SURVEY REPORT STRATA DIRECTIONAL NASH DRAW #36

EDDY COUNTY, NEW MEXICO DISTRICT TWO

SEPTEMBER 19, 2001



A Gyrodata Directional Survey

for

Strata Directional Technology

Location: J.W. DRILLING #3, EDDY COUNTY, NEW MEXICO Well: NASH DRAW #36, 4-1/2" DRILLPIPE

Job Number: MD0701GMW278

Run Date: 9/20/01 2:06:35 PM

Surveyor: Mike Shepherd Mike Martinez

Calculation Method: MINIMUM CURVATURE

Survey Latitude: 32.316280 deg. N

Azimuth Correction:

Gyro: 0.04540 deg East to Grid North

Proposed Well Direction: 296.390 deg

Vertical Section Calculated from Well Head Location

Closure Calculated from Well Head Location

Horizontal Coordinates Calculated from Well Head Location

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Well: NASH DRAW #36, 4-1/2" DRILLPIPE
Location: J.W. DRILLING #3, EDDY COUNTY, NEW MEXICO
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NTAL NATES t	0.00 E		0.05 W	0.50 W	1.05 W	1.37 W	2.06 W	2.57 W	3.05 W	3.38 W	3.72 W	4.18 W	4.62 W	8.19 W	6.19 W	7.61 W	9.31 W	10.96 W	12.38 W	13.51 W	14.19 W	14.93 W
HORIZONTAL COORDINATES feet	N 00.0		0.94 N	2.62 N	3.77 N	8.29 N	6.95 N	8.21 N	9.13 N	9.70 N	10.43 N	10.74 N	11.01 N	11.33 N	11.53 N	11.47 N	10.71 N	9.63 N	8.34 N	N 08.9	4.92 N	2.02 N
CLOSURE DIST. AZIMUTH feet deg.	0.0 0.0		0.9 356.8	2.7 349.1				8.6 342.6				11.5 338.8	11.9 337.2		13.1 331.8		14.2 319.0		14.9 304.0		15.0 289.1	
VERTICAL DEPTH feet	0.0	SHOT SURVEY RUN INSIDE 4-1/2" DRILLPIPE ATES REFERENCED TO J.W. DRILLING #3	100.0	200.0	300.0	400.0	499.9	599.9	6.669	6.662	6.668	6.666	1099.9	1199.9	1299.9	1399.9	1499.9	1599.9	1699.8	1799.8	1899.8	8.6661
DOGLEG SEVERITY deg./ 100 ft.	0.00	SHOT SURVEY RUN INSIDE 4-1/2" DRILLF ATES REFERENCED TO J.W. DRILLING #3	1.08	0.47	0.45	0.77	0.71	0.59	0.77	0.71	0.68	0.72	0.67	0.52	0.92	0.68	0.81	0.84	0.59	0.92	0.47	66.0
VERTICAL SECTION feet	0.0	HOT SURVEY ATES REFEREN	0.5	1.6	2.6	3.6	4.9	6.0	8.9	7.3	0.8	8.5	0.6	6.7	10.7	11.9	13.1	14.1	14.8	15.1	14 9	14.3
AZIMUTH deg.	00.00		356.84	331.35	340.70	350.87	318.12	359.44	294 14	19 36	308.07	172.19	304.67	274.09	282.23	243.41	247.49	217 96	233.63	101 31	206.38	186.77
INCL deg.	0.00	TE GYROSI EMENTS A	1 08	0.95	0.52	1.27	0.87	0.80	0.50	0.27	79.0	90.0	0.63	0.13	1.05	99 0	1.47	0.85	1 37	70.0	1.27	2.14
MEASURED DEPTH feet	0.0	0 - 3133 FT RATE GYROSCOPIC MULTI ALL MEASUREMENTS AND COORDIN	100 0	200.0	300.0	400 0	500.0	0009	200.0	0.007	0.000	0.0001	1100 0	1200.0	1300.0	1400.0	1500.0	1600.0	1200.0	1,000	1800.0	2000.0

A Gyrodata Directional Survey

Strata Directional Technology
Well: NASH DRAW #36, 4-1/2" DRILLPIPE
Location: J.W. DRILLING #3, EDDY COUNTY, NEW MEXICO
Job Number: MD0701GMW278

YTAL ATES	15.72 W	17.13 W	18.48 W	10 36 W	17.50 W	20.29 W		20.66 W	20.45 W	10.06 117	W CK.YI	18.67 W	W 00 71	17.09 W		15.47 W	15 02 W		
HORIZONTAL COORDINATES feet	1.83 S	S 86.5	10.45 S	0 000	14.1/ 3	19.39 S		24.45 S	29 10 S	0 0000	33.88 S	38 46 S	0 0 0	42.31 S		45.68 S	5 69 97		
CLOSURE DIST. AZIMUTH feet deg.		18 1 250 8						32.0 220.2								48.2 198.7	0.00		
VERTICAL DEPTH feet	7,000	2007.1	0.6617	c.6677	2399.4	2400 3	C://+7	7599.1	00000	0.6692	2798.9	0 0000	70707	7998 7		3008 6	0.000	3131.0	
DOGLEG SEVERITY deg./ 100 ft.	77.0	44.0	0.35	0.43	0.41	77.0	0.74	88 0	00.0	0.35	0 69	000	0.80	71.0	t	77.0	† ·	1.35	
VERTICAL SECTION feet	, ,	13.3	12.7	11.9	10.8	9:01	9.6	71	0.7	5.4	0	7.0	-0.4	4 (-3.3		-0.4	-7.3	
AZIMUTH deg.	!	195.88	201.41	192.43	100 25	150.33	192.15	4) 4	1/2.62	179.40	170.50	109.30	157.70	t t	157.90		150.08	159.48	
INCL deg.		2.39	2.64	2.73	,,,,	7.33	3.07		2.87	2.51	10.4	3.05	2 46	i :	2.31	1	1.98	1.65	
MEASURED DEPTH feet		2100.0	2200.0	23000	0.0000	2400.0	2500.0		2600.0	0.0076	2/00.0	2800.0	0 0000	6,000.0	3000.0		3100.0	3133.0	

Final Station Closure: Distance: 48.98 ft Az: 197.86 deg.

N.M. Oil Cons. Division

Form 3160-5 (JUNE 1990)

0/5/

UNIT STATES 811 S. 1st Street FORM APPROVED
DEPARTMENT OF THE INTERIOR Artesia. NM 88210-2834 Budget Bureau No. 1004-0135

BUREAU OF	LAND MANAGEMENT (Sala, 1111)	Expires: March 31, 1993
SUNDRY NOTICES	 Lease Designation and Serial No. NM-0554221 	
Do not use this form for proposals to de Use "APPLICATION	6. If Indian, Allottee or Tribe Name	
SUBMIT	T IN TRIPLICATE	7. If Unit or CA, Agreement Designation
Type of Well Oil Gas		Nash Unit
X Well Well Other		8. Well Name and No.
2. Name of Operator	ODLICTION COMPANY	Nash Unit #36
3. Address and Telephone No. P. O. BOX 10	ODUCTION COMPANY /	9. API Well No. 30-015-30176
Roswell, Nev	Mexico 88202-1030 505-622-1127	10. Field and Pool, or Exploratory Area
4. Location of Well (Footage, Sec., T., R., M., or Sur		Nash Draw Brushy Canyon
1460' FSL 8		11. County or Parish, State
Section 12-23	3S-29E	Eddy County, New Mexico
12. CHECK APPROPRIATE BO	DX(s) TO INDICATE NATURE OF NOTICE	CE, REPORT, OR OTHER DATA
TYPE OF SUBMISSION	TYPE OF ACTION	
Notice of Intent	Abandonment	Change of Plans
	Recompletion	New Construction
X Subsequent Report	Plugging Back	Non-Routine Fracturing
	Casing Repair	Water Shut-Off
Final Abandonment Notice	Altering Casing	Conversion to Injection
	X OTHER Spud, Casing and Co	·
		(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)
 Describe Proposed or Completed Operations (Cle directionally drilled, give subsurface locations and 	early state all pertinent details, and give pertinent dates, including early measured and true vertical depths for all markers and zones pertin	stimated date of starting any proposed work. If well is ent to this work.)*
06/25/2001: 08:00 a.m. com	mence drilling w/rotary rig. Drilled 74'.	
06/26/2001: Drilled 岁 211'.		
w/2% Čacl. Plug	3/8" H-40 casing, 305'. Cemented First g down @ 2:15 p.m. Did not ciruclate ce n 1" tubing. Cemented Second Stage w	ement. Ran temperature survey,
	ACCEP	TED FOR RECORD
	162	
	18 1 18 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0 2001
/	4 CENED CIA 200	JUL - 9 2001
	ALE PETR	XIS C. SWOBODA COLEUM ENGINEER
14 11	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	
14. I hereby certify that the foregoing is rue and corn Signed	Froduction Department	Date 6/28/2001
(This space for Federal or State office use)		
Approved by	Title	Date
Conditions of approval, if any:		

V.M. Oil Cone, proces

CIST

Form 3160-5 (JUNE 1990) UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Artesia,

TYPE OF ACTION

FORM APPROVED
Budget Bureau No. 1004-01

Duuget Dut	cau 140.	1004-013
Exitines	March 1	31, 1993

i.	Lease Designation and Serial No.
	NM-0554221

6. If Indian, Allottee or Tribe Name

SUNDRY	NOTICES AND REPORTS ON WELLS
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Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.

Use "APPLICATION FOR PERMIT-" for such proposals

SUBMIT IN TRIPLICATE	7. If Unit or CA, Agreement Designation
1. Type of Well Oil Gas	Nash Unit
X Well Other	8. Well Name and No.
2. Name of Operator	Nash Unit #36
STRATA PRODUCTION COMPANY	9. API Well No.
3. Address and Telephone No. P. O. Box 1030	30-015-30176
Roswell, New Mexico 88202-1030 505-622-1127	10. Field and Pool, or Exploratory Area
4. Location of Well (Footage, Sec., T., R., M., or Survey Description)	Nash Draw Brushy Canyon
1460' FSL & 1585' FWL	11. County or Parish, State
Section 12-23S-29E	Eddy County, New Mexico
12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE	E, REPORT, OR OTHER DATA

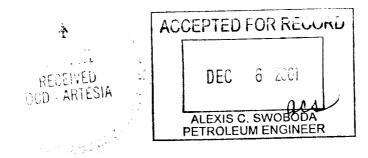
1112 01 302			
Notice of Intent	Abandonment	Change of Plans	

1 1	Nonce of mich		, 1041001111111		•
			Recompletion		New Construction
X	Subsequent Report		Plugging Back		Non-Routine Fracturing
	-		Casing Repair		Water Shut-Off
	Final Abandonment Notice		Altering Casing		Conversion to Injection
		X	OTHER Casing		Dispose Water
					port results of multiple completion on Well
				Completic	on or Recompletion Report and Log form.)

07/04/2001:

TYPE OF SUBMISSION

Drilled a 11" hole to 3112'. Ran 74 joints 8 5/8" J-55 casing at 3112'. Cemented at 3112' with 810 sacks 35/65 POZ "C" with 6% D-20, 10# sacks D-44, 0.25% D-130, 2% D-46, Tail-in with 200 sacks Class "C" with 2% S-1. Circulated 288 sacks to the pit. BLM Rep on location.



			_
4. I hereby certify that the foregoing is true and correct.			
Signed KulyMBritt	Title Production Analyst	Date 12/05/2001	
(This space for Federal or State office use)			
Approved by	Title	Date	
Conditions of approval, if any:			

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 representations as to any matter within its jurisdiction.

^{13.} Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

77:8 1.8 9-010 1308

BECEINED

Form 3160-5

Approved by

Conditions of approval, if any:

UNITED STATES DEPARTMENT OF THE INTERIOR 1301 W. Grand Avenue. 1004-0135 BUREAU OF LAND MANAGEMENT

N.M. DIV-Dist. APPROVED Artesia, NM 882 10 March 31, 1993 CISF

(JUNE 1990)

signation and Serial No. SUNDRY NOTICES AND REPORTS ON WELLS 7 NM-0554221 Do not use this form for proposals to drill or to deepen or reentry to a different reservoir. 6. IF INDIAN, ALLOTTEE OR TRIBE NAME Use "APPLICATION FOR PERMIT-" for such proposals SUBMIT IN TRIPLICATE 7. Unit Agreement Name 00 1. Type or Well Nash Unit Oil Gas 8. Well Name and No. Other Well Well Nash Unit #36 2. Name of Operator 9. API Well No. STRATA PRODUCTION COMPA 30-015-30176 P. O. Box 1030 3. Address and Telephone No. 10. Field and Pool, or Exploratory Area Roswell, New Mexico 88202-1030 505-622-1127 Nash Draw Brushy Canyon 4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 11. County or Parish, State 1460' FSL & 1585' FWL Eddy County, New Mexico Section 12-23S-29E CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF ACTION TYPE OF SUBMISSION Change of Plans Notice of Intent ACCEPTED FOR REC X New Construction Recompletion Non-Routine Fracturing Plugging Back Subsequent Report Water Shut-Off Casing Repair AUG B 0 2001 Conversion to Injection Altering Casing Final Abandonment Notic TD, LOG, CASING, CEMENT Dispose Water e: Report results of meitiple exploits or Kecompletion Ke s, including estimated date of starting any proposed work. If well is directionally drilled, Describe Proposed or Completed Oper 08/08/2001: TD 9786' and prepare to log. RU loggers, log and cut sidewall cores. TIH to circ and spot 144 bbls pills. 08/09/2001: POH and lay down drill pipe & drill collars. TIH w/5 1/2" csg, DV tools @ 6400' and 4400'. Tongs 08/10/2001: broke, wait on new tongs for 3.5 hrs. Ran 75 jts of 5.5" Hydril 513 P-110 334', 163 jts 5.5" LT&CN-80 to 6474'. Cmtd @ 9786'. 1st 08/11/2001: stage cmt 600 sx 50/50 POXMIX "C" w/3%D-44m 1.5 GPX D-604 AM, .05 GPS D-174, 20 bbls chemical wash. 2nd stage cmt 400 sx 50/50 POXMIX "C" w/5% D-44, 2% D-65, 2% D-46, 3% D-174, 20 bbls chemical wash. 3rd stage cmt 725 sx 50/50 POXMIX "C" w/5% D-44, 2% D-65, 2% D-46, 3% D-174, 20 bbls chemical wash. Casing String: FS 1.58', 1 JT P-110 45.40', FC 2.00', 74 jts P-110 3288.51', DV Tool 2.15', 51 jts N-80 2013.16', DV Tool 2.15', 112 jts N-80 4461.00', Total 9815.95'. 14. I hereby certify that the foregoing is true and correct 08/13/2001 Production & Regulatory Analyst Date (This space for Federal or State office use) Title Date

BUREAL OF LAND MGMT

2001 AUG 14 AM 8: 53

BECEINED

Form 3160-5 (JUNE 1990)

UNITED STATES DEPARTMENT OF THE INTERIOR

N.M. Oil Con. .. Division 811 S. 1st Street

Artesia NM 8821 Budet Burge No. 1004-0135

BUREAU OF I	LAND MANAGEMENT	Expires: March 31, 1993
SUNDRY NOTICES	S AND REPORTS ON WELLS	5. Lease Designation and Serial No. NM-0554221
	ill or to deepen or reentry to a different reservoir. FOR PERMIT-" for such proposals	6. If Indian, Allottee or Tribe Name
	IN TRIPLICATE	7. If Unit or CA, Agreement Designation
I. Type of Well Oil Gas	4 7	Nash Unit
Oil Gas X Well Well Other	, S. 1999	8. Well Name and No.
2. Name of Operator	Richura	Nash Unit #36
	ODUCTION COMPANY CO ARTECO	9. API Well No.
3. Address and Telephone No. P. O. Box 10 Roswell, New	030 v Mexico 88202-1030 505-622-11273	30-015-30176 10. Field and Pool, or Exploratory Area
4. Location of Well (Footage, Sec., T., R., M., or Surv	110	Nash Draw Brushy Canyon
1460' FSL &	1585' FWL	11. County or Parish, State
Section 12-23	3S-29E	Eddy County, New Mexico
12. CHECK APPROPRIATE BC	X(s) TO INDICATE NATURE OF NOTIC	E, REPORT, OR OTHER DATA
TYPE OF SUBMISSION	TYPE OF ACTION	
Notice of Intent	Abandonment	Change of Plans
	Recompletion	New Construction
X Subsequent Report	Plugging Back	Non-Routine Fracturing
(A)	Casing Repair	Water Shut-Off
Final Abandonment Notice	Altering Casing	Conversion to Injection
	X OTHER Spud	Dispose Water
		(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)
02/20/2001: Commence build 03/30/2001: Spud and drill 40	arly state all pertinent details, and give pertinent dates, including estimates and true vertical depths for all markers and zones pertinent ding location. O'. Set and cement 20" conductor pipe. rig. Commence drilling at 2:00 PM. Not	tified Don Early with BLM Carlsbad
14. I hereby certify that the foregoing is true and corre	- Production Pocorde Mana	ger Date 4/6/2001
Signed Carol G. Far	THE TOUGHT TOOM OF WHITE	3 Data 11012001
(This space for Federal or State office use)	Tisla	Date
Approved by	Title	Date