kg RPD is b Un	1 pased on t nits /Kg alyzed:	250 he spike a Dil.	<5.86 and spike d Spike Amount 100	111 57 uplicate res LCS Rec.	sult. LCSD Rec. 100 Analy	4	Rec. Limit) - 130						
DRO Percent recover Surrogate n-Tricosane Laboratory QC Batch: Prep Batch:	Control Sp 70559	LCS Result 98.0	277 oike result. LCSD Result 99.8 S-1)	mg/Kg RPD is b Un mg, Date Ana QC Prep	1 pased on t nits /Kg alyzed: paration:	250 he spike a Dil. 1 2010-06- 2010-06-	<5.86 and spike d Spike Amount 100 02 01 Spike	111 57 uplicate res LCS Rec. 98	sult. LCSD Rec. 100 Analy Prepa	4 7(yzed By: ared By:	Rec. Limit) - 130 AR AR AR Rec.						
DRO Percent recove Surrogate n-Tricosane Laboratory QC Batch:	Control Sp 70559	LCS Result 98.0	277 bike result. LCSD Result 99.8 S-1)	mg/Kg RPD is b Un mg, Date And QC Prep S ult	1 pased on t nits /Kg alyzed:	250 he spike a Dil. 1 2010-06-	<5.86 and spike d Spike Amount 100 02 01	111 57 uplicate res LCS Rec. 98	sult. LCSD Rec. 100 Analy Prepa rix Ilt Rec	4 7(yzed By: ared By:	Rec. Limit) - 130 AR AR AR						

1

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

Report Date: June 9, 2010 114-6400524											
Param	LCSD Result	Units	Dil.	Spike Amoun	t I	Aatrix Result	Rec	. I	Rec. Limit	RPD	RPD Limit
Chloride	100	mg/Kg	1	100	•	<2.18	100	85	5 - 115	1	20
Percent recovery is based on the	spike result.	RPD is b	ased on	the spike	and s	pike du	plicate	e resul	t.		
Laboratory Control Spike (L	CS-1)										
QC Batch: 70574 Prep Batch: 60437		Date Ana QC Prepa	•	2010-06 2010-06						lyzed By pared By	
Danau	LCS Resu		nits	Dil.	-	ike	Ma		Rec.		Rec. Jimit
Param GRO			/Kg	<u> </u>		ount).0	$- \frac{\text{Res}}{< 0.}$		 77		- 114.3
			., _							02.0	- 114.5
Percent recovery is based on the	spike result.	RPD is ba	ased on	the spike	and s	pike du	plicate	e result	ι.		
				Spike	Ma	trix		В	lec.		RPD
	LCSD			opire	ivia	ULIA		1.			
Param	$\begin{array}{c} \mathrm{LCSD} \\ \mathrm{Result} \end{array}$	Units	Dil.	Amount			Rec.		imit	RPD	Limit
,		Units mg/Kg	Dil.	-	Res		Rec. 80	Li		RPD 4	Limit 20
GRO	Result 16.0	mg/Kg	1	Amount 20.0	Res <0.	sult . .396	80	Li 52.5	imit - 114.3		
GRO	Result 16.0 spike result.	mg/Kg RPD is ba	1 ased on	Amount 20.0	Res <0.	sult 396 pike du	80 plicate	Li 52.5 e result	imit - 114.3 t.	4	20
GRO Percent recovery is based on the	Result 16.0 spike result. LCS	mg/Kg RPD is ba LCS	1 ased on D	Amount 20.0 the spike	Res <0. and s	sult .396 pike du Spike	80 plicate	Li 52.5 e result LCS	imit - 114.3 t. LCSD	4	20 Rec.
GRO Percent recovery is based on the Surrogate	Result 16.0 spike result. LCS Resul	mg/Kg RPD is ba LCS t Resu	1 ased on D lt U	Amount 20.0 the spike nits 1	Res <0. and sp Dil.	sult 396 pike du Spike Amou	80 plicate e nt	Li 52.5 e result LCS Rec.	imit - 114.3 t. LCSD Rec.	4 I	20 Rec. Jimit
GRO Percent recovery is based on the Surrogate Trifluorotoluene (TFT)	Result 16.0 spike result. LCS	mg/Kg RPD is ba LCS	1 ased on D It U) mg	Amount 20.0 the spike	Res <0. and s	sult .396 pike du Spike	80 plicate e nt	Li 52.5 e result LCS	imit - 114.3 t. LCSD	4 1 66.2	20 Rec. Jimit
GRO Percent recovery is based on the Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB) Laboratory Control Spike (L QC Batch: 70597	Result 16.0 spike result. LCS Resul 2.08 1.83	mg/Kg RPD is ba LCSI t Resu 1.89	1 ased on D It U 0 mg 5 mg	Amount 20.0 the spike nits 1 g/Kg	Res <0. and s Dil. 1 1 -03	sult 396 pike du Spike Amou 2.00	80 plicate e nt	Li 52.5 e result LCS Rec. 104	imit - 114.3 t. LCSD Rec. 94 83 Anai	4 1 66.2	20 Rec. .imit - 148.7 - 127.4 7: AR
Prep Batch: 60413	Result 16.0 spike result. LCS Resul 2.08 1.83 CS-1)	mg/Kg RPD is ba LCS t Resu 1.89 1.66 Date Ana QC Prepa S	1 ased on D It U 0 mg 5 mg alyzed: aration:	Amount 20.0 the spike nits I g/Kg g/Kg 2010-06 2010-06	Res <0. and sp Dil. 1 1 -03 -01	sult 396 pike du Spike 2.00 2.00	80 plicate e nt	Li 52.5 e result LCS Rec. 104 92	imit - 114.3 t. LCSD Rec. 94 83 Anai Prep	4 I 66.2 64.1 lyzed By bared By	20 Rec. .imit - 148.7 - 127.4 r: AR : AR : AR Rec.
GRO Percent recovery is based on the Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB) Laboratory Control Spike (L QC Batch: 70597 Prep Batch: 60413 Param	Result 16.0 spike result. LCS Resul 2.08 1.83 CS-1) LC Resu	mg/Kg RPD is ba LCS t Resu 1.89 1.66 Date Ana QC Prepa S alt U	1 ased on D It U 0 mg 3 mg alyzed: aration: Units Units	Amount 20.0 the spike nits I g/Kg g/Kg 2010-06 2010-06 2010-06 Dil.	Res <0. and sp Dil. 1 1 -03 -01	sult 396 pike du Spike 2.00 2.00 Spike mount	80 plicate nt N	Li 52.5 e result LCS Rec. 104 92	imit - 114.3 t. LCSD Rec. 94 83 Anai Prep Re	4 I 66.2 64.1 lyzed By bared By c.	20 Rec. .imit - 148.7 - 127.4 r: AR r: AR : AR Rec. Limit
GRO Percent recovery is based on the Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB) Laboratory Control Spike (L QC Batch: 70597 Prep Batch: 60413 Param Chloride	Result 16.0 spike result. LCS Resul 2.08 1.83 CS-1) LC Resu 97.	mg/Kg RPD is b: LCSI t Resu 1.89 1.66 Date Ana QC Preps S ilt U 9 m	1 ased on D It U 0 mg 3 mg alyzed: aration: units mg/Kg	Amount 20.0 the spike nits I g/Kg g/Kg 2010-06 2010-06 Dil. 1	Res <0. and sp Dil. 1 -03 -01 6 Au	sult 396 pike du Spike Amou 2.00 2.00 2.00 Spike mount 100	80 plicate a nt N H	Li 52.5 e result LCS Rec. 104 92 92	imit - 114.3 t. LCSD Rec. 94 83 Anai Prep Re 98	4 I 66.2 64.1 lyzed By bared By c.	20 Rec. .imit - 148.7 - 127.4 r: AR r: AR r: AR Rec. Limit
GRO Percent recovery is based on the Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB) Laboratory Control Spike (L QC Batch: 70597 Prep Batch: 60413 Param Chloride	Result 16.0 spike result. LCS Resul 2.08 1.83 CS-1) LC Resu 97.	mg/Kg RPD is b: LCSI t Resu 1.89 1.66 Date Ana QC Preps S ilt U 9 m	1 ased on D It U 0 mg 3 mg alyzed: aration: units mg/Kg	Amount 20.0 the spike nits I g/Kg g/Kg 2010-06 2010-06 Dil. 1	Res <0. and sp Dil. 1 -03 -01 6 Au	sult 396 pike du Spike Amou 2.00 2.00 2.00 Spike mount 100	80 plicate a nt N H	Li 52.5 e result LCS Rec. 104 92 92	imit - 114.3 t. LCSD Rec. 94 83 Anai Prep Re 98	4 I 66.2 64.1 lyzed By bared By c.	20 Rec. .imit - 148.7 - 127.4 r: AR r: AR : AR Rec. Limit
GRO Percent recovery is based on the Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB) Laboratory Control Spike (L QC Batch: 70597 Prep Batch: 60413 Param Chloride	Result 16.0 spike result. LCS Resul 2.08 1.83 CS-1) LC Resu 97. spike result.	mg/Kg RPD is b: LCSI t Resu 1.89 1.66 Date Ana QC Preps S ilt U 9 m	1 ased on D It U 0 mg 3 mg alyzed: aration: units mg/Kg	Amount 20.0 the spike nits I g/Kg g/Kg 2010-06 2010-06 2010-06 Dil. 1 the spike	Res <0. and sp Dil. 1 -03 -01 6 And and sp	sult 396 pike du Spike Amou 2.00 2.00 2.00 Spike mount 100 pike du	80 plicate a nt N H	Li 52.5 e result LCS Rec. 104 92 92 Attrix Result <2.18 e result	imit - 114.3 t. LCSD Rec. 94 83 Anal Prep Re 98	4 I 66.2 64.1 lyzed By bared By c.	20 Rec. .imit - 148.7 - 127.4 r: AR : AR : AR Rec. Limit 35 - 115
GRO Percent recovery is based on the Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB) Laboratory Control Spike (L QC Batch: 70597 Prep Batch: 60413	Result 16.0 spike result. LCS Resul 2.08 1.83 CS-1) LC Resu 97.	mg/Kg RPD is b: LCSI t Resu 1.89 1.66 Date Ana QC Preps S ilt U 9 m	1 ased on D It U 0 mg 3 mg alyzed: aration: units mg/Kg	Amount 20.0 the spike nits I g/Kg g/Kg 2010-06 2010-06 Dil. 1	Res <pre></pre> <pre></pre> <pre>Coll</pre> Dil. 1 -03 -01 <pre><pre><pre><pre><pre><pre><pre><pre></pre></pre></pre></pre></pre></pre></pre></pre>	sult 396 pike du Spike Amou 2.00 2.00 2.00 Spike mount 100	80 plicate a nt N H	Li 52.5 e result LCS Rec. 104 92 92 Attrix Result <2.18 e result	imit - 114.3 t. LCSD Rec. 94 83 Anai Prep Re 98	4 I 66.2 64.1 lyzed By bared By c.	20 Rec. .imit - 148.7 - 127.4 r: AR : AR : AR Rec.

Laboratory Control Spike (LCS-1)

QC Batch:	70598	Date Analyzed:	2010-06-03	Analyzed By:	\mathbf{AR}
Prep Batch:	60414	QC Preparation:	2010-06-01	Prepared By:	\mathbf{AR}

eport Date: June 9, 2010Work Order: 10052814Page Number:14-6400524COG/GJ West Co-op South Water DistributionEddy Court										
		CS			Spike		ıtrix		Rec.	
Param		esult	Units		Amount 100		sult 2.18	Rec. 98	Limit 85 - 115	
Chloride			mg/Kg	1				98	80 - 110	
Percent recovery is base	ed on the spike resul	t. RPD is	based on	the spike a	nd spike du	iplicate r	esult.			
	LCSD			Spike	Matrix		Rec.		RPD	
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit	
Chloride	91.3	mg/Kg	g 1	100	<2.18	91	85 - 115	7	20	
Percent recovery is base	ed on the spike resul	t. RPD is	based on	the spike a	nd spike du	iplicate r	esult.			
-	-									
Laboratory Control	Spike (LCS-1)									
QC Batch: 70599		Date Ar	•	2010-06-0				nalyzed B	•	
Prep Batch: 60450		QC Prej	paration:	2010-06-0	3		P	repared B	y: AR	
	Ι	CS			Spike	Ma	trix		Rec.	
Param		esult	Units	Dil.	Amount	Re	sult	Rec.	Limit	
Chloride	g	8.5	mg/Kg	1	100	<2	2.18	98	85 - 115	
Percent recovery is base	ed on the spike resul	t. RPD is l	based on	the spike a	nd spike du	plicate r	esult.			
	TOOD			C:1	Nd		D		מחמ	
Daram	LCSD	Unite	וים	Spike Amount	Matrix Bosult	Roc	Rec. Limit	RDD	RPD Limit	
	Result		Dil.	Amount	Result	Rec.	Limit	RPD 2	Limit	
Chloride	Result 100	mg/Kg	; 1	Amount 100	Result <2.18	100	Limit 85 - 115	RPD 2		
Chloride	Result 100	mg/Kg	; 1	Amount 100	Result <2.18	100	Limit 85 - 115		Limit	
Param Chloride Percent recovery is base Matrix Spike (MS-1)	Result 100 d on the spike result	mg/Kg t. RPD is l	; 1	Amount 100	Result <2.18	100	Limit 85 - 115		Limit	
Chloride Percent recovery is base Matrix Spike (MS-1)	Result 100 d on the spike result	mg/Kg t. RPD is l 233169	; 1 based on	Amount 100 the spike an	Result <2.18 nd spike du	100	Limit 85 - 115 esult.	2	Limit 20	
Chloride Percent recovery is base Matrix Spike (MS-1) QC Batch: 70544	Result 100 d on the spike result	mg/Kg t. RPD is l 233169 Date At	; 1	Amount 100 the spike an 2010-06-0	Result <2.18 nd spike du	100	Limit 85 - 115 esult.		Limit 20 By: kg	
Chloride Percent recovery is base Matrix Spike (MS-1) QC Batch: 70544	Result 100 d on the spike result	mg/Kg t. RPD is l 233169 Date At	<u>; 1</u> based on nalyzed:	Amount 100 the spike an 2010-06-0	Result <2.18 nd spike du	100	Limit 85 - 115 esult.	2 Analyzed 1	Limit 20 By: kg	
Chloride Percent recovery is base Matrix Spike (MS-1) QC Batch: 70544	Result 100 ed on the spike result Spiked Sample:	mg/Kg t. RPD is 1 233169 Date A QC Pre	<u>; 1</u> based on nalyzed:	Amount 100 the spike an 2010-06-0	Result <2.18 nd spike du 01	100 plicate r	Limit 85 - 115 esult. F	2 Analyzed 1	Limit 20 By: kg 3y: kg	
Chloride Percent recovery is base Matrix Spike (MS-1) QC Batch: 70544 Prep Batch: 60419	Result 100 d on the spike result Spiked Sample: M	mg/Kg t. RPD is 1 233169 Date A QC Pre	g <u>1</u> based on nalyzed: eparation:	Amount 100 the spike an 2010-06-(2010-06-(Result <2.18 nd spike du 01 01 Spike	100 plicate r Matri	Limit 85 - 115 esult. F F	2 Analyzed I Prepared I	Limit 20 By: kg 3y: kg Rec.	
Chloride Percent recovery is base Matrix Spike (MS-1) QC Batch: 70544 Prep Batch: 60419 Param	Result 100 ed on the spike result Spiked Sample: M Res	mg/Kg t. RPD is l 233169 Date A QC Pre	<u>s 1</u> based on nalyzed: eparation: Units	Amount 100 the spike an 2010-06-0 2010-06-0	Result <2.18 nd spike du 01 01 Spike Amount	100 plicate r Matri Resul	Limit 85 - 115 esult. F x t Rec	2 Analyzed 1 Prepared 1	Limit 20 By: kg 3y: kg Rec. Limit	
Chloride Percent recovery is base Matrix Spike (MS-1) QC Batch: 70544 Prep Batch: 60419 Param DRO	Result 100 of on the spike result Spiked Sample: M Res 3	mg/Kg t. RPD is 1 233169 Date A QC Pre US Sult U 34 m	g 1 based on nalyzed: eparation: Units g/Kg	Amount 100 the spike an 2010-06-0 2010-06-0 Dil. 1	Result <2.18 ad spike du 01 01 01 01 01 01 01 01 01 01 01 01 01	100 plicate r Matri Resul 37.7	Limit 85 - 115 esult. 4 F x t Rec 118	2 Analyzed 1 Prepared 1	Limit 20 By: kg 3y: kg Rec. Limit	
Chloride Percent recovery is base Matrix Spike (MS-1) QC Batch: 70544 Prep Batch: 60419 Param DRO	Result 100 of on the spike result Spiked Sample: M Res 3	mg/Kg t. RPD is 1 233169 Date A QC Pre US Sult U 34 m	g 1 based on nalyzed: eparation: Units g/Kg	Amount 100 the spike an 2010-06-0 2010-06-0 Dil. 1	Result <2.18 ad spike du 01 01 01 01 01 01 01 01 01 01 01 01 01	100 plicate r Matri Resul 37.7	Limit 85 - 115 esult. 4 F x t Rec 118	2 Analyzed 1 Prepared 1	Limit 20 By: kg 3y: kg Rec. Limit	
Chloride Percent recovery is base Matrix Spike (MS-1) QC Batch: 70544 Prep Batch: 60419 Param DRO Percent recovery is base Param	Result 100 ed on the spike result Spiked Sample: MRes 3 d on the spike result MSD Result	mg/Kg t. RPD is 1 233169 Date A QC Pre Sult U 34 m t. RPD is 1 Units	g 1 based on nalyzed: eparation: Units ng/Kg based on	Amount 100 the spike an 2010-06-0 2010-06-0 Dil. 1 the spike an Spike Amount	Result <2.18 ad spike du 01 01 01 01 01 01 01 01 01 01 01 01 01	100 plicate r Matri Resul 37.7 plicate r Rec.	$ \begin{array}{r} \text{Limit} \\ $	2 Analyzed P Prepared I	Limit 20 By: kg 3y: kg Rec. Limit 2 - 167.1 RPD Limit	
Chloride Percent recovery is base Matrix Spike (MS-1) QC Batch: 70544 Prep Batch: 60419 Param DRO Percent recovery is base Param	Result 100 ed on the spike result Spiked Sample: MRes 3 d on the spike result MSD	mg/Kg 233169 Date A QC Pre (S Sult U 34 m 5. RPD is 1	g 1 based on nalyzed: eparation: Units ng/Kg based on	Amount 100 the spike an 2010-06-0 2010-06-0 Dil. 1 the spike an Spike	Result <2.18 ad spike du 01 01 01 01 01 01 01 01 01 01 01 01 01	100 plicate r Matri Resul 37.7 plicate r Rec.	Limit 85 - 115 esult. 4 F x t Rec 118 esult. Rec.	2 Analyzed P Prepared I	Limit 20 By: kg 3y: kg Rec. Limit 2 - 167.1 RPD	
Chloride Percent recovery is base Matrix Spike (MS-1) QC Batch: 70544 Prep Batch: 60419 Param DRO Percent recovery is base Param DRO	Result 100 of on the spike result Spiked Sample: MRes d on the spike result MSD Result 298	mg/Kg t. RPD is l 233169 Date A: QC Pre Sult U 34 m t. RPD is l Units mg/Kg	s 1 based on nalyzed: eparation: Units g/Kg based on Dil. 1	Amount 100 the spike an 2010-06-0 2010-06-0 Dil. 1 the spike an Spike Amount 250	Result <2.18 ad spike du 01 01 01 01 01 01 01 01 01 01 01 01 01	100 plicate r Resul 37.7 plicate r Rec. 104 3	Limit 85 - 115 esult. 4 4 4 5 4 8 8 8 8 8 8 8 8 115 8 8 8 8 8 8 8 8 8 8 8 8 8	2 Analyzed P Prepared I	Limit 20 By: kg 3y: kg Rec. Limit 2 - 167.1 RPD Limit	
Chloride Percent recovery is base Matrix Spike (MS-1) QC Batch: 70544 Prep Batch: 60419 Param DRO Percent recovery is base Param DRO	Result 100 d on the spike result Spiked Sample: MRes d on the spike result MSD Result 298 d on the spike result	mg/Kg 233169 Date A: QC Pressor (S sult U 34 m 5. RPD is b Units mg/Kg 5. RPD is b	s 1 based on nalyzed: eparation: Units g/Kg based on Dil. 1	Amount 100 the spike an 2010-06-0 2010-06-0 Dil. 1 the spike an Spike Amount 250	Result <2.18 and spike due 01 01 01 01 01 01 01 01 01 01 01 01 01	100 plicate r Matri Resul 37.7 plicate r Rec. 104 3 plicate r	Limit 85 - 115 esult. esult. A F x t Rec 118 esult. Rec. Limit 35.2 - 167.1 esult.	2 Analyzed D Prepared I	Limit 20 By: kg By: kg Rec. Limit 2 - 167.1 RPD Limit 20	
Chloride Percent recovery is base Matrix Spike (MS-1) QC Batch: 70544	Result 100 of on the spike result Spiked Sample: MRes d on the spike result MSD Result 298	mg/Kg 5. RPD is 1 233169 Date A: QC Pressolut Units mg/Kg 5. RPD is 1 0	s 1 based on nalyzed: eparation: Units g/Kg based on Dil. 1	Amount 100 the spike an 2010-06-0 2010-06-0 Dil. 1 the spike an Spike Amount 250	Result <2.18 ad spike du 01 01 01 01 01 01 01 01 01 01 01 01 01	100 plicate r Resul 37.7 plicate r Rec. 104 3	Limit 85 - 115 esult. 4 4 4 5 4 4 5 4 4 5 4 5 115 12 12 12 12 12 12 12 12 12 12	2 Analyzed P Prepared I	Limit 20 By: kg 3y: kg Rec. Limit 2 - 167.1 RPD Limit	

Matrix Spike (MS-1) Spiked Sample: 233121

Prep Batch: 60412		e Analyzec Preparatic					nalyzed E repared B	
	MS			Spike	M	atrix		Rec.
Param	Result	Units	Dil.	Amount	Re	esult l	Rec.	Limit
Chloride	16400	mg/Kg	g 100	10000	6	000	104	85 - 115
Percent recovery is based on the	e spike result. RPI) is based o	on the spike	and spike du	plicate	result.		
	MSD		Spike	Matrix		Rec.		RPD
Param		nits Di	-		Rec.	Limit	RPD	Limit
Chloride	16500 mg	g/Kg 10	0 10000	6000	105	85 - 115	1	20
Matrix Spike (MS-1) Spik QC Batch: 70574 Prep Batch: 60437		5 e Analyzed Preparatic					nalyzed B epared B	-
Param	${ m MS}$ Result	Units	Dil.	Spike Amount	Mat Res		ec.	Rec. Limit
GRO	25.1	mg/Kg	1	20.0	5.58	366 9	8 1	0 - 198.3
Percent recovery is based on the	e spike result. RPI) is based of	on the spike	and spike du	plicate	result.		
	MSD		Spike	Matrix		Rec.		RPD
			-					
Param		nits Dil.	Amount	Result	Rec.	Limit	RPD	Limit
	Result Ur	nits Dil. /Kg 1	Amount 20.0	Result 5.5866	Rec. 106	Limit 10 - 198.3	RPD 7	Limit 20
GRO	Result Ur 26.8 mg	/Kg 1	20.0	5.5866	106	10 - 198.3		
GRO	Result Ur 26.8 mg	/Kg 1	20.0	5.5866 and spike du	106 plicate i	10 - 198.3 result.	7	
GRO Percent recovery is based on the	ResultUr26.8mge spike result.RPI	/Kg 1 D is based o	20.0 on the spike a	5.5866	106 plicate i ike	10 - 198.3 result. MS M		
GRO Percent recovery is based on the Surrogate Trifluorotoluene (TFT)	Result Ur 26.8 mg e spike result. RPI MS Result 2.28	/Kg 1 D is based of MSD Result 2.37	20.0 on the spike a	5.5866 and spike du Sp	106 plicate i ike punt	10 - 198.3 result. MS M Rec. R	7 [SD Lec. 18 6	20 Rec. Limit 5.5 - 143
Param GRO Percent recovery is based on the Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB)	Result Ur 26.8 mg e spike result. RPI MS Result	/Kg 1 D is based of MSD Result	20.0 on the spike a Units	5.5866 and spike du Sp Dil. Amo	106 plicate r ike punt 2	10 - 198.3 result. MS M Rec. R 114 1	7 [SD Lec. 18 6	20 Rec. Limit 5.5 - 143
GRO Percent recovery is based on the Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB) Matrix Spike (MS-1) Spik QC Batch: 70597	Result Ur 26.8 mg e spike result. RPI MS Result 2.28 2.42 aced Sample: 233131 Dat	/Kg 1 D is based of MSD Result 2.37 2.38	20.0 on the spike a Units mg/Kg mg/Kg !: 2010-06-	5.5866 and spike du Sp Dil. Ame 1 5 1 5	106 plicate r ike punt 2	10 - 198.3 result. MS M Rec. R 114 1 121 1 Ar	7 [SD Lec. 18 6	20 Rec. Limit 5.5 - 143 8.6 - 140
GRO Percent recovery is based on the Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB) Matrix Spike (MS-1) Spik QC Batch: 70597	Result Ur 26.8 mg e spike result. RPI MS Result 2.28 2.42 aced Sample: 233131 Dat	/Kg 1 D is based of MSD Result 2.37 2.38	20.0 on the spike a Units mg/Kg mg/Kg !: 2010-06-	5.5866 and spike du Sp Dil. Ame 1 5 1 5	106 plicate ; jike punt 2 2	10 - 198.3 result. MS M Rec. R 114 1 121 1 Ar Pr	7 [SD [ec. 18 6 19 5	20 Rec. Limit 5.5 - 143 8.6 - 140

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

Report Dat 114-6400524	e: June 9, 2010 4		Distributio	n	Page	e Number Eddy Co				
Param		$egin{array}{c} { m MSD} \ { m Result} \end{array}$	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride		13100	mg/Kg	g 100	10000	2570	105	85 - 115	2	20
Percent recc	overy is based o	on the spike result.	RPD is	based on	the spike an	d spike du	plicate re	esult.		
Matrix Sp	ike (MS-1)	Spiked Sample: 2	33141							
QC Batch:	70598		Date A	nalyzed:	2010-06-03	3		A	nalyzed E	y: AR
Prep Batch:				eparation:					repared B	
		М	S			Spike	Mat			Rec.
Param		Res		Units	Dil.	Amount	Res		Rec.	Limit
Chloride		174	100	mg/Kg	100	10000	67	50	106	85 - 115
Percent reco	overy is based o	on the spike result.	RPD is	based on	the spike an	d spike du	plicate re	esult.		
		MSD			Spike	Matrix		Rec.		RPD
		Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Param		Inconto		Dn.	mound	TODATO	I COOL	Lanno	101 12	1,11110
Chloride Percent recc	overy is based o ike (MS-1)	17200 on the spike result. Spiked Sample: 2	mg/Kg RPD is	g 100	10000 the spike an	6750 d spike du	104	85 - 115 esult.	1	20
	ike (MS-1) 70599	17200 on the spike result.	mg/Kg RPD is 33156 Date A	g 100	· · · · · · · · · · · · · · · · · · ·	d spike duj 3	104	esult. A	1 nalyzed B repared B	y: AR
Chloride Percent recc Matrix Sp QC Batch:	ike (MS-1) 70599	17200 on the spike result. Spiked Sample: 2	mg/Kg RPD is 33156 Date A QC Pre	g 100 based on nalyzed:	the spike an 2010-06-03	d spike duj 3 3	104 plicate re	esult. A Pr	nalyzed B	y: AR y: AR
Chloride Percent recc Matrix Sp QC Batch: Prep Batch:	ike (MS-1) 70599	17200 on the spike result.	mg/Kg RPD is 33156 Date A QC Pre	g 100 based on nalyzed:	the spike an 2010-06-03	d spike duj 3	104	esult. A Pi trix	nalyzed B	y: AR
Chloride Percent recc Matrix Sp QC Batch: Prep Batch: Prep Batch: Param	ike (MS-1) 70599	17200 on the spike result. Spiked Sample: 2 M	mg/Kg RPD is 33156 Date A QC Pre	g 100 based on nalyzed: paration:	the spike an 2010-06-03 2010-06-03	d spike duj 3 3 Spike	104 plicate re Mat	esult. Ai Pi trix sult	nalyzed B repared B	y: AR y: AR Rec.
Chloride Percent recc Matrix Sp QC Batch: Prep Batch: Prep Batch: Param Chloride	ike (MS-1) 70599 60450	17200 on the spike result. Spiked Sample: 2 M Res	mg/Kg RPD is 33156 Date A QC Pre S sult 50	g 100 based on nalyzed: paration: Units mg/Kg	the spike an 2010-06-03 2010-06-03 Dil. 100	d spike du 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	104 plicate re Mat Res <2	esult. A Pr trix sult 1 18	nalyzed B repared B Rec.	y: AR y: AR Rec. Limit
Chloride Percent recc Matrix Sp QC Batch: Prep Batch: Prep Batch: Param Chloride	ike (MS-1) 70599 60450	17200 on the spike result. Spiked Sample: 2 M Res 97 on the spike result.	mg/Kg RPD is 33156 Date A QC Pre S sult 50	g 100 based on nalyzed: paration: Units mg/Kg	the spike an 2010-06-03 2010-06-03 Dil. 100 the spike an	d spike duy Spike Amount 10000 d spike duy	104 plicate re Mat Res <2	esult. A Pr trix sult 18 esult.	nalyzed B repared B Rec.	y: AR y: AR Rec. Limit 85 - 115
Chloride Percent recc Matrix Spi QC Batch: Prep Batch: Prep Batch: Param Chloride Percent recc	ike (MS-1) 70599 60450	17200 on the spike result. Spiked Sample: 2 M Res 97	mg/Kg RPD is 33156 Date A QC Pre S sult 50	g 100 based on nalyzed: paration: Units mg/Kg	the spike an 2010-06-03 2010-06-03 Dil. 100	d spike du 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	104 plicate re Mat Res <2	esult. A Pr trix sult 1 18	nalyzed B repared B Rec.	y: AR y: AR Rec. Limit
Chloride Percent recc Matrix Sp QC Batch: Prep Batch: Prep Batch: Param Chloride	ike (MS-1) 70599 60450	17200 on the spike result. Spiked Sample: 2 M Res 97. on the spike result. MSD	mg/Kg RPD is 33156 Date A QC Pre S sult 50 RPD is	g 100 based on nalyzed: paration: Units mg/Kg based on Dil.	the spike an 2010-06-03 2010-06-03 Dil. 100 the spike an Spike	d spike duy Spike Amount 10000 d spike duy Matrix	104 plicate re Mat Res <2 plicate re	esult. A Pr trix sult 18 esult. Rec.	nalyzed B repared B Rec. 98 RPD	y: AR y: AR Rec. Limit 85 - 115 RPD
Chloride Percent recc Matrix Spi QC Batch: Prep Batch: Param Chloride Percent recc Param Chloride	ike (MS-1) 70599 60450 overy is based o	17200 on the spike result. Spiked Sample: 2 M Res 97. on the spike result. MSD Result	mg/Kg RPD is 33156 Date A QC Pre Soult 50 RPD is Units mg/Kg	g 100 based on nalyzed: paration: Units mg/Kg based on Dil. g 100	the spike an 2010-06-03 2010-06-03 Dil. 100 the spike an Spike Amount 10000	d spike duy Spike Amount 10000 d spike duy Matrix Result <218	104 plicate re Mat Res <2 plicate re Rec. 98	esult. Ai Pi trix sult 18 esult. Rec. Limit 85 - 115	nalyzed B repared B Rec. 98 RPD	y: AR y: AR Rec. Limit 85 - 115 RPD Limit
Chloride Percent recc Matrix Spi QC Batch: Prep Batch: Param Chloride Percent recc Param Chloride	ike (MS-1) 70599 60450 overy is based o	17200 on the spike result. Spiked Sample: 2 M Res 97. on the spike result. MSD Result 9820	mg/Kg RPD is 33156 Date A QC Pre Soult 50 RPD is Units mg/Kg	g 100 based on nalyzed: paration: Units mg/Kg based on Dil. g 100	the spike an 2010-06-03 2010-06-03 Dil. 100 the spike an Spike Amount 10000	d spike duy Spike Amount 10000 d spike duy Matrix Result <218	104 plicate re Mat Res <2 plicate re Rec. 98	esult. Ai Pi trix sult 18 esult. Rec. Limit 85 - 115	nalyzed B repared B Rec. 98 RPD	y: AR y: AR Rec. Limit 85 - 115 RPD Limit
Chloride Percent reco Matrix Spi QC Batch: Prep Batch: Prep Batch: Param Chloride Percent reco Param Chloride Percent reco	ike (MS-1) 70599 60450 overy is based o overy is based o (CCV-1)	17200 on the spike result. Spiked Sample: 2 M Res 97. on the spike result. MSD Result 9820	mg/Kg RPD is 33156 Date A QC Pre S sult 50 RPD is Mg/Kg RPD is	g 100 based on nalyzed: paration: Units mg/Kg based on Dil. g 100 based on	the spike an 2010-06-03 2010-06-03 Dil. 100 the spike an Spike Amount 10000	d spike duy Spike Amount 10000 d spike duy Matrix Result <218	104 plicate re Mat Res <2 plicate re Rec. 98	esult. Ai Pi trix sult 18 esult. Rec. Limit 85 - 115 esult.	nalyzed B repared B Rec. 98 RPD	y: AR y: AR Rec. Limit 85 - 115 RPD Limit 20
Chloride Percent reco Matrix Spi QC Batch: Prep Batch: Prep Batch: Param Chloride Percent reco Param Chloride Percent reco Standard (ike (MS-1) 70599 60450 overy is based o overy is based o (CCV-1)	17200 on the spike result. Spiked Sample: 2 M M Res 97. on the spike result. MSD Result 9820 on the spike result.	mg/Kg RPD is 33156 Date A QC Pre S sult 50 RPD is Mg/Kg RPD is	g 100 based on nalyzed: paration: Units mg/Kg based on Dil. g 100 based on	the spike an 2010-06-03 2010-06-03 Dil. 100 the spike an Spike Amount 10000 the spike an 2010-06-01	d spike duy Spike Amount 10000 d spike duy Matrix Result <218	104 plicate re Mat Res <2 plicate re <u>98</u> plicate re	esult. Ai Pi trix sult 18 esult. Rec. Limit 85 - 115 esult.	nalyzed B repared B Rec. 98 RPD 1	y: AR y: AR Rec. Limit 85 - 115 RPD Limit 20
Chloride Percent reco Matrix Spi QC Batch: Prep Batch: Prep Batch: Param Chloride Percent reco Param Chloride Percent reco Standard (ike (MS-1) 70599 60450 overy is based o overy is based o (CCV-1) 70544	17200 on the spike result. Spiked Sample: 2 M Res 97. on the spike result. MSD Result 9820 on the spike result.	mg/Kg RPD is 33156 Date A QC Pre S sult 50 RPD is Units mg/Kg RPD is Date A	g 100 based on nalyzed: paration: Units mg/Kg based on Dil. g 100 based on nalyzed:	the spike an 2010-06-03 2010-06-03 Dil. 100 the spike an Spike Amount 10000 the spike an 2010-06-01 Vs	d spike du Spike Amount 10000 d spike du Matrix Result <218 d spike du	104 plicate re Mat Res <2 plicate re <u>8</u> plicate re	esult. Ai Pr trix sult 1 18 esult. Rec. Limit 85 - 115 esult.	nalyzed B repared B Rec. 98 RPD 1	y: AR y: AR Rec. Limit 85 - 115 RPD Limit 20 By: kg Date
Chloride Percent reco Matrix Spi QC Batch: Prep Batch: Prep Batch: Param Chloride Percent reco Param Chloride Percent reco Standard (ike (MS-1) 70599 60450 overy is based o overy is based o (CCV-1)	17200 on the spike result. Spiked Sample: 2 M M Res 97. on the spike result. MSD Result 9820 on the spike result.	mg/Kg RPD is 33156 Date A QC Pre Sult 50 RPD is Units mg/Kg RPD is Date A CCVs	g 100 based on nalyzed: paration: Units mg/Kg based on Dil. g 100 based on nalyzed: CC	the spike an 2010-06-03 2010-06-03 Dil. 100 the spike an Spike Amount 10000 the spike an 2010-06-01 Vs and nc.	d spike duy Spike Amount 10000 d spike duy Matrix Result <218 d spike duy	104 plicate re Mat Res <2 plicate re Rec. 98 plicate re	esult. Ai Pr trix sult 1 218 esult. Rec. Limit 85 - 115 esult. A Percent	nalyzed B repared B Rec. 98 RPD 1 Analyzed I Analyzed I	y: AR y: AR Rec. Limit 85 - 115 RPD Limit 20

Report Dat 114-640052	e: June 9, 2010 4			rk Order: 1005 Co-op South W	2814 ater Distribution		umber: 21 of 23 Idy County, NM
Standard	(CCV-2)						
QC Batch:	70544		Date An	alyzed: 2010-0	06-01	Ana	alyzed By: kg
			CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	290	116	80 - 120	2010-06-01
Standard	(ICV-1)						
QC Batch:	70559		Date Ana	lyzed: 2010-0	6-02	Anal	yzed By: AR
			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		mg/Kg	100	99.6	100	85 - 115	2010-06-02
Standard ((CCV-1)						
QC Batch:	70559		Date Ana	lyzed: 2010-0	6-02	Anal	yzed By: AR
			CCVs	CCVs	\mathbf{CCVs}	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		mg/Kg	100	100	100	85 - 115	2010-06-02
Standard ((CCV-1)						
QC Batch:	70574		Date Ana	lyzed: 2010-00	5-02	Anal	yzed By: AG
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/Kg	1.00	0.949	95	80 - 120	2010-06-02
Standard ((CCV-2)						
QC Batch:	70574		Date Ana	lyzed: 2010-06	5-02	Anal	yzed By: AG
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/Kg	1.00	1.01	101	80 - 120	2010-06-02

Report Date: 114-6400524	June 9, 2010			k Order: 10052 Co-op South Wa	2814 ater Distribution		umber: 22 of 23 Idy County, NM
\mathbf{S} tandard (I	CV-1)						
QC Batch: 7	70597		Date Ana	lyzed: 2010-06	5-03	Anal	lyzed By: AR
			ICVs	ICVs Found	ICVs Percent	Percent	Date
Param	Flag	Units	True Conc.	Found Conc.	Recovery	Recovery Limits	Analyzed
Chloride	r lag	mg/Kg	100	101	101	85 - 115	2010-06-03
Standard (C	CCV-1)						
QC Batch: 7			Date Ana	lyzed: 2010-06	5-03	Anal	yzed By: AR
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		mg/Kg	100	98.8	99	85 - 115	2010-06-03
Standard (I QC Batch: 7			Date Ana	lyzed: 2010-06	5-03	Anal	yzed By: AR
			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		mg/Kg	100	96.5	96	85 - 115	2010-06-03
Standard (C	CCV-1)						
QC Batch: 7	70598		Date Ana	lyzed: 2010-06	5-03	Anal	yzed By: AR
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		mg/Kg	100	104	104	85 - 115	2010-06-03
Standard (I	CV-1)						
QC Batch: 7	0599		Date Ana	lyzed: 2010-06	5-03	Anal	yzed By: AR
			ICVs	ICVs	ICVs	Percent	
_			True	Found	Percent	Recovery	Date
Param Chloride	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
		mg/Kg	100	101	101	85 - 115	2010-06-03

Report Da 114-640052	te: June 9, 2010 24	814 ater Distribution	Ŷ	umber: 23 of 23 ldy County, NM		
Standard	(CCV-1)					
QC Batch:	70599	Date Anal	yzed: 2010-06	5-03	Anal	yzed By: AR
		CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Recovery	Limits	Analyzed		
Chloride		85 - 115	2010-06-03			

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					1! N (4)	910 N. idland, 32) 682-4	Big Sp , Texa: 559 • F	FECH pring St. s 79705 fax (432) 68	82-3946									05 (Ext. to C35)		d Cr Pb Hg Se		TCLP Semi Volatiles								TDS		
CLIENT NA	ME:					SITE MAN	AGER:				SE		P		ERV		1	TX1005			s,			8260/624 8270/625						E		
COLA PROJECT N	IO.:		PRC	JECI		الم ال	<u> 1a</u>	warez			-IN	╎╎					-	6		S S	2	iles		/826(827						tions		
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LAB I.D. NUMBER	DATE	TIME	MATRIX	GRAB		Eddy	م AMPLE	NM IDENTIFIC	h Was Dia	stributu	NUMBER OF	FILTERED (Y/N)	HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD	PAH 8270	RCRA Metal	TCLP Volatil	TCLP Semi	RCI	GC.MS Vol. 8240/8260/624 GC.MS Sami. Vol. 8270/625	PCB's 8080/608	Pest. 808/60	Chloride	Alpha Beta (PLM (Asbestos)	Major Anions/Cations, pH, TDS		
233113	5/24		Ś	X	AH-1)-1'			1							X									X			П	\Box	
(14					<u> Ан-1</u>		1-	1.5'																								
115					AH-1		<u>_</u> 2-	<u>.2.5</u>						\square																Ш		
116					<u>44-1</u>		3-	3.5												•.												
(17		ļ			AH-1		4	-4.5																								
(18	<u> </u>				AH-1		5	5-5.5																								
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Analysis Bequest of Ch	s Request of Chain of Custody Red								PAGE: 그 OF: 식 ANALYSIS REQUEST						GE:	2			OF:	4	
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	Spring St. xas 79705 • Fax (432) 682-3946							15 (Ext. to C35)	Cr Pb Hg	d Vr Pd Hg Se									SQL		
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Analysis Request of Chain of Custody Record											PAGE: 3 OF: 4																						
												ANALYSIS REQUEST (Circle or Specify Method No.)																					
TETRATECH 1910 N. Big Spring St. Midland, Texas 79705 (432) 682-4559 • Fax (432) 682-3946														5 (Ext. to C35)			Vr Pd Hg									LDS							
CLIENT NAME: SITE MANAGER:										å	PRESERVATIVE				TX1005			Ba			624	/625					H.						
COLA IKA TAVAREZ PROJECT NO.: PROJECT NAME:									• ·	AINE		_	ME						2	2	8		3260	8270					suo				
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LAB I.D. NUMBER	100524 DATE					_	SITE MANAGER: I Ke Tavarez I NAME: (IT West Coop Smith Water Distr Eddy Co NM SAMPLE IDENTIFICATION AH-3 O-1			ION	NUMBER OF	FILTERED (\$	HCL	HN03	ICE	NONE	RTEX 8021B	421 8015	PAH 8270	RCRA Metals Ag /	TCLP Metals /	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi.	PCB's 8080/608 Pest. 808/608	Chloride)	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos) Major Anions/Cations, pH, TDS	F		
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