

**APOLLO OPERATING
1538 WAZEE ST #200
DENVER, Colorado**

R&R Farms 21-31

Midcontinent/Midcontinent/1

Post Job Summary **Cement Production Casing**

Date Prepared: 12/18/2012
Version: 1

Service Supervisor: SNYDER, JONATHAN

Submitted by: MCKAY, ADAM

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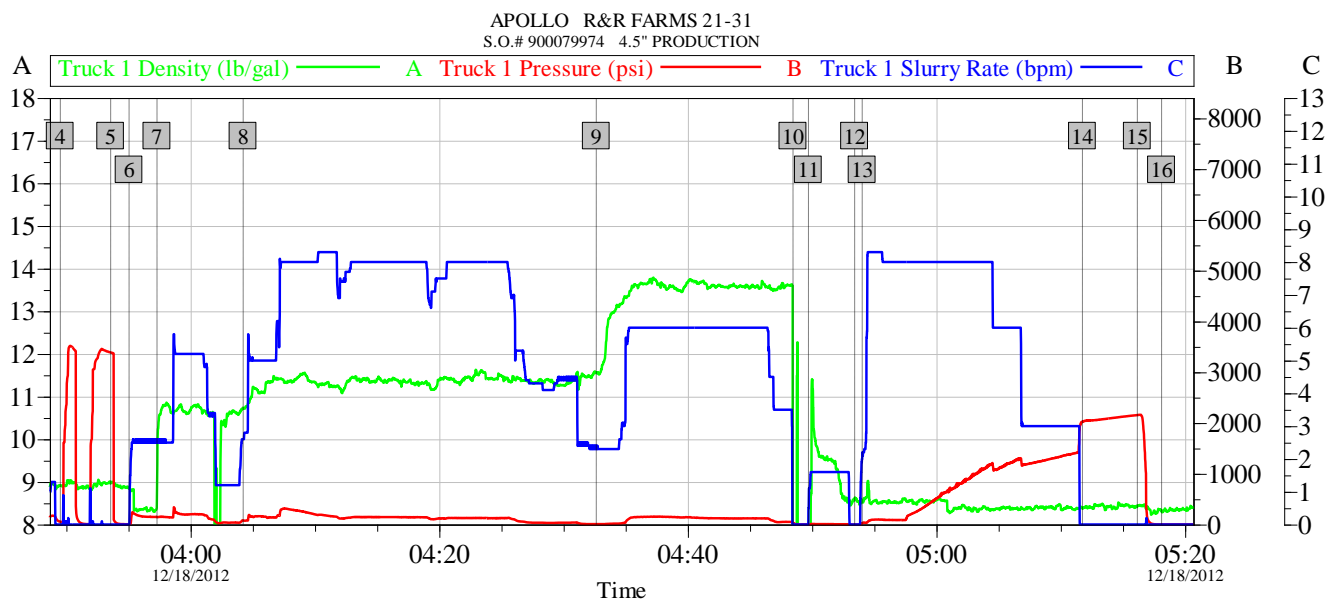
Wellbore Geometry

| Job Tubulars | | | | | MD | | Excess % | Shoe Joint Length ft |
|-------------------|--------------------------|------------|----------|--------------|-----------|--------------|-------------|-------------------------------|
| Type | Description | Size in | ID in | Wt lbm/ft | Top ft | Bottom ft | | |
| Casing | 8 5/8" Surface Casing | 8.63 | 8.097 | 24.00 | 0.00 | 642.00 | | |
| Open Hole Section | 7 7/8" Open Hole Section | | 7.875 | | 642.00 | 6,786.00 | 25.00 | |
| Casing | 4 1/2" Production Casing | 4.50 | 4.000 | 11.60 | 0.00 | 6,783.00 | | 40.00 |

Pumping Schedule

| Stage /Plug # | Fluid # | Fluid Type | Fluid Name | Surface Density lbm/gal | Avg Rate bbl/min | Surface Volume | Downhole Volume |
|---------------|---------|---------------|------------------|-------------------------|------------------|----------------|-----------------|
| 1 | 1 | Spacer | Clean Spacer III | 10.50 | 5.00 | 30.0 bbl | 30.0 bbl |
| 1 | 2 | Cement Slurry | EXTENDACEM B1 | 11.30 | 8.00 | 400.0 sacks | 400.0 sacks |
| 1 | 3 | Cement Slurry | FracCem B3 | 13.50 | 6.00 | 275.0 sacks | 275.0 sacks |

Data Acquisition



| Global Event Log | | | | | |
|----------------------------|----------|-------|-------|-----------------------------|----------------------|
| Intersection | | TID | TIP | Intersection | |
| 4 Start Job | 03:49:31 | 8.915 | 56.94 | 5 Test Lines | 03:53:34 8.988 3388 |
| 6 Pump Water Spacer | 03:55:03 | 8.850 | 6.000 | 7 Pump Clean Spacer @ 10.5# | 03:57:18 8.774 148.6 |
| 8 Pump Lead Cement @ 11.3# | 04:04:14 | 10.73 | 82.48 | 9 Pump Tail Cement @ 13.5# | 04:32:38 11.55 8.000 |
| 10 Shutdown | 04:48:28 | 1.195 | 31.91 | 11 Clean Lines | 04:49:42 0.245 3.000 |
| 12 Drop Top Plug | 04:53:25 | 8.625 | 1.000 | 13 Pump Displacement | 04:54:02 8.528 24.20 |
| 14 Bump Plug | 05:11:45 | 8.379 | 2027 | 15 Check Floats | 05:16:10 8.425 2155 |
| 16 End Job | 05:18:07 | 8.315 | 4.000 | | |

| | | |
|------------------------------------|---------------------------|--------------------------|
| Customer: APOLLO | Job Date: 18-Dec-2012 | Sales Order #: 900079974 |
| Well Description: 4.5" PRODUCTION | UWI: 05-069-06450 | |
| SERVICE SUPERVISOR JONATHAN SNYDER | SERVICE OPERATOR BOB HALE | |

OptiCem v6.4.10
18-Dec-12 05:25

Service Supervisor Reports

Job Log

| Date/Time | Chart # | Activity Code | Pump Rate | Cum Vol | Pump | | Pressure (psig) | Comments |
|------------------|---------|--|-----------|---------|------|--|-----------------|---|
| 12/18/2012 00:30 | | Arrive at Location from Service Center | | | | | | ARRIVED AND CONDUCTED A HAZARD HUNT AND FOUND NO HAZARDS THAT CONFLICT WITH US RIGGING UP EQUIPMENT. |
| 12/18/2012 03:00 | | Pre-Job Safety Meeting | | | | | | HELD SAFETY MEETING WITH ALL EMPLOYEES AND ALL THIRD PARTY PERSONEL PRIOR TO PUMPING THE CEMENT JOB. |
| 12/18/2012 03:49 | | Start Job | | | | | | |
| 12/18/2012 03:53 | | Test Lines | | | | | | PRESSURE TEST LINES TO 3779 PSI |
| 12/18/2012 03:55 | | Pump Spacer 1 | 3 | 5 | | | 131.3 | W/ RIG WATER |
| 12/18/2012 03:57 | | Pump Spacer 2 | 5 | 30 | | | 233.3 | CLEAN SPACER MIXED @ 10.5 PPG W/ RIG WATER |
| 12/18/2012 04:04 | | Pump Lead Cement | 8 | 175 | | | 127.3 | 400 SKS EXTENDACEM B1 MIXED @ 11.3 PPG W/ RIG WATER |
| 12/18/2012 04:32 | | Pump Tail Cement | 6 | 90 | | | 118.3 | 275 SKS FRACCEM 9W23 |
| 12/18/2012 04:48 | | Shutdown | | | | | | |
| 12/18/2012 04:49 | | Clean Lines | | | | | | |
| 12/18/2012 04:53 | | Drop Top Plug | | | | | | PLUG PRELOADED, DROPPED PLUG WHILE OPERATOR WAS CLEANING PUMPS AND LINES |
| 12/18/2012 04:54 | | Pump Displacement | 8 | 105 | | | 811.3 | RIG WATER MIXED W/ CLAYFIX III |
| 12/18/2012 05:11 | | Bump Plug | 3 | | | | 1347.3 | WE GOT SPACER BACK TO SURFACE WITH 90 BBLS OF DISPLACEMENT AWAY, SO WE GOT 15 BBLS OF SPACER BACK TO SURFACE. |
| 12/18/2012 05:16 | | Check Floats | | | | | 2139.3 | FLOATS HELD, GOOD RETURNS THROUGHOUT THE JOB. WE GOT 1 BBL OF WATER BACK IN THE DISPLACEMENT TANKS WHEN WE CHECKED FLOATS. |
| 12/18/2012 05:18 | | End Job | | | | | | |
| 12/18/2012 05:25 | | Pre-Rig Down Safety Meeting | | | | | | HELD SAFETY MEETING WITH ALL EMPLOYEES PRIOR TO RIGGING DOWN AND DISCUSSED ALL HAZARDS WHILE RIGGING DOWN EQUIPMENT. |
| 12/18/2012 06:30 | | Depart Location for Service Center or Other Site | | | | | | HELD SAFETY MEETING PRIOR TO LEAVING LOCATION AND DISCUSSED ALL POTENTIAL HAZARDS WHILE DRIVING BACK TO THE SERVICE CENTER. |

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| | | | |
|---|-----------------------------------|---------------------------------------|--------------------------|
| Sold To #: 353960 | Ship To #: 2970051 | Quote #: | Sales Order #: 900079974 |
| Customer: APOLLO OPERATING | | Customer Rep: Wheat, Randy | |
| Well Name: R&R Farms | Well #: 21-31 | API/UWI #: 05-069-06450 | |
| Field: | City (SAP): KERSEY | County/Parish: Weld | State: Colorado |
| Legal Description: Section 31 Township 5N Range 63W | | | |
| Contractor: Midcontinent | | Rig/Platform Name/Num: Midcontinent 1 | |
| Job Purpose: Cement Production Casing | | | |
| Well Type: Development Well | | Job Type: Cement Production Casing | |
| Sales Person: AARON, WESLEY | Srvc Supervisor: SNYDER, JONATHAN | MBU ID Emp #: 435616 | |

Job Personnel

| HES Emp Name | Exp Hrs | Emp # | HES Emp Name | Exp Hrs | Emp # | HES Emp Name | Exp Hrs | Emp # |
|---------------------|---------|--------|------------------------|---------|--------|----------------|---------|--------|
| BANUELOS, GUADALUPE | 6.0 | 372277 | EDWARDS, MICHEAL H | 6.0 | 522592 | HALE, ROBERT E | 6.0 | 470588 |
| ROMERO, JOSEPH M | 6.0 | 512137 | SNYDER, JONATHAN Leroy | 6.0 | 435616 | | | |

Equipment

| HES Unit # | Distance-1 way | HES Unit # | Distance-1 way | HES Unit # | Distance-1 way | HES Unit # | Distance-1 way |
|------------|----------------|------------|----------------|------------|----------------|------------|----------------|
| 11036295C | 50 mile | 11338223 | 50 mile | 11362287C | 50 mile | 11518548 | 50 mile |
| 11748359 | 50 mile | 11764052 | 50 mile | NA | 50 mile | | |

Job Hours

| Date | On Location Hours | Operating Hours | Date | On Location Hours | Operating Hours | Date | On Location Hours | Operating Hours |
|------|-------------------|-----------------|------|-------------------|-----------------|------|-------------------|-----------------|
| | | | | | | | | |

TOTAL Total is the sum of each column separately

Job

Job Times

| Formation Name | Formation Depth (MD) | Top | Bottom | Form Type | Job depth MD | Job Depth TVD | Water Depth | Perforation Depth (MD) | From | To | Called Out | Date | Time | Time Zone |
|----------------|----------------------|-----|--------|-----------|--------------|---------------|-------------|------------------------|------|----|---------------|-----------------|-------|-----------|
| | | | | BHST | 6783. ft | 6800. ft | | | | | | 17 - Dec - 2012 | 20:00 | MST |
| | | | | | | | | | | | On Location | 18 - Dec - 2012 | 00:30 | MST |
| | | | | | | | | | | | Job Started | 18 - Dec - 2012 | 03:49 | MST |
| | | | | | | | | | | | Job Completed | 18 - Dec - 2012 | 05:18 | MST |
| | | | | | | | | | | | Departed Loc | 18 - Dec - 2012 | 06:30 | MST |

Well Data

| Description | New / Used | Max pressure psig | Size in | ID in | Weight lbm/ft | Thread | Grade | Top MD ft | Bottom MD ft | Top TVD ft | Bottom TVD ft |
|--------------------------|------------|-------------------|---------|-------|---------------|--------|-------|-----------|--------------|------------|---------------|
| 7 7/8" Open Hole Section | | | | 7.875 | | | | 642. | 6786. | | . |
| 4 1/2" Production Casing | Unknown | | 4.5 | 4. | 11.6 | | | . | 6783. | | . |
| 8 5/8" Surface Casing | Unknown | | 8.625 | 8.097 | 24. | | | . | 642. | | |

Tools and Accessories

| Type | Size | Qty | Make | Depth | Type | Size | Qty | Make | Depth | Type | Size | Qty | Make |
|--------------|------|-----|------|-------|-------------|------|-----|------|-------|----------------|------|-----|------|
| Guide Shoe | | | | | Packer | | | | | Top Plug | | | |
| Float Shoe | | | | | Bridge Plug | | | | | Bottom Plug | | | |
| Float Collar | | | | | Retainer | | | | | SSR plug set | | | |
| Insert Float | | | | | | | | | | Plug Container | | | |
| Stage Tool | | | | | | | | | | Centralizers | | | |

Miscellaneous Materials

| Gelling Agt | Conc | Surfactant | Conc | Acid Type | Qty | Conc | % |
|---------------|------|------------|------|-----------|------|------|---|
| Treatment Fld | Conc | Inhibitor | Conc | Sand Type | Size | Qty | |

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| Fluid Data | | | | | | | | | | |
|--|------------------|---------------------------------|-----------------|-----------------------------------|------------------------|---------------------------|------------------|--------------|------------------------|----|
| Stage/Plug #: 1 | | | | | | | | | | |
| Fluid # | Stage Type | Fluid Name | Qty | Qty uom | Mixing Density lbm/gal | Yield ft ³ /sk | Mix Fluid Gal/sk | Rate bbl/min | Total Mix Fluid Gal/sk | |
| 1 | Clean Spacer III | | 30.00 | bbl | 10.5 | | | | | |
| 2 | EXTENDACEM B1 | EXTENDACEM (TM) SYSTEM (452981) | 400.0 | sacks | 11.3 | 2.4 | 13.79 | | 13.79 | |
| 13.79 Gal | | FRESH WATER | | | | | | | | |
| 3 | FracCem B3 | FRACCCEM (TM) SYSTEM (452963) | 275.0 | sacks | 13.5 | 1.69 | 8.05 | | 8.05 | |
| 8.05 Gal | | FRESH WATER | | | | | | | | |
| Calculated Values | | Pressures | | Volumes | | | | | | |
| Displacement | | Shut In: Instant | | Lost Returns | | Cement Slurry | | Pad | | |
| Top Of Cement | | 5 Min | | Cement Returns | | Actual Displacement | | Treatment | | |
| Frac Gradient | | 15 Min | | Spacers | | Load and Breakdown | | Total Job | | |
| Rates | | | | | | | | | | |
| Circulating | | Mixing | | Displacement | | Avg. Job | | | | |
| Cement Left In Pipe | Amount | 40 ft | Reason | Shoe Joint | | | | | | |
| Frac Ring # 1 @ | ID | | Frac ring # 2 @ | ID | | Frac Ring # 3 @ | ID | | Frac Ring # 4 @ | ID |
| The Information Stated Herein Is Correct | | | | Customer Representative Signature | | | | | | |



Field Ticket

| | | | |
|--|--|---|--|
| Field Ticket Number: 900079974 | | Field Ticket Date: Tuesday, December 18, 2012 | |
| Bill To: APOLLO OPERATING 1538 WAZEE ST #200 DENVER, CO 80202 | | Job Name: R&R Farms 21-31 FracCem B3 Order Type: Streamline Order (ZOH) Well Name: R&R Farms 21-31 Company Code: 1100 Customer PO No.: NA Shipping Point: Brighton, CO, USA Sales Office: Rocky Mountains BD Well Type: Gas Well Category: Development | |
| Ship To: APOLLO R&R FARMS 21-31,WELD R&R FARMS 21-31 2970051 S31 T5N R63W KERSEY, CO 80644 | | | |

| Material | Description | QTY | UOM | Base Amt | Unit Amt | Gross Amount | Discount | Net Amount |
|---------------|---------------------------|-------|-----|------------|----------|------------------|------------------|------------------|
| 7523 | CMT PRODUCTION CASING BOM | 1 | JOB | 0.00 | 0.00 | 0.00 | | 0.00 |
| 16091 | ZI - PUMPING CHARGE | 1 | EA | 0.00 | 7,962.00 | 7,962.00 | 61% | 3,105.18 |
| | DEPTH | 6783 | | | | | | |
| | FEET/METERS (FT/M) | | FT | | | | | |
| 432904 | CMT, ROCKIES SG SETUP | 1 | EA | | | 12,168.00 | 47.81% | 6,350.43 |
| | NUMBER OF UNITS | 1 | | | | | | |
| 432905 | CMT, ROCKIES SG MILEAGE | 86 | MI | | | 1,413.84 | 57.7% | 598.09 |
| | Number of Units | 1 | | | | | | |
| 432906 | CMT, ROCKIES SG DELIVERY | 34.45 | TNM | | | 11,948.00 | 59.34% | 4,858.51 |
| | NUMBER OF TONS | 34.45 | | | | | | |
| 719269 | SBM, CMT CleanSpacer III | 30 | BBL | 0.00 | 279.25 | 8,377.50 | 61% | 3,267.22 |
| 452981 | EXTENDACEM (TM) SYSTEM | 400 | SK | | | 20,964.77 | 61.9% | 8,176.26 |
| 452963 | FRACCEM (TM) SYSTEM | 275 | SK | | | 17,361.59 | 61.9% | 6,771.01 |
| Totals | | | | USD | | 80,195.70 | 47,069.00 | 33,126.70 |

Halliburton Rep: JONATHAN SNYDER

Customer Agent: Randy Wheat

Halliburton Approval

THIS OUTPUT DOES NOT INCLUDE TAXES. APPLICABLE SALES TAX WILL BE BILLED ON THE FINAL INVOICE.
 CUSTOMER HEREBY ACKNOWLEDGES RECEIPT OF THE MATERIALS AND SERVICES DESCRIBED ABOVE AND ON THE ATTACHED DOCUMENTS.

X _____ FIELD TICKET TOTAL: USD 33,126.70

Customer Signature

Was our HSE performance satisfactory? **Y or N** Were you satisfied with our Equipment? **Y or N** Were you satisfied with our people? **Y or N**
 (Health, Safety, Environment)

Comments