

Archeological Survey Report for
Yates Petroleum Corporation's
Proposed Lusk AHB Fed. Well No. 7 and Alternate
and Lusk AHB Fed. Well No. 9 and Easement
Situated on Federal Lands in
Lea County, New Mexico
PAC Report No. 92033

prepared by
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submitted by
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Permit No. 6-2920-91-K
State (NM) Permit No. 92-024

ABSTRACT

On 31 March, 1992, Pecos Archeological Consultants undertook the archeological survey of three drill locations, which includes an alternate, and an access easement. This project will be situated on federal lands in Lea County, New Mexico. These public lands occur in section 35, T19S, R32E, Lea County, NM. A total of 11.7 acres of federal surface ownership were investigated during this project in 7 man-hours, including report preparation. Field archeologist for the project was Robert J. Martin. Two previously-recorded archeological sites, NM-06-5319 and PAC/Ed-151, were encountered and sites forms updated during the course of the survey, and Pecos Archeological Consultants are recommending clearance for the alternate Lusk AHB Fed. No. 7 and that the Lusk AHB Fed. No. 9 be moved as per specified in the "RECOMMENDATIONS" portion of this report.

INTRODUCTION

On 26 March, 1992, Pecos Archeological Consultants were requested by Mr. Clifton May, representing Yates Petroleum Corporation, to perform the archeological survey for three drill locations, including an alternate staking, and one attendant access road scheduled to impact public lands in Lea County, New Mexico. This land is administered by the Bureau of Land Management, and it will be impacted by heavy construction equipment. Consequently, federal law requires that an intensive archeological survey be performed to identify what cultural resources are present in the project area. Pecos Archeological Consultants therefore undertook this project on 31 March, 1992. Fieldwork for this project was performed by Robert J. Martin. The following is a report of the field activities and findings resulting from this survey.

SURVEY METHODOLOGY

Pecos Archeological Consultants conducted this survey by physically examining the entire proposed easement that will result from the project. pedestrian inspection along parallel transects was accomplished over the entire impact zone. The archeologists departed established transects to also inspect nearby areas where cultural resources were likely to occur. All prominent deflation basins and denuded areas were given special attention. The proposed drill locations, which measure 400 ft X 400 ft, and the entire areas of these were archeologically surveyed in 15 m transects, and an additional 30m area was surveyed around them. This survey was conducted on a sunny day. Surface visibility, which was 25-60% vegetation-free with soil

conditions → dry, made this the most practical methodology for effectively sampling the impact zone which will result from this project as planned.

LOCATIONAL DATA

A proposed drill location which Yates Petroleum Corporation plans to construct, designated as the Lusk AHB Fed. Well No. 9, will measure 400 ft X 400 ft, or an area 3.67 acres. This location will be situated 1650 ft from the North Line and 990 ft from the East Line, or in the:

SE1/4 NE1/4, section 35, T19S, R32E, NMPM, Lea County, NM
An access road to be constructed for the Lusk AHB Fed. Well No. 9, will measure 100 ft X 300 ft, or an area of 0.69 acres. The easement will be situated in the:

SE1/4 NE1/4, section 35, T19S, R32E, NMPM, Lea County, NM.
SW1/4 NE1/4, section 35, T19S, R32E, NMPM, Lea County, NM

Another drill location, designated as the Lusk AHB Fed. Well No. 7, will measure 400 ft X 400 ft, or an area of 3.67 acres. This location will be situated 2310 ft from the North Line and 2310 ft from the West Line, or in the:

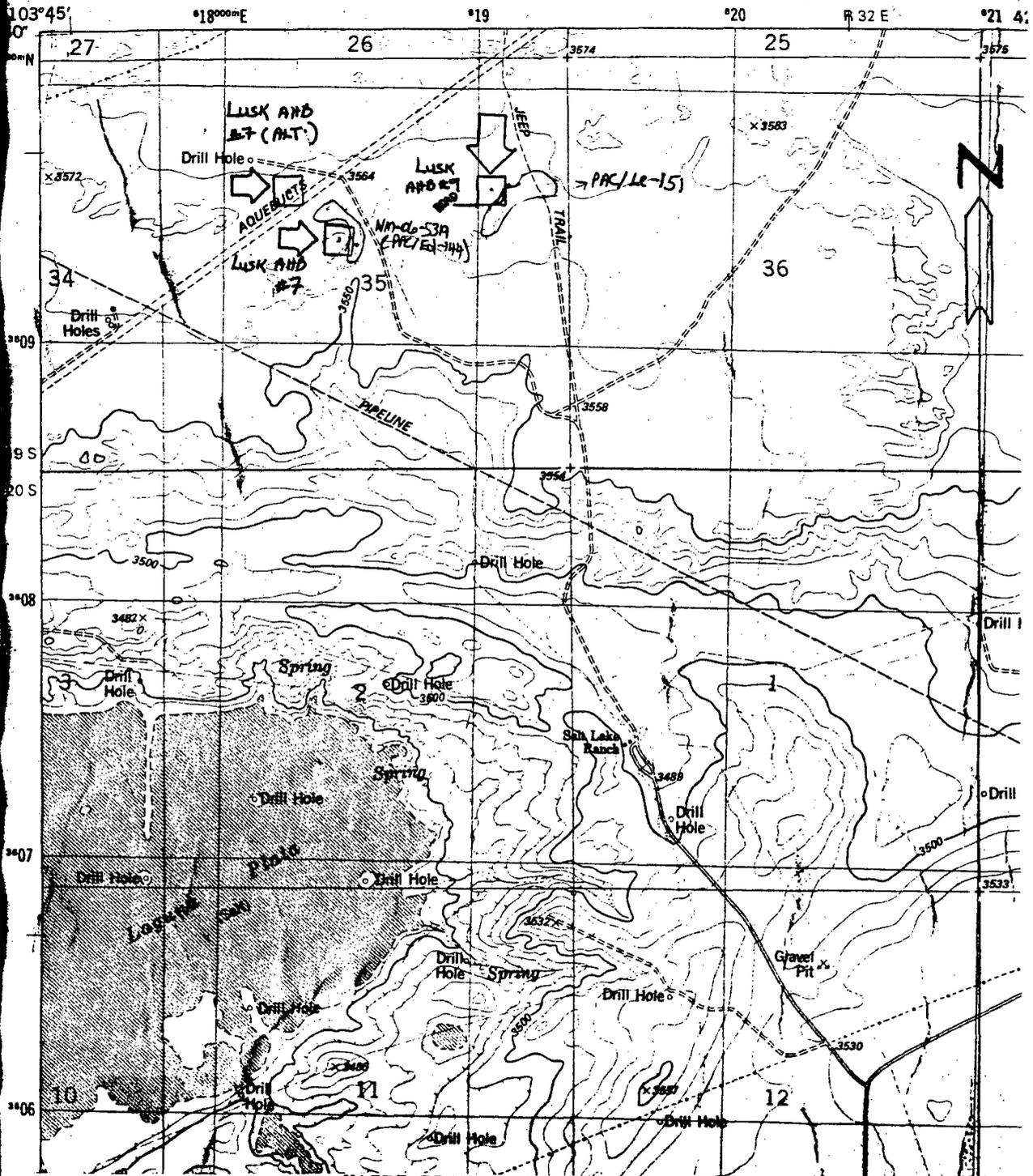
SE1/4 NW1/4, section 35, T19S, R32E, NMPM, Lea County, NM

An alternate drill location, also designated as the Lusk AHB Fed. Well No. Z, will measure 400 ft X 400 ft, or an area of 3.67 acres. This alternate will be situated 1650 ft from the North Line and 1650 ft from the West line, or in the:

SE1/4 NW1/4, section 35, T19S, R32E, NMPM, Lea County, NM

Map Reference: USGS Laguna Gatuna Quadrangle, 7.5 Minute Series, 1984.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY



YATES PETROLEUM CORPS.
35 Proposed Lusk AHB Fed. No. 7 and Alternate
and Lusk AHB Well No. 9 and Attendant Access, Flow, and Power Easement
Sec. 35, T19S, R32E, NMPM, Lea County, NM
Map Reference: USGS Laguna Gatuna Quadrangle, 7.5 Minute Series, 1984.

Well
Pit
Drill
Hole

ENVIRONMENT

The project area will be located on the rolling plains north of Laguna Plata. The undulating landform is characterized by stabilized sand dunes which range from 1 - 5 meters in height. These dunes are interspersed with deflation basins which have been formed by aeolian action. Local soils in the region consist of fine textured loamy sands which belong to the Peyote-Maljamar-Kermit and Kermit-Berino soil associations. These soils are drained internally. Elevation in the project area is between 3550 and 3570 ft above sea level.

Biologically, this region is classified within the Lower Sonoran Life Zone. The plant inventory for the project area includes the major overstory plant, shin oak (Quercus havardii); also included are mesquite (Prosopis juliflora), plains yucca (Yucca glauca), broom snakeweed (Gutierrezia sarothrae), and various grasses. Some of the more typical faunal inhabitants of the region are mule deer (Odocoileus hemionus), pronghorn antelope (Antilocapra americana), coyote (Canis latrans), jackrabbit (Lepus sp.), cottontail rabbit (Sylvilagus sp.), several varieties of rattlesnake (Crotalus spp.) and, prior to their near extinction in the nineteenth century, bison (Bison bison) also ranged in the area.

ARCHEOLOGICAL RESOURCES

Pecos Archeological Consultants performed a literature search to determine if any archeological sites had already been recorded in the vicinity of the project area. Current BLM files from the Roswell Area Bureau of Land Management and the National Register of Historic Places were consulted in this endeavor. It was determined that the following are located within a reasonable distance from the project area:

PAC/Le-151 is located 100 m from the project area and was encountered and the site form updated.

NM-06-5319 is situated within the project area and the site form was updated.

NM-06-5046 is located 225m from the project area and was not encountered.

NM-06-5031 is located 225m from the project area and was not encountered.

NM-06-5032 is located 260m from the project area and was not encountered.

AR-30-6-625 is located 315 m from the project area and was not encountered.

LA-43360 is located 215m from the project area and was not encountered.

Observed Archeological Manifestations:

Two previously-recorded archeological sites, NM-06-5319 and NM-06-5330 (PAC/Le-151) were encountered during the course of project and would be in danger from impact if the proposed projects were completed:

SITE FORM UPDATE FOR FIELD SITE NO.: NM-06-5319

Location:

NE1/4 SE1/4 NW1/4, SE1/4 SE1/4 NW1/4, NE1/4 NE1/4 SW1/4, sec. 35, T19S,
R32E, Lea County, NM
UTM Coordinates: Zone 13, N3,609,400; E618,220

Dimensions: 080 X 285m

Elevation: 3560 ft above sea level

Temporality: Jornada Mogollon Period, Querecho or Maljamar Phase, A.D. 650 -
A.D 1300

BLM Category: 2

Map Reference: USGS Laguna Gatuna Quadrangle, 7.5 Minute Series, 1984.

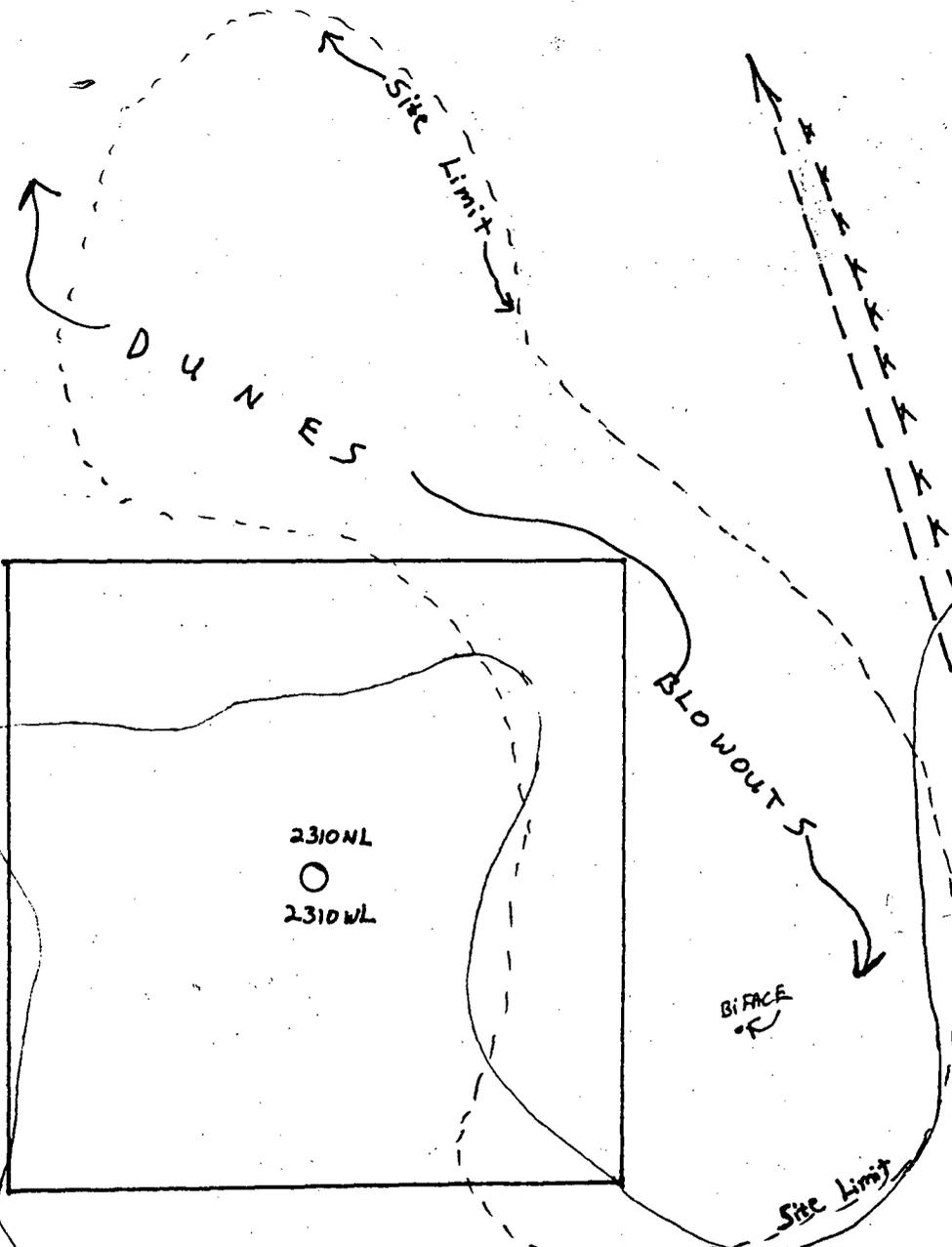
Observations:

NM-06-5319 was originally recorded as much smaller; however the site extends discretely to the southeast east contiguously with a narrow duned ridge, and the characteristically light artifact distribution seen on the original record is seen continuing east to the upper contours of a shallow arroyo and westward of there until the duned area diminishes in microrelief. The site is otherwise essentially the same as the original recording in physical characteristics of the terrain, artifact discription, and site orientation. A light tan chert biface was recorded 96m E/SE of a current proposed drill hole on the site, or on the SE portion of the site; the location can be seen on the revised site map. The piece measures 0.75 in thickness, 3.5 cm at its widest point, and 3.85cm at its longest. The piece is steeply beveled, retouched, and utilized on one edge and retouched and utilized on an excurvate edge. A corner notch can be seen, but that area has not been utilized and may result from a thinning strike inadverantly countering a ridge. The piece was collected and given to the BLM for

curation. The biface is not diagnostic.

The site appears to have been utilized sporadically over time, and because the site's temporality was established based on four sherds on the NW portion of the site it is possible that a thorough surface collection will demonstrate the presence of additional components, one of which will be Archaic. The site's significance could be that aboriginal bands and individuals utilized the area incidentally to movement towards water and game surely available at Laguna Flata, which is located one mile to the south.

AGUE DUCT
AGUE DUCT



DUNES

BLOWOUTS

NM-06-5319
(PAC/ED-144) REVISED

3560 FE.

3550 FE.

Scale: 1 20m
60 FE

SITE FORM UPDATE FOR FIELD SITE NO. : NM-06-5330

Location:

NE1/4 SE1/4 NE1/4, NW1/4 SE1/4 NE1/4, SW1/4 SE1/4 NE1/4, sec. 35, T19S,
R32E, Lea County, NM
UTM Coordinates: Zone 13, N3,609,620; E619,150

Dimensions: 100 X 380m

Elevation: 3550 ft above sea level

Temporality: Jornada Mogollon Period, Querecho or Maljamar Phase, A.D. 650 -
A.D 1300

BLM Category: 2

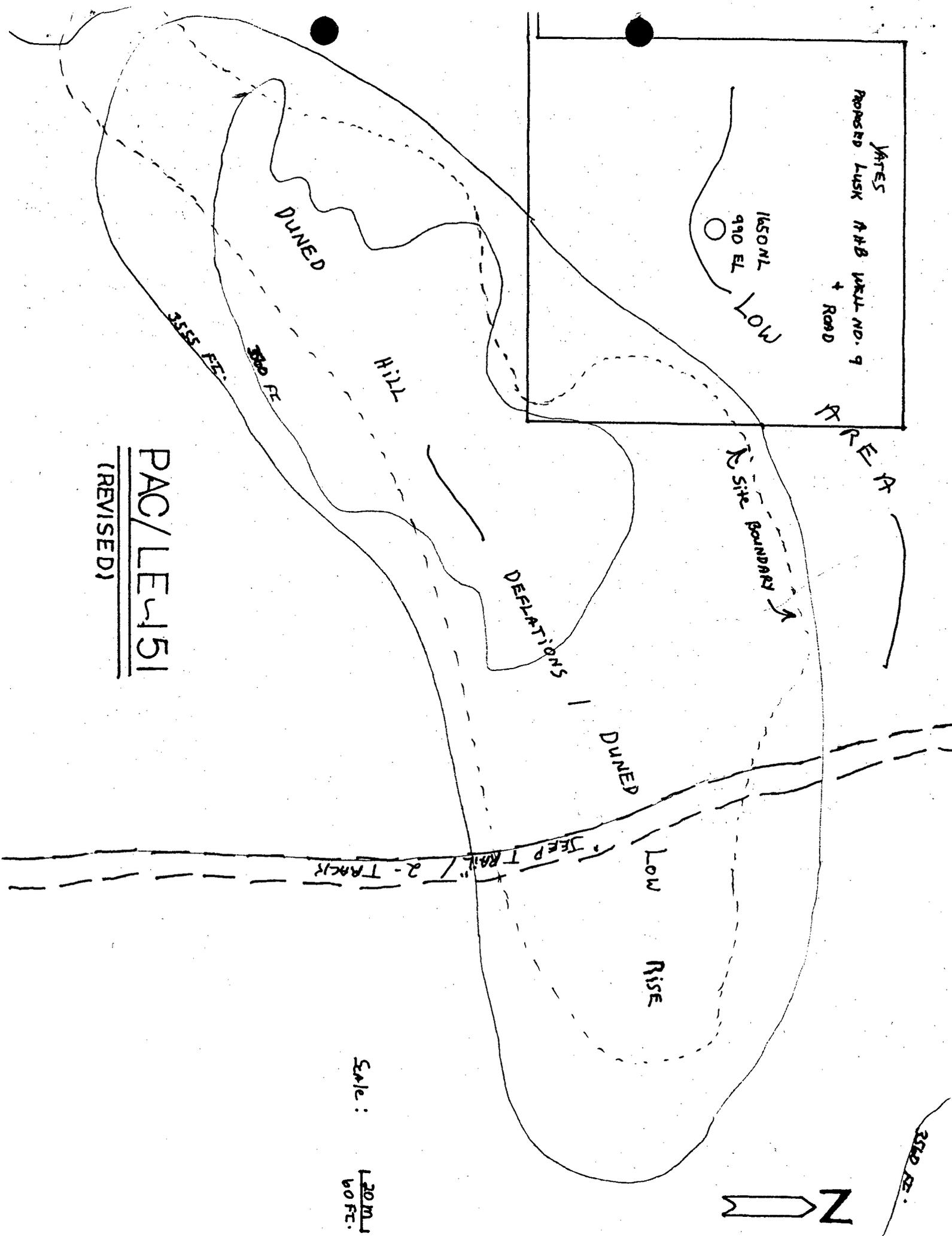
Map Reference: USGS Laguna Gatuna Quadrangle, 7.5 Minute Series, 1984.

Observations:

NM-06-5330 was originally recorded as much smaller; however very recent heavy four - wheel impact of the site area has caused more of the site area to become blown out, and this, in turn, reveals much more of the artifact assemblage. The site area is seen now as situated in an area of high dunes to the southwest that continues to the E/NE coextensively with a duned low rise. Artifact density is seen as several pieces per deflation to one or two pieces per deflation, including burned rock. Despite previously-mentioned recent impact to the site, most of the landform is still fairly well consolidated (this accounts partially for the light density of the visible artifact density). One center split piece of Jornada Brownware pottery can date the site to at least one incident of site utilization to the Jornada Period. A description of the site's artifact assemblage is essentially the same as that in the initial site recording, except for the lighter density. It could be, in fact, that the area is two separate site, with the concentration in the west grading east to another large artifact

concentration. Site orientaton could be to the low area to the north, which supports a growth of mesquite and which could have been a playa in culturally earlier times. Finally, the site's utilization could represent temporary event on several occasions by bands and groups moving to and from Laguna Plata.

The site appears to have been utilized sporadically over time, and because the site's temporality was established based on four sherds on the NW portion of the site it is possible that a thorough surface collection will demonstrate the presence of additional components, one of which will be Archaic. The site's significance could be that aboriginal bands and individuals utilized the area incidentally to movement towards water and game surely available at Laguna Plata, which is located one mile to the south.



PAC/LE451
(REVISED)

Scale: 1:20m / 60 FT.



350 FT.

RECOMMENDATIONS

1. In the case of the Lusk AHB Fed. Well No. 7, due to the presence of NM-06-5319, it is recommended that clearance not be granted; instead, it is recommended that the Lusk Fed. Well No. 7 ALTERNATE drill location, which was found to be clear of archeological remains, be used.

2. In the case of Lusk AHB Fed. Well No. 9, due to the presence of the archeological site, NM-06-5330 200, clearance as the well is staked is not recommended. Instead, it is recommended that the location be moved at least 200 ft to the north.

Final clearance for this project can be granted by the Bureau of Land Management only.