

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

FORM APPROVED
OMB NO. 1004-0137
Expires July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS

SEP 20 2011

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

Farmington Field Office
Bureau of Land Management

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

Energen Resources Corporation

3a. Address

2010 Afton Place, Farmington, NM 87401

3b. Phone No. (include area code)

505-325-6800

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

SHL: 1681' FSL, 1344' FEL

BHL: 600' FNL 100' FEL

Sec. 25 T32N, R06W

5. Lease Serial No.

NMSF-081181

6. If Indian, Allottee or Tribe Name

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

San Juan 32-5 Unit

8. Well Name and No.

San Juan 32-5 Unit 105S

9. API Well No.

30-039-27265

10. Field and Pool, or Exploratory Area

Basin Fruitland Coal

11. County or Parish, State

Rio Arriba NM

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

TYPE OF SUBMISSION

- ☒ Notice of Intent
☐ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

- | | | | |
|---|---|--|--|
| ☐ Acidize | ☐ Deepen | ☐ Production (Start/Resume) | ☐ Water Shut-Off |
| ☐ Alter Casing | ☐ Fracture Treat | ☐ Reclamation | ☐ Well Integrity |
| ☐ Casing Repair | ☐ New Construction | ☐ Recomplete | ☒ Other <u>change of</u> |
| ☐ Change Plans | ☐ Plug and Abandon | ☐ Temporarily Abandon | <u>plans</u> |
| ☐ 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 recompleat 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 recompleat 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 final site is ready for final inspection.)

In order to avoid the casing of the well adjacent (San Juan 32-5 Unit #13M) to the San Juan 32-5 Unit #105S for the horizontal drilled lateral recompleat, Energen Resources would like to make the following changes:

- * Set a whipstock and mill a window in the existing 7.0" casing from 2,930' - 2,940' TVD.
- * Drill the lateral to a measured depth of 6,428' MD.
- * Set a 4 1/2", 11.6#, J-55, LT&C pre-perforated liner from 2,930' - 6,428' MD.

Attached is a current C-102, directional plan, and operations plan.

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Andrew Soto

Title Drilling Engineer

Signature

Date 9/20/11

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Original Signed: Stephen Mason

Title

Date

SEP 21 2011

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

Office

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

NMOCD A

RECEIVED

DISTRICT I
1825 N. French Dr., Hobbs, N.M. 88240

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised July 10, 2010

DISTRICT II
1301 W. Grand Avenue, Artesia, N.M. 88210

SEP 20 2011

Submit one copy to appropriate
District Office

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

OIL CONSERVATION DIVISION
Farmington Field Office
1220 South St. Francis
Santa Fe, NM 87505
Bureau of Land Management

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 27265 30-039-2265		*Pool Code 71629	*Pool Name BASIN FRUITLAND COAL
*Property Code 21996	*Property Name SAN JUAN 32-5 UNIT		*Well Number 105S-ST
*GRID No. 162928	*Operator Name ENERGEN RESOURCES CORPORATION		*Elevation 6512'

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
1	25	32N	6W		1681'	SOUTH	1344'	EAST	RIO ARRIBA

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
A	25	32N	6W		600'	NORTH	100'	EAST	RIO ARRIBA

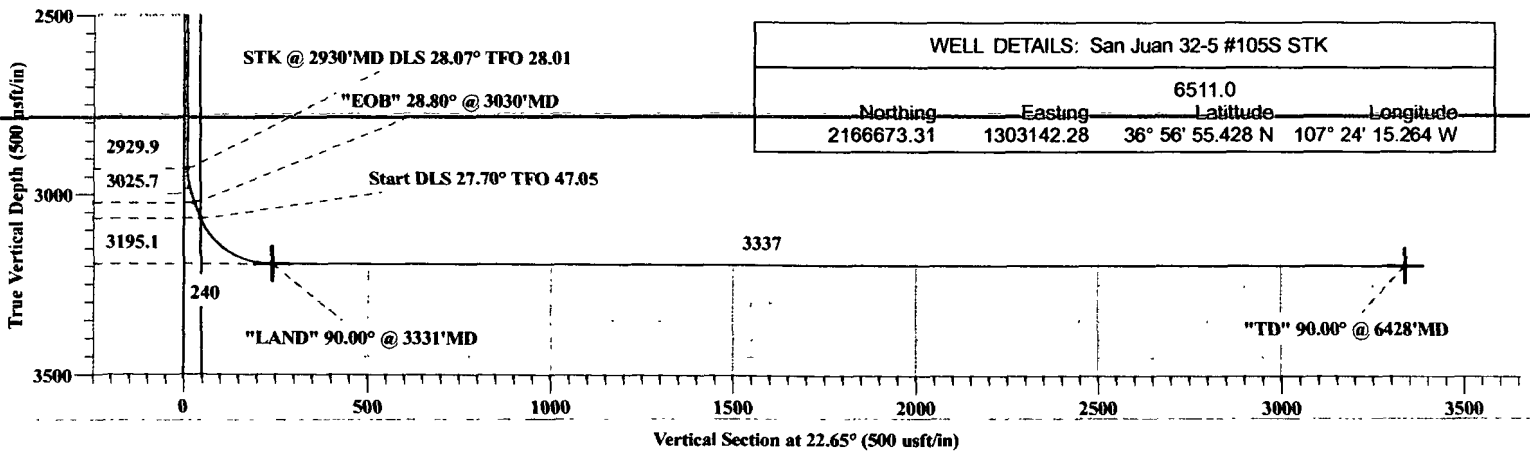
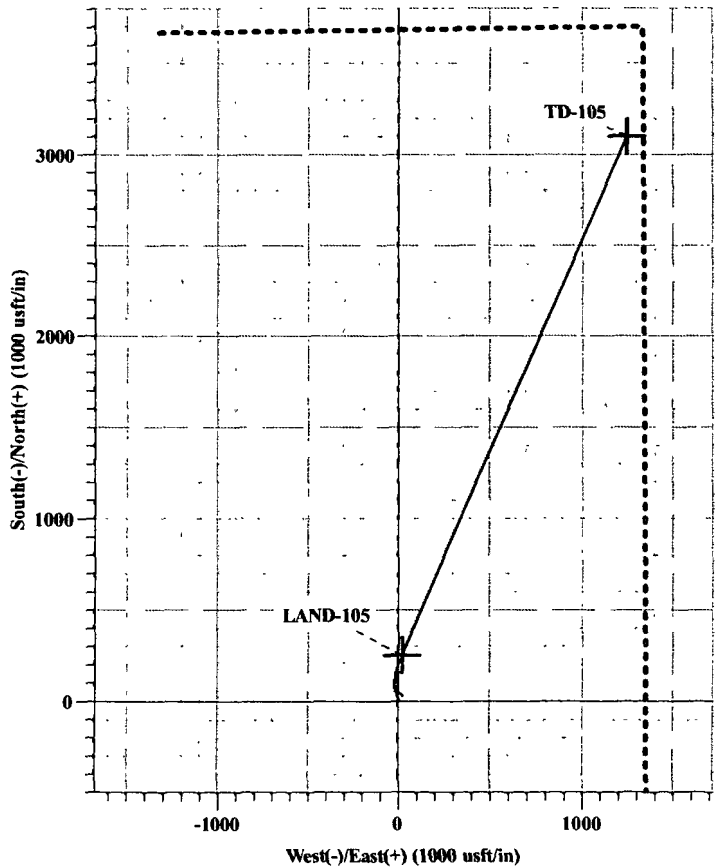
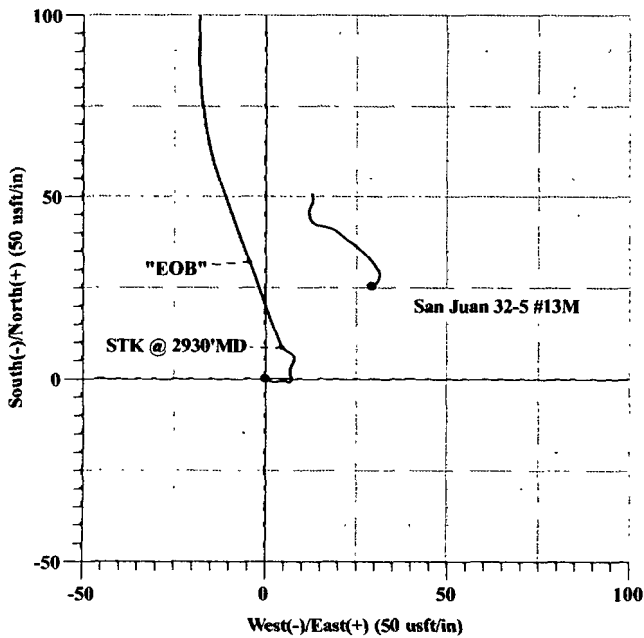
*Dedicated Acres 320.00 ACRES - E/2	*Joint or Infill	*Consolidation Code	*Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

18

16 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 working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>[Signature]</i> 9-19-11 Signature Date Nathan Smith Printed Name nsmith@energen.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 SEPTEMBER 7, 2011 Date of Survey <i>[Signature]</i> Signature and Seal of Professional Surveyor: DAVID RUSSELL 10201 REGISTERED PROFESSIONAL LAND SURVEYOR N.M. DAVID RUSSELL Certificate Number 10201
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San Juan 32-5 #105S STK
 Sec25 T32N-R6W - 105S
 Rio Arriba Co. NM
 GL: 6511' KB: 13'



WELL DETAILS: San Juan 32-5 #105S STK			
		6511.0	
Northing	Easting	Latitude	Longitude
2166673.31	1303142.28	36° 56' 55.428 N	107° 24' 15.264 W

SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect	Target
2930.0	0.83	312.70	2929.9	8.5	4.6	0.00	0.00	9.6	
3030.0	28.80	340.00	3025.7	32.1	-4.4	28.07	28.01	27.9	
3080.0	28.80	340.00	3069.5	54.7	-12.6	0.00	0.00	45.6	
3330.8	90.00	23.27	3195.1	251.4	20.4	27.70	47.05	239.8	
6428.3	90.00	23.27	3195.0	3097.0	1244.0	0.00	0.00	3337.2	TD-105

Plan: Design #5 (San Juan 32-5 #105S STK/STK)

Created By: Frank C. Scardino

Date: 9/19/2011

Energen Resources

Rio Arriba County

Sec25 T32N-R6W - 105S

San Juan 32-5 #105S STK

STK

Plan: Design #5

Standard Planning Report

19 September, 2011

Planning Report

Database: EDM 5000.1 Single User Db
Company: Energen Resources
Project: Rio Arriba County
Site: Sec25 T32N-R6W - 105S
Well: San Juan 32-5 #105S STK
Wellbore: STK
Design: Design #5

Local Co-ordinate Reference: Well San Juan 32-5 #105S STK
TVD Reference: WELL @ 6524.0usft (Original Well Elev)
MD Reference: WELL @ 6524.0usft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Project	Rio Arriba County		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Central Zone		

Site	Sec25 T32N-R6W - 105S		
Site Position:		Northing:	2,166,673.30 usft
From:	Lat/Long	Easting:	1,303,142.28 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	36° 56' 55.428 N
		Longitude:	107° 24' 15.264 W
		Grid Convergence:	-0.69 °

Well	San Juan 32-5 #105S STK		
Well Position	+N/-S	0.0 usft	Northing: 2,166,673.30 usft
	+E/-W	0.0 usft	Easting: 1,303,142.28 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	Latitude: 36° 56' 55.428 N
			Longitude: 107° 24' 15.264 W
			Ground Level: 6,511.0 usft

Wellbore	STK		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010	09/06/11	9.74
			Dip Angle
			63.70
			Field Strength
			50,879

Design	Design #5		
Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth: 2,930.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			22.65

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
2,930.0	0.83	312.70	2,929.9	8.5	4.6	0.00	0.00	0.00	0.00	
3,030.0	28.80	340.00	3,025.7	32.1	-4.4	28.07	27.97	27.30	28.01	
3,080.0	28.80	340.00	3,069.5	54.7	-12.6	0.00	0.00	0.00	0.00	
3,330.8	90.00	23.27	3,195.1	251.4	20.4	27.70	24.40	17.25	47.05	
6,428.3	90.00	23.27	3,195.0	3,097.0	1,244.0	0.00	0.00	0.00	0.00	TD-105

Planning Report

Database: EDM 5000.1 Single User Db
Company: Energen Resources
Project: Rio Arriba County
Site: Sec25 T32N-R6W - 105S
Well: San Juan 32-5 #105S STK
Wellbore: STK
Design: Design #5

Local Co-ordinate Reference: Well San Juan 32-5 #105S STK
TVD Reference: WELL @ 6524.0usft (Original Well Elev)
MD Reference: WELL @ 6524.0usft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

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)
2,930.0	0.83	312.70	2,929.9	8.5	4.6	9.6	0.15	-0.15	2.32
STK @ 2930 MD DLS 28.07° TFO 28.01									
2,940.0	3.56	334.45	2,939.9	8.8	4.4	9.8	28.07	27.31	217.56
2,960.0	9.16	338.30	2,959.8	10.8	3.5	11.4	28.07	28.00	19.23
2,980.0	14.77	339.23	2,979.3	14.7	2.0	14.4	28.07	28.05	4.68
3,000.0	20.38	339.66	2,998.4	20.4	-0.1	18.8	28.07	28.06	2.14
3,020.0	25.99	339.91	3,016.8	27.7	-2.8	24.5	28.07	28.06	1.24
3,030.0	28.80	340.00	3,025.7	32.1	-4.4	27.9	28.07	28.07	0.90
"EOB" 28.80° @ 3030 MD									
3,080.0	28.80	340.00	3,069.5	54.7	-12.6	45.6	0.00	0.00	0.00
Start DLS 27.70° TFO 47.05									
3,100.0	32.80	347.49	3,086.7	64.5	-15.4	53.6	27.70	20.02	37.47
3,120.0	37.17	353.46	3,103.0	75.8	-17.3	63.3	27.70	21.81	29.85
3,140.0	41.77	358.32	3,118.5	88.5	-18.2	74.7	27.70	23.03	24.26
3,160.0	46.55	2.35	3,132.8	102.4	-18.1	87.6	27.70	23.88	20.18
3,180.0	51.44	5.79	3,145.9	117.5	-17.0	101.9	27.70	24.48	17.19
3,200.0	56.43	8.78	3,157.7	133.5	-14.9	117.4	27.70	24.92	14.97
3,220.0	61.48	11.45	3,168.0	150.3	-11.9	134.2	27.70	25.24	13.33
3,240.0	66.57	13.87	3,176.8	167.9	-8.0	151.9	27.70	25.48	12.10
3,260.0	71.70	16.11	3,183.9	185.9	-3.1	170.4	27.70	25.65	11.20
3,280.0	76.86	18.22	3,189.3	204.3	2.6	189.5	27.70	25.77	10.55
3,300.0	82.03	20.24	3,193.0	222.9	9.0	209.2	27.70	25.86	10.11
3,320.0	87.21	22.21	3,194.9	241.4	16.2	229.1	27.70	25.90	9.86
3,330.8	90.00	23.27	3,195.1	251.4	20.4	239.8	27.70	25.92	9.77
"LAND" 90.00° @ 3331 MD									
3,400.0	90.00	23.27	3,195.1	314.9	47.8	309.0	0.00	0.00	0.00
3,500.0	90.00	23.27	3,195.1	406.8	87.3	409.0	0.00	0.00	0.00
3,600.0	90.00	23.27	3,195.1	498.7	126.8	509.0	0.00	0.00	0.00
3,700.0	90.00	23.27	3,195.1	590.5	166.3	609.0	0.00	0.00	0.00
3,800.0	90.00	23.27	3,195.1	682.4	205.8	709.0	0.00	0.00	0.00
3,900.0	90.00	23.27	3,195.1	774.3	245.3	809.0	0.00	0.00	0.00
4,000.0	90.00	23.27	3,195.1	866.1	284.8	909.0	0.00	0.00	0.00
4,100.0	90.00	23.27	3,195.1	958.0	324.3	1,009.0	0.00	0.00	0.00
4,200.0	90.00	23.27	3,195.1	1,049.9	363.8	1,109.0	0.00	0.00	0.00
4,300.0	90.00	23.27	3,195.1	1,141.8	403.3	1,209.0	0.00	0.00	0.00
4,400.0	90.00	23.27	3,195.1	1,233.6	442.8	1,309.0	0.00	0.00	0.00
4,500.0	90.00	23.27	3,195.1	1,325.5	482.3	1,409.0	0.00	0.00	0.00
4,600.0	90.00	23.27	3,195.1	1,417.4	521.8	1,509.0	0.00	0.00	0.00
4,700.0	90.00	23.27	3,195.1	1,509.2	561.3	1,609.0	0.00	0.00	0.00
4,800.0	90.00	23.27	3,195.1	1,601.1	600.8	1,709.0	0.00	0.00	0.00
4,900.0	90.00	23.27	3,195.1	1,693.0	640.3	1,809.0	0.00	0.00	0.00
5,000.0	90.00	23.27	3,195.1	1,784.8	679.8	1,909.0	0.00	0.00	0.00
5,100.0	90.00	23.27	3,195.1	1,876.7	719.3	2,008.9	0.00	0.00	0.00
5,200.0	90.00	23.27	3,195.1	1,968.6	758.8	2,108.9	0.00	0.00	0.00
5,300.0	90.00	23.27	3,195.0	2,060.4	798.3	2,208.9	0.00	0.00	0.00
5,400.0	90.00	23.27	3,195.0	2,152.3	837.8	2,308.9	0.00	0.00	0.00
5,500.0	90.00	23.27	3,195.0	2,244.2	877.3	2,408.9	0.00	0.00	0.00
5,600.0	90.00	23.27	3,195.0	2,336.0	916.8	2,508.9	0.00	0.00	0.00
5,700.0	90.00	23.27	3,195.0	2,427.9	956.3	2,608.9	0.00	0.00	0.00
5,800.0	90.00	23.27	3,195.0	2,519.8	995.8	2,708.9	0.00	0.00	0.00
5,900.0	90.00	23.27	3,195.0	2,611.6	1,035.3	2,808.9	0.00	0.00	0.00
6,000.0	90.00	23.27	3,195.0	2,703.5	1,074.8	2,908.9	0.00	0.00	0.00
6,100.0	90.00	23.27	3,195.0	2,795.4	1,114.3	3,008.9	0.00	0.00	0.00
6,200.0	90.00	23.27	3,195.0	2,887.2	1,153.8	3,108.9	0.00	0.00	0.00

Planning Report

Database: EDM 5000.1 Single User Db
 Company: Energen Resources
 Project: Rio Arriba County
 Site: Sec25 T32N-R6W - 105S
 Well: San Juan 32-S #105S STK
 Wellbore: STK
 Design: Design #5

Local Co-ordinate Reference: Well San Juan 32-S #105S STK
 TVD Reference: WELL @ 6524.0usft (Original Well Elev)
 MD Reference: WELL @ 6524.0usft (Original Well Elev)
 North Reference: True
 Survey Calculation Method: Minimum Curvature

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)
6,300.0	90.00	23 27	3,195.0	2,979.1	1,193.3	3,208.9	0.00	0.00	0.00
6,400.0	90.00	23 27	3,195.0	3,071.0	1,232.8	3,308.9	0.00	0.00	0.00
6,428.3	90.00	23 27	3,195.0	3,097.0	1,244.0	3,337.2	0.00	0.00	0.00
"TD" 90.00° @ 6428'MD									

Design 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									
LAND-105	0.00	0.00	3,195.0	251.4	20.4	2,166,924.44	1,303,165.72	36° 56' 57.914 N	107° 24' 15.013 W
- plan misses target center by 0.1usft at 3330.8usft MD (3195.1 TVD, 251.4 N, 20.4 E)									
- Point									
TD-105	0.00	0.00	3,195.0	3,097.0	1,244.0	2,169,755.01	1,304,423.69	36° 57' 26.048 N	107° 23' 59.938 W
- plan hits target center									
- Point									

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N-S (usft)	+E-W (usft)	
2,930.0	2,929.9	8.5	4.6	STK @ 2930'MD DLS 28.07° TFO 28.01
3,030.0	3,025.7	32.1	-4.4	"EOB" 28.80° @ 3030'MD
3,080.0	3,069.5	54.7	-12.6	Start DLS 27.70° TFO 47.05
3,330.8	3,195.1	251.4	20.4	"LAND" 90.00° @ 3331'MD
6,428.3	3,195.0	3,097.0	1,244.0	"TD" 90.00° @ 6428'MD

9/20/2011



OPERATIONS PLAN

WELL NAME.....San Juan 32-5 Unit #105S
JOB TYPE.....Re-entry Sidetrack
DEPT.....Drilling and Completions
RIG.....D & J #1
PREPARED BY.....Nathan Smith

General Information

Surface Location	1681 FSL 1344 FEL
S-T-R	(I) Sec.25, T32N, R6W
Bottom Hole Location	600 FNL 100 FEL
S-T-R	(A) Sec.25, T32N, R6W
County, State	Rio Arriba, New Mexico
Elevations	6512' GL
Total Depth	6,428' +/- (MD); 3195' (TVD)
Formation Objective	Basin Fruitland Coal

Formation Tops

Top Target Coal	3185' (TVD)
Base Target Coal	3208' (TVD)
Total Depth	3195' (TVD), 6,428' +/- (MD)

Drilling

1. Set whipstock on top of the composite bridge plug left by the workover rig.
2. Orientate the whipstock at an azimuth of 312.7°. KOP is 2930' TVD, 2930' MD.
3. Run in hole with a 6-1/4" milling assembly and mill window and 15' of formation
4. Pick up 6-1/4" directional tools and follow attached directional plan
 - a. The build section will be drilled with and LSND or polymer and water as directed by the mud engineer.
 - b. The mud density range for the lateral section should range from 8.5-8.6 ppg, based on offset data.
5. Pull out of hole. If problems are encountered before reaching the window run back to bottom and condition well for casing run. If problems are encountered continue pulling out and pick up a cleanout assembly.
6. Prior to running liner and hook hanger system, trip in hole and retrieve whipstock.
7. Run 4-1/2" 11.6# J-55, 6 shot/ft pre-drilled liner and Baker B-hook hanger system and through window.

Blowout Control Specifications:

A 3000 psi minimum double ram or annulus BOP stack will be used following nipple up of casing head. A 2" nominal, 2000 psi minimum choke manifold will also be used. An upper Kelly Cock valve handle and drill string valve should be available to fit each drill string and be available on the rig floor during drilling operations. Accumulator bottles need to be tested to insure correct pre-charge pressure prior to installing BOPE. **Pressure test BOP to 250 psi for 15 min and 2000 psi for 15 min.**

9/20/2011



Logging Program:

Open hole logs: None
Mudlogs: From KOP to TD.
Coring: None
Surveys: Every 250' while directional drilling to TD.

Casing, Tubing, & Casing Equipment

<u>String</u>	<u>Interval</u>	<u>Wellbore</u>	<u>Size</u>	<u>Wt</u>	<u>Grade</u>
Production	2930' - 6,428' MD 2930' - 3195' TVD	6 1/4"	4 1/2"	11.6 lb/ft	J-55 LT&C
Tubing	0' - 2900' MD	7"	2 3/8"	4.7 lb/ft	J-55

Casing Equipment:

Production Liner: Thread locked bull nose guide shoe on the bottom of the first joint.
Perforated liner to be run in producing interval. Blank or non-perforated joints from the landing point up to the milled window.

Wellhead

3000 psi 11" x 9 5/8" casing head. 9 5/8" x 7" x 2 3/8" 5000psi Flanged wellhead.

Cementing

Production: Open Hole Completion – NO CEMENT

Other Information

- 1) This well will be an open hole completion
- 2) If lost circulation is encountered, sufficient LCM will be added to the mud system to maintain well control.
- 3) No abnormal temperatures or pressures for the region are anticipated.
BHP can be as high as 1500 psi.
- 4) This gas is dedicated.