Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Artesia

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS

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

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

5. Lease Serial No.
NMNM92767

6. If Indian, Allottee or Tribe Name

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

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
AQUILA 22 FED 4H

2. Name of Operator
DEVON ENERGY PRODUCTION CO LP
Contact: TRINA C COUCH
Mail: TRINA.COUCH@DVN.COM

9. API Well No.
30-015-41159-00-X1

3a. Address
333 WEST SHERIDAN AVE
OKLAHOMA CITY, OK 73102

3b. Phone No. (include area code)
Ph: 405-228-7203

10. Field and Pool, or Exploratory
W LUSK

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 22 T19S R31E NESE 2030FSL 225FEL

11. County or Parish, and State
EDDY COUNTY, NM

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

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

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

Devon Energy Production Co., L.P. respectfully requests to change the casing and cement design on the Aquila 22 Fed Com 4H from a 5 1/2" production long string to a 7" intermediate with a 4 1/2" production liner.

Attachments: Drilling Plan

Accepted for record
NMOCD
7/11/2013

SEE ATTACHED FOR CONDITIONS OF APPROVAL

RECEIVED
JUL 11 2013
NMOCD ARTESIA

APPROVED
JUL 4 2013
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

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

Electronic Submission #212736 verified by the BLM Well Information System
For DEVON ENERGY PRODUCTION CO LP, sent to the Carlsbad
Committed to AFMSS for processing by KURT SIMMONS on 07/09/2013 (13KMS6683SE)

Name *(Printed/Typed)* TRINA C COUCH — Title REGULATORY ASSOCIATE

Signature (Electronic Submission) — Date 07/08/2013

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By EDWARD FERNANDEZ — Title PETROLEUM ENGINEER — Date 07/09/2013

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

Office Carlsbad

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

CONDITIONS OF APPROVAL

Sundry Dated 07/04/2013

OPERATOR'S NAME:	DEVON ENERGY
LEASE NO.:	NM92767
WELL NAME & NO.:	4H-AQUILA 22 FED COM 3001541159
SURFACE HOLE FOOTAGE:	2140' FNL & 0225' FEL
BOTTOM HOLE FOOTAGE	0660' FSL & 0340' FWL.
LOCATION:	Section 22, T. 19 S., R. 31 E., NMPM
COUNTY:	Eddy County, New Mexico

Original COAs and previous Sundries still apply with the following changes: (New directional drilling plan submitted and accepted as record)

A. CASING

Wait on cement (WOC) time prior to drilling out for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. DURING THIS WOC TIME, NO DRILL PIPE, ETC. SHALL BE RUN IN THE HOLE. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

If either DV tool cannot be set as proposed, operator shall submit a sundry requesting to move the tool and providing cement volumes.

1. The minimum required fill of cement behind the 7 inch casing is:

   a. First stage to DV tool @ 5,000 feet:

   ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator shall have plans as to how they will achieve circulation on the next stage. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**

   b. Second stage above DV tool @ 5000 feet to 3,100 feet:

   ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with third stage cement job. Operator shall have plans as to how they will achieve circulation on the next stage. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**

c. Third stage above DV tool and ECP: @ 3,100 feet:

☒ Cement to surface. If cement does not circulate to surface contact the appropriate BLM office.

Operator will be required to run a CBL on the 7 inch casing from TD to surface. There shall be two runs, one under zero pressure and the second under 1000 psi. The CBL shall be submitted to the BLM along with the service company cement report for evaluation.

Centralizers required on horizontal leg, must be type for horizontal service and a minimum of one every other joint.

2. The minimum required fill of cement behind the **4-1/2** inch production **liner** is:

☒ Cement as proposed. Operator shall provide method of verification.

For liners, a minimum of 100 feet of overlap between a string of casing and the next larger casing is required. The interval of overlap shall be sealed and tested. The liner shall be tested by a fluid entry or pressure test to determine whether a seal between the liner top and next larger string has been achieved. The test pressure shall be the maximum anticipated pressure to which the seal will be exposed. No test shall be required for liners that do not incorporate or need a seal mechanism.

3. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. Variance approved to use flex line from BOP to choke manifold. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. **Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review**. If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via

picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8** inch intermediate casing shoe shall be **3000 (3M)** psi.

4. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

    b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (18 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

    c. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock.

    d. The results of the test shall be reported to the appropriate BLM office.

    e. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**

    f. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

C. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

EGF 070413

AQUILA 22 FED COM 4H– 7" and 4 ½" sundry
SKS 7.03.13

Casing Program

Hole Size	Hole Interval	OD Csg	Casing Interval	Weight	Collar	Grade
8 – 3/4"	0 – 8,600	7"	0 – 8,600	29#	BTC	P110
6 - 1/8"	8,600 - 14,999	4.5	8,500'-14,999	13.5#	BTC	P110

MAX TVD: 10,940 FT

Design Factors

Casing Size	Collapse Design Factor	Burst Design Factor	Tension Design Factor
7" 29# P110	1.9	2.5	3.7
4.5" 13.5# P110	2.24	2.6	4.89

NOTE REGARDING COLLAPSE DESIGN FACTOR FOR INTERMEDIATE CASING: The maximum possible collapse load that the intermediate casing will experience will result from evacuated casing with the pore pressure exerting a collapse load at TD. While running the intermediate II casing, the casing string will never be completely evacuated.

Mud Program

Depth	Mud Wt.	Visc.	Fluid Loss	Type System
0 – 8600	8.4-9	30 – 34	N/C	FW
14999	10	30-34	N/C	FW

Pressure Control Equipment
The BOP system used to drill the intermediate hole will consist of a 13-5/8" 3M Double Ram and Annular preventer. The BOP system will be tested as per BLM Onshore Oil and Gas Order 2 as a **3M system** prior to drilling out the surface casing shoe.

The BOP system used to drill the production hole will consist of a 13-5/8" 3M Double Ram and Annular preventer. The BOP system will be tested as per BLM Onshore Oil and Gas Order 2 as a **3M system** prior to drilling out the intermediate casing shoe.

The pipe rams will be operated and checked as per Onshore Order 2. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at **3,000 psi WP**.

Devon requests a variance to use a flexible line with flanged ends between the BOP and the choke manifold (choke line). The line will be kept as straight as possible with minimal turns.

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Cementing Program (cement volumes based on at least 25% excess)

7" Intermediate II

1st Stage
Lead: 330 sacks (35:65) Poz (Fly Ash):Class H Cement +3% bwow Sodium Chloride + 0.1% bwoc R-3 +0.125 lbs/sack Cello Flake + 0.7% bwoc FL-52 +0.3% bwoc ASA-301 + 6% bwoc Bentonite +105.6% Fresh Water, 12.5 ppg

Yield: 2.01 cf/sk

Tail: 265 sacks (50:50) Poz (Fly Ash):Class H Cement + 5% bwow Sodium Chloride + 0.3% bwoc CD-32 + 0.5% bwoc FL-25 + 0.5% bwoc FL-52 + 0.5% bwoc Sodium Metasilicate + 57.3% Fresh Water, 14.2 ppg

Yield: 1.28 cf/sk

DV TOOL at 5000 ft

2nd Stage
Lead: 105 sacks (60:40) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride + 0.2% bwoc R-3 + 0.125 lbs/sack Cello Flake + 3 lbs/sack LCM-1 + 0.25% bwoc FL-52 + 1% bwoc Sodium Metasilicate + 89.6% Fresh Water, 12.6 ppg

Yield: 1.73 cf/sk

Tail: 150 sacks (60:40) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.5% bwoc BA-10A + 4% bwoc MPA-5 + 65.1% Fresh Water, 13.8 ppg

Yield: 1.37cf/sk

DV TOOL at 3100 ft

3rd Stage
Lead 300 sacks (60:40) Poz (Fly Ash):Class C Cement + 0.25% bwoc FL-52 + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 1% bwoc Sodium Metasilicate + 3 lbs/sack LCM-1 + 83.4% Fresh Water, 12.8 ppg

Yield: 1.65 cf/sk

Tail: 100 sacks (60:40) Poz (Fly Ash):Class C Cement + 4% bwoc MPA-5 + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.5% bwoc Sodium Metasilicate + 0.5% bwoc BA-10A + 65.3% Fresh Water, 13.8 ppg

Yield: 1.38cf/sk

TOC @ Surface ft

4.5" Liner

Lead: 660 sacks (50:50) Poz (Fly Ash):Class H Cement + 5% bwow Sodium Chloride + 0.3% bwoc CD-32 + 0.5% bwoc FL-25 + 0.5% bwoc FL-52 + 0.25% bwoc Sodium Metasilicate + 57.2% Fresh Water, 14.2 ppg

Yield: 1.28 cf/sk

TOC for All Strings:

Intermediate II:	0
Liner:	8500

ACTUAL CEMENT VOLUMES WILL BE ADJUSTED BASED ON FLUID CALIPER AND CALIPER LOG DATA.

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Weatherford®

Drilling Services

Proposal

AQUILA 22 FED COM 4H

EDDY COUNTY, NM

WELL FILE: **PLAN 2**

MAY 14, 2013

Weatherford International, Ltd.
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devon

Aquila 22 Fed Com 4H
Eddy Co., New Mexico

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	8745.75	0.00	0.00	8745.75	0.00	0.00	0.00	0.00	0.00	
3	9507.17	91.37	158.00	9223.08	-453.28	183.14	12.00	158.00	-35.97	
4	10591.53	91.37	266.48	9185.09	-1238.91	-312.38	10.00	88.10	675.78	
5	14993.38	91.37	266.48	9080.00	-1508.99	-4704.68	0.00	0.00	4940.76	PBHL

SITE DETAILS

Aquila 22 Fed Com 4H

Site Centre Northing: 598570.70
Easting: 690334.85

Ground Level: 3541.00
Positional Uncertainty: 0.00
Convergence: 0.26

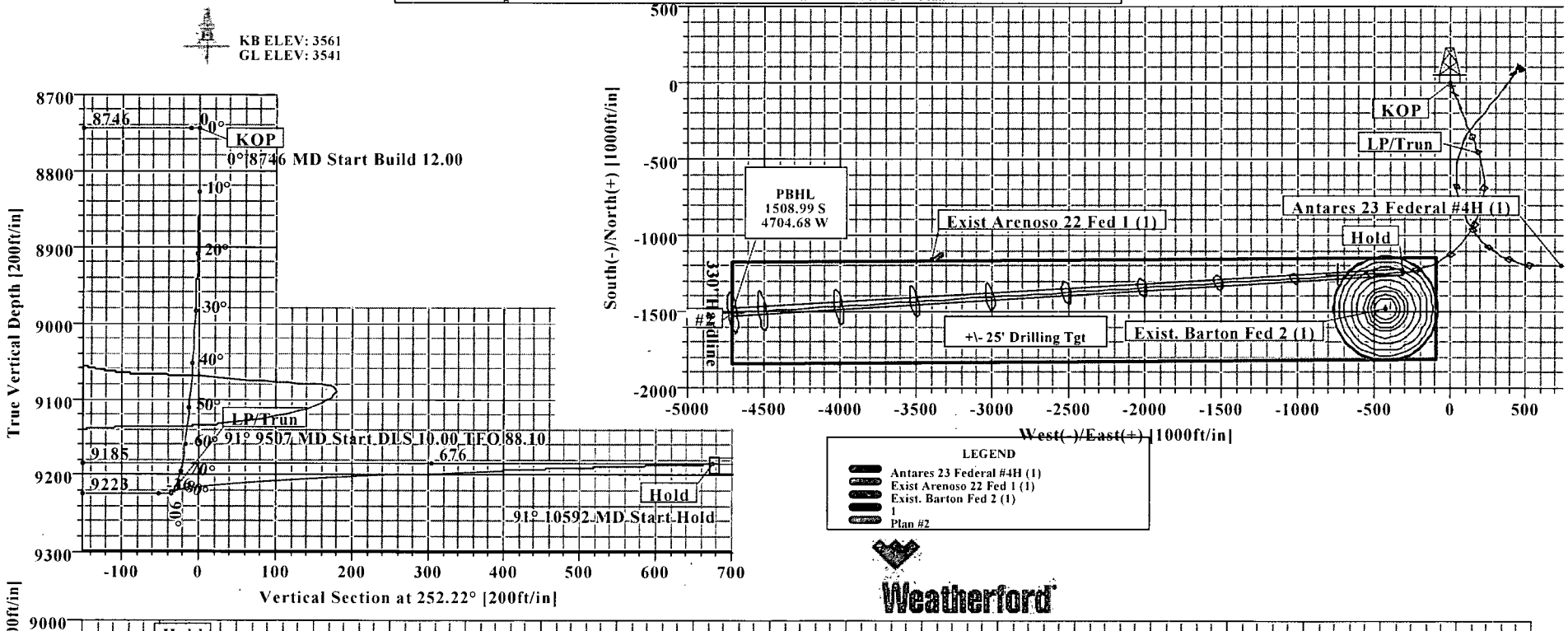
WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
Aquila 22 Fed Com 4H	0.00	0.00	598570.70	690334.85	32°38'40.497N	103°50'57.365W	N/A

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL	9080.00	-1508.99	-4704.68	597061.71	685630.17	Rectangle (4401x50)
LP Tgt	9175.22	-1265.20	-740.57	597305.50	689594.28	Point

KB ELEV: 3561
GL ELEV: 3541



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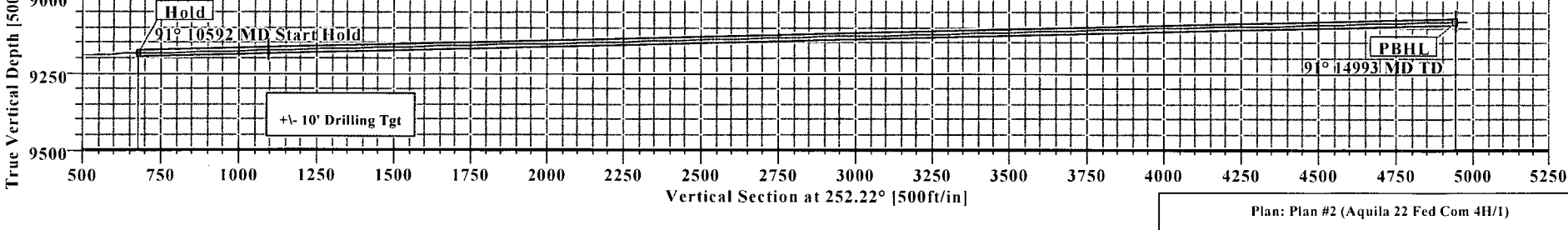

Plan: Plan #2 (Aquila 22 Fed Com 4H/1)

Created By: Russell W. Joyner Date: 5/23/2013

Weatherford
WFT Plan Report - X & Y's

Company:	Devon Energy	**Date:** 5/14/2013 **Time:** 15:51:18 **Page:** 1	
Field:	Eddy Co., NM (NAD 83)	**Co-ordinate(NE) Reference:**	Well: Aquila 22 Fed Com 4H, Grid North
Site:	Aquila 22 Fed Com 4H	**Vertical (TVD) Reference:**	SITE 3561.0
Well:	Aquila 22 Fed Com 4H	**Section (VS) Reference:**	Well (0.00N,0.00E,252.22Azi)
Wellpath: 1		**Survey Calculation Method:**	Minimum Curvature **Db:** Sybase

Plan:	Plan #2	**Date Composed:**	3/19/2013
		Version:	1
Principal:	Yes	**Tied-to:**	From Surface

Field: Eddy Co., NM (NAD 83)

Map System:	US State Plane Coordinate System 1983	**Map Zone:**	New Mexico, Eastern Zone
Geo Datum:	GRS 1980	**Coordinate System:**	Well Centre
Sys Datum:	Mean Sea Level	**Geomagnetic Model:**	IGRF2010

Site: Aquila 22 Fed Com 4H

Site Position:		**Northing:**	598570.70 ft	**Latitude:**	32 38 40.497 N
From:	Map	**Easting:**	690334.85 ft	**Longitude:**	103 50 57.365 W
Position Uncertainty:	0.00 ft			**North Reference:**	Grid
Ground Level:	3541.00 ft			**Grid Convergence:**	0.26 deg

Well: Aquila 22 Fed Com 4H **Slot Name:**

Well Position:	+N/-S	0.00 ft	**Northing:**	598570.70 ft	**Latitude:**	32 38 40.497 N
	+E/-W	0.00 ft	**Easting :**	690334.85 ft	**Longitude:**	103 50 57.365 W
Position Uncertainty:		0.00 ft				

Wellpath: 1

Current Datum:	SITE	**Height** 3561.00 ft	**Drilled From:** Surface
Magnetic Data:	9/15/2013		**Tie-on Depth:** 0.00 ft
Field Strength:	48639 nT		**Above System Datum:** Mean Sea Level
			Declination: 7.47 deg
			Mag Dip Angle: 60.47 deg

Vertical Section:	**Depth From (TVD)** ft	**+N/-S** ft	**+E/-W** ft	**Direction** deg
	0.00	0.00	0.00	252.22

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	
8745.75	0.00	0.00	8745.75	0.00	0.00	0.00	0.00	0.00	0.00	
9507.17	91.37	158.00	9223.08	-453.28	183.14	12.00	12.00	0.00	158.00	
10591.53	91.37	266.48	9185.09	-1238.91	-312.38	10.00	0.00	10.00	88.10	
14993.38	91.37	266.48	9080.00	-1508.99	-4704.68	0.00	0.00	0.00	0.00	PBHL

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
8700.00	0.00	0.00	8700.00	0.00	0.00	0.00	0.00	598570.70	690334.85	
8745.75	0.00	0.00	8745.75	0.00	0.00	0.00	0.00	598570.70	690334.85	KOP
8800.00	6.51	158.00	8799.88	-2.85	1.15	-0.23	12.00	598567.85	690336.00	
8900.00	18.51	158.00	8897.33	-22.90	9.25	-1.82	12.00	598547.80	690344.10	
9000.00	30.51	158.00	8988.15	-61.30	24.77	-4.86	12.00	598509.40	690359.62	
9100.00	42.51	158.00	9068.38	-116.36	47.01	-9.23	12.00	598454.34	690381.86	
9200.00	54.51	158.00	9134.51	-185.68	75.02	-14.74	12.00	598385.02	690409.87	
9279.83	64.09	158.00	9175.22	-249.26	100.71	-19.78	12.00	598321.44	690435.56	LP Tgt
9300.00	66.51	158.00	9183.65	-266.24	107.57	-21.13	12.00	598304.46	690442.42	
9400.00	78.51	158.00	9213.65	-354.51	143.23	-28.14	12.00	598216.19	690478.08	
9500.00	90.51	158.00	9223.20	-446.64	180.45	-35.45	12.00	598124.06	690515.30	
9507.17	91.37	158.00	9223.08	-453.28	183.14	-35.97	12.00	598117.42	690517.99	LP/Trun
9600.00	91.66	167.28	9220.62	-541.76	210.80	-35.29	10.00	598028.94	690545.65	
9700.00	91.92	177.28	9217.49	-640.68	224.20	-17.85	10.00	597930.02	690559.05	
9800.00	92.12	187.29	9213.95	-740.41	220.22	16.39	10.00	597830.29	690555.07	
9900.00	92.26	197.29	9210.11	-837.92	198.98	66.40	10.00	597732.78	690533.83	

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WFT Plan Report - X & Y's

Company:	Devon Energy	**Date:** 5/14/2013 **Time:** 15:51:18	**Page:** 2
Field:	Eddy Co., NM (NAD 83)	**Co-ordinate(NE) Reference:**	Well: Aquila 22 Fed Com 4H, Grid North
Site:	Aquila 22 Fed Com 4H	**Vertical (TVD) Reference:**	SITE 3561.0
Well:	Aquila 22 Fed Com 4H	**Section (VS) Reference:**	Well (0.00N,0.00E,252.22Azi)
Wellpath:	1	**Survey Calculation Method:**	Minimum Curvature **Db:** Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
10000.00	92.33	207.30	9206.09	-930.25	161.11	130.65	10.00	597640.45	690495.96	
10100.00	92.33	217.31	9202.01	-1014.59	107.78	207.19	10.00	597556.11	690442.63	
10200.00	92.26	227.32	9198.00	-1088.39	40.60	293.69	10.00	597482.31	690375.45	
10300.00	92.12	237.32	9194.16	-1149.39	-38.39	387.53	10.00	597421.31	690296.46	
10400.00	91.92	247.33	9190.63	-1195.74	-126.78	485.86	10.00	597374.96	690208.07	
10500.00	91.65	257.33	9187.51	-1226.04	-221.89	585.68	10.00	597344.66	690112.96	
10591.53	91.37	266.48	9185.09	-1238.91	-312.38	675.78	10.00	597331.79	690022.47	Hold
10600.00	91.37	266.48	9184.89	-1239.43	-320.84	683.99	0.00	597331.27	690014.01	
10700.00	91.37	266.48	9182.50	-1245.57	-420.62	780.88	0.00	597325.13	689914.23	
10800.00	91.37	266.48	9180.12	-1251.70	-520.40	877.77	0.00	597319.00	689814.45	
10900.00	91.37	266.48	9177.73	-1257.84	-620.18	974.66	0.00	597312.86	689714.67	
11000.00	91.37	266.48	9175.34	-1263.97	-719.97	1071.55	0.00	597306.73	689614.88	
11100.00	91.37	266.48	9172.95	-1270.11	-819.75	1168.44	0.00	597300.59	689515.10	
11200.00	91.37	266.48	9170.57	-1276.25	-919.53	1265.33	0.00	597294.45	689415.32	
11300.00	91.37	266.48	9168.18	-1282.38	-1019.32	1362.22	0.00	597288.32	689315.53	
11400.00	91.37	266.48	9165.79	-1288.52	-1119.10	1459.11	0.00	597282.18	689215.75	
11500.00	91.37	266.48	9163.40	-1294.65	-1218.88	1556.00	0.00	597276.05	689115.97	
11600.00	91.37	266.48	9161.02	-1300.79	-1318.67	1652.89	0.00	597269.91	689016.18	
11700.00	91.37	266.48	9158.63	-1306.92	-1418.45	1749.78	0.00	597263.78	688916.40	
11800.00	91.37	266.48	9156.24	-1313.06	-1518.23	1846.67	0.00	597257.64	688816.62	
11900.00	91.37	266.48	9153.85	-1319.19	-1618.01	1943.56	0.00	597251.51	688716.84	
12000.00	91.37	266.48	9151.47	-1325.33	-1717.80	2040.46	0.00	597245.37	688617.05	
12100.00	91.37	266.48	9149.08	-1331.47	-1817.58	2137.35	0.00	597239.23	688517.27	
12200.00	91.37	266.48	9146.69	-1337.60	-1917.36	2234.24	0.00	597233.10	688417.49	
12300.00	91.37	266.48	9144.30	-1343.74	-2017.15	2331.13	0.00	597226.96	688317.70	
12400.00	91.37	266.48	9141.92	-1349.87	-2116.93	2428.02	0.00	597220.83	688217.92	
12500.00	91.37	266.48	9139.53	-1356.01	-2216.71	2524.91	0.00	597214.69	688118.14	
12600.00	91.37	266.48	9137.14	-1362.14	-2316.50	2621.80	0.00	597208.56	688018.35	
12700.00	91.37	266.48	9134.75	-1368.28	-2416.28	2718.69	0.00	597202.42	687918.57	
12800.00	91.37	266.48	9132.37	-1374.41	-2516.06	2815.58	0.00	597196.29	687818.79	
12900.00	91.37	266.48	9129.98	-1380.55	-2615.85	2912.47	0.00	597190.15	687719.00	
13000.00	91.37	266.48	9127.59	-1386.69	-2715.63	3009.36	0.00	597184.01	687619.22	
13100.00	91.37	266.48	9125.20	-1392.82	-2815.41	3106.25	0.00	597177.88	687519.44	
13200.00	91.37	266.48	9122.82	-1398.96	-2915.19	3203.14	0.00	597171.74	687419.66	
13300.00	91.37	266.48	9120.43	-1405.09	-3014.98	3300.03	0.00	597165.61	687319.87	
13400.00	91.37	266.48	9118.04	-1411.23	-3114.76	3396.92	0.00	597159.47	687220.09	
13500.00	91.37	266.48	9115.65	-1417.36	-3214.54	3493.81	0.00	597153.34	687120.31	
13600.00	91.37	266.48	9113.27	-1423.50	-3314.33	3590.70	0.00	597147.20	687020.52	
13700.00	91.37	266.48	9110.88	-1429.63	-3414.11	3687.60	0.00	597141.07	686920.74	
13800.00	91.37	266.48	9108.49	-1435.77	-3513.89	3784.49	0.00	597134.93	686820.96	
13900.00	91.37	266.48	9106.10	-1441.91	-3613.68	3881.38	0.00	597128.79	686721.17	
14000.00	91.37	266.48	9103.72	-1448.04	-3713.46	3978.27	0.00	597122.66	686621.39	
14100.00	91.37	266.48	9101.33	-1454.18	-3813.24	4075.16	0.00	597116.52	686521.61	
14200.00	91.37	266.48	9098.94	-1460.31	-3913.02	4172.05	0.00	597110.39	686421.83	
14300.00	91.37	266.48	9096.55	-1466.45	-4012.81	4268.94	0.00	597104.25	686322.04	
14400.00	91.37	266.48	9094.17	-1472.58	-4112.59	4365.83	0.00	597098.12	686222.26	
14500.00	91.37	266.48	9091.78	-1478.72	-4212.37	4462.72	0.00	597091.98	686122.48	
14600.00	91.37	266.48	9089.39	-1484.85	-4312.16	4559.61	0.00	597085.85	686022.69	
14700.00	91.37	266.48	9087.00	-1490.99	-4411.94	4656.50	0.00	597079.71	685922.91	
14800.00	91.37	266.48	9084.62	-1497.13	-4511.72	4753.39	0.00	597073.57	685823.13	
14900.00	91.37	266.48	9082.23	-1503.26	-4611.51	4850.28	0.00	597067.44	685723.34	
14993.38	91.37	266.48	9080.00	-1508.99	-4704.68	4940.76	0.00	597061.71	685630.17	PBHL

Weatherford
WFT Plan Report - X & Y's

Company:	Devon Energy	**Date:** 5/14/2013 **Time:** 15:51:18	**Page:** 3
Field:	Eddy Co., NM (NAD 83)	**Co-ordinate(NE) Reference:**	Well: Aquila 22 Fed Com 4H, Grid North
Site:	Aquila 22 Fed Com 4H	**Vertical (TVD) Reference:**	SITE 3561.0
Well:	Aquila 22 Fed Com 4H	**Section (VS) Reference:**	Well (0.00N,0.00E,252.22Azi)
Wellpath:	1	**Survey Calculation Method:**	Minimum Curvature **Db:** Sybase

Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<---- Latitude ----> Deg	Min	Sec	<--- Longitude ---> Deg	Min	Sec
PBHL -Rectangle (3972x50)			9080.00	-1508.99	-4704.68	597061.71	685630.17	32	38	25.774 N	103	51	52.466 W
LP Tgt			9175.22	-1265.20	-740.57	597305.50	689594.28	32	38	28.011 N	103	51	6.093 W

Casing Points

MD	TVD	Diameter	Hole Size	Name

Annotation

MD ft	TVD ft	
8745.75	8745.75	KOP
9507.17	9223.08	LP/Trun
10591.53	9185.09	Hold
14993.37	9080.00	PBHL

Formations

MD	TVD	Formations	Lithology	Dip Angle	Dip Direction

Weatherford
Anticollision Report

Company:	Devon Energy	**Date:** 5/23/2013	**Time:** 12:48:59	**Page:**	1
Field:	Eddy Co., NM (NAD 83)				
Reference Site:	Aquila 22 Fed Com 4H	**Co-ordinate(NE) Reference:**	Well: Aquila 22 Fed Com 4H, Grid North		
Reference Well:	Aquila 22 Fed Com 4H	**Vertical (TVD) Reference:**	SITE 3561.0		
Reference Wellpath:	1 V0			**Db:**	Sybase

NO GLOBAL SCAN: Using user defined selection & scan criteria		**Reference:**	Plan: Plan #2
Interpolation Method:	MD + Stations **Interval:** 100.00 ft	**Error Model:**	ISCWSA Ellipse
Depth Range:	0.00 to 14993.38 ft	**Scan Method:**	Closest Approach 3D
Maximum Radius:	10000.00 ft	**Error Surface:**	Ellipse

Plan:	Plan #2	**Date Composed:**	3/19/2013
		Version:	1
Principal:	Yes	**Tied-to:**	From Surface

Summary

<-- Offset Wellpath --> Site	Well	Wellpath	Reference MD ft	Offset MD ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
Antares 23 Federal #4	Antares 23 Federal #4	1 V0	10050.00	10111.62	96.43	67.04	3.28	
Exist Arenoso 22 Fed	Exist Arenoso 22 Fed	1 V0	13700.00	9093.59	284.41	167.81	2.44	
Exist. Barton Fed 2	Exist. Barton Fed 2	1 V0	10700.00	9161.50	236.64	-66.18	0.78	Level 1

Site: Antares 23 Federal #4H
Well: Antares 23 Federal #4H
Wellpath: 1 V0 **Inter-Site Error:** 0.00 ft

Reference MD ft	Reference TVD 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
0.00	0.00	4.03	4.03	0.00	0.00	82.56	53.47	409.56	413.04	413.03	96406.86	
100.00	100.00	104.84	104.84	0.09	0.12	82.58	53.33	409.46	412.92	412.71	1977.72	
200.00	200.00	204.50	204.50	0.31	0.38	82.60	53.17	409.33	412.77	412.07	594.00	
300.00	300.00	305.56	305.56	0.54	0.65	82.63	52.95	409.09	412.51	411.32	347.70	
400.00	400.00	405.42	405.42	0.76	0.91	82.67	52.58	408.78	412.16	410.48	245.97	
500.00	500.00	506.39	506.38	0.99	1.18	82.72	52.19	408.36	411.69	409.52	190.01	
600.00	600.00	606.78	606.77	1.21	1.44	82.75	51.88	407.76	411.06	408.41	155.13	
700.00	700.00	706.37	706.36	1.44	1.68	82.75	51.76	407.15	410.44	407.32	131.64	
800.00	800.00	806.49	806.48	1.66	1.91	82.74	51.79	406.56	409.85	406.27	114.58	
900.00	900.00	907.21	907.20	1.89	2.14	82.70	51.97	405.82	409.14	405.11	101.50	
1000.00	1000.00	1006.44	1006.43	2.11	2.37	82.66	52.20	405.11	408.46	403.98	91.18	
1100.00	1100.00	1106.61	1106.59	2.34	2.59	82.60	52.55	404.43	407.84	402.92	82.81	
1200.00	1200.00	1205.94	1205.92	2.56	2.80	82.53	52.97	403.83	407.29	401.93	75.95	
1300.00	1300.00	1305.48	1305.45	2.79	3.01	82.46	53.37	403.36	406.88	401.08	70.18	
1400.00	1400.00	1405.07	1405.04	3.01	3.21	82.39	53.82	402.96	406.54	400.31	65.32	
1500.00	1500.00	1499.66	1499.63	3.24	3.32	82.31	54.45	403.26	406.95	400.39	62.04	
1600.00	1600.00	1596.25	1596.20	3.46	3.36	82.18	55.57	404.57	408.44	401.61	59.85	
1700.00	1700.00	1690.36	1690.27	3.69	3.42	81.97	57.38	406.80	411.05	403.95	57.86	
1800.00	1800.00	1785.72	1785.54	3.91	3.49	81.69	59.91	410.20	414.96	407.57	56.09	
1900.00	1900.00	1882.38	1882.05	4.14	3.58	81.39	62.79	414.52	419.82	412.12	54.48	
2000.00	2000.00	1982.32	1981.83	4.36	3.68	81.08	65.84	419.40	425.11	417.08	52.92	
2100.00	2100.00	2082.04	2081.39	4.59	3.80	80.76	69.03	424.15	430.33	421.95	51.36	
2200.00	2200.00	2183.25	2182.42	4.81	3.94	80.37	72.73	428.81	435.47	426.72	49.79	
2300.00	2300.00	2286.33	2285.33	5.03	4.11	79.94	76.82	432.94	440.09	430.96	48.17	
2400.00	2400.00	2392.05	2390.92	5.26	4.30	79.46	81.16	436.04	443.72	434.17	46.44	
2500.00	2500.00	2493.83	2492.60	5.48	4.51	78.97	85.42	438.04	446.44	436.45	44.71	
2600.00	2600.00	2595.33	2594.00	5.71	4.72	78.51	89.38	439.73	448.83	438.41	43.07	
2700.00	2700.00	2695.92	2694.51	5.93	4.94	78.07	93.19	441.15	450.99	440.13	41.51	
2800.00	2800.00	2796.60	2795.11	6.16	5.16	77.63	97.02	442.42	453.02	441.71	40.04	
2900.00	2900.00	2899.88	2898.33	6.38	5.40	77.25	100.33	443.40	454.64	442.87	38.62	
3000.00	3000.00	3000.09	2998.50	6.61	5.63	76.95	102.96	444.05	455.87	443.64	37.27	
3100.00	3100.00	3099.01	3097.39	6.83	5.87	76.66	105.44	444.82	457.19	444.51	36.04	
3200.00	3200.00	3199.53	3197.87	7.06	6.10	76.40	107.84	445.68	458.59	445.44	34.88	
3300.00	3300.00	3301.30	3299.62	7.28	6.34	76.15	110.03	446.35	459.73	446.11	33.77	
3400.00	3400.00	3399.81	3398.10	7.51	6.58	75.91	112.15	446.95	460.84	446.77	32.74	
3500.00	3500.00	3502.24	3500.51	7.73	6.83	75.70	114.08	447.53	461.86	447.31	31.74	

Weatherford
Anticollision Report

Company:	Devon Energy	**Date:** 5/23/2013	**Time:** 12:48:59	**Page:**	2
Field:	Eddy Co., NM (NAD 83)				
Reference Site:	Aquila 22 Fed Com 4H	**Co-ordinate(NE) Reference:**	Well Aquila 22 Fed Com 4H, Grid North		
Reference Well:	Aquila 22 Fed Com 4H	**Vertical (TVD) Reference:**	SITE 3561.0		
Reference Wellpath:				**Db:**	Sybase

Site: Antares 23 Federal #4H
Well: Antares 23 Federal #4H
Wellpath: 1 V0 **Inter-Site Error:** 0.00 ft

Reference MD ft	Reference TVD 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
3600.00	3600.00	3603.05	3601.32	7.96	7.07	75.57	115.24	447.93	462.53	447.51	30.80	
3700.00	3700.00	3703.26	3701.52	8.18	7.24	75.56	115.46	448.44	463.07	447.66	30.05	
3800.00	3800.00	3800.38	3798.63	8.41	7.34	75.68	114.71	449.48	463.92	448.18	29.48	
3900.00	3900.00	3899.84	3898.07	8.63	7.45	75.87	113.54	451.02	465.13	449.06	28.94	
4000.00	4000.00	3999.54	3997.75	8.86	7.56	76.08	112.18	452.71	466.44	450.03	28.42	
4100.00	4100.00	4097.42	4095.60	9.08	7.68	76.32	110.65	454.66	468.01	451.25	27.93	
4200.00	4200.00	4197.58	4195.72	9.31	7.82	76.59	108.90	456.92	469.79	452.68	27.45	
4300.00	4300.00	4297.43	4295.53	9.53	7.95	76.88	107.01	459.19	471.57	454.10	26.99	
4400.00	4400.00	4397.80	4395.85	9.75	8.09	77.18	105.01	461.46	473.33	455.49	26.54	
4500.00	4500.00	4498.97	4496.98	9.98	8.24	77.47	103.02	463.57	474.93	456.73	26.09	
4600.00	4600.00	4598.91	4596.88	10.20	8.38	77.75	101.08	465.52	476.42	457.84	25.64	
4700.00	4700.00	4699.96	4697.89	10.43	8.54	78.03	99.08	467.38	477.80	458.85	25.21	
4800.00	4800.00	4801.08	4798.98	10.65	8.69	78.29	97.18	468.98	478.97	459.63	24.77	
4900.00	4900.00	4899.93	4897.80	10.88	8.85	78.57	95.14	470.57	480.13	460.42	24.35	
5000.00	5000.00	5002.11	4999.94	11.10	9.01	78.85	93.05	472.10	481.20	461.09	23.93	
5100.00	5100.00	5102.02	5099.83	11.33	9.18	79.10	91.19	473.33	482.06	461.56	23.52	
5200.00	5200.00	5204.01	5201.80	11.55	9.35	79.30	89.63	474.31	482.71	461.82	23.11	
5300.00	5300.00	5303.81	5301.60	11.78	9.52	79.46	88.38	475.03	483.19	461.91	22.71	
5400.00	5400.00	5405.39	5403.16	12.00	9.68	79.64	86.95	475.64	483.52	461.85	22.31	
5500.00	5500.00	5505.55	5503.31	12.23	9.85	79.80	85.69	476.02	483.67	461.61	21.92	
5600.00	5600.00	5605.27	5603.03	12.45	10.02	79.94	84.49	476.42	483.85	461.40	21.54	
5700.00	5700.00	5706.79	5704.54	12.68	10.19	80.09	83.27	476.67	483.89	461.03	21.17	
5800.00	5800.00	5806.77	5804.51	12.90	10.36	80.21	82.30	476.73	483.78	460.54	20.81	
5900.00	5900.00	5907.56	5905.30	13.13	10.52	80.30	81.52	476.67	483.59	459.95	20.46	
6000.00	6000.00	6007.24	6004.97	13.35	10.68	80.36	80.93	476.53	483.35	459.33	20.12	
6100.00	6100.00	6107.02	6104.76	13.58	10.85	80.41	80.52	476.42	483.17	458.77	19.80	
6200.00	6200.00	6206.83	6204.56	13.80	11.01	80.44	80.26	476.33	483.05	458.25	19.48	
6300.00	6300.00	6307.86	6305.60	14.03	11.16	80.45	80.09	476.12	482.81	457.64	19.18	
6400.00	6400.00	6407.57	6405.31	14.25	11.30	80.46	79.97	475.85	482.52	456.98	18.89	
6500.00	6500.00	6508.59	6506.32	14.47	11.45	80.47	79.78	475.47	482.13	456.21	18.60	
6600.00	6600.00	6607.73	6605.47	14.70	11.60	80.48	79.67	475.12	481.75	455.47	18.33	
6700.00	6700.00	6709.28	6707.02	14.92	11.74	80.47	79.69	474.62	481.27	454.62	18.05	
6800.00	6800.00	6809.25	6806.98	15.15	11.90	80.46	79.63	473.99	480.65	453.61	17.78	
6900.00	6900.00	6909.05	6906.78	15.37	12.05	80.46	79.55	473.41	480.06	452.65	17.51	
7000.00	7000.00	7010.14	7007.87	15.60	12.21	80.41	79.82	472.64	479.35	451.56	17.25	
7100.00	7100.00	7109.73	7107.46	15.82	12.36	80.34	80.34	471.78	478.58	450.41	16.99	
7200.00	7200.00	7209.32	7207.04	16.05	12.52	80.23	81.06	470.98	477.92	449.36	16.74	
7300.00	7300.00	7309.98	7307.69	16.27	12.68	80.08	82.19	470.04	477.19	448.24	16.49	
7400.00	7400.00	7408.30	7405.99	16.50	12.84	79.89	83.63	469.21	476.61	447.28	16.25	
7500.00	7500.00	7508.12	7505.80	16.72	13.01	79.70	85.15	468.53	476.21	446.49	16.02	
7600.00	7600.00	7608.06	7605.72	16.95	13.18	79.48	86.91	467.81	475.82	445.70	15.80	
7700.00	7700.00	7705.96	7703.60	17.17	13.35	79.24	88.77	467.34	475.69	445.18	15.59	
7800.00	7800.00	7805.23	7802.84	17.40	13.53	78.96	91.16	467.04	475.85	444.94	15.39	
7900.00	7900.00	7904.40	7901.97	17.62	13.71	78.63	93.92	466.86	476.22	444.90	15.20	
8000.00	8000.00	8010.31	8007.85	17.85	13.90	78.32	96.35	466.09	475.96	444.22	15.00	
8100.00	8100.00	8109.36	8106.88	18.07	14.08	78.09	98.05	465.02	475.26	443.11	14.78	
8200.00	8200.00	8209.07	8206.57	18.30	14.27	77.88	99.67	464.08	474.67	442.11	14.58	
8300.00	8300.00	8307.80	8305.29	18.52	14.46	77.68	101.23	463.33	474.27	441.29	14.38	
8400.00	8400.00	8406.38	8403.86	18.75	14.65	77.50	102.66	462.90	474.15	440.76	14.20	
8500.00	8500.00	8505.55	8503.02	18.97	14.84	77.32	104.09	462.75	474.31	440.51	14.03	
8600.00	8600.00	8622.44	8619.89	19.20	14.89	77.17	105.08	461.42	473.50	439.43	13.90	

Weatherford
Anticollision Report

Company:	Devon Energy	**Date:** 5/23/2013	**Time:** 12:48:59	**Page:**	3
Field:	Eddy Co., NM (NAD 83)				
Reference Site:	Aquila 22 Fed Com 4H	**Co-ordinate(NE) Reference:**	Well: Aquila 22 Fed Com 4H, Grid North		
Reference Well:	Aquila 22 Fed Com 4H	**Vertical (TVD) Reference:**	SITE 3561.0		
Reference Wellpath:				**Db:**	Sybase

Site: Antares 23 Federal #4H
Well: Antares 23 Federal #4H
Wellpath: 1 V0 **Inter-Site Error:** 0.00 ft

Reference MD ft	Reference TVD ft	Offset MD ft	Offset TVD ft	Semi-Major Axis Ref ft	Semi-Major Axis Offset ft	Offset Location TFO-HS deg	Offset Location North ft	Offset Location East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
8700.00	8700.00	8930.75	8902.36	19.42	15.06	87.48	17.48	397.46	444.55	410.86	13.20	
8745.75	8745.75	9076.68	8997.82	19.52	15.52	101.92	-69.99	331.58	419.98	386.34	12.49	
8750.00	8750.00	9083.54	9001.41	19.53	15.56	304.49	-74.52	327.89	417.46	383.79	12.40	
8775.00	8774.98	9125.50	9021.40	19.57	15.78	308.43	-102.97	304.42	402.08	368.23	11.88	
8800.00	8799.88	9168.37	9038.04	19.61	16.07	313.30	-132.94	278.72	385.74	351.64	11.31	
8825.00	8824.64	9193.24	9045.81	19.65	16.26	315.77	-150.66	263.10	368.78	334.44	10.74	
8850.00	8849.17	9207.93	9049.81	19.70	16.38	316.63	-161.24	253.72	351.60	317.03	10.17	
8875.00	8873.43	9221.31	9053.10	19.74	16.50	317.39	-170.95	245.12	334.32	299.54	9.61	
8900.00	8897.33	9231.71	9055.47	19.78	16.59	317.68	-178.53	238.41	317.01	282.05	9.07	
8925.00	8920.82	9242.03	9057.70	19.82	16.68	318.07	-186.08	231.75	299.75	264.62	8.53	
8950.00	8943.83	9252.26	9059.80	19.86	16.78	318.59	-193.60	225.13	282.58	247.29	8.01	
8975.00	8966.29	9263.56	9061.96	19.90	16.89	319.56	-201.92	217.79	265.51	230.10	7.50	
9000.00	8988.15	9274.60	9063.91	19.95	17.00	320.69	-210.05	210.58	248.60	213.10	7.00	
9025.00	9009.35	9285.22	9065.63	20.00	17.10	321.96	-217.87	203.61	231.92	196.36	6.52	
9050.00	9029.82	9294.84	9067.03	20.05	17.20	323.23	-224.97	197.28	215.58	180.03	6.06	
9075.00	9049.52	9304.21	9068.23	20.11	17.30	324.71	-231.92	191.11	199.72	164.25	5.63	
9100.00	9068.38	9313.36	9069.26	20.17	17.40	326.44	-238.73	185.09	184.52	149.23	5.23	
9125.00	9086.36	9321.73	9070.06	20.24	17.49	328.24	-244.99	179.58	170.19	135.21	4.86	
9150.00	9103.41	9329.83	9070.70	20.31	17.58	330.26	-251.09	174.28	157.04	122.53	4.55	
9175.00	9119.47	9337.96	9071.22	20.39	17.67	332.63	-257.25	169.01	145.40	111.58	4.30	
9200.00	9134.51	9346.13	9071.60	20.48	17.76	335.33	-263.49	163.74	135.65	102.80	4.13	
9225.00	9148.48	9354.67	9071.90	20.58	17.86	338.47	-270.06	158.30	128.22	96.63	4.06	
9250.00	9161.36	9363.80	9072.17	20.69	17.96	342.08	-277.16	152.57	123.46	93.36	4.10	
9275.00	9173.09	9373.56	9072.43	20.81	18.06	346.11	-284.85	146.56	121.56	93.06	4.27	
9300.00	9183.65	9384.46	9072.67	20.94	18.18	350.64	-293.54	140.00	122.55	95.52	4.54	
9325.00	9193.01	9396.89	9072.98	21.07	18.31	355.69	-303.61	132.71	126.12	100.21	4.87	
9350.00	9201.14	9410.52	9073.40	21.22	18.44	0.93	-314.83	124.98	131.84	106.52	5.21	
9375.00	9208.03	9425.32	9073.92	21.38	18.59	6.18	-327.22	116.90	139.25	113.93	5.50	
9400.00	9213.65	9441.59	9074.58	21.55	18.74	11.40	-341.09	108.43	147.85	122.03	5.72	
9425.00	9217.98	9461.46	9075.57	21.73	18.91	17.05	-358.41	98.75	157.10	130.31	5.86	
9450.00	9221.02	9481.70	9076.84	21.92	19.07	22.05	-376.47	89.70	166.49	138.50	5.95	
9475.00	9222.76	9501.26	9077.99	22.12	19.21	26.23	-394.28	81.70	176.01	146.73	6.01	
9500.00	9223.20	9521.89	9079.03	22.33	19.36	30.10	-413.39	73.99	185.45	154.83	6.06	
9507.17	9223.08	9528.04	9079.32	22.39	19.40	31.17	-419.14	71.82	188.12	157.10	6.06	
9550.00	9222.00	9568.21	9080.86	22.74	19.68	39.41	-457.21	59.15	203.91	170.28	6.06	
9600.00	9220.62	9632.56	9083.03	23.10	19.90	47.62	-519.91	44.99	219.13	183.02	6.07	
9650.00	9219.11	9700.08	9084.46	23.44	20.02	52.00	-587.09	38.97	227.79	190.20	6.06	
9700.00	9217.49	9772.97	9085.40	23.74	20.08	53.60	-659.91	40.93	229.08	190.83	5.99	
9750.00	9215.76	9848.62	9088.81	23.99	20.11	52.90	-734.63	51.86	221.02	182.79	5.78	
9800.00	9213.95	9917.62	9094.22	24.18	19.97	49.64	-801.14	69.27	204.42	166.85	5.44	
9850.00	9212.06	9973.34	9099.40	24.31	19.92	43.30	-853.08	88.74	181.00	144.82	5.00	
9900.00	9210.11	10022.06	9104.16	24.38	19.78	32.58	-897.00	109.24	153.73	120.16	4.58	
9950.00	9208.12	10060.73	9108.16	24.40	19.63	17.87	-930.55	128.04	125.73	95.50	4.16	
10000.00	9206.09	10090.40	9111.33	24.37	19.50	2.15	-955.31	144.06	103.32	75.14	3.67	
10050.00	9204.05	10111.62	9113.74	24.29	19.44	350.22	-972.46	156.33	96.43	67.04	3.28	
10100.00	9202.01	10126.04	9115.44	24.19	19.43	343.87	-983.86	164.99	111.45	79.18	3.45	
10150.00	9199.99	10134.98	9116.51	24.06	19.42	342.93	-990.83	170.49	143.10	109.21	4.22	
10200.00	9198.00	10139.11	9117.00	23.93	19.40	347.39	-994.02	173.06	183.50	149.37	5.38	
10250.00	9196.05	10139.63	9117.07	23.80	19.40	357.10	-994.42	173.38	228.11	194.19	6.73	
10300.00	9194.16	10137.17	9116.77	23.70	19.41	11.51	-992.52	171.84	274.64	240.16	7.96	
10350.00	9192.35	10132.05	9116.15	23.62	19.42	28.03	-988.55	168.67	321.91	285.46	8.83	

Weatherford
Anticollision Report

Company:	Devon Energy	**Date:** 5/23/2013	**Time:** 12:48:59	**Page:**	4
Field:	Eddy Co. NM (NAD 83)				
Reference Site:	Aquila 22 Fed Com 4H	**Co-ordinate(NE) Reference:**	Well: Aquila 22 Fed Com 4H, Grid North		
Reference Well:	Aquila 22 Fed Com 4H	**Vertical (TVD) Reference:**	SITE 3561.0		
Reference Wellpath:				**Db:**	Sybase

Site: Antares 23 Federal #4H
Well: Antares 23 Federal #4H
Wellpath: 1 V0 **Inter-Site Error:** 0.00 ft

Reference MD ft	Reference TVD 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
10400.00	9190.63	10124.53	9115.26	23.59	19.43	42.86	-982.67	164.07	369.18	330.45	9.53	
10450.00	9189.01	10115.12	9114.15	23.60	19.44	54.11	-975.24	158.40	415.94	375.54	10.29	
10500.00	9187.51	10104.09	9112.87	23.67	19.45	62.08	-966.42	151.90	461.85	420.37	11.13	
10550.00	9186.13	10092.56	9111.57	23.79	19.49	67.65	-957.08	145.28	506.64	464.42	12.00	
10591.53	9185.09	10082.30	9110.44	23.93	19.54	71.08	-948.64	139.55	542.85	500.14	12.71	
10600.00	9184.89	10080.15	9110.21	24.05	19.55	71.16	-946.86	138.37	550.14	507.31	12.84	
10700.00	9182.50	10057.24	9107.80	25.55	19.65	72.01	-927.58	126.24	637.47	593.06	14.35	
10800.00	9180.12	10040.00	9106.00	27.24	19.74	72.59	-912.73	117.67	726.73	680.59	15.75	
10900.00	9177.73	10019.13	9103.87	29.09	19.79	73.25	-894.41	107.90	817.47	769.45	17.03	
11000.00	9175.34	10003.10	9102.26	31.08	19.84	73.72	-880.11	100.83	909.40	859.40	18.19	
11100.00	9172.95	9989.16	9100.90	33.17	19.88	74.11	-867.52	95.00	1002.31	950.22	19.24	
11200.00	9170.57	9977.00	9099.74	35.35	19.92	74.43	-856.43	90.16	1096.05	1041.79	20.20	
11300.00	9168.18	9963.29	9098.45	37.60	19.92	74.78	-843.82	84.94	1190.44	1133.98	21.09	
11400.00	9165.79	9946.00	9096.81	39.92	19.91	75.19	-827.79	78.66	1285.39	1226.66	21.89	
11500.00	9163.40	9946.00	9096.81	42.28	19.91	75.19	-827.79	78.66	1380.78	1319.77	22.63	
11600.00	9161.02	9932.39	9095.54	44.69	19.94	75.49	-815.07	74.00	1476.57	1413.15	23.28	
11700.00	9158.63	9924.64	9094.84	47.14	19.96	75.66	-807.78	71.47	1572.77	1506.94	23.89	
11800.00	9156.24	9914.00	9093.90	49.61	19.98	75.88	-797.71	68.16	1669.31	1601.02	24.44	
11900.00	9153.85	9914.00	9093.90	52.11	19.98	75.88	-797.71	68.16	1766.13	1695.41	24.97	
12000.00	9151.47	9914.00	9093.90	54.64	19.98	75.88	-797.71	68.16	1863.28	1790.11	25.46	
12100.00	9149.08	9900.53	9092.76	57.18	20.02	76.16	-784.88	64.22	1960.51	1884.76	25.88	
12200.00	9146.69	9895.77	9092.36	59.75	20.04	76.26	-780.32	62.91	2058.02	1979.75	26.30	
12300.00	9144.30	9883.00	9091.33	62.32	20.08	76.51	-768.04	59.57	2155.79	2074.92	26.66	
12400.00	9141.92	9883.00	9091.33	64.92	20.08	76.51	-768.04	59.57	2253.59	2170.20	27.02	
12500.00	9139.53	9883.00	9091.33	67.52	20.08	76.51	-768.04	59.57	2351.58	2265.65	27.37	
12600.00	9137.14	9883.00	9091.33	70.13	20.08	76.51	-768.04	59.57	2449.72	2361.26	27.69	
12700.00	9134.75	9883.00	9091.33	72.75	20.08	76.51	-768.04	59.57	2548.01	2456.99	27.99	
12800.00	9132.37	9872.12	9090.49	75.39	20.09	76.72	-757.52	56.94	2646.32	2552.67	28.26	
12900.00	9129.98	9868.78	9090.24	78.02	20.09	76.78	-754.28	56.17	2744.77	2648.53	28.52	
13000.00	9127.59	9865.63	9090.00	80.67	20.10	76.84	-751.22	55.46	2843.32	2744.48	28.77	
13100.00	9125.20	9852.00	9089.04	83.32	20.11	77.09	-737.94	52.54	2942.05	2840.54	28.98	
13200.00	9122.82	9852.00	9089.04	85.98	20.11	77.09	-737.94	52.54	3040.70	2936.59	29.21	
13300.00	9120.43	9852.00	9089.04	88.64	20.11	77.09	-737.94	52.54	3139.43	3032.73	29.42	
13400.00	9118.04	9852.00	9089.04	91.31	20.11	77.09	-737.94	52.54	3238.24	3128.94	29.62	
13500.00	9115.65	9852.00	9089.04	93.98	20.11	77.09	-737.94	52.54	3337.13	3225.21	29.82	
13600.00	9113.27	9852.00	9089.04	96.66	20.11	77.09	-737.94	52.54	3436.07	3321.55	30.00	
13700.00	9110.88	9852.00	9089.04	99.33	20.11	77.09	-737.94	52.54	3535.08	3417.94	30.18	
13800.00	9108.49	9852.00	9089.04	102.02	20.11	77.09	-737.94	52.54	3634.14	3514.38	30.34	
13900.00	9106.10	9852.00	9089.04	104.70	20.11	77.09	-737.94	52.54	3733.25	3610.87	30.50	
14000.00	9103.72	9852.00	9089.04	107.39	20.11	77.09	-737.94	52.54	3832.41	3707.40	30.66	
14100.00	9101.33	9839.23	9088.20	110.08	20.11	77.33	-725.44	50.06	3931.47	3803.75	30.78	
14200.00	9098.94	9837.38	9088.09	112.77	20.11	77.36	-723.63	49.72	4030.67	3900.30	30.92	
14300.00	9096.55	9835.61	9087.98	115.47	20.11	77.39	-721.89	49.40	4129.90	3996.88	31.05	
14400.00	9094.17	9833.91	9087.87	118.17	20.11	77.42	-720.22	49.10	4229.16	4093.50	31.17	
14500.00	9091.78	9820.00	9087.07	120.86	20.10	77.67	-706.53	46.76	4328.58	4190.17	31.28	
14600.00	9089.39	9820.00	9087.07	123.57	20.10	77.67	-706.53	46.76	4427.87	4286.82	31.39	
14700.00	9087.00	9820.00	9087.07	126.27	20.10	77.67	-706.53	46.76	4527.19	4383.49	31.51	
14800.00	9084.62	9820.00	9087.07	128.97	20.10	77.67	-706.53	46.76	4626.54	4480.20	31.62	
14900.00	9082.23	9820.00	9087.07	131.68	20.10	77.67	-706.53	46.76	4725.91	4576.93	31.72	
14993.38	9080.00	9820.00	9087.07	134.21	20.10	77.67	-706.53	46.76	4818.73	4667.27	31.82	

Weatherford
Anticollision Report

Company:	Devon Energy	**Date:** 5/23/2013	**Time:** 12:48:59	**Page:**	5
Field:	Eddy Co., NM (NAD 83)				
Reference Site:	Aquila 22 Fed Com 4H	**Co-ordinate(NE) Reference:**	Well: Aquila 22 Fed Com 4H, Grid North		
Reference Well:	Aquila 22 Fed Com 4H	**Vertical (TVD) Reference:**	SITE 3561.0		
Reference Wellpath:				**Db:**	Sybase

Site: Exist Arenoso 22 Fed 1
Well: Exist Arenoso 22 Fed 1
Wellpath: 1 V0 **Inter-Site Error:** 0.00 ft

Reference MD ft	Reference TVD 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
0.00	0.00	0.00	0.00	0.00	0.00	250.95	-1170.64	-3389.94	3586.45			No Data
100.00	100.00	83.46	83.46	0.09	0.11	250.95	-1170.58	-3389.88	3586.31	3586.11	17867.02	
200.00	200.00	192.95	192.95	0.31	0.37	250.95	-1170.43	-3389.57	3586.00	3585.31	5246.37	
300.00	300.00	288.70	288.70	0.54	0.59	250.95	-1170.48	-3389.15	3585.60	3584.46	3162.75	
400.00	400.00	413.77	413.77	0.76	0.90	250.94	-1170.56	-3388.27	3584.96	3583.29	2148.15	
500.00	500.00	532.89	532.88	0.99	1.22	250.94	-1170.12	-3386.78	3583.66	3581.45	1624.52	
600.00	600.00	640.65	640.62	1.21	1.49	250.95	-1169.11	-3385.16	3581.92	3579.21	1322.82	
700.00	700.00	737.10	737.05	1.44	1.74	250.96	-1168.05	-3383.76	3580.20	3577.02	1125.85	
800.00	800.00	838.86	838.79	1.66	2.01	250.96	-1167.18	-3382.28	3578.54	3574.87	975.09	
900.00	900.00	941.21	941.13	1.89	2.28	250.97	-1166.20	-3380.64	3576.71	3572.55	859.11	
1000.00	1000.00	1038.29	1038.20	2.11	2.53	250.97	-1165.26	-3379.22	3575.01	3570.36	770.02	
1100.00	1100.00	1143.41	1143.30	2.34	2.81	250.98	-1164.26	-3377.57	3573.21	3568.07	694.62	
1200.00	1200.00	1242.37	1242.24	2.56	3.07	250.99	-1163.22	-3375.96	3571.34	3565.71	634.35	
1300.00	1300.00	1341.99	1341.85	2.79	3.33	250.99	-1162.35	-3374.40	3569.57	3563.45	583.44	
1400.00	1400.00	1448.71	1448.54	3.01	3.62	251.00	-1161.49	-3372.52	3567.64	3561.01	538.45	
1500.00	1500.00	1550.27	1550.08	3.24	3.89	251.00	-1160.44	-3370.68	3565.59	3558.48	500.82	
1600.00	1600.00	1658.99	1658.77	3.46	4.17	251.01	-1159.34	-3368.64	3563.49	3555.86	466.89	
1700.00	1700.00	1767.84	1767.59	3.69	4.46	251.02	-1157.94	-3366.28	3561.02	3552.88	437.21	
1800.00	1800.00	1866.78	1866.50	3.91	4.72	251.03	-1156.44	-3364.13	3558.47	3549.84	412.30	
1900.00	1900.00	1973.24	1972.92	4.14	5.01	251.04	-1155.04	-3361.73	3555.91	3546.78	389.16	
2000.00	2000.00	2070.81	2070.46	4.36	5.27	251.05	-1153.64	-3359.41	3553.20	3543.58	369.34	
2100.00	2100.00	2167.73	2167.34	4.59	5.52	251.06	-1152.22	-3357.26	3550.63	3540.53	351.48	
2200.00	2200.00	2256.46	2256.04	4.81	5.76	251.07	-1151.06	-3355.37	3548.20	3537.64	335.96	
2300.00	2300.00	2348.62	2348.18	5.03	6.00	251.07	-1149.90	-3353.77	3546.14	3535.11	321.52	
2400.00	2400.00	2446.57	2446.11	5.26	6.26	251.08	-1148.68	-3352.12	3544.14	3532.63	307.87	
2500.00	2500.00	2537.39	2536.91	5.48	6.50	251.10	-1147.49	-3350.75	3542.29	3530.32	295.84	
2600.00	2600.00	2626.25	2625.76	5.71	6.73	251.11	-1146.39	-3349.72	3540.79	3528.36	284.90	
2700.00	2700.00	2723.69	2723.19	5.93	6.98	251.12	-1145.24	-3348.73	3539.45	3526.55	274.32	
2800.00	2800.00	2823.70	2823.19	6.16	7.23	251.13	-1144.09	-3347.77	3538.17	3524.78	264.35	
2900.00	2900.00	2929.87	2929.35	6.38	7.51	251.14	-1142.99	-3346.57	3536.76	3522.88	254.70	
3000.00	3000.00	3029.93	3029.38	6.61	7.77	251.15	-1142.32	-3345.20	3535.25	3520.88	245.96	
3100.00	3100.00	3124.09	3123.54	6.83	8.02	251.14	-1142.03	-3343.91	3533.85	3519.01	238.10	
3200.00	3200.00	3219.43	3218.88	7.06	8.26	251.14	-1141.77	-3342.75	3532.62	3517.31	230.71	
3300.00	3300.00	3315.04	3314.47	7.28	8.51	251.14	-1141.58	-3341.62	3531.44	3515.66	223.79	
3400.00	3400.00	3390.69	3390.13	7.51	8.69	251.14	-1141.56	-3341.06	3530.72	3514.54	218.14	
3500.00	3500.00	3482.23	3481.66	7.73	8.87	251.13	-1141.68	-3340.80	3530.50	3513.91	212.84	
3600.00	3600.00	3579.79	3579.22	7.96	9.02	251.13	-1141.88	-3340.64	3530.41	3513.45	208.15	
3700.00	3700.00	3733.34	3732.76	8.18	9.33	251.13	-1141.62	-3339.29	3529.49	3511.99	201.63	
3800.00	3800.00	3825.42	3824.84	8.41	9.58	251.12	-1141.26	-3337.92	3527.95	3509.98	196.30	
3900.00	3900.00	3903.64	3903.05	8.63	9.78	251.12	-1141.00	-3337.15	3526.92	3508.51	191.65	
4000.00	4000.00	3996.07	3995.47	8.86	10.02	251.13	-1140.60	-3336.67	3526.28	3507.42	186.96	
4100.00	4100.00	4097.19	4096.59	9.08	10.26	251.14	-1139.98	-3336.31	3525.75	3506.42	182.43	
4200.00	4200.00	4191.20	4190.60	9.31	10.47	251.14	-1139.40	-3336.04	3525.28	3505.51	178.32	
4300.00	4300.00	4281.76	4281.16	9.53	10.66	251.15	-1138.99	-3335.93	3525.02	3504.84	174.72	
4400.00	4400.00	4375.80	4375.20	9.75	10.80	251.15	-1138.65	-3336.03	3525.00	3504.46	171.60	
4500.00	4500.00	4472.93	4472.33	9.98	10.92	251.16	-1138.29	-3336.25	3525.10	3504.21	168.79	
4600.00	4600.00	4572.73	4572.13	10.20	11.03	251.17	-1137.80	-3336.57	3525.24	3504.01	166.07	
4700.00	4700.00	4673.35	4672.74	10.43	11.16	251.18	-1137.29	-3336.88	3525.37	3503.79	163.36	
4800.00	4800.00	4775.11	4774.50	10.65	11.30	251.19	-1136.72	-3337.18	3525.47	3503.52	160.63	
4900.00	4900.00	4879.59	4878.98	10.88	11.47	251.20	-1136.07	-3337.42	3525.48	3503.14	157.78	
5000.00	5000.00	4981.26	4980.65	11.10	11.66	251.21	-1135.46	-3337.53	3525.39	3502.64	154.91	

Company:	Devon Energy	**Date:** 5/23/2013	**Time:** 12:48:59	**Page:**	6
Field:	Eddy Co, NM (NAD 83)				
Reference Site:	Aquila 22 Fed Com 4H	**Co-ordinate(NE) Reference:**	Well: Aquila 22 Fed Com 4H, Grid North		
Reference Well:	Aquila 22 Fed Com 4H	**Vertical (TVD) Reference:**	SITE 3561.0		
Reference Wellpath:				**Db:**	Sybase

Site: Exist Arenoso 22 Fed 1
Well: Exist Arenoso 22 Fed 1
Wellpath: 1 V0 **Inter-Site Error:** 0.00 ft

Reference MD ft	Reference TVD 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
5100.00	5100.00	5078.44	5077.83	11.33	11.84	251.22	-1134.90	-3337.65	3525.32	3502.16	152.19	
5200.00	5200.00	5183.71	5183.09	11.55	12.06	251.23	-1134.36	-3337.75	3525.25	3501.65	149.36	
5300.00	5300.00	5291.94	5291.33	11.78	12.32	251.23	-1133.98	-3337.55	3524.96	3500.87	146.31	
5400.00	5400.00	5391.38	5390.76	12.00	12.58	251.24	-1133.66	-3337.23	3524.55	3499.98	143.41	
5500.00	5500.00	5498.71	5498.09	12.23	12.87	251.24	-1133.27	-3336.81	3524.07	3498.99	140.49	
5600.00	5600.00	5593.15	5592.53	12.45	13.11	251.25	-1132.84	-3336.44	3523.55	3497.99	137.88	
5700.00	5700.00	5688.65	5688.03	12.68	13.36	251.25	-1132.43	-3336.20	3523.17	3497.15	135.38	
5800.00	5800.00	5785.29	5784.66	12.90	13.60	251.25	-1132.13	-3336.03	3522.91	3496.42	132.97	
5900.00	5900.00	5878.87	5878.25	13.13	13.81	251.26	-1131.85	-3336.00	3522.78	3495.85	130.84	
6000.00	6000.00	5979.11	5978.49	13.35	14.00	251.26	-1131.51	-3336.09	3522.76	3495.41	128.82	
6100.00	6100.00	6077.18	6076.55	13.58	14.19	251.27	-1131.15	-3336.19	3522.73	3494.97	126.91	
6200.00	6200.00	6176.10	6175.47	13.80	14.37	251.28	-1130.63	-3336.40	3522.77	3494.60	125.08	
6300.00	6300.00	6266.72	6266.09	14.03	14.51	251.29	-1130.09	-3336.72	3522.91	3494.39	123.50	
6400.00	6400.00	6366.12	6365.49	14.25	14.64	251.30	-1129.67	-3337.26	3523.30	3494.41	121.99	
6500.00	6500.00	6465.19	6464.56	14.47	14.78	251.31	-1129.08	-3337.78	3523.60	3494.36	120.50	
6600.00	6600.00	6561.17	6560.54	14.70	14.90	251.32	-1128.60	-3338.36	3524.01	3494.42	119.08	
6700.00	6700.00	6663.41	6662.77	14.92	15.05	251.34	-1127.92	-3339.10	3524.48	3494.52	117.63	
6800.00	6800.00	6762.82	6762.18	15.15	15.19	251.35	-1127.26	-3339.72	3524.86	3494.53	116.20	
6900.00	6900.00	6858.66	6858.01	15.37	15.33	251.36	-1126.71	-3340.39	3525.34	3494.65	114.85	
7000.00	7000.00	6954.70	6954.05	15.60	15.46	251.37	-1126.15	-3341.18	3525.94	3494.89	113.56	
7100.00	7100.00	7052.93	7052.27	15.82	15.59	251.39	-1125.51	-3342.11	3526.63	3495.22	112.29	
7200.00	7200.00	7156.81	7156.14	16.05	15.75	251.41	-1124.71	-3343.12	3527.30	3495.51	110.97	
7300.00	7300.00	7254.76	7254.08	16.27	15.90	251.42	-1123.92	-3343.97	3527.87	3495.70	109.69	
7400.00	7400.00	7349.60	7348.92	16.50	16.03	251.44	-1123.32	-3344.92	3528.61	3496.09	108.51	
7500.00	7500.00	7443.75	7443.06	16.72	16.14	251.45	-1122.94	-3345.89	3529.46	3496.61	107.43	
7600.00	7600.00	7536.17	7535.48	16.95	16.22	251.45	-1122.98	-3346.94	3530.55	3497.40	106.49	
7700.00	7700.00	7629.66	7628.96	17.17	16.27	251.45	-1123.43	-3348.01	3531.79	3498.37	105.65	
7800.00	7800.00	7717.83	7717.12	17.40	16.30	251.44	-1124.45	-3349.09	3533.32	3499.64	104.89	
7900.00	7900.00	7806.35	7805.62	17.62	16.33	251.42	-1125.93	-3350.33	3535.18	3501.24	104.17	
8000.00	8000.00	7896.57	7895.81	17.85	16.36	251.41	-1127.56	-3351.83	3537.34	3503.14	103.44	
8100.00	8100.00	7985.97	7985.18	18.07	16.40	251.39	-1129.19	-3353.59	3539.78	3505.32	102.72	
8200.00	8200.00	8081.92	8081.09	18.30	16.45	251.37	-1131.00	-3355.68	3542.45	3507.72	101.99	
8300.00	8300.00	8177.85	8176.98	18.52	16.50	251.36	-1132.72	-3357.89	3545.21	3510.20	101.26	
8400.00	8400.00	8275.73	8274.81	18.75	16.56	251.34	-1134.51	-3360.24	3548.07	3512.77	100.53	
8500.00	8500.00	8369.03	8368.07	18.97	16.62	251.33	-1136.40	-3362.51	3551.02	3515.45	99.82	
8600.00	8600.00	8464.39	8463.37	19.20	16.68	251.31	-1138.38	-3365.01	3554.17	3518.31	99.10	
8700.00	8700.00	8565.26	8564.18	19.42	16.76	251.29	-1140.43	-3367.73	3557.38	3521.21	98.37	
8745.75	8745.75	8611.59	8610.49	19.52	16.79	251.29	-1141.32	-3368.97	3558.82	3522.52	98.04	
8750.00	8750.00	8615.69	8614.59	19.53	16.80	93.27	-1141.39	-3369.09	3558.95	3522.64	98.01	
8775.00	8774.98	8639.82	8638.71	19.57	16.82	93.18	-1141.82	-3369.75	3559.80	3523.42	97.87	
8800.00	8799.88	8663.88	8662.75	19.61	16.84	93.10	-1142.21	-3370.43	3560.72	3524.28	97.73	
8825.00	8824.64	8687.79	8686.65	19.65	16.85	93.03	-1142.58	-3371.12	3561.72	3525.22	97.60	
8850.00	8849.17	8711.52	8710.36	19.70	16.88	92.97	-1142.91	-3371.81	3562.80	3526.24	97.46	
8875.00	8873.43	8734.99	8733.82	19.74	16.90	92.92	-1143.22	-3372.52	3563.96	3527.34	97.33	
8900.00	8897.33	8758.11	8756.93	19.78	16.92	92.88	-1143.52	-3373.22	3565.20	3528.52	97.20	
8925.00	8920.82	8780.82	8779.63	19.82	16.94	92.85	-1143.79	-3373.92	3566.54	3529.79	97.07	
8950.00	8943.83	8802.90	8801.69	19.86	16.96	92.81	-1144.04	-3374.61	3567.96	3531.16	96.94	
8975.00	8966.29	8823.47	8822.25	19.90	16.99	92.77	-1144.25	-3375.27	3569.49	3532.62	96.81	
9000.00	8988.15	8843.46	8842.23	19.95	17.01	92.73	-1144.44	-3375.92	3571.13	3534.20	96.68	
9025.00	9009.35	8862.80	8861.56	20.00	17.03	92.69	-1144.60	-3376.58	3572.89	3535.89	96.55	
9050.00	9029.82	8881.44	8880.19	20.05	17.05	92.63	-1144.73	-3377.22	3574.78	3537.70	96.41	

Weatherford
Anticollision Report

Company:	Devon Energy	**Date:** 5/23/2013	**Time:** 12:48:59	**Page:**	7
Field:	Eddy Co., NM (NAD 83)				
Reference Site:	Aquila 22 Fed Com 4H	**Co-ordinate(NE) Reference:**	Well: Aquila 22 Fed Com 4H, Grid North		
Reference Well:	Aquila 22 Fed Com 4H	**Vertical (TVD) Reference:**	SITE 3561.0		
Reference Wellpath:				**Db:**	Sybase

Site: Exist Arenoso 22 Fed 1
Well: Exist Arenoso 22 Fed 1
Wellpath: 1 V0 **Inter-Site Error:** 0.00 ft

Reference MD ft	Reference TVD 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
9075.00	9049.52	8899.33	8898.06	20.11	17.07	92.57	-1144.84	-3377.86	3576.80	3539.64	96.27	
9100.00	9068.38	8918.97	8917.69	20.17	17.09	92.52	-1144.96	-3378.56	3578.94	3541.71	96.11	
9125.00	9086.36	8937.82	8936.53	20.24	17.11	92.45	-1145.10	-3379.21	3581.22	3543.90	95.94	
9150.00	9103.41	8955.73	8954.43	20.31	17.13	92.37	-1145.25	-3379.83	3583.64	3546.22	95.77	
9175.00	9119.47	8972.65	8971.34	20.39	17.15	92.27	-1145.41	-3380.40	3586.21	3548.69	95.58	
9200.00	9134.51	8988.53	8987.21	20.48	17.17	92.15	-1145.58	-3380.92	3588.93	3551.30	95.38	
9225.00	9148.48	9005.63	9004.30	20.58	17.19	92.03	-1145.78	-3381.48	3591.81	3554.06	95.16	
9250.00	9161.36	9028.84	9027.50	20.69	17.21	91.98	-1146.06	-3382.18	3594.82	3556.94	94.90	
9275.00	9173.09	9050.11	9048.76	20.81	17.23	91.90	-1146.32	-3382.76	3597.98	3559.96	94.63	
9300.00	9183.65	9069.36	9068.01	20.94	17.25	91.78	-1146.56	-3383.23	3601.29	3563.12	94.35	
9325.00	9193.01	9086.54	9085.18	21.07	17.27	91.62	-1146.79	-3383.61	3604.75	3566.42	94.05	
9350.00	9201.14	9100.77	9099.40	21.22	17.28	91.39	-1146.97	-3383.90	3608.38	3569.89	93.74	
9375.00	9208.03	9107.02	9105.65	21.38	17.29	91.02	-1147.06	-3384.02	3612.20	3573.54	93.43	
9400.00	9213.65	9112.12	9110.75	21.55	17.29	90.62	-1147.12	-3384.12	3616.19	3577.35	93.11	
9425.00	9217.98	9116.06	9114.69	21.73	17.30	90.17	-1147.17	-3384.20	3620.36	3581.34	92.78	
9450.00	9221.02	9118.84	9117.47	21.92	17.30	89.69	-1147.20	-3384.26	3624.70	3585.48	92.43	
9475.00	9222.76	9120.46	9119.09	22.12	17.30	89.17	-1147.22	-3384.29	3629.20	3589.78	92.08	
9500.00	9223.20	9120.92	9119.55	22.33	17.30	88.61	-1147.23	-3384.30	3633.84	3594.22	91.72	
9507.17	9223.08	9120.84	9119.46	22.39	17.30	88.44	-1147.23	-3384.30	3635.20	3595.52	91.61	
9550.00	9222.00	9120.05	9118.68	22.74	17.30	88.53	-1147.22	-3384.28	3642.00	3601.98	91.00	
9600.00	9220.62	9119.12	9117.74	23.10	17.30	88.65	-1147.21	-3384.26	3646.56	3606.17	90.28	
9650.00	9219.11	9118.16	9116.78	23.44	17.30	88.79	-1147.20	-3384.24	3647.44	3606.71	89.55	
9700.00	9217.49	9117.19	9115.82	23.74	17.30	88.94	-1147.18	-3384.22	3644.65	3603.62	88.84	
9750.00	9215.76	9116.22	9114.84	23.99	17.30	89.10	-1147.17	-3384.20	3638.19	3596.92	88.15	
9800.00	9213.95	9115.24	9113.87	24.18	17.30	89.27	-1147.16	-3384.18	3628.10	3586.64	87.51	
9850.00	9212.06	9114.28	9112.91	24.31	17.30	89.45	-1147.15	-3384.17	3614.43	3572.83	86.90	
9900.00	9210.11	9113.33	9111.96	24.38	17.29	89.63	-1147.14	-3384.15	3597.23	3555.56	86.34	
9950.00	9208.12	9112.41	9111.04	24.40	17.29	89.82	-1147.12	-3384.13	3576.58	3534.90	85.81	
10000.00	9206.09	9111.51	9110.14	24.37	17.29	90.02	-1147.11	-3384.11	3552.60	3510.95	85.30	
10050.00	9204.05	9110.65	9109.28	24.29	17.29	90.22	-1147.10	-3384.09	3525.39	3483.81	84.80	
10100.00	9202.01	9109.83	9108.45	24.19	17.29	90.42	-1147.09	-3384.08	3495.08	3453.62	84.29	
10150.00	9199.99	9109.05	9107.68	24.06	17.29	90.63	-1147.08	-3384.06	3461.84	3420.50	83.74	
10200.00	9198.00	9108.32	9106.95	23.93	17.29	90.83	-1147.07	-3384.05	3425.83	3384.62	83.13	
10250.00	9196.05	9107.65	9106.28	23.80	17.29	91.03	-1147.06	-3384.03	3387.24	3346.15	82.45	
10300.00	9194.16	9107.03	9105.66	23.70	17.29	91.23	-1147.06	-3384.02	3346.28	3305.30	81.66	
10350.00	9192.35	9106.48	9105.11	23.62	17.29	91.42	-1147.05	-3384.01	3303.18	3262.28	80.76	
10400.00	9190.63	9106.00	9104.63	23.59	17.29	91.62	-1147.04	-3384.00	3258.20	3217.33	79.72	
10450.00	9189.01	9105.59	9104.22	23.60	17.29	91.83	-1147.04	-3383.99	3211.59	3170.71	78.56	
10500.00	9187.51	9105.25	9103.88	23.67	17.29	92.07	-1147.03	-3383.99	3163.66	3122.71	77.26	
10550.00	9186.13	9104.99	9103.62	23.79	17.29	92.40	-1147.03	-3383.98	3114.72	3073.65	75.84	
10591.53	9185.09	9104.83	9103.46	23.93	17.29	92.95	-1147.03	-3383.98	3073.53	3032.33	74.59	
10600.00	9184.89	9104.80	9103.43	24.05	17.29	92.95	-1147.03	-3383.98	3065.09	3023.77	74.17	
10700.00	9182.50	9104.49	9103.12	25.55	17.28	92.88	-1147.02	-3383.97	2965.53	2922.71	69.25	
10800.00	9180.12	9104.17	9102.80	27.24	17.28	92.82	-1147.02	-3383.97	2865.99	2821.48	64.39	
10900.00	9177.73	9103.85	9102.48	29.09	17.28	92.75	-1147.02	-3383.96	2766.49	2720.13	59.67	
11000.00	9175.34	9103.53	9102.16	31.08	17.28	92.68	-1147.01	-3383.95	2667.02	2618.68	55.16	
11100.00	9172.95	9103.20	9101.83	33.17	17.28	92.62	-1147.01	-3383.95	2567.60	2517.16	50.91	
11200.00	9170.57	9102.87	9101.50	35.35	17.28	92.55	-1147.00	-3383.94	2468.22	2415.61	46.91	
11300.00	9168.18	9102.54	9101.17	37.60	17.28	92.48	-1147.00	-3383.93	2368.90	2314.03	43.17	
11400.00	9165.79	9102.21	9100.84	39.92	17.28	92.42	-1146.99	-3383.93	2269.63	2212.45	39.69	
11500.00	9163.40	9101.87	9100.50	42.28	17.28	92.35	-1146.99	-3383.92	2170.44	2110.89	36.45	

Weatherford
Anticollision Report

Company:	Devon Energy	**Date:** 5/23/2013	**Time:** 12:48:59	**Page:**	8
Field:	Eddy Co., NM (NAD 83)				
Reference Site:	Aquila 22 Fed Com 4H	**Co-ordinate(NE) Reference:**	Well: Aquila 22 Fed Com 4H, Grid North		
Reference Well:	Aquila 22 Fed Com 4H	**Vertical (TVD) Reference:**	SITE 3561.0		
Reference Wellpath:				**Db:**	Sybase

Site: Exist Arenoso 22 Fed 1
Well: Exist Arenoso 22 Fed 1
Wellpath: 1 V0 **Inter-Site Error:** 0.00 ft

Reference MD ft	Reference TVD 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
11600.00	9161.02	9101.53	9100.16	44.69	17.28	92.28	-1146.98	-3383.91	2071.31	2009.36	33.43	
11700.00	9158.63	9101.19	9099.82	47.14	17.28	92.21	-1146.98	-3383.91	1972.28	1907.88	30.63	
11800.00	9156.24	9100.84	9099.48	49.61	17.28	92.14	-1146.98	-3383.90	1873.35	1806.48	28.01	
11900.00	9153.85	9100.50	9099.13	52.11	17.28	92.07	-1146.97	-3383.89	1774.54	1705.16	25.58	
12000.00	9151.47	9100.15	9098.78	54.64	17.28	91.99	-1146.97	-3383.89	1675.87	1603.97	23.31	
12100.00	9149.08	9099.71	9098.34	57.18	17.28	91.91	-1146.96	-3383.88	1577.37	1502.92	21.19	
12200.00	9146.69	9099.24	9097.87	59.75	17.28	91.81	-1146.95	-3383.87	1479.07	1402.06	19.21	
12300.00	9144.30	9098.77	9097.41	62.32	17.28	91.71	-1146.95	-3383.86	1381.02	1301.43	17.35	
12400.00	9141.92	9098.33	9096.96	64.92	17.28	91.62	-1146.94	-3383.85	1283.26	1201.08	15.62	
12500.00	9139.53	9097.90	9096.53	67.52	17.28	91.53	-1146.94	-3383.84	1185.88	1101.09	13.99	
12600.00	9137.14	9097.48	9096.11	70.13	17.28	91.45	-1146.93	-3383.84	1088.97	1001.57	12.46	
12700.00	9134.75	9097.07	9095.70	72.75	17.28	91.37	-1146.93	-3383.83	992.68	902.66	11.03	
12800.00	9132.37	9096.67	9095.31	75.39	17.28	91.29	-1146.92	-3383.82	897.19	804.54	9.68	
12900.00	9129.98	9096.29	9094.92	78.02	17.28	91.21	-1146.92	-3383.81	802.81	707.52	8.42	
13000.00	9127.59	9095.92	9094.55	80.67	17.28	91.13	-1146.91	-3383.81	709.97	612.03	7.25	
13100.00	9125.20	9095.56	9094.19	83.32	17.28	91.06	-1146.91	-3383.80	619.36	518.77	6.16	
13200.00	9122.82	9095.21	9093.84	85.98	17.28	90.99	-1146.90	-3383.79	532.12	428.87	5.15	
13300.00	9120.43	9094.87	9093.50	88.64	17.27	90.92	-1146.90	-3383.78	450.22	344.31	4.25	
13400.00	9118.04	9094.53	9093.17	91.31	17.27	90.85	-1146.89	-3383.78	377.16	268.58	3.47	
13500.00	9115.65	9094.21	9092.84	93.98	17.27	90.78	-1146.89	-3383.77	319.05	207.80	2.87	
13600.00	9113.27	9093.90	9092.53	96.66	17.27	90.72	-1146.88	-3383.77	285.21	171.28	2.50	
13700.00	9110.88	9093.59	9092.22	99.33	17.27	90.66	-1146.88	-3383.76	284.41	167.81	2.44	
13800.00	9108.49	9093.29	9091.93	102.02	17.27	90.59	-1146.88	-3383.75	316.92	197.64	2.66	
13900.00	9106.10	9093.00	9091.64	104.70	17.27	90.53	-1146.87	-3383.75	374.15	252.18	3.07	
14000.00	9103.72	9092.72	9091.35	107.39	17.27	90.48	-1146.87	-3383.74	446.69	322.04	3.58	
14100.00	9101.33	9092.44	9091.08	110.08	17.27	90.42	-1146.86	-3383.74	528.28	400.94	4.15	
14200.00	9098.94	9092.17	9090.81	112.77	17.27	90.37	-1146.86	-3383.73	615.32	485.29	4.73	
14300.00	9096.55	9091.91	9090.54	115.47	17.27	90.31	-1146.86	-3383.73	705.81	573.08	5.32	
14400.00	9094.17	9091.65	9090.29	118.17	17.27	90.26	-1146.85	-3383.72	798.57	663.14	5.90	
14500.00	9091.78	9091.40	9090.04	120.86	17.27	90.21	-1146.85	-3383.72	892.90	754.77	6.46	
14600.00	9089.39	9091.16	9089.79	123.57	17.27	90.16	-1146.85	-3383.71	988.34	847.51	7.02	
14700.00	9087.00	9090.92	9089.55	126.27	17.27	90.11	-1146.84	-3383.71	1084.60	941.07	7.56	
14800.00	9084.62	9090.69	9089.32	128.97	17.27	90.06	-1146.84	-3383.70	1181.48	1035.25	8.08	
14900.00	9082.23	9090.46	9089.09	131.68	17.27	90.02	-1146.84	-3383.70	1278.85	1129.90	8.59	
14993.38	9080.00	9090.25	9088.89	134.21	17.27	89.97	-1146.84	-3383.69	1370.10	1218.63	9.05	

Site: Exist. Barton Fed 2
Well: Exist. Barton Fed 2
Wellpath: 1 V0 **Inter-Site Error:** 0.00 ft

Reference MD ft	Reference TVD 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
0.00	0.00	0.00	0.00	0.00	0.00	195.97	-1482.18	-424.21	1541.84			No Data
100.00	100.00	79.00	79.00	0.09	1.46	195.97	-1482.18	-424.21	1541.69	1540.15	996.18	
200.00	200.00	179.00	179.00	0.31	4.49	195.97	-1482.18	-424.21	1541.69	1536.88	320.57	
300.00	300.00	279.00	279.00	0.54	7.53	195.97	-1482.18	-424.21	1541.69	1533.62	191.02	
400.00	400.00	379.00	379.00	0.76	10.57	195.97	-1482.18	-424.21	1541.69	1530.36	136.04	
500.00	500.00	479.00	479.00	0.99	13.61	195.97	-1482.18	-424.21	1541.69	1527.10	105.64	
600.00	600.00	579.00	579.00	1.21	16.64	195.97	-1482.18	-424.21	1541.69	1523.84	86.34	
700.00	700.00	679.00	679.00	1.44	19.68	195.97	-1482.18	-424.21	1541.69	1520.58	73.01	
800.00	800.00	779.00	779.00	1.66	22.72	195.97	-1482.18	-424.21	1541.69	1517.32	63.24	
900.00	900.00	879.00	879.00	1.89	25.75	195.97	-1482.18	-424.21	1541.69	1514.05	55.78	

Weatherford
Anticollision Report

Company:	Devon Energy	**Date:** 5/23/2013	**Time:** 12:48:59	**Page:**	9
Field:	Eddy Co., NM (NAD 83)				
Reference Site:	Aquila 22 Fed Com 4H	**Co-ordinate(NE) Reference:**	Well: Aquila 22 Fed Com 4H, Grid North		
Reference Well:	Aquila 22 Fed Com 4H	**Vertical (TVD) Reference:**	SITE 3561.0		
Reference Wellpath:				**Db:**	Sybase

Site: Exist. Barton Fed 2
Well: Exist. Barton Fed 2
Wellpath: 1 V0

Inter-Site Error: 0.00 ft

Reference MD ft	Reference TVD 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 Separation Distance ft	Factor	Warning
1000.00	1000.00	979.00	979.00	2.11	28.79	195.97	-1482.18	-424.21	1541.69	1510.79	49.89	
1100.00	1100.00	1079.00	1079.00	2.34	31.83	195.97	-1482.18	-424.21	1541.69	1507.53	45.13	
1200.00	1200.00	1179.00	1179.00	2.56	34.86	195.97	-1482.18	-424.21	1541.69	1504.27	41.19	
1300.00	1300.00	1279.00	1279.00	2.79	37.90	195.97	-1482.18	-424.21	1541.69	1501.01	37.89	
1400.00	1400.00	1379.00	1379.00	3.01	40.94	195.97	-1482.18	-424.21	1541.69	1497.75	35.08	
1500.00	1500.00	1479.00	1479.00	3.24	43.97	195.97	-1482.18	-424.21	1541.69	1494.48	32.66	
1600.00	1600.00	1579.00	1579.00	3.46	47.01	195.97	-1482.18	-424.21	1541.69	1491.22	30.55	
1700.00	1700.00	1679.00	1679.00	3.69	50.05	195.97	-1482.18	-424.21	1541.69	1487.96	28.69	
1800.00	1800.00	1779.00	1779.00	3.91	53.08	195.97	-1482.18	-424.21	1541.69	1484.70	27.05	
1900.00	1900.00	1879.00	1879.00	4.14	56.12	195.97	-1482.18	-424.21	1541.69	1481.44	25.59	
2000.00	2000.00	1979.00	1979.00	4.36	59.16	195.97	-1482.18	-424.21	1541.69	1478.18	24.27	
2100.00	2100.00	2079.00	2079.00	4.59	62.20	195.97	-1482.18	-424.21	1541.69	1474.91	23.09	
2200.00	2200.00	2179.00	2179.00	4.81	65.23	195.97	-1482.18	-424.21	1541.69	1471.65	22.01	
2300.00	2300.00	2279.00	2279.00	5.03	68.27	195.97	-1482.18	-424.21	1541.69	1468.39	21.03	
2400.00	2400.00	2379.00	2379.00	5.26	71.31	195.97	-1482.18	-424.21	1541.69	1465.13	20.14	
2500.00	2500.00	2479.00	2479.00	5.48	74.34	195.97	-1482.18	-424.21	1541.69	1461.87	19.31	
2600.00	2600.00	2579.00	2579.00	5.71	77.38	195.97	-1482.18	-424.21	1541.69	1458.61	18.55	
2700.00	2700.00	2679.00	2679.00	5.93	80.42	195.97	-1482.18	-424.21	1541.69	1455.34	17.85	
2800.00	2800.00	2779.00	2779.00	6.16	83.45	195.97	-1482.18	-424.21	1541.69	1452.08	17.20	
2900.00	2900.00	2879.00	2879.00	6.38	86.49	195.97	-1482.18	-424.21	1541.69	1448.82	16.60	
3000.00	3000.00	2979.00	2979.00	6.61	89.53	195.97	-1482.18	-424.21	1541.69	1445.56	16.04	
3100.00	3100.00	3079.00	3079.00	6.83	92.56	195.97	-1482.18	-424.21	1541.69	1442.30	15.51	
3200.00	3200.00	3179.00	3179.00	7.06	95.60	195.97	-1482.18	-424.21	1541.69	1439.04	15.02	
3300.00	3300.00	3279.00	3279.00	7.28	98.64	195.97	-1482.18	-424.21	1541.69	1435.77	14.56	
3400.00	3400.00	3379.00	3379.00	7.51	101.67	195.97	-1482.18	-424.21	1541.69	1432.51	14.12	
3500.00	3500.00	3479.00	3479.00	7.73	104.71	195.97	-1482.18	-424.21	1541.69	1429.25	13.71	
3600.00	3600.00	3579.00	3579.00	7.96	107.75	195.97	-1482.18	-424.21	1541.69	1425.99	13.32	
3700.00	3700.00	3679.00	3679.00	8.18	110.79	195.97	-1482.18	-424.21	1541.69	1422.73	12.96	
3800.00	3800.00	3779.00	3779.00	8.41	113.82	195.97	-1482.18	-424.21	1541.69	1419.47	12.61	
3900.00	3900.00	3879.00	3879.00	8.63	116.86	195.97	-1482.18	-424.21	1541.69	1416.20	12.29	
4000.00	4000.00	3979.00	3979.00	8.86	119.90	195.97	-1482.18	-424.21	1541.69	1412.94	11.97	
4100.00	4100.00	4079.00	4079.00	9.08	122.93	195.97	-1482.18	-424.21	1541.69	1409.68	11.68	
4200.00	4200.00	4179.00	4179.00	9.31	125.97	195.97	-1482.18	-424.21	1541.69	1406.42	11.40	
4300.00	4300.00	4279.00	4279.00	9.53	129.01	195.97	-1482.18	-424.21	1541.69	1403.16	11.13	
4400.00	4400.00	4379.00	4379.00	9.75	132.04	195.97	-1482.18	-424.21	1541.69	1399.90	10.87	
4500.00	4500.00	4479.00	4479.00	9.98	135.08	195.97	-1482.18	-424.21	1541.69	1396.63	10.63	
4600.00	4600.00	4579.00	4579.00	10.20	138.12	195.97	-1482.18	-424.21	1541.69	1393.37	10.39	
4700.00	4700.00	4679.00	4679.00	10.43	141.15	195.97	-1482.18	-424.21	1541.69	1390.11	10.17	
4800.00	4800.00	4779.00	4779.00	10.65	144.19	195.97	-1482.18	-424.21	1541.69	1386.85	9.96	
4900.00	4900.00	4879.00	4879.00	10.88	147.23	195.97	-1482.18	-424.21	1541.69	1383.59	9.75	
5000.00	5000.00	4979.00	4979.00	11.10	150.26	195.97	-1482.18	-424.21	1541.69	1380.33	9.55	
5100.00	5100.00	5079.00	5079.00	11.33	153.30	195.97	-1482.18	-424.21	1541.69	1377.06	9.36	
5200.00	5200.00	5179.00	5179.00	11.55	156.34	195.97	-1482.18	-424.21	1541.69	1373.80	9.18	
5300.00	5300.00	5279.00	5279.00	11.78	159.38	195.97	-1482.18	-424.21	1541.69	1370.54	9.01	
5400.00	5400.00	5379.00	5379.00	12.00	162.41	195.97	-1482.18	-424.21	1541.69	1367.28	8.84	
5500.00	5500.00	5479.00	5479.00	12.23	165.45	195.97	-1482.18	-424.21	1541.69	1364.02	8.68	
5600.00	5600.00	5579.00	5579.00	12.45	168.49	195.97	-1482.18	-424.21	1541.69	1360.76	8.52	
5700.00	5700.00	5679.00	5679.00	12.68	171.52	195.97	-1482.18	-424.21	1541.69	1357.49	8.37	
5800.00	5800.00	5779.00	5779.00	12.90	174.56	195.97	-1482.18	-424.21	1541.69	1354.23	8.22	
5900.00	5900.00	5879.00	5879.00	13.13	177.60	195.97	-1482.18	-424.21	1541.69	1350.97	8.08	

Weatherford
Anticollision Report

Company:	Devon Energy	**Date:** 5/23/2013	**Time:** 12:48:59 **Page:** 10
Field:	Eddy Co., NM (NAD 83)		
Reference Site:	Aquila 22 Fed Com 4H	**Co-ordinate(NE) Reference:**	Well: Aquila 22 Fed Com 4H, Grid North
Reference Well:	Aquila 22 Fed Com 4H	**Vertical (TVD) Reference:**	SITE 3561.0
Reference Wellpath:			**Db:** Sybase

Site: Exist. Barton Fed 2
Well: Exist. Barton Fed 2
Wellpath: 1 V0 **Inter-Site Error:** 0.00 ft

Reference MD ft	Reference TVD ft	Offset MD ft	Offset TVD ft	Semi-Major Axis Ref ft	Semi-Major Axis Offset ft	Offset Location TFO-HS deg	Offset Location North ft	Offset Location East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
6000.00	6000.00	5979.00	5979.00	13.35	180.63	195.97	-1482.18	-424.21	1541.69	1347.71	7.95	
6100.00	6100.00	6079.00	6079.00	13.58	183.67	195.97	-1482.18	-424.21	1541.69	1344.45	7.82	
6200.00	6200.00	6179.00	6179.00	13.80	186.71	195.97	-1482.18	-424.21	1541.69	1341.19	7.69	
6300.00	6300.00	6279.00	6279.00	14.03	189.74	195.97	-1482.18	-424.21	1541.69	1337.92	7.57	
6400.00	6400.00	6379.00	6379.00	14.25	192.78	195.97	-1482.18	-424.21	1541.69	1334.66	7.45	
6500.00	6500.00	6479.00	6479.00	14.47	195.82	195.97	-1482.18	-424.21	1541.69	1331.40	7.33	
6600.00	6600.00	6579.00	6579.00	14.70	198.85	195.97	-1482.18	-424.21	1541.69	1328.14	7.22	
6700.00	6700.00	6679.00	6679.00	14.92	201.89	195.97	-1482.18	-424.21	1541.69	1324.88	7.11	
6800.00	6800.00	6779.00	6779.00	15.15	204.93	195.97	-1482.18	-424.21	1541.69	1321.62	7.01	
6900.00	6900.00	6879.00	6879.00	15.37	207.97	195.97	-1482.18	-424.21	1541.69	1318.36	6.90	
7000.00	7000.00	6979.00	6979.00	15.60	211.00	195.97	-1482.18	-424.21	1541.69	1315.09	6.80	
7100.00	7100.00	7079.00	7079.00	15.82	214.04	195.97	-1482.18	-424.21	1541.69	1311.83	6.71	
7200.00	7200.00	7179.00	7179.00	16.05	217.08	195.97	-1482.18	-424.21	1541.69	1308.57	6.61	
7300.00	7300.00	7279.00	7279.00	16.27	220.11	195.97	-1482.18	-424.21	1541.69	1305.31	6.52	
7400.00	7400.00	7379.00	7379.00	16.50	223.15	195.97	-1482.18	-424.21	1541.69	1302.05	6.43	
7500.00	7500.00	7479.00	7479.00	16.72	226.19	195.97	-1482.18	-424.21	1541.69	1298.79	6.35	
7600.00	7600.00	7579.00	7579.00	16.95	229.22	195.97	-1482.18	-424.21	1541.69	1295.52	6.26	
7700.00	7700.00	7679.00	7679.00	17.17	232.26	195.97	-1482.18	-424.21	1541.69	1292.26	6.18	
7800.00	7800.00	7779.00	7779.00	17.40	235.30	195.97	-1482.18	-424.21	1541.69	1289.00	6.10	
7900.00	7900.00	7879.00	7879.00	17.62	238.33	195.97	-1482.18	-424.21	1541.69	1285.74	6.02	
8000.00	8000.00	7979.00	7979.00	17.85	241.37	195.97	-1482.18	-424.21	1541.69	1282.48	5.95	
8100.00	8100.00	8079.00	8079.00	18.07	244.41	195.97	-1482.18	-424.21	1541.69	1279.22	5.87	
8200.00	8200.00	8179.00	8179.00	18.30	247.44	195.97	-1482.18	-424.21	1541.69	1275.95	5.80	
8300.00	8300.00	8279.00	8279.00	18.52	250.48	195.97	-1482.18	-424.21	1541.69	1272.69	5.73	
8400.00	8400.00	8379.00	8379.00	18.75	253.52	195.97	-1482.18	-424.21	1541.69	1269.43	5.66	
8500.00	8500.00	8479.00	8479.00	18.97	256.56	195.97	-1482.18	-424.21	1541.69	1266.17	5.60	
8600.00	8600.00	8579.00	8579.00	19.20	259.59	195.97	-1482.18	-424.21	1541.69	1262.91	5.53	
8700.00	8700.00	8679.00	8679.00	19.42	262.63	195.97	-1482.18	-424.21	1541.69	1259.65	5.47	
8745.75	8745.75	8724.75	8724.75	19.52	264.02	195.97	-1482.18	-424.21	1541.69	1258.15	5.44	
8750.00	8750.00	8729.00	8729.00	19.53	264.15	37.97	-1482.18	-424.21	1541.68	1258.00	5.43	
8775.00	8774.98	8753.98	8753.98	19.57	264.91	38.04	-1482.18	-424.21	1540.99	1256.52	5.42	
8800.00	8799.88	8778.88	8778.88	19.61	265.66	38.22	-1482.18	-424.21	1539.27	1254.04	5.40	
8825.00	8824.64	8803.64	8803.64	19.65	266.41	38.51	-1482.18	-424.21	1536.53	1250.57	5.37	
8850.00	8849.17	8828.17	8828.17	19.70	267.16	38.90	-1482.18	-424.21	1532.77	1246.10	5.35	
8875.00	8873.43	8852.43	8852.43	19.74	267.90	39.41	-1482.18	-424.21	1528.02	1240.67	5.32	
8900.00	8897.33	8876.33	8876.33	19.78	268.62	40.03	-1482.18	-424.21	1522.30	1234.29	5.29	
8925.00	8920.82	8899.82	8899.82	19.82	269.33	40.78	-1482.18	-424.21	1515.62	1226.97	5.25	
8950.00	8943.83	8922.83	8922.83	19.86	270.03	41.65	-1482.18	-424.21	1508.01	1218.75	5.21	
8975.00	8966.29	8945.29	8945.29	19.90	270.72	42.64	-1482.18	-424.21	1499.50	1209.65	5.17	
9000.00	8988.15	8967.15	8967.15	19.95	271.38	43.77	-1482.18	-424.21	1490.13	1199.71	5.13	
9025.00	9009.35	8988.35	8988.35	20.00	272.02	45.04	-1482.18	-424.21	1479.94	1188.95	5.09	
9050.00	9029.82	9008.82	9008.82	20.05	272.65	46.46	-1482.18	-424.21	1468.96	1177.41	5.04	
9075.00	9049.52	9028.52	9028.52	20.11	273.24	48.02	-1482.18	-424.21	1457.24	1165.13	4.99	
9100.00	9068.38	9047.38	9047.38	20.17	273.82	49.74	-1482.18	-424.21	1444.83	1152.16	4.94	
9125.00	9086.36	9065.36	9065.36	20.24	274.36	51.61	-1482.18	-424.21	1431.77	1138.53	4.88	
9150.00	9103.41	9082.41	9082.41	20.31	274.88	53.64	-1482.18	-424.21	1418.13	1124.31	4.83	
9175.00	9119.47	9098.47	9098.47	20.39	275.37	55.82	-1482.18	-424.21	1403.95	1109.54	4.77	
9200.00	9134.51	9113.51	9113.51	20.48	275.82	58.15	-1482.18	-424.21	1389.29	1094.29	4.71	
9225.00	9148.48	9127.48	9127.48	20.58	276.25	60.62	-1482.18	-424.21	1374.22	1078.60	4.65	
9250.00	9161.36	9140.36	9140.36	20.69	276.64	63.21	-1482.18	-424.21	1358.80	1062.56	4.59	
9275.00	9173.09	9152.09	9152.09	20.81	277.00	65.91	-1482.18	-424.21	1343.08	1046.23	4.52	

Weatherford
Anticollision Report

Company:	Devon Energy	**Date:** 5/23/2013	**Time:** 12:48:59	**Page:**	11
Field:	Eddy Co., NM (NAD 83)				
Reference Site:	Aquila 22 Fed Com 4H	**Co-ordinate(NE) Reference:**	Well: Aquila 22 Fed Com 4H, Grid North		
Reference Well:	Aquila 22 Fed Com 4H	**Vertical (TVD) Reference:**	SITE 3561.0		
Reference Wellpath:				**Db:**	Sybase

Site: Exist. Barton Fed 2
Well: Exist. Barton Fed 2
Wellpath: 1 V0 **Inter-Site Error:** 0.00 ft

Reference MD ft	Reference TVD ft	Offset MD ft	Offset TVD ft	Semi-Major Axis Ref ft	Semi-Major Axis Offset ft	Offset Location TFO-HS deg	Offset Location North ft	Offset Location East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
9300.00	9183.65	9162.65	9162.65	20.94	277.32	68.69	-1482.18	-424.21	1327.14	1029.68	4.46	
9325.00	9193.01	9172.01	9172.01	21.07	277.60	71.53	-1482.18	-424.21	1311.03	1012.99	4.40	
9350.00	9201.14	9180.14	9180.14	21.22	277.85	74.40	-1482.18	-424.21	1294.83	996.24	4.34	
9375.00	9208.03	9187.03	9187.03	21.38	278.06	77.26	-1482.18	-424.21	1278.59	979.49	4.27	
9400.00	9213.65	9192.65	9192.65	21.55	278.23	80.08	-1482.18	-424.21	1262.39	962.82	4.21	
9425.00	9217.98	9196.98	9196.98	21.73	278.36	82.83	-1482.18	-424.21	1246.28	946.31	4.15	
9450.00	9221.02	9200.02	9200.02	21.92	278.45	85.48	-1482.18	-424.21	1230.34	930.01	4.10	
9475.00	9222.76	9201.76	9201.76	22.12	278.50	88.01	-1482.18	-424.21	1214.61	913.99	4.04	
9500.00	9223.20	9202.20	9202.20	22.33	278.52	90.39	-1482.18	-424.21	1199.15	898.31	3.99	
9507.17	9223.08	9202.08	9202.08	22.39	278.51	91.05	-1482.18	-424.21	1194.78	893.88	3.97	
9550.00	9222.00	9201.00	9201.00	22.74	278.48	91.27	-1482.18	-424.21	1167.97	866.75	3.88	
9600.00	9220.62	9199.62	9199.62	23.10	278.44	91.56	-1482.18	-424.21	1134.74	833.20	3.76	
9650.00	9219.11	9198.11	9198.11	23.44	278.39	91.89	-1482.18	-424.21	1099.50	797.67	3.64	
9700.00	9217.49	9196.49	9196.49	23.74	278.34	92.26	-1482.18	-424.21	1062.34	760.26	3.52	
9750.00	9215.76	9194.76	9194.76	23.99	278.29	92.69	-1482.18	-424.21	1023.34	721.08	3.39	
9800.00	9213.95	9192.95	9192.95	24.18	278.24	93.18	-1482.18	-424.21	982.61	680.21	3.25	
9850.00	9212.06	9191.06	9191.06	24.31	278.18	93.77	-1482.18	-424.21	940.24	637.77	3.11	
9900.00	9210.11	9189.11	9189.11	24.38	278.12	94.48	-1482.18	-424.21	896.34	593.87	2.96	
9950.00	9208.12	9187.12	9187.12	24.40	278.06	95.38	-1482.18	-424.21	851.06	548.64	2.81	
10000.00	9206.09	9185.09	9185.09	24.37	278.00	96.60	-1482.18	-424.21	804.51	502.21	2.66	
10050.00	9204.05	9183.05	9183.05	24.29	277.94	98.40	-1482.18	-424.21	756.85	454.75	2.51	
10100.00	9202.01	9181.01	9181.01	24.19	277.87	101.44	-1482.18	-424.21	708.27	406.45	2.35	
10150.00	9199.99	9178.99	9178.99	24.06	277.81	108.04	-1482.18	-424.21	658.97	357.73	2.19	
10200.00	9198.00	9177.00	9177.00	23.93	277.75	133.15	-1482.18	-424.21	609.20	311.10	2.04	
10250.00	9196.05	9175.05	9175.05	23.80	277.69	229.82	-1482.18	-424.21	559.25	261.34	1.88	
10300.00	9194.16	9173.16	9173.16	23.70	277.64	255.43	-1482.18	-424.21	509.52	208.77	1.69	
10350.00	9192.35	9171.35	9171.35	23.62	277.58	262.08	-1482.18	-424.21	460.52	159.52	1.53	
10400.00	9190.63	9169.63	9169.63	23.59	277.53	265.09	-1482.18	-424.21	412.93	111.91	1.37	Level 3
10450.00	9189.01	9168.01	9168.01	23.60	277.48	266.82	-1482.18	-424.21	367.76	66.72	1.22	Level 2
10500.00	9187.51	9166.51	9166.51	23.67	277.43	267.96	-1482.18	-424.21	326.40	25.32	1.08	Level 2
10550.00	9186.13	9165.13	9165.13	23.79	277.39	268.76	-1482.18	-424.21	290.89	-10.28	0.97	Level 1
10591.53	9185.09	9164.09	9164.09	23.93	277.36	269.27	-1482.18	-424.21	267.74	-33.54	0.89	Level 1
10600.00	9184.89	9163.89	9163.89	24.05	277.35	269.32	-1482.18	-424.21	263.85	-37.55	0.88	Level 1
10700.00	9182.50	9161.50	9161.50	25.55	277.28	269.90	-1482.18	-424.21	236.64	-66.18	0.78	Level 1
10800.00	9180.12	9159.12	9159.12	27.24	277.21	270.47	-1482.18	-424.21	249.75	-54.70	0.82	Level 1
10900.00	9177.73	9156.73	9156.73	29.09	277.14	271.05	-1482.18	-424.21	297.89	-8.34	0.97	Level 1
11000.00	9175.34	9154.34	9154.34	31.08	277.06	271.63	-1482.18	-424.21	367.54	59.40	1.19	Level 2
11100.00	9172.95	9151.95	9151.95	33.17	276.99	272.21	-1482.18	-424.21	448.81	138.65	1.45	Level 3
11200.00	9170.57	9149.57	9149.57	35.35	276.92	272.79	-1482.18	-424.21	536.43	224.17	1.72	
11300.00	9168.18	9147.18	9147.18	37.60	276.85	273.37	-1482.18	-424.21	627.75	313.33	2.00	
11400.00	9165.79	9144.79	9144.79	39.92	276.77	273.95	-1482.18	-424.21	721.37	404.72	2.28	
11500.00	9163.40	9142.40	9142.40	42.28	276.70	274.52	-1482.18	-424.21	816.50	497.58	2.56	
11600.00	9161.02	9140.02	9140.02	44.69	276.63	275.10	-1482.18	-424.21	912.66	591.44	2.84	
11700.00	9158.63	9137.63	9137.63	47.14	276.56	275.67	-1482.18	-424.21	1009.57	686.01	3.12	
11800.00	9156.24	9135.24	9135.24	49.61	276.48	276.25	-1482.18	-424.21	1107.02	781.10	3.40	
11900.00	9153.85	9132.85	9132.85	52.11	276.41	276.82	-1482.18	-424.21	1204.88	876.59	3.67	
12000.00	9151.47	9130.47	9130.47	54.64	276.34	277.39	-1482.18	-424.21	1303.06	972.39	3.94	
12100.00	9149.08	9128.08	9128.08	57.18	276.27	277.96	-1482.18	-424.21	1401.50	1068.43	4.21	
12200.00	9146.69	9125.69	9125.69	59.75	276.19	278.53	-1482.18	-424.21	1500.14	1164.67	4.47	
12300.00	9144.30	9123.30	9123.30	62.32	276.12	279.09	-1482.18	-424.21	1598.94	1261.07	4.73	
12400.00	9141.92	9120.92	9120.92	64.92	276.05	279.66	-1482.18	-424.21	1697.88	1357.60	4.99	

Weatherford
Anticollision Report

Company:	Devon Energy	**Date:** 5/23/2013	**Time:** 12:48:59	**Page:**	12
Field:	Eddy Co., NM (NAD 83)				
Reference Site:	Aquila 22 Fed Com 4H	**Co-ordinate(NE) Reference:**	Well: Aquila 22 Fed Com 4H, Grid North		
Reference Well:	Aquila 22 Fed Com 4H	**Vertical (TVD) Reference:**	SITE 3561.0		
Reference Wellpath:				**Db:**	Sybase

Site: Exist. Barton Fed 2
Well: Exist. Barton Fed 2
Wellpath: 1 V0 **Inter-Site Error:** 0.00 ft

Reference MD ft	Reference TVD 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
12500.00	9139.53	9118.53	9118.53	67.52	275.98	280.22	-1482.18	-424.21	1796.94	1454.25	5.24	
12600.00	9137.14	9116.14	9116.14	70.13	275.90	280.78	-1482.18	-424.21	1896.09	1551.00	5.49	
12700.00	9134.75	9113.75	9113.75	72.75	275.83	281.34	-1482.18	-424.21	1995.32	1647.84	5.74	
12800.00	9132.37	9111.37	9111.37	75.39	275.76	281.89	-1482.18	-424.21	2094.63	1744.75	5.99	
12900.00	9129.98	9108.98	9108.98	78.02	275.69	282.45	-1482.18	-424.21	2193.99	1841.73	6.23	
13000.00	9127.59	9106.59	9106.59	80.67	275.61	283.00	-1482.18	-424.21	2293.41	1938.78	6.47	
13100.00	9125.20	9104.20	9104.20	83.32	275.54	283.55	-1482.18	-424.21	2392.87	2035.88	6.70	
13200.00	9122.82	9101.82	9101.82	85.98	275.47	284.09	-1482.18	-424.21	2492.37	2133.03	6.94	
13300.00	9120.43	9099.43	9099.43	88.64	275.40	284.64	-1482.18	-424.21	2591.91	2230.23	7.17	
13400.00	9118.04	9097.04	9097.04	91.31	275.32	285.18	-1482.18	-424.21	2691.49	2327.48	7.39	
13500.00	9115.65	9094.65	9094.65	93.98	275.25	285.72	-1482.18	-424.21	2791.09	2424.77	7.62	
13600.00	9113.27	9092.27	9092.27	96.66	275.18	286.25	-1482.18	-424.21	2890.71	2522.10	7.84	
13700.00	9110.88	9089.88	9089.88	99.33	275.11	286.79	-1482.18	-424.21	2990.36	2619.47	8.06	
13800.00	9108.49	9087.49	9087.49	102.02	275.03	287.32	-1482.18	-424.21	3090.03	2716.87	8.28	
13900.00	9106.10	9085.10	9085.10	104.70	274.96	287.84	-1482.18	-424.21	3189.72	2814.31	8.50	
14000.00	9103.72	9082.72	9082.72	107.39	274.89	288.37	-1482.18	-424.21	3289.43	2911.78	8.71	
14100.00	9101.33	9080.33	9080.33	110.08	274.82	288.89	-1482.18	-424.21	3389.15	3009.29	8.92	
14200.00	9098.94	9077.94	9077.94	112.77	274.74	289.40	-1482.18	-424.21	3488.88	3106.83	9.13	
14300.00	9096.55	9075.55	9075.55	115.47	274.67	289.92	-1482.18	-424.21	3588.63	3204.41	9.34	
14400.00	9094.17	9073.17	9073.17	118.17	274.60	290.43	-1482.18	-424.21	3688.39	3302.01	9.55	
14500.00	9091.78	9070.78	9070.78	120.86	274.53	290.94	-1482.18	-424.21	3788.17	3399.64	9.75	
14600.00	9089.39	9068.39	9068.39	123.57	274.45	291.44	-1482.18	-424.21	3887.95	3497.30	9.95	
14700.00	9087.00	9066.00	9066.00	126.27	274.38	291.94	-1482.18	-424.21	3987.74	3595.00	10.15	
14800.00	9084.62	9063.62	9063.62	128.97	274.31	292.44	-1482.18	-424.21	4087.54	3692.72	10.35	
14900.00	9082.23	9061.23	9061.23	131.68	274.24	292.93	-1482.18	-424.21	4187.35	3790.47	10.55	
14993.38	9080.00	9059.00	9059.00	134.21	274.17	293.39	-1482.18	-424.21	4280.55	3881.77	10.73	

Weatherford Drilling Services

GeoDec v5.03

Report Date:	March 19, 2013
Job Number:	
Customer:	Devon
Well Name:	Aquila 22 Fed Com 4H
API Number:	
Rig Name:	
Location:	Eddy Co., NM
Block:	
Engineer:	RWJ

US State Plane 1983	Geodetic Latitude / Longitude
System: New Mexico Eastern Zone	System: Latitude / Longitude
Projection: Transverse Mercator/Gauss Kruger	Projection: Geodetic Latitude and Longitude
Datum: North American Datum 1983	Datum: North American Datum 1983
Ellipsoid: GRS 1980	Ellipsoid: GRS 1980
North/South 598570.700 USFT	Latitude 32.6445856 DEG
East/West 690334.850 USFT	Longitude -103.8492635 DEG
Grid Convergence: .26°	
Total Correction: +7.44°	

Geodetic Location WGS84	Elevation = 0.0 Meters	
Latitude =	32.64459° N	32° 38 min 40.508 sec
Longitude =	103.84926° W	103° 50 min 57.349 sec

Magnetic Declination =	7.70°	[True North Offset]	
Local Gravity =	.9988 g	CheckSum =	6618
Local Field Strength =	48730 nT	Magnetic Vector X =	23807 nT
Magnetic Dip =	60.46°	Magnetic Vector Y =	3218 nT
Magnetic Model =	bggm2012	Magnetic Vector Z =	42397 nT
Spud Date =	Sep 15, 2012	Magnetic Vector H =	24023 nT

Signed:_____ Date:_____

Weatherford
WFT Plan Report - X & Y's

Company: Devon Energy — Date: 5/14/2013
Time: 15:51:48 Page: 1
Field: Eddy Co., NM (NAD 83) — Co-ordinate(NE)
Reference: Well: Aquila 22 Fed Com 4H, Grid North
Site: Aquila 22 Fed Com 4H — Vertical (TVD)
Reference: SITE 3561.0
Well: Aquila 22 Fed Com 4H — Section (VS)
Reference: Well (0.00N,0.00E,252.22Azi)
Wellpath: 1 — Survey Calculation
Method: Minimum Curvature Db: Sybase

Plan: Plan #2 — Date Composed:
3/19/2013
Version:
1
Principal: Yes — Tied-to:
From Surface

Field: Eddy Co., NM (NAD 83)

Map System:US State Plane Coordinate System 1983 — Map Zone:
New Mexico, Eastern Zone
Geo Datum: GRS 1980 — Coordinate System:
Well Centre
Sys Datum: Mean Sea Level — Geomagnetic Model:
IGRF2010

Site: Aquila 22 Fed Com 4H

Site Position: Northing: 598570.70 ft — Latitude:
32 38 40.497 N
From: Map Easting: 690334.85 ft — Longitude:
103 50 57.365 W
Position Uncertainty: 0.00 ft — North Reference:
Grid
Ground Level: 3541.00 ft — Grid Convergence:
0.26 deg

Well: Aquila 22 Fed Com 4H — Slot Name:

Well Position: +N/-S 0.00 ft Northing: 598570.70 ft — Latitude:
32 38 40.497 N
+E/-W 0.00 ft Easting : 690334.85 ft — Longitude:
103 50 57.365 W
Position Uncertainty: 0.00 ft

Wellpath: 1 — Drilled From:
Surface
Tie-on Depth:
0.00 ft
Current Datum: SITE Height 3561.00 ft — Above System
Datum: Mean Sea Level
Magnetic Data: 9/15/2013 — Declination:

7.47 deg
Field Strength: 48639 nT Mag Dip Angle:
60.47 deg
Vertical Section: Depth From (TVD) +N/-S +E/-W
Direction
ft ft ft
deg
0.00 0.00 0.00
252.22

Plan Section Information

MD	Incl	Azim	TVD	+N/-S	+E/-W	DLS	Build	Turn	TFO	Target
ft	deg	deg	ft	ft	ft	deg/100ft	deg/100ft	deg/100ft	deg	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
8745.75	0.00	0.00	8745.75	0.00	0.00	0.00	0.00	0.00	0.00	
9507.17	91.37	158.00	9223.08	-453.28	183.14	12.00	12.00	0.00	158.00	
10591.53	91.37	266.48	9185.09	-1238.91	-312.38	10.00	0.00	10.00	88.10	
14993.38	91.37	266.48	9080.00	-1508.99	-4704.68	0.00	0.00	0.00	0.00	PBHL

Survey

MD	Incl	Azim	TVD	N/S	E/W	VS	DLS	MapN	MapE	Comment
ft	deg	deg	ft	ft	ft	ft	deg/100ft	ft	ft	
8700.00	0.00	0.00	8700.00	0.00	0.00	0.00	0.00	598570.70	690334.85	
8745.75	0.00	0.00	8745.75	0.00	0.00	0.00	0.00	598570.70	690334.85	KOP
8800.00	6.51	158.00	8799.88	-2.85	1.15	-0.23	12.00	598567.85	690336.00	
8900.00	18.51	158.00	8897.33	-22.90	9.25	-1.82	12.00	598547.80	690344.10	
9000.00	30.51	158.00	8988.15	-61.30	24.77	-4.86	12.00	598509.40	690359.62	
9100.00	42.51	158.00	9068.38	-116.36	47.01	-9.23	12.00	598454.34	690381.86	
9200.00	54.51	158.00	9134.51	-185.68	75.02	-14.74	12.00	598385.02	690409.87	
9279.83	64.09	158.00	9175.22	-249.26	100.71	-19.78	12.00	598321.44	690435.56	LP Tgt
9300.00	66.51	158.00	9183.65	-266.24	107.57	-21.13	12.00	598304.46	690442.42	
9400.00	78.51	158.00	9213.65	-354.51	143.23	-28.14	12.00	598216.19	690478.08	
9500.00	90.51	158.00	9223.20	-446.64	180.45	-35.45	12.00	598124.06	690515.30	
9507.17	91.37	158.00	9223.08	-453.28	183.14	-35.97	12.00	598117.42	690517.99	LP/Trun
9600.00	91.66	167.28	9220.62	-541.76	210.80	-35.29	10.00	598028.94	690545.65	
9700.00	91.92	177.28	9217.49	-640.68	224.20	-17.85	10.00	597930.02	690559.05	

9800.00	92.12	187.29	9213.95	-740.41	220.22	16.39	10.00
597830.29		690555.07					
9900.00	92.26	197.29	9210.11	-837.92	198.98	66.40	10.00
597732.78		690533.83					
10000.00	92.33	207.30	9206.09	-930.25	161.11	130.65	10.00
597640.45		690495.96					
10100.00	92.33	217.31	9202.01	-1014.59	107.78	207.19	10.00
597556.11		690442.63					
10200.00	92.26	227.32	9198.00	-1088.39	40.60	293.69	10.00
597482.31		690375.45					
10300.00	92.12	237.32	9194.16	-1149.39	-38.39	387.53	10.00
597421.31		690296.46					
10400.00	91.92	247.33	9190.63	-1195.74	-126.78	485.86	10.00
597374.96		690208.07					
10500.00	91.65	257.33	9187.51	-1226.04	-221.89	585.68	10.00
597344.66		690112.96					
10591.53	91.37	266.48	9185.09	-1238.91	-312.38	675.78	10.00
597331.79		690022.47	Hold				
10600.00	91.37	266.48	9184.89	-1239.43	-320.84	683.99	0.00
597331.27		690014.01					
10700.00	91.37	266.48	9182.50	-1245.57	-420.62	780.88	0.00
597325.13		689914.23					
10800.00	91.37	266.48	9180.12	-1251.70	-520.40	877.77	0.00
597319.00		689814.45					
10900.00	91.37	266.48	9177.73	-1257.84	-620.18	974.66	0.00
597312.86		689714.67					
11000.00	91.37	266.48	9175.34	-1263.97	-719.97	1071.55	0.00
597306.73		689614.88					
11100.00	91.37	266.48	9172.95	-1270.11	-819.75	1168.44	0.00
597300.59		689515.10					
11200.00	91.37	266.48	9170.57	-1276.25	-919.53	1265.33	0.00
597294.45		689415.32					
11300.00	91.37	266.48	9168.18	-1282.38	-1019.32	1362.22	0.00
597288.32		689315.53					
11400.00	91.37	266.48	9165.79	-1288.52	-1119.10	1459.11	0.00
597282.18		689215.75					
11500.00	91.37	266.48	9163.40	-1294.65	-1218.88	1556.00	0.00
597276.05		689115.97					
11600.00	91.37	266.48	9161.02	-1300.79	-1318.67	1652.89	0.00
597269.91		689016.18					
11700.00	91.37	266.48	9158.63	-1306.92	-1418.45	1749.78	0.00
597263.78		688916.40					
11800.00	91.37	266.48	9156.24	-1313.06	-1518.23	1846.67	0.00
597257.64		688816.62					
11900.00	91.37	266.48	9153.85	-1319.19	-1618.01	1943.56	0.00
597251.51		688716.84					
12000.00	91.37	266.48	9151.47	-1325.33	-1717.80	2040.46	0.00
597245.37		688617.05					
12100.00	91.37	266.48	9149.08	-1331.47	-1817.58	2137.35	0.00
597239.23		688517.27					
12200.00	91.37	266.48	9146.69	-1337.60	-1917.36	2234.24	0.00
597233.10		688417.49					
12300.00	91.37	266.48	9144.30	-1343.74	-2017.15	2331.13	0.00
597226.96		688317.70					
12400.00	91.37	266.48	9141.92	-1349.87	-2116.93	2428.02	0.00
597220.83		688217.92					
12500.00	91.37	266.48	9139.53	-1356.01	-2216.71	2524.91	0.00

597214.69	688118.14						
12600.00	91.37	266.48	9137.14	-1362.14	-2316.50	2621.80	0.00
597208.56	688018.35						
12700.00	91.37	266.48	9134.75	-1368.28	-2416.28	2718.69	0.00
597202.42	687918.57						
12800.00	91.37	266.48	9132.37	-1374.41	-2516.06	2815.58	0.00
597196.29	687818.79						
12900.00	91.37	266.48	9129.98	-1380.55	-2615.85	2912.47	0.00
597190.15	687719.00						
13000.00	91.37	266.48	9127.59	-1386.69	-2715.63	3009.36	0.00
597184.01	687619.22						
13100.00	91.37	266.48	9125.20	-1392.82	-2815.41	3106.25	0.00
597177.88	687519.44						
13200.00	91.37	266.48	9122.82	-1398.96	-2915.19	3203.14	0.00
597171.74	687419.66						
13300.00	91.37	266.48	9120.43	-1405.09	-3014.98	3300.03	0.00
597165.61	687319.87						
13400.00	91.37	266.48	9118.04	-1411.23	-3114.76	3396.92	0.00
597159.47	687220.09						
13500.00	91.37	266.48	9115.65	-1417.36	-3214.54	3493.81	0.00
597153.34	687120.31						
13600.00	91.37	266.48	9113.27	-1423.50	-3314.33	3590.70	0.00
597147.20	687020.52						
13700.00	91.37	266.48	9110.88	-1429.63	-3414.11	3687.60	0.00
597141.07	686920.74						
13800.00	91.37	266.48	9108.49	-1435.77	-3513.89	3784.49	0.00
597134.93	686820.96						
13900.00	91.37	266.48	9106.10	-1441.91	-3613.68	3881.38	0.00
597128.79	686721.17						
14000.00	91.37	266.48	9103.72	-1448.04	-3713.46	3978.27	0.00
597122.66	686621.39						
14100.00	91.37	266.48	9101.33	-1454.18	-3813.24	4075.16	0.00
597116.52	686521.61						
14200.00	91.37	266.48	9098.94	-1460.31	-3913.02	4172.05	0.00
597110.39	686421.83						
14300.00	91.37	266.48	9096.55	-1466.45	-4012.81	4268.94	0.00
597104.25	686322.04						
14400.00	91.37	266.48	9094.17	-1472.58	-4112.59	4365.83	0.00
597098.12	686222.26						
14500.00	91.37	266.48	9091.78	-1478.72	-4212.37	4462.72	0.00
597091.98	686122.48						
14600.00	91.37	266.48	9089.39	-1484.85	-4312.16	4559.61	0.00
597085.85	686022.69						
14700.00	91.37	266.48	9087.00	-1490.99	-4411.94	4656.50	0.00
597079.71	685922.91						
14800.00	91.37	266.48	9084.62	-1497.13	-4511.72	4753.39	0.00
597073.57	685823.13						
14900.00	91.37	266.48	9082.23	-1503.26	-4611.51	4850.28	0.00
597067.44	685723.34						
14993.38	91.37	266.48	9080.00	-1508.99	-4704.68	4940.76	0.00
597061.71	685630.17	PBHL					

Weatherford
WFT Plan Report - X & Y's

Company: Devon Energy — Date: 5/14/2013
Time: 15:51:48 Page: 3
Field: Eddy Co., NM (NAD 83) — Co-ordinate(NE)
Reference: Well: Aquila 22 Fed Com 4H, Grid North
Site: Aquila 22 Fed Com 4H — Vertical (TVD)
Reference: SITE 3561.0
Well: Aquila 22 Fed Com 4H — Section (VS)
Reference: Well (0.00N,0.00E,252.22Azi)
Wellpath: 1 — Survey Calculation
Method: Minimum Curvature Db: Sybase

Targets

Map Name	Description	<---- Latitude Deg	Min	Sec	Dip.	<--- Longitude --- Deg	Min	Sec	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft
PBHL	-Rectangle (3972x50)	32	38	25.774	N	103	51	52.466	W	9080.00	-1508.99	-4704.68	597061.71	685630.17
LP Tgt		32	38	28.011	N	103	51	6.093	W	9175.22	-1265.20	-740.57	597305.50	689594.28

Casing Points

MD	TVD	Diameter	Hole Size	Name

Annotation

MD ft	TVD ft	
8745.75	8745.75	KOP
9507.17	9223.08	LP/Trun
10591.53	9185.09	Hold
14993.37	9080.00	PBHL

Formations

MD	TVD	Formations	Lithology	Dip Angle	Dip Direction

CONDITIONS OF APPROVAL

Sundry Dated 07/04/2013

OPERATOR'S NAME:	DEVON ENERGY
LEASE NO.:	NM92767
WELL NAME & NO.:	4H-AQUILA 22 FED COM 3001541159
SURFACE HOLE FOOTAGE:	2140' FNL & 0225' FEL
BOTTOM HOLE FOOTAGE	0660' FSL & 0340' FWL.
LOCATION:	Section 22, T. 19 S., R. 31 E., NMPM
COUNTY:	Eddy County, New Mexico

Original COAs and previous Sundries still apply with the following changes:
(New directional drilling plan submitted and accepted as record)

A. CASING

Wait on cement (WOC) time prior to drilling out for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. DURING THIS WOC TIME, NO DRILL PIPE, ETC. SHALL BE RUN IN THE HOLE. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

If either DV tool cannot be set as proposed, operator shall submit a sundry requesting to move the tool and providing cement volumes.

1. The minimum required fill of cement behind the **7** inch casing is:

   a. First stage to DV tool @ 5,000 feet:

   ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator shall have plans as to how they will achieve circulation on the next stage. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**

   b. Second stage above DV tool @ 5000 feet to 3,100 feet:

   ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with third stage cement job. Operator shall have plans as to how they will achieve circulation on the next stage. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**

c. Third stage above DV tool and ECP: @ 3,100 feet:

☒ Cement to surface. If cement does not circulate to surface contact the appropriate BLM office.

Operator will be required to run a CBL on the 7 inch casing from TD to surface. There shall be two runs, one under zero pressure and the second under 1000 psi. The CBL shall be submitted to the BLM along with the service company cement report for evaluation.

Centralizers required on horizontal leg, must be type for horizontal service and a minimum of one every other joint.

2. The minimum required fill of cement behind the **4-1/2** inch production **liner** is:

☒ Cement as proposed. Operator shall provide method of verification.

For liners, a minimum of 100 feet of overlap between a string of casing and the next larger casing is required. The interval of overlap shall be sealed and tested. The liner shall be tested by a fluid entry or pressure test to determine whether a seal between the liner top and next larger string has been achieved. The test pressure shall be the maximum anticipated pressure to which the seal will be exposed. No test shall be required for liners that do not incorporate or need a seal mechanism.

3. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. Variance approved to use flex line from BOP to choke manifold. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. **Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review**. If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via

picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8** inch intermediate casing shoe shall be **3000 (3M)** psi.

4. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

    b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (18 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

    c. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock.

    d. The results of the test shall be reported to the appropriate BLM office.

    e. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**

    f. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

C. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

EGF 070413