



# CEMENTER'S WELL SERVICE, INC.

P.O. BOX 336220 • GREELEY, CO 80633 • (970) 353-7299 • FAX (970) 353-7712

OUR INVOICE

## 201893

|   |                            |                      |                             |
|---|----------------------------|----------------------|-----------------------------|
| Date <u>10-10-2014</u>                                  | Well Owner <u>E.C.G.S.</u> | Well No. <u>6-21</u> | Lease <u>E.C.G.S.</u>       |
| County <u>LOLAN</u>                                     | State <u>COLORADO</u>      | Field                |                             |
| Charge to <u>EAST CHEYENNE GAS STORAGE</u>              | Charge Code                |                      |                             |
| Address <u>10901 WEST TOWER DRIVE, SUITE 200 (FORT)</u> | For Office Use Only        |                      |                             |
| City, State <u>LITTLETON, COLORADO 80127</u>            | <u>ECGS 6-21</u>           |                      |                             |
| Pump Truck No. <u>1201</u>                              | Code                       | Bulk Truck No.       | Code <u>WPD004-7</u>        |
| Type of Job   | Depth                      | Ft.                  | To                          |
| Surface <u>9 5/8" GSK-13 1/2" HOLE</u>                  | Bottom of Surface          | Ft. <u>932</u>       | To                          |
| Plug  | Plug Landed @              | Ft.                  | Time On <u>RAW 10/10/14</u> |
| Production  | Pipe Landed @              | Ft.                  | Time Off                    |

| Reference No. | Description  | Qty. | Meas. | Unit Price | Amount  |
|---------------|--|------|-------|------------|---------|
|               | Pump Truck Charge  | 1    |       |            | 2610 00 |
|               | Cement <u>LEAD</u>   | 340  | CK    | 16.85      | 5729 00 |
|               | <u>TAIL CEMENT</u>   | 180  | CK    | 18.75      | 3375 00 |
|               | Calcium Chloride   | 2%   |       |            |         |
|               | <u>LEAD 4% Flo-Cele 4 #Per Sack</u>                              |      |       |            |         |
|               | <u>DATA ACQUISITION</u>  | 1    |       |            | 1000 00 |
|               | <u>HEAVY MILEAGE</u>   | 672  | miles | 5.10       | 3360 00 |
|               | <u>PICKUP MILEAGE</u>  | 224  | miles | 3.00       | 672 00  |
|               | <u>LEAD CEMENT-SLURRY VOL. 1.71 CU FT/SK</u>                     |      |       |            |         |
|               | <u>SLURRY WT. 13.6 PPB - TOTAL SLURRY VOL. 103.5 PPLS CEMENT</u> |      |       |            |         |
|               | <u>TAIL CEMENT-SLURRY VOL. 1.24 CU FT/SK</u>                     |      |       |            |         |
|               | <u>SLURRY WT. 15.2 % - TOTAL SLURRY VOL. 440 PPLS CEMENT</u>     |      |       |            |         |
|               | <u>9 5/8" CENTRALIZER?</u>                                       | 6    |       | 75.00      | 450 00  |
|               | <u>SAKE-SEAL FLOAT VALVE</u>                                     | 1    |       |            | 650 00  |
|               | <u>WELL NOSE GUNTER HOE</u>                                      | 1    |       |            | 425 00  |
|               | <u>BOX THREAD LOCK</u>   | 1    |       |            | 30 00   |

|   |                        |           |          |
|---|------------------------|-----------|----------|
| Remarks: <u>PRE-FLUSH W/ 20 PPLS H<sub>2</sub>O</u> | Tax Reference Code     | Sub Total | 18294 00 |
| <u>DISPLACE W/ 90.9 PPLS H<sub>2</sub>O</u>         | State <u>CO. 2.9 %</u> | Tax       | 530 53   |
| <u>CIRCULATE 1010 PPLS CEMENT</u>                   | Disc.                  | Total     | 18824 53 |

| Truck No.         | Code | State Mileage | Nebraska | Colorado | Wyoming | Other | Total Mileage |
|-------------------|------|---------------|----------|----------|---------|-------|---------------|
| <u>1201</u>       |      | Pump Truck    |          | 224      |         |       |               |
| <u>1224, 1214</u> |      | Bulk Truck    |          | 224, 224 |         |       |               |

We do not assume any responsibility for any damage or conditions resulting from our services. All pricing is subject to review and revision.

Delivered By \_\_\_\_\_

Received By \_\_\_\_\_

Customer or His Agent

P



Prepared by: CEMENTERS WELL SERVICE

Company Name: EAST CHEYENNE GAS&STORAGE FORT#5

Well Name: ECGS 6-21

Field:

Formation:

County: WELD

State: COLORADO

Job Date: 10/10/14

Comments: TD@ 1225 KB 1219 set 1176

Fluids: PREFLUSH W/ 30 DISP W/ 90.9

Proppants: BAFFLE YES

Average Rate: 4.0

Average STP:

Tubing: N/A

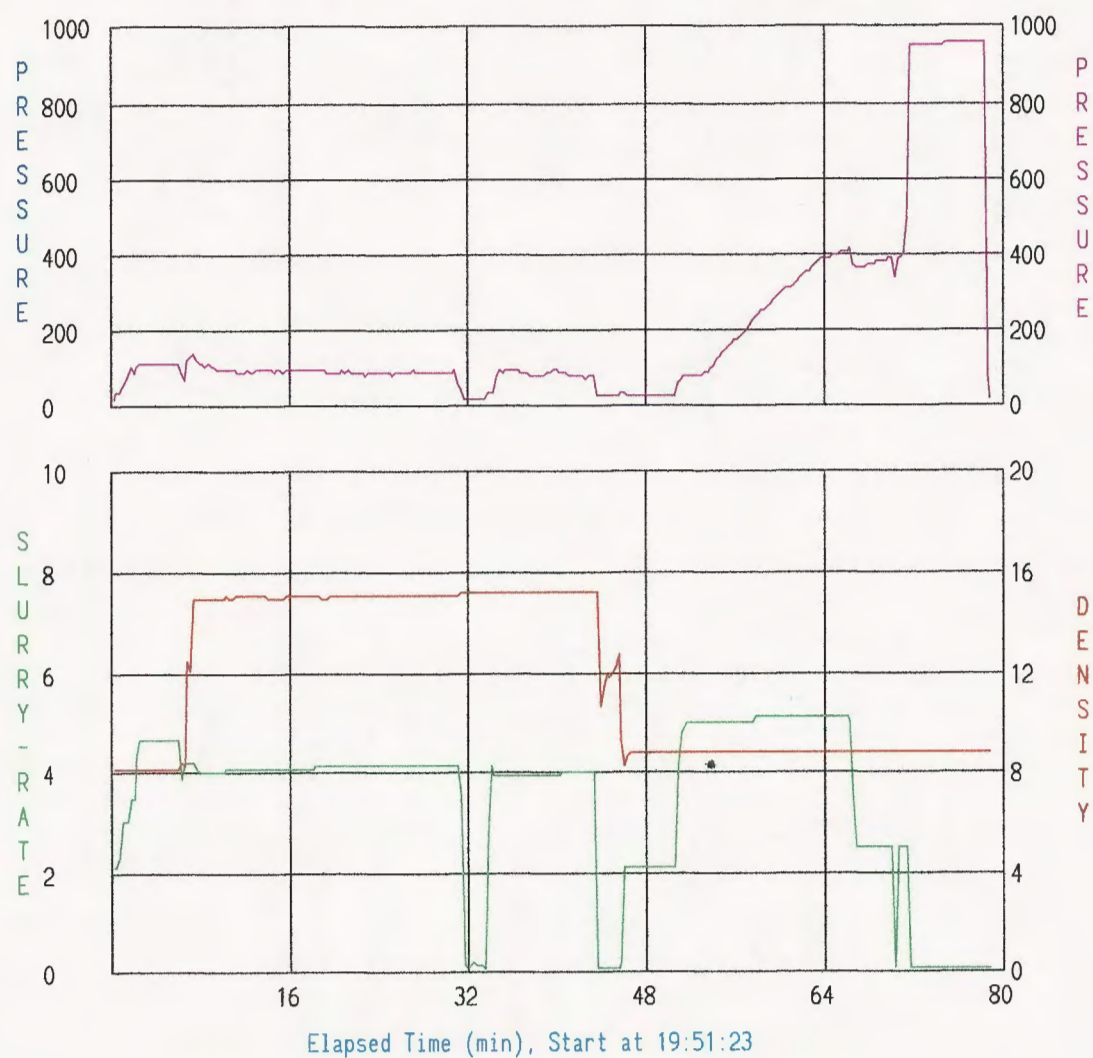
Casing: 9 5/8

Packer: N/A

Filename: 14091301

Closure Pres: 4000

# LINEAR PLOT



Company : East Cheyenne Gas Storage  
 Lease : ECGS 6-21 D004-2  
 Description: 9 5/8" J55, 36ppf surface csg.

Date : 10/11/14  
 Total : 1,219.97

Page # : 1  
 Kelly Bushing : 12  
 Jts on Location: 31  
 Average Joint: 39.35'

| Description Of Tools |      | JT. NO. | Length | Total    | AD D    | JT. NO. | Length | Total  | AD D    | JT. NO. | Length | Total    | ADD Y/N |
|----------------------|------|---------|--------|----------|---------|---------|--------|--------|---------|---------|--------|----------|---------|
| KB CORRECTIO         | 0.00 | 1       | 0.90   | 0.90     | Y       | 11      | 42.11  | 379.37 | Y       | 21      | 42.15  | 799.21   | Y       |
| 0                    | 0.00 | 2       | 42.13  | 43.03    | Y       | 12      | 42.12  | 421.49 | Y       | 22      | 42.13  | 841.34   | Y       |
| 0                    | 0.00 | 3       | 1.34   | 44.37    | Y       | 13      | 42.13  | 463.62 | Y       | 23      | 42.13  | 883.47   | Y       |
| 0                    | 0.00 | 4       | 41.62  | 85.99    | Y       | 14      | 41.64  | 505.26 | Y       | 24      | 42.13  | 925.60   | Y       |
| 0                    | 0.00 | 5       | 42.13  | 128.12   | Y       | 15      | 42.11  | 547.37 | Y       | 25      | 41.64  | 967.24   | Y       |
| 0                    | 0.00 | 6       | 41.64  | 169.76   | Y       | 16      | 42.14  | 589.51 | Y       | 26      | 42.12  | 1,009.36 | Y       |
| 0                    | 0.00 | 7       | 42.12  | 211.88   | Y       | 17      | 42.14  | 631.65 | Y       | 27      | 42.12  | 1,051.48 | Y       |
| 0                    | 0.00 | 8       | 42.12  | 254.00   | Y       | 18      | 41.65  | 673.30 | Y       | 28      | 42.13  | 1,093.61 | Y       |
| 0                    | 0.00 | 9       | 41.63  | 295.63   | Y       | 19      | 42.12  | 715.42 | Y       | 29      | 42.13  | 1,135.74 | Y       |
| 0                    | 0.00 | 10      | 41.63  | 337.26   | Y       | 20      | 41.64  | 757.06 | Y       | 30      | 42.11  | 1,177.85 | Y       |
| 0                    | 0.00 | Total   |        | 337.26   |         | Total   |        | 419.80 |         | Total   |        | 420.79   |         |
| 0                    | 0.00 | JT. No. | Length | Total    | ADD Y/N | JT. No. | Length | Total  | ADD Y/N | JT. No. | Length | Total    | ADD Y/N |
|                      | 0.00 | 31      | 42.12  | 1,219.97 | Y       | 41      | 0.00   | -      | Y       | 51      | 0.00   | -        | Y       |
|                      | 0.00 | 32      | 42.17  | -        | N       | 42      | 0.00   | -      | Y       | 52      | 0.00   | -        | Y       |
| 0                    | 0.00 | 33      | 42.20  | -        | N       | 43      | 0.00   | -      | Y       | 53      | 0.00   | -        | Y       |
| 0                    | 0.00 | 34      | 0.00   | -        | Y       | 44      | 0.00   | -      | Y       | 54      | 0.00   | -        | Y       |
| 0                    | 0.00 | 35      | 0.00   | -        | Y       | 45      | 0.00   | -      | Y       | 55      | 0.00   | -        | Y       |
| 0                    | 0.00 | 36      | 0.00   | -        | Y       | 46      | 0.00   | -      | Y       | 56      | 0.00   | -        | Y       |
| 0                    | 0.00 | 37      | 0.00   | -        | Y       | 47      | 0.00   | -      | Y       | 57      | 0.00   | -        | Y       |
|                      |      | 38      | 0.00   | -        | Y       | 48      | 0.00   | -      | Y       | 58      | 0.00   | -        | Y       |
|                      |      | 39      | 0.00   | -        | Y       | 49      | 0.00   | -      | Y       | 59      | 0.00   | -        | Y       |
|                      |      | 40      | 0.00   | -        | Y       | 50      | 0.00   | -      | Y       | 60      | 0.00   | -        | Y       |
| Total BHA :          |      | Total   |        | 126.49   |         | Total   |        | 0.00   |         | Total   |        | 0.00     |         |

ECGS  
Co-Man R Lynde  
Well Name:  
Drilling Contractor:  
Cementers:

## Long String Casing

ECGS 6-21  
Fort Rig #5  
Halliburton

AFE# WPD004-2  
Date: 10/18/14  
TD: 5,440  
Rat Hole 38.27  
Stick Up 0.00  
**CASING SHOE 5401.73**

| jt       | length | tally   | cent | Depth  | Formation    | Thickness |
|----------|--------|---------|------|--------|--------------|-----------|
| shoe     | 1.69   | 5401.73 |      | 1200   | Pierre       |           |
| 1        | 42.20  | 5400.04 |      |        |              |           |
| f-collar | 1.4    | 5357.84 |      |        |              |           |
| 2        | 42.20  | 5356.44 |      |        |              |           |
| 3        | 42.18  | 5314.24 |      |        |              |           |
| 4        | 42.20  | 5272.06 |      |        |              |           |
| 5        | 42.19  | 5229.86 |      |        |              |           |
| 6        | 42.25  | 5187.67 |      |        |              |           |
| 7        | 42.25  | 5145.42 |      |        |              |           |
| 8        | 42.23  | 5103.17 |      |        |              |           |
| 9        | 42.26  | 5060.94 |      |        |              |           |
| 10       | 42.25  | 5018.68 |      |        |              |           |
| 11       | 42.25  | 4976.43 |      |        |              |           |
| 12       | 42.25  | 4934.18 |      |        |              |           |
| 13       | 42.24  | 4891.93 |      |        |              |           |
| 14       | 42.20  | 4849.69 |      |        |              |           |
| 15       | 42.23  | 4807.49 |      |        |              |           |
| 16       | 42.23  | 4765.26 |      |        |              |           |
| 17       | 42.25  | 4723.03 |      | 530    | Fox Hills SS |           |
| 18       | 42.23  | 4680.78 |      |        |              |           |
| 19       | 42.22  | 4638.55 |      | 490    | Fox Hills Sh |           |
| 20       | 41.95  | 4596.33 |      |        |              |           |
| 21       | 42.25  | 4554.38 |      |        |              |           |
| 22       | 42.23  | 4512.13 |      |        |              |           |
| 23       | 41.95  | 4469.90 |      |        |              |           |
| 24       | 42.25  | 4427.95 |      | 260.00 | Laramie      |           |
| 25       | 42.25  | 4385.70 |      |        |              |           |
| 26       | 42.20  | 4343.45 |      | 160.0  | White River  |           |
| 27       | 42.20  | 4301.25 |      |        |              |           |
| 28       | 41.69  | 4259.05 |      |        |              |           |
| 29       | 42.25  | 4217.36 |      | 10     | Ogalala      |           |
| 30       | 42.22  | 4175.11 |      |        |              |           |
| 31       | 42.12  | 4132.89 |      |        |              |           |
| 32       | 42.12  | 4090.77 |      |        |              |           |
| 33       | 42.15  | 4048.65 |      |        |              |           |
| 34       | 42.12  | 4006.50 |      |        |              |           |
| 35       | 42.13  | 3964.38 |      |        |              |           |
| 36       | 42.25  | 3922.25 |      |        |              |           |
| 37       | 42.24  | 3880.00 |      |        |              |           |
| 38       | 41.96  | 3837.76 |      |        |              |           |
| 39       | 42.25  | 3795.80 |      |        |              |           |
| 40       | 42.25  | 3753.55 |      |        |              |           |
| 41       | 42.25  | 3711.30 |      |        |              |           |
| 42       | 42.21  | 3669.05 |      |        |              |           |
| 43       | 42.19  | 3626.84 |      |        |              |           |
| 44       | 42.20  | 3584.65 |      |        |              |           |
| 45       | 42.22  | 3542.45 |      |        |              |           |
| 46       | 42.24  | 3500.23 |      |        |              |           |
| 47       | 42.22  | 3457.99 |      |        |              |           |
| 48       | 42.25  | 3415.77 |      |        |              |           |
| 49       | 42.18  | 3373.52 |      |        |              |           |
| 50       | 42.20  | 3331.34 |      |        |              |           |
| 51       | 42.25  | 3289.14 |      |        |              |           |
| 52       | 42.23  | 3246.89 |      |        |              |           |
| 53       | 42.25  | 3204.66 |      |        |              |           |
| 54       | 42.25  | 3162.41 |      |        |              |           |
| 55       | 42.19  | 3120.16 |      |        |              |           |

Size: 7  
Weight: 26#  
Grade: J-55 LTC  
Set Depth: 5401.73  
Total Joints Used: 128  
Surface Set @ 1220.00  
Cementing Data:  
Cementers: Halliburton  
Cement System:  
Lead: **Extendacem 2% Super CBL 3% salt**

Lead  
Yield: 1.395 cuft/sx  
Density: 14.6 ppg  
Water: 5.48 gal/sx

Tail  
Yield: 1.395 cuft/sx  
Density: 14.6 ppg  
Water: 5.48 gal/sx

|                        |   |          |  |              |                        |                           |           |       |
|------------------------|---|----------|--|--------------|------------------------|---------------------------|-----------|-------|
| <b>Lead</b>            |   |          |  |              |                        |                           |           |       |
| Coverage ft            |   | cu ft/ft |  | Total cf     |                        | Yield                     | SX Cement |       |
| 709                    | X | 0.1503 = |  | 106.5627     | /                      | 1.395 =                   | 76        |       |
|                        |   | 30%      |  | 31.96881     | /                      | 1.395 =                   | 23        |       |
| <b>Tail</b>            |   |          |  |              |                        |                           |           |       |
| Coverage ft            |   | cu ft/ft |  |              |                        | Total Lead                | 99        |       |
| 8                      | X | 0.1503 = |  | 1.2024       | /                      | 1.395 =                   | 1         |       |
| Excess                 |   | 30%      |  | 0.36072      | /                      | 1.395 =                   | 0         |       |
|                        |   |          |  |              |                        |                           |           |       |
| Top of Cement          |   |          |  | 4794'        | Total Sx               |                           |           | 100   |
| Hole Size              |   |          |  | 8.75"        |                        |                           |           |       |
| 6-5/8" Shoe            |   |          |  | 1220'        |                        |                           |           |       |
| 7" Shoe set at         |   |          |  | 5401.73      | TOC=                   |                           |           | 4685' |
| 7" Float Collar set at |   |          |  | 5357.84      |                        |                           |           |       |
|                        |   |          |  |              |                        |                           |           |       |
| Displace to Collar     |   |          |  |              |                        |                           |           |       |
| bbl/ft 7"              |   |          |  | collar depth | Displacement to Collar |                           |           |       |
| 0.03826 X              |   |          |  | 5357.84      | 204.451 bbls           |                           |           |       |
|                        |   |          |  |              |                        |                           |           |       |
| Water to Mix           |   |          |  |              |                        |                           |           |       |
| Sx Cement              |   |          |  | Gal/sx       | Mix H2O                | Ttl H2O to Mix & Displace |           |       |
| 100.43                 |   |          |  | 5.48         | 18                     | 218                       |           |       |