

Cement Verification Report - Cementer's Well Service, Inc.

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



COGCC Operator Guidance

RULE #308.A.B(2)A.ii

| | | |
|--------------------|------------------------------|----------|
| CLIENT: PDC Energy | Cementor's FIELD TICKET # | 300220-D |
|--------------------|------------------------------|----------|

Requested Operator Guidance:

| | | | | |
|--------------------|-------|-----------|----------|---------------|
| Well Name & Number | Lease | Bost Farm | Well No. | 40N - 8B - L2 |
|--------------------|-------|-----------|----------|---------------|

| | |
|-----------------|--------------|
| Well API Number | 05-123-51449 |
|-----------------|--------------|

| | | | | |
|----------|--------|---------|------|------------|
| Job Date | 1/3/21 | Time on | 8:15 | 24 hr time |
|----------|--------|---------|------|------------|

| | |
|----------|------------------|
| Job Type | New Well Surface |
|----------|------------------|

| | | | |
|-------------------|------------------------------|---------|----------------------------|
| Cementing Company | Cementor's Well Service, Inc | Contact | Nate Kvamme - 303-324-4296 |
|-------------------|------------------------------|---------|----------------------------|

| | | | |
|--------------------|-------|----|------------|
| Ambient conditions | clear | 15 | temp deg F |
|--------------------|-------|----|------------|

| | |
|--------------------|--|
| Slurry Description | |
|--------------------|--|

| | |
|------------|--|
| a) Purpose | Surface - 9 5/8" 36# CSG, 12 1/4" hole |
|------------|--|

| | |
|-----------------|-------------|
| b) Cement Class | Type I / II |
|-----------------|-------------|

| | |
|-----------------|----------------|
| c) Cement Yield | 1.61 cuft / sk |
|-----------------|----------------|

| | |
|-------------------|----------|
| d) Cement Density | 13.9 PPG |
|-------------------|----------|

| | |
|------------------|---------------------|
| e) Number of sks | 500 sks (94# equiv) |
|------------------|---------------------|

| | |
|-------------------|--|
| f) Mix Fluid Type | |
|-------------------|--|

| | |
|----------------|--------------|
| Water / Cement | 8.5 Gal / sk |
|----------------|--------------|

| | |
|-----------------|-------------------|
| g) Slurry mixed | 142.0 BBLs slurry |
|-----------------|-------------------|

| | |
|-------------------|-----------------------------|
| h) Additives used | 1.50% CaCl2 3.00% Bentonite |
|-------------------|-----------------------------|

| | |
|------------------|----------------|
| Total Water Used | 244.9 BBLs H2O |
|------------------|----------------|

| | |
|---------------------------|----------------|
| i) Displacement Fluid Vol | 123.8 BBLs H2O |
|---------------------------|----------------|

| | |
|------------------------|--|
| j) Method of Placement | |
|------------------------|--|

| | |
|--------------|-----------------|
| k) Set Depth | 1,658 feet (ft) |
|--------------|-----------------|

| | |
|---------------------|-----|
| l) Stage tool depth | n/a |
|---------------------|-----|

| | |
|-----------------------|-----------------|
| m) Float Collar Depth | 1,601 feet (ft) |
|-----------------------|-----------------|

| | |
|---------------------------|----------------|
| n) Designed Top of Cement | n/a to surface |
|---------------------------|----------------|

| | |
|-----------------------|-------------|
| o) Centralizer depths | 0 feet (ft) |
|-----------------------|-------------|

Charts - (pressure, density, pump rate)

| | | | |
|---------------|----------|-----------------------|---------|
| Landed Plug @ | 1672 psi | Final Lift Pressure @ | 400 psi |
|---------------|----------|-----------------------|---------|

| | |
|--|----------|
| Cement Density (as weighed during job) @ | 13.9 PPG |
|--|----------|

Job notes

| | | | | |
|--------------|--|------|-------|------------|
| a) Plug down | <input checked="" type="radio"/> Y / <input type="radio"/> N | Time | 10:24 | 24 hr time |
|--------------|--|------|-------|------------|

| | | |
|----------------|--|--------|
| b) Floats held | <input checked="" type="radio"/> Y / <input type="radio"/> N | 1/3/21 |
|----------------|--|--------|

| | | | |
|-----------------|--|------------------|--|
| c) Full Returns | <input checked="" type="radio"/> Y / <input type="radio"/> N | Lost Circulation | <input checked="" type="radio"/> Y / <input type="radio"/> N |
|-----------------|--|------------------|--|

| | | |
|----------------------|--|----------------------|
| d) Cement to surface | <input checked="" type="radio"/> Y / <input type="radio"/> N | 18.0 BBLs to surface |
|----------------------|--|----------------------|

| | |
|---------------------------|----------|
| e) If no returns, top off | n/a BBLs |
|---------------------------|----------|

| | |
|-------------------|--|
| f) Top off detail | |
|-------------------|--|

Cementer's Well Service, Inc.

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



PDC Energy

Surface Cement Job Graph

COMPANY DETAILS

| | | | | | |
|--------|--------|-------|--------------|----------|---------------|
| Date | 1/3/21 | API # | 05-123-51449 | Well No. | 40N - 8B - L2 |
| County | Weld | State | CO | Lease | Bost Farm |

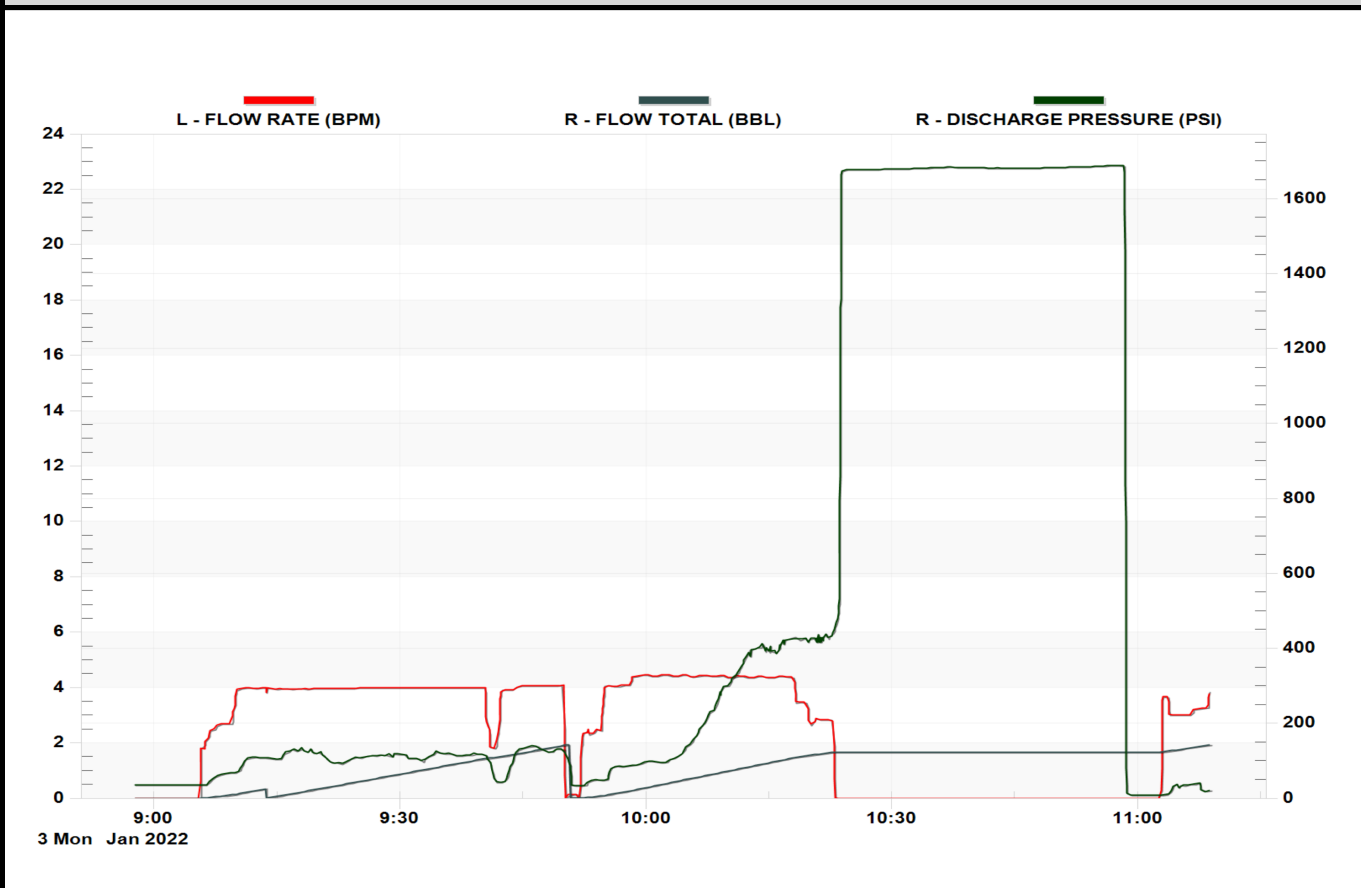
Client PDC Energy

Contact / email

JOB DETAILS

| | | | | | | | | |
|------------|-------|--------|-------------------|-------|-------|-----------------|-------|-----|
| TIME ON | 8:15 | 24 hr | Depth | 1,658 | ft. | Pressure Test @ | 1,672 | psi |
| START TIME | 8:57 | 1/3/21 | Bottom of Surface | 1,658 | ft. | 10 min | 1,676 | psi |
| END TIME | 11:09 | 1/3/21 | Plug Landed @ | 1,601 | ft. | 20 min | 1,680 | psi |
| | | | Plug Landed @ | 10:24 | 24 hr | 30 min | 1,688 | psi |

SUMMARY GRAPH





Centralizer Depths

Well Name: Bost Farm 40N-8B-L2

Surface, Set Depth: 1,657.5ftKB

| | | | | | | | | | |
|-----------------------------------|--|---|--|----------------------------------|--|------------------------------|--|---------------------------------------|--|
| API 05123514490000 | | Surface Legal Location SWNW 7 5N 66W | | Field Name Wattenberg | | State CO | | Well Configuration Type Horizontal | |
| Ground Elevation (ft) 4,874.00 | | Original KB Elevation (ft) 4,902.00 | | KB-Ground Distance (ft) 28.00 | | Spud Date 5/22/2022 17:30 | | Rig Release Date 5/27/2022 15:00 | |
| | | | | | | On Production Date | | Abandon Date | |

Casing Run Tally

| Run # | Ref # | Item Des | OD (in) | Wt (lb/ft) | Grade | Run? | Len (ft) | Centralized? | Ext Jw/ry | Connections | Top (ftKB) | Cum Len (ft) |
|-------|-------|---------------|---------|------------|-------|------|----------|--------------|-----------|-------------|------------|--------------|
| 2 | 1 | Casing Joints | 9 5/8 | 36.00 | J-55 | Yes | 41.56 | Yes | | | 1,614.1 | 43.41 |
| 6 | 5 | Casing Joints | 9 5/8 | 36.00 | J-55 | Yes | 41.54 | Yes | | | 1,447.8 | 209.72 |
| 10 | 9 | Casing Joints | 9 5/8 | 36.00 | J-55 | Yes | 41.55 | Yes | | | 1,281.6 | 375.90 |
| 14 | 13 | Casing Joints | 9 5/8 | 36.00 | J-55 | Yes | 41.56 | Yes | | | 1,115.4 | 542.11 |
| 18 | 17 | Casing Joints | 9 5/8 | 36.00 | J-55 | Yes | 41.57 | Yes | | | 949.2 | 708.28 |
| 22 | 21 | Casing Joints | 9 5/8 | 36.00 | J-55 | Yes | 41.54 | Yes | | | 783.1 | 874.45 |
| 26 | 25 | Casing Joints | 9 5/8 | 36.00 | J-55 | Yes | 41.56 | Yes | | | 616.8 | 1,040.66 |
| 30 | 29 | Casing Joints | 9 5/8 | 36.00 | J-55 | Yes | 41.54 | Yes | | | 450.7 | 1,206.83 |
| 34 | 33 | Casing Joints | 9 5/8 | 36.00 | J-55 | Yes | 41.54 | Yes | | | 284.5 | 1,372.97 |
| 37 | 36 | Casing Joints | 9 5/8 | 36.00 | J-55 | Yes | 41.52 | Yes | | | 159.9 | 1,497.60 |
| 39 | 38 | Casing Joints | 9 5/8 | 36.00 | J-55 | Yes | 41.54 | Yes | | | 76.8 | 1,580.69 |