



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

January 22, 2013

Daniel Dominguez  
Environmental Plus, Inc.  
P.O. Box 1558  
Eunice, NM 88231

HOBBS OCD

JAN 23 2013

RECEIVED

RE: QUAIL QUEEN #9

Enclosed are the results of analyses for samples received by the laboratory on 01/17/13 16:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene  
Lab Director/Quality Manager

30 025 25 887

**Analytical Results For:**

Environmental Plus, Inc.  
Daniel Dominguez  
P.O. Box 1558  
Eunice NM, 88231  
Fax To: (505) 394-2601

Received: 01/17/2013  
Reported: 01/22/2013  
Project Name: QUAIL QUEEN #9  
Project Number: NONE GIVEN  
Project Location: UL-B SEC. 11. T19S, R34E

Sampling Date: 01/17/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: SP 1 (SURFACE) (H300134-01)**

BTX 8021B		mg/kg	Analyzed By: AP					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.228	0.100	01/22/2013	ND	1.94	97.1	2.00	17.4	
Toluene*	2.62	0.100	01/22/2013	ND	1.93	96.6	2.00	16.7	
Ethylbenzene*	3.96	0.100	01/22/2013	ND	1.94	97.0	2.00	17.0	
Total Xylenes*	11.9	0.300	01/22/2013	ND	5.92	98.7	6.00	16.8	
Total BTEX	18.7	0.600	01/22/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 284 % 89.4-126

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1360	16.0	01/22/2013	ND	432	108	400	0.00	

TPH 8015M		mg/kg	Analyzed By: MS					S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	692	200	01/21/2013	ND	179	89.4	200	6.33	
DRO >C10-C28	20900	200	01/21/2013	ND	186	92.8	200	3.57	

Surrogate: 1-Chlorooctane 133 % 65.2-140

Surrogate: 1-Chlorooctadecane 618 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

Environmental Plus, Inc.  
Daniel Dominguez  
P.O. Box 1558  
Eunice NM, 88231  
Fax To: (505) 394-2601

Received: 01/17/2013  
Reported: 01/22/2013  
Project Name: QUAIL QUEEN #9  
Project Number: NONE GIVEN  
Project Location: UL-B SEC. 11. T19S, R34E

Sampling Date: 01/17/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: SP 1 (1') (H300134-02)**

BTEX 8021B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/22/2013	ND	1.94	97.1	2.00	17.4	
Toluene*	<0.050	0.050	01/22/2013	ND	1.93	96.6	2.00	16.7	
Ethylbenzene*	<0.050	0.050	01/22/2013	ND	1.94	97.0	2.00	17.0	
Total Xylenes*	<0.150	0.150	01/22/2013	ND	5.92	98.7	6.00	16.8	
Total BTEX	<0.300	0.300	01/22/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 102 % 89.4-126

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	01/22/2013	ND	432	108	400	0.00	

TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/21/2013	ND	179	89.4	200	6.33	
DRO >C10-C28	72.7	10.0	01/21/2013	ND	186	92.8	200	3.57	

Surrogate: 1-Chlorooctane 89.1 % 65.2-140

Surrogate: 1-Chlorooctadecane 102 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

Environmental Plus, Inc.  
Daniel Dominguez  
P.O. Box 1558  
Eunice NM, 88231  
Fax To: (505) 394-2601

Received: 01/17/2013  
Reported: 01/22/2013  
Project Name: QUAIL QUEEN #9  
Project Number: NONE GIVEN  
Project Location: UL-B SEC. 11. T19S, R34E

Sampling Date: 01/17/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: SP 1 (1.5') (H300134-03)**

BTEX 8021B			mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/22/2013	ND	1.94	97.1	2.00	17.4		
Toluene*	<0.050	0.050	01/22/2013	ND	1.93	96.6	2.00	16.7		
Ethylbenzene*	<0.050	0.050	01/22/2013	ND	1.94	97.0	2.00	17.0		
Total Xylenes*	<0.150	0.150	01/22/2013	ND	5.92	98.7	6.00	16.8		
Total BTEX	<0.300	0.300	01/22/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 98.8 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	01/22/2013	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/21/2013	ND	179	89.4	200	6.33	
DRO >C10-C28	27.7	10.0	01/21/2013	ND	186	92.8	200	3.57	

Surrogate: 1-Chlorooctane 85.7 % 65.2-140

Surrogate: 1-Chlorooctadecane 92.5 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

Environmental Plus, Inc.  
Daniel Dominguez  
P.O. Box 1558  
Eunice NM, 88231  
Fax To: (505) 394-2601

Received: 01/17/2013  
Reported: 01/22/2013  
Project Name: QUAIL QUEEN #9  
Project Number: NONE GIVEN  
Project Location: UL-B SEC. 11. T19S, R34E

Sampling Date: 01/17/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: SP 2 (SURFACE) (H300134-04)**

BTX 8021B		mg/kg		Analyzed By: AP				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/22/2013	ND	1.94	97.1	2.00	17.4	
Toluene*	0.054	0.050	01/22/2013	ND	1.93	96.6	2.00	16.7	
Ethylbenzene*	0.175	0.050	01/22/2013	ND	1.94	97.0	2.00	17.0	
Total Xylenes*	0.435	0.150	01/22/2013	ND	5.92	98.7	6.00	16.8	
Total BTX	0.663	0.300	01/22/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 127 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	01/22/2013	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	21.6	10.0	01/21/2013	ND	179	89.4	200	6.33	
DRO >C10-C28	1360	10.0	01/21/2013	ND	186	92.8	200	3.57	

Surrogate: 1-Chlorooctane 80.9 % 65.2-140

Surrogate: 1-Chlorooctadecane 110 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

Environmental Plus, Inc.  
Daniel Dominguez  
P.O. Box 1558  
Eunice NM, 88231  
Fax To: (505) 394-2601

Received: 01/17/2013  
Reported: 01/22/2013  
Project Name: QUAIL QUEEN #9  
Project Number: NONE GIVEN  
Project Location: UL-B SEC. 11. T19S, R34E

Sampling Date: 01/17/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: SP 2 (1') (H300134-05)**

BTEX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/22/2013	ND	1.94	97.1	2.00	17.4		
Toluene*	<0.050	0.050	01/22/2013	ND	1.93	96.6	2.00	16.7		
Ethylbenzene*	<0.050	0.050	01/22/2013	ND	1.94	97.0	2.00	17.0		
Total Xylenes*	<0.150	0.150	01/22/2013	ND	5.92	98.7	6.00	16.8		
Total BTEX	<0.300	0.300	01/22/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 99.3 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	01/22/2013	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/21/2013	ND	179	89.4	200	6.33	
DRO >C10-C28	32.6	10.0	01/21/2013	ND	186	92.8	200	3.57	

Surrogate: 1-Chlorooctane 75.4 % 65.2-140

Surrogate: 1-Chlorooctadecane 87.3 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

Environmental Plus, Inc.  
Daniel Dominguez  
P.O. Box 1558  
Eunice NM, 88231  
Fax To: (505) 394-2601

Received: 01/17/2013  
Reported: 01/22/2013  
Project Name: QUAIL QUEEN #9  
Project Number: NONE GIVEN  
Project Location: UL-B SEC. 11. T19S, R34E

Sampling Date: 01/17/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: SP 2 (1.5') (H300134-06)**

BTX 8021B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/22/2013	ND	1.94	97.1	2.00	17.4	
Toluene*	<0.050	0.050	01/22/2013	ND	1.93	96.6	2.00	16.7	
Ethylbenzene*	<0.050	0.050	01/22/2013	ND	1.94	97.0	2.00	17.0	
Total Xylenes*	<0.150	0.150	01/22/2013	ND	5.92	98.7	6.00	16.8	
Total BTX	<0.300	0.300	01/22/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 101 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	01/22/2013	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/21/2013	ND	179	89.4	200	6.33	
DRO >C10-C28	<10.0	10.0	01/21/2013	ND	186	92.8	200	3.57	

Surrogate: 1-Chlorooctane 86.2 % 65.2-140

Surrogate: 1-Chlorooctadecane 93.5 % 63.6-154

**Cardinal Laboratories**

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**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.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
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

---

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



---

Celey D. Keene, Lab Director/Quality Manager



# Environmental Plus, Inc.

2100 Avenue O, Eunice, NM 88231

P.O. Box 1558, Eunice, NM 88231

(575) 394-3481 FAX: (575) 394-2601

## Chain of Custody Form

LAB

Company Name		Environmental Plus, Inc.		Bill To				ANALYSIS REQUEST															
EPI Project Manager		Daniel Dominguez		Attn: Daniel Dominguez P.O. Box 1558 Eunice, NM 88231																			
Mailing Address		P.O. BOX 1558																					
City, State, Zip		Eunice New Mexico 88231																					
EPI Phone#/Fax#		575-394-3481 / 575-394-2601																					
Client Company		Chevron USA																					
Facility Name		Quail Queen #9																					
Location		UL-B Sec. 11, T19S, R34E																					
Project Reference																							
EPI Sampler Name		David Robinson																					
LAB I.D.	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV.		SAMPLING		BTEX 8021B	TPH 8015M	CHLORIDES (Cl <sup>-</sup> )	SULFATES (SO <sub>4</sub> <sup>2-</sup> )	pH	TCLP	OTHER >>>	PAH		
				GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	ACID/BASE	ICE/COOL	OTHER	DATE									TIME	
13ED134	1 SP1 (Surface)	G				X							17-Jan-13	8:25	X	X	X						
	2 SP1 (1')	G				X							17-Jan-13	8:26	X	X	X						
	3 SP1 (1.5')	G				X							17-Jan-13	8:50	X	X	X						
	4 SP2 (Surface)	G				X							17-Jan-13	9:20	X	X	X						
	5 SP2 (1')	G				X							17-Jan-13	9:22	X	X	X						
	6 SP2 (1.5')	G				X							17-Jan-13	9:40	X	X	X						
	7																						
	8																						
	9																						
	10																						

  

Sampler Relinquished:	Date: 1-17-13	Received By:	E-mail results to: ddominguezepi@gmail.com & bradley.blevins@chevron.com
Relinquished by: <i>David Robinson</i>	Time: 12:30	Received By: <i>lab staff</i>	
Delivered by: <i>David Robinson</i>	Date: 1/17/13	Time: 4:00	
Sample Cool & Intact		Checked By:	
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		<i>gfn</i>	