

# HALLIBURTON

iCem<sup>®</sup> Service

**K P KAUFFMAN CO INC-EBUS**

Ft. Lupton District, COLORADO

**For: RICK**

Date: Tuesday, August 13, 2019

**CHAMPLIN 86 AMOCO F**

WELD

KPK CHAMPLIN 86 AMOCO F 5 2.375 SQUEEZE

Job Date: Tuesday, August 13, 2019

Sincerely,

**CAMPER/CARPENTER**

# HALLIBURTON

## Cementing Job Summary

The Road to Excellence Starts with Safety

|                                    |                    |                                     |                           |
|------------------------------------|--------------------|-------------------------------------|---------------------------|
| Sold To #: 303209                  | Ship To #: 3989988 | Quote #:                            | Sales Order #: 0905893243 |
| Customer: K P KAUFFMAN CO INC-EBUS |                    | Customer Rep: RICK RAMOS            |                           |
| Well Name: CHAMPLIN 86 AMOCO F     | Well #: 5          | API/UWI #:                          |                           |
| Field:                             | City (SAP): DACONO | County/Parish: WELD                 | State: COLORADO           |
| Legal Description:                 |                    |                                     |                           |
| Contractor: UNKNOWN                |                    | Rig/Platform Name/Num: WORKOVER RIG |                           |
| Job BOM: 7526 7526                 |                    |                                     |                           |
| Well Type: OIL                     |                    |                                     |                           |
| Sales Person: HALAMERICA\HX37727   |                    | Srv Supervisor: Nikolaus Kornafel   |                           |

### Job

|                        |      |  |                   |
|------------------------|------|--|-------------------|
| Formation Name         |      |  |                   |
| Formation Depth (MD)   | Top  |  | Bottom            |
| Form Type              |      |  | BHST              |
| Job depth MD           |      |  | Job Depth TVD     |
| Water Depth            |      |  | Wk Ht Above Floor |
| Perforation Depth (MD) | From |  | To                |

### Well Data

| Description | New / Used | Size in | ID in | Weight lbm/ft | Thread | Grade | Top MD ft | Bottom MD ft | Top TVD ft | Bottom TVD ft |
|-------------|------------|---------|-------|---------------|--------|-------|-----------|--------------|------------|---------------|
| Tubing      |            | 2.375   | 1.995 | 4.7           |        | J-55  | 0         | 2500         |            | 0             |
| Casing      |            | 4.5     | 4.052 | 10.5          |        | N-80  | 0         | 6980         |            |               |

### Tools and Accessories

| Type         | Size in | Qty | Make | Depth ft |  | Type           | Size in | Qty | Make |
|--------------|---------|-----|------|----------|--|----------------|---------|-----|------|
| Guide Shoe   | 4.5     |     |      |          |  | Top Plug       | 4.5     |     |      |
| Float Shoe   | 4.5     |     |      |          |  | Bottom Plug    | 4.5     |     |      |
| Float Collar | 4.5     |     |      |          |  | SSR plug set   | 4.5     |     |      |
| Insert Float | 4.5     |     |      |          |  | Plug Container | 4.5     |     |      |
| Stage Tool   | 4.5     |     |      |          |  | Centralizers   | 4.5     |     |      |

### Fluid Data

Stage/Plug #: 1

| Fluid # | Stage Type | Fluid Name         | Qty | Qty UoM | Mixing Density lbm/gal | Yield ft <sup>3</sup> /sack | Mix Fluid Gal | Rate bbl/min | Total Mix Fluid Gal |
|---------|------------|--------------------|-----|---------|------------------------|-----------------------------|---------------|--------------|---------------------|
| 1       | PLUG 1     | HALCEM (TM) SYSTEM | 70  | sack    | 15.8                   | 1.15                        | 5.15          | 4            | 361                 |

|                     |        |    |        |            |
|---------------------|--------|----|--------|------------|
| Cement Left in Pipe | Amount | ft | Reason | Shoe Joint |
|---------------------|--------|----|--------|------------|

## Cementing Job Summary

|  |      |                     |             |                        |       |
|--|------|---------------------|-------------|------------------------|-------|
| Mix Water:   | pH 7 | Mix Water Chloride: | 0 ppm       | Mix Water Temperature: | 69 °F |
| Cement Temperature:  | N/A  | Plug Displaced by:  | 8.33 lb/gal | Disp. Temperature:     | 69 °F |
| Plug Bumped?   | N/A  | Bump Pressure:      | N/A         | Floats Held?           | N/A   |
| Cement Returns:  | N/A  | Returns Density:    | N/A         | Returns Temperature:   | N/A   |
| <b>Comment</b> ESTABLISHED CIRCULATION AND THEN THE RIG STUNG IN TO THE RETAINER SET AT 3,264' AND WE ESTABLISHED AN INJECTION RATE INTO THE PERFS AT 3,315' @ 2BBL/MIN 900 PSI. INJECTED 10 BBLS OF WATER AND THEN MIXED UP CEMENT AND PUMPED 70SKS OF CEMENT AT 2 BBLS/MIN @ 650PSI AND THEN DISPLACED WITH 11.88 BBLS OF FRESH WATER AT 2.5 BBLS/MIN AT 503 PSI. SHUT DOWN AFTER FINISHED PUMPING DISPLACEMENT AND THE RIG STUNG OUT OF THE RETAINER AND PULLED TUBING. |      |                     |             |                        |       |

# HALLIBURTON

Customer: K P KAUFFMAN CO INC-EBUS  
Job: KPK CHAMPLIN 86 AMOCO F 5  
Case: KPK CHAMPLIN 86 AMOCO F 5 | SO#: 905893243

## 2.0 Real-Time Job Summary

### 2.1 Job Event Log

| Type  | Seq. No. | Activity                               | Graph Label                            | Date      | Time     | Source | DH Density<br>(ppg) | Comb Pump Rate<br>(bbl/min) | DS Pump Press<br>(psi) | Pump Stg Tot<br>(bbl) | Comments   |
|-------|----------|--|--|-----------|----------|--------|---------------------|-----------------------------|------------------------|-----------------------|--|
| Event | 1        | Call Out                               | Call Out                               | 8/12/2019 | 06:00:00 | USER   |                     |                             |                        |                       | CREW CALLED OUT AT 04:00, REQUESTED ON LOCATION 11:00. CREW PICKED UP CEMENT, CHEMICALS, BULK 660 10866497 AND PUMP 11826999.  |
| Event | 2        | Pre-Convoy Safety Meeting              | Pre-Convoy Safety Meeting              | 8/12/2019 | 09:00:00 | USER   |                     |                             |                        |                       | CREW DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW.   |
| Event | 3        | Crew Leave Yard                        | Crew Leave Yard                        | 8/12/2019 | 09:15:00 | USER   |                     |                             |                        |                       | STARTED JOURNEY MANAGEMENT.  |
| Event | 4        | Arrive at Location from Service Center | Arrive at Location from Service Center | 8/12/2019 | 10:00:00 | USER   |                     |                             |                        |                       | END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB, 4.5" 10.5 LB/FT CASING PERFORATED AT 3,315', RETAINER SET 3,264'. CUSTOMER REQUESTED WE PUMPED 70 SKS OF CEMENT INTO THE PERFS AND LEAVE A SOFT CEMENT CAP ON TOP OF THE RETAINER. |
| Event | 5        | Pre-Rig Up Safety Meeting              | Pre-Rig Up Safety Meeting              | 8/12/2019 | 10:15:00 | USER   |                     |                             |                        |                       | HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP, AND WEATHER.   |

iCem<sup>SM</sup> Service

(v. 5.0.161.0)

Created: Monday, August 12, 2019

|       |    |                             |                             |           |          |      |       |      |        |       |  |
|-------|----|-----------------------------|-----------------------------|-----------|----------|------|-------|------|--------|-------|--|
| Event | 6  | Rig-Up Equipment            | Rig-Up Equipment            | 8/12/2019 | 10:30:00 | USER |       |      |        |       | CREW STAGED EQUIPMENT AND RIGGED UP BULK, IRON AND WATER HOSES TO PERFORM JOB.                                   |
| Event | 7  | Pre-Job Safety Meeting      | Pre-Job Safety Meeting      | 8/12/2019 | 11:45:00 | USER | 8.57  | 0.00 | 0.00   | 5.40  | SAFETY MEETING WITH HALLIBURTON, AND RIG PERSONNEL. CREW COMMUNICATED POTENTIAL SAFETY HAZARDS, AND JOB DETAILS. |
| Event | 8  | Start Job                   | Start Job                   | 8/12/2019 | 11:56:08 | COM5 | 8.65  | 0.00 | -2.00  | 0.00  | BEGIN RECORDING JOB DATA   |
| Event | 9  | Test Lines                  | Test Lines                  | 8/12/2019 | 11:59:56 | COM5 | 8.47  | 0.00 | -1.00  | 1.00  | PRESSURE TESTED IRON TO 4,000 PSI, PRESSURE HELD WITH NO LEAKS.  |
| Event | 10 | Circulate Well              | Circulate Well              | 8/12/2019 | 12:10:15 | COM5 | 8.28  | 0.30 | 16.00  | 0.00  | ESTABLISHED CIRCULATION AND INJECTION RATE AFTER THE RIG STUNG INTO THE RETAINER 2BBLS/MIN AT 800 PSI            |
| Event | 11 | Pump Tail Cement            | Pump Tail Cement            | 8/12/2019 | 12:25:42 | COM5 | 8.35  | 0.00 | 381.00 | 0.00  | PUMPED 70 SKS OF HALCEM AT 13.2 LB/GAL ,1.15 FT3/SK , 5.15' GAL/SK AT 2 BBLS/MIN 500 PSI                         |
| Event | 12 | Pump Displacement           | Pump Displacement           | 8/12/2019 | 12:41:36 | COM5 | 16.43 | 2.70 | 33.00  | 17.50 | PUMPED 11.88 BBLS OF FRESH WATER DISPLACEMENT AT 2.5 BBLS PER MINUTE 600 PSI.                                    |
| Event | 13 | Pre-Rig Down Safety Meeting | Pre-Rig Down Safety Meeting | 8/12/2019 | 12:45:00 | USER | 7.76  | 2.50 | 584.00 | 9.20  | DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.                    |

## Cementing Job Summary

The Road to Excellence Starts with Safety

|                                    |            |                    |           |                                     |                        |                           |               |              |                     |               |
|------------------------------------|------------|--------------------|-----------|-------------------------------------|------------------------|---------------------------|---------------|--------------|---------------------|---------------|
| Sold To #: 303209                  |            | Ship To #: 3989988 |           | Quote #:                            |                        | Sales Order #: 0905893243 |               |              |                     |               |
| Customer: K P KAUFFMAN CO INC-EBUS |            |                    |           | Customer Rep: RICK                  |                        |                           |               |              |                     |               |
| Well Name: CHAMPLIN 86 AMOCO F     |            |                    | Well #: 5 |                                     | API/UWI #:             |                           |               |              |                     |               |
| Field:                             |            | City (SAP): DACONO |           | County/Parish: WELD                 |                        | State: COLORADO           |               |              |                     |               |
| Legal Description:                 |            |                    |           |                                     |                        |                           |               |              |                     |               |
| Contractor: UNKNOWN                |            |                    |           | Rig/Platform Name/Num: WORKOVER RIG |                        |                           |               |              |                     |               |
| Job BOM: 7526 7526                 |            |                    |           |                                     |                        |                           |               |              |                     |               |
| Well Type: OIL                     |            |                    |           |                                     |                        |                           |               |              |                     |               |
| Sales Person: HALAMERICA\HX37727   |            |                    |           | Srv Supervisor: Lance Carpenter     |                        |                           |               |              |                     |               |
| Job                                |            |                    |           |                                     |                        |                           |               |              |                     |               |
| Formation Name                     |            |                    |           |                                     |                        |                           |               |              |                     |               |
| Formation Depth (MD)               |            | Top                |           | Bottom                              |                        |                           |               |              |                     |               |
| Form Type                          |            |                    |           | BHST                                |                        |                           |               |              |                     |               |
| Job depth MD                       |            | 2500ft             |           | Job Depth TVD                       |                        |                           |               |              |                     |               |
| Water Depth                        |            |                    |           | Wk Ht Above Floor                   |                        | 4                         |               |              |                     |               |
| Perforation Depth (MD)             |            | From               |           | To                                  |                        |                           |               |              |                     |               |
| Well Data                          |            |                    |           |                                     |                        |                           |               |              |                     |               |
| Description                        | New / Used | Size in            | ID in     | Weight lbm/ft                       | Thread                 | Grade                     | Top MD ft     | Bottom MD ft | Top TVD ft          | Bottom TVD ft |
| Tubing                             |            | 2.375              | 1.995     | 4.7                                 |                        | J-55                      | 0             | 2500         |                     | 0             |
| Casing                             |            | 4.5                | 4.052     | 10.5                                |                        | N-80                      | 0             | 6980         |                     |               |
| Tools and Accessories              |            |                    |           |                                     |                        |                           |               |              |                     |               |
| Type                               | Size in    | Qty                | Make      | Depth ft                            |                        | Type                      | Size in       | Qty          | Make                |               |
| Guide Shoe                         | 4.5        |                    |           |                                     |                        | Top Plug                  | 4.5           |              | HES                 |               |
| Float Shoe                         | 4.5        |                    |           |                                     |                        | Bottom Plug               | 4.5           |              | HES                 |               |
| Float Collar                       | 4.5        |                    |           |                                     |                        | SSR plug set              | 4.5           |              | HES                 |               |
| Insert Float                       | 4.5        |                    |           |                                     |                        | Plug Container            | 4.5           |              | HES                 |               |
| Stage Tool                         | 4.5        |                    |           |                                     |                        | Centralizers              | 4.5           |              | HES                 |               |
| Fluid Data                         |            |                    |           |                                     |                        |                           |               |              |                     |               |
| Stage/Plug #: 1                    |            |                    |           |                                     |                        |                           |               |              |                     |               |
| Fluid #                            | Stage Type | Fluid Name         | Qty       | Qty UoM                             | Mixing Density lbm/gal | Yield ft3/sack            | Mix Fluid Gal | Rate bbl/min | Total Mix Fluid Gal |               |
| 1                                  | PLUG 1     | HALCEM (TM) SYSTEM | 210       | sack                                | 15.8                   | 1.15                      |               | 4            | 5.15                |               |
| 5.15 Gal                           |            | FRESH WATER        |           |                                     |                        |                           |               |              |                     |               |
| Cement Left in Pipe                |            |                    |           |                                     |                        |                           |               |              |                     |               |
| Amount                             |            | ft                 |           | Reason                              |                        |                           |               | Shoe Joint   |                     |               |

## Cementing Job Summary

|                              |   |                                 |
|------------------------------|---|---------------------------------|
| Mix Water: pH ##             | Mix Water: ## ppm<br>Chloride:          | Mix Water Temperature: ## °F °C |
| Cement Temperature: ## °F °C | Plug Displaced by: ## lb/gal kg/m3 XXXX | Disp. Temperature: ## °F °C     |
| Plug Bumped? Yes/No          | Bump Pressure: ##### psi MPa            | Floats Held? Yes/No             |
| Cement Returns: ## bbl m3    | Returns Density: ## lb/gal kg/m3        | Returns Temperature: ## °F °C   |

### Comment

JOB WENT WELL, PLUG 1: RIG SET PERFS AT 2500' RIGGED UP TO 2.375 TUBING. ESTABLISHED CIRCULATION, MIXED UP 40 SKS OF 15.8 G CEMENT, PUMPED 7.3BBL DISPLACEMENT TOC 2355' RIG PULLED TUBING. PLUG 2: RIG SET PERFS AT 700' AND THEN RAN A RETAINER AT 650' WE TIED INTO TUBING AND ESTABLISHED CIRCULATION, RIG STAB INTO RETAINER WE THEN MIXED UP 70 SKS OF G CEMENT AND PUMPED 2.5BBL DISPLACEMENT RIG THEN PULLED OUT OF RETAINER AND TOOK OFF THEIR STINGER, WENT BACK INTO THE HOLE WE THEN PUMPED 4.5 BBLS OF CEMENT ON TOP OF THE RETAINER THE PUMPED 1.4BBL DISPLACEMENT TO BALANCE PLUG. RIG PULLED OUT TUBING. PLUG 3: RIG SET PERFS AT 250' AND RAN A RETAINER AT 200' WE TIED INTO TUBING AND COULD NOT PUMP INTO RETAINER. SHUT DOWN AND THEN WE ENDED UP PUMPED 2 BBLS (10 SACKS) DOWN THE ANNULUS AND 4.2 BBLS (20 SACKS) IN THE CASING. RIG THEN PULLED OUT TUBING AND WE TOPPED OFF CEMENT TO SURFACE.

*Summary Report*

Crew: \_\_\_\_\_  
Job Start Date: 08/13/2019 08:30 AM

Sales Order #: 0905893243  
WO #: 0905893243  
PO #: NA  
AFE #:

Customer: K P KAUFFMAN CO INC-EBUS  
UWI / API Number:  
Well Name: CHAMPLIN 86 AMOCO F  
Well No: 5

Field:  
County/Parish: WELD  
State: COLORADO  
Latitude:  
Longitude:  
Sect / Twn / Rng: //

Job Type: CMT SQUEEZE  
PERFORATIONS BOM  
Service Supervisor: Lance Carpenter  
Cust Rep Name: RICK  
Cust Rep Phone #:

**Remarks:**

|   |                                      |      |
|---|--------------------------------------|------|
| <i>The Information Stated Herein Is Correct</i> | Customer Representative Signature    | Date |
|   | Customer Representative Printed Name |      |



## 1.0 Real-Time Job Summary

## 1.1 Job Event Log

| Type  | Seq. No. | Activity                    | Graph Label                 | Date      | Time     | Source | PS Pump Press<br>(psi) | DH Density<br>(ppg) | Comb Pump Rate<br>(bbl/min) | PS Pmp Stg Tot<br>(bbl) | Comments   |
|-------|----------|-----------------------------|-----------------------------|-----------|----------|--------|------------------------|---------------------|-----------------------------|-------------------------|--|
| Event | 1        | Call Out                    | Call Out                    | 8/13/2019 | 03:00:00 | USER   |                        |                     |                             |                         | CREW CALLED FOR ON LOCATION TIME AT 0700   |
| Event | 2        | Depart Yard Safety Meeting  | Depart Yard Safety Meeting  | 8/13/2019 | 06:30:00 | USER   |                        |                     |                             |                         | HAD PRE CONVOY SAFETY MEETING WITH CREW AND DISCUSSED ROUTE TO LOCATION AND SAFE FOLLOWING DISTANCE.   |
| Event | 3        | Arrive At Loc               | Arrive At Loc               | 8/13/2019 | 07:00:00 | USER   |                        |                     |                             |                         | ARRIVED AT LOCATION RIG WAS READY. GOT NUMBERS FROM COMPANY MAN AND SPOTTED IN CREW.   |
| Event | 4        | Safety Meeting - Pre Rig-Up | Safety Meeting - Pre Rig-Up | 8/13/2019 | 07:15:00 | USER   |                        |                     |                             |                         | HAD PRE RIG UP SAFETY MEETING WITH CREW AND DISCUSSED USING A SPOTTER WHILE BACKING UP, SLIP TRIPS AND FALLS AND PINCH POINTS.   |
| Event | 5        | Break Circulation           | Break Circulation           | 8/13/2019 | 08:00:00 | USER   | 19.00                  | 8.59                | 4.60                        | 1.50                    | BROKE CIRCULATION  |
| Event | 6        | Safety Meeting              | Safety Meeting              | 8/13/2019 | 08:10:00 | USER   | 31.00                  | 8.56                | 0.00                        | 7.10                    | HAD SAFETY MEETING WITH HES AND RIG CREW AND DISCUSSED 3 POINTS OF CONTACT, MUSTER AREA, NEAREST HOSPITAL, FOOTING PLACEMENT, PRESSURE TESTING AND GOOD COMMUNICATION. |
| Event | 7        | Test Lines                  | Test Lines                  | 8/13/2019 | 08:21:25 | COM6   | 2759.00                | 8.61                | 0.00                        | 7.10                    | PRESSURE TESTED LINES TO 2500PSI   |

|       |    |                               |                               |           |          |      |        |       |      |       |  |
|-------|----|-------------------------------|-------------------------------|-----------|----------|------|--------|-------|------|-------|--|
| Event | 8  | Pump Cement                   | Pump Cement                   | 8/13/2019 | 08:45:09 | COM6 | 393.00 | 8.42  | 0.60 | 0.00  | PLUG 1: RIG SET PERFS AT 2500' PUMPED 40SKS HALCEM CEMENT 15.8PPG 1.15 YIELD 5.15 GAL  |
| Event | 9  | Pump Displacement             | Pump Displacement             | 8/13/2019 | 08:50:15 | COM6 | 363.00 | 8.19  | 2.00 | 0.00  | PUMPED 7.3 BBLs OF FRESH WATER TO BALANCE  |
| Event | 10 | Pump Cement                   | Pump Cement                   | 8/13/2019 | 11:08:40 | USER |        |       |      |       | PLUG 2: RIG SET PERFS AT 700' AND SET A RETAINER AT 650' MIXED UP AND PUMPED 70SKS OF 15.8PPG HALCEM 1.15 YIELD 5.15 GAL   |
| Event | 11 | Pump Displacement - Start     | Pump Displacement - Start     | 8/13/2019 | 11:14:52 | USER |        |       |      |       | PUMPED 2.5 BBL DISPLACEMENT RIG THEN PULLED OUT STINGER WENT BACK INTO THE HOLE WE PUMPED 4.5BBL OF CEMENT ON TOP OF THE RETAINER AND THEN PUMPED 1.4BBL DISPLACEMENT TO BALANCE PLUG.                         |
| Event | 12 | Pump Cement                   | Pump Cement                   | 8/13/2019 | 16:03:30 | COM6 | 33.00  | 8.25  | 0.90 | 13.80 | PLUG 3: RIG SET PERFS AT 250' AND SET A RETAINER AT 200' PUMPED 30SKS OF HALCEM CEMENT 15.8PPG 1.15 YIELD 5.15 GAL PUMPED 2BBLs DOWN THE ANNULUS AND 4.1 BBLs IN THE 4.5' CASING TOPPED OFF CEMENT TO SURFACE. |
| Event | 13 | End Job                       | End Job                       | 8/13/2019 | 16:34:24 | USER | 29.00  | 16.93 | 0.40 | 0.00  | END JOB  |
| Event | 14 | Safety Meeting - Pre Rig-Down | Safety Meeting - Pre Rig-Down | 8/13/2019 | 16:45:00 | USER | 25.00  | 9.00  | 7.50 | 6.00  | HAD PRE RIG DOWN SAFETY MEETING WITH CREW AND DISCUSSED TEAM CARRY WITH IRON, SLIP TRIPS AND FALLS, FOOTING  |

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PLACEMENT AND GOOD  
COMMUNICATION.

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|       |    |                              |                              |           |          |      |
|-------|----|------------------------------|------------------------------|-----------|----------|------|
| Event | 15 | Pre-Convoy Safety<br>Meeting | Pre-Convoy Safety<br>Meeting | 8/13/2019 | 17:30:00 | USER |
|-------|----|------------------------------|------------------------------|-----------|----------|------|

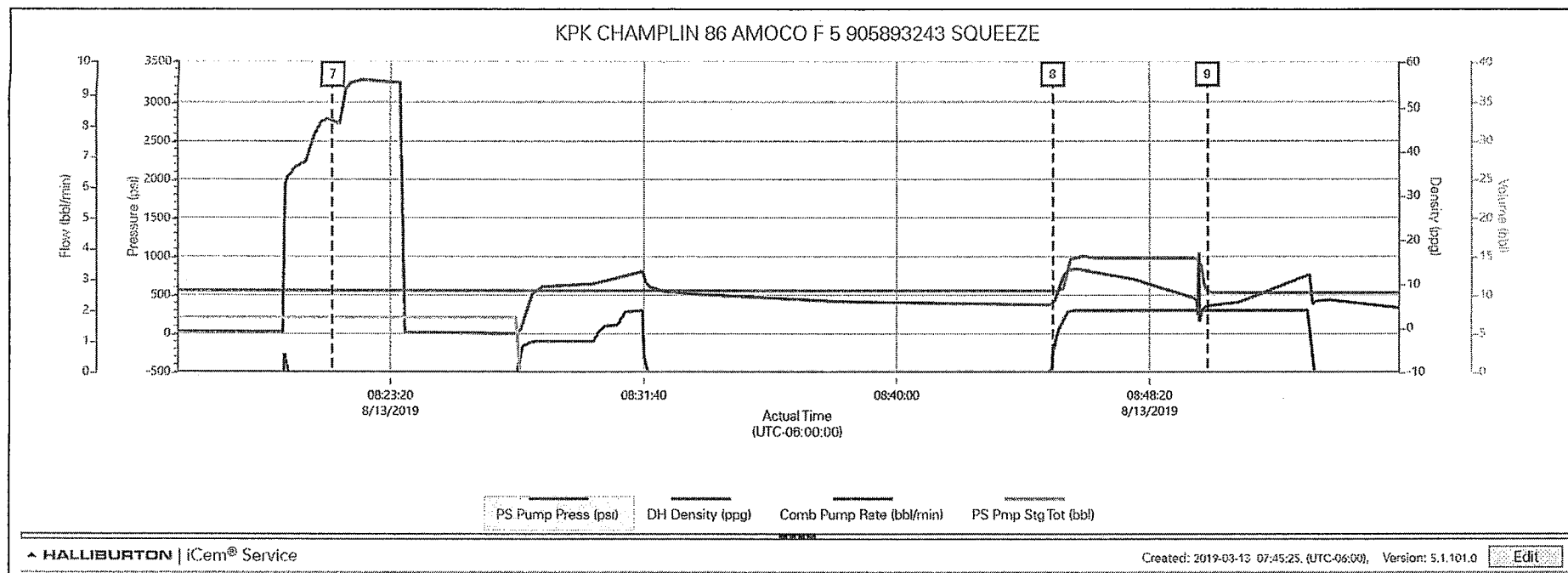
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HAD PRE CONVOY SAFETY  
MEETING WITH CREW AND  
DISCUSSED SAFE  
FOLLOWING DISTANCES,  
TRAFFIC AND ROUTE BACK  
TO YARD.

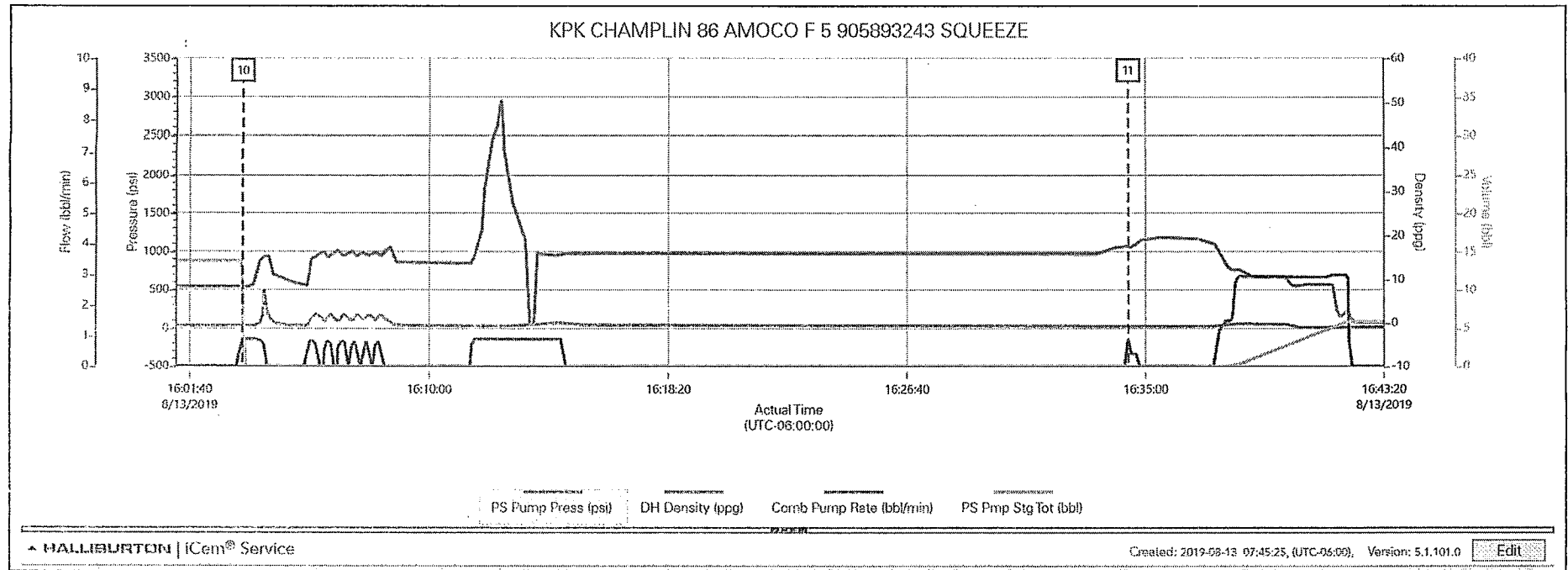
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## 2.0 Attachments

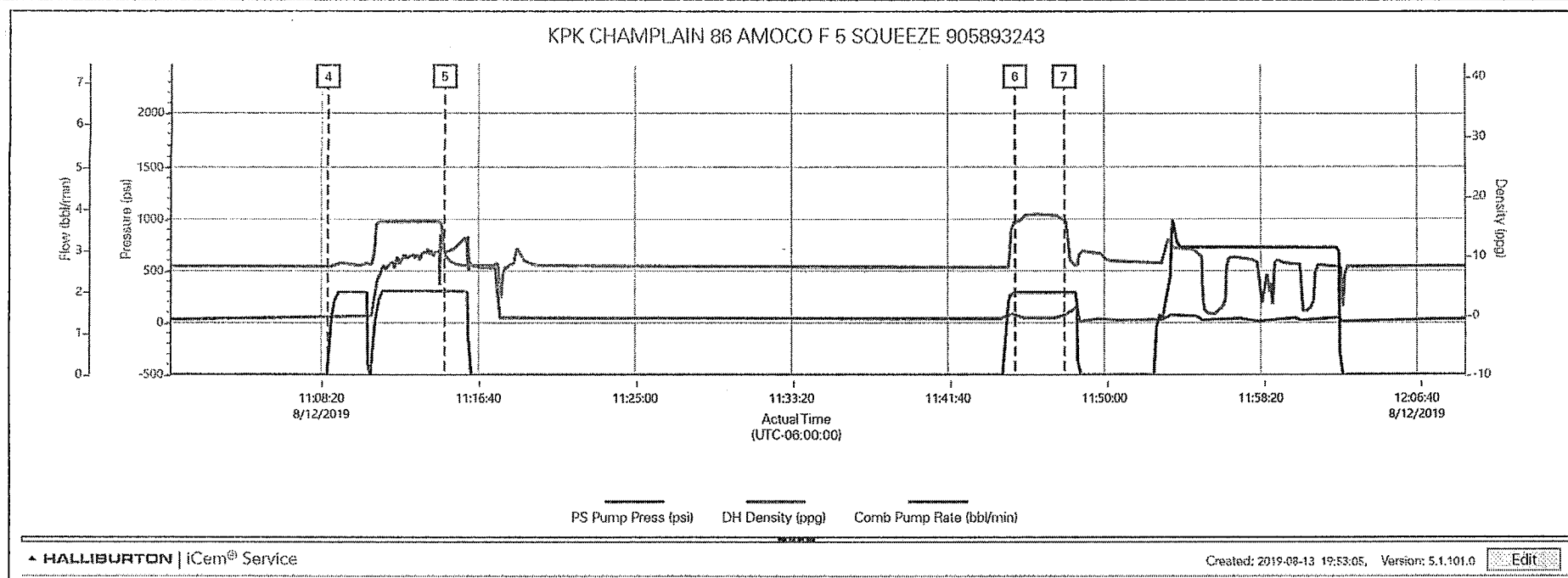
### 2.1 PLUG 1 2500'.png



## 2.2 PLUG 3 250'.png



## 2.3 PLUG 2.png



## 3.0 Custom Graphs

### 3.1 Custom Graph

