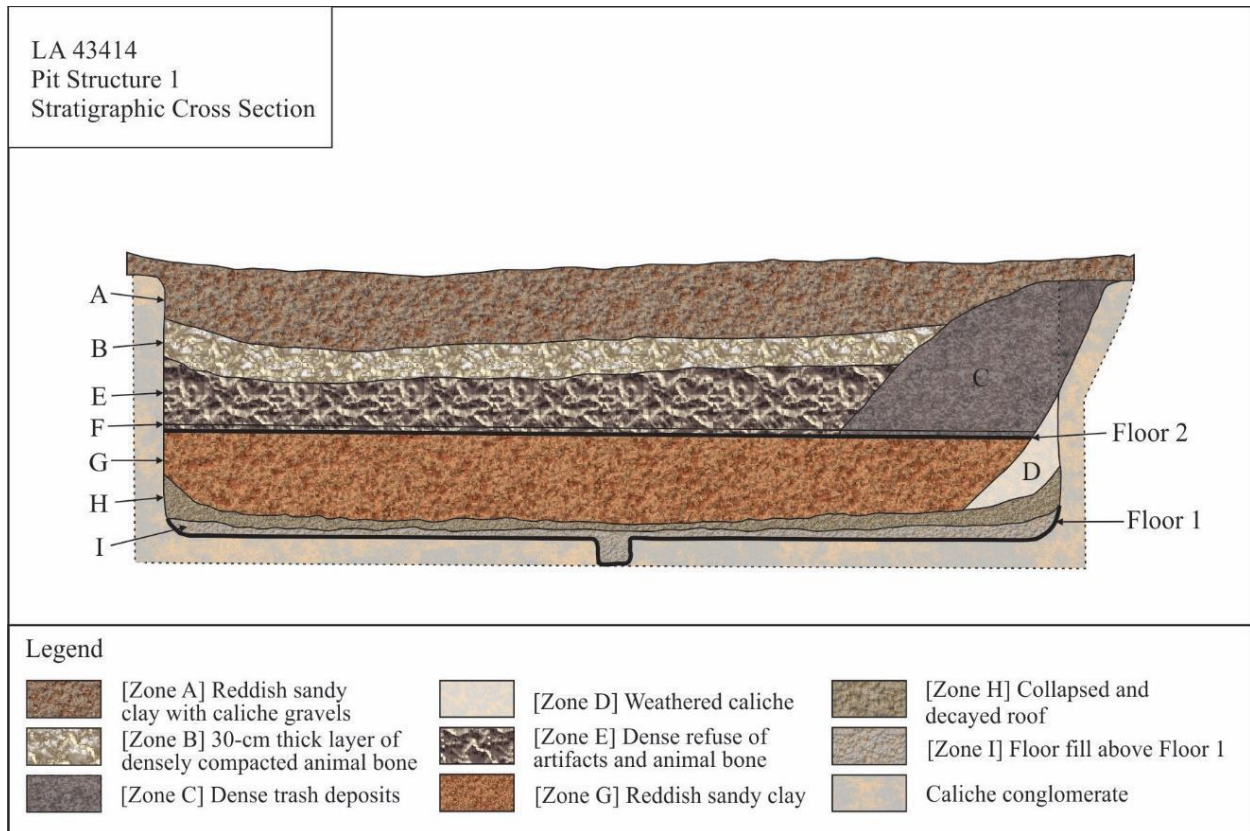

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This idealized cross-section of Pit Structure 1 located at the Merchant Site provides clues about the history of the prehistoric occupation of the site. In particular, the two prepared floors indicate two major periods of use, separated by an unknown interval of time. The band labeled “B” is a dense layer of animal bone (consisting primarily of bison) that may represent the remains of a feast held to mark the abandonment of the village. The archeological remains of villages such as the Merchant Site result from the way people lived and interacted with each other. Read more about a project to study village sites and their development inside this newsletter.

Introduction to the Permian Basin Programmatic Agreement (PA)

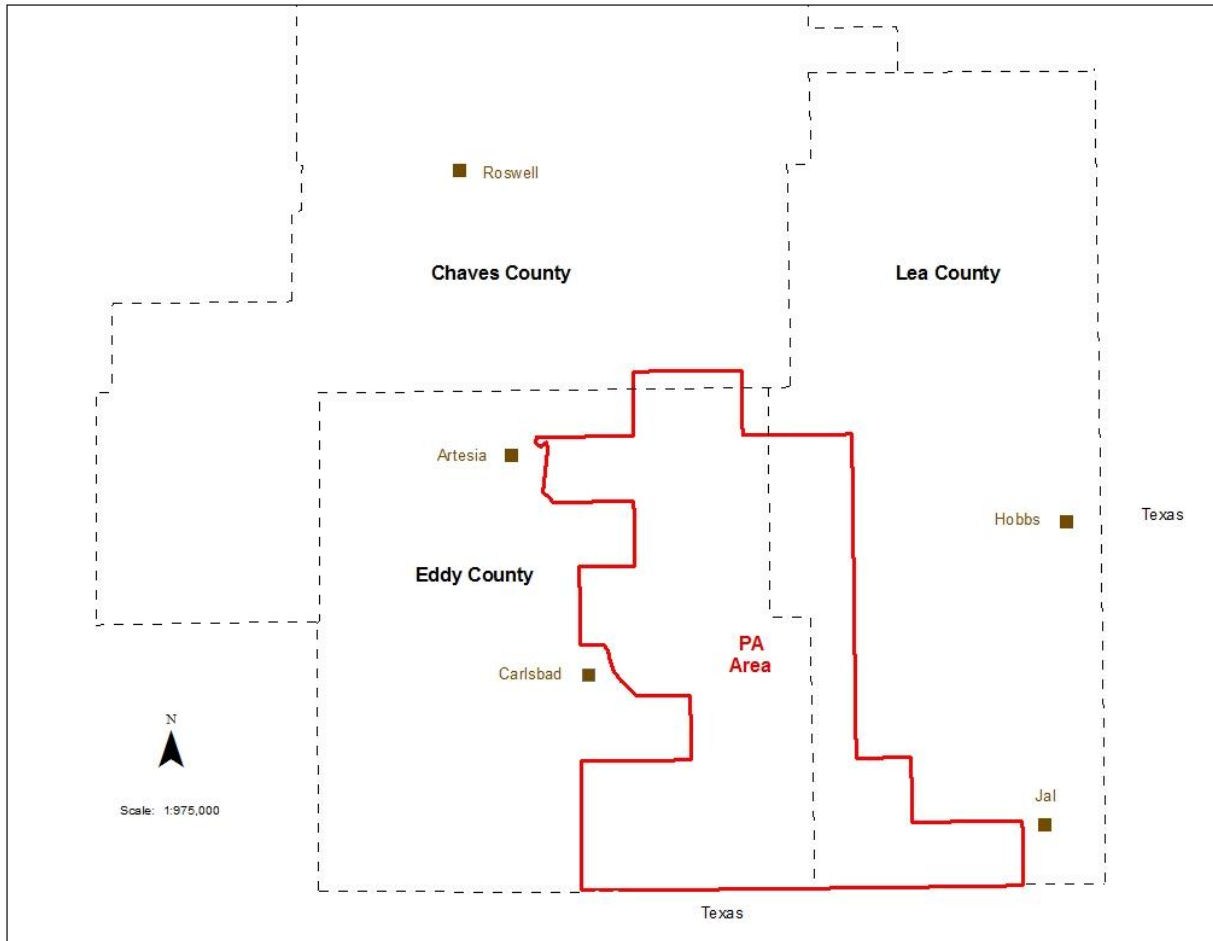


Figure 1. Map showing the Permian Basin PA Area.

The Permian Basin Programmatic Agreement (PA) is an alternate form of compliance with Section 106 of the National Historic Preservation Act of 1966, as amended, that is offered to the oil and gas industry, potash mining companies, and for other industrial projects located in southeastern New Mexico. The PA can be used for federal projects located on Bureau of Land Management (BLM) land or BLM sponsored projects located on private property. Originally begun as a Memorandum of Agreement (MOA), it was extended for a period of three years in April 2013 as a Programmatic Agreement (PA) and the PA was further extended for a period of 10 years beginning in May 2016. The PA area is located partially in Chaves, Eddy, and Lea counties. Proponents of projects within the PA area may contribute to a dedicated archeological research fund in lieu of contracting for project specific archeological surveys, provided their proposed projects avoid recorded archeological sites. This dedicated fund is used to study the archeology and history of southeastern New Mexico.

Current PA News

Research Update

“When have you dug enough at a site?” This is a simple question, but one that has a complicated answer. The question comes up because a new contract, BPA #10, “Additional Investigations at the Merchant Site (LA 43414) and TRU Survey at 51 Sites in the Carlsbad Field Office, New Mexico,” has been issued for additional excavation at the Merchant Site and at other locations in the Mescalero Plain.

The Merchant Site is a village site in Lea County with a complicated history, both in prehistoric times and in the 20th Century. As readers of the *Permian Quarterly* may remember, an article about the completion of a remediation project was published (Volume 4, Number 4) by the principal investigators, Myles Miller, Tim Graves, and Robert Leslie in which were described excavations undertaken by Leslie, primarily in the 1960s, and by Miller and Graves in 2015. The site is notable for having a group of domestic rooms, built on the ground surface with stone foundation walls, two deep pit structures (dug through hardened silicified caliche), extensive trash middens, and a nearby area that was possibly used for gardens. Altogether, a site with attributes that are completely different from the vast majority of other sites within the Carlsbad Field Office (CFO). Miller, Graves, and Leslie (2016) place the site into context with this description:

The Merchant site is representative of the Ochoa phase, a poorly understood time period of southeastern New Mexico dating from around A.D. 1300/1350 to 1450. The Ochoa phase, and the El Paso and Late Glencoe phases of the closely related Jornada Mogollon region to the west, are contemporaneous with the Pueblo IV period of the greater Southwest, the Antelope Creek phase of the southern Plains, and the Toyah phase of central Texas. As such, Merchant and other Ochoa phase settlements were part of the widespread patterns of population aggregation, migrations, and diasporas and accompanying developments in social and ritual organization that occurred throughout the Southwest, northern Mexico, and southern Plains during the fourteenth and fifteenth centuries.

The Merchant site was first excavated by the Lea County Archaeological Society (LCAS) between 1959 and 1965, but the results of the excavations were never fully reported. Robert Leslie published a brief paper on the site in the 1965 *Transactions of the First Regional Archaeological Symposium for Southeastern New Mexico and Western Texas*. Since the publication of Leslie’s paper the Merchant site attained a somewhat mythical status in New Mexico archaeology. This status was partially due to the fact that the LCAS excavations and Leslie’s 1965 publication gave tantalizing details on rooms with formal stone foundation walls (or cimientos), two large and deep pit structures that were called rooms or pithouses but had intriguing similarities to civic-ceremonial rooms of prehistoric and historic Southwestern cultures, thousands of projectile points and formal tools, a new indigenous ceramic ware called Ochoa Indented, and ceramics and marine shell obtained from distant sources. The mythical status was also due to the fact that although the abovementioned details were known among the avocational and professional archaeological communities of southeastern New Mexico, aside from Leslie’s brief and basic overview, little was truly known of the site beyond an amalgamation of hearsay and oral traditions.

The remediation of the site undertaken by Miller and Graves was to backfill the earlier LCAS excavations and in general to tidy up and secure the physical remains of the site. But they were to also remedy the lack of knowledge about the site, except that of “hearsay and oral tradition,” and they did that very well through a new report that combined an earlier draft report by Leslie with the findings of the 2015 work.

As with almost all archeological excavations new questions appear at the end of the dig and the Merchant Site remediation project is no exception. Chief among these was the question of whether or not the people at the Merchant Site grew corn or other garden crops? Charred corn (*Zea mays*) cupules and cob fragments came from hearths, postholes, storage pits, an ash pit, and from general room fill. No other excavated site in the CFO - including the dry caves and rockshelters in the Guadalupe Mountains, which had numerous perishable artifacts, such as baskets, cords, wooden objects, and feathers - has such direct evidence for the use of corn by their inhabitants.

An area of potential garden grids, formed by collecting and arranging large caliche cobbles in lines to form cells, was examined by excavations and sampling. Pollen samples from one of the pit structures in the village proper, coupled with samples from backhoe trenches and a possible garden cell were also examined. The results show that corn was grown near the site, but not at the location of the suspected garden cell that was examined.

Thus, the question of corn growing by the inhabitants is assumed, but not verified. This is important because growing corn leads people to use a different set of behaviors from people in those communities that trade for corn. This in turn alters the archeological interpretations that are made. Hopefully, a new approach to excavating in the assumed garden area will produce better results and allow for more firm conclusions about locally grown domestic crops. In addition, if confirmed as a garden area, this will be the first direct evidence of domestic gardening in the CFO.

Other unanswered questions concern the occupational history of the site and its formation through time. The archeological remains of the village include two deep pit structures, interpreted as large civic/ceremonial rooms, similar to kivas found in southwestern pueblos. Surface rooms, used as the primary living quarters for the inhabitants, are arranged in an “L” shape to the north of the pit structures.

One unanswered question is how did this arrangement come about? Was it designed that way in the beginning or did it develop through time? The pit structure that has seen the most excavation had evidence of two different periods of use, indicated by two superimposed prepared floors separated by a 60 cm zone of sandy clay. Unfortunately, the LCAS excavations were compromised by unknown looters who indiscriminately dug into the areas opened up by the LCAS in search of artifacts and destroyed much of the site’s stratigraphy for both the LCAS excavators and for present day archeologists. Determining the occupational history of the site will now depend upon vertical and horizontal stratigraphic relationships that may be found elsewhere in the site.

One portion of the site that can be searched for clues is in the form and construction history of the surface rooms. As the investigators note:

Some rooms were fully excavated and display intact walls, while other rooms were either disturbed by looters or were poorly excavated. As a result, the morphology and variability of domestic rooms remains unclear. The construction of walls is known from a small sample;

however, line drawings often do not match photographs of wall segments. Floor and subfloor features are particularly sketchy, and it is possible that inexperienced LCAS excavators missed many of the subtle indicators of subfloor pits and postholes. It is also possible that the house structures were very simple and the floor features typically found at other Southwestern pueblos were absent.

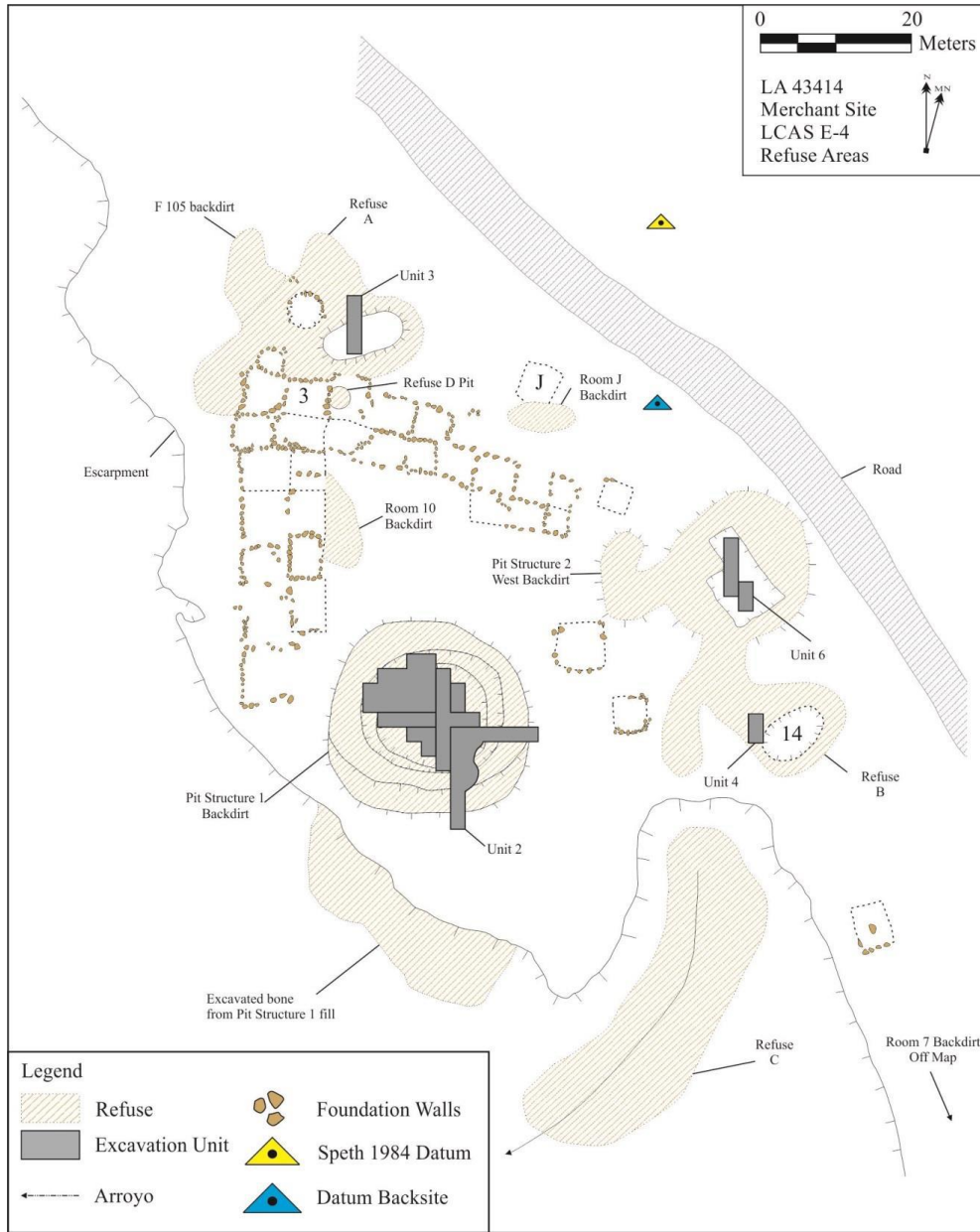


Figure 2. A map of the Merchant Site showing the relationship of surface rooms to the two Pit Structures. The contiguous rooms form an “L” shape. The dark squares and rectangles mark the location of the 2015 excavations.

A percentage of 13 unexcavated rooms will be examined to fully document their construction and content, while small trenches will examine the walls of the LCAS excavated rooms of the 1960s to document how they were joined together and to clarify their layout. In addition, ground-penetrating radar will examine areas adjacent to the rooms to determine if storage pits are located there similar to village sites elsewhere in southern New Mexico.

Another source of stratigraphy (and subsistence data) can come from intact refuse or midden deposits. Unfortunately, the prehistoric midden deposits at the site have been extensively disturbed by looters and the LCAS excavators mixed their screened soil filled with artifacts, minus the “good” projectile points and pottery sherds, within the looted prehistoric middens making the result a jumbled mess. If segments of undisturbed middens can be found small excavations into them can provide information not available elsewhere.

Artifacts made and used by the inhabitants of the Merchant Site will also contribute to new knowledge. Potters at the Merchant Site made a distinctive form of pottery called Ochoa Indented Corrugated, named for its method of construction. Vessels were constructed with overlapping bands of clay, like clapboard siding on a building, and then the corrugations were indented with vertical impressions produced by using small stone end scrapers. Complete vessels are needed to fully define this pottery type, but neither the 1960s nor the 2015 excavations found any whole examples. Numerous Ochoa ware sherds were found, however, over 10,500 in the earlier excavations and an additional 2,000 in the 2015 work. A sample of these sherds will be used for a technological study to include a petrographic analysis of the sherd’s temper (the non-plastic inclusions in the paste, such as sand or small pieces of caliche). Neutron Activation Analysis will be used to categorize the chemical elements present in the composition of the paste. This information can be used to identify areas of ceramic production and to follow those vessels (or sherds of vessels) if they are traded or taken to other Ochoa phase villages. In this way the interactions and movements of people carrying the pottery vessels can be traced.

Another distinctive pottery type, Chupadero Black-on-White is found at Merchant and at other sites in the CFO. This pottery has a white or gray clay body, with painted black geometric designs. Archeologist Regge Wiseman has noted (2014:26):

Chupadero Black-on-white is best known for its unique olla form which some have likened to a cannonball with a small, everted-rim mouth, rope handle, made of two or three coils of clay placed side-by-side, flat disc bottoms, and coarsely-scraped interior surface. These attributes are both unique and peculiar for the Southwest.

This pottery was manufactured from approximately A.D. 1050 to A.D. 1500, at villages located in or near Chupadero Mesa and the Capitan Mountains of south-central New Mexico and from there it was widely distributed. Chupadero Black-on-White (B/W) is the most common decorated pottery found at sites in the CFO. One suggested reason for the popularity of Chupadero B/W is its use for water storage. The paste of these vessels is porous to allow water to evaporate slowly through the vessel walls, allowing the contents to stay cool. However, the paste is not so porous as to allow the water to weaken the walls of the vessel to the point of breaking (Brown, Wiseman and Gauthier 2014:26). Water was an important resource for the inhabitants of southeastern New Mexico then as now. The distribution of this pottery through time and space also provides a road map to the interactions of prehistoric populations, provided the source of the pottery can be accurately determined. Neutron Activation Analysis has been used to



Figure 3. A Chupadero Black-on-White jar in the collection of the El Paso Museum of Archaeology. Photo by Susan Dial of the University of Texas at Austin. The photograph is used courtesy of the Texas Beyond History website: www.texasbeyondhistory.net/trans-p/prehistory/images/CER-chupadero-black-on-white.html.

characterize the locations of Chupadero B/W production and a number of sherds from the Merchant Site will be analyzed using this scientific method in order to determine the source of the Merchant pottery.

Archeological research is a cumulative process of discovery and this project is intended to accumulate more information about the Late Formative occupation of the Mescalero Plain through additional survey and small-scale excavation at 51 other sites. These sites include some that are partly located on private property and some that are partly on New Mexico State Land Office (SLO) property. Those site portions on private and SLO property will only be recorded; no artifact collection or small-scale excavations will take place. However, artifact collection and analysis will be done, plus samples for dating and for identifying charred plant remains will be taken, from sites on BLM managed property.

Eighteen of these sites are located in the vicinity of the Merchant Site and some may be contemporaneous. Included are sites that have numerous bedrock mortars located within easy walking distance of the Merchant Site and one that may also have a garden area similar to the potential garden area at Merchant. Other habitation sites are included in this roster of sites that may be contemporary with the Merchant Site, although site forms from these other habitation sites don't mention the presence of Ochoa Indented Corrugated pottery in their artifact assemblages.

Sites located in more distant regions are also included in the study. These represent a mixture of possible villages and camps, some with additional bedrock mortar sites, and one a potential source of lithics used to make stone tools. Again, no Ochoa sherds are noted in their artifact inventories, but based upon other pottery types present and upon a few existing radiocarbon dates these sites may be contemporary or may just precede the occupation at the Merchant Site.

The existence of the village at the Merchant Site and probable village sites located elsewhere in the Mescalero Plain show that significant changes were taking place in the way that people organized themselves on the landscape. No longer were dispersed camp sites the norm. What was the impetus for this change? Was it because of an influx of new people, or perhaps new ideas adopted by people indigenous to the area? Did changing climate play a part by providing more moisture at critical times leading to more abundant grass and water sources? The large number of bison bones found at the Merchant Site seem to indicate an abundance of those animals within the hunting territory of the village inhabitants and the presence of charred corn in the village houses and communal rooms indicate a nearby source of that domesticated crop (and the water needed for its growth). Even if this project does not discover other villages or camps that are contemporary with the Merchant Site (circa A.D. 1300 to 1450), the investigation of a range of site types dating to the Late Formative period will undoubtedly shed light on the changes that were taking place in this part of southeastern New Mexico.

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Permian Basin PA Workgroup Member Retires

Nancy Brown, of the Advisory Council on Historic Preservation, has retired. Nancy was the BLM liaison at the Advisory Council. She participated in the discussions and implementation of the original Permian Basin Memorandum of Agreement (MOA) in 2008; the subsequent three-year extension in 2013 as the Permian Basin Programmatic Agreement (PA), and the most recent 2016 ten-year extension of the PA to 2026. Nancy was a frequent participant in Workgroup meetings, albeit as a voice over a speaker, as she participated remotely from her office at the Advisory Council in Washington, D.C. Nancy brought a national regulatory perspective to Workgroup discussions and her institutional knowledge of the Permian Basin MOA/PA was appreciated.

The PA Workgroup is composed of state and federal regulatory archeologists, academic archeologists with research interests in Southeastern New Mexico, a representative from the Indian tribes and pueblos with ancestral ties to the region, and a representative from the oil and gas industry. The Workgroup provides guidance for the operation of the Permian Basin Programmatic Agreement as it is carried out by Carlsbad Field Office archeologists.

Newsletter Contact Information

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