



Ecosphere
Environmental Services

Biological Assessment
Burlington Resources Oil and Gas
Company, LP
Proposed Ute Mountain Ute #111
Natural Gas Well and Pipeline Project
La Plata County, Colorado

Prepared for:
Bureau of Indian Affairs
Towaoc, Colorado
and
Ute Mountain Ute Tribe
July 2011

Durango, CO
Cortez, CO
Pagosa Springs, CO
Farmington, NM

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1. INTRODUCTION

Ecosphere Environmental Services (Ecosphere) was contracted by Burlington Resources Oil and Gas Company, LP (Burlington) to prepare a biological assessment (BA) for the proposed Ute Mountain Ute #111 natural gas well and pipeline project. The project is proposed to be located on Ute Mountain Ute (UMU) tribal lands in La Plata County, Colorado. A BA is required under the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.) for projects on federally managed lands. The BA reviews, analyzes, and documents the direct, indirect, and cumulative effects on U.S. Fish and Wildlife Service (USFWS) federally listed endangered, threatened, and/or candidate species and proposed or designated critical habitats thereof, as a result of development actions on federally managed lands.

2. SUMMARY OF THE ANALYSIS

2.1 Threatened/Endangered/Candidate Species

There are 12 threatened, endangered, proposed threatened, or candidate species listed by the U.S. Fish Wildlife Service (USFWS) with potential to occur in La Plata County, Colorado. All 12 species received a “no effect” determination due to their absence or an absence of suitable habitat in the project area. Table 1 in Section 5.0 summarizes the rationale for this determination and summarizes the potential for each species to occur on the La Plata County, Colorado of the UMU Reservation.

2.2 Action Area

The proposed Burlington Ute Mountain Ute #111 natural gas well project would be located on UMU lands on Barker Dome approximately one-half mile north of the New Mexico/Colorado border and approximately 19 miles north of Farmington, New Mexico. A vicinity map is provided as Figure 1 in Appendix A. The proposed well head and pipeline legal coordinates are:

Well Head

1,064 feet from the north line (FNL) and 2,006 feet from the east line (FEL)
Section 23, Township 32N, Range 13 ½ W
New Mexico Principal Meridian (NMPM), La Plata County, Colorado

Pipeline

Section 23, Township 32 North, Range 13 ½ West, NMPM, La Plata County, Colorado

Elevation of the project area is approximately 7,000 feet. The action area is defined as an approximate 0.5-mile radius around the proposed project area. The action area was delineated to assess direct or indirect, and cumulative effects of the proposed action on listed species. A project area map is provided in Appendix A as Figure 2. Figure 3 shows the proposed action on the 2009 digital photo orthoquad.

3. PROPOSED ACTION

3.1 Proposed Action

Burlington has filed an Application for Permit to Drill (APD) for the Ute Mountain Ute #111 natural gas well on UMU lands. Drilling of the proposed well would require construction of a 230 by 300 foot well pad, with a temporary construction zone surrounding the pad, a spoil storage area, and a top soil storage area, for a surface disturbance of approximately 2.58 acres. The proposed well would also require the construction of a 1,040 foot well-tie pipeline and waterline. Surface disturbance for the proposed pipeline ROW would be approximately 0.95 acre. Total surface disturbance associated with the proposed project would be approximately 3.53 acres.

The proposed well pad co-located with an existing well pad, overlapping a minimal amount of previous disturbance. The proposed pipeline would follow an existing access road and then skirt around the eastern edge of the existing well pad before entering the well pad. Approximately 3.03 acres of the proposed action would be new disturbance.

4. EXISTING HABITAT CONDITION

4.1 Existing Habitat Condition

The action area is located on a flat to undulating west facing mesa top near the east side of Barker Dome, approximately 1,000 feet east of Little Barker Arroyo. Elevation of the proposed well head would be 7,000 feet. Slopes in the proposed project area range from 2 to 4 degrees.

Surface geology of the analysis area is composed of Menefee Formation, which includes shale, mudstone, and sandstone. This formation is also coal bearing. The texture of soils in the action area is reddish brown sandy loam to clay loam. Based on the Natural Resource Conservation Service (NRCS) Web Soil Survey (accessed 2011) the major soil mapping units in the proposed project area are the Romberg-Crosscan complex, 6 to 25 percent slopes and Vessilla-Rock outcrop complex, 5 to 25 percent. Romberg soils are very deep, well-drained, and composed of slope alluvium derived from sandstone and shale. Effective rooting depth is 60 inches. Available water capacity is low. Runoff is high, and the hazard of water erosion is moderate. Crosscan soils are very deep, well-drained, and composed of residuum derived from sandstone and shale. Effective rooting depth is 6-20 inches. Available water capacity is low. Runoff is high, and the hazard of water erosion is moderate. Rock outcrop consists of sandstone outcrops. Vessilla soil is shallow and derived in alluvium and colluvium from sandstone. It is well drained with a moderately rapid permeability. The available water capacity is very low with surface runoff rapid. The hazard of water and wind erosion is severe.

There are no perennial water resources in the form of rivers, lakes, ponds, or streams within the action area, nor any wetlands or riparian habitats.

The project area and the surrounding vicinity are composed of piñon pine (*Pinus edulis*) and Utah juniper (*Juniperus osteosperma*) woodland. Canopy cover in the proposed well pad was visually estimated to be 50 percent. Construction of the proposed well pad would result in the removal of about 200 trees. Understory vegetation cover in the undisturbed portion was estimated to be 15 percent and is dominated by Greene's rabbitbrush (*Chrysothamnus Greenei*), broom snakeweed (*Gutierrezia sarothrae*), grass-leaved rock goldenrod (*Petradoria pumila*) and Indian rice grass (*Achnatherum hymenoides*). A complete list of vegetation observed in the project area is provided in Appendix B.

Wildlife sign observed within the proposed project and analysis area include desert cottontail (*Sylvilagus audubonii*), elk (*Cervus elaphus*), mule deer (*Odocoileus hemionus*), and coyote (*Canis latrans*). Birds observed within the proposed project and action area include dark-eyed junco (*Junco hyemalis*), black-capped chickadee (*Poecile atricapillus*), and common raven (*Corvus corax*). No prairie dog (*Cynomys* sp.) colonies were found in the action area. No raptors, white wash, raptor nests, or signs consistent with raptor use were observed during the biological resources field survey. A list of wildlife species with potential to occur in the action area is provided in Appendix B.

5. THREATENED AND ENDANGERED FLORA/FAUNA

5.1 Pre-Field Review

Prior to conducting fieldwork, species listed on the USFWS endangered species list for La Plata County, Colorado were researched and reviewed (USFWS 2011). The endangered species list was accessed online June 2011. According to the USFWS, there are 12 threatened, endangered, proposed, or candidate species with potential to occur in La Plata County, Colorado (Table 1). Their habitat associations and potential to occur in the action area were evaluated based upon project specific habitat analyses.

5.2 Field Survey

A biological resource field survey and onsite meeting of the proposed Burlington Ute Mountain Ute #111 well pad and pipeline was conducted on June 6, 2011. The weather during the survey was clear with ambient temperatures around 90° F. Parallel transects were surveyed over the entire project area. All plant and wildlife species and signs of wildlife observed in the area were recorded and digital photos of the project area were taken. Binoculars were used to survey for raptors and potential nest habitat. Adjacent habitats within a 0.5 mile of the proposed project area were also considered for potential habitat of federally listed species.

5.3 Threatened and Endangered Species Eliminated from Detailed Evaluation

Due to the absence of suitable habitat within the analysis area, all 12 USWFS federally listed species are eliminated from detailed evaluation in this BA. Table 1 provides the reasoning for eliminating each species from further evaluation.

Table 1. Species listed by the USFWS under the authority of the Endangered Species Act of 1973 for La Plata County, Colorado (E = endangered, T = threatened, C = candidate, P=proposed threatened).

SPECIES	CONSERVATION STATUS	HABITAT ASSOCIATIONS	REASON FOR ELIMINATION FROM CONSIDERATION
MAMMALS			
Black-footed ferret <i>(Mustela nigripes)</i>	E	Open grasslands with year-round dog colonies	No prairie dog colonies exist in the action area
Canada lynx <i>(Lynx canadensis)</i>	C	Generally occurs in boreal and montane forests dominated by coniferous or mixed forest with thick undergrowth.	No boreal or montane forests in project or action area.
New Mexico meadow jumping mouse <i>(Zapus hudsonius luteus)</i>	C	Nests in dry soils but uses moist, streamside, dense riparian/wetland vegetation in mountainous areas.	No riparian or wetland vegetation present in action area.
Wolverine <i>(Gulo gulo luscus)</i>	C	Alpine and arctic tundra, boreal and mountain forest (primarily coniferous). Limited to the mountains in the south, especially large wilderness areas.	No alpine or arctic tundra, boreal or mountain forests in the action area
BIRDS			
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	No riparian habitat occurs in the action area
Mexican spotted owl <i>(Strix occidentalis lucida)</i>	T	Nests in caves, cliffs, or trees in steep-walled canyons of mixed conifer forests	No ponderosa pine or mixed conifer habitat in the action area
Yellow-billed cuckoo <i>(Coccyzus americanus occidentalis)</i>	C	Nests in cottonwood/willow riparian habitat with dense understory along rivers; rare in the San Juan River valley	No riparian habitat occurs in the action area
FISH			

SPECIES	CONSERVATION STATUS	HABITAT ASSOCIATIONS	REASON FOR ELIMINATION FROM CONSIDERATION
Colorado pikeminnow (<i>Ptychocheilus lucius</i>)	E	Large rivers with strong currents, deep pools, and quiet backwaters	No perennial water sources 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 rock	No perennial water sources occur in the action area
PLANTS			
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.	No alluvial humus soils or alluvial deposits occur in the action area
Pagosa Skyrocket (<i>Ipomopsis polyantha</i>)	P	Only grows on Pagosa-Winifred soils derived from Mancos Shale in the southern San Juan Mountains.	No Mancos Shale derived soils located within the action area.
INSECTS			
Uncompahgre fritillary butterfly (<i>Boloria acrocneema</i>)	E	Lives in patches of snow willow (<i>Salix spp.</i>) at high elevations in alpine meadows above 13,000 ft of the San Juan Mountains in southwestern Colorado	Action area is below 13,000 ft in elevation.

Source: USFWS 2011

6. MIGRATORY BIRD TREATY ACT

Because the proposed project is located on a portion of undisturbed terrain, vegetation removal of some shrubs and trees would result in a loss of foraging and nesting habitat for a variety of birds protected under the Migratory Bird Treaty Act (MBTA). Data collected through breeding bird surveys coordinated by the USFWS as well as other private sector efforts, have provided the basis for the Partners in Flight (PIF) organization to develop bird "Watch Lists" and the USFWS's "Birds of Conservation Concern List". The proposed project area contains one of the habitat types (piñon-juniper woodland) addressed in these documents. A sampling of some of the birds listed as "Highest Priority" by the PIF group includes gray vireo (*Empidonax wrightii*), western scrub jay (*Aphelocoma californica*),

plumbeous vireo (*Vireo plumbeus*), and Virginia's warbler (*Vermivora virginiae*). The USFWS list of "Birds of Conservation Concern" includes the gray vireo and piñon jay (*Gymnorhinus cyanocephalus*). Direct impacts to these species are expected to be greater if construction occurs during the breeding season from April to August, when nest destruction is possible. Additionally, noise and human disturbance may cause some nest abandonment in adjacent areas. Direct impacts would include the long-term loss of approximately 3.53 acres of undisturbed habitat and approximately 200 piñon and juniper trees.

7. WATER QUALITY, SURFACE AND GROUNDWATER

The project area is located in the Upper Colorado River Hydrologic Region and is part of the San Juan River sub-region. The project area is located within the La Plata sub-watershed. The nearest perennial water sources are the La Plata River located approximately five miles east and Meadows Reservoir, located approximately 10 miles south of the project area. There are no perennial streams, springs, or other water sources in the project area. The project area contains no wetlands or riparian areas.

A search of the New Mexico State Engineers Office Water Administration and Technical Engineering Resource System (WATERS) database for the proposed project area and vicinity (1-mile radius) was performed. The database has no records of water wells located with the proposed project area or a 1-mile radius.

8. CULTURALLY IMPORTANT PLANTS

No culturally important plants were identified in the project area.

9. NOXIOUS WEEDS

Musk thistle (*Carduus nutans*), a Class B Colorado State listed noxious weed, was identified scattered throughout the project area, mainly along the pipeline ROW.

10. ANALYSIS AND DETERMINATION OF EFFECTS

10.1 Direct and Indirect Effects

The proposed project area does not contain suitable habitat for any threatened, endangered, proposed, or candidate species. No federally listed species were observed within the project area. The proposed project area and action area do not contain suitable habitat for any federally listed threatened, endangered, proposed, or candidate species. No threatened, endangered, or candidate species habitat loss or degradation would take place as a result of the proposed project; therefore, no direct or indirect effects to federally listed species are anticipated.

10.2 Cumulative Effects

No potential habitat for any threatened, endangered, proposed, or candidate species occurs within the action area. No designated critical habitat for any listed species with the potential to occur in La Plata County, Colorado occurs within the action area. The proposed action would have no cumulative impacts to federally listed species.

10.3 Determination of Effect

Table 2 summarizes the expected effect of the proposed action on federally listed species. The action area does not contain potential habitat for any federally listed species, therefore a determination of “no effect” is expected for all federally listed fauna and flora species potentially occurring in La Plata County, Colorado.

Table 2. Summary of the determination of effect on federally listed species.

SPECIES	STATUS	DETERMINATION OF EFFECT
Black-footed ferret	Endangered	No effect
Canada lynx	Candidate	No effect
New Mexico meadow jumping mouse	Candidate	No effect
Wolverine	Candidate	No effect
Southwestern willow flycatcher	Endangered	No effect
Mexican spotted owl	Threatened	No effect
Yellow-billed cuckoo	Candidate	No effect
Colorado pikeminnow	Endangered	No effect
Razorback sucker	Endangered	No effect
Knowlton's cactus	Endangered	No effect
Pagosa Skyrocket	Proposed	No effect
Uncompahgre fritillary butterfly	Endangered	No effect



11. BIOLOGICAL ASSESSMENT PREPARERS

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Towaoc, Colorado

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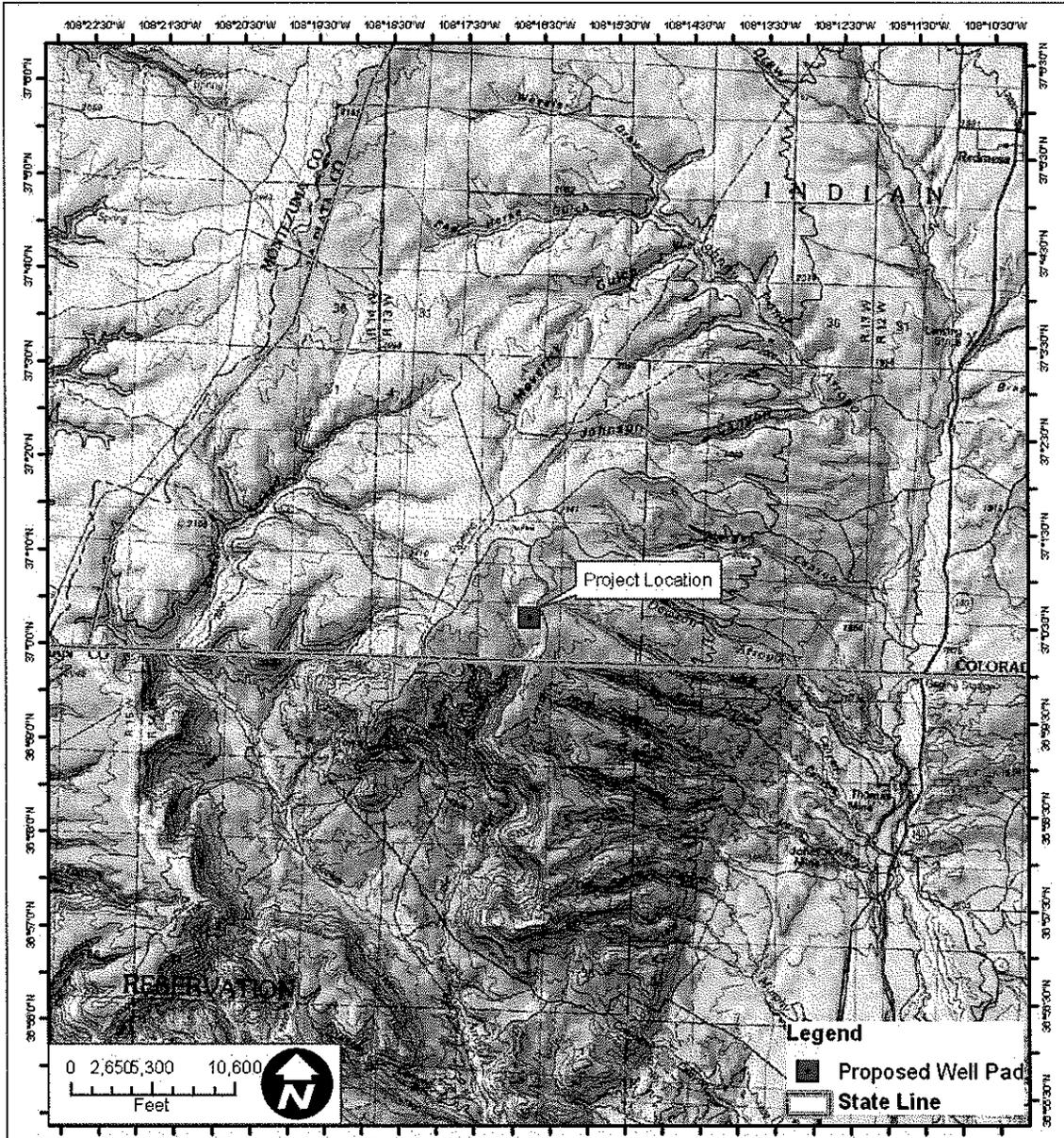
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APPENDIX A

PROJECT MAPS AND PLATS



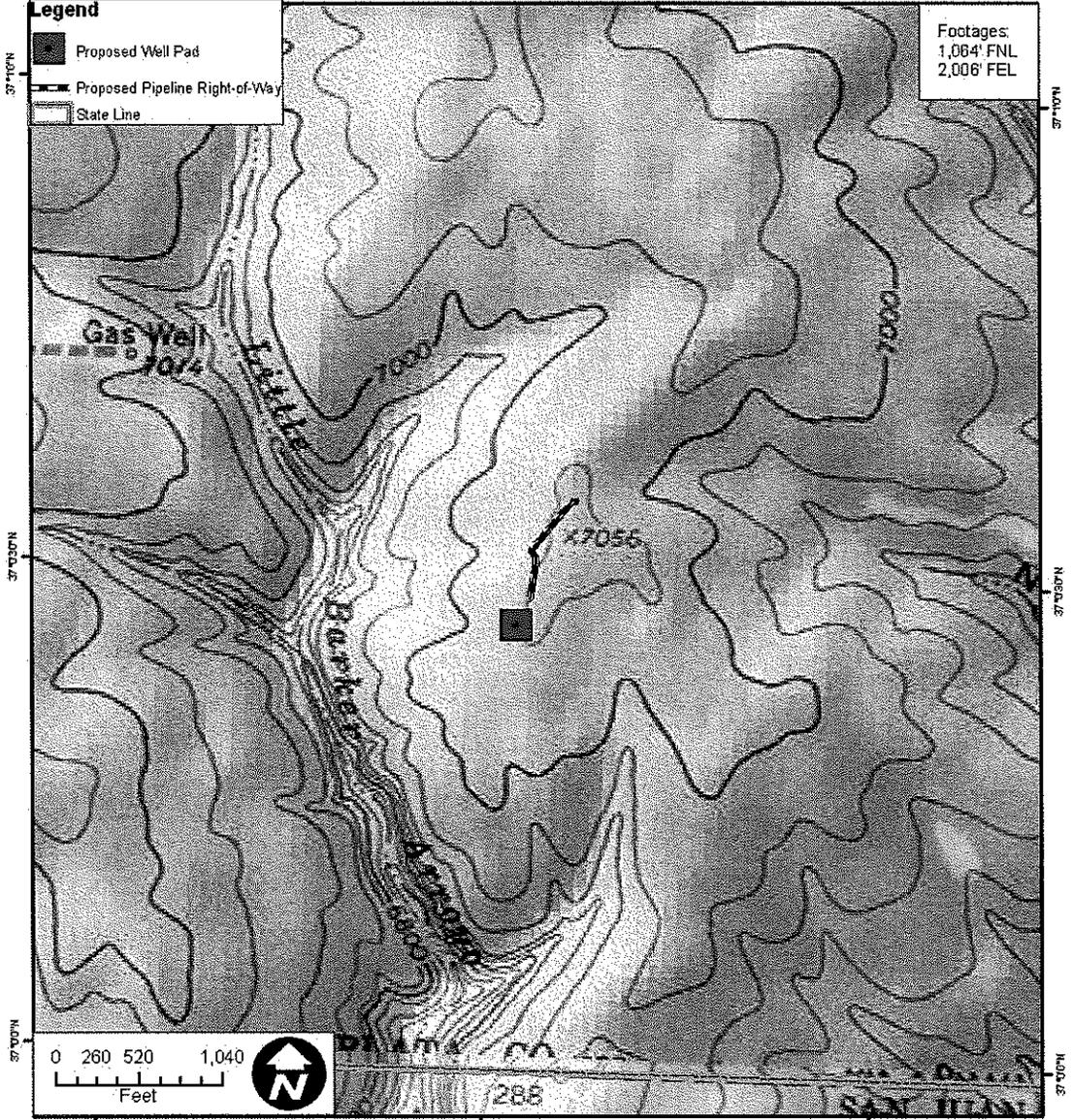
Burlington Resources Oil & Gas, LP	
PROPOSED UTE MOUNTAIN UTE #111 WELL PAD & PIPELINE PROJECT	
TOWNSHIP 32 NORTH RANGE 13 1/2 WEST SECTION 23	FIGURE 1
CORTEZ & FARMINGTON 100K TOPO	VICINITY MAP
LA PLATA COUNTY, CO	6/30/2011



Legend

-  Proposed Well Pad
-  Proposed Pipeline Right-of-Way
-  State Line

Footages:
1,064' FNL
2,006' FEL



Burlington Resources Oil & Gas, LP

PROPOSED UTE MOUNTAIN UTE #111 WELL PAD & PIPELINE PROJECT

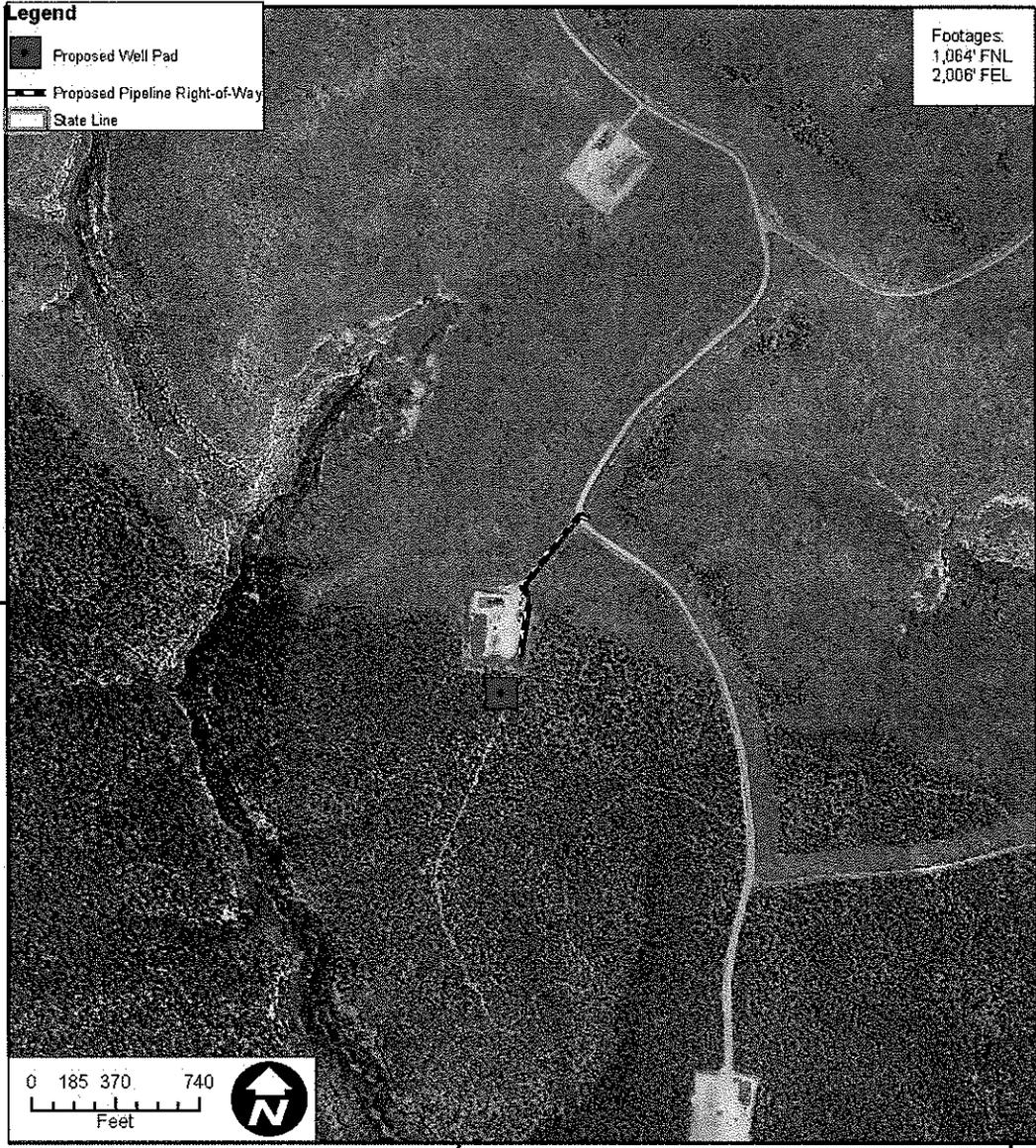
TOWNSHIP 32 NORTH RANGE 13 1/2 WEST SECTION 23	FIGURE 2
RED HORSE GULCH, CO 24K QUADRANGLE	PROJECT AREA MAP
LA PLATA COUNTY, CO	6/30/20 11



Legend

-  Proposed Well Pad
-  Proposed Pipeline Right-of-Way
-  State Line

Footages:
1,064' FNL
2,006' FEL



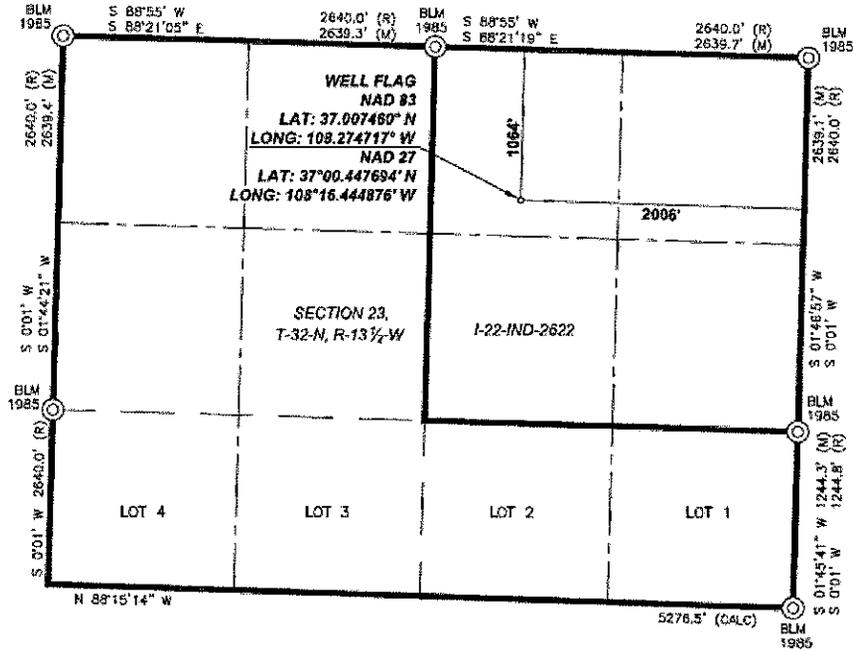
Burlington Resources Oil & Gas, LP

PROPOSED UTE MOUNTAIN UTE #111 WELL PAD & PIPELINE PROJECT

TOWNSHIP 32 NORTH RANGE 13 1/2 WEST SECTION 23	FIGURE 3
2009 LA PLATA COUNTY, CO DIGITAL ORTHO PHOTO	PROJECT AREA MAP
LA PLATA COUNTY, CO	6/30/2011



BURLINGTON RESOURCES OIL & GAS COMPANY LP
 UTE MOUNTAIN UTE 111
 1064' FNL, 2006' FEL
 SECTION 23, T-32-N, R-13½-W, N.M.P.M.,
 LA PLATA COUNTY, COLORADO
 GROUND LEVEL ELEVATION: 7039



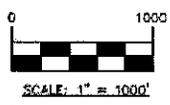
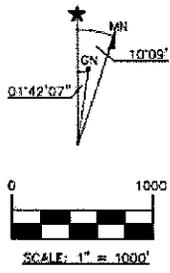
NOTES:

1. BASIS OF BEARING IS GRID NORTH, COLORADO STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD83, DERIVED BY GPS OBSERVATION AND NGS/OPUS SOLUTION WITH ALL LINEWORK DEPICTED HEREIN RELATIVE THERETO.
2. BASIS OF ELEVATION IS 7039' AT THE WELL FLAG, NAVD83, DERIVED BY GPS OBSERVATION AND NGS/OPUS SOLUTION.
3. COMBINED FACTOR AT THE WELL FLAG IS 0.999715243.
4. THE BLM DEPENDENT RESURVEY AND SURVEY OF T-32-N, R-13½-W, NUPM APPROVED APRIL 7, 1987 WAS RELIED UPON FOR RECORD INFORMATION.
5. FIELD SURVEYING COMMENCED APRIL 20, 2011.
6. GPS FIELD SURVEYING MEETS THE REQUIREMENTS OF RULE 215, ITEMS "A" THROUGH "H" AS SET FORTH IN THE AMENDED RULES AND REGULATIONS OF THE COLORADO OIL AND GAS CONSERVATION COMMISSION, EFFECTIVE MAY 1 2009.
7. SEE ORDER 515-1



HENRY P. BROADHURST, JR.
 COLORADO P.L.S. No. 18974

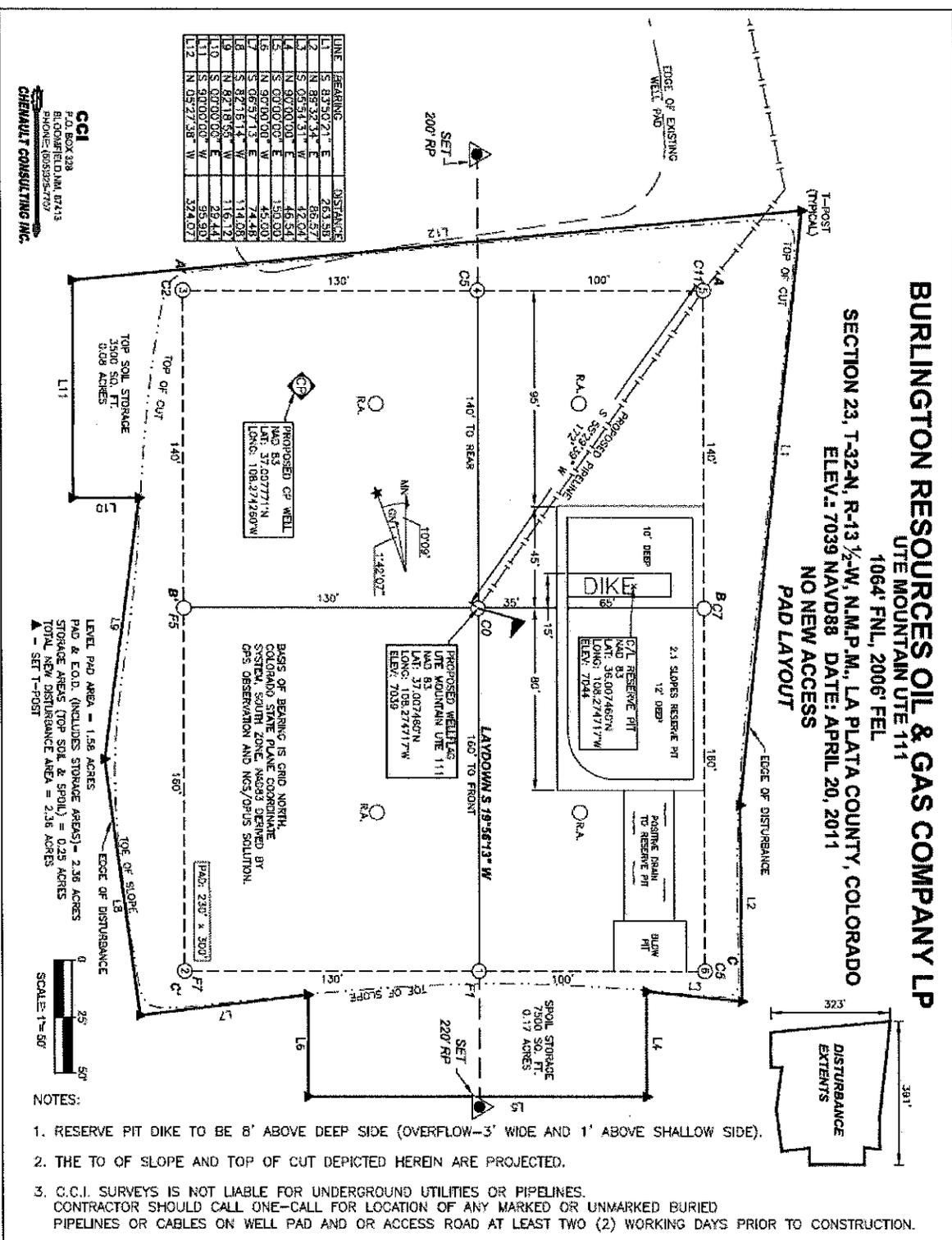
I, HENRY P. BROADHURST, JR., A DULY LICENSED LAND SURVEYOR IN THE STATE OF COLORADO, DO HEREBY CERTIFY THAT THE WELL LOCATION SHOWN ON THIS PLAT WAS PLOTTED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION, AND THAT THE SAME IS TRUE AND CORRECT TO THE BEST OF MY BELIEF.



PREPARED FOR:
BURLINGTON RESOURCES OIL & GAS COMPANY LP
CCI
CHENAULT CONSULTING INC.
 PO BOX 328
 BLOOMFIELD, NM 87413
 (505) 325-7707

BURLINGTON RESOURCES OIL & GAS COMPANY LP

SECTION 23, T-32N, R-13 1/2-W, N.M.P.M., LA PLATA COUNTY, COLORADO
 1064' FNL, 2006' FEL
 UTE MOUNTAIN UTE 111
 ELEV.: 7039 NAVD88 DATE: APRIL 20, 2011
 NO NEW ACCESS
 PAD LAYOUT



LINE	BEARING	DISTANCE
1	S 83°50'21" E	263.58
2	N 88°32'54" E	86.57
3	S 03°51'51" W	42.04
4	N 02°00'00" E	46.56
5	S 02°00'00" E	52.00
6	S 06°57'13" E	72.48
7	S 82°15'14" W	114.05
8	N 80°18'58" W	116.12
9	S 00°10'00" E	28.44
10	S 90°00'00" W	95.90
11	S 00°00'00" W	324.07
12	N 05°27'38" W	324.07

CCI
 FIELD BOX 93
 81 COOPER RD. LAM. UT 143
 PHONE: (808)285-7707
CHEMVALT CONSULTING INC.

PROPOSED GP WELL
 MAG 83
 DATE 05/20/11
 LONG: 108.274290W
 ELEV: 7044

PROPOSED WELLS
 UTE MOUNTAIN UTE 111
 MAG 83
 DATE 07/04/08
 LONG: 108.274171W
 ELEV: 7039

BASE OF BEARING IS GRID NORTH,
 COLORADO STATE PLANE COORDINATE
 SYSTEM, SOUTH ZONE. MAGS. DERIVED BY
 GPS OBSERVATION AND NGS/OPUS SOLUTION.

PAD: 230' x 300'

TOP SOIL STORAGE
 1500 SQ. FT.
 0.08 ACRES

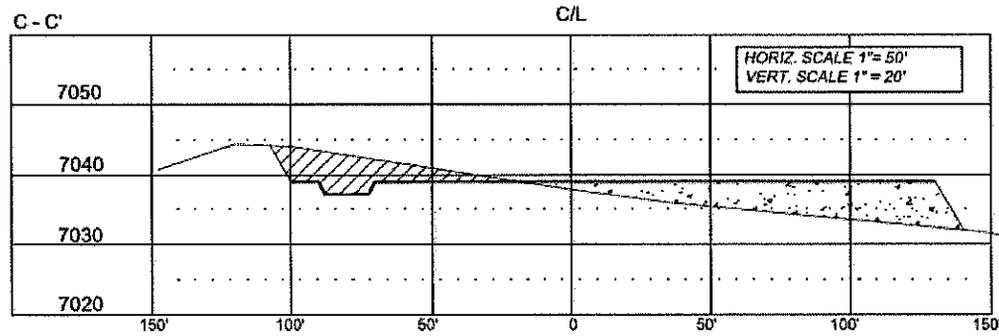
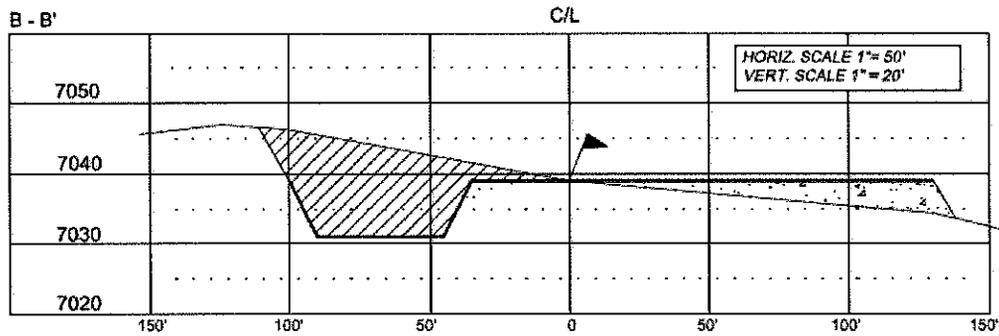
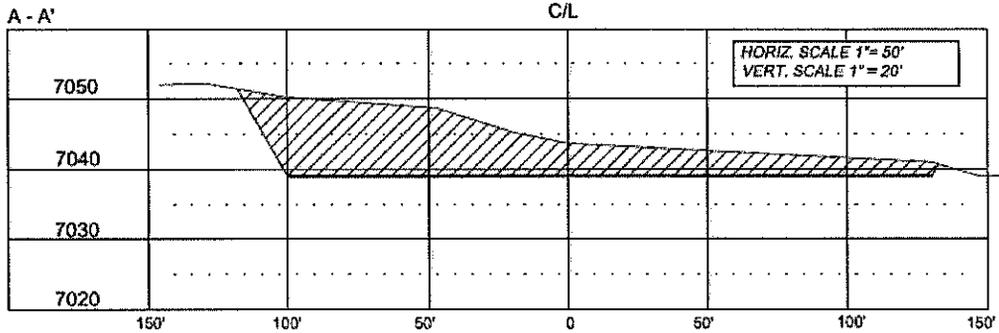
LEVEL PAD AREA = 1.58 ACRES
 PAD & E.O.D. (INCLUDES STORAGE AREAS) = 2.38 ACRES
 STORAGE AREAS (TOP SOIL & SPOIL) = 0.25 ACRES
 TOTAL NEW DISTURBANCE AREA = 2.36 ACRES

▲ - SET T-POST

SCALE: 1" = 50'

- NOTES:
1. RESERVE PIT DIKE TO BE 8' ABOVE DEEP SIDE (OVERFLOW-3' WIDE AND 1' ABOVE SHALLOW SIDE).
 2. THE TO OF SLOPE AND TOP OF CUT DEPICTED HEREIN ARE PROJECTED.
 3. C.C.I. SURVEYS IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES. CONTRACTOR SHOULD CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED BURIED PIPELINES OR CABLES ON WELL PAD AND OR ACCESS ROAD AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION.

BURLINGTON RESOURCES OIL & GAS COMPANY LP
 UTE MOUNTAIN UTE 111 - 1064' FNL, 2006' FEL
 SECTION 23, T-32-N, R-13 1/2-W, N.M.P.M.,
 LA PLATA COUNTY, NEW MEXICO
 ELEV.: 7039 NAVD88
PAD CROSS SECTION DETAIL



NOTE: CCI IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES.

CONTRACTOR SHOULD CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED BURIED PIPELINES OR CABLES ON WELL PAD AND OR ACCESS ROAD PRIOR TO CONSTRUCTION.

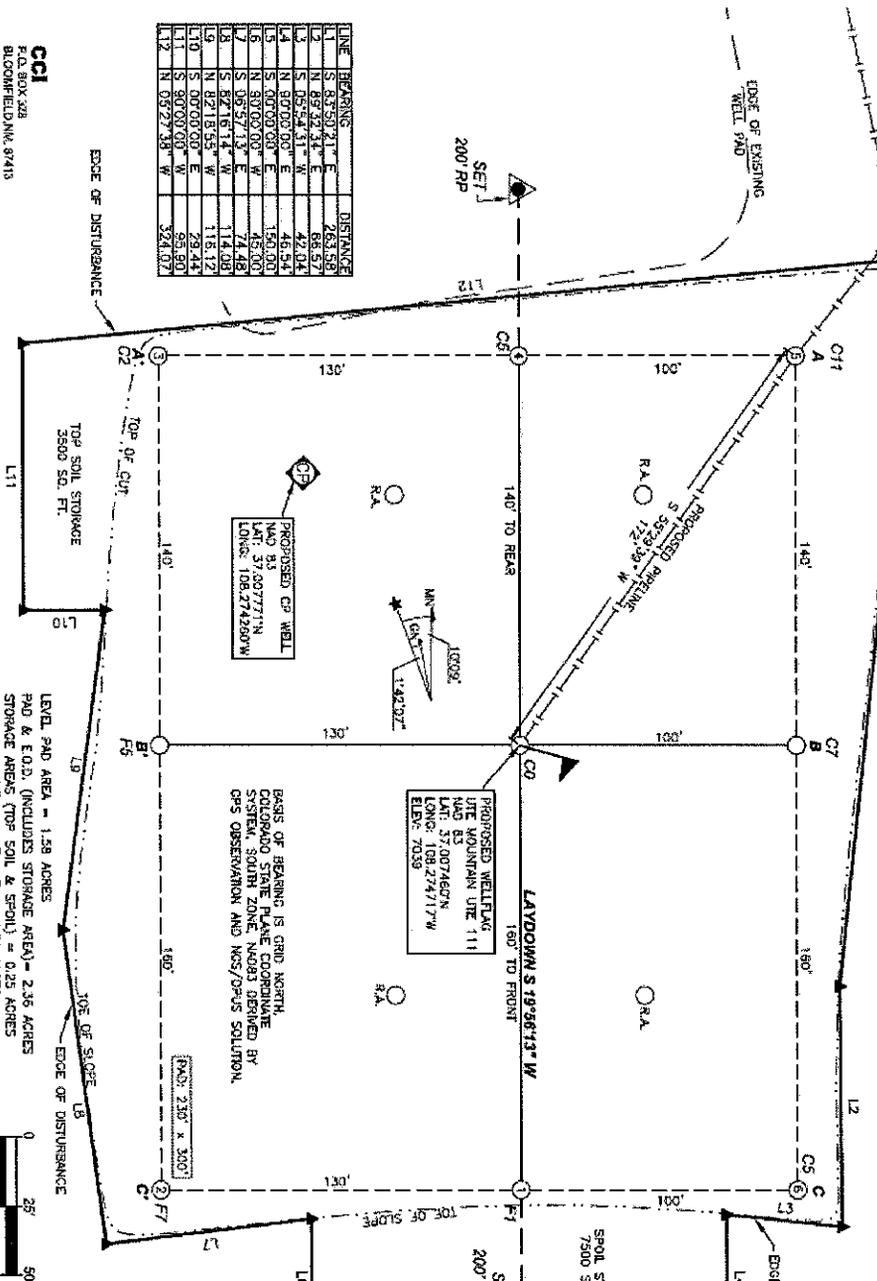
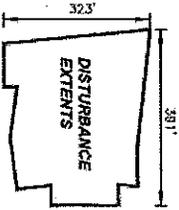
REVISIONS			
NO.	DESCRIPTION	REVISED BY	DATE
1	ISSUED FOR REVIEW	TJR	4/20/11

CCI
 P.O. BOX 326
 BLOOMFIELD, NM, 87413
 PHONE: (505) 326-7707

CHENAULT CONSULTING INC.

BURLINGTON RESOURCES OIL & GAS COMPANY LP

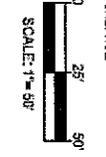
SECTION 23, T-32-N, R-43 1/2-W, N.M.P.M., LA PLATA COUNTY, COLORADO
 UTE MOUNTAIN UTE 111
 1064' FNL, 2006' FEL
 ELEV.: 7039 NAVD88 DATE: APRIL 20, 2011
 NO NEW ACCESS
 PAD LAYOUT



LINE BEARING	DISTANCE
1 N 89°59'31" E	263.53
2 N 89°27'41" E	68.57
3 S 15°54'41" W	47.04
4 N 80°09'09" E	46.54
5 S 00°00'00" W	150.00
6 N 80°09'09" W	45.00
7 S 08°57'13" E	74.48
8 S 82°16'14" W	114.08
9 N 82°18'55" W	118.12
10 S 00°00'00" E	79.44
11 S 90°09'00" W	99.90
12 N 03°27'38" W	324.07

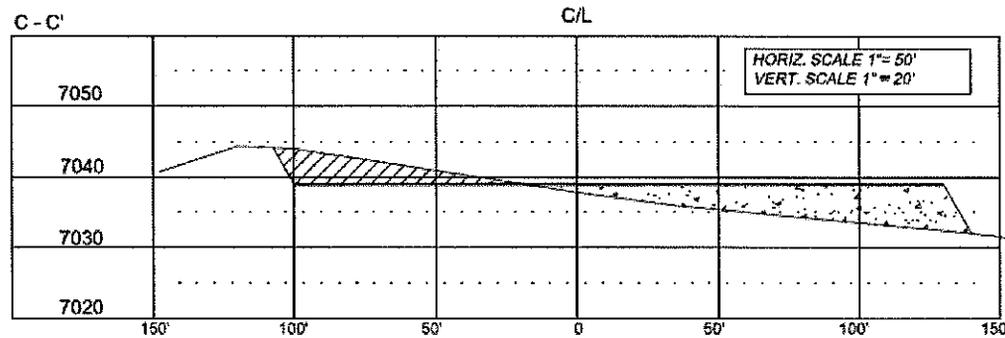
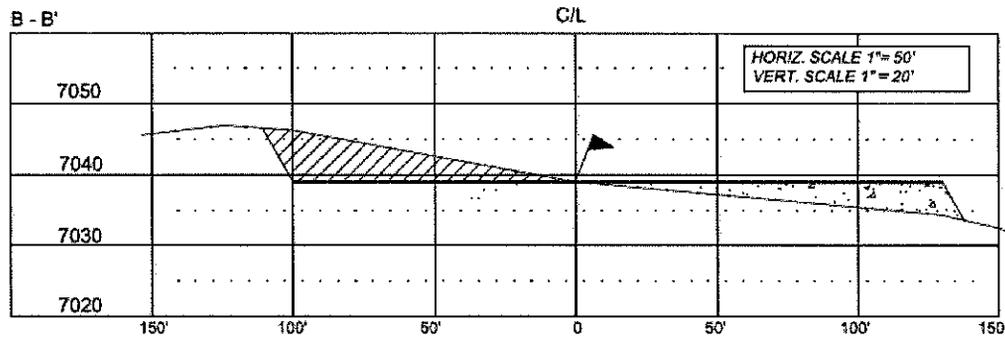
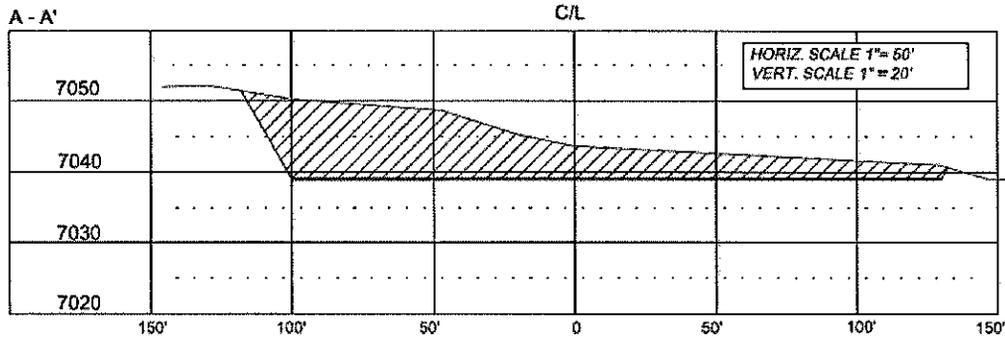
CCI
 P.O. BOX 528
 BLOOMFIELD, NM 87418
 PHONE: 505.835.7701
CHEWALT CONSULTING INC.

LEVEL PAD AREA = 1.58 ACRES
 PAD & E.O.D. (INCLUDES STORAGE AREA) = 2.35 ACRES
 STORAGE AREAS (TOP SOIL & SPOIL) = 0.25 ACRES
 TOTAL NEW DISTURBANCE AREA = 2.18 ACRES
 SET T-POST



- NOTES:
1. CLOSED LOOP CONSTRUCTION.
 2. THE TOE OF SLOPE AND TOP OF CUT DEPICTED HEREIN ARE PROJECTED.
 3. C.C.I. SURVEYS IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES. CONTRACTOR SHOULD CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED BURIED PIPELINES OR CABLES ON WELL PAD AND OR ACCESS ROAD AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION.

BURLINGTON RESOURCES OIL & GAS COMPANY LP
 UTE MOUNTAIN UTE 111 - 1064' FNL, 2006' FEL
 SECTION 23, T-32-N, R-13 1/2-W, N.M.P.M.,
 LA PLATA COUNTY, NEW MEXICO
 ELEV.: 7039 NAVD88
PAD CROSS SECTION DETAIL



NOTE: CCI IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES.

CONTRACTOR SHOULD CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED BURIED PIPELINES OR CABLES ON WELL PAD AND OR ACCESS ROAD PRIOR TO CONSTRUCTION.

REVISIONS			
NO.	DESCRIPTION	REVISED BY	DATE
1	ISSUED FOR REVIEW	TJR	4/20/11

CCI

P.O. BOX 328
 BLOOMFIELD, NM, 87413
 PHONE: (505) 325-7707

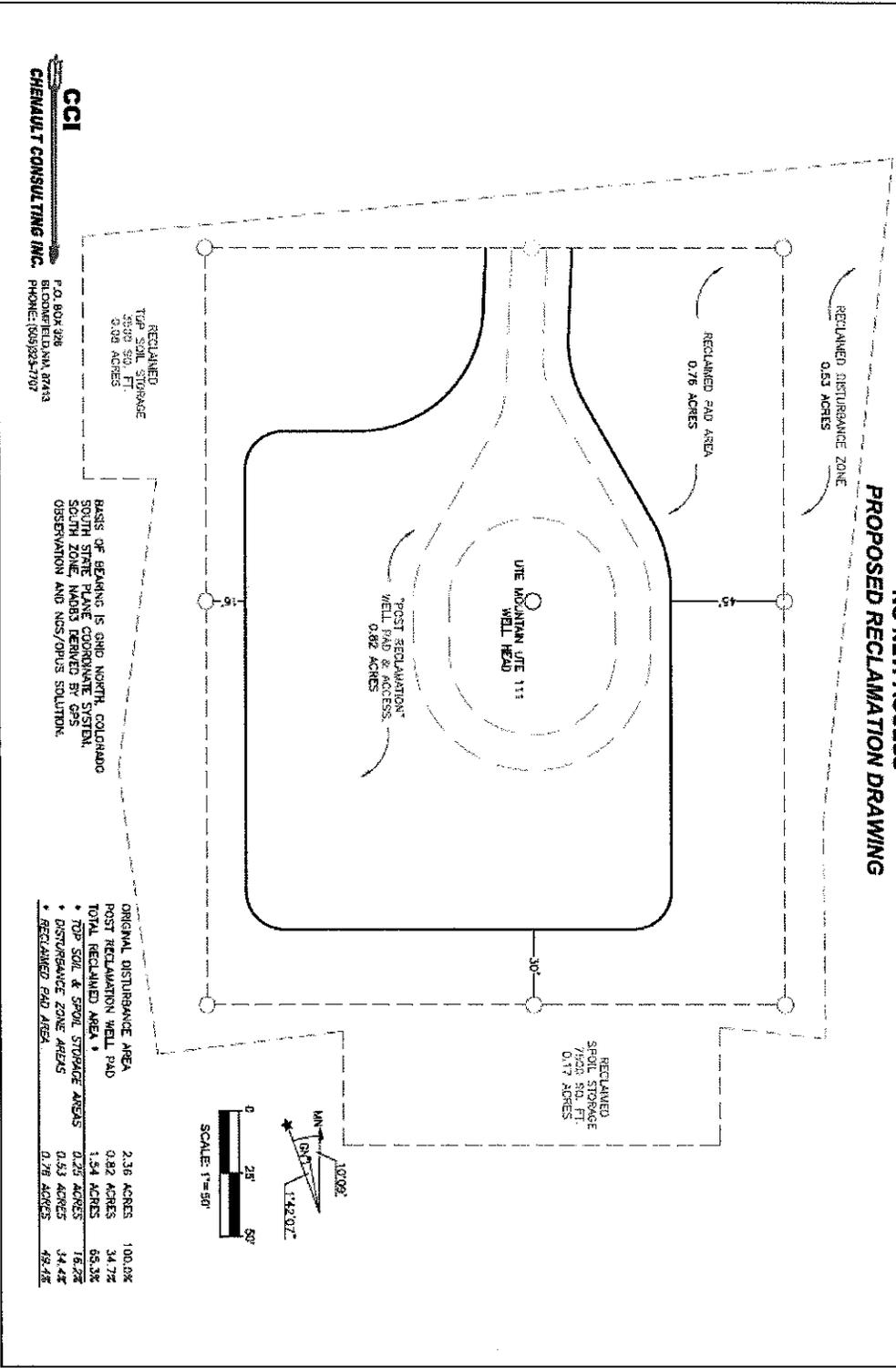
CHENAULT CONSULTING INC.

BURLINGTON RESOURCES OIL & GAS COMPANY LP

SECTION 23, T-32-N, R-13 1/2-W, N.M.P.M., LA PLATA COUNTY, COLORADO
 UTE MOUNTAIN UTE #111
 1064' FNL, 2006' FEL
 ELEV.: 7039 NAVD88 DATE: APRIL 20, 2011

PROPOSED RECLAMATION DRAWING

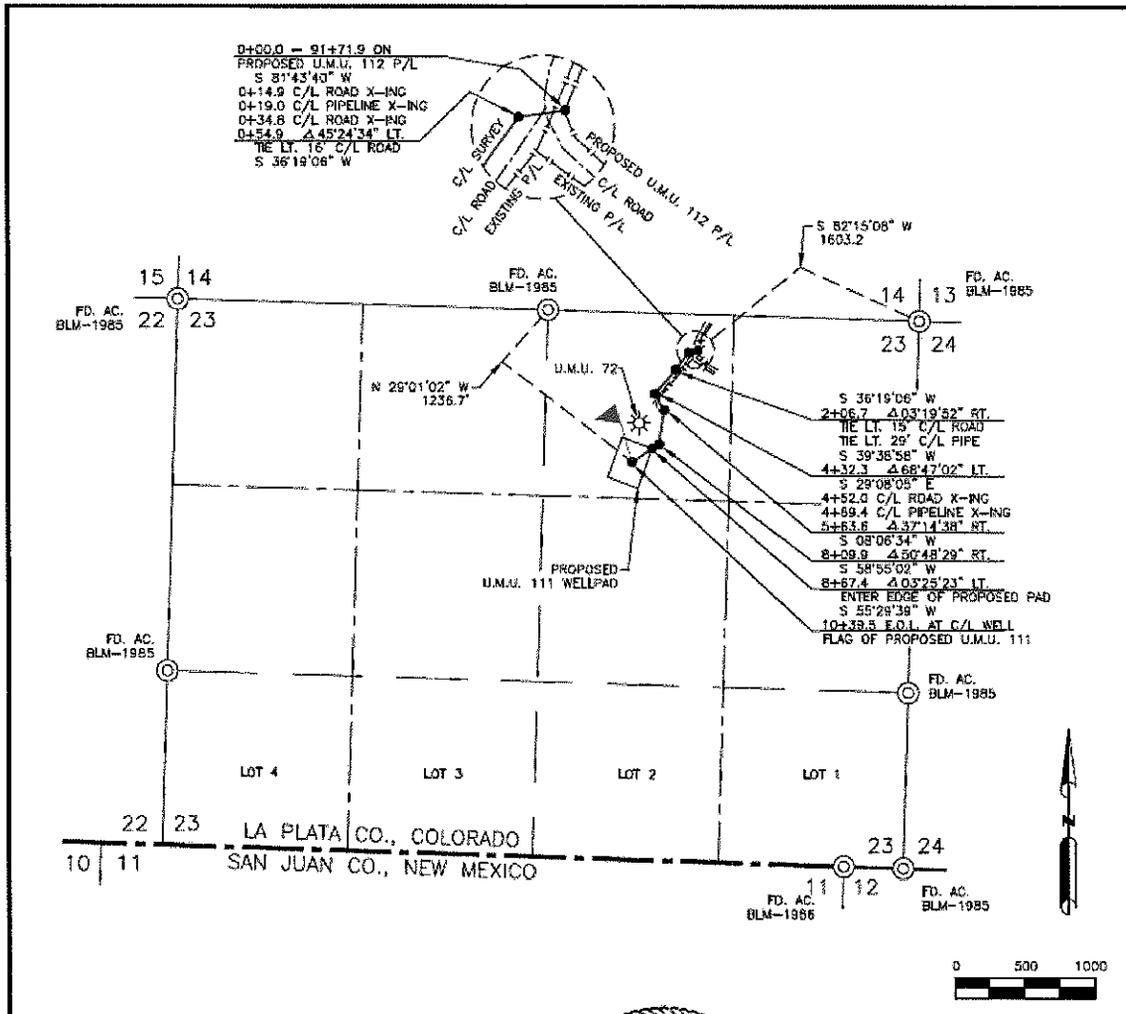
NO NEW ACCESS



CCI
 CHEMULUT CONSULTING INC.
 P.O. BOX 328
 BROOMFIELD, CO 80413
 PHONE: (303)253-1700

BASES OF BEARING IS GND NORTH, COLORADO SOUTH STATE PLANE COORDINATE SYSTEM. OBSERVATION AND NGS/OPUS SOLUTION.

ORIGINAL DISTURBANCE AREA	2.36 ACRES	100.0%
POST RECLAMATION WELL PAD	0.82 ACRES	34.7%
TOTAL RECLAIMED AREA *	1.54 ACRES	65.3%
* TOP SOIL & SPOIL STORAGE AREAS	0.25 ACRES	16.2%
* DISTURBANCE ZONE AREAS	0.53 ACRES	34.4%
* RECLAIMED PAD AREA	0.76 ACRES	48.2%



NOTES

1.) BASIS OF BEARING IS GRID NORTH, COLORADO STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD83 DERIVED BY GPS OBSERVATION AND NGS/OPUS SOLUTION

2.) COMBINED FACTOR IS 0.999715243

I, HENRY P. BLOOMFIELD, JR., LICENSED LAND SURVEYOR IN THE STATE OF COLORADO, DO HEREBY CERTIFY THAT THIS PLAT TRULY AND CORRECTLY REPRESENTS THE RESULTS OF A SURVEY MADE BY ME OR UNDER MY SUPERVISION TO THE BEST OF MY KNOWLEDGE AND BELIEF.

Henry P. Bloomfield, Jr. 5/10/11

HENRY P. BLOOMFIELD, JR.
 COLORADO PROFESSIONAL LAND SURVEYOR NO. 15974

DATE

DIMENSION	SUBDIVISION	OWNER	FEET	MILES	RODS	ACRES
		0+00.0 TO 10+39.5	UTE MOUNTAIN UTE	1039.5	0.20	63.00

NO.	DESCRIPTION	BY	DATE
0	ISSUED FOR REVIEW	TJR	5/05/11

CCI
CHENAULT CONSULTING INC.
 PO BOX 329
 BLOOMFIELD, NM 87413
 (505) 325-7707

BURLINGTON RESOURCES OIL & GAS COMPANY LP

UTE MOUNTAIN UTE 111 PIPELINE & WATERLINE
 SEC. 23, T-32-N, R-13 1/2-W, N.M.P.M.
 LA PLATA COUNTY, COLORADO

DWG#: 3213.SP-UMU111-01

APPENDIX B

PLANT SPECIES OBSERVED IN THE PROJECT AREA AND WILDLIFE SPECIES WITH POTENTIAL TO OCCUR IN THE ACTION AREA

PLANT SPECIES OBSERVED IN THE PROPOSED UTE MOUNTAIN UTE #111 PROJECT AREA

Forbs

<i>Carduus nutans</i>	Musk thistle
<i>Cryptantha flava</i>	Cryptantha'
<i>Lactuca serriola</i>	Prickly-lettuce
<i>Chaetopappa ericoides</i>	Roseheath
<i>Senecio multicapitatus</i>	Groundsel
<i>Townsendia incana</i>	Hoary Townsend daisy
<i>Eriogonum sp.</i>	Buckwheat
<i>Salsola iberica</i>	Russian thistle, tumbleweed
<i>Kochia scoparia</i>	Mexican fireweed
<i>Tragopogon dubius</i>	Goatsbeard
<i>Lesquerella sp.</i>	Bladderpod
<i>Lappula occidentalis</i>	Stickseed
<i>Verbenia bractea</i>	Vervain
<i>Sisymbrium altissimum</i>	Tumble mustard
<i>Helianthus annuus</i>	Sunflower
<i>Portulaca oleracea</i>	Purslane
<i>Phacelia crenulata</i>	Scorpionweed
<i>Petradoria pumila</i>	Rock-goldenrod

Grasses

<i>Poa pratensis</i>	Bluegrass
<i>Aristida purpurea</i>	Red three-awn
<i>Sitanion hystrix</i>	Squirrel-tail grass
<i>Bromus tectorum</i>	Cheatgrass
<i>Agropyron cristatum</i>	Crested wheat
<i>Achnatherum hymenoides</i>	Indian ricegrass

Shrubs

<i>Cercocarpus montanus</i>	Mountain mahogany
<i>Gutierrezia sarothrae</i>	Broom snakeweed
<i>Ephedra torreyana</i>	Mormon tea
<i>Purshia tridentata</i>	Antelope bitterbrush
<i>Amelanchier utahensis</i>	Serviceberry
<i>Chrysothamnus greenii</i>	Rabbitbrush

Trees

<i>Pinus edulis</i>	Piñon pine
<i>Juniperus osteosperma</i>	Utah juniper

Cacti/Yucca

<i>Opuntia polyacantha</i>	Prickly pear cactus
<i>Yucca baccata</i>	Spanish bayonet

WILDLIFE SPECIES WITH POTENTIAL TO OCCUR IN THE UTE MOUNTAIN UTE #111 ACTION AREA

Mammals

coyote	<i>Canis latrans</i>
elk	<i>Cervus elaphus</i>
porcupine	<i>Erethizon dorsatum</i>
black-tailed jackrabbit	<i>Lepus californicus</i>
bobcat	<i>Lynx rufus</i>
striped skunk	<i>Mephitis mephitis</i>
bat	<i>Myotis</i> sp.
mule deer	<i>Odocoileus hemionus</i>
deer mouse	<i>Peromyscus maniculatus</i>
raccoon	<i>Procyon lotor</i>
desert cottontail	<i>Sylvilagus auduboni</i>
least chipmunk	<i>Tamias minimus</i>
red fox	<i>Vulpes vulpes</i>
gray fox	<i>Urocyon cinereoargenteus</i>
black bear	<i>Ursus americanus</i>

Birds

golden eagle	<i>Aquila chrysaetos</i>
western scrub-jay	<i>Apelocoma californica</i>
black-chinned hummingbird	<i>Archilochus alexandri</i>
juniper titmouse	<i>Baeolophus ridgwayi</i>
great horned owl	<i>Bubo virginianus</i>
red-tailed hawk	<i>Buteo jamaicensis</i>
turkey vulture	<i>Cathartes aura</i>
common nighthawk	<i>Chordeiles minor</i>
northern flicker	<i>Colaptes auratus</i>
common raven	<i>Corvus corax</i>
black-throated gray warbler	<i>Dendroica nigrescens</i>
gray flycatcher	<i>Empidonax wrightii</i>
piñon jay	<i>Gymnorhinus canocephalus</i>
dark-eyed junco	<i>Junco hyemalis</i>
wild turkey	<i>Meleagris gallopavo</i>
Townsend's solitaire	<i>Myadestes townsendii</i>
ash-throated flycatcher	<i>Myiarchus cinerascens</i>

common poorwill	<i>Phalaenoptilus nuttallii</i>
black-billed magpie	<i>Pica hudsonica</i>
hairy woodpecker	<i>Picoides villosus</i>
spotted towhee	<i>Pipilo maculatus</i>
green-tailed towhee	<i>Pipilo chlorurus</i>
mountain chickadee	<i>Poecile gambeli</i>
western bluebird	<i>Sialia mexicana</i>
white-breasted nuthatch	<i>Sitta carolinensis</i>
chipping sparrow	<i>Spizella passerina</i>
American robin	<i>Turdus migratorius</i>
plumbeus vireo	<i>Vireo plumbeus</i>
gray vireo	<i>Vireo vicinior</i>
Virginia's warbler	<i>Vermivora virginiae</i>
mourning dove	<i>Zenaidura macroura</i>

Reptiles

plateau striped whiptail	<i>Cnemidophorus velox</i>
western rattlesnake	<i>Crotalus viridis</i>
milk snake	<i>Lampropeltis triangulum</i>
striped whipsnake	<i>Masticophis taeniatus</i>
short-horned lizard	<i>Phrynosoma hernandesi</i>
bull snake	<i>Pituophis catenifer</i>
sagebrush lizard	<i>Sceloporus graciosus</i>