

ABOVE THIS LINE FOR DIVISION USE ONLY

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



Conocophillips Co.  
 Hamner #9S  
 5806

**ADMINISTRATIVE APPLICATION CHECKLIST**

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

**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.

Patsy Clugston

Print or Type Name

*Patsy Clugston*  
 Signature

Regulatory Specialist

Title

3/6/08

Date

clugspl@conocophillips.com  
 e-mail Address

RECEIVED  
 2008 MAR 7 PM 1 25



3401 East 30<sup>th</sup> Street  
Farmington, NM 87402

March 5, 2008

Sent Overnight UPS

New Mexico Oil Conservation Division  
NSL Examiner  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

Re: Hamner #9S  
Unit P, 310' FSL & 1222' FEL, Sec.20, T29N, R9W,  
San Juan Co., New Mexico; API # - 30-045-34497

Dear Sir:

This is a request for administrative approval for a non-standard gas well location in the Basin Fruitland Coal pool.

ConocoPhillips proposes to drill the above reference well as a standalone Fruitland Coal. The well was staked in a non-standard location due to the legal window as per Order R-8768-F has flood plane issues, archaeological sites and the presence of an endangered plant species, the Brack's cactus. The only suitable location we could find was outside the legal window by approximately 350' encroaching Section 29 of Section 29N, R9W. Economics were run to determine if this well would be a viable candidate for directional drilling and it was not, therefore we are applying for the non-standard location approval.

Production from the Fruitland Coal is included in the 320.00 acre gas spacing unit, the east half dedication of Section 20, T29N, R9W.

To comply with the New Mexico Oil Conservation Division rules, we are submitting the following for your approval of this non-standard location:

- Approved application for Permit to Drill
- Offset operator plat
- 9 section plat
- Topography plat of Section 3
- Staking worksheet showing one reason moved (Brack's Cactus) & T&E report

Koch Exploration Company is the offset operator for the affect Section 29 of T29N R9W and notification has been sent to them. Please call me at 505-326-9518 if you have questions.

Sincerely Yours

Patsy Clugston  
Sr. Regulatory Specialist

Hamner #95  
API - 30-045-34497,  
San Juan Co, New Mexico  
Page 2

I hereby certify that the following offset owner/operator has been notified by certified mail of  
our application for administrative approval for non-standard well locations of the above stated well.


KOCH Exploration Company  
P.O. Box 2219  
Wichita, Kansas 67201

*Patsy Olugh*  
*3/6/08*

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

BLM'S APPROVAL OR ACCEPTANCE OF THIS  
ACTION DOES NOT RELIEVE THE LESSEE AND  
OPERATOR FROM OBTAINING ANY OTHER  
AUTHORIZATION REQUIRED FOR OPERATIONS  
ON FEDERAL AND INDIAN LANDS

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL	<b>RECEIVED</b>  NOV 06 2007  Bureau of Land Management Farmington Field Office	5. Lease Number USA-SF-080245 Unit Reporting Number 6. If Indian, All. or Tribe
1b. Type of Well GAS	2. Operator  ConocoPhillips	7. Unit Agreement Name
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499  (505) 326-9700	8. Farm or Lease Name Hamner 9. Well Number #9S	
4. Location of Well Unit P (SESE), 310' FSL & 1222' FEL,  Latitude 36.704529 N Longitude 107.796614 W	10. Field, Pool, Wildcat Basin Fruitland Coal  11. Sec., Twn, Rge, Mer. (NMPM) Sec. 20, T29N, R9W  API # 30-039-30-045-34497	
14. Distance in Miles from Nearest Town 8 Miles/Blanco	12. County San Juan	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 310'		
16. Acres in Lease 928.450	17. Acres Assigned to Well 320.00 (E/2)	
18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 1130 from Hamner #6		
19. Proposed Depth 2319'	20. Rotary or Cable Tools Rotary	
21. Elevations (DF, FT, GR, Etc.) 5707' GL	22. Approx. Date Work will Start	
23. Proposed Casing and Cementing Program See Operations Plan attached	 H <sub>2</sub> S POTENTIAL EXIST	
24. Authorized by: <u>Jamie Goodwin</u> Jamie Goodwin (Regulatory Technician)	<u>11-5-07</u> Date	

PERMIT NO.

APPROVAL DATE

APPROVED BY [Signature]

TITLE

ATM

DATE

1/18/07

Archaeological Report attached

Threatened and Endangered Species Report attached

NOTE: This format is issued in lieu of U.S. BLM Form 3160-3

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 presentations as to any matter within its jurisdiction.

Example Master Plan Type **32**

Bond Numbers ES-0048 and ES-0085

DRILLING OPERATIONS AUTHORIZED ARE  
SUBJECT TO COMPLIANCE WITH ATTACHED  
"GENERAL REQUIREMENTS".

OPERATOR

This action is subject to technical and  
procedural review pursuant to 43 CFR 3165.3  
and appeal pursuant to 43 CFR 3165.4

## DISTRICT I

1625 N. French Dr., Hobbs, N.M. 88240

## DISTRICT II

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

## DISTRICT III

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

## DISTRICT IV

1220 S. St. Francis Dr., Santa Fe, N.M. 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department

## OIL CONSERVATION DIVISION

1220 South St. Francis Dr.  
Santa Fe, N.M. 87505

Form C-102

Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

NOV 06 2007

Bureau of Land Management

San Antonio Field Office

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-045-34497		Pool Code 71629	Pool Name BASIN FRUITLAND COAL
Property Code	Property Name HAMNER		Well Number 9S
GRID NO. 14538	Operator Name CONOCOPHILLIPS		Elevation 5707

## 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	20	29 N	9 W		310	SOUTH	1222	EAST	SAN JUAN

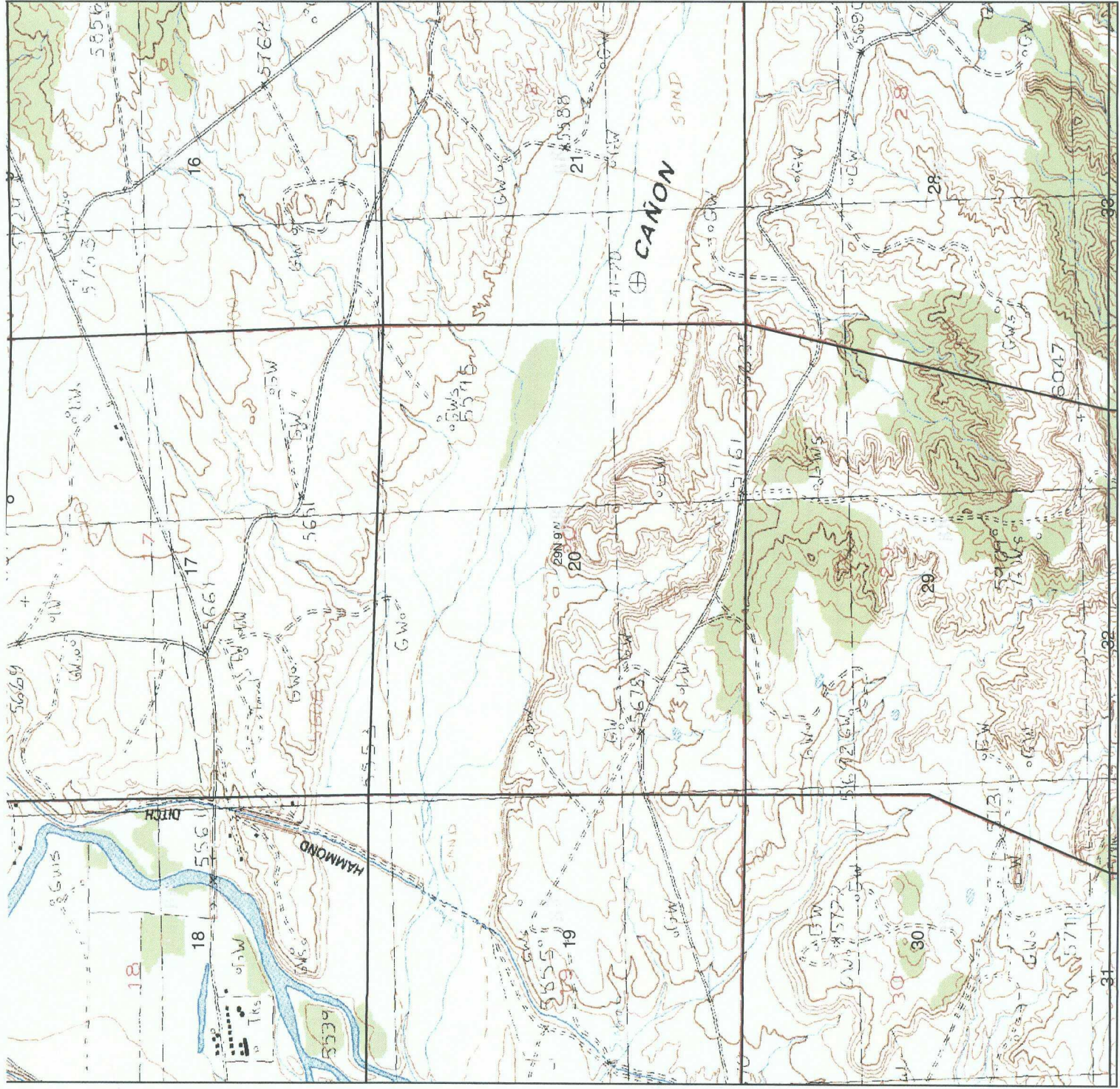
## 11 Bottom Hole Location If Different From Surface

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

Dedicated Acres 320 (E/2)	Joint or Infill	Consolidation Code	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

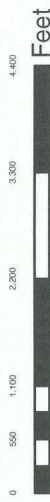
16 S 88°25'59" E 2645.90'	S 88°54'44" E 2659.78'	SECTION 20  USA SF-080245  NAD 83 LAT: 36.704529° N LONG: 107.796614° W  NAD 27 LAT: 36° 42.2714' N LONG: 107° 47.7599' W	17 OPERATOR CERTIFICATION  I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.  Signature: <u>Jamie Goodwin</u> Date: <u>9/20/2007</u> Printed Name: <u>Jamie Goodwin</u>
2633.85'	5133.48'		
N 0°00'36" W			
2644.05'			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.  Date of Survey: <u>8/09/07</u> Signature and Seal: <u>[Signature]</u> Professional Surveyor License No. <u>17078</u>
N 0°15'48" W	S 0°23'43" E		
S 89°41'34" W 2694.70'	S 89°50'34" W 310'	1222'	2632.36'



**BURLINGTON  
RESOURCES**



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1:24,000 - 1" equals 2,000'  
GCS North American 1927



**BURLINGTON RESOURCES**  
*San Juan*

**Hamner 9S TOPO**  
Sec 20 T29N R9W

Prepared By:	ISR	Date:	5/3/2007
File Number:		Revised Date:	5/3/2007
File Name: \platt\sr\Projects\San Juan Basin RR\San Juan Basin RR.mxd			

San Juan Business Unit  
 PO Box 4289  
 Farmington NM 87499-4289  
 (505) 326-9700

ConocoPhillips

Hamner 9S  
 Fruitland Coal

21

29N-9W

29

28

31

32

33

Legend

• Fruitland Coal Formation



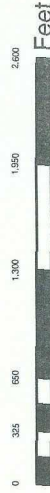
Offset Operator  
 Koch Exploration Company  
 Working Interest Owners:  
 See Attached List



ConocoPhillips



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Feet

1:13,635 - 1" equals 1,136'

GCS North American 1927



ConocoPhillips Company

San Juan

Hamner 9S

Sec. 20, T29N, R9W

Offset Operator

Prepared By: davis

Date: 2/8/2007

File Number:

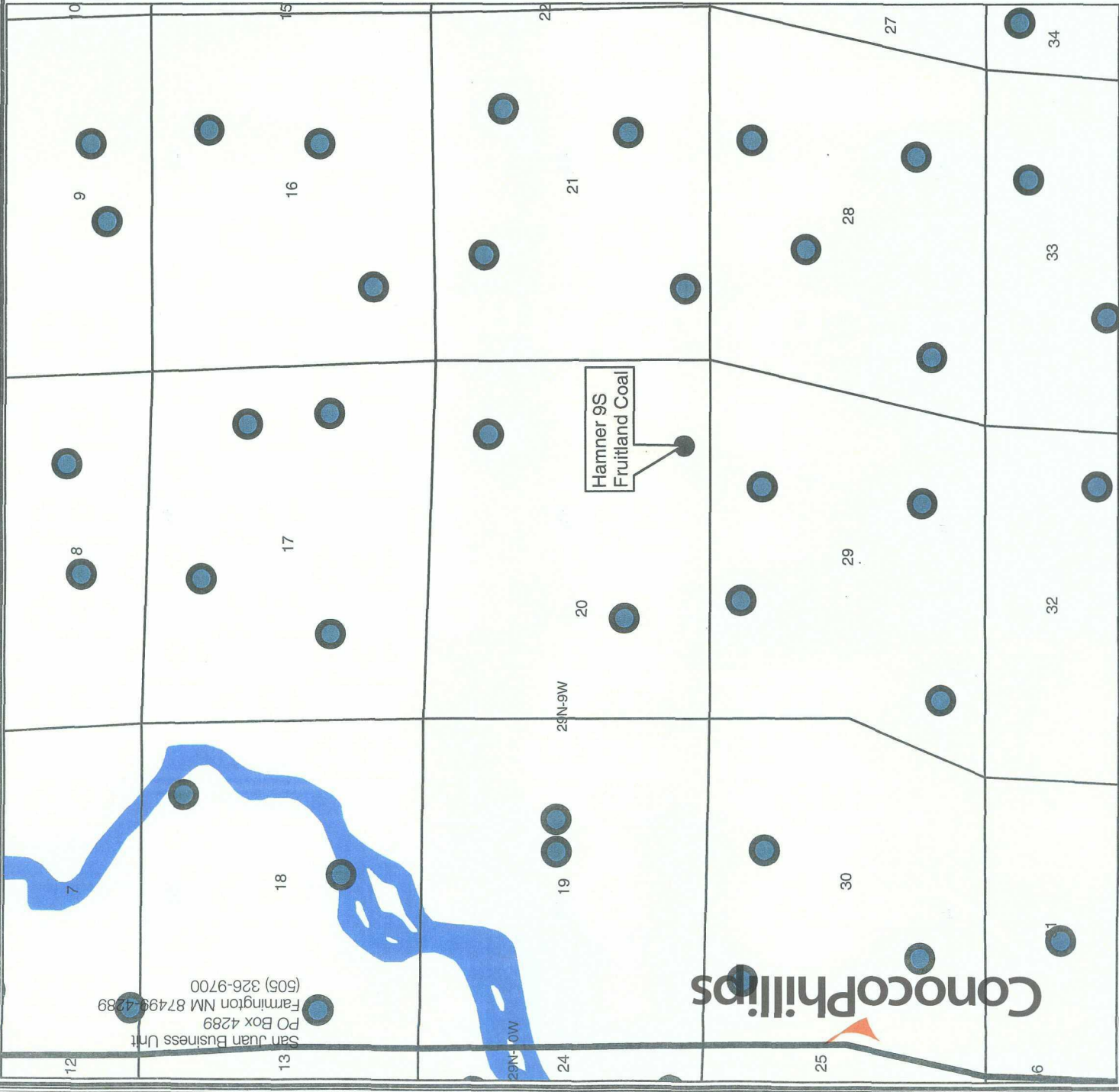
Revised Date: 2/8/2007

File Name:

C:\data\SanJuan\Projects\San Juan NSL Template\San Juan NSL Template.mxd

Legend

• Fruitland Coal Formation

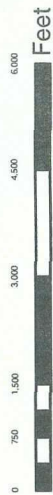


San Juan Business Unit  
PO Box 4289  
Farmington NM 87499-4289  
(505) 326-9700

ConocoPhillips



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1:31,407 - 1" equals 2,617'  
GCS North American 1927



ConocoPhillips Company

San Juan

Hamner 9S

Sec. 20, T29N, R9W

Nine Section Plat

Prepared By:	davist	Date:	2/8/2007
File Number:		Revised Date:	2/8/2007
File Name:	c:\data\unpub\Projects\San_Juan_NSL_Template\San_Juan_NSL_Template.mxd		

San Juan Business Unit  
PO Box 4289  
Farmington NM 87499-4289  
(505) 326-9700

ConocoPhillips  
Hammer 9S  
Fruitland Coal

Legend

- Fruitland Coal Wells

660' Setback



ConocoPhillips



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1:12,791

Feet

1" equals 1,066'

GCS North American 1927



ConocoPhillips Company  
san Juan

Hamner 9S

Sec. 20, T29N, R9W  
310' FSL, 1222' FEL

Prepared By:  
File Number:  
File Name:

davis

Date:

2/8/2007

Legend

- Fruitland Coal Wells

660' Setback



ConocoPhillips



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1:12,791 - 1" equals 1,066'  
GCS North American 1927



ConocoPhillips Company

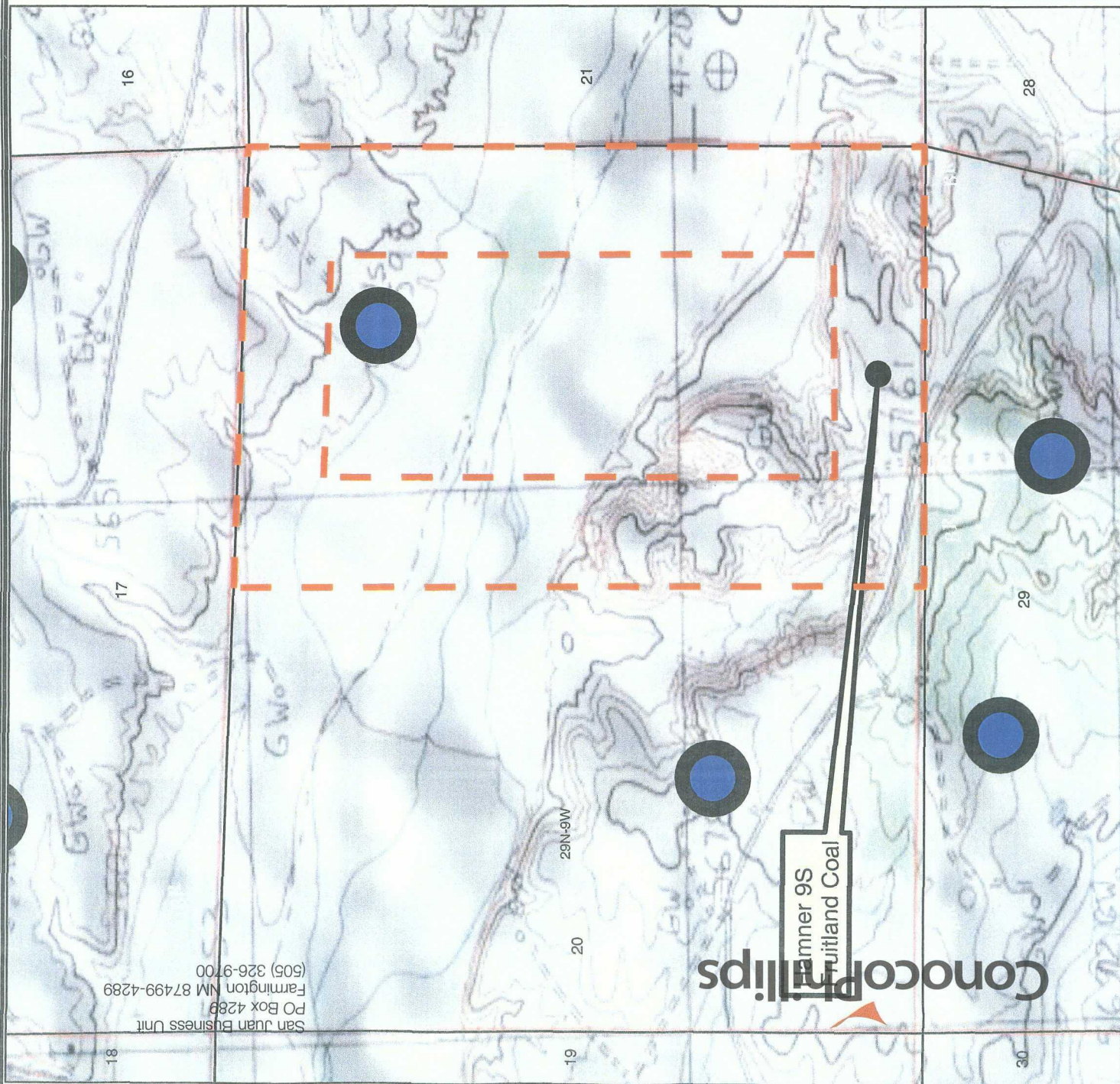
San Juan

Hamner 9S

Sec. 20, T29N, R9W

310' FSL, 1222' FEL

Prepared By: davist Date: 2/8/2007  
File Number: Revised Date: 2/8/2007  
File Name: c:\data\env\Projects\San\_Juan\_NSL\_Template\San\_Juan\_NSL\_Template.mxd



San Juan Business Unit  
PO Box 4289  
Farmington NM 87499-4289  
(505) 326-9700

ConocoPhillips

# ConocoPhillips

WELL STAKING WORKSHEET Surveyor: United Field Services, Inc. Date: 8/09/07

Arch: Aztec Archaeological Consultants Pipeline Co: WFS Environ.: Ecosphere

Lease #: SF-080245

Well Name: Hamner 9S Formation: Basin (Fruitland Coal)

Footages: 310' FSL & 1222' FEL Unit Letter: P Proposed TD:

Section: 20, T-29 -N, R-09 -W, County: San Juan State: New Mexico

Surface Type: BLM Fee Owner:  GP: Cody E. Lee 5071

Mineral Type: Federal Water Supply Point: San Juan River at Blanco Bridge

Fee Access:  Fee Access Owner:  R.O.W.:

Twinned Well Name:  Formation:

New Access Rd (# feet/acreage): 613.55 feet / 0.28 acres Pad Acreage: 2.38 acres

Total Acres Disturbance: 2.66 acres Percent of Grade: 7%

NSL: Yes Directional Drill: No B/Hole Footages:

Previous Footage Location (if moved): 260' FSL, 1254' FEL

Reason Moved: Brack's Cactus

Previous Name (if applicable):

Latitude: 36°42.2714' N Longitude: 107°47.7599' W (NAD 27)

Distance to Edge of Cliff (over 500' not required):

Locked Gates/Access Problems:

Distance to Nearest Well: 1130' Well Name/Formation: Hamner #6 (Pictured Cliffs)

to Nearest Town/Post Office: Blanco (8 miles) to Nearest Surface Water: 2860'

Noise Sensitive Area?  Full Enclosure?  Sound Panels?

Housing < 500'?  Housing > 1,000'?

\*\*\*\*\*

Onsite Date: 8-29-07 Construction Inspector: Sam Jisauer

## Attendees:

Mike Vabalda Ecosphere

Danielle Courtious BLM

Louis Chavez Williams

# **BIOLOGICAL SURVEY REPORT CONOCOPHILLIPS COMPANY PROPOSED HAMNER 9S NATURAL GAS WELL AND PIPELINE PROJECT**



**Photo 1. Looking toward the northeast from the southeastern well pad edge at proposed Hamner 9S natural gas well location.**

This report describes the potential for U.S. Fish and Wildlife Service (USFWS) and Bureau of Land Management (BLM) threatened, endangered, candidate, and other designated sensitive flora and fauna to occur in the project and action areas. The BLM defines the action area as any area that may be directly or indirectly impacted by the proposed action. This report is prepared in accordance with the BLM's biological survey guidelines and is intended to provide the agency with information to make determinations of effect on species with special conservation status.

## **PROJECT DESCRIPTION**

**Location:** The Hamner 9S natural gas well project was proposed by the ConocoPhillips Company (ConocoPhillips). This project would be located on lands administered by the BLM. The legal coordinates of the proposed surface location are 310' FSL and 1,222' FEL of Section 20, Township 29 North, Range 9 West, New Mexico Principal Meridian (NMPM) in San Juan County, New Mexico. Project plats are provided in Attachment A. A project area map that shows the location of the proposed action on the Blanco, New Mexico U.S. Geological Survey 7.5-minute topographic map is provided as Attachment B.

**Disturbance:** Construction of a 205 foot (ft) by 240 ft well pad with an approximate 50 ft wide construction zone area around the perimeter of the well pad would be required for drilling of the proposed natural gas well. A total surface disturbance of 2.38 acres would result from the well pad construction. A maximum of 4 ft of cut and 9 ft of fill would be required to create a level well pad for drilling. A new 932 ft well-tie pipeline built within a 40 ft wide right-of-way (ROW) would connect the proposed well to the existing LV Hamner #B1 pipeline. Approximately 177 ft of the proposed pipeline would be located within the proposed well pad and construction zone. The proposed pipeline would result in an additional disturbance of 0.69 acre. A new access road approximately 614 ft in length would be constructed within the proposed well-tie pipeline ROW and would not require additional surface disturbance. The access road would lead from an existing access road west of the proposed well site and head northeast and then east to the western area of the proposed well site. Total surface disturbance for the proposed project area would be 3.07 acres. There would be an increase in noise and vehicle traffic for this area during construction and may

continue afterward during operation and maintenance of the well. A diversion drainage is proposed to be constructed on the northwestern edge of the well pad to prevent drainage into the proposed well pad site.

**Previous Disturbance:** The proposed project area would be located on previously undisturbed terrain.

## METHODOLOGY

**Off-site Methods:** Prior to conducting fieldwork, Ecosphere biologists compiled a list of USFWS and BLM species with special conservation status that occur or have the potential to occur in San Juan County. USFWS listed species were obtained from the USFWS Southwest Region Endangered Species List (Table 1) (USFWS 2007). BLM special status species (Table 2) were compiled from the BLM Farmington Field Office (BLM/FFO) Instruction Memorandum No. IM-NM200-2005-02 (BLM 2005) and the Farmington Resource Management Plan (BLM 2003).

**On-site Methods:** The proposed Hamner 9S natural gas well project area was initially surveyed on July 31, 2007. Parallel transects spaced approximately 20 ft apart were surveyed over the entire project area. The weather during the survey was partly cloudy with ambient temperatures around 85° F. All plant and wildlife species and signs of wildlife observed in the project area were recorded and digital photos of the project area were taken. Binoculars were used to survey for raptors and potential nest habitat. The habitat was evaluated for all USFWS and BLM species with special conservation status that have the potential to occur in the project area or action area (Tables 1 and 2). A complete list of plants and wildlife that were observed in the project area is included as Attachment C.

Brack's hardwall cacti (*Sclerocactus cloveriae* ssp. *brackii*), a BLM special management species, were observed within the proposed well pad area during the initial field survey. A Global Positioning System (GPS) unit with sub-meter accuracy was used to document the location of these special status plant species. A second field survey was conducted with representatives from ConocoPhillips on August 9, 2007 in order to restake the proposed well pad location and avoid Brack's hardwall cacti in the project area. A final on-site of the moved project location was conducted on August 30, 2007.

## ACTION AREA

**Action Area:** The action area consists of the proposed project area (well pad, construction zone, access road, and pipeline ROW) and surrounding terrain within a 1/3-mile radius of the project area.

**Physical Description:** The proposed Hamner 9S natural gas well project would be located in Largo Canyon approximately 1.5 miles southeast of the Largo Canyon entrance. The project is located 0.2 mile southwest of the Largo Canyon Reach #1 Riparian Specially Designated Area. The San Juan River is located approximately 1.6 miles northeast of the project area. The elevation of the proposed natural gas well would be 5,707 ft above sea level. All of the project area is located on previously undisturbed terrain. The proposed well pad project would be located on the Nacimiento Geological Formation (Manley et al. 1987). The soil texture varies from sandy loam to clay loam. Cryptogamic soil crusts were observed in approximately 95% of the proposed project area. Slopes within the proposed well pad area are relatively flat at an approximate 1% to 8% grade. The access road and

pipeline ROW would be constructed at a maximum 20% grade. Aspects within the project area are variable and include northeast and southeast-facing slopes. Small sandstone outcrops and fragments occur northwest and northeast of the proposed well pad location.

An ephemeral drainage runs from west to east within 35 ft of Corner 5 and across the proposed pad toward Corner 2. Another drainage runs from the eastern edge of the well pad into the ephemeral drainage that crosses the well pad approximately 40 ft south of the proposed well head. These drainages vary approximately 2 to 3 ft in width and 1 to 2 ft in depth. The ordinary high water mark for the drainages is approximately 1.5 ft in width and 1 to 4 inches in depth. These drainages are much more prominent in the clay loam soil which occurs on the middle to eastern portions of the proposed well pad. This drainage system eventually runs into the main Largo Canyon ephemeral drainage, which is north of the proposed well pad site. A diversion is proposed on the northwestern edge of the proposed well pad to prevent drainage through the well pad site.

**Biological Description:** The action area includes Great Basin desert scrub intermixed with piñon pine-Utah juniper (*Pinus edulis-Juniperus osteosperma*) woodland. The total vegetative cover throughout the proposed project area was estimated at 45%, varying from 5% in the barest areas to 70% in the most highly covered areas. Dominant species in the project area include alkali sacaton (*Sporobolus airoides*), Indian ricegrass (*Achnatherum hymenoides*), needle and thread (*Hesperostipa comata*), crested wheatgrass (*Agropyron cristatum*), fourwing saltbush (*Atriplex canescens*), and Utah Juniper. An estimated 55-60 trees occur in the proposed project area, mostly on the northeastern perimeter of the proposed well pad and the northwestern area along the proposed access road and pipeline ROW. Approximately 67% of the trees in the project area are mature at a height of about 15 to 20 ft tall. Canopy cover in the project area is estimated to be about 15%. Canopy cover is higher in the corridor of the proposed access road and pipeline ROW at about 35%. The canopy cover in the area of the proposed well pad is about 5%. No BLM invasive and non-native plant species of concern occur in the project area. The proposed project area does contain potential habitat for Aztec gilia (*Aliciella formosa*) and Brack's hardwall cactus. No Aztec gilia were observed in the project area. Approximately 5 Brack's hardwall cacti were found in the proposed project area. No prairie dog (*Cynomys* spp.) colonies were found in the proposed project area or action area. No raptors, raptor nests, or areas of whitewash were observed in the proposed action area. According to the BLM/FFO, the proposed site is not within 2 miles of any known historic or recently active raptor nests (BLM 2006, unpublished data). Raptor habitat occurs approximately 1.65 miles southeast of the project area, making the site likely foraging habitat for the golden eagle (*Aquila chrysaetos*) or prairie falcon (*Falco mexicanus*). Signs of wildlife observed during the field survey included black-tailed jackrabbit (*Lepus californicus*), desert cottontail (*Sylvilagus auduboni*), and coyote (*Canis latrans*) scat. A bobcat (*Lynx rufus*) track was also found on the proposed well pad. A complete list of plants and wildlife observed and wildlife for which signs were observed during the field survey is included as Attachment C.

**Specially Designated Areas:** The proposed project site is not located within any BLM/FFO specially designated area. The Largo Canyon Reach #1 is located about 0.2 mile northeast of the proposed project area. This specially designated area is classified by the BLM/FFO as an ephemeral wash riparian area. The Largo Canyon Reach #1 riparian area is located in the large floodplain of Largo Wash. This riparian area contains some typical riparian vegetation but it is scattered and sparse.

## SURVEY RESULTS

**USFWS T&E Species:** According to the USFWS, there are nine federally listed threatened or endangered species with potential to occur in San Juan County, New Mexico. Table 1 lists these species, their conservation status, habitat associations, and potential to occur in the project or action area. Two of the listed species have potential to occur in the action area based on evaluation of habitat associations and field surveys. The proposed ConocoPhillips Hamner 9S natural gas well project would have no direct, indirect, or cumulative impacts on federally listed species.

**Table 1.** Species listed by the USFWS under the authority of the Endangered Species Act of 1973 for San Juan County, New Mexico and their potential to occur in the proposed project and action areas based on habitat associations. (E = endangered; T = threatened; C = candidate)

SPECIES	CONSERVATION STATUS	HABITAT ASSOCIATIONS	POTENTIAL TO OCCUR IN THE PROJECT OR ACTION AREA
<b>MAMMALS</b>			
Black-footed ferret ( <i>Mustela nigripes</i> )	E	Open grasslands with year-round prairie dog colonies of 200 acres or greater.	No prairie dog colonies were identified in the project or action area.
<b>BIRDS</b>			
Southwestern willow flycatcher ( <i>Empidonax traillii extimus</i> )	E	Breeds in dense, shrubby riparian habitats, usually in close proximity to surface water or saturated soil.	Ephemeral wash riparian habitat located approximately 0.2 mile northeast of the project area is composed of sparse and scattered vegetation.
Mexican spotted owl ( <i>Strix occidentalis lucida</i> )	T	Nests in caves, cliffs, or trees in steep-walled canyons of mixed conifer forests.	No steep canyons with mixed conifer forests or designated critical habitat occur in the project or action area.
Yellow-billed cuckoo ( <i>Coccyzus americanus</i> )	C	Breeds in riparian woodlands with dense, understory vegetation.	Ephemeral wash riparian habitat located approximately 0.2 mile northeast of the project area is composed of sparse and scattered vegetation.
<b>FISH</b>			
Colorado pikeminnow ( <i>Ptychocheilus lucius</i> )	E	Large rivers with strong currents, deep pools, and quiet backwaters.	No perennial water resources occur in the action area.
Razorback sucker ( <i>Xyrauchen texanus</i> )	E	Medium to large rivers with silty to rocky substrates. Prefers strong currents and deep pools.	No perennial water resources occur in the action area.

SPECIES	CONSERVATION STATUS	HABITAT ASSOCIATIONS	POTENTIAL TO OCCUR IN THE PROJECT OR ACTION AREA
<b>PLANTS</b>			
Knowlton's cactus ( <i>Pediocactus knowltonii</i> )	E	Alluvial deposits that form rolling, gravelly hills in piñon-juniper and sagebrush communities (6,200-6,400 ft). A type locality of the Los Pinos River area.	The project area is not located in gravelly, alluvial deposits and is located over 10 miles from the only known Knowlton's cacti population.
Mancos milkvetch ( <i>Astragalus humillimus</i> )	E	Cracks of Point Lookout Sandstone of the Mesaverde series (5,000-6,000 ft).	Project and action areas do not contain appropriate geologic substrate for this species.
Mesa Verde cactus ( <i>Sclerocactus mesae-verdae</i> )	T	Highly alkaline soils in sparse shale or adobe clay badlands of the Mancos and Fruitland formations (4,000-5,550 ft).	Project and action areas do not contain appropriate geologic substrate for this species.

Source: USFWS 2007

**BLM Special Management Species:** Of the nine species warranted for special management consideration by the BLM/FFO (BLM 2005), four have the potential to occur in the project or action area; the golden eagle, prairie falcon, Aztec gilia, and Brack's hardwall cactus. Species listed by the BLM/FFO and their potential to occur in the project or action area are summarized in Table 2. No golden eagles, prairie falcons, or Aztec gilia were observed in the project area and their potential to occur is based on evaluation of the project and action area habitats and the known habitat associations of the listed species. Brack's hardwall cacti were observed on the site.

**Table 2.** BLM/FFO species with special management status and their potential to occur in the project and action areas based upon habitat associations.

SPECIES	HABITAT ASSOCIATIONS	POTENTIAL TO OCCUR IN THE PROJECT OR ACTION AREA
<b>BIRDS</b>		
Golden eagle ( <i>Aquila chrysaetos</i> )	In the west, mostly open habitats in mountainous, canyon terrain. Nests primarily on cliffs and trees.	Action area contains potential foraging habitat for golden eagles.
Ferruginous hawk ( <i>Buteo regalis</i> )	Flat or rolling terrain in grasslands, shrub-steppes, and deserts; may occur in the periphery of piñon-juniper or other forests. Prefers elevated nest sites (e.g., buttes, utility poles, trees) but also nests on the ground.	Project and action areas do not contain suitable flat or rolling terrain.

SPECIES	HABITAT ASSOCIATIONS	POTENTIAL TO OCCUR IN THE PROJECT OR ACTION AREA
Prairie falcon ( <i>Falco mexicanus</i> )	Arid, open regions of grassland or scrub vegetation with cliff formations that are at least 30 ft high. Breeding cliffs are sometimes in semi-open regions with scattered conifer trees and occasionally dense woodlands.	Action area contains potential foraging habitat for prairie falcons.
Yellow-billed cuckoo ( <i>Coccyzus americanus</i> )	Breeds in riparian woodlands with dense, understory vegetation.	Ephemeral wash riparian habitat located approximately 0.2 miles northeast of the project area is composed of sparse and scattered vegetation.
Mountain plover ( <i>Charadrius montanus</i> )	Breeds in flat, open grasslands. Often associated with prairie dog towns and intensive grazing.	No flat, open grasslands in project or action area.
American peregrine falcon ( <i>Falco peregrinus anatum</i> )	Rugged terrain with rocky cliffs and canyons (30-1,000+ ft high), adjacent to rivers, lakes, or streams. Urban areas with towers and buildings also inhabited.	Project and action areas do not include cliffs or canyons adjacent to permanent water resources.
*Bald eagle ( <i>Haliaeetus leucocephalus</i> )	Nest in forested areas adjacent to large bodies of water.	No large bodies of water occur in the project or action area.
<b>PLANTS</b>		
Brack's hardwall cactus ( <i>Sclerocactus cloveriae</i> ssp. <i>brackii</i> )	Sandy clay of the Nacimientto Formation in sparse shadscale scrub (5,000-6,000 ft).	Action area contains approximately 36 plants, 5 of which are in the proposed project area.
Aztec gilia ( <i>Aliciella formosa</i> )	Salt desert scrub communities in soils of the Nacimientto Formation (5,000-6,000 ft).	Action area contains potential habitat.

Source: BLM 2005

\*The bald eagle was removed from the list of endangered and threatened wildlife in the lower 48 states, effective August 8, 2007 (72 FR 37346).

## DISCUSSION

Potential foraging habitat exists for golden eagles and prairie falcons within the action area. Golden eagles in the west typically prefer more open habitats than woodlands for hunting. The overall landscape of the action area includes piñon-juniper woodland and open desert scrub that could support foraging populations of golden eagles. This landscape is also suitable habitat for prairie falcons and potential nesting habitat is present approximately 1.6 miles south of the project area. Direct impacts include the potential loss of 3.07 acres of foraging habitat for these raptor species. Approximately 55-60 trees would be removed by the proposed project. Additional impacts may

include avoidance of the project area by golden eagles and prairie falcons during construction, drilling, and operation due to disturbance and activity from human and vehicle presence and associated noise. Impacts from loss or modification of habitat and avoidance would be low and long-term. Indirect impacts may include a change in vegetation species composition and density due to surface disturbance and reclamation, which could affect the prey base for golden eagles and prairie falcons. Indirect impacts would be low and long-term.

The project and action areas occur on the Nacimiento Geologic Formation, which provides the appropriate substrate for Aztec gilia and Brack's hardwall cactus. No Aztec gilia were observed during the on-site investigation. Five Brack's hardwall cacti are scattered throughout the proposed project area. Two of the cacti are located approximately 15 ft southeast of the wellhead. Three cacti are located on the periphery of the southern and western construction zones and could be fenced and avoided. One cactus is located near the proposed access road/ pipeline ROW, but not within the 40 ft ROW. Soil disturbance and removal from development of the proposed project would result in the loss of approximately five Brack's hardwall cacti.

Aztec gilia and Brack's hardwall cactus populations and/or potential habitat are protected by special management policies implemented by the BLM/FFO. Upon consultation with the BLM/FFO, ConocoPhillips may be given the following options under these special management guidelines according to the BLM/FFO:

- 1) Relocate the pad to avoid the plants or habitat and drill conventionally.
- 2) Relocate the pad and directionally drill to the target area.
- 3) Transplant individual Brack's hardwall cacti to adjacent suitable habitat. A BLM/FFO approved biologist or botanist would conduct transplanting. The transplant site would be recorded using a GPS instrument and pictures would be taken using a digital camera. A report would be submitted to the BLM/FFO that includes the number of plants transplanted and the location of the transplant site. In designated suitable habitat for Brack's hardwall cactus, the top 6 inches of soil would be scraped, stockpiled, and fenced. After the project is completed, the stockpiled soil would be spread on the 50-foot construction buffer area. The reused soil would not be reseeded. A biological monitor approved by the BLM/FFO would coordinate soil scraping, stockpiling, and spreading.

Other direct impacts to Aztec gilia and Brack's hardwall cacti as a result of the proposed action would include disturbance to the seed bed and changes to soil chemical and physical characteristics in areas of occupied and unoccupied potential habitat from soil disturbance. These impacts may result in a decreased success rate for re-colonization. Appropriate mitigation for Brack's hardwall cacti would be coordinated by ConocoPhillips with the BLM/FFO prior to approval of the Application for Permit to Drill (John Kendall, BLM/FFO Threatened and Endangered Species Specialist pers comm).

## **CERTIFICATION**

Conclusions are based on actual                      ination and are correct to the best of my knowledge.

**Signature of Field Biologist:**

**Date:** 9/19/07 \_

Mike Vivalda, Biologist  
Ecosphere Environmental Services  
4801 N. Butler Avenue, Suite 15101  
Farmington, NM 87401  
(505) 327-3088

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# ATTACHMENT A. PROJECT PLATS

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

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, N.M. 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

*API Number		*Pool Code		*Pool Name BASIN FRUITLAND COAL	
*Property Code		*Property Name HAMNER		*Well Number 9S	
*OGRID No.		*Operator Name CONOCOPHILLIPS		*Elevation 5707	

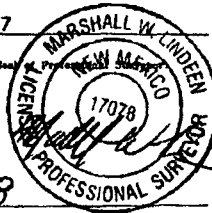
### 10 Surface Location

UL or lot no.	Section	Township	Range	Lot 14n	Feet from the	North/South line	Feet from the	East/West line	County
P	20	29 N	9 W		310	SOUTH	1222	EAST	SAN JUAN

### 11 Bottom Hole Location If Different From Surface

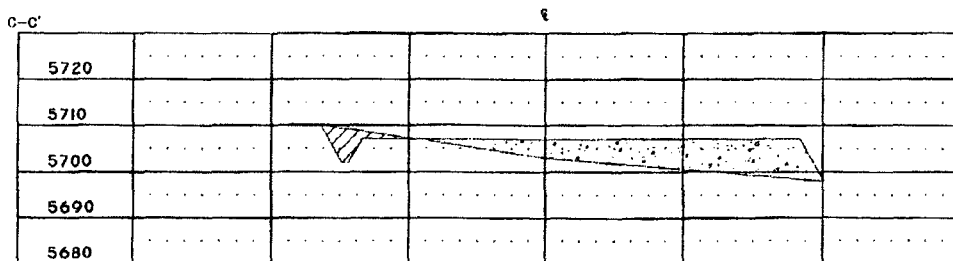
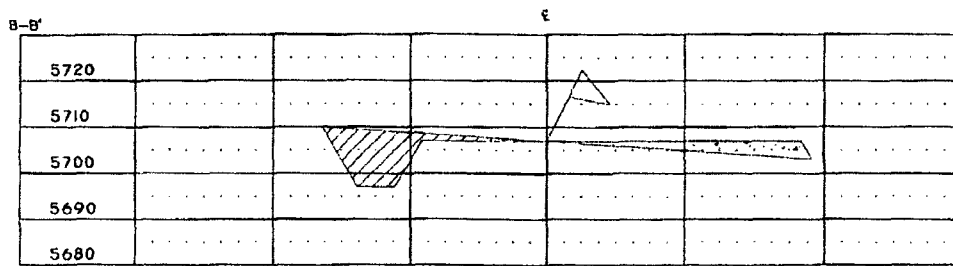
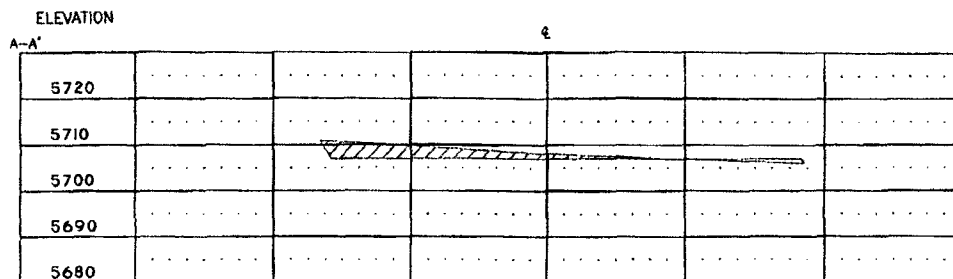
UL or lot no.	Section	Township	Range	Lot 14n	Feet from the	North/South line	Feet from the	East/West line	County
12 Dedicated Acres		13 Joint or Infill		14 Consolidation Code		15 Order No.			
320 (E/2)									

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

16 S 88°25'59" E		2645.90'		S 88°54'44" E		2659.78'		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 undivided mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.  Signature _____ Date _____ Printed Name _____	
2633.85'									
N 0°00'36" W								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.  8/09/07 Date of Survey Signature and Seal of Professional Surveyor  17078 Certificate Number	
SECTION 20				USA SF-080245					
2644.05'									
N 0°15'48" W				NAD 83 LAT: 36.704529° N LONG: 107.796614° W NAD 27 LAT: 36° 42.2714' N LONG: 107° 47.7599' W					
						1222'			
S 89°41'34" W		2694.70'		S 89°50'34" W		310'		2632.36'	



**CONOCOPHILLIPS**  
**HAMNER 9S - 310' FSL & 1222' FEL**  
**SECTION 20, T-29-N, R-9-W, N.M.P.M., SAN JUAN COUNTY, N.M.**  
**GROUND ELEVATION: 5707 - DATE: AUGUST 9, 2007**



1" = 60' - HORIZ.  
1" = 30' - VERT.

**NOTES:**

- 1.) CONTRACTOR SHOULD CALL "ONE-CALL" FOR LOCATION OF ANY MARKED OR UNMARKED BURIED PIPELINES OR CABLES ON WELLPAD AND OR ACCESS ROAD AT LEAST TWO (2) WORKING DAYS PRIOR TO CONST.
- 2.) UNITED FIELD SERVICES, INC. IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES.

SURVEYED: 8/09/07

REV. DATE:

APP. BY: M.W.L.

DRAWN BY: H.S.

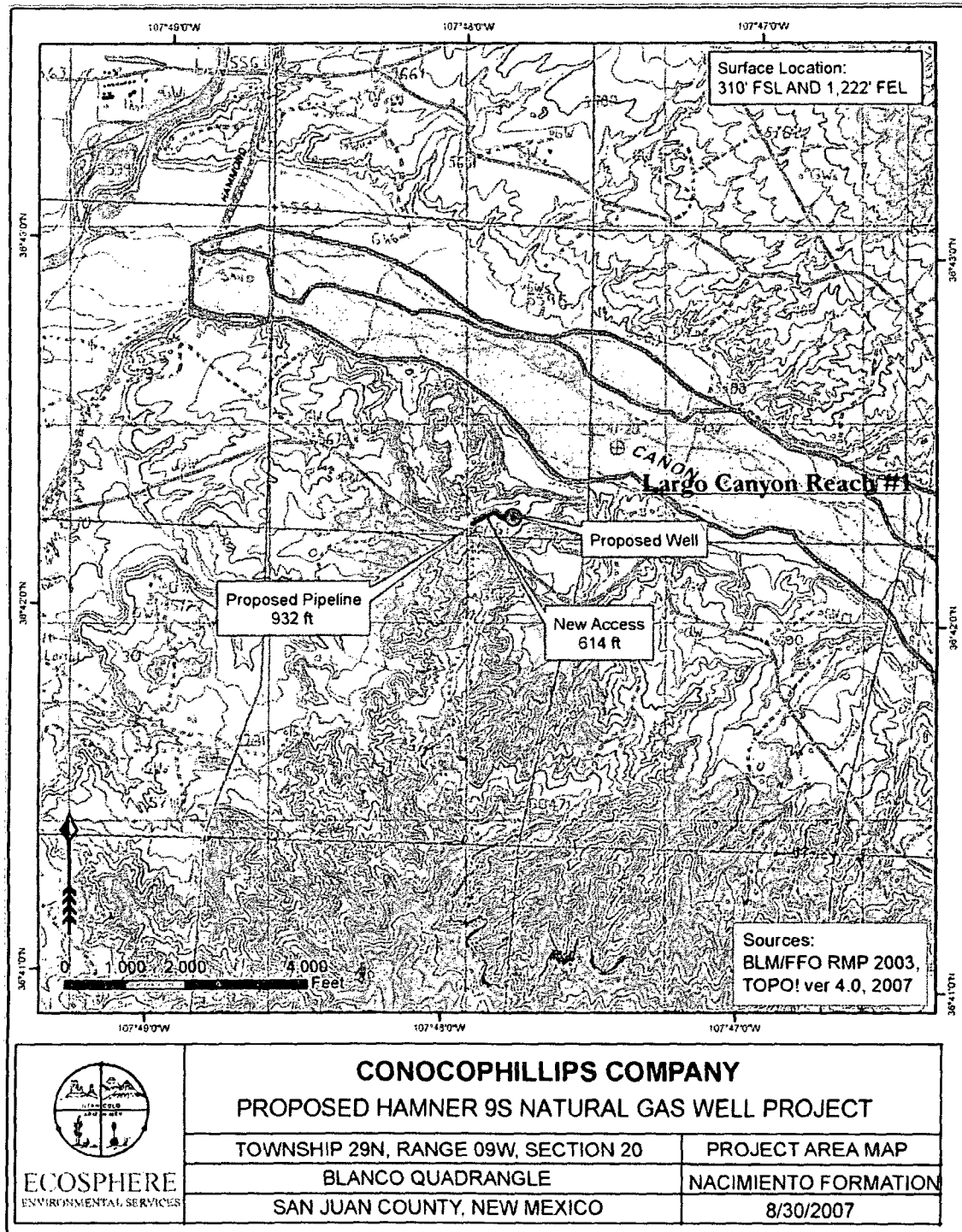
DATE DRAWN: 8/16/07

FILE NAME: 7879C03



P.O. BOX 3651  
FARMINGTON, NM 87498  
OFFICE: (505)334-0408

## ATTACHMENT B. PROJECT AREA MAP



fourwing saltbush  
greasewood  
Mojave brickellbush  
mound saltbush  
slender buckwheat

*Atriplex canescens*  
*Sarcobatus vermiculatus*  
*Brickellia oblongifolia*  
*Atriplex obovata*  
*Eriogonum microthecum*

### **CACTI**

Brack's hardwall cactus  
narrowleaf yucca  
plains pricklypear  
Whipple cholla

*Sclerocactus cloveriae* ssp. *brackii*  
*Yucca angustissima*  
*Opuntia polyacantha*  
*Cylindropuntia whipplei*

### **TREES**

piñon pine  
Utah juniper

*Pinus edulis*  
*Juniperus osteosperma*

### **MAMMALS**

black-tailed jackrabbit  
bobcat  
coyote  
desert cottontail

*Lepus californicus*  
*Lynx rufus*  
*Canis latrans*  
*Sylvilagus auduboni*

### **BIRDS**

common raven  
dark-eyed junco

*Corvus corax*  
*Junco hyemalis*

## ATTACHMENT C. PLANTS AND WILDLIFE FOUND IN THE PROJECT AREA

### GRASSES

alkali sacaton  
blue grama  
cheatgrass  
crested wheatgrass  
Indian ricegrass  
James' galleta  
needle and thread  
purple threeawn  
western wheatgrass

*Sporobolus airoides*  
*Bouteloua gracilis*  
*Bromus tectorum*  
*Agropyron cristatum*  
*Achnatherum hymenoides*  
*Pleuraphis jamesii*  
*Hesperostipa comata*  
*Aristida purpurea*  
*Pascopyrum smithii*

### HERBACEOUS FORBS

broadbeard beardtongue  
burningbush  
clefthead wildheliotrope  
Colorado four o'clock  
cryptantha  
Fendler's sandmat  
fineleaf hymenopappus  
flaxflowered ipomopsis  
Gordon's buckwheat  
granite prickly phlox  
hoary tansyaster  
lacy tansyaster  
nodding buckwheat  
prickly Russian thistle  
Rocky Mountain milkvetch  
rose heath  
sand buckwheat  
sandhill muhly  
scarlet globemallow  
sego lily  
shaggy fleabane  
slender goldenweed  
stemless four-nerve daisy  
woolly locoweed  
woolly plantain  
Wright's bird's beak  
yellow milkvetch  
yellow sweetclover

*Penstemon angustifolius*  
*Bassia scoparia*  
*Phacelia crenulata*  
*Mirabilis multiflora*  
*Cryptantha* sp.  
*Chamaesyce fendleri*  
*Hymenopappus filifolius*  
*Ipomopsis longiflora*  
*Eriogonum gordonii*  
*Linanthus pungens*  
*Machaeranthera canescens*  
*Machaeranthera pinnatifida*  
*Eriogonum cernuum*  
*Salsola tragus*  
*Astragalus scopulorum*  
*Chaetopappa ericoides*  
*Eriogonum leptocladon*  
*Muhlenbergia pungens*  
*Sphaeralcea coccinea*  
*Calochortus nuttallii*  
*Erigeron pumilus*  
*Machaeranthera gracilis*  
*Tetraneuris acaulis*  
*Astragalus mollissimus*  
*Plantago patagonica*  
*Cordylanthus wrightii*  
*Astragalus flavus*  
*Melilotus officinalis*

### SHRUBS

antelope bitterbrush  
broom snakeweed  
Cutler's jointfir

*Purshia tridentata*  
*Gutierrezia sarothrae*  
*Ephedra cutleri*