

From: [Yu, Olivia, EMNRD](#)
To: ["Robbie Runnels"](#)
Cc: [Oberding, Tomas, EMNRD](#)
Subject: RE: Echo Production - 1RP-4250
Date: Monday, April 10, 2017 2:17:00 PM

Mr. Runnels:

The latter. Horizontal delineation is not complete since your sidewall samples are above 250 mg/kg chloride. As the depth to groundwater is high, NMOCd will accept 600 mg/kg chloride level for horizontal and vertical delineation.

- Please extend the perimeter of the proposed liner area until this permissible level is obtained at North Wall 1, South Wall 1, and East Wall 2.
- Please continue vertical delineation to 600 mg/kg and maintained for additional 5 ft. at Floor 1-4. For Floor 4, if <600 mg/kg is obtained at 10 ft., then Floor 4 will be considered delineated.

Let me know if you have questions/ want clarification.

Thanks,
Olivia

From: Robbie Runnels [mailto:rrunnels@basinenv.com]
Sent: Monday, April 10, 2017 9:47 AM
To: Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>
Subject: Echo Production - 1RP-4250

Ms. Yu,

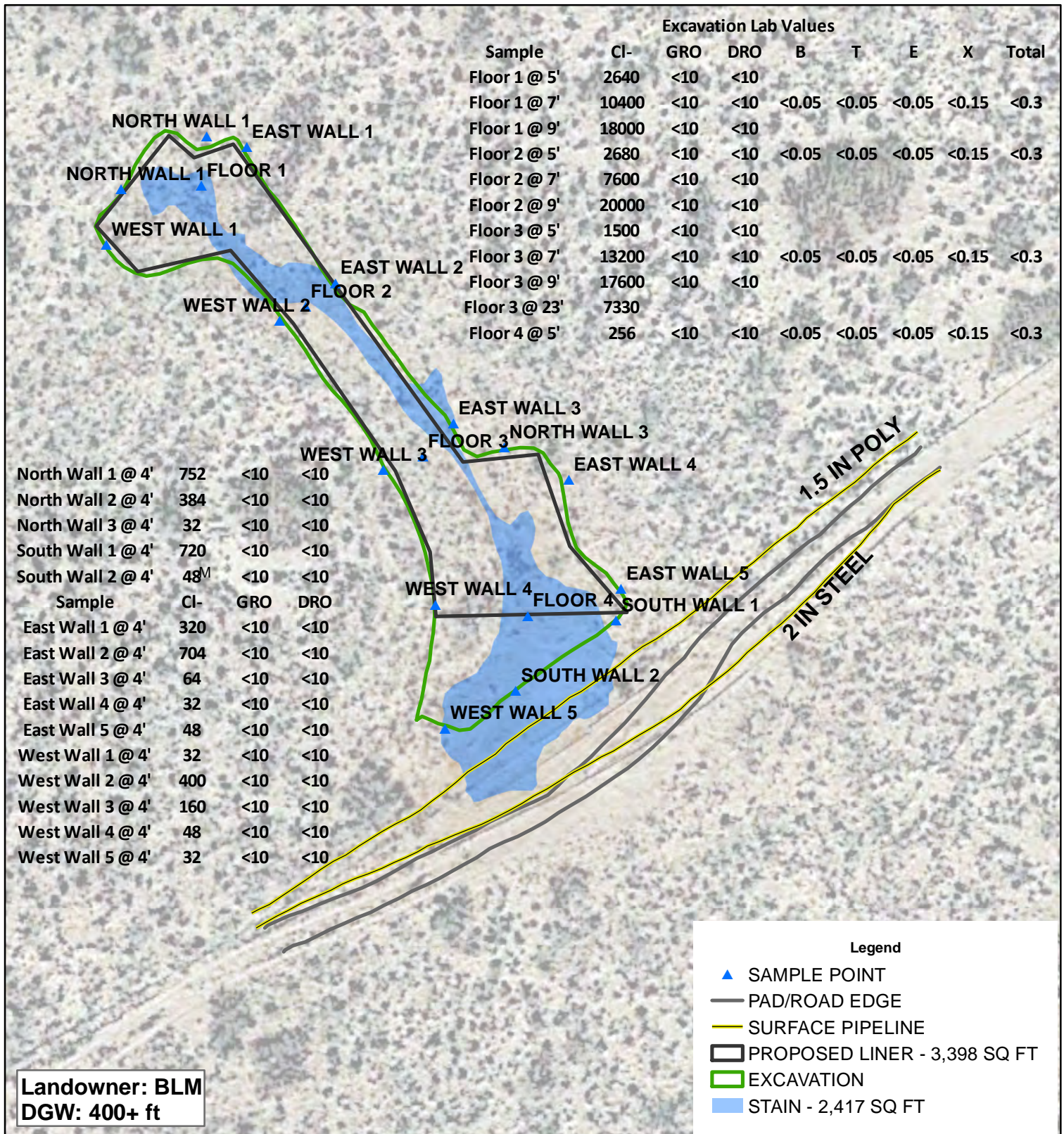
I have attached the proposed liner for Area 1 for the aforementioned site. My question is: there are a few wall samples that are above 250 ppm, is that acceptable considering groundwater is at 400+ feet? Or, do we need to take the walls back another foot or two and resample?

Thank you,

Robbie Runnels

Project Manager
Basin Environmental Service Technologies
3100 Plains Hwy.
P.O. Box 301
Lovington, NM 88260
p. 575-396-2378 m. 575-441-5598
f. 575-396-1429
rrunnels@basinenv.com

Proposed Liner



ECHO PRODUCTION EAST LIVINGSTON RIDGE DELAWARE #1 AREA 1

UL M SECTION 31
T-22-S R-32-E
LEA COUNTY, NM

**Underground facilities are
spatially projected
and need to be field verified.**

GPS: 32.343580 -103.718976

0 25 50 Feet

GPS date: 3/28/16 TG, 1/31/17 MT

Drawing date: 2/28/17

Drafted by: T. Grieco



From: [Yu, Olivia, EMNRD](#)
To: ["Robbie Runnels"](#)
Subject: RE: Echo Production Areas 1 and 2 (1RP-4250)
Date: Friday, March 3, 2017 12:19:00 PM

Mr. Runnels:

Not a problem. Thank you for the clarification.

Have a relaxing weekend,
Olivia

From: Robbie Runnels [mailto:rrunnels@basinenv.com]
Sent: Friday, March 3, 2017 12:08 PM
To: Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>
Subject: RE: Echo Production Areas 1 and 2 (1RP-4250)

Ms. Yu,

My apologies for the misunderstanding. We will install the conduit and begin taking samples at the last depth achieved via soil bores. We will continue the bores until we have two consecutive samples that are below the 250 ppm guideline for chlorides. Floor 1 and 4, we will start pulling samples at 15'. We will start pulling samples at Floor 3 at 25'. I hope this clears it up. Again, I apologize for my own confusion.

Robbie

----- Original Message -----

Subject: RE: Echo Production Areas 1 and 2 (1RP-4250)
From: "Yu, Olivia, EMNRD" <Olivia.Yu@state.nm.us>
Date: 3/3/17 12:01 pm
To: "Robbie Runnels" <rrunnels@basinenv.com>

Mr. Runnels:

I did not indicate excavation for Floor 1 and 4. I assume that you will be using a soil borer (via the conduit) to get the additional delineation information. Also, seeing that chloride levels at 13 ft bgs are 14800 mg/kg for Floor 1 and 30000 mg/kg for Floor 2, I presume that samples probably will be taken at 23 ft bgs. Are these not reasonable assumptions? Please inform me if my technical knowledge is incorrect.

Thanks,
Olivia

From: Robbie Runnels [<mailto:rrunnels@basinenv.com>]
Sent: Friday, March 3, 2017 11:52 AM
To: Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>

Subject: RE: Echo Production Areas 1 and 2 (1RP-4250)

Ms. Yu,

I have a question. What is the purpose of excavating Floor 1 and Floor 4 to a depth of 23' when we will be installing conduit and drilling it beginning at 6' bgs? This does not seem to be productive and provides no information that will not be ascertained from the drilling. Could you please explain the rationale for this.

Thank you,

Robbie

----- Original Message -----

Subject: RE: Echo Production Areas 1 and 2 (1RP-4250)

From: "Yu, Olivia, EMNRD" <Olivia.Yu@state.nm.us>

Date: 3/3/17 11:46 am

To: "Robbie Runnels" <rrunnels@basinenv.com>, "rpair@blm.gov" <rpair@blm.gov>

Cc: "Oberding, Tomas, EMNRD" <Tomas.Oberding@state.nm.us>

Dear Mr. Runnels:

Please see attachment for your records.

Thanks,
Olivia

From: Robbie Runnels [<mailto:rrunnels@basinenv.com>]

Sent: Friday, March 3, 2017 11:36 AM

To: Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>; rpair@blm.gov

Cc: Oberding, Tomas, EMNRD <Tomas.Oberding@state.nm.us>

Subject: RE: Echo Production Areas 1 and 2 (1RP-4250)

Ms. Yu,

Thank you for your response. We will reach as far as the excavator can reach (approximately 23') in all points not previously done next week. Area 2 is excavated to 5' entirely (pictures to be provide next week). When time for installation of the liner, you will receive photo-documentation of the process.

Again, thank you for the response.

Sincerely,

Robbie Runnels
Basin

----- Original Message -----

Subject: RE: Echo Production Areas 1 and 2 (1RP-4250)

From: "Yu, Olivia, EMNRD" <Olivia.Yu@state.nm.us>

Date: 3/3/17 11:20 am

To: "Robbie Runnels" <rrunnels@basinenv.com>, "rpair@blm.gov" <rpair@blm.gov>

Cc: "Oberding, Tomas, EMNRD" <Tomas.Oberding@state.nm.us>

Dear Mr. Runnel:

Please confirm the below conditions for 1RP-4250 delineation workplan:

<![if !supportLists]>1) <![endif]>NMOCD approves the installation of conduits at Area 2- Floor 1, 3, and 4 for future vertical delineation at these sample locations.

<![if !supportLists]>2) <![endif]>NMOCD requests that future vertical delineation at Floor 1 and 4 also attempt to reach 23 ft. bgs as reached in Floor 3.

<![if !supportLists]>3) <![endif]>Please affirm that the entire Area 2 is excavated to 5 ft. and that floor samples were taken at greater depths using a soil borer.

<![if !supportLists]>4) <![endif]>Installation of a liner as demarcated in the document Proposed Liner is approved. Geotechnical details of the liner and photos of the setting are strongly encouraged.

Once I receive your response. I will proceed to add these conditions on the Area 2 Conduct Request and Proposed Liner documents and email them back to you for your records.

Thanks,

Olivia Yu

Environmental Specialist

NMOCD, District I

Olivia.yu@state.nm.us

575-393-6161 x113

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

From: Robbie Runnels [<mailto:rrunnels@basinenv.com>]
Sent: Tuesday, February 28, 2017 9:57 AM
To: Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>; rpair@blm.gov
Cc: Oberding, Tomas, EMNRD <Tomas.Oberding@state.nm.us>
Subject: RE: Echo Production Areas 1 and 2 (1RP-4250)

Ms. Yu,

Attached is the information you requested. Please let me know if you have any questions or comments.

Thank you,

Robbie

----- Original Message -----

Subject: RE: Echo Production Areas 1 and 2 (1RP-4250)

From: "Yu, Olivia, EMNRD" <Olivia.Yu@state.nm.us>

Date: 2/27/17 10:27 am

To: "Robbie Runnels" <rrunnels@basinenv.com>, "rpair@blm.gov" <rpair@blm.gov>

Cc: "Oberding, Tomas, EMNRD" <Tomas.Oberding@state.nm.us>

Dear Mr. Runnels:

In order to facilitate my review of your proposed plan of action for Area 1 & 2 of 1RP-4250, please

<![if !supportLists]>1) <![endif]>Collate the laboratory results.

<![if !supportLists]>2) <![endif]>Provide a concise document detailing the work that have been completed and the proposed work with rationale (purpose of culvert, extent and dimensions of area to be lined, proposed area for backfilling, etc.).

Also, there are sample points indicated on the maps that were not sent in for laboratory analyses. Are there any field data on them?

Thanks,

Olivia Yu
Environmental Specialist
NMOCD, District I

Olivia.yu@state.nm.us

575-393-6161 x113

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

From: Robbie Runnels [<mailto:rrunnels@basinenv.com>]

Sent: Tuesday, February 14, 2017 8:54 AM

To: rpair@blm.gov; Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>

Subject: Echo Production Areas 1 and 2 (1RP-4250)

All,

We have excavated down to 5' in both areas and there is still elevated concentrations of chloride. The DGW is over 400' bgs. Would it be acceptable to place conduit, line the excavation and backfill? We will come back with a drilling rig to advance through the conduit to achieve full delineation.

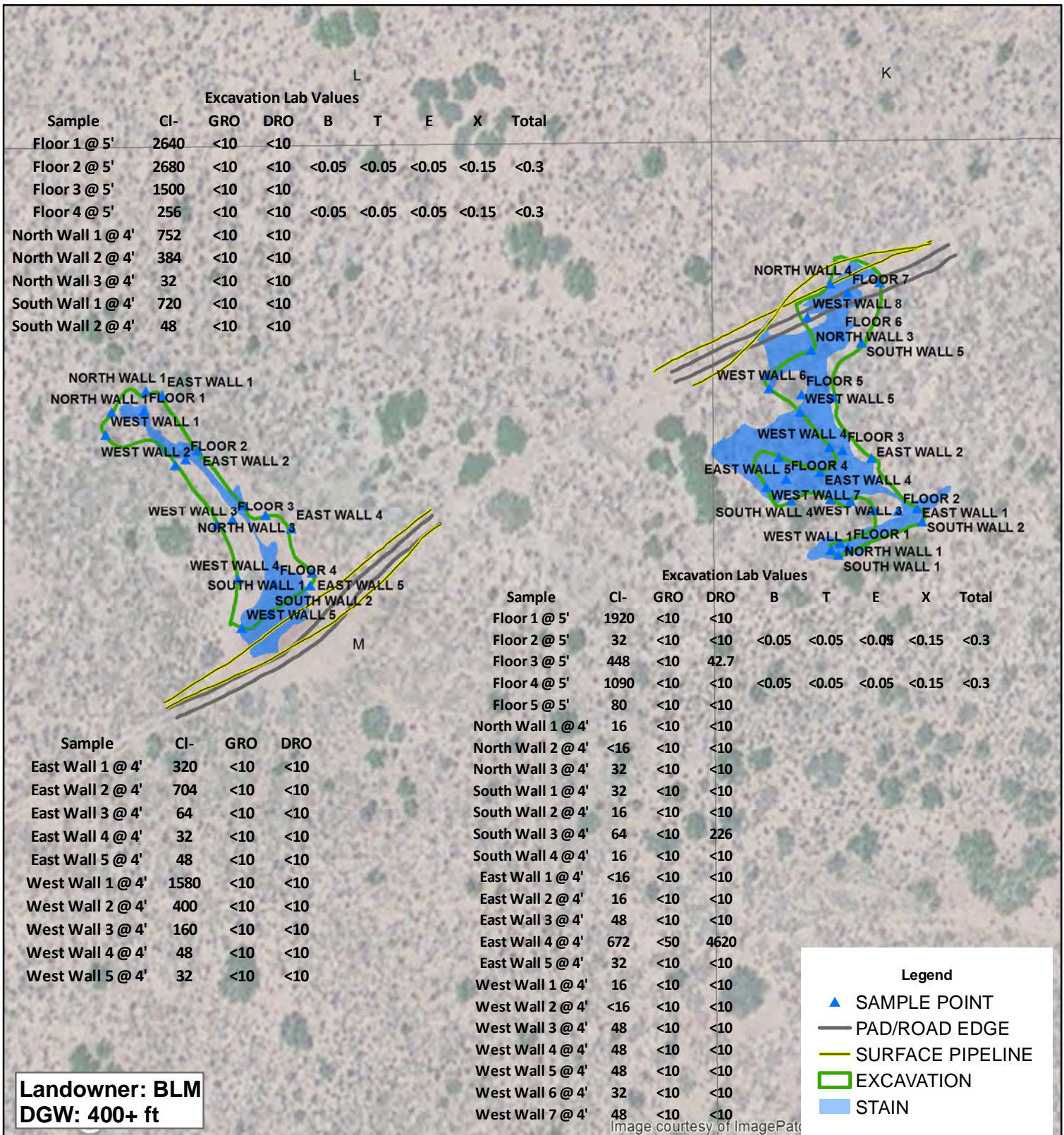
Please let me know your thoughts or concerns.

Best Regards,

Robbie Runnels

Project Manager
Basin Environmental Service Technologies
3100 Plains Hwy.
P.O. Box 301
Lovington, NM 88260
p. 575-396-2378 m. 575-441-5598
f. 575-396-1429
rrunnels@basinenv.com

Excavation



ECHO PRODUCTION EAST LIVINGSTON RIDGE DELAWARE #1 AREAS 1 & 2

UL M SECTION 31
T-22-S R-32-E
LEA COUNTY, NM

**Underground facilities are
spatially projected
and need to be field verified.**

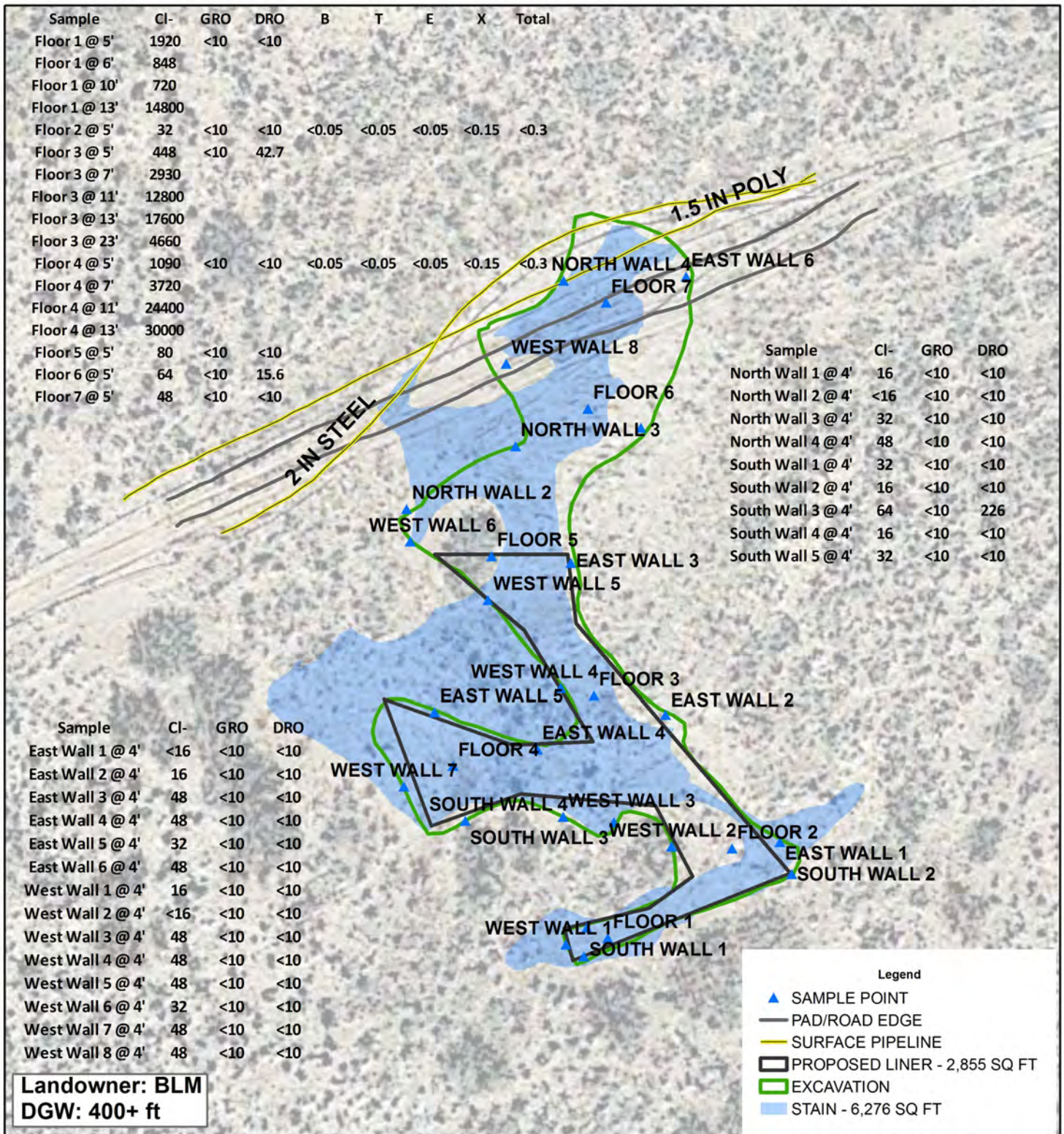
GPS: 32.343580 -103.718976

0 50 100
Feet

GPS date: 3/28/16 TG, 1/31/17 MT
Drawing date: 2/15/17
Drafted by: T. Grieco



Proposed Liner

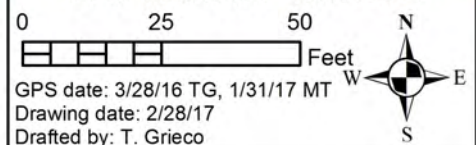


**ECHO PRODUCTION
EAST LIVINGSTON RIDGE
DELAWARE #1
AREA 2**

**UL N SECTION 31
T-22-S R-32-E
LEA COUNTY, NM**

**Underground facilities are
spatially projected
and need to be field verified.**

GPS: 32.343859 -103.717914





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

January 17, 2017

ROBBIE RUNNELS

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: E. LIVINGSTON RIDGE DELAWARE

Enclosed are the results of analyses for samples received by the laboratory on 01/11/17 15:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. 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.

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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
ROBBIE RUNNELS
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	01/11/2017	Sampling Date:	01/10/2017
Reported:	01/17/2017	Sampling Type:	Soil
Project Name:	E. LIVINGSTON RIDGE DELAWARE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: AREA 2 FLOOR 1 @ 5' (H700078-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1920	16.0	01/13/2017	ND	416	104	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	01/12/2017	ND	180	89.8	200	0.628	
DRO >C10-C28	<10.0	10.0	01/12/2017	ND	188	93.8	200	0.234	
Surrogate: 1-Chlorooctane	96.4 %	35-147							
Surrogate: 1-Chlorooctadecane	109 %	28-171							

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:

Basin Environmental Service
ROBBIE RUNNELS
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	01/11/2017	Sampling Date:	01/10/2017
Reported:	01/17/2017	Sampling Type:	Soil
Project Name:	E. LIVINGSTON RIDGE DELAWARE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: AREA 2 FLOOR 2 @ 5' (H700078-02)

BTX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/16/2017	ND	2.25	113	2.00	0.346	
Toluene*	<0.050	0.050	01/16/2017	ND	2.22	111	2.00	0.116	
Ethylbenzene*	<0.050	0.050	01/16/2017	ND	2.24	112	2.00	0.289	
Total Xylenes*	<0.150	0.150	01/16/2017	ND	6.31	105	6.00	0.427	
Total BTEX	<0.300	0.300	01/16/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.6-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	01/13/2017	ND	416	104	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	01/12/2017	ND	180	89.8	200	0.628	
DRO >C10-C28	<10.0	10.0	01/12/2017	ND	188	93.8	200	0.234	

Surrogate: 1-Chlorooctane 96.2 % 35-147

Surrogate: 1-Chlorooctadecane 105 % 28-171

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:

Basin Environmental Service
ROBBIE RUNNELS
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	01/11/2017	Sampling Date:	01/10/2017
Reported:	01/17/2017	Sampling Type:	Soil
Project Name:	E. LIVINGSTON RIDGE DELAWARE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: AREA 2 FLOOR 3 @ 5' (H700078-03)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	448	16.0	01/13/2017	ND	416	104	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	01/12/2017	ND	180	89.8	200	0.628		
DRO >C10-C28	42.7	10.0	01/12/2017	ND	188	93.8	200	0.234		
<hr/>										
Surrogate: 1-Chlorooctane	98.9 %	35-147								
Surrogate: 1-Chlorooctadecane	121 %	28-171								

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:

Basin Environmental Service
ROBBIE RUNNELS
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	01/11/2017	Sampling Date:	01/10/2017
Reported:	01/17/2017	Sampling Type:	Soil
Project Name:	E. LIVINGSTON RIDGE DELAWARE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: AREA 2 FLOOR 4 @ 5' (H700078-04)

BTX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/16/2017	ND	2.25	113	2.00	0.346	
Toluene*	<0.050	0.050	01/16/2017	ND	2.22	111	2.00	0.116	
Ethylbenzene*	<0.050	0.050	01/16/2017	ND	2.24	112	2.00	0.289	
Total Xylenes*	<0.150	0.150	01/16/2017	ND	6.31	105	6.00	0.427	
Total BTX	<0.300	0.300	01/16/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.6-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1090	16.0	01/13/2017	ND	416	104	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	01/12/2017	ND	180	89.8	200	0.628	
DRO >C10-C28	<10.0	10.0	01/12/2017	ND	188	93.8	200	0.234	

Surrogate: 1-Chlorooctane 98.8 % 35-147

Surrogate: 1-Chlorooctadecane 121 % 28-171

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:

Basin Environmental Service
ROBBIE RUNNELS
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	01/11/2017	Sampling Date:	01/10/2017
Reported:	01/17/2017	Sampling Type:	Soil
Project Name:	E. LIVINGSTON RIDGE DELAWARE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: AREA 2 FLOOR 5 @ 5' (H700078-05)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	01/13/2017	ND	416	104	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	01/12/2017	ND	180	89.8	200	0.628	
DRO >C10-C28	<10.0	10.0	01/12/2017	ND	188	93.8	200	0.234	
Surrogate: 1-Chlorooctane	103 %	35-147							
Surrogate: 1-Chlorooctadecane	118 %	28-171							

Sample ID: AREA 2 NW 1 @ 4' (H700078-06)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	01/13/2017	ND	416	104	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	01/12/2017	ND	180	89.8	200	0.628	
DRO >C10-C28	<10.0	10.0	01/12/2017	ND	188	93.8	200	0.234	
Surrogate: 1-Chlorooctane	96.9 %	35-147							
Surrogate: 1-Chlorooctadecane	116 %	28-171							

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:

Basin Environmental Service
ROBBIE RUNNELS
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	01/11/2017	Sampling Date:	01/10/2017
Reported:	01/17/2017	Sampling Type:	Soil
Project Name:	E. LIVINGSTON RIDGE DELAWARE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: AREA 2 NW 2 @ 4' (H700078-07)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	01/13/2017	ND	416	104	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	01/12/2017	ND	180	89.8	200	0.628	
DRO >C10-C28	<10.0	10.0	01/12/2017	ND	188	93.8	200	0.234	
Surrogate: 1-Chlorooctane	104 %	35-147							
Surrogate: 1-Chlorooctadecane	110 %	28-171							

Sample ID: AREA 2 NW 3 @ 4' (H700078-08)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	01/13/2017	ND	416	104	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	01/12/2017	ND	180	89.8	200	0.628	
DRO >C10-C28	<10.0	10.0	01/12/2017	ND	188	93.8	200	0.234	
Surrogate: 1-Chlorooctane	97.9 %	35-147							
Surrogate: 1-Chlorooctadecane	114 %	28-171							

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:

Basin Environmental Service
ROBBIE RUNNELS
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	01/11/2017	Sampling Date:	01/10/2017
Reported:	01/17/2017	Sampling Type:	Soil
Project Name:	E. LIVINGSTON RIDGE DELAWARE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: AREA 2 SW 1 @ 4' (H700078-09)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	01/13/2017	ND	416	104	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	01/12/2017	ND	180	89.8	200	0.628	
DRO >C10-C28	<10.0	10.0	01/12/2017	ND	188	93.8	200	0.234	
Surrogate: 1-Chlorooctane	104 %	35-147							
Surrogate: 1-Chlorooctadecane	121 %	28-171							

Sample ID: AREA 2 SW 2 @ 4' (H700078-10)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	01/13/2017	ND	416	104	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	01/12/2017	ND	180	89.8	200	0.628	
DRO >C10-C28	<10.0	10.0	01/12/2017	ND	188	93.8	200	0.234	
Surrogate: 1-Chlorooctane	101 %	35-147							
Surrogate: 1-Chlorooctadecane	121 %	28-171							

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:

Basin Environmental Service
ROBBIE RUNNELS
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	01/11/2017	Sampling Date:	01/10/2017
Reported:	01/17/2017	Sampling Type:	Soil
Project Name:	E. LIVINGSTON RIDGE DELAWARE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: AREA 2 SW 3 @ 4' (H700078-11)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	01/13/2017	ND	416	104	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	01/12/2017	ND	180	89.8	200	0.628	
DRO >C10-C28	226	10.0	01/12/2017	ND	188	93.8	200	0.234	

Surrogate: 1-Chlorooctane 103 % 35-147

Surrogate: 1-Chlorooctadecane 120 % 28-171

Sample ID: AREA 2 SW 4 @ 4' (H700078-12)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	01/13/2017	ND	416	104	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	01/12/2017	ND	180	89.8	200	0.628	
DRO >C10-C28	<10.0	10.0	01/12/2017	ND	188	93.8	200	0.234	

Surrogate: 1-Chlorooctane 102 % 35-147

Surrogate: 1-Chlorooctadecane 121 % 28-171

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:

Basin Environmental Service
ROBBIE RUNNELS
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	01/11/2017	Sampling Date:	01/10/2017
Reported:	01/17/2017	Sampling Type:	Soil
Project Name:	E. LIVINGSTON RIDGE DELAWARE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: AREA 2 EW 1 @ 4' (H700078-13)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	01/13/2017	ND	416	104	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	01/12/2017	ND	180	89.8	200	0.628	
DRO >C10-C28	<10.0	10.0	01/12/2017	ND	188	93.8	200	0.234	
Surrogate: 1-Chlorooctane	99.8 %	35-147							
Surrogate: 1-Chlorooctadecane	117 %	28-171							

Sample ID: AREA 2 EW 2 @ 4' (H700078-14)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	01/13/2017	ND	416	104	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	01/12/2017	ND	180	89.8	200	0.628	
DRO >C10-C28	<10.0	10.0	01/12/2017	ND	188	93.8	200	0.234	
Surrogate: 1-Chlorooctane	99.6 %	35-147							
Surrogate: 1-Chlorooctadecane	118 %	28-171							

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:

Basin Environmental Service
ROBBIE RUNNELS
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	01/11/2017	Sampling Date:	01/10/2017
Reported:	01/17/2017	Sampling Type:	Soil
Project Name:	E. LIVINGSTON RIDGE DELAWARE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: AREA 2 EW 3 @ 4' (H700078-15)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	01/13/2017	ND	416	104	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	01/12/2017	ND	187	93.3	200	2.09	
DRO >C10-C28	<10.0	10.0	01/12/2017	ND	197	98.5	200	3.52	
Surrogate: 1-Chlorooctane	81.2 %	35-147							
Surrogate: 1-Chlorooctadecane	88.7 %	28-171							

Sample ID: AREA 2 EW 4 @ 4' (H700078-16)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	672	16.0	01/13/2017	ND	416	104	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	<50.0	50.0	01/12/2017	ND	187	93.3	200	2.09		
DRO >C10-C28	4620	50.0	01/12/2017	ND	197	98.5	200	3.52		
Surrogate: 1-Chlorooctane	83.5 %	35-147								
Surrogate: 1-Chlorooctadecane	185 %	28-171								

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:

Basin Environmental Service
ROBBIE RUNNELS
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	01/11/2017	Sampling Date:	01/10/2017
Reported:	01/17/2017	Sampling Type:	Soil
Project Name:	E. LIVINGSTON RIDGE DELAWARE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: AREA 2 EW 5 @ 4' (H700078-17)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	01/13/2017	ND	416	104	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	01/12/2017	ND	187	93.3	200	2.09	
DRO >C10-C28	<10.0	10.0	01/12/2017	ND	197	98.5	200	3.52	
Surrogate: 1-Chlorooctane	88.5 %	35-147							
Surrogate: 1-Chlorooctadecane	97.7 %	28-171							

Sample ID: AREA 2 WW 1 @ 4' (H700078-18)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	01/13/2017	ND	416	104	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	01/12/2017	ND	187	93.3	200	2.09	
DRO >C10-C28	<10.0	10.0	01/12/2017	ND	197	98.5	200	3.52	
Surrogate: 1-Chlorooctane	86.8 %	35-147							
Surrogate: 1-Chlorooctadecane	94.5 %	28-171							

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:

Basin Environmental Service
ROBBIE RUNNELS
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	01/11/2017	Sampling Date:	01/10/2017
Reported:	01/17/2017	Sampling Type:	Soil
Project Name:	E. LIVINGSTON RIDGE DELAWARE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: AREA 2 WW 2 @ 4' (H700078-19)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	01/13/2017	ND	416	104	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	01/13/2017	ND	187	93.3	200	2.09	
DRO >C10-C28	<10.0	10.0	01/13/2017	ND	197	98.5	200	3.52	
Surrogate: 1-Chlorooctane	88.2 %	35-147							
Surrogate: 1-Chlorooctadecane	99.7 %	28-171							

Sample ID: AREA 2 WW 3 @ 4' (H700078-20)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	01/13/2017	ND	416	104	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	01/13/2017	ND	187	93.3	200	2.09	
DRO >C10-C28	<10.0	10.0	01/13/2017	ND	197	98.5	200	3.52	
Surrogate: 1-Chlorooctane	86.7 %	35-147							
Surrogate: 1-Chlorooctadecane	92.4 %	28-171							

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:

Basin Environmental Service
ROBBIE RUNNELS
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	01/11/2017	Sampling Date:	01/10/2017
Reported:	01/17/2017	Sampling Type:	Soil
Project Name:	E. LIVINGSTON RIDGE DELAWARE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: AREA 2 WW 4 @ 4' (H700078-21)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	01/13/2017	ND	416	104	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	01/13/2017	ND	187	93.3	200	2.09	
DRO >C10-C28	<10.0	10.0	01/13/2017	ND	197	98.5	200	3.52	
Surrogate: 1-Chlorooctane	85.4 %	35-147							
Surrogate: 1-Chlorooctadecane	95.2 %	28-171							

Sample ID: AREA 2 WW 5 @ 4' (H700078-22)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	01/13/2017	ND	416	104	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	01/13/2017	ND	187	93.3	200	2.09	
DRO >C10-C28	<10.0	10.0	01/13/2017	ND	197	98.5	200	3.52	
Surrogate: 1-Chlorooctane	88.7 %	35-147							
Surrogate: 1-Chlorooctadecane	96.2 %	28-171							

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:

Basin Environmental Service
ROBBIE RUNNELS
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	01/11/2017	Sampling Date:	01/10/2017
Reported:	01/17/2017	Sampling Type:	Soil
Project Name:	E. LIVINGSTON RIDGE DELAWARE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: AREA 2 WW 6 @ 4' (H700078-23)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	01/13/2017	ND	416	104	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	01/13/2017	ND	187	93.3	200	2.09	
DRO >C10-C28	<10.0	10.0	01/13/2017	ND	197	98.5	200	3.52	
Surrogate: 1-Chlorooctane	82.8 %	35-147							
Surrogate: 1-Chlorooctadecane	96.3 %	28-171							

Sample ID: AREA 2 WW 7 @ 4' (H700078-24)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	01/13/2017	ND	416	104	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	01/13/2017	ND	187	93.3	200	2.09	
DRO >C10-C28	<10.0	10.0	01/13/2017	ND	197	98.5	200	3.52	
Surrogate: 1-Chlorooctane	87.0 %	35-147							
Surrogate: 1-Chlorooctadecane	101 %	28-171							

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.
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

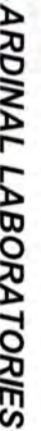


101 East Marland, Hobbs, NM 88240

(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 19 of 19

January 17, 2017

ROBBIE RUNNELS

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: E. LIVINGSTON RIDGE DELAWARE

Enclosed are the results of analyses for samples received by the laboratory on 01/12/17 12:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. 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.

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

Analytical Results For:

Basin Environmental Service
ROBBIE RUNNELS
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	01/12/2017	Sampling Date:	01/11/2017
Reported:	01/17/2017	Sampling Type:	Soil
Project Name:	E. LIVINGSTON RIDGE DELAWARE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: AREA #1 FLOOR 1 @ 5' (H700084-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2640	16.0	01/13/2017	ND	416	104	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	01/16/2017	ND	208	104	200	2.59		
DRO >C10-C28	<10.0	10.0	01/16/2017	ND	247	123	200	2.12		
Surrogate: 1-Chlorooctane	87.5 %	35-147								
Surrogate: 1-Chlorooctadecane	100 %	28-171								

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:

Basin Environmental Service
ROBBIE RUNNELS
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	01/12/2017	Sampling Date:	01/11/2017
Reported:	01/17/2017	Sampling Type:	Soil
Project Name:	E. LIVINGSTON RIDGE DELAWARE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: AREA #1 FLOOR 2 @ 5' (H700084-02)

BTX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/16/2017	ND	2.25	113	2.00	0.346	
Toluene*	<0.050	0.050	01/16/2017	ND	2.22	111	2.00	0.116	
Ethylbenzene*	<0.050	0.050	01/16/2017	ND	2.24	112	2.00	0.289	
Total Xylenes*	<0.150	0.150	01/16/2017	ND	6.31	105	6.00	0.427	
Total BTX	<0.300	0.300	01/16/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.6-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2680	16.0	01/13/2017	ND	416	104	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	01/16/2017	ND	208	104	200	2.59	
DRO >C10-C28	<10.0	10.0	01/16/2017	ND	247	123	200	2.12	

Surrogate: 1-Chlorooctane 86.4 % 35-147

Surrogate: 1-Chlorooctadecane 91.5 % 28-171

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:

Basin Environmental Service
ROBBIE RUNNELS
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	01/12/2017	Sampling Date:	01/11/2017
Reported:	01/17/2017	Sampling Type:	Soil
Project Name:	E. LIVINGSTON RIDGE DELAWARE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: AREA #1 FLOOR 3 @ 5' (H700084-03)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1500	16.0	01/13/2017	ND	416	104	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	01/16/2017	ND	208	104	200	2.59		
DRO >C10-C28	<10.0	10.0	01/16/2017	ND	247	123	200	2.12		

Surrogate: 1-Chlorooctane	85.0 %	35-147
Surrogate: 1-Chlorooctadecane	91.5 %	28-171

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:

 Basin Environmental Service
 ROBBIE RUNNELS
 P.O. Box 301
 Lovington NM, 88260
 Fax To: (575) 396-1429

Received:	01/12/2017	Sampling Date:	01/11/2017
Reported:	01/17/2017	Sampling Type:	Soil
Project Name:	E. LIVINGSTON RIDGE DELAWARE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: AREA #1 FLOOR 4 @ 5' (H700084-04)

BTEx 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/16/2017	ND	2.25	113	2.00	0.346	
Toluene*	<0.050	0.050	01/16/2017	ND	2.22	111	2.00	0.116	
Ethylbenzene*	<0.050	0.050	01/16/2017	ND	2.24	112	2.00	0.289	
Total Xylenes*	<0.150	0.150	01/16/2017	ND	6.31	105	6.00	0.427	
Total BTEx	<0.300	0.300	01/16/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	01/13/2017	ND	416	104	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	01/16/2017	ND	208	104	200	2.59	
DRO >C10-C28	<10.0	10.0	01/16/2017	ND	247	123	200	2.12	

Surrogate: 1-Chlorooctane 92.1 % 35-147

Surrogate: 1-Chlorooctadecane 96.3 % 28-171

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:

Basin Environmental Service
ROBBIE RUNNELS
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	01/12/2017	Sampling Date:	01/11/2017
Reported:	01/17/2017	Sampling Type:	Soil
Project Name:	E. LIVINGSTON RIDGE DELAWARE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: AREA #1 NW 1 @ 4' (H700084-05)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	752	16.0	01/13/2017	ND	416	104	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	01/16/2017	ND	208	104	200	2.59	
DRO >C10-C28	<10.0	10.0	01/16/2017	ND	247	123	200	2.12	
Surrogate: 1-Chlorooctane	91.9 %	35-147							
Surrogate: 1-Chlorooctadecane	93.3 %	28-171							

Sample ID: AREA #1 NW 2 @ 4' (H700084-06)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	384	16.0	01/13/2017	ND	416	104	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	01/16/2017	ND	208	104	200	2.59	
DRO >C10-C28	<10.0	10.0	01/16/2017	ND	247	123	200	2.12	
Surrogate: 1-Chlorooctane	89.5 %	35-147							
Surrogate: 1-Chlorooctadecane	99.5 %	28-171							

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:

Basin Environmental Service
ROBBIE RUNNELS
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	01/12/2017	Sampling Date:	01/11/2017
Reported:	01/17/2017	Sampling Type:	Soil
Project Name:	E. LIVINGSTON RIDGE DELAWARE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: AREA #1 NW 3 @ 4' (H700084-07)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	01/13/2017	ND	416	104	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	01/16/2017	ND	208	104	200	2.59	
DRO >C10-C28	<10.0	10.0	01/16/2017	ND	247	123	200	2.12	
Surrogate: 1-Chlorooctane	80.3 %	35-147							
Surrogate: 1-Chlorooctadecane	81.1 %	28-171							

Sample ID: AREA #1 SW 1 @ 4' (H700084-08)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	720	16.0	01/13/2017	ND	416	104	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	01/16/2017	ND	208	104	200	2.59	
DRO >C10-C28	<10.0	10.0	01/16/2017	ND	247	123	200	2.12	
Surrogate: 1-Chlorooctane	80.9 %	35-147							
Surrogate: 1-Chlorooctadecane	92.4 %	28-171							

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:

Basin Environmental Service
ROBBIE RUNNELS
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	01/12/2017	Sampling Date:	01/11/2017
Reported:	01/17/2017	Sampling Type:	Soil
Project Name:	E. LIVINGSTON RIDGE DELAWARE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: AREA #1 SW 2 @ 4' (H700084-09)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	01/13/2017	ND	416	104	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	01/16/2017	ND	208	104	200	2.59	
DRO >C10-C28	<10.0	10.0	01/16/2017	ND	247	123	200	2.12	
Surrogate: 1-Chlorooctane	83.5 %	35-147							
Surrogate: 1-Chlorooctadecane	93.1 %	28-171							

Sample ID: AREA #1 EW 1 @ 4' (H700084-10)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	01/13/2017	ND	416	104	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	01/16/2017	ND	208	104	200	2.59	
DRO >C10-C28	<10.0	10.0	01/16/2017	ND	247	123	200	2.12	
Surrogate: 1-Chlorooctane	93.2 %	35-147							
Surrogate: 1-Chlorooctadecane	104 %	28-171							

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:

Basin Environmental Service
ROBBIE RUNNELS
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	01/12/2017	Sampling Date:	01/11/2017
Reported:	01/17/2017	Sampling Type:	Soil
Project Name:	E. LIVINGSTON RIDGE DELAWARE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: AREA #1 EW 2 @ 4' (H700084-11)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	704	16.0	01/13/2017	ND	416	104	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	01/16/2017	ND	208	104	200	2.59	
DRO >C10-C28	<10.0	10.0	01/16/2017	ND	247	123	200	2.12	
Surrogate: 1-Chlorooctane	87.9 %	35-147							
Surrogate: 1-Chlorooctadecane	96.5 %	28-171							

Sample ID: AREA #1 EW 3 @ 4' (H700084-12)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	01/13/2017	ND	416	104	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	01/16/2017	ND	208	104	200	2.59	
DRO >C10-C28	<10.0	10.0	01/16/2017	ND	247	123	200	2.12	
Surrogate: 1-Chlorooctane	89.6 %	35-147							
Surrogate: 1-Chlorooctadecane	93.5 %	28-171							

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:

Basin Environmental Service
ROBBIE RUNNELS
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	01/12/2017	Sampling Date:	01/11/2017
Reported:	01/17/2017	Sampling Type:	Soil
Project Name:	E. LIVINGSTON RIDGE DELAWARE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: AREA #1 EW 4 @ 4' (H700084-13)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	01/13/2017	ND	416	104	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	01/16/2017	ND	208	104	200	2.59	
DRO >C10-C28	<10.0	10.0	01/16/2017	ND	247	123	200	2.12	
Surrogate: 1-Chlorooctane	87.1 %	35-147							
Surrogate: 1-Chlorooctadecane	92.2 %	28-171							

Sample ID: AREA #1 EW 5 @ 4' (H700084-14)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	01/13/2017	ND	416	104	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	01/16/2017	ND	208	104	200	2.59	
DRO >C10-C28	<10.0	10.0	01/16/2017	ND	247	123	200	2.12	
Surrogate: 1-Chlorooctane	95.9 %	35-147							
Surrogate: 1-Chlorooctadecane	108 %	28-171							

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:

Basin Environmental Service
ROBBIE RUNNELS
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	01/12/2017	Sampling Date:	01/11/2017
Reported:	01/17/2017	Sampling Type:	Soil
Project Name:	E. LIVINGSTON RIDGE DELAWARE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: AREA #1 WW 1 @ 4' (H700084-15)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1580	16.0	01/13/2017	ND	416	104	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	01/16/2017	ND	208	104	200	2.59	
DRO >C10-C28	<10.0	10.0	01/16/2017	ND	247	123	200	2.12	
Surrogate: 1-Chlorooctane	83.2 %	35-147							
Surrogate: 1-Chlorooctadecane	91.2 %	28-171							

Sample ID: AREA #1 WW 2 @ 4' (H700084-16)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	400	16.0	01/13/2017	ND	416	104	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	01/16/2017	ND	208	104	200	2.59	
DRO >C10-C28	<10.0	10.0	01/16/2017	ND	247	123	200	2.12	
Surrogate: 1-Chlorooctane	85.2 %	35-147							
Surrogate: 1-Chlorooctadecane	95.5 %	28-171							

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:

Basin Environmental Service
ROBBIE RUNNELS
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	01/12/2017	Sampling Date:	01/11/2017
Reported:	01/17/2017	Sampling Type:	Soil
Project Name:	E. LIVINGSTON RIDGE DELAWARE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: AREA #1 WW 3 @ 4' (H700084-17)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	01/13/2017	ND	416	104	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	01/16/2017	ND	208	104	200	2.59	
DRO >C10-C28	<10.0	10.0	01/16/2017	ND	247	123	200	2.12	
Surrogate: 1-Chlorooctane	88.7 %	35-147							
Surrogate: 1-Chlorooctadecane	94.0 %	28-171							

Sample ID: AREA #1 WW 4 @ 4' (H700084-18)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	01/13/2017	ND	416	104	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	01/16/2017	ND	208	104	200	2.59	
DRO >C10-C28	<10.0	10.0	01/16/2017	ND	247	123	200	2.12	
Surrogate: 1-Chlorooctane	87.5 %	35-147							
Surrogate: 1-Chlorooctadecane	94.4 %	28-171							

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:

 Basin Environmental Service
 ROBBIE RUNNELS
 P.O. Box 301
 Lovington NM, 88260
 Fax To: (575) 396-1429

Received:	01/12/2017	Sampling Date:	01/11/2017
Reported:	01/17/2017	Sampling Type:	Soil
Project Name:	E. LIVINGSTON RIDGE DELAWARE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: AREA #1 WW 5 @ 4' (H700084-19)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	01/13/2017	ND	416	104	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	01/16/2017	ND	208	104	200	2.59	
DRO >C10-C28	<10.0	10.0	01/16/2017	ND	247	123	200	2.12	
Surrogate: 1-Chlorooctane	85.4 %	35-147							
Surrogate: 1-Chlorooctadecane	90.7 %	28-171							

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

BS1	Blank spike recovery above laboratory acceptance criteria. Results for analyte potentially biased high.
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

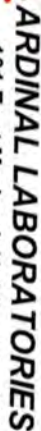
Cardinal Laboratories

*=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



101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 15 of 16



ARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Basin Environmental Service Technologies, LLC

Project Manager: Robbie Runnels

Address: P.O. Box 301

City: Lovington

Phone #: (575)396-2378

Fax #: (575)396-1429

Project #:

Project Owner: Echo Production

Project Name: E. Livingston Delaware Ridge

Project Location: Lea

Sampler Name: Matt Taylor

BILL TO
P.O. #: _____
Company: Basin Env.
Attn: Jody
Address: P.O. Box 301
City: Lovington
State: NM Zip: 88260
Phone #: (575) 396-2378
Fax #: (575) 396-1429

ANALYSIS REQUEST

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV.		DATE	TIME	Chloride									
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL			TPH (8015M)									
H700084	Area#1 EW 2@4'	g	1	X								1/11/16	9:50	X	X								
	Area#1 EW 3@4'	g	1	X								1/11/16	9:55	X	X								
	Area#1 EW 4@4'	g	1	X								1/11/16	10:00	X	X								
	Area#1 EW 5@4'	g	1	X								1/11/16	10:05	X	X								
	Area#1 WW 1@4'	g	1	X								1/11/16	10:10	X	X								
	Area#1 WW 2@4'	g	1	X								1/11/16	10:15	X	X								
	Area#1 WW 3@4'	g	1	X								1/11/16	10:20	X	X								
	Area#1 WW 4@4'	g	1	X								1/11/16	10:25	X	X								
	Area#1 WW 5@4'	g	1	X								1/11/16	10:30	X	X								

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 the client for the analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruption, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services rendered by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:

Matt Taylor

Date: 1/12/2016

Time: 630

Received By:

Robbie Runnels

Phone Result: ☐ Yes ☐ No Add'l Phone #: _____

Fax Result: ☐ Yes ☐ No Add'l Fax #: _____

REMARKS:

Relinquished By:

Matt Taylor

Date: 1/12/2016

Time: 630

Received By:

Robbie Runnels

Phone Result: ☐ Yes ☐ No Add'l Phone #: _____

Fax Result: ☐ Yes ☐ No Add'l Fax #: _____

REMARKS:

Delivered By: (Circle One)

Sampler - UPS - Bus - Other: #15

Date: 1/12/2016

Time: 4:42

Received By:

Robbie Runnels

Phone Result: ☐ Yes ☐ No Add'l Phone #: _____

Fax Result: ☐ Yes ☐ No Add'l Fax #: _____

REMARKS:

Please email results to pm@basinenv.com

February 08, 2017

ROBBIE RUNNELS

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: E. LIVINGSTON RIDGE DELAWARE

Enclosed are the results of analyses for samples received by the laboratory on 02/01/17 15:10.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. 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.

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

Analytical Results For:

Basin Environmental Service
ROBBIE RUNNELS
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	02/01/2017	Sampling Date:	01/31/2017
Reported:	02/08/2017	Sampling Type:	Soil
Project Name:	E. LIVINGSTON RIDGE DELAWARE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: AREA 1 FLOOR 1 @ 7' (H700245-01)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/03/2017	ND	2.14	107	2.00	0.0867	
Toluene*	<0.050	0.050	02/03/2017	ND	2.10	105	2.00	0.136	
Ethylbenzene*	<0.050	0.050	02/03/2017	ND	2.11	106	2.00	0.0711	
Total Xylenes*	<0.150	0.150	02/03/2017	ND	5.99	99.8	6.00	0.215	
Total BTEX	<0.300	0.300	02/03/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	10400	16.0	02/03/2017	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	02/02/2017	ND	194	97.1	200	4.66	
DRO >C10-C28	<10.0	10.0	02/02/2017	ND	213	107	200	9.16	

Surrogate: 1-Chlorooctane 95.1 % 35-147

Surrogate: 1-Chlorooctadecane 107 % 28-171

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:

Basin Environmental Service
ROBBIE RUNNELS
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	02/01/2017	Sampling Date:	01/31/2017
Reported:	02/08/2017	Sampling Type:	Soil
Project Name:	E. LIVINGSTON RIDGE DELAWARE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: AREA 1 FLOOR 1 @ 9' (H700245-02)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	18000	16.0	02/03/2017	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	02/02/2017	ND	194	97.1	200	4.66	
DRO >C10-C28	<10.0	10.0	02/02/2017	ND	213	107	200	9.16	
Surrogate: 1-Chlorooctane	92.4 %	35-147							
Surrogate: 1-Chlorooctadecane	101 %	28-171							

Sample ID: AREA 1 FLOOR 2 @ 7' (H700245-03)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7600	16.0	02/03/2017	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	02/02/2017	ND	194	97.1	200	4.66	
DRO >C10-C28	<10.0	10.0	02/02/2017	ND	213	107	200	9.16	
Surrogate: 1-Chlorooctane	98.2 %	35-147							
Surrogate: 1-Chlorooctadecane	102 %	28-171							

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:

 Basin Environmental Service
 ROBBIE RUNNELS
 P.O. Box 301
 Lovington NM, 88260
 Fax To: (575) 396-1429

Received:	02/01/2017	Sampling Date:	01/31/2017
Reported:	02/08/2017	Sampling Type:	Soil
Project Name:	E. LIVINGSTON RIDGE DELAWARE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: AREA 1 FLOOR 2 @ 9' (H700245-04)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	20000	16.0	02/03/2017	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	02/02/2017	ND	194	97.1	200	4.66	
DRO >C10-C28	<10.0	10.0	02/02/2017	ND	213	107	200	9.16	
Surrogate: 1-Chlorooctane	91.9 %	35-147							
Surrogate: 1-Chlorooctadecane	91.0 %	28-171							

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:

Basin Environmental Service
ROBBIE RUNNELS
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	02/01/2017	Sampling Date:	01/31/2017
Reported:	02/08/2017	Sampling Type:	Soil
Project Name:	E. LIVINGSTON RIDGE DELAWARE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: AREA 1 FLOOR 3 @ 7' (H700245-05)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/03/2017	ND	2.14	107	2.00	0.0867	
Toluene*	<0.050	0.050	02/03/2017	ND	2.10	105	2.00	0.136	
Ethylbenzene*	<0.050	0.050	02/03/2017	ND	2.11	106	2.00	0.0711	
Total Xylenes*	<0.150	0.150	02/03/2017	ND	5.99	99.8	6.00	0.215	
Total BTEx	<0.300	0.300	02/03/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.6-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	13200	16.0	02/03/2017	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	02/02/2017	ND	194	97.1	200	4.66	
DRO >C10-C28	<10.0	10.0	02/02/2017	ND	213	107	200	9.16	

Surrogate: 1-Chlorooctane 92.8 % 35-147

Surrogate: 1-Chlorooctadecane 100 % 28-171

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:

Basin Environmental Service
ROBBIE RUNNELS
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	02/01/2017	Sampling Date:	01/31/2017
Reported:	02/08/2017	Sampling Type:	Soil
Project Name:	E. LIVINGSTON RIDGE DELAWARE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: AREA 1 FLOOR 3 @ 9' (H700245-06)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	17600	16.0	02/03/2017	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	02/02/2017	ND	194	97.1	200	4.66	
DRO >C10-C28	<10.0	10.0	02/02/2017	ND	213	107	200	9.16	
Surrogate: 1-Chlorooctane	102 %	35-147							
Surrogate: 1-Chlorooctadecane	95.8 %	28-171							

Sample ID: AREA 1 WW 1 @ 4' (H700245-07)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/03/2017	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	02/02/2017	ND	194	97.1	200	4.66	
DRO >C10-C28	<10.0	10.0	02/02/2017	ND	213	107	200	9.16	
Surrogate: 1-Chlorooctane	88.7 %	35-147							
Surrogate: 1-Chlorooctadecane	101 %	28-171							

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

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
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

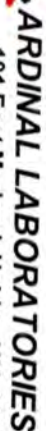
Cardinal Laboratories

*=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



101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Basin Environmental Service Technologies, LLC Project Manager: Robbie Runnels Address: P.O. Box 301 City: Lovington State: NM Zip: 88260 Phone #: (575)396-2378 Fax #: (575)396-1429 Project #: Project Owner: Echo Production Project Name: E. Livingston Delaware Ridge Project Location: Lea Sample Name: Matt Taylor				BILL TO P.O. #: Company: Basin Env. Attn: Jody Address: P.O. Box 301 City: Lovington State: NM Zip: 88260 Phone #: (575) 396-2378 Fax #: (575) 396-1429				ANALYSIS REQUEST			
FOR LAB USE ONLY Lab I.D. Sample I.D. H100245				FOR LAB USE ONLY Lab I.D. Sample I.D. H100245							
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 the client for the analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruption, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services rendered by Cardinal, regardless of whether such claims are based upon any of the above stated reasons or otherwise.											
Relinquished By: Matt Taylor Date: 2/1/2017 Time: 6:30 Received By: Robbie Runnels				Relinquished By: Matt Taylor Date: 2/1/2017 Time: 6:30 Received By: Robbie Runnels				Relinquished By: Matt Taylor Date: 2/1/2017 Time: 6:30 Received By: Robbie Runnels			
Delivered By: (Circle One) Sampler - UPS - Bus - Other:				Delivered By: (Circle One) Sampler - UPS - Bus - Other:				Delivered By: (Circle One) Sampler - UPS - Bus - Other:			
Sample Condition Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				Sample Condition Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				Sample Condition Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
CHECKED BY: (Initials) [Signature]				CHECKED BY: (Initials) [Signature]				CHECKED BY: (Initials) [Signature]			
Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #: Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Fax #: REMARKS:				Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #: Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Fax #: REMARKS:				Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #: Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Fax #: REMARKS:			
Cardinal cannot accept verbal changes. Please fax written changes to 575-396-1429.				Cardinal cannot accept verbal changes. Please fax written changes to 575-396-1429.				Cardinal cannot accept verbal changes. Please fax written changes to 575-396-1429.			

February 08, 2017

ROBBIE RUNNELS

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: E. LIVINGSTON RIDGE DELAWARE

Enclosed are the results of analyses for samples received by the laboratory on 02/01/17 15:10.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. 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.

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

Analytical Results For:

 Basin Environmental Service
 ROBBIE RUNNELS
 P.O. Box 301
 Lovington NM, 88260
 Fax To: (575) 396-1429

Received:	02/01/2017	Sampling Date:	01/31/2017
Reported:	02/08/2017	Sampling Type:	Soil
Project Name:	E. LIVINGSTON RIDGE DELAWARE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: AREA 2 FLOOR 1 @ 6' (H700246-01)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	848	16.0	02/03/2017	ND	432	108	400	0.00	

Sample ID: AREA 2 FLOOR 1 @ 10' (H700246-02)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	720	16.0	02/03/2017	ND	432	108	400	0.00	

Sample ID: AREA 2 FLOOR 1 @ 13' (H700246-03)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	14800	16.0	02/03/2017	ND	432	108	400	0.00	

Sample ID: AREA 2 FLOOR 3 @ 7' (H700246-04)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2930	16.0	02/03/2017	ND	432	108	400	0.00	

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:

 Basin Environmental Service
 ROBBIE RUNNELS
 P.O. Box 301
 Lovington NM, 88260
 Fax To: (575) 396-1429

Received:	02/01/2017	Sampling Date:	01/31/2017
Reported:	02/08/2017	Sampling Type:	Soil
Project Name:	E. LIVINGSTON RIDGE DELAWARE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: AREA 2 FLOOR 3 @ 11' (H700246-05)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	12800	16.0	02/03/2017	ND	432	108	400	0.00	QM-07	

Sample ID: AREA 2 FLOOR 3 @ 13' (H700246-06)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	17600	16.0	02/03/2017	ND	432	108	400	0.00	

Sample ID: AREA 2 FLOOR 4 @ 7' (H700246-07)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3720	16.0	02/03/2017	ND	432	108	400	0.00	

Sample ID: AREA 2 FLOOR 4 @ 11' (H700246-08)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	24400	16.0	02/03/2017	ND	432	108	400	0.00	

Sample ID: AREA 2 FLOOR 4 @ 13' (H700246-09)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	30000	16.0	02/03/2017	ND	432	108	400	0.00	

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:

Basin Environmental Service
ROBBIE RUNNELS
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	02/01/2017	Sampling Date:	01/31/2017
Reported:	02/08/2017	Sampling Type:	Soil
Project Name:	E. LIVINGSTON RIDGE DELAWARE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: AREA 2 FLOOR 6 @ 5' (H700246-10)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	02/03/2017	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	02/02/2017	ND	194	97.1	200	4.66	
DRO >C10-C28	15.6	10.0	02/02/2017	ND	213	107	200	9.16	

Surrogate: 1-Chlorooctane 105 % 35-147

Surrogate: 1-Chlorooctadecane 109 % 28-171

Sample ID: AREA 2 EW 4 @ 4' (H700246-11)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	02/03/2017	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	02/02/2017	ND	194	97.1	200	4.66	
DRO >C10-C28	<10.0	10.0	02/02/2017	ND	213	107	200	9.16	

Surrogate: 1-Chlorooctane 103 % 35-147

Surrogate: 1-Chlorooctadecane 97.3 % 28-171

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:

Basin Environmental Service
ROBBIE RUNNELS
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	02/01/2017	Sampling Date:	01/31/2017
Reported:	02/08/2017	Sampling Type:	Soil
Project Name:	E. LIVINGSTON RIDGE DELAWARE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: AREA 2 EW 6 @ 4' (H700246-12)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	02/03/2017	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	02/02/2017	ND	194	97.1	200	4.66	
DRO >C10-C28	<10.0	10.0	02/02/2017	ND	213	107	200	9.16	
Surrogate: 1-Chlorooctane	89.2 %	35-147							
Surrogate: 1-Chlorooctadecane	101 %	28-171							

Sample ID: AREA 2 NW 4 @ 4' (H700246-13)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	02/03/2017	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	02/02/2017	ND	194	97.1	200	4.66	
DRO >C10-C28	<10.0	10.0	02/02/2017	ND	213	107	200	9.16	
Surrogate: 1-Chlorooctane	98.8 %	35-147							
Surrogate: 1-Chlorooctadecane	99.0 %	28-171							

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:

Basin Environmental Service
ROBBIE RUNNELS
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	02/01/2017	Sampling Date:	01/31/2017
Reported:	02/08/2017	Sampling Type:	Soil
Project Name:	E. LIVINGSTON RIDGE DELAWARE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: AREA 2 WW 8 @ 4' (H700246-14)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	02/03/2017	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	02/03/2017	ND	192	96.0	200	10.2	
DRO >C10-C28	<10.0	10.0	02/03/2017	ND	204	102	200	9.69	
Surrogate: 1-Chlorooctane	88.5 %	35-147							
Surrogate: 1-Chlorooctadecane	101 %	28-171							

Sample ID: AREA 2 SW 5 @ 4' (H700246-15)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/03/2017	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	02/03/2017	ND	192	96.0	200	10.2	
DRO >C10-C28	<10.0	10.0	02/03/2017	ND	204	102	200	9.69	
Surrogate: 1-Chlorooctane	87.2 %	35-147							
Surrogate: 1-Chlorooctadecane	98.8 %	28-171							

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:

Basin Environmental Service
ROBBIE RUNNELS
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	02/01/2017	Sampling Date:	01/31/2017
Reported:	02/08/2017	Sampling Type:	Soil
Project Name:	E. LIVINGSTON RIDGE DELAWARE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: AREA 2 FLOOR 7 @ 5' (H700246-16)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	02/03/2017	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	02/03/2017	ND	192	96.0	200	10.2	
DRO >C10-C28	<10.0	10.0	02/03/2017	ND	204	102	200	9.69	
Surrogate: 1-Chlorooctane	87.2 %	35-147							
Surrogate: 1-Chlorooctadecane	99.3 %	28-171							

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

QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
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



101 East Marland, Hobbs, NM 88240

FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Basin Environmental Service Technologies, LLC Project Manager: Robbie Runnels Address: P.O. Box 301 City: Lovington Phone #: (575)396-2378 Project #: Project Name: E. Livingston Delaware Ridge Project Location: Lea				P.O. #: Company: Basin Env. Attn: Jody Address: P.O. Box 301 City: Lovington State: NM Zip: 88260 Phone #: (575) 396-2378 Fax #: (575) 396-1429			
FOR LAB USE ONLY Sampler Name: Matt Taylor Lab I.D.: H1002416 Sample I.D.:				Matrix: GROUNDWATER, WASTEWATER, SOIL, OIL, SLUDGE, OTHER: Preserv.: ACID/BASE, ICE / COOL, OTHER: Sampling:			
PLEASE NOTE: Liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.				Relinquished By: Matt Taylor Date: 2/1/2017 Received By: Robbie Runnels Date: 2/1/2017			
Relinquished By: Matt Taylor Date: 2/1/2017 Time: 6:30 Received By: Robbie Runnels Date: 2/1/2017 Time: 5:10				Sample Condition: Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Checked By: (Initials)			
Delivered By: (Circle One) Sampler - UPS - Bus - Other:				REMARKS: Please email results to pm@basinenv.com			

Area	(G)RAB OR (C)OMP.	# CONTAINERS	DATE	TIME	Chloride	TPH (8015M)	BTEX (8021B)
Area 2 Floor 1@6'	g 1	X	1/31/17	8:40	X		
Area 2 Floor 1@10'	g 1	X	1/31/17	9:00	X		
Area 2 Floor 1@13'	g 1	X	1/31/17	9:20	X		
Area 2 Floor 3@7'	g 1	X	1/31/17	9:40	X		
Area 2 Floor 3@11'	g 1	X	1/31/17	10:00	X		
Area 2 Floor 3@13'	g 1	X	1/31/17	10:20	X		
Area 2 Floor 4@7'	g 1	X	1/31/17	10:40	X		
Area 2 Floor 4@11'	g 1	X	1/31/17	11:00	X		
Area 2 Floor 4@13'	g 1	X	1/31/17	11:20	X		
Area 2 Floor 6@5'	g 1	X	1/31/17	11:40	X	X	



101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

(575) 393-2326 FAX (575) 393-2476																					
Company Name: Basin Environmental Service Technologies, LLC						BILL TO															
Project Manager: Robbie Runnels						P.O. #:															
Address: P.O. Box 301						Company: Basin Env.															
City: Lovington						Attn: Jody															
Phone #: (575)396-2378						Address: P.O. Box 301															
Fax #: (575)396-1429						City: Lovington															
Project #:						State: NM Zip: 88260															
Project Name: E. Livingston Delaware Ridge						Phone #: (575) 396-2378															
Project Location: Lea						Fax #: (575) 396-1429															
Sampler Name: Matt Taylor						PRESERV. SAMPLING															
FOR LAB USE ONLY																					
Lab I.D. Sample I.D.																					
H7002416	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX			PRESERV.	SAMPLING														
			GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME								
11 Area 2 EW4@4'	g	1	X							X		1/31/17	7:50	X	X						
12 Area 2 EW6@4'	g	1		X						X		1/31/17	8:00	X	X						
13 Area 2 NW4@4'	g	1		X						X		1/31/17	8:10	X	X						
14 Area 2 WW8@4'	g	1		X						X		1/31/17	8:20	X	X						
15 Area 2 SW5@4'	g	1		X						X		1/31/17	8:30	X	X						
16 Area 2 Fair Test		6		X								1/31/17	8:35	X	X						
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 the client for the analysis. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.																					
Relinquished By: Matt Taylor						Received By: Robbie Runnels															
Date: 2/1/2017 Time: 6:30						Date: 2/1/2017 Time: 6:30															
Reinquinshed By: [Signature]						Received By: [Signature]															
Delivered By: (Circle One) #75 5.20						Sample Condition Cool Intact Yes Yes No No															
Sampler - UPS - Bus - Other: #75 5.20						CHECKED BY: [Initials]															
Please email results to pm@basinenr.com																					
REMARKS:																					
Phone Result: Yes No Add'l Phone #: Fax Result: Yes No Add'l Fax #:																					



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

February 09, 2017

ROBBIE RUNNELS

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: E. LIVINGSTON RIDGE DELAWARE

Enclosed are the results of analyses for samples received by the laboratory on 02/03/17 15:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. 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.

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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

Basin Environmental Service
ROBBIE RUNNELS
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	02/03/2017	Sampling Date:	02/01/2017
Reported:	02/09/2017	Sampling Type:	Soil
Project Name:	E. LIVINGSTON RIDGE DELAWARE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: AREA #1 FLOOR 3 @ 23' (H700284-01)**Chloride, SM4500Cl-B****mg/kg****Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7330	16.0	02/09/2017	ND	400	100	400	3.92	

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

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



101 East Marland, Hobbs, NM 88240

(575) 393-2326 FAX (575) 393-2476

[illegible]

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 actual price of the applicable analysis. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable analysis. All claims for incidental or consequential damages, including without limitation, business interruption, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates, or licensees shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable analysis. All claims for punitive damages shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable analysis.

FORM-006
Revision 1.0

† Cardinal cannot accept verbal changes. Please fax written changes to 313-353-2410

February 09, 2017

ROBBIE RUNNELS

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: E. LIVINGSTON RIDGE DELAWARE

Enclosed are the results of analyses for samples received by the laboratory on 02/03/17 15:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. 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.

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

Analytical Results For:

Basin Environmental Service
ROBBIE RUNNELS
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	02/03/2017	Sampling Date:	02/01/2017
Reported:	02/09/2017	Sampling Type:	Soil
Project Name:	E. LIVINGSTON RIDGE DELAWARE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: AREA #2 FLOOR 3 @ 23' (H700285-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4660	16.0	02/09/2017	ND	400	100	400	3.92	

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

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



ARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240

(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

BILL TO

ANALYSIS REQUEST

Company Name: Basin Environmental Service Technologies, LLC
Project Manager: Robbie Runnels
Address: P.O. Box 301
City: Lovington
State: NM Zip: 88260
Phone #: (575) 396-2378
Fax #: (575) 396-1429
Project Owner: Echo Production
Project Name: E. Livingston Delaware Ridge
Project Location: Lea
Sampler Name: Matt Taylor

P.O. #:
Company: Basin Env.
Attn: Jody
Address: P.O. Box 301
City: Lovington
State: NM Zip: 88260
Phone #: (575) 396-2378
Fax #: (575) 396-1429

FOR LAB USE ONLY

Lab I.D. Sample I.D.

#17002545

Area#2 Floor 3 @ 23'

(G)RAB OR (C)OMP.
CONTAINERS
GROUNDWATER
WASTEWATER
SOIL
OIL
SLUDGE
OTHER :
ACID/BASE:
ICE / COOL
OTHER :

DATE
2/1/17
TIME
9:30

Chloride
TPH (8015M)
BTEX (8021B)

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 the client for the analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:

Date: 2/3/2017

Received By:

Matt Taylor

Time: 6:30

Robbie Runnels

Relinquished By:

Date:

Received By:

Delivered By: (Circle One)

Sampler - UPS - Bus - Other:

#75

-1.10

Sample Condition
Cool ☒ Intact ☒
Yes ☒ Yes ☒
No ☐ No ☐

CHECKED BY: (Initials)

Please email results to pm@basinenr.com

Phone Result: ☐ Yes ☐ No Add'l Phone #:
Fax Result: ☐ Yes ☐ No Add'l Fax #:
REMARKS: