

**RESOLUTION OF THE
RESOURCES AND DEVELOPMENT COMMITTEE
Of the 23rd Navajo Nation Council---Third Year 2017**

AN ACTION

RELATING TO RESOURCES AND DEVELOPMENT; APPROVING THE RENEWAL OF RIGHT-OF-WAY TO CCI SAN JUAN, LLC, FOR CONTINUED OPERATION AND MAINTENANCE OF A 3.5 INCH, O.D. WELDED STEEL NATURAL GAS LIQUIDS PIPELINE (CHACO PIPELINE) LOCATED ON NAVAJO NATION TRUST LANDS (SAN JUAN COUNTY, NEW MEXICO)

BE IT ENACTED:

SECTION ONE. AUTHORITY

Pursuant to 2 N.N.C. Section §501 (B)(2), The Resources and Development Committee of the Navajo Nation Council has the authority to grant final approval for all land withdrawals, non-mineral leases, permits, licenses, rights-of-way, surface easements and bonding requirements on Navajo Nation lands and unrestricted (fee) land. This authority shall include subleases, modifications, assignments, leasehold encumbrances, transfers, renewals, and terminations.

SECTION TWO. FINDINGS

A. CCI San Juan, LLC, 811 Main Street, Suite 3500, Houston, Texas 77002, has submitted a right-of-way (ROW) application for continued operation and maintenance of a 3.5 inch, O.D. welded steel natural gas liquids pipeline (Chaco Pipeline) on, over and across Navajo Nation Trust Lands in San Juan County, New Mexico. The application request is attached hereto and incorporated herein as Exhibit "A."

B. The proposed right-of-way is described in the maps attached hereto and incorporated herein as Exhibit "B."

C. Resources Committee Resolution No. RCJN-91-06 approving a previous renewal of the right-of-way is attached hereto as Exhibit "C."

D. The environmental and archaeological studies has been completed and attached hereto and made a part hereof.

SECTION THREE. APPROVAL

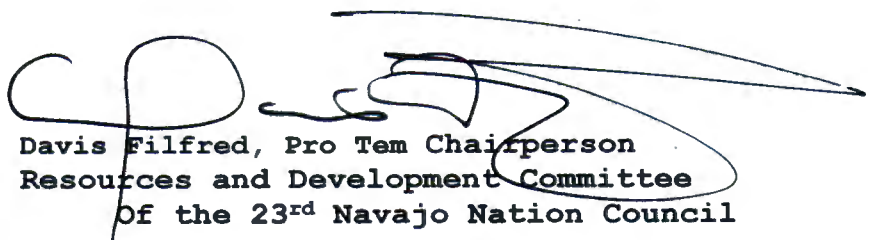
A. The Resources and Development Committee of the Navajo Nation Council hereby approves the renewal of Right-of-Way to CCI San Juan, LLC for continued operation and maintenance of a 3.5 inch, O.D. welded steel natural gas liquids pipeline (Chaco Pipeline) on, over and across Navajo Nation Trust Lands in San Juan County, New Mexico. The location is more particularly described on the survey map attached hereto as Exhibit "B."

B. The Resources and Development Committee of the Navajo Nation Council hereby approves the right-of-way subject to, but not limited to, the following terms and conditions incorporated herein and attached as Exhibit "D".

C. The Resources and Development Committee of the Navajo Nation Council hereby authorizes the President of the Navajo Nation to execute any and all documents necessary to affect the intent and purpose of this resolution.

CERTIFICATION

I, hereby, certify that the foregoing resolution was duly considered by the Resources and Development Committee of the 23rd Navajo Nation Council at a duly called meeting at Navajo Department of Transportation, (Navajo Nation) Tse Bonito, New Mexico, at which quorum was present and that same was passed by a vote of 3 in favor, 0 opposed, 1 abstained this 10th day of January 2017.



Davis Filfred, Pro Tem Chairperson
Resources and Development Committee
Of the 23rd Navajo Nation Council

Motion: Honorable Walter Phelps
Second: Honorable Jonathan Perry

Document No. 006803Date Issued: 09/26/2016**EXECUTIVE OFFICIAL REVIEW**Title of Document: CCI SanJuanLLC ROW Renewal 3.5' pipeline Contact Name: DRAPER, HOWARDProgram/Division: DIVISION OF NATURAL RESOURCESEmail: howarddraper@frontietnet.net Phone Number: 928/871-6447☐ **Business Site Lease** Sufficient Insufficient1. Division: _____ Date: _____ ☐ ☐2. Office of the Controller: _____ Date: _____ ☐ ☐

(only if Procurement Clearance is not issued within 30 days of the initiation of the E.O. review)

3. Office of the Attorney General: _____ Date: _____ ☐ ☐☐ **Business and Industrial Development Financing, Veteran Loans, (i.e. Loan, Loan Guarantee and Investment) or Delegation of Approving and/or Management Authority of Leasing transactions**1. Division: _____ Date: _____ ☐ ☐2. Office of the Attorney General: _____ Date: _____ ☐ ☐☐ **Fund Management Plan, Expenditure Plans, Carry Over Requests, Budget Modifications**1. Office of Management and Budget: _____ Date: _____ ☐ ☐2. Office of the Controller: _____ Date: _____ ☐ ☐3. Office of the Attorney General: _____ Date: _____ ☐ ☐☐ **Navajo Housing Authority Request for Release of Funds**1. NNEPA: _____ Date: _____ ☐ ☐2. Office of the Attorney General: _____ Date: _____ ☐ ☐☐ **Lease Purchase Agreements**1. Office of the Controller: _____ Date: _____ ☐ ☐

(recommendation only)

2. Office of the Attorney General: _____ Date: _____ ☐ ☐☐ **Grant Applications**1. Office of Management and Budget: _____ Date: _____ ☐ ☐2. Office of the Controller: _____ Date: _____ ☐ ☐3. Office of the Attorney General: _____ Date: _____ ☐ ☐☐ **Five Management Plan of the Local Governance Act, Delegation of an Approving Authority from a Standing Committee, Local Ordinances (Local Government Units), or Plans of Operation/Division Policies Requiring Committee Approval**1. Division: _____ Date: _____ ☐ ☐2. Office of the Attorney General: _____ Date: _____ ☐ ☐☐ **Relinquishment of Navajo Membership**1. Land Department: _____ Date: _____ ☐ ☐2. Elections: _____ Date: _____ ☐ ☐3. Office of the Attorney General: _____ Date: _____ ☐ ☐

☐ Land Withdrawal or Relinquishment for Commercial Purposes

Sufficient Insufficient

1. Division: _____ Date: _____ ☐ ☐
2. Office of the Attorney General: _____ Date: _____ ☐ ☐

☐ Land Withdrawals for Non-Commercial Purposes, General Land Leases and Resource Leases

1. NLD _____ Date: _____ ☐ ☐
2. F&W _____ Date: _____ ☐ ☐
3. HPD _____ Date: _____ ☐ ☐
4. Minerals _____ Date: _____ ☐ ☐
5. NNEPA _____ Date: _____ ☐ ☐
6. DNR _____ Date: _____ ☐ ☐
7. DOJ _____ Date: _____ ☐ ☐

☒ Rights of Way

1. NLD _____ Date: 04 Dec 16 ☒ ☐
2. F&W See Ltr of 11/3/15 _____ Date: 11/09/16 ☒ ☐
3. HPD _____ Date: 11/10/16 ☒ ☐
4. Minerals _____ Date: 11/15/16 ☒ ☐
5. NNEPA _____ Date: 11-5-16 ☒ ☐
6. Office of the Attorney General: (C) _____ Date: 11-29-16 ☒ ☐
7. OPVP _____ Date: 12-3-16 ☒ ☐

☐ Oil and Gas Prospecting Permits, Drilling and Exploration Permits, Mining Permit, Mining Lease

1. Minerals _____ Date: _____ ☐ ☐
2. OPVP _____ Date: _____ ☐ ☐
3. NLD _____ Date: _____ ☐ ☐

☐ Assignment of Mineral Lease

1. Minerals _____ Date: _____ ☐ ☐
2. DNR _____ Date: _____ ☐ ☐
3. DOJ _____ Date: _____ ☐ ☐

☐ ROW (where there has been no delegation of authority to the Navajo Land Department to grant the Nation's consent to a ROW)

1. NLD _____ Date: _____ ☐ ☐
2. F&W _____ Date: _____ ☐ ☐
3. HPD _____ Date: _____ ☐ ☐
4. Minerals _____ Date: _____ ☐ ☐
5. NNEPA _____ Date: _____ ☐ ☐
6. DNR _____ Date: _____ ☐ ☐
7. DOJ _____ Date: _____ ☐ ☐
8. OPVP _____ Date: _____ ☐ ☐

☐ OTHER:

1. _____ Date: _____ ☐ ☐
2. _____ Date: _____ ☐ ☐
3. _____ Date: _____ ☐ ☐
4. _____ Date: _____ ☐ ☐
5. _____ Date: _____ ☐ ☐



NAVAJO NATION DEPARTMENT OF JUSTICE

DOCUMENT REVIEW REQUEST FORM



DOJ
11-15-16 1130
DATE / TIME
<input type="checkbox"/> 7 Day Deadline
DOC #: 006803
SAS #:
UNIT: Nav

☐ RESUBMITTAL

*** FOR NNDOJ USE ONLY - DO NOT CHANGE OR REVISE FORM. VARIATIONS OF THIS FORM WILL NOT BE ACCEPTED. ***

CLIENT TO COMPLETE

DATE OF REQUEST: 11-15-16 ENTITY/DIVISION: DNR
CONTACT NAME: Kayla Bia DEPARTMENT: NID-GLDID
PHONE NUMBER: 86447 E-MAIL: jlbias@navajo-nsn.gov

TITLE OF DOCUMENT: COI San Juan LLC, ROW Renewal 3.5" pipeline

DOJ SECRETARY TO COMPLETE

DATE/TIME IN UNIT: 11-15-16 1:51pm REVIEWING ATTORNEY/ADVOCATE: Justin Chee 11-28-16
DATE/TIME OUT OF UNIT: 11-29-16 @ 3pm PJ

DOJ ATTORNEY / ADVOCATE COMMENTS

Document is legally sufficient.

REVIEWED BY: (PRINT)	DATE / TIME	SURNAMED BY: (PRINT)	DATE / TIME
Justin Chee	11-28-16	Vernica Black	11-29-16 11:52am

DOJ Secretary Called: Kayla Bia for Document Pick Up on 11-29-16 at 1:45 By: PJ

PICKED UP BY: (PRINT) DATE / TIME:

COMPLETED

Navajo Land Title Data System (NLTDS)
Navajo Land Title, Navajo Land Title Data System - Windowrock AZ:
Document Information

Document Information	
Document Name:	164#6803 CCI Paradox San Juan Renewal 3 pipeline
Revision:	
Version:	1
Document Desc:	
Document Author:	Kayla Bia NLD (Navajo Land Title Data System - Windowrock AZ)
Document Status:	Pending
Document Type:	164 Review Process
Effective Date:	Upon Approval
Expires:	
Uploaded from:	Navajo Land Title Data System (NLTDS) Phase 1: Plan for Quality Management System
	Step 911: 005_00006803
	Task 1: Upload and Manage Documents
Size:	9451 KB
Date Uploaded:	05-Oct-2016
Maintained by:	164 review team

No Document Distribution Locations

Tier 1 Document Voting Results						
User Name (Facility)	Job Title	Department	Vote Cast	Comments	Replies	Vote Date
Eugenia Quintana EPA (Navajo Land Title Data System - Windowrock AZ)	Air and Toxics - Reviewer	Navajo Nation Environmental Protection Agency	Approved	1. Documentation sufficient.	1.	13-Oct-2016
Frederick Sherman EPA (Navajo Land Title Data System - Windowrock AZ)	Solid Waste - Reviewer	Navajo Nation Environmental Protection Agency	Approved	<i>no comments</i>	<i>No Reply</i>	14-Oct-2016
Glenna Lee EPA (Navajo Land Title Data System - Windowrock AZ)	Pesticides - Reviewer	Navajo Nation Environmental Protection Agency	Approved	<i>no comments</i>	<i>No Reply</i>	13-Oct-2016
Lee Anna Martinez (Navajo Land Title Data System - Windowrock AZ)	Water Quality - Reviewer	Navajo Nation Environmental Protection Agency	Pending	<i>no comments</i>	<i>No Reply</i>	
Pam Kyselka F&W (Navajo Land Title Data System - Windowrock AZ)	Technical Review	Fish and Wildlife	Approved	1. BRCF with conditional approval is attached. Thank you.	1.	21-Oct-2016
Pam Maples EPA (Navajo Land Title Data System - Windowrock AZ)	Storage Tanks Program - Reviewer	Navajo Nation Environmental Protection Agency	Approved	1. Again, marking sufficient under protest. It looks like it is going right through NAPI and I know there are fuel tanks up there but this map scanned at low resolution is not good enough to see the actual path.	1.	14-Oct-2016
Patrick Antonio EPA (Navajo Land Title Data System - Windowrock AZ)	Water Quality - Supervisor	Navajo Nation Environmental Protection Agency	Approved	1. Oil and gas field activities are excluded from the federal Construction General Permit for storm water discharges unless there is a discharge of a reportable quantity or there is a discharge that violates a water quality standard.	1.	05-Oct-2016
Robert Allan DNR (Navajo Land Title Data System - Windowrock AZ)	Deputy Director DNR	DNR Administration	Approved	1. Need to add Terms and Conditions Form	1.	05-Oct-2016
Ronnie Ben EPA (Navajo Land Title Data System - Windowrock AZ)	Underground Injection Control - Reviewer	Navajo Nation Environmental Protection Agency	Approved	1. water ways are protected by authority of CWA and NNCWA (i.e., 401 Certification) compliance may be required.	1.	11-Oct-2016
Steven Prince MIN (Navajo Land Title Data System - Windowrock AZ)	Technical Reviewer	Navajo Nation Minerals Management	Approved	1. This vote is contingent on the inclusion of the Terms & Conditions document which is linked herewith.	1.	05-Oct-2016
Tamara Billie HPD (Navajo Land Title Data System - Windowrock AZ)	HPD Reviewer	Historic Preservation Department	Approved	1. CRCF HPD-16-842	1.	12-Oct-2016
Tennille Begay EPA (Navajo Land Title Data System - Windowrock AZ)	Air and Toxics - Reviewer	Navajo Nation Environmental Protection Agency	Approved	<i>no comments</i>	<i>No Reply</i>	10-Oct-2016
Yolanda Barney EPA (Navajo Land Title Data System - Windowrock AZ)	Public Water System Supervision Program	Navajo Nation Environmental Protection Agency	Approved	<i>no comments</i>	<i>No Reply</i>	14-Oct-2016

Document Activity				
Date	Actions	User	Old Value	New Value
11/2/2016 15:37	User Removed From Approval Process	Kayla Bia NLD		Bidtah N. Becker was removed from the approval request/voting process
10/21/2016 11:56	Viewed	Pam Kyselka F&W		
10/21/2016 11:20	Viewed	Pam Kyselka F&W		
10/14/2016 15:51	Viewed	Frederick Sherman EPA		
10/14/2016 15:50	Viewed	Frederick Sherman EPA		
10/14/2016 15:09	Viewed	Frederick Sherman EPA		
10/14/2016 14:59	Viewed	Frederick Sherman EPA		
10/14/2016 14:59	Viewed	Pam Maples EPA		
10/14/2016 14:24	Viewed	Frederick Sherman EPA		
10/14/2016 9:56	Viewed	Yolanda Barney EPA		
10/14/2016 9:45	User Removed From Approval Process	Kayla Bia NLD		Michael Yazzie NFD was removed from the approval request/voting process
10/14/2016 9:44	User Removed From Approval Process	Kayla Bia NLD		Justina George EPA was removed from the approval request/voting process
10/14/2016 9:44	User Removed From Approval Process	Kayla Bia NLD		Darlene Jenkins EPA was removed from the approval request/voting process
10/14/2016 9:44	Document Approver Nudged	Kayla Bia NLD		Bidtah N. Becker was nudged about a pending approval request.
10/14/2016 9:44	Document Approver Nudged	Kayla Bia NLD		Frederick Sherman EPA was nudged about a pending approval request.
10/14/2016 9:44	Document Approver Nudged	Kayla Bia NLD		Lee Anna Martinez was nudged about a pending approval request.

10/14/2016 9:44	Document Approver Nudged	Kayla Bia NLD	<div> <div>Pam Kyselka F&W was nudged about a pending approval request.</div> <div>Pam Maples EPA was nudged about a pending approval request.</div> <div>Yolanda Barney EPA was nudged about a pending approval request.</div> </div>
10/14/2016 9:44	Document Approver Nudged	Kayla Bia NLD	
10/14/2016 9:44	Document Approver Nudged	Kayla Bia NLD	
10/13/2016 16:07	Viewed	Eugenia Quintana EPA.	<div> <div>New</div> <div>Pending</div> </div>
10/13/2016 16:07	Viewed	Eugenia Quintana EPA.	
10/13/2016 11:31	Viewed	Glenna Lee EPA	
10/13/2016 10:46	Viewed	Eugenia Quintana EPA	
10/13/2016 10:46	Viewed	Eugenia Quintana EPA	
10/12/2016 16:50	Viewed	Tamara Billie HPD	
10/11/2016 17:34	Viewed	Lee Anna Martinez	
10/11/2016 17:24	Viewed	Ronnie Ben EPA	
10/11/2016 17:17	Viewed	Ronnie Ben EPA	
10/11/2016 16:15	Viewed	Darlene Jenkins EPA	
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10/10/2016 15:25	Viewed	Tennille Begay EPA	
10/5/2016 14:14	Viewed	Robert Allan DNR	
10/5/2016 13:04	Viewed	Patrick Antonio EPA	
10/5/2016 11:37	Viewed	Steven Prince MIN	
10/5/2016 11:37	Viewed	Steven Prince MIN	
10/5/2016 11:16	Document Status modified	Kayla Bia NLD	
10/5/2016 11:15	Uploaded	Kayla Bia NLD	



**THE
NAVAJO
NATION**

MINERALS DEPARTMENT

Post Office Box 1910

Window Rock, Arizona 86515

Phone: (928) 871-6587 • Fax: (928) 871-7095


Russell Begaye
President

Jonathan Nez
Vice-President

October 14, 2016

MEMORANDUM

TO : ALL CONCERNED

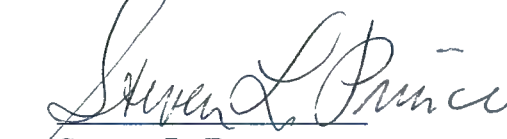
FROM : 
Akhtar Zaman, Director
Minerals Department

SUBJECT : DELEGATION OF AUTHORITY

Mr. Steven L. Prince, Principal Petroleum Engineer, is hereby delegated to act in the capacity of the Director of the Minerals Department beginning at 8:00 A.M. on Thursday, November 10, 2016 and ending at 5:00 P.M. on Tuesday, November 15, 2016.

Your cooperation with Mr. Prince will be appreciated.

ACKNOWLEDGMENT


Steven L. Prince
Principal Petroleum Engineer

AZ/mej
Distribution



UNITED STATES DEPARTMENT OF THE INTERIOR

BUREAU OF INDIAN AFFAIRS

RIGHT-OF-WAY APPLICATION

COMES NOW THE APPLICANT CCI San Juan LLC, 811 Main Street, Suite 3500, Houston, TX 77002 on this 13th day of October, 2015, who hereby petition(s) the Bureau of Indian Affairs and respectfully files under the terms and provisions of the Act of February 5, 1948 (62 Stat. 17; 25 USC 323-328), and Departmental Regulations 25 CFR 169, an application of a 5 (five) year Right-of-Way for the following purposes and reasons:

Continued operation and maintenance of a 3.5 inch, O.D. welded steel natural gas liquids pipeline (Chaco Pipeline)

Across the following described **Navajo Tribal Trust Lands** (easement description):

T. 26 N., R. 12 W.

Sections 3, 4, 9, 16

T. 27 N., R. 12 W.

Sections 19, 28, 29, 30, 33

T. 27 N., R. 13 W.

Sections 3, 10, 11, 13, 14, 24

T. 28 N., R. 13 W.

Sections 17, 18, 20, 21, 28, 33, 34

T. 29 N., R. 14 W.

Sections 15, 22, 26, 27, 35, 36

All N.M.P.M., San Juan County, NM

Said right-of-way across Tribal Trust Lands to be 110, 171.59 feet in length, 40 feet in width, and 101.167 acres in size, as shown on attached map of definite location, attached hereto, and made a part hereof.

SAID APPLICANT UNDERSTANDS AND EXPRESSLY AGREES TO THE FOLLOWING STIPULATIONS:

1. To construct and maintain the right-of-way in a workmanlike manner.
2. To pay all damages and compensation, in addition to the deposit made pursuant to 169.4, determined by the Secretary to be due the landowners and authorized users and occupants of the land due to the survey, granting, construction and maintenance of the right-of-way.
3. To indemnify the landowners and authorized users and occupants against any liability for loss of life, personal injury and property damage arising from the construction, maintenance, occupancy or use of the lands by the applicant, his employees, contractors and their employees, or subcontractors and their employees.

4. To restore the lands as nearly as may be possible to their original condition upon the completion of construction, to the extent compatible with the purpose for which the right-of-way was granted.
5. To clear and keep clear the lands within the right-of-way to the extent compatible with the purpose of the right-of-way; and dispose of all vegetative and other material cut, uprooted or otherwise accumulated during construction and maintenance of the project.
6. To take soil and resources conservation protection measures, including weed control, on the land covered by the right-of-way.
7. To do everything reasonable within its power to prevent and suppress fires on or near the lands to be occupied under the right-of-way.
8. To build and repair such roads, fences and trails as may be destroyed or injured by construction work and to build and maintain necessary and suitable crossings for all roads and trails that intersect the works constructed, maintained, or operated under the right-of-way.
9. That upon revocation or termination of the right-of-way, the applicant shall, so far as is reasonably possible, restore the land to its original condition. The determination of "reasonably possible" is subject to Secretary's approval.
10. To at all times keep the Secretary informed of its address, and in case of corporations, of the address of its principal place of business and the names and addresses of its principal officers.
11. That the applicant will not interfere with the use of the lands by or under the authority of the landowners for any purpose not inconsistent with the primary purpose for which the right-of-way is granted.
12. During the term of this Grant of Easement, if any previously unidentified cultural resources are discovered within the easement area, work should be halted immediately and the BIA and/or Tribal Contractor should be contacted immediately.

THE APPLICANT FURTHER STIPULATES AND EXPRESSLY AGREES AS FOLLOWS:

To conform and to abide by all applicable requirements with respect to the right-of-way herein applied for. The applicant agrees to conform to and abide by the rules, regulations, and requirements contained in the *Code of Federal Regulations*, Title 25 Indians, Part 169, as amended, and by reference includes such rules, regulations and requirements as a part of this application to the same effect as if the same were herein set out in full.

DATE October 13, 2015

APPLICANT 

REQUIRED SUPPORTING DOCUMENTS:

1. () Written consent of landowner (ROW Form 94-7).
2. () Map (plats) of definite location (2 original mylars & 2 copies, See 25 CFR 169.6, 169.7, 169.8, 169.9, 169.10 and 169.11).

- 3 () Deposit of estimated damages or compensation (See 169.4 and 169.14)
- 4 () Evidence of Authority of Officers to Execute Papers (ROW Form 94-4)
- 5 () For corporation or business, requirements of 25 CFR 169.4 and 169.5 (unless previously filed):
 - () a. State certified copy of corporate charter or articles of incorporation.
 - () b. Certified copy of corporate resolution, by-laws, articles of partnership or association authorizing signatory to file the application.

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

October 8, 2015

Howard Draper
Project Review Office
Navajo Nation
P.O. Box 9000
Window Rock, AZ 86515



Dear Howard:

On behalf of CCI San Juan LLC, I am submitting a Right-of-Way application for an existing 3.5 inch natural gas liquids pipeline on Navajo Nation Tribal Trust land in San Juan County, NM. The application packet includes:

Right of Way Application
Project Description
Project Map/Survey
Environmental Assessment
Archeological Report
Application Fee

Because this is an existing pipeline, I am not requesting a Field Clearance and therefore the application fee check is for \$300. Please let me know if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeanette Reisenburg".

Jeanette Reisenburg

PERMITS WEST, INC.
37 VERANO LOOP 505-466-8120
SANTA FE, NM 87508

10/8 15
20

PAY
TO THE
ORDER OF NAVIGATION

\$ 300.02

Three Hundred & no/100

DOLLARS



Security features
are included
Details on back

FIRST NATIONAL BANK

FOR CCI - CMTL0 Row Application

[Handwritten signature]

PAYEE ENDORSEMENT GUARANTEED
BY DEPOSITORY BANK

[Faint, illegible handwritten text]



EXHIBIT
B

Chaco Pipeline Overview Map

Navajo Indian Reservation
San Juan County, New Mexico

USGS Quads:
Kirtland, Farmington South,
Hugh Lake, Gallegos Trading Post,
Carson Trading Post

— Pipeline to be Surveyed

1:112,000

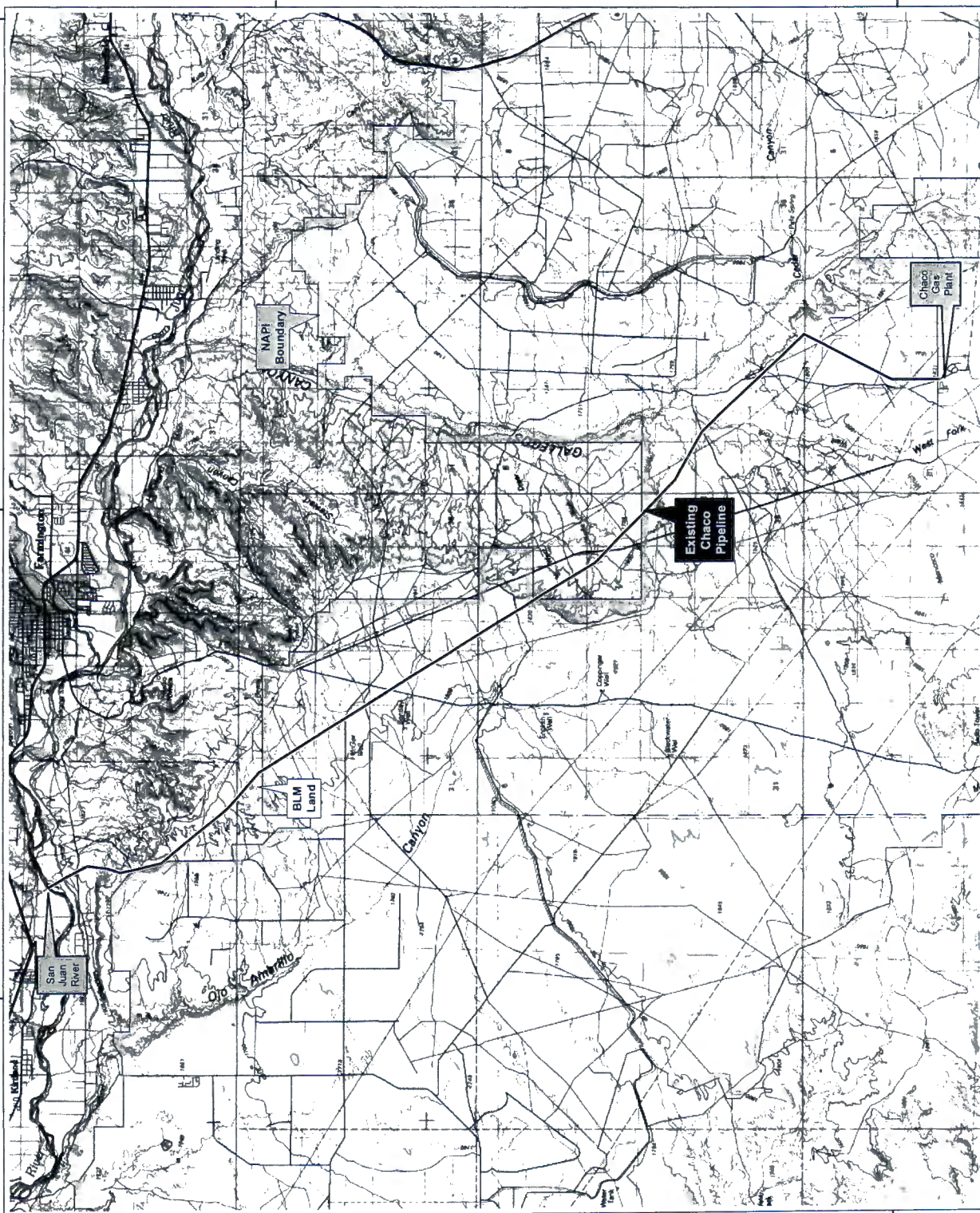
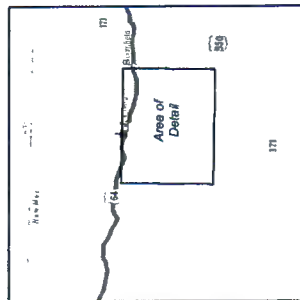


NAD 1983 New Mexico State Plane
West Feet

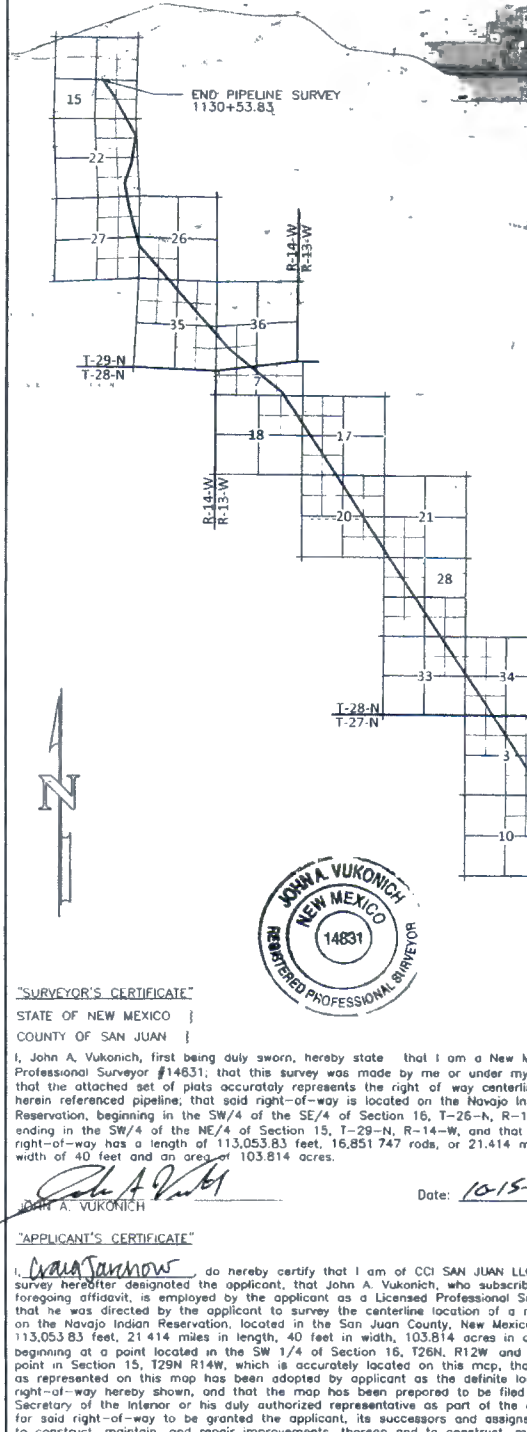


PERMITS WEST, INC.

Prepared by Permits West, Inc., October 9, 2015
for CCI, Inc.



CCI SAN JUAN LLC
AS BUILT 3.5" WELDED STEEL PIPELINE
 SAN JUAN COUNTY, NEW MEXICO



OWNER/TOWNSHIP & RANGE	FEET	RODS	MILES	ACRES
NAVAJO INDIAN RESERVATION SECTIONS 3, 4, 9 & 16, T-26-N, R-12-W	18,476.98	1,119.817	3.499	16.967
NAVAJO INDIAN RESERVATION SECTIONS 19, 28, 29, 30 & 33, T-27-N, R-12-W	21,309.29	1,291.472	4.036	19.567
NAVAJO INDIAN RESERVATION SECTIONS 3, 10, 11, 13, 14 & 24, T-27-N, R-13-W	22,814.96	1,382.725	4.322	20.951
NAVAJO INDIAN RESERVATION SECTIONS 17, 18, 20, 21, 28, 33 & 34, T-28-N, R-13-W	25,090.55	1,520.639	4.752	23.040
BUREAU OF LAND MANAGEMENT SECTIONS 7, T-28-N, R-13-W	2,882.24	174.681	0.546	2.647
NAVAJO INDIAN RESERVATION SECTIONS 15, 22, 26, 27, 35 & 36, T-29-N, R-14-W	22,479.81	1,362.413	4.259	20.642
TOTAL	113,053.83	6,851.747	21.414	103.814



"SURVEYOR'S CERTIFICATE"
 STATE OF NEW MEXICO }
 COUNTY OF SAN JUAN }

I, John A. Vukonich, first being duly sworn, hereby state that I am a New Mexico Professional Surveyor #14831; that this survey was made by me or under my direction; that the attached set of plots accurately represents the right of way centerline of the herein referenced pipeline; that said right-of-way is located on the Navajo Indian Reservation, beginning in the SW/4 of the SE/4 of Section 16, T-26-N, R-12-W, ending in the SW/4 of the NE/4 of Section 15, T-29-N, R-14-W, and that said right-of-way has a length of 113,053.83 feet, 16,851.747 rods, or 21.414 miles, a width of 40 feet and an area of 103.814 acres.

John A. Vukonich
 JOHN A. VUKONICH

Date: 10-15-2015

"APPLICANT'S CERTIFICATE"

I, Chris Jarrow, do hereby certify that I am of CCI SAN JUAN LLC that this survey hereafter designated the applicant, that John A. Vukonich, who subscribed to the foregoing affidavit, is employed by the applicant as a Licensed Professional Surveyor and that he was directed by the applicant to survey the centerline location of a right-of-way on the Navajo Indian Reservation, located in the San Juan County, New Mexico, being 113,053.83 feet, 21.414 miles in length, 40 feet in width, 103.814 acres in area, beginning at a point located in the SW 1/4 of Section 16, T26N, R12W and ending at a point in Section 15, T29N R14W, which is accurately located on this map, that such survey as represented on this map has been adopted by applicant as the definite location of the right-of-way hereby shown, and that the map has been prepared to be filed with the Secretary of the Interior or his duly authorized representative as part of the application for said right-of-way to be granted the applicant, its successors and assigns, with right to construct, maintain, and repair improvements, thereon and to construct, maintain, and repair improvements, thereon and thereafter, for such purposes, and with the further right in the applicant, its successors and assigns, to transfer this right-of-way by assignment, grant or otherwise.

State of Texas County of Harris
 Subscribed and sworn to before me
 this 22nd day of August 2016
Notary Public
 My commission expires: 5/21/19
 CCI SAN JUAN LLC - Applicant

Jessica Bynum
 Notary Public
 My commission expires: 5/21/19

BEGIN PIPELINE SURVEY
 0+00

CCI SAN JUAN LLC

SURVEYED: 08/11/15	REV. DATE:	APP. BY: J.A.V.
DRAWN BY: V.C.	DATE DRAWN: 10/09/15	FILE NAME: 11027COVER

UNITED FIELD SERVICES INC.
 P.O. BOX 3851
 FARMINGTON, NM 87489
 OFFICE: (505) 534-0408

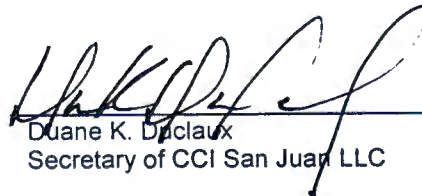


UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF INDIAN AFFAIRS

EVIDENCE OF AUTHORITY OF OFFICERS TO EXECUTE PAPERS


I, Duane K. Duclaux, solemnly swear that Brad Burmaster was, on the 11th day of October, 2015, duly qualified and acting as Senior Vice President – Head of Asset Optimization of CCI San Juan LLC, a limited liability company organized under the laws of the State of Delaware, on which day he executed a Right-of-Way Application for and on behalf of said limited liability company, covering certain Navajo Tribal Trust Indian lands in the State of New Mexico; that he was fully empowered to execute said instrument and all papers in connection therewith, and that their action in executing the same binds the said limited liability company to full performance of all obligations thereunder.

This 11th day of October, 2015


Duane K. Duclaux
Secretary of CCI San Juan LLC

Subscribed and sworn to before me this 11th day of October, 2015

(Signed)



MARGARET L. CURRAN
NOTARY PUBLIC, STATE OF CONNECTICUT
~~MY COMMISSION EXPIRES MARCH 31, 2018~~
(Title)

[NOTARY SEAL]

Project Fact Sheet

Project: **Chaco Pipeline**

Company Name: CCI San Juan LLC, 811 Main Street, Suite 3500, Houston TX 77002

Purpose: To continue operation of a 3.5 inch natural gas liquids pipeline from Kirtland, NM to Enterprise's Chaco Gas Plant

Surface: Tribal Trust

Right of Way Width: 40 feet

Line Length: 110,171.59 feet

Total Acreage: 101.167 acres

Tribal Location:

T. 26 N., R. 12 W.

Sections 3, 4, 9, 16

T. 27 N., R. 12 W.

Sections 19, 28, 29, 30, 33

T. 27 N., R. 13 W.

Sections 3, 10, 11, 13, 14, 24

T. 28 N., R. 13 W.

Sections 7, 18, 17, 20, 21, 28, 33, 34

T. 29 N., R. 14 W.

Sections 15, 22, 26, 27, 35, 36

All N.M.P.M., San Juan County, NM

RCJN-91-06

RESOLUTION OF THE RESOURCES COMMITTEE
OF THE NAVAJO NATION COUNCIL

20th NAVAJO NATION COUNCIL - Fourth Year, 2006

AN ACTION

RELATING TO RESOURCES; APPROVING THE RENEWAL OF RIGHTS-OF-
WAY TO THE WESTERN GAS RESOURCES, INC. FOR THE TERM ENDING
ON OCTOBER 17, 2015

BE IT ENACTED:

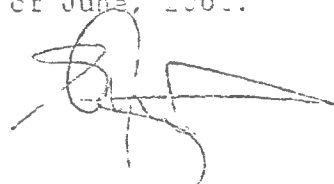
1. The Navajo Nation hereby approves the renewal of rights-of-way, attached hereto as Exhibit "A", to the Western Gas Resources, Inc. for the term ending October 17, 2015.

2. The Navajo Nation hereby approves the renewal of the rights-of-way to the Western Gas Resources, Inc., subject to, but not limited to, the terms and conditions contained in Exhibit "B", attached hereto and incorporated herein by reference.

3. The Navajo Nation hereby authorizes the President of the Navajo Nation to execute any and all documents necessary to effectuate the intent and purpose of this resolution.

CERTIFICATION

I hereby certify that the foregoing resolution was duly considered by the Resources Committee of the Navajo Nation Council at a duly called meeting at Window Rock, Navajo Nation (Arizona), at which a quorum was present and that same was passed by a vote of 5 in favor, 0 opposed and 0 abstained, this 27th day of June, 2006.



George Arth, Chairperson
Resources Committee

Attest: LeVern Mack -
Secretary



**THE
NAVAJO
NATION**

Joe Shirley, Jr.
President

(10-06A09:43 RCVD *g*

MINERALS DEPARTMENT

Post Office Box 1910

Window Rock, Arizona 86515

Phone: (928) 871-6587 • Fax: (928) 871-7095

Frank Dayish, Jr.
Vice-President

August 8, 2006

Ms. Elouise Chicharello, Regional Director
Navajo Region
Bureau of Indian Affairs
P.O. Box 1060
Gallup, NM 87301

SUBJECT: APPROVING THE RENEWAL OF NATURAL GAS AND PRODUCT
PIPELINE RIGHTS-OF-WAY FOR WESTERN GAS RESOURCES

Dear Ms. Chicharello:

The Resources Committee of the Navajo Nation Council, by resolution RCJN-91-06, dated June 27, 2006, has approved the renewal of natural gas and product pipeline rights-of-way for Western Gas Resources, Inc. Attached are all supporting documents for the rights-of-way renewal.

Your timely approval of the rights-of-way will be greatly appreciated. If you should have any questions please call me at (928) 871-6587.

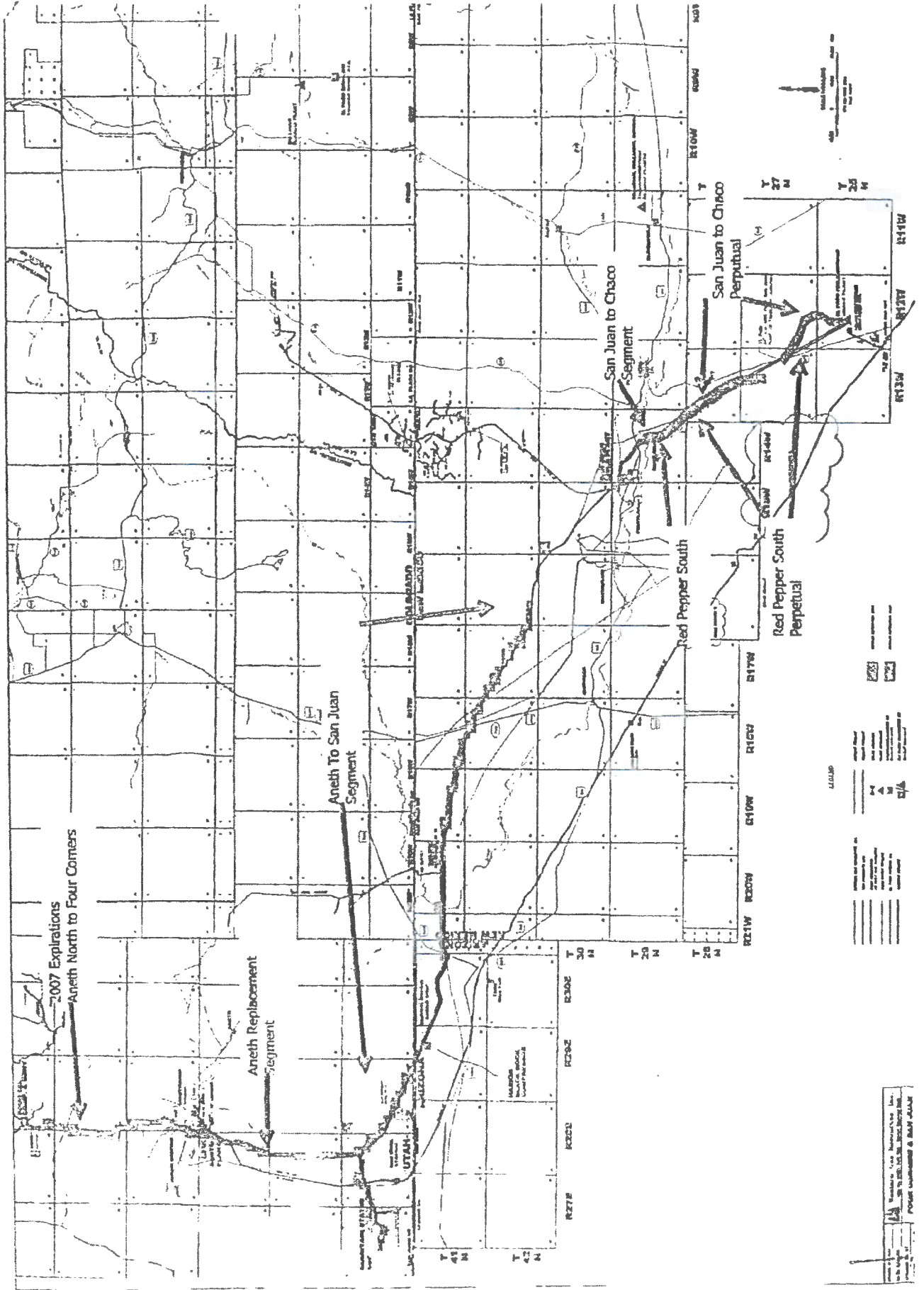
Sincerely,

Akhtar Zaman, Director
Minerals Department

CC: File

RSD/srm

EXHIBIT "A"



Pipeline Name	BIA Number	Product	Pipeline Capacity	Pipeline Diameter	Total Feet	Total Rods	Total Miles
Arco To San Juan	850328/850334	Unprocessed Natural Gas	14 MMCFD	8 inch	71056.42	4506.45	13.458
Arco To San Juan	850328/850334	Unprocessed Natural Gas	20 MMCFD	16 inch	282537	15911.33	49.723
Total					338693.42	20217.78	63.181
Arco North to Four Corners Compressor Site	850328/850334	Unprocessed Natural Gas	14 MMCFD	8 inch	75205.41	4567.9	14.76
Total					75205.41	4567.9	14.76
Arco Plant Inlet			14 MMCFD				
Arco Plant Inlet	850328/850334	Unprocessed Natural Gas	21 MMCFD	8 inch	22423.5	1358	4.24
Arco Plant Inlet	850328/850334	Unprocessed Natural Gas	21 MMCFD	8 inch	60878	3071.46	9.688
Arco Plant Inlet	850328/850334	Unprocessed Natural Gas	21 MMCFD	8 inch	16877.09	1010.733	3.158
Total					89778.58	5441.193	16.986
San Juan Chaco	850328/850334	Liquid Natural Gas	60000 Gallons	3.5 inch			
San Juan Chaco BLM Expires 01/01/2020							
San Juan Chaco Perpetual							
Total							
			Total 6 inch Lines		162938.92	14305.53	45.214
			Total 16 inch Line		262537	15911.33	49.723
			Total 3.5 inch Line		89778.58	5441.193	16.986
					515255.61	35658.05	111.933

*



Western Gas Resources, Inc.

September 23, 2005

OCT -3 2005

The Navajo Nation
Division of Natural Resources, Project Review Office
Attn: Howard Draper, Administrative Service Officer
P. O. Box 9000
Window Rock, AZ 86515

Subject: Application for right of way renewal for 16", 6" and 6-5/8" natural gas pipeline and a 3-1/2" natural gas liquid pipeline, forty (40') feet in width.

Dear Mr. Draper:

Enclosed please find Western Gas Resources, Inc. (WGR) application for a grant of right of way renewal for a forty (40') feet wide easement, for 16", 6-5/8" and 6" natural gas pipelines and a 3-1/2" natural gas liquid pipeline easement. This application covers NAVAJO TRIBAL TRUST (RESERVATION) lands in San Juan County, New Mexico, Apache County, Arizona and San Juan County, Utah, as submitted to Bureau of Indian Affairs, Shiprock Agency, Realty Estate Services.

The existing 16" natural gas pipeline right of way commences at a point northwest of Kirtland, New Mexico and traverses in a northwesterly direction to the launcher site in the NW 1/4 of section 11, T43S, R23E, SLP, San Juan County, Utah and continuing as a 6" natural gas pipeline to the Aneth Plant in the NW 1/4 of section 6, T41S, R24E, SLP, San Juan County, Utah. Also an existing 6-5/8" natural gas pipeline and a 3-1/2" natural gas liquid pipeline rights of way commences at a point southeast of Kirtland, New Mexico at the San Juan River and traverses in a southeasterly direction to the Navajo Nation (Reservation) boundary. Enclosed with this letter are the following:

1. Application for rights of way across NAVAJO TRIBAL TRUST (RESERVATION) lands in duplicate.
2. Maps and Legal Descriptions in duplicate.
3. Applicant's Certificate and Engineer's Affidavit in duplicate.
4. Environmental Assessment.
5. Archaeological Clearance report.
6. WGR check No. 10022197 in the amount of \$500.00 for filing and processing fees.
7. Payment for land use across NAVAJO TRIBAL TRUST (RESERVATION) lands will be determined at a later date.

WGR is currently in the process of obtaining an appraisal for this project. Consequently, no appraisal data is being file with this application. However, as such information is developed, it will be provided to your office as supplement material to this application.

If you have any questions or need additional information regarding the enclosed Environmental Assessment or Archaeological Clearances for this application, please Ellis & Associates, Inc. in Farmington, NM at (505) 326-1730 or by cell phone at (702) 287-4928. You may also contact Kelly Thomas with WGR at (303) 452-5803 in Denver, Colorado.

Sincerely,

Kelly Thomas
Manager, Surface Use Representative

APPLICATION FOR RIGHT (S) OF WAY

Bureau of Indian Affairs
United States Department of the Interior

The undersigned, WESTERN GAS RESOURCES, INC. 1099 18th Street, Suite 1200, Denver, CO 80202 (hereinafter called "Applicant"), hereby makes application, pursuant to the Act of February 5, 1948 (62 Stat. 17, 25 U.S.C. 323-328) And in accordance with the Department Regulations 25 C.F.R. Part 169, for the following rights of way across NAVAJO TRIBAL TRUST LANDS in San Juan County, State of New Mexico, Apache County, State of Arizona and San Juan County, State of Utah:

A right of way forty (40') feet in width for a 6" natural gas pipeline 71056.42 feet in length, 4306.450 rods, 13.458 miles, contains 65.249 acres \pm , to be used to continue to operate and maintain the existing welded steel pipeline.

A right of way forty (40') feet in width for a 16" natural gas pipeline 262537.00 feet in length, 15911.333 rods, 49.723 miles, contains 241.031 acres \pm , to be used to continue to operate and maintain the existing welded steel pipeline.

A right of way forty (40') feet in width for a 6-5/8" natural gas pipeline and a 3-1/2" natural gas liquids pipeline 22423.50 feet in length, 1359 rods, 4.24 miles, contains 20.590 acres \pm , to be used to continue to operate and maintain the existing welded steel pipelines.

The location of said right of way and its extent are more particularly shown on the accompanying exhibits.

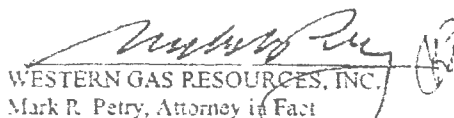
Applicant has filed with the Department of the Interior evidence of its incorporation, completion of organization and qualification to do business in the State of New Mexico.

Applicant hereby agrees to comply with the following stipulation in the event of the right of way herein applied for are granted:

- To construct, operate and maintain the right of way in a workmanlike manner.
- To pay promptly all damage and compensation, in addition to the deposit made pursuant to C.F.R. 169.4, determined by the Secretary to be due the landowner and authorized users and occupants of the land on account of the exhibit, granting, construction and maintenance of the right of way.
- To indemnify the landowner and authorized user and occupants against any liability for loss, personal injury and property damage arising from construction, maintenance, occupancy or use of the lands by Applicant, his employees, contractors and their employees, or subcontractors and their employees.
- To restore the land as nearly as may be possible to their original condition upon completion of construction to the extent compatible with the purpose for which the right of way was granted.
- To clear and keep clear the lands within the right of way to the extent compatible with the purpose of the right of way; and to dispose of all vegetative and other material cut, uprooted, or otherwise accumulated during the construction and maintenance of the project.
- To do everything, reasonably within its power, to prevent and suppress fires on or near the lands to be occupied under the right of way.
- To build and repair such roads, fences, and trails as may be destroyed or injured by construction work and to build and maintain necessary and suitable crossings for all roads and trails that intersect the work constructed, maintained or operated under the right of way.
- That upon revocation or termination of the right of way, Applicant shall, so far as is reasonably possible, restore the land to its original condition.
- To at all times keep the Secretary informed of its address, and in case of corporation, of the address of principal place of business and of the names and addresses of its principal officers.
- That the Applicant will not interfere with the use of the lands by or under the authority of the landowners for any purpose not inconsistent with the primary purpose for which the right of way is granted.

WHEREFORE, Applicant requests that the Secretary grant the right of way hereinabove described for a term of ten (10) years

IN WITNESS WHEREOF, Applicant has caused this instrument to be executed this 26 day of September, 2005


WESTERN GAS RESOURCES, INC.
Mark R. Petry, Attorney in Fact

WESTERN GAS RESOURCES, INC.

6" PIPELINE FROM THE LAUNCHER SHED TO ANETH PLANT
ACROSS NAVAJO RESERVATION LANDS.

NAVAJO RESERVATION LANDS
State of Utah

Township 41 South, Range 24 East, S1 PM, in San Juan County, Utah.

Section: 6

Township 41 South, Range 23 East, S1 PM, in San Juan County, Utah.

Sections: 12, 13, 24, 25, 26 and 35.

Township 42 South, Range 23 East, S1 PM, in San Juan County, Utah.

Sections: 2, 11, 14, 23, 26 and 35.

Township 43 South, Range 23 East, S1 PM, in San Juan County, Utah.

Sections: 2 and 11.

WESTERN GAS RESOURCES, INC.

**16" PIPELINE FROM KIRTLAND TO THE LAUNCHER SITE
ACROSSSS NAVAJO RESERVATION LANDS.**

**NAVAJO RESERVATION LANDS
State of Utah**

Township 43 South, Range 23 East, SLPM, in San Juan County, Utah,

Sections: 11, 13, 14 and 24.

Township 43 South, Range 24 East, SLPM, in San Juan County, Utah,

Sections: 19, 20, 27, 28, 29, 34, 35 and 36.

**NAVAJO RESERVATION LANDS
State of Arizona**

Township 42 North, Range 29 East, GSRPM, in Apache County, Arizona

Sections: 33 and 34.

Township 41 North, Range 29 East, GSRPM, in Apache County, Arizona

Sections: 1, 2, 3 and 12.

Township 41 North, Range 30 East, GSRPM, in Apache County, Arizona

Sections: 7, 8, 9, 10, 13, 14, 15, 16 and 17

Township 41 North, Range 31 East, GSRPM, in Apache County, Arizona

Sections: 17 and 18

NAVAJO RESERVATION LANDS
State of New Mexico

Township 32 North, Range 21 West, NMPM, in San Juan County, New Mexico.

Sections: 25, 26 and 27.

Township 32 North, Range 20 West, NMPM, in San Juan County, New Mexico.

Sections: 19, 25, 26, 27, 28, 29 and 30.

Township 32 North, Range 19 West, NMPM, in San Juan County, New Mexico.

Sections: 26, 27, 28, 29, 30, 35 and 36.

Township 32 North, Range 18 West, NMPM, in San Juan County, New Mexico.

Sections: 31, 32 and 33.

Township 31 North, Range 18 West, NMPM, in San Juan County, New Mexico.

Section: 2, 3, 4 and 12.

Township 31 North, Range 17 West, NMPM, in San Juan County, New Mexico.

Section: 7, 16, 17, 18, 21, 22, 23, 25, 26 and 36.

Township 31 North, Range 16 West, NMPM, in San Juan County, New Mexico.

Sections: 31, 32 and 33.

WESTERN GAS RESOURCES, INC.

6-5" AND 3-1/2" PIPELINES FROM SAN JUAN RIVER TO THE NAVAJO
RESERVATION BOUNDARY ACROSS NAVAJO RESERVATION LANDS.

NAVAJO RESERVATION LANDS
State of New Mexico

Township 29 North, Range 14 West, NMPM, in San Juan County, New Mexico,

Sections: 15, 22, 24, 27, 33 and 34

APPLICANT'S CERTIFICATE

This is to verify that Tony Marques who executed the Engineer's Affidavit hereon is the person employed by the undersigned applicant to prepare this map; that the survey, including the termini and/or related facilities represented on this map has been adopted that this map obtain the benefits of the Act of February 5, 1948 (62 Stat. 17, 25 U.S.C. 232)

Executed this 22nd day of September, 2005


Mark R. Petry as Attorney-in-Fact
WESTERN GAS RESOURCES, INC.

STATE OF COLORADO)

) ss.


COUNTY OF DENVER)

The foregoing instrument was acknowledged before me this 22nd day of September, 2005 by Mark R. Petry as Attorney-in-Fact of WESTERN GAS RESOURCES, INC.

Witness my hand and seal.

My Commission Expires: 9-11-2007

GRETCHEN M DARNAY
Notary Public
State of Colorado


Notary Public

ENGINEER'S AFFIDAVIT

States that he is an engineer employed by WESTERN GAS RESOURCES, INC., that the right-of-way renewal for the 16", 6-5/8" and 6" natural gas pipelines and a 3-1/2" natural gas liquid pipeline and/or related facilities shown on this

EXHIBIT "B"

NAVAJO NATION TERMS AND CONDITIONS
For Rights-of-Way (ROW)

WESTERN GAS RESOURCES, INC. (GRANTEE)

1. The right-of-way term shall expire on October 17, 2015. The term of the right-of-way located on former U.S. Bureau of Land Management land, which has been transferred to the Navajo Nation, shall also expire on October 17, 2015.
2. The total consideration for the ROW is assessed at \$ 5,831,116.00 and is payable to the Navajo Nation in ten (10) annual installments. The first annual payment of \$583,111.60 is due within ten (10) days of approval of the ROW by the Navajo Nation. All subsequent annual payments, beginning with the second annual payments are due on or before October 17th of each year and are subject to annual adjustments based on the following formula:

$$\text{\$ 583,111.60} \times \frac{\text{CPI for August for the year payment is made}}{\text{CPI for August 2005}}$$

Where CPI is the Consumer Price Index, U.S. City Average for All Urban Consumers published by the U.S. Bureau of Labor Statistics.

If the ROW is cancelled or terminated prior to October 17, 2015 prior to making all the ten (10) annual payments, the grantee shall make a lump sum payment at the time of cancellation or termination. The lump sum payment shall be based on the value of the annual payment at the time of cancellation or termination multiplied by the number of years remaining and to be paid to the Navajo Nation.

3. The Grantee may use and occupy the ROW for the purpose(s) of transporting natural gas on six (6) inch and sixteen (16) inch diameter lines and liquid petroleum products on the 3.5 inch line. The Grantee may not develop, use or occupy the ROW for any other purpose without the prior written approval of the Navajo Nation and the Secretary of the Interior. The approval of the Navajo Nation may be granted, granted upon conditions or withheld at the sole discretion of the Navajo Nation. The Grantee may not develop, use or occupy the ROW for any unlawful purpose. Further, any physical expansion of the pipeline system and or the transportation of different products other than these specified here in for the pipelines will require the written approval of the Navajo Nation and the Secretary of the Interior.
4. In all activities conducted by the Grantee within the Navajo Nation, the Grantee shall abide by all laws and regulations of the Navajo Nation and of the United States, now in force and effect or as hereafter may come into force and effect, including but not limited to the following:

- a. Title 25, Code Federal Regulation, Part 169;
 - b. All applicable and federal and Navajo Nation antiquities laws and regulations, with the following additional conditions: In the event of a discovery all operations in the immediate vicinity of the discovery must cease and the Navajo Nation Historic Preservation Department must be notified immediately. As used herein, "discovery" means any previously unidentified or incorrectly identified cultural resources, including but not limited to archaeological deposits, human remains, or location reportedly associated with Native American religious/traditional beliefs or practices; and
 - c. The Navajo Preference in Employment Act, 15 N.N.C. §§ 601 et seq., and the Navajo Nation Business Opportunity Act, 5 N.N.C §§ 201 et seq., and
 - d. The Navajo Nation Water Code, 22 N.N.C § 1101 et seq.. Grantee shall apply for and submit all applicable permits and information to the Navajo Nation Water Resources Department, or its successors; and
 - e. All Navajo Nation applicable taxes, 24 N.N.C §§ 101 et seq., and accompanying regulations.
5. The Grantee shall ensure that all air quality of the Navajo Nation is not jeopardized due to violation of applicable laws and regulations by its operations pursuant to the ROW.
 6. The Grantee shall clear and keep clear the lands within the ROW to the extent compatible with the purpose of the ROW, and shall dispose of all vegetation and other materials cut, uprooted or otherwise accumulated during any surface disturbance activities.
 7. The Grantee shall at all times during the term of the ROW and at the Grantee's sole cost and expense, maintain the land subject to the ROW and improvements located thereon and make all necessary and reasonable repairs.
 8. The Grantee shall obtain prior written permission to cross existing ROW, if any, from the appropriate parties.
 9. The Grantee shall be responsible for and promptly pay all damages attributable to the development, occupancy or use of the ROW by the Grantee.
 10. The Grantee shall indemnify and hold harmless the Navajo Nation and the Secretary of the Interior and their respective authorized agents, employees, landusers and occupants against any liability for loss of life, personal injury and property damages arising from the development, occupancy or use of ROW by the Grantee.
 11. The Grantee shall not assign, convey, transfer, or sublet in any manner whatsoever, except to an affiliate of the Grantee of the ROW or any interest therein, or in or to any of the improvements on the land, subject to the ROW, without the written consent of

the Navajo Nation and the Secretary of the Interior. Any such attempted assignment, conveyance or transfer without such written consent shall be void and of no effect. The consent of the Navajo Nation may be granted, granted upon conditions or withheld in the sole discretion of the Navajo Nation. The Grantee must notify the Navajo Nation of any assignment to an affiliate of the Grantee no later than thirty (30) days prior to the effective date of the assignment. Before granting its consent the Navajo Nation reserves its rights to conduct reasonable inquiry to confirm the relationship between the Grantee and its affiliate, and the Grantee agrees to cooperate with such inquiry by providing to the Navajo Nation all necessary documents and other reasonably required information.

12. The Navajo Nation may request the Secretary of the Interior to terminate the ROW for violation of any of the terms and conditions stated herein. In addition, the ROW shall be terminable in whole part for any of the following causes:
 - a. Failure to comply with any terms and conditions of the grant or of applicable laws or regulations; and
 - b. A non-use of the ROW for the purpose for which it is granted for a consecutive two-year period; and
 - c. The use of the land subject to the ROW for any purpose inconsistent with the purpose for which the ROW is granted.
13. At the termination of this ROW, the Grantee shall peaceably and without legal process deliver up the possession of the premises, in good condition, usual wear and tear excepted. The Grantee shall reclaim the land within ninety (90) days after the termination of the ROW. Upon the written request of the Navajo Nation, the Grantee shall provide the Navajo Nation, at the Grantee's sole cost and expense, with an environmental audit assessment of the premises at least sixty (60) days prior to delivery of said premises. All reclamation or abandonment shall be performed in accordance with the rules, regulations, and guidelines of the Navajo Nation Environmental Protection Agency and applicable federal laws and regulations.
14. Holding over by the Grantee after the termination of the ROW shall not constitute a renewal or extension thereof or give the Grantee any rights hereunder or in to the land subject to the ROW or to any improvements located thereon.
15. The Navajo Nation and the Secretary shall have the right, at any reasonable time during the term of the ROW, to enter upon the premises, or any part thereof, to inspect the same and any improvements located therein.
16. By acceptance of the grant of ROW, the Grantee consents to the full territorial legislative, executive and judicial jurisdiction of the Navajo Nation, including but not limited to the jurisdiction of the Navajo Nation jurisdiction to levy fines and to enter judgments for compensatory and punitive damages and injunctive relief, in connection with all activities conducted by the Grantee within the Navajo Nation or

which have a proximate (legal) effect on persons or property within the Navajo Nation.

17. By acceptance of the grant of ROW, the Grantee covenants and agrees never to contest or challenge the legislative, executive or judicial jurisdiction of the Navajo Nation on the basis that such jurisdiction is inconsistent with the status of the Navajo Nation as an Indian nation, or that the Navajo Nation government is not a government of general jurisdiction, or that the Navajo Nation government does not possess full policy power (i.e., the power to legislate and regulate for the general health and welfare) over all lands, persons and activities within its territorial boundaries, or on any other basis not generally applicable to a similar challenge to the jurisdiction of a state government. Nothing contained in this provision shall be construed to negate or impair federal responsibilities with respect to the land subject to the ROW or to the Navajo Nation.
18. Any action or proceeding brought by the Grantee against the Navajo Nation in connection with or arising out of the terms and conditions of the ROW shall be brought only in the Courts of the Navajo Nation, and no such action or proceeding shall be brought by the Grantee against the Navajo Nation in any court of any state.
19. Nothing contained herein shall be interpreted as constituting a waiver, express or implied, of the sovereign immunity of the Navajo Nation.
20. Except as prohibited by applicable federal law, the law of the Navajo Nation shall govern the construction, performance and enforcement of the terms and conditions contained herein.
21. The terms and conditions contained herein shall extend to and be binding upon the successors, heirs, assigns, executors, administrators, employees and agents, including all contractors and subcontractors, of the Grantee, and the term "Grantee," whenever used herein, shall be deemed to include all such successors, heirs, assigns, executors, administrators, employees and agents.
22. There is expressly reserved to the Navajo Nation full territorial legislative, executive and judicial jurisdiction over the ROW and all lands burdened by the ROW, including without limitation over all persons, including the public, and all activities conducted or otherwise occurring within the ROW; and the ROW and all lands burdened by the ROW shall be and forever remain Navajo Indian Country for purposes of Navajo Nation jurisdiction.
23. By acceptance of this ROW Grant, the Grantee shall obtain rights to Navajo Nation Lands in the nature of easement only; i.e., a right to pass over, occupy and reasonably use and occupy the ROW for the particular purpose described herein, with limited rights of ingress and egress via those particular access roads that are in existence and useable at the grant of this ROW. Such easement shall be limited term usufructuary interest consistent with all general property rights flowing from beneficial ownership of Navajo Nation lands, with no subsurface rights to any minerals or other natural

resources located on or within the ROW. The ROW, under no circumstances or rule of law, shall be interpreted as granting a fee simple interest or creating any greater property right possessed by the Grantee other than the limited easement described herein.

24. a) The Grantee shall maintain a Facility Response Plan that effectively addresses releases, spills or other failures with a potential to contaminate water, soil or pose a risk to human health. The plan will be reviewed and determined adequate by the NNEPA and made available to affected Navajo Nation Chapters and other interested parties, including individuals employed by the Grantee.
- b.) On an annual basis, the Grantee shall provide to the NNEPA a photocopy of maintenance reports conducted along the ROW.

THE NAVAJO NATION

By: _____

Joe Shirley, Jr., President

Date: AUG 03 2006

WESTERN GAS RESOURCES, INC.

By: _____

Mark R. Petry
Vice President-Land

Date: 7-18-06

RSD/srm



EXHIBIT

NAVAJO NATION RIGHT-OF-WAY TERMS AND CONITIONS CCI SAN JUAN, LLC (GRANTEE) (3-1/2" Natural Gas Pipeline – Chaco Products Line Right-of-Way)

1. The term of the right-of-way shall be for five (5) years, expiring on October 17, 2020.
2. Consideration for the right-of-way is assessed at \$147,753.00 annually and shall be paid to the Controller of the Navajo Nation, in lawful money of the United States, and a copy of the receipt for such payment provided to the Navajo Nation Minerals Department, or its successor, on or before October 17 of each year. The payment will be subject to annual CI adjustment, based on July 2015 CPI index.

If consideration has been waived, the Navajo Nation contributes the amount listed above to the project because the project serves a public purpose and will benefit Navajo residents.

3. The Grantee may develop, use, and occupy the right-of-way for the purpose(s) of constructing, operating, and maintaining the 3-1/2" natural gas pipeline. The Grantee may not develop, use, or occupy the right-of-way for any other purpose, nor allow other to use or occupy the right-of-way for any other purpose, without the prior written approval of the Navajo Nation and the Secretary of the Interior. The approval of the Navajo Nation may be granted, granted upon conditions, or withheld at the sole discretion of the Navajo Nation. The Grantee may not develop, use, or occupy the right-of-way for any unlawful purpose.
4. In all activities conducted by the Grantee within the Navajo Nation, the Grantee shall abide by all laws and regulations of the Navajo Nation and of the United States, now in force and effect or as hereafter may come into force and effect, including but not limited to the following:
 - a. Title 25, Code of Federal regulations, Part 169; subject to the terms of this right-of-way;
 - b. All applicable federal and Navajo Nation antiquities laws and regulations, with the following additional condition: in the event of a discovery, all operations in the immediate vicinity of the discovery must cease and the Navajo Nation Historic Preservation Department must be notified immediately. As used herein, "discovery" means any previously unidentified or incorrectly identified cultural resources, including but not limited to archeological deposits, human remains, or location reportedly associated with Native American religious/traditional beliefs or practices;
 - c. The Navajo Preference in Employment Act, 15 N.N.C. §§ 601 et. seq., and the Navajo Nation Business Opportunity Act, 5 N.N.C. §§ 201 et seq.; and
 - d. The Navajo Nation Water Code, 22 N.N.C. § 1101 et seq. Grantee shall apply for and submit all applicable permits and information to the Navajo Nation Water Resources Department, or its successor.
5. The Grantee shall ensure that the air quality of the Navajo Nation is not jeopardized due to violation of applicable laws and regulations by its operations pursuant to the right-of-way.

6. The Grantee shall clear and keep clear the lands within the right-of-way to the extent compatible with the purpose of the right-of-way, and shall dispose of all vegetation and other materials cut, uprooted, or otherwise accumulated during any surface disturbance activities.
7. The Grantee shall reclaim all surface lands disturbed related to the right-of-way, as outlined in a restoration and revegetation plan, which shall be approved by the Navajo Nation Environmental Protection Agency (NNEPA) prior to any surface disturbance. The Grantee shall comply with all provisions of such restoration and revegetation plan and shall notify the Director of the NNEPA immediately upon completion of the surface disturbance activities so that a site inspection can be made.
8. The Grantee shall at all times during the term of the right-of-way and at the Grantee's sole cost and expense, maintain the land subject to the right-of-way and all improvements located thereon and make all necessary and reasonable repairs.
9. The Grantee shall obtain prior written permission to cross existing rights-of-way, if any, from the appropriate parties.
10. The Grantee shall be responsible for and promptly pay all damages when they are sustained.
11. The Grantee shall indemnify and hold harmless the Navajo Nation and the Secretary of the Interior and their respective authorized agents, employees, land users, and occupants, against any liability for loss of life, personal injury, and property damages arising from the development, use, or occupancy or use of right-of-way by the Grantee.
12. The Grantee shall not assign, convey, transfer, or sublet, in any manner whatsoever, the right-of-way or any interest therein, or in or to any of the improvements on the land subject to the right-of-way, without the prior written consent of the Navajo Nation and the Secretary of the Interior. Any such attempted assignment, conveyance, or transfer without such prior written consent shall be void and of no effect. The consent of the Navajo Nation may be granted, granted upon conditions, or withheld at the sole discretion of the Navajo Nation.
13. The Navajo Nation may terminate the right-of-way for violation of any of the terms and conditions stated herein. In addition, the right-of-way shall be terminable in whole or in part by the Navajo Nation for any of the following causes:
 - a. Failure to comply with any term or condition of the grant or applicable laws or regulations;
 - b. A non-use of the right-of-way for the purpose for which it is granted for a consecutive two-year period;
 - c. The use of the land subject to the right-of-way for any purpose inconsistent with the purpose for which the right-of-way is granted; and
 - d. An abandonment of the right-of-way.
14. At the termination of this right-of-way, the Grantee, shall peaceably and without legal process deliver up the possession of the premises, in good condition, usual wear and tear excepted. Upon the written request of the Navajo Nation, the Grantee shall provide the Navajo Nation, at the Grantee's sole cost and expense, with an environmental site assessment of the premises at least sixty (60) days prior to delivery of the said premises. This provision 12 shall not apply to the United States as Grantee.

15. Holding over by the Grantee after the termination of the right-of-way shall not constitute a renewal or extension thereof or give the Grantee any rights hereunder or in or to the land subject to the right-of-way or to any improvements located thereon.
16. The Navajo Nation and the Secretary of the Interior shall have the right, at any reasonable time during the term of the right-of-way, to enter upon the premises, or any part thereof, to inspect the same and any improvements located thereon.
17. By acceptance of the grant of right-of-way, the Grantee consents to the full territorial legislative, executive, and judicial jurisdiction of the Navajo Nation, including but not limited to the jurisdiction of the Navajo Nation, including but not limited to the jurisdiction to levy fines and to enter judgements for compensatory and punitive damages and injunctive relief, in connection with all activities conducted by the Grantee within the Navajo Nation or which have a proximate (legal) effect on persons or property within the Navajo Nation.
18. By acceptance of the grant of right-of-way, the Grantee covenants and agrees never to contest or challenge the legislative, executive, or judicial jurisdiction of the Navajo Nation on the basis that such jurisdiction is inconsistent with the status of the Navajo Nation as an Indian nation, or that the Navajo Nation government is not a government of general jurisdiction, or that the Navajo Nation government does not possess full police power (i.e., the power to legislate and regulate for the general health and welfare) over all lands, persons, and activities within its territorial boundaries, or on any other basis not generally applicable to a similar challenge to the jurisdiction of a state government. Nothing contained in this provision shall be construed to negate or impair federal responsibilities with respect to the land subject to the right-of-way or to the Navajo Nation.
19. Any action or proceeding brought by the Grantee against the Navajo Nation in connection with or arising out of the terms and conditions of the right-of-way shall be brought only in the Courts of the Navajo Nation, and no such action or proceeding shall be brought by the Grantee against the Navajo Nation in any court of any state.
20. Nothing contained herein shall be interpreted as constituting a waiver, express or implied, of the sovereign immunity of the Navajo Nation.
21. Except as prohibited by applicable federal law, the law of the Navajo Nation shall govern the construction, performance, and enforcement of the terms and conditions contained herein.
22. The terms and conditions contained herein shall extend to and be binding upon the successors, heirs, assigns, executors, administrators, employees, and agents, including all contractors and subcontractors, of the Grantee, and the term "Grantee," whenever used herein, shall be deemed to include all such successors, heirs, assigns, executors, administrators, employees, and agents.
23. There is expressly reserved to the Navajo Nation full territorial legislative, executive, and judicial jurisdiction over the right-of-way and all lands burdened by the right-of-way, including without limitation over all persons, including the public, and all activities conducted or otherwise occurring within the right-of-way; and the right-of-way and all lands burdened by the right-of-way shall be and forever remain Navajo Indian Country for purposes of Navajo Nation jurisdiction.
24. The Navajo Nation reserves the right to grant rights-of-way within the right-of-way referenced herein for utilities, provided that such rights-of-way do not unreasonably interfere with the Grantee's use of the right-of-way.



THE NAVAJO NATION
HISTORIC PRESERVATION DEPARTMENT
PO Box 4950, Window Rock, Arizona 86515
TEL: (928) 871-7198 FAX: (928) 871-7886

CULTURAL RESOURCE COMPLIANCE FORM

ROUTE COPIES TO:	NNHPD NO.: HPD-15-842 - REVISED
<input checked="" type="checkbox"/> CASA	OTHER PROJECT NO.: CASA 15-34

PROJECT TITLE: Cultural Resources Inventory, Castleton Commodities International San Juan LLC's Chaco Pipeline, Huerfano and Upper Fruitland Chapters, San Juan County, New Mexico

LEAD AGENCY: BIA/NR

SPONSOR: Brian Wood, Permits West, 37 Verano Loop, Santa Fe, New Mexico 87508

PROJECT DESCRIPTION: The proposed undertaking will involve a lease to maintain & operate 20.868-miles/110,171.590-ft of existing underground gas pipeline. A total of 74,166.97-ft is located on Navajo Indian Irrigation Project (NIIP) Lands. And the remaining 36,004.62-ft if located on non-NIIP Lands. Total area of effect for the 40-ft wide pipeline. The area of effect is 101.167-acres. Ground disturbing activities will be intensive and extensive with the use of heavy equipment.

LAND STATUS:	Navajo Tribal Trust
CHAPTER:	Upper Fruitland & Huerfano
LOCATION:	Project is located on the Kirtland, Farmington South, Hugh Lake, Gallegos Trading Post, and Carson Trading Post Quadrangles, San Juan County, New Mexico NMPM
	T. <u>29</u> N., R. <u>14</u> W- Sec. <u>15, 22, 26, 27, 35 & 36</u>
	T. <u>28</u> N., R. <u>13</u> W- Sec. <u>17, 18, 20, 21, 28, 33 & 34</u>
	T. <u>27</u> N., R. <u>12</u> W- Sec. <u>19, 28, 29, 30 & 33</u>
	T. <u>27</u> N., R. <u>13</u> W- Sec. <u>03, 10, 11, 13, 14 & 24</u>
	T. <u>26</u> N., R. <u>12</u> W- Sec. <u>03, 04, 09, & 16</u>

PROJECT ARCHAEOLOGIST:	Mary Erickson
NAVAJO ANTIQUITIES PERMIT NO.:	B15348
DATE INSPECTED:	09/08/15 – 09/15/15
DATE OF REPORT:	10/09/2015
TOTAL ACREAGE INSPECTED:	253.395 – ac (170.584-ac NIIP; 82.811-ac non-NIIP)
METHOD OF INVESTIGATION:	Class III pedestrian inventory with transects spaced <u>15</u> m apart.

LIST OF CULTURAL RESOURCES FOUND:	(2) Isolated Occurrences (IO)
LIST OF ELIGIBLE PROPERTIES:	None
LIST OF NON-ELIGIBLE PROPERTIES:	(2) IO
LIST OF ARCHAEOLOGICAL RESOURCES:	None

EFFECT/CONDITIONS OF COMPLIANCE: No historic properties affected.

In the event of a discovery ["discovery" means any previously unidentified or incorrectly identified cultural resources including but not limited to archaeological deposits, human remains, or locations reportedly associated with Native American religious/traditional beliefs or practices], all operations in the immediate vicinity of the discovery must cease, and the Navajo Nation Historic Preservation Department must be notified at (928) 871-7198.

FORM PREPARED BY: Tamara Billie
FINALIZED: March 15, 2016 - Revised

Notification to Proceed
Recommended
Conditions:

☒ Yes ☐ No
☐ Yes ☒ No


The Navajo Nation
Historic Preservation Office

3/21/16
Date

Navajo Region Approval

4/9/16
☒ Yes ☐ No
Acting


BIA - Navajo Regional Office

4/10/16
Date

ARCHAEOLOGICAL INVENTORY REPORT DOCUMENTATION PAGE (HPD JAN/91)

1. HPD REPORT NO.	2. (FOR HPD USE ONLY)	3. RECIPIENTS ACCESSION NO.
4. TITLE OF REPORT: Cultural Resource Inventory, Castleton Commodities International San Juan LLC's Chaco Pipeline, Huerfano and Upper Fruitland Chapters, San Juan County, New Mexico Author(s): Mary Errickson		5. FIELDWORK DATES 09/08/15 - 09/15/15
7. CONSULTANT NAME AND ADDRESS: Gen'l Charge: Mary Errickson Org. Name: Complete Archaeological Service Associates Org. Address: P.O. Box 1777, Cortez CO 81321 Phone: (970) 565-9229		6. REPORT DATE October 9, 2015 8. PERMIT NO. B15348 9. CONSULTANT REPORT NO. CASA 15-34
10. SPONSOR NAME AND ADDRESS: Ind. Responsible: Brian Wood, agent for CCI Org. Name: Permits West Org. Address: 37 Verano Loop, Santa Fe, NM 87508 Phone: 505-466-8120		11. SPONSOR PROJECT NO. n/a 12. AREA OF EFFECT: 101.167 ac AREA SURVEYED: Total: 253.395 ac NIIP: 170.584 ac CASA: 82.811 ac
13. LOCATION (MAP ATTACHED): a. Chapter: Upper Fruitland, Huerfano b. Agency: Shiprock and Eastern c. County: San Juan d. State: New Mexico e. Land Status: Tribal Trust f. UTM Center: see report (NAD 83) g. Area: T 29N, R 14W: Sections, 15, 22, 26, 27, 35, and 36 T 28N, R 13W: Sections 17, 18, 20, 21, 28, 33, and 34 T 27N, R 13W, Sections 3, 10, 11, 13, 14, and 24 T 27N, R 12W, Sections 19, 28, 29, 30, and 33 T 26N, R 12W, Sections 3, 4, 9, and 16, NMPM&B h. 7.5' Map Name(s): Kirtland, Farmington South, Hugh Lake, Gallegos Trading Post, and Carson Trading Post, New Mexico i. Lead Agency: BIA/NR		
14. REPORT // OR SUMMARY (REPORT ATTACHED) /X/ OR PRELIMINARY REPORT // a. Description of Undertaking: Castleton Commodities International San Juan LLC proposes to lease, maintain, and operate 20.868 miles (110,171.590 feet) of existing, underground gas pipeline near Farmington, New Mexico. A total of 74,166.97 feet of pipeline is located on lands within the Navajo Indian Irrigation Project (NIIP) and the remaining 36,004.62 feet of pipeline is located on non-NIIP lands. Total area of effect for the 40 foot-wide pipeline ROW is 101.167 ac. Total surveyed area is 253.395 ac, including 170.584 ac inventoried under the NIIP project and 82.811 ac inventoried by CASA on non-NIIP lands. At present, no ground disturbing activities are proposed. b. Existing Data Review: Record searches were conducted at the Navajo Nation Historic Preservation Office in Window Rock on July 29, September 16, and September 25, 2015, see report. c. Area Environmental & Cultural Setting: see report d. Field Methods: A Class III inventory was conducted by Mary Errickson walking transects spaced no more than 15 m apart. A 100 foot-wide corridor was inventoried for a 40 foot-wide ROW along 6,821 miles of pipeline on non-NIIP lands.		

15. **CULTURAL RESOURCE FINDINGS:**

- a. Location/Identification of Each Resource: two Isolated Occurrences (IOs)
- b. Evaluation of Significance of Each Resource (above): The IOs are recommended as not eligible for the NRHP, ARPA, or AIRFA.

16. **MANAGEMENT SUMMARY (RECOMMENDATIONS):** A determination of "no historic properties affected" is recommended for Castleton Commodities International LLC's Chaco Pipeline at the locations described in this report.

17. CERTIFICATION:	SIGNATURE: <u>Mary Errickson</u>	DATE: <u>10/09/15</u>
	General Charge Name: <u>Mary Errickson</u>	
	SIGNATURE: <u>Mary Errickson</u>	DATE: <u>10/09/15</u>
	Direct Charge Name: <u>Mary Errickson</u>	

Cultural Resource Inventory

**Castleton Commodities International San Juan LLC's
Chaco Pipeline
Huerfano and Upper Fruitland Chapters
San Juan County, New Mexico**

Prepared by:

**Mary Errickson
Complete Archaeological Service Associates
P.O. Box 1777
Cortez, Colorado 81321**

CASA 15-34



Prepared for:

**Permits West, Agent for
Castleton Commodities International San Juan LLC
37 Verano Loop,
Santa Fe, NM 87508**

Submitted to:

**Navajo Nation Historic Preservation Department
P.O. Box 4950
Window Rock, Arizona 86515**

**Permit:
NNCRIP B15348**

October 9, 2015

Abstract

A cultural resource inventory was carried out for Castleton Commodities International San Juan LLC to lease, maintain, and operate 20.868 miles (110,171.590 feet) of existing, underground gas pipeline on Navajo Nation Lands in the vicinity of Farmington, New Mexico. The pipeline was constructed prior to 1975 and prior to cultural resource inventory requirements. The fieldwork was performed at the request of Brian Wood of Permits West, agent for Castleton Commodities International San Juan LLC. A total of 74,166.97 feet of pipeline is located on lands previously inventoried for the Navajo Indian Irrigation Project (NIIP). The inventory of the remaining 36,004.62 feet of pipeline outside of NIIP was conducted by Mary Errickson of Complete Archaeological Service Associates (CASA) between September 11-18, 2015. The project areas are located on Navajo Tribal Trust lands within the Upper Fruitland Chapter of the Shiprock Agency and the Huerfano Chapter of the Eastern Agency. The project was carried out under the provisions of Navajo Nation Cultural Resource Inventory Permit B15348, issued to CASA.

A total of 253.395 acres, including 170.584 ac under the Navajo Indian Irrigation Project and 82.811 ac by CASA, was inventoried for the project in San Juan County, New Mexico. A 100 foot-wide corridor was inventoried for a 40 foot-wide ROW. Total area of effect for the project is 101.167 acres.

Two isolated occurrences (IOs) were identified during the project. The IOs are not significant and are recommended as not eligible for nomination to the NRHP or for protection under ARPA or AIRFA. A determination of "No Historic Properties Affected" is recommended with no stipulations for 20.868 miles of the existing Castleton Commodities International San Juan LLC's Chaco Pipeline at the locations described in this report.

INTRODUCTION

A cultural resource inventory was carried out for Castleton Commodities International San Juan LLC to lease, maintain, and operate 20.868 miles (110,171.590 feet) of existing, underground gas pipeline near Farmington, New Mexico (Figures 1-9). The inventory was performed at the request of Brian Wood of Permits West, agent for Castleton Commodities International San Juan LLC. A total of 74,166.97 feet of pipeline is located on lands previously inventoried for the Navajo Indian Irrigation Project (NIIP). The inventory of the remaining 36,004.62 feet was conducted by Mary Errickson of Complete Archaeological Service Associates (CASA) on September 11-18, 2015. The project areas are located on Navajo Tribal Trust lands within the Upper Fruitland Chapter of the Shiprock Agency and the Huerfano Chapter of the Eastern Agency. The project was carried out under the provisions of Navajo Nation Cultural Resource Inventory Permit B15348, issued to CASA. The pipeline, constructed prior to 1975, is shown on the Kirtland, Farmington South, Hugh Lake, Gallegos Trading Post, and Carson Trading Post, New Mexico USGS Quadrangle maps.

PROJECT LOCATION AND DESCRIPTION

The project area is situated in the high desert plateau region of northwestern New Mexico within the Navajo section of the Colorado Plateau Province. It lies in the eastern section of the San Juan Basin. The San Juan Basin is a roughly circular depression approximately 160 km. in diameter. The basin is bounded on the east by the Nacimiento Uplift and the Archuleta Arch and on the north by the San Juan Dome. The Hogback Monocline and the Four Corners Platform comprise its western boundary. The Chaco Slope defines the southern limit of the basin. The San Juan Basin is characterized by a semiarid, upland plateau environment. The general project area is underlain by a sequence of sedimentary beds deposited during the Late Cretaceous. Pleistocene gravelly-sand deposits capped by Holocene eolian deposits overlie the late Cretaceous bedrock. Major plant communities include grassland and sagebrush-grassland habitats, with pinyon-juniper found on mesa tops. A desert wash community crosscuts the major zones along medium and large drainages.

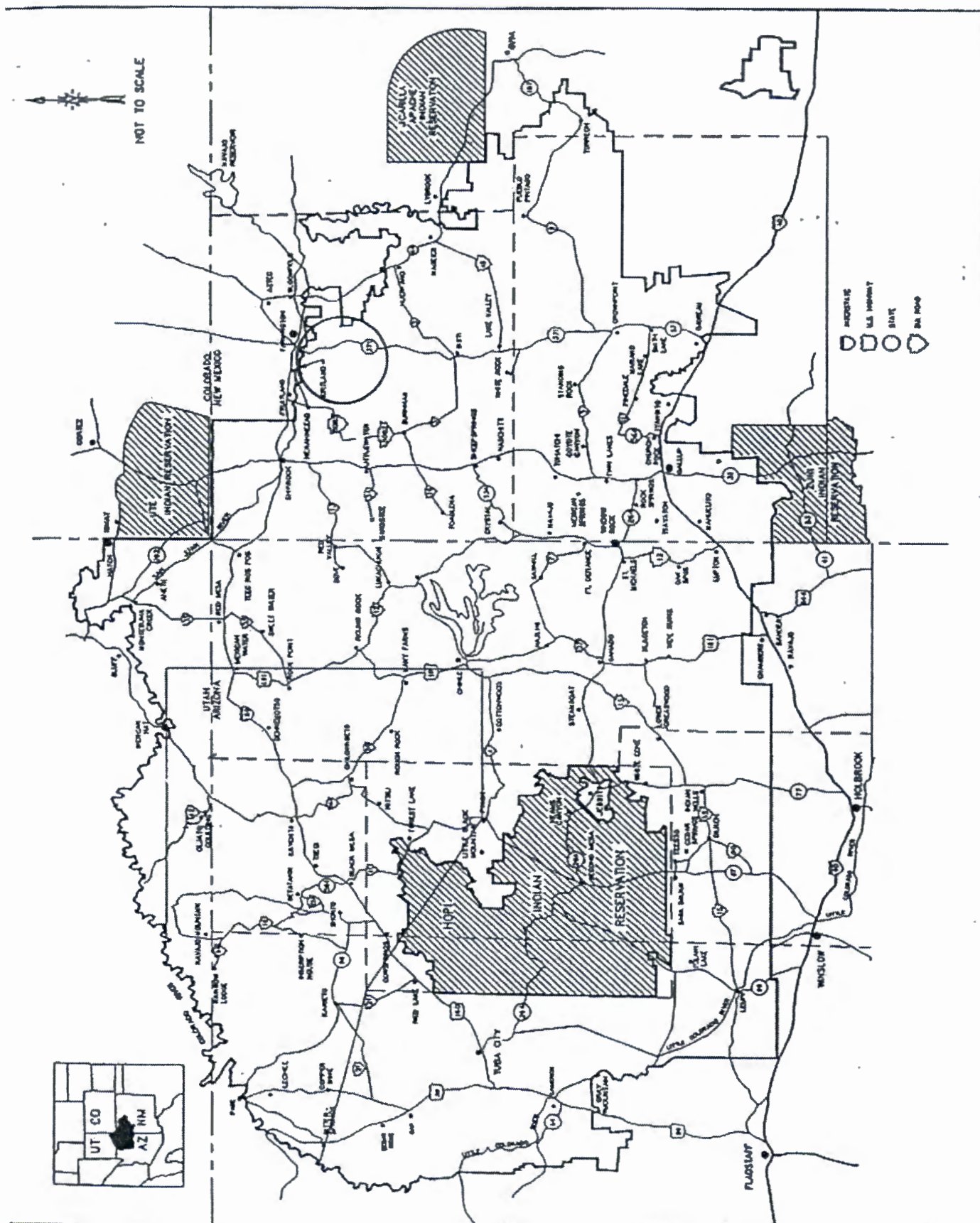
LOCATIONAL INFORMATION

T 29N, R 14W: Sections 15, 22, 26, 27, 35, and 36
T 28N, R 13W: Sections 17, 18, 20, 21, 28, 33, and 34
T 27N, R 13W, Sections 3, 10, 11, 13, 14, and 24
T 27N, R 12W, Sections 19, 28, 29, 30, and 33
T 26N, R 12W, Sections 3, 4, 9, and 16

UTM POINTS - Non-NIIP Lands

PT. A 12, 753371mE / 4050677mN
PT. B 12, 752099mE / 4051828mN
PT. C 12, 744602mE / 4062299mN (BLM Boundary)
PT. D 12, 742328mE / 4064638mN
PT. E 12, 742126mE / 4066257mN
PT. F 12, 742189mE / 4066832mN
PT. G 12, 741476mE / 4067924mN

The Mid-America Pipeline parallels the Chaco Pipeline approximately 25 feet to the west. In addition, a transmission powerline and a second pipeline often parallel the Chaco Pipeline as well, expanding the existing, disturbed pipeline corridor to approximately 100 feet in width. The Chaco pipeline commences at the Chaco Gas Plant surrounded by fields within NIIP. After leaving the fields, the pipeline reaches more level terrain consisting of low, sandy ridges and dunes covering gravels and colluvial clays and silts in a grassland and low shrub community. It then continues northwestward over a series of narrow, broken, gravelly, rocky ridges. Vegetation includes juniper,



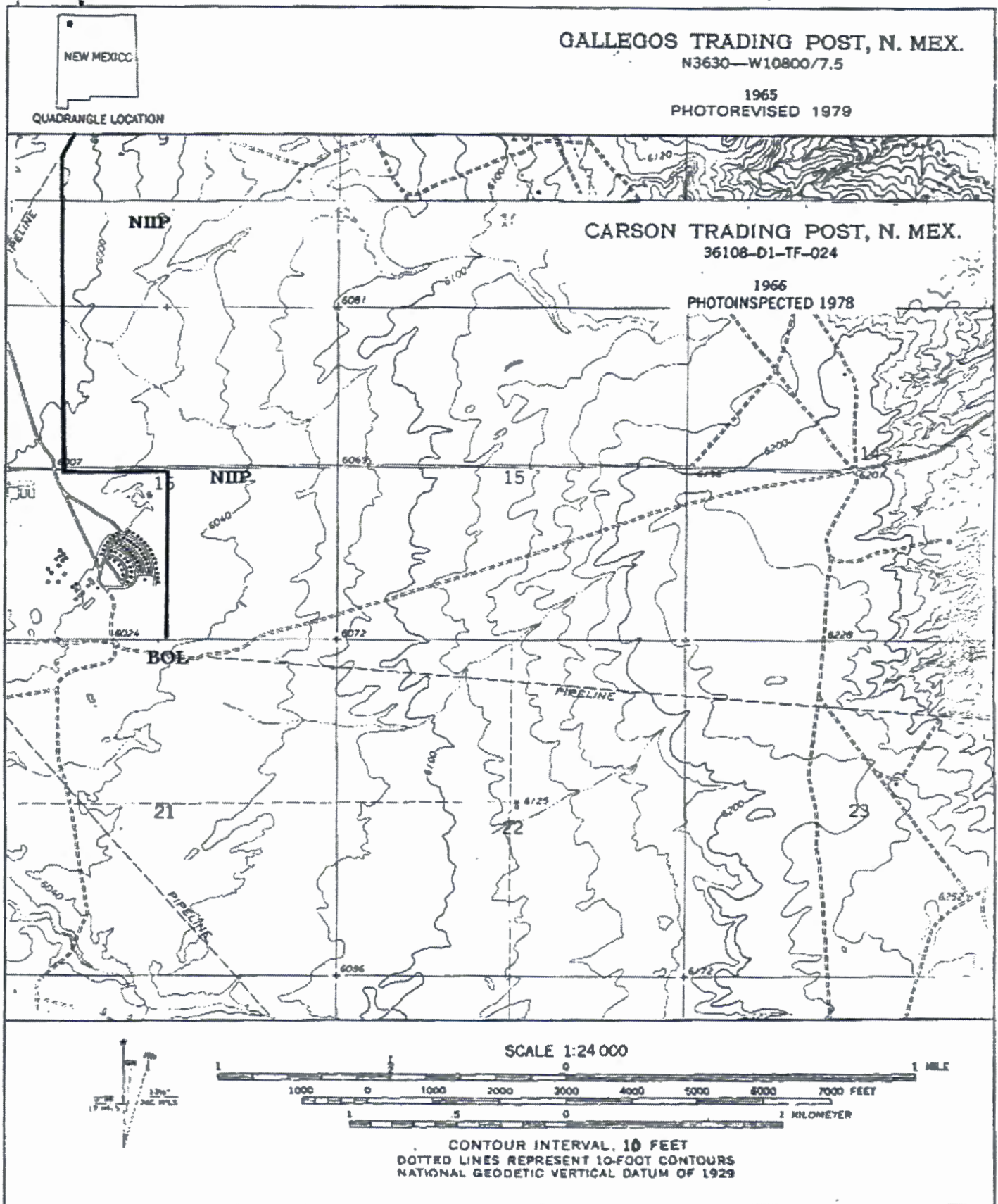


Figure 2. Location map, Chaco Pipeline on NIIP lands, Sections 9 and 16, T 26N, R 12W.

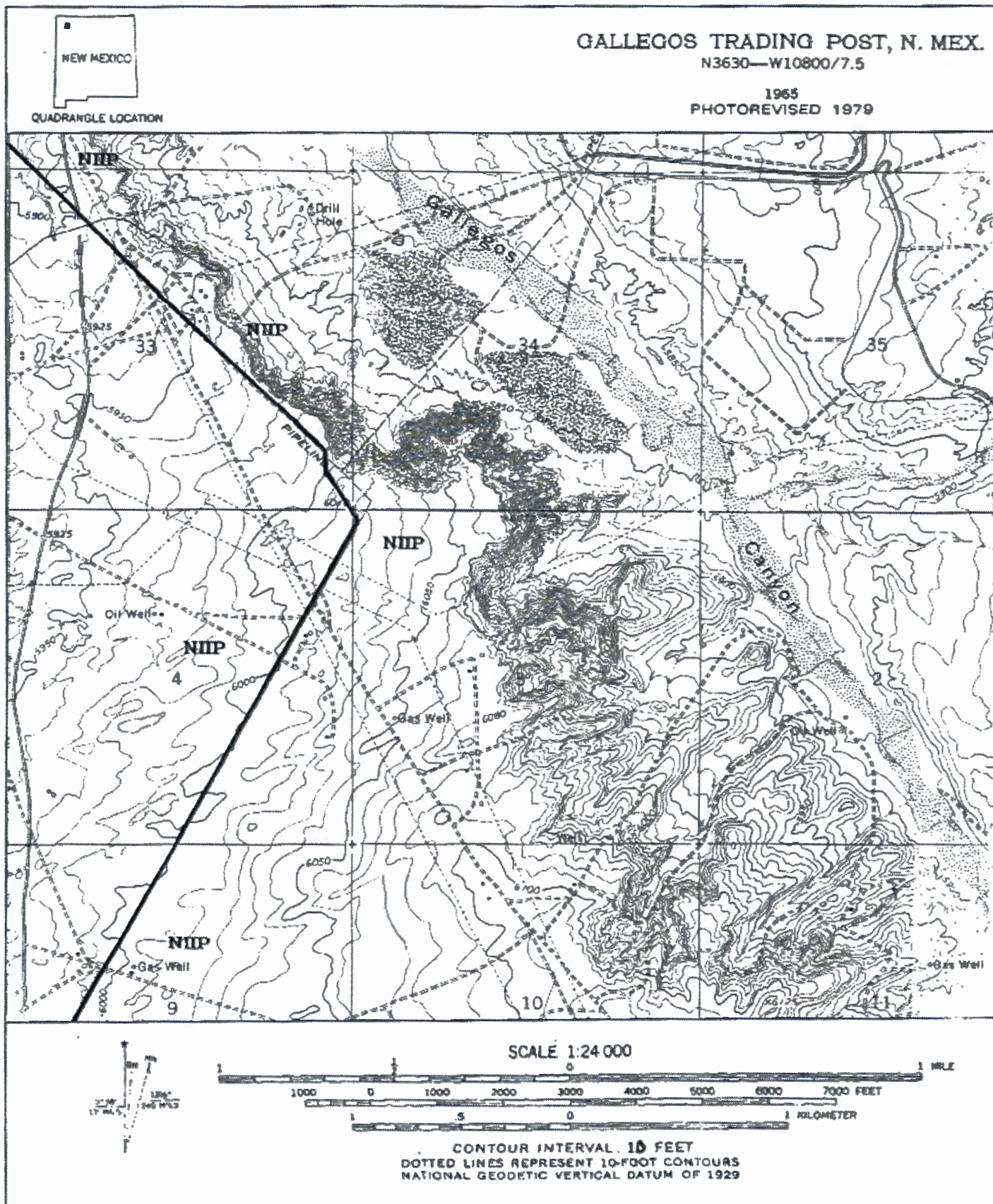


Figure 3. Location map, Chaco Pipeline on NIIP lands, Sections 3, 4, and 9, T 26N, R 12W and Sections 28 and 33, T 27N, R 12W.

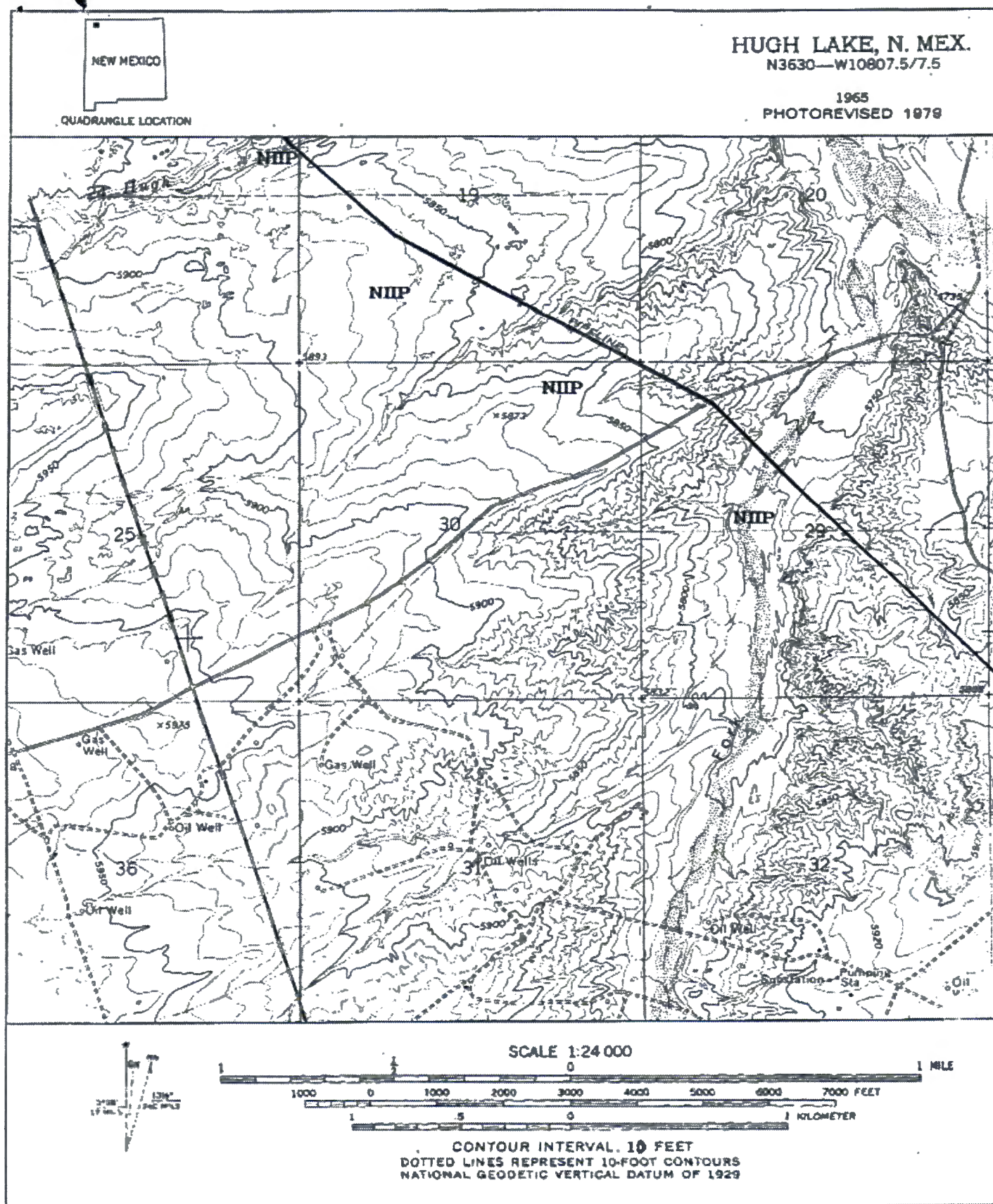


Figure 4. Location map, Chaco Pipeline on NHP lands, Sections 19, 28, 29, and 30, T 27N, R 12W and Section 24, T 27N, R 13W.

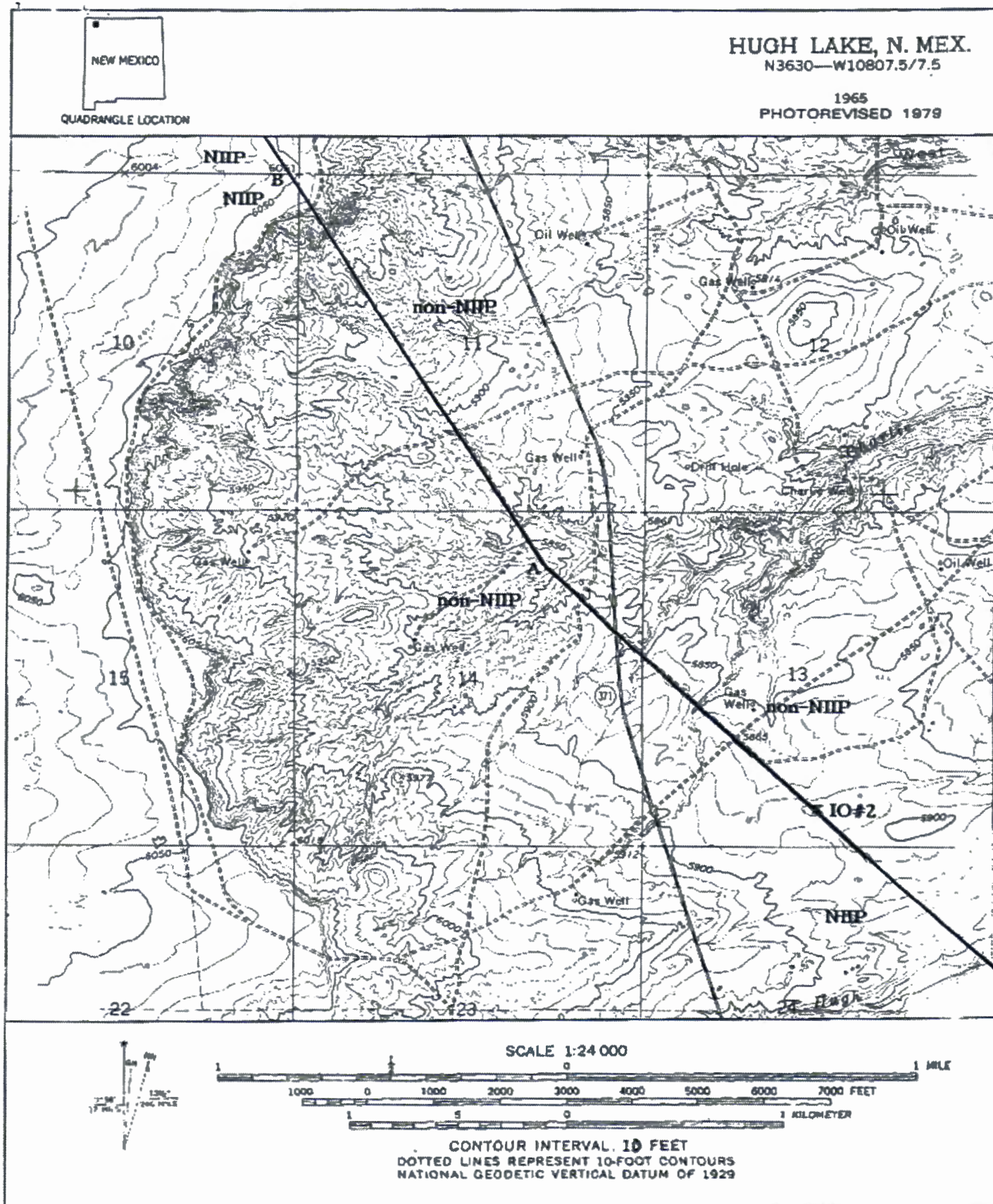


Figure 5. Location map, Chaco Pipeline on NIIP lands, Sections 3, 10, and 24, T 27N, R 13W, on non-NIIP lands, Sections 11, 13, and 14, T 27N, R 13W, and IO#2.

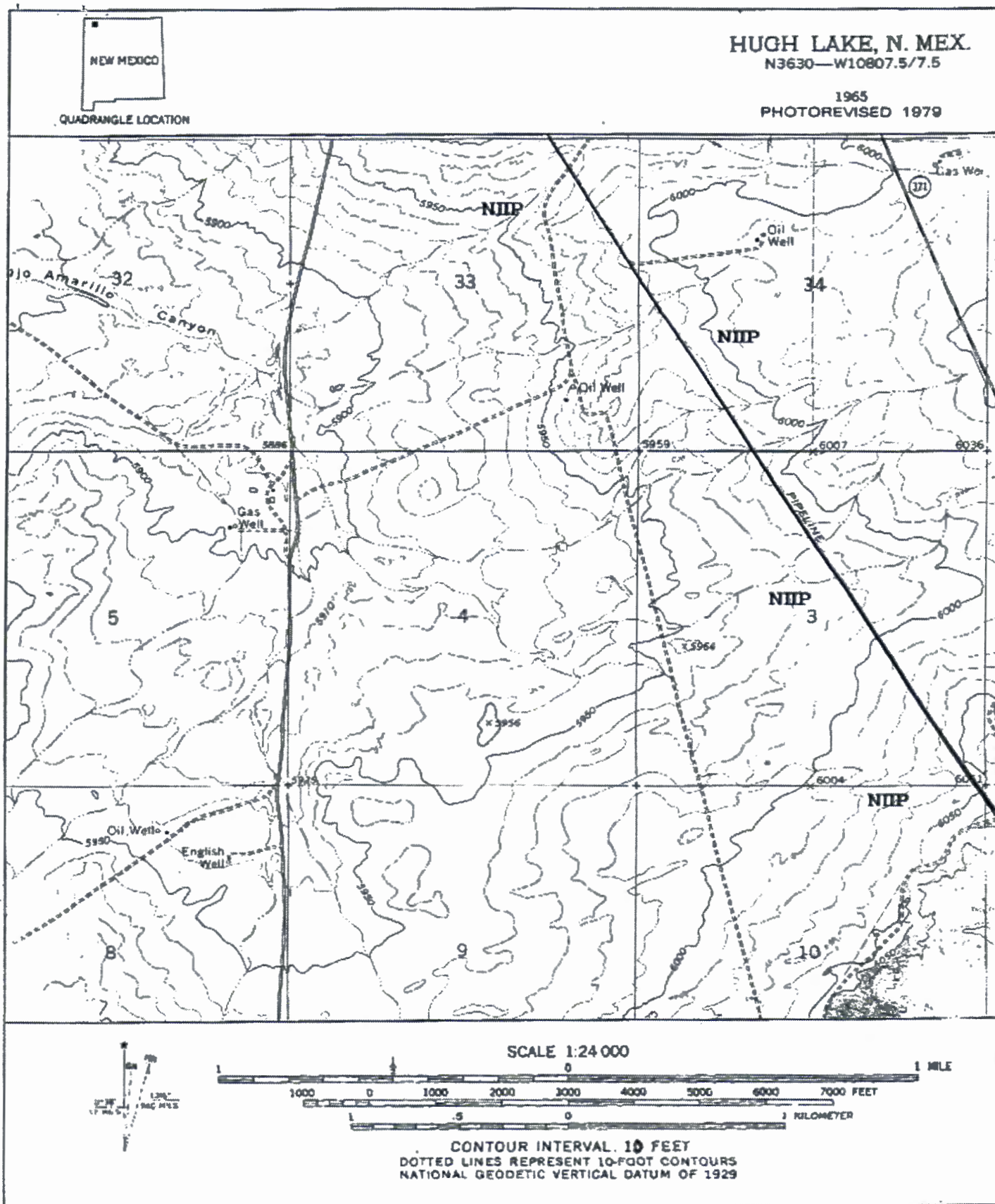


Figure 6. Location map, Chaco Pipeline on NHP lands, Sections 3, 10, and 11, T 27N, R 13W and Sections 33 and 34, T 28N, R 13W.

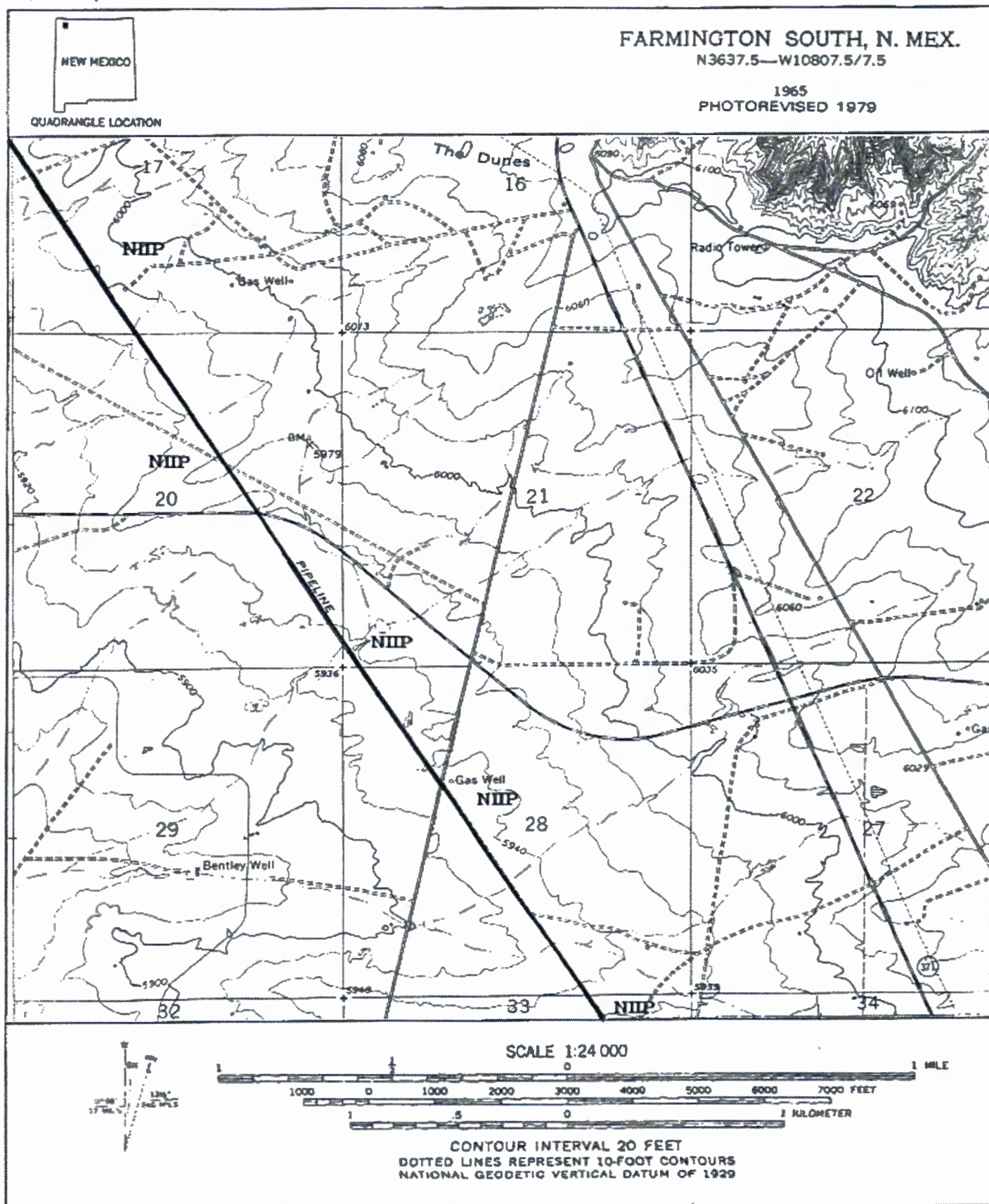


Figure 7. Location map, Chaco Pipeline on NIIP lands, Sections 17, 20, 21, 28, and 33, T 28N, R 13W.

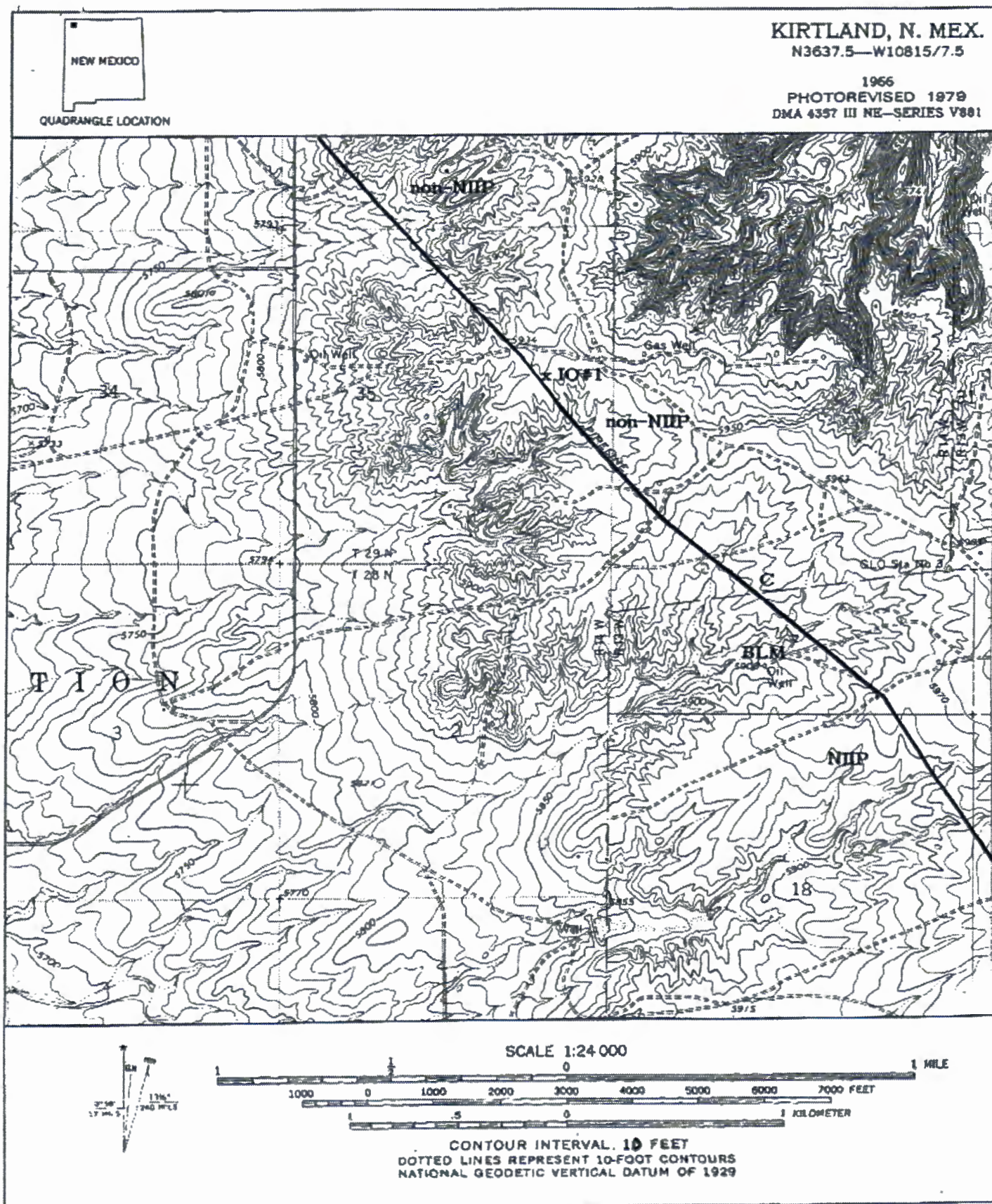


Figure 8. Location map, Chaco Pipeline on NIIP lands, Sections 17 and 18, T 28N, R 13W, on non-NIIP lands, Sections 26, 35, and 36, T 29N, R 14W, and IO#1.

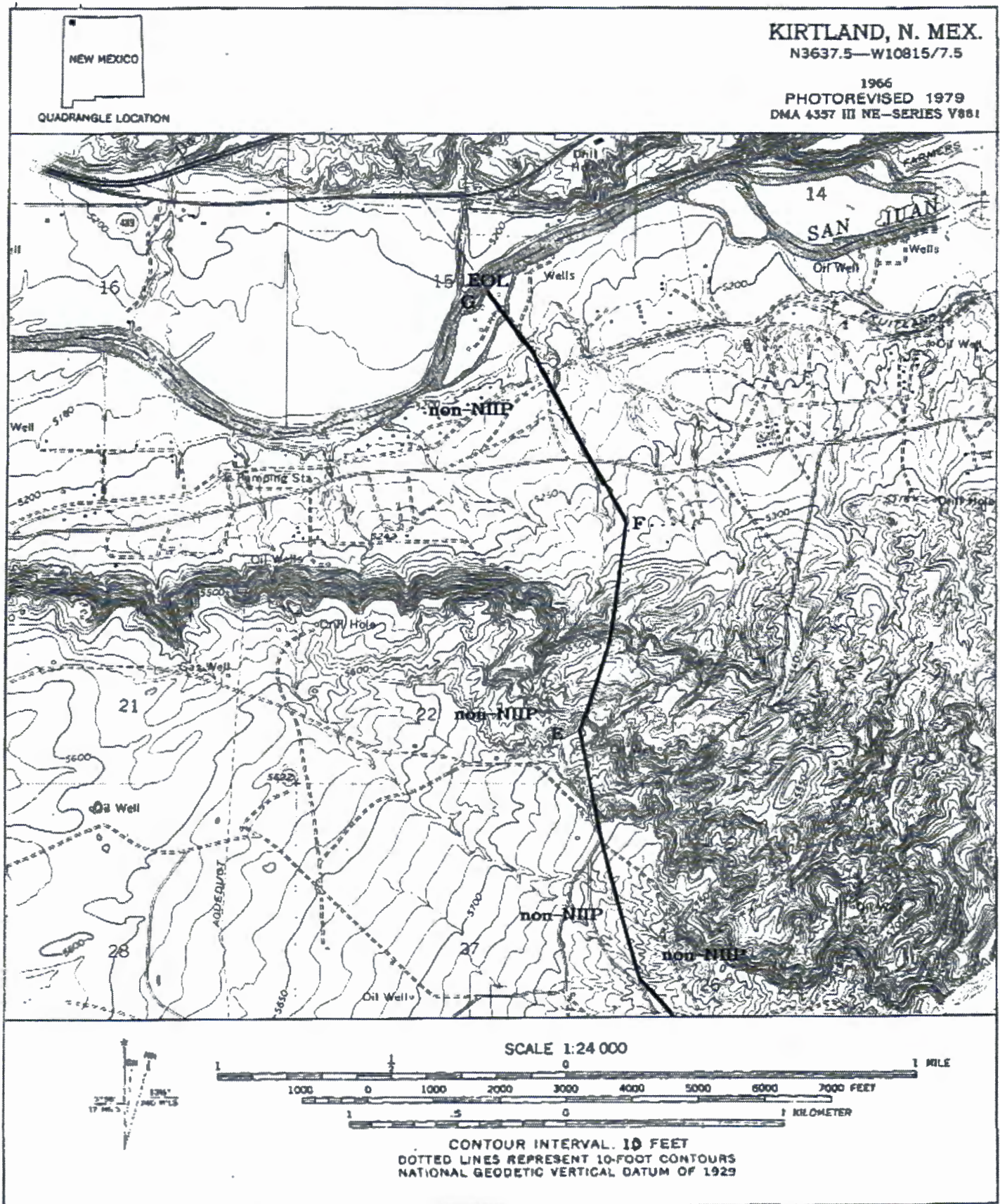


Figure 9. Location map, Chaco Pipeline on non-NIIP lands, Sections 15, 22, 26, and 27, T 29N, R 14W.

mormon tea, snakeweed, sticky rabbitbrush, prickly pear, and grasses. Active and abandoned wells and pipelines are common in this area.

Continuing northward, the pipeline reaches more level terrain with better-developed soils and crosses numerous NIIP fields and NM 371. The pipeline then begins to slowly descend toward the river valley, passing through broken, rocky terrain and northwest-trending ridges broken by small washes. Vegetation includes juniper, mormon tea, snakeweed, sticky rabbitbrush, prickly pear, and grasses. It then descends the steep, rocky, southern face of the San Juan River canyon wall and continues across the north-sloping river terraces. The terraces are covered with thin colluvial and alluvial silts and sands bearing gravels. Vegetation is primarily a grassland community with dense russian thistle, snakeweed, annual weeds, and grasses. It then descends into the alluvial floodplain where the riparian environment has been heavily disturbed by fields, roads, and canals. The pipeline ends at the southern edge of the San Juan River. Elevation of the pipeline varies from approximately 6,030 feet at the BOL to 5,180 feet at the San Juan River.

PREVIOUS RESEARCH AND CULTURE HISTORY

Record search were conducted at the Navajo Nation Historic Preservation Office in Window Rock on July 29, September 16, and September 25, 2015. Previously recorded sites identified within 100 m of project areas are listed in Table 1.

Table 1. Previously recorded sites within 200 m of project areas.

Site No.	Affiliation	Site Type	Reference
LA 8534			No Project Number
*LA16208			No Project Number
LA25779			No Project Number
LA25781			No Project Number
*LA30815			No Project Number
NM-H-22-15	Pueblo III	Ceramic Scatter	NTM 85-305
NM-H-22-22	Pueblo II-III	Artifact Scatter	NTM 85-305
NM-H-22-176	Navajo, 1990s	Habitation	HPD 99-333
NM-H-22-177	Archaic	Lithic Scatter	HPD 01-079
NM-H-22-192	Pueblo II	Artifact Scatter	HPD 02-369
*NM-H-23-22/LA30621			File Unavailable
*NM-H-25-44	Navajo, Modern	Habitation	HPD 03-1326
*NM-H-26-46/LA17409	Navajo, Modern	Habitation	HPD 03-1326
*NM-H-26-52/LA17414	Navajo, Historic	Habitation	HPD 03-1326
*NM-H-26-136/LA17457	Archaic	Lithic Scatter	HPD 03-1326
*NM-H-26-138/LA17459	Unknown/Undated	Lithic Scatter	HPD 03-1326

* Within NIIP

Cultural resources in the area have been extensively studied as a result of the major inventories and excavations conducted by the Navajo Nation Cultural Resources Management Program (NNCRMP) on the Navajo Indian Irrigation Project (NIIP) during the 1970s and 1980s.

Discussions concerning these studies can be found in Del Bene and Ford (1982) and Vogler, Gilpin, and Anderson (1983). An overview of the NIIP investigations was prepared by Vogler, Langenfeld, and Gilpin (1993). In addition to the NIIP surveys, various other portions of the gas pipeline and powerline corridor have been previously inventoried (HPD 00-218, HPD 05-887, HPD 90-030, HPD 06-139).

Background data on the cultural history of the Farmington area is available from a number of sources. Northwestern New Mexico is discussed at some length in the San Juan Basin Section of Stuart and Gauthier's (1981) *Prehistoric New Mexico, Background for Survey*. Additional information is presented in a variety of published reports on both energy and agricultural related projects in areas surrounding Shiprock. In the last 40 years, numerous large scale inventory and excavations projects have been done in the San Juan Basin including the various studies done for the Navajo Indian Irrigation Project and the recently completed Transwestern Pipeline Expansion Project. The multitude of data produced by these projects and other large scale projects have been summarized in a comprehensive overview prepared by the Office of Contract Archaeology at the University of New Mexico (Hogan 1986). A large data recovery project was also undertaken on the many prehistoric sites impacted by the Fruitland Coal Gas Gathering System (Hogan, Elyea, Eschman 1990).

Vierra (1995) provides a current synthesis of the previous research and developmental models for the southwestern Archaic Tradition in the San Juan Basin. The Oshara Tradition model as discussed by Irwin-Williams (1973) remains the most commonly used phase system for the Archaic adaptation in northwestern New Mexico. The Oshara Tradition is divided into five phases dating from 5500 B.C. through A.D. 400. The phases are based on changes in subsistence as mirrored in changes in flaked and ground stone tool technology and features corresponding to climactic fluctuations during the Holocene.

The intensively studied and documented Anasazi occupation of the San Juan Basin (A.D. 500-1300) appears to have been a continued cultural development from the Archaic Tradition, characterized by an increasing dependence of corn agriculture and a resulting dramatic increase in sedentism, including the formation of villages. By the A.D. 900s, a marked population increase occurred in the south-central and western parts of the Basin, including the establishment of Chacoan town sites both in and outside Chaco Canyon. Beginning in the A.D. 1100s, most of the Basin was abandoned by A.D. 1300.

Re-occupation of the northern San Juan Basin began by the middle-to-late fifteenth century. Initially, Navajo subsistence was based on a mixture of limited agriculture and hunting and gathering. By the mid 1860s, reprisals by the U.S. Military in response to purported Navajo raiding led to the removal of Navajo groups from the San Juan Basin to incarceration near Fort Sumner. By 1868, the government created the Navajo Reservation and the Navajo moved back to the San Juan Basin and a herding economy. Euro-American settlement of the San Juan Basin was sparse prior to the A.D. 1870s when the region was declared public domain. Euro-American activities included ranching and trading. Euro-American populations increased with the railroad in the 1880s and the opening of the region to homesteading between 1908-1912. The depression of the 1930s led to a decrease in Euro-American population until after World War II and energy development in the Basin.

TRADITIONAL CULTURAL PROPERTIES

The record search through the Traditional Cultural Property (TCP) Department indicated that four TCPs are located in the vicinity of the pipeline. *Tooh* / San Juan River (#343) is located at the EOL of the pipeline. *Tee# Sikaad* / Cattail Grove / Gallegos Canyon (#918) is located within 0.5 mile to the east of the pipeline. *Tse Naadliih* / Flow Around the Rock, Became a Rock (#974) is located near the mouth of the La Plata River as it enters the San Juan, approximately 2.0 miles to the northeast of the pipeline BOL. *T'iisyyaa Hozhoni* / Pleasant Place Beneath Cottonwoods (#945) is located north of the project area. The TCP Department has determined that there will be no

adverse impacts to these TCPs as a result of the undertaking as no new construction is proposed (Attachment A).

SURVEY METHODOLOGY

The Class III inventory was conducted by Mary Errickson between September 11-18. The project area was inventoried by walking multiple, parallel, zig-zag, pedestrian transects spaced no more than 15 m apart on both sides of the existing pipeline. A 100 foot-wide corridor was inventoried for a 40 foot-wide easement for those portions of the pipeline outside of NIIP.

Sites are defined as cultural manifestations containing ten or more artifacts in a 10 square meter area and/or the location of an event, a prehistoric or historic activity, or a building or structure, whether standing, ruined, or vanished, where the location itself maintains historic, archaeological, or traditional cultural value regardless of the value of the existing structure. Isolated occurrences (IOs) are any non-architectural feature or assemblage of less than 10 artifacts in an area 10 square meters or less.

INVENTORY RESULTS

Two isolated occurrences were identified during the project.

IO No. 1:

USGS Map: Kirtland, NM 1979 (Figure 8)
UTM Location: Zone 12, 743536mE / 4063345mN (NAD 83)
Description: One reworked, white chalcedony projectile point base

IO No. 2:

USGS Map: Hugh Lake, NM 1965 (Figure 5)
UTM Location: Zone 12, 753172mE / 4050888mN (NAD 83)
Description: One red chert tertiary flake

EVALUATION OF SIGNIFICANCE

The IOs are not considered significant and are not eligible for nomination to the NRHP or for protection under ARPA. The IOs do not exhibit qualities meriting consideration under AIRFA.

RECOMMENDATIONS

A determination of "no historic properties affected" is recommended with no stipulations for Castleton Commodities International San Juan LLC's Chaco Pipeline at the locations described in this report.

REFERENCES

Del Bene, Terry A. And Dabney Ford (editors)

- 1982 Archaeological Excavations in Blocks VI and VII, NIIP, San Juan County, New Mexico. Volumes 1-3. *Navajo Nation Papers in Anthropology* Number 13, NNCRMP, Window Rock.

Hogan, Patrick

- 1986 Overview Research Design and Data Recovery Program for Cultural Resources within the Bolack Land Exchange. Office of Contract Archaeology, University of New Mexico. Albuquerque.

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Stuart, David E., and Rory P. Gauthier

- 1981 *Prehistoric New Mexico: Background for Survey*. Historic Preservation Bureau, Santa

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- 1995 A Brief History of Southwestern Archaic Research. In *Across the Colorado Plateau: Anthropological Studies for the Transwestern Pipeline Expansion Project, Volume XIV, Excavation and Interpretation of Aceraamic and Archaic Sites*, pp. 11 - 15. Office of Contract Archaeology and the Maxwell Museum of Anthropology, University of New Mexico, Albuquerque.

Vogler, Lawrence E., Dennis Gilpin, and Joseph K. Anderson

- 1983 Cultural Resources Investigations on Gallegos Mesa: Excavations in Blocks VIII and IX, and Testing Operations in Blocks X and XI, Navajo Indian Irrigation Project, San Juan County, New Mexico Volume 1. *Navajo Nation Papers in Anthropology* Number 24. Navajo Nation Archaeology Department, Window Rock.

Vogler, Lawrence E., Kristin Langenfeld, and Dennis Gilpin

- 1993 DÁÁ ÁK'EH NITSAA: An Overview of the Cultural Resources on the Navajo Indian Irrigation Project, Northwestern New Mexico. *Navajo Nation Papers in Anthropology* Number 29. Navajo Nation Archaeology Department, Window Rock.

Cultural Resource Inventory

**Castleton Commodities International San Juan LLC's
Chaco Pipeline
Huerfano and Upper Fruitland Chapters
San Juan County, New Mexico**

Prepared by:

**Mary Errickson
Complete Archaeological Service Associates
P.O. Box 1777
Cortez, Colorado 81321**

CASA 15-34

ATTACHMENT A

**TRADITIONAL CULTURAL PROPERTY
RECORD SEARCH**

Prepared for:

**Permits West, Agent for
Castleton Commodities International San Juan LLC
37 Verano Loop,
Santa Fe, NM 87508**

Submitted to:

**Navajo Nation Historic Preservation Department
P.O. Box 4950
Window Rock, Arizona 86515**

**Permit:
NNCRIP B15348**



THE NAVAJO NATION
Historic Preservation Department

PO Box 4950, Window Rock, AZ 86515
TEL: (928) 871-7198 / 7134 FAX: (928) 871-7886

TRADITIONAL CULTURAL PROPERTY (TCP) RECORD
SEARCH VERIFICATION FORM

****TCP WILL NOT SIGN/APPROVE IF THIS PORTION IS LEFT BLANK****

Project Information	
DATE	
RESEARCHER & COMPANY	CASA - Mary Errickson
PROJECT NAME	Castleton Commodities International (CCI) Chaco Pipeline
PROJECT/PERMIT NUMBER	B15348 / CASA 15-34
PROJECT LOCATION	Upper Fruitland and Huerfano, New Mexico

*****TO BE FILLED OUT & SIGNED BY AUTHORIZED NNHPD STAFF ONLY*****

A literature search of TCP Records at NNHPD on the above date indicates the following:	
<input type="checkbox"/>	There are <u>no</u> TCP(s) present within the project area and/or buffer zone. The project may proceed as proposed.
<input checked="" type="checkbox"/>	TCP(s) <u>are</u> present within the project area and/or buffer zone. Project may have the potential to adversely affect TCP(s). Please document TCP(s) as a summary (with only general location information) in the body of reports submitted for review to HPD/CRCs. Give full detail on the TCP Documentation Forms in a separate, and clearly labeled, confidential appendix.
<input checked="" type="checkbox"/>	Project may proceed with the following stipulations: <i>note TCPs present #945 #974 #918 #343, project may proceed</i>
<input type="checkbox"/>	Further consultation is required. Consult with the following:
<input type="checkbox"/>	There are no mitigative measures. Project may not proceed.

NNHPD/TCP Program Reviewer:	<i>Kelly Fournier</i>	Date: <i>9.25.15</i>
-----------------------------	-----------------------	----------------------

****Return this form along with report to the NNHPD/Compliance Section****

Note: In addition to the TCP Record search, the consultant must demonstrate that a good-faith effort to consult with 1.) Surface user(s); grazing-permit holder(s) (individuals whose consents for right-of-way have been sought by developer); any other residents in or within view of the proposed project area. 2. Chapter(s) within which the proposed project is located: chapter officers and/or delegate(s) of the Navajo Nation Council; at the request of any of these individuals, the developer's consulting anthropologist will also make a presentation at a meeting of general chapter membership. 3. Other knowledgeable people recommended by the present surface user(s), chapter officials, and chapter members.

ARCHAEOLOGICAL INVENTORY REPORT DOCUMENTATION PAGE (HPD JAN/91)

1. HPD REPORT NO.	2. (FOR HPD USE ONLY)	3. RECIPIENTS ACCESSION NO.
4. TITLE OF REPORT: Cultural Resource Inventory, Castleton Commodities International San Juan LLC's Chaco Pipeline, Huerfano and Upper Fruitland Chapters, San Juan County, New Mexico		5. FIELDWORK DATES 09/08/15 - 09/15/15
Author(s): Mary Errickson		6. REPORT DATE October 9, 2015
7. CONSULTANT NAME AND ADDRESS: Gen'l Charge: Mary Errickson Org. Name: Complete Archaeological Service Associates Org. Address: P.O. Box 1777, Cortez CO 81321 Phone: (970) 565-9229		8. PERMIT NO. B15348
		9. CONSULTANT REPORT NO. CASA 15-34
10. SPONSOR NAME AND ADDRESS: Ind. Responsible: Brian Wood, agent for CCI Org. Name: Permits West Org. Address: 37 Verano Loop, Santa Fe, NM 87508 Phone: 505-466-8120		11. SPONSOR PROJECT NO. n/a
		12. AREA OF EFFECT: 101.167 ac AREA SURVEYED: Total: 253.395ac NIIP: 170.584 ac CASA: 82.811 ac
13. LOCATION (MAP ATTACHED):		
a. Chapter: Upper Fruitland, Huerfano b. Agency: Shiprock and Eastern c. County: San Juan d. State: New Mexico		e. Land Status: Tribal Trust f. UTM Center: see report (NAD 83) g. Area: T 29N, R 14W: Sections, 15, 22, 26, 27, 35, and 36 T 28N, R 13W: Sections 17, 18, 20, 21, 28, 33, and 34 T 27N, R 13W, Sections 3, 10, 11, 13, 14, and 24 T 27N, R 12W, Sections 19, 28, 29, 30, and 33 T 26N, R 12W, Sections 3, 4, 9, and 16, NMPM&B h. 7.5' Map Name(s): Kirtland, Farmington South, Hugh Lake, Gallegos Trading Post, and Carson Trading Post, New Mexico i. Lead Agency: BIA/NR
14. REPORT // OR SUMMARY (REPORT ATTACHED) /X/ OR PRELIMINARY REPORT //		
a. Description of Undertaking: Castleton Commodities International San Juan LLC proposes to lease, maintain, and operate 20.868 miles (110,171.590 feet) of existing, underground gas pipeline near Farmington, New Mexico. A total of 74,166.97 feet of pipeline is located on lands within the Navajo Indian Irrigation Project (NIIP) and the remaining 36,004.62 feet of pipeline is located on non-NIIP lands. Total area of effect for the 40 foot-wide pipeline ROW is 101.167 ac. Total surveyed area is 253.395 ac, including 170.584 ac inventoried under the NIIP project and 82.811 ac inventoried by CASA on non-NIIP lands. At present, no ground disturbing activities are proposed.		
b. Existing Data Review: Record searches were conducted at the Navajo Nation Historic Preservation Office in Window Rock on July 29, September 16, and September 25, 2015, see report.		
c. Area Environmental & Cultural Setting: see report		
d. Field Methods: A Class III inventory was conducted by Mary Errickson walking transects spaced no more than 15 m apart. A 100 foot-wide corridor was inventoried for a 40 foot-wide ROW along 6,821 miles of pipeline on non-NIIP lands.		

15. CULTURAL RESOURCE FINDINGS:

- a. Location/Identification of Each Resource: two Isolated Occurrences (IOs)
- b. Evaluation of Significance of Each Resource (above): The IOs are recommended as not eligible for the NRHP, ARPA, or AIRFA.

16. MANAGEMENT SUMMARY (RECOMMENDATIONS): A determination of "no historic properties affected" is recommended for Castleton Commodities International LLC's Chaco Pipeline at the locations described in this report.

17. CERTIFICATION:	SIGNATURE: <u>Mary Errickson</u>	DATE: 10/09/15
	General Charge Name: <u>Mary Errickson</u>	
	SIGNATURE: <u>Mary Errickson</u>	DATE: 10/09/15
	Direct Charge Name: <u>Mary Errickson</u>	

EXHIBIT "E"

**NAVAJO NATION RIGHT-OF-WAY TERMS AND CONDITIONS
CCI PARADOX MIDSTREAM, LLC (GRANTEE)
(3-1/2" Natural Gas Pipeline – Chaco Products Line Right-Of-Way)**

1. The term of the right-of-way shall be for five (5) years, expiring on October 17, 2020.
2. Consideration for the right-of-way is assessed at \$147,753.00 annually and shall be paid to the Controller of the Navajo Nation, in lawful money of the United States, and a copy of the receipt for such payment provided to the Navajo Nation Minerals Department, or its successor, on or before October 17 of each year. The payment will be subject to annual CPI adjustment, based on July 2015 CPI index.

If consideration has been waived, the Navajo Nation contributes the amount listed above to the project because the project serves a public purpose and will benefit Navajo residents.

3. The Grantee may develop, use, and occupy the right-of-way for the purpose(s) of constructing, operating, and maintaining the 3-1/2" natural gas pipeline. The Grantee may not develop, use, or occupy the right-of-way for any other purpose, nor allow others to use or occupy the right-of-way for any other purpose, without the prior written approval of the Navajo Nation and the Secretary of the Interior. The approval of the Navajo Nation may be granted, granted upon conditions, or withheld at the sole discretion of the Navajo Nation. The Grantee may not develop, use, or occupy the right-of-way for any unlawful purpose.
4. In all activities conducted by the Grantee within the Navajo Nation, the Grantee shall abide by all laws and regulations of the Navajo Nation and of the United States, now in force and effect or as hereafter may come into force and effect, including but not limited to the following:
 - a. Title 25, Code of Federal Regulations, Part 169; subject to the terms of this right-of-way;
 - b. All applicable federal and Navajo Nation antiquities laws and regulations, with the following additional condition: In the event of a discovery, all operations in the immediate vicinity of the discovery must cease and the Navajo Nation Historic Preservation Department must be notified immediately. As used herein, "discovery" means any previously unidentified or incorrectly identified cultural resources, including but not limited to archeological deposits, human remains, or location reportedly associated with Native American religious/traditional beliefs or practices;
 - c. The Navajo Preference in Employment Act, 15 N.N.C. §§ 601 et seq., and the Navajo Nation Business Opportunity Act, 5 N.N.C. §§ 201 et seq.; and
 - d. The Navajo Nation Water Code, 22 N.N.C. § 1101 et seq. Grantee shall apply for and submit all applicable permits and information to the Navajo Nation Water Resources Department, or its successor.
5. The Grantee shall ensure that the air quality of the Navajo Nation is not jeopardized due to violation of applicable laws and regulations by its operations pursuant to the right-of-way.

ENVIRONMENTAL ASSESSMENT

ON BEHALF OF



**CCI SAN JUAN LLC
811 MAIN STREET, SUITE 3500
HOUSTON TX 77002**

FOR

CHACO PIPELINE RIGHT-OF-WAY GRANT

**BUREAU OF INDIAN AFFAIRS
CROWNPOINT AGENCY**

**T. 26 N., R. 12 W. Sections 3, 4, 9, & 16
T. 27 N., R. 12 W. Sections 19, 28, 29, 30, & 33
T. 27 N., R. 13 W. Sections 3, 10, 11, 13, 14, & 24
T. 28 N., R. 13 W. Sections 7, 17, 18, 20, 21, 28, 33, & 24
T. 29 N., R. 14 W. Sections 15, 22, 26, 27, 35, & 36**

**NAVAJO TRIBAL TRUST LANDS
SAN JUAN COUNTY, NEW MEXICO**

OCTOBER 12, 2015

Prepared by:



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1. INTRODUCTION

CCI San Juan, LLC (CCI) has filed an application with the Bureau of Indian Affairs, pursuant to the terms and provisions of U.S.C Chapter 8: Rights of Way Through Indian Lands, Section 323, and to the regulations of the Department of the Interior contained in Title 25, Code of Federal Regulations Part 169, for the grant of right of way to operate and maintain an existing **3.5 inch welded steel natural gas pipeline** and ancillary facilities across Navajo Indian Tribal Trust Lands between the Chaco Gas Plant, south of Farmington, New Mexico and the south bank of the San Juan River near Kirtland, New Mexico. This pipeline was originally built in the 1950s and no new construction is proposed within the current Right-of-Way (ROW).

The existing pipeline ROW between the Chaco Gas Plant and the San Juan River is 21.414 miles (113,053.83') long, 40 feet wide and covers 103.814 acres. The ROW crosses both Navajo Tribal Lands and Bureau of Land Management (BLM) Lands but the majority is on **Navajo Tribal Trust Lands** which covers **20.868 miles (110,171.590')** and **101.167 acres**. This portion of the pipeline ROW will be referred to as the "Proposed Action" in this document. The remaining 2.647 miles (2,882.24') and 2.647 acres of the ROW is on BLM Land and is not covered in this document. See Table 2.1 and Appendix 1 for more detailed location information.

This Environmental Assessment (EA) will address the Proposed Action with regards to potential impacts to the surrounding environment.

1.1 PURPOSE AND NEED

The current pipeline operator ROW holder, Western Gas Resources, intends to abandon the pipeline when the current ROW expires in October, 2015. The purpose of the Proposed Action is to allow CCI to continue to transport natural gas from the Chaco Gas Plant near Farmington, New Mexico northwest to the Kirtland Gas Plant north of the San Juan River, near Kirtland, New Mexico for gathering, separating, and subsequent distribution purposes.

The Proposed Action will help meet the public's need for natural gas resources and bolster the local economy in northwest New Mexico and within the eastern Navajo Reservation.

1.2 CONFORMANCE WITH APPLICABLE LAND USE PLAN

This EA addresses the resources and impacts on a site-specific basis as required by the National Environmental Policy Act (NEPA) of 1969, as amended (Public Law 91-90, 42 USC 4321 et seq.). The proposed project would not be in conflict with any local, county, or state plans. The proposed project will not be in conflict with any local, county, or state plans.

1.3 FEDERAL, STATE OR LOCAL PERMITS, LICENSES OR OTHER CONSULTATION REQUIREMENTS

The Federal Water Pollution Control Act (Clean Water Act) has been amended to provide that certain storm water discharges from field activities or operation, including construction, associated with oil and gas exploration, production, processing, or treatment operation or transmission facilities are exempt from Nation Pollutant Discharge Elimination System permit requirements. The action encourages voluntary application of best management practices for oil and gas field activities and operation to minimize the discharge of pollutants in storm water runoff and protect water quality (FR 06-12-06, V. 71, No. 112). This action applies to all States, Federal lands and Indian Country regardless of whether EPA or a State is the NPDES permitting authority. States have the authority to regulate any discharges, pursuant to state law, through a non-NPDES permit program.

Compliance with Section 106 responsibilities of the National Historic Preservation Act are adhered to by following the BLM – New Mexico SHPO protocol agreement, which is authorized by the National Programmatic Agreement between the *BLM*, the *Advisory Council on Historic Preservation*, and the *National Conference of State Historic Preservation Officers*, and other applicable BLM handbooks.

The Navajo Nation Department of Fish & Wildlife (NNFWD)-Natural Heritage Program and the U.S. Fish and Wildlife Information, Planning, and Conservation System (IPaC) website have been consulted with respect to listed species and/or species of concern that are known to occur or that have the potential to occur within the area of the Proposed Action. Listed species and species of concern will be evaluated in Section 3.0 of this document

Additionally, the Operator is required to:

- Comply with all applicable Federal, State and Local laws and regulations.
- Obtain the necessary permits and/or ROW agreement for the installation of the pipeline and temporary use areas.

2. ALTERNATIVES INCLUDING THE PROPOSED ACTION

2.1 ALTERNATIVE A - NO ACTION

The BLM NEPA Handbook (H-1790-1) states that for Environmental Assessments (EAs) on externally initiated proposed actions, the No Action Alternative generally means that the proposed activity will not take place. This option is provided in 43 CFR 3162.3-2 (h) (2). This alternative would deny the approval of the ROW necessary to construct the Proposed Action on Navajo Tribal Trust lands, and the current land and resource uses would continue to occur in the proposed project area. No mitigation measures would be required.

For this Environmental Assessment, the No Action Alternative is presented for baseline analysis of resource impacts.

2.2 ALTERNATIVE B - PROPOSED ACTION

The Proposed Action involves issuing a new ROW for an existing 3.5 inch natural gas pipeline. The Proposed Action would be located as indicated in Table 2.1 and shown on the location map in Appendix 1.

An application for a new Chaco Pipeline ROW would not result in any new disturbance to the ROW. This alternative is preferable to an alternative that would introduce new disturbance to the landscape from installation of a new pipeline. As the ROW is now, successful reclamation over the last 50 or more years has resulted in barely discernable surface disturbance along most of the ROW route. Successful reclamation stabilizes soils, provides grazing and wildlife habitat, and maintains the integrity of the landscape.

The only new disturbance to the pipeline ROW would come from intermittent maintenance activities of the pipeline. During maintenance activities, all vehicle and equipment use would be limited to the assigned ROW; any disturbance outside the ROW would require additional Navajo approval.

If noxious weeds become established within the ROW, CCI will contact the Navajo Nation EPA Pesticides Program, Glenna Lee, Program Manager (928) 871-7815 for list of approved herbicides and applicators. It will be the CCI's responsibility to monitor, control, and eradicate all invasive, non-native plant species within the proposed project area, throughout the life of the ROW term.

Table 2.1: Land Ownership Summary

<i>Land Ownership</i>	<i>Township/Range</i>	<i>Section(s)</i>	<i>Total Length (feet)</i>	<i>Total Area (acres)</i>
Total Pipeline (BLM & Navajo)	--	--	113,053.83	103.814
BLM	T. 40 S., R. 24E.	7	2,882.24	2.647
Navajo Tribal Trust	T. 26 N., R. 12 W.	3, 4, 9, & 16	110,171.590	101.167
	T. 27 N., R. 12 W.	19, 28, 29, 30, & 33		
	T. 27 N., R. 13 W.	3, 10, 11, 13, 14, & 24		
	T. 28 N., R. 13 W.	7, 17, 18, 20, 21, 28, 33, & 24		
	T. 29 N., R. 14 W.	15, 22, 26, 27, 35, & 36		

2.3 ALTERNATIVES CONSIDERED BUT NOT ANALYZED IN DETAIL

No significant issues were identified for the present location of the Proposed Action during the following activities:

1. On-site inspections;
2. Cultural Resources Inventory;
3. Threatened, Endangered and Special Status Species Surveys of the location of the Proposed Action; and
4. Review of Navajo Nation Department of Fish and Wildlife species of concern known to occur or with the potential to occur on the 7.5 minute Kirtland, Farmington South, Hugh Lake, Gallegos Trading Post, and Carson Trading Post 7.5 minute quadrangles.

No additional alternatives for the Proposed Action have been considered.

3. DESCRIPTION OF AFFECTED ENVIRONMENT

This section describes the environment that would be affected by implementation of the alternatives described in Section 2. Aspects of the affected environment described in this section focus on the relevant major resources or issues. Only aspects of the affected environment that are potentially impacted are described.

3.1 GENERAL TOPOGRAPHY/SURFACE GEOLOGY

The existing pipeline ROW begins at the Chaco Plant, in Section 16, T. 26 N, R. 12 W, and runs north and then northwestward approximately 21 miles to the San Juan River. Upland formations along the route consist primarily of the Ojo Alamo, Nacimiento, Fruitland, and Kirtland formations with the former two generally exposed along escarpments and badlands and the latter on the flatter plains and valleys (USGS 2015). At the north end of the ROW surface formations are alluvial deposits from historic San Juan River deposits. Over its length, the line crosses a variety of landscapes typical of the San Juan Basin including badlands, broad valleys and moderate slopes, dry washes and canyons, alluvial outcroppings, sandstone outcroppings, and the San Juan River corridor.

3.1.1 Direct and Indirect Effects

1. There would be no direct or indirect impacts to land resources such as topography and soils under normal operating conditions as the pipeline is already in place and there will be no new surface disturbance associated with the new ROW application.

3.1.2 Mitigation

1. Surface disturbance and vehicular traffic would be limited to approved locations within the ROW during maintenance and repair activities for the pipeline. Any new disturbance outside of the ROW would require additional approval from the Navajo Nation.
2. Disturbed areas created during regular maintenance activities would be reclaimed. Reseeding and mulching would help prevent soil loss and reduce the effects of seed bank disturbance/loss. Successful reclamation will take two to three years.

3.2 AIR QUALITY

The proposed project is located in San Juan County, New Mexico on Navajo Nation Tribal Trust land and BLM land. New information about greenhouse gases (GHGs), and their effects on national and global climate conditions has emerged. On-going scientific research has identified the potential impacts of GHG emissions such as carbon dioxide (CO₂); methane (CH₄); nitrous oxide (N₂O); water vapor; and several trace gases on global climate. Through complex interactions on a global scale, GHG emissions may cause a net warming effect of the atmosphere, primarily by decreasing the amount of heat energy radiated by the earth back into space. Although GHG levels have varied for millennia (along with corresponding variations in climatic conditions), industrialization and burning of fossil carbon sources have caused GHG concentrations to increase measurably, and may contribute to overall climatic changes, typically referred to as global warming.

In addition, on October 17, 2006, the EPA issued a final ruling on the lowering of the National Ambient Air Quality Standard (NAAQS) for particulate matter ranging from 2.5 micron or smaller particle size. This ruling became effective on December 18, 2006, stating that the 24-hour standard for PM_{2.5} was lowered to 35µg/m³ from the previous standard of 65µg/m³. This revised PM_{2.5} daily NAAQS was promulgated to better protect the public from short-term particle exposure.

The project area lies within the Four Corners Interstate Air Quality Control Region. At the present time, the project area is in attainment for all state and national ambient air quality standards as defined in the Clean Air Act of 1972, as amended). The USEPA, Region IX, and the Navajo Nation EPA Air Quality Control program are responsible for administering air quality regulations on Navajo Tribal Trust Lands in Utah. Navajo Nation Air Quality Control program (NNAQCP) is responsible for the implementation and enforcement of the Navajo Air Pollution Prevention and Control Act (NAPPCA), as described in Title 4, Chapter 11, Sec. 1101-1162 of the NAPPCA and encompassing the area defined in 7 NN Sec. 254.

Air quality is classified into one of four categories (I, IA II, or III) for each type of emission. These categories are:

- I Significant violation of Federal standard from several sources exist for part of the region. Special emission controls needed.
- IA Significant violation of Federal standard from a single source (coal fired power plant) exist for part of the region.
- II Better air quality.
- III Best air quality.

San Juan County is in the Class II category which addresses prevention of significant deterioration of air quality. Air quality parameters range from Class IA for sulfur oxides and particulates to Class III for nitrogen dioxide, carbon monoxide, and photo chemical oxidants. These categories indicate air quality is good to very good, with some deterioration allowed.

The closest Class I area is Mesa Verde National Park, 40 miles east. No deterioration is allowed in a Class I area. Overall air quality is good. Nitrogen dioxide, carbon monoxide, and photo chemical oxidants are rated best. Violations of particulate and sulfur oxide levels occur south of the state line due to coal fired power plants in Arizona and New Mexico.

2.2.1 Direct and Indirect Effects to Air Quality

1. There would be no direct or indirect impacts to air quality under normal operating conditions as the pipeline is already in place and there will be no new surface disturbance associated with the proposed new ROW application.
2. Limited impacts to air quality could come from regular maintenance activities of the pipeline due to blowing dust, traffic dust, and/or vehicle emissions.

3.2.2 Mitigation

1. CCI would apply water for dust control if necessary.
2. Surface disturbance and vehicular traffic would be limited to the approved locations (ROW and existing roads) to reduce air born dust.
3. Vehicles will not be left running when not in use.
4. CCI would comply with the Environmental Protection Agency's Clean Air Act and all applicable tribal, state, and local regulations.

3.3 Water Quality: Surface and Groundwater

The hydrologic setting of the area is characterized by the San Juan River Basin. The San Juan River is a significant tributary of the Colorado River and has its source along the southern slopes of the San Juan Mountains. The average flow of the San Juan River at Shiprock is about 881.2 cubic feet per second (data from 2014)[USGS, 2015]. The contributing drainage area for this reach of the San Juan River drains about 12,900 square miles, with an overall drainage area of >24,000 square miles. The San Juan River is the only significant source of freshwater in this arid

region. Precipitation events provide some surface and subsurface flow into the San Juan; however most runoff in ephemeral flows is lost to evapotranspiration.

Water quality in the San Juan River is generally good, however recent toxic spills from mine waste into the Animas River (a major tributary of the San Juan in southwest Colorado) has impacted water quality in the San Juan River in the short term and will likely have some long term affects; the extent of which is yet to be determined (EPA, 2015). Contaminants in surface water flows in the vicinity of the project area would likely come primarily from oil and gas operations, illegal dumping, and livestock. Unstable and bare soils along with sparse vegetation results in flood events contributing large amounts of sediment to ephemeral and perennial channels.

Average annual precipitation in the project areas is 8.07 inches [WRCC, 2015].

The main aquifer underlying the project area is the Uinta Animas-Animas aquifer. In the San Juan Basin, this aquifer consist of the San Jose formation, the underlying Animas Formation and its lateral equivalent, the Nacimiento Formation, and the Ojo Alamo Sandstone. The San Jose Formation is the uppermost significant bedrock formation in the San Juan Basin and primarily consists of permeable, coarse, arkosic sandstone interlayered with mudstone. The Animals and Nacimiento Formations and the Ojo Alamo Sandstone primarily consist of permeable conglomerate and medium to very coarse sandstone interlayered with relatively impermeable shale and mudstone. Thickness of the aquifer in this region is approximately is 3,500 feet or less. Dissolved solids concentrations in the water in the Uinta-Animas aquifer in the Uinta Basin generally range from 500 to 3,000 milligrams per liter; concentrations can exceed 10,000 milligrams per liter in some of the deeper parts of the Uinta formation. Smaller dissolved solids concentrations are prevalent near recharge areas where the water usually is a calcium or magnesium bicarbonate type. Larger dissolved solids concentrations are more common near discharge areas where the water generally is a sodium bicarbonate or sulfate type [USGS, 2015].

There are numerous shallow water wells primarily purposed for oil and gas development and irrigation located within a one mile radius of the Proposed Action.

The Proposed Action is located within a 100-year floodplain where it crosses enters the San Juan River corridor. CCI is responsible for ensuring they are in compliance with Environmental Protection Agency (EPA) and Clean Water Act (CWA) Section 402 and Section 404 National Pollutant Discharge Elimination System (NPDES) through existing permits associated with the pipeline.

3.3.1 Direct and Indirect Effects to Water Quality

1. There would be no direct or indirect impacts to water quality under normal operating conditions as the pipeline is already in place and there will be no new surface disturbance associated with the proposed ROW application.

2. If there is a leak in the pipeline contaminants could directly enter the San Juan River water system by migrating into ground water or being carried, via surface runoff, into local water ways and the San Juan River.

3.3.2 Mitigation

The following actions will be taken to protect surface and groundwater resources:

1. Potential environmental contaminants accidentally released from the existing pipeline will be properly contained and spilled contaminants will be cleaned up entirely, immediately after the spill, to prevent run-off of contaminants into surface hydrology or infiltration into groundwater. Clean-up methods will follow current EPA guidelines and Best Management Practices.

3.4 SOILS

The soils in the San Juan Basin were formed primarily in two kinds of parent material: alluvial sediment and sedimentary rock. The alluvial sediment is material that was deposited in river valleys and on mesas, plateaus, and ancient river terraces. The material has been mixed and sorted in transport and has a wide range in mineralogy and particle size. Sedimentary parent material consists mainly of sandstone and shale bedrock. These shale and resistant sandstone beds form prominent structural benches, buttes and mesas bounded by cliffs.

There are four soil associations within the project area: Shiprock-Sheppard-Avalon; Persayo-Farb-Blancot-Badland; Turley-Fruitland; and Uffens-Shiprock-Sheppard-Doak [Soilweb, 2015]. These soils are generally derived from sandstone and shale and/or eolian deposits derived from sandstone and shale. The depositional soils are generally well drained soils with low runoff. The Badland, and Sheppard soils are excessively and somewhat excessively drained soils originating in eolian deposits derived from sandstone. They have low runoff and are found in valleys, dunes, interdunes, and uplands. The Badland and outcropping associations are generally shallow and rocky and are poorly drained with high runoff. Portions of the Proposed Action are located within a 100 year floodplain (i.e., San Juan River and associated floodplain), these soils are derived from alluvial deposits and are deep and gravelly.

3.4.1 Direct and Indirect Effects to Soils – Hydrology - Watershed

1. There would be no direct or indirect impacts to soils under normal operating conditions as the pipeline is already in place and there will be no new surface disturbance associated with the proposed new ROW application.

3.4.2 Mitigation

1. Surface disturbance and vehicular traffic would be limited to approved locations within the ROW during maintenance and repair activities for the pipeline. Any new disturbance outside of the ROW would require additional approval from the Navajo Nation.
2. Disturbed areas created during regular maintenance activities would be reclaimed. Reseeding and mulching would help prevent soil loss and reduce the effects of seed bank disturbance/loss. Successful reclamation will take two to three years.

3.5 HAZARDOUS OR SOLID WASTE MATERIALS

The pipeline is already in place and functioning properly. No hazardous waste materials or solid waste materials are anticipated within the ROW application. Therefore, no mitigation is necessary. In the event of a spill (pipeline failure), CCI would follow recommended EPA regulations and BMPs during immediate cleanup efforts.

3.6 LAND USE

Almost all of the Proposed Action would be located on Navajo Tribal Trust surface. Current land use in the area is livestock grazing, oil and gas development, agriculture, fishing, and recreation. A Field Clearance request has been issued to Navajo Nation Crownpoint Agency. Field clearance approval would result in any grazing permittees overlapping the project area receiving compensation as determined by the Navajo Nation.

1.1.1. Direct and Indirect Effects to Land Use

There would be no direct or indirect impacts to current land use under normal operating conditions as the pipeline is already in place and there will be no new surface disturbance associated with the proposed new ROW application.

1.1.2. Mitigation

1. Surface disturbance and vehicular traffic would be limited to approved locations within the ROW during maintenance and repair activities for the pipeline. Any new disturbance outside of the ROW would require additional approval from the Navajo Nation.
2. Disturbed areas created during regular maintenance activities would be reclaimed. Reseeding and mulching would help prevent soil loss and reduce the effects of seed bank disturbance/loss. Successful reclamation will take two to three years.
3. Land users (grazing permittees) will be compensated as determined by the Navajo Nation.

3.7 VEGETATION, FORESTRY

The project area has several plant community types. At the north end of the pipeline, along the San Juan river floodplain, the plant community has been greatly altered due to residential and

agricultural development. The less disturbed areas are dominated by Russian thistle (*Salsola tragus*), Indian ricegrass (*Achnatherum hymenoides*), and broom snakeweed (*Gutierrezia sarothrae*). Along the shale bluffs above the floodplain, the community shifts to a salt desert shrub community dominated by shadscale (*Atriplex confertifolia*), Bigelow's rabbitbrush, and broadleaf wild buckwheat (*Eriogonum corymbosum*). As the pipeline heads southward, the Navajo Agricultural Products (NAPI) fields support numerous weedy species. These include summer cypress (*Bassia scoparia*), horseweed (*Conyza canadensis*), and cheatgrass (*Bromus tectorum*), among others. The pipeline gradually makes its way up a mesa that is frequently cut by drainages and washes. The plants along these water ways include salt cedar (*Tamarix chinensis*), rubber rabbitbrush (*Ericameria nauseosa* var. *graveolens*), alkali sacaton (*Sporobolus airoides*), and Rocky Mountain beeplant (*Cleome serrulata*). Badland areas crossed by the line are dominated by Torrey's ephedra (*Ephedra torreyana*) and wild buckwheat (*Stenogonum salsuginosum*). Desert grassland community types are also crossed by the pipeline. Species common in these areas include galleta (*Pleuraphis jamesii*), Indian ricegrass, cheatgrass, and blue grama (*Bouteloua gracilis*). There are few trees in the in the project area; those present include juniper (*Juniperus* sp.) and pinyon (*Pinus edulis*).

3.7.1 Direct and Indirect Effects to Vegetation and Forestry

There would be no direct or indirect impacts to vegetation or forestry under normal operating conditions as the pipeline is already in place and there will be no new surface disturbance associated with the proposed new ROW application. The ROW has been reclaimed and supports native vegetation as well as weedy species.

3.7.2 Mitigation

Disturbed areas created during regular maintenance activities would be reclaimed. Reseeding and mulching would help prevent soil loss and reduce the effects of seed bank disturbance/loss. Successful reclamation will take two to three years.

3.8 INVASIVE, NON-NATIVE SPECIES

The Bureau of Indian Affairs lists three species of noxious weeds as potential invaders and fourteen species as new invaders on the Navajo Reservation (OSM, 1999). Four species, halogeton (*Halogeton glomeratus*), musk thistle (*Carduus nutans*), Canada thistle (*Cirsium arvense*), and Russian knapweed (*Acroptilon repens*) are present in the project area.

These species are all Priority B noxious weeds, indicating that they are new noxious weeds known to have invaded isolated locales on the reservation. Emphasis is placed on immediate control, prevention of seed spread and eradication. Education, awareness, identification, control and monitoring will be the priorities.

For further information on these invasive species, please refer to the Plant Report (Appendix 3).

3.8.1 Direct and Indirect Effects

Portions of the existing ROW are already infested with noxious weeds (See Plant Report-Appendix 3). There would be no new direct or indirect impacts from noxious weeds under normal operating conditions as the pipeline is already in place and there will be no new surface disturbance associated with the proposed new ROW application. The ROW has been reclaimed and supports native vegetation as well as weedy species and noxious weeds.

3.8.2 Mitigation

CCI will make every effort to ensure that further infestations of noxious weeds do not spread within the ROW. CCI will contact the Navajo Nation EPA Pesticides Program, Glenna Lee, Program Manager (928) 871-7815 for list of approved herbicides and applicators to manage the infestations that are currently within the Proposed Action ROW.

3.9 WILDLIFE

Wildlife occurring in the area is typical of arid grasslands and shrublands of the Great Basin desert. This includes passerines such as horned larks (*Eremophila alpestris*), sage sparrows (*Amphispiza belli*), as well as jackrabbits (*Lepus californicus*), kangaroo rats (*Dipodomys spp.*) and whiptail lizards (*Aspidoscelis spp.*). An inventory of observed species is included in the Wildlife Report for the project area (Appendix 4).

3.9.1 Direct and Indirect Effects to Wildlife

There would be no direct or indirect impacts to wildlife under normal operating conditions as the pipeline is already in place and there will be no new surface disturbance associated with the proposed new ROW application. The ROW has been reclaimed and provides some wildlife habitat.

3.9.2 Mitigation

During regular maintenance activity, vehicles and equipment would be confined to the approved ROW. Short term impacts to wildlife during maintenance activity along the ROW are unavoidable and include displacement and possible death due to vehicles traveling over habitat. Reclamation of areas disturbed during maintenance activities would reduce the long-term impacts to wildlife that use the area. Reseeding disturbed areas would replace vegetation removed during construction.

3.10 THREATENED, ENDANGERED AND SPECIAL STATUS SPECIES

Twenty-four (24) Navajo Department of Fish and Wildlife- Natural Heritage Program (NNHP) listed species have potential to occur within the project area: the burrowing owl (*Athene*

cunicularia), golden eagle (*Aquila chrysaetos*), bald eagle (*Haliaeetus leucocephalus*), ferruginous hawk (*Buteo regalis*), southwestern willow flycatcher (*Empidonax traillii extimus*), yellow warbler (*Dendroica petechia*), belted kingfisher (*Megaceryle alcyon*), mountain plover (*Charadrius montanus*), yellow-billed cuckoo (*Coccyzus americanus*), peregrine falcon (*Falco peregrinus*), kit fox (*Vulpes macrotis*), black-footed ferret (*Mustela nigripes*), northern leopard frog (*Lithobates pipiens*), bluehead sucker (*Catostomus discobolus*), Colorado pikeminnow (*Ptychocheilus lucius*), razorback sucker (*Xyrauchen texanus*), roundtailed chub (*Gila robusta*), a mottled sculpin (*Cottus bairdi*), Mesa Verde cactus (*Sclerocactus mesae-verdae*), Brack's cactus (*Sclerocactus cloveriae* subsp. *brackii*), Parish's alkali grass (*Puccinellia parishii*), Mancos milkvetch (*Astragalus humillimus*), San Juan milkweed (*Asclepias sanjuanensis*), and Aztec gilia (*Aliceilla formosa*). Six species, the southwestern willow flycatcher, the yellow-billed cuckoo, the black-footed ferret, the razorback sucker, the Colorado pikeminnow, and Knowlton cactus (*Pediocactus knowltonii*) are also federally listed under the Endangered Species Act (ESA) [Appendix 3 and 4]. No federally listed species were observed within the project area. One (1) NESL listed species, the burrowing owl, was observed within the project area. See Appendices 3 and 4 for further discussion of the potential for threatened, endangered, or special status species to occur within the project area.

3.10.1 Direct and Indirect Effects to Threatened, Endangered, and Special Status Species

There would be no direct or indirect impacts to NNHP or USFWS threatened or endangered species under normal operating conditions as the pipeline is already in place and there will be no new surface disturbance associated with the proposed new ROW application. The ROW has been reclaimed and provides some wildlife habitat.

3.10.2 Mitigation

During regular maintenance activity, vehicles and equipment would be confined to the approved ROW. Short term impacts to wildlife during maintenance activity along the ROW are unavoidable and include displacement and possible death due to vehicles traveling over habitat. Reclamation of areas disturbed during maintenance activities would reduce the long-term impacts to wildlife that use the area. Reseeding disturbed areas would replace vegetation removed during construction..

3.11 VISUAL RESOURCES

Visual Resource Management (VRM) on Navajo Lands is generally conducted in accordance with BLM Handbook 8410 and BLM Manual 8411 as follows:

VRM Class	Objective	Provisions	Change
<u>Class I</u>	to preserve the existing character of the landscape	natural ecological changes; does not preclude very limited management activities	level of change to the characteristic landscape should be very low
<u>Class II</u>	to retain the existing character of the landscape	management activities may be seen, but should not attract the attention of the casual observer	changes to the landscape must repeat the basic elements of form, line, color, and texture
<u>Class III</u>	to partially retain the existing character of the landscape	change to the landscape should be moderate; management activities may attract the attention of the casual observer, but should not dominate the view	changes should repeat the basic elements found in the predominant natural features
<u>Class IV</u>	to provide for management activities that require major modifications to the existing character of the landscape	change to the landscape can be high; management activities may dominate the view and may be the major focus of viewer attention	every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repetition of the basic visual elements

The Farmington Field Office VRM Program has not inventoried lands outside of New Mexico for VRM classification. Current management documents from the Monticello Field Office describe the lands East of US 191 designated Class III. Class III areas must partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention, but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

3.11.1 Direct and Indirect Effects to Visual Resources

The existing ROW has been reclaimed, but there is still some evidence of the ROW to the casual observer. Because the pipeline is already in place, no impacts to visual resources are anticipated.

3.11.2 Mitigation

No mitigation for Visual Resources is necessary since there is no new disturbance associated with the ROW.

3.12 CULTURAL OR HISTORICAL VALUES

Complete Archeological Services Associates performed a Class III archaeological survey in the project area in September, 2015. A determination of “no historic properties affected” was made. The Cultural Resources Compliance Form is attached as Appendix 5.

3.12.1 Direct and Indirect Effects

Because no new disturbance is associated with the ROW, no impacts to cultural resources are anticipated.

3.12.2 Mitigation

If during regular maintenance of the pipeline any cultural and/or paleontology resource (historic or prehistoric site or object) discovered by CCI or any person working on their behalf, were discovered, it would be immediately reported to the Navajo Nation Historic Preservation Department (NNHPD) at (928) 871-7148 and/or the BLM Farmington Field Office Archaeologist.

3.13 ENVIRONMENTAL JUSTICE

Executive Order 12898 requires federal agencies to assess projects to ensure there is no disproportionately high or adverse environmental, health, or safety effects on minority and low-income populations. Minorities comprise a large proportion of the population residing inside the boundaries of the Farmington Field Office (see pages 3-106 to 3-107 of the PRMP/FEIS for more details on ethnicity and poverty rates).

3.13.1 Direct and Indirect Effects to Environmental Justice

Because there is no new disturbance in association with the pipeline ROW, no impacts to Environmental Justice are anticipated and no mitigation is necessary.

3.14 PUBLIC HEALTH AND SAFETY

3.14.1 Direct and Indirect Effects to Public Safety

The existing pipeline should not pose any direct impacts to public health or safety. It is well marked with pipeline markers. The new ROW would not have any direct or indirect impacts to public health or safety, therefore no mitigation is necessary.

3.15 CUMULATIVE EFFECTS

There will be no new disturbance associated with the Proposed Action. Previous disturbance associated with the original pipeline totaled approximately 101.167 acres, much of which has been reclaimed. However, it is reasonable to assume that the cumulative impact of the original pipeline is still occurring. This assumption comes from the fact that even though there is no new disturbance associated with an issuance of a new ROW, evidence of the original pipeline ROW is still apparent and is impacting the visual aspect of the landscape. Additionally, though the ROW has been reclaimed, it has not been returned to the pre-pipeline condition regarding native plant communities and represents a divergence from the pre-pipeline native plant community. These impacts, as well as other more subtle impacts from the existing pipeline are contributing to

the cumulative impacts of the region. Analysis of cumulative impacts for the reasonably foreseeable future in the region would include development of new oil wells, water injection wells, power lines, and associated facilities on public and Tribal lands in the region. These activities are currently at a lull due to low oil and gas prices. However it is expected that these developments will continue to occur in the vicinity of the Proposed Action area contributing to the overall impacts from past and present projects.

4. CONSULTATION/COORDINATION

This section includes individuals or organizations that make up the interdisciplinary team that evaluated the project area for the development of this document.

Table 5.1 On-site inspection dates and Interdisciplinary Team

On-site Inspection			
Name	Title	Organization	Date of Onsite
	Archaeologist		
United Field Services	Surveyor	United Field Services	August 2015
Celia Cook	Consultant, Author	Permits West, Inc.	July 2015
Charlie Black	Wildlife Biologist	Permits West, Inc.	July and August, 2015
Marian Rohman	Botanist	Permits West, Inc.	August and September, 2015

Contact Information:

Permits West, Inc.
37 Verano Loop
Santa Fe, NM87508
505-466-8120
FAX: 505-466-9682

CCI San Juan, LLC
811 MAIN STREET, SUITE 3500
HOUSTON TX 77002

5. REFERENCES

- Natural Resources Conservation Services (NRCS), U.S. Department of Agriculture. 2015. Web Soil Survey. Web. <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>. Accessed September, 2015
- Navajo Nation Division of Natural Resources Department of Fish and Wildlife (NNDFW). September 10, 2008. Navajo Endangered Species List. NNDFW, P. O. Box 1480 Window Rock, Arizona 86515.
- Navajo Natural Heritage Program (NNHP). Montezuma Creek North Pipeline Correspondence, 15perm112. P. O. Box 1480, Window Rock, AZ.
- Office of Surface Mining, United States Department of the Interior. (OSM) 1999. *A Guide to Noxious Weeds of the Navajo Reservation*. U.S. Department of the Interior.
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Monthly Climate Summary: 02/01/1914 to 03/31/1978
<http://www.wrcc.dri.edu>

6. APPENDICES

1. Project Location Map
2. Navajo Endangered Species List (NESL) response
3. Plant Survey Report
4. Threatened, Endangered, And Special Status Wildlife Species Report
5. Cultural Resources Compliance Form (BRCF)
6. Biological Resources Compliance Form (BRCF)



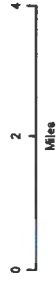
Chaco Pipeline Overview Map

Navajo Indian Reservation
San Juan County, New Mexico

USGS Quads:
Kirtland, Farmington South,
Hugh Lake, Gallegos Trading Post,
Carson Trading Post

— Pipeline to be Surveyed

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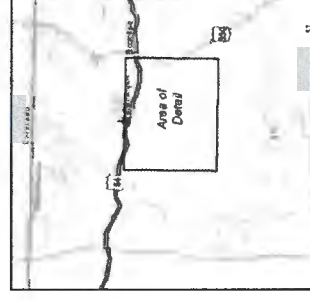


NAD 1983 New Mexico State Plane
West Feet

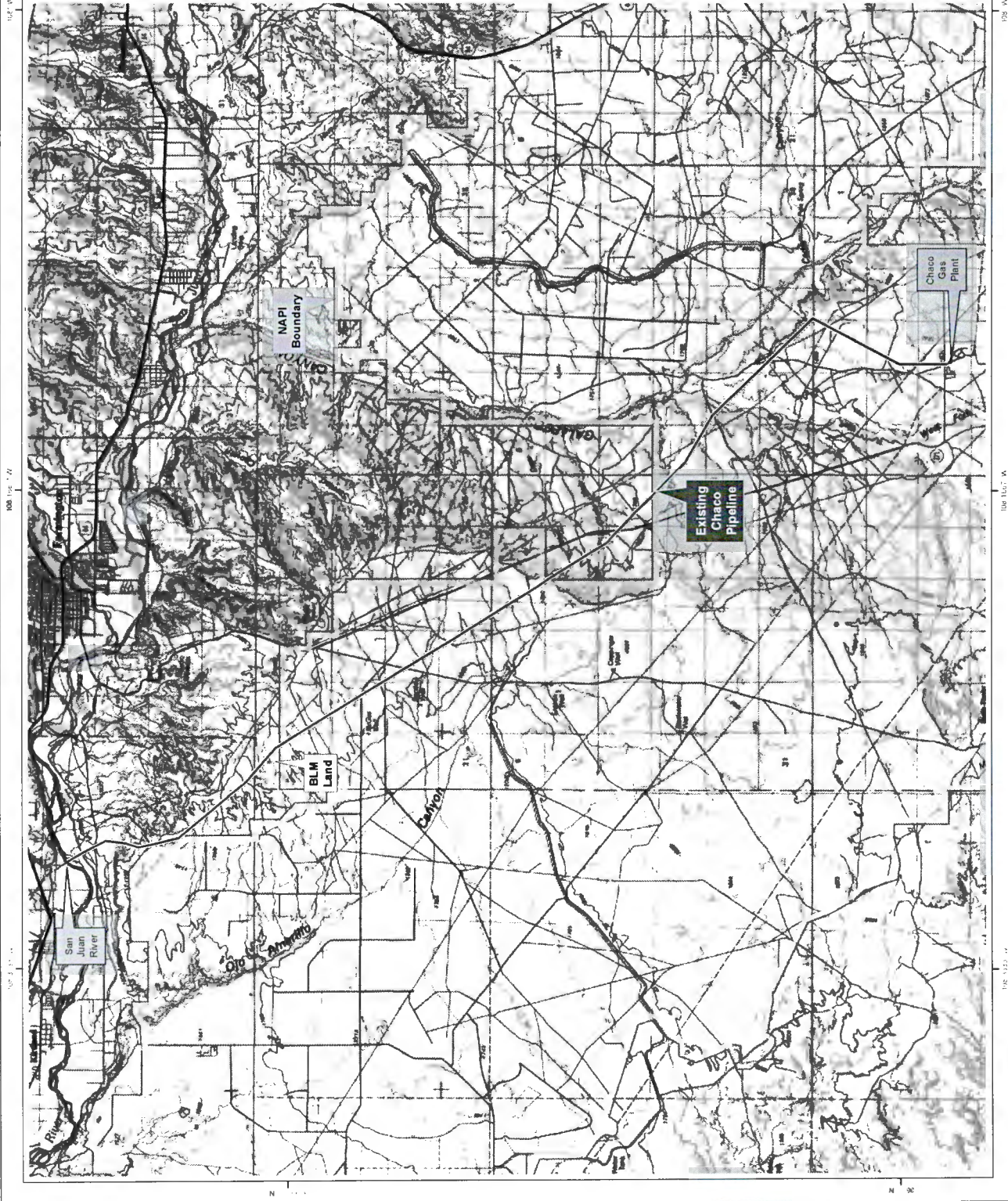


PERMIT WEST

Prepared by Permit West, Inc. October 8, 2015
for CCI, Inc.



Appendix 1-1





PO Box 1480
Window Rock, AZ
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P 928.871.6472
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<http://nnhp.nndfw.org>

15perm108

22-July-2015

Mike Deutsch
Permits West, Inc.
37 Verano Loop
Santa Fe, NM 87508

SUBJECT: Chaco Pipeline Renewal Project

Mike Deutsch,

NNHP has performed an analysis of your project in comparison to known biological resources of the Navajo Nation and has included the findings in this letter. The letter is composed of seven parts. The sections as they appear in the letter are:

1. **Known Species** – a list of all species within relative proximity to the project
2. **Potential Species** – a list of potential species based on project proximity to respective suitable habitat
3. **Quadrangles** – an exhaustive list of quads containing the project
4. **Project Summary** – a categorized list of biological resources within relative proximity to the project grouped by individual project site(s) or quads
5. **Conditional Criteria Notes** – additional details concerning various species, habitat, etc.
6. **Personnel Contacts** – a list of employee contacts
7. **Resources** – identifies sources for further information

Known Species lists "species of concern" known to occur within proximity to the project area. Planning for avoidance of these species is expected. If no species are displayed then based upon the records of the Navajo Nation Department of Fish and Wildlife (NNDFW) there are no "species of concern" within proximity to the project. Refer to the Navajo Endangered Species List (NESL) Species Accounts for recommended avoidance measures, biology, and distribution of NESL species on the Navajo Nation (http://nnhp.nndfw.org/sp_account.htm).

Potential Species lists species that are potentially within proximity to the project area and need to be evaluated for presence/absence. If no species are found within the Known or Potential Species lists, the project is not expected to affect any federally listed species, nor significantly impact any tribally listed species or other species of concern. Potential for species has been determined primarily on habitat characteristics and species range information. A thorough habitat analysis, and if necessary, species specific surveys, are required to determine the potential for each species.

Species of concern include protected, candidate, and other rare or otherwise sensitive species, including certain native species and species of economic or cultural significance. For legally protected species, the following tribal and federal statuses are indicated: NESL, federal Endangered Species Act (ESA), Migratory Bird Treaty Act (MBTA), and Eagle Protection Act (EPA). No legal protection is afforded species with only ESA candidate, NESL group 4 status, and species listed on the Sensitive Species List. Please be aware of

these species during surveys and inform the NNDFW of observations. Reported observations of these species and documenting them in project planning and management is important for conservation and may contribute to ensuring they will not be up listed in the future.

In any and all correspondence with NNDFW or NNHP concerning this project please cite the Data Request Code associated with this document. It can be found in this report on the top right corner of the every page. Additionally please cite this code in any biological evaluation documents returned to our office.

1. Known Species (NESL=Navajo Endangered Species List, FE=Federal Endangered, FT=Federal Threatened, FC=Federal Candidate)

Species

AQCH = *Aquila chrysaetos* / Golden Eagle NESL G3
 ASSA = *Asclepias sanjuanensis* / San Juan Milkweed NESL G4
 ATCU = *Athene cucularia* / Burrowing Owl NESL G4
 BURE = *Buteo regalis* / Ferruginous Hawk NESL G3
 COBA = *Cottus bairdi* / Mottled Sculpin NESL G4
 LIPI = *Lithobates pipiens* / Northern Leopard Frog NESL G2
 PUPA = *Puccinellia parishii* / Parish's Alkali Grass NESL G4
 **All or parts of this project currently are within areas protected by the Golden and Bald Eagle Nest Protection Regulations; consult with NNDFW zoologist or EA Reviewer for more information and recommendations.

2. Potential Species

Species

ALFO = *Aliciella formosa* / Aztec Gilia NESL G4
 AQCH = *Aquila chrysaetos* / Golden Eagle NESL G3
 ASSA = *Asclepias sanjuanensis* / San Juan Milkweed NESL G4
 ATCU = *Athene cucularia* / Burrowing Owl NESL G4
 BURE = *Buteo regalis* / Ferruginous Hawk NESL G3
 CADI = *Catostomus discobolus* / Bluehead Sucker NESL G4
 CEAL = *Ceryle alcyon* / Belted Kingfisher NESL G4
 CHMO = *Charadrius montanus* / Mountain Plover NESL G4
 COAM = *Coccyzus americanus* / Yellow-billed Cuckoo NESL G2 FC
 COBA = *Cottus bairdi* / Mottled Sculpin NESL G4
 DEPE = *Dendroica petechia* / Yellow Warbler NESL G4
 EMTREX = *Empidonax traillii extimus* / Southwestern Willow Flycatcher NESL G2 FE
 FAPE = *Falco peregrinus* / Peregrine Falcon NESL G4
 GIRO = *Gila robusta* / Roundtail Chub NESL G2
 HALE = *Haliaeetus leucocephalus* / Bald Eagle NESL G2
 LIPI = *Lithobates pipiens* / Northern Leopard Frog NESL G2
 MUNI = *Mustela nigripes* / Black-footed Ferret NESL G2 FE
 PTLU = *Ptchocheilus lucius* / Colorado Pikeminnow NESL G2
 PUPA = *Puccinellia parishii* / Parish's Alkali Grass NESL G4
 SCCLBR = *Sclerocactus cloveriae* ssp. *brackii* / Brack Hardwall Cactus NESL G4
 VUMA = *Vulpes macrotis* / Kit Fox NESL G4
 XYTE = *Xyrauchen texanus* / Razorback Sucker NESL G2 FE

3. Quadrangles (7.5 Minute)

Quadrangles

Carson Trading Post (36108-D1) / NM
 Farmington South (36108-F2) / NM
 Gallegos Trading Post (36108-E1) / NM
 Hugh Lake (36108-E2) / NM
 Kirtland (36108-F3) / NM

4. Project Summary *(EO1 Mile/EO 3 Miles=elements occuring within 1 & 3 miles., MSO=mexican spotted owl PACs, POTS=potential species, RCP=Biological Areas)*

SITE	EO1MI	EO3MI	QUAD	MSO	POTS	AREAS
Chaco Pipeline	AQCH, COBA	AQCH, ASSA, BURE, COBA	Kirtland (36108-F3) / NM	None	XYTE, LIPI, PTLU, MUNI, HALE, GIRO, FAPE, EMTREX, DEPE, COBA, COAM, CHMO, CEAL, CADI, BURE, ATCU, AQCH, SCCLBR, ASSA, ALFO	Area 1, Area 3
Chaco Pipeline	None	AQCH, ASSA	Farmington South (36108-F2) / NM	None	XYTE, VUMA, LIPI, PTLU, MUNI, GIRO, FAPE, EMTREX, COBA, CHMO, BURE, ATCU, AQCH, SCCLBR, PUPA, ASSA, ALFO	Area 3
Chaco Pipeline	BURE, PUPA	ASSA, ATCU, BURE, PUPA, LIPI	Hugh Lake (36108-E2) / NM	None	VUMA, LIPI, MUNI, EMTREX, CHMO, BURE, ATCU, AQCH, SCCLBR, PUPA, ASSA, ALFO	Area 3
Chaco Pipeline	ASSA, BURE, PUPA	ASSA, BURE, PUPA	Gallegos Trading Post (36108-E1) / NM	None	VUMA, MUNI, EMTREX, CHMO, BURE, ATCU, AQCH, SCCLBR, PUPA, ASSA, ALFO	Area 1, Area 3
Chaco Pipeline	ASSA	ASSA, BURE	Carson Trading Post (36108-D1) / NM	None	VUMA, MUNI, EMTREX, CHMO, BURE, ATCU, AQCH, SCCLBR, ASSA, ALFO	Area 3

5. Conditional Criteria Notes *(Recent revisions made please read thoroughly. For certain species, and/or circumstances, please read and comply)*

- A. **Biological Resource Land Use Clearance Policies and Procedures (RCP)** - The purpose of the RCP is to assist the Navajo Nation government and chapters ensure compliance with federal and Navajo laws which protect, wildlife resources, including plants, and their habitat resulting in an expedited land use clearance process. After years of research and study, the NNDFW has identified and mapped wildlife habitat and sensitive areas that cover the entire Navajo Nation.
The following is a brief summary of six (6) wildlife areas:
1. **Highly Sensitive Area** – recommended no development with few exceptions.
2. **Moderately Sensitive Area** – moderate restrictions on development to avoid sensitive species/habitats.
3. **Less Sensitive Area** – fewest restrictions on development.
4. **Community Development Area** – areas in and around towns with few or no restrictions on development.
5. **Biological Preserve** – no development unless compatible with the purpose of this area.
6. **Recreation Area** – no development unless compatible with the purpose of this area.
None - outside the boundaries of the Navajo Nation
This is not intended to be a full description of the RCP please refer to the our website for additional information at <http://www.nndfw.org/clup.htm>.
- B. **Raptors** – If raptors are known to occur within 1 mile of project location: Contact Chad Smith at 871-7070 regarding your evaluation of potential impacts and mitigation.
o **Golden and Bald Eagles**- If Golden or Bald Eagle are known to occur within 1 mile of the project, decision makers need to ensure that they are not in violation of the Golden and Bald Eagle Nest Protection Regulations found at http://nnhp.nndfw.org/docs_reps/gben.pdf.
o **Ferruginous Hawks** – Refer to "Navajo Nation Department of Fish and Wildlife's Ferruginous Hawk Management Guidelines for Nest Protection" http://nnhp.nndfw.org/docs_reps.htm for relevant information on avoiding impacts to Ferruginous Hawks within 1 mile of project location.
o **Mexican Spotted Owl** - Please refer to the Navajo Nation Mexican Spotted Owl Management Plan http://nnhp.nndfw.org/docs_reps.htm for relevant information on proper project planning near/within spotted owl protected activity centers and habitat.
- C. **Surveys** – Biological surveys need to be conducted during the appropriate season to ensure they are complete and accurate please refer to NN Species Accounts http://nnhp.nndfw.org/sp_account.htm. Surveyors on the Navajo Nation must be permitted by the Director, NNDFW. Contact Jeff Cole at (928) 871-7068 for permitting procedures. Questions pertaining to surveys should be directed to the NNDFW Zoologist (Chad Smith) for animals at 871-7070, and Botanist (Andrea Hazelton) for plants at (928)523-3221. Questions regarding biological evaluation should be directed to Jeff Cole at 871-7068.
- D. **Oil/Gas Lease Sales** – Any settling or evaporation pits that could hold contaminants should be lined and covered. Covering pits, with a net or other material, will deter waterfowl and other migratory bird use. Lining pits will protect ground water quality.
- E. **Power line Projects** – These projects need to ensure that they do not violate the regulations set forth in the Navajo Nation Raptor Electrocutation Prevention Regulations found at http://nnhp.nndfw.org/docs_reps/repr.pdf.

- F. **Guy Wires** – Does the project design include guy wires for structural support? If so, and if bird species may occur in relatively high concentrations in the project area, then guy wires should be equipped with highly visual markers to reduce the potential mortality due to bird-guy wire collisions. Examples of visual markers include aviation balls and bird flight diverters. Birds can be expected to occur in relatively high concentrations along migration routes (e.g., rivers, ridges or other distinctive linear topographic features) or where important habitat for breeding, feeding, roosting, etc. occurs. The U.S. Fish and Wildlife Service recommends marking guy wires with at least one marker per 100 meters of wire.
- G. **San Juan River** – On 21 March 1994 (Federal Register, Vol. 59, No. 54), the U.S. Fish and Wildlife Service designated portions of the San Juan River (SJR) as critical habitat for *Ptychocheilus lucius* (Colorado pikeminnow) and *Xyrauchen texanus* (Razorback sucker). Colorado pikeminnow critical habitat includes the SJR and its 100-year floodplain from the State Route 371 Bridge in T29N, R13W, sec. 17 (New Mexico Meridian) to Neskahai Canyon in the San Juan arm of Lake Powell in T41S, R11E, sec. 26 (Salt Lake Meridian) up to the full pool elevation. Razorback sucker critical habitat includes the SJR and its 100-year floodplain from the Hogback Diversion in T29N, R16W, sec. 9 (New Mexico Meridian) to the full pool elevation at the mouth of Neskahai Canyon on the San Juan arm of Lake Powell in T41S, R11E, sec. 26 (Salt Lake Meridian). All actions carried out, funded or authorized by a federal agency which may alter the constituent elements of critical habitat must undergo section 7 consultation under the Endangered Species Act of 1973, as amended. Constituent elements are those physical and biological attributes essential to a species conservation and include, but are not limited to, water, physical habitat, and biological environment as required for each particular life stage of a species.
- H. **Little Colorado River** – On 21 March 1994 (Federal Register, Vol. 59, No. 54) the U.S. Fish and Wildlife Service designated Critical Habitat along portions of the Colorado and Little Colorado Rivers (LCR) for *Gila cypha* (humpback chub). Within or adjacent to the Navajo Nation this critical habitat includes the LCR and its 100-year floodplain from river mile 8 in T32N R6E, sec. 12 (Salt and Gila River Meridian) to its confluence with the Colorado River in T32N R5E sec. 1 (S&GRM) and the Colorado River and 100-year floodplain from Nautuloid Canyon (River Mile 34) T36N R5E sec. 35 (S&GRM) to its confluence with the LCR. All actions carried out, funded or authorized by a federal agency which may alter the constituent elements of Critical Habitat must undergo section 7 consultation under the Endangered Species Act of 1973, as amended. Constituent elements are those physical and biological attributes essential to a species conservation and include, but are not limited to, water, physical habitat, and biological environment as required for each particular life stage of a species.
- I. **Wetlands** – In Arizona and New Mexico, potential impacts to wetlands should also be evaluated. The U.S. Fish & Wildlife Service's National Wetlands Inventory (NWI) maps should be examined to determine whether areas classified as wetlands are located close enough to the project site(s) to be impacted. In cases where the maps are inconclusive (e.g., due to their small scale), field surveys must be completed. For field surveys, wetlands identification and delineation methodology contained in the "Corps of Engineers Wetlands Delineation Manual" (Technical Report Y-87-1) should be used. When wetlands are present, potential impacts must be addressed in an environmental assessment and the Army Corps of Engineers, Phoenix office, must be contacted. NWI maps are available for examination at the Navajo Natural Heritage Program (NNHP) office, or may be purchased through the U.S. Geological Survey (order forms are available through the NNHP). The NNHP has complete coverage of the Navajo Nation, excluding Utah, at 1:100,000 scale; and coverage at 1:24,000 scale in the southwestern portion of the Navajo Nation. In Utah, the U.S. Fish & Wildlife Service's National Wetlands Inventory maps are not yet available for the Utah portion of the Navajo Nation, therefore, field surveys should be completed to determine whether wetlands are located close enough to the project site(s) to be impacted. For field surveys, wetlands identification and delineation methodology contained in the "Corps of Engineers Wetlands Delineation Manual" (Technical Report Y-87-1) should be used. When wetlands are present, potential impacts must be addressed in an environmental assessment and the Army Corps of Engineers, Phoenix office, must be contacted. For more information contact the Navajo Environmental Protection Agency's Water Quality Program.

- J. **Life Length of Data Request** – The information in this report was identified by the NNHP and NNDFW's biologists and computerized database, and is based on data available at the time of this response. If project planning takes more than two (02) years from the date of this response, verification of the information provided herein is necessary. It should not be regarded as the final statement on the occurrence of any species, nor should it substitute for on-site surveys. Also, because the NNDFW information is continually updated, any given information response is only wholly appropriate for its respective request.
- K. **Ground Water Pumping** - Projects involving the ground water pumping for mining operations, agricultural projects or commercial wells (including municipal wells) will have to provide an analysis on the effects to surface water and address potential impacts on all aquatic and/or wetlands species listed below. NESL Species potentially impacted by ground water pumping: *Carex specuicola* (Navajo Sedge), *Cirsium rydbergii* (Rydberg's Thistle), *Primula specuicola* (Cave Primrose), *Platanthera zothecina* (Alcove Bog Orchid), *Puccinellia parishii* (Parish Alkali Grass), *Zigadenus vaginatus* (Alcove Death Camas), *Perityle specuicola* (Alcove Rock Daisy), *Symphyotrichum welshii* (Welsh's American-aster), *Coccyzus americanus* (Yellow-billed Cuckoo), *Empidonax traillii extimus* (Southwestern Willow Flycatcher), *Rana pipiens* (Northern Leopard Frog), *Gila cypha* (Humpback Chub), *Gila robusta* (Roundtail Chub), *Ptychocheilus lucius* (Colorado Pikeminnow), *Xyrauchen texanus* (Razorback Sucker), *Cinclus mexicanus* (American Dipper), *Speyeria nokomis* (Western Seep Fritillary), *Aechmophorus clarkia* (Clark's Grebe), *Ceryle alcyon* (Belted Kingfisher), *Dendroica petechia* (Yellow Warbler), *Porzana carolina* (Sora), *Catostomus discobolus* (Bluehead Sucker), *Cottus bairdi* (Mottled Sculpin), *Oxyloma kanabense* (Kanab Ambersnail)

6. Personnel Contacts

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7. Resources

National Environmental Policy Act

Navajo Endangered Species List:
<http://nnhp.nndfw.org/Endangered.htm>

Species Accounts:
http://nnhp.nndfw.org/sp_account.htm

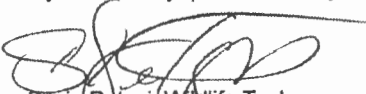
Biological Investigation Permit Application
http://nnhp.nndfw.org/study_permit.htm

Navajo Nation Sensitive Species List
http://nnhp.nndfw.org/study_permit.htm

Various Species Management and/or Document and Reports
http://nnhp.nndfw.org/docs_reps.htm

Consultant List
(Coming Soon)

2. If you have any questions I may be reached at (928) 871-6472.


Sonja Detsoi, Wildlife Tech.
Natural Heritage Program
Department of Fish and Wildlife

xc: file/chrono

CASTLETON COMMODITIES INTERNATIONAL, LLC

CHACO PIPELINE RIGHT-OF-WAY RENEWAL

**E/2 and NW/4 Section 16, W/2 Section 9,
SW/4 and E/2 Section 4, and NW/4 NW/4 Section 3,
T. 26 N., R. 12 W.**

**E/2 and NW/4 Section 33, SW/4 SW/4 Section 28,
E/2 and NW/4 Section 29, NE/4 Section 30, and S/2 and NW/4 Section 19,
T. 27 N., R. 12 W.**

**NE/4 Section 24, S/2 and NW/4 Section 13, NE/4 Section 14,
S/2 and NW/4 Section 11, NE/4 NE/4 Section 10, and E/2 and NW/4 Section 3,
T. 27 N., R. 13 W.**

**W/2 Section 34, NE/4 Section 33, S/2 and NW/4 Section 28,
SW/4 SW/4 Section 21, E/2 and NW/4 Section 20,
W/2 Section 17, NE/4 Section 18, and S/2 Section 7,
T. 28 N., R. 13 W.**

**SW/4 Section 36, E/2 and NW/4 Section 35, SW/4 Section 26,
E/2 Section 27, E/2 Section 22, and E/2 Section 15,
T. 29 N., R. 14 W.**

San Juan County, New Mexico

PLANT SURVEY REPORT

**Prepared for Permits West, Inc., Santa Fe, New Mexico
By Marian J. Rohman October 8, 2015**

This report discusses the potential for disturbance to plant species of concern listed by the Navajo Natural Heritage Program (NNHP) and the U.S. Fish and Wildlife Service (USFWS) that have the potential to occur in the project area. The project area is located within five USGS 7.5-minute quadrangles in New Mexico: Carson Trading Post, Gallegos Trading Post, Hugh Lake, Farmington South, and Kirtland listed south to north across the project area. The NNHP lists Aztec gilia (*Aliciella formosa*), San Juan milkweed (*Asclepias sanjuanensis*), Parish's alkali grass (*Puccinellia*

parishii), and Brack's cactus (*Sclerocactus cloveriae* ssp. *brackii*) as species with either known or potential proximity to the project area. All four of these species are in Group 4 on the Navajo Endangered Species List (NESL) (Detsoi, 2015), indicating that there is not sufficient information to support their being listed as endangered, but there is reason to consider them (NNHP, 2008). The following table shows the species and their proximity to the project area by USGS quadrangle:

Species listed by the NNHP for the CCI Chaco Pipeline project area (Detsoi, 2015)

USGS quadrangle	Species known to occur within 1 mile of the project area	Species known to occur within 3 miles of the project area	Species potentially within proximity to the project area
Carson Trading Post	San Juan milkweed	San Juan milkweed	Aztec gilia San Juan milkweed Brack's cactus
Gallegos Trading Post	San Juan milkweed Parish's alkali grass	San Juan milkweed Parish's alkali grass	Aztec gilia San Juan milkweed Parish's alkali grass Brack's cactus
Hugh Lake	Parish's alkali grass	San Juan milkweed Parish's alkali grass	Aztec gilia San Juan milkweed Parish's alkali grass Brack's cactus
Farmington South		San Juan milkweed	Aztec gilia San Juan milkweed Parish's alkali grass Brack's cactus
Kirtland		San Juan milkweed	Aztec gilia San Juan milkweed Brack's cactus

The USFWS lists Mancos milkvetch (*Astragalus humillimus*), Knowlton's cactus (*Pediocactus knowltonii*), and Mesa Verde cactus (*Sclerocactus mesae-verdae*) as having the potential to occur in the project area. Mancos milkvetch and Knowlton's cactus are listed as Endangered, while Mesa Verde cactus is listed as Threatened (IPaC, 2015).

PROJECT DESCRIPTION

The proposed project consists of the relicensing of an existing pipeline right-of-way on Navajo Tribal Trust and Bureau of Land Management (BLM) lands. The pipeline runs through twenty-eight sections on Navajo land and one section on BLM. The total pipeline is 113,053.83 feet (21.41 miles) in length within a 40-foot corridor. There are 2882.24 feet of line on BLM land, the remaining 110,171.59 feet are on Navajo Tribal Trust land. The current land disturbance for the project is 101.17 acres on Navajo Tribal Trust land and 2.65 acres on BLM land. There will be no additional land disturbance.

The project area is located in:

- Sections 3, 4, 9, and 16 in T. 26 N., R. 12 W.
- Sections 19, 28, 29, 30, and 33 in T. 27 N., R. 12 W.
- Sections 3, 10, 11, 13, 14, and 24 in T. 27 N., R. 13 W.
- Sections 7, 17, 18, 20, 21, 28, 33, and 34 in T. 28 N., R. 13 W.
- Sections 15, 22, 26, 27, 35, and 36 in T. 29 N., R. 14 W.

Section 7, T. 28 N., R. 13 W. is on BLM land, the remaining sections are on Navajo Tribal Trust land, all in San Juan County, NM. The project area ranges from 3.6 miles east-southeast to 21.5 miles southeast of the town of Kirtland.

Within the project area, the existing pipeline begins at a point on the chain link fence near the southeast corner of the Chaco Gas Plant in the SE/4 of Section 16, T. 26 N., R. 12 W. It travels north, then west along the fence outside the gas plant, then turns north and crosses San Juan County Road 7100. The pipeline continues north, then turns north-northeast skirting around Navajo Agricultural Products Industries (NAPI) agricultural fields, then heads northwest cross-country. The pipeline crosses Hugh Wash, a major tributary of Gallegos Canyon, and continues northeast through a small badland area up onto the upper part of the mesa. After travelling around and through several additional NAPI fields, the line crosses New Mexico Highway 371, New Mexico County Road 7010, and a few last NAPI fields. The pipeline continues northwest and curves north to climb down a set of bluffs to the broad floodplain of the San Juan River. After traveling through the rural residential area of Upper Fruitland, it ends at the south edge of the river in the SW/4 NE/4 of Section 15 in T. 29 N., R. 14 W. The existing pipeline either follows dirt and paved roads or is followed by a two-track road for most of its length.

The landscape at the beginning of the line is an open rolling plain on the top of a large mesa. There are several plant communities on the mesa, all either including or often dominated by Russian-thistle (*Salsola tragus*). The desert grassland is dominated by galleta (*Pleuraphis jamesii*) and Indian ricegrass (*Achnatherum hymenoides*), often with widespread broom snakeweed (*Gutierrezia sarothrae*) and cheatgrass (*Bromus tectorum*), blue grama (*Bouteloua gracilis*), needle-and-thread (*Hesperostipa comata*), alkali sacaton (*Sporobolus airoides*), false buffalograss (*Munroa squarrosa*), and/or purple threeawn (*Aristida purpurea*). Frequent forbs in the grassland community include western tansy mustard (*Descurainia pinnata*), gray tansyaster (*Dieteria canescens*), and/or tansyaster (*Machaeranthera tanacetifolia*). Occasionally there are scattered plants or areas of Greene's rabbitbrush (*Chrysothamnus Greenei*), four-wing saltbush (*Atriplex canescens*), or Cutler's ephedra (*Ephedra viridis* var. *viscida*).

The desert shrub community on the mesa is frequently dominated by Bigelow's rabbitbrush (*Ericameria nauseosa* var. *bigelovii*) or Greene's rabbitbrush with broom snakeweed, Cutler's ephedra, winterfat (*Krascheninnikovia lanata*), and/or Torrey's ephedra (*Ephedra torreyana*). The understory includes galleta, Indian ricegrass, cheatgrass, false buffalograss, tansyaster, western tansy mustard, gray tansyaster, and tall tumbledmustard (*Sisymbrium altissimum*).

The badland area between the lower and upper parts of the mesa is dominated by Torrey's ephedra,

slender-leaf wild buckwheat (*Eriogonum leptophyllum*), Bigelow's rabbitbrush, smooth wild buckwheat (*Stenogonum salsuginosum*), Gardner's saltbush (*Atriplex gardneri* var. *cuneata*), and halogeton (*Halogeton glomeratus*). There is a stretch of open piñon-juniper woodland on the upper mesa. This woodland is dominated by Utah juniper (*Juniperus osteosperma*) with only infrequent piñon (*Pinus edulis*). The understory includes Mormon tea (*Ephedra viridis* var. *viridis*), Cutler's ephedra, Greene's rabbitbrush, broom snakeweed, needle-and-thread, and Indian ricegrass. Cobbly and gravelly areas within the piñon-juniper woodland include Bigelow's sagebrush (*Artemisia bigelovii*), bitterbrush (*Purshia tridentata*), broom snakeweed, needle-and-thread, rock goldenrod (*Petrorhiza pumila*), Fendler's spurge (*Chamaesyce fendleri*), Shockley's wild buckwheat (*Eriogonum shockleyi*), perennial cat's-eye (*Cryptantha* sp.), and Torrey's milkvetch (*Astragalus calycosus*).

Gravel slopes and hills that are not in the piñon-juniper woodland can be dominated by Bigelow's rabbitbrush, Greene's rabbitbrush, cliffrose (*Purshia stansburyana*), Torrey's ephedra, greasewood (*Sarcobatus vermiculatus* var. *vermiculatus*), fluffgrass (*Dasyochloa pulchella*), galleta, black grama (*Bouteloua eriopoda*), sand aster (*Chaetopappa ericoides*), and Fendler's spurge. Several dunal areas are dominated by sandhill muhly (*Muhlenbergia pungens*), spike dropseed (*Sporobolus contractus*), sand dropseed (*Sporobolus cryptandrus*), gray tansyaster, Bigelow's rabbitbrush, bur ragweed (*Ambrosia acanthicarpa*), broom ragwort (*Senecio spartioides*), and desert twinbugs (*Dicoria canescens* ssp. *brandegeei*).

The mesa is frequently cut by drainages and washes. The plants along these waterways can be different from the surrounding plant community and can include saltcedar (*Tamarix chinensis*), copperweed (*Oxytenia acerosa*), rubber rabbitbrush (*Ericameria nauseosa* var. *graveolens*), Rusby's goldenbush (*Isocoma rusbyi*), spearleaf rabbitbrush (*Lorandersonia linifolia*), alkali sacaton, broom snakeweed, false buffalograss, black grama, golden crownbeard (*Verbesina encelioides*), tansyaster, Rocky Mountain beeplant (*Cleome serrulata*), four-wing saltbush, and dune scurfpea (*Psoralidium lanceolatum*).

There are numerous weedy species associated with the agricultural fields and the swales near them. These include summer cypress (*Bassia scoparia*), horseweed (*Conyza canadensis*), musk thistle (*Carduus nutans*), Canada thistle (*Cirsium arvense*), prickly lettuce (*Lactuca serriola*), yellow salsify (*Tragopogon dubius*), tufted lovegrass (*Eragrostis pectinacea*), tall tumbled mustard, goathead (*Tribulus terrestris*), Powell's amaranth (*Amaranthus powellii*), northern tansymustard (*Descurainia sophia*), and cheatgrass. Roadsides are also home to many weedy species, including prickly lettuce, bur ragweed, tall tumbled mustard, cheatgrass, and thick-sepal cat's-eye (*Cryptantha crassiseptala* var. *elachantha*). Native species found along the roads include purple threeawn, sand dropseed, hairy goldenaster (*Heterotheca villosa*), daisy fleabane (*Erigeron* sp.), tansyaster, gray tansyaster, and curly gumweed (*Grindelia squarrosa*).

The shale bluffs that drop down to the broad San Juan River floodplain are a salt desert shrub community dominated by shadscale (*Atriplex confertifolia*), Bigelow's rabbitbrush, Greene's rabbitbrush, Indian ricegrass, and Russian-thistle with areas of Hayden's gilia (*Aliciella haydenii*), broadleaf wild buckwheat (*Eriogonum corymbosum*), slender-leaf wild buckwheat, and oblong-leaf

basin daisy (*Platyschkuhria integrifolia* var. *oblongifolia*). The original plant community in the floodplain is difficult to determine due to residential and agricultural disturbance. The less disturbed areas are heavily dominated by Russian-thistle with Indian ricegrass and broom snakeweed.

There is a mosaic of over 35 different soil units in the project area with very few dominant units. The beginning of the line is predominantly in the Sheppard-Mayqueen-Shiprock complex, 0 to 8 percent slopes soil unit and the Doak-Uffens complex, 0 to 3 percent slopes soil unit. The Sheppard-Mayqueen-Shiprock complex consists of aeolian deposits derived from sandstone or shale or deposited over slope alluvium derived from sandstone. The soils range from loamy fine sand to fine sandy loam. The Doak-Uffens complex consists of alluvium derived from sandstone and shale with soils of very fine sandy loam and clay loam to fine sandy loam and sandy clay loam. The lower mesa is predominantly in the Sheppard-Mayqueen-Shiprock complex, 0 to 8 percent soil unit (described above), the Blackston-Farb complex, moderately steep soil unit, and the Badland-Monierco-Rock outcrop complex, moderately steep soil unit. The Blackston-Farb complex consists of stream alluvium derived from igneous and sedimentary rock and residuum weathered from sandstone with soils of loam and very gravelly loam to sandy loam; while the Badland-Monierco-Rock outcrop complex consists of shale bedrock and aeolian deposits over slope alluvium derived from shale with soils of fine sandy loam to clay loam.

The climb to the upper mesa is in the Badland and the Fruitland-Persayo-Sheppard complex, hilly soil units. The Badland soil unit consists of shale bedrock and shallow shale-derived soils. The second unit consists of a complex of slope alluvium derived from sandstone and shale, residuum weathered from shale, and aeolian deposits over mixed alluvium. The soil textures range from sandy loam and fine sandy loam to clay loam and loamy fine sand.

There are five predominant soil units on the upper mesa. The Farb-Persayo-Rock outcrop complex, moderately steep soil unit, the Blackston-Farb complex, moderately steep soil unit (described above), the Haplargids-Blackston-Torriorthens complex, very steep soil unit, the Shiprock fine sandy loam, 2-5 percent slopes soil unit, and the Sheppard-Mayqueen-Shiprock complex, 0-8 percent slopes soil unit (also described above). The Farb-Persayo-Rock outcrop complex consists of residuum weathered from sandstone or shale and exposed bedrock. The soils consist of fine sandy loam and sandy loam to clay loam. The Haplargids-Blackston-Torriorthens complex consists of mixed alluvium with a range of soil types: cobbly sandy loam and cobbly sandy clay loam to gravelly loam and very gravelly loam to cobbly loam and cobbly clay loam. The Shiprock fine sandy loam unit consists of aeolian deposits over alluvium derived from sandstone and shale with a soil texture of fine sandy loam.

The bluffs dropping down to the floodplain of the San Juan River are in the Badland soil unit (described above) and the floodplain of the San Juan River at the end of the line is in the Stumble-Fruitland association, gently sloping soil unit with aeolian deposits derived from sandstone and a soil texture of loamy sand.

The underlying bedrock is almost entirely the Nacimiento Formation with a small area of the Ojo Alamo and the Kirtland-Fruitland Formations near the northwest end of the pipeline (NMBMGR, 2003). The elevation at the beginning of the line is approximately 6030 feet. The elevation on the

mesa east of Highway 371 is predominantly between 5835 and 5900 feet with the low point at Hugh Wash and a high point of 6070 feet just east of the highway. The elevation west of Highway 371 is predominantly between 5900 and 6000 feet. The elevation drops down to 5175 feet at the end of the line at the San Juan River.

Disturbances in the project area include paved, gravel, dirt, and two track roads, powerlines, pipe lines, both surface and buried, well pads, both active and plugged, valves, fences, agricultural fields, two canals, home sites and other buildings, and grazing by horses, cattle and sheep.

METHODOLOGY

The project area was surveyed between August 6 and October 6, 2015, by botanist Marian Rohman. The survey of the existing pipeline corridor was conducted by walking a zigzag transect on each side of the centerline covering the 40-foot wide corridor and a buffer zone of 200 feet on each side of the corridor. The emphasis of the survey was to inspect for potential species of concern; however, all plants were identified in order to provide a more complete description of the environment. A list of the plants observed in the project area is included at the end of this report.

SURVEY RESULTS

Species of Interest to the Navajo Natural Heritage Program, and the U.S. Fish and Wildlife Service: The NNHP lists Aztec gilia, San Juan milkweed, Parish's alkali grass, and Brack's cactus as either being present within 1 or 3 miles of the project area or having the potential to occur in the project area (Detsoi, 2015). The USFWS lists Mancos milkvetch, Knowlton's cactus, and Mesa Verde cactus as having the potential to occur in the project area (IPaC, 2015). Details of status, habitat, and the potential for habitat in the project area for these species are listed in the following table.

SPECIES STATUS	HABITAT	POTENTIAL FOR HABITAT IN THE PROJECT AREA
<i>Aliciella formosa</i> Aztec gilia NESL Group 4	Salt desert scrub communities in soils of the Nacimiento Formation. Elev. 5000-6400 ft. Often found with Brack's cactus. Blooms April and May (Heil and Herring, 1999a; Roth, 2008).	Potential habitat: there are three areas of potential habitat on the Nacimiento Formation in the project area. (see below) (S)

<i>Asclepias sanjuanensis</i> San Juan milkweed NESL Group 4	Sandy loam soils in open piñon-juniper woodlands and Great Basin grassland communities. Usually found in very open vegetation on sand dunes, often in association with sandhill muhly and sand wild-buckwheat. Elev. 5000-6420 ft. Flowers late April thru early May (Heil and Herring, 1999b; Roth, 2001a; personal observation).	Potential habitat: there are thirty-six areas of potential habitat in the project area (see below). (S)
<i>Astragalus humillimus</i> Mancos milkvetch USFWS Endangered NESL Group 2	Cracks or eroded depressions on or near sandstone rimrock ledges and mesa tops in Point Lookout and Cliffhouse Sandstone. Elev. 5000-6000 ft. Blooms late April to early May (McDonald, 1999a; Roth, 2001b).	No appropriate habitat: there is no Point Lookout or Cliffhouse Sandstone in the project area. (NP)
<i>Pediocactus knowltonii</i> Knowlton cactus USFWS Endangered	On rolling, gravelly hills in a piñon-juniper-sagebrush community at about 6,200-6,300 ft. This species is known only from the type locality very near the NM/CO border. Flowers April and May. This species is not known on FFO lands (McDonald and Ferguson, 1999).	No appropriate habitat: there is no piñon-juniper-sagebrush community in the project area. The project area is below the known elevation range for the species. (NP)
<i>Puccinellia parishii</i> Parish's alkali grass NESL Group 4	Alkaline springs, seeps, and seasonally wet areas that occur at the heads of drainages or on gentle slopes with continuously damp soils during its late winter to spring growing period. Elev. 2600-7200 ft. Flowers May to June (McDonald, 1999b; Roth 2001c).	No appropriate habitat: there are no alkaline springs, seeps, or seasonally wet areas in the project area. (NP)
<i>Sclerocactus cloveriae</i> subsp. <i>brackii</i> Brack's cactus NESL Group 4	In desert scrub and scattered juniper communities on sandy clay hills of the Nacimiento Formation in communities typically dominated by shadscale. Elev. 5000-6960 ft. Blooms in May. (Ferguson, 1998; Roth, 2005; personal observation).	Potential habitat: there are three areas of potential habitat on the Nacimiento Formation in the project area. (see below) (S)

<i>Sclerocactus mesae-verdae</i> Mesa Verde cactus USFWS Threatened NESL Group 2	In sparsely vegetated clay-rich soils derived from the Fruitland and Mancos Shale Formations, frequently on the tops of hills or benches and along slopes that may have a cover of gravel or cobbles ranging from 0% to 100%. Commonly associated with <i>Atriplex corrugata</i> and <i>Atriplex gardneri</i> . Elev. 4,900 to 5,500ft. Blooms late April to May (McDonald, 1999c, Hazelton, 2012).	No appropriate habitat: there is no Mancos Shale and only a small area of Kirtland-Fruitland Formation in the project area. The project area is well above the known elevation range of the species. (NP)
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Status USFWS – U.S Fish and Wildlife Service (ECOS, 2014)
Endangered – An animal or plant species in danger of extinction throughout all or a significant portion of its range.
Threatened – An animal or plant species likely to become endangered within the foreseeable future throughout all or a significant portion of its range.

NESL – Navajo Endangered Species List (NNHP, 2008)

Group 2 – Endangered: A species or subspecies whose prospects of survival or recruitment are in jeopardy.

Group 4 – a species or subspecies where there is not currently sufficient information to support its being listed as endangered, but there is reason to consider it

Potential to Occur

K – Known, documented observation within project area.

S – Habitat suitable and species suspected to occur within the project area.

NS – Habitat suitable but species is not suspected to occur within the project area.

NP – Habitat not present and species unlikely to occur within the project area

Aztec gilia and Brack's cactus: there are three areas of habitat with the potential for both Aztec gilia and Brack's cactus on the Nacimiento Formation in the project area. They are all in the area that drops down from the upper mesa to the lower mesa east of Highway 371. These areas will need to be intensively surveyed during their active growing season of April to May to determine if there are plants present. The areas are listed below from south to north: (All coordinates are in NAD 83)

- N36.587510, W108.190531 – shale exposure
- N36.593271, W108.194930 – series of small shale hills
- N36.594100, W108.195773 – area of shale slopes

San Juan milkweed: there are thirty-six areas of potential San Juan milkweed habitat in the project area. They are typically dunal areas extending from just east of Highway. 371 to almost the end of the pipeline. These areas will need to be intensively surveyed during their active growing season of late April through June to determine if there are plants present. The areas are listed below from south to north: (All coordinates are in NAD 83)

- N36.515815, W108.113301 – small area of minimal to moderate potential habitat in the west buffer only
- N36.516284, W108.112670 – small area of minimal to moderate potential habitat in the corridor and east buffer only
- N36.525599, W108.108685 – good to excellent potential habitat in the north buffer only

- N36.537955, W108.123356 – minimal to good potential habitat
- N36.539886, W108.125722 – minimal to good potential habitat
- N36.550747, W108.139287 – minimal potential habitat on the edge of a wash
- N36.551684, W108.140405 – good potential habitat
- N36.551870, W108.140673 – small area of good potential habitat on small ridge
- N36.553534, W108.143839 – good potential habitat on a series of small dunes
- N36.556103, W108.149888 – good to excellent potential habitat in a large dunal area
- N36.557507, W108.153191 – minimal to moderate potential habitat in an extensive area
- N36.5591203, W108.156546 – moderate potential habitat on a small dune, with a few areas of minimal potential habitat extending to the next area south
- N36.560526, W108.158490 – excellent potential habitat on a medium-size dune
- N36.561272, W108.159559 – excellent potential habitat in a large area with minimal to moderate potential habitat extending to the next area south
- N36.562591, W108.161272 – good potential habitat on an extensive dunal ridge
- N36.563846, W108.162774 – good potential habitat on an extensive dunal ridge
- N36.5656779, W108.165268 – excellent potential habitat on a dunal ridge
- N36.567222, W108.167263 – excellent potential habitat on an extensive dunal ridge
- N36.569741, W108.170488 – good potential habitat on an extensive double dunal ridge
- N36.572626, W108.174939 – good potential habitat in a blowout along a dirt road
- N36.574657, W108.177149 – excellent potential habitat in a large area along a ridge above a drainage
- N36.575765, W108.178634 – excellent potential habitat on a dunal ridge, good habitat is continuous to the next area south
- N36.576529, W108.179632 – small area of moderate potential habitat
- N36.577132, W108.180319 – small area of good potential habitat at ROW fence on east side of Rd. 7100
- N36.577547, W108.181203 – good potential habitat on dune in ROW on west side of Rd. 7100
- N36.580211, W108.184544 – moderate potential habitat on medium-size dune
- N36.688665, W108.191253 – moderate to good potential habitat in dunal area
- N36.598238, W108.198867 – small area of moderate potential habitat in the east buffer
- N36.610539, W108.208899 – moderate potential habitat on dunal remnant cut by paved road, in west buffer only
- N36.612889, W108.210711 – moderate potential habitat on dunal remnant cut by 8 paved road, in west buffer only
- N36.636129, W108.228971 – minimal potential habitat on weedy dune
- N36.637862, W108.230346 – minimal to moderate potential habitat on dunal ridge
- N36.647315, W108.237838 – good potential habitat on dune
- N36.649446, W108.239561 – minimal to moderate potential habitat in road cut and blowout

- N36.659425, W108.247553 – minimal to moderate potential habitat on weedy low dune
- N36.660737, W108.248376 – minimal to moderate potential habitat on weedy low dune

Noxious weeds: The Bureau of Indian Affairs lists three species of noxious weeds as potential invaders and fourteen species as new invaders on the Navajo Reservation (OSM, 1999). Four species, halogeton (*Halogeton glomeratus*), musk thistle (*Carduus nutans*), Canada thistle (*Cirsium arvense*), and Russian knapweed (*Acroptilon repens*) are present in the project area.

These species are all Priority B noxious weeds, indicating that they are new noxious weeds known to have invaded isolated locales on the reservation. Emphasis is placed on immediate control, prevention of seed spread and eradication. Education, awareness, identification, control and monitoring will be the priorities.

Please note: the number of plants is those within the corridor and buffers; the populations usually extends further. All coordinates are in NAD 83.

Halogeton: There are eighteen populations of halogeton in the project area. It is occasional along the entire pipeline, but most abundant in the northern quarter. The populations are listed below from south to north.

- N36.520509, W108.110038 - 50-100 plants in the west buffer only
- N36.552362, W1078.141343 - 100-200 plants in the corridor and north buffer only
- N36.552691, W108.142326 - 100's of plants
- N36.57902750, W108.183082 - 100+ plants on the edge of the Fairfield compressor site
- N36.583884, W108.187496 - 100's of plants
- N36.593344, W108.195083 - 100-150 widely spaced plants in area of potential habitat for Brack's cactus and Aztec gilia
- N36.674827, W108.262584 - 100's of plants extending 260 feet to the south (this population is on BLM)
- N36.677743, W108.266993 - 100's of plants extending 370 feet to the south
- N36.680274, W108.270006 - 1000's of plants extending 1075 feet to south
- N36.681006, W108.270725 - 10-20 plants at a dump site in the corridor only
- N36.684344, W108.274363 - 100's of plants extending 200 feet to the south 200 feet
- N36.684759, W108.274772 - 25-50 plants
- N36.685609, W108.275684 - 100's of plants extending 160 feet to the south
- N36.694018, W108.284748 - 1000's of plants in the area of a valve and pad extending 2500 to the south
- N36.7033554, W108.289873- 100 + plants at a valve site on the edge of the mesa
- N36.707244, W108.290638 - 20-50 plants on edge of terrace
- N36.709980, W108.289738 - 100's of plants on slope and onto narrow terrace near a plugged and abandoned well

- N36.712006, W108.289100 - 1000's of plants on north edge of terrace and down slope almost to next terrace

Musk thistle: there are ten populations of musk thistle, mostly occurring in association with agricultural fields or roads. The areas are listed below from south to north.

- N36.510329, W108.116510 - 1 plant in the east buffer
- N36.515179, W108.113688 - 20-30 plants in the west buffer extending for 60 feet along the line
- N36.606876, W108.205868 - 1000's of plants in large patches on the north edge of a road on the north side of an agricultural field extending 700 feet to the south
- N36.607574, W108.206410 - 1000+ plants along the edge of an agricultural field
- N36.608112, W108.206615 - dozens of plants mixed with Canada thistle
- N36.611795, W108.209785 - 100-200 plants mostly in the west buffer
- N36.613277, W108.210761 - 50-100 plants mixed with Canada thistle
- N36.613859, W108.211415 - 50-100 plants mostly in the west buffer
- N36.615888, W108.213132 - 50-100 plants in a ditch along a paved road in the west buffer
- N36.651227, W108.241054 - 100's of plants in a swale in the east buffer and barely into the corridor, contiguous with a Canada thistle population to the south

Canada thistle: there are eight populations of Canada thistle mostly occurring in association with agricultural fields or roads. The areas are listed below from south to north.

- N36.529465, W108.112639 - 100's of plants on the edge of an agricultural field extending south for 800 feet
- N36.600430, W108.200648 - 100's of plants in the corridor, through a potato field
- N36.607716, W108.206613 - 100's of plants in the corridor and the west buffer only
- N36.608112, W108.206615 - 100's of plants mixed with musk thistle
- N36.611558, W108.209477 - 1000's of plants in a swale
- N36.613277, W108.210761 - 1000's of plants mixed with musk thistle
- N36.635110, W108.228240 - 1000's of plants on the edge of a field extending 2250 feet to the south
- N36.651459, W108.241197 - 100's of plants in a swale in the corridor and the east buffer, contiguous with the musk thistle population to the north

Russian knapweed: there is one population of Russian knapweed occurring as 20-50 scattered plants in the west buffer at N36.696144, W108.287169 and extending for 80 feet to the north.

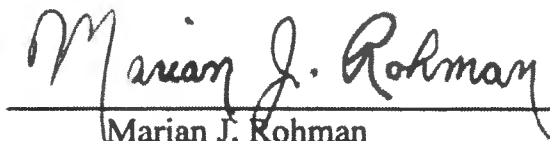
DISCUSSION AND RECOMMENDATIONS

There are three areas of potential habitat for Aztec gilia and Brack's cactus and thirty-six areas of potential habitat for San Juan milkweed in the project area. These areas will need to be intensively surveyed during the active growing season of April to May for Aztec gilia and Brack's cactus and

late April through June for San Juan milkweed to determine if there are plants present.

No other plant species of concern to the Navajo Natural Heritage Program or the U.S. Fish and Wildlife Service will be impacted by the proposed project.

Signature of author:



Marian J. Rohman

October 8, 2015

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PLANTS OF THE EXISTING CCI CHACO PIPELINE

Scientific names according to Heil, et al 2013

Identifications based on Heil, et al 2013; Ivey 2008

TREES

Elaeagnus angustifolius

Russian olive

Juniperus osteosperma

Utah juniper

Pinus edulis

Piñon

Populus deltoides var. *wislizenii*

Cottonwood

Tamarix chinensis

Saltcedar

Ulmus pumila

Siberian elm

SHRUBS AND SUBSHRUBS

Amelanchier utahensis

Utah serviceberry

Artemisia bigelovii

Bigelow's sagebrush

Artemisia filifolia

Sand sage

Artemisia tridentata

Big sagebrush

Atriplex canescens

Four-wing saltbush

Atriplex confertifolia

Shadscale

Atriplex gardneri var. *cuneata*

Gardner's saltbush

Brickellia oblongifolia var. *linifolia*

Narrowleaf brickellbush

Chrysothamnus Greenei

Greene's rabbitbrush

Chrysothamnus viscidiflorus

Green-flowered rabbitbrush

Ephedra torreyana

Torrey's ephedra

Ephedra viridis var. *viridis*

Mormon tea

Ephedra viridis var. *viscidiflorus*

Cutler's ephedra

Ericameria nauseosa var. *bigelovii*
Ericameria nauseosa var. *graveolens*
Eriogonum corymbosum
Eriogonum leptocladon
Eriogonum leptopyllum
Eriogonum microthecum var. *simpsonii*
Gutierrezia sarothrae
Krascheninnikovia lanata
Lorandersonia linifolia
Lycium pallidum subsp. *pallidum*
Paryella filifolia
Purshia stansburyana
Purshia tridentata
Rhus trilobata var. *trilobata*
Salix exigua var. *exigua*
Sarcobatus vermiculatus var. *vermiculatus*
Stanleya pinnata var. *pinnata*
Suaeda nigra
Tetradymia canescens
Yucca baileyi

CACTI

Cylindropuntia whipplei
Escobaria vivipara var. *arizonica*
Opuntia polyacantha

GRASSES

Achnatherum hymenoides
Agropyron cristatum
Aristida purpurea
Bouteloua barbata
Bouteloua eriopoda
Bouteloua gracilis
Bromus tectorum
Cenchrus longispinus
Dactylis glomerata
Dasyochloa pulchella
Digitaria sanguinalis
Echinochloa crus-galli
Elymus longifolius
Elymus smithii
Eragrostis cilianensis
Eragrostis pectinacea
Hesperostipa comata

Bigelow's rabbitbrush
 Rubber rabbitbrush
 Broadleaf wild buckwheat
 Sand wild buckwheat
 Slenderleaf wild buckwheat
 Simpson's wild buckwheat
 Broom snakeweed
 Winterfat
 Spearleaf rabbitbrush
 Pale wolfberry
 Narrow-leaf dunebroom
 Cliffrose
 Bitterbrush
 Skunkbush
 Sandbar willow
 Greasewood
 Prince's plume
 Torrey's seepweed
 Spineless horsebrush
 Bailey's yucca

Whipple's cholla
 Navajo pincushion cactus
 Starvation pricklypear

Indian ricegrass
 Crested wheatgrass
 Purple threeawn
 Six-weeks grama
 Black grama
 Blue grama
 Cheatgrass
 Long-spine sandbur
 Orchardgrass
 Fluffgrass
 Hairy crabgrass
 Barnyard grass
 Bottlebrush squirreltail
 Western wheatgrass
 Stinkgrass
 Tufted lovegrass
 Needle-and-thread

Hordeum jubatum
Muhlenbergia pungens
Munroa squarrosa
Pleuraphis jamesii
Polypogon monspeliensis
Setaria viridis
Sporobolus airoides
Sporobolus contractus
Sporobolus cryptandrus
Sporobolus flexuosus

FORBS

Abronia fragrans
Acroptilon repens
Agoseris sp.
Aliciella haydenii var. *haydenii*
Amaranthus powellii
Amaranthus blitoides
Ambrosia acanthicarpa
Artemisia dracunculus
Asclepias involucrata
Asclepias subverticillata
Astragalus spp. (two)
Astragalus amphioxys
Astragalus calycosus
Astragalus ceramicus
Astragalus fucatus
Astragalus mollisimus
Astragalus praelongus
Astragalus sabulonum
Atriplex sp.
Bassia scoparia
Boechera sp.
Caesalpinia jamesii
Calochortus sp.
Carduus nutans
Chaetopappa ericoides
Chamaesaracha coronopus
Chamaesyce fendleri
Chamaesyce glyptosperma
Chamaesyce parryi
Chenopodium sp.
Chenopodium album
Chenopodium leptophyllum

Foxtail barley
 Sandhill muhly
 False buffalograss
 Galleta
 Rabbitfootgrass
 Green bristlegrass
 Alkali sacaton
 Spike dropseed
 Sand dropseed
 Mesa dropseed

Fragrant sand-verbena
 Russian knapweed
Agoseris
 Hayden's gilia
 Powell's amaranth
 Mat amaranth
 Bur ragweed
 Wild tarragon
 Dwarf milkweed
 Whorled milkweed
 Milkvetch
 Crescent milkvetch
 Torrey's milkvetch
 Painted milkvetch
 Hopi milkvetch
 Woolly locoweed
 Stinking milkvetch
 Gravel milkvetch
 Orach
 Summer cypress
 Rockcress
 James' rush-pea
 Sego lily
 Musk thistle
 Sand aster
 Green-leaf five-eyes
 Fendler's spurge
 Ribseed spurge
 Parry's spurge
 Goosefoot
 Lamb's quarters
 Narrowleaf goosefoot

Cirsium arvense
Cleome serrulata
Comandra umbellata var. *pallida*
Convolvulus arvensis
Conyza canadensis
Cordylanthus wrightii
Cryptantha sp.
Cryptantha crassisepala var. *elachantha*
Dalea lanata
Dalea leporina
Descurainia pinnata
Descurainia sophia
Dicoria canescens ssp. *brandegeei*
Dieteria canescens
Dimorphocarpa wislizenii
Eremogone eastwoodiae
Erigeron sp.
Eriogonum cernuum
Eriogonum divaricatum
Eriogonum ovalifolium
Eriogonum shockleyi
Erodium cicutarium
Evolvulus nuttallianus
Grindelia squarrosa
Halogeton glomeratus
Helianthus annuus
Helianthus petiolaris
Heterotheca villosa
Hymenopappus filifolius
Ipomopsis gunnisonii
Ipomopsis longiflora
Isocoma rusbyi
Lactuca serriola
Lappula occidentalis
Lepidium sp.
Linanthus pungens
Linum aristatum
Lygodesmia grandiflora
Machaeranthera tanacetifolia
Medicago sativa
Melilotus albus
Melilotus officinalis
Mentzelia albicaulis
Mentzelia multiflora

Canada thistle
 Rocky Mountain beeplant
 Pale bastard toadflax
 Field bindweed
 Horseweed
 Wright's bird's-beak
 Perennial cat's-eye
 Thick-sepal cat's-eye
 Wooly prairie-clover
 Fox-tail prairie-clover
 Western tansymustard
 Northern tansymustard
 Desert twinbugs
 Gray tansyaster
 Spectacle-pod
 Eastwood's sandwort
 Daisy fleabane
 Nodding wild buckwheat
 Spreading wild buckwheat
 Cushion wild buckwheat
 Shockley's wild buckwheat
 Filaree
 Dwarf morning glory
 Curly gumweed
 Halogeton
 Common sunflower
 Prairie sunflower
 Hairy goldenaster
 Fineleaf woollywhite
 Gunnison's gilia
 Blue trumpets
 Rusby's goldenbush
 Prickly lettuce
 Spiny sheepbur
 Pepperweed
 Prickly-phlox
 Broom flax
 Rush pink
 Tansyaster
 Alfalfa
 White sweet clover
 Yellow sweet clover
 Western blazingstar
 Desert blazingstar

<i>Mirabilis linearis</i>	Narrowleaf umbrellawort
<i>Mirabilis multiflora</i>	Showy four-o'clock
<i>Oenothera albicaulis</i>	Whitestem evening primrose
<i>Oenothera cespitosa</i>	Tufted evening-primrose
<i>Oenothera villosa</i> var. <i>strigosa</i>	Biennial evening primrose
<i>Orobanche</i> sp.	Broomrape
<i>Oxytenia acerosa</i>	Copperweed
<i>Pectis angustifolia</i>	Lemonscent
<i>Penstemon angustifolius</i>	Narrowleaf beardtongue
<i>Petradorea pumila</i>	Rock goldenrod
<i>Phacelia integrifolia</i>	Torrey's phacelia
<i>Phlox longifolia</i>	Longleaf phlox
<i>Physaria fendleri</i>	Fendler's bladderpod
<i>Plantago lanceolata</i>	Narrowleaf plantain
<i>Plantago major</i>	Common plantain
<i>Plantago patagonica</i>	Wooly plantain
<i>Platyschekuria integrifolia</i> var. <i>oblongifolia</i>	Oblong-leaf basin daisy
<i>Polygonum aviculare</i>	Yard knotweed
<i>Portulaca oleracea</i>	Common purslane
<i>Psoraleidium lanceolatum</i>	Dune scurfpea
<i>Rumex crispus</i> ssp. <i>crispus</i>	Curly dock
<i>Rumex hymenosepalus</i>	Sand dock
<i>Rumex triangulivalvis</i>	White willow dock
<i>Salsola tragus</i>	Russian-thistle
<i>Senecio flaccidus</i> var. <i>flaccidus</i>	Threadleaf ragwort
<i>Senecio spartioides</i>	Broom ragwort
<i>Sisymbrium altissimum</i>	Tall tumbled mustard
<i>Solanum americanum</i>	Black nightshade
<i>Solanum rostratum</i>	Buffalo-bur
<i>Solanum triflorum</i>	Cutleaf nightshade
<i>Sphaeralcea coccinea</i>	Scarlet globemallow
<i>Sphaeralcea fendleri</i>	Fendler's globemallow
<i>Sphaeralcea parvifolia</i>	Small-leaf globemallow
<i>Stenogonum salsuginosum</i>	Smooth wild buckwheat
<i>Stephanomeria</i> sp.	Perennial wirelettuce
<i>Stephanomeria exigua</i>	Twiggy wirelettuce
<i>Taraxacum officinale</i>	Dandelion
<i>Tetrameuris ivesiana</i>	Ive's woolybase
<i>Thelesperma megapotamicum</i>	Navajo tea
<i>Tiquilia latior</i>	Hairy crinklemat
<i>Townsendia annua</i>	Annual Townsend daisy
<i>Townsendia incana</i>	Easter daisy
<i>Tragopogon dubius</i>	Yellow salsify
<i>Tribulus terrestris</i>	Goathead

Tripterocalyx wootonii
Typha domingensis
Verbena bracteata
Verbesina encelioides var. *exauriculata*
Xanthium strumarium

Wooton's sand-puffs
Southern cattail
Carpet vervain
Golden crownbeard
Common cocklebur

**THREATENED, ENDANGERED, AND SPECIAL STATUS
WILDLIFE SPECIES REPORT
FOR CCI'S EXISTING CHACO PIPELINE RIGHT-OF-WAY RENEWAL,
SAN JUAN COUNTY, NEW MEXICO**

1.0 Introduction

Threatened, endangered and special status wildlife species surveys were conducted at the existing Chaco pipeline. The pipeline begins at the Chaco Plant, in Section 16, T. 26 N, R. 12 W, and runs northwestward approximately 21 miles to the San Juan River, in Section 15, T 29 N, R 14 W. The entirety of the pipeline is located in Sections 16, 26, 12, 9 and 4 (T. 26 N, R. 12 W), Sections 33, 28, 29, 19, and 27 (T 27 N, R. 12 W), Sections 24, 13, 14, 11 and 3 (T.27 N, R. 13 W), Sections 34, 33, 28, 21, 20, 17, 18 and 7 (T.28 N, R.13 W), Section 30 (T 29 N, R.13 W), and Sections 36, 35, 26, 27, 29, 14, 22 and 15 (T.29 N, R.14 W).

The project site is located on Navajo Nation Tribal Trust lands and NIIP lands.

2.0 Methods

On July 22-24, and August 6-8, 2015, Wildlife Biologist Charles Black conducted pedestrian surveys of the project area to inspect for the potential presence of threatened, endangered, or special status species. Weather during surveys was generally breezy and warm, with daytime highs over 90° F. Periods of strong thunderstorms occurred on 8/7 and 8/8.

The surveyed area consisted of the existing 21 mile long Chaco pipeline. The survey area consisted of the pipeline, and a 25-foot buffer either side of the line. Habitat and existing conditions were evaluated. A 0.5-mile radius around the project area was surveyed for raptor nests. An additional 1.0-mile line-of-sight survey was conducted from the project area for raptor nests. The surveyors used 10 X 40 and 8 x 50 binoculars.

Prior to the survey, a data request was made to the Navajo Natural Heritage Program for Navajo Nation endangered species known to occur or with the potential to occur on the 7.5 minute Kirtland, NM, Farmington South, NM, Hugh Lake, NM, Gallegos Trading Post, NM, and Carson Trading Post, NM Quadrangles. The request reply was received on July 22, 2015.

3.0 Description of Existing Habitat

The project area is located south of the city of Farmington, San Juan County New Mexico. Terrain within the project varies from rugged, broken topography containing small hills, mesas, and shale and sandstone outcropping to fairly flat grasslands. The pipeline route also crosses crop circles associated with the NAPI. The northern terminus barely enters the floodplain of the San Juan River. The pipeline route crosses numerous ephemeral drainages.

Vegetation throughout the upland portion of the project area is dominated by arid shrubland with a high percentage of bare ground. Grass cover varies from fairly dense, in the Monsisco Wash area to very sparse in overgrazed areas. Dominant shrubs include shadscale (*Atriplex*

confertifolia), blackbrush (*Coleogyne spp.*), rabbitbrush (*Chrysothamnus spp.*), Mormon tea (*Ephedra spp.*) and big sagebrush (*Artemisia tridentata.*). A large amount of Russian thistle (*Salsola spp.*) is present in areas of heavy disturbance.

The riparian corridor along the San Juan River at the northern end of the pipeline route is highly degraded and dominated by dense stands exotic vegetation including Russian olive (*Elaeagnus angustifolia*) and salt cedar (*Tamarix spp.*). The site contains minimal cottonwood (*Populous spp.*) overstory or canopy.

Wildlife occurring in the area is typical of arid grasslands and shrublands and degraded riparian corridors of the Great Basin Desert. This includes passerines such as horned larks (*Eremophila alpestris*), black-throated sparrows (*Ampisiza bilineata*) yellow-breasted chat (*Icteria virens*), as well as black-tailed jackrabbits (*Lepus californicus.*), kangaroo rats (*Dipodomys spp.*) and whiptail lizards (*Aspidoscelis spp.*).

4.0 Threatened, Endangered, and Special Status Wildlife Species

According to the July 22, 2015 correspondence from the Navajo Natural Heritage Program, the following species have the potential to occur on the 7.5 minute Kirtland, NM, Farmington South, NM, Hugh Lake, NM, Gallegos Trading Post, NM, and Carson Trading Post, NM Quadrangles.

For the species listed below, the following tribal and federal statuses are indicated: the Navajo Endangered Species List (NESL), the federal Endangered Species Act (ESA), the Migratory Bird Treaty Act (MBT) and the Eagle Protection Act (EPA). No legal protection is afforded species with only ESA candidate or NESL group 4 status.

Species	Status	Habitat	Habitat Suitability Within the Project Area
Golden eagle (<i>Aquila chrysaetos</i>)	Navajo Endangered Species List (NESL) Group 3, MBTA, EPA	A wide variety of open habitats, typically nests in steep cliffs typically > 30 meters in height	See discussion below
Burrowing owl (<i>Athene cunicularia</i>)	NESL Group 4, MBTA	Open deserts and prairies, generally where prairie dogs towns and colonies are present	See discussion below
Ferruginous hawk (<i>Buteo regalis</i>)	NESL Group 3, MBTA	Open grasslands and deserts, typically nests atop rocky pinnacles, small buttes and cliffs	See discussion below
Bluehead sucker (<i>Catostomus discobolus</i>)	NESL Group 4	Small perennial headwater streams in montane areas, larger streams and rivers	NP
Belted kingfisher	NESL	A wide variety of wetland	See discussion below

(<i>Megaceryle alcyon</i>)	Group 4, MBTA	habitats See discussion below	
Mountain plover (<i>Charadrius montanus</i>)	NESL Group 4, MBTA	Seek dry, disturbed, or intensively grazed, open, flat tablelands. Bare ground, short vegetation, and flat topography are indicators of ideal habitat.	See discussion below
Yellow-billed Cuckoo (<i>Coccyzus americanus</i>)	NESL Group 2 MBTA ESA Threatened	Mature riparian corridors along lowland perennial streams and rivers	See discussion below
Mottled sculpin (<i>Cottus bairdi</i>)	NESL Group 4	Bottom dwelling, living beneath rocks in cool streams and occasionally lakes	NP
Yellow warbler (<i>Setophagus petechia</i>)	NESL Group 4, MBTA	Cottonwood-willow habitats within perennial riparian areas	See discussion below
Southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	NESL Group 2, MBTA, Federal- Endangered	Cottonwood-willow habitats within perennial riparian areas	See discussion below
Peregrine falcon (<i>Falco peregrinnus</i>)	NESL Group 4, MBTA	Nests in sheer cliff faces typically > 30 meters in height usually near water or mesic canyons. In migration, occurs in a variety of lowland, wetland habitats	See discussion below
Roundtail chub (<i>Gila robusta</i>)	NESL Group 2	Pools and rapids of moderate to large rivers	NP
Bald Eagle (<i>Haliaeetus leucocephalus</i>)	NESL - (Sensitive Species), MBTA, EPA	Winters along lakes and rivers with large trees	See discussion below
Northern Leopard frog (<i>Lithobates pipiens</i>)	NESL Group 2	Wetland habitats with marshes, cattails, and sedges	NP
Black-footed ferret (<i>Mustela nigripes</i>)	NESL Group 2, Federal- Endangered	Grassland or shrubby habitats where large, densely populated prairie dog towns are present	NP
Colorado pikeminnow (<i>Ptychocheilus lucius</i>)	NESL Group 2, Federal-	Turbid, deep, strong-flowing currents in large rivers	NP

	Endangered		
Kit fox (<i>Vulpes macrotis</i>)	NESL Group 4	Open lowland desert	See discussion below
Razorback sucker (<i>Xyrauchen texanus</i>)	NESL Group 2, Federal- Endangered	Strong currents and backwaters of large rivers	NP

Status*

E Endangered

T Threatened

NESL Navajo Endangered Species List

EPA Eagle Protection Act

C Candidate

Presence**

K Known, documented observation within project area.

S Habitat suitable and species suspected to occur within the project area.

NS Habitat suitable but species is not suspected to occur within the project area.

NP Habitat not present and species unlikely to occur within the project area.

Section 5.0 gives information regarding the species that have the potential to occur within or near the project area.

5.0 Results

Golden Eagle

The area is potential foraging habitat for the golden eagle. This raptor requires steep cliffs that are typically > 30 meters in height (Mikesic, D. G. and Nystedt, J. R., 2005). No active eagle nests were observed during surveys. Golden eagles occasionally forage in the project area. Because there is no new construction proposed for this project, this species should not be adversely impacted.

Burrowing Owl

Burrowing owls are uncommon breeders in Gunnison's prairie dog towns on and adjacent to NAPI crop circles. A small portion of the Chaco pipeline crosses through NAPI crop circles. Suitable owl habitat is located in Section 3, T 27 N, R13 W, and Sections 20, 21, 28, 33 and 34, T 28 N, R 13 W. This area was surveyed specifically for Burrowing owls on July 22 and 23, 2015.

Two burrowing owls were observed at 0739, on 7/23. They were seen approximately 100 feet north of the Chaco pipeline in Section 20 (T 28 N, R 13 W). They were located at (UTM NAD 83) 746668, 4059479.

Because there is no new construction proposed for this project, this species should not be adversely impacted.

Ferruginous Hawk

Ferruginous hawks are rare and local breeders in and adjacent to the project area. Two historic nest sites on power lines are located within a one-mile radius of the project area. Both sites were checked on July 22, and no activity was observed at either site. They are also uncommon in

migration and winter. No Ferruginous hawks were seen during surveys. Because there is no new construction proposed for this project, this species should not be adversely impacted.

Belted Kingfisher

Kingfishers are rare but regular residents along the San Juan River in the Farmington area. No kingfishers were observed during surveys. The proposed project will have no impact on riparian habitat along the river. Because there is no new construction proposed for this project, this species should not be adversely impacted.

Mountain plover

Mountain plovers have decreased in northwest New Mexico in recent decades primarily due to draught. They may now be extirpated from San Juan County. There is some marginal plover habitat near the project area, in the Monsisco Wash area. No plovers were seen during surveys. Because there is no new construction proposed for this project, this species should not be adversely impacted.

Yellow-billed Cuckoo

Yellow-billed cuckoo has decreased to the point that it is a rare breeder in the Four Corners region. Riparian habitat where the pipeline route enters the floodplain of the San Juan River is not suitable for cuckoo nesting. Riparian vegetation along the floodplain is severely degraded and overgrown with exotic vegetation. This species requires a mature canopy of cottonwoods.

Because there is no new construction proposed for this project, there will be no habitat alteration of potential cuckoo habitat.

Yellow Warbler

Yellow warblers are uncommon nesters along the San Juan River, where suitable willow habitat is present. No Yellow warblers were seen during surveys near the floodplain of the San Juan River. Because there is no new construction proposed for this project, this species should not be adversely impacted.

Southwestern Willow Flycatcher

Riparian habitat where the pipeline route enters the floodplain of the San Juan River is not suitable for flycatcher nesting. Riparian vegetation along the floodplain is severely degraded and overgrown with exotic vegetation.

Migrant willow flycatchers (*Empidonax trailii*) of subspecies other than *extimus* are uncommon late spring migrants along the San Juan River.

Because there is no new construction proposed for this project, there will be no habitat alteration of potential Southwestern willow flycatcher habitat.

Peregrine Falcon

The area is potential foraging and migrational habitat for the peregrine falcon. This raptor requires steep cliffs that are typically > 30 meters in height (Mikesic, D. G. and Nystedt, J. R., 2005). No active raptor nests were observed during surveys. Peregrine falcons could occasionally occur within the action area in migration. Because there is no new construction proposed for this project, this species should not be adversely impacted.

Bald Eagle

The majority of the site is poor foraging habitat for wintering or migrant bald eagles due to a lack of prey base. Large cottonwood snags along the San Juan River are completely absent from the project area. Wintering or migratory eagles may occasionally occur in this area. Because no impact to riparian habitat along the San Juan is anticipated from the proposed project and given uncommon occurrence of bald eagles in the area, this species should not be adversely impacted by the proposed project.

Kit Fox

Kit foxes are uncommon to rare in open deserts within the project area. No foxes or fox sign was observed during surveys. Because there is no new construction proposed for this project, this species should not be adversely impacted.

Migratory Birds

Migratory birds are protected under the Migratory Bird Treaty Act. Birds protected under the Act include all common songbirds, waterfowl, shorebirds, hawks, owls, eagles, ravens, crows, native doves and pigeons, swifts, martins, swallows and others, including their body parts (feathers, plumes etc.), nests, and eggs. The Act protects migratory birds from a "take". Take is defined as "to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or any attempt to carry out these activities". A "take" does not include habitat destruction or alteration, as long as there is not a direct taking of birds, nests, eggs, or parts thereof.

Seventeen bird species observed during the wildlife surveys are protected under the Migratory Bird Treaty Act (see the species list in Section 6.0 below). Because there is no new construction proposed for this project, there will be no adverse impacts to migratory birds.

6.0 Species Observed During the Survey

Avian species observed:

Mallard (*Anas platyrhynchos*)
Great Blue heron (*Ardea herodias*)
Red-tailed hawk (*Buteo jamaicensis*)
American kestrel (*Falco sparverius*)
Northern harrier (*Circus cyaneus*)
Killdeer (*Charadrius vociferus*)
Mourning dove (*Zeaida macroura*)
Burrowing owl (*Athene cunicularia*)

Common raven (*Corvus corax*)
Barn swallow (*Hirundo rustica*)
Horned lark (*Amerophila alpestris*)
Say's phoebe (*Sayornis saya*)
Western kingbird (*Tyrannus verticalis*)
Rock wren (*Salpinctus obsoletus*)
Spotted Towhee (*Pipilo maculatus*)
Brewer's sparrow (*Spizella breweri*)
Black-throated Sparrow (*Amphispiza bilineata*)
House finch (*Carpododus mexicanus*)

Mammalian species observed:

Kangaroo rat (*Dipodomys spp.*)
Gunnison's prairie dog (*Cynomys gunnisoni*)
Antelope ground squirrel (*Ammospermophilus leucurus*)
Coyote (*Canis latrans*)
Desert cottontail (*Sylvilagus audubonii*)
Black-tailed jackrabbit (*Lepus californicus*)

Reptilian species observed:

Plateau lizard (*Sceloporus tristricus*)
Western whiptail (*Aspidoscelis tigris*)
Plateau striped whiptail (*Aspidoscelis velox*)
Side-blotched lizard (*Uta stansburiana*)

Mammalian observations are generally from tracks, scat, and other sign.

7.0 Recommendations

Because there is no new construction proposed for this project, there are no recommendations regarding wildlife for this project.

Signature of Author:



Charles Black
October 1, 2015

8.0 References

Mikesic, D. G. and J. R. Nystedt. 2001. Species Accounts for *Empidonax trailii extimus*.
Updated 15 February 2005. Navajo Natural Heritage Program. P. O. Box
1480. Window Rock, Arizona 86515.

Mikesic, D. G. and J. R. Nystedt. 2001. Species Accounts for *Aquila chryaetos*.
Updated 15 February 2005. Navajo Natural Heritage Program. P. O. Box
1480. Window Rock, Arizona 86515.

Appendix 5

CRCF Place Holder

**BIOLOGICAL RESOURCES COMPLIANCE FORM
NAVAJO NATION DEPARTMENT OF FISH AND WILDLIFE
P.O. BOX 1480, WINDOW ROCK, ARIZONA 86515-1480**

It is the Department's opinion the project described below, with applicable conditions, is in compliance with Tribal and Federal laws protecting biological resources including the Navajo Endangered Species and Environmental Policy Codes, U.S. Endangered Species, Migratory Bird Treaty, Eagle Protection and National Environmental Policy Acts. This form does not preclude or replace consultation with the U.S. Fish and Wildlife Service if a Federally-listed species is affected.

PROJECT NAME & NO.: Chaco Pipeline Right-of-Way Grant

DESCRIPTION: CCI seeks the approval for the renewal of a ROW for the continued operation and maintainance of an existing natural gas pipeline. The pipeline is 21.414 miles (113,053.83 ft.) in length with a 40-ft. wide corridor. Total acreage is 103.814 acres.

LOCATION: Upper Fruitland and Huerfano Chapters, San Juan County, New Mexico

REPRESENTATIVE: Permits West, Inc. for CCI San Juan LLC

ACTION AGENCY: Navajo Nation and Bureau of Indian Affairs-Navajo Region

B.R. REPORT TITLE / DATE / PREPARER: Chaco Pipeline Right-of-Way Grant/12 OCT 2015/Permits West, Inc.

SIGNIFICANT BIOLOGICAL RESOURCES FOUND: Area 1 & 3. [1] There are 3 areas containing potential habitat for ALFO & SCCLBR and 36 areas of potential habitat for ASSA per Marian Rohman, Permits West (08 OCT 2015); [2] Potential nesting habitat existing along the San Juan River for COAM & EMTREX.

POTENTIAL IMPACTS

NESL SPECIES POTENTIALLY IMPACTED:

- [1] *Aquila chrysaetos* (Golden Eagle) G3, GBENPR, BGEPA, MBTA
- [2] *Buteo regalis* (Ferruginous Hawk) G3, MBTA
- [3] *Athene cunicularia* (Burrowing Owl) G4, MBTA
- [4] *Aliciella formosa* (Aztec Gilia) G4
- [5] *Asclepias sanjuanensis* (San Juan Milkweed) G4
- [6] *Sclerocactus cloveriae brackii* (Brack Hardwell Cactus) G4

FEDERALLY-LISTED SPECIES AFFECTED:

- [1] *Coccyzus americanus* (Yellow-billed Cuckoo) G2, Threatened, MBTA
- [2] *Empidonax traillii extimus* (Southwestern Willow Flycatcher) G2, Endangered, MBTA

OTHER SIGNIFICANT IMPACTS TO BIOLOGICAL RESOURCES: Continued O&M.

AVOIDANCE / MITIGATION MEASURES: NA

CONDITIONS OF COMPLIANCE*: [1] Potential nesting habitat exists within the San Juan River corridor for the Yellow-billed Cuckoo (*Coccyzus americanus*) and the Southwestern Willow Flycatcher (*Empidonax traillii extimus*), two species listed for protection under the Endangered Species Act. Without formal protocol surveys, light to heavy

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maintenance activity shall not be allowed in the San Juan River corridor and within ¼ mile of riparian habitat during 01 MAY-31 AUG;

[2] Light to heavy maintenance activity will not be allowed in Sections 26 & 35, T29N, R14W during the Golden Eagle breeding season of 15 JAN-15 JUL. If the breeding season cannot be avoided, pre-action surveys will be required. The NNDFW must be contacted with the survey results before maintenance activity can begin;

[3] Light to heavy maintenance activity will not be allowed in Sections 29, 33, & 34, T27N, R12W and Sections 3 & 4, T26N, R12W during the Ferruginous Hawk breeding season of 01 MAR-31 JUL. If the breeding season cannot be avoided, pre-action surveys will be required. The NNDFW must be contacted with the survey results before maintenance activity can begin;

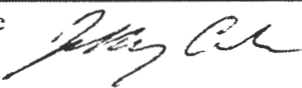
[4] Light to heavy maintenance activity shall avoid the Burrowing Owl (*Athene cunicularia*) breeding season of 01 MAR-15 AUG where suitable breeding habitat exists within and adjacent to the pipeline ROW. If the breeding season cannot be avoided, pre-action surveys will be required. The survey area must include a 0.4 km (¼ mi) buffer from the edge of disturbance. Activity will be not allowed within a ¼ mile of an active nest burrow until the young have fledged the nesting area;

[5] CCI and/or CCI's biological contractor shall consult with the NNHP botanist if pipeline maintenance involves ground disturbance and/or noxious weed control in areas where potential habitat exists for the Aztec Gilia (*Aliciella formosa*), San Juan Milkweed (*Asclepias sanjuanensis*), and Brack Hardwell Cactus (*Sclerocactus cloveriae brackii*) to ensure that the plants are avoided. Fencing of the plants is not recommended.

FORM PREPARED BY / DATE: Pamela A. Kyselka/03 NOV 2015

COPIES TO: (add categories as necessary)

☒ B.I.R. ☐ _____

<u>2 NTC § 164 Recommendation:</u>	Signature	Date
<input type="checkbox"/> Approval		11/16/15
<input checked="" type="checkbox"/> Conditional Approval (with memo)		
<input type="checkbox"/> Disapproval (with memo)		
<input type="checkbox"/> Categorical Exclusion (with request letter)		
<input type="checkbox"/> None (with memo)		
Gloria M. Tom, Director, Navajo Nation Department of Fish and Wildlife		

*I understand and accept the conditions of compliance, and acknowledge that lack of signature may be grounds for the Department not recommending the above described project for approval to the Tribal Decision-maker.

Representative's signature

Date



**PRESIDENT
RUSSELL BEGAYE
VICE PRESIDENT
JONATHAN NEZ**

NAVAJO FISH AND WILDLIFE P.O. BOX 1480 WINDOW ROCK, AZ 86515

03 November 2015

15perm108

Mike Deutsch, Project Director
Permits West, Inc.
37 Verano Loop
Santa Fe, New Mexico 87508

Dear Mike,

The Navajo Nation Department of Fish and Wildlife (NNDFW) reviewed the Environmental Assessment for CCI San Juan LLC's proposed **Chaco Pipeline Right-of-Way Grant** located in the Upper Fruitland and Huerfano Chapters, New Mexico. The purpose of this letter is to inform you that we are granting the proposed ROW grant a Conditional Approval. The ROW is approved with the following conditions:

[1] Potential nesting habitat exists within the San Juan River corridor for the Yellow-billed Cuckoo (*Coccyzus americanus*) and the Southwestern Willow Flycatcher (*Empidonax traillii extimus*), two species listed for protection under the Endangered Species Act. Without formal protocol surveys, light to heavy maintenance activity shall not be allowed in the San Juan River corridor and within 1/4 mile of riparian habitat during 01 MAY-31 AUG.

[2] Light to heavy maintenance activity will not be allowed in Sections 26 & 35, T29N, R14W during the Golden Eagle breeding season of 15 JAN-15 JUL. If the breeding season cannot be avoided, pre-action surveys will be required. The NNDFW must be contacted with the survey results before maintenance activity can begin.

[3] Light to heavy maintenance activity will not be allowed in Sections 29, 33, & 34, T27N, R12W and Sections 3 & 4, T26N, R12W during the Ferruginous Hawk breeding season of 01 MAR-31 JUL. If the breeding season cannot be avoided, pre-action surveys will be required. The NNDFW must be contacted with the survey results before maintenance activity can begin.

[4] Light to heavy maintenance activity shall avoid the Burrowing Owl (*Athene cunicularia*) breeding season of 01 MAR-15 AUG where suitable breeding habitat exists within and adjacent to the pipeline ROW. If the breeding season cannot be avoided, pre-action surveys will be required. The survey area must include a 0.4 km (1/4 mi) buffer from the edge of disturbance. Activity will be not allowed within a 1/4 mile of an active nest burrow until the young have fledged the nesting area.

[5] CCI and/or CCI's biological contractor shall consult with the NNHP botanist if pipeline maintenance involves ground disturbance and/or noxious weed control in areas where potential habitat exists for the Aztec Gilia (*Aliciella formosa*), San Juan Milkweed (*Asclepias sanjuanensis*), and Brack Hardwell Cactus (*Sclerocactus cloveriae brackii*) to ensure that the plants are avoided. Fencing of the plants is not recommended.

Please contact me at 928-871-7065 with any questions that you have concerning the review of this project.

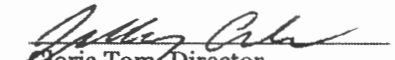
Sincerely,


Pamela A. Kyselka, Wildlife Biologist
Navajo Natural Heritage Program

RE: Chaco Pipeline Right-of-Way Grant

15perm108

CONCURRENCE


Gloria Tom, Director
Department of Fish and Wildlife

11/16/15
Date

xc: CONS-100-15
BIA

Appendix G-4

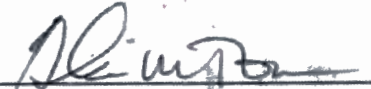


THE NAVAJO NATION

RUSSELL BEGAYE
JONATHAN NEZ

MEMORANDUM

TO : Jeffrey Cole, Wildlife Manager
Department of Fish and Wildlife

FROM : 
Gloria M. Tom, Director
Department of Fish and Wildlife

DATE : November 10, 2015

SUBJECT : DELEGATION OF AUTHORITY

I will be on leave beginning Thursday, November 12 through Tuesday, November 17, 2015. I am hereby delegating you to act in the capacity of the Director, Department of Fish and Wildlife, effective 8:00 a.m. on Thursday, November 12, 2015. This delegation shall end at 5:00 p.m. on Tuesday, November 17, 2015.

Your authority will cover the review and signing off of all routine documents pertaining to the Department of Fish and Wildlife, except for issues that you feel should have the attention of the Director.

ACKNOWLEDGEMENT


Jeffrey Cole, Wildlife Manager
Department of Fish and Wildlife