

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

David Martin
Cabinet Secretary-Designate

Brett F. Woods, Ph.D.
Deputy Cabinet Secretary



New Mexico Oil Conservation Division approval and conditions listed below are made in accordance with OCD Rule 19.15.7.11 and are in addition to the actions approved by BLM on the following 3160-3 APD form.

Operator Signature Date: 10-16-14

Well information;

Operator Burlington, Well Name and Number Allison Unit H2FC #123H

API# 30-045-35611, Section 9, Township 32 NS, Range 7 EW

Conditions of Approval:

(See the below checked and handwritten conditions)

- ☒ Notify Aztec OCD 24hrs prior to casing & cement.
- ☒ Hold C-104 for directional survey & "As Drilled" Plat
- ☒ Hold C-104 for NSL, NSP, DHC
- ☐ Spacing rule violation. Operator must follow up with change of status notification on other well to be shut in or abandoned
- ☐ Regarding the use of a pit, closed loop system or below grade tank, the operator must comply with the following as applicable:
 - A pit requires a complete C-144 be submitted and approved prior to the construction or use of the pit, pursuant to 19.15.17.8.A
 - A closed loop system requires notification prior to use, pursuant to 19.15.17.9.A
 - A below grade tank requires a registration be filed prior to the construction or use of the below grade tank, pursuant to 19.15.17.8.C
- ☐ Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
- ☒ Regarding Hydraulic Fracturing, review EPA Underground Injection Control Guidance 84
- ☒ Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.
- ☒ Well-bore communication is regulated under 19.15.29 NMAC. This requires well-bore Communication to be reported in accordance with 19.15.29.8.

NMOCD Approved by Signature

12-4-2014
Date xc

March 2012)

OIL COM. DIV. DIST. 3

NOV 19 2014

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 20141a. Type of Work ☒ DRILL ☐ RE-ENTERb. Type of Well: ☐ Oil Well ☒ Gas Well

Other: _____

OCT 16 2014

2. Name of Operator

Burlington Resources Oil & Gas Company

3. Address:

PO Box 4289, Farmington, NM 87499

3a. Phone No. (include area code)

(505) 326-9700

4. Location of Well (Report location clearly and in accordance with Federal requirements)*

At surface Unit I (NESE), 1591' FSL & 776' FEL

Latitude 36.994746 (NAD 83)

Longitude 107.565681 (NAD 83)

At BHL Unit E (SWNW), 660' FNL & 660' FWL

Latitude 36.998217 (NAD 83)

Longitude 107.542362 (NAD 83)

5. Lease Serial

SF-078459-B

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.

Allison Unit

NMNM-78372C

8. Lease Name and Well No.

Allison Unit HZFC 123H

9. API Well No.

30-045-35611

10. Field and Pool or Exploratory

Basin FC

11. Sec., T., R., M., on Block and Survey or Area

Suf: Sec. 9, T32N, R7W

BHL: Sec. 11, T32N, R7W

12. County or Parish

San Juan

13. State

New Mexico

14. Distance in miles from Nearest Town

15.7 miles from Ignacio

15. Distance from Proposed Location to

Nearest Property or Lease Line: 660'

16. Acres in Lease

1,874.32 1978.50

17. Acres Assigned to Well:

812.64 Acres - FC

18. Distance from Proposed Location to Nearest Well,
Drlg, Compl, or Applied for on this lease

71' from Allison Unit 26

19. Proposed Depth

3253' VD

9769' MD

20. Rotary or Cable Tools

Rotary

21. Elevations (DF, FT, GR, Etc.)

6629'

22. Approx. Date Work will Start

23. Proposed Casing and Cementing Program

See Operations Plan attached

24. Authorized by:

Arleen White

Arleen White

(Staff Regulatory Tech)

10/16/14

Date

PERMIT NO.

APPROVAL DATE

APPROVED BY:

D. Manley

TITLE

AFM

DATE

11/17/14

Archaeological Report attached

Threatened and Endangered Species Report attached

NOTE: This format is issued in lieu of U.S. BLM Form 3160-3

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

A gas recovery unit may or may not be used on this location.

Example Master Plan Type 3

Bond Numbers NMB-000015 and NMB-000089

BLM'S APPROVAL OR ACCEPTANCE OF THIS
ACTION DOES NOT RELIEVE THE LESSEE AND
OPERATOR FROM OBTAINING ANY OTHER
AUTHORIZATION REQUIRED FOR OPERATIONS
ON FEDERAL AND INDIAN LANDS

NMOCDA

DRILLING OPERATIONS AUTHORIZED
ARE SUBJECT TO COMPLIANCE WITH
ATTACHED "GENERAL REQUIREMENTS"This action is subject to
technical and procedural review
pursuant to 43 CFR 3165.3 and
appeal pursuant to 43 CFR 3165.4

pc

DISTRICT I-
1625 N. French Dr., Hobbs, N.M. 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

DISTRICT II
811 S. First St., Artesia, N.M. 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

DISTRICT III
1000 El Brazos Rd., Aztec, N.M. 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3480 Fax: (505) 476-3482

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION OIL CONS. DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
The copy to appropriate
District Office

DEC 03 2014

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-35611	² Pool Code 71629	³ Pool Name BASIN FRUITLAND COAL LATERAL <u>A1</u>
⁴ Property Code <u>313977</u>	⁵ Property Name ALLISON UNIT HZFC	⁶ Well Number 123H
⁷ GRID No. 14538	⁸ Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY LP	⁹ Elevation 6629'

¹⁰ Surface Location

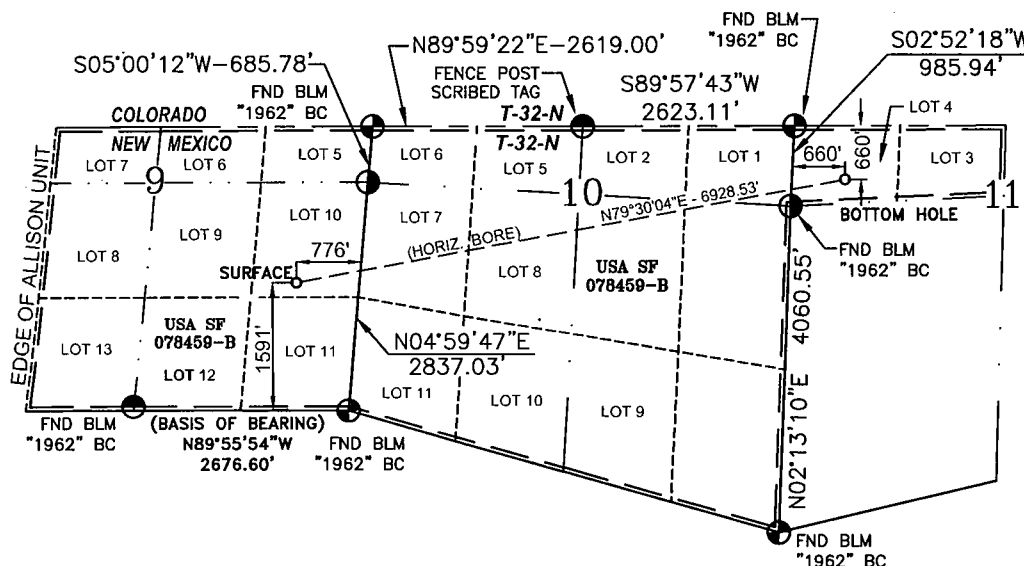
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	9	32-N	7-W	<u>10</u>	1591	SOUTH	776	EAST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	11	32-N	7-W	<u>54</u>	660	NORTH	660	WEST	SAN JUAN
¹² Dedicated Acres FC=812.64 ACRES			¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ Order No. NSP 1886, R-9129, R-13499, R-899B		

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

18



SURFACE
LATITUDE: 36°59.6845' N
LONGITUDE: 107°33.9043' W
NAD27

LATITUDE: 36.994746° N
LONGITUDE: 107.565681° W
NAD83

BASIS OF BEARING:

BETWEEN FOUND MONUMENTS AT THE SOUTHEAST CORNER AND THE SOUTH
QUARTER CORNER OF SECTION 9, TOWNSHIP 32 NORTH, RANGE 7 WEST,
N.M.P.M. SAN JUAN COUNTY, NEW MEXICO.

LINE BEARS: N 89°55'54" W A DISTANCE OF 2676.60 FEET AS MEASURED BY
G.P.S. LOCAL GRID NAD83.

BOTTOM HOLE
LATITUDE: 36°59.8927' N
LONGITUDE: 107°32.5053' W
NAD27

LATITUDE: 36.998217° N
LONGITUDE: 107.542362° W
NAD83

17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein
is true and complete to the best of my knowledge and
belief, and that this organization either owns
a working interest or unleased mineral interest in the
land including the proposed bottom hole location or
has a right to drill this well at this location pursuant
to a contract with an owner of such a mineral or
a working interest, or to a voluntary pooling agreement
or a compulsory pooling order heretofore entered by the
division.

Arleen White 12/01/14
Signature Date

Arleen White

Printed Name

arleen.r.white@conocophillips.com

E-mail Address

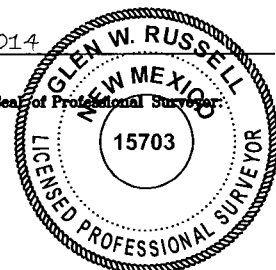
18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat
was plotted from field notes of actual surveys made by
me or under my supervision, and that the same is true
and correct to the best of my belief.

APRIL 9, 2014

Date of Survey

Signature and Seal of Professional Surveyor



GLEN W. RUSSELL

Certificate Number

15703

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

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Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

DEC 03 2014

☐ AMENDED REPORT

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⁷ GRID No. 14538	⁸ Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY LP	⁹ Elevation 6629'

¹⁰ Surface Location

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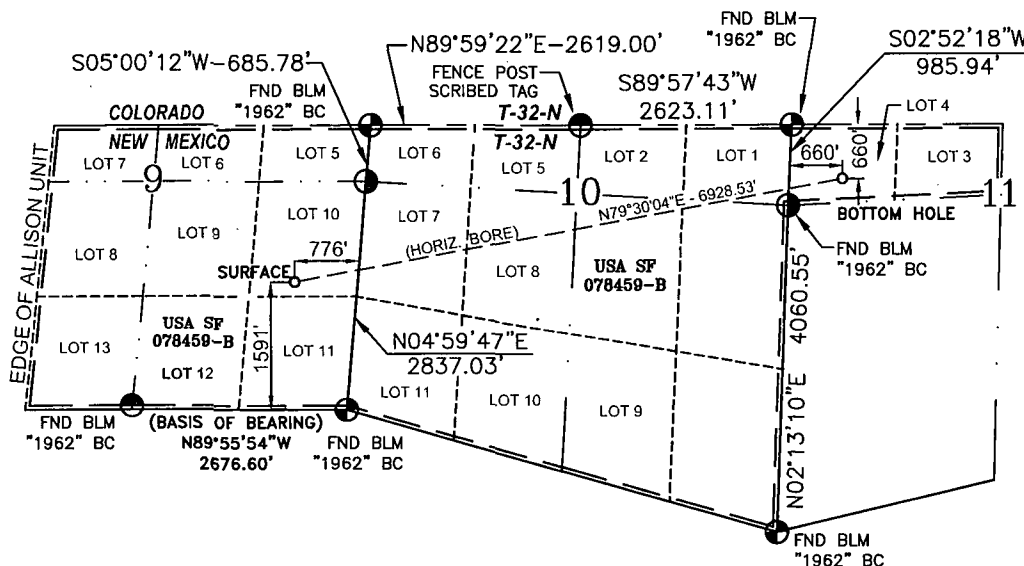
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	11	32-N	7-W	84	660	NORTH	660	WEST	SAN JUAN

¹² Dedicated Acres FC=812.64 ACRES	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. NSP 1886, R-9129, R-13499, R-899B
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is true and complete to the best of my knowledge and
belief, and that this organization either owns
a working interest or unleased mineral interest in the
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has a right to drill this well at this location pursuant
to a contract with an owner of such a mineral or
a working interest, or to a voluntary pooling agreement
or a compulsory pooling order heretofore entered by the
division.

Arleen White 12/01/14
Signature Date
Arleen White
Printed Name
arleen.r.white@conocophillips.com
E-mail Address

18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat
was plotted from field notes of actual surveys made by
me or under my supervision, and that the same is true
and correct to the best of my belief.

APRIL 9, 2014

Date of Survey

Signature and Seal of Professional Surveyor



GLEN W. RUSSELL
Certificate Number

15703

Allison Unit HZFC 123H

Section 9

Lot #	Acres
5	20.64
6	20.65
7	20.67
8	42.82
9	42.84
10	42.88
11	43.18
12	43.14
13	43.12
	<u>319.94</u>

Section 10

Lot/QTR	Acres
1	19.43
2	19.40
5	24.08
6	21.80
7	45.62
8	50.26
9	55.67
10	51.03
11	46.40
N2 SE/4	80.00
SESE	<u>40.00</u>
	453.69

Setion 11

Lot #	Acres
3	19.54
4	<u>19.47</u>
	39.01

Totals

Section 9	319.94
Section 10	453.69
Section 11	<u>39.01</u>
	812.64

Total Acres dedicated to well

Plan to drill Two Horizontal Laterals in the Fruitland Coal

Burlington Resources Oil & Gas Company LP, a subsidiary of ConocoPhillips proposes to drill and complete the referenced horizontal wells targeting two coal seams with in the Fruitland formation. The first horizontal lateral (Lateral A) will be drilled to the entry point into the lower coal seam and cased with new 7" CSG. Will set a whip stock to mill a window out of the 7" CSG at approximately 3,253' MD/3,100' TVD to drill and complete the second lateral (Lateral B) in the second upper coal seam.

Technical Plan**1. Location**

Allison Unit HZFC #123H

SHL: 1591' FSL, 776' FEL -- T 32N, R 07W, Sec 9

Lateral A/B BHL: 660' FNL, 660' FEL -- T 32N, R 07W, Sec 11

GL: 6,629'

2. Geological Markers

Anticipated formation tops with comments of any possible water, gas, or oil shows are indicated below:

Formation	Depth (TVD)	Remarks
Nacimiento	874'	
Ojo Alamo	2147'	
Kirtland	2278'	
Fruitland	2864'	Gas
Lateral B Coal	3149'	Gas
Lateral A Coal	3261'	Gas

See attached directional plan for anticipated formation tops in measure depth.

3. Pressure Control Equipment

See Attached BOPE & Choke Manifold Schematic for a diagram of pressure control equipment.

- BOPE will be nipped up on top of wellhead after surface casing is set and cemented.
- Pressure control configuration will be designed to meet the minimum 2M standards.
- All equipment will have 3M pressure ratings.
- A rotating head will be rigged up on top of annular as seen in attached diagram.

4. Casing & Cement Program

A) The existing and proposed casing program is outlined below:

Proposed Casing				
Casing	Hole Size	Casing Size	Weight/Grade	Set Depth TVD/MD
Surface	12-1/4"	9-5/8"	32.3#, H-40, STC, existing	500' TVD/MD
Intermediate	8-3/4"	7"	23#, J-55, LTC, existing	3,253' TVD / 3,798' MD
Lateral A, Lower Production Liner (pre-perforated)	6-1/4"	4-1/2"	11.6#, J-55/L-80, BTC, New	3,253' TVD / 9,769' MD
Lateral B, Upper Production Liner (pre-perforated)	6-1/4"	4-1/2"	11.6#, J-55/L-80, BTC, New	3,149' TVD / 9,749' MD

Lateral A 4-1/2" pre-perforated production liner will be landed back into the 7" intermediate casing string at a minimum of 100' overlap by means of liner hanger with a pack-off element.

Lateral B 4-1/2" pre-perforated production liner will be landed back into the 7" casing with a hook wall hanger at the window and a pack-off element set below the hook wall hanger in the open hole.

If the 6-1/4" hole is not drilled to total MD, the production liner setting depth and length will be adjusted accordingly.

B) The proposed cement program:

Cement Program				Planned Cement Top
Interval	Depth (MD)	Volume	Slurry	
Surface	500'	253 ft ³	Lead Cmt: Type III Cmt 0.25% FL-52, 0.25 pps celloflake 1.25 ft ³ /sk -- 5.75 gal/sk 15.2 ppg	Surface
Intermediate	3,798'	841 ft ³	Lead Cmt: Premium Lite 3% CaCl, 0.25 pps celloflake, 5 ppm LCM-1, 0.4% FL-52, 8% Bentonite, 0.4% SMS 2.13 ft ³ /sk -- 11.29 gal/sk 12.1 ppg Tail Cmt: Type III 1% CaCl, 0.25 pps celloflake, 0.2% FL-52 1.38 ft ³ /sk -- 6.64 gal/sk 14.6 ppg	Surface
Production	9,769'	N/A	N/A – Open hole with pre-perforated liner.	N/A

C) The proposed centralizer program is shown below:

Centralizer Program	
Interval	Centralizers
Surface	1 per joint on bottom 3 joints
Intermediate	10' above shoe jnt w/ collar clamp On top of 2 nd , 4 th , 6 th , 8 th , 10 th jnts 1 every 4 th jnt (at min) to Ojo Alamo 1 Turbolizer at base of Ojo Alamo 1 every joint thru Ojo Alamo 1 Turbolizer will be placed mid-way into Ojo Alamo 1 every 4 th jnt from top of Ojo Alamo up to surface shoe 1 inside surface casing
Production	N/A

5. Drilling Fluids

A) The proposed drilling fluid program is outlined below:

Mud Program			
Interval	Mud Type	Weight (ppg)	Fluid Loss (cc)
Production	Water Based LSND Brine (if needed)*	8.5 – 10	4 – 14

*In the Production hole, Brine will be utilized only if a weighting agent is needed to raise MW (for either well control or wellbore stability purposes).

LCM may be added to the mud system if hole conditions indicate.

B) If brine is utilized, any cuttings drilled with brine will be hauled off to an approved disposal site.

6. Abnormal Pressures & Hazards

- No over-pressured intervals expected.
- Estimated Reservoir Pressure = 1,500 psi.
- Maximum Anticipated Surface Pressure = 1,300 psi
- No hydrogen sulfide gas is expected based off nearby well production.

7. Testing, Logging, Coring

- Mud Logs: Mud loggers will be rigged up from KOP to production hole TD.
- MWD: Directional tools from KOP to production hole TD.
- LWD: Gamma Ray utilized in production hole for well placement.
- Logs: No planned open hole logs (other than the previously identified LWD logs) will be ran.

8. Directional Plan

The planned wellbore directional plan and plot are attached.

The planned directional plan is built off geological targets from offset wells. The production hole will be landed and drilled within target formation horizontally utilizing LWD equipment to help steer the wellbore. On site adjustments will be made to the directional plan as formation and hole indicates.

REFERENCE INFORMATION

WELL @ 6644.0usft (Original Well)
Ground Elevation 6629.0
Reference Lat: 36° 59' 41.070 N
Reference Long: 107° 33' 54.258 W

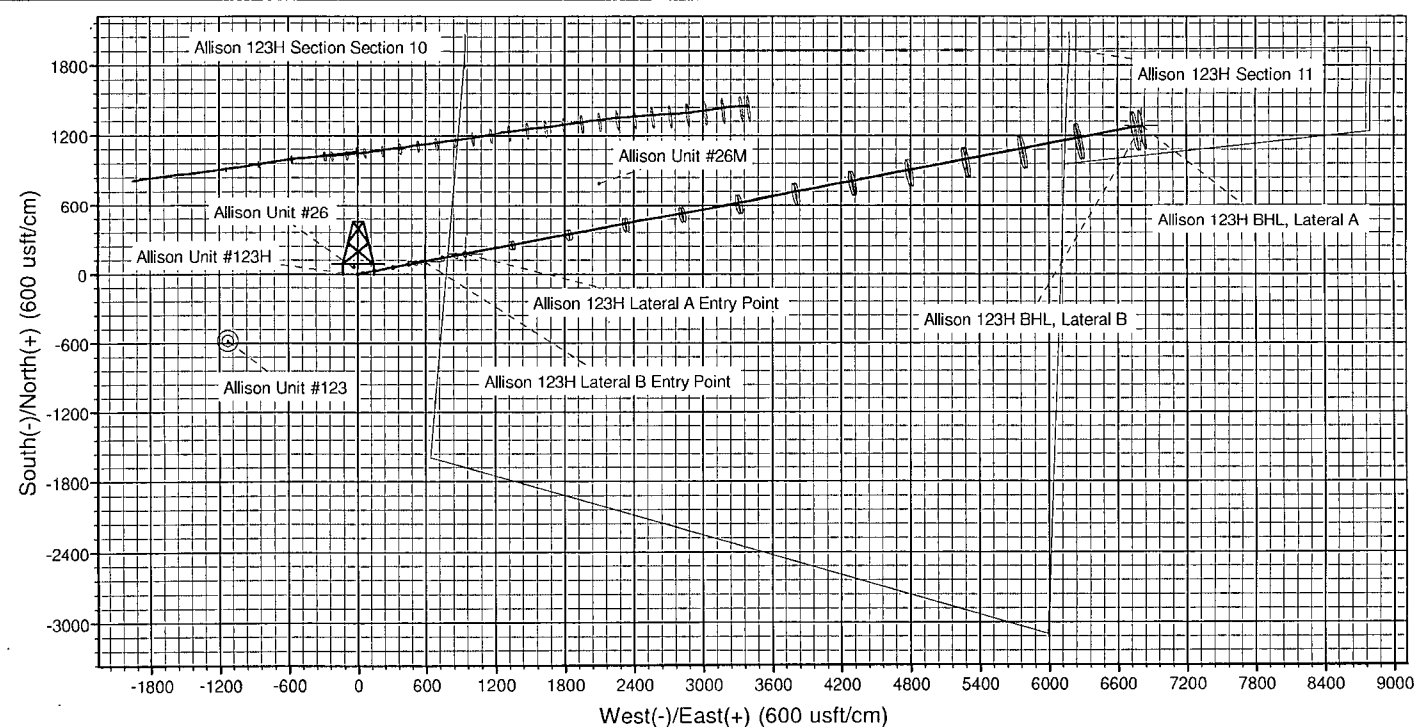
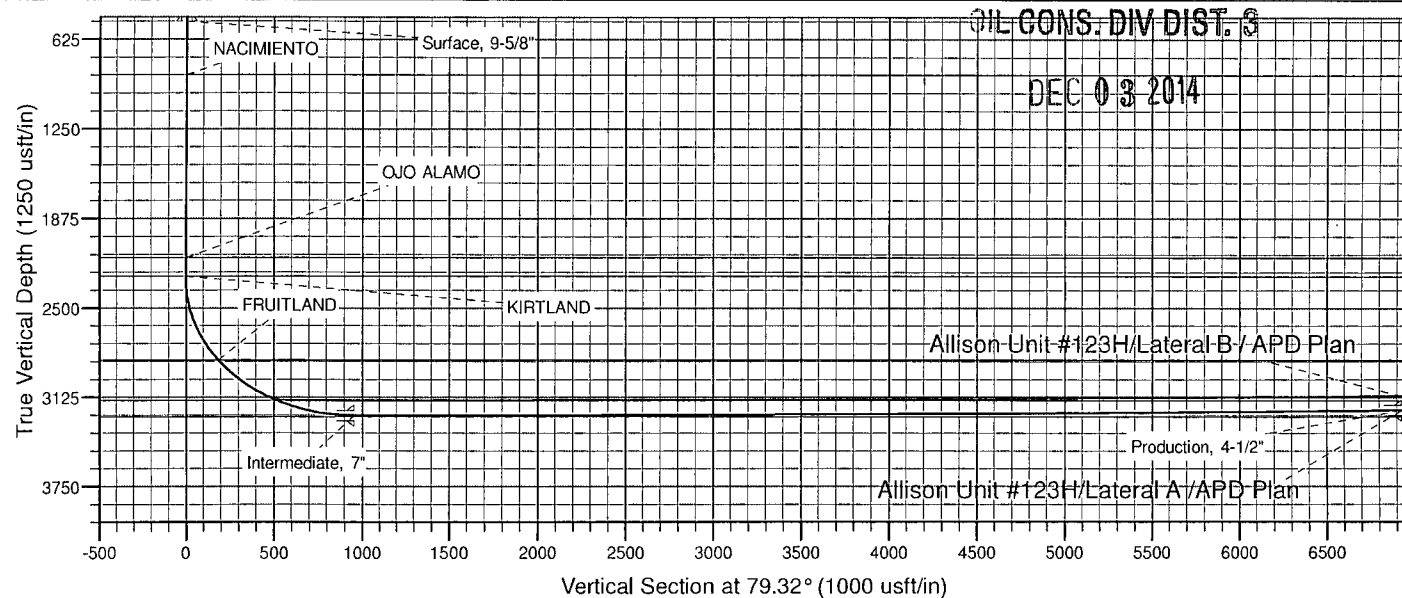
Well: Allison Unit #123H

Design: Lateral A and Lateral B APD Plot



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	2298.1	0.00	0.00	2298.1	0.0	0.0	0.00	0.00	0.0	
3	3798.1	90.00	79.32	3253.0	177.0	938.4	6.00	79.32	954.9	
4	3798.1	90.00	79.32	3253.0	177.0	938.4	0.00	0.00	954.9	Allison 123H Lateral A Entry Point
5	9769.2	90.69	79.32	3217.0	1283.4	6806.0	0.01	0.51	6925.9	Allison 123H BHL, Lateral A



ConocoPhillips SJB

San Juan Basin - New Mexico West Wells

Allison Unit Wells

Allison Unit #123H

Lateral A

Plan: APD Plan

Standard Planning Report

10 June, 2014

ConocoPhillips
Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well Allison Unit #123H
Company:	ConocoPhillips SJBU	TVD Reference:	WELL @ 6644.0usft (Original Well)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	WELL @ 6644.0usft (Original Well)
Site:	Allison Unit Wells	North Reference:	Grid
Well:	Allison Unit #123H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral A		
Design:	APD Plan		

Project	San Juan Basin - New Mexico West Wells, New Mexico, Directional "S"		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Ground Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico West 3003		Using geodetic scale factor

Site	Allison Unit Wells				
Site Position:		Northing:	2,182,281.84 usft	Latitude:	36° 59' 49.194 N
From:	Lat/Long	Easting:	576,403.52 usft	Longitude:	107° 34' 18.126 W
Position Uncertainty:	15.0 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.16 °

Well	Allison Unit #123H					
Well Position	+N/-S	0.0 usft	Northing:	2,181,465.68 usft	Latitude:	36° 59' 41.070 N
	+E/-W	0.0 usft	Easting:	578,341.97 usft	Longitude:	107° 33' 54.258 W
Position Uncertainty		2.5 usft	Wellhead Elevation:	usft	Ground Level:	6,629.0 usft

Wellbore	Lateral A				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2014	10/2/2013	9.62	63.68	50,610

Design	APD Plan			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	79.32

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,298.1	0.00	0.00	2,298.1	0.0	0.0	0.00	0.00	0.00	0.00	
3,798.1	90.00	79.32	3,253.0	177.0	938.4	6.00	6.00	0.00	79.32	
3,798.1	90.00	79.32	3,253.0	177.0	938.4	0.00	0.00	0.00	0.00	Allison 123H Lateral A
9,769.2	90.69	79.32	3,217.0	1,283.4	6,806.0	0.01	0.01	0.00	0.51	Allison 123H BHL, Lai

ConocoPhillips

Planning Report

Database: EDM Central Planning	Local Co-ordinate Reference: Well Allison Unit #123H
Company: ConocoPhillips SJB	TVD Reference: WELL @ 6644.0usft (Original Well)
Project: San Juan Basin - New Mexico West Wells	MD Reference: WELL @ 6644.0usft (Original Well)
Site: Allison Unit Wells	North Reference: Grid
Well: Allison Unit #123H	Survey Calculation Method: Minimum Curvature
Wellbore: Lateral A	
Design: APD Plan	

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
Surface, 9-5/8"									
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
874.0	0.00	0.00	874.0	0.0	0.0	0.0	0.00	0.00	0.00
NACIMIENTO									
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,147.0	0.00	0.00	2,147.0	0.0	0.0	0.0	0.00	0.00	0.00
OJO ALAMO									
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,278.0	0.00	0.00	2,278.0	0.0	0.0	0.0	0.00	0.00	0.00
KIRTLAND									
2,298.1	0.00	0.00	2,298.1	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.12	79.32	2,300.0	0.0	0.0	0.0	6.00	6.00	0.00
2,350.0	3.12	79.32	2,350.0	0.3	1.4	1.4	6.00	6.00	0.00
2,400.0	6.12	79.32	2,399.8	1.0	5.3	5.4	6.00	6.00	0.00
2,450.0	9.12	79.32	2,449.4	2.2	11.9	12.1	6.00	6.00	0.00
2,500.0	12.12	79.32	2,498.5	3.9	20.9	21.3	6.00	6.00	0.00
2,550.0	15.12	79.32	2,547.1	6.1	32.5	33.0	6.00	6.00	0.00
2,600.0	18.12	79.32	2,595.0	8.8	46.5	47.3	6.00	6.00	0.00
2,650.0	21.12	79.32	2,642.1	11.9	63.0	64.1	6.00	6.00	0.00
2,700.0	24.12	79.32	2,688.2	15.4	81.9	83.3	6.00	6.00	0.00
2,750.0	27.12	79.32	2,733.3	19.5	103.1	105.0	6.00	6.00	0.00
2,800.0	30.12	79.32	2,777.2	23.9	126.7	128.9	6.00	6.00	0.00
2,850.0	33.12	79.32	2,819.8	28.7	152.4	155.1	6.00	6.00	0.00
2,900.0	36.12	79.32	2,860.9	34.0	180.3	183.5	6.00	6.00	0.00
2,903.8	36.34	79.32	2,864.0	34.4	182.5	185.8	6.00	6.00	0.00
FRUITLAND									
2,950.0	39.12	79.32	2,900.5	39.7	210.3	214.0	6.00	6.00	0.00
3,000.0	42.12	79.32	2,938.5	45.7	242.3	246.6	6.00	6.00	0.00
3,050.0	45.12	79.32	2,974.7	52.1	276.2	281.1	6.00	6.00	0.00
3,100.0	48.12	79.32	3,009.0	58.8	311.9	317.4	6.00	6.00	0.00
3,150.0	51.12	79.32	3,041.4	65.9	349.3	355.5	6.00	6.00	0.00
3,200.0	54.12	79.32	3,071.8	73.3	388.4	395.2	6.00	6.00	0.00
3,250.0	57.12	79.32	3,100.0	80.9	428.9	436.5	6.00	6.00	0.00

ConocoPhillips

Planning Report

Database: EDM Central Planning Company: ConocoPhillips SJB Project: San Juan Basin - New Mexico West Wells Site: Allison Unit Wells Well: Allison Unit #123H Wellbore: Lateral A Design: APD Plan	Local Co-ordinate Reference: Well Allison Unit #123H TVD Reference: WELL @ 6644.0usft (Original Well) MD Reference: WELL @ 6644.0usft (Original Well) North Reference: Grid Survey Calculation Method: Minimum Curvature	
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Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,300.0	60.12	79.32	3,126.0	88.8	470.8	479.1	6.00	6.00	0.00
3,348.2	63.01	79.32	3,149.0	96.7	512.5	521.6	6.00	6.00	0.00
BLUE MESA									
3,350.0	63.12	79.32	3,149.8	97.0	514.1	523.1	6.00	6.00	0.00
3,400.0	66.12	79.32	3,171.2	105.3	558.4	568.3	6.00	6.00	0.00
3,450.0	69.12	79.32	3,190.3	113.9	603.9	614.5	6.00	6.00	0.00
3,500.0	72.12	79.32	3,206.9	122.6	650.2	661.7	6.00	6.00	0.00
3,550.0	75.12	79.32	3,221.0	131.5	697.3	709.6	6.00	6.00	0.00
3,600.0	78.12	79.32	3,232.5	140.5	745.1	758.3	6.00	6.00	0.00
3,650.0	81.12	79.32	3,241.5	149.7	793.5	807.5	6.00	6.00	0.00
3,700.0	84.12	79.32	3,248.0	158.9	842.2	857.0	6.00	6.00	0.00
3,750.0	87.12	79.32	3,251.8	168.1	891.2	906.9	6.00	6.00	0.00
3,798.1	90.00	79.32	3,253.0	177.0	938.4	955.0	6.00	6.00	0.00
Intermediate, 7"									
3,800.0	90.00	79.32	3,253.0	177.4	940.3	956.9	0.01	0.01	0.00
3,900.0	90.01	79.32	3,253.0	195.9	1,038.5	1,056.9	0.01	0.01	0.00
4,000.0	90.02	79.32	3,253.0	214.4	1,136.8	1,156.9	0.01	0.01	0.00
4,100.0	90.03	79.32	3,252.9	233.0	1,235.1	1,256.9	0.01	0.01	0.00
4,200.0	90.05	79.32	3,252.8	251.5	1,333.3	1,356.9	0.01	0.01	0.00
4,300.0	90.06	79.32	3,252.7	270.0	1,431.6	1,456.9	0.01	0.01	0.00
4,400.0	90.07	79.32	3,252.6	288.6	1,529.9	1,556.9	0.01	0.01	0.00
4,500.0	90.08	79.32	3,252.5	307.1	1,628.2	1,656.9	0.01	0.01	0.00
4,600.0	90.09	79.32	3,252.4	325.6	1,726.4	1,756.9	0.01	0.01	0.00
4,700.0	90.10	79.32	3,252.2	344.2	1,824.7	1,856.9	0.01	0.01	0.00
4,800.0	90.12	79.32	3,252.0	362.7	1,923.0	1,956.9	0.01	0.01	0.00
4,900.0	90.13	79.32	3,251.8	381.2	2,021.2	2,056.9	0.01	0.01	0.00
5,000.0	90.14	79.32	3,251.5	399.8	2,119.5	2,156.9	0.01	0.01	0.00
5,100.0	90.15	79.32	3,251.3	418.3	2,217.8	2,256.9	0.01	0.01	0.00
5,200.0	90.16	79.32	3,251.0	436.8	2,316.0	2,356.9	0.01	0.01	0.00
5,300.0	90.17	79.32	3,250.7	455.4	2,414.3	2,456.9	0.01	0.01	0.00
5,400.0	90.19	79.32	3,250.4	473.9	2,512.6	2,556.9	0.01	0.01	0.00
5,500.0	90.20	79.32	3,250.1	492.4	2,610.8	2,656.9	0.01	0.01	0.00
5,600.0	90.21	79.32	3,249.7	511.0	2,709.1	2,756.9	0.01	0.01	0.00
5,700.0	90.22	79.32	3,249.3	529.5	2,807.4	2,856.9	0.01	0.01	0.00
5,800.0	90.23	79.32	3,249.0	548.0	2,905.6	2,956.9	0.01	0.01	0.00
5,900.0	90.24	79.32	3,248.5	566.6	3,003.9	3,056.9	0.01	0.01	0.00
6,000.0	90.25	79.32	3,248.1	585.1	3,102.2	3,156.9	0.01	0.01	0.00
6,100.0	90.27	79.32	3,247.6	603.6	3,200.4	3,256.9	0.01	0.01	0.00
6,200.0	90.28	79.32	3,247.2	622.1	3,298.7	3,356.8	0.01	0.01	0.00
6,300.0	90.29	79.32	3,246.7	640.7	3,397.0	3,456.8	0.01	0.01	0.00
6,400.0	90.30	79.32	3,246.2	659.2	3,495.2	3,556.8	0.01	0.01	0.00
6,500.0	90.31	79.32	3,245.6	677.7	3,593.5	3,656.8	0.01	0.01	0.00
6,600.0	90.32	79.32	3,245.1	696.3	3,691.8	3,756.8	0.01	0.01	0.00
6,700.0	90.34	79.32	3,244.5	714.8	3,790.0	3,856.8	0.01	0.01	0.00
6,800.0	90.35	79.32	3,243.9	733.3	3,888.3	3,956.8	0.01	0.01	0.00
6,900.0	90.36	79.32	3,243.3	751.9	3,986.6	4,056.8	0.01	0.01	0.00
7,000.0	90.37	79.32	3,242.6	770.4	4,084.8	4,156.8	0.01	0.01	0.00
7,100.0	90.38	79.32	3,242.0	788.9	4,183.1	4,256.8	0.01	0.01	0.00
7,200.0	90.39	79.32	3,241.3	807.4	4,281.4	4,356.8	0.01	0.01	0.00
7,300.0	90.41	79.32	3,240.6	826.0	4,379.6	4,456.8	0.01	0.01	0.00
7,400.0	90.42	79.32	3,239.9	844.5	4,477.9	4,556.8	0.01	0.01	0.00
7,500.0	90.43	79.32	3,239.2	863.0	4,576.2	4,656.8	0.01	0.01	0.00
7,600.0	90.44	79.32	3,238.4	881.6	4,674.4	4,756.8	0.01	0.01	0.00

ConocoPhillips

Planning Report

Database: EDM Central Planning Company: ConocoPhillips SJB Project: San Juan Basin - New Mexico West Wells Site: Allison Unit Wells Well: Allison Unit #123H Wellbore: Lateral A Design: APD Plan	Local Co-ordinate Reference: Well Allison Unit #123H TVD Reference: WELL @ 6644.0usft (Original Well) MD Reference: WELL @ 6644.0usft (Original Well) North Reference: Grid Survey Calculation Method: Minimum Curvature	
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Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,700.0	90.45	79.32	3,237.6	900.1	4,772.7	4,856.8	0.01	0.01	0.00
7,800.0	90.46	79.32	3,236.8	918.6	4,871.0	4,956.8	0.01	0.01	0.00
7,900.0	90.47	79.32	3,236.0	937.1	4,969.2	5,056.8	0.01	0.01	0.00
8,000.0	90.49	79.32	3,235.2	955.7	5,067.5	5,156.8	0.01	0.01	0.00
8,100.0	90.50	79.32	3,234.3	974.2	5,165.7	5,256.8	0.01	0.01	0.00
8,200.0	90.51	79.32	3,233.4	992.7	5,264.0	5,356.8	0.01	0.01	0.00
8,300.0	90.52	79.32	3,232.5	1,011.2	5,362.3	5,456.8	0.01	0.01	0.00
8,400.0	90.53	79.32	3,231.6	1,029.8	5,460.5	5,556.8	0.01	0.01	0.00
8,500.0	90.54	79.32	3,230.7	1,048.3	5,558.8	5,656.8	0.01	0.01	0.00
8,600.0	90.56	79.32	3,229.7	1,066.8	5,657.1	5,756.8	0.01	0.01	0.00
8,700.0	90.57	79.32	3,228.7	1,085.3	5,755.3	5,856.8	0.01	0.01	0.00
8,800.0	90.58	79.32	3,227.7	1,103.9	5,853.6	5,956.8	0.01	0.01	0.00
8,900.0	90.59	79.32	3,226.7	1,122.4	5,951.9	6,056.8	0.01	0.01	0.00
9,000.0	90.60	79.32	3,225.7	1,140.9	6,050.1	6,156.8	0.01	0.01	0.00
9,100.0	90.61	79.32	3,224.6	1,159.4	6,148.4	6,256.8	0.01	0.01	0.00
9,200.0	90.63	79.32	3,223.5	1,178.0	6,246.7	6,356.8	0.01	0.01	0.00
9,300.0	90.64	79.32	3,222.4	1,196.5	6,344.9	6,456.7	0.01	0.01	0.00
9,400.0	90.65	79.32	3,221.3	1,215.0	6,443.2	6,556.7	0.01	0.01	0.00
9,500.0	90.66	79.32	3,220.2	1,233.5	6,541.4	6,656.7	0.01	0.01	0.00
9,600.0	90.67	79.32	3,219.0	1,252.1	6,639.7	6,756.7	0.01	0.01	0.00
9,700.0	90.68	79.32	3,217.8	1,270.6	6,738.0	6,856.7	0.01	0.01	0.00
9,769.2	90.69	79.32	3,217.0	1,283.4	6,806.0	6,925.9	0.01	0.01	0.00
Production, 4-1/2"									

ConocoPhillips

Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well Allison Unit #123H
Company:	ConocoPhillips SJB	TVD Reference:	WELL @ 6644.0usft (Original Well)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	WELL @ 6644.0usft (Original Well)
Site:	Allison Unit Wells	North Reference:	Grid
Well:	Allison Unit #123H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral A		
Design:	APD Plan		

Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
Allison 123H Section 11	0.00	0.00	0.0	1,939.0	6,177.3	2,183,404.51	584,518.76	37° 0' 0.063 N	107° 32' 38.043 W
- plan misses target center by 3311.1usft at 9308.9usft MD (3222.3 TVD, 1198.1 N, 6353.7 E)									
- Polygon									
Point 1			0.0	0.0	0.0	2,183,404.51	584,518.76		
Point 2			0.0	-984.3	-46.1	2,182,420.28	584,472.67		
Point 3			0.0	-701.8	2,614.2	2,182,702.76	587,132.76		
Point 4			0.0	12.4	2,614.2	2,183,416.91	587,132.76		
Allison 123H Lateral A E	0.00	0.00	3,253.0	177.0	938.4	2,181,642.67	579,280.30	36° 59' 42.794 N	107° 33' 42.685 W
- plan hits target center									
- Point									
Allison 123H Section Se	0.00	0.00	0.0	1,920.3	937.2	2,183,385.86	579,279.08	37° 0' 0.031 N	107° 33' 42.639 W
- plan misses target center by 2136.8usft at 0.0usft MD (0.0 TVD, 0.0 N, 0.0 E)									
- Polygon									
Point 1			0.0	0.0	0.0	2,183,385.86	579,279.08		
Point 2			0.0	-683.2	-57.6	2,182,702.71	579,221.49		
Point 3			0.0	-3,509.3	-300.7	2,179,876.83	578,978.41		
Point 4			0.0	-4,264.0	2,380.0	2,179,122.18	581,658.90		
Point 5			0.0	-5,022.5	5,049.8	2,178,363.74	584,328.50		
Point 6			0.0	-965.6	5,194.0	2,182,420.33	584,472.69		
Point 7			0.0	18.7	5,240.1	2,183,404.56	584,518.78		
Point 8			0.0	8.7	2,618.0	2,183,394.56	581,896.88		
Allison 123H BHL, Later:	0.00	0.00	3,217.0	1,283.4	6,806.0	2,182,748.99	585,147.41	36° 59' 53.562 N	107° 32' 30.318 W
- plan hits target center									
- Point									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
3,798.1	3,253.0	Intermediate, 7"	7	8-3/4	
500.0	500.0	Surface, 9-5/8"	9-5/8	12-1/4	
9,769.2	3,217.0	Production, 4-1/2"	4-1/2	6-1/4	

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,147.0	2,147.0	OJO ALAMO		0.00	
874.0	874.0	NACIMIENTO		0.00	
2,903.8	2,864.0	FRUITLAND		0.00	
2,278.0	2,278.0	KIRTLAND		0.00	
3,348.2	3,149.0	BLUE MESA		0.00	

ConocoPhillips

Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well Allison Unit #123H
Company:	ConocoPhillips SJBU	TVD Reference:	WELL @ 6644.0usft (Original Well)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	WELL @ 6644.0usft (Original Well)
Site:	Allison Unit Wells	North Reference:	Grid
Well:	Allison Unit #123H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral B		
Design:	APD Plan		

Project	San Juan Basin - New Mexico West Wells, New Mexico, Directional "S"		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Ground Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico West 3003		Using geodetic scale factor

Site	Allison Unit Wells		
Site Position:		Northing:	2,182,281.84 usft
From:	Lat/Long	Easting:	576,403.52 usft
Position Uncertainty:	15.0 usft	Slot Radius:	13-3/16"
		Latitude:	36° 59' 49.194 N
		Longitude:	107° 34' 18.126 W
		Grid Convergence:	0.16 °

Well	Allison Unit #123H		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	2.5 usft	Wellhead Elevation:	usft
		Latitude:	36° 59' 41.070 N
		Longitude:	107° 33' 54.258 W
		Ground Level:	6,629.0 usft

Wellbore	Lateral B		
Magnetics	Model Name	Sample Date	Declination
			(°)
	BGGM2014	6/9/2014	9.56
			Dip Angle
			(°)
			63.66
			Field Strength
			(nT)
			50,523

Design	APD Plan		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth:
			3,238.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			(°)
			79.32

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
3,238.0	56.40	79.32	3,093.4	79.0	419.0	0.00	0.00	0.00	0.00	
3,253.8	56.40	79.32	3,102.2	81.5	432.0	0.00	0.00	0.00	0.00	
3,418.2	90.00	79.34	3,149.0	110.2	584.4	20.44	20.44	0.01	0.03	
3,418.2	90.00	79.34	3,149.0	110.2	584.4	0.00	0.00	0.00	0.00	Allison 123H Lateral E
9,749.5	90.60	79.30	3,116.0	1,283.4	6,806.0	0.01	0.01	0.00	-3.15	Allison 123H BHL, Lat

ConocoPhillips

Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well Allison Unit #123H
Company:	ConocoPhillips SJB	TVD Reference:	WELL @ 6644.0usft (Original Well)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	WELL @ 6644.0usft (Original Well)
Site:	Allison Unit Wells	North Reference:	Grid
Well:	Allison Unit #123H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral B		
Design:	APD Plan		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
Surface, 9-5/8"									
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,298.1	0.00	0.00	2,298.1	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.12	79.32	2,300.0	0.0	0.0	0.0	6.00	6.00	0.00
2,350.0	3.12	79.32	2,350.0	0.3	1.4	1.4	6.00	6.00	0.00
2,400.0	6.12	79.32	2,399.8	1.0	5.3	5.4	6.00	6.00	0.00
2,450.0	9.12	79.32	2,449.4	2.2	11.9	12.1	6.00	6.00	0.00
2,500.0	12.12	79.32	2,498.5	3.9	20.9	21.3	6.00	6.00	0.00
2,550.0	15.12	79.32	2,547.1	6.1	32.5	33.0	6.00	6.00	0.00
2,600.0	18.12	79.32	2,595.0	8.8	46.5	47.3	6.00	6.00	0.00
2,650.0	21.12	79.32	2,642.1	11.9	63.0	64.1	6.00	6.00	0.00
2,700.0	24.12	79.32	2,688.2	15.4	81.9	83.3	6.00	6.00	0.00
2,750.0	27.12	79.32	2,733.3	19.5	103.1	105.0	6.00	6.00	0.00
2,800.0	30.12	79.32	2,777.2	23.9	126.7	128.9	6.00	6.00	0.00
2,850.0	33.12	79.32	2,819.8	28.7	152.4	155.1	6.00	6.00	0.00
2,900.0	36.12	79.32	2,860.9	34.0	180.3	183.5	6.00	6.00	0.00
2,950.0	39.12	79.32	2,900.5	39.7	210.3	214.0	6.00	6.00	0.00
3,000.0	42.12	79.32	2,938.5	45.7	242.3	246.6	6.00	6.00	0.00
3,050.0	45.12	79.32	2,974.7	52.1	276.2	281.1	6.00	6.00	0.00
3,100.0	48.12	79.32	3,009.0	58.8	311.9	317.4	6.00	6.00	0.00
3,150.0	51.12	79.32	3,041.4	65.9	349.3	355.5	6.00	6.00	0.00
3,200.0	54.12	79.32	3,071.8	73.3	388.4	395.2	6.00	6.00	0.00
3,238.0	56.40	79.32	3,093.4	79.0	419.0	426.4	6.00	6.00	0.00
3,253.8	56.40	79.32	3,102.2	81.5	432.0	439.6	0.00	0.00	0.00
Intermediate, 7"									
3,275.0	60.73	79.32	3,113.2	84.8	449.7	457.7	20.43	20.43	0.01
3,300.0	65.84	79.32	3,124.4	89.0	471.7	480.0	20.44	20.44	0.01
3,325.0	70.95	79.33	3,133.7	93.3	494.5	503.2	20.44	20.44	0.01
3,350.0	76.06	79.33	3,140.7	97.7	518.1	527.2	20.44	20.44	0.01
3,375.0	81.17	79.33	3,145.7	102.2	542.1	551.7	20.44	20.44	0.01
3,400.0	86.28	79.34	3,148.4	106.8	566.5	576.5	20.44	20.44	0.01

ConocoPhillips

Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well Allison Unit #123H
Company:	ConocoPhillips SJB	TVD Reference:	WELL @ 6644.0usft (Original Well)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	WELL @ 6644.0usft (Original Well)
Site:	Allison Unit Wells	North Reference:	Grid
Well:	Allison Unit #123H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral B		
Design:	APD Plan		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,418.2	90.00	79.34	3,149.0	110.2	584.4	594.7	20.44	20.44	0.01
BLUE MESA									
3,500.0	90.01	79.34	3,149.0	125.3	664.8	676.5	0.01	0.01	0.00
3,600.0	90.02	79.34	3,149.0	143.8	763.1	776.5	0.01	0.01	0.00
3,700.0	90.03	79.34	3,148.9	162.3	861.3	876.5	0.01	0.01	0.00
3,800.0	90.04	79.34	3,148.9	180.9	959.6	976.5	0.01	0.01	0.00
3,900.0	90.05	79.34	3,148.8	199.4	1,057.9	1,076.5	0.01	0.01	0.00
4,000.0	90.05	79.33	3,148.7	217.9	1,156.2	1,176.5	0.01	0.01	0.00
4,100.0	90.06	79.33	3,148.6	236.4	1,254.4	1,276.5	0.01	0.01	0.00
4,200.0	90.07	79.33	3,148.5	254.9	1,352.7	1,376.5	0.01	0.01	0.00
4,300.0	90.08	79.33	3,148.4	273.4	1,451.0	1,476.5	0.01	0.01	0.00
4,400.0	90.09	79.33	3,148.2	291.9	1,549.3	1,576.5	0.01	0.01	0.00
4,500.0	90.10	79.33	3,148.0	310.4	1,647.5	1,676.5	0.01	0.01	0.00
4,600.0	90.11	79.33	3,147.9	328.9	1,745.8	1,776.5	0.01	0.01	0.00
4,700.0	90.12	79.33	3,147.6	347.4	1,844.1	1,876.5	0.01	0.01	0.00
4,800.0	90.13	79.33	3,147.4	365.9	1,942.3	1,976.5	0.01	0.01	0.00
4,900.0	90.14	79.33	3,147.2	384.5	2,040.6	2,076.5	0.01	0.01	0.00
5,000.0	90.15	79.33	3,146.9	403.0	2,138.9	2,176.5	0.01	0.01	0.00
5,100.0	90.16	79.33	3,146.7	421.5	2,237.2	2,276.5	0.01	0.01	0.00
5,200.0	90.17	79.33	3,146.4	440.0	2,335.4	2,376.5	0.01	0.01	0.00
5,300.0	90.18	79.33	3,146.1	458.5	2,433.7	2,476.5	0.01	0.01	0.00
5,400.0	90.19	79.33	3,145.8	477.1	2,532.0	2,576.5	0.01	0.01	0.00
5,500.0	90.20	79.33	3,145.4	495.6	2,630.2	2,676.5	0.01	0.01	0.00
5,600.0	90.21	79.33	3,145.1	514.1	2,728.5	2,776.5	0.01	0.01	0.00
5,700.0	90.22	79.33	3,144.7	532.6	2,826.8	2,876.5	0.01	0.01	0.00
5,800.0	90.22	79.33	3,144.3	551.1	2,925.0	2,976.5	0.01	0.01	0.00
5,900.0	90.23	79.32	3,143.9	569.7	3,023.3	3,076.5	0.01	0.01	0.00
6,000.0	90.24	79.32	3,143.5	588.2	3,121.6	3,176.5	0.01	0.01	0.00
6,100.0	90.25	79.32	3,143.1	606.7	3,219.8	3,276.5	0.01	0.01	0.00
6,200.0	90.26	79.32	3,142.6	625.2	3,318.1	3,376.5	0.01	0.01	0.00
6,300.0	90.27	79.32	3,142.2	643.8	3,416.4	3,476.5	0.01	0.01	0.00
6,400.0	90.28	79.32	3,141.7	662.3	3,514.6	3,576.5	0.01	0.01	0.00
6,500.0	90.29	79.32	3,141.2	680.8	3,612.9	3,676.5	0.01	0.01	0.00
6,600.0	90.30	79.32	3,140.7	699.4	3,711.2	3,776.5	0.01	0.01	0.00
6,700.0	90.31	79.32	3,140.1	717.9	3,809.4	3,876.5	0.01	0.01	0.00
6,800.0	90.32	79.32	3,139.6	736.4	3,907.7	3,976.5	0.01	0.01	0.00
6,900.0	90.33	79.32	3,139.0	754.9	4,006.0	4,076.5	0.01	0.01	0.00
7,000.0	90.34	79.32	3,138.4	773.5	4,104.2	4,176.5	0.01	0.01	0.00
7,100.0	90.35	79.32	3,137.8	792.0	4,202.5	4,276.5	0.01	0.01	0.00
7,200.0	90.36	79.32	3,137.2	810.5	4,300.8	4,376.5	0.01	0.01	0.00
7,300.0	90.37	79.32	3,136.6	829.1	4,399.0	4,476.5	0.01	0.01	0.00
7,400.0	90.38	79.32	3,135.9	847.6	4,497.3	4,576.5	0.01	0.01	0.00
7,500.0	90.39	79.32	3,135.3	866.2	4,595.6	4,676.5	0.01	0.01	0.00
7,600.0	90.39	79.32	3,134.6	884.7	4,693.8	4,776.5	0.01	0.01	0.00
7,700.0	90.40	79.32	3,133.9	903.2	4,792.1	4,876.5	0.01	0.01	0.00
7,800.0	90.41	79.31	3,133.2	921.8	4,890.4	4,976.5	0.01	0.01	0.00
7,900.0	90.42	79.31	3,132.5	940.3	4,988.6	5,076.5	0.01	0.01	0.00
8,000.0	90.43	79.31	3,131.7	958.9	5,086.9	5,176.5	0.01	0.01	0.00
8,100.0	90.44	79.31	3,131.0	977.4	5,185.2	5,276.5	0.01	0.01	0.00
8,200.0	90.45	79.31	3,130.2	995.9	5,283.4	5,376.5	0.01	0.01	0.00
8,300.0	90.46	79.31	3,129.4	1,014.5	5,381.7	5,476.5	0.01	0.01	0.00
8,400.0	90.47	79.31	3,128.6	1,033.0	5,479.9	5,576.5	0.01	0.01	0.00
8,500.0	90.48	79.31	3,127.7	1,051.6	5,578.2	5,676.5	0.01	0.01	0.00

ConocoPhillips

Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well Allison Unit #123H
Company:	ConocoPhillips SJB	TVD Reference:	WELL @ 6644.0usft (Original Well)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	WELL @ 6644.0usft (Original Well)
Site:	Allison Unit Wells	North Reference:	Grid
Well:	Allison Unit #123H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral B		
Design:	APD Plan		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,600.0	90.49	79.31	3,126.9	1,070.1	5,676.5	5,776.5	0.01	0.01	0.00
8,700.0	90.50	79.31	3,126.0	1,088.7	5,774.7	5,876.4	0.01	0.01	0.00
8,800.0	90.51	79.31	3,125.2	1,107.2	5,873.0	5,976.4	0.01	0.01	0.00
8,900.0	90.52	79.31	3,124.3	1,125.8	5,971.2	6,076.4	0.01	0.01	0.00
9,000.0	90.53	79.31	3,123.4	1,144.3	6,069.5	6,176.4	0.01	0.01	0.00
9,100.0	90.54	79.31	3,122.4	1,162.9	6,167.8	6,276.4	0.01	0.01	0.00
9,200.0	90.55	79.31	3,121.5	1,181.4	6,266.0	6,376.4	0.01	0.01	0.00
9,300.0	90.55	79.31	3,120.5	1,200.0	6,364.3	6,476.4	0.01	0.01	0.00
9,400.0	90.56	79.31	3,119.5	1,218.5	6,462.5	6,576.4	0.01	0.01	0.00
9,500.0	90.57	79.31	3,118.6	1,237.1	6,560.8	6,676.4	0.01	0.01	0.00
9,600.0	90.58	79.31	3,117.5	1,255.6	6,659.1	6,776.4	0.01	0.01	0.00
9,700.0	90.59	79.30	3,116.5	1,274.2	6,757.3	6,876.4	0.01	0.01	0.00
9,749.5	90.60	79.30	3,116.0	1,283.4	6,806.0	6,925.9	0.01	0.01	0.00
Production, 4-1/2"									

Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Allison 123H Section 11	0.00	0.00	0.0	1,939.0	6,177.3	2,183,404.51	584,518.76	37° 0' 0.063 N	107° 32' 38.043 W
- plan misses target center by 3212.2usft at 9283.3usft MD (3120.7 TVD, 1196.9 N, 6347.9 E)									
- Polygon									
Point 1			0.0	0.0	0.0	2,183,404.51	584,518.76		
Point 2			0.0	-984.3	-46.1	2,182,420.28	584,472.67		
Point 3			0.0	-701.8	2,614.2	2,182,702.76	587,132.76		
Point 4			0.0	12.4	2,614.2	2,183,416.91	587,132.76		
Allison 123H BHL, Later:	0.00	0.00	3,116.0	1,283.4	6,806.0	2,182,748.98	585,147.45	36° 59' 53.562 N	107° 32' 30.318 W
- plan hits target center									
- Point									
Allison 123H Lateral A E	0.00	0.00	3,253.0	177.0	938.4	2,181,642.67	579,280.30	36° 59' 42.794 N	107° 33' 42.685 W
- plan misses target center by 104.1usft at 3778.4usft MD (3148.9 TVD, 176.8 N, 938.4 E)									
- Point									
Allison 123H Section Se	0.00	0.00	0.0	1,920.3	937.2	2,183,385.86	579,279.08	37° 0' 0.031 N	107° 33' 42.639 W
- plan misses target center by 2136.8usft at 0.0usft MD (0.0 TVD, 0.0 N, 0.0 E)									
- Polygon									
Point 1			0.0	0.0	0.0	2,183,385.86	579,279.08		
Point 2			0.0	-683.2	-57.6	2,182,702.71	579,221.49		
Point 3			0.0	-3,509.3	-300.7	2,179,876.83	578,978.41		
Point 4			0.0	-4,264.0	2,380.0	2,179,122.18	581,658.90		
Point 5			0.0	-5,022.5	5,049.8	2,178,363.74	584,328.50		
Point 6			0.0	-965.6	5,194.0	2,182,420.33	584,472.69		
Point 7			0.0	18.7	5,240.1	2,183,404.56	584,518.78		
Point 8			0.0	8.7	2,618.0	2,183,394.56	581,896.88		
Allison 123H Lateral B E	0.00	0.00	3,149.0	110.2	584.4	2,181,575.87	578,926.32	36° 59' 42.143 N	107° 33' 47.051 W
- plan hits target center									
- Point									
Allison 123H BHL, Later:	0.00	0.00	3,217.0	1,283.4	6,806.0	2,182,748.99	585,147.41	36° 59' 53.562 N	107° 32' 30.318 W
- plan misses target center by 101.0usft at 9748.5usft MD (3116.0 TVD, 1283.2 N, 6804.9 E)									
- Point									

ConocoPhillips

Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well Allison Unit #123H
Company:	ConocoPhillips SJB	TVD Reference:	WELL @ 6644.0usft (Original Well)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	WELL @ 6644.0usft (Original Well)
Site:	Allison Unit Wells	North Reference:	Grid
Well:	Allison Unit #123H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral B		
Design:	APD Plan		

500.0	500.0	Surface, 9-5/8"	9-5/8	12-1/4
3,253.8	3,102.2	Intermediate, 7"	7	8-3/4
9,749.5	3,116.0	Production, 4-1/2"	4-1/2	6-1/4

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,418.2	3,149.0	BLUE MESA		0.00	

surfacing material is required, it will be obtained from existing permitted or private sources and will be hauled in by trucks over existing Resource roads to the area.

F. For well pad cut and fill see Sheet F.

G. As determined during the onsite on 5-08-14, the following best management practices will be implemented:

1. Drainage will be above the cut slope and well pad around corner #6.
2. Storage of topsoil will be stacked around well pad in construction area
3. Round corner pad at 3
4. Will incorporate slash in fill
5. Paint will be Juniper Green

H. Construction equipment may include chain saws, a brush hog, scraper, maintainer, excavator, hydraulic mulcher, chippers and dozer. Construction of the resource road and well pad will take approximately 2 to 4 weeks.

I. The resource road and well pad are on lease so no additional ROW will be required.

J. Construction contractors will call New Mexico One-Call (or equivalent) to identify the location of any marked or unmarked pipeline or cables located in proximity to the proposed resource road and well pad at least two working days prior to ground disturbance.

K. All operations will be conducted in such a manner that full compliance is made with the applicable laws and regulations, the Application for Permit to Drill, and applicable Notice(s) to Lessees.

VII. Methods for Handling Waste

A. Cuttings, Drilling Fluids, and Flowback Water - The drill cuttings, drill water and completion fluids will be placed in a lined reserve pit. The pit will be lined with 20m gage pit liner. The reserve pit will be fenced on three sides away from the pad during drilling and the fourth side fenced as soon as the rig moves out. The free fluids will be

removed after completion or may be trucked and reused in drilling operations or trucked to an approved disposal facility as indicated in Burlington Resources Drilling / Workover Pit Closure Procedure dated June 28, 2013 on file at the NMOCD office in Aztec, NM.

B. Garbage and other waste material - garbage, trash and other waste materials will be collected in a portable, self-contained and fully-enclosed trash container during drilling and completion operations. The accumulated trash will be removed, as needed, and will be disposed of at an authorized sanitary landfill. No trash will be buried or burned on location.

C. Sewage - self-contained, chemical toilets will be provided for human waste disposal. The toilet holding tanks will be pumped, as needed, and the contents thereof disposed of in an approved sewage disposal facility. The toilets will be onsite during all operations.

D. Immediately after drilling and completing activities have ceased, all debris and other waste materials not contained in the trash containers will be cleaned up and removed from the well location.

VIII. Ancillary Facilities

A. The proposed areas and access roads listed below could be utilized for staging of construction, drilling, and completion equipment to facilitate drilling operations. Additionally, staging could occur within the permitted right-of-way, along the route shown on Sheet B and described on Sheet C. Staging could take place when the rig moves in or off location. Any proposed temporary use area will be returned to same or better condition than before operations began and will comply with the BLM FFO Bare Soil Reclamation Procedures.

1. Allison Unit 123 - UL O, 1015' FSL & 1850' FEL, Section 09, T32N, R07W (on lease)
2. Allison Unit 26 - UL I, 1650' FSL & 825' FEL, Section 09, T29N, R07W (on lease)
3. Allison Unit 26B - UL K, 2450' FSL & 2460' FWL, Section 09, T29N, R07W (on lease)

Burlington Resources Oil & Gas Company LP

ALLISON UNIT HZFC #123H

1591' FSL & 776' FEL

SEC. 9, T32N R7W, N.M.P.M.

SAN JUAN COUNTY, NM

APD MAP

NO NEW BLM ACCESS

EXISTING ACCESS

ALLISON UNIT HZFC #123H

ERA

36° 59' 41" N

107° 33' 51" W

NAD 83

Map created with TOPOIC © 2007 National Geographic

NATIONAL
GEOGRAPHIC

0.0 0.5 1.0 miles
0.0 0.5 1.0 1.5 km

SHEET B

TN MN
912°
04/09/14

Directions from the Intersection of Hwy 172 & 151
in Ignacio, CO

to

Burlington Resources Oil & Gas Company LP

ALLISON UNIT HZFC #123H

1591' FSL & 776' FEL,

Section 9, T32N, R7W, N.M.P.M.,

San Juan County, New Mexico

Latitude: 36° 59' 41.08" N

Longitude: 107° 33' 56.45" W

Nad 1983

Go East on Highway 151 for 9.7 miles to CR 328
turn right (southerly) 4.4 miles on CR 328 to CR 4012,
turn right (westerly) 0.6 miles on CR 4012 ,
stay right (westerly) @ y-intersection 0.2 miles on CR 4004,
turn right (north) 0.7 miles,

~~To the new location twinned with the existing well pad~~

~~ALLISON UNIT #26.~~

BOPE & Choke Manifold Schematic

1. Rotating Head
2. Flow line
- 2A. Fill up line and valve
3. Spacer Spools (as needed)
4. 11" 3M Annular Preventer
5. 11" 3M Double Ram Preventer
6. Blind Rams
7. Pipe Rams
8. 3M Gate Valves (2")
9. 3M Gate Valve (3")
10. 3M HCR Valve (3")
11. Kill Line Connection
12. Choke Line (3" Hardline or Co-Flex)
13. 3M Valve (2")
- 13A. 3M Adjustable Choke (2")
- 13B. 3M Adjustable or Fixed Choke (2")
14. 3M Studded Cross & Manifold gauge
15. 3M Panic Line Valve (3")
16. Secondary outlet with valve, bull plug, needle valve, and pressure gauge

