

### **AE Order Number Banner**

### **Report Description**

This report shows an AE Order Number in Barcode format for purposes of scanning. The Barcode format is Code 39.



**App Number:** pPLM0830331859

1RP - 1991

**CONOCO INC** 

District I
1625 N. French Dr., Joje N. 18248

District II
1301 W. Grand Avenue, Artesia, NM 88210

District III
1000 Rio Brazos Road, Ozec, NM 879102008

District IV
1220 S. St. Branca Br., Same Fc, NM 87505

Attach Additional Sheets If Necessary

State of New Mexico Energy Minerals and Natural Resources

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

Release Notification and Corrective Action

Form C-141 Revised October 10, 2003

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

					OI	PERATOR		1	<b>⊠</b> Initi	al Report		Final Repor
		onocoPhilli					hn W. Gates	-				
				nd, TX 79705-5	406		No. 505.391.31					
Facility Na	me MCA	Station 2 La	aguna			Facility Ty	e Oil and Ga	5				
Surface Ow	mer RI.N	f	***	Mineral C	wner	RIM			Lease N	No MDI 20	V) 2.E	0073400
But face Ove	HOL EPENY.			I Williotal C	WILOI	DEN			Louiso I	API 3	JUZE	00073400
			_	LOCA	TIC	ON OF RE	LEASE					
Unit Letter	Section	Township	Range	Feet from the	Nort	h/South Line	Feet from the	East/	West Line	County		
N	21	178	R32E							Lea		
		L	atitude	N 32degrees 48	.680	Longit	ude W 103deg	rees 4	6.484	L		
				NAT	URI	OF REL	EASE					
Type of Rele	ase	7001			Vol	lume of Releas	e		Volume F	Recovered		
Crude Oil						2bbl (422oil, 0			(332oil, 0			
Source of Re	lease				1	e and Hour of	Occurrence			Hour of Disc	overy	
Tank Was Immedi	4-37-4	2:0			_	24-08 0330	0		10-24-08	0630		
was immedi		es No	☐ Not 1	Required		ES, To Whom	!? NMOCD & Tris	hia Bad	Bear BL	И		
By Whom?				1			0-24-08 1600 hou					
Was a Water	course Read	hed?			-		mpacting the Water					
			Yes 🛛	No								_
If a Watercourse was Impacted, Describe Fully.*								• • • • • • • • • • • • • • • • • • • •				
Describe Cau Release wa				Taken.* roduction was b	olocke	ed. Tank was	isolated and sl	hut in.				
Describe Are	a Affected a	and Cleanup A	ction Tak	en.*								
Affected ar	ea was 2,8	00 feet long	X 8 feet	wide X 4 inche								
				ad and road. S							h NN	IOCD and
BLM guide	lines We	ell numbe	r API 3	0025007340	)0 is	the close	st well to the	rele	ase site			
regulations all public health should their of	operators or the environment in a	are required to conment. The ave failed to a ddition, NMO	report an acceptance dequately CD accept	is true and compl d/or file certain re e of a C-141 report investigate and re ance of a C-141 r	elease in the the the the the the the the the the	notifications ar he NMOCD mate contamination	nd perform correct arked as "Final Re on that pose a three the operator of r	tive acti eport" d eat to gr esponsi	ons for rele oes not reli ound water bility for co	eases which neve the opera , surface water ompliance with	nay en tor of er, hur th any	danger liability nan health
	/ ) /	/	,/	/			OIL CONS	SERV	ATION	DIVISIO	1	
Signature:	4Me	a W.	27	X			C	30	ohus	01		
Printed Name	1					Approved by	District Supervise	NME				
Title: HSER	Lead					Approval Dat	e: 10.29.0E	3 1	Expiration I	Date: 12 ·	29	· 08
E-mail Addre	ss: John.W	.Gates@cond	cophillips	s.com		Conditions of	'Approval:			Attached		
Date: 10-25	5-08	F	hone: 50	5.391.3158						IRP	.19	.91

### REMEDIATION PROPOSAL

### MCA LAGUNA RELEASE AREA

HOBBS OCD

NMOCD #1RP-1991

**EPI REF: 150035** 

MAY 0 6 2013

RECEIVED

UL-D (NW1/4 OF THE NW1/4) OF SECTION 28, T17S, R32E

~3.4 MILES SOUTHWEST OF MALJAMAR,

LEA COUNTY, NEW MEXICO

LATITUDE: N 32° 48' 39.87" LONGITUDE: W 103° 46' 28.50"

### **MAY 2012**

### PREPARED BY:

ENVIRONMENTAL PLUS, INC. 2100 AVENUE "O" P.O. Box 1558 **EUNICE, NEW MEXICO 88231** 

PREPARED FOR:

ConocoPhillips

### CONSULTING AND REMEDIAL CONSTRUCTION

10 May 2012

Mr. Geoffrey Leking Environmental Engineer New Mexico Oil Conservation Division 1265 North French Drive Hobbs, New Mexico 88240

RE: Remediation Proposal – MCA Laguna Release Area ConocoPhillips Corporation UL-D (NW1/4 of the NW1/4) of Section 28, T 17S, R 32 E Lea County, New Mexico Latitude: 32° 48' 39.87"; Longitude: 103° 46' 28.50" NMOCD Ref. #1RP-1991; EPI Ref. #150035

Dear Mr. Leking:

The below *Remediation Proposal* (*Proposal*) is designed to bring the above referenced Release Area into conformance with New Mexico Oil Conservation Division (NMOCD) Guidelines. References will be included to update NMOCD and Bureau of Land Management (BLM) representatives of previous remedial activities. For clarity and cross references elimination purposes, the *Proposal* includes *Release History, Site Background, Preliminary Field Work, Analytical Data and Procedures* and *Field Remediation Proposals*.

### Release History

Release of product from an open top tank has inundated the MCA Laguna Area several times. The initial release occurred in September 2008 when sixty-four (64) barrels of crude oil products were released over an unknown area. A Form C-141 was submitted to the NMOCD on September 19, 2008.

The second release occurred in October 2008 when four hundred twenty-two (422) barrels of crude oil products were released covering a surface area of  $\pm 22,400$  square feet of dry pasture land with no livestock present. In addition to pasture land, the release covered  $\pm 4,900$  square feet of caliche pad and road. A Form C-141 was submitted to the NMOCD on October 25, 2008 and approved on October 29, 2008. However, other than surficial cleanup, no remedial activities were undertaken.

### Site Background

The site is located in UL-D (NW1/4 of the NW1/4) of Section 28, T17S, R32E at an approximate elevation of 3,985-feet above mean sea level (amsl). The property is owned by the Department of the Interior and managed by the Bureau of Land Management (BLM). A search for water wells was completed utilizing the <u>New Mexico Office of the State Engineers</u> website and a database maintained by the United States Geological Survey (USGS). One monitor well (MW-8) exists approximately 570-feet northeast of the Release Area (Ref. MW-8 Exploratory Boring Log). A playa exist ±0.5-miles southwest of the Release Area. Groundwater data indicates the average



water depth is approximately 77-feet below ground surface (bgs). Based on available information, vertical distance between impacted soil and groundwater is approximately 55-feet. Utilizing this information, NMOCD Remedial Threshold Goals (NMOCD Goals) were determined as follows:

Parameter	Remedial Goal
Benzene	10 mg/Kg
BTEX	50 mg/Kg
TPH	1,000 mg/Kg
Chlorides	250 mg/Kg

### Field Work

On October 14, 2008 four (4) backhoe sample trenches (BH-1 thru BH-4) were excavated in the release area to depths not exceeding fourteen (14) feet bgs. At that elevation TPH concentrations were 11,200 mg/Kg (Ref. *Table 3*).

On January 29, 2009 three (3) soil sample trenches (BH) were excavated and five (5) hand augered soil borings were advanced to various depths not exceeding eighteen (18) feet bgs. With the exception of BS-1, all BHs and hand auger soil borings were completed to depths where TPH concentrations were within NMOCD Goals. No field or laboratory analyses were conducted for chloride concentrations. However, as BS-1 and BH-1 were advanced in the same locale, it was concluded the area was an old pit used to dispose of tank bottom waste material not representative of general Release Area findings. (Ref. *Table 3*).

On November 23, 2010 two (2) soil borings and eight (8) hand auger soil borings were advanced to various depths not exceeding forty (40) feet bgs. With respect to TPH and chloride concentrations, SB-1 and SB-2 came into compliance with NMOCD Goals at thirty (30) feet and ten (10) feet bgs respectively. All hand auger soil borings came into compliance with NMOCD Goals for TPH concentrations at 4-feet bgs (Ref. *Table #3*)

EPI mobilized to the Release Area on February 24, 2012 and advanced thirteen (13) hand auger soil borings to various depths. Field locations of the hand auger soil borings were coincidental with soil sample locations on October 2008, January 2009 and November 2010 soil sample events. Intent of hand auger soil borings was advancement until NMOCD Goals were achieved or penetration refusal encountered. Results of field and laboratory analyses are noted on *Table* #4.

### Analytical Data and Procedures

In reviewing Table 4, Summary of Hand Auger Soil Sample Field Analyses and Laboratory Analytical Results, chloride concentration elevated above NMOCD Goals exists only in HA-3 to a depth of 6-feet bgs. TPH concentrations elevated above NMOCD Goals exist primarily in HA-1 through HA-7 and HA-9 areas.



A portion of select soil samples will be field tested for organic vapors and chloride concentrations. Soil samples collected for field testing of organic vapors are placed in self sealing polyethylene bags and allowed to equilibrate to ~70° F. Soil samples tested for organic vapors utilizing a MiniRae<sup>TM</sup> Photoionization Detector (PID) equipped with a 10.6 electron-volt (eV) lamp calibrated for benzene response. Chloride concentrations will be determined via use of a LaMotte Chloride Kit (Titration Method).

Soil samples designated for laboratory analyses will be immediately inserted into laboratory provided containers, labeled, placed in coolers, iced down and transported to an independent laboratory for quantification of TPH [Gasoline Range Organics (C6-C12), Diesel Range Organics (>C12-C28) and Oil Range Organics (>C28-C35)] and chloride concentrations under Chain-of-Custody protocol.

### Site Remedial Proposal

After issuance of a "One Call", EPI will construct a temporary caliche road on the release ephemeral flow path (Release Area) from soil sample points HA-1 through HA-7 as noted on *Figure #4*. (Note – HA-9 is located at the junction of the flow path and an existing caliche lease road). A hydro-excavator will excavate a trench along the edge of the temporary caliche road the entire distance from HA-1 to HA-7 to expose marked and potential unmarked pipelines. Once completed, a pipe locator will be connected to each metallic line tracing and marking it the entire width of the Release Area.

Excavation and backfilling the Release Area between sample points HA-1 and HA-7 will require extreme care to avoid damaging pipelines. Portions of the Release Area which lie within the caliche pad surrounding the open top tank will not be excavated due to potential foundation instability. Whenever the open top tank is placed out of service and removed, the entire caliche pad will be reclaimed. Release Area between HA-1 and HA-4 will be excavated to a depth where TPH concentrations achieve NMOCD Goals, but not to exceed a maximum depth of eight (8) feet bgs. Should the excavation bottom display TPH concentrations elevated above NMOCD Goals at this depth, a minimum two (2) feet thick compacted clay barrier will be installed. TPH concentrations in the Release Area between HA-4 and HA-7 indicate NMOCD Goals should be achieved at a maximum depth of four (4) to six (6) vertical feet. However, if TPH concentrations do not attain NMOCD Goals at this depth, the maximum eight (8) vertical feet proposed limit and compacted clay barrier should be implemented. All impacted material will be transported to a State approved land farm.

Upon completion of the above activities, excavation of the pit containing possible tank bottom residue will commence. Existing buried pipelines may hamper or limit excavation width and depth. In noting laboratory analytical data from SB-1 (*Table #3*), impacted material exists from ground surface to 20-30 feet bgs. Cognizant of the hazards in this locale, recommended maximum limits on depth of excavation terminate at eight (8) feet bgs with horizontal boundaries for TPH concentrations dictated by NMOCD Goals or obstacles detrimental to safety of employees. Upon completion, a minimum two (2) feet thick compacted clay barrier will be installed over the excavation bottom. Remainder of the excavation will be backfilled with sandy loam soil to original ground surface.



Release Area between sample points HA-7 and HA-8 shouldn't require any excavation. Similarly, the area surrounding soil sample point HA-9 should cleanup at a depth of four (4) to six (6) vertical feet in areas east of existing caliche road. Discolored "fingers" within the caliche road will be excavated approximately two (2) vertical feet and a width which removes impacted material. Clean caliche will be placed in the excavated area, watered and wheel rolled for compaction However, EPI is of the opinion major remediation of the north-south lease road is not warranted.

The Release Area surrounding HA-13 is a reclaimed production pit covered with an earthen cap. Due to the pit surface possibly being covered with a polyethylene liner, EPI recommends discing the entire area a maximum depth of two (2) to three (3) vertical feet and apply a six (6) percent solution of Micro-Blaze solution over the disturbed area. Seeding of the area will comply with conditions as described below.

Certain areas adjacent with the Release Area flow path contain asphaltine and soil discoloration. To induce vegetative growth, EPI recommends surficial cleanup of these areas a maximum depth of one (1) foot. Spray a six (6) percent solution of Micro-Blaze over the disturbed area and backfill the excavation with clean sandy loam. However, this procedure should apply only to those areas which are contiguous with the Release Area flow path. Discing and seeding of these areas will comply with conditions as described below.

Back fill material will be as directed by the BLM, i.e., preferably clean top soil or sandy loam from a nearby source. Whichever material is used will be free of deleterious material, large clumps or rocks. Once backfill operations are completed, disturbed area will be contoured to natural gradient, promote adequate surface drainage and protection from wind/water erosion. Entire disturbed areas will be disced if possible. Discing over disturbed areas which contain buried or surface pipelines may not be possible. Hence, a light tractor and harrow may be used. Following harrowing or discing activities, the areas will be deep seed drilled with a blend approved by the BLM. Dependent on buried or surface pipelines, certain areas may have seed ":hand sown". With near drought conditions, it is recommended seeding operations undertaken only when ground and weather conditions are conducive to vegetative growth

Following closure and acceptance of the area by BLM and NMOCD representatives, EPI will submit a *Final Closure Report* to BLM, NMOCD and ConocoPhillips personnel.

Should you have questions, concerns or need additional technical information, please contact me at (575) 394-3481 (office), (575) 441-7802 (cellular) or via e-mail at dduncanepi@gmail.com.

Official communications should be directed to Mr. John W. Gates at (575) 391-3158 (office), (575) 390-4821 (cellular) or via e-mail at <u>John.W.Gates@conocophillips.com</u> with correspondence addressed to:

Mr. John W. Gates ConocoPhillips Company Lead HSE - Permian-Buckeye Operations 29 Vacuum Complex Lane Lovington, New Mexico 88260-9664



Sincerely,

ENVIRONMENTAL PLUS, INC.,

David P. Duncan Civil Engineer

EPI Project Manager

Cc: John W. Gates, Lead HSE - ConocoPhillips Company

Ms. Trisha C. Bad Bear, Natural Resources Specialist - Bureau of Land Management

Justin Wright, Contract Person – ConocoPhillips Company

Cody Miller, General Manager – EPI

Roger Boone, Operations Manager - EPI

Encl: Figure 1 – Area Map

Figure 2 – Site Location Map

Figure 3 – Release Area Site Map

Figure 4 – Soil Sample Site Map (EPI and Tetra Tech)

Table 3 – Historical Summary of Exploratory Soil Sample Field Analyses and Laboratory Analytical Results (10-14-08, 1-29-09 and 10-23-10)

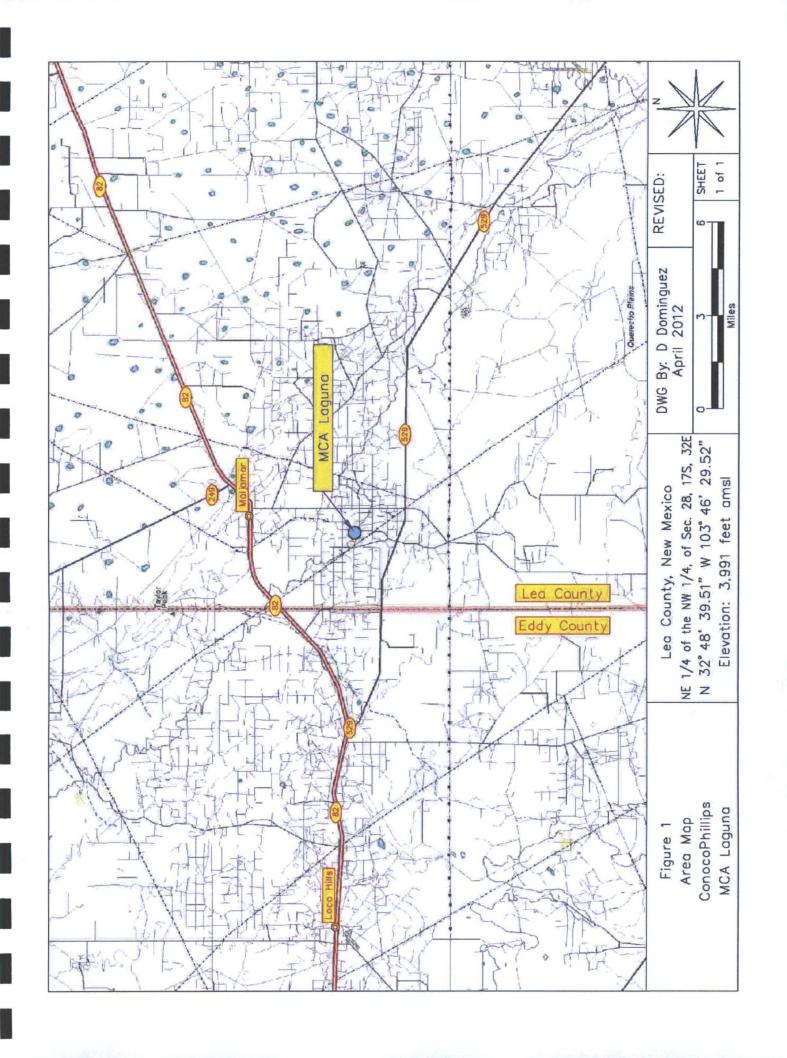
Table 4 – Summary of Hand Auger Soil Samples Field and Laboratory Analytical Results (2-24-12 and 2-27-12)

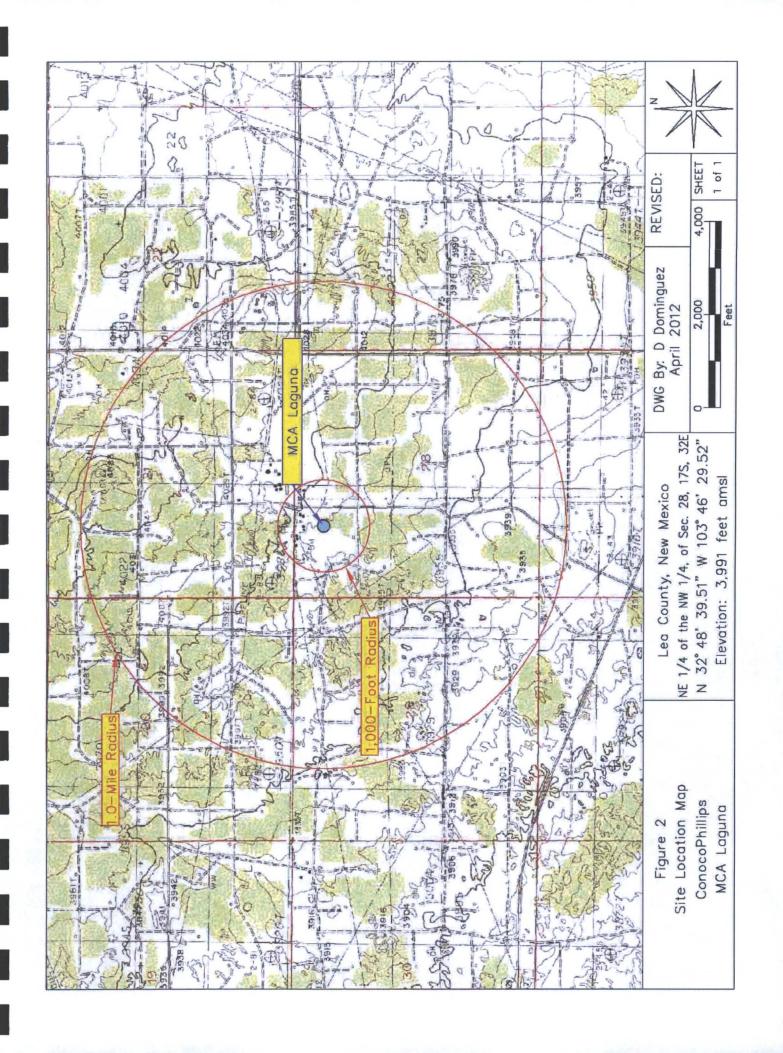
Attachment I – Site Photographs (N/I)

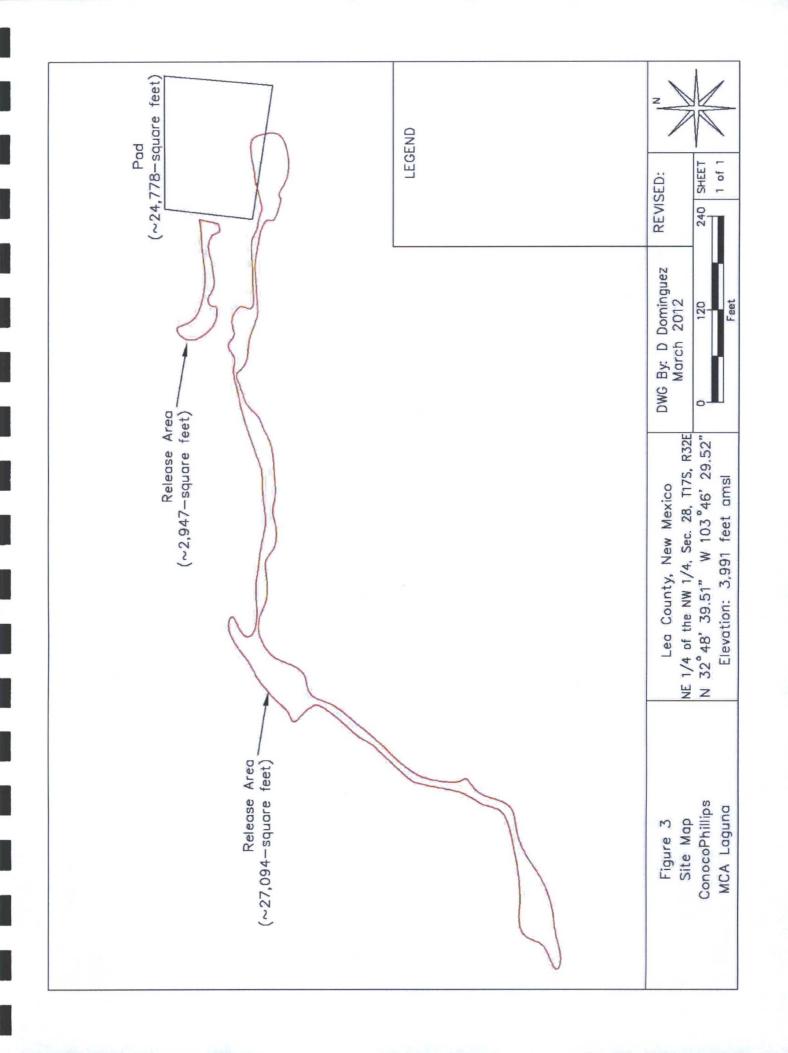
Attachment II – Laboratory Analytical Results and Chain-of-Custody Forms (2-24-12 and 2-27-12)

Attachment III - MW-8 Exploratory Boring Log

Attachment IV - Copy of Initial NMOCD Form C-141







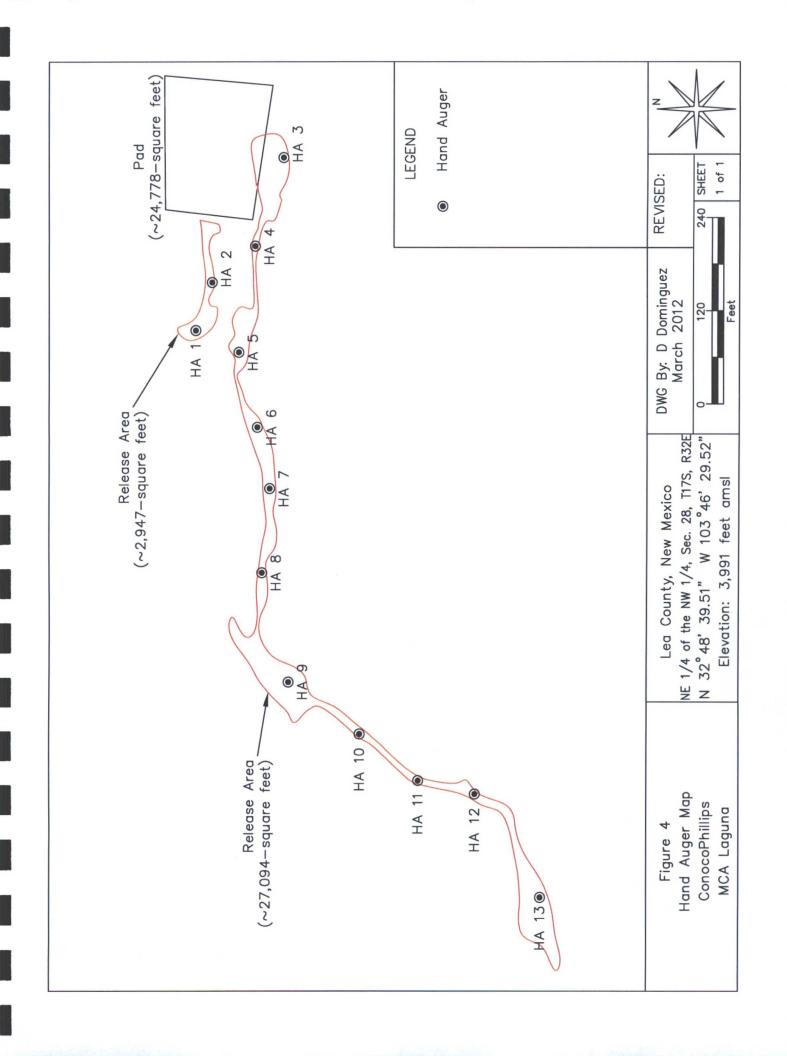




TABLE 3
Historical Summary of Exploratory Soil Sample Field and Laboratory Analytical Results

Conoco Phillips Corporation

Project: MCA Laguna Release Area (NMOCD Ref. #1RP 1991; EPI Ref. #150035) UL-D (SW1/4 of the NW1/4) of Section 28, T17S, R32E; Lea County, New Mexico

Chloride (mg/Kg)	ND	95.1	195	ND	ND	ND	13.2	ND	85.7	-	-	-	1	:	1	-
Total TPH (C6-C35) (mg/Kg)	3,450	4490	11,200	4,440	QN QN	270	7.10	5,930	43.6	3,640	QN	4,630	31.0	3,200	291	4,160
TPH (C28-C35) (mg/Kg)	:	:	:	:	:	;	:	:	:		+	1	;	;	1	:
TPH >(C10-C28) (mg/Kg)	3,000	4,300	009'6	4,400	ND	270	7.10	5,000	42.0	740	ND	230	ON	009	09:0	260
TPH (C6-C10) (mg/Kg)	450	190	1600	40.0	ND	ND	ND	930	1.60	2,900	ND	4,400	31.0	2,600	290	3,900
Total BTEX (mg/Kg)	4.54	9.52	111.6	86.0	ND	ND	ND	37.7	0.01	80.2	QN	29.5	QN	37.9	QN.	8.84
Total Xylenes (mg/Kg)	2.39	5.19	46.0	69.0	ND	ND	ND	16.5	ND	42.0	QN	15.7	QN	20.4	QN	7.70
Ethylbenzene (mg/Kg)	1.90	4.10	48.0	0.26	ND	ND	ND	17.0	0.01	28.0	ND	10.0	ON	0.11	QN	06'0
Toluene (mg/Kg)	0.24	0.13	09.9	0.02	ND	ND	ND	4.10	ND	08'6	QN	3.70	ND	96'9	ON	0.20
Benzene (mg/Kg)	0.01	0.10	11.0	0.01	ND	ND	ND	0.03	ND	0.42	QN	80.0	ON	0.56	QN	0.04
Field Chloride Analyses (mg/Kg)	:	:	:	:	;	:	:	:	:	:			:		-	:
PID Field Analysis (ppm)	;	:	;	1	;	;	1	;	:	:	1	+	-	-	-	
Sample Date	14-Oct-08	29-Jan-09														
Soil Status	In Situ															
Depth (feet)	0.5	4	14	0.5	2	0.5	4	0.5	4	18	9	0.5	9	0.5	9	0.5
Sample I.D.	BH-1	BH-1	BH-1	BH-2	BH-2	BH-3	BH-3	BH-4	BH-4	BS-1	BS-3	AH-4	AH-4	AH-5	AH-S	AH-6

TABLE 3
Historical Summary of Exploratory Soil Sample Field and Laboratory Analytical Results

Conoco Phillips Corporation

Project: MCA Laguna Release Area (NMOCD Ref. #1RP 1991; EPI Ref. #150035) UL-D (SW1/4 of the NW1/4) of Section 28, T17S, R32E; Lea County, New Mexico

Chloride (mg/Kg)	:	:	:	:	:	;	337	195	104	0.69	55.0	11.0	218	84.6	246	310
Total TPH (C6-C35) (mg/Kg)	131	4,014	3965	3,200	14.0	8	6,100	4,808	3403	126.	780	22,000	55.0	880	170	65.0
TPH (C28-C35) (mg/Kg)	:	:		:	:	1	;	:	:	:	:	:	:	:	:	:
TPH >(C10-C28) (mg/Kg)	08.0	14.0	4.80	0.40	QN	QN QN	QN ON	7.50	3.20	9.0	ND	ND	ND	QN	QN QN	ND
TPH (C6-C10) (mg/Kg)	130	4,000	360	3,200	14.0	ND	6,100	4,800	3,400	970	780	22,000	55.0	880	170	65.0
Total BTEX (mg/Kg)	0.005	5.15	0.034	0.026	ON	QN.	0.005	0.564	0.081	0.026	ND	ND	ND	ND	ND	ND
Total Xylenes (mg/Kg)	0.003	3.30	0:030	0.020	QN	ND	0.002	0.475	0.035	0.012	ND	ND	ND	ND	ND	ND
Ethylbenzene (mg/Kg)	0.002	1.40	0.004	0.003	QN	ND	QN	0.052	0.027	0.011	ND	ND	ND	ND	ND	ND
Toluene (mg/Kg)	QN	0.44	QN	0.003	ON	QN	ON	0.008	0.007	ND						
Benzene (mg/Kg)	QN	10'0	QN	QN	ON	ND	0.003	0.029	0.012	0.003	ND	ND	ND	ND	ND	ND
Field Chloride Analyses (mg/Kg)	•		:	:	:		:	:	:	:	:	:	;	:	:	:
PID Field Analysis (ppm)		:	:	:	•		:	:	:	:	:	:	:	:	:	:
Sample Date	29-Jan-09	29-Jan-09	29-Jan-09	29-Jan-09	29-Jan-09	29-Jan-09	23-Nov-10									
Soil Status	In Situ															
Depth (feet)	4	0.5	2	5.0	2	3	0.5	10	20	30	40	0.5	10	20	30	40
Sample I.D.	9-HV	AH-7	AH-7	AH-8	8-HV	BS-9	SB-1	SB-1	SB-1	SB-1	SB-1	SB-2	SB-2	SB-2	SB-2	SB-2

TABLE 3

# Historical Summary of Exploratory Soil Sample Field and Laboratory Analytical Results

Conoco Phillips Corporation

Project: MCA Laguna Release Area (NMOCD Ref. #1RP 1991; EPI Ref. #150035)

UL-D (SW1/4 of the NW1/4) of Section 28, T17S, R32E; Lea County, New Mexico

Sample I.D.	Depth (feet)	Soil Status	Sample Date	PID Field Analysis (ppm)	Field Chloride Analyses (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	TPH (C6-C10) (mg/Kg)	TPH >(C10-C28) (mg/Kg)	TPH (C28-C35) (mg/Kg)	Total TPH (C6-C35) (mg/Kg)	Chloride (mg/Kg)
HA-9	0.5	In Situ	23-Nov-10	:	:	ND	ND	QN	0.010	0.010	2,800	08.0	:	2,801	14.8
HA-9	2	In Situ	23-Nov-12	:	;	ND	ND	ND	0.03	0.03	2,000	0.70	:	2,001	8.1
HA-9	4	In Situ	23-Nov-10	:	:	ND	ND	ND	ND	ND	210	ND	:	210	10.1
HA-10	0.5	In Situ	23-Nov-10	:	:	ND	ND	ND	ND	ND	920	ND	;	920	1,600
HA-10	2	In Situ	23-Nov-10	:	:	ND	ND	ND	ND	QN	500	ND	:	200	939
HA-10	4	In Situ	23-Nov-10	:	:	ND	ND	ND	ND	ND	ND	ND	1	QN	134
HA-11	0.5	In Situ	23-Nov-10	:	:	ND	ND	ND	ND	ND	2,700	ND	:	2,700	1,400
HA-11	2	In Situ	23-Nov-10	:	:	ND	ND	ND	ND	ND	1,300	ND	:	1,300	1,840
HA-11	4	In Situ	23-Nov-10	:	:	ND	ND	ND	ND	ND	200	ND	-:	200	2,370
HA-12	0.5	In Situ	23-Nov-10	:	:	ND	ND	ND	ND	ND	3,100	ND	;	3,100	10.7
HA-12	2	In Situ	23-Nov-10	:	:	ND	ND	ND	ND	ND	150	ND	;	150	37.0
HA-12	4	In Situ	23-Nov-10	;	:	ND	ND	ND	ND	QN	25.0	ND	:	25.0	83.7
HA-14	0.5	In Situ	23-Nov-10	:	;	ND	ND	ND	ND	QN	1,800	ND	:	1,800	12.4
HA-14	2	In Situ	23-Nov-10	:	:	ND	ND	ND	ND	ND	210	ND	;	210	10.0
HA-15	0.5	In Situ	23-Nov-12	:		ND	ND	ND	ND	ND	2,500	ND	;	2,500	6.50
HA-15	2	In Situ	23-Nov-10	:	:	ND	ND	ND	ND	ND	14.0	ND	:	14.0	9.20



Environmental Plus, Inc. David P. Duncan P.O. Box 1558 Eunice NM, 88231

Fax To: (505) 394-2601

Received:

02/28/2012

Sampling Date: Sampling Type: 02/24/2012

Reported:

03/05/2012

Soil

Project Name:

MCA LAGUNA RELEASE AREA

Sampling Condition:

Cool & Intact

Project Number:

**CONOCO PHILLIPS 150035** 

Sample Received By:

Celey D. Keene

Project Location:

UL-D, SEC 28, T17S, R32E

### Sample ID: HA-3 (2') (H200521-05)

Chloride, SM4500CI-B	mg/	'kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	848	16.0	02/28/2012	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<100	100	03/01/2012	ND	195	97.3	200	14.9	
DRO >C10-C28	360	100	03/01/2012	ND	190	95.1	200	8.05	
Surrogate: 1-Chlorooctane	91.1	% 55.5-15	4						
Surrogate: 1-Chlorooctadecane	98.9	% 57.6-15	8						

### Sample ID: HA-3 (4') (H200521-06)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	352	16.0	02/28/2012	ND	416	104	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<100	100	03/01/2012	ND	195	97.3	200	14.9	
DRO >C10-C28	1140	100	03/01/2012	ND	190	95.1	200	8.05	
Surrogate: 1-Chlorooctane	74.0	% 55.5-15	4						
Surrogate: 1-Chlorooctadecane	84.7	% 57.6-15	8						

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Fax To:

(505) 394-2601

Received:

02/28/2012

Reported:

03/05/2012

Sampling Date:

02/24/2012

Sampling Type:

Soil

Project Name:

MCA LAGUNA RELEASE AREA

Sampling Condition:

Cool & Intact

Project Number: Project Location:

Analyte

**CONOCO PHILLIPS 150035** UL-D, SEC 28, T17S, R32E

Sample Received By:

Celey D. Keene

Sample ID: HA-3 (6') (H200521-07)

Chloride, SM4500CI-B

mg/kg

Result

Analyzed By: AP

Method Blank

ND

ND

BS % Recovery True Value QC

**RPD** Qualifier

Chloride **TPH 8015M** 

240 mg/kg

Analyzed By: MS

Analyzed

02/28/2012

03/01/2012

416

190

400

0.00

Analyte GRO C6-C10

Reporting Limit Result <100 100 03/01/2012

100

Reporting Limit

16.0

Analyzed

Method Blank ND

BS % Recovery 195 97.3

104

95.1

True Value QC 200

200

RPD 14.9

8.05

Qualifier

DRO >C10-C28

Surrogate: 1-Chlorooctane

88.4 %

2590

55.5-154

Surrogate: 1-Chlorooctadecane

98.1%

108 %

57.6-158

57.6-158

### Sample ID: HA-4 (2') (H200521-08)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	02/28/2012	ND	416	104	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<50.0	50.0	03/01/2012	ND	195	97.3	200	14.9	
DRO >C10-C28	605	50.0	03/01/2012	ND	190	95.1	200	8.05	
Surrogate: 1-Chlorooctane	66.4	% 55.5-15	4						

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Surrogate: 1-Chlorooctadecane

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02/24/2012

Reported:

03/05/2012

Soil

Project Name:

Sampling Type:

Project Number:

MCA LAGUNA RELEASE AREA CONOCO PHILLIPS 150035

Sampling Condition: Sample Received By: Cool & Intact Celey D. Keene

Project Location:

Analyte

UL-D, SEC 28, T17S, R32E

Sample ID: HA-5 (2') (H200521-09)

Chloride, SM4500CI-B

mg/kg

Result

<16.0

Analyzed By: HM

Method Blank

ND

ND

ND

% Recovery

True Value QC

RPD Qualifier

Chloride **TPH 8015M** 

mg/kg

Analyzed By: MS

Analyzed

02/29/2012

416

BS

104

0.00

8.05

Analyte Result Reporting Limit

Reporting Limit

16.0

Analyzed

Method Blank

BS % Recovery

True Value QC

**RPD** 

Qualifier

GRO C6-C10

DRO >C10-C28

<50.0 369

50.0 03/01/2012 50.0 03/01/2012 195 190 97.3 95.1 200

400

200

14.9

Surrogate: 1-Chlorooctane

64.2 %

55.5-154

Surrogate: 1-Chlorooctadecane

102 %

82.1 %

57.6-158

57.6-158

### Sample ID: HA-5 (4') (H200521-10)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/29/2012	ND	416	104	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/01/2012	ND	195	97.3	200	14.9	
DRO >C10-C28	29.0	10.0	03/01/2012	ND	190	95.1	200	8.05	
Surrogate: 1-Chlorooctane	73.2	% 55.5-15	4						

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Surrogate: 1-Chlorooctadecane

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Project Location:

UL-D, SEC 28, T17S, R32E

Sampling Date:

02/24/2012

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Celey D. Keene

### Sample ID: HA-6 (2') (H200521-11)

Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/29/2012	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/01/2012	ND	195	97.3	200	14.9	
DRO >C10-C28	11.1	10.0	03/01/2012	ND	190	95.1	200	8.05	
Surrogate: 1-Chlorooctane	77.5	% 55.5-15	4						
Surrogate: 1-Chlorooctadecane	88.6	% 57.6-15	8						

### Sample ID: HA-7 (2') (H200521-12)

	,								
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/29/2012	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<100	100	03/01/2012	ND	195	97.3	200	14.9	
DRO >C10-C28	4240	100	03/01/2012	ND	190	95.1	200	8.05	
Surrogate: 1-Chlorooctane	85.6	% 55.5-15	4						
Surrogate: 1-Chlorooctadecane	260 9	% 57.6-15	8						

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Sampling Type:

Soil

Project Name:

MCA LAGUNA RELEASE AREA

Sampling Condition:

Cool & Intact

Project Number:

CONOCO PHILLIPS 150035

Sample Received By: Celey D. Keene

Project Location:

UL-D, SEC 28, T17S, R32E

### Sample ID: HA-7 (4') (H200521-13)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/29/2012	ND	416	104	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/01/2012	ND	195	97.3	200	14.9	
DRO >C10-C28	207	10.0	03/01/2012	ND	190	95.1	200	8.05	
Surrogate: 1-Chlorooctane	78.2	% 55.5-15	4						
Surrogate: 1-Chlorooctadecane	89.6	% 57.6-15	8						

### Sample ID: HA-8 (2') (H200521-14)

Chloride, SM4500CI-B	mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/29/2012	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<50.0	50.0	03/01/2012	ND	195	97.3	200	14.9	
DRO >C10-C28	257	50.0	03/01/2012	ND	190	95.1	200	8.05	
Surrogate: 1-Chlorooctane	70.2	% 55.5-15	4						
Surrogate: 1-Chlorooctadecane	76.5	% 57.6-15	8						

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02/27/2012

Reported:

03/05/2012

Sampling Type:

Soil

Project Name:

MCA LAGUNA RELEASE AREA

Sampling Condition:

Cool & Intact

Project Number:

CONOCO PHILLIPS 150035

Sample Received By:

Celey D. Keene

Project Location:

UL-D, SEC 28, T17S, R32E

### Sample ID: HA-8 (4') (H200521-15)

Chloride, SM4500CI-B	mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/29/2012	ND	432	108	400	3.64	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/01/2012	ND	195	97.3	200	14.9	
DRO >C10-C28	17.5	10.0	03/01/2012	ND	190	95.1	200	8.05	
Surrogate: 1-Chlorooctane	83.2	% 55.5-15	4						
Surrogate: 1-Chlorooctadecane	92.0	% 57.6-15	8						

### Sample ID: HA-9 (2') (H200521-16)

Chloride, SM4500CI-B	mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/29/2012	ND	432	108	400	3.64	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<100	100	03/01/2012	ND	202	101	200	9.46	
DRO >C10-C28	4300	100	03/01/2012	ND	201	101	200	9.80	
Surrogate: 1-Chlorooctane	88.3	% 55.5-15	4						
Surrogate: 1-Chlorooctadecane	106	% 57.6-15	8						

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Project Name: Project Number: MCA LAGUNA RELEASE AREA **CONOCO PHILLIPS 150035** 

Project Location:

UL-D, SEC 28, T17S, R32E

Sampling Date:

Sampling Type:

Sampling Condition:

Soil Cool & Intact

Celey D. Keene

02/27/2012

Sample Received By:

Sample ID: HA-9 (4') (H200521-17)

Chloride, S	M4500CI-B
-------------	-----------

### ma/ka

### Analyzed By: AP

Chioride, 3M4300Cl-B	ilig/	ky	Allalyze	Allalyzeu by. Ar					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	02/29/2012	ND	432	108	400	3.64	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/01/2012	ND	202	101	200	9.46	
DRO >C10-C28	152	10.0	03/01/2012	ND	201	101	200	9.80	

Surrogate: 1-Chlorooctane

73.0 %

55.5-154

Surrogate: 1-Chlorooctadecane

84.6 %

57.6-158

### Sample ID: HA-10 (2') (H200521-18)

Chloride, SM4500CI-B	mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/29/2012	ND	432	108	400	3.64	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/01/2012	ND	202	101	200	9.46	
DRO >C10-C28	<10.0	10.0	03/01/2012	ND	201	101	200	9.80	
Surrogate: 1-Chlorooctane	83.4	% 55.5-15	4						
Surrogate: 1-Chlorooctadecane	90.8	% 57.6-15	8						

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Reported: Project Name: Project Number:

MCA LAGUNA RELEASE AREA CONOCO PHILLIPS 150035

Project Location:

UL-D, SEC 28, T17S, R32E

Sampling Date:

Sampling Type:

02/27/2012

Soil

Sampling Condition: Sample Received By: Cool & Intact

Celey D. Keene

### Sample ID: HA-10 (4') (H200521-19)

Chloride, SM4500Cl-B	mg/kg		Analyze	Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/29/2012	ND	432	108	400	3.64	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/02/2012	ND	202	101	200	9.46	
DRO >C10-C28	<10.0	10.0	03/02/2012	ND	201	101	200	9.80	
Surrogate: 1-Chlorooctane	82.3	% 55.5-15	4						
Surrogate: 1-Chlorooctadecane	92.5	% 57.6-15	8						

### Sample ID: HA-11 (2') (H200521-20)

Chloride, SM4500CI-B	mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/29/2012	ND	432	108	400	3.64	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/02/2012	ND	202	101	200	9.46	
DRO >C10-C28	72.3	10.0	03/02/2012	ND	201	101	200	9.80	
Surrogate: 1-Chlorooctane	83.7	% 55.5-15	4						
Surrogate: 1-Chlorooctadecane	90.6	% 57.6-15	8						

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02/27/2012

Reported:

03/05/2012

Sampling Type:

Soil

Project Name:

MCA LAGUNA RELEASE AREA

Cool & Intact

Project Number:

**CONOCO PHILLIPS 150035** 

Sample Received By:

Celey D. Keene

Project Location:

UL-D, SEC 28, T17S, R32E

Sample ID: HA-11 (4') (H200521-21)

Chloride, SM4500CI-B	mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/29/2012	ND	432	108	400	3.64	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GR() C6-C10	<10.0	10.0	03/02/2012	ND	202	101	200	9.46	
DRO >C10-C28	22.9	10.0	03/02/2012	ND	201	101	200	9.80	
Surrogate: 1-Chlorooctane	81.1	% 55.5-15	4						

91.1% Surrogate: 1-Chlorooctadecane 57.6-158

### Sample ID: HA-12 (2') (H200521-22)

Chloride, SM4500CI-B	mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	02/29/2012	ND	432	108	400	3.64	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/02/2012	ND	202	101	200	9.46	
DRO >C10-C28	31.5	10.0	03/02/2012	ND	201	101	200	9.80	
Surrogate: 1-Chlorooctane	82.3	% 55.5-15	4						
Surrogate: 1-Chlorooctadecane	89.0	% 57.6-15	8						

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02/27/2012

Reported:

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Sampling Type:

Soil

Project Name:

MCA LAGUNA RELEASE AREA

Sampling Type.
Sampling Condition:

Cool & Intact

Project Number:

CONOCO PHILLIPS 150035

Sample Received By:

Celey D. Keene

Project Location:

UL-D, SEC 28, T17S, R32E

### Sample ID: HA-12 (4') (H200521-23)

Chloride, SM4500CI-B	mg/kg		Analyze	Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	02/29/2012	ND	432	108	400	3.64	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/02/2012	ND	202	101	200	9.46	
DRO >C10-C28	15.5	10.0	03/02/2012	ND	201	101	200	9.80	
Surrogate: 1-Chlorooctane	81.4	% 55.5-15	4						
Surrogate: 1-Chlorooctadecane	88.0	% 57.6-15	8						

### Sample ID: HA-12 (6') (H200521-24)

Chloride, SM4500CI-B	mg/kg		Analyzed By: AP							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	02/29/2012	ND	432	108	400	3.64		
TPH 8015M	mg	/kg	Analyze	d By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	03/02/2012	ND	202	101	200	9.46		
DRO >C10-C28	35.2	10.0	03/02/2012	ND	201	101	200	9.80		
Surrogate: 1-Chlorooctane	74.2	% 55.5-15	4							
Surrogate: 1-Chlorooctadecane	81.5	% 57.6-15	8							

### Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



Environmental Plus, Inc. David P. Duncan P.O. Box 1558 Eunice NM, 88231

Fax To: (505) 394-2601

Received:

02/28/2012

Result

16.0

<10.0

57.3

Sampling Date: Sampling Type: 02/27/2012

Reported:

03/05/2012

Soil

Project Name: Project Number: MCA LAGUNA RELEASE AREA CONOCO PHILLIPS 150035

Sampling Condition: Sample Received By: Cool & Intact Celey D. Keene

Project Location:

Analyte

UL-D, SEC 28, T17S, R32E

Sample ID: HA-13 (2') (H200521-25)

Chloride, SM4500CI-B

mg/kg

Reporting Limit

16.0

10.0

10.0

Analyzed By: AP

Analyzed

03/02/2012

03/02/2012

Method Blank 02/29/2012

BS 432 % Recovery 108

True Value QC

**RPD** Qualifier 3.64

**TPH 8015M** 

Chloride

Analyte

mg/kg Result

Reporting Limit Analyzed

Analyzed By: MS Method Blank

ND

ND

ND

RS

202

201

% Recovery

101

101

400 True Value QC

200

200

RPD

9.46

9.80

Qualifier

GRO C6-C10 DRO >C10-C28

Surrogate: 1-Chlorooctane

82.3 %

55.5-154

Surrogate: 1-Chlorooctadecane

97.1%

57.6-158

### Sample ID: HA-13 (4') (H200521-26)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AP					_
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	02/29/2012	ND	432	108	400	3.64	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/02/2012	ND	202	101	200	9.46	
DRO >C10-C28	11.1	10.0	03/02/2012	ND	201	101	200	9.80	
Surrogate: 1-Chlorooctane	75.9	% 55.5-15	4						
Surrogate: 1-Chlorooctadecane	84.0	% 57.6-15	8						

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Celey D. Keine



### **Notes and Definitions**

S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

\*\* Samples not received at proper temperature of 6°C or below.

\*\*\* Insufficient time to reach temperature.

Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keine

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LAB: Cardinal

## Environmental Plus, Inc.

P.O. Box 1558, 2100 Avenue O, Eunice, NM 88231 (575) 394-3481 FAX: (575) 394-2601

ANALYSIS REQUEST Remit Invoice To: Environmental Plus, Inc. David P. Duncan P.O. BOX 1558 EPI Project Manager Mailing Address Company Name

City State Zin	Finite New Mevice 88234	Weyico	688	2.7		_		Ŭ	Ē	Ö	9	ConocoPhillips						***********		-		
EPI Phone#/Fax#		81 / 575-3	94-2	2601		_										-						
Client Company	ConocoPhillips	lips				_		_	E	2	=	ATTN: Mr. Justin Wright		NI WATER								
Facility Name	MCA Laguna Release Area	na Releas	e Ar	ea		_		•	ö	DPC	Ö	COPC - Contractor	-			_						_
_ocation	UL-D, Sec. 28, T17S, R3	28, T17S	, R3	32E		_		O	ono	COP	gille	ConocoPhillips Company	Allen Labor		-		_				-	
Project Reference	te 150035					_		20	Vac	cuun	ပို	29 Vacuum Complex Lane				_						
EPI Sampler Name	ne Kirt Tyree						2	ving	ton,	New	/ Me	Lovington, New Mexico 88260-9664	34								-	
			-6	Н		MATRIX	XX.		٩	PRESERV.	Ρ.	SAMPLING	ပ			-	_					
LABI.D.	SAMPLE I.D.		G)RAB OR (C)OMP	соитыиерз	ASTEWATER	OIL	RUDE OIL	LUDGE	CID/BASE	E/COOL	ЯЭНТ			TEX 8021B	Maros Hq	NLFATES (SO4")	( t)	сгь	THER >>>	HA		
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و	6 HA-3 (4')		ပ	-	Н	×				×		24-Feb-12	10:05		×	×	L					
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°	9 HA-5 (2')		g	1	H	×		-	H	×		24-Feb-12	11:27	H	×	×	L				H	F
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Sampler Relinquished:		02/24/12	Receive	wed By:						国	mail	E-mail results to: dduncanepi@gmail.com &	ncanepi@	gm	ail.co	m &						
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Chain-of-Custody Form

LAB: Cardinal

### Page 2 of 3

## Environmental Plus, Inc.

P.O. Box 1558, 2100 Avenue O, Eunice, NM 88231 (575) 394-3481 FAX: (575) 394-2601

ANALYSIS REQUEST													-	-	(CI	es (s	SID SID	180 A7.	-	××	13:50 X X	#	×	7:52   X   X   X	7:56 X X X 95:7	8:12 X X	8:14 X X	8:42 X X	8:45 X X	9:20 X X		hepi@gmail.com &			
Remit Involce To:		Dhilling	COLOCOLUMBS		ATTN: Mr. Justin Wright	COPC - Contractor	ConocoPhillips Company	29 Vacuum Complex I and	Ovincton New Mexico 88260-9664	Chicago Colonia				_	_		-	-	OTF DATE	24-Feb-12	X 24-Feb-12 13		24-rep-12	27-Feb-12	X 27-Feb-12 7:	X 27-Feb-12 8:	X 27-Feb-12 8:	X 27-Feb-12 8:	X 27-Feb-12 8:	X 27-Feb-12 9:		E-mail results to: dduncanepi@gmail.com & Justin.Wright@contractor.conocophillips.com			
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lus. Inc.			cico 88231	75-394-2601		lease Area	T17S, R32E					. d		EE	SA:	JA(	AT QV	NO	3 3 4 C	-	6			2	G 1	G 1	G 1	G 1	G -	0 1	Received By:		インメノー	Received By. (labs	-
Environmental Plus. Inc.	David P. Duncan	P.O. BOX 1558	Eunice New Mexico 8823	575-394-3481 / 575-394-2601	ConocoPhillips	MCA Laguna Release Ar	UL-D, Sec. 28, T	150035	Kirt Tyree		SAMPLE I.D.			.)		1			(,	.)	.)	2.)	4")	2")		2/24/2012 &	S mil	02/28/12	1						
Company Name	EPI Project Manager	Mailing Address	City, State, Zip	EPI Phone#/Fax#	Client Company	Facility Name	Location	Project Reference	EPI Sampler Name						-	LAB I.D.		•	H20057-	11 HA-6 (2')	17 12 HA-7 (2")	12 12 MA 7 MM		14 HA-8 (Z)	(S 15 HA-8 (4')	(S) 16 HA-9 (2')	17 17 HA-9 (4')	(\$ 18 HA-10 (2")	(9 19 HA-10 (4')	20 20 HA-11 (2')	Sampler Relinquished:	C	Line Large	Relinquished by	

Chain-of-Custody Form

LAB: Cardinal

## Environmental Plus, Inc.

P.O. Box 1558, 2100 Avenue O, Eunice, NM 88231 (575) 394-3481 FAX: (575) 394-2601

Company Name	S (4) 3 (4) 3 (4)	ental Plus, Juncan 1558 www. Mexico 481 / 575-3 Illips Illips . 28, T17S	1	7. 22 23 27 28 28 29 29 29 29 29 29 29 29 29 29 29 29 29	WASTEWATER	CBNDE OIF STATE OF ST	CBNDE OIL S	S S S S S S S S S S S S S S S S S S S	S S S S S S S S S S S S S S S S S S S	Remit Inventor other oth	AND OTHER RY GO BY	ATTN: Mr. Justin Wright COPC - Contractor COPC - COPC - CONTRACTOR COPC - COPC	TIME 9:23 9:55 10:15 11:33 11:33	BTEX 8021B	Maroa Hqt ×××××	S SILEATES (CI)	Hd Hd	© GLP GLP	G <<< BHTO	HA9		CLP COTHER >>>
Wind The Die		02/27/12 Time   4/4/1)		0	( }		6			Jus	tin.	E-mail results to: dduncanepi@gmail.com & Justin.Wright@contractor.conocophillips.com	ncanepi@ actor.con	gm	E E	on &	. =		- 1		- 1	
Relinquisheaby:  Delivered by:	man	02/28/12 02/28/12 Time   1:29	18 S	& Intag	(ab sta	33	\$ 500 C	1 2 mg														om & ps.com
	7 1	SC	1	2			9	3														Mu & Scom

ATTACHMENT III

MW-8 Exploratory Boring Log

PRO		ME_Maxim #2690032			WELL NO. M					
LOCA	ATION_	Maljamar Gas Plant, Lea Co	unty	FIELD LOGG		Lichno				
					GROUND SUR					(ft)
AP		, 11 W 19	4	GROUNDWA	TER ELEVATIO	N (ms	il)	3924.0		(ft)
LOCATION MAP		MW-12		DRILL TYPE	Truck Mounted	Air Ro	tary			
ATIC		, 518	-13 44.45	BORE HOLE	DIAMETER:	5				(in
00		na in na h	, M.H1	DRILLED BY.	Scarborough Dr	nilling				0.1.0
		MN-5			HOLE STARTE		5/23	3/01		
		NW 102 8K-1	) HW:14	DATE/TIME (			5/23	3/01	Tire to the time t	
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		[			msl=mean sea	level				
		4 4 1/1 - 50	,i		FOG-First occi	urrenc	e of gro	oundwa	ter	•
		, stw.tk "E			SWL-Static Wa	ater Le	evel			
			WELL COMPLETIO	N INFORMATION						
	-	The Department (man)	of Casing	Type of	Casing: PVC					
Meas	uring Po	nt Elevation (msl): 4000	0,72	Casing	Diameter 2 in					
Static	Water L	evel (feet below Top of Casin	ng): 77		ze: 0.010 in					
Well (	Develop	nent: Water Extraction Until	Visibly Free of Sediment							
		ocking Cap								
· raii ·						_				-
	71:			7	E			_	£ md	
No Le	0	COMPLETION	CLASSIFICATION	MB (	5	18		E.S.	9	-
ELEVATION (msl) - ft	AL AL	DIAGRAM		USCS SYMBOL	BLOW COUNT	ANALYTICAL	m,	RECOVERY	3	DEPTH
ms EV	₹ §	DIAGRAM	AND DESCRIPTION	S	WC ,	AL	TIME	S	ES	100
₩	SAMPLE INTERVAL/ID#			S	86	A		% R	PID RESULT (ppm)	
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1			CLAY, sandy, light green	CL						-
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1	16	BENTONITE SEAL	CLAY, sandy, light green	CL			1		68.3	
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5.0	15	BENTONITE SEAL	CLAY, sandy, light green	CL			1		68 3	
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5.0	17	BENTONITE SEAL	CLAY, sandy, light green						68 3 123 102	
5.0	17	BENTONITE SEAL	CLAY, sandy, light green						68 3 123 102	

Boring Terminated at 100' bgs		Bulk San	pling
2690032	MAXIM	EXPLORATORY BORING LOG	MW-8