



May 17, 2013

Select Energy Services, Inc.  
Lonestar SWD- Disposal  
24246 County Road 34  
LaSalle, Colorado 80645

Attn: Ms. Barbara Ries  
P: 720-442-3858  
E: BRies@selectenergyservices.com

**RE: Laboratory Analytical and Summary Report  
Lonestar SWD – Produced Water Treatment and Disposal Facility  
15988 Weld County Road 49, LaSalle, Weld County, CO  
Terracon Project No. 20137005**

Dear Ms. Ries:

On behalf of Select Energy Services, Inc., please find enclosed a copy of the analytical laboratory report for sample collected in accordance with Terracon's proposal P20130073, dated April 23, 2013. The sample was collected and analyzed per your request and in general accordance with the request by the Colorado Oil and Gas Conservation Commission (COGCC) regarding water analysis and characterization of the disposal fluids currently being introduced into the permitted LSWD #1 injection well, API #05-123-30367, associated with your disposal facility. It is understood that this characterization is required as part of the underground injection control (UIC) well permit with the COGCC; and is required for reporting within one year of commencement of well operation of the Class II UIC disposal injection well, LSWD #1, for the Lonestar Oilfield Produced Water Treatment and Disposal Facility in LaSalle, Weld County, Colorado.

On April 29, 2013, a Terracon environmental professional mobilized to the site and collected a water sample from a location prior to discharge of disposal fluids into the on-site injection well, with assistance from on-site Select Energy Services operations personnel during sample collection. The discharge sample was collected in clean, new, laboratory prepared plastic sample containers, placed in a cooler with ice and shipped under standard chain-of-custody procedures to ESC Lab Sciences for laboratory testing. The collected sample was analyzed for total dissolved solids (TDS), chloride, sulfate and other major cations and anions, as required by COGCC. The laboratory report is included as an attachment to this letter report for Select Energy Services reporting to the COGCC.

Laboratory Analytical and Summary Report  
Lonestar SWD ■ LaSalle, CO  
Class I UIC Injection Well LSWD#1 – API#05-123-30367  
May 17, 2013 ■ Terracon Project No. 20137005

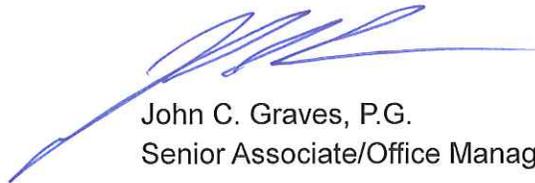
**Terracon**

It is a pleasure to be of service to Select Energy Services on this project. Please do not hesitate to call if you have any questions or require further services in the future.

Sincerely,  
**Terracon Consultants, Inc.**



Derek A. Brown, P.E.  
Senior Project Manager



John C. Graves, P.G.  
Senior Associate/Office Manager

Enc: ESC Lab Sciences Laboratory Report dated May 8, 2013



12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
(615) 758-5858  
1-800-767-5859  
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Craig Nelson  
Terracon - Fort Collins  
1901 Sharp Point Drive, Ste C  
Fort Collins, CO 80521

### Report Summary

Wednesday May 08, 2013

Report Number: L633041

Samples Received: 04/30/13

Client Project: 20137005

Description: Lonestar Injection Well Sampling

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Daphne Richards, ESC Representative

#### Laboratory Certification Numbers

AZLA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,  
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,  
NC - ENV375/DW21704/BIO041, ND - R-140, NJ - TN002, NJ NELAP - TN002,  
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,  
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,  
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

Note: The use of the preparatory EPA Method 3511 is not approved or endorsed by the CA ELAP.

This report may not be reproduced, except in full, without written approval from ESC Lab Sciences. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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 Est. 1970

REPORT OF ANALYSIS

May 08, 2013

Craig Nelson  
 Terracon - Fort Collins  
 1901 Sharp Point Drive, Ste C  
 Fort Collins, CO 80521

ESC Sample # : L633041-01

Date Received : April 30, 2013  
 Description : Lonestar Injection Well Sampling  
 Sample ID : DISCHARGE  
 Collected By : Craig Nelson  
 Collection Date : 04/29/13 13:45

Site ID :  
 Project # : 20137005

| Parameter               | Result   | Det. Limit | Units | Method     | Date     | Dil. |
|-------------------------|----------|------------|-------|------------|----------|------|
| Bromide                 | 85000    | 50000      | ug/l  | 9056       | 04/30/13 | 50   |
| Chloride                | 7700000  | 100000     | ug/l  | 9056       | 05/01/13 | 100  |
| Fluoride                | BDL      | 5000       | ug/l  | 9056       | 04/30/13 | 50   |
| Nitrate                 | BDL      | 5000       | ug/l  | 9056       | 04/30/13 | 50   |
| Nitrite                 | BDL      | 5000       | ug/l  | 9056       | 04/30/13 | 50   |
| Sulfate                 | 450000   | 100000     | ug/l  | 9056       | 05/02/13 | 20   |
| Alkalinity, Bicarbonate | 340000   | 200000     | ug/l  | 2320 B-201 | 05/01/13 | 10   |
| Alkalinity, Carbonate   | BDL      | 200000     | ug/l  | 2320 B-201 | 05/01/13 | 10   |
| Dissolved Solids        | 14000000 | 10000      | ug/l  | 2540 C-201 | 05/03/13 | 1    |
| Calcium                 | 72000    | 500        | ug/l  | 6010B      | 05/07/13 | 1    |
| Iron                    | 34000    | 100        | ug/l  | 6010B      | 05/07/13 | 1    |
| Magnesium               | 8600     | 100        | ug/l  | 6010B      | 05/07/13 | 1    |
| Manganese               | 290      | 10.        | ug/l  | 6010B      | 05/07/13 | 1    |
| Potassium               | 22000    | 500        | ug/l  | 6010B      | 05/07/13 | 1    |
| Sodium                  | 1600000  | 2500       | ug/l  | 6010B      | 05/07/13 | 5    |

BDL - Below Detection Limit  
 Det. Limit - Practical Quantitation Limit (PQL)  
 Note:  
 The reported analytical results relate only to the sample submitted.  
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 05/08/13 10:19 Printed: 05/08/13 10:41  
 L633041-01 (ANIONS BY IC) - Diluted to protect instrument components due to matrix.

Attachment A  
List of Analytes with QC Qualifiers

| Sample Number | Work Group | Sample Type | Analyte  | Run ID   | Qualifier |
|---------------|------------|-------------|----------|----------|-----------|
| L633041-01    | WG658906   | SAMP        | Fluoride | R2647220 | O         |
|               | WG658906   | SAMP        | Nitrate  | R2647220 | O         |
|               | WG658906   | SAMP        | Nitrite  | R2647220 | O         |

Attachment B  
Explanation of QC Qualifier Codes

| Qualifier | Meaning                                                                                                                                                                                              |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| O         | (ESC) Sample diluted due to matrix interferences that impaired the ability to make an accurate analytical determination. The detection limit is elevated in order to reflect the necessary dilution. |

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

|                                                                                                                         |  |                                                                                                                                                                             |  |                                                                                                                                                    |  |
|-------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>Company Name/Address</b><br><b>Terracon - Fort Collins</b><br>1901 Sharp Point Dr. Suite C<br>Fort Collins, CO 80525 |  | <b>Alternate Billing</b><br>Report to: Craig Nelson<br>E-mail: tocnelson@terracon.com                                                                                       |  | <b>Chain of Custody</b><br>Page <u>  </u> of <u>  </u>                                                                                             |  |
| <b>Project Description:</b> Lonestar Injection Well Sampling                                                            |  | <b>Client/Project No.:</b> 20137005                                                                                                                                         |  | <b>Prepared by:</b> <b>G242</b>                                                                                                                    |  |
| <b>PHONE:</b> 970-484-4395                                                                                              |  | <b>Lab Project #</b>                                                                                                                                                        |  | <b>ENVIRONMENTAL Science corp</b><br>12065 Lebanon Road<br>Mt. Juliet TN 37122<br>Phone (615)758-5858<br>Phone (800) 767-5859<br>FAX (615)758-5859 |  |
| <b>FAX:</b>                                                                                                             |  | <b>P.O.#</b>                                                                                                                                                                |  | <b>CoCode</b> (lab use only)<br><b>TERRAFCO</b>                                                                                                    |  |
| <b>Collected by:</b> <i>Craig Nelson</i>                                                                                |  | <b>Site/Facility ID#</b>                                                                                                                                                    |  | <b>Template/Prelogin</b>                                                                                                                           |  |
| <b>Collected by (signature):</b> <i>[Signature]</i>                                                                     |  | <b>Rush?</b> (Lab MUST be Notified)<br><input type="checkbox"/> Same Day.....200%<br><input type="checkbox"/> Next Day.....100%<br><input type="checkbox"/> Two Day.....50% |  | <b>Shipped Via:</b> Denver Service Center                                                                                                          |  |
| <b>Packed on Ice:</b> N <u>  </u> Y <u>X</u>                                                                            |  | <b>Date Results Needed</b><br>Email? <u>  </u> No <u>  </u> Yes <u>  </u><br>FAX? <u>  </u> No <u>  </u> Yes <u>  </u>                                                      |  | <b>Remarks/contaminant</b>                                                                                                                         |  |
| <b>Sample ID</b><br>Discharge                                                                                           |  | <b>Date</b><br>4-29-13                                                                                                                                                      |  | <b>Sample # (lab only)</b><br>L633041-01                                                                                                           |  |
| <b>Comp/Grab</b><br>Grab OT                                                                                             |  | <b>Time</b><br>1345                                                                                                                                                         |  |                                                                                                                                                    |  |
| <b>Matrix</b>                                                                                                           |  | <b>Depth</b>                                                                                                                                                                |  |                                                                                                                                                    |  |
| <b>Ca, Fe, Mg, Mn, K, Na (1) 500ml HDPE w/HNO3</b>                                                                      |  | <b>Units</b>                                                                                                                                                                |  |                                                                                                                                                    |  |
| <b>Bromide, Chloride, Fluoride, Sulfate, Nitrate, Nitrite (1) 250ml</b>                                                 |  |                                                                                                                                                                             |  |                                                                                                                                                    |  |
| <b>ALKBI, ALKCA (1) 250ml HDPE No Pres.</b>                                                                             |  |                                                                                                                                                                             |  |                                                                                                                                                    |  |
| <b>TDS (1) 500ml HDPE No Pres.</b>                                                                                      |  |                                                                                                                                                                             |  |                                                                                                                                                    |  |

Matrix: SS-Soil/Solid GW-Groundwater WW-Wastewater DW-Drinking Water OT-Other \_\_\_\_\_

pH \_\_\_\_\_ Temp \_\_\_\_\_

Flow \_\_\_\_\_ Other \_\_\_\_\_

Remarks:

|                                                                                                                              |                                                                                                                          |
|------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| <b>Relinquisher by: (Signature)</b><br><i>[Signature]</i>                                                                    | <b>Received by: (Signature)</b><br> |
| <b>Date:</b> 4-29-13<br><b>Time:</b> 1600                                                                                    | <b>Samples returned via:</b> Fedex <u>  </u> UPS <u>  </u> Other <u>  </u><br>543555154904                               |
| <b>Relinquisher by: (Signature)</b><br> | <b>Received by: (Signature)</b><br><i>[Signature]</i>                                                                    |
| <b>Date:</b> _____<br><b>Time:</b> _____                                                                                     | <b>Bottles Received:</b><br>4                                                                                            |
| <b>Relinquisher by: (Signature)</b><br> | <b>Received for lab by: (Signature)</b><br><i>[Signature]</i>                                                            |
| <b>Date:</b> _____<br><b>Time:</b> _____                                                                                     | <b>Date:</b> 4/30/13<br><b>Time:</b> 0910                                                                                |
| <b>Condition:</b> <i>OK</i>                                                                                                  | <b>pH Checked:</b> LA                                                                                                    |
| <b>Temp:</b> _____                                                                                                           | <b>NCF:</b> _____                                                                                                        |