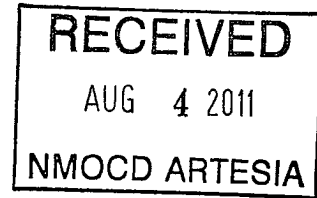


## SURFACE USE PLAN

30-015-39308

**RKI Exploration & Production, LLC**  
**RDU Fed. Com. 17-6H**  
**Surface Hole: 330' FSL & 2260' FEL**  
**Bottom Hole: 330 FNL & 2310 FEL**  
**Section 17, T. 26 S., R. 30 E**  
**Eddy County, New Mexico**



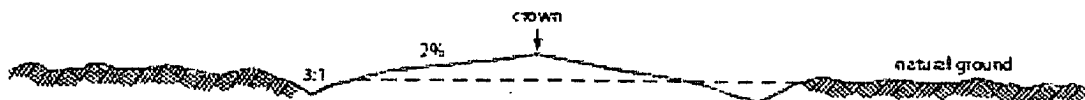
This plan is submitted with form 3160-3, Application for Permit to Drill, covering the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of the surface disturbance involved and the procedures to be followed in rehabilitating the surface after completion of the operations, so that a complete appraisal can be made of the environmental effect associated with the operations.

### 1. EXISTING ROADS:

- A. DIRECTIONS: Go south of Carlsbad, NM, on Highway 285, for 24 miles. Turn east onto the Whitethorn road (County Road 725) for 12.6 miles. Turn east on lease road for 2.2 miles to the beginning point of a 401.5 ft. proposed access road. All existing roads are either paved or a caliche lease road.
- B. See attached plats and maps provided by Basin Surveys.
- C. The access routes from Eddy County Road 725 to the well location is depicted on Exhibit C. Both routes highlighted in red could be used for access and have been authorized under a ROW permit.
- D. Existing roads on the access route will be improved and maintained to the standard set forth in Section 2 of this Surface Use Plan of Operations.
- E. A right-of-way (ROW) was obtained in September of 2010 to access this well and other leases within the RDX and RDU field.

### 2. NEW OR RECONSTRUCTED ACCESS ROADS:

- A. The new access road will begin at the northeast corner of the proposed well location and run north, for 401.5 ft., to an existing lease road. This new portion of access road is all within the lease and will not require additional ROW permits.
- B. The maximum width of the driving surface will be 14 feet. The road will be crowned and ditched with a 2% slope from the tip of the crown to the edge of the driving surface. The ditches will be 1 foot deep with 3:1 slopes. The driving surface will be made of 6" rolled and compacted caliche.



### Level Ground Section

- C. Surface material will be native caliche. The average grade of the entire road will be approximately 3%.

- D. Fence Cuts: No
- E. Cattle guards: No
- F. Turnouts: No
- G. Culverts: No
- H. Cuts and Fills: Not significant
- I. Approximately 6 inches of topsoil (root zone) will be stripped from the proposed access road prior to any further construction activity. The topsoil that was stripped will be spread along the edge of the road and within the ditch. The topsoil will be seeded with the proper seed mix designated by the BLM.
- J. The access road will be constructed and maintained as necessary to prevent soil erosion and accommodate all-weather traffic. The road will be crowned and ditched with water turnouts installed as necessary to provide for proper drainage along the access road route.
- K. The access road and associated drainage structures will be constructed and maintained in accordance with road guidelines contained in the joint BLM/USFS publication: Surface Operating Standards for Oil and Gas Exploration and Development, The Gold Book, Fourth Edition and/or BLM Manual Section 9113 concerning road construction standards on projects subject to federal jurisdiction.

3. LOCATION OF EXISTING WELLS:

See attached map (Exhibit D) showing all wells within a one-mile radius.

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

- A. In the event the well is found productive, production equipment will be installed on the well site. See Production Facilities Layout diagram (Exhibit B) for the proposed production facility layout and the areas of the well pad not required for production that will be reclaimed.
- B. All permanent (on site six months or longer) aboveground structures constructed or installed on location and not subject to safety requirements will be painted to BLM specifications.
- C. Containment berms will be constructed completely around production facilities designed to hold fluids. The containment berms will be constructed or compacted subsoil, be sufficiently impervious, hold 1 ½ times the capacity of the largest tank and away from cut or fill areas.

5. LOCATION AND TYPE OF WATER SUPPLY:

The well will be drilled using a combination of water mud systems as outlined in the Drilling Program. The water will be obtained from commercial water stations in the area and hauled to the location by transport truck using the existing and proposed roads shown in the attached survey plats. If a commercial water well is nearby, a temporary, surface poly line, will be laid along existing roads or other ROW easements and the water pumped to the well. No water well will be drilled on the location.

6. SOURCE OF CONSTRUCTION MATERIALS:

Any construction material that may be required for surfacing of the drill pad and access road will be from a contractor having a permitted source of materials within the general area. No construction materials will be removed from Federal lands without prior approval from the appropriate surface management agency. All roads will be constructed of 6" rolled and compacted caliche.

7. METHODS OF HANDLING WASTE DISPOSAL:

- A. The well will be drilled utilizing a closed loop mud system. Drill cuttings will be held in roll-off style mud boxes and taken to an NMOCD approved disposal site.
- B. Drilling fluids will be contained in steel mud pits.
- C. Water produced from the well during completion will be held temporarily in steel tanks and then taken to an NMOCD approved commercial disposal facility.
- D. Oil produced during operations will be stored in tanks until sold.
- E. Portable, self-contained chemical toilets will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents thereof disposed of in an approved sewage disposal facility. All state and local laws and regulations pertaining to disposal of human and solid waste will be complied with. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete.
- F. All trash, junk, and other waste materials will be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Immediately after drilling all debris and other waste materials on and around the well location, not contained in the trash cage will be cleaned up and removed from the location. No potentially adverse materials or substances will be left on the location.

8. ANCILLARY FACILITIES:

No campsite, airstrip, or other facilities will be built as a result of the operation of this well. No staging areas are needed.

9. WELL SITE LAYOUT:

- A. Exhibit A shows the dimensions of the proposed well pad.
- B. The proposed well pad size will be 300' x 325' (See Exhibit A). There will be no reserve pit due to the well being drilled utilizing a closed loop mud system. The closed loop system will meet the NMOCD requirements 19.15.17 .
- C. The Basin Surveyor's plat, Form C-102 and Exhibit A, shows how the well will be turned to a V-Door East.
- D. A 600' x 600' area has been staked and flagged.
- E. All equipment and vehicles will be confined to the approved disturbed areas of this APD (i.e., access road, well pad, and topsoil storage areas)

10. PLANS FOR SURFACE RECLAMATION:

- A. After concluding the drilling and/or completion operations, if the well is found non-commercial, all the equipment will be removed, the surface material, caliche, will be removed from the well pad and road and transported to the original caliche pit or used for other roads. The original stock piled top soil will be returned to the pad and contoured, as close as possible, to the original topography. The access road will have the caliche removed and the road ripped, barricaded and seeded as directed by the BLM.
- B. If the well is a producer, the portions of the location not essential to production facilities or space required for workover operations, will be reclaimed and seeded as per BLM requirements.
- C. Reclamation Objectives:  
The objective of interim reclamation is to restore vegetative cover and a portion of the

landform sufficient to maintain healthy, biologically active topsoil; control erosion; and minimize habitat and forage loss, visual impact, and weed infestation, during the life of the well or facilities.

The long-term objective of final reclamation is to return the land to a condition approximating that which existed prior to disturbance. This includes restoration of the landform and natural vegetative community, hydrologic systems, visual resources, and wildlife habitats. To ensure that the long-term objective will be reached through human and natural processes, actions will be taken to ensure standards are met for site stability, visual quality, hydro logical functioning, and vegetative productivity.

D. Reclamation Performance Standards

The following reclamation performance standards will be met:

*Interim Reclamation* – Includes disturbed areas that may be redisturbed during operations and will be redisturbed at final reclamation to achieve restoration of the original landform and a natural vegetative community.

- Disturbed areas not needed for active, long-term production operations or vehicle travel will be recontoured, protected from erosion, and revegetated with a self-sustaining, vigorous, diverse, native (or as otherwise approved) plant community sufficient to minimize visual impacts, provide forage, stabilize soils, and impede the invasion of noxious, invasive, and non-native weeds.

*Final Reclamation* – Includes disturbed areas where the original landform and a natural vegetative community will be restored and it is anticipated the site will not be redisturbed for future development.

- The original landform will be restored for all disturbed areas including well pads, production facilities, roads, pipelines, and utility corridors.
- A self-sustaining, vigorous, diverse, native (or otherwise approved) plant community will be established on the site, with a density sufficient to control erosion and invasion by non-native plants and to re-establish wildlife habitat or forage production. At a minimum, the established plant community will consist of species included in the seed mix and/or desirable species occurring in the surrounding natural vegetation.
- No single species will account for more than 30% total vegetative composition unless it is evident at higher levels in the adjacent landscape. Permanent vegetative cover will be determined successful when the basal cover of desirable perennial species is at least 80% of the basal cover on adjacent or nearby undisturbed areas where vegetation is in a healthy condition
- Erosion features are equal to or less than surrounding area and erosion control is sufficient so that water naturally infiltrates into the soil and gullying, headcutting, slumping, and deep or excessive rills (greater than 3 inches) are not observed.
- The site will be free of State- or county-listed noxious weeds, oil field debris and equipment, and contaminated soil. Invasive and non-native weeds are controlled.

## E. Reclamation Actions

Earthwork for interim and final reclamation will be completed within 6 months of well completion or plugging unless a delay is approved in writing by the BLM authorized officer.

The following minimum reclamation actions will be taken to ensure that the reclamation objectives and standards are met. It may be necessary to take additional reclamation actions beyond the minimum in order to achieve the Reclamation Standards.

### Reclamation – General

#### Notification:

- The BLM will be notified at least 3 days prior to commencement of any reclamation operations.

#### Housekeeping:

- Within 30 days of well completion, the well location and surrounding areas(s) will be cleared of, and maintained free of, all debris, materials, trash, and equipment not required for production.
- No hazardous substances, trash, or litter will be buried or placed in pits.

#### Vegetation Clearing:

- Grass, forbs, and small woody vegetation, such as shinnery oak (if present) will be excavated as the topsoil is removed.
- Large woody vegetation, such as mesquite will be stripped and stored separately and re-spread evenly on the site following topsoil re-spreading.

#### Topsoil Management:

- Operations will disturb the minimum amount of surface area necessary to conduct safe and efficient operations.
- Topsoil depth is defined as the top layer of soil that contains 80% of the roots. In areas to be heavily disturbed, the topsoil will be stripped and stockpiled around the perimeter of the well location and along the perimeter of the access road to control run-on and run-off, to keep topsoil viable, and to make redistribution of topsoil more efficient during interim reclamation. Stockpiled topsoil will include vegetative material. Topsoil will be clearly segregated and stored separately from subsoils.
- On sites where there is not at least an average of 6 inches of topsoil across the site available for stockpiling, soil amendments will be used to augment the available topsoil and improve plant germination and growth. Soil amendments will be agreed to by both the operator and the BLM prior to disturbing the site.
- Salvaging and spreading topsoil will not be performed when the ground or topsoil is frozen or too wet to adequately support construction equipment or so dry that dust clouds greater than 30 feet tall are created. If such equipment creates ruts in excess of four (4) inches deep, the soil will be deemed too wet.
- No major depressions will be left that would trap water and cause ponding unless the intended purpose is to trap runoff and sediment.

#### Seeding:

- Seedbed Preparation. Initial seedbed preparation will consist of recontouring to the appropriate interim or final reclamation standard. All compacted areas

to be seeded will be ripped to a minimum depth of 18 inches with a minimum furrow spacing of 2 feet, followed by recontouring the surface and then evenly spreading the stockpiled topsoil. Prior to seeding, the seedbed will be scarified to a depth of no less than 4 – 6 inches. If the site is to be broadcast seeded, the surface will be left rough enough to trap seed and snow, control erosion, and increase water infiltration.

- If broadcast seeding is to be used and is delayed, final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.
- Seed Application. Seeding will be conducted no more than two weeks following completion of final seedbed preparation. A certified weed-free seed mix designed by the BLM to meet reclamation standards will be used.
- If the site is harrowed or dragged, seed will be covered by no more than 0.25 inch of soil.

#### Erosion Control and Mulching:

- Where applicable, the mitigation techniques such as surface roughening and mulching will be used to keep water on site, thereby enhancing re-vegetation of the site and controlling erosion and runoff.
- All erosion control devices and materials will be installed and maintained to be fully functional until revegetation is determined successful by the BLM.
- Silt fencing, waddles, hay bales, and other erosion control devices will be used where necessary to prevent soil movement from water erosion.
- Mulch will be used if necessary to control wind and water erosion, create vegetation micro-sites, and retain soil moisture on site. Mulches may include native grass hay, wood fiber, live mulch, cotton or jute. Mulch will be certified free of noxious or invasive weed seeds and free from mold and fungi.
- If loose hay mulch is used, it will be crimped into the soil to prevent blowing.
- All reclamation equipment will be cleaned prior to use to reduce the potential for introduction of noxious weeds or other undesirable non-native species.
- Each site where the BLM has not approved interim or final reclamation success will be monitored annually between Mid-May and July to determine the presence of any invasive, noxious, and non-native species. Invasive, noxious, and non-native species that have been identified during monitoring will be promptly treated and controlled, prior to the production of seed heads. A Pesticide Use Proposal (PUP) will be submitted to the BLM for approval prior to the use of herbicides.

#### F. Interim Reclamation Procedures

##### Recontouring:

- Interim reclamation action will be completed no later than 6 months from when the final well on the location has been completed, weather permitting.
- All portions of the well pad not needed for daily production operations will be stripped of surfacing material before further reclamation begins.
- The portions of the cleared well site not needed for active operational and safety purposes will be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible.
- If the well is a producer, the interim cut and fill slopes prior to re-seeding will not be steeper than a 3:1 ratio, unless the adjacent native topography is steeper. Note: Constructed slopes may be much steeper during drilling, but

- will be recontoured to the above ratios during interim reclamation.
- Roads and well production equipment, such as tanks, treaters, separators, vents, electrical boxes, and equipment associated with pipeline operation, will be placed on location so as to permit maximum interim reclamation of disturbed areas. If equipment is found to interfere with the proper interim reclamation of disturbed areas, the equipment will be moved so proper recontouring and revegetation can occur.

#### Application of Topsoil & Revegetation:

- Topsoil will be evenly respread and aggressively revegetated over the entire disturbed area not needed for all-weather operations including road cuts & fills.
- In order to inspect and operate the well or complete workover operations, it may be necessary to drive, park, and operate equipment on restored, interim vegetation within the previously disturbed area. Damage to soils and interim vegetation will be repaired and reclaimed following use. To prevent soil compaction, under some situations, such as the presence of moist, clay soils, the vegetation and topsoil will be removed prior to workover operations and restored and reclaimed following workover operations.

#### Visual Resources Mitigation:

- Trees, if present, and tall vegetation will be left along the edges of the pads whenever feasible to provide screening.
- To help mitigate the contrast between the established perimeter vegetation and the newly established vegetation, sites will be seeded five feet further outside the disturbed area.
- To reduce the view of production facilities from visibility corridors and private residences, facilities will not be placed in visually exposed locations (such as ridgelines and hilltops).
- Production facilities will be clustered and placed away from cut slopes and fill slopes to allow the maximum recontouring of the cut and fill slopes.

### G. Final Reclamation Procedures

- Final reclamation actions will be completed within 6 months of well plugging, weather permitting.
- All surfacing material will be removed from the well pad and roads before any further reclamation begins.
- All disturbed areas, including roads, pipelines, pads, production facilities, and interim reclaimed areas will be recontoured to the contour existing prior to initial construction or a contour that blends indistinguishably with the surrounding landscape. Salvaged topsoil in the interim reclaimed areas will be respread evenly over the entire disturbed site to ensure successful revegetation.
- If necessary to ensure timely revegetation, the pad will be fenced to the BLM's standards to exclude livestock grazing for the first two growing seasons or until seeded species become firmly established, whichever comes later. Fencing will meet standards found on page 18 of the Gold Book, 4<sup>th</sup> Edition, or will be fenced with operational electric fencing.
- Final abandonment of pipelines and flowlines will involve flushing and properly disposing of any fluids in the lines. All surface lines and any lines that are buried close to the surface that may become exposed in the

foreseeable future due to water or wind erosion, soil movement, or anticipated subsequent use, will be removed. Deeply buried lines will remain in place unless otherwise directed by the authorized officer.

11. SURFACE OWNERSHIP:

- A. The surface is owned by the U. S. Government and is administered by the Bureau of Land Management. The surface is multiple use with the primary uses of the region for the grazing of livestock and the production of oil and gas.
- B. The grazing lessee is H & K Farms (Phantom Banks Grazing Allotment).

12. OTHER INFORMATION:

- A. The area surrounding the well site is in a gentle sloped, shallow gravelly loam, rolling hills type area. The vegetation consists of Mesquite, Creosote, White-Thorn Acacia with three-awns and some dropseed species.
- B. There is no permanent or live water in the immediate area.
- C. There are no dwellings within 2 miles of this location.
- D. A Class III Cultural Resources Examination has been completed by Boone Archaeological Services and the results will be forwarded to the BLM office.

13. BOND COVERAGE:

Bond Coverage is Nationwide; Bond Number NMB-000460.



OPERATORS REPRESENTATIVE:

The RKI Exploration and Production, LLC representatives responsible for ensuring compliance of the surface use plan are listed below:

Surface:

Barry W. Hunt – Permitting Agent  
1403 Springs Farm Place  
Carlsbad, NM 88220  
(575) 885-1417 (Home)  
(575) 361-4078 (Cell)

Drilling & Production:

Bill Aubrey – RKI Exploration and Production, LLC.  
3817 NW Expressway, Suite 950  
Oklahoma City, Ok. 73112  
(405) 996-5748 (Office)  
(405) 625-7838 (Cell)

**ON-SITE PERFORMED ON 7/22/10 RESULTED IN PROPOSED WELL LOCATION BEING MOVED 50 FT. TO THE EAST, TO 330 FSL & 2260 FEL. THE ORIGINAL LOCATION OF 330 FNL & 2310 FEL WAS CLOSE TO AN ARCHAEOLOGICAL SITE.**

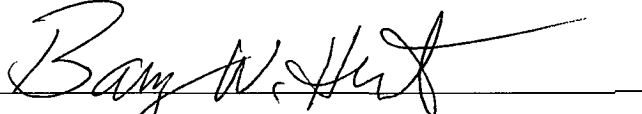
**PRESENT AT ON-SITE:**

**BARRY HUNT – PERMITTING AGENT FOR RKI EXPLORATION & PRODUCTION**  
**RANDY RUST – BLM**  
**JEFF PANGBURN – BOONE ARCHAEOLOGICAL SERVICES**  
**BASIN SURVEYORS**

## CERTIFICATION

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access road proposed herein; that I am familiar with the conditions that presently 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 conditions under which it is approved. I also certify that I, or RKI Exploration and Production, LLC 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 26<sup>th</sup> day of April 2011.

Signed: \_\_\_\_\_



Printed Name: Barry Hunt

Position: Agent for RKI Exploration & Production, LLC.

Address: 1403 Springs Farm Place, Carlsbad, NM 88220

Telephone: (575) 361-4078

E-mail: specialtpermitting@gmail.com

Field Representative: Gene Simer

Address: P. O. Box 370, Carlsbad, NM 88221

Telephone: Office: (575) 885-1313, Cell: (575) 706-3225

# RKI Exploration & Production LLC

P.O. Box 370, Carlsbad, NM 88221  
Office 505-885-1313 Fax 505-885-3509

July 17, 2009

To Whom It May Concern:

Mr. Barry Hunt is employed by RKI Exploration & Production to sign as their agent for APD's and Right of Ways in the states of New Mexico and Texas.

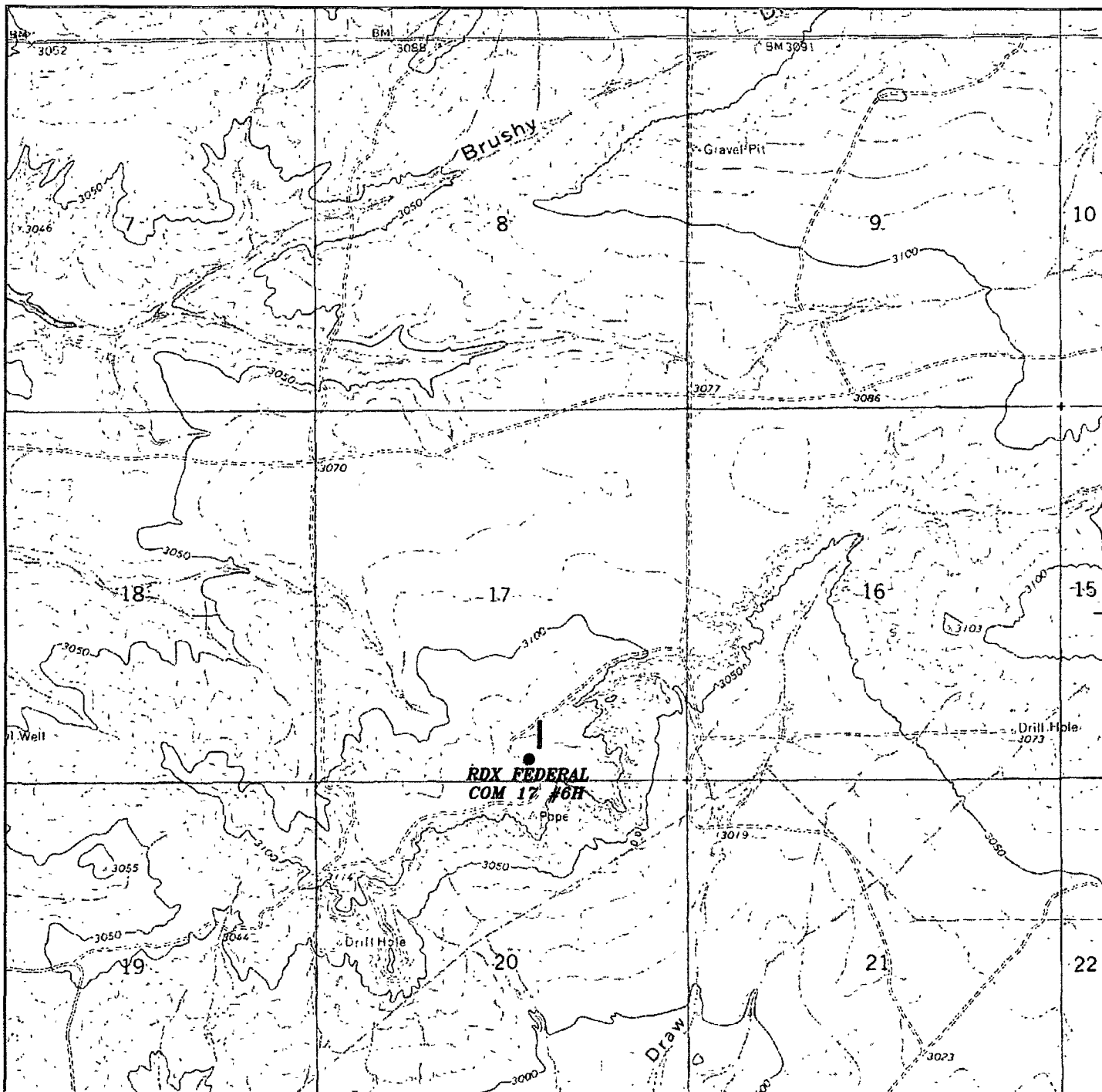
If you have any questions, please contact me at my office at 575-885-1313.

Sincerely,

RKI Exploration & Production, LLC

A handwritten signature in cursive script, appearing to read "Gene Simer".

Gene Simer  
Production Superintendent



**RDX FEDERAL COM 17 #6H**  
 Located 330' FSL and 2260' FEL  
 Section 17, Township 26 South, Range 30 East,  
 N.M.P.M., Eddy County, New Mexico.



P.O. Box 1786  
 1120 N. West County Rd.  
 Hobbs, New Mexico 88241  
 (575) 393-7316 - Office  
 (575) 392-2206 - Fax  
 basinsurveys.com

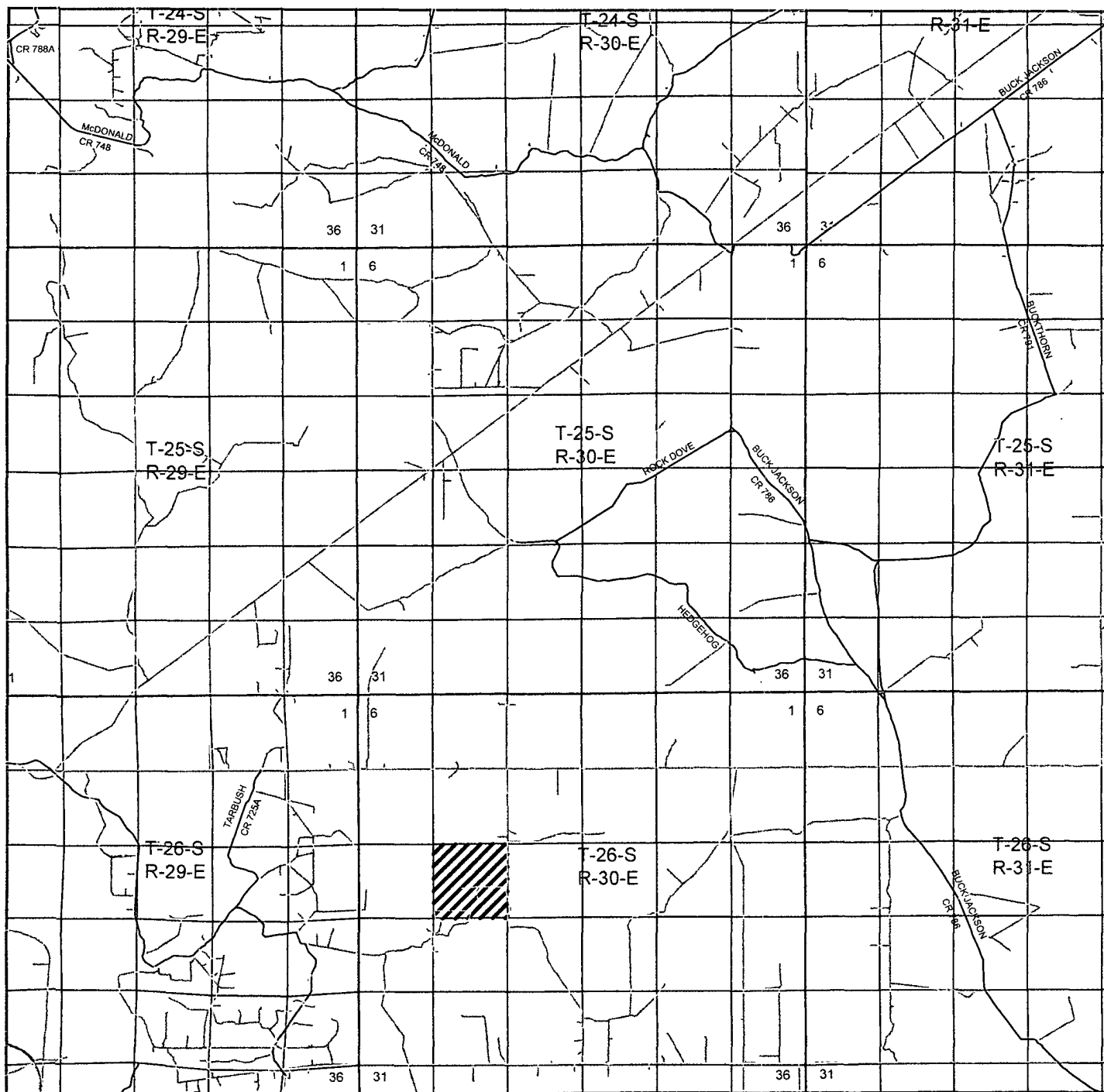
W.O. Number: JMS 23090

Survey Date: 08-01-2010

Scale: 1" = 2000'

Date: 08-12-2010

**RKI EXPLORATION  
 & PRODUCTION  
 LLC**



**RDX FEDERAL COM 17 #6H**  
 Located 330' FSL and 2260' FEL  
 Section 17, Township 26 South, Range 30 East,  
 N.M.P.M., Eddy County, New Mexico.

**basin**  
**surveys**  
 focused on excellence  
 in the oilfield

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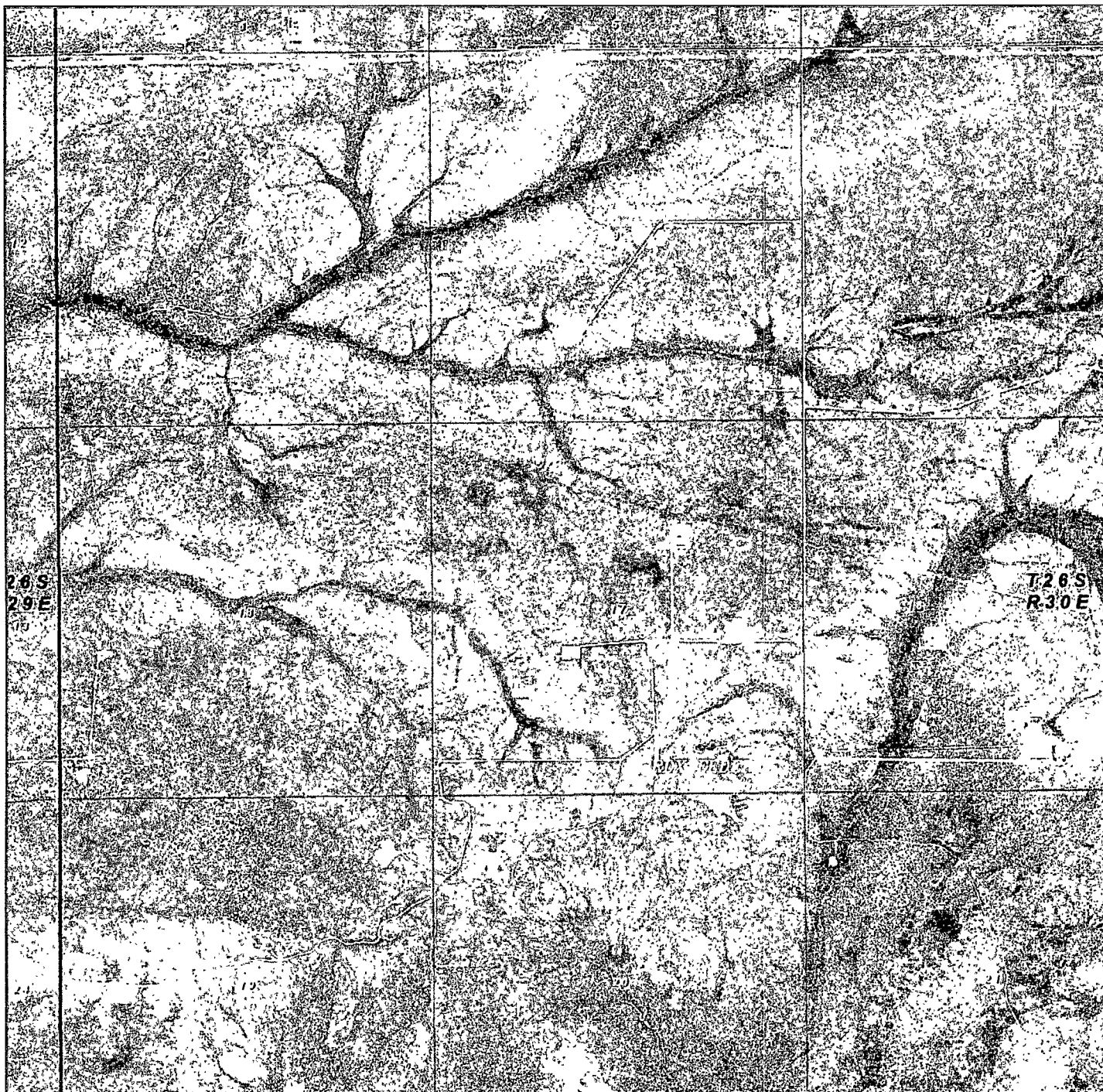
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Survey Date: 08-01-2010

Scale: 1" = 2 Miles

Date: 08-12-2010

**RKI EXPLORATION**  
**& PRODUCTION**  
**LLC**



**RDX FEDERAL COM 17 #6H**  
 Located 330' FSL and 2260' FEL  
 Section 17, Township 26 South, Range 30 East,  
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[basinsurveys.com](http://basinsurveys.com)

W.O. Number: JMS 23090

Scale: 1" = 2000'

YELLOW TINT - USA LAND  
 BLUE TINT - STATE LAND  
 NATURAL COLOR - FEE LAND

**RKI EXPLORATION  
 & PRODUCTION  
 LLC**

# Exhibit C

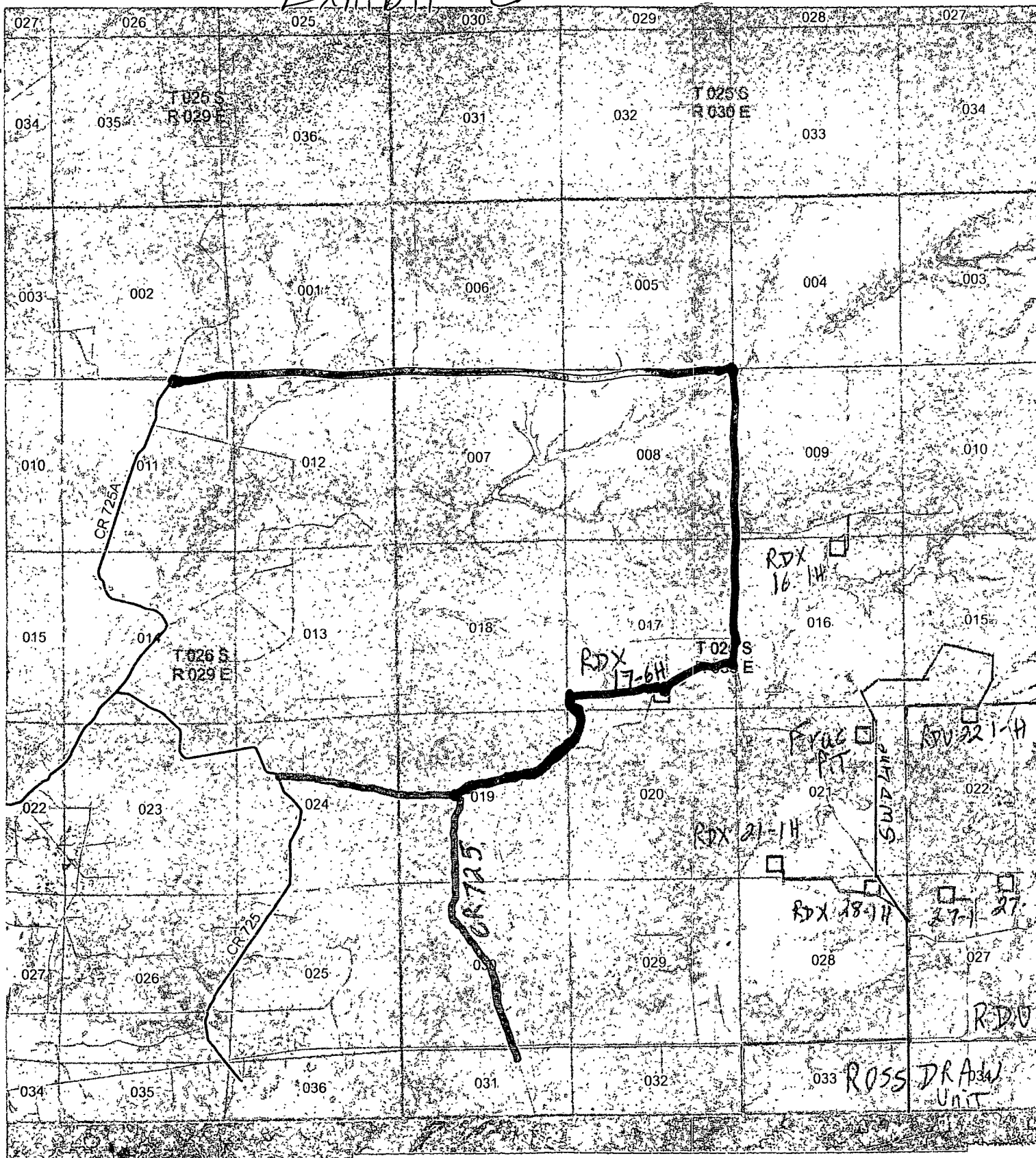
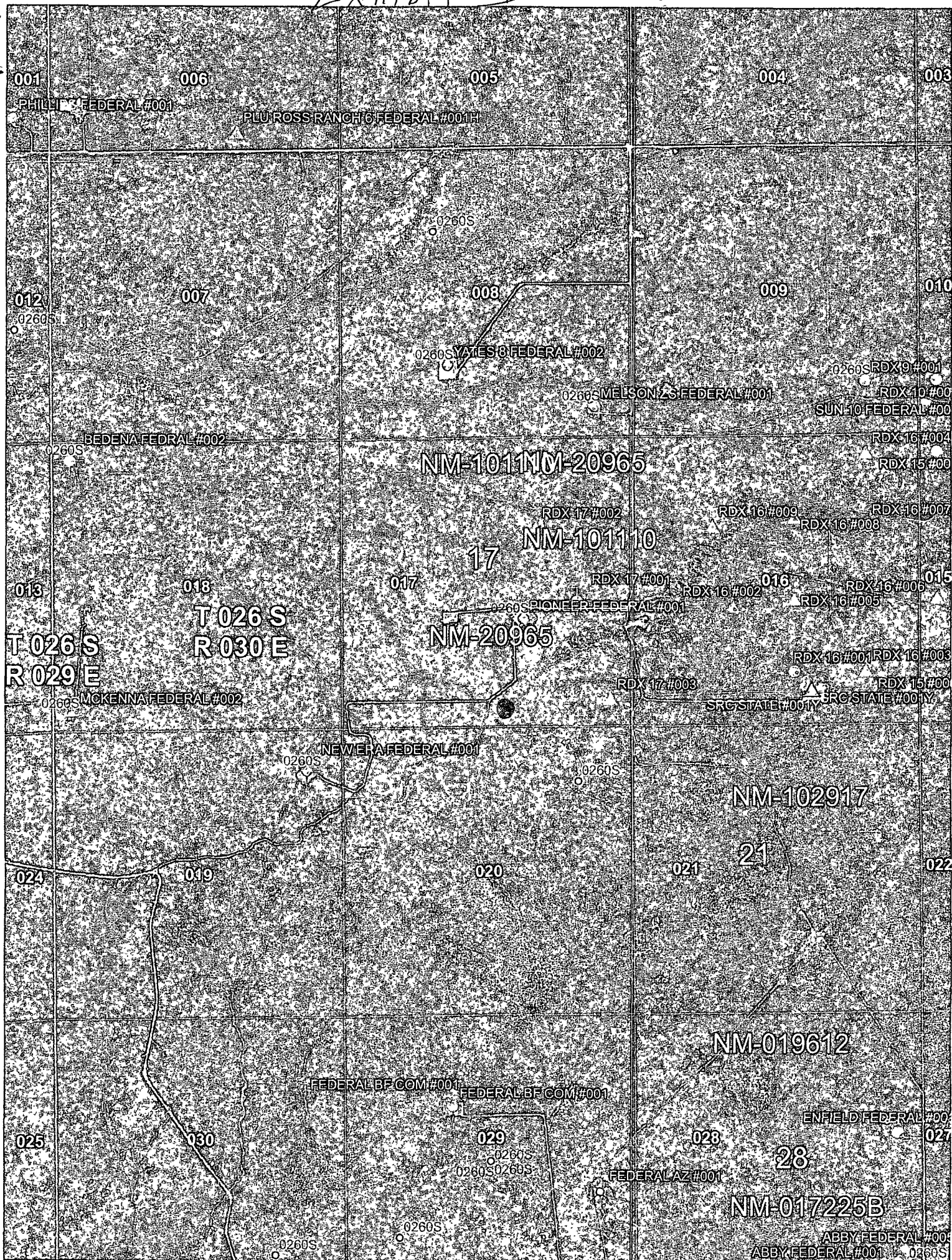


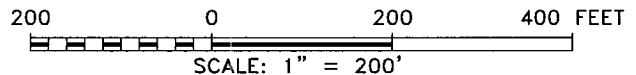
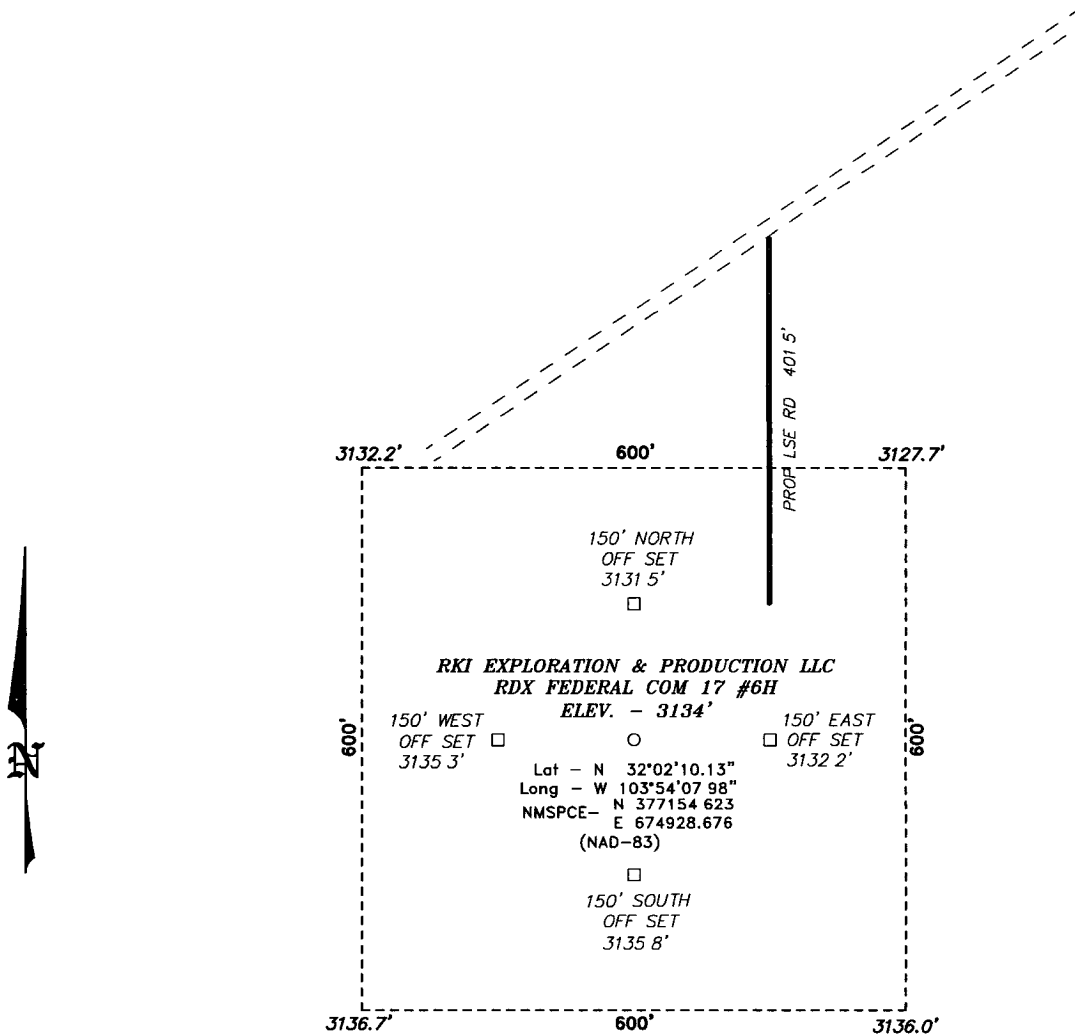


Exhibit D





SECTION 17, TOWNSHIP 26 SOUTH, RANGE 30 EAST, N.M.P.M.,  
EDDY COUNTY, NEW MEXICO.



Directions to Location

FROM THE JUNCTION OF LONG HORN AND TARBRUSH,  
GO EASTERLY 2.3 MILES TO A "Y", TAKE LEFT FORK  
AND GO NORTHEASTERLY 1.8 MILES TO PROPOSED LEASE  
ROAD

**BASIN SURVEYS** P O BOX 1786 -HOBBS, NEW MEXICO

W.O Number 23090 Drawn By J. SMALL

Date 08-12-2010 Disk: JMS 23090

**RKI EXPLORATION & PRODUCTION LLC**

REF RDX FEDERAL COM 17 #6H / WELL PAD TOPO

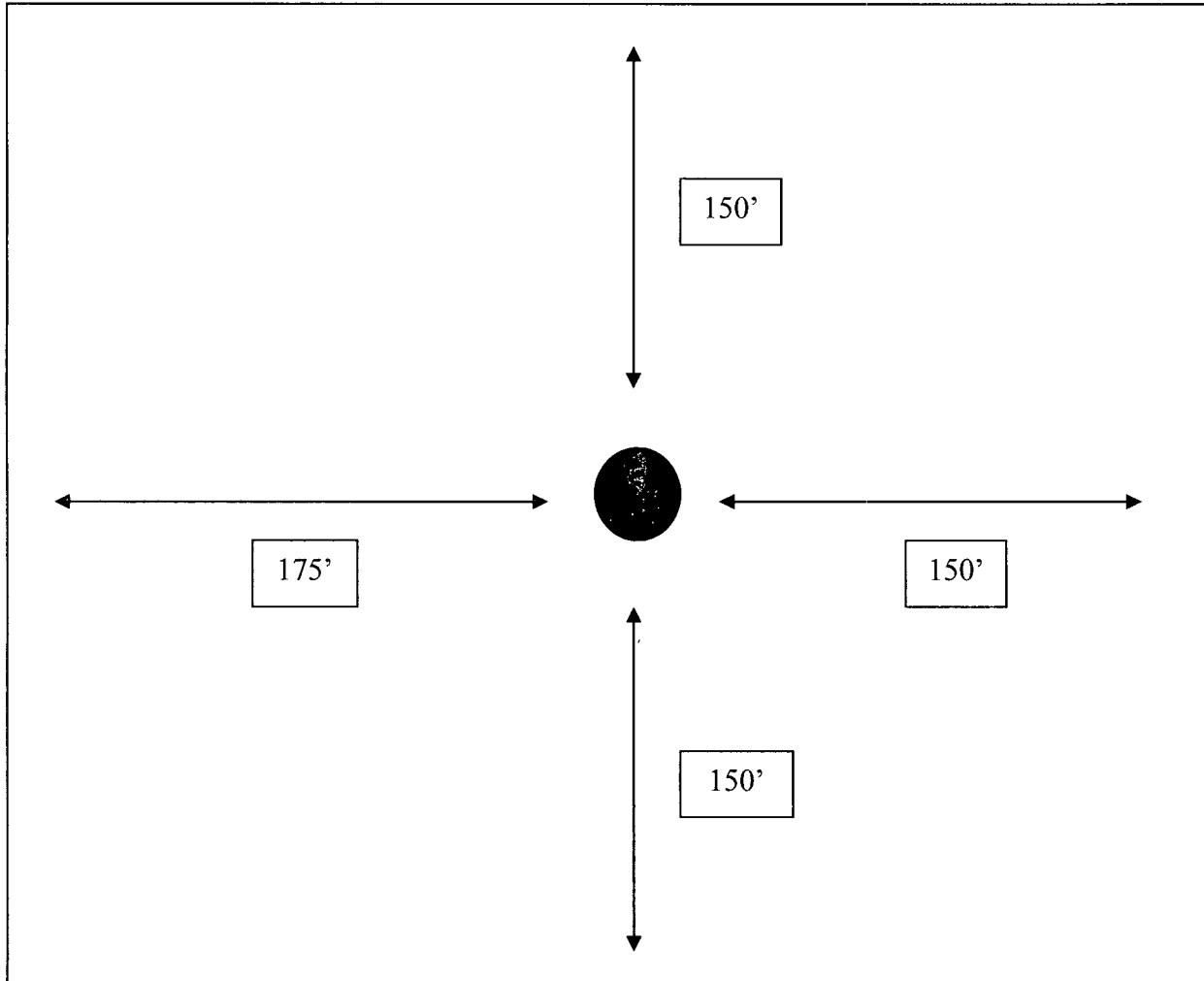
THE RDX FEDERAL COM 17 #6H LOCATED 330'  
FROM THE SOUTH LINE AND 2260' FROM THE EAST LINE OF  
SECTION 17, TOWNSHIP 26 SOUTH, RANGE 30 EAST,  
N.M.P.M., EDDY COUNTY, NEW MEXICO.

Survey Date 08-01-2010 Sheet 1 of 1 Sheets

**EXHIBIT 'A'**

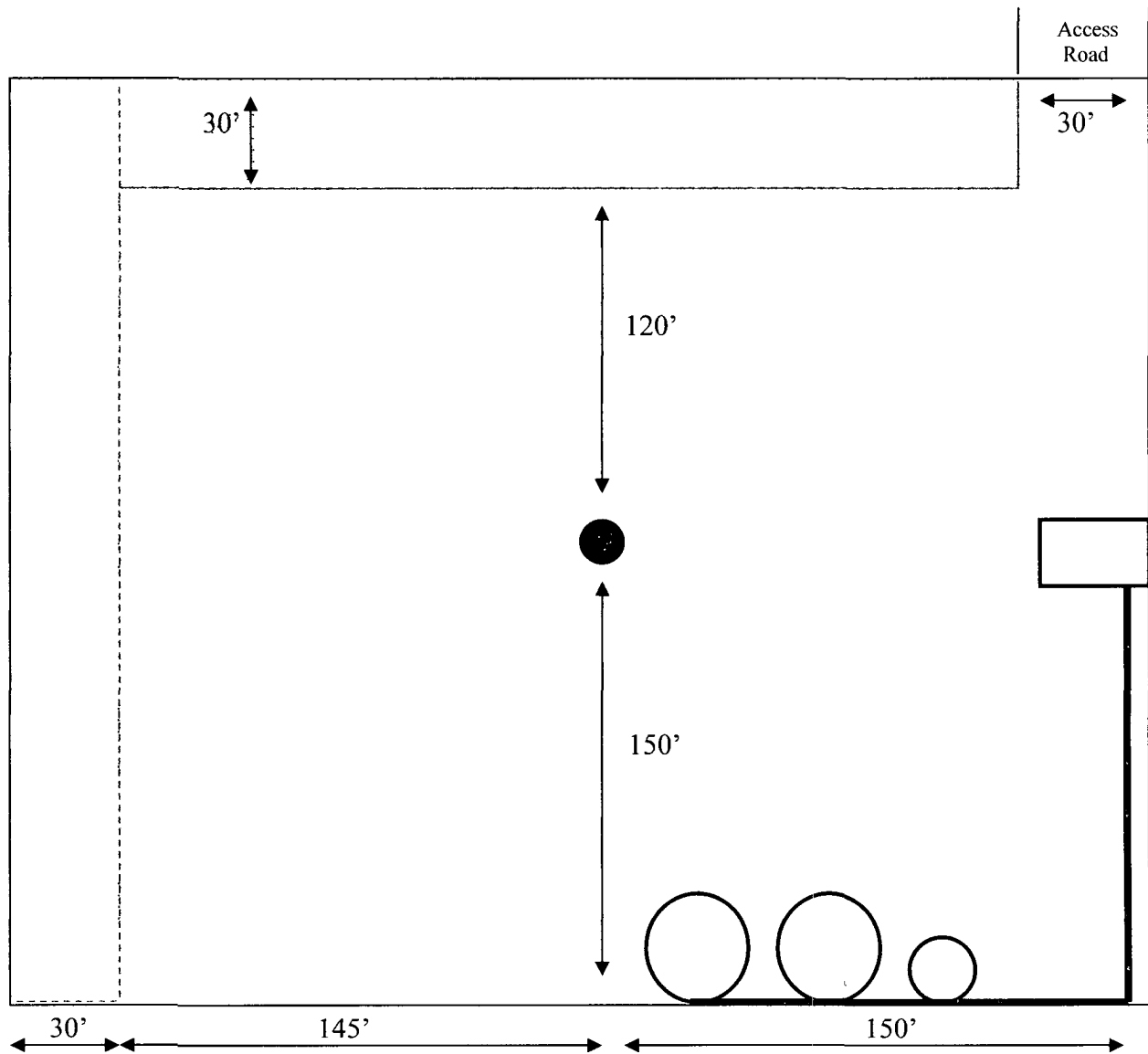
**Rig Plat Only  
Silver Oak Drilling, LLC  
Rig #6, #7 & #9**

**V-DOOR EAST  
(NORTH)**



## EXHIBIT 'B'

### Interim Reclamation & Production Facilities



#### LEGEND



Well Bore



Interim Reclamation



Production Facilities



NORTH