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REVIEWED**By Mike Buchanan at 9:43 am, Oct 17, 2024**

September 20, 2024

VIA E-PERMITTING PORTAL

Mr. Michael Buchanan, Environmental Specialist
New Mexico Oil Conservation Division
Energy, Minerals and Natural Resources Department
5200 Oakland Avenue, NE, Suite 100
Albuquerque, NM 87113

RE: 2024 Monitoring Well and Soil Boring Installation Work Plan
State Gas Com N#1 Pit Site
El Paso CGP Company
NMOCD Incident Number nAUTOAB000668

Mr. Buchanan:

On behalf of El Paso CGP Company, LLC (EPCGP), Stantec Consulting Services Inc. is submitting the enclosed Monitoring Well and Soil Boring Installation Work Plan for the State Gas Com N#1 Pit Site (Site). The enclosed document contains recommendations for the assessment of hydrocarbons to the north and northwest of the site (five soil borings (SB-6 through SB-10), two of which will be completed by MW-25).

Review of the 2024 Monitoring Well and Soil Boring Installation Work Plan for State Gas Com N#1 Pit Site

1. Please provide advanced notice (4 business days) before work activities commence.
2. Upload all required permits obtained from the New Mexico Office of the State Engineer (OSE) to the OCD portal.
3. Proceed as planned to drill additional soil borings (SB-6 through SB-10) to further delineate impact in the N and NW areas of the site.
4. Transition soil borings into MW-24 and MW-25 as planned to further assess groundwater impact.
5. Submit results and findings to the OCD in the 2025 annual monitoring report with recommendations for either further delineation or further monitoring well installment if EPCGP deems it necessary.

Unless otherwise noted, the procedures outlined in this Work Plan are to be completed in accordance with 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. Pending approval of the Work Plan by the State Land Office (SLO) Environmental Compliance Office (ECO), obtaining an updated SLO water easement, and obtaining New Mexico Office of the State Engineer well permits, the scope of work contained herein is scheduled to begin the week of October 28, 2024.

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.

Stephen Varsa
Project Manager
Phone: (515) 251-1020
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cc: Joseph Wiley, EPCGP
Tami Knight, SLO-ECO (Water Easement WM-230)



El Paso CGP Company, LLC
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Houston, Texas 77002

State Gas Com N#1 Pit Site
NMOCD Incident Number: nAUTOAB00668
MONITORING WELL AND SOIL BORING INSTALLATION WORK PLAN
SAN JUAN RIVER BASIN, NEW MEXICO

SEPTEMBER 2024

Prepared by:

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MONITORING WELL AND SOIL BORING INSTALLATION WORK PLAN
STATE GAS COM N#1 PIT SITE – SAN JUAN RIVER BASIN, NEW MEXICO

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MONITORING WELL AND SOIL BORING INSTALLATION WORK PLAN
STATE GAS COM N#1 PIT SITE – SAN JUAN RIVER BASIN, NEW MEXICO

SECTION 1 - INTRODUCTION

This Monitoring Well and Soil Boring Installation Work Plan (Work Plan) for the former El Paso CGP Company, LLC (EPCGP) pit groundwater remediation site, located in the San Juan River Basin near Farmington, New Mexico presents the scope of work for the advancement of five soil borings (SB-6 through SB-10), two of which will be completed as monitoring wells (MW-24 and MW-25). There are currently twenty-one monitoring wells (MW-1 through MW-6, and MW-9 through MW-23) and three test wells (TW-1 through TW-3) at the Site.

The purpose of this Work Plan is to provide the necessary field methods and implementation schedule for the soil boring advancement and monitoring well installation activities. Section 2 describes the Site and the purpose behind the proposed activities. Section 3 provides details on the field methods to be used. Section 4 presents the anticipated implementation schedule.

**MONITORING WELL AND SOIL BORING INSTALLATION WORK PLAN
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SECTION 2 - SCOPE OF WORK

The advancement of soil borings SB-6 through SB-10, and installation of monitoring wells MW-24 and MW-25 is intended to better assess the extent of hydrocarbon impacts north and northwest of the Site. Monitoring wells MW-24 and MW-25 are to be completed to delineate the extent of hydrocarbons north and northwest of MW-23 and MW-22, respectively. Soil boring SB-6 is intended to assess whether there may be hydrocarbon impacts near the former Amoco Separator Pit which may be contributing to hydrocarbons observed during previous Site activities. Soil boring SB-7 is intended to assess a geophysical anomaly observed during a survey conducted on July 16, 2024. Soil boring SB-8/MW-24 is proposed to assess for impacts southeast of the geophysical anomaly and southeast of the State Gas Com N#2 wellhead. Soil Boring SB-9/MW-25 is intended to assess for hydrocarbon impacts near the former El Paso Natural Gas dehydrator pit at State Gas Com BA#1. Soil boring SB-10 is intended to assess hydrocarbons northeast of proposed SB-9/MW-25. The scope of work includes soil boring logging and sampling, monitoring well installation and development, data processing and reporting, and waste management and disposal. Details of the proposed scope of work are provided below.

The proposed soil borings, monitoring wells, existing monitoring wells, and other features are depicted on Figure 1.

**MONITORING WELL AND SOIL BORING INSTALLATION WORK PLAN
STATE GAS COM N#1 PIT SITE – SAN JUAN RIVER BASIN, NEW MEXICO****SECTION 3 - FIELD METHODS**

The following subsections describe field procedures to be followed during the site activities. Prior to conducting the soil boring advancement and monitoring well installation activities, approval of this Work Plan will be obtained from the SLO Environmental Compliance Office. A revised water easement to include the proposed monitoring wells will be obtained from the SLO prior to field activities. A permit to install the proposed monitoring wells and soil borings will also be obtained from the New Mexico Office of the State Engineer.

3.1 MONITORING AND SOIL BORING WELL ADVANCEMENT

The location of each proposed monitoring well and soil boring will be staked by Stantec prior to completing utility clearance through the New Mexico 811 "One Call" system. A Stantec geologist will oversee the utility clearance activities. The final location of the monitoring wells or soil borings may be adjusted based on the results of the public utility locate activities. Once underground utility locating activities have been completed, hydro-excavation equipment will be used to clear the well and boring locations to a depth of at least eight feet below ground surface (bgs) prior to advancing drill tooling. The cleared location will be covered with wooden or steel plates and marked "hole" until advancement begins.

Following the completion of utility clearance activities, a rotosonic drill rig will be mobilized and used to advance the wells and borings to the target depths noted on Figure 1. A Stantec geologist will oversee the drilling activities, complete soil sample logging, retain samples for laboratory analysis, and document well construction. Soil sampling will be performed to the termination depth (up to 80 feet bgs) to log and document lithology and determine proper well screen intervals. Borehole logging will include Unified Soil Classification System (USCS) soil descriptions along with a detailed description of each discrete lithologic unit. Soil samples will be collected for field screening at one (1)-foot intervals from cores recovered at approximately 10-foot intervals. After the sample core is collected, field personnel will field screen using a pre-calibrated photoionization detector (PID) and record the readings. The field screen 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 the PID response.

The field screening data, in addition to visual and olfactory observations (e.g., observing apparent hydrocarbon staining), will aid in identifying sample interval(s) to be retained for potential laboratory analysis (i.e., suspected of having a hydrocarbon impact). At a minimum, one soil sample will be retained from the interval exhibiting the highest field screening reading and/or the interval immediately above the field-interpreted water table. Retained soil samples will be placed in a laboratory-provided four (4)-ounce glass jar, sealed, labeled, and stored on ice.

After the boring and soil screening are advanced, the retained soil samples 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 and submitted for laboratory 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 8260B, gasoline-range organics, diesel-range organics, and oil-range organics by EPA Method 8015 M, and chlorides by EPA Method 300.

3.2 SOIL BORING ABANDONMENT

Following advancement, soil borings not being completed as monitoring wells will be plugged and abandoned in accordance with the existing Plan of Abandonment for the Site (Plan) issued in 2014 by the NMOSE, and the New Mexico Environment Department Ground Water Quality Bureau Monitoring Well Construction and Abandonment Guidelines dated March 2011. The

**MONITORING WELL AND SOIL BORING INSTALLATION WORK PLAN
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ground surface at each location will be restored to be compatible with the surrounding ground surface. Following completion of the project, Form WD-11, Plugging Record, will be submitted for the soil borings to the NMOSE, with copies provided to the BLM along with an updated site plan.

3.3 MONITORING WELL INSTALLATION

The planned total depth of proposed monitoring wells is 80 feet below ground surface (bgs). The monitoring wells will be constructed with 25 feet of 2-inch diameter, Schedule 40, 0.010-slot PVC screen and 2-inch diameter, schedule 40 PVC riser casing. The proposed screened depth is intended to intersect the water table with 15 feet of screen submerged and 10 feet of screen above the water table. 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 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 1-foot bgs.

To complete the wells, a locking, protective steel stick-up well casing will be installed within a concrete pad on the ground surface from approximately 3-feet above ground surface to 2-feet bgs. A water-tight gripper plug will be placed on the top of the monitoring well riser. Protective bollards (three) will be installed around the well completion. Following installation, the well completion and protective bollards will be painted safety-yellow, and the well identifier stenciled on the stick-up completion. The newly installed well will be secured with a zip-tie.

Well development will be performed using well swab surging and pumping until sediment has been removed and visibly clear water is observed or the well runs dry. Decontamination and development water will be placed in a poly-tank.

Assuming free-phase petroleum hydrocarbons are not encountered; following development, HydraSleeve™ no-purge groundwater samplers and tethers will be placed in the new monitoring wells. The sampler will be placed at least five (5)-feet below the field-apparent water table.

The top-of-casing and ground surface elevation and location of the newly installed monitoring wells will be surveyed-in by a New Mexico-licensed surveyor. The surveyor will also update the site plan with the location of identified utilities not included in previous surveys.

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,

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

3.3.3 Boring Location 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 monitoring well and/or soil boring location is staked or flagged and that the entire area surrounding the drilling location should be marked. The clearance call must be made at least two working days prior to drilling, and site work must be completed within 14 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.

The SLO-ECO will also be notified of the dates of field activities at least 48 hours prior to start.

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

The hydro-excavated spoils generated will be transported to the Envirotech Land Farm located near Bloomfield, New Mexico (land farm) for disposal. Investigation-derived soil waste will be containerized in a roll-off staged at the Site. The driller will have a front-end loader or equivalent equipment on site to load soil cuttings as they are generated. Stantec will coordinate the removal and transport of the roll-off from the Site to the land farm for disposal.

A 55-gallon drum or 330-gallon tote will be used to store well development and decontamination water. An additional tote will be used to store clean water for decontamination activities, if

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necessary. The drums and totes will be staged on the ground in the work area. Following completion of the project, the wastewater will be transported to the land farm for disposal.

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

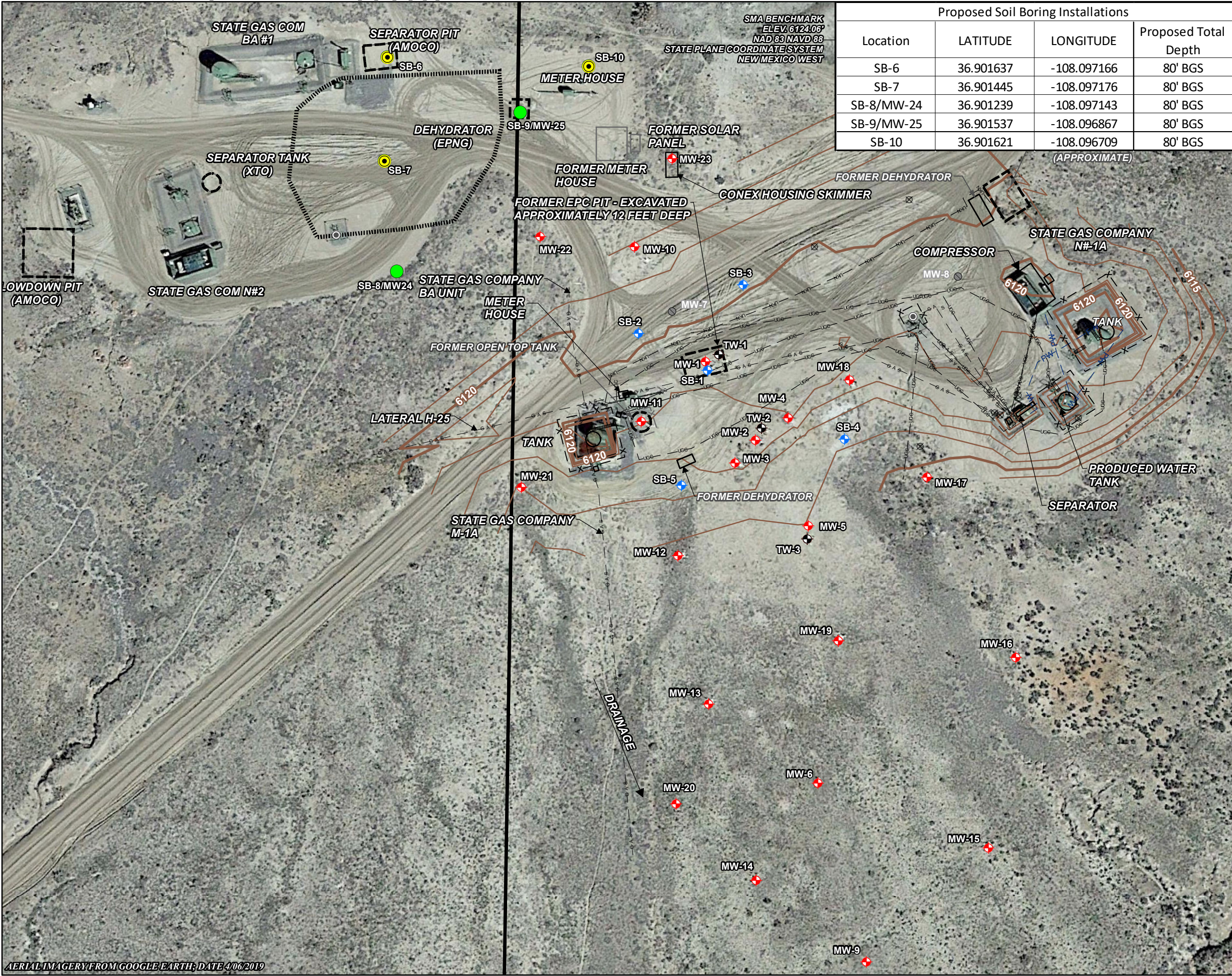
3.3.6 Field Equipment Calibration Procedures

Regarding organic vapor meters, field personnel will use a 10.6 electron volt (eV) PID for screening soil samples during advancement of soil borings. 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.

SECTION 4 - SCHEDULE

It is anticipated that the activities herein will commence the week of October 28, 2024. Utility locates must be verified prior to the work. Soil and groundwater analytical results and recommendations from the field activities will be provided in the 2024 Annual Report, anticipated to be submitted by April 1, 2025.

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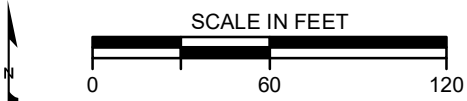


LEGEND:

- 6120 - APPROXIMATE GROUND SURFACE CONTOUR AND ELEVATION, FEET
- X- - FENCE
- A-S- - NATURAL GAS LINE
- PW- - PRODUCED WATER LINE
- UKN- - UNKNOWN LINE
- UG- - UNDERGROUND CABLE
- - STATE LAND OFFICE WATER EASEMENT BOUNDARY
- ||||| - GPRS EM ANOMALY
- - - - FORMER PIT
- - ABANDONED MONITORING WELL
- - MONITORING WELL
- - SOIL BORING
- - TEST WELL
- ⊗ - RIG ANCHOR
- ▲ - SMA BENCHMARK
- - WELLHEAD

PROPOSED FEATURES:

- - SOIL BORING
- - SOIL BORING/MONITORING WELL



| REVISION | DATE | DESIGN BY | DRAWN BY | REVIEWED BY |
|----------|------------|-----------|----------|-------------|
| | 2024-09-20 | SAH | SAH | SV |

TITLE: **PROPOSED MONITORING WELLS AND SOIL BORINGS**

PROJECT: **STATE GAS COM N#1
SAN JUAN RIVER BASIN
SAN JUAN COUNTY, NEW MEXICO**



Figure No.:

2

AERIAL IMAGERY FROM GOOGLE EARTH, DATE 4/06/2019

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 385479

CONDITIONS

| | | |
|---|----------------|--|
| Operator: El Paso Natural Gas Company, L.L.C 1001 Louisiana Street Houston, TX 77002 | OGRID: | 7046 |
| | Action Number: | 385479 |
| | Action Type: | [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT) |
| | | |

CONDITIONS

| Created By | Condition | Condition Date |
|------------------|---|----------------|
| michael.buchanan | Review of the 2024 Monitoring Well and Soil Boring Installation Work Plan for State Gas Com N#1 Pit Site 1. Please provide advanced notice (4 business days) before work activities commence. 2. Upload all required permits obtained from the New Mexico Office of the State Engineer (OSE) to the OCD portal. 3. Proceed as planned to drill additional soil borings (SB-6 though SB-10) to further delineate impact in the N and NW areas of the site. 4. Transition soil borings into MW-24 and MW-25 as planned to further assess groundwater impact. 5. Submit results and findings to the OCD in the 2025 annual monitoring report with recommendations for either further delineation or further monitoring well installment if EPCGP deems it necessary. | 10/17/2024 |