### SITE INFORMATION

| Report            | Type: Mor          | nitoring Wo     | ork Plan                               | Inciden                           | t #NAB1                  | 922035               | 506                     |  |  |
|-------------------|--------------------|-----------------|--|-----------------------------------|--------------------------|----------------------|-------------------------|--|--|
| General Site Info | rmation:           |                 |  |                                   |                          |                      |                         |  |  |
| Site:             |                    | Big Papi Feo    | deral Com #2H                          |                                   |                          |                      |                         |  |  |
| Company:          |                    | COG Operat      | ing LLC                                |                                   |                          | -                    |                         |  |  |
| Section, Townsh   | ip and Range       | Unit C          | Sec. 04                                | T 26S                             | R 29E                    |                      |                         |  |  |
| County:           |                    | Eddy Count      | ddy County                             |                                   |                          |                      |                         |  |  |
| GPS:              |                    |                 | 32.07758                               |                                   |                          | -103.9               | 991414                  |  |  |
| Surface Owner:    |                    |                 |  |                                   |                          |                      |                         |  |  |
| Directions:       |                    | From the inters | section of Hwy 28<br>west and go .7m a | 35 and Longho<br>and arrive on lo | rn road go ap<br>ocation | prox 2.4m a          | nd turn north and go 1m |  |  |
| Release Data:     |                    |                 |  |                                   |                          |                      |                         |  |  |
| Date Released:    |                    | 7/12/2019       |  |                                   |                          |                      |                         |  |  |
| Type Release:     |                    | Produced Wa     | ater                                   |                                   |                          |                      |                         |  |  |
| Source of Contar  | nination:          | Flowline        |  |                                   |                          |                      |                         |  |  |
| Fluid Released:   |                    | 240 bbl wate    | 240 bbl water                          |                                   |                          |                      |                         |  |  |
| Fluids Recovered. |                    | 40 bbls water   | ) bbls water                           |                                   |                          |                      |                         |  |  |
| Official Commun   | ication:           |                 |  |                                   |                          |                      |                         |  |  |
| Name:             | Ike Tavarez        |                 |  | Mike Carmona                      |                          |                      |                         |  |  |
| Company:          | COG Operating,     | LLC             |  |                                   | Tetra Tech               |                      |                         |  |  |
| Address:          | One Concho Cer     | ter             |  |                                   | 901 West W               | 901 West Wall Street |                         |  |  |
|                   | 600 W. Illinois Av | ′e.             |  |                                   | Suite 100                |                      |                         |  |  |
| City:             | Midland Texas, 7   | 9701            |  | Midland, Texas                    |                          |                      |                         |  |  |
| Phone number:     | (432) 686-3023     |                 |  |                                   | (432) 687-8              | 121                  |                         |  |  |
| Fax:              | (432) 684-7137     |                 |  |                                   |                          |                      |                         |  |  |
| Email:            | itavarez@conch     | no.com          |  |                                   | Mike.carm                | ona@tetrat           | ech.com                 |  |  |

| Site Characterization |        |
|-----------------------|--------|
| Depth to Groundwater: | 78'    |
| Karst                 | Medium |

| Recommended Remedial Action Levels (RRALs) |            |                   |           |  |  |  |  |  |
|--|------------|-------------------|-----------|--|--|--|--|--|
| Benzene                                    | Total BTEX | TPH (GRO+DRO+MRO) | Chlorides |  |  |  |  |  |
| 10 mg/kg                                   | 50 mg/kg   | 100 mg/kg         | 600 mg/kg |  |  |  |  |  |



December 17, 2020

Mr Mike Bratcher District Supervisor Oil Conservation Division, District 2 811 S. First Street Artesia, New Mexico 88210

## Re: Monitoring Work Plan Continued for the COG Operating, LLC, Big Papi Federal Com #2H, Unit C, Section 04, Township 26 South, Range 29 East, Eddy County, New Mexico. Incident # NAB1922035506

#### Mr Bratcher:

Tetra Tech, Inc. (Tetra Tech) was contacted by COG Operating, LLC (COG) to assess a release that occurred at the Big Papi Federal Com #2H, Unit C, Section 04, Township 26 South, Range 29 East, Eddy County, New Mexico (Site). The spill site coordinates are 32.077580°, -103.991414°. The site location is shown on Figures 1 and 2.

#### Background

According to the State of New Mexico C-141 Initial Report, the release was discovered on July 12, 2019, and released approximately 240 barrels of produced water due to the flowline being ruptured. None of the produced water was recovered. The release occurred behind the tank battery in the pasture and migrated into the wash/draw impacting areas measuring approximately 65' x 40' and 1,290' x 15'. The C-141 Form is included in Appendix A.

#### **Site Characterization**

A Site characterization was performed for the site, and no lakebeds, sinkholes, playa lakes, residences, schools, hospitals, institutions, churches, springs, private domestic water wells, springs, wetlands, incorporated municipal boundaries, subsurface mines, or floodplains are located within the specified distances. However, the site is in a medium karst potential area and migrated into a draw. Also, a watercourse is located within 300' of the site, according to the USGS topographic map.

The nearest water well is listed on the New Mexico State Engineer's (NMOSE) database, approximately 1.50 miles southwest of the site, and has a reported depth to groundwater of 78' below surface. According to the Chevron Texaco Groundwater Trend map, the average depth to groundwater in the area is approximately 125' below surface. The site characterization data is shown in Appendix B.

#### Regulatory

A risk-based evaluation was performed for the site following the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills, and Releases, updated August 14, 2018. The guidelines require a risk-based evaluation of the site to determine recommended remedial action levels (RRAL) for benzene, toluene, ethylbenzene, and xylene (collectively referred to as BTEX) and total petroleum hydrocarbons (TPH) in soil. The proposed RRAL for benzene was determined to be 10 parts per million (ppm) or milligrams per kilogram (mg/kg) and 50 ppm for total BTEX (sum of benzene, toluene, ethylbenzene, and xylene). Based on the site characterization, the proposed RRAL for TPH is 100 mg/kg (GRO + DRO + MRO). Additionally, based on the site characterization, the proposed RRAL for chlorides is 600 mg/kg.



#### Initial Soil Assessment and Analytical Results

On July 25, 2019, Tetra Tech personnel were onsite to evaluate and sample the release area. A total of fourteen (14) hand auger holes (AH-1 through AH-14) were installed in the pasture area and draw area to total depths ranging from surface to 2.5' below surface. Selected soil samples were collected and submitted to the laboratory for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B, and chloride by EPA method 300.0. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix C. The results of the sampling are summarized in Table 1. The sample locations are shown on Figure 3 and Figure 3A.

#### Pasture and Draw Areas

One auger hole (AH-1) was installed in the top of the draw to a total depth of 0-0.5' below surface. The remaining auger holes (AH-2 through AH-14) were installed in the wash/draw area.

Referring to Table 1, none of the samples analyzed showed benzene, TPH, or total BTEX concentrations above the laboratory reporting limits, with the exception of areas of AH-9 and AH-11, which showed TPH concentrations of 719 mg/kg and 1,020 mg/kg, respectively.

Auger hole (AH-1) showed elevated chloride concentrations of 20,700 mg/kg at a depth of 0-0.5' below surface and deeper samples were not collected due to the dense formation. The remaining auger holes (AH-2 through AH-14) in the draw all showed chloride concentrations above the RRALs, with concentrations ranging from 1,250 mg/kg to 17,200 mg/kg. The area of AH-10 was showed a chloride concentration of 12,600 mg/kg at 0-0.5' below surface.

#### **Remediation and Sampling**

On August 8-13, 2019, Tetra Tech personnel were onsite to remediate the top pasture area and a portion of the wash/draw area to the maximum extent practical. Due to limited access, the BLM requested the draw area be flushed with clean freshwater using a power washer to washout the visual staining and chlorides from the draw. In addition, all the fluids generated during the washing would be captured and properly disposed of. However, no fluids were generated during the washing due to the sandy formation at the bottom of the draw.

The area of auger hole (AH-2) was excavated to a depth of 4.0' and the area of auger hole (AH-1) to a depth of 6.0' below surface. Deeper samples were not collected due to dense formation in the bottom. A total of three (3) bottom hole confirmation samples and seven (7) sidewall confirmation samples were collected to ensure proper removal of the impacted soils to the maximum extent possible. The samples were submitted to the laboratory to be analyzed for TPH method 8015 extended, BTEX method 8021B, and Chloride by EPA Method 300.0. The sampling results are summarized in Table 2. The excavation depths and sample locations are shown on Figure 4.

Referring to Table 2, all of the confirmation samples analyzed for benzene, total BTEX, and TPH were below the laboratory reporting limits. The area of Bottom 1 showed a chloride concentration of 2,480 mg/kg at 4.0' below surface and was considered the beginning of the draw. It was excavated to the maximum extent practicable, due to dense formation.

The areas of Bottom 2 and Bottom 3 were excavated to a total depth of 6.0' below surface and showed chloride concentrations of 112 mg/kg and 144 mg/kg below surface. The sidewalls (NSW, WSW-1, and ESW-2) Showed chloride concentrations below the RRALs, with chloride concentrations ranging from 48.0 mg/kg to 592 mg/kg. In the area near the draw, sidewalls (WSW-2 and ESW-1) showed chloride concentrations of 1,250 mg/kg and 1,500 mg/kg and were not remediated due to the natural course of the draw being altered. The area of SSW-1 showed a chloride concentration of 7,520 mg/kg and connects to the draw, which limited our access to the area.

Approximately 200 cubic yards of material were excavated and transported offsite for proper disposal. The area was then backfilled with clean material to surface grade.



#### **2020 Site Monitoring Activities**

• On February 12, 2020, Tetra Tech performed the first monitoring event to evaluate the draw area to monitor the chloride concentrations. The sampling results are summarized in Table 1. Referring to Table 1, the areas of auger holes (AH-2 through AH-14) in the draw were resampled to total depths ranging from surface to 2.5' below surface. The soil samples were collected and submitted to the laboratory for chloride by EPA method 300.0.

The areas of auger holes (AH-2, AH-3, and AH-6 through AH-14) showed chloride concentrations ranging from <9.92 mg/kg to 310 mg/kg, all below the RRALs. The areas of auger hole (AH-4) showed chloride concentrations of 142 mg/kg at surface to 1.0', 189 mg/kg at 1.0-1.5', and 607 mg/kg at 1.5'-2.0' below surface. The area of (AH-5) showed concentrations ranging from 624 mg/kg to 1,040 mg/kg below surface. Deeper samples were not collected due to dense formation in the bottom for the areas of auger hole (AH-4 and AH-5).

• On May 1, 2020, Tetra Tech performed the second monitoring event to evaluate the draw area to monitor the chloride concentrations. The sampling results are summarized in Table 1. Referring to Table 1, the areas of auger holes (AH-2 through AH-14) in the draw were resampled to total depths ranging from surface to 2.5' below surface. The soil samples were collected and submitted to the laboratory for chloride by EPA method 300.0.

The areas of auger holes (AH-3, AH-4, AH-7 through AH-14) showed chloride concentrations ranging from 12.7 mg/kg to 382 mg/kg, all below the RRALs. The area of AH-2 showed a high chloride concentration of 1,850 mg/kg at surface to 1.0'below surface, then decreased with depth at 1.0'-1.5' below surface, with a concentration of 280 mg/kg. The area of auger hole (AH-5) showed chloride of 902 mg/kg at surface to 1.0', 1,250 mg/kg at 1.0-1.5', and 7,770 mg/kg at 2.0'-2.5' below surface.

• On August 19, 2020, Tetra Tech performed the 3rd monitoring event to evaluate the draw area to monitor the chloride and TPH concentrations. The areas of Bottom Hole-1 and SSW-1 were also re-evaluated, per email from the BLM dated March 9, 2020. The sampling results are summarized in Table 1 and Table 2. Referring to Table 1, the areas of auger holes (AH-4, AH-5, AH-6, AH-9, and AH-11) in the draw were resampled to total depths ranging from surface to 2.5' below surface. The soil samples were collected and submitted to the laboratory for chloride by EPA method 300.0.

The areas of auger holes (AH-4, AH-5, and AH-6) showed elevated chloride concentrations ranging from 622 mg/kg to 5,010 mg/kg. The areas of auger holes (AH-9 and AH-11) showed TPH concentrations of <50.0 mg/kg at surface to 0.5'. Deeper samples were not collected due to dense formation in the bottom for auger hole areas (AH-4, AH-5, and AH-6).

### Conclusion

As of 2020, three (3) areas exceeded the regulatory levels of 600 mg/kg for chloride. The areas of auger holes (AH-4, AH-5, and AH-6) will be monitored for the calendar year of 2021.

### **Proposed Plan**

Based on the data supported by the sampling events, the rain events in the area have affected the chloride concentrations and continue to show a reduction of concentrations over time. COG proposes to continue the monitoring process of the draw area in 2021. Site monitoring activities will be performed on a quarterly basis or after a heavy rain event until the chlorides are below the regulatory limit.

Once the chlorides are below the regulatory threshold, a final report will be submitted. If you have any questions or comments concerning the assessment or remediation activities for this site, please call at (432) 682-4559.

Respectfully submitted,



TETRA TECH

ne

Mike Carmona Geologist

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## Figures

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#CH

MXD/2

5H



Approximate Scale in Feet



SCALE= 1"=20"

AH-5

AH-6 Ô

о<sup>АН-3</sup>

AH-4

SPILL ASSESSMENT MAP

BIG PAPI FEDERAL COM #2H

EDDY COUNTY, NEW MEXICO

ACONCH(

AH-1

AH-2

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LATITUDE

32.077088

32.077201

32.077202

32.077201

32.077119

32.077182°

32.077074°

32.076870

32.076639

32.076427

32.076159

32.075970

32.075813°

32.075562

32.075357

32.075182°

32.075189°

32.075094°

AH-3

AH-4

AH-5

AH-6

AH-7

AH-8

AH-9

AH-10

AH-11 AH-12

AH-13

AH-14

212C-MD-0185

Date: 01-09

Property Located at coordinates 32.077580°,-103.991414°

LONGITUDE -103.991435

-103.991422

-103.991461

-103.99144

-103.991432

-103.991443°

-103.991443°

-103.991412°

-103.991428°

-103.991353°

103.991326

-103.991227

-103.991426°

-103.991386°

-103 991381°

-103.991494

-103.991717°

-103.992039°

103.992100

FIGURE

3

•

۲

 $\mathbf{x}$ 

Г

SOURCE

FLOWLINE X-X- FENCELINE

AFFECTED SPILL AREA

e: "New Mexico". 32° 4'39.29"N, 103°59 ary 2019.October 14,2019.

BOTTOM HOLE SAMPLE LOCATION

AUGERHOLE SAMPLE LOCATIONS

Received by OCD: 12/19/2020 9:49:53 AM



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## Tables

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|           |                |                      | 0.11    |          | _     |       | ,     |       |                    |                    |                         |                   |                       |                     |
|-----------|----------------|----------------------|---------|----------|-------|-------|-------|-------|--------------------|--------------------|-------------------------|-------------------|-----------------------|---------------------|
| Sample ID | Sample<br>Date | Sample<br>Depth (ft) | Soli    |          | 0.00  |       |       | Tatal | Benzene<br>(mg/kg) | Toluene<br>(mg/kg) | Ethlybenzene<br>(mg/kg) | Xylene<br>(mg/kg) | Total BTEX<br>(mg/kg) | Chloride<br>(mg/kg) |
|           | rea - Remedia  | ted Results          | In-Situ | Removed  | GRO   | DRO   |       | lotal |                    |                    |                         |                   |                       | ,                   |
| AH-1      | 7/25/2019      | 0-0.5                |         | -<br>  X | <15.0 | 36.7  | <15.0 | 36.7  | <0.00200           | <0.00200           | <0.00200                | <0.00200          | <0.00200              | 20.700              |
|           | 7/25/2010      | 0-0.5                |         | X        | <15.0 | 22.8  | <15.0 | 22.8  | <0.00198           | <0.00198           | <0.00108                | <0.00108          | <0.00108              | 13 300              |
|           | 0/40/0000      | 0-0.0                | V       |          | <10.0 | 22.0  |       | 22.0  | <0.00130           | <0.00130           | <0.00190                | <0.00130          | <0.00130              | 13,300              |
| AH-2      | 2/12/2020      | 0-1<br>1-1.5         | X       |          | -     | -     | -     | -     | -                  | -                  | -                       | -                 | -                     | 67.4<br>197         |
|           | E/1/2020       | 0.1                  |         |          |       |       |       |       |                    |                    |                         |                   |                       | 1 950               |
|           | 5/1/2020       | 1-1.5                | X       |          | -     | -     | -     | -     | -                  | -                  | -                       | -                 | -                     | 280                 |
|           | Drav           | v Area               | ~       |          |       |       |       |       |                    |                    |                         |                   | <u> </u>              | 200                 |
|           | 7/25/2019      | 0-1                  | Х       |          | <14.9 | <14.9 | <14.9 | <14.9 | <0.00202           | <0.00202           | <0.00202                | <0.00202          | <0.00202              | 15,600              |
| AH-3      | 2/12/2020      | 0-1                  | Х       |          | -     | -     | -     | _     | -                  | -                  | -                       | -                 | -                     | 248                 |
|           | 5/1/2020       | 0_1                  | × ×     |          |       |       |       |       | _                  |                    |                         | _                 |                       | 19.5                |
|           | 3/1/2020       | 0-1                  |         |          | -     | -     | -     | -     | -                  | -                  | -                       | -                 | -                     | 10.5                |
|           | "              | 0-1                  | X<br>X  |          | <15.0 | 27.6  | <15.0 | 27.6  | <0.00200           | <0.00200           | <0.00200                | <0.00200          | <0.00200              | 14,400<br>9 810     |
|           | "              | 1.5-2                | X       |          | <15.0 | <15.0 | <15.0 | <15.0 | <0.00200           | <0.00200           | <0.00200                | <0.00200          | <0.00200              | 8,450               |
|           | 2/12/2020      | 0-1                  | Х       |          | _     | _     | -     | _     | _                  | -                  | -                       | _                 | _                     | 142                 |
|           | "              | 1-1.5                | X       |          | -     | -     | -     | -     | -                  | -                  | -                       | -                 | -                     | 189                 |
|           | "              | 1.5-2                | Х       |          | -     | -     | -     | -     | -                  | -                  | -                       | -                 | -                     | 607                 |
| AH-4      | 5/1/2020       | 0-1                  | Х       |          | -     | -     | -     | -     | -                  | -                  | -                       | -                 | -                     | 54.2                |
|           | II             | 1-1.5                | Х       |          | -     | -     | -     | -     | -                  | -                  | -                       | -                 | -                     | 149                 |
|           | "              | 1.5-2                | Х       |          | -     | -     | -     | -     | -                  | -                  | -                       | -                 | -                     | 335                 |
|           | 8/19/2020      | 0-1                  | Х       |          | -     | -     | -     | -     | -                  | -                  | -                       | -                 | -                     | 3,030               |
|           | "              | 1-1.5                | Х       |          | -     | -     | -     | -     | -                  | -                  | -                       | -                 | -                     | 5,010               |
|           | "              | 1.5-2                | Х       |          | -     | -     | -     | -     | -                  | -                  | -                       | -                 | -                     | 3,150               |
|           | 7/25/2019      | 0-1                  | Х       |          | <15.0 | <15.0 | <15.0 | <15.0 | <0.00201           | <0.00201           | <0.00201                | <0.00201          | <0.00201              | 11,300              |
|           | "              | 1-1.5                | X       |          | <15.0 | <15.0 | <15.0 | <15.0 | <0.00198           | <0.00198           | <0.00198                | <0.00198          | <0.00198              | 5,000               |
|           |                | 2-2.5                | X       |          | <15.0 | <15.0 | <15.0 | <15.0 | <0.00202           | <0.00202           | <0.00202                | <0.00202          | <0.00202              | 1,250               |
|           | 2/12/2020      | 0-1                  | X       |          | -     | -     | -     | -     | -                  | -                  | -                       | -                 | -                     | 624<br>822          |
|           | "              | 2-2.5                | X       |          | -     | -     | -     | -     | -                  | -                  | -                       | -                 | -                     | 023<br>1.040        |
| AH-5      | 5/1/2020       | 0_1                  | × ×     |          |       |       |       |       |                    |                    |                         |                   |                       | 002                 |
|           | 3/1/2020       | 1-1.5                | X       |          | -     | -     | -     | -     | -                  | -                  | -                       | -                 | -                     | 1.250               |
|           | "              | 2-2.5                | X       |          | -     | -     | -     | -     | -                  | -                  | -                       | -                 | -                     | 7,770               |
|           | 8/19/2020      | 0-1                  | Х       |          | -     | -     | -     | -     | _                  | -                  | -                       | _                 | _                     | 1.930               |
|           | "              | 1-1.5                | X       |          | -     | -     | -     | -     | -                  | -                  | -                       | -                 | -                     | 1,670               |
|           | "              | 2-2.5                | Х       |          | -     | -     | -     | -     | -                  | -                  | -                       | -                 | -                     | 1,630               |
|           | 7/25/2019      | 0-1                  | Х       |          | <15.0 | <15.0 | <15.0 | <15.0 | <0.00200           | <0.00200           | <0.00200                | <0.00200          | <0.00200              | 9,240               |
|           | 2/12/2020      | 0-1                  | Х       |          | -     | -     | -     | -     | -                  | -                  | -                       | -                 | -                     | 310                 |
| AH-6      | 5/1/2020       | 0-1                  | Х       |          | _     | _     | -     | _     | _                  | -                  | -                       | _                 | _                     | 977                 |
|           | 8/10/2020      | 0_1                  | v       |          | _     |       | _     |       |                    |                    |                         |                   |                       | 622                 |
|           |                |                      |         |          |       | -     | 45.0  |       | -                  | -                  | -                       |                   | -                     | 45 300              |
|           | 7/25/2019      | 0.5                  | X       |          | 18.9  | 50.5  | <15.0 | 69.4  | 0.00345            | <0.00198           | <0.00198                | 0.00842           | 0.0119                | 15,700              |
| AH-7      | 2/12/2020      | 0.5                  | X       |          | -     | -     | -     | -     | -                  | -                  | -                       | -                 | -                     | 69.7                |
|           | 5/1/2020       | 0.5                  | Х       |          | -     | -     | -     | -     | -                  | -                  | -                       | -                 | -                     | 28.3                |

## Table 1 COG Big Pappy Federal Com #002H (7.12.19) Eddy County, New Mexico



|           | Sample    | Sample     | Soil S  | Status  |       | TPH ( | mg/kg) |       | Benzene  | Toluene  | Fthlybenzene | Xvlene   | Total BTEX | Chloride |
|-----------|-----------|------------|---------|---------|-------|-------|--------|-------|----------|----------|--------------|----------|------------|----------|
| Sample ID | Date      | Depth (ft) | In-Situ | Removed | GRO   | DRO   | ORO    | Total | (mg/kg)  | (mg/kg)  | (mg/kg)      | (mg/kg)  | (mg/kg)    | (mg/kg)  |
|           | 7/25/2019 | 0.5        | Х       |         | <15.0 | 29.9  | <15.0  | 29.9  | <0.00202 | <0.00202 | <0.00202     | <0.00202 | <0.00202   | 14,000   |
| AH-8      | 2/12/2020 | 0.5        | Х       |         | -     | -     | -      | -     | -        | -        | -            | -        | -          | <9.92    |
|           | 5/1/2020  | 0.5        | Х       |         | -     | -     | -      | -     | -        | -        | -            | -        | -          | 25.8     |
|           | 7/25/2019 | 0.5        | Х       |         | 147   | 523   | 49.4   | 719   | 0.0200   | 0.00522  | 0.0446       | 0.154    | 0.223      | 15,400   |
| AU 0      | 2/12/2020 | 0.5        | Х       |         | -     | -     | -      | -     | -        | -        | -            | -        | -          | 29.1     |
| Ап-9      | 5/1/2020  | 0.5        | Х       |         | -     | -     | -      | -     | -        | -        | -            | -        | -          | 37.5     |
|           | 8/19/2020 | 0.5        | Х       |         | <50.0 | <50.0 | <50.0  | <50.0 | -        | -        | -            | -        | -          | -        |
|           | 7/25/2019 | 0.5        | Х       |         | <15.0 | 37.8  | <15.0  | 37.8  | <0.00201 | <0.00201 | <0.00201     | <0.00201 | <0.00201   | 12,600   |
| AH-10     | 2/12/2020 | 0.5        | Х       |         | -     | -     | -      | -     | -        | -        | -            | -        | -          | 99.2     |
|           | 5/1/2020  | 0.5        | Х       |         | -     | -     | -      | -     | -        | -        | -            | -        | -          | 382      |
|           | 7/25/2019 | 0.5        | Х       |         | 38.2  | 903   | 76.7   | 1,020 | <0.00200 | <0.00200 | <0.00200     | <0.00200 | <0.00200   | 13,700   |
|           | 2/12/2020 | 0.5        | Х       |         | -     | -     | -      | -     | -        | -        | -            | -        | -          | 160      |
|           | 5/1/2020  | 0.5        | Х       |         | -     | -     | -      | -     | -        | -        | -            | -        | -          | 277      |
|           | 8/19/2020 | 0.5        | Х       |         | <50.0 | <50.0 | <50.0  | <50.0 | -        | -        | -            | -        | -          | -        |
|           | 7/25/2019 | 0.5        | Х       |         | <15.0 | 170   | 26.2   | 196   | <0.00202 | <0.00202 | <0.00202     | <0.00202 | <0.00202   | 13,300   |
| AH-12     | 2/12/2020 | 0.5        | Х       |         | -     | -     | -      | -     | -        | -        | -            | -        | -          | 34.4     |
|           | 5/1/2020  | 0.5        | Х       |         | -     | -     | -      | -     | -        | -        | -            | -        | -          | 23.6     |
|           | 7/25/2019 | 0.5        | Х       |         | <15.0 | <15.0 | <15.0  | <15.0 | <0.00202 | <0.00202 | <0.00202     | <0.00202 | <0.00202   | 17,200   |
| AH-13     | 2/12/2020 | 0.5        | Х       |         | -     | -     | -      | -     | -        | -        | -            | -        | -          | 29.6     |
|           | 5/1/2020  | 0.5        | Х       |         | -     | -     | -      | -     | -        | -        | -            | -        | -          | 12.7     |
|           | 7/25/2019 | 0.5        | Х       |         | <15.0 | <15.0 | <15.0  | <15.0 | <0.00200 | <0.00200 | <0.00200     | <0.00200 | <0.00200   | 12.5     |
| AH-14     | 2/12/2020 | 0.5        | Х       |         | -     | -     | -      | -     | -        | -        | -            | -        | -          | 15.3     |
|           | 5/1/2020  | 0.5        | Х       |         | -     | -     | -      | -     | -        | -        | -            | -        | -          | 41.1     |

### Table 1 COG Big Pappy Federal Com #002H (7.12.19) Eddy County, New Mexico



### Table 2 COG Big Pappy Federal Com #002H (7.12.19) Eddy County, New Mexico

| Comple ID       | Sample    | Sample     | BEB        | Soil Status |         |       | TPH ( | mg/kg) |       | Benzene | Toluene | Ethlybenzene | Xylene  | Total BTEX | Chloride |
|-----------------|-----------|------------|------------|-------------|---------|-------|-------|--------|-------|---------|---------|--------------|---------|------------|----------|
| Sample ID       | Date      | Depth (ft) | Depth (ft) | In-Situ     | Removed | GRO   | DRO   | ORO    | Total | (mg/kg) | (mg/kg) | (mg/kg)      | (mg/kg) | (mg/kg)    | (mg/kg)  |
|                 | 8/8/2019  | -          | 4.0        |             | Х       | <10.0 | <10.0 | <10.0  | <10.0 | <0.050  | <0.050  | <0.050       | <0.150  | <0.300     | 2,480    |
|                 | 8/19/2020 | 0-1        |            | Х           |         | -     | -     | -      | -     | -       | -       | -            | -       | -          | 122      |
| Pottom Holo 1   | "         | 1-1.5      |            | Х           |         | -     | -     | -      | -     | -       | -       | -            | -       | -          | 219      |
|                 | "         | 2-2.5      |            | Х           |         | -     | -     | -      | -     | -       | -       | -            | -       | -          | 35.1     |
|                 | "         | 3-3.5      |            | Х           |         | -     | -     | -      | -     | -       | -       | -            | -       | -          | 33.4     |
|                 | "         | 3.5-4      |            | Х           |         | -     | -     | -      | -     | -       | -       | -            | -       | -          | <10.0    |
|                 | 0/0/2010  |            | 4.0        | V           |         | .10.0 | .10.0 | .10.0  | .10.0 | -0.050  | -0.050  | -0.050       | -0.450  | .0.200     | 000      |
| Bottom Hole 2   | 8/8/2019  | -          | 4.0        | ×           |         | <10.0 | <10.0 | <10.0  | <10.0 | <0.050  | <0.050  | <0.050       | <0.150  | <0.300     | 960      |
|                 | 8/13/2019 | -          | 6.0        | Х           |         | <10.0 | <10.0 | <10.0  | <10.0 | <0.050  | <0.050  | <0.050       | <0.150  | <0.300     | 112      |
| Bottom Hole 3   | 8/8/2019  | -          | 4.0        |             | X       | <10.0 | <10.0 | <10.0  | <10.0 | <0.050  | <0.050  | <0.050       | <0.150  | <0.300     | 512      |
|                 | 8/13/2019 | -          | 6.0        | Х           |         | <10.0 | <10.0 | <10.0  | <10.0 | <0.050  | <0.050  | <0.050       | <0.150  | <0.300     | 144      |
| North Sidewall  | 8/8/2019  | -          | -          | Х           |         | <10.0 | <10.0 | <10.0  | <10.0 | <0.050  | <0.050  | <0.050       | <0.150  | <0.300     | 592      |
| South Sidowall  | 8/8/2019  | -          | -          | Х           |         | <10.0 | <10.0 | <10.0  | <10.0 | <0.050  | <0.050  | <0.050       | <0.150  | <0.300     | 7,520    |
| South Sidewall  | 8/19/2020 | -          |            | Х           |         | -     | -     | -      | -     | -       | -       | -            | -       | -          | 130      |
| West Sidewall 1 | 8/8/2019  | -          | -          | Х           |         | <10.0 | <10.0 | <10.0  | <10.0 | <0.050  | <0.050  | <0.050       | <0.150  | <0.300     | 272      |
| West Sidewall 2 | 8/8/2019  | -          | -          | Х           |         | <10.0 | <10.0 | <10.0  | <10.0 | <0.050  | <0.050  | <0.050       | <0.150  | <0.300     | 1,250    |
| East Sidewall 1 | 8/8/2019  | -          | -          | Х           |         | <10.0 | <10.0 | <10.0  | <10.0 | <0.050  | <0.050  | <0.050       | <0.150  | <0.300     | 1,500    |
| East Sidewall 2 | 8/8/2019  | -          | -          | Х           |         | <10.0 | <10.0 | <10.0  | <10.0 | <0.050  | <0.050  | <0.050       | <0.150  | <0.300     | 64.0     |
|                 | 8/13/2019 | -          | -          | Х           |         | <10.0 | <10.0 | <10.0  | <10.0 | <0.050  | <0.050  | <0.050       | <0.150  | <0.300     | 48.0     |

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## Photos

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Concho Big Papi Federal Com #002H (7.12.19)

Eddy County, New Mexico



View South, area of Bottomholes 2 and 3



View South, area of bottomhole 1

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Concho Big Papi Federal Com #002H (7.12.19)

Eddy County, New Mexico



View South, area of Bottom Hole 1



View South, area of AH-1

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Eddy County, New Mexico



### View North, area of AH-3 and AH-4



View South, AH-5 and AH-6

Concho Big Papi Federal Com #002H (7.12.19)

Eddy County, New Mexico



View Southeast, area of AH-3 and AH-4



View Southeast, area of AH-3 and AH-4

Eddy County, New Mexico



View East, area of AH-7



View West, area of AH-8

Eddy County, New Mexico



View South, area of AH-9



View South, area of AH-10 and AH-11

đ

**TETRA TECH** 

Eddy County, New Mexico



View West, area of AH-12, AH-3, and AH-14

# Appendix A

32.07719

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District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505 State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised August 24, 2018 Submit to appropriate OCD District office

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| Incident ID    | NAB1922035506 |
|----------------|---------------|
| District RP    |               |
| Facility ID    |               |
| Application ID |               |

### **Release Notification**

### **Responsible Party**

| Responsible Party       | COG Operating, LLC                             | OGRID                        | 229137         |  |  |
|-------------------------|--|------------------------------|----------------|--|--|
| Contact Name            | Jennifer Knowlton                              | Contact Telephone            | (575) 748-1570 |  |  |
| Contact email           | JKnowlton@concho.com                           | Incident # (assigned by OCD) |                |  |  |
| Contact mailing address | 600 West Illinois Avenue, Midland, Texas 79701 |                              |                |  |  |

### **Location of Release Source**

Latitude

С

-103.99144

(NAD 83 in decimal degrees to 5 decimal places)

| Site Name    |            | Big Papi Fede | ral Com #002H | ł | Site Type            | Flowli | ne |
|--------------|------------|---------------|---------------|---|----------------------|--------|----|
| Date Release | Discovered | July 12, 2019 |               |   | API# (if applicable) |        |    |
|              |            |               |               |   |                      |        |    |
| Unit Letter  | Section    | Township      | Range         |   | County               |        |    |
|              |            |               |               |   |                      |        |    |

Eddy

Surface Owner: State 🔳 Federal 🗌 Tribal 🗌 Private (Name: \_\_\_\_\_

26S

### Nature and Volume of Release

| Material         | (s) Released (Select all that apply and attach calculations or specific        | justification for the volumes provided below) |
|------------------|--|---|
| Crude Oil        | Volume Released (bbls)   | Volume Recovered (bbls)                       |
| Produced Water   | Volume Released (bbls) 240   | Volume Recovered (bbls) 0                     |
|                  | Is the concentration of dissolved chloride in the produced water >10,000 mg/l? | Ves No  |
| Condensate       | Volume Released (bbls)   | Volume Recovered (bbls)                       |
| Natural Gas      | Volume Released (Mcf)  | Volume Recovered (Mcf)                        |
| Other (describe) | Volume/Weight Released (provide units)   | Volume/Weight Recovered (provide units)       |

Cause of Release

The release was caused by a ruptured flowline. The flowline is being repaired.

29E

The release was in the pasture. A vacuum truck was dispatched to remove all freestanding fluids. Concho will evaluate the site to determine if we may commence remediation immediately or delineate any possible impact from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation activities.

| Received by OCD            | : 12/19/2020 9:49:53 | Mate of New Mexico |
|----------------------------|----------------------|--------------------|
| 1 UIIII U-1 <del>4</del> 1 |                      |                    |

| Page | 2 |
|------|---|
| rage | 4 |

Oil Conservation Division

| Incident ID    | NAB1922035506 |
|----------------|---------------|
| District RP    |               |
| Facility ID    |               |
| Application ID |               |

| Was this a major<br>release as defined by<br>19.15.29.7(A) NMAC?<br>Yes No | If YES, for what reason(s) does the responsible party consider this a major release?<br>The volume released was greater than 25 barrels. |
|--|--|
|  |  |
| If YES, was immediate n  | otice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?  |
| Immediate notice w and Jim Amos.   | as given by Rebecca Haskell via e-mail July 12, 2019 at 2:44 pm to Mike Bratcher   |

### **Initial Response**

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

The source of the release has been stopped.

The impacted area has been secured to protect human health and the environment.

Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

| Printed Name: DeAnn Grant | Title: HSE Administrative Assistant |
|---------------------------|-------------------------------------|
| Signature: Deann Opeant   | Date: 7/19/2019                     |
| email: agrant@concho.com  | Telephone: (432) 253-4513           |
|                           |                                     |
| OCD Only                  |                                     |
| Received by:              | Date:                               |



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Oil Conservation Division

|                | Page 27 of 16 |
|----------------|---------------|
| Incident ID    | NAB1922035506 |
| District RP    |               |
| Facility ID    |               |
| Application ID |               |

### Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

| What is the shallowest depth to groundwater beneath the area affected by the release?   | <u>78</u> (ft bgs) |
|---|--------------------|
| Did this release impact groundwater or surface water?   | 🗌 Yes 🗹 No         |
| Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?  | 🗹 Yes 🗌 No         |
| Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?  | 🗌 Yes 🔽 No         |
| Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?  | 🗌 Yes 🔽 No         |
| Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes? | 🗌 Yes 🗹 No         |
| Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?  | 🗌 Yes 🔽 No         |
| Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?   | 🗌 Yes 🗹 No         |
| Are the lateral extents of the release within 300 feet of a wetland?  | 🗌 Yes 🗹 No         |
| Are the lateral extents of the release overlying a subsurface mine?   | 🗌 Yes 🔽 No         |
| Are the lateral extents of the release overlying an unstable area such as karst geology?  | Yes 🗌 No           |
| Are the lateral extents of the release within a 100-year floodplain?  | 🗌 Yes 🗹 No         |
| Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?  | 🖌 Yes 🗌 No         |

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

#### Characterization Report Checklist: Each of the following items must be included in the report.

- Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells. Field data
- Data table of soil contaminant concentration data
- Depth to water determination
- Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- Boring or excavation logs
- Photographs including date and GIS information
- Topographic/Aerial maps
- Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

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|---|---|--|--|--|
| Form C-141  |   |  | Incident ID  |  |
| Page 4  | Oil Conservation Division   |  | District RP  |  |
|   |   |  | Facility ID  |  |
|   |   |  | Application ID   |  |
| I hereby certify that the information<br>regulations all operators are requipublic health or the environment.<br>failed to adequately investigate are<br>addition, OCD acceptance of a C-<br>and/or regulations.<br>Printed Name: | on given above is true and complete to the b<br>red to report and/or file certain release notif<br>The acceptance of a C-141 report by the O<br>ad remediate contamination that pose a threa<br>141 report does not relieve the operator of p | best of my knowledge an<br>fications and perform co<br>OCD does not relieve the<br>at to groundwater, surfa<br>responsibility for compl<br>Title:<br>Date: | nd understand that pursu<br>rrective actions for rele<br>operator of liability sho<br>ce water, human health<br>iance with any other fec | ant to OCD rules and<br>ases which may endanger<br>buld their operations have<br>or the environment. In<br>deral, state, or local laws |
|   |   |  |  |  |
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| OCD Only  |   |  |  |  |
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Oil Conservation Division

| Incident ID    |  |
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| District RP    |  |
| Facility ID    |  |
| Application ID |  |

### **Remediation Plan**

| <u>Remediation Plan Checklist</u> : Each of the following items must be  | included in the plan.   |
|--|---|
| <ul> <li>Detailed description of proposed remediation technique</li> <li>Scaled sitemap with GPS coordinates showing delineation points</li> <li>Estimated volume of material to be remediated</li> <li>Closure criteria is to Table 1 specifications subject to 19.15.29.12</li> <li>Proposed schedule for remediation (note if remediation plan time</li> </ul>  | 2(C)(4) NMAC<br>line is more than 90 days OCD approval is required)   |
| <b>Deferral Requests Only:</b> Each of the following items must be conj  | firmed as part of any request for deferral of remediation.  |
| Contamination must be in areas immediately under or around prodeconstruction.  | duction equipment where remediation could cause a major facility  |
| Extents of contamination must be fully delineated.   |   |
| Contamination does not cause an imminent risk to human health,   | the environment, or groundwater.  |
| I hereby certify that the information given above is true and complete<br>rules and regulations all operators are required to report and/or file co-<br>which may endanger public health or the environment. The acceptan<br>liability should their operations have failed to adequately investigate<br>surface water, human health or the environment. In addition, OCD a<br>responsibility for compliance with any other federal, state, or local la | e to the best of my knowledge and understand that pursuant to OCD<br>ertain release notifications and perform corrective actions for releases<br>ce of a C-141 report by the OCD does not relieve the operator of<br>and remediate contamination that pose a threat to groundwater,<br>cceptance of a C-141 report does not relieve the operator of<br>ws and/or regulations. |
| Printed Name:  | Title:  |
| Signature: 14.7  | Date:   |
| email:   | Telephone:  |
| OCD Only   |   |
| Received by:   | Date:   |
| Approved Approved with Attached Conditions of A  | Approval Denied Deferral Approved   |
| Signature:   | Date:   |

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# Appendix B

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### Water Well Data Average Depth to Groundwater (ft) Big Papi Federal #2H Eddy County, New Mexico

|    | 25 Sc | outh        | 28                 | East         |        |
|----|-------|-------------|--------------------|--------------|--------|
| 6  | 5     | 4 <b>35</b> | 3 <b>32</b>        | 2            | 1      |
|    | 59    |             |                    |              | Site   |
| 7  | 8     | 9           | 10                 | 11           | 12     |
| 18 | 17    | 16          | 15 <mark>48</mark> | 14           | 13     |
| 67 |       |             | 49                 |              |        |
| 19 | 20    | 21          | 22                 | 23           | 24     |
|    | 96    |             |                    |              | $\sum$ |
| 30 | 29    | 28          | 27                 | 26 <b>40</b> | 25     |
|    | 15    | 90          |                    |              | 5      |
| 31 | 32    | 33          | 34                 | 35           | 36     |
|    |       |             |                    |              | 40     |

|    | 26 S | South | 28 East |              |      |
|----|------|-------|---------|--------------|------|
| 6  | 5    | 4     | 3       | 2 <b>120</b> | 1 کر |
|    |      |       |         | 21           |      |
| 7  | 8    | 9     | 10      | 11           | 12   |
|    |      |       |         |              | 100  |
| 18 | 17   | 16    | 15      | 14           | 13   |
|    |      |       |         | 120          | 56   |
| 19 | 20   | 21    | 22      | 23           | 24   |
|    |      |       | 120     |              |      |
| 30 | 29   | 28    | 27      | 26           | 25   |
|    |      |       |         |              |      |
| 31 | 32   | 33    | 34      | 35           | 36   |
|    |      |       |         |              |      |

|       | 25 South           |    | 29 |    |    |
|-------|--------------------|----|----|----|----|
| 6     | 5                  | 4  | 3  | 2  | 1  |
| 40    |                    |    |    |    |    |
|       | 8                  | 9  | 10 | 11 | 12 |
|       |                    |    | 40 |    |    |
| لر 18 | 17                 | 16 | 15 | 14 | 13 |
|       |                    |    | 60 |    |    |
| 19    | 20                 | 21 | 22 | 23 | 24 |
|       |                    |    |    |    |    |
| 30    | 29                 | 28 | 27 | 26 | 25 |
| 30    |                    |    |    |    |    |
| 31    | 32 <mark>98</mark> | 33 | 34 | 35 | 36 |
|       |                    |    |    |    |    |

|      | 26 Sc             | outh             | 29                 | East               |    |
|------|-------------------|------------------|--------------------|--------------------|----|
| 6    | 5 <mark>78</mark> | 4 Site           | 3                  | 2                  | 1  |
| 7    | 8                 | 9                | 10                 | 11                 | 12 |
| 18   | 17                | 16<br><b>125</b> | 15                 | 14                 | 13 |
| 19   | 20                | 21               | 22 <mark>57</mark> | 23 <mark>80</mark> | 24 |
| 30 🗸 | 29                | 28               | 27                 | 26                 | 25 |
| 31   | 32                | 33               | 34                 | 35                 | 36 |

|              | 25 Sc | outh                        | 30 | East         |                  |
|--------------|-------|-----------------------------|----|--------------|------------------|
| 6            | 5     | 4                           | 3  | 2 <b>295</b> | 1                |
| 7 <b>264</b> | 8     | 9 <b>295</b>                | 10 | 11           | 12<br><b>390</b> |
| 18           | 17    | 16                          | 15 | 14           | 13               |
| 19           | 20    | 21 <b>265</b><br><b>268</b> | 22 | 23           | 24               |
| 30           | 29    | 28                          | 27 | 26           | 25               |
| 31           | 32    | 33                          | 34 | 35           | 36               |

|    | 26 So               | outh | 30 | East |                  |
|----|---------------------|------|----|------|------------------|
| 6  | 5 <b>179</b><br>180 | 4    | 3  | 2    | 1                |
| 7  | 8<br>1 <b>72</b>    | 9    | 10 | 11   | 12               |
| 18 | 17                  | 16   | 15 | 14   | 13               |
| 19 | 20                  | 21   | 22 | 23   | 24<br><b>180</b> |
| 30 | 29                  | 28   | 27 | 26   | 25               |
| 31 | 32                  | 33   | 34 | 35   | 36               |

88 New Mexico State Engineers Well Reports

**105** USGS Well Reports

**90** Geology and Groundwater Conditions in Southern Lea, County, NM (Report 6) Geology and Groundwater Resources of Eddy County, NM (Report 3)

- 34 NMOCD Groundwater Data
- 123 Tetra Tech installed temporary wells and field water level
- **143** NMOCD Groundwater map well location

## 🙊 NFHL Web Mapping Application

|          |                                  |        |               |          | ► Measur |
|----------|----------------------------------|--------|---------------|----------|----------|
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|          |                                  |        |               |          |          |
|          |                                  |        |               |          |          |
|          |                                  |        |               |          |          |
|          |                                  |        |               |          |          |
|          |                                  |        |               |          |          |
|          |                                  |        |               |          |          |
|          |                                  |        |               |          |          |
|          | 100m                             |        |               |          |          |
| Released | to Imaging: 4/15/2021 2:39:09 PM |        |               |          |          |





32.077319 -103.991242

pipeline Road Humber?









### 3000 ft

| (A CLW##### in the<br>POD suffix indicates the<br>POD has been replaced<br>& no longer serves a<br>water right file.) | (R=POD<br>replaced,<br>O=orphan<br>C=the file<br>closed) | has been<br>ned,<br>e is | 1<br>(qu<br>(qu | uarto<br>uarto | ers a   | are i  | I=NW<br>smalle | / 2=N]<br>st to la | E 3=SW<br>urgest) | 7 4=SE)<br>(NAD83 | 3 UTM in meter  | s) (Iı         | n feet)        |              |
|---|--|--------------------------|-----------------|----------------|---------|--------|----------------|--------------------|-------------------|-------------------|-----------------|----------------|----------------|--------------|
| POD Number  | Code   | POD<br>Sub-<br>basin     | County          | Q<br>64        | Q<br>16 | Q<br>4 | Sec            | Tws                | Rng               | х                 | Y               | DepthWellDepth | W<br>Water Col | ater<br>lumn |
| <u>C 01354 X-3</u>  |  | CUB                      | ED              | 2              | 1       | 3      | 23             | 26S                | 29E               | 598323            | 3543837         | 170            |                |              |
| <u>C 02038</u>  |  | С                        | ED              | 3              | 2       | 4      | 26             | 26S                | 29E               | 599204            | 3541992*        | 200            |                |              |
| <u>C 03507 POD1</u>   |  | С                        | ED              | 1              | 3       | 3      | 05             | 26S                | 29E               | 593064            | 3548313         | 140            | 78             | 62           |
| <u>C 03508 POD1</u>   |  | С                        | ED              | 1              | 3       | 3      | 05             | 26S                | 29E               | 593063            | 3548361         | 140            | 75             | 65           |
| <u>C 03605 POD1</u>   |  | CUB                      | ED              | 4              | 2       | 3      | 27             | 26S                | 29E               | 596990            | 3541983         | 45             | 0              | 45           |
|   |  |                          |                 |                |         |        |                |                    |                   | A                 | Average Depth t | o Water:       | 51 fee         | t            |
|   |  |                          |                 |                |         |        |                |                    |                   |                   | Minim           | ım Depth:      | 0 fee          | t            |
|   |  |                          |                 |                |         |        |                |                    |                   |                   | M aximu         | m Depth:       | 78 fee         | t            |
| Record Count: 5   |  |                          |                 |                |         |        |                |                    |                   |                   |                 |                |                |              |

Township: 26S Range: 29E

#### \*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

8/6/19 3:52 PM

WATER COLUM N/ AVERAGE DEPTH TO WATER USGS Home Contact USGS Search USGS

#### National Water Information System: Web Interface

US S Water Resources

Data Categor : Groundwater • eographic rea: New Mexico • GO

Click to hideNews Bulletins

- Introducing The Next Generation of USGS Water Data for the Nation
- ull News RSS icon

Groundwater levels for New Mexico

Click to hide state-specific text

Search Results -- 1 sites found

genc code usgs site no list • 320532104001701

Minimum number of levels l Save file of selected sites to local disk for future upload

#### US S 05 104001701 5S 1111

Eddy County, New Mexico Latitude 32 05 32, Longitude 104 00 17 NAD27 Land-surface elevation 2,988 feet above NAVD88 The depth of the well is 128 feet below kand surface. This well is completed in the Rustler ormation (312RSLR) local aquifer.

| Output formats       |              |    |       |    |    |    |    |    |    |    |     |
|----------------------|--------------|----|-------|----|----|----|----|----|----|----|-----|
| Table of data        |              |    |       |    |    |    |    |    |    |    |     |
| Tab-separated data   |              |    |       |    |    |    |    |    |    |    |     |
| <u>Graph of data</u> | Gaph of data |    |       |    |    |    |    |    |    |    |     |
| Reselect period      |              |    |       |    |    |    |    |    |    |    |     |
| \$                   | \$           | \$ | \$    | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$  |
|                      |              |    |       |    |    |    |    |    |    |    |     |
| 1958-08-19           |              | C  | 98.63 | i  |    | 2  |    | U  |    | U  |     |
| 1978-01-13           |              | D  | 95.23 |    |    | 2  |    | U  |    | U  | j . |
| 1987-10-14           |              | C  | 96.69 | )  |    | 2  |    | U  |    | U  |     |
| 1992-11-03           |              | D  | 98.13 |    |    | 2  |    | S  |    | U  | J . |

| \$                          | \$ | \$  |
|-----------------------------|----|---|
|                             |    |   |
| Water-level accuracy        | 2  | Water level accuracy to nearest hundredth of a foot       |
|                             |    |   |
| Method of measurement       | S  | Steel-tape measurement.                                   |
|                             |    |   |
| Measuring agency            |    | Not determined  |
|                             |    |   |
| Water-level approval status | A  | Approved for publication Processing and review completed. |
|                             |    |   |

\_uestions about sites/data\_ \_eedback on this web site Automated retrievals Help

## Appendix C
# Analytical Report 632174

for Tetra Tech- Midland

**Project Manager: Mike Carmona** 

Pappy's Preference Federal #1

212C-MD-01855

### 29-JUL-19

Collected By: Client





### 1211 W. Florida Ave Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054) Oklahoma (2017-142)

> Xenco-Dallas (EPA Lab Code: TX01468): Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14) Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20) Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18) Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4) Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757) Xenco-Atlanta (LELAP Lab ID #04176) Xenco-Tampa: Florida (E87429), North Carolina (483) Received by OCD: 12/19/2020 9:49:53 AM



29-JUL-19

Project Manager: **Mike Carmona Tetra Tech- Midland** 901 West Wall ST Midland, TX 79701

Reference: XENCO Report No(s): 632174 Pappy's Preference Federal #1 Project Address: Eddy County,NM

### Mike Carmona:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 632174. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 632174 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jession Vermer

**Jessica Kramer** Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994. Certified and approved by numerous States and Agencies. A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Page 38 of 168



### Sample Id

| AH-1 (0-6")    |
|----------------|
| AH-2 (0-6")    |
| AH-3 (0-1')    |
| AH-4 (0-1')    |
| AH-4 (1'-1.5') |
| AH-4 (1.5'-2') |
| AH-5 (0-1')    |
| AH-5 (1'-1.5') |
| AH-2 (2'-2.5') |
| AH-6 (0-1')    |
| AH-7 (0-6")    |
| AH-8 (0-6")    |
| AH-9 (0-6")    |
| AH-10 (0-6")   |
| AH-11 (0-6")   |
| AH-12 (0-6")   |
| AH-13 (0-6")   |
| AH-14 (0-6")   |

# Sample Cross Reference 632174



Pappy's Preference Federal #1

| Matrix | Date Collected | Sample Depth | Lab Sample Id |
|--------|----------------|--------------|---------------|
| S      | 07-25-19 00:00 |              | 632174-001    |
| S      | 07-25-19 00:00 |              | 632174-002    |
| S      | 07-25-19 00:00 |              | 632174-003    |
| S      | 07-25-19 00:00 |              | 632174-004    |
| S      | 07-25-19 00:00 |              | 632174-005    |
| S      | 07-25-19 00:00 |              | 632174-006    |
| S      | 07-25-19 00:00 |              | 632174-007    |
| S      | 07-25-19 00:00 |              | 632174-008    |
| S      | 07-25-19 00:00 |              | 632174-009    |
| S      | 07-25-19 00:00 |              | 632174-010    |
| S      | 07-25-19 00:00 |              | 632174-011    |
| S      | 07-25-19 00:00 |              | 632174-012    |
| S      | 07-25-19 00:00 |              | 632174-013    |
| S      | 07-25-19 00:00 |              | 632174-014    |
| S      | 07-25-19 00:00 |              | 632174-015    |
| S      | 07-25-19 00:00 |              | 632174-016    |
| S      | 07-25-19 00:00 |              | 632174-017    |
| S      | 07-25-19 00:00 |              | 632174-018    |





# CASE NARRATIVE

Client Name: Tetra Tech- Midland Project Name: Pappy's Preference Federal #1

Project ID: 212C-MD-01855 Work Order Number(s): 632174 Report Date: 29-JUL-19 Date Received: 07/26/2019

### Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments: Batch: LBA-3096731 TPH by SW8015 Mod Surrogate o-Terphenyl recovered below QC limits. Samples affected are: 7682996-1-BLK,632174-010,632174-011,632174-012,632174-018,632174-006,632174-008. Surrogate 1-Chlorooctane recovered above QC limits. Matrix interferences is suspected. Samples affected are: 632174-004.

Batch: LBA-3096779 BTEX by EPA 8021B

Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 632174-013.

Lab Sample ID 632174-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 632174-001, -002, - 003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013, -014, -015, -016, -017, -018. The Laboratory Control Sample for Toluene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.





Project Id:212C-MD-01855Contact:Mike CarmonaProject Location:Eddy County,NM

### Certificate of Analysis Summary 632174

Tetra Tech- Midland, Midland, TX Project Name: Pappy's Preference Federal #1



Date Received in Lab:Fri Jul-26-19 10:20 amReport Date:29-JUL-19Project Manager:Jessica Kramer

|                                    | Lab Id:    | 632174-0    | 001     | 632174-0    | 002     | 632174-   | 003     | 632174-   | 004     | 632174-   | 005     | 632174-   | 006     |
|------------------------------------|------------|-------------|---------|-------------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|
| Analysis Paguastad                 | Field Id:  | AH-1 (0-    | 6")     | AH-2 (0-    | ·6")    | AH-3 (0   | -1')    | AH-4 (0   | -1')    | AH-4 (1'- | 1.5')   | AH-4 (1.5 | 5'-2')  |
| Analysis Kequesiea                 | Depth:     |             |         |             |         |           |         |           |         |           |         |           |         |
|                                    | Matrix:    | SOIL        |         | SOIL        |         | SOIL      | ,       | SOIL      |         | SOIL      |         | SOIL      |         |
|                                    | Sampled:   | Jul-25-19 ( | 00:00   | Jul-25-19 ( | 00:00   | Jul-25-19 | 00:00   | Jul-25-19 | 00:00   | Jul-25-19 | 00:00   | Jul-25-19 | 00:00   |
| BTEX by EPA 8021B                  | Extracted: | Jul-26-19   | 11:33   | Jul-26-19 1 | 11:33   | Jul-26-19 | 11:33   | Jul-26-19 | 11:33   | Jul-26-19 | 11:33   | Jul-26-19 | 11:33   |
|                                    | Analyzed:  | Jul-27-192  | 21:48   | Jul-27-19 2 | 22:08   | Jul-27-19 | 22:28   | Jul-27-19 | 22:48   | Jul-27-19 | 23:08   | Jul-27-19 | 23:28   |
|                                    | Units/RL:  | mg/kg       | RL      | mg/kg       | RL      | mg/kg     | RL      | mg/kg     | RL      | mg/kg     | RL      | mg/kg     | RL      |
| Benzene                            |            | < 0.00200   | 0.00200 | <0.00198    | 0.00198 | < 0.00202 | 0.00202 | < 0.00200 | 0.00200 | < 0.00200 | 0.00200 | < 0.00201 | 0.00201 |
| Toluene                            |            | < 0.00200   | 0.00200 | <0.00198    | 0.00198 | < 0.00202 | 0.00202 | < 0.00200 | 0.00200 | < 0.00200 | 0.00200 | < 0.00201 | 0.00201 |
| Ethylbenzene                       |            | < 0.00200   | 0.00200 | <0.00198    | 0.00198 | < 0.00202 | 0.00202 | < 0.00200 | 0.00200 | < 0.00200 | 0.00200 | < 0.00201 | 0.00201 |
| m,p-Xylenes                        |            | < 0.00401   | 0.00401 | <0.00397    | 0.00397 | < 0.00403 | 0.00403 | < 0.00401 | 0.00401 | < 0.00401 | 0.00401 | < 0.00402 | 0.00402 |
| o-Xylene                           |            | < 0.00200   | 0.00200 | <0.00198    | 0.00198 | < 0.00202 | 0.00202 | < 0.00200 | 0.00200 | < 0.00200 | 0.00200 | < 0.00201 | 0.00201 |
| Total Xylenes                      |            | < 0.00200   | 0.00200 | <0.00198    | 0.00198 | < 0.00202 | 0.00202 | < 0.00200 | 0.00200 | < 0.00200 | 0.00200 | < 0.00201 | 0.00201 |
| Total BTEX                         |            | < 0.00200   | 0.00200 | <0.00198    | 0.00198 | < 0.00202 | 0.00202 | < 0.00200 | 0.00200 | < 0.00200 | 0.00200 | < 0.00201 | 0.00201 |
| Chloride by EPA 300                | Extracted: | Jul-27-19   | 12:30   | Jul-27-19 1 | 12:30   | Jul-27-19 | 12:30   | Jul-27-19 | 12:30   | Jul-27-19 | 12:30   | Jul-27-19 | 12:30   |
|                                    | Analyzed:  | Jul-27-19   | 17:43   | Jul-27-19 1 | 18:04   | Jul-27-19 | 18:10   | Jul-27-19 | 18:26   | Jul-27-19 | 18:32   | Jul-27-19 | 18:37   |
|                                    | Units/RL:  | mg/kg       | RL      | mg/kg       | RL      | mg/kg     | RL      | mg/kg     | RL      | mg/kg     | RL      | mg/kg     | RL      |
| Chloride                           |            | 20700       | 100     | 13300       | 100     | 15600     | 101     | 14400     | 99.6    | 9810      | 50.5    | 8450      | 49.7    |
| TPH by SW8015 Mod                  | Extracted: | Jul-27-19 ( | 09:00   | Jul-27-19 ( | 09:00   | Jul-27-19 | 09:00   | Jul-27-19 | 09:00   | Jul-27-19 | 09:00   | Jul-27-19 | 09:00   |
|                                    | Analyzed:  | Jul-27-192  | 22:43   | Jul-27-19 2 | 23:54   | Jul-28-19 | 00:17   | Jul-28-19 | 00:41   | Jul-28-19 | 01:05   | Jul-28-19 | 01:28   |
|                                    | Units/RL:  | mg/kg       | RL      | mg/kg       | RL      | mg/kg     | RL      | mg/kg     | RL      | mg/kg     | RL      | mg/kg     | RL      |
| Gasoline Range Hydrocarbons (GRO)  |            | <15.0       | 15.0    | <15.0       | 15.0    | <14.9     | 14.9    | <15.0     | 15.0    | <15.0     | 15.0    | <15.0     | 15.0    |
| Diesel Range Organics (DRO)        |            | 36.7        | 15.0    | 22.8        | 15.0    | <14.9     | 14.9    | 27.6      | 15.0    | <15.0     | 15.0    | <15.0     | 15.0    |
| Motor Oil Range Hydrocarbons (MRO) |            | <15.0       | 15.0    | <15.0       | 15.0    | <14.9     | 14.9    | <15.0     | 15.0    | <15.0     | 15.0    | <15.0     | 15.0    |
| Total TPH                          |            | 36.7        | 15.0    | 22.8        | 15.0    | <14.9     | 14.9    | 27.6      | 15.0    | <15.0     | 15.0    | <15.0     | 15.0    |

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Version: 1.%

fession kramer

Jessica Kramer Project Assistant

Final 1.000





Project Id:212C-MD-01855Contact:Mike CarmonaProject Location:Eddy County,NM

### Certificate of Analysis Summary 632174

Tetra Tech- Midland, Midland, TX Project Name: Pappy's Preference Federal #1



Date Received in Lab:Fri Jul-26-19 10:20 amReport Date:29-JUL-19Project Manager:Jessica Kramer

|                                    | Lab Id:    | 632174-0    | 007     | 632174-0    | 008     | 632174-   | 009     | 632174-   | 010     | 632174-   | 011     | 632174-0    | 012     |
|------------------------------------|------------|-------------|---------|-------------|---------|-----------|---------|-----------|---------|-----------|---------|-------------|---------|
| Analysis Paguested                 | Field Id:  | AH-5 (0     | -1')    | AH-5 (1'-   | 1.5')   | AH-2 (2'- | 2.5')   | AH-6 (0   | -1')    | AH-7 (0   | -6")    | AH-8 (0-    | -6")    |
| Analysis Kequestea                 | Depth:     |             |         |             |         |           |         |           |         |           |         |             |         |
|                                    | Matrix:    | SOIL        |         | SOIL        |         | SOIL      |         | SOIL      |         | SOIL      |         | SOIL        |         |
|                                    | Sampled:   | Jul-25-19 ( | 00:00   | Jul-25-19 ( | 00:00   | Jul-25-19 | 00:00   | Jul-25-19 | 00:00   | Jul-25-19 | 00:00   | Jul-25-19   | 00:00   |
| BTEX by EPA 8021B                  | Extracted: | Jul-26-19   | 11:33   | Jul-26-19 1 | 11:33   | Jul-26-19 | 11:33   | Jul-26-19 | 11:33   | Jul-26-19 | 11:33   | Jul-26-19   | 11:33   |
|                                    | Analyzed:  | Jul-27-19   | 23:49   | Jul-28-19 ( | 00:09   | Jul-28-19 | 00:29   | Jul-28-19 | 00:49   | Jul-28-19 | 02:07   | Jul-28-19 ( | 02:28   |
|                                    | Units/RL:  | mg/kg       | RL      | mg/kg       | RL      | mg/kg     | RL      | mg/kg     | RL      | mg/kg     | RL      | mg/kg       | RL      |
| Benzene                            |            | < 0.00201   | 0.00201 | <0.00198    | 0.00198 | < 0.00202 | 0.00202 | < 0.00200 | 0.00200 | 0.00345   | 0.00198 | < 0.00202   | 0.00202 |
| Toluene                            |            | < 0.00201   | 0.00201 | <0.00198    | 0.00198 | < 0.00202 | 0.00202 | < 0.00200 | 0.00200 | < 0.00198 | 0.00198 | < 0.00202   | 0.00202 |
| Ethylbenzene                       |            | < 0.00201   | 0.00201 | <0.00198    | 0.00198 | < 0.00202 | 0.00202 | < 0.00200 | 0.00200 | < 0.00198 | 0.00198 | < 0.00202   | 0.00202 |
| m,p-Xylenes                        |            | < 0.00402   | 0.00402 | <0.00396    | 0.00396 | < 0.00404 | 0.00404 | < 0.00400 | 0.00400 | 0.00842   | 0.00396 | < 0.00404   | 0.00404 |
| o-Xylene                           |            | < 0.00201   | 0.00201 | <0.00198    | 0.00198 | < 0.00202 | 0.00202 | < 0.00200 | 0.00200 | < 0.00198 | 0.00198 | < 0.00202   | 0.00202 |
| Total Xylenes                      |            | < 0.00201   | 0.00201 | <0.00198    | 0.00198 | < 0.00202 | 0.00202 | < 0.00200 | 0.00200 | 0.00842   | 0.00198 | < 0.00202   | 0.00202 |
| Total BTEX                         |            | < 0.00201   | 0.00201 | <0.00198    | 0.00198 | < 0.00202 | 0.00202 | < 0.00200 | 0.00200 | 0.0119    | 0.00198 | < 0.00202   | 0.00202 |
| Chloride by EPA 300                | Extracted: | Jul-27-19   | 12:30   | Jul-27-19 1 | 12:30   | Jul-27-19 | 12:30   | Jul-27-19 | 12:30   | Jul-27-19 | 14:00   | Jul-27-19   | 14:00   |
|                                    | Analyzed:  | Jul-27-19   | 18:42   | Jul-27-19 1 | 18:48   | Jul-27-19 | 18:53   | Jul-27-19 | 18:59   | Jul-27-19 | 19:13   | Jul-27-19   | 19:18   |
|                                    | Units/RL:  | mg/kg       | RL      | mg/kg       | RL      | mg/kg     | RL      | mg/kg     | RL      | mg/kg     | RL      | mg/kg       | RL      |
| Chloride                           |            | 11300       | 49.9    | 5000        | 25.1    | 1250      | 25.3    | 9240      | 49.7    | 15700     | 100     | 14000       | 99.8    |
| TPH by SW8015 Mod                  | Extracted: | Jul-27-19   | 09:00   | Jul-27-19 ( | 09:00   | Jul-27-19 | 09:00   | Jul-27-19 | 09:00   | Jul-27-19 | 09:00   | Jul-27-19 ( | 09:00   |
|                                    | Analyzed:  | Jul-28-19   | 01:51   | Jul-28-19 ( | 02:15   | Jul-28-19 | 02:38   | Jul-28-19 | 03:02   | Jul-28-19 | 03:49   | Jul-28-19 ( | 04:12   |
|                                    | Units/RL:  | mg/kg       | RL      | mg/kg       | RL      | mg/kg     | RL      | mg/kg     | RL      | mg/kg     | RL      | mg/kg       | RL      |
| Gasoline Range Hydrocarbons (GRO)  |            | <15.0       | 15.0    | <15.0       | 15.0    | <15.0     | 15.0    | <15.0     | 15.0    | 18.9      | 15.0    | <15.0       | 15.0    |
| Diesel Range Organics (DRO)        |            | <15.0       | 15.0    | <15.0       | 15.0    | <15.0     | 15.0    | <15.0     | 15.0    | 50.5      | 15.0    | 29.9        | 15.0    |
| Motor Oil Range Hydrocarbons (MRO) |            | <15.0       | 15.0    | <15.0       | 15.0    | <15.0     | 15.0    | <15.0     | 15.0    | <15.0     | 15.0    | <15.0       | 15.0    |
| Total TPH                          |            | <15.0       | 15.0    | <15.0       | 15.0    | <15.0     | 15.0    | <15.0     | 15.0    | 69.4      | 15.0    | 29.9        | 15.0    |

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Version: 1.%

fession kenner

Jessica Kramer Project Assistant

Final 1.000





Project Id:212C-MD-01855Contact:Mike CarmonaProject Location:Eddy County,NM

### Certificate of Analysis Summary 632174

Tetra Tech- Midland, Midland, TX Project Name: Pappy's Preference Federal #1



Date Received in Lab:Fri Jul-26-19 10:20 amReport Date:29-JUL-19Project Manager:Jessica Kramer

|                                    | Lab Id:    | 632174-0  | 013     | 632174-0    | 014     | 632174-   | 015     | 632174-   | 016     | 632174-0    | 017     | 632174-0    | 018     |
|------------------------------------|------------|-----------|---------|-------------|---------|-----------|---------|-----------|---------|-------------|---------|-------------|---------|
| Analysis Paguastad                 | Field Id:  | AH-9 (0-  | -6")    | AH-10 (0    | -6")    | AH-11 (0  | )-6")   | AH-12 (0  | -6")    | AH-13 (0    | )-6")   | AH-14 (0    | )-6")   |
| Analysis Kequestea                 | Depth:     |           |         |             |         |           |         |           |         |             |         |             |         |
|                                    | Matrix:    | SOIL      |         | SOIL        |         | SOIL      |         | SOIL      | ,       | SOIL        |         | SOIL        |         |
|                                    | Sampled:   | Jul-25-19 | 00:00   | Jul-25-19 ( | 00:00   | Jul-25-19 | 00:00   | Jul-25-19 | 00:00   | Jul-25-19   | 00:00   | Jul-25-19   | 00:00   |
| BTEX by EPA 8021B                  | Extracted: | Jul-26-19 | 11:33   | Jul-26-19   | 1:33    | Jul-26-19 | 11:33   | Jul-26-19 | 11:33   | Jul-26-19   | 11:33   | Jul-26-19   | 11:33   |
|                                    | Analyzed:  | Jul-28-19 | 05:09   | Jul-28-19 ( | 02:48   | Jul-28-19 | 04:49   | Jul-28-19 | 03:08   | Jul-28-19 ( | 03:28   | Jul-28-19 ( | 03:48   |
|                                    | Units/RL:  | mg/kg     | RL      | mg/kg       | RL      | mg/kg     | RL      | mg/kg     | RL      | mg/kg       | RL      | mg/kg       | RL      |
| Benzene                            |            | 0.0200    | 0.00198 | < 0.00201   | 0.00201 | < 0.00200 | 0.00200 | < 0.00202 | 0.00202 | < 0.00202   | 0.00202 | < 0.00200   | 0.00200 |
| Toluene                            |            | 0.00522   | 0.00198 | < 0.00201   | 0.00201 | < 0.00200 | 0.00200 | < 0.00202 | 0.00202 | < 0.00202   | 0.00202 | < 0.00200   | 0.00200 |
| Ethylbenzene                       |            | 0.0446    | 0.00198 | < 0.00201   | 0.00201 | < 0.00200 | 0.00200 | < 0.00202 | 0.00202 | < 0.00202   | 0.00202 | < 0.00200   | 0.00200 |
| m,p-Xylenes                        |            | 0.133     | 0.00396 | < 0.00402   | 0.00402 | < 0.00400 | 0.00400 | < 0.00403 | 0.00403 | < 0.00403   | 0.00403 | < 0.00399   | 0.00399 |
| o-Xylene                           |            | 0.0205    | 0.00198 | < 0.00201   | 0.00201 | < 0.00200 | 0.00200 | < 0.00202 | 0.00202 | < 0.00202   | 0.00202 | < 0.00200   | 0.00200 |
| Total Xylenes                      |            | 0.154     | 0.00198 | < 0.00201   | 0.00201 | < 0.00200 | 0.00200 | < 0.00202 | 0.00202 | < 0.00202   | 0.00202 | < 0.00200   | 0.00200 |
| Total BTEX                         |            | 0.223     | 0.00198 | < 0.00201   | 0.00201 | < 0.00200 | 0.00200 | < 0.00202 | 0.00202 | < 0.00202   | 0.00202 | < 0.00200   | 0.00200 |
| Chloride by EPA 300                | Extracted: | Jul-27-19 | 14:00   | Jul-27-19   | 4:00    | Jul-27-19 | 14:00   | Jul-27-19 | 14:00   | Jul-27-19   | 14:00   | Jul-27-19   | 14:00   |
|                                    | Analyzed:  | Jul-27-19 | 19:23   | Jul-27-19   | 9:29    | Jul-27-19 | 19:45   | Jul-27-19 | 19:50   | Jul-27-19   | 19:55   | Jul-27-19   | 18:57   |
|                                    | Units/RL:  | mg/kg     | RL      | mg/kg       | RL      | mg/kg     | RL      | mg/kg     | RL      | mg/kg       | RL      | mg/kg       | RL      |
| Chloride                           |            | 15400     | 101     | 12600       | 99.2    | 13700     | 99.8    | 13300     | 100     | 17200       | 100     | 12.5        | 4.98    |
| TPH by SW8015 Mod                  | Extracted: | Jul-27-19 | 09:00   | Jul-27-19 ( | 09:00   | Jul-27-19 | 09:00   | Jul-27-19 | 09:00   | Jul-27-19 ( | 09:00   | Jul-27-19 ( | 09:00   |
|                                    | Analyzed:  | Jul-28-19 | 04:36   | Jul-28-19 ( | )4:59   | Jul-28-19 | 05:23   | Jul-28-19 | 05:46   | Jul-28-19 ( | 06:10   | Jul-28-19 ( | 06:33   |
|                                    | Units/RL:  | mg/kg     | RL      | mg/kg       | RL      | mg/kg     | RL      | mg/kg     | RL      | mg/kg       | RL      | mg/kg       | RL      |
| Gasoline Range Hydrocarbons (GRO)  |            | 147       | 15.0    | <15.0       | 15.0    | 38.2      | 15.0    | <15.0     | 15.0    | <15.0       | 15.0    | <15.0       | 15.0    |
| Diesel Range Organics (DRO)        |            | 523       | 15.0    | 37.8        | 15.0    | 903       | 15.0    | 170       | 15.0    | <15.0       | 15.0    | <15.0       | 15.0    |
| Motor Oil Range Hydrocarbons (MRO) |            | 49.4      | 15.0    | <15.0       | 15.0    | 76.7      | 15.0    | 26.2      | 15.0    | <15.0       | 15.0    | <15.0       | 15.0    |
| Total TPH                          |            | 719       | 15.0    | 37.8        | 15.0    | 1020      | 15.0    | 196       | 15.0    | <15.0       | 15.0    | <15.0       | 15.0    |

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fession kramer

Jessica Kramer Project Assistant

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# LABORATORIES

# **Flagging Criteria**



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- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- **F** RPD exceeded lab control limits.
- J The target analyte was positively identified below the quantitation limit and above the detection limit.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- **H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- **K** Sample analyzed outside of recommended hold time.
- **JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- \*\* Surrogate recovered outside laboratory control limit.
- **BRL** Below Reporting Limit.
- RL Reporting Limit
- MDL Method Detection LimitSDLSample Detection LimitLOD Limit of Detection
- PQL Practical Quantitation Limit MQL Method Quantitation Limit LOQ Limit of Quantitation
- DL Method Detection Limit
- NC Non-Calculable

| SMP Clie | nt Sample                             | BLK       | Method Blank                |                                |
|----------|---------------------------------------|-----------|-----------------------------|--------------------------------|
| BKS/LCS  | Blank Spike/Laboratory Control Sample | BKSD/LCSD | Blank Spike Duplicate/Labor | atory Control Sample Duplicate |
| MD/SD    | Method Duplicate/Sample Duplicate     | MS        | Matrix Spike                | MSD: Matrix Spike Duplicate    |

+ NELAC certification not offered for this compound.

\* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



### Project Name: Pappy's Preference Federal #1

| Work Or<br>Lab Batch | <b>ders :</b> 63217<br>#: 3096779 | 74,<br>Sample: 632174-001 / SMP      | Batcl                  | Project ID:<br>h: 1 Matrix: | 212C-MD-0<br>Soil     | )1855                   |       |
|----------------------|-----------------------------------|--------------------------------------|------------------------|-----------------------------|-----------------------|-------------------------|-------|
| Units:               | mg/kg                             | <b>Date Analyzed:</b> 07/27/19 21:48 | SU                     | RROGATE R                   | ECOVERY S             | STUDY                   |       |
|                      | BTE                               | X by EPA 8021B<br>Analytes           | Amount<br>Found<br>[A] | True<br>Amount<br>[B]       | Recovery<br>%R<br>[D] | Control<br>Limits<br>%R | Flags |
| 1,4-Difluoro         | benzene                           |                                      | 0.0320                 | 0.0300                      | 107                   | 70-130                  |       |
| 4-Bromoflue          | orobenzene                        |                                      | 0.0310                 | 0.0300                      | 103                   | 70-130                  |       |
| Lab Batch            | #: 3096779                        | Sample: 632174-002 / SMP             | Batcl                  | h: 1 Matrix:                | Soil                  | 11                      |       |
| Units:               | mg/kg                             | Date Analyzed: 07/27/19 22:08        | SU                     | RROGATE R                   | ECOVERY S             | STUDY                   |       |
|                      | BTE                               | X by EPA 8021B<br>Analytes           | Amount<br>Found<br>[A] | True<br>Amount<br>[B]       | Recovery<br>%R<br>[D] | Control<br>Limits<br>%R | Flags |
| 1,4-Difluoro         | benzene                           | -                                    | 0.0325                 | 0.0300                      | 108                   | 70-130                  |       |
| 4-Bromoflue          | orobenzene                        |                                      | 0.0349                 | 0.0300                      | 116                   | 70-130                  |       |
| Lab Batch            | #: 3096779                        | Sample: 632174-003 / SMP             | Batcl                  | h: 1 Matrix:                | : Soil                |                         |       |
| Units:               | mg/kg                             | Date Analyzed: 07/27/19 22:28        | SU                     | RROGATE R                   | ECOVERY S             | STUDY                   |       |
|                      | BTE                               | X by EPA 8021B                       | Amount<br>Found<br>[A] | True<br>Amount<br>[B]       | Recovery<br>%R        | Control<br>Limits<br>%R | Flags |
|                      |                                   | Analytes                             |                        |                             | [D]                   |                         |       |
| 1,4-Difluoro         | obenzene                          |                                      | 0.0314                 | 0.0300                      | 105                   | 70-130                  |       |
| 4-Bromoflue          | orobenzene                        |                                      | 0.0329                 | 0.0300                      | 110                   | 70-130                  |       |
| Lab Batch            | #: 3096731                        | Sample: 632174-001 / SMP             | Batcl                  | h: 1 Matrix                 | : Soil                |                         |       |
| Units:               | mg/kg                             | Date Analyzed: 07/27/19 22:43        | SU                     | RROGATE R                   | ECOVERY S             | STUDY                   |       |
|                      | ТРН                               | by SW8015 Mod<br>Analytes            | Amount<br>Found<br>[A] | True<br>Amount<br>[B]       | Recovery<br>%R<br>[D] | Control<br>Limits<br>%R | Flags |
| 1-Chlorooct          | ane                               |                                      | 79.9                   | 99.9                        | 80                    | 70-135                  |       |
| o-Terphenyl          |                                   |                                      | 36.6                   | 50.0                        | 73                    | 70-135                  |       |
| Lab Batch            | #: 3096779                        | Sample: 632174-004 / SMP             | Batch                  | h: 1 Matrix:                | : Soil                |                         |       |
| Units:               | mg/kg                             | Date Analyzed: 07/27/19 22:48        | SU                     | RROGATE R                   | ECOVERY S             | STUDY                   |       |
|                      | BTE                               | X by EPA 8021B<br>Analytes           | Amount<br>Found<br>[A] | True<br>Amount<br>[B]       | Recovery<br>%R<br>[D] | Control<br>Limits<br>%R | Flags |
| 1,4-Difluoro         | benzene                           |                                      | 0.0314                 | 0.0300                      | 105                   | 70-130                  |       |
|                      |                                   |                                      |                        | 1                           | 1                     |                         |       |

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B



| Work Oi     | rders: 63217 | 4,                                   |                        | Project ID:           | 212C-MD-0             | 1855                    |       |
|-------------|--------------|--------------------------------------|------------------------|-----------------------|-----------------------|-------------------------|-------|
| Lab Batch   | #: 3096779   | Sample: 632174-005 / SMP             | Batch                  | n: 1 Matrix:          | Soil                  |                         |       |
| Units:      | mg/kg        | <b>Date Analyzed:</b> 07/27/19 23:08 | SU                     | RROGATE R             | ECOVERY S             | STUDY                   |       |
|             | ВТЕХ         | K by EPA 8021B                       | Amount<br>Found<br>[A] | True<br>Amount<br>[B] | Recovery<br>%R        | Control<br>Limits<br>%R | Flags |
|             |              | Analytes                             |                        |                       | נען                   |                         |       |
| 1,4-Difluor | obenzene     |                                      | 0.0307                 | 0.0300                | 102                   | 70-130                  |       |
| 4-Bromoflu  | orobenzene   |                                      | 0.0318                 | 0.0300                | 106                   | 70-130                  |       |
| Lab Batch   | #: 3096779   | Sample: 632174-006 / SMP             | Batch                  | n: 1 Matrix:          | Soil                  |                         |       |
| Units:      | mg/kg        | Date Analyzed: 07/27/19 23:28        | SU                     | RROGATE R             | ECOVERY S             | STUDY                   |       |
|             | BTEX         | X by EPA 8021B                       | Amount<br>Found<br>[A] | True<br>Amount<br>[B] | Recovery<br>%R<br>[D] | Control<br>Limits<br>%R | Flags |
| 1,4-Difluor | obenzene     |                                      | 0.0321                 | 0.0300                | 107                   | 70-130                  |       |
| 4-Bromoflu  | orobenzene   |                                      | 0.0357                 | 0.0300                | 119                   | 70-130                  |       |
| Lab Batch   | #: 3096779   | Sample: 632174-007 / SMP             | Batch                  | n: 1 Matrix:          | Soil                  |                         |       |
| Units:      | mg/kg        | Date Analyzed: 07/27/19 23:49        | SU                     | RROGATE R             | ECOVERY S             | STUDY                   |       |
|             | BTEX         | X by EPA 8021B<br>Analytes           | Amount<br>Found<br>[A] | True<br>Amount<br>[B] | Recovery<br>%R<br>[D] | Control<br>Limits<br>%R | Flags |
| 1,4-Difluor | obenzene     | -                                    | 0.0307                 | 0.0300                | 102                   | 70-130                  |       |
| 4-Bromoflu  | orobenzene   |                                      | 0.0322                 | 0.0300                | 107                   | 70-130                  |       |
| Lab Batch   | #: 3096731   | Sample: 632174-002 / SMP             | Batch                  | n: 1 Matrix:          | Soil                  |                         |       |
| Units:      | mg/kg        | Date Analyzed: 07/27/19 23:54        | SU                     | RROGATE R             | ECOVERYS              | STUDY                   |       |
|             | TPH I        | oy SW8015 Mod Analytes               | Amount<br>Found<br>[A] | True<br>Amount<br>[B] | Recovery<br>%R<br>[D] | Control<br>Limits<br>%R | Flags |
| 1-Chlorooc  | tane         |                                      | 79.2                   | 99.9                  | 79                    | 70-135                  |       |
| o-Terpheny  | 1            |                                      | 35.1                   | 50.0                  | 70                    | 70-135                  |       |
| Lab Batch   | #: 3096779   | Sample: 632174-008 / SMP             | Batch                  | n: 1 Matrix:          | Soil                  |                         |       |
| Units:      | mg/kg        | Date Analyzed: 07/28/19 00:09        | SU                     | RROGATE R             | ECOVERY S             | STUDY                   |       |
|             | ВТЕХ         | X by EPA 8021B Analytes              | Amount<br>Found<br>[A] | True<br>Amount<br>[B] | Recovery<br>%R<br>[D] | Control<br>Limits<br>%R | Flags |
| 1,4-Difluor | obenzene     | -                                    | 0.0308                 | 0.0300                | 103                   | 70-130                  |       |
| 4-Bromoflu  | orobenzene   |                                      | 0.0320                 | 0.0300                | 107                   | 70-130                  |       |

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B



| Work Or<br>Lab Batch | rders : 63217<br>#: 3096731 | 4, <b>Sample:</b> 632174-003 / SMP | Batch                  | Project ID:<br>a: 1 Matrix: | 212C-MD-0<br>Soil     | )1855                   |       |
|----------------------|-----------------------------|------------------------------------|------------------------|-----------------------------|-----------------------|-------------------------|-------|
| Units:               | mg/kg                       | Date Analyzed: 07/28/19 00:17      | SU                     | RROGATE RI                  | ECOVERY               | STUDY                   |       |
|                      | TPH                         | by SW8015 Mod                      | Amount<br>Found<br>[A] | True<br>Amount<br>[B]       | Recovery<br>%R        | Control<br>Limits<br>%R | Flags |
|                      |                             | Analytes                           |                        |                             | [D]                   |                         |       |
| 1-Chlorooc           | etane                       |                                    | 79.7                   | 99.6                        | 80                    | 70-135                  |       |
| o-Terpheny           | /1                          |                                    | 35.9                   | 49.8                        | 72                    | 70-135                  |       |
| Lab Batch            | #: 3096779                  | Sample: 632174-009 / SMP           | Batch                  | a: 1 Matrix:                | Soil                  |                         |       |
| Units:               | mg/kg                       | Date Analyzed: 07/28/19 00:29      | SU                     | RROGATE RI                  | ECOVERY               | STUDY                   |       |
|                      | BTEX                        | X by EPA 8021B Analytes            | Amount<br>Found<br>[A] | True<br>Amount<br>[B]       | Recovery<br>%R<br>[D] | Control<br>Limits<br>%R | Flags |
| 1,4-Difluor          | obenzene                    |                                    | 0.0310                 | 0.0300                      | 103                   | 70-130                  |       |
| 4-Bromoflu           | ıorobenzene                 |                                    | 0.0335                 | 0.0300                      | 112                   | 70-130                  |       |
| Lab Batch            | #: 3096731                  | Sample: 632174-004 / SMP           | Batch                  | : 1 Matrix:                 | Soil                  |                         |       |
| Units:               | mg/kg                       | Date Analyzed: 07/28/19 00:41      | SU                     | RROGATE RI                  | ECOVERY               | STUDY                   |       |
|                      | TPH                         | by SW8015 Mod                      | Amount<br>Found<br>[A] | True<br>Amount<br>[B]       | Recovery<br>%R        | Control<br>Limits<br>%R | Flags |
|                      |                             | Anarytes                           |                        |                             |                       |                         |       |
| 1-Chlorooc           | ctane                       |                                    | 172                    | 99.7                        | 173                   | 70-135                  | **    |
| o-Terpheny           | /1                          |                                    | 63.1                   | 49.9                        | 126                   | 70-135                  |       |
| Lab Batch            | <b>#:</b> 3096779           | Sample: 632174-010 / SMP           | Batch                  | a: 1 Matrix:                | Soil                  |                         |       |
| Units:               | mg/kg                       | Date Analyzed: 07/28/19 00:49      | SU                     | RROGATE RI                  | ECOVERY               | STUDY                   |       |
|                      | ВТЕУ                        | Applytos                           | Amount<br>Found<br>[A] | True<br>Amount<br>[B]       | Recovery<br>%R        | Control<br>Limits<br>%R | Flags |
| 1.4 D'0              |                             | Anarytes                           | 0.000                  | 0.0000                      | [2]                   | 70.100                  |       |
| 1,4-Difluor          | obenzene                    |                                    | 0.0308                 | 0.0300                      | 103                   | 70-130                  |       |
| 4-Bromoflu           | lorobenzene                 |                                    | 0.0324                 | 0.0300                      | 108                   | 70-130                  |       |
| Lab Batch            | #: 3096/31                  | Sample: 632174-0057 SMP            | Batch                  | i: 1 Matrix:                | Soil                  |                         |       |
| Units:               | mg/kg                       | Date Analyzed: 07/28/19 01:05      | SU                     | RROGATE RI                  | ECOVERY               | STUDY                   |       |
|                      | TPH                         | by SW8015 Mod                      | Amount<br>Found<br>[A] | True<br>Amount<br>[B]       | Recovery<br>%R<br>[D] | Control<br>Limits<br>%R | Flags |
| 1-Chlorooc           | tane                        | лнануцо                            | 84.1                   | 0 0                         | 84                    | 70-135                  |       |
| o-Ternheny           | /]                          |                                    | 35.1                   | 50.0                        | 70                    | 70-135                  |       |
|                      | -                           |                                    | 55.1                   | 50.0                        | /0                    | 10-155                  |       |

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B



| Work Or<br>Lab Batch | rders: 63217<br>#: 3096731 | 4, <b>Sample:</b> 632174-006 / SMP | Batch                  | Project ID:<br>n: 1 Matrix: | 212C-MD-0<br>Soil     | )1855                   |       |
|----------------------|----------------------------|------------------------------------|------------------------|-----------------------------|-----------------------|-------------------------|-------|
| Units:               | mg/kg                      | Date Analyzed: 07/28/19 01:28      | SU                     | RROGATE RI                  | ECOVERY               | STUDY                   |       |
|                      | TPH                        | by SW8015 Mod                      | Amount<br>Found<br>[A] | True<br>Amount<br>[B]       | Recovery<br>%R        | Control<br>Limits<br>%R | Flags |
|                      |                            | Analytes                           |                        |                             | [D]                   |                         |       |
| 1-Chlorooc           | tane                       |                                    | 79.7                   | 99.8                        | 80                    | 70-135                  |       |
| o-Terpheny           | rl                         |                                    | 33.7                   | 49.9                        | 68                    | 70-135                  | **    |
| Lab Batch            | #: 3096731                 | Sample: 632174-007 / SMP           | Batch                  | n: 1 Matrix:                | Soil                  |                         |       |
| Units:               | mg/kg                      | Date Analyzed: 07/28/19 01:51      | SU                     | RROGATE RI                  | ECOVERY               | STUDY                   |       |
|                      | TPH                        | by SW8015 Mod<br>Analytes          | Amount<br>Found<br>[A] | True<br>Amount<br>[B]       | Recovery<br>%R<br>[D] | Control<br>Limits<br>%R | Flags |
| 1-Chlorooc           | tane                       |                                    | 79.8                   | 100                         | 80                    | 70-135                  |       |
| o-Terpheny           | rl                         |                                    | 35.7                   | 50.0                        | 71                    | 70-135                  |       |
| Lab Batch            | #: 3096779                 | Sample: 632174-011 / SMP           | Batch                  | n: 1 Matrix:                | Soil                  |                         |       |
| Units:               | mg/kg                      | Date Analyzed: 07/28/19 02:07      | SU                     | RROGATE RI                  | ECOVERY               | STUDY                   |       |
|                      | BTEX                       | X by EPA 8021B                     | Amount<br>Found<br>[A] | True<br>Amount<br>[B]       | Recovery<br>%R<br>[D] | Control<br>Limits<br>%R | Flags |
| 1 4-Difluor          | obenzene                   |                                    | 0.0338                 | 0.0300                      | 113                   | 70-130                  |       |
| 4-Bromoflu           | lorobenzene                |                                    | 0.0337                 | 0.0300                      | 113                   | 70-130                  |       |
| Lab Batch            | #• 3096731                 | Sample: 632174-008 / SMP           | Batch                  | • 1 Matrix:                 | Soil                  | 70-150                  |       |
| Units:               | mg/kg                      | Date Analyzed: 07/28/19 02:15      | SU                     | RROGATE RI                  | ECOVERY S             | STUDY                   |       |
|                      | TPH                        | by SW8015 Mod                      | Amount<br>Found<br>[A] | True<br>Amount<br>[B]       | Recovery<br>%R        | Control<br>Limits<br>%R | Flags |
|                      |                            | Analytes                           |                        |                             | [D]                   |                         |       |
| 1-Chlorooc           | tane                       |                                    | 80.3                   | 99.9                        | 80                    | 70-135                  |       |
| o-Terpheny           | /1                         |                                    | 32.2                   | 50.0                        | 64                    | 70-135                  | **    |
| Lab Batch            | #: 3096779                 | Sample: 632174-012 / SMP           | Batch                  | n: 1 Matrix:                | Soil                  |                         |       |
| Units:               | mg/kg                      | Date Analyzed: 07/28/19 02:28      | SU                     | RROGATE RI                  | ECOVERY               | STUDY                   |       |
|                      | BTE                        | X by EPA 8021B<br>Analytes         | Amount<br>Found<br>[A] | True<br>Amount<br>[B]       | Recovery<br>%R<br>[D] | Control<br>Limits<br>%R | Flags |
| 1,4-Difluor          | obenzene                   | <i>.</i>                           | 0.0310                 | 0.0300                      | 103                   | 70-130                  |       |
| 4-Bromoflu           | orobenzene                 |                                    | 0.0336                 | 0.0300                      | 112                   | 70-130                  |       |
|                      |                            |                                    |                        |                             | 1                     |                         |       |

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B



| Work Or<br>Lab Batch | <b>ders :</b> 63217<br>#: 3096731 | 4,<br>Sample: 632174-009 / SMP       | Batch                  | Project ID:<br>1 Matrix: | 212C-MD-0<br>Soil     | )1855                   |       |
|----------------------|-----------------------------------|--------------------------------------|------------------------|--------------------------|-----------------------|-------------------------|-------|
| Units:               | mg/kg                             | Date Analyzed: 07/28/19 02:38        | SU                     | RROGATE R                | ECOVERY               | STUDY                   |       |
|                      | TPH                               | by SW8015 Mod                        | Amount<br>Found<br>[A] | True<br>Amount<br>[B]    | Recovery<br>%R        | Control<br>Limits<br>%R | Flags |
|                      |                                   | Analytes                             |                        |                          | [D]                   |                         |       |
| 1-Chloroocta         | ane                               |                                      | 80.3                   | 99.7                     | 81                    | 70-135                  |       |
| o-Terphenyl          |                                   |                                      | 35.7                   | 49.9                     | 72                    | 70-135                  |       |
| Lab Batch a          | #: 3096779                        | Sample: 632174-014 / SMP             | Batch                  | n: 1 Matrix:             | Soil                  |                         |       |
| Units:               | mg/kg                             | Date Analyzed: 07/28/19 02:48        | SU                     | RROGATE R                | ECOVERY               | STUDY                   |       |
|                      | втех                              | K by EPA 8021B<br>Analytes           | Amount<br>Found<br>[A] | True<br>Amount<br>[B]    | Recovery<br>%R<br>[D] | Control<br>Limits<br>%R | Flags |
| 1,4-Difluoro         | benzene                           |                                      | 0.0316                 | 0.0300                   | 105                   | 70-130                  |       |
| 4-Bromofluc          | orobenzene                        |                                      | 0.0326                 | 0.0300                   | 109                   | 70-130                  |       |
| Lab Batch #          | #: 3096731                        | Sample: 632174-010 / SMP             | Batch                  | n: 1 Matrix:             | Soil                  | 1                       |       |
| Units:               | mg/kg                             | Date Analyzed: 07/28/19 03:02        | SU                     | RROGATE R                | ECOVERY               | STUDY                   |       |
|                      | TPH                               | by SW8015 Mod                        | Amount<br>Found<br>[A] | True<br>Amount<br>[B]    | Recovery<br>%R        | Control<br>Limits<br>%R | Flags |
| 1 Chlana att         |                                   | Anarytes                             | 01.4                   | 100                      |                       | 70.105                  |       |
| T-Chloroocta         | ane                               |                                      | 81.4                   | 100                      | 81                    | 70-135                  | 4.4   |
| I ah Datah r         | #. 2006770                        | Samples (22174.016 / SMD             | 33.4<br>Batal          | 50.0                     | 6/                    | 70-135                  | **    |
| Lab Datch #          | #: 5090779                        | <b>Sample:</b> $052174-0107$ SMP     | Datch                  |                          | 5011                  |                         |       |
| Units:               | mg/kg                             | Date Analyzed: 07/28/19 03:08        | SU.                    | RROGATE R                | ECOVERY               | STUDY                   |       |
|                      | втех                              | X by EPA 8021B                       | Amount<br>Found<br>[A] | True<br>Amount<br>[B]    | Recovery<br>%R<br>[D] | Control<br>Limits<br>%R | Flags |
| 1.4-Difluoro         | benzene                           |                                      | 0.0311                 | 0.0300                   | 104                   | 70-130                  |       |
| 4-Bromofluc          | orobenzene                        |                                      | 0.0345                 | 0.0300                   | 115                   | 70-130                  |       |
| Lab Batch a          | #: 3096779                        | Sample: 632174-017 / SMP             | Batch                  | n: 1 Matrix:             | Soil                  |                         |       |
| Units:               | mg/kg                             | <b>Date Analyzed:</b> 07/28/19 03:28 | SU                     | RROGATE R                | ECOVERY               | STUDY                   |       |
|                      | втех                              | X by EPA 8021B                       | Amount<br>Found<br>[A] | True<br>Amount<br>[B]    | Recovery<br>%R<br>[D] | Control<br>Limits<br>%R | Flags |
| 1.4-Difluoro         | benzene                           |                                      | 0.0316                 | 0.0300                   | 105                   | 70-130                  |       |
| 4-Bromofluc          | orobenzene                        |                                      | 0.0357                 | 0.0300                   | 119                   | 70-130                  |       |
|                      |                                   |                                      | 0.0337                 | 0.0500                   | 117                   | 10150                   |       |

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B



# Project Name: Pappy's Preference Federal #1

| Work Or<br>Lab Batch | <b>ders :</b> 63217 | 4,<br>Sample: 632174-018 / SMP       | Batch                  | Project ID:           | 212C-MD-0             | )1855                   |       |
|----------------------|---------------------|--------------------------------------|------------------------|-----------------------|-----------------------|-------------------------|-------|
| Units:               | mg/kg               | <b>Date Analyzed:</b> 07/28/19 03:48 | SU                     | RROGATE RI            | ECOVERY               | STUDY                   |       |
|                      | втех                | X by EPA 8021B                       | Amount<br>Found<br>[A] | True<br>Amount<br>[B] | Recovery<br>%R        | Control<br>Limits<br>%R | Flags |
|                      |                     | Analytes                             |                        |                       | [D]                   |                         |       |
| 1,4-Difluoro         | obenzene            |                                      | 0.0307                 | 0.0300                | 102                   | 70-130                  |       |
| 4-Bromoflu           | orobenzene          |                                      | 0.0327                 | 0.0300                | 109                   | 70-130                  |       |
| Lab Batch            | #: 3096731          | Sample: 632174-011 / SMP             | Batch                  | n: 1 Matrix:          | Soil                  |                         |       |
| Units:               | mg/kg               | Date Analyzed: 07/28/19 03:49        | SU                     | RROGATE RI            | ECOVERY S             | STUDY                   |       |
|                      | TPH I               | by SW8015 Mod                        | Amount<br>Found<br>[A] | True<br>Amount<br>[B] | Recovery<br>%R<br>[D] | Control<br>Limits<br>%R | Flags |
| 1-Chlorooct          | tane                | Analytes                             | 7/ 3                   | 00.0                  | 74                    | 70.135                  |       |
| o-Terphenyl          | 1                   |                                      | 32.5                   | 50.0                  | 65                    | 70-135                  | **    |
| Lab Batch            | <b>#•</b> 3096731   | Sample: 632174-012 / SMP             | 32.3<br>Ratel          |                       | Soil                  | 70-133                  |       |
| Lab Daten            | #• 5050751          | Data Applyzad: 07/28/10.04:12        | Datci                  |                       |                       |                         |       |
| Units:               | iiig/kg             | Date Analyzeu: 07/28/19 04.12        | SU                     | RROGATE RI            | ECOVERY               | STUDY                   |       |
|                      | TPH I               | oy SW8015 Mod<br>Analytes            | Amount<br>Found<br>[A] | True<br>Amount<br>[B] | Recovery<br>%R<br>[D] | Control<br>Limits<br>%R | Flags |
| 1-Chlorooct          | tane                |                                      | 80.4                   | 99.8                  | 81                    | 70-135                  |       |
| o-Terpheny           | 1                   |                                      | 33.1                   | 49.9                  | 66                    | 70-135                  | **    |
| Lab Batch            | #: 3096731          | Sample: 632174-013 / SMP             | Batch                  | n: 1 Matrix:          | Soil                  | 10 100                  |       |
| Units:               | mg/kg               | <b>Date Analyzed:</b> 07/28/19 04:36 | SU                     | RROGATE RI            | ECOVERY               | STUDY                   |       |
|                      | TPHI                | by SW8015 Mod                        | Amount<br>Found<br>[A] | True<br>Amount<br>[B] | Recovery<br>%R<br>[D] | Control<br>Limits<br>%R | Flags |
| 1-Chlorooct          | tane                |                                      | 77.2                   | 99.9                  | 77                    | 70-135                  |       |
| o-Terphenv           | 1                   |                                      | 39.9                   | 50.0                  | 80                    | 70-135                  |       |
| Lab Batch            | #: 3096779          | Sample: 632174-015 / SMP             | Batch                  | n: 1 Matrix:          | Soil                  |                         |       |
| Units:               | mg/kg               | <b>Date Analyzed:</b> 07/28/19 04:49 | SU                     | RROGATE RI            | ECOVERY               | STUDY                   |       |
|                      | ВТЕХ                | X by EPA 8021B Analytes              | Amount<br>Found<br>[A] | True<br>Amount<br>[B] | Recovery<br>%R<br>[D] | Control<br>Limits<br>%R | Flags |
| 1,4-Difluoro         | obenzene            |                                      | 0.0300                 | 0.0300                | 100                   | 70-130                  |       |
| 4-Bromoflu           | orobenzene          |                                      | 0.0364                 | 0.0300                | 121                   | 70-130                  |       |

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B



| Work Ore<br>Lab Batch # | <b>ders :</b> 63217<br>#: 3096731 | 4, <b>Sample:</b> 632174-014 / SMP   | Batch                  | Project ID:<br>n: 1 Matrix: | 212C-MD-0<br>Soil     | )1855                   |       |
|-------------------------|-----------------------------------|--------------------------------------|------------------------|-----------------------------|-----------------------|-------------------------|-------|
| Units:                  | mg/kg                             | Date Analyzed: 07/28/19 04:59        | SU                     | RROGATE RI                  | ECOVERYS              | STUDY                   |       |
|                         | TPH                               | by SW8015 Mod                        | Amount<br>Found<br>[A] | True<br>Amount<br>[B]       | Recovery<br>%R        | Control<br>Limits<br>%R | Flags |
|                         |                                   | Analytes                             |                        |                             | [D]                   |                         |       |
| 1-Chloroocta            | ine                               |                                      | 76.3                   | 100                         | 76                    | 70-135                  |       |
| o-Terphenyl             |                                   |                                      | 35.0                   | 50.0                        | 70                    | 70-135                  |       |
| Lab Batch #             | <b>#:</b> 3096779                 | Sample: 632174-013 / SMP             | Batch                  | n: 1 Matrix:                | Soil                  |                         |       |
| Units:                  | mg/kg                             | Date Analyzed: 07/28/19 05:09        | SU                     | RROGATE RI                  | ECOVERYS              | STUDY                   |       |
|                         | втех                              | K by EPA 8021B<br>Analytes           | Amount<br>Found<br>[A] | True<br>Amount<br>[B]       | Recovery<br>%R<br>[D] | Control<br>Limits<br>%R | Flags |
| 1,4-Difluorol           | benzene                           |                                      | 0.0352                 | 0.0300                      | 117                   | 70-130                  |       |
| 4-Bromofluo             | robenzene                         |                                      | 0.0493                 | 0.0300                      | 164                   | 70-130                  | **    |
| Lab Batch #             | #: 3096731                        | Sample: 632174-015 / SMP             | Batch                  | n: 1 Matrix:                | Soil                  |                         |       |
| Units:                  | mg/kg                             | Date Analyzed: 07/28/19 05:23        | SU                     | RROGATE RI                  | ECOVERY               | STUDY                   |       |
|                         | TPH                               | by SW8015 Mod<br>Analytes            | Amount<br>Found<br>[A] | True<br>Amount<br>[B]       | Recovery<br>%R<br>[D] | Control<br>Limits<br>%R | Flags |
| 1-Chloroocta            | ine                               | •                                    | 77.8                   | 99.9                        | 78                    | 70-135                  |       |
| o-Terphenyl             |                                   |                                      | 43.5                   | 50.0                        | 87                    | 70-135                  |       |
| Lab Batch #             | <b>#:</b> 3096731                 | Sample: 632174-016 / SMP             | Batch                  | n: 1 Matrix:                | Soil                  |                         |       |
| Units:                  | mg/kg                             | <b>Date Analyzed:</b> 07/28/19 05:46 | SU                     | RROGATE RI                  | ECOVERY               | STUDY                   |       |
|                         | TPH                               | by SW8015 Mod                        | Amount<br>Found<br>[A] | True<br>Amount<br>[B]       | Recovery<br>%R        | Control<br>Limits<br>%R | Flags |
| 1.611                   |                                   | Analytes                             |                        |                             |                       |                         |       |
| I-Chloroocta            | ine                               |                                      | 75.4                   | 99.7                        | 76                    | 70-135                  |       |
| o-Terphenyl             | 4. 200(721                        | 9                                    | 36.3                   | 49.9                        | 73                    | 70-135                  |       |
| Lab Batch #             | 1: 3090731                        | Sample: 632174-0177 SMP              | Batch                  |                             | 5011                  |                         |       |
| Units:                  | mg/kg                             | Date Analyzed: 07/28/19/06:10        | SU                     | RROGATE RI                  | ECOVERY               | STUDY                   |       |
|                         | TPH                               | by SW8015 Mod<br>Analytes            | Amount<br>Found<br>[A] | True<br>Amount<br>[B]       | Recovery<br>%R<br>[D] | Control<br>Limits<br>%R | Flags |
| 1-Chloroocta            | ine                               |                                      | 72.4                   | 99.9                        | 72                    | 70-135                  |       |
| o-Terphenyl             |                                   |                                      | 39.2                   | 50.0                        | 78                    | 70-135                  |       |
|                         |                                   |                                      |                        |                             |                       |                         |       |

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B



| Work O      | rders : 63217 | 4,                                    |                        | Project ID:           | 212C-MD-0             | )1855                   |       |
|-------------|---------------|---------------------------------------|------------------------|-----------------------|-----------------------|-------------------------|-------|
| Lab Batch   | #: 3096731    | Sample: 632174-018 / SMP              | Batch                  | h: 1 Matrix           | : Soil                |                         |       |
| Units:      | mg/kg         | Date Analyzed: 07/28/19 06:33         | SU                     | RROGATE R             | ECOVERY               | STUDY                   |       |
|             | TPH           | by SW8015 Mod                         | Amount<br>Found<br>[A] | True<br>Amount<br>[B] | Recovery<br>%R<br>[D] | Control<br>Limits<br>%R | Flags |
| 1 Chlorese  | 4             | Analytes                              | 71.0                   | 100                   | 72                    | 70.105                  |       |
| 1-Chiorooc  | .1            |                                       | 71.9                   | 100                   | 12                    | 70-135                  | ***   |
| Lab Batah   | #- 2006770    | Samula, 7682024 1 DI K / J            | 31.0                   | 50.0                  | Colid                 | /0-135                  | **    |
|             | 1#: 3090779   | Sample: 7082924-1-BLK7                | DLK Datci              |                       | Solid                 |                         |       |
| Units:      | mg/kg         | <b>Date Analyzed:</b> 07/27/19/21:28  | SU                     | RROGATE R             | ECOVERY               | STUDY                   |       |
|             | BTE           | X by EPA 8021B<br>Analytes            | Amount<br>Found<br>[A] | True<br>Amount<br>[B] | Recovery<br>%R<br>[D] | Control<br>Limits<br>%R | Flags |
| 1.4-Difluor | obenzene      | Anarytes                              | 0.0217                 | 0.0300                | 106                   | 70.120                  |       |
| 1,4-Dinuon  | lorobenzene   |                                       | 0.0317                 | 0.0300                | 100                   | 70-130                  |       |
| I ab Batch  | #• 3096731    | Sample: 7682996-1-BLK / I             | BIK Batch              | 0.0300                | Solid                 | 70-130                  |       |
| Lab Daten   | mg/kg         | Dete Applyzed: 07/27/10 21:32         |                        |                       |                       |                         |       |
|             | mg/kg         | Date Analyzeu: 0//2//19 21.32         | SU                     | RROGATE R             | ECOVERY               | STUDY                   |       |
|             | TPH           | by SW8015 Mod<br>Analytes             | Amount<br>Found<br>[A] | True<br>Amount<br>[B] | Recovery<br>%R<br>[D] | Control<br>Limits<br>%R | Flags |
| 1-Chlorooc  | tane          | · · · · · · · · · · · · · · · · · · · | 76.8                   | 100                   | 77                    | 70-135                  |       |
| o-Terpheny  | nl            |                                       | 33.8                   | 50.0                  | 68                    | 70-135                  | **    |
| Lab Batch   | #: 3096779    | Sample: 7682924-1-BKS / I             | RKS Batch              | 1 <b>Matrix</b>       | Solid                 | 70-135                  |       |
| Units:      | mg/kg         | Date Analyzed: 07/27/19 19:48         | SIIS Dater<br>SU       | RROGATE R             | ECOVERY S             | STUDY                   |       |
|             | BTE           | X by EPA 8021B<br>Analytes            | Amount<br>Found<br>[A] | True<br>Amount<br>[B] | Recovery<br>%R<br>[D] | Control<br>Limits<br>%R | Flags |
| 1,4-Difluor | obenzene      |                                       | 0.0306                 | 0.0300                | 102                   | 70-130                  |       |
| 4-Bromoflu  | orobenzene    |                                       | 0.0300                 | 0.0300                | 100                   | 70-130                  |       |
| Lab Batch   | #: 3096731    | Sample: 7682996-1-BKS / I             | BKS Batch              | h: 1 Matrix:          | Solid                 | 1                       |       |
| Units:      | mg/kg         | Date Analyzed: 07/27/19 21:56         | SU                     | RROGATE R             | ECOVERY               | STUDY                   |       |
|             | TPH           | by SW8015 Mod<br>Analytes             | Amount<br>Found<br>[A] | True<br>Amount<br>[B] | Recovery<br>%R<br>[D] | Control<br>Limits<br>%R | Flags |
| 1-Chlorooc  | tane          |                                       | 82.7                   | 100                   | 83                    | 70-135                  |       |
| o-Terpheny  | 7]            |                                       | 39.4                   | 50.0                  | 79                    | 70-135                  |       |

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B



| Work Or<br>Lab Batch | r <b>ders :</b> 63217<br>#• 3096779 | 74,<br>Sample: 7682924-1-BSD / F     | SD Batel               | Project ID:           | 212C-MD-0             | 01855                   |       |
|----------------------|-------------------------------------|--------------------------------------|------------------------|-----------------------|-----------------------|-------------------------|-------|
| Units:               | mg/kg                               | <b>Date Analyzed:</b> 07/27/19 20:08 | SU                     | RROGATE R             | ECOVERY S             | STUDY                   |       |
|                      | BTE                                 | X by EPA 8021B<br>Analytes           | Amount<br>Found<br>[A] | True<br>Amount<br>[B] | Recovery<br>%R<br>[D] | Control<br>Limits<br>%R | Flags |
| 1,4-Difluor          | obenzene                            |                                      | 0.0309                 | 0.0300                | 103                   | 70-130                  |       |
| 4-Bromoflu           | orobenzene                          |                                      | 0.0305                 | 0.0300                | 102                   | 70-130                  |       |
| Lab Batch            | #: 3096731                          | Sample: 7682996-1-BSD / E            | SD Batcl               | h: 1 Matrix           | : Solid               |                         |       |
| Units:               | mg/kg                               | Date Analyzed: 07/27/19 22:20        | SU                     | RROGATE R             | ECOVERY S             | STUDY                   |       |
|                      | ТРН                                 | by SW8015 Mod<br>Analytes            | Amount<br>Found<br>[A] | True<br>Amount<br>[B] | Recovery<br>%R<br>[D] | Control<br>Limits<br>%R | Flags |
| 1-Chlorooct          | tane                                |                                      | 75.5                   | 100                   | 76                    | 70-135                  |       |
| o-Terpheny           | 1                                   |                                      | 38.3                   | 50.0                  | 77                    | 70-135                  |       |
| Lab Batch            | #: 3096779                          | Sample: 632174-001 S / MS            | Batcl                  | h: 1 Matrix           | : Soil                |                         |       |
| Units:               | mg/kg                               | Date Analyzed: 07/27/19 20:28        | SU                     | RROGATE R             | ECOVERY               | STUDY                   |       |
|                      | BTE                                 | X by EPA 8021B<br>Analytes           | Amount<br>Found<br>[A] | True<br>Amount<br>[B] | Recovery<br>%R<br>[D] | Control<br>Limits<br>%R | Flags |
| 1.4-Difluor          | obenzene                            |                                      | 0.0312                 | 0.0300                | 104                   | 70-130                  |       |
| 4-Bromoflu           | orobenzene                          |                                      | 0.0320                 | 0.0300                | 107                   | 70-130                  |       |
| Lab Batch            | #: 3096731                          | Sample: 632174-001 S / MS            | Batch                  | h: 1 Matrix           | : Soil                |                         |       |
| Units:               | mg/kg                               | Date Analyzed: 07/27/19 23:07        | SU                     | RROGATE R             | ECOVERY S             | STUDY                   |       |
|                      | ТРН                                 | by SW8015 Mod<br>Analytes            | Amount<br>Found<br>[A] | True<br>Amount<br>[B] | Recovery<br>%R<br>[D] | Control<br>Limits<br>%R | Flags |
| 1-Chlorooct          | tane                                |                                      | 75.6                   | 99.8                  | 76                    | 70-135                  |       |
| o-Terpheny           | 1                                   |                                      | 38.9                   | 49.9                  | 78                    | 70-135                  |       |
| Lab Batch            | #: 3096779                          | Sample: 632174-001 SD / M            | ISD Batcl              | h: 1 Matrix           | : Soil                |                         |       |
| Units:               | mg/kg                               | Date Analyzed: 07/27/19 20:48        | SU                     | RROGATE R             | ECOVERY S             | STUDY                   |       |
|                      | BTE                                 | X by EPA 8021B<br>Analytes           | Amount<br>Found<br>[A] | True<br>Amount<br>[B] | Recovery<br>%R<br>[D] | Control<br>Limits<br>%R | Flags |
| 1 4 Diffuor          | obenzene                            | J                                    | 0.0315                 | 0.0200                | 105                   | 70.120                  |       |
| 1,4-Dilluoro         |                                     | 1                                    | (1, (1, 1))            | 0.0500                | 10,                   | / / / / / / /           |       |

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B



# Project Name: Pappy's Preference Federal #1

| W | Vork Orders : 632174, |                               | Project ID:              | ject ID: 212C-MD-01855 |                       |                         |       |  |  |  |  |  |
|---|-----------------------|-------------------------------|--------------------------|------------------------|-----------------------|-------------------------|-------|--|--|--|--|--|
| L | ab Batch #: 3096731   | Sample: 632174-001 SD / M     | ASD Batch                | n: 1 Matrix:           | Soil                  |                         |       |  |  |  |  |  |
| U | nits: mg/kg           | Date Analyzed: 07/27/19 23:30 | SURROGATE RECOVERY STUDY |                        |                       |                         |       |  |  |  |  |  |
|   | TPH by<br>At          | SW8015 Mod<br>nalytes         | Amount<br>Found<br>[A]   | True<br>Amount<br>[B]  | Recovery<br>%R<br>[D] | Control<br>Limits<br>%R | Flags |  |  |  |  |  |
| 1 | -Chlorooctane         |                               | 80.7                     | 99.7                   | 81                    | 70-135                  |       |  |  |  |  |  |
| C | o-Terphenyl           |                               | 39.7                     | 49.9                   | 80                    | 70-135                  |       |  |  |  |  |  |

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B



### **BS / BSD Recoveries**



### **Project Name:** Pappy's Preference Federal #1

| Work Orde    | <b>r #:</b> 632174          |                               |                       |                                 |                             |                       |   | Pro                           | ject ID:   | 212C-MD-                | )1855                     |      |
|--------------|-----------------------------|-------------------------------|-----------------------|---------------------------------|-----------------------------|-----------------------|---|-------------------------------|------------|-------------------------|---------------------------|------|
| Analyst:     | FOV                         | D                             | ate Prepar            | ed: 07/26/20                    | 19                          |                       |   | Date A                        | nalyzed: ( | 07/27/2019              |                           |      |
| Lab Batch II | <b>Sample:</b> 7682924      | -1-BKS                        | Bate                  | <b>h #:</b> 1                   |                             |                       |   |                               | Matrix:    | Solid                   |                           |      |
| Units:       | mg/kg                       |                               | BLAN                  | K /BLANK                        | SPIKE / 2                   | BLANK S               | SPIKE DUP                                 | LICATE                        | RECOV      | ERY STUI                | ЭY                        |      |
|              | BTEX by EPA 8021B           | Blank<br>Sample Result<br>[A] | Spike<br>Added        | Blank<br>Spike<br>Result        | Blank<br>Spike<br>%R        | Spike<br>Added        | Blank<br>Spike<br>Duplicate               | Blk. Spk<br>Dup.<br>%R        | RPD<br>%   | Control<br>Limits<br>%R | Control<br>Limits<br>%RPD | Flag |
| Anal         | ytes                        |                               | [B]                   | [C]                             | [D]                         | [E]                   | Result [F]                                | [G]                           |            |                         |                           |      |
| Benzene      |                             | < 0.000385                    | 0.100                 | 0.103                           | 103                         | 0.100                 | 0.0994                                    | 99                            | 4          | 70-130                  | 35                        |      |
| Toluene      |                             | < 0.000456                    | 0.100                 | 0.0909                          | 91                          | 0.100                 | 0.0880                                    | 88                            | 3          | 70-130                  | 35                        |      |
| Ethylben     | zene                        | < 0.00200                     | 0.100                 | 0.0889                          | 89                          | 0.100                 | 0.0855                                    | 86                            | 4          | 70-130                  | 35                        |      |
| m,p-Xyle     | enes                        | < 0.00101                     | 0.200                 | 0.176                           | 88                          | 0.200                 | 0.170                                     | 85                            | 3          | 70-130                  | 35                        |      |
| o-Xylene     |                             | < 0.000344                    | 0.100                 | 0.0931                          | 93                          | 0.100                 | 0.0914                                    | 91                            | 2          | 70-130                  | 35                        |      |
| Analyst:     | SPC                         | D                             | ate Prepar            | ed: 07/27/20                    | 19                          | 4                     |   | Date A                        | nalyzed: ( | 07/27/2019              | +                         |      |
| Lab Batch II | <b>Sample:</b> 7682945      | -1-BKS                        | Batc                  | <b>h #:</b> 1                   |                             |                       |   |                               | Matrix: S  | Solid                   |                           |      |
| Units:       | mg/kg                       |                               | BLAN                  | K /BLANK                        | SPIKE / 2                   | BLANK S               | SPIKE DUP                                 | LICATE                        | RECOV      | ERY STUI                | )Y                        |      |
| Anal         | Chloride by EPA 300<br>ytes | Blank<br>Sample Result<br>[A] | Spike<br>Added<br>[B] | Blank<br>Spike<br>Result<br>[C] | Blank<br>Spike<br>%R<br>[D] | Spike<br>Added<br>[E] | Blank<br>Spike<br>Duplicate<br>Result [F] | Blk. Spk<br>Dup.<br>%R<br>[G] | RPD<br>%   | Control<br>Limits<br>%R | Control<br>Limits<br>%RPD | Flag |
| Chloride     |                             | <5.00                         | 250                   | 266                             | 106                         | 250                   | 265                                       | 106                           | 0          | 90-110                  | 20                        |      |

Relative Percent Difference RPD =  $200^{*}|(C-F)/(C+F)|$ Blank Spike Recovery [D] =  $100^{*}(C)/[B]$ Blank Spike Duplicate Recovery [G] =  $100^{*}(F)/[E]$ All results are based on MDL and Validated for QC Purposes

Version: 1.%



### **BS / BSD Recoveries**



### **Project Name:** Pappy's Preference Federal #1

| Work Order  | r#: 632174   |                    |   |  |   |  |  | <b>Project ID:</b> 212C-MD-01855                       |   |   |  |                                       |      |  |  |  |
|---|--|--------------------|---|--|---|--|--|--|---|---|--|---------------------------------------|------|--|--|--|
| Analyst:  | SPC  |                    | Da  | ate Prepar   | ed: 07/27/20  | 19   |  |  | Date A  | nalyzed: (  | 07/27/2019   |                                       |      |  |  |  |
| Lab Batch ID  | : 3096754  | Sample: 7682948-1- | -BKS  | Batcl  | <b>n #:</b> 1   |  |  |  |   | Matrix: S   | Solid  |                                       |      |  |  |  |
| Units:  | mg/kg  |                    |   | BLAN   | K /BLANK  | SPIKE / ]  | BLANK S                                  | SPIKE DUP  | LICATE  | RECOVI  | ERY STUE   | ΟY                                    |      |  |  |  |
| Angle   | Chloride by EPA  | A 300              | Blank<br>Sample Result<br>[A]                       | Spike<br>Added<br>[B]  | Blank<br>Spike<br>Result<br>[C]   | Blank<br>Spike<br>%R<br>[D]                            | Spike<br>Added<br>[E]                    | Blank<br>Spike<br>Duplicate<br>Result [F]              | Blk. Spk<br>Dup.<br>%R<br>[G]                           | RPD<br>%  | Control<br>Limits<br>%R  | Control<br>Limits<br>%RPD             | Flag |  |  |  |
| Chloride  | ytes   |                    | <0.858  | 250  | 262   | 105  | 250                                      | 260  | 104   | 1   | 00.110   | 20                                    |      |  |  |  |
|   |  |                    | 101000  | -00  | 200   | 100  | 200                                      |  | 101   | •   | /0110  |                                       |      |  |  |  |
| Analyst:<br>Lab Batch ID                                | ARM<br>2: 3096731  | Sample: 7682996-1- | -BKS  | ate Prepar<br>Batcl  | ed: 07/27/20  | 19   |  |  | Date A  | nalyzed: (<br>Matrix: S                             | )7/27/2019<br>Solid  |                                       | ,I   |  |  |  |
| Analyst:<br>Lab Batch ID<br>Units:                      | ARM<br>9: 3096731<br>mg/kg   | Sample: 7682996-1- | D:<br>-BKS  | ate Prepar<br>Batcl<br>BLAN                                  | ed: 07/27/20<br>h #: 1<br>K /BLANK  | 19<br>SPIKE / 1  | BLANK S                                  | SPIKE DUP  | Date A  | nalyzed: ()<br>Matrix: S<br>RECOVI                  | )7/27/2019<br>Solid<br>E <b>RY STUI</b>                              | DY                                    | ·'   |  |  |  |
| Analyst:<br>Lab Batch ID<br>Units:<br>Analy             | ARM<br>9: 3096731<br>mg/kg<br>TPH by SW8015<br>ytes                                  | Sample: 7682996-1- | D<br>-BKS<br>Blank<br>Sample Result<br>[A]          | ate Prepar<br>Batcl<br>BLAN<br>Spike<br>Added<br>[B]         | ed: 07/27/20<br>h #: 1<br>K /BLANK (<br>Blank<br>Spike<br>Result<br>[C]       | SPIKE / ]<br>Blank<br>Spike<br>%R<br>[D]               | BLANK S<br>Spike<br>Added<br>[E]         | SPIKE DUP<br>Blank<br>Spike<br>Duplicate<br>Result [F] | Date A<br>LICATE<br>Blk. Spk<br>Dup.<br>%R<br>[G]       | nalyzed: (<br>Matrix: S<br>RECOVI<br>RPD<br>%       | o7/27/2019<br>Solid<br>ERY STUI<br>Control<br>Limits<br>%R           | DY<br>Control<br>Limits<br>%RPD       | Flag |  |  |  |
| Analyst:<br>Lab Batch ID<br>Units:<br>Analy<br>Gasoline | ARM<br>p: 3096731<br>mg/kg<br><b>TPH by SW8015</b><br>ytes<br>Range Hydrocarbons (GR | Sample: 7682996-1- | D<br>-BKS<br>Blank<br>Sample Result<br>[A]<br><8.00 | ate Prepar<br>Batcl<br>BLAN<br>Spike<br>Added<br>[B]<br>1000 | ed: 07/27/20<br>h #: 1<br>K /BLANK<br>Blank<br>Spike<br>Result<br>[C]<br>1010 | <b>SPIKE /</b> ]<br>Blank<br>Spike<br>%R<br>[D]<br>101 | BLANK S<br>Spike<br>Added<br>[E]<br>1000 | Blank<br>Spike<br>Duplicate<br>Result [F]<br>875       | Date A<br>LICATE<br>Blk. Spk<br>Dup.<br>%R<br>[G]<br>88 | nalyzed: 0<br>Matrix: 5<br>RECOVI<br>RPD<br>%<br>14 | 07/27/2019<br>Solid<br>ERY STUE<br>Control<br>Limits<br>%R<br>70-135 | DY<br>Control<br>Limits<br>%RPD<br>20 | Flag |  |  |  |

Relative Percent Difference RPD =  $200^{*}|(C-F)/(C+F)|$ Blank Spike Recovery [D] =  $100^{*}(C)/[B]$ Blank Spike Duplicate Recovery [G] =  $100^{*}(F)/[E]$ All results are based on MDL and Validated for QC Purposes

Version: 1.%



### Form 3 - MS / MSD Recoveries



### **Project Name: Pappy's Preference Federal #1**

| <b>Work Order # :</b> 632174  |  |  |  |  |  | Project II   | <b>):</b> 212C-N   | MD-0185   | 5  |  |      |
|---|--|--|--|--|--|--|--|---|--|--|------|
| Lab Batch ID: 3096779   | QC- Sample ID:   | 632174   | -001 S   | Ba   | tch #:   | 1 Matrix   | : Soil   |   |  |  |      |
| <b>Date Analyzed:</b> 07/27/2019  | Date Prepared:   | 07/26/2  | 019  | An   | alyst: F   | FOV  |  |   |  |  |      |
| <b>Reporting Units:</b> mg/kg   |  | Μ  | ATRIX SPIK   | E / MAT  | RIX SPI  | KE DUPLICA   | TE REC   | OVERY   | STUDY  |  |      |
| BTEX by EPA 8021B   | Parent<br>Sample<br>Result   | Spike<br>Added   | Spiked Sample<br>Result<br>[C]   | Spiked<br>Sample<br>%R   | Spike<br>Added   | Duplicate<br>Spiked Sample<br>Result [F]   | Spiked<br>Dup.<br>%R   | RPD<br>%  | Control<br>Limits<br>%R  | Control<br>Limits<br>%RPD  | Flag |
| Analytes  | [A]  | [B]  |  | [D]  | [E]  |  | [G]  |   |  |  |      |
| Benzene   | <0.000386  | 0.100  | 0.0925   | 93   | 0.101  | 0.0780   | 77   | 17  | 70-130   | 35   |      |
| Toluene   | 0.000661   | 0.100  | 0.0822   | 82   | 0.101  | 0.0649   | 64   | 24  | 70-130   | 35   | X    |
| Ethylbenzene  | <0.00201   | 0.100  | 0.0780   | 78   | 0.101  | 0.0578   | 57   | 30  | 70-130   | 35   | X    |
| m,p-Xylenes   | <0.00102   | 0.201  | 0.163  | 81   | 0.202  | 0.116  | 57   | 34  | 70-130   | 35   | X    |
| o-Xylene  | < 0.000346   | 0.100  | 0.0864   | 86   | 0.101  | 0.0611   | 60   | 34  | 70-130   | 35   | X    |
| Lab Batch ID: 3096746   | QC- Sample ID:   | 631951   | -033 S   | Ba   | tch #:   | 1 Matrix   | : Soil   |   |  |  |      |
|   |  |  |  |  |  |  |  |   |  |  |      |
| Date Analyzed: 07/27/2019   | Date Prepared:   | 07/27/2  | 019  | An   | alyst: S   | SPC  |  |   |  |  |      |
| Date Analyzed:0//2//2019Reporting Units:mg/kg   | Date Prepared:   | 07/27/2<br>M   | 019<br>I <b>ATRIX SPIK</b> I   | An<br>E / MAT  | alyst: S<br>RIX SPI  | SPC<br><b>KE DUPLICA</b> '   | TE REC   | OVERY   | STUDY  |  |      |
| Date Analyzed:       07/27/2019         Reporting Units:       mg/kg         Chloride by EPA 300  | Date Prepared: Parent Sample Pacult  | 07/27/2<br>M<br>Spike  | 019<br>IATRIX SPIK<br>Spiked Sample<br>Result  | An<br>E / MAT<br>Spiked<br>Sample  | alyst: S<br>RIX SPI  | SPC<br>KE DUPLICA<br>Duplicate<br>Spiked Sample  | TE REC<br>Spiked<br>Dup.   | OVERY S   | STUDY<br>Control<br>Limits   | Control<br>Limits  | Flag |
| Date Analyzed:     07/27/2019       Reporting Units:     mg/kg       Chloride by EPA 300       Analytes   | Date Prepared:<br>Parent<br>Sample<br>Result<br>[A]  | 07/27/2<br>M<br>Spike<br>Added<br>[B]  | 019<br>[ATRIX SPIK]<br>Spiked Sample<br>Result<br>[C]  | An<br>E / MAT<br>Spiked<br>Sample<br>%R<br>[D]   | alyst: S<br>RIX SPI<br>Spike<br>Added<br>[E]   | SPC<br>KE DUPLICA<br>Duplicate<br>Spiked Sample<br>Result [F]  | TE REC<br>Spiked<br>Dup.<br>%R<br>[G]  | OVERY S<br>RPD<br>%                             | STUDY<br>Control<br>Limits<br>%R   | Control<br>Limits<br>%RPD  | Flag |
| Date Analyzed:     07/27/2019       Reporting Units:     mg/kg       Chloride by EPA 300       Analytes       Chloride  | Date Prepared: Parent Sample Result [A] 4.89   | 07/27/2<br>M<br>Spike<br>Added<br>[B]<br>249   | 019<br>IATRIX SPIK<br>Spiked Sample<br>Result<br>[C]<br>271  | An<br>E / MAT<br>Spiked<br>Sample<br>%R<br>[D]<br>107  | RIX SPI<br>Spike<br>Added<br>[E]<br>249  | SPC<br>KE DUPLICA<br>Duplicate<br>Spiked Sample<br>Result [F]<br>272   | TE REC<br>Spiked<br>Dup.<br>%R<br>[G]<br>107   | OVERY S<br>RPD<br>%                             | STUDY<br>Control<br>Limits<br>%R<br>90-110   | Control<br>Limits<br>%RPD<br>20                                    | Flag |
| Date Analyzed:       07/27/2019         Reporting Units:       mg/kg         Chloride by EPA 300         Analytes         Chloride         Lab Batch ID:       3096746  | Date Prepared: Parent Sample Result [A] 4.89 QC- Sample ID:  | 07/27/2<br>M<br>Spike<br>Added<br>[B]<br>249<br>631951   | 019<br><b>ATRIX SPIK</b><br><b>Spiked Sample</b><br><b>Result</b><br>[C]<br>271<br>-040 S  | An<br>E / MAT<br>Spiked<br>Sample<br>%R<br>[D]<br>107<br>Ba  | alyst: S<br>RIX SPI<br>Spike<br>Added<br>[E]<br>249<br>tch #:  | SPC<br>KE DUPLICA<br>Duplicate<br>Spiked Sample<br>Result [F]<br>272<br>1 Matrix   | TE REC<br>Spiked<br>Dup.<br>%R<br>[G]<br>107<br>c: Soil  | OVERY S<br>RPD<br>%                             | STUDY<br>Control<br>Limits<br>%R<br>90-110   | Control<br>Limits<br>%RPD<br>20                                    | Flag |
| Date Analyzed:       07/27/2019         Reporting Units:       mg/kg         Chloride by EPA 300         Analytes         Chloride         Lab Batch ID:       3096746         Date Analyzed:       07/27/2019  | Date Prepared: Parent Sample Result [A] 4.89 QC- Sample ID: Date Prepared:   | 07/27/2<br>M<br>Spike<br>Added<br>[B]<br>249<br>631951<br>07/27/2                                      | 019<br>[ATRIX SPIK]<br>Spiked Sample<br>Result<br>[C]<br>271<br>-040 S<br>019  | An<br>E / MAT<br>Spiked<br>Sample<br>%R<br>[D]<br>107<br>Ba<br>An  | alyst: S<br>RIX SPI<br>Spike<br>Added<br>[E]<br>249<br>tch #:<br>alyst: S  | SPC<br>KE DUPLICA<br>Duplicate<br>Spiked Sample<br>Result [F]<br>272<br>1 Matrix<br>SPC  | TE REC<br>Spiked<br>Dup.<br>%R<br>[G]<br>107<br>c: Soil  | OVERY S<br>RPD<br>%                             | STUDY<br>Control<br>Limits<br>%R<br>90-110   | Control<br>Limits<br>%RPD<br>20                                    | Flag |
| Date Analyzed:       07/27/2019         Reporting Units:       mg/kg         Chloride by EPA 300         Analytes         Chloride         Lab Batch ID:       3096746         Date Analyzed:       07/27/2019         Reporting Units:       mg/kg   | Date Prepared: Parent Sample Result [A] 4.89 QC- Sample ID: Date Prepared:   | 07/27/2<br>M<br>Spike<br>Added<br>[B]<br>249<br>631951<br>07/27/2<br>M                                 | 019<br>ATRIX SPIK<br>Spiked Sample<br>Result<br>[C]<br>271<br>-040 S<br>019<br>IATRIX SPIK   | An<br>E / MAT<br>Spiked<br>Sample<br>%R<br>[D]<br>107<br>Ba<br>An<br>E / MAT   | alyst: S<br>RIX SPI<br>Spike<br>Added<br>[E]<br>249<br>tch #:<br>alyst: S<br>RIX SPI                                 | SPC KE DUPLICA Duplicate Spiked Sample Result [F] 272 1 Matrix SPC KE DUPLICA  | TE REC<br>Spiked<br>Dup.<br>%R<br>[G]<br>107<br>c: Soil<br>TE REC                                | OVERY S<br>RPD<br>%<br>0                        | STUDY<br>Control<br>Limits<br>%R<br>90-110<br>STUDY                                      | Control<br>Limits<br>%RPD<br>20                                    | Flag |
| Date Analyzed:       07/27/2019         Reporting Units:       mg/kg         Chloride by EPA 300         Analytes         Chloride         Lab Batch ID:       3096746         Date Analyzed:       07/27/2019         Reporting Units:       mg/kg         Chloride by EPA 300         Analytes  | Date Prepared:          Parent         Sample         Result         [A]         4.89         QC- Sample ID:         Date Prepared:         Parent         Sample         Result         [A] | 07/27/2<br>M<br>Spike<br>Added<br>[B]<br>249<br>631951<br>07/27/2<br>M<br>Spike<br>Added<br>[B]        | 019<br>[ATRIX SPIK]<br>Spiked Sample<br>Result<br>[C]<br>271<br>-040 S<br>019<br>[ATRIX SPIK]<br>Spiked Sample<br>Result<br>[C]        | An<br>E / MAT<br>Spiked<br>Sample<br>%R<br>[D]<br>107<br>Ba<br>An<br>E / MAT<br>Spiked<br>Sample<br>%R               | Adyst: S<br>RIX SPI<br>Spike<br>Added<br>[E]<br>249<br>tch #:<br>alyst: S<br>RIX SPI<br>Spike<br>Added<br>[E]        | SPC<br>KE DUPLICA<br>Duplicate<br>Spiked Sample<br>Result [F]<br>272<br>1 Matrix<br>SPC<br>KE DUPLICA<br>Duplicate<br>Spiked Sample<br>Result [F]        | TE REC<br>Spiked<br>Dup.<br>%R<br>[G]<br>107<br>c: Soil<br>TE REC<br>Spiked<br>Dup.<br>%R<br>[G] | OVERY<br>RPD<br>%<br>0<br>OVERY<br>%            | STUDY<br>Control<br>Limits<br>%R<br>90-110<br>STUDY<br>Control<br>Limits<br>%R           | Control<br>Limits<br>%RPD<br>20<br>20<br>Control<br>Limits<br>%RPD | Flag |
| Date Analyzed:       07/27/2019         Reporting Units:       mg/kg         Chloride by EPA 300         Analytes         Chloride         Lab Batch ID:       3096746         Date Analyzed:       07/27/2019         Reporting Units:       mg/kg         Chloride by EPA 300         Analytes         Chloride by EPA 300         Chloride by EPA 300         Chloride by EPA 300         Chloride | Date Prepared: Parent Sample Result [A] 4.89 QC- Sample ID: Date Prepared: Parent Sample Result [A] 2.16   | 07/27/2<br>M<br>Spike<br>Added<br>[B]<br>249<br>631951<br>07/27/2<br>M<br>Spike<br>Added<br>[B]<br>249 | 019<br>[ATRIX SPIK]<br>Spiked Sample<br>Result<br>[C]<br>271<br>-040 S<br>019<br>[ATRIX SPIK]<br>Spiked Sample<br>Result<br>[C]<br>282 | An<br>E / MAT<br>Spiked<br>Sample<br>%R<br>[D]<br>107<br>Ba<br>An<br>E / MAT<br>Spiked<br>Sample<br>%R<br>[D]<br>112 | alyst: S<br>RIX SPI<br>Spike<br>Added<br>[E]<br>249<br>tch #:<br>alyst: S<br>RIX SPI<br>Spike<br>Added<br>[E]<br>249 | SPC<br>KE DUPLICA<br>Duplicate<br>Spiked Sample<br>Result [F]<br>272<br>1 Matrix<br>SPC<br>KE DUPLICA<br>Duplicate<br>Spiked Sample<br>Result [F]<br>278 | TE REC<br>Spiked<br>Dup.<br>%R<br>[G]<br>107<br>x: Soil<br>TE REC<br>Spiked<br>Dup.<br>%R<br>[G] | OVERY S<br>RPD<br>%<br>0<br>OVERY S<br>RPD<br>% | STUDY<br>Control<br>Limits<br>%R<br>90-110<br>STUDY<br>Control<br>Limits<br>%R<br>90-110 | Control<br>Limits<br>%RPD<br>20<br>20<br>Control<br>Limits<br>%RPD | Flag |

Matrix Spike Percent Recovery  $[D] = 100^{*}(C-A)/B$ Relative Percent Difference  $RPD = 200^{*}|(C-F)/(C+F)|$  Matrix Spike Duplicate Percent Recovery [G] = 100\*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

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### Form 3 - MS / MSD Recoveries

### Project Name: Pappy's Preference Federal #1



Matrix Spike Percent Recovery  $[D] = 100^{\circ}(C-A)/B$ Relative Percent Difference RPD =  $200^{\circ}|(C-F)/(C+F)|$  Matrix Spike Duplicate Percent Recovery [G] = 100\*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

| eceived b | y OCI        | D: 12/19        | 9/202(        | <u>) 9:49:</u>  | 53 A               | I <u>M</u>     |                |             |                |                |             |              |             |             |  |                       |                        |           |                    |               |                             |                             |                        | Pa  | ige 59              |
|-----------|--------------|-----------------|---------------|-----------------|--------------------|----------------|----------------|-------------|----------------|----------------|-------------|--------------|-------------|-------------|--|-----------------------|------------------------|-----------|--------------------|---------------|-----------------------------|-----------------------------|------------------------|---|---------------------|
|           |              | Relinquished by |               | Belinguished by | Relinguished by:   |                |                |             |                |                |             |              |             |             | ( LAB USE )                            | LAB #                 |                        | Commense. | Comments:          | Invoice to:   | Project Location:<br>state) | Project Name:               | Client Name:           | E.  | Analysis Re         |
|           |              |                 |               |                 | AH-6 (0-1')        | AH-5 (2'-2.5') | AH-5 (1'-1.5') | AH-5 (0-1') | AH-4 (1.5'-2') | AH-4 (1'-1.5') | AH-4 (0-1') | AH-3 (0-1')  | AH-2 (0-6") | AH-1 (0-6") |  |                       |                        |           | Xer                | CO            | (county, Edc                | Pap                         | СО                     |   | quest of Chai       |
|           |              | Date: Time:     |               | TIZE/19         | Date: Time:        |                |                |             |                |                |             |              |             |             |  | SAMPLE IDENTIFICATION | ·                      |           | rco Midland Tx     | G lke Tavarez | ly County, NM               | ppy's Preference Federal #1 | G                      | Tetra Tech, Inc.  | n of Custody Record |
|           | ORIGINAL COP | Received by:    | neceived by:  | John J          | 7/25/2019          | 7/25/2019      | 7/25/2019      | 7/25/2019   | 7/25/2019      | 7/25/2019      | 7/25/2019   | 7/25/2019    | 7/25/2019   | 7/25/2019   | DATE                                   | YEAR: 2019            | SAMPLING               |           | Sampler Signature: |               | Project #:                  |                             | Site Manager:          |   |                     |
|           | <b>-</b>     |                 |               | 1               | ×                  | ×              | ×              | ×           | X              | ×              | ×           | ×            | ×           | ×           | WATE<br>SOIL                           | R                     | MATRIX                 |           | Mike               |               | 212C                        |                             | Mike Ca                | 901 W<br>Midi<br>Tel<br>Fax   |                     |
|           |              | Date: Time:     | Date: I ime:  | Holin I         |                    | ×              | ×              | X           | ×              | ×              | ×           | ×            | ×           | ×           | HCL<br>HNO <sub>3</sub><br>ICE<br>None |                       | PRESERVATIVE<br>METHOD |           | Carmona-Dev        |               | -MD-01855                   |                             | rmona                  | rest Wall, Suite 100<br>and,Texas 79701<br>(432) 682-4559<br>x (432) 682-3946 |                     |
|           |              |                 |               | G of o          | L<br>N             | 1 N            | 1 N            | 1 N         | 1 N            | 1<br>N         | 1 N         | 1 N          | 1 N         | 1 N         | # CONT                                 | FAINE<br>ED (`        | ERS<br>(/N)            |           | in D               |               |                             |                             |                        |   | U                   |
|           | (Circle      | 1               | Sampl         |                 | ×                  | ×              | ×              | ×           | ×              | ×              | ×           | ×            | ×           | ×           | BTEX 8                                 | 021B                  | BT<br>(Ext t           | EX 8260   | В                  |               |                             |                             |                        |   | Ś                   |
|           | €<br>F}      | 3               | e Temp        | USE             | ×                  | ×              | ×              | ×           | ×              | ×              | ×           | ×            | ×           | ×           | TPH 80                                 | 15M (                 | GRO                    | - DRO - 1 | ORO -              | MRO)          |                             |                             |                        |   | J-                  |
|           | ND DE        | —               | erature       | NO              |                    |                |                |             |                |                |             |              |             |             | PAH 82<br>Total Me                     | tals A                | lg As I                | Ba Cd Cr  | Pb Se              | Hg            |                             |                             | $\hat{\boldsymbol{b}}$ |   |                     |
|           | LIVER        |                 |               | <u></u>         | -                  | -              |                |             |                | :              |             |              |             |             | TCLP M                                 | etals .<br>olatile    | Ag As<br>s             | Ba Cd C   | r Pb Se            | e Hg          |                             | Cie                         |                        |   | 2                   |
|           | Ņ            | <u>ר</u> היי ד  | <u>ר</u>      |                 |                    |                |                |             | _              |                |             |              |             |             | TCLP Se                                | emi V                 | olatiles               | 5         |                    | ,,            |                             | 0                           | NA                     |   |                     |
|           | EDEX         | ipecial         | iUSH:         | ST ST           |                    |                |                |             |                |                |             |              |             |             | GC/MS                                  | Vol. 8                | 260B                   | / 624     |                    |               |                             |                             | SISA                   |   |                     |
|           | UPS          | l Repo          | San<br>Sharoe | AND             |                    |                |                | _           | _              | $\dashv$       | -           |              |             |             | GC/MS                                  | Semi.<br>082 /        | Vol. 8                 | 3270C/62  | 5                  |               |                             |                             | REC                    |   |                     |
|           | Trac         | ort Lim         | ie Day        | ARD             |                    |                |                |             |                |                |             |              |             |             | NORM                                   |                       |                        |           |                    |               |                             |                             | ŨES                    |   |                     |
|           | ding #:      | its or          | norize        | 2               | ×                  | ×              | ×              | $\times$    | ×              | ×              | $\times$    | $\mathbf{x}$ | ×           | ×           | PLM (As<br>Chloride                    | besto                 | s)                     |           |                    |               |                             | — 0                         | ۳                      |   | Jage                |
|           |              | TRAP            | 4 nr<br>4     | •<br>•          | П                  |                |                |             |                |                |             | _            |             | _           | Chloride                               | SI<br>Wot             | ulfate                 | TDS       | 200 0#             | achod         | list)                       |                             |                        |   | 1                   |
|           |              | Repo.           | 8 hr          |                 |                    |                |                |             |                | :              |             |              |             |             | Anion/C                                | ation                 | Balan                  | ice       |                    | uundu I       | 101)                        |                             |                        |   |                     |
|           |              | 4               | 2 hr          | )               | $\left  - \right $ |                |                |             |                |                | -+          | -+           | ÷           | -+          |  |                       |                        |           |                    |               |                             | <u> </u>                    |                        |   | 1<br>0f             |
|           |              |                 | C             |                 |                    |                |                |             |                |                |             |              |             |             |  | ·                     |                        | - t       |                    |               |                             |                             |                        |   |                     |
| eased to  | o Ima        | ging: 4/        | (15/20        | 21 2:3          | 9:09               | PA             | 1.             |             |                |                |             | Pad          |             | 3 of        | Hold                                   |                       |                        |           |                    | Final         | 1.000                       |                             |                        |   | N                   |

**168** 

| linquished by      | inquistied by  |   | innuished hy  |  |  |  |   |   |   |   |   | LAB #   |  |   | seiving Labora   | bice to:   | ject Location:<br>le)  | ject Name:   | ent Name:   | F  |
|--------------------|--|---|---|--|--|--|---|---|---|---|---|---|--|---|--|--|--|--|---|--|
| Date:              | Date:  | 26/L  | Doto  | АП-14 (U-6 )   | AH-13 (0-6")   | AH-12 (0-6")   | AH-11 (0-6")  | AH-10 (0-6")  | AH-9 (0-6")   | AH-8 (0-6")   | AH-7 (0-6")   | SAMPLE IDENTIFICAT                                      |  |   | tory:<br>Xenco Midland Tx  | COG lke Tavarez  | <sup>(county,</sup> Eddy County, NM  | Pappy's Preference Fede  | COG   | Tetra Te   |
| Time: Received     | Time: Recéived   | In Scenar   | Timo  | 7/25/201   | 7/25/201   | 7/25/201   | 7/25/201  | 7/25/201  | 7/25/20-  | 7/25/20-  | 7/25/20-  | TION<br>DATE  | SA   |   | Sampler Si   |  | Project #:   | eral #1  | Site Manag  | ch, Inc.   |
| by:                | by:  |   |   | 19   | 19<br>X  | 19<br>X  | 19 X  | TIME<br>WATER<br>SOIL                                   | MPLING MATRIX  |   | gnature: Mike  |  | 2120   |  | er: Mike Ca   | 901 V<br>Mit<br>Fe   |
| Date: Time:        | Date: Time:  | Uta IOZO  |   | ×  | ×  | ×  | X   | ×   | ×   | ×   | X   | HCL<br>HNO <sub>3</sub><br>ICE<br>None                  | METHOD   |   | Carmona-Devin D  |  | C-MD-01855   |  | armona  | West Wall, Suite 100<br>/land,Texas 79701<br>el (432) 682-4559<br>ax (432) 682-3946  |
|                    | S  |   |   | 1<br>Z   | ı<br>Z<br>X  | 1<br>N<br>X  | 1<br>Z<br>X   | ⊥<br>Z<br>X   | ⊥<br>z<br>×   | -1<br>Z<br>X  | 1<br>N<br>X   | # CONTAINI<br>FILTERED ('                               | ERS<br>Y/N)  | EX 8260   | 3  |  |  |  |   | ļ  |
| N.                 | ample Ter  | AB US   |   | ×  | ×  | ×  | ×   | ×   | ×   | ×   | ×   | TPH TX1005  | (Ext to  | o C35)<br>- DRO - (   | DRO - I  | MRO)   |  |  |   |  |
| 2                  | nperatur   | EON   |   |  |  |  |   | _   |   |   |   | PAH 8270C<br>Total Metals /                             | Ag As I  | Ba Cd Cr  | Pb Se  | Hg   |  |  |   | ŀ  |
|                    | w  |   |   |  |  |  |   |   |   |   |   | TCLP Metals<br>TCLP Volatile                            | Ag As<br>s   | Ba Cd Cr  | Pb Se  | Hg   |  |  |   |  |
|                    |  |   |   |  |  |  |   |   | -   |   |   | TCLP Semi V<br>RCI                                      | olatile  | 5   |  |  |  | — 9<br>— 9   | NAL   |  |
| ush Cr<br>ɔecial l | USH:   | ST∕   | <b>□</b> †  |  |  |  |   |   |   |   |   | GC/MS Vol. 8  | 3260B  | / 624   | 5  |  |  | )<br>  і   | I SIS/  |  |
| harges<br>Report   | Same   | NDA   |   |  |  |  |   |   |   |   |   | GC/MS Semi.<br>РСВ's 8082 /                             | vol. 8<br>608  | s270C/62  | 5  |  |  |  | REQU  |  |
| Autho              | Day  | ΩR  | $\left  - \right $  | _  | $\left  - \right $                                     |  |   | _   |   |   |   | NORM<br>PLM (Asbesto                                    | is)  |   |  |  |  | — thc  | UEST  |  |
| or TF              | 24 hr  |   |   | ×  | ×  | ×  | ×   | ×   | ×   | ×   | ×   | Chloride  | ulfate   | тре   |  |  |  | — ă<br>— z   |   |  |
| IRP R              | 48 F   |   |   |  |  |  |   |   |   |   |   | General Wate  | er Che   | emistry (s  | ee atta  | ached I  | ist)   | _ <u>°</u>   |   |  |
| pode               |  |   |   |  |  |  |   | -   |   |   |   | Anion/Cation  | Balar  |   |  |  |  |  |   |  |
|                    | -  | -   |   |  | 1  | T  | T   | T   |   | T   | -   |   |  |   |  |  |  |  |   |  |
|                    | linquished by: Date: Time: Solutionized Date: Time: Solution: Date: Time: Solution: Date: Time: Special Report Limits or TRRP Report | Inquisited by:       Date:       Time:       Hecelved by:       Date:       Time:       Sample Temperature       X RUSH:       Same Day       24 hr       48 hr         linquished by:       Date:       Time:       Received by:       Date:       Time:       \$, 3 / 3 / 1       Rush Charges Authorized         Special Report Limits or TRRP Report       Special Report Limits or TRRP Report       Special Report Limits or TRRP Report       Special Report Limits or TRRP Report | Inquished by:     Date:     Time:     Meceived by:     Date:     Time:     Received by:     Date:     Time:     Rush Charges Authorized       Inquished by:     Date:     Time:     Received by:     Date:     Time:     \$, 3 / 3 /     Rush:     Sample Temperature     Rush:     Sample Temperature     Rush:     Sample Temperature     Rush:     Same Day     24 hr     48 hr       Inquished by:     Date:     Time:     Received by:     Date:     Time:     \$, 3 / 3 /     Rush:     Rush:     Charges Authorized       Inquished by:     Date:     Time:     Date:     Time:     \$, 3 / 3 /     Special Report Limits or TRRP Report | Inquished by:       Date:       Time:       Maceived by:       Date:       Time:       Remarks:         JAC/IA       JAC/IA       JAU       JAU       LAB USE ONLY       STANDARD         Inquished by:       Date:       Time:       Received by:       Date:       Time:       Sample Temperature       RUSH:       Same Day       24 hr       48 hr         linquished by:       Date:       Time:       Sample Temperature       RUSH:       Same Day       24 hr       48 hr         linquished by:       Date:       Time:       Sample Temperature       RUSH:       Same Day       24 hr       48 hr         linquished by:       Date:       Time:       Sample Temperature       Rush Charges Authorized       Rush Charges Authorized         linquished by:       Date:       Time:       S, 3 / 3 /       Image: Special Report Linits or TRRP Report | $\begin{array}{c c c c c c c c c c c c c c c c c c c $ | $\begin{array}{c c c c c c c c c c c c c c c c c c c $ | $ \begin{array}{c c c c c c c c c c c c c c c c c c c $ | $ \begin{array}{c c c c c c c c c c c c c c c c c c c $ | $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$ | $ \begin{array}{c c c c c c c c c c c c c c c c c c c $ | $ \begin{array}{c c c c c c c c c c c c c c c c c c c $ | $ \begin{array}{c c c c c c c c c c c c c c c c c c c $ | LAB #         SAMPLE IDENTIFICATION         TERE. 2019         ATTE         TERE. 2019           AtH 0 (0-6)         AtH 0 (0-6)         725/2019         TIME         ATTE         TIME           AtH 0 (0-6)         725/2019         725/2019         TIME         TIME         AtH 10 (0-6)         725/2019         TIME         TIME         TIME         AtH 10 (0-6)         TIME         TIME | LAB #         SAMPLE IDENTIFICATION         THE         MATRIX         PRESENTIVE<br>PRESENT           Att-17 (0-6°)         Att-17 (0-6°)         DATE         Image: Comparison of the compar | SAMPLE IDENTIFICATION         SAMPLE IDENTIFICATION           VALUE         MATRIX         METHOD           VALUE         SAMPLE IDENTIFICATION           VALUE         MATRIX         METHOD           VALUE         SAMPLE IDENTIFICATION           VALUE         VALUE           ALT-10-G-01         ATTREE           ALT-10-G-01         VALUE         VALUE           VALUE         VALUE         VALUE         VALUE           VALUE         VALUE         VALUE         VALUE           VALUE         VALUE         VALUE         VALUE           VALUE         VALUE         VALUE         VALUE | Importance         Sample Signature:         Mile Carmona-Devin D           VA.9         SAMPLE DENTIFICATION         SAMPLE DENTIFICATION         SAMPLE DENTIFICATION           VA.9         AH-7 (0.6°)         SAMPLE DENTIFICATION         SAMPLE DENTIFICATION         SAMPLE DENTIFICATION           VA.9         AH-7 (0.6°)         SAMPLE DENTIFICATION         SAMPLE DENTIFICATION         SAMPLE DENTIFICATION         SAMPLE DENTIFICATION           VA.9         AH-9 (0.6°)         7725/2016         TIME         REIMON         REIMON           AH-10 (0.6°)         7725/2016         7725/2016         X X         X X         X H           AH-11 (0.6°)         7725/2016         X X         X X         X H         HUNO           AH-11 (0.6°)         7725/2016         X X         X X         X H         HUNO           AH-11 (0.6°)         7725/2016         X X         X X         X H         HUNO           AH-11 (0.6°)         7725/2016         X X         X X         X H         HUNO           AH-11 (0.6°)         7725/2016         X X         X X         X H         HUNO           AH-11 (0.6°)         7725/2016         X X         X X         Y H         HUNO         X X           AH-11 (0.6°) | Boot Bit<br>COC IKe Tavarez         Sample Signature<br>(Location)         Sample Signature<br>(Location)         Mile Carmona-Devin D           Use Fill         Value         Sample Signature<br>(Location)         Mile Carmona-Devin D         Mile Carmona-Devin D           Use Fill         Mile Carmona         Sample Signature<br>(Location)         Mile Carmona-Devin D         Mile Carmona-Devin D           Use Fill         Mile Carmona         Sample Signature<br>(Location)         Mile Carmona-Devin D         Mile Carmona-Devin D           Mile Carmona         Mile Carmona         Mile Carmona         Mile Carmona         Mile Carmona           Mile Carmona         Mile Carmona         Mile Carmona         Mile Carmona         Mile Carmona           Mile Carmona         Mile Carmona         Mile Carmona         Mile Carmona         Mile Carmona           Mile Carmona         Mile Carmona         Mile Carmona         Mile Carmona         Mile Carmona           Mile Carmona         Mile Carmona         Mile Carmona         Mile Carmona         Mile Carmona           Mile Carmona         Mile Carmona         Mile Carmona         Mile Carmona         Mile Carmona         Mile Carmona           Mile Carmona         Mile Carmona         Mile Carmona         Mile Carmona         Mile Carmona         Mile Carmona         Mile Carmona | Image:         County, NM         Project:         2120-MD-01985           Image:         COD Ikg Tavatez         SampLaneouv         King Lances           VLAP         SampLaneouv         King Lances         King Lances           VLAP         SampLaneouv         King Lances         King Lances           VLAP         SampLaneouv         King Lances         King Lances           VLAP         SampLances         King Lances         King Lances           VLAP         SampLances         SampLances         King Lances           VLAP         SampLances         SampLances         King Lances           VLAP         SampLances         SampLances         King Lances           VLAP         SampLances         King Lances         King Lances           VLAP         SampLances         King Lances         King Lances           VLAP         King Lances         King Lances         King Lances | Instruction         Code (a) Federan co Federal #1         Protect         210C MD-01655         Coll for Twater         Coll for | Instance         Condition         Name         Condition         Condit is an and an and andit andit and an and and andit a |

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August 09, 2019

MIKE CARMONA TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND, TX 79701

RE: BIG PAPI FEDERAL COM 2H

Enclosed are the results of analyses for samples received by the laboratory on 08/08/19 17:06.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

| Method EPA 552.2 | Haloacetic Acids (HAA-5)     |
|------------------|------------------------------|
| Method EPA 524.2 | Total Trihalomethanes (TTHM) |
| Method EPA 524.4 | Regulated VOCs (V1, V2, V3)  |

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Whe Singh

Mike Snyder For Celey D. Keene Lab Director/Quality Manager



TETRA TECH MIKE CARMONA 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701 Fax To: (432) 682-3946

| Received:         | 08/08/2019                   | Sampling Date:      | 08/08/2019    |
|-------------------|------------------------------|---------------------|---------------|
| Reported:         | 08/09/2019                   | Sampling Type:      | Soil          |
| Project Name:     | BIG PAPI FEDERAL COM 2H      | Sampling Condition: | Cool & Intact |
| Project Number:   | 212C -MD - 01885 ( 7-12-19 ) | Sample Received By: | Jodi Henson   |
| Project Location: | COG - EDDY CO NM             |                     |               |

#### Sample ID: BOTTOM HOLE #1 ( 4' BEB ) (H902739-01)

| BTEX 8021B                           | mg/    | kg              | Analyze    | d By: MS     |      |            |               |      |           |
|--------------------------------------|--------|-----------------|------------|--------------|------|------------|---------------|------|-----------|
| Analyte                              | Result | Reporting Limit | Analyzed   | Method Blank | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Benzene*                             | <0.050 | 0.050           | 08/09/2019 | ND           | 1.91 | 95.5       | 2.00          | 3.81 |           |
| Toluene*                             | <0.050 | 0.050           | 08/09/2019 | ND           | 1.92 | 96.2       | 2.00          | 1.60 |           |
| Ethylbenzene*                        | <0.050 | 0.050           | 08/09/2019 | ND           | 1.92 | 95.8       | 2.00          | 2.17 |           |
| Total Xylenes*                       | <0.150 | 0.150           | 08/09/2019 | ND           | 5.82 | 97.0       | 6.00          | 1.74 |           |
| Total BTEX                           | <0.300 | 0.300           | 08/09/2019 | ND           |      |            |               |      |           |
| Surrogate: 4-Bromofluorobenzene (PID | 102 9  | 73.3-12         | 9          |              |      |            |               |      |           |
| Chloride, SM4500Cl-B                 | mg/    | kg              | Analyze    | d By: AC     |      |            |               |      |           |
| Analyte                              | Result | Reporting Limit | Analyzed   | Method Blank | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride                             | 2480   | 16.0            | 08/09/2019 | ND           | 416  | 104        | 400           | 0.00 | QM-07     |
| TPH 8015M                            | mg/    | kg              | Analyze    | d By: MS     |      |            |               |      |           |
| Analyte                              | Result | Reporting Limit | Analyzed   | Method Blank | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10*                          | <10.0  | 10.0            | 08/09/2019 | ND           | 203  | 102        | 200           | 2.11 |           |
| DRO >C10-C28*                        | <10.0  | 10.0            | 08/09/2019 | ND           | 195  | 97.5       | 200           | 1.28 |           |
| EXT DRO >C28-C36                     | <10.0  | 10.0            | 08/09/2019 | ND           |      |            |               |      |           |
| Surrogate: 1-Chlorooctane            | 112 %  | 6 41-142        |            |              |      |            |               |      |           |
| Surrogate: 1-Chlorooctadecane        | 115 %  | 37.6-14         | 7          |              |      |            |               |      |           |

#### **Cardinal Laboratories**

\*=Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



TETRA TECH MIKE CARMONA 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701 Fax To: (432) 682-3946

| Received:         | 08/08/2019                   | Sampling Date:      | 08/08/2019    |
|-------------------|------------------------------|---------------------|---------------|
| Reported:         | 08/09/2019                   | Sampling Type:      | Soil          |
| Project Name:     | BIG PAPI FEDERAL COM 2H      | Sampling Condition: | Cool & Intact |
| Project Number:   | 212C -MD - 01885 ( 7-12-19 ) | Sample Received By: | Jodi Henson   |
| Project Location: | COG - EDDY CO NM             |                     |               |

#### Sample ID: BOTTOM HOLE #2 ( 4' BEB ) (H902739-02)

| BTEX 8021B                           | mg/    | kg              | Analyze         | d By: MS     |      |            |               |      |           |
|--------------------------------------|--------|-----------------|-----------------|--------------|------|------------|---------------|------|-----------|
| Analyte                              | Result | Reporting Limit | Analyzed        | Method Blank | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Benzene*                             | <0.050 | 0.050           | 08/09/2019      | ND           | 1.91 | 95.5       | 2.00          | 3.81 |           |
| Toluene*                             | <0.050 | 0.050           | 08/09/2019      | ND           | 1.92 | 96.2       | 2.00          | 1.60 |           |
| Ethylbenzene*                        | <0.050 | 0.050           | 08/09/2019      | ND           | 1.92 | 95.8       | 2.00          | 2.17 |           |
| Total Xylenes*                       | <0.150 | 0.150           | 08/09/2019      | ND           | 5.82 | 97.0       | 6.00          | 1.74 |           |
| Total BTEX                           | <0.300 | 0.300           | 08/09/2019      | ND           |      |            |               |      |           |
| Surrogate: 4-Bromofluorobenzene (PID | 105 %  | 6 73.3-12       | 9               |              |      |            |               |      |           |
| Chloride, SM4500Cl-B                 | mg/    | kg              | Analyzed By: AC |              |      |            |               |      |           |
| Analyte                              | Result | Reporting Limit | Analyzed        | Method Blank | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride                             | 960    | 16.0            | 08/09/2019      | ND           | 416  | 104        | 400           | 0.00 |           |
| TPH 8015M                            | mg/    | kg              | Analyze         | d By: MS     |      |            |               |      |           |
| Analyte                              | Result | Reporting Limit | Analyzed        | Method Blank | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10*                          | <10.0  | 10.0            | 08/09/2019      | ND           | 203  | 102        | 200           | 2.11 |           |
| DRO >C10-C28*                        | <10.0  | 10.0            | 08/09/2019      | ND           | 195  | 97.5       | 200           | 1.28 |           |
| EXT DRO >C28-C36                     | <10.0  | 10.0            | 08/09/2019      | ND           |      |            |               |      |           |
| Surrogate: 1-Chlorooctane            | 111 %  | 6 41-142        |                 |              |      |            |               |      |           |
| Surrogate: 1-Chlorooctadecane        | 113 %  | 6 37.6-14       | 7               |              |      |            |               |      |           |

#### Cardinal Laboratories

\*=Accredited Analyte

mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



TETRA TECH MIKE CARMONA 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701 Fax To: (432) 682-3946

| Received:         | 08/08/2019                   | Sampling Date:      | 08/08/2019    |
|-------------------|------------------------------|---------------------|---------------|
| Reported:         | 08/09/2019                   | Sampling Type:      | Soil          |
| Project Name:     | BIG PAPI FEDERAL COM 2H      | Sampling Condition: | Cool & Intact |
| Project Number:   | 212C -MD - 01885 ( 7-12-19 ) | Sample Received By: | Jodi Henson   |
| Project Location: | COG - EDDY CO NM             |                     |               |

#### Sample ID: BOTTOM HOLE #3 ( 4' BEB ) (H902739-03)

| BTEX 8021B                           | mg/    | kg              | Analyze         | d By: MS     |      |            |               |      |           |
|--------------------------------------|--------|-----------------|-----------------|--------------|------|------------|---------------|------|-----------|
| Analyte                              | Result | Reporting Limit | Analyzed        | Method Blank | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Benzene*                             | <0.050 | 0.050           | 08/09/2019      | ND           | 1.91 | 95.5       | 2.00          | 3.81 |           |
| Toluene*                             | <0.050 | 0.050           | 08/09/2019      | ND           | 1.92 | 96.2       | 2.00          | 1.60 |           |
| Ethylbenzene*                        | <0.050 | 0.050           | 08/09/2019      | ND           | 1.92 | 95.8       | 2.00          | 2.17 |           |
| Total Xylenes*                       | <0.150 | 0.150           | 08/09/2019      | ND           | 5.82 | 97.0       | 6.00          | 1.74 |           |
| Total BTEX                           | <0.300 | 0.300           | 08/09/2019      | ND           |      |            |               |      |           |
| Surrogate: 4-Bromofluorobenzene (PID | 103 9  | 73.3-12         | 9               |              |      |            |               |      |           |
| Chloride, SM4500Cl-B                 | mg/    | kg              | Analyzed By: AC |              |      |            |               |      |           |
| Analyte                              | Result | Reporting Limit | Analyzed        | Method Blank | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride                             | 512    | 16.0            | 08/09/2019      | ND           | 416  | 104        | 400           | 0.00 |           |
| TPH 8015M                            | mg/    | kg              | Analyze         | d By: MS     |      |            |               |      |           |
| Analyte                              | Result | Reporting Limit | Analyzed        | Method Blank | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10*                          | <10.0  | 10.0            | 08/09/2019      | ND           | 195  | 97.7       | 200           | 4.87 |           |
| DRO >C10-C28*                        | <10.0  | 10.0            | 08/09/2019      | ND           | 191  | 95.7       | 200           | 5.50 |           |
| EXT DRO >C28-C36                     | <10.0  | 10.0            | 08/09/2019      | ND           |      |            |               |      |           |
| Surrogate: 1-Chlorooctane            | 106 9  | % 41-142        |                 |              |      |            |               |      |           |
| Surrogate: 1-Chlorooctadecane        | 109 9  | 37.6-14         | 7               |              |      |            |               |      |           |

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



TETRA TECH MIKE CARMONA 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701 Fax To: (432) 682-3946

| Received:         | 08/08/2019                   | Sampling Date:      | 08/08/2019    |
|-------------------|------------------------------|---------------------|---------------|
| Reported:         | 08/09/2019                   | Sampling Type:      | Soil          |
| Project Name:     | BIG PAPI FEDERAL COM 2H      | Sampling Condition: | Cool & Intact |
| Project Number:   | 212C -MD - 01885 ( 7-12-19 ) | Sample Received By: | Jodi Henson   |
| Project Location: | COG - EDDY CO NM             |                     |               |

#### Sample ID: NORTH SIDEWALL (H902739-04)

| BTEX 8021B                           | mg/    | kg              | Analyze         | d By: MS     |      |            |               |      |           |
|--------------------------------------|--------|-----------------|-----------------|--------------|------|------------|---------------|------|-----------|
| Analyte                              | Result | Reporting Limit | Analyzed        | Method Blank | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Benzene*                             | <0.050 | 0.050           | 08/09/2019      | ND           | 1.91 | 95.5       | 2.00          | 3.81 |           |
| Toluene*                             | <0.050 | 0.050           | 08/09/2019      | ND           | 1.92 | 96.2       | 2.00          | 1.60 |           |
| Ethylbenzene*                        | <0.050 | 0.050           | 08/09/2019      | ND           | 1.92 | 95.8       | 2.00          | 2.17 |           |
| Total Xylenes*                       | <0.150 | 0.150           | 08/09/2019      | ND           | 5.82 | 97.0       | 6.00          | 1.74 |           |
| Total BTEX                           | <0.300 | 0.300           | 08/09/2019      | ND           |      |            |               |      |           |
| Surrogate: 4-Bromofluorobenzene (PID | 106 %  | 6 73.3-12       | 9               |              |      |            |               |      |           |
| Chloride, SM4500Cl-B                 | mg/kg  |                 | Analyzed By: AC |              |      |            |               |      |           |
| Analyte                              | Result | Reporting Limit | Analyzed        | Method Blank | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride                             | 592    | 16.0            | 08/09/2019      | ND           | 416  | 104        | 400           | 0.00 |           |
| TPH 8015M                            | mg/    | kg              | Analyze         | d By: MS     |      |            |               |      |           |
| Analyte                              | Result | Reporting Limit | Analyzed        | Method Blank | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10*                          | <10.0  | 10.0            | 08/09/2019      | ND           | 195  | 97.7       | 200           | 4.87 |           |
| DRO >C10-C28*                        | <10.0  | 10.0            | 08/09/2019      | ND           | 191  | 95.7       | 200           | 5.50 |           |
| EXT DRO >C28-C36                     | <10.0  | 10.0            | 08/09/2019      | ND           |      |            |               |      |           |
| Surrogate: 1-Chlorooctane            | 116 %  | 6 41-142        |                 |              |      |            |               |      |           |
| Surrogate: 1-Chlorooctadecane        | 121 %  | 6 37.6-14       | 7               |              |      |            |               |      |           |

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



TETRA TECH MIKE CARMONA 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701 Fax To: (432) 682-3946

| Received:         | 08/08/2019                   | Sampling Date:      | 08/08/2019    |
|-------------------|------------------------------|---------------------|---------------|
| Reported:         | 08/09/2019                   | Sampling Type:      | Soil          |
| Project Name:     | BIG PAPI FEDERAL COM 2H      | Sampling Condition: | Cool & Intact |
| Project Number:   | 212C -MD - 01885 ( 7-12-19 ) | Sample Received By: | Jodi Henson   |
| Project Location: | COG - EDDY CO NM             |                     |               |

#### Sample ID: EAST 1 SIDEWALL (H902739-05)

| BTEX 8021B                           | mg/    | kg              | Analyze    | d By: MS     |      |            |               |      |           |
|--------------------------------------|--------|-----------------|------------|--------------|------|------------|---------------|------|-----------|
| Analyte                              | Result | Reporting Limit | Analyzed   | Method Blank | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Benzene*                             | <0.050 | 0.050           | 08/09/2019 | ND           | 1.91 | 95.5       | 2.00          | 3.81 |           |
| Toluene*                             | <0.050 | 0.050           | 08/09/2019 | ND           | 1.92 | 96.2       | 2.00          | 1.60 |           |
| Ethylbenzene*                        | <0.050 | 0.050           | 08/09/2019 | ND           | 1.92 | 95.8       | 2.00          | 2.17 |           |
| Total Xylenes*                       | <0.150 | 0.150           | 08/09/2019 | ND           | 5.82 | 97.0       | 6.00          | 1.74 |           |
| Total BTEX                           | <0.300 | 0.300           | 08/09/2019 | ND           |      |            |               |      |           |
| Surrogate: 4-Bromofluorobenzene (PID | 104 %  | 6 73.3-12       | 9          |              |      |            |               |      |           |
| Chloride, SM4500Cl-B                 | mg/    | kg              | Analyze    | d By: AC     |      |            |               |      |           |
| Analyte                              | Result | Reporting Limit | Analyzed   | Method Blank | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride                             | 1500   | 16.0            | 08/09/2019 | ND           | 416  | 104        | 400           | 0.00 |           |
| TPH 8015M                            | mg/    | kg              | Analyze    | d By: MS     |      |            |               |      |           |
| Analyte                              | Result | Reporting Limit | Analyzed   | Method Blank | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10*                          | <10.0  | 10.0            | 08/09/2019 | ND           | 195  | 97.7       | 200           | 4.87 |           |
| DRO >C10-C28*                        | <10.0  | 10.0            | 08/09/2019 | ND           | 191  | 95.7       | 200           | 5.50 |           |
| EXT DRO >C28-C36                     | <10.0  | 10.0            | 08/09/2019 | ND           |      |            |               |      |           |
| Surrogate: 1-Chlorooctane            | 118 %  | 6 41-142        |            |              |      |            |               |      |           |
| Surrogate: 1-Chlorooctadecane        | 124 %  | 6 37.6-14       | 7          |              |      |            |               |      |           |

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



TETRA TECH MIKE CARMONA 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701 Fax To: (432) 682-3946

| Received:         | 08/08/2019                   | Sampling Date:      | 08/08/2019    |
|-------------------|------------------------------|---------------------|---------------|
| Reported:         | 08/09/2019                   | Sampling Type:      | Soil          |
| Project Name:     | BIG PAPI FEDERAL COM 2H      | Sampling Condition: | Cool & Intact |
| Project Number:   | 212C -MD - 01885 ( 7-12-19 ) | Sample Received By: | Jodi Henson   |
| Project Location: | COG - EDDY CO NM             |                     |               |

#### Sample ID: EAST 2 SIDEWALL (H902739-06)

| BTEX 8021B                           | mg/    | kg              | Analyze         | d By: ms     |      |            |               |       |           |
|--------------------------------------|--------|-----------------|-----------------|--------------|------|------------|---------------|-------|-----------|
| Analyte                              | Result | Reporting Limit | Analyzed        | Method Blank | BS   | % Recovery | True Value QC | RPD   | Qualifier |
| Benzene*                             | <0.050 | 0.050           | 08/09/2019      | ND           | 2.05 | 102        | 2.00          | 0.251 |           |
| Toluene*                             | <0.050 | 0.050           | 08/09/2019      | ND           | 2.15 | 108        | 2.00          | 1.81  |           |
| Ethylbenzene*                        | <0.050 | 0.050           | 08/09/2019      | ND           | 2.03 | 102        | 2.00          | 1.25  |           |
| Total Xylenes*                       | <0.150 | 0.150           | 08/09/2019      | ND           | 6.09 | 102        | 6.00          | 0.936 |           |
| Total BTEX                           | <0.300 | 0.300           | 08/09/2019      | ND           |      |            |               |       |           |
| Surrogate: 4-Bromofluorobenzene (PID | 95.8 9 | 6 73.3-12       | 9               |              |      |            |               |       |           |
| Chloride, SM4500Cl-B                 | mg/    | kg              | Analyzed By: AC |              |      |            |               |       |           |
| Analyte                              | Result | Reporting Limit | Analyzed        | Method Blank | BS   | % Recovery | True Value QC | RPD   | Qualifier |
| Chloride                             | 64.0   | 16.0            | 08/09/2019      | ND           | 416  | 104        | 400           | 0.00  |           |
| TPH 8015M                            | mg/    | kg              | Analyze         | d By: MS     |      |            |               |       |           |
| Analyte                              | Result | Reporting Limit | Analyzed        | Method Blank | BS   | % Recovery | True Value QC | RPD   | Qualifier |
| GRO C6-C10*                          | <10.0  | 10.0            | 08/09/2019      | ND           | 195  | 97.7       | 200           | 4.87  |           |
| DRO >C10-C28*                        | <10.0  | 10.0            | 08/09/2019      | ND           | 191  | 95.7       | 200           | 5.50  |           |
| EXT DRO >C28-C36                     | <10.0  | 10.0            | 08/09/2019      | ND           |      |            |               |       |           |
| Surrogate: 1-Chlorooctane            | 123 %  | 6 41-142        |                 |              |      |            |               |       |           |
| Surrogate: 1-Chlorooctadecane        | 128 %  | 6 37.6-14       | 7               |              |      |            |               |       |           |

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



TETRA TECH MIKE CARMONA 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701 Fax To: (432) 682-3946

| Received:         | 08/08/2019                   | Sampling Date:      | 08/08/2019    |
|-------------------|------------------------------|---------------------|---------------|
| Reported:         | 08/09/2019                   | Sampling Type:      | Soil          |
| Project Name:     | BIG PAPI FEDERAL COM 2H      | Sampling Condition: | Cool & Intact |
| Project Number:   | 212C -MD - 01885 ( 7-12-19 ) | Sample Received By: | Jodi Henson   |
| Project Location: | COG - EDDY CO NM             |                     |               |

#### Sample ID: WEST 1 SIDEWALL (H902739-07)

| BTEX 8021B                           | mg/    | kg              | Analyze         | d By: ms     |      |            |               |       |           |
|--------------------------------------|--------|-----------------|-----------------|--------------|------|------------|---------------|-------|-----------|
| Analyte                              | Result | Reporting Limit | Analyzed        | Method Blank | BS   | % Recovery | True Value QC | RPD   | Qualifier |
| Benzene*                             | <0.050 | 0.050           | 08/09/2019      | ND           | 2.05 | 102        | 2.00          | 0.251 |           |
| Toluene*                             | <0.050 | 0.050           | 08/09/2019      | ND           | 2.15 | 108        | 2.00          | 1.81  |           |
| Ethylbenzene*                        | <0.050 | 0.050           | 08/09/2019      | ND           | 2.03 | 102        | 2.00          | 1.25  |           |
| Total Xylenes*                       | <0.150 | 0.150           | 08/09/2019      | ND           | 6.09 | 102        | 6.00          | 0.936 |           |
| Total BTEX                           | <0.300 | 0.300           | 08/09/2019      | ND           |      |            |               |       |           |
| Surrogate: 4-Bromofluorobenzene (PID | 96.6 % | 73.3-12         | 9               |              |      |            |               |       |           |
| Chloride, SM4500Cl-B                 | mg/kg  |                 | Analyzed By: AC |              |      |            |               |       |           |
| Analyte                              | Result | Reporting Limit | Analyzed        | Method Blank | BS   | % Recovery | True Value QC | RPD   | Qualifier |
| Chloride                             | 272    | 16.0            | 08/09/2019      | ND           | 416  | 104        | 400           | 0.00  |           |
| TPH 8015M                            | mg/    | kg              | Analyze         | d By: MS     |      |            |               |       |           |
| Analyte                              | Result | Reporting Limit | Analyzed        | Method Blank | BS   | % Recovery | True Value QC | RPD   | Qualifier |
| GRO C6-C10*                          | <10.0  | 10.0            | 08/09/2019      | ND           | 195  | 97.7       | 200           | 4.87  |           |
| DRO >C10-C28*                        | <10.0  | 10.0            | 08/09/2019      | ND           | 191  | 95.7       | 200           | 5.50  |           |
| EXT DRO >C28-C36                     | <10.0  | 10.0            | 08/09/2019      | ND           |      |            |               |       |           |
| Surrogate: 1-Chlorooctane            | 112 %  | 6 41-142        | ?               |              |      |            |               |       |           |
| Surrogate: 1-Chlorooctadecane        | 118 %  | 6 37.6-14       | 7               |              |      |            |               |       |           |

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



TETRA TECH MIKE CARMONA 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701 Fax To: (432) 682-3946

| Received:         | 08/08/2019                   | Sampling Date:      | 08/08/2019    |
|-------------------|------------------------------|---------------------|---------------|
| Reported:         | 08/09/2019                   | Sampling Type:      | Soil          |
| Project Name:     | BIG PAPI FEDERAL COM 2H      | Sampling Condition: | Cool & Intact |
| Project Number:   | 212C -MD - 01885 ( 7-12-19 ) | Sample Received By: | Jodi Henson   |
| Project Location: | COG - EDDY CO NM             |                     |               |

#### Sample ID: WEST 2 SIDEWALL (H902739-08)

| BTEX 8021B                           | mg/          | kg              | Analyze    | d By: ms     |      |            |               |       |           |
|--------------------------------------|--------------|-----------------|------------|--------------|------|------------|---------------|-------|-----------|
| Analyte                              | Result       | Reporting Limit | Analyzed   | Method Blank | BS   | % Recovery | True Value QC | RPD   | Qualifier |
| Benzene*                             | <0.050       | 0.050           | 08/09/2019 | ND           | 2.05 | 102        | 2.00          | 0.251 |           |
| Toluene*                             | <0.050       | 0.050           | 08/09/2019 | ND           | 2.15 | 108        | 2.00          | 1.81  |           |
| Ethylbenzene*                        | <0.050       | 0.050           | 08/09/2019 | ND           | 2.03 | 102        | 2.00          | 1.25  |           |
| Total Xylenes*                       | <0.150 0.150 |                 | 08/09/2019 | ND           | 6.09 | 102        | 6.00          | 0.936 |           |
| Total BTEX                           | <0.300       | 0.300           | 08/09/2019 | ND           |      |            |               |       |           |
| Surrogate: 4-Bromofluorobenzene (PID | 96.8 9       | 73.3-12         | 9          |              |      |            |               |       |           |
| Chloride, SM4500Cl-B                 | mg/          | kg              | Analyze    | d By: AC     |      |            |               |       |           |
| Analyte                              | Result       | Reporting Limit | Analyzed   | Method Blank | BS   | % Recovery | True Value QC | RPD   | Qualifier |
| Chloride                             | 1250         | 16.0            | 08/09/2019 | ND           | 416  | 104        | 400           | 0.00  |           |
| TPH 8015M                            | mg/          | kg              | Analyze    | d By: MS     |      |            |               |       |           |
| Analyte                              | Result       | Reporting Limit | Analyzed   | Method Blank | BS   | % Recovery | True Value QC | RPD   | Qualifier |
| GRO C6-C10*                          | <10.0        | 10.0            | 08/09/2019 | ND           | 195  | 97.7       | 200           | 4.87  |           |
| DRO >C10-C28*                        | <10.0        | 10.0            | 08/09/2019 | ND           | 191  | 95.7       | 200           | 5.50  |           |
| EXT DRO >C28-C36                     | <10.0        | 10.0            | 08/09/2019 | ND           |      |            |               |       |           |
| Surrogate: 1-Chlorooctane            | 110 %        | 6 41-142        | ?          |              |      |            |               |       |           |
| Surrogate: 1-Chlorooctadecane        | 114 %        | 6 37.6-14       | 7          |              |      |            |               |       |           |

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



TETRA TECH MIKE CARMONA 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701 Fax To: (432) 682-3946

| Received:         | 08/08/2019                   | Sampling Date:      | 08/08/2019    |
|-------------------|------------------------------|---------------------|---------------|
| Reported:         | 08/09/2019                   | Sampling Type:      | Soil          |
| Project Name:     | BIG PAPI FEDERAL COM 2H      | Sampling Condition: | Cool & Intact |
| Project Number:   | 212C -MD - 01885 ( 7-12-19 ) | Sample Received By: | Jodi Henson   |
| Project Location: | COG - EDDY CO NM             |                     |               |

#### Sample ID: SOUTH 1 SIDEWALL (H902739-09)

| BTEX 8021B                           | mg/           | kg              | Analyze    | d By: ms     |      |            |               |       |           |
|--------------------------------------|---------------|-----------------|------------|--------------|------|------------|---------------|-------|-----------|
| Analyte                              | Result        | Reporting Limit | Analyzed   | Method Blank | BS   | % Recovery | True Value QC | RPD   | Qualifier |
| Benzene*                             | <0.050        | 0.050           | 08/09/2019 | ND           | 2.05 | 102        | 2.00          | 0.251 |           |
| Toluene*                             | <0.050        | 0.050           | 08/09/2019 | ND           | 2.15 | 108        | 2.00          | 1.81  |           |
| Ethylbenzene*                        | <0.050        | 0.050           | 08/09/2019 | ND           | 2.03 | 102        | 2.00          | 1.25  |           |
| Total Xylenes*                       | <0.150        | 0.150           | 08/09/2019 | ND           | 6.09 | 102        | 6.00          | 0.936 |           |
| Total BTEX                           | <0.300        | 0.300           | 08/09/2019 | ND           |      |            |               |       |           |
| Surrogate: 4-Bromofluorobenzene (PID | 97.2 9        | 73.3-12         | )          |              |      |            |               |       |           |
| Chloride, SM4500Cl-B                 | mg/           | kg              | Analyze    | d By: AC     |      |            |               |       |           |
| Analyte                              | Result        | Reporting Limit | Analyzed   | Method Blank | BS   | % Recovery | True Value QC | RPD   | Qualifier |
| Chloride                             | 7520          | 16.0            | 08/09/2019 | ND           | 416  | 104        | 400           | 0.00  |           |
| TPH 8015M                            | mg/           | kg              | Analyze    | d By: MS     |      |            |               |       |           |
| Analyte                              | Result        | Reporting Limit | Analyzed   | Method Blank | BS   | % Recovery | True Value QC | RPD   | Qualifier |
| GRO C6-C10*                          | <10.0         | 10.0            | 08/09/2019 | ND           | 195  | 97.7       | 200           | 4.87  |           |
| DRO >C10-C28*                        | <10.0         | 10.0            | 08/09/2019 | ND           | 191  | 95.7       | 200           | 5.50  |           |
| EXT DRO >C28-C36                     | <10.0         | 10.0            | 08/09/2019 | ND           |      |            |               |       |           |
| Surrogate: 1-Chlorooctane            | 120 %         | 6 41-142        |            |              |      |            |               |       |           |
| Surrogate: 1-Chlorooctadecane        | 124 % 37.6-14 |                 | 7          |              |      |            |               |       |           |

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### **Notes and Definitions**

| QM-07 | The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery. |
|-------|--|
| ND    | Analyte NOT DETECTED at or above the reporting limit   |
| RPD   | Relative Percent Difference  |
| **    | Samples not received at proper temperature of 6°C or below.  |
| ***   | Insufficient time to reach temperature.  |
| -     | Chloride by SM4500Cl-B does not require samples be received at or below 6°C  |
|       | Samples reported on an as received basis (wet) unless otherwise noted on report  |

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

| Received by             | v <del>OCD.</del>               | Relinguished by:               | <del>2/19/</del>          | Relinquished by: | Burr                 | Belinguished by: | 53 2           | EN O           | R WE          | 10 EAS        | U ERE         | 2 4 200       | 50           | 0 1 Bo           | gg I                   | ( LAB USE )  | LAB #  | HADZIZA  | Comments:                                 |                             | Dooriting Laborator | County, state) | rivject Name:                  |               | Client Name:  | Page 72 of 16<br>C1 Jo C1 efforts Reque |
|-------------------------|---------------------------------|--------------------------------|---------------------------|------------------|----------------------|------------------|----------------|----------------|---------------|---------------|---------------|---------------|--------------|------------------|------------------------|--|--|--|---|-----------------------------|---------------------|----------------|--------------------------------|---------------|---|---|
|                         |                                 | Date: Time:                    |                           | Date: Time:      | Mochicia 3/8/19 1700 | Data: Time       | UTH 1 SIDEWALL | EST 2 SIDEWALL | ST I SIDEWALL | ST Z SIDEWALL | ST I SIDEWALL | ORTH SIDEWALL | TTOM HOLE #3 | TTOM HOLE #2 (1) | ATTOM HOLE #1 (4' BEB) |  | SAMPLE IDENTIFICATION  |  |   | Cardinal                    | COG - Ike Tavarez   | Eddy Co, NM    | Big Papi Fed Com 2H ( 7.12.14) | Concho        | Tetra Tech, Inc   | est of Chain of Custody Record          |
| ORIGINAL COP            | neceived by:                    | 00000                          | Occived by:               | HAVAL V          | Hegeived by:         |                  | 21812          | 51815          | L1 8 8        | 12/8/19       | 21912         | 18/8/18       | 6188         | 181 8 8          | 18 8                   | DATE   | YEAR: 2019   | SAMPLING                                       |   | Sampler Signature:          |                     | Project #:     |                                | one manager.  | Gié Managan   |   |
|                         | Date: Tin                       | 7                              | Date: In                  | ANOMI ABIA       | Date: Tir            |                  | ×              | ×              | ×             | ×             | ×             | ×             | ×            | ×                | ×                      | WATER<br>SOIL<br>HCL<br>HNO <sub>3</sub><br>ICE  |  | MATRIX PRESER                                  |   | Conner Moehri               |                     | 212C-MD-0188   |                                | Mike Carmona  | 901W Wall Street, Ste<br>Midland, Texas 797C<br>Tel (432) 682-4555<br>Fax (432) 682-394 |   |
| 0                       | ne:                             |                                | ne:<br>Sa                 | 17.06            | ne:                  |                  | - 2 ×          | - Z X          | - 2 X         | - Z X         | - 2 ×         | - 2 >         | - 7 X        | - Z ×            | - 2 ×                  | None<br># CONTA<br>FILTERE   | NINEI<br>D (Y/<br>21B  |  | X 8260B                                   | Вu                          |                     | 5              |                                |               | 6 9 00  |   |
| rcie) HAND DELIVERED FE |                                 | 1407                           | mple Temperature          | ONLY             | LAB USE REMAR        |                  | ×              | ×              | ×             | ×             | ×             | ×             | X            | ×                | ×                      | TPH TX10<br>TPH 8015<br>PAH 8270<br>Total Meta<br>TCLP Meta<br>TCLP Vola<br>TCLP Serr              | 005 (<br>5M ( 0<br>DC<br>Ils Ag<br>als A<br>atiles<br>ni Vol | Ext to<br>GRO -<br>g As Ba<br>g As B<br>g As B | C35)<br>DRO - O<br>a Cd Cr P<br>a Cd Cr F | RO - M<br>b Se H<br>Pb Se I | IRO)<br>g<br>lg     |                | (Circle or                     | ANA           |   |   |
| DEX UPS Tracking #:     | Special Report Limits or TRRP F | <b>Push Charges Authorized</b> | RUSH: Same Day (24 hr) 48 |                  | RKS:<br>STANDARD     |                  | ×              | X              | ×             | ×             | ×             | ×             | ×            | ×                | × 0                    | RCI<br>GC/MS Vo<br>GC/MS Se<br>PCB's 808<br>NORM<br>PLM (Asbe<br>Chloride<br>Chloride<br>General W | ol. 82<br>mi. V<br>32 / 6<br>estos)<br>Sul<br>/ater          | 260B / (<br>/ol. 82<br>08<br>)<br>fate<br>Chem | 524<br>70C/625<br>TDS<br>istry (see       | e attac                     | hed list            | )              | Specify Method No.)            | LYSIS REQUEST |   | Page                                    |
| Rolous                  | Report                          |                                | 3 hr 72 hr                | / -              | 0.24                 | 2.0              | 0-00           |                |               |               |               |               |              |                  |                        | Anion/Cati   | on B   | alance   | )   |                             |                     | ,              |                                |               |   | of                                      |


August 14, 2019

MIKE CARMONA TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND, TX 79701

RE: BIG PAPI FEDERAL COM 2H

Enclosed are the results of analyses for samples received by the laboratory on 08/13/19 17:10.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

| Method EPA 552.2 | Haloacetic Acids (HAA-5)     |
|------------------|------------------------------|
| Method EPA 524.2 | Total Trihalomethanes (TTHM) |
| Method EPA 524.4 | Regulated VOCs (V1, V2, V3)  |

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Whe Singh

Mike Snyder For Celey D. Keene Lab Director/Quality Manager



#### Analytical Results For:

TETRA TECH MIKE CARMONA 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701 Fax To: (432) 682-3946

| Received:         | 08/13/2019                   | Sampling Date:      | 08/13/2019     |
|-------------------|------------------------------|---------------------|----------------|
| Reported:         | 08/14/2019                   | Sampling Type:      | Soil           |
| Project Name:     | BIG PAPI FEDERAL COM 2H      | Sampling Condition: | Cool & Intact  |
| Project Number:   | 212C -MD - 01885 ( 7-12-19 ) | Sample Received By: | Tamara Oldaker |
| Project Location: | COG - EDDY CO NM             |                     |                |

#### Sample ID: BOTTOM HOLE #2 ( 6' BEB ) (H902775-01)

| BTEX 8021B                           | mg/    | kg              | Analyze    | d By: MS        |      |            |               |      |           |
|--------------------------------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte                              | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Benzene*                             | <0.050 | 0.050           | 08/14/2019 | ND              | 1.85 | 92.4       | 2.00          | 1.69 |           |
| Toluene*                             | <0.050 | 0.050           | 08/14/2019 | ND              | 1.97 | 98.6       | 2.00          | 4.30 |           |
| Ethylbenzene*                        | <0.050 | 0.050           | 08/14/2019 | ND              | 1.97 | 98.7       | 2.00          | 4.93 |           |
| Total Xylenes*                       | <0.150 | 0.150           | 08/14/2019 | ND              | 5.99 | 99.8       | 6.00          | 6.80 |           |
| Total BTEX                           | <0.300 | 0.300           | 08/14/2019 | ND              |      |            |               |      |           |
| Surrogate: 4-Bromofluorobenzene (PID | 102 9  | 73.3-12         | 9          |                 |      |            |               |      |           |
| Chloride, SM4500Cl-B                 | mg/    | kg              | Analyze    | Analyzed By: AC |      |            |               |      |           |
| Analyte                              | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride                             | 112    | 16.0            | 08/14/2019 | ND              | 432  | 108        | 400           | 0.00 |           |
| TPH 8015M                            | mg/    | kg              | Analyze    | d By: MS        |      |            |               |      |           |
| Analyte                              | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10*                          | <10.0  | 10.0            | 08/14/2019 | ND              | 194  | 97.1       | 200           | 7.24 |           |
| DRO >C10-C28*                        | <10.0  | 10.0            | 08/14/2019 | ND              | 180  | 90.0       | 200           | 9.13 |           |
| EXT DRO >C28-C36                     | <10.0  | 10.0            | 08/14/2019 | ND              |      |            |               |      |           |
| Surrogate: 1-Chlorooctane            | 69.8   | % 41-142        |            |                 |      |            |               |      |           |
| Surrogate: 1-Chlorooctadecane        | 67.9   | 37.6-14         | 7          |                 |      |            |               |      |           |

#### Cardinal Laboratories

\*=Accredited Analyte

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mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



#### Analytical Results For:

TETRA TECH MIKE CARMONA 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701 Fax To: (432) 682-3946

| Received:         | 08/13/2019                   | Sampling Date:      | 08/13/2019     |
|-------------------|------------------------------|---------------------|----------------|
| Reported:         | 08/14/2019                   | Sampling Type:      | Soil           |
| Project Name:     | BIG PAPI FEDERAL COM 2H      | Sampling Condition: | Cool & Intact  |
| Project Number:   | 212C -MD - 01885 ( 7-12-19 ) | Sample Received By: | Tamara Oldaker |
| Project Location: | COG - EDDY CO NM             |                     |                |

#### Sample ID: BOTTOM HOLE #3 ( 6' BEB ) (H902775-02)

| BTEX 8021B                           | mg/    | kg              | Analyze    | d By: MS     |      |            |               |      |           |
|--------------------------------------|--------|-----------------|------------|--------------|------|------------|---------------|------|-----------|
| Analyte                              | Result | Reporting Limit | Analyzed   | Method Blank | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Benzene*                             | <0.050 | 0.050           | 08/14/2019 | ND           | 1.85 | 92.4       | 2.00          | 1.69 |           |
| Toluene*                             | <0.050 | 0.050           | 08/14/2019 | ND           | 1.97 | 98.6       | 2.00          | 4.30 |           |
| Ethylbenzene*                        | <0.050 | 0.050           | 08/14/2019 | ND           | 1.97 | 98.7       | 2.00          | 4.93 |           |
| Total Xylenes*                       | <0.150 | 0.150           | 08/14/2019 | ND           | 5.99 | 99.8       | 6.00          | 6.80 |           |
| Total BTEX                           | <0.300 | 0.300           | 08/14/2019 | ND           |      |            |               |      |           |
| Surrogate: 4-Bromofluorobenzene (PID | 104 %  | 6 73.3-12       | 9          |              |      |            |               |      |           |
| Chloride, SM4500Cl-B                 | mg/kg  |                 | Analyze    | d By: AC     |      |            |               |      |           |
| Analyte                              | Result | Reporting Limit | Analyzed   | Method Blank | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride                             | 144    | 16.0            | 08/14/2019 | ND           | 432  | 108        | 400           | 0.00 |           |
| TPH 8015M                            | mg/    | kg              | Analyze    | d By: MS     |      |            |               |      |           |
| Analyte                              | Result | Reporting Limit | Analyzed   | Method Blank | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10*                          | <10.0  | 10.0            | 08/14/2019 | ND           | 194  | 97.1       | 200           | 7.24 |           |
| DRO >C10-C28*                        | <10.0  | 10.0            | 08/14/2019 | ND           | 180  | 90.0       | 200           | 9.13 |           |
| EXT DRO >C28-C36                     | <10.0  | 10.0            | 08/14/2019 | ND           |      |            |               |      |           |
| Surrogate: 1-Chlorooctane            | 70.5 9 | % 41-142        |            |              |      |            |               |      |           |
| Surrogate: 1-Chlorooctadecane        | 70.7 9 | 37.6-14         | 7          |              |      |            |               |      |           |

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



#### Analytical Results For:

TETRA TECH MIKE CARMONA 901 WEST WALL STREET , STE 100 MIDLAND TX, 79701 Fax To: (432) 682-3946

| Received:         | 08/13/2019                   | Sampling Date:      | 08/13/2019     |
|-------------------|------------------------------|---------------------|----------------|
| Reported:         | 08/14/2019                   | Sampling Type:      | Soil           |
| Project Name:     | BIG PAPI FEDERAL COM 2H      | Sampling Condition: | Cool & Intact  |
| Project Number:   | 212C -MD - 01885 ( 7-12-19 ) | Sample Received By: | Tamara Oldaker |
| Project Location: | COG - EDDY CO NM             |                     |                |

#### Sample ID: EAST 2 SIDEWALL (H902775-03)

| BTEX 8021B                           | mg/    | kg              | Analyze    | d By: MS     |      |            |               |      |           |
|--------------------------------------|--------|-----------------|------------|--------------|------|------------|---------------|------|-----------|
| Analyte                              | Result | Reporting Limit | Analyzed   | Method Blank | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Benzene*                             | <0.050 | 0.050           | 08/14/2019 | ND           | 1.85 | 92.4       | 2.00          | 1.69 |           |
| Toluene*                             | <0.050 | 0.050           | 08/14/2019 | ND           | 1.97 | 98.6       | 2.00          | 4.30 |           |
| Ethylbenzene*                        | <0.050 | 0.050           | 08/14/2019 | ND           | 1.97 | 98.7       | 2.00          | 4.93 |           |
| Total Xylenes*                       | <0.150 | 0.150           | 08/14/2019 | ND           | 5.99 | 99.8       | 6.00          | 6.80 |           |
| Total BTEX                           | <0.300 | 0.300           | 08/14/2019 | ND           |      |            |               |      |           |
| Surrogate: 4-Bromofluorobenzene (PID | 103 %  | 73.3-12         | 9          |              |      |            |               |      |           |
| Chloride, SM4500Cl-B                 | mg/    | kg              | Analyze    | d By: AC     |      |            |               |      |           |
| Analyte                              | Result | Reporting Limit | Analyzed   | Method Blank | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride                             | 48.0   | 16.0            | 08/14/2019 | ND           | 432  | 108        | 400           | 0.00 |           |
| TPH 8015M                            | mg/    | kg              | Analyze    | d By: MS     |      |            |               |      |           |
| Analyte                              | Result | Reporting Limit | Analyzed   | Method Blank | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10*                          | <10.0  | 10.0            | 08/14/2019 | ND           | 194  | 97.1       | 200           | 7.24 |           |
| DRO >C10-C28*                        | <10.0  | 10.0            | 08/14/2019 | ND           | 180  | 90.0       | 200           | 9.13 |           |
| EXT DRO >C28-C36                     | <10.0  | 10.0            | 08/14/2019 | ND           |      |            |               |      |           |
| Surrogate: 1-Chlorooctane            | 76.2 9 | % 41-142        |            |              |      |            |               |      |           |
| Surrogate: 1-Chlorooctadecane        | 75.5 9 | 37.6-14         | 7          |              |      |            |               |      |           |

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



#### **Notes and Definitions**

| ND  | Analyte NOT DETECTED at or above the reporting limit                        |
|-----|---|
| RPD | Relative Percent Difference   |
| **  | Samples not received at proper temperature of 6°C or below.                 |
| *** | Insufficient time to reach temperature.                                     |
| -   | Chloride by SM4500Cl-B does not require samples be received at or below 6°C |

Samples reported on an as received basis (wet) unless otherwise noted on report

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

|              | Relinquished by: |              | CONNET          | Relinquished by: | 53 AA     |   |                  |   | U             | 310                    |                             | ( LAB USE )                  | LAB #                 | Lanna           | Comments:         |                    | Involce to:       | Project Location:<br>(county, state) | Project Name:                  | Client Name:  | ,<br>F  | Analysis Re                      |
|--------------|------------------|--------------|-----------------|------------------|-----------|---|------------------|---|---------------|------------------------|-----------------------------|------------------------------|-----------------------|-----------------|-------------------|--------------------|-------------------|--------------------------------------|--------------------------------|---------------|---|----------------------------------|
|              | Date: Time:      | Date: Lime:  | 2 young 8/13/19 | Date: Time:      | •         |   |                  |   | EVAL SIDEMALL | Baton Hoir #3 (6' BEB) | Bottom fluic #2 @ ( G' BEB) |                              | SAMPLE IDENTIFICATION |                 |                   | Cardinal           | COG - Ike Tavarez | Eddy Co, NM                          | Big Papi Fed Com 2H (ヿ. パス・パイ) | Concho        | Tetra Tech, Inc.  | quest of Chain of Custody Record |
| ORIGINAL COP | Received by:     | Received by: | amar            | Received by:     |           |   |                  |   | 115118        | 5/12/14                | 8/13/14                     | DATE                         | YEAR: 2019            | SAMPLING        |                   | Sampler Signature: |                   | Project #:                           |                                | Site Manager: |   |                                  |
| Ŷ            | Date:            | Date         | a Chable        | Date:            |           |   |                  |   | ~             | : ×                    | ×                           | WATEF<br>SOIL<br>HCL<br>HNO3 | 3                     | MATRIX PRE      |                   | Conner Moe         |                   | 212C-MD-0-                           |                                | Mike Carmona  | 901W Wall Street<br>Midland, Texas<br>Tel (432) 682-<br>Fax (432) 682 |                                  |
|              | Time:            | Time:        | 28-13-19 17.    | Time.            |           |   |                  |   | ~             | < <<br>-               | ×                           | ICE<br>None<br># CONT.       | AINE                  |                 |                   | hring              |                   | 1885                                 |                                |               | . Ste 100<br>79705<br>-3946   |                                  |
| Ô            | 0                | Sa           | 10              | -                | $\square$ | _ | $\left  \right $ |   | 7             | 7                      | 7<br>×                      | FILTERE                      | ED (Y/                | 'N)<br>BTE      | X 8260B           |                    |                   |                                      |                                |               |   |                                  |
| ircle) H     | 4.0              | mple Tel     | ON              | -                |           |   | $\square$        |   | 1             | ,<br>X                 | X                           | TPH TX<br>TPH 801            | 1005 (<br>5M (        | Ext to<br>GRO - | C35)<br>DRO - O   | RO - N             | /RO)              |                                      |                                |               |   |                                  |
|              | cote             | mperatu      | USE             | -                |           |   | $\square$        | _ | Ì             |                        |                             | PAH 827<br>Total Met         | OC als Ac             | As B            | a Cd Cr F         | b Se F             | ,<br>Ia           |                                      | _<br>[]                        |               |   |                                  |
| LIVERE       | B                | 2°.8         |                 | 2                |           | - |                  |   | -             |                        |                             | TCLP Me                      | tals A                | g As B          | a Cd Cr I         | Pb Se              | Hg                |                                      |                                |               |   |                                  |
| D FE         |                  | ]            |                 |                  |           | _ |                  |   |               |                        |                             | TCLP Sei                     | mi Vol                | atiles          |                   |                    |                   |                                      | _ or                           | INAL          |   |                                  |
| DEX L        | pecial           | USH:         | ST              |                  |           |   |                  |   |               |                        |                             | GC/MS V                      | ol. 82                | 260B /          | 624               |                    |                   |                                      | pec                            | VSIS          |   |                                  |
| JPS          | Repor            | Sam          | AND/            | $\vdash$         |           |   |                  | _ |               |                        |                             | GC/MS S<br>PCB's 80          | emi. \<br>)82 / 6     | /ol. 82         | 70C/625           |                    |                   |                                      | ITY N                          | REC           |   |                                  |
| Trackin      | t Limit          | e Day        | ARD             | F                |           |   |                  |   |               | $\square$              |                             | NORM<br>PLM (Ash             | estos                 | )               |                   | - 1                |                   |                                      | leth                           | UES           |   | т                                |
| ig #:        | s or Ti          | (24 h        | )               |                  |           |   |                  |   | $\prec$       | ×                      | ×                           | Chloride                     | 20100                 | ,               |                   |                    |                   |                                      | 2                              | Ä             |   | age                              |
|              | RRP F            | €¥<br>48     | -               |                  |           |   |                  |   |               |                        |                             | Chloride<br>General \        | Sul<br>Nater          | fate<br>Cherr   | TDS<br>histry (se | e attac            | ched lis          | :t)                                  |                                |               |   | 1                                |
|              | Report           | hr 7         |                 | H                |           | - | -                |   | -             |                        |                             | Anion/Ca                     | tion B                | alance          | 9                 |                    |                   |                                      | _                              |               |   | 1                                |
|              |                  | 2 hr         |                 |                  |           |   | $\square$        |   |               |                        |                             |                              |                       |                 |                   |                    |                   |                                      |                                |               |   | of                               |
|              |                  |              |                 |                  |           |   |                  |   |               |                        |                             |                              |                       |                 |                   |                    |                   |                                      | <u>2</u>                       |               |   | 4                                |

# Analytical Report 652156

for Tetra Tech- Midland

**Project Manager: Mike Carmona** 

Big Pappy Fed Com 2H (7-12-19)

212C-MD-01855

### 14-FEB-20

Collected By: Client



### 1089 N Canal Street Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054) Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

> Xenco-Dallas (EPA Lab Code: TX01468): Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16) Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21) Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19) Xenco-Carlsbad (LELAP): Louisiana (05092) Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5) Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757) Xenco-Tampa: Florida (E87429), North Carolina (483) Received by OCD: 12/19/2020 9:49:53 AM



14-FEB-20

Project Manager: **Mike Carmona Tetra Tech- Midland** 901 West Wall ST Midland, TX 79701

Reference: XENCO Report No(s): **652156 Big Pappy Fed Com 2H (7-12-19)** Project Address: Eddy Co, NM

### Mike Carmona:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 652156. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 652156 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Veramer

Jessica Kramer Project Assistant

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Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America



### Sample Id

| AH#2 (0-1')   |
|---|
| AH#2 (1-1.5')   |
| AH#3(0-1')  |
| AH#4(0-1')  |
| AH#4 (1-1.5')   |
| AH#4 (1.5-2')   |
| AH#5(0-1')  |
| AH#5 (1-1.5')   |
| AH#5 (2-2.5')   |
|   |
| AH#6(0-1')  |
| AH#6(0-1')<br>AH#7 (0-6")   |
| AH#6(0-1')<br>AH#7 (0-6")<br>AH#8 (0-6")  |
| AH#6(0-1')<br>AH#7 (0-6")<br>AH#8 (0-6")<br>AH#9 (0-6")   |
| AH#6(0-1')<br>AH#7 (0-6")<br>AH#8 (0-6")<br>AH#9 (0-6")<br>AH#10 (0-6")   |
| AH#6(0-1')<br>AH#7 (0-6")<br>AH#8 (0-6")<br>AH#9 (0-6")<br>AH#10 (0-6")<br>AH#11 (0-6")                                 |
| AH#6(0-1')<br>AH#7 (0-6")<br>AH#8 (0-6")<br>AH#9 (0-6")<br>AH#10 (0-6")<br>AH#11 (0-6")<br>AH#12 (0-6")                 |
| AH#6(0-1')<br>AH#7 (0-6")<br>AH#8 (0-6")<br>AH#9 (0-6")<br>AH#10 (0-6")<br>AH#11 (0-6")<br>AH#12 (0-6")<br>AH#13 (0-6") |

## Sample Cross Reference 652156

### Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7-12-19)

| Matrix | Date Collected | Sample Depth | Lab Sample Id |
|--------|----------------|--------------|---------------|
| S      | 02-12-20 00:00 | 0 - 1 ft     | 652156-001    |
| S      | 02-12-20 00:00 | 1 - 1.5 ft   | 652156-002    |
| S      | 02-12-20 00:00 | 0 - 1 ft     | 652156-003    |
| S      | 02-12-20 00:00 | 0 - 1 ft     | 652156-004    |
| S      | 02-12-20 00:00 | 1 - 1.5 ft   | 652156-005    |
| S      | 02-12-20 00:00 | 1.5 - 2 ft   | 652156-006    |
| S      | 02-12-20 00:00 | 0 - 1 ft     | 652156-007    |
| S      | 02-12-20 00:00 | 1 - 1.5 ft   | 652156-008    |
| S      | 02-12-20 00:00 | 2 - 2.5 ft   | 652156-009    |
| S      | 02-12-20 00:00 | 0 - 1 ft     | 652156-010    |
| S      | 02-12-20 00:00 | 0 - 6 In     | 652156-011    |
| S      | 02-12-20 00:00 | 0 - 6 In     | 652156-012    |
| S      | 02-12-20 00:00 | 0 - 6 In     | 652156-013    |
| S      | 02-12-20 00:00 | 0 - 6 In     | 652156-014    |
| S      | 02-12-20 00:00 | 0 - 6 In     | 652156-015    |
| S      | 02-12-20 00:00 | 0 - 6 In     | 652156-016    |
| S      | 02-12-20 00:00 | 0 - 6 In     | 652156-017    |
| S      | 02-12-20 00:00 | 0 - 6 In     | 652156-018    |

.



## CASE NARRATIVE

Client Name: Tetra Tech- Midland Project Name: Big Pappy Fed Com 2H (7-12-19)

Project ID: 212C-MD-01855 Work Order Number(s): 652156 Report Date: 14-FEB-20 Date Received: 02/12/2020

### Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

#### Analytical non conformances and comments:

Batch: LBA-3116368 Chloride by EPA 300

Lab Sample ID 652161-008 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 652156-016, -017, -018.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.



212C-MD-01855

Mike Carmona

Eddy Co, NM

**Project Id:** 

**Project Location:** 

**Contact:** 

| Certificate of Ar | alysis Summary | 652156 |
|-------------------|----------------|--------|
|-------------------|----------------|--------|

Tetra Tech- Midland, Midland, TX

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Project Name: Big Pappy Fed Com 2H (7-12-19)

Date Received in Lab:Wed Feb-12-20 01:15 pmReport Date:14-FEB-20Project Manager:Jessica Kramer

|                     | Lab Id:    | 652156-0    | 01              | 652156-0        | 02              | 652156-0    | 03    | 652156-0    | 04    | 652156-0    | 05    | 652156-0  | )06   |
|---------------------|------------|-------------|-----------------|-----------------|-----------------|-------------|-------|-------------|-------|-------------|-------|-----------|-------|
| Analysis Paguastad  | Field Id:  | AH#2 (0-    | 1')             | AH#2 (1-1       | .5')            | AH#3(0-     | 1')   | AH#4(0-     | 1')   | AH#4 (1-1   | .5')  | AH#4 (1.5 | 5-2') |
| Anuiysis Kequesieu  | Depth:     | 0-1 ft      |                 | 1-1.5 ft        |                 | 0-1 ft      |       | 0-1 ft      |       | 1-1.5 ft    |       | 1.5-2 f   | Ì     |
|                     | Matrix:    | SOIL        | SOIL            |                 |                 | SOIL        |       | SOIL        |       | SOIL        |       | SOIL      |       |
|                     | Sampled:   | Feb-12-200  | Feb-12-20 00:00 |                 | Feb-12-20 00:00 |             | 00:00 | Feb-12-20 ( | 00:00 | Feb-12-20 ( | 00:00 | Feb-12-20 | 00:00 |
| Chloride by EPA 300 | Extracted: | Feb-12-20 1 | 4:30            | Feb-12-20 14:30 |                 | Feb-12-20 1 | 4:30  | Feb-12-20 1 | 4:30  | Feb-12-20 1 | 4:30  | Feb-12-20 | 14:30 |
|                     | Analyzed:  | Feb-12-20 1 | Feb-12-20 16:31 |                 | 6:37            | Feb-12-20 1 | 6:43  | Feb-12-20 1 | 6:49  | Feb-12-20 1 | 6:55  | Feb-12-20 | 17:01 |
|                     | Units/RL:  | mg/kg       | RL              | mg/kg           | RL              | mg/kg       | RL    | mg/kg       | RL    | mg/kg       | RL    | mg/kg     | RL    |
| Chloride            |            | 67.4        | 10.0            | 197             | 10.1            | 248         | 9.98  | 142         | 9.88  | 189         | 9.94  | 607       | 9.90  |

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Version: 1.%

fession kenner

Jessica Kramer Project Assistant



212C-MD-01855

Mike Carmona

Eddy Co, NM

**Project Id:** 

**Project Location:** 

**Contact:** 

| Certificate of An | alysis Summary | 652156 |
|-------------------|----------------|--------|
|-------------------|----------------|--------|

Tetra Tech- Midland, Midland, TX

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Project Name: Big Pappy Fed Com 2H (7-12-19)

Date Received in Lab:Wed Feb-12-20 01:15 pmReport Date:14-FEB-20Project Manager:Jessica Kramer

|                     | Lab Id:    | 652156-0    | 07              | 652156-0        | 08              | 652156-0    | 09       | 652156-0    | 10   | 652156-0    | 011   | 652156-0    | 012   |
|---------------------|------------|-------------|-----------------|-----------------|-----------------|-------------|----------|-------------|------|-------------|-------|-------------|-------|
| Analysis Paguastad  | Field Id:  | AH#5(0-1    | ')              | AH#5 (1-1       | .5')            | AH#5 (2-2   | .5')     | AH#6(0-1    | 1')  | AH#7 (0-    | 6")   | AH#8 (0-    | 6")   |
| Anuiysis Kequesieu  | Depth:     | 0-1 ft      |                 | 1-1.5 ft        | 1-1.5 ft        |             | 2-2.5 ft |             |      | 0-6 In      |       | 0-6 In      |       |
|                     | Matrix:    | SOIL        |                 | SOIL            |                 | SOIL        |          | SOIL        |      | SOIL        |       | SOIL        |       |
|                     | Sampled:   | Feb-12-20 0 | Feb-12-20 00:00 |                 | Feb-12-20 00:00 |             | 0:00     | Feb-12-20 0 | 0:00 | Feb-12-20 ( | 00:00 | Feb-12-20 ( | 00:00 |
| Chloride by EPA 300 | Extracted: | Feb-12-20 1 | 4:30            | Feb-12-20 14:30 |                 | Feb-12-20 1 | 4:30     | Feb-12-20 1 | 4:30 | Feb-12-20   | 14:30 | Feb-12-20 1 | 14:30 |
|                     | Analyzed:  | Feb-12-20 1 | 7:19            | Feb-12-20 1     | 7:25            | Feb-12-20 1 | 7:42     | Feb-12-20 1 | 7:48 | Feb-12-20   | 17:54 | Feb-12-20 1 | 18:00 |
|                     | Units/RL:  | mg/kg       | RL              | mg/kg           | RL              | mg/kg       | RL       | mg/kg       | RL   | mg/kg       | RL    | mg/kg       | RL    |
| Chloride            |            | 624         | 9.98            | 823             | 10.0            | 1040        | 9.96     | 310         | 9.98 | 69.7        | 9.98  | <9.92       | 9.92  |

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Version: 1.%

fession kenner

Jessica Kramer Project Assistant



| Certificate of An | alysis Summary | 652156 |
|-------------------|----------------|--------|
|-------------------|----------------|--------|

Tetra Tech- Midland, Midland, TX

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Project Id:212C-MD-01855Contact:Mike CarmonaProject Location:Eddy Co, NM

 Project Name: Big Pappy Fed Com 2H (7-12-19)
 Date Received in Lab:
 Wed Feb-12-20 01:15 pm

 Report Date:
 14-FEB-20
 14-FEB-20

 Project Manager:
 Jessica Kramer

|                     | Lab Id:    | 652156-0    | 13              | 652156-0        | 14              | 652156-0        | 015    | 652156-0    | 16    | 652156-017  |       | 652156-018     |       |
|---------------------|------------|-------------|-----------------|-----------------|-----------------|-----------------|--------|-------------|-------|-------------|-------|----------------|-------|
| Analysis Paguastad  | Field Id:  | AH#9 (0-    | 6")             | AH#10 (0-       | -6")            | AH#11 (0        | -6")   | AH#12 (0-   | -6")  | AH#13 (0    | -6")  | AH#14 (0       | )-6") |
| Anulysis Kequesieu  | Depth:     | 0-6 In      |                 | 0-6 In          | 0-6 In          |                 | 0-6 In |             |       | 0-6 In      |       | 0-6 Ir         | 1     |
| Ma                  |            | SOIL        | SOIL            |                 |                 | SOIL            |        | SOIL        |       | SOIL        |       | SOIL           |       |
|                     | Sampled:   | Feb-12-20 ( | Feb-12-20 00:00 |                 | Feb-12-20 00:00 |                 | 00:00  | Feb-12-20 ( | 00:00 | Feb-12-20 ( | 00:00 | Feb-12-20 00:0 |       |
| Chloride by EPA 300 | Extracted: | Feb-12-20 1 | 4:30            | Feb-12-20 14:30 |                 | Feb-12-20 14:30 |        | Feb-12-20 1 | 7:31  | Feb-12-20   | 7:31  | Feb-12-20      | 17:31 |
|                     | Analyzed:  | Feb-12-20 1 | 8:06            | Feb-12-20 1     | 8:12            | Feb-12-20       | 18:18  | Feb-12-20 1 | 8:56  | Feb-12-20   | 9:15  | Feb-12-20      | 19:22 |
|                     | Units/RL:  | mg/kg       | RL              | mg/kg           | RL              | mg/kg           | RL     | mg/kg       | RL    | mg/kg       | RL    | mg/kg          | RL    |
| Chloride            |            | 29.1        | 9.92            | 99.2            | 9.98            | 160             | 9.90   | 34.4        | 9.98  | 29.6        | 9.88  | 15.3           | 9.92  |

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Version: 1.%

fession kramer

Jessica Kramer Project Assistant



1

## Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7-12-19)

| Sample Id:AH#Lab Sample Id:6521                       | <b>2 (0-1')</b><br>56-001 |            | Matrix:<br>Date Collecte | Soil<br>ed: 02.12.20 00.00 | Date Received:02.12.20 13.15<br>Sample Depth: 0 - 1 ft |                                       |             |             |     |  |
|---|---------------------------|------------|--------------------------|----------------------------|--|---------------------------------------|-------------|-------------|-----|--|
| Analytical Method:Tech:MABAnalyst:MABSeq Number:31163 | Chloride by EPA 300       | 0          | Date Prep:               | 02.12.20 14.30             |  | Prep Method:<br>% Moisture:<br>Basis: | E300<br>Wet | P<br>Weight |     |  |
| Parameter   |                           | Cas Number | Result 1                 | 8L                         | Units  | Analysis Da                           | ite         | Flag        | Dil |  |

16887-00-6 **67.4** 

10.0

mg/kg

02.12.20 16.31



## Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7-12-19)

| Sample Id:    | AH#2 (1-1.5')            |            | Matrix:      | Soil               |       | Date Received | 1:02.12.20  | 13.15  |
|---------------|--------------------------|------------|--------------|--------------------|-------|---------------|-------------|--------|
| Lab Sample Id | : 652156-002             |            | Date Collect | ed: 02.12.20 00.00 |       | Sample Depth  | :1 - 1.5 ft |        |
| Analytical Me | thod: Chloride by EPA 30 | 00         |              |                    |       | Prep Method:  | E300P       |        |
| Tech:         | MAB                      |            |              |                    |       | % Moisture:   |             |        |
| Analyst:      | MAB                      |            | Date Prep:   | 02.12.20 14.30     |       | Basis:        | Wet Wei     | ght    |
| Seq Number:   | 3116357                  |            |              |                    |       |               |             |        |
| Parameter     |                          | Cas Number | Result       | RL                 | Units | Analysis Da   | ate Fla     | ıg Dil |

16887-00-6 197

10.1

02.12.20 16.37

mg/kg



1

## Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7-12-19)

| Sample Id:    | AH#3(0-1')               |            | Matrix:      | Soil               |       | Date Received | 1:02.12  | .20 13.15 |     |
|---------------|--------------------------|------------|--------------|--------------------|-------|---------------|----------|-----------|-----|
| Lab Sample Id | : 652156-003             |            | Date Collect | ed: 02.12.20 00.00 |       | Sample Depth  | :0 - 1 1 | ft        |     |
| Analytical Me | thod: Chloride by EPA 30 | 00         |              |                    |       | Prep Method:  | E300     | Р         |     |
| Tech:         | MAB                      |            |              |                    |       | % Moisture:   |          |           |     |
| Analyst:      | MAB                      |            | Date Prep:   | 02.12.20 14.30     |       | Basis:        | Wet W    | Veight    |     |
| Seq Number:   | 3116357                  |            |              |                    |       |               |          |           |     |
| Parameter     |                          | Cas Number | Result       | RL                 | Units | Analysis Da   | ate      | Flag      | Dil |

248

Chloride

16887-00-6

9.98

mg/kg

02.12.20 16.43



1

## Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7-12-19)

| Sample Id: AH<br>Lab Sample Id: 652 | # <b>4(0-1')</b><br>156-004 |            | Matrix:<br>Date Collect | Soil<br>ed: 02.12.20 00.00 |       | Date Received<br>Sample Depth | :02.12<br>:0 - 1 | 2.20 13.15<br>ft |     |
|-------------------------------------|-----------------------------|------------|-------------------------|----------------------------|-------|-------------------------------|------------------|------------------|-----|
| Analytical Method:                  | Chloride by EPA 30          | 0          |                         |                            |       | Prep Method:                  | E300             | P                |     |
| Tech: MAI                           | В                           |            |                         |                            |       | % Moisture:                   |                  |                  |     |
| Analyst: MAI                        | В                           |            | Date Prep:              | 02.12.20 14.30             |       | Basis:                        | Wet V            | Weight           |     |
| Seq Number: 3116                    | 5357                        |            |                         |                            |       |                               |                  |                  |     |
| Parameter                           |                             | Cas Number | Result                  | RL                         | Units | Analysis Da                   | ate              | Flag             | Dil |

Chloride

16887-00-6 142

9.88

mg/kg

02.12.20 16.49



1

## Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7-12-19)

| Sample Id:<br>Lab Sample Id:                       | <b>AH#4 (1-1.5')</b><br>652156-005               |            | Matrix:<br>Date Collect | Soil<br>ed: 02.12.20 00.00 |       | Date Received<br>Sample Depth         | :02.12<br>:1 - 1. | 2.20 13.15<br>5 ft |     |
|--|--|------------|-------------------------|----------------------------|-------|---------------------------------------|-------------------|--------------------|-----|
| Analytical Met<br>Tech:<br>Analyst:<br>Seq Number: | hod: Chloride by EPA 30<br>MAB<br>MAB<br>3116357 | 0          | Date Prep:              | 02.12.20 14.30             |       | Prep Method:<br>% Moisture:<br>Basis: | E300<br>Wet V     | P<br>Weight        |     |
| Parameter  |  | Cas Number | Result ]                | RL                         | Units | Analysis Da                           | ate               | Flag               | Dil |

189

16887-00-6

9.94

mg/kg

02.12.20 16.55



1

## Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7-12-19)

| Sample Id:    | <b>AH#4 (1.5-2')</b>    |            | Matrix:       | Soil              |       | Date Received | l:02.12 | 2.20 13.15 |     |
|---------------|-------------------------|------------|---------------|-------------------|-------|---------------|---------|------------|-----|
| Analytical Ma | thed: Chloride by EPA 3 | 00         | Date Collecte | d. 02.12.20 00.00 |       | Bran Mathod:  | . 1.3 - | 2 II       |     |
| Tech:         | MAB                     |            |               |                   |       | % Moisture:   | E300    | /1         |     |
| Analyst:      | MAB                     |            | Date Prep:    | 02.12.20 14.30    |       | Basis:        | Wet Y   | Weight     |     |
| Seq Number:   | 3116357                 |            |               |                   |       |               |         |            |     |
| Parameter     |                         | Cas Number | Result I      | RL                | Units | Analysis Da   | ate     | Flag       | Dil |

607

16887-00-6

9.90

02.12.20 17.01

mg/kg



## Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7-12-19)

| Sample Id:                | AH#5(0-1')              |            | Matrix:      | Soil               |       | Date Received | 1:02.12 | 2.20 13.15 |     |
|---------------------------|-------------------------|------------|--------------|--------------------|-------|---------------|---------|------------|-----|
| Lab Sample Id: 652156-007 |                         |            | Date Collect | ed: 02.12.20 00.00 |       | Sample Depth  | :0 - 1  | ft         |     |
| Analytical Metl           | hod: Chloride by EPA 30 | 00         |              |                    |       | Prep Method:  | E300    | P          |     |
| Tech:                     | MAB                     |            |              |                    |       | % Moisture:   |         |            |     |
| Analyst:                  | MAB                     |            | Date Prep:   | 02.12.20 14.30     |       | Basis:        | Wet V   | Weight     |     |
| Seq Number:               | 3116357                 |            |              |                    |       |               |         |            |     |
| Parameter                 |                         | Cas Number | Result ]     | 8L                 | Units | Analysis D    | ate     | Flag       | Dil |

Chloride

16887-00-6 **624** 

9.98

9.98

02.12.20 17.19

mg/kg

1



## Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7-12-19)

| Sample Id:<br>Lab Sample Id | <b>AH#5 (1-1.5')</b><br>: 652156-008 |            | Matrix:<br>Date Collect | Soil<br>ed: 02.12.20 00.00 |       | Date Received<br>Sample Depth | 1:02.12.<br>1:1 - 1.5 | .20 13.15<br>5 ft |     |
|-----------------------------|--------------------------------------|------------|-------------------------|----------------------------|-------|-------------------------------|-----------------------|-------------------|-----|
| Analytical Met              | thod: Chloride by EPA 30             | 00         |                         |                            |       | Prep Method:                  | E300F                 | 0                 |     |
| Tech:                       | MAB                                  |            |                         |                            |       | % Moisture:                   |                       |                   |     |
| Analyst:                    | MAB                                  |            | Date Prep:              | 02.12.20 14.30             |       | Basis:                        | Wet W                 | Veight            |     |
| Seq Number:                 | 3116357                              |            |                         |                            |       |                               |                       |                   |     |
| Parameter                   |                                      | Cas Number | Result                  | RL                         | Units | Analysis D                    | ate                   | Flag              | Dil |

16887-00-6 823

10.0

mg/kg

02.12.20 17.25



## Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7-12-19)

| Sample Id:<br>Lab Sample Id | <b>AH#5 (2-2.5')</b><br>: 652156-009 |            | Matrix:<br>Date Collect | Soil<br>ed: 02.12.20 00.00 |       | Date Received<br>Sample Depth | l:02.12<br>: 2 - 2. | 2.20 13.15<br>.5 ft |     |
|-----------------------------|--------------------------------------|------------|-------------------------|----------------------------|-------|-------------------------------|---------------------|---------------------|-----|
| Analytical Met<br>Tech:     | thod: Chloride by EPA 30             | 00         |                         |                            |       | Prep Method:<br>% Moisture:   | E300                | P                   |     |
| Analyst:<br>Seq Number:     | MAB<br>3116357                       |            | Date Prep:              | 02.12.20 14.30             |       | Basis:                        | Wet                 | Weight              |     |
| Parameter                   |                                      | Cas Number | Result                  | RL                         | Units | Analysis Da                   | ate                 | Flag                | Dil |

1040

Chloride

16887-00-6

9.96

mg/kg 02.12.20 17.42

1



## Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7-12-19)

| Sample Id:    | AH#6(0-1')               |            | Matrix:      | Soil               |       | Date Received | 1:02.12 | 2.20 13.15 |     |
|---------------|--------------------------|------------|--------------|--------------------|-------|---------------|---------|------------|-----|
| Lab Sample Id | : 652156-010             |            | Date Collect | ed: 02.12.20 00.00 |       | Sample Depth  | :0 - 1  | ft         |     |
| Analytical Me | thod: Chloride by EPA 30 | 00         |              |                    |       | Prep Method:  | E300    | Р          |     |
| Tech:         | MAB                      |            |              |                    |       | % Moisture:   |         |            |     |
| Analyst:      | MAB                      |            | Date Prep:   | 02.12.20 14.30     |       | Basis:        | Wet V   | Weight     |     |
| Seq Number:   | 3116357                  |            |              |                    |       |               |         |            |     |
| Parameter     |                          | Cas Number | Result       | RL                 | Units | Analysis Da   | ate     | Flag       | Dil |

Chloride

16887-00-6 **310** 

9.98

mg/kg 02.12.20 17.48

1



## Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7-12-19)

| Sample Id:    | AH#7 (0-6'')             |            | Matrix:      | Soil               |       | Date Received | 1:02.12 | 2.20 13.15 |     |
|---------------|--------------------------|------------|--------------|--------------------|-------|---------------|---------|------------|-----|
| Lab Sample Id | : 652156-011             |            | Date Collect | ed: 02.12.20 00.00 |       | Sample Depth  | :0-6    | In         |     |
| Analytical Me | thod: Chloride by EPA 30 | 00         |              |                    |       | Prep Method:  | E300    | Р          |     |
| Tech:         | MAB                      |            |              |                    |       | % Moisture:   |         |            |     |
| Analyst:      | MAB                      |            | Date Prep:   | 02.12.20 14.30     |       | Basis:        | Wet V   | Weight     |     |
| Seq Number:   | 3116357                  |            |              |                    |       |               |         |            |     |
| Parameter     |                          | Cas Number | Result       | RL                 | Units | Analysis Da   | ate     | Flag       | Dil |

69.7

Chloride

16887-00-6

9.98

02.12.20 17.54

mg/kg



1

## Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7-12-19)

| Sample Id:    | AH#8 (0-6'')             |            | Matrix:       | Soil              |       | Date Received | 1:02.12.20 13.15 |     |
|---------------|--------------------------|------------|---------------|-------------------|-------|---------------|------------------|-----|
| Lab Sample Id | : 652156-012             |            | Date Collecte | d: 02.12.20 00.00 |       | Sample Depth  | :0 - 6 In        |     |
| Analytical Me | thod: Chloride by EPA 30 | 00         |               |                   |       | Prep Method:  | E300P            |     |
| Tech:         | MAB                      |            |               |                   |       | % Moisture:   |                  |     |
| Analyst:      | MAB                      |            | Date Prep:    | 02.12.20 14.30    |       | Basis:        | Wet Weight       |     |
| Seq Number:   | 3116357                  |            |               |                   |       |               |                  |     |
| Parameter     |                          | Cas Number | Result R      | L                 | Units | Analysis D    | ate Flag         | Dil |

<9.92

Chloride

16887-00-6

9.92

mg/kg

02.12.20 18.00 U



1

## Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7-12-19)

| Sample Id: AH<br>Lab Sample Id: 652 | <b>H#9 (0-6'')</b><br>2156-013 |            | Matrix:<br>Date Collecte | Soil<br>ed: 02.12.20 00.00 |       | Date Received<br>Sample Depth | :02.12<br>:0 - 6 | 2.20 13.15<br>In |     |
|-------------------------------------|--------------------------------|------------|--------------------------|----------------------------|-------|-------------------------------|------------------|------------------|-----|
| Analytical Method                   | : Chloride by EPA 30           | 0          |                          |                            |       | Prep Method:                  | E300             | Р                |     |
| Analyst: MA<br>Seq Number: 311      | лв<br>6357                     |            | Date Prep:               | 02.12.20 14.30             |       | Basis:                        | Wet V            | Weight           |     |
| Parameter                           |                                | Cas Number | Result I                 | RL                         | Units | Analysis Da                   | ate              | Flag             | Dil |

Chloride

29.1

16887-00-6

9.92

02.12.20 18.06

mg/kg



## Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7-12-19)

| Sample Id:    | AH#10 (0-6'')            |            | Matrix:      | Soil               |       | Date Received | 1:02.12. | .20 13.15 |     |
|---------------|--------------------------|------------|--------------|--------------------|-------|---------------|----------|-----------|-----|
| Lab Sample Id | 52156-014                |            | Date Collect | ed: 02.12.20 00.00 |       | Sample Depth  | :0-61    | n         |     |
| Analytical Me | thod: Chloride by EPA 30 | 00         |              |                    |       | Prep Method:  | E300F    | þ         |     |
| Tech:         | MAB                      |            |              |                    |       | % Moisture:   |          |           |     |
| Analyst:      | MAB                      |            | Date Prep:   | 02.12.20 14.30     |       | Basis:        | Wet W    | Veight    |     |
| Seq Number:   | 3116357                  |            |              |                    |       |               |          |           |     |
| Parameter     |                          | Cas Number | Result       | RL                 | Units | Analysis D    | ate      | Flag      | Dil |

99.2

Chloride

16887-00-6

9.98

mg/kg 02.12.20 18.12

1



## Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7-12-19)

| Sample Id:<br>Lab Sample Id | <b>AH#11 (0-6'')</b><br>: 652156-015 |            | Matrix:<br>Date Collec | Soil<br>ted: 02.12.20 00.00 |       | Date Received<br>Sample Depth | 1:02.12.20 13.1:<br>: 0 - 6 In | 5   |
|-----------------------------|--------------------------------------|------------|------------------------|-----------------------------|-------|-------------------------------|--------------------------------|-----|
| Analytical Me<br>Tech:      | thod: Chloride by EPA 30 MAB         | 00         |                        |                             |       | Prep Method:<br>% Moisture:   | E300P                          |     |
| Analyst:<br>Seq Number:     | MAB<br>3116357                       |            | Date Prep:             | 02.12.20 14.30              |       | Basis:                        | Wet Weight                     |     |
| Parameter                   |                                      | Cas Number | Result                 | RL                          | Units | Analysis Da                   | ate Flag                       | Dil |

160

Chloride

16887-00-6

9.90

mg/kg 02.12.20 18.18

1



## Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7-12-19)

| Sample Id:    | AH#12 (0-6'')            |            | Matrix:      | Soil               |       | Date Received | 1:02.12 | .20 13.15 |     |
|---------------|--------------------------|------------|--------------|--------------------|-------|---------------|---------|-----------|-----|
| Lab Sample Id | : 652156-016             |            | Date Collect | ed: 02.12.20 00.00 |       | Sample Depth  | :0-6]   | In        |     |
| Analytical Me | thod: Chloride by EPA 30 | 00         |              |                    |       | Prep Method:  | E300    | Р         |     |
| Tech:         | MAB                      |            |              |                    |       | % Moisture:   |         |           |     |
| Analyst:      | MAB                      |            | Date Prep:   | 02.12.20 17.31     |       | Basis:        | Wet V   | Weight    |     |
| Seq Number:   | 3116368                  |            |              |                    |       |               |         |           |     |
| Parameter     |                          | Cas Number | Result       | RL                 | Units | Analysis D    | ate     | Flag      | Dil |

Chloride

16887-00-6 **34.4** 

9.98

mg/kg 02.12.20 18.56



## Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7-12-19)

| Sample Id:    | AH#13 (0-6'')            |            | Matrix:      | Soil               |       | Date Received | 1:02.12 | .20 13.15 |     |
|---------------|--------------------------|------------|--------------|--------------------|-------|---------------|---------|-----------|-----|
| Lab Sample Id | : 652156-017             |            | Date Collect | ed: 02.12.20 00.00 |       | Sample Depth  | :0-6]   | In        |     |
| Analytical Me | thod: Chloride by EPA 30 | 00         |              |                    |       | Prep Method:  | E3001   | Р         |     |
| Tech:         | MAB                      |            |              |                    |       | % Moisture:   |         |           |     |
| Analyst:      | MAB                      |            | Date Prep:   | 02.12.20 17.31     |       | Basis:        | Wet W   | Weight    |     |
| Seq Number:   | 3116368                  |            |              |                    |       |               |         |           |     |
| Parameter     |                          | Cas Number | Result       | RL                 | Units | Analysis Da   | ate     | Flag      | Dil |

29.6

Chloride

16887-00-6

9.88

02.12.20 19.15

mg/kg



## Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7-12-19)

| Sample Id:         AH#14 (0-6")           Lab Sample Id:         652156-018 |            | Matrix:<br>Date Collecte | Soil<br>d: 02.12.20 00.00 |       | Date Received<br>Sample Depth         | 1:02.12.20 13<br>:0 - 6 In | 15  |
|---|------------|--------------------------|---------------------------|-------|---------------------------------------|----------------------------|-----|
| Analytical Method:Chloride by EPA 3Tech:MABAnalyst:MABSeq Number:3116368    | 00         | Date Prep:               | 02.12.20 17.31            |       | Prep Method:<br>% Moisture:<br>Basis: | E300P<br>Wet Weight        |     |
| Parameter   | Cas Number | Result F                 | RL                        | Units | Analysis D                            | ate Flag                   | Dil |

15.3

16887-00-6

9.92

02.12.20 19.22

mg/kg



## **Flagging Criteria**

- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- **F** RPD exceeded lab control limits.
- J The target analyte was positively identified below the quantitation limit and above the detection limit.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- **H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- **K** Sample analyzed outside of recommended hold time.
- **JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- \*\* Surrogate recovered outside laboratory control limit.
- **BRL** Below Reporting Limit.
- RL Reporting Limit
- MDL Method Detection LimitSDLSample Detection LimitLOD Limit of Detection
- PQL Practical Quantitation Limit MQL Method Quantitation Limit LOQ Limit of Quantitation
- DL Method Detection Limit
- NC Non-Calculable

| SMP Clie | nt Sample                             | BLK       | Method Blank                |                                |
|----------|---------------------------------------|-----------|-----------------------------|--------------------------------|
| BKS/LCS  | Blank Spike/Laboratory Control Sample | BKSD/LCSD | Blank Spike Duplicate/Labor | atory Control Sample Duplicate |
| MD/SD    | Method Duplicate/Sample Duplicate     | MS        | Matrix Spike                | MSD: Matrix Spike Duplicate    |

- + NELAC certification not offered for this compound.
- \* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Analytical Method: Chloride by EPA 300

ATORIES



Prep Method: E300P

# **Tetra Tech- Midland**

Big Pappy Fed Com 2H (7-12-19)

| Seq Number:        | 3116357           |                 |               | Matrix:     | Solid          |              |          |      | Date Pr            | rep: 02.1 | 12.20               |      |
|--------------------|-------------------|-----------------|---------------|-------------|----------------|--------------|----------|------|--------------------|-----------|---------------------|------|
| MB Sample Id:      | 7696526-1-BLK     |                 | LCS Sat       | nple Id:    | 7696526-       | 1-BKS        |          | LCS  | D Sampl            | e Id: 769 | 6526-1-BSD          |      |
| Parameter          | MB<br>Result      | Spike<br>Amount | LCS<br>Result | LCS<br>%Rec | LCSD<br>Result | LCSD<br>%Rec | Limits   | %RPD | RPD Lin            | nit Units | Analysis<br>Date    | Flag |
| Chloride           | <10.0             | 250             | 255           | 102         | 256            | 102          | 90-110   | 0    | 20                 | mg/kg     | 02.12.20 15:26      |      |
| Analytical Method: | Chloride by EPA 3 | 600             |               | Matrix      | Solid          |              |          | Р    | rep Meth           | iod: E30  | 0P                  |      |
| MB Sample Id       | 7696527-1-BLK     |                 | LCS Sa        | mple Id:    | 7696527-       | 1-BKS        |          | LCS  | Date Pi<br>D Sampl | e Id: 769 | 6527-1-BSD          |      |
| Parameter          | MB<br>Result      | Spike<br>Amount | LCS<br>Result | LCS<br>%Rec | LCSD<br>Result | LCSD<br>%Rec | Limits   | %RPD | RPD Lin            | nit Units | Analysis<br>Date    | Flag |
| Chloride           | <10.0             | 250             | 256           | 102         | 258            | 103          | 90-110   | 1    | 20                 | mg/kg     | 02.12.20 18:43      |      |
| Analytical Method: | Chloride by EPA 3 | 600             |               |             |                |              |          | Р    | rep Meth           | od: E30   | 0P                  |      |
| Seq Number:        | 3116357           |                 | MS So         | Matrix:     | Soil 652152.0  | 04 \$        |          | м    | Date Pi            | rep: 02.1 | 12.20<br>152.004 SD |      |
| Parent Sample Id:  | 052152-004        | a <b>n</b>      |               | iipie iu.   | 052152-0       | 04.5         | <b>.</b> |      |                    | e iu. 052 | 152-004 5D          |      |
| Parameter          | Result            | Spike<br>Amount | Result        | MS<br>%Rec  | MSD<br>Result  | MSD<br>%Rec  | Limits   | %RPD | RPD Lin            | ut Units  | Analysis<br>Date    | Flag |
| Chloride           | 17.5              | 200             | 205           | 94          | 207            | 95           | 90-110   | 1    | 20                 | mg/kg     | 02.12.20 15:44      |      |
| Analytical Method: | Chloride by EPA 3 | 600             |               |             |                |              |          | Р    | rep Meth           | od: E30   | 0P                  |      |
| Seq Number:        | 3116357           |                 |               | Matrix:     | Soil           |              |          | -    | Date Pr            | rep: 02.1 | 12.20               |      |
| Parent Sample Id:  | 652156-006        |                 | MS Sa         | nple Id:    | 652156-0       | 06 S         |          | MS   | D Sampl            | e Id: 652 | 156-006 SD          |      |
| Parameter          | Parent<br>Result  | Spike<br>Amount | MS<br>Result  | MS<br>%Rec  | MSD<br>Result  | MSD<br>%Rec  | Limits   | %RPD | RPD Lin            | nit Units | Analysis<br>Date    | Flag |
| Chloride           | 607               | 199             | 812           | 103         | 816            | 105          | 90-110   | 0    | 20                 | mg/kg     | 02.12.20 17:07      |      |
| Analytical Method: | Chloride by EPA 3 | 600             |               |             |                |              |          | Р    | rep Meth           | od: E30   | 0P                  |      |
| Seq Number:        | 3116368           |                 |               | Matrix:     | Soil           |              |          |      | Date Pr            | rep: 02.1 | 12.20               |      |

| beq i tumber.     | 5110500    |                  |                 | -            | ·iuuin.    | bon           |             |        | Dute 11ep. 02.12.20 |          |           |                  |      |  |  |  |  |
|-------------------|------------|------------------|-----------------|--------------|------------|---------------|-------------|--------|---------------------|----------|-----------|------------------|------|--|--|--|--|
| Parent Sample Id: | 652156-016 |                  |                 | MS Sam       | ple Id:    | 652156-01     | 6 S         |        | MS                  | D Sample | e Id: 652 | 156-016 SD       |      |  |  |  |  |
| Parameter         | P<br>I     | Parent<br>Result | Spike<br>Amount | MS<br>Result | MS<br>%Rec | MSD<br>Result | MSD<br>%Rec | Limits | %RPD                | RPD Lim  | it Units  | Analysis<br>Date | Flag |  |  |  |  |
| Chloride          |            | 34.4             | 200             | 253          | 109        | 264           | 115         | 90-110 | 4                   | 20       | mg/kg     | 02.12.20 19:02   | Х    |  |  |  |  |

MS/MSD Percent Recovery Relative Percent Difference LCS/LCSD Recovery Log Difference [D] = 100\*(C-A) / B RPD = 200\* | (C-E) / (C+E) | [D] = 100 \* (C) / [B] Log Diff. = Log(Sample Duplicate) - Log(Original Sample) LCS = Laboratory Control Sample A = Parent Result C = MS/LCS Result E = MSD/LCSD Result MS = Matrix Spike B = Spike Added D = MSD/LCSD % Rec

.

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# **Tetra Tech- Midland**

Big Pappy Fed Com 2H (7-12-19)

| Analytical Method: | Chloride by EPA 3 | 300             |              |            |               |             |        | P    | rep Meth | od: E3    | 00P              |      |
|--------------------|-------------------|-----------------|--------------|------------|---------------|-------------|--------|------|----------|-----------|------------------|------|
| Seq Number:        | 3116368           |                 |              | Matrix:    | Soil          |             |        |      | Date Pr  | rep: 02   | .12.20           |      |
| Parent Sample Id:  | 652161-008        |                 | MS Sar       | nple Id:   | 652161-00     | )8 S        |        | MS   | D Sampl  | e Id: 65  | 2161-008 SD      |      |
| Parameter          | Parent<br>Result  | Spike<br>Amount | MS<br>Result | MS<br>%Rec | MSD<br>Result | MSD<br>%Rec | Limits | %RPD | RPD Lin  | nit Units | Analysis<br>Date | Flag |
| Chloride           | 25.8              | 200             | 237          | 106        | 239           | 107         | 90-110 | 1    | 20       | mg/kg     | 02.12.20 20:32   |      |

MS/MSD Percent Recovery Relative Percent Difference LCS/LCSD Recovery Log Difference

[D] = 100\*(C-A) / B $\begin{aligned} \text{RPD} &= 200^* \mid (\text{C-E}) / (\text{C+E}) \mid \\ \text{[D]} &= 100^* (\text{C}) / \text{[B]} \end{aligned}$ Log Diff. = Log(Sample Duplicate) - Log(Original Sample) LCS = Laboratory Control SampleA = Parent Result C = MS/LCS Result E = MSD/LCSD Result

MS = Matrix Spike B = Spike Added D = MSD/LCSD % Rec

.

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|              | uished by:        | uished by:  | wished by:   |            |               |              |            | T              |              |              |            | -            |            | UB USE                          | AB #                  |                       | nents:         | ving Labora        | e to:             | ct Location:<br>ty, state) | ct Name:             | t Name:       | <b>F</b>  | lysis Re                        |
|--------------|-------------------|-------------|--------------|------------|---------------|--------------|------------|----------------|--------------|--------------|------------|--------------|------------|---------------------------------|-----------------------|-----------------------|----------------|--------------------|-------------------|----------------------------|----------------------|---------------|---|---------------------------------|
|              | Date:             | Date:       | bury 2/12/20 | AH#6 (0.1) | AH# 5 (2-2.5) | AH45 (1-1.5) | AH#5 (0-1) | AHH 4 (1:3-2') | DH#4 (1-1.5) | PH # 4 (6-1) | PH#3 (0-1) | AH#Z (1-1.5) | AH#2 (0-1) |                                 | SAMPLE IDENTIFICA     |                       |                | Xenco              | COG - Ike Tavarez | :<br>Eddy Co, NM           | Big Pappy Fed Com 2H | Concho        | Tetra Te  | quest of Chain of Custody Recor |
| 0            | Time: R           | Time:       | 1315 A       |            |               |              | 7          | 2              | 2            |              |            |              |            |                                 |                       |                       |                |                    |                   |                            | (7.12.15)            | (0)           | ch, Inc.  |                                 |
| RIGINAL COPY | eceived by:       | éceived by: | PA LLL       | 2/12/20    | 2/12/70       | n [21] 2     | 2/12/10    | 112/20         | 2/12/20      | 2/12/28      | 2/12/20    | 2/12/26      | 2/12/2020  | DATE<br>TIME                    | EAR: 2020             | SAMPLING              |                | sampier signature: |                   | <sup>9</sup> roject #:     |                      | Site Manager: |   |                                 |
|              | Date:             | Date:       | Date:        | X          | X             | ×            | ×          | X              | ×            | X            | ×          | X            | ×          | WATEI<br>SOIL<br>HCL            | R                     | MATRIX P              |                | Conner Mc          |                   | 212C-MD-                   |                      | Mike Carmon   | 901W Wall Str<br>Midland, Tex<br>Tel (432) 6<br>Fax (432) 6 |                                 |
|              | Time:             | Time:       | Time:        | X          | 1 X           | 1 ×          | X I        |                | X            | X            | X          | X            | ×          | HNO <sub>3</sub><br>ICE<br>None | AINE                  | METHOD                |                | pehring            |                   | 01855                      |                      | a             | eet, Ste 100<br>as 79705<br>82-4559<br>82-3946              |                                 |
|              |                   | (0)         | 3)           | 2          | Z             | 2            | S          | S              | 2            | 2            | -<br>2     | ۔<br>ح       | 1 N        | FILTER                          | ED ()                 | //N)                  |                |                    |                   |                            |                      |               |   |                                 |
| Circle) HA   | Ś                 | ample Ter   | OF           |            |               |              |            |                |              |              |            |              |            | BTEX 8<br>TPH TX<br>TPH 80      | 021B<br>1005<br>15M ( | BTE<br>(Ext to<br>GBO | X 8260<br>C35) | B<br>OBO -         | MBO)              |                            | _                    |               |   |                                 |
| ND DELI      | 7                 | mperature   | USE          |            |               |              |            |                |              |              |            |              |            | PAH 82<br>Total Me              | 70C<br>tals A         | g As E                | a Cd Cr        | Pb Se              | Hg                |                            | -1                   | 0             |   |                                 |
| VERED        |                   |             | REM          |            |               |              |            |                |              |              |            |              |            | TCLP M                          | etals .<br>platile    | Ag As I<br>s          | Ba Cd C        | r Pb Se            | Hg                |                            |                      | AN            |   |                                 |
| FEDEX        | ]Rush<br>]Speci   | RUS         | IARKS:       |            |               |              |            |                |              |              |            |              |            | RCI                             | emi Vo                | platiles              | 624            |                    |                   |                            |                      | IALYS         |   |                                 |
| UPS          | Charge<br>al Repo | t: Sam      | TAND         |            |               |              |            |                |              |              |            |              |            | GC/MS                           | Semi.                 | Vol. 8                | 270C/62        | 5                  | 1                 |                            |                      | IS RE         |   |                                 |
| Tracking     | s Autho           | e Day       | ARD          |            |               |              |            |                |              |              |            |              |            | NORM<br>PLM (As                 | besto                 | s)                    |                |                    |                   |                            |                      | DUES          |   | т                               |
| #            | rized<br>or TRRP  | 24 hr 4     |              | X          | X             | X            | ×          | X              | X            | X            | X          | ×            | X          | Chloride<br>Chloride            | Wat                   | ulfate                | TDS            | 100 ctt            | ohed "            | ot)                        |                      | T             |   | age                             |
|              | Report            | 8 hr 72     |              |            |               |              |            |                |              |              |            |              |            | Anion/C                         | ation                 | Baland                | ce             | ad all             | aoneu II          | 31)                        | _                    |               |   | -                               |
|              |                   | hr          |              |            |               |              |            |                |              |              |            |              |            |                                 |                       |                       |                |                    |                   |                            |                      |               |   | 억                               |

| Conche         Ste Manger:         Mile Carmona         Circle or Spec  | elinquished by                          |                   | elinquished by | 1 mmal          |     |              |               |              |                |               |             |             |             | ( LAB USE<br>ONLY )                    | LAB #                                  |                                     | Comments:                             |                   | Invoice to:       | Project Locatio<br>(county, state) | Project Name:    | client Name:  |   |
|---|---|-------------------|----------------|-----------------|-----|--------------|---------------|--------------|----------------|---------------|-------------|-------------|-------------|--|--|-------------------------------------|---------------------------------------|-------------------|-------------------|------------------------------------|------------------|---------------|---|
| M2H         (7, -1, 2, -1, 4, )         Ster Manager:         Mike Carmona         Conner Moehning         Conehning         Conner Moehning  | Da                                      |                   | Da             | eteile Crisela  |     | нн тн (о-о") | ("0-0) EI# HA | AH#12 (0-6") | AH # 11 (0~6") | AH #10 (0-6") | DH#9 (0.6") | AH#8 (0.6") | AH#7 (0-6") |  | SAMPLE IDEN                            |                                     |                                       | Xenco             | COG - Ike Tavarez | n: Eddy Co, NM                     | Big Pappy Fed Co | Concho        | Tetra   |
| Site Manager:         Mike Carmona         Conner Moehring         Circle or Spect           Image:         Sampler Signature:         Conner Moehring         (Circle or Spect         (Circle or Spect           Image:         Sampler Signature:         Conner Moehring         (Circle or Spect         (Circle or Spect           Image:         TIME         MATRIX         Preservoire         (Circle or Spect         (Circle or Spect           Image:         TIME         MATRIX         Preservoire         (Circle or Spect         (Circle or Spect           Image:         TIME         MATER         (Circle or Spect         (Circle or Spect         (Circle or Spect           Image:         TIME         MATRIX         Preservoire         (Circle or Spect         (Circle or Spect           Image:         TIME         X         HO03         (Circle or Spect         (Circle or Spect           Image:         X         HO3         (Circle or Spect         (Circle or Spect         (Circle or Spect           Image:         X         X         HO3         (Circle or Spect         (Circle or Spect           Image:         X         X         X         X         (Circle or Spect         (Circle or Spect           Image:         X         X  | te: Time:                               |                   | te: Time:      |                 |     |              |               |              |                |               |             |             |             |  | TIFICATION                             |                                     |                                       |                   |                   |                                    | m2H (7.12.19)    |               | Tech, Inc.  |
| Mike Carmona     Marting       1     1  | Received by:                            |                   | Received by:   | Hecewey by:     | 4.1 | 02/21/2      | 02/21/2       | 2/22/20      | 2/12/20        | 2/12/20       | 2/12/20     | 2/12/20     | 2/12/2020   | DATE                                   | YEAR: 2020                             | SAMPLIN                             |                                       | Sampler Signature |                   | Project #:                         | )                | Site Manager: | 2   |
| ale:       Time:       Image: Time: </td <td>D</td> <td></td> <td></td> <td>UL 2h</td> <td></td> <td>X</td> <td>×</td> <td>×</td> <td>×</td> <td>X</td> <td>X</td> <td>X</td> <td>×</td> <td>TIME<br/>WATE<br/>SOIL</td> <td>7</td> <td>G MATRIX</td> <td></td> <td>" Conn</td> <td></td> <td>2120</td> <td></td> <td>Mike Ca</td> <td>901W<br/>Midl<br/>Fax</td> | D                                       |                   |                | UL 2h           |     | X            | ×             | ×            | ×              | X             | X           | X           | ×           | TIME<br>WATE<br>SOIL                   | 7                                      | G MATRIX                            |                                       | " Conn            |                   | 2120                               |                  | Mike Ca       | 901W<br>Midl<br>Fax   |
| 3.5       -       -       -       -       # CONTAINERS         3.7       -       -       -       -       -       # CONTAINERS         3.7       -<  | ate: Time:                              |                   | )ate: Time:    | 1/20 ()         |     | X            | X             | ×            | ×              | X             | ×           | X           | ×           | HCL<br>HNO <sub>3</sub><br>ICE<br>None |  | PRESERVATIVE                        |                                       | er Moehring       |                   | -MD-01855                          |                  | rmona         | Wall Street, Ste 100<br>and,Texas 79705<br>I (432) 682-4559<br>t (432) 682-3946 |
| And Lysic       BTEX 8021B       BTEX 8260B         BTEX 8021B       BTEX 8260B         BTEX 8021B       BTEX 8260B         Circle       Circle         Circle  |   | 0<br>0            |                | 55              |     | 1 2          | 1<br>2        | - 2          | 1 N            | N I           | -<br>2      | - 2         | 1 N         | # CONT<br>FILTER                       | AINE                                   | ERS<br>(/N)                         |                                       |                   |                   |                                    |                  |               |   |
| Image: specific constraints     Image: specific cons  | 3.2                                     | ample Temperature |                | LAB USE<br>ONLY |     |              |               |              |                |               |             |             |             | TPH TX<br>TPH 80<br>PAH 82<br>Total Me | 021B<br>1005<br>15M (<br>70C<br>tals A | BTE<br>(Ext to<br>GRO -             | X 8260E<br>C35)<br>DRO - C<br>a Cd Cr | DRO -<br>Pb Se    | MRO)<br>Hg        |                                    |                  | (Cire         |   |
| 0 GC/MS Semi Vol 8270C/625  | Special R                               |                   | RUSH: S        | REMARKS:        |     |              |               |              |                |               |             |             |             | TCLP Vo<br>TCLP Se<br>RCI<br>GC/MS V   | latile<br>mi V<br>/ol. 8               | Ag As E<br>s<br>olatiles<br>3260B / | 624<br>270C/628                       | PD Se             | Hg                |                                    |                  | ANALYSIS I    |   |
| rges Authonized VDARD VDA V X X X X X X Chloride Sulfate TDS VDA V V V V V V V V V V V V V V V V V V  | arges Autrionzed<br>eport Limits or TRF |                   | ame Day 24 hr  | NDARD           |     | X            | X             | ×            | ×              | ×             | X           | ×           | X           | PCB's 8<br>NORM<br>PLM (As<br>Chloride | 082 /                                  | 608<br>s)                           | TDS                                   |                   |                   |                                    |                  | REQUEST       |   |
| Above     Above     Above     Above     Above     Above       1     1     1     1     1     1     1       1     1     1     1     1     1     1       1     1     1     1     1     1     1       1     1     1     1     1     1     1       1     1     1     1     1     1     1       1     1     1     1     1     1     1       1     1     1     1     1     1     1       1     1     1     1     1     1     1       1     1     1     1     1     1     1       1     1     1     1     1     1     1       1     1     1     1     1     1     1       1     1     1     1     1     1     1       1     1     1     1     1     1     1       1     1     1     1     1     1     1   | Report                                  |                   | 48 hr 72 hr    |                 |     |              |               |              |                |               |             |             |             | General<br>Anion/C                     | Wate                                   | er Cher<br>Balanc                   | nistry (se                            | ee atta           | iched li          | st)                                |                  |               |   |
### **XENCO** Laboratories

### Prelogin/Nonconformance Report- Sample Log-In

| Client: Tetra Tech- Midland                             | Acceptable Temperature Range: 0 - 6 degC |                           |  |  |  |
|---|--|---------------------------|--|--|--|
| Date/ Time Received: 02.12.2020 01.15.00 PM             | Air and Metal samples                    | Acceptable Range: Ambient |  |  |  |
| Work Order #: 652156                                    | Temperature Measurir                     | ng device used: T-NM-007  |  |  |  |
| Sample Rece   | eipt Checklist                           | Comments                  |  |  |  |
| #1 *Temperature of cooler(s)?                           | 3.2                                      |                           |  |  |  |
| #2 *Shipping container in good condition?               | Yes                                      |                           |  |  |  |
| #3 *Samples received on ice?                            | Yes                                      |                           |  |  |  |
| #4 *Custody Seals intact on shipping container/ cooler? | Yes                                      |                           |  |  |  |
| #5 Custody Seals intact on sample bottles?              | Yes                                      |                           |  |  |  |
| #6*Custody Seals Signed and dated?                      | Yes                                      |                           |  |  |  |
| #7 *Chain of Custody present?                           | Yes                                      |                           |  |  |  |
| #8 Any missing/extra samples?                           | No                                       |                           |  |  |  |
| #9 Chain of Custody signed when relinquished/ received? | Yes                                      |                           |  |  |  |
| #10 Chain of Custody agrees with sample labels/matrix?  | Yes                                      |                           |  |  |  |
| #11 Container label(s) legible and intact?              | Yes                                      |                           |  |  |  |
| #12 Samples in proper container/ bottle?                | Yes                                      |                           |  |  |  |
| #13 Samples properly preserved?                         | Yes                                      |                           |  |  |  |
| #14 Sample container(s) intact?                         | Yes                                      |                           |  |  |  |
| #15 Sufficient sample amount for indicated test(s)?     | Yes                                      |                           |  |  |  |
| #16 All samples received within hold time?              | Yes                                      |                           |  |  |  |
| #17 Subcontract of sample(s)?                           | No                                       |                           |  |  |  |
| #18 Water VOC samples have zero headspace?              | N/A                                      |                           |  |  |  |

#### \* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Checklist reviewed by: Jessica Kramer

Date: 02.12.2020

Jessica Kramer

Date: 02.12.2020



# **Analytical Report 660477**

for

**Tetra Tech- Midland** 

**Project Manager: Mike Carmona** 

Big Papi Federal Com #2H (7.12.19)

### 212C-MD-01855

#### 05.07.2020

Collected By: Client



1211 W. Florida Ave Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-20-32), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054) Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

> Xenco-Dallas (EPA Lab Code: TX01468): Texas (TX104704295-19-23), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16) Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22) Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19) Xenco-Carlsbad (LELAP): Louisiana (05092) Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5) Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757) Xenco-Tampa: Florida (E87429), North Carolina (483)



212C-MD-01855

Eddy County, NM

Mike Carmona



**Project Id:** 

**Project Location:** 

**Contact:** 

### Certificate of Analysis Summary 660477

Tetra Tech- Midland, Midland, TX

Project Name: Big Papi Federal Com #2H (7.12.19)

Date Received in Lab:Mon 05.04.2020 10:24Report Date:05.07.2020 12:24Project Manager:Jessica Kramer

Lab Id: 660477-001 660477-002 660477-003 660477-004 660477-005 660477-006 Field Id: AH-2 (0'-1') AH-2 (1'-1.5') AH-3 (0'-1') AH-4 (0'-1') AH-4 (1'-1.5') AH-4 (1.5'-2') Analysis Requested Depth: Matrix: SOIL SOIL SOIL SOIL SOIL SOIL Sampled: 05.01.2020 00:00 05.01.2020 00:00 05.01.2020 00:00 05.01.2020 00:00 05.01.2020 00:00 05.01.2020 00:00 Chloride by EPA 300 05.04.2020 16:55 05.04.2020 16:55 05.04.2020 16:55 05.04.2020 16:55 05.05.2020 12:00 05.05.2020 12:00 Extracted: Analyzed: 05.05.2020 02:07 05.05.2020 02:14 05.05.2020 02:21 05.05.2020 02:28 05.05.2020 13:33 05.05.2020 14:00 mg/kg RL mg/kg RL mg/kg RL mg/kg RL mg/kg RL mg/kg RL Units/RL: 1850 24.9 280 4.98 18.5 4.99 54.2 5.00 149 4.97 335 4.98 Chloride

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Jession Vramer

Jessica Kramer Project Manager

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212C-MD-01855

Eddy County, NM

Mike Carmona



**Project Id:** 

**Project Location:** 

**Contact:** 

## Certificate of Analysis Summary 660477

Tetra Tech- Midland, Midland, TX

Project Name: Big Papi Federal Com #2H (7.12.19)

 Date Received in Lab:
 Mon 05.04.2020 10:24

 Report Date:
 05.07.2020 12:24

 Project Manager:
 Jessica Kramer

Lab Id: 660477-007 660477-008 660477-009 660477-010 660477-011 660477-012 Field Id: AH-5 (0'-1') AH-5 (1'-1.5') AH-5 (2'-2.5') AH-6 (0'-1') AH-7 (0-6") AH-8 (0-6") Analysis Requested Depth: Matrix: SOIL SOIL SOIL SOIL SOIL SOIL Sampled: 05.01.2020 00:00 05.01.2020 00:00 05.01.2020 00:00 05.01.2020 00:00 05.01.2020 00:00 05.01.2020 00:00 Chloride by EPA 300 05.05.2020 12:00 05.05.2020 12:00 05.05.2020 12:00 05.05.2020 12:00 05.05.2020 12:00 05.05.2020 12:00 Extracted: Analyzed: 05.05.2020 14:06 05.05.2020 14:11 05.05.2020 14:16 05.05.2020 14:40 05.05.2020 14:45 05.05.2020 14:50 mg/kg RL mg/kg RL mg/kg RL mg/kg RL mg/kg RL mg/kg RL Units/RL: 902 5.01 1250 5.04 7770 50.3 977 25.0 28.3 5.00 25.8 4.98 Chloride

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Jessica Kramer Project Manager

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212C-MD-01855

Eddy County, NM

Mike Carmona



**Project Id:** 

**Project Location:** 

**Contact:** 

## Certificate of Analysis Summary 660477

Tetra Tech- Midland, Midland, TX

Project Name: Big Papi Federal Com #2H (7.12.19)

 Date Received in Lab:
 Mon 05.04.2020 10:24

 Report Date:
 05.07.2020 12:24

Project Manager: Jessica Kramer

|                     | Lab Id:    | 660477-0     | 13               | 660477-0         | 14               | 660477-0   | 15    | 660477-0   | 16    | 660477-0   | 17    | 660477-0         | 018   |
|---------------------|------------|--------------|------------------|------------------|------------------|------------|-------|------------|-------|------------|-------|------------------|-------|
| Analysis Requested  | Field Id:  | AH-9 (0-6    | ")               | AH-10 (0-        | 6")              | AH-11 (0-6 | ")    | AH-12 (0-6 | ")    | AH-13 (0-6 | ")    | AH-14 (0-6       | 5")   |
| Analysis Kequesieu  | Depth:     |              |                  |                  |                  |            |       |            |       |            |       |                  |       |
|                     | Matrix:    | SOIL         | SOIL             |                  | SOIL             |            | SOIL  |            |       | SOIL       |       | SOIL             |       |
|                     | Sampled:   | 05.01.2020 ( | 05.01.2020 00:00 |                  | 05.01.2020 00:00 |            | 00:00 | 05.01.2020 | 00:00 | 05.01.2020 | 00:00 | 05.01.2020 00:00 |       |
| Chloride by EPA 300 | Extracted: | 05.05.2020   | 12:00            | 05.05.2020 12:00 |                  | 05.05.2020 | 12:00 | 05.05.2020 | 12:00 | 05.05.2020 | 12:00 | 05.05.2020       | 12:00 |
|                     | Analyzed:  | 05.05.2020   | 14:55            | 05.05.2020       | 15:01            | 05.05.2020 | 15:22 | 05.05.2020 | 15:06 | 05.05.2020 | 15:27 | 05.05.2020       | 15:43 |
|                     | Units/RL:  | mg/kg        | RL               | mg/kg            | RL               | mg/kg      | RL    | mg/kg      | RL    | mg/kg      | RL    | mg/kg            | RL    |
| Chloride            |            | 37.5         | 5.01             | 382              | 5.02             | 277        | 4.96  | 23.6       | 5.03  | 12.7       | 4.99  | 41.1             | 4.95  |

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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fession kenner

Jessica Kramer Project Manager



05.07.2020

Project Manager: **Mike Carmona Tetra Tech- Midland** 901 West Wall ST Midland, TX 79701

#### Reference: XENCO Report No(s): **660477 Big Papi Federal Com #2H (7.12.19)** Project Address: Eddy County, NM

#### Mike Carmona:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 660477. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 660477 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

fession kenner

Jessica Kramer Project Manager

A Small Business and Minority Company

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#### Sample Id

| AH-2 (0'-1')   |
|----------------|
| AH-2 (1'-1.5') |
| AH-3 (0'-1')   |
| AH-4 (0'-1')   |
| AH-4 (1'-1.5') |
| AH-4 (1.5'-2') |
| AH-5 (0'-1')   |
| AH-5 (1'-1.5') |
| AH-5 (2'-2.5') |
| AH-6 (0'-1')   |
| AII-0(0-1)     |
| AH-7 (0-6")    |
| AH-8 (0-6")    |
| AH-9 (0-6")    |
| AH-10 (0-6")   |
| AH-11 (0-6")   |
| AH-12 (0-6")   |
| AH-13 (0-6")   |
| AH-14 (0-6")   |

### Sample Cross Reference 660477

### Tetra Tech- Midland, Midland, TX

Big Papi Federal Com #2H (7.12.19)

| Matrix | Date Collected   | Sample Depth | Lab Sample Id |
|--------|------------------|--------------|---------------|
| S      | 05.01.2020 00:00 |              | 660477-001    |
| S      | 05.01.2020 00:00 |              | 660477-002    |
| S      | 05.01.2020 00:00 |              | 660477-003    |
| S      | 05.01.2020 00:00 |              | 660477-004    |
| S      | 05.01.2020 00:00 |              | 660477-005    |
| S      | 05.01.2020 00:00 |              | 660477-006    |
| S      | 05.01.2020 00:00 |              | 660477-007    |
| S      | 05.01.2020 00:00 |              | 660477-008    |
| S      | 05.01.2020 00:00 |              | 660477-009    |
| S      | 05.01.2020 00:00 |              | 660477-010    |
| S      | 05.01.2020 00:00 |              | 660477-011    |
| S      | 05.01.2020 00:00 |              | 660477-012    |
| S      | 05.01.2020 00:00 |              | 660477-013    |
| S      | 05.01.2020 00:00 |              | 660477-014    |
| S      | 05.01.2020 00:00 |              | 660477-015    |
| S      | 05.01.2020 00:00 |              | 660477-016    |
| S      | 05.01.2020 00:00 |              | 660477-017    |
| S      | 05.01.2020.00:00 |              | 660477-018    |



### **CASE NARRATIVE**

Client Name: Tetra Tech- Midland Project Name: Big Papi Federal Com #2H (7.12.19)

Project ID: 212C-MD-01855 Work Order Number(s): 660477 
 Report Date:
 05.07.2020

 Date Received:
 05.04.2020

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



## **Certificate of Analytical Results 660477**

### Tetra Tech- Midland, Midland, TX

Big Papi Federal Com #2H (7.12.19)

| Sample Id:    | AH-2 (0'-1')           |            | Matrix:                          | Soil                |       | Date Received | 1:05.04 | 4.2020 10: | 24  |
|---------------|------------------------|------------|----------------------------------|---------------------|-------|---------------|---------|------------|-----|
| Lab Sample I  | d: 660477-001          |            | Date Collected: 05.01.2020 00:00 |                     |       |               |         |            |     |
| Analytical Me | ethod: Chloride by EPA | 300        |                                  |                     |       | Prep Method:  | E300    | )P         |     |
| Tech:         | SPC                    |            |                                  |                     |       | % Moisture:   |         |            |     |
| Analyst:      | SPC                    |            | Date Prep                        | b: 05.04.2020 16:55 | 5     | Basis:        | Wet     | Weight     |     |
| Seq Number:   | 3125066                |            |                                  |                     |       |               |         |            |     |
| Parameter     |                        | Cas Number | Result                           | RL                  | Units | Analysis D    | ate     | Flag       | Dil |
| Chloride      |                        | 16887-00-6 | 1850                             | 24.9                | mg/kg | 05.05.2020 0  | 2:07    |            | 5   |

16887-00-6 1850

24.9

5

.

Released to Imaging: 4/15/2021 2:39:09 PM



## **Certificate of Analytical Results 660477**

### Tetra Tech- Midland, Midland, TX

Big Papi Federal Com #2H (7.12.19)

| Sample Id:    | AH-2 (1'-1.5')         |            | Matrix:  | Soil                    |       | Date Received | 1:05.04.2020 | 10:24 |
|---------------|------------------------|------------|----------|-------------------------|-------|---------------|--------------|-------|
| Lab Sample I  | d: 660477-002          |            | Date Col | lected: 05.01.2020 00:0 | 0     |               |              |       |
| Analytical Me | ethod: Chloride by EPA | 300        |          |                         |       | Prep Method:  | E300P        |       |
| Tech:         | SPC                    |            |          |                         |       | % Moisture:   |              |       |
| Analyst:      | SPC                    |            | Date Pre | p: 05.04.2020 16:5      | 5     | Basis:        | Wet Weigh    | t     |
| Seq Number:   | 3125066                |            |          |                         |       |               |              |       |
| Parameter     |                        | Cas Number | Result   | RL                      | Units | Analysis D    | ate Flag     | Dil   |
| Chloride      |                        | 16887-00-6 | 280      | 4.98                    | mg/kg | 05.05.2020 02 | 2:14         | 1     |

16887-00-6

4.98

mg/kg 05.05.2020 02:14



## **Certificate of Analytical Results 660477**

### Tetra Tech- Midland, Midland, TX

Big Papi Federal Com #2H (7.12.19)

| Sample Id:    | AH-3 (0'-1')           |            | Matrix:                          | Soil                |       | Date Received | 1:05.04.2 | 020 10: | 24  |
|---------------|------------------------|------------|----------------------------------|---------------------|-------|---------------|-----------|---------|-----|
| Lab Sample I  | d: 660477-003          |            | Date Collected: 05.01.2020 00:00 |                     |       |               |           |         |     |
| Analytical Me | ethod: Chloride by EPA | 300        |                                  |                     |       | Prep Method:  | E300P     |         |     |
| Tech:         | SPC                    |            |                                  |                     |       | % Moisture:   |           |         |     |
| Analyst:      | SPC                    |            | Date Prep                        | b: 05.04.2020 16:55 | 5     | Basis:        | Wet We    | eight   |     |
| Seq Number:   | 3125066                |            |                                  |                     |       |               |           |         |     |
| Parameter     |                        | Cas Number | Result                           | RL                  | Units | Analysis D    | ate I     | Flag    | Dil |
| Chloride      |                        | 16887-00-6 | 18.5                             | 4.99                | mg/kg | 05.05.2020 0  | 2:21      |         | 1   |

16887-00-6 18.5

4.99

mg/kg 05.05.2020 02:21



## **Certificate of Analytical Results 660477**

### Tetra Tech- Midland, Midland, TX

Big Papi Federal Com #2H (7.12.19)

| Sample Id:    | AH-4 (0'-1')           |            | Matrix:   | Soil                    |       | Date Received | 1:05.04.202 | 20 10:24 |   |
|---------------|------------------------|------------|-----------|-------------------------|-------|---------------|-------------|----------|---|
| Lab Sample I  | d: 660477-004          |            | Date Col  | lected: 05.01.2020 00:0 | 0     |               |             |          |   |
| Analytical Me | ethod: Chloride by EPA | 300        |           |                         |       | Prep Method:  | E300P       |          |   |
| Tech:         | SPC                    |            |           |                         |       | % Moisture:   |             |          |   |
| Analyst:      | SPC                    |            | Date Prep | p: 05.04.2020 16:5      | 5     | Basis:        | Wet Weig    | ght      |   |
| Seq Number:   | 3125066                |            |           |                         |       |               |             |          |   |
| Parameter     |                        | Cas Number | Result    | RL                      | Units | Analysis D    | ate Fla     | ag Dil   |   |
| Chloride      |                        | 16887-00-6 | 54.2      | 5.00                    | mg/kg | 05.05.2020 02 | 2:28        | 1        | _ |

16887-00-6 54.2

5.00

mg/kg

05.05.2020 02:28



1

.

## **Certificate of Analytical Results 660477**

### Tetra Tech- Midland, Midland, TX

Big Papi Federal Com #2H (7.12.19)

| Sample Id: A                | AH-4 (1'-1.5')               |            | Matrix:                          | Soil           |       | Date Received               | 1:05.04.2020 10 | :24 |
|-----------------------------|------------------------------|------------|----------------------------------|----------------|-------|-----------------------------|-----------------|-----|
| Lab Sample Id: 6            | 560477-005                   |            | Date Collected: 05.01.2020 00:00 |                |       |                             |                 |     |
| Analytical Metho<br>Tech: C | od: Chloride by EPA 30<br>HE | 00         |                                  |                |       | Prep Method:<br>% Moisture: | E300P           |     |
| Analyst: C                  | HE                           |            | Date Prep:                       | 05.05.2020 12: | 00    | Basis:                      | Wet Weight      |     |
| Seq Number: 31              | 125116                       |            |                                  |                |       |                             |                 |     |
| Parameter                   |                              | Cas Number | Result                           | RL             | Units | Analysis Da                 | ate Flag        | Dil |

149

Chloride

16887-00-6

4.97

05.05.2020 13:33

mg/kg



## **Certificate of Analytical Results 660477**

### Tetra Tech- Midland, Midland, TX

Big Papi Federal Com #2H (7.12.19)

| 5116              | Cas Number  | Result   | RL   | Units   | Analysis D  | ate Flag  | Dil  |  |  |
|-------------------|---|--|--|---|---|---|--|--|--|
| 5116              |   |  |  |   |   |   |  |  |  |
|                   |   |  |  |   |   |   |  |  |  |
|                   |   | Date Prep                                      | : 05.05.2020 12  | :00   | Basis:  | Wet Weight  |  |  |  |
|                   |   |  |  |   | % Moisture:   |   |  |  |  |
| Chloride by EPA 3 | 300   |  |  |   | Prep Method:  | E300P   |  |  |  |
| 477-006           |   | Date Colle                                     | ected: 05.01.2020 00   | :00   |   |   |  |  |  |
| -4 (1.5'-2')      |   | Matrix:  | Soil   |   | Date Received   | d:05.04.2020 10   | :24  |  |  |
|                   | <b>-4 (1.5'-2')</b><br>477-006<br>Chloride by EPA 3 | -4 (1.5'-2')<br>477-006<br>Chloride by EPA 300 | -4 (1.5'-2')     Matrix:       477-006     Date Colle       Chloride by EPA 300     Kenter State | -4 (1.5'-2')       Matrix: Soil         477-006       Date Collected: 05.01.2020 00         Chloride by EPA 300       Chloride by EPA 300 | -4 (1.5'-2')     Matrix: Soil       477-006     Date Collected: 05.01.2020 00:00       Chloride by EPA 300     Soil | -4 (1.5'-2')Matrix:SoilDate Receive477-006Date Collected: 05.01.2020 00:00Prep Method:Chloride by EPA 300Prep Method: | -4 (1.5'-2')       Matrix:       Soil       Date Received:05.04.2020 10         477-006       Date Collected: 05.01.2020 00:00       Prep Method: E300P         Chloride by EPA 300       Prep Method: E300P |  |  |

Chloride

16887-00-6 335

4.98

mg/kg 05.05.2020 14:00

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Released to Imaging: 4/15/2021 2:39:09 PM



## **Certificate of Analytical Results 660477**

### Tetra Tech- Midland, Midland, TX

Big Papi Federal Com #2H (7.12.19)

| Sample Id:    | AH-5 (0'-1')           |            | Matrix:   | Soil              |       | Date Received | 1:05.04.202 | 0 10:24 |
|---------------|------------------------|------------|-----------|-------------------|-------|---------------|-------------|---------|
| Lab Sample I  | d: 660477-007          |            | Date Col  |                   |       |               |             |         |
| Analytical Me | ethod: Chloride by EPA | 300        |           |                   |       | Prep Method:  | E300P       |         |
| Tech:         | CHE                    |            |           |                   |       | % Moisture:   |             |         |
| Analyst:      | CHE                    |            | Date Prep | p: 05.05.2020 12: | 00    | Basis:        | Wet Weig    | ght     |
| Seq Number:   | 3125116                |            |           |                   |       |               |             |         |
| Parameter     |                        | Cas Number | Result    | RL                | Units | Analysis D    | ate Fla     | g Dil   |
| Chloride      |                        | 16887-00-6 | 902       | 5.01              | mg/kg | 05.05.2020 14 | 4:06        | 1       |

16887-00-6 902

5.01

mg/kg 05.05.2020 14:06

Released to Imaging: 4/15/2021 2:39:09 PM



## **Certificate of Analytical Results 660477**

### Tetra Tech- Midland, Midland, TX

Big Papi Federal Com #2H (7.12.19)

| Sample Id:    | AH-5 (1'-1.5')         |            | Matrix:   | Soil                    |       | Date Received | 1:05.04. | .2020 10: | :24 |
|---------------|------------------------|------------|-----------|-------------------------|-------|---------------|----------|-----------|-----|
| Lab Sample I  | d: 660477-008          |            | Date Col  | lected: 05.01.2020 00:0 | 0     |               |          |           |     |
| Analytical Me | ethod: Chloride by EPA | 300        |           |                         |       | Prep Method:  | E300F    | D         |     |
| Tech:         | CHE                    |            |           |                         |       | % Moisture:   |          |           |     |
| Analyst:      | CHE                    |            | Date Prep | p: 05.05.2020 12:0      | 0     | Basis:        | Wet V    | Veight    |     |
| Seq Number:   | 3125116                |            |           |                         |       |               |          |           |     |
| Parameter     |                        | Cas Number | Result    | RL                      | Units | Analysis D    | ate      | Flag      | Dil |
| Chloride      |                        | 16887-00-6 | 1250      | 5.04                    | mg/kg | 05.05.2020 14 | 4:11     |           | 1   |

16887-00-6 1250

5.04

mg/kg 05.05.2020 14:11



10

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## **Certificate of Analytical Results 660477**

### Tetra Tech- Midland, Midland, TX

Big Papi Federal Com #2H (7.12.19)

| Sample Id:              | AH-5 (2'-2.5')                |            | Matrix:     | Soil                  |       | Date Received               | 1:05.04.2 | 020 10:2 | 4   |
|-------------------------|-------------------------------|------------|-------------|-----------------------|-------|-----------------------------|-----------|----------|-----|
| Lab Sample Id           | 660477-009                    |            | Date Collec | ted: 05.01.2020 00:00 |       |                             |           |          |     |
| Analytical Met<br>Tech: | hod: Chloride by EPA 3<br>CHE | 00         |             |                       |       | Prep Method:<br>% Moisture: | E300P     |          |     |
| Analyst:                | CHE                           |            | Date Prep:  | 05.05.2020 12:00      |       | Basis:                      | Wet We    | eight    |     |
| Seq Number:             | 3125116                       |            |             |                       |       |                             |           |          |     |
| Parameter               |                               | Cas Number | Result      | RL                    | Units | Analysis Da                 | ate I     | Flag     | Dil |

Chloride

16887-00-6 7770

50.3

mg/kg

05.05.2020 14:16



## **Certificate of Analytical Results 660477**

### Tetra Tech- Midland, Midland, TX

Big Papi Federal Com #2H (7.12.19)

| Sample Id:  | AH-6 (0'-1')                                     |            | Matrix:    |        | Soil             |       | Date Received                         | :05.04.        | 2020 10:2   | .4  |
|---|--|------------|------------|--------|------------------|-------|---------------------------------------|----------------|-------------|-----|
| Lab Sample Id:  | 660477-010                                       |            | Date Colle | ected: | 05.01.2020 00:00 |       |                                       |                |             |     |
| Analytical Meth<br>Tech: C<br>Analyst: C<br>Seq Number: 3 | ood: Chloride by EPA 30<br>CHE<br>CHE<br>3125116 | 00         | Date Prep: | :      | 05.05.2020 12:00 |       | Prep Method:<br>% Moisture:<br>Basis: | E300F<br>Wet W | e<br>Veight |     |
| Parameter   |  | Cas Number | Result     | RL     |                  | Units | Analysis Da                           | ite            | Flag        | Dil |

16887-00-6 **977** 

25.0

mg/kg (

05.05.2020 14:40

5

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**Released to Imaging: 4/15/2021 2:39:09 PM** 



1

# **Certificate of Analytical Results 660477**

### Tetra Tech- Midland, Midland, TX

Big Papi Federal Com #2H (7.12.19)

| Sample Id: <b>AH-7</b> ( <b>0-6</b> '')         |            | Matrix:        | Soil               |       | Date Received               | 1:05.04.2 | 2020 10:2 | 24  |
|---|------------|----------------|--------------------|-------|-----------------------------|-----------|-----------|-----|
| Lab Sample Id: 660477-011                       |            | Date Collected | 1:05.01.2020 00:00 |       |                             |           |           |     |
| Analytical Method: Chloride by EPA<br>Tech: CHE | 300        |                |                    |       | Prep Method:<br>% Moisture: | E300P     | •         |     |
| Analyst: CHE                                    |            | Date Prep:     | 05.05.2020 12:00   |       | Basis:                      | Wet W     | /eight    |     |
| Seq Number: 3125116                             |            |                |                    |       |                             |           |           |     |
| Parameter                                       | Cas Number | Result RI      |                    | Units | Analysis Da                 | ate       | Flag      | Dil |

Chloride

16887-00-6 28.3

5.00

mg/kg 05.05.2020 14:45

:45

Released to Imaging: 4/15/2021 2:39:09 PM



## **Certificate of Analytical Results 660477**

### Tetra Tech- Midland, Midland, TX

Big Papi Federal Com #2H (7.12.19)

| Sample Id:              | AH-8 (0-6'')                   |            | Matrix:    |                                  | Soil             |       | Date Received               | 1:05.04 | .2020 10:2 | 24  |
|-------------------------|--------------------------------|------------|------------|----------------------------------|------------------|-------|-----------------------------|---------|------------|-----|
| Lab Sample Id           | : 660477-012                   |            | Date Colle | Date Collected: 05.01.2020 00:00 |                  |       |                             |         |            |     |
| Analytical Met<br>Tech: | thod: Chloride by EPA 3<br>CHE | 00         |            |                                  | 05 05 2020 12:00 |       | Prep Method:<br>% Moisture: | E300    | P          |     |
| Analyst:<br>Seq Number: | 3125116                        |            | Date Prep: |                                  | 05.05.2020 12:00 |       | Basis:                      | wet     | weight     |     |
| Parameter               |                                | Cas Number | Result     | RL                               |                  | Units | Analysis Da                 | ate     | Flag       | Dil |

Chloride

16887-00-6 **25.8** 

4.98

mg/kg 05.05.2020 14:50

1



# **Certificate of Analytical Results 660477**

### Tetra Tech- Midland, Midland, TX

Big Papi Federal Com #2H (7.12.19)

| Sample Id: <b>AH-9</b> (0-6'')                  |            | Matrix:        | Soil               |       | Date Received               | 1:05.04.202 | 0 10:24 |
|---|------------|----------------|--------------------|-------|-----------------------------|-------------|---------|
| Lab Sample Id: 660477-013                       |            | Date Collected | 1:05.01.2020 00:00 |       |                             |             |         |
| Analytical Method: Chloride by EP.<br>Tech: CHE | A 300      |                |                    |       | Prep Method:<br>% Moisture: | E300P       |         |
| Analyst: CHE                                    |            | Date Prep:     | 05.05.2020 12:00   |       | Basis:                      | Wet Weig    | ht      |
| Seq Number: 3125116                             |            |                |                    |       |                             |             |         |
| Parameter                                       | Cas Number | Result RL      |                    | Units | Analysis Da                 | ate Fla     | g Dil   |

Chloride

16887-00-6 **37.5** 

5.01

mg/kg 05.05.2020 14:55

1



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# **Certificate of Analytical Results 660477**

### Tetra Tech- Midland, Midland, TX

Big Papi Federal Com #2H (7.12.19)

| Sample Id:  | AH-10 (0-6")                                     |            | Matrix:    |       | Soil               |       | Date Received                         | 1:05.04 | .2020 10:2  | 24  |
|---|--|------------|------------|-------|--------------------|-------|---------------------------------------|---------|-------------|-----|
| Lab Sample Id                                     | l: 660477-014                                    |            | Date Colle | ected | : 05.01.2020 00:00 |       |                                       |         |             |     |
| Analytical Me<br>Tech:<br>Analyst:<br>Seq Number: | thod: Chloride by EPA 3<br>CHE<br>CHE<br>3125116 | 00         | Date Prep  | :     | 05.05.2020 12:00   |       | Prep Method:<br>% Moisture:<br>Basis: | E300    | P<br>Weight |     |
| Parameter   |  | Cas Number | Result     | RL    |                    | Units | Analysis Da                           | ate     | Flag        | Dil |

16887-00-6 **382** 

5.02

mg/kg 05.05.2020 15:01

5:01



1

## **Certificate of Analytical Results 660477**

### Tetra Tech- Midland, Midland, TX

Big Papi Federal Com #2H (7.12.19)

| Sample Id: <b>AH-11 (0-6''</b> )                |            | Matrix:       | Soil                |       | Date Received               | 1:05.04.2020 10 | ):24 |
|---|------------|---------------|---------------------|-------|-----------------------------|-----------------|------|
| Lab Sample Id: 660477-015                       |            | Date Collecte | d: 05.01.2020 00:00 |       |                             |                 |      |
| Analytical Method: Chloride by EPA<br>Tech: CHE | 300        |               |                     |       | Prep Method:<br>% Moisture: | E300P           |      |
| Analyst: CHE                                    |            | Date Prep:    | 05.05.2020 12:00    |       | Basis:                      | Wet Weight      |      |
| Seq Number: 3125116                             |            |               |                     |       |                             |                 |      |
| Parameter                                       | Cas Number | Result RI     |                     | Units | Analysis Da                 | ate Flag        | Dil  |

Chloride

16887-00-6 277

4.96

mg/kg 05.05.2020 15:22



# **Certificate of Analytical Results 660477**

### Tetra Tech- Midland, Midland, TX

Big Papi Federal Com #2H (7.12.19)

| Sample Id:  | AH-12 (0-6")                                     |            | Matrix:    |       | Soil               |       | Date Received                         | 1:05.04       | .2020 10:2  | 24  |
|---|--|------------|------------|-------|--------------------|-------|---------------------------------------|---------------|-------------|-----|
| Lab Sample Id                                     | l: 660477-016                                    |            | Date Colle | ected | : 05.01.2020 00:00 |       |                                       |               |             |     |
| Analytical Me<br>Tech:<br>Analyst:<br>Seq Number: | thod: Chloride by EPA 3<br>CHE<br>CHE<br>3125116 | 00         | Date Prep  | ÷     | 05.05.2020 12:00   |       | Prep Method:<br>% Moisture:<br>Basis: | E300<br>Wet V | P<br>Weight |     |
| Parameter   |  | Cas Number | Result     | RL    |                    | Units | Analysis Da                           | ate           | Flag        | Dil |

Chloride

16887-00-6 **23.6** 

5.03

mg/kg 05.05.2020 15:06

1

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## **Certificate of Analytical Results 660477**

### Tetra Tech- Midland, Midland, TX

Big Papi Federal Com #2H (7.12.19)

| Sample Id: <b>AH-13 (0-6'')</b>                |            | Matrix:        | Soil               |       | Date Received               | 1:05.04.20 | 20 10:24 |
|--|------------|----------------|--------------------|-------|-----------------------------|------------|----------|
| Lab Sample Id: 660477-017                      |            | Date Collected | 1:05.01.2020 00:00 |       |                             |            |          |
| Analytical Method: Chloride by EF<br>Tech: CHE | PA 300     |                |                    |       | Prep Method:<br>% Moisture: | E300P      |          |
| Analyst: CHE                                   |            | Date Prep:     | 05.05.2020 12:00   |       | Basis:                      | Wet Wei    | ght      |
| Seq Number: 3125116                            |            |                |                    |       |                             |            |          |
| Parameter                                      | Cas Number | Result RL      |                    | Units | Analysis Da                 | ate Fl     | ag Dil   |

Chloride

16887-00-6 12.7

4.99

mg/kg 05.05.2020 15:27

1

**Released to Imaging: 4/15/2021 2:39:09 PM** 



# **Certificate of Analytical Results 660477**

### Tetra Tech- Midland, Midland, TX

Big Papi Federal Com #2H (7.12.19)

| Sample Id: <b>AH-14 (0-6'')</b>                 |            | Matrix:        | Soil               |       | Date Received               | 1:05.04.2020 | 0 10:24 |
|---|------------|----------------|--------------------|-------|-----------------------------|--------------|---------|
| Lab Sample Id: 660477-018                       |            | Date Collected | 1:05.01.2020 00:00 |       |                             |              |         |
| Analytical Method: Chloride by EPA<br>Tech: CHE | x 300      |                |                    |       | Prep Method:<br>% Moisture: | E300P        |         |
| Analyst: CHE                                    |            | Date Prep:     | 05.05.2020 12:00   |       | Basis:                      | Wet Weigh    | nt      |
| Seq Number: 3125116                             |            |                |                    |       |                             |              |         |
| Parameter                                       | Cas Number | Result RL      | ,                  | Units | Analysis Da                 | ate Flag     | Dil     |

16887-00-6 **41.1** 

4.95

mg/kg 05.05.2020 15:43

1

- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the quantitation limit and above the detection limit.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- **H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- **JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

\*\* Surrogate recovered outside laboratory control limit.

| BRL   | Below Reporting Limit.         | ND Not Detected.   |                  |                             |                                 |
|-------|--------------------------------|--------------------|------------------|-----------------------------|---------------------------------|
| RL    | Reporting Limit                |                    |                  |                             |                                 |
| MDL   | Method Detection Limit         | SDL Sample Det     | ection Limit     | LOD Limit of Detection      |                                 |
| PQL   | Practical Quantitation Limit   | MQL Method Qua     | antitation Limit | LOQ Limit of Quantitation   | n                               |
| DL    | Method Detection Limit         |                    |                  |                             |                                 |
| NC    | Non-Calculable                 |                    |                  |                             |                                 |
| SMP   | Client Sample                  |                    | BLK              | Method Blank                |                                 |
| BKS/I | LCS Blank Spike/Laboratory     | Control Sample     | BKSD/LCSD        | Blank Spike Duplicate/Labor | catory Control Sample Duplicate |
| MD/S  | <b>D</b> Method Duplicate/Samp | le Duplicate       | MS               | Matrix Spike                | MSD: Matrix Spike Duplicate     |
| + NE  | LAC certification not offered  | for this compound. |                  |                             |                                 |

\* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



# Tetra Tech- Midland

Big Papi Federal Com #2H (7.12.19)

| Analytical Method:<br>Seq Number:                      | Chloride by 3125066                         | y EPA 3(         | )0                |                        | Matrix:                           | Solid                     |                     |        | Pr          | rep Meth<br>Date Pr                 | od: E30<br>ep: 05.0              | 00P<br>04.2020                            |      |
|--|---|------------------|-------------------|------------------------|-----------------------------------|---------------------------|---------------------|--------|-------------|-------------------------------------|----------------------------------|---|------|
| MB Sample Id:  | 7702663-1-                                  | BLK              |                   | LCS Sar                | nple Id:                          | 7702663-                  | I-BKS               |        | LCSI        | D Sample                            | e Id: 770                        | 2663-1-BSD                                |      |
| Parameter  |   | MB<br>Result     | Spike<br>Amount   | LCS<br>Result          | LCS<br>%Rec                       | LCSD<br>Result            | LCSD<br>%Rec        | Limits | %RPD        | RPD<br>Limit                        | Units                            | Analysis<br>Date                          | Flag |
| Chloride   |   | <5.00            | 250               | 272                    | 109                               | 273                       | 109                 | 90-110 | 0           | 20                                  | mg/kg                            | 05.04.2020 23:09                          |      |
| Analytical Method:<br>Seq Number:                      | <b>Chloride by</b><br>3125116               | y EPA 3(         | )0                |                        | Matrix:                           | Solid                     |                     |        | Pr          | rep Meth<br>Date Pr                 | od: E30<br>ep: 05.0              | 00P<br>05.2020                            |      |
| MB Sample Id:  | 7/02/4/-1-                                  | BLK              | ~ *               | LCS Sar                | nple Id:                          | //02/4/-                  | I-BKS               |        | LCSI        | D Sample                            | e Id: //0                        | 2/4/-1-BSD                                |      |
| Parameter  |   | MB<br>Result     | Spike<br>Amount   | LCS<br>Result          | LCS<br>%Rec                       | LCSD<br>Result            | LCSD<br>%Rec        | Limits | %RPD        | RPD<br>Limit                        | Units                            | Analysis<br>Date                          | Flag |
| Chloride   |   | <5.00            | 250               | 261                    | 104                               | 244                       | 98                  | 90-110 | 7           | 20                                  | mg/kg                            | 05.05.2020 13:15                          |      |
| Analytical Method:<br>Seq Number:<br>Parent Sample Id: | <b>Chloride by</b><br>3125066<br>660467-001 | y EPA 3(         | )0                | MS Sat                 | Matrix:<br>nple Id:               | Soil<br>660467-00         | 01 S                |        | Pr<br>MSI   | rep Meth<br>Date Pr<br>D Sample     | od: E30<br>ep: 05.0<br>e Id: 660 | 00P<br>04.2020<br>467-001 SD              |      |
|  | 000107 001                                  | Parent           | Spike             | MS                     | MS                                | MSD                       | MSD                 | Limits | %RPD        | RPD                                 | Units                            | Analysis                                  | E1   |
| Parameter  |   | Result           | Amount            | Result                 | %Rec                              | Result                    | %Rec                |        |             | Limit                               |                                  | Date                                      | Flag |
| Chloride   |   | 332              | 248               | 593                    | 105                               | 594                       | 106                 | 90-110 | 0           | 20                                  | mg/kg                            | 05.04.2020 23:30                          |      |
| Analytical Method:<br>Seq Number:                      | <b>Chloride by</b><br>3125066               | y EPA 3(         | )0                |                        | Matrix:                           | Soil                      |                     |        | Pr          | rep Meth<br>Date Pr                 | od: E30<br>ep: 05.0              | 00P<br>04.2020                            |      |
| Parent Sample Id:                                      | 660467-005                                  | i                |                   | MS Sa                  | nple Id:                          | 660467-00                 | 05 S                |        | MS          | D Sampl                             | e Id: 660                        | 467-005 SD                                |      |
| Parameter  |   | Parent<br>Result | Spike<br>Amount   | MS<br>Result           | MS<br>%Rec                        | MSD<br>Result             | MSD<br>%Rec         | Limits | %RPD        | RPD<br>Limit                        | Units                            | Analysis<br>Date                          | Flag |
| Chloride   |   | 7.01             | 249               | 274                    | 107                               | 274                       | 107                 | 90-110 | 0           | 20                                  | mg/kg                            | 05.05.2020 01:06                          |      |
| Analytical Method:<br>Seq Number:                      | <b>Chloride by</b> 3125116                  | y EPA 3(         | )0                | MC C                   | Matrix:                           | Soil                      | 05 6                |        | Pr          | rep Meth<br>Date Pr                 | od: E30<br>ep: 05.0              | 00P<br>05.2020                            |      |
| Parent Sample Id:                                      | 6604//-005                                  | _                | <i>a</i> <b>n</b> | MS Sal                 | npie iu:                          | 000477-00                 | 05 5                |        | NISI        | D Sampi                             |                                  | 477-005 SD                                |      |
| Parameter  |   | Parent<br>Result | Spike<br>Amount   | MS<br>Result           | MS<br>%Rec                        | MSD<br>Result             | MSD<br>%Rec         | Limits | %RPD        | RPD<br>Limit                        | Units                            | Analysis<br>Date                          | Flag |
| Chloride   |   | 149              | 249               | 376                    | 91                                | 380                       | 93                  | 90-110 | 1           | 20                                  | mg/kg                            | 05.05.2020 13:42                          |      |
| Analytical Method:                                     | Chloride by                                 | y EPA 3(         | )0                |                        | Motrive                           | Soil                      |                     |        | Pr          | rep Meth<br>Date Pr                 | od: E30                          | 00P                                       |      |
| Seq Number:<br>Parent Sample Id:                       | 3125116<br>660477-016                       | i                |                   | MS Sa                  | mple Id:                          | 660477-0                  | 16 S                |        | MS          | D Sampl                             | e Id: 660                        | 477-016 SD                                |      |
| Seq Number:<br>Parent Sample Id:<br><b>Parameter</b>   | 3125116<br>660477-016                       | Parent<br>Result | Spike<br>Amount   | MS Sar<br>MS<br>Result | matrix.<br>nple Id:<br>MS<br>%Rec | 660477-0<br>MSD<br>Result | 16 S<br>MSD<br>%Rec | Limits | MS]<br>%RPD | Date 11<br>D Sample<br>RPD<br>Limit | e Id: 660<br>Units               | 15.2020<br>477-016 SD<br>Analysis<br>Date | Flag |

MS/MSD Percent Recovery Relative Percent Difference LCS/LCSD Recovery Log Difference  $\begin{array}{l} [D] = 100*(C-A) \ / \ B \\ RPD = 200* \ | \ (C-E) \ / \ (C+E) \ | \\ [D] = 100*(C) \ / \ [B] \\ Log \ Diff. = Log(Sample \ Duplicate) \ - \ Log(Original \ Sample) \end{array}$ 

 $LCS = Laboratory \ Control \ Sample \\ A = Parent \ Result \\ C = MS/LCS \ Result \\ E = MSD/LCSD \ Result$ 

MS = Matrix Spike B = Spike Added D = MSD/LCSD % Rec

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Final 1.000
```

| ived by  | <u>0C</u> | <b>D</b> :<br>T | 12/1    | 9/ <u>2</u>  | 020 9                 | . <u>/0</u> | 53.       | 4 <u>M</u> |          | Т               | Τ                      | T           |          | T         |          |                               |                       |                    | ç                     | He               | Ţ             |                                | Pr            | 5             | Pa   | ge 137           |
|----------|-----------|-----------------|---------|--------------|-----------------------|-------------|-----------|------------|----------|-----------------|------------------------|-------------|----------|-----------|----------|-------------------------------|-----------------------|--------------------|-----------------------|------------------|---------------|--------------------------------|---------------|---------------|--|------------------|
|          |           | elinquished     |         | elinquished  | mil                   | elinguished |           |            |          |                 |                        |             |          |           |          | LAB USE<br>ONLY               | LAB #                 |                    | omments:              | ceiving Lab      | voice to:     | oject Locatic<br>ounty, state) | oject Name:   | ient Name:    | A  | nalysis R        |
|          |           | by:             |         | by:          |                       | by:         | AH-5      | AH-5       | AH-5     | AH-4            | AH-4                   | AH-4        | AH-3     | AH-2      | AH-2     |                               |                       |                    |                       | oratory:         |               | ň                              |               |               | Construction of the second sec | equest           |
|          |           |                 |         | ,<br>,       | 10                    |             | (2'-2.5') | (1'-1.5')  | (0'-1')  | (1.5'-2')       | (1'-1.5')              | (0'-1')     | (0'-1')  | (1'-1.5') | (0'-1')  |                               | SAMPLE                |                    |                       | Xenco            | COG - Attn: I | Eddy County,                   | Big Papi Fede | COG           | Tetr   | of Chain of Cust |
|          |           | Date:           |         | Date:        | 5/4/20                | Date:       |           |            |          |                 |                        |             |          |           |          |                               | DENTIFIC              |                    |                       |                  | ke Tavare     | MN                             | eral Com      |               | a To   | ody Reco         |
|          |           | Time:           |         | Time:        | 420 JOZH              | Time:       |           |            |          |                 |                        |             |          |           |          |                               | ATION                 |                    |                       |                  | Z             |                                | #2H (7.12.19) |               | ech, Inc.  | ord              |
| ORIGINAL |           | Received by:    |         | Received by: | 1. Al                 | 5/1/2020    | 5/1/2020  | 5/1/2020   | 5/1/2020 | 5/1/2020        | 5/1/2020               | 5/1/2020    | 5/1/2020 | 5/1/2020  | 5/1/2020 | DATE                          | YEAR:                 | SAMPL              |                       | Sampler Signat   |               | Project #:                     |               | Site Manager: |  |                  |
| - COPY   |           |                 |         |              |                       |             |           |            |          |                 |                        |             |          |           |          | TIME                          |                       | ING                |                       | ure:             |               |                                |               |               |  |                  |
|          |           |                 |         |              | 2                     |             | ×         | ×          | ×        | ×               | ×                      | ×           | ×        | ×         | ×        | WATEI<br>SOIL                 | 7                     | MATRIX             |                       | Carlo            |               | 2120                           |               | Mike Ca       | 4000 N.<br>401 N<br>Te<br>Fax  |                  |
|          |           | Date:           |         | Date:        | 4/Jac                 | Date:       |           |            |          |                 |                        |             |          |           |          | HCL<br>HNO₃                   |                       | PRES               |                       | os Tomli         |               | :-MD-01                        |               | rmona         | Big Spring Sl<br>hidland, Texas<br>I (432) 682-4i<br>< (432) 682-3   | 00               |
|          |           | Time:           |         | Time:        |                       |             |           | ×          | ×        | ×               | ×                      | ×           | ×        | ×         | ×        | ICE                           |                       | ERVATIVE           |                       | nson/Tor         |               | 855                            |               |               | reet, Ste<br>; 79705<br>559<br>946   | 2                |
|          |           |                 |         |              | h<br>h<br>h           |             |           | -1<br>Z    | Z        | - <u>-</u><br>Z | 1<br>7<br>7            | 1<br>7<br>7 | 1 N      | 1 N       | N 1      | # CONT                        | AINE                  | RS                 |                       | וץ Legaro        |               |                                |               |               |  |                  |
| (Circl   |           | <u>,</u>        | n<br>R  | Samp         |                       |             |           |            |          |                 |                        |             |          |           |          | FILTERI<br>BTEX 80            | ED (Y<br>021B<br>1005 | /N)<br>BTE         | X 8260E               | 12               |               |                                |               |               |  |                  |
| е) НАМД  | Y C       |                 | 212     | le Temper    |                       |             |           |            |          |                 |                        |             |          |           |          | TPH 80 <sup>-</sup><br>PAH 82 | 15M (<br>70C          | GRO -              | DRO - C               | )RO - I          | MRO)          |                                |               | 5             |  |                  |
| DELIVER  | X         |                 | C       | ature        | ň                     |             | _         |            |          |                 |                        |             |          |           |          | Total Me<br>TCLP Me           | tals A<br>etals A     | g As Ba<br>Ag As B | a Cd Cr I<br>Ba Cd Cr | Pb Se I<br>Pb Se | ⊣g<br>Hg      |                                |               |               |  |                  |
| Ë        | Ľ         |                 |         |              |                       |             |           |            |          |                 |                        |             |          |           |          | TCLP Vo<br>TCLP Se            | mi Vo                 | latiles            |                       |                  |               |                                | Q             | ANALY         |  |                  |
| DEX      | pecial    |                 | lush Cl | NUSH:        | <b>N</b> S:<br>Standa |             |           | 1          |          |                 |                        |             |          |           |          | GC/MS                         | /ol. 8                | 260B /             | 624                   |                  |               |                                |               | SIS F         |  |                  |
| JPS T    | Report    |                 | harges  | Same         | ard                   |             |           |            |          |                 |                        |             |          |           |          | PCB's 8                       | 082 /                 | 608                |                       |                  | ·             |                                | <br>V         | REQU          |  |                  |
| racking  | Limits    |                 | Author  | Day          |                       |             |           |            |          |                 |                        |             |          |           |          | PLM (As                       | besto                 | 3)                 |                       |                  |               |                                | i             | EST           |  | Pag              |
| .#<br>   | or TRE    |                 | ized    | 24 hr        |                       | É           | Ť         | Ě          | É        | Ě               | $\overset{\sim}{\Box}$ | ×<br>       | ~        | ^         |          | Chloride                      | Su                    | lfate              | TDS                   |                  |               | ,                              |               |               |  | Ō                |
|          | 1P Repo   |                 |         | 48 hr        |                       | E           | +         |            |          |                 |                        |             |          |           |          | General<br>Anion/Ca           | Wate<br>ation I       | r Chen<br>Balanc   | nıstry (se<br>e       | e atta           | cned lis      | st)                            |               | -             |  |                  |
|          | h         |                 |         | 72 hr        |                       | F           |           |            |          |                 |                        |             |          |           |          |                               |                       |                    |                       |                  |               |                                |               |               |  | 1<br>0f          |
|          |           |                 |         |              |                       | L           |           |            |          |                 |                        |             |          |           |          |                               |                       |                    |                       |                  |               |                                |               |               |  |                  |

|         | Helinquished b |              | Adlinguished b | Relinquished b |   |        |          |          |          |          |          |          |          | LAB USE               | LAB #               |                |                     | Comments: | Receiving Labo   | (county, state) | Project Name:             | Client Name:  | (7)  |
|---------|----------------|--------------|----------------|----------------|---|--------|----------|----------|----------|----------|----------|----------|----------|-----------------------|---------------------|----------------|---------------------|-----------|------------------|-----------------|---------------------------|---------------|--|
|         | ×              | Ÿ            | C              |                |   | AH-14  | AH-13    | AH-12    | AH-11    | AH-10    | AH-9     | AH-8     | AH-7     |                       |                     |                |                     |           | ratory:          | -               | 2                         |               |  |
|         |                | (            |                | 7              |   | (0-6") | (0-6")   | (0-6")   | (0-6")   | (0-6")   | (0-6")   | (0-6")   | (0-6")   |                       | SA                  |                |                     | Xenco     | COG - AI         | Eddy Cot        | Big Papi                  | 600           | Te   |
|         | Date: Time:    |              | 5/4/2020 /024  | Date: Time:    |   |        |          |          |          |          |          |          |          |                       | MPLE IDENTIFICATION |                |                     |           | ttn: Ike Tavarez | unty, NM        | Federal Com #2H (7.12.19) |               | etra Tech, Inc.                                  |
|         | Received by:   | Heceived by: | X              | Received by:   |   |        | 5/1/2020 | 5/1/2020 | 5/1/2020 | 5/1/2020 | 5/1/2020 | 5/1/2020 | 5/1/2020 | DATE                  | YEAR:               | SAMP           |                     |           | Campler Gion     | Project #:      |                           | Site Manager: |  |
|         |                |              | N              |                |   |        |          |          |          |          |          |          |          | TIME                  |                     | LING           |                     |           |                  |                 |                           |               |  |
|         |                |              |                |                |   |        | ×        | ×        | ×        | ×        | ×        | ×        | ×        | WATER<br>SOIL         |                     | MATE           |                     | Ca        |                  | 21:             |                           | Mike (        | 4000<br>401                                      |
|         | Date           | Date         | 2              | Date           |   |        | -        |          |          |          |          |          |          | HCL                   |                     | Ĩ              |                     | rlos To   |                  | 2C-MD           |                           | Carmo         | N. Big Spi<br>Midland,<br>Tel (432)<br>Fax (432) |
|         | Tin            | =            | 2              | 빌              |   |        | ×        | ×        | ×        | ×        | ×        | X        | X        | HNO₃<br>ICE           |                     | PRESERV        |                     | mlinso    |                  | -01855          |                           | าล            | ing Street,<br>Texas 797<br>382-4559<br>382-3946 |
|         | ne:            | ne:          | P              | чe:            |   |        |          |          |          |          |          |          |          |                       |                     | ATIVE<br>OD    |                     | n/Ton     |                  |                 |                           |               | 05<br>Ste  |
|         |                |              | /002c          |                |   |        |          |          | -1 7     | - 7      | N L      | N 1      | ۲ I      | # CONTA               | INE                 | RS             |                     | / Legar   |                  |                 |                           |               |  |
|         |                | Sa           |                |                |   |        |          | -        |          | _        | _        | -        | -        | FILTERE<br>BTEX 80    | D (Y<br>21B         | (/N)<br>BTE    | EX 8260             | da<br>B   |                  |                 |                           |               |  |
|         | L<br>L         | mple Ter     | o v            |                | - | -      |          |          |          |          |          |          |          | TPH TX1<br>TPH 801    | 005<br>5M (         | (Ext to<br>GRO | o C35)<br>- DRO - ( | ORO -     | MRO)             |                 |                           |               |  |
|         | 130            | nperatur     |                |                |   |        |          |          |          |          |          |          |          | PAH 827<br>Total Meta | DC<br>als A         | g As E         | 3a Cd Cr            | Pb Se     | Hg               |                 |                           |               |  |
| 1       |                |              |                | R              |   |        |          |          |          |          |          |          |          | TCLP Met<br>TCLP Vola | als /               | Ag As<br>s     | Ba Cd Cr            | Pb Se     | e Hg             |                 | č                         | Ā             |  |
| ļ       |                |              | I ⊠<br>st      | MARK           |   |        | -        | <b></b>  |          |          |          |          |          | TCLP Ser<br>RCI       | ni Vo               | olatiles       | ;                   |           |                  |                 | <u> </u>                  |               |  |
| ecial-r |                | H:           | anda           | ŝ              |   |        |          |          |          |          |          |          |          | GC/MS Vo              | ol. 8<br>emi.       | 260B<br>Vol. 8 | / 624<br>3270C/62   | 5         |                  |                 |                           | SIS R         |  |
| nodes   | all fer        | Same         | , g            | ļ              |   |        |          |          |          |          |          |          |          | PCB's 80              | 82 /                | 608            |                     |           |                  |                 |                           | N PO          |  |
|         |                | Day          | 1              | ł              |   |        |          |          |          |          |          |          |          | PLM (Asb              | esto                | s)             |                     |           |                  |                 |                           | EST           |  |
|         |                | 24 hr        |                | F              |   | -      | ×        | ×        | ×        | ×T       | ×        | ×        | ×        | Chloride<br>Chloride  | SL                  | ulfate         | TDS                 |           |                  |                 |                           | z             |  |
|         |                | 48           |                | þ              |   |        |          |          |          |          |          |          |          | General V             | Vate                | r Che          | mistry (s           | ee atta   | ached li         | ist)            | ;                         | -             |  |
| epon-   |                | ır 72        |                | ŀ              |   |        |          |          |          |          |          |          |          | Anion/Cal             |                     | Jaidh          | 66                  |           |                  |                 |                           |               |  |
|         |                | hr           |                | ┠              | + | +      | -        |          |          |          |          |          |          |                       |                     |                |                     |           |                  |                 |                           |               |  |
| - 1     |                |              |                | F              |   |        | $\vdash$ | $\vdash$ | _        |          |          |          |          |                       |                     |                |                     |           |                  |                 |                           | 1             |  |

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# **Analytical Report 670700**

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for

## **Tetra Tech- Midland**

**Project Manager: Mike Carmona** 

Big Pappy Fed Com 2H (7.12.19)

#### 212C-MD-01855

#### 08.24.2020

Collected By: Client

1089 N Canal Street Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-20-37), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054) Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

> Xenco-Dallas (EPA Lab Code: TX01468): Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18) Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23) Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21) Xenco-Carlsbad (LELAP): Louisiana (05092) Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8) Xenco-Tampa: Florida (E87429), North Carolina (483)

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Project Id:

**Project Location:** 

**Contact:** 

Xenco

212C-MD-01855

Eddy County, NM

Mike Carmona

Certificate of Analysis Summary 670700

Tetra Tech- Midland, Midland, TX

Project Name: Big Pappy Fed Com 2H (7.12.19)

Date Received in Lab: Fri 08.21.2020 10:55 Report Date: 08.24.2020 08:14 Project Manager: Jessica Kramer

|                                   | Lab Id:    | 670700-00    | )1    | 670700-0   | 02    | 670700-0     | 03    | 670700-0   | 04    | 670700-0    | 05    | 670700-0    | 06    |
|-----------------------------------|------------|--------------|-------|------------|-------|--------------|-------|------------|-------|-------------|-------|-------------|-------|
| Analysis Requested                | Field Id:  | AH #4 (0-1   | ')    | AH #4 (-1  | .5')  | AH #4 (1.5-2 | 2')   | AH #5 (0-1 | ')    | AH #5 (1-1. | 5')   | AH #5 (2-2. | 5')   |
| Απαιγείε Κετμιετίεα               | Depth:     | 0-1 ft       |       | 1-1.5 ft   |       | 1.5-2 ft     |       | 0-1 ft     |       | 1-1.5 ft    |       | 2-2.5 ft    |       |
|                                   | Matrix:    | SOIL         |       | SOIL       |       | SOIL         |       | SOIL       |       | SOIL        |       | SOIL        |       |
|                                   | Sampled:   | 08.19.2020 0 | 00:00 | 08.19.2020 | 00:00 | 08.19.2020 ( | 00:00 | 08.19.2020 | 00:00 | 08.19.2020  | 00:00 | 08.19.2020  | 00:00 |
| Inorganic Anions by EPA 300/300.1 | Extracted: | 08.21.2020 1 | 3:00  | 08.21.2020 | 13:00 | 08.21.2020   | 13:00 | 08.21.2020 | 13:00 | 08.21.2020  | 13:00 | 08.21.2020  | 13:00 |
|                                   | Analyzed:  | 08.21.2020 1 | 5:35  | 08.21.2020 | 15:41 | 08.21.2020   | 15:57 | 08.21.2020 | 16:03 | 08.21.2020  | 16:20 | 08.21.2020  | 16:25 |
|                                   | Units/RL:  | mg/kg        | RL    | mg/kg      | RL    | mg/kg        | RL    | mg/kg      | RL    | mg/kg       | RL    | mg/kg       | RL    |
| Chloride                          |            | 3030         | 50.1  | 5010       | 49.7  | 3150         | 49.9  | 1930       | 49.9  | 1670        | 50.1  | 1630        | 50.2  |

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Project Id:

**Project Location:** 

**Contact:** 

Xenco

212C-MD-01855

Eddy County, NM

Mike Carmona

## Certificate of Analysis Summary 670700

Tetra Tech- Midland, Midland, TX

Project Name: Big Pappy Fed Com 2H (7.12.19)

Date Received in Lab: Fri 08.21.2020 10:55

**Report Date:** 08.24.2020 08:14

Project Manager: Jessica Kramer

|                                    | Lab Id:    | 670700-0                           | 07           | 670700-00    | )8             | 670700-00    | )9       | 670700-0         | 010    | 670700-0              | 11     | 670700-0               | 012      |  |
|------------------------------------|------------|------------------------------------|--------------|--------------|----------------|--------------|----------|------------------|--------|-----------------------|--------|------------------------|----------|--|
| Analysis Reauested                 | Field Id:  | AH #6 (0-                          | AH #6 (0-1') |              | AH #9 (0-0.5') |              | 5')      | South 1 Sidewall |        | Bottom Hole #1 (0-1') |        | Bottom Hole #1 (1-1.5) |          |  |
| Anulysis Requesieu                 | Depth:     | 0-1 ft                             | 0-1 ft       |              | 0-0.5 ft       |              | 0-0.5 ft |                  | 0-0 ft |                       | 0-1 ft |                        | 1-1.5 ft |  |
|                                    | Matrix:    | SOIL                               |              | SOIL         |                | SOIL         |          | SOIL             |        | SOIL                  |        | SOIL                   |          |  |
|                                    | Sampled:   | 08.19.2020                         | 00:00        | 08.19.2020 0 | 00:00          | 08.19.2020 0 | 00:00    | 08.19.2020       | 00:00  | 08.19.2020            | 00:00  | 08.19.2020             | 00:00    |  |
| Inorganic Anions by EPA 300/300.1  | Extracted: | <i>Extracted:</i> 08.21.2020 13:00 |              |              |                |              |          | 08.21.2020       | 13:00  | 08.21.2020            | 13:00  | 08.21.2020             | 13:00    |  |
|                                    | Analyzed:  | 08.21.2020                         | 16:31        |              |                |              |          | 08.21.2020       | 16:36  | 08.21.2020            | 16:42  | 08.21.2020             | 16:48    |  |
|                                    | Units/RL:  | mg/kg                              | RL           |              |                |              |          | mg/kg            | RL     | mg/kg                 | RL     | mg/kg                  | RL       |  |
| Chloride                           |            | 622                                | 10.0         |              |                |              |          | 130              | 9.98   | 122                   | 9.94   | 219                    | 9.90     |  |
| TPH By SW8015 Mod                  | Extracted: |                                    |              | 08.21.2020 1 | 3:00           | 08.21.2020 1 | 13:00    |                  |        |                       |        |                        |          |  |
|                                    | Analyzed:  |                                    |              | 08.21.2020 1 | 4:17           | 08.21.2020 1 | 15:18    |                  |        |                       |        |                        |          |  |
|                                    | Units/RL:  |                                    |              | mg/kg        | RL             | mg/kg        | RL       |                  |        |                       |        |                        |          |  |
| Gasoline Range Hydrocarbons (GRO)  |            |                                    |              | <50.0        | 50.0           | <50.0        | 50.0     |                  |        |                       |        |                        |          |  |
| Diesel Range Organics (DRO)        |            |                                    |              | <50.0        | 50.0           | <50.0        | 50.0     |                  |        |                       |        |                        |          |  |
| Motor Oil Range Hydrocarbons (MRO) |            |                                    |              | <50.0        | 50.0           | <50.0        | 50.0     |                  |        |                       |        |                        |          |  |
| Total TPH                          |            |                                    |              | <50.0        | 50.0           | <50.0        | 50.0     |                  |        |                       |        |                        |          |  |

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Xenco

Project Id: 212C-MD-01855 Mike Carmona **Contact:** Eddy County, NM **Project Location:** 

## Certificate of Analysis Summary 670700

Tetra Tech- Midland, Midland, TX

Project Name: Big Pappy Fed Com 2H (7.12.19)

Date Received in Lab: Fri 08.21.2020 10:55

**Report Date:** 08.24.2020 08:14

Project Manager: Jessica Kramer

|                                   | Lab Id:    | 670700-01        | 3        | 670700-0         | 14       | 670700-01         | 15      |  |  |
|-----------------------------------|------------|------------------|----------|------------------|----------|-------------------|---------|--|--|
| Analysis Doguested                | Field Id:  | Bottom Hole #1   | (2-2.5') | Bottom Hole #1   | (3-3.5') | Bottom Hole #1 (3 | 3.5-4') |  |  |
| Anaiysis Kequesiea                | Depth:     | 2-2.5 ft         |          | 3-3.5 ft         |          | 3.5-4 ft          |         |  |  |
|                                   | Matrix:    | SOIL             |          | SOIL             |          | SOIL              |         |  |  |
|                                   | Sampled:   | 08.19.2020 0     | 0:00     | 08.19.2020 0     | 00:00    | 08.19.2020 0      | 00:00   |  |  |
| Inorganic Anions by EPA 300/300.1 | Extracted: | 08.21.2020 1     | 3:00     | 08.21.2020       | 16:20    | 08.21.2020 1      | 6:20    |  |  |
|                                   | Analyzed:  | 08.21.2020 16:53 |          | 08.21.2020 17:27 |          | 08.21.2020 17:43  |         |  |  |
|                                   | Units/RL:  | mg/kg            | RL       | mg/kg            | RL       | mg/kg             | RL      |  |  |
| Chloride                          |            | 35.1             | 10.1     | 33.4             | 9.94     | <10.0             | 10.0    |  |  |

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08.24.2020

Project Manager: **Mike Carmona Tetra Tech- Midland** 901 West Wall ST Midland, TX 79701

Reference: Eurofins Xenco, LLC Report No(s): 670700 Big Pappy Fed Com 2H (7.12.19) Project Address: Eddy County, NM

#### Mike Carmona:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 670700. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 670700 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

fession kenner

Jessica Kramer Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

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#### Sample Id

AH #4 (0-1') AH #4 (-1.5') AH #4 (1.5-2') AH #5 (0-1') AH #5 (1-1.5') AH #5 (2-2.5') AH #6 (0-1') AH #9 (0-0.5') AH #11 (0-0.5') South 1 Sidewall Bottom Hole #1 (0-1') Bottom Hole #1 (1-1.5) Bottom Hole #1 (2-2.5') Bottom Hole #1 (3-3.5') Bottom Hole #1 (3.5-4')

### Sample Cross Reference 670700

### Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7.12.19)

| Matrix | Date Collected   | Sample Depth | Lab Sample Id |
|--------|------------------|--------------|---------------|
| S      | 08.19.2020 00:00 | 0 - 1 ft     | 670700-001    |
| S      | 08.19.2020 00:00 | 1 - 1.5 ft   | 670700-002    |
| S      | 08.19.2020 00:00 | 1.5 - 2 ft   | 670700-003    |
| S      | 08.19.2020 00:00 | 0 - 1 ft     | 670700-004    |
| S      | 08.19.2020 00:00 | 1 - 1.5 ft   | 670700-005    |
| S      | 08.19.2020 00:00 | 2 - 2.5 ft   | 670700-006    |
| S      | 08.19.2020 00:00 | 0 - 1 ft     | 670700-007    |
| S      | 08.19.2020 00:00 | 0 - 0.5 ft   | 670700-008    |
| S      | 08.19.2020 00:00 | 0 - 0.5 ft   | 670700-009    |
| S      | 08.19.2020 00:00 | 0 - 0 ft     | 670700-010    |
| S      | 08.19.2020 00:00 | 0 - 1 ft     | 670700-011    |
| S      | 08.19.2020 00:00 | 1 - 1.5 ft   | 670700-012    |
| S      | 08.19.2020 00:00 | 2 - 2.5 ft   | 670700-013    |
| S      | 08.19.2020 00:00 | 3 - 3.5 ft   | 670700-014    |
| S      | 08.19.2020 00:00 | 3.5 - 4 ft   | 670700-015    |
Received by OCD: 12/19/2020 9:49:53 AM

Environment Testing Xenco

#### **CASE NARRATIVE**

Client Name: Tetra Tech- Midland Project Name: Big Pappy Fed Com 2H (7.12.19)

Project ID: 212C-MD-01855 Work Order Number(s): 670700 
 Report Date:
 08.24.2020

 Date Received:
 08.21.2020

#### Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

#### Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7.12.19)

| Sample Id:    | AH #4 (0-1')           |                  | Matrix:    | So        | bil             |       | Date Received | 1:08.21. | 2020 10:5 | 55  |
|---------------|------------------------|------------------|------------|-----------|-----------------|-------|---------------|----------|-----------|-----|
| Lab Sample Io | l: 670700-001          |                  | Date Colle | ected: 08 | 8.19.2020 00:00 |       | Sample Depth  | :0-1f    | t         |     |
| Analytical Me | thod: Inorganic Anions | by EPA 300/300.1 |            |           |                 |       | Prep Method:  | E300F    | )         |     |
| Tech:         | MAB                    |                  |            |           |                 |       | % Moisture:   |          |           |     |
| Analyst:      | MAB                    |                  | Date Prep  | : 08      | 3.21.2020 13:00 |       | Basis:        | Wet W    | Veight    |     |
| Seq Number:   | 3135303                |                  |            |           |                 |       |               |          |           |     |
| Parameter     |                        | Cas Number       | Result     | RL        |                 | Units | Analysis Da   | ate      | Flag      | Dil |
| Chloride      |                        | 16887-00-6       | 3030       | 50.1      |                 | mg/kg | 08.21.2020 15 | 5:35     |           | 5   |

#### Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7.12.19)

| Sample Id:    | AH #4 (-1.5')          |                  | Matrix:    |        | Soil             |       | Date Received | 1:08.21  | .2020 10:: | 55  |
|---------------|------------------------|------------------|------------|--------|------------------|-------|---------------|----------|------------|-----|
| Lab Sample Io | l: 670700-002          |                  | Date Colle | ected: | 08.19.2020 00:00 |       | Sample Depth  | :1 - 1.: | 5 ft       |     |
| Analytical Me | thod: Inorganic Anions | by EPA 300/300.1 |            |        |                  |       | Prep Method:  | E300     | Р          |     |
| Tech:         | MAB                    |                  |            |        |                  |       | % Moisture:   |          |            |     |
| Analyst:      | MAB                    |                  | Date Prep  | :      | 08.21.2020 13:00 |       | Basis:        | Wet V    | Veight     |     |
| Seq Number:   | 3135303                |                  |            |        |                  |       |               |          |            |     |
| Parameter     |                        | Cas Number       | Result     | RL     |                  | Units | Analysis Da   | ate      | Flag       | Dil |
| Chloride      |                        | 16887-00-6       | 5010       | 49.    | 7                | mg/kg | 08.21.2020 1  | 5:41     |            | 5   |

### Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7.12.19)

| Sample Id:    | AH #4 (1.5-2')         |                  | Matrix:   | So        | oil             |       | Date Received | 1:08.21.20   | 020 10:5 | 55  |
|---------------|------------------------|------------------|-----------|-----------|-----------------|-------|---------------|--------------|----------|-----|
| Lab Sample Io | l: 670700-003          |                  | Date Coll | ected: 08 | 3.19.2020 00:00 |       | Sample Depth  | : 1.5 - 2 ft | t        |     |
| Analytical Me | thod: Inorganic Anions | by EPA 300/300.1 |           |           |                 |       | Prep Method:  | E300P        |          |     |
| Tech:         | MAB                    |                  |           |           |                 |       | % Moisture:   |              |          |     |
| Analyst:      | MAB                    |                  | Date Prep | o: 08     | 3.21.2020 13:00 |       | Basis:        | Wet We       | ight     |     |
| Seq Number:   | 3135303                |                  |           |           |                 |       |               |              |          |     |
| Parameter     |                        | Cas Number       | Result    | RL        |                 | Units | Analysis Da   | ate F        | lag      | Dil |
| Chloride      |                        | 16887-00-6       | 3150      | 49.9      |                 | mg/kg | 08.21.2020 15 | 5:57         |          | 5   |

#### Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7.12.19)

| Sample Id:    | AH #5 (0-1')           |                  | Matrix:   | Soil                   |       | Date Received | 1:08.21.2020 1 | 0:55 |
|---------------|------------------------|------------------|-----------|------------------------|-------|---------------|----------------|------|
| Lab Sample Io | l: 670700-004          |                  | Date Coll | ected: 08.19.2020 00:0 | 00    | Sample Depth  | :0 - 1 ft      |      |
| Analytical Me | thod: Inorganic Anions | by EPA 300/300.1 |           |                        |       | Prep Method:  | E300P          |      |
| Tech:         | MAB                    |                  |           |                        |       | % Moisture:   |                |      |
| Analyst:      | MAB                    |                  | Date Prep | : 08.21.2020 13:0      | 00    | Basis:        | Wet Weight     |      |
| Seq Number:   | 3135303                |                  |           |                        |       |               |                |      |
| Parameter     |                        | Cas Number       | Result    | RL                     | Units | Analysis D    | ate Flag       | Dil  |
| Chloride      |                        | 16887-00-6       | 1930      | 49.9                   | mg/kg | 08.21.2020 1  | 6:03           | 5    |

#### Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7.12.19)

| Sample Id:    | AH #5 (1-1.5')         |                  | Matrix:    | Soil                    |       | Date Received | 1:08.21.2020 | 10:55 |
|---------------|------------------------|------------------|------------|-------------------------|-------|---------------|--------------|-------|
| Lab Sample Io | l: 670700-005          |                  | Date Colle | ected: 08.19.2020 00:00 |       | Sample Depth  | :1 - 1.5 ft  |       |
| Analytical Me | thod: Inorganic Anions | by EPA 300/300.1 |            |                         |       | Prep Method:  | E300P        |       |
| Tech:         | MAB                    |                  |            |                         |       | % Moisture:   |              |       |
| Analyst:      | MAB                    |                  | Date Prep  | : 08.21.2020 13:00      |       | Basis:        | Wet Weight   |       |
| Seq Number:   | 3135303                |                  |            |                         |       |               |              |       |
| Parameter     |                        | Cas Number       | Result     | RL                      | Units | Analysis Da   | ate Flag     | Dil   |
| Chloride      |                        | 16887-00-6       | 1670       | 50.1                    | mg/kg | 08.21.2020 10 | 5:20         | 5     |

#### Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7.12.19)

| Sample Id:    | AH #5 (2-2.5')         |                  | Matrix:    | Soil                   |       | Date Received | 1:08.21.2020 | 0 10:55 |
|---------------|------------------------|------------------|------------|------------------------|-------|---------------|--------------|---------|
| Lab Sample Io | l: 670700-006          |                  | Date Colle | ected: 08.19.2020 00:0 | 0     | Sample Depth  | : 2 - 2.5 ft |         |
| Analytical Me | thod: Inorganic Anions | by EPA 300/300.1 |            |                        |       | Prep Method:  | E300P        |         |
| Tech:         | MAB                    |                  |            |                        |       | % Moisture:   |              |         |
| Analyst:      | MAB                    |                  | Date Prep  | : 08.21.2020 13:0      | 0     | Basis:        | Wet Weig     | ht      |
| Seq Number:   | 3135303                |                  |            |                        |       |               |              |         |
| Parameter     |                        | Cas Number       | Result     | RL                     | Units | Analysis D    | ate Flag     | g Dil   |
| Chloride      |                        | 16887-00-6       | 1630       | 50.2                   | mg/kg | 08.21.2020 1  | 6:25         | 5       |

#### Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7.12.19)

| Sample Id:    | AH #6 (0-1')           |                  | Matrix:    |       | Soil             |       | Date Received | 1:08.2 | 1.2020 10:: | 55  |
|---------------|------------------------|------------------|------------|-------|------------------|-------|---------------|--------|-------------|-----|
| Lab Sample Io | l: 670700-007          |                  | Date Colle | ected | 08.19.2020 00:00 |       | Sample Depth  | :0 - 1 | ft          |     |
| Analytical Me | thod: Inorganic Anions | by EPA 300/300.1 |            |       |                  |       | Prep Method:  | E300   | )P          |     |
| Tech:         | MAB                    |                  |            |       |                  |       | % Moisture:   |        |             |     |
| Analyst:      | MAB                    |                  | Date Prep  | :     | 08.21.2020 13:00 |       | Basis:        | Wet    | Weight      |     |
| Seq Number:   | 3135303                |                  |            |       |                  |       |               |        |             |     |
| Parameter     |                        | Cas Number       | Result     | RL    |                  | Units | Analysis D    | ate    | Flag        | Dil |
| Chloride      |                        | 16887-00-6       | 622        | 10    | ).0              | mg/kg | 08.21.2020 1  | 6:31   |             | 1   |

### Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7.12.19)

| Sample Id: AH #9 (0-0.5')                     |            | Matrix:       | Soil                |       | Date Received               | 1:08.21.2 | 2020 10:5 | 5   |
|---|------------|---------------|---------------------|-------|-----------------------------|-----------|-----------|-----|
| Lab Sample Id: 670700-008                     |            | Date Collecte | d: 08.19.2020 00:00 |       | Sample Depth                | :0-0.5    | ft        |     |
| Analytical Method: TPH By SW8015<br>Tech: DTH | Mod        |               |                     |       | Prep Method:<br>% Moisture: | SW801     | 5P        |     |
| Analyst: DTH<br>Seq Number: 3135293           |            | Date Prep:    | 08.21.2020 13:00    |       | Basis:                      | Wet W     | eight     |     |
| Parameter                                     | Cas Number | Result RI     |                     | Units | Analysis Da                 | ate       | Flag      | Dil |

|                                    |           |            |            |       |        | e                | 0    |   |  |
|------------------------------------|-----------|------------|------------|-------|--------|------------------|------|---|--|
| Gasoline Range Hydrocarbons (GRO)  | PHC610    | <50.0      | 50.0       |       | mg/kg  | 08.21.2020 14:17 | U    | 1 |  |
| Diesel Range Organics (DRO)        | C10C28DRO | <50.0      | 50.0       |       | mg/kg  | 08.21.2020 14:17 | U    | 1 |  |
| Motor Oil Range Hydrocarbons (MRO) | PHCG2835  | <50.0      | 50.0       |       | mg/kg  | 08.21.2020 14:17 | U    | 1 |  |
| Total TPH                          | PHC635    | <50.0      | 50.0       |       | mg/kg  | 08.21.2020 14:17 | U    | 1 |  |
| Surrogate                          |           | Cas Number | % Recovery | Units | Limits | Analysis Date    | Flag |   |  |
| 1-Chlorooctane                     |           | 111-85-3   | 92         | %     | 70-135 | 08.21.2020 14:17 |      |   |  |
| o-Terphenyl                        |           | 84-15-1    | 90         | %     | 70-135 | 08.21.2020 14:17 |      |   |  |
|                                    |           |            |            |       |        |                  |      |   |  |

## Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7.12.19)

| Sample Id:    | AH #11 (0-0.5')       |            | Matrix:        | Soil               |       | Date Received | :08.21.2 | 2020 10:5 | 5   |
|---------------|-----------------------|------------|----------------|--------------------|-------|---------------|----------|-----------|-----|
| Lab Sample Id | : 670700-009          |            | Date Collected | 1:08.19.2020 00:00 |       | Sample Depth  | :0-0.5   | ft        |     |
| Analytical Me | thod: TPH By SW8015 M | Aod        |                |                    |       | Prep Method:  | SW801    | 5P        |     |
| Tech:         | DTH                   |            |                |                    |       | % Moisture:   |          |           |     |
| Analyst:      | DTH                   |            | Date Prep:     | 08.21.2020 13:00   |       | Basis:        | Wet W    | eight     |     |
| Seq Number:   | 3135293               |            |                |                    |       |               |          |           |     |
| Parameter     |                       | Cas Number | Result RL      |                    | Units | Analysis Da   | ite ]    | Flag      | Dil |

| T di diffetter                     | Casitanibe | ittouit    | KL         |       | Units  | Analysis Date    | Flag | DI |   |
|------------------------------------|------------|------------|------------|-------|--------|------------------|------|----|---|
| Gasoline Range Hydrocarbons (GRO)  | PHC610     | <50.0      | 50.0       |       | mg/kg  | 08.21.2020 15:18 | U    | 1  | - |
| Diesel Range Organics (DRO)        | C10C28DRO  | <50.0      | 50.0       |       | mg/kg  | 08.21.2020 15:18 | U    | 1  |   |
| Motor Oil Range Hydrocarbons (MRO) | PHCG2835   | <50.0      | 50.0       |       | mg/kg  | 08.21.2020 15:18 | U    | 1  |   |
| Total TPH                          | PHC635     | <50.0      | 50.0       |       | mg/kg  | 08.21.2020 15:18 | U    | 1  |   |
| Surrogate                          |            | Cas Number | % Recovery | Units | Limits | Analysis Date    | Flag |    |   |
| 1-Chlorooctane                     |            | 111-85-3   | 90         | %     | 70-135 | 08.21.2020 15:18 |      |    |   |
| o-Terphenyl                        |            | 84-15-1    | 90         | %     | 70-135 | 08.21.2020 15:18 |      |    |   |

#### Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7.12.19)

| Sample Id:    | South 1 Sidewall       |                  | Matrix:    | Soil                    |       | Date Received | 1:08.21.2020 | 10:55 |
|---------------|------------------------|------------------|------------|-------------------------|-------|---------------|--------------|-------|
| Lab Sample Io | l: 670700-010          |                  | Date Colle | ected: 08.19.2020 00:00 | )     | Sample Depth  | :0-0ft       |       |
| Analytical Me | thod: Inorganic Anions | by EPA 300/300.1 |            |                         |       | Prep Method:  | E300P        |       |
| Tech:         | MAB                    |                  |            |                         |       | % Moisture:   |              |       |
| Analyst:      | MAB                    |                  | Date Prep  | : 08.21.2020 13:00      | )     | Basis:        | Wet Weigh    | t     |
| Seq Number:   | 3135303                |                  |            |                         |       |               |              |       |
| Parameter     |                        | Cas Number       | Result     | RL                      | Units | Analysis Da   | ate Flag     | Dil   |
| Chloride      |                        | 16887-00-6       | 130        | 9.98                    | mg/kg | 08.21.2020 10 | 6:36         | 1     |

#### Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7.12.19)

| Sample Id:    | Bottom Hole #1 (0-1')  |                  | Matrix:    |        | Soil             |       | Date Received | 1:08.21 | .2020 10:: | 55  |
|---------------|------------------------|------------------|------------|--------|------------------|-------|---------------|---------|------------|-----|
| Lab Sample Io | l: 670700-011          |                  | Date Colle | ected: | 08.19.2020 00:00 |       | Sample Depth  | :0-1    | ft         |     |
| Analytical Me | thod: Inorganic Anions | by EPA 300/300.1 |            |        |                  |       | Prep Method:  | E300    | Р          |     |
| Tech:         | MAB                    |                  |            |        |                  |       | % Moisture:   |         |            |     |
| Analyst:      | MAB                    |                  | Date Prep  | ):     | 08.21.2020 13:00 |       | Basis:        | Wet V   | Weight     |     |
| Seq Number:   | 3135303                |                  |            |        |                  |       |               |         |            |     |
| Parameter     |                        | Cas Number       | Result     | RL     |                  | Units | Analysis Da   | ate     | Flag       | Dil |
| Chloride      |                        | 16887-00-6       | 122        | 9.9    | 94               | mg/kg | 08.21.2020 10 | 5:42    |            | 1   |

#### Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7.12.19)

| Sample Id:    | Bottom Hole #1 (1-1.5  | 5)               | Matrix:    | Soil                    |       | Date Received | 1:08.21.2020 | 10:55 |
|---------------|------------------------|------------------|------------|-------------------------|-------|---------------|--------------|-------|
| Lab Sample Io | l: 670700-012          |                  | Date Colle | ected: 08.19.2020 00:00 | )     | Sample Depth  | : 1 - 1.5 ft |       |
| Analytical Me | thod: Inorganic Anions | by EPA 300/300.1 |            |                         |       | Prep Method:  | E300P        |       |
| Tech:         | MAB                    |                  |            |                         |       | % Moisture:   |              |       |
| Analyst:      | MAB                    |                  | Date Prep  | : 08.21.2020 13:00      | )     | Basis:        | Wet Weight   |       |
| Seq Number:   | 3135303                |                  |            |                         |       |               |              |       |
| Parameter     |                        | Cas Number       | Result     | RL                      | Units | Analysis Da   | ate Flag     | Dil   |
| Chloride      |                        | 16887-00-6       | 219        | 9.90                    | mg/kg | 08.21.2020 10 | 6:48         | 1     |

#### Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7.12.19)

| Sample Id:    | Bottom Hole #1 (2-2.5  | 5')              | Matrix:    | Soil                    |       | Date Received | 1:08.21.2020 | 10:55 |
|---------------|------------------------|------------------|------------|-------------------------|-------|---------------|--------------|-------|
| Lab Sample Io | l: 670700-013          |                  | Date Colle | ected: 08.19.2020 00:00 | )     | Sample Depth  | : 2 - 2.5 ft |       |
| Analytical Me | thod: Inorganic Anions | by EPA 300/300.1 |            |                         |       | Prep Method:  | E300P        |       |
| Tech:         | MAB                    |                  |            |                         |       | % Moisture:   |              |       |
| Analyst:      | MAB                    |                  | Date Prep  | : 08.21.2020 13:00      | )     | Basis:        | Wet Weigh    | t     |
| Seq Number:   | 3135303                |                  |            |                         |       |               |              |       |
| Parameter     |                        | Cas Number       | Result     | RL                      | Units | Analysis Da   | ate Flag     | Dil   |
| Chloride      |                        | 16887-00-6       | 35.1       | 10.1                    | mg/kg | 08.21.2020 10 | 6:53         | 1     |

Received by OCD: 12/19/2020 9:49:53 AM

#### Environment Testir Xenco

### **Certificate of Analytical Results 670700**

#### Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7.12.19)

| Sample Id:    | Bottom Hole #1 (3-3.5  | 5')              | Matrix:   | Soil                    |       | Date Received | 1:08.21.  | 2020 10:5 | 55  |
|---------------|------------------------|------------------|-----------|-------------------------|-------|---------------|-----------|-----------|-----|
| Lab Sample Io | l: 670700-014          |                  | Date Coll | ected: 08.19.2020 00:00 |       | Sample Depth  | 1:3 - 3.5 | ft        |     |
| Analytical Me | thod: Inorganic Anions | by EPA 300/300.1 |           |                         |       | Prep Method:  | E300P     | •         |     |
| Tech:         | MAB                    |                  |           |                         |       | % Moisture:   |           |           |     |
| Analyst:      | MAB                    |                  | Date Prep | : 08.21.2020 16:20      |       | Basis:        | Wet W     | /eight    |     |
| Seq Number:   | 3135304                |                  |           |                         |       |               |           |           |     |
| Parameter     |                        | Cas Number       | Result    | RL                      | Units | Analysis Da   | ate       | Flag      | Dil |
| Chloride      |                        | 16887-00-6       | 33.4      | 9.94                    | mg/kg | 08.21.2020 17 | 7:27      |           | 1   |

#### Tetra Tech- Midland, Midland, TX

Big Pappy Fed Com 2H (7.12.19)

| Sample Id:    | Bottom Hole #1 (3.5-4  | <b>!</b> ')      | Matrix:    |        | Soil             |       | Date Received | 1:08.2  | 1.2020 10:5 | 55  |
|---------------|------------------------|------------------|------------|--------|------------------|-------|---------------|---------|-------------|-----|
| Lab Sample Id | l: 670700-015          |                  | Date Colle | ected: | 08.19.2020 00:00 |       | Sample Depth  | : 3.5 - | 4 ft        |     |
| Analytical Me | thod: Inorganic Anions | by EPA 300/300.1 |            |        |                  |       | Prep Method:  | E300    | )P          |     |
| Tech:         | MAB                    |                  |            |        |                  |       | % Moisture:   |         |             |     |
| Analyst:      | MAB                    |                  | Date Prep  | ):     | 08.21.2020 16:20 |       | Basis:        | Wet     | Weight      |     |
| Seq Number:   | 3135304                |                  |            |        |                  |       |               |         |             |     |
| Parameter     |                        | Cas Number       | Result     | RL     |                  | Units | Analysis D    | ate     | Flag        | Dil |
| Chloride      |                        | 16887-00-6       | <10.0      | 10     | .0               | mg/kg | 08.21.2020 17 | 7:43    | U           | 1   |

- outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the quantitation limit and above the detection limit.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- **H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- **JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

\*\* Surrogate recovered outside laboratory control limit.

| BRL  | Below Reporting Limit.         | ND Not Detected.   |                  |                             |                                |
|------|--------------------------------|--------------------|------------------|-----------------------------|--------------------------------|
| RL   | Reporting Limit                |                    |                  |                             |                                |
| MDL  | Method Detection Limit         | SDL Sample Det     | ection Limit     | LOD Limit of Detection      |                                |
| PQL  | Practical Quantitation Limit   | MQL Method Qua     | antitation Limit | LOQ Limit of Quantitation   | 1                              |
| DL   | Method Detection Limit         |                    |                  |                             |                                |
| NC   | Non-Calculable                 |                    |                  |                             |                                |
| SMP  | Client Sample                  |                    | BLK              | Method Blank                |                                |
| BKS/ | LCS Blank Spike/Laboratory     | Control Sample     | BKSD/LCSD        | Blank Spike Duplicate/Labor | atory Control Sample Duplicate |
| MD/S | <b>D</b> Method Duplicate/Samp | le Duplicate       | MS               | Matrix Spike                | MSD: Matrix Spike Duplicate    |
| + NE | LAC certification not offered  | for this compound. |                  |                             |                                |

\* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

#### Received by OCD: 12/19/2020 9:49:53 AM

Xenco

**Environment Testing** 

🔅 eurofins

**QC Summary** 670700

#### **Tetra Tech- Midland**

Big Pappy Fed Com 2H (7.12.19)

| Analytical Method:                       | Inorganic Ani            | ions by         | y EPA 300       | /300.1                   | Motein      | Salid          |              |        | Pı   | ep Meth            | od: E30               | 0P               |      |
|--|--------------------------|-----------------|-----------------|--------------------------|-------------|----------------|--------------|--------|------|--------------------|-----------------------|------------------|------|
| MR Sample Id:                            | 7700083 1 BI             | V               |                 | LCS Sat                  | nnle Id.    | 7709983-       | I-BKS        |        | LCS  | Date FI            | ep. 08.2<br>e Id: 770 | 9983-1-BSD       |      |
| Parameter                                | 7707903-1-DL             | MB<br>Result    | Spike<br>Amount | LCS Sur<br>LCS<br>Result | LCS         | LCSD           |              | Limits | %RPD | RPD<br>Limit       | Units                 | Analysis<br>Date | Flag |
| Chloride                                 |                          | <10.0           | 250             | 263                      | 105         | 266            | 106          | 90-110 | 1    | 20                 | mg/kg                 | 08.21.2020 14:11 |      |
| Analytical Method:                       | Inorganic Ani            | ions by         | y EPA 300/      | /300.1                   |             |                |              |        | Pı   | ep Meth            | od: E30               | 0P               |      |
| Seq Number:                              | 3135304                  |                 |                 | T CC C                   | Matrix:     | Solid          | DUG          |        | I GG | Date Pr            | ep: 08.2              | 21.2020          |      |
| MB Sample Id:                            | 7709984-1-BL             | .K              |                 | LCS Sar                  | nple Id:    | //09984        | I-BKS        |        | LCS  | D Sample           | e Id: 770             | 9984-1-BSD       |      |
| Parameter                                | R                        | MB<br>Result    | Spike<br>Amount | LCS<br>Result            | LCS<br>%Rec | LCSD<br>Result | LCSD<br>%Rec | Limits | %RPD | RPD<br>Limit       | Units                 | Analysis<br>Date | Flag |
| Chloride                                 | •                        | <10.0           | 250             | 263                      | 105         | 266            | 106          | 90-110 | 1    | 20                 | mg/kg                 | 08.21.2020 17:15 |      |
| Analytical Method:                       | Inorganic Ani            | ions by         | y EPA 300,      | /300.1                   |             |                |              |        | Pı   | ep Meth            | od: E30               | 0P               |      |
| Seq Number:                              | 3135303                  |                 |                 | MGG                      | Matrix:     | Soil           | 01 G         |        | MG   | Date Pr            | ep: 08.2              | 21.2020          |      |
| Parent Sample Id:                        | 670695-001               |                 |                 | MS Sai                   | npie ia:    | 670695-00      | 11.5         |        | MS   | D Sampi            | e Id: 670             | 695-001 SD       |      |
| Parameter                                | Pa<br>R                  | arent<br>Result | Spike<br>Amount | MS<br>Result             | MS<br>%Rec  | MSD<br>Result  | MSD<br>%Rec  | Limits | %RPD | RPD<br>Limit       | Units                 | Analysis<br>Date | Flag |
| Chloride                                 | 1                        | 17600           | 200             | 17800                    | 100         | 17800          | 101          | 90-110 | 0    | 20                 | mg/kg                 | 08.21.2020 14:28 |      |
| <b>Analytical Method:</b><br>Sea Number: | Inorganic Ani<br>3135303 | ions by         | y EPA 300/      | /300.1                   | Matrix:     | Soil           |              |        | Pı   | ep Meth<br>Date Pr | od: E30               | 0P<br>21.2020    |      |
| Parent Sample Id:                        | 670700-002               |                 |                 | MS Sai                   | nple Id:    | 670700-00      | 02 S         |        | MS   | D Sampl            | e Id: 670             | 700-002 SD       |      |
| Parameter                                | Pa<br>R                  | arent<br>Result | Spike<br>Amount | MS<br>Result             | MS<br>%Rec  | MSD<br>Result  | MSD<br>%Rec  | Limits | %RPD | RPD<br>Limit       | Units                 | Analysis<br>Date | Flag |
| Chloride                                 |                          | 5010            | 198             | 5210                     | 101         | 5210           | 99           | 90-110 | 0    | 20                 | mg/kg                 | 08.21.2020 15:46 |      |
| Analytical Method:<br>Seq Number:        | Inorganic Ani<br>3135304 | ions by         | y EPA 300/      | /300.1                   | Matrix:     | Soil           |              |        | Pı   | ep Meth<br>Date Pr | od: E30<br>ep: 08.2   | 00P<br>21.2020   |      |
| Parent Sample Id:                        | 670700-014               |                 |                 | MS Sai                   | nple Id:    | 670700-0       | 14 S         |        | MS   | D Sampl            | e Id: 670             | 700-014 SD       |      |
| Parameter                                | P:<br>R                  | arent<br>Result | Spike<br>Amount | MS<br>Result             | MS<br>%Rec  | MSD<br>Result  | MSD<br>%Rec  | Limits | %RPD | RPD<br>Limit       | Units                 | Analysis<br>Date | Flag |
| Chloride                                 |                          | 33.4            | 199             | 236                      | 102         | 237            | 102          | 90-110 | 0    | 20                 | mg/kg                 | 08.21.2020 17:32 |      |
|  |                          |                 |                 |                          |             |                |              |        |      |                    |                       |                  |      |

MS/MSD Percent Recovery Relative Percent Difference LCS/LCSD Recovery Log Difference

[D] = 100\*(C-A) / B $\begin{array}{l} \text{[D]} & = 100^{+} \left[ (\text{C-E}) / (\text{C+E}) \right] \\ \text{[D]} & = 100^{+} (\text{C}) / [\text{B}] \\ \text{Log Diff.} & = \text{Log(Sample Duplicate)} - \text{Log(Original Sample)} \end{array}$  LCS = Laboratory Control Sample A = Parent Result C = MS/LCS Result E = MSD/LCSD Result

MS = Matrix Spike B = Spike Added D = MSD/LCSD % Rec

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#### Received by OCD: 12/19/2020 9:49:53 AM

eurofins Environment Testing Xenco

## Tetra Tech- Midland

Big Pappy Fed Com 2H (7.12.19)

| Analytical Method:       | TPH By S   | W8015 M      | od              |               |             |                |              |                 | P         | rep Metho    | od: SW    | 8015P            |      |
|--------------------------|------------|--------------|-----------------|---------------|-------------|----------------|--------------|-----------------|-----------|--------------|-----------|------------------|------|
| Seq Number:              | 3135293    |              |                 | ]             | Matrix:     | Solid          |              |                 |           | Date Pr      | ep: 08.2  | 21.2020          |      |
| MB Sample Id:            | 7709972-1- | -BLK         |                 | LCS San       | nple Id:    | 7709972-       | I-BKS        |                 | LCS       | D Sample     | e Id: 770 | 9972-1-BSD       |      |
| Parameter                |            | MB<br>Result | Spike<br>Amount | LCS<br>Result | LCS<br>%Rec | LCSD<br>Result | LCSD<br>%Rec | Limits          | %RPD      | RPD<br>Limit | Units     | Analysis<br>Date | Flag |
| Gasoline Range Hydrocarb | ons (GRO)  | < 50.0       | 1000            | 929           | 93          | 956            | 96           | 70-135          | 3         | 35           | mg/kg     | 08.21.2020 13:37 |      |
| Diesel Range Organics    | (DRO)      | <50.0        | 1000            | 977           | 98          | 1010           | 101          | 70-135          | 3         | 35           | mg/kg     | 08.21.2020 13:37 |      |
| Surrogate                |            | MB<br>%Rec   | MB<br>Flag      | L0<br>%]      | CS<br>Rec   | LCS<br>Flag    | LCSI<br>%Re  | ) LCS<br>c Flag | D Li<br>g | imits        | Units     | Analysis<br>Date |      |
| 1-Chlorooctane           |            | 87           |                 | 1             | 10          |                | 111          |                 | 70        | -135         | %         | 08.21.2020 13:37 |      |
| o-Terphenyl              |            | 87           |                 | 10            | 00          |                | 101          |                 | 70        | -135         | %         | 08.21.2020 13:37 |      |
|                          |            |              |                 |               |             |                |              |                 |           |              |           |                  |      |

| Analytical Method:<br>Seq Number: | <b>TPH By SW8015 Mod</b> 3135293 | Matrix:<br>MB Sample Id: | Solid<br>7709972-1-BLK | Prep Method:<br>Date Prep: | SW3<br>08.2   | 8015P<br>11.2020 |      |
|-----------------------------------|----------------------------------|--------------------------|------------------------|----------------------------|---------------|------------------|------|
| Parameter                         |                                  | MB<br>Result             |                        | τ                          | J <b>nits</b> | Analysis<br>Date | Flag |
| Motor Oil Range Hydrocarb         | ons (MRO)                        | <50.0                    |                        | n                          | ng/kg         | 08.21.2020 11:57 |      |

| Analytical Method:        | TPH By SW  | 78015 M          | od              |              |            |               |             |                 | Pi        | rep Meth     | od: SW    | 8015P            |      |
|---------------------------|------------|------------------|-----------------|--------------|------------|---------------|-------------|-----------------|-----------|--------------|-----------|------------------|------|
| Seq Number:               | 3135293    |                  |                 | ]            | Matrix:    | Soil          |             |                 |           | Date Pr      | ep: 08.2  | 21.2020          |      |
| Parent Sample Id:         | 670700-008 |                  |                 | MS San       | nple Id:   | 670700-00     | )8 S        |                 | MS        | D Sample     | e Id: 670 | 700-008 SD       |      |
| Parameter                 |            | Parent<br>Result | Spike<br>Amount | MS<br>Result | MS<br>%Rec | MSD<br>Result | MSD<br>%Rec | Limits          | %RPD      | RPD<br>Limit | Units     | Analysis<br>Date | Flag |
| Gasoline Range Hydrocarbo | ons (GRO)  | < 50.0           | 1000            | 968          | 97         | 968           | 97          | 70-135          | 0         | 35           | mg/kg     | 08.21.2020 14:37 |      |
| Diesel Range Organics (   | DRO)       | <50.0            | 1000            | 1010         | 101        | 1020          | 102         | 70-135          | 1         | 35           | mg/kg     | 08.21.2020 14:37 |      |
| Surrogate                 |            |                  |                 | N<br>%]      | IS<br>Rec  | MS<br>Flag    | MSD<br>%Re  | ) MSI<br>c Flag | ) Li<br>g | imits        | Units     | Analysis<br>Date |      |
| 1-Chlorooctane            |            |                  |                 | 1            | 20         |               | 119         |                 | 70        | -135         | %         | 08.21.2020 14:37 |      |
| o-Terphenyl               |            |                  |                 | 1            | 07         |               | 109         |                 | 70        | -135         | %         | 08.21.2020 14:37 |      |

MS/MSD Percent Recovery Relative Percent Difference LCS/LCSD Recovery Log Difference  $\begin{array}{l} [D] = 100*(C-A) \ / \ B \\ RPD = 200* \ | \ (C-E) \ / \ (C+E) \ | \\ [D] = 100*(C) \ / \ [B] \\ Log \ Diff. = Log(Sample \ Duplicate) \ - \ Log(Original \ Sample) \end{array}$ 

 $LCS = Laboratory \ Control \ Sample \\ A = Parent \ Result \\ C = MS/LCS \ Result \\ E = MSD/LCSD \ Result$ 

MS = Matrix Spike B = Spike Added D = MSD/LCSD % Rec

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|  |                                     | quished by:                        |   | quished by:      | idual for the    | Miliehod by: | AH           | AH          | AH        | AH          | AH          | AH        | AH          | AH          | АН   | ONLY   | LAB #  |  |   | omments:                   | eceiving Laborato    | voice to:     | roject Location:<br>county, state) | Toject Name:                   | roint Name.      | Dient Name:  |               |
|--|-------------------------------------|------------------------------------|---|------------------|------------------|--------------|--------------|-------------|-----------|-------------|-------------|-----------|-------------|-------------|--|--|--|--|---|----------------------------|----------------------|---------------|------------------------------------|--------------------------------|------------------|--|---------------|
|  |                                     | Date: Time:                        |   | Date: Time:      | Date: Time:      |              | #11 (0-0.5') | #9 (0-0.5') | #6 (0-1') | #5 (2-2.5') | #5 (1-1.5') | #5 (0-1') | #4 (1.5-2') | #4 (1-1.5') | #4 (0-1')  |  | SAMPLE IDENTIFICATION  |  |   | Xenco                      | COG - Ike Taverez    |               | Eddy Co. NM                        | Big Pappy Fed Com 2H (7.12.19) | COG              | rena recu, inc   | Totas Total I |
|  |                                     | Received by:                       | neceived by:                                  | Car              | Received by:     |              | 8/19/2020    | 8/19/2020   | 8/19/2020 | 8/19/2020   | 8/10/2020   | 8/19/2020 | 8/19/2020   | 8/19/2020   | 8/19/2020  | DATE   | YEAR: 2020   | SAMPLIN  |   | Sampler Signatu            | 0                    |               | Project #:                         |                                | Site Manager:    |  |               |
|  |                                     | Date: Time:                        | Date: Time:                                   | utton Sializio 1 | Date: Time:      | ,            | ×××          | × >         | < >       | < >         | < >         | × >       | ×           | × ×         | X  | TIME<br>WATER<br>SOIL<br>HCL<br>HNO <sub>3</sub><br>CE   |  | NG MATRIX PRESERVA   |   | Conner Moehring            |                      | 212C-MD-01855 |                                    |                                | Mike Carmona     | 901 W Wall Street, Ste 1<br>Midland, Texas 79705<br>Tel (432) 682-4559<br>Fax (432) 682 3946 |               |
|  |                                     |                                    |   | 0:55             |                  | -            | 4 - N        | 4 11<br>2 Z | 1 N       |             | - Z         |           |             | 4 - 12      | 4 #  | CONTA  | INERS<br>D (Y/N  |  |   |                            |                      |               |                                    |                                |                  | 0  |               |
| Cirile HAND DEI WEDER EEDEV IND TANKAL | Special Report Limits or TRRP Repor | H. Y. Y. A Rush Charges Authorized | Sample Temperature RUSH: Same Day 24 hr 48 hr | ONLY STANDARD    | AR IISE REMARKS: |              |              |             |           |             |             |           |             |             | B<br>T<br>T<br>T<br>T<br>T<br>T<br>T<br>T<br>T<br>T<br>T<br>T<br>T<br>T<br>T<br>T<br>T<br>T<br>T | TEX 802<br>PH TX10<br>PH 8015i<br>AH 82700<br>btal Metal<br>CLP Volat<br>CLP Volat<br>CLP Semi<br>Cl<br>C/MS Vol.<br>C/MS Sen<br>CB's 8082<br>DRM<br>M (Asbess<br>loride<br>aneral Wa<br>ion/Catio | 1B<br>05 (Ex<br>C<br>C<br>s Ag A<br>Is Ag /<br>iles<br>Volati<br>8260<br>Volati<br>8260<br>2 / 608<br>tos)<br>Sulfat<br>ter Ci<br>n Bala | BTEX<br>BTEX<br>BTEX<br>BTEX<br>BTEX<br>BTEX<br>BTEX<br>BTEX | 8260B<br>35)<br>RO - OF<br>Cd Cr Pt<br>Cd Cd Cr Pt<br>Cd Cd Cr Pt<br>Cd Cd C | RO - M<br>o Se H<br>o Se H | RO)<br>9<br>ed list) |               |                                    | (Circle or Specify Method No.) | ANALYSIS REQUEST | LOE"   | rage          |
|  | a                                   |                                    | 72 hr   |                  |                  |              |              |             |           |             |             |           |             |             |  |  |  |  |   |                            |                      |               |                                    |                                |                  | 06   | 1 of          |

|                   | quantos by.                             | nuished he    | nquished by  | 22           | nquished by:  |  |   |                         |                         |                         |                         |           |           |                              | LAB USE )   | I AR #             |                             |                         | omments:        | ceiving Labo | voice to:         | ounty, state) | roiect   ocatio                | roject Name: | lient Name:   | لم<br>ا   |
|-------------------|---|---------------|--------------|--------------|---------------|--|---|-------------------------|-------------------------|-------------------------|-------------------------|-----------|-----------|------------------------------|---|--------------------|-----------------------------|-------------------------|-----------------|--------------|-------------------|---------------|--------------------------------|--------------|---------------|---|
|                   | Date: Time:                             |               | Date: Time:  | 2 8/2/1 1055 | Date: Time    |  |   | Bottom hole #1 (3.5-4') | Bottom hole #1 (3-3.5') | Bottom hole #1 (2-2.5') | Bottom hole #1 (1-1.5') |           |           | South 1 Sidewall             | SAMPLE IDENTIFICATION   |                    |                             |                         | Xenco           | ratory:      | COG - Ike Taverez |               | Big Pappy Fed Com 2H (7.12.19) | 2            | 006           | Tetra Tech, Inc   |
| ORIGINAL COI      | Received by:                            |               | Received by: | Cher Ch      | Deposited by: |  |   | 8/19/2020               | 8/19/2020               | 8/19/2020               | 8/19/2020               | 8/19/2020 | 8/19/2020 | E                            | DATE  | YEAR: 2020         | SAMPLIN                     |                         | sampler signatu | 0            |                   | Project #:    |                                |              | Site Manager: | •   |
| Pγ                | Da                                      |               | D            | A 2 2 2      |               |  |   | ×                       | ×                       | ×                       | ×                       | ×         | ×         | T<br>V<br>S                  | VATER<br>SOIL   |                    | IG MATRIX                   |                         | re:<br>Conn     |              |                   | 2120          |                                | IVIKe Ca     | Miloo         | 901V  |
|                   | ate: Time:                              |               | ate: Time:   | ate: Time:   |               |  |   | ×                       | ×                       | ×                       | ×                       | ×         | ×         | H IC N                       | HCL<br>HNO <sub>3</sub><br>CE<br>Ione                             |                    | PRESERVATIVE                |                         | ler Moehring    |              |                   | -MD-01855     |                                | armona       |               | V Wall Street, Ste 100<br>dland,Texas 79705<br>el (432) 682-4559<br>ax (432) 682-3946 |
| 15                |   | - 60          | ł            | アカ           |               |  |   | 1 .<br>Z                | Z                       | L<br>N                  | 1<br>N                  | N L       | 1 N       | #<br>FI                      | CONTAINE  | EF                 | IS<br>V)                    |                         |                 |              |                   |               |                                |              |               |   |
| ircle) HAND DELIV | 1.1/4.0                                 |               |              | LAB USE      |               |  |   |                         |                         |                         |                         |           |           | BT<br>TF<br>TF<br>PA         | TEX 8021B<br>PH TX1005<br>PH 8015M (<br>AH 8270C<br>otal Metals A | 3<br>5 (E<br>( G   | BTEX<br>Ext to CC<br>RO - D | 8260B<br>35)<br>RO - OF | RO - M          | RO           | ))                |               |                                | <u>.</u>     |               |   |
| ERED FEDEX U      | Special F                               |               |              | REMARKS:     |               |  |   |                         |                         |                         |                         |           |           | TC<br>TC<br>TC<br>RC         | CLP Metals ,<br>CLP Volatile:<br>CLP Semi Vo<br>Cl<br>C/MS Vol. 8 | Ag<br>ola          | As Ba<br>tiles              | Cd Cr P                 | b Se H          | lg           |                   |               |                                | ANALYSI      |               |   |
| S Tracking #:     | arges Authorized<br>leport Limits or TF | Same Day 24 h |              | NDARD        |               |  | > | < ×                     | ; >                     | < >                     | < >                     | ×         | ×         | GC<br>PC<br>NO<br>PLI<br>Chi | C/MS Semi.<br>CB's 8082 /<br>DRM<br>M (Asbesto:<br>loride         | 60<br>(s)          | bl. 8270<br>8               | 0C/625                  |                 |              |                   |               |                                | S REQUEST    | 6.0           | 1050  |
|                   | RP Report                               | r 48 hr 72 hr | )            |              |               |  |   |                         |                         |                         |                         |           |           | Ch<br>Ge<br>Ani              | loride Sumeral Wate   | ulfa<br>er (<br>Ba | ate TI<br>Chemist<br>Iance  | DS<br>try (see          | attach          | ned          | list)             |               | NO.)                           |              | 100           | 1<br>Cn   |
|                   |   |               |              | ŀ            | +             |  |   | -                       |                         |                         | -                       | T         | ł         | Hol                          | ld  |                    |                             |                         |                 | _            |                   |               | _                              |              |               |   |

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## **Eurofins Xenco, LLC**

#### Prelogin/Nonconformance Report- Sample Log-In

| Client: Tetra Tech- Midland                             | Acceptable Temperature Range: 0 - 6 degC<br>Air and Metal samples Acceptable Range: Ambient |                                      |  |  |
|---|---|--------------------------------------|--|--|
| Date/ Time Received: 08.21.2020 10.55.00 AM             |   |                                      |  |  |
| Work Order #: 670700                                    | Temperature Measuring device used: T_NM_007   |                                      |  |  |
| Sample Recei  | pt Checklist  | Comments                             |  |  |
| #1 *Temperature of cooler(s)?                           | 4.2   |                                      |  |  |
| #2 *Shipping container in good condition?               | Yes   |                                      |  |  |
| #3 *Samples received on ice?                            | Yes   |                                      |  |  |
| #4 *Custody Seals intact on shipping container/ cooler? | Yes   |                                      |  |  |
| #5 Custody Seals intact on sample bottles?              | Yes   |                                      |  |  |
| #6*Custody Seals Signed and dated?                      | Yes   |                                      |  |  |
| #7 *Chain of Custody present?                           | Yes   |                                      |  |  |
| #8 Any missing/extra samples?                           | No  |                                      |  |  |
| #9 Chain of Custody signed when relinquished/ received? | Yes   |                                      |  |  |
| #10 Chain of Custody agrees with sample labels/matrix?  | Yes   |                                      |  |  |
| #11 Container label(s) legible and intact?              | Yes   |                                      |  |  |
| #12 Samples in proper container/ bottle?                | Yes   | Samples received in bulk containers. |  |  |
| #13 Samples properly preserved?                         | Yes   |                                      |  |  |
| #14 Sample container(s) intact?                         | Yes   |                                      |  |  |
| #15 Sufficient sample amount for indicated test(s)?     | Yes   |                                      |  |  |
| #16 All samples received within hold time?              | Yes   |                                      |  |  |
| #17 Subcontract of sample(s)?                           | No  |                                      |  |  |
| #18 Water VOC samples have zero headspace?              | N/A   |                                      |  |  |

#### \* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by:

Date: 08.21.2020

Checklist reviewed by: Jessica Kramer

Date: 08.21.2020

**Received by OCD: 12/19/2020 9:49:53 AM** Form C-141 State of New Mexico

Oil Conservation Division

| Incie | dent ID     |  |
|-------|-------------|--|
| Dist  | rict RP     |  |
| Faci  | lity ID     |  |
| App   | lication ID |  |

# **Remediation Plan**

| Remediation Plan Checklist: Each of the following items must be included in the plan.  |  |  |  |
|--|--|--|--|
| <ul> <li>Detailed description of proposed remediation technique</li> <li>Scaled sitemap with GPS coordinates showing delineation points</li> <li>Estimated volume of material to be remediated</li> <li>Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC</li> <li>Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)</li> </ul>  |  |  |  |
| Deferral Requests Only: Each of the following items must be confirmed as part of any request for deferral of remediation.  |  |  |  |
| Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.   |  |  |  |
| Extents of contamination must be fully delineated.   |  |  |  |
| Contamination does not cause an imminent risk to human health, the environment, or groundwater.  |  |  |  |
| I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. |  |  |  |
| Printed Name: Title:   |  |  |  |
| Signature: Date:   |  |  |  |
| email: Telephone:  |  |  |  |
| OCD Only   |  |  |  |
| Received by: <u>Robert Hamlet</u> Date: <u>4/15/2021</u>   |  |  |  |
| Approved With Attached Conditions of Approval Denied Deferral Approved   |  |  |  |
| Signature: Robert Hamlet Date: 4/15/2021   |  |  |  |

| District I<br>1625 N. French Dr., Hobbs, NM 88240  | State of New Mexico   | CONDITIONS   |
|--|---|--------------|
| 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 | Energy, Minerals and Natural Resources<br>Oil Conservation Division<br>1220 S. St Francis Dr.<br>Santa Fe, NM 87505 | Action 12743 |

#### CONDITIONS OF APPROVAL

| Operator:  |                   |                    |                  | OGRID: | Action Number: | Action Type: |
|--|-------------------|--------------------|------------------|--------|----------------|--------------|
|  | COG OPERATING LLC | 600 W Illinois Ave | Midland, TX79701 | 229137 | 12743          | C-141        |
|  |                   |                    |                  |        |                |              |
| OCD  | Condition         |                    |                  |        |                |              |
| Reviewer   |                   |                    |                  |        |                |              |
| rhamlet The Remediation Plan is approved with the following conditions: All pasture floor samples 0-4' need to be below closure criteria standards of <50' depth to groundwater from Table 1 of the spill rule. If evidence of depth to ground water within a ½ mile radius of the site cannot be provided, impacted soils will need to meet Table 1 Closure Criteria for ground water at a depth of 50 feet or less. Please keep OCD up to date on the chloride concentrations in the draw area and any BLM decision. |                   |                    |                  |        |                |              |