Red River Supply Response

Williston, ND

Interim Remedial Action Plan

Version 1.0

Prepared On Behalf Of:

Prepared By:

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1.0 INTRODUCTION AND PURPOSE

This Interim Remedial Action Plan (IRAP) was prepared on behalf of Garner Environmental supporting operations to provide details of the proposed Interim Remedial Measures (IRM) related to the Red River Incident in Williston, ND, which began on Tuesday July 22, 2014. A map of the site location is provided in Attachment A.

The incident involves Red River Supply, an oilfield field supply yard that was engulfed in a fire, consuming products that were stored onsite as well as releasing water from site that was used in fire suppression operations. The objectives of the IRM are as follows:

1) Remove visibly impacted soil and debris from the Site and dispose of the material offsite at an approved waste management facility.

2) Collect confirmation samples from the Site to ensure the IRM have effectively removed the bulk of contaminated material from the proposed excavated areas.

3) Backfill the excavated areas to grade.

2.0 HEALTH AND SAFETY

CTEH® sampling personnel will review and adhere to the site specific Health and Safety Plan (HASP) developed by CTEH®. Sampling activities will only be completed in a safe manner and under safe conditions as dictated by the HASP. Individual Job Hazard Analysis (JHAs) will be prepared to cover individual activities onsite.

3.0 SITE CLEARING

Following the approval to begin moving damaged materials on the Site surface, field crews segregated waste and removed damaged materials from the area impacted by the fire. Scrap metal was decontaminated and recycled offsite, waste piles were accumulated and sampled for offsite disposal per the approved Waste Management Plan. Following the clearing of damaged materials from the former building slab, the slab will be pressure washed and assessed for damage.

4.0 SOIL REMOVAL

4.1 Pre-Excavation Soil Sampling

Following the removal of the bulk of surface debris, CTEH will collect soil samples from select areas of the Site where impacts are suspected. Composite soil samples will be collected around and underneath the concrete pad to determine the level of impacts, if any, at the Site to refine

the remedial actions moving forward. CTEH will review the analytical results and compare them to the applicable soil criteria and determine the extent of excavation necessary to effectively remove impacted media from the Site. In areas where the agreed upon soil criteria show exceedances, soil excavation will be completed in the manner outlined below in Sections 4.2 and 4.3.

Methods and Analysis

Soil samples from each location will be collected utilizing a dedicated sampling device or a decontaminated sampling device. Each sample container will be completely filled to minimize headspace. Vegetation, rocks, litter, and other non-native soil material will be carefully removed prior to filling sample containers when practical to do so. All soil samples will be submitted to a Pace, a NELAP-accredited laboratory.

CTEH® plans on submitting collected soil samples for analysis of:

- Volatile organic compounds (VOCs) by USEPA Method 8260
- Semi-volatile organic compounds by USEPA Method 8270
- Total Petroleum Hydrocarbons – Gasoline Range Organics, Diesel Range Organics, and Oil Range Organics by USEPA Method 8015
- Metals by USEPA 6010 / 7040

4.2 Primary Impacted Area- Exclusion Zone

Soils in the general vicinity of the former building pad most heavily impacted by the fire and the subsequent release of stored materials will be excavated to a minimum depth of one foot below grade. All portions of the Site that are considered to be within the earthen berm (the exclusion zone) will be considered to be part of the primary excavation area. If there is visible or olfactory evidence of impacts below this level, additional soil will be removed in targeted excavation in six inch intervals. Additionally as the excavation proceeds across the Site, CTEH personnel will screen soils at the bottom of the excavation with a multi-rae to determine if residual impacts are present at the Site. Headspaces readings above 50 ppm will be considered to be impacted and additional soil will be removed in six inch lifts within the vicinity of the readings.

The cement pad has been heavily damaged as a result of the fire and the Site clearing work. Given its condition, the pad will be mechanically broken and removed from the Site. Depending on the thickness of the pad and the condition of soils below it, additional material may be excavated and disposed of offsite.

Additionally all material used as a berm for the exclusion zone will be stockpiled and disposed of offsite.

4.3 Support Zone Areas

Areas outside of the exclusion zone where decontamination work was completed or where possible run off from the firefighting effort may have been collected will be excavated as well. Approximately six inches of material will be scraped in these areas to remove potentially impacted soil. Soil will be screened as described above and will be over-excavated where necessary in six inch lifts.

5.0 CONFIRMATION SOIL SAMPLING METHODS AND ANALYSIS

5.1 Soil Samples

Confirmation soil samples will be collected from the excavation areas in order to confirm the level of success of the remedial effort. Composite samples will be collected based on a grid system displayed in Attachment B. The established sampling grid consists of 100 foot by 100 foot squares meant to divide the Site into representative areas for sampling. Fifty aliquots will be collected in each grid, mixed in a dedicated container and placed into the appropriate laboratory provided bottle ware. All sampling will be documented in field notebooks, CTEH® field forms, or hand-held devices, and soil samples will be submitted to a laboratory in accordance with 40 CFR 136. Sampling shall be consistent with the procedures and protocols established in the approved Sampling and Analysis Plan.

Methods and Analysis

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- Metals by USEPA 6010 / 7040

Location and Frequency

One sample will be collected from each sampling grid with duplicate samples taken at a frequency of one per ten. If a sample fails to meet the Site established criteria, an additional sample may be collected after removing additional material from that grid.

6.0 WASTE DISPOSAL

The method for storage and disposal of excavated soils will comply with applicable local, state, and federal regulations in a manner consistent with the Waste Management Plan. Soils will be characterized either in situ or in stockpiles at a frequency consistent with what has been described in the Waste Management Plan or as necessary for acceptance into the selected disposal facility.

7.0 BACKFILL

Following the completion of excavation work and confirmation of the acceptable sample results, each area will be backfilled with an appropriate fill material selected by the property owner to allow for future use. Backfill selected should be from a certified clean source. The Site will be returned to grade.

Additional restoration efforts, if necessary, including seeding or paving shall be determined at the completion of the IRM.

For backfill on other properties, if necessary, the property owner will be consulted to determine the appropriate backfill type.

8.0 INTERIM REMEDIAL ACTION COMPLETION REPORT

Following the completion of all IRM activities, a brief summary report will be prepared detailing the IRM activities, sample results and recommendations for the Site. The report will be submitted to the appropriate regulatory agencies as an electronic deliverable including copies of all relevant analytical reports.

Attachment A:

Site Location Map

Attachment B:

Sample Grid Map