



DATE March 1, 2021  
PROPOSAL P21078

ATTN **City of McKinney**  
1611 N. Stonebridge Drive  
McKinney, Texas 75071  
Attention: Patricia Jackson, PE, RAS



SUBJECT **Proposal for Environmental Services**  
Tract 5- Former Monsanto Facility  
401 E Louisiana Street and 406 E Virginia Street  
McKinney, Texas

Dear Ms. Jackson:

As requested, Modern Geosciences, LLC (Modern) is pleased to submit this proposal to assist the City of McKinney (City, Client) with the above-referenced property (Site).

The following sections provide our understanding of the proposed project, scope of work, fee and schedule. Modern's consulting services will be conducted in accordance with the scope of services detailed below.

## BACKGROUND AND PROJECT UNDERSTANDING

The City is currently in development planning for future improvement projects east of downtown McKinney, Texas that generally stretches from East Lamar Street (north) to Green Street (south). A total of eight (8) tracts are part of the planned investigations at the project site. Tract 5 is located at 401 E Louisiana Street and 406 E Virginia Street in McKinney, Texas. The 406 E Virginia Street property was previously occupied by Collin County Oil Works in the 1880s. The property was occupied by McKinney Mill & Elevator Co in the early 1890s and was a cotton yard in the late 1890s. The property was vacant in the 1900s and early 1910s. The property was constructed with several silos as various mill and elevator/feed mill companies from the 1910s until the 2010s. Additional silos were added in the late 1970s to the property.

Three (3) 1,500-gallon fuel USTs are noted on historical fire insurance maps from at least 1920 until 1965 near the railroad track in the western portion of the 406 E Virginia Street tract. The 401 E Virginia Street property was occupied by a passenger depot and rail lines from the 1880s until the 1920s. A freight depot was added in 1910s. Warehouses were constructed sometime between the 1920s until the 1940s. The warehouses were demolished between 2005 and 2008. A public parking lot was constructed between 2012 and 2016. Modern performed a site investigation on Tract 5 in January 2021. Modern understands that a regional Municipal Setting Designation



(MSD) is being pursued that includes the Site. Our evaluation of investigation data has included the assumed MSD-based exposure concerns (e.g., removal of potable water use).

The soil sample MMW-17 (13-14') exhibited TPH concentrations in the C<sub>6</sub>-C<sub>12</sub> range of 110 mg/Kg and in the C<sub>12</sub>-C<sub>28</sub> range of 900 mg/Kg above the default TRRP RALs of 65 and 200, respectively. Since this soil boring location is near or at the location of three (3) former USTs, this soil sample was further analyzed for PAHs. PAHs were not identified in the soil sample from soil boring MMW-17 (13-14') above TRRP RALs or PST Action Levels.

The soil sample MB-16 (1-1.5') exhibited a benzo(a)pyrene concentration of 4.7 mg/Kg above the default TRRP RAL of 4.1 mg/Kg. The remaining detections in this soil sample do not exceed default TRRP RALs. A deeper soil sample at this location MB-16 (1.5-2.5') was analyzed for benzo(a)pyrene. The resulting concentration (0.0037 J mg/Kg) is below the default TRRP RAL of 4.1 mg/Kg. The remaining soil samples analyzed for PAHs did not exceed default TRRP RALs. The remaining soil samples did not exhibit concentrations of PAHs above default TRRP RALs.

Multiple soil samples exhibited concentrations of arsenic up to 20.4 mg/Kg above the default TRRP RAL of 5.9 mg/Kg and concentrations of lead up to 1,940 mg/Kg above the default TRRP RAL of 15 mg/Kg. Soil sample MB-16 (1-1.5') also exhibited a barium concentration of 676 mg/Kg above the default TRRP RAL of 440 mg/Kg and a cadmium concentration of 2.38 mg/kg above the default TRRP RAL of 1.5 mg/Kg. Additionally, prior investigation efforts at Tract 5 noted concentrations of arsenic (up to 26 mg/Kg) above the default TRRP RAL of 5.9 mg/Kg and concentrations of lead (up to 180 mg/Kg) above the default TRRP RAL of 15 mg/Kg. Additionally, concentrations of selenium (up to 5.5 J mg/Kg), cadmium (up to 1.8 mg/Kg), and silver (up to 0.83 mg/Kg) above the default TRRP RALs of 2.3 mg/Kg, 1.5 mg/Kg, and 0.48 mg/Kg.

The City of McKinney has plans to obtain a Municipal Setting Designation for Tracts 1 through 8 as well as some surrounding properties. One sample (MB-16 [1-1.5']) exhibited benzo(a)pyrene and lead above the Residential direct exposure criteria (<sup>Tot</sup>Soil<sub>Comb</sub>) of 4.1 mg/Kg and 500 mg/Kg, respectively (MSD-adjusted RALs). A total of two (2) shallow soil samples exhibited arsenic above the Residential direct exposure criteria (<sup>Tot</sup>Soil<sub>Comb</sub>) of 24 mg/Kg (MSD-adjusted RAL). Dieldrin (0.27 mg/Kg at SB-1 [0-0.5'] and 0.057 mg/Kg at SB-11 [0-0.5']) above the default TRRP RAL of 0.049 mg/Kg. Further, one sample (SB-1 [0-0.5']) also exceeded the <sup>Tot</sup>Soil<sub>Comb</sub> PCL of 0.15 mg/Kg (MSD-adjusted RAL). This proposal has been prepared to further delineate these arsenic, lead, and benzo(a)pyrene releases, enter the TCEQ Corrective Action Program, and the preparation of an Affected Property Assessment Report (APAR) to summarize the data.

Future remedy steps not included in this proposal would be the preparation of a Response Action Plan, excavation of shallow arsenic, lead, and benzo(a)pyrene-impacted soil, and the preparation of a Response Action Completion Report to obtain closure. This would also include using the existing parking lot as an engineered control (e.g., cap) to address the dieldrin release and the current known arsenic release.



## SCOPE OF SERVICES

### TASK 1: SITE INVESTIGATION ACTIVITIES (DELINEATION)

Prior to investigation activities, Modern will contact the appropriate utility companies to arrange for locating of the underground utilities present at the Site. Additionally, access will be coordinated with the tenant. A site-specific Health and Safety Plan (HASP) will be developed for Modern personnel and direct subcontractors anticipated to be on-site. It is anticipated that the proposed scope of services will be performed under Level D safety requirements.

#### Soil Borings

Up to 10 shallow soil borings will be advanced to a depth up to five (5) feet bgs using a drilling rig equipped with direct push equipment to delineate the arsenic, lead, and benzo(a)pyrene releases identified at Tract 5.

Soil samples will be collected from the borings to allow for the documentation of lithology, color, and relative moisture content. Drilling equipment will be cleaned upon project initiation. Soil samples will be field screened using a photo-ionization detector (PID) in one-foot intervals to aid in the identification of volatile organic compounds (VOCs). Soil samples collected for laboratory analysis from the soil borings will be obtained from the soil intervals just below the surface, intervals exhibiting elevated odors or PID readings, capillary fringe zone, significant changes in lithology, or at the termination of the borings.

#### Investigation-Derived Waste

Soil cuttings will be stored in labeled 55-gallon drums. It is anticipated that one (1) drum of investigation-derived waste (IDW) will be generated by the proposed site activities. This proposal provides for the characterization of IDW generated during the investigation. Costs for off-site disposal of IDW will be presented in a separate proposal. It is assumed that all IDW can be staged at Tract 7 with prior IDW during the waste characterization effort.

#### Quality Assurance/Quality Control

All laboratory analysis will be compliant with the applicable Data Usability requirements outlined by the Texas Commission on Environmental Quality (TCEQ) through the Texas Risk Reduction Program (TRRP) RG-366/TRRP-13 (*Review and Reporting of COC Concentration Data under TRRP*).

All samples will be collected in laboratory-prepared containers and placed in a cooler on ice. The cooler will be sealed with a custody seal when fieldwork is completed. Upon completion of the sampling event, a chain of custody will be completed for the samples to document the desired analytical procedures, analysis time (normal turnaround time is 5 to 7 workdays), and custody record.

#### Laboratory Analysis

The proposed laboratory analyses and related environmental concerns are detailed in the following table.

**LABORATORY ANALYTICAL SUMMARY**

ANALYSIS	EST. NO. OF SAMPLES	LABORATORY METHOD
<b>Soil Analysis</b>		
Arsenic	14*	SW-846 6020
Lead	10*	SW-846 6020
Benzo(a)pyrene	10*	SW-846 8270
<b>IDW Analysis – Soil</b>		
VOCs	1	SW-846 8260
TPH	1	TX1005
RCRA 8 Metals	1	Various

*\*Includes Contingency Analysis*

**TASK 2: REGULATORY REPORTING**

Tract 4 will be entered into the TCEQ Corrective Action Program. The TCEQ Correction Action Program will require the completion of an Affected Property Assessment Report (APAR) in accordance with 30 TAC §350.91 and TCEQ Form TCEQ-10325/APAR. The purpose of the APAR is to document relevant affected property information, to identify potential release sources and Chemicals of Concern (COCs), to determine the extent of COCs exceeding applicable thresholds, to identify transport/exposure pathways, and to determine if a response action is necessary. The APAR will generally include applicable portions of the following:

- Property Information (i.e., potential sources, site maps, geologic cross sections);
- Evaluation of Exposure Pathways and Groundwater Resource Classification;
- Water Well Survey;
- Tier 1 Ecological Exclusion Criteria Checklist;
- Discussion of Assessment Strategy;
- Soil Assessment Results (i.e., data summary, COC concentration maps, cross sections);
- Groundwater Assessment Results (i.e., data summary, gradient map, COC concentration maps);
- Surface Water Assessment;
- Sediment Assessment;
- Air Assessment;
- Ecological Risk Assessment;
- COC Screening and Critical PCL Development;



- PCLE Zone Maps;
- Notification Requirements;
- Boring Logs and Well Completion Details;
- Monitor Well Development and Purging Data;
- Registrations and Institutional Controls;
- Water Well Records;
- Monitor Well Records;
- Aquifer Test Data;
- Statistical Data and Calculations;
- Development of non-default RBELs and PCLs;
- Laboratory Data and Data Usability Summary;
- Waste Characterization and Disposition Documentation;
- Photographic Documentation;
- Standard Operating Procedures;
- OSHA Health and Safety Plan;
- Listing of Referenced Literature; and
- Seal by Professional Geoscientist or Professional Engineer licensed in Texas.

The APAR will be sealed by a Professional Geoscientist licensed in Texas. Although it is not anticipated in our current scope of work, it should be noted that the TCEQ Corrective Action PM may require additional investigation following review of the APAR or provided due diligence documents. If required, any additional investigation will be addressed under a separate scope of work and proposal.

## **ESTIMATED BUDGET**

Modern will perform the above-described scope of services on a percent complete basis for a not to exceed amount of **\$19,750**. Additional costs might be incurred if the assumptions presented earlier are not correct. In the event that additional costs and services are required, Modern will notify the client immediately and prepare an estimate of the additional cost. Modern will not exceed the authorized amount until written approval from our client has been received. The estimated project budget is summarized in the table below.

<b>ESTIMATED PROJECT BUDGET</b>	
<b>Task 1: Site Investigation Activities</b>	
Consulting Labor	\$ 1,750
Environmental Drilling	\$ 3,250
Environmental Laboratory	\$ 3,300
IDW Characterization	\$ 150
Travel/Field Supplies/Task Expenses	\$ 1,000
	<b>Subtotal: \$ 9,450</b>
<b>Task 2: Regulatory Reporting</b>	
APAR Preparation and Submittal	\$ 9,300
Regulatory Project Management	\$ 1,000
	<b>Subtotal: \$ 10,300</b>
	<b>TOTAL: \$ 19,750</b>

## PROJECT SCHEDULE

The following schedule is anticipated:

- Task 1: field work completed within four (4) weeks of written authorization;
- Task 2: reporting completed within eight (8) weeks following completion of field work and receipt of all final laboratory data sets

It should be noted that the above schedule is subject to interaction with entities, legal counsel, subcontractors, or other third parties that could delay the above project schedule.

## ASSUMPTIONS AND LIMITATIONS

- The Client will provide or arrange right-of-entry and unrestricted access to the Site;
- Our work will be performed in a manner consistent with that level of care and skill ordinarily exercised by other members of our profession practicing in the same locality, under similar conditions and at the time the services are performed;
- All information gathered during the services by Modern will be considered confidential and released only upon written authorization of the Client or as required by law. State law may require a person to inform the state if a situation is encountered that can be considered an imminent endangerment to the public's health or welfare and/or to the environment;
- Only data provided by Client or generated during the proposed additional investigation will be included in our reporting. Our budget assumes no additional investigation beyond that proposed above will be requested by the TCEQ; and



- This proposal is valid for a period of 60 days from the date of issuance.

## **AUTHORIZATION**

If this proposal meets your needs, please submit an executed copy of the proposal and agreement to our office. If there is a need for any change in the scope of services described in this proposal, please contact us immediately. Any requested changes may require revision of the proposed fee and schedule.

All terms and conditions indicated in this proposal will be considered by both parties to be in effect from the effective date of the executed contract through completion of the project.



**MODERN GEOSCIENCES**  
TRUSTED ENVIRONMENTAL ADVISORS

**CLOSING**

We thank you for the opportunity to provide this proposal for environmental services and look forward to working with you on this project. If you have any comments or questions concerning this proposal please contact us at your earliest convenience.

Respectfully submitted,

Lisa Marinangel, PG  
PROJECT MANAGER

Kenneth S. Tramm, PhD, PG, CHMM  
PRINCIPAL

**MODERN GEOSCIENCES**

TEXAS REGISTERED GEOSCIENCE FIRM 50411  
TEXAS REGISTERED ENGINEERING FIRM F-16201

If this proposal meets your needs, please authorize services as indicated below and return.

**NOTICE TO PROCEED**

The above scope is understood and authorized.

Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_