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APPROVED

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By Nelson Velez at 10:15 am, Jun 07, 2022



March 22, 2022

SUBMITTED VIA E-PERMITTING PORTAL

Mr. Nelson Velez, Environmental Specialist - Advanced
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: 2022 Monitoring Well Installation Activities Work Plan – Canada Mesa #2 Site
El Paso CGP Company – Pit Groundwater Remediation Sites
NMOCD Incident Number: nAUTOofAB000065

Dear Mr. Velez:

Stantec Consulting Services Inc. (Stantec), on behalf of El Paso CGP Company, LLC (EPCGP), is submitting the enclosed 2022 Monitoring Well Installation Activities Work Plan (Work Plan) for the Canada Mesa #2 Site (Site). The enclosed document contains the proposed methodology for the installation of two monitoring wells, MW-10 and MW-11, at the Site. Unless otherwise noted, the procedures outlined in this Work Plan meet or exceed the requirements established in EPCGP's "Remediation Plan for Groundwater Encountered During Pit Closure Activities" document approved by the New Mexico Oil Conservation Division (NMOCD) on November 30, 1995. The scope of work contained herein is scheduled to begin the week of April 11, 2022.

Please contact Mr. Joseph Wiley of EPCGP at (713) 420-3475, or me if you have any questions or comments concerning the enclosed Work Plan.

Sincerely,

Stantec Consulting Services Inc.

A handwritten signature in black ink, appearing to read "Stephen Varsa", is written over a light blue circular stamp.

Stephen Varsa
Project Manager
Phone: (515) 251-1020
steve.varsa@stantec.com

cc: Joseph Wiley, EPCGP (via electronic mail)
Katie White Bull, Bureau of Land Management, Farmington Office (Grant NMNM133869)
(via electronic mail)



2022 MONITORING WELL
INSTALLATION WORK PLAN

CANADA MESA #2 SITE
NMOCD Incident # nAUTOofAB000065
RIO ARRIBA COUNTY, NEW MEXICO

Prepared for:

El Paso CGP Company, LLC
1001 Louisiana
Houston, Texas 77002

Prepared by:

Stantec Consulting Services Inc.
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Des Moines, Iowa 50322

March 22, 2022

2022 MONITORING WELL INSTALLATION WORK PLAN
CANADA MESA #2 PIT SITE, RIO ARRIBA COUNTY, NEW MEXICO

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SECTION 1 - INTRODUCTION

This Monitoring Well Installation Work Plan (Work Plan) presents the scope of work to be completed to install two monitoring wells at the former El Paso CGP Company, LLC (EPCGP) Canada Mesa #2 remediation site (Site) located in the San Juan River Basin, New Mexico. There are currently nine EPCGP monitoring wells (MW-1, MW-2R, MW-3R, and MW-4 through MW-9) at the Site. Light non-aqueous phase liquid (LNAPL) has been encountered in monitoring well MW-9, where additional monitoring wells are not present to the northwest and northeast. The proposed installations of monitoring wells MW-10 and MW-11 will provide monitoring points to confirm delineation to the northwest and northeast of MW-9, respectively.

The purpose of this Work Plan is to provide the field methods and an implementation schedule for installation of monitoring wells MW-10 and MW-11. Section 2 describes the Site and the purpose behind the proposed monitoring well installations. Section 3 provides details on the field methods to be used. Section 4 presents the anticipated implementation schedule.

SECTION 2 - SCOPE OF WORK

The proposed monitoring wells (designated MW-10 and MW-11) are intended to provide sampling locations to the northwest and northeast of MW-9, respectively, where LNAPL has been encountered, to further assess the presence of LNAPL at the Site and assist in the delineation of groundwater to applicable New Mexico Water Quality Control Commission standards. Details of the proposed installations of monitoring wells MW-10 and MW-11 are provided below.

There are currently nine EPCGP monitoring wells (MW-1, MW-2R, MW-3R, and MW-4 through MW-9) at the Site. The proposed monitoring wells will be installed to the northeast and northwest of MW-9.

The existing and proposed monitoring well locations are depicted on Figure 1.

SECTION 3 - FIELD METHODS

The following subsections describe field procedures to be followed during the Site activities. Prior to conducting monitoring well installation activities, permits for the two monitoring wells will be obtained from the New Mexico Office of the State Engineer.

3.1 SOIL BORINGS

A truck-mounted, hollow-stem auger drill rig will be mobilized to the Site after underground utility and line locates have been completed. The drill rig will be used to advance soil borings to an anticipated depth of up to 50 feet below ground surface (bgs) at the MW-10 location and up to 45 feet bgs at the MW-11 location, to facilitate installation of the monitoring wells. Prior to advancing the soil borings, soft-digging methods will be utilized to clear the boreholes to a depth of at least five feet bgs to confirm no unmarked subsurface utilities or other obstructions are present.

Once soft digging activities have been completed, borehole advancement will be conducted from the soft-digging termination depth to the base of the borehole using hollow-stem auger and continuous-core sampling methods. Soil samples will be collected during advancement and logged using Unified Soil Classification System (USCS) soil descriptions. In addition to the USCS descriptions, the field geologist will provide a detailed description of each discrete lithologic unit. Soil samples will be collected for field screening and potential laboratory analysis at one-foot intervals, where possible, from a five-foot continuous sample barrel or equivalent sampler. After the sample core is collected, field personnel will field screen using a pre-calibrated photoionization detector (PID) and record the readings. The field screening will be conducted by notching the soil in the core with a hand trowel or other pre-cleaned hand tool, and briefly placing the PID in the notch to measure impacts. The screening, in addition to visual and olfactory observations (e.g., observing apparent hydrocarbon staining), will aid in identifying whether a portion of the sample interval should be retained for potential laboratory analysis (i.e., suspected of having a hydrocarbon impact).

Soil samples retained for potential laboratory analysis will be placed in a laboratory-provided 4-ounce glass jar, sealed, labeled, and stored on ice. After the boring and soil screening are completed, one soil sample from each soil boring, associated with the highest PID reading above the field-interpreted and/or gauged water table, will be shipped in an ice-filled cooler under standard chain-of-custody protocol to Eurofins Environment Testing Southeast, LLC (Eurofins) in Pensacola, Florida. Samples not retained for analysis will be disposed of with the soil cuttings. The submitted soil samples will be analyzed for the presence of benzene, toluene, ethylbenzene, and total xylenes (BTEX) by United States Environmental Protection Agency (EPA) Method SW846 8021B; gasoline-range organics, diesel-range organics, and oil-range organics by EPA Method 8015 M, and chlorides by EPA Method 300.

3.2 MONITORING WELL INSTALLATIONS

Monitoring wells MW-10 and MW-11 will be constructed of 2-inch-diameter, Schedule 40, 0.010-slot polyvinyl chloride (PVC) screen and 2 inch-diameter, Schedule 40 PVC riser casing. A 20-foot screen will be installed to depths described in Figure 1, which are anticipated to intersect the groundwater surface (approximately 13 feet of well screen below the water table and approximately 7 feet of well screen above the water table) and provide a sufficient water column for sample collection. The riser casing will extend from the top of the screen to approximately 2.5 feet above the ground surface. The annular space adjacent to the well screen will be filled with 10-20 silica sand from the bottom of the borehole to 2 feet above the top of the screen. Three (3)

feet of hydrated bentonite chips will be placed above the silica sand to prevent downward migration of surface water. Bentonite grout will be placed above the bentonite chips to 6 inches below the bottom of the well vault.

A locking, protective steel stick-up well casing will be installed within a concrete pad on the ground surface from 3 feet above ground surface to 2 feet bgs. Silica sand will be placed from 6 inches below the bottom of the protective well casing (approximately 2.5 feet bgs) to within approximately 1 foot of the ground surface, or to a field-determined depth based on concrete pad placement. Recycled steel bollards may be placed around the concrete pad to protect the well protective casing. Once installed, the bollards and stick-up completions will be painted in safety yellow.

Monitoring well development will be performed using a surge block and down-hole pump until sediment has been removed and visibly clear water is observed or the well runs dry. Upon completion of development, the well will be fitted with HydraSleeve™ no-purge groundwater sampling device. Stantec will survey the locations and elevations of the new monitoring wells.

3.3 GENERAL PROTOCOLS

This subsection presents a discussion of health and safety, documentation procedures, buried piping or utility identification, waste handling, and other procedures to be performed as part of the investigation.

3.3.1 Health and Safety

A Site-Specific Health and Safety Plan (HASP) will be prepared for groundwater monitoring, operations, maintenance, and drilling activities. The HASP includes guidance on the personal protective equipment (PPE) necessary for field activities, identified hazards associated with the field activities, and directions to the nearest medical facility. Flame-resistant clothing and Level D protective equipment will be worn, as required. A copy of the HASP will be on site at all times while work is being performed. The HASP will apply to Stantec employees, Stantec's subcontractors, and visitors at the Site.

3.3.2 Documentation Procedures

Data generated during the field investigation will be recorded on a boring and well construction log. The boring log will include USCS descriptions, detailed lithologic descriptions, PID readings, length/percent recovery, sample collection intervals, and drilling method employed. The well construction log will include screen, sand pack, wellbore seal, and surface completion details.

The field geologist will maintain a field logbook. At the end of each day of field activities, the notes will be dated and signed by the field geologist.

The daily field logbook will contain information such as:

- Date
- Name, location, and objective of the work activities
- Weather conditions
- Equipment calibration information
- Personnel and visitors on site
- Photograph numbers and descriptions (if applicable)
- Description of decontamination activities (if applicable)
- Any deviations from the Work Plan

2022 MONITORING WELL INSTALLATION WORK PLAN
CANADA MESA #2 PIT SITE, RIO ARRIBA COUNTY, NEW MEXICO

- Other relevant observations as the fieldwork progresses
- Sample collection intervals and times
- Problems and corrective actions

3.3.3 Boring Locations and Utility Identification

Prior to any drilling or excavation, a call will be made to the New Mexico 811 "One Call" to verify utility clearance and to notify the operator. "One Call" will be notified that the soil boring locations are staked or flagged and that the entire Site and areas surrounding the boring should be marked. The clearance call must be made at least two working days prior to drilling, and site work must be completed within fifteen days of the clearance. In addition, access will be coordinated with the current operator of the Site prior to any drilling activities to allow location of any underground infrastructure and to comply with operator safety guidance.

3.3.4 Equipment Decontamination

Prior to drilling, down-hole equipment will be steam cleaned or scrubbed with a non-phosphate detergent (e.g., Liquinox®). Where feasible, equipment to be decontaminated will be disassembled to permit adequate cleaning of the internal portions of the equipment. Equipment to be steam cleaned will be placed into a self-contained decontamination trailer with metal cleaning racks that support the equipment for cleaning, rinsing, and air drying. Heavy waterproof gloves will be worn during steam cleaning to protect against skin contact with steam and potential contaminants and to reduce the potential for cross-contamination between samples.

3.3.5 Investigation-Derived Waste

Soil cuttings generated from drilling activities will be containerized in labeled 55-gallon drums and staged on site for removal by a contracted transport and disposal company.

Decontamination and purge water generated through the development of the new monitoring wells will be containerized in labeled 55-gallon drums and staged on site for removal with the soil cuttings.

Other investigation-derived wastes (i.e., excess well materials, bags, buckets, gloves), and monitoring well abandonment debris, will be removed from the Site by the waste hauler for disposal as general construction/demolition debris.

Disposable equipment and PPE waste generated during field activities, including scrap PVC, concrete, steel, rope, disposable bailers, nitrile gloves, and Tyvek® suits, will be placed in standard dumpsters for disposal as industrial waste.

3.3.6 Field Equipment Calibration Procedures

With regard to organic vapor meters, field personnel will use a 10.6 electron volt (eV) PID for screening soil samples during advancement of the soil boring. This instrument will be calibrated prior to use according to the manufacturer's specifications. The instrument calibration will be checked at the beginning of each day of use and any time meter drift is suspected. Calibration information will be recorded in the field logbook.

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CANADA MESA #2 PIT SITE, RIO ARRIBA COUNTY, NEW MEXICO

SECTION 4 - SCHEDULE

It is anticipated that well installation activities will commence the week of April 11, 2022. Utility locates must be verified prior to the work. Following installation, the new monitoring wells will be prepared for groundwater sample collection. Assuming LNAPL is not encountered; following development, a HydraSleeve™ no-purge groundwater sampler and tether will be placed in the new well. The new wells will be incorporated into the routine site sampling schedule, normally on a semi-annual basis, with the first sampling event expected to occur in May 2022.

The well installation and soil sample results, well construction log, and groundwater analytical results will be documented in the 2022 Annual Report, anticipated to be submitted by April 1, 2023.

Figure

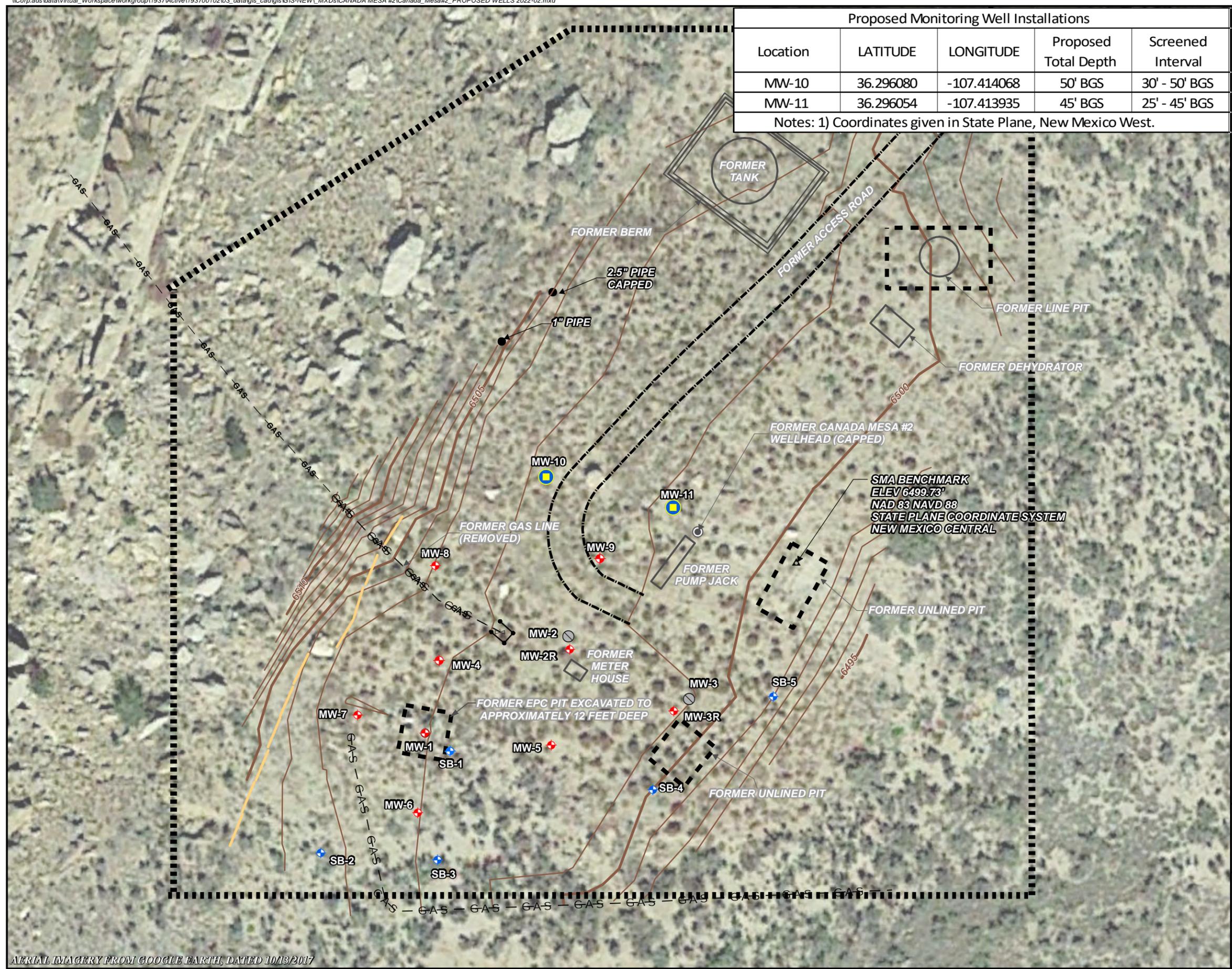
I:\Corp.ads\data\Virtual_Workspace\workgroup\1937\Active\193700102103_data\gis_cad\gis\GIS-NEW\MXD\CANADA MESA #2\Canada_Mesa#2_PROPOSED WELLS 2022-02.mxd

Proposed Monitoring Well Installations				
Location	LATITUDE	LONGITUDE	Proposed Total Depth	Screened Interval
MW-10	36.296080	-107.414068	50' BGS	30' - 50' BGS
MW-11	36.296054	-107.413935	45' BGS	25' - 45' BGS

Notes: 1) Coordinates given in State Plane, New Mexico West.

LEGEND:

- APPROXIMATE GROUND SURFACE CONTOUR AND ELEVATION, FEET
- ACCESS ROAD
- BARRICADE
- NATURAL GAS LINE
- MONITORING WELL
- SOIL BORING
- PROPOSED GROUNDWATER MONITORING WELL LOCATION
- ABANDONED MONITORING WELL
- SMA BENCHMARK
- PIPE
- FENCING
- FORMER WELLHEAD
- FORMER UNLINED PIT
- FORMER FEATURES
- RIGHT OF WAY BOUNDARY



SCALE IN FEET

REVISION	DATE	DESIGN BY	DRAWN BY	REVIEWED BY
A	2022-02-15	SAH	SAH	SKY

TITLE: PROPOSED MONITORING WELL LOCATIONS

PROJECT: CANADA MESA #2
SAN JUAN RIVER BASIN
RIO ARRIBA COUNTY, NEW MEXICO

Stantec Figure No.: 1

AERIAL IMAGERY FROM GOOGLE EARTH, DATED 10/13/2017

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District II
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District IV
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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS
 Action 92280

CONDITIONS

Operator: El Paso Natural Gas Company, L.L.C 1001 Louisiana Street Houston, TX 77002	OGRID: 7046
	Action Number: 92280
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
nvez	None	10/28/2022