Stantec Consulting Services Inc.
11311 Aurora Avenue
Des Moines, IA 50322-7908

November 12, 2025

Ms. Ashley Maxwell, Environmental Specialist
New Mexico Oil Conservation Division
Energy, Minerals and Natural Resources Department
1000 Rio Brazos Road
Aztec, New Mexico 87410

Reference: Work Plan for Hydrocarbon Recovery Testing Activities
Canada Mesa #2
New Mexico Oil Conservation Division Incident Number nAUTOfAB000065

Dear Ms. Maxwell:

On behalf of El Paso CGP Company, LLC (EPCGP), Stantec Consulting Services Inc. (Stantec) is submitting this Work Plan for enhanced hydrocarbon recovery testing activities utilizing mobile dual-phase extraction (MDPE) methods at the Canada Mesa #2 site (site) located in the San Juan River Basin. MDPE activities are to be conducted from monitoring wells MW-4 and MW-9, where measurable light non-aqueous phase liquid (LNAPL) continues to be present. MDPE activities may also be conducted from monitoring well MW-1 if measurable LNAPL is present at the time of testing. Short-term feasibility testing conducted in 2018 and 2023 indicated enhanced removal of hydrocarbons from monitoring wells MW-1, MW-4, and MW-9 was feasible. As LNAPL persists in monitoring wells MW-4 and MW-9, a 30-day MDPE testing event is planned to recover the remaining LNAPL from MW-4, MW-9, and if present, MW-1. Testing of an air sparge bubbler in test well TW-1 is also planned during completion of the MDPE event. Figure 1 depicts the site layout.

Stantec will retain the services of CalClean Inc. (CalClean) to mobilize and provide equipment and personnel to perform the MDPE and air sparge testing event at the site, planned to be initiated in November 2025. All equipment is portable and will not be left at the site following the event. CalClean has obtained a “No Permit Required” determination for emissions from remediation equipment to be utilized during the MDPE testing event from the New Mexico Environment Department (NMED). A copy of the NMED letter is included as Attachment A. For the air sparging testing, the New Mexico Oil Conservation Division (NMOCD) has previously confirmed injection of air into the subsurface does not require an Underground Injection Control (UIC) permit, as documented in Attachment B.

MDPE Activities

MDPE is a process combining soil vapor extraction (SVE) with groundwater depression to maximize mass removal of LNAPL as both liquid- and vapor-phase hydrocarbons. CalClean’s system consists of a truck-mounted, high-vacuum, 25-horsepower vapor extraction and treatment system capable of an air flow in excess of 400 cubic feet per minute (cfm) at vacuums reaching 29 inches of mercury (in Hg). Information detailing the CalClean MDPE equipment is provided in Attachment C. CalClean uses a stinger tube (drop tube) to simultaneously remove liquid LNAPL, dissolved-phase contaminated groundwater, and vapors from each extraction point. This method can induce a hydraulic gradient toward the extraction well, creating groundwater depression and exposing the saturated zone or smear zone to SVE. A manifold is used so extraction may be conducted from multiple wells simultaneously. The size of the cone of depression created is directly influenced by many factors including air flow of the system, vacuum, permeability of the saturated formation, and the duration of the MDPE testing event.

Recovered liquids will be transferred to temporary storage tanks during the 30-day testing event. Recovered vapors will pass through and be treated using a thermal oxidizer before discharge to the atmosphere. Using this method, typical vapor destruction efficiencies are greater than 99 percent.

MDPE testing will focus on monitoring wells MW-4 and MW-9 as the extraction points during the testing event. Extraction from monitoring well MW-1 may also be added if LNAPL is present. The MDPE equipment will be operated continuously for the duration of the 30-day period, subject to any necessary equipment maintenance. CalClean staff will stay on site for the duration of the testing event in a portable camper with contained facilities. If the system experiences an alarm condition (i.e., high vacuum, high water level, high temperature), the equipment will automatically shut down until the condition is cleared by CalClean staff. If more than two hours a day are spent on equipment maintenance or the system is shut down for any reason, the downtime will be added to the end of the testing event. The number of hours on the liquid ring pump will be recorded daily to determine whether downtime has occurred.

Stantec will be on site during startup and the first three days of the testing event, and for the final day of shutdown and demobilization. Stantec staff will document the initial and final site conditions, supervise the set-up and removal of the remediation equipment, and review system recovery volumes and effluent vapor concentrations to optimize hydrocarbon impact removal, in coordination with on-site CalClean staff. Vacuum readings and groundwater elevations at nearby monitoring wells will be collected to provide additional information regarding radius of influence (ROI) and groundwater flow patterns resulting from the extraction testing activities. CalClean personnel will provide oversight of the MDPE testing efforts and, with concurrence from Stantec, will adjust equipment, as necessary, to optimize hydrocarbon recovery and liquid recovery volume. Stantec office staff will also receive and review daily reports from CalClean and work with on-site staff for the duration of the testing event to help optimize operations. The equipment, including the tanks, will be removed upon completion of the MPDE testing event and no equipment or materials will be left at the site.

Vapor samples will be collected periodically and analyzed with a Horiba® gas analyzer to estimate hydrocarbon concentration and destruction efficiency. To verify mass removal rates, vapor sample(s) will be collected during the MDPE testing event at the extraction wellhead via Tedlar® bags. To verify thermal oxidizer combustion efficiency, additional Tedlar® bag samples will be collected from the stack (post-ox) to compare against wellhead Tedlar® bag sample results collected from the extraction wellhead. The samples will be collected at the end of the first 24 hours of the MDPE testing event operation, after approximately 7 days into the MDPE testing event, and on the final day of the MDPE testing event. The Tedlar® bag samples will be submitted to Eurofins Environment Testing South Central, LLC, in Albuquerque, New Mexico for analysis of volatile organic compounds using Method TO-15, and total petroleum hydrocarbons (TPH) using Method TO-3.

Recovered liquids will be containerized on site in portable tanks, for temporary storage during the testing event. Upon completion of the testing event, a local waste hauler will mobilize to the site to remove the recovered liquids from the site for disposal. The recovered liquids will be transported to Agua Moss, LLC, in Bloomfield, New Mexico, for disposal under a C-138 ticket. Following the MDPE testing event, Stantec will complete a metering report documenting the amount of liquids removed, pursuant to New Mexico Office of the State Engineer (NMOSE) requirements.

Air Sparge Testing

Concurrently with the 30-day MDPE testing activities, CalClean will conduct continuous air sparge testing at test well TW-1, using a SCHUMAprobe™ 1-inch-diameter sparge point (sparge point) placed in existing test well TW-1. The sparge point will be connected to a Becker air compressor powered by a generator located on CalClean's test unit. The sparge point has an advantage over traditional air sparging as it produces a fine bubble matrix through its screen, allowing air to migrate more easily into the surrounding formation. The injected air is expected to travel through the formation both to strip hydrocarbons from groundwater under pressure, and via diffusion mechanisms that will increase the amount of dissolved oxygen available for biodegradation away from TW-1. Furthermore, the extraction of groundwater with LNAPL from MW-1, MW-4, and/or MW-9 may enhance migration of dissolved oxygen away from TW-1 and towards these areas. Information on the sparge point is included as Attachment D.

Prior to the start and following completion of the 30-day testing activities, dissolved oxygen measurements will be collected from TW-1 and monitoring wells MW-1, MW-2R, MW-3R, MW-4, MW-5, MW-8, MW-9, and MW-12 using a down-hole dissolved oxygen meter. The dissolved oxygen data will help determine the effectiveness of the sparge point to distribute dissolved oxygen into the surrounding groundwater as a result of the testing. Air injection pressure and flow measurements will also be monitored during the event.

Post-Testing Activities

Quarterly LNAPL monitoring, and if present, manual recovery, will resume in the first calendar quarter of 2026. Following the MDPE and air sparging testing event, data collected from quarterly groundwater gauging and subsequent semi-annual groundwater sampling events at the site will be used to evaluate the effectiveness of the testing event and provide recommendations for additional activities, if warranted. The data and results for the testing event will be summarized in the 2025 annual groundwater monitoring report (Annual Report) for the site. The Annual Report will include a narrative of the activities completed, a tabulated summary of the data collected, estimated hydrocarbon recovery rates and totals, monitoring data from nearby wells during testing activities, laboratory analytical reports, waste disposal documentation, and other pertinent information.

Health and Safety

A Site-Specific Health and Safety Plan (HASP) has been prepared for testing 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 always be on site while work is being performed. The HASP will apply to Stantec employees, Stantec's subcontractors, and visitors at the site. If a subcontractor operates under their own HASP, it will be reviewed and referenced by Stantec prior to the start of field activities.

During the testing event, periodic ambient air monitoring may be conducted with a photoionization detector, hydrogen sulfide monitor, and explosimeter, as warranted. Monitoring instruments will be calibrated prior to use according to the manufacturer's specifications. Calibration information will be recorded in the field log book.

Reference: Work Plan for Hydrocarbon Recovery Testing Activities

Schedule

The 30-day testing event will be initiated following receipt of a Pollution Recovery Amendment from the NMOSE, expected to be issued in late November 2025. The NMOCD will be notified prior to start of field activities via a C141N submittal. The results of the MDPE and air sparge testing event will be documented in the 2025 Annual Report, anticipated to be submitted by April 1, 2026.

Please feel free to contact Joseph Wiley, Project Manager for EPCGP, at (713) 420-3475, or me if you have any questions or require additional information.

STANTEC CONSULTING SERVICES INC.

Stephen Varsa, P.G.
Principal Hydrogeologist
Phone: (515) 251-1020
steve.varsa@stantec.com

/srv:src:hls

cc: Marjorie Brown, BLM (ROW NMNM133869)
Joseph Wiley, EPCGP

Attachments:
Site Plan
Attachment A – NMED “No Permit Required” Letter
Attachment B – NMOCD UIC Determination
Attachment C – MDPE System Schematic
Attachment D – SCHUMAprobe™ Sparge Point Information

FIGURE

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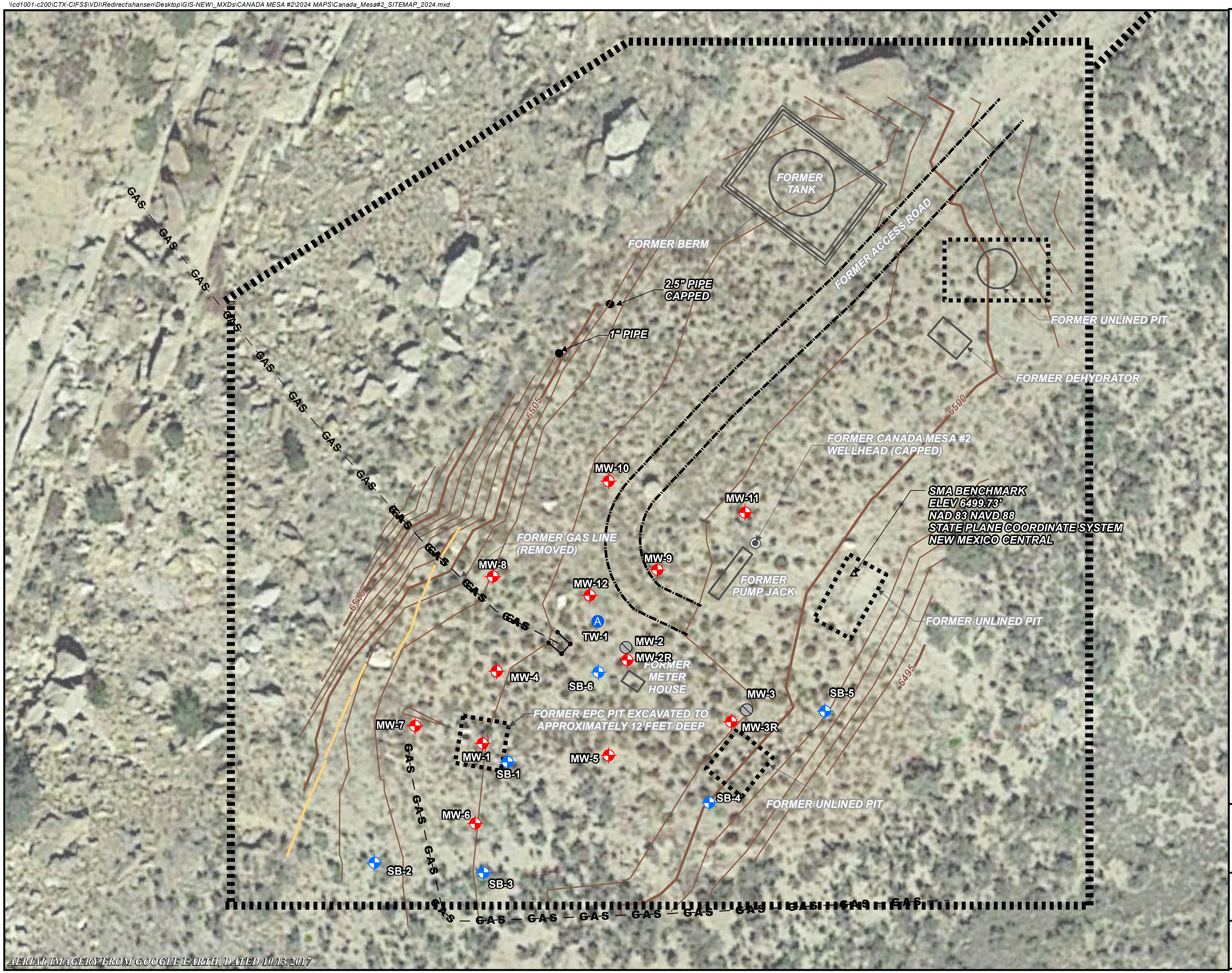


LEGEND:

6503	APPROXIMATE GROUND SURFACE CONTOUR AND ELEVATION, FEET
-·-·-·	ACCESS ROAD
—	BARRICADE
G A S —	NATURAL GAS LINE
⊕	MONITORING WELL
A	TEST WELL
⊕	SOIL BORING
⊘	ABANDONED MONITORING WELL
△	SMA BENCHMARK
●	PIPE
•—•	FENCING
◉	FORMER WELLHEAD
▪▪▪▪	FORMER UNLINED PIT
—	FORMER FEATURES
▮▮▮▮	RIGHT OF WAY BOUNDARY

N

SCALE IN FEET

0 30 60

REVISION	DATE	DESIGN BY	DRAWN BY	REVIEWED BY
A	2025-02-07	SLG	SLG	SRV

TITLE:

SITE PLAN

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

Stantec

Figure No.:
1

ATTACHMENT A

MICHELLE LUJAN GRISHAM
GOVERNOR

JAMES C. KENNEY
CABINET SECRETARY

March 25, 2024

Noel Shenoi
Principal Environmental Engineer
CALClean, Inc.
1790 N. Case Street
Orange, CA 92865

Air Quality No Permit Required (NPR)
No. 10234
Agency Interest No. 39716 - PRN20240001
CalClean SVE systems
AIRS No. 357771665

Dear Mr. Shenoi:

This letter acknowledges the receipt of your request for a permit applicability determination dated March 19 2024 for an Oil & Gas facility in New Mexico. The request was received by the Department on March 19, 2024.

Operation of numerous identical truck-mounted soil vapor extraction (SVE) systems, used for remediation at gas station sites and other sites with petroleum hydrocarbons, such as oil field sites, pipeline sites, may commence State-Wide (excluding Bernalillo County unless additional approval received), as represented in the request.

The Department has not conducted a review of the information or verified any emission calculations or regulatory analysis. It is the responsibility of the owner and/or operator of the facility to determine applicability and to comply with all existing, revised, and new applicable regulations. This includes requirements to apply for a 20.2.72 NMAC - Construction Permits or 2.73 - Notice of Intent and Emissions Inventory Requirements. The owner and/or operator of the facility is advised to keep records of the emission calculations and regulatory applicability.

As there are emission sources remaining at the site the department will change the status from a Notice of Intent to a No Permit Required. Please be advised that changing the status of the facility is based on the company's determination the site no longer requires a Notice of Intent due to changes in production or equipment and that the AQB has not reviewed the emissions from the remaining sources.

This facility may be subject to state and federal regulations ***such as*** those found in Table 1.

Table 1: Other Regulations

Citation	**Title**
20.2.38 NMAC	Hydrocarbon Storage Facilities
20.2.50 NMAC	Oil and Gas Sector: Ozone Precursor Pollutants
20.2.61 NMAC	Smoke and Visible Emissions
20.2.70 NMAC	Operating Permits
40 CFR 60 Subpart Ka	Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984

Citation	Title
40 CFR 60 Subpart Kb	Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) For Which Construction, Reconstruction, or Modification Commenced After July 23, 1984
40 CFR 60, Subpart IIII	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
40 CFR 60, Subpart JJJJ	Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
40 CFR 60, Subpart OOOOa	Standards of Performance for Crude Oil and Natural Gas Production Transmission and Distribution
40 CFR 63 Subpart HH	National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities
40 CFR 63 Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines

Please be advised that this No Permit Required determination was based upon the application submitted and these sources, when constructed, will be subject to inspection.

If you have any questions, please do not hesitate to contact me at 505-629-2718 or Joseph.Kimbrell@env.nm.gov.

Sincerely,

Joseph Kimbrell
Technical Services Manager
Permits Section
Air Quality Bureau

ATTACHMENT B

CONVERSATION LOG

DATE: 04/04/2022

INITIATED CALL (x)	**RECEIVED CALL ( )**	**RETURNED CALL ( )**
OCCURRING IN OFFICE (x)	**SALES ( )**	**TRADE SHOW ( )**

CONTACT:

Name: Mr. Nelson Valez (NMOCD)
Address: Santa Fe, NM

Project Name: Knight #1
Project #: 193710328
Phone #: (505) 469-6146

Project Personnel: Steve Varsa

CONVERSATION SUMMARY:

Called Nelson to confirm/clarify previous my May 26, 2017, correspondence with Randy Bayliss (previous NMOCD contact) regarding the need for Underground Injection Control (UIC) permitting for air sparge (AS) groundwater remediation systems. At the time, Randy had told me UIC permitting was not required for AS pilot testing, and we had also discussed a non-EPCGP site where an AS system had been operating for approximately 2 years without need of a UIC permit. Nelson said he agrees that UIC permitting is not required for air sparge remediation but would get back to me if he heard otherwise from his supervisor.

RESPONSE:

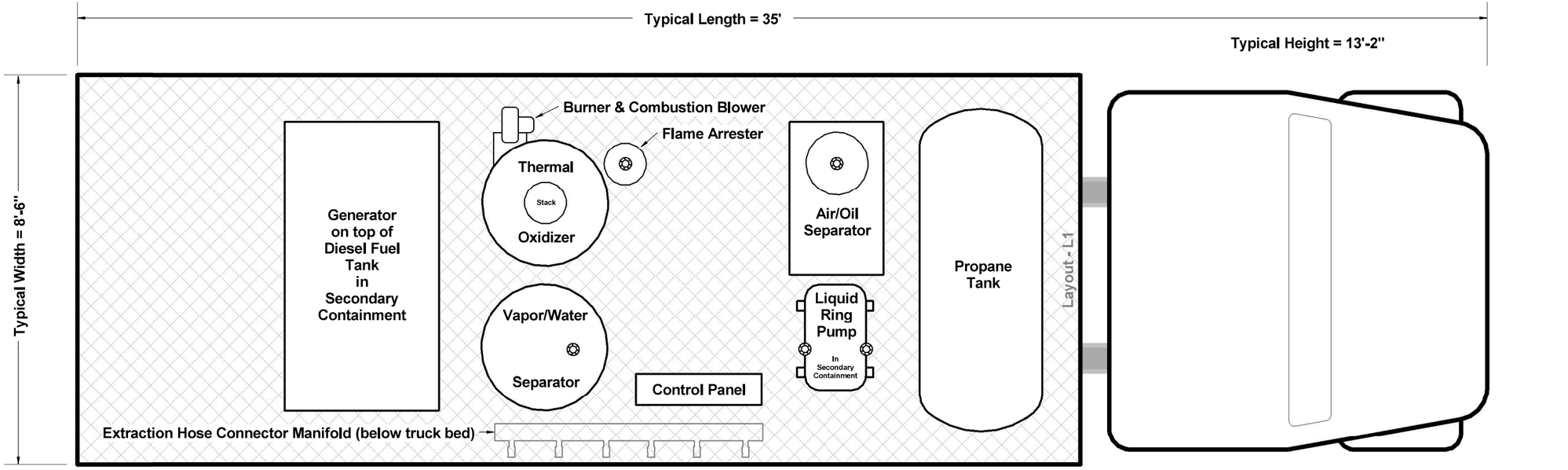
None. Include copy of this correspondence in the Knight #1 RAP.

COPY TO:

Joseph Wiley (EPCGP), Project File

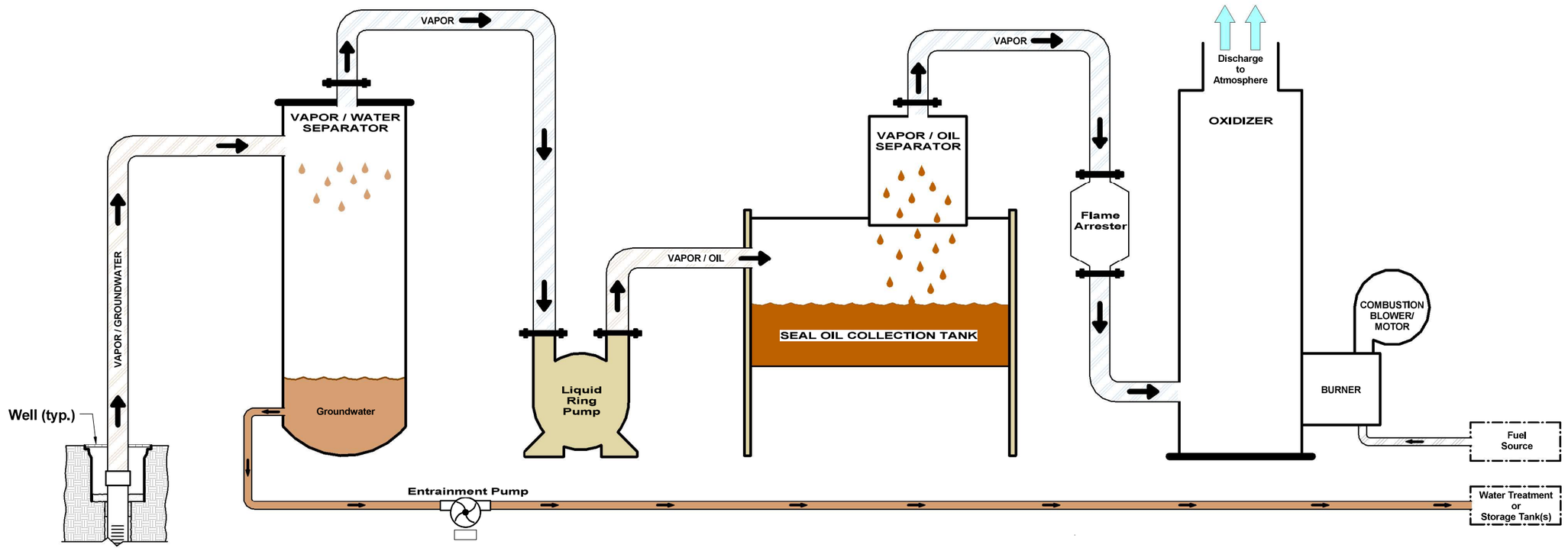
ATTACHMENT C

General Layout of a Typical CalClean Truck Mounted Mobile Remediation System (MRS)



1 LD-THK-L1 (FP)

Process Flow of a Typical CalClean Mobile Remediation System (MRS)



2 PFD THK-Typ (DV) Color

CALCLEAN
1790 N. CASE STREET ORANGE, CA 92865, US
714-935-2706 • www.calclean.com

CONFIDENTIAL

TYPICAL

Truck Mounted

Mobile Remediation Systems

using the
- Thermal/Catalytic -
method of treatment

Designed By:	Gordon Melin
Drafted By:	Power & Data
Approved By:	Gordon Melin
Print Date:	9/13/2019 10:46:13 AM

Layout and Flow Diagrams Truck

TYP-2.0

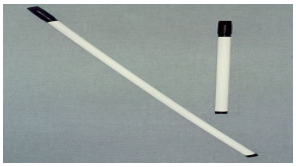
DESIGNSv2

ATTACHMENT D

Excelled Custom Tubing

SCHUMAprobe™

PRODUCT INFORMATION



ECT introduces **SCHUMAprobe** the latest in sparging and extraction technologies. Using the same micro-porous, homogeneous structure found in **SCHUMASOIL®**, SCHUMAprobeTM provides the user with superior soil vapor extraction and air sparging capabilities as well as groundwater monitoring or extraction. Our standard product comes with ASTM F480 male x female threaded ends for simple installation. SCHUMAprobe's average pore size of 20 and 40 µm produces a fine bubble matrix over the entire surface of the screen allowing gases to migrate easily into the soil formation. With an outer diameter of either 1.315 or 2.375 inches, SCHUMAprobe is an excellent choice of porous media material to complement direct push equipment.

Physical Properties	Unit	SP20-X-Y-MTC	SP40-X-Y-MTC	SP80-X-Y-MTC
Mean Pore Size	um	20	40	80
Porosity	%	40	42	45
Specific Permeability	nPm	90	180	320
Pressure Drop at 250 m/h (air)	Psi	0.090	0.045	0.025
Maximum Temperature Resistance	°C/°F	80/176	80/176	80/176
Probe Outside Dimensions	inches	1.315 or 2.375	1.315 or 2.375	1.315 or 2.375

NOTE: X = schedule 1" or 2" pipe size; Y = porous section length (20, 30, 40, or 60 inches); MTC = male threaded F480 & cap

Chemical Resistance

SCHUMAprobe is resistant to alcohol and aliphatic hydrocarbons. It resists strong alkalies, acids and saline solutions. Extended exposure to high concentrations of oxidizing agents, chlorinated and aromatic solvents might affect the performance of the material. For further information ask for the technical information, "Chemical resistance of SCHUMASOIL."

Applications

- ***Air Sparging***
- ***Soil Vapor Extraction***
- ***Groundwater monitoring***

SCHUMAprobe is an excellent product for use with direct push technology to inject or extract gases or liquids. The threads fit easily into female ASTM F480 flush thread PVC riser pipe or connectors allowing simple and immediate installation.

- **Comes threaded male x female - ready to use.**
- **SCHUMAprobe is hydrophobic and does not swell in water.**
- SCHUMAprobe is lipophilic and can be used in oil separation.

Web site information: www.ectmfg.com

ECT MFG.
11 BLACK FOREST RD • HAMILTON, NJ • 08691
PHONE: (609)631-8939 • FAX: (609)631-0993

MONOFLEX®
BAKER WATER SYSTEMS DIVISION
Quality Ground Water Monitoring Products since 1973
Phone: 800-523-0224; Fax: 610-367-5675;
Email: monoflex@campbell-monoflex.com

Schumaprobe 1" x 24", 40 Micron, Sparge Point Porous Polyethylene

The Sparge Point (aka Schumasoil® or Piezometer) pictured above is a short sample for illustrative purposes only. It shows the optional male flush threaded plug.

This newly designed Sparge Point is unique in that it is the only Sparge Point on the market that has a male flush thread on one end and female flush thread on the other end. These units may be screwed together for longer lengths or placed at various depths within the well.

They may be screwed to 8 TPI, ASTM F-480, flush threaded PVC or flush threaded stainless steel casing. Adapters from flush thread to NPT thread are available. These will accept your choice of flush thread plugs, caps or points. All fittings sold separately.

Details:

- Size: 1" (nominal)
- Schedule 40
- Nominal O.D.: 1.315
- Maximum O.D.: 1.415
- Pore Size: 40 micron
- Body Length: 24"
- Overall Length: 28"

Unit Part Number: PIEZPLY1.3X1X24A8
Box Part Number: PIEZPLY1.3X1X24A8X (25/box)

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

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

CONDITIONS

Operator: El Paso Natural Gas Company, L.L.C 1001 Louisiana Street Houston, TX 77002	OGRID: 7046
	Action Number: 526150
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
shanna.smith	Continue forth on the Work Plan Hydrocarbon Recovery Testing Activities stated in the November 12, 2025, report.	11/21/2025
shanna.smith	Submit a report of the data collected from the MDPE and air sparging testing. Report should include all data associated with the Hydrocarbon Recovery Testing.	11/21/2025
shanna.smith	Submit Quarterly monitoring and sampling reports to evaluate the effectiveness of the testing event.	11/21/2025
shanna.smith	Submit 2025 Annual Groundwater Monitoring report by April 1, 2026.	11/21/2025
shanna.smith	OCD records indicate that an approved Stage 1/2 plan is not on file. Pursuant to 19.15.30 NMAC El Paso CGP Company (EPCGP) must submit a Stage 1/2 Abatement plan no later than February 27, 2026, that meets all of the requirements of 19.15.30.13 NMAC.	11/21/2025
shanna.smith	Alternatively, if a Stage 1/Stage 2 Abatement Report has been approved by OCD, provide a copy of Stage 1/ Stage 2 Abatement Report by December 19, 2025, so OCD can update our Online records.	11/21/2025
shanna.smith	All applicable monitor wells will be sampled quarterly after MDPE and air sparging activities have ended to evaluate effectiveness of recovery activities. Operator may request to reduce sampling frequency based upon future results.	11/21/2025
shanna.smith	Monthly manual recovery activities will begin after recovery testing has ended, if LNAPL is present.	11/21/2025