

CHAPTER 3

CULTURAL RESOURCES

3.1 INTRODUCTION

This cultural resources information covers Areas I, II, III, and IV North, industrial sites, and right-of-ways associated with the Navajo Mine coal lease (see EXHIBIT 3-1).

Archaeological actions on the Navajo Mine leasehold have taken place in phases corresponding to the sequence of mining activities. The surveys were conducted to comply with all applicable Federal, State, and Tribal laws.

3.2 CULTURAL/HISTORICAL BACKGROUND

Prior to any land disturbance in the start of the Four Corners Power Plant and Navajo Mine, BHPBilliton (formerly BHP, Utah Construction & Mining Co., and Utah International Inc. (UII)) and Arizona Public Service (APS) obtained the services of the Laboratory of Anthropology at the University of New Mexico to conduct an archaeological survey of the Area I and Area II. The North Area was cleared in June 1961 and the report from this initial survey was completed in 1962 (Greminger and Sciscenti, 1962). Area II was subsequently cleared on August 25, 1969.

Archaeological work done at Navajo Mine is in accordance with the authorities of the Historic Preservation Act of 1966 (Public Law 98-655), The National Environmental Policy Act of 1966 (Public Law 91-190) executive order 11593, the Archaeological Conservation Act of 1974 (Public Law 93-291), the Navajo Tribal Council Antiquities Preservation Law (enacted January 27, 1972), and the Archaeological Resources Protection Act of 1979 (Public Law 96-95).

From September 1973 to December 1974, an archaeological survey (Reher, 1977) was conducted for Areas III, IV North and V. In this survey, 718 archaeological sites were identified and 153 were

determined eligible for inclusion in the National Register of Historic Places. Prior to mining, seven archaeological actions were completed to mitigate the impacts of mining on eligible sites identified by Reher (1977).

The archaeological actions taken by BHP from 1961 to 1992 have resulted in the clearance of BHP coal lease lands at Navajo Mine, from the Area I to Area IV North. Exceptions are Blocks A and 11 archaeological sites in the southern portion of Area IV North. Upon recommendation from TRC Mariah, a prayer offering site was fenced off in the Block C area in 1997 to prevent disturbance from mining. TABLE 3-1 summarizes the ten actions with clearance dates, principle agency involved, area clearance granted, and principle consultant involved in the major mitigation projects. Additional correspondence, i.e., letters, reports, etc., on previous actions can be found in Permit NM-0003C, Chapter 10, Appendices 10-A through 10-D.

Artifacts and records from these mitigation and research activities that have not been returned to the Navajo Nation are maintained at either the Museum of New Mexico, the University of New Mexico, or the San Juan County Museum.

In 2004, BHP contracted with the San Juan County Museum Association's Division of Conservation Archaeology (DCA) to perform an updated inventory/evaluation of archaeological and historical properties within the Area IV North portion of the Navajo Mine lease area. In performing this work DCA reviewed the literature and conducted field inventories to re-locate and characterize 57 sites that had been identified within this area during previous archaeological survey work (Hofan and Winter, 1983; Reher 1977). In addition, DCA identified 16 new sites of varying potential significance. A total of 73 historic properties were located and/or identified during the evaluation project. A report of their survey and findings is found under separate cover titled "The Eligibility Evaluation of Cultural Resources Located Within Lease Area IV North of BHP Billiton Navajo Coal Company's Navajo Mine". This document is to be kept as a confidential report, a copy will be kept on the mine site and available upon request.

TABLE 3-1

NAVAJO MINE ARCHEOLOGICAL CLEARANCE

Clearance Area		Acres	Clearance Approval	Clearance Date	Project Documentation ¹
1.	Mining Area I ² and Industrial Complex.	5307.60	Museum of New Mexico (MNM) ³	06/61	Report: "Archaeology of the 4 Corners Power Project", Greminger & Sciscenti, 1962.
2.	Mining Area II.	3391.10	MNM	08/25/69	Recommendation from MNM to NPS after survey finds no arch. sites.
3.	The "Neck", North of Area III.	160.00	National Park Service (NPS).	12/16/76	Report: "Archaeological Survey of the 160 ac. part of Area III of the Navajo Mine Leasehold known as "the Neck"", conducted for UII, Cultural Resources Management Prog., New Mexico State Univ.
4.	NW Corner of Area III.	661.80	NPS.	06/26/81	Report: "Human Adaptations in a Marginal Environment, The Mitigation Project, 1980, Office of Contact Archaeology (OCA), UNM.
5.	SW Corner of Area III.	1583.74	NPS.	12/10/79	11/27/79 letter from OCA to NPS recommending clearance.
6.	Eastern Side of Area III.	2709.70	NPS.	09/25/81	08/27/81 letter from UII to NPS requesting clearance based on CGP survey.
7.	106 acres on Eastern Side of Area III plus most of the Southern part of Area IV North.	4247.20	Office of Surface Mining (OSM).	12/12/84	Report: "Economy and Interaction Along the Lower Chaco River", OCA, May 1983.

¹All documentation, correspondences, reports, etc., have been submitted to OSM/WSC and are maintained as confidential.

²Acres reflecting Mining Area I only.

³The Museum of New Mexico in 1961 certified the "clearance" since no clearances were required at that time.

TABLE 3-1 Continued

NAVAJO MINE ARCHEOLOGICAL CLEARANCE

	Clearance Area	Acres	Clearance Approval	Clearance Date	Project Documentation ¹
8.	27 EQ Areas.	842.00	OSM.	12/07/88	Report: "Archaic, Puebloan, and Navajo Land Use and Occupation Along the Middle Chaco River", Southwest Archaeological Consultants Inc. (SAR).
9.	Block "B".	820.00	OSM.	02/10/92	Approval letter from OSM/WSC to BHP. OSM in receipt of 2/5/92 submittal of the Navajo Nation Historic Preservation Officer & the State Historic Preservation Officers, 1/7/92 concurrence with DCA's 8/5/91 report "Archaeological Testing & Evaluation Report" for site NM-H-21-162.
10.	Block "D".	19.50	OSM.	10/12/93	Approval letter from OSM/WSC to BHP, based upon review of "Preliminary Data Recovery Report for Site LA 88815", DCA, August 1993.
	TOTAL:	19742.64			

¹All documentation, correspondences, reports, etc., have been submitted to OSM/WSC and are maintained as confidential.

²Acres reflecting Mining Area I only.

³The Museum of New Mexico in 1961 certified the "clearance" since no clearances were required at that time.

Thirty-nine of the 73 sites in Area IV North have been recommended not eligible for listing on the National Register of Historic Places (NRHP) and the remaining 34 sites have been recommended potentially NRHP eligible. Following the Navajo Nation Historic Preservation Department's (NNHPD) review of the DCA report, a Cultural Resources Compliance Form will be issued in which the Effects and Conditions of Compliance will be outlined. These constitute the findings of the NNHPD. For those sites that may be determined not NRHP eligible, no further action will be required to protect them from potential mining impact ("No Historic Properties Affected"). For sites that are determined NRHP eligible and will be potentially impacted by the proposed mining operations (Historic Properties Affected – Adverse Effect"), measures to mitigate the adverse effects of the mining will be requested. These measures could include data recovery from excavations and/or additional ethnographic study. Mitigation plans will be developed for these sites, the development and implementation of which will occur prior to disturbance of the sites.

DCA has also identified Tradition Cultural Properties (TCPs) within the Area IV North lease area. Consultations with the NNHPD have resulted in the determination that ethnographic interviews will be conducted with the individuals and their families familiar with the TCPs. This second phase of the clearance process will be undertaken in 2005, with the results and recommendations to be submitted to the Navajo Nation HPD.

BHP will comply with the American Indian Religious Freedom Act (AIRFA), the Native American Graves Protection and Repatriation Act of 1990, the adopted Navajo Nation policy outlining "the appropriate procedures to employ in the confirmation of grave sites and human remains, and the identification of next of kin and their concerns". A copy of policy is located in Permit NM-0003C, Chapter 10, Appendix 10-D. A confidential exhibit of probable human burial locations within and adjacent to Navajo Mine Permit Area is kept on file at Navajo Mine and the Office of Surface Mining/Western Regional Coordinating Center (OSM/WRCC).

3.3

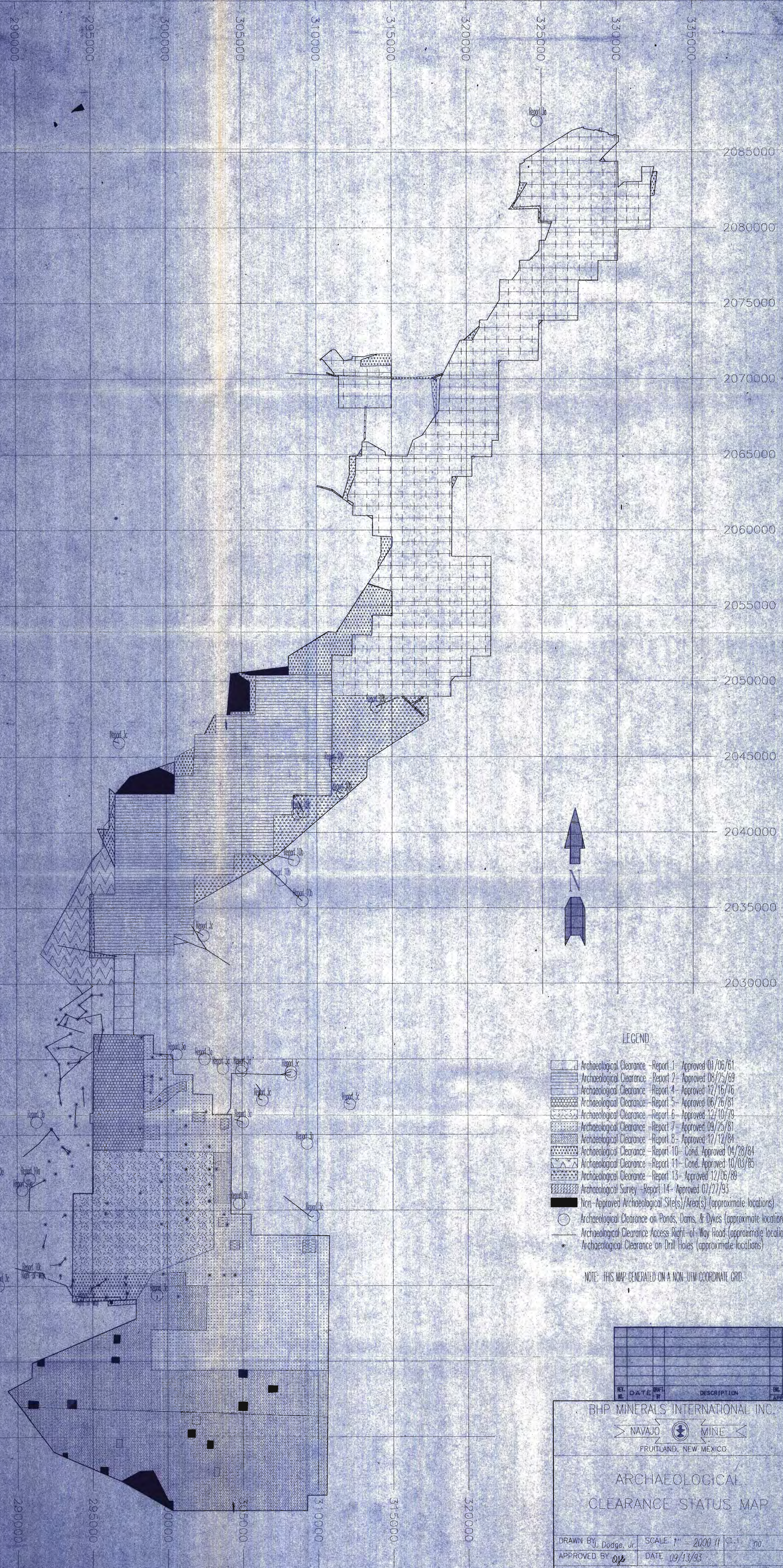
PROTECTION OF PUBLIC PARKS AND HISTORIC PLACES

No existing public parks will require measures to be taken at Navajo Mine to minimize or prevent impacts due to mining and reclamation operations.

Division of Conservation Archaeology. 2004. The Eligibility Evaluation of Cultural Resources Located Within Lease Area IV North of BHP Billiton Navajo Coal Company's Navajo Mine, Navajo Indian Reservation, Nenahnezad Chapter, Shiprock Agency, San Juan County, New Mexico. San Juan County Archaeological Research Center and Library, DCA Technical Report No. 04-DCA-114. 224 pp.

Greminger, H.C. and J.V. Sciscenti. 1962. Archeology of the Four Corners Power Project Museum of New Mexico Press, Number 5. Museum of New Mexico Papers in Anthropology, Santa Fe NM. 130 pp.

Reher, Charles A. 1977. Settlement and Subsistence Along the Lower Chaco River: The CGP Survey. The University of New Mexico Press, Albuquerque NM. 164 pp.



LEGEND

- Archaeological Clearance - Report 1 - Approved 01/06/61
- Archaeological Clearance - Report 2 - Approved 08/25/69
- Archaeological Clearance - Report 4 - Approved 12/16/76
- Archaeological Clearance - Report 5 - Approved 06/26/81
- Archaeological Clearance - Report 6 - Approved 12/10/79
- Archaeological Clearance - Report 7 - Approved 09/25/81
- Archaeological Clearance - Report 8 - Approved 12/12/84
- Archaeological Clearance - Report 10 - Cond. Approved 04/28/84
- Archaeological Clearance - Report 11 - Cond. Approved 10/03/85
- Archaeological Clearance - Report 13 - Approved 12/06/89
- Archaeological Survey - Report 14 - Approved 07/27/93
- Non-Approved Archaeological Site(s)/Area(s) (approximate locations)
- Archaeological Clearance on Ponds, Dams, & Dykes (approximate locations)
- Archaeological Clearance Access Right-of-Way Road (approximate locations)
- Archaeological Clearance on Drill Holes (approximate locations)

NOTE: THIS MAP GENERATED ON A NON-UTM COORDINATE GRID.

REV. NO.	DATE	DRAWN BY	DESCRIPTION	ENG. E.A. PHILIPPS

BHP MINERALS INTERNATIONAL INC.

NAVAJO MINE

FRUITLAND, NEW MEXICO

ARCHAEOLOGICAL CLEARANCE STATUS MAP

DRAWN BY <i>J. Dodge, Jr.</i>	SCALE 1" = 2000 ft	C-11	no.
APPROVED BY <i>[Signature]</i>	DATE 09/13/93		
EXHIBIT NO. 3-1			LOCATION NO.