

| | | | | | |
|------------------------|----------|---------------------|--------------------------|-----------------|---------------------------|
| DATE IN 4-19-10 | SUSPENSE | ENGINEER DB. | LOGGED IN 4-19-10 | TYPE NSL | APP NO. 1010942253 |
|------------------------|----------|---------------------|--------------------------|-----------------|---------------------------|

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
 - Engineering Bureau -
 1220 South St. Francis Drive, Santa Fe, NM 87505



*Approach Op.
Sena # 2*

ADMINISTRATIVE APPLICATION CHECKLIST

30-039-30856

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

6184

Application Acronyms:

- [NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]**
- [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]**
- [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]**
- [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]**
- [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]**
- [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]**

[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

- [A] Location - Spacing Unit - Simultaneous Dedication
 NSL NSP SD

Check One Only for [B] or [C]

- [B] Commingling - Storage - Measurement
 DHC CTB PLC PC OLS OLM
- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
 WFX PMX SWD IPI EOR PPR

[D] Other: Specify _____

[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or Does Not Apply

- [A] Working, Royalty or Overriding Royalty Interest Owners
- [B] Offset Operators, Leaseholders or Surface Owner
- [C] Application is One Which Requires Published Legal Notice
- [D] Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E] For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F] Waivers are Attached

[3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

[4] CERTIFICATION: I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

J. Scott Hall

J. S. Hall

ATTORNEY

4.16.2010

Print or Type Name

Signature

Title

Date

SHALLEMONTAND.COM

e-mail Address



**MONTGOMERY
& ANDREWS**
LAW FIRM

J. SCOTT HALL
Cell: (505) 670-7362
Email: shall@montand.com
Reply To: Santa Fe Office
www.montand.com

RECEIVED OOD
2010 APR 16 P 2:27

April 16, 2010

Mark E. Fesmire, Director
NM Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87505

Re: Approach Operating LLC
Request for Administrative Approval, Unorthodox Well Location
WC Tierra Amarilla Mancos Oil Pool (97767)

Sena No. 2
API No. 30-39-30856
1290' FSL and 641' FEL (P)
Projected Section 16, T28N, R4E
Rio Arriba County, New Mexico

Dear Mr. Fesmire:

On behalf of Approach Operating LLC, ("Approach") and pursuant to Division Rule 19.15.15.13 and the applicable statewide rules governing oil well locations (Rule 19.15.15.19.A), we request administrative approval for an unorthodox well location for the Approach Sena No. 2 Well at the surface and bottom-hole locations reflected above.

This straight-hole well will be drilled to a depth sufficient to test the Mancos Shale formation within the boundaries of the WC Tierra Amarilla Mancos Oil Pool and is defined as a wildcat under the Division's rules. The statewide rules for wildcat oil wells currently provide that wells shall be drilled no closer than 330' to the outer boundary of a standard 40-acre spacing unit. The C-101 along with the C-102 plat showing the SE/SE spacing unit and the proposed unorthodox surface and bottom hole locations for the Sena No. 2 are attached as Exhibit A.

Approach seeks an exception from the applicable well location rules for the Sena No. 2 Well for the following reason: (1) The well is located in an un-surveyed area within the Tierra Amarilla land grant. The section/township/range description

REPLY TO:

325 Paseo de Peralta
Santa Fe, New Mexico 87501
Telephone (505) 982-3873 • Fax (505) 982-4289

Post Office Box 2307
Santa Fe, New Mexico 87504-2307

6301 Indian School Road NE, Suite 400
Albuquerque, New Mexico 87110
Telephone (505) 884-4200 • Fax (505) 888-8929

Post Office Box 36210
Albuquerque, New Mexico 87176-6210

Mr. Mark E. Fesmire, Director
April 16, 2010
Page 2

of the location is based on unofficial, projected township and section lines from an adjoining survey and therefore, it is not possible to state the proximity to actual section lines or quarter-quarter subdivisions boundaries with certainty. However, the location descriptions by latitude/longitude and by reference to the New Mexico State Plane Coordinate System referenced on the C-102 are accurate. (2) The well has also been located in conformance with the Design and Operational Standards for Oil and Gas Development of Rio Arriba County Ordinance No. 2009-01. Among other matters, these standards take into consideration terrain limitations, access roads, proximity to water features, and compatibility with existing land uses. Many of these matters are demonstrated by the enclosed aerial photo of the Sena No. 2 Well (Exhibit "B").

The location for this well is not located closer than 660' to any existing well or a well that is known to be planned. Approach Operating LLC's affiliate company, Approach Oil and Gas Inc., owns or controls 100% of the leasehold working interest in each of the adjoining spacing units and Approach Operating would be the operator of each of those units. Further, the mineral interest ownership underlying the SE/SE of projected Section 16 and each of the surrounding spacing units is identical. Consequently, no further notice is indicated under the Division's rules (See Rule 19.15.4.12.A.2).

The Division's Administrative Application Checklist is enclosed.

Thank you for your consideration of this request. Should more information be required, please do not hesitate to contact me.

Very truly yours,

MONTGOMERY & ANDREWS, P. A.



J. Scott Hall

Attorneys for Approach Operating LLC

JSH:kw

Enclosures:

Exhibit A C-102

Exhibit B Aerial Photo

Administrative Application Checklist

cc: Steve Hayden, NMOCD-Aztec
Approach Operating LLC

Rio Arriba County Planning and Zoning Dept.

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Form C-101
June 16, 2008

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit to appropriate District Office

AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

| | | |
|---|---|--|
| ¹ Operator Name and Address APPROACH OPERATING, LLC 6500 WEST FREEWAY, SUITE 800 FORT WORTH, TX 76116 | | ² OGRID Number 248343 |
| ³ Property Code 36761 | ⁵ Property Name manuel SENA | ⁴ ADI Number 30-039-30850 well No. 2 |
| ⁹ Proposed Pool 1 WC; Mancos | | ¹⁰ Proposed Pool 2 |

⁷ Surface Location

| UL or lot no | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|--------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|------------|
| P | 16 | 28N | 4E | G94 | 1290 | SOUTH | 640 | EAST | RIO ARRIBA |

⁸ Proposed 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 |
|--------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| | | | | | | | | | |

Additional Well Information

| | | | | |
|-----------------------------------|--|--------------------------------------|------------------------------------|---|
| ¹¹ Work Type Code N | ¹² Well Type Code O | ¹³ Cable/Rotary ROTARY | ¹⁴ Lease Type Code P | ¹⁵ Ground Level Elevation 7745.50' |
| ¹⁶ Multiple NO | ¹⁷ Proposed Depth 2000' ** | ¹⁸ Formation GRANEROS | ¹⁹ Contractor TBD | ²⁰ Spud Date Upon receipt of all required approvals |

²¹ Proposed Casing and Cement Program

| Hole Size | Casing Size | Casing weight/foot | Setting Depth | Sacks of Cement | Estimated TOC |
|-----------|-------------|--------------------|---------------|-----------------|---------------|
| 12 1/4" | 9 5/8" | 36.0 # | 350' | 210 | SURFACE |
| 8 3/4" | 4 1/2" | 10.5 # | 2000' | 500 | SURFACE |
| | | | | | |
| | | | | | |

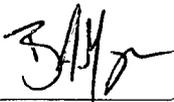
²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any Use additional sheets if necessary.

- (1) Shafco 11" Double Ram 3000# LWS
- (1) Grant 11" rotating head, 3000#
- (1) 5000# choke manifold
- (1) Kooimey 3 station 3000# w/air hydraulic pump
- (4) 10 gallon bottles

** The proposed depth is 100' below the base of the Mancos Shale or 2000', whichever depth is achieved first.

See Attached C.O.A

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature: 

Printed name: Bruce A. Morgan

Title: Landman

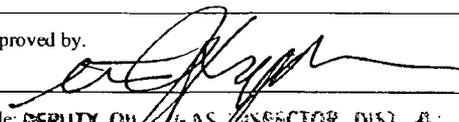
E-mail Address: bmorgan@approachresources.com

Date: 11-23-09

Phone:
817-989-9000

OIL CONSERVATION DIVISION

Approved by:



Title: DEPUTY OIL & GAS INSPECTOR, DIST. 8

Approval Date: NOV 30 2009

Expiration Date: 11/30/2011

Conditions of Approval Attached

NOV 30 2009

HOLD C104 FOR NSE

District I
1625 N. French Dr., Hobbs, NM 89240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Artec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

| | | | | | |
|---|--|--|--|--|-------------------------------------|
| ¹ API Number 30-039-30850 | | ² Pool Code 97767 | | ³ Pool Name W.C. Tierra Amarilla Mancos Oil Pool | |
| ⁴ Property Code 36761 | | ⁵ Property Name Manuel Sena Property | | | ⁶ Well Number Sena #2 |
| ⁷ OGRID No. 248343 | | ⁸ Operator Name Approach Operating LLC | | | ⁹ Elevation 7745.50 |

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 |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|------------|
| P | **16 | **28N | **04E | | 1290 | SOUTH | 641 | 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 |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| | | | | | | | | | |

| | | | |
|-------------------------------------|-------------------------------|----------------------------------|-------------------------|
| ¹² Dedicated Acres 40 | ¹³ Joint or Infill | ¹⁴ Consolidation Code | ¹⁵ Order No. |
|-------------------------------------|-------------------------------|----------------------------------|-------------------------|

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.

**** Projection within the Tierra Amarilla Land Grant**

| | | | | | | | | | | |
|----|--|--|--|--|--|--|--|--|--|--|
| 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 approved by the division.

Signature: B.A. Morgan Date: 11-23-09
Printed Name: Beverly A. Morgan

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.

Melvin Archuleta
Gilberto Archuleta, 28425 13976
13976
REGISTERED PROFESSIONAL SURVEYOR
Certificate Number

Latitude - 36.65691 North
Longitude - -106.51100 West

Latitude, longitude & distances from projected section lines provided by Approach Resources LLC.

APPROACH OPERATING, LLC
OPERATIONS PLAN
SENA NO. 2

I. Location: LAT : 36.65691 N Date: 11-23-09
LONG : -106.51100 W
Rio Arriba County, New Mexico

Field: Wildcat Elev: 7745.50
Surface: Fee

II. Drilling
A. Contractor: TBD
B. Mud Program:

The surface hole will be drilled with a fresh water mud.

The production hole will be drilled with air or air/mist.

C. Minimum Blowout Control Specifications: (See attached BOP System Schematic)

Double ram type 3000 psi working pressure BOP with a rotating head. See the attached Exhibit # 1 for details on the BOP equipment. All ram type preventers and related equipment will be hydraulically tested at nipple-up and after any use under pressure to 1500 psi.

The blind ram will be hydraulically activated and checked for operational readiness each time pipe is pulled out of the hole. All check of the BOP stack and equipment will be noted on the daily drilling report. The BOP equipment will include a kelly cock, floor safety valve, and choke manifold all rated to 2000 psi.

No over pressured zones are expected in this well. No H2S zones expected, but compliance packs will be on location.

III. Logging program: Induction / GR and density logs at TD.

IV. Materials
A. Casing Program:

| Hole Size | Depth | Casing Size | Wt & Grade |
|-----------|-------|-------------|------------|
| 12-1/4" | 350' | 9-5/8" | 36# J-55 |
| 8-3/4" | 2000' | 4-1/2" | 10.5# J-55 |

B. Float Equipment (See attached "Generic Well Schematic")

- a. Surface Casing: Notched collar on bottom and 3 centralizers on the bottom 3 joints.
- b. Production Casing: 4-1/2" whirler type cement nosed guide shoe and a float collar on top of the shoe joint. Centralized with bow spring centralizers

V. Cementing:

- Surface Casing: 9-5/8" 32.3 lb/ft H-40 set to 350'.
Circulate cement to surface

Cement 0-350'

Fluid 1: Water Based Spacer

Water

lbm/gal

Fluid Density: 8.330

Fluid Volume: 10 bbl

Fluid 2: Lead Cement

Premium Cement

lbm/gal

94 lbm/sk Premium Cement (Cement)

0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive)

Gal/sk

2 % Calcium Chloride (Accelerator)

Fluid Weight 15.600

Slurry Yield: 1.180 ft³/sk

Total Mixing Fluid: 5.238

Top of Fluid: 0 ft

Calculated Fill: 350 ft

Volume: 42.139 bbl

Proposed Sacks: 210 sks

Fluid 3: Water Based Spacer

Water Displacement

lbm/gal

Fluid Density: 8.330

Fluid Volume:

23.966 bbl

- Production Casing: 4-1/2" 10.5 lb/ft J-5 casing set to TD

Circulate cement to surface

Cement

Fluid Instructions

Fluid 1: Water Based Spacer

Water

lbm/gal

Fluid Density: 8.330

Fluid Volume: 20 bbl

Fluid 2: Lead Cement

50/50 Poz Premium

0.4 % Halad(R)-344 (Low Fluid Loss Control)

0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive)

Gal/sk

5 lbm/sk Gilsonite (Lost Circulation Additive)

Fluid Weight 13 lbm/gal

Slurry Yield: 1.436 ft³/sk

Total Mixing Fluid: 6.193

Top of Fluid: 0 ft

Calculated Fill: 3500 ft

Volume: 156.266 bbl

Proposed Sacks: 500 sks

Fluid 3: Water Based Spacer

Water Displacement

lbm/gal

Fluid Density: 8.330

Fluid Volume: 31.197 bbl

- The wells will have 40' of 14" conductor set. Then a 12-1/4" hole will be drilled to about 350' when 9-5/8" surface casing will be set and cemented. We will drill out with a 8-3/4" bit using

MULTI-POINT SURFACE USE PLAN

1. Existing Roads and New Roads:

Existing roads vary in condition, but all are drivable by pickup. Initially, Approach will crown and ditch these roads while providing for drainage via ditch relief and rolling water bars placed at a maximum 300 feet apart. During the initial phase of construction and drilling, roads will be developed using native materials and rock where necessary to prevent rutting or stormwater run-on from eroding road bed. Roads will be less than 25 feet wide with an additional 7.5 feet on each side for ditching. Rolling water bars will be installed with at least half their height in the cut and skewed to drain. If the well is to be abandoned, the road will be left in a condition that is at minimum comparable to the existing condition or is reclaimed. Maintenance will be conducted as necessary during all of Approach's operations. Roads will be kept in a serviceable condition that provides the land owner and the Approach with reasonable and emergency access.

2. Location of Existing Wells:

There are no existing wells in the vicinity of the Sena No. 2. See attached aerial photo.

3. Location of Production Facilities:

In the event of production, production facilities will be located on the drill pad. The actual placement of this equipment will be determined when the well's production characteristics can be evaluated after completion.

4. Water Supply:

Water for drilling and completion will be purchased from local sources.

5. Methods of Handling Waste Disposal:

- a. The drill cuttings, fluids and completion fluids will be placed in the above ground steel tanks. All cuttings and fluids will be disposed of at a NMOCD permitted facility. Upon completion, the pad will be leveled, contoured and reseeded with the appropriate seed mixture.
- b. All garbage and trash will be placed in a metal trash basket. It will be hauled off and dumped in an NMOCD permitted facility upon completion of operations.
- c. Portable toilets will be provided and maintained during drilling operations.

6. Ancillary Facilities:

Ancillary facilities are to be based on well productivity.

7. Well Site Layout:

The well site will encompass an area of 200'X 275' as shown on the attached aerial photo.

8. Plans for Restoration of Surface:

When the well is abandoned the location and access road will be cleaned and restored to the original topographical contours as much as possible. The area will be reseeded with appropriate seed mixture.

If the well is productive, areas not used in production will be contoured and seeded with stipulated seed mixture. Production equipment will be painted to blend with the natural color of the landscape.

9. Lessee's or Operator's Representative:

Brice A. Morgan
Approach Operating, LLC
6500 West Freeway, Suite 800
Fort Worth, Texas 76116
Phone: (817) 989-9000



Brice A. Morgan
Landman

Generic Well Schematic

Approach Operating, LLC
Rio Arriba Well

Rio Arriba Co., NM

TOC Surface Casing @ Surface

Surface Csg 9 5/8" @ 350'

Prod. TOC 250' or higher

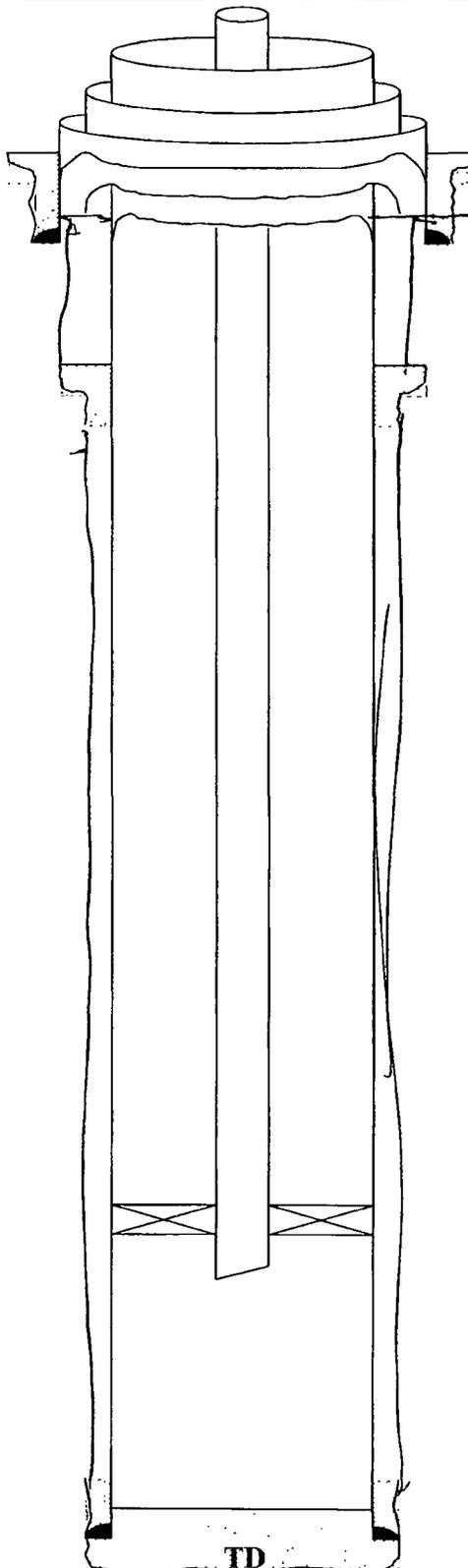
Hole Size 12 1/4"

TOC Prodn Csg @ TBD

Hole Size 8 3/4"

Production Csg 4 1/2" @ TD

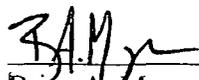
TD



Operator Certification Statement

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and condition under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements. Executed this 23rd day of November, 2009.

Approach Operating, LLC



Bruce A. Morgan
Landman

WC Tierra Amarillo Mancos Conditions of Approval

In the Tierra Amarilla area of interest the first good aquifer appears to be the uppermost sand of the Dakota Formation known as the Two Wells Member. The regulatory definition of the vertical limits of the Basin Dakota gas pool includes the Graneros Formation.

Because the depth to the Dakota Formation may vary due to topographic and structural changes from one site to another the TD for the wells assigned to the WC Tierra Amarilla Mancos Oil Pool (97767) is to be limited to the base of the Greenhorn Member of the Mancos Formation or shallower.

This will provide a good barrier between the upper Dakota Formation aquifer and perched and stimulated zones in the Mancos.

Cement volume for the production casing appears to be inadequate to circulate to surface. Please include enough cement to circulate hole, plus 50% excess. If cement does not circulate, a CBL will be required to show cement top and quality prior to completion.

T28N-R4E

16

SENA 2

LAT: 36:39:25.02
LONG: -106:30:42.52
X: 423,207
Y: 2,058,453

WS

United States Highway 64

United States Highway 64

Approa
PROJECTS
RIO ARRIBA CO.,
SENA 2
By: O MELENDE

0 20
FEET

May 20, 2008