ATS-07-423

968

OCD-ARTESIA

JUN 24 2007

Form 3160-3
(September 2001)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HIGH CAVE KARST

FORM APPROVED
OMB No. 1004-0136
Expires January 31, 2004

APPLICATION FOR PERMIT TO DRILL OR REENTER

UNORTHODOX LOCATION

1a. Type of Work: ☒ DRILL ☐ REENTER	5. Lease Serial No. NMLC050797
1b. Type of Well: ☐ Oil Well ☐ Gas Well ☒ Other ☒ Single Zone ☐ Multiple Zone	6. If Indian, Allottee or Tribe Name N/A
2. Name of Operator Apollo Energy, L.P. 248192	7. If Unit or CA Agreement, Name and No. NMNM010194
3a. Address 6363 Woodway, Suite 1100, Houston TX 77057	8. Lease Name and Well No. 303506 Russell USA# 72
3b. Phone No. (include area code) (337)-502-5227	9. API Well No. 30-015-36105
4. Location of Well (Report location clearly and in accordance with any State requirements.*) At surface 1960' From the East Line and 2480' From the South Line At proposed prod. zone Same CAPITAN CONTROLLED WATER BASIN	10. Field and Pool, or Exploratory 52820 Russell Yates
14. Distance in miles and direction from nearest town or post office* 8 miles North/Northeast of Carlsbad, New Mexico	11. Sec., T., R., M., or Blk. and Survey or Area Sec. 13-20S-28E
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1960'	12. County or Parish Eddy County
16. No. of Acres in lease 1200 Acres	13. State NM
17. Spacing Unit dedicated to this well 320 Acres	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 183'	19. Proposed Depth 1200'
20. BLM/BIA Bond No. on file NMB000458	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3252'	22. Approximate date work will start* July 1st, 2007
23. Estimated duration 7 - 14 Days	

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature	Name (Printed/Typed)	Date
	Scott St. John	6/19/07

Title: Agent for Apollo Energy, L.P.

Approved by (Signature)	Name (Printed/Typed)	Date
/s/ James Stovall	/s/ James Stovall	JUL 20 2007

Title	Office
FIELD MANAGER	CARLSBAD FIELD OFFICE

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

APPROVAL FOR TWO YEARS

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

*(Instructions on reverse)

SEE ATTACHED FOR CONDITIONS OF APPROVAL

SUBJECT TO LIKE APPROVAL BY STATE

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

WFX - 12887

☆U.S. Government Printing Office 2001-773-001/46034

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240

DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

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

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

Form C-102
Revised October 12, 20
Submit to Appropriate District O
State Lease – 4 co
Fee Lease – 3 cop

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name	
[4] Property Code	[5] Property Name: RUSSELL USA		[6] Well Number: 72
[7] OGRID No.	[8] Operator Name: APOLLO ENERGY, L.P.		[9] Elevation: 3252'

[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
J	13	20 SOUTH	28 EAST, N.M.P.M.		2480'	SOUTH	1960'	EAST	EDDY

[11] Bottom Hole Location If Different From Surface

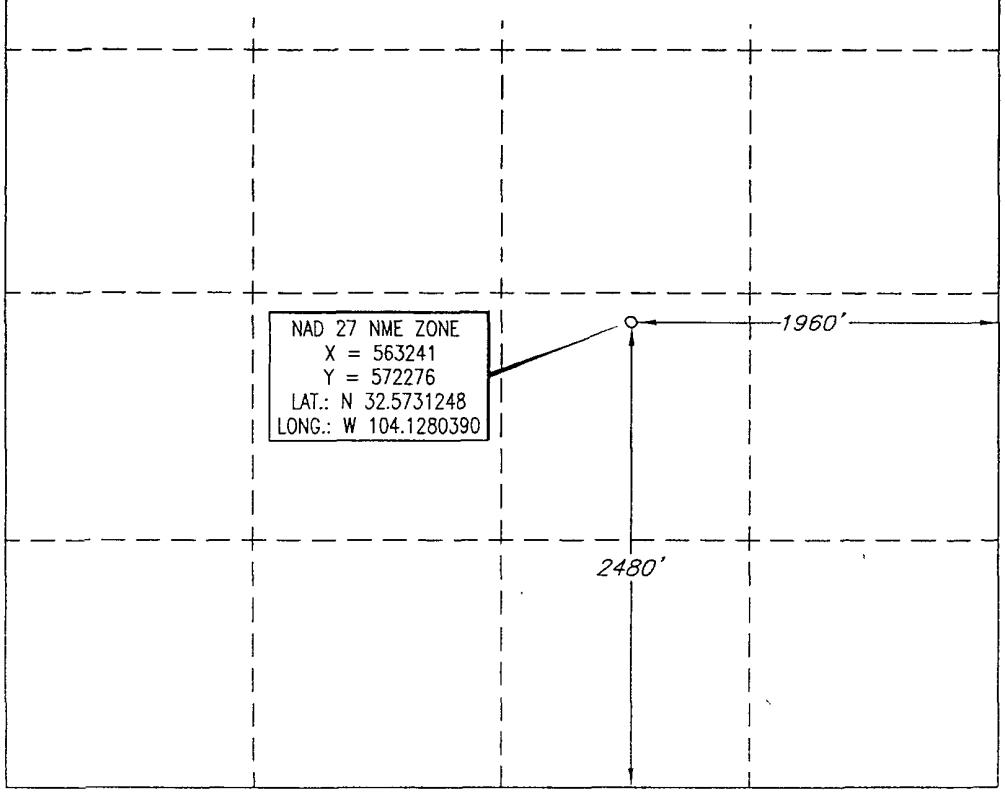
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.

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

16

Exhibit A – Well Location and Acreage Dedication Plat



[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete t the best of my knowledge and belief, and that this organization either owns 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 locatic persuant to a contract with an owner of such a mineral or working interes or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature: Thomas Wright Date: 7/16/07

Printed Name: Thomas G. Wright

[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 m supervision, and that the same is true and correct to the best of my belief.

MAY 7, 2007

Date of Survey

Signature and Seal of Professional Surveyor

V. LYNN BEZNER 5-24-07

Certificate Number V. L. BEZNER R.P.S. #7920

JOB #123698 / 74 SW / E.U.O.

Drilling Program

APOLLO ENERGY, L.P.

Russell USA #72

1960' FEL & 2480' FSL

Section 13-20S-28E Eddy County, New Mexico

Please address inquiries, questions, scheduling of meetings and deficiency statements, if any, to Scott St. John and/or Monica Smith at the address shown below:

Reagan Smith Energy Solutions, Inc.
2525 NW Expressway, Suite 312
Oklahoma City, OK 73112
405-286-9326
sstjohn@rsenergysolutions.com

Drilling Program
Apollo Energy, L.P.
Russell USA #72

1960' FEL & 2480' FSL
Section 13-20S-28E Eddy County, New Mexico

2.1 Location:

1960' FEL & 2480' FSL

2.2 Elevation Above Sea Level:

GR 3252'

2.3 Geologic Name of Surface Formation:

Permian Age

2.4 Drilling Tools and Associated Equipment:

Conventional rotary drilling rig using fluid will be used as a circulating medium for solids removal.

2.5 Proposed Drilling Depth:

1200'

2.6 Estimated Tops of Geological Markers:

Yates	725'
Seven Rivers	910'
Total Depth	1,200'

2.7 Estimated Depths of Anticipated Fresh Water, Oil, and Gas

Surface	Water	44' – 360'
Yates	Oil/Gas	750' – 800'
Seven Rivers	Oil/Gas	920' – 950'

Base to Treatable Water for well #72 is: 360'

Groundwater to be protected by 8-5/8" surface casing with cement circulated to the surface. Potentially productive horizons to be protected by 4-1/2" production casing with cement tied back to a minimum of the surface casing but with anticipation to circulate to surface.

see COA

2.8 Casing Program

Hole Size	Interval	Casing OD	Weight	Thread	Collar	Grade
11"	0 – 385'	8-5/8"	24	STC	STC	J-55
6-3/4"	0 - 1200'	4-1/2"	9.5	STC	STC	J-55

2.9 Cementing & Setting Depth

Surface 8-5/8" – Cement 8-5/8", 24#, J-55 casing with 125 sx of Class "C" cement with 2% CaCl + 1/4 # /sx Flocele. Run Floatshoe and 5 centralizers. Casing specs: collapse resistance is 1370 psi; yield pressure is 2950 psi; Joint strength is 244,000 psi; body yield strength is 381,000.

Production 4-1/2" – Set 1,200' of 4-1/2" J-55 9.5# STC casing. Cement will consist of 150 sks of Class "C" cement with 2% gel, 5 # sx of salt and .75% CFR-2. Use guide shoe and float collar, and 10-12 centralizers where necessary. Use top and bottom rubber plugs, displace cement with clean, fresh water treated with 2% KCL. Casing specs: collapse resistance is 3310 psi; yield pressure is 4380 psi; Joint strength is 101,000 psi; body yield strength is 152,000.

2.10 Pressure Control Equipment

An 8" 1000 psi working pressure B.O.P. will be installed. A choke manifold and accumulator with floor and remote operating stations and auxiliary power system. A Kelly cock will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the rig floor. BOP unit will be hydraulically operated. BOP will be nipped up on the 8-5/8" casing and will be operated at least once a day while drilling. No abnormal pressure or temperature is expected while drilling.

2.11 Proposed Mud Circulating System

Depth	Mud Wt	Viscosity	Fluid Loss	Type Mud
0 – 385'	8	33 - 35	NC	Spud with Bentonite/Soda Ash/Caustic slurry using a Fresh Water Gel. Set Surface Casing.
385' – 1200'	9.5 – 9.8	50 – 60, 45 SEC at TD	NC	Fresh water. Drill out using Brine Salt Gel to insure that salt and anhydrite sections do not wash

The Mud System will be a ~~closed~~ system. All drill cuttings and liquid mud will be hauled to an approved site for disposal. Sufficient mud materials will be kept on location at all times in order to combat lost circulation, or unexpected kicks. The viscosity and water loss may have to be adjusted in order to meet these needs.

2.12 Evaluation Program:

1. **Samples:** None
2. **Electric Logging:** Dual Induction Tool with Gamma Ray; Density Neutron Porosity Log
3. **Coring:** Yates Formation
4. **Drill Stem Tests:** No DST's

2.13 Potential Hazards:

No abnormal pressures or temperatures or H2S has are expected. Adequate flare lines will be installed off the mud / gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used. Estimated BHP 300 PSI, estimated BHT 80.

2.14 Anticipated Starting Date and Duration of Operations:

Lease road upgrades and location construction will begin after BLM approval of APD. Anticipated spud date is July 1st, 2007. Total duration of work is estimated to be 7 – 14 days.

2.15 Downhole Conditions:

Zones of Possible Lost Circulation: Surface Interval
Zones of Abnormal Pressure: None
Maximum Bottom Hole Temperature: 80 Degrees Fahrenheit
Maximum Bottom Hole Pressure: 300 psi

Exhibit D
Rig Layout Plat

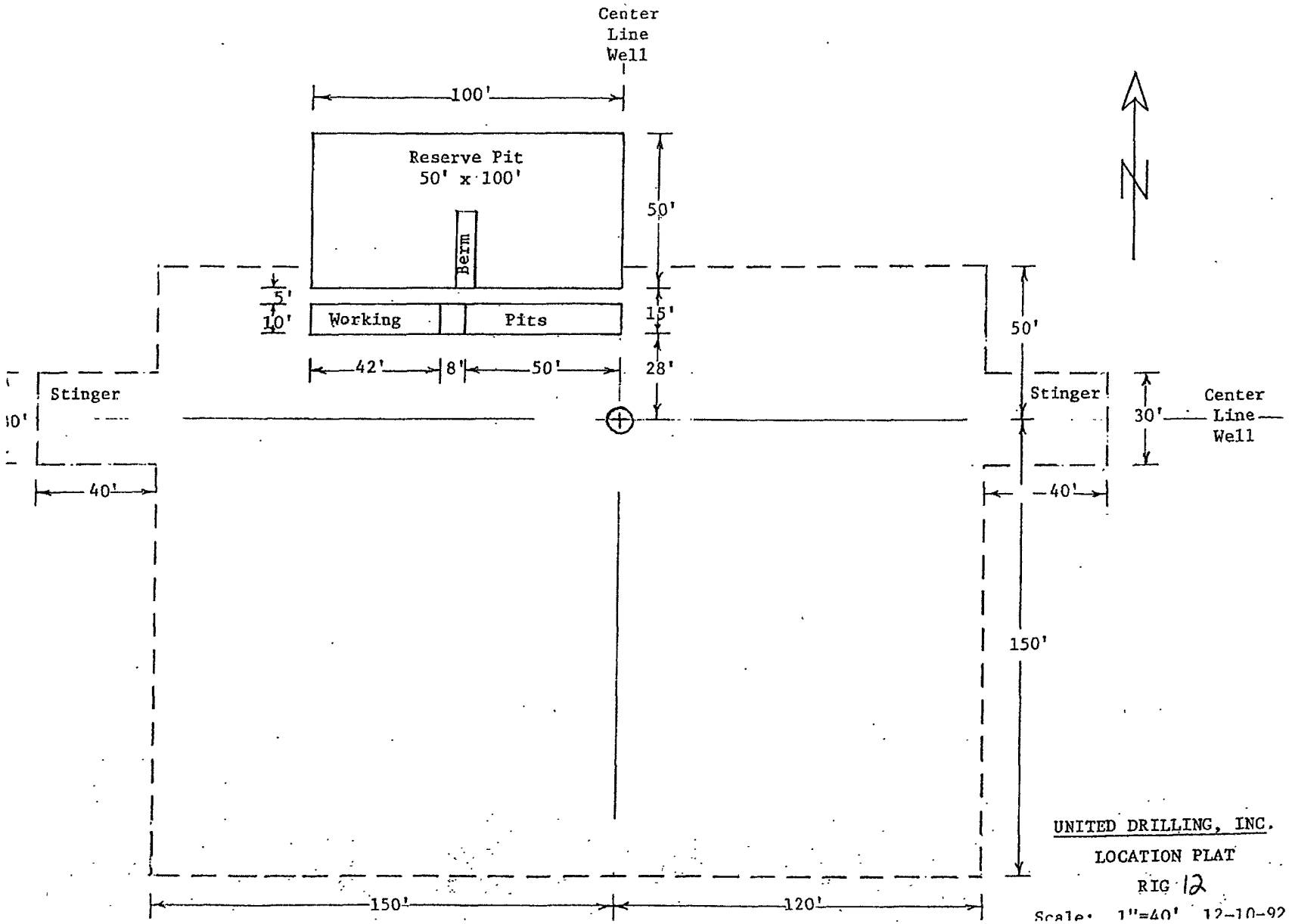
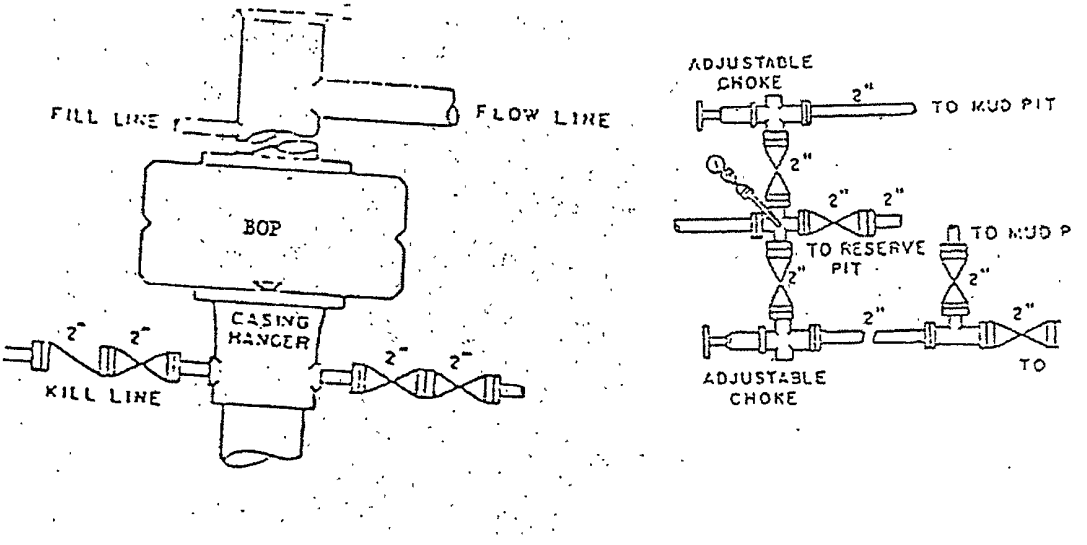


Exhibit E – Well Control Equipment / Blowout Preventor Stack and Choke Manifold



ANNULAR BOP STACK

PRESSURE 1000#

Hydrogen Sulfide Drilling Operations Plan

Apollo Energy, L.P.
Russell USA #72
1960' FEL & 2480' FSL
Section 13-20S-28E Eddy County, New Mexico

Please address inquiries, questions, scheduling of meetings and deficiency statements, if any, to Scott St. John and/or Monica Smith at the address shown below:

Reagan Smith Energy Solutions, Inc.
2525 NW Expressway, Suite 312
Oklahoma City, OK 73112
405-286-9326
sstjohn@rsenergysolutions.com

Hydrogen Sulfide Drilling Operations Plan
Apollo Energy, L.P.
Russell USA #72

1960' FEL & 2480' FNL
Section 13-20S-28E Eddy County, New Mexico

3.1. Training

All company and contract personnel admitted on location must be trained by a qualified H2S safety instructor to the following:

A. Characteristics of H2S
B. Physical effects and hazards
C. Proper use of safety equipment and life support systems
D. Principle and operation of H2S detectors, warning system and briefing
E. Evacuation procedure, routes, and first aid
F. Proper use of 30 minutes pressure demand air pack

3.2. H2S Detection and Alarm Systems

A. H2S detectors and audio alarm system to be located at bell nipple, end of blooie line (mud pit) and on derrick floor or doghouse

3.3. Windsock and/or wind streamers

A. windsock at mudpit area should be high enough to be visible
B. Windsock at briefing area should be high enough to be visible
C. There should be a windsock at entrance to location

3.4. Condition Flags and Signs

A. Warning sign on access road to location
B. Flags to be displayed on sign at entrance to location. Green flag, normal safe condition. Yellow flag indicates potential pressure and danger. Red flag, danger – H2S present in dangerous concentration. Only emergency personnel admitted to location.

3.5. Well Control Equipment

A. See Exhibit "E"

3.6. Communications

A. While working under masks chalkboards will be used for communication
B. Hand signals will be used where chalk board is inappropriate
C. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephones will be available at most drilling foreman's trailer or living quarters.

3.7. Drillstem Testing

A. Exhausts will be watered
B. Flare line will be equipped with an electric ignitor or a propane pilot light in the event that gas reaches the surface
C. If location is near any dwelling a closed DST will be performed

3.8. Supervision

A. Drilling contractor supervisor will be required to be familiar with the effects H2S has on tubular goods and other mechanical equipment

3.9. Mud System

A. If H2S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H2S scavengers if necessary.

Surface Use Plan

APOLLO ENERGY, L.P.

Russell USA #72

1960' FEL & 2480' FSL

Section 13-20S-28E Eddy County, New Mexico

Please address inquiries, questions, scheduling of meetings and deficiency statements, if any, to Scott St. John and/or Monica Smith at the address shown below:

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Oklahoma City, OK 73112
405-286-9326
sstjohn@rsenergysolutions.com

SURFACE USE PLAN
Apollo Energy, L.P.
Russell USA #72
1960' FEL & 2480' FSL
Section 13-20S-28E
Eddy County, New Mexico

4.1 Existing Roads:

Area Maps, Exhibit "G" is a reproduction of Eddy Co. General Highway map. Exhibit "C" is a reproduction of a USGS Topographic Map showing existing roads and proposed roads. All existing roads will be maintained in a condition equal to or better than current conditions. Any new roads will be constructed to BLM specifications.

A. Exhibit "A" shows the proposed well site as staked
B. Detailed Directions to Location – From junction of Greene Street (US 62 US 180), go North 8.0 miles on Magnum Road; thence West 0.5 miles on county road 238, thence north 0.3 miles on lease road to a point approximately 120' West of the Russell USA #72 well location.

4.2 Planned Access Roads

An existing lease road will used to access the website and will be upgraded.

4.3 Location of Existing Wells in a One-Mile Radius Exhibit "H"

A. Water wells -	None Known
B. Disposal wells -	4– Russell USA #60 & #65
C. Drilling wells -	None Known
D. Producing wells -	7 - Russell USA #6, #14, #18, #25, #38, #56 and #69
E. Abandoned wells -	None Known

4.4 Additional Maps and Plats

See Exhibit "D" for the Rig Layout and Exhibit "E" for well control equipment.

4.5 Location and Typed of Water Supply

Water will be purchased locally from a commercial source and trucked to holding tank in field.

4.6 Source of Construction Material

If possible, construction will be obtained from the excavation of drill site, if additional material is needed it will be purchased from a local source and transported over the access route as shown on Exhibit "B".

4.7 Methods of Handling Waste Material

A. Drill cuttings will be disposed of in a cuttings pit.
B. All trash, junk and other waste material will be contained in trash cages or bins to prevent scattering. When the job is completed all contents will be removed and disposed of in an approved sanitary land fill.
C. Salts remaining after completion of well will be picked up by supplier including broken sacks.
D. Sewage from living quarters will drain into holding tanks and be cleaned out periodically. A Porta-John will be provided for the rig crews. This equipment will be properly maintained during the drilling operations and removed upon completion of the well.
E. Excess fluids will be hauled off by transports and be disposed of at a state approved disposal facility. Later pit area will be leveled and contoured to conform with the original and surrounding area. Water and any oil or condensate produced will be stored in test tanks until sold and hauled from the site.

4.8 Ancillary Facilities

A. No camps or airstrips to be constructed.

4.9 Well Site Layout

A. Exhibit "D" shows location and rig layout
B. This exhibit indicates proposed location of reserve and trash pits and living facilities
C. Mud pits in the active circulating system will be steel pits with a cuttings pit. The cuttings pit liner will be 6 mils thick PVC or polyethylene. Pit liner will extend a minimum 2' over the cuttings pit, where it will be anchored down.
D. Upon completion of the well, all excess fluids will be suctioned off from the cuttings pit and hauled off for proper disposal.

E. The reserve pit will be fenced on three sides with four strands of barbed wire during drilling and completion phases. The fourth side will be fenced after all drilling operations have ceased. If the well is a producer, the reserve pit fence will be torn down. The reserve pit and those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requirements.

4.10 Plans for Restoration of Surface

Rehabilitation of the location and reserve pit will start in a timely manner after all drilling operations cease. The type of reclamation will depend on whether the well is a producer or a dry hole.

The reserve pit will be allowed to dry properly, and fluid removed and disposed of in accordance with Article 7.B as previously noted. The pit area will then be leveled and contoured to conform to the original and surrounding area. Drainage systems, if any, will be reshaped to the original configuration with provisions made to alleviate erosion. These may need to be modified in certain circumstances to prevent inundation of the location's pad and surface facilities. After the area has been shaped and contoured, topsoil from the spoil pile will be placed over the disturbed area to the extent possible. Revegetation procedures will comply with BLM standards.

4.11 Other Information

A. Topography consists of a relatively flat surface with loose tan sands. Vegetation is mainly yucca, mesquite and shin oak.
B. The well site is on surface owned by The United States Department of the Interior, Bureau of Land Management. The land is used mainly for farming, cattle ranching, recreational use, and oil and gas production.
C. An Archeological survey will be conducted on the location and proposed roads, and this report will be filed with the Bureau of Land Management in the Carlsbad BLM office.
D. There are no known dwellings within 1 mile of this location.

4.12 Operators Representative

Before and During Drilling
Gregory H. Hall
P.O. box 30444
Edmond, OK 73003
Office Phone: 405-630-7620

After Construction
Tommy Wright
4823 Ihles Road
Lakes Charles, LA 70605
337-502-5227
337-502-5230

4.13 Certification

CERTIFICATION: I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exit; that the statements made in this plan are to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Encore Operating and/or its contractors/subcontractors and is in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provision of U.S.C. 1001 for the filing of a false statement.

Date: 6/19/07

Name: Scott St. John

Title: Project Mgr

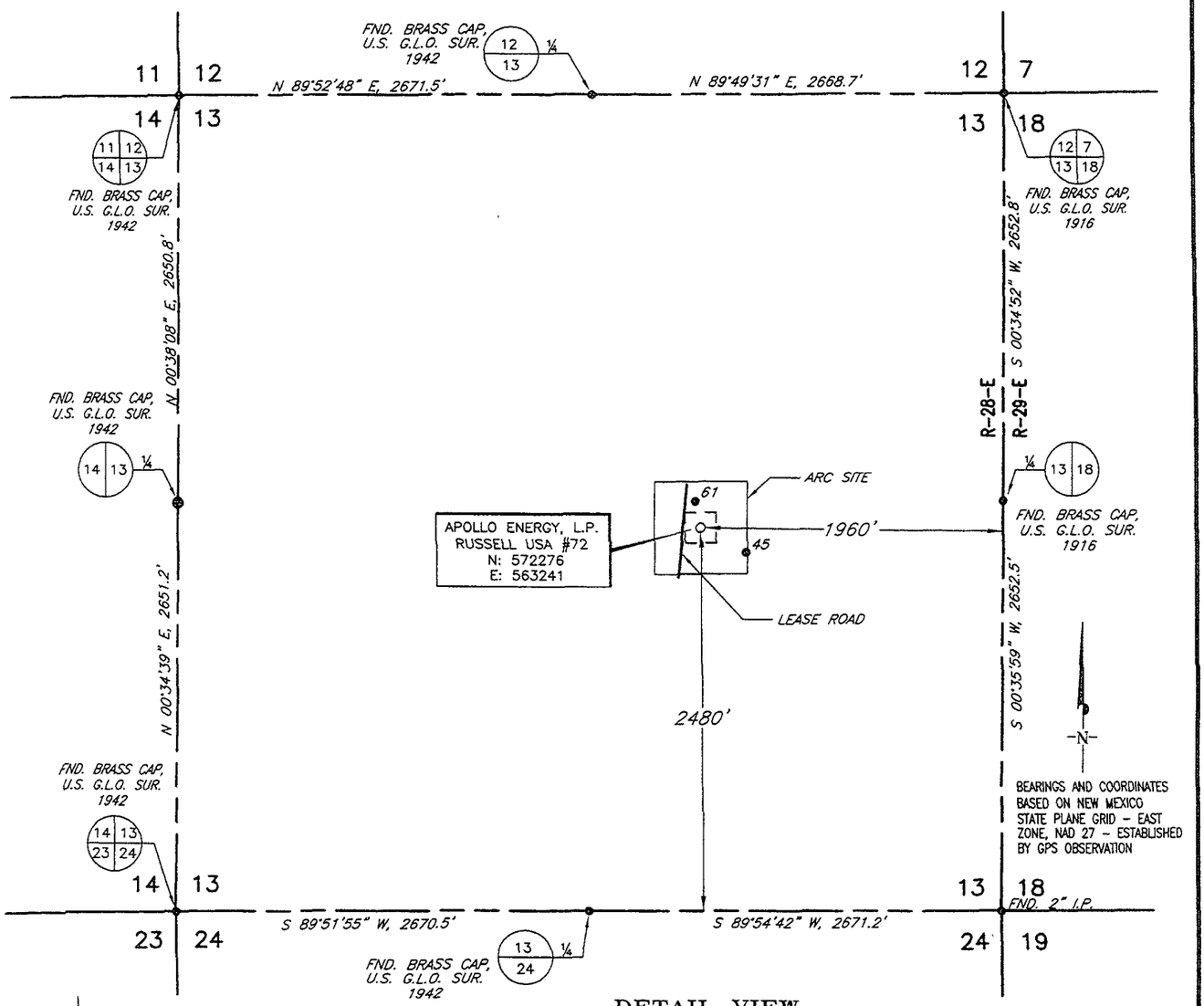
Scott St. John, Agent for Apollo Energy, L.P.

Please address inquiries, questions, scheduling of meetings and deficiency statements, if any to Scott St. John and/or Monica Smith at the address shown below:

Reagan Smith Energy Solutions, Inc.
2525 NW Expressway, Suite 312
Oklahoma City, Oklahoma 73112
(405) 286-9326

Exhibits

PLAT SHOWING PROPOSED WELL LOCATION IN
SECTION 13, T-20-S, R-28-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

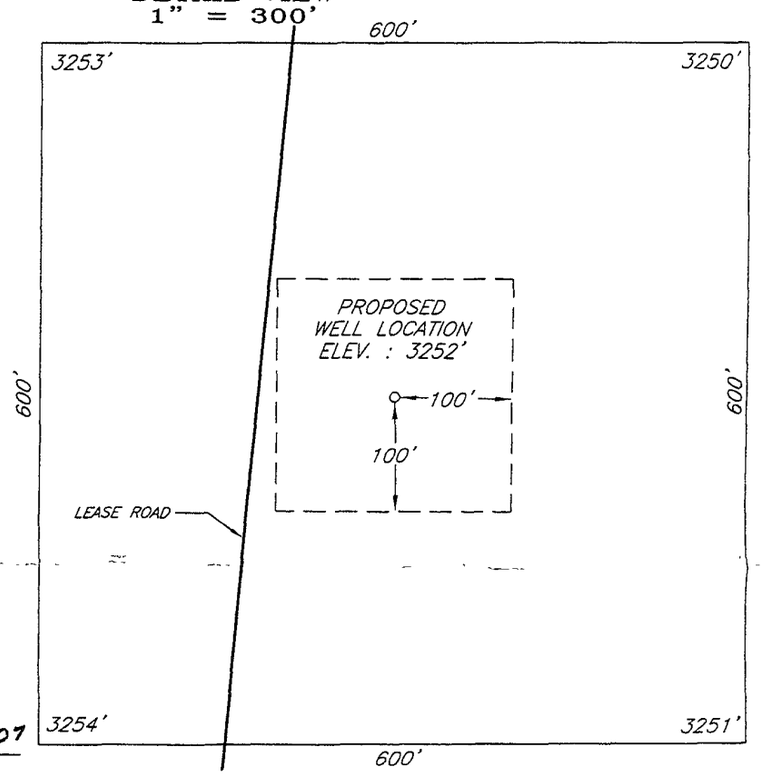


PLAN VIEW
1" = 1000'

0 1000
1" = 1000'

BEARINGS AND COORDINATES BASED ON NEW MEXICO STATE STATE PLANE GRID - EAST ZONE, NAD 27

DETAIL VIEW
1" = 300'



DATE OF FIELD WORK: MAY 7, 2007

I, V. L. BEZNER, A PROFESSIONAL SURVEYOR IN THE STATE OF NEW MEXICO AND AUTHORIZED AGENT OF TOPOGRAPHIC LAND SURVEYORS, HEREBY CERTIFY THIS PLAT TO BE A TRUE REPRESENTATION OF A SURVEY PERFORMED IN THE FIELD UNDER MY SUPERVISION, THAT I AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND THAT THIS PLAT AND FIELD SURVEY UPON WHICH IT IS BASED MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO. (RULE 500.6 EASEMENT SURVEYING)

5-24-07

V. L. BEZNER, P.S. NO. 7920

NO.	REVISION	DATE	BY

SURVEYED BY: A.M.
DRAWN BY: E.U.O.
APPROVED BY: V.L.B.

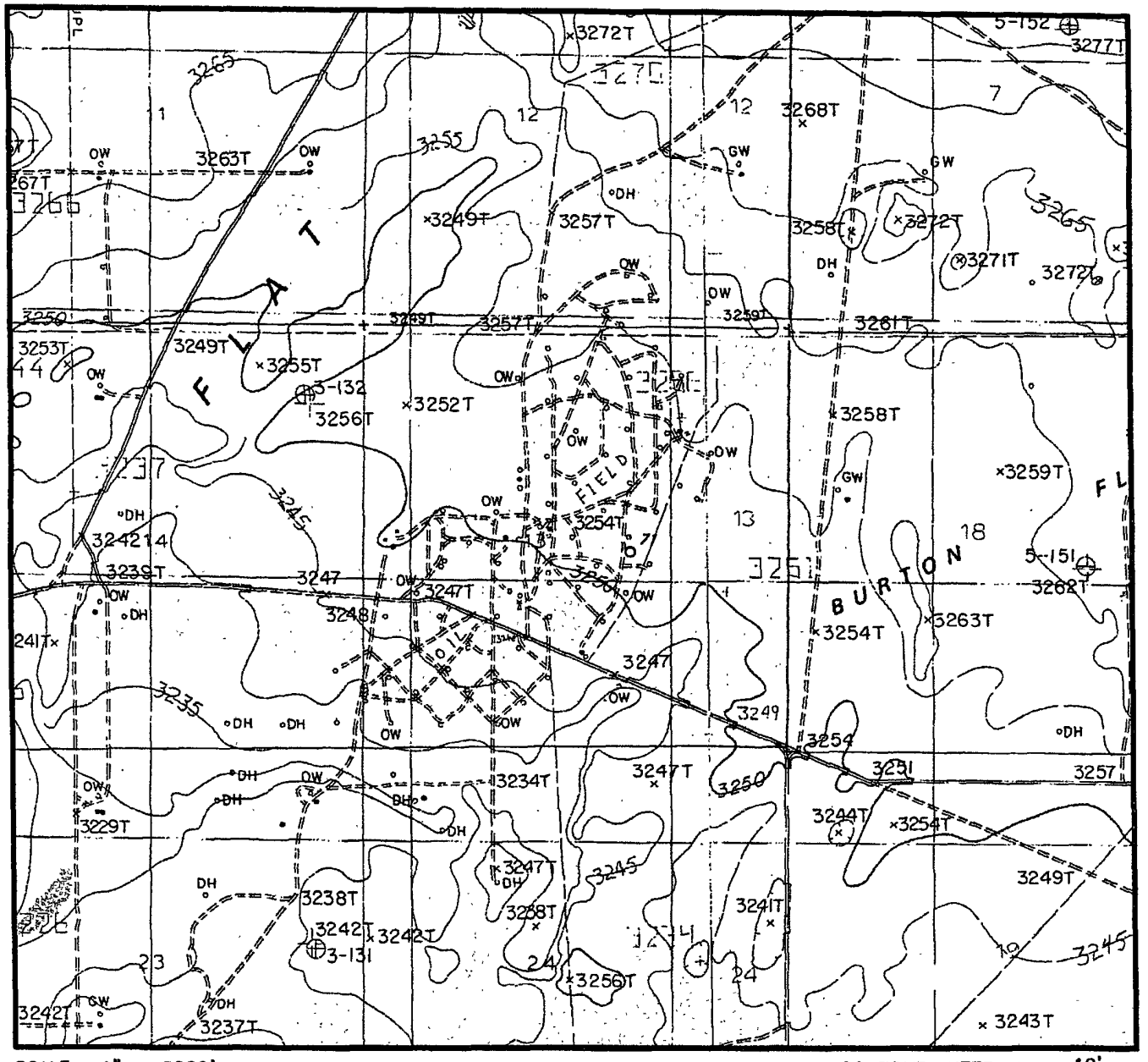
APOLLO ENERGY, L.P.

SURVEYING AND MAPPING BY
TOPOGRAPHIC LAND SURVEYORS
MIDLAND, TEXAS

SCALE: 1" = 1000'
DATE: MAY 7, 2007
JOB NO.: 123698-F
QUAD NO.: 74 SW
SHEET : 1 OF 1

Exhibit C

LOCATION & ELEVATION VERIFICATION MAP



SCALE : 1" = 2000'

CONTOUR INTERVAL 10'

SECTION 13 TWP 20-S RGE 28-E

SURVEY NEW MEXICO PRINCIPAL MERIDIAN

COUNTY EDDY STATE NM

DESCRIPTION 2480' FSL & 1960' FEL

ELEVATION 3252'

OPERATOR **APOLLO ENERGY, L.P.**

LEASE RUSSELL USA #72

U.S.G.S. TOPOGRAPHIC MAP

ANGEL DRAW, NEW MEXICO

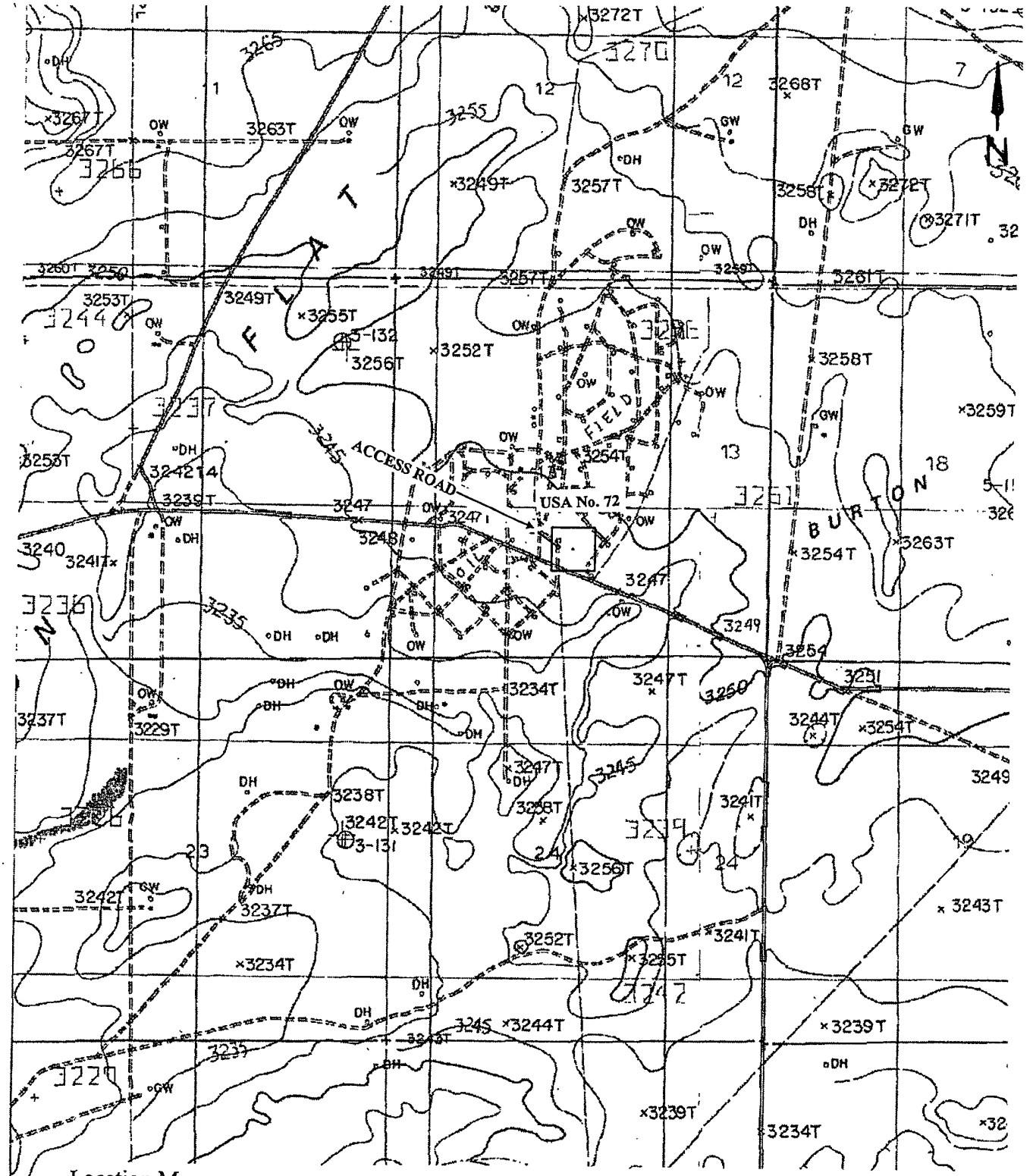
SCALED LAT. LAT.: N 32.5731248

LONG. LONG.: W 104.1280390

TOPOGRAPHIC LAND SURVEYORS

Surveying & Mapping for the Oil & Gas Industry

2903 N. BIG SPRING
MIDLAND, TX. 79705
(800) 767-1653



Location Map

BAS 05-07-10

Russell USA well No. 72, pad and road for Apollo Energy, L.P. in Section 13, T 20S, R 28E, NMPM, Eddy County, NM

Map Reference: USGS 7.5' Series; ANGEL DRAW, NM (Prov. Ed. 1985) 32104-E2

SCALE 1:24000

1 MILE

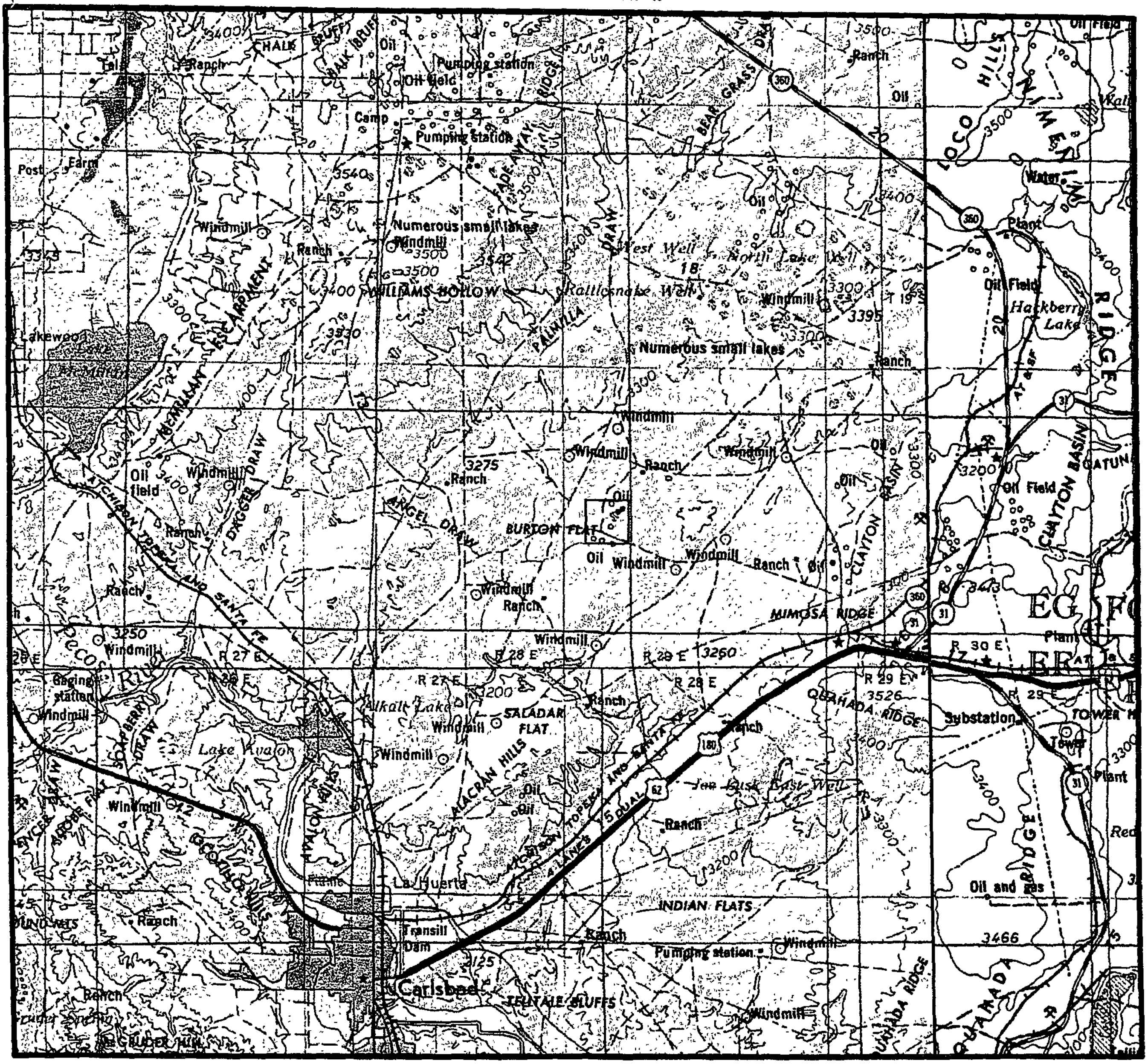
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 KILOMETER

BAS

Exhibit G

VICINITY MAP



SECTION 13 TWP 20-S RGE 28-E

SURVEY NEW MEXICO PRINCIPAL MERIDIAN

COUNTY EDDY STATE NM

DESCRIPTION 2480' FSL & 1960' FEL

OPERATOR **APOLLO ENERGY, L.P.**

LEASE RUSSELL USA #72

DISTANCE & DIRECTION FROM THE JUNCTION OF HWY. 62/180 IN CARLSBAD, GO NORTH 8.0 MILES ON MANGUM RD., THENCE WEST 0.5 MILES ON CO. RD. 238, THENCE NORTH 0.3 MILES ON LEASE ROAD TO A POINT ±120' WEST OF THE LOCATION.

-N-

TOPOGRAPHIC LAND SURVEYORS

Surveying & Mapping for the Oil & Gas Industry

This location has been very carefully staked on the ground according to the best official survey records, maps, and other data available to us.
Review this plat and notify us immediately of any possible discrepancy.

1307 N. HOBART
PAMPA, TX. 79065
(800) 658-6382

6709 N. CLASSEN BLVD.
OKLAHOMA CITY, OK. 73116
(800) 654-3219

2903 N. BIG SPRING
MIDLAND, TX. 79705
(800) 767-1653

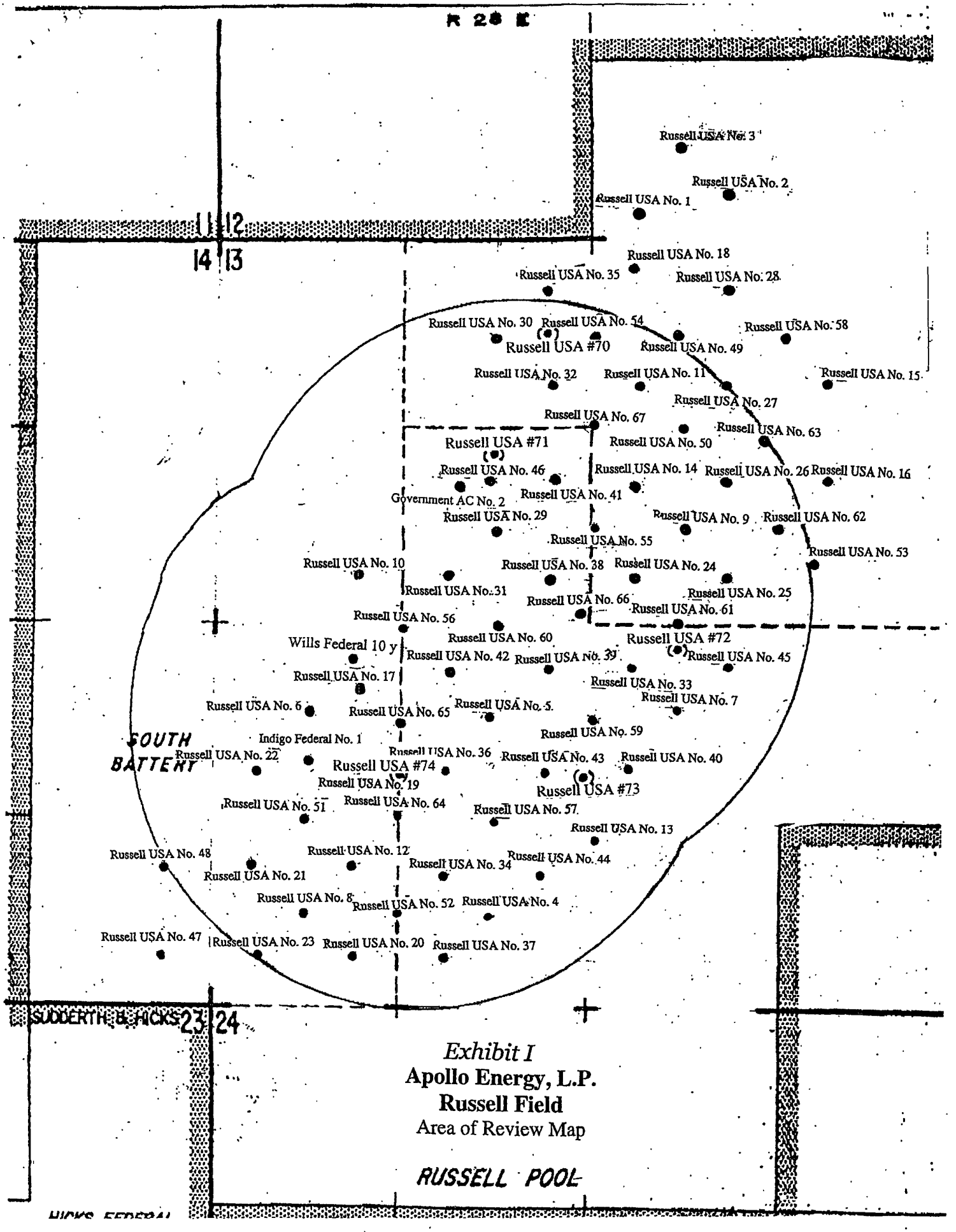


Exhibit I

Apollo Energy, L.P.

Russell Field

Area of Review Map

SPECIAL DRILLING STIPULATIONS

THE FOLLOWING DATA IS REQUIRED ON THE WELL SIGN

Operator's Name: Apollo Energy, L.P. Well Name & #: Russell USA # 72
Location 2480 F S L & 1960 F E L; Sec. 13, T. 20 S., R. 28 E.
Lease #: LC-050797 County: Eddy State: New Mexico

The Special stipulations check marked below are applicable to the above described well and approval of this application to drill is conditioned upon compliance with such stipulations in addition to the General Requirements. The permittee should be familiar with the General Requirements, a copy of which is available from a Bureau of Land Management office. EACH PERMITTEE HAS THE RIGHT OF ADMINISTRATIVE APPEAL TO THESE STIPULATIONS PURSUANT TO TITLE 43 CFR 3165.3 AND 3165.4.

This permit is valid for a period of one year from the date of approval or until lease expiration or termination whichever is shorter.

I. SPECIAL ENVIRONMENT REQUIREMENTS

( ) Lesser Prairie Chicken (stips attached)
( ) San Simon Swale (stips attached)
( ) Flood plain (stips attached)
(x) Other **See attached Cave/Karst Conditions of Approval**

II. ON LEASE - SURFACE REQUIREMENTS PRIOR TO DRILLING

(x) The BLM will monitor construction of this drill site. Notify the (x) Carlsbad Field Office at (505) 234-5972 ( ) Hobbs Office (505) 393-3612, at least 3 working days prior to commencing construction.

(x) Roads and the drill pad for this well must be surfaced with 6 inches of compacted caliche upon completion of well and it is determined to be a producer.

( ) All topsoil and vegetation encountered during the construction of the drill site area will be stockpiled and made available for resurfacing of the disturbed area after completion of the drilling operation. Topsoil on the subject location is approximately _____inches in depth. Approximately _____cubic yards of topsoil material will be stockpiled for reclamation.

( ) Other.

III. WELL COMPLETION REQUIREMENTS

( ) A Communitization Agreement covering the acreage dedicated to the well must be filed for approval with the BLM. The effective date of the agreement must be prior to any sales.

(x) Surface Restoration: If the well is a producer, the reserve pit(s) will be backfilled when dry, and cut-and-fill slopes will be reduced to a slope of 3:1 or less. All areas of the pad not necessary for production must be re-contoured to resemble the original contours of the surrounding terrain, and topsoil must be re-distributed and re-seeded with a drill equipped with a depth indicator (set at depth of ½ inch) with the following seed mixture, in pounds of Pure Live Seed (PLS), per acre. If broadcasting, the seeding rate must be doubled.

( ) A. Seed Mixture 1 (Loamy Sites)
Side Oats Grama (*Bouteloua curtipendula*) 5.0
Sand Dropseed (*Sporobolus cryptandrus*) 1.0
Plains lovegrass (*Eragrostis intermedia*) 0.5

(x) B. Seed Mixture 2 (Sandy Sites)
Sand Dropseed (*Sporobolus crptandrus)* 1.0
Sand Lovegrass (*Eragostis trichodes*) 1.0
Plains Bristlegrass (*Setaria magrostachya*) 2.0

( ) C. Seed Mixture 3 (Shallow Sites)
Side oats Grama (*Bouteloua curtipendula)* 5.0
Green Spangletop (*Leptochloa dubia*) 2.0
Plains Bristlegrass (*Setaria magrostachya*) 1.0

( ) D. Seed Mixture 4 (Gypsum Sites)
Alkali Sacaton (*Sporobolus airoides*) 1.0
Four-Wing Saltbush (*Atriplex canescens*) 5.0

( ) OTHER SEE ATTACHED SEED MIXTURE

Seeding should be done either late in the fall (September 15 - November 15, before freeze up, or early as possible the following spring to take advantage of available ground moisture.

Painting Requirement:
All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, ***shale green***, Munsell Soil Color Chart Number 5Y 4/2.

( ) Other

RESERVE PIT CONSTRUCTION STANDARDS

The reserve pit shall be constructed entirely in cut material and lined with 6-mil plastic.
Mineral material extracted from within the boundary of the APD during construction of the well pad and reserve pits and be used for the construction of this well pad and its immediate access road only, as long as that portion of the access road it is use on remains on-lease. Removal of any additional material from this location for construction or improvement of other well pads and other access or lease roads must first be purchased from BLM.

Reclamation: Reclamation of this type of deep pit will consist of pushing the pit walls into the pit when sufficiently dry to support track equipment. The pit liner is NOT TO BE RUPTURED to facilitate drying; a ten month period after completion of the well is allowed for drying of the pit contents.
The pit area must be contoured to the natural terrain with all contaminated drilling mud buried with at least 3 feet of clean soil. The reclaimed area will then be seeded as specified in this permit.

CULTURAL

Whether or not an archaeological survey has been completed and notwithstanding that operations are being conducted as approved, the lessee/operator/grantee shall notify the BLM immediately if previously unidentified cultural resources are observed during surface disturbing operations. From the time of the observation, the lessee/operator/grantee shall avoid operations that will result in disturbance to these cultural resources until directed to process by BLM.

TRASH PIT STIPS

All trash, junk, and other waste material shall be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not permitted.

Conditions of Approval
Cave and Karst

EA#: NM-520-07-0968
Lease #: LC-050797
Apollo Energy, L.P.
Russell USA Fed. #70, #71, #72, #73, #74

Cave/Karst Surface Mitigation
The following stipulations will be applied to minimize impacts during construction, drilling and production.

Berming:
Any tank batteries will be constructed and bermed large enough to contain any spills that may occur.

Bermed areas will be lined with rip-stop padding to prevent tears or punctures in liners and lined with a permanent 20 mil plastic liner.

Cave/Karst Subsurface Mitigation
The following stipulations will be applied to protect cave/karst and ground water concerns:

Rotary Drilling with Fresh Water:
Rotary drilling techniques in cave or karst areas will include the use of fresh water as a circulating medium in zones where caves or karst features are expected. Use depth to the deepest expected fresh water as listed in the geologist report.

Casing:
All casing will meet or exceed National Association of Corrosion Engineers specifications pertaining to the geology of the location and be run to American Petroleum Institute and BLM standards.

Lost Circulation:
ALL lost circulation zones from the surface to the base of the cave occurrence zone will be logged and reported.

Regardless of the type of drilling machinery used, if a void (bit drops) of four feet or more and circulation losses greater then 75 percent occur simultaneously while drilling in any cave-bearing zone, drilling operations will immediately stop and the BLM will be notified by the operator. The BLM will assess the consequences of the situation and work with operator on corrective actions to resolve the problem.

Abandonment Cementing:

Upon well abandonment the well bore will be cemented completely from 100 feet below the bottom of the cave bearing zone to the surface.

Record Keeping:

The Operator will track customary drilling activities, including the rate of penetration, pump pressure, weight on bit, bit drops, percent of mud returns, and presence of absence of cuttings returning to the surface. As part of customary record keeping, each detectable void or sudden increase in the rate of penetration not attributable to a change in the formation type should be documented and evaluated as it is encountered.

III. PRESSURE CONTROL:

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

B. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** PSI. This can be a 2M annular.

C. The appropriate BLM office shall be notified a minimum of 2 hours in advance for a representative to witness the tests.

1. The tests shall be done by an independent service company.
2. The results of the test shall be reported to the appropriate BLM office.
3. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
4. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

Engineer on call phone (after hours): Carlsbad - 505-706-2779

WWI 071707

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REAGAN SMITH
ENERGY SOLUTIONS, INC.
Perfecting the Efficient Development of Natural Resources

OCT 25 2007
OCD-ARTESIA

October 22, 2007

New Mexico Oil Conservation Division
1301 West Grand Ave.
Artesia, NM 88210
Attention: Bryan Arrant

RE: Apollo Energy, LP.
H2S Contingency Plan for Russell USA 70, 71, 72, 73, & 74
Russell USA Field
T20S-R28E, Eddy County, NM

Dear Mr. Arrant:

Upon review of applicable data, Apollo Energy, LP has come to the conclusion that according to the New Mexico Oil Conservation Division Rule 118, a contingency plan is not required.

A gas component analysis was performed by Wildcat Measurement Service on June 15, 2007. The test was performed on a nine (9) well system tied into a single separator and then passing onto a heater treater. The flow rate of the gas of the combined nine (9) wells is so low it is immeasurable with testing equipment. However it is estimated to be about 1,000 cubic feet/day. This is based on the best estimate of the produced gaseous mixture from field observations. This data combined with an H^2S mole percentage of 8.25 translated into an exposure radius of 44'.

Since the field is not in a public area, this study focused on the radius of exposure with regards to any public road. The Russell USA field lies between Magnum Road, however, no well location is closer than 330' feet of Magnum Road.

I have included a copy of the gas component analysis along with the supporting calculations.

Yours very truly,

Scott St. John
For Apollo Energy, LP.

Enclosure

Cc: SSJ, TW, GH

1219 Classen Drive • Oklahoma City, OK 73103
(405) 286-9326 • Toll Free: (866) 551-7913 • Fax: (405) 600-3400
www.rsenergysolutions.com

Radius of Exposure Calculation

Equation	$X=[(.4546)(\text{Hydrogen Sulfide Concentration})(Q)]^{(.6258)}$
Hydrogen Sulfide Concentration	8.25
Q (Cubic Feet / Day / 9 wells)	1,000
Q(Cubic Feet / Day / 1 well)	111
Formula with Constants	$X=[(.4546)(8.25)(111)]^{(.6258)}$
Radius of Exposure (x)	44'

Wildcat Measurement Service
P.O. Box 1836
Artesia, New Mexico 88211-1836
TollFree #888-421-9453
Office #505-746-3481
"Quality and Service is our First Concern"

PDS 06/25/00

Run No. 270615-01
Date Run 06/15/2007
Date Sampled 06/14/2007

Analysis for: APOLLO ENERGY
Well Name: RUSSELL USA BATTERY
Field: BURTON FLATS
Sta. Number:
Purpose: SPOT
Sampling Temp: 77 DEG F
Volume/day:
Pressure on Cylinder: 4.2 PSIG

GPANGL.L62

Producer: APOLLO ENERGY
County: EDDY State: NM
Sampled By: CHAD CAMPBELL
Atmos Temp: 82 DEG F
Formation:
Line Pressure: 17.4 PSIA

GAS COMPONENT ANALYSIS

		Mol %	GPM
Carbon Dioxide	CO2	2.4915	
Nitrogen	N2	2.4360	
Hydrogen Sulfide	H2S	8.2500	
Methane	C1	33.8331	
Ethane	C2	31.2748	8.3141
Propane	C3	15.4050	4.2185
Iso-Butane	IC4	1.4796	0.4813
Nor-Butane	NC4	2.9891	0.9372
Iso-Pentane	IC5	0.6319	0.2300
Nor-Pentane	NC5	0.4462	0.1607
Hexanes Plus	C6+	0.7628	0.3310
TOTAL		100.0000	14.6728

Pressure Base: 14.6500

Real BTU Dry: 1570.33
Real BTU Wet: 1543.02
Real Calc. Specific Gravity: 1.0538
Field Specific Gravity: 0.0000

Standard Pressure: 14.6960
BTU Dry: 1563.29
BTU Wet: 1536.09

Z Factor: 0.9924
N Value: 1.2349
Avg Mol Weight: 30.3019
Avg CuFt/Gal: 49.2207
26 Lb Product: 1.0854
Methane+ GPM: 20.3763
Ethane+ GPM: 14.6728
Propane+ GPM: 6.3588
Butane+ GPM: 2.1402
Pentane+ GPM: 0.7217

REMARKS:
H2S IN GAS STREAM: 8.2500% = 82,500 PPM

Approved by: DON NORMAN

Fri Jun 15 13:23:04 2007

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