Form 3160-5
(November 1994)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD-ARTESIA

FORM APPROVED
OMB No. 1004-0135
Expires July 31, 1996

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side

5. Lease Serial No.
NM-101097

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

1. Type of Well
[ ] Oil Well [X] Gas Well [ ] Other

JAN 12 2009
OCD-ARTESIA

8. Well Name and No.
Tank 29 Federal No. 2

2 Name of Operator
Cimarex Energy Co. of Colorado

9. API Well No.
30-015-35690

3a. Address
PO Box 140907; Irving, TX 75014-0907

3b. Phone No. *(include area code)*
972-401-3111

10. Field and Pool, or Exploratory Area
Wolfcamp Wildcat

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
SHL 660 FNL & 2480 FEL 29-25S-26E
BHL 660 FNL & 660 FWL

11. County or Parish, State
Eddy County, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
[X] Notice of Intent	[ ] Acidize	[ ] Deepen	[ ] Production (Start/Resume)	[ ] Water Shut-Off
	[X] Alter Casing	[ ] Fracture Treat	[ ] Reclamation	[ ] Well Integrity
[ ] Subsequent Report	[ ] Casing Repair	[ ] New Construction	[ ] Recomplete	[ ] Other
	[ ] Change Plans	[ ] Plug and Abandon	[ ] Temporarily Abandon	
[ ] Final Abandonment Notice	[ ] Convert to Injection	[ ] Plug Back	[ ] Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, included estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

On 07-22-08, Cimarex submitted a Sundry Notice to switch from a vertical Morrow test to a horizontal Wolfcamp test with accompanying changes in casing plans. Cimarex needs to alter its casing plan again in anticipation of potential hole integrity problems while drilling through the curve. Cimarex proposes to set 7" to top of Cisco and cement to surface, then mill out for horizontal hole and set and cement a 4½" liner in place.

Previous Casing Plan

Drill 7⅞" hole to 9332' and KO 6¾" hole. Drill to MD 12122' and TVD 9477.'
From 0-9332' run 5½" 17# P-110 LTC and cross over to 4½" 11.6# P-110 BTC from KOP to TD.
Cement with Lead 620 sx Interfill H + 0.3% HR-601 + 5# Gilsonite + 0.125# Poly-e-flake (wt 11.9, yld 2.47) and Tail 480 sx Super H + 0.5% Halad-344 + 0.25% D-Air 3000 + 0.4% CFR-3 + 1# Salt + 5# Gilsonite + 0.125# Poly-e-flake + 0.35% HR-7 (wt 13.2, yld 1.61). TOC 0.'

ACCEPTED FOR RECORD

JAN 12 2009

Gerry Guye, Deputy Field Inspector
NMOCD District II ARTESIA

New Casing Plan

Drill 8¾" hole to 10000' (pilot hole) and set 7" 26# P-110 LTC casing. Cement with 2 Stages. **Stage 1:** Lead 475 sx Interfill H + 0.25# Flocele (wt 11.9, yld 2.45), Tail 150 sx Super H + 5# Gilsonite + 2.5# Salt + 0.4% CFR-3 + 0.5% LAP-1 + 0.25# D-AIR 3000 + 0.1% HR-7 + 0.25# Flocele (wt 13.2, yld 1.61). DV tool @ 6000.' **Stage 2:** Lead 900 sx Interfill C + 0.25# Flocele (wt 11.9, yld 2.45), Tail 150 sx Premium Plus Neat (wt 15.6, yld 1.18). TOC 0.'
Mill window and kick off 6½" hole @ 9160.' Drill to TD of MD 12004' and TVD 9448.' Run 5-1/2" 17# P110 BTC from Liner hanger @ 9060' to TD.
Cement liner with 410 sx Super H + 0.5% LAP-1 + 0.4% CFR-3 + 1# Salt + 0.25# D-AIR 3000 + 0.3% HR-7 + 0.25# Flocele + 5# Gilsonite (wt 13.2, yld 1.61), TOC @ 9060.' per operator

Please see attached revised preliminary drill and survey and cement additive info.

14. I hereby certify that the foregoing is true and correct

Name *(Printed/Typed)*	Title
Natalie Krueger	Regulatory Analyst
Signature	Date
Natalie Krueger	August 27, 2008

APPROVED
JAN 7 2009
WESLEY W. INGRAM
PETROLEUM ENGINEER

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by	Title	Date
Conditions of Approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office	

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on reverse)

Planned Wellpath Report

Preliminary

BAKER HUGHES INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	**Cimarex Energy Co. of Colorado**	Slot	**No. 2H SHL**
Area	**Eddy County, NM**	Well	**No. 2H**
Field	**(Tank) Sec 29, T25S, R26E**	Wellbore	**No. 2H PWB**
Facility	**Tank 29 Fed No. 2H**		

REPORT SETUP INFORMATION			
Projection System	**NAD83 / TM New Mexico State Planes, Eastern Zone (3001), US feet**	Software System	**WellArchitect® 2.0**
North Reference	**Grid**	User	**Victor Hernandez**
Scale	**0.999909**	Report Generated	**8/27/2008** at **8:36:41 AM**
Convergence at slot	**0.01° East**	Database/Source file	**WA_Midland/No._2H_PWB.xml**

WELLPATH LOCATION	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	**East[ft]**	**Easting[USft]**	**Northing[USft]**	**Latitude**	**Longitude**
Slot Location	**0.00**	**0.00**	547702.90	402436.40	32°06'22.951"N	104°18'45.991"W
Facility Reference Pt			**547702.90**	**402436.40**	32°06'22.951"N	104°18'45.991"W
Field Reference Pt			**547702.90**	**402436.40**	32°06'22.951"N	104°18'45.991"W

WELLPATH DATUM			
Calculation method	**Minimum curvature**	Rig on No. 2H SHL (RT) to Facility Vertical Datum	**18.00ft**
Horizontal Reference Pt	**Facility Center**	Rig on No. 2H SHL (RT) to Mean Sea Level	**3458.00ft**
Vertical Reference Pt	**Rig on No. 2H SHL (RT)**	Facility Vertical Datum to Mud Line (Facility)	**0.00ft**
MD Reference Pt	**Rig on No. 2H SHL (RT)**	Section Origin	**N 0.00, E 0.00 ft**
Field Vertical Reference	**Mean Sea Level**	Section Azimuth	**270.18°**

Planned Wellpath Report

Preliminary

CIMAREX

BAKER HUGHES INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	**Cimarex Energy Co. of Colorado**	Slot	**No. 2H SHL**
Area	**Eddy County, NM**	Well	**No. 2H**
Field	**(Tank) Sec 29, T25S, R26E**	Wellbore	**No. 2H PWB**
Facility	**Tank 29 Fed No. 2H**		

WELLPATH DATA (32 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00	0.000	270.183	0.00	0.00	0.00	0.00	0.00	Tie On
9160.00	0.000	270.183	9160.00	0.00	0.00	0.00	0.00	KOP
9260.00†	19.895	270.183	9258.00	17.19	0.05	-17.19	19.90	
9360.00†	39.790	270.183	9344.31	66.70	0.21	-66.70	19.90	
9460.00†	59.685	270.183	9408.61	142.63	0.46	-142.63	19.90	
9560.00†	79.580	270.183	9443.24	235.90	0.75	-235.90	19.90	
9612.37	90.000	270.183	9447.99	287.99	0.92	-287.99	19.90	EOC
9660.00†	90.000	270.183	9447.99	335.62	1.07	-335.61	0.00	
9760.00†	90.000	270.183	9447.99	435.62	1.39	-435.61	0.00	
9860.00†	90.000	270.183	9447.99	535.62	1.71	-535.61	0.00	
9960.00†	90.000	270.183	9447.99	635.62	2.03	-635.61	0.00	
10060.00†	90.000	270.183	9447.99	735.62	2.35	-735.61	0.00	
10160.00†	90.000	270.183	9447.99	835.62	2.67	-835.61	0.00	
10260.00†	90.000	270.183	9447.99	935.62	2.99	-935.61	0.00	
10360.00†	90.000	270.183	9447.99	1035.62	3.31	-1035.61	0.00	
10460.00†	90.000	270.183	9447.99	1135.62	3.63	-1135.61	0.00	
10560.00†	90.000	270.183	9447.99	1235.62	3.95	-1235.61	0.00	
10660.00†	90.000	270.183	9447.99	1335.62	4.27	-1335.61	0.00	
10760.00†	90.000	270.183	9448.00	1435.62	4.58	-1435.61	0.00	
10860.00†	90.000	270.183	9448.00	1535.62	4.90	-1535.61	0.00	
10960.00†	90.000	270.183	9448.00	1635.62	5.22	-1635.61	0.00	
11060.00†	90.000	270.183	9448.00	1735.62	5.54	-1735.61	0.00	
11160.00†	90.000	270.183	9448.00	1835.62	5.86	-1835.61	0.00	
11260.00†	90.000	270.183	9448.00	1935.62	6.18	-1935.61	0.00	
11360.00†	90.000	270.183	9448.00	2035.62	6.50	-2035.61	0.00	
11460.00†	90.000	270.183	9448.00	2135.62	6.82	-2135.60	0.00	
11560.00†	90.000	270.183	9448.00	2235.62	7.14	-2235.60	0.00	
11660.00†	90.000	270.183	9448.00	2335.62	7.46	-2335.60	0.00	
11760.00†	90.000	270.183	9448.00	2435.62	7.78	-2435.60	0.00	
11860.00†	90.000	270.183	9448.00	2535.62	8.10	-2535.60	0.00	

Planned Wellpath Report

Preliminary

REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co. of Colorado	Slot	No. 2H SHL
Area	Eddy County, NM	Well	No. 2H
Field	(Tank) Sec 29, T25S, R26E	Wellbore	No. 2H PWB
Facility	Tank 29 Fed No. 2H		

WELLPATH DATA (32 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
11960.00†	90.000	270.183	9448.00	2635.62	8.42	-2635.60	0.00	
12004.43	90.000	270.183	9448.00	2680.05	8.56	-2680.04	0.00	No. 2H BHL

HOLE & CASING SECTIONS Ref Wellbore: No. 2H PWB Ref Wellpath: Preliminary

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
6.125in Open Hole	9160.00	12004.43	2844.43	9160.00	9448.00	0.00	0.00	8.56	-2680.03

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
1) No. 2H BHL	12004.43	9448.00	8.56	-2680.04	545023.11	402444.96	32°06'23.040"N	104°19'17.148"W	point

SURVEY PROGRAM Ref Wellbore: No. 2H PWB Ref Wellpath: Preliminary

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
18.00	12004.43	NaviTrak (Standard)		No. 2H PWB

Cimarex Energy Co. of Colorado

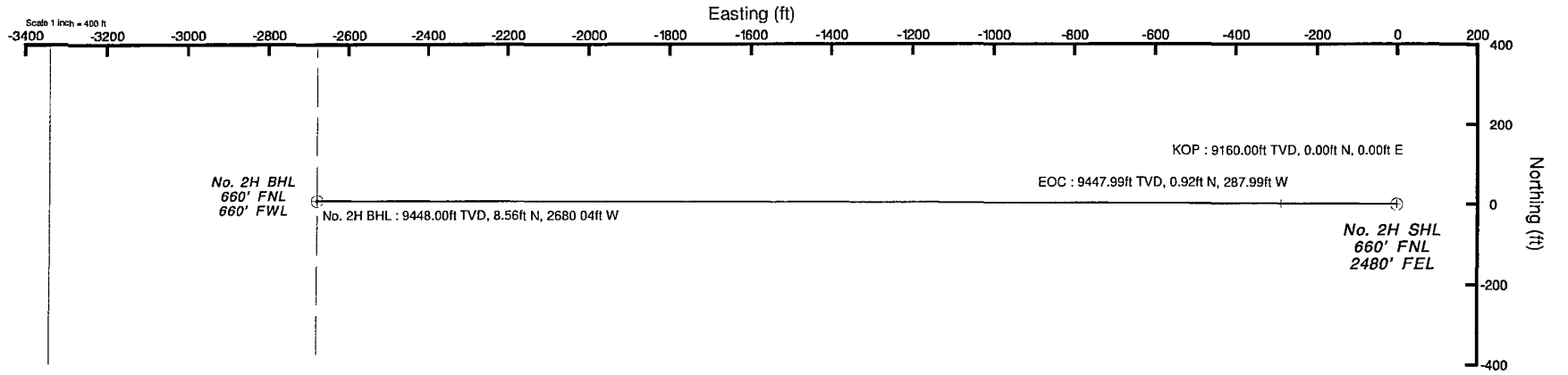
Location: Eddy County, NM
Field: (Tank) Sec 29, T25S, R26E
Facility: Tank 29 Fed No. 2H

Slot: No. 2H SHL
Well: No. 2H
Wellbore: No. 2H PWB

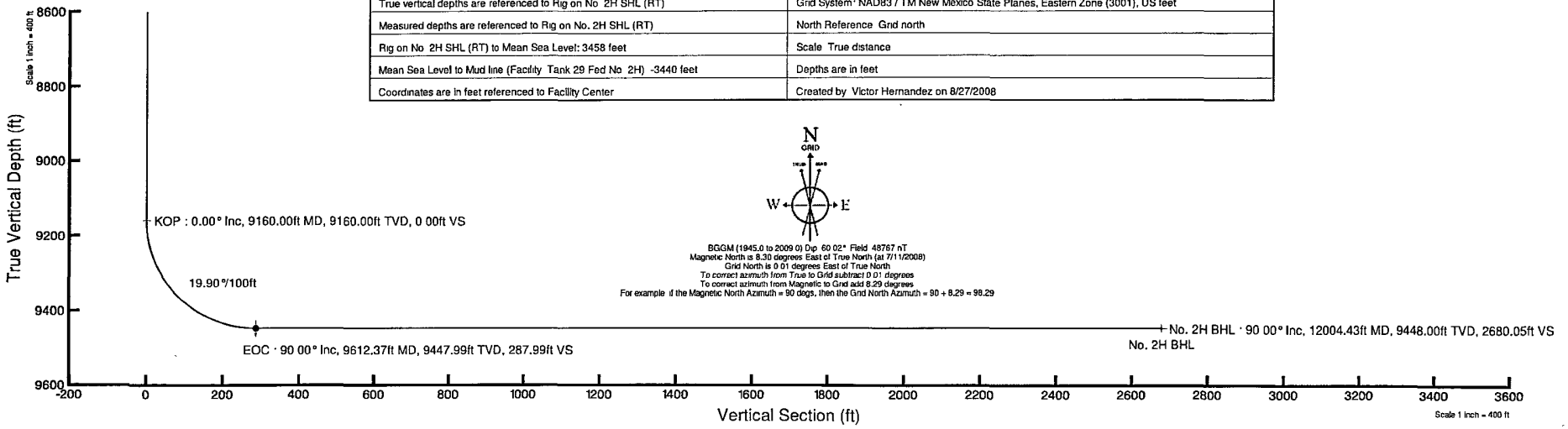
BAKER HUGHES INTEQ

Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	0.00	0.000	270.183	0.00	0.00	0.00	0.00	0.00
KOP	9160.00	0.000	270.183	9160.00	0.00	0.00	0.00	0.00
EOC	9612.37	90.000	270.183	9447.99	0.92	-287.99	19.90	287.99
No. 2H BHL	12004.43	90.000	270.183	9448.00	8.56	-2680.04	0.00	2680.05



Plot reference wellpath is Preliminary	
True vertical depths are referenced to Rig on No 2H SHL (RT)	Grid System: NAD83 / TM New Mexico State Planes, Eastern Zone (3001), US feet
Measured depths are referenced to Rig on No. 2H SHL (RT)	North Reference Grid north
Rig on No 2H SHL (RT) to Mean Sea Level: 3458 feet	Scale True distance
Mean Sea Level to Mud line (Facility Tank 29 Fed No 2H) -3440 feet	Depths are in feet
Coordinates are in feet referenced to Facility Center	Created by Victor Hernandez on 8/27/2008



BGGM (1945.0 to 2009.0) Dip 60 02° Field 48767 nT
Magnetic North is 8.30 degrees East of True North (at 7/11/2008)
Grid North is 0 01 degrees East of True North
To correct azimuth from True to Grid subtract 0 01 degrees
To correct azimuth from Magnetic to Grid add 8.29 degrees
For example if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 8.29 = 98.29

CEMENTING

Print Version

Flocele Lost-Circulation Additive

Flocele additive helps control lost circulation. It consists of 3/8 - or 3/4 -in. cellophane flakes.

Applications

Flocele additive is effective at bottomhole temperatures (BHTs) between 60° and 260°F (16° and 127°C). Typical additive concentrations are 1/8 to 1/2 lb/sk of cement.

Benefits

Flocele additive can provide the following benefits:

- It is an inert material with a shelf-life of up to 24 months.
- The Environmental Protection Agency (EPA) does not list Flocele additive as a hazardous waste.

Flocele Lost-Circulation Additive—Product Specifications

Part No. (25-lb bag)	89.050071 (100003680 SAP)	**Specific Gravity**	1.440
		Bulk Density	15 lb/ft^3
Form	Colorless, solid flakes	**pH**	5.5

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8/27/2008

Send questions or comments about this site to Halliburton Service Center or call U.S. (877) 263-6071 or outside U.S. (281) 983-4900.

HALLIBURTON

Gilsonite

Lost-Circulation Additive

Gilsonite additive is an asphaltene hydrocarbon in granular form. Its particle size varies between 4- and 100-mesh. Gilsonite additive is commonly used to control lost circulation.

Applications

Gilsonite additive is effective at bottomhole temperatures (BHTs) between 60° and 230°F (16° and 110°C). Typical additive concentrations range from 5 to 50 lb/sk of cement.

Features

Gilsonite additive's low specific gravity helps improve its ability to control lost circulation. However, this feature can also cause the additive to separate to the top of thin slurries and slurries containing dispersants. Adding 2% or more bentonite to the slurry will help prevent separation.

Benefits

Gilsonite additive can provide the following benefits:

- When perforated, it is shatter-resistant.
- It does not significantly affect the setting time of cement.
- Gilsonite additive can provide higher strength than heavier additives with high water requirements.

Gilsonite Lost-Circulation Additive—Product Specifications

Part No. (50-lb bag)	100001618	Specific Gravity	1.07
Form	Black, solid granules	Bulk Density	50 lb/ft^3

HALLIBURTON

CFR-3™ Cement Friction Reducer

Dispersant

Halliburton CFR-3 friction reducer helps reduce the apparent viscosity and improve the rheological properties of a cement slurry. As a result, turbulent flow can be achieved at lower pumping rates, which results in reduced friction pressure during pumping.

When a slurry's apparent viscosity is reduced, the slurry can be mixed at a higher density by reductions in the amount of mix water added. Although the slurry is denser, it remains easy to pump and will require less, possibly no, weighting material.

CFR-3 friction reducer also helps improve fluid-loss control and can provide slight slurry retardation.

Features

CFR-3 friction reducers are available with or without defoamer. When defoamer is used, the mixing concentration is 0.3 to 1.5 percent. Without defoamer, the mixing concentration is 0.3 to 1.0 percent. Both products can be applied in wells above 60°F (16°C) in all API cement classes.

Benefits

CFR-3 friction reducers can provide the following benefits:

- Reduced hydraulic horsepower requirements.
- Greater turbulence at lower pump rates.

CFR-3™ Cement Friction Reducer (with Defoamer) – Product Specifications			
Part No.	100012206	**Bulk density**	38.00 lb/ft³
Form	Red-brown solid	**Packaging**	50-lb bag
Specific gravity	1.16		

CFR-3™ Cement Friction Reducer (without Defoamer) – Product Specifications			
Part No.	100003653	**Bulk density**	38.00 lb/ft³
Form	Dark red-brown solid, powder	**pH**	7 to 9
Specific gravity	1.17	**Packaging**	50-lb bag

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HALLIBURTON
Fluid Systems

FDP-C874-07 Cement Fluid Loss Additive

FDP-C874-07 fluid loss additive has been developed to provide a means of preparing latex cement from a powdered material. FDP-C874-07 slurries offer more efficient fluid loss control than the LAP-1 or Halad®-447 additive variety of slurry compositions at densities ranging from approximately 12.0 to 16.0 lb/gal. A major benefit derived from FDP-C874-07 latex cement is it is more economical than LAP-1 or Halad-447 additive.

FDP-C874-07 has retained the cement bonding ability as compared to LAP-1 or Halad-447 additive.

Applications

FDP-C874-07 is a non-retarding, low fluid loss additive at low temperatures. FDP-C874-07 can be used at temperature ranges up to approximately 160 to 180°F. Test results indicate the upper temperature limit may be dependent to some extent on slurry composition. Latex generally degrades at this upper temperature limit.

Compatibilities

FDP-C874-07 is compatible with most other additives applicable to the same usage and temperature range—except salt. CFR-2™ cement friction reducer may not be compatible at densities above 15.6 lb/gal; however, FDP-C874-07 is compatible with CFR-3™ dispersant. When used with >0.5% Econolite™ powder, only extremely low fluid loss will occur. There are no freezing problems as with liquid latex.

Benefits

FDP-C874-07 cement fluid loss additive can provide the following advantages:

- More economical than LAP-1 or Halad-447 additive
- Non-retarding, low fluid loss additive at low temperature
- Improves cement resistance to acid
- No freezing problems as with liquid latex
- No need for addition of extra dispersants
- Excellent cement bonding

FDP-C874-07 Cement Fluid Loss Additive—Product Specifications

Part No. (1-lb sample)	101608277	Specific Gravity	1.19
Part No. (50-lb bag)	101608276	Percent Active	100%
Form	Reddish colored powder	Bulk Density	37 lb/ft³

HALLIBURTON

D-Air 3000™ and D-Air 3000L™

Defoamers

Description

D-Air 3000™ and D-Air 3000L™ defoamers help control foaming of cement slurries.

Features

D-Air 3000 and D-Air 3000L defoamers have the following features:

- They offer significantly greater defoaming characteristics than previously available defoamers.
- They can replace D-Air 3 defoamer in Latex 2000 cement.
- They will not affect fluid loss, thickening time, or compressive strength.
- D-Air 3000 and D-Air 3000L defoamers are recommended for replacing the following defoamers:
  - — NF-1
  - — NF-3
  - — NF-7
  - — D-Air 2
  - — D-Air 1

Applications

D-Air 3000 and D-Air 3000L defoamers can be used with a variety of slurries, including slurries with high yield points, and those containing additives such as HR®-12 retarder and sodium chloride (NaCl).

Recommended concentrations of D-Air 3000 and D-Air 3000L defoamers range from 0.0025% to 0.45% (0.005 to 0.5 gal/sk) by weight of cement (BWOC).

For more specific applications of D-Air 3000 and D-Air 3000L defoamers, please contact your local Halliburton representative.

Benefits

D-Air 3000 and D-Air 3000L defoamers can provide dependable foam control, even in slurries with high yield points and slurries containing additives such as HR-12 retarder and sodium chloride (NaCl).

D-Air 3000 Defoamer—Product Specifications

Form	Powder	**Packaging**	50-lb sack
Color	Tan	**SAP No.**	101007446
Specific Gravity	1.35	**Part No.**	516 01248
Bulk Density	25.2 lb/ft³		

D-Air 3000L Defoamer—Product Specifications

Form	Liquid	**Pour Point**	34°F
Color	Tan	**Packaging**	5-gal bucket
Specific Gravity	0.93	**SAP No.**	101007444
Bulk Density	7.75 lb/gal	**Part No.**	516 01249
Boiling Point	>200°F		

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H02518-A4 06/07

HALLIBURTON
Fluid Systems

HR®-7

Cement Retarder

HR®-7 retarder is a sodium lignosulfonate that can be used as a retarder and dispersant in all API classes of cement as well as Pozmix® cement.

Applications

HR-7 retarder can be used in wells with bottomhole circulating temperatures (BHCTs) between 110° and 170°F (43° and 77°C). This retarder's dispersing capabilities are particularly useful in cements containing high gel percentages. In these slurries, HR-7 retarder decreases air entrainment. It can also be used to help control fluid loss in slurries that are subjected to high shear rates.

Benefits

Small amounts of HR-7 retarder can extend a slurry's temperature range and yield a smoother, more uniform slurry. In addition, HR-7 retarder can provide the following benefits:

- extended pumping times
- early cement-strength development
- more predictable thickening times
- improved slurry displacement rates at steady pressures

HR®-7 Retarder—Product Specifications

Part No.	100005055	Bulk Density	38.00 lb/ft³
Form	Solid black powder	Packaging	50-lb bag
Specific Gravity	1.410		

HALLIBURTON

CFR-3™ Cement Friction Reducer

Dispersant

Halliburton CFR-3 friction reducer helps reduce the apparent viscosity and improve the rheological properties of a cement slurry. As a result, turbulent flow can be achieved at lower pumping rates, which results in reduced friction pressure during pumping.

When a slurry's apparent viscosity is reduced, the slurry can be mixed at a higher density by reductions in the amount of mix water added. Although the slurry is denser, it remains easy to pump and will require less, possibly no, weighting material.

CFR-3 friction reducer also helps improve fluid-loss control and can provide slight slurry retardation.

Features

CFR-3 friction reducers are available with or without defoamer. When defoamer is used, the mixing concentration is 0.3 to 1.5 percent. Without defoamer, the mixing concentration is 0.3 to 1.0 percent. Both products can be applied in wells above 60°F (16°C) in all API cement classes.

Benefits

CFR-3 friction reducers can provide the following benefits:

- Reduced hydraulic horsepower requirements.
- Greater turbulence at lower pump rates.

CFR-3™ Cement Friction Reducer (with Defoamer) – Product Specifications			
Part No.	100012206	**Bulk density**	38.00 lb/ft³
Form	Red-brown solid	**Packaging**	50-lb bag
Specific gravity	1.16		

CFR-3™ Cement Friction Reducer (without Defoamer) – Product Specifications			
Part No.	100003653	**Bulk density**	38.00 lb/ft³
Form	Dark red-brown solid, powder	**pH**	7 to 9
Specific gravity	1.17	**Packaging**	50-lb bag

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HALLIBURTON

Fluid Systems