



SUNDRY NOTICES AND REPORTS ON WELLS - FORM 4

INDUSTRIAL COMMISSION OF NORTH DAKOTA
OIL AND GAS DIVISION
600 EAST BOULEVARD DEPT 405
BISMARCK, ND 58505-0840
SFN 5748 (09-2006)

Well File No.

25158

PLEASE READ INSTRUCTIONS BEFORE FILLING OUT FORM.

PLEASE SUBMIT THE ORIGINAL AND ONE COPY.

<input type="checkbox"/> Notice of Intent	Approximate Start Date
<input checked="" type="checkbox"/> Report of Work Done	Date Work Completed December 29, 2017
<input type="checkbox"/> Notice of Intent to Begin a Workover Project that may Qualify for a Tax Exemption Pursuant to NDCC Section 57-51.1-03.	Approximate Start Date
<input type="checkbox"/> Drilling Prognosis <input type="checkbox"/> Spill Report <input type="checkbox"/> Redrilling or Repair <input type="checkbox"/> Shooting <input type="checkbox"/> Casing or Liner <input type="checkbox"/> Acidizing <input type="checkbox"/> Plug Well <input type="checkbox"/> Fracture Treatment <input type="checkbox"/> Supplemental History <input type="checkbox"/> Change Production Method <input type="checkbox"/> Temporarily Abandon <input type="checkbox"/> Reclamation <input checked="" type="checkbox"/> Other NDAC 43-02-03-49 Compliance	

Well Name and Number
See Attached

Footages	F	L	F	L	Qlr-Qtr	Section	Township	N	Range	W
Field					Pool		County			

24-HOUR PRODUCTION RATE

	Before		After
Oil	Bbls	Oil	Bbls
Water	Bbls	Water	Bbls
Gas	MCF	Gas	MCF

Name of Contractor(s)

Address

City

State

Zip Code

DETAILS OF WORK

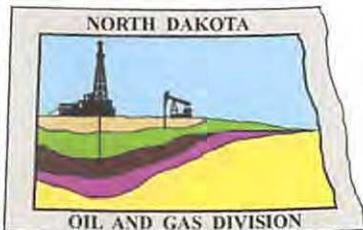
Continental Resources, Inc. has inspected all the sites listed on the attached list and all are in compliance with NDAC 43-02-03-49. All sites are in compliance based on the fact that our oil storage tanks, flow-through process vessels, recycle pumps, and load lines are all located within secondary containment.

confirmed per RSD

Company Continental Resources, Inc.	Telephone Number (405) 234-9020	
Address PO Box 268870		
City Oklahoma City	State OK	Zip Code 73126
Signature 	Printed Name Robert Sandbo	
Title Regulatory Compliance Supervisor	Date February 8, 2018	
Email Address robert.sandbo@cir.com		

FOR STATE USE ONLY

<input type="checkbox"/> Received	<input checked="" type="checkbox"/> Approved
Date 3/22/18	
By 	
Title Regulatory Compliance Supervisor	



Oil and Gas Division

Lynn D. Helms - Director Bruce E. Hicks - Assistant Director
Department of Mineral Resources
Lynn D. Helms - Director
North Dakota Industrial Commission
www.dmr.nd.gov/oilgas

August 29, 2017

CONTINENTAL RESOURCES
ATTENTION: BOB SANDBO
P.O. BOX 268870
OKLAHOMA CITY, OK 73126

RE: North Dakota Administrative Code (NDAC) Section 43-02-03-49
Perimeter Berm Requirement

NDIC # Please see attached list of 103 Facilities

Dear Bob Sandbo:

Please be advised that the attached list of facilities require a perimeter berm to be constructed within 180 days of this notice because they have:

1. Storage tanks;
2. Daily throughput of more than one hundred barrels of fluid per day; and
3. Includes production equipment or load lines that are not contained within secondary containment dikes

The berm must be at least six inches in height, constructed of sufficiently impermeable material to provide emergency containment, and must be maintained until the facility is either granted a waiver or the site is reclaimed.

Pursuant to NDAC Section 43-02-03-49 - Within one hundred eighty days from the date the operator is notified by the Commission, a perimeter berm, at least six inches in height, must be constructed of sufficiently impermeable material to provide emergency containment and to divert surface drainage away from the site around all storage facilities and production sites that include storage tanks, have a daily throughput of more than one hundred barrels of fluid per day, and include production equipment or load lines that are not contained within secondary containment dikes. The Director may consider an extension of time to implement these requirements if conditions prevent timely construction, or modification of these requirements if other factors are present that provide sufficient protection from environmental impacts.

This perimeter berm requirement may be modified or waived if the operator can demonstrate that other factors are present that provide sufficient protection from environmental impacts. A Sundry Notice (Form 4) outlining any engineering controls or other factors must be submitted to the Commission for approval of this modification or waiver. Should you have any questions regarding this matter, feel free to contact me at 701-770-3554.

Sincerely,


Richard Dunn
Field Inspector

NORTH DAKOTA



OIL AND GAS DIVISION

Oil and Gas Division

Lynn D. Helms - Director

Bruce E. Hicks - Assistant Director

Department of Mineral Resources

Lynn D. Helms - Director

North Dakota Industrial Commission

www.dmr.nd.gov/oilgas

NDIC #	Facility Name	TB/CTB #	NDIC #	Facility Name	TB/CTB #
19126	LANSING 1-25H		24834	DURHAM 3X-2H	
19578	MISSOULA 1-21H		24837	WAHPETON 2-16H2	
19740	SYRACUSE 1-23H		24840	WAHPETON 4-16H1	
19858	JAMESTOWN 1-17H		24842	WAHPETON 5-16H2	
19915	STEELE 1-24H		24843	WAHPETON 6-16H	
19918	CHARLOTTE 1-22H		24844	WAHPETON 7-16H3	
20566	MONTPELIER 1-14H		24908	CHARLOTTE 6-22H2	
20629	PATTERSON 1-13H		25116	BJARNE 2-29H	
20638	KUHN 1-12H		25117	BJARNE 3-29H	
20676	NORFOLK 1-1H		25156	COLUMBUS FEDERAL 1-16H	
21128	CHARLOTTE 2-22H		25157	TALLAHASSEE 3-16H	
21511	BOULDER 1-4H		25158	TALLAHASSEE 2-16H	
21600	ROCHESTER 1-24H		25159	COLUMBUS FEDERAL 2-16H	
22155	LANSING 2-25H		25160	COLUMBUS FEDERAL 3-16H	
22158	KUHN 2-12H		25189	PATTERSON FEDERAL 2-13H	
22273	STEELE 2-24H		25190	PATTERSON FEDERAL 3-13H	
22375	CHICAGO 2-26H		25826	AKRON 6-34H1	
22891	MONROE 1-2H		25827	AKRON 5-34H1	
23048	CHICAGO 3-26H		26190	MONTPELIER 4-14H	
23049	CHICAGO 4-26H		26191	MONTPELIER 3-14H1	
23050	SYRACUSE 3-23H		26420	MONTPELIER 2-14H	
23051	SYRACUSE 4-23H		26476	ROCHESTER FEDERAL 6-24H	
23086	NORFOLK 2-1H		26477	ROCHESTER FEDERAL 7-24H1	
23087	NORFOLK 3-1H		26525	JERRY 2-8H	
23351	MISSOULA 2-21H		26526	JERRY 3-8H	
23352	MISSOULA 3-21H		26530	JERRY 5-8H	
23427	MISSOULA 7-21H		26531	JERRY 4-8H	
23428	MISSOULA 6-21H		26535	JERRY 7-8H	
23429	MISSOULA 5-21H		26536	JERRY 6-8H	
23430	MISSOULA 4-21H		27418	GARFIELD FEDERAL 7-5H1	
23477	DURHAM 2-2H		27419	GARFIELD FEDERAL 6-5H	
23608	CHARLOTTE 5-22H		27420	GARFIELD FEDERAL 5-5H1	
23609	AKRON 3-27AH		27421	GARFIELD 4-5H	
23610	AKRON 2-27AH		27694	BERLAIN 3-30H	
23611	AKRON 4-34H		27695	BERLAIN 2-30H	
23612	CHARLOTTE 4-22H		28202	JAMESTOWN FEDERAL 2-17H	
23664	CHARLOTTE 3-22H		28203	JAMESTOWN FEDERAL 3-17H1	
23747	ROCHESTER 3-24H		28405	HARRISBURG 1-34H	
23748	ROCHESTER 2-24H		28604	JAMESTOWN FEDERAL 6-17H	
23749	ROCHESTER 5-24H1		28605	JAMESTOWN FEDERAL 7-17H	
23750	ROCHESTER 4-24H		28735	DURHAM 7-2H	
24490	DURHAM 4-2H		28736	DURHAM 6-2H1	
24491	DURHAM 5-2H		28737	UHLMAN 1-7H	
24507	NORFOLK 5-1H		28999	NORFOLK 6-1H1	
24508	NORFOLK 4-1H		29000	NORFOLK 7-1H	
24804	WAHPETON 14-16H2	224837-01	31508	AKRON FEDERAL 7-27H	
24805	WAHPETON 13-16H		31838	CHARLOTTE 7X-22H	
24806	WAHPETON 12-16H3		32033	NORFOLK 11-1H	
24807	WAHPETON 11-16H1		32034	NORFOLK 10-1H1	
24808	WAHPETON 10-16H2		32035	NORFOLK 9-1H	
24809	WAHPETON 9-16H		32036	NORFOLK 8-1H1	
24810	WAHPETON 8-16H1				

North Dakota Industrial Commission Follow-up Spill Report

API Number 33 - 053 - 04854

Well File or Facility No. 25158

Operator Continental Resources, Inc.		Telephone Number (406)433-3006					
Address P.O Box 268835		City Oklahoma City	State OK				
Well Name and Number or Facility Name Tallahassee 2-16H		Field Baker					
Location of Well or Facility	Footages F L F L	Qtr-Qtr SE-NE	Section 16				
Township 153 N	Range 101 W	County McKenzie					
Description of Spill Location if not on Well or Facility Site and/or Distance and Direction from Well or Facility Lightly misted area to the S of location was all on snow, no oil came in contact with soil.							
Directions to Site							
Release Discovered By Lease Operator	Date Release Discovered December 29, 2015	Time Release Discovered 1 : 00 PM	Date Release Controlled December 29, 2015				
Company Personnel Notified Jake Volkman	How Notified Phone	Date Notified December 29, 2015	Time Notified 1 : 10 PM				
Type of Incident Other-Described Below	Root Cause of Release Other-Described Below		Date Clean up Activities Concluded December 30, 2015				
Distance to Nearest Residence or Occupied Building		Distance to Nearest Fresh Water Well					
Piping Specifics (If Applicable)	Size (Decimal Format) "	Type	Location of Piping				
Volume of Release	Oil 21.00 Gallons	Saltwater	Other				
Volume of Release Recovered	Oil 21.00 Gallons	Saltwater	Other				
Was Release Contained Within Dike No	If No, Was Release Contained on Well Site No	If No, Was Release Contained on Facility Site or Pipeline ROW No					
Areal Extent of Release if not Within Dike 40 ft. x 20 ft area on snow off location		Affected Medium Well/Facility Soil	General Land Use Pasture				
Describe Cause of Release or Fire and Other Type of Incidents, Root Causes of Release, Land Uses, and Released Substances The separator high leveled when the well was brought back on and sent some fluid to the flare causing a light misting.							
Action Taken to Control Release and Clean Up Action Undertaken All impacted snow was scraped up and removed.							
<u>Potential Environmental Impacts</u> Snow on/off location							
<u>Planned Future Action and/or Action Taken to Prevent Reoccurrence</u>							
Where Were Recovered Liquids Disposed N/A		Where Were Recovered Solids Disposed N/A					
Weather Conditions	Wind Speed MPH	Wind Direction	Temperature ° F	Skies		Estimated Cleanup Cost \$	Damage Value \$
Regulatory Agencies/Others Notified NDIC/NDDH	Person Notified Richard Dunn		Date Notified December 29, 2015		Time Notified :	Notified By Nate Stanhope	
Fee Surface Owner					:		
Local Fire Department					:		
Federal Agency Lease Number BLM					:		
USFS					:		
Report Originator Nate Stanhope	Title ASSOC. ENVIRONMENTAL SPECIALIST		Date September 22, 2016				
Signature <i>Nate Stanhope</i>					Date 9/22/2016		



SUNDRY NOTICES AND REPORTS ON WELLS - FORM 4

INDUSTRIAL COMMISSION OF NORTH DAKOTA
OIL AND GAS DIVISION
600 EAST BOULEVARD DEPT 405
BISMARCK, ND 58505-0840
SFN 5749 (09-2006)

Received

Well File No.
25158

JUL 25 2016

ND Oil & Gas Division

PLEASE READ INSTRUCTIONS BEFORE FILLING OUT FORM.
PLEASE SUBMIT THE ORIGINAL AND ONE COPY.

<input type="checkbox"/> Notice of Intent	Approximate Start Date
<input checked="" type="checkbox"/> Report of Work Done	Date Work Completed July 13, 2016
<input type="checkbox"/> Notice of Intent to Begin a Workover Project that may Qualify for a Tax Exemption Pursuant to NDCC Section 57-51.1-03.	Approximate Start Date

<input type="checkbox"/> Drilling Prognosis	<input type="checkbox"/> Spill Report
<input type="checkbox"/> Redrilling or Repair	<input type="checkbox"/> Shooting
<input type="checkbox"/> Casing or Liner	<input type="checkbox"/> Acidizing
<input type="checkbox"/> Plug Well	<input type="checkbox"/> Fracture Treatment
<input type="checkbox"/> Supplemental History	<input checked="" type="checkbox"/> Change Production Method
<input type="checkbox"/> Temporarily Abandon	<input type="checkbox"/> Reclamation
<input type="checkbox"/> Other _____	

Well Name and Number
Tallahassee 2-16H

Footages 2547 F N L	245 F E L	Qtr-Qtr SENE	Section 16	Township 153 N	Range 101 W
Field Baker	Pool Bakken		County McKenzie		

24-HOUR PRODUCTION RATE

	Before	After
Oil	168 Bbls	Oil 171 Bbls
Water	38 Bbls	Water 63 Bbls
Gas	178 MCF	Gas 154 MCF

Name of Contractor(s)

Address

City

State

Zip Code

DETAILS OF WORK

Continental Resources, Inc. requests a change in production on the above mentioned well. The well went from flowing to rod pump on 7/13/2016. New Tubing: 2 1/2 Depth: 9937

Company Continental Resources, Inc.	Telephone Number (405) 234-9000	
Address P.O. Box 268870		
City Oklahoma City	State OK	Zip Code 73126
Signature 	Printed Name Zach Green	
Title Regulatory Specialist	Date July 22, 2016	
Email Address Zach.Green@clr.com		

FOR STATE USE ONLY

<input checked="" type="checkbox"/> Received	<input type="checkbox"/> Approved
Date 8-19-2016	
By 	
Title JARED THUNE	
Engineering Technician	



SUNDRY NOTICES AND REPORTS ON WELLS - FORM 4

INDUSTRIAL COMMISSION OF NORTH DAKOTA
OIL AND GAS DIVISION
600 EAST BOULEVARD DEPT 405
BISMARCK, ND 58505-0840
SFN 5749 (09-2006)

Received

Well File No.
25158

JUL 25 2016

ND Oil & Gas Division

PLEASE READ INSTRUCTIONS BEFORE FILLING OUT FORM.
PLEASE SUBMIT THE ORIGINAL AND ONE COPY.

<input type="checkbox"/> Notice of Intent	Approximate Start Date
<input checked="" type="checkbox"/> Report of Work Done	Date Work Completed July 13, 2016
<input type="checkbox"/> Notice of Intent to Begin a Workover Project that may Qualify for a Tax Exemption Pursuant to NDCC Section 57-51.1-03.	Approximate Start Date

<input type="checkbox"/> Drilling Prognosis	<input type="checkbox"/> Spill Report
<input type="checkbox"/> Redrilling or Repair	<input type="checkbox"/> Shooting
<input type="checkbox"/> Casing or Liner	<input type="checkbox"/> Acidizing
<input type="checkbox"/> Plug Well	<input type="checkbox"/> Fracture Treatment
<input type="checkbox"/> Supplemental History	<input checked="" type="checkbox"/> Change Production Method
<input type="checkbox"/> Temporarily Abandon	<input type="checkbox"/> Reclamation
<input type="checkbox"/> Other _____	

Well Name and Number
Tallahassee 2-16H

Footages 2547 F N L	245 F E L	Qtr-Qtr SENE	Section 16	Township 153 N	Range 101 W
Field Baker	Pool Bakken		County McKenzie		

24-HOUR PRODUCTION RATE

	Before	After
Oil	168 Bbls	Oil 171 Bbls
Water	38 Bbls	Water 63 Bbls
Gas	178 MCF	Gas 154 MCF

Name of Contractor(s)

Address

City

State

Zip Code

DETAILS OF WORK

Continental Resources, Inc. requests a change in production on the above mentioned well. The well went from flowing to rod pump on 7/13/2016. New Tubing: 2 1/2 Depth: 9937

Company Continental Resources, Inc.	Telephone Number (405) 234-9000	
Address P.O. Box 268870		
City Oklahoma City	State OK	Zip Code 73126
Signature 	Printed Name Zach Green	
Title Regulatory Specialist	Date July 22, 2016	
Email Address Zach.Green@clr.com		

FOR STATE USE ONLY

<input checked="" type="checkbox"/> Received	<input type="checkbox"/> Approved
Date 8-19-2016	
By 	
Title JARED THUNE	
Engineering Technician	

Industrial Commission of North Dakota
Oil and Gas Division
Spill / Incident Report

Date/Time Reported : Dec 30 2015 / 09:12

State Agency person :

Responsible Party : CONTINENTAL RESOURCES, INC.

Well Operator : CONTINENTAL RESOURCES, INC.

Date/Time of Incident : 12/29/2015 12:00:00 AM

NDIC File Number : 25158

Facility Number :

Well or Facility Name : TALLAHASSEE 2-16H

Type of Incident : Other

Field Name : BAKER

County : MCKENZIE

Section : 16

Township : 153

Range : 101

Quarter-Quarter :

Quarter :

Distance to nearest residence :

Distance to nearest water well :

Release Oil : 21 Gallons

Release Brine :

Release Other :

Recovered Oil : 21 Gallons

Recovered Brine :

Recovered Other :

Has/Will the incident be reported to the NRC? : No

Was release contained : Yes - on Facility Site

Description of other released substance :

Immediate risk evaluation : N/A

Followup Report Requested Y/N : Y



AUTHORIZATION TO PURCHASE AND TRANSPORT OIL FROM LEASE - FORM 8

INDUSTRIAL COMMISSION OF NORTH DAKOTA
OIL AND GAS DIVISION
600 EAST BOULEVARD DEPT 405
BISMARCK, ND 58505-0840
SFSN 5698 (03-2000)



Well File No.	25158
NDIC CTB No.	<i>125158</i>

PLEASE READ INSTRUCTIONS BEFORE FILLING OUT FORM.

PLEASE SUBMIT THE ORIGINAL AND FOUR COPIES.

Well Name and Number Tallahassee 2-16H	Qtr-Qtr SENE	Section 16	Township 153 N	Range 101 W	County McKenzie
Operator Continental Resources Inc.	Telephone Number 405-234-9000		Field Baker		
Address P.O. Box 268870	City Oklahoma City		State OK	Zip Code 73126	

Name of First Purchaser Continental Resources, Inc.	Telephone Number 405-234-9000	% Purchased 100	Date Effective December 2, 2013
Principal Place of Business P.O. Box 268870	City Oklahoma City	State OK	Zip Code 73126
Field Address	City	State	Zip Code
Name of Transporter Hiland Crude, LLC	Telephone Number 580-616-2053	% Transported	Date Effective December 2, 2013
Address P.O. Box 3886	City Enid	State Ok	Zip Code 73702

The above named producer authorizes the above named purchaser to purchase the percentage of oil stated above which is produced from the lease designated above until further notice. The oil will be transported by the above named transporter.

Other First Purchasers Purchasing From This Lease	% Purchased	Date Effective
Other First Purchasers Purchasing From This Lease	% Purchased	Date Effective
Other Transporters Transporting From This Lease	% Transported	Date Effective
Other Transporters Transporting From This Lease	% Transported	Date Effective
Comments		

I hereby swear or affirm that the information provided is true, complete and correct as determined from all available records.	Date December 3, 2013	
Signature <i>Becky Barnes</i>	Printed Name Becky Barnes	Title Regulatory Compliance Specialist

Above Signature Witnessed By	Witness Signature <i>Christi Scritchfield</i>	Witness Printed Name Christi Scritchfield	Witness Title Regulatory Compliance Specialist
------------------------------	--	---	--

FOR STATE USE ONLY		
Date Approved	<i>MAY 16 2014</i>	
By	<i>Annette Dugay</i>	
Title	Oil & Gas Production Analyst	



WELL COMPLETION OR RECOMPLETION REPORT - FORM 6

INDUSTRIAL COMMISSION OF NORTH DAKOTA
OIL AND GAS DIVISION
600 EAST BOULEVARD DEPT 405
BISMARCK, ND 58505-0840
SFN 2468 (04-2010)

A circular stamp with a black border. Inside, the number '1' is at the top, followed by the date 'MAY 2014' in the center. Below the date, the word 'RECEIVED' is printed in large, bold, capital letters. Underneath 'RECEIVED', the words 'ND OIL & GAS' and 'DIVISION' are stacked vertically. The outer edge of the stamp features the numbers '1' through '24' arranged in a circle.

Well File No.
25158

PLEASE READ INSTRUCTIONS BEFORE FILLING OUT FORM.

PLEASE SUBMIT THE ORIGINAL AND ONE COPY.

Designate Type of Completion

- Oil Well EOR Well Recompletion Deepened Well Abandoned Horizontal Leg Extended Horizontal Leg
 Gas Well SWD Well Water Supply Well Other:

Well Name and Number Tallahassee 2-16H			Spacing Unit Description Sec 10 & 21-153N-101W	<i>Ses 4, 9, 16, + 21</i>
Operator Continental Resources, Inc.		Telephone Number 405-234-9000	Field Baker	
Address P.O. Box 268870			Pool Bakken	
City Oklahoma City	State Ok	Zip Code 73126	Permit Type	<input type="checkbox"/> Wildcat <input checked="" type="checkbox"/> Development <input type="checkbox"/> Extension

LOCATION OF WELL

**Type of Electric and Other Logs Run (See Instructions)
CBL/GR, Mud Logs, Geological Report**

CASING & TUBULARS RECORD (Report all strings set in well)

Well Bore	String		Top Set (MD Ft)	Depth Set (MD Ft)	Hole Size (Inch)	Weight (Lbs/Ft)	Anchor Set (MD Ft)	Packer Set (MD Ft)	Sacks Cement	Top of Cement
	Type	Size (Inch)								
Lateral1	Conductor	16		101	20				7 yds	
	Surface	9 5/8		1975	13 1/2	36			991	
	Intermediate	7		11080	8 3/4	26-29			1142	3150
	Liner	4 1/2	10041	17977	6	11.6				
	Tubing	2 7/8			4	6.5				

PERFORATION & OPEN HOLE INTERVALS

PRODUCTION

Current Producing Open Hole or Perforated Interval(s), This Completion, Top and Bottom, (MD Ft) Bakken 11,080'/18,127'							Name of Zone (If Different from Pool Name)	
Date Well Completed (SEE INSTRUCTIONS) 4/25/2014			Producing Method Flowing		Pumping-Size & Type of Pump			Well Status (Producing or Shut-In) Producing
Date of Test 5/4/2014	Hours Tested 24	Choke Size 16 /64	Production for Test		Oil (Bbls) 657	Gas (MCF) 527	Water (Bbls) 610	Oil Gravity-API (Corr.) °
Flowing Tubing Pressure (PSI) 1650		Flowing Casing Pressure (PSI) 600		Calculated 24-Hour Rate	Oil (Bbls) 657	Gas (MCF) 527	Water (Bbls) 610	Gas-Oil Ratio 802

GEOLOGICAL MARKERS

PLUG BACK INFORMATION

CORES CUT

Top (Ft)	Bottom (Ft)	Formation	Top (Ft)	Bottom (Ft)	Formation

Drill Stem Test

Well Specific Stimulation

Date Stimulated	Stimulated Formation		Top (Ft)	Bottom (Ft)	Stimulation Stages	Volume	Volume Units
3/14/2014	Bakken		11080	18127	24	56607	Barrels
Type Treatment	Acid %	Lbs Proppant	Maximum Treatment Pressure (PSI)			Maximum Treatment Rate (BBLS/Min)	
Sand Frac		3013084	7518			30.0	

Details

Pumped 2150603# 20/40 sand and 862481# 20/40 ceramic.

Date Stimulated	Stimulated Formation		Top (Ft)	Bottom (Ft)	Stimulation Stages	Volume	Volume Units
Type Treatment	Acid %	Lbs Proppant	Maximum Treatment Pressure (PSI)			Maximum Treatment Rate (BBLS/Min)	

Details

Date Stimulated	Stimulated Formation		Top (Ft)	Bottom (Ft)	Stimulation Stages	Volume	Volume Units
Type Treatment	Acid %	Lbs Proppant	Maximum Treatment Pressure (PSI)			Maximum Treatment Rate (BBLS/Min)	

Details

Date Stimulated	Stimulated Formation		Top (Ft)	Bottom (Ft)	Stimulation Stages	Volume	Volume Units
Type Treatment	Acid %	Lbs Proppant	Maximum Treatment Pressure (PSI)			Maximum Treatment Rate (BBLS/Min)	

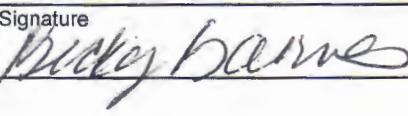
Details

Date Stimulated	Stimulated Formation		Top (Ft)	Bottom (Ft)	Stimulation Stages	Volume	Volume Units
Type Treatment	Acid %	Lbs Proppant	Maximum Treatment Pressure (PSI)			Maximum Treatment Rate (BBLS/Min)	

Details

ADDITIONAL INFORMATION AND/OR LIST OF ATTACHMENTS

I hereby swear or affirm that the information provided is true, complete and correct as determined from all available records.	Email Address becky.barnes@clr.com	Date 4/24/2014
--	---------------------------------------	-------------------

Signature 	Printed Name Becky Barnes	Title Regulatory Compliance Specialist
--	------------------------------	---

NEWSCO

International Energy Services Inc.

Continental Resources
Company

33326
Job Number

8/15/2013
Date

Cyclone 4
Rig

Tallahassee 2-16H
Well Name

McKenzie Co., ND
County & State

Surveyed from depth of: Surface to 1927'

GL to KB: 20'

Type of Survey: Nvader/MWD

True North

Directional Supervisor/Surveyor: David Hopper

The data and calculations for this survey have been checked by me and conform to the standards and procedures set forth by Newsco International Energy Services Inc. This report represents a true and correct directional survey of this well based on the original data obtained at the well site. Wellbore coordinates are calculated using minimum curvature .

Certified by:



Joshua Mahoney

NEWSCO

Directional Services U.S.A.



Survey Certification Sheet

<u>Continental Resources</u> Company	<u>20131227D-ND</u> Job Number	<u>02/05/2014</u> Date
<u>Section 16, T153N, R101W</u> LOCATION	<u>Tallahassee 2-16H</u> Well Name	<u>McKenzie County, ND</u> County & State

Enclosed, please find the survey performed on the referenced well by Leam Drilling Systems, LLC.
Other information required by your office is as follows:

Name & Title Of Surveyor	Drainhole Number	Surveyed Depths	Dates Performed	Type of Survey
Randy W. Rakowitz	OH	1,983'- 18,127'	11/01/2013-11/29/2013	MWD

The data and calculations for this survey have been checked and conform to the standards and procedures set forth by LEAM Drilling Systems, LLC. This report represents a true and correct Survey of this well, to the best of our knowledge, based on the original data obtained at the well site.



Nora Tucker
Well Planner

A handwritten signature of 'Nora Tucker' is written over a horizontal line. Below the signature, the name 'Nora Tucker' is printed in a standard black font, followed by the title 'Well Planner' in a smaller font.

Physical & Mailing: 2010 East Davis, Conroe, TX 77301

(936) 756-7577 • (936) 756-7595 Fax • 1 (800) 756-7504



LEAM
Drilling Systems LLC

LEAM Drilling Systems, Inc.
2027A Airport Rd.
Conroe, TX 77301
(936) 569-1315

Survey Certification Form

State of North Dakota
McKenzie County

I, Randy W. Rakowitz, an employee of LEAM Drilling Systems, Inc., hereby certify that on the dates beginning on 11/1/2013 and ending on 11/29/2013, I conducted or supervised the taking of an MWD Survey from a beginning depth of 1,983' ft. MD to an ending depth of 18,127' ft. MD; that the depth is true, correct, complete, and within the limitations of the tools as set forth by LEAM Drilling Systems, Inc., that I am authorized and qualified to make this report; that this survey was conducted in reference to True North with a declination of 8.52° with respect to the well Tallahassee 2-16H located in McKenzie County, North Dakota as requested by Continental Resources.

A handwritten signature in black ink, appearing to read "Randy W. Rakowitz". It is positioned above a solid horizontal line.

Randy W. Rakowitz
Sr. MWD Operations Coordinator

LEAM Drilling Systems LLC

Survey Report

Company:	Continental Resources	Local Co-ordinate Reference:	Well 2-16H
Project:	McKenzie County, ND	TVD Reference:	GL 1920+KB 20 @ 1940.00usft (Cyclone 4)
Site:	Tallahassee 2	MD Reference:	GL 1920+KB 20 @ 1940.00usft (Cyclone 4)
Well:	2-16H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Multi User DB

Project	McKenzie County, ND		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	North Dakota Northern Zone		

Site	Tallahassee 2, Sec. 16 - T153N - R101W			
Site Position:		Northing:	408,161.25 usft	Latitude:
From:	Lat/Long	Easting:	1,193,797.79 usft	Longitude:
Position Uncertainty:	0.00 usft	Slot Radius:	0 "	Grid Convergence:

Well	2-16H				
Well Position	+N/S +E/W	0.00 usft	Northing: Easting:	408,161.25 usft 1,193,797.79 usft	Latitude: Longitude:
				0 "	-2.36 °
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2013	10/11/13	8.52	72.97	56,411

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:		Depth From (TVD) (usft)	+N/S (usft)	+E/W (usft)	Direction (°)
		0.00	0.00	0.00	183.05

Survey Program	Date	02/05/14		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
142.00	1,927.00	Survey #1 - NEWSCO (OH)	MWD-ISCWSA	MWD - Standard
1,983.00	18,079.00	Survey #2 (OH)	LEAM MWD-ADJ	MWD - Standard
18,127.00	18,127.00	Survey #3 (OH)	Project	Projection

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/S (usft)	+E/W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,927.00	0.90	231.20	1,926.92	-5.40	-10.24	5.93	0.10	0.00	-6.14
1,983.00	1.10	235.60	1,982.91	-5.97	-11.02	6.55	0.38	0.36	7.86
2,076.00	1.50	236.20	2,075.89	-7.16	-12.77	7.83	0.43	0.43	0.65
2,170.00	2.50	208.00	2,169.83	-9.65	-14.76	10.42	1.46	1.06	-30.00
2,263.00	1.80	193.30	2,262.77	-12.86	-16.04	13.70	0.95	-0.75	-15.81
2,356.00	1.80	177.30	2,355.72	-15.74	-16.31	16.59	0.54	0.00	-17.20
2,450.00	2.20	160.70	2,449.67	-18.92	-15.65	19.73	0.74	0.43	-17.66
2,543.00	2.70	160.70	2,542.58	-22.67	-14.33	23.40	0.54	0.54	0.00
2,638.00	1.70	163.70	2,637.51	-26.14	-13.20	26.80	1.06	-1.05	3.16

LEAM Drilling Systems LLC

Survey Report

Company:	Continental Resources	Local Co-ordinate Reference:	Well 2-16H
Project:	McKenzie County, ND	TVD Reference:	GL 1920+KB 20 @ 1940.00usft (Cyclone 4)
Site:	Tallahassee 2	MD Reference:	GL 1920+KB 20 @ 1940.00usft (Cyclone 4)
Well:	2-16H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Multi User DB

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/S (usft)	+E/W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
2,731.00	0.80	105.20	2,730.49	-27.63	-12.18	28.24	1.56	-0.97	-62.90	
2,825.00	0.90	95.90	2,824.48	-27.88	-10.82	28.42	0.18	0.11	-9.89	
2,918.00	0.90	76.40	2,917.47	-27.78	-9.38	28.24	0.33	0.00	-20.97	
3,011.00	1.00	86.00	3,010.45	-27.56	-7.86	27.93	0.20	0.11	10.32	
3,104.00	1.60	106.30	3,103.43	-27.86	-5.80	28.13	0.80	0.65	21.83	
3,198.00	1.70	106.40	3,197.39	-28.62	-3.21	28.75	0.11	0.11	0.11	
3,291.00	1.80	107.10	3,290.35	-29.44	-0.49	29.43	0.11	0.11	0.75	
3,384.00	1.80	110.30	3,383.30	-30.38	2.28	30.22	0.11	0.00	3.44	
3,477.00	1.60	111.20	3,476.26	-31.36	4.86	31.05	0.22	-0.22	0.97	
3,570.00	1.40	111.40	3,569.23	-32.24	7.13	31.82	0.22	-0.22	0.22	
3,664.00	1.10	125.40	3,663.21	-33.18	8.93	32.66	0.45	-0.32	14.89	
3,758.00	1.10	132.80	3,757.19	-34.32	10.33	33.72	0.15	0.00	7.87	
3,851.00	1.10	135.30	3,850.17	-35.56	11.61	34.89	0.05	0.00	2.69	
3,944.00	0.90	136.00	3,943.16	-36.72	12.75	35.99	0.22	-0.22	0.75	
4,038.00	0.70	148.80	4,037.15	-37.74	13.56	36.97	0.28	-0.21	13.62	
4,132.00	0.50	163.20	4,131.14	-38.62	13.97	37.83	0.26	-0.21	15.32	
4,225.00	0.40	146.90	4,224.14	-39.29	14.27	38.47	0.17	-0.11	-17.53	
4,319.00	0.80	120.50	4,318.14	-39.89	15.01	39.04	0.51	0.43	-28.09	
4,412.00	0.90	140.50	4,411.13	-40.79	16.04	39.88	0.33	0.11	21.51	
4,505.00	0.50	134.40	4,504.12	-41.63	16.79	40.68	0.44	-0.43	-6.56	
4,598.00	0.20	130.70	4,597.12	-42.02	17.20	41.05	0.32	-0.32	-3.98	
4,692.00	0.70	114.50	4,691.11	-42.37	17.85	41.36	0.54	0.53	-17.23	
4,785.00	1.00	105.90	4,784.10	-42.83	19.15	41.75	0.35	0.32	-9.25	
4,878.00	0.70	94.10	4,877.09	-43.09	20.50	41.94	0.37	-0.32	-12.69	
4,972.00	0.60	94.10	4,971.09	-43.17	21.56	41.96	0.11	-0.11	0.00	
5,065.00	1.00	46.30	5,064.08	-42.64	22.63	41.38	0.80	0.43	-51.40	
5,159.00	1.30	52.10	5,158.06	-41.42	24.07	40.08	0.34	0.32	6.17	
5,252.00	1.70	91.10	5,251.03	-40.80	26.28	39.34	1.15	0.43	41.94	
5,346.00	1.60	100.10	5,344.99	-41.05	28.96	39.45	0.30	-0.11	9.57	
5,440.00	1.80	100.10	5,438.95	-41.54	31.71	39.80	0.21	0.21	0.00	
5,533.00	2.00	96.90	5,531.90	-41.99	34.76	40.08	0.24	0.22	-3.44	
5,626.00	1.50	125.60	5,624.86	-42.90	37.36	40.85	1.07	-0.54	30.86	
5,720.00	1.80	111.70	5,718.82	-44.16	39.73	41.98	0.53	0.32	-14.79	
5,813.00	2.20	105.20	5,811.76	-45.17	42.81	42.83	0.49	0.43	-6.99	
5,907.00	2.00	102.60	5,905.70	-46.00	46.15	43.48	0.24	-0.21	-2.77	
6,000.00	1.10	86.20	5,998.66	-46.29	48.63	43.64	1.07	-0.97	-17.63	
6,093.00	1.10	92.20	6,091.65	-46.27	50.41	43.52	0.12	0.00	6.45	
6,187.00	1.40	109.80	6,185.62	-46.69	52.39	43.84	0.51	0.32	18.72	
6,281.00	0.80	126.50	6,279.61	-47.47	54.00	44.53	0.72	-0.64	17.77	
6,375.00	0.70	118.90	6,373.60	-48.14	55.03	45.14	0.15	-0.11	-8.09	
6,468.00	0.90	121.20	6,466.59	-48.79	56.15	45.73	0.22	0.22	2.47	
6,562.00	0.80	149.00	6,560.58	-49.74	57.12	46.63	0.45	-0.11	29.57	
6,655.00	0.90	136.80	6,653.57	-50.83	57.96	47.67	0.22	0.11	-13.12	

LEAM Drilling Systems LLC

Survey Report

Company:	Continental Resources	Local Co-ordinate Reference:	Well 2-16H
Project:	McKenzie County, ND	TVD Reference:	GL 1920+KB 20 @ 1940.00usft (Cyclone 4)
Site:	Tallahassee 2	MD Reference:	GL 1920+KB 20 @ 1940.00usft (Cyclone 4)
Well:	2-16H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Multi User DB

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/S (usft)	+E/W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
6,749.00	1.20	137.90	6,747.55	-52.09	59.12	48.87	0.32	0.32	1.17	
6,843.00	1.20	146.90	6,841.53	-53.65	60.32	50.36	0.20	0.00	9.57	
6,936.00	0.80	155.80	6,934.52	-55.06	61.12	51.73	0.46	-0.43	9.57	
7,029.00	0.90	156.20	7,027.51	-56.32	61.68	52.96	0.11	0.11	0.43	
7,123.00	0.80	145.10	7,121.50	-57.53	62.35	54.13	0.20	-0.11	-11.81	
7,216.00	0.50	133.70	7,214.49	-58.34	63.02	54.91	0.35	-0.32	-12.26	
7,309.00	0.50	124.50	7,307.49	-58.85	63.64	55.38	0.09	0.00	-9.89	
7,403.00	0.70	161.60	7,401.48	-59.63	64.16	56.13	0.45	0.21	39.47	
7,497.00	0.50	147.70	7,495.48	-60.52	64.56	57.00	0.26	-0.21	-14.79	
7,590.00	0.60	145.60	7,588.47	-61.27	65.06	57.72	0.11	0.11	-2.26	
7,683.00	0.60	141.80	7,681.47	-62.05	65.63	58.47	0.04	0.00	-4.09	
7,776.00	0.40	99.20	7,774.47	-62.49	66.25	58.87	0.44	-0.22	-45.81	
7,870.00	0.40	115.70	7,868.46	-62.68	66.87	59.03	0.12	0.00	17.55	
7,963.00	0.30	142.10	7,961.46	-63.01	67.32	59.34	0.20	-0.11	28.39	
8,056.00	0.30	110.30	8,054.46	-63.29	67.69	59.60	0.18	0.00	-34.19	
8,149.00	0.20	161.80	8,147.46	-63.53	67.97	59.82	0.25	-0.11	55.38	
8,242.00	0.30	185.90	8,240.46	-63.93	68.00	60.22	0.15	0.11	25.91	
8,335.00	0.40	217.50	8,333.46	-64.43	67.78	60.73	0.23	0.11	33.98	
8,429.00	0.40	187.30	8,427.46	-65.01	67.53	61.33	0.22	0.00	-32.13	
8,522.00	0.30	215.80	8,520.45	-65.53	67.35	61.85	0.21	-0.11	30.65	
8,615.00	0.40	205.00	8,613.45	-66.02	67.07	62.36	0.13	0.11	-11.61	
8,709.00	0.50	186.90	8,707.45	-66.73	66.88	63.07	0.18	0.11	-19.26	
8,803.00	0.60	220.90	8,801.45	-67.51	66.51	63.87	0.36	0.11	36.17	
8,896.00	0.70	232.60	8,894.44	-68.22	65.74	64.62	0.18	0.11	12.58	
8,989.00	0.40	248.50	8,987.44	-68.68	64.99	65.13	0.36	-0.32	17.10	
9,083.00	0.10	240.60	9,081.43	-68.84	64.61	65.31	0.32	-0.32	-8.40	
9,176.00	0.20	308.90	9,174.43	-68.78	64.41	65.26	0.20	0.11	73.44	
9,269.00	0.20	284.10	9,267.43	-68.64	64.13	65.13	0.09	0.00	-26.67	
9,363.00	0.30	267.40	9,361.43	-68.61	63.72	65.12	0.13	0.11	-17.77	
9,456.00	0.20	267.10	9,454.43	-68.63	63.32	65.16	0.11	-0.11	-0.32	
9,550.00	0.20	305.20	9,548.43	-68.54	63.02	65.09	0.14	0.00	40.53	
9,643.00	0.20	310.90	9,641.43	-68.34	62.77	64.91	0.02	0.00	6.13	
9,736.00	0.30	262.30	9,734.43	-68.27	62.40	64.85	0.24	0.11	-52.26	
9,829.00	0.20	268.00	9,827.43	-68.31	62.00	64.91	0.11	-0.11	6.13	
9,923.00	0.30	266.90	9,921.43	-68.33	61.59	64.95	0.11	0.11	-1.17	
10,016.00	0.30	277.80	10,014.43	-68.31	61.10	64.96	0.06	0.00	11.72	
10,047.00	0.30	276.40	10,045.43	-68.29	60.94	64.95	0.02	0.00	-4.52	
10,080.00	0.40	262.30	10,078.43	-68.29	60.74	64.97	0.40	0.30	-42.73	
10,111.00	2.70	222.90	10,109.41	-68.84	60.14	65.55	7.76	7.42	-127.10	
10,143.00	7.30	220.10	10,141.28	-70.95	58.32	67.75	14.39	14.38	-8.75	
10,174.00	10.70	222.60	10,171.90	-74.58	55.10	71.54	11.04	10.97	8.06	
10,205.00	14.40	221.50	10,202.15	-79.59	50.59	76.78	11.96	11.94	-3.55	
10,236.00	17.90	220.30	10,231.92	-86.11	44.96	83.59	11.34	11.29	-3.87	

LEAM Drilling Systems LLC

Survey Report

Company:	Continental Resources	Local Co-ordinate Reference:	Well 2-16H
Project:	McKenzie County, ND	TVD Reference:	GL 1920+KB 20 @ 1940.00usft (Cyclone 4)
Site:	Tallahassee 2	MD Reference:	GL 1920+KB 20 @ 1940.00usft (Cyclone 4)
Well:	2-16H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Multi User DB

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/S (usft)	+E/W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
10,267.00	21.90	219.20	10,261.07	-94.22	38.22	92.06	12.96	12.90	-3.55	
10,298.00	25.90	217.80	10,289.40	-104.06	30.41	102.29	13.03	12.90	-4.52	
10,329.00	31.10	216.10	10,316.64	-115.89	21.54	114.58	16.98	16.77	-5.48	
10,360.00	35.60	216.80	10,342.52	-129.59	11.41	128.80	14.57	14.52	2.26	
10,392.00	39.10	214.80	10,367.96	-145.34	0.07	145.13	11.57	10.94	-6.25	
10,423.00	42.70	212.00	10,391.39	-162.28	-11.08	162.64	13.03	11.61	-9.03	
10,454.00	47.60	211.70	10,413.25	-180.95	-22.68	181.90	15.82	15.81	-0.97	
10,485.00	52.80	212.20	10,433.08	-201.15	-35.28	202.74	16.82	16.77	1.61	
10,516.00	58.40	213.10	10,450.59	-222.67	-49.08	224.97	18.22	18.06	2.90	
10,547.00	62.80	213.40	10,465.80	-245.25	-63.88	248.30	14.22	14.19	0.97	
10,578.00	65.20	210.60	10,479.39	-268.88	-78.64	272.68	11.22	7.74	-9.03	
10,609.00	67.60	207.60	10,491.81	-293.70	-92.45	298.20	11.77	7.74	-9.68	
10,641.00	71.90	206.80	10,502.88	-320.40	-106.16	325.59	13.64	13.44	-2.50	
10,672.00	76.90	205.70	10,511.21	-347.17	-119.36	353.03	16.49	16.13	-3.55	
10,703.00	81.80	204.80	10,516.94	-374.71	-132.35	381.23	16.06	15.81	-2.90	
10,765.00	87.90	203.20	10,522.51	-431.10	-157.45	438.87	10.17	9.84	-2.58	
10,859.00	91.50	202.40	10,523.00	-517.74	-193.87	527.32	3.92	3.83	-0.85	
10,952.00	91.40	201.80	10,520.64	-603.88	-228.85	615.20	0.65	-0.11	-0.65	
11,045.00	91.30	201.00	10,518.45	-690.44	-262.77	703.44	0.87	-0.11	-0.86	
11,111.00	90.40	199.40	10,517.47	-752.37	-285.56	766.50	2.78	-1.36	-2.42	
11,206.00	89.30	196.60	10,517.72	-842.71	-314.91	858.27	3.17	-1.16	-2.95	
11,301.00	89.30	194.80	10,518.88	-934.16	-340.62	950.96	1.89	0.00	-1.89	
11,396.00	89.30	193.40	10,520.04	-1,026.28	-363.76	1,044.19	1.47	0.00	-1.47	
11,491.00	90.30	191.00	10,520.38	-1,119.13	-383.83	1,137.97	2.74	1.05	-2.53	
11,586.00	90.90	188.70	10,519.38	-1,212.72	-400.08	1,232.29	2.50	0.63	-2.42	
11,681.00	89.50	186.80	10,519.05	-1,306.84	-412.89	1,326.96	2.48	-1.47	-2.00	
11,776.00	88.50	185.40	10,520.71	-1,401.29	-422.98	1,421.81	1.81	-1.05	-1.47	
11,871.00	89.20	182.90	10,522.61	-1,496.01	-429.86	1,516.76	2.73	0.74	-2.63	
11,966.00	89.30	181.30	10,523.86	-1,590.94	-433.34	1,611.74	1.69	0.11	-1.68	
12,061.00	89.20	181.00	10,525.10	-1,685.91	-435.24	1,706.68	0.33	-0.11	-0.32	
12,156.00	89.10	180.40	10,526.51	-1,780.89	-436.40	1,801.59	0.64	-0.11	-0.63	
12,251.00	89.90	179.70	10,527.34	-1,875.89	-436.49	1,896.45	1.12	0.84	-0.74	
12,346.00	90.50	178.90	10,527.01	-1,970.88	-435.33	1,991.25	1.05	0.63	-0.84	
12,441.00	89.40	178.30	10,527.09	-2,065.85	-433.00	2,085.96	1.32	-1.16	-0.63	
12,536.00	91.10	178.10	10,526.68	-2,160.80	-430.02	2,180.61	1.80	1.79	-0.21	
12,631.00	90.60	177.60	10,525.27	-2,255.72	-426.46	2,275.21	0.74	-0.53	-0.53	
12,726.00	91.40	178.50	10,523.61	-2,350.65	-423.23	2,369.84	1.27	0.84	0.95	
12,821.00	91.60	178.90	10,521.12	-2,445.59	-421.07	2,464.53	0.47	0.21	0.42	
12,916.00	90.80	179.60	10,519.13	-2,540.56	-419.83	2,559.30	1.12	-0.84	0.74	
13,011.00	89.20	179.00	10,519.13	-2,635.55	-418.67	2,654.09	1.80	-1.68	-0.63	
13,106.00	89.80	179.60	10,519.96	-2,730.54	-417.51	2,748.88	0.89	0.63	0.63	
13,201.00	91.90	180.40	10,518.55	-2,825.52	-417.51	2,843.73	2.37	2.21	0.84	
13,296.00	90.30	180.40	10,516.73	-2,920.50	-418.17	2,938.61	1.68	-1.68	0.00	
13,390.00	89.30	180.60	10,517.06	-3,014.49	-418.99	3,032.52	1.08	-1.06	0.21	

LEAM Drilling Systems LLC

Survey Report

Company:	Continental Resources	Local Co-ordinate Reference:	Well 2-16H
Project:	McKenzie County, ND	TVD Reference:	GL 1920+KB 20 @ 1940.00usft (Cyclone 4)
Site:	Tallahassee 2	MD Reference:	GL 1920+KB 20 @ 1940.00usft (Cyclone 4)
Well:	2-16H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Multi User DB

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/S (usft)	+E/W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
13,485.00	90.20	180.60	10,517.47	-3,109.48	-419.98	3,127.43	0.95	0.95	0.00	
13,580.00	89.60	180.80	10,517.64	-3,204.48	-421.14	3,222.35	0.67	-0.63	0.21	
13,675.00	88.50	180.10	10,519.21	-3,299.46	-421.89	3,317.23	1.37	-1.16	-0.74	
13,770.00	91.00	180.60	10,519.63	-3,394.45	-422.47	3,412.12	2.68	2.63	0.53	
13,865.00	90.50	181.50	10,518.38	-3,489.42	-424.21	3,507.05	1.08	-0.53	0.95	
13,960.00	89.10	181.30	10,518.71	-3,584.39	-426.53	3,602.01	1.49	-1.47	-0.21	
14,055.00	88.10	181.50	10,521.04	-3,679.33	-428.85	3,696.94	1.07	-1.05	0.21	
14,150.00	87.90	181.10	10,524.35	-3,774.25	-431.01	3,791.84	0.47	-0.21	-0.42	
14,245.00	90.10	180.40	10,526.01	-3,869.22	-432.25	3,886.74	2.43	2.32	-0.74	
14,340.00	90.00	179.90	10,525.93	-3,964.22	-432.50	3,981.62	0.54	-0.11	-0.53	
14,435.00	90.20	179.90	10,525.76	-4,059.22	-432.33	4,076.47	0.21	0.21	0.00	
14,530.00	91.40	179.60	10,524.43	-4,154.21	-431.92	4,171.31	1.30	1.26	-0.32	
14,625.00	90.00	180.40	10,523.27	-4,249.20	-431.92	4,266.16	1.70	-1.47	0.84	
14,720.00	89.50	180.40	10,523.69	-4,344.20	-432.58	4,361.06	0.53	-0.53	0.00	
14,815.00	90.00	180.30	10,524.10	-4,439.19	-433.16	4,455.95	0.54	0.53	-0.11	
14,910.00	90.30	179.70	10,523.85	-4,534.19	-433.16	4,550.82	0.71	0.32	-0.63	
15,005.00	91.30	179.70	10,522.53	-4,629.18	-432.66	4,645.64	1.05	1.05	0.00	
15,100.00	89.60	180.10	10,521.78	-4,724.17	-432.50	4,740.49	1.84	-1.79	0.42	
15,194.00	90.80	179.70	10,521.45	-4,818.17	-432.34	4,834.35	1.35	1.28	-0.43	
15,290.00	89.00	179.00	10,521.62	-4,914.16	-431.25	4,930.14	2.01	-1.88	-0.73	
15,384.00	90.00	178.30	10,522.44	-5,008.13	-429.03	5,023.86	1.30	1.06	-0.74	
15,480.00	90.20	178.00	10,522.27	-5,104.08	-425.93	5,119.51	0.38	0.21	-0.31	
15,575.00	90.90	177.80	10,521.36	-5,199.01	-422.45	5,214.12	0.77	0.74	-0.21	
15,669.00	89.40	178.50	10,521.12	-5,292.96	-419.42	5,307.77	1.76	-1.60	0.74	
15,764.00	90.10	178.00	10,521.53	-5,387.91	-416.52	5,402.44	0.91	0.74	-0.53	
15,859.00	90.80	177.30	10,520.78	-5,482.83	-412.62	5,497.01	1.04	0.74	-0.74	
15,954.00	88.90	177.80	10,521.03	-5,577.73	-408.56	5,591.57	2.07	-2.00	0.53	
16,049.00	89.80	179.90	10,522.11	-5,672.70	-406.65	5,686.30	2.40	0.95	2.21	
16,144.00	90.20	179.90	10,522.11	-5,767.70	-406.49	5,781.16	0.42	0.42	0.00	
16,239.00	91.00	179.90	10,521.12	-5,862.70	-406.32	5,876.01	0.84	0.84	0.00	
16,334.00	91.40	181.50	10,519.13	-5,957.67	-407.48	5,970.91	1.74	0.42	1.68	
16,429.00	88.30	179.60	10,519.37	-6,052.64	-408.39	6,065.80	3.83	-3.26	-2.00	
16,524.00	89.30	179.20	10,521.36	-6,147.62	-407.40	6,160.59	1.13	1.05	-0.42	
16,619.00	89.70	178.90	10,522.19	-6,242.60	-405.82	6,255.35	0.53	0.42	-0.32	
16,713.00	90.30	179.00	10,522.19	-6,336.58	-404.10	6,349.11	0.65	0.64	0.11	
16,808.00	91.50	178.70	10,520.70	-6,431.55	-402.20	6,443.84	1.30	1.26	-0.32	
16,903.00	89.90	179.60	10,519.54	-6,526.53	-400.79	6,538.61	1.93	-1.68	0.95	
16,998.00	89.90	178.90	10,519.71	-6,621.52	-399.54	6,633.40	0.74	0.00	-0.74	
17,093.00	90.70	178.00	10,519.21	-6,716.48	-396.97	6,728.09	1.27	0.84	-0.95	
17,188.00	90.90	180.40	10,517.88	-6,811.46	-395.65	6,822.86	2.53	0.21	2.53	
17,283.00	90.40	182.00	10,516.80	-6,906.43	-397.64	6,917.80	1.76	-0.53	1.68	
17,378.00	90.00	182.20	10,516.47	-7,001.36	-401.12	7,012.79	0.47	-0.42	0.21	
17,473.00	92.90	183.20	10,514.07	-7,096.22	-405.59	7,107.74	3.23	3.05	1.05	

LEAM Drilling Systems LLC

Survey Report

Company:	Continental Resources	Local Co-ordinate Reference:	Well 2-16H
Project:	McKenzie County, ND	TVD Reference:	GL 1920+KB 20 @ 1940.00usft (Cyclone 4)
Site:	Tallahassee 2	MD Reference:	GL 1920+KB 20 @ 1940.00usft (Cyclone 4)
Well:	2-16H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Multi User DB

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/S (usft)	+E/W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
17,568.00	90.40	183.10	10,511.33	-7,191.03	-410.81	7,202.70	2.63	-2.63	-0.11	
17,663.00	88.60	182.40	10,512.16	-7,285.91	-415.37	7,297.69	2.03	-1.89	-0.74	
17,758.00	89.50	182.40	10,513.74	-7,380.81	-419.34	7,392.67	0.95	0.95	0.00	
17,853.00	90.10	182.40	10,514.07	-7,475.73	-423.32	7,487.66	0.63	0.63	0.00	
17,948.00	89.70	182.00	10,514.23	-7,570.66	-426.97	7,582.65	0.60	-0.42	-0.42	
18,043.00	90.50	181.30	10,514.07	-7,665.61	-429.70	7,677.62	1.12	0.84	-0.74	
18,079.00	90.60	181.50	10,513.72	-7,701.60	-430.58	7,713.60	0.62	0.28	0.56	
18,127.00	90.60	181.50	10,513.22	-7,749.58	-431.84	7,761.58	0.00	0.00	0.00	

Projection to Bit

INDEX

Subject	Page Number
SYNOPSIS	01
FORMATION TOPS	02
DEVIATION RECORD	03
BIT RECORD	08
DRILLING FLUID PARAMETERS	09
DRILLING CHRONOLOGY	10
TOTAL GAS DATA	11
LITHOLOGY	12
GEOLOGICAL SUMMARY AND CONCLUSIONS	25

SYNOPSIS

OPERATOR	Continental Resources Inc.
WELL NAME	Tallahassee 2-16H
SURFACE LOCATION	2547' FNL & 245' FEL: Sec 16, T153N, R101W
BOTTOM HOLE LOCATION	236'FSL & 676'FEL: Sec 21, T153N, R101W
FIELD	Williston
COUNTY/STATE	McKenzie Co., North Dakota
API NUMBER	33-053-04854
NorAm FILE NUMBER	NR2692
ELEVATIONS	G.L. = 1920' K.B. = 1940'
SPUD DATE	November 1, 2013
T.D. DATE	November 29, 2013
DRILLING CONTRACTOR	Cyclone 4
HOLE SIZE	10 3/4" to 1965', 8 3/4" to 11084', 6" to 18127'
CASING SIZE & DEPTH	9 5/8" to 1965', 7" to 11084' , 5" to
DRILLING MUD COMPANY	GEO Drilling Fluids Inc
DRILLING FLUID TYPE	Invert OBM to 11096', Saltwater Brine to 18127'
DIRECTIONAL COMPANY	Leam Energy Services
WIRELINE LOGGING COMPANY	N/A
LOG RECORD	NorAm Wellsite Services
DRILLING SUPERVISION	Steve Northern, Biggens, Monty Harris
GEOLOGICAL SUPERVISION	R. Doug Reinert Jr. & Darcy Klessens
MUDLOGGING COMPANY	NorAm Wellsite Services
TOTAL DEPTH	18127'

FORMATION TOPS (ft)

KB =1940'

GL =1920'

FORMATION	PROGNOSIS			SAMPLES			LOGS		
	MD	TVD	SS	MD	TVD	SS	MD	TVD	SS
Top Charles Salts	-	8329	-6389	8295	8294	-6354	-	-	-
Base Last Salt	-	9025	-7085	8994	8993	-7053	-	-	-
Mission Canyon	-	9250	-7310	9220	9219	-7279	-	-	-
Lodgepole	-	9817	-7877	9791	9790	-7850	-	-	-
False Bakken	-						-	-	-
Upper Bakken Shale	-	10505	-8565	10607	10490	-8550	-	-	-
Middle Bakken	-	10522	-8582	10650	10505	-8565	-	-	-
7" Casing Point	-			11084'	10518	-8578	-	-	-
End of Lateral	-	10603	-8663	18127	10513	-8573	-	-	-

DEVIATION SURVEY RECORD (Teledrift and Wireline Data)

Depth	Incl	Azim	TVD	VS	Coordinates		DLS
(ft)	(?)	(?)	(ft)	(ft)	N/S (ft)	E/W (ft)	(?/100')
1928	0.90	231.20	1928.00	5.94	-5.40	-10.20	0.00
1983	1.10	235.60	1982.99	6.54	-5.97	-10.97	0.39
2076	1.50	236.20	2075.97	7.82	-7.15	-12.72	0.43
2170	2.50	208.00	2169.91	10.41	-9.65	-14.71	1.46
2263	1.80	193.30	2262.85	13.69	-12.86	-15.99	0.95
2356	1.80	177.30	2355.80	16.58	-15.74	-16.26	0.54
2450	2.20	160.70	2449.74	19.72	-18.92	-15.59	0.74
2543	2.70	160.70	2542.66	23.40	-22.67	-14.28	0.54
2638	1.70	163.70	2637.59	26.79	-26.13	-13.15	1.06
2731	0.80	105.20	2730.57	28.23	-27.63	-12.13	1.56
2825	0.90	95.90	2824.56	28.41	-27.87	-10.76	0.18
2918	0.90	76.40	2917.55	28.23	-27.78	-9.33	0.33
3011	1.00	86.00	3010.53	27.93	-27.55	-7.81	0.20
3104	1.60	106.30	3103.51	28.12	-27.86	-5.75	0.80
3198	1.70	106.40	3197.47	28.75	-28.62	-3.16	0.11
3291	1.80	107.10	3290.43	29.42	-29.44	-0.44	0.11
3384	1.80	110.30	3383.38	30.21	-30.37	2.33	0.11
3477	1.60	111.20	3476.34	31.04	-31.35	4.91	0.22
3570	1.40	111.40	3569.31	31.81	-32.23	7.18	0.22
3664	1.10	125.40	3663.29	32.65	-33.18	8.98	0.45
3758	1.10	132.80	3757.27	33.71	-34.31	10.38	0.15
3851	1.10	135.30	3850.25	34.88	-35.55	11.66	0.05
3944	0.90	136.00	3943.24	35.98	-36.71	12.80	0.22
4038	0.70	148.80	4037.23	36.96	-37.73	13.61	0.28
4132	0.50	163.20	4131.22	37.82	-38.62	14.02	0.26
4225	0.40	146.90	4224.22	38.46	-39.28	14.32	0.17
4319	0.80	120.50	4318.21	39.03	-39.89	15.06	0.51
4412	0.90	140.50	4411.20	39.87	-40.78	16.09	0.33
4505	0.50	134.40	4504.20	40.67	-41.63	16.84	0.44
4598	0.20	130.70	4597.20	41.04	-42.02	17.26	0.32
4692	0.70	114.50	4691.19	41.35	-42.36	17.90	0.54
4785	1.00	105.90	4784.18	41.74	-42.82	19.20	0.35
4878	0.70	94.10	4877.17	41.93	-43.08	20.55	0.37
4972	0.60	94.10	4971.17	41.95	-43.16	21.61	0.11
5065	1.00	46.30	5064.16	41.37	-42.63	22.68	0.80
5159	1.30	52.10	5158.14	40.07	-41.41	24.12	0.34
5252	1.70	91.10	5251.11	39.33	-40.79	26.33	1.15
5346	1.60	100.10	5345.07	39.45	-41.05	29.02	0.30
5440	1.80	100.10	5439.03	39.79	-41.54	31.76	0.21
5533	2.00	96.90	5531.98	40.08	-41.99	34.81	0.24
5626	1.50	125.60	5624.94	40.84	-42.89	37.41	1.07

Depth	Incl	Azim	TVD	VS	Coordinates		DLS
(ft)	(?)	(?)	(ft)	(ft)	N/S (ft)	E/W (ft)	(?/100')
5720	1.80	111.70	5718.90	41.97	-44.15	39.78	0.53
5813	2.20	105.20	5811.84	42.82	-45.16	42.86	0.49
5907	2.00	102.60	5905.78	43.47	-45.99	46.20	0.24
6000	1.10	86.20	5998.74	43.63	-46.29	48.68	1.07
6093	1.10	92.20	6091.73	43.51	-46.26	50.46	0.12
6187	1.40	109.80	6185.70	43.83	-46.69	52.44	0.51
6281	0.80	126.50	6279.69	44.52	-47.47	54.05	0.72
6375	0.70	118.90	6373.68	45.13	-48.13	55.08	0.15
6468	0.90	121.20	6466.67	45.73	-48.79	56.20	0.22
6562	0.80	149.00	6560.66	46.62	-49.73	57.17	0.45
6655	0.90	136.80	6653.65	47.66	-50.82	58.01	0.22
6749	1.20	137.90	6747.63	48.87	-52.09	59.17	0.32
6843	1.20	146.90	6841.61	50.35	-53.64	60.37	0.20
6936	0.80	155.80	6934.60	51.72	-55.05	61.17	0.46
7029	0.90	156.20	7027.59	52.95	-56.31	61.73	0.11
7123	0.80	145.10	7121.58	54.12	-57.53	62.40	0.20
7216	0.50	133.70	7214.57	54.90	-58.34	63.07	0.35
7309	0.50	124.50	7307.57	55.38	-58.85	63.70	0.09
7403	0.70	161.60	7401.56	56.12	-59.63	64.21	0.45
7497	0.50	147.70	7495.56	56.99	-60.52	64.61	0.26
7590	0.60	145.60	7588.55	57.71	-61.26	65.11	0.11
7683	0.60	141.80	7681.55	58.46	-62.05	65.68	0.04
7776	0.40	99.20	7774.54	58.86	-62.48	66.30	0.44
7870	0.40	115.70	7868.54	59.03	-62.68	66.92	0.12
7963	0.30	142.10	7961.54	59.33	-63.01	67.37	0.20
8056	0.30	110.30	8054.54	59.59	-63.28	67.74	0.18
8149	0.20	161.80	8147.54	59.81	-63.52	68.02	0.25
8242	0.30	185.90	8240.54	60.21	-63.92	68.05	0.15
8335	0.40	217.50	8333.54	60.72	-64.42	67.83	0.23
8429	0.40	187.30	8427.53	61.32	-65.01	67.58	0.22
8522	0.30	215.80	8520.53	61.85	-65.52	67.40	0.21
8615	0.40	205.00	8613.53	62.35	-66.02	67.12	0.13
8709	0.50	186.90	8707.53	63.07	-66.72	66.93	0.18
8803	0.60	220.90	8801.52	63.86	-67.50	66.56	0.36
8896	0.70	232.60	8894.52	64.62	-68.21	65.79	0.18
8989	0.40	248.50	8987.51	65.12	-68.68	65.04	0.36
9083	0.10	240.60	9081.51	65.30	-68.84	64.66	0.32
9176	0.20	308.90	9174.51	65.25	-68.78	64.46	0.20
9269	0.20	284.10	9267.51	65.12	-68.63	64.18	0.09
9363	0.30	267.40	9361.51	65.12	-68.61	63.78	0.13
9456	0.20	267.10	9454.51	65.16	-68.62	63.37	0.11
9550	0.20	305.20	9548.51	65.09	-68.54	63.07	0.14

Depth	Incl	Azim	TVD	VS	Coordinates		DLS
(ft)	(?)	(?)	(ft)	(ft)	N/S (ft)	E/W (ft)	(?/100')
9643	0.20	310.90	9641.51	64.90	-68.34	62.82	0.02
9736	0.30	262.30	9734.51	64.85	-68.27	62.45	0.24
9829	0.20	268.00	9827.51	64.91	-68.30	62.05	0.11
9923	0.30	266.90	9921.51	64.95	-68.32	61.64	0.11
10016	0.30	277.80	10014.50	64.95	-68.30	61.16	0.06
10047	0.30	276.40	10045.50	64.94	-68.28	60.99	0.02
10080	0.40	262.30	10078.50	64.96	-68.29	60.79	0.40
10111	2.70	222.90	10109.49	65.54	-68.84	60.19	7.76
10143	7.30	220.10	10141.36	67.74	-70.95	58.37	14.39
10174	10.70	222.60	10171.97	71.53	-74.57	55.15	11.04
10205	14.40	221.50	10202.23	76.77	-79.58	50.65	11.96
10236	17.90	220.30	10232.00	83.58	-86.10	45.01	11.34
10267	21.90	219.20	10261.14	92.05	-94.22	38.27	12.96
10298	25.90	217.80	10289.48	102.28	-104.05	30.46	13.03
10329	31.10	216.10	10316.71	114.57	-115.88	21.59	16.98
10360	35.60	216.80	10342.60	128.79	-129.58	11.46	14.57
10392	39.10	214.80	10368.04	145.12	-145.33	0.12	11.57
10423	42.70	212.00	10391.47	162.64	-162.28	-11.03	13.03
10454	47.60	211.70	10413.32	181.89	-180.94	-22.62	15.82
10485	52.80	212.20	10433.16	202.73	-201.14	-35.23	16.82
10516	58.40	213.10	10450.67	224.96	-222.67	-49.03	18.22
10547	62.80	213.40	10465.88	248.29	-245.25	-63.83	14.22
10578	65.20	210.60	10479.47	272.67	-268.87	-78.59	11.22
10609	67.60	207.60	10491.89	298.19	-293.69	-92.39	11.77
10641	71.90	206.80	10502.96	325.58	-320.39	-106.11	13.64
10672	76.90	205.70	10511.29	353.02	-347.16	-119.31	16.49
10703	81.80	204.80	10517.02	381.22	-374.71	-132.30	16.06
10765	87.90	203.20	10522.58	438.86	-431.09	-157.40	10.17
10859	91.50	202.40	10523.08	527.31	-517.73	-193.82	3.92
10952	91.40	201.80	10520.72	615.19	-603.87	-228.80	0.65
11045	91.30	201.00	10518.53	703.43	-690.43	-262.72	0.87
11111	90.40	199.40	10517.55	766.49	-752.37	-285.51	2.78
11206	89.30	196.60	10517.80	858.26	-842.70	-314.86	3.17
11301	89.30	194.80	10518.96	950.95	-934.15	-340.56	1.89
11396	89.30	193.40	10520.12	1044.18	-1026.28	-363.71	1.47
11491	90.30	191.00	10520.45	1137.96	-1119.12	-383.78	2.74
11586	90.90	188.70	10519.46	1232.28	-1212.71	-400.03	2.50
11681	89.50	186.80	10519.13	1326.95	-1306.84	-412.84	2.48
11776	88.50	185.40	10520.79	1421.80	-1401.28	-422.93	1.81
11871	89.20	182.90	10522.69	1516.76	-1496.01	-429.80	2.73
11966	89.30	181.30	10523.94	1611.73	-1590.93	-433.29	1.69
12061	89.20	181.00	10525.18	1706.67	-1685.90	-435.19	0.33

Depth	Incl	Azim	TVD	VS	Coordinates		DLS
(ft)	(?)	(?)	(ft)	(ft)	N/S (ft)	E/W (ft)	(?/100')
12156	89.10	180.40	10526.59	1801.58	-1780.89	-436.35	0.64
12251	89.90	179.70	10527.42	1896.44	-1875.88	-436.44	1.12
12346	90.50	178.90	10527.09	1991.24	-1970.87	-435.27	1.05
12441	89.40	178.30	10527.17	2085.95	-2065.84	-432.95	1.32
12536	91.10	178.10	10526.75	2180.61	-2160.79	-429.97	1.80
12631	90.60	177.60	10525.35	2275.20	-2255.71	-426.41	0.74
12726	91.40	178.50	10523.69	2369.83	-2350.64	-423.17	1.27
12821	91.60	178.90	10521.20	2464.52	-2445.58	-421.02	0.47
12916	90.80	179.60	10519.21	2559.29	-2540.55	-419.78	1.12
13011	89.20	179.00	10519.21	2654.08	-2635.54	-418.62	1.80
13106	89.80	179.60	10520.04	2748.87	-2730.53	-417.46	0.89
13201	91.90	180.40	10518.63	2843.72	-2825.51	-417.45	2.37
13296	90.30	180.40	10516.81	2938.60	-2920.49	-418.12	1.68
13390	89.30	180.60	10517.13	3032.51	-3014.49	-418.94	1.08
13485	90.20	180.60	10517.55	3127.42	-3109.48	-419.93	0.95
13580	89.60	180.80	10517.72	3222.34	-3204.47	-421.09	0.67
13675	88.50	180.10	10519.29	3317.22	-3299.45	-421.84	1.37
13770	91.00	180.60	10519.70	3412.11	-3394.44	-422.42	2.68
13865	90.50	181.50	10518.46	3507.04	-3489.42	-424.16	1.08
13960	89.10	181.30	10518.79	3602.00	-3584.39	-426.48	1.49
14055	88.10	181.50	10521.11	3696.93	-3679.33	-428.80	1.07
14150	87.90	181.10	10524.43	3791.83	-3774.25	-430.96	0.47
14245	90.10	180.40	10526.09	3886.73	-3869.22	-432.20	2.43
14340	90.00	179.90	10526.00	3981.61	-3964.22	-432.45	0.54
14435	90.20	179.90	10525.84	4076.47	-4059.22	-432.28	0.21
14530	91.40	179.60	10524.51	4171.30	-4154.20	-431.87	1.30
14625	90.00	180.40	10523.35	4266.15	-4249.19	-431.87	1.70
14720	89.50	180.40	10523.77	4361.05	-4344.19	-432.53	0.53
14815	90.00	180.30	10524.18	4455.94	-4439.19	-433.11	0.54
14910	90.30	179.70	10523.93	4550.81	-4534.19	-433.11	0.71
15005	91.30	179.70	10522.61	4645.63	-4629.17	-432.61	1.05
15100	89.60	180.10	10521.86	4740.48	-4724.17	-432.45	1.84
15194	90.80	179.70	10521.53	4834.34	-4818.16	-432.28	1.35
15290	89.00	179.00	10521.70	4930.14	-4914.15	-431.20	2.01
15384	90.00	178.30	10522.52	5023.85	-5008.12	-428.98	1.30
15480	90.20	178.00	10522.35	5119.50	-5104.07	-425.88	0.38
15575	90.90	177.80	10521.44	5214.11	-5199.00	-422.40	0.77
15669	89.40	178.50	10521.19	5307.77	-5292.95	-419.37	1.76
15764	90.10	178.00	10521.61	5402.43	-5387.90	-416.46	0.91
15859	90.80	177.30	10520.86	5497.01	-5482.82	-412.57	1.04
15954	88.90	177.80	10521.11	5591.56	-5577.73	-408.51	2.07
16049	89.80	179.90	10522.19	5686.30	-5672.70	-406.60	2.40

Depth	Incl	Azim	TVD	VS	Coordinates		DLS
(ft)	(?)	(?)	(ft)	(ft)	N/S (ft)	E/W (ft)	(?/100')
16144	90.20	179.90	10522.19	5781.15	-5767.70	-406.44	0.42
16239	91.00	179.90	10521.19	5876.00	-5862.69	-406.27	0.84
16334	91.40	181.50	10519.20	5970.90	-5957.66	-407.43	1.74
16429	88.30	179.60	10519.45	6065.79	-6052.64	-408.34	3.83
16524	89.30	179.20	10521.44	6160.58	-6147.61	-407.35	1.13
16619	89.70	178.90	10522.27	6255.34	-6242.59	-405.77	0.53
16713	90.30	179.00	10522.27	6349.10	-6336.58	-404.05	0.65
16808	91.50	178.80	10520.78	6443.84	-6431.55	-402.23	1.28
16903	89.90	179.60	10519.62	6538.61	-6526.53	-400.90	1.88
16998	89.90	178.90	10519.78	6633.39	-6621.51	-399.49	0.74
17093	90.70	178.00	10519.29	6728.08	-6716.48	-396.92	1.27
17188	90.90	180.40	10517.96	6822.85	-6811.45	-395.60	2.53
17283	90.40	182.00	10516.88	6917.79	-6906.42	-397.59	1.76
17378	90.00	182.20	10516.55	7012.78	-7001.36	-401.07	0.47
17473	92.90	183.20	10514.15	7107.74	-7096.21	-405.54	3.23
17568	90.40	183.10	10511.41	7202.69	-7191.02	-410.76	2.63
17663	88.60	182.40	10512.24	7297.68	-7285.90	-415.31	2.03
17758	89.50	182.40	10513.82	7392.66	-7380.80	-419.29	0.95
17853	90.10	182.40	10514.15	7487.65	-7475.72	-423.27	0.63
17948	89.70	182.00	10514.31	7582.64	-7570.65	-426.92	0.60
18043	90.50	181.30	10514.15	7677.61	-7665.61	-429.65	1.12
18079	90.60	181.50	10513.80	7713.59	-7701.60	-430.53	0.62
18127	90.60	181.50	10513.30	7761.57	-7749.58	-431.79	0.00

BIT RECORD

BIT #	TYPE	SIZE (IN)	IN (FT)	OUT (FT)	TOTAL (FT)	HOURS DRLG	WOB (K)	RPM
1	Security MM65D	8.75	1975	10099	8124	61	25-30	50-70
2	Security FXD55M	8.75	10099	11096	996	23	30-90	15-30
3	Nov SKH1713M	6	11096	18127	7031	84.5	15-25	30-50

DRILLING FLUID PARAMETERS

DATE	WT	VIS	PV	YP	WL	PH	NaCL	Ca	% SOL
11/03/2013	10.2	49	17	13	-	-	42k	-	11.47
11/04/2013	10.3	50	15	12	-	-	41k	-	12.35
11/05/2013	10.4	50	18	12	-	-	43k	-	12.6
11/06/2013	10.4	50	18	12	-	-	43k	-	12.6
11/07/2013	10.4	50	18	12	-	-	44k	-	12.8
11/26/2013	9.7	29	1	1	-	8.0	145k	28,800	0.54
11/27/2013	9.7	29	1	1	-	8.0	145k	28,800	0.54
11/28/2013	9.7	30	1	1	-	7.5	151k	32,000	0.46
11/29/2013	9.7	30	1	1	-	7.5	151k	32,000	0.46

DAILY DRILLING CHRONOLOGY

DATE (m/d/y)	DEPTH @ 24.00	PROGRESS (ft/24 hours)	BREAKDOWN 00:00 – 24:00	RIG ACTIVITY
11/02/2013	6991	5016	0:00-24:00	Drill 6991-8827
11/03/2013	8827	1836	0:00-24:00	Drill 8827-9922
11/04/2013	9922	1095	0:00-24:00	Drill 9922-10099
			4:30-10:30	TOOH for Curve Assembly
			10:30-12:00	Lay down BHA/ Pick up Curve Assembly
			12:00-20:30	TIH with Curve BHA Assembly
			20:30-24:00	Drill 10099-10182
11/05/2013	10182	260	0:00-16:18	Drill 10182-10888
			16:18-24:00	TOOH for New BHA due to motor failure 10888-0
11/06/2013	10888	706	0:00-0:30	Lay down/ Pick up New Curve BHA
			0:30-500	TIH 0-10888
			500-9:30	Drill 10888-11096 (TD Curve)
Move Rig to Tallahassee 3-16H for Vertical and Curve				
11/25/2013	11096	0	00:00-11:00	Skid Operations, BHA Operations, TIH, Fit Test
			11:00-24:00	Drill 11113-12029
11/26/2013	12029	933	00:00-24:00	Drill 12029-14008
11/27/2013	14008	1979	00:00-24:00	Drill 14008-15813
11/28/2013	15813	1805	00:00-24:00	Drill 15813-17427
11/29/2013	17427	1614	00:00-13:00	Drill 17427-18127 (TD Well)
			13:00-14:00	Circulate
			14:00-24:00	Wiper Trip, 5" Casing Operations
11/30/2013	18127	700		

TOTAL GAS DATA

SHOW INTERVAL FROM – TO (ft)	BKGD UNITS	SHOW UNITS	BRIEF DESCRIPTION (Rock type, porosity, visual show, etc.)
9219-9790	70	110	LIMESTONE: light to medium brown, light to medium gray brown, tan, off white in part, firm to hard, microcrystalline, silty, trace argillaceous, mottled in part
9790-10607	30	52	LIMESTONE: dark to medium gray, light to medium brown, very trace tan in part, mottled in part, firm to hard, microcrystalline to cryptocrystalline, slightly to moderately silty, argillaceous, earthy texture
10607-10650	240	470	SHALE: black, moderately hard, sub blocky to sub platy, carbonaceous
10650-13000	100	220	DOLOMITE: light to medium gray, light to medium brown, medium gray brown, firm, microcrystalline, silty, slightly argillaceous, trace pyrite, yellow fluorescence, moderately blue white diffuse cut
13000-14750	500	2837	DOLOMITE: light to medium brown, light to medium gray, trace off white, trace black, microcrystalline, silty in part, calcareous, laminated in part, intercrystalline porosity, yellow mineral fluorescence, cream to light blue flash cut
14750-18127	800	1514	DOLOMITE: light brown, tan, light to medium gray, white to off white, minor black, minor translucent grains, microcrystalline to cryptocrystalline, slightly argillaceous, trace silt, minor nodular pyrite, calcareous, laminated in part, intercrystalline porosity, carbonaceous material, scattered yellow mineral fluorescence, dull yellow to green diffuse cut

LITHOLOGY

Formation tops

Sample Interval
(in feet)

SAMPLE DESCRIPTION

30' samples were caught in the vertical and curve, and 50' samples caught in the lateral by NorAm Wellsite Services. Logging began at 8250'MD on November 1, 2013 at 13:24 hours.

8250-8280 LIMESTONE: red orange medium gray brown ,buff light to medium gray, firm to bright, microcrystalline, moderately silica, argillaceous, trace sandy material

CHARLES: 8295' MD, 8294' TVD (-6354)

8280-8310 LIMESTONE: red orange medium gray brown, buff light to medium gray, firm to bright, microcrystalline, moderately silica, argillaceous; SALT: clear, translucent

8310-8340 SALT: clear, translucent trace LIMESTONE: light to medium gray, firm to bright, microcrystalline, moderately silica, argillaceous, trace sandy material

8340-8370 SALT: clear, translucent trace LIMESTONE: light to medium gray, firm to bright, microcrystalline, moderately silica, argillaceous, trace sandy material

8370-8400 SALT: clear, translucent; trace LIMESTONE: light to medium gray, firm to bright, microcrystalline, moderately silica, argillaceous, trace sandy material, trace siltstone material; trace ANHYDRITE: cream to buff

8400-8430 SALT: clear, translucent; LIMESTONE: light to medium gray, firm to bright, microcrystalline, moderately silica, argillaceous, trace sandy material, trace siltstone material; ANHYDRITE: cream to buff

8430-8460 SALT: clear, translucent; LIMESTONE: light to medium gray, firm to bright, microcrystalline, moderately silica, argillaceous, trace sandy material; trace ANHYDRITE: cream to buff

8460-8490 SALT: clear, translucent; LIMESTONE: light to medium gray, firm to bright, microcrystalline, moderately silica, argillaceous, trace sandy material; trace ANHYDRITE: cream to buff

8490-8520 SALT: translucent to transparent, off white hard, crystalline; SILTSTONE: orange brown, soft, calcareous, argillaceous

8520-8550 SALT: clear, translucent; trace LIMESTONE: light to medium gray, firm to bright, microcrystalline, moderately silica, argillaceous, trace sandy material, trace siltstone material; trace ANHYDRITE: cream to buff

Formation tops Sample Interval (in feet)	SAMPLE DESCRIPTION
8550-8580	ANHYDRITE: white to gray, soft, amorphous; LIMESTONE: light gray brown, light to medium gray, firm to bright, microcrystalline, moderately silty, argillaceous
8580-8610	LIMESTONE: light gray brown, light to medium gray, firm to bright, microcrystalline, moderately silty, argillaceous; ANHYDRITE: white, soft, amorphous; SALT: clear, translucent, hard
8610-8640	LIMESTONE: light gray brown, light to medium gray, firm to bright, microcrystalline, moderately silty, argillaceous; ANHYDRITE: white, soft, amorphous; SALT: clear, translucent, hard
8640-8700	LIMESTONE: light gray brown, light to medium gray, firm to bright, microcrystalline, moderately silty, argillaceous; ANHYDRITE: white, soft, amorphous; trace SILTSTONE: red to orange, friable to firm, calcareous, material; SALT: clear, translucent, hard
8700-8790	LIMESTONE: light gray brown, light to medium gray, firm to bright, microcrystalline, moderately silty, argillaceous; ANHYDRITE: white, soft, amorphous; SALT: clear, translucent, hard
8790-8880	ANHYDRITE: white, soft, amorphous; LIMESTONE: light gray brown, light to medium gray, firm to bright, microcrystalline, moderately silty, argillaceous; trace SALT: clear, translucent, hard
8880-8910	ANHYDRITE: white to gray, soft, amorphous; LIMESTONE: light gray brown, light to medium gray, firm to bright, microcrystalline, moderately silty, argillaceous
8910-8940	LIMESTONE: light gray brown to tan, light gray, firm to bright, microcrystalline, moderately silty, argillaceous; ANHYDRITE: white to gray, soft, amorphous, trace SALT: clear, translucent, hard
8940-8970	SALT: clear, translucent, hard; trace LIMESTONE: light to medium gray, firm to hard, microcrystalline, moderately silty, trace argillaceous, mottled in part
<u>BASE LAST SALT: 8994' MD, 8993' TVD (-7053)</u>	
8970-9000	SALT: clear, translucent, hard; trace LIMESTONE: light brown to tan, light to medium gray, firm to hard, microcrystalline, moderately silty, trace argillaceous, mottled in part

Formation tops Sample Interval (in feet)	SAMPLE DESCRIPTION
9000-9030	SALT: clear, translucent, hard; trace LIMESTONE: light to medium gray, tan to light brown, firm to hard, microcrystalline, moderately silty, trace argillaceous, mottled in part
9030-9060	LIMESTONE: light to medium gray, light brown, tan, off white in part, firm to hard, microcrystalline, silty, trace argillaceous, mottled in part
9060-9090	LIMESTONE: light to medium gray, light brown, tan, off white in part, firm to hard, microcrystalline, silty, trace argillaceous, mottled in part, trace ANHYDRITE: white to gray, soft, amorphous
9090-9180	LIMESTONE: medium to dark gray, medium gray brown, off white to cream in part, firm to moderately hard, microcrystalline, silty, argillaceous; ANHYDRITE: white to gray, soft, amorphous
9180-9210	LIMESTONE: medium to dark gray, brown, medium gray brown, off white in part, firm to hard, microcrystalline, silty, trace argillaceous, mottled in part, trace ANHYDRITE: white to gray, soft, amorphous
<u>MISSION CANYON: 9220' MD, 9219' TVD (-7279)</u>	
9210-9240	LIMESTONE: medium gray, medium gray brown, dark brown, off white in part, firm to hard, microcrystalline, silty, trace argillaceous, mottled in part, trace ANHYDRITE: white to gray, soft, amorphous
9240-9270	LIMESTONE: medium, light to medium gray brown, off white to tan in part, firm to hard, microcrystalline to cryptocrystalline, moderately silty, trace argillaceous, mottled in part
9270-9390	LIMESTONE: light to medium brown, light to medium gray to brown, off white to tan, firm to hard, microcrystalline to cryptocrystalline, moderately silty, trace argillaceous, mottled in part
9390-9420	LIMESTONE: light to medium brown, light to medium gray brown, tan, off white in part, firm to hard, microcrystalline, silty, trace argillaceous, mottled in part
9420-9480	LIMESTONE: medium to dark brown, light brown to tan in part, trace medium gray, mottled in part, firm, cryptocrystalline, earthy, slightly silty, argillaceous
9480-9570	LIMESTONE: light to medium brown, dark brown, medium to dark gray to gray brown, tan, slightly mottled, firm, cryptocrystalline, earthy, slightly silty, argillaceous

Formation tops Sample Interval (in feet)	SAMPLE DESCRIPTION
9570-9600	LIMESTONE: light to medium gray brown, medium to dark gray, tan, slightly mottled, firm, cryptocrystalline, earthy, slightly silty, argillaceous
9600-9630	LIMESTONE: cream, tan, off white, light to medium brown, light to medium gray brown, medium gray, slightly mottled, firm, cryptocrystalline, earthy, slightly silty, argillaceous, trace chert
9630-9780	LIMESTONE: medium gray brown, light to medium gray, cream to off white in part, firm to hard, microcrystalline to cryptocrystalline, silty, argillaceous in part, earthy texture
<u>LODGEPOLE: 9791' MD, 9790' TVD (-7850)</u>	
9780-9870	LIMESTONE: light to medium gray to brown, light brown to tan in part, trace medium to dark gray, mottled in part, firm, microcrystalline to cryptocrystalline, earthy, slightly silty, argillaceous
9870-10170	LIMESTONE: dark to medium gray, light to medium brown, very trace tan in part, mottled in part, firm to hard, microcrystalline to cryptocrystalline, slightly to moderately silty, argillaceous, earthy texture
10170-10410	LIMESTONE: dark to medium gray, medium gray brown, very trace light gray in part, mottled in part, firm to hard, microcrystalline to cryptocrystalline, moderately silty, very argillaceous, earthy texture
10410-10500	LIMESTONE: medium to dark gray, light to medium gray brown, trace light gray, mottled in part, firm to hard, microcrystalline to cryptocrystalline, moderately silty, very argillaceous, earthy texture
10500-10560	LIMESTONE: dark to medium gray, medium to dark brown gray, trace light gray, mottled in part, firm to hard, microcrystalline to cryptocrystalline, moderately silty, argillaceous, earthy texture, sub blocky
10560-10590	LIMESTONE: dark to medium gray, medium to dark brown gray, mottled in part, firm to hard, microcrystalline to cryptocrystalline, moderately silty, argillaceous, earthy texture, sub blocky
<u>UPPER BAKKEN SHALE: 10607' MD, 10490' TVD (-8550)</u>	

Formation tops Sample Interval (in feet)	SAMPLE DESCRIPTION
10590-10620	SHALE: black to very dark brown, moderately hard, sub blocky to sub platy, carbonaceous; LIMESTONE: dark to medium gray, medium to dark brown gray, trace light gray, mottled in part, firm to hard, microcrystalline to cryptocrystalline, moderately silty, argillaceous, earthy texture, sub blocky
10620-10650	SHALE: black, moderately hard, sub blocky to sub platy, carbonaceous; DOLOMITE: light to medium gray, light to medium brown, medium gray brown, firm, microcrystalline, silty, slightly argillaceous, trace pyrite, yellow fluorescence, moderately blue white diffuse cut
<u>MIDDLE BAKKEN MEMBER: 10650'MD, 10505' TVD (-8565)</u>	
10650-10710	DOLOMITE: light to medium gray, light to medium brown, medium gray brown, firm, microcrystalline, silty, slightly argillaceous, trace pyrite, yellow fluorescence, moderately blue white diffuse cut
10710-10770	DOLOMITE: light to medium gray, light to medium brown, medium gray brown, firm, microcrystalline, silty, slightly argillaceous, yellow fluorescence, moderately blue white diffuse cut
10770-10800	DOLOMITE: light to medium gray brown, light to medium gray, light to medium brown, firm, microcrystalline, silty, slightly argillaceous, yellow fluorescence, moderately blue white diffuse cut
10800-10830	DOLOMITE: light to medium gray brown, light to medium gray, light to medium brown, firm, microcrystalline, silty, slightly argillaceous, dull yellow fluorescence, moderately dull yellow blue white diffuse cut
10830-10860	DOLOMITE: light to medium gray brown, light to medium brown, light to medium gray, firm, microcrystalline, silty, slightly argillaceous, slightly sandy dull yellow fluorescence, moderately dull yellow blue white diffuse cut
10860-10890	DOLOMITE: light to medium gray brown, light to medium gray, cream to off white, tan in part, firm, slightly hard, microcrystalline, silty, green to white fluorescence, moderately blue to white diffuse cut
10890-10920	DOLOMITE: light to medium gray brown, light to medium gray, tan to light brown, trace cream to off white, firm, slightly hard, microcrystalline, silty, green to white fluorescence, moderately blue to white diffuse cut

Formation tops Sample Interval (in feet)	SAMPLE DESCRIPTION
10920-10950 DOLOMITE: light to medium gray brown, light to medium gray, tan to light brown, slightly moderately in part, firm, slightly hard, microcrystalline, silty, trace sand, green to white fluorescence, moderately blue to white diffuse cut	
10950-11010 DOLOMITE: light to medium gray brown, light to medium gray, tan to light brown, slightly moderately in part, firm, microcrystalline, silty, slightly argillaceous, trace sand, green to white fluorescence, moderately blue to white diffuse cut	
11010-11096 DOLOMITE: light to medium gray brown, light to medium gray, cream to off white, tan in part, firm, slightly hard, microcrystalline, silty, slightly argillaceous, trace sand, green to white fluorescence, moderately blue to white diffuse cut	
11096-11150 DOLOMITE: light to medium gray, light to medium gray brown, cream to off white, tan in part, firm, slightly hard, microcrystalline, silty, slightly argillaceous, trace sand, green to white fluorescence, moderately blue to white diff cut	
11150-11200 DOLOMITE: light to medium gray, medium gray to brown, medium brown, firm, microcrystalline, calcareous, silty, slightly argillaceous, intercrystalline porosity, trace carbonaceous material, light yellow mineral fluorescence, yellow to cream slow streaming cut	
11200-11250 DOLOMITE: light to medium gray, medium gray to brown, medium brown, firm, microcrystalline, calcareous, silty, slightly argillaceous, trace sand, intercrystalline porosity, trace carbonaceous material, light yellow mineral fluorescence, yellow to cream slow streaming cut	
11250-11350 DOLOMITE: light to medium gray, light to medium gray to brown, medium brown, microcrystalline, calcareous, silty, argillaceous, laminated in part, intercrystalline porosity, trace carbonaceous material, light yellow mineral fluorescence, yellow to cream flash cut	
11350-11450 DOLOMITE: light to medium gray, light brown, light to medium gray to brown, rare cream, microcrystalline, calcareous, silty, slightly argillaceous, laminated in part, intercrystalline porosity, minor carbonaceous material, light yellow mineral fluorescence, light yellow to cream slow diffuse cut	
11450-11550 DOLOMITE: light to medium gray, off white, light brown, microcrystalline, calcareous, silty, argillaceous, laminated in part, intercrystalline porosity, minor carbonaceous material, light yellow mineral fluorescence, light yellow to cream flash cut	

Formation tops Sample Interval (in feet)	SAMPLE DESCRIPTION
11550-11600 DOLOMITE: light to medium gray, off white, very light brown, microcrystalline, calcareous, silty, argillaceous, laminated in part, intercrystalline porosity, minor carbonaceous material, no mineral fluorescence, no cut	
11600-11650 DOLOMITE: light gray, off white, medium to dark gray, black, microcrystalline, calcareous, silty in part, slightly argillaceous, laminated in part, intercrystalline porosity, minor carbonaceous material, no mineral fluorescence, slow light yellow diffuse cut	
11650-11700 DOLOMITE: light gray, off white, medium gray, rare black, microcrystalline, calcareous, silty in part, slightly argillaceous, laminated in part, intercrystalline porosity, minor carbonaceous material, no mineral fluorescence, slow very light yellow diffuse cut	
11700-11800 DOLOMITE: light to medium gray, off white, trace black, calcareous, silty in part, slightly argillaceous, laminated in part, intercrystalline porosity, minor carbonaceous material, no mineral fluorescence, very slow light yellow streaming cut	
11800-11850 DOLOMITE: light to medium gray, off white, trace black, microcrystalline, silty in part, argillaceous, laminated in part, calcareous, very trace pyrite, intercrystalline porosity, carbonaceous material, no mineral fluorescence, very slow light yellow streaming cut	
11850-11950 DOLOMITE: light to medium gray, off white, trace black, microcrystalline, silty in part, argillaceous, laminated in part, calcareous, intercrystalline porosity, carbonaceous material, no mineral fluorescence, very slow yellow to cream streaming cut	
11950-12050 DOLOMITE: light brown to tan, light gray, off white, trace black, microcrystalline, silty in part, argillaceous, laminated in part, calcareous, intercrystalline porosity, scattered yellow fluorescence, slow dull yellow diff cut	
12050-12750 DOLOMITE: light to medium gray, light brown in part, trace off white, trace black, microcrystalline, silty in part, moderately argillaceous, laminated in part, calcareous, intercrystalline porosity, scattered yellow fluorescence, scattered slow dull yellow diff cut	
12750-13000 DOLOMITE: light to medium brown, light to med gray, light to med gray brown, trace off white, trace black, microcrystalline, silty in part, moderately argillaceous, laminated in part, calcareous, intercrystalline porosity, scattered yellow fluorescence, scattered slow dull yellow diff cut	

Formation tops Sample Interval (in feet)	SAMPLE DESCRIPTION
13000-13100 DOLOMITE: light to medium gray, off white, light brown, trace black, microcrystalline, silty in part, moderately argillaceous, calcareous, laminated in part, intercrystalline porosity, carbonaceous material, light yellow mineral fluorescence, fast light yellow to cream streaming cut	
13100-13200 DOLOMITE: light to medium brown, light to medium gray, trace off white, trace black, microcrystalline, silty in part, calcareous, laminated in part, intercrystalline porosity, yellow mineral fluorescence, cream to light blue flash cut	
13200-13250 DOLOMITE: light to medium gray brown, light medium gray, minor off white, trace black, microcrystalline, silty, slightly argillaceous, calcareous, laminated in part, intercrystalline porosity, oil on sample, yellow mineral fluorescence, yellow to cream fast streaming cut	
13250-13300 DOLOMITE: light to medium gray brown, light medium gray, minor off white, trace black, silty, slightly argillaceous, calcareous, laminated in part, microcrystalline, intercrystalline porosity, oil on sample, yellow mineral fluorescence, yellow to cream fast streaming cut	
13300-13400 DOLOMITE: light to medium gray brown, light brown, trace off white, trace black, translucent grains, silty in part, slightly argillaceous, calcareous, laminated in part, microcrystalline, intercrystalline porosity, oil on shakers, yellow mineral fluorescence, cream to blue fast streaming cut	
13400-13450 DOLOMITE: light to medium gray, light to medium brown, trace off white, translucent grains, silty in part, slightly argillaceous, calcareous, laminated in part, microcrystalline, intercrystalline porosity, oil on sample, yellow to green mineral fluorescence, yellow to cream flash cut	
13450-13550 DOLOMITE: light to medium gray, light to medium brown, trace off white, translucent grains, silty in part, slightly argillaceous, calcareous, laminated in part, microcrystalline, intercrystalline porosity, spotty to even oil show, yellow to green mineral fluorescence, yellow to cream flash cut	
13550-13650 DOLOMITE: light to medium gray, light to medium brown, trace off white, translucent grains, silty in part, slightly argillaceous, minor pyrite, calcareous, laminated in part, microcrystalline, intercrystalline porosity, spotty to even oil show, yellow to green bright mineral fluorescence, yellow to cream bright flash cut	
13650-13750 DOLOMITE: light to medium brown, light to medium gray, minor dark brown, trace black, silty in part, slightly argillaceous, calcareous, laminated in part, microcrystalline, intercrystalline porosity, spotted to even oil show, yellow to green mineral fluorescence, yellow to green flash cut	

Formation tops Sample Interval (in feet)	SAMPLE DESCRIPTION
13750-13850 DOLOMITE:	light to medium brown, light to medium gray, minor dark brown, trace black, translucent grains, silty in part, slightly argillaceous, calcareous, laminated in part, microcrystalline, intercrystalline porosity, spotted to even oil show, light yellow mineral fluorescence, yellow to cream flash cut
13850-14000 DOLOMITE:	light to medium brown, translucent to off white, light to medium gray, silty in part, slightly argillaceous, calcareous, laminated in part, microcrystalline, intercrystalline porosity, spotted to even oil stain, green to white fluorescence, white to blue fast diff cut
14000-14100 DOLOMITE:	light to medium gray, light brown in part, trace off white, trace black, microcrystalline, silty in part, moderately argillaceous, laminated in part, calcareous, intercrystalline porosity, scattered yellow fluorescence, slow to moderately yellow green diff cut
14100-14300 DOLOMITE:	light to medium gray, light brown in part, trace off white, trace black, microcrystalline, silty in part, moderately argillaceous, laminated in part, calcareous, intercrystalline porosity, scattered yellow fluorescence, scattered slow yellow green diff cut
14300-14350 DOLOMITE:	light to medium gray, light brown in part, trace off white, trace black, microcrystalline, silty in part, moderately argillaceous, laminated in part, calcareous, intercrystalline porosity, scattered yellow fluorescence, slow yellow green diff cut
14350-14750 DOLOMITE:	light to medium gray, light to medium brown, tan, trace black, trace off white, microcrystalline, silty in part, slightly argillaceous, laminated in part, calcareous, intercrystalline porosity, spotted oil show, scattered yellow fluorescence, very dull yellow to green slow diffuse cut
14570-14950 DOLOMITE:	light to medium gray, off white to white, minor light brown, minor black, silty in part, argillaceous in part, microcrystalline to cryptocrystalline, calcareous, laminated in part, intercrystalline porosity, very dull yellow scattered mineral fluorescence, moderately to fast dull yellow streaming cut
14950-15500 DOLOMITE:	off white to white, tan, light to medium brown, minor black, silty in part, argillaceous in part, minor pyrite, microcrystalline to cryptocrystalline, calcareous, laminated in part, minor carbonaceous material, spotted oil show, scattered yellow mineral fluorescence, light yellow to white slow streaming cut

Formation tops Sample Interval (in feet)	SAMPLE DESCRIPTION
15050-15150 DOLOMITE:	white to off white, light brown, light to medium gray, minor black, slightly argillaceous, trace pyrite, microcrystalline to cryptocrystalline, calcareous, laminated in part, minor carbonaceous material, spotted oil show, scattered yellow mineral fluorescence, white to blue fast streaming cut
15150-15250 DOLOMITE:	white to off white, tan, light to medium gray, minor black, slightly argillaceous, trace pyrite, microcrystalline to cryptocrystalline, calcareous, laminated in part, minor carbonaceous material, spotted oil show, scattered yellow mineral fluorescence, white to blue fast streaming cut
15250-15350 DOLOMITE:	light brown, tan, off white, minor medium to dark grey, trace black, slightly argillaceous, trace silt, microcrystalline to cryptocrystalline, calcareous, laminated in part, intercrystalline porosity, minor carbonaceous material, scattered yellow mineral fluorescence, blue to white fast streaming cut, sample contaminated with lube
15350-15450 DOLOMITE:	light brown, tan, off white, light gray, minor medium to dark gray, slightly argillaceous, microcrystalline to cryptocrystalline, calcareous, laminated in part, intercrystalline porosity, minor carbonaceous material, scattered yellow mineral fluorescence, white to blue fast streaming cut, sample contaminated with lube
15450-15750 DOLOMITE:	very light brown, tan, off white, light gray, minor medium to dark gray, trace translucent grains, slightly argillaceous, microcrystalline to cryptocrystalline, calcareous, laminated in part, intercrystalline porosity, minor carbonaceous material, scattered yellow mineral fluorescence, white to blue fast streaming cut, sample contaminated with lube
15750-15900 DOLOMITE:	light brown to off white, light gray, medium gray in part, trace translucent, slightly argillaceous, microcrystalline to cryptocrystalline, calcareous, laminated in part, intercrystalline porosity, spotty brown oil stain, scattered yellow to green fluorescence, green to white moderately streaming cut, sample slightly contaminated with lube
15900-16150 DOLOMITE:	light brown to off white, light to medium gray, trace translucent, slightly argillaceous, microcrystalline to cryptocrystalline, calcareous, laminated in part, intercrystalline porosity, spotty brown oil stain, scattered yellow to green fluorescence, green to white moderately streaming cut, sample slightly contaminated with lube

Formation tops Sample Interval (in feet)	SAMPLE DESCRIPTION
16150-16350 DOLOMITE: light brown to tan, off white to cream, light to medium gray, trace translucent , slightly argillaceous, microcrystalline to cryptocrystalline, calcareous, laminated in part, intercrystalline porosity, spotty brown oil stain, scattered yellow to green fluorescence, green to white moderately streaming cut	
16350-16450 DOLOMITE: off white to cream, light brown to tan, light to medium gray, trace translucent, slightly argillaceous, microcrystalline, calcareous, laminated in part, intercrystalline porosity, spotty brown oil stain, scattered yellow to green fluorescence, green to white moderately streaming cut	
16450-16550 DOLOMITE: light brown, tan, light to medium gray, white to off white, minor black, minor translucent grains, microcrystalline to cryptocrystalline, slightly argillaceous, trace silt, calcareous, laminated in part, intercrystalline porosity, spotted oil show, carbonaceous material, scattered yellow cut, very dull green to yellow diffuse cut, sample contaminated with lube	
16550-16700 DOLOMITE: light brown, tan, light to medium gray, white to off white, minor black, minor translucent grains, microcrystalline to cryptocrystalline, slightly argillaceous, trace silt, calcareous, laminated in part, intercrystalline porosity, carbonaceous material, no mineral fluorescence, no cut	
16700-16850 DOLOMITE: light brown, tan, light to medium gray, white to off white, minor black, minor translucent grains, microcrystalline to cryptocrystalline, slightly argillaceous, trace silt, calcareous, laminated in part, intercrystalline porosity, carbonaceous material, no mineral fluorescence, dull yellow to green diffuse cut	
16850-16950 DOLOMITE: light brown, tan, light to medium gray, white to off white, minor black, minor translucent grains, microcrystalline to cryptocrystalline, slightly argillaceous, trace silt, minor nodular pyrite, calcareous, laminated in part, intercrystalline porosity, carbonaceous material, scattered yellow mineral fluorescence, dull yellow to green diffuse cut	
16950-17050 DOLOMITE: light brown, tan, light to medium gray, white to off white, minor black, minor translucent grains, microcrystalline to cryptocrystalline, slightly argillaceous, trace silt, calcareous, laminated in part, intercrystalline porosity, carbonaceous material, scattered yellow mineral fluorescence, fast yellow to green streaming cut	
17050-17150 DOLOMITE: light to medium gray, light brown, white to off white, minor black, microcrystalline to cryptocrystalline, platy and sucrosic cuttings, slightly argillaceous, trace silt, calcareous, laminated in part, intercrystalline porosity, carbonaceous material, scattered yellow mineral fluorescence, very dull yellow to green fast streaming cut, sample contaminated with lube	

Formation tops Sample Interval (in feet)	SAMPLE DESCRIPTION
17150-17250 DOLOMITE:	light to medium gray, light brown, tan, white to off white, minor black, microcrystalline to cryptocrystalline, slightly argillaceous, calcareous, laminated in part, intercrystalline porosity, carbonaceous material, scattered yellow mineral fluorescence, fast yellow to green diffuse cut, sample contaminated with lube
17250-17450 DOLOMITE:	off white to white, light gray, minor light brown, trace black, microcrystalline to cryptocrystalline, slightly argillaceous, calcareous, laminated in part, intercrystalline porosity, minor carbonaceous material, scattered yellow mineral fluorescence, fast white to blue streaming cut, sample contaminated with lube
17450-17500 DOLOMITE:	light to medium gray, off white to tan trace dark gray, microcrystalline to cryptocrystalline, slightly argillaceous, calcareous, laminated in part, intercrystalline porosity, spotty brown oil stain, scattered green fluorescence, fast white to blue streaming cut
17500-17550 DOLOMITE:	light to medium gray, off white to tan trace dark gray, microcrystalline to cryptocrystalline, slightly argillaceous, calcareous, laminated in part, intercrystalline porosity, spotty brown oil stain, scattered green fluorescence, fast white to blue streaming cut, sample contaminated with lube
17550-17650 DOLOMITE:	light to medium brown, translucent to off white, light to medium gray, silty in part, slightly argillaceous, calcareous, laminated in part, microcrystalline, intercrystalline porosity, spotted to even oil stain, green to white fluorescence, white to blue fast diff cut
17650-17750 DOLOMITE:	light to medium gray, translucent to off white, light to medium gray brown, silty in part, slightly argillaceous, calcareous, laminated in part, microcrystalline, intercrystalline porosity, spotted to even oil stain, green to white fluorescence, white to blue fast diff cut
17750-17950 DOLOMITE:	light to medium gray, off white, translucent, trace dark gray, microcrystalline to cryptocrystalline, slightly argillaceous, calcareous, laminated in part, intercrystalline porosity, spotty brown oil stain, scattered green fluorescence, fast white to blue streaming cut
17950-18050 DOLOMITE:	light to medium gray, off white to white, minor translucent grains, minor light to medium brown, trace black, microcrystalline to cryptocrystalline, slightly argillaceous, calcareous, laminated in part, intercrystalline porosity, spotty brown oil stain, scattered yellow mineral fluorescence, fast white to blue streaming cut, sample contaminated with lube

Formation tops Sample Interval (in feet)	SAMPLE DESCRIPTION
18050-18100 DOLOMITE	light to medium gray, off white to white, light brown, minor translucent grains, trace black, platy and sucrosic cuttings, microcrystalline to cryptocrystalline, slightly argillaceous, calcareous, laminated in part, intercrystalline porosity, minor carbonaceous material, spotty oil stain, scattered yellow mineral fluorescence, white to blue flash cut, sample contaminated with lube
18100-18127 DOLOMITE	light to medium gray, off white to white, light brown, trace black, microcrystalline to cryptocrystalline, slightly argillaceous, calcareous, laminated in part, intercrystalline porosity, minor carbonaceous material, spotty oil stain, scattered yellow mineral fluorescence, white to blue flash cut, sample contaminated with lube

GEOLOGICAL SUMMARY & CONCLUSIONS

Continental Resources, Inc drilled the south bearing Tallahassee 2-16H in Sections 16, 9, and 4 of Township 153N, Range 101W into the Mississippian/Devonian age Middle Bakken Member. The Well was spud using Cyclone 4 on November 1, 2013 from surface location 2547' FNL & 245' FEL Section 16, Township 153N, Range 101W.

The surface was pre-drilled with 9 inch surface casing set at 1965' MD. From there the 8 3/4" vertical portion was drilled to the Kick Off Point (KOP) at 10099'MD. LEAM provided Directional Drilling as well as the Measurement While Drilling (MWD) services during the entire course of the Well. NorAm Wellsite Services provided both Mud Logging and Geosteering Services. No trips were necessary during the vertical.

The curve portion of the Tallahassee 2-16H well bore began at 4:30 hrs on November 4th 2013 at 10099' MD. The Middle Bakken Member was entered at 10650' MD, 10505' TVD and our final depth of 11096' MD, 10517' TVD, 12' into the Middle Bakken Member, was reached at 9:26hrs on November 6th, 2013. In order to complete the curve portion of the Tallahassee 2-16H well bore there was one trip for a new BHA at 10888'MD with a total trip time of 13 hrs. The entire curve portion of the Tallahassee 32-16H well bore took a total of 53 hours.

The Lateral portion of the Tallahassee 2-16H began at 12:14 hrs on November 25, 2013. The Tallahassee 2-16H successfully reached TD of 18127'MD at 12:43 hrs on November 29, 2013 with a bottom hole location of 236.02 FSL & 676.79 FEL Section 21, T153N, R101W, McKenzie Co., North Dakota and a total of 7022.68 feet of vertical section exposed. No trips occurred during the Tallahassee 2-16H Lateral.



SUNDRY NOTICES AND REPORTS ON WELLS - FORM 4

INDUSTRIAL COMMISSION OF NORTH DAKOTA
OIL AND GAS DIVISION
600 EAST BOULEVARD DEPT 405
BISMARCK, ND 58505-0840
SFSN 5749 (08-2006)



Well File No.
25158

PLEASE READ INSTRUCTIONS BEFORE FILLING OUT FORM.
PLEASE SUBMIT THE ORIGINAL AND ONE COPY.

Notice of Intent

Approximate Start Date
August 21, 2013

Report of Work Done

Date Work Completed

Notice of Intent to Begin a Workover Project that may Qualify
for a Tax Exemption Pursuant to NDCC Section 57-51.1-03.

Approximate Start Date

Drilling Prognosis

Spill Report

Redrilling or Repair

Shooting

Casing or Liner

Acidizing

Plug Well

Fracture Treatment

Supplemental History

Change Production Method

Temporarily Abandon

Reclamation

Other

Cement to surface

Well Name and Number
Tallahassee 2-16H

Footages	Qtr-Qtr	Section	Township	Range
2547 F N L	245 F E L	SENE	16	153 N 101 W
Field Baker	Pool Bakken		County McKenzie	

24-HOUR PRODUCTION RATE

Before	After	Oil	Bbls	Oil	Bbls
Water		Water	Bbls		
Gas		Gas	MCF		

Name of Contractor(s)

Address	City	State	Zip Code
---------	------	-------	----------

DETAILS OF WORK

During the cement job on the Tallahassee 2-16H we were seeing good returns. After dropping the plug, there were no returns. We increased the pump rate and started getting returns but then lost them again. Staging cement was also attempted. Cement was not returned to surface. A CBL was scheduled the morning of Saturday, August 17th. Cement will be brought to surface on the intermediate casing string.

A 1" top job was performed. We got 1" pipe 140' deep. We got cement to surface and continued pumping and then staging to make sure the cement would not drop. Another CBL is schedule for the morning of Friday, August 30th.

*The Operator is to maintain a pressure gauge on the 9-5/8" X 7" annulus for continuous monitoring and to report any pressure development or pressure management events.

Company Continental Resources, Inc.	Telephone Number (405) 234-9000	
Address P.O. Box 268870		
City Oklahoma City	State OK	Zip Code 73126
Signature <i>Becky Barnes</i>	Printed Name Becky Barnes	
Title Regulatory Compliance Specialist	Date August 22, 2013	
Email Address becky.barnes@cir.com		

FOR STATE USE ONLY

<input checked="" type="checkbox"/> Received	<input type="checkbox"/> Approved
Date 9-16-2013	
By <i>Richard A. Suggs</i>	
Title Geologist	

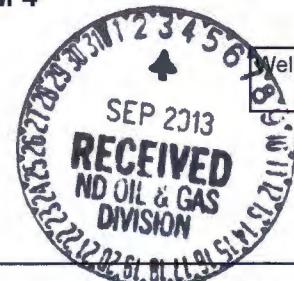


SUNDRY NOTICES AND REPORTS ON WELLS - FORM 4

INDUSTRIAL COMMISSION OF NORTH DAKOTA
OIL AND GAS DIVISION
600 EAST BOULEVARD DEPT 405
BISMARCK, ND 58505-0840
SFN 5749 (03-2004)

Well File No.

25158



PLEASE READ INSTRUCTIONS BEFORE FILLING OUT FORM.
PLEASE SUBMIT THE ORIGINAL AND ONE COPY.

Notice of Intent

Approximate Start Date
October 14, 2013

Report of Work Done

Date Work Completed

Notice of Intent to Begin a Workover Project that may Qualify for a Tax Exemption Pursuant to NDCC Section 57-51.1-03.

Approximate Start Date

Drilling Prognosis

Spill Report

Redrilling or Repair

Shooting

Casing or Liner

Acidizing

Plug Well

Fracture Treatment

Supplemental History

Change Production Method

Temporarily Abandon

Reclamation

Other

Flow back exemption

Well Name and Number
Tallahassee 2-16H

Footages	Qtr-Qtr	Section	Township	Range
2547 F N L	245 F E L	SENE	16	153 N 101 W
Field Baker	Pool Bakken		County McKenzie	

24-HOUR PRODUCTION RATE

Before	After	Oil	Bbls	Oil	Bbls
Water	Bbls	Water	Bbls		
Gas	MCF	Gas	MCF		

Name of Contractor(s)

Address	City	State	Zip Code
---------	------	-------	----------

DETAILS OF WORK

Continental Resources, Inc. requests a waiver from the tubing/pkr requirement included in NDIC 43-02-03-21: Casing, Tubing, and Cementing Requirements during the completion period immediately following the upcoming fracture stimulation. The following assurances apply:

- 1) The well is equipped with 26#/ft P-110 7" casing at surface with an API burst rating of 9960 psig for the 26 #/ft casing.
- 2) The frac design will use a safety factor of 0.85 * API burst rating to determine the max pressure.
- 3) Damage to the casing during the frac would be detected immediately by monitoring equipment.
- 4) The casing is exposed to significantly lower rates and pressures during flow back than during the frac job.
- 5) The frac fluid and formation fluids have very low corrosion and erosion rates
- 6) Production equipment will be installed as soon as possible after the well ceases flowing.
- 7) A 300# gauge will be installed on surface casing during flowback period.

Company Continental Resources, Inc.	Telephone Number 405-234-9000
Address P.O. Box 269000	
City Oklahoma City	State OK
Signature 	Printed Name Jim Landrigan
Title Completion Engineer	Date August 29, 2013

FOR STATE USE ONLY

<input type="checkbox"/> Received	<input checked="" type="checkbox"/> Approved
Date September 4, 2013	
By 	
Title PETROLEUM ENGINEER	



SUNDRY NOTICES AND REPORTS ON WELLS - FORM

INDUSTRIAL COMMISSION OF NORTH DAKOTA
OIL AND GAS DIVISION
600 EAST BOULEVARD DEPT 405
BISMARCK, ND 58505-0840
SPN 5749 (09-2006)

Well File No.
25158



PLEASE READ INSTRUCTIONS BEFORE FILLING OUT FORM.
PLEASE SUBMIT THE ORIGINAL AND ONE COPY.

<input checked="" type="checkbox"/> Notice of Intent	Approximate Start Date August 14, 2013	<input type="checkbox"/> Drilling Prognosis	<input type="checkbox"/> Spill Report
<input type="checkbox"/> Report of Work Done	Date Work Completed	<input type="checkbox"/> Redrilling or Repair	<input type="checkbox"/> Shooting
<input type="checkbox"/> Notice of Intent to Begin a Workover Project that may Qualify for a Tax Exemption Pursuant to NDCC Section 57-51.1-03.	Approximate Start Date	<input type="checkbox"/> Casing or Liner	<input type="checkbox"/> Acidizing
		<input type="checkbox"/> Plug Well	<input type="checkbox"/> Fracture Treatment
		<input type="checkbox"/> Supplemental History	<input type="checkbox"/> Change Production Method
		<input type="checkbox"/> Temporarily Abandon	<input type="checkbox"/> Reclamation
		<input checked="" type="checkbox"/> Other	Spud with Small Rig

Well Name and Number
Tallahassee 2-16H

Footages 2547 F N L 245 F E L	Qtr-Qtr SENE	Section 16	Township 153 N	Range 101 W
Field Bakker	Pool Bakken	County McKenzie		

24-HOUR PRODUCTION RATE			
Before		After	
Oil	Bbls	Oil	Bbls
Water	Bbls	Water	Bbls
Gas	MCF	Gas	MCF

Name of Contractor(s)
Advanced Energy Services, LLC

Address P.O. Box 85	City South Boardman	State Michigan	Zip Code 49680-0085
-------------------------------	-------------------------------	--------------------------	-------------------------------

DETAILS OF WORK

Continental Resources, Inc. requests permission for suspension of drilling for up to 90 days for the referenced well under NDAC 43-02-03-55. Continental Resources, Inc. intends to drill the surface hole with freshwater based drilling mud and set surface casing with a small drilling rig and move off within 3 to 5 days. The casing will be set at a depth pre-approved by the NDIC per the Application for Permit to Drill NDAC 43-02-03-21. No saltwater will be used in the drilling and cementing operations of the surface casing. Once the surface casing is cemented, a plug or mechanical seal will be placed at the top of the casing to prevent any foreign matter from getting into the well. A rig capable of drilling to TD will move onto the location within the 90 days previously outlined to complete the drilling and casing plan as per the APD. The undersigned states that this request for suspension of drilling operations in accordance with the Subsection 4 of Section 43-02-03-55 of the NDAC, is being requested to take advantage of the cost savings and time savings of using an initial rig that is smaller than the rig necessary to drill a well to total depth but is not intended to alter or extend the terms and conditions of, or suspend any obligation under, any oil and gas lease with acreage in or under the spacing or drilling unit for the above-referenced well. Continental Resources, Inc. understands NDAC 43-02-03-31 requirements regarding confidentiality pertaining to this permit. The drilling pit will be fenced immediately after construction if the well pad is located in a pasture (NDAC 43-02-03-19 & 19.1). Continental Resources, Inc. will plug and abandon the well and reclaim the well site if the well is not drilled by the larger rotary rig within 90 days after spudding the well with the smaller drilling rig.

(Signature) CLR must notify NDIC Inspector - Richard Dunn 701-770-3559 with spud & TD

Company Continental Resources, Inc.	Telephone Number (405) 234-9000	
Address P.O. Box 268870		
City Oklahoma City	State OK	Zip Code 73126
Signature <i>Becky Barnes</i>	Printed Name Becky Barnes	
Title Regulatory Compliance Specialist	Date July 30, 2013	
Email Address becky.barnes@clr.com		

FOR STATE USE ONLY

<input type="checkbox"/> Received	<input checked="" type="checkbox"/> Approved
Date <i>8-02-2013</i>	
By <i>David Burns</i>	
Title David Burns	
Engineering Tech.	



Oil and Gas Division

Lynn D. Helms - Director

Bruce E. Hicks - Assistant Director

Department of Mineral Resources

Lynn D. Helms - Director

North Dakota Industrial Commission

www.dmr.nd.gov/oilgas

25158
JK

BECKY BARNES
CONTINENTAL RESOURCES, INC.
PO BOX 1032
ENID, OK 73702-1032 USA

Date: 3/18/2013

RE: CORES AND SAMPLES

Well Name: **TALLAHASSEE 2-16H** Well File No.: **25158**
Location: **SENE 16-153-101** County: **MCKENZIE**
Permit Type: **Development - HORIZONTAL**
Field: **BAKER** Target Horizon: **MIDDLE BAKKEN**

Dear BECKY BARNES:

North Dakota Century Code (NDCC) Section 38-08-04 provides for the preservation of cores and samples and their shipment to the State Geologist when requested. The following is required on the above referenced well:

- 1) All cores, core chips and samples must be submitted to the State Geologist as provided for the NDCC Section 38-08-04 and North Dakota Administrative Code 43-02-03-38.1.
- 2) Samples shall include all cuttings from:

Base of the Last Charles Salt

Samples of cuttings shall be taken at 30' maximum intervals through all vertical, build and horizontal sections. Samples must be washed, dried, packed in sample envelopes in correct order with labels showing operator, well name, location and depth, and forwarded in standard boxes to the State Geologist within 30 days of the completion of drilling operations.

- 3) Cores: ALL CORES cut shall be preserved in correct order, properly boxed, and forwarded to the State Geologist within 90 days of completion of drilling operations. Any extension of time must have written approval from the State Geologist.
- 4) All cores, core chips, and samples must be shipped, prepaid, to the State Geologist at the following address:

**ND Geological Survey Core Library
Campus Road and Cornell
Grand Forks, ND 58202**

- 5) NDCC Section 38-08-16 allows for a civil penalty for any violation of Chapter 38 08 not to exceed \$12,500 for each offense, and each day's violation is a separate offense.

Sincerely

Richard A. Suggs
Geologist



SUNDY NOTICES AND REPORTS ON WELLS - FORM 4

INDUSTRIAL COMMISSION OF NORTH DAKOTA
OIL AND GAS DIVISION
600 EAST BOULEVARD DEPT 405
BISMARCK, ND 58505-0840
SFN 5749 (09-2006)

Well File No. 25158

PLEASE READ INSTRUCTIONS BEFORE FILLING OUT FORM.

PLEASE SUBMIT THE ORIGINAL AND ONE COPY.

<input type="checkbox"/> Notice of Intent	Approximate Start Date
<input type="checkbox"/> Report of Work Done	Date Work Completed
<input type="checkbox"/> Notice of Intent to Begin a Workover Project that may Qualify for a Tax Exemption Pursuant to NDCC Section 57-51.1-03.	Approximate Start Date

Drilling Prognosis Spill Report
 Redrilling or Repair Shooting
 Casing or Liner Acidizing
 Plug Well Fracture Treatment
 Supplemental History Change Production Method
 Temporarily Abandon Reclamation
 Other Open Hole Log Waiver

Well Name and Number
Tallahassee 2-16H

Footages 2547 F N L	Qtr-Qtr 245 F E L	Section SENE	Township 16	Township 153 N	Range 101 W
Field	Pool Bakken	County McKenzie			

24-HOUR PRODUCTION RATE			
Before		After	
Oil	Bbls	Oil	Bbls
Water	Bbls	Water	Bbls
Gas	MCF	Gas	MCF

Name of Contractor(s)

Address

City

State

Zip Code

DETAILS OF WORK

Requested variance to not run openhole logs. GR/CBL/CCL will be run from deepest point obtainable to base of surface casing.

Offset logs used will be the Nance Petroleum, Corps of Engineers 31-10, Sec 10-153N-101W, McKenzie County, ND.

The Gamma Ray Log will be run all the way to surface and all mud logs will be submitted as one digital tiff formatted file and one digital LAS formatted file.

* Approval per log run on #10210 - novak 1-9-2011

Company Continental Resources, Inc.		Telephone Number 580-233-8955
Address P.O. Box 1032		
City Enid		State OK
		Zip Code 73702
Signature 	Printed Name Terry L. Olson	
Title Regulatory Compliance Specialist	Date June 12, 2012	
Email Address Terry.Olson@clr.com		

FOR STATE USE ONLY	
<input type="checkbox"/> Received	<input checked="" type="checkbox"/> Approved
Date	3/11/2013
By	
Title	Richard A. Suggs State Auditor



Oil and Gas Division

Lynn D. Helms - Director

Bruce E. Hicks - Assistant Director

Department of Mineral Resources

Lynn D. Helms - Director

North Dakota Industrial Commission

www.oilgas.nd.gov

March 11, 2013

Terry L. Olson
Regulatory Compliance Specialist
CONTINENTAL RESOURCES, INC.
P.O. Box 1032
Enid, OK 73702

**RE: HORIZONTAL WELL
TALLAHASSEE 2-16H
SENE Section 16-153N-101W
McKenzie County
Well File # 25158**

Dear Terry:

Pursuant to Commission Order No. 21551, approval to drill the above captioned well is hereby given. The approval is granted on the condition that all portions of the well bore not isolated by cement, be no closer than the **200' setback** from the north & south boundaries and **500' setback** from the east & west boundaries within the 2560 acre spacing unit consisting of Sections 4, 9, 16, & 21-T153N-R101W. Tool error is not required per order.

PERMIT STIPULATIONS: The mouse and rat hole must be cemented. A liner must be placed under the location. Due to surficial water adjacent to the well site, a dike is required surrounding the entire location. No Drilling Pit will be allowed. One horizontal well shall be drilled and completed in the standup 1280-acre spacing unit described as Sections 4 and 9, T153N-R101W, McKenzie County, north Dakota, prior to completing any horizontal well in the 2560-acre spacing unit described as Sections 4, 9, 16, and 21-T153N-R101W McKenzie County, North Dakota. Continental must drill the Columbus Federal 2-16H, 3-16H and Tallahassee 2-16H, 3-16H back to back. CONTINENTAL RESOURCES must contact NDIC Field Inspector Richard Dunn at 701-770-3554 prior to location construction.

Drilling pit

NDAC 43-02-03-19.4 states that "a pit may be utilized to bury drill cuttings and solids generated during well drilling and completion operations, providing the pit can be constructed, used and reclaimed in a manner that will prevent pollution of the land surface and freshwaters. Reserve and circulation of mud system through earthen pits are prohibited. All pits shall be inspected by an authorized representative of the director prior to lining and use. Drill cuttings and solids must be stabilized in a manner approved by the director prior to placement in a cuttings pit."

Form 1 Changes & Hard Lines

Any changes, shortening of casing point or lengthening at Total Depth must have prior approval by the NDIC. The proposed directional plan is at a legal location. The minimum legal coordinate from the well head at casing point is: 255' W. Also, based on the azimuth of the proposed lateral the maximum legal coordinate from the well head is: 7785' S and a minimum legal coordinate from the well head of 255' W.

Location Construction Commencement (Three Day Waiting Period)

Operators shall not commence operations on a drill site until the 3rd business day following publication of the approved drilling permit on the NDIC - OGD Daily Activity Report. If circumstances require operations to commence before the 3rd business day following publication on the Daily Activity Report, the waiting period may be waived by the Director. Application for a waiver must be by sworn affidavit providing the information necessary to evaluate the extenuating circumstances, the factors of NDAC 43-02-03-16.2 (1), (a)-(f), and any other information that would allow the Director to conclude that in the event another owner seeks revocation of the drilling permit, the applicant should retain the permit.

Permit Fee & Notification

Payment was received in the amount of \$100 via credit card. It is requested that notification be given immediately upon the spudding of the well. This information should be relayed to the Oil & Gas Division, Bismarck, via telephone. The following information must be included: Well name, legal location, permit number, drilling contractor, company representative, date and time of spudding. Office hours are 8:00 a.m. to 12:00 p.m. and 1:00 p.m. to 5:00 p.m. Central Time. Our telephone number is (701) 328-8020, leave a message if after hours or on the weekend.

Survey Requirements for Horizontal, Horizontal Re-entry, and Directional Wells

NDAC Section 43-02-03-25 (Deviation Tests and Directional Surveys) states in part (that) the survey contractor shall file a certified copy of all surveys with the director free of charge within thirty days of completion. Surveys must be submitted as one electronic copy, or in a form approved by the director. However, the director may require the directional survey to be filed immediately after completion if the survey is needed to conduct the operation of the director's office in a timely manner. Certified surveys must be submitted via email in one adobe document, with a certification cover page to certsurvey@nd.gov.

Survey points shall be of such frequency to accurately determine the entire location of the well bore.

Specifically, the Horizontal and Directional well survey frequency is 100 feet in the vertical, 30 feet in the curve (or when sliding) and 90 feet in the lateral.

Confidential status

Your request for confidential status of all information furnished to the Director, or his representatives, is hereby granted. Such information, except production runs, shall remain confidential for six months commencing on the date the well is spud.

Confidential status notwithstanding, the Director and his representatives shall have access to all well records wherever located. Your company personnel, or any person performing work for your company shall permit the Director and his representatives to come upon any lease, property, well, or drilling rig operated or controlled by them, complying with all safety rules, and to inspect the records and operation of such wells and to have access at all times to any and all records of wells. The Commission's field personnel periodically inspect producing and drilling wells. Any information regarding such wells shall be made available to them at any time upon request. The information so obtained by the field personnel shall be maintained in strict confidence and shall be available only to the Commission and its staff.

Surface casing cement

Tail cement utilized on surface casing must have a minimum compressive strength of 500 psi within 12 hours, and tail cement utilized on production casing must have a minimum compressive strength of 500 psi before drilling the plug or initiating tests.

Logs

NDAC Section 43-02-03-31 requires the running of (1) a suite of open hole logs from which formation tops and porosity zones can be determined, (2) a Gamma Ray Log run from total depth to ground level elevation of the well bore, and (3) a log from which the presence and quality of cement can be determined (Standard CBL or Ultrasonic cement evaluation log) in every well in which production or intermediate casing has been set, this log must be run prior to completing the well. All logs run must be submitted free of charge, as one digital TIFF (tagged image file format) copy and one digital LAS (log ASCII) formatted copy. Digital logs may be submitted on a standard CD, DVD, or attached to an email sent to digitallogs@nd.gov. Thank you for your cooperation.

Sincerely,

David Tabor
Engineering Technician IV



APPLICATION FOR PERMIT TO DRILL HORIZONTAL WELL - FORM 1H

INDUSTRIAL COMMISSION OF NORTH DAKOTA
OIL AND GAS DIVISION
600 EAST BOULEVARD DEPT 405
BISMARCK, ND 58505-0840
SFN 54269 (08-2005)

PLEASE READ INSTRUCTIONS BEFORE FILLING OUT FORM.

PLEASE SUBMIT THE ORIGINAL AND ONE COPY.

Type of Work New Location	Type of Well Oil & Gas	Approximate Date Work Will Start 6 / 16 / 2012	Confidential Status Yes
Operator CONTINENTAL RESOURCES, INC.		Telephone Number 580-233-8955	
Address P.O. Box 1032		City Enid	State OK Zip Code 73702

Notice has been provided to the owner of any permanently occupied dwelling within 1,320 feet.

This well is not located within five hundred feet of an occupied dwelling.

WELL INFORMATION (If more than one lateral proposed, enter data for additional laterals on page 2)

Well Name TALLAHASSEE			Well Number 2-16H			
Surface Footages 2547 F N L 245 F E L		Qtr-Qtr SENE	Section 16	Township 153 N	Range 101 W	County McKenzie
Longstring Casing Point Footages 2015 F S L 506 F E L		Qtr-Qtr NESE	Section 16	Township 153 N	Range 101 W	County McKenzie
Longstring Casing Point Coordinates From Well Head 699 S From WH 261 W From WH		Azimuth 200 °	Longstring Total Depth 11100 Feet MD 10542 Feet TVD			
Bottom Hole Footages From Nearest Section Line 200 F S L 660 F E L		Qtr-Qtr SESE	Section 21	Township 153 N	Range 101 W	County McKenzie
Bottom Hole Coordinates From Well Head 7785 S From WH 415 W From WH		KOP Lateral 1 10102 Feet MD	Azimuth Lateral 1 180 °	Estimated Total Depth Lateral 1 18206 Feet MD 10518 Feet TVD		
Latitude of Well Head 48 ° 04 ' 30.88 "	Longitude of Well Head -103 ° 40 ' 11.68 "	NAD Reference NAD83		Description of Spacing Unit: Sec 4, 9, 16, & 21 153 101 (Subject to NDIC Approval)		
Ground Elevation 1922 Feet Above S.L.	Acres in Spacing/Drilling Unit 2560	Spacing/Drilling Unit Setback Requirement 200 Feet N/S 500 Feet E/W			Industrial Commission Order 21551	
North Line of Spacing/Drilling Unit 5279 Feet	South Line of Spacing/Drilling Unit 5300 Feet	East Line of Spacing/Drilling Unit 20987 Feet			West Line of Spacing/Drilling Unit 20969 Feet	
Objective Horizons Middle Bakken						Pierre Shale Top 1841
Proposed Surface Casing	Size 9 - 5/8 "	Weight 36 Lb./Ft.	Depth 1940 Feet	Cement Volume 732 Sacks	NOTE: Surface hole must be drilled with fresh water and surface casing must be cemented back to surface.	
Proposed Longstring Casing	Size 7 - "	Weight(s) 26-32 Lb./Ft.	Longstring Total Depth 11100 Feet MD 10542 Feet TVD		Cement Volume 890 Sacks	Cement Top 0 Feet
Base Last Charles Salt (If Applicable) 9031 Feet	NOTE: Intermediate or longstring casing string must be cemented above the top Dakota Group Sand.					
Proposed Logs CBL/GR from deepest depth obtainable to ground surface/mud						
Drilling Mud Type (Vertical Hole - Below Surface Casing) Invert			Drilling Mud Type (Lateral) Brine			
Survey Type in Vertical Portion of Well MWD Every 100 Feet		Survey Frequency: Build Section 30 Feet		Survey Frequency: Lateral 90 Feet		Survey Contractor LEAM Drilling Services

NOTE: A Gamma Ray log must be run to ground surface and a CBL must be run on intermediate or longstring casing string if set.

Surveys are required at least every 30 feet in the build section and every 90 feet in the lateral section of a horizontal well. Measurement inaccuracies are not considered when determining compliance with the spacing/drilling unit boundary setback requirement except in the following scenarios: 1) When the angle between the well bore and the respective boundary is 10 degrees or less; or 2) If Industry standard methods and equipment are not utilized. Consult the applicable field order for exceptions.

If measurement inaccuracies are required to be considered, a 2° MWD measurement inaccuracy will be applied to the horizontal portion of the well bore. This measurement inaccuracy is applied to the well bore from KOP to TD.

REQUIRED ATTACHMENTS: Certified surveyor's plat, horizontal section plat, estimated geological tops, proposed mud/cementing plan, directional plot/plan, \$100 fee.

See Page 2 for Comments section and signature block.

COMMENTS, ADDITIONAL INFORMATION, AND/OR LIST OF ATTACHMENTS

Lateral 2

KOP Lateral 2 Feet MD	Azimuth Lateral 2 °	Estimated Total Depth Lateral 2 Feet MD Feet TVD			KOP Coordinates From Well Head From WH From WH		
Formation Entry Point Coordinates From Well Head From WH		Bottom Hole Coordinates From Well Head From WH			From WH		
KOP Footages From Nearest Section Line F L		Qtr-Qtr	Section	Township N	Range W	County	
Bottom Hole Footages From Nearest Section Line F L		Qtr-Qtr	Section	Township N	Range W	County	

Lateral 3

KOP Lateral 3 Feet MD	Azimuth Lateral 3 °	Estimated Total Depth Lateral 3 Feet MD Feet TVD			KOP Coordinates From Well Head From WH From WH		
Formation Entry Point Coordinates From Well Head From WH		Bottom Hole Coordinates From Well Head From WH			From WH		
KOP Footages From Nearest Section Line F L		Qtr-Qtr	Section	Township N	Range W	County	
Bottom Hole Footages From Nearest Section Line F L		Qtr-Qtr	Section	Township N	Range W	County	

Lateral 4

KOP Lateral 4 Feet MD	Azimuth Lateral 4 °	Estimated Total Depth Lateral 4 Feet MD Feet TVD			KOP Coordinates From Well Head From WH From WH		
Formation Entry Point Coordinates From Well Head From WH		Bottom Hole Coordinates From Well Head From WH			From WH		
KOP Footages From Nearest Section Line F L		Qtr-Qtr	Section	Township N	Range W	County	
Bottom Hole Footages From Nearest Section Line F L		Qtr-Qtr	Section	Township N	Range W	County	

Lateral 5

KOP Lateral 5 Feet MD	Azimuth Lateral 5 °	Estimated Total Depth Lateral 5 Feet MD Feet TVD			KOP Coordinates From Well Head From WH From WH		
Formation Entry Point Coordinates From Well Head From WH		Bottom Hole Coordinates From Well Head From WH			From WH		
KOP Footages From Nearest Section Line F L		Qtr-Qtr	Section	Township N	Range W	County	
Bottom Hole Footages From Nearest Section Line F L		Qtr-Qtr	Section	Township N	Range W	County	

I hereby swear or affirm the information provided is true, complete and correct as determined from all available records.

Date

6 / 12 / 2012

ePermit

Printed Name
Terry L. Olson

Title

Regulatory Compliance Specialist**FOR STATE USE ONLY**

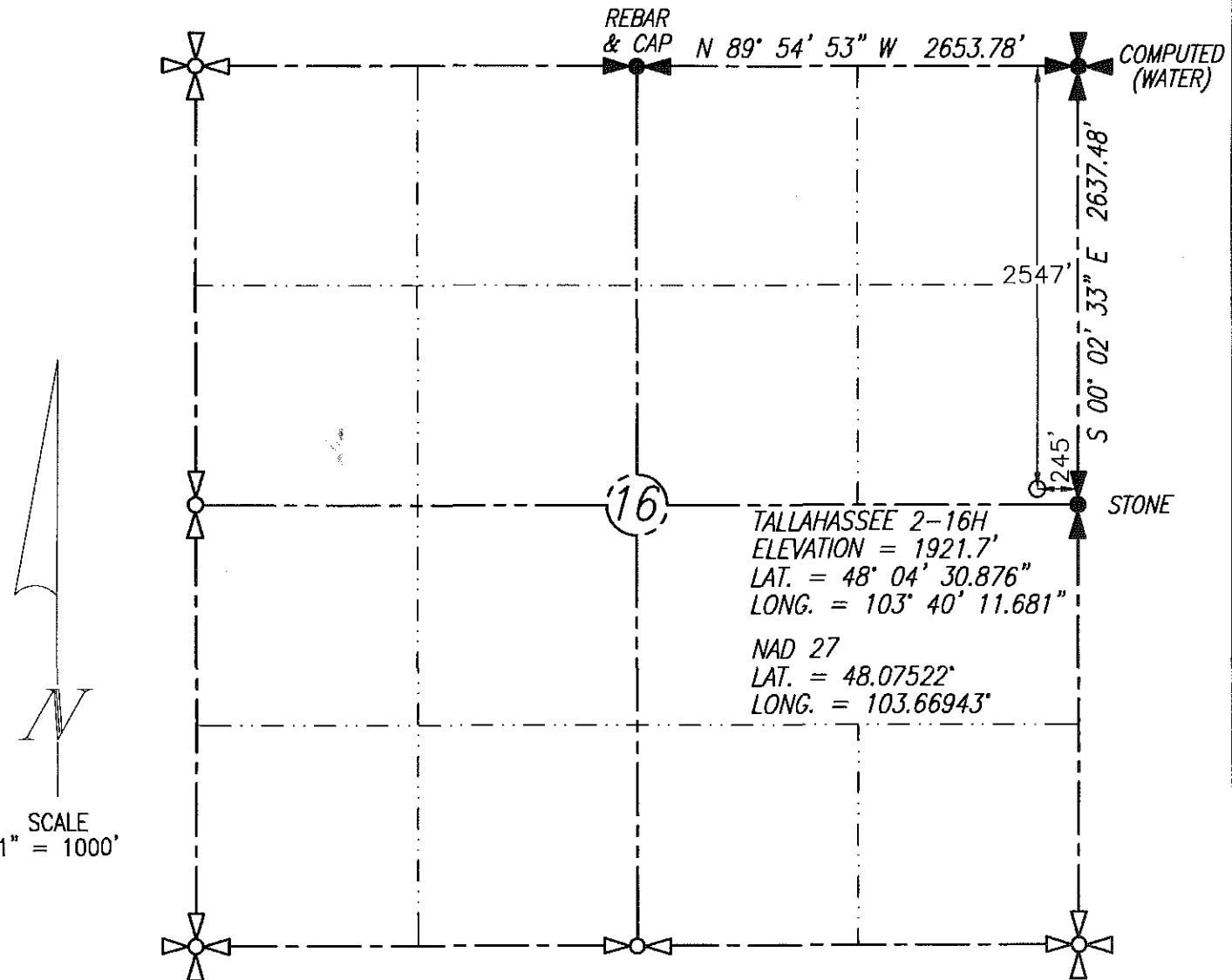
Permit and File Number 25158	API Number 33 - 053 - 04854
Field BAKER	
Pool BAKKEN	Permit Type DEVELOPMENT

FOR STATE USE ONLY

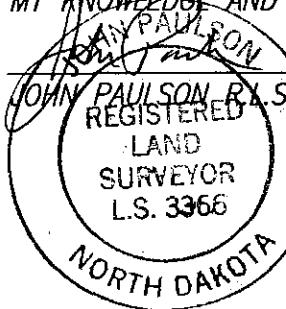
Date Approved 3 / 11 / 2013
By David Tabor
Title Engineering Technician IV

WELL LOCATION PLAT
CONTINENTAL RESOURCES INC.
TALLAHASSEE 2-16H
SECTION 16, T153N, R101W
MCKENZIE COUNTY, NORTH DAKOTA
2547' FNL & 245' FEL

REVISED: 4-16-2012



I CERTIFY THAT THIS PLAT CORRECTLY REPRESENTS
WORK PERFORMED BY ME OR UNDER MY RESPONSIBLE
CHARGE, AND IS TRUE AND CORRECT TO THE BEST OF
MY KNOWLEDGE AND BELIEF



4-16-12

DATE STAKED:

1-4-2012

BASIS OF VERTICAL DATUM:

NAVD 1988 GEOD 09

PERSON AUTHORIZING SURVEY;
CHAD NEWBY

EXPLANATION AREA: NAD83(CORS96)

BASIS OF BEARING: TRUE NORTH

BROSZ ENGINEERING INC.

BOX 357
BOWMAN, N.D. 58623
PHONE: 701-523-3340
FAX: 701-523-5243

PROJECT NO. 12-10

GEOLOGIC PROGNOSIS

Well Name: Tallahassee 2-16H **SHL:** 2547' FNL & 245' FEL
Rig: Cyclone 20 Sec. 16 - 153N - 101W
Prospect: Williston McKenzie, ND
Target: Middle Bakken
Spacing: 1280 **BHL:** 200' FSL & 660' FEL
Sec. 21 - 153N - 101W
McKenzie, ND

- Pre-Staked
 Staked

Rig Grade Elevation: 1920'
KB: 21'
RKB: 1941'

FORMATION	SUBSEA	TVD
Pierre Shale	100	1,841
Greenhorn	-2,484	4,425
Dakota Group (fka Mowry)	-2,885	4,826
Base of Dakota Sand	-3,764	5,705
Dunham Salt Top	-4,792	6,733
Dunham Salt Base	-4,852	6,793
Pine Salt Top	-5,162	7,103
Pine Salt Base	-5,218	7,159
Minnekahta	-5,244	7,185
Opeche Salt Top	NA	
Opeche Salt Base	NA	
Minnelusa Group	-5,530	7,471
Tyler	-5,686	7,627
Kibbey	-6,238	8,179
Top Charles	-6,392	8,333
Base Last Charles Salt	-7,090	9,031
Mission Canyon	-7,314	9,255
Lodgepole	-7,880	9,821
Upper Bakken Shale	-8,570	10,511
Middle Bakken Member	-8,587	10,528
Middle Bakken Target	-8,602	10,543
End of Lateral	-8,577	10,518
		20' into MB
		25' Higher

==>

DRILLING PROGRAM

06/08/12

Lease and Well No.

Tallahassee 2-16H

MUD PROGRAM

Depth	Type	Weight	Remarks
0 ' - 1940 '	Fresh water	8.4-8.8	Add Soap Sticks for Mud Rings
1940 ' - 6500 '	Invert	9.3-9.5	35-50 sec, 10-30 cc's
6500 ' - 11100 '	Invert	9.6-10.0	40-55 sec, 10-15 cc's O/W 70/30 to 80/20
11100 ' - 18224 '	Brine	8.7-10.0	Cuttings pit

TUBULAR PROGRAM

String Type	Hole Size	Depth	Feet	Casing Diameter	Weight, Grade, Connection	ERW/ Seamless	Critical Inspection
Surf	13 1/2 "	1940 '	1940 '	9 5/8 "	9-5/8", 36 #, J-55, STC	ERW	BCI & Drift
Float shoe, shoe joint & float collar. Centralize bottom 3 jts and every 4th jt to surface.							
Int	8 3/4 "	80 '	80 '	7 "	7", 32#, P-110 IC, LTC	ERW	BCI & Drift
		4000 '	3920 '	7 "	7", 26#, P-110 IC, LTC	ERW	BCI & Drift
		8130 '	4130 '	7 "	7", 29#, P-110 IC, LTC	ERW	BCI & Drift
		9230 '	1100 '	7 "	7", 32#, P-110 IC, LTC	ERW	BCI & Drift
		11100 '	1870 '	7 "	7", 29#, P-110 IC, LTC	ERW	BCI & Drift
Float shoe, shoe joint & float collar. Centralize bottom 3 joints. Centralize thru curve and across all salts.							
Liner	6 "	18224 '	8123 '	4 1/2 "	4-1/2", 11.6 #, P-110, BTC		
Tubing		10100 '	10100 '	2 7/8 "	2-7/8", 6.5 #, L-80, EUE		

Notes: Pipe to end up in hole from top to bottom as shown.

CEMENT PROGRAM

String Type	SHOE/DV Depth	Stage Lead/Tail	Cement Bottom	Cement Top	No Sacks	Cement System	Cement Yield	Cement Weight
		Lead	1360 '	0 '	431	35/65 Poz/Class "C", 3% CaCl, 12% gel	2.39	12
Surf	1940	Tail	1940 '	1360 '	301	Class "C", 2% CaCl	1.46	14.3
(Basis: Gauge hole + 55% excess, tail 30% of length, lead to surface.)								
Int	11100	Lead	7830 '	0 '	473	35/65 Poz/Class "C", 3% KCl, 5 #/sk Silica	3.21	11.3
		Tail	11100 '	7830 '	417	Class "G", 3% KCl, 35% Silica	1.59	15.6
(Basis: Gauge hole + 35% excess, Tail to 500 ft above top of Charles Salt, Lead to Surface)								

BOP PROGRAM

Hole Size	Configuration	Pressure Rating	BOP Test Press	Casing Test Press
13 1/2 "	Circulate Conductor			
8 3/4 "	RRA	5M	5000	
6 "	RRA	5M	5000	
Utilize commercial testers every 30 days.				

LOGGING PROGRAM

FROM	TO	TOOLS
BLS	TD	2 man mud logger trailer, 30 ft samples
Surf csg	TD	MWD Surveys, 90 ft & 30 ft thru curve
KOP	TD	MWD Gamma Ray
Surface	DDO	CBL, CCL, Gr

Remarks: 4 1/2 inch Liner to be run. Liner Top @ KOP (10101 ft TVD) and 29 swell packers to be run with liner.

Liner top to be tested successfully to 4500 psi prior to rigging down.

Casing caliper to be run to determine if a frac string is needed.

Note: The 7" casing shoe to be greater than 500' from the East section line of Sec. 16.

Prepared By:

Pat McCollom

Date:

04/17/12



To: Todd Holweger, NDIC
From: Shawn Svob
Date: 4/5/2012
Re: Continental Resources standard CCL, CBL, 4-1/2" liner running and testing procedures

Continental Resources' standard practice for running the cement bond log and casing caliper log is to run both logs immediately after coming out of the hole after TD, prior to running the 4-1/2" liner, to the deepest depth obtainable; however, if there are well control concerns that require us to run the liner sooner, only the CBL will be run and the CCL will be run after setting the liner.

Based on the CCL results, we determine the actual API minimum burst allowance for the 7" casing. If the downgraded API burst pressure is below our minimum required frac pressures, we will run a 4-1/2" frac string; if severe wear or holes are found in the casing, we will run a 5" cemented, to surface, tie back string.

The CBL log is run in order to determine the top of cement, as required by the NDIC. Our current 4-1/2" liner program for a 1280 unit is 30, evenly spaced, stages with 29 swellable packers. The liner shoe is set approximately 180 feet off bottom. The shoe stage below the last packer has 2 joints, a double valved float, one joint, and a ported guide shoe – appx 130 ft. The liner is run using a running tool on the end of 4" DP. The 7" packer/hanger is set about 40 ft above KOP between two casing collars but conditions occasionally occur that require setting higher, either through unexpected failure or in order to isolate casing wear close to KOP. Recently we have tried 40 stage liners and the trend to explore the optimum stage count will continue.. Once the liner is at depth, a ball is dropped through the DP, the ball is pressured up against the setting tool to approximately 2500 psi, and the 7" packer/hanger is set.

A push pull test is done to confirm the hanger has set. Then, a 4500 psi pressure test is completed on the back side of the 4" DP to confirm the packer has set. The setting tool is then backed off and the 4" DP/running tool is laid down.

Immediately after the rotary rig has been moved off the well location, the 7" csg and liner packer/ hanger are tested to the frac pressure. The testers will rig up and test the tubing head to 5000 psi. Next a test plug will be run and set, using wire line, in the top of the 7" packer/hanger. Testers will pressure up to our frac pressure, typically 8500 psi, to confirm the 7" is ready for completion.

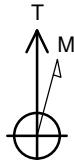
Shawn Svob
Drilling Operations Coordinator

Continental Resources

Field: McKenzie County, ND
 Site: Tallahassee 2
 Well: 2-16H
 Wellpath: OH
 Plan: Plan #1a

SITE DETAILS

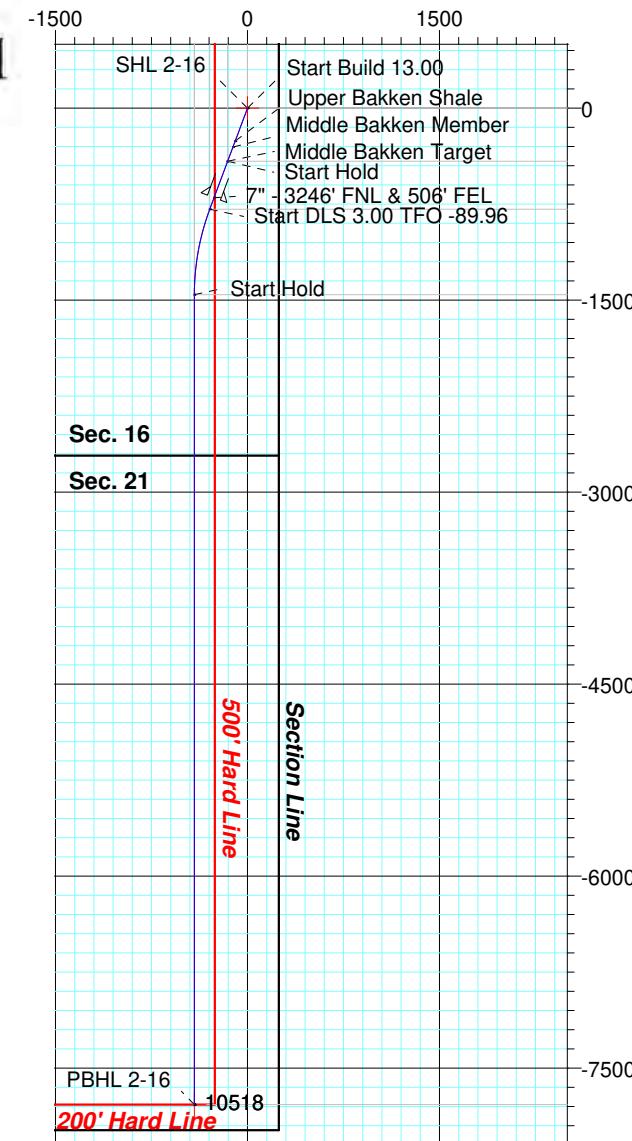
Tallahassee 2
 Sec. 16 - T153N - R101W
 SHL 2547' FNL & 245' FEL
 PBHL 200' FSL & 660' FEL of Sec. 21
 Latitude: 48°04'30.876N
 Longitude: 103°40'11.681W
 Ground Level: 1920.00
 KB: 21.00



Azimuths to True North
 Magnetic North: 8.52°
 Magnetic Field Strength: 56588nT
 Dip Angle: 73.05°
 Date: 2/13/2013
 Model: IGRF2010



West(-)/East(+) [1500ft/in]



TARGET DETAILS

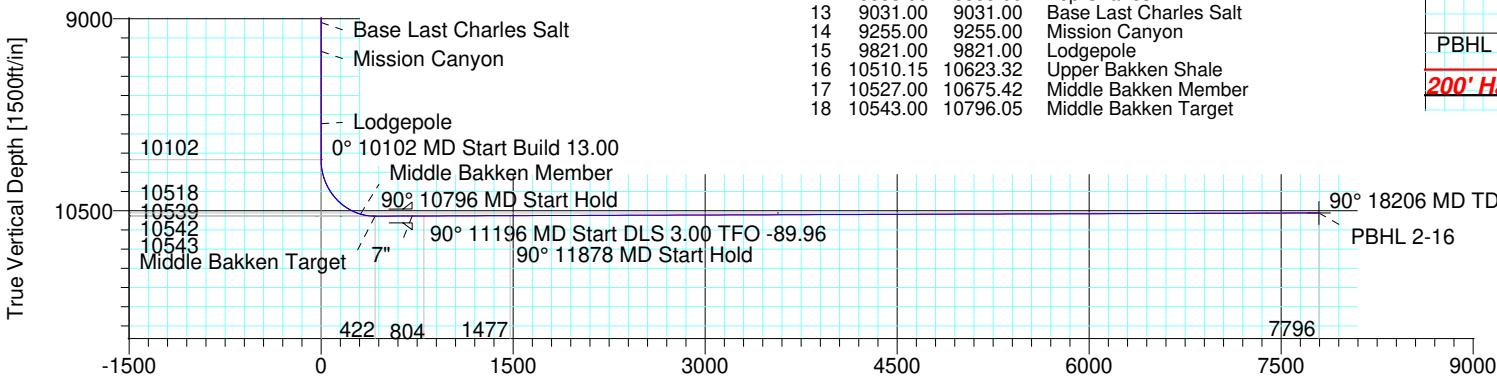
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SHL 2-16	0.00	0.00	0.00	408162.08	1193800.18	48°04'30.876N	103°40'11.681W	Point
PBHL 2-16	10518.00	-7785.00	-415.00	400400.75	1193065.12	48°03'14.046N	103°40'17.790W	Point

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		-0.00
2	10102.27	0.00	0.00	10102.27	0.00	0.00	0.00	0.00		-0.00
3	10796.05	90.19	200.46	10543.00	-414.30	-154.61	13.00	200.46		421.94
4	11196.05	90.19	200.46	10541.67	-789.05	-294.46	0.00	0.00		803.60
5	11878.21	90.19	180.00	10539.36	-1456.80	-415.00	3.00	-89.96		1476.81
6	18206.45	90.19	180.00	10518.00	-7785.00	-415.00	0.00	0.00		7796.05
										PBHL 2-16

FORMATION TOP DETAILS

No.	TVDPat	MDPat	Formation
1	1841.00	1841.00	Pierre Shale
2	4425.00	4425.00	Greenhorn
3	4826.00	4826.00	Dakota Group
4	5705.00	5705.00	Base of Dakota Sand
5	6733.00	6733.00	Dunham Salt Top
6	6793.00	6793.00	Dunham Salt Base
7	7103.00	7103.00	Pine Salt Top
8	7159.00	7159.00	Pine Salt Base
9	7185.00	7185.00	Minnekahta
10	7471.00	7471.00	Minnelusa Group
11	8179.00	8179.00	Kibbey
12	8333.00	8333.00	Top Charles
13	9031.00	9031.00	Base Last Charles Salt
14	9255.00	9255.00	Mission Canyon
15	9821.00	9821.00	Lodgepole
16	10510.15	10623.32	Upper Bakken Shale
17	10527.00	10675.42	Middle Bakken Member
18	10543.00	10796.05	Middle Bakken Target



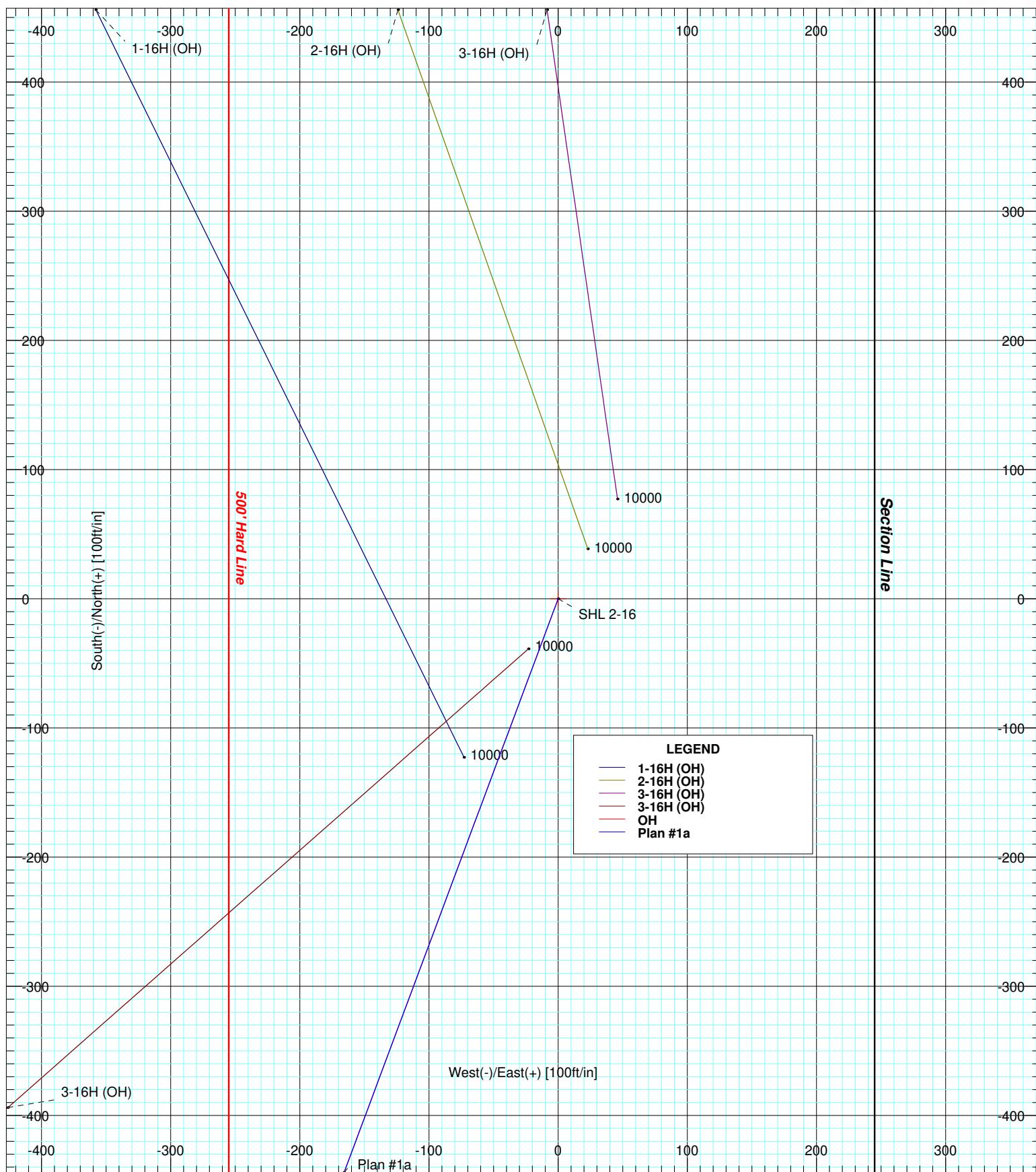
Continental Resources

Field: McKenzie County, ND
Site: Tallahassee 2
Well: 2-16H
Wellpath: OH
Plan: Plan #1a



Azimuths to True North Magnetic North: 8.52°

**Magnetic Field
Strength: 56588nT
Dip Angle: 73.05°
Date: 2/13/2013
Model: IGRF2010**



LEAM DRILLING SYSTEMS LLC
2010 East Davis Conroe, Texas 77301
Phone: 936-756-7577 Fax: 936-756-7595

Plan: Plan #1a (2-16 OH)
Created By: Heber Claros Date: 2/13/2013
Checked: _____ Date: _____
Reviewed: _____ Date: _____
Approved: _____ Date: _____

LEAM Drilling Systems LLC

Planning Report

Company: Continental Resources
Field: McKenzie County, ND
Site: Tallahassee 2
Well: 2-16H
Wellpath: OH

Date: 2/13/2013 **Time:** 17:57:45 **Page:** 1
Co-ordinate(NE) Reference: Well: 2-16H, True North
Vertical (TVD) Reference: GL 1920+KB 21 1941.0
Section (VS) Reference: Well (0.00N,0.00E,183.05Azi)
Survey Calculation Method: Minimum Curvature **Db:** Adapti

Field: McKenzie County, ND

Map System: US State Plane Coordinate System 1983
Geo Datum: GRS 1980
Sys Datum: Mean Sea Level

Map Zone: North Dakota, Northern Zone
Coordinate System: Well Centre
Geomagnetic Model: IGRF2010

Site: Tallahassee 2
Sec. 16 - T153N - R101W
2547' FNL & 245' FEL

Site Position:	Northing: 408162.08 ft	Latitude: 48 4 30.876 N
From: Geographic	Easting: 1193800.18 ft	Longitude: 103 40 11.681 W
Position Uncertainty:	0.00 ft	North Reference: True
Ground Level:	1920.00 ft	Grid Convergence: -2.36 deg

Well: 2-16H

Slot Name:

Well Position:	+N/S 0.00 ft	Northing: 408162.08 ft	Latitude: 48 4 30.876 N
	+E/W 0.00 ft	Easting : 1193800.18 ft	Longitude: 103 40 11.681 W
Position Uncertainty:	0.00 ft		

Wellpath: OH

Current Datum: GL 1920+KB 21	Height 1941.00 ft	Drilled From: Surface
Magnetic Data: 2/13/2013		Tie-on Depth: 0.00 ft
Field Strength: 56588 nT		Above System Datum: Mean Sea Level
Vertical Section: Depth From (TVD)	+N/S ft	Declination: 8.52 deg
ft		Mag Dip Angle: 73.05 deg
10518.00	0.00	+E/W ft
		Direction deg
		183.05

Plan: Plan #1a

Date Composed: 2/13/2013

Principal: Yes

Version: 1

Tied-to: User Defined

Plan Section Information

MD ft	Incl deg	Azim deg	TVD ft	+N/S ft	+E/W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
10102.27	0.00	0.00	10102.27	0.00	0.00	0.00	0.00	0.00	0.00	
10796.05	90.19	200.46	10543.00	-414.30	-154.61	13.00	13.00	0.00	200.46	
11196.05	90.19	200.46	10541.67	-789.05	-294.46	0.00	0.00	0.00	0.00	
11878.21	90.19	180.00	10539.36	-1456.80	-415.00	3.00	0.00	-3.00	-89.96	
18206.45	90.19	180.00	10518.00	-7785.00	-415.00	0.00	0.00	0.00	0.00	PBHL 2-16

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
10102.27	0.00	0.00	10102.27	0.00	0.00	-0.00	0.00	0.00	0.00	
10125.00	2.95	200.46	10124.99	-0.55	-0.20	0.56	13.00	13.00	0.00	
10150.00	6.20	200.46	10149.91	-2.42	-0.90	2.46	13.00	13.00	0.00	
10175.00	9.45	200.46	10174.67	-5.61	-2.09	5.71	13.00	13.00	0.00	
10200.00	12.70	200.46	10199.20	-10.11	-3.77	10.30	13.00	13.00	0.00	
10225.00	15.95	200.46	10223.42	-15.91	-5.94	16.20	13.00	13.00	0.00	
10250.00	19.20	200.46	10247.25	-22.98	-8.58	23.40	13.00	13.00	0.00	
10275.00	22.45	200.46	10270.61	-31.31	-11.68	31.88	13.00	13.00	0.00	
10300.00	25.70	200.46	10293.43	-40.86	-15.25	41.62	13.00	13.00	0.00	
10325.00	28.95	200.46	10315.64	-51.61	-19.26	52.57	13.00	13.00	0.00	
10350.00	32.20	200.46	10337.16	-63.53	-23.71	64.70	13.00	13.00	0.00	
10375.00	35.45	200.46	10357.92	-76.57	-28.57	77.98	13.00	13.00	0.00	
10400.00	38.70	200.46	10377.87	-90.69	-33.84	92.36	13.00	13.00	0.00	
10425.00	41.95	200.46	10396.92	-105.84	-39.50	107.80	13.00	13.00	0.00	
10450.00	45.20	200.46	10415.03	-121.99	-45.52	124.24	13.00	13.00	0.00	

LEAM Drilling Systems LLC

Planning Report

Company: Continental Resources
Field: McKenzie County, ND
Site: Tallahassee 2
Well: 2-16H
Wellpath: OH

Date: 2/13/2013 **Time:** 17:57:45 **Page:** 2
Co-ordinate(NE) Reference: Well: 2-16H, True North
Vertical (TVD) Reference: GL 1920+KB 21 1941.0
Section (VS) Reference: Well (0.00N,0.00E,183.05Azi)
Survey Calculation Method: Minimum Curvature **Db:** Adapti

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
10475.00	48.45	200.46	10432.13	-139.07	-51.90	141.63	13.00	13.00	0.00	
10500.00	51.70	200.46	10448.17	-157.03	-58.60	159.92	13.00	13.00	0.00	
10525.00	54.95	200.46	10463.10	-175.81	-65.61	179.05	13.00	13.00	0.00	
10550.00	58.20	200.46	10476.87	-195.36	-72.91	198.96	13.00	13.00	0.00	
10575.00	61.45	200.46	10489.43	-215.61	-80.46	219.58	13.00	13.00	0.00	
10600.00	64.70	200.46	10500.75	-236.49	-88.25	240.85	13.00	13.00	0.00	
10623.32	67.74	200.46	10510.15	-256.48	-95.71	261.21	13.00	13.00	0.00	Upper Bakken Sh
10625.00	67.95	200.46	10510.78	-257.94	-96.26	262.69	13.00	13.00	0.00	
10650.00	71.20	200.46	10519.51	-279.88	-104.45	285.04	13.00	13.00	0.00	
10675.00	74.45	200.46	10526.88	-302.26	-112.80	307.83	13.00	13.00	0.00	
10675.42	74.51	200.46	10527.00	-302.64	-112.94	308.22	13.00	13.00	0.00	Middle Bakken M
10700.00	77.70	200.46	10532.90	-324.99	-121.28	330.98	13.00	13.00	0.00	
10725.00	80.95	200.46	10537.53	-348.00	-129.87	354.42	13.00	13.00	0.00	
10750.00	84.20	200.46	10540.75	-371.23	-138.54	378.07	13.00	13.00	0.00	
10775.00	87.45	200.46	10542.57	-394.58	-147.25	401.86	13.00	13.00	0.00	
10796.05	90.19	200.46	10543.00	-414.30	-154.61	421.94	13.00	13.00	0.00	Middle Bakken T
10800.00	90.19	200.46	10542.99	-418.00	-155.99	425.71	0.00	0.00	0.00	
10900.00	90.19	200.46	10542.66	-511.69	-190.96	521.12	0.00	0.00	0.00	
11000.00	90.19	200.46	10542.32	-605.38	-225.92	616.54	0.00	0.00	0.00	
11100.00	90.19	200.46	10541.99	-699.06	-260.88	711.96	0.00	0.00	0.00	7"
11196.05	90.19	200.46	10541.67	-789.05	-294.46	803.60	0.00	0.00	0.00	
11200.00	90.19	200.35	10541.66	-792.75	-295.84	807.37	3.00	0.00	-3.00	
11300.00	90.19	197.35	10541.32	-887.38	-328.14	903.58	3.00	0.00	-3.00	
11400.00	90.19	194.35	10540.98	-983.57	-355.44	1001.09	3.00	0.00	-3.00	
11500.00	90.20	191.35	10540.64	-1081.05	-377.68	1099.62	3.00	0.00	-3.00	
11600.00	90.20	188.35	10540.30	-1179.57	-394.77	1198.90	3.00	0.00	-3.00	
11700.00	90.20	185.35	10539.96	-1278.84	-406.69	1298.67	3.00	0.00	-3.00	
11800.00	90.19	182.35	10539.62	-1378.61	-413.40	1398.65	3.00	0.00	-3.00	
11878.21	90.19	180.00	10539.36	-1456.80	-415.00	1476.81	3.00	0.00	-3.00	
11900.00	90.19	180.00	10539.28	-1478.59	-415.00	1498.57	0.00	0.00	0.00	
12000.00	90.19	180.00	10538.95	-1578.58	-415.00	1598.43	0.00	0.00	0.00	
12100.00	90.19	180.00	10538.61	-1678.58	-415.00	1698.29	0.00	0.00	0.00	
12200.00	90.19	180.00	10538.27	-1778.58	-415.00	1798.15	0.00	0.00	0.00	
12300.00	90.19	180.00	10537.93	-1878.58	-415.00	1898.00	0.00	0.00	0.00	
12400.00	90.19	180.00	10537.60	-1978.58	-415.00	1997.86	0.00	0.00	0.00	
12500.00	90.19	180.00	10537.26	-2078.58	-415.00	2097.72	0.00	0.00	0.00	
12600.00	90.19	180.00	10536.92	-2178.58	-415.00	2197.58	0.00	0.00	0.00	
12700.00	90.19	180.00	10536.58	-2278.58	-415.00	2297.43	0.00	0.00	0.00	
12800.00	90.19	180.00	10536.25	-2378.58	-415.00	2397.29	0.00	0.00	0.00	
12900.00	90.19	180.00	10535.91	-2478.58	-415.00	2497.15	0.00	0.00	0.00	
13000.00	90.19	180.00	10535.57	-2578.58	-415.00	2597.01	0.00	0.00	0.00	
13100.00	90.19	180.00	10535.23	-2678.58	-415.00	2696.87	0.00	0.00	0.00	
13200.00	90.19	180.00	10534.90	-2778.58	-415.00	2796.72	0.00	0.00	0.00	
13300.00	90.19	180.00	10534.56	-2878.58	-415.00	2896.58	0.00	0.00	0.00	
13400.00	90.19	180.00	10534.22	-2978.58	-415.00	2996.44	0.00	0.00	0.00	
13500.00	90.19	180.00	10533.88	-3078.58	-415.00	3096.30	0.00	0.00	0.00	
13600.00	90.19	180.00	10533.55	-3178.58	-415.00	3196.15	0.00	0.00	0.00	
13700.00	90.19	180.00	10533.21	-3278.58	-415.00	3296.01	0.00	0.00	0.00	
13800.00	90.19	180.00	10532.87	-3378.57	-415.00	3395.87	0.00	0.00	0.00	
13900.00	90.19	180.00	10532.53	-3478.57	-415.00	3495.73	0.00	0.00	0.00	
14000.00	90.19	180.00	10532.20	-3578.57	-415.00	3595.59	0.00	0.00	0.00	
14100.00	90.19	180.00	10531.86	-3678.57	-415.00	3695.44	0.00	0.00	0.00	
14200.00	90.19	180.00	10531.52	-3778.57	-415.00	3795.30	0.00	0.00	0.00	

LEAM Drilling Systems LLC

Planning Report

Company: Continental Resources
Field: McKenzie County, ND
Site: Tallahassee 2
Well: 2-16H
Wellpath: OH

Date: 2/13/2013 **Time:** 17:57:45 **Page:** 3
Co-ordinate(NE) Reference: Well: 2-16H, True North
Vertical (TVD) Reference: GL 1920+KB 21 1941.0
Section (VS) Reference: Well (0.00N,0.00E,183.05Azi)
Survey Calculation Method: Minimum Curvature **Db:** Adapti

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
14300.00	90.19	180.00	10531.18	-3878.57	-415.00	3895.16	0.00	0.00	0.00	
14400.00	90.19	180.00	10530.85	-3978.57	-415.00	3995.02	0.00	0.00	0.00	
14500.00	90.19	180.00	10530.51	-4078.57	-415.00	4094.87	0.00	0.00	0.00	
14600.00	90.19	180.00	10530.17	-4178.57	-415.00	4194.73	0.00	0.00	0.00	
14700.00	90.19	180.00	10529.83	-4278.57	-415.00	4294.59	0.00	0.00	0.00	
14800.00	90.19	180.00	10529.50	-4378.57	-415.00	4394.45	0.00	0.00	0.00	
14900.00	90.19	180.00	10529.16	-4478.57	-415.00	4494.31	0.00	0.00	0.00	
15000.00	90.19	180.00	10528.82	-4578.57	-415.00	4594.16	0.00	0.00	0.00	
15100.00	90.19	180.00	10528.48	-4678.57	-415.00	4694.02	0.00	0.00	0.00	
15200.00	90.19	180.00	10528.15	-4778.57	-415.00	4793.88	0.00	0.00	0.00	
15300.00	90.19	180.00	10527.81	-4878.57	-415.00	4893.74	0.00	0.00	0.00	
15400.00	90.19	180.00	10527.47	-4978.57	-415.00	4993.59	0.00	0.00	0.00	
15500.00	90.19	180.00	10527.13	-5078.56	-415.00	5093.45	0.00	0.00	0.00	
15600.00	90.19	180.00	10526.80	-5178.56	-415.00	5193.31	0.00	0.00	0.00	
15700.00	90.19	180.00	10526.46	-5278.56	-415.00	5293.17	0.00	0.00	0.00	
15800.00	90.19	180.00	10526.12	-5378.56	-415.00	5393.03	0.00	0.00	0.00	
15900.00	90.19	180.00	10525.78	-5478.56	-415.00	5492.88	0.00	0.00	0.00	
16000.00	90.19	180.00	10525.45	-5578.56	-415.00	5592.74	0.00	0.00	0.00	
16100.00	90.19	180.00	10525.11	-5678.56	-415.00	5692.60	0.00	0.00	0.00	
16200.00	90.19	180.00	10524.77	-5778.56	-415.00	5792.46	0.00	0.00	0.00	
16300.00	90.19	180.00	10524.43	-5878.56	-415.00	5892.31	0.00	0.00	0.00	
16400.00	90.19	180.00	10524.10	-5978.56	-415.00	5992.17	0.00	0.00	0.00	
16500.00	90.19	180.00	10523.76	-6078.56	-415.00	6092.03	0.00	0.00	0.00	
16600.00	90.19	180.00	10523.42	-6178.56	-415.00	6191.89	0.00	0.00	0.00	
16700.00	90.19	180.00	10523.08	-6278.56	-415.00	6291.75	0.00	0.00	0.00	
16800.00	90.19	180.00	10522.75	-6378.56	-415.00	6391.60	0.00	0.00	0.00	
16900.00	90.19	180.00	10522.41	-6478.56	-415.00	6491.46	0.00	0.00	0.00	
17000.00	90.19	180.00	10522.07	-6578.56	-415.00	6591.32	0.00	0.00	0.00	
17100.00	90.19	180.00	10521.73	-6678.56	-415.00	6691.18	0.00	0.00	0.00	
17200.00	90.19	180.00	10521.40	-6778.56	-415.00	6791.03	0.00	0.00	0.00	
17300.00	90.19	180.00	10521.06	-6878.55	-415.00	6890.89	0.00	0.00	0.00	
17400.00	90.19	180.00	10520.72	-6978.55	-415.00	6990.75	0.00	0.00	0.00	
17500.00	90.19	180.00	10520.38	-7078.55	-415.00	7090.61	0.00	0.00	0.00	
17600.00	90.19	180.00	10520.05	-7178.55	-415.00	7190.47	0.00	0.00	0.00	
17700.00	90.19	180.00	10519.71	-7278.55	-415.00	7290.32	0.00	0.00	0.00	
17800.00	90.19	180.00	10519.37	-7378.55	-415.00	7390.18	0.00	0.00	0.00	
17900.00	90.19	180.00	10519.03	-7478.55	-415.00	7490.04	0.00	0.00	0.00	
18000.00	90.19	180.00	10518.70	-7578.55	-415.00	7589.90	0.00	0.00	0.00	
18100.00	90.19	180.00	10518.36	-7678.55	-415.00	7689.75	0.00	0.00	0.00	
18206.45	90.19	180.00	10518.00	-7785.00	-415.00	7796.05	0.00	0.00	0.00	PBHL 2-16

Targets

Name	Description	TVD	+N/S	+E/W	Map Northing	Map Easting	<---- Latitude ---->	<--- Longitude --->
	Dip.	Dir.	ft	ft	ft	ft	Deg Min Sec	Deg Min Sec
SHL 2-16			0.00	0.00	0.00	408162.081193800.18	48 4 30.876 N	103 40 11.681 W
PBHL 2-16			10518.00	-7785.00	-415.00	400400.751193065.12	48 3 14.046 N	103 40 17.790 W

LEAM Drilling Systems LLC

Planning Report

Company: Continental Resources
Field: McKenzie County, ND
Site: Tallahassee 2
Well: 2-16H
Wellpath: OH

Date: 2/13/2013 **Time:** 17:57:45 **Page:** 4
Co-ordinate(NE) Reference: Well: 2-16H, True North
Vertical (TVD) Reference: GL 1920+KB 21 1941.0
Section (VS) Reference: Well (0.00N,0.00E,183.05Azi)
Survey Calculation Method: Minimum Curvature **Db:** Adapti

Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
11100.00	10541.99	7.000	8.500	7"

Formations

MD ft	TVD ft	Formations	Lithology	Dip Angle deg	Dip Direction deg
1841.00	1841.00	Pierre Shale		0.00	0.00
4425.00	4425.00	Greenhorn		0.00	0.00
4826.00	4826.00	Dakota Group		0.00	0.00
5705.00	5705.00	Base of Dakota Sand		0.00	0.00
6733.00	6733.00	Dunham Salt Top		0.00	0.00
6793.00	6793.00	Dunham Salt Base		0.00	0.00
7103.00	7103.00	Pine Salt Top		0.00	0.00
7159.00	7159.00	Pine Salt Base		0.00	0.00
7185.00	7185.00	Minnekahta		0.00	0.00
7471.00	7471.00	Minnelusa Group		0.00	0.00
8179.00	8179.00	Kibbey		0.00	0.00
8333.00	8333.00	Top Charles		0.00	0.00
9031.00	9031.00	Base Last Charles Salt		-0.19	180.00
9255.00	9255.00	Mission Canyon		-0.19	180.00
9821.00	9821.00	Lodgepole		-0.19	180.00
10623.32	10510.15	Upper Bakken Shale		-0.19	180.00
10675.42	10527.00	Middle Bakken Member		-0.19	180.00
10796.05	10543.00	Middle Bakken Target		-0.19	180.00

LEAM Drilling Systems LLC

Anticollision Report

Company:	Continental Resources	Date:	2/13/2013	Time:	17:58:07	Page:	1					
Field:	McKenzie County, ND											
Reference Site:	Tallahassee 2	Co-ordinate(NE) Reference:	Well: 2-16H, True North									
Reference Well:	2-16H	Vertical (TVD) Reference:	GL 1920+KB 21 1941.0									
Reference Wellpath:	OH											
						Db:	Adapti					
NO GLOBAL SCAN: Using user defined selection & scan criteria				Reference:	Plan: Plan #1a							
Interpolation Method: MD + Stations Interval: 50.00 ft				Error Model:	ISCWSA Ellipse							
Depth Range: 0.00 to 18206.45 ft				Scan Method:	Closest Approach 3D							
Maximum Radius: 10000.00 ft				Error Surface:	Ellipse							
Plan:	Plan #1a	Date Composed:	2/13/2013									
Principal:	Yes	Version:	1									
Summary												
Site	Well	Offset Wellpath	Wellpath	Reference MD ft	Offset MD ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning			
Columbus Federal 1	1-16H	OH V3 Plan: Plan #3c V	10375.00	10343.76	78.22	51.81	2.96					
Columbus Federal 2	2-16H	OH V3 Plan: Plan #2 V1	10102.27	10102.27	45.00	22.43	1.99					
Columbus Federal 3	3-16H	OH V1 Plan: Plan #1 V1	10125.00	10121.84	90.92	67.85	3.94					
Tallahassee 3	3-16H	OH V1 Plan: Plan #1 V1	10325.00	10312.06	22.68	-3.30	0.87	Level 1				
Site:	Columbus Federal 1											
Well:	1-16H											
Wellpath:	OH V3 Plan: Plan #3c V1											
Inter-Site Error:	0.00	ft										
Reference MD ft	Offset TVD ft	Offset MD ft	Offset TVD ft	Semi-Major Axis Ref ft	Offset ft	TFO-HS deg	Offset Location North ft	Offset Location East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	210.70	-122.71	-72.86	142.71	142.28	334.90	No Data
50.00	50.00	50.00	50.00	0.00	0.04	210.70	-122.71	-72.86	142.71	142.67	3209.52	
100.00	100.00	100.00	100.00	0.00	0.09	210.70	-122.71	-72.86	142.71	142.62	1603.80	
150.00	150.00	150.00	150.00	0.00	0.20	210.70	-122.71	-72.86	142.71	142.51	708.71	
200.00	200.00	200.00	200.00	0.00	0.31	210.70	-122.71	-72.86	142.71	142.40	454.86	
250.00	250.00	250.00	250.00	0.00	0.43	210.70	-122.71	-72.86	142.71	142.28	334.90	
300.00	300.00	300.00	300.00	0.00	0.54	210.70	-122.71	-72.86	142.71	142.17	265.01	
350.00	350.00	350.00	350.00	0.00	0.65	210.70	-122.71	-72.86	142.71	142.06	219.25	
400.00	400.00	400.00	400.00	0.00	0.76	210.70	-122.71	-72.86	142.71	141.95	186.97	
450.00	450.00	450.00	450.00	0.00	0.88	210.70	-122.71	-72.86	142.71	141.83	162.97	
500.00	500.00	500.00	500.00	0.00	0.99	210.70	-122.71	-72.86	142.71	141.72	144.44	
550.00	550.00	550.00	550.00	0.00	1.10	210.70	-122.71	-72.86	142.71	141.61	129.69	
600.00	600.00	600.00	600.00	0.00	1.21	210.70	-122.71	-72.86	142.71	141.50	117.67	
650.00	650.00	650.00	650.00	0.00	1.32	210.70	-122.71	-72.86	142.71	141.39	107.69	
700.00	700.00	700.00	700.00	0.00	1.44	210.70	-122.71	-72.86	142.71	141.27	99.27	
750.00	750.00	750.00	750.00	0.00	1.55	210.70	-122.71	-72.86	142.71	141.16	92.07	
800.00	800.00	800.00	800.00	0.00	1.66	210.70	-122.71	-72.86	142.71	141.05	85.85	
850.00	850.00	850.00	850.00	0.00	1.77	210.70	-122.71	-72.86	142.71	140.94	80.41	
900.00	900.00	900.00	900.00	0.00	1.89	210.70	-122.71	-72.86	142.71	140.82	75.62	
950.00	950.00	950.00	950.00	0.00	2.00	210.70	-122.71	-72.86	142.71	140.71	71.37	
1000.00	1000.00	1000.00	1000.00	0.00	2.11	210.70	-122.71	-72.86	142.71	140.60	67.58	
1050.00	1050.00	1050.00	1050.00	0.00	2.22	210.70	-122.71	-72.86	142.71	140.49	64.16	
1100.00	1100.00	1100.00	1100.00	0.00	2.34	210.70	-122.71	-72.86	142.71	140.37	61.07	
1150.00	1150.00	1150.00	1150.00	0.00	2.45	210.70	-122.71	-72.86	142.71	140.26	58.27	
1200.00	1200.00	1200.00	1200.00	0.00	2.56	210.70	-122.71	-72.86	142.71	140.15	55.72	
1250.00	1250.00	1250.00	1250.00	0.00	2.67	210.70	-122.71	-72.86	142.71	140.04	53.37	
1300.00	1300.00	1300.00	1300.00	0.00	2.79	210.70	-122.71	-72.86	142.71	139.92	51.22	
1350.00	1350.00	1350.00	1350.00	0.00	2.90	210.70	-122.71	-72.86	142.71	139.81	49.23	
1400.00	1400.00	1400.00	1400.00	0.00	3.01	210.70	-122.71	-72.86	142.71	139.70	47.40	
1450.00	1450.00	1450.00	1450.00	0.00	3.12	210.70	-122.71	-72.86	142.71	139.59	45.69	
1500.00	1500.00	1500.00	1500.00	0.00	3.24	210.70	-122.71	-72.86	142.71	139.47	44.10	
1550.00	1550.00	1550.00	1550.00	0.00	3.35	210.70	-122.71	-72.86	142.71	139.36	42.62	
1600.00	1600.00	1600.00	1600.00	0.00	3.46	210.70	-122.71	-72.86	142.71	139.25	41.24	
1650.00	1650.00	1650.00	1650.00	0.00	3.57	210.70	-122.71	-72.86	142.71	139.14	39.94	
1700.00	1700.00	1700.00	1700.00	0.00	3.69	210.70	-122.71	-72.86	142.71	139.03	38.72	

LEAM Drilling Systems LLC

Anticollision Report

Company:	Continental Resources				Date:	2/13/2013		Time:	17:58:07		Page:	2
Field:	McKenzie County, ND											
Reference Site:	Tallahassee 2				Co-ordinate(NE) Reference:	Well: 2-16H, True North						
Reference Well:	2-16H				Vertical (TVD) Reference:	GL 1920+KB 21 1941.0						
Reference Wellpath:	OH											
Site:	Columbus Federal 1											
Well:	1-16H											
Wellpath:	OH V3 Plan: Plan #3c V1											
								Inter-Site Error:		0.00	ft	
Reference MD ft	Offset TVD ft	Offset MD ft	Offset TVD ft	Semi-Major Axis Ref ft	Offset ft	TFO-HS deg	Offset Location North ft	Offset Location East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
1750.00	1750.00	1750.00	1750.00	0.00	3.80	210.70	-122.71	-72.86	142.71	138.91	37.58	
1800.00	1800.00	1800.00	1800.00	0.00	3.91	210.70	-122.71	-72.86	142.71	138.80	36.50	
1850.00	1850.00	1850.00	1850.00	0.00	4.02	210.70	-122.71	-72.86	142.71	138.69	35.48	
1900.00	1900.00	1900.00	1900.00	0.00	4.13	210.70	-122.71	-72.86	142.71	138.58	34.51	
1950.00	1950.00	1950.00	1950.00	0.00	4.25	210.70	-122.71	-72.86	142.71	138.46	33.60	
2000.00	2000.00	2000.00	2000.00	0.00	4.36	210.70	-122.71	-72.86	142.71	138.35	32.74	
2050.00	2050.00	2050.00	2050.00	0.00	4.47	210.70	-122.71	-72.86	142.71	138.24	31.91	
2100.00	2100.00	2100.00	2100.00	0.00	4.58	210.70	-122.71	-72.86	142.71	138.13	31.13	
2150.00	2150.00	2150.00	2150.00	0.00	4.70	210.70	-122.71	-72.86	142.71	138.01	30.39	
2200.00	2200.00	2200.00	2200.00	0.00	4.81	210.70	-122.71	-72.86	142.71	137.90	29.68	
2250.00	2250.00	2250.00	2250.00	0.00	4.92	210.70	-122.71	-72.86	142.71	137.79	29.00	
2300.00	2300.00	2300.00	2300.00	0.00	5.03	210.70	-122.71	-72.86	142.71	137.68	28.35	
2350.00	2350.00	2350.00	2350.00	0.00	5.15	210.70	-122.71	-72.86	142.71	137.56	27.73	
2400.00	2400.00	2400.00	2400.00	0.00	5.26	210.70	-122.71	-72.86	142.71	137.45	27.14	
2450.00	2450.00	2450.00	2450.00	0.00	5.37	210.70	-122.71	-72.86	142.71	137.34	26.57	
2500.00	2500.00	2500.00	2500.00	0.00	5.48	210.70	-122.71	-72.86	142.71	137.23	26.03	
2550.00	2550.00	2550.00	2550.00	0.00	5.60	210.70	-122.71	-72.86	142.71	137.11	25.50	
2600.00	2600.00	2600.00	2600.00	0.00	5.71	210.70	-122.71	-72.86	142.71	137.00	25.00	
2650.00	2650.00	2650.00	2650.00	0.00	5.82	210.70	-122.71	-72.86	142.71	136.89	24.52	
2700.00	2700.00	2700.00	2700.00	0.00	5.93	210.70	-122.71	-72.86	142.71	136.78	24.05	
2750.00	2750.00	2750.00	2750.00	0.00	6.05	210.70	-122.71	-72.86	142.71	136.67	23.61	
2800.00	2800.00	2800.00	2800.00	0.00	6.16	210.70	-122.71	-72.86	142.71	136.55	23.18	
2850.00	2850.00	2850.00	2850.00	0.00	6.27	210.70	-122.71	-72.86	142.71	136.44	22.76	
2900.00	2900.00	2900.00	2900.00	0.00	6.38	210.70	-122.71	-72.86	142.71	136.33	22.36	
2950.00	2950.00	2950.00	2950.00	0.00	6.49	210.70	-122.71	-72.86	142.71	136.22	21.97	
3000.00	3000.00	3000.00	3000.00	0.00	6.61	210.70	-122.71	-72.86	142.71	136.10	21.60	
3050.00	3050.00	3050.00	3050.00	0.00	6.72	210.70	-122.71	-72.86	142.71	135.99	21.24	
3100.00	3100.00	3100.00	3100.00	0.00	6.83	210.70	-122.71	-72.86	142.71	135.88	20.89	
3150.00	3150.00	3150.00	3150.00	0.00	6.94	210.70	-122.71	-72.86	142.71	135.77	20.55	
3200.00	3200.00	3200.00	3200.00	0.00	7.06	210.70	-122.71	-72.86	142.71	135.65	20.22	
3250.00	3250.00	3250.00	3250.00	0.00	7.17	210.70	-122.71	-72.86	142.71	135.54	19.91	
3300.00	3300.00	3300.00	3300.00	0.00	7.28	210.70	-122.71	-72.86	142.71	135.43	19.60	
3350.00	3350.00	3350.00	3350.00	0.00	7.39	210.70	-122.71	-72.86	142.71	135.32	19.30	
3400.00	3400.00	3400.00	3400.00	0.00	7.51	210.70	-122.71	-72.86	142.71	135.20	19.01	
3450.00	3450.00	3450.00	3450.00	0.00	7.62	210.70	-122.71	-72.86	142.71	135.09	18.73	
3500.00	3500.00	3500.00	3500.00	0.00	7.73	210.70	-122.71	-72.86	142.71	134.98	18.46	
3550.00	3550.00	3550.00	3550.00	0.00	7.84	210.70	-122.71	-72.86	142.71	134.87	18.19	
3600.00	3600.00	3600.00	3600.00	0.00	7.96	210.70	-122.71	-72.86	142.71	134.75	17.94	
3650.00	3650.00	3650.00	3650.00	0.00	8.07	210.70	-122.71	-72.86	142.71	134.64	17.69	
3700.00	3700.00	3700.00	3700.00	0.00	8.18	210.70	-122.71	-72.86	142.71	134.53	17.45	
3750.00	3750.00	3750.00	3750.00	0.00	8.29	210.70	-122.71	-72.86	142.71	134.42	17.21	
3800.00	3800.00	3800.00	3800.00	0.00	8.41	210.70	-122.71	-72.86	142.71	134.31	16.98	
3850.00	3850.00	3850.00	3850.00	0.00	8.52	210.70	-122.71	-72.86	142.71	134.19	16.75	
3900.00	3900.00	3900.00	3900.00	0.00	8.63	210.70	-122.71	-72.86	142.71	134.08	16.54	
3950.00	3950.00	3950.00	3950.00	0.00	8.74	210.70	-122.71	-72.86	142.71	133.97	16.32	
4000.00	4000.00	4000.00	4000.00	0.00	8.85	210.70	-122.71	-72.86	142.71	133.86	16.12	
4050.00	4050.00	4050.00	4050.00	0.00	8.97	210.70	-122.71	-72.86	142.71	133.74	15.91	
4100.00	4100.00	4100.00	4100.00	0.00	9.08	210.70	-122.71	-72.86	142.71	133.63	15.72	
4150.00	4150.00	4150.00	4150.00	0.00	9.19	210.70	-122.71	-72.86	142.71	133.52	15.53	
4200.00	4200.00	4200.00	4200.00	0.00	9.30	210.70	-122.71	-72.86	142.71	133.41	15.34	
4250.00	4250.00	4250.00	4250.00	0.00	9.42	210.70	-122.71	-72.86	142.71	133.29	15.15	

LEAM Drilling Systems LLC

Anticollision Report

Company:	Continental Resources				Date: 2/13/2013			Time: 17:58:07			Page:	3
Field:	McKenzie County, ND											
Reference Site:	Tallahassee 2				Co-ordinate(NE) Reference:				Well: 2-16H, True North			
Reference Well:	2-16H				Vertical (TVD) Reference:				GL 1920+KB 21 1941.0			
Reference Wellpath:	OH								Db: Adapti			
Site:	Columbus Federal 1											
Well:	1-16H											
Wellpath:	OH V3 Plan: Plan #3c V1								Inter-Site Error: 0.00		ft	
Reference MD ft	Offset TVD ft	Offset MD ft	Offset TVD ft	Semi-Major Axis Ref ft	Semi-Major Axis Offset ft	Semi-Major Axis TFO-HS deg	Offset Location North ft	Offset Location East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
4300.00	4300.00	4300.00	4300.00	0.00	9.53	210.70	-122.71	-72.86	142.71	133.18	14.98	
4350.00	4350.00	4350.00	4350.00	0.00	9.64	210.70	-122.71	-72.86	142.71	133.07	14.80	
4400.00	4400.00	4400.00	4400.00	0.00	9.75	210.70	-122.71	-72.86	142.71	132.96	14.63	
4450.00	4450.00	4450.00	4450.00	0.00	9.87	210.70	-122.71	-72.86	142.71	132.84	14.46	
4500.00	4500.00	4500.00	4500.00	0.00	9.98	210.70	-122.71	-72.86	142.71	132.73	14.30	
4550.00	4550.00	4550.00	4550.00	0.00	10.09	210.70	-122.71	-72.86	142.71	132.62	14.14	
4600.00	4600.00	4600.00	4600.00	0.00	10.20	210.70	-122.71	-72.86	142.71	132.51	13.99	
4650.00	4650.00	4650.00	4650.00	0.00	10.32	210.70	-122.71	-72.86	142.71	132.39	13.83	
4700.00	4700.00	4700.00	4700.00	0.00	10.43	210.70	-122.71	-72.86	142.71	132.28	13.69	
4750.00	4750.00	4750.00	4750.00	0.00	10.54	210.70	-122.71	-72.86	142.71	132.17	13.54	
4800.00	4800.00	4800.00	4800.00	0.00	10.65	210.70	-122.71	-72.86	142.71	132.06	13.40	
4850.00	4850.00	4850.00	4850.00	0.00	10.77	210.70	-122.71	-72.86	142.71	131.94	13.26	
4900.00	4900.00	4900.00	4900.00	0.00	10.88	210.70	-122.71	-72.86	142.71	131.83	13.12	
4950.00	4950.00	4950.00	4950.00	0.00	10.99	210.70	-122.71	-72.86	142.71	131.72	12.99	
5000.00	5000.00	5000.00	5000.00	0.00	11.10	210.70	-122.71	-72.86	142.71	131.61	12.85	
5050.00	5050.00	5050.00	5050.00	0.00	11.21	210.70	-122.71	-72.86	142.71	131.50	12.73	
5100.00	5100.00	5100.00	5100.00	0.00	11.33	210.70	-122.71	-72.86	142.71	131.38	12.60	
5150.00	5150.00	5150.00	5150.00	0.00	11.44	210.70	-122.71	-72.86	142.71	131.27	12.48	
5200.00	5200.00	5200.00	5200.00	0.00	11.55	210.70	-122.71	-72.86	142.71	131.16	12.35	
5250.00	5250.00	5250.00	5250.00	0.00	11.66	210.70	-122.71	-72.86	142.71	131.05	12.23	
5300.00	5300.00	5300.00	5300.00	0.00	11.78	210.70	-122.71	-72.86	142.71	130.93	12.12	
5350.00	5350.00	5350.00	5350.00	0.00	11.89	210.70	-122.71	-72.86	142.71	130.82	12.00	
5400.00	5400.00	5400.00	5400.00	0.00	12.00	210.70	-122.71	-72.86	142.71	130.71	11.89	
5450.00	5450.00	5450.00	5450.00	0.00	12.11	210.70	-122.71	-72.86	142.71	130.60	11.78	
5500.00	5500.00	5500.00	5500.00	0.00	12.23	210.70	-122.71	-72.86	142.71	130.48	11.67	
5550.00	5550.00	5550.00	5550.00	0.00	12.34	210.70	-122.71	-72.86	142.71	130.37	11.57	
5600.00	5600.00	5600.00	5600.00	0.00	12.45	210.70	-122.71	-72.86	142.71	130.26	11.46	
5650.00	5650.00	5650.00	5650.00	0.00	12.56	210.70	-122.71	-72.86	142.71	130.15	11.36	
5700.00	5700.00	5700.00	5700.00	0.00	12.68	210.70	-122.71	-72.86	142.71	130.03	11.26	
5750.00	5750.00	5750.00	5750.00	0.00	12.79	210.70	-122.71	-72.86	142.71	129.92	11.16	
5800.00	5800.00	5800.00	5800.00	0.00	12.90	210.70	-122.71	-72.86	142.71	129.81	11.06	
5850.00	5850.00	5850.00	5850.00	0.00	13.01	210.70	-122.71	-72.86	142.71	129.70	10.97	
5900.00	5900.00	5900.00	5900.00	0.00	13.13	210.70	-122.71	-72.86	142.71	129.58	10.87	
5950.00	5950.00	5950.00	5950.00	0.00	13.24	210.70	-122.71	-72.86	142.71	129.47	10.78	
6000.00	6000.00	6000.00	6000.00	0.00	13.35	210.70	-122.71	-72.86	142.71	129.36	10.69	
6050.00	6050.00	6050.00	6050.00	0.00	13.46	210.70	-122.71	-72.86	142.71	129.25	10.60	
6100.00	6100.00	6100.00	6100.00	0.00	13.57	210.70	-122.71	-72.86	142.71	129.14	10.51	
6150.00	6150.00	6150.00	6150.00	0.00	13.69	210.70	-122.71	-72.86	142.71	129.02	10.43	
6200.00	6200.00	6200.00	6200.00	0.00	13.80	210.70	-122.71	-72.86	142.71	128.91	10.34	
6250.00	6250.00	6250.00	6250.00	0.00	13.91	210.70	-122.71	-72.86	142.71	128.80	10.26	
6300.00	6300.00	6300.00	6300.00	0.00	14.02	210.70	-122.71	-72.86	142.71	128.69	10.18	
6350.00	6350.00	6350.00	6350.00	0.00	14.14	210.70	-122.71	-72.86	142.71	128.57	10.09	
6400.00	6400.00	6400.00	6400.00	0.00	14.25	210.70	-122.71	-72.86	142.71	128.46	10.02	
6450.00	6450.00	6450.00	6450.00	0.00	14.36	210.70	-122.71	-72.86	142.71	128.35	9.94	
6500.00	6500.00	6500.00	6500.00	0.00	14.47	210.70	-122.71	-72.86	142.71	128.24	9.86	
6550.00	6550.00	6550.00	6550.00	0.00	14.59	210.70	-122.71	-72.86	142.71	128.12	9.78	
6600.00	6600.00	6600.00	6600.00	0.00	14.70	210.70	-122.71	-72.86	142.71	128.01	9.71	
6650.00	6650.00	6650.00	6650.00	0.00	14.81	210.70	-122.71	-72.86	142.71	127.90	9.64	
6700.00	6700.00	6700.00	6700.00	0.00	14.92	210.70	-122.71	-72.86	142.71	127.79	9.56	
6750.00	6750.00	6750.00	6750.00	0.00	15.04	210.70	-122.71	-72.86	142.71	127.67	9.49	
6800.00	6800.00	6800.00	6800.00	0.00	15.15	210.70	-122.71	-72.86	142.71	127.56	9.42	

LEAM Drilling Systems LLC

Anticollision Report

Company:	Continental Resources				Date: 2/13/2013			Time: 17:58:07			Page: 4	
Field:	McKenzie County, ND											
Reference Site:	Tallahassee 2				Co-ordinate(NE) Reference: Well: 2-16H, True North							
Reference Well:	2-16H				Vertical (TVD) Reference: GL 1920+KB 21 1941.0							
Reference Wellpath:	OH								Db: Adapti			
Site:	Columbus Federal 1											
Well:	1-16H											
Wellpath:	OH V3 Plan: Plan #3c V1								Inter-Site Error:	0.00	ft	
Reference MD ft	Offset TVD ft	Offset MD ft	Offset TVD ft	Semi-Major Axis Ref ft	Semi-Major Axis Offset ft	Semi-Major Axis TFO-HS deg	Offset Location North ft	Offset Location East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
6850.00	6850.00	6850.00	6850.00	0.00	15.26	210.70	-122.71	-72.86	142.71	127.45	9.35	
6900.00	6900.00	6900.00	6900.00	0.00	15.37	210.70	-122.71	-72.86	142.71	127.34	9.28	
6950.00	6950.00	6950.00	6950.00	0.00	15.49	210.70	-122.71	-72.86	142.71	127.22	9.22	
7000.00	7000.00	7000.00	7000.00	0.00	15.60	210.70	-122.71	-72.86	142.71	127.11	9.15	
7050.00	7050.00	7050.00	7050.00	0.00	15.71	210.70	-122.71	-72.86	142.71	127.00	9.08	
7100.00	7100.00	7100.00	7100.00	0.00	15.82	210.70	-122.71	-72.86	142.71	126.89	9.02	
7150.00	7150.00	7150.00	7150.00	0.00	15.93	210.70	-122.71	-72.86	142.71	126.78	8.96	
7200.00	7200.00	7200.00	7200.00	0.00	16.05	210.70	-122.71	-72.86	142.71	126.66	8.89	
7250.00	7250.00	7250.00	7250.00	0.00	16.16	210.70	-122.71	-72.86	142.71	126.55	8.83	
7300.00	7300.00	7300.00	7300.00	0.00	16.27	210.70	-122.71	-72.86	142.71	126.44	8.77	
7350.00	7350.00	7350.00	7350.00	0.00	16.38	210.70	-122.71	-72.86	142.71	126.33	8.71	
7400.00	7400.00	7400.00	7400.00	0.00	16.50	210.70	-122.71	-72.86	142.71	126.21	8.65	
7450.00	7450.00	7450.00	7450.00	0.00	16.61	210.70	-122.71	-72.86	142.71	126.10	8.59	
7500.00	7500.00	7500.00	7500.00	0.00	16.72	210.70	-122.71	-72.86	142.71	125.99	8.53	
7550.00	7550.00	7550.00	7550.00	0.00	16.83	210.70	-122.71	-72.86	142.71	125.88	8.48	
7600.00	7600.00	7600.00	7600.00	0.00	16.95	210.70	-122.71	-72.86	142.71	125.76	8.42	
7650.00	7650.00	7650.00	7650.00	0.00	17.06	210.70	-122.71	-72.86	142.71	125.65	8.37	
7700.00	7700.00	7700.00	7700.00	0.00	17.17	210.70	-122.71	-72.86	142.71	125.54	8.31	
7750.00	7750.00	7750.00	7750.00	0.00	17.28	210.70	-122.71	-72.86	142.71	125.43	8.26	
7800.00	7800.00	7800.00	7800.00	0.00	17.40	210.70	-122.71	-72.86	142.71	125.31	8.20	
7850.00	7850.00	7850.00	7850.00	0.00	17.51	210.70	-122.71	-72.86	142.71	125.20	8.15	
7900.00	7900.00	7900.00	7900.00	0.00	17.62	210.70	-122.71	-72.86	142.71	125.09	8.10	
7950.00	7950.00	7950.00	7950.00	0.00	17.73	210.70	-122.71	-72.86	142.71	124.98	8.05	
8000.00	8000.00	8000.00	8000.00	0.00	17.85	210.70	-122.71	-72.86	142.71	124.86	8.00	
8050.00	8050.00	8050.00	8050.00	0.00	17.96	210.70	-122.71	-72.86	142.71	124.75	7.95	
8100.00	8100.00	8100.00	8100.00	0.00	18.07	210.70	-122.71	-72.86	142.71	124.64	7.90	
8150.00	8150.00	8150.00	8150.00	0.00	18.18	210.70	-122.71	-72.86	142.71	124.53	7.85	
8200.00	8200.00	8200.00	8200.00	0.00	18.29	210.70	-122.71	-72.86	142.71	124.42	7.80	
8250.00	8250.00	8250.00	8250.00	0.00	18.41	210.70	-122.71	-72.86	142.71	124.30	7.75	
8300.00	8300.00	8300.00	8300.00	0.00	18.52	210.70	-122.71	-72.86	142.71	124.19	7.71	
8350.00	8350.00	8350.00	8350.00	0.00	18.63	210.70	-122.71	-72.86	142.71	124.08	7.66	
8400.00	8400.00	8400.00	8400.00	0.00	18.74	210.70	-122.71	-72.86	142.71	123.97	7.61	
8450.00	8450.00	8450.00	8450.00	0.00	18.86	210.70	-122.71	-72.86	142.71	123.85	7.57	
8500.00	8500.00	8500.00	8500.00	0.00	18.97	210.70	-122.71	-72.86	142.71	123.74	7.52	
8550.00	8550.00	8550.00	8550.00	0.00	19.08	210.70	-122.71	-72.86	142.71	123.63	7.48	
8600.00	8600.00	8600.00	8600.00	0.00	19.19	210.70	-122.71	-72.86	142.71	123.52	7.44	
8650.00	8650.00	8650.00	8650.00	0.00	19.31	210.70	-122.71	-72.86	142.71	123.40	7.39	
8700.00	8700.00	8700.00	8700.00	0.00	19.42	210.70	-122.71	-72.86	142.71	123.29	7.35	
8750.00	8750.00	8750.00	8750.00	0.00	19.53	210.70	-122.71	-72.86	142.71	123.18	7.31	
8800.00	8800.00	8800.00	8800.00	0.00	19.64	210.70	-122.71	-72.86	142.71	123.07	7.26	
8850.00	8850.00	8850.00	8850.00	0.00	19.76	210.70	-122.71	-72.86	142.71	122.95	7.22	
8900.00	8900.00	8900.00	8900.00	0.00	19.87	210.70	-122.71	-72.86	142.71	122.84	7.18	
8950.00	8950.00	8950.00	8950.00	0.00	19.98	210.70	-122.71	-72.86	142.71	122.73	7.14	
9000.00	9000.00	9000.00	9000.00	0.00	20.09	210.70	-122.71	-72.86	142.71	122.62	7.10	
9050.00	9050.00	9050.00	9050.00	0.00	20.21	210.70	-122.71	-72.86	142.71	122.50	7.06	
9100.00	9100.00	9100.00	9100.00	0.00	20.32	210.70	-122.71	-72.86	142.71	122.39	7.02	
9150.00	9150.00	9150.00	9150.00	0.00	20.43	210.70	-122.71	-72.86	142.71	122.28	6.99	
9200.00	9200.00	9200.00	9200.00	0.00	20.54	210.70	-122.71	-72.86	142.71	122.17	6.95	
9250.00	9250.00	9250.00	9250.00	0.00	20.65	210.70	-122.71	-72.86	142.71	122.06	6.91	
9300.00	9300.00	9300.00	9300.00	0.00	20.77	210.70	-122.71	-72.86	142.71	121.94	6.87	
9350.00	9350.00	9350.00	9350.00	0.00	20.88	210.70	-122.71	-72.86	142.71	121.83	6.83	

LEAM Drilling Systems LLC

Anticollision Report

Company: Continental Resources
Field: McKenzie County, ND
Reference Site: Tallahassee 2
Reference Well: 2-16H
Reference Wellpath: OH

Date: 2/13/2013

Time: 17:58:07

Page: 5

Co-ordinate(NE) Reference: Well: 2-16H, True North
Vertical (TVD) Reference: GL 1920+KB 21 1941.0

Db: Adapti

Site: Columbus Federal 1

Well: 1-16H

Wellpath: OH V3 Plan: Plan #3c V1

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr	Edge	Separation	
MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East	Distance	Distance	Factor	Warning
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft		
9400.00	9400.00	9400.00	9400.00	0.00	20.99	210.70	-122.71	-72.86	142.71	121.72	6.80	
9450.00	9450.00	9450.00	9450.00	0.00	21.10	210.70	-122.71	-72.86	142.71	121.61	6.76	
9500.00	9500.00	9500.00	9500.00	0.00	21.22	210.70	-122.71	-72.86	142.71	121.49	6.73	
9550.00	9550.00	9550.00	9550.00	0.00	21.33	210.70	-122.71	-72.86	142.71	121.38	6.69	
9600.00	9600.00	9600.00	9600.00	0.00	21.44	210.70	-122.71	-72.86	142.71	121.27	6.66	
9650.00	9650.00	9650.00	9650.00	0.00	21.55	210.70	-122.71	-72.86	142.71	121.16	6.62	
9700.00	9700.00	9700.00	9700.00	0.00	21.67	210.70	-122.71	-72.86	142.71	121.04	6.59	
9750.00	9750.00	9750.00	9750.00	0.00	21.78	210.70	-122.71	-72.86	142.71	120.93	6.55	
9800.00	9800.00	9800.00	9800.00	0.00	21.89	210.70	-122.71	-72.86	142.71	120.82	6.52	
9850.00	9850.00	9850.00	9850.00	0.00	22.00	210.70	-122.71	-72.86	142.71	120.71	6.49	
9900.00	9900.00	9900.00	9900.00	0.00	22.12	210.70	-122.71	-72.86	142.71	120.59	6.45	
9950.00	9950.00	9950.00	9950.00	0.00	22.23	210.70	-122.71	-72.86	142.71	120.48	6.42	
10000.00	10000.00	10000.00	10000.00	0.00	22.34	210.70	-122.71	-72.86	142.71	120.37	6.39	
10050.00	10050.00	10050.00	10050.00	0.00	22.45	210.70	-122.71	-72.86	142.71	120.26	6.36	
10100.00	10100.00	10100.00	10100.00	0.00	22.57	210.70	-122.71	-72.86	142.71	120.14	6.32	
10102.27	10102.27	10102.27	10102.27	0.00	22.57	210.70	-122.71	-72.86	142.71	120.14	6.32	
10125.00	10124.99	10129.80	10129.78	0.00	22.63	10.60	-121.94	-73.24	141.75	119.13	6.27	
10150.00	10149.91	10159.53	10159.37	0.00	22.70	11.87	-119.37	-74.51	138.51	115.87	6.12	
10175.00	10174.67	10188.12	10187.58	0.00	22.76	14.13	-115.23	-76.55	133.14	110.48	5.88	
10200.00	10199.20	10215.12	10213.89	0.00	22.81	17.50	-109.82	-79.21	125.89	103.22	5.55	
10225.00	10223.42	10240.16	10237.92	0.00	22.87	22.14	-103.51	-82.32	117.13	94.43	5.16	
10250.00	10247.25	10263.03	10259.49	0.00	22.91	28.20	-96.69	-85.68	107.37	84.59	4.71	
10275.00	10270.61	10283.61	10278.54	0.00	22.96	35.70	-89.71	-89.12	97.31	74.42	4.25	
10300.00	10293.43	10301.90	10295.14	0.00	23.00	44.35	-82.84	-92.51	87.94	64.95	3.82	
10325.00	10315.64	10317.94	10309.44	0.00	23.03	53.49	-76.30	-95.73	80.59	56.62	3.36	
10350.00	10337.16	10331.85	10321.61	0.00	23.06	62.19	-70.26	-98.70	76.88	51.54	3.03	
10375.00	10357.92	10343.76	10331.86	0.00	23.09	69.60	-64.82	-101.38	78.22	51.81	2.96	
10400.00	10377.87	10353.82	10340.38	0.00	23.11	75.22	-60.04	-103.74	85.03	58.07	3.15	
10425.00	10396.92	10362.17	10347.37	0.00	23.13	78.91	-55.93	-105.76	96.63	69.47	3.56	
10450.00	10415.03	10368.97	10352.98	0.00	23.15	80.74	-52.50	-107.45	111.86	84.63	4.11	
10475.00	10432.13	10374.34	10357.39	0.00	23.16	80.84	-49.73	-108.82	129.64	102.39	4.76	
10500.00	10448.17	10378.43	10360.71	0.00	23.17	79.36	-47.60	-109.87	149.18	121.91	5.47	
10525.00	10463.10	10381.34	10363.06	0.00	23.18	76.43	-46.06	-110.63	169.91	142.63	6.23	
10550.00	10476.87	10383.18	10364.54	0.00	23.18	72.22	-45.08	-111.11	191.47	164.16	7.01	
10575.00	10489.43	10384.05	10365.24	0.00	23.19	66.97	-44.62	-111.34	213.58	186.25	7.81	
10600.00	10500.75	10384.02	10365.22	0.00	23.19	60.99	-44.63	-111.33	236.03	208.68	8.63	
10625.00	10510.78	10383.18	10364.54	0.00	23.18	54.65	-45.08	-111.11	258.68	231.32	9.45	
10650.00	10519.51	10381.58	10363.25	0.00	23.18	48.33	-45.93	-110.69	281.40	254.03	10.28	
10675.00	10526.88	10379.29	10361.40	0.00	23.17	42.34	-47.14	-110.09	304.10	276.72	11.11	
10700.00	10532.90	10376.35	10359.02	0.00	23.17	36.87	-48.69	-109.33	326.68	299.31	11.94	
10725.00	10537.53	10372.82	10356.15	0.00	23.16	32.03	-50.52	-108.43	349.08	321.73	12.77	
10750.00	10540.75	10368.73	10352.79	0.00	23.15	27.83	-52.62	-107.39	371.23	343.91	13.59	
10775.00	10542.57	10364.13	10348.99	0.00	23.14	24.21	-54.95	-106.24	393.07	365.79	14.41	
10796.05	10543.00	10359.87	10345.45	0.00	23.13	21.58	-57.08	-105.20	411.19	383.94	15.09	
10800.00	10542.99	10359.04	10344.75	0.00	23.12	21.43	-57.49	-105.00	414.57	387.33	15.22	
10850.00	10542.82	10348.94	10336.26	0.00	23.10	19.67	-62.38	-102.58	457.90	430.76	16.87	
10900.00	10542.66	10339.52	10328.23	0.00	23.08	18.14	-66.79	-100.41	502.11	475.08	18.58	
10950.00	10542.49	10330.73	10320.63	0.00	23.06	16.80	-70.77	-98.45	547.02	520.10	20.32	
11000.00	10542.32	10322.50	10313.45	0.00	23.04	15.64	-74.36	-96.68	592.50	565.71	22.11	
11050.00	10542.16	10314.80	10306.66	0.00	23.02	14.62	-77.62	-95.08	638.46	611.77	23.92	
11100.00	10541.99	10307.57	10300.23	0.00	23.01	13.72	-80.58	-93.62	684.80	658.22	25.76	

LEAM Drilling Systems LLC

Anticollision Report

Company:	Continental Resources				Date:	2/13/2013		Time:	17:58:07		Page:	6
Field:	McKenzie County, ND											
Reference Site:	Tallahassee 2				Co-ordinate(NE) Reference:	Well: 2-16H, True North						
Reference Well:	2-16H				Vertical (TVD) Reference:	GL 1920+KB 21 1941.0						
Reference Wellpath:	OH										Db:	Adapti
Site:	Columbus Federal 1											
Well:	1-16H											
Wellpath:	OH V3 Plan: Plan #3c V1											
Reference MD ft	Offset TVD ft	Offset MD ft	Semi-Major Axis TVD ft	Ref ft	Offset ft	TFO-HS deg	Offset Location North ft	East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Inter-Site Error: 0.00 ft
												Warning
11150.00	10541.82	10300.00	10293.43	0.00	22.99	12.83	-83.58	-92.14	731.48	704.98	27.60	
11196.05	10541.67	10294.89	10288.81	0.00	22.98	12.27	-85.54	-91.17	774.72	748.34	29.37	
11200.00	10541.66	10294.40	10288.37	0.00	22.98	11.89	-85.73	-91.08	778.44	752.07	29.52	
11250.00	10541.49	10288.28	10282.81	0.00	22.97	7.01	-88.01	-89.96	825.69	799.42	31.43	
11300.00	10541.32	10282.38	10277.41	0.00	22.95	2.00	-90.15	-88.90	873.19	847.01	33.35	
11350.00	10541.15	10275.00	10270.61	0.00	22.94	356.85	-92.73	-87.63	920.89	894.75	35.24	
11400.00	10540.98	10275.00	10270.61	0.00	22.94	351.94	-92.73	-87.63	968.72	942.80	37.37	
11450.00	10540.81	10265.89	10262.15	0.00	22.92	346.86	-95.77	-86.13	1016.60	990.68	39.22	
11500.00	10540.64	10260.80	10257.40	0.00	22.91	342.01	-97.40	-85.33	1064.55	1038.70	41.19	
11550.00	10540.47	10255.90	10252.81	0.00	22.90	337.36	-98.93	-84.58	1112.50	1086.73	43.17	
11600.00	10540.30	10250.00	10247.25	0.00	22.89	333.01	-100.70	-83.70	1160.43	1134.70	45.10	
11650.00	10540.13	10250.00	10247.25	0.00	22.89	328.64	-100.70	-83.70	1208.33	1182.75	47.25	
11700.00	10539.96	10242.36	10240.01	0.00	22.87	324.97	-102.90	-82.62	1256.12	1230.55	49.13	
11750.00	10539.79	10238.20	10236.06	0.00	22.86	321.41	-104.05	-82.06	1303.84	1278.33	51.12	
11800.00	10539.62	10234.22	10232.26	0.00	22.85	318.12	-105.12	-81.53	1351.44	1325.99	53.11	
11850.00	10539.45	10225.00	10223.42	0.00	22.83	315.51	-107.48	-80.37	1398.95	1373.47	54.91	
11878.21	10539.36	10225.00	10223.42	0.00	22.83	313.76	-107.48	-80.37	1425.64	1400.23	56.09	
11900.00	10539.28	10225.00	10223.42	0.00	22.83	313.76	-107.48	-80.37	1446.27	1420.90	57.01	
11950.00	10539.12	10225.00	10223.42	0.00	22.83	313.76	-107.48	-80.37	1493.72	1468.46	59.13	
12000.00	10538.95	10225.00	10223.42	0.00	22.83	313.76	-107.48	-80.37	1541.33	1516.17	61.26	
12050.00	10538.78	10216.89	10215.60	0.00	22.82	314.37	-109.41	-79.41	1589.01	1563.83	63.10	
12100.00	10538.61	10213.93	10212.74	0.00	22.81	314.59	-110.09	-79.08	1636.83	1611.70	65.13	
12150.00	10538.44	10211.11	10210.01	0.00	22.80	314.80	-110.71	-78.77	1684.76	1659.68	67.16	
12200.00	10538.27	10208.43	10207.40	0.00	22.80	315.00	-111.29	-78.49	1732.79	1707.75	69.20	
12250.00	10538.10	10200.00	10199.20	0.00	22.78	315.62	-113.03	-77.63	1780.96	1755.88	71.02	
12300.00	10537.93	10200.00	10199.20	0.00	22.78	315.62	-113.03	-77.63	1829.14	1804.14	73.16	
12350.00	10537.77	10200.00	10199.20	0.00	22.78	315.62	-113.03	-77.63	1877.42	1852.48	75.30	
12400.00	10537.60	10200.00	10199.20	0.00	22.78	315.62	-113.03	-77.63	1925.78	1900.92	77.45	
12450.00	10537.43	10200.00	10199.20	0.00	22.78	315.62	-113.03	-77.63	1974.23	1949.43	79.60	
12500.00	10537.26	10200.00	10199.20	0.00	22.78	315.62	-113.03	-77.63	2022.75	1998.01	81.76	
12550.00	10537.09	10200.00	10199.20	0.00	22.78	315.62	-113.03	-77.63	2071.34	2046.66	83.91	
12600.00	10536.92	10190.83	10190.24	0.00	22.76	316.28	-114.75	-76.78	2119.90	2095.18	85.74	
12650.00	10536.75	10189.02	10188.46	0.00	22.76	316.41	-115.07	-76.63	2168.58	2143.89	87.83	
12700.00	10536.58	10187.28	10186.76	0.00	22.75	316.53	-115.37	-76.48	2217.31	2192.65	89.93	
12750.00	10536.42	10185.61	10185.11	0.00	22.75	316.65	-115.66	-76.34	2266.08	2241.46	92.03	
12800.00	10536.25	10184.00	10183.53	0.00	22.75	316.77	-115.93	-76.20	2314.91	2290.31	94.13	
12850.00	10536.08	10175.00	10174.67	0.00	22.73	317.40	-117.34	-75.51	2363.84	2339.20	95.95	
12900.00	10535.91	10175.00	10174.67	0.00	22.73	317.40	-117.34	-75.51	2412.72	2388.13	98.11	
12950.00	10535.74	10175.00	10174.67	0.00	22.73	317.40	-117.34	-75.51	2461.65	2437.10	100.28	
13000.00	10535.57	10175.00	10174.67	0.00	22.73	317.40	-117.34	-75.51	2510.62	2486.12	102.44	
13050.00	10535.40	10175.00	10174.67	0.00	22.73	317.40	-117.34	-75.51	2559.63	2535.17	104.61	
13100.00	10535.23	10175.00	10174.67	0.00	22.73	317.40	-117.34	-75.51	2608.68	2584.25	106.79	
13150.00	10535.07	10175.00	10174.67	0.00	22.73	317.40	-117.34	-75.51	2657.77	2633.38	108.96	
13200.00	10534.90	10175.00	10174.67	0.00	22.73	317.40	-117.34	-75.51	2706.89	2682.53	111.14	
13250.00	10534.73	10175.00	10174.67	0.00	22.73	317.40	-117.34	-75.51	2756.04	2731.71	113.31	
13300.00	10534.56	10175.00	10174.67	0.00	22.73	317.40	-117.34	-75.51	2805.22	2780.93	115.49	
13350.00	10534.39	10175.00	10174.67	0.00	22.73	317.40	-117.34	-75.51	2854.42	2830.17	117.67	
13400.00	10534.22	10175.00	10174.67	0.00	22.73	317.40	-117.34	-75.51	2903.66	2879.43	119.86	
13450.00	10534.05	10175.00	10174.67	0.00	22.73	317.40	-117.34	-75.51	2952.92	2928.72	122.04	
13500.00	10533.88	10175.00	10174.67	0.00	22.73	317.40	-117.34	-75.51	3002.21	2978.04	124.22	
13550.00	10533.72	10165.51	10165.29	0.00	22.71	318.06	-118.64	-74.87	3051.41	3027.21	126.06	

LEAM Drilling Systems LLC

Anticollision Report

Company:	Continental Resources				Date:	2/13/2013		Time:	17:58:07		Page:	7
Field:	McKenzie County, ND											
Reference Site:	Tallahassee 2				Co-ordinate(NE) Reference:	Well: 2-16H, True North						
Reference Well:	2-16H				Vertical (TVD) Reference:	GL 1920+KB 21 1941.0						
Reference Wellpath:	OH											
Site:	Columbus Federal 1											
Well:	1-16H											
Wellpath:	OH V3 Plan: Plan #3c V1											
Reference	Offset	Semi-Major Axis	Offset	Location	Ctr-Ctr	Edge	Separation	Inter-Site Error:	0.00	ft		
MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East	Distance	Distance	Factor	Warning
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft		
13600.00	10533.55	10164.56	10164.35	0.00	22.71	318.13	-118.76	-74.81	3100.72	3076.54	128.21	
13650.00	10533.38	10163.64	10163.44	0.00	22.70	318.19	-118.88	-74.75	3150.05	3125.89	130.36	
13700.00	10533.21	10162.74	10162.55	0.00	22.70	318.25	-118.99	-74.70	3199.40	3175.26	132.51	
13750.00	10533.04	10161.87	10161.69	0.00	22.70	318.31	-119.10	-74.64	3248.77	3224.64	134.67	
13800.00	10532.87	10161.03	10160.86	0.00	22.70	318.37	-119.20	-74.59	3298.15	3274.05	136.82	
13850.00	10532.70	10160.21	10160.04	0.00	22.70	318.43	-119.30	-74.54	3347.55	3323.47	138.98	
13900.00	10532.53	10150.00	10149.91	0.00	22.68	319.12	-120.39	-74.01	3397.07	3372.94	140.77	
13950.00	10532.37	10150.00	10149.91	0.00	22.68	319.12	-120.39	-74.01	3446.49	3422.38	142.96	
14000.00	10532.20	10150.00	10149.91	0.00	22.68	319.12	-120.39	-74.01	3495.92	3471.83	145.15	
14050.00	10532.03	10150.00	10149.91	0.00	22.68	319.12	-120.39	-74.01	3545.37	3521.31	147.33	
14100.00	10531.86	10150.00	10149.91	0.00	22.68	319.12	-120.39	-74.01	3594.83	3570.79	149.52	
14150.00	10531.69	10150.00	10149.91	0.00	22.68	319.12	-120.39	-74.01	3644.31	3620.29	151.71	
14200.00	10531.52	10150.00	10149.91	0.00	22.68	319.12	-120.39	-74.01	3693.81	3669.80	153.90	
14250.00	10531.35	10150.00	10149.91	0.00	22.68	319.12	-120.39	-74.01	3743.31	3719.33	156.09	
14300.00	10531.18	10150.00	10149.91	0.00	22.68	319.12	-120.39	-74.01	3792.83	3768.87	158.28	
14350.00	10531.02	10150.00	10149.91	0.00	22.68	319.12	-120.39	-74.01	3842.36	3818.42	160.47	
14400.00	10530.85	10150.00	10149.91	0.00	22.68	319.12	-120.39	-74.01	3891.91	3867.98	162.67	
14450.00	10530.68	10150.00	10149.91	0.00	22.68	319.12	-120.39	-74.01	3941.46	3917.56	164.86	
14500.00	10530.51	10150.00	10149.91	0.00	22.68	319.12	-120.39	-74.01	3991.03	3967.14	167.05	
14550.00	10530.34	10150.00	10149.91	0.00	22.68	319.12	-120.39	-74.01	4040.61	4016.73	169.25	
14600.00	10530.17	10150.00	10149.91	0.00	22.68	319.12	-120.39	-74.01	4090.20	4066.34	171.44	
14650.00	10530.00	10150.00	10149.91	0.00	22.68	319.12	-120.39	-74.01	4139.79	4115.95	173.63	
14700.00	10529.83	10150.00	10149.91	0.00	22.68	319.12	-120.39	-74.01	4189.40	4165.57	175.83	
14750.00	10529.67	10150.00	10149.91	0.00	22.68	319.12	-120.39	-74.01	4239.02	4215.21	178.03	
14800.00	10529.50	10150.00	10149.91	0.00	22.68	319.12	-120.39	-74.01	4288.64	4264.85	180.22	
14850.00	10529.33	10150.00	10149.91	0.00	22.68	319.12	-120.39	-74.01	4338.28	4314.49	182.42	
14900.00	10529.16	10150.00	10149.91	0.00	22.68	319.12	-120.39	-74.01	4387.92	4364.15	184.62	
14950.00	10528.99	10150.00	10149.91	0.00	22.68	319.12	-120.39	-74.01	4437.57	4413.81	186.82	
15000.00	10528.82	10150.00	10149.91	0.00	22.68	319.12	-120.39	-74.01	4487.23	4463.49	189.02	
15050.00	10528.65	10150.00	10149.91	0.00	22.68	319.12	-120.39	-74.01	4536.89	4513.17	191.21	
15100.00	10528.48	10150.00	10149.91	0.00	22.68	319.12	-120.39	-74.01	4586.56	4562.85	193.41	
15150.00	10528.32	10150.00	10149.91	0.00	22.68	319.12	-120.39	-74.01	4636.24	4612.54	195.61	
15200.00	10528.15	10150.00	10149.91	0.00	22.68	319.12	-120.39	-74.01	4685.93	4662.24	197.82	
15250.00	10527.98	10150.00	10149.91	0.00	22.68	319.12	-120.39	-74.01	4735.62	4711.95	200.02	
15300.00	10527.81	10150.00	10149.91	0.00	22.68	319.12	-120.39	-74.01	4785.32	4761.66	202.22	
15350.00	10527.64	10150.00	10149.91	0.00	22.68	319.12	-120.39	-74.01	4835.03	4811.38	204.42	
15400.00	10527.47	10150.00	10149.91	0.00	22.68	319.12	-120.39	-74.01	4884.74	4861.10	206.62	
15450.00	10527.30	10150.00	10149.91	0.00	22.68	319.12	-120.39	-74.01	4934.46	4910.83	208.82	
15500.00	10527.13	10150.00	10149.91	0.00	22.68	319.12	-120.39	-74.01	4984.18	4960.56	211.03	
15550.00	10526.97	10150.00	10149.91	0.00	22.68	319.12	-120.39	-74.01	5033.91	5010.30	213.23	
15600.00	10526.80	10150.00	10149.91	0.00	22.68	319.12	-120.39	-74.01	5083.65	5060.05	215.43	
15650.00	10526.63	10150.00	10149.91	0.00	22.68	319.12	-120.39	-74.01	5133.38	5109.80	217.64	
15700.00	10526.46	10150.00	10149.91	0.00	22.68	319.12	-120.39	-74.01	5183.13	5159.55	219.84	
15750.00	10526.29	10150.00	10149.91	0.00	22.68	319.12	-120.39	-74.01	5232.88	5209.31	222.05	
15800.00	10526.12	10150.00	10149.91	0.00	22.68	319.12	-120.39	-74.01	5282.63	5259.07	224.25	
15850.00	10525.95	10139.16	10139.11	0.00	22.65	319.85	-121.32	-73.55	5332.26	5308.68	226.11	
15900.00	10525.78	10138.82	10138.78	0.00	22.65	319.87	-121.35	-73.53	5382.02	5358.44	228.30	
15950.00	10525.62	10138.49	10138.45	0.00	22.65	319.89	-121.37	-73.52	5431.78	5408.21	230.50	
16000.00	10525.45	10138.16	10138.12	0.00	22.65	319.91	-121.40	-73.51	5481.54	5457.98	232.69	
16050.00	10525.28	10137.84	10137.80	0.00	22.65	319.94	-121.42	-73.50	5531.31	5507.76	234.89	

LEAM Drilling Systems LLC

Anticollision Report

Company: Continental Resources **Date:** 2/13/2013 **Time:** 17:58:07 **Page:** 8
Field: McKenzie County, ND
Reference Site: Tallahassee 2 **Co-ordinate(NE) Reference:** Well: 2-16H, True North
Reference Well: 2-16H **Vertical (TVD) Reference:** GL 1920+KB 21 1941.0
Reference Wellpath: OH **Db:** Adapti

Site: Columbus Federal 1

Well: 1-16

Wellpath: OH V3 Plan: Plan #3c V1

Date: 2/13/2013

Time: 17:58:07

Page: 8

Db: Adapti

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr	Edge	Separation	Warning
MD ft	TVD ft	MD ft	TVD ft	Ref ft	Offset ft	TFO-HS deg	North ft	East ft	Distance ft	Distance ft	Factor	
16100.00	10525.11	10137.53	10137.49	0.00	22.65	319.96	-121.44	-73.49	5581.08	5557.54	237.08	
16150.00	10524.94	10137.22	10137.18	0.00	22.65	319.98	-121.46	-73.48	5630.86	5607.32	239.27	
16200.00	10524.77	10136.91	10136.87	0.00	22.65	320.00	-121.49	-73.47	5680.63	5657.11	241.47	
16250.00	10524.60	10136.61	10136.58	0.00	22.65	320.02	-121.51	-73.45	5730.42	5706.90	243.67	
16300.00	10524.43	10136.32	10136.28	0.00	22.65	320.04	-121.53	-73.44	5780.20	5756.69	245.86	
16350.00	10524.27	10136.03	10135.99	0.00	22.64	320.06	-121.55	-73.44	5829.99	5806.49	248.06	
16400.00	10524.10	10135.74	10135.71	0.00	22.64	320.07	-121.57	-73.43	5879.79	5856.29	250.25	
16450.00	10523.93	10125.00	10124.99	0.00	22.62	320.78	-122.18	-73.12	5929.70	5906.18	252.12	
16500.00	10523.76	10125.00	10124.99	0.00	22.62	320.78	-122.18	-73.12	5979.49	5955.98	254.32	
16550.00	10523.59	10125.00	10124.99	0.00	22.62	320.78	-122.18	-73.12	6029.29	6005.79	256.53	
16600.00	10523.42	10125.00	10124.99	0.00	22.62	320.78	-122.18	-73.12	6079.09	6055.59	258.73	
16650.00	10523.25	10125.00	10124.99	0.00	22.62	320.78	-122.18	-73.12	6128.89	6105.41	260.94	
16700.00	10523.08	10125.00	10124.99	0.00	22.62	320.78	-122.18	-73.12	6178.70	6155.22	263.14	
16750.00	10522.92	10125.00	10124.99	0.00	22.62	320.78	-122.18	-73.12	6228.51	6205.04	265.35	
16800.00	10522.75	10125.00	10124.99	0.00	22.62	320.78	-122.18	-73.12	6278.32	6254.86	267.55	
16850.00	10522.58	10125.00	10124.99	0.00	22.62	320.78	-122.18	-73.12	6328.14	6304.68	269.76	
16900.00	10522.41	10125.00	10124.99	0.00	22.62	320.78	-122.18	-73.12	6377.96	6354.51	271.97	
16950.00	10522.24	10125.00	10124.99	0.00	22.62	320.78	-122.18	-73.12	6427.78	6404.33	274.17	
17000.00	10522.07	10125.00	10124.99	0.00	22.62	320.78	-122.18	-73.12	6477.60	6454.16	276.38	
17050.00	10521.90	10125.00	10124.99	0.00	22.62	320.78	-122.18	-73.12	6527.43	6504.00	278.59	
17100.00	10521.73	10125.00	10124.99	0.00	22.62	320.78	-122.18	-73.12	6577.26	6553.83	280.79	
17150.00	10521.57	10125.00	10124.99	0.00	22.62	320.78	-122.18	-73.12	6627.09	6603.67	283.00	
17200.00	10521.40	10125.00	10124.99	0.00	22.62	320.78	-122.18	-73.12	6676.93	6653.51	285.21	
17250.00	10521.23	10125.00	10124.99	0.00	22.62	320.78	-122.18	-73.12	6726.76	6703.36	287.41	
17300.00	10521.06	10125.00	10124.99	0.00	22.62	320.78	-122.18	-73.12	6776.60	6753.20	289.62	
17350.00	10520.89	10125.00	10124.99	0.00	22.62	320.78	-122.18	-73.12	6826.44	6803.05	291.83	
17400.00	10520.72	10125.00	10124.99	0.00	22.62	320.78	-122.18	-73.12	6876.29	6852.90	294.04	
17450.00	10520.55	10125.00	10124.99	0.00	22.62	320.78	-122.18	-73.12	6926.13	6902.75	296.25	
17500.00	10520.38	10125.00	10124.99	0.00	22.62	320.78	-122.18	-73.12	6975.98	6952.61	298.45	
17550.00	10520.22	10125.00	10124.99	0.00	22.62	320.78	-122.18	-73.12	7025.83	7002.47	300.66	
17600.00	10520.05	10125.00	10124.99	0.00	22.62	320.78	-122.18	-73.12	7075.69	7052.32	302.87	
17650.00	10519.88	10125.00	10124.99	0.00	22.62	320.78	-122.18	-73.12	7125.54	7102.18	305.08	
17700.00	10519.71	10125.00	10124.99	0.00	22.62	320.78	-122.18	-73.12	7175.40	7152.05	307.29	
17750.00	10519.54	10125.00	10124.99	0.00	22.62	320.78	-122.18	-73.12	7225.26	7201.91	309.50	
17800.00	10519.37	10125.00	10124.99	0.00	22.62	320.78	-122.18	-73.12	7275.12	7251.78	311.71	
17850.00	10519.20	10125.00	10124.99	0.00	22.62	320.78	-122.18	-73.12	7324.98	7301.65	313.91	
17900.00	10519.03	10125.00	10124.99	0.00	22.62	320.78	-122.18	-73.12	7374.84	7351.52	316.12	
17950.00	10518.87	10125.00	10124.99	0.00	22.62	320.78	-122.18	-73.12	7424.71	7401.39	318.33	
18000.00	10518.70	10125.00	10124.99	0.00	22.62	320.78	-122.18	-73.12	7474.58	7451.26	320.54	
18050.00	10518.53	10125.00	10124.99	0.00	22.62	320.78	-122.18	-73.12	7524.45	7501.14	322.75	
18100.00	10518.36	10125.00	10124.99	0.00	22.62	320.78	-122.18	-73.12	7574.32	7551.01	324.96	
18150.00	10518.19	10125.00	10124.99	0.00	22.62	320.78	-122.18	-73.12	7624.19	7600.89	327.17	
18200.00	10518.02	10125.00	10124.99	0.00	22.62	320.78	-122.18	-73.12	7674.07	7650.77	329.38	
18206.45	10518.00	10125.00	10124.99	0.00	22.62	320.78	-122.18	-73.12	7680.50	7657.21	329.67	

Site: Columbus Federal 2

Well: 2-16H

Wellpath: OH V3 Plan: Plan #2 V1

Inter-Site Error: 0.00 ft

LEAM Drilling Systems LLC

Anticollision Report

Company:	Continental Resources				Date: 2/13/2013			Time: 17:58:07			Page: 9	
Field:	McKenzie County, ND											
Reference Site:	Tallahassee 2				Co-ordinate(NE) Reference: Well: 2-16H, True North							
Reference Well:	2-16H				Vertical (TVD) Reference: GL 1920+KB 21 1941.0							
Reference Wellpath:	OH								Db: Adapti			
Site:	Columbus Federal 2											
Well:	2-16H											
Wellpath:	OH V3 Plan: Plan #2 V1				Inter-Site Error: 0.00				ft			
Reference MD ft	Offset TVD ft	Offset MD ft	Offset TVD ft	Semi-Major Axis Ref ft	Semi-Major Axis Offset ft	Semi-Major Axis TFO-HS deg	Offset Location North ft	Offset Location East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	30.67	38.71	22.95	45.00	44.96	1012.05	No Data
50.00	50.00	50.00	50.00	0.00	0.04	30.67	38.71	22.95	45.00	44.91	505.72	
100.00	100.00	100.00	100.00	0.00	0.09	30.67	38.71	22.95	45.00	44.80	223.48	
150.00	150.00	150.00	150.00	0.00	0.20	30.67	38.71	22.95	45.00	44.69	143.43	
200.00	200.00	200.00	200.00	0.00	0.31	30.67	38.71	22.95	45.00	44.57	105.60	
250.00	250.00	250.00	250.00	0.00	0.43	30.67	38.71	22.95	45.00	44.46	83.56	
300.00	300.00	300.00	300.00	0.00	0.54	30.67	38.71	22.95	45.00	44.35	69.14	
350.00	350.00	350.00	350.00	0.00	0.65	30.67	38.71	22.95	45.00	44.24	58.96	
400.00	400.00	400.00	400.00	0.00	0.76	30.67	38.71	22.95	45.00	44.12	51.39	
450.00	450.00	450.00	450.00	0.00	0.88	30.67	38.71	22.95	45.00	44.01	45.54	
500.00	500.00	500.00	500.00	0.00	0.99	30.67	38.71	22.95	45.00	43.90	40.89	
550.00	550.00	550.00	550.00	0.00	1.10	30.67	38.71	22.95	45.00	43.79	37.10	
600.00	600.00	600.00	600.00	0.00	1.21	30.67	38.71	22.95	45.00	43.68	33.96	
650.00	650.00	650.00	650.00	0.00	1.32	30.67	38.71	22.95	45.00	43.56	31.30	
700.00	700.00	700.00	700.00	0.00	1.44	30.67	38.71	22.95	45.00	43.45	29.03	
750.00	750.00	750.00	750.00	0.00	1.55	30.67	38.71	22.95	45.00	43.34	27.07	
800.00	800.00	800.00	800.00	0.00	1.66	30.67	38.71	22.95	45.00	43.23	25.36	
850.00	850.00	850.00	850.00	0.00	1.77	30.67	38.71	22.95	45.00	43.11	23.85	
900.00	900.00	900.00	900.00	0.00	1.89	30.67	38.71	22.95	45.00	43.00	22.51	
950.00	950.00	950.00	950.00	0.00	2.00	30.67	38.71	22.95	45.00	42.89	21.31	
1000.00	1000.00	1000.00	1000.00	0.00	2.11	30.67	38.71	22.95	45.00	42.78	20.23	
1050.00	1050.00	1050.00	1050.00	0.00	2.22	30.67	38.71	22.95	45.00	42.66	19.26	
1100.00	1100.00	1100.00	1100.00	0.00	2.34	30.67	38.71	22.95	45.00	42.55	18.37	
1150.00	1150.00	1150.00	1150.00	0.00	2.45	30.67	38.71	22.95	45.00	42.44	17.57	
1200.00	1200.00	1200.00	1200.00	0.00	2.56	30.67	38.71	22.95	45.00	42.33	16.83	
1250.00	1250.00	1250.00	1250.00	0.00	2.67	30.67	38.71	22.95	45.00	42.21	16.15	
1300.00	1300.00	1300.00	1300.00	0.00	2.79	30.67	38.71	22.95	45.00	42.10	15.53	
1350.00	1350.00	1350.00	1350.00	0.00	2.90	30.67	38.71	22.95	45.00	41.99	14.95	
1400.00	1400.00	1400.00	1400.00	0.00	3.01	30.67	38.71	22.95	45.00	41.88	14.41	
1450.00	1450.00	1450.00	1450.00	0.00	3.12	30.67	38.71	22.95	45.00	41.76	13.91	
1500.00	1500.00	1500.00	1500.00	0.00	3.24	30.67	38.71	22.95	45.00	41.65	13.44	
1550.00	1550.00	1550.00	1550.00	0.00	3.35	30.67	38.71	22.95	45.00	41.54	13.00	
1600.00	1600.00	1600.00	1600.00	0.00	3.46	30.67	38.71	22.95	45.00	41.43	12.60	
1650.00	1650.00	1650.00	1650.00	0.00	3.57	30.67	38.71	22.95	45.00	41.32	12.21	
1700.00	1700.00	1700.00	1700.00	0.00	3.69	30.67	38.71	22.95	45.00	41.20	11.85	
1750.00	1750.00	1750.00	1750.00	0.00	3.80	30.67	38.71	22.95	45.00	41.09	11.51	
1800.00	1800.00	1800.00	1800.00	0.00	3.91	30.67	38.71	22.95	45.00	40.98	11.19	
1850.00	1850.00	1850.00	1850.00	0.00	4.02	30.67	38.71	22.95	45.00	40.87	10.88	
1900.00	1900.00	1900.00	1900.00	0.00	4.13	30.67	38.71	22.95	45.00	40.75	10.60	
1950.00	1950.00	1950.00	1950.00	0.00	4.25	30.67	38.71	22.95	45.00	40.64	10.32	
2000.00	2000.00	2000.00	2000.00	0.00	4.36	30.67	38.71	22.95	45.00	40.53	10.06	
2050.00	2050.00	2050.00	2050.00	0.00	4.47	30.67	38.71	22.95	45.00	40.42	9.82	
2100.00	2100.00	2100.00	2100.00	0.00	4.58	30.67	38.71	22.95	45.00	40.30	9.58	
2150.00	2150.00	2150.00	2150.00	0.00	4.70	30.67	38.71	22.95	45.00	40.19	9.36	
2200.00	2200.00	2200.00	2200.00	0.00	4.81	30.67	38.71	22.95	45.00	40.08	9.14	
2250.00	2250.00	2250.00	2250.00	0.00	4.92	30.67	38.71	22.95	45.00	39.97	8.94	
2300.00	2300.00	2300.00	2300.00	0.00	5.03	30.67	38.71	22.95	45.00	39.85	8.74	
2350.00	2350.00	2350.00	2350.00	0.00	5.15	30.67	38.71	22.95	45.00	39.74	8.56	
2400.00	2400.00	2400.00	2400.00	0.00	5.26	30.67	38.71	22.95	45.00	39.63	8.38	
2450.00	2450.00	2450.00	2450.00	0.00	5.37	30.67	38.71	22.95	45.00	39.52	8.21	
2500.00	2500.00	2500.00	2500.00	0.00	5.48	30.67	38.71	22.95	45.00	39.52	8.21	

LEAM Drilling Systems LLC

Anticollision Report

Company:	Continental Resources				Date: 2/13/2013			Time: 17:58:07			Page: 10			
Field:	McKenzie County, ND													
Reference Site:	Tallahassee 2								Co-ordinate(NE) Reference: Well: 2-16H, True North					
Reference Well:	2-16H				Vertical (TVD) Reference: GL 1920+KB 21 1941.0									
Reference Wellpath:	OH								Db: Adapti					
Site:	Columbus Federal 2													
Well:	2-16H													
Wellpath:	OH V3 Plan: Plan #2 V1								Inter-Site Error: 0.00		ft			
Reference MD ft	Offset TVD ft	Offset MD ft	Offset TVD ft	Semi-Major Axis Ref ft	Semi-Major Axis Offset ft	Semi-Major Axis TFO-HS deg	Offset Location North ft	Offset Location East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning		
2550.00	2550.00	2550.00	2550.00	0.00	5.60	30.67	38.71	22.95	45.00	39.40	8.04			
2600.00	2600.00	2600.00	2600.00	0.00	5.71	30.67	38.71	22.95	45.00	39.29	7.88			
2650.00	2650.00	2650.00	2650.00	0.00	5.82	30.67	38.71	22.95	45.00	39.18	7.73			
2700.00	2700.00	2700.00	2700.00	0.00	5.93	30.67	38.71	22.95	45.00	39.07	7.58			
2750.00	2750.00	2750.00	2750.00	0.00	6.05	30.67	38.71	22.95	45.00	38.96	7.44			
2800.00	2800.00	2800.00	2800.00	0.00	6.16	30.67	38.71	22.95	45.00	38.84	7.31			
2850.00	2850.00	2850.00	2850.00	0.00	6.27	30.67	38.71	22.95	45.00	38.73	7.18			
2900.00	2900.00	2900.00	2900.00	0.00	6.38	30.67	38.71	22.95	45.00	38.62	7.05			
2950.00	2950.00	2950.00	2950.00	0.00	6.49	30.67	38.71	22.95	45.00	38.51	6.93			
3000.00	3000.00	3000.00	3000.00	0.00	6.61	30.67	38.71	22.95	45.00	38.39	6.81			
3050.00	3050.00	3050.00	3050.00	0.00	6.72	30.67	38.71	22.95	45.00	38.28	6.70			
3100.00	3100.00	3100.00	3100.00	0.00	6.83	30.67	38.71	22.95	45.00	38.17	6.59			
3150.00	3150.00	3150.00	3150.00	0.00	6.94	30.67	38.71	22.95	45.00	38.06	6.48			
3200.00	3200.00	3200.00	3200.00	0.00	7.06	30.67	38.71	22.95	45.00	37.94	6.38			
3250.00	3250.00	3250.00	3250.00	0.00	7.17	30.67	38.71	22.95	45.00	37.83	6.28			
3300.00	3300.00	3300.00	3300.00	0.00	7.28	30.67	38.71	22.95	45.00	37.72	6.18			
3350.00	3350.00	3350.00	3350.00	0.00	7.39	30.67	38.71	22.95	45.00	37.61	6.09			
3400.00	3400.00	3400.00	3400.00	0.00	7.51	30.67	38.71	22.95	45.00	37.49	6.00			
3450.00	3450.00	3450.00	3450.00	0.00	7.62	30.67	38.71	22.95	45.00	37.38	5.91			
3500.00	3500.00	3500.00	3500.00	0.00	7.73	30.67	38.71	22.95	45.00	37.27	5.82			
3550.00	3550.00	3550.00	3550.00	0.00	7.84	30.67	38.71	22.95	45.00	37.16	5.74			
3600.00	3600.00	3600.00	3600.00	0.00	7.96	30.67	38.71	22.95	45.00	37.04	5.66			
3650.00	3650.00	3650.00	3650.00	0.00	8.07	30.67	38.71	22.95	45.00	36.93	5.58			
3700.00	3700.00	3700.00	3700.00	0.00	8.18	30.67	38.71	22.95	45.00	36.82	5.50			
3750.00	3750.00	3750.00	3750.00	0.00	8.29	30.67	38.71	22.95	45.00	36.71	5.43			
3800.00	3800.00	3800.00	3800.00	0.00	8.41	30.67	38.71	22.95	45.00	36.60	5.35			
3850.00	3850.00	3850.00	3850.00	0.00	8.52	30.67	38.71	22.95	45.00	36.48	5.28			
3900.00	3900.00	3900.00	3900.00	0.00	8.63	30.67	38.71	22.95	45.00	36.37	5.21			
3950.00	3950.00	3950.00	3950.00	0.00	8.74	30.67	38.71	22.95	45.00	36.26	5.15			
4000.00	4000.00	4000.00	4000.00	0.00	8.85	30.67	38.71	22.95	45.00	36.15	5.08			
4050.00	4050.00	4050.00	4050.00	0.00	8.97	30.67	38.71	22.95	45.00	36.03	5.02			
4100.00	4100.00	4100.00	4100.00	0.00	9.08	30.67	38.71	22.95	45.00	35.92	4.96			
4150.00	4150.00	4150.00	4150.00	0.00	9.19	30.67	38.71	22.95	45.00	35.81	4.90			
4200.00	4200.00	4200.00	4200.00	0.00	9.30	30.67	38.71	22.95	45.00	35.70	4.84			
4250.00	4250.00	4250.00	4250.00	0.00	9.42	30.67	38.71	22.95	45.00	35.58	4.78			
4300.00	4300.00	4300.00	4300.00	0.00	9.53	30.67	38.71	22.95	45.00	35.47	4.72			
4350.00	4350.00	4350.00	4350.00	0.00	9.64	30.67	38.71	22.95	45.00	35.36	4.67			
4400.00	4400.00	4400.00	4400.00	0.00	9.75	30.67	38.71	22.95	45.00	35.25	4.61			
4450.00	4450.00	4450.00	4450.00	0.00	9.87	30.67	38.71	22.95	45.00	35.13	4.56			
4500.00	4500.00	4500.00	4500.00	0.00	9.98	30.67	38.71	22.95	45.00	35.02	4.51			
4550.00	4550.00	4550.00	4550.00	0.00	10.09	30.67	38.71	22.95	45.00	34.91	4.46			
4600.00	4600.00	4600.00	4600.00	0.00	10.20	30.67	38.71	22.95	45.00	34.80	4.41			
4650.00	4650.00	4650.00	4650.00	0.00	10.32	30.67	38.71	22.95	45.00	34.68	4.36			
4700.00	4700.00	4700.00	4700.00	0.00	10.43	30.67	38.71	22.95	45.00	34.57	4.32			
4750.00	4750.00	4750.00	4750.00	0.00	10.54	30.67	38.71	22.95	45.00	34.46	4.27			
4800.00	4800.00	4800.00	4800.00	0.00	10.65	30.67	38.71	22.95	45.00	34.35	4.22			
4850.00	4850.00	4850.00	4850.00	0.00	10.77	30.67	38.71	22.95	45.00	34.24	4.18			
4900.00	4900.00	4900.00	4900.00	0.00	10.88	30.67	38.71	22.95	45.00	34.12	4.14			
4950.00	4950.00	4950.00	4950.00	0.00	10.99	30.67	38.71	22.95	45.00	34.01	4.09			
5000.00	5000.00	5000.00	5000.00	0.00	11.10	30.67	38.71	22.95	45.00	33.90	4.05			
5050.00	5050.00	5050.00	5050.00	0.00	11.21	30.67	38.71	22.95	45.00	33.79	4.01			

LEAM Drilling Systems LLC

Anticollision Report

Company:	Continental Resources				Date: 2/13/2013			Time: 17:58:07			Page: 11			
Field:	McKenzie County, ND													
Reference Site:	Tallahassee 2				Co-ordinate(NE) Reference:				Well: 2-16H, True North					
Reference Well:	2-16H				Vertical (TVD) Reference:				GL 1920+KB 21 1941.0					
Reference Wellpath:	OH								Db: Adapti					
Site:	Columbus Federal 2													
Well:	2-16H													
Wellpath:	OH V3 Plan: Plan #2 V1								Inter-Site Error: 0.00		ft			
Reference MD ft	Offset TVD ft	Offset MD ft	Offset TVD ft	Semi-Major Axis Ref ft	Semi-Major Axis Offset ft	Semi-Major Axis TFO-HS deg	Offset Location North ft	Offset Location East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning		
5100.00	5100.00	5100.00	5100.00	0.00	11.33	30.67	38.71	22.95	45.00	33.67	3.97			
5150.00	5150.00	5150.00	5150.00	0.00	11.44	30.67	38.71	22.95	45.00	33.56	3.93			
5200.00	5200.00	5200.00	5200.00	0.00	11.55	30.67	38.71	22.95	45.00	33.45	3.90			
5250.00	5250.00	5250.00	5250.00	0.00	11.66	30.67	38.71	22.95	45.00	33.34	3.86			
5300.00	5300.00	5300.00	5300.00	0.00	11.78	30.67	38.71	22.95	45.00	33.22	3.82			
5350.00	5350.00	5350.00	5350.00	0.00	11.89	30.67	38.71	22.95	45.00	33.11	3.78			
5400.00	5400.00	5400.00	5400.00	0.00	12.00	30.67	38.71	22.95	45.00	33.00	3.75			
5450.00	5450.00	5450.00	5450.00	0.00	12.11	30.67	38.71	22.95	45.00	32.89	3.71			
5500.00	5500.00	5500.00	5500.00	0.00	12.23	30.67	38.71	22.95	45.00	32.77	3.68			
5550.00	5550.00	5550.00	5550.00	0.00	12.34	30.67	38.71	22.95	45.00	32.66	3.65			
5600.00	5600.00	5600.00	5600.00	0.00	12.45	30.67	38.71	22.95	45.00	32.55	3.61			
5650.00	5650.00	5650.00	5650.00	0.00	12.56	30.67	38.71	22.95	45.00	32.44	3.58			
5700.00	5700.00	5700.00	5700.00	0.00	12.68	30.67	38.71	22.95	45.00	32.32	3.55			
5750.00	5750.00	5750.00	5750.00	0.00	12.79	30.67	38.71	22.95	45.00	32.21	3.52			
5800.00	5800.00	5800.00	5800.00	0.00	12.90	30.67	38.71	22.95	45.00	32.10	3.49			
5850.00	5850.00	5850.00	5850.00	0.00	13.01	30.67	38.71	22.95	45.00	31.99	3.46			
5900.00	5900.00	5900.00	5900.00	0.00	13.13	30.67	38.71	22.95	45.00	31.88	3.43			
5950.00	5950.00	5950.00	5950.00	0.00	13.24	30.67	38.71	22.95	45.00	31.76	3.40			
6000.00	6000.00	6000.00	6000.00	0.00	13.35	30.67	38.71	22.95	45.00	31.65	3.37			
6050.00	6050.00	6050.00	6050.00	0.00	13.46	30.67	38.71	22.95	45.00	31.54	3.34			
6100.00	6100.00	6100.00	6100.00	0.00	13.57	30.67	38.71	22.95	45.00	31.43	3.31			
6150.00	6150.00	6150.00	6150.00	0.00	13.69	30.67	38.71	22.95	45.00	31.31	3.29			
6200.00	6200.00	6200.00	6200.00	0.00	13.80	30.67	38.71	22.95	45.00	31.20	3.26			
6250.00	6250.00	6250.00	6250.00	0.00	13.91	30.67	38.71	22.95	45.00	31.09	3.23			
6300.00	6300.00	6300.00	6300.00	0.00	14.02	30.67	38.71	22.95	45.00	30.98	3.21			
6350.00	6350.00	6350.00	6350.00	0.00	14.14	30.67	38.71	22.95	45.00	30.86	3.18			
6400.00	6400.00	6400.00	6400.00	0.00	14.25	30.67	38.71	22.95	45.00	30.75	3.16			
6450.00	6450.00	6450.00	6450.00	0.00	14.36	30.67	38.71	22.95	45.00	30.64	3.13			
6500.00	6500.00	6500.00	6500.00	0.00	14.47	30.67	38.71	22.95	45.00	30.53	3.11			
6550.00	6550.00	6550.00	6550.00	0.00	14.59	30.67	38.71	22.95	45.00	30.41	3.09			
6600.00	6600.00	6600.00	6600.00	0.00	14.70	30.67	38.71	22.95	45.00	30.30	3.06			
6650.00	6650.00	6650.00	6650.00	0.00	14.81	30.67	38.71	22.95	45.00	30.19	3.04			
6700.00	6700.00	6700.00	6700.00	0.00	14.92	30.67	38.71	22.95	45.00	30.08	3.02			
6750.00	6750.00	6750.00	6750.00	0.00	15.04	30.67	38.71	22.95	45.00	29.96	2.99			
6800.00	6800.00	6800.00	6800.00	0.00	15.15	30.67	38.71	22.95	45.00	29.85	2.97			
6850.00	6850.00	6850.00	6850.00	0.00	15.26	30.67	38.71	22.95	45.00	29.74	2.95			
6900.00	6900.00	6900.00	6900.00	0.00	15.37	30.67	38.71	22.95	45.00	29.63	2.93			
6950.00	6950.00	6950.00	6950.00	0.00	15.49	30.67	38.71	22.95	45.00	29.52	2.91			
7000.00	7000.00	7000.00	7000.00	0.00	15.60	30.67	38.71	22.95	45.00	29.40	2.89			
7050.00	7050.00	7050.00	7050.00	0.00	15.71	30.67	38.71	22.95	45.00	29.29	2.86			
7100.00	7100.00	7100.00	7100.00	0.00	15.82	30.67	38.71	22.95	45.00	29.18	2.84			
7150.00	7150.00	7150.00	7150.00	0.00	15.93	30.67	38.71	22.95	45.00	29.07	2.82			
7200.00	7200.00	7200.00	7200.00	0.00	16.05	30.67	38.71	22.95	45.00	28.95	2.80			
7250.00	7250.00	7250.00	7250.00	0.00	16.16	30.67	38.71	22.95	45.00	28.84	2.78			
7300.00	7300.00	7300.00	7300.00	0.00	16.27	30.67	38.71	22.95	45.00	28.73	2.77			
7350.00	7350.00	7350.00	7350.00	0.00	16.38	30.67	38.71	22.95	45.00	28.62	2.75			
7400.00	7400.00	7400.00	7400.00	0.00	16.50	30.67	38.71	22.95	45.00	28.50	2.73			
7450.00	7450.00	7450.00	7450.00	0.00	16.61	30.67	38.71	22.95	45.00	28.39	2.71			
7500.00	7500.00	7500.00	7500.00	0.00	16.72	30.67	38.71	22.95	45.00	28.28	2.69			
7550.00	7550.00	7550.00	7550.00	0.00	16.83	30.67	38.71	22.95	45.00	28.17	2.67			
7600.00	7600.00	7600.00	7600.00	0.00	16.95	30.67	38.71	22.95	45.00	28.05	2.66			

LEAM Drilling Systems LLC

Anticollision Report

Company:	Continental Resources				Date: 2/13/2013			Time: 17:58:07			Page: 12			
Field:	McKenzie County, ND													
Reference Site:	Tallahassee 2								Co-ordinate(NE) Reference: Well: 2-16H, True North					
Reference Well:	2-16H				Vertical (TVD) Reference: GL 1920+KB 21 1941.0									
Reference Wellpath:	OH								Db: Adapti					
Site:	Columbus Federal 2													
Well:	2-16H													
Wellpath:	OH V3 Plan: Plan #2 V1								Inter-Site Error: 0.00		ft			
Reference MD ft	Offset MD ft	Offset TVD ft	Semi-Major Axis Ref ft	Semi-Major Axis Offset ft	TFO-HS deg	Offset Location North ft	Offset Location East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning			
7650.00	7650.00	7650.00	7650.00	0.00	17.06	30.67	38.71	22.95	45.00	27.94	2.64			
7700.00	7700.00	7700.00	7700.00	0.00	17.17	30.67	38.71	22.95	45.00	27.83	2.62			
7750.00	7750.00	7750.00	7750.00	0.00	17.28	30.67	38.71	22.95	45.00	27.72	2.60			
7800.00	7800.00	7800.00	7800.00	0.00	17.40	30.67	38.71	22.95	45.00	27.60	2.59			
7850.00	7850.00	7850.00	7850.00	0.00	17.51	30.67	38.71	22.95	45.00	27.49	2.57			
7900.00	7900.00	7900.00	7900.00	0.00	17.62	30.67	38.71	22.95	45.00	27.38	2.55			
7950.00	7950.00	7950.00	7950.00	0.00	17.73	30.67	38.71	22.95	45.00	27.27	2.54			
8000.00	8000.00	8000.00	8000.00	0.00	17.85	30.67	38.71	22.95	45.00	27.16	2.52			
8050.00	8050.00	8050.00	8050.00	0.00	17.96	30.67	38.71	22.95	45.00	27.04	2.51			
8100.00	8100.00	8100.00	8100.00	0.00	18.07	30.67	38.71	22.95	45.00	26.93	2.49			
8150.00	8150.00	8150.00	8150.00	0.00	18.18	30.67	38.71	22.95	45.00	26.82	2.47			
8200.00	8200.00	8200.00	8200.00	0.00	18.29	30.67	38.71	22.95	45.00	26.71	2.46			
8250.00	8250.00	8250.00	8250.00	0.00	18.41	30.67	38.71	22.95	45.00	26.59	2.44			
8300.00	8300.00	8300.00	8300.00	0.00	18.52	30.67	38.71	22.95	45.00	26.48	2.43			
8350.00	8350.00	8350.00	8350.00	0.00	18.63	30.67	38.71	22.95	45.00	26.37	2.42			
8400.00	8400.00	8400.00	8400.00	0.00	18.74	30.67	38.71	22.95	45.00	26.26	2.40			
8450.00	8450.00	8450.00	8450.00	0.00	18.86	30.67	38.71	22.95	45.00	26.14	2.39			
8500.00	8500.00	8500.00	8500.00	0.00	18.97	30.67	38.71	22.95	45.00	26.03	2.37			
8550.00	8550.00	8550.00	8550.00	0.00	19.08	30.67	38.71	22.95	45.00	25.92	2.36			
8600.00	8600.00	8600.00	8600.00	0.00	19.19	30.67	38.71	22.95	45.00	25.81	2.34			
8650.00	8650.00	8650.00	8650.00	0.00	19.31	30.67	38.71	22.95	45.00	25.69	2.33			
8700.00	8700.00	8700.00	8700.00	0.00	19.42	30.67	38.71	22.95	45.00	25.58	2.32			
8750.00	8750.00	8750.00	8750.00	0.00	19.53	30.67	38.71	22.95	45.00	25.47	2.30			
8800.00	8800.00	8800.00	8800.00	0.00	19.64	30.67	38.71	22.95	45.00	25.36	2.29			
8850.00	8850.00	8850.00	8850.00	0.00	19.76	30.67	38.71	22.95	45.00	25.24	2.28			
8900.00	8900.00	8900.00	8900.00	0.00	19.87	30.67	38.71	22.95	45.00	25.13	2.26			
8950.00	8950.00	8950.00	8950.00	0.00	19.98	30.67	38.71	22.95	45.00	25.02	2.25			
9000.00	9000.00	9000.00	9000.00	0.00	20.09	30.67	38.71	22.95	45.00	24.91	2.24			
9050.00	9050.00	9050.00	9050.00	0.00	20.21	30.67	38.71	22.95	45.00	24.79	2.23			
9100.00	9100.00	9100.00	9100.00	0.00	20.32	30.67	38.71	22.95	45.00	24.68	2.21			
9150.00	9150.00	9150.00	9150.00	0.00	20.43	30.67	38.71	22.95	45.00	24.57	2.20			
9200.00	9200.00	9200.00	9200.00	0.00	20.54	30.67	38.71	22.95	45.00	24.46	2.19			
9250.00	9250.00	9250.00	9250.00	0.00	20.65	30.67	38.71	22.95	45.00	24.35	2.18			
9300.00	9300.00	9300.00	9300.00	0.00	20.77	30.67	38.71	22.95	45.00	24.23	2.17			
9350.00	9350.00	9350.00	9350.00	0.00	20.88	30.67	38.71	22.95	45.00	24.12	2.16			
9400.00	9400.00	9400.00	9400.00	0.00	20.99	30.67	38.71	22.95	45.00	24.01	2.14			
9450.00	9450.00	9450.00	9450.00	0.00	21.10	30.67	38.71	22.95	45.00	23.90	2.13			
9500.00	9500.00	9500.00	9500.00	0.00	21.22	30.67	38.71	22.95	45.00	23.78	2.12			
9550.00	9550.00	9550.00	9550.00	0.00	21.33	30.67	38.71	22.95	45.00	23.67	2.11			
9600.00	9600.00	9600.00	9600.00	0.00	21.44	30.67	38.71	22.95	45.00	23.56	2.10			
9650.00	9650.00	9650.00	9650.00	0.00	21.55	30.67	38.71	22.95	45.00	23.45	2.09			
9700.00	9700.00	9700.00	9700.00	0.00	21.67	30.67	38.71	22.95	45.00	23.33	2.08			
9750.00	9750.00	9750.00	9750.00	0.00	21.78	30.67	38.71	22.95	45.00	23.22	2.07			
9800.00	9800.00	9800.00	9800.00	0.00	21.89	30.67	38.71	22.95	45.00	23.11	2.06			
9850.00	9850.00	9850.00	9850.00	0.00	22.00	30.67	38.71	22.95	45.00	23.00	2.05			
9900.00	9900.00	9900.00	9900.00	0.00	22.12	30.67	38.71	22.95	45.00	22.88	2.03			
9950.00	9950.00	9950.00	9950.00	0.00	22.23	30.67	38.71	22.95	45.00	22.77	2.02			
10000.00	10000.00	10000.00	10000.00	0.00	22.34	30.67	38.71	22.95	45.00	22.66	2.01			
10050.00	10050.00	10050.00	10050.00	0.00	22.45	30.67	38.71	22.95	45.00	22.55	2.00			
10100.00	10100.00	10100.00	10100.00	0.00	22.57	30.67	38.71	22.95	45.00	22.43	1.99			
10102.27	10102.27	10102.27	10102.27	0.00	22.57	30.67	38.71	22.95	45.00	22.43	1.99			

LEAM Drilling Systems LLC

Anticollision Report

Company:	Continental Resources				Date:	2/13/2013		Time:	17:58:07		Page:	13
Field:	McKenzie County, ND											
Reference Site:	Tallahassee 2				Co-ordinate(NE) Reference:	Well: 2-16H, True North						
Reference Well:	2-16H				Vertical (TVD) Reference:	GL 1920+KB 21 1941.0						
Reference Wellpath:	OH										Db:	Adapti
Site:	Columbus Federal 2											
Well:	2-16H											
Wellpath:	OH V3 Plan: Plan #2 V1											
Reference MD ft	Offset TVD ft	Offset MD ft	Semi-Major Axis TVD ft	Ref ft	Offset ft	TFO-HS deg	Offset Location North ft	East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Inter-Site Error: 0.00 ft
10125.00	10124.99	10124.99	10124.99	0.00	22.62	190.08	38.71	22.95	45.58	22.96	2.01	
10150.00	10149.91	10149.91	10149.91	0.00	22.68	189.71	38.71	22.95	47.54	24.87	2.10	
10175.00	10174.67	10174.08	10174.08	0.00	22.73	189.09	38.77	22.93	50.95	28.06	2.23	
10200.00	10199.20	10196.59	10196.57	0.00	22.78	187.71	39.69	22.61	56.42	33.01	2.41	
10225.00	10223.42	10218.21	10218.09	0.00	22.83	185.75	41.59	21.94	64.12	40.21	2.68	
10250.00	10247.25	10238.68	10238.35	0.00	22.87	183.59	44.31	20.98	74.03	49.64	3.04	
10275.00	10270.61	10257.78	10257.13	0.00	22.91	181.48	47.64	19.81	86.06	61.23	3.47	
10300.00	10293.43	10275.38	10274.27	0.00	22.95	179.54	51.38	18.49	100.07	74.84	3.97	
10325.00	10315.64	10291.40	10289.72	0.00	22.98	177.78	55.35	17.09	115.91	90.34	4.53	
10350.00	10337.16	10305.79	10303.47	0.00	23.01	176.19	59.37	15.68	133.38	107.51	5.16	
10375.00	10357.92	10318.57	10315.56	0.00	23.04	174.71	63.29	14.30	152.29	126.19	5.83	
10400.00	10377.87	10329.78	10326.06	0.00	23.06	173.29	66.99	12.99	172.45	146.15	6.56	
10425.00	10396.92	10339.49	10335.06	0.00	23.08	171.85	70.41	11.79	193.70	167.25	7.32	
10450.00	10415.03	10347.76	10342.67	0.00	23.10	170.30	73.46	10.71	215.87	189.28	8.12	
10475.00	10432.13	10354.68	10348.99	0.00	23.11	168.50	76.12	9.78	238.79	212.11	8.95	
10500.00	10448.17	10360.34	10354.13	0.00	23.12	166.24	78.37	8.98	262.34	235.58	9.80	
10525.00	10463.10	10364.83	10358.18	0.00	23.13	163.13	80.19	8.34	286.38	259.57	10.68	
10550.00	10476.87	10368.23	10361.24	0.00	23.14	158.33	81.60	7.85	310.80	283.94	11.57	
10575.00	10489.43	10370.63	10363.39	0.00	23.14	149.74	82.60	7.49	335.49	308.60	12.48	
10600.00	10500.75	10372.10	10364.70	0.00	23.15	130.82	83.23	7.27	360.35	333.45	13.40	
10625.00	10510.78	10372.70	10365.24	0.00	23.15	86.76	83.48	7.18	385.29	358.39	14.32	
10650.00	10519.51	10372.51	10365.07	0.00	23.15	43.07	83.40	7.21	410.24	383.34	15.25	
10675.00	10526.88	10371.59	10364.24	0.00	23.15	24.45	83.01	7.35	435.11	408.23	16.19	
10700.00	10532.90	10369.99	10362.81	0.00	23.14	16.05	82.33	7.59	459.84	432.99	17.13	
10725.00	10537.53	10367.75	10360.81	0.00	23.14	11.47	81.40	7.92	484.36	457.54	18.06	
10750.00	10540.75	10364.93	10358.27	0.00	23.13	8.61	80.23	8.33	508.61	481.84	19.00	
10775.00	10542.57	10361.57	10355.24	0.00	23.12	6.68	78.86	8.81	532.54	505.82	19.93	
10796.05	10543.00	10358.34	10352.32	0.00	23.12	5.47	77.56	9.27	552.40	525.72	20.71	
10800.00	10542.99	10357.70	10351.74	0.00	23.12	5.41	77.31	9.36	556.10	529.44	20.85	
10850.00	10542.82	10350.00	10344.72	0.00	23.10	4.64	74.31	10.41	603.11	576.57	22.72	
10900.00	10542.66	10342.81	10338.13	0.00	23.09	3.99	71.62	11.36	650.39	623.96	24.61	
10950.00	10542.49	10336.15	10331.98	0.00	23.07	3.43	69.21	12.21	697.90	671.58	26.51	
11000.00	10542.32	10329.95	10326.21	0.00	23.06	2.96	67.05	12.97	745.61	719.38	28.43	
11050.00	10542.16	10325.00	10321.59	0.00	23.05	2.61	65.38	13.56	793.49	767.39	30.40	
11100.00	10541.99	10318.74	10315.72	0.00	23.04	2.19	63.34	14.28	841.53	815.50	32.33	
11150.00	10541.82	10313.67	10310.94	0.00	23.03	1.88	61.74	14.84	889.71	863.77	34.30	
11196.05	10541.67	10309.27	10306.78	0.00	23.02	1.63	60.40	15.31	934.18	908.32	36.12	
11200.00	10541.66	10308.91	10306.43	0.00	23.02	1.16	60.29	15.35	938.01	912.15	36.28	
11250.00	10541.49	10304.38	10302.13	0.00	23.01	355.17	58.95	15.82	986.42	960.64	38.27	
11300.00	10541.32	10300.00	10297.96	0.00	23.00	349.22	57.70	16.26	1034.90	1009.20	40.27	
11350.00	10541.15	10300.00	10297.96	0.00	23.00	343.33	57.70	16.26	1083.44	1057.89	42.41	
11400.00	10540.98	10291.85	10290.16	0.00	22.98	337.89	55.47	17.05	1131.93	1106.38	44.30	
11450.00	10540.81	10288.01	10286.47	0.00	22.97	332.68	54.47	17.40	1180.42	1154.93	46.31	
11500.00	10540.64	10284.34	10282.93	0.00	22.97	327.86	53.54	17.73	1228.84	1203.42	48.33	
11550.00	10540.47	10280.82	10279.53	0.00	22.96	323.44	52.67	18.03	1277.19	1251.83	50.35	
11600.00	10540.30	10275.00	10273.90	0.00	22.95	319.62	51.30	18.52	1325.45	1300.10	52.28	
11650.00	10540.13	10275.00	10273.90	0.00	22.95	315.69	51.30	18.52	1373.57	1348.32	54.41	
11700.00	10539.96	10275.00	10273.90	0.00	22.95	312.12	51.30	18.52	1421.57	1396.43	56.53	
11750.00	10539.79	10268.18	10267.27	0.00	22.93	309.51	49.77	19.05	1469.39	1444.24	58.42	
11800.00	10539.62	10265.35	10264.52	0.00	22.93	306.83	49.17	19.27	1517.05	1491.95	60.44	
11850.00	10539.45	10262.64	10261.87	0.00	22.92	304.42	48.61	19.47	1564.52	1539.47	62.44	

LEAM Drilling Systems LLC

Anticollision Report

Company:	Continental Resources				Date:	2/13/2013		Time:	17:58:07		Page:	14
Field:	McKenzie County, ND											
Reference Site:	Tallahassee 2				Co-ordinate(NE) Reference:	Well: 2-16H, True North						
Reference Well:	2-16H				Vertical (TVD) Reference:	GL 1920+KB 21 1941.0						
Reference Wellpath:	OH											
Site:	Columbus Federal 2											
Well:	2-16H											
Wellpath:	OH V3 Plan: Plan #2 V1											
Reference MD ft	Offset TVD ft	Offset MD ft	Semi-Major Axis TVD ft	Ref ft	Offset ft	TFO-HS deg	Offset Location North ft	East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Inter-Site Error: 0.00 ft
Warning												
11878.21	10539.36	10261.16	10260.43	0.00	22.92	303.17	48.31	19.57	1591.22	1566.19	63.57	
11900.00	10539.28	10260.05	10259.34	0.00	22.92	303.26	48.08	19.65	1611.83	1586.82	64.44	
11950.00	10539.12	10257.59	10256.94	0.00	22.91	303.47	47.60	19.82	1659.23	1634.26	66.45	
12000.00	10538.95	10250.00	10249.50	0.00	22.90	304.12	46.19	20.32	1706.80	1681.80	68.28	
12050.00	10538.78	10250.00	10249.50	0.00	22.90	304.12	46.19	20.32	1754.44	1729.51	70.38	
12100.00	10538.61	10250.00	10249.50	0.00	22.90	304.12	46.19	20.32	1802.20	1777.34	72.48	
12150.00	10538.44	10250.00	10249.50	0.00	22.90	304.12	46.19	20.32	1850.08	1825.28	74.60	
12200.00	10538.27	10250.00	10249.50	0.00	22.90	304.12	46.19	20.32	1898.07	1873.33	76.71	
12250.00	10538.10	10250.00	10249.50	0.00	22.90	304.12	46.19	20.32	1946.17	1921.48	78.84	
12300.00	10537.93	10250.00	10249.50	0.00	22.90	304.12	46.19	20.32	1994.35	1969.72	80.96	
12350.00	10537.77	10241.64	10241.28	0.00	22.88	304.82	44.77	20.82	2042.54	2017.87	82.80	
12400.00	10537.60	10240.02	10239.68	0.00	22.87	304.96	44.52	20.91	2090.86	2066.23	84.87	
12450.00	10537.43	10238.47	10238.15	0.00	22.87	305.09	44.27	20.99	2139.25	2114.65	86.95	
12500.00	10537.26	10236.98	10236.68	0.00	22.87	305.21	44.05	21.07	2187.71	2163.14	89.03	
12550.00	10537.09	10235.55	10235.26	0.00	22.86	305.33	43.83	21.15	2236.23	2211.69	91.12	
12600.00	10536.92	10234.17	10233.90	0.00	22.86	305.44	43.63	21.22	2284.81	2260.29	93.21	
12650.00	10536.75	10225.00	10224.83	0.00	22.84	306.20	42.39	21.65	2333.52	2308.95	95.01	
12700.00	10536.58	10225.00	10224.83	0.00	22.84	306.20	42.39	21.65	2382.18	2357.66	97.15	
12750.00	10536.42	10225.00	10224.83	0.00	22.84	306.20	42.39	21.65	2430.90	2406.42	99.29	
12800.00	10536.25	10225.00	10224.83	0.00	22.84	306.20	42.39	21.65	2479.67	2455.23	101.44	
12850.00	10536.08	10225.00	10224.83	0.00	22.84	306.20	42.39	21.65	2528.49	2504.08	103.59	
12900.00	10535.91	10225.00	10224.83	0.00	22.84	306.20	42.39	21.65	2577.35	2552.98	105.74	
12950.00	10535.74	10225.00	10224.83	0.00	22.84	306.20	42.39	21.65	2626.26	2601.92	107.89	
13000.00	10535.57	10225.00	10224.83	0.00	22.84	306.20	42.39	21.65	2675.21	2650.90	110.04	
13050.00	10535.40	10225.00	10224.83	0.00	22.84	306.20	42.39	21.65	2724.19	2699.91	112.20	
13100.00	10535.23	10225.00	10224.83	0.00	22.84	306.20	42.39	21.65	2773.21	2748.96	114.35	
13150.00	10535.07	10225.00	10224.83	0.00	22.84	306.20	42.39	21.65	2822.27	2798.05	116.51	
13200.00	10534.90	10225.00	10224.83	0.00	22.84	306.20	42.39	21.65	2871.36	2847.16	118.67	
13250.00	10534.73	10225.00	10224.83	0.00	22.84	306.20	42.39	21.65	2920.48	2896.31	120.84	
13300.00	10534.56	10225.00	10224.83	0.00	22.84	306.20	42.39	21.65	2969.63	2945.48	123.00	
13350.00	10534.39	10225.00	10224.83	0.00	22.84	306.20	42.39	21.65	3018.80	2994.68	125.17	
13400.00	10534.22	10225.00	10224.83	0.00	22.84	306.20	42.39	21.65	3068.01	3043.91	127.33	
13450.00	10534.05	10225.00	10224.83	0.00	22.84	306.20	42.39	21.65	3117.23	3093.16	129.50	
13500.00	10533.88	10225.00	10224.83	0.00	22.84	306.20	42.39	21.65	3166.49	3142.44	131.67	
13550.00	10533.72	10215.39	10215.29	0.00	22.82	306.98	41.29	22.04	3215.65	3191.57	133.51	
13600.00	10533.55	10214.68	10214.58	0.00	22.82	307.04	41.21	22.07	3264.94	3240.87	135.66	
13650.00	10533.38	10213.99	10213.89	0.00	22.82	307.10	41.14	22.09	3314.24	3290.19	137.80	
13700.00	10533.21	10213.31	10213.22	0.00	22.82	307.15	41.07	22.12	3363.56	3339.53	139.95	
13750.00	10533.04	10212.66	10212.57	0.00	22.82	307.20	41.01	22.14	3412.90	3388.88	142.10	
13800.00	10532.87	10212.02	10211.94	0.00	22.81	307.25	40.95	22.16	3462.26	3438.26	144.25	
13850.00	10532.70	10211.40	10211.32	0.00	22.81	307.30	40.89	22.19	3511.63	3487.65	146.40	
13900.00	10532.53	10210.79	10210.72	0.00	22.81	307.35	40.83	22.21	3561.03	3537.05	148.55	
13950.00	10532.37	10210.20	10210.13	0.00	22.81	307.40	40.77	22.23	3610.43	3586.48	150.71	
14000.00	10532.20	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	3659.96	3635.97	152.51	
14050.00	10532.03	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	3709.39	3685.41	154.69	
14100.00	10531.86	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	3758.83	3734.87	156.86	
14150.00	10531.69	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	3808.29	3784.34	159.04	
14200.00	10531.52	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	3857.76	3833.83	161.21	
14250.00	10531.35	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	3907.24	3883.32	163.39	
14300.00	10531.18	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	3956.73	3932.84	165.57	

LEAM Drilling Systems LLC

Anticollision Report

Company:	Continental Resources				Date:	2/13/2013		Time:	17:58:07		Page:	15
Field:	McKenzie County, ND											
Reference Site:	Tallahassee 2				Co-ordinate(NE) Reference:	Well: 2-16H, True North						
Reference Well:	2-16H				Vertical (TVD) Reference:	GL 1920+KB 21 1941.0						
Reference Wellpath:	OH										Db:	Adapti
Site:	Columbus Federal 2											
Well:	2-16H											
Wellpath:	OH V3 Plan: Plan #2 V1											
Reference MD ft	Offset TVD ft	Offset MD ft	Offset TVD ft	Semi-Major Axis Ref ft	Offset ft	TFO-HS deg	Offset Location North ft	Offset Location East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Inter-Site Error: 0.00 ft
Warning												
14350.00	10531.02	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	4006.24	3982.36	167.74	
14400.00	10530.85	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	4055.76	4031.90	169.92	
14450.00	10530.68	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	4105.30	4081.44	172.10	
14500.00	10530.51	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	4154.84	4131.00	174.28	
14550.00	10530.34	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	4204.39	4180.57	176.46	
14600.00	10530.17	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	4253.96	4230.15	178.64	
14650.00	10530.00	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	4303.53	4279.73	180.82	
14700.00	10529.83	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	4353.12	4329.33	183.00	
14750.00	10529.67	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	4402.71	4378.94	185.19	
14800.00	10529.50	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	4452.31	4428.55	187.37	
14850.00	10529.33	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	4501.93	4478.18	189.55	
14900.00	10529.16	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	4551.55	4527.81	191.74	
14950.00	10528.99	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	4601.17	4577.45	193.92	
15000.00	10528.82	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	4650.81	4627.10	196.11	
15050.00	10528.65	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	4700.46	4676.75	198.29	
15100.00	10528.48	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	4750.11	4726.41	200.46	
15150.00	10528.32	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	4799.77	4776.08	202.65	
15200.00	10528.15	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	4849.43	4825.76	204.83	
15250.00	10527.98	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	4899.10	4875.44	207.02	
15300.00	10527.81	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	4948.78	4925.13	209.21	
15350.00	10527.64	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	4998.47	4974.82	211.39	
15400.00	10527.47	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	5048.16	5024.53	213.58	
15450.00	10527.30	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	5097.86	5074.23	215.77	
15500.00	10527.13	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	5147.56	5123.95	217.96	
15550.00	10526.97	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	5197.27	5173.66	220.14	
15600.00	10526.80	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	5246.99	5223.39	222.33	
15650.00	10526.63	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	5296.71	5273.12	224.52	
15700.00	10526.46	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	5346.43	5322.85	226.71	
15750.00	10526.29	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	5396.16	5372.59	228.90	
15800.00	10526.12	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	5445.90	5422.33	231.09	
15850.00	10525.95	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	5495.64	5472.08	233.28	
15900.00	10525.78	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	5545.38	5521.83	235.47	
15950.00	10525.62	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	5595.13	5571.59	237.66	
16000.00	10525.45	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	5644.89	5621.35	239.85	
16050.00	10525.28	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	5694.65	5671.12	242.04	
16100.00	10525.11	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	5744.41	5720.89	244.23	
16150.00	10524.94	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	5794.17	5770.66	246.42	
16200.00	10524.77	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	5843.95	5820.44	248.61	
16250.00	10524.60	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	5893.72	5870.22	250.81	
16300.00	10524.43	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	5943.50	5920.01	253.00	
16350.00	10524.27	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	5993.28	5969.79	255.19	
16400.00	10524.10	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	6043.07	6019.59	257.38	
16450.00	10523.93	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	6092.85	6069.38	259.58	
16500.00	10523.76	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	6142.65	6119.18	261.77	
16550.00	10523.59	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	6192.44	6168.98	263.96	
16600.00	10523.42	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	6242.24	6218.79	266.15	
16650.00	10523.25	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	6292.04	6268.60	268.35	
16700.00	10523.08	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	6341.85	6318.41	270.54	
16750.00	10522.92	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	6391.66	6368.22	272.73	
16800.00	10522.75	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	6441.47	6418.04	274.93	
16850.00	10522.58	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	6491.28	6467.86	277.12	

LEAM Drilling Systems LLC

Anticollision Report

Company:	Continental Resources	Date:	2/13/2013	Time:	17:58:07	Page:	16
Field:	McKenzie County, ND						
Reference Site:	Tallahassee 2						
Reference Well:	2-16H						
Reference Wellpath:	OH						

Site: Columbus Federal 2

Well: 2-16H

Wellpath: OH V3 Plan: Plan #2 V1

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr	Edge	Separation	Warning
MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East	Distance	Distance	Factor	
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft		
16900.00	10522.41	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	6541.10	6517.68	279.32	
16950.00	10522.24	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	6590.92	6567.51	281.51	
17000.00	10522.07	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	6640.74	6617.34	283.70	
17050.00	10521.90	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	6690.57	6667.17	285.90	
17100.00	10521.73	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	6740.40	6717.00	288.09	
17150.00	10521.57	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	6790.23	6766.84	290.29	
17200.00	10521.40	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	6840.06	6816.67	292.48	
17250.00	10521.23	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	6889.89	6866.51	294.68	
17300.00	10521.06	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	6939.73	6916.36	296.87	
17350.00	10520.89	10200.00	10199.97	0.00	22.79	308.21	39.92	22.52	6989.57	6966.20	299.07	
17400.00	10520.72	10188.84	10188.83	0.00	22.76	309.09	39.25	22.76	7039.28	7015.89	301.01	
17450.00	10520.55	10188.67	10188.66	0.00	22.76	309.10	39.24	22.76	7089.12	7065.73	303.20	
17500.00	10520.38	10188.51	10188.50	0.00	22.76	309.11	39.24	22.77	7138.96	7115.58	305.39	
17550.00	10520.22	10188.35	10188.34	0.00	22.76	309.12	39.23	22.77	7188.80	7165.43	307.58	
17600.00	10520.05	10188.20	10188.19	0.00	22.76	309.14	39.22	22.77	7238.65	7215.28	309.78	
17650.00	10519.88	10188.04	10188.03	0.00	22.76	309.15	39.21	22.77	7288.50	7265.14	311.97	
17700.00	10519.71	10187.89	10187.88	0.00	22.76	309.16	39.21	22.78	7338.35	7314.99	314.16	
17750.00	10519.54	10187.74	10187.73	0.00	22.76	309.17	39.20	22.78	7388.20	7364.85	316.35	
17800.00	10519.37	10187.59	10187.58	0.00	22.76	309.18	39.19	22.78	7438.06	7414.71	318.55	
17850.00	10519.20	10187.44	10187.43	0.00	22.76	309.19	39.19	22.78	7487.91	7464.57	320.74	
17900.00	10519.03	10187.30	10187.29	0.00	22.76	309.21	39.18	22.79	7537.77	7514.43	322.93	
17950.00	10518.87	10187.15	10187.14	0.00	22.76	309.22	39.17	22.79	7587.63	7564.29	325.13	
18000.00	10518.70	10187.01	10187.00	0.00	22.76	309.23	39.17	22.79	7637.49	7614.16	327.32	
18050.00	10518.53	10186.87	10186.86	0.00	22.76	309.24	39.16	22.79	7687.36	7664.03	329.51	
18100.00	10518.36	10186.73	10186.73	0.00	22.76	309.25	39.16	22.79	7737.22	7713.90	331.71	
18150.00	10518.19	10186.60	10186.59	0.00	22.76	309.26	39.15	22.80	7787.09	7763.77	333.90	
18200.00	10518.02	10186.46	10186.46	0.00	22.76	309.27	39.14	22.80	7836.96	7813.64	336.09	
18206.45	10518.00	10186.45	10186.44	0.00	22.76	309.27	39.14	22.80	7843.39	7820.08	336.38	

Site: Columbus Federal 3

Well: 3-16H

Wellpath: OH V1 Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr	Edge	Separation	Warning
MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East	Distance	Distance	Factor	
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft		
0.00	0.00	0.00	0.00	0.00	0.00	30.74	77.31	45.97	89.95	89.95	89.95	No Data
50.00	50.00	50.00	50.00	0.00	0.04	30.74	77.31	45.97	89.95	89.90	2022.92	
100.00	100.00	100.00	100.00	0.00	0.09	30.74	77.31	45.97	89.95	89.86	1010.86	
150.00	150.00	150.00	150.00	0.00	0.20	30.74	77.31	45.97	89.95	89.75	446.69	
200.00	200.00	200.00	200.00	0.00	0.31	30.74	77.31	45.97	89.95	89.63	286.69	
250.00	250.00	250.00	250.00	0.00	0.43	30.74	77.31	45.97	89.95	89.52	211.08	
300.00	300.00	300.00	300.00	0.00	0.54	30.74	77.31	45.97	89.95	89.41	167.03	
350.00	350.00	350.00	350.00	0.00	0.65	30.74	77.31	45.97	89.95	89.30	138.19	
400.00	400.00	400.00	400.00	0.00	0.76	30.74	77.31	45.97	89.95	89.19	117.84	
450.00	450.00	450.00	450.00	0.00	0.88	30.74	77.31	45.97	89.95	89.07	102.72	
500.00	500.00	500.00	500.00	0.00	0.99	30.74	77.31	45.97	89.95	88.96	91.04	
550.00	550.00	550.00	550.00	0.00	1.10	30.74	77.31	45.97	89.95	88.85	81.74	
600.00	600.00	600.00	600.00	0.00	1.21	30.74	77.31	45.97	89.95	88.74	74.17	
650.00	650.00	650.00	650.00	0.00	1.32	30.74	77.31	45.97	89.95	88.62	67.88	
700.00	700.00	700.00	700.00	0.00	1.44	30.74	77.31	45.97	89.95	88.51	62.57	
750.00	750.00	750.00	750.00	0.00	1.55	30.74	77.31	45.97	89.95	88.40	58.03	
800.00	800.00	800.00	800.00	0.00	1.66	30.74	77.31	45.97	89.95	88.29	54.11	

LEAM Drilling Systems LLC

Anticollision Report

Company:	Continental Resources				Date: 2/13/2013			Time: 17:58:07			Page: 17						
Field:	McKenzie County, ND																
Reference Site:	Tallahassee 2								Co-ordinate(NE) Reference:	Well: 2-16H, True North							
Reference Well:	2-16H								Vertical (TVD) Reference:	GL 1920+KB 21 1941.0							
Reference Wellpath:	OH								Db:	Adapti							
Site:	Columbus Federal 3																
Well:	3-16H																
Wellpath:	OH V1 Plan: Plan #1 V1								Inter-Site Error:	0.00	ft						
Reference MD ft	Offset TVD ft	Offset MD ft	Offset TVD ft	Semi-Major Axis Ref ft	Semi-Major Axis Offset ft	Semi-Major Axis TFO-HS deg	Offset Location North ft	Offset Location East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning					
850.00	850.00	850.00	850.00	0.00	1.77	30.74	77.31	45.97	89.95	88.17	50.68						
900.00	900.00	900.00	900.00	0.00	1.89	30.74	77.31	45.97	89.95	88.06	47.66						
950.00	950.00	950.00	950.00	0.00	2.00	30.74	77.31	45.97	89.95	87.95	44.99						
1000.00	1000.00	1000.00	1000.00	0.00	2.11	30.74	77.31	45.97	89.95	87.84	42.59						
1050.00	1050.00	1050.00	1050.00	0.00	2.22	30.74	77.31	45.97	89.95	87.72	40.44						
1100.00	1100.00	1100.00	1100.00	0.00	2.34	30.74	77.31	45.97	89.95	87.61	38.49						
1150.00	1150.00	1150.00	1150.00	0.00	2.45	30.74	77.31	45.97	89.95	87.50	36.73						
1200.00	1200.00	1200.00	1200.00	0.00	2.56	30.74	77.31	45.97	89.95	87.39	35.12						
1250.00	1250.00	1250.00	1250.00	0.00	2.67	30.74	77.31	45.97	89.95	87.27	33.64						
1300.00	1300.00	1300.00	1300.00	0.00	2.79	30.74	77.31	45.97	89.95	87.16	32.28						
1350.00	1350.00	1350.00	1350.00	0.00	2.90	30.74	77.31	45.97	89.95	87.05	31.03						
1400.00	1400.00	1400.00	1400.00	0.00	3.01	30.74	77.31	45.97	89.95	86.94	29.87						
1450.00	1450.00	1450.00	1450.00	0.00	3.12	30.74	77.31	45.97	89.95	86.83	28.80						
1500.00	1500.00	1500.00	1500.00	0.00	3.24	30.74	77.31	45.97	89.95	86.71	27.80						
1550.00	1550.00	1550.00	1550.00	0.00	3.35	30.74	77.31	45.97	89.95	86.60	26.87						
1600.00	1600.00	1600.00	1600.00	0.00	3.46	30.74	77.31	45.97	89.95	86.49	25.99						
1650.00	1650.00	1650.00	1650.00	0.00	3.57	30.74	77.31	45.97	89.95	86.38	25.18						
1700.00	1700.00	1700.00	1700.00	0.00	3.69	30.74	77.31	45.97	89.95	86.26	24.41						
1750.00	1750.00	1750.00	1750.00	0.00	3.80	30.74	77.31	45.97	89.95	86.15	23.69						
1800.00	1800.00	1800.00	1800.00	0.00	3.91	30.74	77.31	45.97	89.95	86.04	23.00						
1850.00	1850.00	1850.00	1850.00	0.00	4.02	30.74	77.31	45.97	89.95	85.93	22.36						
1900.00	1900.00	1900.00	1900.00	0.00	4.13	30.74	77.31	45.97	89.95	85.81	21.75						
1950.00	1950.00	1950.00	1950.00	0.00	4.25	30.74	77.31	45.97	89.95	85.70	21.18						
2000.00	2000.00	2000.00	2000.00	0.00	4.36	30.74	77.31	45.97	89.95	85.59	20.63						
2050.00	2050.00	2050.00	2050.00	0.00	4.47	30.74	77.31	45.97	89.95	85.48	20.11						
2100.00	2100.00	2100.00	2100.00	0.00	4.58	30.74	77.31	45.97	89.95	85.36	19.62						
2150.00	2150.00	2150.00	2150.00	0.00	4.70	30.74	77.31	45.97	89.95	85.25	19.15						
2200.00	2200.00	2200.00	2200.00	0.00	4.81	30.74	77.31	45.97	89.95	85.14	18.70						
2250.00	2250.00	2250.00	2250.00	0.00	4.92	30.74	77.31	45.97	89.95	85.03	18.28						
2300.00	2300.00	2300.00	2300.00	0.00	5.03	30.74	77.31	45.97	89.95	84.91	17.87						
2350.00	2350.00	2350.00	2350.00	0.00	5.15	30.74	77.31	45.97	89.95	84.80	17.48						
2400.00	2400.00	2400.00	2400.00	0.00	5.26	30.74	77.31	45.97	89.95	84.69	17.11						
2450.00	2450.00	2450.00	2450.00	0.00	5.37	30.74	77.31	45.97	89.95	84.58	16.75						
2500.00	2500.00	2500.00	2500.00	0.00	5.48	30.74	77.31	45.97	89.95	84.47	16.40						
2550.00	2550.00	2550.00	2550.00	0.00	5.60	30.74	77.31	45.97	89.95	84.35	16.07						
2600.00	2600.00	2600.00	2600.00	0.00	5.71	30.74	77.31	45.97	89.95	84.24	15.76						
2650.00	2650.00	2650.00	2650.00	0.00	5.82	30.74	77.31	45.97	89.95	84.13	15.45						
2700.00	2700.00	2700.00	2700.00	0.00	5.93	30.74	77.31	45.97	89.95	84.02	15.16						
2750.00	2750.00	2750.00	2750.00	0.00	6.05	30.74	77.31	45.97	89.95	83.90	14.88						
2800.00	2800.00	2800.00	2800.00	0.00	6.16	30.74	77.31	45.97	89.95	83.79	14.61						
2850.00	2850.00	2850.00	2850.00	0.00	6.27	30.74	77.31	45.97	89.95	83.68	14.35						
2900.00	2900.00	2900.00	2900.00	0.00	6.38	30.74	77.31	45.97	89.95	83.57	14.09						
2950.00	2950.00	2950.00	2950.00	0.00	6.49	30.74	77.31	45.97	89.95	83.45	13.85						
3000.00	3000.00	3000.00	3000.00	0.00	6.61	30.74	77.31	45.97	89.95	83.34	13.61						
3050.00	3050.00	3050.00	3050.00	0.00	6.72	30.74	77.31	45.97	89.95	83.23	13.39						
3100.00	3100.00	3100.00	3100.00	0.00	6.83	30.74	77.31	45.97	89.95	83.12	13.17						
3150.00	3150.00	3150.00	3150.00	0.00	6.94	30.74	77.31	45.97	89.95	83.00	12.95						
3200.00	3200.00	3200.00	3200.00	0.00	7.06	30.74	77.31	45.97	89.95	82.89	12.75						
3250.00	3250.00	3250.00	3250.00	0.00	7.17	30.74	77.31	45.97	89.95	82.78	12.55						
3300.00	3300.00	3300.00	3300.00	0.00	7.28	30.74	77.31	45.97	89.95	82.67	12.35						
3350.00	3350.00	3350.00	3350.00	0.00	7.39	30.74	77.31	45.97	89.95	82.55	12.17						

LEAM Drilling Systems LLC

Anticollision Report

Company:	Continental Resources				Date: 2/13/2013			Time: 17:58:07			Page: 18						
Field:	McKenzie County, ND																
Reference Site:	Tallahassee 2								Co-ordinate(NE) Reference:	Well: 2-16H, True North							
Reference Well:	2-16H								Vertical (TVD) Reference:	GL 1920+KB 21 1941.0							
Reference Wellpath:	OH								Db:	Adapti							
Site:	Columbus Federal 3																
Well:	3-16H																
Wellpath:	OH V1 Plan: Plan #1 V1								Inter-Site Error:	0.00	ft						
Reference MD ft	Offset MD ft	Offset TVD ft	Semi-Major Axis Ref ft	Semi-Major Axis Offset ft	TFO-HS deg	Offset Location North ft	Offset Location East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning						
3400.00	3400.00	3400.00	3400.00	0.00	7.51	30.74	77.31	45.97	89.95	82.44	11.98						
3450.00	3450.00	3450.00	3450.00	0.00	7.62	30.74	77.31	45.97	89.95	82.33	11.81						
3500.00	3500.00	3500.00	3500.00	0.00	7.73	30.74	77.31	45.97	89.95	82.22	11.63						
3550.00	3550.00	3550.00	3550.00	0.00	7.84	30.74	77.31	45.97	89.95	82.11	11.47						
3600.00	3600.00	3600.00	3600.00	0.00	7.96	30.74	77.31	45.97	89.95	81.99	11.31						
3650.00	3650.00	3650.00	3650.00	0.00	8.07	30.74	77.31	45.97	89.95	81.88	11.15						
3700.00	3700.00	3700.00	3700.00	0.00	8.18	30.74	77.31	45.97	89.95	81.77	11.00						
3750.00	3750.00	3750.00	3750.00	0.00	8.29	30.74	77.31	45.97	89.95	81.66	10.85						
3800.00	3800.00	3800.00	3800.00	0.00	8.41	30.74	77.31	45.97	89.95	81.54	10.70						
3850.00	3850.00	3850.00	3850.00	0.00	8.52	30.74	77.31	45.97	89.95	81.43	10.56						
3900.00	3900.00	3900.00	3900.00	0.00	8.63	30.74	77.31	45.97	89.95	81.32	10.42						
3950.00	3950.00	3950.00	3950.00	0.00	8.74	30.74	77.31	45.97	89.95	81.21	10.29						
4000.00	4000.00	4000.00	4000.00	0.00	8.85	30.74	77.31	45.97	89.95	81.09	10.16						
4050.00	4050.00	4050.00	4050.00	0.00	8.97	30.74	77.31	45.97	89.95	80.98	10.03						
4100.00	4100.00	4100.00	4100.00	0.00	9.08	30.74	77.31	45.97	89.95	80.87	9.91						
4150.00	4150.00	4150.00	4150.00	0.00	9.19	30.74	77.31	45.97	89.95	80.76	9.79						
4200.00	4200.00	4200.00	4200.00	0.00	9.30	30.74	77.31	45.97	89.95	80.64	9.67						
4250.00	4250.00	4250.00	4250.00	0.00	9.42	30.74	77.31	45.97	89.95	80.53	9.55						
4300.00	4300.00	4300.00	4300.00	0.00	9.53	30.74	77.31	45.97	89.95	80.42	9.44						
4350.00	4350.00	4350.00	4350.00	0.00	9.64	30.74	77.31	45.97	89.95	80.31	9.33						
4400.00	4400.00	4400.00	4400.00	0.00	9.75	30.74	77.31	45.97	89.95	80.19	9.22						
4450.00	4450.00	4450.00	4450.00	0.00	9.87	30.74	77.31	45.97	89.95	80.08	9.12						
4500.00	4500.00	4500.00	4500.00	0.00	9.98	30.74	77.31	45.97	89.95	79.97	9.01						
4550.00	4550.00	4550.00	4550.00	0.00	10.09	30.74	77.31	45.97	89.95	79.86	8.91						
4600.00	4600.00	4600.00	4600.00	0.00	10.20	30.74	77.31	45.97	89.95	79.75	8.82						
4650.00	4650.00	4650.00	4650.00	0.00	10.32	30.74	77.31	45.97	89.95	79.63	8.72						
4700.00	4700.00	4700.00	4700.00	0.00	10.43	30.74	77.31	45.97	89.95	79.52	8.63						
4750.00	4750.00	4750.00	4750.00	0.00	10.54	30.74	77.31	45.97	89.95	79.41	8.53						
4800.00	4800.00	4800.00	4800.00	0.00	10.65	30.74	77.31	45.97	89.95	79.30	8.44						
4850.00	4850.00	4850.00	4850.00	0.00	10.77	30.74	77.31	45.97	89.95	79.18	8.36						
4900.00	4900.00	4900.00	4900.00	0.00	10.88	30.74	77.31	45.97	89.95	79.07	8.27						
4950.00	4950.00	4950.00	4950.00	0.00	10.99	30.74	77.31	45.97	89.95	78.96	8.18						
5000.00	5000.00	5000.00	5000.00	0.00	11.10	30.74	77.31	45.97	89.95	78.85	8.10						
5050.00	5050.00	5050.00	5050.00	0.00	11.21	30.74	77.31	45.97	89.95	78.73	8.02						
5100.00	5100.00	5100.00	5100.00	0.00	11.33	30.74	77.31	45.97	89.95	78.62	7.94						
5150.00	5150.00	5150.00	5150.00	0.00	11.44	30.74	77.31	45.97	89.95	78.51	7.86						
5200.00	5200.00	5200.00	5200.00	0.00	11.55	30.74	77.31	45.97	89.95	78.40	7.79						
5250.00	5250.00	5250.00	5250.00	0.00	11.66	30.74	77.31	45.97	89.95	78.28	7.71						
5300.00	5300.00	5300.00	5300.00	0.00	11.78	30.74	77.31	45.97	89.95	78.17	7.64						
5350.00	5350.00	5350.00	5350.00	0.00	11.89	30.74	77.31	45.97	89.95	78.06	7.57						
5400.00	5400.00	5400.00	5400.00	0.00	12.00	30.74	77.31	45.97	89.95	77.95	7.49						
5450.00	5450.00	5450.00	5450.00	0.00	12.11	30.74	77.31	45.97	89.95	77.83	7.43						
5500.00	5500.00	5500.00	5500.00	0.00	12.23	30.74	77.31	45.97	89.95	77.72	7.36						
5550.00	5550.00	5550.00	5550.00	0.00	12.34	30.74	77.31	45.97	89.95	77.61	7.29						
5600.00	5600.00	5600.00	5600.00	0.00	12.45	30.74	77.31	45.97	89.95	77.50	7.22						
5650.00	5650.00	5650.00	5650.00	0.00	12.56	30.74	77.31	45.97	89.95	77.39	7.16						
5700.00	5700.00	5700.00	5700.00	0.00	12.68	30.74	77.31	45.97	89.95	77.27	7.10						
5750.00	5750.00	5750.00	5750.00	0.00	12.79	30.74	77.31	45.97	89.95	77.16	7.03						
5800.00	5800.00	5800.00	5800.00	0.00	12.90	30.74	77.31	45.97	89.95	77.05	6.97						
5850.00	5850.00	5850.00	5850.00	0.00	13.01	30.74	77.31	45.97	89.95	76.94	6.91						
5900.00	5900.00	5900.00	5900.00	0.00	13.13	30.74	77.31	45.97	89.95	76.82	6.85						

LEAM Drilling Systems LLC

Anticollision Report

Company:	Continental Resources				Date: 2/13/2013			Time: 17:58:07			Page: 19			
Field:	McKenzie County, ND													
Reference Site:	Tallahassee 2				Co-ordinate(NE) Reference:				Well: 2-16H, True North					
Reference Well:	2-16H				Vertical (TVD) Reference:				GL 1920+KB 21 1941.0					
Reference Wellpath:	OH								Db: Adapti					
Site:	Columbus Federal 3													
Well:	3-16H													
Wellpath:	OH V1 Plan: Plan #1 V1				Inter-Site Error:				0.00	ft				
Reference MD ft	Offset MD ft	Offset TVD ft	Semi-Major Axis Ref ft	Offset ft	TFO-HS deg	Offset Location North ft	East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning			
5950.00	5950.00	5950.00	5950.00	0.00	13.24	30.74	77.31	45.97	89.95	76.71	6.79			
6000.00	6000.00	6000.00	6000.00	0.00	13.35	30.74	77.31	45.97	89.95	76.60	6.74			
6050.00	6050.00	6050.00	6050.00	0.00	13.46	30.74	77.31	45.97	89.95	76.49	6.68			
6100.00	6100.00	6100.00	6100.00	0.00	13.57	30.74	77.31	45.97	89.95	76.37	6.63			
6150.00	6150.00	6150.00	6150.00	0.00	13.69	30.74	77.31	45.97	89.95	76.26	6.57			
6200.00	6200.00	6200.00	6200.00	0.00	13.80	30.74	77.31	45.97	89.95	76.15	6.52			
6250.00	6250.00	6250.00	6250.00	0.00	13.91	30.74	77.31	45.97	89.95	76.04	6.47			
6300.00	6300.00	6300.00	6300.00	0.00	14.02	30.74	77.31	45.97	89.95	75.92	6.41			
6350.00	6350.00	6350.00	6350.00	0.00	14.14	30.74	77.31	45.97	89.95	75.81	6.36			
6400.00	6400.00	6400.00	6400.00	0.00	14.25	30.74	77.31	45.97	89.95	75.70	6.31			
6450.00	6450.00	6450.00	6450.00	0.00	14.36	30.74	77.31	45.97	89.95	75.59	6.26			
6500.00	6500.00	6500.00	6500.00	0.00	14.47	30.74	77.31	45.97	89.95	75.47	6.21			
6550.00	6550.00	6550.00	6550.00	0.00	14.59	30.74	77.31	45.97	89.95	75.36	6.17			
6600.00	6600.00	6600.00	6600.00	0.00	14.70	30.74	77.31	45.97	89.95	75.25	6.12			
6650.00	6650.00	6650.00	6650.00	0.00	14.81	30.74	77.31	45.97	89.95	75.14	6.07			
6700.00	6700.00	6700.00	6700.00	0.00	14.92	30.74	77.31	45.97	89.95	75.02	6.03			
6750.00	6750.00	6750.00	6750.00	0.00	15.04	30.74	77.31	45.97	89.95	74.91	5.98			
6800.00	6800.00	6800.00	6800.00	0.00	15.15	30.74	77.31	45.97	89.95	74.80	5.94			
6850.00	6850.00	6850.00	6850.00	0.00	15.26	30.74	77.31	45.97	89.95	74.69	5.89			
6900.00	6900.00	6900.00	6900.00	0.00	15.37	30.74	77.31	45.97	89.95	74.58	5.85			
6950.00	6950.00	6950.00	6950.00	0.00	15.49	30.74	77.31	45.97	89.95	74.46	5.81			
7000.00	7000.00	7000.00	7000.00	0.00	15.60	30.74	77.31	45.97	89.95	74.35	5.77			
7050.00	7050.00	7050.00	7050.00	0.00	15.71	30.74	77.31	45.97	89.95	74.24	5.73			
7100.00	7100.00	7100.00	7100.00	0.00	15.82	30.74	77.31	45.97	89.95	74.13	5.68			
7150.00	7150.00	7150.00	7150.00	0.00	15.93	30.74	77.31	45.97	89.95	74.01	5.64			
7200.00	7200.00	7200.00	7200.00	0.00	16.05	30.74	77.31	45.97	89.95	73.90	5.61			
7250.00	7250.00	7250.00	7250.00	0.00	16.16	30.74	77.31	45.97	89.95	73.79	5.57			
7300.00	7300.00	7300.00	7300.00	0.00	16.27	30.74	77.31	45.97	89.95	73.68	5.53			
7350.00	7350.00	7350.00	7350.00	0.00	16.38	30.74	77.31	45.97	89.95	73.56	5.49			
7400.00	7400.00	7400.00	7400.00	0.00	16.50	30.74	77.31	45.97	89.95	73.45	5.45			
7450.00	7450.00	7450.00	7450.00	0.00	16.61	30.74	77.31	45.97	89.95	73.34	5.42			
7500.00	7500.00	7500.00	7500.00	0.00	16.72	30.74	77.31	45.97	89.95	73.23	5.38			
7550.00	7550.00	7550.00	7550.00	0.00	16.83	30.74	77.31	45.97	89.95	73.11	5.34			
7600.00	7600.00	7600.00	7600.00	0.00	16.95	30.74	77.31	45.97	89.95	73.00	5.31			
7650.00	7650.00	7650.00	7650.00	0.00	17.06	30.74	77.31	45.97	89.95	72.89	5.27			
7700.00	7700.00	7700.00	7700.00	0.00	17.17	30.74	77.31	45.97	89.95	72.78	5.24			
7750.00	7750.00	7750.00	7750.00	0.00	17.28	30.74	77.31	45.97	89.95	72.66	5.20			
7800.00	7800.00	7800.00	7800.00	0.00	17.40	30.74	77.31	45.97	89.95	72.55	5.17			
7850.00	7850.00	7850.00	7850.00	0.00	17.51	30.74	77.31	45.97	89.95	72.44	5.14			
7900.00	7900.00	7900.00	7900.00	0.00	17.62	30.74	77.31	45.97	89.95	72.33	5.10			
7950.00	7950.00	7950.00	7950.00	0.00	17.73	30.74	77.31	45.97	89.95	72.22	5.07			
8000.00	8000.00	8000.00	8000.00	0.00	17.85	30.74	77.31	45.97	89.95	72.10	5.04			
8050.00	8050.00	8050.00	8050.00	0.00	17.96	30.74	77.31	45.97	89.95	71.99	5.01			
8100.00	8100.00	8100.00	8100.00	0.00	18.07	30.74	77.31	45.97	89.95	71.88	4.98			
8150.00	8150.00	8150.00	8150.00	0.00	18.18	30.74	77.31	45.97	89.95	71.77	4.95			
8200.00	8200.00	8200.00	8200.00	0.00	18.29	30.74	77.31	45.97	89.95	71.65	4.92			
8250.00	8250.00	8250.00	8250.00	0.00	18.41	30.74	77.31	45.97	89.95	71.54	4.89			
8300.00	8300.00	8300.00	8300.00	0.00	18.52	30.74	77.31	45.97	89.95	71.43	4.86			
8350.00	8350.00	8350.00	8350.00	0.00	18.63	30.74	77.31	45.97	89.95	71.32	4.83			
8400.00	8400.00	8400.00	8400.00	0.00	18.74	30.74	77.31	45.97	89.95	71.20	4.80			
8450.00	8450.00	8450.00	8450.00	0.00	18.86	30.74	77.31	45.97	89.95	71.09	4.77			

LEAM Drilling Systems LLC

Anticollision Report

Company:	Continental Resources				Date: 2/13/2013			Time: 17:58:07			Page: 20			
Field:	McKenzie County, ND													
Reference Site:	Tallahassee 2				Co-ordinate(NE) Reference:				Well: 2-16H, True North					
Reference Well:	2-16H				Vertical (TVD) Reference:				GL 1920+KB 21 1941.0					
Reference Wellpath:	OH								Db: Adapti					
Site:	Columbus Federal 3													
Well:	3-16H													
Wellpath:	OH V1 Plan: Plan #1 V1								Inter-Site Error:	0.00	ft			
Reference MD ft	Offset TVD ft	MD ft	Offset TVD ft	Semi-Major Axis Ref ft	Offset ft	TFO-HS deg	Offset Location North ft	East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning		
8500.00	8500.00	8500.00	8500.00	0.00	18.97	30.74	77.31	45.97	89.95	70.98	4.74			
8550.00	8550.00	8550.00	8550.00	0.00	19.08	30.74	77.31	45.97	89.95	70.87	4.71			
8600.00	8600.00	8600.00	8600.00	0.00	19.19	30.74	77.31	45.97	89.95	70.75	4.69			
8650.00	8650.00	8650.00	8650.00	0.00	19.31	30.74	77.31	45.97	89.95	70.64	4.66			
8700.00	8700.00	8700.00	8700.00	0.00	19.42	30.74	77.31	45.97	89.95	70.53	4.63			
8750.00	8750.00	8750.00	8750.00	0.00	19.53	30.74	77.31	45.97	89.95	70.42	4.61			
8800.00	8800.00	8800.00	8800.00	0.00	19.64	30.74	77.31	45.97	89.95	70.30	4.58			
8850.00	8850.00	8850.00	8850.00	0.00	19.76	30.74	77.31	45.97	89.95	70.19	4.55			
8900.00	8900.00	8900.00	8900.00	0.00	19.87	30.74	77.31	45.97	89.95	70.08	4.53			
8950.00	8950.00	8950.00	8950.00	0.00	19.98	30.74	77.31	45.97	89.95	69.97	4.50			
9000.00	9000.00	9000.00	9000.00	0.00	20.09	30.74	77.31	45.97	89.95	69.86	4.48			
9050.00	9050.00	9050.00	9050.00	0.00	20.21	30.74	77.31	45.97	89.95	69.74	4.45			
9100.00	9100.00	9100.00	9100.00	0.00	20.32	30.74	77.31	45.97	89.95	69.63	4.43			
9150.00	9150.00	9150.00	9150.00	0.00	20.43	30.74	77.31	45.97	89.95	69.52	4.40			
9200.00	9200.00	9200.00	9200.00	0.00	20.54	30.74	77.31	45.97	89.95	69.41	4.38			
9250.00	9250.00	9250.00	9250.00	0.00	20.65	30.74	77.31	45.97	89.95	69.29	4.35			
9300.00	9300.00	9300.00	9300.00	0.00	20.77	30.74	77.31	45.97	89.95	69.18	4.33			
9350.00	9350.00	9350.00	9350.00	0.00	20.88	30.74	77.31	45.97	89.95	69.07	4.31			
9400.00	9400.00	9400.00	9400.00	0.00	20.99	30.74	77.31	45.97	89.95	68.96	4.28			
9450.00	9450.00	9450.00	9450.00	0.00	21.10	30.74	77.31	45.97	89.95	68.84	4.26			
9500.00	9500.00	9500.00	9500.00	0.00	21.22	30.74	77.31	45.97	89.95	68.73	4.24			
9550.00	9550.00	9550.00	9550.00	0.00	21.33	30.74	77.31	45.97	89.95	68.62	4.22			
9600.00	9600.00	9600.00	9600.00	0.00	21.44	30.74	77.31	45.97	89.95	68.51	4.20			
9650.00	9650.00	9650.00	9650.00	0.00	21.55	30.74	77.31	45.97	89.95	68.39	4.17			
9700.00	9700.00	9700.00	9700.00	0.00	21.67	30.74	77.31	45.97	89.95	68.28	4.15			
9750.00	9750.00	9750.00	9750.00	0.00	21.78	30.74	77.31	45.97	89.95	68.17	4.13			
9800.00	9800.00	9800.00	9800.00	0.00	21.89	30.74	77.31	45.97	89.95	68.06	4.11			
9850.00	9850.00	9850.00	9850.00	0.00	22.00	30.74	77.31	45.97	89.95	67.94	4.09			
9900.00	9900.00	9900.00	9900.00	0.00	22.12	30.74	77.31	45.97	89.95	67.83	4.07			
9950.00	9950.00	9950.00	9950.00	0.00	22.23	30.74	77.31	45.97	89.95	67.72	4.05			
10000.00	10000.00	10000.00	10000.00	0.00	22.34	30.74	77.31	45.97	89.95	67.61	4.03			
10050.00	10050.00	10050.00	10050.00	0.00	22.45	30.74	77.31	45.97	89.95	67.50	4.01			
10100.00	10100.00	10100.00	10100.00	0.00	22.57	30.74	77.31	45.97	89.95	67.38	3.99			
10102.27	10102.27	10102.27	10102.27	0.00	22.57	30.74	77.31	45.97	89.95	67.38	3.99			
10125.00	10124.99	10121.84	10121.84	0.00	22.61	190.06	77.74	45.91	90.92	67.85	3.94			
10150.00	10149.91	10143.08	10143.02	0.00	22.66	189.40	79.18	45.70	94.22	70.62	3.99			
10175.00	10174.67	10163.71	10163.51	0.00	22.70	188.37	81.55	45.36	99.86	75.76	4.14			
10200.00	10199.20	10183.47	10183.01	0.00	22.75	187.12	84.70	44.91	107.80	83.23	4.39			
10225.00	10223.42	10202.11	10201.26	0.00	22.78	185.79	88.46	44.37	117.96	92.96	4.72			
10250.00	10247.25	10219.48	10218.10	0.00	22.82	184.47	92.65	43.76	130.23	104.86	5.13			
10275.00	10270.61	10235.45	10233.43	0.00	22.85	183.22	97.08	43.12	144.46	118.77	5.62			
10300.00	10293.43	10249.95	10247.20	0.00	22.88	182.07	101.58	42.48	160.49	134.52	6.18			
10325.00	10315.64	10262.96	10259.42	0.00	22.91	181.02	105.99	41.84	178.14	151.95	6.80			
10350.00	10337.16	10274.49	10270.14	0.00	22.93	180.05	110.20	41.23	197.21	170.82	7.47			
10375.00	10357.92	10284.57	10279.42	0.00	22.95	179.14	114.10	40.67	217.52	190.99	8.20			
10400.00	10377.87	10293.26	10287.34	0.00	22.97	178.27	117.64	40.16	238.90	212.25	8.97			
10425.00	10396.92	10300.64	10294.01	0.00	22.98	177.38	120.76	39.71	261.18	234.44	9.77			
10450.00	10415.03	10306.77	10299.51	0.00	22.99	176.42	123.44	39.32	284.22	257.40	10.60			
10475.00	10432.13	10311.75	10303.95	0.00	23.00	175.28	125.67	39.00	307.86	281.00	11.46			
10500.00	10448.17	10315.64	10307.40	0.00	23.01	173.78	127.45	38.75	331.99	305.09	12.34			

LEAM Drilling Systems LLC

Anticollision Report

Company:	Continental Resources				Date:	2/13/2013		Time:	17:58:07		Page:	21
Field:	McKenzie County, ND											
Reference Site:	Tallahassee 2				Co-ordinate(NE) Reference:	Well: 2-16H, True North						
Reference Well:	2-16H				Vertical (TVD) Reference:	GL 1920+KB 21 1941.0						
Reference Wellpath:	OH											Db: Adapti
Site:	Columbus Federal 3											
Well:	3-16H											
Wellpath:	OH V1 Plan: Plan #1 V1											
Reference	Offset	Semi-Major Axis	Offset Location	Inter-Site Error:	0.00	ft						
MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East	Ctr-Ctr	Edge	Separation	Warning
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft	Factor	
10525.00	10463.10	10318.53	10309.96	0.00	23.02	171.47	128.79	38.55	356.49	329.55	13.23	
10550.00	10476.87	10320.50	10311.69	0.00	23.02	167.02	129.71	38.42	381.25	354.29	14.14	
10575.00	10489.43	10321.61	10312.66	0.00	23.02	153.65	130.23	38.35	406.16	379.19	15.06	
10600.00	10500.75	10321.93	10312.95	0.00	23.02	67.44	130.38	38.32	431.15	404.18	15.99	
10625.00	10510.78	10321.52	10312.59	0.00	23.02	17.98	130.19	38.35	456.12	429.15	16.92	
10650.00	10519.51	10320.45	10311.64	0.00	23.02	9.30	129.69	38.43	481.01	454.05	17.85	
10675.00	10526.88	10318.75	10310.15	0.00	23.02	5.92	128.89	38.54	505.73	478.80	18.78	
10700.00	10532.90	10316.49	10308.15	0.00	23.01	4.12	127.84	38.69	530.24	503.33	19.70	
10725.00	10537.53	10313.69	10305.68	0.00	23.01	2.99	126.55	38.88	554.47	527.59	20.63	
10750.00	10540.75	10310.41	10302.76	0.00	23.00	2.22	125.07	39.09	578.36	551.52	21.55	
10775.00	10542.57	10306.68	10299.43	0.00	22.99	1.65	123.40	39.33	601.86	575.06	22.46	
10796.05	10543.00	10303.22	10296.32	0.00	22.99	1.28	121.88	39.55	621.31	594.55	23.21	
10800.00	10542.99	10300.00	10293.43	0.00	22.98	1.11	120.49	39.75	624.95	598.10	23.28	
10850.00	10542.82	10294.34	10288.32	0.00	22.97	0.83	118.09	40.10	670.97	644.32	25.18	
10900.00	10542.66	10286.75	10281.41	0.00	22.95	0.48	114.98	40.54	717.32	690.77	27.02	
10950.00	10542.49	10279.69	10274.94	0.00	22.94	0.18	112.19	40.95	763.97	737.51	28.88	
11000.00	10542.32	10275.00	10270.61	0.00	22.93	0.00	110.39	41.21	810.87	784.56	30.82	
11050.00	10542.16	10267.00	10263.19	0.00	22.91	-0.29	107.43	41.63	857.99	831.72	32.67	
11100.00	10541.99	10261.28	10257.85	0.00	22.90	-0.48	105.40	41.92	905.31	879.14	34.59	
11150.00	10541.82	10255.92	10252.83	0.00	22.89	359.35	103.56	42.19	952.82	926.73	36.52	
11196.05	10541.67	10250.00	10247.25	0.00	22.88	359.18	101.59	42.47	996.72	970.67	38.26	
11200.00	10541.66	10250.00	10247.25	0.00	22.88	358.80	101.59	42.47	1000.50	974.46	38.43	
11250.00	10541.49	10250.00	10247.25	0.00	22.88	353.88	101.59	42.47	1048.33	1022.48	40.56	
11300.00	10541.32	10241.60	10239.29	0.00	22.86	348.88	98.93	42.86	1096.21	1070.36	42.41	
11350.00	10541.15	10237.28	10235.17	0.00	22.85	344.01	97.62	43.05	1144.17	1118.40	44.39	
11400.00	10540.98	10233.16	10231.24	0.00	22.85	339.28	96.41	43.22	1192.15	1166.45	46.38	
11450.00	10540.81	10225.00	10223.42	0.00	22.83	334.98	94.12	43.55	1240.15	1214.43	48.21	
11500.00	10540.64	10225.00	10223.42	0.00	22.83	330.51	94.12	43.55	1288.06	1262.47	50.34	
11550.00	10540.47	10225.00	10223.42	0.00	22.83	326.26	94.12	43.55	1335.94	1310.49	52.48	
11600.00	10540.30	10225.00	10223.42	0.00	22.83	322.26	94.12	43.55	1383.77	1358.44	54.61	
11650.00	10540.13	10215.28	10214.04	0.00	22.81	319.28	91.58	43.92	1431.40	1406.00	56.37	
11700.00	10539.96	10212.18	10211.04	0.00	22.80	316.10	90.81	44.03	1478.95	1453.61	58.38	
11750.00	10539.79	10209.23	10208.18	0.00	22.80	313.18	90.10	44.13	1526.36	1501.08	60.37	
11800.00	10539.62	10200.00	10199.20	0.00	22.78	311.00	88.00	44.43	1573.67	1548.33	62.11	
11850.00	10539.45	10200.00	10199.20	0.00	22.78	308.34	88.00	44.43	1620.70	1595.46	64.20	
11878.21	10539.36	10200.00	10199.20	0.00	22.78	306.93	88.00	44.43	1647.17	1621.98	65.38	
11900.00	10539.28	10200.00	10199.20	0.00	22.78	306.93	88.00	44.43	1667.61	1642.45	66.29	
11950.00	10539.12	10200.00	10199.20	0.00	22.78	306.93	88.00	44.43	1714.63	1689.55	68.38	
12000.00	10538.95	10200.00	10199.20	0.00	22.78	306.93	88.00	44.43	1761.82	1736.82	70.48	
12050.00	10538.78	10200.00	10199.20	0.00	22.78	306.93	88.00	44.43	1809.15	1784.23	72.59	
12100.00	10538.61	10192.02	10191.40	0.00	22.76	307.53	86.33	44.67	1856.55	1831.59	74.39	
12150.00	10538.44	10189.98	10189.41	0.00	22.76	307.69	85.93	44.73	1904.11	1879.19	76.42	
12200.00	10538.27	10188.04	10187.50	0.00	22.75	307.83	85.55	44.79	1951.78	1926.90	78.46	
12250.00	10538.10	10186.18	10185.67	0.00	22.75	307.97	85.20	44.84	1999.55	1974.72	80.51	
12300.00	10537.93	10184.39	10183.91	0.00	22.75	308.10	84.86	44.88	2047.43	2022.63	82.56	
12350.00	10537.77	10175.00	10174.67	0.00	22.73	308.80	83.24	45.12	2095.47	2070.61	84.29	
12400.00	10537.60	10175.00	10174.67	0.00	22.73	308.80	83.24	45.12	2143.49	2118.68	86.42	
12450.00	10537.43	10175.00	10174.67	0.00	22.73	308.80	83.24	45.12	2191.60	2166.85	88.55	
12500.00	10537.26	10175.00	10174.67	0.00	22.73	308.80	83.24	45.12	2239.79	2215.09	90.69	
12550.00	10537.09	10175.00	10174.67	0.00	22.73	308.80	83.24	45.12	2288.06	2263.41	92.83	
12600.00	10536.92	10175.00	10174.67	0.00	22.73	308.80	83.24	45.12	2336.40	2311.80	94.97	

LEAM Drilling Systems LLC

Anticollision Report

Company:	Continental Resources				Date:	2/13/2013		Time:	17:58:07		Page:	22
Field:	McKenzie County, ND											
Reference Site:	Tallahassee 2				Co-ordinate(NE) Reference:	Well: 2-16H, True North						
Reference Well:	2-16H				Vertical (TVD) Reference:	GL 1920+KB 21 1941.0						
Reference Wellpath:	OH											Db: Adapti
Site:	Columbus Federal 3											
Well:	3-16H											
Wellpath:	OH V1 Plan: Plan #1 V1											
Reference	Offset		Semi-Major Axis			Offset Location		Ctr-Ctr	Edge	Separation	Inter-Site Error:	0.00
MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East	Distance	Distance	Factor	ft
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft		Warning
12650.00	10536.75	10175.00	10174.67	0.00	22.73	308.80	83.24	45.12	2384.81	2360.26	97.11	
12700.00	10536.58	10175.00	10174.67	0.00	22.73	308.80	83.24	45.12	2433.29	2408.77	99.26	
12750.00	10536.42	10175.00	10174.67	0.00	22.73	308.80	83.24	45.12	2481.82	2457.35	101.41	
12800.00	10536.25	10175.00	10174.67	0.00	22.73	308.80	83.24	45.12	2530.42	2505.99	103.57	
12850.00	10536.08	10175.00	10174.67	0.00	22.73	308.80	83.24	45.12	2579.06	2554.67	105.73	
12900.00	10535.91	10175.00	10174.67	0.00	22.73	308.80	83.24	45.12	2627.76	2603.41	107.89	
12950.00	10535.74	10175.00	10174.67	0.00	22.73	308.80	83.24	45.12	2676.51	2652.19	110.06	
13000.00	10535.57	10165.40	10165.19	0.00	22.71	309.49	81.78	45.33	2725.18	2700.81	111.83	
13050.00	10535.40	10164.37	10164.17	0.00	22.71	309.57	81.64	45.35	2773.99	2749.64	113.95	
13100.00	10535.23	10163.37	10163.17	0.00	22.70	309.64	81.50	45.37	2822.84	2798.52	116.07	
13150.00	10535.07	10162.40	10162.21	0.00	22.70	309.71	81.37	45.39	2871.72	2847.42	118.20	
13200.00	10534.90	10161.46	10161.28	0.00	22.70	309.78	81.24	45.41	2920.64	2896.37	120.33	
13250.00	10534.73	10160.54	10160.37	0.00	22.70	309.84	81.12	45.42	2969.59	2945.34	122.46	
13300.00	10534.56	10159.66	10159.50	0.00	22.70	309.90	81.01	45.44	3018.58	2994.35	124.59	
13350.00	10534.39	10150.00	10149.91	0.00	22.68	310.59	79.87	45.60	3067.69	3043.41	126.35	
13400.00	10534.22	10150.00	10149.91	0.00	22.68	310.59	79.87	45.60	3116.72	3092.47	128.51	
13450.00	10534.05	10150.00	10149.91	0.00	22.68	310.59	79.87	45.60	3165.78	3141.56	130.68	
13500.00	10533.88	10150.00	10149.91	0.00	22.68	310.59	79.87	45.60	3214.87	3190.67	132.86	
13550.00	10533.72	10150.00	10149.91	0.00	22.68	310.59	79.87	45.60	3263.98	3239.81	135.03	
13600.00	10533.55	10150.00	10149.91	0.00	22.68	310.59	79.87	45.60	3313.13	3288.98	137.20	
13650.00	10533.38	10150.00	10149.91	0.00	22.68	310.59	79.87	45.60	3362.29	3338.17	139.38	
13700.00	10533.21	10150.00	10149.91	0.00	22.68	310.59	79.87	45.60	3411.48	3387.39	141.56	
13750.00	10533.04	10150.00	10149.91	0.00	22.68	310.59	79.87	45.60	3460.70	3436.62	143.74	
13800.00	10532.87	10150.00	10149.91	0.00	22.68	310.59	79.87	45.60	3509.94	3485.88	145.92	
13850.00	10532.70	10150.00	10149.91	0.00	22.68	310.59	79.87	45.60	3559.19	3535.16	148.10	
13900.00	10532.53	10150.00	10149.91	0.00	22.68	310.59	79.87	45.60	3608.47	3584.46	150.28	
13950.00	10532.37	10150.00	10149.91	0.00	22.68	310.59	79.87	45.60	3657.77	3633.78	152.46	
14000.00	10532.20	10150.00	10149.91	0.00	22.68	310.59	79.87	45.60	3707.09	3683.12	154.64	
14050.00	10532.03	10150.00	10149.91	0.00	22.68	310.59	79.87	45.60	3756.42	3732.47	156.82	
14100.00	10531.86	10150.00	10149.91	0.00	22.68	310.59	79.87	45.60	3805.78	3781.84	159.01	
14150.00	10531.69	10150.00	10149.91	0.00	22.68	310.59	79.87	45.60	3855.15	3831.23	161.19	
14200.00	10531.52	10150.00	10149.91	0.00	22.68	310.59	79.87	45.60	3904.53	3880.63	163.38	
14250.00	10531.35	10150.00	10149.91	0.00	22.68	310.59	79.87	45.60	3953.93	3930.05	165.57	
14300.00	10531.18	10150.00	10149.91	0.00	22.68	310.59	79.87	45.60	4003.35	3979.48	167.76	
14350.00	10531.02	10150.00	10149.91	0.00	22.68	310.59	79.87	45.60	4052.78	4028.93	169.95	
14400.00	10530.85	10150.00	10149.91	0.00	22.68	310.59	79.87	45.60	4102.22	4078.39	172.14	
14450.00	10530.68	10150.00	10149.91	0.00	22.68	310.59	79.87	45.60	4151.68	4127.86	174.33	
14500.00	10530.51	10150.00	10149.91	0.00	22.68	310.59	79.87	45.60	4201.15	4177.35	176.52	
14550.00	10530.34	10150.00	10149.91	0.00	22.68	310.59	79.87	45.60	4250.63	4226.85	178.72	
14600.00	10530.17	10150.00	10149.91	0.00	22.68	310.59	79.87	45.60	4300.12	4276.35	180.91	
14650.00	10530.00	10150.00	10149.91	0.00	22.68	310.59	79.87	45.60	4349.63	4325.87	183.10	
14700.00	10529.83	10150.00	10149.91	0.00	22.68	310.59	79.87	45.60	4399.15	4375.41	185.30	
14750.00	10529.67	10150.00	10149.91	0.00	22.68	310.59	79.87	45.60	4448.67	4424.95	187.49	
14800.00	10529.50	10150.00	10149.91	0.00	22.68	310.59	79.87	45.60	4498.21	4474.50	189.69	
14850.00	10529.33	10150.00	10149.91	0.00	22.68	310.59	79.87	45.60	4547.76	4524.06	191.89	
14900.00	10529.16	10150.00	10149.91	0.00	22.68	310.59	79.87	45.60	4597.32	4573.63	194.08	
14950.00	10528.99	10150.00	10149.91	0.00	22.68	310.59	79.87	45.60	4646.89	4623.21	196.28	
15000.00	10528.82	10150.00	10149.91	0.00	22.68	310.59	79.87	45.60	4696.46	4672.80	198.48	
15050.00	10528.65	10150.00	10149.91	0.00	22.68	310.59	79.87	45.60	4746.05	4722.40	200.68	
15100.00	10528.48	10139.14	10139.09	0.00	22.65	311.35	78.84	45.75	4795.50	4771.82	202.47	
15150.00	10528.32	10138.77	10138.73	0.00	22.65	311.37	78.81	45.76	4845.09	4821.42	204.65	

LEAM Drilling Systems LLC

Anticollision Report

Company:	Continental Resources				Date:	2/13/2013		Time:	17:58:07		Page:	23
Field:	McKenzie County, ND											
Reference Site:	Tallahassee 2				Co-ordinate(NE) Reference:	Well: 2-16H, True North						
Reference Well:	2-16H				Vertical (TVD) Reference:	GL 1920+KB 21 1941.0						
Reference Wellpath:	OH										Db:	Adapti
Site:	Columbus Federal 3											
Well:	3-16H											
Wellpath:	OH V1 Plan: Plan #1 V1											
Reference	Offset	Semi-Major Axis	Offset	Location	Inter-Site Error:	0.00	ft					
MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East	Ctr-Ctr	Edge	Separation	Warning
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft	Factor	
15200.00	10528.15	10138.41	10138.37	0.00	22.65	311.40	78.78	45.76	4894.69	4871.03	206.84	
15250.00	10527.98	10138.05	10138.01	0.00	22.65	311.42	78.75	45.77	4944.30	4920.65	209.02	
15300.00	10527.81	10137.70	10137.67	0.00	22.65	311.45	78.72	45.77	4993.92	4970.28	211.21	
15350.00	10527.64	10137.36	10137.33	0.00	22.65	311.47	78.70	45.77	5043.54	5019.91	213.39	
15400.00	10527.47	10137.03	10136.99	0.00	22.65	311.49	78.67	45.78	5093.17	5069.55	215.58	
15450.00	10527.30	10136.70	10136.66	0.00	22.65	311.51	78.64	45.78	5142.81	5119.19	217.77	
15500.00	10527.13	10136.37	10136.34	0.00	22.65	311.54	78.62	45.78	5192.45	5168.85	219.95	
15550.00	10526.97	10136.06	10136.02	0.00	22.64	311.56	78.59	45.79	5242.11	5218.51	222.14	
15600.00	10526.80	10135.74	10135.71	0.00	22.64	311.58	78.57	45.79	5291.76	5268.17	224.33	
15650.00	10526.63	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	5341.56	5317.93	226.12	
15700.00	10526.46	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	5391.22	5367.61	228.32	
15750.00	10526.29	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	5440.89	5417.28	230.52	
15800.00	10526.12	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	5490.56	5466.97	232.72	
15850.00	10525.95	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	5540.24	5516.66	234.92	
15900.00	10525.78	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	5589.92	5566.35	237.12	
15950.00	10525.62	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	5639.62	5616.05	239.32	
16000.00	10525.45	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	5689.31	5665.76	241.52	
16050.00	10525.28	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	5739.01	5715.47	243.72	
16100.00	10525.11	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	5788.72	5765.18	245.92	
16150.00	10524.94	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	5838.43	5814.90	248.12	
16200.00	10524.77	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	5888.15	5864.63	250.33	
16250.00	10524.60	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	5937.87	5914.36	252.53	
16300.00	10524.43	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	5987.60	5964.09	254.73	
16350.00	10524.27	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	6037.33	6013.83	256.93	
16400.00	10524.10	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	6087.06	6063.57	259.14	
16450.00	10523.93	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	6136.80	6113.32	261.34	
16500.00	10523.76	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	6186.55	6163.07	263.54	
16550.00	10523.59	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	6236.29	6212.83	265.75	
16600.00	10523.42	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	6286.04	6262.58	267.95	
16650.00	10523.25	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	6335.80	6312.35	270.15	
16700.00	10523.08	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	6385.56	6362.11	272.36	
16750.00	10522.92	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	6435.32	6411.88	274.56	
16800.00	10522.75	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	6485.09	6461.66	276.77	
16850.00	10522.58	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	6534.86	6511.44	278.97	
16900.00	10522.41	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	6584.63	6561.22	281.18	
16950.00	10522.24	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	6634.41	6611.00	283.38	
17000.00	10522.07	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	6684.19	6660.79	285.59	
17050.00	10521.90	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	6733.98	6710.58	287.79	
17100.00	10521.73	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	6783.76	6760.37	290.00	
17150.00	10521.57	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	6833.55	6810.17	292.21	
17200.00	10521.40	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	6883.35	6859.97	294.41	
17250.00	10521.23	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	6933.14	6909.77	296.62	
17300.00	10521.06	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	6982.94	6959.57	298.82	
17350.00	10520.89	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	7032.74	7009.38	301.03	
17400.00	10520.72	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	7082.55	7059.19	303.24	
17450.00	10520.55	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	7132.35	7109.00	305.45	
17500.00	10520.38	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	7182.16	7158.82	307.65	
17550.00	10520.22	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	7231.98	7208.64	309.86	
17600.00	10520.05	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	7281.79	7258.46	312.07	
17650.00	10519.88	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	7331.61	7308.28	314.27	
17700.00	10519.71	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	7381.43	7358.11	316.48	

LEAM Drilling Systems LLC

Anticollision Report

Company:	Continental Resources	Date:	2/13/2013	Time:	17:58:07	Page:	24
Field:	McKenzie County, ND						
Reference Site:	Tallahassee 2						
Reference Well:	2-16H						
Reference Wellpath:	OH						

Site: Columbus Federal 3

Well: 3-16H

Wellpath: OH V1 Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr	Edge	Separation	
MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East	Distance	Distance	Factor	Warning
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft		
17750.00	10519.54	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	7431.25	7407.94	318.69	
17800.00	10519.37	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	7481.08	7457.77	320.90	
17850.00	10519.20	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	7530.91	7507.60	323.11	
17900.00	10519.03	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	7580.74	7557.43	325.32	
17950.00	10518.87	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	7630.57	7607.27	327.52	
18000.00	10518.70	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	7680.40	7657.11	329.73	
18050.00	10518.53	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	7730.24	7706.95	331.94	
18100.00	10518.36	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	7780.08	7756.79	334.15	
18150.00	10518.19	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	7829.92	7806.64	336.33	
18200.00	10518.02	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	7879.76	7856.48	338.54	
18206.45	10518.00	10125.00	10124.99	0.00	22.62	312.31	77.89	45.89	7886.19	7862.91	338.83	

Site: Tallahassee 3

Well: 3-16H

Wellpath: OH V1 Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr	Edge	Separation	
MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East	Distance	Distance	Factor	Warning
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft		
0.00	0.00	0.00	0.00	0.00	0.00	210.67	-38.71	-22.95	45.00			No Data
50.00	50.00	50.00	50.00	0.00	0.04	210.67	-38.71	-22.95	45.00	44.96	1012.05	
100.00	100.00	100.00	100.00	0.00	0.09	210.67	-38.71	-22.95	45.00	44.91	505.72	
150.00	150.00	150.00	150.00	0.00	0.20	210.67	-38.71	-22.95	45.00	44.80	223.48	
200.00	200.00	200.00	200.00	0.00	0.31	210.67	-38.71	-22.95	45.00	44.69	143.43	
250.00	250.00	250.00	250.00	0.00	0.43	210.67	-38.71	-22.95	45.00	44.57	105.60	
300.00	300.00	300.00	300.00	0.00	0.54	210.67	-38.71	-22.95	45.00	44.46	83.56	
350.00	350.00	350.00	350.00	0.00	0.65	210.67	-38.71	-22.95	45.00	44.35	69.14	
400.00	400.00	400.00	400.00	0.00	0.76	210.67	-38.71	-22.95	45.00	44.24	58.96	
450.00	450.00	450.00	450.00	0.00	0.88	210.67	-38.71	-22.95	45.00	44.12	51.39	
500.00	500.00	500.00	500.00	0.00	0.99	210.67	-38.71	-22.95	45.00	44.01	45.54	
550.00	550.00	550.00	550.00	0.00	1.10	210.67	-38.71	-22.95	45.00	43.90	40.89	
600.00	600.00	600.00	600.00	0.00	1.21	210.67	-38.71	-22.95	45.00	43.79	37.10	
650.00	650.00	650.00	650.00	0.00	1.32	210.67	-38.71	-22.95	45.00	43.68	33.96	
700.00	700.00	700.00	700.00	0.00	1.44	210.67	-38.71	-22.95	45.00	43.56	31.30	
750.00	750.00	750.00	750.00	0.00	1.55	210.67	-38.71	-22.95	45.00	43.45	29.03	
800.00	800.00	800.00	800.00	0.00	1.66	210.67	-38.71	-22.95	45.00	43.34	27.07	
850.00	850.00	850.00	850.00	0.00	1.77	210.67	-38.71	-22.95	45.00	43.23	25.36	
900.00	900.00	900.00	900.00	0.00	1.89	210.67	-38.71	-22.95	45.00	43.11	23.85	
950.00	950.00	950.00	950.00	0.00	2.00	210.67	-38.71	-22.95	45.00	43.00	22.51	
1000.00	1000.00	1000.00	1000.00	0.00	2.11	210.67	-38.71	-22.95	45.00	42.89	21.31	
1050.00	1050.00	1050.00	1050.00	0.00	2.22	210.67	-38.71	-22.95	45.00	42.78	20.23	
1100.00	1100.00	1100.00	1100.00	0.00	2.34	210.67	-38.71	-22.95	45.00	42.66	19.26	
1150.00	1150.00	1150.00	1150.00	0.00	2.45	210.67	-38.71	-22.95	45.00	42.55	18.37	
1200.00	1200.00	1200.00	1200.00	0.00	2.56	210.67	-38.71	-22.95	45.00	42.44	17.57	
1250.00	1250.00	1250.00	1250.00	0.00	2.67	210.67	-38.71	-22.95	45.00	42.33	16.83	
1300.00	1300.00	1300.00	1300.00	0.00	2.79	210.67	-38.71	-22.95	45.00	42.21	16.15	
1350.00	1350.00	1350.00	1350.00	0.00	2.90	210.67	-38.71	-22.95	45.00	42.10	15.53	
1400.00	1400.00	1400.00	1400.00	0.00	3.01	210.67	-38.71	-22.95	45.00	41.99	14.95	
1450.00	1450.00	1450.00	1450.00	0.00	3.12	210.67	-38.71	-22.95	45.00	41.88	14.41	
1500.00	1500.00	1500.00	1500.00	0.00	3.24	210.67	-38.71	-22.95	45.00	41.76	13.91	
1550.00	1550.00	1550.00	1550.00	0.00	3.35	210.67	-38.71	-22.95	45.00	41.65	13.44	
1600.00	1600.00	1600.00	1600.00	0.00	3.46	210.67	-38.71	-22.95	45.00	41.54	13.00	
1650.00	1650.00	1650.00	1650.00	0.00	3.57	210.67	-38.71	-22.95	45.00	41.43	12.60	

LEAM Drilling Systems LLC

Anticollision Report

Company:	Continental Resources				Date: 2/13/2013			Time: 17:58:07			Page: 25			
Field:	McKenzie County, ND													
Reference Site:	Tallahassee 2				Co-ordinate(NE) Reference:				Well: 2-16H, True North					
Reference Well:	2-16H				Vertical (TVD) Reference:				GL 1920+KB 21 1941.0					
Reference Wellpath:	OH								Db: Adapti					
Site:	Tallahassee 3													
Well:	3-16H													
Wellpath:	OH V1 Plan: Plan #1 V1								Inter-Site Error: 0.00		ft			
Reference MD ft	Offset MD ft	Offset TVD ft	Semi-Major Axis Ref ft	Offset ft	TFO-HS deg	Offset Location North ft	East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor		Warning		
1700.00	1700.00	1700.00	0.00	3.69	210.67	-38.71	-22.95	45.00	41.32	12.21				
1750.00	1750.00	1750.00	0.00	3.80	210.67	-38.71	-22.95	45.00	41.20	11.85				
1800.00	1800.00	1800.00	0.00	3.91	210.67	-38.71	-22.95	45.00	41.09	11.51				
1850.00	1850.00	1850.00	0.00	4.02	210.67	-38.71	-22.95	45.00	40.98	11.19				
1900.00	1900.00	1900.00	0.00	4.13	210.67	-38.71	-22.95	45.00	40.87	10.88				
1950.00	1950.00	1950.00	0.00	4.25	210.67	-38.71	-22.95	45.00	40.75	10.60				
2000.00	2000.00	2000.00	0.00	4.36	210.67	-38.71	-22.95	45.00	40.64	10.32				
2050.00	2050.00	2050.00	0.00	4.47	210.67	-38.71	-22.95	45.00	40.53	10.06				
2100.00	2100.00	2100.00	0.00	4.58	210.67	-38.71	-22.95	45.00	40.42	9.82				
2150.00	2150.00	2150.00	0.00	4.70	210.67	-38.71	-22.95	45.00	40.30	9.58				
2200.00	2200.00	2200.00	0.00	4.81	210.67	-38.71	-22.95	45.00	40.19	9.36				
2250.00	2250.00	2250.00	0.00	4.92	210.67	-38.71	-22.95	45.00	40.08	9.14				
2300.00	2300.00	2300.00	0.00	5.03	210.67	-38.71	-22.95	45.00	39.97	8.94				
2350.00	2350.00	2350.00	0.00	5.15	210.67	-38.71	-22.95	45.00	39.85	8.74				
2400.00	2400.00	2400.00	0.00	5.26	210.67	-38.71	-22.95	45.00	39.74	8.56				
2450.00	2450.00	2450.00	0.00	5.37	210.67	-38.71	-22.95	45.00	39.63	8.38				
2500.00	2500.00	2500.00	0.00	5.48	210.67	-38.71	-22.95	45.00	39.52	8.21				
2550.00	2550.00	2550.00	0.00	5.60	210.67	-38.71	-22.95	45.00	39.40	8.04				
2600.00	2600.00	2600.00	0.00	5.71	210.67	-38.71	-22.95	45.00	39.29	7.88				
2650.00	2650.00	2650.00	0.00	5.82	210.67	-38.71	-22.95	45.00	39.18	7.73				
2700.00	2700.00	2700.00	0.00	5.93	210.67	-38.71	-22.95	45.00	39.07	7.58				
2750.00	2750.00	2750.00	0.00	6.05	210.67	-38.71	-22.95	45.00	38.96	7.44				
2800.00	2800.00	2800.00	0.00	6.16	210.67	-38.71	-22.95	45.00	38.84	7.31				
2850.00	2850.00	2850.00	0.00	6.27	210.67	-38.71	-22.95	45.00	38.73	7.18				
2900.00	2900.00	2900.00	0.00	6.38	210.67	-38.71	-22.95	45.00	38.62	7.05				
2950.00	2950.00	2950.00	0.00	6.49	210.67	-38.71	-22.95	45.00	38.51	6.93				
3000.00	3000.00	3000.00	0.00	6.61	210.67	-38.71	-22.95	45.00	38.39	6.81				
3050.00	3050.00	3050.00	0.00	6.72	210.67	-38.71	-22.95	45.00	38.28	6.70				
3100.00	3100.00	3100.00	0.00	6.83	210.67	-38.71	-22.95	45.00	38.17	6.59				
3150.00	3150.00	3150.00	0.00	6.94	210.67	-38.71	-22.95	45.00	38.06	6.48				
3200.00	3200.00	3200.00	0.00	7.06	210.67	-38.71	-22.95	45.00	37.94	6.38				
3250.00	3250.00	3250.00	0.00	7.17	210.67	-38.71	-22.95	45.00	37.83	6.28				
3300.00	3300.00	3300.00	0.00	7.28	210.67	-38.71	-22.95	45.00	37.72	6.18				
3350.00	3350.00	3350.00	0.00	7.39	210.67	-38.71	-22.95	45.00	37.61	6.09				
3400.00	3400.00	3400.00	0.00	7.51	210.67	-38.71	-22.95	45.00	37.49	6.00				
3450.00	3450.00	3450.00	0.00	7.62	210.67	-38.71	-22.95	45.00	37.38	5.91				
3500.00	3500.00	3500.00	0.00	7.73	210.67	-38.71	-22.95	45.00	37.27	5.82				
3550.00	3550.00	3550.00	0.00	7.84	210.67	-38.71	-22.95	45.00	37.16	5.74				
3600.00	3600.00	3600.00	0.00	7.96	210.67	-38.71	-22.95	45.00	37.04	5.66				
3650.00	3650.00	3650.00	0.00	8.07	210.67	-38.71	-22.95	45.00	36.93	5.58				
3700.00	3700.00	3700.00	0.00	8.18	210.67	-38.71	-22.95	45.00	36.82	5.50				
3750.00	3750.00	3750.00	0.00	8.29	210.67	-38.71	-22.95	45.00	36.71	5.43				
3800.00	3800.00	3800.00	0.00	8.41	210.67	-38.71	-22.95	45.00	36.60	5.35				
3850.00	3850.00	3850.00	0.00	8.52	210.67	-38.71	-22.95	45.00	36.48	5.28				
3900.00	3900.00	3900.00	0.00	8.63	210.67	-38.71	-22.95	45.00	36.37	5.21				
3950.00	3950.00	3950.00	0.00	8.74	210.67	-38.71	-22.95	45.00	36.26	5.15				
4000.00	4000.00	4000.00	0.00	8.85	210.67	-38.71	-22.95	45.00	36.15	5.08				
4050.00	4050.00	4050.00	0.00	8.97	210.67	-38.71	-22.95	45.00	36.03	5.02				
4100.00	4100.00	4100.00	0.00	9.08	210.67	-38.71	-22.95	45.00	35.92	4.96				
4150.00	4150.00	4150.00	0.00	9.19	210.67	-38.71	-22.95	45.00	35.81	4.90				
4200.00	4200.00	4200.00	0.00	9.30	210.67	-38.71	-22.95	45.00	35.70	4.84				

LEAM Drilling Systems LLC

Anticollision Report

Company:	Continental Resources				Date: 2/13/2013			Time: 17:58:07			Page: 26			
Field:	McKenzie County, ND													
Reference Site:	Tallahassee 2				Co-ordinate(NE) Reference:				Well: 2-16H, True North					
Reference Well:	2-16H				Vertical (TVD) Reference:				GL 1920+KB 21 1941.0					
Reference Wellpath:	OH								Db: Adapti					
Site:	Tallahassee 3													
Well:	3-16H													
Wellpath:	OH V1 Plan: Plan #1 V1								Inter-Site Error: 0.00		ft			
Reference MD ft	Offset TVD ft	Offset MD ft	Semi-Major Axis TVD ft	Ref ft	Offset ft	TFO-HS deg	Offset Location North ft	East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning		
4250.00	4250.00	4250.00	4250.00	0.00	9.42	210.67	-38.71	-22.95	45.00	35.58	4.78			
4300.00	4300.00	4300.00	4300.00	0.00	9.53	210.67	-38.71	-22.95	45.00	35.47	4.72			
4350.00	4350.00	4350.00	4350.00	0.00	9.64	210.67	-38.71	-22.95	45.00	35.36	4.67			
4400.00	4400.00	4400.00	4400.00	0.00	9.75	210.67	-38.71	-22.95	45.00	35.25	4.61			
4450.00	4450.00	4450.00	4450.00	0.00	9.87	210.67	-38.71	-22.95	45.00	35.13	4.56			
4500.00	4500.00	4500.00	4500.00	0.00	9.98	210.67	-38.71	-22.95	45.00	35.02	4.51			
4550.00	4550.00	4550.00	4550.00	0.00	10.09	210.67	-38.71	-22.95	45.00	34.91	4.46			
4600.00	4600.00	4600.00	4600.00	0.00	10.20	210.67	-38.71	-22.95	45.00	34.80	4.41			
4650.00	4650.00	4650.00	4650.00	0.00	10.32	210.67	-38.71	-22.95	45.00	34.68	4.36			
4700.00	4700.00	4700.00	4700.00	0.00	10.43	210.67	-38.71	-22.95	45.00	34.57	4.32			
4750.00	4750.00	4750.00	4750.00	0.00	10.54	210.67	-38.71	-22.95	45.00	34.46	4.27			
4800.00	4800.00	4800.00	4800.00	0.00	10.65	210.67	-38.71	-22.95	45.00	34.35	4.22			
4850.00	4850.00	4850.00	4850.00	0.00	10.77	210.67	-38.71	-22.95	45.00	34.24	4.18			
4900.00	4900.00	4900.00	4900.00	0.00	10.88	210.67	-38.71	-22.95	45.00	34.12	4.14			
4950.00	4950.00	4950.00	4950.00	0.00	10.99	210.67	-38.71	-22.95	45.00	34.01	4.09			
5000.00	5000.00	5000.00	5000.00	0.00	11.10	210.67	-38.71	-22.95	45.00	33.90	4.05			
5050.00	5050.00	5050.00	5050.00	0.00	11.21	210.67	-38.71	-22.95	45.00	33.79	4.01			
5100.00	5100.00	5100.00	5100.00	0.00	11.33	210.67	-38.71	-22.95	45.00	33.67	3.97			
5150.00	5150.00	5150.00	5150.00	0.00	11.44	210.67	-38.71	-22.95	45.00	33.56	3.93			
5200.00	5200.00	5200.00	5200.00	0.00	11.55	210.67	-38.71	-22.95	45.00	33.45	3.90			
5250.00	5250.00	5250.00	5250.00	0.00	11.66	210.67	-38.71	-22.95	45.00	33.34	3.86			
5300.00	5300.00	5300.00	5300.00	0.00	11.78	210.67	-38.71	-22.95	45.00	33.22	3.82			
5350.00	5350.00	5350.00	5350.00	0.00	11.89	210.67	-38.71	-22.95	45.00	33.11	3.78			
5400.00	5400.00	5400.00	5400.00	0.00	12.00	210.67	-38.71	-22.95	45.00	33.00	3.75			
5450.00	5450.00	5450.00	5450.00	0.00	12.11	210.67	-38.71	-22.95	45.00	32.89	3.71			
5500.00	5500.00	5500.00	5500.00	0.00	12.23	210.67	-38.71	-22.95	45.00	32.77	3.68			
5550.00	5550.00	5550.00	5550.00	0.00	12.34	210.67	-38.71	-22.95	45.00	32.66	3.65			
5600.00	5600.00	5600.00	5600.00	0.00	12.45	210.67	-38.71	-22.95	45.00	32.55	3.61			
5650.00	5650.00	5650.00	5650.00	0.00	12.56	210.67	-38.71	-22.95	45.00	32.44	3.58			
5700.00	5700.00	5700.00	5700.00	0.00	12.68	210.67	-38.71	-22.95	45.00	32.32	3.55			
5750.00	5750.00	5750.00	5750.00	0.00	12.79	210.67	-38.71	-22.95	45.00	32.21	3.52			
5800.00	5800.00	5800.00	5800.00	0.00	12.90	210.67	-38.71	-22.95	45.00	32.10	3.49			
5850.00	5850.00	5850.00	5850.00	0.00	13.01	210.67	-38.71	-22.95	45.00	31.99	3.46			
5900.00	5900.00	5900.00	5900.00	0.00	13.13	210.67	-38.71	-22.95	45.00	31.88	3.43			
5950.00	5950.00	5950.00	5950.00	0.00	13.24	210.67	-38.71	-22.95	45.00	31.76	3.40			
6000.00	6000.00	6000.00	6000.00	0.00	13.35	210.67	-38.71	-22.95	45.00	31.65	3.37			
6050.00	6050.00	6050.00	6050.00	0.00	13.46	210.67	-38.71	-22.95	45.00	31.54	3.34			
6100.00	6100.00	6100.00	6100.00	0.00	13.57	210.67	-38.71	-22.95	45.00	31.43	3.31			
6150.00	6150.00	6150.00	6150.00	0.00	13.69	210.67	-38.71	-22.95	45.00	31.31	3.29			
6200.00	6200.00	6200.00	6200.00	0.00	13.80	210.67	-38.71	-22.95	45.00	31.20	3.26			
6250.00	6250.00	6250.00	6250.00	0.00	13.91	210.67	-38.71	-22.95	45.00	31.09	3.23			
6300.00	6300.00	6300.00	6300.00	0.00	14.02	210.67	-38.71	-22.95	45.00	30.98	3.21			
6350.00	6350.00	6350.00	6350.00	0.00	14.14	210.67	-38.71	-22.95	45.00	30.86	3.18			
6400.00	6400.00	6400.00	6400.00	0.00	14.25	210.67	-38.71	-22.95	45.00	30.75	3.16			
6450.00	6450.00	6450.00	6450.00	0.00	14.36	210.67	-38.71	-22.95	45.00	30.64	3.13			
6500.00	6500.00	6500.00	6500.00	0.00	14.47	210.67	-38.71	-22.95	45.00	30.53	3.11			
6550.00	6550.00	6550.00	6550.00	0.00	14.59	210.67	-38.71	-22.95	45.00	30.41	3.09			
6600.00	6600.00	6600.00	6600.00	0.00	14.70	210.67	-38.71	-22.95	45.00	30.30	3.06			
6650.00	6650.00	6650.00	6650.00	0.00	14.81	210.67	-38.71	-22.95	45.00	30.19	3.04			
6700.00	6700.00	6700.00	6700.00	0.00	14.92	210.67	-38.71	-22.95	45.00	30.08	3.02			

LEAM Drilling Systems LLC

Anticollision Report

Company:	Continental Resources				Date:	2/13/2013		Time:	17:58:07		Page:	27
Field:	McKenzie County, ND											
Reference Site:	Tallahassee 2				Co-ordinate(NE) Reference:	Well: 2-16H, True North						
Reference Well:	2-16H				Vertical (TVD) Reference:	GL 1920+KB 21 1941.0						
Reference Wellpath:	OH											Db: Adapti
Site:	Tallahassee 3											
Well:	3-16H											
Wellpath:	OH V1 Plan: Plan #1 V1											
Reference	Offset	Semi-Major Axis	Offset	Location	Inter-Site Error:	0.00	ft					
MD	MD	Ref	Offset	North	Ctr-Ctr	Edge	Separation					Warning
ft	ft	ft	ft	ft	ft	ft	Factor					
6750.00	6750.00	0.00	15.04	210.67	-38.71	-22.95	45.00	29.96	2.99			
6800.00	6800.00	0.00	15.15	210.67	-38.71	-22.95	45.00	29.85	2.97			
6850.00	6850.00	0.00	15.26	210.67	-38.71	-22.95	45.00	29.74	2.95			
6900.00	6900.00	0.00	15.37	210.67	-38.71	-22.95	45.00	29.63	2.93			
6950.00	6950.00	0.00	15.49	210.67	-38.71	-22.95	45.00	29.52	2.91			
7000.00	7000.00	0.00	15.60	210.67	-38.71	-22.95	45.00	29.40	2.89			
7050.00	7050.00	0.00	15.71	210.67	-38.71	-22.95	45.00	29.29	2.86			
7100.00	7100.00	0.00	15.82	210.67	-38.71	-22.95	45.00	29.18	2.84			
7150.00	7150.00	0.00	15.93	210.67	-38.71	-22.95	45.00	29.07	2.82			
7200.00	7200.00	0.00	16.05	210.67	-38.71	-22.95	45.00	28.95	2.80			
7250.00	7250.00	0.00	16.16	210.67	-38.71	-22.95	45.00	28.84	2.78			
7300.00	7300.00	0.00	16.27	210.67	-38.71	-22.95	45.00	28.73	2.77			
7350.00	7350.00	0.00	16.38	210.67	-38.71	-22.95	45.00	28.62	2.75			
7400.00	7400.00	0.00	16.50	210.67	-38.71	-22.95	45.00	28.50	2.73			
7450.00	7450.00	0.00	16.61	210.67	-38.71	-22.95	45.00	28.39	2.71			
7500.00	7500.00	0.00	16.72	210.67	-38.71	-22.95	45.00	28.28	2.69			
7550.00	7550.00	0.00	16.83	210.67	-38.71	-22.95	45.00	28.17	2.67			
7600.00	7600.00	0.00	16.95	210.67	-38.71	-22.95	45.00	28.05	2.66			
7650.00	7650.00	0.00	17.06	210.67	-38.71	-22.95	45.00	27.94	2.64			
7700.00	7700.00	0.00	17.17	210.67	-38.71	-22.95	45.00	27.83	2.62			
7750.00	7750.00	0.00	17.28	210.67	-38.71	-22.95	45.00	27.72	2.60			
7800.00	7800.00	0.00	17.40	210.67	-38.71	-22.95	45.00	27.60	2.59			
7850.00	7850.00	0.00	17.51	210.67	-38.71	-22.95	45.00	27.49	2.57			
7900.00	7900.00	0.00	17.62	210.67	-38.71	-22.95	45.00	27.38	2.55			
7950.00	7950.00	0.00	17.73	210.67	-38.71	-22.95	45.00	27.27	2.54			
8000.00	8000.00	0.00	17.85	210.67	-38.71	-22.95	45.00	27.16	2.52			
8050.00	8050.00	0.00	17.96	210.67	-38.71	-22.95	45.00	27.04	2.51			
8100.00	8100.00	0.00	18.07	210.67	-38.71	-22.95	45.00	26.93	2.49			
8150.00	8150.00	0.00	18.18	210.67	-38.71	-22.95	45.00	26.82	2.47			
8200.00	8200.00	0.00	18.29	210.67	-38.71	-22.95	45.00	26.71	2.46			
8250.00	8250.00	0.00	18.41	210.67	-38.71	-22.95	45.00	26.59	2.44			
8300.00	8300.00	0.00	18.52	210.67	-38.71	-22.95	45.00	26.48	2.43			
8350.00	8350.00	0.00	18.63	210.67	-38.71	-22.95	45.00	26.37	2.42			
8400.00	8400.00	0.00	18.74	210.67	-38.71	-22.95	45.00	26.26	2.40			
8450.00	8450.00	0.00	18.86	210.67	-38.71	-22.95	45.00	26.14	2.39			
8500.00	8500.00	0.00	18.97	210.67	-38.71	-22.95	45.00	26.03	2.37			
8550.00	8550.00	0.00	19.08	210.67	-38.71	-22.95	45.00	25.92	2.36			
8600.00	8600.00	0.00	19.19	210.67	-38.71	-22.95	45.00	25.81	2.34			
8650.00	8650.00	0.00	19.31	210.67	-38.71	-22.95	45.00	25.69	2.33			
8700.00	8700.00	0.00	19.42	210.67	-38.71	-22.95	45.00	25.58	2.32			
8750.00	8750.00	0.00	19.53	210.67	-38.71	-22.95	45.00	25.47	2.30			
8800.00	8800.00	0.00	19.64	210.67	-38.71	-22.95	45.00	25.36	2.29			
8850.00	8850.00	0.00	19.76	210.67	-38.71	-22.95	45.00	25.24	2.28			
8900.00	8900.00	0.00	19.87	210.67	-38.71	-22.95	45.00	25.13	2.26			
8950.00	8950.00	0.00	19.98	210.67	-38.71	-22.95	45.00	25.02	2.25			
9000.00	9000.00	0.00	20.09	210.67	-38.71	-22.95	45.00	24.91	2.24			
9050.00	9050.00	0.00	20.21	210.67	-38.71	-22.95	45.00	24.79	2.23			
9100.00	9100.00	0.00	20.32	210.67	-38.71	-22.95	45.00	24.68	2.21			
9150.00	9150.00	0.00	20.43	210.67	-38.71	-22.95	45.00	24.57	2.20			
9200.00	9200.00	0.00	20.54	210.67	-38.71	-22.95	45.00	24.46	2.19			
9250.00	9250.00	0.00	20.65	210.67	-38.71	-22.95	45.00	24.35	2.18			

LEAM Drilling Systems LLC

Anticollision Report

Company:	Continental Resources				Date:	2/13/2013		Time:	17:58:07		Page:	28
Field:	McKenzie County, ND											
Reference Site:	Tallahassee 2				Co-ordinate(NE) Reference:	Well: 2-16H, True North						
Reference Well:	2-16H				Vertical (TVD) Reference:	GL 1920+KB 21 1941.0						
Reference Wellpath:	OH										Db:	Adapti
Site:	Tallahassee 3											
Well:	3-16H											
Wellpath:	OH V1 Plan: Plan #1 V1											
Reference	Offset	Semi-Major Axis	Offset	Location	Inter-Site Error:	0.00	ft					
MD	MD	Ref	Offset	North	Ctr-Ctr	Edge	Separation					
ft	ft	ft	ft	ft	Distance	Distance	Factor					
9300.00	9300.00	9300.00	9300.00	0.00	20.77	210.67	-38.71	-22.95	45.00	24.23	2.17	
9350.00	9350.00	9350.00	9350.00	0.00	20.88	210.67	-38.71	-22.95	45.00	24.12	2.16	
9400.00	9400.00	9400.00	9400.00	0.00	20.99	210.67	-38.71	-22.95	45.00	24.01	2.14	
9450.00	9450.00	9450.00	9450.00	0.00	21.10	210.67	-38.71	-22.95	45.00	23.90	2.13	
9500.00	9500.00	9500.00	9500.00	0.00	21.22	210.67	-38.71	-22.95	45.00	23.78	2.12	
9550.00	9550.00	9550.00	9550.00	0.00	21.33	210.67	-38.71	-22.95	45.00	23.67	2.11	
9600.00	9600.00	9600.00	9600.00	0.00	21.44	210.67	-38.71	-22.95	45.00	23.56	2.10	
9650.00	9650.00	9650.00	9650.00	0.00	21.55	210.67	-38.71	-22.95	45.00	23.45	2.09	
9700.00	9700.00	9700.00	9700.00	0.00	21.67	210.67	-38.71	-22.95	45.00	23.33	2.08	
9750.00	9750.00	9750.00	9750.00	0.00	21.78	210.67	-38.71	-22.95	45.00	23.22	2.07	
9800.00	9800.00	9800.00	9800.00	0.00	21.89	210.67	-38.71	-22.95	45.00	23.11	2.06	
9850.00	9850.00	9850.00	9850.00	0.00	22.00	210.67	-38.71	-22.95	45.00	23.00	2.05	
9900.00	9900.00	9900.00	9900.00	0.00	22.12	210.67	-38.71	-22.95	45.00	22.88	2.03	
9950.00	9950.00	9950.00	9950.00	0.00	22.23	210.67	-38.71	-22.95	45.00	22.77	2.02	
10000.00	10000.00	10000.00	10000.00	0.00	22.34	210.67	-38.71	-22.95	45.00	22.66	2.01	
10050.00	10050.00	10050.00	10050.00	0.00	22.45	210.67	-38.71	-22.95	45.00	22.55	2.00	
10100.00	10100.00	10100.00	10100.00	0.00	22.57	210.67	-38.71	-22.95	45.00	22.43	1.99	
10102.27	10102.27	10102.27	10102.27	0.00	22.57	210.67	-38.71	-22.95	45.00	22.43	1.99	
10125.00	10124.99	10124.99	10124.99	0.00	22.62	10.35	-38.71	-22.95	44.42	21.80	1.96	
10150.00	10149.91	10149.91	10149.91	0.00	22.68	10.88	-38.71	-22.95	42.46	19.78	1.87	
10175.00	10174.67	10174.01	10174.01	0.00	22.73	11.91	-38.75	-23.00	39.19	16.23	1.71	
10200.00	10199.20	10196.84	10196.81	0.00	22.77	13.94	-39.41	-23.75	35.54	11.89	1.50	
10225.00	10223.42	10219.76	10219.63	0.00	22.81	17.54	-40.85	-25.38	31.86	7.55	1.31	Level 3
10250.00	10247.25	10242.76	10242.37	0.00	22.85	23.29	-43.08	-27.92	28.32	3.41	1.14	Level 2
10275.00	10270.61	10265.82	10264.97	0.00	22.89	31.86	-46.11	-31.35	25.25	-0.20	0.99	Level 1
10300.00	10293.43	10288.92	10287.34	0.00	22.93	43.69	-49.92	-35.68	23.16	-2.68	0.90	Level 1
10325.00	10315.64	10312.06	10309.41	0.00	22.97	58.07	-54.50	-40.88	22.68	-3.30	0.87	Level 1
10350.00	10337.16	10335.21	10331.11	0.00	23.02	72.69	-59.85	-46.95	24.30	-1.54	0.94	Level 1
10375.00	10357.92	10358.38	10352.35	0.00	23.06	85.13	-65.95	-53.87	28.00	2.54	1.10	Level 2
10400.00	10377.87	10381.54	10373.08	0.00	23.11	94.47	-72.78	-61.62	33.40	8.43	1.34	Level 3
10425.00	10396.92	10404.70	10393.24	0.00	23.15	101.04	-80.31	-70.17	40.08	15.63	1.64	
10450.00	10415.03	10427.84	10412.75	0.00	23.21	105.53	-88.53	-79.50	47.74	23.75	1.99	
10475.00	10432.13	10450.97	10431.58	0.00	23.26	108.55	-97.41	-89.58	56.18	32.61	2.38	
10500.00	10448.17	10474.08	10449.66	0.00	23.32	110.52	-106.92	-100.38	65.25	41.94	2.80	
10525.00	10463.10	10497.19	10466.96	0.00	23.39	111.75	-117.05	-111.87	74.89	51.53	3.21	
10550.00	10476.87	10520.30	10483.43	0.00	23.46	112.44	-127.76	-124.02	85.01	61.61	3.63	
10575.00	10489.43	10543.41	10499.04	0.00	23.53	112.72	-139.02	-136.81	95.57	72.14	4.08	
10600.00	10500.75	10566.54	10513.74	0.00	23.62	112.68	-150.83	-150.21	106.51	83.05	4.54	
10625.00	10510.78	10589.71	10527.51	0.00	23.71	112.41	-163.15	-164.19	117.81	94.32	5.01	
10650.00	10519.51	10612.94	10540.31	0.00	23.81	111.95	-175.96	-178.73	129.43	105.90	5.50	
10675.00	10526.88	10636.24	10552.11	0.00	23.92	111.34	-189.24	-193.81	141.32	117.75	6.00	
10700.00	10532.90	10659.66	10562.87	0.00	24.04	110.60	-202.98	-209.41	153.46	129.85	6.50	
10725.00	10537.53	10683.21	10572.57	0.00	24.18	109.76	-217.17	-225.51	165.81	142.15	7.01	
10750.00	10540.75	10706.93	10581.17	0.00	24.32	108.84	-231.78	-242.09	178.33	154.61	7.52	
10775.00	10542.57	10730.85	10588.63	0.00	24.47	107.86	-246.81	-259.15	191.00	167.21	8.03	
10796.05	10543.00	10751.18	10593.99	0.00	24.61	106.99	-259.77	-273.86	201.74	177.89	8.46	
10800.00	10542.99	10755.03	10594.90	0.00	24.64	107.11	-262.24	-276.67	203.76	179.89	8.54	
10850.00	10542.82	10804.90	10603.74	0.00	25.01	107.62	-294.66	-313.47	228.63	204.48	9.47	
10900.00	10542.66	10856.23	10607.00	0.00	25.43	106.58	-328.51	-351.89	252.18	227.56	10.24	
10950.00	10542.49	10900.45	10607.14	0.00	25.83	105.24	-357.74	-385.07	275.12	249.99	10.95	
11000.00	10542.32	10944.54	10607.28	0.00	26.27	104.11	-386.89	-418.15	298.17	272.52	11.62	

LEAM Drilling Systems LLC

Anticollision Report

Company:	Continental Resources				Date:	2/13/2013		Time:	17:58:07		Page:	29	
Field:	McKenzie County, ND												
Reference Site:	Tallahassee 2				Co-ordinate(NE) Reference:	Well: 2-16H, True North							
Reference Well:	2-16H				Vertical (TVD) Reference:	GL 1920+KB 21 1941.0							
Reference Wellpath:	OH										Db:	Adapti	
Site:	Tallahassee 3												
Well:	3-16H												
Wellpath:	OH V1 Plan: Plan #1 V1												
Reference	Offset		Semi-Major Axis			Offset	Location		Ctr-Ctr	Edge	Separation	Inter-Site Error:	
MD	MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East	Distance	Distance	Factor	0.00 ft
ft	ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft		Warning
11050.00	10542.16	10994.81	10607.44	0.00	26.76	103.04	-420.40	-455.62	321.00	294.78	12.24		
11100.00	10541.99	11048.87	10607.61	0.00	27.30	102.10	-457.49	-494.95	342.71	315.91	12.79		
11150.00	10541.82	11104.43	10607.79	0.00	27.85	101.33	-496.75	-534.26	363.20	335.80	13.26		
11196.05	10541.67	11156.89	10607.96	0.00	28.43	100.73	-534.85	-570.31	380.92	352.92	13.60		
11200.00	10541.66	11161.45	10607.98	0.00	28.48	100.69	-538.21	-573.39	382.40	354.34	13.63		
11250.00	10541.49	11219.53	10608.17	0.00	29.13	100.23	-581.63	-611.97	400.93	372.13	13.92		
11300.00	10541.32	11278.45	10608.36	0.00	29.82	99.81	-626.85	-649.73	419.28	389.72	14.19		
11350.00	10541.15	11338.21	10608.57	0.00	30.54	99.43	-673.88	-686.59	437.42	406.83	14.30		
11400.00	10540.98	11398.83	10608.77	0.00	31.28	99.09	-722.75	-722.46	455.33	423.98	14.52		
11450.00	10540.81	11460.34	10608.98	0.00	32.05	98.78	-773.48	-757.26	472.98	440.61	14.61		
11500.00	10540.64	11522.76	10609.20	0.00	32.83	98.49	-826.06	-790.87	490.36	457.00	14.70		
11550.00	10540.47	11586.10	10609.42	0.00	33.62	98.23	-880.52	-823.21	507.43	473.30	14.87		
11600.00	10540.30	11650.38	10609.64	0.00	34.41	97.99	-936.85	-854.16	524.17	489.09	14.94		
11650.00	10540.13	11715.61	10609.87	0.00	35.21	97.77	-995.05	-883.62	540.56	504.57	15.02		
11700.00	10539.96	11781.80	10610.10	0.00	36.00	97.57	-1055.10	-911.46	556.57	519.84	15.16		
11750.00	10539.79	11848.98	10610.33	0.00	36.79	97.38	-1116.99	-937.56	572.17	534.60	15.23		
11800.00	10539.62	11917.13	10610.57	0.00	37.57	97.21	-1180.68	-961.81	587.34	548.97	15.31		
11850.00	10539.45	11986.28	10610.81	0.00	38.33	97.05	-1246.14	-984.07	602.05	563.02	15.43		
11878.21	10539.36	12025.72	10610.95	0.00	38.75	96.97	-1283.83	-995.71	610.13	570.67	15.46		
11900.00	10539.28	12056.46	10611.05	0.00	39.07	96.89	-1313.36	-1004.23	616.15	576.42	15.51		
11950.00	10539.12	12128.02	10611.30	0.00	39.80	96.73	-1382.62	-1022.23	628.69	588.32	15.57		
12000.00	10538.95	12200.89	10611.55	0.00	40.51	96.61	-1453.78	-1037.88	639.39	598.45	15.62		
12050.00	10538.78	12274.89	10611.80	0.00	41.19	96.52	-1526.61	-1050.98	648.23	606.78	15.64		
12100.00	10538.61	12349.82	10612.06	0.00	41.83	96.46	-1600.81	-1061.36	655.15	613.26	15.64		
12150.00	10538.44	12425.45	10612.31	0.00	42.44	96.43	-1676.06	-1068.88	660.13	617.87	15.62		
12200.00	10538.27	12501.57	10612.56	0.00	43.01	96.43	-1752.04	-1073.43	663.14	620.42	15.52		
12250.00	10538.10	12577.89	10612.81	0.00	43.54	96.46	-1828.34	-1074.95	664.16	620.93	15.36		
12300.00	10537.93	12627.89	10612.97	0.00	44.26	96.49	-1878.34	-1074.95	664.20	620.25	15.11		
12350.00	10537.77	12677.89	10613.13	0.00	44.97	96.51	-1928.34	-1074.95	664.24	619.59	14.88		
12400.00	10537.60	12727.89	10613.29	0.00	45.69	96.54	-1978.34	-1074.95	664.28	618.91	14.64		
12450.00	10537.43	12777.89	10613.45	0.00	46.42	96.57	-2028.34	-1074.95	664.32	618.23	14.41		
12500.00	10537.26	12827.89	10613.61	0.00	47.16	96.60	-2078.33	-1074.95	664.35	617.53	14.19		
12550.00	10537.09	12877.89	10613.77	0.00	47.91	96.63	-2128.33	-1074.95	664.39	616.82	13.97		
12600.00	10536.92	12927.89	10613.94	0.00	48.68	96.66	-2178.33	-1074.95	664.43	616.10	13.75		
12650.00	10536.75	12977.88	10614.10	0.00	49.45	96.68	-2228.33	-1074.95	664.47	615.37	13.53		
12700.00	10536.58	13027.88	10614.26	0.00	50.24	96.71	-2278.33	-1074.95	664.51	614.63	13.32		
12750.00	10536.42	13077.88	10614.42	0.00	51.03	96.74	-2328.33	-1074.95	664.55	613.88	13.12		
12800.00	10536.25	13127.88	10614.58	0.00	51.83	96.77	-2378.33	-1074.95	664.58	613.12	12.91		
12850.00	10536.08	13177.88	10614.74	0.00	52.65	96.80	-2428.33	-1074.95	664.62	612.36	12.72		
12900.00	10535.91	13227.88	10614.90	0.00	53.46	96.83	-2478.32	-1074.95	664.66	611.59	12.52		
12950.00	10535.74	13277.88	10615.06	0.00	54.29	96.85	-2528.32	-1074.95	664.70	610.81	12.33		
13000.00	10535.57	13327.88	10615.22	0.00	55.13	96.88	-2578.32	-1074.95	664.74	610.02	12.15		
13050.00	10535.40	13377.88	10615.39	0.00	55.97	96.91	-2628.32	-1074.95	664.78	609.22	11.97		
13100.00	10535.23	13427.87	10615.55	0.00	56.82	96.94	-2678.32	-1074.95	664.82	608.42	11.79		
13150.00	10535.07	13477.87	10615.71	0.00	57.67	96.97	-2728.32	-1074.95	664.86	607.62	11.61		
13200.00	10534.90	13527.87	10615.87	0.00	58.53	96.99	-2778.32	-1074.95	664.90	606.80	11.44		
13250.00	10534.73	13577.87	10616.03	0.00	59.40	97.02	-2828.31	-1074.95	664.94	605.99	11.28		
13300.00	10534.56	13627.87	10616.19	0.00	60.27	97.05	-2878.31	-1074.95	664.98	605.16	11.12		
13350.00	10534.39	13677.87	10616.35	0.00	61.15	97.08	-2928.31	-1074.95	665.02	604.33	10.96		
13400.00	10534.22	13727.87	10616.51	0.00	62.03	97.11	-2978.31	-1074.95	665.06	603.50	10.80		
13450.00	10534.05	13777.87	10616.67	0.00	62.92	97.14	-3028.31	-1074.95	665.10	602.66	10.65		

LEAM Drilling Systems LLC

Anticollision Report

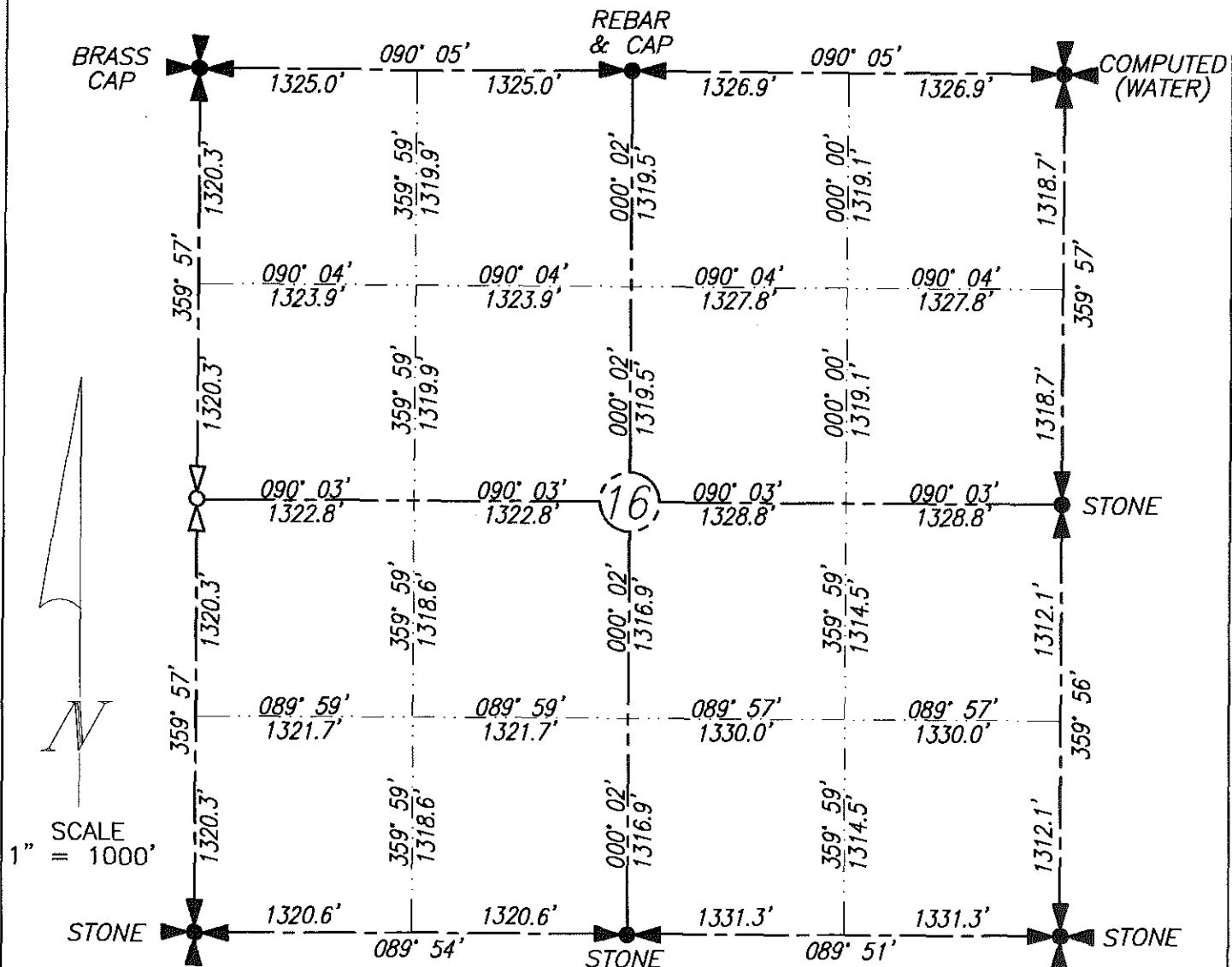
Company:	Continental Resources				Date:	2/13/2013		Time:	17:58:07		Page:	30
Field:	McKenzie County, ND											
Reference Site:	Tallahassee 2				Co-ordinate(NE) Reference:	Well: 2-16H, True North						
Reference Well:	2-16H				Vertical (TVD) Reference:	GL 1920+KB 21 1941.0						
Reference Wellpath:	OH											Db: Adapti
Site:	Tallahassee 3											
Well:	3-16H											
Wellpath:	OH V1 Plan: Plan #1 V1											
Reference MD ft	Offset TVD ft	Offset MD ft	Offset TVD ft	Semi-Major Axis Ref ft	Semi-Major Axis Offset ft	Offset TFO-HS deg	Location North ft	Location East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Inter-Site Error: 0.00 ft
												Warning
13500.00	10533.88	13827.87	10616.84	0.00	63.82	97.16	-3078.31	-1074.95	665.15	601.82	10.50	
13550.00	10533.72	13877.86	10617.00	0.00	64.71	97.19	-3128.31	-1074.95	665.19	600.97	10.36	
13600.00	10533.55	13927.86	10617.16	0.00	65.62	97.22	-3178.31	-1074.95	665.23	600.12	10.22	
13650.00	10533.38	13977.86	10617.32	0.00	66.52	97.25	-3228.30	-1074.95	665.27	599.27	10.08	
13700.00	10533.21	14027.86	10617.48	0.00	67.43	97.28	-3278.30	-1074.95	665.31	598.41	9.94	
13750.00	10533.04	14077.86	10617.64	0.00	68.35	97.30	-3328.30	-1074.95	665.35	597.54	9.81	
13800.00	10532.87	14127.86	10617.80	0.00	69.26	97.33	-3378.30	-1074.95	665.40	596.68	9.68	
13850.00	10532.70	14177.86	10617.96	0.00	70.19	97.36	-3428.30	-1074.95	665.44	595.81	9.56	
13900.00	10532.53	14227.86	10618.12	0.00	71.11	97.39	-3478.30	-1074.95	665.48	594.94	9.43	
13950.00	10532.37	14277.86	10618.28	0.00	72.04	97.42	-3528.30	-1074.95	665.52	594.06	9.31	
14000.00	10532.20	14327.85	10618.45	0.00	72.97	97.45	-3578.29	-1074.95	665.57	593.18	9.20	
14050.00	10532.03	14377.85	10618.61	0.00	73.90	97.47	-3628.29	-1074.95	665.61	592.30	9.08	
14100.00	10531.86	14427.85	10618.77	0.00	74.84	97.50	-3678.29	-1074.95	665.65	591.42	8.97	
14150.00	10531.69	14477.85	10618.93	0.00	75.78	97.53	-3728.29	-1074.95	665.69	590.53	8.86	
14200.00	10531.52	14527.85	10619.09	0.00	76.72	97.56	-3778.29	-1074.95	665.74	589.65	8.75	
14250.00	10531.35	14577.85	10619.25	0.00	77.67	97.59	-3828.29	-1074.96	665.78	588.76	8.64	
14300.00	10531.18	14627.85	10619.41	0.00	78.62	97.61	-3878.29	-1074.96	665.83	587.86	8.54	
14350.00	10531.02	14677.85	10619.57	0.00	79.57	97.64	-3928.28	-1074.96	665.87	586.97	8.44	
14400.00	10530.85	14727.85	10619.73	0.00	80.52	97.67	-3978.28	-1074.96	665.91	586.07	8.34	
14450.00	10530.68	14777.85	10619.90	0.00	81.48	97.70	-4028.28	-1074.96	665.96	585.17	8.24	
14500.00	10530.51	14827.84	10620.06	0.00	82.43	97.73	-4078.28	-1074.96	666.00	584.27	8.15	
14550.00	10530.34	14877.84	10620.22	0.00	83.39	97.76	-4128.28	-1074.96	666.05	583.37	8.06	
14600.00	10530.17	14927.84	10620.38	0.00	84.35	97.78	-4178.28	-1074.96	666.09	582.46	7.96	
14650.00	10530.00	14977.84	10620.54	0.00	85.32	97.81	-4228.28	-1074.96	666.14	581.56	7.88	
14700.00	10529.83	15027.84	10620.70	0.00	86.28	97.84	-4278.28	-1074.96	666.18	580.65	7.79	
14750.00	10529.67	15077.84	10620.86	0.00	87.25	97.87	-4328.27	-1074.96	666.23	579.74	7.70	
14800.00	10529.50	15127.84	10621.02	0.00	88.22	97.90	-4378.27	-1074.96	666.27	578.83	7.62	
14850.00	10529.33	15177.84	10621.18	0.00	89.19	97.92	-4428.27	-1074.96	666.32	577.92	7.54	
14900.00	10529.16	15227.84	10621.35	0.00	90.16	97.95	-4478.27	-1074.96	666.36	577.00	7.46	
14950.00	10528.99	15277.83	10621.51	0.00	91.14	97.98	-4528.27	-1074.96	666.41	576.09	7.38	
15000.00	10528.82	15327.83	10621.67	0.00	92.11	98.01	-4578.27	-1074.96	666.45	575.17	7.30	
15050.00	10528.65	15377.83	10621.83	0.00	93.09	98.04	-4628.27	-1074.96	666.50	574.25	7.23	
15100.00	10528.48	15427.83	10621.99	0.00	94.07	98.06	-4678.26	-1074.96	666.55	573.34	7.15	
15150.00	10528.32	15477.83	10622.15	0.00	95.05	98.09	-4728.26	-1074.96	666.59	572.42	7.08	
15200.00	10528.15	15527.83	10622.31	0.00	96.03	98.12	-4778.26	-1074.96	666.64	571.50	7.01	
15250.00	10527.98	15577.83	10622.47	0.00	97.01	98.15	-4828.26	-1074.96	666.69	570.57	6.94	
15300.00	10527.81	15627.83	10622.63	0.00	98.00	98.18	-4878.26	-1074.96	666.73	569.65	6.87	
15350.00	10527.64	15677.83	10622.79	0.00	98.98	98.20	-4928.26	-1074.96	666.78	568.73	6.80	
15400.00	10527.47	15727.82	10622.96	0.00	99.97	98.23	-4978.26	-1074.96	666.83	567.80	6.73	
15450.00	10527.30	15777.82	10623.12	0.00	100.96	98.26	-5028.26	-1074.96	666.88	566.88	6.67	
15500.00	10527.13	15827.82	10623.28	0.00	101.94	98.29	-5078.25	-1074.96	666.92	565.95	6.61	
15550.00	10526.97	15877.82	10623.44	0.00	102.93	98.32	-5128.25	-1074.96	666.97	565.02	6.54	
15600.00	10526.80	15927.82	10623.60	0.00	103.92	98.34	-5178.25	-1074.96	667.02	564.10	6.48	
15650.00	10526.63	15977.82	10623.76	0.00	104.92	98.37	-5228.25	-1074.96	667.07	563.17	6.42	
15700.00	10526.46	16027.82	10623.92	0.00	105.91	98.40	-5278.25	-1074.96	667.11	562.24	6.36	
15750.00	10526.29	16077.82	10624.08	0.00	106.90	98.43	-5328.25	-1074.96	667.16	561.31	6.30	
15800.00	10526.12	16127.82	10624.24	0.00	107.90	98.46	-5378.25	-1074.96	667.21	560.38	6.25	
15850.00	10525.95	16177.81	10624.41	0.00	108.89	98.48	-5428.24	-1074.96	667.26	559.45	6.19	
15900.00	10525.78	16227.81	10624.57	0.00	109.89	98.51	-5478.24	-1074.96	667.31	558.52	6.13	
15950.00	10525.62	16277.81	10624.73	0.00	110.89	98.54	-5528.24	-1074.96	667.36	557.58	6.08	
16000.00	10525.45	16327.81	10624.89	0.00	111.89	98.57	-5578.24	-1074.96	667.41	556.65	6.03	

LEAM Drilling Systems LLC

Anticollision Report

Company:	Continental Resources				Date:	2/13/2013		Time:	17:58:07		Page:	31
Field:	McKenzie County, ND											
Reference Site:	Tallahassee 2				Co-ordinate(NE) Reference:	Well: 2-16H, True North						
Reference Well:	2-16H				Vertical (TVD) Reference:	GL 1920+KB 21 1941.0						
Reference Wellpath:	OH										Db:	Adapti
Site:	Tallahassee 3											
Well:	3-16H											
Wellpath:	OH V1 Plan: Plan #1 V1											
Reference MD ft	Offset TVD ft	Offset MD ft	Offset TVD ft	Semi-Major Axis Ref ft	Offset ft	TFO-HS deg	Offset Location North ft	Offset Location East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Inter-Site Error: 0.00 ft
												Warning
16050.00	10525.28	16377.81	10625.05	0.00	112.89	98.60	-5628.24	-1074.96	667.46	555.72	5.97	
16100.00	10525.11	16427.81	10625.21	0.00	113.89	98.62	-5678.24	-1074.96	667.51	554.78	5.92	
16150.00	10524.94	16477.81	10625.37	0.00	114.89	98.65	-5728.24	-1074.96	667.56	553.85	5.87	
16200.00	10524.77	16527.81	10625.53	0.00	115.89	98.68	-5778.24	-1074.96	667.61	552.91	5.82	
16250.00	10524.60	16577.81	10625.69	0.00	116.89	98.71	-5828.23	-1074.96	667.66	551.98	5.77	
16300.00	10524.43	16627.80	10625.86	0.00	117.90	98.74	-5878.23	-1074.96	667.71	551.04	5.72	
16350.00	10524.27	16677.80	10626.02	0.00	118.90	98.76	-5928.23	-1074.96	667.76	550.11	5.68	
16400.00	10524.10	16727.80	10626.18	0.00	119.91	98.79	-5978.23	-1074.96	667.81	549.17	5.63	
16450.00	10523.93	16777.80	10626.34	0.00	120.91	98.82	-6028.23	-1074.96	667.86	548.23	5.58	
16500.00	10523.76	16827.80	10626.50	0.00	121.92	98.85	-6078.23	-1074.96	667.91	547.29	5.54	
16550.00	10523.59	16877.80	10626.66	0.00	122.93	98.88	-6128.23	-1074.96	667.96	546.36	5.49	
16600.00	10523.42	16927.80	10626.82	0.00	123.93	98.90	-6178.22	-1074.96	668.01	545.42	5.45	
16650.00	10523.25	16977.80	10626.98	0.00	124.94	98.93	-6228.22	-1074.96	668.06	544.48	5.41	
16700.00	10523.08	17027.80	10627.14	0.00	125.95	98.96	-6278.22	-1074.96	668.11	543.54	5.36	
16750.00	10522.92	17077.80	10627.30	0.00	126.96	98.99	-6328.22	-1074.96	668.16	542.60	5.32	
16800.00	10522.75	17127.79	10627.47	0.00	127.97	99.02	-6378.22	-1074.96	668.22	541.66	5.28	
16850.00	10522.58	17177.79	10627.63	0.00	128.98	99.04	-6428.22	-1074.96	668.27	540.72	5.24	
16900.00	10522.41	17227.79	10627.79	0.00	129.99	99.07	-6478.22	-1074.96	668.32	539.78	5.20	
16950.00	10522.24	17277.79	10627.95	0.00	131.00	99.10	-6528.21	-1074.96	668.37	538.85	5.16	
17000.00	10522.07	17327.79	10628.11	0.00	132.01	99.13	-6578.21	-1074.96	668.42	537.91	5.12	
17050.00	10521.90	17377.79	10628.27	0.00	133.03	99.16	-6628.21	-1074.96	668.48	536.97	5.08	
17100.00	10521.73	17427.79	10628.43	0.00	134.04	99.18	-6678.21	-1074.96	668.53	536.02	5.05	
17150.00	10521.57	17477.79	10628.59	0.00	135.05	99.21	-6728.21	-1074.96	668.58	535.08	5.01	
17200.00	10521.40	17527.79	10628.75	0.00	136.07	99.24	-6778.21	-1074.96	668.63	534.14	4.97	
17250.00	10521.23	17577.78	10628.92	0.00	137.08	99.27	-6828.21	-1074.96	668.69	533.20	4.94	
17300.00	10521.06	17627.78	10629.08	0.00	138.10	99.30	-6878.21	-1074.96	668.74	532.26	4.90	
17350.00	10520.89	17677.78	10629.24	0.00	139.11	99.32	-6928.20	-1074.96	668.79	531.32	4.86	
17400.00	10520.72	17727.78	10629.40	0.00	140.13	99.35	-6978.20	-1074.96	668.85	530.38	4.83	
17450.00	10520.55	17777.78	10629.56	0.00	141.14	99.38	-7028.20	-1074.96	668.90	529.44	4.80	
17500.00	10520.38	17827.78	10629.72	0.00	142.16	99.41	-7078.20	-1074.96	668.96	528.50	4.76	
17550.00	10520.22	17877.78	10629.88	0.00	143.18	99.43	-7128.20	-1074.96	669.01	527.56	4.73	
17600.00	10520.05	17927.78	10630.04	0.00	144.20	99.46	-7178.20	-1074.96	669.06	526.61	4.70	
17650.00	10519.88	17977.78	10630.20	0.00	145.21	99.49	-7228.20	-1074.96	669.12	525.67	4.66	
17700.00	10519.71	18027.77	10630.37	0.00	146.23	99.52	-7278.19	-1074.96	669.17	524.73	4.63	
17750.00	10519.54	18077.77	10630.53	0.00	147.25	99.55	-7328.19	-1074.96	669.23	523.79	4.60	
17800.00	10519.37	18127.77	10630.69	0.00	148.27	99.57	-7378.19	-1074.96	669.28	522.85	4.57	
17850.00	10519.20	18177.77	10630.85	0.00	149.29	99.60	-7428.19	-1074.96	669.34	521.91	4.54	
17900.00	10519.03	18227.77	10631.01	0.00	150.31	99.63	-7478.19	-1074.96	669.39	520.96	4.51	
17950.00	10518.87	18277.77	10631.17	0.00	151.33	99.66	-7528.19	-1074.96	669.45	520.02	4.48	
18000.00	10518.70	18327.77	10631.33	0.00	152.35	99.69	-7578.19	-1074.96	669.50	519.08	4.45	
18050.00	10518.53	18377.77	10631.49	0.00	153.37	99.71	-7628.19	-1074.96	669.56	518.14	4.42	
18100.00	10518.36	18427.77	10631.65	0.00	154.39	99.74	-7678.18	-1074.96	669.62	517.20	4.39	
18150.00	10518.19	18477.76	10631.81	0.00	155.41	99.77	-7728.18	-1074.96	669.67	516.25	4.37	
18200.00	10518.02	18527.76	10631.98	0.00	156.44	99.80	-7778.18	-1074.96	669.73	515.31	4.34	
18206.45	10518.00	18534.21	10632.00	0.00	156.57	99.80	-7784.63	-1074.96	669.73	515.19	4.33	

HORIZONTAL SECTION PLAT
CONTINENTAL RESOURCES INC.
TALLAHASSEE 2-16H
SECTION 16, T153N, R101W
MCKENZIE COUNTY, NORTH DAKOTA



ALL CORNERS SHOWN ON THIS PLAT WERE FOUND IN THE FIELD
DISTANCES TO ALL OTHERS ARE CALCULATED.
ALL BEARINGS SHOWN ARE ASSUMED.

I CERTIFY THAT THIS PLAT CORRECTLY REPRESENTS
WORK PERFORMED BY ME OR UNDER MY RESPONSIBLE
CHARGE, AND IS TRUE AND CORRECT TO THE BEST OF
MY KNOWLEDGE AND BELIEF

BROSZ ENGINEERING INC.

BOX 357

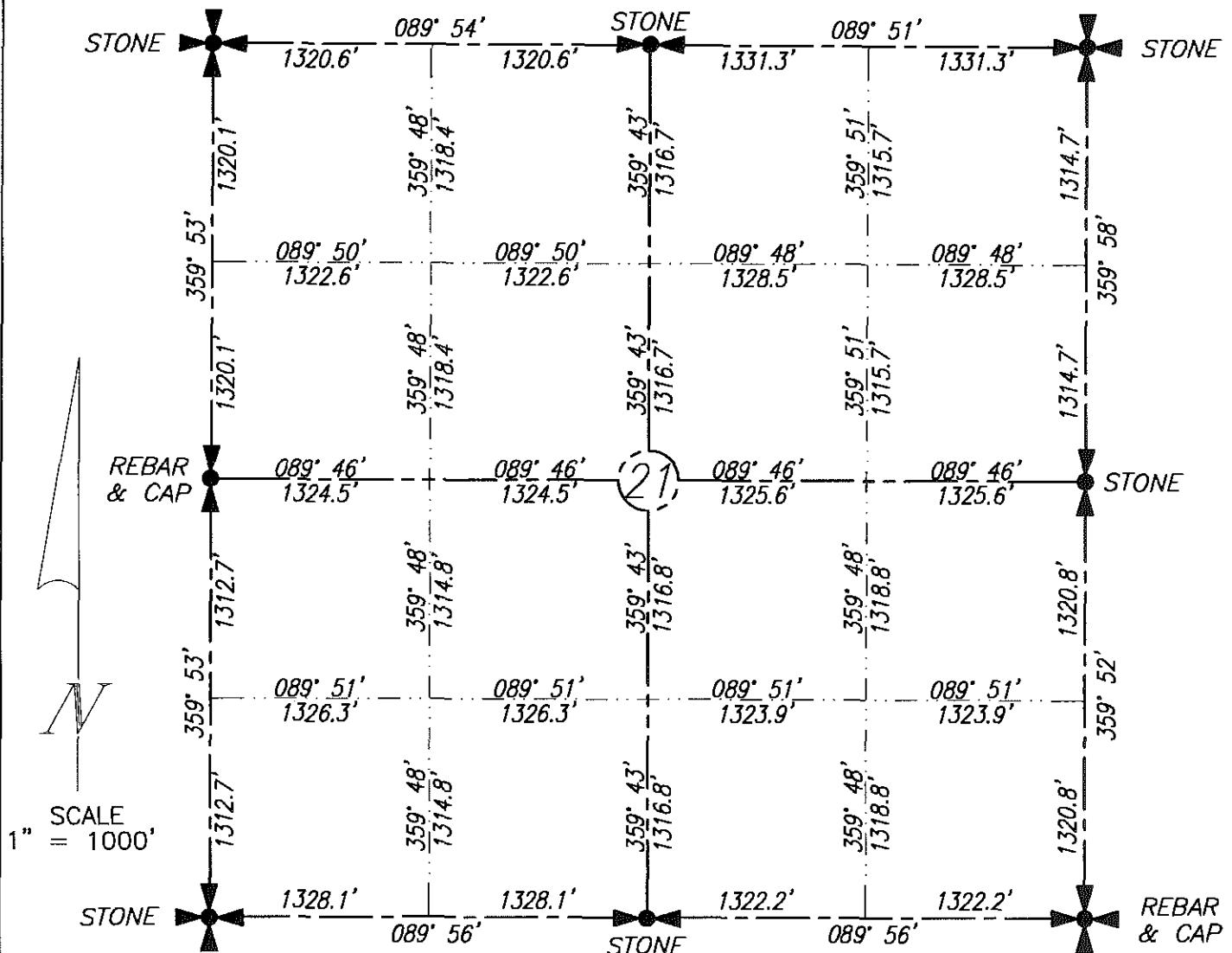
BOWMAN, N.D. 58623

PHONE: 701-523-3340

FAX: 701-523-5243

PROJECT NO. 12-10

HORIZONTAL SECTION PLAT
 CONTINENTAL RESOURCES INC.
 TALLAHASSEE 2-16H
 SECTION 21, T153N, R101W
 MCKENZIE COUNTY, NORTH DAKOTA



ALL CORNERS SHOWN ON THIS PLAT WERE FOUND IN THE FIELD
 DISTANCES TO ALL OTHERS ARE CALCULATED.
 BEARINGS SHOWN ARE ASSUMED.

REGISTER THAT THIS PLAT CORRECTLY REPRESENTS
 WORK PERFORMED BY ME OR UNDER MY RESPONSIBLE
 CHARGE AND IS TRUE AND CORRECT TO THE BEST OF
 MY KNOWLEDGE AND BELIEF

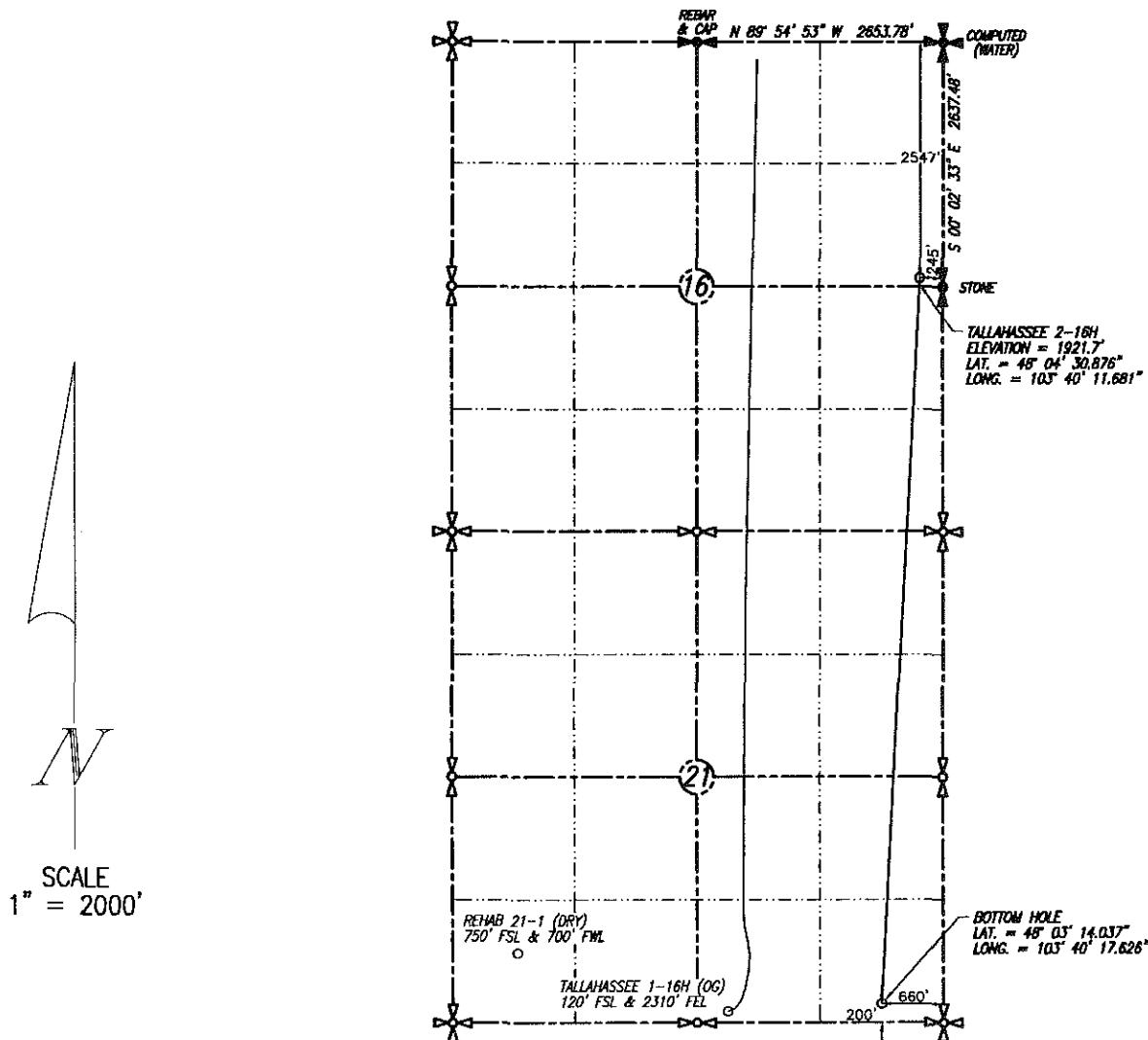
ND STATE L.S. #3366
 JOHN PAULSON R.L.S. 3366

BROSZ ENGINEERING INC.

BOX 357
 BOWMAN, N.D. 58623
 PHONE: 701-523-3340
 FAX: 701-523-5243
 PROJECT NO. 12-10

BOTTOM HOLE LOCATION PLAT
 CONTINENTAL RESOURCES INC.
 TALLAHASSEE 2-16H
 SECTION 16, T153N, R101W
 MCKENZIE COUNTY, NORTH DAKOTA
 2547' FNL & 245' FEL

REVISED: 4-16-2012



I CERTIFY THAT THIS PLAT CORRECTLY REPRESENTS
 WORK PERFORMED BY ME OR UNDER MY RESPONSIBLE
 CHARGE, AND IS TRUE AND CORRECT TO THE BEST OF
 MY KNOWLEDGE AND BELIEF



4-16-12

3366

DATE STAKED: 1-4-2012

BASIS OF VERTICAL DATUM:
 NAVD 1988 GEOID 09

PERSON AUTHORIZING SURVEY;
CHAD NEWBY

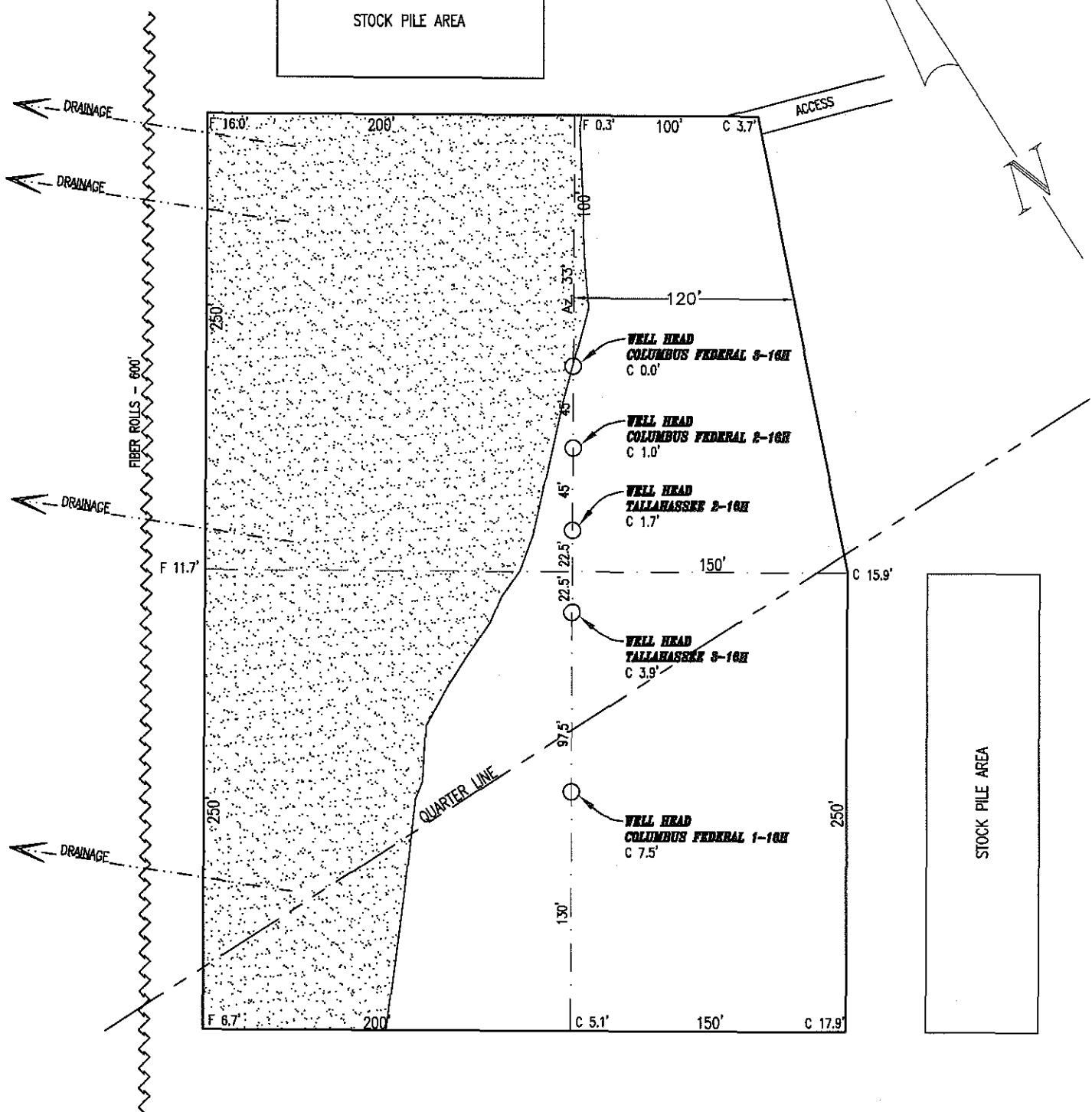
EXPLANATION AREA: NAD83(CORS96)

BASIS OF BEARING: TRUE NORTH

BROSZ ENGINEERING INC.

BOX 357
 BOWMAN, N.D. 58623
 PHONE: 701-523-3340
 FAX: 701-523-5243

PROJECT NO. 12-10



CONTINENTAL RESOURCES INC.
PO BOX 1032
ENID, OKLAHOMA 73702

DRILLING RIG LAYOUT
TALLAHASSEE 2-16H
SECTION 16, T153N, R101W
MCKENZIE COUNTY, NORTH DAKOTA

ESTIMATED EARTH QUANTITIES

TOP-SOIL:	3,125	CUBIC YARDS
SUB-SOIL:	28,719	CUBIC YARDS

TOTAL CUT:	31,844	CUBIC YARDS
------------	--------	-------------

TOTAL FILL:	27,716	CUBIC YARDS
-------------	--------	-------------

Use excess materials in access road fill

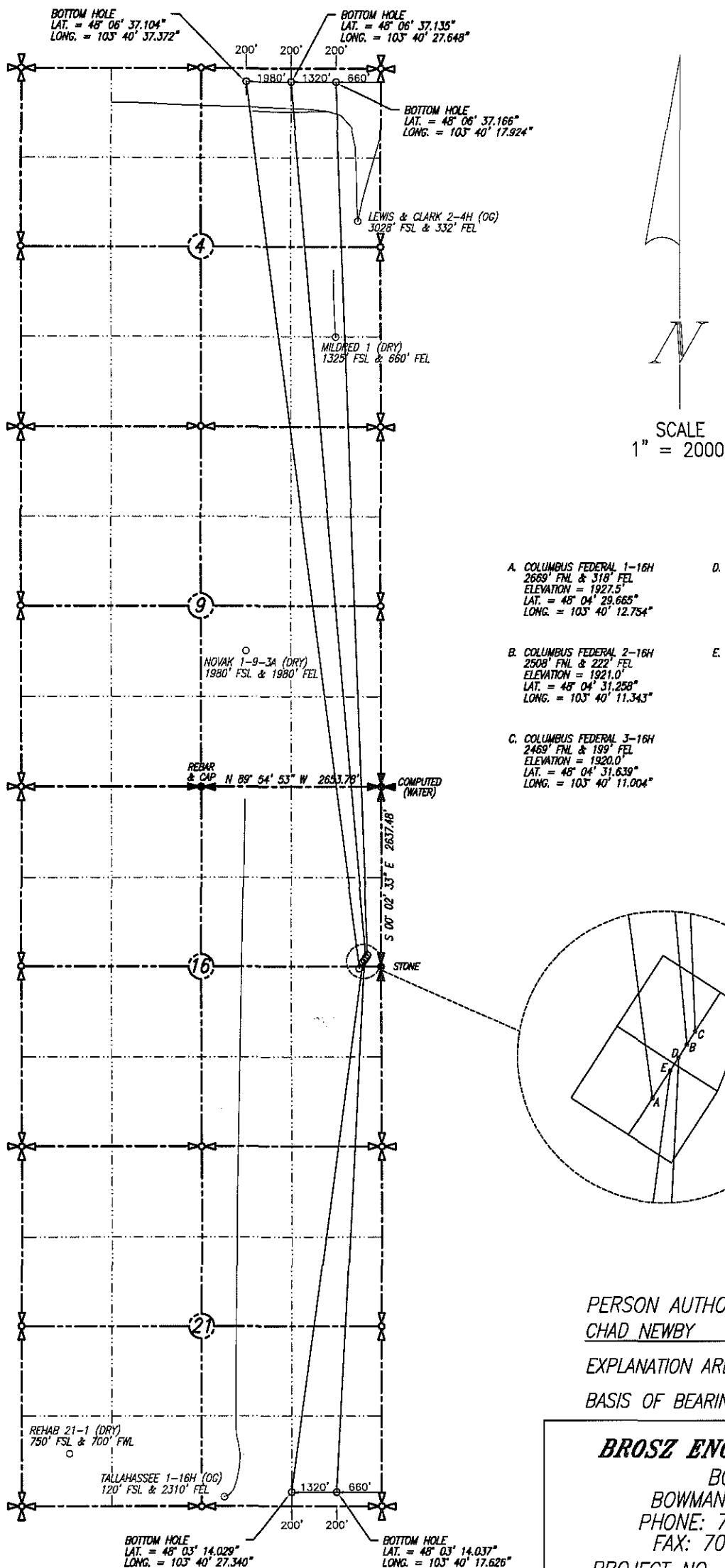
ALL INDICATED
CUTS & FILLS
ARE STAKED
GRADE ELEVA-
TIONS.

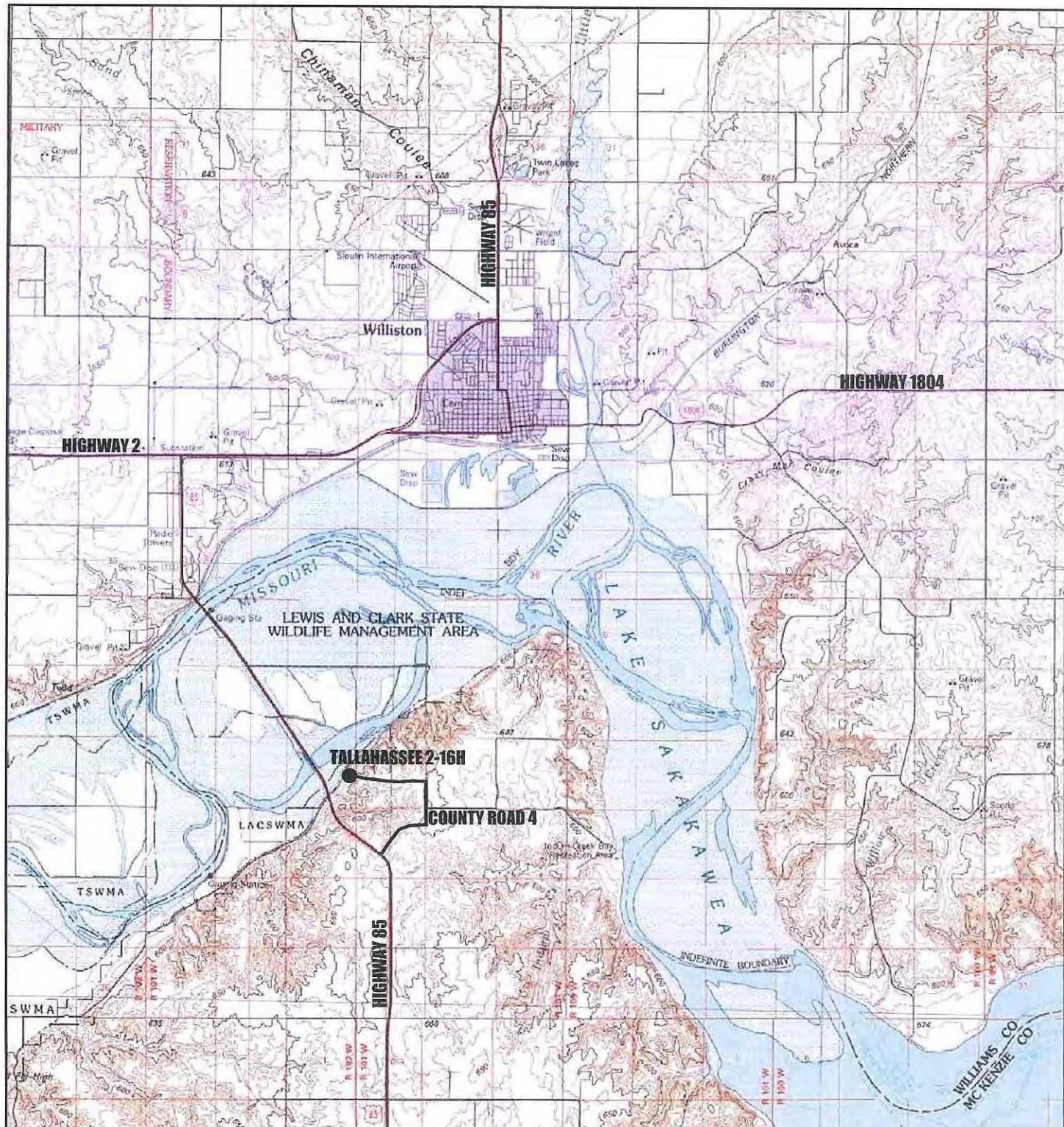
BACKSLOPES
ASSUMED
AT 1 1/2 : 1 %

Ground Elevation at Well Head: 1921.7 ft. ASL
Finished Rig Grade Elevation: 1920.0 ft. ASL

CONTINENTAL RESOURCES INC.

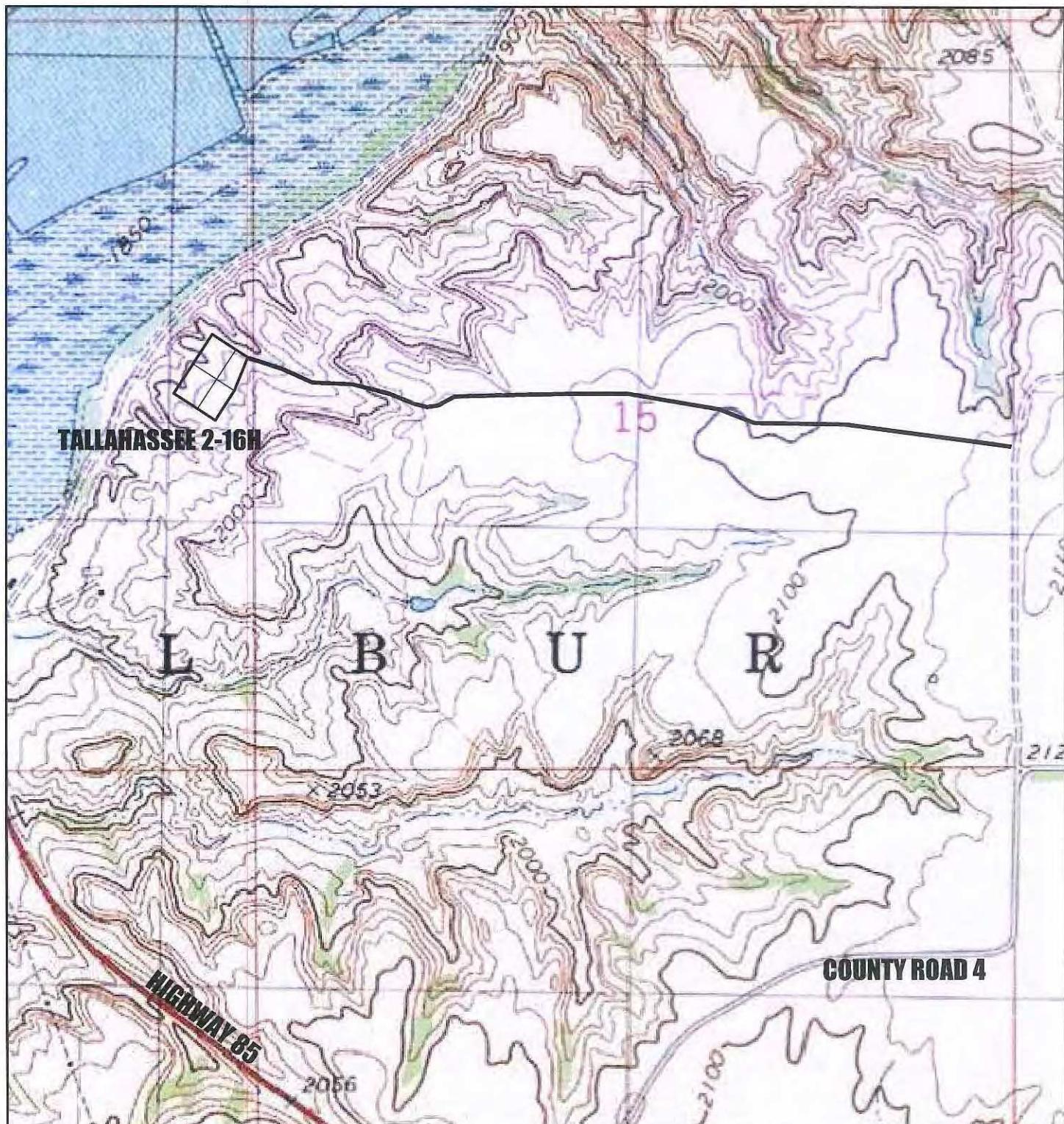
COLUMBUS FEDERAL 1, 2, & 3 – TALLAHASSEE 2 & 3 ECO PAD
 SECTION 16, T153N, R101W
 MCKENZIE COUNTY, NORTH DAKOTA





CONTINENTAL RESOURCES INC.
VICINITY MAP

TALLAHASSEE 2-16H
SECTION 16, T153N, R101W
MCKENZIE COUNTY, NORTH DAKOTA



CONTINENTAL RESOURCES INC.
WELL LOCATION

TALLAHASSEE 2-16H
SECTION 16, T153N, R101W
MCKENZIE COUNTY, NORTH DAKOTA

Tabor, David

From: Tabor, David
Sent: Wednesday, March 06, 2013 2:25 PM
To: Tabor, David
Subject: FW: Columbus Federal 3-16H and pad.

From: Robert Sandbo [<mailto:Robert.Sandbo@clr.com>]

Sent: Friday, March 01, 2013 4:48 PM

To: Tabor, David

Subject: RE: Columbus Federal 3-16H and pad.

Thanks David. I got the email. Here is our schedule for the pad as of right now:

Columbus Federal 1-16H to spud on 3/24/2013 (may spud with the small rig around one week earlier if possible). We had planned on drilling the Columbus 1-16H first and then come back in a year or so and drill the other 4 but if we get the permits for all and the order on the 1280 allows us to drill them all back to back, we will most likely go ahead and drill them all at once. We will take a look at the 1280 order that covers the Columbus 1-16H and see if we can batch drill them.

You should have everything on the 3-16H and the affidavit sometime Monday.

Thanks for the help,

Bob Sandbo
Regulatory Compliance Supervisor

Continental Resources, Inc.

20 N. Broadway

OKC, OK 73102

P: 405-234-9020

F: 405-234-9562

C: 405-708-0691

robert.sandbo@clr.com

www.clr.com



June 12, 2012

Industrial Commission of North Dakota
Oil & Gas Division
600 East Boulevard, Dept 405
Bismarck, North Dakota 58505

Re: Tallahassee 2-16H

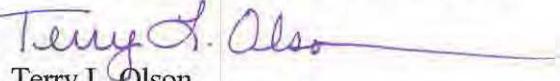
Continental Resources, Inc., would like to request all filings and information regarding the above captioned well be considered "Tight Hole".

Please charge the Continental Resources, Inc., credit card that is on file with your agency for the application fee of this well.

Thank you for your prompt attention to this matter. If you have any questions, you may contact me at 580-548-5139 or email the following Terry.Olson@clr.com.

Sincerely,

CONTINENTAL RESOURCES, INC.



Terry L. Olson
Regulatory Compliance Specialist

Continental Resources, Inc. (CRI) respectfully submits the following information concerning the prevention of a wellbore collision while drilling the Columbus Federal 3-16H, SENE of Sec. 16, T153N, R101W, Dunn County, North Dakota.

The Mildred 1, NDIC File No. 12306, is a plugged and abandoned, Red River formation, directional well with a SHL of 1325' FSL, 660' FEL of Sec. 4, T153N, R101W. The directional wellbore lies approximately 660' FEL of Sec. 4, T153N, R101W, terminating at a BHL 769' N. of SHL, 2094' FSL of Sec. 4, T153N, R101W. Bottom hole TVD of the existing directional well is 13451'. The deepest casing string is 8-5/8" set at a depth of 3035' TVD.

The proposed Columbus Federal 3-16H is a horizontal well targeting the Middle Bakken formation. Surface hole location for the Columbus Federal 3-16H is 2469' FSL and 199' FEL of Sec. 16, T153N, R101W. The majority of the Columbus Federal 3-16H lateral will lie 760' FEL in order to avoid the existing Mildred 1 wellbore by approximately 100'. The lateral will taper back to 660' FEL, at 10155' N. of SHL, after adequately clearing the segment of the Mildred 1 wellbore within this Baker-Bakken pool.

The Baker-Bakken pool, as defined by NDIC Order No. 21551, is the interval from 50 feet above the top of the Bakken Formation to above the top of the Birdbear Formation. CRI has assessed the geology of the area and has determined this Bakken interval to be approximately 10461' TVD to 10,771' TVD. On the surface planar, the Mildred 1 wellbore exist in this interval for approximately 38', from 1874' FSL to 1912' FSL of Sec. 4, T153N, R94W.

The completion of the Columbus Federal 3-16H will protect the integrity of the Mildred 1 wellbore. Stimulation plans will be made to include a buffer zone with swell packers of a minimum 500' from either side of the Mildred 1 wellbore existing within the Baker-Bakken pool. This zone will not be perforated or completed.

CRI believes adequate precautions have been taken to prevent the possibility of a wellbore collision and accepts all responsibility should such a collision occur.


Sarah Madden, PD Engineer
Continental Resources, Inc.

STATE OF OKLAHOMA)
)ss:
COUNTY OF OKLAHOMA)

On the 6th day of March 2013, before me, a Notary Public in and for said County and State, personally appeared Sarah Madden, known to me to be a PD Engineer of Continental Resources, Inc., the Corporation that executed the within instrument, and acknowledged to me that such Corporation executed the same.


Notary Public

Oklahoma County, Oklahoma

My Commission Expires: 7/5/2015

Commission No.: 11006023



CLR Spill Trailer Inventory

(To be Checked After Each Use)

Supplies	Quantity	Actual	Supplies	Quantity	Actual
Personal Protection			Miscellaneous		
Trauma/1st Aid Kit	1		EnviroClean (5-gal units of concentrate)	2	
Eye Wash	1		Duct Tape (Case)	3	
Hand Cleaner	2		Flashlights	6	
Nitrile Gloves (L & XL Case)	2		Flood Lights	2	
FRC Rain Coat - Extra Large	3		Extension Cord 50' 12-gauge	5	
FRC Rain Coat - Large	3		55-gal. Drums w/lids	2	
Rubber Safety Toed Boots - Size 10	2		Large Trash Cans	2	
Rubber Safety Toed Boots - Size 11	2		HD Drum Liners - boxes	2	
Rubber Safety Toed Boots - Size 12	2		Hoses - Kit (Blue & Green)	5	
FRC Tyvex Suits - Case XL	1		Plastic Buckets	5	
Neoprene Chest Waders - L	1		Propane Cylinders - 20-lb.	2	
Neoprene Chest Waders - L	1		Propane Weed Burner W/Hose	1	
Containment			Pump - Trash	2	
Absorbent (sphag)	10		Pump - 115V Water Transfer	2	
Absorbent Boom 3" x 10'	2		Gas Powered Generator (3-5K Watt)	1	
Absorbent Boom 5" x 10'	10		Misc. Ratchet Straps	6	
Absorbent Boom 8" x 10'	8		Rope 1/2" x 100'	2	
Containment Boom - Fast Water	3		Rope 1/4" x 50'	4	
Absorbent Pads (Hydrocarbon)	10		Rope 3/8" x 100'	2	
Absorbent Pads (Universal)	5		Shop Towels - box	2	
Absorbent Pillows 18" x 18" box	3		Caulking Gun	2	
Absorbent Pom Pom Cube	7		Silicon Tubes	10	
Absorbent Sweep - 16" x 100' - Bag	5		Metal Stakes/Spikes	8	
Miscellaneous			Metal T-Posts	6	
Antifreeze	2		Bungee Cords	3	
Push Broom	2		Wire - 25' roll - smooth	1	
Shovels	2		Fire Extinguisher	1	
Rake	5		Equipment Hooks	6	
Squeegees	2		Shelving	4	
Scoop	2		Drawers	1	
Spark Resistant Scoop	1		Misc. Building Supplies	1	



March 7, 2013

Industrial Commission of North Dakota
Oil & Gas Division
600 East Boulevard, Dept 405
Bismarck, North Dakota 58505

Continental Resources, Inc. (CRI) respectfully submits the following information concerning the drilling of the Columbus Federal 1-16H, 2-16H & 3-16H1, and the Tallahassee 2-21H & 3-21H1

Township 153N, Range 101W
Section 16, NE/4 SE/4 & SE/4 NE/4 McKenzie County, North Dakota.

The Columbus Federal and Tallahassee well(s) are located in an environmentally sensitive area in close proximity to the Missouri River. Therefore, Continental Resources Inc. would like to propose the following automatic shut down equipment and level sensing monitoring equipment be deployed on the site to aid in the prevention of any accidental release or safety issue. A schematic diagram and pictures of an existing tank battery with emergency shutdown equipment has been included with this affidavit.

- 1) Tank Side (oil & water tanks)
 - a. ABB Levelmaster dual float
 - b. High level switch as backup
 - c. Battery box with solar backup
- 2) Treater & Separator
 - a. Temperature device in each vessel
 - b. Pressure transducer in each vessel
 - c. Level switch in each vessel
 - d. Battery box with solar backup
- 3) Wellhead
 - a. TotalFlow Controller
 - b. Emergency Shutdown Valve Package
 - c. Battery box with solar backup
 - d. Pressure transducer on casing & tubing
- 4) Flare
 - a. Scrubber pot high level switch
 - b. Monitoring flare for low temp output – alarm if flare goes out

- 5) System Automation through the proposed equipment will provide an independent control system on all equipment on site which will be able to shut the well(s) in should any of the other equipment be incapacitated or functioning improperly.

Don Kennedy

Don Kennedy, Sr. Production Engineer
Continental Resources, Inc.

STATE OF OKLAHOMA)
)ss:
COUNTY OF OKLAHOMA)

On the 7th day of March, 2013, before me, a Notary Public in and for said County and State, personally appeared Don Kennedy, known to me to be the Sr. Production Engineer of Continental Resources, Inc., the Corporation that executed the within instrument, and acknowledged to me that such Corporation executed the same.

Becky Barnes
Notary Public

Oklahoma County, Oklahoma

My Commission Expires: 7/5/2015

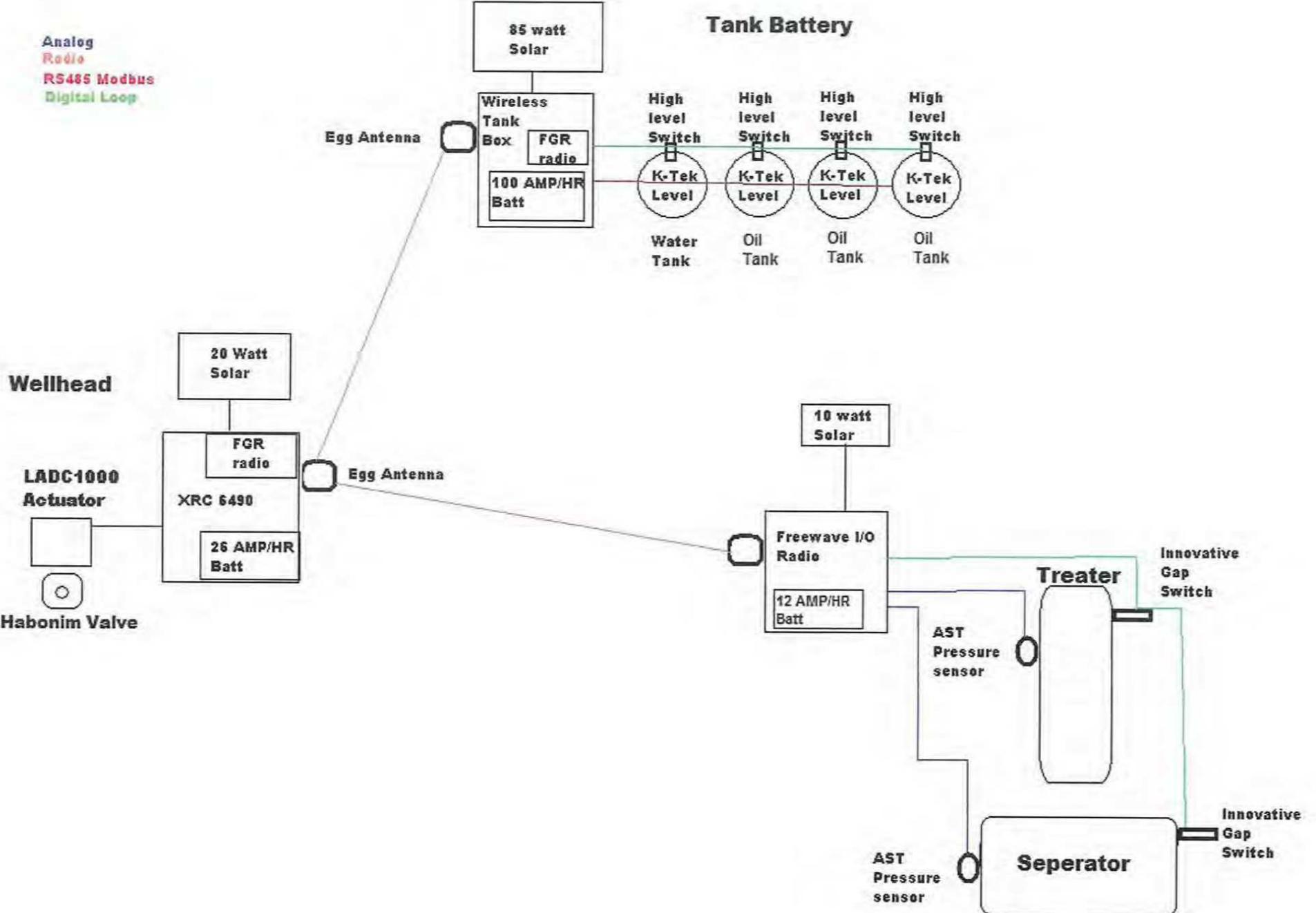
Commission No.: 11006023



Sincerely,

CONTINENTAL RESOURCES, INC.

Becky Barnes
Regulatory Compliance Specialist





U003 Gap Switch and AST 4600 Transducer monitor pressures and liquid content of Flare and Sales Lines, transmitted to XRC via FreeWave Radio.



ABB TotalFlow XRC 6490



All well information is passed to your SCADA system via FreeWave Network (Future)

Winn-Marion's Well Head Kit with FGRIQ Radio and Power Supply



Tank Level information is passed from Tank Battery to XRC via FreeWave Radio



K-Tek MT5100
Guided Wave Radar



Z-Bend High Level Switch



ESD Valve Package
Standard Port Ball Valve rated to 6000 psi topped with a 12 VDC Actuator w/ Battery Backup



Winn-Marion, Inc.

Continental Resources, Inc. (CRI) respectfully submits the following information concerning the drilling of the Columbus Federal 1-16H, 2-16H and 3-16H and the Tallahassee 2-16H and 3-16H, Sec. 16, T153N, R101W, Williams County, North Dakota.

CRI would like to propose the following safeguards and precautions to be taken while drilling the Columbus Federal-Tallahassee wells to prevent any contamination to freshwater sources during the drilling and completion of the wells:

- 1) During construction of the location, the entire location will be constructed per NDIC permit stipulations, ensuring any spills or runoff which occur on location do not penetrate the fresh ground water and are contained on the surface of the location. These modifications include, but are not limited to, the inclusion of a liner being placed under the location, and cementing of the rathole and mousehole.
- 2) Drainage will be re-routed to avoid the location, and erosion controls will be employed, as appropriate, around the site to reduce erosion and the resulting sediment contamination to freshwater runoff due to weather events.
- 3) The earthen berm, constructed to keep any freshwater runoff off the location, will also eliminate any spills from leaving the location
- 4) No reserve pit or dry cuttings pit will be utilized on location.
- 5) The conductor will be drilled to a depth of 80', and 20" pipe will be run to depth and cemented to surface.
- 6) During drilling operations, a freshwater protection string of 13-3/8" 48# H40 casing will be set to a depth of 500' and cemented to surface to protect the shallow freshwater zones. Standard 9-5/8" 36# J-55 surface casing will be set 100' into the Pierre Shale, to a depth of 1940', and cemented to surface.
- 7) A frac string will be used to protect the intermediate casing during hydraulic fracturing of the well.
- 8) CRI is submitting a comprehensive rig specific Spill Prevention Containment and Countermeasure Plan to prepare for any event which may occur during drilling and completion operations. A spill trailer will be located on location for spill response, if necessary.

CRI believes adequate planning and precautions are being taken to prevent any contamination to ground water and surface waters.


Sarah Madden, Project Development Engineer
Continental Resources, Inc.

STATE OF OKLAHOMA)
)ss:
COUNTY OF OKLAHOMA)

On the 7th day of March 2013, before me, a Notary Public in and for said County and State, personally appeared Sarah Madden, known to me to be a Project Development Engineer of Continental Resources, Inc., the Corporation that executed the within instrument, and acknowledged to me that such Corporation executed the same.


Notary Public

Oklahoma County, Oklahoma

My Commission Expires: 7/5/2015

Commission No.: 11006023



**SPILL PREVENTION CONTAINMENT
AND COUNTERMEASURE PLAN**

FOR

**CYCLONE DRILLING, INC.
P.O. BOX 908
GILLETTE, WYOMING 82717-908**

PREPARED BY;

**TOP LINE ENGINEERING, LLC
12635 HWY 200, P.O. BOX 884
SIDNEY, MONTANA 59270
PH; (701)570-2844**

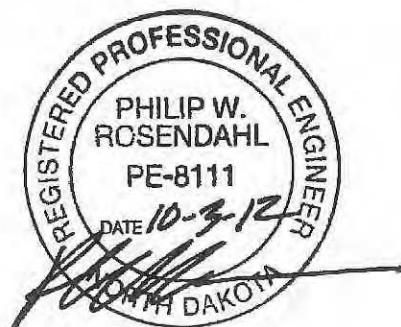


TABLE OF CONTENTS

112.7(a)(1) Discussion of Facilities Conformance.....	1
112.7(a)(2) Compliance with Section 112.7 of 40 CFR.....	1
112.7(a)(3) Site Description.....	1
112.7(a)(3)(i) Fixed Container Description.....	2
112.7(a)(3)(ii) Discharge Prevention Measures.....	2
112.7(a)(3)(iii) Discharge Secondary Containment.....	3
112.7(a)(3)(iv) Discharge Countermeasures, Discovery, Response and Cleanup.....	3
112.7(a)(3)(v) Methods of Disposal of Recovered Materials.....	4
112.7(a)(3)(vi) Contact List.....	4
112.7(a)(4) Information and Reporting Procedures.....	4
112.7(a)(5)(a) Plan Procedures for Discharge Occurance	5
112.7(a)(5)(b) Flow diagram.....	5
112.7(a)(5)(c) Site Discharge Containment System.....	5
112.7(a)(5)(d) Non Practical Measures.....	5
112.7(a)(5)(e) Inspections, Tests and Records.....	5
112.7(a)(5)(f) Personnel Training and Discharge Prevention.....	6
112.7(a)(5)(g) Site Security.....	6
112.7(a)(5)(h) Facility Tank Truck Loading/Unloading.....	6

APPENDIX

TYPICAL DRILL RIG LOCATION PLAN

DISCHARGE REPORTING FORM

DISCHARGE SOURCE INSPECTION RECORD

SPILL PREVENTION CONTAINMENT AND COUNTERMEASURE PLAN (SPCC)

PER 40 CFR 112.7 DATED: SEPTEMBER 14, 2012

This plan will follow the guidelines and format of 40 CFR part 112.7 and will replace the self-certified plan currently in affect.

112.7(a)(1) Discussion of facilities' conformance with the requirements listed in this part. The storage tanks on site store petroleum based drilling mud, diesel fuel, the invert tanks being the base for the drilling mud, salt water tanks, fresh water tanks, crude oil storage tanks and empty tanks for emergency storage. In addition to the storage tanks, other operations that can produce contaminants are the drilling operation itself and the cuttings drying operation. It is the purpose of this plan to define the prevention containment and countermeasure plan for discharges from any of these sources on the site. All the actions taken in this regard are per approved policies of this part of 40 CFR 112. Universally and in setting up the drilling operation on the site prevention measures are taken by grading the site to contain discharges, building in effective valves and other related operational and control mechanisms to prevent discharges. This equipment is installed and tested prior to beginning drilling operations. The tanks and equipment are installed within secondary containment berms and containment trenches and sumps are installed around the facilities prior to beginning drilling operations with capacity to contain with freeboard a rupture of the largest vessel associated with the containment. In the event of a discharge the sites are equipped with vacuums that are capable of picking up the spilled material and loading it into containers where it can be transferred to an approved disposal location. In the event of a discharge larger than can be handled by Cyclone and other manpower on location or that leaks offsite and potentially into navigable waters of the US, the operator, under his directions will arrange for trained contract personnel to immediately contain and clean-up the discharge.

112.7(a)(2) This plan will comply with all applicable items of this part. With no deviations anticipated.

112.7(a)(3) The attached sketch shows a typical layout of the drill rig sites depicting the location, size and contents of the tanks. There are no underground tanks nor are there any mobile or portable containers associated with these drilling locations. The site is prepared in advance of the drill rig coming onto the site. The sites are designed and constructed to contain spills and tank ruptures on the site. The drill rig and associated tanks and equipment are laid out in an efficient and effective manner to streamline the drilling operation. Frack tanks are located in such a manner that they have easy access to the mud tanks with valves located on both ends of transfer lines. The drilling mud tanks are plumbed to the drill rig with valves appropriately located to

stop flow from the tanks to the rig or from the rig to the tanks. The cuttings from the drilling operation are screened from the recycled drilling mud and directed to a container where they are dried using fly ash or some other equally effective absorbent material and are then transferred to the lined cuttings disposal pit onsite. The fuel tank is tied into the fuel lines providing fuel flow to the generators. Blowout preventers are placed over the drill hole casing and tested prior to beginning the drilling.

112.7(a)(3)(i) The type of oil in each fixed container and its storage capacity. No mobile or portable containers anticipated.

SOURCE	MAJOR TYPE OF FAILURE	TOTAL CAP. (BBLS.) (Type Fluid)	RATE (BBLS/MIN)	DIRECTION OF FLOW	SECONDARY CONTAINMENT
Diesel Fuel Tank	Leak or rupture	14,000 Maximum (Diesel)	Depends on size	Dams and/or Trenches	Site Perimeter Containment
Pumps & Engines	Leakage	½ - gal/hr. (lube oil)	½ - 1 gal/hr.	Drip Pans or Trenches	Site Perimeter Containment
Crude Oil Tanks	Rupture or Leak	400 BBLS	Depends on Type of Failure	Contained within Berm	Tank Battery Berm
Mud Tanks, Vibrator Rotary Hoses	Leak or rupture	450 BBLS Maximum per tank (Petroleum based drilling fluid)	Varies	Drip Pans for Hoses, Trench & Sump or Berms for Tanks	Site Perimeter Containment
Wellhead Blowout Preventer	Blowout or kicking well	Depends on severity (Well bore fluids)	Will vary	Away from well head to Trench and Sump	Site Perimeter Containment

112.7(a)(3)(ii) Discharge Prevention Measures including procedures for routine handling of products (loading, unloading and facility transfers, etc.); Before the drill rig moves on, the site is prepared for discharges associated with tank ruptures, as the site is graded to contain all discharges and storm runoff. When the rig is moved onto the site and set up additional discharge prevention and containment measures are taken. Equipment inspection records

are reviewed and the equipment is inspected following written procedures, the written procedures are attached in the appendix of the plan. A dated record of the inspection, signed by the appropriate supervisor or inspector is recorded and filed with time sheets or safety meeting minutes, when the drill rig changes locations and notes of deficiencies or acceptance are included. Operation and maintenance of equipment is designed to prevent discharges. Personnel are trained and made aware of the discharge prevention procedures and applicable pollution control laws, rules and regulations. The tool pusher in charge of the drill rig will have in his possession a copy of the Cyclone Drilling SPCC Plan and it is his responsibility to instruct the employees and make them aware of the discharge prevention measures contained in the plan. Scheduled briefings and refreshers are to be conducted with all the employees prior to and during rig up operations, such briefings are to be held during regularly scheduled safety meetings.

Employees are assigned to make routine inspections of valves, hose connections and other fluid connections for leaks. These inspections are made and documented on a monthly basis at a minimum. These leaks are provided drip pans and reported to the appropriate personnel for repair. If repairs cannot be readily made then regular emptying of the drip pans is required until the repairs can be made. Inspections of trenches and sumps are made on a regular basis to insure that they are free flowing and functional. The containment berms are also inspected periodically to insure their stability and function.

112.7(a)(3)(iii) Discharge or drainage controls such as secondary containment around containers and other structures, equipment, and procedures for the control of the discharge; Containment berms are placed around the tanks containing crude oil, the invert drilling fluid, salt water tanks and the empty tanks to be used for emergency storage, as secondary containment. The containment berms are of adequate height to contain a rupture and total failure of the largest tank contained within it amounting to 400 BBLS requiring a containment capacity of 3,000 cu. ft. Similarly, berms are built around the crude oil storage tanks on the site and requiring the same containment volume. Berms or trenches and sumps are constructed around the drill rig itself, the drilling mud tanks and diesel fuel tank, the sumps and trenches are sized to contain the volume of the largest tank in the case of a rupture and complete failure. Additionally, drip pans are placed under leaking valves, hose joints and other sources of small leaks until the item can be replaced or repaired to not leak. Regular inspections of these facilities are made to insure that they will function per plan.

112.7(a)(3)(iv) Countermeasures for discharge discovery, response, and cleanup (both the facility's capability and those that might be required of a contractor); Regular inspections may reveal a discharge such as a leaking valve or hose joint. These instances can readily be cleaned up by employees of Cyclone Drilling using on site vacuums and containers. Larger spills up to and

beyond the reporting limits can also be handled by Cyclone Drilling employees. Spills that exceed the limitations of the onsite cleanup equipment or in the event of a spill migrating offsite, will require the tool pushers' notification of the operator/owner of the site and they will contact the clean-up contractor they have contracted with to contain and clean-up such events.

112.7(a)(3)(v) Methods of disposal of recovered materials in accordance with applicable legal requirements: When spills occur the fluids will be either soaked up with absorptive material and placed in a container for transporting to an approved disposal site or vacuumed up and placed in a storage container for transportation to an approved disposal site. It is understood by all Cyclone Drilling employees that there is not an approved disposal site on or around the drilling rig to dispose of these recovered materials or fluids, other than drying drilling cuttings and disposing of them in the cuttings pit.

112.7(a)(3)(vi) Contact list and phone numbers for the facility response coordinator, National Response Center, cleanup contractors with whom operator has an agreement for response, and all appropriate Federal, State, and local agencies who must be contacted in the event of a discharge as described in § 112.1(b). Facility Response Coordinator for Cyclone Drilling HSE Dept. (Ph. 307-682-4161) is responsible for contacting the operators environmental group so they can contact the appropriate Federal, State and Local personnel in the event of a discharge as described in § 112.1(b).

112.7(a)(4) Information and procedures to enable a person reporting a discharge as described in § 112.1(b) to relate information on the exact address or location and phone number of the facility; the date and time of the discharge, the type of material discharged; estimates of the total quantity discharged; estimates of the quantity discharged as described in § 112.1(b); the source of the discharge; a description of all affected media; the cause of the discharge; any damages or injuries caused by the discharge; actions being used to stop, remove, and mitigate the effects of the discharge; whether an evacuation may be needed; and, the names of individuals and/or organizations who have also been contacted. In the event of a discharge as described in §112.1(b) it is the responsibility of the tool pusher to relate the above information to the operators environmental group so they can contact, any emergency organizations and provide the reporting necessary to the Federal, State and Local agencies that require reporting of such a discharge. The tool pusher on the rig is the person in charge and either he or the drilling superintendent have the responsibility of reporting the answers to the above questions. These questions are spelled out on a "Discharge Reporting Form" that each has at his disposal in the appendix of "Cyclone Drilling Oil Spill Contingency Plan". In reporting a discharge a list of all individuals and or organizations that received the report will be listed.

112.7(a)(5) Plan procedures to be used when a discharge occurs:

- 1) Immediately extinguish any heater or fire that may ignite the spill.
- 2) No smoking during spill control operations.
- 3) Close all associated valves.
- 4) Direct discharge to ditches or drains that will carry the discharge to a safe holding sump or reserve pit.
- 5) Distribute hill, fibertex, gel, barite, or any other absorptive material available as required to contain the discharge not entering the ditch, sump or reserve pit.
- 6) Inspect area to ensure that all of the discharge is contained in ditches, sums or reserve pits. Add ditches or diversion structures as required to contain the discharge onsite.
- 7) Start jet or sump pumps and transfer discharged material from sums to reserve pit or holding tanks.
- 8) After discharge is stopped, collect all used hulls, fibertex and similar absorptive material for disposal per instruction from the drilling superintendent or the tool pusher. No oil is to remain in the ditches or sums that may create a fire hazard.
- 9) Hold collected discharged material for hauling and disposal in an approved location.
- 10) If discharge migrates from the drill rig location Cyclone Drilling personnel will use these same procedures stop and recover the discharge. Additionally the tool pusher will notify the owners representative to notify the contract clean-up company for clean-up and mitigation of the offsite discharge migration.
- 11) Fill out Site Discharge Reporting Form and distribute to appropriate agencies and personnel. (Form included in Appendix of Plan)

112.7(a)(5)(b) Flow diagram of potential discharges from significant sources as a result of facilities failure: Flow diagrams and quantities included in appendix of the plan.

112.7(a)(5)(c) Site discharge containment system: The site discharge containment system for the Cyclone Drilling Rigs is a combination of containment berms, confinement trenches, sums and reserve pits. Drip pans will be used for small discharges until repairs are made or equipment replaced. (See typical site plan included in appendix.)

112.7(a)(5)(d) Not applicable as all measures spelled out in this part are practical as describe in each section.

112.7(a)(5)(e) Inspections, tests and records: Written procedures are provided on the "Discharge Source Inspection Record", these inspections are recorded at least on a monthly basis or whenever a leak or discharge is detected and reported, using the "Discharge Source Inspection Record" in the appendix. These records are signed by the tool pusher onsite and maintained by Cyclone Drilling for a period of 3 years.

112.7(a)(5)(f) Personnel Training and Discharge Prevention Procedures:

The personnel working on the drilling crews are trained in the maintenance and operation of all the equipment to prevent discharges, the discharge procedures and general facility operations. They are also made aware of the contents of the SPCC Plan. The tool pusher on each crew is the person on the location who is accountable for discharge prevention and who reports to the Cyclone Drilling Management. The tool pusher is responsible for conducting discharge prevention briefings and assuring an adequate understanding of the Cyclone Drilling SPCC Plan for the facility and any recent developments of new precautionary measures due to failures or malfunctions are implemented.

112.7(a)(5)(g) Site Security: All persons entering the site are required to check in with the tool pusher of the on duty crew. Unauthorized persons are not allowed on the site. Unauthorized visitors are easily detected, questioned regarding there presents and appropriately escorted to take care of their business.

112.7(a)(5)(h) Facility Tank Truck Loading/Unloading: The tank truck loading and unloading areas on the Cyclone Drilling Sites are located adjacent to the frack tank or crude oil tank batteries the area adjacent to the tank battery, where tank trucks are loaded and unloaded will be graded to drain into the containment trenches and associated sump, surrounding the drill rig, mud tanks, fuel tank, etc. Wheel chocks are used to prevent the truck from moving while connected to the tanks during loading/unloading operations. Before departure the vehicle is inspected for leaks in the lowermost drains and outlets and if they are any detected the associated valves are tightened or adjusted to prevent discharge while in transit. All above ground containers are checked and evaluated for risk of discharge or failure and as necessary appropriate action shall be taken.

APPENDIX