

OKLAHOMA CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION  
P.O. BOX 52000  
OKLAHOMA CITY, OK 73152-2000  
(Rule 165:10-3-1)

API NUMBER: 137 26988

Approval Date: 01/03/2013

Expiration Date: 07/03/2013

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 21 Twp: 2N Rge: 4W

County: STEPHENS

SPOT LOCATION:  NW  NE  SE  SW

FEET FROM QUARTER: FROM SOUTH FROM WEST

SECTION LINES: 2610 2200

Lease Name: BRANCH

Well No: 4H-16X

Well will be 2200 feet from nearest unit or lease boundary.

Operator Name: NEWFIELD EXPL MIDCONTINENT INC

Telephone: 9188781290

OTC/OCC Number: 20944 0

NEWFIELD EXPL MIDCONTINENT INC  
1 WILLIAMS CTR STE 1900  
TULSA, OK 74172-0162

THE POTEET FAMILY REVOC. LIVING TRUST  
POST OFFICE BOX 729  
LINDSAY OK 73052

Formation(s) (Permit Valid for Listed Formations Only):

	Name	Depth	Name	Depth
1	MISSISSIPPIAN	14971	6	
2	SYCAMORE	15133	7	
3	WOODFORD	15277	8	
4	HUNTON	15527	9	
5			10	

Spacing Orders: 592371  
602383

Location Exception Orders: 605990

Increased Density Orders: 605638  
605539

Pending CD Numbers: 201206341  
201206340  
201206339  
201206350

Special Orders:

Total Depth: 23542

Ground Elevation: 1197

**Surface Casing: 1500**

Depth to base of Treatable Water-Bearing FM: 630

Under Federal Jurisdiction: No

Fresh Water Supply Well Drilled: No

Surface Water used to Drill: Yes

PIT 1 INFORMATION

Approved Method for disposal of Drilling Fluids:

Type of Pit System: CLOSED Closed System Means Steel Pits

Type of Mud System: WATER BASED

Chlorides Max: 5000 Average: 3000

Is depth to top of ground water greater than 10ft below base of pit? Y

Within 1 mile of municipal water well? N

Wellhead Protection Area? N

Pit is located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C

Pit Location is AP/TE DEPOSIT

Pit Location Formation: TERRACE

D. One time land application -- (REQUIRES PERMIT)

PERMIT NO: 13-22285

H. SEE MEMO

This permit does not address the right of entry or settlement of surface damages.

The duration of this permit is SIX MONTHS, except as otherwise provided by Rule 165: 10-3-1.

Rule 165: 10-3-4 (c) (7) (e) - The Operator shall give 24 Hours notice by telephone to the appropriate District Office of the Conservation Division as to when Surface Casing will be run.

PIT 2 INFORMATION

Type of Pit System: CLOSED Closed System Means Steel Pits

Type of Mud System: OIL BASED

Chlorides Max: 300000 Average: 200000

Is depth to top of ground water greater than 10ft below base of pit? Y

Within 1 mile of municipal water well? N

Wellhead Protection Area? N

Pit is located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C

Pit Location is AP/TE DEPOSIT

Pit Location Formation: TERRACE

HORIZONTAL HOLE 1

Sec 16 Twp 2N Rge 4W County STEPHENS

Spot Location of End Point: NW NE NE NW

Feet From: NORTH 1/4 Section Line: 50

Feet From: WEST 1/4 Section Line: 2200

Depth of Deviation: 15222

Radius of Turn: 630

Direction: 360

Total Length: 7330

Measured Total Depth: 23542

True Vertical Depth: 15527

End Point Location from Lease,  
Unit, or Property Line: 50

Additional Surface Owner	Address	City, State, Zip
JARRED D. BRANCH	P.O. BOX 729	LINDSAY, OK 73052
DETRA BRANCH & JARRED BRANC	BOX 729	LINDSAY, OK 73052

Notes:

Category

Description

DEEP SURFACE CASING

1/3/2013 - G71 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY FOR ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON CONDUCTOR OR SURFACE CASING

EXCEPTION TO RULE - 605990

1/3/2013 - G75 - (I.O.) 16-2N-4W  
X165:10-3-28(C)(2)(B) WDFD (BRANCH 4H-16X)  
<600' FROM EXISTING AND/OR PROPOSED WELL  
NEWFIELD EXPLOR. MID-CONT., INC.  
12-28-2012

INCREASED DENSITY - 605539

1/3/2013 - G75 - 21-2N-4W  
X602383 WDFD  
5 WELLS  
NEWFIELD EXPLOR. MID-CONT. INC.  
12-17-2012

INCREASED DENSITY - 605638

1/3/2013 - G75 - 16-2N-4W  
X592371 WDFD  
5 WELLS  
NEWFIELD EXPLOR. MID-CONT. INC.  
12-18-2012

MEMO

1/3/2013 - G71 - PIT 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, WBM & OBM CUTTINGS CAPTURED IN CONCRETE-LINED PIT, SOLIDIFIED, AND BURIED ON SITE; PIT 2 - OBM TO VENDOR

This permit does not address the right of entry or settlement of surface damages.  
The duration of this permit is SIX MONTHS, except as otherwise provided by Rule 165: 10-3-1.  
Rule 165: 10-3-4 (c) (7) (e) - The Operator shall give 24 Hours notice by telephone to the appropriate District Office of the Conservation Division as to when Surface Casing will be run.

137 26988 BRANCH 4H-16X

Category	Description
PENDING CD - 201206339	1/3/2013 - G75 - (I.O.) 16 & 21-2N-4W EST MULTIUNIT HORIZONTAL WELL (BRANCH 4H-16X) X592371 SCMR, WDFD, HNTN 16-2N-4W X602383 MSSP, WDFD, HNTN 21-2N-4W 66% 16-2N-4W 34% 21-2N-4W NO OP. NAMED REC 12-3-2012 (JOHNSON)
PENDING CD - 201206340	1/3/2013 - G75 - (I.O.) 21-2N-4W X602383 MSSP, WDFD, HNTN SHL NCT 1320 FSL, NCT 1320 FWL COMPL. INT. NCT 0 FNL, NCT 1320 FSL, NCT 2000 FWL NO OP. NAMED REC 12-3-2012 (JOHNSON)
PENDING CD - 201206341	1/3/2013 - G75 - (I.O.) 16-2N-4W X592371 SCMR, WDFD, HNTN COMPL. INT. NCT 0 FSL, NCT 165 FNL, NCT 2000 FWL NO OP. NAMED REC 12-3-2012 (JOHNSON)
PENDING CD - 201206350	1/3/2013 - G75 - (I.O.) 21-2N-4W X165:10-3-28(C)(2)(B) WDFD (BRANCH 4H-16X <600' FROM EXISTING AND/OR PROPOSED WELL NEWFIELD EXPLOR. MID-CONT., INC. REC 12-3-2012 (JOHNSON)
SPACING - 592371	1/3/2013 - G75 - (640) 16-2N-4W EXT OTHER EXT 582855 SCMR, WDFD, HNTN, OTHERS
SPACING - 602383	1/3/2013 - G75 - (640) 21-2N-4W EXT 595488 MSSP EXT 596943 WDFD, HNTN, OTHERS EXT OTHERS

This permit does not address the right of entry or settlement of surface damages.  
The duration of this permit is SIX MONTHS, except as otherwise provided by Rule 165: 10-3-1.  
Rule 165: 10-3-4 (c) (7) (e) - The Operator shall give 24 Hours notice by telephone to the appropriate District Office of the Conservation Division as to when Surface Casing will be run.

# NEWFIELD



Newfield Exploration Mid-  
Continent, Inc.  
One Williams Center; Suite 1900  
Tulsa, OK 741729  
918-582-2690  
Fax: 918-732-1787

December 19, 2012

Oklahoma Corporation Commission  
Oil & Gas Conservation Division  
P.O. Box 52000-~~52000~~  
Oklahoma City, Oklahoma 73152-2000

API 137-26988

ATTN: Manager of the Technical Services Department

RE: Liner Variance Request  
Branch 4H-16X  
Stephens County, Oklahoma

Dear Sir:

We are requesting a variance to the liner requirements for the burial of oil-based cuttings (OBC) as stated in rules of the Oklahoma Corporation Commission (OCC). We intend to bury the OBC from the above mentioned well using Scott Environmental Services Inc.'s (SESI) stabilization and solidification process, Duro<sup>SM</sup>. Specifically, the request for a variance is because the chosen process cannot be practically carried out under current Oklahoma rules due to the rules stating that OBC burial requires a geomembrane liner but the rules do not allow stirring within geomembrane lined pits.

In a letter dated November 15, 2010, Mr. Tim Baker confirmed that use of a Duro<sup>SM</sup> process had met the requirements of the Commission. It is requested that a variance be approved for this well site, provided that the following conditions are met:

1. A soil liner may be used instead of a geomembrane liner if the unconfined compressive strength (UCS) of the Duro<sup>SM</sup> material is at least 70 pounds per square inch (psi), or
2. No liner is required if the Duro<sup>SM</sup> material meets all of the following conditions:
  - a. A permeability of not more than  $1 \times 10^{-6}$  cm/sec;
  - b. A UCS of at least 35 psi; and
  - c. Concentrations in a leachate of the Duro<sup>SM</sup> material according to EPA's SPLP procedure do not exceed the following values for the constituents named:
    - i. Total Petroleum Hydrocarbons, 100 mg/l;
    - ii. pH, 12.49 SU, plus a lower limit no less than 6;
    - iii. Arsenic, 5.00 mg/l;
    - iv. Barium, 100 mg/l;

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- v. Cadmium, 1.00 mg/l;
- vi. Chromium, 5.00 mg/l;
- vii. Lead, 5.00 mg/l;
- viii. Mercury, 0.20 mg/l;
- ix. Selenium, 1.00 mg/l;
- x. Silver, 5.00 mg/l;
- xi. Zinc, 5.00 mg/l; and
- xii. Benzene, 0.5 mg/l.

The permeability value specified in item 2(a) is the same as that required for a standard soil liner, so that in effect the Duro<sup>SM</sup> processed material becomes its own liner but is even more effective, because the low permeability extends throughout the bulk of the Duro<sup>SM</sup> material.

Conformance with the specified criteria is determined on laboratory samples made with a representative sample of the waste to be subjected to the Duro<sup>SM</sup> process. The results of the testing will be provided to the Pollution Abatement Department of the OCC.

Your prompt attention to this matter is appreciated.

Sincerely,



Daniele Burris  
Regulatory Analyst

cc: WF  
Geoffrey Nielsen

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OKLAHOMA

# Corporation Commission

P.O. BOX 52000  
OKLAHOMA CITY OKLAHOMA 73152-2000

255 Jim Thorpe Building  
Telephone: (405)521-2302  
FAX: (405)521-3099

OIL & GAS CONSERVATION DIVISION



Lori Wrotenbery, Director

November 15, 2010

J. Blake Scott  
Scott Environmental Services, Inc.  
P.O. Box 6215  
Longview, Texas 75608

API 137-26988

RE: Requests for variances to liner requirements for pits used to contain oil-based cuttings.

Dear Mr. Scott:

This is in response to your inquiry concerning the procedure by which operators of wells in the State of Oklahoma regulated by the Commission's Oil and Gas Conservation Division may request variances to liner requirements for pits used to contain oil-based cuttings (OBC). OAC 165:10-7-16(b)(1)(B)(iv) provides that any pit used to contain oil-based drilling fluids, cuttings and/or completion/fracture/workover fluids shall be required to have a geomembrane liner. OAC 165:10-7-16(b)(5) states that any variance from the liner requirements of OAC 165:10-7-16 may be granted by the Manager of the Technical Services Department after receipt of a written request and supporting documentation required by the Department. Operators must submit written requests for variances to liner requirements for pits used to contain OBC to the Commission's Technical Services Department (TSD) Manager as attachments to initial or amended OCC Form 1000 Applications to Drill, Recomplete or Reenter.

The TSD Manager will require operators to submit documentation in support of requests for variances. Variances to liner requirements for pits containing OBC are not effective until granted by the TSD Manager. If operators requesting variances to liner requirements for pits containing OBC fail to submit acceptable documentation to the TSD Manager, or if such variance requests are denied, then operators are required to deposit the solidified OBC in pits containing geomembrane liners and close the pits as required by OAC 165:10-7-16, or otherwise dispose of the solidified OBC in accordance with Commission rules.

If the processes employed by your company and any other entity demonstrate through the submission of laboratory analyses, chain of custody forms and any other documentation required by the TSD Manager that the solidified OBC for which a variance from the pit liner requirements is sought meet acceptable criteria, then the TSD Manager could approve such variance requests submitted by operators.

Your company has demonstrated in three separate trials to date that solidified OBC for which variances were sought by operators have met the criteria of the Technical Services Department for burying such materials in pits with no geomembrane liners.

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If you have any questions concerning the foregoing, please contact me at (405) 522-2763.

Sincerely,



Tim Baker  
Manager, Pollution Abatement Department  
Oklahoma Corporation Commission

Cc: Lori Wrotenbery, Ron Dunkin, Wayne Wright, Grant Ellis, Tony Cupp, Terry Grooms,  
Gayland Darity, Sally Shipley, Keith Thomas, Susan Conrad, Jim Hamilton, Connie Moore

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