FS Agreement No. 21-MU-11030200-022

Cooperator Agreement No. _____

MEMORANDUM OF UNDERSTANDING
Between The
U.S. DEPARTMENT OF ENERGY
OFFICE OF LEGACY MANAGEMENT
And The
USDI, BUREAU OF LAND MANAGEMENT
FARMINGTON FIELD OFFICE
And The
USDA, FOREST SERVICE
CARSON NATIONAL FOREST

This MEMORANDUM OF UNDERSTANDING (MOU) is hereby made and entered into by and between the U.S. Department of Energy, Office of Legacy Management, hereinafter referred to as "DOE" and the U.S. Department of the Interior (USDI), Bureau of Land Management, Farmington Field Office, hereinafter referred to as "BLM," and the United States Department of Agriculture (USDA), Forest Service, Carson National Forest, hereinafter referred to as the "U.S. Forest Service."

Background:

Property Description:
The Gasbuggy Site is in northwestern New Mexico in Rio Arriba County, approximately 55 miles east of the city of Farmington, New Mexico, and approximately 12 miles southwest of Dulce, New Mexico, in the Carson National Forest. The Gasbuggy Site consists of 640 acres withdrawn under Public Land Order (PLO) 4232 (Sec. 36, T. 29N, R. 4W, NMPM). On December 10, 1967, the U.S. Atomic Energy Commission (AEC), a predecessor agency of DOE, detonated a 29-kiloton-yield nuclear device 4,227 feet below ground surface. The detonation was known as Project Gasbuggy. Project Gasbuggy was the first natural gas reservoir stimulation project in the Plowshare Program.

Current Site Status:
It is understood that the withdrawal of the Gasbuggy Site, as stated in PLO 4232, remains in force because monitoring and use restrictions are still required on the withdrawn property. The withdrawal notice states that the PLO will not alter the surface jurisdiction of the Secretary of Agriculture, as administered by the Forest Service. PLO 4232 states that the terms and conditions of AEC's use of the Forest Service lands will be governed by the Memorandum of Understanding between AEC and USDA. PLO 4232 further states that the withdrawn lands are subject to valid existing rights. BLM retains oil and gas administration responsibilities for any preexisting oil and gas leases.

Institutional Controls:
DOE, through AEC, via contract AT (04-3) -711, has been granted control of oil and gas leases, easements, conveyances, contract, or any other source whatsoever, in and to all rights and interest from the surface of the earth to a depth of 500 feet below the base of the Pictured Cliffs Formation as to the SW 1/4 of Section 36, T. 29N., R 4W, NMPM.

In addition to the institutional control provided by the land withdrawal specified in PLO 4232, DOE requires notification from BLM of any Notices of Staking (NOSs) and Applications for Permit to Drill (APDs) for oil and gas. DOE will contact the appropriate surface management agency for the status of any proposed water wells annually. The lands subject to these conditions are defined as the "area of review" and are described as follows: Sections 25, 26, 35, and 36, T. 29N., R. 4W.; Sections 30 and 31, T.29N., R.3W.; Sections 11, 12, 13, and 14,
T. 28N., R4W.; and Section 6, T., 28N., R. 3W., all in Rio Arriba County, New Mexico, NMPM.

A subset of lands within the area of review is defined as the "area of interest." Under the National Environmental Policy Act (NEPA), the area of interest may require further environmental analysis prior to gas well drilling. The area of interest is shown on the attached map (Attachment A) and is described as follows:

Section 36 and the east 1/2 of Section 35, T. 29N, R. 4W; and Section 12 and the east 1/2 of Section 11, T. 28N, R. 4W, all in Rio Arriba County, New Mexico, NMPM.

Access for Monitoring:
DOE requires access to Carson National Forest lands for sampling purposes. In cooperation with the appropriate oil and gas operator, DOE may conduct sampling of produced natural gas and any associated water in existing or future wells within the above described lands defined as the area of review. In cooperation with the appropriate surface management agency, DOE may also sample water from springs and water wells, should any be developed in the area of interest at the Gasbuggy Site. DOE may also need to develop its own wells for environmental sampling, analysis, or remediation if it determines they are necessary.

Title: Gasbuggy Site Monitoring

I. PURPOSE: The purpose of this MOU is to document the cooperation between the parties to outline roles and responsibilities addressing the withdrawn land, communication, and institutional controls, to ensure continued protectiveness at the Gasbuggy Site (Guiding documents include the Federal Land Policy and Management Act of 1976, PLO 4232, NEPA, Executive Order 10355, and Contract No. AT (04-3) - 711 between AEC, the U.S. Department of the Interior, and the El Paso Natural Gas Company, dated January 31, 1967) in accordance with the following provisions.

II. STATEMENT OF MUTUAL BENEFIT AND INTERESTS:

Long-term monitoring of the Gasbuggy underground nuclear site.

In consideration of the above premises, the parties agree as follows:

III. THE BLM SHALL:

A. Notify DOE of any NOS or APD within the area of review specified under the institutional controls under this MOU.

B. Notify DOE of directional or horizontal drilling applications that originate outside of the specified area of review but that have end-hole completions within the specified area of review.

C. Include in the APD approval the right for DOE to acquire gas and produced water samples as a permit condition for wells in the area of review. Include in the APD approval the right for DOE to acquire drilling fluid and hydraulic fracturing fluid samples during the well drilling and development phase for wells drilled in the area of review.

D. In accordance with NEPA, provide DOE with the opportunity for cooperating agency status for NEPA evaluations of proposed gas drilling locations within the area of interest, should the BLM Farmington Field Office decide to conduct a NEPA review.

IV. THE DOE SHALL:

A. Provide notice to the BLM Farmington Field Office and the Forest Service of the sampling schedule at least 1 month prior to the sampling event.

B. Provide sample analysis results to the BLM Farmington Field Office and the Forest Service.

C. Be entirely responsible for the prevention and mitigation of radioactive contamination resulting from Project Gasbuggy wherever such contamination may occur on Carson National Forest.

D. In cooperation with the BLM Farmington Field Office, the Forest Service, and the affected oil and gas operator, develop mitigation measures should sampling results identify possible health, safety, and welfare impacts directly resulting from Gasbuggy activity. Mitigation measures will be determined on a site-specific, case-by-case basis.

E. Have 30 days to respond to any NOS and APD notifications provided by the BLM Farmington Field Office.

V. THE U.S. FOREST SERVICE SHALL:

A. Provide DOE surface access to gas wells, springs, and water wells (if any are developed) for sampling purposes.

B. Allow no subsurface intrusion within a radius of 100 feet from surface ground zero to a true vertical depth of 1,500 feet and no subsurface intrusion within a radius of 600 feet from surface ground zero to a true vertical depth between 1,500 feet and 4,500 feet, as stated on the Gasbuggy Site monument.

C. Give DOE the authority to conduct subsurface and surface investigations that DOE determined to be necessary as part of managing the Gasbuggy Site, within the areas described in item B above, subject to complying with normal Forest Service processes.

D. In accordance with NEPA, provide DOE with the opportunity for cooperating agency status for NEPA evaluations of proposed gas drilling locations within the area of interest.

VI. IT IS MUTUALLY UNDERSTOOD AND AGREED BY AND BETWEEN THE PARTIES THAT:

A. This MOU sets forth the general process by which the parties anticipate coordinating the Gasbuggy Project. This MOU does not identify specific projects for funding or obligating any monies for projects.

B. PRINCIPAL CONTACTS. Individuals listed below are authorized to act in their respective areas for matters related to this agreement.

Principal Cooperator Contacts:

DOE Program Contact	DOE Administrative Contact
Name: Sara Woods, Gasbuggy Site Manager DOE, Office of Legacy Management Address: 2597 Legacy Way City, State, Zip: Grand Junction, CO 81503 Telephone: 970-248-6512 Email: Sara.Woods@lm.doe.gov	Name: Sara Woods, Gasbuggy Site Manager DOE, Office of Legacy Management Address: 2597 Legacy Way City, State, Zip: Grand Junction, CO 81503 Telephone: 970-248-6512 Email: Sara.Woods@lm.doe.gov

BLM Program Contact	BLM Administrative Contact
Name: Chris Wenman BLM Farmington Field Office Address: 6251 College Blvd., Suite A City, State, Zip: Farmington, NM 87402 Telephone: 505-564-7727 Fax: 505-564-7608 Email: cwenman@blm.gov	Name: Shirley Montoya-Chavez BLM Farmington Field Office Address: 6251 College Blvd., Suite A City, State, Zip: Farmington, NM 87402 Telephone: 505-564-7772 Fax: 505-564-7608 Email: slmontoy@blm.gov

Principal U.S. Forest Service Contacts:

U.S. Forest Service Program Manager Contact	U.S. Forest Service Administrative Contact
Name: J.J. Miller Jicarilla Ranger District Address: 1110 Rio Vista Lane, Unit #2 City, State, Zip: Bloomfield, NM 87413 Telephone: 505-632-2956 FAX: 505-632-3173 Email: jon.miller@usda.gov	Name: Jason Atwell Address: 208 Cruz Alta Rd. City, State, Zip: Taos, NM 87571 Telephone: 505-842-3122 Email: Jason.atwell@usda.gov

C. NOTICES. Any communications affecting the operations covered by this agreement given by the U.S. Forest Service or DOE, or BLM is sufficient only if in writing and delivered in person, mailed, or transmitted electronically by e-mail or fax, as follows:

To the U.S. Forest Service Program Manager, at the address specified in the MOU.

To DOE and/or BLM, at DOE and/or BLM's address shown in the MOU or such other address designated within the MOU.

Notices are effective when delivered in accordance with this provision, or on the effective date of the notice, whichever is later.

D. PARTICIPATION IN SIMILAR ACTIVITIES. This MOU in no way restricts the U.S. Forest Service or DOE, or BLM from participating in similar activities with other public or private agencies, organizations, and individuals.

E. ENDORSEMENT. Any of DOE and/or BLM's contributions made under this MOU do not by direct reference or implication convey U.S. Forest Service endorsement of DOE, or BLM's products or activities.

F. NONBINDING AGREEMENT. This MOU creates no right, benefit, or trust responsibility, substantive or procedural, enforceable by law or equity. The

parties shall manage their respective resources and activities in a separate, coordinated and mutually beneficial manner to meet the purpose(s) of this MOU. Nothing in this MOU authorizes any of the parties to obligate or transfer anything of value.

Specific, prospective projects or activities that involve the transfer of funds, services, property, and/or anything of value to a party requires the execution of separate agreements and are contingent upon numerous factors, including, as applicable, but not limited to: agency availability of appropriated funds and other resources; cooperator availability of funds and other resources; agency and cooperator administrative and legal requirements (including agency authorization by statute); etc. This MOU neither provides, nor meets these criteria. If the parties elect to enter into an obligation agreement that involves the transfer of funds, services, property, and/or anything of value to a party, then the applicable criteria must be met. Additionally, under a prospective agreement, each party operates under its own laws, regulations, and/or policies, and any Forest Service obligation is subject to the availability of appropriated funds and other resources. The negotiation, execution, and administration of these prospective agreements must comply with all applicable law.

Nothing in this MOU is intended to alter, limit, or expand the agencies' statutory and regulatory authority.

G. FREEDOM OF INFORMATION ACT (FOIA). Public access to MOU or agreement records must not be limited, except when such records must be kept confidential and would have been exempted from disclosure pursuant to Freedom of Information regulations (5 U.S.C. 552).

H. TEXT MESSAGING WHILE DRIVING. In accordance with Executive Order (EO) 13513, "Federal Leadership on Reducing Text Messaging While Driving," any and all text messaging by Federal employees is banned: a) while driving a Government owned vehicle (GOV) or driving a privately owned vehicle (POV) while on official Government business; or b) using any electronic equipment supplied by the Government when driving any vehicle at any time. All cooperators, their employees, volunteers, and contractors are encouraged to adopt and enforce policies that ban text messaging when driving company owned, leased or rented vehicles, POVs or GOVs when driving while on official Government business or when performing any work for or on behalf of the Government.

I. TERMINATION. Any of the parties, in writing, may terminate this MOU in whole, or in part, at any time before the date of expiration.

J. MODIFICATIONS. Modifications within the scope of this MOU must be made by mutual consent of the parties, by the issuance of a written modification signed and dated by all properly authorized, signatory officials, prior to any changes

being performed. Requests for modification should be made, in writing, at least 30 days prior to implementation of the requested change.

K. COMMENCEMENT/EXPIRATION DATE. This MOU is executed as of the date of the last signature and is effective through January 31, 2026 at which time it will expire.

L. AUTHORIZED REPRESENTATIVES. By signature below, each party certifies that the individuals listed in this document as representatives of the individual parties are authorized to act in their respective areas for matters related to this MOU.

In witness whereof, the parties hereto have executed this MOU as of the last date written below.

David S. Shafer Digitally signed by David S. Shafer
Date: 2021.01.26 15:32:00 -07'00'

DAVID SHAFER, PHD, Deputy Director for Field Operations — Date
DOE, Office of Legacy Management

ALFRED ELSER Digitally signed by ALFRED ELSER
Date: 2021.02.03 13:29:47 -07'00'

AL ELSER, District Manager — Date
USDI, Bureau of Land Management

JAMES DURAN Digitally signed by JAMES DURAN
Date: 2021.02.04 12:44:36 -07'00'

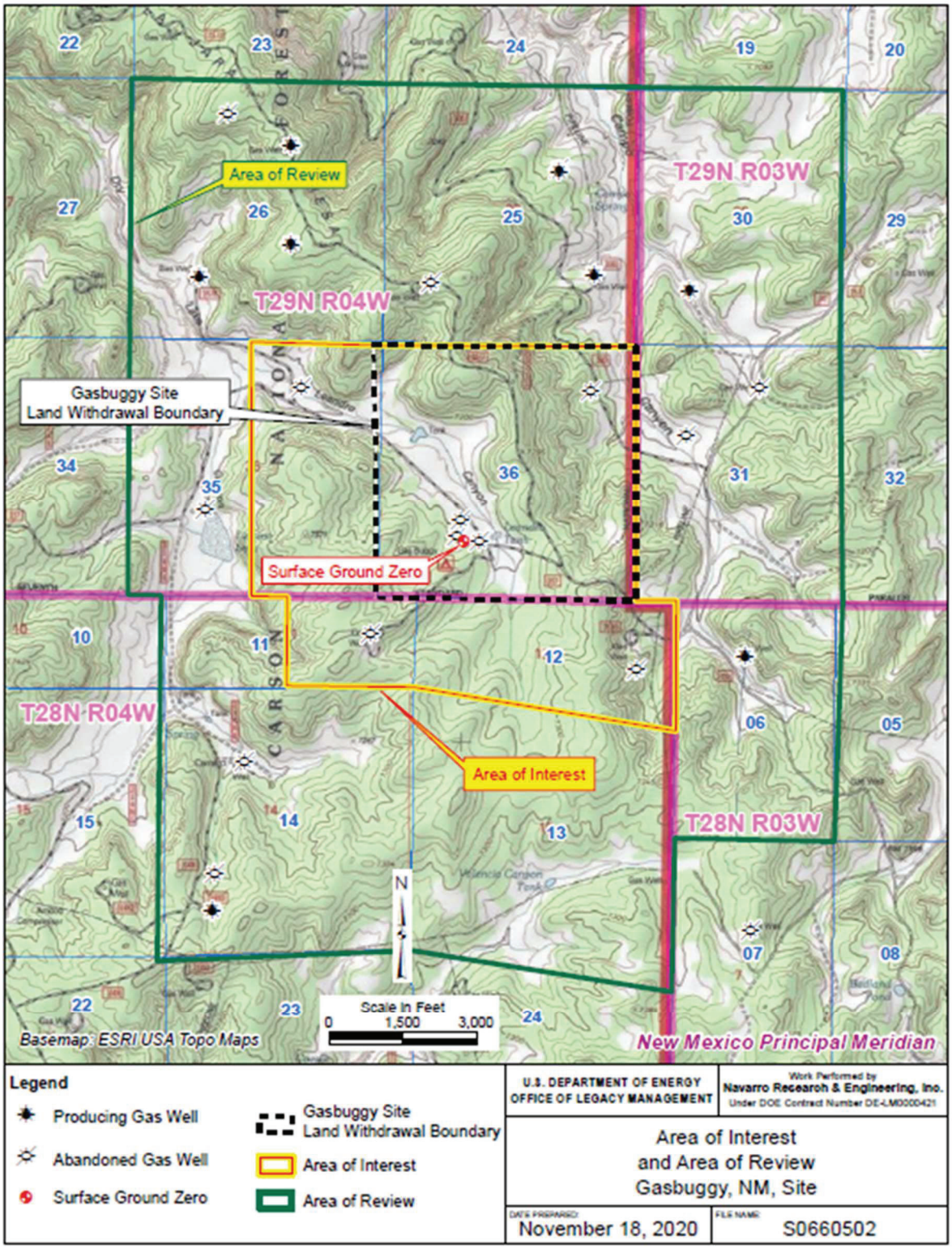
JAMES DURAN, Forest Supervisor — Date
U.S. Forest Service, Carson National Forest

The authority and format of this agreement have been reviewed and approved for signature.

MARK COONRAD Digitally signed by MARK COONRAD
Date: 2021.01.11 10:28:46 -09'00'

MARK COONRAD — Date
U.S. Forest Service Grants Management Specialist

Attachment A



Burden Statement

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0596-0217. The time required to complete this information collection is estimated to average 3 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, 1400 Independence Avenue, SW, Washington, DC 20250-9410 or call toll free (866) 632-9992 (voice). TDD users can contact USDA through local relay or the Federal relay at (800) 877-8339 (TDD) or (866) 377-8642 (relay voice). USDA is an equal opportunity provider and employer.