

Jon Niermann, *Chairman*
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Catarina R. Gonzales, *Commissioner*
Kelly Keel, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

September 26, 2024

Laurie Gharis
Texas Commission on Environmental Quality
Office of the Chief Clerk, MC-105
P.O. Box 13087
Austin, Texas 78711-3087

Re: Application by Schreiber Foods, Inc.
TLAP No. WQ003074000
TCEQ Docket No. 2024-0133-IWD

Dear Ms. Gharis:

I have enclosed the following copies of documents to be included in the Administrative Record for the above-referenced case as required by 30 Tex. Admin Code § 80.118. The documents included are as follows:

- Draft Permit No. WQ003074000
- The ED's Technical Memos (includes the ED's Preliminary decision and Compliance History Report)

Sincerely,

A handwritten signature in black ink, appearing to read "Allie Soileau".

Allie Soileau
Staff Attorney
Environmental Law Division



PERMIT NO. WQ0003074000

TEXAS COMMISSION ON ENVIRONMENTAL
QUALITY

P.O. Box 13087
Austin, Texas 78711-3087

This major amendment replaces
TCEQ Permit No. WQ0003074000
issued on, June 25, 2019.

PERMIT TO DISPOSE OF WASTES

under provisions of
Chapter 26 of the Texas Water Code

I. NAME OF PERMITTEE

- A. Name: Schreiber Foods, Inc.
B. Address: P.O. Box 19010
Green Bay, Wisconsin 54307

II. NATURE OF BUSINESS PRODUCING WASTE

A specialty dairy food products manufacturer (SIC 2022 and 2023)

III. GENERAL DESCRIPTION AND LOCATION OF WASTE DISPOSAL SYSTEM

Description: Process wastewater, consisting of captured washwater along with milk minerals, organics, and cleaning compounds, is collected and routed through a monitoring station which includes a bar screen for solids removal. The process wastewater is then pumped to a dissolved air floatation tank for additional solids removal. Domestic wastewater is treated by a chlorination system prior to being commingled with the process wastewater at the lift station. From the lift station, the effluent is pumped to a storage/treatment system consisting of a three-million-gallon aeration lagoon equipped with 200 horsepower (hp) of aeration equipment and two, three million-gallon aeration lagoons (Aerated Storage Basins No. 1 and 2) equipped with 60 hp of aeration equipment each. Effluent from the lagoons is routed to a center-pivot irrigation system consisting of a 61-acre tract for irrigating crops of Coastal Bermuda, soybean Hay, or Forage Sorghum (primary crops) and Ryegrass or Small Grains (supplemental cool-weather crops).

Location: The facility and land application site are located at 923 County Road 176, near the City of Stephenville, Erath County, Texas 76401.

Drainage Basin: The facility and disposal site are located in the drainage area of Paluxy River/North Paluxy River in Segment No. 1229 of the Brazos River Basin. No discharge of pollutants into water in the state is authorized by this permit.

This permit shall expire at midnight ten years from the date of permit issuance.

ISSUED DATE:

For the Commission

IV. CONDITIONS OF THE PERMIT

Character: Treated wastewater (process and domestic) from a specialty dairy foods manufacturing facility.

Volume: Daily average flow not to exceed 192,000 gallons per day (gpd) of treated wastewater from the facility to the effluent treatment/storage lagoons

Quality: Effluent routed from the effluent treatment/storage lagoons shall be monitored for the following parameters:

Parameter	Daily Average, mg/L	Daily Maximum, mg/L	Frequency	Sample Type
Flow	192,000 gpd	Report, gpd	1/day ¹	Flow Meter
Chloride	Record	N/A	1/6 months	Grab
Sodium	Record	N/A	1/6 months	Grab
Total Phosphorus	Record	N/A	1/6 months	Grab
Total Dissolved Solids	4000	N/A	1/6 months	Grab
Total Suspended Solids	650	N/A	1/6 months	Grab
Biochemical Oxygen Demand (5-day)	Record	N/A	1/week	Grab
Oil and Grease	N/A	15	1/week	Grab
Total Nitrogen	Record	N/A	1/week	Grab
pH, Standard Units (SU)	6.0 SU, min	9.0 SU	1/day	Grab

Wastewater quality samples shall be obtained during periods of irrigation from sample ports near the pump(s) which pump the treated wastewater into the irrigation system. Unless allowed by approved analytical method, the analysis of all pollutant parameters for compliance purposes shall be performed as a homogenous sample.

Results from the analyses must be retained on site for five years and available for inspection by authorized representatives of the Texas Commission on Environmental Quality (TCEQ). This data must be submitted to the TCEQ Enforcement Division (MC 224), Industrial Permits Team (MC 148), and Region 4 Office during the month of September of each calendar year.

Application Rate: The following application rates shall be calculated using readings from the flow meter(s) for the irrigation systems:

Hydraulic Loading Rate: 3.53 acre-feet/acre/year

Nitrogen Loading Rate: 360 lbs/acre/year ²

Organic Loading Rate: 100 lbs/acre/day ³

¹ Flow shall be monitored after all wastewaters are commingled and prior to entering the effluent treatment/storage lagoons.

² Measured as total nitrogen. See Special Provision A.5.

³ Measured as biochemical oxygen demand, 5-day.

V. SPECIAL PROVISIONS:

- A. For the purpose of Part IV of this permit, the following definitions shall apply:
1. Grab sample – an individual sample collected in less than 15 minutes.
 2. Grab sample quality – the quality determined by measuring the concentration in milligrams per liter, parts per million, or other appropriate units of measurement in a single grab sample of the defined waste.
 3. Daily average flow volume – the arithmetic average of all determinations of the daily flow measurement within a period of one calendar month. The daily average flow determination shall consist of determinations made on at least four separate days. If instantaneous measurements are used to determine the daily discharge, the determination shall be the arithmetic average of all instantaneous measurements taken during that month.
 4. Daily maximum flow - the highest total flow for any 24-hour period in a calendar month.
 5. Total nitrogen shall mean the combination of analytical results for ammonia (as N), nitrate-nitrogen, and total organic nitrogen.
- B. The permittee shall provide a minimum irrigation field area of 61 acres, exclusive of buffer zones, roadways, ponds, and embankment areas, and other disposal area accessories. The permittee shall maintain a minimum buffer zone of 150 feet from any existing or proposed water supply wells located at or adjacent to this facility. Additional land may be added provided that the permittee submits a map which updates the location of the land tracts used for industrial waste irrigation and obtains approval from the Executive Director of the TCEQ prior to initiating irrigation of the added acreage.
- C. This permit does not authorize the discharge of any pollutant from the irrigation site. All wastewater generated at the facility shall be used for irrigation of fields on company owned or leased land as described in the application. The wastewater disposal system shall be designed and operated to prevent:
1. Discharge from the irrigated property.
 2. Recharge of groundwater resources which supply or may potentially supply domestic raw water.
 3. The occurrence of nuisance conditions.
- D. This permit does not authorize the discharge or disposal of whey or any other cheese-manufacturing by-products. The disposal of untreated wastewater generated from the washing of tanker trucks, cheese tables, and any other clean-up operation is also prohibited.
- E. This permit does not authorize the discharge of domestic wastewater. All domestic wastewater must be disposed of in an approved manner, such as routing to an approved on-site septic tank and drainfield system or to an authorized third party for treatment and disposal.

In addition, this permit authorizes the disposal of treated domestic wastewater from the on-site domestic wastewater treatment system located at this facility, before commingling with the process wastewater for further treatment and final disposal on the facility's irrigation tract.

The sanitary solids separator effluent shall be chlorinated sufficiently to maintain a minimum of 1.0 mg/l chlorine residual after at least 20 minutes contact time prior to commingling with any other waste stream.

- F. The land utilized for wastewater irrigation shall be defined on appropriate maps and updated as necessary. The map(s) shall be available for inspection by authorized representatives of the TCEQ. The permittee shall maintain a permanent crop of Bermuda grass, soybean hay, or forage sorghum (primary crops) and Ryegrass or small grains (cool season) over the irrigated area. The irrigated fields shall be mowed at least twice each year, and all resulting hay shall be removed from the fields. Fertilizers shall be used if required to maintain healthy crops on the irrigated fields.
- G. By ownership or deed recorded easement, the permittee shall maintain a minimum buffer zone of 500 feet from lagoons with zones of anaerobic activity (e.g. facultative lagoons) and 50 feet from the perimeter of all irrigated land areas to the nearest property line. The easement must clearly establish the buffer zone boundaries and must set forth any specific activities which are restricted within the buffer zone.

H. POND REQUIREMENTS

A wastewater pond must comply with the following requirements. A wastewater pond (or lagoon) is an earthen structure used to evaporate, hold, store, or treat water that contains a *waste* or *pollutant* or that would cause *pollution* upon *discharge* as those terms are defined in Texas Water Code §26.001, but does not include a pond that contains only stormwater.

1. This subheading is intentionally left blank.
2. An **existing** wastewater pond must be maintained to meet or exceed the original approved design and liner requirements; or, in the absence of original approved requirements, must be maintained to prevent unauthorized discharges of wastewater into or adjacent to water in the state. The permittee shall maintain copies of all liner construction and testing documents at the facility or in a reasonably accessible location and make the information available to the executive director upon request.
3. A **new** wastewater pond constructed after the issuance date of this permit must be lined in compliance with one of the following requirements if it will contain process wastewater as defined in 40 CFR §122.2. The executive director will review ponds that will contain only non-process wastewater on a case-by-case basis to determine whether the pond must be lined. If a pond will contain only non-process wastewater, the owner shall notify the Industrial Permits Team (MC-148) to obtain a written determination at least 90 days before the pond is placed into service and copy the TCEQ Compliance Monitoring Team (MC-224). The permittee must submit all information about the proposed pond contents that is reasonably necessary for the executive director to make a determination. If the executive director determines that a pond does not need to be lined, then the pond is exempt from Items 3(a) through 3(c) and 4 through 7 of POND REQUIREMENTS.

A wastewater pond that only contains domestic wastewater must comply with the design requirements in 30 TAC Chapter 217 and 30 TAC §309.13(d) in lieu of Items 3(a) through 3(c) of this subparagraph.

- a) Soil liner: The soil liner must contain clay-rich soil material (at least 30% of the liner material passing through a #200 mesh sieve, liquid limit greater than or equal to 30, and plasticity index greater than or equal to 15) that completely covers the sides and bottom of the pond. The liner must be at least 3.0 feet thick. The liner material must be compacted in lifts of no more than 8 inches to 95% standard proctor density at the optimum moisture content in accordance with ASTM D698 to achieve a permeability less than or equal to 1×10^{-7} (≤ 0.0000001) cm/sec. For in-situ soil material that meets the permeability requirement, the material must be scarified at least 8 inches deep and then re-compacted to finished grade.

- b) Synthetic membrane: The liner must be a synthetic membrane liner at least 40 mils in thickness that completely covers the sides and the bottom of the pond. The liner material used must be compatible with the wastewater and be resistant to degradation (e.g., from ultraviolet light, chemical reactions, wave action, erosion, etc.). The liner material must be installed and maintained in accordance with the manufacturer's guidelines. A wastewater pond with a synthetic membrane liner must include an underdrain with a leak detection and collection system.
 - c) Alternate liner: The permittee shall submit plans signed and sealed by a Texas-licensed professional engineer for any other equivalently protective pond lining method to the Industrial Permits Team (MC-148) and copy the Compliance Monitoring Team (MC-224).
4. For a pond that must be lined according to Item 3 (including ponds with in-situ soil liners), the permittee shall provide certification, signed and sealed by a Texas-licensed professional engineer, stating that the completed pond lining and any required underdrain with leak detection and collection system for the pond meet the requirements in Items 3(a) – 3(c) before using the pond. The certification shall include the following minimum details about the pond lining system:
- a) pond liner type (in-situ soil, amended in-situ soil, imported soil, synthetic membrane, or alternative),
 - b) materials used,
 - c) thickness of materials, and
 - d) either permeability test results or a leak detection and collection system description, as applicable.

The certification must be provided to the TCEQ Water Quality Assessment Team (MC-150), Industrial Permits Team (MC-148), Compliance Monitoring Team (MC-224) and regional office. A copy of the liner certification and construction details (i.e., as-built drawings, construction QA/QC documentation, and post construction testing) must be kept on-site or in a reasonably accessible location (in either hardcopy or digital format) until the pond is closed.

5. Protection and maintenance requirements for a pond subject to subparagraph B or C (including ponds with in-situ soil liners).
- a) The permittee shall maintain a liner to prevent the unauthorized discharge of wastewater into or adjacent to water in the state.
 - b) A liner must be protected from damage caused by animals. Fences or other protective devices or measures may be used to satisfy this requirement.
 - c) The permittee shall maintain the structural integrity of the liner and shall keep the liner and embankment free of woody vegetation, animal burrows, and excessive erosion.
 - d) The permittee shall inspect each pond liner and each leak detection system at least once per month. Evidence of damage or unauthorized discharge must be evaluated by a Texas-licensed professional engineer or Texas-licensed professional geoscientist within 30 days. The permittee is not required to drain an operating pond or to inspect below the waterline during these routine inspections.
 - i. A Texas-licensed professional engineer or Texas-licensed professional geoscientist must evaluate damage to a pond liner, including evidence of an unauthorized discharge without visible damage.

- ii. Pond liner damage must be repaired at the recommendation of a Texas-licensed professional engineer or Texas-licensed professional geoscientist. If the damage is significant or could result in an unauthorized discharge, then the repair must be documented and certified by a Texas-licensed professional engineer. Within 60 days after a repair is completed, the liner certification must be provided to the TCEQ Water Quality Assessment Team (MC-150), Compliance Monitoring Section (MC-224), and Regional office. A copy of the liner certification must be maintained at the facility or in a reasonably accessible location and made available to the executive director upon request.
 - iii. A release determination and subsequent corrective action will be based on 40 CFR Part 257 or the Texas Risk Reduction Program (30 TAC Chapter 350), as applicable. If evidence indicates that an unauthorized discharge occurred, including evidence that the actual permeability exceeds the design permeability, the matter may also be referred to the TCEQ Enforcement Division to ensure the protection of the public and the environment.
6. For a pond subject to Items 2 or 3 (including ponds with in-situ soil liners), the permittee shall have a Texas-licensed professional engineer perform an evaluation of each pond that requires a liner at least once every five years. The evaluation must include:
- a) a physical inspection of the pond liner to check for structural integrity, damage, and evidence of leaking;
 - b) a review of the liner documentation for the pond; and
 - c) a review of all documentation related to liner repair and maintenance performed since the last evaluation.

For the purposes of this evaluation, evidence of leaking also includes evidence that the actual permeability exceeds the design permeability. The permittee is not required to drain an operating pond or to inspect below the waterline during the evaluation. A copy of the engineer's evaluation report must be maintained at the facility or in a reasonably accessible location and made available to the executive director upon request.

7. For a pond subject to Items 2 or 3 (including ponds with in-situ soil liners), the permittee shall maintain at least 2.0 feet of freeboard in the pond except when:
- a) the freeboard requirement temporarily cannot be maintained due to a large storm event that requires the additional retention capacity to be used for a limited period of time;
 - b) the freeboard requirement temporarily cannot be maintained due to upset plant conditions that require the additional retention capacity to be used for treatment for a limited period of time; or
 - c) the pond was not required to have at least 2.0 feet of freeboard according to the requirements at the time of construction.
- I. The permittee shall maintain an operating log which records the volume of wastewater used for irrigation each day, the hours the wastewater is applied each day, the actual surface area wetted each day, and the soil sampling results from the previous year. This data shall be tabulated on a monthly basis. Results from the analysis of biochemical oxygen demand (5-day) and total nitrogen required in Part IV shall be tabulated as a loading rate measured in pounds per acre on a monthly basis. The tabulated data shall be submitted to the TCEQ's Industrial Permits team (MC-148) and Region 4 Office during the month of September of each calendar year. Results from the analyses required in Part IV and the operating log shall be retained on site for five years and available for inspection by authorized representatives of the TCEQ.

- J. There shall be no overlapping land irrigated by each pivot of the center pivot irrigation system.
- K. The permittee shall determine on an annual basis the infiltration rates for representative soil zones of the irrigation tracts. These test results including the number of infiltration tests and their locations shall be submitted to the TCEQ's Industrial Permits Team (MC-148), Water Quality Assessment Team (MC-150), and Region 4 Office during the month of September of each calendar year.
- L. The permittee shall obtain representative soil samples from the root zones of the land-application area receiving wastewater. Composite sampling techniques shall be used. Each composite sample shall represent no more than 50 acres with no less than 15 subsamples representing each composite sample. Subsamples shall be composited by like sampling depth, type of crop, and soil type for analysis and reporting. Soil types are soils that have like topsoil or plow layer textures. These soils shall be sampled individually from 0 to 6 inches, 6 to 18 inches, and 18 to 30 inches below ground level. The permittee shall sample soils in December to February of each year. Soil samples shall be analyzed within 30 days of sample collection.

The permittee shall provide annual soil sample analyses of the land application area according to the following table:

Parameter	Method	MAL ⁴	Reporting units
pH	2:1 (v/v) water to soil mixture		Reported to 0.1 pH units after calibration of pH meter
Electrical Conductivity	Obtained from the SAR water-saturated paste extract	0.01	dS/m (same as mmho/cm)
Nitrate-nitrogen, ammonium-nitrogen	From a 1 <u>N</u> KCl soil extract	1	mg/kg (dry weight basis)
Total Kjeldahl Nitrogen (TKN)	For determination of Organic plus Ammonium Nitrogen. Procedures that use Mercury (Hg) are not acceptable.	20	mg/kg (dry weight basis)
Total Nitrogen	= TKN plus Nitrate-nitrogen		mg/kg (dry weight basis)
Plant-available: Phosphorus	Mehlich III with inductively coupled plasma	1 (P)	mg/kg (dry weight basis)
Plant-available: Potassium (K) Calcium (Ca) Magnesium (Mg) Sodium (Na) Sulfur (S)	May be determined in the same Mehlich III extract with inductively coupled plasma	5 (K) 10 (Ca) 5 (Mg) 10 (Na) 1 (S)	mg/kg (dry weight basis)

⁴ Minimum analytical level.

Parameter	Method	MAL ⁴	Reporting units
Water-soluble: Sodium (Na) Calcium (Ca) Magnesium (Mg)	Obtained from the SAR water saturated paste extract	1 (Na) 1 (Ca) 1 (Mg)	Water soluble constituents are <i>reported</i> in mg/L
Sodium Adsorption Ratio (SAR)	$SAR = \frac{Na}{\sqrt{\frac{(Ca + Mg)}{2}}}$		Express <i>concentrations</i> of Na, Ca and Mg in the water-saturated paste extract in milliequivalents/liter (meq/L) to calculate the SAR. The SAR value is unit less. If the SAR is greater than 10, amendments (e.g., gypsum) shall be added to the soil to adjust the SAR to less than 10.
Amendment addition, e.g., gypsum			Report in <i>short tons/acre</i> in the year effected

A copy of this soil testing plan shall be provided to the analytical laboratory prior to sample analysis. The permittee shall submit the results of the annual soil sample analyses with copies of the laboratory reports and a map depicting the areas that have received wastewater within the permanent land application fields to the TCEQ's Region 4 Office, Water Quality Assessment Team (MC 150), and Enforcement Division (MC 224) no later than the end of September of each sampling year. If wastewater is not applied in a particular year, the permittee shall notify the same TCEQ offices and indicate that wastewater has not been applied on the approved land irrigation site(s) during that year.

- M. Irrigation practices shall be designed and managed to prevent contamination of ground or surface waters and to prevent the occurrence of nuisance conditions. Tail water control facilities shall be provided, where necessary, to prevent the discharge of any wastewater which might drain from irrigated lands to water in the state. Procedures and protocols to prevent unauthorized discharges should be set up by the permittee and should include the following.
1. Development of an inspection schedule for berms and other wastewater control structures. The schedule shall include the frequency of inspection and the methods or procedures of inspection;
 2. Maintenance of records of all information resulting from the monitoring of the berms or wastewater control structures and activities, including all records of inspection dates. These records shall be retained at the plant site and shall be available for inspection by personnel from the TCEQ Region 4 Office;
 3. Development of a cut-off device for the irrigation sprinkler system such that irrigation water is not sprayed unto unauthorized land areas;
 4. Rerouting of any runoff water collected in sumps, collection ponds or similar tailwater control facilities for reapplication on the irrigation site, as soon as possible following

accumulation of the runoff water, or by rerouting the runoff water back to the wastewater treatment unit; and

5. Refraining from irrigating when the tailwater control facilities, including the berms, are not in working order. Irrigation may be resumed only after repairs have been completed.
- N. Storm water drainage shall be prevented from entering all ponds and from running onto the irrigation tract.
- O. No wastewater may be applied within twenty-four hours after a measured rainfall of 0.5 inches or greater, or to any zone containing standing water. A properly functioning rain gauge shall be maintained on site. Records of daily rainfall shall be maintained at the plant site for inspection by personnel from the TCEQ Region 4 Office.
- P. Adequate signs shall be erected stating that the irrigation water is from a non-potable water supply. Said signs shall consist of a red slash superimposed over the international symbol for drinking water accompanied by the message "Do not drink the water", in both English and Spanish.
- Q. The permittee shall provide adequate maintenance of the treatment and irrigation facilities to ensure that the facilities are in working condition. No treatment or irrigation facilities shall be removed from service without prior notification of the Executive Director of the TCEQ.
- R. On an annual basis, groundwater shall be sampled and analyzed from Site One (1): monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, and Site Two (2): monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5 to evaluate groundwater quality beneath the facility. The groundwater samples should be analyzed by an accredited laboratory for ammonia (measured as nitrogen), nitrate (measured as nitrogen), nitrite (measured as nitrogen), total kjeldahl nitrogen (TKN), and chloride. Prior to sampling, monitoring wells shall be evacuated of three well bore volumes to ensure a representative sample of groundwater. Static water levels shall be measured and recorded at the same time the monitoring wells are sampled.

The permittee shall submit the results, a potentiometric surface map, and a summary report to the TCEQ's Water Quality Assessment Team (MC-150), TCEQ Region 4 Office, and Compliance Monitoring Team (MC-224) no later than September 30th of each sampling year.

The groundwater monitoring requirements of this permit shall remain in effect until such time as written authorization from the executive director of the TCEQ to discontinue the required monitoring is obtained. Written authorization may be provided based on conclusions and recommendations provided by the TCEQ Water Quality Assessment Team's technical review of the submitted analytical results.

- S. The permittee shall implement measures or provide additional storage to store/dispose of a minimum of 89.35 acre-feet of wastewater. This shall be demonstrated by the following:
 1. Construction of an additional irrigation holding pond(s) in compliance with Item H of Special Provisions; or
 2. Provision of adequate alternate source of storage/disposal of sufficient capacity; or
 3. The development of a contingency plan which identifies that the permittee is capable of managing an additional 18.80 acre-feet of effluent. The plan shall be put into effect when the irrigation holding pond exceeds storage capacity prior to an unauthorized discharge and may include, but is not limited to, the following:
 - a) Contracting a third party to haul the additional effluent offsite.
 - b) Connecting to a Publicly Owned Treatment Works (POTW).

- c) Modifying the facility processes or wastewater/stormwater management; or
- d) Implementing evaporation enhancing measures.

4. Any combination of S.1., S.2., and S.3.

The permittee shall submit a proposal, which demonstrates the capability to sufficiently satisfy the above requirements to the TCEQ's Industrial Permits Team (MC 148) and Compliance Monitoring Team (MC-224) within 180 days of permit issuance. Based upon this proposal this permit may be reopened to require additional effluent storage capacity or other conditions.

- T. The wastewater ponds and effluent application areas must be located a minimum of 150 feet away from any private well and a minimum of 500 feet away from any public water supply well and springs, per 30 TAC § 309.13(c).
- U. Wastewater shall not be land-applied on the permittee-owned properties located to the east of the railroad tracks and adjacent to the land application areas authorized by this permit.
- V. This permit does not authorize the discharge of any pollutant from the irrigation site. The wastewater disposal system shall be designed and operated to prevent:
 - 1. Discharge from the irrigated property;
 - 2. Recharge of groundwater resources which supply or may potentially supply domestic raw water; and
 - 3. The occurrence of nuisance conditions.

VI. STANDARD PERMIT CONDITIONS

This permit is granted in accordance with the Texas Water Code and the rules and other Orders of the Commission and the laws of the State of Texas.

DEFINITIONS

All definitions in Section (§) 26.001 of the Texas Water Code and Title 30 of the Texas Administrative Code (30 TAC) Chapter 305 shall apply to this permit and are incorporated by reference. Some specific definitions of words or phrases used in this permit are as follows:

1. Flow Measurements
 - a. Daily average flow - the arithmetic average of all determinations of the daily flow within a period of one calendar month. The daily average flow determination shall consist of determinations made on at least four separate days. If instantaneous measurements are used to determine the daily flow, the determination shall be the arithmetic average of all instantaneous measurements taken during that month. Daily average flow determination for intermittent discharges shall consist of a minimum of three flow determinations on days of discharge.
 - b. Annual average flow - the arithmetic average of all daily flow determinations taken within the preceding 12 consecutive calendar months. The annual average flow determination shall consist of daily flow volume determinations made by a totalizing meter, charted on a chart recorder and limited to major domestic wastewater discharge facilities with a 1 million gallons per day or greater permitted flow.
 - c. Instantaneous flow - the measured flow during the minimum time required to interpret the flow measuring device.
2. Concentration Measurements
 - a. Daily average concentration - the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar month, consisting of at least four separate representative measurements.
 - i. For domestic wastewater treatment plants - When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values in the previous four consecutive month period consisting of at least four measurements shall be utilized as the daily average concentration.
 - ii. For all other wastewater treatment plants - When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values taken during the month shall be utilized as the daily average concentration.
 - b. 7-day average concentration - the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar week, Sunday through Saturday.
 - c. Daily maximum concentration - the maximum concentration measured on a single day, by the sample type specified in the permit, within a period of one calendar month.
3. Sample Type
 - a. Composite sample - For domestic wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC § 319.9(a). For industrial wastewater, a composite sample is a sample made up of a

minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC § 319.9(c).

- b. Grab sample - an individual sample collected in less than 15 minutes.
- 4. Treatment Facility (facility) - wastewater facilities used in the conveyance, storage, treatment, recycling, reclamation or disposal of domestic sewage, industrial wastes, agricultural wastes, recreational wastes, or other wastes including sludge handling or disposal facilities under the jurisdiction of the Commission.
- 5. The term "sewage sludge" is defined as solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in 30 TAC Chapter 312. This includes the solids which have not been classified as hazardous waste separated from wastewater by unit processes.
- 6. Bypass - the intentional diversion of a waste stream from any portion of a treatment facility.

MONITORING REQUIREMENTS

1. Monitoring Requirements

Monitoring results shall be collected at the intervals specified in the permit. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall conduct effluent sampling in accordance with 30 TAC §§319.4 - 319.12.

As provided by state law, the permittee is subject to administrative, civil and criminal penalties, as applicable, for negligently or knowingly violating the Texas Water Code, Chapters 26, 27, and 28, and Texas Health and Safety Code, Chapter 361, including but not limited to knowingly making any false statement, representation, or certification on any report, record or other document submitted or required to be maintained under this permit, including monitoring reports, records or reports of compliance or noncompliance, or falsifying, tampering with or knowingly rendering inaccurate any monitoring device or method required by this permit or violating any other requirement imposed by state or federal regulations.

2. Test Procedures

- a. Unless otherwise specified in this permit, test procedures for the analysis of pollutants shall comply with procedures specified in 30 TAC §§319.11 - 319.12. Measurements, tests and calculations shall be accurately accomplished in a representative manner.
- b. All laboratory tests submitted to demonstrate compliance with this permit must meet the requirements of 30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification.

3. Records of Results

- a. Monitoring samples and measurements shall be taken at times and in a manner so as to be representative of the monitored activity.
- b. Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years, monitoring and reporting records, including strip charts and records of calibration and maintenance, copies of all records required by this permit, and records of all data used to complete the application for this permit shall be retained at the facility site, or shall be readily available for review by a TCEQ representative for a period of three years from the date of the record or sample

measurement, report, or application. This period shall be extended at the request of the Executive Director.

- c. Records of monitoring activities shall include the following:
 - i. date, time and place of sample or measurement;
 - ii. identity of individual who collected the sample or made the measurement.
 - iii. date and time of analysis;
 - iv. identity of the individual and laboratory who performed the analysis;
 - v. the technique or method of analysis; and
 - vi. the results of the analysis or measurement and quality assurance/quality control records.

The period during which records are required to be kept shall be automatically extended to the date of the final disposition of any administrative or judicial enforcement action that may be instituted against the permittee.

4. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit using approved analytical methods as specified above, all results of such monitoring shall be included in determining compliance with permit requirements.

5. Calibration of Instruments

All automatic flow measuring or recording devices and all totalizing meters for measuring flows shall be accurately calibrated by a trained person at plant start-up and as often thereafter as necessary to ensure accuracy, but not less often than annually unless authorized by the Executive Director for a longer period. Such person shall verify in writing that the device is operating properly and giving accurate results. Copies of the verification shall be retained at the facility site and shall be readily available for review by a TCEQ representative for a period of three years.

6. Compliance Schedule Reports

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit shall be submitted no later than 14 days following each schedule date to the Regional Office and the Enforcement Division (MC 224).

7. Noncompliance Notification

- a. In accordance with 30 TAC §305.125(9), any noncompliance which may endanger human health or safety, or the environment shall be reported by the permittee to the TCEQ. Report of such information shall be provided orally or by facsimile transmission (FAX) to the Regional Office within 24 hours of becoming aware of the noncompliance. A written submission of such information shall also be provided by the permittee to the Regional Office and the Enforcement Division (MC 224) within five working days of becoming aware of the noncompliance. The written submission shall contain a description of the noncompliance and its cause; the potential danger to human health or safety, or the environment; the period of noncompliance, including exact dates and times; if the noncompliance has not been corrected, the time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance, and to mitigate its adverse effects.

- b. The following violations shall be reported under Monitoring and Reporting Requirement 7.a.:
 - i. unauthorized discharges as defined in Permit Condition 2(g).
 - ii. any unanticipated bypass which exceeds any effluent limitation in the permit.
 - c. In addition to the above, any effluent violation which deviates from the permitted effluent limitation by more than 40% shall be reported by the permittee in writing to the Regional Office and the Enforcement Division (MC 224) within 5 working days of becoming aware of the noncompliance.
 - d. Any noncompliance other than that specified in this section, or any required information not submitted or submitted incorrectly, shall be reported to the Enforcement Division (MC 224) as promptly as possible.
 8. In accordance with the procedures described in 30 TAC §§35.301 - 35.303 (relating to Water Quality Emergency and Temporary Orders) if the permittee knows in advance of the need for a bypass, it shall submit prior notice by applying for such authorization.
 9. Changes in Discharges of Toxic Substances

All existing manufacturing, commercial, mining, and silvicultural permittees shall notify the Regional Office, orally or by facsimile transmission within 24 hours, and both the Regional Office and the Enforcement Division (MC 224) in writing within five (5) working days, after becoming aware of or having reason to believe:

 - a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant listed at 40 CFR Part 122, Appendix D, Tables II and III (excluding Total Phenols) which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - i. one hundred micrograms per liter (100 µg/L);
 - ii. two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - iii. five (5) times the maximum concentration value reported for that pollutant in the permit application; or
 - iv. the level established by the TCEQ.
 - b. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - i. five hundred micrograms per liter (500 µg/L);
 - ii. one milligram per liter (1 mg/L) for antimony;
 - iii. ten (10) times the maximum concentration value reported for that pollutant in the permit application; or
 - iv. the level established by the TCEQ.
 10. Signatories to Reports

All reports and other information requested by the Executive Director shall be signed by the person and in the manner required by 30 TAC §305.128 (relating to Signatories to Reports).

PERMIT CONDITIONS**1. General**

- a. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in an application or in any report to the Executive Director, it shall promptly submit such facts or information.
- b. This permit is granted on the basis of the information supplied and representations made by the permittee during action on an application, and relying upon the accuracy and completeness of that information and those representations. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked, in whole or in part, in accordance with 30 TAC Chapter 305, Subchapter D, during its term for good cause including, but not limited to, the following:
 - i. violation of any terms or conditions of this permit;
 - ii. obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
 - iii. a change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
- c. The permittee shall furnish to the Executive Director, upon request and within a reasonable time, any information to determine whether cause exists for amending, revoking, suspending or terminating the permit. The permittee shall also furnish to the Executive Director, upon request, copies of records required to be kept by the permit.

2. Compliance

- a. Acceptance of the permit by the person to whom it is issued constitutes acknowledgment and agreement that such person will comply with all the terms and conditions embodied in the permit, and the rules and other orders of the Commission.
- b. The permittee has a duty to comply with all conditions of the permit. Failure to comply with any permit condition constitutes a violation of the permit and the Texas Water Code or the Texas Health and Safety Code, and is grounds for enforcement action, for permit amendment, revocation or suspension, or for denial of a permit renewal application or an application for a permit for another facility.
- c. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.
- d. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal or other permit violation which has a reasonable likelihood of adversely affecting human health or the environment.
- e. Authorization from the Commission is required before beginning any change in the permitted facility or activity that may result in noncompliance with any permit requirements.
- f. A permit may be amended, suspended and reissued, or revoked for cause in accordance with 30 TAC §§305.62 and 305.66 and Texas Water Code Section 7.302. The filing of a request by the permittee for a permit amendment, suspension and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

- g. There shall be no unauthorized discharge of wastewater or any other waste. For the purpose of this permit, an unauthorized discharge is considered to be any discharge of wastewater into or adjacent to water in the state at any location not permitted as an outfall or otherwise defined in the Special Provisions section of this permit.
 - h. The permittee is subject to administrative, civil, and criminal penalties, as applicable, under Texas Water Code §§7.051 - 7.075 (relating to Administrative Penalties), 7.101 - 7.111 (relating to Civil Penalties), and 7.141 - 7.202 (relating to Criminal Offenses and Penalties).
- 3. Inspections and Entry
 - a. Inspection and entry shall be allowed as prescribed in the Texas Water Code Chapters 26, 27, and 28, and Texas Health and Safety Code Chapter 361.
 - b. The members of the Commission and employees and agents of the Commission are entitled to enter any public or private property at any reasonable time for the purpose of inspecting and investigating conditions relating to the quality of water in the state or the compliance with any rule, regulation, permit or other order of the Commission. Members, employees, or agents of the Commission and Commission contractors are entitled to enter public or private property at any reasonable time to investigate or monitor or, if the responsible party is not responsive or there is an immediate danger to public health or the environment, to remove or remediate a condition related to the quality of water in the state. Members, employees, Commission contractors, or agents acting under this authority who enter private property shall observe the establishment's rules and regulations concerning safety, internal security, and fire protection, and if the property has management in residence, shall notify management or the person then in charge of his presence and shall exhibit proper credentials. If any member, employee, Commission contractor, or agent is refused the right to enter in or on public or private property under this authority, the Executive Director may invoke the remedies authorized in Texas Water Code Section 7.002. The statement above, that Commission entry shall occur in accordance with an establishment's rules and regulations concerning safety, internal security, and fire protection, is not grounds for denial or restriction of entry to any part of the facility, but merely describes the Commission's duty to observe appropriate rules and regulations during an inspection.
- 4. Permit Amendment with or without Renewal
 - a. The permittee shall give notice to the Executive Director as soon as possible of any planned physical alterations or additions to the permitted facility if such alterations or additions would require a permit amendment or result in a violation of permit requirements. Notice shall also be required under this paragraph when:
 - i. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements in Monitoring Requirements No. 9;
 - ii. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

- b. Prior to any facility modifications, additions, or expansions that will increase the plant capacity beyond the permitted flow, the permittee must apply for and obtain proper authorization from the Commission before commencing construction.
 - c. The permittee must apply for an amendment or renewal at least 180 days prior to expiration of the existing permit in order to continue a permitted activity after the expiration date of the permit. If an application is submitted prior to the expiration date of the permit, the existing permit shall remain in effect until the application is approved, denied, or returned. If the application is returned or denied, authorization to continue such activity shall terminate upon the effective date of the action. If an application is not submitted prior to the expiration date of the permit, the permit shall expire and authorization to continue such activity shall terminate.
 - d. Prior to accepting or generating wastes which are not described in the permit application or which would result in a significant change in the quantity or quality of the existing discharge, the permittee must report the proposed changes to the Commission. The permittee must apply for a permit amendment reflecting any necessary changes in permit conditions, including effluent limitations for pollutants not identified and limited by this permit.
 - e. In accordance with the Texas Water Code §26.029(b), after a public hearing, notice of which shall be given to the permittee, the Commission may require the permittee, from time to time, for good cause, in accordance with applicable laws, to conform to new or additional conditions.
5. Permit Transfer
- a. Prior to any transfer of this permit, Commission approval must be obtained. The Commission shall be notified in writing of any change in control or ownership of facilities authorized by this permit. Such notification should be sent to the Applications Review and Processing Team (MC 148) of the Water Quality Division.
 - b. A permit may be transferred only according to the provisions of 30 TAC §305.64 (relating to Transfer of Permits) and 30 TAC §50.133 (relating to Executive Director Action on Application or WQMP update).
6. Relationship to Hazardous Waste Activities
- This permit does not authorize any activity of hazardous waste storage, processing, or disposal which requires a permit or other authorization pursuant to the Texas Health and Safety Code.
7. Property Rights
- A permit does not convey any property rights of any sort, or any exclusive privilege.
8. Permit Enforceability
- The conditions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.
9. Relationship to Permit Application
- The application pursuant to which the permit has been issued is incorporated herein; provided, however, that in the event of a conflict between the provisions of this permit and the application, the provisions of the permit shall control.

10. Notice of Bankruptcy.

- a. Each permittee shall notify the Executive Director, in writing, immediately following the filing of a voluntary or involuntary petition for bankruptcy under any chapter of Title 11 (Bankruptcy) of the United States Code (11 USC) by or against:
 - i. the permittee;
 - ii. an entity (as that term is defined in 11 USC, §101(15)) controlling the permittee or listing the permit or permittee as property of the estate; or
 - iii. an affiliate (as that term is defined in 11 USC, §101(2)) of the permittee.
- b. This notification must indicate:
 - i. the name of the permittee;
 - ii. the permit number(s);
 - iii. the bankruptcy court in which the petition for bankruptcy was filed; and
 - iv. the date of filing of the petition.

OPERATIONAL REQUIREMENTS

1. The permittee shall at all times ensure that the facility and all of its systems of collection, treatment, and disposal are properly operated and maintained. This includes, but is not limited to, the regular, periodic examination of wastewater solids within the treatment plant by the operator in order to maintain an appropriate quantity and quality of solids inventory as described in the various operator training manuals and according to accepted industry standards for process control. Process control, maintenance, and operations records shall be retained at the facility site, or shall be readily available for review by a TCEQ representative, for a period of three years.
2. Upon request by the Executive Director, the permittee shall take appropriate samples and provide proper analysis in order to demonstrate compliance with Commission rules. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall comply with all applicable provisions of 30 TAC Chapter 312 concerning sewage sludge use and disposal and 30 TAC §§319.21 - 319.29 concerning the discharge of certain hazardous metals.
3. Domestic wastewater treatment facilities shall comply with the following provisions:
 - a. The permittee shall notify the Municipal Permits Team, Wastewater Permitting Section (MC 148) of the Water Quality Division, in writing, of any facility expansion at least 90 days prior to conducting such activity.
 - b. The permittee shall submit a closure plan for review and approval to the Municipal Permits Team, Wastewater Permitting Section (MC 148) of the Water Quality Division, for any closure activity at least 90 days prior to conducting such activity. Closure is the act of permanently taking a waste management unit or treatment facility out of service and includes the permanent removal from service of any pit, tank, pond, lagoon, surface impoundment or other treatment unit regulated by this permit.
4. The permittee is responsible for installing prior to plant start-up, and subsequently maintaining, adequate safeguards to prevent the discharge of untreated or inadequately treated wastes during electrical power failures by means of alternate power sources, standby generators, or retention of inadequately treated wastewater.
5. Unless otherwise specified, the permittee shall provide a readily accessible sampling point and, where applicable, an effluent flow measuring device or other acceptable means by which effluent flow may be determined.

6. The permittee shall remit an annual water quality fee to the Commission as required by 30 TAC Chapter 21. Failure to pay the fee may result in revocation of this permit under Texas Water Code §7.302(b)(6).
7. Documentation

For all written notifications to the Commission required of the permittee by this permit, the permittee shall keep and make available a copy of each such notification under the same conditions as self-monitoring data are required to be kept and made available. Except for information specified as not confidential in 30 TAC §1.5(d), any information submitted pursuant to this permit may be claimed as confidential by the submitter. Any such claim must be asserted in the manner prescribed in the application form or by stamping the words “confidential business information” on each page containing such information. If no claim is made at the time of submission, information may be made available to the public without further notice. If the Commission or Executive Director agrees with the designation of confidentiality, the TCEQ will not provide the information for public inspection unless required by the Texas Attorney General or a court pursuant to an open records request. If the Executive Director does not agree with the designation of confidentiality, the person submitting the information will be notified.
8. Facilities which generate domestic wastewater shall comply with the following provisions; domestic wastewater treatment facilities at permitted industrial sites are excluded.
 - a. Whenever flow measurements for any domestic sewage treatment facility reach 75 percent of the permitted daily average or annual average flow for three consecutive months, the permittee must initiate engineering and financial planning for expansion or upgrading of the domestic wastewater treatment or collection facilities. Whenever the flow reaches 90 percent of the permitted daily average or annual average flow for three consecutive months, the permittee shall obtain necessary authorization from the Commission to commence construction of the necessary additional treatment or collection facilities. In the case of a domestic wastewater treatment facility which reaches 75 percent of the permitted daily average or annual average flow for three consecutive months, and the planned population to be served or the quantity of waste produced is not expected to exceed the design limitations of the treatment facility, the permittee shall submit an engineering report supporting this claim to the Executive Director of the Commission.

If in the judgment of the Executive Director the population to be served will not cause permit noncompliance, then the requirement of this section may be waived. To be effective, any waiver must be in writing and signed by the Director of the Enforcement Division (MC 149) of the Commission, and such waiver of these requirements will be reviewed upon expiration of the existing permit; however, any such waiver shall not be interpreted as condoning or excusing any violation of any permit parameter.
 - b. The plans and specifications for domestic sewage collection and treatment works associated with any domestic permit must be approved by the Commission, and failure to secure approval before commencing construction of such works or making a discharge is a violation of this permit and each day is an additional violation until approval has been secured.
 - c. Permits for domestic wastewater treatment plants are granted subject to the policy of the Commission to encourage the development of area-wide waste collection, treatment and disposal systems. The Commission reserves the right to amend any domestic wastewater permit in accordance with applicable procedural requirements to require the system covered by this permit to be integrated into an area-wide system, should such be developed; to require the delivery of the wastes authorized to

be collected in, treated by or discharged from said system, to such area-wide system; or to amend this permit in any other particular to effectuate the Commission's policy. Such amendments may be made when the changes required are advisable for water quality control purposes and are feasible on the basis of waste treatment technology, engineering, financial, and related considerations existing at the time the changes are required, exclusive of the loss of investment in or revenues from any then existing or proposed waste collection, treatment or disposal system.

9. Domestic wastewater treatment plants shall be operated and maintained by sewage plant operators holding a valid certificate of competency at the required level as defined in 30 TAC Chapter 30.
10. Facilities which generate industrial solid waste as defined in 30 TAC §335.1 shall comply with these provisions:
 - a. Any solid waste, as defined in 30 TAC §335.1 (including but not limited to such wastes as garbage, refuse, sludge from a waste treatment, water supply treatment plant or air pollution control facility, discarded materials, discarded materials to be recycled, whether the waste is solid, liquid, or semisolid), generated by the permittee during the management and treatment of wastewater, must be managed in accordance with all applicable provisions of 30 TAC Chapter 335, relating to Industrial Solid Waste Management.
 - b. Industrial wastewater that is being collected, accumulated, stored, or processed before discharge through any final discharge outfall, specified by this permit, is considered to be industrial solid waste until the wastewater passes through the actual point source discharge and must be managed in accordance with all applicable provisions of 30 TAC Chapter 335.
 - c. The permittee shall provide written notification, pursuant to the requirements of 30 TAC §335.8(b)(1), to the Environmental Cleanup Section (MC 127) of the Remediation Division informing the Commission of any closure activity involving an Industrial Solid Waste Management Unit, at least 90 days prior to conducting such an activity.
 - d. Construction of any industrial solid waste management unit requires the prior written notification of the proposed activity to the Registration and Reporting Section (MC 129) of the Permitting and Remediation Support Division. No person shall dispose of industrial solid waste, including sludge or other solids from wastewater treatment processes, prior to fulfilling the deed recordation requirements of 30 TAC §335-5.
 - e. The term "industrial solid waste management unit" means a landfill, surface impoundment, waste-pile, industrial furnace, incinerator, cement kiln, injection well, container, drum, salt dome waste containment cavern, or any other structure vessel, appurtenance, or other improvement on land used to manage industrial solid waste.
 - f. The permittee shall keep management records for all sludge (or other waste) removed from any wastewater treatment process. These records shall fulfill all applicable requirements of 30 TAC Chapter 335 and must include the following, as it pertains to wastewater treatment and discharge:
 - i. volume of waste and date(s) generated from treatment process;
 - iii. volume of waste disposed of on-site or shipped off-site;
 - iv. date(s) of disposal;
 - v. identity of hauler or transporter;
 - vi. location of disposal site; and
 - vii. method of final disposal.

The above records shall be maintained on a monthly basis. The records shall be retained at the facility site, or shall be readily available for review by authorized representatives of the TCEQ for at least five years.

11. For industrial facilities to which the requirements of 30 TAC Chapter 335 do not apply, sludge and solid wastes, including tank cleaning and contaminated solids for disposal, shall be disposed of in accordance with Chapter 361 of the Texas Health and Safety Code.

TCEQ Revision 06/2008

TECHNICAL SUMMARY AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
TCEQ Permit No. WQ0003074000

DESCRIPTION OF APPLICATION

Applicant: Schreiber Foods, Inc.; Permit No. WQ0003074000

Regulated Activity: Industrial Wastewater Permit

Type of Application: Major amendment with renewal

Request: Major amendment with renewal to authorize the increase of application acres from 50 acres to 61 acres, increase the permitted daily average flow from 132,000 gallons per day (gpd) to 192,000 gpd, and update the organic loading rate measured as biochemical oxygen demand (5-day) and the nitrogen loading rate measured as total nitrogen. Soybean hay, forage sorghum, and small grain crops have been included as alternative crops to the grasses (i.e., coastal Bermuda and ryegrass).

Authority: Texas Water Code § 26.027; 30 Texas Administrative Code (30 TAC) Chapter 305, Subchapters C-F, Chapters 307, 309, and 319; Commission policies; and Environmental Protection Agency (EPA) guidelines.

EXECUTIVE DIRECTOR RECOMMENDATION

The Executive Director has made a preliminary decision that this permit, if issued, meets all statutory and regulatory requirements. The draft permit will expire at midnight, ten years from date of permit issuance, according to the requirements of 30 TAC §305.127(1)(C)(ii)(III).

REASON FOR PROJECT PROPOSED

The applicant has applied to the Texas Commission on Environmental Quality (TCEQ) for an amendment of its existing permit. The proposed amendment would authorize the increase of application acres from 50 acres to 61 acres, increase the permitted daily average flow from 132,000 gpd to 192,000 gpd, and update the organic loading rate measured as biochemical oxygen demand (5-day) and the nitrogen loading rate measured as total nitrogen. Soybean hay, forage sorghum, and small grain crops have been included as alternative crops to the grasses (i.e., coastal Bermuda and ryegrass).

All amendment requests are proposed to be granted. Special Provisions B and F have been updated based on the agronomy recommendation received from the Water Quality Assessment Team with interoffice memorandum dated June 20, 2023.

PROJECT DESCRIPTION AND LOCATION

The applicant currently operates Schreiber Foods, a specialty dairy food products manufacturer.

Raw milk is brought to the plant in tankers. In the process of converting milk into finished products (such as cream cheese) much of the water is extracted. This water (a.k.a. cow water) is captured and used, together with clean water, for truck and equipment washwater. Process wastewater, consisting of captured washwater along with milk minerals, organics, and cleaning compounds, is collected and routed through a monitoring station which includes bar screen for solids removal and is then pumped to a dissolved air floatation tank for additional solids removal. Domestic wastewater is treated by a chlorination system prior to being commingled with the process wastewater at the lift station. From the lift station, the commingled effluent is pumped to a storage/treatment system consisting of a 3 million-gallon (MG) aeration lagoon

TECHNICAL SUMMARY AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
TCEQ Permit No. WQ0003074000

equipped with 200 horsepower (hp) of aeration equipment and two 3 MG aeration lagoons (Aerated Storage Basins No. 1 and 2) equipped with 60 hp of aeration equipment each. Effluent from the lagoons is routed to a center-pivot irrigation system consisting of a 61-acre tract for irrigating crops consisting of Coastal Bermuda Grass, Soybean hay, forage sorghum (primary crops) and Ryegrass and small grain crops (supplemental cool-weather crops)

The plant and land application site are located at 923 County Road 176, near the City of Stephenville, Erath County, Texas.

The facility and disposal site are located in the drainage area of Paluxy River/North Paluxy River in Segment No. 1229 of the Brazos River Basin. The designated uses for Segment No. 1229 are primary contact recreation, public water supply, and high aquatic life use. All determinations are preliminary and subject to additional review and revisions.

SUMMARY OF EFFLUENT DATA

The following is a quantitative description of the discharge described in the monthly effluent report data for the period August 2020 through August 2022. The "Avg of Daily Avg" values presented in the following table are the average of all daily average values for the reporting period for each parameter. The "Max of Daily Max" values presented in the following table are the individual maximum values for the reporting period for each parameter. Flows are expressed in gallons per day (gpd). All pH values are expressed in standard units (SU).

Effluent Characteristics:

Parameter	Average of Daily Avg, mg/L	Maximum of Daily Max, mg/L
Flow	92,892 gpd	N/A
Chloride	800	N/A
Sodium	893	N/A
Sodium Adsorption Ratio (SAR)	21.95 meq/L	N/A
Total Phosphorus	6.3	N/A
Total Dissolved Solids (TDS)	2,858	N/A
Total Suspended Solids (TSS)	91.68	N/A
Biochemical Oxygen Demand, 5-day (BOD ₅)	33.3	N/A
Oil and Grease	N/A	1.04
Total Nitrogen	21.75	38.1
pH	8.08 SU (min.)	8.64 SU (max.)

No violations occurred during the report period reviewed.

DRAFT PERMIT CONDITIONS

The draft permit authorizes the disposal of treated wastewater (process and domestic) from a specialty dairy foods manufacturing facility at a daily average flow not to exceed 0.132 MGD via irrigation of 61 acres of Coastal Bermuda, Soybean hay, forage sorghum (primary crops) and Ryegrass and Small Grains (supplemental cool-weather crops).

TECHNICAL SUMMARY AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
TCEQ Permit No. WQ0003074000

Final effluent limitations are established in the draft permit as follows:

Pollutant	Daily Average, mg/L	Daily Maximum, mg/L
Flow	192,000 GPD	Report, GPD
Chloride	Record	N/A
Sodium	Record	N/A
Total Phosphorus	Record	N/A
TDS	4000	N/A
TSS	650	N/A
BOD ₅	Record	N/A
Oil and Grease	N/A	15
Total Nitrogen	Record	N/A
pH	6.0 SU (min.)	9.0 SU (max.)

The permittee requested to increase the permitted daily average flow from 132,000 gallons per day to 192,000 gallons per day, which has been granted.

The existing daily average limits for total dissolved solids and total suspended solids, daily maximum limit for oil and grease, and minimum and maximum limits for pH are still protective and have been carried forward in the draft permit. The existing daily average monitoring and reporting requirements for chloride, sodium, total phosphorus, biochemical oxygen demand (5-day), and total nitrogen are still adequate and have been carried forward in the draft permit.

The hydraulic loading rate has been recalculated based on the major amendment request to increase the daily average flow. The recalculated limit has been included in the draft permit.

The existing organic loading rate was originally included to prevent the occurrence of anaerobic and/or nuisance conditions on the basis of BPJ. The existing rate is generally accepted for land application sites and is still adequate. The existing nitrogen loading rate was originally included based on crop requirements. The existing organic and nitrogen loading rates are still adequate and have been carried forward in the draft permit.

SUMMARY OF CHANGES FROM APPLICATION

No changes were made from the permit application.

SUMMARY OF CHANGES FROM EXISTING PERMIT

The permittee requested the following changes in their amendment request that the Executive Director has recommended granting:

1. Authorize the increase of land application area from 50 acres to 61 acres.
2. Authorize the increase of the permitted daily average flow from 132,000 gallons per day to 192,000 gallons per day.
3. Update the organic loading rate measured as biochemical oxygen demand (5-day) and the nitrogen loading rate measured as total nitrogen.
4. Include Soybean hay and forage sorghum (primary crops) and small grains (supplemental cool-weather crops) as additional crops.

TECHNICAL SUMMARY AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
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The following additional changes have been made to the draft permit.

1. The facility description on the cover page of the draft permit was updated to reflect the request to increase the application acres from 50 to 60 acres.
2. The mailing address has been updated from 400 North Washington Street, Green Bay, Wisconsin 54301 to P.O. Box 19010, Green Bay, Wisconsin 54307, based on information submitted in the major amendment application dated February 6, 2023.
3. The facility and land application site address has been updated based on information submitted in the major amendment application received on February 6, 2023.
4. The hydraulic loading rate has been increased from 2.84 acre-feet/acre/year to 3.53 acre-feet/acre/year based on the recommendation received from the Water Quality Assessment Team with an interoffice memorandum dated June 20, 2023.
5. Special Provision B and F have been updated based on the recommendation provided in the agronomy recommendation received from the Water Quality Assessment Team with interoffice memorandum dated June 20, 2023.
6. Special Provision E has been revised to clarify the treated domestic wastewater authorization better.
7. Special Provision H.1. has been revised for clarification purposes.
8. Special Provision S has been updated based on the results of the water balance calculation.

BASIS FOR DRAFT PERMIT

The following items were considered in developing the draft permit:

1. Application received on February 6, 2023 and additional information received on March 24, 2023 and March 30, 2023.
2. Existing permits: TCEQ Permit No. WQ0003074000 issued June 15, 2019.
3. TCEQ Rules.
4. *Guidance Document for Establishing Monitoring Frequencies for Domestic and Industrial Wastewater Discharge Permits*, TCEQ Document No. 98-001.000-OWR-WQ, May 1998.
5. TCEQ Groundwater Impact Evaluation dated March 27, 2023.
6. TCEQ Agronomy Evaluation dated June 20, 2023.
7. 30 TAC Chapter 309.
8. Consistency with the Coastal Management Plan: N/A
9. *Bulletin 6019 – Consumptive Use of Water By Major Crops in Texas*, Texas Water Development Board, November 1960.

TECHNICAL SUMMARY AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
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10. *Urban Hydrology for Small Watersheds – Technical Release No. 55*, U.S. Department of Agriculture, January 1975.
11. *SCS National Engineering Handbook*, Section 4, Hydrology, Chapter 9, U.S. Department of Agriculture, August 1972.
12. *Process Design Manual, Land Treatment of Municipal Wastewater*, U.S. Environmental Protection Agency, EPA 625/1-81-013, October 1981.
13. *Handbook of Land Treatment Systems for Industrial and Municipal Wastes*, Reed and Crites, Noyes Publications, copyright 1984.

PROCEDURES FOR FINAL DECISION

When an application is declared administratively complete, the Chief Clerk sends a letter to the applicant advising the applicant to publish the Notice of Receipt of Application and Intent to Obtain Permit in the newspaper. In addition, the Chief Clerk instructs the applicant to place a copy of the application in a public place for reviewing and copying in the county where the facility is or will be located. This application will be in a public place throughout the comment period. The Chief Clerk also mails this notice to any interested persons and, if required, to landowners identified in the permit application. This notice informs the public about the application and provides that an interested person may file comments on the application or request a contested case hearing or a public meeting.

Once a draft permit is completed, it is sent, along with the Executive Director's preliminary decision, as contained in the technical summary or fact sheet, to the Chief Clerk. At that time, the Notice of Application and Preliminary Decision will be mailed to the same people and published in the same newspaper as the prior notice. This notice sets a deadline for making public comments. The applicant must place a copy of the Executive Director's preliminary decision and draft permit in the public place with the application. This notice sets a deadline for public comment.

Any interested person may request a public meeting on the application until the deadline for filing public comments. A public meeting is intended for the taking of public comment and is not a contested case proceeding.

After the public comment deadline, the Executive Director prepares a response to all significant public comments on the application or the draft permit raised during the public comment period. The Chief Clerk then mails the Executive Director's response to comments and final decision to people who have filed comments, requested a contested case hearing, or requested to be on the mailing list. This notice provides that if a person is not satisfied with the Executive Director's response and decision, they can request a contested case hearing or file a request to reconsider the Executive Director's decision within 30 days after the notice is mailed.

The Executive Director will issue the permit unless a written hearing request or request for reconsideration is filed within 30 days after the Executive Director's response to comments and final decision is mailed. If a hearing request or request for reconsideration is filed, the Executive Director will not issue the permit and will forward the application and request to the TCEQ Commissioners for their consideration at a scheduled Commission meeting. If a contested case hearing is held, it will be a legal proceeding similar to a civil trial in state district court.

TECHNICAL SUMMARY AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
TCEQ Permit No. WQ0003074000

If the Executive Director calls a public meeting or the Commission grants a contested case hearing as described above, the Commission will give notice of the date, time, and place of the meeting or hearing. If a hearing request or request for reconsideration is made, the Commission will consider all public comments in making its decision and shall either adopt the Executive Director's response to public comments or prepare its own response.

For additional information about this application, contact Alyssa Loveday at (512) 239-4524.

Alyssa Loveday
Alyssa Loveday

May 31, 2023
Date

TECHNICAL SUMMARY AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
TCEQ Permit No. WQ0003074000

Appendix A Water Balance Calculations

WATER BALANCE CALCULATIONS, all units in inches (unless otherwise specified).											
Permittee: Schreiber Foods, Inc.								TWDB Data Quadrangle:			
Permit No.: WQ0003074000								509			
<p>The water balance calculations are designed to evaluate the maximum application rate (hydraulic loading rate) for the land area where irrigation is to occur. The applicant's proposed application rate must not exceed the maximum calculated application rate or the maximum application rate based on agronomic analysis.</p>											
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9a)	(9b)	(10)	(11)
Month	Avg Rain	Avg Runoff	Avg Infiltration Rainfall	Evapo-trans.	Required Leach	Total Water Needs	Effluent Needed in Root Zone	Raw Net Evap. from Reservoir	Reservoir Net Evap. (as inches on plot acres)	Effluent Needed Based on Irrigation Efficiency	Reservoir Consumption (as inches on plot acres)
Units →	inches	inches	inches	inches	inches	inches	inches	inches	inches	inches	inches
January	1.59	0.12	1.46	1.50	0.11	1.61	0.15	0.93	0.08	0.18	0.25
February	1.87	0.22	1.65	2.70	3.33	6.03	4.37	0.81	0.07	5.15	5.21
March	2.75	0.62	2.13	6.80	14.86	21.66	19.53	1.40	0.11	22.97	23.09
April	2.66	0.57	2.09	8.50	20.40	28.90	26.82	2.54	0.21	31.55	31.76
May	4.10	1.46	2.64	6.50	12.29	18.79	16.16	1.24	0.10	19.01	19.11
June	3.53	1.08	2.45	5.90	10.99	16.89	14.44	3.44	0.28	16.99	17.27
July	1.96	0.25	1.71	8.70	22.25	30.95	29.24	6.01	0.49	34.40	34.89
August	2.22	0.36	1.86	5.70	12.21	17.91	16.05	5.55	0.46	18.88	19.34
September	2.89	0.70	2.19	1.40	0.00	1.40	0.00	3.00	0.25	0.00	0.25
October	3.13	0.83	2.29	1.40	0.00	1.40	0.00	1.79	0.15	0.00	0.15
November	1.92	0.23	1.69	1.50	0.00	1.50	0.00	1.44	0.12	0.00	0.12
December	1.38	0.07	1.31	1.10	0.00	1.10	0.00	1.09	0.09	0.00	0.09
Totals	29.99	6.52	23.47	51.70	96.45	148.15	126.76	29.24	2.40	149.13	151.52
Crop is	soybean & small grain										
CV	71.00	dimensionless	Maximum calculated application rate =					12.43	ac-in/actmonth OR ac-ft/actyear		
Ce	5.25	mmh/actom	Applicant's proposed application rate =					3.53	ac-in/actmonth OR ac-ft/actyear		
CI	6.90	mmh/actom	Maximum rate from agronomic analysis =					3.53	ac-in/actmonth OR ac-ft/actyear		
Pond area	5.00	acres									
Irrigation area	61.00	acres									
Irrigation Efficiency, K	0.85	dimensionless	Recommended rate for permit =					3.53	ac-in/actmonth OR ac-ft/actyear		
Design Flow	0.192	MGD	Limiting factor =					Click this cell to choose from list.			
Gross rate check (from flow, acres) =								3.53	OK		

TECHNICAL SUMMARY AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
TCEQ Permit No. WQ0003074000

Appendix A Water Balance Calculations

WATER BALANCE CALCULATIONS, all units in inches (unless otherwise specified).

Permittee:	Schreiber Foods, Inc.	TWDB Data Quadrangle:	509
Permit No.:	WQ0003074000		

The water balance calculations are designed to evaluate the maximum application rate (hydraulic loading rate) for the land area where irrigation is to occur. The applicant's proposed application rate must not exceed the maximum calculated application rate or the maximum application rate based on agronomic analysis.

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9a)	(9b)	(10)	(11)
Month	Avg Rain	Avg Runoff	Avg Infiltration Rainfall	Evapo-trans.	Required Leach	Total Water Needs	Effluent Needed in Root Zone	Raw Net Evap. from Reservoir	Reservoir Net Evap. (as inches on plot)	Effluent Needed Based on Irrigation Efficiency	Reservoir Consumption (as inches on plot)
Units →	inches	inches	inches	inches	inches	inches	inches	inches	inches	inches	inches
January	1.53	0.12	1.46	1.50	0.11	1.61	0.15	0.93	0.08	0.18	0.25
February	1.87	0.22	1.65	2.70	3.33	6.03	4.37	0.81	0.07	5.15	5.21
March	2.75	0.62	2.13	6.80	14.86	21.66	19.53	1.40	0.11	22.97	23.09
April	2.66	0.57	2.09	8.50	20.40	28.90	26.82	2.54	0.21	31.55	31.76
May	4.10	1.46	2.64	6.50	12.29	18.79	16.16	1.24	0.10	19.01	19.11
June	3.53	1.08	2.45	7.60	16.40	24.00	21.55	3.44	0.28	25.35	25.63
July	1.96	0.25	1.71	9.10	23.52	32.62	30.91	6.01	0.49	36.37	36.86
August	2.22	0.36	1.86	5.00	9.99	14.99	13.12	5.55	0.46	15.44	15.90
September	2.89	0.70	2.19	0.00	0.00	0.00	0.00	3.00	0.25	0.00	0.25
October	3.13	0.83	2.29	1.40	0.00	1.40	0.00	1.79	0.15	0.00	0.15
November	1.92	0.23	1.69	1.50	0.00	1.50	0.00	1.44	0.12	0.00	0.12
December	1.38	0.07	1.31	1.10	0.00	1.10	0.00	1.09	0.09	0.00	0.09
Totals	29.99	6.52	23.47	51.70	100.90	152.60	132.61	29.24	2.40	156.01	158.41

Crop is	sorghum & small grain				
CN	71.00	dimensionless	Maximum calculated application rate =	13.00	ac-in/ac/month OR ac-ft/ac/year
Cc	5.25	mmhos/cm	Applicant's proposed application rate =	3.53	ac-in/ac/month OR ac-ft/ac/year
Cf	6.90	mmhos/cm	Maximum rate from agronomic analysis =	3.53	ac-in/ac/month OR ac-ft/ac/year
Pond area	5.00	acres			
Irrigation area	61.00	acres			
Irrigation Efficiency, K'	0.85	dimensionless	Recommended rate for permit =	3.53	ac-in/ac/month OR ac-ft/ac/year
Design Flow	0.192	MGD	Limiting factor =	Click this cell to choose from list.	
			Gross rate check (from flow, acres) =	3.53	OK

TECHNICAL SUMMARY AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
TCEQ Permit No. WQ0003074000

Appendix A Water Balance Calculations

WATER BALANCE CALCULATIONS, all units in inches (unless otherwise specified).

Permittee: **Screiber Foods, Inc.**

TWDB Data Quadrangle:

Permit No.: **WQ0003074000**

509

The water balance calculations are designed to evaluate the maximum application rate (hydraulic loading rate) for the land area where irrigation is to occur. The applicant's proposed application rate must not exceed the maximum calculated application rate or the maximum application rate based on agronomic analysis.

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9a)	(9b)	(10)	(11)
Month	Avg Rain	Avg Runoff	Avg Infiltr	Evapo-trans.	Required Leach	Total Water Needs	Effluent Needed in Root Zone	Raw Net Evap. from Reservoir	Reservoir Net Evap. (as inches on plot acres)	Effluent Needed Based on Irrigation Efficiency	Reservoir Consumption (as inches on plot acres)
			Rainfall								
<i>Units →</i>	<i>inches</i>	<i>inches</i>	<i>inches</i>	<i>inches</i>	<i>inches</i>	<i>inches</i>	<i>inches</i>	<i>inches</i>	<i>inches</i>	<i>inches</i>	<i>inches</i>
January	1.59	0.12	1.46	0.39	0.00	0.39	0.00	0.93	0.08	0.00	0.08
February	1.87	0.22	1.65	1.35	0.00	1.35	0.00	0.81	0.07	0.00	0.07
March	2.75	0.62	2.13	3.33	3.82	7.15	5.02	1.40	0.11	5.90	6.02
April	2.66	0.57	2.09	4.05	6.24	10.29	8.21	2.54	0.21	9.66	9.86
May	4.10	1.46	2.64	7.20	14.52	21.72	19.09	1.24	0.10	22.45	22.56
June	3.53	1.08	2.45	8.10	17.39	26.09	23.64	3.44	0.28	27.81	28.09
July	1.96	0.25	1.71	8.37	21.20	29.57	27.86	6.01	0.49	32.77	33.27
August	2.22	0.36	1.86	5.31	10.97	16.28	14.42	5.55	0.46	16.97	17.42
September	2.89	0.70	2.19	6.03	12.21	18.24	16.05	3.00	0.25	18.88	19.13
October	3.13	0.83	2.29	4.68	7.60	12.28	9.99	1.79	0.15	11.75	11.90
November	1.92	0.23	1.69	1.89	0.65	2.54	0.85	1.44	0.12	1.00	1.12
December	1.38	0.07	1.31	0.81	0.00	0.81	0.00	1.09	0.09	0.00	0.09
Totals	29.99	6.52	23.47	52.11	35.20	147.31	125.12	29.24	2.40	147.20	149.60
Crop is	Bermuda & ryegrass										
CN	71.00	dimensionless		Maximum calculated application rate =				12.27	ac-inches/month OR ac-ft/acre/year		
Cc	5.25	mmhos/cm		Applicant's proposed application rate =				3.53	ac-inches/month OR ac-ft/acre/year		
Cl	6.90	mmhos/cm		Maximum rate from agronomic analysis =				3.53	ac-inches/month OR ac-ft/acre/year		
Pond area	5.00	acres									
Irrigation area	61.00	acres									
Irrigation Efficiency, K'	0.85	dimensionless		Recommended rate for permit =				3.53	ac-inches/month OR ac-ft/acre/year		
Design Flow	0.192	MGD		Limiting factor =				Click this cell to choose from list.			
Gross rate check (from flow, acres) =								3.53	OK		

TECHNICAL SUMMARY AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
TCEQ Permit No. WQ0003074000

**Appendix B
Storage Calculations**

STORAGE CALCULATIONS, all units in inches (unless otherwise specified)

Permittee: **Schreiber Foods, Inc.**

Permit No.: **WQ0003074000**

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calculations
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(12)	(13)	(14a)	(14b)	(15)	(16)	(17)	(18a)	(18b)	(19)	(20)
Month	Effluent Available (as inches on plot acres)	Average Rainfall Distrib. (%)	Rain Worst Year	Field Runoff Worst Year	Infiltrated Rain	Avail Water	Average Net Evap. Distrib. (%)	Low Net Evap. from Reservoir Surface	Effluent to Storage (as inches on plot acres)	Accum Storage (as inches on plot acres)
<i>Units →</i>	<i>inches</i>	<i>inches</i>	<i>inches</i>	<i>inches</i>	<i>inches</i>	<i>inches</i>	<i>inches</i>	<i>inches</i>	<i>inches</i>	<i>inches</i>
January	3.53	5.29%	2.42	0.45	1.97	5.49	3.20%	0.01	3.52	17.58
February	3.53	6.24%	2.85	0.68	2.18	5.70	2.76%	0.01	-1.01	0
March	3.53	9.18%	4.20	1.53	2.67	6.19	4.79%	0.01	-18.82	0
April	3.53	8.87%	4.06	1.44	2.63	6.15	8.67%	0.02	-27.41	0
May	3.53	13.66%	6.25	3.10	3.15	6.68	4.24%	0.01	-14.89	0
June	3.53	11.77%	5.39	2.41	2.97	6.50	11.75%	0.02	-12.86	0
July	3.53	6.53%	2.99	0.75	2.23	5.76	20.54%	0.04	-30.29	0
August	3.53	7.41%	3.39	0.99	2.40	5.92	18.99%	0.04	-14.77	0
September	3.53	9.64%	4.41	1.68	2.73	6.25	10.27%	0.02	3.51	3.51
October	3.53	10.42%	4.77	1.94	2.83	6.35	6.12%	0.01	3.51	7.02
November	3.53	6.41%	2.93	0.72	2.21	5.74	4.93%	0.01	3.52	10.54
December	3.53	4.59%	2.10	0.31	1.79	5.32	3.74%	0.01	3.52	14.06
Totals	42.31	100%	45.77	16.02	29.75	72.06	100%	0.19	—	17.58

Worst (low) net evap. = 2.27 inches

Corresponding rain = 45.77 inches

Worst-case net year = 2007

Storage required = 89.35 ac-ft

Actual storage = 70.55 ac-ft

Additional storage required = 18.80 ac-ft

Storage days = 152 days

(13) Effluent available for irrigation (assumes design flow is applied to entire acreage unless different flow values are justified).

(14a) Average rainfall distribution - Data source: Texas Water Development Board (see Quadrangle in Water Balance Calculations above)

(14b) Rainfall worst year = (rainfall distribution as fraction of 100) * maximum annual rainfall

(15) Field runoff worst year = [(rainfall worst year - (0.2 * ((1000 / CV) - 10))) * 2] / (rainfall worst year + (0.8 * ((1000 / CV) - 10)))

(16) Infiltrated rainfall = (rainfall worst year - field runoff worst year)

(17) Available water = (effluent available for land application + infiltrated rainfall check)

(18a) Average net evaporation distribution - Data source: Texas Water Development Board (see Quadrangle in Water Balance Calculations above)

(18b) Net low evaporation from reservoir surface = [(low net evaporation) * (net low evaporation avg. dist)] / [(pond area) (irrigation area)]

(19) Storage =

If: (total water needs - infiltrated rainfall) < 0, (effluent available for land application - net low evaporation from reservoir surface);

If: (total water needs - infiltrated rainfall) ≥ 0,

(effluent available for land application - net low evaporation from reservoir surface) * [(total water needs - infiltrated rainfall) / (irrigation efficiency)]

(20) Accumulated storage =

If: net low evaporation from reservoir surface + storage ≤ 0, 0

If: net low evaporation from reservoir surface + storage > 0, enter value

TECHNICAL SUMMARY AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
TCEQ Permit No. WQ0003074000

Appendix B
Storage Calculations

STORAGE CALCULATIONS, all units in inches (unless otherwise specified)

Permittee:	Schreiber Foods, Inc.									
Permit No.:	WQ0003074000									
The storage calculations are designed to evaluate the										
(12)	(13)	(14a)	(14b)	(15)	(16)	(17)	(18a)	(18b)	(19)	(20)
Month	Effluent Available (as inches on plot acres)	Average Rainfall Distrib. (%)	Rain Worst Year	Field Runoff Worst Year	Infiltrated Rain	Avail Water	Average Net Evap. Distrib. (%)	Low Net Evap. from Reservoir Surface	Effluent to Storage (as inches on plot acres)	Accum Storage (as inches on plot acres)
Units →	inches	inches	inches	inches	inches	inches	inches	inches	inches	inches
January	3.53	5.29%	2.42	0.45	1.97	5.43	3.20%	0.01	3.52	17.58
February	3.53	6.24%	2.85	0.68	2.18	5.70	2.76%	0.01	-1.01	0
March	3.53	9.18%	4.20	1.53	2.67	6.19	4.79%	0.01	-18.82	0
April	3.53	8.87%	4.06	1.44	2.63	6.15	8.67%	0.02	-27.41	0
May	3.53	13.66%	6.25	3.10	3.15	6.68	4.24%	0.01	-14.83	0
June	3.53	11.77%	5.39	2.41	2.97	6.50	11.75%	0.02	-21.23	0
July	3.53	6.53%	2.93	0.75	2.23	5.76	20.54%	0.04	-32.26	0
August	3.53	7.41%	3.39	0.99	2.40	5.92	18.99%	0.04	-11.32	0
September	3.53	9.64%	4.41	1.68	2.73	6.25	10.27%	0.02	3.51	3.51
October	3.53	10.42%	4.77	1.94	2.83	6.35	6.12%	0.01	3.51	7.02
November	3.53	6.41%	2.93	0.72	2.21	5.74	4.93%	0.01	3.52	10.54
December	3.53	4.59%	2.10	0.31	1.79	5.32	3.74%	0.01	3.52	14.06
Totals	42.31	100%	45.77	16.02	29.75	72.06	100%	0.19	—	17.58
Worst (low) net evap. =		2.27 inches		Storage required =		89.35		ac-ft		
Corresponding rain =		45.77 inches		Actual storage =		70.55		ac-ft		
Worst-case net year =		2007		Additional storage required =		18.80		ac-ft		
				Storage days =		152		days		
(13) Effluent available for irrigation (assumes design flow is applied to entire acreage unless different flow values are justified).										
(14a) Average rainfall distribution - Data source: Texas Water Development Board (see Quadrangle in Water Balance Calculations above)										
(14b) Rainfall worst year = (rainfall distribution as fraction or %/100) * maximum annual rainfall										
(15) Field runoff worst year = $\frac{((\text{rainfall worst year} - (0.2 * ((1000 / CN) - 10))))}{2} * ((\text{rainfall worst year} + (0.8 * ((1000 / CN) - 10))))$										
(16) Infiltrated rainfall = (rainfall worst year - field runoff worst year)										
(17) Available water = (effluent available for land application + infiltrated rainfall check)										
(18a) Average net evaporation distribution - Data source: Texas Water Development Board (see Quadrangle in Water Balance Calculations above)										
(18b) Net low evaporation from reservoir surface = $\frac{((\text{low net evaporation}) * (\text{net low evaporation avg. dist})) * (\text{pond area})}{(\text{irrigation area})}$										
(19) Storage =										
If: $(\text{total water needs} - \text{infiltrated rainfall}) < 0, (\text{effluent available for land application} - \text{net low evaporation from reservoir surface})$;										
If: $(\text{total water needs} - \text{infiltrated rainfall}) \geq 0,$										
$(\text{effluent available for land application} - \text{net low evaporation from reservoir surface}) * ((\text{total water needs} - \text{infiltrated rainfall}) / (\text{irrigation efficiency}))$										
(20) Accumulated storage =										
If: $\text{net low evaporation from reservoir surface} + \text{storage} \leq 0, 0$										
If: $\text{net low evaporation from reservoir surface} + \text{storage} > 0, \text{enter value}$										

TECHNICAL SUMMARY AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
TCEQ Permit No. WQ0003074000

Appendix B
Storage Calculations

STORAGE CALCULATIONS, all units in inches (unless otherwise specified)										
Permittee:	Screiber Foods, Inc.									
Permit No.:	WQ0003074000									
The storage calculations are designed to evaluate the storage capacity										
(12)	(13)	(14a)	(14b)	(15)	(16)	(17)	(18a)	(18b)	(19)	(20)
Month	Effluent Available (as inches on plot acres)	Average Rainfall Distrib. (%)	Rain Worst Year	Field Runoff Worst Year	Infiltrated Rain	Avail Water	Average Net Evap. Distrib. (%)	Low Net Evap. from Reservoir Surface	Effluent to Storage (as inches on plot acres)	Accum Storage (as inches on plot acres)
Units →	inches	inches	inches	inches	inches	inches	inches	inches	inches	inches
January	3.53	5.29%	2.42	0.45	1.97	5.49	3.20%	0.01	3.52	10.17
February	3.53	6.24%	2.85	0.68	2.18	5.70	2.76%	0.01	3.52	13.69
March	3.53	9.18%	4.20	1.53	2.67	6.19	4.79%	0.01	-1.75	0
April	3.53	8.87%	4.06	1.44	2.63	6.15	8.67%	0.02	-5.51	0
May	3.53	13.66%	6.25	3.10	3.15	6.68	4.24%	0.01	-18.33	0
June	3.53	11.77%	5.39	2.41	2.97	6.50	11.75%	0.02	-23.69	0
July	3.53	6.53%	2.99	0.75	2.23	5.76	20.54%	0.04	-28.67	0
August	3.53	7.41%	3.39	0.99	2.40	5.92	18.99%	0.04	-12.85	0
September	3.53	9.64%	4.41	1.68	2.73	6.25	10.27%	0.02	-14.74	0
October	3.53	10.42%	4.77	1.94	2.83	6.35	6.12%	0.01	-7.61	0
November	3.53	6.41%	2.93	0.72	2.21	5.74	4.93%	0.01	3.13	3.13
December	3.53	4.59%	2.10	0.31	1.79	5.32	3.74%	0.01	3.52	6.65
Totals	42.31	100%	45.77	16.02	29.75	72.06	100%	0.19	—	13.69
Worst (low) net evap. =		2.27	inches		Storage required =			69.59	ac-ft	
Corresponding rain =		45.77	inches		Actual storage =			70.55	ac-ft	
Worst-case net year =		2007			Additional storage required =		None		ac-ft	
					Storage days =			118	days	
(13) Effluent available for irrigation (assumes design flow is applied to entire acreage unless different flow values are justified).										
(14a) Average rainfall distribution - Data source: Texas Water Development Board (see Quadrangle in Water Balance Calculations above)										
(14b) Rainfall worst year = (rainfall distribution as fraction or %/100) * maximum annual rainfall										
(15) Field runoff worst year = [(rainfall worst year - (0.2*((1000/LN) - 10)))]^2/[(rainfall worst year + (0.8*((1000/LN) - 10)))]										
(16) Infiltrated rainfall = (rainfall worst year- field runoff worst year)										
(17) Available water = (effluent available for land application + infiltrated rainfall check)										
(18a) Average net evaporation distribution - Data source: Texas Water Development Board (see Quadrangle in Water Balance Calculations above)										
(18b) Net low evaporation from reservoir surface = [(low net evaporation) * (net low evaporation avg. dist)] / [(pond area) (irrigation area)]										
(19) Storage =										
If: (total water needs - infiltrated rainfall) < 0, (effluent available for land application - net low evaporation from reservoir surface);										
If: (total water needs - infiltrated rainfall) ≥ 0,										
(effluent available for land application - net low evaporation from reservoir surface) * [(total water needs - infiltrated rainfall)/(irrigation efficiency)]										
(20) Accumulated storage =										
If: net low evaporation from reservoir surface + storage ≤ 0, 0										
If: net low evaporation from reservoir surface + storage > 0, enter value										

TOXIC RATING WORKSHEET

TCEQ Permit No.:	WQ0003074000		
Permittee:	Schreiber Foods, Inc.		
Facility:	Schreiber Foods		
SIC Codes:	1. 2022	2. 2023	
40 CFR Section:	N/A		
Toxic Rating for Facility:	I (TLAP rating)		
Permit Writer:	Alyssa Loveday	Date: May 12, 2023	

CALCULATE TOXIC RATING FOR THE FACILITY

For each outfall listed below, list the percent contribution to the total wastewater flow from the facility and the toxic rating for the outfall.

OUTFALL No.	% Contribution	Toxic Rating	Rating × Percent
Irrigation	100	1	100

Toxic Rating for Facility = Total/100 = 1 (round to nearest whole #)

OUTFALL NO.: -

List waste streams in order of percent contribution to outfall and toxic rating for each waste stream:

Description of Waste Stream	%	Toxic Rating	Rating × Percent
-	-	-	-

Total 100

Total: -

Toxic Rating for Outfall = Total/100 = - (round to nearest whole #)

OUTFALL CONTAMINATION DETERMINATION

Permittee Name: Schreiber Foods, Inc.

Permittee Number: WQ0003074000

Use this worksheet to make a determination for each internal and external Outfall. Enter the determination (i.e., contaminated or uncontaminated) into the space provided for each outfall.

If any box is checked "YES", the outfall is classified as "CONTAMINATED" for billing and PARIS.

If no boxes are checked "YES", the outfall is classified as "UNCONTAMINATED" for billing and PARIS.

Outfall No.: Irrigation

Yes No

- | | | |
|--------------------------|-------------------------------------|----------------------------------------------------------------------------------|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | toxic rating is greater than or equal to three |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | discharge requires limits based on water quality factors of the receiving stream |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | discharge is greater than 10% (or more than 1 MGD) process wastewater |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | discharge requires monitoring and reporting or limits for radioactive materials |
| <input type="checkbox"/> | <input type="checkbox"/> | other: (provide explanation) |

Outfall Determination: Uncontaminated

Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

TO: Mike Lindner, Team Leader
Industrial Permits Team, Wastewater Permits Section

DATE: May 12, 2023

From: Alyssa Loveday, Permit Writer
Industrial Permits Team, Wastewater Permits Section

Subject:

Applicant:	Schreiber Foods, Inc.				
Plant Name:	Schreiber Foods				
<input type="checkbox"/> TPDES	<input checked="" type="checkbox"/> TCEQ	WQ0003074000	EPA ID. No.	N/A	
Industrial:	<input checked="" type="checkbox"/> Minor	<input type="checkbox"/> Major			
Toxic Rating:	1	Stream Segment:	1229		
Received:	February 6, 2023	Administratively Complete:	March 21, 2023		
Assigned:	March 31, 2023	To Team Leader:	May 12, 2023		
Tech Complete:					

ATTACHMENTS:	State-Only
New	<input type="checkbox"/>
Renewal	<input checked="" type="checkbox"/>
Major Amendment	<input checked="" type="checkbox"/>
Minor Amendment	<input type="checkbox"/>
Staff Initiated Amendment	<input type="checkbox"/>
Fact Sheet	<input type="checkbox"/>
SOB/Technical Summary	<input checked="" type="checkbox"/>

RATIONALE Used to Draft Permit:	
<input type="checkbox"/> Federal Guidelines:	N/A
<input type="checkbox"/> Waste Load Evaluation:	N/A
<input type="checkbox"/> TCEQ Rules:	N/A
<input checked="" type="checkbox"/> Existing Permit:	WQ0003074000, issued June 25, 2019
<input type="checkbox"/> Other:	N/A

Company's Rep: Mr. Corey Mullin

Phone No.: (254) 485-3892

Fax No.: N/A

Known Opposition: ☐ Yes ☒ No

If yes, briefly explain: N/A

Comments:

FILE LOCATION: I:\WQ\IND\ERC AND REGION PERMITS\WQ0003074000.docx

INDUSTRIAL EPA REVIEW CHECKLIST

Permittee Name: Schreiber Foods, Inc.

Permittee Number: WQ0003074000

PLEASE CHECK ALL THE APPLICABLE BELOW:

Draft permit authorizes:

Yes No

- | | | |
|--------------------------|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | discharge to territorial seas (within 3 miles of the coastline) of the United States? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | discharge or sewage sludge management may affect another state or the Republic of Mexico? For sewage sludge management, "may affect" means accepts sewage sludge from another state or Mexico. For discharge, it means a discharge within 3 miles of a boundary with another state or Mexico. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | discharge of uncontaminated cooling tower blowdown with a permitted daily average flow >500 MGD? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | discharge from a designated major facility? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | discharge from a categorical industry as listed in 40 CFR Part 122, Appendix A? (see Attachment A) |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | discharge from source other than a categorical industry as listed in 40 CFR Part 122, Appendix A with a permitted daily average flow >0.5 MGD, except for facilities that discharge non-process wastewater? Non-process wastewater is water that (during manufacturing or processing) does not come into direct contact with, or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | minor facility discharge to critical concern species watersheds (see WQ Standards review) |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | discharge from a new or expanding facility to a 303(d) listed segment which has the potential to discharge any pollutant which is causing or contributing to the impairment of the segment? |

Per the screening above, choose one:

☐

Yes, EPA review is required.

☒ No, EPA review is not

Alyssa Loveday

Permit Writer's Name

May 12, 2023

Date

QuickSave Buttons

You can click the buttons below to automatically save your draft permit and its pieces (e.g., the caption) in the appropriate folders.

IMPORTANT NOTE:

If you have trouble emailing a permit document:

- save it as a .docx file and send the .docx file
- **or** send the ERC and Region Permits folder version (it will be in .docx format already).

Save as Tech Complete

Save Permit at ED Sub

TCEQ Interoffice Memorandum

To: Mike Lindner, Team Leader
Industrial Permits Team
From: Alan Barraza, Agronomist
Water Quality Assessment Team
Date: June 20, 2023
Subject: Agronomy Recommendations, Schreiber Foods, Inc., Major Amendment with
Renewal, WQ0003074000, Erath County

Based upon review of the permit application and an evaluation of soils and agronomy information, the WQA Team reviewing agronomist recommends the following:

1. Update general to include Coastal Bermuda grass, soybean hay, or forage sorghum (primary crop) and ryegrass or small grains (supplemental cool weather crop)
2. Application rates to the irrigated land shall not exceed 3.53 acre-feet/acre/year.
3. Update Special Provision B:

The permittee shall provide a minimum irrigation field area of 61 acres, exclusive of buffer zones, roadways, ponds, and embankment areas, and other disposal area accessories. The permittee shall maintain a minimum buffer zone of 150 feet from any existing or proposed water supply wells located at or adjacent to this facility. Additional land may be added provided that the permittee submits a map which updates the location of the land tracts used for industrial waste irrigation and obtains approval from the Executive Director of the TCEQ prior to initiating irrigation of the added acreage.

4. Update Special Provision F:

The land utilized for wastewater irrigation shall be defined on appropriate maps and updated as necessary. The map(s) shall be available for inspection by authorized representatives of the TCEQ. The permittee shall maintain a permanent crop of Bermuda grass, soybean hay, or forage sorghum (primary crop) and ryegrass or small grains (cool season) over the irrigated area. The irrigated fields shall be mowed at least twice each year, and all resulting hay shall be removed from the fields. Fertilizers shall be used if required to maintain healthy crops on the irrigated fields.

5. The applicant's request to amend the organic loading rate from lbs./acre/year to lbs./acre/day measured as biochemical oxygen demand (5-day) and amend the nitrogen loading rate from lbs./acre/year to lbs./acre/year measured as total nitrogen is not approved..

TCEQ Interoffice Memorandum

To: Mike Lindner, Team Leader, Industrial Permits Team

From: Andrew Gorton, P.G., Water Quality Assessment Team

Date: March 27, 2023

Subject: **Geology Recommendations, Schreiber Foods, Inc., Major Amendment with Renewal, Permit No. WQ0003074000, Erath County**

Based upon the review of the permit application and an evaluation of geology and groundwater information, the WQA Team reviewing geologist has no additional geology or groundwater-related recommendations for the amended and renewed permit.



February 3, 2023

Texas Commission on Environmental Quality
Executive Director
Applications Review and Processing Team, MC-148
12100 Park 35 Circle
Austin TX 78753

Re: TCEQ Industrial Wastewater Application – Major
Amendment of WQ0003074000 for Schreiber Foods, Inc.,
Erath County

CORPORATE OFFICE
3404 AIRWAY BLVD
AMARILLO, TEXAS 79118
800.753.6525

CENTRAL TEXAS OFFICE
9855 FM 847
DUBLIN, TEXAS 76446
800.753.6525

NEW MEXICO OFFICE
203 EAST MAIN STREET
ARTESIA, NEW MEXICO 88210
800.753.6525

www.enviroag.com

Enclosed please find the TCEQ Major Amendment permit application
for the above referenced facility. Should you have any questions
please do not hesitate to contact me.

Respectfully Submitted,

Jourdan Mullin
Enviro-Ag Engineering, Inc.

Enclosures

cc: Schreiber Foods, Inc.
EAE file

INDUSTRIAL WASTEWATER PERMIT MAJOR AMENDMENT APPLICATION

Permit No. WQ0003074000

Prepared For:

Schreiber Foods, Inc.

923 County Road 176

Stephenville, TX 76401



January 11, 2023

Conducted By:



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TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

TCEQ INDUSTRIAL WASTEWATER PERMIT APPLICATION

INDUSTRIAL ADMINISTRATIVE REPORT 1.0

This report is required for all applications for TPDES permits and TLAPs. Contact the Applications Review and Processing Team at 512-239-4671 with any questions about completing this report

Item 1. Application Information and Fees (Instructions, Page 26)

- a. Complete each field with the requested information, if applicable.

Applicant Name: Schreiber Foods, Inc. EPA ID No.: TX000068221

Permit No.: WQ0003074000 Expiration Date: 6/25/2029

- b. Check the box next to the appropriate authorization type.

☒ Industrial Wastewater (wastewater and stormwater)

☐ Industrial Stormwater (stormwater only)

- c. Check the box next to the appropriate facility status.

☒ Active

☐ Inactive

- d. Check the box next to the appropriate permit type.

☐ TPDES Permit

☒ TLAP

- e. Check the box next to the appropriate application type.

☐ New

☐ Renewal with changes

☐ Renewal without changes

☒ Major amendment with renewal

☐ Major amendment without renewal

☐ Minor amendment without renewal

☐ Minor modification without renewal

- f. If applying for an amendment or modification, describe the request: Increasing the application acres from 50 acres to 61 acres, increasing the average daily flow from 132,000 gallons per day to 192,000 gallons per day, amending the organic loading rate from lbs./acre/year to lbs./acre/day measured as biochemical oxygen demand (5-day) and amending the nitrogen loading rate from lbs./acre/year to lbs./acre/year measured as total nitrogen.

- g. Application Fee

EPA Classification	New	Major Amend. (with or without renewal)	Renewal (with or without changes)	Minor Amend. / Minor Mod. (without renewal)
Minor facility not subject to EPA categorical effluent guidelines (40 CFR Parts 400-471)	<input type="checkbox"/> \$350	<input checked="" type="checkbox"/> \$350	<input type="checkbox"/> \$315	<input type="checkbox"/> \$150
Minor facility subject to EPA categorical effluent guidelines (40 CFR Parts 400-471)	<input type="checkbox"/> \$1,250	<input type="checkbox"/> \$1,250	<input type="checkbox"/> \$1,215	<input type="checkbox"/> \$150
Major facility	N/A ¹	<input type="checkbox"/> \$2,050	<input type="checkbox"/> \$2,015	<input type="checkbox"/> \$450

¹ All facilities are designated as minors until formally classified as a major by EPA.

For TCEQ Use Only

Segment Number _____ County _____
Expiration Date _____ Region _____
Permit Number _____

h. Payment Information

Mailed

Check or money order No.: [Click to enter text.](#) Check or money order amt.: [Click to enter text.](#)

Named printed on check or money order: [Click to enter text.](#)

Epay

Voucher number: [600355 & 600356](#) Copy of voucher attachment: [Attachment A](#)

Item 2. Applicant Information (Instructions, Pages 26)

- a. Customer Number, if applicant is an existing customer: [CN602630972](#)

Note: Locate the customer number using the [TCEQ's Central Registry Customer Search](#)².

- b. Legal name of the entity (applicant) applying for this permit: [Schreiber Foods, Inc.](#)

Note: The owner of the facility must apply for the permit. The legal name must be spelled exactly as filed with the TX SOS, Texas Comptroller of Public Accounts, County, or in the legal documents forming the entity.

- c. Name and title of the person signing the application. (**Note:** The person must be an executive official that meets signatory requirements in 30 TAC § 305.44.)

☒ Mr. ☐ Ms. First/Last Name: [Paul Batkins](#)

Title: [Plant Manager](#)

Credential: [Click to enter text.](#)

- d. Will the applicant have overall financial responsibility for the facility?

☒ Yes ☐ No

Note: The entity with overall financial responsibility for the facility must apply as a co-applicant, if not the facility owner.

Item 3. Co-applicant Information (Instructions, Page 27)

☐ Check this box if there is no co-applicant.; otherwise, complete the below questions.

- a. Legal name of the entity (co-applicant) applying for this permit: [Click to enter text.](#)

Note: The legal name must be spelled exactly as filed with the TX SOS, Texas Comptroller of Public Accounts, County, or in the legal documents forming the entity.

- b. Customer Number (if applicant is an existing customer): [CNClick to enter text.](#)

Note: Locate the customer number using the TCEQ's Central Registry Customer Search.

- c. Name and title of the person signing the application. (**Note:** The person must be an executive official that meets signatory requirements in 30 TAC § 305.44.)

☐ Mr. ☐ Ms. First/Last Name: [Click to enter text.](#)

Title: [Click to enter text.](#)

Credential: [Click to enter text.](#)

² <https://www15.tceq.texas.gov/crpub/index.cfm?fuseaction=cust.CustSearch>

d. Will the co-applicant have overall financial responsibility for the facility?

☐ Yes ☐ No

Note: The entity with overall financial responsibility for the facility must apply as a co-applicant, if not the facility owner.

Item 4. Core Data Form (Instructions, Pages 27)

- a. Complete one Core Data Form (TCEQ Form 10400) for each customer (applicant and co-applicant(s)) and include as an attachment. If the customer type selected on the Core Data Form is Individual, complete Attachment 1 of the Administrative Report. Attachment: B

Item 5. Application Contact Information (Instructions, Page 27)

Provide names of two individuals who can be contact for additional information about this application. Indicate if the individual can be contact about administrative or technical information, or both.

- a. ☒ Administrative Contact . ☒ Technical Contact

☒ Mr. ☐ Ms. Full Name (First and Last): Paul Bytheway

Title: Environmental Engineer Credential: Click to enter text.

Organization Name: Schreiber Foods, Inc.

Mailing Address: 400 N Washington Street

City: Green Bay State: WI Zip Code: 54301

Phone No: 920/445-6109 Fax No: 920/445-2200 Email: Paul.Bytheway@schreiberfoods.com

- b. ☒ Administrative Contact . ☒ Technical Contact

☒ Mr. ☐ Ms. Full Name (First and Last): Corey Mullin

Title: Consultant Credential: Click to enter text.

Organization Name: Enviro-Ag Engineering

Mailing Address: 9855 FM 847

City: Dublin State: TX Zip Code: 76446

Phone No: 254/485-3892 Fax No: 254/965-8000 Email: cmullin@enviroag.com

Attachment: Click to enter text.

Item 6. Permit Contact Information (Instructions, Pages 28)

Provide two names of individuals that can be contacted throughout the permit term.

- a. ☒ Mr. ☐ Ms. Full Name (First and Last): Paul Bytheway

Title: Environmental Engineer Credential: Click to enter text.

Organization Name: Schreiber Foods, Inc.

Mailing Address: 400 N Washington Street

City: Green Bay State: WI Zip Code: 54301

Phone No: 920/445-6109 Fax No: 920/445-2200 Email: Paul.Bytheway@schreiberfoods.com

- b. ☒ Mr. ☐ Ms. Full Name (First and Last): Corey Mullin

Title: Consultant Credential: Click to enter text.

Organization Name: Enviro-Ag Engineering

Mailing Address: 9855 FM 847

City: Dublin State: TX Zip Code: 76446

Phone No: 254/485-3892

Fax No: 254/965-8000

Email: cmullin@enviroag.com

Attachment: Click to enter text.

Item 7. Billing Contact Information (Instructions, Page 28)

The permittee is responsible for paying the annual fee. The annual fee will be assessed for permits **in effect on September 1 of each year**. The TCEQ will send a bill to the address provided in this section. The permittee is responsible for terminating the permit when it is no longer needed (form TCEQ-20029).

Provide the complete mailing address where the annual fee invoice should be mailed and the name and phone number of the permittee's representative responsible for payment of the invoice.

☒ Mr. ☐ Ms. Full Name (First and Last): Gary McCaffity

Title: Environmental Health & Safety Manager, Operations

Credential: Click to enter text.

Organization Name: Schreiber Foods, Inc.

Mailing Address: 923 CR 176

City: Stephenville State: TX Zip Code: 76401

Phone No: 254/552-7717

Fax No: 254/552-7896

Email:

Gary.McCaffity@schreiberfoods.com

Item 8. DMR/MER Contact Information (Instructions, Page 28)

Provide the name and mailing address of the person delegated to receive and submit DMRs or MERs. **Note:** DMR data must be submitted through the NetDMR system. An electronic reporting account can be established once the facility has obtained the permit number.

☒ Mr. ☐ Ms. Full Name (First and Last): Gary McCaffity

Title: Environmental Health & Safety Manager, Operations

Credential: Click to enter text.

Organization Name: Schreiber Foods, Inc.

Mailing Address: 923 CR 176

City: Stephenville State: TX Zip Code: 76401

Phone No: 254/552-7717

Fax No: 254/552-7896

Email:

Gary.McCaffity@schreiberfoods.com

Item 9. NOTICE INFORMATION (Instructions, Pages 28)

a. Individual Publishing the Notices

☐ Mr. ☒ Ms. Full Name (First and Last): Jourdan Mullin

Title: Consultant

Credential: Click to enter text.

Organization Name: Enviro-Ag Engineering

Mailing Address: 9855 FM 847

City: Dublin State: TX Zip Code: 76446

Phone No: 806/679-5570

Fax No: 254/965-8000

Email: jmullin@enviroag.com

b. Method for Receiving Notice of Receipt and Intent to Obtain a Water Quality Permit Package (only for NORI, NAPD will be sent via regular mail)

☒ E-mail: jmullin@enviroag.com

☐ Fax: Click to enter text.

☒ Regular Mail (USPS)

Mailing Address: 9855 FM 847

City: Dublin State: TX Zip Code: 76446

c. Contact in the Notice

☒ Mr. ☐ Ms Full Name (First and Last): Paul Bytheway

Title: Environmental Engineer Credential: Click to enter text.

Organization Name: Schreiber Foods, Inc.

Phone No: 920/455-6109

Fax No: 920/455-2200

Email:

Paul.Bytheway@schreiberfoods.com

d. Public Viewing Location Information

Note: If the facility or outfall is located in more than one county, provide a public viewing place for each county.

Public building name: Erath County Courthouse
Extension Office

Location within the building: Erath County

Physical Address of Building: 100 Washington St. Room 206

City: Stephenville County: Erath

e. Bilingual Notice Requirements

This information is required for new, major amendment, and renewal applications. It is not required for minor amendment or minor modification applications.

This section of the application is only used to determine if alternative language notices will be needed. Complete instructions on publishing the alternative language notices will be in your public notice package.

Please call the bilingual/ESL coordinator at the nearest elementary and middle schools and obtain the following information to determine whether an alternative language notices are required.

1. Is a bilingual education program required by the Texas Education Code at the elementary or middle school nearest to the facility or proposed facility?

☒ Yes ☐ No ☐ N/A (Minor amendment or modification)

If no, publication of an alternative language notice is not required; skip to Item 8 (Regulated Entity and Permitted Site Information.)

2. Are the students who attend either the elementary school or the middle school enrolled in a bilingual education program at that school?

☒ Yes ☐ No ☐ N/A (Minor amendment or modification)

3. Do the students at these schools attend a bilingual education program at another location?

☐ Yes ☒ No ☐ N/A (Minor amendment or modification)

4. Would the school be required to provide a bilingual education program, but the school has waived out of this requirement under 19 TAC §89.1205(g)?

☐ Yes ☒ No ☐ N/A (Minor amendment or modification)

5. If the answer is yes to question 1, 2, 3, or 4, public notices in an alternative language are required. Which language is required by the bilingual program? Spanish

- f. Plain Language Summary Template - Complete the Plain Language Summary at the end of this application.

Item 10. Regulated Entity and Permitted Site Information (Instructions Pages 29-30)

- a. TCEQ issued Regulated Entity Number (RN), if available: RN102780665

Central Registry to determine the RN or to see if the larger site may already be registered as a Regulated Entity. If the site is found, provide the assigned RN.

b. Name of project or site (the name known by the community where located): Schreiber Foods

c. Is the location address of the facility in the existing permit the same?

☒ Yes ☐ No ☐ N/A (new permit)

Note: If the facility is located in Bexar, Comal, Hays, Kinney, Medina, Travis, Uvalde, or Williamson County, additional information concerning protection of the Edwards Aquifer may be required.

d. Owner of treatment facility:

☐ Mr. ☐ Ms. Full Name (First and Last): Click to enter text.

or Organization Name: Schreiber Foods, Inc.

Mailing Address: 400 N. Washington Street

City: Green Bay State: WI Zip Code: 54301

Phone No: 920/455-6109 Fax No: 920/455-2200 Email:

Paul.Bytheway@schreiberfoods.com

e. Ownership of facility: ☐ Public ☒ Private ☐ Both ☐ Federal

f. Owner of land where treatment facility is or will be: Click to enter text.

☐ Mr. ☐ Ms. Full Name (First and Last): Click to enter text.

or Organization Name: Schreiber Foods, Inc.

Mailing Address: 400 N. Washington Street

City: Green Bay State: WI Zip Code: 54301

Phone No: 920/455-6109 Fax No: 920/455-2200 Email:

Paul.Bytheway@schreiberfoods.com

Note: If not the same as the facility owner, attach a long-term lease agreement in effect for at least six years (In some cases, a lease may not suffice - see instructions). Attachment: Click to enter text.

g. Owner of effluent TLAP disposal site (if applicable): Click to enter text.

☐ Mr. ☐ Ms. Full Name (First and Last): Click to enter text.

or Organization Name: Schreiber Foods, Inc.

Mailing Address: 400 N. Washington Street

City: Green Bay State: TX Zip Code: 54301

Phone No: 920/455-6109 Fax No: 920/455-2200 Email:

Paul.Bytheway@schreiberfoods.com

Note: If not the same as the facility owner, attach a long-term lease agreement in effect for at least six years. Attachment: Click to enter text.

h. Owner of sewage sludge disposal site (if applicable):

☐ Mr. ☐ Ms. Full Name (First and Last): Click to enter text.

or Organization Name: Click to enter text.

Mailing Address: Click to enter text.

City: Click to enter text. State: Click to enter text. Zip Code: Click to enter text.

Phone No: Click to enter text. Fax No: Click to enter text. Email: Click to enter text.

Note: If not the same as the facility owner, attach a long-term lease agreement in effect for at least six years. Attachment: [Click to enter text.](#)

Item 11. TDPES Discharge/TLAP Disposal Information (Instructions, Pages 31-32)

- a. Is the facility located on or does the treated effluent cross Native American Land?
☐ Yes ☒ No
- b. Attach an original full size USGS Topographic Map (or an 8.5"×11" reproduced portion for renewal or amendment applications) with all required information. Check the box next to each item below to confirm it has been included on the map.
- | | |
|-----------------------------------------------------------------------|------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> One-mile radius | <input checked="" type="checkbox"/> Three-miles downstream information |
| <input checked="" type="checkbox"/> Applicant's property boundaries | <input checked="" type="checkbox"/> Treatment facility boundaries |
| <input type="checkbox"/> Labeled point(s) of discharge | <input type="checkbox"/> Highlighted discharge route(s) |
| <input checked="" type="checkbox"/> Effluent disposal site boundaries | <input checked="" type="checkbox"/> All wastewater ponds |
| <input type="checkbox"/> Sewage sludge disposal site | <input type="checkbox"/> New and future construction |

Attachment: C

- c. Is the location of the sewage sludge disposal site in the existing permit accurate?
☐ Yes ☒ No or New Permit

If no, or a new application, provide an accurate location description: N/A

- d. Are the point(s) of discharge in the existing permit correct?
☐ Yes ☒ No or New Permit

If no, or a new application, provide an accurate location description: N/A

- e. Are the discharge route(s) in the existing permit correct?
☐ Yes ☒ No or New Permit

If no, or a new permit, provide an accurate description of the discharge route: N/A

- f. City nearest the outfall(s): N/A

- g. County in which the outfalls(s) is/are located: N/A

- h. Is or will the treated wastewater discharge to a city, county, or state highway right-of-way, or a flood control district drainage ditch?
☐ Yes ☒ No

If yes, indicate by a check mark if: ☐ Authorization granted ☐ Authorization pending

For new and amendment applications, attach copies of letters that show proof of contact and provide the approval letter upon receipt. Attachment: [Click to enter text.](#)

For all applications involving an average daily discharge of 5 MGD or more, provide the names of all counties located within 100 statute miles downstream of the point(s) of discharge: [Click to enter text.](#)

- i. For TLAPs, is the location of the effluent disposal site in the existing permit accurate?
☒ Yes ☐ No or New Permit

If no, or a new application, provide an accurate location description: [Click to enter text.](#)

☒ Yes ☐ No or New Permit

If no, or a new application, provide an accurate location description: [Click to enter text.](#)

j. City nearest the disposal site: [Stephenville](#)

k. County in which the disposal site is located: [Erath](#)

l. Disposal Site Latitude: [32D 16' 10"](#) Longitude: [98D 11' 27"](#)

m. For TLAPs, describe how effluent is/will be routed from the treatment facility to the disposal site:
[Effluent from the treatment facility is pumped through an underground pipeline to the waste disposal areas.](#)

n. For TLAPs, identify the nearest watercourse to the disposal site to which rainfall runoff might flow if not contained: [Unnamed tributary to the South Paluxy River.](#)

Item 12. MISCELLANEOUS INFORMATION (Instructions, Page 33)

a. Did any person formerly employed by the TCEQ represent your company and get paid for service regarding this application?

☐ Yes ☒ No

If yes, list each person: [Click to enter text.](#)

b. Do you owe any fees to the TCEQ?

☐ Yes ☒ No

If yes, provide the account no.: [Click to enter text.](#) and total amount due: [Click to enter text.](#)

c. Do you owe any penalties to the TCEQ?

☐ Yes ☒ No

If yes, provide the enforcement order no.: [Click to enter text.](#) and amount due: [Click to enter text.](#)

Item 13. SIGNATURE PAGE (Instructions, Pages 33-34)

Permit No: WQ0003074000

Applicant Name: Schreiber Foods, Inc.

Certification: I, Paul Batkins, certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I further certify that I am authorized under 30 Texas Administrative Code §305.44 to sign and submit this document and can provide documentation in proof of such authorization upon request.

Signatory name (typed or printed): Paul Batkins

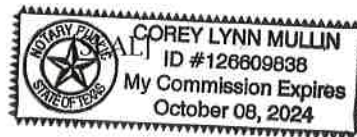
Signatory title: Plant Manager

Signature: Paul Batkins Date: 2/3/23
(Use blue ink)

Subscribed and Sworn to before me by the said Paul Batkins
on this 3rd day of February, 2023.
My commission expires on the 8th day of October, 2024.

[Signature]
Notary Public

Erath
County, Texas



Note: *If co-applicants are necessary, each entity must submit an original, separate signature page.*

INDUSTRIAL ADMINISTRATIVE REPORT 1.1

The following information is required for new and amendment applications.

Item 1. AFFECTED LANDOWNER INFORMATION (Instructions, Pages 35-36)

- a. Attach a landowner map or drawing, with scale, as applicable. Check the box next to each item to confirm it has been provided.
- ☒ The applicant's property boundaries.
 - ☒ The facility site boundaries within the applicant's property boundaries.
 - ☐ The distance the buffer zone falls into adjacent properties and the property boundaries of the landowners located within the buffer zone.
 - ☒ The property boundaries of all landowners surrounding the applicant's property. (Note: if the application is a major amendment for a lignite mine, the map must include the property boundaries of all landowners adjacent to the new facility (ponds).)
 - ☐ The point(s) of discharge and highlighted discharge route(s) clearly shown for one mile downstream.
 - ☐ The property boundaries of the landowners located on both sides of the discharge route for one full stream mile downstream of the point of discharge.
 - ☐ The property boundaries of the landowners along the watercourse for a one-half mile radius from the point of discharge if the point of discharge is into a lake, bay, estuary, or affected by tides.
 - ☒ The boundaries of the effluent disposal site (e.g., irrigation area or subsurface drainfield site) and all evaporation/holding ponds within the applicant's property.
 - ☒ The property boundaries of all landowners surrounding the applicant's property boundaries where the effluent disposal site is located.
 - ☐ The boundaries of the sludge land application site (for land application of sewage sludge for beneficial use) and the property boundaries of landowners within one-quarter mile of the applicant's property boundaries where the sewage sludge land application site is located.
 - ☐ The property boundaries of landowners within one-half mile in all directions from the applicant's property boundaries where the sewage sludge disposal site (e.g., sludge surface disposal site or sludge monofil) is located.

Attachment: D

- b. Check the box next to the format of the landowners list:

☒ Readable/Writeable CD ☐ Four sets of labels

Attachment: D

- d. Provide the source of the landowners' names and mailing addresses: Erath County Appraisal District

- e. As required by Texas Water Code § 5.115, is any permanent school fund land affected by this application?

☐ Yes ☒ No

If yes, provide the location and foreseeable impacts and effects this application has on the land(s):
Click to enter text.

Item 2. ORIGINAL PHOTOGRAPHS (Instructions, Page 37)

Provide original ground level photographs. Check the box next to each of the following items to indicate it is included.

- ☐ At least one original photograph of the new or expanded treatment unit location.
- ☐ At least two photographs of the existing/proposed point of discharge and as much area downstream (photo 1) and upstream (photo 2) as can be captured. If the discharge is to an open water body (e.g., lake, bay), the point of discharge should be in the right or left edge of each photograph showing the open water and with as much area on each respective side of the discharge as can be captured.
- ☒ At least one photograph of the existing/proposed effluent disposal site.
- ☒ A plot plan or map showing the location and direction of each photograph.

Attachment: E

Plain Language Summary Forms

Individual Industrial Wastewater Application

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 Texas Administrative Code Chapter 39. The information provided in this summary may change during the technical review of the application and are not federal enforceable representations of the permit application.

Schreiber Foods, Inc (CN602630972) operates Schreiber Foods (RN102780665), a manufacturing/processing plant of cheese products. The facility is located at 923 County Road 176, near the city of Stephenville, Erath County, Texas 76401.

This application is for a major amendment with renewal to increasing the application acres from 50 acres to 61 acres, increasing the average daily flow from 132,000 gallons per day to 192,000 gallons per day, amending the organic loading rate from lbs./acre/year to lbs./acre/day measured as biochemical oxygen demand (5-day) and amending the nitrogen loading rate from lbs./acre/year to lbs./acre/year measured as total nitrogen.

Raw milk is brought to the plant in tankers. In the process of converting this milk into finished products (Cream Cheese) much of the water is extracted. This water, which is known by the industry as "cow water" is captured and used for cleaning purposes along with fresh water. This wash is then captured along with milk minerals, organics, and cleaning compounds and directed to the wastewater treatment facility. All domestic sewage is collected and treated by a chlorination system prior to being commingled with the process wastewater from the plant operations at the lift station.

Process water is collected and routed through monitoring stations which include a bar screen for solids removal and a dissolved air flotation tank for solids removal. Domestic wastewater is treated by a chlorination system prior to being commingled with process wastewater at the lift station. From the lift station, the commingled effluent is pumped to a storage/treatment system consisting of one 3-million-gallon aeration lagoon equipped with 200 hp. of aeration pump, two aeration lagoons (Aerated Storage Basin No. 1 & 2) both with 3 million gallons of storage capacity and 60 hp. of aeration equipment, and one 13.9-million-gallon storage lagoon. Effluent from the lagoons is routed to a center pivot irrigation system that includes a 61-acre tract for irrigation crops consisting of coastal Bermuda grass as a primary crop and ryegrass as a supplemental cool-weather crop.

Schreiber Foods, Inc (CN602630972) opera Schreiber Foods (RN102780665), una planta de fabricación/procesamiento de productos de queso. La instalación está ubicada en 923 County Road 176, cerca de la ciudad de Stephenville, Condado de Erath, Texas 76401.

Esta solicitud es para una modificación principal con renovación para aumentar los acres de aplicación de 50 acres a 61 acres, aumentar el flujo promedio diario de 132,000 galones por día a 192,000 galones por día, modificar la tasa de carga orgánica de lbs./acre/año a lbs./acre/día medida como demanda bioquímica de oxígeno (5 días) y modificando la tasa de carga de nitrógeno de lbs./acre/año a lbs./acre/año medida como nitrógeno total.

La leche cruda se lleva a la planta en camiones cisterna. En el proceso de convertir esta leche en productos terminados (Queso Crema) se extrae gran parte del agua. Esta agua, que la industria conoce como "agua de vaca", es captada y utilizada con fines de limpieza junto con el agua dulce. Luego, este lavado se captura junto con los minerales de la leche, los compuestos orgánicos y los compuestos de limpieza y se dirige a la planta de tratamiento de aguas residuales. Todas las aguas residuales domésticas son recolectadas y tratadas por un sistema de cloración antes de mezclarse con las aguas residuales del proceso de las operaciones de la planta en la estación de bombeo.

El agua de proceso se recolecta y se enruta a través de estaciones de monitoreo que incluyen una pantalla de barra para la eliminación de sólidos y un tanque de flotación de aire disuelto para la eliminación de sólidos. Las aguas residuales domésticas se tratan mediante un sistema de cloración antes de mezclarse con las aguas residuales del proceso en la estación de bombeo. Desde la estación de bombeo, el efluente mezclado se bombea a un sistema de almacenamiento/tratamiento que consta de una laguna de aireación de 3 millones de galones equipada con 200 hp. de bomba de aireación, dos lagunas de aireación (Cuenca de Almacenamiento Aireada No. 1 y 2) ambas con 3 millones de galones de capacidad de almacenamiento y 60 hp. de equipo de aireación y una laguna de almacenamiento de 13.9 millones de galones. El efluente de las lagunas se dirige a un sistema de riego de pivote central que incluye un tramo de 61 acres para cultivos de riego que consisten en pasto Bermuda costero como cultivo principal y raigrás como cultivo complementario de clima frío.

TECHNICAL REPORT 1.0

INDUSTRIAL

The following information **is required** for all applications for a TLAP or an individual TPDES discharge permit.

For additional information or clarification on the requested information, refer to the [Instructions for Completing the Industrial Wastewater Permit Application](#)¹ available on the TCEQ website.

If more than one outfall is included in the application, provide applicable information for each individual outfall. **If an item does not apply to the facility, enter N/A** to indicate that the item has been considered. Include separate reports or additional sheets as **clearly cross-referenced attachments** and provide the attachment number in the space provided for the item the attachment addresses.

NOTE: This application is for an industrial wastewater permit only. Additional authorizations from the TCEQ Waste Permits Division or the TCEQ Air Permits Division may be needed.

1. FACILITY/SITE INFORMATION (Instructions, Pages 39-40)

- a. Describe the general nature of the business and type(s) of industrial and commercial activities. Include all applicable SIC codes (up to 4).

Schreiber Foods, Inc. is a specialty dairy food manufacturer, producing a variety of cheeses. Primary SIC Code = 2022, Secondary SIC Code = 2023, Primary NAICS Code = 311513, Secondary NAICS Code = 31514.

- b. Describe all wastewater-generating processes at the facility.

Raw milk is brought to the plant in tankers. In the process of converting this milk into finished products (Cream Cheese) much of the water is extracted. This water, which is known by the industry as "cow water" is captured and used for cleaning purposes along with fresh water. This wash is then captured along with milk minerals, organics, and cleaning compounds and directed to the wastewater treatment facility.

All domestic sewage is collected and treated by a chlorination system prior to being commingled with the process wastewater from the plant operations at the lift station.

¹ https://www.tceq.texas.gov/permitting/wastewater/industrial/TPDES_industrial_wastewater_steps.html

- c. Provide a list of raw materials, major intermediates, and final products handled at the facility.

Materials List

Raw Materials	Intermediate Products	Final Products
Raw Milk	Whey	Cream Cheese
Block Cheese		Chunk, Sliced and Shredded Cheese

Attachment: Click to enter text.

- d. Attach a facility map (drawn to scale) with the following information:

- Production areas, maintenance areas, materials-handling areas, waste-disposal areas, and water intake structures.
- The location of each unit of the WWTP including the location of wastewater collection sumps, impoundments, outfalls, and sampling points, if significantly different from outfall locations.

Attachment: 1

- e. Is this a new permit application for an existing facility?

☐ Yes ☒ No

If **yes**, provide background discussion: Click to enter text.

- f. Is/will the treatment facility/disposal site be located above the 100-year frequency flood level.

☒ Yes ☐ No

List source(s) used to determine 100-year frequency flood plain: FEMA Flood Map ID: 480218008B

If **no**, provide the elevation of the 100-year frequency flood plain and describe what protective measures are used/proposed to prevent flooding (including tail water and rainfall run-on controls) of the treatment facility and disposal area: Click to enter text.

Attachment: 2

- g. For **new** or **major amendment** permit applications, will any construction operations result in a discharge of fill material into a water in the state?

☐ Yes ☒ No ☐ N/A (renewal only)

- h. If **yes** to Item 1.g, has the applicant applied for a USACE CWA Chapter 404 Dredge and Fill permit?

☐ Yes ☐ No

If **yes**, provide the permit number: Click to enter text.

If **no**, provide an approximate date of application submittal to the USACE: Click to enter text.

2. TREATMENT SYSTEM (Instructions, Page 40)

- a. List any physical, chemical, or biological treatment process(es) used/proposed to treat wastewater at this facility. Include a description of each treatment process, starting with initial treatment and finishing with the outfall/point of disposal.

Process water is collected and routed through monitoring stations which include a bar screen for solids removal and a dissolved air flotation tank for solids removal. Domestic wastewater is treated by a chlorination system prior to being commingled with process wastewater at the lift station. From the lift station, the commingled effluent is pumped to a storage/treatment system consisting of one 3 million gallon aeration lagoon equipped with 200 hp. of aeration pump, two aeration lagoons (Aerated Storage Basin No. 1 & 2) both with 3 million gallons of storage capacity and 60 hp. of aeration equipment, and one 13.9 million gallon storage lagoon. Effluent from the lagoons is routed to a center pivot irrigation system that includes a 61-acre tract for irrigation crops consisting of coastal Bermuda grass as a primary crop and ryegrass as a supplemental cool-weather crop.

- b. Attach a flow schematic **with a water balance** showing all sources of water and wastewater flow into the facility, wastewater flow into and from each treatment unit, and wastewater flow to each outfall/point of disposal.

Attachment: 1

3. IMPOUNDMENTS (Instructions, Pages 40-42)

Does the facility use or plan to use any wastewater impoundments (e.g., lagoons or ponds?)

☒ Yes ☐ No

If **no**, proceed to Item 4. If **yes**, complete **Item 3.a** for **existing** impoundments and **Items 3.a - 3.e** for **new or proposed** impoundments. **NOTE:** See instructions, Pages 40-42, for additional information on the attachments required by Items 3.a – 3.e.

- a. Complete the table with the following information for each existing, new, or proposed impoundment:

Use Designation: Indicate the use designation for each impoundment as Treatment (T), Disposal (D), Containment (C), or Evaporation (E).

Associated Outfall Number: Provide an outfall number if a discharge occurs or will occur.

Liner Type: Indicate the liner type as Compacted clay liner (C), In-situ clay liner (I), Synthetic/plastic/rubber liner (S), or Alternate liner (A). **NOTE:** See instructions for further detail on liner specifications. If an alternate liner (A) is selected, include an attachment that provides a description of the alternate liner and any additional technical information necessary for an evaluation.

Leak Detection System: If any leak detection systems are in place/planned, enter **Y** for yes. Otherwise, enter **N** for no.

Groundwater Monitoring Wells and Data: If groundwater monitoring wells are in place/planned, enter **Y** for yes. Otherwise, enter **N** for no. Attach any existing groundwater monitoring data.

Dimensions: Provide the dimensions, freeboard, surface area, storage capacity of the impoundments, and the maximum depth (not including freeboard). For impoundments with irregular shapes, submit surface area instead of length and width.

Compliance with 40 CFR Part 257, Subpart D: If the impoundment is required to be in compliance with 40 CFR Part 257, Subpart D, enter **Y** for yes. Otherwise, enter **N** for no.

Date of Construction: Enter the date construction of the impoundment commenced (mm/dd/yy).

Impoundment Information

Parameter	Pond #1	Pond #2	Pond #3	Pond #4
Use Designation: (T) (D) (C) or (E)	T	T	T	T
Associated Outfall Number	001	001	001	001
Liner Type (C) (I) (S) or (A)	C	C	C	C
Alt. Liner Attachment Reference				
Leak Detection System, Y/N	N	N	N	N
Groundwater Monitoring Wells, Y/N	Y	Y	Y	Y
Groundwater Monitoring Data Attachment	Y	Y	Y	Y
Pond Bottom Located Above The Seasonal High-Water Table, Y/N	Y	Y	Y	Y
Length (ft)	355	340	340	576
Width (ft)	140	140	140	385
Max Depth From Water Surface (ft), Not Including Freeboard	10	10	10	13.3
Freeboard (ft)	2	2	2	2
Surface Area (acres)	1.14	1.09	1.09	4.68
Storage Capacity (gallons)	3,000,000	3,000,000	3,000,000	13,900,000
40 CFR Part 257, Subpart D, Y/N	No	No	No	No
Date of Construction				11/23/2020

Impoundment Information

Parameter	Pond #	Pond #	Pond #	Pond #
Use Designation: (T) (D) (C) or (E)				
Associated Outfall Number				
Liner Type (C) (I) (S) or (A)				
Alt. Liner Attachment Reference				
Leak Detection System, Y/N				
Groundwater Monitoring Wells, Y/N				
Groundwater Monitoring Data Attachment				
Pond Bottom Located Above The Seasonal High-Water Table, Y/N				
Length (ft)				
Width (ft)				
Max Depth From Water Surface (ft), not including freeboard				
Freeboard (ft)				
Surface Area (acres)				
Storage Capacity (gallons)				
40 CFR Part 257, Subpart D, Y/N				
Date of Construction				

Attachment: 3

The following information (**Items 3.b – 3.e**) is required only for **new or proposed** impoundments.

- b. For new or proposed impoundments, attach any available information on the following items. If attached, check **yes** in the appropriate box. Otherwise, check **no** or **not yet designed**.

i. Liner data

☐ Yes ☐ No ☐ Not yet designed

ii. Leak detection system or groundwater monitoring data

☐ Yes ☐ No ☐ Not yet designed

iii. Groundwater impacts

☐ Yes ☐ No ☐ Not yet designed

NOTE: Item b.iii is required if the bottom of the pond is not above the seasonal high-water table in the shallowest water-bearing zone.

Attachment: [Click to enter text.](#)

For TLAP applications: Items 3.c – 3.e are not required, continue to Item 4.

- c. Attach a USGS map or a color copy of original quality and scale which accurately locates and identifies all known water supply wells and monitor wells within 1/2-mile of the impoundments.

Attachment: [Click to enter text.](#)

- d. Attach copies of State Water Well Reports (e.g., driller's logs, completion data, etc.), and data on depths to groundwater for all known water supply wells including a description of how the depths to groundwater were obtained.

Attachment: [Click to enter text.](#)

- e. Attach information pertaining to the groundwater, soils, geology, pond liner, etc. used to assess the potential for migration of wastes from the impoundments or the potential for contamination of groundwater or surface water.

Attachment: [Click to enter text.](#)

4. OUTFALL/DISPOSAL METHOD INFORMATION (Instructions, Pages 42-43)

Complete the following tables to describe the location and wastewater discharge or disposal operations for each outfall for discharge operations, and for each point of disposal for TLAP operations.

If there are more outfalls/points of disposal at the facility than the spaces provided, copies of pages 6 and/or numbered accordingly (i.e., page 6a, 6b, etc.) may be used to provide information on the additional outfalls.

For TLAP applications: Indicate the disposal method and each individual irrigation area **I**, evaporation pond **E**, or subsurface drainage system **S** by providing the appropriate letter designation for the disposal method followed by a numerical designation for each disposal area in the space provided for **Outfall** number (e.g. **E1** for evaporation pond 1, **I2** for irrigation area No. 2, etc.).

Outfall Latitude and Longitude

Outfall Number	Latitude-decimal degrees	Longitude-decimal degrees
I1	32°16'17.30"N	98°11'16.41"W
I2	32°15'59.05"N	98°11'18.32"W

Outfall Location Description

Outfall Number	Location Description
I1	Located north of Schreiber Foods plant and north of pond #4.
I2	Located north of Schreiber Foods plant and south of pond #4

Description of Sampling Points (if different from Outfall location)

Outfall Number	Description of Sampling Point

Outfall Flow Information – Permitted and Proposed

Outfall Number	Permitted Daily Avg Flow (MGD)	Permitted Daily Max Flow (MGD)	Proposed Daily Avg Flow (MGD)	Proposed Daily Max Flow (MGD)	Anticipated Discharge Date (mm/dd/yy)
I1 & I2	0.132	*	0.192	*	9/1/2023
	*No daily Max Flow				

Outfall Discharge – Method and Measurement

Outfall Number	Pumped Discharge? Y/N	Gravity Discharge? Y/N	Type of Flow Measurement Device Used
I1	Y	N	Flow Meter
I2	Y	N	Flow Meter

Outfall Discharge – Flow Characteristics

Outfall Number	Intermittent Discharge? Y/N	Continuous Discharge? Y/N	Seasonal Discharge? Y/N	Discharge Duration (hrs/day)	Discharge Duration (days/mo)	Discharge Duration (mo/yr)
I1	Y	Y	Y	24	30	12
I2	Y	Y	Y	24	30	12

Wastestream Contributions

Outfall No.: T-1

Contributing Wastestreams	Volume (MGD)	% of Total Flow
Process	0.189800	98.85
Sanitary	0.0022	1.15

Outfall No.: C-2 & C-3

Contributing Wastestreams	Volume (MGD)	% of Total Flow
Aeration Basins	0.192	100

Outfall No.: S-4

Contributing Wastestreams	Volume (MGD)	% of Total Flow
Storage	0.192	100

Attachment: Click to enter text.

5. BLOWDOWN AND ONCE-THROUGH COOLING WATER DISCHARGES (Instructions, Page 44)

- a. Does the facility use/propose to use any cooling towers which discharge blowdown or other wastestreams to the outfall(s)?

☒ Yes ☐ No

NOTE: If the facility uses or plans to use cooling towers, Item 12 **is required**.

- b. Does the facility use or plan to use any boilers that discharge blowdown or other wastestreams to the outfall(s)?

☒ Yes ☐ No

- c. Does or will the facility discharge once-through cooling water to the outfall(s)?

☐ Yes ☒ No

NOTE: If the facility uses or plans to use once-through cooling water, Item 12 **is required**.

- d. If **yes** to Items 5.a, 5.b, **or** 5.c, attach the SDS with the following information for each chemical additive.

- Manufacturers Product Identification Number
- Product use (e.g., biocide, fungicide, corrosion inhibitor, etc.)
- Chemical composition including CASRN for each ingredient
- Classify product as non-persistent, persistent, or bioaccumulative
- Product or active ingredient half-life
- Frequency of product use (e.g., 2 hours/day once every two weeks)
- Product toxicity data specific to fish and aquatic invertebrate organisms
- Concentration of whole product or active ingredient, as appropriate, in wastestream.

Attach a summary of this information in addition to the submittal of the SDS for each specific wastestream and the associated chemical additives and specify which outfalls are affected.

Attachment: 4

- e. Cooling Towers and Boilers

If **yes** to either Item 5.a **or** 5.b, complete the following table.

Cooling Towers and Boilers

Type of Unit	Number of Units	Dly Avg Blowdown (gallons/day)	Dly Max Blowdown (gallons/day)
Cooling Towers	4	3,000	5,200
Boilers	2	212	300

6. STORMWATER MANAGEMENT (Instructions, Page 44)

Are there any existing/proposed outfalls which discharge stormwater associated with industrial activities, as defined at *40 CFR § 122.26(b)(14)*, commingled with any other wastestream?

☐ Yes ☒ No

If **yes**, briefly describe the industrial processes and activities that occur outdoors or in some manner which may result in exposure of the activities or materials to stormwater: [Click to enter text.](#)

7. DOMESTIC SEWAGE, SEWAGE SLUDGE, AND SEPTAGE MANAGEMENT AND DISPOSAL (Instructions, Page 45)

Domestic Sewage - Waste and wastewater from humans or household operations that is discharged to a wastewater collection system or otherwise enters a treatment works.

- a. Check the box next to the appropriate method of domestic sewage and domestic sewage sludge treatment or disposal. Complete Worksheet 5.0 or Item 7.b if directed to do so.
- ☐ Domestic sewage is routed (i.e., connected to or transported to) to a WWTP permitted to receive domestic sewage for treatment, disposal, or both. **Complete Item 7.b.**
 - ☐ Domestic sewage disposed of by an on-site septic tank and drainfield system. **Complete Item 7.b.**
 - ☒ Domestic and industrial treatment sludge **ARE commingled** prior to use or disposal.
 - ☐ Industrial wastewater and domestic sewage are treated separately, and the respective sludge **IS NOT commingled** prior to sludge use or disposal. **Complete Worksheet 5.0.**
 - ☐ Facility is a POTW. **Complete Worksheet 5.0.**
 - ☐ Domestic sewage is not generated on-site.
 - ☐ Other (e.g., portable toilets), specify and **Complete Item 7.b:** [Click to enter text.](#)
- b. Provide the name and TCEQ, NPDES, or TPDES Permit No. of the waste-disposal facility which receives the domestic sewage/septage. If hauled by motorized vehicle, provide the name and TCEQ Registration No. of the hauler.

Domestic Sewage Plant/Hauler Name

Plant/Hauler Name	Permit/Registration No.
Cowboy Septic	21102

8. IMPROVEMENTS OR COMPLIANCE/ENFORCEMENT REQUIREMENTS (Instructions, Page 45)

- a. Is the permittee currently required to meet any implementation schedule for compliance or enforcement?
- ☐ Yes ☒ No
- b. Has the permittee completed or planned for any improvements or construction projects?
- ☐ Yes ☒ No
- c. If **yes** to either 8.a or 8.b, provide a brief summary of the requirements and a status update: [Click to enter text.](#)

9. TOXICITY TESTING (Instructions, Page 45)

Have any biological tests for acute or chronic toxicity been made on any of the discharges or on a receiving water in relation to the discharge within the last three years?

☐ Yes ☒ No

If **yes**, identify the tests and describe their purposes: [Click to enter text.](#)

Additionally, attach a copy of all tests performed which **have not** been submitted to the TCEQ or EPA.

Attachment: [Click to enter text.](#)

10. OFF-SITE/THIRD PARTY WASTES (Instructions, Page 45)

- a. Does or will the facility receive wastes from off-site sources for treatment at the facility, disposal on-site via land application, or discharge via a permitted outfall?

☐ Yes ☒ No

If **yes**, provide responses to Items 10.b through 10.d below.

If **no**, proceed to Item 11.

- b. Attach the following information to the application:

- List of wastes received (including volumes, characterization, and capability with on-site wastes).
- Identify the sources of wastes received (including the legal name and addresses of the generators).
- Description of the relationship of waste source(s) with the facility's activities.

Attachment: [Click to enter text.](#)

- c. Is or will wastewater from another TCEQ, NPDES, or TPDES permitted facility commingled with this facility's wastewater after final treatment and prior to discharge via the final outfall/point of disposal?

☐ Yes ☐ No

If **yes**, provide the name, address, and TCEQ, NPDES, or TPDES permit number of the contributing facility and a copy of any agreements or contracts relating to this activity.

Attachment: [Click to enter text.](#)

- d. Is this facility a POTW that accepts/will accept process wastewater from any SIU and has/is required to have an approved pretreatment program under the NPDES/TPDES program?

☐ Yes ☐ No

If **yes**, **Worksheet 6.0** of this application **is required**.

11. RADIOACTIVE MATERIALS (Instructions, Pages 46)

- a. Are/will radioactive materials be mined, used, stored, or processed at this facility?

☐ Yes ☒ No

If **yes**, use the following table to provide the results of one analysis of the effluent for all radioactive materials that may be present. Provide results in pCi/L.

Radioactive Materials Mined, Used, Stored, or Processed

Radioactive Material	Concentration (pCi/L)

- b. Does the applicant or anyone at the facility have any knowledge or reason to believe that radioactive materials may be present in the discharge, including naturally occurring radioactive materials in the source waters or on the facility property?

☐ Yes ☒ No

If **yes**, use the following table to provide the results of one analysis of the effluent for all radioactive materials that may be present. Provide results in pCi/L. Do not include information provided in response to Item 11.a.

Radioactive Materials Present in the Discharge

Radioactive Material	Concentration (pCi/L)

12. COOLING WATER (Instructions, Pages 46-47)

- a. Does the facility use or propose to use water for cooling purposes?

☐ Yes ☒ No

If **no**, stop here. If **yes**, complete Items 12.b thru 12.f.

- b. Cooling water is/will be obtained from a groundwater source (e.g., on-site well).

☐ Yes ☐ No

If **yes**, stop here. If **no**, continue.

- c. Cooling Water Supplier

- i. Provide the name of the owner(s) and operator(s) for the CWIS that supplies or will supply water for cooling purposes to the facility.

Cooling Water Intake Structure(s) Owner(s) and Operator(s)

CWIS ID				
Owner				
Operator				

- ii. Cooling water is/will be obtained from a Public Water Supplier (PWS)

☐ Yes ☐ No

If **no**, continue. If **yes**, provide the PWS Registration No. and stop here: PWS No. [Click to enter text.](#)

- iii. Cooling water is/will be obtained from a reclaimed water source?

☐ Yes ☐ No

If **no**, continue. If **yes**, provide the Reuse Authorization No. and stop here: [Click to enter text.](#)

NOTE: Item 13 is required only for existing permitted facilities.

13. PERMIT CHANGE REQUESTS (Instructions, Pages 49-50)

a. Is the facility requesting a **major amendment** of an existing permit?

☒ Yes ☐ No

If **yes**, list each request individually and provide the following information: 1) detailed information regarding the scope of each request and 2) a justification for each request. Attach any supplemental information or additional data to support each request.

Increasing the application acres from 50 acres to 61 acres, increasing the average daily flow from 132,000 gallons per day to 192,000 gallons per day, amending the organic loading rate from lbs./acre/year to lbs./acre/day measured as biochemical oxygen demand (5-day) and amending the nitrogen loading rate from lbs./acre/year to lbs./acre/year measured as total nitrogen.

b. Is the facility requesting any **minor amendments** to the permit?

☐ Yes ☒ No

If **yes**, list and discuss the requested changes.

Click to enter text.

c. Is the facility requesting any **minor modifications** to the permit?

☐ Yes ☒ No

If **yes**, list and discuss the requested changes.

Click to enter text.

WORKSHEET 3.0

LAND APPLICATION OF EFFLUENT

This worksheet is required for all applications for a permit to dispose of wastewater by land application.

1. TYPE OF DISPOSAL SYSTEM (Instructions, Page 70)

Check the box next to the type of land disposal requested by this application:

- | | |
|--------------------------------------------------|-------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Irrigation | <input type="checkbox"/> Subsurface application |
| <input type="checkbox"/> Evaporation | <input type="checkbox"/> Subsurface soils absorption |
| <input type="checkbox"/> Evapotranspiration beds | <input type="checkbox"/> Surface application |
| <input type="checkbox"/> Drip irrigation system | <input type="checkbox"/> Other, specify: Click to enter text. |

2. LAND APPLICATION AREA (Instructions, Page 70)

Land Application Area Information

Effluent Application (gallons/day)	Irrigation Acreage (acres)	Describe land use & indicate type(s) of crop(s)	Public Access? (Y/N)
192,000	61	Coastal Bermudagrass is the primary crop and ryegrass as the cool weather crop.	N

3. ANNUAL CROPPING PLAN (Instructions, Page 70)

Attach the required cropping plan that includes each of the following:

- Cool and warm season plant species
- Breakdown of acreage and percent of total acreage for each crop
- Crop growing season
- Harvesting method/number of harvests
- Minimum/maximum harvest height
- Crop yield goals
- Soils map
- Nitrogen requirements per crop
- Additional fertilizer requirements
- Supplemental watering requirements
- Crop salt tolerances
- Justification for not removing existing vegetation to be irrigated

4. WELL AND MAP INFORMATION (Instructions, Page 71)

a. Check each box to confirm the required information is shown and labeled on the attached USGS map:

- ☒ The exact boundaries of the land application area
- ☒ On-site buildings
- ☒ Waste-disposal or treatment facilities
- ☒ Effluent storage and tailwater control facilities
- ☒ Buffer zones
- ☒ All surface waters in the state onsite and within 500 feet of the property boundaries
- ☒ All water wells within 1/2-mile of the disposal site, wastewater ponds, or property boundaries
- ☐ All springs and seeps onsite and within 500 feet of the property boundaries

Attachment: 6

b. List and cross reference all water wells located on or within 500 feet of the disposal site, wastewater ponds, or property boundaries in the following table. Attach additional pages as necessary to include all of the wells.

Well and Map Information Table

Well ID	Well Use	Producing? Y/N/U	Open, cased, capped, or plugged?	Proposed Best Management Practice
2 (State Well #3147802)	Public	Y	Cased	500-ft Buffer
4 (District ID #27625)	Domestic	Y	Cased	500-ft Buffer
7 (Plugging Report #28143)	Domestic	N	Plugged	N/A
8 (State Well #605326)	Public	Y	Cased	500-ft Buffer
14 (State Well #598116)	Domestic	Y	Cased	500-ft Buffer
17 (State Well #598115)	Domestic	Y	Cased	500-ft Buffer
21 (District ID #6371)	Domestic	Y	Cased	500-ft Buffer
35 (District ID #125643)	Public	Y	Cased	500-ft Buffer

Attachment: 6

c. Groundwater monitoring wells or lysimeters are/will be installed around the land application site or wastewater ponds.

- ☒ Yes ☐ No

If **yes**, provide the existing/proposed location of the monitoring wells or lysimeters on the site map attached for Item 4.a. Additionally, attach information on the depth of the wells or lysimeters, sampling schedule, and monitoring parameters for TCEQ review, possible modification, and approval.

Attachment: 6

- d. Attach a short groundwater technical report using *30 TAC § 309.20(a)(4)* as guidance.

Attachment: 6

5. SOIL MAP AND SOIL INFORMATION (Instructions, Page 72)

Check each box to confirm that the following information is attached:

- a. ☒ USDA NRCS Soil Survey Map depicting the area to be used for land application with the locations identified by fields and crops
- b. ☒ Breakdown of acreage and percent of total acreage for each soil type
- c. ☒ Copies of laboratory soil analyses

Attachment: 7

6. LABORATORY ACCREDITATION CERTIFICATION (Instructions, Page 73)

Effective July 1, 2008, all laboratory tests performed must meet the requirements of *30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification* with the following general exemptions:

- a. The laboratory is an in-house laboratory and is:
- i. periodically inspected by the TCEQ; or
 - ii. located in another state and is accredited or inspected by that state; or
 - iii. performing work for another company with a unit located in the same site; or
 - iv. performing pro bono work for a governmental agency or charitable organization.
- b. The laboratory is accredited under federal law.
- c. The data are needed for emergency-response activities, and a laboratory accredited under the Texas Laboratory Accreditation Program is not available.
- d. The laboratory supplies data for which the TCEQ does not offer accreditation.

Review *30 TAC Chapter 25* for specific requirements. The following certification statement shall be signed and submitted with every application. See Instructions, Page 32, for a list of approved signatories.

I, Click to enter text, certify that all laboratory tests submitted with this application meet the requirements of *30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification*.



(Signature)

7. EFFLUENT MONITORING DATA (Instructions, Page 73)

Completion of Table 14 **is required** for all **renewal** and **major amendment** applications. Complete the table with monitoring data for the previous two years for all parameters regulated in the current permit. An additional table has been provided with blank headers for parameters regulated in the current permit which are not listed in Table 14.

Table 14 for Site No.: 1

Samples are (check one): ☐ Composites ☒ Grabs

Date (mo/yr)	Daily Avg Flow (gpd)	BOD ₅ (mg/L)	TSS (mg/L)	Nitrogen (mg/L)	Conductivity (mmhos/cm)	Total acres irrigated	Hydraulic Application rate (acre-feet/month)
August 2022	106,500	21.1	N/A	26.2	N/A	50	5.76
July 2022	105,077	31.7	N/A	34.4	N/A	50	7.22
June 2022	106,607	33.6	N/A	38.1	N/A	50	8.80
May 2022	100,872	25.6	N/A	29.4	N/A	50	1.63
April 2022	99,889	45.1	134	20.2	N/A	50	8.84
March 2022	96,694	48.2	N/A	24.2	N/A	50	9.18
February 2022	94,359	49.7	N/A	12.9	N/A	50	4.79
January 2022	98,726	43.6	N/A	14.8	N/A	50	8.45
December 2021	96,242	41.3	N/A	13.6	N/A	50	7.21
November 2021	94,233	33.2	N/A	16.1	N/A	50	8.55
October 2021	86,655	33.3	N/A	24.8	N/A	50	5.17
September 2021	102,274	32.2	63.9	33.9	N/A	50	17.94
August 2021	101,472	34.7	N/A	34.3	N/A	50	6.08
July 2021	94,852	29.8	N/A	28.4	N/A	50	6.43
June 2021	88,043	23.8	N/A	28.6	N/A	50	6.82
May 2021	80,248	42.1	N/A	15.7	N/A	50	5.30
April 2021	81,008	42.2	51.8	14.4	N/A	50	7.90
March 2021	65,222	34.4	N/A	15.7	N/A	50	10.81
February 2021	100,240	32.6	N/A	15.3	N/A	50	1.51
January 2021	98,285	34.3	N/A	16.2	N/A	50	3.93
December 2020	86,615	39.8	N/A	16.4	N/A	50	2.83
November 2020	87,682	18.3	N/A	10.5	N/A	50	0.76

Date (mo/yr)	Daily Avg Flow (gpd)	BOD ₅ (mg/L)	TSS (mg/L)	Nitrogen (mg/L)	Conductivity (mmhos/cm)	Total acres irrigated	Hydraulic Application rate (acre-feet/month)
October 2020	83,504	20.5	117	13.2	N/A	50	4.61
September 2020	83,955	22.9	N/A	32.7	N/A	50	7.89
August 2020	83,040	17.8	N/A	13.8	N/A	50	6.68

Attach an explanation of all persistent excursions to permitted parameters and corrective actions taken.

Attachment: Click to enter text.

Use this table to provide effluent analysis for parameters regulated in the current permit which are not listed in Table 14.

Additional Parameter Effluent Analysis

Date (mo/yr)	Chloride (mg/L)	Sodium (mg/L)	Total Phosphorus (mg/L)	TDS (mg/L)	Oil & Grease (mg/L)	pH (SU)	
August 2022	N/A	N/A	N/A	N/A	0.0	8.20	
July 2022	N/A	N/A	N/A	N/A	0.0	8.2	
June 2022	N/A	N/A	N/A	N/A	5.7	8.3	
May 2022	N/A	N/A	N/A	N/A	0.0	8.28	
April 2022	999	813	15.2	2910	6.9	8.24	
March 2022	N/A	N/A	N/A	N/A	7.1	8.39	
February 2022	N/A	N/A	N/A	N/A	0.0	8.38	
January 2022	N/A	N/A	N/A	N/A	1.3	8.38	
December 2021	N/A	N/A	N/A	N/A	3.2	8.08	
November 2021	N/A	N/A	N/A	N/A	0.0	8.49	
October 2021	N/A	N/A	N/A	N/A	0.0	N/A	
September 2021	1500	949	4.9	3,500	0.0	8.46	
August 2021	N/A	N/A	N/A	N/A	0.0	8.29	
July 2021	N/A	N/A	N/A	N/A	0.0	8.37	
June 2021	N/A	N/A	N/A	N/A	0.0	8.24	
May 2021	N/A	N/A	N/A	N/A	0.0	8.28	
April 2021	N/A	842	1.3	2,540	0.0	8.44	
March 2021	N/A	N/A	N/A	N/A	0.0	8.50	
February 2021	N/A	N/A	N/A	N/A	0.0	8.64	
January 2021	N/A	N/A	N/A	N/A	1.68	8.64	
December 2020	N/A	N/A	N/A	N/A	0.0	8.62	
November 2020	N/A	N/A	N/A	N/A	0.0	8.57	
October 2020	N/A	968	3.8	2,480	0.0	8.16	
September 2020	N/A	N/A	N/A	N/A	0.0	8.16	
August 2020	N/A	N/A	N/A	N/A	0.0	8.21	

Attach an explanation of all persistent excursions to permitted parameters and corrective actions taken.

Attachment: Click to enter text.

8. POLLUTANT ANALYSIS (Instructions, Page 73)

- Provide the date range of all sampling events conducted to obtain the analytical data submitted with this application (e.g., 05/01/2018-05/30/2018): 10/27/2022, 11/2/2022, 12/1/2022, 12/6/2022
- ☒ Check the box to confirm all samples were collected no more than 12 months prior to the date of application submittal.
- Completion of Tables 15 and 16 **is required** for all applications for the authorization of land application.

Table 15 for Site No.: 1; Samples are (check one):

☐ Composites ☒ Grabs

Pollutant	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)
BOD (5-day)	ND	31.6	31	25.6
CBOD (5-day)	ND	26.1	46.6	65.1
Chemical oxygen demand	140	669	672	713
Total organic carbon	52.5	67.2	117	64.9
Ammonia nitrogen	3.73	3.29	8.02	5.05
Total suspended solids	730	1280	750	753
Nitrate nitrogen	ND	1.94	0.587	0.578
Total organic nitrogen	9.57	26.4	8.38	7.85
Total phosphorus	10.4	9.61	12.1	12.0
Oil and grease	7.4	10.1	11.2	6.02
Total residual chlorine	0.921	0.930	ND	0.823
Total dissolved solids	4020	3810	3780	3000
Sulfate	191	181	131	123
Chloride	1280	1320	1050	1050
Fluoride	ND	ND	ND	ND
Fecal Coliform (cfu/100 mL)	1900	800	300	500
Specific conductance (mmhos/cm)	5410	5560	5080	4950
pH (standard units; min/max)	8.68	9.04	8.52	8.4
Soluble sodium	1110	1000	980	1020
Soluble calcium	63.6	55.4	59.3	61.9
Soluble magnesium	42.9	37.5	37.9	38.3
SAR (unitless)	22.6	23.4	20.2	21.6

Table 16: for Site No.: 1; Samples are (check one):

☐ Composites ☒ Grabs

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	MAL (µg/L)
Aluminum, total	3.80	4.18	4.03	4.31	2.5
Antimony, total	ND	ND	ND	ND	5
Arsenic, total	ND	ND	ND	ND	0.5
Barium, total	0.0775	0.0785	0.0847	0.0835	3
Beryllium, total	ND	ND	ND	ND	0.5
Boron, total	ND	ND	ND	ND	20
Cadmium, total	ND	ND	ND	ND	1
Chromium, total	ND	ND	ND	ND	3

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	MAL (µg/L)
Chromium, hexavalent	ND	ND	ND	ND	3
Chromium, trivalent	ND	0.00350	ND	ND	N/A
Copper, total	ND	ND	ND	ND	2
Cyanide	ND	ND	ND	ND	2/10
Lead, total	ND	ND	ND	ND	0.5
Mercury, total	ND	ND	ND	ND	0.005/0.0005
Nickel, total	ND	ND	0.0146	0.0115	2
Selenium, total	ND	ND	ND	ND	5
Silver, total	ND	ND	ND	ND	0.5
Thallium, total	ND	ND	ND	ND	0.5
Zinc, total	0.117	0.119	0.173	0.154	5.0

WORKSHEET 3.1 SURFACE LAND APPLICATION AND EVAPORATION

This worksheet **is required** for all applications for a permit to dispose of wastewater by surface land application or evaporation.

1. EDWARDS AQUIFER (Instructions, Page 74)

a. Is the facility subject to *30 TAC Chapter 213*, Edwards Aquifer Rules?

☐ Yes ☒ No

If **no**, proceed to Item 2. If **yes**, complete Items 1.b **and** 1.c.

b. Check the box next to the subchapter applicable to the facility.

☐ *30 TAC Chapter 213, Subchapter A*

☐ *30 TAC Chapter 213, Subchapter B*

c. If *30 TAC Chapter 213, Subchapter A* applies, attach **either**: 1) a Geologic Assessment (if conducted in accordance with *30 TAC § 213.5*) **or** 2) a report that contains the following information:

- A description of the surface geological units within the proposed land application site and wastewater pond area.
- The location and extent of any sensitive recharge features in the land application site and wastewater pond area
- A list of any proposed BMPs to protect the recharge features.

Attachment: [Click to enter text.](#)

2. SURFACE SPRAY/IRRIGATION (Instructions, Pages 74-75)

a. Provide the following information on the irrigation operations:

Area under irrigation (acres): 61

Design application rate (acre-ft/acre/yr): 3.53

Design application frequency (hours/day): 24

Design application frequency (days/week): 7

Design total nitrogen loading rate (lbs nitrogen/acre/year): 340

Average slope of the application area (percent): 2.1

Maximum slope of the application area (percent): 3.0

Irrigation efficiency (percent): 85

Effluent conductivity (mmhos/cm): 5410

Soil conductivity (mmhos/cm): see attachment 7

Curve number: 71

Describe the application method and equipment: Center Pivot Systems

- b. Attach a detailed engineering report which includes a water balance, storage volume calculations, and a nitrogen balance.

Attachment: 9

3. EVAPORATION PONDS (Instructions, Page 75)

- a. Daily average effluent flow into ponds: N/A gallons per day
- b. Attach a separate engineering report of evaporation calculations for average long-term and worst-case critical conditions.

Attachment: Click to enter text.

4. EVAPOTRANSPIRATION BEDS (Instructions, Page 75)

- a. Provide the following information on the evapotranspiration beds:

Number of beds: N/A

Area of bed(s) (acres): Click to enter text.

Depth of bed(s) (feet): Click to enter text.

Void ratio of soil in the beds: Click to enter text.

Storage volume within the beds (include units): Click to enter text.

Description of any lining to protect groundwater: Click to enter text.

- b. Attach a certification by a licensed Texas professional engineer that the liner meets TCEQ requirements.

Attachment: Click to enter text.

- c. Attach a separate engineering report with water balance, storage volume calculations, and description of the liner.

Attachment: Click to enter text.

5. OVERLAND FLOW (Instructions, Page 75)

- a. Provide the following information on the overland flow:

Area used for application (acres): N/A

Slopes for application area (percent): Click to enter text.

Design application rate (gpm/foot of slope width): Click to enter text.

Slope length (feet): Click to enter text.

Design BOD₅ loading rate (lbs BOD₅/acre/day): Click to enter text.

Design application frequency (hours/day): Click to enter text.

Design application frequency (days/week): Click to enter text.

- b. Attach a separate engineering report with the method of application and design requirements according to *30 TAC § 217.212*.

Attachment: Click to enter text.

ATTACHMENT A – APPLICATION FEE

Your transaction is complete. Thank you for using TCEQ ePay.

Note: It may take up to 3 working days for this electronic payment to be processed and be reflected in the TCEQ ePay system. Print this receipt and the vouchers for your records. An email receipt has also been sent.

Transaction Information

Trace Number: 582EA000512353
Date: 11/07/2022 12:28 PM
Payment Method: CC - Authorization 000005031G
ePay Actor: COREY MULLIN
Actor Email: cmullin@enviroag.com
IP: 108.161.11.143
TCEQ Amount: \$350.00
Texas.gov Price: \$358.13*

* This service is provided by Texas.gov, the official website of Texas. The price of this service includes funds that support the ongoing operations and enhancements of Texas.gov, which is provided by a third party in partnership with the State.

Payment Contact Information

Name: COREY MULLIN
Company: ENVIRO-AG ENGINEERING
Address: 9855 FM 847, DUBLIN, TX 76446
Phone: 254-485-3892

Cart Items

Click on the voucher number to see the voucher details.

Voucher	Fee Description	AR Number	Amount
600355	WW PERMIT - MINOR FACILITY NOT SUBJECT TO 40 CFR 400-471 - MAJOR AMENDMENT		\$300.00
600356	30 TAC 305.53B WQ NOTIFICATION FEE		\$50.00
TCEQ Amount:			\$350.00

[ePay Again](#)
[Exit ePay](#)

Note: It may take up to 3 working days for this electronic payment to be processed and be reflected in the TCEQ ePay system. Print this receipt for your records.

ATTACHMENT B – CORE DATA FORM



TCEQ Use Only

TCEQ Core Data Form

For detailed instructions regarding completion of this form, please read the Core Data Form Instructions or call 512-239-5175.

SECTION I: General Information

1. Reason for Submission (If other is checked please describe in space provided.)		
<input type="checkbox"/> New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)		
<input type="checkbox"/> Renewal (Core Data Form should be submitted with the renewal form)		<input checked="" type="checkbox"/> Other Major Amendment with Permit Renewal
2. Customer Reference Number (if issued)	Follow this link to search for CN or RN numbers in Central Registry**	3. Regulated Entity Reference Number (if issued)
CN 602630972		RN 102780665

SECTION II: Customer Information

4. General Customer Information		5. Effective Date for Customer Information Updates (mm/dd/yyyy)		01/11/2023	
<input type="checkbox"/> New Customer <input type="checkbox"/> Update to Customer Information <input type="checkbox"/> Change in Regulated Entity Ownership					
<input type="checkbox"/> Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)					
The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).					
6. Customer Legal Name (If an individual, print last name first: eg: Doe, John) <i>If new Customer, enter previous Customer below:</i>					
Schreiber Foods, Inc.					
7. TX SOS/CPA Filing Number		8. TX State Tax ID (11 digits)		9. Federal Tax ID (9 digits)	
0005147706		30005825481		10. DUNS Number (if applicable)	
11. Type of Customer:		<input checked="" type="checkbox"/> Corporation		<input type="checkbox"/> Individual	
Government: <input type="checkbox"/> City <input type="checkbox"/> County <input type="checkbox"/> Federal <input type="checkbox"/> State <input type="checkbox"/> Other		<input type="checkbox"/> Sole Proprietorship		Partnership: <input type="checkbox"/> General <input type="checkbox"/> Limited	
12. Number of Employees		<input type="checkbox"/> 0-20 <input type="checkbox"/> 21-100 <input type="checkbox"/> 101-250 <input type="checkbox"/> 251-500 <input checked="" type="checkbox"/> 501 and higher		13. Independently Owned and Operated?	
				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
14. Customer Role (Proposed or Actual) – as it relates to the Regulated Entity listed on this form. Please check one of the following					
<input type="checkbox"/> Owner <input type="checkbox"/> Operator <input checked="" type="checkbox"/> Owner & Operator					
<input type="checkbox"/> Occupational Licensee <input type="checkbox"/> Responsible Party <input type="checkbox"/> Voluntary Cleanup Applicant <input type="checkbox"/> Other:					
15. Mailing Address:					
P.O. Box 19010					
City		Green Bay		State	
WI		ZIP		54307	
ZIP + 4		9010			
16. Country Mailing Information (if outside USA)				17. E-Mail Address (if applicable)	
18. Telephone Number		19. Extension or Code		20. Fax Number (if applicable)	
(920) 455-6109				(920) 455-2200	

SECTION III: Regulated Entity Information

21. General Regulated Entity Information (If 'New Regulated Entity' is selected below this form should be accompanied by a permit application)	
<input type="checkbox"/> New Regulated Entity <input type="checkbox"/> Update to Regulated Entity Name <input type="checkbox"/> Update to Regulated Entity Information	
The Regulated Entity Name submitted may be updated in order to meet TCEQ Agency Data Standards (removal of organizational endings such as Inc, LP, or LLC).	
22. Regulated Entity Name (Enter name of the site where the regulated action is taking place.)	

Schreiber Foods							
23. Street Address of the Regulated Entity: <i>(No PO Boxes)</i>	923 CR 176						
	City	Stephenville	State	TX	ZIP	76401	ZIP + 4
24. County	Erath						

Enter Physical Location Description if no street address is provided.

25. Description to Physical Location:							
26. Nearest City	Stephenville				State	TX	Nearest ZIP Code
							76401
27. Latitude (N) In Decimal:				28. Longitude (W) In Decimal:			
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds		
32	15	46.07	98	11	18.21		
29. Primary SIC Code (4 digits)	30. Secondary SIC Code (4 digits)		31. Primary NAICS Code (5 or 6 digits)		32. Secondary NAICS Code (5 or 6 digits)		
2022	2023		311513		31514		
33. What is the Primary Business of this entity? <i>(Do not repeat the SIC or NAICS description.)</i>							
Manufacture/Processing of Cheese Products							
34. Mailing Address:	923 CR 176						
	City	Stephenville	State	TX	ZIP	76401	ZIP + 4
35. E-Mail Address:	Paul.Bytheway@schreiberfoods.com						
36. Telephone Number	37. Extension or Code		38. Fax Number <i>(if applicable)</i>				
(920) 455-6109			(920) 455-2200				

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.

<input type="checkbox"/> Dam Safety	<input type="checkbox"/> Districts	<input type="checkbox"/> Edwards Aquifer	<input type="checkbox"/> Emissions Inventory Air	<input type="checkbox"/> Industrial Hazardous Waste
<input type="checkbox"/> Municipal Solid Waste	<input type="checkbox"/> New Source Review Air	<input type="checkbox"/> OSSF	<input type="checkbox"/> Petroleum Storage Tank	<input type="checkbox"/> PWS
<input type="checkbox"/> Sludge	<input type="checkbox"/> Storm Water	<input type="checkbox"/> Title V Air	<input type="checkbox"/> Tires	<input type="checkbox"/> Used Oil
<input type="checkbox"/> Voluntary Cleanup	<input checked="" type="checkbox"/> Waste Water	<input type="checkbox"/> Wastewater Agriculture	<input type="checkbox"/> Water Rights	<input type="checkbox"/> Other:
WQ0003074000				


SECTION IV: Preparer Information

40. Name:	Corey Mullin		41. Title:	Consultant
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address	
(254) 485-3892		(254) 965-8000	cmullin@enviroag.com	

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company:	Schreiber Foods, Inc.	Job Title:	Plant Manager
----------	-----------------------	------------	---------------

Name (In Print):	Paul Batkins	Phone:	(254) 552- 7717
Signature:		Date:	2/3/23

ATTACHMENT C – 7.5-MINUTE USGS MAPS

C.1 Stephenville and Knob Hill, Texas Quadrangles

The 7.5-minute quadrangle maps show the plant site, irrigation sites and a 1-mile radius.

ATTACHMENT D – ADJACENT LANDOWNERS

D.1 Adjacent Landowners List

Table D.1 lists the adjacent landowners names and addresses corresponding to the map in Figure D.1.

D.2 Adjacent Landowners Map

Figure D.1, Adjacent Landowners Map, shows the properties adjacent to the facility property boundary, as obtained from the Erath County Appraisal District (CAD).

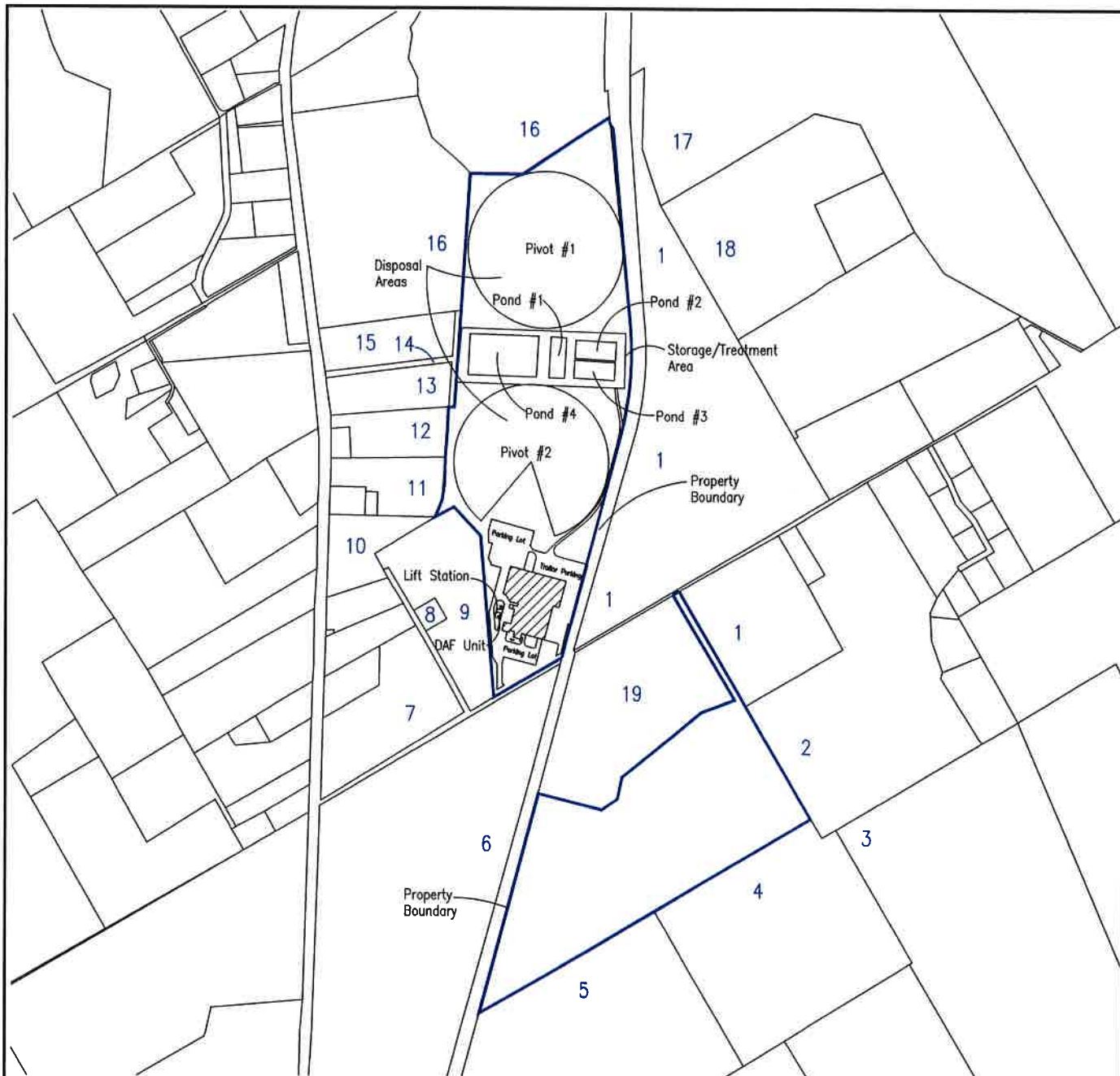
TABLE D.1
ADJACENT LANDOWNERS LIST

Name: <u>Nell Gordon Properties LLC, Marcia Series</u> Number on Map 1 Address: <u>Marcia Lynn Griffin</u> Address: <u>114 Byron Nelson St.</u> Address: <u>Stephenville, TX 76401</u>	Name: <u>Jacob & Kayla Vanden Berge</u> Number on Map 2 Address: <u>2345 CR 177</u> Address: <u>Stephenville, TX 76401</u>
Name: <u>Jack E & Ellen Vanden Berge</u> Number on Map 3 Address: <u>404 Morgan Mill Rd</u> Address: <u>Stephenville, TX 76401</u>	Name: <u>Rose Tina Reese</u> Number on Map 4 Address: <u>9600 Divot Dr.</u> Address: <u>Granbury, TX 76049</u>
Name: <u>Curtis Bolling Allen Trust & Richard Bolling</u> Number on Map 5 Address: <u>Gary Bolling Trustee</u> Address: <u>1530 Bates</u> Address: <u>Stephenville, TX 76401</u>	Name: <u>Board of Regents of the TX A&M University System</u> Number on Map 6 Address: <u>ATTN: System Real Estate</u> Address: <u>301 Tarrow Street 6th Floor</u> Address: <u>College Station, TX 77840-7896</u>
Name: <u>Bachus Brothers Trust</u> Number on Map 7 Address: <u>PO Box 552</u> Address: <u>Stephenville, TX 76401</u>	Name: <u>Brazos Electric Power Coop Inc.</u> Number on Map 8 Address: <u>PO Box 2585</u> Address: <u>Waco, TX 76702-2585</u>
Name: <u>Top Dog Realty, LLC</u> Number on Map 9 Address: <u>PO Box 590</u> Address: <u>Cabool, MO 65689</u>	Name: <u>Zeb R & Sharon M Cummins</u> Number on Map 10 Address: <u>176 Brock Springs Ln.</u> Address: <u>Weatherford, TX 76087-4073</u>
Name: <u>Poukhovski Dmitri & Angelique Denneman</u> Number on Map 11 Address: <u>4250 N US Hwy 281</u> Address: <u>Stephenville, TX 76401-9272</u>	Name: <u>Rodney W Rutledge</u> Number on Map 12 Address: <u>4324 N US Hwy 281</u> Address: <u>Stephenville, TX 76401-9786</u>
Name: <u>Sowle Tyler & Kaitlin Sowle</u> Number on Map 13 Address: <u>4552 N US Hwy 281</u> Address: <u>Stephenville, TX 76401</u>	Name: <u>Collier & Son Inc</u> Number on Map 14 Address: <u>2240 Overhill Rd.</u> Address: <u>Stephenville, TX 76401</u>
Name: <u>Manuel & Tandi Remy</u> Number on Map 15 Address: <u>4630 N US Hwy 281</u> Address: <u>Stephenville, TX 76401</u>	Name: <u>Lawrence Dean & Gloria Taylor</u> Number on Map 16 Address: <u>PO Box 137</u> Address: <u>Stephenville, TX 76401-0000</u>
Name: <u>Frazier Paradox Ranch, LLC</u> Number on Map 17 Address: <u>3493 CR 176</u> Address: <u>Stephenville, TX 76401</u>	Name: <u>John R & Sharon A Nicholson</u> Number on Map 18 Address: <u>1509 Southwood Blvd</u> Address: <u>Arlington, TX 76013-5005</u>
Name: <u>CDS STXDC 2021 LLC</u> Number on Map 19 Address: <u>125 Camelot Dr</u> Address: <u>Fond Du Lac, WI 54935</u>	

Please identify where you obtained the landowner information:


Erath County Appraisal District; October 2022

Facility Name: Schreiber Foods, Inc.



Map Revised 10/18/2022

Legend:

 Denotes Production Area



SCALE: 1" = 1320'

Schreiber Foods, Inc.
Stephenville, TX
Erath County

Adjacent Landowner Map
Figure D.1
Page 6



Enviro-Ag Engineering, Inc.
ENGINEERING CONSULTANTS
3404 Airway Boulevard
AMARILLO, TEXAS 79118
TEL (806) 353-6123 FAX (806) 353-4132

ATTACHMENT E – PHOTOGRAPHS

E.1 Photograph Location Map

Figure E.1, Photograph Location Map, shows the location of each photograph and the direction the camera was facing when the photograph was taken.

E.2 Photographs

Figures E.2a-b, Photographs, are original photographs of the effluent disposal sites and production area.



Map Generated 11/8/2022

Legend:

- Denotes Photograph Location



SCALE: 1" = 800'

Source: USDA-NRCS. Geospatial Data Gateway. Available at: <http://datagateway.nrcs.usda.gov/>. Digital Raster Graphic County Mosaic by NRCS - Accessed November 2017.

Schreiber Foods, Inc.
Stephenville, TX
Erath County

Photograph Location Map
Figure E.1
Page 8



Enviro-Ag Engineering, Inc.
ENGINEERING CONSULTANTS
3404 Airway Boulevard
AMARILLO, TEXAS 79118
TEL (806) 353-6123 FAX (806) 353-4132



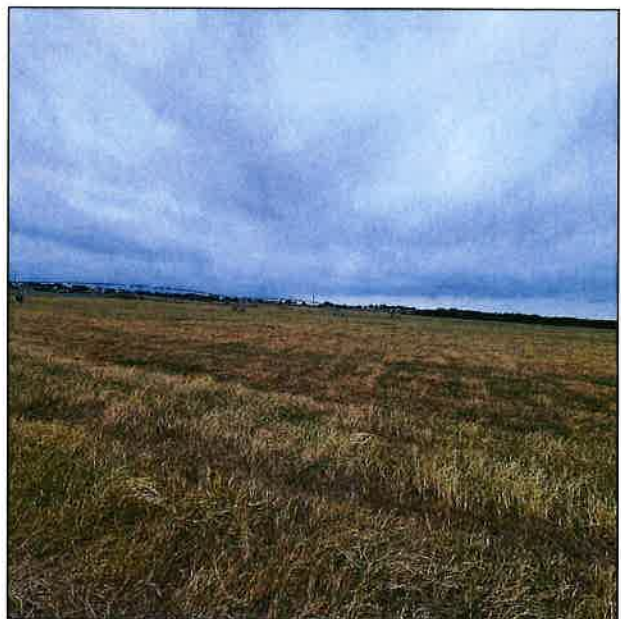
1



2



3



4

Schreiber Foods, Inc.
Stephenville, Texas
Erath County

Photographs
Figure E.2a
Page 9



Enviro-Ag Engineering, Inc.
ENGINEERING CONSULTANTS
3404 Airway Boulevard
AMARILLO, TEXAS 79118
TEL (806) 353-6123 FAX (806) 353-4132



5



6

Schreiber Foods, Inc.
Stephenville, Texas
Erath County

Photographs
Figure E.2b
Page 10



Enviro-Ag Engineering, Inc.
ENGINEERING CONSULTANTS
3404 Airway Boulevard
AMARILLO, TEXAS 79118
TEL (806) 353-6123 FAX (806) 353-4132

ATTACHMENT 1 – FACILITY/SITE INFORMATION AND MAPS

1.1 Process Flow Diagram

Figure 1.1, Process Flow Diagram, provides an overall schematic of the plant processes at the site.

1.2 Vicinity Map

Figure 1.2, Vicinity Map, is a general highway map generated in AutoCAD using Tiger Primary and Secondary roads data from geospatial Data Gateway at <http://datagateway.nrcs.usda.gov/> (retrieved 2022). The location of the facility is depicted on the map.

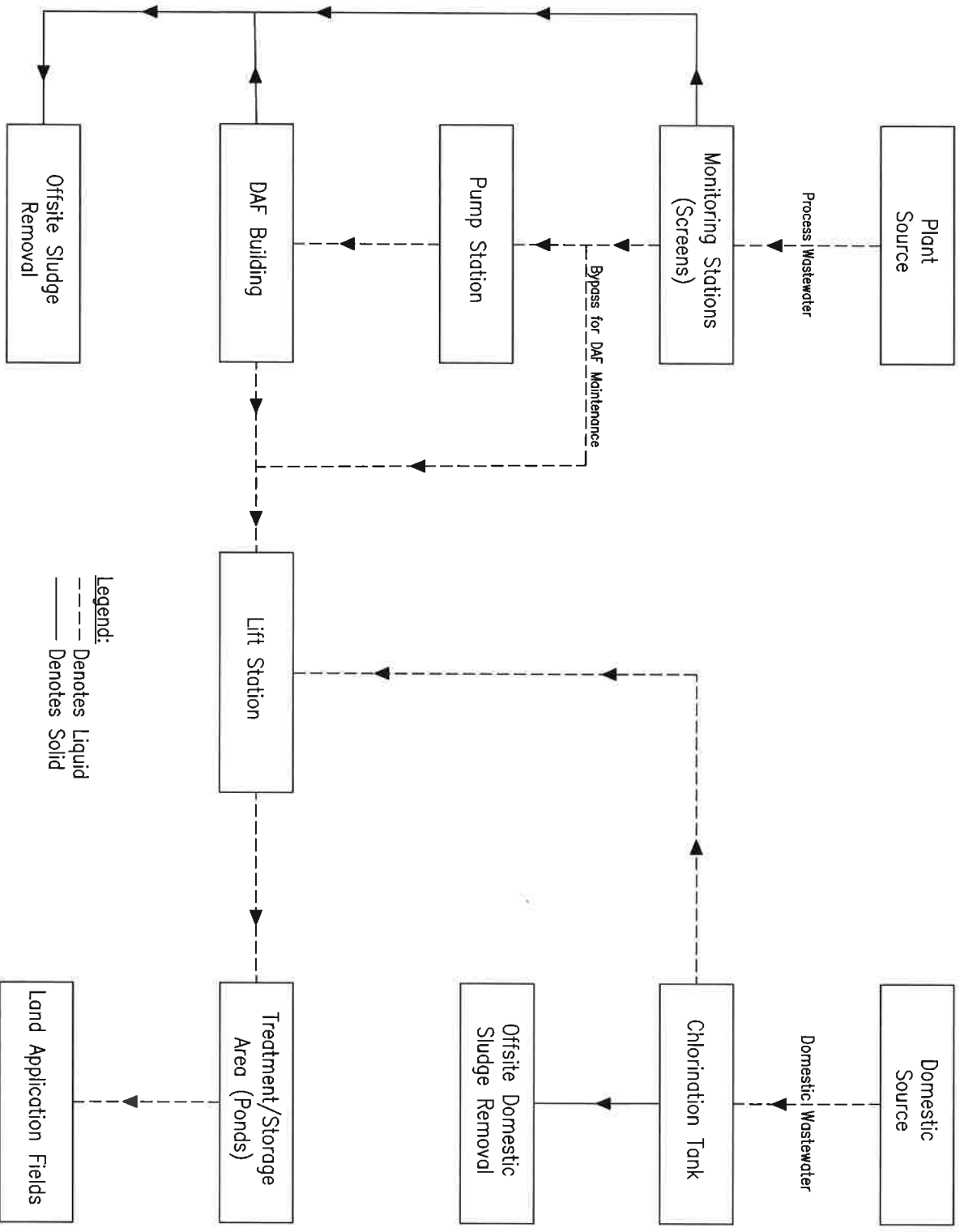
1.3 7.5 Minute USGS Map

Figure 1.3, entitled 7.5 Minute USGS Map, is a seamless, high-quality copy of the 7.5-Minute USGS quadrangle map (Stephenville and Knob Hill, TX quadrangle) that shows the boundary of the land owned, operated, or controlled by the facility and used as part of the application; and all springs, lakes, or ponds located on-site and within 1 mile of the property boundary.

1.4 Site Map

Figure 1.4, Site Map, is a scaled drawing of the entire property to be permitted showing the locations of the following:

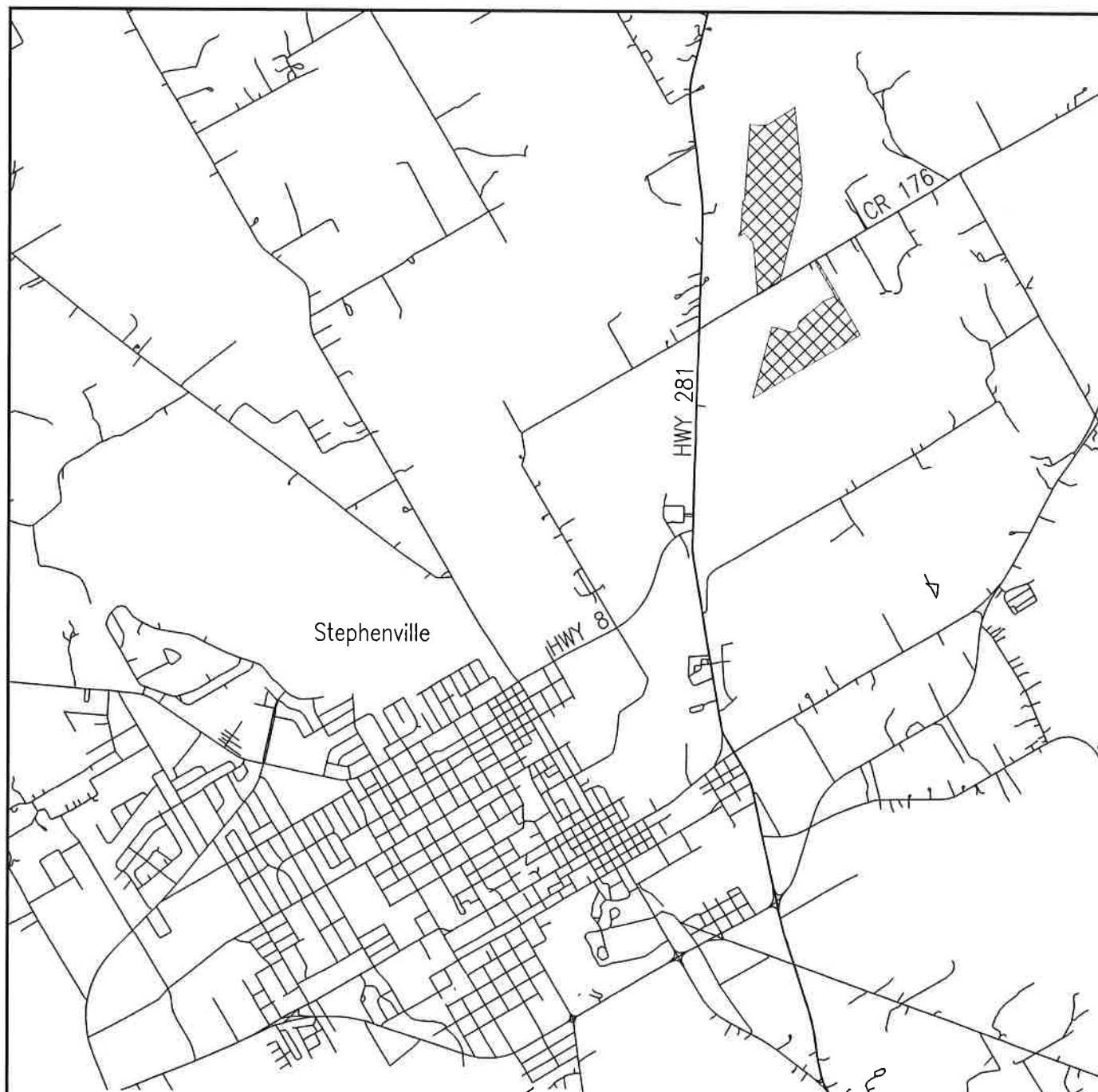
- Production Area
- Storage/Treatment Area
- Waste Disposal Areas




Legend:
 - - - - Denotes Liquid
 ——— Denotes Solid

Schreiber Foods
 Stephenville, TX
 Erath County

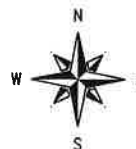
Process Flow Diagram
 Figure 1.1
 Page 12



Legend:

 Denotes Facility

Map Generated 10/18/2022



2 miles 0 2 miles 4 miles



SCALE: 1" = 4 miles

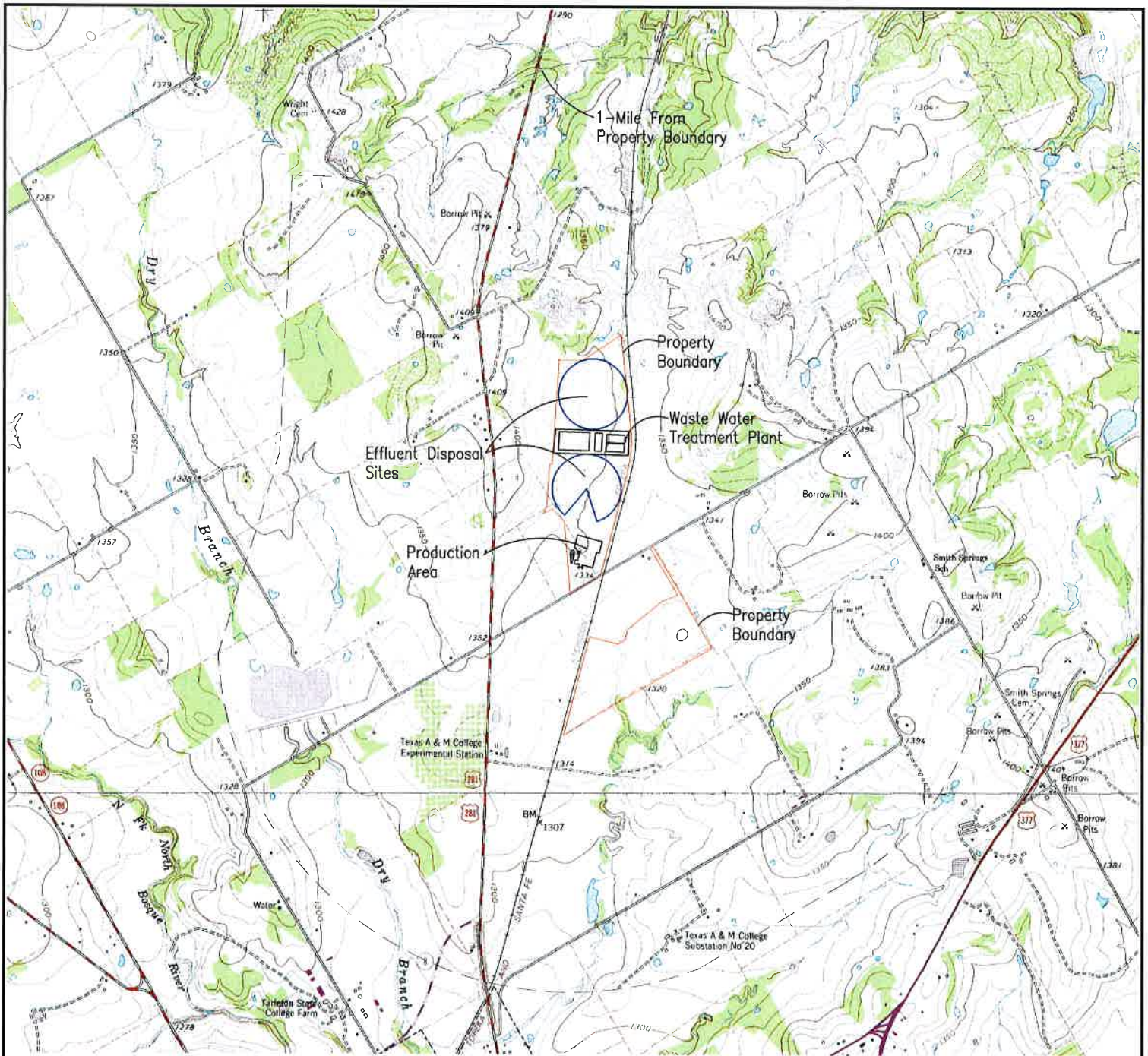
Source: USDA-NRCS. Geospatial Data Gateway. Available at:
<http://datagateway.nrcs.usda.gov/>. Tiger Roads, 2010 -
 Accessed December 2017

Schreiber Foods, Inc.
 Stephenville, Texas
 Erath County

Vicinity Map
 Figure 1.2
 Page 13



Enviro-Ag Engineering, Inc.
 ENGINEERING CONSULTANTS
 3404 Airway Boulevard
 AMARILLO, TEXAS 79118
 TEL (806) 353-6123 FAX (806) 353-4132



Map Generated 11/8/2022



SCALE: 1" = 3,000'

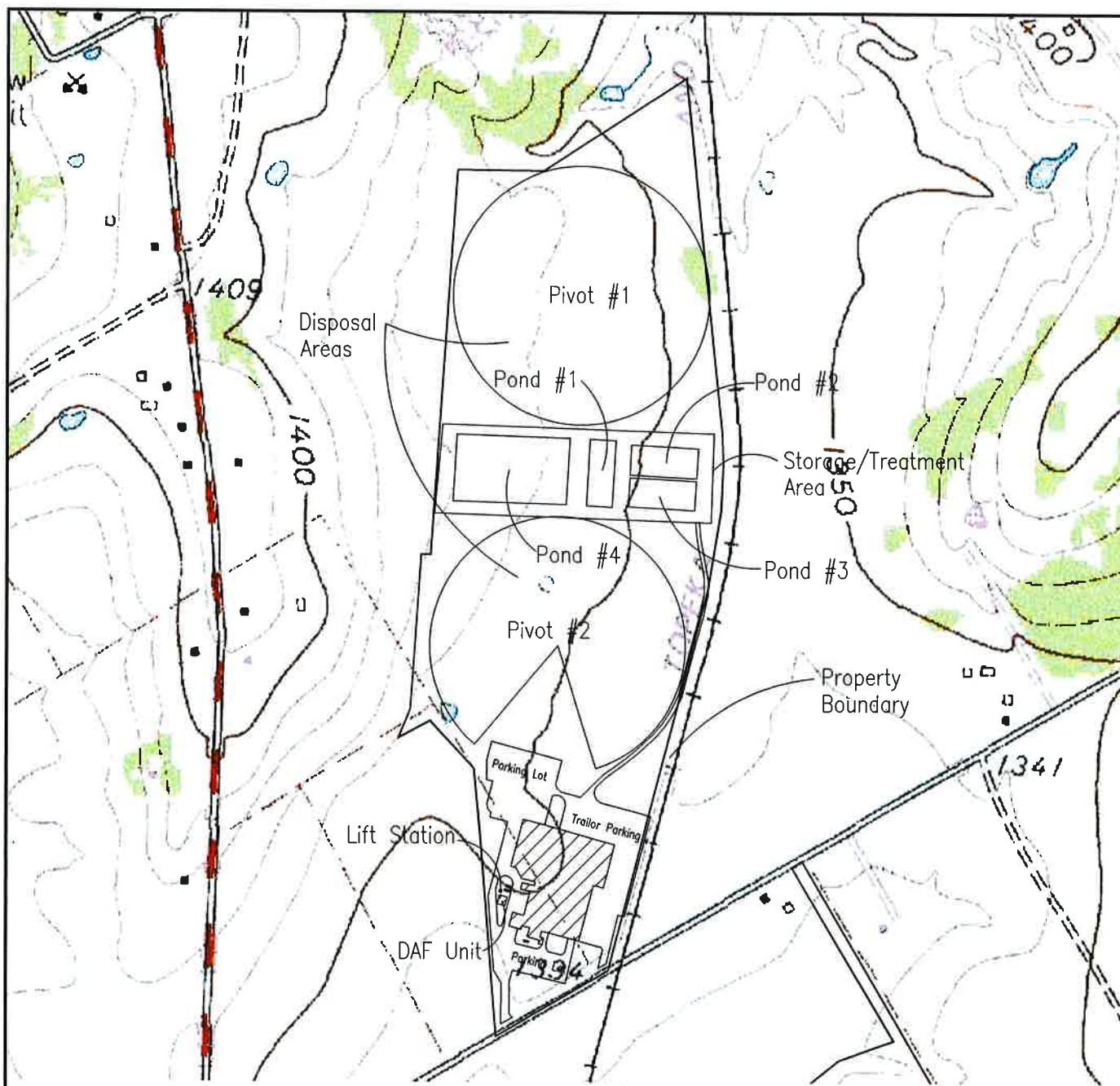
Source: USDA-NRCS. Geospatial Data Gateway. Available at: <http://datagateway.nrcs.usda.gov/>. Digital Raster Graphic County Mosaic by NRCS - Accessed December 2016.

Schreiber Foods, Inc.
Stephenville, TX
Erath County

7.5 Minute USGS Map
Figure 1.3
Page 14



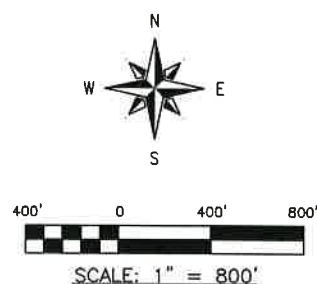
Enviro-Ag Engineering, Inc.
ENGINEERING CONSULTANTS
3404 Airway Boulevard
AMARILLO, TEXAS 79118
TEL (806) 353-6123 FAX (806) 353-4132



Legend:

 Denotes Production Area

Source: USDA-NRCS. Geospatial Data Gateway. Available at: <http://datagateway.nrcs.usda.gov/>. Digital Raster Graphic County Mosaic by NRCS - Accessed December 2016.



Schreiber Foods, Inc.
Stephenville, TX
Erath County

Site Map
Figure 1.4
Page 15

ENVIRO-AG
EAE
ENGINEERING, INC.

Enviro-Ag Engineering, Inc.
ENGINEERING CONSULTANTS
3404 Airway Boulevard
AMARILLO, TEXAS 79118
TEL (806) 353-6123 FAX (806) 353-4132

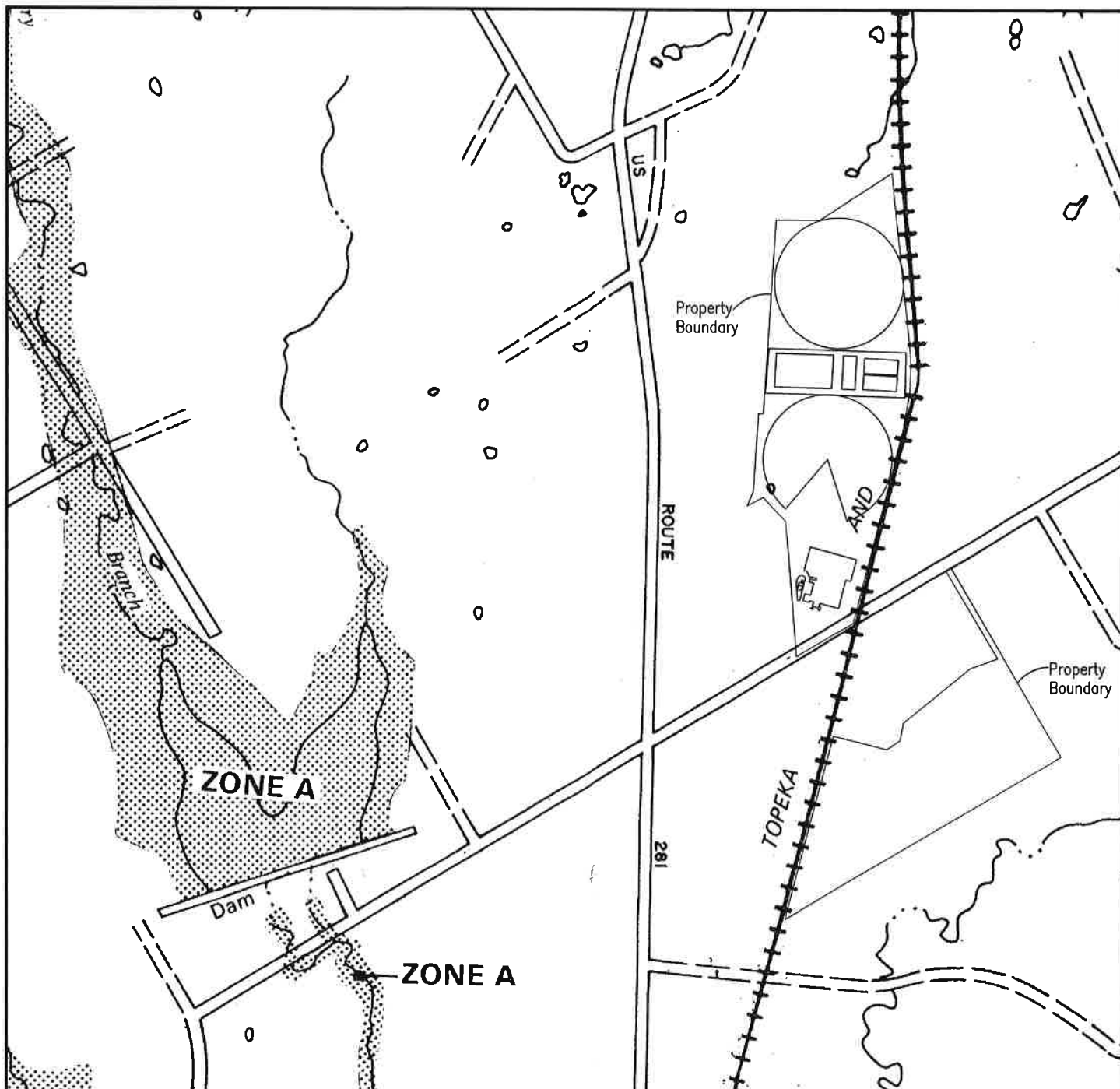
ATTACHMENT 2 – FLOODPLAIN INFORMATION

2.1 FEMA Floodplain Map

Figure 2.1, FEMA Floodplain Map, shows the production area and waste disposal areas overlain on a copy of the FEMA map panels for this area of Erath County.

2.2 Protective Measures

According to the FEMA Floodplain map for Erath County, the production area and waste disposal areas are not located in a 100-year floodplain area.



Map Generated 11/8/2022



No Scale

Source: FEMA Flood Map

Schreiber Foods, Inc.
Stephenville, TX
Erath County

FEMA Floodplain Map
Figure 2.1
Page 17

ENVIRO-AG
EAE
ENGINEERING, INC.

Enviro-Ag Engineering, Inc.
ENGINEERING CONSULTANTS
3404 Airway Boulevard
AMARILLO, TEXAS 79118
TEL (806) 353-6123 FAX (806) 353-4132

0104

ATTACHMENT 3 – IMPOUNDMENT FACILITY & LINER/GEOLOGY INFORMATION

Documentation on the existing facility impoundments was taken from onsite facility files and previous TCEQ applications. The documentation is included as an attachment to this section.

Schreiber Foods, Inc.

Exhibit XVII

North and South Pond Data

April 18, 1989

AMPI - Stephenville, TX

<u>Test Location</u>	<u>North</u>	<u>South</u>	<u>Minimum Requirement</u>
1. Description			
Color	Yellow & Gray	Yellow & Gray	
Texture	Sandy Lean Clay	Sandy Lean Clay	
Unified Classification	CL	CL	
Sample Depth, Inches	24	24	24
Atterberg Limits			
Liquid Limit, %	33	32	30
Plastic Limit, %	14	14	
Plasticity Index	19	18	15
Passing No. 200 Sieve, %	89.6	81.1	30
Constant Head Permeability, cm/sec.	1.2×10^{-8}	2.3×10^{-8}	1.0×10^{-7}
Molded Density, pcf	113.7	110.2	
Molded Moisture, %	18.5	19.4	

Report No. 901604

Schreiber Foods, Inc.

Exhibit XVI

Pond #3 Data

John Hall, Chairman
Pam Reed, Commissioner
Peggy Garner, Commissioner
Anthony Grigsby, Executive Director



TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

Protecting Texas by Reducing and Preventing Pollution

September 5, 1994

Mr. Kenneth L. Petersen, Jr.
Small, Craig, & Werkenthin
100 Congress Ave., Suite 1100
Austin, Texas 78701-4099

RE: AMPI Stephenville Facility (Permit No. 03074)
Liner Plan Approval

Dear Mr. Petersen:

We have received the engineering drawings and technical specifications for the liner requirements for the new wastewater lagoon to be constructed at the Stephenville Facility submitted with your letter dated 9/2/94 and a letter from Mr. Cliff Lutz, P.E. dated 9/1/94. These materials were submitted to satisfy the requirements of Special Provision 9.F of Permit No. 03074.

Review of these materials indicates that the proposed liner is in accordance with the provisions of the permit as stated below:

- (i) The soil liner shall contain at least 3 feet of clay-rich (liquid limit greater than or equal to 30 and plasticity index greater than or equal to 15) soil material along the sides and bottom of the pond, lagoon or impoundment compacted in lifts of no more than 9 inches, to 95% standard proctor density at the optimum moisture content to achieve a permeability equal to or less than 1×10^{-7} cm/sec.

Upon that basis, the pond liner plans are approved. Within 60 days of completion of construction of the new lagoon, the engineer must provide written certification to the Permitting Section of the Watershed Management Division that the pond liner meets these specifications.

Sincerely,

Karen D. Cleveland
Karen D. Cleveland, P.E.
Permitting Section

KDC

cc: Cliff Lutz, P.E. - AMPI
Frank Kelly - AMPI



ASSOCIATED MILK PRODUCERS, INC.
Southern Region

December 29, 1994

Karen Cleveland
Texas Natural Resource Conservation Commission
Industrial Permits Section
Watershed Management Division
Room 286, Building F
12015 North IH-35
Austin, TX 78753

Reference: AMPI Stephenville Facility
TNRCC Permit Number 03074

Dear Ms. Cleveland:

The Associated Milk Producers, Incorporation (AMPI) are pleased to submit certification required by our amended wastewater permit.

The certification is that our new lagoon liner complies with TNRCC specifications. Certification is required by VI Special Provisions, Item 9.A. of the permit.

Please find enclosed results of testing.

Sincerely,

ASSOCIATED MILK PRODUCERS, INC.

Frank Kelly
Environmental Engineer

FK/cs

enclosure

cc: Paul Walter, AMPI
Ned French, AMPI
Thomas Rack, AMPI
Gary Christian, AMPI

Huntingdon/SWL

Huntingdon Engineering & Environmental, Inc.
2700 Gravel Drive
Fort Worth, TX 76118
(817) 284-1155
Metro (817) 589-7211
Fax (817) 589-1470

December 23, 1994

Texas Natural Resource Conservation Commission
Room 286, Building "F"
12015 North IH-35
Austin, Texas 78753

Attn: Ms. Karen Cleveland
Industrial Permits Section
Watershed Management Division

Re: Associated Milk Producers, Inc.
Erath County, Texas

Dear Ms. Cleveland:

Huntingdon/SWL has completed sampling and testing of the soils exposed in a wastewater retention ponds at the Associated Milk Producers, Inc.; Erath County. The test results including sample thickness, Atterberg limits, percent passing the number 200 sieve in-place density and permeability, are tabulated on the attached report. Our findings indicate the soils meet the criteria established by the Texas Water Commission.

Very truly yours,

HUNTINGDON/SWL



Kemp E. Akeman, P.E.
Operations Manager, Fort

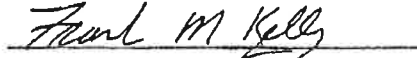


12/28/94

tm

Submitted by: Associated Milk Producers, Inc.

Signed by:



Date:

12-29-94

Huntingdon/SwL Report No. 406948

TEST LOCATION	Hole #2	Hole #2	Hole #2	No. 4-Dam	No. 5-Dam	Minimum
Bolt Description	No. 1	No. 2	No. 3	Northside	Northside	Requirements

TEST LOCATION	Hole #2 No. 1	Hole #2 No. 2	Hole #2 No. 3	No. 4-Dam Northside	No. 5-Dam Northside	Minimum Requirements	
Soil Description							
	Color	Reddish Brown	Reddish Brown	Reddish Brown	Reddish Brown		
	Texture	Clay	Clay	Clay	Clay		
	Unified Classification	Fine	Fine	Fine	Fine		
	Sample Depth	0'-1'	1'-2'	2'-3'	0'-2'	2'-3'	36"
Atterberg Limits							
	Liquid Limit, (%)	39	40	38	48	47	30
	Plastic Limit, (%)	19	20	18	19	21	
	Plasticity Index	20	20	20	29	26	15
Passing No. 200 Sieve, (%)	74.1	69.0	72.0	77.0	76.0	30	
Permeability (cm/sec.)	3.2x10 ⁻⁸	3.2x10 ⁻⁸	3.2x10 ⁻⁸	3.2x10 ⁻⁸	3.2x10 ⁻⁸	1.0x10 ⁻⁷	

ASSOCIATED MILK PRODUCERS, INC.

POND NUMBER 3

TEST LOCATION	Hole #1	Hole #1	Hole #1	No. 4-Dam	No. 5-Dam	Minimum
	No. 1	No. 2	No. 3	Southside	Southside	Requirements
Soil Description						
Color	Reddish Brown	Reddish Brown	Reddish Brown	Reddish Brown	Reddish Brown	
Texture	Clay	Clay	Clay	Clay	Clay	
Unified Classification	Fine	Fine	Fine	Fine	Fine	
Sample Depth	0-1'	1'-2'	2'-3'	0'-2'	2'-3'	36"
Atterberg Limits						
Liquid Limit, (%)	51	32	37	43	47	30
Plastic Limit, (%)	22	17	18	22	23	
Plasticity Index	29	15	19	21	24	15
Passing No. 200 Sieve, (%)	79.2	83.2	72.0	69.0	71.0	30
Permeability (cm/sec.)	3.2×10^{-8}	3.2×10^{-8}	3.2×10^{-8}	3.2×10^{-8}	3.2×10^{-8}	1.0×10^{-7}

Huntingdon/BWL Report No. 406948



Corporate Office:
3404 Airway Blvd.
Amarillo TX 79118

Central Texas:
9855 FM 847
Dublin TX 76446

New Mexico:
203 East Main Street
Artesia NM 88210

November 23, 2020

TCEQ
Industrial Permits Team, MC-148
P.O. Box 13087
Austin, TX 78711-3087

Re: As-Built Drawing and Certifications of Additional Holding Pond (Pond #4) to Satisfy Item S of the Special Provisions of Permit No. WQ0003074000 for Schreiber Foods, Inc., Erath, Texas

Dear Sir or Madam,

Attached you will find the as-built capacity certification and soil liner certification for a new irrigation holding pond (Pond #4) meeting the requirements of Item S of the Special Provisions of Permit No. WQ0003074000. The pond was constructed in accordance with the approved plans/specifications per the attached TCEQ letter dated December 11, 2019 and in compliance with Item H of the Special Provisions in the permit. Please accept the attached documentation and pond certifications to satisfy the requirement of Item S of the Special Provisions of the permit.

If you have any questions, please do not hesitate to contact me at 806-350-5458 or by email at eeemerine@enviroag.com.

Respectfully Submitted,

Erick Emerine, P.E.

Enviro-Ag Engineering, Inc.

Encl: Pond #4 As-Built Capacity Certification and Soil Liner Certification w/ Support Docs

Cc: TCEQ Compliance Monitoring Team

Schreiber Foods, Inc.

EAE file



Corporate Office:
3404 Airway Blvd.
Amarillo TX 79118

Central Texas:
9855 FM 847
Dublin TX 76446

New Mexico:
203 East Main Street
Artesia NM 88210

November 23, 2020

TCEQ
Compliance Monitoring Team, MC-224
P.O. Box 13087
Austin, TX 78711-3087

Re: As-Built Drawing and Certifications of Additional Holding Pond (Pond #4) to Satisfy Item S of the Special Provisions of Permit No. WQ0003074000 for Schreiber Foods, Inc., Erath, Texas

Dear Sir or Madam,

Attached you will find the as-built capacity certification and soil liner certification for a new irrigation holding pond (Pond #4) meeting the requirements of Item S of the Special Provisions of Permit No. WQ0003074000. The pond was constructed in accordance with the approved plans/specifications per the attached TCEQ letter dated December 11, 2019 and in compliance with Item H of the Special Provisions in the permit. Please accept the attached documentation and pond certifications to satisfy the requirement of Item S of the Special Provisions of the permit.

If you have any questions, please do not hesitate to contact me at 806-350-5458 or by email at emerine@enviroag.com.

Respectfully Submitted,

Erick Emerine, P.E.

Enviro-Ag Engineering, Inc.

Encl: Pond #4 As-Built Capacity Certification and Soil Liner Certification w/ Support Docs

Cc: TCEQ Industrial Permits Team

Schreiber Foods, Inc.

EAE file

Jon Niermann, *Chairman*
Emily Lindley, *Commissioner*
Bobby Janecka, *Commissioner*
Toby Baker, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

December 11, 2019

Mr. Erick Emerine, P.E.,
Enviro-Ag Engineering, Inc.
3404 Airway Boulevard
Amarillo, Texas 79118

Re: Construction Plan of Additional Holding Pond to Satisfy Item S of the Special Provision of Permit No. WQ0003074000 for Schreiber Foods, Inc., Erath, Texas

Mr. Emerine:

The Texas Commission on Environmental Quality Water Quality Division received your letter with plans dated December 3, 2019 and additional material provided on December 11, 2019. We agree with your determination that the construction plans meet the requirements for Special Provisions H and S of permit No. WQ0003074000 for a new irrigation holding pond to provide the required additional capacity. The information you provided will be added to the permit file (WQ0003074000).

As agreed, on December 11, 2019 by email, ensure the monitor well located at the northwest side of the construction site is protected during construction.

If you have any questions, please contact me by telephone at (512) 239-4570 or Thomas.Starr@tceq.texas.gov.

Sincerely,



Thomas Starr, P.E.
Wastewater Permitting Section (MC-148)
Water Quality Division

TES/kb



Corporate Office:
3404 Airway Blvd.
Amarillo TX 79118

Central Texas:
9855 FM 847
Dublin TX 76446

New Mexico:
203 East Main Street
Artesia NM 88210

CAPACITY CERTIFICATION

Schrelber Foods, Inc.
Stephenville, Erath County, TX

Capacity Certification – Pond #4 (Industrial Wastewater Storage/Irrigation Pond)

An as-built survey was conducted on 10/09/2020 by Enviro-Ag Engineering, Inc., to determine the total capacity of Pond #4. The capacity with two feet of dry freeboard was calculated to be:

Structure	Capacity
Pond #4	42.93 acre-feet

Attached with this certification includes the as-built capacity drawing plan/profile and a pond marker schematic with stage/storage volumes.

Respectfully submitted,



11-23-2020

Erick Emerine, P.E. – License No. 103494
Enviro-Ag Engineering, Inc. – Engineering Firm No. 2507

Attachments: As-Built Capacity Drawing Plan & Profile
Pond Marker Schematic

Schreiber Foods, Inc. - Stephenville, TX - 11/20/2020

Note:

Dimensions rounded to the nearest tenth of a foot.

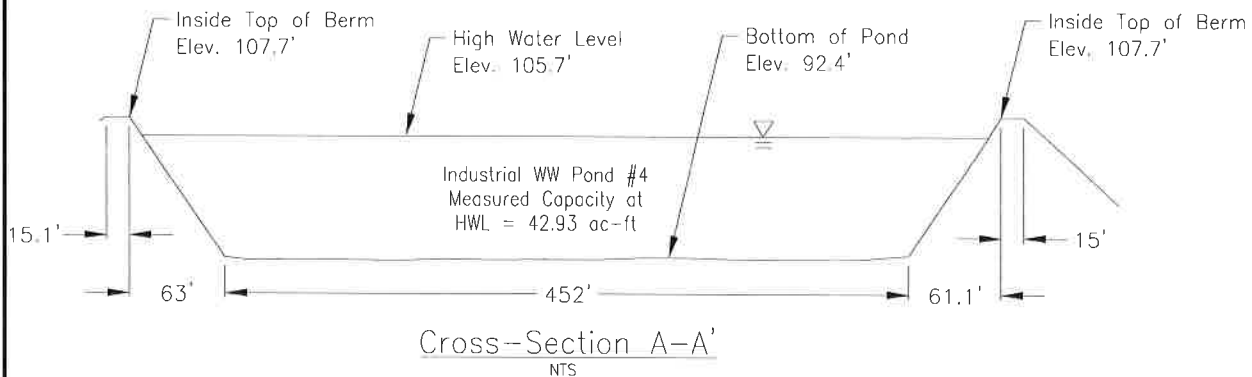
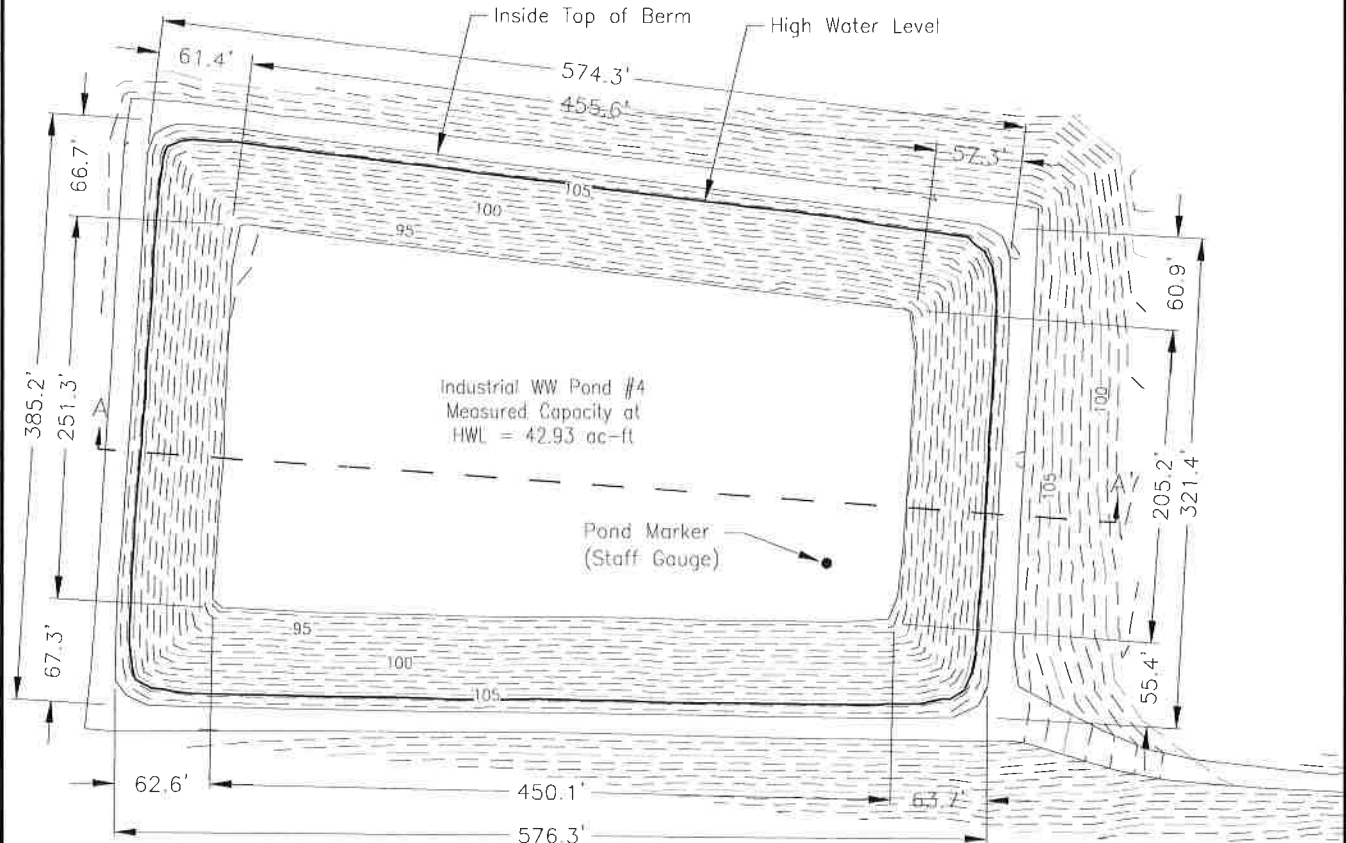
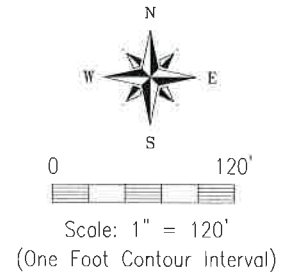
Industrial Wastewater Pond #4 Volume Data

Date Surveyed: 10/09/2020

Surveyed By: CM

Drawn By: EE

Inside Top of Berm Elevation	107.7'
Bottom Elevation	92.4'
H.W.L. Elevation w/ 2' Freeboard	105.7'
Capacity at H.W.L.	42.93 Ac-Ft
Surface Area at H.W.L.	4.32 Acres
Surface Area at I.T.B.	4.68 Acres

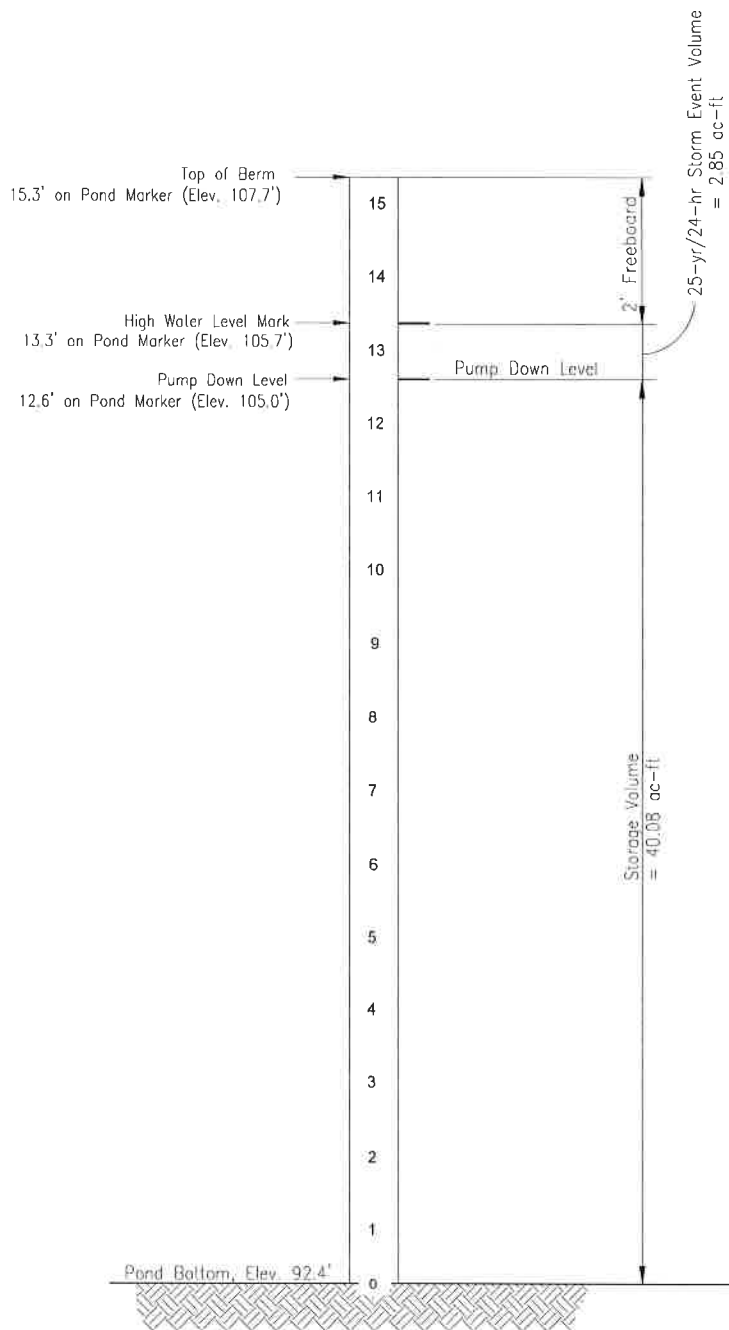


Schreiber Foods, Inc.
Stephenville
Erath County, TX

Pond #4 - Industrial WW Pond
As-Built Capacity Drawing
Plan & Profile

ENVIRO-AG
EAE
ENGINEERING, INC.

Enviro-Ag Engineering, Inc.
ENGINEERING CONSULTANTS
3404 Airway Boulevard
AMARILLO, TEXAS 79118
TEL (806) 353-6123 FAX (806) 353-4132



Cumulative Volume	Gallons by Foot
42.93 Ac-Ft	411,948 Gal.
41.66 Ac-Ft	1,337,917 Gal.
37.56 Ac-Ft	1,285,662 Gal.
33.61 Ac-Ft	1,234,218 Gal.
29.82 Ac-Ft	1,183,571 Gal.
26.19 Ac-Ft	1,133,955 Gal.
22.71 Ac-Ft	1,085,235 Gal.
19.38 Ac-Ft	1,037,531 Gal.
16.20 Ac-Ft	990,821 Gal.
13.16 Ac-Ft	944,974 Gal.
10.26 Ac-Ft	899,909 Gal.
7.49 Ac-Ft	855,663 Gal.
4.87 Ac-Ft	810,296 Gal.
2.38 Ac-Ft	775,813 Gal.

Schreiber Foods, Inc.
Stephenville
Erath County, TX

Pond #4 - Industrial WW Pond
As-Built Capacity Drawing
Pond Marker Schematic



Enviro-Ag Engineering, Inc.
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3404 Airway Boulevard
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SOIL LINER CERTIFICATION

Schreiber Foods, Inc.
Stephenville, Erath County, TX

Soil Liner Certification – Pond #4 (Industrial Wastewater Storage/Irrigation Pond)

Six 3-inch Shelby tube core samples were collected from Pond #4 to document that the liner meets the requirements of the TCEQ for soil liner. The liner thickness was documented to be at least 36 inches.

The hydraulic conductivity of the clay soil liner is documented as follows:

- | | |
|--------------------------------------------------|-------------------------------|
| • Pond #4 – Sample 1 (West Bottom, Lab #5473) | 6.2 x 10 ⁻⁸ cm/sec |
| • Pond #4 – Sample 2 (East Bottom, Lab #5474) | 4.1 x 10 ⁻⁸ cm/sec |
| • Pond #4 – Sample 3 (East Sidewall, Lab #5475) | 4.6 x 10 ⁻⁸ cm/sec |
| • Pond #4 – Sample 4 (South Sidewall, Lab #5476) | 4.6 x 10 ⁻⁸ cm/sec |
| • Pond #4 – Sample 5 (West Sidewall, Lab #5477) | 3.8 x 10 ⁻⁸ cm/sec |
| • Pond #4 – Sample 6 (North Sidewall, Lab #5478) | 3.1 x 10 ⁻⁸ cm/sec |

Based on the above documentation, the liner in Pond #4 is determined to be in accordance with TCEQ requirements for soil liners. The test locations were backfilled with bentonite chips. The test results meet the requirements of the TCEQ for hydraulic conductivity considered protective of ground and surface water sources. The pond was constructed in accordance with the approved plans and specifications. Attached with this certification includes the soil liner seepage rate calculations, permeability test results, pond embankment construction moisture/density tests and soil liner construction moisture density tests.

Respectfully submitted,

Erick Emerine, P.E. – License No. 103494
Enviro-Ag Engineering, Inc. – Firm No. 2507



11-23-2020

Attachments: Seepage Calculations
 EAE Permeability Lab Reports
 GSS Laboratories & Specialty Testing Moisture Density Testing Reports

CALCULATION OF SPECIFIC DISCHARGE

SITE: Schreiber Foods, Inc.
 LOCATION: Stephenville, Erath County, TX
 STRUCTURE: Pond #4 (Industrial WW Storage/Irrigation Pond)

ENGINEER: E. Emerine
 DATE: 11/20/2020

This worksheet calculates the specific discharge through a soil liner based on the measured thickness of the installed clay liner and the results of the permeability testing. The maximum allowable specific discharge of the installed liner is 1.1×10^{-6} cm/sec or 0.0374 in/day.

Laboratory Sample I.D.	Hydraulic Conductivity Results of Core Samples							
	5473	5474	5475	5476	5477	5478		
1. Water Depth, feet	13.3	13.3	13.3	13.3	13.3	13.3		
2. Liner Thickness, inches	36.0	36.0	36.0	36.0	36.0	36.0		
3. Hydraulic Conductivity, cm/sec	6.20E-08	4.10E-08	4.60E-08	4.60E-08	3.80E-08	3.10E-08		
4. Calculated specific discharge, v'								
Seepage Rate, inches/day	0.0115	0.0076	0.0085	0.0085	0.0070	0.0057		
Maximum Seepage Rate, inches/day	0.0374	0.0374	0.0374	0.0374	0.0374	0.0374		

NOTES:

- (1) Water depth of the pond in feet.
- (2) Soil liner thickness in inches.
- (3) Hydraulic conductivity of the core sample(s) as determined by flexible wall permeameter in cm/sec (Ref: ASTM D 5084).

The following equation is used:

$$v' = k (H + d) / d$$

where: v' = Specific Discharge of area representative of core sample, inches/day

d = Measure Liner Thickness at core sample location, feet

k = Hydraulic Conductivity of liner based on core sample testing, inches/day

H = Maximum Water Depth, feet

- (4) Maximum Allowable Seepage Rate of 1.1×10^{-6} cm/sec (0.0374 in/day).

Erick Emerine, PE
 Enviro-Ag Engineering, Inc.
 TX Firm No. 2507



LAB
LOG



Schreiber 19907

Truck Engine

Carey Mullin

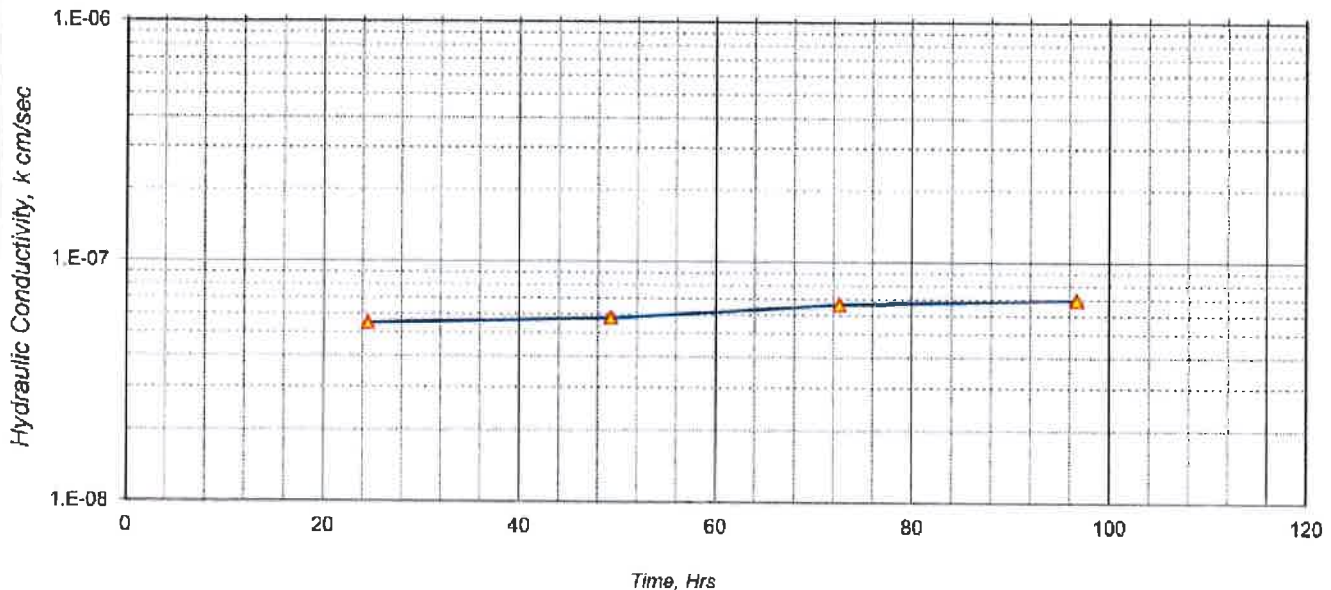
10/9/2020

10/13/2070

James Jackson

302 Morgan Mill Road
Bldg C
Stephenville, TX 76401
(254) 965-3500
Fax: (254) 965-8000

Hydraulic Conductivity vs Time



SPECIMEN DATA

SAMPLE ID:	1	
DESCRIPTION:	#1	
	<u>INITIAL</u>	<u>FINAL</u>
HEIGHT, in.	2.7	2.8
DIAMETER, in.	2.9	2.9
WATER CONTENT, %	10.9	14.3
DRY DENSITY, pcf	124	122
SATURATION, %	81	100
(Specific Gravity assumed as 2.7)		
SAMPLE COLOR	Light Brown	
SAMPLE CONSISTENCY	Clay/Sand	

TEST DATA

<u>ASTM D-5084, Method C</u>		
EFFECTIVE STRESS:	5 psi	
GRADIENT RANGE:	2 - 3	
IN / OUT RATIO:	1.00	
	<u>HYDRAULIC</u>	
<u>TRIAL</u>	<u>TIME</u>	<u>CONDUCTIVITY</u>
<u>nos.</u>	<u>hrs.</u>	<u>cm / sec</u>
1	24.5	5.5E-08
2	49.3	5.8E-08
3	72.7	6.7E-08
4	96.8	7.0E-08
AVERAGE LAST 4 :		6.2E-08

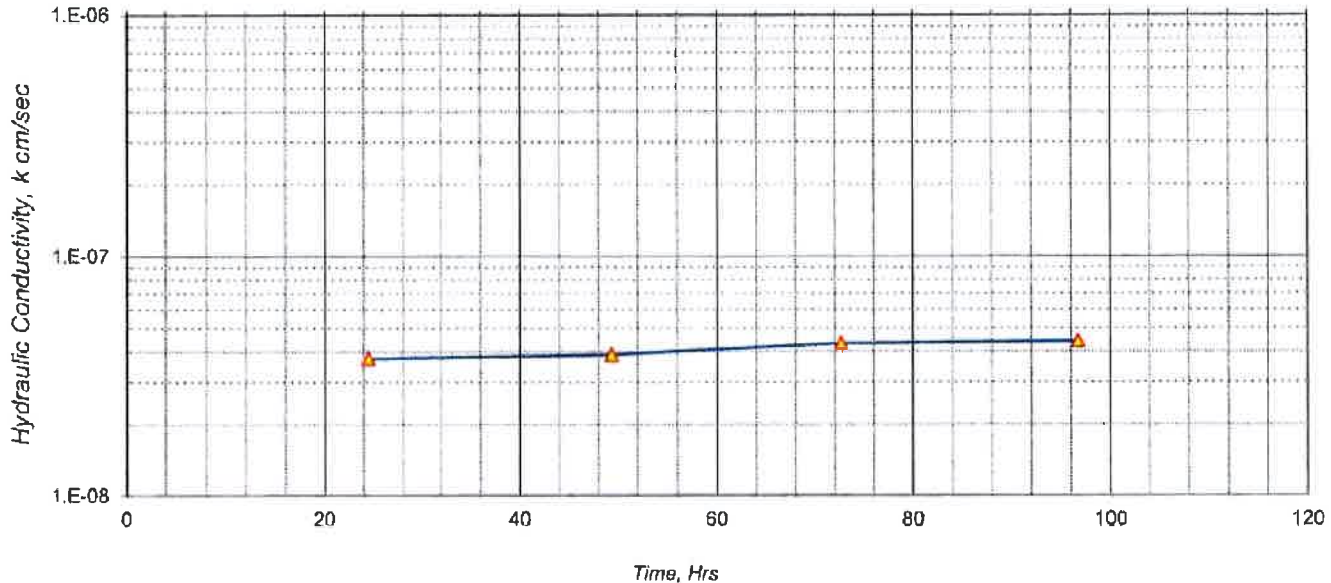
COMMENTS:

Tap water used as permeant.

These results apply only to the above listed samples. The data and information are proprietary and can not be released without authorization of Enviro-Ag Engineering Inc.

By accepting the data and results represented on this page, client agrees to limit the liability of Enviro-Ag Engineering, Inc. from Client and all other parties claims arising out of the use of this data to the cost for the respective test(s) represented here, and Client agrees to indemnify and hold harmless Enviro-Ag from and against all liability in excess of the aforementioned limit.

Hydraulic Conductivity vs Time



SPECIMEN DATA

SAMPLE ID:	2	
DESCRIPTION:	#2	
	<u>INITIAL</u>	<u>FINAL</u>
HEIGHT, in.	2.7	2.7
DIAMETER, in.	2.9	2.9
WATER CONTENT, %	10.8	16.0
DRY DENSITY, pcf	120	117
SATURATION, %	71	99
(Specific Gravity assumed as 2.7)		
SAMPLE COLOR	Light Brown	
SAMPLE CONSISTENCY	Clay/Caliche	

TEST DATA

<u>ASTM D-5084, Method C</u>		
EFFECTIVE STRESS:	5 psi	
GRADIENT RANGE:	2 - 3	
IN / OUT RATIO:	1.00	
		HYDRAULIC
TRIAL	TIME	CONDUCTIVITY
<u>nos.</u>	<u>hrs.</u>	<u>cm / sec</u>
1	24.5	3.8E-08
2	49.3	3.9E-08
3	72.7	4.4E-08
4	96.8	4.4E-08
AVERAGE LAST 4 :		4.1E-08

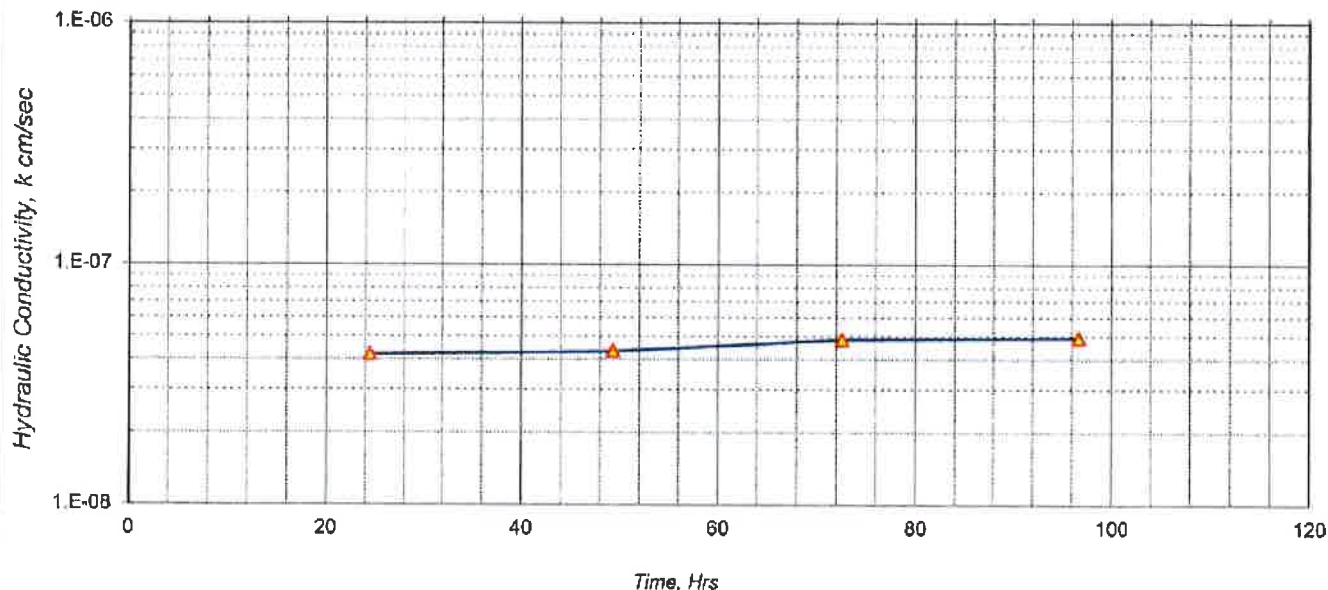
COMMENTS:

Tap water used as permeant.

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Hydraulic Conductivity vs Time



SPECIMEN DATA

SAMPLE ID:	3	
DESCRIPTION:	#3	
	<u>INITIAL</u>	<u>FINAL</u>
HEIGHT, in.	3.0	3.0
DIAMETER, in.	2.9	2.9
WATER CONTENT, %	10.5	16.1
DRY DENSITY, pcf	119	118
SATURATION, %	68	100
(Specific Gravity assumed as 2.7)		
SAMPLE COLOR	Light Brown	
SAMPLE CONSISTENCY	Clay/Caliche	

TEST DATA

ASTM D-5084, Method C

EFFECTIVE STRESS:	5 psi
GRADIENT RANGE:	2 - 3
IN / OUT RATIO:	1.00

		HYDRAULIC
TRIAL	TIME	CONDUCTIVITY
<u>nos.</u>	<u>hrs.</u>	<u>cm / sec</u>
1	24.5	4.2E-08
2	49.3	4.3E-08
3	72.7	4.8E-08
4	98.8	4.9E-08

AVERAGE LAST 4: **4.6E-08**

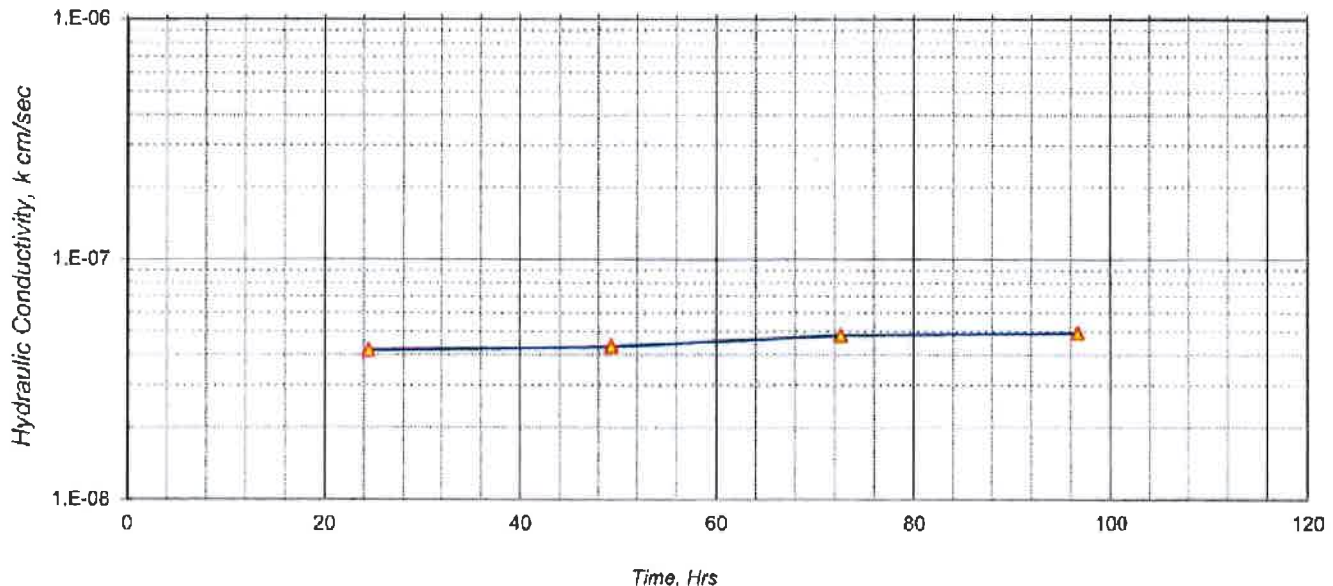
COMMENTS:

Tap water used as permeant.

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Hydraulic Conductivity vs Time



SPECIMEN DATA

SAMPLE ID:	4	
DESCRIPTION:	#4	
	<u>INITIAL</u>	<u>FINAL</u>
HEIGHT, in.	3.0	3.0
DIAMETER, in.	2.9	2.9
WATER CONTENT, %	11.4	16.6
DRY DENSITY, pcf	118	116
SATURATION, %	73	100
(Specific Gravity assumed as 2.7)		
SAMPLE COLOR	Light Brown	
SAMPLE CONSISTENCY	Clay/Caliche	

COMMENTS:

Tap water used as permeant.

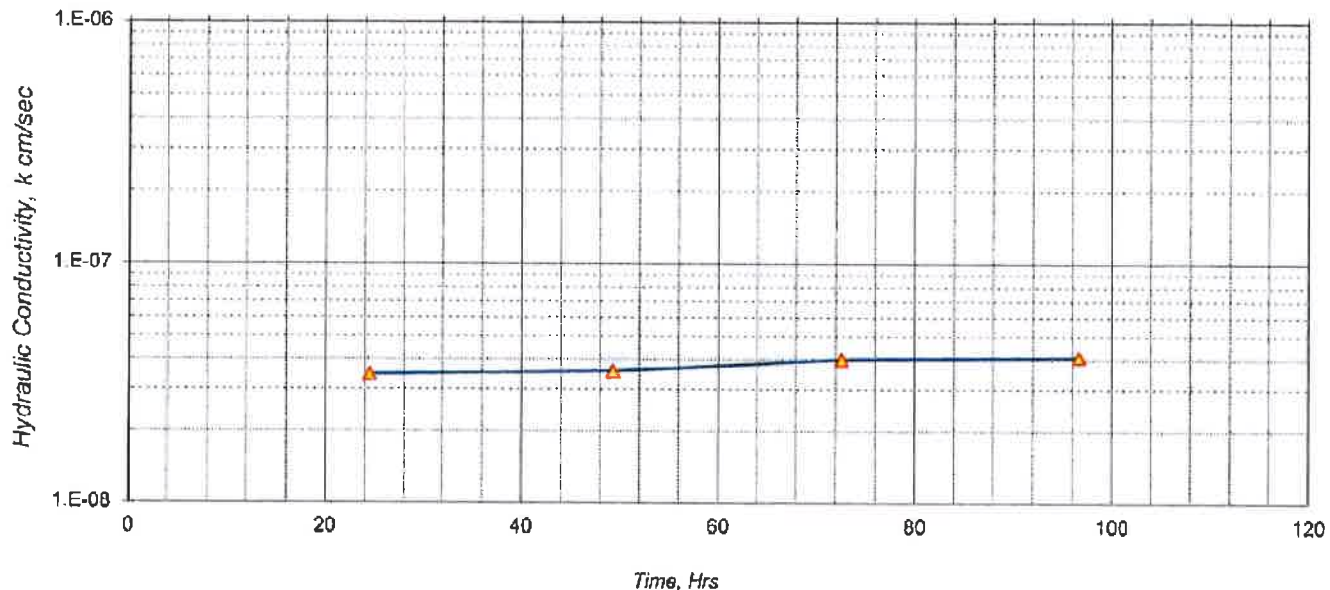
TEST DATA

<u>ASTM D-5084, Method C</u>		
EFFECTIVE STRESS:	5 psi	
GRADIENT RANGE:	2 - 3	
IN / OUT RATIO:	1.00	
	<u>HYDRAULIC</u>	
<u>TRIAL</u>	<u>TIME</u>	<u>CONDUCTIVITY</u>
<u>nos</u>	<u>hrs</u>	<u>cm / sec</u>
1	24.5	4.2E-08
2	49.3	4.3E-08
3	72.7	4.8E-08
4	96.8	4.9E-08
AVERAGE LAST 4 :		4.6E-08

These results apply only to the above listed samples. The data and information are proprietary and can not be released without authorization of Enviro-Ag Engineering Inc.

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Hydraulic Conductivity vs Time



SPECIMEN DATA

SAMPLE ID:	5	
DESCRIPTION:	#5	
	<u>INITIAL</u>	<u>FINAL</u>
HEIGHT, in.	2.5	2.5
DIAMETER, in.	2.9	2.9
WATER CONTENT, %	10.2	15.2
DRY DENSITY, pcf	120	119
SATURATION, %	69	100
(Specific Gravity assumed as 2.7)		
SAMPLE COLOR	Brown	
SAMPLE CONSISTENCY	Clay/Caliche	

COMMENTS:

Tap water used as permeant.

TEST DATA

ASTM D-5084, Method C

EFFECTIVE STRESS: 5 psi
 GRADIENT RANGE: 3 - 3
 IN / OUT RATIO: 1.00

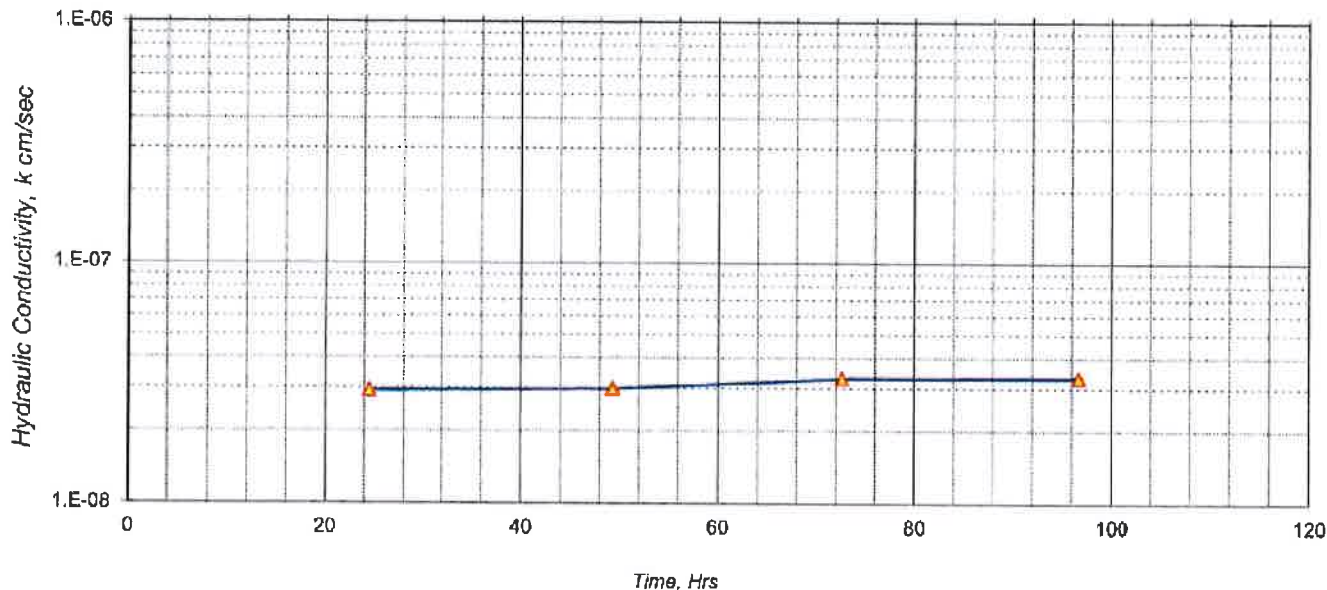
		HYDRAULIC
TRIAL	TIME	CONDUCTIVITY
<u>nos.</u>	<u>hrs.</u>	<u>cm / sec</u>
1	24.5	3.5E-08
2	49.3	3.6E-08
3	72.7	4.0E-08
4	96.8	4.1E-08

AVERAGE LAST 4 : **3.8E-08**

These results apply only to the above listed samples. The data and information are proprietary and can not be released without authorization of Enviro-Ag Engineering, Inc.

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Hydraulic Conductivity vs Time



SPECIMEN DATA

SAMPLE ID:	6	
DESCRIPTION:	#6	
	<u>INITIAL</u>	<u>FINAL</u>
HEIGHT, in.	2.8	2.8
DIAMETER, in.	2.9	2.9
WATER CONTENT, %	9.6	16.2
DRY DENSITY, pcf	119	117
SATURATION, %	62	98
(Specific Gravity assumed as 2.7)		
SAMPLE COLOR	Brown	
SAMPLE CONSISTENCY	Clay/Caliche	

COMMENTS:

Tap water used as permeant.

TEST DATA

ASTM D-5084, Method C

EFFECTIVE STRESS:	5 psi
GRADIENT RANGE:	2 - 3
IN / OUT RATIO:	1.00

TRIAL <u>nos.</u>	TIME <u>hrs.</u>	HYDRAULIC CONDUCTIVITY
		<u>cm / sec</u>
1	24.5	2.9E-08
2	49.3	3.0E-08
3	72.7	3.3E-08
4	98.8	3.3E-08

AVERAGE LAST 4 : **3.1E-08**

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EMBANKMENTS

IN-PLACE DENSITY TEST SERVICE ORDER

CLIENT: Big Iron
 ADDRESS: PO Box 69, Blanket, Tx, 76432
 Project: SchrieberFood
 AUTH: Jeff

CLIENT NO:
 REPORT NO: 200511
 DATE: 8-31-2020
 PAGE: 1 of 1

ieber JOBSITE INFORMATION	TEST	METHOD	REQUIREMENTS
Contr: Big Iron	DENSITY	ASTM D 2922	95
JOBSITE: Jeff	MOISTURE	ASTM D 3017	-1 to +3
TIME:	GAUGE NO.	3430	
REMARKS:			

MOISTURE / DENSITY RELATIONS

M/D NO.	TEST OF	MATERIAL DESCRIPTION	OPTIMUM MOISTURE	MAXIMUM DENSITY
1	Emb	Lt Br Silty Loam	15.3	113.2
2	Emb	Purple & Grey Clay	17.4	105.4

IN-PLACE DENSITY TESTS

TEST NO.	TEST LOCATION	M/D NO.	MOISTURE CONTENT	DENSITY pcf	PERCENT COMPACTION
E Berm # 1		2	17.3 %	108.1 wet	100.7
S Berm # 2		2	18.4 %	105.0 dry	99.6
N Berm # 3		2	18.8 %	105.1 dry	99.7
S Berm # 4		1	16.8 %	113.2 dry	100.0
E Berm # 5		1	16.8 %	113.1 dry	99.9
N Berm # 6		1	16.9 %	113.4 dry	100.2
N Berm # 7		1	16.4 %	113.3 dry	100.0
S Berm # 8		1	16.4 %	112.9 dry	99.7
E Berm # 9		1	16.0 %	113.7 dry	100.4
			lbs	wet	
			%	dry	

TECHNICIAN: J. Stone
 TIME: START _____ Stop _____
 CLIENT REP: _____

CONTRACTOR NOTIFIED OF RESULTS (Y/N) _____

OFF	DIV	TEST	UNITS
Time		1 Day	
Trip			
Total			

TECHNICIAN: *CJS*



IN-PLACE DENSITY TEST SERVICE ORDER

CLIENT: Big Iron
 ADDRESS: PO Box 69, Blanket, Tx, 76432
 Project: SchrieberFood
 AUTH: Jeff

CLIENT NO:
 REPORT NO: 200514-A
 DATE: 9-1-2020
 PAGE: 1 of 2

JOBSITE INFORMATION	TEST	METHOD	REQUIREMENTS
Contr: Big Iron	DENSITY	ASTM D 2922	95
JOBSITE: Jeff	MOISTURE	ASTM D 3017	-1 to +3
TIME: 1 Day	GAUGE NO.	3430	
REMARKS:			

MOISTURE / DENSITY RELATIONS

M/D NO.	TEST OF	MATERIAL DESCRIPTION	OPTIMUM MOISTURE	MAXIMUM DENSITY
1	Embankment	Lt Br Silty Clay	15.3	113.2
2	Embankment	Purple & Grey Clay	17.4	105.4
3	Embankment	Green & Grey Clay	15.2	114.4

IN-PLACE DENSITY TESTS

TEST NO.	TEST LOCATION	M/D Linee	MOISTURE CONTENT	DENSITY pcf	PERCENT COMPACTION
			lbs	wet	
#10 N Berm		2	18.1 %	106.0 dry	100.6
			lbs	wet	
#11 S berm		2	17.1 %	106.1 dry	100.6
			lbs	wet	
#12 E Berm		1	18.1 %	109.7 dry	97.0
			lbs	wet	
#13 E Berm		2	16.9 %	104.8 dry	99.4
			lbs	wet	
# 14 S Berm		1	16.9 %	112.9 dry	99.7
			lbs	wet	
#15 N Berm		1	15.9 %	111.9 dry	98.9
			lbs	wet	
#16 S Berm		1	15.3 %	113.5 dry	100.3
			lbs	wet	
#17 E Berm		1	16.1 %	114.9 dry	101.5
			lbs	wet	
#18 N Berm		3	16.0 %	113.1 dry	98.9
			lbs	wet	
#19 E Berm		3	15.9 %	113.4 dry	99.1

TECHNICIAN: J. Stone
 TIME: START _____ Stop _____
 CLIENT REP: _____

CONTRACTOR NOTIFIED OF RESULTS (Y/N) _____

OFF	DIV	TEST	UNITS	
Time				
Trip				
Total				

TECHNICIAN:



IN-PLACE DENSITY TEST SERVICE ORDER

CLIENT: Big Iron
 ADDRESS: PO Box 69, Blanket, Tx, 76432
 Project: SchrieberFood
 AUTH: Jeff

CLIENT NO:
 REPORT NO: 200514-B
 DATE: 9-1-2020
 PAGE: 2 of 2

JOBSITE INFORMATION	TEST	METHOD	REQUIREMENTS
Contr: Big Iron	DENSITY	ASTM D 2922	95
JOBSITE: Jeff	MOISTURE	ASTM D 3017	-1 to +3
TIME: 1 Day	GAUGE NO.	3430	
REMARKS:			

MOISTURE / DENSITY RELATIONS

M/D NO.	TEST OF	MATERIAL DESCRIPTION	OPTIMUM MOISTURE	MAXIMUM DENSITY
1	Embankment	Lt Br Silty Clay	15.3	113.2
2	Embankment	Purple & Grey Clay	17.4	105.4
3	Embankment	Green & Grey Clay	15.2	114.4

IN-PLACE DENSITY TESTS

TEST NO.	TEST LOCATION	M/D Line	MOISTURE CONTENT	DENSITY pcf	PERCENT COMPACTION
			lbs	wet	
#20 N Berm		3	15.0 %	113.0 dry	98.8
			lbs	wet	
#21 S Berm		3	16.1 %	112.9 dry	98.7
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	

TECHNICIAN: J. Slone
 TIME: START _____ Stop _____
 CLIENT REP: _____

CONTRACTOR NOTIFIED OF RESULTS (Y/N) _____

OFF	DIV	TEST	UNITS
Time			
Trip			
Total			

TECHNICIAN:



IN-PLACE DENSITY TEST SERVICE ORDER

CLIENT: Big Iron
 ADDRESS: PO Box 69, Blanket, Tx, 76432
 Project: SchrieberFood
 AUTH: Jeff

CLIENT NO:
 REPORT NO: 200615
 DATE: 9-8-2020
 PAGE: 1 of 2

JOBSITE INFORMATION	TEST	METHOD	REQUIREMENTS
Contr: Big Iron	DENSITY	ASTM D 2922	95
JOBSITE: Jeff	MOISTURE	ASTM D 3017	-1 to +3
TIME: 1 Day	GAUGE NO.	3430	
REMARKS:			

MOISTURE / DENSITY RELATIONS

M/D NO.	TEST OF	MATERIAL DESCRIPTION	OPTIMUM MOISTURE	MAXIMUM DENSITY
1	Embankment	Lt Br Silty Clay	15.3	113.2
2	Embankment	Purple & Grey Clay	17.4	105.4
3	Embankment	Green & Grey Clay	15.2	114.4

IN-PLACE DENSITY TESTS

TEST NO.	TEST LOCATION	M/D Line	MOISTURE CONTENT	DENSITY pcf	PERCENT COMPACTION
			lbs %	wet dry	
#22 E Embankment Berm		3	16.7 %	117.2 dry	98.0
			lbs %	wet dry	
#23 N Berm		3	17.0 %	113.1 dry	98.9
			lbs %	wet dry	
#24 S Berm		3	15.9 %	110.2 dry	96.3
			lbs %	wet dry	
#25 E Berm		3	14.4 %	114.0 dry	98.7
			lbs %	wet dry	
#26 N Berm		3	16.8 %	109.9 dry	96.0
			lbs %	wet dry	
#27 S Berm		3	14.8 %	111.2 dry	98.1
			lbs %	wet dry	
#28 N Berm		3	14.2 %	110.6 dry	96.6
			lbs %	wet dry	
#29 S berm		3	14.4 %	114.2 dry	99.8
			lbs %	wet dry	
#30 E Berm		1	15.9 %	110.4 dry	97.5
			lbs %	wet dry	
#31 E Berm		3	16.1 %	113.1 dry	98.9

TECHNICIAN: J. Stone
 TIME: START _____ Stop _____
 CLIENT REP: _____

CONTRACTOR NOTIFIED OF RESULTS (Y/N) _____

OFF	DIV	TEST	UNITS	
Time				
Trip				
Total				

TECHNICIAN: CJS



IN-PLACE DENSITY TEST SERVICE ORDER

CLIENT: Big Iron
 ADDRESS: PO Box 69, Blanket, Tx, 76432
 Project: SchrieberFood
 AUTH: Jeff

CLIENT NO:
 REPORT NO: 200515
 DATE: 9-8-2020
 PAGE: 2 of 2

JOBSITE INFORMATION	TEST	METHOD	REQUIREMENTS
Contr: Big Iron	DENSITY	ASTM D 2922	95
JOBSITE: Jeff	MOISTURE	ASTM D 3017	-1 to +3
TIME:	GAUGE NO.	3430	
REMARKS: Dorrected Copy			

MOISTURE / DENSITY RELATIONS

M/D NO.	TEST OF	MATERIAL DESCRIPTION	OPTIMUM MOISTURE	MAXIMUM DENSITY
1	Embankment	Li Br Silty Clay	15.3	113.2
2	Embankment	Purple & Grey Clay	17.4	105.4
3	Embankment	Green & Grey Clay	15.2	114.4

IN-PLACE DENSITY TESTS

TEST NO.	TEST LOCATION	M/D Linee	MOISTURE CONTENT	DENSITY pcf	PERCENT COMPACTION
#32 S Emb Berm		3	15.5 %	109.9 wet	96.1
#33 N Emb Berm		3	14.7 %	113.1 dry	98.9
#34 E Emb Berm		3	15.3 %	111.1 dry	97.1
#35 N Berm		3	14.6 %	112.4 dry	98.3
#36 S Berm		3	14.9 %	113.6 dry	99.3
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			16.1 %	dry	

TECHNICIAN: J. Stone
 TIME: START _____ Stop _____
 CLIENT REP: _____

CONTRACTOR NOTIFIED OF RESULTS (Y/N) _____

OFF	DIV	TEST	UNITS
Time			
Trip			
Total			

TECHNICIAN: CJS



IN-PLACE DENSITY TEST SERVICE ORDER

CLIENT: Big Iron
 ADDRESS: PO Box 69, Blanket, Tx, 76432
 Project: SchrieberFood
 AUTH: Jeff

CLIENT NO:
 REPORT NO: 200516-A
 DATE: 9-14-2020
 PAGE: 1 of 2

JOBSITE INFORMATION	TEST	METHOD	REQUIREMENTS
Contr: Big Iron	DENSITY	ASTM D 2922	95
JOBSITE: Jeff	MOISTURE	ASTM D 3017	-1 to +3
TIME: 1 Day	GAUGE NO.	3430	
REMARKS:			

MOISTURE / DENSITY RELATIONS

M/D NO.	TEST OF	MATERIAL DESCRIPTION	OPTIMUM MOISTURE	MAXIMUM DENSITY
1	Embankment Berm	Lt Br Silty Clay	15.3	113.2
2	Embankment Berm	Purple & Grey Clay	17.4	105.4
3	Embankment Berm	Green & Grey Clay	15.2	114.4

IN-PLACE DENSITY TESTS

TEST NO.	TEST LOCATION	M/D Linee	MOISTURE CONTENT	DENSITY pcf	PERCENT COMPACTION
#37 E Berm		1	14.9 %	112.4 dry	99.2
#38 S Berm		1	15.0 %	110.6 dry	97.8
#39 N Berm		2	16.7 %	104.8 dry	98.4
#40 S Berm		3	15.2 %	113.6 dry	99.3
#41 N Berm		3	16.1 %	110.4 dry	95.9
#42 E Berm		3	15.0 %	110.9 dry	96.9
#43 N Berm		3	14.4 %	113.1 dry	98.9
#44 E Berm		3	14.8 %	109.7 dry	95.9
#45 S Berm		3	16.0 %	111.1 dry	97.1
#46 S Berm		3	14.7 %	113.1 dry	98.9

TECHNICIAN: J. Stone
 TIME: START _____ Stop _____
 CLIENT REP: _____

CONTRACTOR NOTIFIED OF RESULTS (Y/N) _____

OFF	DIV	TEST	UNITS
Time		1 Day	
Trip			
Total			

TECHNICIAN: *CJS*



IN-PLACE DENSITY TEST SERVICE ORDER

CLIENT: Big Iron
ADDRESS: PO Box 69, Blanket, Tx, 76432
Project: SchrieberFood
AUTH: Jeff

CLIENT NO:
REPORT NO: 200516-B
DATE: 9-14-2020
PAGE: 2 of 2

ieber JOBSITE INFORMATION	TEST	METHOD	REQUIREMENTS
Contr: Big Iron	DENSITY	ASTM D 2922	95
JOBSITE: Jeff	MOISTURE	ASTM D 3017	-1 to +3
TIME:	GAUGE NO.	3430	
REMARKS:			

MOISTURE / DENSITY RELATIONS

M/D NO.	TEST OF	MATERIAL DESCRIPTION	OPTIMUM MOISTURE	MAXIMUM DENSITY
1	Emb	Lt Br Silty Clay	15.3	113.2
2	Emb	Purple & Grey Clay	17.4	105.4
3	Emb	Green & Grey Clay	15.2	114.4

IN-PLACE DENSITY TESTS

TEST NO.	TEST LOCATION	M/D Linee	MOISTURE CONTENT	DENSITY pcf	PERCENT COMPACTION
			lbs	wet	
#47 E Berm		3	15.9 %	113.2 dry	99.0
			lbs	wet	
#48 N Berm		3	14.3 %	114.0 dry	99.7
			lbs	wet	
#49 E Berm		1	15.1 %	110.9 dry	98.8
			lbs	wet	
#50 S Berm		3	14.7 %	112.4 dry	98.3
			lbs	wet	
#51 N Berm		3	16.0 %	110.3 dry	98.4
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	

TECHNICIAN: J. Stone
TIME: START _____ Stop _____
CLIENT REP: _____

CONTRACTOR NOTIFIED OF RESULTS (Y/N) _____

OFF	DIV	TEST	UNITS	
Time				
Trip				
Total				

TECHNICIAN: CJS



IN-PLACE DENSITY TEST SERVICE ORDER

CLIENT: Big Iron
 ADDRESS: PO Box 69, Blanket, Tx, 76432
 Project: SchrieberFood
 AUTH: Jeff

CLIENT NO:
 REPORT NO: 200517-A
 DATE: 9-14-2020
 PAGE: 1 of 3

JOBSITE INFORMATION	TEST	METHOD	REQUIREMENTS
Contr: Big Iron	DENSITY	ASTM D 2922	95
JOBSITE: Jeff	MOISTURE	ASTM D 3017	-1 to +3
TIME: 1 Day	GAUGE NO.	3430	
REMARKS:			

MOISTURE / DENSITY RELATIONS

M/D NO.	TEST OF	MATERIAL DESCRIPTION	OPTIMUM MOISTURE	MAXIMUM DENSITY
1	Embankment Berm	Lt Br Silty Clay	15.3	113.2
2	Embankment Berm	Purple & Grey Clay	17.4	105.4
3	Embankment Berm	Green & Grey Clay	16.2	114.4

IN-PLACE DENSITY TESTS

TEST NO.	TEST LOCATION	M/D Line	MOISTURE CONTENT	DENSITY pcf	PERCENT COMPACTION
#52 S Berm		2	18.1 %	105.4 dry	100.0
#53 E Berm		3	14.6 %	102.1 dry	96.9
#54 N Berm		2	18.1 %	109.1 dry	95.4
#55 E Berm		2	17.9 %	103.6 dry	98.3
#56 S Berm		3	14.5 %	109.7 dry	95.9
#57 N Berm		3	15.8 %	113.0 dry	98.8
#58 S Berm		3	18.5 %	111.6 dry	97.6
#59 N Berm		3	17.8 %	112.4 dry	98.3
#60 E Berm		3	16.2 %	110.9 dry	96.9
#61 N Berm		3	14.5 %	111.6 dry	97.6

TECHNICIAN: J. Stone
 TIME: START _____ Stop _____
 CLIENT REP: _____

CONTRACTOR NOTIFIED OF RESULTS (Y/N) _____

OFF	DIV	TEST	UNITS
Time		1 Day	
Trip			
Total			

TECHNICIAN: CJS



IN-PLACE DENSITY TEST SERVICE ORDER

CLIENT: Big Iron
 ADDRESS: PO Box 69, Blanket, Tx, 76432
 Project: SchrieberFood
 AUTH: Jeff

CLIENT NO:
 REPORT NO: 200517-B
 DATE: 9-15-2020
 PAGE: 2 of 3

JOBSITE INFORMATION	TEST	METHOD	REQUIREMENTS
Contr: Big Iron	DENSITY	ASTM D 2922	95
JOBSITE: Jeff	MOISTURE	ASTM D 3017	-1 to +3
TIME:	GAUGE NO.	3430	
REMARKS:			

MOISTURE / DENSITY RELATIONS

M/D NO.	TEST OF	MATERIAL DESCRIPTION	OPTIMUM MOISTURE	MAXIMUM DENSITY
1	Embankment Berm	Lt Br Silty Clay	15.3	113.2
2	Embankment Berm	Purple & Grey Clay	17.4	105.4
3	Embankment Berm	Green & Grey Clay	15.2	114.4

IN-PLACE DENSITY TESTS

TEST NO.	TEST LOCATION	M/D Line	MOISTURE CONTENT	DENSITY pcf	PERCENT COMPACTION
#62 S Berm		3	15.0 %	109.7 dry	95.9
#63 E Berm		3	15.4 %	110.1 dry	96.7
#64 S Berm		3	15.0 %	113.6 dry	99.3
#65 N Berm		3	16.1 %	114.1 dry	99.7
#66 E Berm		3	16.6 %	110.2 dry	96.3
#67 N Berm		3	15.8 %	111.1 dry	97.1
#68 E Berm		3	15.9 %	113.1 dry	98.9
#69 S Berm		3	15.6 %	114.1 dry	99.7
#70 S Berm		3	14.5 %	109.5 dry	95.8
#71 N Berm		3	16.0 %	110.4 dry	96.5

TECHNICIAN: J. Stone
 TIME: START _____ Stop _____
 CLIENT REP: _____

CONTRACTOR NOTIFIED OF RESULTS (Y/N) _____

OFF	DIV	TEST	UNITS
Time			
Trip			
Total			

TECHNICIAN: CJS



IN-PLACE DENSITY TEST SERVICE ORDER

CLIENT: Big Iron
 ADDRESS: PO Box 69, Blanket, Tx, 75432
 Project: SchrieberFood
 AUTH: Jeff

CLIENT NO:
 REPORT NO: 200517-C
 DATE: 9-15-2020
 PAGE: 3 of 3

ieber			
JOBSITE INFORMATION	TEST	METHOD	REQUIREMENTS
Contr: Big Iron	DENSITY	ASTM D 2922	95
JOBSITE: Jeff	MOISTURE	ASTM D 3017	-1 to +3
TIME:	GAUGE NO.	3430	
REMARKS:			

MOISTURE / DENSITY RELATIONS

M/D NO.	TEST OF	MATERIAL DESCRIPTION	OPTIMUM MOISTURE	MAXIMUM DENSITY
1	Embankment Berm	Lt Br Silty Clay	15.3	113.2
2	Embankment Berm	Purple & Grey Clay	17.4	105.4
3	Embankment Berm	Green & Grey Clay	15.2	114.4

IN-PLACE DENSITY TESTS

TEST NO.	TEST LOCATION	M/D Linee	MOISTURE CONTENT	DENSITY pcf	PERCENT COMPACTION
#72 E Berm		3	15.6 %	113.6 wet	99.3
#73 E Berb		3	15.3 %	110.4 dry	96.5
#74 N Berm		3	15.0 %	112.2 wet	98.1
#75 S Berm		2	18.1 %	106.0 dry	100.6
#76 N Berm		2	17.8 %	102.6 wet	97.3
#77 S Berm		2	18.0 %	103.0 dry	97.7
#78 E Berm		3	15.6 %	114.4 wet	100.0
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	

TECHNICIAN: J. Stone
 TIME: START _____ Stop _____
 CLIENT REP: _____
 CONTRACTOR NOTIFIED OF RESULTS (Y/N) _____

OFF	DIV	TEST	UNITS
Time			
Trip			
Total			

TECHNICIAN: CJS



LINER
TOTAL PERFORMED 42

IN-PLACE DENSITY TEST SERVICE ORDER

CLIENT: Big Iron
ADDRESS: PO Box 69, Blanket, Tx, 76432
Project: SchrieberFood
AUTH: Jeff

CLIENT NO:
REPORT NO: 200518
DATE: 9-16 & 17-2020
PAGE: 2 of 2

JOBSITE INFORMATION	TEST	METHOD	REQUIREMENTS
Contr: Big Iron	DENSITY	ASTM D 2922	95
JOBSITE: Jeff	MOISTURE	ASTM D 3017	-1 to +3
TIME:	GAUGE NO.	3430	
REMARKS: East Berm Liner			

MOISTURE / DENSITY RELATIONS

M/D NO.	TEST OF	MATERIAL DESCRIPTION	OPTIMUM MOISTURE	MAXIMUM DENSITY
2	Liner	Purple Clay	21.1	103.4
3	Liner	Purple & Grey Clay	17.4	105.4
4	Liner	Green & Grey Clay	15.2	114.4

IN-PLACE DENSITY TESTS

TEST NO.	TEST LOCATION	M/D Line	MOISTURE CONTENT	DENSITY pcf	PERCENT COMPACTION
			lbs	wet	
	E Berm Liner 0 - 6" 9/16/20	2	21.2 %	102.1 dry	98.7
			lbs	wet	
	E Berm Liner 6" - 12" 9/16/20	2	20.4 %	101.6 dry	98.3
			lbs	wet	
	E Berm Liner 12" - 18" 9/16/20	3	18.0 %	102.7 dry	97.4
			lbs	wet	
	E Berm Liner 18" - 24" 9/16/20	3	17.0 %	104.4 dry	99.1
			lbs	wet	
	E Berm Liner 24" - 30" 9/16/20	3	18.4 %	103.5 dry	98.2
			lbs	wet	
	E Berm Liner 30" - 36" 9/17/20	3	18.1 %	105.2 dry	99.8
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	

TECHNICIAN: J. Stone
TIME: START _____ Stop _____
CLIENT REP: _____

CONTRACTOR NOTIFIED OF RESULTS (Y/N) _____

OFF	DIV	TEST	UNITS	
Time				
Trip				
Total				

TECHNICIAN: CJS



IN-PLACE DENSITY TEST SERVICE ORDER

CLIENT: Big Iron

ADDRESS: PO Box 69, Blanket, Tx, 76432

Project: SchrieberFood

AUTH: Jeff

CLIENT NO:

REPORT NO: 200519

DATE: 9-17 & 21-2020

PAGE: 2 of 2

JOBSITE INFORMATION	TEST	METHOD	REQUIREMENTS
Contr: Big Iron	DENSITY	ASTM D 2922	95
JOBSITE: Jeff	MOISTURE	ASTM D 3017	-1 to +3
TIME:	GAUGE NO.	3430	
REMARKS: North Berm Liner			

MOISTURE / DENSITY RELATIONS

M/D NO.	TEST OF	MATERIAL DESCRIPTION	OPTIMUM MOISTURE	MAXIMUM DENSITY
2	Liner	Purple Clay	21.1	103.4
3	Liner	Purple & Grey Clay	17.4	105.4
4	Liner	Green & Grey Clay	15.2	114.4

IN-PLACE DENSITY TESTS

TEST NO.	TEST LOCATION	M/D Line	MOISTURE CONTENT	DENSITY pcf	PERCENT COMPACTION
			lbs	wet	
	N Berm Liner 0 - 6" 9/17/20	3	18.4 %	105.4 dry	100.0
			lbs	wet	
	N Berm Liner 6" - 12" 9/17/20	4	16.0 %	111.1 dry	97.1
			lbs	wet	
	N Berm Liner 12" - 18" 9/17/20	3	16.9 %	105.4 dry	100.0
			lbs	wet	
	N Berm Liner 18" - 24" 9/17/20	4	16.0 %	110.6 dry	96.7
			lbs	wet	
	N Berm Liner 24" - 30" 9/18/20	4	16.4 %	114.4 dry	100.0
			lbs	wet	
	N Berm Liner 30" - 36" 9/18/20	3	16.8 %	103.6 dry	98.3
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	

TECHNICIAN: J. Stone

TIME: START _____ Stop _____

CLIENT REP: _____

CONTRACTOR NOTIFIED OF RESULTS (Y/N) _____

OFF	DIV	TEST	UNITS	
Time				
Trip				
Total				

TECHNICIAN: CJS



IN-PLACE DENSITY TEST SERVICE ORDER

CLIENT: Big Iron
ADDRESS: PO Box 69, Blanket, Tx, 76432
Project: SchrieberFood
AUTH: Jeff

CLIENT NO:
REPORT NO: 200900
DATE: 9-24 8:25-2020
PAGE: 2 of 2

JOBSITE INFORMATION	TEST	METHOD	REQUIREMENTS
Contr: Big Iron	DENSITY	ASTM D 2922	95
JOBSITE: Jeff	MOISTURE	ASTM D 3017	-1 to +3
TIME:	GAUGE NO.	3430	
REMARKS: South Berm Liner			

MOISTURE / DENSITY RELATIONS

M/D NO.	TEST OF	MATERIAL DESCRIPTION	OPTIMUM MOISTURE	MAXIMUM DENSITY
2	Liner	Purple Clay	21.1	103.4
3	Liner	Purple & Grey Clay	17.4	105.4
4	Liner	Dk Br Clay	17.3	104.9

IN-PLACE DENSITY TESTS

TEST NO.	TEST LOCATION	M/D Linee	MOISTURE CONTENT	DENSITY pcf	PERCENT COMPACTION
			lbs	wet	
	S Berm Liner 0-6"	4	17.7 %	104.1 dry	99.2
			lbs	wet	
	S berm Liner 6"-12"	4	17.3 %	105.3 dry	100.4
			lbs	wet	
	S Berm Liner 12"-18"	4	17.3 %	102.9 dry	98.1
			lbs	wet	
	S Berm Liner 18"-24"	4	17.7 %	103.1 dry	98.3
			lbs	wet	
	S Berm Liner 24"-30"	4	17.0 %	104.0 dry	99.1
			lbs	wet	
	S Berm Liner 30"-36"	4	18.3 %	103.1 dry	98.3
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	

TECHNICIAN: J. Stone
TIME: START _____ Stop _____
CLIENT REP: _____

CONTRACTOR NOTIFIED OF RESULTS (Y/N) _____

OFF	DIV	TEST	UNITS	
Time				
Trip				
Total				

TECHNICIAN: CAS



IN-PLACE DENSITY TEST SERVICE ORDER

CLIENT: Big Iron
 ADDRESS: PO Box 69, Blanket, Tx, 76432
 Project: SchrieberFood
 AUTH: Jeff

CLIENT NO:
 REPORT NO: 200903
 DATE: 9-30, 10-1, 10-2, 10-5-2020
 PAGE: 2 of 2

JOBSITE INFORMATION	TEST	METHOD	REQUIREMENTS
Contr: Big Iron	DENSITY	ASTM D 2922	95
JOBSITE: Jeff	MOISTURE	ASTM D 3017	-1 to +3
TIME:	GAUGE NO.	3430	
REMARKS: Bottom Liner E 1/3			

MOISTURE / DENSITY RELATIONS

M/D NO.	TEST OF	MATERIAL DESCRIPTION	OPTIMUM MOISTURE	MAXIMUM DENSITY
2	Liner	Purple Clay	21.1	103.4
3	Liner	Purple & Grey Clay	17.4	105.4
4	Liner	Dk Br Clay	17.3	104.9

IN-PLACE DENSITY TESTS

TEST NO.	TEST LOCATION	M/D Linee	MOISTURE CONTENT	DENSITY pcf	PERCENT COMPACTION
			lbs	wet	
	Bottom Liner E 1/3 0'-6" 9/30	3	17.4 %	105.3 dry	99.9
			lbs	wet	
	Bottom Liner E 1/3 6"-12" 9/30	3	17.0 %	102.7 dry	97.4
			lbs	wet	
	Bottom Liner E 1/3 12"-18" 10/1	3	18.1 %	102.2 dry	97.0
			lbs	wet	
	Bottom Liner E 1/3 18"-24" 10/1	2	20.6 %	102.9 dry	99.5
			lbs	wet	
	Bottom Liner E 1/3 24"-30" 10/2	2	20.7 %	102.7 dry	99.3
			lbs	wet	
	Bottom Liner E 1/3 30"-36" 10/5	2	22.0 %	102.8 dry	99.4
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	

TECHNICIAN: J. Stone
 TIME: START _____ Stop _____
 CLIENT REP: _____

CONTRACTOR NOTIFIED OF RESULTS (Y/N) _____

OFF	DIV	TEST	UNITS	
Time				
Trip				
Total				

TECHNICIAN: CJS



IN-PLACE DENSITY TEST SERVICE ORDER

CLIENT: Big Iron
 ADDRESS: PO Box 69, Blanket, Tx, 76432
 Project: SchrieberFood
 AUTH: Jeff

CLIENT NO:
 REPORT NO: 200904
 DATE: 10-1, 10-2, 10-5 -2020
 PAGE: 2 of 2

JOBSITE INFORMATION	TEST	METHOD	REQUIREMENTS
Contr: Big Iron	DENSITY	ASTM D 2922	95
JOBSITE: Jeff	MOISTURE	ASTM D 3017	-1 to +3
TIME:	GAUGE NO.	3430	
REMARKS: Bottom Liner W 1/3			

MOISTURE / DENSITY RELATIONS

M/D NO.	TEST OF	MATERIAL DESCRIPTION	OPTIMUM MOISTURE	MAXIMUM DENSITY
2	Liner	Purple Clay	21.1	103.4
3	Liner	Purple & Grey Clay	17.4	105.4
4	Liner	Dk Br Clay	17.3	104.9

IN-PLACE DENSITY TESTS

TEST NO	TEST LOCATION	M/D Linee	MOISTURE CONTENT	DENSITY pcf	PERCENT COMPACTION
			lbs	wet	
	Bottom Liner W 1/3 0-6" 10/1	3	16.9 %	102.0 dry	96.8
			lbs	wet	
	Bottom Liner W 1/3 6"-12" 10/1	3	18.0 %	105.0 dry	99.6
			lbs	wet	
	Bottom Liner W 1/3 12"-18" 10/1	3	17.7 %	103.0 dry	97.7
			lbs	wet	
	Bottom Liner W 1/3 18"-24" 10/1	2	21.1 %	104.2 dry	100.8
			lbs	wet	
	Bottom Liner W 1/3 24"-30" 10/2	3	16.9 %	105.3 dry	99.9
			lbs	wet	
	Bottom Liner W 1/3 30"-36" 10/5	2	20.8 %	104.1 dry	100.7
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	

TECHNICIAN: J. Stone
 TIME: START _____ Stop _____
 CLIENT REP: _____

CONTRACTOR NOTIFIED OF RESULTS (Y/N) _____

OFF	DIV	TEST	UNITS
Time			
Trip			
Total			

TECHNICIAN: CJS



IN-PLACE DENSITY TEST SERVICE ORDER

CLIENT: Big Iron
ADDRESS: PO Box 69, Blanket, Tx, 76432
Project: SchrieberFood
AUTH: Jeff

CLIENT NO:
REPORT NO: 200805
DATE: 10-1, 10-2, 10-5 -2020
PAGE: 1 of 1

JOBSITE INFORMATION	TEST	METHOD	REQUIREMENTS
Contr: Big Iron	DENSITY	ASTM D 2922	95
JOBSITE: Jeff	MOISTURE	ASTM D 3017	-1 to +3
TIME:	GAUGE NO.	3430	
REMARKS: Bottom Liner Center 1/3			

MOISTURE / DENSITY RELATIONS

M/D NO.	TEST OF	MATERIAL DESCRIPTION	OPTIMUM MOISTURE	MAXIMUM DENSITY
2	Liner	Purple Clay	21.1	103.4
3	Liner	Purple & Grey Clay	17.4	105.4
4	Liner	Dk Br Clay	17.3	104.9

IN-PLACE DENSITY TESTS

TEST NO.	TEST LOCATION	M/D Line#	MOISTURE CONTENT	DENSITY pcf	PERCENT COMPACTION
			lbs	wet	
	Bottom Liner Cen 1/3 0-6" 10/1	3	17.1 %	103.1 dry	97.8
			lbs	wet	
	Bottom Liner Cen 1/3 6"-12" 10/1	3	18.1 %	102.9 dry	97.6
			lbs	wet	
	Bottom Liner Cen 1/3 12"-18" 10/1	2	21.8 %	106.0 dry	102.5
			lbs	wet	
	Bottom Liner Cen 1/3 18"-24" 10/1	2	21.7 %	105.1 dry	101.9
			lbs	wet	
	Bottom Liner Cen 1/3 24"-30" 10/2	2	21.8 %	101.8 dry	98.5
			lbs	wet	
	Bottom Liner Cen 1/3 30"-36" 10/5	3	18.0 %	102.4 dry	97.6
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	

TECHNICIAN: J. Stone
TIME: START _____ Stop _____
CLIENT REP: _____

CONTRACTOR NOTIFIED OF RESULTS (Y/N) _____

OFF	DIV	TEST	UNITS
Time			
Trip			
Total			

TECHNICIAN: CJS



IN-PLACE DENSITY TEST SERVICE ORDER

CLIENT: Big Iron
 ADDRESS: PO Box 69, Blanket, Tx, 76432
 Project: SchrieberFood
 AUTH: Jeff

CLIENT NO:
 REPORT NO: 200906
 DATE: 10-1, 10-2, 10-5 -2020
 PAGE: 1 of 1

JOBSITE INFORMATION	TEST	METHOD	REQUIREMENTS
Contr: Big Iron	DENSITY	ASTM D 2922	96
JOBSITE: Jeff	MOISTURE	ASTM D 3017	-1 to +3
TIME:	GAUGE NO.	3430	
REMARKS: W Berm Liner			

MOISTURE / DENSITY RELATIONS

M/D NO.	TEST OF	MATERIAL DESCRIPTION	OPTIMUM MOISTURE	MAXIMUM DENSITY
2	Liner	Purple Clay	21.1	103.4
3	Liner	Purple & Grey Clay	17.4	105.4
4	Liner	Dk Br Clay	17.3	104.9

IN-PLACE DENSITY TESTS

TEST NO.	TEST LOCATION	M/D Linee	MOISTURE CONTENT	DENSITY pcf	PERCENT COMPACTION
			lbs	wet	
W Berm Liner 0-6" 10/1	2	21.8 %	105.1	dry	101.6
		lbs		wet	
W Berm Liner 6"-12" 10/1	2	20.3 %	104.7	dry	101.3
		lbs		wet	
W Berm Liner 12"-18" 10/1	2	20.4 %	103.6	dry	100.2
		lbs		wet	
W Berm Liner 18"-24" 10/2	2	20.6 %	102.1	dry	98.7
		lbs		wet	
W Berm Liner 24"-30" 10/2	2	21.0 %	103.0	dry	99.6
		lbs		wet	
W Berm Liner 30"-36" 10/5	2	20.6 %	102.0	dry	98.8
		lbs		wet	
		%		dry	
		lbs		wet	
		%		dry	
		lbs		wet	
		%		dry	
		lbs		wet	
		%		dry	

TECHNICIAN: J. Stone
 TIME: START _____ Stop _____
 CLIENT REP: _____

CONTRACTOR NOTIFIED OF RESULTS (Y/N) _____

OFF	DIV	TEST	UNITS	
Time				
Trip				
Total				

TECHNICIAN: CJS

ATTACHMENT 4 – SAFETY DATA SHEETS

SDS Summary Table

<u>Manufactures Product Identification Number</u>	<u>Product Use</u>	<u>Chemical Composition</u>	<u>Product Classification</u>	<u>Product or active ingredient half-life</u>	<u>Frequency of product use</u>	<u>Product toxicity data for fish and aquatic invertebrate</u>	<u>Concentration of whole product in waste stream</u>	<u>Concentration of active ingredient in waste stream</u>
ALGARITE 800	Biocide, Fungicide & Algacide	-Water – 7732-18-5 -Glutaraldehyde - 111-30-8	Non-Persistent	4 hrs.	Daily	-Algae Acute: EC50 2.64 mg/l/ 72 Hrs. -Daphnia Acute: EC50 > 50 mg/l/ 24 Hrs. -Daphnia Acute: EC50 17 to 25 mg/l/ 24 Hrs. -Algae Acute: LC50 0.11 mg/l/ 48 Hrs. -Daphnia Acute: LC50 0.69 mg/l/ 48 Hrs. Fish Acute: LC50 10.8 mg/l/ 96 Hrs.	<0.1%	<0.1%
AQUA AMMONIA 26 DGE BE	Cleansing Agent	-Water – 7732-18-5 -Aqua Ammonia – 1336-21-6	Non-Persistent	3 hrs.	Daily	-Acute toxicity to invertebrates: LC50 2.94 mg un-ionized NH ₃ -N/L 48 Hrs. -Acute toxicity to Fish: LC50= 0.09-3.51 mg un-ionized NH ₃ 96 Hrs.	<0.1%	<0.1%
BWT - 20	Boiler Oxygen Scavenger	-Water – 7732-18-5 -Sodium Hydroxide – 1310-73-2	Non-Persistent	3.5 hrs.	Daily	-Bluegill: LC50 9 mg/l/ 48 Hrs. -Mosquitofish: LC50 11 mg/l/ 96 Hrs.	<0.1%	<0.1%
BTW – 90	Boiler Scale Inhibitor	-Water – 7732-18-5 -Sodium Hydroxide – 1310-73-2	Non-Persistent	3.5 hrs.	Daily	-Bluegill: LC50 4 mg/l/ 48 Hrs. -Mosquitofish: LC50 5 mg/l/ 96 Hrs.	<0.1%	<0.1%
Sulfuric Acid 93%	PH Adjuster	-Water – 7732-18-5 -Sulfuric Acid 93% - 7664-93-9	Non-Persistent	1 min.	Daily	-Bluegill (Sunfish): LC50; 48 Hrs.: 49 mg/l (Tap water, 20 deg C) -Flounder: LC50; 48 Hrs.: 100-330 mg/l (Aerated water)	<0.1%	<0.1%
BROMMAX 7.1	Water Treatment Anti-Microbial	-Sulfamic Acid, N-Bromo, Sodium Salt – 1004542-84-0 -Sodium Hydroxide – 1310-73-2	Non-Persistent	30 min.	Two times weekly	No Information Available	<0.1%	<0.1%
CLU-MOL	Closed Loop Inhibitor	-Molybdic Acid Disodium Salt – 10102-40-6 -Disodium Tetra borate Decahydrate – 001303-96-4 -Potassium Hydroxide = 1310-58-3	Non-Persistent	30 min.	Once per month	-Bluegill: LC50 1 mg/l/ 48 Hrs. -Mosquitofish: LC50 1.25 mg/l/ 96 Hrs.	<0.1%	<0.1%
CWT-1100M	Scale Inhibitor	-Water – 7732-18-5 -Sodium Hydroxide – 1310-73-2	Non-Persistent	3.5 hrs.	Daily	-Bluegill: LC50 16 mg/l/ 48 Hrs. -Mosquitofish: LC50 21 mg/l/ 96 Hrs.	<0.1%	<0.1%

SAFETY DATA SHEET

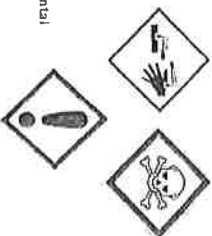
COMPANY IDENTITY: CCI
PRODUCT IDENTITY: ALGARITE 800

SDS DATE: 10/23/2014
REPLACES: 06/09/2012

This Safety Data Sheet conforms to ANSI Z400.5, and to the format requirements and the International Chemical Safety Cards of the Global Harmonizing System.
THIS SDS COMPLEIES WITH CFR 1910.1200 (HAZARD COMMUNICATIONS STANDARD)
IMPORTANT: Read this SDS before handling & disposing of this product.
Pass this information on to employees, customers, & users of this product.

SECTION 1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

PRODUCT IDENTITY: ALGARITE 800
SDS NUMBER: CR4414
COMPANY IDENTITY: CCI CHEMICAL
COMPANY ADDRESS: 3540 EAST 26TH STREET, VERNON, CALIFORNIA 90058
COMPANY PHONE: 800-767-9112
EMERGENCY PHONES: CHEMTREC: 1-800-424-9300 (USA)
CANUTEC: 1-613-996-6666 (CANADA)



SECTION 2. HAZARDS IDENTIFICATION

HAZARD STATEMENTS:

H100s = General, H200s = Physical, H300 = Health, H400s = Environmental
H301+H302 Harmful if swallowed. Toxic if swallowed.
H317 May cause an allergic skin reaction.
H320 Causes eye irritation.
H335 May cause respiratory irritation.

PRECAUTIONARY STATEMENTS:

P100s = General, P200s = Prevention, P300s = Response, P400s = Storage, P500s = Disposal
P262 Do not get in eyes, on skin, or on clothing.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present & easy to do – Continue rinsing.
P309+311 If exposed or you feel unwell: Call a POISON CENTER or doctor/physician.
P403+102 Store locked up. Keep out of reach of children.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

MATERIAL	CAS#	EINECS#	Wt. %
Water	7732-18-5	231-791-2	50
Gluconaldehyde	111-30-8		50

Trace components: Trace ingredients (if any) are present in < 1% concentration (< 0.1% for potential carcinogens, reproductive toxins, respiratory tract irritants, and sensitizers). None of the trace ingredients constitute significant additional hazards at the concentrations that may be present in this product. All pertinent hazard information has been provided in this document, per the requirements of the Federal Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalents, and Canadian Hazardous Materials Identification System Standard (CPR 4).

SECTION 4. FIRST AID MEASURES

EYE CONTACT:

If this product enters the eyes, open eyes while under gently running water. Use sufficient force to open eyelids. Roll eyes to expose more surface. Minimum flushing is for 15 minutes. Seek immediate medical attention.

SKIN CONTACT:

If the product contaminates the skin, immediately begin decontamination with running water. Minimum flushing is for 15 minutes. Remove contaminated clothing, taking care not to contaminate eyes. If skin becomes irritated and irritation persists, medical attention may be necessary. Wash contaminated clothing before reuse, discard contaminated shoes.

INHALATION:

Move person to fresh air, if effects occur, consult a physician.

SWALLOWING:

If swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. If professional advice is not available, give two glasses of water to drink. DO NOT INDUCE VOMITING. Never induce vomiting or give liquids to someone who is unconscious, having convulsions, or unable to swallow. Seek immediate medical attention.

NOTES TO PHYSICIAN:

There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. Any material aspirated during vomiting may cause lung injury. Therefore, emesis should be induced mechanically or pharmacologically, if it is considered necessary to evacuate the stomach contents, this should be done by means least likely to cause aspiration (such as: Gastric lavage after endotracheal intubation).

Victims of chemical exposure must be taken for medical attention. Rescuers should be taken for medical attention, if necessary. Take a copy of the label and SDS to physician or health professional with victim.

SECTION 5. FIRE FIGHTING MEASURES

FIRE & EXPLOSIONS PREVENTIVE MEASURES:

None.

EXTINGUISHING MEDIA:

Water, Water spray, foam, carbon dioxide (CO₂), Dry powder.

SPECIAL FIRE FIGHTING PROCEDURES:

Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

UNUSUAL EXPLOSION AND FIRE PROCEDURES:

None.

FLASH POINT: >100°C (212°F)

AUTOIGNITION TEMPERATURE: N/A

SECTION 6. ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK RESPONSE AND ENVIRONMENTAL PRECAUTIONS:

Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. In case of a spill, clear the affected area, protect people, and respond with trained personnel.

PERSONAL PRECAUTIONS:

Spilled material may cause a slipping hazard. Isolate area. Keep unnecessary and unprotected personnel from entering the area. Use appropriate safety equipment.

ENVIRONMENTAL PRECAUTIONS:

Stop spill at source. Contained temporary dikes of dirt, sand, or any appropriate readily available material to prevent spreading of the material. Close or cap valves and/or block or plug hole in leaking container and transfer to another container. Keep from entering storm sewers and ditches which lead to waterways, and if necessary, call the local fire or police department for immediate emergency assistance.

CONTAINMENT AND CLEAN-UP MEASURES:

Absorb spilled liquid with poly pads or other suitable absorbent materials. Clean up with non-combustible absorbent (such as sand, soil, and so on). Shovel up and place all spill residue in suitable container. Dispose of at an appropriate waste disposal facility according to current applicable laws and regulations and product characteristics at time of disposal (see Section 13- Disposal Considerations).

SECTION 7. HANDLING AND STORAGE

HANDLING:

Product shipped/handled hot can cause thermal burns. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling.

STORAGE:

Freezing will affect the physical condition and may damage the material. Keep in a dry cool place (0-30°C). Keep away from heat and sources of ignition.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

MATERIAL	CAS#	TWA (OSHA)	TLV (ACGIH)
Water	7732-18-5	None Known	None Known
Glutaraldehyde	111-30-8	Not Established	0.2 mg/m ³
MATERIAL	CAS#	CEILING STEL (OSHA/ACGIH)	HAP
Glutaraldehyde	111-30-8	NA	None Known

This product contains no EPA Hazardous Air Pollutants (HAP) in amounts > 0.1%.

RESPIRATORY EXPOSURE CONTROLS:

A respiratory protective program that meets OSHA CFR 1910.134 and ANSI Z86.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

VENTILATION:

LOCAL EXHAUST: Recommended MECHANICAL (General): Recommended

SPECIAL: None OTHER: None
Please refer to ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

PERSONAL PROTECTION:

Wear OSHA Standard full face shield. Consult Safety Equipment Supplier. Wear goggles, face shield, gloves, apron & footwear impervious to material. Wash clothing before reuse.

WORK & HYGIENIC PRACTICES:

Provide readily accessible eye wash stations & safety showers. Wash at the end of each work shift & before eating, smoking or using the toilet. Promptly remove clothing that becomes contaminated. Destroy contaminated leather articles. Launder or discard contaminated clothing.

SECTION 9. PHYSICAL & CHEMICAL PROPERTIES:

APPEARANCE:

ODOR:

ODOR THRESHOLD:

Pa (Neutrality):

MELTING POINT/FREEZING POINT:

BOILING RANGE (DBP 50%, Dry Point):

FLASH POINT (TEST METHOD):

EVAPORATION RATE (n-BUTYL ACETATE=1):

FLAMMABILITY CLASSIFICATION:

LOWER FLAMMABLE LIMIT IN AIR (% by vol):

UPPER FLAMMABLE LIMIT IN AIR (% by vol):

VAPOR PRESSURE (mm of Hg)@20°C:

VAPOR DENSITY (air = 1):

GRAVITY @ 68/68°F / 20/20°C:

SPECIFIC GRAVITY (Water = 1):

POUNDS/GALLON:

WATER SOLUBILITY:

VISCOSITY (mPa·s):

AUTO IGNITION TEMPERATURE:

DECOMPOSITION TEMPERATURE:

Yellow clear liquid

Sharp, fruity, medicinal

Not Available

3.8 (Acidic)

-20°C

>100°C (212°F)

None

Not Applicable

Non-Combustible

Not Applicable

Not Available

0.2

Not Available

1.08-1.10

9.091

Complete

N/A

None

Not Available

SECTION 10. STABILITY & REACTIVITY

STABILITY:

Stable under most conditions.

CONDITIONS TO AVOID:

Isolate from extreme heat, and open flame.

MATERIALS TO AVOID:
Strong acids, strong oxidants.

HAZARDOUS DECOMPOSITION PRODUCTS:
Oxides of carbon.

HAZARDOUS POLYMERIZATION:
Will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

LD50 Oral: 320 mg/kg Rat
LD50 Dermal >2000 mg/kg Rabbit
LC50 Inhalation 0.28 mg/L (4 hours) Rat

CONDITIONS AGGRAVATED:
None Known.

CHRONIC HAZARDS

CHRONIC TOXICITY:
In animals, effects have been reported on the following organs after ingestions: Gastrointestinal tract, heart, and kidney. Does levels producing these effects were many times a strong association between elevated blood pressure and prolonged dietary overuse. Related effects could occur in the kidneys.

CARCINOGENICITY:
This product is not classified as a carcinogen by NTP, IARC or OSHA.

MUTAGENIC DATA:
In vitro genetic toxicity studies were negative.

DEVELOPMENTAL TOXICITY:
Did not cause birth defects or any other fetal effects in laboratory animals.

SECTION 12. ECOLOGICAL INFORMATION

AQUATIC TOXICITY:

This product may be toxic to fish and aquatic organisms. Keep product from entering waterways and water sheds.

48-Hour LC50 in Invertebrates:

Daphnia magna: 10-100 mg/L

96-Hour EC50/LC50 in Invertebrates:

Crassostrea virginica (oyster) 0.75 mg/L

Mysid shrimp 5.5 mg/L

96-Hour LC50 in Fish:

Trou/Sunfish/Skepphead minnow 10-39 mg/L
Golden orfe 10-100 mg/L

Avian Dietary LC50:

Mallard ducks >5000 ppm
Bobwhite quail >5000 ppm

Avian Acute Oral LD50:

Mallard ducks 0.73 mL/kg

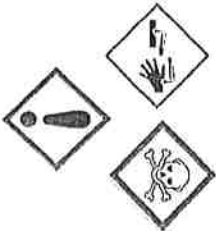
Acute Toxicity in Plants, 72-hr EC50:

Algae 0.1-1.0 mg/L

SECTION 13. DISPOSAL CONSIDERATIONS

Processing, use or contamination may change the waste management options. Recycle / dispose of observing national, regional, state, provincial and local health, safety & pollution laws. If in doubt, contact appropriate agencies.

SECTION 14. TRANSPORT INFORMATION
DOT/IDG SHIP NAME: UN2922, Corrosive Liquid, Toxic, N.O.S. (Gluutaraldehyde), 8, (6.1), PG, III.
DRIUM LABEL: (CORROSIVE)(TOXIC)
IATA / ICAO: UN2922, Corrosive Liquid, Toxic, N.O.S. (Gluutaraldehyde), 8, (6.1), PG, III.
IMO / IMDG: UN2922, Corrosive Liquid, Toxic, N.O.S. (Gluutaraldehyde), 8, (6.1), PG, III.
EMERGENCY RESPONSE GUIDEBOOK NUMBER 154



SECTION 15. REGULATORY INFORMATION

SARA (Superfund Amendments and Reauthorization Act)

SARA 302 Extremely Hazardous Substances List. No components of this product are listed.

SARA 312 Hazard Category

Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard

SARA 313 Toxic Chemical List

No components of this product are present above the de minimus levels.

CERCLA (Comprehensive Environmental Response, Compensation and Liability Act)

No components of this product are present above the de minimus levels.

RCRA (Resource Conservation and Recovery Act) Listed Hazardous Waste

No components of this product are listed.

CWA (Clean Water Act) Listed Substances

No component of this product is listed.

FDA (Food and Drug Administration)

This product is approved under the following FDA (21CFR) sections: 173.320, 174.105, 176.170, 176.180.

176.500 Limitations 176.170, 176.180: For use only as an antimicrobial agent in pigment and filler slurries used in the manufacture of paper and paperboard at levels not to exceed 300 parts per million by weight of the slurry solids. For 173.320: For use as a single additive for beet-sugar mills not more than 250 ppm.

TSCA (Toxic Substances Control Act) Applicability

All components are listed on the TSCA Inventory. Registered pesticides are exempt from the requirements of TSCA.

FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act)

This product is a registered pesticide. EPA Reg. No. 1448-354-65517

HAZARD RATINGS:

HEALTH (NTPA): 3, FLAMMABILITY: 1, PHYSICAL HAZARD: 0

(Personal Protection Rating to be supplied by user based on use conditions.)

This information is intended solely for the use of individuals trained in the NTPA & HMIS hazard rating system.

NOTICE

All information, recommendations, and suggestions appearing herein concerning this product are based upon data obtained from the manufacturer and/or recognized technical sources; however, C.C.I. makes no warranty, representation or guaranty as to the accuracy, sufficiency or completeness of the material set forth herein. It is the user's responsibility to determine the safety, toxicity and suitability of his own use, handling and disposal of the product. Additional product literature may be available upon request. Since actual use by others is beyond our control, no warranty, express or implied is made by C.C.I. as to the effects of such use, the results to be obtained or the safety and toxicity of the product nor does C.C.I. assume any liability arising out of use by others of this product.

Product #: 25768 Name: AQUA AMMONIA 26 DEG (29.4%) Desc: (DOT-SF11836)
From BRENNAC SOUTHWEST INC To Thursday, September 11, 2014

BLENDED CEMENT
 PRODUCT IDENTITY: AQUA AMMONIA 26 DEG EE
 MSNS #: 687967
 NEW MSDS DATE: 03/31/2011
 DATE: 03/31/11
 PAGE 4 OF 5

SECTION 11 TOXICOLOGICAL INFORMATION

MATERIAL	CS #	CEILING	STEL (OSHA/ACGIH)
Water	7792-10-5	TVL (ACGIH)	EAR
Aqua Ammonia	1336-21-6	50 ppm	No

References

dermal
skin reac

eye buds

IRRITATION:
Severe respiratory tract irritation may occur. Vapor harmful.
can cause allergic respiratory or asthma-like reactions.

1 if swallowed.

CONDITIONS AGGRAVATED
Persons with severe skin, liver or kidney problems should avoid use
CHRONIC ILLNESS

carcinogens listed by IARC, NTP, NIOSH,

SECTION 12. ECOLOGICAL INFORMATION:	
PARABULIN INFORMATION:	
MATERIAL	
Aqua ammonia	
CAS #	LOWEST KNOWN LETHAL DOSE DATA
1135-21-0	LOWEST KNOWN LD50 (OPDCL)
	230.0 mg/kg(1825)
	LD50: 6200mg/kg (VAPORS)
1165-21-5	LD50:

969

The most sensitive known aquatic group to any component of this product is Daphnia Pulex 2.4 ppm or mg/L (48 hour exposure).
Keep out of sewers and surface water supplies.
Mobility
This material is a mobile liquid.
DECOMPOSIBILITY
This product is completely biodegradable.

accumulate or biodegrade in the envi-

SECTION 13. DISPOSAL CONSIDERATIONS

IMPORTANT: While Brenntag believes the information contained herein to be accurate, Brenntag makes no representation or warranty, expressed or implied, regarding, and assumes no liability for, the accuracy or completeness of the information. The buyer assumes all responsibility for handling, using and/or reselling the Product in accordance with the applicable federal, state, and local law. The MSDS shall not in any way limit or preclude the applicability and effect of any of the provisions of Brenntag's terms and conditions of sale.

Trace components: Trace impurities (if any) are present in < 1% concentration, (< 0.1% for potential carcinogens, reproductive toxins, respiratory tract mutagens, and sensitizers). None of the trace ingredients contribute significant **Additional hazards** at the concentrations that may be present in this product. All pertinent hazard information has been provided in this document, per the requirements of the Federal Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalents, and Canadian Hazardous Materials Identification System Standard (COR 4).

SECTION 4. FIRST AID MEASURES

EYE CONTACT:

If this product enters the eyes, open eyes while under gently running water. Use sufficient force to open eyelids. Roll eyes to expose more surface. Minimum flushing is for 15 minutes. Seek immediate medical attention.

SKIN CONTACT:

If the product contaminates the skin, immediately begin decontamination with running water. Minimum flushing is for 15 minutes. Remove contaminated clothing, taking care not to contaminate eyes. If skin becomes irritated and irritation persists, medical attention may be necessary. Wash contaminated clothing before reuse, discard contaminated shoes.

INHALATION:

After high vapor exposure, remove to fresh air. If it is suspected that the fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Keep person warm and at rest, breathing is difficult, give oxygen. If breathing has stopped, trained personnel should immediately begin artificial respiration. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim has stopped, trained personnel should immediately begin cardiopulmonary resuscitation (CPR). Seek immediate medical attention. In case of inhalation of decontamination products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

SWALLOWING:

If swallowed, **CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION**. If professional advice is not available, give two glasses of water to drink. **DO NOT INDUCE VOMITING**. Never induce vomiting or give liquids to someone who is unconscious, having convulsions, or unable to swallow. Seek immediate medical attention.

NOTES TO PHYSICIAN:

There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. Any material aspirated during vomiting may cause lung injury. Therefore, emesis should be induced mechanically or pharmacologically. If it is considered necessary to evacuate the stomach contents, this should be done by means least likely to cause aspiration (such as: Gastric lavage after endotracheal intubation).

Victims of chemical exposure must be taken for medical attention. Rescuers should be taken for medical attention, if necessary. Take a copy of the label and SDS to physician or health professional with victim.

SECTION 5. FIRE FIGHTING MEASURES

FIRE & EXPLOSIONS PREVENTIVE MEASURES:

Isolate from extreme heat and open flame.

EXTINGUISHING MEDIA:

In case of fire in surroundings, all extinguishing agents allowed. Contact with acids gives off hydrogen sulfide, a toxic and flammable gas that may form explosive mixtures in air.

SPECIAL FIRE FIGHTING PROCEDURES:

Water spray may be ineffective on fire but can protect fire-fighters & cool closed containers. Use fog nozzles if water is used. Do not enter confined fire-space without full bunker gear (helmet with face shield, bunker coats, gloves & rubber boots). Use NIOSH approved positive-pressure self-contained breathing apparatus.

UNUSUAL EXPLOSION AND FIRE PROCEDURES:

Noncombustible.

Isolate from acids.

Closed containers may explode if exposed to extreme heat.

Applying to hot surfaces requires special precautions.

SECTION 6. ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK RESPONSE AND ENVIRONMENTAL PRECAUTIONS:

Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. In case of a spill, clear the affected area, protect people, and respond with trained personnel.

PERSONAL PROTECTIVE EQUIPMENT:

The proper protective equipment for incidental releases (such as: 1. Liter of the product released in a well-ventilated area), use impermeable gloves (nitrile-gloves, rubber gloves and nitrile gloves, over latex gloves), goggles, face shield, and appropriate body protection. In the event of a large release, use impermeable gloves, specialized for the material handled, chemically resistant suit and boots, and hard hat. Self-Contained Breathing Apparatus or respirator may be required where engineering controls are not adequate or conditions for potential exposure exist. When respirators are required, select NIOSH/MSHA approved based on actual or potential airborne concentrations in accordance with latest OSHA and/or ANSI recommendations.

ENVIRONMENTAL PRECAUTIONS:

Stop spill at source. Construct temporary dikes of dirt, sand, or any appropriate readily available material to prevent spreading of the material. Close or cap valves and/or block or plug hole in leaking container and transfer to another container. Keep from entering storm sewers and ditches which lead to waterways, and if necessary, call the local fire or police department for immediate emergency assistance.

CONTAINMENT AND CLEAN-UP MEASURES:

Absorb spilled liquid with poly pads or other suitable absorbent materials. If necessary, neutralize using suitable buffering material (acid with soda ash or base with phosphoric acid), and test area with litmus paper to confirm neutralization. Clean up with non-combustible absorbent (such as: sand, soil, and so on). Shovel up and place all spill residue in suitable containers. Dispose of at an appropriate waste disposal facility according to current applicable laws and regulations and product characteristics at time of disposal (see Section 13: Disposal Considerations).

SECTION 7. HANDLING AND STORAGE

HANDLING:

Use only with adequate ventilation. Do not get in eyes, on skin or clothing. Wear OSHA Standard full face shield, Consult Safety Equipment Supplier. Wear goggles, face shield, gloves, apron & footwear impervious to material. Wash clothing before reuse.

STORAGE:

Keep separated from strong oxidants, strong acids, metals, food & feedstuffs. Keep dry. Do not store above 49 C(120 F. Keep container tightly closed & upright when not in use to prevent leakage. Wear full face shield, gloves & full protective clothing when opening or handling. When empty, drain completely; replace bungs securely.

NONBULK CONTAINERS:

Store containers in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Material should be stored in a secondary containers or in a diked area, as appropriate. Store containers away from incompatible chemicals (see section 10, Stability and Reactivity). Post warning and "NO SMOKING" signs in storage, and use areas, as appropriate. Empty containers should be handle with care. Never store food, feed, Or drinking water in containers which held this product.

BULK CONTAINERS:

All tanks and pipelines which contain this material must be labeled. Perform routine maintenance on tanks or pipelines which contain this product. Report all leaks immediately to the proper personnel.

TANK CAR SHIPMENTS:

Tank cars carrying this product should be loaded and unloaded in strict accordance with tank-car manufacturers Recommendations and all established on-site safety procedures. Appropriate personal protective equipment must be used (see Section 8, Engineering Controls and Personal Protective Equipment). All loading and unloading equipment must be inspected, prior to each use. Loading and unloading operations must be attended, at all times. Tank cars must be verified to be correct for receiving this product and be properly prepared, prior to starting the transfer operations. Hoses must be verified to be in the correct positions, before starting transfer operations. A sample (if required) must be taken and verified prior to starting transfer operations. All lines must be blown-down and purged before disconnecting them from the tank car vessel.

PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT:

Follow practices indicated in section 6 (Accidental Release Measures). Make sure certain application equipment is locked and tagged-out safely. Always use this product in areas where adequate ventilations is provided. Collect all fumes and dispose of according to applicable Federal, State, Provincial, or local procedures.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

MATERIAL	CAS#	ELINECS#	TWA (OSHA)	TLV (ACGIH)
Sodium hydroxide	1310-73-2	215-185-5	None Known	None Known
Water	7732-18-15	231-791-2	None Known	None Known

MATERIAL	CAS#	ELINECS#	CEILING	STEL (OSHA/ACGIH)	HAP
Sodium Hydroxide	1310-73-2	215-185-5	2 ppm	None Known	Yes

This product contains no EPA Hazardous Air Pollutants (HAP) in amounts > 0.1%.

RESPIRATORY EXPOSURE CONTROLS:

A respiratory protective program that meets OSHA CFR 1910.134 and ANSI Z86.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

VENTILATION:

LOCAL EXHAUST: Necessary
SPECIAL: None
OTHER: None
Please refer to ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

PERSONAL PROTECTION:

Wear OSHA Standard full face shield. Consult Safety Equipment Supplier. Wear goggles, face shield, gloves, apron & footwear impervious to material. Wash clothing before reuse.

WORK & HYGIENIC PRACTICES:

Provide readily accessible eye wash stations & safety showers. Wash at the end of each work shift & before eating, smoking or using the toilet. Promptly remove clothing that becomes contaminated. Destroy contaminated leather articles. Launder or discard contaminated clothing.

SECTION 9. PHYSICAL & CHEMICAL PROPERTIES:

APPEARANCE:	Water clear liquid
ODOR:	Mild odor
ODOR THRESHOLD:	Not Available
pH (1% Solution):	10-12
MELTING POINT/FREEZING POINT:	Not Available
BOILING RANGE (IBP, 50%, Dry Point):	Not Applicable
FLASH POINT (TEST METHOD):	Not Applicable
EVAPORATION RATE (n-BUTYL ACETATE=1):	Not Applicable
FLAMMABILITY CLASSIFICATION:	Non-Combustible
LOWER FLAMMABLE LIMIT IN AIR (% by vol):	Not Applicable
UPPER FLAMMABLE LIMIT IN AIR (% by vol):	Not Available
VAPOR PRESSURE (mm of Hg@20 C):	N/A
VAPOR DENSITY (air = 1):	N/A
GRAVITY @ 68/68F /20/20C:	1.25-1.28
SPECIFIC GRAVITY (Water = 1):	10.42-10.67
POUNDS/GALLON:	Complete
WATER SOLUBILITY:	Not Available
PARTITION COEFFICIENT (n-Octanol/Water):	Not Applicable
AUTO IGNITION TEMPERATURE:	Not Applicable
DECOMPOSITION TEMPERATURE:	Not Available

SECTION 10. STABILITY & REACTIVITY

STABILITY:

Stable under most conditions.

CONDITIONS TO AVOID:

Isolate from extreme heat, and open flame.

MATERIALS TO AVOID:

The substance is a strong base, reacts violently with acids and is corrosive. Reacts violently with strong acids.

HAZARDOUS DECOMPOSITION PRODUCTS:

Hydrogen Sulfide.

HAZARDOUS POLYMERIZATION:

Will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

ACUTE HAZARDS

EYE & SKIN CONTACT:

Severe burns to skin, dermatitis.

Severe burns to eyes, redness, tearing, and blurred vision.

Liquids can cause severe skin & eye burns. Wash thoroughly after handling.

INHALATION:

Severe respiratory tract irritation may occur. Vapor harmful.

The applicable occupational exposure limit value should not be exceeded during any part of working exposure.

SWALLOWING:

Harmful or fatal if swallowed.

SUBCHRONIC HAZARDS/CONDITIONS AGGRAVATED

CONDITIONS AGGRAVATED:

None Known.

CHRONIC HAZARDS

CANCER, REPRODUCTIVE & OTHER CHRONIC HAZARDS:

This product has no carcinogens listed by IARC, NTP, NIOSH, OSHA or ACGIH, as of this date.

Greater or equal to 0.1%.

IRRITANCY OF PRODUCT: This product is irritating to contaminated tissue.

SENSITIZATION TO THE PRODUCT: No component of this product is known to be a sensitizer.

MUTAGENICITY: This product is not reported to produce mutagenic effects in humans.

EMBRYOTOXICITY: This product is not reported to produce embryotoxic effects in humans.

TERATOGENICITY: This product is not reported to produce teratogenic effects in humans.

REPRODUCTIVE TOXICITY: This product is not reported to cause reproductive effects in humans.

A **mutagen** is a chemical which causes permanent changes to genetic material (DNA) such that the changes will propagate through generational lines. An **embryotoxin** is a chemical which causes damage to developing embryo (such as within the eight weeks of pregnancy in humans), but the damage does not propagate across generational lines. A **teratogen** is a chemical which causes damage to a developing fetus, but the damage does not propagate across generational lines. A **reproductive toxin** is any substance which interferes in any way with the reproductive process.

MAMMALIAN TOXICITY INFORMATION

TOXICITY DATA: Toxicology information for components > 1% concentration is given below:

SODIUM HYDROXIDE:

Eye irritation (monkey): 1%, 24 hours (severe)

Eye irritation (rabbit): 500 mL, 24 hours (severe)

Eye irritation (rabbit): 1% solution (severe)

Eye irritation (rabbit): 1 mg, 24 hours (severe)

Oxygenic analysis system (grasshopper parrotlet): 20 mg

LD50 (interperoneal, mouse): 40 mg/kg

LD50 (oral, rabbit): 500 mg/Kg

LD50 – Dose that is lethal to 50% of a given species by a given route of exposure.

LC50 – Air concentration that is lethal to 50% of a given species in a given period of time.

LDLO – Lowest lethal dose in a given species by a given route of exposure.

SECTION 12. ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

EFFECT OF MATERIAL ON PLANTS AND ANIMALS:

This product may be harmful or fatal to plant and animal life if released into the environment.

Refer to section 11 (Toxicological Information) for further data on the effects of this product's components on test animals.

EFFECT OF MATERIAL ON AQUATIC LIFE:

SODIUM HYDROXIDE:

LC100 (Cyprinus carpio): 180 ppm/24 hours 25 C

T1m (mosquito fish): 125 ppm/96 hour (fresh water)

T1m (bluegill): 99 mg/L/48 hour (tap water)

MOBILITY IN SOIL:

Mobility of this material has not been determined.

DEGRADABILITY:

This product is completely biodegradable.

ACCUMULATION:

Bioaccumulation of this product has not been determined.

SECTION 13. DISPOSAL CONSIDERATIONS

Processing, use or contamination may change the waste management options. Recycle / dispose of observing national, regional, state, provincial and local health, safety & pollution laws. If in doubt, contact appropriate agencies.

SECTION 14. TRANSPORT INFORMATION

DOT/DTG SHIP NAME: UN1824, Sodium hydroxide solution, 8, PG-II
 DRUM LABEL: (CORROSIVE)
 IATA / ICAO: UN1824, Sodium hydroxide solution, 8, PG-II
 IMO / IMDG: UN1824, Sodium hydroxide solution, 8, PG-II
 EMERGENCY RESPONSE GUIDEBOOK NUMBER 154



SECTION 15. REGULATORY INFORMATION

EPA REGULATIONS:

SARA SECTION 311/312 HAZARDS: Acute Health

ALL components of this product are on the TSCA list

SARA Title III Section 313 Supplier Notification

This product contains the indicated < * > toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning & Community Right-To-Know Act of 1986 & of 40 CFR 372.
 This information must be included in all MSDSs that are copied and distributed for this material.

SARA TITLE III INGREDIENTS	CAS#	ELINECS#	(REGSECTION)	RQ (LBS)
Sodium Hydroxide	1310-73-2	215-185-5	(311,312)	1000

Any release equal to or exceeding the RQ must be reported to the National Response Center (800-424-8802) and appropriate state and local regulatory agencies as described in 40 CFR 302.6 and 40 CFR 355.40 respectively.
 Failure to report may result in substantial civil and criminal penalties. State & local regulations may be more restrictive than federal regulations.

STATE REGULATIONS:

CALIFORNIA SAFE DRINKING WATER & TOXIC ENFORCEMENT ACT (PROPOSITION 65):

This product contains no chemicals known to the State of California to cause cancer or reproductive toxicity.

INTERNATIONAL REGULATIONS:

The components of this product are listed on the chemical inventories of the following countries:
 Australia (AICS), Canada (DSL/NDSL), China (EINECS/ELINCS), Japan (METI/CSCL,
 MEL/WSHL), South Korea (KECI), New Zealand (NZIOCI), Philippines (PICCS), Switzerland (SWISS), Taiwan
 (NECSI), USA (TSCA).

CANADA: WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)

D2B: Irritating to skin / eyes.

E: Corrosive Material.

SECTION 16. OTHER INFORMATION

HAZARD RATINGS:

HEALTH (NTPA): 2, HEALTH (HMIS): 2, FLAMMABILITY: 0, PHYSICAL HAZARD: 1

(Personal Protection Rating to be supplied by user based on use conditions).

This information is intended solely for the use of individuals trained in the NTPA & HMIS hazard rating system.

EMPLOYEE TRAINING:

See Section 2 for Risk & Safety Statements. Employees should be made aware of all hazards of this material (as stated in this SDS) before handling it.

NOTICE

All information, recommendations, and suggestions appearing herein concerning this product are based upon data obtained from the manufacturer and/or recognized technical sources; however, C.C.I. makes no warranty, representation or guaranty as to the accuracy, sufficiency or completeness of the material set forth herein. It is the user's responsibility to determine the safety, toxicity and suitability of his own use, handling and disposal of the product. Additional product literature may be available upon request. Since actual use by others is beyond our control, no warranty, express or implied is made by C.C.I. as to the effects of such use, the results to be obtained or the safety and toxicity of the product nor does C.C.I. assume any liability arising out of use by others of this product.

SAFETY DATA SHEET

COMPANY IDENTITY: CCI
PRODUCT IDENTITY: BWT-50

SDS DATE: 01/22/2014
REPLACES: 11/07/2011

This Safety Data Sheet conforms to ANSI Z400.3, and to the format requirements and the International Chemical Safety Cards of the Global Harmonizing System.
THIS SDS COMPLEIES WITH CFR 1910.1200 (HAZARD COMMUNICATIONS STANDARD)
IMPORTANT: Read this SDS before handling & disposing of this product.
Pass this information on to employees, customers, & users of this product.

SECTION 1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

PRODUCT IDENTITY: BWT-90
SDS NUMBER: CRS6
COMPANY IDENTITY: CCI CHEMICAL
COMPANY ADDRESS: 3340 EAST 26TH STREET, VERNON, CALIFORNIA 90058
COMPANY PHONE: 800-67-9112
EMERGENCY PHONES: CHEMTREC: 1-800-424-9300 (USA)
CANUTEC: 1-613-996-6666 (CANADA)

SECTION 2. HAZARDS IDENTIFICATION

HAZARD 1:1



EXPOSURE PREVENTION: AVOID ALL CONTACT

HAZARD STATEMENTS:

H100s = General, H200s = Physical, H300 = Health, H400s = Environmental
H290
H314
Causes severe skin burns and eye damage.

PRECAUTIONARY STATEMENTS:

P100s = General, P200s = Prevention, P300s = Response, P400s = Storage, P500s = Disposal
P262
Do not get in eyes, on skin, or on clothing.
P280
Wear protective gloves/protective clothing/eye protection/face protection.
P303+P31+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present & easy to do – Continue rinsing.
P309+P311 If exposed or you feel unwell: Call a POISON CENTER or doctor/physician.
P405+P102 Store locked up. Keep out of reach of children.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

MATERIAL	CAS#	EINECS#
Sodium Hydroxide	1310-73-2	215-185-5
Water	7732-18-5	231-791-2

Trace components: Trace ingredients (if any) are present in < 1% concentration, (< 0.1% for potential carcinogens, reproductive toxins, respiratory tract irritants, and sensitizers). None of the trace ingredients contribute significant additional hazards at the concentrations that may be present in this product. All pertinent hazard information has been provided in this document, per the requirements of the Federal Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalents, and Canadian Hazardous Materials Identification System Standard (CPR 4).

SECTION 4. FIRST AID MEASURES

EYE CONTACT:

If this product enters the eyes, open eyes gently under gently running water. Use sufficient force to open eyelids. Roll eyes to expose more surface. Minimum flushing is for 15 minutes. Seek immediate medical attention.

SKIN CONTACT:

If the product contaminates the skin, immediately begin decontamination with running water. Minimum flushing is for 15 minutes. Remove contaminated clothing, taking care not to contaminate eyes. If skin becomes irritated and irritation persists, medical attention may be necessary. Wash contaminated clothing before reuse, discard contaminated shoes.

INHALATION:

After high vapor exposure, remove to fresh air. If it is suspected that the fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Keep person warm and at rest; breathing is difficult, give oxygen. If breathing has stopped, trained personnel should immediately begin artificial respiration. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. If the heart has stopped, trained personnel should immediately begin cardiopulmonary resuscitation (CPR). Seek immediate medical attention. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

SWALLOWING:

If swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. If professional advice is not available, give two glasses of water to drink. DO NOT INDUCE VOMITING. Never induce vomiting or give liquids to someone who is unconscious, having convulsions, or unable to swallow. Seek immediate medical attention.

NOTES TO PHYSICIAN:

There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. Any material aspirated during vomiting may cause lung injury. Therefore, emesis should be induced mechanically or pharmacologically. If it is considered necessary to evaluate the stomach contents, this should be done by means least likely to cause aspiration (such as: Gastric lavage after endotracheal intubation).

Victims of chemical exposure must be taken for medical attention. Rescuers should be taken for medical attention, if necessary. Take a copy of the label and SDS to physician or health professional with victim.

SECTION 5. FIRE FIGHTING MEASURES

FIRE & EXPLOSIONS PREVENTIVE MEASURES:

Isolate from extreme heat and open flame.

EXTINGUISHING MEDIA:

In case of fire in surroundings, all extinguishing agents allowed. Contact with acids gives off hydrogen sulfide, a toxic and flammable gas that may form explosive mixtures in air.

SPECIAL FIRE FIGHTING PROCEDURES:

Water spray may be ineffective on fire but can protect fire-fighters & cool closed containers. Use fire nozzle if water is used. Do not enter confined fire-space without full bunker gear. (Helmet with face shield, bunker coat, gloves & rubber boots). Use NIOSH approved positive-pressure self-contained breathing apparatus.

UNUSUAL EXPLOSION AND FIRE PROCEDURES:

Noncombustible.
Isolate from acids.
Closed containers may explode if exposed to extreme heat.
Applying to hot surfaces requires special precautions.

SECTION 6. ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK RESPONSE AND ENVIRONMENTAL PRECAUTIONS:

Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. In case of a spill, clear the affected area, protect people, and respond with trained personnel.

PERSONAL PROTECTIVE EQUIPMENT:

The proper protective equipment for incidental releases (such as: 1 liter of the product released in a well-ventilated area), use impermeable gloves (nitrile-gloves, rubber gloves and nitrile gloves, over latex gloves), goggles, face shield, and appropriate body protection. In the event of a large release, use impermeable gloves, specific for the material handled, chemically resistant suit and boots, and hard hat. Self-Contained Breathing Apparatus or respirator may be required where engineering controls are not adequate or conditions for potential exposure exist. When respirators are required, select NIOSH/MSHA approved based on actual or potential airborne concentrations in accordance with latest OSHA and/or A NSI recommendations.

ENVIRONMENTAL PRECAUTIONS:

Stop spill at source. Construct temporary dikes of dirt, sand, or any appropriate readily available material to prevent spreading of the material. Close or cap valves and/or block or plug hole in leaking container and transfer to another container. Keep from entering storm sewers and ditches which lead to waterways, and if necessary, call the local fire or police department for immediate emergency assistance.

CONTAINMENT AND CLEAN-UP MEASURES:

Absorb spilled liquid with poly pads or other suitable absorbent materials. If necessary, neutralize using suitable buffering material, faced with soda ash or base with phosphoric acid), and test area with litmus paper to confirm neutralization. Clean up with non-combustible absorbent (such as: sand, soil, and so on). Shovel up and place all spill residue in suitable containers. Dispose of at an appropriate waste disposal facility according to current applicable laws and regulations and product characteristics at time of disposal (see Section 13: Disposal Considerations).

SECTION 7. HANDLING AND STORAGE

HANDLING:

Use only with adequate ventilation. Do not get in eyes, on skin or clothing. Wear OSHA Standard full face shield. Consult Safety Equipment Supplier. Wear goggles, face shield, gloves, apron & footwear impervious to material. Wash clothing before reuse. NEVER pour water into this substance. When dissolving or diluting, always add it slowly to the water.

STORAGE:

Keep separated from strong oxidants, strong acids, metals, food & feedstuffs. Keep dry. Do not store above 49 C/120 F. Keep container tightly closed & upright when not in use to prevent leakage. Wear full face shield, gloves & full protective clothing when opening or handling. When empty, drain completely, replace bungs securely.

NONBULK: CONTAINERS:

Store containers in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Material should be stored in a secondary containers or in a fliked area, as appropriate. Store containers away from incompatible chemicals (see section 10, Stability and Reactivity). Post warning and "NO SMOKING" signs in storage and use areas, as appropriate. Empty containers should be handle with care. Never store food, feed, or drinking water in containers which held this product.

BULK CONTAINERS:

All tanks and pipelines which contain this material must be labeled. Perform routine maintenance on tanks or pipelines which contain this product. Report all leaks immediately to the proper personnel.

TANK CAR SHIPMENTS:

Tank cars carrying this product should be loaded and unloaded in strict accordance with tank-car manufacturer's Recommendations and all established on-site safety procedures. Appropriate personal protective equipment must be used (see Section 8: Engineering Controls and Personal Protective Equipment). All loading and unloading equipment must be inspected, prior to each use. Loading and unloading operations must be attended, at all times. Tank cars must be verified to be correct for receiving this product and be properly prepared, prior to starting the transfer operations. Hoses must be verified to be in the correct positions before starting transfer operations. A sample (if required) must be taken and verified prior to starting transfer operations. All lines must be blown-down and purged before disconnecting them from the tank car vessel.

PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT:

Follow practices indicated in section 6 (Accidental Release Measures). Make sure certain application equipment is locked and tagged-out safely. Always use this product in areas where adequate ventilations is provided. Collect all) tissues and dispose of according to applicable Federal, State, Provincial, or local procedures.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

MATERIAL	CAS#	ELINECS#	TWA (OSHA)	TLV (ACGIH)
Sodium hydroxide	1310-73-2	215-183-5	None Known	None Known
Water	7732-18-15	231-791-2	None Known	None Known

MATERIAL	CAS#	ELINECS#	CEILING STEL (OSHA/ACGIH)	HAP
Sodium Hydroxide	1310-73-2	215-183-5	2 ppm	None Known

This product contains no EPA Hazardous Air Pollutants (HAP) in amounts > 0.1%.

RESPIRATORY EXPOSURE CONTROLS:

A respiratory protective program that meets OSHA CFR 1910.134 and ANSI Z86.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

VENTILATION:	Necessary	MECHANICAL (General):	Necessary
LOCAL EXHAUST:	None	OTHER:	None
SPECIAL:	None		

Please refer to ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

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PERSONAL PROTECTION:

Wear OSHA Standard full face shield. Consult Safety Equipment Supplier. Wear goggles, face shield, gloves, apron & footwear impervious to material. Wash clothing before reuse.

WORK & HYGIENE PRACTICES:

Provide readily accessible eye wash stations & safety showers. Wash at the end of each work shift & before eating, smoking or using the toilet. Promptly remove clothing that becomes contaminated. Destroy contaminated leather articles, launder or discard contaminated clothing.

SECTION 9. PHYSICAL & CHEMICAL PROPERTIES:

APPEARANCE:	Water clear liquid
ODOR:	Mild odor
ODOR THRESHOLD:	Not Available
pH (neat):	12-13
MELTING POINT/FREEZING POINT:	Not Available
BOILING RANGE (IBP 50%DRY Point):	Not Applicable
FLASH POINT (TEST METHOD):	Not Applicable
EVAPORATION RATE (n-BUTYL ACETATE=1):	Not Applicable
FLAMMABILITY CLASSIFICATION:	Non-Combustible
LOWER FLAMMABLE LIMIT IN AIR (% by vol):	Not Applicable
UPPER FLAMMABLE LIMIT IN AIR (% by vol):	Not Available
VAPOR PRESSURE (mm of Hg@20 C:	N/A
VAPOR DENSITY (air = 1):	N/A
GRAVITY @ 68/68F / 20/20C:	1.31
SPECIFIC GRAVITY (Water = 1):	10.9254
POUNDS/GALLON:	Complete
WATER SOLUBILITY:	Not Available
PARTITION COEFFICIENT (n-Octanol/Water):	Not Applicable
AUTO IGNITION TEMPERATURE:	Not Applicable
DECOMPOSITION TEMPERATURE:	Not Available

SECTION 10. STABILITY & REACTIVITY

STABILITY:

Stable under most conditions.

CONDITIONS TO AVOID:

Isolate from extreme heat, and open flame.

MATERIALS TO AVOID:

The alkylamine is a strong base, reacts violently with acids and is corrosive. Reacts violently with strong acids, causing fire & explosion hazard. Attacks many plastics, rubber, coatings, many metals, such as aluminum, zinc, tin, & lead, forming flammable/explosive gas (hydrogen). Reacts with ammonium salts to produce ammonia & causing fire hazard. Rapidly absorbs carbon dioxide & water from the air. Contact with moisture will generate heat.

HAZARDOUS DECOMPOSITION PRODUCTS:

Hydrogen Sulfide.

HAZARDOUS POLYMERIZATION:

Will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

ACUTE HAZARDS

EYE & SKIN CONTACT:

Severe burns to skin, deslting, dermatitis. Severe burns to eyes, redness, tearing, blurred vision. Liquid can cause severe skin & eye burns. Wash thoroughly after handling.

INHALATION:

Severe respiratory tract irritation may occur. Vapor harmful. The applicable occupational exposure limit value should not be exceeded during any part of working exposure.

SWALLOWING:

Harmful or fatal if swallowed.

SUBCHRONIC HAZARDS/CONDITIONS AGGRAVATED

CONDITIONS AGGRAVATED:

None Known.

CHRONIC HAZARDS

CANCER, REPRODUCTIVE & OTHER CHRONIC HAZARDS:

This product has no carcinogens listed by IARC, NTP, NIOSH, OSHA or ACGIH, as of this date Greater or equal to 0.1%.

IRITANCY OF PRODUCT: This product is irritating to contaminated tissue.

SENSITIZATION TO THE PRODUCT: No component of this product is known to be a sensitizer.

MUTAGENICITY: This product is not reported to produce mutagenic effects in humans.

EMBRYOTOXICITY: This product is not reported to produce embryotoxic effects in humans.

TERATOGENICITY: This product is not reported to produce teratogenic effects in humans.

REPRODUCTIVE TOXICITY: This product is not reported to cause reproductive effects in humans.

A mutagen is a chemical which causes permanent changes to genetic material (DNA) such that the changes will propagate through generational lines. An embryotoxin is a chemical which causes damage to developing embryo (such as within the eight weeks of pregnancy in humans), but the damage does not propagate across generational lines. A teratogen is a chemical which causes damage to a developing fetus, but the damage does not propagate across generational lines. A reproductive toxin is any substance which interferes in any way with the reproductive process.

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MAMMALIAN TOXICITY INFORMATION

TOXICITY DATA: Toxicology information for components > 1% concentration is given below:

SODIUM HYDROXIDE:	
Eye irritation (monkey):	1%, 24 hours (severe)
Eye irritation (rabbit):	500 ml, 24 hours (severe)
Eye irritation (rabbit):	1% solution (severe)
Eye irritation (rabbit):	1 mg, 24 hours (severe)
Cytogenic analysis system	(grashopper paracental): 20 mg
LD50 (interperonal, mouse):	40 mg/kg
LD50 (oral, rabbit):	500 mg/kg

LD50 – Dose that is lethal to 50% of a given species by a given route of exposure.
LC50 – Air concentration that is lethal to 50% of a given species in a given period of time.
LDLO –lowest lethal dose in a given species by a given route of exposure.

SECTION 12. ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIVED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

EFFECT OF MATERIAL ON PLANTS AND ANIMALS:

This product may be harmful or fatal to plant and animal life if released into the environment.
Refer to section 1) (Toxicological Information) for further data on the effects of this product's components on test animals.

EFFECT OF MATERIAL ON AQUATIC LIFE:

SODIUM HYDROXIDE:	
LC100 (Cyprinus carpio):	180 ppm/24 hours 25 C
TLm (mosquito fish):	125 ppm/96 hour (fresh water)
TLm (bluegill):	99 mg/L/48 hour (tap water)

MOBILITY IN SOIL:

Mobility of this material has not been determined.

DEGRADABILITY:

This product is completely biodegradable.

ACCUMULATION:

Bioaccumulation of this product has not been determined.

SECTION 13. DISPOSAL CONSIDERATIONS

Processing, use or contamination may change the waste management options. Recycle / dispose of observing national, regional, state, provincial and local health, safety & pollution laws. If in doubt, contact appropriate agencies.

SECTION 14. TRANSPORT INFORMATION

DOT/DO SHIP NAME: UN1760, Corrosive Liquid, N.O.S. (Contains Sodium hydroxide), 8, PG-III
DRUM LABEL: (CORROSIVE)
IATA / ICAO: UN1760, Corrosive Liquid, N.O.S. (Contains Sodium hydroxide), 8, PG-III
IMO / IMDG: UN1760, Corrosive Liquid, N.O.S. (Contains Sodium hydroxide), 8, PG-III
EMERGENCY RESPONSE GUIDEBOOK NUMBER: 154

SECTION 15. REGULATORY INFORMATION

EPA REGULATIONS:

SARA SECTION 311/312 HAZARDS: Acute Health

ALL components of this product are on the TSCA list.

SARA Title III Section 313 Supplier Notification

This product contains the indicated < * > toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning & Community Right-To-Know Act of 1986 & of 40 CFR 372.

This information must be included in all MSDSs that are copied and distributed for this material.

SARA TITLE III INGREDIENTS

CAS#	EINECS#	(REGSECTION)	RQ (LBS)
Sodium Hydroxide	215-185-5	(311,312)	1000

Any release equal to or exceeding the RQ must be reported to the National Response Center (800-424-8802) and appropriate state and local regulatory agencies as described in 40 CFR 302.6 and 40 CFR 335.40 respectively.
Failure to report may result in substantial civil and criminal penalties. State & local regulations may be more restrictive than federal regulations.

STATE REGULATIONS:

CALIFORNIA SAFE DRINKING WATER & TOXIC ENFORCEMENT ACT (PROPOSITION 65):

This product contains no chemicals known to the State of California to cause cancer or reproductive toxicity.

INTERNATIONAL REGULATIONS:

The components of this product are listed on the chemical inventories of the following countries:
Australia (AICS), Canada (DSL/NDSD), China (IECCS), Europe (EINECS,ELINCS), Japan (MET/CSCL, MHL/WSHL), South Korea (KECI), New Zealand (NZIOCI), Philippines (PICCS), Switzerland (SWSIS), Taiwan (NECSI), USA (TSCA).

CANADA: WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)

D2B: Irritating to skin/ eyes

E: Corrosive Material.

SECTION 16. OTHER INFORMATION

HAZARD RATINGS:

HEALTH (NFPAP): 3, HEALTH (HMIS): 3, FLAMMABILITY: 0, PHYSICAL HAZARD: 2

(Personal Protection Rating to be supplied by user based on use conditions)

This information is intended solely for the use of individuals trained in the NFPA & HMIS hazard rating system.

EMPLOYEE TRAINING:

See Section 2 for Risk & Safety Statements. Employees should be made aware of all hazards of this material (as stated in this SDS) before handling it.



SAFETY DATA SHEET

COMPANY IDENTITY: CCI
PRODUCT IDENTITY: SULFURIC ACID 93%

SDS DATE: 06/20/2013
REPLACES: 03/05/2012

This Safety Data Sheet conforms to ANSI Z400.5, and to the format requirements and the International Chemical Safety Cards of the Global Harmonizing System.
THIS SDS COMPLEIES WITH CFR 1910.1200 (HAZARD COMMUNICATIONS STANDARD)
IMPORTANT: Read this SDS before handling & disposing of this product.
Pass this information on to employees, customers, & users of this product.

SECTION 1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

PRODUCT IDENTITY: SULFURIC ACID 93%
SDS NUMBER: CCI1900
COMPANY IDENTITY: CCI CHEMICAL
COMPANY ADDRESS: 3540 EAST 26th STREET, VERNON, CALIFORNIA 90058
COMPANY PHONE: 800-767-9112
EMERGENCY PHONES: CHEMTREC: 1-800-424-9300 (USA)
CANUTEC: 1-613-996-6666 (CANADA)

SECTION 2. HAZARDS IDENTIFICATION

DANGER !!



EXPOSURE PREVENTION: AVOID ALL CONTACT !

HAZARD STATEMENTS:

H100s = General, H200s = Physical, H300 = Health, H400s = Environmental
H290 May be corrosive to metals.
H304 May be fatal if swallowed.
H314 Causes severe skin burns and eye damage.

PRECAUTIONARY STATEMENTS:

P100s = General, P200s = Prevention, P300s = Response, P400s = Storage, P500s = Disposal
P262 Do not get in eyes, on skin, or on clothing.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present & easy to do – Continue rinsing.
P309+P311 If exposed or you feel unwell: Call a POISON CENTER or doctor/physician.
P403+P102 Store locked up. Keep out of reach of children.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

MATERIAL	CAS#	EINECS#	WT %
Sulfuric Acid 93%	7664-93-9	231-639-5	93-94
Water	7732-18-5	231-791-2	6-7

ALL information, recommendations, and suggestions appearing herein concerning this product are based upon data obtained from the manufacturer and/or recognized technical sources. However, C.C.I. makes no warranty, representation or guaranty as to the accuracy, sufficiency or completeness of the material set forth herein. It is the user's responsibility to determine the safety, toxicity and suitability of his own use, handling and disposal of the product. Additional product literature may be available upon request. Since actual use by others is beyond our control, no warranty, express or implied is made by C.C.I. as to the effects of such use, the results to be obtained or the safety and toxicity of the product nor does C.C.I. assume any liability arising out of use by others of this product.

Trace components. Trace ingredients (if any) are present in < 1% concentration, (< 0.1% for potential carcinogens, reproductive toxins, respiratory tract mutagens, and sensitizers). None of the trace ingredients contribute significant additional hazards at the concentrations that may be present in this product. All pertinent hazard information has been provided in this document, per the requirements of the Federal Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalents, and Canadian Hazardous Materials Identification System Standard (CPR 4).

SECTION 4. FIRST AID MEASURES

EYE CONTACT:

If this product enters the eyes, open eyes while under gently running water. Use sufficient force to open eyelids. Roll eyes to expose more surface. Minimum flushing is for 15 minutes. Seek immediate medical attention.

SKIN CONTACT:

If the product contaminates the skin, immediately begin decontamination with running water. Minimum flushing is for 15 minutes. Remove contaminated clothing, taking care not to contaminate eyes. If skin becomes irritated and irritation persists, medical attention may be necessary. Wash contaminated clothing before reuse, discard contaminated shoes.

INHALATION:

After high vapor exposure, remove to fresh air. If it is suspected that the fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Keep person warm and at rest; breathing is difficult, give oxygen. If breathing has stopped, trained personnel should immediately begin artificial respiration. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, the belt or waistband. If the heart has stopped, trained personnel should immediately begin cardiopulmonary resuscitation (CPR). Seek immediate medical attention. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

SWALLOWING:

If swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. If professional advice is not available, give two glasses of water to drink. **DO NOT INDUCE VOMITING.** Never induce vomiting or give liquids to someone who is unconscious, having convulsions, or unable to swallow. Seek immediate medical attention.

NOTES TO PHYSICIAN:

There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. Any material aspirated during vomiting may cause lung injury. Therefore, emesis should be induced mechanically or pharmacologically. If it is considered necessary to evacuate the stomach contents, this should be done by means least likely to cause aspiration (such as: Gastric lavage after endotracheal intubation).

Victims of chemical exposure must be taken for medical attention. Rescuers should be taken for medical attention, if necessary. Take a copy of the label and SDS to physician or health professional with victim.

SECTION 5. FIRE FIGHTING MEASURES

FIRE & EXPLOSIONS PREVENTIVE MEASURES:

Isolate from extreme heat and open flame. Release of sulfur dioxide at extremely high temperatures.

EXTINGUISHING MEDIA:

Use media appropriate for surrounding material. Use water spray to cool container exposed to fire, DO NOT get water inside containers.

SPECIAL FIRE FIGHTING PROCEDURES:

Water spray may be ineffective on fire but can protect fire-fighters & cool closed containers. Use fog nozzles if water is used. Do not enter confined fire-space without full bunker gear. (Helmet with face shield, bunker coats, gloves & rubber boots). Use NIOSH approved positive-pressure self-contained breathing apparatus.

UNUSUAL EXPLOSION AND FIRE PROCEDURES:

Reacts with most metals, especially when dilute: Hydrogen gas release (Extremely flammable, explosive). Risk of explosion when acid combined with water organic materials or base solutions in enclosed spaces (Vacuum trucks, tanks). Follow appropriate National Fire Protection Association (NFPA) codes.

SECTION 6. ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK RESPONSE AND ENVIRONMENTAL PRECAUTIONS:

Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. In case of a spill, clear the affected area, protect people, and respond with trained personnel.

PERSONAL PROTECTIVE EQUIPMENT:

The proper protective equipment for incidental releases (such as: 1 Liter of the product released in a well-ventilated area), use impermeable gloves (nitrile gloves, rubber gloves and nitrile gloves, over latex gloves), goggles, face shield, and appropriate body protection. In the event of a large release, use impermeable gloves, specific for the material handled, chemically resistant suit and boots, and hard hat. Self-Contained Breathing Apparatus or respirator may be required where engineering controls are not adequate or conditions for potential exposure exist. When respirators are required, select NIOSH/MSHA approved based on actual or potential airborne concentrations in accordance with latest OSHA and/or ANSI recommendations.

ENVIRONMENTAL PRECAUTIONS:

Stop spill at source. Construct temporary dikes of dirt, sand, or any appropriate readily available material to prevent spreading of the material. Close or cap valves and/or block or plug hole in leaking container and transfer to another container, keep from entering storm sewers and ditches which lead to waterways, and if necessary, call the local fire or police department for immediate emergency assistance.

CONTAINMENT AND CLEAN-UP MEASURES:

Absorb spilled liquid with poly pads or other suitable absorbent materials. If necessary, neutralize using suitable buffering material, (cautiously dilute and neutralize with lime or soda ash), and test area with litmus paper to confirm neutralization. Clean up with non-combustible absorbent (such as: sand, soil, and so on). Shovel up and place all spill residue in suitable containers. Dispose of at an appropriate waste disposal facility according to current applicable laws and regulations and product characteristics at time of disposal (see Section 13-Disposal Considerations).

SECTION 7. HANDLING AND STORAGE

HANDLING:

Use only with adequate ventilation. Do not get in eyes, on skin or clothing. Wear OSHA Standard full face shield, Consult Safety Equipment Supplier. Wear goggles, face shield, gloves, apron & footwear impervious to material. Wash clothing before reuse, NEVER pour water into this substance.

STORAGE:

Sulfuric Acid must be stored in containers or tanks that have been specially designed for use with Sulfuric Acid. DO NOT add water or other products to contents in containers as violent reactions will result with resulting high heat, pressure and/or generation of hazardous acid mist. Keep containers away from heat, sparks, and flame. All closed containers must be safely vented before each opening.

NON-BULK: CONTAINERS:

Store containers in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Material should be stored in a secondary containers or in a fitted area, as appropriate. Store containers away from incompatible chemicals (see section 10, Stability and Reactivity). Post warning and NO SMOKING signs in storage and use areas, as appropriate. Empty containers should be handled with care. Never store food, feed, Or drinking water in containers which held this product.

BULK CONTAINERS:

All tanks and pipelines which contain this material must be labeled. Perform routine maintenance on tanks or pipelines which contain this product. Report all leaks immediately to the proper personnel.

TANK CAR SHIPMENTS:

Tank cars carrying this product should be loaded and unloaded in strict accordance with tank-car manufacturer's Recommendations and all established on-site safety procedures. Appropriate personal protective equipment must be used (see Section 8, Engineering Controls and Personal Protective Equipment). All loading and unloading equipment must be inspected, prior to each use. Loading and unloading operations must be attended, at all times. Tank cars must be verified to be certified for receiving this product and be properly prepared, prior to starting the transfer operations. Hoses must be verified to be in the correct positions, before starting transfer operations. A sample (if required) must be taken and verified prior to starting transfer operations. All lines must be blown-down and purged before disconnecting them from the tank car vessel.

PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT:

Follow practices indicated in section 6 (Accidental Release Measures). Make sure certain application equipment is locked and tagged-out safely. Always use this product in areas where adequate ventilations is provided. Collect all misuses and dispose of according to applicable Federal, State, Provincial, or local procedures.

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

MATERIAL	CAS#	ELINECS#	TWA (OSHA)	TLV (ACGIH)
Sulfuric Acid	7664-93-9	231-639-5	1 mg/m3	1 mg/m3
Water	7732-18-15	231-791-2	None Known	None Known

MATERIAL	CAS#	ELINECS#	CEILING STEL (OSHA/ACGIH)	RAP
Sulfuric Acid	7664-93-9	231-639-5	None Known	No

This product contains no EPA Hazardous Air Pollutants (HAP) in amounts > 0.1%.

RESPIRATORY EXPOSURE CONTROLS:

A respiratory protective program that meets OSHA CFR 1910.134 and ANSI Z86.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

VENTILATION:

LOCAL EXHAUST:	Necessary	MECHANICAL (General): Necessary
SPECIAL:	None	None
OTHER:	None	None

Please refer to ACGIH document, " Industrial Ventilation . A Manual of Recommended Practices", most recent edition, for details.

PERSONAL PROTECTION:

Wear OSHA Standard full face shield, Consult Safety Equipment Supplier. Wear goggles, face shield, gloves, apron & footwear impervious to material. Wash clothing before reuse.

WORK & HYGIENIC PRACTICES:

Provide readily accessible eye wash stations & safety showers. Wash at the end of each work shift & before eating, smoking or using the toilet. Promptly remove clothing that becomes contaminated. Destroy contaminated leather articles. Launder or discard contaminated clothing.

SECTION 9. PHYSICAL & CHEMICAL PROPERTIES:

APPEARANCE:

Liquid, oily- clear colorless to yellow

ODOR:

None

ODOR THRESHOLD:

0.3 (l N solution @ 25 C (75 F)

MELTING POINT/FREEZING POINT:

-10 C

BOILING RANGE

290 – 338 deg C

FLASH POINT (TEST METHOD):

Not Applicable

EVAPORATION RATE (n-BUTYL ACETATE=1):

Not Applicable

FLAMMABILITY CLASSIFICATION:

Non-Combustible

LOWER FLAMMABLE LIMIT IN AIR (% by vol):

Not Applicable

UPPER FLAMMABLE LIMIT IN AIR (% by vol):

Not available

VAPOR PRESSURE (mm of Hg @20 C:

3.38

VAPOR DENSITY (air = 1):

< 0.001 mm Hg @ 20 deg C

GRAVITY @ 68/68F / 20/20C:

1.84

SPECIFIC GRAVITY (Water = 1):

15.345

POUNDS/GALLON:

Complete

WATER SOLUBILITY:

Not Available

PARTITION COEFFICIENT (n-Octane/water):

Not Applicable

AUTO IGNITION TEMPERATURE:

Not Applicable

DECOMPOSITION TEMPERATURE:

Not Available

SECTION 10. STABILITY & REACTIVITY

STABILITY:

Stable under most conditions.

CONDITIONS TO AVOID:

Isolate from extreme heat, and open flame. Possibility of decomposition. Release of dangerous gasses (Sulfur oxides SO2 SO3)

MATERIALS TO AVOID:

Avoid temperatures greater than 300°C. Yields sulfur trioxide gas, which is toxic, corrosive, and an oxidizer. Nitro compounds, carbides, dyes, alcohols (when heated), cause explosions. Oxidizing agents, such as chlorates and permanganates, cause fires and possible explosions. Alky compounds and aldehydes undergo polymerization, possibly violent. A lkalies, amines, water, hydrated esters, carboxylic acid anhydrides, nitriles, olefinic oxides, glycols, aqueous acids, causes strong exothermic reactions. Carbonates, cyanides, sulfides, sulfites, metals such as copper: yields toxic gas.

HAZARDOUS DECOMPOSITION PRODUCTS:

Sulfur trioxide gas.

HAZARDOUS POLYMERIZATION:

Will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION**ACUTE HAZARDS****EYE & SKIN CONTACT:**

Severe burns to skin, defatting, dermatitis.
Severe burns to eyes, redness, tearing, blurred vision.
Liquid can cause severe skin & eye burns. Wash thoroughly after handling.

INHALATION:

Severe respiratory tract irritation may occur. Vapor harmful.
The applicable occupational exposure limit value should not be exceeded during any part of working exposure.

SWALLOWING:

Harmful or fatal if swallowed.

SUBCHRONIC HAZARDS/CONDITIONS AGGRAVATED**CONDITIONS AGGRAVATED:**

None known.

CHRONIC HAZARDS**CANCER, REPRODUCTIVE & OTHER CHRONIC HAZARDS:**

This product has no carcinogens listed by IARC, NTP, NIOSH, OSHA or ACGIH, as of this date.
Greater or equal to 0.1%.

IRRITANCY OF PRODUCT: This product is irritating to contaminated tissue.**SENSITIZATION TO THE PRODUCT:** No component of this product is known to be a sensitizer.**MUTAGENICITY:** This product is not reported to produce mutagenic effects in humans.**EMBRYOTOXICITY:** This product is not reported to produce embryotoxic effects in humans.**TERATOGENICITY:** This product is not reported to produce teratogenic effects in humans.**REPRODUCTIVE TOXICITY:** This product is not reported to cause reproductive effects in humans.

A mutagen is a chemical which causes permanent changes to genetic material (DNA) such that the changes will propagate through generational lines. An embryotoxin is a chemical which causes damage to developing embryo (such as: within the eight weeks of pregnancy in humans), but the damage does not propagate across generational lines. A teratogen is a chemical which causes damage to a developing fetus, but the damage does not propagate across generational lines. A reproductive toxin is any substance which interferes in any way with the reproductive process.

MAMMALIAN TOXICITY INFORMATION**TOXICITY DATA:** Toxicology information for components > 1% concentration is given below:**SULFURIC ACID:**

Eye Irritation (rabbit):	Draize test: 250 ug (severe)
Inhalation (mouse):	LC50 = 320 mg/m ³ /2H;
Inhalation (rat):	LC50 = 510 mg/m ³
Oral (rat):	2140 mg/kg.

LD50 – Dose that is lethal to 50% of a given species by a given route of exposure.

LC50 – Air concentration that is lethal to 50% of a given species in a given period of time.

LDLO –Lowest lethal dose in a given species by a given route of exposure.

SECTION 12. ECOLOGICAL INFORMATION**ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.****EFFECT OF MATERIAL ON PLANTS AND ANIMALS:**

This product may be harmful or fatal to plant and animal life, if released into the environment.
Refer to section 11 (Toxicological Information) for further data on the effects of this product's components on test animals.

EFFECT OF MATERIAL ON AQUATIC LIFE:

SULFURIC ACID:	LC50: 48 hours : 49 mg/L (Tap water, 20 deg C)
Bluegill (Sunfish):	LC50: 48 hours : 100-330 mg/L (Aerated water)

MOBILITY IN SOIL:

Mobility of this material has not been determined.

DEGRADABILITY:

This product is completely biodegradable.

ACCUMULATION:

Bioaccumulation of this product has not been determined.

SECTION 13. DISPOSAL CONSIDERATIONS

Processing, use or contamination may change the waste management options. Recycle / dispose of observing national, regional, state, provincial and local health, safety & pollution laws. If in doubt, contact appropriate agencies.

SECTION 14. TRANSPORT INFORMATION

DOT/IDG SHIP NAME: UN1830, SULFURIC ACID, 8, PG-II
 DORM LABEL: (CORROSIVE)
 IATA / ICAO: UN1830, SULFURIC ACID, 8, PG-II
 IMO / IMDG: UN1830, SULFURIC ACID, 8, PG-II
 EMERGENCY RESPONSE GUIDEBOOK NUMBER: 157

SECTION 15. REGULATORY INFORMATION

EPA REGULATIONS:

SARA SECTION 313 HAZARDOUS: This product contains a chemical of chemicals which are subject to the reporting requirements of the Act and Title 49 of the code of Federal Regulations, Part 372.

ALL components of this product are on the TSCA list

SARA Title III Section 313 Supplier Notification

This product contains the indicated < * > toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning & Community Right-To-Know Act of 1986 & of 49 CFR 372.

This information must be included in all MSDS that are copied and distributed for this material.

SARA TITLE III INGREDIENTS	CAS#	ENEC#	WT%	(REG. SECTION)	RQ (LBS)
SULFURIC ACID	7664-93-9	231-639-5	93-94	(103.302.313)	1000

Regulations (E.S.A):
 CERCLA Section 103 Hazardous substances (40 CFR 302.51) : SARA Section 302 Extremely Hazardous Substance (40 CFR 305); Yc : SARA Section 313 Toxic Chemicals (40 CFR 372.05); US: TSCA Inventory : Listed : Sulfuric Acid (Final RQ) : 1000 pounds (454 kg)

STATE REGULATIONS:

CALIFORNIA SAFE DRINKING WATER & TOXIC ENFORCEMENT ACT (PROPOSITION 65):
 This product contains no chemicals known to the State of California to cause cancer or reproductive toxicity.

INTERNATIONAL REGULATIONS:

The components of this product are listed on the chemical inventories of the following countries:
 Australia (AICS), Canada (DSL/NDSL), China (IECS), Europe (EINECS/ELINCS), Japan (MET/CSCL), Malaysia (MEL/MSL), Saudi Arabia (SECS), New Zealand (NZDOC), Philippines (PICCS), Switzerland (SWISS), Taiwan (NECS), USA (TSCA).

CANADA: WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)

D2B: Irritating to skin / eyes

E: Corrosive Material

SECTION 16. OTHER INFORMATION

HAZARD RATINGS:

HEALTH (HFA): 3, HEALTH (HMS): 3, FLAMMABILITY: 0, PHYSICAL HAZARD: 2

(Personal Protection Ratings to be supplied by user based on use conditions.)

This information is intended solely for the use of individuals trained in the NFPA & HMIS hazard rating system.

EMPLOYEE TRAINING:

See Section 2 for Risk & Safety Statements. Employees should be made aware of all hazards of this material (as stated in this SDS) before handling it.

NOTICE

All information, recommendations, and suggestions appearing herein concerning this product are based upon data obtained from the manufacturer and/or recognized technical sources; however, C.C.I. makes no warranty, representation or guaranty as to the accuracy, sufficiency or completeness of the material set forth herein. It is the user's responsibility to determine the safety, toxicity and suitability of his own use, handling and disposal of the product. Additional product literature may be available upon request. Since actual use by others is beyond our control, no warranty, express or implied is made by C.C.I. as to the effects of such use, the results to be obtained or the safety and toxicity of the product nor does C.C.I. assume any liability arising out of use by others of this product.

SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION

Product Identifier:	BROMAX 7.1	Product Code:	28
Chemical Family:	Water Treatment Antimicrobial Solution		
Enviro Tech Chemical Services, Inc. 500 Winmore Way Modesto, CA 95358 (209) 581-5576 (T All to 5 PM, PST, Monday to Friday)			

24 Hr. Emergency Tel.#: 800-424-9300

SECTION 2 - HAZARDS IDENTIFICATION

The chemical is a pesticide product, registered by the Environmental Protection Agency and is subject to certain labeling requirements under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). These requirements differ from the classification criteria and hazard information required for safety data sheets of non-pesticide chemicals. Please see Section 13 for FIFRA labeling information.

Classification of the Substance or Mixture:

- Skin Irritant - Category 2
- Serious Eye Damage - Category 1
- Corrosive to Metals - Category 1
- Acute Toxicity - Inhalation Category 4
- Acute Toxicity - Dermal Category 5



Signal Word: DANGER

Hazard Statements:

- Causes skin irritation
- Causes serious eye damage
- May be corrosive to metals
- May be harmful if inhaled
- May be harmful in contact with skin

Precautionary Statements:

- Wear protective gloves/protective clothing/eye protection/face protection if in FIFRA; rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- IF ON SKIN (or hair): Remove/soak off immediately all contaminated clothing. Rinse skin with water/shower.
- Keep away from surfaces/containers/flammable surfaces. No smoking.
- Keep/store away from clothing, combustible materials.
- Take any precaution to avoid mixing with combustibles.
- Keep only in original container.

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	CAS Number	Concentration
SULFAMIC ACID, NAROMO, SODIUM SALT	1004542-84-0	15-25%
SODIUM HYDROXIDE	1310-73-2	1-5%

SECTION 4 - FIRST-AID MEASURES

- Inhalation: Get medical advice/attention if you feel unwell or are concerned.
- Skin Contact: Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Wash with plenty of lukewarm, gently flowing water with a flushing quantity of 15-20 minutes. If skin irritation or rash occurs, Get medical advice/attention. Wash contaminated clothing before reuse or discard.
- Eye Contact: Remove source of exposure or move person to fresh air. Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for 30 minutes. Take care not to rub contaminated water into the eyes or into the back of the head. Immediately call a POISON CENTER/doctor.
- Ingestion: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor. If vomiting occurs naturally, lie on your side, in the recovery position.
- Most Important Symptoms and Effects, both Acute and Delayed: Causes Irritation/burns that may result in permanent impairment of vision, even blindness. Contact with skin can cause irritation. May be harmful if swallowed.

SAFETY DATA SHEET

Indication of any immediate Medical Attention and Special Treatment Needed: Treat symptomatically

SECTION 5 - FIRE-FIGHTING MEASURES

- Extinguishing Media: Use water spray, powder, foam, carbon dioxide.
- Special Hazards arising from the substance or mixture: Non combustible. May give off irritating or toxic fumes (or gases) in a fire.
- Flammability Classification (OSHA 29 CFR 1910.105 / NFPA 2012): Non flammable.
- Hazardous Combustion Products: May cause fire and explosions when in contact with incompatible materials.
- Special protective equipment and precautions for firefighters: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures: Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Use only necessary and unproved personnel from entering.
- Methods and materials for containment and cleaning up: SHUT OFF ALL SPILLS less than 1 gallon; One small spill or less than 1 gallon; Collect in plastic containers only. Wash area of spill with water. Collect spill in plastic containers only. Prevent from entering sewers, waterways, or low areas.
- Special spill response procedures: Collect spill in plastic containers only. Prevent from entering sewers, waterways, or low areas.

SECTION 7 - HANDLING AND STORAGE

- Precautions for Safe Handling: Wear at least chemical resistant gloves and eye protection. Use only clean, dry, and chemical resistant garments when handling; moving or using this product. Do not contaminate water, food or feed by storage or disposal.
- Conditions for Safe Storage: Store in a cool, dry, well ventilated place away from direct sunlight. Keep container closed when not in use.
- Incompatible Materials: Avoid strong reducing agents, soft metals, heat and acids.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

- Ventilation and engineering measures: Forced air, local exhaust, or open air is adequate.
- Respiratory Protection: Not a respiratory irritant unless dealing with a mist form, then wear appropriate NIOSH respirator.
- Skin Protection: Wear chemical resistant gloves and chemical resistant garments when handling, wash garments before reuse.
- Eye/Face Protection: Wear chemical goggles; also wear a face shield if splashing hazard exists.
- Other Protective Equipment: Eye wash facility and emergency shower should be in close proximity.
- General Hygiene Conditions: Do not eat, drink, or smoke when using this product. Wash thoroughly after handling. Remove and wash contaminated clothing before reuse. Handle in accordance with good industry hygiene and safety practice.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

- Appearance: Bright orange liquid
- Odor: Mild chlorine like odor
- pH: 12.3-13.0 (1:100)
- Melting/Freezing point: < -1°C / 32°F
- Initial boiling point and boiling range: No information available
- Flash Point: Not applicable
- Flammability (solid, gas): Non flammable
- Specific gravity: 1.3 - 1.35 g/mL
- Solubility in water: Complete
- Decomposition temperature: No information available
- Viscosity: 15-25 cSt at 25°C / 68°F

SECTION 10 - STABILITY AND REACTIVITY

- Reactivity: Reactive with oxidizing agents, reducing agents, organic materials, metals, acids and alkalis.
- Chemical Stability: Stable for up to 1 year when stored under normal conditions.
- Possibility of Hazardous Reactions: May react with incompatible materials.
- Conditions to Avoid: Avoid contact with strong acids and oxidizers. Incompatible materials and cool temperatures.
- Incompatible Materials: Avoid strong reducing agents, soft metals, heat and acids.
- Hazardous Decomposition Products: Nitrogen oxides, chlorine and hydrochloric acid vapors.

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SECTION 11 - TOXICOLOGICAL INFORMATION

Information on the likely routes of exposure:

Routes of entry - Inhalation: YES

Routes of entry - Skin & eye: YES

Routes of entry - Ingestion: YES

Routes of entry - Skin absorption: NO

Potential Health Effects:

Signs and symptoms of short term (acute) exposure:

Irritation: May cause irritation to respiratory system in mist/vapour form.

Irritation: Corrosive: Swallowing causes severe burns of mouth, throat, and stomach. Severe scarring of tissue, corrosion, permanent tissue

destruction and death may result. Symptoms may include severe pain, nausea, vomiting, diarrhea, shock, hemorrhaging and/or fat in blood

pressure. Damage may appear days after exposure.

Skin: Corrosive: Contact with skin causes irritation or severe burns and scarring with greater exposures.

Eye: Corrosive: Causes irritation of eyes, and with greater exposures it can cause burns that may result in permanent impairment of vision, even

blindness.

Potential Chronic Health Effects:

Mutagenicity: May have mutagenic and tumorigenic effects with long term exposure.

Carcinogenicity: Not expected to be a carcinogen or tumorigen.

Reproductive effects: May cause reproductive effects.

Sensitization to material: Not a known sensitizer in humans or animals.

Specific target organ effects: No information available.

Medical conditions aggravated by overexposure: No information available.

Toxicological data: The calculated ATE values for this mixture are:

ATE oral = > 5000 mg/kg

ATE dermal = > 2000 mg/kg

ATE inhalation (mist) = 2.65 mg/L

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity: May be harmful to aquatic life.

Persistence and degradability: No information available.

Bioaccumulation potential: No information available.

Mobility in soil: No information available.

SECTION 13 - DISPOSAL CONSIDERATIONS

Handling for disposal: Do not contaminate water, food, or feed by storage and/or disposal. When handling refer to protective measures listed in sections 7 and 8. Empty handle from containers, rinse container well.

Method of disposal: Dispose of in accordance with all applicable federal, state, provincial and local regulations. Contact your local, state,

provincial or federal environmental agency for specific rules.

RCRA: If product becomes a waste, it does meet the criteria of a hazardous waste as defined by the US EPA, because of Corrosivity, D002.

SECTION 14 - TRANSPORTATION INFORMATION

Certain shipping modes or package sizes may have exceptions from the transport regulations. The classification provided may not reflect those exceptions and may not apply to all shipping modes or package sizes.

Please note the GHS and DOT Standards are NOT identical and therefore can have varying classifications.

US 49 CFR/DOT/IA/MDOG information:

UN No.: 1760

UN Proper Shipping Name: Corrosive Liquid, n.o.s. (Bromide salts)

Transportation hazard class(es): 6

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Packing Group: III

Environmental hazard: Not a Marine Pollutant.

SECTION 15 - REGULATORY INFORMATION

FIFRA Classification/Typical Hazard Labeling, as outlined in EPA Label Review Manual

Hazard Data

Signal Word	ANGER
Acute Toxicity, oral	Not Classified (NC)
Acute Toxicity, dermal	Not Classified (NC)
Acute Toxicity, inhalation	Not Classified (NC)
Sp. toxicity/irritation	Category I: Corrosive. Causes slight burns.
Serious eye damage	Category I: Corrosive. Causes irreversible eye damage.
Serious skin damage	Not Classified (NC)
Environmental (aquatic) toxicity	This product is toxic to fish and other aquatic organisms.

US Federal Information:

TSCA information: All components are listed on the TSCA Inventory.

US CERCLA reportable quantity (RQ): Not Regulated Material

SARA Title III: Acute Health Hazard

SECTION 16 - OTHER INFORMATION

Legend:

SARA: The Superfund Amendments and Reauthorization Act

RCRA: Resource Conservation and Recovery Act

TSCA: Toxic Substances Control Act

CFR: Code of Federal Regulations

DOT: Department of Transportation

ATE: Acute Toxicity Estimate

Preparation date: 6/29/2014

SAFETY DATA SHEET

COMPANY IDENTITY: CCI SDS DATE: 02/25/2015
PRODUCT IDENTITY: CL-MOL REPLACES 02/07/2010

This Safety Data Sheet conforms to ANSI Z400.5, and to the format requirements and the International Chemical Safety Cards of the Global Harmonizing System.
THIS SDS COMPLIES WITH CFR 1910.1200 (HAZARD COMMUNICATIONS STANDARD)
IMPORTANT: Read this SDS before handling & disposing of this product.
Pass this information on to employees, customers, & users of this product.

SECTION 1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

PRODUCT IDENTITY: CL-MOL
SDS NUMBER: CR3563
COMPANY IDENTITY: CCI CHEMICAL
COMPANY ADDRESS: 3540 EAST 26TH STREET, VERNON, CALIFORNIA 90058
COMPANY PHONE: 800-767-9112
EMERGENCY PHONES: CHEMTREC: 1-800-424-9300 (USA)
CANUTEC: 1-613-996-6666 (CANADA)

SECTION 2. HAZARDS IDENTIFICATION

HAZARD STATEMENTS:
H100s = General, H200s = Physical, H300 = Health, H400s = Environmental
H302 Harmful if swallowed.
H317 May cause an allergic skin reaction.
H320 Causes eye irritation.

PRECAUTIONARY STATEMENTS:
P100s = General, P200s = Prevention, P300s = Response, P400s = Storage, P500s = Disposal
P262 Do not get in eyes, on skin, or on clothing.
P305-351+338 IF IN EYES, Rinse cautiously with water for several minutes. Remove contact lenses if present & easy to do - Continue rinsing.
P309+311 If exposed or you feel unwell, Call a POISON CENTER or doctor/physician.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

MATERIAL	CASE	WT. %
Molybdic Acid Disodium Salt	10102-40-6	5-10
Diosodium Tetra borate Decahydrate	001303-96-4	5-10
Potassium Hydroxide	13100-58-3	3-5

Trace components: Trace ingredients (if any) are present in < 1% concentration (< 0.1% for potential carcinogens, reproductive toxins, respiratory tract mutagens, and sensitizers). None of the trace ingredients contribute significant additional hazards at the concentrations that may be present in this product. All pertinent hazard information has been provided in this document, per the requirements of the Federal Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalents, and Canadian Hazardous Materials Identification System Standard (CPR 4).

SECTION 4. FIRST AID MEASURES

EYE CONTACT:
If this product enters the eyes, open eyes while under gently running water. Use sufficient force to open eyelids. Roll eyes to expose more surface. Minimum flushing is for 15 minutes. Seek immediate medical attention.

SKIN CONTACT:
If the product contaminates the skin, immediately begin decontamination with running water. Minimum flushing is for 15 minutes. Remove contaminated clothing, taking care not to contaminate eyes. If skin becomes irritated and irritation persists, medical attention may be necessary. Wash contaminated clothing before reuse, discard contaminated shoes.

INHALATION:
Move person to fresh air; if effects occur, consult a physician.

SWALLOWING:
If swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION.
If professional advice is not available, give two glasses of water to drink. DO NOT INDUCE VOMITING. Never induce vomiting or give liquids to someone who is unconscious, having convulsions, or unable to swallow. Seek immediate medical attention.

NOTES TO PHYSICIAN:
There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. Any material aspirated during vomiting may cause lung injury. Therefore, emesis should be induced mechanically or pharmacologically. If it is considered necessary to evacuate the stomach contents, this should be done by means least likely to cause aspiration (such as: Gastric lavage after endotracheal intubation).
Victims of chemical exposure must be taken for medical attention. Rescuers should be taken for medical attention, if necessary. Take a copy of the label and SDS to physician or health professional with victim.

SECTION 5. FIRE FIGHTING MEASURES

FIRE & EXPLOSIONS PREVENTIVE MEASURES:
Isolate from extreme heat and open flame.

EXTINGUISHING MEDIA:
Water, Water spray, foam, carbon dioxide (CO2), Dry powder.

SPECIAL FIRE FIGHTING PROCEDURES:
Wear self-contained breathing apparatus and full body protective clothing.

UNUSUAL EXPLOSION AND FIRE PROCEDURES:

None.

FLASH POINT: NONE

AUTOIGNITION TEMPERATURE: N/A

SECTION 6. ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK RESPONSE AND ENVIRONMENTAL PRECAUTIONS:

Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. In case of a spill, clear the affected area, protect people, and respond with trained personnel.

PERSONAL PRECAUTIONS:

Spilled material may cause a slipping hazard. Isolate area. Keep unnecessary and unprotected personnel from entering the area. Use appropriate safety equipment.

ENVIRONMENTAL PRECAUTIONS:

Stop spill at source. Contain temporary dikes of dirt, sand, or any appropriate readily available material to prevent spreading of the material. Close or cap valves and/or block or plug hole in leaking container and transfer to another container. Keep from entering storm sewers and ditches which lead to waterways, and if necessary, call the local fire or police department for immediate emergency assistance.

CONTAINMENT AND CLEAN-UP MEASURES:

Absorb spilled liquid with poly pads or other suitable absorbent materials. Clean up with non-combustible absorbent, (such as sand, soil, and so on). Shovel up and place all spill residues in suitable containers. Dispose of at an appropriate waste disposal facility according to current applicable laws and regulations and product characteristics at time of disposal (see Section 13- Disposal Considerations).

SECTION 7. HANDLING AND STORAGE

HANDLING:

Preheat shipped/handled hot can cause thermal burns. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling.

STORAGE:

Freezing will affect the physical condition and may damage the material. Keep in a dry cool place (0-30°C). Keep away from heat and sources of ignition.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Material	CAS#	ELINECS#	TLV (OSHA)	TLV (ACGIH)
Potassium Hydroxide	1310-58-3	231-791-2	None Known	None Known

Material	CAS#	ELINECS#	CEILING	STEL (OSHA/ACGIH)	HAP
Potassium Hydroxide	1310-58-3	231-791-2	2 ppm	None Known	No

This product contains no EPA Hazardous Air Pollutants (HAP) in amounts > 0.1%.

RESPIRATORY EXPOSURE CONTROLS:

A respiratory protective program that meets OSHA CFR 1910.134 and ANSI Z36.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

VENTILATION:

LOCAL EXHAUST:	Recommended	MECHANICAL (General):	Recommended
SPECIAL:	None	OTHER:	None
Please refer to ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.			

PERSONAL PROTECTION:

Wear OSHA Standard full face shield. Consult Safety Equipment Supplier. Wear goggles, face shield, gloves, apron & footwear impervious to material. Wash clothing before reuse.

WORK & HYGIENE PRACTICES:

Provide readily accessible eye wash stations & safety showers. Wash at the end of each work shift & before eating, smoking or using the toilet. Promptly remove clothing that becomes contaminated. Destroy contaminated leather articles. Launder or discard contaminated clothing.

SECTION 9. PHYSICAL & CHEMICAL PROPERTIES:

APPEARANCE:	Pale yellow/straw clear liquid
ODOR:	Mild odor
ODOR THRESHOLD:	9-10
P _H (1%):	9-10
MELTING POINT/FREEZING POINT:	N/A
BOILING RANGE (1BP, 50%, Dry Point):	212°C
FLASH POINT (TEST METHOD):	None
EVAPORATION RATE (n-BUTYL ACETATE=1):	Not Applicable
FLAMMABILITY CLASSIFICATION:	Non-Combustible
LOWER FLAMMABLE LIMIT IN AIR (% by vol):	Not Applicable
UPPER FLAMMABLE LIMIT IN AIR (% by vol):	Not Available
VAPOR PRESSURE (mm of Hg @20 C):	Not Available
VAPOR DENSITY (air = 1):	Not Available
GRAVITY @ 68/68F / 20/20C:	Not Available
SPECIFIC GRAVITY (Water = 1):	1.08-1.10
POUNDS/GALON:	9.09
WATER SOLUBILITY:	Complete
VISCOSITY (mPa.s):	N/A
AUTO IGNITION TEMPERATURE:	N/A
DECOMPOSITION TEMPERATURE:	Not Available

SECTION 10. STABILITY & REACTIVITY

STABILITY:

Stable under most conditions.

CONDITIONS TO AVOID:

Isolate from extreme heat, and open flame.

MATERIALS TO AVOID:
Oxidizing agents may cause exothermic reactions.

HAZARDOUS DECOMPOSITION PRODUCTS:

Carbon monoxide and dioxide.

HAZARDOUS POLYMERIZATION:
Will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION
Toxicology information for components > 1% concentration is given below.

NONE KNOWN

CONDITIONS AGGRAVATED:
None Known.

CHRONIC HAZARDS

CHRONIC TOXICITY:
In animals, effects have been reported on the following organs after ingestions: Gastrointestinal tract, heart, and kidney. Doses levels producing these effects were many times a strong association between elevated blood pressure and prolonged dietary exposure. Related effects could occur in the kidneys.

CARCINOGENICITY:
This product is not classified as a carcinogen by NTP, IARC or OSHA.

MUTAGENIC DATA:
In vitro genetic toxicity studies were negative.

DEVELOPMENTAL TOXICITY:
Did not cause birth defects or any other fetal effects in laboratory animals.

SECTION 12. ECOLOGICAL INFORMATION

AQUATIC TOXICITY:
N/A

FRESH FISH TOXICITY:
N/A

ALGAE TOXICITY:
Algal inhibition test are not appropriate. The flocculating characteristics of the product interfere directly in the test medium preventing homogeneous distribution which invalidates the test.

BIOACCUMULATION:
Does not bioaccumulate.

SECTION 13. DISPOSAL CONSIDERATIONS

Processing, use or contamination may change the waste management options. Recycle / dispose of observing national, regional, state, provincial and local health, safety & pollution laws. If in doubt, contact appropriate agencies.

SECTION 14. TRANSPORT INFORMATION

UN/NA: N/A
Classification: NON-HAZARDOUS
Proper Shipping Name: INDUSTRIAL WATER TREATMENT COMPOUND, NON D.O.T REGULATED
D.O.T Hazard Name (49CFR 172.101): NONE
D.O.T ID Number (49CFR 172.101): NONE
D.O.T Hazard Class (49CFR 172.101): NONE
ICRA Hazard Class (40CFR261) (if discarded): NONE
F.P.A. Priority pollutants (40CFR 122.531): NONE

HAZARD RATINGS:
HEALTH (NTP): 1, **HEALTH (HMIS):** 1, **FLAMMABILITY:** 0, **PHYSICAL HAZARD:** 1
(Personal Protection Rating to be supplied by user based on use conditions.)
This information is intended solely for the use of individuals trained in the NFPA & HMIS hazard rating system.

SAFETY DATA SHEET

COMPANY IDENTITY: CCI
PRODUCT IDENTITY: CWT-1100M
SDS DATE: 01/22/2014
REPLACES: 02/07/2010

This Safety Data Sheet conforms to ANSI Z400.5, and to the format requirements and the International Chemical Safety Cards of the Global Harmonizing System.
THIS SDS COMPLES WITH CFR 1910.1200 (HAZARD COMMUNICATIONS STANDARD)
IMPORTANTS: Read this SDS before handling & disposing of this product.
Pass this information on to employees, customers, & users of this product.

SECTION 1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

PRODUCT IDENTITY: CWT-1100M
SDS NUMBER: CR4049
COMPANY IDENTITY: CCI CHEMICAL
COMPANY ADDRESS: 3540 EAST 26TH STREET, VERNON, CALIFORNIA 90058
COMPANY PHONE: 800-767-9112
EMERGENCY PHONES: CHEMTREC: 1-800-424-9300 (USA)
CANUTEC: 1-615-996-6666 (CANADA)

SECTION 2. HAZARDS IDENTIFICATION

HAZARD STATEMENTS:

H100s = General, H200s = Physical, H300 = Health, H400s = Environmental
H317 May cause allergic skin reaction.
H320 Causes eye irritation.
H330 May be harmful if swallowed.

PRECAUTIONARY STATEMENTS:

P100s = General, P200s = Prevention, P300s = Response, P400s = Storage, P500s = Disposal
P262 Do not get in eyes, on skin, or on clothing.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P303+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present & easy to do – Continue rinsing.
P309+311 If exposed or you feel unwell: Call a POISON CENTER or doctor/physician.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

MATERIAL	CAS#	EINECS#
Water	7732-18-5	231-791-2
Sodium Hydroxide	1310-73-2	

Trace components: Trace ingredients (if any) are present in < 1% concentration, (< 0.1% for potential carcinogens, reproductive toxins, respiratory tract mutagens, and sensitizers). None of the trace ingredients contribute significant Additional hazards at the concentrations that may be present in this product. All pertinent hazard information has been provided in this document, per the requirements of the Federal Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalents, and Canadian Hazardous Materials Identification System Standard (CPR 4).

NOTICE
All information, recommendations, and suggestions appearing herein concerning this product are based upon data obtained from the manufacturer and/or recognized technical sources; however, C.C.I. makes no warranty, representation or guaranty as to the accuracy, sufficiency or completeness of the material set forth herein. It is the user's responsibility to determine the safety, toxicity and suitability of his own use, handling and disposal of the product. Additional product literature may be available upon request. Since actual use by others is beyond our control, no warranty, express or implied is made by C.C.I. as to the effects of such use, the results to be obtained or the safety and toxicity of the product nor does C.C.I. assume any liability arising out of use by others of this product.

SECTION 4. FIRST AID MEASURES

EYE CONTACT:

If this product enters the eyes, open eyes while under gently running water. Use sufficient force to open eyelids. Roll eyes to expose more surface. Minimum flushing is for 15 minutes. Seek immediate medical attention.

SKIN CONTACT:

If the product contaminates the skin, immediately begin decontamination with running water. Minimum flushing is for 15 minutes. Remove contaminated clothing, taking care not to contaminate eyes. If skin becomes irritated and irritation persists, medical attention may be necessary. Wash contaminated clothing before reuse, discard contaminated shoes.

INHALATION:

Move person to fresh air. If effects occur, consult a physician.

SWALLOWING:

If swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. If professional advice is not available, give two glasses of water to drink. DO NOT INDUCE VOMITING. Never induce vomiting or give liquids to someone who is unconscious, having convulsions, or unable to swallow. Seek immediate medical attention.

NOTES TO PHYSICIAN:

There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. Any material aspirated during vomiting may cause lung injury. Therefore, emesis should be induced mechanically or pharmacologically. If it is considered necessary to evacuate the stomach contents, this should be done by means least likely to cause aspiration (such as: Gastric lavage after endotracheal intubation).

Victims of chemical exposure must be taken for medical attention. Rescuers should be taken for medical attention, if necessary. Take a copy of the label and SDS to physician or health professional with victim.

SECTION 5. FIRE FIGHTING MEASURES

FIRE & EXPLOSIONS PREVENTIVE MEASURES:

Isolate from extreme heat and open flame.

EXTINGUISHING MEDIA:

Water, Water spray, foam, carbon dioxide (CO2), Dry powder.

SPECIAL FIRE FIGHTING PROCEDURES:

None.

UNUSUAL EXPLOSION AND FIRE PROCEDURES:

None.

FLASH POINT: N/A

AUTOIGNITION TEMPERATURE: N/A

SECTION 6. ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK RESPONSE AND ENVIRONMENTAL PRECAUTIONS:

Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. In case of a spill, clear the affected area, protect people, and respond with trained personnel.

PERSONAL PRECAUTIONS:

Spilled material may cause a slipping hazard. Isolate area. Keep unnecessary and unprotected personnel from entering the area. Use appropriate safety equipment.

ENVIRONMENTAL PRECAUTIONS:

Stop spill at source. Construct temporary dikes of dirt, sand, or any appropriate readily available material to prevent spreading of the material. Close or cap valves and/or block or plug hole in leaking container and transfer to another container. Keep from entering storm sewers and ditches which lead to waterways, and if necessary, call the local fire or police department for immediate emergency assistance.

CONTAINMENT AND CLEAN-UP MEASURES:

Absorb spilled liquid with poly pads or other suitable absorbent materials. Clean up with non-combustible absorbent (such as: sand, soil, and so on). Shovel up and place all spill residue in suitable containers. Dispose of at an appropriate waste disposal facility according to current applicable laws and regulations and product characteristics at time of disposal (see Section 13- Disposal Considerations).

SECTION 7. HANDLING AND STORAGE

HANDLING:

Product shipped/handled hot can cause thermal burns. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling.

STORAGE:

Freezing will affect the physical condition and may damage the material. Keep in a dry cool place (0-30°C). Keep away from heat and sources of ignition.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

MATERIAL	CAS#	ELINECS#	TLV (OSHA)	TLV (ACGIH)
Water	7732-18-15	231-791-2	None Known	None Known
Sodiumhydroxide	1310-73-2		None Known	None Known
MATERIAL	CAS#	EINECS#	CEILING (OSHA/ACGIH)	HAP
Sodium Hydroxide	1310-73-2		None Known	No

This product contains no EPA Hazardous Air Pollutants (HAP) in amounts > 0.1%.

RESPIRATORY EXPOSURE CONTROLS:

A respiratory protective program that meets OSHA CFR 1910.134 and ANSI Z86.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

VENTILATION:
LOCAL EXHAUST: Necessary
SPECIAL: None
OTHER: None
Please refer to ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

PERSONAL PROTECTION:
Wear OSHA Standard full face shield. Consult Safety Equipment Supplier. Wear goggles, face shield, gloves, apron & footwear impervious to material. Wash clothing before reuse.

WORK & HYGIENIC PRACTICES:
Provide readily accessible eye wash stations & safety showers. Wash at the end of each work shift & before eating, smoking or using the toilet. Promptly remove clothing that becomes contaminated. Destroy contaminated leather articles. Launder or discard contaminated clothing.

SECTION 9. PHYSICAL & CHEMICAL PROPERTIES:

APPEARANCE:	Clear Amber Liquid
ODOR:	Negligible
ODOR THRESHOLD:	Not Available
pH (Neutrality):	11-12
MELTING POINT/FREEZING POINT:	N/A
BOILING RANGE (IBP, 50%LD₅₀ Point):	Not Applicable
FLASH POINT (TEST METHOD):	N/A
EVAPORATION RATE (n-BUTYL ACETATE=1):	Not Applicable
FLAMMABILITY CLASSIFICATION:	Non-Combustible
LOWER FLAMMABLE LIMIT IN AIR (% by vol):	Not Applicable
UPPER FLAMMABLE LIMIT IN AIR (% by vol):	Not Available
VAPOR PRESSURE (mm of Hg/@20 C:	Not Available
VAPOR DENSITY (air = 1):	Not Available
GRAVITY @ 68/68 F / 20/20C:	1.26
SPECIFIC GRAVITY (Water = 1):	10.5084
POUNDS/GALLON:	Complete
WATER SOLUBILITY:	N/A
VISCOSITY (mPa.s):	N/A
AUTO IGNITION TEMPERATURE:	Not Available
DECOMPOSITION TEMPERATURE:	Not Available

SECTION 10. STABILITY & REACTIVITY

STABILITY:
Stable under most conditions.

CONDITIONS TO AVOID:
Isolate from extreme heat, and open flame.

MATERIALS TO AVOID:
Reactive metals and strong acids.

HAZARDOUS DECOMPOSITION PRODUCTS:
Elevated temperatures may produce Phosphines, Nox, Carbon Monoxide, and Carbon Dioxide.

HAZARDOUS POLYMERIZATION:
Will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

LD50 Oral: LD50(oral)/rat > 2000 mg/kg (estimated)
LD50 Dermal LD50(oral)/rat > 2000 mg/kg (estimated)
LD50 Inhalation The product is not expected to be toxic by inhalation.

CONDITIONS AGGRAVATED:
None Known.

CHRONIC HAZARDS

CHRONIC TOXICITY:
In animals, effects have been reported on the following organs after ingestions: Gastrointestinal tract, heart, and kidney. Does levels producing these effects were many time a strong association between elevated blood pressure and prolonged dietary overuse. Related effects could occur in the kidneys.

CARCINOGENICITY:
This product is not classified as a carcinogen by NTP, IARC or OSHA.

MUTAGENIC DATA:
In vitro genetic toxicity studies were negative.

DEVELOPMENTAL TOXICITY:
Did not cause birth defects or any other fetal effects in laboratory animals.

SECTION 12. ECOLOGICAL INFORMATION

AQUATIC TOXICITY:
The effects of this product on aquatic organisms are rapidly and significantly mitigated by the presence of dissolved organic carbon in the aquatic environment.

FRESH FISH TOXICITY:
LC50, Danio rerio/96 hr > 10 mg/l (OECD 203)

ALGAE TOXICITY:
Algal inhibition test are not appropriate. The flocculating characteristics of the product interfere directly in the test medium preventing homogeneous distribution which invalidates the test.

DAPHNIA:
EC50/Daphnia magna/48 hr > 10 mg/l (OECD 202)

BIOACCUMULATION:
Does not bioaccumulate.

SECTION 13. DISPOSAL CONSIDERATIONS

Processing, use or contamination may change the waste management options. Recycle / dispose of observing national, regional, state, provincial and local health, safety & pollution laws. If in doubt, contact appropriate agencies.

SECTION 14. TRANSPORT INFORMATION

UNNA: N/A
Classification: NON D.O.T REGULATED
Paper Shipping Name: INDUSTRIAL WATER TREATMENT COMPOUND, NON D.O.T. REGULATED
D.O.T Hazard Name (49CFR 172.101): NONE
D.O.T ID Number (49CFR 172.101): NONE
D.O.T Hazard Class (49CFR 172.101): NONE
RCRA Hazard Class (40CFR 261.11) (detanded): NONE
EPA Priority pollutants (40CFR 122.53): NONE

HAZARD RATINGS:

HEALTH (NFPAY) 2, HEALTH (HMIS): 2, FLAMMABILITY: 0, PHYSICAL HAZARD: 1

(Personal Protection Rating to be supplied by user based on use conditions.)

This information is intended solely for the use of individuals trained in the NTPA & HMIS hazard rating system.

NOTICE

All information, recommendations, and suggestions appearing herein concerning this product are based upon data obtained from the manufacturer and/or recognized technical sources; however, C.C.I. makes no warranty, representation or guaranty as to the accuracy, sufficiency or completeness of the material set forth herein. It is the user's responsibility to determine the safety, toxicity and suitability of this own use, handling and disposal of the product. Additional product literature may be available upon request. Since actual use by others is beyond our control, no warranty, express or implied is made by C.C.I. as to the effects of such use, the results to be obtained or the safety and toxicity of the product nor does C.C.I. assume any liability arising out of use by others of this product.

ATTACHMENT 5 – ANNUAL CROPPING PLAN

5.1 Annual Cropping Plan

Figure 5.1 is the annual cropping plan for the facility. The annual cropping plan will be updated annually to assist the facility in the management of land application practices to ensure that wastewater and associated nutrients are applied at agronomic rates. The facility is permitted to land apply effluent to approximately 61 acres of improved grasses.

Schreiber Foods, Inc.
Annual Cropping Plan

Figure 5.1

ENVIRO-AG ENGINEERING, INC.

Field ID	Planned Crop Rotation	Crop Yield (1)	Crop Soil Tolerances (2)	Crop N Requirement lb/Ac (3)	0-6" Soil N Residual lb/Ac (4)	Crop N required lb/Ac (5)	Wastewater Analysis N lb/Ac-in (6)	Adjusted		Total
								Plant Available N lb/Ac-in (7)	Ac-In/Ac of Wastewater to apply (8)	
Pivot 1 Summer	Coastal Bermuda grass	2 cut hay	8 0-12.0	200	16	184	6.81	5.45	33.77	917,095
Pivot 1 Winter	Ryegrass Hay	2.5 tons/ac	6 0-8.0	140	0	140	6.81	5.45	25.70	697,790
Pivot 2 Summer	Coastal Bermuda grass	2 cut hay	8 0-12.0	200	22	178	6.81	5.45	32.67	887,190
Pivot 2 Winter	Ryegrass	2.5 tons/ac	6 0-8.0	140	0	140	6.81	5.45	25.70	697,790

- (1) Expected yields based on historical data from facility. Crops will be harvested at a maximum height of 12" to 15" and a minimum of 4" from the ground.
- (2) Taken from 30 TAC 309.20(b)(3)(B) Table 3.
- (3) From USDA-NRCS Code 590/633 "S Crops" database.
- (4) Taken from annual soil test results from April 4, 2022. It is assumed that residual N will be utilized with the first crop rotation.
- (5) Remainder N required to meet crop demands (crop requirement - residual N).
- (6) Taken from the October 19, 2022 weekly irrigation wastewater sample at Schreiber Foods, Inc., Erath County.
- (7) Availability of N is calculated utilizing 30 TAC 309C.
- (8) Acre inch of wastewater to be applied based lb/ac-n available N (remainder crop N divided by adjusted plant N). No additional fertilizer is required at this rate.
- (9) Total Gallons/Ac to be applied (Ac-In/Ac of wastewater x 27154 = gallons).



ANALYTICAL REPORT

November 01, 2022

Schreiber Foods Inc.

Sample Delivery Group:

L1548022

Samples Received:

10/9/2022

Project Number:

Description:

Weekly Irrigation

Report To:

Gary McCaffry

823 CR 176

Stephenville, TX 76401

Entire Report Reviewed By:

Reagan Johnson

Reagan Johnson
Project Manager

Results in this report are the result of analysis performed on samples received and analyzed in the laboratory. The laboratory is not responsible for the accuracy of the results if the samples were not properly prepared or if the samples were not properly labeled. The laboratory is not responsible for the accuracy of the results if the samples were not properly stored or if the samples were not properly handled. The laboratory is not responsible for the accuracy of the results if the samples were not properly analyzed or if the samples were not properly reported. The laboratory is not responsible for the accuracy of the results if the samples were not properly reviewed or if the samples were not properly approved. The laboratory is not responsible for the accuracy of the results if the samples were not properly signed or if the samples were not properly dated. The laboratory is not responsible for the accuracy of the results if the samples were not properly filed or if the samples were not properly archived. The laboratory is not responsible for the accuracy of the results if the samples were not properly destroyed or if the samples were not properly disposed of. The laboratory is not responsible for the accuracy of the results if the samples were not properly recycled or if the samples were not properly reused. The laboratory is not responsible for the accuracy of the results if the samples were not properly stored or if the samples were not properly handled. The laboratory is not responsible for the accuracy of the results if the samples were not properly analyzed or if the samples were not properly reported. The laboratory is not responsible for the accuracy of the results if the samples were not properly reviewed or if the samples were not properly approved. The laboratory is not responsible for the accuracy of the results if the samples were not properly signed or if the samples were not properly dated. The laboratory is not responsible for the accuracy of the results if the samples were not properly filed or if the samples were not properly archived. The laboratory is not responsible for the accuracy of the results if the samples were not properly destroyed or if the samples were not properly disposed of. The laboratory is not responsible for the accuracy of the results if the samples were not properly recycled or if the samples were not properly reused.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-738-5838 800-767-5939 www.pacanalytical.com

ACCOUNT: Schreiber Foods Inc. PROJECT: L1548022 DATE/TIME: 10/02/21 11:38 PAGE: 16 of 21

Cp Cp Tc Ss Cn Sr Oc Gl Al Sc

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Cp Cp Tc Ss Cn Sr Oc Gl Al Sc

ACCOUNT: Schreiber Foods Inc. PROJECT: L1548022 DATE/TIME: 10/02/21 11:38 PAGE: 2 of 21

SAMPLE SUMMARY

IRIGATION WATER GRAB L1548022-01 WW
Collected date/time: 10/19/22 10:40 Received date/time: 10/19/22 10:00
Job's Grab

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
W61 Chemistry by Method 5564 W61 Chemistry by Method 5512 W61 Chemistry by Method 5532 W61 Chemistry by Method 5M52708	W61948972	1	10/29/22 23:10	10/29/22 23:30	CAI	Allen, TX
	W61948932	1	10/31/22 11:03	10/31/22 15:30	TK	Allen, TX
	W61948935	5	10/28/22 18:07	10/29/22 22:30	CAI	Mt Juliet, TN
	W61948972	1	10/21/22 15:52	10/21/22 15:52	EIG	Allen, TX
	W61948531	1	10/19/22 14:56	10/24/22 11:12	RJP	Allen, TX
INF L1548022-05 WW			Collected date/time: 10/18/22 11:15 Prep date/time: 10/19/22 10:00	Received date/time: 10/19/22 10:00		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
W61 Chemistry by Method 5M52708	W61946024	1	10/20/22 10:53	10/25/22 10:18	2JP	Allen, TX
			Collected by: Allen, TX Initial Grab	Collected date/time: 10/18/22 11:15 Received date/time: 10/19/22 10:00		
EFF L1548022-06 WW						
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
W61 Chemistry by Method 5M52708	W61946024	1	10/20/22 10:57	10/25/22 10:20	RJP	Allen, TX



CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or noted within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative. A non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Reagan Johnson

Reagan Johnson
Project Manager



IRRIGATION WATER GRAB

SAMPLE RESULTS - 01

Collected date/time: 10/18/22 10:40

L1548022

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Nitrogen	30.1		0.0500	1	10/29/2022 23:10	WG1948972

Wet Chemistry by Method 1664A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Oil & Grease (Hexane Ext)	ND		5.00	1	10/31/2022 15:30	WG1948972

Wet Chemistry by Method 351.2

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Kjeldahl Nitrogen TN	29.4		1.25	5	10/29/2022 23:10	WG1948972

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	10.726		0.0500	1	10/27/2022 15:52	WG1948972

Wet Chemistry by Method SMS210B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
BOD	15.0		5.00	1	10/24/2022 11:12	WG1945312

Cc
Tc
Ss
4Cn
Sr
Oc
Gl
Al
ScACCOUNT: Schreiber Foods Inc
PROJECT: L1548022
SDG: L1548022
DATETIME: 10/07/22 11:58
PAGE: 5 of 21

INF

SAMPLE RESULTS - 05

Collected date/time: 10/18/22 11:15

L1548022

Wet Chemistry by Method SMS210B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
BOD	91.2		6.00	1	10/25/2022 10:18	WG1946024

Cc
Tc
Ss
4Cn
Sr
Oc
Gl
Al
ScACCOUNT: Schreiber Foods Inc
PROJECT: L1548022
SDG: L1548022
DATETIME: 10/07/22 11:38
PAGE: 6 of 21

EFF
Collected date/time: 10/10/22 11:15
L1548022

SAMPLE RESULTS - 06

Additional Information - Results for field analyses are not accredited to ISO 17025

Analyte	Result	Units
pH (on-site)	8.47	uH
Temperature (on-site)	62	

Wet Chemistry by Method SM5210B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
BOD	33.7	U	3.00	1	10/26/2022 10:20	WG1946024



ACCOUNT: Schreiber Foods Inc
PROJECT: L1548022
DATE/TIME: 10/10/22 11:15
PAGE: 7 of 21

WG1950352

QUALITY CONTROL SUMMARY

L1548022.01

Wet Chemistry by Method SM5210B

Method Blank (MB)

Analyte	MB Result	MB Dilution	MB RDL	MB RDL
Dil & Extract Phosphate Est	U	0.350	5.00	

Lab on aly Control Sample (LCS) - Laboratory Control Sample Duplicate (LCS)

Analyte	Spike Amount	LCS Result	LCS Rec	LCS Rec	Rec Limit	LCS Stability	LCS Dilution	RPD Limit
Dil & Extract Phosphate Est	40.0	37.4	101	81.5	76.0-104	785	8	

L1548022.01 Original Sample (CS) - Matrix Spike (MS)

Analyte	Spike Amount	Original Result	MS Result	MS Rec	Dilution	Rec Limit	MS Stability
Dil & Extract Phosphate Est	40.0	30.2	67.2	34.1	1	72.0-104	



ACCOUNT: Schreiber Foods Inc
PROJECT: L1548022
DATE/TIME: 10/10/22 11:15
PAGE: 8 of 21

WG1949505

Wet Chemistry by Method 351.2

QUALITY CONTROL SUMMARY

Method Blank (MB)

ANALYST	MB Result	MB Result	MB Result
Ammonia	mg/l	mg/l	mg/l
Fixed Nitrogen	mg/l	0.10	0.250

1549981-05 Original Sample (OS) - Duplicate (DUP)

OS1 1549981-05 10/29/22 22:26 - DUP 1549981-05 10/29/22 22:27	Original Result	DUP Result	DUP Result
Ammonia	mg/l	mg/l	mg/l
Fixed Nitrogen	0.95	0.93	0.93

1549981-06 Original Sample (OS) - Duplicate (DUP)

OS1 1549981-06 10/29/22 22:31 - DUP 1549981-06 10/29/22 22:32	Original Result	DUP Result	DUP Result
Ammonia	mg/l	mg/l	mg/l
Fixed Nitrogen	3.32	3.32	3.32

Laboratory Control Sample (LCS)

LCS1 1549981-06 10/29/22 22:32	Original Result	LCS Result	Rec. Limit
Ammonia	mg/l	mg/l	%
Fixed Nitrogen	10.7	11.0	75.2/100

1549981-05 Original Sample (OS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

OS1 1549981-05 10/29/22 22:26 - MS1 1549981-05 10/29/22 22:30	Original Result	MS Result	MSD Result	MSD Result	MSD Result	MSD Result	MSD Result	MSD Result	MSD Result
Ammonia	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Fixed Nitrogen	5.00	0.957	6.22	7.12	11.2	12.3	1	90.0/100	20

Sample Name:

1549981-05 Original Sample (OS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

MSD Matrix Spike (Matrix due to matrix interference)

ACCOUNT	PROJECT	ISO	DATE/TIME	PHASE	ACCOUNT	PROJECT	ISO	DATE/TIME	PHASE
1549981-05	1549981-05	1549981-05	10/29/22 22:26	1549981-05	1549981-05	1549981-05	10/29/22 22:30	1549981-05	1549981-05

WG1949505

Wet Chemistry by Method 351.2

QUALITY CONTROL SUMMARY

Method Blank (MB)

ANALYST	MB Result	MB Result	MB Result
Ammonia	mg/l	mg/l	mg/l
Fixed Nitrogen	0.10	0.250	0.250

1549981-05 Original Sample (OS) - Duplicate (DUP)

OS1 1549981-05 10/29/22 22:26 - DUP 1549981-05 10/29/22 22:27	Original Result	DUP Result	DUP Result
Ammonia	mg/l	mg/l	mg/l
Fixed Nitrogen	0.95	0.93	0.93

1549981-06 Original Sample (OS) - Duplicate (DUP)

OS1 1549981-06 10/29/22 22:31 - DUP 1549981-06 10/29/22 22:32	Original Result	DUP Result	DUP Result
Ammonia	mg/l	mg/l	mg/l
Fixed Nitrogen	3.32	3.32	3.32

Laboratory Control Sample (LCS)

LCS1 1549981-06 10/29/22 22:32	Original Result	LCS Result	Rec. Limit
Ammonia	mg/l	mg/l	%
Fixed Nitrogen	10.7	11.0	75.2/100

1549981-05 Original Sample (OS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

OS1 1549981-05 10/29/22 22:26 - MS1 1549981-05 10/29/22 22:30	Original Result	MS Result	MSD Result	MSD Result	MSD Result	MSD Result	MSD Result	MSD Result	MSD Result
Ammonia	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Fixed Nitrogen	5.00	0.957	6.22	7.12	11.2	12.3	1	90.0/100	20

Sample Name:

1549981-05 Original Sample (OS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

MSD Matrix Spike (Matrix due to matrix interference)

ACCOUNT	PROJECT	ISO	DATE/TIME	PHASE	ACCOUNT	PROJECT	ISO	DATE/TIME	PHASE
1549981-05	1549981-05	1549981-05	10/29/22 22:26	1549981-05	1549981-05	1549981-05	10/29/22 22:30	1549981-05	1549981-05

WG1949873 QUALITY CONTROL SUMMARY

Wet Chemistry by Method 353.3

Method Blank (MB)

(MB) 10/25/470-3 10/27/22 15.50

Analyte	Unit	MS Result	MS NOL	MS BSL
Water-Matrix	U	0.0100	0.0100	0.0500

Laboratory Control Sample (LCS)

Analyte	Spiked Amount	LCS Result	LCS Rec	Rec Limits	LCS Qualifier
Water-Matrix	2.50	2.96	102	90.0-110	

L1548910-01 Original Sample (OS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

Analyte	Spiked Amount	Original Result	MS Result	MSD Result	MS Rec	MSD Rec	Duration	Rec Limits	MS Qualifier	MSD Qualifier	RPO	RPO Limits
Water-Matrix	2.50	112	3.57	3.57	112.9	112.9	1	95.0-110			0.000	20

L1548910-02 Original Sample (OS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

Analyte	Spiked Amount	Original Result	MS Result	MSD Result	MS Rec	MSD Rec	Duration	Rec Limits	MS Qualifier	MSD Qualifier	RPO	RPO Limits
Water-Matrix	2.50	133	3.91	3.29	95.2	94.4	1	90.0-110			0.50	20

Cr
Tc
Sr
Ca
F
Al
Sc

WG1945317 QUALITY CONTROL SUMMARY

Wet Chemistry by Method 353.3.10B

Method Blank (MB)

(MB) 10/25/207-3 10/24/22 10.32

Analyte	Unit	MS Result	MS NOL	MS BSL
BOD	U	0.200	0.200	0.200

L1547348-01 Original Sample (OS) - Duplicate (DUP)

Analyte	Original Result	DUP Result	Duration	DUP RPO	DUP Qualifier	DUP RPO Limits
BOD	ND	ND	1	0		20

L1547348-01 Original Sample (OS) - Duplicate (DUP)

Analyte	Original Result	DUP Result	Duration	DUP RPO	DUP Qualifier	DUP RPO Limits
BOD	ND	ND	1	0		20

Laboratory Control Sample (LCS)

Analyte	Spiked Amount	LCS Result	LCS Rec	Rec Limits	LCS Qualifier
BOD	ND	59	95.5	05-115	

Cr
Tc
Sr
Ca
F
Al
Sc

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Qualifier: Information that may be provided by the customer and combined with the report, include Permit Limits, Project Name, Sample ID, Sample Name, Method, Sampling Location, and Sampling Date. When used, the results are reported as "Qualifier ID, Sample Name, Method, Sampling Location, Results".

Sampling Location: Results refer to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MCL	Method Detection Limit
ND	Not detected at the Reporting Limit (or MDL where applicable)
RDL	Reported Detection Limit
Rec	Recovery
RPD	Relative Percent Difference
SPG	Sample Delivery Group
U	Not detected at the Reporting Limit for MDL where applicable
Analyte	The name of the particular compound or analysis performed. Some analyses and methods will have multiple analyses reported.
Dilution	If the sample matrix requires an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analysis recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result. The qualifier is used to indicate the result is not within the target range, and is used to identify the reason for the potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics reported for your sample, if there is any) no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in this results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Preconcentrator)	Confidence level of 2 sigma
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analysis, acquired by procedures or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by the laboratory and are not subject to the same review and approval process as the other sections of the report. Each sample will provide the name and method number for the analysis performed.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.



WG1946024 QUALITY CONTROL SUMMARY

MetChemistry by MetChem 2/15/2018

Method Blank (MB)

MB Result	MB Vol.	MB BCL
mg/L	mg/L	mg/L
0.000	0.200	0.200

US479996 Q1 Original Sample (OS) - Duplicate (DUP)

OS1 US479996 Q1 10/25/22 11:18 - Q1-PH 28255807-4 10/25/22 10:39	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP Limit
mg/L	mg/L	%	%	%	%
0.000	0.000	1.0	0.0	0.0	2.0

US479996 Q1 Original Sample (OS) - Duplicate (DUP)

OS2 US479996 Q1 10/25/22 11:18 - Q1-PH 28255807-4 10/25/22 10:40	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP Limit
mg/L	mg/L	%	%	%	%
0.000	0.000	1.0	0.0	0.0	2.0

US479996 Q1 Original Sample (OS) - Duplicate (DUP)

OS3 US479996 Q1 10/25/22 11:18 - Q1-PH 28255807-4 10/25/22 10:41	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP Limit
mg/L	mg/L	%	%	%	%
0.000	0.000	1.0	0.0	0.0	2.0

ACCOUNT	PROJECT	SPG	DATE/TIME	ANALYST
US479996 Q1	US479996 Q1	US479996 Q1	10/25/22 11:18	10/25/22 11:18

ACCOUNT	PROJECT	SPG	DATE/TIME	PAGE
Schreiber Food, Inc	US479996 Q1	US479996 Q1	11/01/22 11:38	14 of 21

0186

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

[illegible]

Pace Analytical Services, LLC -Dallas 400 W. Bethany Drive Suite 190 Allen, TX 75013

State	Year	Value
Arkansas	2006	300647
Florida	2007	537110
Iowa	2008	408
Mississippi	2006	30656
Kansas	2008	510310
Texas	2008	110470432.22.3
Oklahoma	2007	8727

* Drinking Water † Underground Storage Tanks ‡ Aquatic Toxicity § Chemical/Microbiological ¶ Mold ** Wastewater
n/a Accreditation not applicable

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

[illegible]

STEPHENSVILLE
SHIP TO:
PACE ANA
(972) 727
STE 190
400 W BETHANY DR
ALLEN TX 75013-3714



	Document Name:	Document Revised: 7/27/20
	Sample Condition Upon Receipt	Page 1 of 1
	Document No.: F-DAL-C 001-rev.14	Issuing Authority: Pace Dallas Quality Office

Sample Condition Upon Receipt

☒ Dallas ☐ Ft Worth ☐ Corpus Christi ☐ Austin

Client Name: Schreiber Foods Inc Project Work order (place label):

Courier: FedEx ☐ UPS ☒ USPS ☐ DHL ☐ LSO ☐ PACE ☐ Other:

Tracking #: 1Z Y49 8V8 03 0293 2292

Custody Seal on Cooler/Box: Yes ☐ No ☒

Received on Ice: Wet ☒ Blue ☐ No Ice ☐

Receiving Lab 1 Thermometer Used: 1819 Cooler Temp °C: 2.3 (Recorded) 10.5 (Correction Factor) 28 (Actual)

Receiving Lab 2 Thermometer Used: _____ Cooler Temp °C: _____ (Recorded) _____ (Correction Factor) _____ (Actual)

Temperature should be above freezing to 6°C unless collected same day as receipt in which evidence of cooling is acceptable

Triage Person: DS Date: 10/19/20

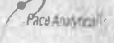
Chain of Custody relinquished	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Sampler name & signature on COC	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Short HT analyses (<72 hrs)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Login Person: DS Date: 10/19

Sufficient Volume received	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Correct Container used	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Container Intact	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Sample pH Acceptable	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
pH Strips: <u>6.1/6.5</u>	
Residual Chlorine Present	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
Cl Strips: _____	
Sulfide Present	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
Lead Acetate Strips: _____	
Are soil samples (volatiles, TPH) received in 5035A Kits (not applicable to TCLP VOA or PST Program TPH)	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
Unpreserved 5035A soil frozen within 48 hrs	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
Headspace in VOA (>6mm)	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
Project sampled in USDA Regulated Area outside of Texas	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
State Sampled: _____	
Non-Conformance(s): _____	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

Labeling Person (if different than log-in): _____ Date: _____

REF ID: A66004
SFI (under) to Charge: Stephen R. 10/10/72

	Document Name:	Document Revised: 7/27/20
	Sample Condition Upon Receipt	Page 1 of 1
	Document No.: F-PAT-C-001-rev.14	Issuing Authority: Pace Dallas Quality Office

Sample Condition Upon Receipt

☒ Dallas ☐ Ft Worth ☐ Corpus Christi ☐ Austin

Client Name: Schreiber Foods, Inc. Project Work order (place label):

Carrier: FedEx ☐ UPS ☐ USPS ☐ Client ☐ LSO ☐ PACE ☐ Other:

Tracking #: 12 V 49 858 03 6213 222

Custody Seal on Cooler/Box: Yes ☐ No ☒

Received on Ice: Wet ☒ Blue ☐ No Ice ☐

Receiving Lab 1 Thermometer Used: 1819 Cooler Temp °C: 2.3 (Revised) 10.5 (Correction Factor) 28 (Actual)

Receiving Lab 2 Thermometer Used: _____ Cooler Temp °C: _____ (Revised) _____ (Correction Factor) _____ (Actual)

Temperature should be above freezing to 6°C unless collected same day as receipt in which evidence of cooling is acceptable

Trigge Person: OC Date: 10/19/22

Chain of Custody relinquished	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Sampler name & signature on COC	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Short HI analyses (<72 hrs)	Yes <input type="checkbox"/> No <input type="checkbox"/>

Log Person: OC Date: 10/19

Sufficient Volume received	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Correct Container used	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Container Intact	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Sample pH Acceptable	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
pH Strips: <u>Glass</u>	
Residual Chlorine Present	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
Cl Strips: _____	
Sulfide Present	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
Lead Acetate Strips: _____	
Are soil samples (volatiles, TPH) received in 5035A Kits (not applicable to TCLP VOA or PST Program TPH)	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
Unpreserved 5035A soil frozen within 48 hrs	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
Headspace in VOA (>6mm)	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
Project sampled in USDA Regulated Area outside of Texas	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
State Sampled: _____	
Non-Conformance(s): _____	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

Labeling Person (if different than log-in): _____ Date: _____

ATTACHMENT 6 – WATER WELL INFORMATION

6.1 Water Well Map

Figure 6.1, Water well Map, shows the locations of water wells within ½ mile of the property boundary. Water wells within irrigation fields or adjacent to irrigation fields will be protected with 150-ft buffers.

6.2 Water Well Information

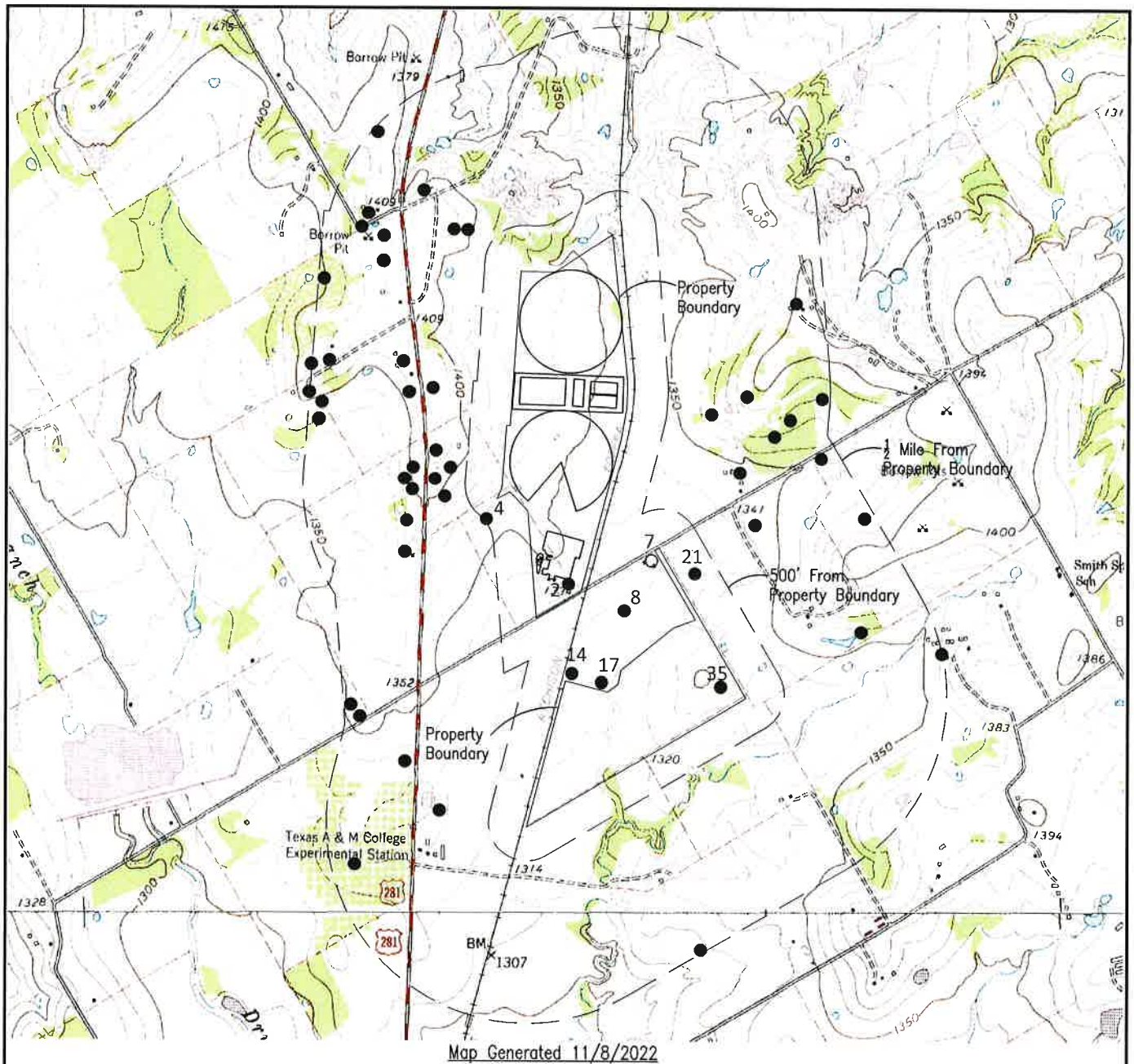
Water well data was obtained from a variety of sources, including on-site inspections, Research, a database research firm in Toronto Ontario, the Texas Water Development Board (TWDB) WIID online database, and the Middle Trinity Groundwater Conservation District. The information provided by Environmental Risk Information Services (ERIS) was obtained from a variety of public sources. ERIS does not ensure and makes no warranty or representation as to the accuracy, reliability, quality, or errors occurring from data conversion or the interpretation of their report. The TWDB WIID database includes data from the TWDB Groundwater Database and Submitted Driller's Reports. ERIS, TWDB and Middle Trinity GCD wells are shown on maps and in the table if the location could be verified on-site or using the well log or district database information. Well information is provided in Worksheet 3-Section 5 of the Technical Report.

6.3 Monitoring Well Map

Figure 6.2, Monitoring Well Map, shows the locations of the existing monitor wells located within the property boundary.

6.4 Monitor Well Information

The facility groundwater monitoring plan and analytical results are included as an attachment to this section.



Legend:

- Denotes Water Well
- Denotes Plugged Well

Source: USDA-NRCS. Geospatial Data Gateway. Available at: <http://datagateway.nrcs.usda.gov/>. Digital Raster Graphic County Mosaic by NRCS - Accessed December 2016.



1,000' 0 1,000' 2,000'

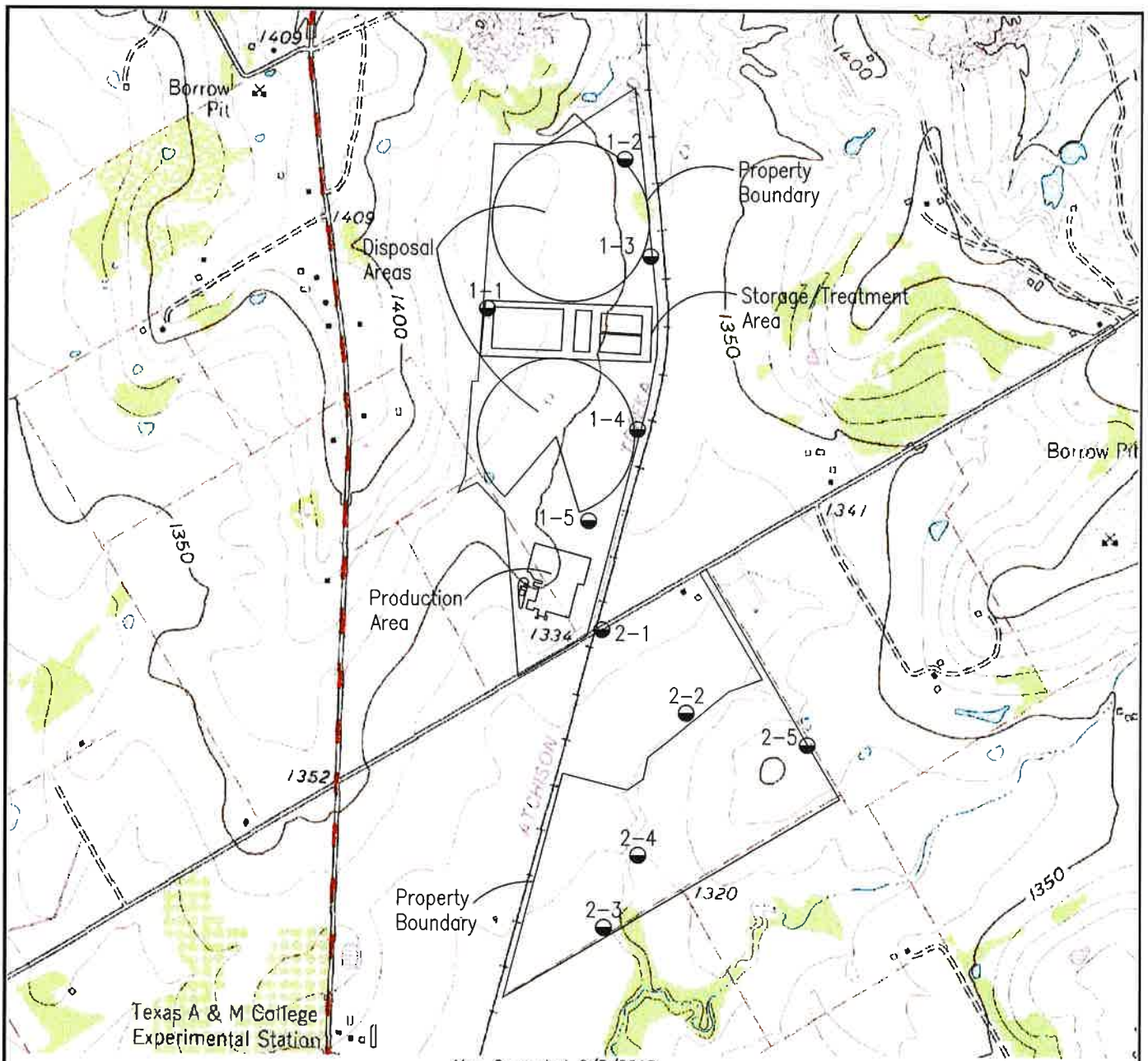
SCALE: 1" = 2,000'

Schreiber Foods, Inc.
Stephenville, TX
Erath County

Water Well Map
Figure 6.1
Page 23

ENVIRO-AG
EAE
ENGINEERING, INC.

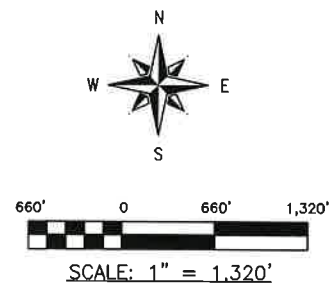
Enviro-Ag Engineering, Inc.
ENGINEERING CONSULTANTS
3404 Airway Boulevard
AMARILLO, TEXAS 79118
TEL (806) 353-6123 FAX (806) 353-4132



Legend:

● Denotes Monitoring Well

Source: USDA-NRCS. Geospatial Data Gateway. Available at: <http://datagateway.nrcs.usda.gov/>. Digital Raster Graphic County Mosaic by NRCS - Accessed December 2016.



Schreiber Foods, Inc.
Stephenville, TX
Erath County

Monitoring Well Map
Figure 6.2
Page 24

ENVIRO-AG
EAE
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Enviro-Ag Engineering, Inc.
ENGINEERING CONSULTANTS
3404 Airway Boulevard
AMARILLO, TEXAS 79118
TEL (806) 353-6123 FAX (806) 353-4132



TEXAS WATERWELL REPORT

Project Property:

Schreiber Foods
Schreiber Foods
Stephenville TX 76401

Project No:

22100504558

Requested by:

Enviro-Ag Engineering, Inc.

Date Completed:

October 12, 2022

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Executive Summary

Property Information:

Project Property:

Schreiber Foods
Schreiber Foods Stephenville TX 76401

Project No:

Coordinates:

Latitude: 32.26830716
Longitude: -98.1879828
UTM Northing: 3,570,464.82
UTM Easting: 576,476.29
UTM Zone: 14S
Target Property Geometry: POLYGON

County/Parish Covered:

Erahn (TX)

Zipcode(s) Covered:

Stephenville TX: 76401

State(s) Covered:

TX

Executive Summary: Report Summary

Database	Searched	Project Property	Within 1.00mi	Total
Federal	No Federal databases were selected to be included in the search.			
FED USGS	Y	0	0	0

State	Y	F	48	49
TCEQ WELL LOGS	Y	0	26	26
SDRW WELLS	Y	F	F	2
GWDB	Y	0	0	0
WW HIGH PLAINS	Y	0	0	0
WW HARRIS GAL	Y	0	0	0
WUD	Y	F	F	5

* PO - Property Only

Total:	3	79	82
--------	---	----	----

Executive Summary: Site Report Summary - Project Property

Map Key	DB	Company/Site Name	Address	Direction	Distance (m/ft)	Page Number
1	TCEQ WELL LOGS		TX	NW	0.00 / 0.00	17
Grid No Owners Name: 31-47-3C COLLIER RANCH						
2	WUD	SCHREIBER FOODS	TX	S	0.00 / 0.00	17
WITSIRC Utility Name: G07200284 SCHREIBER FOODS INC						
3	GWDB		TX	S	0.00 / 0.00	17
State Well No Owner: 3147302 AMH Cheese Plant						

Executive Summary: Site Report Summary - Surrounding Properties

Map Key	DB	Company/Site Name	Address	Direction	Distance (m/ft)	Page Number
4	TCEQ WELL LOGS		TX	SW	0.11 / 592.28	18
Grid No Owners Name: 31-47-8 MILK TRANSPORT SERVICES						
5	SDRW WELLS		TX	WSW	0.12 / 645.10	18
Well Rpt Track No: 214325						
6	TCEQ WELL LOGS		TX	NNW	0.14 / 759.29	19
Grid No Owners Name: 31-47-8 COLLIER & SONS (WHTACRE)						
7	TCEQ WELL LOGS		TX	SSE	0.15 / 774.16	19
Grid No Owners Name: 31-47-8 LOUIS BOLLINGEL						
8	SDRW WELLS		823 County Road 176 Stephenville TX 76401	SSE	0.15 / 777.32	19
Well Rpt Track No: 605326						
9	TCEQ WELL LOGS		TX	SW	0.16 / 824.26	20
Grid No Owners Name: 31-47-8 ROY ED GRIFFIN						
9	TCEQ WELL LOGS		TX	SW	0.16 / 824.26	20
Grid No Owners Name: 31-47-8 ROY ED GRIFFIN						
10	TCEQ WELL LOGS		TX	WSW	0.16 / 837.29	21
Grid No Owners Name: 31-47-8 JEHOUAH WITNESS KINGDOM HALL						
11	WUD	MILK TRANSPORT SERVICES	TX	WSW	0.17 / 887.84	21
WITSIRC Utility Name: G07200404 WESTERN DAIRY TRANSPORT LLC						
12	SDRW WELLS		2 miles North US Highway 281 Stephenville TX	NNW	0.17 / 891.69	21
Well Rpt Track No: 254530						
13	TCEQ WELL LOGS		TX	W	0.18 / 947.96	22
Grid No Owners Name: 31-47-8 DEAN TAYLOR						
14	SDRW WELLS		1386 CR 176 Stephenville TX 76401	S	0.18 / 952.37	22
Well Rpt Track No: 598116						
15	TCEQ WELL LOGS		TX	WSW	0.22 / 1,168.88	23

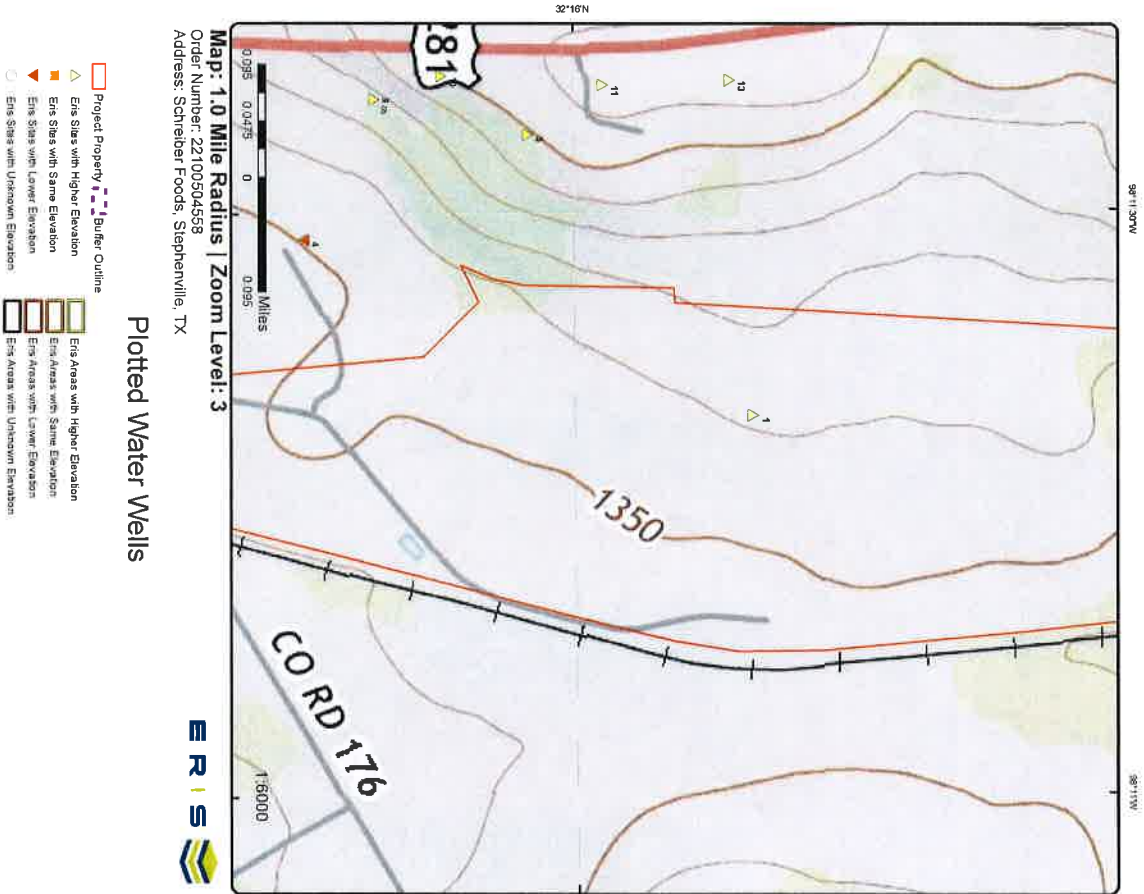
Map Key	DB	Company/Site Name	Address	Direction	Distance (mft)	Page Number
<u>16</u>	TCEQ WELL LOGS		Grid No Owners Name: 31-47-8 ERIC SIMS			<u>23</u>
			TX	WSW	0.23 / 1,194.41	
<u>17</u>	SDRW WELLS		Grid No Owners Name: 31-47-8U S J COOK			<u>23</u>
			1356 CR 176 Stephenville TX 76401	S	0.23 / 1,235.15	
			Well Rpt Track No: 598115			
<u>18</u>	TCEQ WELL LOGS			ESE	0.24 / 1,269.11	<u>24</u>
			Grid No Owners Name: 31-47-8M A T GORDON			
<u>19</u>	SDRW WELLS		4267 N. St. Hwy 281 Stephenville TX 76401	WSW	0.24 / 1,290.27	<u>24</u>
			Well Rpt Track No: 584499			
<u>20</u>	TCEQ WELL LOGS			WSW	0.26 / 1,375.35	<u>25</u>
			Grid No Owners Name: 31-47-8U C L FENNER			
<u>21</u>	TCEQ WELL LOGS			SE	0.27 / 1,409.27	<u>25</u>
			Grid No Owners Name: 31-47-8 MONTY NEEB			
<u>22</u>	TCEQ WELL LOGS			ESE	0.27 / 1,412.81	<u>25</u>
			Grid No Owners Name: 31-47-8 DON COAN			
<u>23</u>	TCEQ WELL LOGS			WNW	0.28 / 1,456.89	<u>25</u>
			Grid No Owners Name: 31-47-8U TROY MOORE			
<u>23</u>	TCEQ WELL LOGS			WNW	0.28 / 1,456.89	<u>26</u>
			Grid No Owners Name: 31-47-8U TROY MOORE			
<u>23</u>	TCEQ WELL LOGS			WNW	0.28 / 1,456.89	<u>26</u>
			Grid No Owners Name: 31-47-8 DEBBIE MOORE			
<u>24</u>	TCEQ WELL LOGS			NW	0.28 / 1,461.17	<u>26</u>
			Grid No Owners Name: 31-47-8 STEVE MCCOY			
<u>25</u>	TCEQ WELL LOGS			SW	0.28 / 1,462.63	<u>26</u>
			Grid No Owners Name: 31-47-8U H. L. GABHAERT			
<u>26</u>	TCEQ WELL LOGS			W	0.29 / 1,539.93	<u>27</u>
			Grid No Owners Name: 31-47-8 JIM BACHUS			

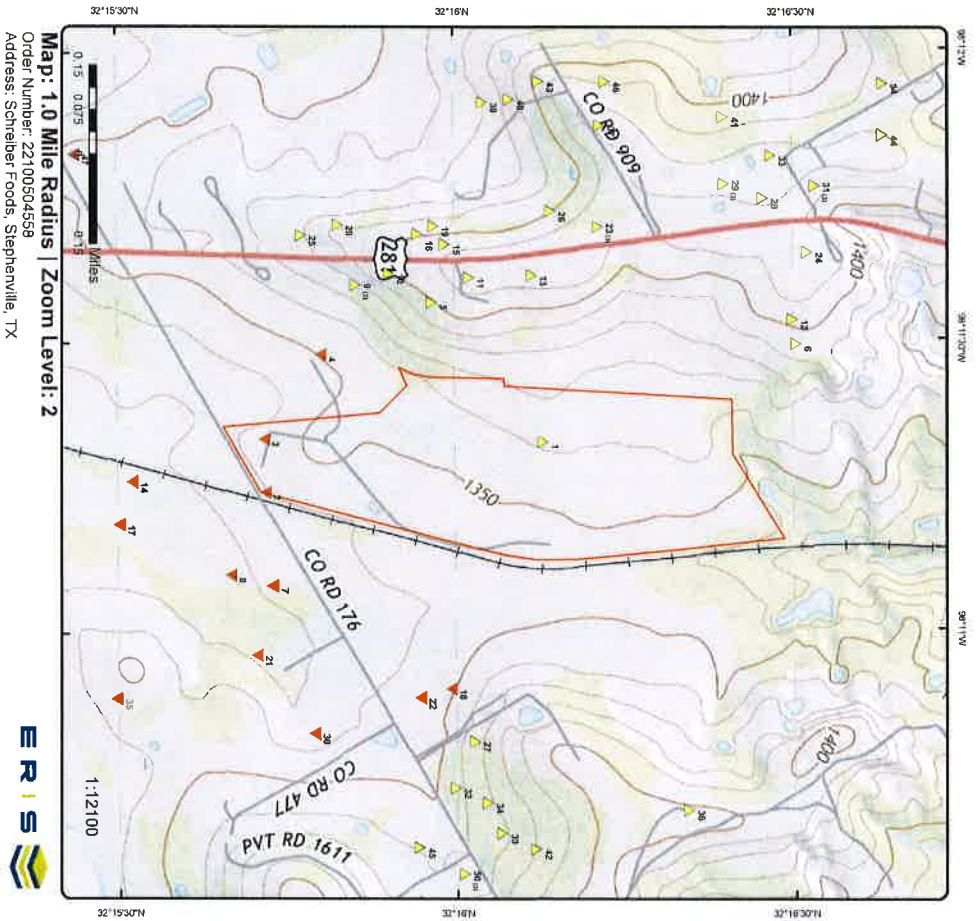
Map Key	DB	Company/Site Name	Address	Direction	Distance (mft)	Page Number
<u>27</u>	SDRW WELLS		TBD CR 176 Stephenville TX 76401	E	0.32 / 1,679.10	<u>27</u>
			Well Rpt Track No: 543961			
<u>28</u>	TCEQ WELL LOGS			NW	0.34 / 1,802.02	<u>27</u>
			Grid No Owners Name: 31-47-8 SOLID ROCK CHURCH			
<u>29</u>	SDRW WELLS		Off of 281 N Stephenville TX 76401	WNW	0.36 / 1,897.88	<u>28</u>
			Well Rpt Track No: 220554			
<u>29</u>	SDRW WELLS		Off of 281 N Stephenville TX 76401	WNW	0.36 / 1,897.88	<u>28</u>
			Well Rpt Track No: 320557			
<u>29</u>	SDRW WELLS		5205 N. US Highway 281 Stephenville TX	WNW	0.36 / 1,897.88	<u>29</u>
			Well Rpt Track No: 255332			
<u>30</u>	TCEQ WELL LOGS			SE	0.37 / 1,950.67	<u>30</u>
			Grid No Owners Name: 31-47-8 KELLY CASTEVENS			
<u>31</u>	SDRW WELLS		214 CR 434 Stephenville TX 76401	NW	0.39 / 2,034.06	<u>30</u>
			Well Rpt Track No: 106699			
<u>31</u>	TCEQ WELL LOGS			NW	0.39 / 2,034.06	<u>31</u>
			Grid No Owners Name: 31-47-8 HARVEY WILLIAMS			
<u>32</u>	SDRW WELLS		TBD CR 176 Stephenville TX 76401	E	0.40 / 2,116.70	<u>31</u>
			Well Rpt Track No: 543960			
<u>33</u>	TCEQ WELL LOGS			NW	0.41 / 2,188.54	<u>31</u>
			Grid No Owners Name: 31-47-8 MR TERRY ANTONIE			
<u>34</u>	SDRW WELLS		TBD CR 176 Stephenville TX 76401	E	0.42 / 2,202.35	<u>32</u>
			Well Rpt Track No: 560730			
<u>35</u>	WUD	SCHREIBER FOODS		SSE	0.42 / 2,243.35	<u>32</u>
			TX			
			WTRSPIC Utility Name: 607200289 SCHREIBER FOODS INC			
<u>36</u>	TCEQ WELL LOGS			ENE	0.44 / 2,313.42	<u>33</u>
			Grid No Owners Name: 31-47-8 F. E. SUTTON			
<u>37</u>	SDRW WELLS		CR 909 Stephenville TX 76401	WNW	0.45 / 2,358.80	<u>33</u>

Map Key	DB	Company/Site Name	Address	Direction	Distance (mft)	Page Number
<u>38</u>	TCEQ WELL LOGS		Well Rpt Track No: 418048 TX	W	0.46 / 2,451.74	<u>34</u>
<u>39</u>	SDRW WELLS		Grid No Owners Name: 31-47-8 WHESENAT, JOESANTO PROPA TBD CR 176 Stephenville TX 76401 Well Rpt Track No: 590729	E	0.47 / 2,455.48	<u>34</u>
<u>40</u>	SDRW WELLS		952 CR 909 Stephenville TX 76401 Well Rpt Track No: 398793	W	0.47 / 2,480.26	<u>34</u>
<u>41</u>	SDRW WELLS		Off of CR 909 Stephenville TX 76401 Well Rpt Track No: 385331	WNW	0.47 / 2,497.60	<u>35</u>
<u>42</u>	SDRW WELLS		3055 CR 176 STEPHENVILLE TX 76401 Well Rpt Track No: 352001	E	0.49 / 2,590.75	<u>36</u>
<u>43</u>	TCEQ WELL LOGS		TX	W	0.50 / 2,698.02	<u>36</u>
<u>44</u>	SDRW WELLS		Grid No Owners Name: 31-47-8 C. W. FENNER TX Well Rpt Track No: 89529	NW	0.51 / 2,699.88	<u>37</u>
<u>45</u>	TCEQ WELL LOGS		TX	ESE	0.51 / 2,713.16	<u>37</u>
<u>46</u>	SDRW WELLS		Grid No Owners Name: 31-47-8 TOBY STONE Highway 281 towards Morgan Stephenville TX 76401 Well Rpt Track No: 74750	W	0.52 / 2,790.23	<u>38</u>
<u>47</u>	TCEQ WELL LOGS		TX	SW	0.52 / 2,787.58	<u>38</u>
<u>48</u>	TCEQ WELL LOGS		Grid No Owners Name: 31-47-8 JOE TORRES TX	NW	0.54 / 2,831.60	<u>38</u>
<u>49</u>	TCEQ WELL LOGS		Grid No Owners Name: 31-47-8 WINDIE GRAYHAM TX	SW	0.54 / 2,860.77	<u>39</u>
<u>50</u>	SDRW WELLS		2488 CR 176 Stephenville TX 76401 Well Rpt Track No: 355178	E	0.54 / 2,864.37	<u>39</u>

Map Key	DB	Company/Site Name	Address	Direction	Distance (mft)	Page Number
<u>50</u>	TCEQ WELL LOGS		TX	E	0.54 / 2,864.37	<u>40</u>
<u>51</u>	SDRW WELLS		Grid No Owners Name: 31-47-8 ED TATSCH 6189 N US Hwy 281 Stephenville TX 76401 Well Rpt Track No: 168018	NNW	0.54 / 2,875.19	<u>40</u>
<u>52</u>	GW08		TX	SSW	0.56 / 2,932.89	<u>40</u>
<u>53</u>	TCEQ WELL LOGS		State Well No Owner: 3147801 Texas A&M TX	NNW	0.57 / 3,022.13	<u>41</u>
<u>54</u>	TCEQ WELL LOGS		Grid No Owners Name: 31-47-8 J. O. BACHUS TX	NW	0.59 / 3,111.06	<u>41</u>
<u>55</u>	SDRW WELLS		Grid No Owners Name: 31-47-8 J. O. BACHUS 325 CR 477 Stephenville TX 76401 Well Rpt Track No: 203770	E	0.60 / 3,169.55	<u>41</u>
<u>56</u>	SDRW WELLS		6345 NORTH US 281 STEPHENVILLE TX 76401 Well Rpt Track No: 375582	NNW	0.65 / 3,409.91	<u>42</u>
<u>57</u>	TCEQ WELL LOGS		TX	NW	0.66 / 3,507.40	<u>43</u>
<u>58</u>	TCEQ WELL LOGS		Grid No Owners Name: 31-47-8 LLOYD DUNSON TX	ENE	0.67 / 3,519.95	<u>43</u>
<u>59</u>	TCEQ WELL LOGS		Grid No Owners Name: 31-47-8 LEVY ALEXANDER TX	SSW	0.67 / 3,550.48	<u>43</u>
<u>59</u>	TCEQ WELL LOGS		Grid No Owners Name: 31-55-2 TEXAS EXPERIMENT STATION TX	SSW	0.67 / 3,550.48	<u>43</u>
<u>60</u>	TCEQ WELL LOGS		Grid No Owners Name: 31-55-2 TEXAS AGRICULTURE EXPERIMENT FARM TX	E	0.69 / 3,623.29	<u>44</u>
<u>61</u>	TCEQ WELL LOGS		Grid No Owners Name: 31-47-8 GORDON TAYLOR TX	SW	0.70 / 3,710.72	<u>44</u>
<u>62</u>	TCEQ WELL LOGS		Grid No Owners Name: 31-47-8 F. GRIFFIN TX	ESE	0.71 / 3,728.73	<u>44</u>

Map Key	DB	Company/Site Name	Address	Direction	Distance (mft)	Page Number
63	TCEQ WELL LOGS		Grid No Owners Name: 31-47-8 BERT WRIGHT	NW	0.77 / 4,069.64	44
			Grid No Owners Name: 31-47-8 LARRY REAVIS	NW	0.81 / 4,293.96	45
64	TCEQ WELL LOGS		Grid No Owners Name: 31-47-8 TOM CRAWFORD	NW	0.81 / 4,293.96	45
65	WUD	TARLETON STATE UNIVERSITY SOUTHWES	TX	SW	0.82 / 4,327.74	45
			WTRSRG Utility Name: G0720065A TARLETON STATE UNIVERSITY SOUTHWES			
65	SPRW WELLS		5026 CR 518 Stephenville TX 76401 Well Rpt Track No: 229885	SW	0.82 / 4,327.74	45
66	SPRW WELLS		2703 CR 455 Stephenville TX 76401 Well Rpt Track No: 425607	E	0.84 / 4,421.41	46
67	TCEQ WELL LOGS		TX	ENE	0.85 / 4,502.04	47
			Grid No Owners Name: 31-47-8 BILL TOWELL			
68	TCEQ WELL LOGS		TX	SSW	0.88 / 4,620.09	47
			Grid No Owners Name: 31-47-8N TEXAS AGRICULTURAL EXP STA			
69	TCEQ WELL LOGS		TX	NW	0.89 / 4,723.57	47
			Grid No Owners Name: 31-47-8 KEN ROUSE			
70	TCEQ WELL LOGS		TX	ESE	0.92 / 4,878.47	47
			Grid No Owners Name: 31-47-8 BERT WRIGHT			
71	TCEQ WELL LOGS		TX	W	0.94 / 4,941.82	47
			Grid No Owners Name: 31-47-8 RACHEAL FRAZER			
72	WUD	WHITE HORSE CHRISTIAN ACADEMY	TX	SSE	0.97 / 5,132.67	49
			WTRSRG Utility Name: G0720063A WHITE HORSE CHRISTIAN ACADEMY			
73	TCEQ WELL LOGS		TX	NW	0.99 / 5,247.97	49
			Grid No Owners Name: N/A BILLY WIER			

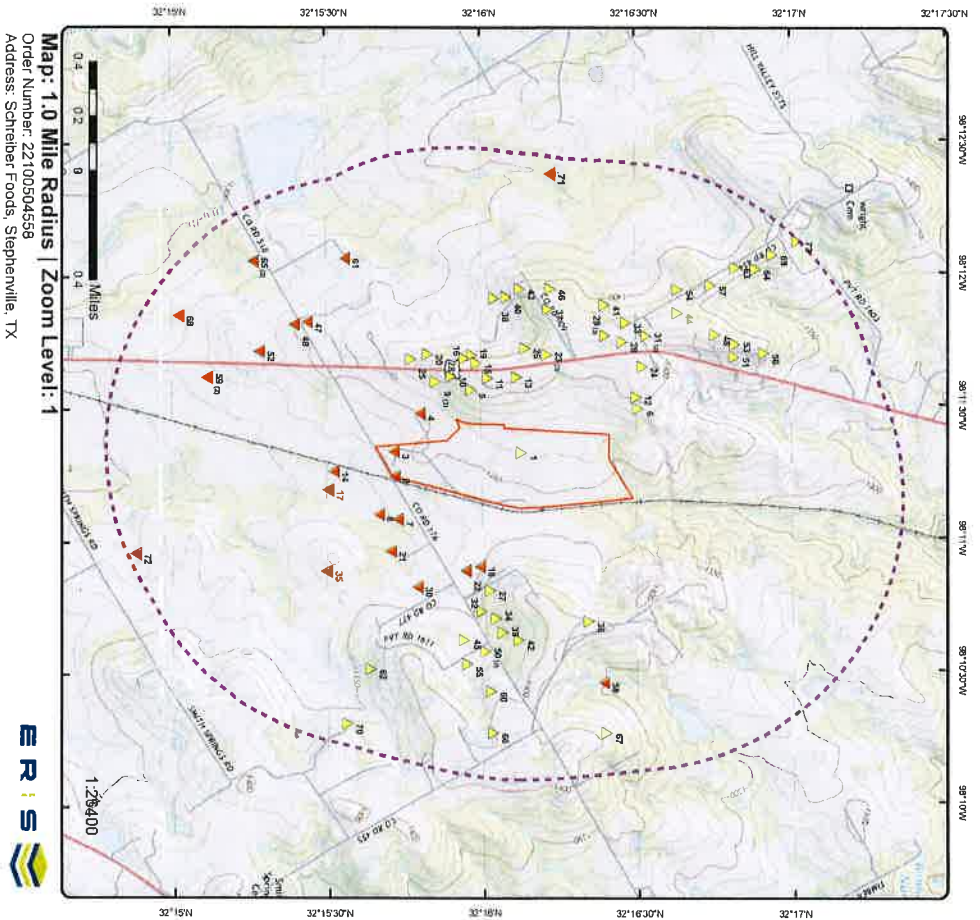




- Project Property
- Buffer Outline
- ▲ Eris Sites with Higher Elevation
- ▲ Eris Sites with Same Elevation
- ▲ Eris Sites with Lower Elevation
- Eris Sites with Unknown Elevation
- Eris Areas with Higher Elevation
- Eris Areas with Same Elevation
- Eris Areas with Lower Elevation
- Eris Areas with Unknown Elevation

Source: © US Geological Survey

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- Project Property
- Buffer Outline
- ▲ Eris Sites with Higher Elevation
- ▲ Eris Sites with Same Elevation
- ▲ Eris Sites with Lower Elevation
- Eris Sites with Unknown Elevation
- Eris Areas with Higher Elevation
- Eris Areas with Same Elevation
- Eris Areas with Lower Elevation
- Eris Areas with Unknown Elevation

Source: © US Geological Survey

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Detail Report

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
1	1 of 1	NW	0.00 / 0.00	TX	TCEQ WELL LOGS
Grid No:	3147802				
Dadp Prod:	06181971				
Owner Name:	COLLIER RANCH				
County:	ERATH				
Water Usage:	DOMESTIC				
Static Level:	193				
Depth Drilled:	230				
Latitude:	-98.19150927116219				
Longitude:	32.27509631789818				

2	1 of 1	S	0.00 / 0.00	TX	WJD
PWS ID:	0720026	Segment:			
WTRSRC:	G0720026A	System Stat:	ACTIVE		
ID No:	G0720026A	Contact Phone:	254-582-7736		
St Well No:	3147802	Primary Co:	JUSTIN GROTE		
Operating Status:	OPERATIONAL	Contact TI:	OPERATOR		
Well Depth:	450	Utility Name:	SCHREIBER FOODS INC		
Water Usage:	ACTIVE - PERMANENT	Utility No:	SCHREIBER FOODS		
Static Lev:	08/01/1988	Aquifer:	218TRNT		
Date Drilled:	Yes	Waterbody:			
Compliant:	450	Latitude:	32.26197222		
Screen Bottom:	400	Longitude:	-98.18735667		
Gallons Per Minute:	DELL	Hdaltum:	83		
EPD:	001	Horz Multi:	DOQ		
Type:		Horz Acc:	STRUC CEN		
CAD No:		Horz Dgt:	06.Feb-2007		
Constr:	T	Horz Org:	TCEQ		
Confine:	T	Horz Datum:	NAD83		
CCN:	N	Quadrant:	3298-142		
Alluvial:		Ownr Desc:			

3	1 of 1	S	0.00 / 0.00	TX	GWDB
State Well No:	3147802	Water Level Status:	No		
GMA:	B	Cur Mtr Lvl Mtd:	Yes		
RWPA:	G - Brazos G	Wtr Quality Avail:	No		
GCD:	Middle Trinity GCD	Cur Wtr Dual Well:	No		
Well Type:	Wildcatal of Water	Reporting Agency:	Texas Water Development Board		
Pump:	Submersible	Other Data Avail:	Dillies Log		
Power Type:	Electric Motor	Well Use:	Industrial		
Well Rep Track No:		Aquifer Code:	218TRNT		
Plug Rep Track No:		Aquifer Code Desc:	Trinity Group		
USGS Site No:		Aquifer ID:	28		
TCEQ Source ID:	G0720026A	Aquifer:	Trinity		
GCD Well No:		Classification:	Major		
Owner Well No:		Aquifer Pick Mtd:			



Aerial Year: 2021

Address: Schreiber Foods, Stephenville, TX

Source: ESRI World Imagery

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
	60404			Well Address: 923 County Road 176 Well Add2: Well City: Well Zip: 76401	
License No:	60404			Owner Well No: CDS STXDC 2021 LLC	
Plug Rpt Track No:	605326			Owner Name: 125 Camelot Drive	
Well Rpt Trk No:				Owner Add1: Fon Du Lac	
Apprentice Reg No:	1			Owner Add2: 54935	
No of Wells Drilled:	2022-05-17			Owner City: WI	
Date Submitted:	2022-05-17			Owner State: WI	
Type of Work:	New Well			Owner Zip: 54935	
Type of WtR Oh Descr:	Pressure			Well City: CURTIS WAYNE SANDERS	
Seal Method Oh Descr:	Seal Method Oh Descr:			Driller Name: PO Box 16	
Plugged w/ 48Hrs:	No			Driller Address1: TX	
Drilling Start Dt:	2022-05-11			Driller City: TX	
Drilling End Dt:	2022-05-16			Driller State: TX	
Proposed Use:	Industrial			Driller Zip: 76401	
TCER Approve Plans:	Yes			Driller Oh City: 150	
Approve by Variance:	Yes			Driller Country: 150	
Loc Vfy by Driller:	Yes			Dist to Septic Tk: 150	
Sealed by Name:	Curtis Sanders			Dist to Prop Line: Customer	
Driller Signed:				Dist Verif Method: Horizon Datum Type:	
Apprentice Signed:	Surface Sleeve Installed			Elevation: 32.261111	
Surf Space Compl:	Yes			Lat Degree: 32	
Completed by Driller:	Submersible			Lat Minute: 15	
Pump Type:	400.00			Lat Second: 40	
Pump Depth:	No			Longitude: -98.185	
Chemical Analysis:	No			Long Degree: 98	
Injurious Water:	Elath			Long Minute: 11	
County:	No			Long Second: 6	
Known Loc Error:	31-47-8				
Grid No:	31-47-8				
Company Name:	Associated Well Services, Inc.				
Well Location Description:					
Comments:	Full SDR Database: SDRDB Well Location (Map)				
Data source:					
9	1 of 2	SW	0.16 / 824.26	TX	TCER WELL LOGS
Grid No:	31-47-8				
Date Drilled:	12/04/1991				
Owners Name:	ROY ED GRIFIN				
County:	ERATH				
Water Usage:	DOMESTIC				
Static Level:	280				
Depth Drilled:	380				
Latitude:	32.193299				
Longitude:	32.264233				
9	2 of 2	SW	0.16 / 824.26	TX	TCER WELL LOGS
Grid No:	31-47-8				
Date Drilled:	06/21/1995				
Owners Name:	ROY ED GRIFIN				
County:	ERATH				
Water Usage:	DOMESTIC				
Static Level:	300				
Depth Drilled:	380				

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
				Longitude: -98.193299 Latitude: 32.264233	
10	1 of 1	WSW	0.16 / 837.29	TX	TCER WELL LOGS
Grid No:	31-47-8				
Date Drilled:	09/03/1985				
Owners Name:	JEROME WITNESS KINGDOM HALL				
County:	ERATH				
Water Usage:	CHURCH				
Static Level:	420				
Depth Drilled:	420				
Latitude:	-98.193828				
Longitude:	32.265098				
11	1 of 1	WSW	0.17 / 897.84	MILK TRANSPORT SERVICES TX	WLD
PWS ID:	0720040				
WTRSRC:	G0720040A				
ID:	G0720040A				
St Well No:					
Operating Status:	OPERATIONAL				
Well Depth:	449				
Water Usage:	ACTIVE - PERMANENT				
Static Lev:	02/21/2001				
Date Drilled:	Yes				
Compliant:	449				
Screen Bottom:	389				
Gallons Per Minute:	65				
Depth Agen:	DRILL				
EPID:	001				
Type:					
GRID No:					
Compl:	T				
Confine:	T				
CCN:	N				
Altuvial:					
12	1 of 1	NW	0.17 / 891.89	2 miles North US Highway 281 Stephenville TX	SDRW WELLS
License No:	55004				
PWS ID:					
WTRSRC:					
ID:					
St Well No:	254530				
Operating Status:					
Well Depth:					
Water Usage:					
Static Lev:					
Date Drilled:					
Compliant:					
Screen Bottom:					
Gallons Per Minute:					
Depth Agen:					
EPID:					
Type:					
GRID No:					
Compl:					
Confine:					
CCN:					
Altuvial:					
12	1 of 1	NW	0.17 / 891.89	2 miles North US Highway 281 Stephenville TX	SDRW WELLS
License No:	55004				
PWS ID:					
WTRSRC:					
ID:					
St Well No:	254530				
Operating Status:					
Well Depth:					
Water Usage:					
Static Lev:					
Date Drilled:					
Compliant:					
Screen Bottom:					
Gallons Per Minute:					
Depth Agen:					
EPID:					
Type:					
GRID No:					
Compl:					
Confine:					
CCN:					
Altuvial:					
12	1 of 1	NW	0.17 / 891.89	2 miles North US Highway 281 Stephenville TX	SDRW WELLS
License No:	55004				
PWS ID:					
WTRSRC:					
ID:					
St Well No:	254530				
Operating Status:					
Well Depth:					
Water Usage:					
Static Lev:					
Date Drilled:					
Compliant:					
Screen Bottom:					
Gallons Per Minute:					
Depth Agen:					
EPID:					
Type:					
GRID No:					
Compl:					
Confine:					
CCN:					
Altuvial:					
12	1 of 1	NW	0.17 / 891.89	2 miles North US Highway 281 Stephenville TX	SDRW WELLS
License No:	55004				
PWS ID:					
WTRSRC:					
ID:					
St Well No:	254530				
Operating Status:					
Well Depth:					
Water Usage:					
Static Lev:					
Date Drilled:					
Compliant:					
Screen Bottom:					
Gallons Per Minute:					
Depth Agen:					
EPID:					
Type:					
GRID No:					
Compl:					
Confine:					
CCN:					
Altuvial:					
12	1 of 1	NW	0.17 / 891.89	2 miles North US Highway 281 Stephenville TX	SDRW WELLS
License No:	55004				
PWS ID:					
WTRSRC:					
ID:					
St Well No:	254530				
Operating Status:					
Well Depth:					
Water Usage:					
Static Lev:					
Date Drilled:					
Compliant:					
Screen Bottom:					
Gallons Per Minute:					
Depth Agen:					
EPID:					
Type:					
GRID No:					
Compl:					
Confine:					
CCN:					
Altuvial:					
12	1 of 1	NW	0.17 / 891.89	2 miles North US Highway 281 Stephenville TX	SDRW WELLS
License No:	55004				
PWS ID:					
WTRSRC:					
ID:					
St Well No:	254530				
Operating Status:					
Well Depth:					
Water Usage:					
Static Lev:					
Date Drilled:					
Compliant:					
Screen Bottom:					
Gallons Per Minute:					
Depth Agen:					
EPID:					
Type:					
GRID No:					
Compl:					
Confine:					
CCN:					
Altuvial:					
12	1 of 1	NW	0.17 / 891.89	2 miles North US Highway 281 Stephenville TX	SDRW WELLS
License No:	55004				
PWS ID:					
WTRSRC:					
ID:					
St Well No:	254530				
Operating Status:					
Well Depth:					
Water Usage:					
Static Lev:					
Date Drilled:					
Compliant:					
Screen Bottom:					
Gallons Per Minute:					
Depth Agen:					
EPID:					
Type:					
GRID No:					
Compl:					
Confine:					
CCN:					
Altuvial:					
12	1 of 1	NW	0.17 / 891.89	2 miles North US Highway 281 Stephenville TX	SDRW WELLS
License No:	55004				
PWS ID:					
WTRSRC:					
ID:					
St Well No:	254530				
Operating Status:					
Well Depth:					
Water Usage:					
Static Lev:					
Date Drilled:					
Compliant:					
Screen Bottom:					
Gallons Per Minute:					
Depth Agen:					
EPID:					
Type:					
GRID No:					
Compl:					
Confine:					
CCN:					
Altuvial:					
12	1 of 1	NW	0.17 / 891.89	2 miles North US Highway 281 Stephenville TX	SDRW WELLS
License No:	55004				
PWS ID:					
WTRSRC:					
ID:					
St Well No:	254530				
Operating Status:					
Well Depth:					
Water Usage:					
Static Lev:					
Date Drilled:					
Compliant:					
Screen Bottom:					
Gallons Per Minute:					
Depth Agen:					
EPID:					
Type:					
GRID No:					
Compl:					
Confine:					
CCN:					
Altuvial:					
12	1 of 1	NW	0.17 / 891.89	2 miles North US Highway 281 Stephenville TX	SDRW WELLS
License No:	55004				
PWS ID:					
WTRSRC:					
ID:					
St Well No:	254530				
Operating Status:					
Well Depth:					
Water Usage:					
Static Lev:					
Date Drilled:					
Compliant:					
Screen Bottom:					
Gallons Per Minute:					
Depth Agen:					
EPID:					
Type:					
GRID No:					
Compl:					
Confine:					
CCN:					
Altuvial:					
12	1 of 1	NW	0.17 / 891.89	2 miles North US Highway 281 Stephenville TX	SDRW WELLS
License No:	55004				
PWS ID:					
WTRSRC:					
ID:					
St Well No:	254530				
Operating Status:					
Well Depth:					
Water Usage:					
Static Lev:					
Date Drilled:					
Compliant:					
Screen Bottom:					
Gallons Per Minute:					
Depth Agen:					
EPID:					
Type:					
GRID No:					
Compl:					
Confine:					
CCN:					
Altuvial:					
12	1 of 1	NW	0.17 / 891.89	2 miles North US Highway 281 Stephenville TX	SDRW WELLS
License No:	55004				
PWS ID:					
WTRSRC:					
ID:					
St Well No:	254530				
Operating Status:					
Well Depth:					
Water Usage:					
Static Lev:					
Date Drilled:					
Compliant:					
Screen Bottom:					
Gallons Per Minute:					
Depth Agen:					

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
<div>Prop Use Oh Descr: TCCE Approved Plans: Approved by Variance: No Loc Vly by Driller: Sealed by Driller: Driller Signed: Driller Signed: Apprentice Signed: Surface Compl: Surf Comp Oh Descr: Compl by Driller: Pump Type: Pump Type Oh Descr: Pump Depth: Chemical Analysts: No Injurious Water: No Country: No Known Loc Error: 31-47-8 Company Name: Associated Services Well Location Description: Full SDR Database: SDRDB Well Location (Map) Comments: Data Source:</div>					
<div>Grid No: 31-47-8 Date Drilled: 03/17/1986 Owners Name: DEAN TAYLOR Owners: ERN DONESTIC Static Level: 340 Depth Drilled: -98 193541 Latitude: 32.268583</div>					
14	1 of 1	S	0.18 / 952.37	TX	TCED WELL LOGS
<div>1356 CR T76 Stephenville TX 76401 Well Address: 1356 CR T76 Well Addr2: Stephenville Well Zip: 76401 Owner Well No: CDS STXDC 2021, LLC Owner Addr1: 125 Camelb Dr Owner City: Fond du Lac WI Owner State: WI Owner Zip: 54935 Driller Name: James W Lindley Sr Driller Address1: 3853 South Hwy 281 Driller City: Mineral Wells Driller State: TX Driller Zip: 76067 Driller Oh Conty: Driller County: Dist to Sep Contam: Dist to Septic Tk: Dist to Prop Line: Dist Verif Method:</div>					

SDRW WELLS

Order No: 22100504558

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
Prop Use Oh Descr:				Driller State: TX	
Driller Approved Plans:				Driller City: 76067	
Approved by Driller:				Driller County:	
Loc Vly by Driller:	Yes			Dist to Ssg Contam:	
Sealed by Driller:	Yes			Dist to Ssg Contam:	
Driller Signed:	James Lindley, Sr			Dist to Prop Line:	
Apprentice Signed:	James Lindley, Jr			Horizon Datum Type:	
Surface Compl:	Surface Sleeve Installed			Elevation:	
Surf Comp Oh Descr:	Yes			Latitude:	32.258379
Compl by Driller:	Submersible			Lat Degree:	32
Pump Type:				Lat Minute:	15
Pump Type Oh Descr:				Lat Second:	30.16
Pump Depth:	400.00			Longitude:	-98.186473
Chemical Analysis:	No			Long Minute:	38
Injurious Water:	No			Long Degree:	98
County:	Erath			Long Minute:	11
Known Loc Error:	No			Long Second:	41.9
Grid No:	31-47.8			Company Name:	Dowell Well Service
Company Name:	Moore's Water Well Service			Well Location Description:	
Comments:				Data Source:	Full SDR Database, SDRDB Well Location (Map)
Data Source:					
18	1 of 1	ESE	0.24 / 1,268.71	TX	TCEQ WELL LOGS
Grid No:	31-47.8W				
Date Drilled:	10/12/1978				
Owners Name:	A.T. GORDON				
County:	ERATH				
Water Usage:	DOMESTIC				
Static Level:	260				
Depth Drilled:	320				
Longitude:	-98.175778				
Latitude:	32.263886				
19	1 of 1	WSW	0.24 / 1,260.27	4267 N. St. Hwy 281 Stephenville TX 76401	SDRW WELLS
License No:	56066			Well Address:	4267 N. St. Hwy 281 Stephenville
PWS No:				Well City:	Stephenville
Plug Rpt Track No:	564439			Well Zip:	76401
Well Rpt Track No:				Owner Well No:	Royce Sims
Orig Well Rpt Trk No:				Owner Name:	4267 N. St. Hwy 281
Apprentice Reg No:	1			Owner Add1:	
No of Wells Drilled:	2021-09-23			Owner Add2:	Stephenville
Date submitted:	New Well			Owner City:	Stephenville
Type of Work:				Owner State:	TX
Type of Work Oh Descr:				Owner Zip:	76401
Sealed by Driller:	Pumped			County:	Justin W Dowell
Seal Method:				Driller Name:	PO Box 402
Seal Material:				Driller Address:	Stephenville
Plugged w/ 48hrs:	No			Driller City:	TX
Drilling Start Dt:	2021-09-08			Driller State:	
Drilling End Dt:	2021-09-08			Driller Zip:	
Prop Use Oh Descr:	Domestic			Driller Oh City:	
TCEQ Approve Plans:				Driller County:	105+
Approve by Variance:	Yes			Dist to Ssg Contam:	55+
Loc Vly by Driller:	Yes			Dist to Ssg Contam:	51+
Sealed by Driller:				Dist to Prop Line:	owner
Sealed by Name:	Justin Dowell			Dist Verifi Method:	
Driller Signed:					
Apprentice Signed:					

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
Surface Compl:				Surface Sleeve Installed	
Surf Comp Oh Descr:	Yes			Elevation:	32.265167
Compl by Driller:	Submersible			Latitude:	32
Pump Type:				Lat Degree:	32
Pump Type Oh Descr:				Lat Minute:	15
Pump Depth:				Lat Second:	58.2
Chemical Analysis:	No			Longitude:	-98.194972
Injurious Water:	No			Long Degree:	98
County:	Erath			Long Minute:	11
Known Loc Error:	No			Long Second:	41.9
Grid No:	31-47.8			Company Name:	Dowell Well Service
Company Name:	Dowell Well Service			Well Location Description:	
Comments:				Data Source:	Full SDR Database, SDRDB Well Location (Map)
Data Source:					
20	1 of 1	WSW	0.26 / 1,375.35	TX	TCEQ WELL LOGS
Grid No:	31-47.8U				
Date Drilled:	12/25/1978				
Owners Name:	C.L. FENNER				
County:	ERATH				
Water Usage:	DOMESTIC				
Static Level:	350				
Depth Drilled:	450				
Longitude:	-98.19503				
Latitude:	32.263803				
21	1 of 1	SE	0.27 / 1,409.27	TX	TCEQ WELL LOGS
Grid No:	31-47.8				
Date Drilled:	12/23/1987				
Owners Name:	MONY NEEB				
County:	DOMESTIC				
Water Usage:	NO REPORTED				
Static Level:	357				
Depth Drilled:	-98.182679				
Longitude:	32.26174				
Latitude:					
22	1 of 1	ESE	0.27 / 1,412.61	TX	TCEQ WELL LOGS
Grid No:	31-47.8				
Date Drilled:	12/14/1990				
Owners Name:	DOM COAN				
County:	ERATH				
Water Usage:	DOMESTIC				
Static Level:	310				
Depth Drilled:	400				
Longitude:	-98.181423				
Latitude:	32.265771				
23	1 of 3	WNW	0.28 / 1,456.99	TX	TCEQ WELL LOGS
Grid No:	31-47.8E				
Date Drilled:					
Owners Name:					
County:					
Water Usage:					
Static Level:					
Depth Drilled:					
Longitude:					
Latitude:					

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
Date Drilled: Owners Name: County: Water Usage: Static Level: Depth Drilled: Latitude:	10/22/1982 TROY MOORE ERATH DOMESTIC 370 450 -98.195232 32.268198				
23	2 of 3	WNW	0.28 / 1,456.89	TX	TCEQ WELL LOGS
Grid No: Date Drilled: Owners Name: County: Water Usage: Static Level: Depth Drilled: Latitude:	31-47-8D 04/20/1974 TROY MOORE ERATH DOMESTIC 300 374 -98.195232 32.268198				
23	3 of 3	WNW	0.28 / 1,456.89	TX	TCEQ WELL LOGS
Grid No: Date Drilled: Owners Name: County: Water Usage: Static Level: Depth Drilled: Latitude:	31-47-8 03/03/1992 DEBBIE MOORE ERATH DOMESTIC 75 122 -98.194965 32.269483				
24	1 of 1	NW	0.28 / 1,461.17	TX	TCEQ WELL LOGS
Grid No: Date Drilled: Owners Name: County: Water Usage: Static Level: Depth Drilled: Latitude:	31-47-8 08/11/1987 STEVE MCCOY ERATH DOMESTIC 380 460 -98.194139 32.275353				
25	1 of 1	SW	0.28 / 1,462.63	TX	TCEQ WELL LOGS
Grid No: Date Drilled: Owners Name: County: Water Usage: Static Level: Depth Drilled:	31-47-BL 12/20/1975 H.L. GABRIELT ERATH DOMESTIC NOT REPORTED 80				
26	edisinfo.com Environmental Risk Information Services				Order No: 22100504558

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
Longitude: Latitude:	-98.16478624180759 32.26298440489351				
26	1 of 1	W	0.29 / 1,539.93	TX	TCEQ WELL LOGS
Grid No: Date Drilled: Owners Name: County: Water Usage: Static Level: Depth Drilled: Latitude:	31-47-B 08/14/1997 JIM BACHUS ERATH DOMESTIC 40 115 -98.19537498804413 32.269054120163524				
27	1 of 1	E	0.32 / 1,673.10	TBD CR 176 Stephenville TX 76401	SDRW WELLS
License No: PMS No: Filing Reg Track No: Well Reg Track No: Orig Well Reg Trk No: Apprentice Reg No: No of Wells Dril: Date Submitted: Type of Work: Type of Wtk Oh Desc: Seal Method: Seal Method Oh Desc: Plugged w/ 48Hrs: Drilling Start Dt: Drilling End Dt: Proposed Use: Propose Oh Desc: TCEQ Admin Pkgs: Loc Vty by Driller: Sealed by Driller: Driller Signed: Apprentice Signed: Surface Compl: Surt Comp Oh Desc: Compl by Driller: Pump Type: Pump Type Oh Desc: Pump Depth: Chemical Analysis: Known Water: Known Lat Error: Grid No: Company Name: Well Location Description: Comments: Data Source:	56066 543961 1 2020-05-22 New Well Pumped 2020-05-20 2020-05-20 Domestic TCEQ Admin Pkgs: Yes Yes Justin Dowell Surface Sleeve installing Yes Submersible No No Erath No Dowell Well Service Lot 1 Full SDR Database, SDRDB Well Location (Map)	Well Address: Well Addr Z: Well City: Well Zip: Owner Well No: Owner Name: Owner Addr: Owner Addr2: Owner City: Owner State: Owner Zip: Owner Country: Driller Name: Driller Address: Driller City: Driller State: Driller Zip: Driller Oh Conty: Driller Country: Dist to Sep Contam: Dist to Septic Tk: Dist to Prop Line: Dist Verif Method: Horizon Datum Type: Elevation: Latitude: Lat Degree: Lat Minute: Lat Second: Long Degree: Long Minute: Long Second:	TBD CR 176 Stephenville 76401 Nick Braun 5411 CR 522 Stephenville TX 76401 Justin W Dowell PO Box 402 Stephenville TX 105+ 55+ 58 wheel 32.267111 32 18 19 -98.180167 98 10 48.6		
28	1 of 1	NW	0.34 / 1,892.02	TX	TCEQ WELL LOGS
27	edisinfo.com Environmental Risk Information Services				Order No: 22100504558

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
Grid No: Date Drilled: Owners Name: County: Water Usage: Static Level: Depth Drilled: Longitude: Latitude:		31-47-8 09/27/2003 SOLID ROCK CHURCH ERRATH DOMESTIC 410 500 -98.1957 32.274289			

29 1 of 3 MNW 0.36 / 1,897.88 Off of 281 N Stephenville TX 76401 SDRW WELLS

License No:	55033	Well Address:	Off of 281 N
PWS No:	127661	Well City:	Stephenville
Plug Rpt Track No:	220554	Well Zip:	76401
Orig Well Rpt Trk No:		Owner Well No:	Chris Baughn
Apprentice Reg No:		Owner Name:	1015 PR 897
No of Wells Drilled:	2010-06-24	Owner Addt1:	Stephenville
Date Submitted:	Replacement	Owner City:	TX
Type of Work:	Not Applicable	Owner State:	76401
Type of Wkr Oh Descr:	Yes	Owner Country:	Loch Aardal
Seal Method:	2009-12-31	Driller Name:	PO Box 16
Seal Method Oh Descr:	2009-12-31	Driller Address1:	Stephenville
Drilling Start Dt:	2009-12-31	Driller City:	TX
Drilling End Dt:	Domestic	Driller State:	76401
Proposed Use:		Driller Zip:	
Prop Use Oh Descr:		Driller Oh Cntry:	
TCEQ Approve Plans:		Driller Country:	
Approve by Variance:	No	Dist to Septic Tk:	
Loc Vly by Driller:	No	Dist to Prop Line:	
Sealed by Driller:	Josh Aardal	Dist Verif Method:	
Driller Signed:	Unknown	Horizon Datum Type:	
Apprentice Signed:		Elevation:	32.273333
Surface Comp:		Latitude:	32
Surf Comp Oh Descr:		Lat Minute:	16
Pumped by Driller:		Lat Second:	24
Pump Type Oh Descr:		Longitude:	-98.196111
Pump Depth:	No	Long Degree:	98
Chemical Analysis:	No	Long Minute:	11
Injurious Water:	Erath	Long Second:	46
County:	No		
Known Loc Error:	31-47-8		
Grid No:			
Company Name:	Associated Services - Josh Aardal		
Well Location Description:			
Comments:	Full SDR Database, SDRDB Well Location (Map)		
Data Source:			

23 2 of 3 MNW 0.36 / 1,897.88 Off of 281 N Stephenville TX 76401 SDRW WELLS

License No:	55033	Well Address:	Off of 281 N
PWS No:	127661	Well City:	Stephenville
Plug Rpt Track No:	220557	Well Zip:	76401
Orig Well Rpt Trk No:		Owner Well No:	Chris Baughn
Apprentice Reg No:		Owner Name:	1015 PR 897
No of Wells Drilled:		Owner Addt1:	

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
Date Submitted:	2010-06-24	Type of Work:	Replacement	Owner Addt2:	Stephenville
Type of Wkr Oh Descr:		Owner City:	TX	Owner State:	76401
Seal Method:	Pumped	Owner Zip:		Owner Country:	Loch Aardal
Seal Method Oh Descr:		Owner Name:	1015 PR 897	Driller Address1:	PO Box 16
Drilling Start Dt:	2009-12-31	Driller Country:	Stephenville	Driller City:	TX
Drilling End Dt:	2009-12-31	Driller State:	76401	Driller Zip:	
Proposed Use:	Domestic	Driller Oh Cntry:		Driller Country:	
Prop Use Oh Descr:		Dist to Septic Tk:	100	Dist to Prop Line:	100
TCEQ Approve Plans:		Dist to Septic Tk:		Dist Verif Method:	
Approve by Variance:	No	Horizon Datum Type:		Elevation:	32.273333
Loc Vly by Driller:	Yes	Latitude:	32	Lat Degree:	16
Sealed by Name:	Josh Aardal	Lat Minute:	16	Lat Second:	24
Driller Signed:		Longitude:	-98.196111	Long Degree:	98
Apprentice Signed:	Surface Sleeve installed	Long Minute:	11	Long Second:	46
Surface Comp:					
Surf Comp Oh Descr:					
Comp by Driller:	Submersible				
Pump Type Oh Descr:					
Pump Depth:	No				
Chemical Analysis:	No				
Injurious Water:	Erath				
County:	No				
Known Loc Error:	31-47-8				
Grid No:					
Company Name:	Associated Services - Josh Aardal				
Well Location Description:					
Comments:	Full SDR Database, SDRDB Well Location (Map)				
Data Source:					

23 3 of 3 MNW 0.36 / 1,897.88 5205 N US Highway 281 Stephenville TX SDRW WELLS

License No:	2404	Well Address:	5205 N US Highway 281
PWS No:	255332	Well City:	Stephenville
Plug Rpt Track No:		Well Zip:	Stephenville
Orig Well Rpt Trk No:		Owner Well No:	Chris Baughn
Apprentice Reg No:		Owner Name:	1015 PR 897
No of Wells Drilled:	2011-06-02	Owner Addt2:	Stephenville
Date Submitted:	New Well	Owner City:	TX
Type of Work:		Owner State:	
Type of Wkr Oh Descr:		Owner Country:	
Seal Method:	Pumped	Driller Name:	Gary Aardal
Seal Method Oh Descr:		Driller Address1:	P O Box 16
Plugged w/ 48Hr:	No	Driller City:	Stephenville
Drilling Start Dt:	2006-11-14	Driller State:	76401
Drilling End Dt:	2006-11-14	Driller Zip:	
Proposed Use:	Domestic	Driller Oh Cntry:	
Prop Use Oh Descr:		Driller Country:	
TCEQ Approve Plans:		Dist to Septic Tk:	80
Approve by Variance:	No	Dist to Septic Tk:	
Loc Vly by Driller:	Yes	Dist to Prop Line:	100
Sealed by Name:	Gary Aardal	Dist Verif Method:	Customer Verified
Driller Signed:	Surface Sleeve installed	Horizon Datum Type:	
Apprentice Signed:		Elevation:	32.273333
Surface Comp:		Latitude:	32
Surf Comp Oh Descr:		Lat Degree:	16
Comp by Driller:	Submersible	Lat Minute:	16
Pump Type Oh Descr:		Lat Second:	24
Pump Depth:	420.00	Longitude:	-98.196111
Chemical Analysis:	No	Long Degree:	98
		Long Minute:	11
		Long Second:	46

Map Key	Number of Records	Direction	Distance (m/ft)	Site	DB
Injurious Water:	No			Long Degree: 98	
County:	Erath			Long Minute: 11	
Known Loc Error:	No			Long Second: 49	
Grid No.:	31-47-8				
Owner Name:	Associated Services				
Well Location Description:					
Comments:	\$d/s				
Data Source:	Full SDR Database, SDRDB Well Location (Map)				
30	1 of 1	SE	0.37 / 1,950.67	TX	TCEQ WELL LOGS
Grid No.:	31-47-8				
Date Drilled:	12/19/2000				
Owner's Name:	KELLY CASTEVENS				
County:	ERATH				
Water Usage:	DOMESTIC				
Static Level:	265				
Depth Drilled:	440				
Longitude:	-98.180428				
Latitude:	32.263185				

31	1 of 2	NW	0.39 / 2,034.06	214 CR 434 Stephenville TX 76401	SDRW WELLS
License No.:	1891			Well Address1:	214 CR 434
PWS No.:				Well Address2:	Stephenville
Plug Rod Track No.:	100693			Well City:	76401
Orig Well Rpt Trk No.:				Owner Well No.:	1
Apprentice Reg No.:				Owner Name:	Don Williams
No of Wells Drilled:	2006-12-21			Owner Address1:	214 CR 434
Date Submitted:	2006-12-21			Owner Address2:	Stephenville,
Type of Work:	Replacement			Owner City:	TX
Type of Wtr Oth Descr:	Trerrie			Owner State:	TX
Seal Method:				Owner Zip:	76401
Seal Mthd Oth Descr:				Owner Country:	
Plugged w/ 48Hrs:	No			Driller Name:	Mark A Dowell
Drilling Start Dt:	2006-12-20			Driller Address1:	PO Box 402
Drilling End Dt:	2006-12-20			Driller Address2:	Stephenville
Driller City:	Domestic			Driller State:	TX
Prop Use Oth Descr:				Driller Zip:	76401
TCEQ Approve Plans:	na			Driller Oth City:	
Apprv by Variance:	No			Driller Country:	
Loc Vfy by Driller:	Yes			Dist to Sep Contem:	over 160
Sealed by Name:	Mark Dowell			Dist to Septic Tk:	over 53
Driller Signed:				Dist to Prop Line:	owner
Apprentice Signed:				Dist Verifi Method:	
Surface Comp1:	Surface Sleeve Installed			Horizon Datum Type:	
Surf Comp Oth Descr:				Elevation:	32.275555
Compt by Driller:				Latitude:	32
Pump Type:	Submersible			Lat Degree:	32
Pump Type Oth Descr:				Lat Minute:	16
Prop Use Oth Descr:				Lat Second:	32
Chemical Analysis:	No			Longitude:	-98.196389
Injurious Water:	No			Long Degree:	98
County:	Erath			Long Minute:	11
Known Loc Error:	No			Long Second:	47
Grid No.:	31-47-8				
Company Name:	Dowell Well Service				
Well Location Description:	Jarrell Dowell Contractor				
Comments:	Full SDR Database, SDRDB Well Location (Map)				
Data Source:					

Map Key	Number of Records	Direction	Distance (m/ft)	Site	DB
31	2 of 2	NW	0.39 / 2,034.06	TX	TCEQ WELL LOGS
Grid No.:	31-47-8				
Date Drilled:	04/19/1995				
Owner's Name:	HARVEY WILLIAMS				
County:	ERATH				
Water Usage:	DOMESTIC				
Static Level:	215				
Depth Drilled:	350				
Longitude:	-98.19606125316092				
Latitude:	32.27596221031145				

32	1 of 1	E	0.40 / 2,116.70	TBD CR 176 Stephenville TX 76401	SDRW WELLS
License No.:	56066			Well Address1:	TBD CR 176
PWS No.:				Well Address2:	Stephenville
Plug Rod Track No.:	543960			Well City:	76401
Orig Well Rpt Trk No.:				Owner Well No.:	
Apprentice Reg No.:				Owner Name:	Nick Braun
No of Wells Drilled:	1			Owner Address1:	5411 CR 922
Date Submitted:	2020-05-22			Owner Address2:	Stephenville
Type of Work:	New Well			Owner City:	TX
Type of Wtr Oth Descr:				Owner State:	
Seal Method:	Pumped			Owner Zip:	76401
Seal Mthd Oth Descr:				Owner Country:	
Plugged w/ 48Hrs:	No			Driller Name:	Justin W Dowell
Drilling Start Dt:	2020-05-15			Driller Address1:	PO Box 402
Drilling End Dt:	2020-05-15			Driller Address2:	Stephenville
Proposed Use:	Domestic			Driller City:	TX
Prop Use Oth Descr:				Driller State:	
TCEQ Approve Plans:				Driller Zip:	
Apprv by Variance:	Yes			Driller Oth City:	
Loc Vfy by Driller:	Yes			Dist to Sep Contem:	105+
Sealed by Name:	Justin Dowell			Dist to Septic Tk:	55+
Driller Signed:				Dist to Prop Line:	52
Apprentice Signed:				Dist Verifi Method:	wheel
Surface Comp1:	Surface Sleeve Installed			Horizon Datum Type:	
Surf Comp Oth Descr:				Elevation:	32.266639
Compt by Driller:	Yes			Latitude:	32
Pump Type:	Submersible			Lat Degree:	32
Pump Type Oth Descr:				Lat Minute:	15
Prop Use Oth Descr:				Lat Second:	59.9
Chemical Analysis:	No			Longitude:	-98.178833
Injurious Water:	No			Long Degree:	98
County:	Erath			Long Minute:	10
Known Loc Error:	No			Long Second:	43.8
Grid No.:	31-47-8				
Company Name:	Dowell Well Service				
Well Location Description:	Full SDR Database, SDRDB Well Location (Map)				
Comments:	Lol 2				
Data Source:					

33	1 of 1	NW	0.41 / 2,188.54	TX	TCEQ WELL LOGS
Grid No.:	31-47-8				
Date Drilled:	09/13/1996				

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
Owner's Name:		MR. TERRY ANTOINE			
Company:		ERATH			
Water Usage:		DOMESTIC			
Static Level:		275			
Depth Drilled:		405			
Latitude:		-98.19693			
		32.27484			

34	1 of 1	E	0.42 / 2,202.35	TBD CR 176 Stephenville TX 76401	SDRW WELLS
License No:	56086	Well Address:	TBD CR 176		
PWS No:		Well Address:	Stephenville		
Pug Rot Tract No:	560730	Well City:	76401		
Orig Well Rot Trk No:		Owner Well No:			
Apprentice Reg No:		Owner Name:	Nick Braun		
No of Wells Drilled:	1	Owner Addr1:	TBD CR 176		
Date Submitted:	2020-12-04	Owner Addr2:	Stephenville		
Type of Work:	New Well	Owner City:	TX		
Type of Wk Oh Desc:	Pumped	Owner State:	76401		
Seal Method:		Owner Country:			
Plugged w/ 48hrs:	No	Driller Name:	Justin W Dowell		
Drilling Start Dt:	2020-11-16	Driller Address:	PO Box 402		
Drilling End Dt:	2020-11-16	Driller Addr2:	Stephenville		
Prop Use Oh Desc:	Domestic	Driller City:	Stephenville		
TCEQ Approve Plans:		Driller State:	TX		
Loc Vly by Driller:	Yes	Driller Oh Cntry:			
Sealed by Driller:	Yes	Dist to Sep Contam:	110+		
Driller Signed:	Justin Dowell	Dist to Septic Tk:	65+		
Apprentice Signed:		Dist to Prop Line:	60+		
Surface Compl:	Surface Sleeve Installed	Horizon Datum Type:	owner		
Surf Comp Oh Desc:		Elevation:			
Compt by Driller:	Yes	Latitude:	32.287425		
Pump Type:	Submersible	Lat Degree:	32		
Pump Depth:	16	Lat Minute:	273		
Churned by Driller:	No	Lat Second:	53		
Injurious Water:	No	Long Degree:	98		
Country:	Earth	Long Minute:	10		
Known Loc Error:	No	Long Second:	42.21		
Grid No:	31-47-8				
Company Name:	Dowell Well Service				
Well Location Description:					
Comments:					
Data Source:	Full SDR Database, SDRDB Well Location (Map)				

35	1 of 1	SSE	0.42 / 2,243.35	SCHREIBER FOODS TX	WUD
PWS ID:	0720026	Segment:	ACTIVE		
WTRSRC:	G0720026B	System Sta:	254-552-7736		
ID No:	G0720026B	Contact Phone:	JUSTIN GROTE		
SI Well No:		Primary Co:	OPERATOR		
Operating Status:	OPERATIONAL	Contact To:	SCHREIBER FOODS INC		
Well Depth:	462	Utility Name:	SCHREIBER FOODS		
Water Usage:	ACTIVE - PERMANENT	Utility No:	2181RMT		
State Lev:	09/10/2010	Aquifer:			
Date Drilled:	Yes	Waterbody:	32.2962778		
Compliant:	Yes	Latitude:			

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Order No: 22100504558

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
Screen Bottom:	397	Longitude:	-98.1844444		
Screen Top/Minute:	317	Horz Meas:	53		
Drilling Per Minute:	817	Horz Meas:	DDQ		
Depth Drilled:	000	Horz Ref:	15		
Depth Agent:	DRILL	STRUC CEN	06-Jan-2011		
Type:		Horz Date:	TCEQ		
CAO No:		Horz Org:	NAB03		
Constr:	T	Horz Datum:	3298-142		
Confrme:	T	Quadrant:			
CCN:		Owner Des:			
Alluvial:	N				

36	1 of 1	ENE	0.44 / 2,313.42	TX	TCEQ WELL LOGS
Grid No:		31-47-8			
Date Drilled:	05/21/1981	F. E. SUTTON			
Owner's Name:	ERATH				
County:	DOMESTIC				
Water Usage:	320				
Static Level:	400				
Depth Drilled:	-98.178139397155				
Latitude:	32.272378878568				

37	1 of 1	WNW	0.45 / 2,356.80	CR 909 Stephenville TX 76401	SDRW WELLS
License No:	59346	Well Address:	CR 909		
PWS No:		Well Addr2:	Stephenville		
Pug Rot Tract No:	478048	Well City:	76401		
Orig Well Rot Trk No:		Owner Well No:	Terry Antoine		
Apprentice Reg No:		Owner Name:	PO BOX 532		
No of Wells Drilled:	1	Owner Addr2:	Decatur		
Date Submitted:	2017-05-15	Owner City:	TX		
Type of Work:	New Well	Owner State:	76134		
Type of Wk Oh Desc:	Pumped	Owner Country:			
Seal Method:		Driller Name:	Justin Moore		
Plugged w/ 48hrs:	No	Driller Address:	PO BOX 16		
Drilling Start Dt:	2017-04-19	Driller Addr2:	STEPHENVILLE		
Drilling End Dt:	2017-04-19	Driller City:	TX		
Proposed Use:	Domestic	Driller State:	76401		
Prop Use Oh Desc:		Driller Country:			
TCEQ Approve Plans:		Dist to Sep Contam:	100+		
Loc Vly by Driller:	Yes	Dist to Septic Tk:	50+		
Sealed by Driller:	Yes	Dist to Prop Line:	WGS84		
Driller Signed:	Justin Moore	Horizon Datum Type:	WGS84		
Apprentice Signed:		Latitude:	32.270278		
Surface Compl:	Surface Sleeve Installed	Lat Degree:	32		
Surf Comp Oh Desc:		Lat Minute:	16		
Compt by Driller:	Yes	Lat Second:	13		
Pump Type:	Submersible	Longitude:	-98.197833		
Pump Depth:	400.00	Long Degree:	98		
Chemical Analysis:	No	Long Minute:	11		
Injurious Water:	No	Long Second:	52.2		
Country:	Earth				
Known Loc Error:	No				
Grid No:	31-47-8				

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Order No: 22100504558

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
Company Name: Associated Well Services, Inc.					
Well Location Description: Full SDR Database: SDRDB Well Location (Map)					
Comments: Data Source:					
38	1 of 1	W	0.46 / 2,457.74	TX	TCEQ WELL LOGS
Grid No: 31-47-8					
Date Drilled: 07/05/1998					
Owner Name: WHISENANT, JOESANTO PROP					
County: ERATH					
Water Usage: DOMESTIC					
Static Level: 330					
Depth Drilled: 458					
Longitude: -98.198538					
Latitude: 32.267394					

39	1 of 1	E	0.47 / 2,455.48	TBD CR 176 Stephenville TX 76401	SDRW WELLS
License No: 58066					
PWS No:					
Plug Rpt Track No:					
Well Rpt Track No: 580729					
Orig Well Rpt Tk No:					
Apprentice Reg No:					
No of Wells Drilled: 1					
Date Submitted: 2020-12-04					
Type of Work: New Well					
Type of Wtk Oth Descr:					
Seal Method: Pumped					
Seal Mind Oth Descr:					
Plugged w/ 48hrs: No					
Drilling Start Dt: 2020-11-12					
Drilling End Dt: 2020-11-12					
Proposed Use: Domestic					
TCEQ Approve Plans:					
Loc Vty by Driller: Yes					
Sealed by Driller: Yes					
Driller Signed: Justin Dowell					
Apprentice Signed:					
Surface Comp: Surface Sleeve Installed					
Surt Comp Oth Descr:					
Pump Type: Yes					
Pump Type Oth Descr:					
Pump Depth: Submersible					
Chemical Analysis: No					
Injurious Water: No					
County: Erath					
Known Loc Error: No					
Grid No: 31-47-8					
Company Name: Dowell Well Service					
Well Location Description: Full SDR Database: SDRDB Well Location (Map)					
Comments: Data Source:					
40	1 of 1	W	0.47 / 2,460.26	952 CR 909	SDRW WELLS

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
Company Name: Associated Well Services, Inc.					
Well Location Description: Full SDR Database: SDRDB Well Location (Map)					
Comments: Data Source:					
41	1 of 1	WNW	0.47 / 2,497.60	Off of CR 909 Stephenville TX 76401	SDRW WELLS
License No: 58066					
PWS No:					
Plug Rpt Track No:					
Well Rpt Track No: 580733					
Orig Well Rpt Tk No:					
Apprentice Reg No:					
No of Wells Drilled: 1					
Date Submitted: 2021-03-18					
Type of Work: New Well					
Type of Wtk Oth Descr:					
Seal Method: Pumped					
Seal Mind Oth Descr:					
Plugged w/ 48hrs: No					
Drilling Start Dt: 2021-03-12					
Drilling End Dt: 2021-03-12					
Proposed Use: Domestic					
TCEQ Approve Plans:					
Loc Vty by Driller: Yes					
Sealed by Driller: Yes					
Driller Signed: Justin Dowell					
Apprentice Signed:					
Surface Comp: Surface Sleeve Installed					
Surt Comp Oth Descr:					
Pump Type: Yes					
Pump Type Oth Descr:					
Pump Depth: Submersible					
Chemical Analysis: No					
Injurious Water: No					
County: Erath					
Known Loc Error: No					
Grid No: 31-47-8					
Company Name: Dowell Well Service					
Well Location Description: Full SDR Database: SDRDB Well Location (Map)					
Comments: Data Source:					
41	1 of 1	WNW	0.47 / 2,497.60	Off of CR 909 Stephenville TX 76401	SDRW WELLS
License No: 58066					
PWS No:					
Plug Rpt Track No:					
Well Rpt Track No: 580733					
Orig Well Rpt Tk No:					
Apprentice Reg No:					
No of Wells Drilled: 1					
Date Submitted: 2021-03-18					
Type of Work: New Well					
Type of Wtk Oth Descr:					
Seal Method: Pumped					
Seal Mind Oth Descr:					
Plugged w/ 48hrs: No					
Drilling Start Dt: 2021-03-13					
Drilling End Dt: 2021-03-13					
Proposed Use: Domestic					
TCEQ Approve Plans:					
Loc Vty by Driller: No					
Sealed by Driller: Yes					
Driller Signed: Justin Dowell					
Apprentice Signed:					
Surface Comp: Surface Sleeve Installed					
Surt Comp Oth Descr:					
Pump Type: Yes					
Pump Type Oth Descr:					
Pump Depth: Submersible					
Chemical Analysis: No					
Injurious Water: No					
County: Erath					
Known Loc Error: No					
Grid No: 31-47-8					
Company Name: Dowell Well Service					
Well Location Description: Full SDR Database: SDRDB Well Location (Map)					
Comments: Data Source:					
41	1 of 1	WNW	0.47 / 2,497.60	Off of CR 909 Stephenville TX 76401	SDRW WELLS
License No: 58066					
PWS No:					
Plug Rpt Track No:					
Well Rpt Track No: 580733					
Orig Well Rpt Tk No:					
Apprentice Reg No:					
No of Wells Drilled: 1					
Date Submitted: 2021-03-18					
Type of Work: New Well					
Type of Wtk Oth Descr:					
Seal Method: Pumped					
Seal Mind Oth Descr:					
Plugged w/ 48hrs: No					
Drilling Start Dt: 2021-03-13					
Drilling End Dt: 2021-03-13					
Proposed Use: Domestic					
TCEQ Approve Plans:					
Loc Vty by Driller: No					
Sealed by Driller: Yes					
Driller Signed: Justin Dowell					
Apprentice Signed:					
Surface Comp: Surface Sleeve Installed					
Surt Comp Oth Descr:					
Pump Type: Yes					
Pump Type Oth Descr:					
Pump Depth: Submersible					
Chemical Analysis: No					
Injurious Water: No					
County: Erath					
Known Loc Error: No					
Grid No: 31-47-8					
Company Name: Dowell Well Service					
Well Location Description: Full SDR Database: SDRDB Well Location (Map)					
Comments: Data Source:					
41	1 of 1	WNW	0.47 / 2,497.60	Off of CR 909 Stephenville TX 76401	SDRW WELLS
License No: 58066					
PWS No:					
Plug Rpt Track No:					
Well Rpt Track No: 580733					
Orig Well Rpt Tk No:					
Apprentice Reg No:					
No of Wells Drilled: 1					
Date Submitted: 2021-03-18					
Type of Work: New Well					
Type of Wtk Oth Descr:					
Seal Method: Pumped					
Seal Mind Oth Descr:					
Plugged w/ 48hrs: No					
Drilling Start Dt: 2021-03-13					
Drilling End Dt: 2021-03-13					
Proposed Use: Domestic					
TCEQ Approve Plans:					
Loc Vty by Driller: No					
Sealed by Driller: Yes					
Driller Signed: Justin Dowell					
Apprentice Signed:					
Surface Comp: Surface Sleeve Installed					

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
Sealed by Name: Josh Aural Apprentice Signed: Surface Sleeve Installed Surface Compl. Desc: Pump Type: Submersible Pump Type Qth Desc: Pump Depth: 440.00 Chemical Analysis: Injurious Water: County: Erath Known Loc Error: Grid No: 31-47-8 Company Name: Well Location Description: Comments: Data Source:					
Dist to Septic Tk: 100+ Dist to Prop Line: Dist Verif Method: Horizon Datum Type: Latitude: 32.273333 Lat Degree: 32 Lat Minute: 16 Lat Second: 24 Longitude: -98.198056 Long Degree: 98 Long Minute: 11 Long Second: 53 Customer verified					
CGLH Full SDR Database; SDRDB Well Location (Map)					

42	1 of 1	E	0.49 / 2,580.75	3055 CR 176 STEPHENVILLE TX 76401	SDRW WELLS
License No: 4805 PWS No: Plug Rot Track No: 562201 Orig Well Rot Tk No: Apprentice Reg No: 1 No of Wells Drilled: 2020-12-20 Date Submitted: New Well Type of Work Qth Desc: Pressure Seal Method: Plugged w/ 48hrs: Drilling Start Dt: 2020-10-23 Drilling End Dt: 2020-10-23 Proposed Use: Domestic Prep Use Qth Desc: TCEQ Approve Plans: Approve by Variance: Loc Verif by Driller: Sealed by Driller: Sealed by Name: JEFF BENNETT Driller Signed: Apprentice Signed: Surface Compl: Surface Sleeve Installed Surf Comp Qth Desc: Compil by Driller: Pump Type: Pump Type Qth Desc: Pump Depth: Chemical Analysis: Injurious Water: County: Erath Known Loc Error: Grid No: 31-47-8 Company Name: Well Location Description: Comments: Data Source:					
Well Address: Well Addr2: Well City: Well Zip: Owner Well No: Owner Name: Owner Addr: Owner City: Owner State: Owner Zip: Owner Country: Driller Name: Driller Address: Driller City: Driller State: Driller Zip: Driller Qth Cntry: Dist to Septic Tk: Dist to Prop Line: Dist Verif Method: Horizon Datum Type: Latitude: 32.268056 Lat Degree: 32 Lat Minute: 16 Lat Second: 5 Longitude: -98.176667 Long Degree: 98 Long Minute: 10 Long Second: 36 Jeffery D Bennett 7300 W. HWY 377 TOLAR TX 76476 Yes Yes Yes JEFF BENNETT 50+ Elevation: Lat Degree: 32.268056 Lat Minute: 16 Lat Second: 5 Longitude: -98.176667 Long Degree: 98 Long Minute: 10 Long Second: 36 BENNETT WATER WELL DRILLING, INC. Full SDR Database; SDRDB Well Location (Map)					

43 1 of 1 W 0.50 / 2,656.02 TX TCEQ WELL LOGS

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
Grid No: 31-47-8 Data Drilled: 09/05/1975 Owners Name: CRYSTENNER County: ERATH Water Usage: DOMESTIC Static Level: 82 Depth Drilled: 115 Longitude: -98.1991535545698 Latitude: 32.26879022874509					

44	1 of 1	NW	0.51 / 2,698.88	TX	SDRW WELLS
License No: 4805 PWS No: Plug Rot Track No: 86020 Orig Well Rot Tk No: Apprentice Reg No: No of Wells Drilled: 2006-06-26 Date Submitted: New Well Type of Work Qth Desc: Other Seal Method: Plugged w/ 48hrs: Drilling Start Dt: 2006-04-20 Drilling End Dt: 2006-04-20 Proposed Use: Domestic Prep Use Qth Desc: TCEQ Approve Plans: Approve by Variance: Loc Verif by Driller: Sealed by Driller: Sealed by Name: COMPANY Driller Signed: JEFF BENNETT Apprentice Signed: Surface Compl: Surface Sleeve Installed Surf Comp Qth Desc: Compil by Driller: Pump Type: Pump Type Qth Desc: Pump Depth: Chemical Analysis: Injurious Water: County: Erath Known Loc Error: Grid No: 31-47-8 Company Name: Well Location Description: Comments: Data Source:					
Well Address: Well Addr2: Well City: Well Zip: Owner Well No: Owner Name: Owner Addr: Owner City: Owner State: Owner Zip: Owner Country: Driller Name: Driller Address: Driller City: Driller State: Driller Zip: Driller Qth Cntry: Dist to Septic Tk: Dist to Prop Line: Dist Verif Method: Horizon Datum Type: Latitude: 32.277222 Lat Degree: 32 Lat Minute: 16 Lat Second: 38 Longitude: -98.1975 Long Degree: 98 Long Minute: 11 Long Second: 51 Jeffery D Bennett 7300 W. HWY 377 TOLAR TX 76476 No No No COMPANY JEFF BENNETT 88 MEASURED Elevation: Lat Degree: 32.277222 Lat Minute: 16 Lat Second: 38 Longitude: -98.1975 Long Degree: 98 Long Minute: 11 Long Second: 51 BENNETT WATER WELL DRILLING, INC. Full SDR Database; SDRDB Well Location (Map)					

45 1 of 1 ESE 0.51 / 2,713.16 TX TCEQ WELL LOGS

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
Latitude:	32.285173				
46	1 of 1	W	0.52 / 2,750.23	Highway 281 towards Morgan Mill Stephenville TX 76401	SDRW WELLS
License No:	2404	Well Address:	Highway 281 towards Morgan Mill		
PWS No:		Well Addr2:	Stephenville		
PWS Rpt Track No:	74760	Well Zip:	76401		
Orig Well Rpt Trk No:		Owner Name:	Gary Davis		
Apprentice Reg No:		Owner Addr1:	395 Morgan Mill Road, #4		
No of Wells Drilled:	2008-01-25	Owner Addr2:			
Date Submitted:	New Well	Owner City:	Stephenville		
Type of Work:		Owner State:	TX		
Type of Wkr Oth Desc:		Owner Zip:	76401		
Seal Method:	Pumped	Driller Name:	Gary Ardal		
Seal Mthd Oth Desc:		Driller Address1:	P. O. Box 16		
Plugged w/ 48hrs:	2004-04-21	Driller Addr2:	Stephenville		
Drilling Start Dt:	2004-04-21	Driller City:	TX		
Drilling End Dt:	Domestic	Driller State:	TX		
Proposed Use:		Driller Zip:	76401		
TCCEA Approve Plans:		Driller Oh Cntry:			
Approved by Variance:	No	Driller to Snp Contam:			
Loc. Vly by Driller:	Yes	Driller to Snp Tk:	100		
Sealed by Driller:		Driller to Snp Line:	30		
Driller Signed:	Gary Ardal	Driller to Snp Line:	Customer Verified		
Apprentice Signed:		Driller to Snp Line:			
Surface Compl:	Surface Sleeve Installed	Driller to Snp Line:			
Surf Comp Oth Desc:		Driller to Snp Line:			
Compl by Driller:	Submersible	Driller to Snp Line:			
Pump Type:		Driller to Snp Line:			
Pump Depth:	380.00	Driller to Snp Line:			
No of Wells Drilled:	No	Driller to Snp Line:			
Chemical Analysis:	No	Driller to Snp Line:			
Injurious Water:	No	Driller to Snp Line:			
Known Loc Error:	No	Driller to Snp Line:			
Grid No:	31-47-4	Driller to Snp Line:			
Company Name:	Associated Services	Driller to Snp Line:			
Well Location Description:		Driller to Snp Line:			
Comments:	Sdls	Driller to Snp Line:			
Data Source:	Full SDR Database: SDRDB Well Location (Map)	Driller to Snp Line:			
47	1 of 1	SW	0.52 / 2,767.58	TX	TCCEA WELL LOGS
Grid No:	31-47-8				
Date Drilled:	12/07/1978				
Owners Name:	JOE TORRES				
County:	ERATH				
Water Usage:	DOMESTIC				
Static Level:	260				
Depth Drilled:	320				
Longitude:	-98.197097				
Latitude:	32.257287				
48	1 of 1	NW	0.54 / 2,831.60	TX	TCCEA WELL LOGS
Grid No:	31-47-8				
Date Drilled:	12/07/1978				
Owners Name:	JOE TORRES				
County:	ERATH				
Water Usage:	DOMESTIC				
Static Level:	260				
Depth Drilled:	320				
Longitude:	-98.197097				
Latitude:	32.257287				
49	1 of 1	SW	0.54 / 2,860.77	TX	TCCEA WELL LOGS
Grid No:	31-47-8				
Date Drilled:	03/26/1979				
Owners Name:	DAVID BARGER				
County:	ERATH				
Water Usage:	DOMESTIC				
Static Level:	260				
Depth Drilled:	325				
Longitude:	-98.198568				
Latitude:	32.25651				
50	1 of 2	E	0.54 / 2,864.37	2488 CR 176 Stephenville TX 76401	SDRW WELLS
License No:	56062	Well Address:	2488 CR 176		
PWS No:		Well Addr2:	Stephenville		
PWS Rpt Track No:	335178	Well Zip:	76401		
Orig Well Rpt Trk No:		Owner Name:	Elizabeth Talsch		
Apprentice Reg No:		Owner Addr1:	2488 CR 176		
No of Wells Drilled:	2013-08-15	Owner Addr2:	Stephenville		
Date Submitted:	Replacement	Owner City:	TX		
TCCEA Approve Plans:		Owner State:	TX		
Approved by Variance:	No	Owner Zip:	76401		
Loc. Vly by Driller:	Yes	Owner to Snp Contam:			
Sealed by Driller:	Russell Langford	Owner to Snp Tk:			
Driller Signed:		Owner to Snp Line:			
Surface Compl:	Surface Sleeve Installed	Owner to Snp Line:			
Surf Comp Oth Desc:		Owner to Snp Line:			
Compl by Driller:		Owner to Snp Line:			
Pump Type:	Submersible	Owner to Snp Line:			
Pump Depth:	420.00	Owner to Snp Line:			
No of Wells Drilled:	No	Owner to Snp Line:			
Chemical Analysis:	No	Owner to Snp Line:			
Injurious Water:	No	Owner to Snp Line:			
Known Loc Error:	No	Owner to Snp Line:			
Grid No:	31-47-8	Owner to Snp Line:			
Company Name:		Owner to Snp Line:			
Well Location Description:		Owner to Snp Line:			
Comments:		Owner to Snp Line:			
Data Source:		Owner to Snp Line:			

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
<div><div>56</div><div>1 of 1</div><div>NW</div><div>0.65 / 3,409.91</div><div>6345 NORTH US 281 STEPHENVILLE TX 76401</div><div>SDRW WELLS</div></div>					
PWS No:	203770	Well Addr2:	Well City:	Stephenville	
PWS Rpt Track No:	76401	Well Zip:	Well State:	TX	
Orig Well Pot Tx No:	57240	Owner Well No:	Owner Name:	James Schinner	
Apptc Reg No:		Owner Addr1:	Owner Addr2:	325 CR 477	
No of Wells Drilled:	2010-01-06	Owner City:	Owner State:	Stephenville TX	
Date Submitted:	Replacement	Owner Zip:	Owner Country:	76401	
Type of Work:	Other	Driller Name:	Driller Address1:	Mark A Dowell	
Seal Method:	pour	Driller Addr2:	Driller City:	PO Box 402 Stephenville TX	
Seal Mthd On Desc:	No	Driller State:	Driller Zip:	76401	
Plugged w/ 48Hrs:	2009-12-28	Driller On Conty:	Driller On Conty:		
Drilling Start Dt:	2009-12-29	Driller On Conty:	Driller On Conty:		
Proposed Use:	Domestic	Driller On Conty:	Driller On Conty:		
TCED Approve Plans:	NA	Driller On Conty:	Driller On Conty:		
Approved by Variance:	No	Driller On Conty:	Driller On Conty:		
Sealed by Driller:	Yes	Driller On Conty:	Driller On Conty:		
Sealed by Name:	Mark Dowell	Driller On Conty:	Driller On Conty:		
Apptc Signed:	Robert Londermilk	Driller On Conty:	Driller On Conty:		
Surface Compl:	Surface Sleeve installed	Driller On Conty:	Driller On Conty:		
Surf Comp On Desc:		Driller On Conty:	Driller On Conty:		
Compl by Driller:	Submersible	Driller On Conty:	Driller On Conty:		
Pump Type:		Driller On Conty:	Driller On Conty:		
Pump Type On Desc:		Driller On Conty:	Driller On Conty:		
Pump Depth:	No	Driller On Conty:	Driller On Conty:		
Chemical Analysis:	No	Driller On Conty:	Driller On Conty:		
Injurious Water:	No	Driller On Conty:	Driller On Conty:		
Contam. Loc Error:	Each	Driller On Conty:	Driller On Conty:		
Company Name:	Dowell Well Service	Driller On Conty:	Driller On Conty:		
Well Location Description:	Joe Riley contractor	Driller On Conty:	Driller On Conty:		
Comments:	Full SDR Database: SDRDB Well Location (Map)	Driller On Conty:	Driller On Conty:		
Data Source:		Driller On Conty:	Driller On Conty:		
<div><div>57</div><div>1 of 1</div><div>NW</div><div>0.66 / 3,507.40</div><div>6345 NORTH US 281 STEPHENVILLE TX 76401</div><div>TCED WELL LOGS</div></div>					
Surf Comp On Desc:	Submersible	Driller On Conty:	Driller On Conty:		
Compl by Driller:		Driller On Conty:	Driller On Conty:		
Pump Type On Desc:	420.00	Driller On Conty:	Driller On Conty:		
Pump Depth:	No	Driller On Conty:	Driller On Conty:		
Chemical Analysis:	No	Driller On Conty:	Driller On Conty:		
Injurious Water:	No	Driller On Conty:	Driller On Conty:		
Contam. Loc Error:	No	Driller On Conty:	Driller On Conty:		
Company Name:	POLLOCK WATER WELL DRILLING	Driller On Conty:	Driller On Conty:		
Well Location Description:		Driller On Conty:	Driller On Conty:		
Comments:	Full SDR Database: SDRDB Well Location (Map)	Driller On Conty:	Driller On Conty:		
Data Source:		Driller On Conty:	Driller On Conty:		
<div><div>58</div><div>1 of 1</div><div>ENE</div><div>0.67 / 3,519.65</div><div>6345 NORTH US 281 STEPHENVILLE TX 76401</div><div>TCED WELL LOGS</div></div>					
Grid No:	31-47-8	Driller On Conty:	Driller On Conty:		
Date Drilled:	12/06/1978	Driller On Conty:	Driller On Conty:		
Owners Name:	LLOYD DUNSON	Driller On Conty:	Driller On Conty:		
County:	ERATH	Driller On Conty:	Driller On Conty:		
Water Usage:	DOMESTIC	Driller On Conty:	Driller On Conty:		
Static Level:	360	Driller On Conty:	Driller On Conty:		
Depth Drilled:	400	Driller On Conty:	Driller On Conty:		
Longitude:	-98.1992429148428	Driller On Conty:	Driller On Conty:		
Latitude:	32.2790298450725	Driller On Conty:	Driller On Conty:		
<div><div>59</div><div>1 of 2</div><div>SSW</div><div>0.67 / 3,550.48</div><div>6345 NORTH US 281 STEPHENVILLE TX 76401</div><div>TCED WELL LOGS</div></div>					
Grid No:	31-55-2	Driller On Conty:	Driller On Conty:		
Date Drilled:	05/27/1999	Driller On Conty:	Driller On Conty:		
Owners Name:	TEXAS EXPERIMENT STATION	Driller On Conty:	Driller On Conty:		
County:	ERATH	Driller On Conty:	Driller On Conty:		
Water Usage:	IRRIGATION	Driller On Conty:	Driller On Conty:		
Static Level:	305	Driller On Conty:	Driller On Conty:		
Depth Drilled:	440	Driller On Conty:	Driller On Conty:		
Longitude:	-98.19366	Driller On Conty:	Driller On Conty:		
Latitude:	32.251736	Driller On Conty:	Driller On Conty:		
<div><div>59</div><div>2 of 2</div><div>SSW</div><div>0.67 / 3,550.48</div><div>6345 NORTH US 281 STEPHENVILLE TX 76401</div><div>TCED WELL LOGS</div></div>					
Grid No:	31-55-2N	Driller On Conty:	Driller On Conty:		
Date Drilled:	11/21/1973	Driller On Conty:	Driller On Conty:		
Owners Name:	TEXAS EXPERIMENT STATION	Driller On Conty:	Driller On Conty:		
County:	ERATH	Driller On Conty:	Driller On Conty:		
Water Usage:	IRRIGATION	Driller On Conty:	Driller On Conty:		
Static Level:	305	Driller On Conty:	Driller On Conty:		
Depth Drilled:	440	Driller On Conty:	Driller On Conty:		
Longitude:	-98.19366	Driller On Conty:	Driller On Conty:		
Latitude:	32.251736	Driller On Conty:	Driller On Conty:		
<div><div>42</div><div>1 of 1</div><div>NW</div><div>0.65 / 3,409.91</div><div>6345 NORTH US 281 STEPHENVILLE TX 76401</div><div>SDRW WELLS</div></div>					
License No:	1351	Well Address1:	Well Address2:	6345 NORTH US 281 STEPHENVILLE TX 76401	
PWS Rpt Track No:	375532	Well City:	Well State:	STEPHENVILLE TX	
Orig Well Pot Tx No:	56845	Owner Well No:	Owner Name:	WELL # 2 MATT & MYLISSA PARHAM	
Apptc Reg No:		Owner Addr1:	Owner Addr2:	6345 NORTH U S HWY 281	
No of Wells Drilled:	2014-09-23	Owner City:	Owner State:	STEPHENVILLE TX	
Date Submitted:	New Well	Owner Zip:	Owner Country:	76401	
Type of Work:	Other	Driller Name:	Driller Address1:	Eddie J Pollock	
Seal Method:	PRESSURED CEMENTED	Driller Addr2:	Driller City:	P O BOX 82	
Plugged w/ 48Hrs:	No	Driller State:	Driller Zip:	76043	
Drilling Start Dt:	2014-08-25	Driller On Conty:	Driller On Conty:		
Drilling End Dt:	2014-08-27	Driller On Conty:	Driller On Conty:		
Proposed Use:	Domestic	Driller On Conty:	Driller On Conty:		
TCED Approve Plans:		Driller On Conty:	Driller On Conty:		
Approved by Variance:	No	Driller On Conty:	Driller On Conty:		
Sealed by Driller:	Yes	Driller On Conty:	Driller On Conty:		
Sealed by Name:	EDDIE J POLLOCK	Driller On Conty:	Driller On Conty:		
Driller Signed:	NICHOLAS R POLLOCK	Driller On Conty:	Driller On Conty:		
Apptc Signed:	Alternative Procedure Used	Driller On Conty:	Driller On Conty:		
Surface Compl:		Driller On Conty:	Driller On Conty:		
<div><div>43</div><div>1 of 1</div><div>SSW</div><div>0.67 / 3,550.48</div><div>6345 NORTH US 281 STEPHENVILLE TX 76401</div><div>TCED WELL LOGS</div></div>					
Grid No:	31-55-2N	Driller On Conty:	Driller On Conty:		
Date Drilled:	11/21/1973	Driller On Conty:	Driller On Conty:		
Owners Name:	TEXAS EXPERIMENT STATION	Driller On Conty:	Driller On Conty:		
County:	ERATH	Driller On Conty:	Driller On Conty:		
Water Usage:	IRRIGATION	Driller On Conty:	Driller On Conty:		
Static Level:	305	Driller On Conty:	Driller On Conty:		
Depth Drilled:	440	Driller On Conty:	Driller On Conty:		
Longitude:	-98.19366	Driller On Conty:	Driller On Conty:		
Latitude:	32.251736	Driller On Conty:	Driller On Conty:		

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
Owners Name: TEXAS AGRICULTURE EXPERIMENT FARM County: ERATH Water Usage: NOT REPORTED Static Level: 300 420 Depth Drilled: -98.19366 32.251736 Latitude: 32.251736					
60	1 of 1	E	0.69 / 3,623.29	TX	TCEQ WELL LOGS
Grid No: 31-47-8 Date Drilled: 12/28/1985 Owners Name: GORDON TAYLOR County: ERATH Water Usage: IRRIGATION Static Level: 330 430 Depth Drilled: -98.173235472117 32.2671213024289 Latitude: 32.2671213024289					
61	1 of 1	SW	0.70 / 3,710.72	TX	TCEQ WELL LOGS
Grid No: 31-47-8 Date Drilled: 07/09/1986 Owners Name: F. GRIFFIN County: ERATH Water Usage: DOMESTIC Static Level: 300 331 Depth Drilled: -98.20110164341957 32.25933039652065 Latitude: 32.25933039652065					
62	1 of 1	ESE	0.71 / 3,728.73	TX	TCEQ WELL LOGS
Grid No: 31-47-8 Date Drilled: 10/23/1989 Owners Name: BERT WRIGHT County: ERATH Water Usage: DOMESTIC Static Level: 301 429 Depth Drilled: -98.17526108264168 32.2606375103953 Latitude: 32.2606375103953					
63	1 of 1	MW	0.77 / 4,069.64	TX	TCEQ WELL LOGS
Grid No: 31-47-8 Date Drilled: 10/25/2000 Owners Name: LARRY REAVIS County: ERATH Water Usage: DOMESTIC Static Level: 300 440 Depth Drilled: -98.200353520702 Longitude: -98.200353520702					
e2info.com Environmental Risk Information Services					
44	Order No: 22100504558				
Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
Latitude: 32.28034778891804					
64	1 of 1	MW	0.81 / 4,293.96	TX	TCEQ WELL LOGS
Grid No: 31-47-8 Date Drilled: 03/07/1987 Owners Name: TOM CRAWFORD County: ERATH Water Usage: DOMESTIC Static Level: 372 419 Depth Drilled: -98.00022925687858 32.23143397163065 Latitude: 32.23143397163065					
65	1 of 2	SW	0.82 / 4,327.74	TARLETON STATE UNIVERSITY SOUTHWES	WUD
PWS ID: 0720056 WTRSRC: G0720056A ID No: G0720056A SI Well No: SI Well Name: SI Well Status: OPERATIONAL Well Depth: 439 Water Usage: ACTIVE - PERMANENT Static Lev: 08/27/2010 Date Drilled: Yes Compliant: 394 Screen Bottom: 334 Screen Top: 100 Gallons Per Minute: DRILL Depth Aqun: 001 EPID: Type: Casing ID No: Casing: Confin: T Confine: F Alluvial: N					
65	2 of 2	SW	0.82 / 4,327.74	5026 CR 518 Stephenville TX 76401	SDRW WELLS
License No: 56054 PWS No: 0720056 Plug Ret Track No: Well Ret Track No: 230995 Orig Well Ret Trk No: Apprentice Reg No: No of Wells Dril: Date Submitted: 2010-09-24 Type of Work: New Well Seal Method: Type of Wk, Oh Descr: Seal Method: Seal Method: Plugged w/ 8hrs: Drilling Start Dt: 2010-06-03 Drilling End Dt: 2010-06-27					
Well Address: Well City: Well Zip: Owner Well No: Owner Name: Owner Addr1: Owner Addr2: Owner City: Owner State: Owner Zip: Owner Country: Driller Name: Driller Addr1: Driller Addr2:					
5026 CR 518 Stephenville 76401 1 TSU Dairy Center 5026 CR 518 Stephenville TX 76401 Thomas Gasmann 145 ROSE LANE					
e2info.com Environmental Risk Information Services					
45	Order No: 22100504558				

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
Grid No:		3143.8			
Date Drilled:		07/24/1995			
Owner Name:		RACHEAL FRAIZER			
County:		ERATH			
Water Usage:		DOMESTIC			
Static Level:		200			
Depth Drilled:		295			
Latitude:		-98.200976			
		32.258313			

72	1 of 1	SSE	0.97 / 5,132.67	WHITE HORSE CHRISTIAN ACADEMY	WJD
PWS ID:	0720063	Segment:			
WTRSRC:	G0720063A	System Sta:			
ID No:	G0720063A	Contact Phone:			
St Well No:		Primary Co:	ACTIVE		
Operating Status:	OPERATIONAL	Owner:	254-459-1230		
Well Depth:	425	Contact To:	OWNER		
Water Usage:	ACTIVE - PERMANENT	Utility Name:	VANESSA B HALFORD		
Static Lev:		Utility Na:	WHITE HORSE CHRISTIAN ACADEMY		
Date Drilled:	09/21/2001	Aquifer:	218TMMT		
Compliant:		Waterbody:			
Screen Bottom:	0	Latitude:	32.24802		
Screen Top:	0	Longitude:	-98.182586		
Gallons Per Minute:	33	Headum:	83		
Drill Agn:	DRILL	Horz Meth:	DOQ		
Type:		Horz Acc:	30		
CAD No:		Horz Def:	30		
Constr:		Horz Dns:	30-Nov-2017		
CCN:		Horz Org:	TCEO		
Altval:		Horz Datum:	NAD83		
		Quadrant:	3298-113		
		Ownr Dns:			

73	1 of 1	NW	0.99 / 5,247.97	TX	TCEO WELL LOGS
Grid No:	N/A				
Date Drilled:	06/08/1992				
Owners Name:	BILLY WEIR				
County:	ERATH				
Water Usage:	DOMESTIC				
Static Level:	270				
Depth Drilled:	360				
Latitude:	-98.203185				
Longitude:	32.280208				

Appendix: Database Descriptions

Environmental Risk Information Services (ERIS) can search the following databases. The extent of historical information varies with each database and current information is determined by what is publicly available to ERIS at the time of update.

Federal

Wells from NMIS:
The U.S. Geological Survey's National Water Information System (NWIS) is the nation's principal repository of water resources data. The NWIS includes comprehensive information of well-construction details, time-series data for gage height, streamflow, groundwater level, and precipitation and water use data. This NWIS dataset contains select Site Types from the overall NMIS Sites data, limited to the following Group Site Types only: Groundwater Group Site Types: Well, Collector or Ramney Type well, Hypothetic-zone well, Interconnected Wells, Multiple wells, Spring Group Site Type, Spring, and Other Group Site Types: Aggregate groundwater use, Cistem

Government Publication Date: Mar 21, 2022

No Federal databases were selected to be included in the search.
State

Well Log Reports from Digitized Water Wells:

Locations of TCEO Water Wells as derived from well logs in the Texas Commission on Environmental Quality (TCEQ) Water Well Report Viewer, which includes unnumbered water wells and those plotted to 2.5 minute grid locations (2.5 miles). In this collection of Well Log Reports, locations have been manually verified

Government Publication Date: Jul 26, 2022

Select Wells from SDR:
Locations of wells from the Submitted Drillers Report (SDR) Database with select proposed usage: Domestic, Fracking Supply, Industrial, Irrigation, Other, Public Supply, Rig Supply, Stock, Unknown. SDR is populated from the online Texas Well Report Submission and Retrieval System (TWRSRS), a cooperative Texas Department of Licensing and Regulation (TDLR) and Texas Water Development Board (TWDB) application requiring registered water-well drillers to submit reports. Excludes SDR records with the following proposed usage: Closed-loop Geothermal, De-watering, Environmental Soil Boring, Extraction, Injection, Monitor, Test Well.

Government Publication Date: Sep 6, 2022

Groundwater Database:

The Texas Water Development Board (TWDB) Groundwater Database (GWD) contains information on selected water wells, springs, oil/gas tests (that were originally intended to be or were converted to water wells), water levels and water quality.

Government Publication Date: Apr 20, 2022

High Plains Water Wells:

Inventory of water wells in the High Plains Underground Water Conservation District No. 1 (HPUWCD), which was created in 1951. As a political subdivision of Texas, HPUWCD is charged with protecting, preserving and conserving aquifers within the District's 16-county service area

Government Publication Date: Apr 20, 2022

Harris Galveston Subsidence District Water Wells:

List of water wells in the Harris-Galveston Subsidence District (HGSD). The HGSD was created by the 64th Texas Legislature as an underground water conservation district in 1975 to provide regulation of groundwater withdrawal to control subsidence.

Government Publication Date: May 18, 2022

Water Utility Database:

The Water Utility Database is defined as a collection of data from Texas Water Districts, Public Drinking Water Systems and Water and Sewer Utilities who submit information to the TCEO. This database is an integrated database designed and developed to replace over 160 stand alone legacy systems representing over 5 million records of the former Texas Water Commission and the Texas Department of Health.

Government Publication Date: Oct 1, 2020

Definitions

Database Descriptions: This section provides a detailed explanation for each database including: source, information available, time coverage, and acronyms used. They are listed in alphabetic order.

Detail Report: This is the section of the report which provides the most detail for each individual record. Records are summarized by location, starting with the project property followed by records in closest proximity.

Distance: The distance value is the distance between plotted points, not necessarily the distance between the sites' boundaries. All values are an approximation.

Direction: The direction value is the compass direction of the site in respect to the project property and/or center point of the report.

Executive Summary: This portion of the report is divided into 3 sections:

Report Summary - Displays a chart indicating how many records fall on the project property and, within the report search radii.

Site Report Summary-Project Property - This section lists all the records which fall on the project property. For more details, see the 'Detail Report' section.

Site Report Summary-Surrounding Properties - This section summarizes all records on adjacent properties, listing them in order of proximity from the project property. For more details, see the 'Detail Report' section.

Map Key: The map key number is assigned according to closest proximity from the project property. Map Key numbers always start at #1. The project property will always have a map key of '1'. If records are available. If there is a number in brackets beside the main number, this will indicate the number of records on that specific property. If there is no number in brackets, there is only one record for that property.

The symbol and colour used indicates 'elevation': the red inverted triangle will denote 'ERIS Sites with Lower Elevation', the yellow triangle will denote 'ERIS Sites with Higher Elevation' and the orange square will denote 'ERIS Sites with Same Elevation'.

31-47-801

Static level 271 ft
Draw down to 364 ft 1 hr, at 390 3 PM
390 " 2 hr. at 390 "
4 1/2 " 2 1/2 hr at 390 "

Pump shut off 1/2 hr
water level reached 360 ft. Pump started
at 300 8 PM.

level

Draw down to

360 ft	362 ft.	1 hr at 300 8 PM
360 ft.	2 hr at "	"
364 ft.	3 hr at "	"
361 ft.	4 hr at "	"
363 ft.	5 hr at "	"
360 ft.	6 hr at "	"
358 ft.	7 hr at "	"
362 ft.	8 hr at "	"
364 ft.	9 hr at "	"
363 ft.	10 hr at "	"

Running after pump shut off

358 ft after 5 min
354 " " 10 "
351 " " 15 "
348 " " 20 "
344 " " 25 "

no section
check

2 well

STATEMENT

Bonnie Smith

SMITH & WOLF DRILLING COMPANY

Irrigation Well Drilling - Turkey Jobs

Phone 988-2151

2080 W. Tarrion - Stephenville, Texas 76401

FARM

LOCATION

106

WELL LOG	
220-241	Clay & shale
241-243	White sand
243-250	Clay
250-272	Sand & gravel little clay
272-273	Rock
273-290	Clay
290-330	Sand
330-331	Rock
331-360	Clay & rock layers
360-378	Sand
378-380	Rock
380-381	Clay & rock
381-389	Red clay
389-440	Sand stone, clay & little sand
440-442	Brwn clay
442	DRILLED
442	Casing set 442' 6"
PERFORATIONS 94'	
GRAVEL	

31-47-801

STATEMENT

Bennie Smith

SMITH & WOLF DRILLING COMPANY

Irrigation Well Drilling - Turkey Jobs
Phone 958-2161

2030 W. Tardion - Stephenville, Texas 76401

May 1 1968

FARM Cross Timbers Experiment Station

LOCATION Texas A & M College

0-3	Top soil
3-5	Yellow clay
5-10	Blue clay
10-14	Sand
14-15	Rock
15-19	Clay sandy blue
19-24	Yellow clay
24-46	Blue clay
46-68	Blue shale
68-69	Rock
69-70	Blue clay
70-78	Rock
78-200	Clay & small layers rock
200-220	Rock

DRILLED
CASING SET
PERFORATIONS
GRAVEL

County: _____
Location: _____
Observation well no. 31-47-801
Pumped well no. _____

Date	Hour	Average Q			Depth to water	gpm	ft. r ²	Adjust- ment As	ft. r ²	Q (gpm)	Remarks
		1'	1'	1/1'							
5-68		50	55	60	328	3					
					324	4					
					322	2					
					318	4					
					314	4					
					311	3					
					309	2					
					305	4					
					300	5					
					296	4					
					293	3					
					289	4					
					287	2					
					284	3					
					282	2					
					299						
					295						
					291						
					286						
					281						
					277						
					275						
					273						
					271						

TWO ECH 4

3/6 2 10

Reported by duffer

County: ERRATH
Location: 2 miles N of Stephenville

Observation well no. 31-47-801
Pumped well no. SAME

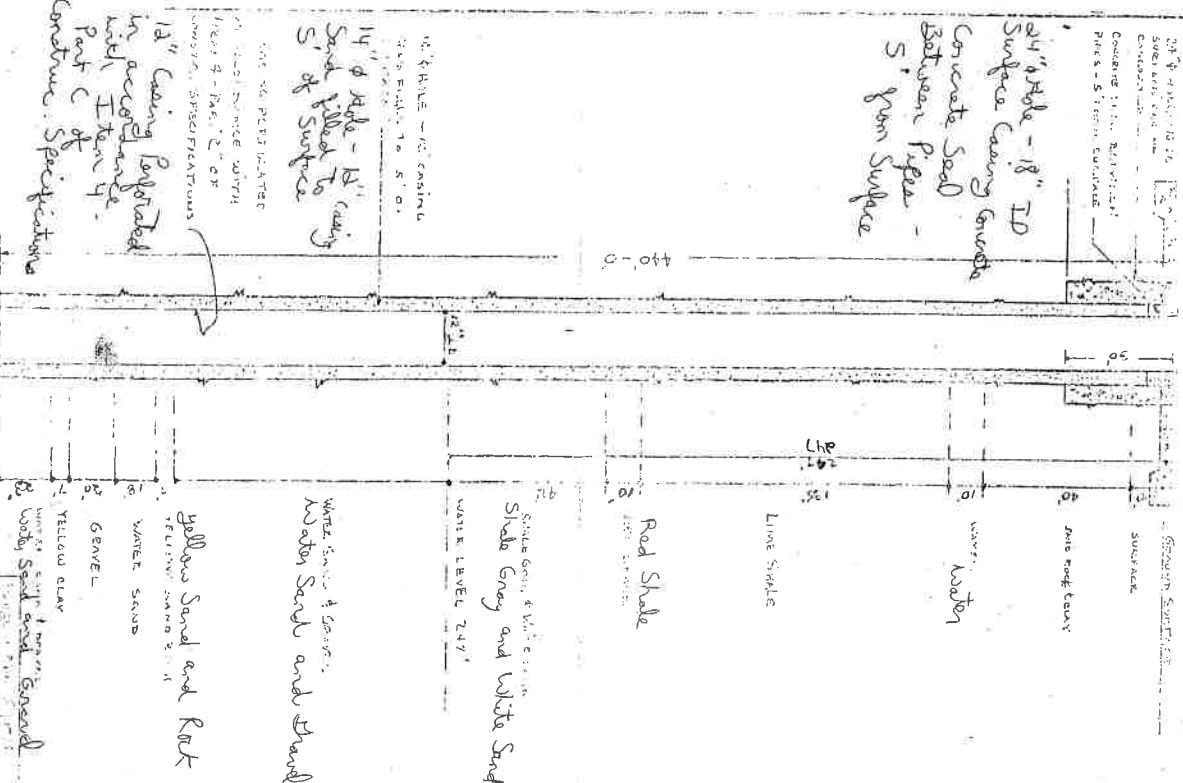
Average Q 300 gpm r^2 ft. r^2

Date	Hour	t (min)	t' (min)	1/t'	Depth to water	q (und-juried)	Adjust-ment As	q' (adj-juried)	Q (gpm)	Remarks
5-68		0			271				390	Pump ON
		60			364					
		120			390					
		150			412					
		180			360					Pump off 1/2 hr
		240			362				300	
		300			360					
		360			364					
		420			361					
		480			363				300	
		540			360					
		600			358					
		660			362					
		720			364					
		780			363			300		Pump off
		5			358	0				
		10			354	4				
		15			351	3				
		20			348	3				
		25			344	4				
		30			341	3				
		35			336	5				
		40			333	3				
		45			331	2				

TW006-GW-4

WELL JP 31-47-801

Fract. Drilling
10 MAR 1968



0221

FILE ID	SEP #
EMP #	DESC DO
APR 25 2001	
COMMENT	52

ATTENTION OWNER: Confidentiality
 State of Texas
 Private Notice on Reverse Side
 WATER WELL REPORT
 1) OWNER: COLLIER & SON (LTD) ADDRESS: Rt. 2 BOX 206C CITY: STEPHENVILLE STATE: TX ZIP: 75401-
 2) LOCATION OF WELL: COUNTY: FRANK 2 miles to N direction from STEPHENVILLE
 LEGAL DESCRIPTION SEE ATTACHED MAP

31.62.8

3) TYPE OF WORK: NEW WELL 4) PROPOSED USE: DOMESTIC 5) DRILLING METHOD: MOD ROTARY
 6) WELL LOG: 00070 DIAMETER OF ROPE FROM TO 7) BOREHOLE METHOD:
 DATE DRILLING: 09/27/93 6.75 0 410 GRAVEL PACKED
 STARTED: 09/27/93 IF SAMPLE... FROM 360 FT. TO 410 FT.
 COMPLETED: 09/30/93 FROM FT. TO FT.
 8) CASING, BULK PIPE, AND WELL SCREEN DATA:
 DIA NEW/USED DESCRIPTION FROM TO GAGE CASING SCREEN
 4 N PVC BULK 0 380 SCH 40
 4 N PVC SLOTTED 380 410 SCH 40

GEOLOGICAL DESCRIPTION:
 FROM TO DESCRIPTION
 0 1 TOP SOIL
 1 20 CALICHE
 20 40 GREY CLAY
 40 280 GREY CLAY AND SHALE
 280 320 GREY CLAY AND SAND
 320 340 GREY CLAY AND SHALE
 340 400 SAND AND GREY CLAY
 400 410 RED CLAY

RECEIVED
 APR 27 1994

TEXAS NATURAL RESOURCES
 CONSERVATION COMMISSION

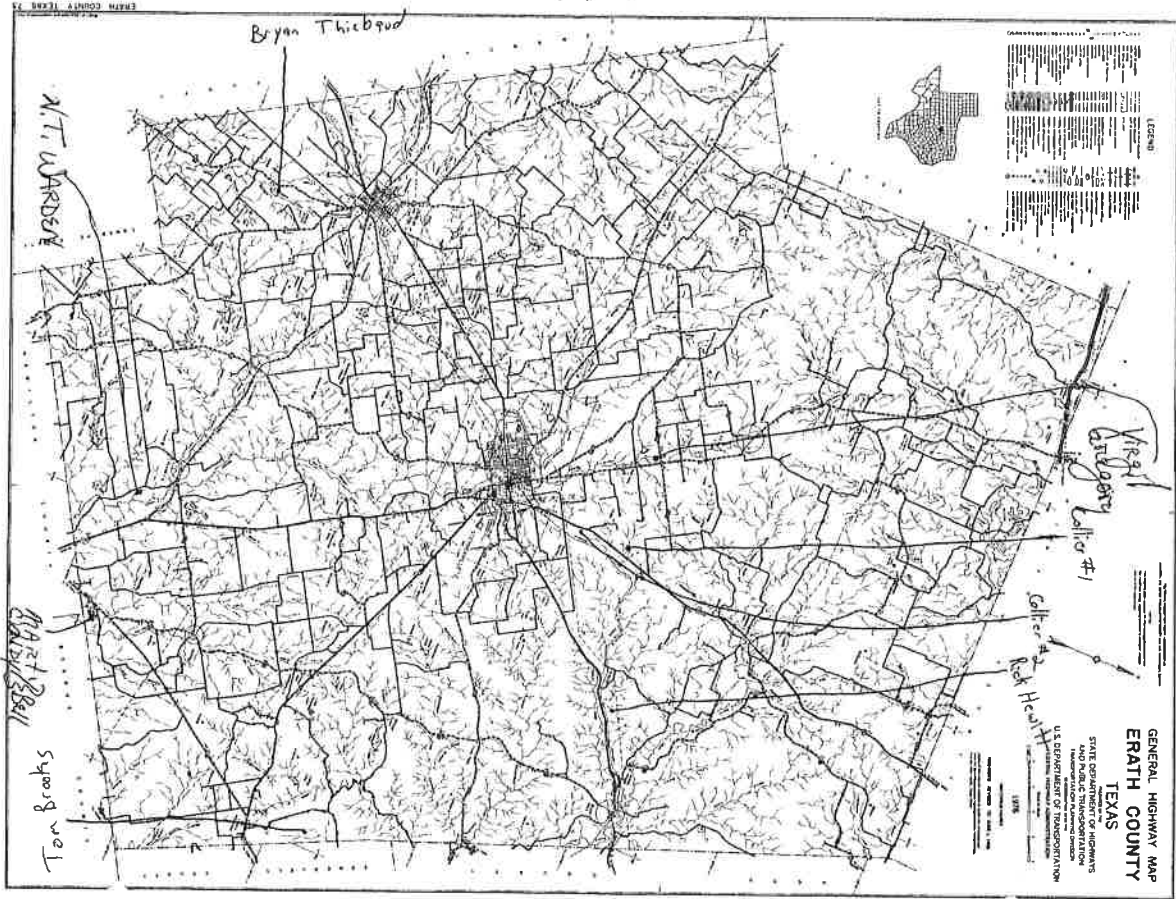
9) CEMENTING DATA:
 Cemented from No. of Sacks Used
 0 FT. TO 20 FT. 3
 380 FT. TO 410 FT. 7
 Method used: CEMENT-POURED
 Cemented by: BILL & MARTIN
 10) SURFACE COMPLETION:
 SPEC. STEEL SLEEVE
 WATER LEVEL: 340 FT. DATE: 09/30/93
 ARTESIAN FLOW: YES/NO
 12) PROTECTORS: TYPE DEPTH
 SACK 20

13) TYPE PUMP: 14) WELL TEST:
 SUBMERGIBLE PUMP
 DEPTH TO PUMP: 380 YIELD: 12 GPM WITH UNK. FT. RANDOM AFTER 24 HRS
 15) WATER QUALITY:
 TYPE OF WATER: DEPTH OF STRATA: NO CHEMICAL ANALYSIS MADE
 NO STRATA OF UNDESIRABLE WATER PENETRATED

COMPANY NAME: ASSOCIATED SERVICES WATER WELL DRILLER'S LICENSE NO.: 2404
 ADDRESS: P.O. BOX 16 CITY: STEPHENVILLE STATE: TX ZIP CODE: 75401
 FOR TWC USE ONLY
 WELL NO. 31.62.8
 LOCATED ON MAP 31.62.8

I HEREBY CERTIFY THAT THIS WELL WAS DRILLED BY ME (OR UNDER MY SUPERVISION) AND THAT EACH AND ALL OF THE STATEMENTS HEREIN
 ARE TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF. I UNDERSTAND THAT FAILURE TO COMPLETE ITEMS 1 THRU 15 WILL RESULT IN THE
 LOG(S) BEING RETURNED TO THE DRILLER AND RESUBMITTAL.

(signed) [Signature] (signed) _____ (REGISTERED DRILLER TANKER)
 I HEREBY CERTIFY THAT THIS WELL WAS DRILLED BY ME (OR UNDER MY SUPERVISION) AND THAT EACH AND ALL OF THE STATEMENTS HEREIN
 ARE TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF. I UNDERSTAND THAT FAILURE TO COMPLETE ITEMS 1 THRU 15 WILL RESULT IN THE
 LOG(S) BEING RETURNED TO THE DRILLER AND RESUBMITTAL.



**Texas Water Well Drillers
P.O. Box 12087
Austin, Texas 78711**

ADDRESS P. O. Box 149, Morgan Mill, TX 76465
(Street or Box) (City) (State)

1112

LEGAL DESCRIPTION: Driver must complete the legal description below with distance and direction from two intersecting section or survey lines, or the most locale and identify the well on an official Quarter- or Half-Section Towns County General Highway Map and attach the map to this form.

Section No. _____ Block No. _____ Township _____ Abstract No. _____ Survey Name _____
Distance and direction from two intersecting section or survey lines _____
☒ SEE ATTACHED MAP

<p>3) TYPE OF WORK (Check):</p> <p><input checked="" type="checkbox"/> New Well <input type="checkbox"/> Deepening</p> <p><input checked="" type="checkbox"/> Reconditioning <input type="checkbox"/> Plugging</p>	<p>4) PROPOSED USE (Check):</p> <p><input checked="" type="checkbox"/> Domestic <input type="checkbox"/> Industrial</p> <p><input type="checkbox"/> Irrigation <input type="checkbox"/> Test Well <input type="checkbox"/> Injection</p> <p><input type="checkbox"/> De-watering</p>	<p>6) DRILLING METHOD (Check):</p> <p><input type="checkbox"/> Dry <input type="checkbox"/> Mud Rotary <input type="checkbox"/> Air Hammer <input type="checkbox"/> Steam <input type="checkbox"/> Bore</p> <p><input checked="" type="checkbox"/> Air Rotary <input type="checkbox"/> Cable Tool <input type="checkbox"/> Other _____</p>
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

9) WELL LOG:

DIAMETER OF HOLE			
Date Drilled:	Dr. (ft)	From (ft)	To (ft)
4/14			
1982			
7-7/8	Surface	7.5	
Completed 4/14			
1983			

7) BOREHOLE COMPLETION:

☐ Open Hole ☐ Slough Holes ☐ Unperforated

☒ Cased Pipeline ☐ Over ☐ Under

If General Pipeline given interval ... from 20 ft to 75 ft

From (ft.)	To (ft.)	Description and color of formation material
		g) CASINO, BLANK PIPE, AND WELL SCREEN DATA

No.	Description	Sizing (g.)		Gauge Capacity Screen
		From	To	
0	Clay			
21	Clay			
21	Line			
34	Clay			
49	Tan Sand			
51	Clay			
61	Shale			
75	TEXAS WATER WORKS SAND			

(Use reverse side if necessary)

☐ Turbine ☐ Jet ☒ Submarine ☐ Cylinder

14) WELL TESTS:

Yield 10 gpm with 5 ft. drawdown after 1 hr.

Did you knowingly purchase any items which contained undeclared

☐ Yes ☒ No If yes, submit THE REPORT OF UNDESIRABLE WATER

What is your overall budget for this project? ☐ Yes ☐ No

Business Information Systems, 1998, 1(1), 1-10

100-443886-100

James S. Holliman

Each student should have one and other resources like

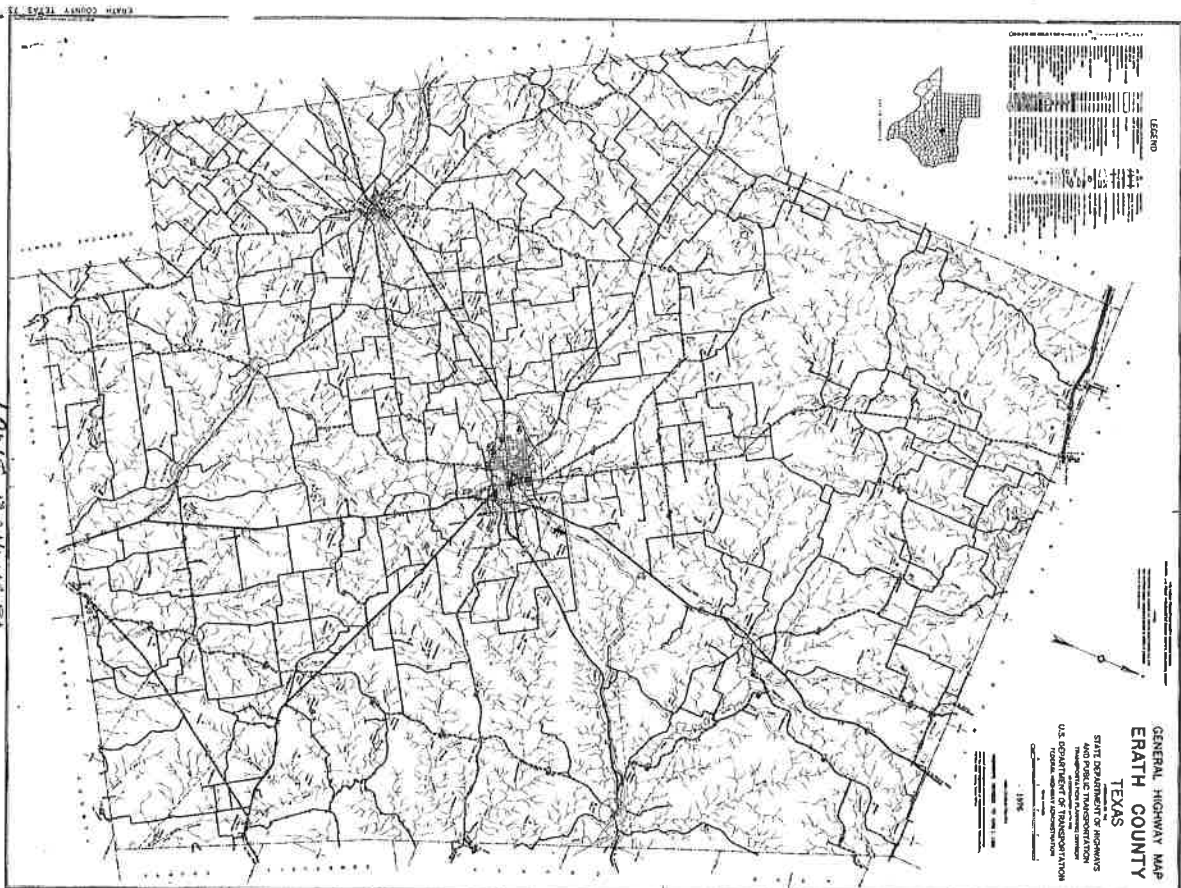
C-0199 (Rev. 05-18-90)

TEXAS WATER COMMISSION COPY

For THWC use only: WHA No. _____ Located on map 31.478

ON COPY

ON COPY



Please use black ink. Send original copy by certified mail to the Department of Water Resources, P.O. Box 13082, Austin, Texas 78711.

State of Texas
WATER WELL REPORT
ATTENTION OWNER: Confidentiality Privacy Notice on Reverse Side

1) OWNER: Roy Ed Griffin (Name) Address: Rt 1 (Street or RFD) Stephenville, Tex 76461 (City) (State) (Zip)

2) LOCATION OF WELL: Erath (County) 1 (Miles in N, S, W, or E) N (Direction from Stephenville (Town))

3) TYPE OF WORK (Check):
☒ New Well ☐ Deepening ☐ Recommended ☐ Plugging
☐ Domestic ☐ Industrial ☐ Public Supply
☐ Irrigation ☐ Test Well ☐ Other: _____

4) PROPOSED USE (Check):
☒ Domestic ☐ Industrial ☐ Public Supply
☐ Irrigation ☐ Test Well ☐ Other: _____

5) DRILLING METHOD (Check):
☒ Mud Rotary ☐ Air Hammer ☐ Driven ☐ Bored
☐ Auger ☐ Cable Tool ☐ Jetted ☐ Other: _____

6) WELL LOG:
 Date drilled: 6-21-85 Dia. (in) 10 1/8 Surface To (ft.) 360
 From (ft.) 0 Description and kind of formation (ft.)

7) BOREHOLE COMPLETION:
☒ Open Hole ☐ Straight Wall ☐ Underreamed
☒ Gravel Packed ☐ Gravel Packed given interval: from _____ ft. to _____ ft.

8) CASING, BLANK PIPE, AND WELL SCREEN DATA:
 Dia. (in) 4 1/2 Steel, Plastic, etc. (ft.) 0 Setting (ft.) 0 Casing Screen (ft.) 360 To (ft.) 360

9) CEMENTING DATA [Rule 319.44(b)]
 Cemented from 0 ft. to 360 ft.
 Method used: Pack
 Generated by: Dowell Well Service, Inc.

10) SURFACE COMPLETION
☒ Specified Surface Slat Installed [Rule 319.44(c)]
☐ Prices Adaptor Used [Rule 319.44(d)]
☐ Approved Alternative Procedure Used [Rule 319.44(e)]

11) WATER LEVEL:
 Static level: 300 ft. below land surface Date: _____
 Artesian flow: _____ gpm Date: _____

12) PACKERS:
 Type _____ Depth _____

13) TYPE PUMP:
☐ Turbine ☐ Jet ☒ Submersible ☐ Cylinder
☐ Other: _____ Depth to pump bottom, cylinder, jet, etc.: _____ ft.

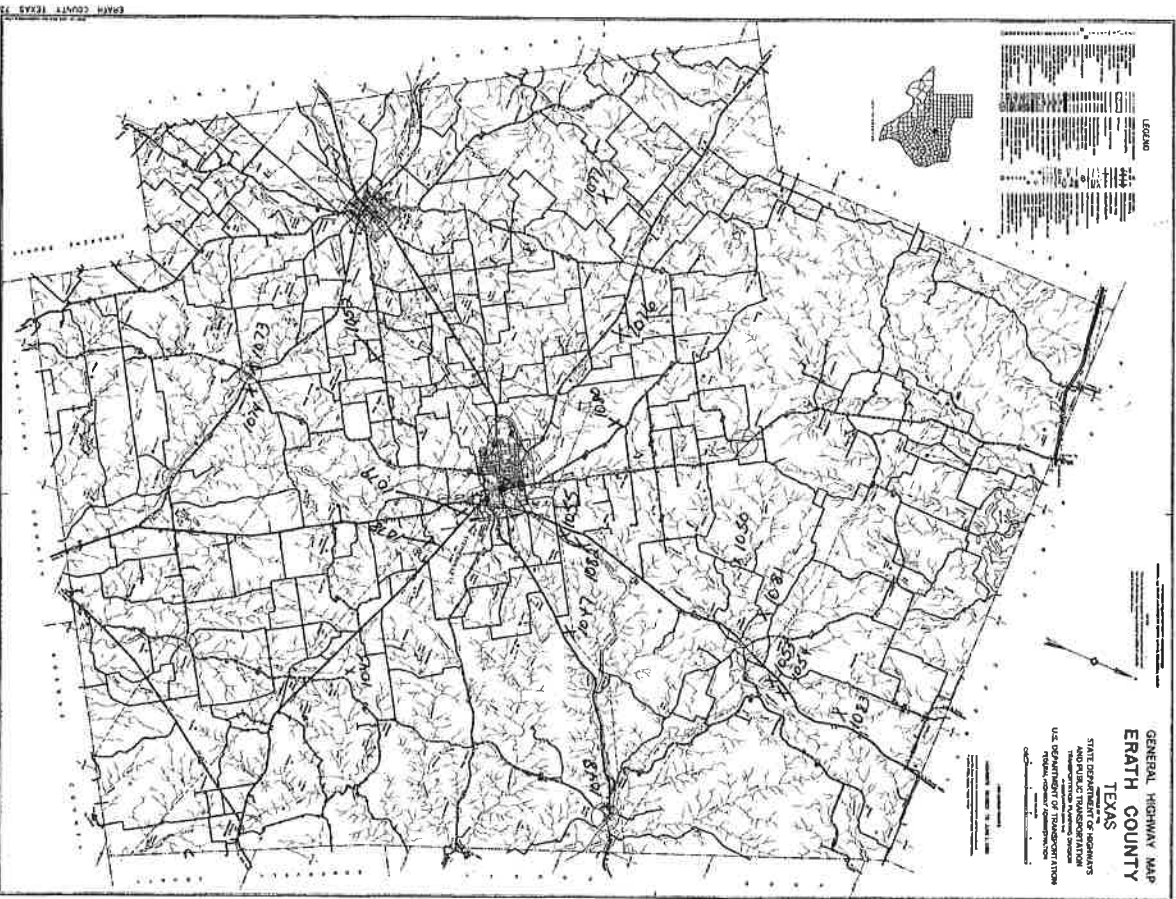
14) WELL TESTS:
 Type Test: ☐ Pump ☐ Baller ☒ Seamed ☐ Estimated
 Yield: _____ gpm with _____ ft. drawdown after _____ hrs.

15) WATER QUALITY:
 Do you knowingly penetrate any strata which contained undesirable water? ☐ Yes ☒ No
 If yes, submit "REPORT OF UNDESIRABLE WATER" Type of water: _____ Depth of strata: _____
 Was a chemical analysis made? ☐ Yes ☒ No

I have by certifying that this well was drilled by me (or under my supervision) and that each and all of the statements therein are true to the best of my knowledge and belief. I understand that failure to complete items 1 thru 12 will result in the right being returned for completion and resubmission.

COMPANY NAME: Dowell Well Service, Inc. License No. 1891
 ADDRESS: P.O. Box 558 Stephenville Texas 76461
 (City) (State) (Zip)
 (Signed) Mark Dowell (Typed) _____ (Registered Driller - Trainee)
 Please attach electric log, chemical analysis, and other pertinent information, if available.

For TOWN OF: Stephenville (Town)
 Well No.: 47-8
 Licensed on map



Please use black ink. Send original copy by certified mail to the Department of Water Resources, P.O. Box 13087, Austin, Texas 78711.

State of Texas
WATER WELL REPORT
ATTENTION OWNER: Confidentiality Privilege Notice on Reverse Side

1) OWNER: Stephaneur, Witness, Kingdom Address: Rt. 2 (Street or R.F.D.)
County: Erath (Name) miles in N direction from Stephenville, Tex (City) (State) (Zip)

2) LOCATION OF WELL: Section No. 1082 Block No. 31-55-6 Township 31-55-6
Distance and direction from two intersecting section or survey lines: 1082

Driller must complete the right description to the right:
with distance and direction from two intersecting section or survey lines, or the nearest local and identify the well as a surface well or a cased well. Attach a copy of the General Highway Map and attach the map to this form.

3) TYPE OF WORK (Check):
☒ New Well ☐ Deepening ☐ Reconditioning ☐ Plugging

4) PROPOSED USE (Check):
☐ Domestic ☐ Industrial ☐ Public Supply ☐ Irrigation ☐ Test Well ☐ Other Chaparral

5) DRILLING METHOD (Check):
☐ Mud Rotary ☐ Air Hammer ☐ Down ☐ Bored ☐ Air Rotary ☐ Cable Tool ☐ Jetted ☐ Other

6) WELL LOG:
Diam. (in) From (ft) To (ft) Surface 4 1/2 0 420
Diam. (in) From (ft) To (ft) 4 1/2 0 420

7) BOREHOLE COMPLETION:
☐ Open Hole ☐ Straight Wall ☐ Underreamed
☒ Gravel Packed ☐ Other

8) CASING, BLANK PIPE, AND WELL SCREEN DATA:
DIA. (in) New Part, Size, etc. (in) Screen (ft) Setting (ft) Gauge (in) Screen
Used 4 N PVC pipe 0 420 4 1/2

9) CEMENTING DATA (Rule 319.4410)
Cemented from 0 ft. to 400 ft.
Method used Pack
Cemented by Dowell Well Service, Inc.

10) SURFACE COMPLETION
☒ Specified Surface Sbs Installed (Rule 319.4410)
☐ Piles Adequately Used (Rule 319.4410)
☐ Approved Alternative Procedure Used (Rule 319.271)

11) WATER LEVEL:
Static level: 1 ft. below land surface Date Oct 30 1985
Artesian flow: gpm Date Oct 30 1985

12) PACKERS:
Type None Depth None

13) TYPE PUMP:
☐ Turbine ☒ Jet ☐ Submersible ☐ Cylinder
☐ Other None
Depth to pump bowl, cylinder, jet, etc.: None ft.

14) WELL TESTS:
Type Test: ☐ Pump ☐ Shut ☒ Leaked ☐ Estimated
Yield: gpm with 1 ft. drawdown after 1 hrs.

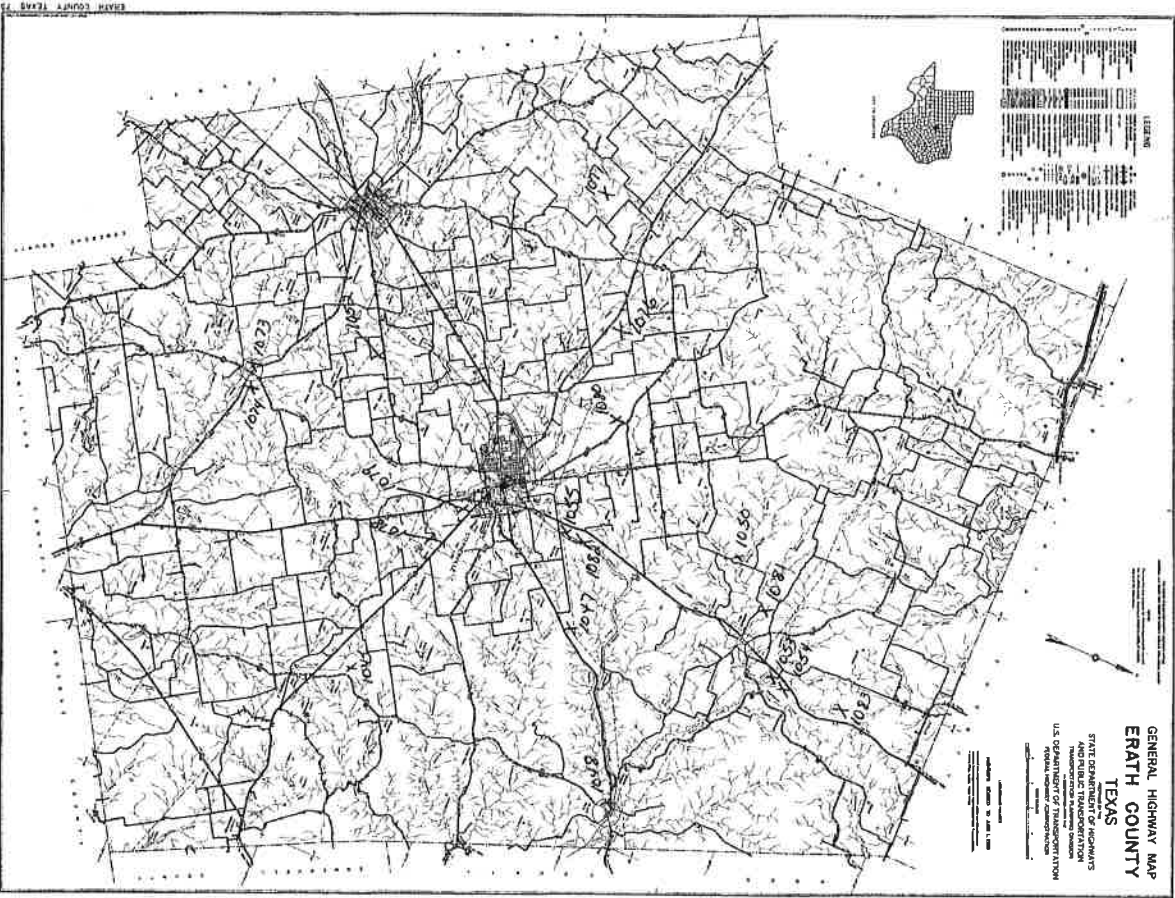
15) WATER QUALITY:
Did you knowingly penetrate any strata which contained undesirable water? ☐ Yes ☒ No
If yes, submit "REPORT OF UNDESIRABLE WATER"
Type of water: Depth of strata
Was a chemical analysis made? ☐ Yes ☒ No

I, Stephenville, Tex (City) (State) (Zip), understand that failure to complete items 1 thru 12 will result in the log being returned for completion and resubmission.

COMPANY NAME Dowell Well Service Water Well Driller's License No. 1891
ADDRESS P.O. Box 358 (Street or R.F.D.) Stephenville (City) Texas (State) 76401 (Zip)
(Signed) Mark Dorell (Licensee Name and Title) (Signed) Mark Dorell (Registered Driller's Name) (Signature)
Please attach electric log, chemical analysis, and other pertinent information, if available.

For TOWN use only: Well No. 31-55-6 (Licensee's well number)

TOWN: 0293 (12/29/83) DEPARTMENT OF WATER RESOURCES COPY



Please use black ink. Send original copy by P.O. Box 13837 Austin, Texas 78711

State of Texas
WATER WELL REPORT
ATTENTION OWNER: Confidentially Review Notice on Reverse Side

1) OWNER: Dean Taylor Address: 450 W. Green Stephenville, Texas 76461
County: Erath Section No.: 3 miles in N direction from Stephenville (Town)

2) LOCATION OF WELL: 3-11 (Section No.)

Driller must complete the legal description to the right: 1144 (Section No.)
Distance and direction from two intersecting section or survey lines: 3-55-5 (Section No.)

3) TYPE OF WORK (Check):
☒ New Well ☐ Deepening ☐ Reconditioning ☐ Pumping

4) PROPOSED USE (Check):
☐ Domestic ☐ Industrial ☐ Monitor ☐ Public Supply ☐ Other _____

5) DRILLING METHOD (Check):
☐ Mud Rotary ☐ Air Hammer ☐ Bored ☐ Other _____

6) WELL LOG:
Date Drilling: 3-10-1986 Diameter of Hole: 4 3/4 inches
Served: 3-11 Section No. 1986 From (ft.) 0 To (ft.) 430

7) BOREHOLE COMPLETION:
☐ Open Hole ☐ Gravel Packed ☐ Gravel Packed per interval ... from 360 ft. to 430 ft.

8) CASING, BLANK PIPE, AND WELL SCREEN DATA:
New Steel, Plastic, etc. (in.) 4 in. Steel Slotted Screen (ft.) 0 to 430 ft.

9) CEMENTING DATA (Rule 319.441b)
Cemented from 360 ft. to 360 ft. No. of Sacks Used 2
Method and Pow (Rule 319.441c)
Cemented by Duwell Well Service, Inc.

10) SURFACE COMPLETION
☒ Specified Surface Sub Installed (Rule 319.441d)
☐ Pilets Adapter Used (Rule 319.441d)
☐ Approved Alternative Procedure Used (Rule 319.711)

11) WATER LEVEL:
Static level 340 ft. below land surface Date _____
Artesian flow _____ Date _____

12) PACKERS:
Type _____ Depth _____

13) TYPE PUMP:
☐ Turbine ☐ Jet ☒ Submersible ☐ Cylinder
Depth to pump bench cylinder, etc., etc. _____ ft.

14) WELL TESTS:
Type Test: ☐ Pump ☐ Blower ☒ Limited ☐ Estimated
Yield: _____ gpm with _____ ft. drawdown after _____ hrs.

15) WATER QUALITY:
Did you knowingly generate any stress which combined with water? ☐ Yes ☒ No
If yes, submit "REPORT OF UNDERSTANDABLE WATER"
Type of water: _____
Was a chemical analysis made? ☐ Yes ☒ No

I hereby certify that this well was drilled by me (or under my supervision) and that each and all of the statements herein are true to the best of my knowledge and belief. I understand that failure to complete items 1 thru 12 will result in the log being returned for completion and reanalysis.

COMPANY NAME: Duwell Well Service, Inc. Water Well Driller's License No. 1891
ADDRESS: P.O. Box 558 Stephenville Texas 76461
(Type or Print) (City) (State) (Zip)

(Signed) Dean Taylor (Signature of Owner)
(Signed) Duwell Well Service, Inc. (Signature of Driller)
(Type or Print) (City) (State) (Zip)

Please attach electric log, chemical analysis, and other pertinent information, if available.

For TWC use only: 3-1-7-8
Well No. _____
Location on map _____

TWC-0392 (Rev. 06-10-85) TEXAS WATER COMMISSION COPY

Please use BLUE ink.
 This report is to be filed with the
 Texas Department of Water Resources
 P. O. Box 13087
 Austin, Texas 78711

State of Texas
 WATER WELL REPORT
 ATTENTION OWNER: Confidentiality Notice on Reverse Side

Texas Water Well Drilling Board
 P. O. Box 13087
 Austin, Texas 78711

1) OWNER Ed Clark Address Box 2 Stephenville, TX
 (Street or RFD) (City) (State) (Zip)
 2) LOCATION WELL East County East miles in 14 direction from Stephenville
 (N.E., S.W., etc.) (Town)

Driller must complete the legal description to the right
 of the well location. This is to be filed with the
 Texas Department of Water Resources. The legal
 description shall include the name of the well, the
 well on an official Quarter- or Half-Section Texas County
 General Highway Map and attach the map to this form.

☐ Legal description: Block No. _____ Township _____
 Section No. _____ Survey Name _____
 Abstract No. _____
 Distance and direction from two intersecting section or survey lines _____

3) TYPE OF WORK (Check):
☒ New Well ☐ Deepening
☐ Reconditioning ☐ Pumping

4) PROPOSED USE (Check):
☒ Domestic ☐ Industrial ☐ Public Supply
☐ Irrigation ☐ Test Well ☐ Other _____

5) DRILLING METHOD (Check):
☒ Hand Rotary ☐ Air Hammer ☐ Down ☐ Bored
☐ Air Rotary ☐ Cast Tool ☐ Jetted ☐ Other _____

6) WELL LOG:
 Data drilled 5-1-84

From (ft.)	To (ft.)	Description and color of formation material
0-1	209	Soil
1-35		Loose & Caliche
35-145		Loose Blue Clay
145-250		Loose Blue Clay
250-340		Loose Red Clay
340-369		Water Sand
369-369		Red Bed

7) BOREHOLE COMPLETION:
☒ Open Hole ☐ Gravel Packed ☐ Gravel Packed
 If Gravel Packed give interval ... from _____ ft. to _____ ft.

8) CASING, BLANK PIPE, AND WELL SCREEN DATA:

Dis. (in.)	Material	Setting (ft.)	Casing	Screen
4 1/2 in.	Steel, Plastic, etc.	From _____ To _____	0 369	158
	Perf., Slotted, etc.			
	Screening, etc.			

9) CEMENTING DATA (Rule 319.44(b))
 Cemented from 140 ft. to 0 ft.
 Method used 7 Bul 94 cement
 Cemented by me

10) SURFACE COMPLETION:
☐ Specified Surface Slope Installed (Rule 319.44(c))
☐ Piles Adapter Used (Rule 319.44(d))
☒ Approved Alternative Procedure Used (Rule 319.71)

11) WATER LEVEL:
 Static level 330 ft. below land surface Date 5-1-84
 Artesian flow _____ gpm Date _____

12) PACKERS:
 Type _____ Depth _____

13) TYPE PUMP:
☐ Turbine ☐ Jet ☒ Diaphragm ☐ Cylinder
☐ Other _____ Depth to pump bowl, cylinder, jet, etc., 358 ft.

14) WELL TESTS:
 Type Test: ☐ Pump ☒ Shut ☐ Jetted ☐ Extended
 Yield 10 gpm with 0 ft. drawdown after 2 hrs.

15) WATER QUALITY:
 Did you knowingly pump any water which contained undesirable
 material? ☐ Yes ☒ No
 If yes, submit "Report on Undesirable Water"
 Type of water: Surface Depth of source: 410
 Was a chemical analysis made? ☐ Yes ☒ No

I hereby certify that this well was drilled by me or under my supervision and that each and all of the statements herein are true to the best of my knowledge and belief. I understand that failure to complete items 1 thru 12 will result in this log(s) being returned for completion and resubmission.

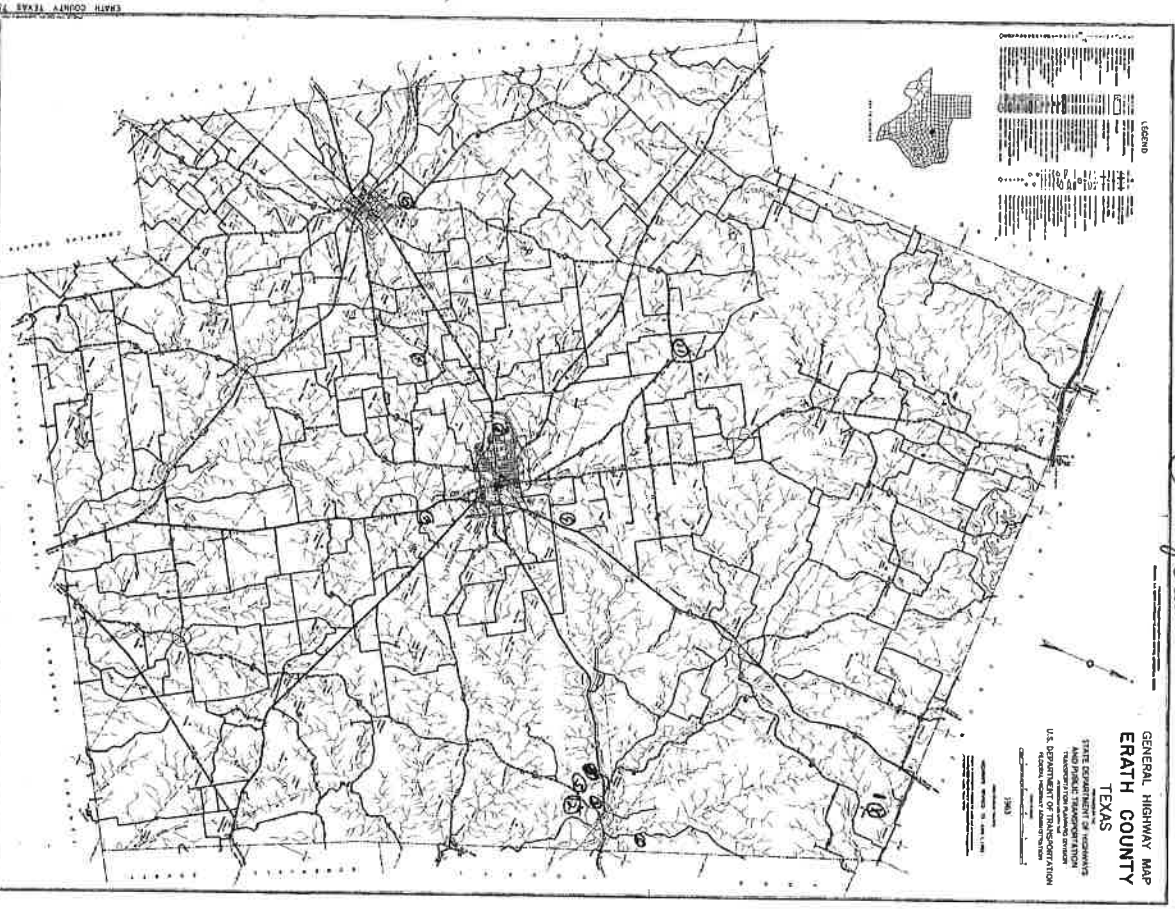
COMPANY NAME Relay Drilling Water Well Driller's License No. 1252
 (Street or RFD) (City) (State) (Zip)
 ADDRESS 1330 W McNeil Stephenville, TX 76401
 (City) (State) (Zip)
 (Signed) Johnny R. Rye (Signed) _____ (Registered Driller - Trainee)
 (Printed Name of Well Owner) (Printed Name of Driller)

Please attach electric log, chemical analysis, and other pertinent information, if available.

For TOWN OF _____, _____, _____
 Located on map Y.S. & C.F.S.

TOWN 0293 (1/2/79/93) DEPARTMENT OF WATER RESOURCES COPY

- 1) Myrtle Bailey
- 2) Ray Cress
- 3) David Clayton
- 4) John Stum
- 5) Aug. Eckhart
- 6) Mike Jacobett
- 7) Sam Gresh
- 8) Jack Nelson
- 9) Jack Cook
- 10) Earl Mear
- 11) Mike Eddy
- 12) Ray Cress



Send original copy to:
 Texas Department of Water Resources
 P.O. Box 12087
 Austin, Texas 78711

Fig. TDWR-100-1
 Well No. 21-47-84
 Located on map 21-47-84
 Received: 2-25-78

State of Texas
 WATER WELL REPORT

OWNER: A. T. Gordon Address: At 3 Stephenville, Texas
 (Street or RFD) (City) (State) (Zip)

LOCATION OF WELL: Same (Name) (City) (State) (Zip)
 (Section or RFD) (City) (State) (Zip)

1) TYPE OF WELL (Check):
 a) ☒ Artesian
 b) ☐ Non-artesian
 c) ☐ Other

2) LOCATION OF WELL (Check):
 a) ☒ On property
 b) ☐ Adjacent to property
 c) ☐ Other

3) TYPE OF WELL (Check):
 a) ☒ Artesian
 b) ☐ Non-artesian
 c) ☐ Other

4) PROPOSED USE (Check):
 a) ☒ Domestic
 b) ☐ Industrial
 c) ☐ Public supply
 d) ☐ Irrigation
 e) ☐ Test well
 f) ☐ Other

5) TYPE OF WELL (Check):
 a) ☒ Artesian
 b) ☐ Non-artesian
 c) ☐ Other

6) WELL LOG:
 Diameter of hole: 6 1/2 in. Depth drilled: 390 ft. Date drilled: 12-12-78

7) TYPE OF WELL (Check):
 a) ☒ Artesian
 b) ☐ Non-artesian
 c) ☐ Other

8) WATER LEVEL:
 Static level: 160 ft. below land surface Date: 10-12-78
 Arterial pressure: 115 lbs. per square inch Date:
 Depth to pump bowls, cylinders, jets, etc.: NO DATA ft.
 below land surface.

9) TYPE OF WELL (Check):
 a) ☒ Artesian
 b) ☐ Non-artesian
 c) ☐ Other

Send original copy to:
 Texas Department of Water Resources
 P.O. Box 12087
 Austin, Texas 78711

Fig. TDWR-100-1
 Well No. 21-47-84
 Located on map 21-47-84
 Received: 2-25-78

State of Texas
 WATER WELL REPORT

OWNER: C. E. Fenner Address: At 3 Stephenville, Texas
 (Street or RFD) (City) (State) (Zip)

LOCATION OF WELL: Same (Name) (City) (State) (Zip)
 (Section or RFD) (City) (State) (Zip)

1) TYPE OF WELL (Check):
 a) ☒ Artesian
 b) ☐ Non-artesian
 c) ☐ Other

2) LOCATION OF WELL (Check):
 a) ☒ On property
 b) ☐ Adjacent to property
 c) ☐ Other

3) TYPE OF WELL (Check):
 a) ☒ Artesian
 b) ☐ Non-artesian
 c) ☐ Other

4) PROPOSED USE (Check):
 a) ☒ Domestic
 b) ☐ Industrial
 c) ☐ Public supply
 d) ☐ Irrigation
 e) ☐ Test well
 f) ☐ Other

5) TYPE OF WELL (Check):
 a) ☒ Artesian
 b) ☐ Non-artesian
 c) ☐ Other

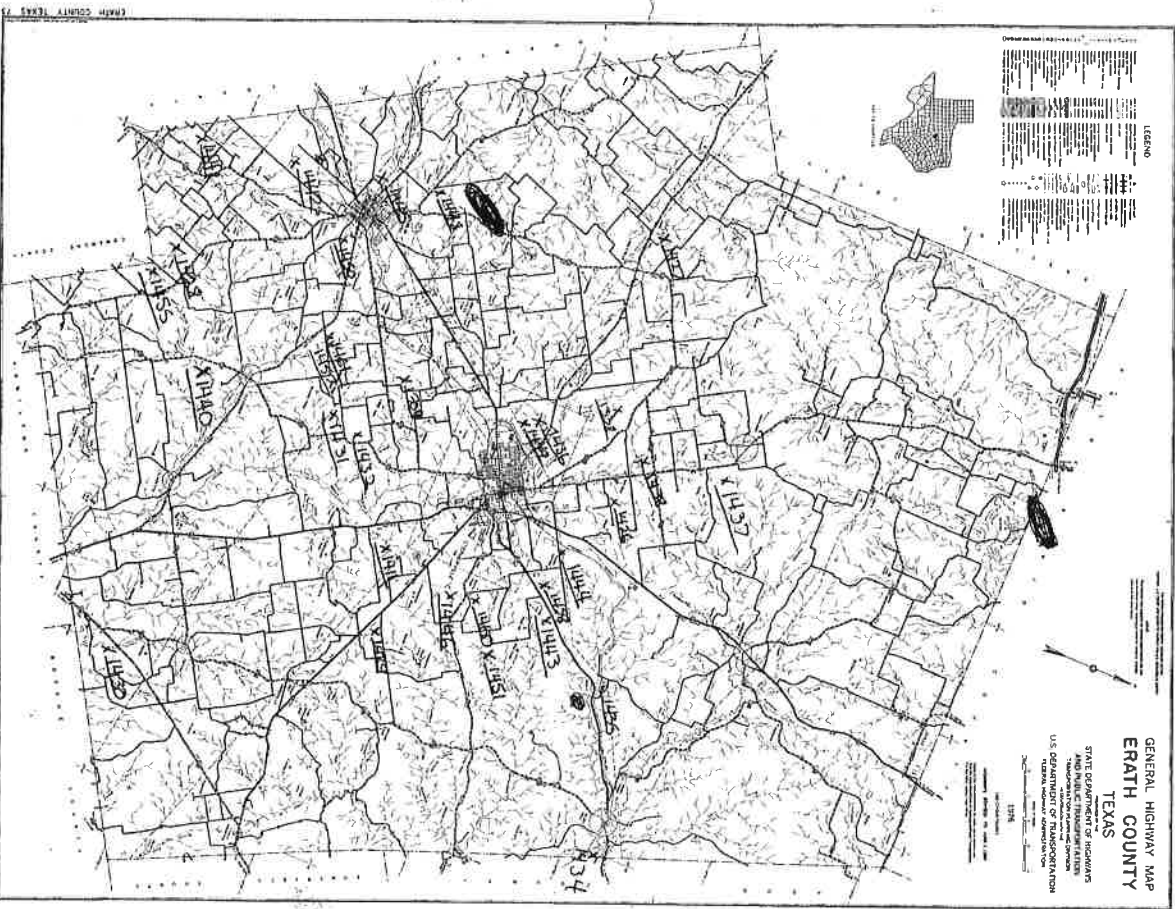
6) WELL LOG:
 Date drilled: 12-25-78 Diameter of hole: 6 1/2 in. Depth drilled: 440 ft.

7) TYPE OF WELL (Check):
 a) ☒ Artesian
 b) ☐ Non-artesian
 c) ☐ Other

8) WATER LEVEL:
 Static level: 380 ft. below land surface Date: 12-25-78
 Arterial pressure: 115 lbs. per square inch Date:
 Depth to pump bowls, cylinders, jets, etc.: NO DATA ft.
 below land surface.

9) TYPE OF WELL (Check):
 a) ☒ Artesian
 b) ☐ Non-artesian
 c) ☐ Other

TEXAS WATER COMMISSION COPY



Send original copy by certified mail to the State of Texas, Water Well Report, P.O. Box 12087, Austin, Texas 78711.

State of Texas
WATER WELL REPORT
ATTENTION OWNER: Confidentiality Privilege Notice on Reverse Side

1) OWNER: Proy Moore (Name) Address: Stephenville, Tex. 76401 (City) (State) (Zip)

2) LOCATION OF WELL: Erath County, 2 miles in N direction from Stephenville (Township)

3) TYPE OF WORK (Check):
☒ New Well ☐ Deepening ☐ Plugging
☐ Recommendation ☐ Test Hole ☐ Other

4) PROPOSED USE (Check):
☒ Domestic ☐ Industrial ☐ Public Supply
☐ Irrigation ☐ Test Hole ☐ Other

5) WELL LOG:
 Date drilled: 10/22/82
 From (ft.) 64 To (ft.) 450
 Description and nature of formation (material):
0-5 Top Soil
5-25 Clay
25-50 Clay
50-75 Clay
75-100 Clay
100-125 Clay
125-150 Clay
150-175 Clay
175-200 Clay
200-225 Clay
225-250 Clay
250-275 Clay
275-300 Clay
300-325 Clay
325-350 Clay
350-375 Clay
375-400 Clay
400-425 Clay
425-450 Clay

6) CASING, BLANK PIPE, AND WELL SCREEN DATA:
 From (ft.) 64 To (ft.) 450
 Description and nature of formation (material):
0-5 Top Soil
5-25 Clay
25-50 Clay
50-75 Clay
75-100 Clay
100-125 Clay
125-150 Clay
150-175 Clay
175-200 Clay
200-225 Clay
225-250 Clay
250-275 Clay
275-300 Clay
300-325 Clay
325-350 Clay
350-375 Clay
375-400 Clay
400-425 Clay
425-450 Clay

7) BOREHOLE COMPLETION:
☐ Open Hole ☐ Straight Wall ☐ Underreamed
☒ Gravel Packed ☐ Gravel Packed (see interval) ☐ Gravel Packed (see interval)

8) DRILLING METHOD (Check):
☒ Domestic ☐ Industrial ☐ Public Supply
☐ Irrigation ☐ Test Hole ☐ Other

9) WELL TESTS:
 Type Test: ☐ Pump ☐ Slug ☐ Other
 Yield: 15 gpm with 15 ft. drawdown after 1 hr.

10) PACKERS:
 Type: Open

11) TYPE PUMP:
☐ Turbine ☐ Jet ☐ Submersible ☐ Cylinder
☐ Other: Diaphragm
 Depth to pump bowl: 15 ft. etc.

12) WATER QUALITY:
 Did you knowingly provide any state which contained undesirable water? ☐ Yes ☒ No
 If yes, submit: REPORT OF UNDESIRABLE WATER
 Type of water: Other
 Was a chemical analysis made? ☐ Yes ☒ No

13) WATER QUALITY:
 I hereby certify that this well was drilled by me (or under my supervision) and that each and all of the statements herein are true to the best of my knowledge and belief.

COMPANY NAME: Dowell Well Service, Inc. Water Well Driller's License No. 1891

ADDRESS: P.O. Box 5558 Stephenville Texas 76401
 (Street or R.F.D.) (City) (State) (Zip)

(Signed) Mark David (Signature) (Registered Driller's Name)
 I, Mark David, do hereby certify that this well was drilled by me (or under my supervision) and that each and all of the statements herein are true to the best of my knowledge and belief.

DATE: 10/29/82
 TOWN: 0321 (Name) (Section) (Range) (County)

DEPARTMENT OF WATER RESOURCES COPY

**1 Texas Water Well Drillers Board
P.O. Box 13087
Austin, Texas 78711**

miles in N direction from St. Lawrenceville

from two intersecting section or survey lines, or he must locate and identify the well on an official map to this form.

Abstract No. _____ Survey Name _____

5) Drilling Method (check):

<input type="checkbox"/> Monitor	<input type="checkbox"/> Public Supply	<input type="checkbox"/> Air Rotary	<input type="checkbox"/> Cable Tool	<input type="checkbox"/> Other
<input type="checkbox"/> Injection	<input type="checkbox"/> De-Watering	<input checked="" type="checkbox"/> Mud Rotary	<input type="checkbox"/> Air Hammer	<input type="checkbox"/> Jetted
				<input type="checkbox"/> Bored

7. BOREHOLE COMPLETION:

☐ Open Hole ☐ Straight Well ☐ Underreamed

☒ Cement Packed ☐ Other _____

8) CASING, BLANK PIPE, AND WELL SCREEN DATA:	If Gravel Packed give Interval from <u>100</u> to <u>200</u> ft.
----------------------------------------------	------------------------------------------------------------------

NEW or Used	D/A (In.)	Steel, Plastic, etc. Perf., Smead, etc. Screening Mfg., If commercial	Setting (ft.)		Gauge Coating Screen
			From	To	
416	12	8 ft. 0 in.	0	123	156

175-172 5/31

9) CEMENTING DATA (From 387, 441)
Cemented from 30 ft. to 0 ft. No. of Sacks Used 3
No. of Cables Used _____

Material used
Furnished by State of N. Carolina
WGA

☐ Proposed Surface Study Initiated (Rule 287.44(2)(A))

☐ Forest Addition Used (Rule 287.44(3)(B))

☒ Normal Alternative Processes Used (Rule 287.44(4))

WATER WELL	DATE
WATER LEVEL	3-3-92
BOARD	
SCAFFOLD	
LEVEL	
75	
ft. below land surface	

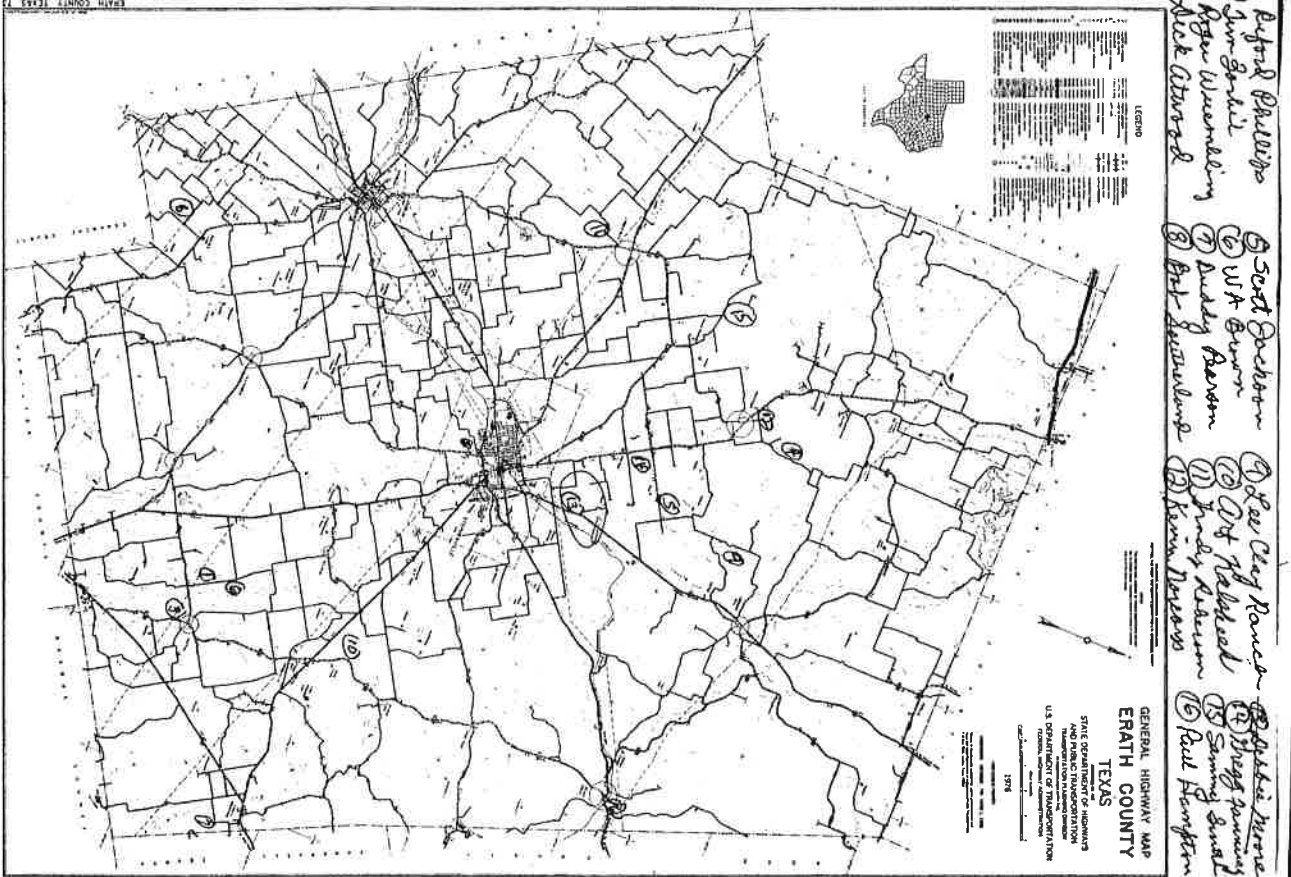
DATE: _____	TIME: _____
12) PACKERS: _____ Type _____ Depth _____	

each and all of the statements herein are true to the best of my knowledge and belief. I understand the nature and consequences of this declaration and acknowledge that I am making this declaration voluntarily.

WELL DRILLER'S LICENSE NO. 1000
Stephenville Gas 704401

(Signed) _____
(Registered/Driver Trainee) _____

WATER COMMISSION COPY



WWD-01.2 (Rev.01-28-87)



Send original copy by
 Texas Water Development Board
 P. O. Box 1087
 Austin, Texas 78711

State of Texas
 Well No. 31-46-4C
 Registered 12/20/75

81

1) OWNER: Person having well drilled: **H. I. Goshart** Address: **P. O. Box 388, Stephenville, Tx.**

Landowner: (Name) _____ Address: (Street or R.F.D.) _____ (City) _____ (State) _____

2) LOCATION OF WELL: County: **Steph** (Name) **1** miles in **N** direction from **Stephenville** (Town)

Locate by sketch map showing landmarks, roads, creeks, highway number, etc.*

#12 Map on back North

(Use reverse side if necessary)

3) TYPE OF WORK (Check):
 New well ☒ Deepening ☐ Domestic ☒ Industrial ☐
 Reconditioning ☐ Plugging ☐ Irrigation ☐ Test well ☐ Other ☐ Municipal ☐ Battery ☒ Driven ☐ Dug ☐
 3) TYPE OF WELL (Check):
 Casing ☐ Screen ☐ Other ☐ Diameter (inches) **4** 5 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72 74 76 78 80 82 84 86 88 90 92 94 96 98 100

6) WELL LOG: Diameter of hole **6-3/4** in. Depth drilled **80** ft. Date drilled **12/20/75**
 All measurements made from **0** ft. above ground level.

From (ft.)	To (ft.)	Description and color of formation material	9) Casing: Type: Old New X Steel Plastic X Other	10) Screen: Type: Perforated Slotted	11) Well tests: Was a pump test made? Yes No If yes, by whom?
0	1	Sandy top soil	Cemented from 0 - 3 ft. and 15-45 ft.		
1	15	Sand			
15	45	Clay and rock			
45	80	Sand and sandy clay			
80		Red bed			

7) COMPLETION (Check):
 Straight well ☐ Gravel packed ☐ Orchard ☐
 Under cement ☐ Open hole ☐

8) WATER LEVEL: Static level: _____ ft. below land surface Date _____
 Artesian pressure: _____ lb./sq. inch Date _____
 Depth to pump bowl, cylinder, jet, etc.: _____ ft.

12) WATER QUALITY: Was a chemical analysis made? Yes No
 Did any screen contain undesirable matter? Yes No
 Type of water? _____ Depth of screen: _____

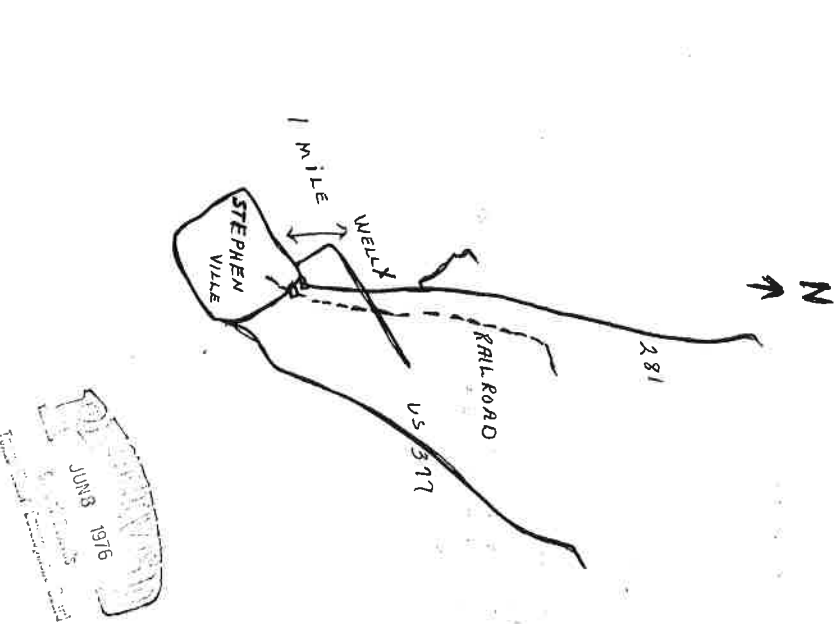
I hereby certify that this well was drilled by me (or under my supervision) and that the name and all of the statements herein are true to the best of my knowledge and belief.

NAME: **C. W. Wolf** (Type or Print)
 ADDRESS: **P. O. Box 16** (Street or R.F.D.) **Stephenville** (City) **Texas** (State)
 (Signed) **C. W. Wolf** (Maker well drill) **WOLF DRILLING** (Company Name)

Please attach electric log, chemical analysis, and other pertinent information, if available.

*Additional instructions on reverse side.

2) LOCATION OF WELL:
 The sketch showing the well location must be as accurate as possible, showing landmarks, in sufficient detail so that the well may be located on a general highway map of the county in which the well is located.
 Reference points from which distances are measured and directions given should be of a permanent nature (e.g., highway intersection, center of town, river and creek bridges, railroad crossings). The distance and direction from the nearest town should always be indicated.
 When giving a legal description include a sketch showing location of the well within the described area, e.g., survey abstract.
 Information furnished in section 2) of the FORM 04-51 is very important. Unless the well can be accurately located on a map the value of the other data contained in the report is greatly reduced.



RECEIVED
 JUN 8 1976
 TEXAS WATER
 DEVELOPMENT BOARD

ATTENTION OWNER: Confidentiality
 Privilege Notice on an inverse side
 of Well Owner's copy (only)

State of Texas WELL REPORT

Texas Water Well Drillers Advisory Council
 P.O. Box 13087
 Austin, TX 78711-3087
 512-239-0500

1) OWNER <u>Jim Baker</u> (Name) <u>Re 4 Stephenville TX 76401</u> (Address) <u>Re 4 Stephenville TX 76401</u> (City) <u>TX</u> (State) <u>76401</u> (Zip)		2) ADDRESS <u>Re 4 Stephenville TX 76401</u> (Address) <u>Re 4 Stephenville TX 76401</u> (City) <u>TX</u> (State) <u>76401</u> (Zip)	
3) TYPE OF WORK (Check): <input checked="" type="checkbox"/> New Well <input type="checkbox"/> Deepening <input type="checkbox"/> Plugging <input type="checkbox"/> Record Keeping		4) PROPOSED USE (Check): <input type="checkbox"/> Industrial <input type="checkbox"/> Irrigation <input type="checkbox"/> Injection <input type="checkbox"/> Public Supply <input type="checkbox"/> De-watering <input type="checkbox"/> Testwell <input type="checkbox"/> Recreational <input type="checkbox"/> Plugging <input type="checkbox"/> Other	
6) WELL LOG: Date Drilled: <u>8-13-97</u> Started: <u>8-14-97</u> Completed: <u>8-14-97</u>		7) DRILLING METHOD (Check): <input type="checkbox"/> Open Hole <input type="checkbox"/> Air Rotary <input checked="" type="checkbox"/> Mud Rotary <input type="checkbox"/> Air Hammer <input type="checkbox"/> Cable Tool <input type="checkbox"/> Other	
8) From (ft.) To (ft.) Description and color of formation material <u>0-2 top soil</u> <u>2-10 sand rock</u> <u>10-18 quicksand</u> <u>18-40 red shale</u> <u>40-50 blue shale</u> <u>50-75 sand</u> <u>75-95 blue shale</u> <u>95-105 blue shale</u> <u>105-115 blue shale</u>		9) Borehole Completion (Check): <input type="checkbox"/> Open Hole <input checked="" type="checkbox"/> Gravel Packed <input type="checkbox"/> Other If Gravel Packed give interval: from <u>115</u> ft. to <u>35</u> ft.	
10-18 quicksand		11) WATER LEVEL: Static level: <u>40</u> ft. below land surface Artesian flow: <u>0</u> gpm.	
12-18 quicksand		12) PACKERS: Type <u>0</u> Depth <u>0</u>	
13-40 red shale		13) TYPE PUMP: <input checked="" type="checkbox"/> Turbine <input type="checkbox"/> Jet <input type="checkbox"/> Submersible <input type="checkbox"/> Cylinder <input type="checkbox"/> Other	
40-50 blue shale		14) WELL TESTS: Type test: <u>1E</u> Pump <u>1E</u> Jetted <u>0</u> Estimated Yield: <u>1E</u> gpm with <u>0</u> ft. drawdown after <u>2</u> hrs.	
50-75 sand		15) WATER QUALITY: Did you knowingly percolate any water which contained undesirable constituents? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, submit "REPORT OF UNDESIRABLE WATER" Type of water: <u>0</u> Depth of strata: <u>0</u> Was a chemical analysis made? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
75-95 blue shale		16) SURFACE COMPLETION: <input type="checkbox"/> Specified Surface Seal Installed (Rule 338.44(2)(A)) <input checked="" type="checkbox"/> Specified Steel Sleeve Installed (Rule 338.44(3)(b)) <input type="checkbox"/> Press Adapter Used (Rule 338.44(3)(b)) <input type="checkbox"/> Approved Alternative Procedure Used (Rule 338.71)	
95-105 blue shale		17) CEMENTING DATA: Cemented from <u>15</u> ft. to <u>0</u> ft. No. of sacks used <u>5</u> Method used <u>19 lbs water - 94 lbs cement</u> Method of verification of above distance <u>NA</u>	
105-115 blue shale		18) Borehole Completion (Check): <input type="checkbox"/> Open Hole <input checked="" type="checkbox"/> Gravel Packed <input type="checkbox"/> Other If Gravel Packed give interval: from <u>115</u> ft. to <u>35</u> ft.	

TNRCC-0159 (Rev. 05-21-96)

White - TNRCC

Yellow - DRILLER

Pink - WELL OWNER

1) OWNER <u>Jim Baker</u> (Name) <u>Re 4 Stephenville TX 76401</u> (Address) <u>Re 4 Stephenville TX 76401</u> (City) <u>TX</u> (State) <u>76401</u> (Zip)		2) ADDRESS <u>Re 4 Stephenville TX 76401</u> (Address) <u>Re 4 Stephenville TX 76401</u> (City) <u>TX</u> (State) <u>76401</u> (Zip)	
3) TYPE OF WORK (Check): <input checked="" type="checkbox"/> New Well <input type="checkbox"/> Deepening <input type="checkbox"/> Plugging <input type="checkbox"/> Record Keeping		4) PROPOSED USE (Check): <input type="checkbox"/> Industrial <input type="checkbox"/> Irrigation <input type="checkbox"/> Injection <input type="checkbox"/> Public Supply <input type="checkbox"/> De-watering <input type="checkbox"/> Testwell <input type="checkbox"/> Recreational <input type="checkbox"/> Plugging <input type="checkbox"/> Other	
6) WELL LOG: Date Drilled: <u>8-13-97</u> Started: <u>8-14-97</u> Completed: <u>8-14-97</u>		7) DRILLING METHOD (Check): <input type="checkbox"/> Open Hole <input checked="" type="checkbox"/> Air Rotary <input type="checkbox"/> Mud Rotary <input type="checkbox"/> Air Hammer <input type="checkbox"/> Cable Tool <input type="checkbox"/> Other	
8) From (ft.) To (ft.) Description and color of formation material <u>0-2 top soil</u> <u>2-10 sand rock</u> <u>10-18 quicksand</u> <u>18-40 red shale</u> <u>40-50 blue shale</u> <u>50-75 sand</u> <u>75-95 blue shale</u> <u>95-105 blue shale</u> <u>105-115 blue shale</u>		9) Borehole Completion (Check): <input type="checkbox"/> Open Hole <input checked="" type="checkbox"/> Gravel Packed <input type="checkbox"/> Other If Gravel Packed give interval: from <u>115</u> ft. to <u>35</u> ft.	
10-18 quicksand		11) WATER LEVEL: Static level: <u>40</u> ft. below land surface Artesian flow: <u>0</u> gpm.	
12-18 quicksand		12) PACKERS: Type <u>0</u> Depth <u>0</u>	
13-40 red shale		13) TYPE PUMP: <input checked="" type="checkbox"/> Turbine <input type="checkbox"/> Jet <input type="checkbox"/> Submersible <input type="checkbox"/> Cylinder <input type="checkbox"/> Other	
40-50 blue shale		14) WELL TESTS: Type test: <u>1E</u> Pump <u>1E</u> Jetted <u>0</u> Estimated Yield: <u>1E</u> gpm with <u>0</u> ft. drawdown after <u>2</u> hrs.	
50-75 sand		15) WATER QUALITY: Did you knowingly percolate any water which contains undesirable constituents? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, submit "REPORT OF UNDESIRABLE WATER" Type of water: <u>0</u> Depth of strata: <u>0</u> Was a chemical analysis made? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
75-95 blue shale		16) SURFACE COMPLETION: <input type="checkbox"/> Specified Surface Seal Installed (Rule 338.44(2)(A)) <input checked="" type="checkbox"/> Specified Steel Sleeve Installed (Rule 338.44(3)(b)) <input type="checkbox"/> Press Adapter Used (Rule 338.44(3)(b)) <input type="checkbox"/> Approved Alternative Procedure Used (Rule 338.71)	
95-105 blue shale		17) CEMENTING DATA: Cemented from <u>15</u> ft. to <u>0</u> ft. No. of sacks used <u>5</u> Method used <u>19 lbs water - 94 lbs cement</u> Method of verification of above distance <u>NA</u>	
105-115 blue shale		18) Borehole Completion (Check): <input type="checkbox"/> Open Hole <input checked="" type="checkbox"/> Gravel Packed <input type="checkbox"/> Other If Gravel Packed give interval: from <u>115</u> ft. to <u>35</u> ft.	

Attention Owner: Confidentiality Notice on reverse side of owner's copy

1. Department of License and Regulation
Water Well Drilling/Pump Installer Program
P.O. Box 12157 Austin, Texas 78711 (512)463-7880 FAX (512)463-8616
Toll free (800)803-9202
Email address: water.well@license.state.tx.us

This form must be completed and filed with the department and owner within 90 days upon completion of the well.

WELL REPORT

OWNER: Kelly Castorens		ADDRESS: CR 176		CITY: Stephenville	STATE: TX	ZIP: 76401
COUNTY: ERTH		PHYSICAL ADDRESS: SAME		CITY: SAME	STATE: TX	ZIP: 76401
3) TYPE OF WORK: <input checked="" type="checkbox"/> New Well <input type="checkbox"/> Reconditioning <input type="checkbox"/> Replacement <input type="checkbox"/> Deepening		4) PROPOSED USE (check): <input type="checkbox"/> Monitor <input type="checkbox"/> Irrigation <input type="checkbox"/> Public Supply <input type="checkbox"/> De-watering <input type="checkbox"/> Testwell <input type="checkbox"/> If Public Supply well, was plans submitted to the THRC?		5) 31-47-8 NT		
6) DRILLING DATE: Started 12/16/00 Completed 1/18/00		DIAMETER OF HOLE: From (ft) 672 To (ft) 0		7) DRILLING METHOD (check): <input checked="" type="checkbox"/> Air Rotary <input type="checkbox"/> Mud Rotary <input type="checkbox"/> Air Hammer <input type="checkbox"/> Cable Tool <input type="checkbox"/> Other		
8) BOREHOLE COMPLETION: <input type="checkbox"/> Under-reamed <input checked="" type="checkbox"/> Gravel Packed <input type="checkbox"/> Open Hole <input type="checkbox"/> Straight Wall <input type="checkbox"/> Other		9) CEMENTING DATA (Rule 338.441): Cemented from 0 ft. to 250 ft. No. of sacks used 31 Method used Beard Cementing By Doyle Method of verification of above distance Gravel		10) SURFACE COMPLETION: <input checked="" type="checkbox"/> Specified Surface Sleeve Installed <input type="checkbox"/> Specified Surface Sleeve Installed <input type="checkbox"/> Pile Adapter Used <input type="checkbox"/> Approved Alternative Procedure Used		
11) WATER LEVEL: Static level 250 ft. below land surface Artesian flow 0 gpm		12) PACKERS: Artesian flow 0 gpm		13) WATER QUALITY: Did you knowingly penetrate any strata which contained undesirable constituents? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Type of water Artesian Was a chemical analysis made? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
14) TYPE PUMP: <input type="checkbox"/> Turbine <input type="checkbox"/> Other		15) WATER TEST: Type test <input type="checkbox"/> Pump <input type="checkbox"/> Baler <input type="checkbox"/> Jetted <input type="checkbox"/> Estimated Yield 0 gpm with 0 ft. drawdown after 0 hrs.		16) WATER QUALITY: Did you knowingly penetrate any strata which contained undesirable constituents? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Type of water Artesian Was a chemical analysis made? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
17) COMPANY OR INDIVIDUAL'S NAME (type or print): Doyle Well Service		18) ADDRESS: P.O. Box 402		19) CITY: Stephenville STATE: TX ZIP: 76401		
20) SIGNATURE: Doyle Well Service		21) SIGNATURE: Doyle Well Service		22) SIGNATURE: Doyle Well Service		

TDLR FORM 8001 WND

White - TDLR

Yellow - Owner

Pink - Driller/Pump Installer

Send original copy by certified mail to: THRC, P.O. Box 107, Austin, TX 78711-5007

Please use black ink.

ATTENTION OWNER: Confidentiality Notice on Reverse Side

State of Texas
WELL REPORT

Texas Water Well Drilling Advisory Council
P.O. Box 13087
Austin, TX 78711-5007
(512) 371-5289

1) OWNER: HARVEY WILLIAMS		ADDRESS: Pt. 3 Box 88, Stephenville, TX 76401		STATE: TX	ZIP: 76401
2) ADDRESS OF WELL: CR 176		5 miles north of Stephenville, TX		STATE: TX	ZIP: 76401
3) TYPE OF WORK (check): <input checked="" type="checkbox"/> New Well <input type="checkbox"/> Reconditioning <input type="checkbox"/> Deepening <input type="checkbox"/> Pile Adapter		4) PROPOSED USE (check): <input type="checkbox"/> Monitor <input type="checkbox"/> Irrigation <input type="checkbox"/> Public Supply <input type="checkbox"/> De-watering <input type="checkbox"/> Testwell <input type="checkbox"/> If Public Supply well, was plans submitted to the THRC?		5) 31-47-8	
6) WELL LOG: Date Drilling: 4/19/95 Started 4/19/95 Completed 4/19/95		DIAMETER OF HOLE: From (ft) 12 To (ft) 12		7) DRILLING METHOD (check): <input checked="" type="checkbox"/> Air Rotary <input type="checkbox"/> Mud Rotary <input type="checkbox"/> Air Hammer <input type="checkbox"/> Cable Tool <input type="checkbox"/> Other	
8) BOREHOLE COMPLETION (check): <input type="checkbox"/> Under-reamed <input checked="" type="checkbox"/> Gravel Packed <input type="checkbox"/> Open Hole <input type="checkbox"/> Straight Wall <input type="checkbox"/> Other		9) CEMENTING DATA (Rule 338.441): Cemented from 0 ft. to 150 ft. No. of sacks used 11 Method used CONCRETE Cementing By CONCRETE Method of verification of above distance N/A		10) SURFACE COMPLETION: <input checked="" type="checkbox"/> Specified Surface Sleeve Installed <input type="checkbox"/> Specified Surface Sleeve Installed <input type="checkbox"/> Pile Adapter Used <input type="checkbox"/> Approved Alternative Procedure Used	
11) WATER LEVEL: Static level 215 ft. below land surface Artesian flow 0 gpm		12) PACKERS: Artesian flow 0 gpm		13) WATER QUALITY: Did you knowingly penetrate any strata which contained undesirable constituents? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Type of water Artesian Was a chemical analysis made? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
14) TYPE PUMP: <input type="checkbox"/> Turbine <input type="checkbox"/> Other		15) WATER TEST: Type test <input type="checkbox"/> Pump <input type="checkbox"/> Baler <input type="checkbox"/> Jetted <input type="checkbox"/> Estimated Yield 40 gpm with 25 ft. drawdown after 1/2 hrs.		16) WATER QUALITY: Did you knowingly penetrate any strata which contained undesirable constituents? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Type of water Artesian Was a chemical analysis made? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
17) COMPANY OR INDIVIDUAL'S NAME (type or print): Doyle Well Service		18) ADDRESS: P.O. Box 518		19) CITY: Stephenville STATE: TX ZIP: 76401	
20) SIGNATURE: Doyle Well Service		21) SIGNATURE: Doyle Well Service		22) SIGNATURE: Doyle Well Service	

THRC-01 (Rev. 05-01-95)

THRC COPY

Send original copy by
certified mail to the
Texas Department of Water Resources
P. O. Box 13083
Austin, Texas 78711

State of Texas
WATER WELL REPORT
Confidentiality Privilege Notice on Reverse Side

Texas Water Well Drilling Board
P. O. Box 13083
Austin, Texas 78711

1) OWNER: Mr. Terry Antoine
(Name)
Address: 1821 Overhill
(City) (State) (Zip)
Stephenville Tx. 76401

2) LOCATION OF WELL:
County: Erath
Mile in: 3 Hwy 281
(In E. S.W. sec.) direction from: Stephenville Tx.
(Town)

Driller must complete the large description to the right
with distance and direction from two intersecting sec-
tions, and attach a map of the well location on a
well on an official Quarter or Half Scale Texas County
General Highway Map and attach the map to this form.

Legal description:
Section No. _____ Block No. _____ Township _____
Abstract No. _____ Survey Name _____
Distance and direction from two intersecting sections of survey lines _____

3) TYPE OF WORK (check):
☒ New Well ☐ Deepening ☐ Proposed Use (check):
☐ Residential ☐ Irrigation ☐ Test Well ☐ Other _____

4) DRILLING METHOD (check):
☐ Open Hole ☐ Air Hammer ☐ Driven ☐ Bored
☐ Cased ☐ Air Rotary ☐ Cable Tool ☐ Jetted ☐ Other _____

6) WELL LOG:
Date drilled: 9-15-86
DIA. (in.) From (ft.) To (ft.)
4 1/2 Surface 405

7) BOREHOLE COMPLETION:
☐ Open Hole ☐ Straight Wall ☐ Underdrain
☒ Gravel Packed ☐ Other _____
If Gravel Packed give interval: from _____ ft. to _____ ft.

From (ft.)	To (ft.)	Description and color of formation material	Dr. (in.)	New or Used	Steel Pipe, etc. Screen Mfg., if commercial	Setting (ft.)	From (ft.)	To (ft.)	Gravel Screen
0	2	TOP SOIL							
2-14	14	Caliche	4 1/2 N		Steel				
14	95	Blue clay and rock			Torch slotted				
95	290	Blue shale clay, rock layers							
290	305	Red clay							
305	315	Sandy clay							
315	330	Blue shale, rock layers							
330	342	Red clay							
342	355	Blue shale							
355	368	Brown sandy clay							
368	395	Sand and gravel							
395	405	RED CLAY							

CEMENTING DATA
Cemented from 0 ft. to 365 ft.
Method used: Pumped
Wolff Drilling Co.
Cemented by: _____
(Company or individual)

9) WATER LEVEL:
Static level: 275 ft. below land surface Date: 9-15-86
Artesian flow: _____ gpm Date: _____
Type: _____ Depth: _____

RECEIVED
SEP 14 1987
TEXAS WATER COMMISSION

11) TYPE PUMP:
☐ Turbine ☒ Jet ☐ Submersible ☐ Cylinder
Other: _____
Depth to pump bench, cylinder, jet, etc.: _____ ft.

12) WELL TESTS:
☐ Type Test: ☒ Pump ☐ Bailer ☐ Jetted ☐ Estimated
Yield: 15 gpm with _____ ft. drawdown after 3 hrs.

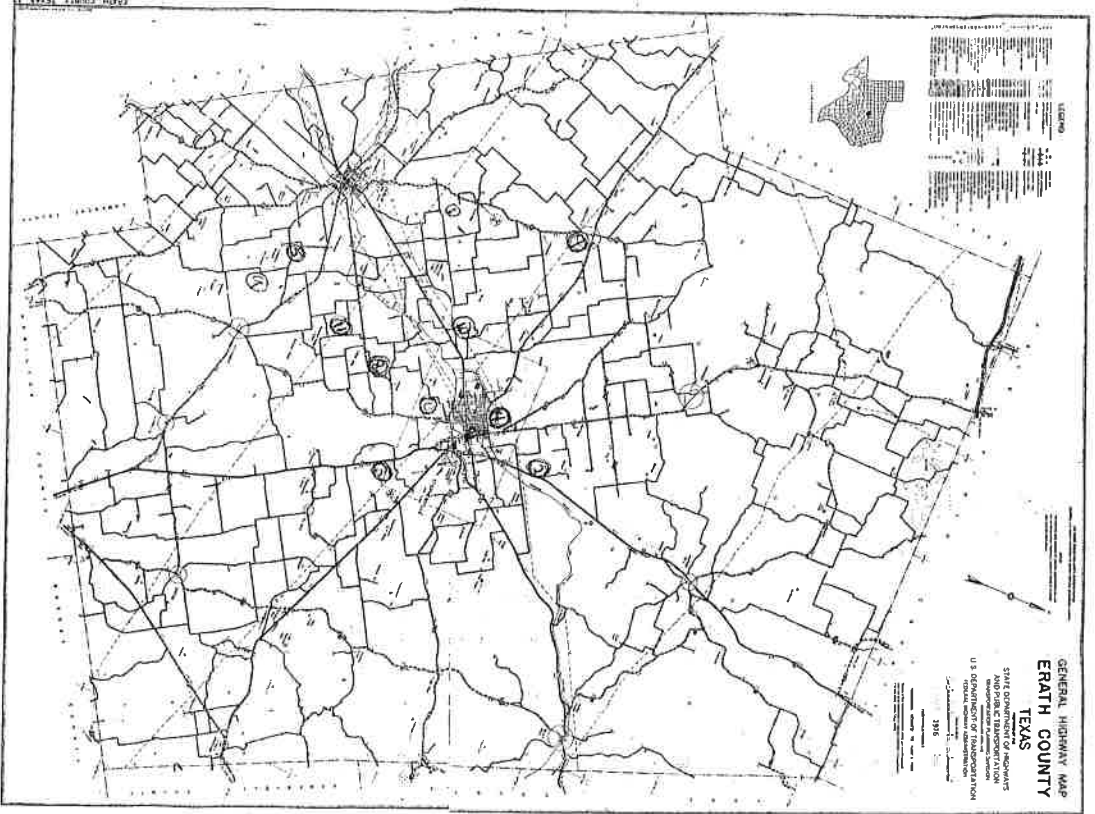
I hereby certify that this well was drilled by me (or under my supervision) and that each and all of the statements therein are true to the best of my knowledge and belief.

COMPANY NAME: Wolff Drilling Co.
(Type or Print)
Water Well Driller's License No. 559

ADDRESS: P.O. Box 52
(City) (State) (Zip)
Stephenville Tx. 76401

(Signed) Caldwell
(Typed Name in Circle)
Please attach electric log, chemical analysis, and other pertinent information, if available.

TOWN C292 (Rev. 5-27-82) DEPARTMENT OF WATER RESOURCES COPY



Send original copy by
certified mail to the
Texas Department of Water Resources
Austin, Texas 78711

State of Texas
WATER WELL REPORT
ATTENTION OWNER: Confidentiality Privilege Notice on Reverse Side

For TDR use only
Well No. 31-47-34
Located on map 024
Received: 07-8

1) OWNER: F. E. Sutton (Name) Address: Rt. 2 Box 364 Stephenville, Texas 76461
2) LOCATION OF WELL: 41 miles in NE direction from Stephenville (Twp.)

Driller must complete the log/description to the right
with distance and direction from two intersecting sec-
tion of survey lines, or his most recent and identify the
section of survey line, or his most recent and identify the
General Highway (see and attach it to map in this form).

Legal description: Block No. _____ Township _____
Section No. _____ Survey Name _____
Distance and direction from two intersecting section of survey lines _____

3) TYPE OF WORK (Check):
☒ New Well ☐ Deepening
☐ Recordkeeping ☐ Plugging

4) PROPOSED USE (Check):
☒ Domestic ☐ Industrial ☐ Public Supply
☐ Irrigation ☐ Test Well ☐ Other _____

5) DRILLING METHOD (Check):
☐ Mud Rotary ☐ Air Hammer ☐ Open ☐ Bored
☐ Air Rotary ☐ Cable Tool ☐ Jetted ☐ Other _____

6) WELL LOG:
Date drilled: 5-21-81
DIA. (in.) FROM (ft.) TO (ft.)
6 1/2 0 400

7) BOREHOLE COMPLETION:
☒ Open Hole ☐ Straight Wall ☐ Underdrained
☒ Gravel Packed ☐ Gravel Packed give interval: from 1100 ft. to 340 ft.

8) CASING, BLANK PIPE, AND WELL SCREEN DATA:
Casing: 4 1/2 in. Steel, slotted 400 360 156
Blank Pipe: _____
Well Screen: _____

9) WATER LEVEL:
Static level: 330 ft. below land surface Date: _____
Artesian flow: _____ gpm. Date: _____

10) PACKERS:
Type _____ Depth _____

11) TYPE PUMP:
☐ Turbine ☐ Jet ☐ Submersible ☐ Cylinder
Other: _____
Depth to pump bowls, cylinder, jet, etc.: _____ ft.

12) WELL TESTS:
☐ Type Test ☐ Pump ☒ Drawdown ☐ Jetted ☐ Estimated
Yield: 20 gpm with 10 ft. drawdown after 15 hrs.

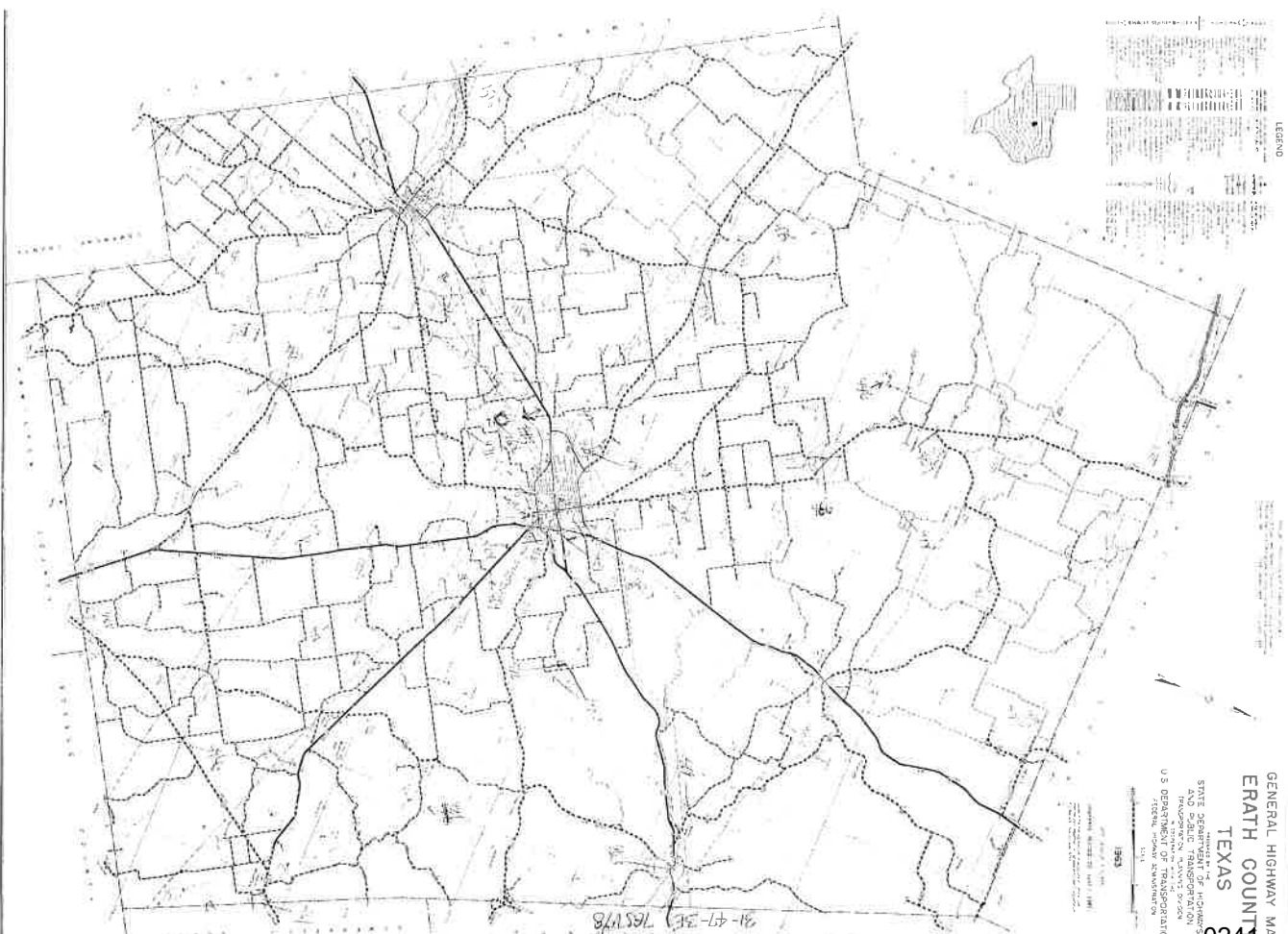
13) WATER QUALITY:
Did you knowingly penetrate any strata which contained undesirable water? ☐ Yes ☒ No
If yes, submit "REPORT OF UNDESIRABLE WATER"
Type of water: _____ Depth of strata: _____
Was a chemical analysis made? ☐ Yes ☒ No

I hereby certify that this well was drilled by me (or under my supervision) and that
each and all of the statements herein are true to the best of my knowledge and belief.

NAME: V. D. DOWELL (Type or Print) Water Well Driller Registration No. 1268
ADDRESS: P.O. Box 858 Stephenville Texas 76401
(City) (State) (Zip)
(Signed) V. D. DOWELL Dowell Well Service, Inc.
(Water Well Driller) (Company Name)

TDWR-0303 (Rev. 1-12-79)

DEPARTMENT OF WATER RESOURCES COPY



GENERAL HIGHWAY MAP
ERATH COUNTY
TEXAS
024
STATE DEPARTMENT OF HIGHWAYS
AND PUBLIC TRANSPORTATION
AUSTIN, TEXAS 78701
U.S. DEPARTMENT OF TRANSPORTATION
WASHINGTON, D.C. 20540

ATTENTION OWNER: Confidentiality
PUBLISHED NOTICE ON REVERSE SIDE
1) OWNER: UNIVERSITY OF TEXAS AT AUSTIN, BOX 137
2) ADDRESS OF WELL:
COUNTY: BROWN
CITY: STEPHENVILLE, TX 76401-
STREET OR RD.: HIGHWAY 281
CITY, STATE, ZIP CODE: STEPHENVILLE, TX 76401-
3) TYPE OF WORK: NEW WELL

STATE OF TEXAS
WATER WELL REPORT
CITY: LIPAN
STATE: TX ZIP: 76462-
610 4 31-47-8
4) PROPOSED USE: DOMESTIC
If Public Supply Well, wire plans submitted to the TWC?

6) WELL LOG: 00015
DIAMETER OF HOLE: 6.75
DATE DRILLING: 07/08/98
STARTED: 07/08/98
COMPLETED: 07/09/98
7) DRILLING METHOD: AIR ROTARY
8) BOREHOLE COMPLETION: GRAVEL PACKED
IF GRAVEL... FROM 360 FT. TO 458 FT.
FROM FT. TO FT.

9) CEMENTING DATA:
CEMENTED FROM 0 FT. TO 20 FT. No. of Sacks Used 3
300 FT. TO 360 FT. 8
Method used: CEMENT-POURED
Cemented by: GARY
Distance to specific field lines: 150 ft.
Method of verification of above distances:
CUSTOMER VERIFY

10) SURFACE COMPLETION:
SPEC. STEEL SLEEVE
STATIC LEVEL: 330 FT. DATE: 07/07/98
ARTESIAN FLOW: GPN. DATE:
11) WATER LEVEL:
12) PACKERS: TYPE DEPTH
390 390 SAND-GRAVEL
398 413 BLUE RED CLAY
413 428 SAND-GRAVEL
428 458 BLUE RED CLAY

13) TYPE PUMP:
SUBMERSIBLE
DEPTH TO PUMP: 360
YIELD: 7 GPM WITH UNKNOWN FT. DRAWDOWN AFTER 24 HRS
14) WELL TEST:
PUMP
NO STRATA OF UNDESIRABLE WATER PENETRATED
NO CHEMICAL ANALYSIS MADE

15) WATER QUALITY:
TYPE OF WATER:
COMPANY NAME: ASSOCIATED SERVICES
ADDRESS: P.O. BOX 16
CITY: STEPHENVILLE
STATE: TX ZIP CODE: 76401
WATER WELL DRILLER'S LICENSE NO.: 2404
WELL NO.:
LOCATED ON MAP

I HEREBY CERTIFY THAT THIS WELL WAS DRILLED BY ME (OR UNDER MY SUPERVISION) AND THAT EACH AND ALL OF THE STATEMENTS HEREIN ARE TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF. I UNDERSTAND THAT FAILURE TO COMPLETE ITEMS 1 THRU 15 WILL RESULT IN THE LOSS OF MY LICENSE TO DRILL WATER WELLS.
(Signed) Tommy Riley (REGISTERED DRILLER)
(LICENSED WATER WELL DRILLER)

FILED	SEP 2	SEP 10 1998	SEC 2
COMMENT			
TEMP			

Send original copy to:
Certified well to the
Texas Water Development Board
P.O. Box 10087, Austin, Texas 78711
WATER WELL REPORT
1) OWNER:
Person having well drilled: C.W. Penner
Address: 845 Stephenville Road
City: Stephenville, TX 76401
2) ADDRESS OF WELL:
COUNTY: BROWN
CITY: STEPHENVILLE, TX 76401-
STREET OR RD.: HIGHWAY 281
CITY, STATE, ZIP CODE: STEPHENVILLE, TX 76401-
3) TYPE OF WORK: NEW WELL

STATE OF TEXAS
WATER WELL REPORT
CITY: LIPAN
STATE: TX ZIP: 76462-
610 4 31-47-8
4) PROPOSED USE: DOMESTIC
If Public Supply Well, wire plans submitted to the TWC?

6) WELL LOG: 00015
DIAMETER OF HOLE: 6.75
DATE DRILLING: 07/08/98
STARTED: 07/08/98
COMPLETED: 07/09/98
7) DRILLING METHOD: AIR ROTARY
8) BOREHOLE COMPLETION: GRAVEL PACKED
IF GRAVEL... FROM 360 FT. TO 458 FT.
FROM FT. TO FT.

9) CEMENTING DATA:
CEMENTED FROM 0 FT. TO 20 FT. No. of Sacks Used 3
300 FT. TO 360 FT. 8
Method used: CEMENT-POURED
Cemented by: GARY
Distance to specific field lines: 150 ft.
Method of verification of above distances:
CUSTOMER VERIFY

10) SURFACE COMPLETION:
SPEC. STEEL SLEEVE
STATIC LEVEL: 330 FT. DATE: 07/07/98
ARTESIAN FLOW: GPN. DATE:
11) WATER LEVEL:
12) PACKERS: TYPE DEPTH
390 390 SAND-GRAVEL
398 413 BLUE RED CLAY
413 428 SAND-GRAVEL
428 458 BLUE RED CLAY

13) TYPE PUMP:
SUBMERSIBLE
DEPTH TO PUMP: 360
YIELD: 7 GPM WITH UNKNOWN FT. DRAWDOWN AFTER 24 HRS
14) WELL TEST:
PUMP
NO STRATA OF UNDESIRABLE WATER PENETRATED
NO CHEMICAL ANALYSIS MADE

15) WATER QUALITY:
TYPE OF WATER:
COMPANY NAME: ASSOCIATED SERVICES
ADDRESS: P.O. BOX 16
CITY: STEPHENVILLE
STATE: TX ZIP CODE: 76401
WATER WELL DRILLER'S LICENSE NO.: 2404
WELL NO.:
LOCATED ON MAP

I HEREBY CERTIFY THAT THIS WELL WAS DRILLED BY ME (OR UNDER MY SUPERVISION) AND THAT EACH AND ALL OF THE STATEMENTS HEREIN ARE TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF. I UNDERSTAND THAT FAILURE TO COMPLETE ITEMS 1 THRU 15 WILL RESULT IN THE LOSS OF MY LICENSE TO DRILL WATER WELLS.
(Signed) Tommy Riley (REGISTERED DRILLER)
(LICENSED WATER WELL DRILLER)

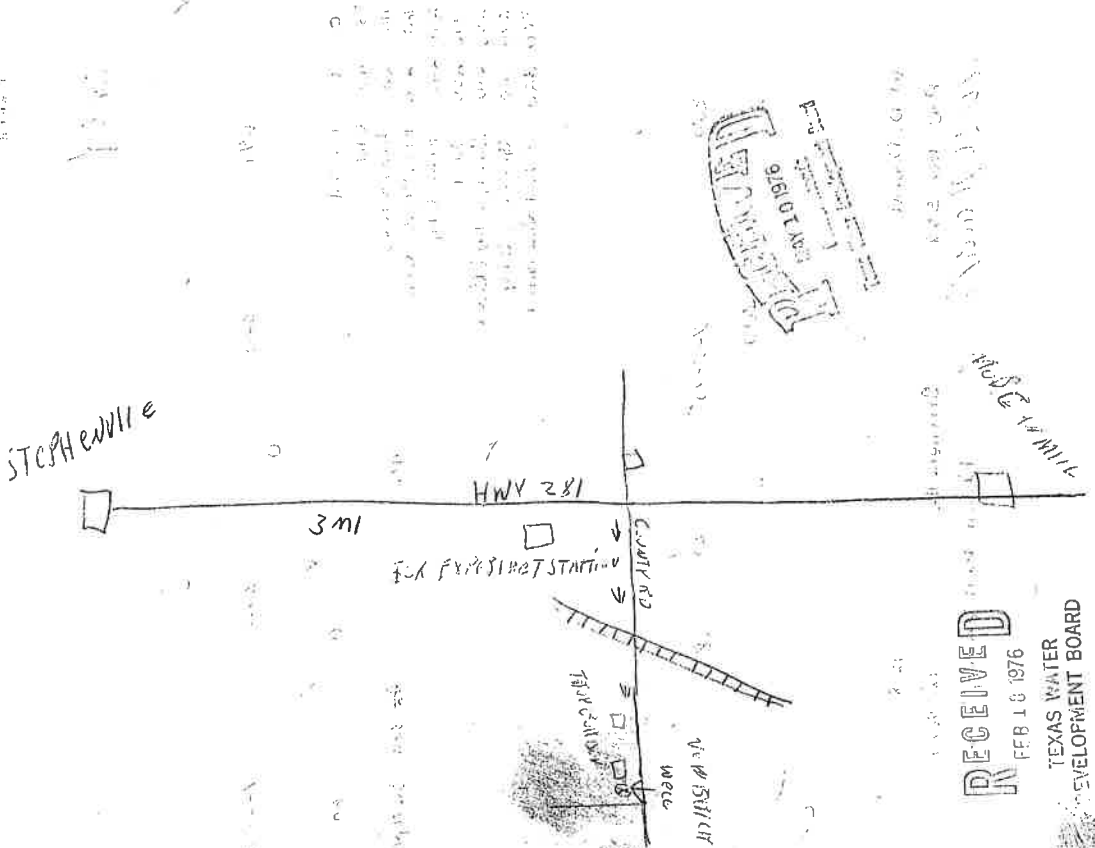
FILED	SEP 2	SEP 10 1998	SEC 2
COMMENT			
TEMP			

Additional instructions on reverse side.

*Additional instructions on reverse side.

Send original copy by certified mail to the Texas Water Development Board, Austin, Texas 78711		State of Texas		Form 100-1 (Rev. 1-67)	
WATER WELL REPORT		WATER WELL REPORT		Well No. 31-47-80	
1) OWNER: Person having well drilled: <u>Toby Stone</u> (Name) Address: <u>Highway 281, Stephenville, TX</u> (City) (State) (Zip) <u>2130 OAKLAND, PR.</u> (City) (State) (Zip)		2) TYPE OF WELL (Check): a) DRILLED: <input checked="" type="checkbox"/> b) OTHER: <input type="checkbox"/> c) OTHER: <input type="checkbox"/> (Specify: _____)		3) PURPOSE OF WELL (Check): a) DOMESTIC: <input type="checkbox"/> b) INDUSTRIAL: <input type="checkbox"/> c) OTHER: <input type="checkbox"/> (Specify: _____)	
4) LOCATION OF WELL: County: <u>FRANKLIN</u> (Name) Locate by sketch map showing landmarks, roads, creeks, highway number, etc. Sketch map: <u>OVER</u> (Name) North arrow: <u>1</u> (Direction)		5) TYPE OF WELL (Check): a) DRILLED: <input checked="" type="checkbox"/> b) OTHER: <input type="checkbox"/> c) OTHER: <input type="checkbox"/> (Specify: _____)		6) WELL LOG: Diameter of hole: <u>6 3/4</u> in. Depth drilled: <u>320</u> ft. Date drilled: <u>9-5-75</u> All measurements made from <u>0</u> ft. above ground level.	
7) TYPE OF WELL (Check): a) DRILLED: <input checked="" type="checkbox"/> b) OTHER: <input type="checkbox"/> c) OTHER: <input type="checkbox"/> (Specify: _____)		8) WELL LOG: Diameter of hole: <u>6 3/4</u> in. Depth drilled: <u>320</u> ft. Date drilled: <u>9-5-75</u> All measurements made from <u>0</u> ft. above ground level.		9) TYPE OF WELL (Check): a) DRILLED: <input checked="" type="checkbox"/> b) OTHER: <input type="checkbox"/> c) OTHER: <input type="checkbox"/> (Specify: _____)	
10) WELL LOG: Diameter of hole: <u>6 3/4</u> in. Depth drilled: <u>320</u> ft. Date drilled: <u>9-5-75</u> All measurements made from <u>0</u> ft. above ground level.		11) WELL LOG: Diameter of hole: <u>6 3/4</u> in. Depth drilled: <u>320</u> ft. Date drilled: <u>9-5-75</u> All measurements made from <u>0</u> ft. above ground level.		12) WELL LOG: Diameter of hole: <u>6 3/4</u> in. Depth drilled: <u>320</u> ft. Date drilled: <u>9-5-75</u> All measurements made from <u>0</u> ft. above ground level.	

2) LOCATION OF WELL:
The sketch showing the well location must be as accurate as possible, showing landmarks, in sufficient detail so that the well may be located on a General Highway Map of the county in which the well is located.
Reference points from which distances are measured and directions given should be of a permanent nature (e.g., highway intersections, center of town, river and creek bridges, railroad crossings). The distance and direction from the nearest town should always be indicated.
When giving a legal description include a sketch showing location of the well within the described area, e.g., survey abstract.
Information furnished in Section 2) of the FORM 100-1 is very important. Unless the well can be accurately located on a map the value of the other data contained in the report is greatly reduced.



Send original copy by
Registered mail to the
Texas Water Development Board
P. O. Box 13087
Austin, Texas 78711

WATER WELL REPORT

State of Texas

For THIS use only
Well No. 31-47-8T
on sec. 17, T.2S., R.10E., S.1E.
Northwell, Texas

1) OWNER: Person owning well setting: Joe Torres (Name)

Address: At a Box 975 Stephenville, TX 76468 (Street or RFD) (City) (State)

Landowner: Edna (Name)

2) LOCATION OF WELL: ERTH (Name) 2 miles to Stephenville (City) (State)

Location by sketch map showing landmarks, roads, creeks, etc.
Stephenville and P.O.
Box 975
Box 10886
at well
(see reverse side if necessary)

3) TYPE OF WELL: Drill (Type) Drill (Depth) 12-7-78 (Date drilled)

Reconduiting: Plugging (Type) Plugging (Depth) 12-7-78 (Date drilled)

4) PROPOSED USE: Domestic (Type) Domestic (Depth) 12-7-78 (Date drilled)

5) TYPE OF WATER: Drill (Type) Drill (Depth) 12-7-78 (Date drilled)

6) WELL LOG: Diameter of hole 6 1/2 in. Depth drilled 320 ft. Depth of completed well 320 ft. Always ground level.

7) TYPE OF WATER: Drill (Type) Drill (Depth) 12-7-78 (Date drilled)

8) TYPE OF WATER: Drill (Type) Drill (Depth) 12-7-78 (Date drilled)

9) TYPE OF WATER: Drill (Type) Drill (Depth) 12-7-78 (Date drilled)

10) TYPE OF WATER: Drill (Type) Drill (Depth) 12-7-78 (Date drilled)

11) TYPE OF WATER: Drill (Type) Drill (Depth) 12-7-78 (Date drilled)

12) TYPE OF WATER: Drill (Type) Drill (Depth) 12-7-78 (Date drilled)

13) WATER QUALITY: Was a chemical analysis made? Yes (Type) Yes (Depth) 12-7-78 (Date drilled)

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69) WATER QUALITY: Was a chemical analysis made? Yes (Type) Yes (Depth) 12-7-78 (Date drilled)

70) WATER QUALITY: Was a chemical

[illegible]

Send original copy by
certified mail to the
Texas Department of Water Resources
2000 North St. 100
Austin, Texas 78711

State of Texas
WATER WELL REPORT

For TOWNSHIP use only
Well No. 2-48-7-8
Used on map 62A
Registered 62A

1) OWNER: David Barker Address: 5223 34th St 109 Stephenville, TX 76401
(Name) (Street or P.O.) (City) (State) (Zip)
2) LOCATION OF WELL: 2nd mile in direction from 11 (Town)
(County) (In E., S.W., etc.)

Driller must complete the legal description to the right
with distance and direction from two intersecting sec-
tion or survey lines, or the must locate and identify the
intersection of the section or survey lines on the survey
General Highway Map and attach the map to this report.
3) TYPE OF WORK (Check):
☒ Domestic ☐ Industrial ☐ Public Supply
☐ Reconditioning ☐ Plugging ☐ Other

4) PROPOSED USE (Check):
☒ Domestic ☐ Industrial ☐ Public Supply
☐ Irrigation ☐ Test Well ☐ Other

5) DRILLING METHOD (Check):
☒ Mud Rotary ☐ Air Hammer ☐ Driven ☐ Bored
☐ Auger ☐ Cable Tool ☐ Jatted ☐ Other

6) WELL LOG:
Date drilled: 3-26-79
DIA. (in.) From (ft.) To (ft.)
104 0 325
Description and color of formation material

7) BOREHOLE COMPLETION:
☐ Open Hole ☐ Straight Well ☐ Undersized
☒ Cement Packed ☐ Other
If Gravel Packed give interval... from 285 ft. to 325 ft.

8) CASING, BLANK PIPE, AND WELL SCREEN DATA:
Casing from 0 ft. to 285 ft.
Method used: Drilled by Dr. Barker
Cemented by: Dr. Barker

9) WATER LEVEL:
Static level: 280 ft. below land surface Date: 3-26-79
Artesian flow: none gpm.

10) PACKERS:
Type Depth

11) TYPE PUMP:
☐ Turbine ☒ Jet ☐ Submersible ☐ Cylinder
☐ Other
Depth to pump bowl, cylinder, jet, etc.: ft.

12) WELL TESTS:
☐ Type Test ☒ Pump ☐ Balling ☐ Dented ☐ Enlarged
Yield: 15 gpm with 20 ft. drawdown after 1 hrs.

13) WATER QUALITY:
Did you knowingly penetrate any strata which contained under-
water? ☐ Yes ☒ No
If yes, submit "REPORT OF UNDESIRABLE WATER"
Type of water: ☐ Fresh ☐ Brackish ☐ Saline
Was a chemical analysis made? ☐ Yes ☒ No

I hereby certify that this well was drilled by me (or under my supervision) and that
each and all of the statements herein are true to the best of my knowledge and belief.

NAME: Maekha Barker Water Well Drilling Registration No.: 1891
ADDRESS: P.O. Box 538 Stephenville, TX 76401
(Street or P.O.) (City) (State) (Zip)

(Signed) Maekha Barker (Driller)
Please attach electric log, chemical analysis, and other pertinent information, if available.

TOWN-0392

ATTENTION OWNER: Confidentiality
Privileged Notice on Reverse Side

STATE OF TEXAS
WATER WELL REPORT
1) OWNER: TRAINER, RD ADDRESS: 2408 CR 116 CITY: STEPHENVILLE STATE: TX ZIP: 76401

2) ADDRESS OF WELL:
County: EXATE
Street or P.O.: STATE SPRINGS RD
City, State, Zip Code: STEPHENVILLE, TX 76401

3) TYPE OF WORK: NEW WELL
GRID # 31-47-8
4) PROPOSED USE: DOMESTIC
If Public Supply Well, verify plans submitted to the TWCY

5) WELL LOG: 00789
DATE DRILLING: 09/06/01
STARTED: 09/06/01
COMPLETED: 09/06/01
DIA. FROM TO
6.75 537
SDM 537
AIR ROTARY
GAGE CASING SCREEN
FROM 267 FT. TO 537 FT.
FT. TO FT.

CASING, BLANK PIPE, AND WELL SCREEN DATA:
DIA. FROM TO
6.75 537
SDM 537
AIR ROTARY
GAGE CASING SCREEN
FROM 267 FT. TO 537 FT.
FT. TO FT.

6) WELL LOG:
DIA. FROM TO
6.75 537
SDM 537
AIR ROTARY
GAGE CASING SCREEN
FROM 267 FT. TO 537 FT.
FT. TO FT.

7) BOREHOLE COMPLETION:
☐ Open Hole ☐ Straight Well ☐ Undersized
☒ Cement Packed ☐ Other
If Gravel Packed give interval... from 285 ft. to 325 ft.

8) CASING, BLANK PIPE, AND WELL SCREEN DATA:
Casing from 0 ft. to 285 ft.
Method used: Drilled by Dr. Barker
Cemented by: Dr. Barker

9) WATER LEVEL:
Static level: 280 ft. below land surface Date: 3-26-79
Artesian flow: none gpm.

10) PACKERS:
Type Depth

11) TYPE PUMP:
☐ Turbine ☒ Jet ☐ Submersible ☐ Cylinder
☐ Other
Depth to pump bowl, cylinder, jet, etc.: ft.

12) WELL TESTS:
☐ Type Test ☒ Pump ☐ Balling ☐ Dented ☐ Enlarged
Yield: 15 gpm with 20 ft. drawdown after 1 hrs.

13) WATER QUALITY:
Did you knowingly penetrate any strata which contained under-
water? ☐ Yes ☒ No
If yes, submit "REPORT OF UNDESIRABLE WATER"
Type of water: ☐ Fresh ☐ Brackish ☐ Saline
Was a chemical analysis made? ☐ Yes ☒ No

I hereby certify that this well was drilled by me (or under my supervision) and that
each and all of the statements herein are true to the best of my knowledge and belief.

NAME: Maekha Barker Water Well Drilling Registration No.: 1891
ADDRESS: P.O. Box 538 Stephenville, TX 76401
(Street or P.O.) (City) (State) (Zip)

(Signed) Maekha Barker (Driller)
Please attach electric log, chemical analysis, and other pertinent information, if available.

TOWN-0392

Send original copy by certified mail to the Texas Water Development Board Austin, Texas 78711

State of Texas WATER WELL REPORT

For use only Well No. 31-46-60 Registered 1-1-75

1) OWNER: Person having well drilled Kenneth Miller (Name) Address Rt # 2, Stephenville, Texas (City or HQ) (City) (State) Telephone T.C. Frost (Name) Address Weatherford, Texas (City) (State) (Street or RD)

2) LOCATION OF WELL: Depth 4 miles in North direction from Stephenville, Texas (City) (State) (Street or RD) (City) (State) (Street or RD)

Locate by stretch map showing landmarks, roads, creeks, highway number, etc. # 11 -- On Erath Co. Map Map No. 31-46-60 North

(Use reverse side if necessary)

3) TYPE OF WORK (Check): 4) PROPOSED USE (Check):
New Well ☒ Deepening ☐ Domestic ☒ Industrial ☐
Reconditioning ☐ Plugging ☐ Irrigation ☐ Test Well ☐ Other ☐ Cable ☐ Jetted ☐ Bored ☐

5) WELL LOG: Diameter of hole 3 1/2 in. Depth drilled 385 ft. Depth of completed well 0 ft. Date drilled 6/21/75

All measurements made from 0 ft. above ground level.

From (ft.)	To (ft.)	Description and color of formation material	3) Gauge: Type: Old New <input checked="" type="checkbox"/> Steel <input checked="" type="checkbox"/> Plastic Other	Commented from (ft.) to (ft.)	Distance (feet) from (ft.) to (ft.)	10) SCREEN: Type: Perforated Slotted Slot Size (inches) From (ft.) To (ft.)
0	3	Yellow clay and rock				
3	20	Red bed				
20	40	Rock and shale				
60	95	Sandy clay				
95	110	Rock and sand				
110	125	Blue clay				
125	140	Rock, shale, clay				
140	185	Sandy clay and shale				
185	335	Shale, rock and clay				
335	350	Sandy clay, gravel, sandstone				
350	385	Sandstone, sandy gravel, clay				

7) CONSTRUCTION (Check):
Straight wall ☐ Gravel packed ☐ Other ☐
Under reamed ☐ Open hole ☐

8) WATER LEVEL: Static level _____ ft. below land surface Date _____
Artesian pressure _____ lbs. per square inch Date _____
Depth to pump bowls, cylinder, jet, etc., _____ ft.
below land surface.

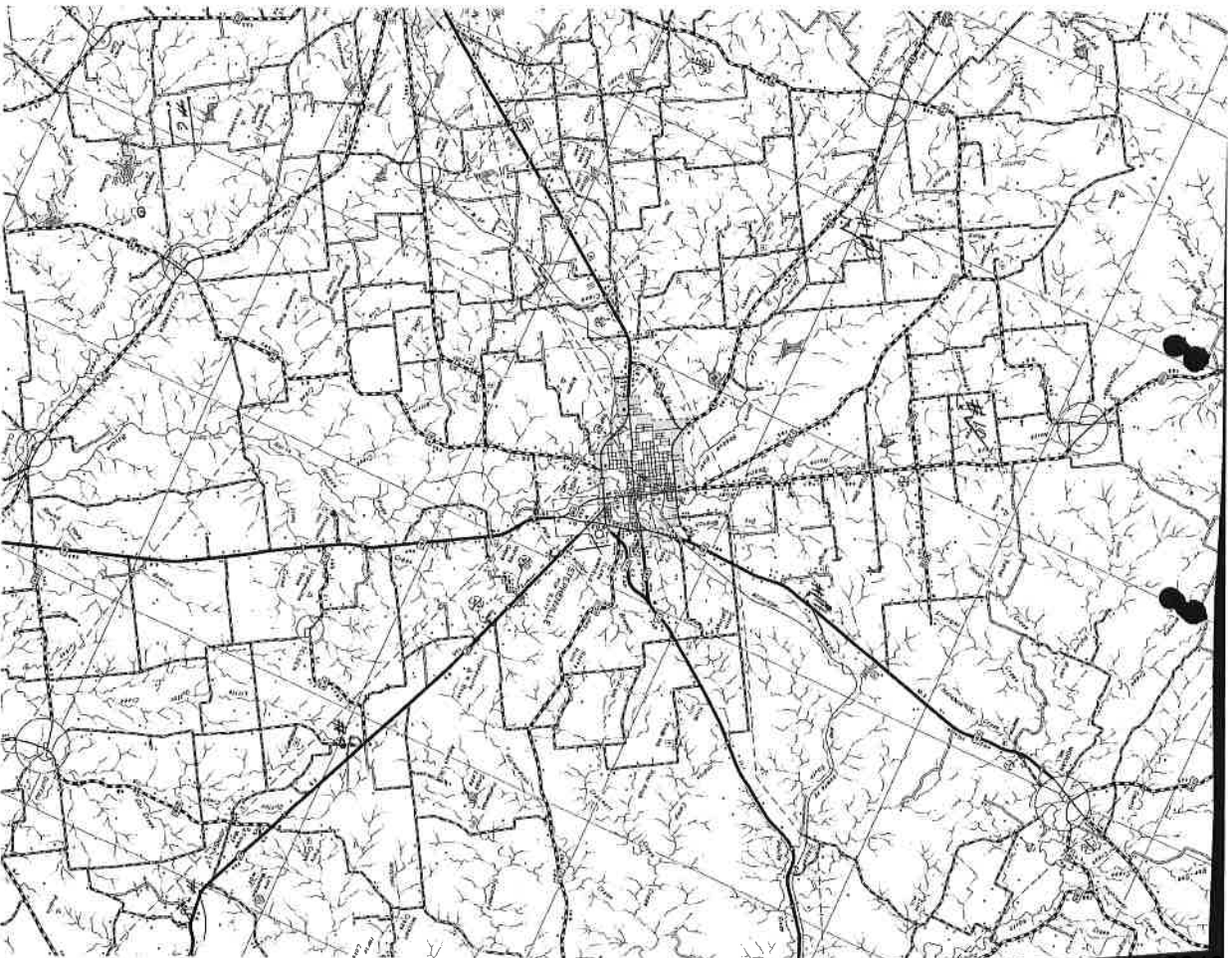
11) WELL TESTS: Was a pump test made? Yes No If yes, by whom?
Yield: _____ gpm with _____ ft. drawdown after _____ hrs.
Ballor level _____ gpm with _____ ft. drawdown after _____ hrs.
Artesian flow _____ gpm
Temperature of water _____
Type of water? _____ depth of strata.

12) WATER QUALITY: Was a chemical analysis made? Yes No
Did any streaks contain undrinkable water? Yes No

NAME C. W. WOLF (Type or Print) Well Drillers Registration No. 559
ADDRESS P.O. Box 16 (City) Stephenville, Texas (State)
(Signed) C. W. Wolf (Water Well Driller) WOLF DRILLING (Company Name)

Please attach electric log, chemical analysis, and other pertinent information, if available.

Additional instructions on reverse side.



Send original copy by certified return receipt requested to: TDLR, P.O. Box 12157, Austin, TX 78711

ATTENTION OWNER: Confidentially
Provide Notice on reverse side
of Well Owner's copy (if any)

State of Texas WELL REPORT

Texas Department of Licensing & Regulation

P.O. Box 12157
Austin, TX 78711
512-463-7880

1) OWNER: <u>G.O. Backus</u>	ADDRESS: <u>Box 4 Stephenville, TX 76401</u>	CITY: <u>Stephenville</u>	STATE: <u>TX</u>	ZIP: <u>76401</u>
2) WELL LOCATION: <u>At</u>	STREET (if on street):	CITY: <u>Stephenville</u>	STATE: <u>TX</u>	ZIP: <u>76401</u>
3) TYPE OF WORK (check): <input checked="" type="checkbox"/> New Well <input type="checkbox"/> Deepening <input type="checkbox"/> Reconditioning <input type="checkbox"/> Plugging	4) PROPOSED USE (check): <input type="checkbox"/> Industrial <input type="checkbox"/> Irrigation <input type="checkbox"/> Injection <input type="checkbox"/> Public Supply <input type="checkbox"/> Domestic <input type="checkbox"/> Other: <u>Domestic</u>	5) DIAMETER OF HOLE: From (ft.) <u>18</u> To (ft.) <u>30</u> Surface <u>141</u> Bottom <u>141</u>	6) DRILLING METHOD (check): <input type="checkbox"/> Auger <input type="checkbox"/> Air Rotary <input type="checkbox"/> Mud Rotary <input type="checkbox"/> Cable Tool <input type="checkbox"/> Jetted <input type="checkbox"/> Other: <u>Auger</u>	7) CASING, BLANK PIPE, AND WELL SCREEN DATA: Casing: <u>1 1/2" x 14' 60'</u> Blank Pipe: <u>1 1/2" x 14' 60'</u> Well Screen: <u>1 1/2" x 14' 60'</u>
8) FROM (ft.) <u>0</u> TO (ft.) <u>141</u>	DESCRIPTION AND COLOR OF FORMATION MATERIAL: <u>0-36 Red Rock & Limestone</u> <u>36-70 Red Rock & Yellow Clay</u> <u>70-95 Yellow Sand</u> <u>95-141 Blue Shale</u>	9) BOREHOLE COMPLETION (check): <input type="checkbox"/> Open Hole <input type="checkbox"/> Stringer Well <input checked="" type="checkbox"/> Cased <input type="checkbox"/> Gravel Packed <input type="checkbox"/> Other: <u>Gravel Packed</u>	10) SURFACE COMPLETION: <input type="checkbox"/> Specified Surface Shown <input checked="" type="checkbox"/> Specified Surface Shown <input type="checkbox"/> Other: <u>Specified Surface Shown</u>	11) WATER LEVEL: Static level <u>70</u> ft. below land surface Artesian flow <u>0</u> gpm. Date <u>2-4-99</u>
12) WELL TESTS: Type: <u>1" x 1/2" x 1/2"</u> Yield: <u>20</u> gpm with <u>0</u> ft. drawdown after <u>2</u> hrs. Did you know/verify permeability of strata which contained undesirable constituents? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, submit REPORT OF UNDESIRABLE WATER.	13) PACKERS: Type: <u>0</u> Depth: <u>0</u>	14) TYPE PUMP: <input type="checkbox"/> Turbine <input checked="" type="checkbox"/> Submersible <input type="checkbox"/> Other: <u>Submersible</u>	15) WATER QUALITY: Type: <u>0</u> Yield: <u>20</u> gpm with <u>0</u> ft. drawdown after <u>2</u> hrs. Did you know/verify permeability of strata which contained undesirable constituents? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, submit REPORT OF UNDESIRABLE WATER.	16) WATER QUALITY: Type: <u>0</u> Yield: <u>20</u> gpm with <u>0</u> ft. drawdown after <u>2</u> hrs. Did you know/verify permeability of strata which contained undesirable constituents? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, submit REPORT OF UNDESIRABLE WATER.

TDLR FORM 01WWD (4-98)

White - TDLR

Yellow - DRILLER

Pink - WELL OWNER

Send original copy to:
TDLR, P.O. Box 12157,
Austin, TX 78711

State of Texas
WATER WELL REPORT

For 2005 use only
Well No. 31-47-8-5
Section on map 27
Range 27
Township 27

1) OWNER: <u>James L. Dunsen</u>	ADDRESS: <u>43 Stephenville, TX 76401</u>	CITY: <u>Stephenville</u>	STATE: <u>TX</u>	ZIP: <u>76401</u>
2) WELL LOCATION: <u>At</u>	STREET (if on street):	CITY: <u>Stephenville</u>	STATE: <u>TX</u>	ZIP: <u>76401</u>
3) TYPE OF WORK (check): <input checked="" type="checkbox"/> Deepening <input type="checkbox"/> Reconditioning <input type="checkbox"/> Plugging	4) PROPOSED USE (check): <input type="checkbox"/> Industrial <input type="checkbox"/> Irrigation <input type="checkbox"/> Injection <input type="checkbox"/> Public Supply <input type="checkbox"/> Domestic <input type="checkbox"/> Other: <u>Domestic</u>	5) DIAMETER OF HOLE: From (ft.) <u>18</u> To (ft.) <u>30</u> Surface <u>141</u> Bottom <u>141</u>	6) DRILLING METHOD (check): <input type="checkbox"/> Auger <input type="checkbox"/> Air Rotary <input type="checkbox"/> Mud Rotary <input type="checkbox"/> Cable Tool <input type="checkbox"/> Jetted <input type="checkbox"/> Other: <u>Auger</u>	7) CASING, BLANK PIPE, AND WELL SCREEN DATA: Casing: <u>1 1/2" x 14' 60'</u> Blank Pipe: <u>1 1/2" x 14' 60'</u> Well Screen: <u>1 1/2" x 14' 60'</u>
8) FROM (ft.) <u>0</u> TO (ft.) <u>141</u>	DESCRIPTION AND COLOR OF FORMATION MATERIAL: <u>0-40 Black</u> <u>40-51 Black</u> <u>51-70 Red Rock & Yellow Clay</u> <u>70-95 Yellow Sand</u> <u>95-141 Blue Shale</u>	9) BOREHOLE COMPLETION (check): <input type="checkbox"/> Open Hole <input type="checkbox"/> Stringer Well <input checked="" type="checkbox"/> Cased <input type="checkbox"/> Gravel Packed <input type="checkbox"/> Other: <u>Gravel Packed</u>	10) SURFACE COMPLETION: <input type="checkbox"/> Specified Surface Shown <input checked="" type="checkbox"/> Specified Surface Shown <input type="checkbox"/> Other: <u>Specified Surface Shown</u>	11) WATER LEVEL: Static level <u>70</u> ft. below land surface Artesian flow <u>0</u> gpm. Date <u>2-4-99</u>
12) WELL TESTS: Type: <u>1" x 1/2" x 1/2"</u> Yield: <u>20</u> gpm with <u>0</u> ft. drawdown after <u>2</u> hrs. Did you know/verify permeability of strata which contained undesirable constituents? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, submit REPORT OF UNDESIRABLE WATER.	13) PACKERS: Type: <u>0</u> Depth: <u>0</u>	14) TYPE PUMP: <input type="checkbox"/> Turbine <input checked="" type="checkbox"/> Submersible <input type="checkbox"/> Other: <u>Submersible</u>	15) WATER QUALITY: Type: <u>0</u> Yield: <u>20</u> gpm with <u>0</u> ft. drawdown after <u>2</u> hrs. Did you know/verify permeability of strata which contained undesirable constituents? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, submit REPORT OF UNDESIRABLE WATER.	16) WATER QUALITY: Type: <u>0</u> Yield: <u>20</u> gpm with <u>0</u> ft. drawdown after <u>2</u> hrs. Did you know/verify permeability of strata which contained undesirable constituents? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, submit REPORT OF UNDESIRABLE WATER.

Please attach electric log, chemical analysis, and other pertinent information, if available.

TDLR-003

Texas Water Commission
P.O. Box 13078, Austin, Texas 78711

State Of Texas
Well Report

1) Owner: Levy Alexander Address: 209 E Navarro
City: De Leon State: Texas Zipcode: 76444

2) County: Erath Miles: 4 Direction: N From: Stephenville
Location: See Map Attached.

3) Type of work: 4) Proposed Use: 5) Drilling Method:
New Well Domestic Air Rotary

6) Date Drilled: Diameter of Hole: 7) Bore Hole Completion:
Start: 09-04-1993 6-1/2 From: 0 To: 260 Gravel Packed
Finish: 09-04-1993 From: 15 To: 260 Gravel pack From: 15 To: 260

From	To	Formation	8) Casing: Dia: New, Used: Type: From: To: Gauge:
0	6	Clay	4 " New PVC 0 260 Sch40
6	10	Sand	
10	18	Clay	
18	150	Shale	4 Perforation: New PVC 220 260 1/8
150	161	Sand	
161	170	Shale	
170	260	Sand	

9) Cementing Data: (Rule 207.44(1))
From To No. of Sacks
15 3

ERATH COUNTY

FEB 26 1994
10) Surface Completion:
11) Surface Sleeve Installed (287.44(3)(A))
TEXAS WATER COMMISSION Water Level below ground surface:
200 Ft. Date: 09-04-1993

12) Packers:
Type: None Depth:

13) Type Pump: Submersible

14) Well Test: Estimated Yield: 40 GPM

15) Water Quality: Good

I hereby certify that this well was drilled by me/or under my supervision) and that each and all of the statements herein are true to the best of knowledge and belief. I understand that failure to complete items 1 thru 15 will result in the log(s) being returned for completion and resubmittal.

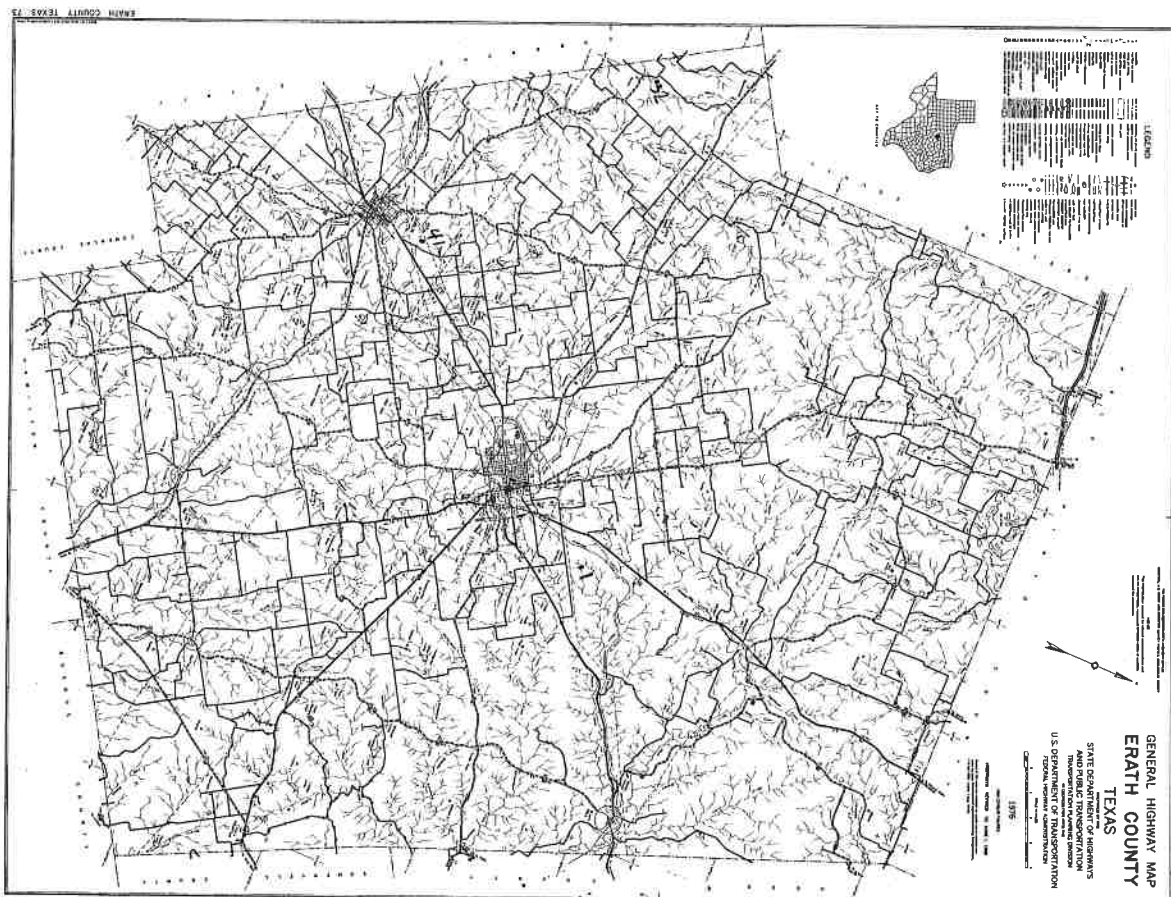
Company Name: F & F Drilling Inc.

Well Driller's License No. 02317W

Address: Ft. 1 De Leon, Texas
Signed: *Fung Smith*
Driller Trainee

Attention Owner: Confidentiality privilege on attached letter.

For TWC use only: Well No. 31478
Located on map:

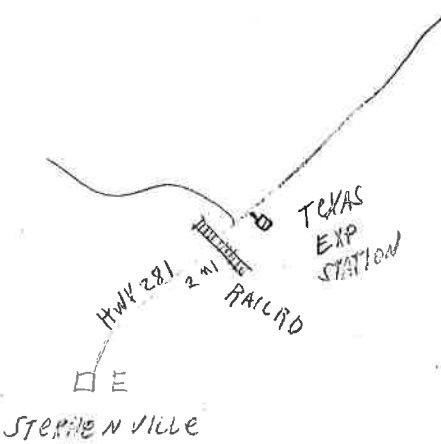


2) LOCATION OF WELL:

The sketch showing the well location may be as accurate as possible, showing landmarks, in sufficient detail so that the well may be plotted on a General Highway Map of the county in which the well is located.

References against farm which structures are measured and directions given should be of a permanent nature (e.g., highway intersections, corner of road, river and creek bridges, railroad crossings). The distance and direction from the nearest town should always be indicated.

When giving a legal description include a sketch showing location of the well within the described area, e.g., survey abstract. Information furnished in Section 3) of the TWC-33 is very important. Unless the well can be accurately located on a map the value of the other data contained in the Report is greatly reduced.



RECEIVED
JAN 23 1975
General Office
Texas Water Commission

RECEIVED
AUG 23 1974
General Office
Texas Water Commission

Please use black ink.
Send original copy by
mail to:
Texas Water Commission
P.O. Box 13087
Austin, Texas 78711

State of Texas
WATER WELL REPORT
ATTENTION OWNER: Confidentially Provide Notice on Reverse Side

1) OWNER: Cardinal Taylor Address: 955 Charlotte Stephenville Tex 76401
County: Erath Section: 4 mile in: NE direction from: Stephenville
(Owner's address)
(City) (State) (Zip)

2) LOCATION OF WELL:
Driller and landowner to plot description to the right
with distance and direction from nearest town, road,
river or survey line, or to nearest section and identify the
well on an official Quarter- or Half-Section Texas County
General Highway Map and attach the map to this form.

3) TYPE OF WORK (Check):
☒ New Well ☐ Deepening
☐ Reconditioning ☐ Plugging

4) PROPOSED USE (Check):
☐ Domestic ☐ Industrial ☐ Monitor
☐ Irrigation ☐ Test Well ☐ Injection ☐ Other

5) DRILLING METHOD (Check):
☐ Open Hole ☐ Straight Wall ☐ Underdrilled
☒ Mud Rotary ☐ Air Hammer ☐ Landed ☐ Bored
If Gravel Packed give interval ... from 370 ft. to 430 ft.

6) WELL LOG:
Date Drilling: 12-27-1985 Diameter of Hole: 10 1/2 inches
From (ft.) To (ft.)
Completed: 12-28-1985 Surface: 0 feet
Description and nature of formation:
0-4 1/2 ft. Gravel
4-20 1/2 ft. Gravel
20-40 1/2 ft. Gravel
40-80 1/2 ft. Gravel
80-100 1/2 ft. Gravel
100-120 1/2 ft. Gravel
120-140 1/2 ft. Gravel
140-160 1/2 ft. Gravel
160-180 1/2 ft. Gravel
180-200 1/2 ft. Gravel
200-220 1/2 ft. Gravel
220-240 1/2 ft. Gravel
240-260 1/2 ft. Gravel
260-280 1/2 ft. Gravel
280-300 1/2 ft. Gravel
300-320 1/2 ft. Gravel
320-340 1/2 ft. Gravel
340-360 1/2 ft. Gravel
360-380 1/2 ft. Gravel
380-400 1/2 ft. Gravel
400-420 1/2 ft. Gravel
420-440 1/2 ft. Gravel
440-460 1/2 ft. Gravel
460-480 1/2 ft. Gravel
480-500 1/2 ft. Gravel
500-520 1/2 ft. Gravel
520-540 1/2 ft. Gravel
540-560 1/2 ft. Gravel
560-580 1/2 ft. Gravel
580-600 1/2 ft. Gravel
600-620 1/2 ft. Gravel
620-640 1/2 ft. Gravel
640-660 1/2 ft. Gravel
660-680 1/2 ft. Gravel
680-700 1/2 ft. Gravel
700-720 1/2 ft. Gravel
720-740 1/2 ft. Gravel
740-760 1/2 ft. Gravel
760-780 1/2 ft. Gravel
780-800 1/2 ft. Gravel
800-820 1/2 ft. Gravel
820-840 1/2 ft. Gravel
840-860 1/2 ft. Gravel
860-880 1/2 ft. Gravel
880-900 1/2 ft. Gravel
900-920 1/2 ft. Gravel
920-940 1/2 ft. Gravel
940-960 1/2 ft. Gravel
960-980 1/2 ft. Gravel
980-1000 1/2 ft. Gravel

7) BOREHOLE COMPLETION:
☐ Open Hole ☐ Straight Wall ☐ Underdrilled
☒ Gravel Packed ☐ Other

8) CASING, BLANK PIPE, AND WELL SCREEN DATA:
Dia. (in.) New or Re-used: 10 1/2 inches
Type: Steel Cased
Setting (ft.) From (ft.) To (ft.)
0 430 188

9) CEMENTING DATA (Rule 319.441d)
Cemented from 0 ft. to 40 ft. No. of Sacks Used 7
Method used: Pack
Cemented by: David Well Service Inc.

10) SURFACE COMPLETION
☒ Specified Surface Shale Installed (Rule 319.441d)
☐ Pressure Adapter Used (Rule 319.441d)
☐ Approved Alternative Procedure Used (Rule 319.271)

11) WATER LEVEL:
Static level: 380 ft. below land surface Date: _____
Artesian flow: _____ gpm Date: _____

12) PACKERS:
Type: _____ Depth: _____

13) TYPE PUMP:
☐ Turbine ☐ Jet ☒ Submersible ☐ Cylindrical
Depth to pump bowl, cylinder, jet, etc.: _____ ft.

14) WELL TESTS:
Type Test: ☐ Pump ☐ Baler ☐ Jetted ☐ Estimated
Yield: _____ gpm with _____ ft. drawdown after _____ hrs.

15) WATER QUALITY:
(Use reverse side if necessary)
Did you knowingly percolate any waste which contained undesirable water? ☐ Yes ☒ No
If yes, submit "REPORT OF UNDESIRABLE WATER".
Type of waste? _____
Was a chemical analysis made? ☐ Yes ☒ No

16) OTHER DATA:
I hereby certify that this well was drilled by me (or under my supervision) and that each and all of the statements herein are true to the best of my knowledge and belief. I understand that failure to complete items 1 thru 12 will result in the well being returned for completion and readjustment.

COMPANY NAME: David Well Service Inc. Water Well Driller's License No. 1871
(Type or Print)
ADDRESS: P.O. Box 558 Stephenville Tex 76401
(Street or R.F.D.) (City) (State) (Zip)
(Signed) Mark David (Signature)
(Registered Driller's Name)
Please attach electric log, chemical analysis, and other pertinent information, if available.

For TWC use only:
Well No. 3147-8
Location on map _____

ATTENTION OWNER: Confidentiality
Please attach electric log, chemical analysis, and other pertinent information, if available.

State of Texas
WELL REPORT

1) OWNER: Best Wright (Name)
2) LOCATION: WELL: 7 miles N 7 (NE, SW, etc.)
County: Garza

ADDRESS: Box 2 Stephenville, TX 76761 (Street or RFD)
City: Stephenville (City)
State: TX (State)
Zip: 76761 (Zip)

Driller must complete the legal description below with distance and direction from two intersecting section or survey lines, or the true corner and identify the well on an official Quarter- or Half-Section Texas County General Highway Map and attach the map to this form.

LEGAL DESCRIPTION:
Section No. 10 Block No. 10 Township 31 Range 10 Meridian 10
Diagrams and direction from two intersecting section or survey lines
EASE ATTACHED MAP # 10 - 0N 31-48-6

3) TYPE OF WORK (check):
☐ Drilling Well ☐ Drilling ☐ Drilling ☐ Drilling
☐ Redrilling ☐ Drilling ☐ Drilling ☐ Drilling

4) PROPOSED USE (check):
☐ Domestic ☐ Industrial ☐ Irrigation ☐ Test Well ☐ Injection ☐ De-Watering

5) DRILLING METHOD (check):
☐ Diamond ☐ Air Hammer ☐ Jetted ☐ Driven ☐ Bored ☐ Air Rotary ☐ Cable Tool ☐ Other

6) WELL LOG:
Date Drilling: 10-18-84 Driller: 614 From (ft.) 439 To (ft.) 439
Surface: 10-23-84 1881
Completion: 1881

7) BOREHOLE SCALING/LETION:
☐ Drilling Holes ☐ Straight Wall ☐ Undersaturated
☐ Gravel Packed ☐ Other: _____
If Gravel Packed give interval: _____ ft. to _____ ft.

8) CASINO, BLANK PIPE, AND WELL SCREEN DATA:
New Steel, Plastic, etc. (ft.)
Old Steel, Plastic, etc. (ft.)
Screening Material (ft.)
From To Gauge
0 439 156
400 439 532

9) CEMENTING DATA (Rule 287.44(1))
Cemented from 150 ft. to 0 ft. No. of Stacks Used 10
Cement Used 7200 lbs. Water 40 gal. Cement
Cemented by John White

10) SURFACE COMPLETION
☐ Specified Surface Seal Installed (Rule 287.44(2)(A))
☐ Flipped Surface Used (Rule 287.44(2)(B))
☐ Alternative Surface Used (Rule 287.44(2)(C))

11) WATER LEVEL:
Specific Gravity 301 ft. below land surface Date 10-23-84
Static level 301 ft. below land surface Date 10-23-84
Type of water: Drinking Depth of static 10 ft.
Was a chemical analysis made? ☐ Yes ☒ No

12) PACKERS:
Depth 1301

13) WELL TESTS:
Type Test: ☐ Pump ☐ Jet ☐ Other
Yield: 15 gpm with 0 ft. drawdown after 4 hrs.

14) WATER QUALITY:
Did the drilling operation use any slurry which contained undesirable constituents?
☐ Yes ☒ No
If yes, give the report of UNDESIRABLE WATER:
Type of water: Drinking Depth of static 10 ft.
Was a chemical analysis made? ☐ Yes ☒ No

15) I hereby certify that the well was drilled by me (or under my supervision) and that each and all of the statements herein are true to the best of my knowledge and belief. I understand the statute to complete this report and I am aware that the well is being drilled for completion and production.

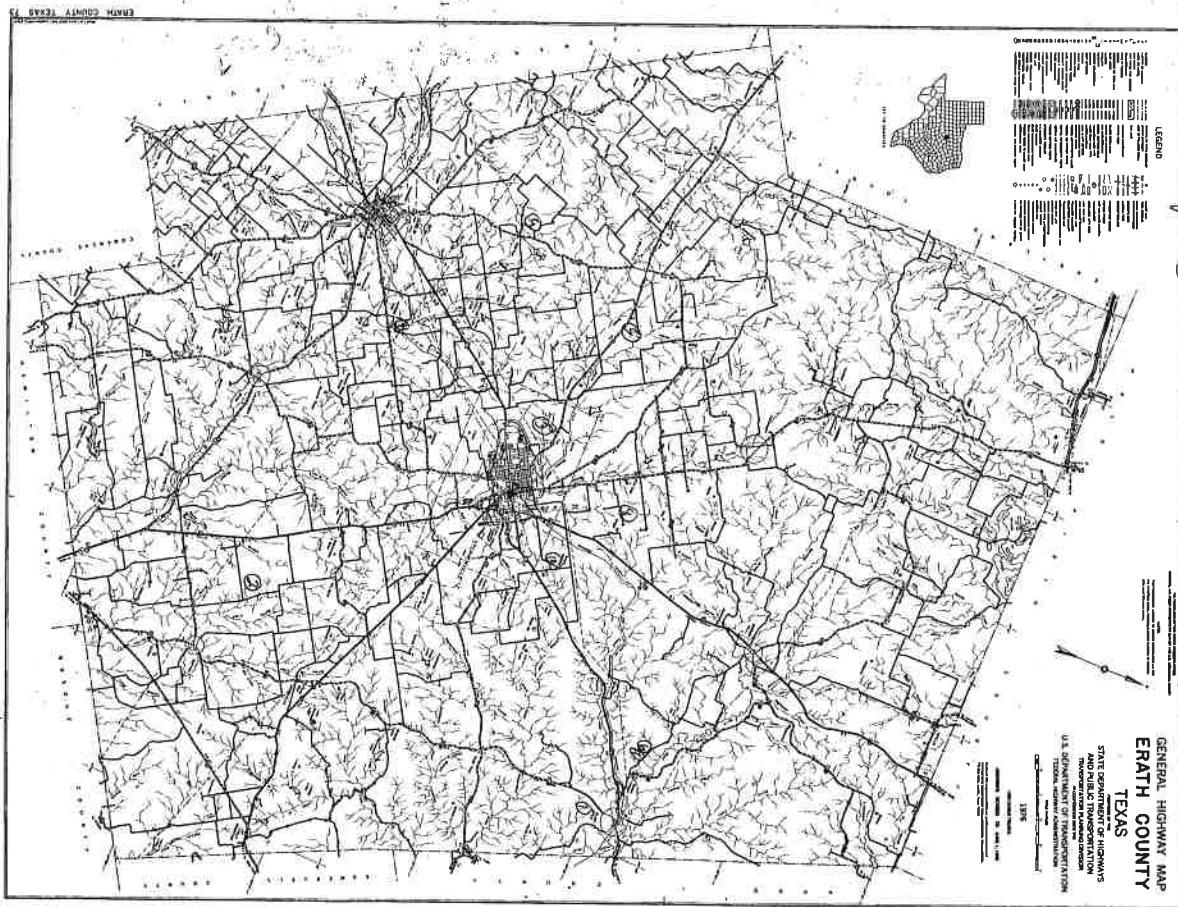
COMPANY NAME: Wright Drilling (Type company)
ADDRESS: 1330 W. of Hwy 101 Stephenville, TX 76761 (Street or RFD)
City: Stephenville (City)
State: TX (State)
Zip: 76761 (Zip)

WELL DRILLER'S LICENSE NO. 1052
Name: John White (Print name)
Signature: John White (Signature)
Date: 10-23-84

Driller Name: John White (Print name)
Signature: John White (Signature)
Date: 10-23-84

For TWC use only: Well No. 31-48-6 Located on map _____

① Mrs. E. R. Rucker
 ② B.W. Rucker
 ③ Gary Chandler
 ④ David Rucker
 ⑤ Ronnie Rucker
 ⑥ H. Campbell
 ⑦ Thomas Campbell
 ⑧ Mike Rucker
 ⑨ Brian Rucker
 ⑩ D. Rucker



GENERAL HIGHWAY MAP
 ERATH COUNTY
 TEXAS

LEGEND
 ELEVATION
 1000
 1100
 1200
 1300
 1400
 1500
 1600
 1700
 1800
 1900
 2000
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 10000

STATE DEPARTMENT OF HIGHWAYS
 AND PUBLIC TRANSPORTATION
 TEXAS
 1988

Attention Owner:
 Confidentiality Privilege Notice
 on reverse side of owner's copy.
 P.O. Box 12157 Austin, Texas 78711 (512)463-7880 FAX (512)463-8916
 Toll free (800)803-9202
 Email address: water.well@license.state.tx.us

WELL REPORT

Licensee Name

License Number

Physical Address

City

State

Zip

Licensee Name

License Number

Physical Address

City

State

Zip

3) Type of Work

☒ New Well
☐ Replacement
☐ Deepening

4) Proposed Use (check)

☐ Industrial
☐ Irrigation
☐ Domestic

5) Drilling Date

Started 1/1/10
 Completed 10/1/25

6) Drilling Method (check)

☒ Air Rotary
☐ Mud Rotary
☐ Cable Tool
☐ Jetted

7) Drilling Method (check)

☒ Air Rotary
☐ Mud Rotary
☐ Cable Tool
☐ Jetted

8) Borehole Completion

☐ Under-reamed
☒ Gravel Packed
☐ Other

9) Cementing Data

Cementing from 0 ft. to 300 ft. # of sacks used 15

10) Surface Completion

☒ Specified Surface Sleeve Installed
☐ Pileup Adapter Used
☐ Approved Alternative Procedure Used

11) Water Level

Surface 350 ft. below Date 10/1/25

12) Packers

J 11 1/2 x 7 1/8 2500 Depth

13) Plugged

☐ Well plugged within 48 hours
☐ Cement/Bentonite placed in well

14) Type Pump

☐ Turbine
☒ Submersible
☐ Cylinder
☐ Other

15) Water Test

Type of Pump ☒ Bailer ☐ Estimated
 Yield gpm with ft. drawdown after hrs.

16) Water Quality

Did you knowingly penetrate a strata which contain undesirable constituents?
☐ YES ☒ NO If yes, did you submit a REPORT OF UNDESIRABLE WATER
 Type of water _____ Depth of strata _____
 Was a chemical analysis made ☐ Yes ☒ No

Company or individual's Name (type or print)

Licensee Name

License Number

Physical Address

City

State

Zip

Signature

Date

Title

Licensee Name

License Number

Physical Address

City

State

Zip

Signature

Date

Title

Licensee Name

License Number

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Licensee Name

License Number

Physical Address

City

State

Zip

Signature

Date

Title

Licensee Name

License Number

Physical Address

City

State

Zip

11 m. S/N/L
2 m. E/W/L

Place and date of issue
Send original copy by
certified mail to the
Commission
P.O. Box 13087
Austin, Texas 78711

State of Texas
WATER WELL REPORT
ATTENTION OWNER: Confidentiality Notice on Reverse Side

1) OWNER: Jim Crawford Address: At 2 Box 200 Stephenville TX
(Name) (City) (State) (Zip)
2) LOCATION: Garza County: W (M & S.W. sec.) direction from Stephenville (Town)
3) TYPE OF WORK (Check):
☒ New Well ☐ Deepening ☐ Proposed Use (Check):
☐ Domestic ☐ Industrial ☐ Monitor ☐ Public Supply
☐ Theoretical ☐ Plugging ☐ Irrigation ☐ Test Well ☐ Injection ☐ Other _____
4) Drilling Method (Check):
☐ Hand Driven ☐ Air Rotary ☐ Air Hammer ☐ Janned ☐ Bored
5) Drilling Method (Check):
☐ Hand Driven ☐ Air Rotary ☐ Air Hammer ☐ Janned ☐ Bored
6) WELL LOG:
Date Drilling: 3-5 Started 81 Completed 3-7 (ft.) (ft.) (ft.)
Diameter of Hole: 6 1/4 (ft.) From (ft.) To (ft.)
7) BOREHOLE COMPLETION:
☐ Gravel Packed ☐ Gravel Filled ☐ Screened ☐ Other _____
8) CASING, BLANK PIPE, AND WELL SCREEN DATA:
Casing (ft.) (in.) Description and color of formation
0-4 dry soil
4-16 Caliche
16-46 Sand Rock
46-125 Blue shale
125-275 limestone
275-340 Blue shale
340-375 Water Sand
375-382 Red Rock
382-414 Water Sand Shale
414-419 Blue shale
9) CEMENTING DATA: (Rule 319.44(b))
Cemented from 158 ft. to 6 ft. No. of Sacks Used 16
Method used 7 Bags of cement
Cemented by me
10) SURFACE COMPLETION:
☐ Specified Surface Shale Installed (Rule 319.44(c))
☐ Piles Adopted Used (Rule 319.44(d))
☒ Approved Alternative Procedure Used (Rule 319.71)
11) WATER LEVEL:
Static level 372 ft. below land surface Date 3-7-87
Artesian flow _____ gpm. Date _____
12) PACKERS:
Type _____ Depth _____
13) TYPE PUMP:
☐ Turbine ☒ Jet ☐ Submersible ☐ Cylinder
Depth to pump intake, cylinder, etc. 399 ft.
14) WELL TESTS:
Type Test: ☐ Pump ☒ Jet ☐ Janned ☐ Estimated
Yield: 12 gpm with 10 ft. drawdown after 2 hrs.

I have by careful that this well was drilled by me (or under my supervision) and that each and all of the statements herein are true to the best of my knowledge and belief. I understand that failure to complete items 1 thru 12 will result in the logs being returned for completion and resubmission.

COMPANY NAME: Reilly Drilling Water Well Driller's License No. 1252
ADDRESS: 1330 W. McNeil Stephenville TX 76401
(Street or P.O. Box) (City) (State) (Zip)
(Signed) Johnny Reilly (Signature) (Registered Driller's Name)
Please attach electric log, chemical analysis, and other pertinent information, if available.
For TWC 37 only 7-8
Well No. _____ Located on map _____

TWC-0392 (Rev. 06-10-85) TEXAS WATER COMMISSION COPY

ATTENTION OWNER: Confidentiality
Notice on Reverse Side

1) OWNER: TANCA, BO ADDRESS: 2408 CR 115 STATE: TX ZIP: 76401
(Name) (City) (State) (Zip)
2) ADDRESS OF WELL: _____
County: Garza Street or RD: SMITH SPRINGS RD
City, State, Zip Code: STEPHENVILLE, TX 76401
3) TYPE OF WELL: NEW WELL
4) PROPOSED USE: DOMESTIC
5) WELL LOG: 0079 DIALING METHOD: 1 DIALING METHOD: 1
DATE DRILLING: STARTED: 09/06/01 DIALING METHOD: 1 DIALING METHOD: 1
6) CASING, BLANK PIPE, AND WELL SCREEN DATA:
Casing (ft.) (in.) Description and color of formation
0-4 dry soil
4-16 Caliche
16-46 Sand Rock
46-125 Blue shale
125-275 limestone
275-340 Blue shale
340-375 Water Sand
375-382 Red Rock
382-414 Water Sand Shale
414-419 Blue shale
9) CEMENTING DATA:
Cemented from 158 ft. to 6 ft. No. of Sacks Used 16
Method used 7 Bags of cement
Cemented by me
10) SURFACE COMPLETION:
☐ Specified Surface Shale Installed (Rule 319.44(c))
☐ Piles Adopted Used (Rule 319.44(d))
☒ Approved Alternative Procedure Used (Rule 319.71)
11) WATER LEVEL:
Static level 372 ft. below land surface Date 3-7-87
Artesian flow _____ gpm. Date _____
12) PACKERS:
Type _____ Depth _____
13) TYPE PUMP:
☐ Turbine ☒ Jet ☐ Submersible ☐ Cylinder
Depth to pump intake, cylinder, etc. 399 ft.
14) WELL TESTS:
Type Test: ☐ Pump ☒ Jet ☐ Janned ☐ Estimated
Yield: 12 gpm with 10 ft. drawdown after 2 hrs.

I HEREBY CERTIFY THAT THIS WELL WAS DRILLED BY ME (OR UNDER MY SUPERVISION) AND THAT EACH AND ALL OF THE STATEMENTS HEREIN ARE TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF. I UNDERSTAND THAT FAILURE TO COMPLETE ITEMS 1 THRU 15 WILL RESULT IN THE LOG(S) BEING RETURNED FOR COMPLETION AND RESUBMISSION.

(Signed) Johnny Reilly (Signature) (Registered Driller's Name)
Please attach electric log, chemical analysis, and other pertinent information, if available.
For TWC 37 only 7-8
Well No. _____ Located on map _____

TWC-0392 (Rev. 06-10-85) TEXAS WATER COMMISSION COPY

FILED
OCT 0 9 2001
COUNTY

Please use black ink.
Official Seal of the State of Texas
Texas Water Well Driller's Board
P.O. Box 13067
Austin, Texas 78711

State of Texas
WATER WELL REPORT
ATTENTION OWNER: Confidentiality Privilege Notice on Reverse Side

1) OWNER: Bill Tidwell Address: _____ (Street or RFD) (City) (State) (Zip)
2) LOCATION: Crater (Name) (County) (Miles in N.E., S.W., etc.) direction from 5ville (Township) (Range) (Section)

Driller must complete this legal description to the right
with distance and direction from two intersecting sec-
tion of survey lines, or the most recent section of the
General Highway Map and attach the map to this form.
Abstract No. 1265
Distance and direction from two intersecting section of survey lines: See attached map. 0 N 31-54-3

3) TYPE OF WORK (check):
☒ New Well ☐ Deepening ☐ Pumping
4) PROPOSED USE (check):
☒ Domestic ☐ Industrial ☐ Monitor ☐ Public Supply
☐ Irrigation ☐ Test Well ☐ Injection ☐ Other

5) DRILLING METHOD (check):
☒ Mud Rotary ☐ Air Hammer ☐ Latent ☐ Other
☐ Open Hole ☐ Straight Wall ☐ Underdrilled
☒ Gravel Packed ☐ Other

6) CASING, BLANK PIPE, AND WELL SCREEN DATA:
Date Drilling: 10/13/87 Started: 10/13/87 Completed: 10/13/87
Diameter of Hole: Dia. (in) 6 1/4 Surface 0 To (ft.) 280
Description and color of formation material:
0-100 Balde + Sandy Clay
100-180 Silty clay
180-200 Silty clay
200-220 Sand
220-240 Clay
240-280 Sand

9) CEMENTING DATA: (Rule 319.44(b))
Cemented from 0 ft. to 280 ft. No. of Sacks Used 4
Method used: Pack
Cemented by: Douglas Well Services, Inc.

10) SURFACE COMPLETION
☒ Specified Surface Shale Installed (Rule 319.44(c))
☐ Pileup Adapter Used (Rule 319.44(d))
☐ Approved Alternative Procedure Used (Rule 319.71)

11) WATER LEVEL
Static level: 230 ft. below land surface Date: SEP 06 1988
Artesian flow: _____ gpm Date: _____

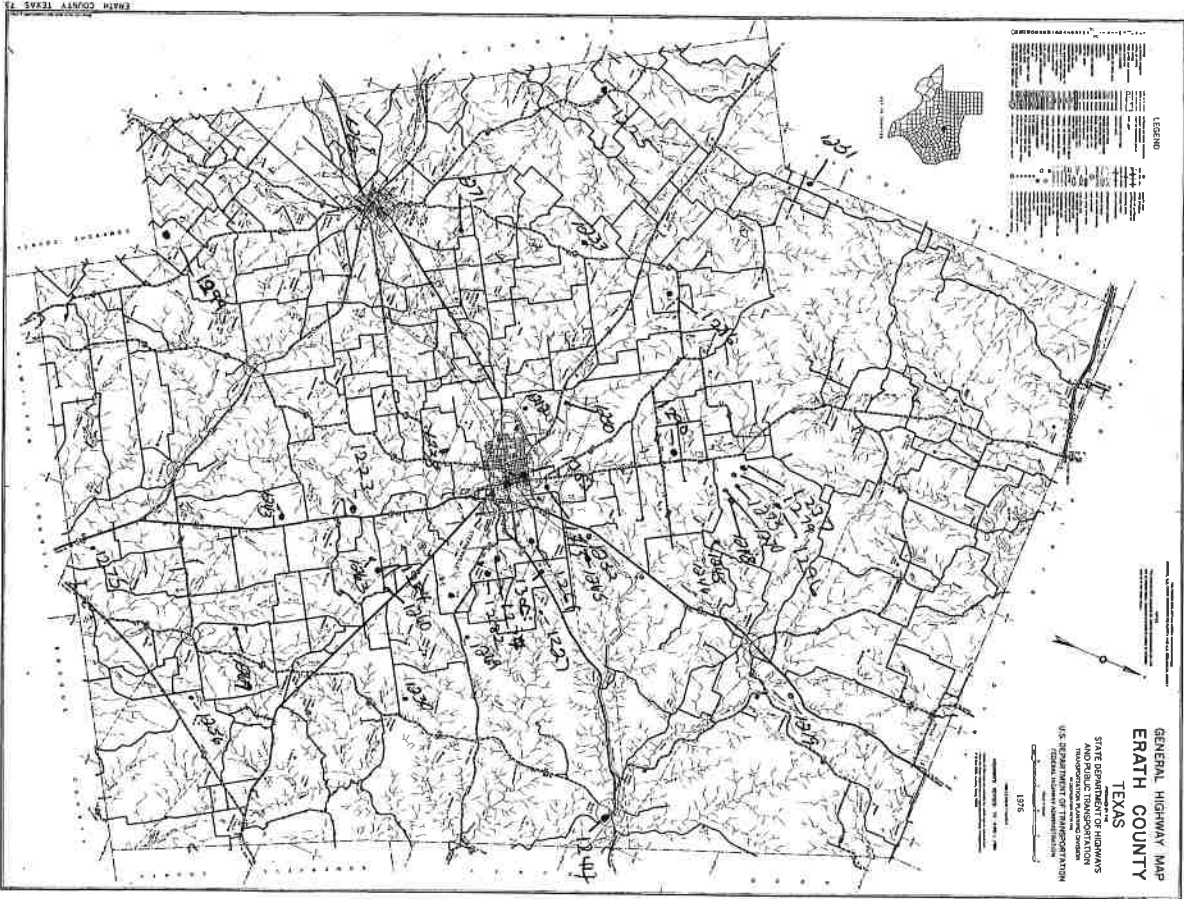
12) PACKERS:
Type: _____ Depth: _____

13) TYPE PUMP:
☐ Turbine ☒ Jet ☐ Submersible ☐ Cylinder
Depth to pump bowls, cylinder, jet, etc.: _____ ft.

14) WELL TESTS:
Type Test: ☐ Pump ☒ Shut ☐ Other
Yield: _____ gpm with _____ ft. drawdown after _____ hrs.

15) WATER QUALITY:
Did you knowingly possess any strata which contained undesirable matter? ☐ Yes ☒ No
If yes, submit "NOTICE OF UNDESIRABLE WATER"
Type of water: ☐ Depth of water: ☐ Was a chemical analysis made? ☐ Yes ☒ No

COMPANY NAME: Douglas Well Services, Inc. (Type as shown)
ADDRESS: P.O. Box 558 Stephenville (City)
(Signed) Paul Tidwell (Signature)
Please attach electric log, chemical analysis, and other pertinent information, if available.
For TWC use only: 7-8
WATER WELL NUMBER: 1891
Texas Water Commission Copy



Send original copy by
 Registered mail to the
 Texas Agricultural Experiment Station
 P. O. Box 13081
 Austin, Texas 78711

State of Texas
 WATER WELL REPORT

For THIS use only
 Well No. 3-42-84
 Located on 24-1-84
 Section 18

1) OWNER:
 Person having well drilled: Tex. Agricultural Exp. Sta. Address: P.O. Box 292, Stephenville, TX
 (City) (State)
 Landowner: Tex. Agricultural Experiment Sta. Address: Same as above
 (City) (State)

2) LOCATION OF WELL:
 County: Fa. 3 miles to N direction from Stephenville
 (Name, S.W., etc.) (Town)

3) TYPE OF WELL (Check):
 Artesian ☒ Desperling ☐ Domestic ☐ Industrial ☐ Municipal ☐ Other ☐
 Recirculating ☐ Plugging ☐ Test Well ☐ Cable ☐ Jetted ☐ Bored ☐
 (See reverse side if necessary) ☒ Station ☐ North

4) WELL LOG:
 Diameter of hole 7 in. Depth drilled 400 ft. Depth of completed well 400 ft. Date drilled 5/22/76
 All measurements made from 0 ft. above ground level.

From (ft.)	To (ft.)	Description and color of formation material	3) CASING: Type: Old New Steel Plastic Other	4) TYPE OF WELL (Check): Artesian Desperling Domestic Industrial Municipal Other Cable Jetted Bored
0 - 3		Top Soil		
3 - 20		Clay		
20 - 60		Blue Clay, Sandy, SANDY CLAY		
60 - 180		Blue Shale		
180 - 210		Purple & Blue Clay		
210 - 235		Blue Clay & Coal		
235 - 250		SANDY GRAVEL & CLAY		
250 - 265		SANDY BLUE & YELLOW CLAY		
265 - 285		SANDY ROCK & SANDY CLAY		
285 - 310		SANDY CLAY & GRAVEL		
310 - 345		SANDY CLAY		

7) COMPLETION (Check):
 Sealed well ☒ Ventilated packed ☐ Other ☐
 Under treated ☐ Open hole ☐

8) WATER LEVEL:
 Static level 300 ft. below land surface Date: 5-22-76
 Artesian pressure 135 psi per square inch Date: 5-20 ft.
 Depth to pump bowls, cylinders, etc. etc. 380 ft.
 below land surface.

12) WATER QUALITY:
 Was a chemical analysis made? Yes ☒ No ☐
 Did any streaks contain undesirable matter? Yes ☒ No ☐
 Type of water? Depth of water?

NAME: W. B. DAVIS
 (Type or Print)
 ADDRESS: P.O. Box 558 Stephenville Texas 76401
 (Street or P.O. Box) (City) (State)
 (Signed) W. B. Davis Davis Well Service, Inc.
 (Water Well Driller) (Company Name)

Please attach electric log, chemical analysis, and other pertinent information, if available.

Additional instructions on reverse side.

2) LOCATION OF WELL:
 The sketch showing the well location must be as accurate as possible, showing landmarks, in sufficient detail so that the well may be plotted on a General Highway Map of the county in which the well is located.
 Reference points from which distances are measured and directions given should be of a permanent nature (e.g., highway intersections, corner of corner, river and creek bridges, railroad crossings). The distance and direction from the nearest town should always be indicated.
 When giving a legal description include a sketch showing location of the well within the described area, e.g., survey abstract. Information furnished in Section 2) of the TWBE-04-55 is very important. Unless the well can be accurately located on a map the value of the other data contained in the Report is greatly reduced.

NO. 6 WELL LOG
 To From
 345 - 365 Gravel & Clay
 365 - 375 SAND STONE, SANDY CLAY
 375 - 392 Gravel & Clay
 392 - 400 Red Bed

RECEIVED
 AUG 11 1976
 TEXAS WATER
 DEVELOPMENT BOARD

RECEIVED
 NOV 18 1976
 Central Records
 Texas Water Development Board

ATTENTION OWNER: Confidentiality
 (1) OWNER: ROUSE, KEN
 (2) LOCATION OF WELL: COUNTY: ERATH
 ADDRESS: R.T. 2 BOX 281P CITY: STEPHENVILLE STATE: TX ZIP: 76401-
 LEGAL DESCRIPTION: SEC. 4 ATTACHED MAP

31.47.6

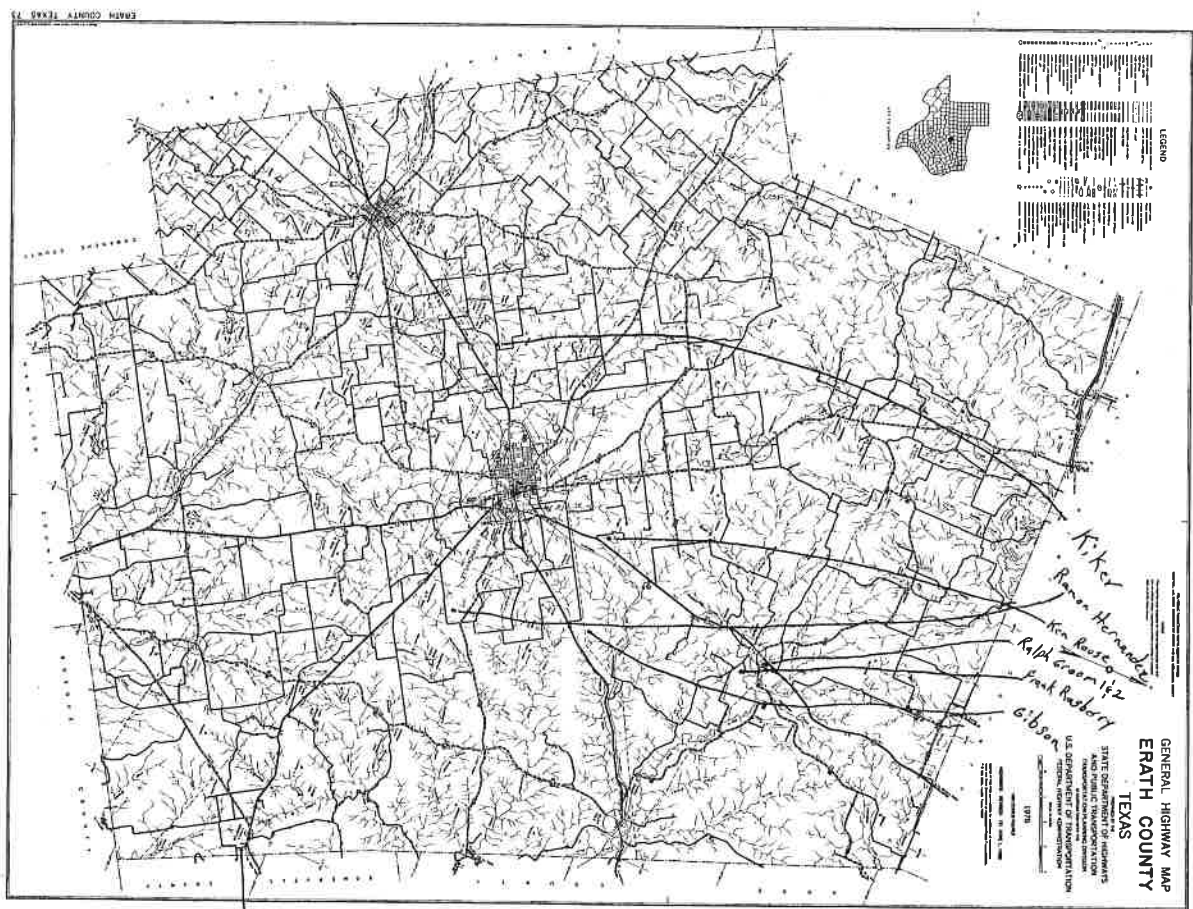
3) TYPE OF WORK: NEW WELL. 4) PROPOSED USE: DOMESTIC 5) DRILLING METHOD: MUD ROTARY
 6) WELL LOG: 00060 DIAMETER OF HOLE FROM TO BOREHOLE METHOD:
 DATE DRILLING: 07/09/93 6.75 0 4.390 IF GRAVEL... FROM 330 FT. TO 390 FT.
 STARTED: 07/09/93 COMPLETED: 07/09/93
 8) CASING, BLANK PIPE, AND WELL SCREEN DATA:
 DIA. NEW/USED DESCRIPTION FROM TO GRAVEL CASING SCREEN
 4 N PVC, BLANK 0 390 SCH 40
 4 N PVC/ SLOTTED 1 360 390 SCH 40

9) CEMENTING DATA:
 Cemented from 0 FT. TO 330 FT. No. of Sacks Used 21
 Method used: CEMENT - PUMPED
 Cemented by: BILLY, COLTON & GARY
 10) SURFACE COMPLETION:
 11) WATER LEVEL:
 STATIC LEVEL: 320 FT. DATE: 07/09/93
 ARTESIAN FLOW: GPM. DATE:
 12) PACKERS:
 TYPE NONE DEPTH

13) TYPE PUMP: SUBMERSIBLE 14) WELL TEST:
 DEPTH TO PUMP: 360 PUMP YIELD: 12 GPM WITH UNK. FT. RANDOM AFTER 24 HRS

15) WATER QUALITY:
 TYPE OF WATER: DEPTH OF STRATA: NO CHEMICAL ANALYSIS MADE
 NO STRATA OF UNDESIRABLE WATER PENETRATED
 COMPANY NAME: ASSOCIATED SERVICES WATER WELL DRILLER'S LICENSE NO.: 2404
 ADDRESS: P.O. BOX 16 CITY: STEPHENVILLE STATE: TX ZIP CODE: 76401

I HEREBY CERTIFY THAT THIS WELL WAS DRILLED BY ME (OR UNDER MY SUPERVISION) AND THAT EACH AND ALL OF THE STATEMENTS HEREIN ARE TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF. I UNDERSTAND THAT FAILURE TO COMPLETE ITEMS 1 THRU 15 WILL RESULT IN THE LOG(S) BEING RETURNED FOR COMPLETION AND RESUBMITTAL.
 (signed) [Signature] (signed) [Signature] (REGISTERED DRILLER TRAINEE)



**ATTENTION OWNER: Confidentiality
Privilege Notice on Reverse Side**

State of Texas
WELL REPORT

Texas Water Well Drillers Board
P.O. Box 13087
Austin, Texas 78711

OWNER	Best Night
ADDRESS	Rt 2 Stephenville TX 76001

2) LOCATION: 8 WELLS (Name of well) (lat) (lon)
County Barren miles in 7 (County or Precinct) (lat) (lon)
direction from NE (lat) (lon)
(NE, SW, etc.) (Town)

Driller must complete the legal description below with distance and direction from two intersecting section or survey lines, or he must locate and identify the well on an official Quarter or Half-Section Texas County General Highway Map and attach the map to this form.

Section No. _____ Block No. _____ Township _____ Abstract No. _____ Survey Name _____
 Distance and direction from two intersecting section or survey lines _____
 B-SEE ATTACHED MAP #10 - ON 31-48-6

3) TYPE OF WORK (check):
☐ New Well ☐ Deepening
☐ Rehabilitation ☐ Plugging

4) PROPOSED USE (check):
☐ Domestic ☐ Industrial ☐ Municipal
☐ Irrigation ☐ Monitor ☐ Public Supply

5) DRILLING METHOD (check):
☒ Cased Policy ☐ Air Hammer ☐ Jetted ☐ Bored
☐ Other _____

5. WELL LOG:	<input type="checkbox"/> RECORD TYPE: <input type="checkbox"/> DRILLING <input type="checkbox"/> SURF VIBES <input type="checkbox"/> INFORMATION <input type="checkbox"/> JOE-TESTING <input type="checkbox"/> AIR HISTORY <input type="checkbox"/> CABLE LOG <input type="checkbox"/> OTHER	
	DIAMETERS OF HOLE Dia. (ft) From (ft) To (ft)	
6. DATA LOG:	7. BOREHOLE COMPLETION: <input type="checkbox"/> Casing Hole <input type="checkbox"/> Straight Wall <input type="checkbox"/> Underreamed	

Started <u>10-23-82</u>	Surfaces <u>614</u>	<input type="checkbox"/> Gravel Packed <input type="checkbox"/> Other _____ if Gravel, include give interval: _____ ft. to _____ ft.
Completed <u>10-23-1982</u>	<u>429</u>	

Description and color of formation material		To (ft)	From (ft)
			70-80 gyp. sand

CASINO, BLANK PIPE, AND WELL SCREEN DATA:					
New or old	Steel Pipe; size, Part I, Screen, etc.	Setting (ft)	Gauge Casting		

	Used	Screen	From	To	Screen
	(in)	Screen	Material	Commercial	
35 Cigarette and Patch	413	✓	0	429	156
49-70 Baya Akate	✓	✓	0	429	156
2-14 Cigarette	✓	✓	0	429	156
2-14 Cigarette	✓	✓	0	429	156

[illegible]

9) CEMENTING DATA (PDA 267 441)
 Cemented from 150 ft. to 0 ft.
 No. of Stacks Used 10
 No. of Spigs Used 1
 No. of Casing Used 1

[illegible]

☐ OTHER _____
 Depth to pump bowl, cylinder, pit, etc. 399 ft. APR 4 1990
 SURFACE COMPLETION
☐ Specified Surface Seal Installed [Rule 257.44(2)(a)]
☐ Pressure Monitor Used [Rule 257.44(3)(b)]

Type Test: ☐ Pump ☒ Dewater ☐ Jetted ☐ Alternative Procedure Used

Yield: 15 gpm with 0 ft. drawdown after 4 hrs.

11) WATER LEVEL: 30.1

15-3-88

15. WATER QUALITY: ☒ Yes ☐ No
Did the drilling produce any steam which contained undesirable constituents? ☒ Yes ☐ No
If yes, detail REPORT OF UNDESIRABLE WATER: _____
Scale reported _____ ft. below and surface
Arises from _____ gal. _____
Date _____

Type of water? <u>running</u>	Depth of stain <u>100'</u>
Was a chemical analysis made? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Log markers: <u>yes</u>
	<u>Structure</u>
	<u>100'</u>

I hereby certify that the well logs and all of the statements herein are true to the best of my knowledge and belief. I understand and agree that the well logs and all of the statements herein are to be used for the purpose of completing the well log and that I will not use the well log for any other purpose. I understand and agree that the well log and all of the statements herein are to be used for the purpose of completing the well log and that I will not use the well log for any other purpose. I understand and agree that the well log and all of the statements herein are to be used for the purpose of completing the well log and that I will not use the well log for any other purpose.

DRILLER'S NAME Wells Drilling WELL DRILLER'S LICENSE NO. 1052

1330 at Neil Stephenson TX 74501
(Street or R.F.D.) (City) (State) (Zip)

attach electric box, chemical analysis, and other pertinent information, if available.

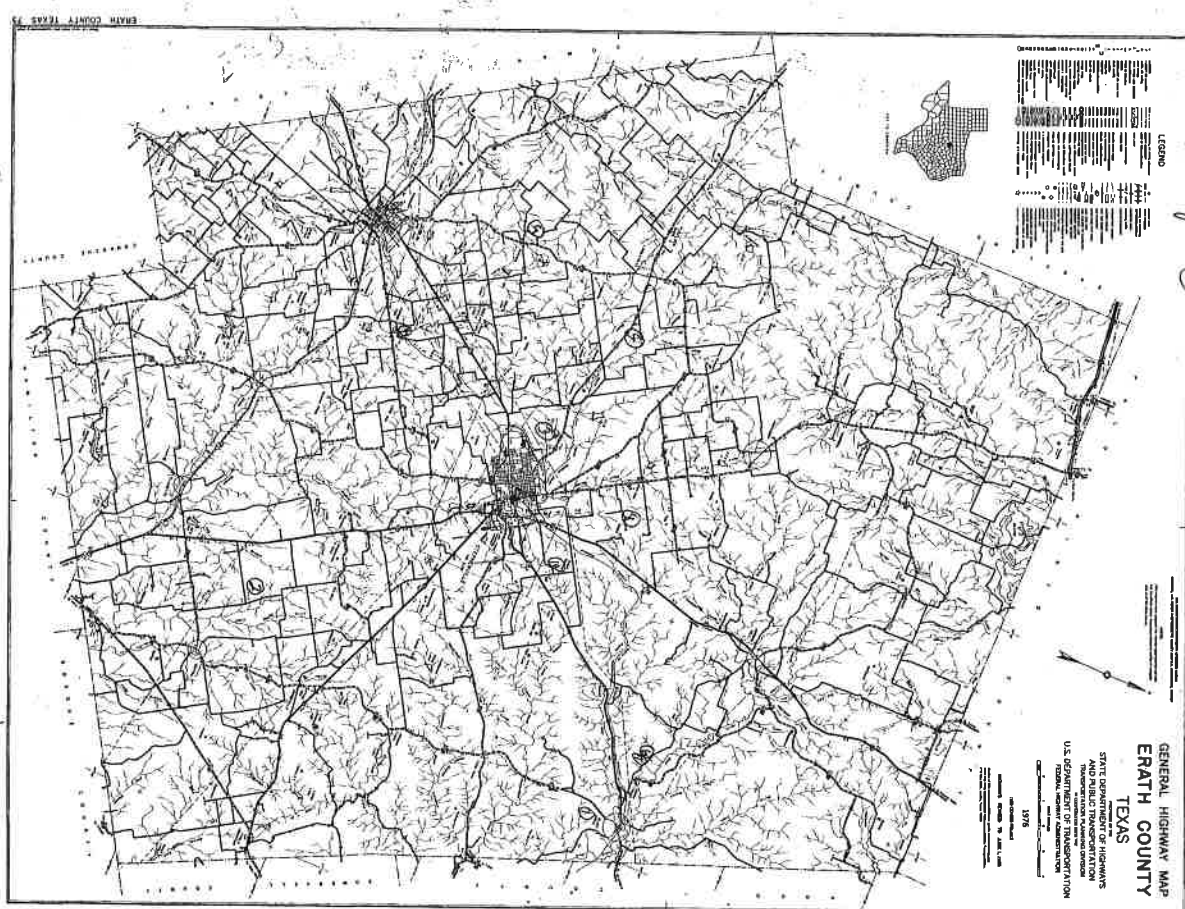
(Driver) James W. Driver (Signed) _____ (Registered Driver/Trainee) _____

For TWC use only: We# No. 21-47-8 Located on map _____

0-D-012 (Rev. 09/21/88)

TEXAS WATER COMMISSION COPY

① mis. $\frac{1}{2}$ x 1/4 in. (5) Raisin fruit
② B.W. grey (6) 84 Cantrell
③ glass chamber (7) plasma Cantrell
④ heavy production (8) Mide. Kibbles
⑤ "red" kudu
⑥ bird's nest



ATTENTION OWNER: Confidentiality

STATE OF TEXAS

WATER WELL REPORT

STATE: TX ZIP: 76401

1) OWNER: FRUITER, RICHARD
2) ADDRESS OF WELL: STATE WELLS ST-47-8
City, State, Zip Code: STEPHENVILLE, TX 76401-
3) TYPE OF WORK: NEW WELL

4) PROPOSED USE: DOMESTIC
If Public Supply Well, Well Plans Submitted to the TREC?

6) WELL LOG: 00168
DIA NEW/USED DESCRIPTION: 6 3/4" 0 295
DATE DRILLING: 4/19/96
STARTED: 4/19/96
COMPLETED: 4/24/96

7) DRILLING METHOD: MUD ROTARY
8) BOREHOLE COMPLETION: GRAVEL PACKED
IF GRAVEL... FROM 245 FT. TO 295 FT.

9) CEMENTING DATA:
Cemented from 0 FT. TO 20 FT. No. of Sacks Used 4
225 FT. TO 245 FT. 4
Method used: CEMENT-POURED
Cemented by: GARY
Distance to septic field lines: 150 FT.
Method of verification of above distance: MEASURED

10) SURFACE COMPLETION:
SPEC. STEEL SLEEVE
11) WATER LEVEL:
STATIC LEVEL: 200 FT. DATE: 04/24/96
ARTESIAN FLOW: YES
12) PACKERS: TYPE SACK DEPTH 20

13) TYPE PUMP: SUBMERSIBLE
DEPTH TO PUMP: 250
YIELD: 10 GPM WITH 10K FT. HEADWORK AFTER 24 HRS

14) WELL TEST:
PUMP
DEPTH OF STRATA: NO CHEMICAL ANALYSIS MADE
NO STRATA OF UNDESIRABLE WATER PENETRATED

15) WATER QUALITY:
TYPE OF WATER: COMPANY NAME: ASSOCIATED SERVICES
ADDRESS: P.O. BOX 16 CITY: STEPHENVILLE STATE: TX ZIP CODE: 76401

FOR TWO USE ONLY
WELL NO.:
LOCATED ON MAP

I HEREBY CERTIFY THAT THIS WELL WAS DRILLED BY ME (OR UNDER MY SUPERVISION) AND THAT EACH AND ALL OF THE STATEMENTS HEREIN ARE TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF. I UNDERSTAND THAT FAILURE TO COMPLETE ITEMS 1 THRU 15 WILL RESULT IN THE LOG(S) BEING RETURNED FOR COMPLETION AND RESUBMITAL.

(signed) Steve Card (signed) _____ (REGISTERED DRILLER TRAINEE)

State of Texas
WELL REPORT

State of Texas
WELL REPORT

1) OWNER: FRUITER, RICHARD
2) LOCATION OF WELL: STATE WELLS ST-47-8
City, State, Zip Code: STEPHENVILLE, TX 76401-
3) TYPE OF WORK: NEW WELL

4) PROPOSED USE (Check):
☐ Domestic ☐ Industrial ☐ Irrigation ☐ Other

6) WELL LOG:
DIA NEW/USED DESCRIPTION: 6 3/4" 0 295
DATE DRILLING: 4/19/96
STARTED: 4/19/96
COMPLETED: 4/24/96

7) DRILLING METHOD (Check):
☐ Mud Rotary ☐ Air Rotary ☐ Other

8) BOREHOLE COMPLETION:
SPEC. STEEL SLEEVE
9) CEMENTING DATA:
Cemented from 0 FT. TO 20 FT. No. of Sacks Used 4
225 FT. TO 245 FT. 4
Method used: CEMENT-POURED
Cemented by: GARY
Distance to septic field lines: 150 FT.
Method of verification of above distance: MEASURED

10) SURFACE COMPLETION:
SPEC. STEEL SLEEVE
11) WATER LEVEL:
STATIC LEVEL: 200 FT. DATE: 04/24/96
ARTESIAN FLOW: YES
12) PACKERS: TYPE SACK DEPTH 20

13) TYPE PUMP: SUBMERSIBLE
DEPTH TO PUMP: 250
YIELD: 10 GPM WITH 10K FT. HEADWORK AFTER 24 HRS

14) WELL TEST:
PUMP
DEPTH OF STRATA: NO CHEMICAL ANALYSIS MADE
NO STRATA OF UNDESIRABLE WATER PENETRATED

15) WATER QUALITY:
TYPE OF WATER: COMPANY NAME: ASSOCIATED SERVICES
ADDRESS: P.O. BOX 16 CITY: STEPHENVILLE STATE: TX ZIP CODE: 76401

FOR TWO USE ONLY
WELL NO.:
LOCATED ON MAP

I HEREBY CERTIFY THAT THIS WELL WAS DRILLED BY ME (OR UNDER MY SUPERVISION) AND THAT EACH AND ALL OF THE STATEMENTS HEREIN ARE TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF. I UNDERSTAND THAT FAILURE TO COMPLETE ITEMS 1 THRU 15 WILL RESULT IN THE LOG(S) BEING RETURNED FOR COMPLETION AND RESUBMITAL.

(signed) Steve Card (signed) _____ (REGISTERED DRILLER TRAINEE)

WATER-12 (Rev. 05-18-90) TEXAS WATER COMMISSION COPY



Groundwater Monitoring Plan

Groundwater samples will be taken annually and submitted to a certified laboratory. Before samples are taken the wells shall be evacuated three well bore volumes.

Groundwater monitoring shall be sampled and analyzed from Site One monitor wells: MW-1, MW-2, MW-3, MW-4, and MW-5

Groundwater monitoring shall be sampled and analyzed from Site Two monitor wells: MW-1, MW-2, MW-3, MW-4, and MW-5

Constituents to be tested are:

- Ammonia nitrate
- Nitrate
- Nitrite
- Total kjeldhal nitrogen (TKN)
- Chloride

Results are to be submitted to the TCEQ Water Quality Information Systems Team (MC-224), Groundwater Protection Team (MC-150), and Region 4 Office during September of each year.



ANALYTICAL REPORT

August 30, 2022

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Schreiber Foods Inc.

Sample Delivery Group: L1525592
Samples Received: 08/16/2022
Project Number:
Description: Annual GW

Report To: Gary McCaffity
823 CR 176
Stephenville, TX 76401

Entire Report Reviewed By:

T. Alan Harvill
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

SAMPLE SUMMARY

SITE 1 MW1 L1525592-01 GW

Collected by Justin Grote
Collected date/time 08/15/22 08:40
Received date/time 08/16/22 09:35

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1912190	1	08/25/22 21:31	08/25/22 21:31	LDT	Allen, TX
Wet Chemistry by Method 300.0	WG1912183	1	08/17/22 22:24	08/17/22 22:24	EIG	Allen, TX
Wet Chemistry by Method 351.2	WG1913125	1	08/25/22 08:19	08/25/22 21:31	LDT	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1912190	1	08/17/22 16:22	08/17/22 16:22	EIG	Allen, TX
Wet Chemistry by Method SM4500NH3H	WG1916459	1	08/25/22 14:35	08/25/22 14:35	EIG	Allen, TX

SITE 1 MW2 L1525592-02 GW

Collected by Justin Grote
Collected date/time 08/15/22 08:55
Received date/time 08/16/22 09:35

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1912190	1	08/25/22 21:33	08/25/22 21:33	LDT	Allen, TX
Wet Chemistry by Method 300.0	WG1912183	1	08/18/22 10:31	08/18/22 10:31	EIG	Allen, TX
Wet Chemistry by Method 351.2	WG1913125	1	08/25/22 08:19	08/25/22 21:33	LDT	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1912190	2	08/17/22 16:35	08/17/22 16:35	EIG	Allen, TX
Wet Chemistry by Method SM4500NH3H	WG1916459	1	08/25/22 14:37	08/25/22 14:37	EIG	Allen, TX

SITE 1 MW3 L1525592-03 GW

Collected by Justin Grote
Collected date/time 08/15/22 09:05
Received date/time 08/16/22 09:35

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1912190	1	08/25/22 21:34	08/25/22 21:34	LDT	Allen, TX
Wet Chemistry by Method 300.0	WG1912183	1	08/18/22 10:50	08/18/22 10:50	EIG	Allen, TX
Wet Chemistry by Method 351.2	WG1913125	1	08/25/22 08:19	08/25/22 21:34	LDT	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1912190	1	08/17/22 16:25	08/17/22 16:25	EIG	Allen, TX
Wet Chemistry by Method SM4500NH3H	WG1916459	1	08/25/22 14:38	08/25/22 14:38	EIG	Allen, TX

SITE 1 MW4 L1525592-04 GW

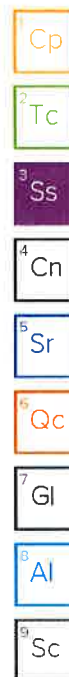
Collected by Justin Grote
Collected date/time 08/15/22 08:05
Received date/time 08/16/22 09:35

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1912190	1	08/25/22 21:36	08/25/22 21:36	LDT	Allen, TX
Wet Chemistry by Method 300.0	WG1912183	1	08/18/22 11:10	08/18/22 11:10	EIG	Allen, TX
Wet Chemistry by Method 351.2	WG1913125	2	08/25/22 08:19	08/25/22 21:36	LDT	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1912190	2	08/17/22 16:36	08/17/22 16:36	EIG	Allen, TX
Wet Chemistry by Method SM4500NH3H	WG1916459	1	08/25/22 14:40	08/25/22 14:40	EIG	Allen, TX

SITE 1 MW5 L1525592-05 GW

Collected by Justin Grote
Collected date/time 08/15/22 08:20
Received date/time 08/16/22 09:35

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1912190	1	08/25/22 21:37	08/25/22 21:37	LDT	Allen, TX
Wet Chemistry by Method 300.0	WG1912183	1	08/17/22 23:43	08/17/22 23:43	EIG	Allen, TX
Wet Chemistry by Method 351.2	WG1913125	1	08/25/22 08:19	08/25/22 21:37	LDT	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1912190	1	08/17/22 16:27	08/17/22 16:27	EIG	Allen, TX
Wet Chemistry by Method SM4500NH3H	WG1916459	1	08/25/22 14:41	08/25/22 14:41	EIG	Allen, TX



CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



T. Alan Harvill
Project Manager

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

SITE 1 MW1

Collected date/time: 08/15/22 08:40

SAMPLE RESULTS - 01

L1525592

Calculated Results

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrogen	3.43		0.0500	1	08/25/2022 21:31	WG1912190

Wet Chemistry by Method 300.0

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	204		0.800	1	08/17/2022 22:24	WG1912183

Wet Chemistry by Method 351.2

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Kjeldahl Nitrogen, TKN	ND		0.250	1	08/25/2022 21:31	WG1913125

Sample Narrative:

L1525592-01 WG1913125: Dilution due to NO3 hit.

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	3.43		0.0500	1	08/17/2022 16:22	WG1912190

Wet Chemistry by Method SM4500NH3H

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	ND		0.100	1	08/25/2022 14:35	WG1916459

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

SITE 1 MW2

Collected date/time: 08/15/22 08:55

SAMPLE RESULTS - 02

L1525592

Calculated Results

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrogen	5.76		0.100	1	08/25/2022 21:33	WG1912190

Wet Chemistry by Method 300.0

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	884		0.800	1	08/18/2022 10:31	WG1912183

Wet Chemistry by Method 351.2

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Kjeldahl Nitrogen, TKN	ND		0.250	1	08/25/2022 21:33	WG1913125

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	5.52	J6	0.100	2	08/17/2022 16:35	WG1912190

Wet Chemistry by Method SM4500NH3H

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	ND		0.100	1	08/25/2022 14:37	WG1916459

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

SITE 1 MW3

Collected date/time: 08/15/22 09:05

SAMPLE RESULTS - 03

L1525592

Calculated Results

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrogen	1.89		0.0500	1	08/25/2022 21:34	WG1912190

Wet Chemistry by Method 300.0

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	315		0.800	1	08/18/2022 10:50	WG1912183

Wet Chemistry by Method 351.2

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Kjeldahl Nitrogen, TKN	ND		0.250	1	08/25/2022 21:34	WG1913125

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	1.89		0.0500	1	08/17/2022 16:25	WG1912190

Wet Chemistry by Method SM4500NH3H

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	ND		0.100	1	08/25/2022 14:38	WG1916459

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

SITE 1 MW4

Collected date/time: 08/15/22 08:05

SAMPLE RESULTS - 04

L1525592

Calculated Results

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrogen	7.90		0.100	1	08/25/2022 21:36	WG1912190

Wet Chemistry by Method 300.0

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	1540		0.800	1	08/18/2022 11:10	WG1912183

Wet Chemistry by Method 351.2

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Kjeldahl Nitrogen, TKN	ND		0.500	2	08/25/2022 21:36	WG1913125

Sample Narrative:

L1525592-04 WG1913125: Dilution due to NO3 hit.

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	7.48		0.100	2	08/17/2022 16:36	WG1912190

Wet Chemistry by Method SM4500NH3H

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	ND		0.100	1	08/25/2022 14:40	WG1916459

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

SITE 1 MW5

Collected date/time: 08/15/22 08:20

SAMPLE RESULTS - 05

L1525592

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Nitrogen	0.471		0.0500	1	08/25/2022 21:37	WG1912190

1 Cp

2 Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	61.6		0.800	1	08/17/2022 23:43	WG1912183

3 Ss

4 Cn

Wet Chemistry by Method 351.2

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Kjeldahl Nitrogen, TKN	ND		0.250	1	08/25/2022 21:37	WG1913125

5 Sr

6 Qc

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.471		0.0500	1	08/17/2022 16:27	WG1912190

7 Gl

8 Al

Wet Chemistry by Method SM4500NH3H

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	ND		0.100	1	08/25/2022 14:41	WG1916459

9 Sc

Method Blank (MB)

(MB) R3827801-1 08/17/22 18:26									
Analyte	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL					
	mg/l	mg/l	mg/l	mg/l					
Chloride	U		0.0541	0.800					

Laboratory Control Sample (LCS)

(LCS) R3827801-2 08/17/22 18:45									
Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>				
	mg/l	mg/l	%	%					
Chloride	5.00	5.14	103	90.0-110					

L1523791-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1523791-01 08/17/22 20:25 • (MS) R3827801-3 08/17/22 19:05 • (MSD) R3827801-4 08/17/22 19:25												
Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Chloride	10.0	18.4	29.5	29.5	110	111	1	90.0-110		J5	0.144	20

CP

269

Tc

3

SS

4

Cn

5

Sr

6

Qc

7

Gl

9

Al

9

Sc

Method Blank (MB)

(MB) R3830634-1 08/25/22 21:27				
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Kjeldahl Nitrogen, TKN	U		0.140	0.250

L1526346-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1526346-01 08/25/22 21:40 • (DUP) R3830634-3 08/25/22 21:44				
	Original Result	DUP Result	Dilution	DUP RPD
Analyte	mg/l	mg/l		%
Kjeldahl Nitrogen, TKN	8.53	8.37	1	1.89

L1526366-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1526366-01 08/25/22 21:49 • (DUP) R3830634-6 08/25/22 21:50				
	Original Result	DUP Result	Dilution	DUP RPD
Analyte	mg/l	mg/l		%
Kjeldahl Nitrogen, TKN	1.27	1.48	1	15.3

Laboratory Control Sample (LCS)

(LCS) R3830634-2 08/25/22 21:29				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits
Analyte	mg/l	mg/l	%	%
Kjeldahl Nitrogen, TKN	12.7	12.0	94.5	75.2-120

L1526346-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1526346-01 08/25/22 21:40 • (MS) R3830634-4 08/25/22 21:45 • (MSD) R3830634-5 08/25/22 21:46				
	Spike Amount	Original Result	MS Result	MSD Result
Analyte	mg/l	mg/l	mg/l	mg/l
Kjeldahl Nitrogen, TKN	5.00	8.53	13.2	13.0

L1526366-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1526366-01 08/25/22 21:49 • (MS) R3830634-7 08/25/22 21:52				
	Spike Amount	Original Result	MS Result	MS Rec.
Analyte	mg/l	mg/l	mg/l	%
Kjeldahl Nitrogen, TKN	5.00	1.27	6.16	97.8

Method Blank (MB)

(MB) R3827599-1 08/17/22 16:07					
	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL	
Analyte	mg/l		mg/l	mg/l	
Nitrate-Nitrite	U		0.0300	0.0500	

Laboratory Control Sample (LCS)

(LCS) R3827599-2 08/17/22 16:08					
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
Analyte	mg/l	mg/l	%	%	
Nitrate-Nitrite	2.50	2.52	101	90.0-110	

L1525592-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1525592-01 08/17/22 16:22 • (MS) R3827599-3 08/17/22 16:28 • (MSD) R3827599-4 08/17/22 16:29											
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%
Nitrate-Nitrite	2.50	3.43	5.81	5.82	95.2	95.6	1	90.0-110	E	E	0.172

L1525592-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1525592-02 08/17/22 16:35 • (MS) R3827599-5 08/17/22 16:30 • (MSD) R3827599-6 08/17/22 16:34											
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%
Nitrate-Nitrite	2.50	5.52	7.62	7.66	84.0	85.6	2	90.0-110	J6	J6	0.524



Method Blank (MB)

(MB) R3831029-1 08/25/22 14:18			
MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l	mg/l	mg/l
Ammonia Nitrogen	U	0.0280	0.100

Laboratory Control Sample (LCS)

(LCS) R3831029-2 08/25/22 14:20			
Spike Amount	LCS Result	LCS Rec.	Rec. Limits
Analyte	mg/l	mg/l	%
Ammonia Nitrogen	5.10	102	80.0-120

L1525387-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1525387-01 08/25/22 14:31 • (MS) R3831029-3 08/25/22 14:21 • (MSD) R3831029-4 08/25/22 14:22												
Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Ammonia Nitrogen	5.00	ND	4.90	4.89	97.1	96.9	1	80.0-120		0.204		20

L1525592-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1525592-01 08/25/22 14:35 • (MS) R3831029-5 08/25/22 14:24 • (MSD) R3831029-6 08/25/22 14:25												
Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Ammonia Nitrogen	5.00	ND	4.87	4.88	97.4	97.6	1	80.0-120			0.205	20

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

8 AI

9 Sc

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

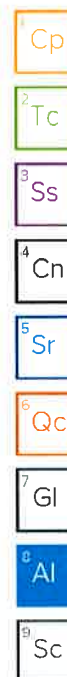
Pace Analytical Services, LLC -Dallas 400 W. Bethany Drive Suite 190 Allen, TX 75013

Arkansas	88-0647	Kansas	E10388
Florida	E871118	Texas	T104704232-22-37
Iowa	408	Oklahoma	8727
Louisiana	30686		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.



Company Name/Address:
Schreiber Foods Inc.

823 CR 176
Stephenville, TX 76401

Billing Information:
Kim Harox
823 CR 176
Stephenville, TX 76401

E-mail to: gary.mccafferty@schreiberfoods.com
gschreiber@schreiberfoods.com

Report to:
Gary McCafferty

Project Description:
Annual GW

Phone: **254-552-7717**

Client Project #
DSSCHRSTX-GENERA
Lab Project #
L3
P.O. #
Please Order
PT MT QT RS

Collected by (print):
W. G. W. (PROTE)

Collected by (signature):
[Signature]

Immediately
Packed on Ice **N**

Sample ID

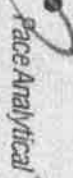
Rush? (Lab MUST be notified)
Same Day _____ Five Day _____
Next Day _____ 10 Day (Lead Only) _____
Three Day _____
Date Results Needed
Date _____
Quote #
Matrix *
Depth
Date
Time
No. of Cnts

ALLCHLORIDE-300 500mlHDPE-NoPres
TKN 250mlHDPE-H2SO4
WetChem 500mlHDPE-Add H2SO4

Analysis/Container/Preservative

Chain of Custody

Page 1 of 1



190 Allen, TX 75013

Submitting a sample to the Pace Analytical Laboratory is an acknowledgment and acceptance of the Pace Terms and Conditions found at www.paceanalytical.com/terms

Table #

SOG # **U1525592**

Active: **DSSCHRSTX**

Tempcode: **T190785**

Prelogin: **P929341**

PR: 807 - Justin Carr

Shipped Via: **FedEx Ground**

Remarks

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cnts
SITE 1 MW1	G	GW	26'	8-15-22	8:40	-01
SITE 1 MW2	G	GW	12'	8-15-22	8:55	-02
SITE 1 MW3	G	GW	14'	8-15-22	9:05	-03
SITE 1 MW4	G	GW	15'	8-15-22	9:05	-04
SITE 1 MW5	G	GW	14'	8-15-22	9:20	-05
SITE 1 MW1	G	GW				
SITE 1 MW2	G	GW				
SITE 1 MW3	G	GW				
SITE 1 MW4	G	GW				
SITE 1 MW5	G	GW				

Remarks:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Biossavy
WW - Wastewater
DW - Drinking Water
OT - Other

Samples returned via:
UPS _____ FedEx _____ Courier _____

Tracking #
6003 4300 1196

Temp. _____
pH _____
Flow _____
Other _____

Temp. _____
pH _____
Flow _____
Other _____

Initials, Recipient, Date/Time
COC Signed/Initialed: _____
Bottles active/Intact: _____
Bottles active/Intact: _____
Current bottles used: _____
Difficult to volume sent: _____
If applicable:
VQA 2020 Readings: _____
Preservation Correct/Checked: _____
BAC Screened 0.5 ml/hr: _____

Relinquished by: (Signature)
[Signature]

Date: **8-15-22** Time: **1410**

Received by: (Signature)
[Signature]

Temp. _____
pH _____
Flow _____
Other _____

Initials, Recipient, Date/Time
COC Signed/Initialed: _____
Bottles active/Intact: _____
Bottles active/Intact: _____
Current bottles used: _____
Difficult to volume sent: _____
If applicable:
VQA 2020 Readings: _____
Preservation Correct/Checked: _____
BAC Screened 0.5 ml/hr: _____

Relinquished by: (Signature)
[Signature]

Date: **8-16-22** Time: **0935**

Received by: (Signature)
[Signature]

Temp. _____
pH _____
Flow _____
Other _____

Initials, Recipient, Date/Time
COC Signed/Initialed: _____
Bottles active/Intact: _____
Bottles active/Intact: _____
Current bottles used: _____
Difficult to volume sent: _____
If applicable:
VQA 2020 Readings: _____
Preservation Correct/Checked: _____
BAC Screened 0.5 ml/hr: _____

Relinquished by: (Signature)
[Signature]

Date: **8/16/22** Time: **1700**

Received by: (Signature)
[Signature]

Temp. _____
pH _____
Flow _____
Other _____

Initials, Recipient, Date/Time
COC Signed/Initialed: _____
Bottles active/Intact: _____
Bottles active/Intact: _____
Current bottles used: _____
Difficult to volume sent: _____
If applicable:
VQA 2020 Readings: _____
Preservation Correct/Checked: _____
BAC Screened 0.5 ml/hr: _____

[Signature]

Date: **8/16/22** Time: **1700**

Received by: (Signature)
[Signature]

Temp. _____
pH _____
Flow _____
Other _____

Initials, Recipient, Date/Time
COC Signed/Initialed: _____
Bottles active/Intact: _____
Bottles active/Intact: _____
Current bottles used: _____
Difficult to volume sent: _____
If applicable:
VQA 2020 Readings: _____
Preservation Correct/Checked: _____
BAC Screened 0.5 ml/hr: _____

KIM HATTOX
(254) 592-7710
SCHREIBER FOODS
923 COUNTRY RD 176
STEPHENVILLE TX 76401

41 LBS

1 OF 1

DWT: 23.13.13

SHIP TO:
PACE ANALYTICAL DALLAS
(972) 727-1123
STE 190
400 W BETHANY DR
ALLEN TX 75013-3714



TX 753 5-77



UPS GROUND

TRACKING #: 1Z Y49 8F8 03 6246 7509



BILLING: P/P

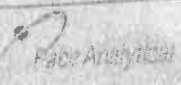
REF 1:01430-640210

SFI Department to Charge: Stephenville

Web: 12/01/12 / 12/01/12 7P 450 34.0A 03/2012



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	Document Name: Sample Condition Upon Receipt	Document Revised: 7/27/20 Page 1 of 1
	Document No: F-DAL-C-001 rev. 14	Issuing Authority: Pace Dallas Quality Office

Sample Condition Upon Receipt

☒ Dallas
 ☐ Ft Worth
 ☐ Corpus Christi
 ☐ Austin

61525592

Client Name: Schreiber Foods Inc Project Work order (place label)

Courier: FedEx ☐ UPS ☒ USPS ☐ Client ☐ LSO ☐ PACE ☐ Other

Tracking #: 1Z 4 44 8F8 03 0240 7509

Custody Seal on Cooler/Box: Yes ☐ No ☒

Received on ice: Wet ☒ Blue ☐ No ice ☐

Receiving Lab 1 Thermometer Used: IR-M

Cooler Temp °C: 2.3 (Recorded)

-0.5
K₁ File

(Correction Factor) 1.8

(Actual)

Receiving Lab 2 Thermometer Used:

Cooler Temp °C: (Recorded)

(Correction Factor)

(Actual)

Temperature should be above freezing to 6°C unless collected same day as receipt in which evidence of cooling is acceptable

Triage Person AR Date 8/16/22

Chain of Custody relinquished	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Sampler name & signature on COC	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Short HT analyses (<72 hrs)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

Login Person _____ Date _____

Sufficient Volume received	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Correct Container used	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Container Intact	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Sample pH Acceptable	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
pH Strips: <u>611005</u>	
Residual Chlorine Present	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
Cl Strips:	
Sulfide Present	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
Lead Acetate Strips:	
Are soil samples (volatiles, TPH) received in 5035A Kits (not applicable to TCLP VOA or PST Program TPH)	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
Unpreserved 5035A soil frozen within 48 hrs	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
Headspace in VOA (>6mm)	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
Project sampled in USOA Regulated Area outside of Texas	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
State Sampled:	
Non-Conformance(s):	Yes <input type="checkbox"/> No <input type="checkbox"/>

Labeling Person (if different than log-in) _____ Date _____

ATTACHMENT 7 – SOILS INFORMATION

7.1 Soil Features

Soil mapping units included in this section for the production area and waste disposal area was taken from the electronic NRCS soil survey for Erath County. Soils descriptions are included in the supporting documentation and were taken from the most current version of the NRCS electronic soil information database for Erath County as obtained from the NRCS Soil Data Mart.

Soil Map—Erath County, Texas








































Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

6/5/2018
Page 1 of 3

0279

MAP LEGEND

 Area of Interest (AOI)	 Spoil Area
 Area of Interest (AOI)	 Stony Spot
Soils	 Very Stony Spot
 Soil Map Unit Polygons	 Wet Spot
 Soil Map Unit Lines	 Other
 Soil Map Unit Points	 Special Line Features
Special Point Features	Water Features
 Blowout	 Streams and Canals
 Borrow Pit	Transportation
 Clay Spot	 Rails
 Closed Depression	 Interstate Highways
 Gravel Pit	 US Routes
 Gravelly Spot	 Major Roads
 Landfill	 Local Roads
 Lava Flow	Background
 Marsh or swamp	 Aerial Photography
 Mine or Quarry	
 Miscellaneous Water	
 Perennial Water	
 Rock Outcrop	
 Saline Spot	
 Sandy Spot	
 Severely Eroded Spot	
 Sinkhole	
 Slide or Slip	
 Sodic Spot	

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Erath County, Texas
Survey Area Data: Version 14, Nov 7, 2017

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 17, 2015—Dec 13, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres In AOI	Percent of AOI
HoB	Slidell clay, 1 to 3 percent slopes	34.2	25.4%
Pd	Purves-Dugout complex	0.1	0.1%
WkA	Hassee fine sandy loam, thick surface, 0 to 2 percent slopes	31.6	23.4%
WoB	Windthorst very fine sandy loam, 1 to 3 percent slopes	10.1	7.5%
WoB2	Windthorst fine sandy loam, 1 to 5 percent slopes, eroded	44.2	32.8%
WsC2	Windthorst fine sandy loam, 3 to 8 percent slopes, eroded	14.6	10.8%
Totals for Area of Interest		134.9	100.0%



REPORT NUMBER
22-104-0118
COMPLETED DATE
Apr 21, 2022
RECEIVED DATE
Apr 13, 2022

ACCOUNT
22923



13611 B Street • Omaha, Nebraska 68144-3693 • (402) 334-7770
www.midwestlabs.com

PAGE 1/10
TODAY'S DATE
Apr 21, 2022

ENVIRO-AG ENGINEERING INC
3404 AIRWAY BLVD
AMARILLO TX 79118

IDENTIFICATION
SCHREIBER
SOIL/
4/4/22

SOIL ANALYSIS REPORT

NEUTRAL AMMONIUM ACETATE (EXCHANGEABLE)																	
LAB NUMBER	SAMPLE IDENTIFICATION	ORGANIC MATTER L.O.I	PHOSPHORUS			POTASSIUM K	MAGNESIUM Mg	CALCIUM Ca	SODIUM Na	pH	CATION EXCHANGE CAPACITY C.E.C.	PERCENT BASE SATURATION (COMPUTED)					
			P ₁ (WEAK BRAY) 1:7 ppm	P ₂ (STRONG BRAY) 1:7 ppm	MELICH 3 ICP P ppm	ppm	ppm	ppm	ppm			% K	% Mg	% Ca	% H	% Na	
395		Percent RATE				ppm	ppm	ppm	ppm	1.2 Sodium	meq/100g						
65299	N PVT FSL	2.2 L			540	532 VH	393 VH	2437 M	1397 VH	8.9	22.9	6.0	14.3	53.2	0.0	26.5	
65300	N PVT FSL	0.8 VL			23	608 VH	384 VH	2238 L	2078 VH	9.2	25.0	6.2	12.8	44.9	0.0	36.1	
65301	N PVT FSL	1.4 VL			13	330 VH	259 M	2692 M	2216 VH	8.4	26.1	3.2	8.3	51.6	0.0	36.9	
65302	N PVT CLAY	1.3 VL			59	578 VH	354 VH	1590 L	2051 VH	8.8	21.3	7.0	13.8	37.3	0.0	41.9	
65303	N PVT CLAY	2.2 L			796	610 VH	454 VH	2278 L	1590 VH	8.8	23.7	6.6	16.0	48.2	0.0	29.2	
65304	N PVT CLAY	1.2 VL			24	370 VH	264 M	2366 L	2620 VH	8.6	26.4	3.6	8.3	45.0	0.0	43.1	
65305	OUTSDPVT FSL	2.0 L			364	286 VH	201 H	2293 H	325 VH	7.9	15.3	4.8	10.9	75.1	0.0	9.2	
65306	OUTSDPVT FSL	1.3 VL			23	243 VH	229 H	2940 H	298 VH	7.9	18.5	3.4	10.3	79.3	0.0	7.0	
65307	OUTSDPVT FSL	1.2 VL			12	178 M	244 M	3931 H	484 VH	7.9	24.2	1.9	8.4	81.0	0.0	8.7	
65308	OUTSDPVT CLY	2.6 M			125	187 H	156 M	3139 VH	97 M	7.4	17.9	2.7	7.3	87.6	0.0	2.4	

LAB NUMBER	NITRATE-N (FIA)			SULFUR S ICAP		ZINC Zn DTPA	MANGANESE Mn DTPA	IRON Fe DTPA	COPPER Cu DTPA	BORON B SORB. DTPA	ECES LIME RATE	SOLUBLE SALT S 1 Soil 2 Water mmhos/cm RATE
	SURFACE		SUBSOIL 1		SUBSOIL 2							
	ppm	depth (in)	lbs/A	depth (in)	ppm	lbs/A	ppm	ppm	ppm	ppm	ppm	cm
395						Total lbs/A	ppm	RATE	ppm	RATE	ppm	RATE
65299	9	16	0-6			16	180 VH				M	1.9
65300	4	14	6-18			14	71 VH				M	1.6
65301	3	11	18-30			11	92 VH				M	2.0
65302	3	5	0-6			5	63 VH				M	1.5
65303	5	18	6-18			18	160 VH				L	2.0
65304	3	11	18-30			11	161 VH				L	2.2
65305	6	11	0-6			11	35 VH				L	0.4
65306	2	7	6-18			7	21 H				M	0.4
65307	2	7	18-30			7	75 VH				M	0.9
65308	8	14	0-6			14	82 VH				M	0.6

The above analytical results apply only to the sample(s) submitted. Samples are retained a maximum of 30 days.
Our reports and letters are for the exclusive and confidential use of our clients and may not be reproduced in whole or in part, nor may any reference be made to the work, the results, or the company in any advertising, news release, or other public announcements without obtaining our prior written authorization.

REPORT NUMBER
22-104-0118
COMPLETED DATE
Apr 21, 2022
RECEIVED DATE
Apr 13, 2022

ACCOUNT
22923



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PAGE 2/10
TODAY'S DATE
Apr 21, 2022

ENVIRO-AG ENGINEERING INC
3404 AIRWAY BLVD
AMARILLO TX 79118

IDENTIFICATION
SCHREIBER
SOIL/
4/4/22

SOIL ANALYSIS REPORT

NEUTRAL AMMONIUM ACETATE (EXCHANGEABLE)																							
LAB NUMBER	SAMPLE IDENTIFICATION	ORGANIC MATTER L.O.I	PHOSPHORUS			POTASSIUM	MAGNESIUM	CALCIUM	SODIUM	pH		CATION EXCHANGE CAPACITY C.E.C. meq/100g	PERCENT BASE SATURATION (COMPUTED)										
			P ₁ (WEAK BRAY) 1:7 ppm	P ₂ (STRONG BRAY) 1:7 ppm	MELCH III ICP P ppm	K ppm	Mg ppm	Ca ppm	Na ppm	SOIL pH 1:2 Soil Water	BUFFER INDEX		% K	% Mg	% Ca	% H	% Na						
65309	OUTSDPVT CLY	1.5 VL			40	181 M	185 M	3734 VH	130 H	7.8		21.2	2.2	7.3	87.8	0.0	2.7						
65310	OUTSDPVT CLY	1.6 L			30	204 M	248 M	4538 VH	184 VH	7.9		26.1	2.0	7.9	87.0	0.0	3.1						
65311	S PIVOT	2.2 L			836	369 VH	302 VH	2053 M	1023 VH	9.1		18.2	5.2	13.8	56.6	0.0	24.4						
65312	S PIVOT	1.1 VL			42	504 VH	332 VH	2032 L	1550 VH	9.1		21.0	6.2	13.2	48.5	0.0	32.1						
65313	S PIVOT	1.0 VL			28	387 VH	239 M	2284 M	1985 VH	9.1		23.0	4.3	8.7	49.5	0.0	37.5						
LAB NUMBER	NITRATE-N (FIA)					SULFUR S ICAP					ZINC Zn DTFA		MANGANESE Mn DTFA		IRON Fe DTFA		COPPER Cu DTFA		BORON B SO ₄ B DTFA		EXCESS LIME RATE	SOLUBLE SALTS 1 Soil 2 Water mmhos/cm	
	SURFACE		SUBSOIL 1			SUBSOIL 2			Total lbs/A		ppm	RATE	ppm	RATE	ppm	RATE	ppm	RATE	ppm	RATE	ppm	RATE	mmhos/cm
395																							
65309	5	18	6-18							18	18 M											M	0.5
65310	8	29	18-30							29	66 VH											M	0.8
65311	12	22	0-6							22	116 VH											M	1.2
65312	4	14	6-18							14	39 VH											M	1.3
65313	2	7	18-30							7	44 VH											L	1.4

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REPORT NUMBER
22-104-0118
COMPLETED DATE
Apr 21, 2022
RECEIVED DATE
Apr 13, 2022

ACCOUNT
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ENVIRO-AG ENGINEERING INC

3404 AIRWAY BLVD
AMARILLO TX 79118

IDENTIFICATION
SCHREIBER
SOIL/
4/4/22

ADDITIONAL SOIL ANALYSIS

Labnum	Sample ID	Ammonia Nitrogen KCl extract ppm	E.C. EC electrode mmhos/cm	Total Kjeldahl Nitrogen Kjeldahl ppm	Sulfur Calculation lbs/A	Total N (calc) Calculated ppm
395						
65299	N PVT FSL Depth: 0-6	3	6.9	1290	360.00	1299.00
65300	N PVT FSL Depth: 6-18	2	3.2	400	142.00	404.00
65301	N PVT FSL Depth: 18-30	1	4.0	360	184.00	363.00
65302	N PVT CLAY Depth: 0-6	1	3.2	450	126.00	453.00
65303	N PVT CLAY Depth: 6-18	1	5.7	1350	320.00	1355.00
65304	N PVT CLAY Depth: 18-30	2	5.6	500	322.00	503.00
65305	OUTSDPVT FSL Depth: 0-6	6	1.4	1140	70.00	1146.00
65306	OUTSDPVT FSL Depth: 6-18	2	1.3	590	42.00	592.00
65307	OUTSDPVT FSL Depth: 18-30	3	2.8	490	150.00	492.00
65308	OUTSDPVT CLY Depth: 0-6	5	2.2	1440	164.00	1448.00

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3404 AIRWAY BLVD
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IDENTIFICATION
SCHREIBER
SOIL/
4/4/22

ADDITIONAL SOIL ANALYSIS

Labnum	Sample ID	Ammonia Nitrogen KCl extract ppm	E.C. EC electrode mmhos/cm	Total Kjeldahl Nitrogen Kjeldahl ppm	Sulfur Calculation lbs/A	Total N (calc) Calculated ppm
395						
65309	OUTSDPVT CLY Depth: 6-18	4	1.3	840	36.00	845.00
65310	OUTSDPVT CLY Depth: 18-30	6	1.8	890	132.00	898.00
65311	S PIVOT Depth: 0-6	2	3.9	1300	232.00	1312.00
65312	S PIVOT Depth: 6-18	3	1.3	560	78.00	564.00
65313	S PIVOT Depth: 18-30	2	2.3	480	88.00	482.00

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Apr 21, 2022

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22-104-0118

COMPLETED DATE

Apr 21, 2022

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ENVIRO-AG ENGINEERING INC

3404 AIRWAY BLVD
AMARILLO TX 79118

IDENTIFICATION

SCHREIBER

SOIL/

4/4/22

SODIUM ADSORPTION RATIO REPORT

Method Lab Number Units	Sample Id	CALCULATED		SATURATED PASTE EXTRACTION		
		Sodium Adsorption Ratio	Sodium (Water Soluble) mg/L	Magnesium (Water Soluble) mg/L	Calcium (Water Soluble) mg/L	
39565299N	PVT FSL	35.5	1402	4	111	
39565300N	PVT FSL	25.9	665	10	34	
39565301N	PVT FSL	30.9	888	9	48	
39565302N	PVT CLAY	24.2	652	16	29	
39565303N	PVT CLAY	29.9	1188	27	75	
39565304N	PVT CLAY	34.9	1237	11	77	
39565305OUTSDPVT	FSL	5.6	220	12	95	
39565306OUTSDPVT	FSL	4.6	179	10	96	
39565307OUTSDPVT	FSL	6.4	370	20	220	
39565308OUTSDPVT	CLY	1.3	104	34	403	

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3404 AIRWAY BLVD
AMARILLO TX 79118

IDENTIFICATION
SCHREIBER
SOIL/
4/4/22

SODIUM ADSORPTION RATIO REPORT

Method Lab Number Units	Sample Id	CALCULATED Sodium Adsorption Ratio	SATURATED Sodium (Water Soluble) mg/L	PASTE Magnesium (Water Soluble) mg/L	EXTRACTION Calcium (Water Soluble) mg/L
39565309	OUTSDPVT CLY	2.0	105	15	180
39565310	OUTSDPVT CLY	2.3	137	21	237
39565311	S PIVOT	23.8	816	19	58
39565312	S PIVOT	24.9	680	11	38
39565313	S PIVOT	29.4	795	9	41

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Apr 21, 2022

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IDENTIFICATION
SCHREIBER

SOIL/

4/4/22

3404 AIRWAY BLVD
AMARILLO TX 79118

WATER SOLUBLE REPORT

LAB NUMBER	SAMPLE ID	P ppm	K ppm	Ca ppm	Mg ppm	Na ppm	S ppm
39565299	N PVT FSL	35	146	188	68	1210	175
39565300	N PVT FSL	7	359	217	211	1357	68
39565301	N PVT FSL	5	63	109	46	1518	87
39565302	N PVT CLAY	9	94	151	77	889	59
39565303	N PVT CLAY	48	112	171	54	1357	152
39565304	N PVT CLAY	6	84	153	78	1402	154
39565305	OUTSDPVT FSL	12	64	156	36	267	32
39565306	OUTSDPVT FSL	3	28	114	26	235	19
39565307	OUTSDPVT FSL	2	20	267	39	448	73
39565308	OUTSDPVT CLY	8	57	370	48	93	79

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ENVIRO-AG ENGINEERING INC
3404 AIRWAY BLVD
AMARILLO TX 79118

IDENTIFICATION
SCHREIBER
SOIL/
4/4/22

WATER SOLUBLE REPORT

LAB NUMBER	SAMPLE ID	P ppm	K ppm	Ca ppm	Mg ppm	Na ppm	S ppm
39565309	OUTSDPVT CLY	4	30	262	35	124	17
39565310	OUTSDPVT CLY	3	34	487	48	178	62
39565311	S PIVOT	47	92	124	41	936	112
39565312	S PIVOT	9	98	124	60	1071	34
39565313	S PIVOT	7	64	124	54	1161	41

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Erath County Per history



Midwest Laboratories, Inc.
79611 B Street, Omaha, NE 68144
402-334-7770



15

1

Account Number/ Company Name: 22923 Chali

39565299 - 39565313

Purchase Order: Samples for Regulatory Use: Yes ☐ No ☐

REPORTABILITY	
Name:	Enviro-Ag Engineering
Address:	9855 FM 847
City, State:	Dublin, TX ZIP: 76446
Phone:	(254) 965-3500 FAX:
Email:	jmullin@enviroag.com

IDENTIFICATION	
Client Name:	Schreiber
Sample ID:	Soil
Sample Date:	4/4/02
Sample Time:	

COPY TO	
Name:	
Address:	
ZIP:	
Phone:	

PROJECT INFORMATION					BOTTLE ORDER INFO				TESTS REQUESTED					
PROJ. NO.	Project Name/ Company				No. of Containers	Proper Preservation (Y/N)	Matrix	Regulatory (Y/N)	Infectious + NH4	gypsum recommended	See additional	NH4 AL	15	Lab Number/ Order # (Internal Use)
COMPANY: (Signature)	SAMPLE: (Signature)													
SAMPLE ID/ LOCATION	DATE	TIME	COMP	GRAB										
North Pivot FSL 0-6	4/4/02				1	SO	Y	X	X	X				
1 6-18														
18-30														
North Pivot clay 0-6														
6-18														
18-30														
Outside Pivot FSL 0-6														
6-18														
18-30														
Outside Pivot clay 0-6														
6-18														
18-30														
South Pivot 0-6														
6-18														
18-30														
Relinquished by (Signature)					Date/ Time	Received by (Signature)				Cooler arrived intact: Yes <input type="checkbox"/> No <input type="checkbox"/>				
Relinquished by (Signature)					Date/ Time	Received by (Signature)				Temperature on Arrival: Yes <input type="checkbox"/> No <input type="checkbox"/>				
Relinquished by (Signature)					Date/ Time	Received by (Signature)				Preserved in Field: Yes <input type="checkbox"/> No <input type="checkbox"/>				

SAR

REMS



Quality Assessment Team (MC-150), and Region 4 Office during the month of September of each calendar year.

- L. The permittee shall obtain representative soil samples from the root zones of the land-application area receiving wastewater. Composite sampling techniques shall be used. Each composite sample shall represent no more than 50 acres with no less than 15 subsamples representing each composite sample. Subsamples shall be composited by like sampling depth, type of crop, and soil type for analysis and reporting. Soil types are soils that have like topsoil or plow layer textures. These soils shall be sampled individually from 0 to 6 inches, 6 to 18 inches, and 18 to 30 inches below ground level. The permittee shall sample soils in December to February of each year. Soil samples shall be analyzed within 30 days of sample collection.

The permittee shall provide annual soil sample analyses of the land application area according to the following table:

Parameter	Method	MAL ⁴	Reporting units
pH	2:1 (v/v) water to soil mixture		Reported to 0.1 pH units after calibration of pH meter
Electrical Conductivity	Obtained from the SAR water-saturated paste extract	0.01	dS/m (same as mmho/cm)
Nitrate-nitrogen, ammonium-nitrogen	From a 1 N KCl soil extract	1	mg/kg (dry weight basis)
Total Kjeldahl Nitrogen (TKN)	For determination of Organic plus Ammonium Nitrogen. Procedures that use Mercury (Hg) are not acceptable.	20	mg/kg (dry weight basis)
Total Nitrogen	= TKN plus Nitrate-nitrogen		mg/kg (dry weight basis)
Plant-available: Phosphorus	Mehlich III with inductively coupled plasma	1 (P)	mg/kg (dry weight basis)
Plant-available: Potassium (K) Calcium (Ca) Magnesium (Mg) Sodium (Na) Sulfur (S)	May be determined in the same Mehlich III extract with inductively coupled plasma	5 (K) 10 (Ca) 5 (Mg) 10 (Na) 1 (S)	mg/kg (dry weight basis)
Water-soluble: Sodium (Na) Calcium (Ca) Magnesium (Mg)	Obtained from the SAR water saturated paste extract	1 (Na) 1 (Ca) 1 (Mg)	Water soluble constituents are reported in mg/L

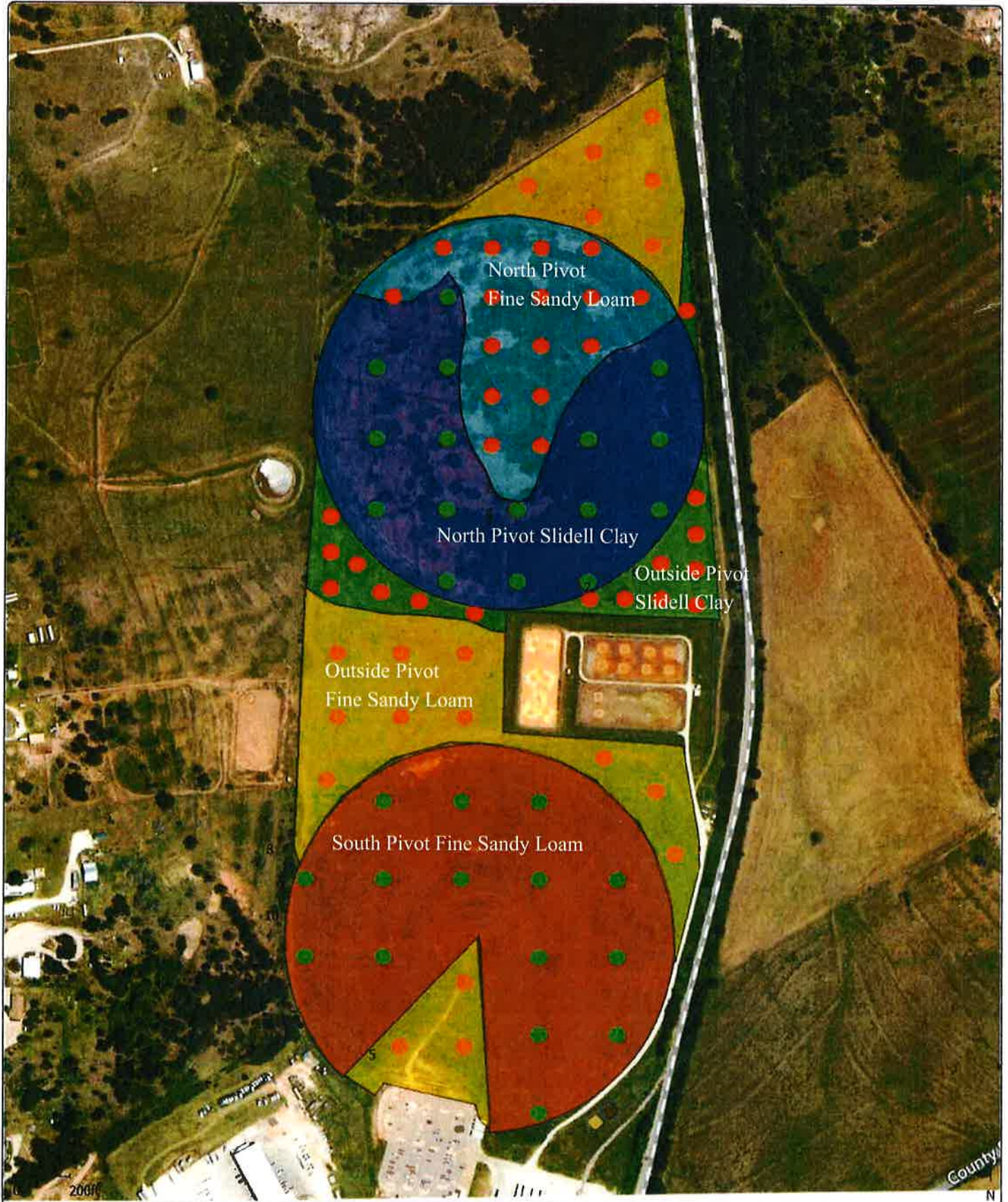
⁴ Minimum analytical level.



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Schreiber Foods



ATTACHMENT 8 – POLLUTANT ANALYSIS DATA



ANALYTICAL REPORT

November 22, 2022

Enviro-Ag Engineering

Sample Delivery Group: L1551018

Samples Received: 10/27/2022

Project Number:

Description:

Report To

Jordan Mullin
3404 Anway Blvd
Amarillo, TX 79118

Entire Report Reviewed By:

Cassandra Foster
Cassandra Foster
Project Manager

Multi-Utility only is the only method used and not reported as standard values. This test report will not be used for regulatory compliance purposes. The only use of this report is for informational purposes only. No warranty is made by the provider of this report. The provider of this report is not responsible for the accuracy of the information provided, and is in the public domain.

Co Tc Ss Cn Sr Oc Al Sc



ACCOUNT: Enviro-Ag Engineering PROJECT: SDG: L1551018 DATE/TIME: 10/27/22 12:21 PAGE: 1 of 38

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Cn: Case Narrative	4
Sr: Sample Results	5
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Co Tc Ss Cn Sr Oc Al Sc

ACCOUNT: Enviro-Ag Engineering PROJECT: SDG: L1551018 DATE/TIME: 10/27/22 12:21 PAGE: 2 of 38

CASE NARRATIVE

Collection date/time	Received date/time
10/27/22 09:03	10/27/22 13:57

Sc⁹ Al³ Ga⁷ Oc⁸ Sr⁵ Cn⁴ Ss² Tc⁶ Ge¹

Sc Al Ga Ge Sr Sn Sb Te

Cassandra Foster
Project Manager

SCHEIBER SAMPLE #1 L1551018-02 WW						
Method	Batch	Duration	Preparation duration	Analysis duration	Analysis	Location
Calculated Results Wet Chemistry by Method 3500C-8 Wet Chemistry by Method 4500C-4 Mercury by Method 245.1 Mercury CrP by Method 200.7	W6395045	1	11/01/22 22:01	11/01/22 22:01	KCM	Alvin TX
	W6395429	1	11/01/22 18:34	11/01/22 18:34	KCM	Alvin TX
	W6395592	1	11/03/22 10:15	11/03/22 10:15	KCM	Alvin TX
	W6395743	1	11/01/22 11:39	11/01/22 16:06	CM	Alvin TX
	W6395045	1	10/28/22 09:45	11/01/22 22:01	ES	Alvin TX
Collected date/time				11/01/22 08:03	Received date/time	
Zoned location					11/02/22 13:57	

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ACCOUNT	PROJECT	SDS	DATETIME	PAGE
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Microbiology by Method 9222D

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Coliform FC/100 ml	1600		1	10/28/2022 15:10	WG9551668

Calculated Results

Analyte	Result	Qualifier	RQL	Dilution	Analysis	Batch
Sodium Adsorption Ratio	22.6			1	11/07/2022 11:14	WG9551998

Calculated Results

Analyte	Result	Qualifier	RQL	Dilution	Analysis	Batch
Organic Nitrogen	9.57		0.350	1	10/28/2022 21:06	WG9551526

Gravimetric Analysis by Method 2540C

Analyte	Result	Qualifier	RQL	Dilution	Analysis	Batch
Total Dissolved Solids	4020		25.0	1	10/28/2022 16:45	WG9550781

Gravimetric Analysis by Method 2540D

Analyte	Result	Qualifier	RQL	Dilution	Analysis	Batch
Suspended Solids	720		125	1	10/28/2022 13:44	WG9551824

Wet Chemistry by Method 120.1

Analyte	Result	Qualifier	RQL	Dilution	Analysis	Batch
Ammonia Concentration	5470		100	1	10/28/2022 13:21	WG9551221

Sample Narrative:

L1551010-01 WG9551221 4:25C

Wet Chemistry by Method 1664A

Analyte	Result	Qualifier	RQL	Dilution	Analysis	Batch
Dissolved Phosphate	7.40		5.21	1	10/29/2022 15:51	WG9551762

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RQL	Dilution	Analysis	Batch
Chloride	1280		0.800	1	10/28/2022 14:28	WG9550882
Fluoride	ND		0.500	1	10/28/2022 02:04	WG9550268
Nitrate	ND		0.500	1	10/28/2022 02:04	WG9550268
Sulfate	191		0.700	1	10/28/2022 10:57	WG9550268

Wet Chemistry by Method 351.2

Analyte	Result	Qualifier	RQL	Dilution	Analysis	Batch
Kydatin Nitrogen TN	15.3		10.285	1	10/28/2022 21:06	WG9551122

Wet Chemistry by Method 4500CI-G-2011

Analyte	Result	Qualifier	RQL	Dilution	Analysis	Batch
Chlorine Residual	0.921	12	0.100	1	11/07/2022 14:16	WG9551749

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DATE/TIME

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Wet Chemistry by Method 4500P-E

Analyte	Result	Qualifier	RQL	Dilution	Analysis	Batch
Phosphate Total	10.4		2.50	30	11/06/2022 17:32	WG9552108

Wet Chemistry by Method 5220D

Analyte	Result	Qualifier	RQL	Dilution	Analysis	Batch
DOC	160		35.0	1	11/07/2022 17:01	WG9552278

Wet Chemistry by Method 5310C

Analyte	Result	Qualifier	RQL	Dilution	Analysis	Batch
TDC Total Organic Carbon	52.5		3.50	5	11/07/2022 20:09	WG9554535

Wet Chemistry by Method SM 4500-H+B

Analyte	Result	Qualifier	Dilution	Analysis	Batch
pH	8.68	12	1	10/29/2022 16:51	WG9550275

Sample Narrative:

L1551010-01 WG9550275 8:68 at 21:2C

Wet Chemistry by Method SM4500NH3H

Analyte	Result	Qualifier	RQL	Dilution	Analysis	Batch
Ammonia Nitrogen	3.72		100	10	10/28/2022 15:03	WG9550526

Wet Chemistry by Method SM5210B

Analyte	Result	Qualifier	RQL	Dilution	Analysis	Batch
BOD	ND		30.0	1	11/01/2022 16:14	WG9550222
CBOD	ND		30.0	1	11/01/2022 16:29	WG9549822

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	RQL	Dilution	Analysis	Batch
Cadmium	88.8		100	1	11/06/2022 16:18	WG9553988
Chromium Dissolved	63.6		100	1	11/05/2022 14:28	WG9553409
Magnesium Dissolved	44.6		100	1	11/05/2022 16:18	WG9553988
Sodium	42.9		100	1	11/05/2022 14:28	WG9553409
Sodium Dissolved	1050		20.0	20	11/07/2022 11:14	WG9553988
	1110		20.0	20	11/06/2022 11:46	WG9553409

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Chromium,Totals	ND		0.00300	1	10/01/2022 22:01	WG1950465

Wet Chemistry by Method 3500C-B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Chromium Hexavalent	ND		0.00300	1	10/01/2022 18:24	WG1952229

Wet Chemistry by Method 4500CN-E

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Cyanide	ND		0.000	1	10/29/2022 15:58	WG1955592

Mercury by Method 245.1

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Mercury	ND		0.000100	1	10/01/2022 16:06	WG1957462

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Aluminum	3.80		0.500	1	10/01/2022 22:01	WG1950465
Antimony	ND		0.0250	1	10/01/2022 22:01	WG1950465
Arsenic	ND		0.0200	1	10/01/2022 22:01	WG1950465
Barium	0.0775		0.0100	1	10/01/2022 22:01	WG1950465
Beryllium	ND		0.00060	1	10/01/2022 22:01	WG1950465
Boron	ND		0.000	1	10/01/2022 22:01	WG1950465
Cadmium	ND		0.00500	1	10/01/2022 22:01	WG1950465
Chromium	ND		0.00700	1	10/01/2022 22:01	WG1950465
Copper	ND		0.0200	1	10/01/2022 22:01	WG1950465
Lead	ND		0.0100	1	10/01/2022 22:01	WG1950465
Nickel	ND		0.0100	1	10/01/2022 22:01	WG1950465
Selenium	ND		0.0200	1	10/01/2022 22:01	WG1950465
Silver	ND		0.00500	1	10/01/2022 22:01	WG1950465
Thallium	ND		0.0200	1	10/01/2022 22:01	WG1950465
Zinc	0.117		0.0250	1	10/01/2022 22:01	WG1950465

QUALITY CONTROL SUMMARY
L1531018.01

WG1951668 Microbiology by Method 92220			
Method Blank (MB)			
Analyte	MB Result	MB Qualifier	MB RDL
Coliform Total	cfu/100 ml	cfu/100 ml	cfu/100 ml

Method Blank (MB)			
Analyte	MB Result	MB Qualifier	MB RDL
Coliform Total	cfu/100 ml	cfu/100 ml	cfu/100 ml

L1531018.01 Original Sample (OS) - Duplicate (DUP)			
ICOL L1531018.01 10/27/22 15:10 - IDUP R1554975.3 10/27/22 18:10			
Analyte	Original Result	DUP Result	DUP Qualifier
Coliform Total	cfu/100 ml	cfu/100 ml	cfu/100 ml

WG1950781
Gravimetric Analysis by Method 2540C

QUALITY CONTROL SUMMARY

Method Blank (MB)

Analyte	MB Result	MB Count	MB NOL	MB BOL
Total Dissolved Solids	U	25.0	25.0	35.0

U551018-01 Original Sample (OS) - Duplicate (DUP)

Analyte	Original Result	DUP Result	DUP STD	DUP Count	DUP STD
Total Dissolved Solids	3203	3250	1	112	5

Laboratory Control Sample (LCS)

Analyte	Spiked Amount	LCS Result	LCS Rec	Rec Limit	LCS Quality
Total Dissolved Solids	2420	2530	104	65-6-15	

Cd

Cu

Cr

Fe

Mn

Ni

Pb

Sr

Ag

Al

Sc

WG1951834
Gravimetric Analysis by Method 2540D

QUALITY CONTROL SUMMARY

Method Blank (MB)

Analyte	MB Result	MB Count	MB NOL	MB BOL
Total Dissolved Solids	U	2.50	2.50	2.50

U551018-01 Original Sample (OS) - Duplicate (DUP)

Analyte	Original Result	DUP Result	DUP STD	DUP Count	DUP STD
Total Dissolved Solids	730	675	1	713	10

U551401-01 Original Sample (OS) - Duplicate (DUP)

Analyte	Original Result	DUP Result	DUP STD	DUP Count	DUP STD
Total Dissolved Solids	705	645	1	279	10

Laboratory Control Sample (LCS)

Analyte	Spiked Amount	LCS Result	LCS Rec	Rec Limit	LCS Quality
Total Dissolved Solids	522	536	803	55-6-15	

Cd

Cu

Cr

Fe

Mn

Ni

Pb

Sr

Ag

Al

Sc

ACCOUNT

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DATE TIME

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WG1951221

Wet Chemistry by Method 120.1

QUALITY CONTROL SUMMARY

11/10/2021

Method Blank (MS)

Analysis	MS Result	MS MDL	MS RDL
Specific Conductance	umhos/cm	100	100
Sample Number:	BLANK at 25C		

L1950462.01 Original Sample (CS) - Duplicate (DP)

11/09/2021 09:16:29 22 of 24 - 10/25/2021 09:29:22 18 21

Analysis	Original Result	Dup Result	Dup PPD	Dup Qualifier
Specific Conductance	umhos/cm	umhos/cm	%	Limits
OS at 25C	470	470	0.000	20
DUP at 25C				

Laboratory Control Sample (LCS)

LCS P283480-2 10/29/21 0.21

Analysis	Scale Amount	LCS Result	LCS Rec	Rec Limits	LCS Qualifier
Specific Conductance	umhos/cm	umhos/cm	%	%	
Sample Number:	200	200	90	20.0-120	
LCS at 25C					

Sc Al Cl S Cr

WG1955767

Wet Chemistry by Method 166.4A

QUALITY CONTROL SUMMARY

11/10/2021

Method Blank (MS)

Analysis	MS Result	MS MDL	MS RDL
Oil & Grease (Petroleum Est)	mg/l	0.250	5.00
Sample Number:	Blank at 25C		

Laboratory Control Sample (LCS) - Laboratory Control Sample Duplicate (LCS-D)

LCS P2839390-2 11/09/21 05:51 - 11/09/21 05:51

Analysis	Scale Amount	LCS Result	LCS-D Result	LCS Rec	LCS-D Rec	Rec Limits	LCS Qualifier	LCS-D Qualifier	PPD Limits
Oil & Grease (Petroleum Est)	mg/l	mg/l	mg/l	%	%	%	%	%	%
OS at 25C	40.0	37.7	35.8	94.3	89.5	78.0-114			5.0

L1951022.01 Original Sample (CS) - Matrix Spike (MS)

11/09/2021 09:11:02 22 of 24 - 11/09/2021 09:29:22 18 21

Analysis	Scale Amount	Original Result	MS Result	MS Rec	Dilution	Rec Limits	MS Qualifier
Oil & Grease (Petroleum Est)	mg/l	mg/l	mg/l	%		%	
OS at 25C	40.0	40.0	41.4	100	1	78.0-114	

Sc Al Cl S Cr

WG1950268

QUALITY CONTROL SUMMARY

L1551814-01

Wet Chemistry by Method 300.0

Method Blank (MB)

MB Result	MB W/L	MB ROL
mg/l	mg/l	mg/l
Acetate	0.086	0.500
Fluoride	0.207	0.500
Nitrate	0.393	0.700
Sum #		

Laboratory Control Sample (LCS)

Spike Amount	LCS Result	LCS Rec	Rec Limit	LCS Quality
mg/l	mg/l	%	mg/l	
Acetate	5.00	110	90.0-130	
Fluoride	5.00	425	90.0-130	
Nitrate	5.00	97.0	90.0-130	
Sum #	5.00	101	90.0-130	

L1550922-01 Original Sample (OS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

Spike Amount	Original Result	MS Result	MSD Result	MSD Rec	MSD Rec Limit	MSD Quality
mg/l	mg/l	mg/l	mg/l	%	mg/l	
Acetate	5.00	ND	5.26	5.26	90.0-130	
Fluoride	5.00	ND	5.15	5.15	90.0-130	
Nitrate	5.00	ND	5.15	5.15	90.0-130	

Li	Be	B	C	N	O	F	Ne	Na	Mg	Al	Si	P	S	Cl	Ar	K	Ca	Sc
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WG1956087

QUALITY CONTROL SUMMARY

L1551814-01

Wet Chemistry by Method 300.0

Method Blank (MB)

MB Result	MB W/L	MB ROL
mg/l	mg/l	mg/l
Acetate	0.054	0.800
Chloride		

Laboratory Control Sample (LCS)

Spike Amount	LCS Result	LCS Rec	Rec Limit	LCS Quality
mg/l	mg/l	%	mg/l	
Acetate	5.00	4.94	90.0-130	
Chloride				

L1551814-01 Original Sample (OS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

Spike Amount	Original Result	MS Result	MSD Result	MSD Rec	MSD Rec Limit	MSD Quality
mg/l	mg/l	mg/l	mg/l	%	mg/l	
Acetate	5.00	ND	5.00	5.00	90.0-130	
Chloride	5.00	ND	5.00	5.00	90.0-130	

Li	Be	B	C	N	O	F	Ne	Na	Mg	Al	Si	P	S	Cl	Ar	K	Ca	Sc
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WG1952229 QUALITY CONTROL SUMMARY

Wet Chemistry by Method 350C1-B

LIBS0002

Method Blank (MS)

Analyte	WE Result	MS Result	MS UCL	MS LCL
Carbon Monoxide	U	0.0000	0.0000	0.0000

Laboratory Control Sample (LCS)

Analyte	Spk Amount	LCS Result	LCS Rec
Carbon Monoxide	0.200	0.19	106

LIBS0554-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

Analyte	Spk Amount	Original Result	MS Result	MS Rec	MSD Result	MSD Rec	Dilution	Rec Limit	MS Duplicate	MSD Duplicate	RPD	RPD Limit
Carbon Monoxide	0.200	NO	0.206	0.212	104	106	1	105.000	2.65	2.65	10	10

LIBS0002-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

Analyte	Spk Amount	Original Result	MS Result	MS Rec	MSD Result	MSD Rec	Dilution	Rec Limit	MS Duplicate	MSD Duplicate	RPD	RPD Limit
Carbon Monoxide	0.200	NO	0.190	101	102	106	1	105.000	2.75	2.75	10	10

ACCOUNT	RECEIPT	SCO	DATE/TIME	IMAGE

WG1954132 QUALITY CONTROL SUMMARY

Wet Chemistry by Method 351.2

LIBS0002

Method Blank (MS)

Analyte	WE Result	MS Result	MS UCL	MS LCL
Hydrogen Peroxide	U	0.000	0.000	0.000

LIBS0002-02 Original Sample (OS) • Duplicate (DUP)

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Duplicate	DUP RPD
Hydrogen Peroxide	NO	NO	1	0.000	20	20

LIBS0002-03 Original Sample (OS) • Duplicate (DUP)

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Duplicate	DUP RPD
Hydrogen Peroxide	NO	NO	1	200	20	20

Laboratory Control Sample (LCS)

Analyte	Spk Amount	LCS Result	LCS Rec	Rec Limit	LCS Duplicate
Hydrogen Peroxide	0.7	0.71	99.3	75.000	

LIBS0002-03 Original Sample (OS) • Matrix Spike (MS)

Analyte	Spk Amount	Original Result	MS Result	MS Rec	Dilution	Rec Limit	MS Duplicate
Hydrogen Peroxide	5.00	NO	5.17	100	1	100.000	

LIBS0002-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

Analyte	Spk Amount	Original Result	MS Result	MS Rec	Dilution	Rec Limit	MS Duplicate
Hydrogen Peroxide	5.00	NO	5.16	100	1	100.000	

ACCOUNT	RECEIPT	SCO	DATE/TIME	IMAGE

WG1953149
Wet Chemistry by Method 4500CI B-2011

QUALITY CONTROL SUMMARY

L1551B1-42

Method Blank (MB)

MB Result	MB Qualifier	MB MDL	MB RSL
mg/l	mg/l	mg/l	mg/l
Ascorbic			
Chloromethanol	0.0210	0.050	

L155473-01 Original Sample (CS) - Duplicate (DUP)

Original Result	DUP Result	Outcom	DUP RPS	DUP PPD
mg/l	mg/l	%		Limit
Ascorbic		1	4.22	
Chloromethanol				

Laboratory Control Sample (LCS)

LCS Result	LCS Rec	Rec Limit	LCS Qualifier
mg/l	%		
Ascorbic			
Chloromethanol	112	85.0-85	

Sc

Al

Si

Ca

Gf

ASSOCIATE
Gina Jay B. Devarieux

PROJECT
PRLA037

SDG
1551B1-42

DATE/TIME
10/22/15 9:47

ANALYST
10/22/15

WG1956592
Wet Chemistry by Method 4500CN E

QUALITY CONTROL SUMMARY

L1551B1-42

Method Blank (MB)

MB Result	MB Qualifier	MB MDL	MB RSL
mg/l	mg/l	mg/l	mg/l
Ascorbic			
Chloride	0.0000	0.0000	0.0000

Laboratory Control Sample (LCS)

Spike Amount	LCS Result	LCS Rec	Rec Limit	LCS Qualifier
mg/l	mg/l	%	%	
Ascorbic	0.000	0.9977	97.7	85.0-85
Chloride				

L1551B1-02 Original Sample (CS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

MSD Result	MS Rec	MSD Rec	Duplicate	Rec Limit	MS Qualifier	MSD Qualifier	PPD	PPD Limit
mg/l	%	mg/l	%	%			%	%
Ascorbic							155	20
Chloride	0.000	0.9977	97.7	85.0-85				

L155447-01 Original Sample (CS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

MSD Result	MS Rec	MSD Rec	Duplicate	Rec Limit	MS Qualifier	MSD Qualifier	PPD	PPD Limit
mg/l	%	mg/l	%	%			%	%
Ascorbic							0.927	20
Chloride	0.000	0.9977	97.7	85.0-85				

ASSOCIATE
Gina Jay B. Devarieux

PROJECT
PRLA037

SDG
1551B1-42

DATE/TIME
10/22/15 9:47

ANALYST
10/22/15

WG1957019

Wet Chemistry by Mohan 45000-3

QUALITY CONTROL SUMMARY

$$\begin{array}{r} 176578 \\ \times 0 \\ \hline \end{array}$$

Method Blank (MB)

Analyte	MB Result	MS Quantity	ME MDL	MB RDL
Picograms/Total	ng/l	ng/l	ng/l	ng/l
U		0.052		0.0560

[LCS] R03059733-2 11/0/22 17.32	
	US gallon
Spale Amount	LCS Result
mg/l	%
0.500	96.2
Recl Limits	
00.0/20	

Analysis	Sample	Original	M5 result	M50 result	M45 result	Shimadzu	Final result	M50 duplicate	M45 duplicate	PPM error
Concentration (ppm)	mg/l	mg/l	mg/l	mg/l	mg/l	%	%	%	%	%
0.500	0.37	0.207	0.207	0.207	0.207	1	99.950	0.950	0.950	25

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WG1952279

with companies or within states

QUALITY CONTROL SUMMARY

L1551010-01

MS Result	MS Coulter	MS MOL	MS ROL
mg/l		mg/l	mg/l
U		U	U
		35.0	35.0

Analyte	Spike Amount	LC5 Result	LC5 Recd	Rec. Limit	LC5 Quality
	mg/l	mg/l	%	%	
COD	500	508	102	100-120	

L1550427-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

Analysis	Sample Amount	Original Result	MS Result	MSD Result	MS Rec	MSD Rec	Calculated	Reference	MS Qualifier	MSD Qualifier	Pass
CEC	500	70.3	573	535	101	93.6		20.0 to 20		5.34	20

U153103-01 Original Sample (C5, • Matrix Spike (MS), • Matrix Spike Duplicate (MSD)

Alkene	Age (yr)	Age (yr)	MSD Result	MS Rec	MSD Rec	Outcome	Site Length	MSD Quality	MSD Quality	MSD	MSD Length
COD	506	517	542	105	97.9	1	300-125	1	1	1	1

Sc Al Ga Sn Cs Ge

WG19S55435

Wet Chemistry by Method 5310C

QUALITY CONTROL SUMMARY

LABORATORY

Method Blank (MB)

Analyte	MB Result	MB MDL	MB PQL
TOC (Total Organic Carbon)	U	0.230	0.100

Laboratory Control Sample (LCS)

Analyte	Spike Amount	LCS Result	LCS Rec	Rec Limit	LCS Duplicate
TOC (Total Organic Carbon)	10.0	10.2	10.2	90.0-90.0	

L1548373-Q1 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

Analyte	Spike Amount	OS Result	MS Result	MSD Result	MSD Rec	Rec Limit	MS Duplicate	MSD Duplicate	RPO	RPO Limit
TOC (Total Organic Carbon)	10.0	5.90	15.4	15.2	25.4	21.1	1	20.0-20.0	1.50	2.0

L1548373-Q2 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

Analyte	Spike Amount	OS Result	MS Result	MSD Result	MSD Rec	Rec Limit	MS Duplicate	MSD Duplicate	RPO	RPO Limit
TOC (Total Organic Carbon)	10.0	6.27	14.4	14.6	24.6	21.7	1	20.0-20.0	1.44	2.0

ACCOUNT: Sewerage Department
INVOICE: 155019
DATE/TIME: 10/20/22 10:51
FACILITY: 155019

WG19S50275

Wet Chemistry by Method 5140D-H1B

QUALITY CONTROL SUMMARY

LABORATORY

L155019-Q1 Original Sample (OS) • Duplicate (DUP)

Analyte	Original Result	DUP Result	DUP Rec	DUP RPO	DUP Duplicate	DUP PQL
pH	7.47	7.47	7.47	0.24	0.24	0.24

Sample Temperature: 15.4°C

Analyte	Original Result	DUP Result	DUP Rec	DUP RPO	DUP Duplicate	DUP PQL
pH	7.77	7.78	7.77	0.27	0.27	0.27

L155019-Q2 Original Sample (OS) • Duplicate (DUP)

Analyte	Original Result	DUP Result	DUP Rec	DUP RPO	DUP Duplicate	DUP PQL
pH	7.77	7.78	7.77	0.27	0.27	0.27

Laboratory Control Sample (LCS)

Analyte	Spike Amount	LCS Result	LCS Rec	Rec Limit	LCS Duplicate
pH	6.00	5.99	5.99	59.0-59.0	

ACCOUNT: Sewerage Department
INVOICE: 155019
DATE/TIME: 10/20/22 10:51
FACILITY: 155019

WG1950526

Met Chemistry by Method SM4500NH3N

QUALITY CONTROL SUMMARY

LABORATORY

Method Blank (MS)

Acetylene	mg/L	MS Result	MS MDL	MS RPL
Azomethane Nitrogen	U	0.0380	0.0380	0.00

Laboratory Control Sample (ICS)

ICS193544822	10/20/22 14:27	Spiked Amount	ICS Result	ICS Rec	Rec. Units	ICS Qualifier
Acetylene	mg/L	5.00	5.22	10.1	22.0-25.0	
Azomethane Nitrogen	mg/L	5.00	5.22	10.1	22.0-25.0	

L1550401-04 Original Sample (OS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

ICS19354404-04	10/20/22 14:35	MS Spiked Amount	MS Result	MS Rec	MSD Result	MSD Rec	Dilution	Rec. Units	MS Qualifier	MSD Qualifier	RPD	%	RPD Units
Acetylene	mg/L	5.00	5.23	5.21	10.1	10.2	1	20.0-25.0			0.293		20
Azomethane Nitrogen	mg/L	5.00	5.23	5.21	10.1	10.2	1	20.0-25.0			0.293		20

L1550518-02 Original Sample (OS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

ICS19350505-02	10/20/22 14:35	MS Spiked Amount	MS Result	MS Rec	MSD Result	MSD Rec	Dilution	Rec. Units	MS Qualifier	MSD Qualifier	RPD	%	RPD Units
Acetylene	mg/L	5.00	5.55	5.50	5.57	10.2	1	20.0-25.0			0.179		20
Azomethane Nitrogen	mg/L	5.00	5.55	5.50	5.57	10.2	1	20.0-25.0			0.179		20

C
Tc
SS
Cn
Sr
Al
Sc

WG1949892

Met Chemistry by Method SM5210B

QUALITY CONTROL SUMMARY

LABORATORY

Method Blank (MS)

MS193544822	10/20/22 14:35	MS Result	MS MDL	MS RPL
Acetylene	mg/L	0.1200	0.1200	0.200
CEC	U	0.1200	0.1200	0.200

L1550456-01 Original Sample (OS) - Duplicate (DUP)

ICS193544822	10/20/22 14:35	DUP Result	DUP Rec	DUP RPD	DUP Qualifier	DUP RPD
Acetylene	mg/L	1.00	1.00	0		20
CEC	U	1.00	1.00	0		20

L1550563-01 Original Sample (OS) - Duplicate (DUP)

ICS19350505-01	10/20/22 14:35	DUP Result	DUP Rec	DUP RPD	DUP Qualifier	DUP RPD
Acetylene	mg/L	1.00	1.00	0		20
CEC	U	1.00	1.00	0		20

Laboratory Control Sample (ICS)

ICS193544822	10/20/22 14:35	Spiked Amount	ICS Result	ICS Rec	Rec. Units	ICS Qualifier
Acetylene	mg/L	5.00	5.22	10.1	22.0-25.0	
Azomethane Nitrogen	mg/L	5.00	5.22	10.1	22.0-25.0	

C
Tc
SS
Cn
Sr
Al
Sc

ACCOUNT
Brynck & Brynck

PROJECT

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DATE/TIME
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10/20/22

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10/20/22

WG1950227

Wet Chemistry by Method S4510B

QUALITY CONTROL SUMMARY

L15501B-01

Method Blank (MB)

(N3) R235564-1 11/07/22 15:55

Analyte	MB Result	MB Qualifier	MB MOL	MB PQL
B20	U		0.200	0.200

L1550915-01 Original Sample (OS) - Duplicate (DUP)

(O3) L1550915-01 11/07/22 16:26 - (DUP) R235564-3 11/07/22 16:22

Analyte	Original Result	DUP Result	DUP P90	DUP Qualifier	DUP P90
B20	237	26	1	5.99	20

Laboratory Control Sample (LCS)

(LCS) R235564-2 11/07/22 16:50

Analyte	Spiked Amount	LCS Result	LCS Rec	Rec Limit	LCS Qualifier
B20	58	83	97.6	95.95	

Ca, Tc, Sr, Cn, Al, Sc

ANALYST
Brian A. Gorenbaum

PROJECT

SOS

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11/22/22 11:07ISSUED
11/22/22

WG1957463

Mercury by Method 245.1

QUALITY CONTROL SUMMARY

L15501B-02

Method Blank (MB)

(MB) R3055983-4 11/07/22 16:49

Analyte	MB Result	MB Qualifier	MB MOL	MB PQL
Mercury	0.000030		0.0000060	0.0002100

Laboratory Control Sample (LCS)

(LCS) R3055983-2 11/07/22 16:51

Analyte	Spiked Amount	LCS Result	LCS Rec	Rec Limit	LCS Qualifier
Mercury	0.00250	0.00228	90.4	85.0-95	

L1554984-01 Original Sample (OS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

(O3) L1554984-01 11/07/22 16:53 - (MS) R3055983-5 11/07/22 16:54 - (MSD) R3055983-4 11/07/22 16:53

Analyte	Spiked Amount	Original Result	MS Result	MSD Result	MS Rec	MSD Rec	Dilution	Rec Limit	MS Qualifier	MSD Qualifier	P90	P90 Limit
Mercury	0.00250	0.00222	0.00232	0.00251	90.1	91.3	1	70.0-90			120	20

L1554984-02 Original Sample (OS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

(O3) L1554984-02 11/07/22 16:50 - (MS) R3055983-5 11/07/22 16:52 - (MSD) R3055983-4 11/07/22 16:53

Analyte	Spiked Amount	Original Result	MS Result	MSD Result	MS Rec	MSD Rec	Dilution	Rec Limit	MS Qualifier	MSD Qualifier	P90	P90 Limit
Mercury	0.00250	ND	0.00234	0.00235	90.4	90.2	1	70.0-90			219	20

Ca, Tc, Sr, Cn, Al, Sc

ANALYST
Brian A. Gorenbaum

PROJECT

SOS

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11/22/22 17:21MAILED
11/22/22

WG1950455

Method (ICP) by Method 200.7

Method Blank (MS)

QUALITY CONTROL SUMMARY

11551018.02

Analyte	MS Result	MS Duplicates	MS MDL	MS DIL
Aluminum	10.0	0.0033	0.0033	0.0033
Antimony	100	0.0044	0.0044	0.0044
Arsenic	100	0.0046	0.0046	0.0046
Bismuth	100	0.00069	0.00069	0.00069
Boron	100	0.00080	0.00080	0.00080
Cadmium	100	0.00035	0.00035	0.00035
Cerium	100	0.00070	0.00070	0.00070
Copper	100	0.00164	0.00164	0.00164
Lead	100	0.0012	0.0012	0.0012
Mercury	100	0.00030	0.00030	0.00030
Selenium	100	0.00090	0.00090	0.00090
Silver	100	0.00096	0.00096	0.00096
Thallium	100	0.00075	0.00075	0.00075
Zinc	100	0.0008	0.0008	0.0008

Laboratory Control Sample (LCS)

ICSLR395810-2 110122 19.57

Analyte	Spiked Amount	LCS Result	Rec. Limit	LCS Quality
Aluminum	10.0	9.99	85.0-115	100
Antimony	100	97.8	85.0-115	100
Arsenic	100	99.2	85.0-115	100
Bismuth	100	99.2	85.0-115	100
Boron	100	99.2	85.0-115	100
Cadmium	100	99.2	85.0-115	100
Cerium	100	99.2	85.0-115	100
Copper	100	99.2	85.0-115	100
Lead	100	99.2	85.0-115	100
Mercury	100	99.2	85.0-115	100
Selenium	100	99.2	85.0-115	100
Silver	100	99.2	85.0-115	100
Thallium	100	99.2	85.0-115	100
Zinc	100	99.2	85.0-115	100

WG1950455

Method (ICP) by Method 200.7

11551018.02

QUALITY CONTROL SUMMARY

11551018.02

Analyte	Spiked Amount	ICP Result	Rec. Limit	ICP Quality
Aluminum	10.0	9.99	85.0-115	100
Antimony	100	97.8	85.0-115	100
Arsenic	100	99.2	85.0-115	100
Bismuth	100	99.2	85.0-115	100
Boron	100	99.2	85.0-115	100
Cadmium	100	99.2	85.0-115	100
Cerium	100	99.2	85.0-115	100
Copper	100	99.2	85.0-115	100
Lead	100	99.2	85.0-115	100
Mercury	100	99.2	85.0-115	100
Selenium	100	99.2	85.0-115	100
Silver	100	99.2	85.0-115	100
Thallium	100	99.2	85.0-115	100
Zinc	100	99.2	85.0-115	100

Laboratory Control Sample (LCS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

ICSLR395810-2 110122 19.57

Analyte	Spiked Amount	LCS Result	MS Result	MSD Result	MS Quality	MSD Quality
Aluminum	10.0	9.99	9.99	9.99	100	100
Antimony	100	97.8	97.8	97.8	100	100
Arsenic	100	99.2	99.2	99.2	100	100
Bismuth	100	99.2	99.2	99.2	100	100
Boron	100	99.2	99.2	99.2	100	100
Cadmium	100	99.2	99.2	99.2	100	100
Cerium	100	99.2	99.2	99.2	100	100
Copper	100	99.2	99.2	99.2	100	100
Lead	100	99.2	99.2	99.2	100	100
Mercury	100	99.2	99.2	99.2	100	100
Selenium	100	99.2	99.2	99.2	100	100
Silver	100	99.2	99.2	99.2	100	100
Thallium	100	99.2	99.2	99.2	100	100
Zinc	100	99.2	99.2	99.2	100	100

W61953409

QUALITY CONTROL SUMMARY

1355181.C1

Method Blank (MSB)

Analyte	MS Result	MS QCL	MS RL
Arsenic	U	0.0098	1.00
Calcium Dissolved	U	0.0334	1.00
Uapexium Dissolved	U	0.172	1.00
Sodium Dissolved	U		

Laboratory Control Sample (LCS)

Analyte	Spike Amount	LCS Result	LCS Rec	Rec. Limits	LCS Qualifier
Arsenic	mg/L	mg/L	%	%	
Calcium Dissolved	10.0	10.4	104	95.0-105	
Uapexium Dissolved	10.0	10.1	101	95.0-105	
Sodium Dissolved	10.0	10.2	102	95.0-105	

1355181.C1 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

Analyte	Spiked Amount	OS Result	MS Result	MSD Result	MS Rec	MSD Rec	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	SPD	SPD Limits
Arsenic	mg/L	mg/L	mg/L	mg/L	%	%		%			%	
Calcium Dissolved	10.0	10.3	10.3	10.3	99.0	99.0	1	70.0-130			100	
Uapexium Dissolved	10.0	10.3	10.3	10.3	99.0	99.0	1	70.0-130			100	

1355181.C1 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

Analyte	Spiked Amount	OS Result	MS Result	MSD Result	MS Rec	MSD Rec	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	SPD	SPD Limits
Arsenic	mg/L	mg/L	mg/L	mg/L	%	%		%			%	
Calcium Dissolved	10.0	10.3	10.3	10.3	99.0	99.0	1	70.0-130			100	
Uapexium Dissolved	10.0	10.3	10.3	10.3	99.0	99.0	1	70.0-130			100	

ASSIGNED
EVALUATION

PROJECT

SYS

DATE/TIME

USER

W61953998

QUALITY CONTROL SUMMARY

1355181.C1

Method Blank (MSB)

Analyte	MS Result	MS QCL	MS RL
Arsenic	U	0.0098	1.00
Calcium Dissolved	U	0.0334	1.00
Uapexium Dissolved	U	0.172	1.00
Sodium Dissolved	U		

Laboratory Control Sample (LCS)

Analyte	Spike Amount	LCS Result	LCS Rec	Rec. Limits	LCS Qualifier
Arsenic	mg/L	mg/L	%	%	
Calcium Dissolved	10.0	10.7	107	95.0-105	
Uapexium Dissolved	10.0	10.2	102	95.0-105	
Sodium Dissolved	10.0	10.3	103	95.0-105	

1355181.C1 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

Analyte	Spiked Amount	OS Result	MS Result	MSD Result	MS Rec	MSD Rec	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	SPD	SPD Limits
Arsenic	mg/L	mg/L	mg/L	mg/L	%	%		%			%	
Calcium Dissolved	10.0	10.3	10.3	10.3	99.0	99.0	1	70.0-130			100	
Uapexium Dissolved	10.0	10.3	10.3	10.3	99.0	99.0	1	70.0-130			100	

1355181.C1 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

Analyte	Spiked Amount	OS Result	MS Result	MSD Result	MS Rec	MSD Rec	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	SPD	SPD Limits
Arsenic	mg/L	mg/L	mg/L	mg/L	%	%		%			%	
Calcium Dissolved	10.0	10.3	10.3	10.3	99.0	99.0	1	70.0-130			100	
Uapexium Dissolved	10.0	10.3	10.3	10.3	99.0	99.0	1	70.0-130			100	

ASSIGNED
EVALUATION

PROJECT

SYS

DATE/TIME

USER

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions, please contact your project representative. Results Discussion - Information that may be provided by the customer, and continued with this report, include: Permit Limits, Project Name, Sample ID, Sample Matrix Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of the information provided, and to the sample, not received.

Abbreviations and Definitions

MDL	Method Detection Limit
ND	Not detected at the Reporting Limit for MDL where applicable
RDL	Reported Detection Limit
Rec	Recovery
RPD	Relative Percent Difference
SDG	Sample Delivery Group
U	Not detected at the Reporting Limit for MDL where applicable
Analyte	The name of the particular compound or analyte performed. Some Analytes and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target recovery ranges or % difference values that the Laboratory has historically determined as normal for the analyte. Results may be reported successfully outside these ranges. All sample analyses will report all analytes recovered or detected within the target recovery ranges or % difference values.
Original Sample	The non-diluted sample in the vial used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter qualifier number that appears next to each sample to indicate a reference regarding the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page, and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical result returned for any sample, with the detection limit reported for your sample. If there is no measurement result returned for a specific analyte, the result in this column may state "MDL Not Detected" or "BDL" (Below Detection Limit). The information in this column about analytes is recommended by the Laboratory for MDL or BDL reporting. The Reporting Detection Limit field defines the lowest limit that the Laboratory could detect or report for the sample.
Uncertainty (Coefficient %)	Confidence level of 2 sigma
Case Narrative (CN)	A brief discussion about the included sample results, including a discussion of any non-conformances to project observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in this Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (QCS)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Simple Chain of Custody (SCC)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analysis that the laboratory is requested to perform. This document is used to ensure the integrity of the samples and the results of the analysis. The Laboratory will include the Simple Chain of Custody with the report of results and the Laboratory for analysis. The Laboratory will include the Simple Chain of Custody with the report of results and the Laboratory for analysis.
Sample Results (SR)	This section of your report will provide the results of all testing performed on each sample. These results are listed by sample ID and are supported by the analytes performed on each sample. The header line of each analytical section for each sample will provide the name and method number for the analyte requested.
Sample Summary (SS)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.



ACCREDITATIONS & LOCATIONS

Price Analytical Services, LLC - Dallas 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40860	Nebraska	NE-05-15-05
Alaska	71-026	Nevada	TM00002027-1
Arizona	AZ002	New Hampshire	2975
Arkansas	AR-0469	New Jersey-NEJAP	TM002
California	2932	New Mexico	TM00003
Canada	TM00003	New York	NY12
Connecticut	PH-0397	North Carolina	EW-315
Florida	ED-467	North Carolina	DM2704
Georgia	NEJAP	North Carolina	41
Idaho	932	North Dakota	8-140
Illinois	TM00003	Ohio-APP	CL0689
Indiana	20000C	Oklahoma	9915
Iowa	CIN-01	Oregon	TM00002
Kansas	344	Pennsylvania	68-0279
Kentucky	E-10277	Rhode Island	68-0279
Kentucky	KY-0000	South Dakota	LA000356
Louisiana	LA002	South Dakota	84004002
Louisiana	LA002	Texas	2006
Maine	ME-0000	Texas	TM00002021-1
Maryland	MD-0000	Utah	LA00152
Massachusetts	MA-0000	Vermont	VT2006
Michigan	MI-0000	Virginia	190033
Minnesota	MIN-0003	Washington	CA07
Mississippi	MS-0000	West Virginia	223
Missouri	340	Wisconsin	99003910
Montana	GM00006	Wyoming	WY01
N.J.A. - ED 7005	146101	Arizona-APP LLC-BALP	146101
N.J.A. - ED 7005	146101	DDO	146101
Canada	146101	USA	146101
BA-Crypto	TM00003		146101



Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable, the reported value is an estimate.
J6	The sample matrix interfered with the ability to make any accurate determination, spike value is high.
K2	The sample matrix interfered with the ability to make any accurate determination, spike value is low.
K9	The sample dilution was not used for the BOD/COD analysis, did not meet the criteria of a residual dissolved oxygen of at least 1 mg/L. Reported result is an estimated value.
K9	Test replicates show more than 30% difference between high and low values.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
T8	Sample(s) received past due to holding time expiration.
V	The sample concentration is too high to evaluate accurate spike recovery.

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the collection range of the instrument (established by the manufacturer).
J	The identification of the analyte is acceptable; the reported value is an estimate.
U5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
U6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
K2	The sample solutions set up for the BOD/CBOD analysis did not meet the criteria of a residual dissolved oxygen of at least 1 mg/L. Replicated result is an estimated value.
N9	Test replicates show more than 30% difference between high and low values.
U3	RPD values: not applicable for sample concentrations less than 5 times the reporting limit.
U3	Sample(s) received previous close to holding time expiration.
	The sample concentration is too high to evaluate accurately; spike recovery.

ACCOUNT	PROJECT	SDG	DATETIME
Environ-Ang Engineering	LUS5008	W22223 12 21	

Price Analytical Services, LLC - Dallas 2657 Gravel Dr Ft Worth, TX 76118

Alabama	71-026	Nebraska	NE-05-15-05
Alaska	71-026	Nevada	TM00002027-1
Arizona	AZ002	New Hampshire	2975
Arkansas	AR-0469	New Jersey-NEJAP	TM002
California	2932	New Mexico	TM00003
Canada	TM00003	New York	NY12
Connecticut	PH-0397	North Carolina	EW-315
Florida	ED-467	North Carolina	DM2704
Georgia	NEJAP	North Carolina	41
Idaho	932	North Dakota	8-140
Illinois	TM00003	Ohio-APP	CL0689
Indiana	20000C	Oklahoma	9915
Iowa	CIN-01	Oregon	TM00002
Kansas	344	Pennsylvania	68-0279
Kentucky	E-10277	Rhode Island	68-0279
Kentucky	KY-0000	South Dakota	LA000356
Louisiana	LA002	South Dakota	84004002
Louisiana	LA002	Texas	2006
Maine	ME-0000	Texas	TM00002021-1
Maryland	MD-0000	Utah	LA00152
Massachusetts	MA-0000	Vermont	VT2006
Michigan	MI-0000	Virginia	190033
Minnesota	MIN-0003	Washington	CA07
Mississippi	MS-0000	West Virginia	223
Missouri	340	Wisconsin	99003910
Montana	GM00006	Wyoming	WY01
N.J.A. - ED 7005	146101	Arizona-APP LLC-BALP	146101
N.J.A. - ED 7005	146101	DDO	146101
Canada	146101	USA	146101
BA-Crypto	TM00003		146101

Driving Water: 1 Underground Sample Table 2 Aquatic Toxicity 3 Chemical/Microbiological 4 Mold 5 Wastewater: no Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Price Analytical

Price Analytical Services, LLC - Dallas 400 W Beltway Drive Suite 190 Allen, TX 75013

Alabama	71-026	Nebraska	NE-05-15-05
Alaska	71-026	Nevada	TM00002027-1
Arizona	AZ002	New Hampshire	2975
Arkansas	AR-0469	New Jersey-NEJAP	TM002
California	2932	New Mexico	TM00003
Canada	TM00003	New York	NY12
Connecticut	PH-0397	North Carolina	EW-315
Florida	ED-467	North Carolina	DM2704
Georgia	NEJAP	North Carolina	41
Idaho	932	North Dakota	8-140
Illinois	TM00003	Ohio-APP	CL0689
Indiana	20000C	Oklahoma	9915
Iowa	CIN-01	Oregon	TM00002
Kansas	344	Pennsylvania	68-0279
Kentucky	E-10277	Rhode Island	68-0279
Kentucky	KY-0000	South Dakota	LA000356
Louisiana	LA002	South Dakota	84004002
Louisiana	LA002	Texas	2006
Maine	ME-0000	Texas	TM00002021-1
Maryland	MD-0000	Utah	LA00152
Massachusetts	MA-0000	Vermont	VT2006
Michigan	MI-0000	Virginia	190033
Minnesota	MIN-0003	Washington	CA07
Mississippi	MS-0000	West Virginia	223
Missouri	340	Wisconsin	99003910
Montana	GM00006	Wyoming	WY01
N.J.A. - ED 7005	146101	Arizona-APP LLC-BALP	146101
N.J.A. - ED 7005	146101	DDO	146101
Canada	146101	USA	146101
BA-Crypto	TM00003		146101

ACCOUNT	PROJECT	SDG	DATETIME
Environ-Ang Engineering		LUS5008	W/22/22 12 21

Envirol-Ag Engineering
3104 Alamy Blvd
Aurora, TX 77013

Project: 254-MS-3500

Client: 254-MS-3500

Sample ID: 254-MS-3500

Analysis: 254-MS-3500

Method: 254-MS-3500

Results: 254-MS-3500

Comments: 254-MS-3500

Signature: 254-MS-3500

Date: 254-MS-3500

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Envirol-Ag Engineering
3104 Alamy Blvd
Aurora, TX 77013

Project: 254-MS-3500

Client: 254-MS-3500

Sample ID: 254-MS-3500

Analysis: 254-MS-3500

Method: 254-MS-3500

Results: 254-MS-3500

Comments: 254-MS-3500

Signature: 254-MS-3500

Date: 254-MS-3500

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Log In Person: <u>JW</u>	Date: <u>10/27/22</u>
Sufficient Volume received	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Correct Container used	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Container Intact	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Sample pH Acceptable pH Strips: <u>1011005</u>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
Residual Chlorine Present Cl Strips: <u>14560</u>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA <input type="checkbox"/>
Sulfide Present Lead Acetate Strips: <u>148102</u>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA <input type="checkbox"/>
Are soil samples (volatiles, TPH) received in 5035A Kits (not applicable to TCLP VOA or PST Program TPH)	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
Unpreserved 5035A soil frozen within 48 hrs	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA <input type="checkbox"/>
Headspace in VOA (minim)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA <input type="checkbox"/>
Project sampled in USDA Regulated Area outside of Texas	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
State Sampled: _____	
Non-Conformance(s): _____	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Labeling Person (if different than log in)	Date: _____

0311

Enviroway Engineering
3404 Avenue 100E
Austin, TX 78718
Phone: 214-461-3001

Project Name: San Antonio River
Client: San Antonio River Authority
Project Number: 214-461-3001

Sample Location: San Antonio River
Sample Date: 10/27/12
Sample Time: 10:00 AM
Sample Depth: 10-15 ft
Sample Volume: 1000 mL

Sample Description: Water
Sample Type: Water
Sample Container: 1000 mL
Sample Label: 10/27/12

Sample Analysis:
☒ CHLORR 500mHDPE-NuPlex
☒ Dissolved Cu, Ag, Ni 250mHDPE-NuPlex
☒ FTWC Microbiological
☒ TKN 250mHDPE-NuPlex
☒ Total Metals 250mHDPE-NuPlex
☒ WetChem 500mHDPE-NuPlex

Sample Analysis Results:
CHLORR 500mHDPE-NuPlex: 10/27/12
Dissolved Cu, Ag, Ni 250mHDPE-NuPlex: 10/27/12
FTWC Microbiological: 10/27/12
TKN 250mHDPE-NuPlex: 10/27/12
Total Metals 250mHDPE-NuPlex: 10/27/12
WetChem 500mHDPE-NuPlex: 10/27/12

Sample Analysis Date: 10/27/12
Sample Analysis Time: 10:00 AM
Sample Analysis Location: San Antonio River
Sample Analysis Volume: 1000 mL

Sample Analysis Results:
CHLORR 500mHDPE-NuPlex: 10/27/12
Dissolved Cu, Ag, Ni 250mHDPE-NuPlex: 10/27/12
FTWC Microbiological: 10/27/12
TKN 250mHDPE-NuPlex: 10/27/12
Total Metals 250mHDPE-NuPlex: 10/27/12
WetChem 500mHDPE-NuPlex: 10/27/12

Document Name: Sample Condition Upon Receipt
Document No: FDBL C-001 rev 14
Document Revision: 10/27/12
Page 1 of 1
Issuing Authority: Pace Dallas Quality Office

Sample Condition Upon Receipt
☐ Dallas ☐ Ft Worth ☐ Corpus Christi ☐ Austin

Client Name: Enviroway Engineering **Project Work order (place label):** L1551018
Counter: 10/27/12 **Other:** 10/27/12

Tracking:
Received on ice: Yes **Blue:** Yes
Received Lab 1 Thermometer Used: Yes **Cooler Temp °C:** 10 **(Refrigerator):** 10 **(Cooling Factor):** 10 **(Actual):** 10
Received Lab 2 Thermometer Used: Yes **Cooler Temp °C:** 10 **(Refrigerator):** 10 **(Cooling Factor):** 10 **(Actual):** 10

Temperature should be above freezing: Yes **Notes:** none

Triage Person: CL **Date:** 10/27/12

Chain of Custody relinquished: Yes **Yes/No:** Yes
Sampler name & signature on COC: Yes **Yes/No:** Yes
Short HPL analyses (V22 file): Yes **Yes/No:** Yes

Log Person: JW **Date:** 10/27/12

Sufficient Volume received: Yes **Yes/No:** Yes
Correct Container used: Yes **Yes/No:** Yes
Container intact: Yes **Yes/No:** Yes
Sample pH Acceptable: Yes **Yes/No/NA:** Yes
Residual Chlorine Present: Yes **Yes/No/NA:** Yes
Sulfide Present: Yes **Yes/No/NA:** Yes
Lead Acetate Strips: Yes **Yes/No/NA:** Yes
Are soil samples (volatiles, TPH) received in SO3BA Rins (not applicable to TCLP VOA or PST Program TPH): Yes **Yes/No/NA:** Yes
Unreserved SO3BA soil frozen within 48 hrs: Yes **Yes/No/NA:** Yes
Headspace in VOA (60mm): Yes **Yes/No/NA:** Yes
Project sampled in USDA Regulated Area outside of Texas: Yes **Yes/No/NA:** Yes
State sampled: Yes **Yes/No/NA:** Yes
APC Conformance(s): Yes **Yes/No/NA:** Yes

Labeling Person (if different than log in): CL **Date:** 10/27/12



ANALYTICAL REPORT

November 28, 2022

Enviro-Ag Engineering

Sample Delivery Group: L1553075

Samples Received: 11/02/2022

Project Number:

Description:

Report To: Jou dan Mullin

3404 Allway Blvd

Amarillo, TX 79118

Entire Report Reviewed By:

Reegan Johnson

Reegan Johnson
Project Manager

Pace Analytical only is the entity tested for, collected, and are associated to, these test results. The test report shall not be reproduced, stored in, or used without written consent of the laboratory. Where applicable, sampling conducted by Pace Analytical National, Inc. (PANI) is performed per guidance provided in laboratory sub-card and/or procedures. PANI-0065 and PANI-0066, dated 12-08-2018, govern sampling procedures by the customer. Results relate to the accuracy of the information provided, and all test samples are not included.

Pace Analytical National

12065 Lebanon Rd. Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

ACCOUNT:

PROJECT:

SDG:

DATE/TIME:

PAGE:

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Cn	Case Narrative
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Sc	SCHREIBER SAMPLE 2 L1553075-02
Qc	Quality Control Summary
Microbiology	Microbiology by Method 9222D
Gravimetric	Gravimetric Analysis by Method 2540C
Gravimetric	Gravimetric Analysis by Method 2540D
Wet Chemistry	Wet Chemistry by Method 120.1
Wet Chemistry	Wet Chemistry by Method 1654A
Wet Chemistry	Wet Chemistry by Method 300.0
Wet Chemistry	Wet Chemistry by Method 3500C-B
Wet Chemistry	Wet Chemistry by Method 351.2
Wet Chemistry	Wet Chemistry by Method 4500CL G-20H
Wet Chemistry	Wet Chemistry by Method 4500CN-E
Wet Chemistry	Wet Chemistry by Method 4500P-E
Wet Chemistry	Wet Chemistry by Method 5220D
Wet Chemistry	Wet Chemistry by Method 5310C
Wet Chemistry	Wet Chemistry by Method SM 4500-H-B
Wet Chemistry	Wet Chemistry by Method SM4500NH3H
Wet Chemistry	Wet Chemistry by Method SM5210B
Mercury	Mercury by Method 245.1
Metals	Metals (ICP) by Method 200.7
Gt	Glossary of Terms
Al	Accreditations & Locations
Sc	Sample Chain of Custody

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Cn	Case Narrative	4
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Wet Chemistry	Wet Chemistry by Method 4500CL G-20H	19
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ACCOUNT:

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DATE/TIME:

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Cp	Cover Page
Tc	Table of Contents
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Cn	Case Narrative
Sr	Sample Results
Sc	SCHREIBER SAMPLE 2 L1553075-01
Sc	SCHREIBER SAMPLE 2 L1553075-02
Qc	Quality Control Summary
Microbiology	Microbiology by Method 9222D
Gravimetric	Gravimetric Analysis by Method 2540C
Gravimetric	Gravimetric Analysis by Method 2540D
Wet Chemistry	Wet Chemistry by Method 120.1
Wet Chemistry	Wet Chemistry by Method 1654A
Wet Chemistry	Wet Chemistry by Method 300.0
Wet Chemistry	Wet Chemistry by Method 3500C-B
Wet Chemistry	Wet Chemistry by Method 351.2
Wet Chemistry	Wet Chemistry by Method 4500CL G-20H
Wet Chemistry	Wet Chemistry by Method 4500CN-E
Wet Chemistry	Wet Chemistry by Method 4500P-E
Wet Chemistry	Wet Chemistry by Method 5220D
Wet Chemistry	Wet Chemistry by Method 5310C
Wet Chemistry	Wet Chemistry by Method SM 4500-H-B
Wet Chemistry	Wet Chemistry by Method SM4500NH3H
Wet Chemistry	Wet Chemistry by Method SM5210B
Mercury	Mercury by Method 245.1
Metals	Metals (ICP) by Method 200.7
Gt	Glossary of Terms
Al	Accreditations & Locations
Sc	Sample Chain of Custody

SAMPLE SUMMARY

SCHREIBER SAMPLE 2 L1553075-01 WW

SCHREIBER SAMPLE 2 L1553075-01 WW									
Method	Batch	Dilutor	Preparation date/time	Analysis date/time	Collected date/time	Received date/time	Location		
Microscopy by Method 92220	WG954037	1	11/02/22 15:00	11/03/22 15:14			Ft. Worth, TX		
	WG956373	1	11/02/22 14:12	11/02/22 14:12			EJS Allen, TX		
Calculated Results	WG959723	1	11/02/22 11:50	11/02/22 11:50			LDT Allen, TX		
	WG953745	1	11/03/22 09:53	11/03/22 10:30			DOT Allen, TX		
Gravimetric Analysis by Method 2540C	WG953564	1	11/03/22 14:16	11/03/22 05:55			DOT Allen, TX		
	WG953830	1	11/03/22 11:19	11/03/22 11:19			DOT Allen, TX		
Wet Chemistry by Method 1654A	WG958248	1	11/04/22 15:26	11/05/22 15:12			TK Allen, TX		
Wet Chemistry by Method 300.0	WG953866	1	11/04/22 09:19	11/04/22 09:19			SMC Allen, TX		
Wet Chemistry by Method 300.0	WG955403	1	11/02/22 23:28	11/02/22 23:28			EIG Allen, TX		
Wet Chemistry by Method 300.0	WG955408	1	11/02/22 22:15	11/02/22 22:15			EIG Allen, TX		
Wet Chemistry by Method 351.2	WG956753	5	11/02/22 07:59	11/02/22 17:50			LDT Mt Juliet, TN		
Wet Chemistry by Method 4500C1 6-2011	WG954442	1	11/04/22 12:38	11/04/22 12:38			RLS Allen, TX		
Wet Chemistry by Method 4500C1 6-2011	WG953724	100	11/02/22 18:37	11/02/22 18:37			KCM Allen, TX		
Wet Chemistry by Method 5320D	WG955628	2	11/09/22 09:07	11/09/22 12:45			SMC Allen, TX		
Wet Chemistry by Method 5370C	WG956687	5	11/09/22 17:44	11/09/22 17:44			EIG Allen, TX		
Wet Chemistry by Method SM 4500A-H8	WG955130	1	11/07/22 14:44	11/07/22 14:44			RJP Allen, TX		
Wet Chemistry by Method SM4500M-H8	WG953732	1	11/02/22 14:16	11/02/22 14:16			EIG Allen, TX		
Wet Chemistry by Method SM520B	WG953055	1	11/02/22 11:18	11/07/22 10:57			RJP Allen, TX		
Wet Chemistry by Method SM520B	WG953060	1	11/02/22 16:03	11/07/22 13:29			RJP Allen, TX		
Metals (ICP) by Method 200.7	WG956373	1	11/08/22 17:17	11/02/22 17:26			EJS Allen, TX		
Metals (ICP) by Method 200.7	WG956373	12	11/08/22 17:17	11/02/22 14:12			EJS Allen, TX		
Metals (ICP) by Method 200.7	WG956373	2	11/08/22 17:17	11/02/22 12:29			EJS Allen, TX		
Metals (ICP) by Method 200.7	WG959919	1	11/5/22 12:06	11/21/22 19:27			EJS Allen, TX		
Metals (ICP) by Method 200.7	WG959919	20	11/5/22 12:06	11/28/22 10:58			EJS Allen, TX		

SCHREIBER SAMPLE 2 L1553075-02 WW

SCHREIBER SAMPLE 2 L1553075-02 WW			Collected by		Collected date/time		Received date/time	
			Zone Trierlin		11/02/22 09:35		11/02/22 14:40	
Method	Batch	Dilution	Preparation date time	Analysis date/time	Analyst	Location		
Calculated Results	WG956373	1	11/02/22 17:32	11/05/22 17:32	EJS	Allen TX		
	WG954855	1	11/05/22 12:49	11/05/22 12:49	KCM	Allen TX		
	WG954803	1	11/02/22 10:15	11/02/22 16:22	KCM	Allen TX		
	WG959240	1	11/04/22 10:40	11/04/22 14:58	CLK	Allen TX		
	WG956373	1	11/08/22 17:17	11/02/22 17:32	EJS	Allen TX		
	WG956373	1	11/08/22 17:17	11/02/22 12:34	EJS	Allen TX		
	WG956373	1	11/08/22 17:17	11/02/22 12:34	EJS	Allen TX		

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or noted within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative; a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Reagan Johnson

Project Manager

SCHREIBER SAMPLE 2
Collected date/time: 11/02/22 09:33

L1553075

Microbiology by Method 9222D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Coliform Total	800		1	11/02/2022 15:14	WG1954037

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Sodium Absorption Ratio	23.4			1	11/12/2022 14:12	WG1956372

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Organic Nitrogen	26.4		0.100	1	11/10/2022 17:50	WG1957273

Gravimetric Analysis by Method 2540C

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Total Dissolved Solids	3810		250	1	11/03/2022 10:30	WG1957745

Gravimetric Analysis by Method 2540D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Suspended Solids	1280		250	1	11/03/2022 05:55	WG1953564

Wet Chemistry by Method 1201

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Specific Conductance	5560		unmole/cm	1	11/03/2022 11:18	WG1953820

Sample Narrative:
L1553075-01 WG19553820 at 25C

Wet Chemistry by Method 1664A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Oil & Grease Petrolene Emul	10.1		5.10	1	11/15/2022 15:12	WG1959248

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	1320	LS	0.800	1	11/11/2022 22:15	WG1958408
Fluoride	ND		0.500	1	11/11/2022 23:28	WG1958402
Nitrate	194		0.500	1	11/04/2022 09:19	WG1953866
Sulfate	181		0.700	1	11/11/2022 22:15	WG1958408

Wet Chemistry by Method 3512

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ammonia Nitrogen, NH ₃	29.7		1.25	5	11/10/2022 17:50	WG1956753

Wet Chemistry by Method 4500CI-G-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chemical Oxygen Demand	0.330	7.8	0.100	1	11/04/2022 12:38	WG1954442

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SCHREIBER SAMPLE 2
Collected date/time: 11/02/22 09:33

L1553075

Wet Chemistry by Method 4500P-E

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Phosphorus Total	9.61	Y	5.00	100	11/10/2022 18:37	WG1957241

Wet Chemistry by Method 5220D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
COD	659		70.0	1	11/09/2022 12:45	WG1956828

Wet Chemistry by Method 5310C

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	6.72		3.50	5	11/09/2022 17:44	WG1956882

Wet Chemistry by Method SM 4500-H+B

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	9.04	Q	1	11/07/2022 14:44	WG1955180

Sample Narrative:
L1553075-01 WG1955180: 9.04 at 20.2C

Wet Chemistry by Method SM4500NH-3H

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	3.29		0.100	1	11/10/2022 14:16	WG1957272

Wet Chemistry by Method SM5210B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
90°C	31.6		6.00	1	11/07/2022 10:57	WG1953055
CE50°C	26.1		6.00	1	11/07/2022 13:29	WG1953060

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Calcium	105		2.00	2	11/11/2022 12:29	WG1956372
Calcium Dissolved	55.4		1.00	1	11/21/2022 19:27	WG1958519
Magnesium	4.23		1.00	1	11/10/2022 17:16	WG1956572
Magnesium Dissolved	37.5		1.00	1	11/21/2022 19:27	WG1959519
Sodium	1130		12.0	12	11/11/2022 14:12	WG1956372
Sodium Dissolved	1000	Y	20.0	20	11/29/2022 10:58	WG1958519

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Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chromium, Trivalent	0.00350		0.00300	1	11/02/2022 17:32	WG1956372

Wet Chemistry by Method 3500Cr-B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chromium, Hexavalent	ND		0.00300	1	11/05/2022 12:49	WG1954855

Sample Narrative:

L1553075-02 WG1954855: Sample not field filtered with 15min of collection Sample preserved in lab with 24mins of collection

Wet Chemistry by Method 4500CN-E

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Cyanide	ND		0.0100	1	11/12/2022 16:22	WG1958003

Mercury by Method 245.1

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.000200	1	11/14/2022 14:58	WG1959240

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Aluminum	4.18		0.500	1	11/12/2022 12:34	WG1956372
Antimony	ND		0.0250	1	11/02/2022 17:32	WG1956373
Arsenic	ND		0.0200	1	11/02/2022 17:32	WG1956372
Barium	0.0785		0.0100	1	11/12/2022 12:34	WG1956372
Beryllium	ND		0.00100	1	11/12/2022 12:34	WG1956372
Boron	ND		0.100	1	11/02/2022 17:32	WG1956373
Cadmium	ND		0.00500	1	11/02/2022 17:32	WG1956372
Chromium	ND		0.00700	1	11/02/2022 17:32	WG1956372
Copper	ND		0.0200	1	11/02/2022 17:32	WG1956373
Lead	ND		0.0100	1	11/02/2022 17:32	WG1956372
Nickel	ND		0.0200	1	11/02/2022 17:32	WG1956372
Selenium	ND		0.00500	1	11/02/2022 17:32	WG1956372
Silver	ND		0.0200	1	11/02/2022 17:32	WG1956373
Thallium	ND		0.0250	1	11/02/2022 17:32	WG1956372
Zinc	0.119			1	11/02/2022 17:32	WG1956372

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WG1954037

Microbiology by Method 9222D

Method Blank (MB)

(MB) R3856958-1 11/03/22 15:14

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Coliform Fecal	cfu/100 ml		cfu/100 ml	cfu/100 ml
	<1			

Method Blank (MB)

(MB) R3856958-2 11/03/22 15:14

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Coliform Fecal	cfu/100 ml		cfu/100 ml	cfu/100 ml

L1553075-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1553075-01 11/03/22 15:14 • (DUP) R3856958-3 11/03/22 15:14

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Coliform Fecal	cfu/100 ml	cfu/100 ml	%	%		%
	800	900	1	11.8		20

QUALITY CONTROL SUMMARY

L1553075-01

Method Blank (MB)

(MB) R3857457-1 11/03/22 10:30

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Total Dissolved Solids	U		25.0	25.0

L1552203-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1552203-02 11/03/22 10:30 • (DUP) R3857457-3 11/03/22 10:30

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Total Dissolved Solids	723	799	1	9.99	±3	5

Laboratory Control Sample (LCS)

(LCS) R3857457-2 11/03/22 10:30

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Total Dissolved Solids	2340	2590	111	85.0-115	

ACCOUNT:

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Method Blank (MB)

(MB) R3856538-1 11/03/22 05:55

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Suspended Solids	U		2.50	2.50

L1553086-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1553086-02 11/03/22 05:55 • (DUP) R3856538-3 11/03/22 05:55

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Suspended Solids	9680	9740	1	0.618		10

L1553086-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1553086-03 11/03/22 05:55 • (DUP) R3856538-4 11/03/22 05:55

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Suspended Solids	8000	7740	1	3.30		10

Laboratory Control Sample (LCS)

(LCS) R3856538-2 11/03/22 05:55

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Suspended Solids	928	850	103	85.0-115	

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Method Blank (MB)

(MB) R3856482-1 11/03/22 11:19

Analyte	MB Result umhos/cm	MB Qualifier	MB MDL umhos/cm	MB RDL umhos/cm
Specific Conductance	U		100	100

Sample Narrative:
BLANK: at 25C

L1552203-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1552203-02 11/03/22 11:19 • (DUP) R3856482-3 11/03/22 11:19

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	1130	1130	1	0.000		20

Sample Narrative:
OS: at 25C
DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R3856482-2 11/03/22 11:19

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	200	200	100	80-120	

Sample Narrative:
LCS: at 25C

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Method Blank (MB)

(MB) R3861626-1 11/15/22 15:12

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Oil & Grease (Hexane Extr)	U		0.350	5.00

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3861626-2 11/15/22 15:12 • (LCSD) R3861626-3 11/15/22 15:12

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Oil & Grease (Hexane Extr)	40.0	34.1	36.1	85.3	90.3	78.0-114			5.70	18

L1555129-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1555129-03 11/15/22 15:12 • (MS) R3861626-4 11/15/22 15:12

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Oil & Grease (Hexane Extr)	40.0	5.36	50.1	112	1	78.0-114	

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Method Blank (MB)

(MB) R3858017-1 11/04/22 08:43

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Nitrate	U		0.207	0.500

Laboratory Control Sample (LCS)

(LCS) R3858017-2 11/04/22 09:01

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Nitrate	5.00	4.93	98.5	90.0-110	

L1553331-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1553331-01 11/04/22 09:36 • (MS) R3858017-3 11/04/22 10:30 • (MSD) R3858017-4 11/04/22 10:48

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Nitrate	5.00	0.505	6.38	7.72	118	144	1	90.0-110	J5	J5	18.9	20

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Method Blank (MB)

(MB) R3860526-1 11/11/22 20:30

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Fluoride	U		0.198	0.500

Laboratory Control Sample (LCS)

(LCS) R3860526-2 11/11/22 20:50

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Fluoride	5.00	5.46	109	90.0-110	

L1553075-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1553075-01 11/11/22 23:28 • (MS) R3860526-3 11/11/22 21:09 • (MSD) R3860526-4 11/11/22 21:29

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Fluoride	5.00	ND	4.75	4.84	95.1	96.8	1	90.0-110			18.3	20

L1554671-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1554671-01 11/12/22 03:27 • (MS) R3860526-5 11/11/22 21:49 • (MSD) R3860526-6 11/11/22 22:09

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Fluoride	5.00	1.82	5.76	5.92	78.8	82.0	1	90.0-110	J6	J6	2.74	20

ACCOUNT:

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Method Blank (MB)

(MB) R3860522-1 11/11/22 19:52

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Chloride	0.171		0.0541	0.800
Sulfate	U		0.393	0.700

Laboratory Control Sample (LCS)

(LCS) R3860522-2 11/11/22 20:10

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Chloride	5.00	5.02	100	90.0-110	
Sulfate	5.00	5.05	101	90.0-110	

L1553075-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1553075-01 11/11/22 22:15 • (MS) R3860522-3 11/11/22 20:28 • (MSD) R3860522-4 11/11/22 20:45

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Chloride	500	1320	1940	1900	123	116	1	90.0-110	E-J5	E-J5	1.71	20
Sulfate	500	181	700	689	104	102	1	90.0-110			1.59	20

L1553109-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1553109-01 11/11/22 22:33 • (MS) R3860522-5 11/11/22 21:03 • (MSD) R3860522-6 11/11/22 21:21

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Chloride	50.0	130	189	189	117	117	1	90.0-110	E-J5	E-J5	0.0811	20
Sulfate	50.0	66.5	119	119	105	105	1	90.0-110			0.190	20

ACCOUNT:

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WG1954855

Wet Chemistry by Method 3500Cr-B

QUALITY CONTROL SUMMARY

[L1553075-02](#)

Method Blank (MB)

(MB) R3857357-1 11/05/22 12:49

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Chromium, Hexavalent	U		0.00200	0.00300

Laboratory Control Sample (LCS)

(LCS) R3857357-2 11/05/22 12:49

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Chromium, Hexavalent	0.200	0.217	106	85.0-115	

L1552832-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1552832-01 11/05/22 12:49 • (MS) R3857357-3 11/05/22 12:50 • (MSD) R3857357-4 11/05/22 12:50

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Chromium, Hexavalent	0.200	ND	0.192	0.193	95.8	96.6	1	10.0-120			0.875	20

Sample Narrative:

OS: Sample not field filtered w/in 15min of collection Sample preserved in lab w/in 24hrs of collection

L1553075-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1553075-02 11/05/22 12:49 • (MS) R3857357-5 11/05/22 12:50 • (MSD) R3857357-6 11/05/22 12:50

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Chromium, Hexavalent	0.200	ND	0.191	0.190	95.4	94.9	1	10.0-120			0.442	20

Sample Narrative:

OS: Sample not field filtered w/in 15min of collection Sample preserved in lab w/in 24hrs of collection

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Method Blank (MB)

(MB) R3859732-1 11/10/22 16:52

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Kjeldahl Nitrogen, TKN	U		0.140	0.250

L1554849-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1554849-01 11/10/22 17:01 • (DUP) R3859732-3 11/10/22 17:02

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits
Kjeldahl Nitrogen, TKN	6.81	7.60	1	11.0		20

L1554878-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1554878-01 11/10/22 17:09 • (DUP) R3859732-6 11/10/22 17:11

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits
Kjeldahl Nitrogen, TKN	0.977	0.990	1	1.32		20

Laboratory Control Sample (LCS)

(LCS) R3859732-2 11/10/22 16:53

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits	LCS Qualifier
Kjeldahl Nitrogen, TKN	12.7	13.5	106	75.2-120	

L1554849-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1554849-01 11/10/22 17:01 • (MS) R3859732-4 11/10/22 17:04 • (MSD) R3859732-5 11/10/22 17:08

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Kjeldahl Nitrogen, TKN	5.00	6.81	12.5	11.9	114	102	1	90.0-110	JB		4.92	20

Sample Narrative:

MS: Matrix spike failure due to matrix interference.

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L1554878-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1554878-01 11/10/22 17:09 • (MS) R3859732-7 11/10/22 17:12

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits	MS Qualifier
Kjeldahl Nitrogen, TKN	5.00	0.977	6.30	106	1	90.0-110	

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Method Blank (MB)

(MB) R3857035-1 11/04/22 12:38

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chlorine,residual	U		0.0260	0.100

L1553075-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1553075-01 11/04/22 12:38 • (DUP) R3857035-3 11/04/22 12:39

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits
Chlorine,residual	0.930	0.999	1	7.15		20

Laboratory Control Sample (LCS)

(LCS) R3857035-2 11/04/22 12:38

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chlorine,residual	1.00	1.04	104	85.0-115	

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Wet Chemistry by Method 4500CN-E

QUALITY CONTROL SUMMARY
[L1553075-02](#)

Method Blank (MB)

(MB) R3860133-1 11/11/22 16:22

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Cyanide	U		0.00430	0.0100

Laboratory Control Sample (LCS)

(LCS) R3860133-2 11/11/22 16:22

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Cyanide	0.100	0.0901	90.1	85.0-115	

L1553100-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1553100-02 11/11/22 16:22 • (MS) R3860133-3 11/11/22 16:23 • (MSD) R3860133-4 11/11/22 16:23

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cyanide	0.100	ND	0.0747	0.0707	74.7	70.7	1	85.0-115	J6	J6	5.53	20

L1554365-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1554365-01 11/11/22 16:22 • (MS) R3860133-5 11/11/22 16:23 • (MSD) R3860133-6 11/11/22 16:23

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cyanide	0.100	1.11	1.17	1.17	67.0	67.0	100	85.0-115	V	V	0.000	20

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Method Blank (MB)

(MB) R3859736-1 11/10/22 18:37

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Phosphorus, Total	U		0.0152	0.0500

Laboratory Control Sample (LCS)

(LCS) R3859736-2 11/10/22 18:37

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Phosphorus, Total	0.500	0.482	96.4	80.0-120	

L1553075-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1553075-01 11/10/22 18:37 • (MS) R3859736-3 11/10/22 18:37 • (MSD) R3859736-4 11/10/22 18:37

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Phosphorus, Total	0.500	9.61	10.3	10.6	131	197	100	80.0-120	V	V	3.15	20

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Method Blank (MB)

(MB) R3858838-1 11/09/22 12:45

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
COD	U		16.1	35.0

Laboratory Control Sample (LCS)

(LCS) R3858838-2 11/09/22 12:45

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
COD	500	521	104	80.0-120	

L1554354-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1554354-01 11/09/22 12:46 • (MS) R3858838-3 11/09/22 12:47 • (MSD) R3858838-4 11/09/22 12:47

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
COD	500	ND	536	551	104	107	1	80.0-120			2.79	20

L1554677-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1554677-01 11/09/22 12:46 • (MS) R3858838-5 11/09/22 12:47 • (MSD) R3858838-6 11/09/22 12:47

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
COD	500	94.1	616	621	104	105	1	80.0-120			0.701	20

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Method Blank (MB)

(MB) R3859854-1 11/09/22 14:06

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
TOC (Total Organic Carbon)	0.282		0.270	0.700

Laboratory Control Sample (LCS)

(LCS) R3859854-2 11/09/22 14:22

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
TOC (Total Organic Carbon)	10.0	9.87	98.7	90.0-110	

L1554256-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1554256-01 11/09/22 19:51 • (MS) R3859854-3 11/09/22 15:37 • (MSD) R3859854-4 11/09/22 16:05

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
TOC (Total Organic Carbon)	10.0	15.6	22.3	22.0	66.9	63.5	1	80.0-120	J6	J6	154	20

L1554256-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1554256-02 11/09/22 20:15 • (MS) R3859854-5 11/09/22 16:30 • (MSD) R3859854-6 11/09/22 16:57

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
TOC (Total Organic Carbon)	10.0	15.8	21.9	22.5	60.2	67.0	1	80.0-120	J6	J6	3.06	20

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L1553133-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1553133-01 11/07/22 14:44 • (DUP) R3857989-2 11/07/22 14:44

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
pH	6.98	6.99	1	0.143		20

Sample Narrative:

OS: 6.98 at 20.5C
DUP: 6.99 at 20.8C

L1554351-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1554351-01 11/07/22 14:44 • (DUP) R3857989-3 11/07/22 14:44

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
pH	6.79	6.80	1	0.147		20

Sample Narrative:

OS: 6.79 at 20.6C
DUP: 6.8 at 20.4C

Laboratory Control Sample (LCS)

(LCS) R3857989-1 11/07/22 14:44

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	su	su	%	%	
pH	6.00	6.00	100	99.0-101	

Sample Narrative:

LCS: 6 at 20.9C

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Wei Chemistry by Method SM4500NH3H

QUALITY CONTROL SUMMARY

[L1553075-01](#)

Method Blank (MB)

(MB) R3859669-1 11/10/22 13:36

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ammonia Nitrogen	U		0.0280	0.100

Laboratory Control Sample (LCS)

(LCS) R3859669-2 11/10/22 13:37

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ammonia Nitrogen	5.00	5.12	102	80.0-120	

L1552331-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1552331-02 11/10/22 14:03 • (MS) R3859669-3 11/10/22 13:38 • (MSD) R3859669-4 11/10/22 13:40

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Ammonia Nitrogen	5.00	0.177	5.24	5.24	101	101	1	80.0-120			0.000	20

L1552513-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1552513-01 11/10/22 14:04 • (MS) R3859669-5 11/10/22 13:41 • (MSD) R3859669-6 11/10/22 13:43

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Ammonia Nitrogen	5.00	ND	5.05	5.07	100	101	1	80.0-120			0.395	20

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Wei Chemistry by Method SM5210B

QUALITY CONTROL SUMMARY

[L1553075-01](#)

Method Blank (MB)

(MB) R3857762-1 11/07/22 09:52

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
BOD	U		0.200	0.200

L1552882-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1552882-02 11/07/22 10:33 • (DUP) R3857762-4 11/07/22 10:34

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits
BOD	5.64	5.49	1	2.7		20

L1552764-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1552764-01 11/07/22 10:12 • (DUP) R3857762-3 11/07/22 11:38

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits
BOD	1.37	1.07	1	24.6		20

Laboratory Control Sample (LCS)

(LCS) R3857762-2 11/07/22 09:57

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
BOD	198	200	101	85-115	

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Method Blank (MB)

(MB) R3857838-1 11/07/22 12:48

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
CBOD	U		0.200	0.200

L1552768-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1552768-01 11/07/22 13:05 • (DUP) R3857838-3 11/07/22 13:37

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
CBOD	ND	ND	1	0		20

L1552866-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1552866-01 11/07/22 13:52 • (DUP) R3857838-4 11/07/22 13:38

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
CBOD	137	133	1	2.96	K9	20

Laboratory Control Sample (LCS)

(LCS) R3857838-2 11/07/22 12:53

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
CBOD	198	204	103	85-115	

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Method Blank (MB)

(MB) R3860864-1 11/14/22 14:34

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Mercury	0.000114		0.0000450	0.000200

Laboratory Control Sample (LCS)

(LCS) R3860864-2 11/14/22 14:41

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Mercury	0.00250	0.00235	94.0	85.0-115	

L1552825-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1552825-01 11/14/22 14:43 • (MS) R3860864-3 11/14/22 14:45 • (MSD) R3860864-4 11/14/22 14:47

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Mercury	0.00250	ND	0.00164	0.00145	62.2	54.6	1	70.0-130	J6	J6	12.3	20

L1552825-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1552825-02 11/14/22 14:49 • (MS) R3860864-5 11/14/22 14:52 • (MSD) R3860864-6 11/14/22 14:54

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Mercury	0.00250	ND	0.00246	0.00241	94.8	92.8	1	70.0-130			2.05	20

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Metals (ICP) by Method 200.7

QUALITY CONTROL SUMMARY

L1553075-01.02

Method Blank (MB)

(MB) R3859632-1 11/10/22 15:33

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Aluminum	0.0563		0.0353	0.500
Antimony	U		0.00242	0.0250
Arsenic	U		0.00418	0.0200
Barium	U		0.000490	0.0100
Beryllium	0.000249		0.000180	0.00100
Boron	U		0.0186	0.100
Cadmium	U		0.000350	0.00500
Calcium	U		0.0436	1.00
Chromium	U		0.000710	0.00700
Copper	0.00425		0.00364	0.0200
Lead	U		0.00312	0.0100
Magnesium	U		0.0434	1.00
Nickel	U		0.00358	0.0100
Selenium	U		0.00500	0.0200
Silver	U		0.000990	0.00500
Sodium	U		0.178	1.00
Thallium	U		0.00775	0.0200
Zinc	U		0.0106	0.0250

Laboratory Control Sample (LCS)

(LCS) R3859632-2 11/10/22 15:38

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Aluminum	10.0	9.88	98.8	85.0-115	
Antimony	1.00	0.966	96.6	85.0-115	
Arsenic	1.00	0.937	93.7	85.0-115	
Barium	1.00	0.973	97.3	85.0-115	
Beryllium	1.00	0.954	95.4	85.0-115	
Boron	1.00	0.932	93.2	85.0-115	
Cadmium	1.00	0.993	99.3	85.0-115	
Calcium	10.0	10.1	101	85.0-115	
Chromium	1.00	0.965	96.5	85.0-115	
Copper	1.00	0.970	97.0	85.0-115	
Lead	1.00	0.989	98.9	85.0-115	
Magnesium	10.0	9.87	98.7	85.0-115	
Nickel	1.00	1.01	101	85.0-115	
Selenium	1.00	0.943	94.3	85.0-115	
Silver	0.500	0.482	96.3	85.0-115	

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Metals (ICP) by Method 200.7

QUALITY CONTROL SUMMARY

L1553075-01.02

Laboratory Control Sample (LCS)

(LCS) R3859632-2 11/10/22 15:38

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Sodium	10.0	9.96	99.6	85.0-115	
Thallium	1.00	1.06	106	85.0-115	
Zinc	1.00	0.977	97.7	85.0-115	

L1554984-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1554984-01 11/10/22 15:43 • (MS) R3859632-3 11/10/22 15:48 • (MSD) R3859632-4 11/10/22 16:14

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Aluminum	10.0	1.35	13.4	14.0	120	127	1	70.0-130			4.82	20
Antimony	1.00	ND	1.01	0.985	101	98.5	1	70.0-130			2.95	20
Arsenic	1.00	ND	1.03	0.999	101	98.5	1	70.0-130			2.90	20
Barium	1.00	4.94	6.98	8.31	203	337	1	70.0-130	V	V	17.4	20
Boron	1.00	ND	1.05	1.11	97.1	103	1	70.0-130			5.73	20
Cadmium	1.00	ND	1.03	1.01	103	101	1	70.0-130			2.45	20
Calcium	10.0	113	133	144	208	311	1	70.0-130	V	V	7.43	20
Chromium	1.00	ND	0.978	0.958	97.5	95.6	1	70.0-130			2.04	20
Copper	1.00	0.0384	1.04	1.09	99.9	105	1	70.0-130			5.26	20
Lead	1.00	0.0729	0.907	0.889	83.4	81.6	1	70.0-130			2.08	20
Magnesium	10.0	33.8	46.3	50.4	125	165	1	70.0-130		JS	8.36	20
Nickel	1.00	ND	1.01	0.986	101	98.1	1	70.0-130			2.46	20
Selenium	1.00	0.0254	1.03	0.985	100	96.0	1	70.0-130			3.95	20
Silver	0.500	ND	0.504	0.493	101	98.5	1	70.0-130			2.25	20
Thallium	1.00	ND	0.966	0.944	96.6	94.4	1	70.0-130			2.29	20
Zinc	1.00	0.0578	1.06	1.02	99.7	96.5	1	70.0-130			3.08	20

L1554984-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1554984-02 11/10/22 16:19 • (MS) R3859632-5 11/10/22 16:24 • (MSD) R3859632-6 11/10/22 16:30

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Aluminum	10.0	ND	11.7	10.6	113	102	1	70.0-130			9.34	20
Antimony	1.00	ND	1.00	0.964	100	96.4	1	70.0-130			3.87	20
Arsenic	1.00	ND	0.983	0.955	97.6	94.7	1	70.0-130			2.96	20
Barium	1.00	12.1	14.4	13.1	228	102	1	70.0-130	V		9.17	20
Boron	1.00	ND	1.03	0.943	103	94.3	1	70.0-130			8.54	20
Cadmium	1.00	ND	1.03	0.985	103	98.5	1	70.0-130			4.15	20
Calcium	10.0	13.6	26.1	23.5	126	99.5	1	70.0-130			10.5	20
Chromium	1.00	ND	0.947	1.09	94.5	109	1	70.0-130			14.3	20

ACCOUNT:

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SDG:

DATE/TIME:

PAGE:

0327

WG1956373

Metals (ICP) by Method 200.7

QUALITY CONTROL SUMMARY

L1553075-01.02

L1554984-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1554984-02 11/10/22 16:19 • (MS) R38599632-5 11/10/22 16:24 • (MSD) R38599632-6 11/10/22 16:30

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Copper	1.00	ND	1.08	0.994	106	97.5	1	70.0-130			8.35	20
Lead	1.00	0.0150	1.03	0.990	102	97.5	1	70.0-130			4.07	20
Magnesium	10.0	1.24	12.2	11.0	110	97.2	1	70.0-130			10.8	20
Nickel	1.00	ND	1.04	1.00	104	100	1	70.0-130			4.31	20
Selenium	1.00	0.0218	0.994	0.990	97.2	97.8	1	70.0-130			0.542	20
Silver	0.500	ND	0.471	0.547	94.2	109	1	70.0-130			14.9	20
Thallium	1.00	ND	1.10	1.06	110	106	1	70.0-130			4.18	20
Zinc	1.00	0.0517	1.05	1.01	100	95.7	1	70.0-130			4.36	20

L1554984-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1554984-01 11/11/22 11:22 • (MS) R3859968-3 11/11/22 11:28 • (MSD) R3859968-4 11/11/22 11:33

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Beryllium	1.00	ND	0.818	1.09	81.8	109	5	70.0-130		J3	28.9	20
Sodium	10.0	324	284	380	0.000	562	5	70.0-130	V	J3 V	29.1	20

L1554984-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1554984-02 11/11/22 11:38 • (MS) R3859968-5 11/11/22 11:43 • (MSD) R3859968-6 11/11/22 11:48

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Beryllium	1.00	ND	1.03	0.964	103	96.4	1	70.0-130			6.57	20
Sodium	10.0	319	14.6	13.6	114	104	1	70.0-130			7.39	20

ACCOUNT:

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DATE/TIME:

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WG1959919

Metals (ICP) by Method 200.7

QUALITY CONTROL SUMMARY

L1553075-01

Method Blank (MB)

(MB) R3863748-1 11/21/22 19:17

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Calcium, Dissolved	0.164	J	0.0496	1.00
Magnesium, Dissolved	U		0.0434	1.00
Sodium, Dissolved	U		0.178	1.00

Laboratory Control Sample (LCS)

(LCS) R3863748-2 11/21/22 19:22

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Calcium, Dissolved	10.0	10.2	102	85.0-115	
Magnesium, Dissolved	10.0	9.38	93.8	85.0-115	
Sodium, Dissolved	10.0	10.5	105	85.0-115	

L1553075-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1553075-01 11/21/22 19:27 • (MS) R3863748-3 11/21/22 19:32 • (MSD) R3863748-4 11/21/22 19:37

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Calcium, Dissolved	10.0	55.4	63.5	66.2	80.6	108	1	70.0-130			4.24	20
Magnesium, Dissolved	10.0	37.5	45.5	46.4	80.9	89.2	1	70.0-130			1.81	20

L1553075-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1553075-01 11/28/22 10:58 • (MS) R3865519-1 11/28/22 11:03 • (MSD) R3865519-2 11/28/22 11:09

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Sodium, Dissolved	10.0	1000	1100	1090	940	820	20	70.0-130	V	V	110	20

ACCOUNT:

PROJECT:

SDG:

DATE/TIME:

PAGE:

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collector Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit
ND	Not detected at the Reporting Limit (or MDL where applicable).
RD	Reported Detection Limit
Rec.	Recovery
RPD	Relative Percent Difference
SDG	Sample Delivery Group
U	Not detected at the Reporting Limit (or MDL where applicable)
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preservation volume or weight values differ from the reported or if concentrations of analytes in the sample are higher than the highest limit of concentration that the Laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target & recovery ranges or % difference value that the laboratory has historically determined as normal for the analyte being reported. Successful OC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The not spiked sample in the grab batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column contains a letter and/or number designation that corresponds to additional information concerning the result reported. The qualifier is provided within the Glossary and Definitions table and is used in the Case Narrative to provide a discussion of the Qualifier in the Case Narrative's table and Method Description Level.
Result	The actual analytical final result corrected for any sample specific characteristics (also noted for your sample, if there was no measurement level for the sample, the result is reported as ND). The result is reported as ND if the result is below the detection limit or below the detection level. The information in the results column should always be accompanied by the MDL, Method Detection Limit or RDL, Reporting Detection Limit that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma
Case Narrative (CN)	All of the discussion about the analyzed sample result, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory or in the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the impact of any data qualifiers used in the report.
Quality Control Summary (QS)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (SCC)	This is the document created in the field when your samples were initially collected. This is used to verify the time and chain of custody also documents all persons, including commercial trucks that have had control of the possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (SR)	This section of your report will provide the results of all testing performed on your samples. These results are provided by Sample ID and are separated by the analysis performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (SS)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier

Description

E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable, the reported value is an estimate.
J3	The associated batch OC was outside the established quality control range for precision.
J5	The sample matrix interfered with the ability to make any accurate determination, spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination, spike value is low.
K9	Test replicates show more than 30% difference between high and low values.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
Q	Sample was prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values.
T9	Sample(s) received past due to holding time expiration.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCOUNT:

PROJECT:

SDG:

DATE/TIME:

PAGE:

ACCOUNT:

PROJECT:

SDG:

DATE/TIME:

PAGE:

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122


Alabama	40660	NE0434	NE-05-15-05
Arkansas	17-025	NE0434	TN0000320241
Arizona	820672	NE0434	2975
California	88-0469	NE0434	TN002
Colorado	2392	NE0434	TN00003
Connecticut	TN00003	NE0434	17-025
Florida	PH-0197	NE0434	Env035
Georgia	NE0434	NE0434	DN07704
Hawaii	923	NE0434	41
Idaho	TN00003	NE0434	8-340
Illinois	200008	NE0434	CL0059
Indiana	C-TN-01	NE0434	Oklahoma
Iowa	364	NE0434	9915
Kansas	E-10277	NE0434	TX000002
Kentucky	KY90010	NE0434	TX000002
Louisiana	402092	NE0434	TX000002
Maine	LA019	NE0434	TX000002
Maryland	TN00003	NE0434	TX000002
Massachusetts	324	NE0434	TX000002
Michigan	9935	NE0434	TX000002
Minnesota	04-799-955	NE0434	TX000002
Mississippi	TN00003	NE0434	TX000002
Missouri	340	NE0434	TX000002
Montana	CRT0006	NE0434	TX000002
Nebraska	161-01	NE0434	TX000002
Nevada	161-02	NE0434	TX000002
New Hampshire	161-01	NE0434	TX000002
New Jersey	161-01	NE0434	TX000002
New Mexico	161-01	NE0434	TX000002
New York	161-01	NE0434	TX000002
North Carolina	161-01	NE0434	TX000002
North Dakota	161-01	NE0434	TX000002
Oklahoma	161-01	NE0434	TX000002
Oregon	161-01	NE0434	TX000002
Pennsylvania	161-01	NE0434	TX000002
Rhode Island	161-01	NE0434	TX000002
South Carolina	161-01	NE0434	TX000002
South Dakota	161-01	NE0434	TX000002
Tennessee	161-01	NE0434	TX000002
Texas	161-01	NE0434	TX000002
Vermont	161-01	NE0434	TX000002
Virginia	161-01	NE0434	TX000002
Washington	161-01	NE0434	TX000002
West Virginia	161-01	NE0434	TX000002
Wisconsin	161-01	NE0434	TX000002
Wyoming	161-01	NE0434	TX000002


Pace Analytical Services, LLC - Dallas 400 W Bethany Drive Suite 190 Allen, TX 75013

Alabama	88-0647	NE0434	NE-05-15-05
Arkansas	17-025	NE0434	TN0000320241
Arizona	820672	NE0434	2975
California	88-0469	NE0434	TN002
Colorado	2392	NE0434	TN00003
Connecticut	TN00003	NE0434	17-025
Florida	PH-0197	NE0434	Env035
Georgia	NE0434	NE0434	DN07704
Hawaii	923	NE0434	41
Idaho	TN00003	NE0434	8-340
Illinois	200008	NE0434	CL0059
Indiana	C-TN-01	NE0434	Oklahoma
Iowa	364	NE0434	9915
Kansas	E-10277	NE0434	TX000002
Kentucky	KY90010	NE0434	TX000002
Louisiana	402092	NE0434	TX000002
Maine	LA019	NE0434	TX000002
Maryland	TN00003	NE0434	TX000002
Massachusetts	324	NE0434	TX000002
Michigan	9935	NE0434	TX000002
Minnesota	04-799-955	NE0434	TX000002
Mississippi	TN00003	NE0434	TX000002
Missouri	340	NE0434	TX000002
Montana	CRT0006	NE0434	TX000002
Nebraska	161-01	NE0434	TX000002
Nevada	161-02	NE0434	TX000002
New Hampshire	161-01	NE0434	TX000002
New Jersey	161-01	NE0434	TX000002
New Mexico	161-01	NE0434	TX000002
New York	161-01	NE0434	TX000002
North Carolina	161-01	NE0434	TX000002
North Dakota	161-01	NE0434	TX000002
Oklahoma	161-01	NE0434	TX000002
Oregon	161-01	NE0434	TX000002
Pennsylvania	161-01	NE0434	TX000002
Rhode Island	161-01	NE0434	TX000002
South Carolina	161-01	NE0434	TX000002
South Dakota	161-01	NE0434	TX000002
Tennessee	161-01	NE0434	TX000002
Texas	161-01	NE0434	TX000002
Vermont	161-01	NE0434	TX000002
Virginia	161-01	NE0434	TX000002
Washington	161-01	NE0434	TX000002
West Virginia	161-01	NE0434	TX000002
Wisconsin	161-01	NE0434	TX000002
Wyoming	161-01	NE0434	TX000002

Pace Analytical Services, LLC - Dallas 2657 Gravel Dr Ft. Worth, TX 76118

* Drinking Water * Underground Storage Tanks * Asbestos Toxicity * Chemical/Biochemical * Mold * Wastewater
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address: Enviro-Ag Engineering 3404 Airway Blvd. Amarillo, TX 79118			Billing Information: Bryan Mullin 3404 Airway Blvd. Amarillo, TX 79118			Analysis / Container / Preservative			Chain of Custody Page 1 of 1  190 Allen, TX 75013 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: http://info.paceanalytical.com/hubfs/chain-of-custody.pdf		
Report to: Jourdan Mullin			Email To: cmullin@enviroag.com, mggray@enviroag.com, mrgreorge@enviroag.com, mshumaker@enviroag.com, jmullin@enviroag.com			Pres Chk			SDG # L1593075		
Project Description:			City/State Collected:			Please Circle: PT MT CT ET			Table #		
Phone: 254-965-3500			Client Project #			Lab Project #			Accnum: DSENVIGDTX		
Collected by (print): Zane Trotter			Site/Facility ID #			P.O. #			Template: T218389		
Collected by (signature): Zane Trotter			Rush? (Lab MUST Be Notified) Same Day _____ Five Day _____ Next Day _____ 5 Day (Rad Only) _____ Two Day _____ 10 Day (Rad Only) _____ Three Day _____			Quote #			Prelogin: P958060		
Immediately Packed on Ice: N <input type="checkbox"/> Y <input checked="" type="checkbox"/>			Date Results Needed			No. of			PM: 923 - Reagan Johnson		
Sample ID			Comp/Grab			Matrix *			Depth		
Date			Time			Entri			Shipped Via: FedEx Priority		
Schreiber Sample 2			G			WW			11/2/22 9:33 14		
Schreiber Sample 2			G			WW			11/2/22 9:33 3		
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - Waste Water DW - Drinking Water OT - Other			Remarks: WetChem = Cl, F, "NO3", pH, SPCON, and SO4 "Nitrate = 48hr hold" Total Metals = Ag, Al, As, Ba, Be, B, Cd, Cr, Cu, Ni, Pb, Sb, Se, Si, and Zn by 200.7 pH _____ Temp _____ and Hg by 245.1 Flow _____ Other _____			Sample Receipt Checklist: COC Seal Present/Intact: <input type="checkbox"/> NP <input type="checkbox"/> Y <input type="checkbox"/> N COC Signed/Accurate: <input type="checkbox"/> Y <input type="checkbox"/> N Bottles arrive intact: <input type="checkbox"/> Y <input type="checkbox"/> N Correct bottles used: <input type="checkbox"/> Y <input type="checkbox"/> N Sufficient volume sent: <input type="checkbox"/> Y <input type="checkbox"/> N VOA Zero Headspace: <input type="checkbox"/> Y <input type="checkbox"/> N Preservation Correct/Checked: <input type="checkbox"/> Y <input type="checkbox"/> N RAD Screen <0.5 mR/hr: <input type="checkbox"/> Y <input type="checkbox"/> N					
Samples returned via: UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier			Tracking #			Trip Blank Received: Yes / No HCL / MeOH TBR			Temp: °C Bottles Received:		
Relinquished by (Signature): Zane Trotter			Date: 11/02/2022 Time: 11:16			Received by (Signature): Alicia Hernandez			if preservation required by Login: Date/Time		
Relinquished by (Signature): Alicia Hernandez			Date: 11/2/22 Time: 1345			Received by (Signature): Schreiber			Hold:		
Relinquished by (Signature): Schreiber			Date: 11/2/22 Time: 1440			Received for lab by (Signature): [Signature]			Date: 11/2/22 Time: 1440		

Company Name/Address: Enviro-Ag Engineering 3404 Airway Blvd. Amarillo, TX 79118			Billing Information: Bryan Mullin 3404 Airway Blvd. Amarillo, TX 79118			Analysis / Container / Preservative			Chain of Custody Page 1 of 1  190 Allen, TX 75013 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: http://info.paceanalytical.com/hubfs/chain-of-custody.pdf		
Report to: Jourdan Mullin			Email To: cmullin@enviroag.com, mggray@enviroag.com, mrgreorge@enviroag.com, mshumaker@enviroag.com, jmullin@enviroag.com			Pres Chk			SDG # L1593075		
Project Description:			City/State Collected:			Please Circle: PT MT CT ET			Table #		
Phone: 254-965-3500			Client Project #			Lab Project #			Accnum: DSENVIGDTX		
Collected by (print): Zane Trotter			Site/Facility ID #			P.O. #			Template: T218389		
Collected by (signature): Zane Trotter			Rush? (Lab MUST Be Notified) Same Day _____ Five Day _____ Next Day _____ 5 Day (Rad Only) _____ Two Day _____ 10 Day (Rad Only) _____ Three Day _____			Quote #			Prelogin: P958060		
Immediately Packed on Ice: N <input type="checkbox"/> Y <input checked="" type="checkbox"/>			Date Results Needed			No. of			PM: 923 - Reagan Johnson		
Sample ID			Comp/Grab			Matrix *			Depth		
Date			Time			Entri			Shipped Via: FedEx Priority		
Schreiber Sample 2			G			WW			11/2/22 9:33 14		
Schreiber Sample 2			G			WW			11/2/22 9:33 3		
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - Waste Water DW - Drinking Water OT - Other			Remarks: WetChem = Cl, F, "NO3", pH, SPCON, and SO4 "Nitrate = 48hr hold" Total Metals = Ag, Al, As, Ba, Be, B, Cd, Cr, Cu, Ni, Pb, Sb, Se, Si, and Zn by 200.7 pH _____ Temp _____ and Hg by 245.1 Flow _____ Other _____			Sample Receipt Checklist: COC Seal Present/Intact: <input type="checkbox"/> NP <input type="checkbox"/> Y <input type="checkbox"/> N COC Signed/Accurate: <input type="checkbox"/> Y <input type="checkbox"/> N Bottles arrive intact: <input type="checkbox"/> Y <input type="checkbox"/> N Correct bottles used: <input type="checkbox"/> Y <input type="checkbox"/> N Sufficient volume sent: <input type="checkbox"/> Y <input type="checkbox"/> N VOA Zero Headspace: <input type="checkbox"/> Y <input type="checkbox"/> N Preservation Correct/Checked: <input type="checkbox"/> Y <input type="checkbox"/> N RAD Screen <0.5 mR/hr: <input type="checkbox"/> Y <input type="checkbox"/> N					
Samples returned via: UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier			Tracking #			Trip Blank Received: Yes / No HCL / MeOH TBR			Temp: °C Bottles Received:		
Relinquished by (Signature): Zane Trotter			Date: 11/02/2022 Time: 11:15			Received by (Signature): Alicia Hernandez			if preservation required by Login: Date/Time		
Relinquished by (Signature): Alicia Hernandez			Date: 11/2/22 Time: 1345			Received by (Signature): Schreiber			Hold:		
Relinquished by (Signature): Schreiber			Date: 11/2/22 Time: 1440			Received for lab by (Signature): [Signature]			Date: 11/2/22 Time: 1440		

0331

Company Name/Address Enviro-Ag Engineering 3404 Airway Blvd. Amarillo, TX 79118		Billing Information Bryan Mullin 3404 Airway Blvd. Amarillo, TX 79118		Analysis / Container / Preservative		Chain of Custody Page 1 of 1	
Report to: Jourdan Mullin		Email To: emullin@enviroag.com; jay@enviroag.com; jay@enviroag.com; jay@enviroag.com		Pres Chk		Pace Analytical 180 Allen, TX 75013	
Project Description:		City/State:		Please Circle: PT MT CT ET		Table # SDG # L1553075	
Phone: 254-865-3500		Client Project #		Lab Project #		Acctnum: DSENVIGDTX Template: T218389 Protocol: P068060 PH: 823 - Reagan Johnson PS:	
Collected by (print): Zane Trotter		Site/Facility ID #		PG #		Shipped Via: FedEx Priority	
Collected by (signature): Zane Trotter		Rush? (Lab MUST Be Notified) Same Day _____ 1 vs Day _____ Next Day _____ 5 Day (Rad Only) _____ Two Day _____ 10 Day (Rad Only) _____ Three Day _____		Quote #		Remarks:	
Packed on ice: N <input checked="" type="checkbox"/> Y		Date Results Needed		Nil of		Sample # (Rad Only)	
Sample ID		Comp/Grab		Matrix *		Depth	
Date		Time		Ents		CHLORR 500mlHDPE-NoPres Dissolved Ca, Mg, Na 250mlHDPE-NoPres FTWFC Microbiological TKN 250mlHDPE-H2SO4 Total Metals 250mlHDPE HNO3 WetChem 500mlHDPE-NoPres	
Schreiber Sample 2		WW		11/2/22 9:33		14	
Schreiber Sample 2		WW		11/2/22 9:33		3	
Remarks: WetChem = Cl, F, "NO3", pH, SPCON, and SO4 "Nitrate = 48hr hold" Total Metals = Ag, Al, As, Ba, Be, B, Cd, Cr, Cu, Ni, Pb, Sb, Se, Ti, and Zn by 200.7 and Hg by 245.1		PH _____ Temp _____		Flow _____ Other _____		Sample Receipt Checklist: CDC Seal Present/Intact: <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N CDC Signed/Sealable: <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N Bottle/Seal Intact: <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N Correct bottles used: <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N Sufficient volume sent: <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N VOA Bero Headspace: <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N Refrigeration: Correct/Checked: <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N RAD Screen <0.5 Bq/L: <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N	
Relinquished by (Signature): Zane Trotter		Date: 11/2/22 Time: 11:15		Received by (Signature): Alice H...		Trip Blank Received: Yes/No HCL / MeOH TBS	
Relinquished by (Signature): Alice H...		Date: 11/2/22 Time: 1345		Received by (Signature): Sch...		Temp: °C Bottles Received:	
Relinquished by (Signature): Sch...		Date: 11/2/22 Time:		Received for lab by (Signature): ...		Date: 11/2/22 Time: 1440	
Condition: NCF / OK		Labeling Person (if different than log-in): _____ Date: _____					

Document Name: Sample Condition Upon Receipt		Document Revised: 7/27/20 Page 1 of 1	
Document No.: F-DAL-C-001-rev.14		Issuing Authority: Pace Dallas Quality Office	

Sample Condition Upon Receipt

☐ Dallas ☐ Ft Worth ☐ Corpus Christi ☐ Austin

Client Name: Enviro-Ag
 Courier: FedEx ☐ UPS ☐ USPS ☐ Client ☐ LSO ☐ PACE ☐ Other: _____
 Tracking #: _____
 Custody Seal on Cooler/Box: Yes ☐ No ☒
 Received on ice: Wet ☒ Blue ☐
 Receiving Lab 1 Thermometer Used: FWTM03 Cooler Temp °C: 1.3 (Recorded) -0.5 (Correction Factor) 1.3 (Actual)
 Receiving Lab 2 Thermometer Used: 1213 Cooler Temp °C: 0.5 (Recorded) -0.5 (Correction Factor) 0.0 (Actual)

Temperature should be above freezing to 6°C unless collected same day as receipt in which evidence of cooling is acceptable

Triage Person: AL Date: 11/2/22

Chain of Custody relinquished	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Sampler name & signature on CDC	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Short HT analyses (<72 hrs)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Login Person: SW Date: 11/2/22

Sufficient Volume received	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Correct Container used	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Container Intact	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Sample pH Acceptable	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
pH Strips: 6.1105	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
Residual Chlorine Present	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
Cl Strips: 14840	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
Sulfide Present	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
Lead Acetate Strips: 14842	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
Are soil samples (volatiles, TPH) received in S035A Kits (not applicable to TCLP VOA or PST Program TPH)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
Unpreserved S035A soil frozen within 48 hrs	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
Headspace in VOA (>6mm)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
Project sampled in USDA Regulated Area outside of Texas	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
State Sampled:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
Non-Conformance(s):	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>

Labeling Person (if different than log-in): _____ Date: _____

0333

Sc Al Ga In Sn Pb

Sc Al Ga In Sn Pb Cu

3404 Airway Blvd
Amarillo, TX 79118

Marjorie Shaw

Reagan Johnson
Project Manager

Results (note only the items located at approved and at-risk locations) are presented in Table 1. The results of the sampling conducted by the contractor are presented in Table 2. The sampling was conducted by the contractor, results were provided to the regulatory agency, and the sampling was approved by the regulatory agency.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

SAMPLE SUMMARY

SCHREIBER 3 L1562686-01 WW

SCHREIBER 3 L1562686-01 WW									
Method	Batch	Duration	Collection		Analysis	Recovery	Location	Notes	Status
			Preparation	Extraction					
Microbiology by Method 9222D	W6196927	1	12/01/22 14:58	12/02/22 14:58	CNC	Fl. Worm, TX			
Catalysis Results	W6197344	1	12/20/22 15:01	12/22/22 15:01	T/G	Alien, TX			
Calculated Results	W6197747	1	12/15/22 14:45	12/15/22 14:45	CAG	Alien, TX			
Genomic Analysis by Method 2540C	W61988709	1	12/03/22 07:28	12/03/22 09:55	OOT	Alien, TX			
Genomic Analysis by Method 2540D	W61989073	1	12/04/21 14:08	12/04/22 15:22	OOT	Alien, TX			
Wet Chemistry by Method 1021	W61988970	1	12/04/22 08:24	12/04/22 08:24	OOT	Alien, TX			
Wet Chemistry by Method 1654A	W61974310	1	12/14/22 15:32	12/15/22 11:10	TK	Alien, TX			
Wet Chemistry by Method 200 C	W61956777	1	12/02/22 17:34	12/02/22 17:34	EIG	Alien, TX			
Wet Chemistry by Method 200 C	W61968005	1	12/02/22 15:35	12/02/22 15:25	EIG	Alien, TX			
Wet Chemistry by Method 200 C	W61988405	1	12/02/22 19:36	12/02/22 19:36	EIG	Alien, TX			
Wet Chemistry by Method 251 Z	W6197320C	1	12/15/22 20:16	12/15/22 14:45	CAG	Alien, TX			
Wet Chemistry by Method 4550C 6:201	W61968668	1	12/02/22 23:10	12/02/22 22:45	TCF	Alien, TX			
Wet Chemistry by Method 4550P-E	W61973159	50	12/14/22 17:22	12/14/22 17:22	KCM	Alien, TX			
Wet Chemistry by Method 5220D	W61970422	1	12/01/22 12:04	12/07/22 18:10	SMC	Alien, TX			
Wet Chemistry by Method 5220D	W61969932	5	12/06/22 13:26	12/06/22 13:26	EIG	Alien, TX			
Wet Chemistry by Method 5M-4500-H+B	W61974607	1	12/14/22 20:00	12/14/22 20:00	SMC	Alien, TX			
Wet Chemistry by Method 5M-4500-H+B	W61971247	30	12/08/22 13:55	12/08/22 13:55	EIG	Alien, TX			
Wet Chemistry by Method 5M4270B	W61988173	1	12/02/22 12:10	12/07/22 08:56	SMC	Alien, TX			
Wet Chemistry by Method 5M4270B	W61984396	1	12/02/22 03:55	12/07/22 09:51	SMC	Alien, TX			
Wet Chemistry by Method 5M4270B	W61973344	1	12/18/22 08:12	12/22/22 14:34	T/G	Alien, TX			
Metals (ICP) by Method 200 Z	W61973314	20	12/20/22 08:22	12/22/22 15:07	T/G	Alien, TX			
Metals (ICP) by Method 200 Z	W61977205	1	12/20/22 11:19	12/21/22 14:30	EIS	Alien, TX			
Metals (ICP) by Method 200 Z	W61977205	20	12/20/22 11:19	12/21/22 17:06	T/G	Alien, TX			

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservation, and within method specified holding times, unless qualified or noted within the report. Where applicable, all MDL (LOD) and PDL (LOQ) values accepted for environmental samples have been reported for the dilution factor used in the analysis. All Method and Batch Quality Control samples were included in each sample, addressed in the case narrative, a point-to-point form of properly qualified information, and included in the laboratory's quality assurance program. No knowledge, all problems/samples observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of data.

Reagan Johnson
Project Manager

Kaegan Shaw

Project Manager

ACCOUNT	PROJECT	SDG	DATE/TIME	PAGE
Enviro-Ag Engineering		L15625665	00/07/23 11:02	4 of 43

Microbiology by Method 9222D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Coliform Feed	300	23	1	12/07/2022 14:58	WG9169277

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Soluble Nitrogen Ratio	20.2			1	12/22/2022 15:01	WG9192234

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Organic Nitrogen	8.38		0.250	1	12/15/2022 11:45	WG9191247

Gravimetric Analysis by Method 2540C

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Total Dissolved Solids	3780		250	1	12/09/2022 09:55	WG9168709

Gravimetric Analysis by Method 2540D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Suspended Solids	750		250	1	12/04/2022 15:22	WG9169073

Wet Chemistry by Method 1201

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Specific Conductance	5080	unusable	1000	1	12/04/2022 09:24	WG9168970

Sample Narrative:

L1552686-01 WG9168970, 14:25C

Wet Chemistry by Method 1664A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Oil & Grease (Petroleum Ect)	11.2		5.00	1	12/15/2022 11:10	WG9172310

Wet Chemistry by Method 30010

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	1050		0.800	1	12/02/2022 19:36	WG9168405
Fluoride	ND		0.500	1	12/02/2022 17:24	WG9168787
Nitrate	0.587		0.500	1	12/02/2022 15:25	WG9168445
Sulfate	171		0.700	1	12/02/2022 15:38	WG9168445

Wet Chemistry by Method 3512

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Kyoculm Nitrogen TN	16.4		0.250	1	12/15/2022 11:45	WG9172020

Wet Chemistry by Method 4500CI-G-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chlorine (sublim)	ND	TS	0.100	1	12/02/2022 22:10	WG9168668

Wet Chemistry by Method 4500P-E

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Phosphorus, Total	12.1		2.50	50	12/14/2022 17:22	WG9192139

Wet Chemistry by Method 5220D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
CO2	672		35.0	1	12/07/2022 18:10	WG9191622

Wet Chemistry by Method 5310C

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOL (Total Organic Carbon)	117		3.50	5	12/06/2022 13:26	WG9168982

Wet Chemistry by Method SM 4500-H1B

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	8.52	TS	1	12/14/2022 07:00	WG9174607

Sample Narrative:

L1552686-01 WG9174607 8:52 m 18:3C

Wet Chemistry by Method SM4500NH3

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	8.02		100	10	12/08/2022 13:55	WG9192147

Wet Chemistry by Method SMS210B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
BOD	310	2.1 KS	5.00	1	12/07/2022 08:56	WG9168673
COD	466	2.1 KS	100	1	12/07/2022 09:51	WG9168996

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Cadmium	85.1		1.00	1	12/22/2022 14:24	WG9172324
Chromium (Dissolved)	59.2		1.00	1	12/19/2022 14:30	WG917205
Magnesium	39.4		1.00	1	12/22/2022 14:34	WG917234
Sodium	37.9		1.00	1	12/21/2022 14:30	WG917205
Sodium	899		20.0	20	12/22/2022 15:01	WG917234
Sodium (Dissolved)	580		20.0	20	12/22/2022 17:38	WG917205

SCHREIBER 3
Collected date/time: 12/01/22 09:10

SAMPLE RESULTS - 02
L15625605

Calculated Results

Analyte	Result	Qualifier	RQL	Dilution	Analysis date / time	Batch
Chromium (Total)	ND	2	0.00300	1	12/5/2022 11:00	WG1969272

Wet Chemistry by Method 3500Cr-B

Analyte	Result	Qualifier	RQL	Dilution	Analysis date / time	Batch
Chromium Hexavalent	ND	10	0.00300	1	12/5/2022 11:00	WG1924831

Sample Narrative:
L1562865-02 WG1924831 Sample not field filtered within 15 min of collection

Wet Chemistry by Method 4500Cn-E

Analyte	Result	Qualifier	RQL	Dilution	Analysis date / time	Batch
Cadmium	ND		0.0100	1	12/07/2022 15:15	WG1920453

Mercury by Method 245.1

Analyte	Result	Qualifier	RQL	Dilution	Analysis date / time	Batch
Mercury	ND	14	0.000200	1	12/07/2022 14:16	WG1920134

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	RQL	Dilution	Analysis date / time	Batch
Aluminum	4.03		0.500	1	12/08/2022 17:15	WG1969292
Antimony	ND		0.0250	1	12/08/2022 17:15	WG1969292
Arsenic	ND		0.0200	1	12/08/2022 17:15	WG1969292
Barium	0.0847		0.0100	1	12/08/2022 17:15	WG1969292
Beryllium	ND		0.00100	1	12/08/2022 17:15	WG1969292
Boron	ND		0.100	1	12/08/2022 17:15	WG1969292
Cadmium	ND		0.00500	1	12/08/2022 17:15	WG1969292
Calcium	67.4		1.00	1	12/08/2022 17:15	WG1969292
Chromium	ND		0.00700	1	12/08/2022 17:15	WG1969292
Copper	ND		0.0200	1	12/08/2022 17:15	WG1969292
Lead	ND		0.0100	1	12/08/2022 17:15	WG1969292
Magnesium	39.7		1.00	1	12/08/2022 17:15	WG1969292
Manganese	ND		0.0500	1	12/08/2022 17:15	WG1969292
Nickel	0.0145		0.0100	1	12/08/2022 17:15	WG1969292
Selenium	ND		0.0200	1	12/22/2022 12:24	WG1969292
Silver	ND		0.00500	1	12/08/2022 17:15	WG1969292
Sodium	845		20.0	20	12/22/2022 15:04	WG1969292
Thallium	ND		0.0200	1	12/08/2022 17:15	WG1969292
Zinc	0.173		0.0250	1	12/08/2022 17:15	WG1969292

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Microscopy by Method 33.2.20

QUALITY CONTROL SUMMARY

Method Blank (MB)

Analyte	MB Result	MB Qualifier	MB RQL
Calcium Hexad	<1	<1000000	<1000000

Method Blank (MB)

Analyte	MB Result	MB Qualifier	MB RQL
Calcium Hexad	<1	<1000000	<1000000

L1562565-01 (Original Sample) (OS) - Duplicate (DUP)

ICOL L1562565-01 12 07123 14:55 - (DUP) P1562565-03 12 0722 14:55	Original Result	DUP Result	Difference	DUP Qualifier	DUP per 1000
Calcium Hexad	du:100 ml	du:100 ml	0	<1	0

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Gravimetric Analysis by Method 3540C

QUALITY CONTROL SUMMARY

LABS-1816-21

Method Blank (MB)

Analyte	mg/l	MB Result	MB Qualifier	MB MDL	MB ROL
Total Dissolved Solids	U	25.0		25.0	25.0

LT562915-01 Original Sample (OS) - Duplicate (DUP)

(OS) LT562915-01 12/03/22 09:55 - (DUP) R3069791-4 12/03/22 09:55

Analyte	mg/l	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Total Dissolved Solids	210	2360	1	5.60	2		

Laboratory Control Sample (LCS)

(LCS) R3069791-2 12/03/22 09:55

Analyte	mg/l	Scale Amount	LCS Result	LCS Bias	Rec. Limits	LCS Qualifier
Total Dissolved Solids	2340	2320	100	65.0-105		

CP TC SS Cn Sr Gl Al Sc

ACCOUNT
Brimley Engineering

PROJECT

SDG
LABS-1816-21

DATE/TIME
27/02/21 10:02

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WG1969073

Gravimetric Analysis by Method 3540C

QUALITY CONTROL SUMMARY

LABS-1816-21

Method Blank (MB)

Analyte	mg/l	MB Result	MB Qualifier	MB MDL	MB ROL
Total Dissolved Solids	U	2.50		2.50	2.50

LT562686-01 Original Sample (OS) - Duplicate (DUP)

(OS) LT562686-01 12/04/22 15:22 - (DUP) R30692283-3 12/04/22 15:22

Analyte	mg/l	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Total Dissolved Solids	750	770	1	2.60	10		

LT563241-02 Original Sample (OS) - Duplicate (DUP)

(OS) LT563241-02 12/04/22 15:22 - (DUP) R30692283-4 12/04/22 15:22

Analyte	mg/l	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Total Dissolved Solids	290	280	1	0.000	10		

Laboratory Control Sample (LCS)

(LCS) R30692283-2 12/04/22 15:22

Analyte	mg/l	Scale Amount	LCS Result	LCS Bias	Rec. Limits	LCS Qualifier
Total Dissolved Solids	220	215	102	55.0-115		

CP TC SS Cn Sr Gl Al Sc

ACCOUNT
Brimley Engineering

PROJECT

SDG
LABS-1816-21

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09/02/21 10:02

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WG1968970

Wet Chemistry by Method 130.1

QUALITY CONTROL SUMMARY

156588623

Method Blank (MB)

MB Result	MB Qualifier	MB MOL	MB PPL
unreactive	unreactive		
Specific Conductance	U	1.00	1.00

Sample Name:
Blank at 25C

15652242 01 Original Sample (CS) • Duplicate (DUP)

Analyte	Original Result	DUP Result	DUP PPM	DUP Qualifier
Specific Conductance	unreactive	unreactive	%	%
	4278	4279	1	0.000

Sample Name:
Blank at 25C
DUP at 25C

15652886 01 Original Sample (CS) • Duplicate (DUP)

Analyte	Original Result	DUP Result	DUP PPM	DUP Qualifier
Specific Conductance	unreactive	unreactive	%	%
	5000	5000	1	0.000

Sample Name:
Blank at 25C
DUP at 25C

Laboratory Control Sample (LCS)

Sample Amount	LCS Result	LCS Rec	Rec Limit	LCS Qualifier
Specific Conductance	unreactive	%	%	
	200	200	99.9	156588623

Sample Name:
LCS at 25C

Sc Al G Si Ss

WG1974310

Wet Chemistry by Method 130.1

QUALITY CONTROL SUMMARY

15655432

Method Blank (MB)

MB Result	MB Qualifier	MB MOL	MB PPL
unreactive	unreactive		
Specific Conductance	U	0.250	5.00

Sample Name:
Blank at 25C

15655432 03 Original Sample (CS) • Laboratory Control Sample Duplicate (LCS)

Analyte	Sample Amount	LCS Result	LCS Rec	Rec Limit	LCS Qualifier	Rec Limit	Rec Limit
Specific Conductance	mg/L	mg/L	%	%	%	%	%
	40.0	37.3	37.2	94.5	94.0	76.0-104	76.0-104

Sample Name:
Blank at 25C
DUP at 25C

15655432 03 Original Sample (CS) • Laboratory Control Sample Duplicate (LCS)

Analyte	Sample Amount	LCS Result	LCS Rec	Rec Limit	LCS Qualifier	Rec Limit	Rec Limit
Specific Conductance	mg/L	mg/L	%	%	%	%	%
	40.0	37.3	37.2	94.5	94.0	76.0-104	76.0-104

Sample Name:
Blank at 25C
DUP at 25C

Laboratory Control Sample (LCS)

Sample Amount	LCS Result	LCS Rec	Rec Limit	LCS Qualifier
Specific Conductance	unreactive	%	%	
	200	200	99.9	156588623

Sample Name:
LCS at 25C

Sc Al G Si Ss

WG1967877

Met Chemistry By Method 300.0

QUALITY CONTROL SUMMARY

LT552982-1

Method Blank (MB)

Analyte	MB Result	MS Qualifier	MS MDL	MS ROL
Chloride	U	mg/L	0.080	0.250
Mercury				

Laboratory Control Sample (LCS)

Analyte	Spiked Amount	LCS Result	LCS Rec	Rec Limit	MS Qualifier
Chloride	5.00	5.00	99.1	99.0	99.1
Mercury					

LT55913-01 Original Sample (OS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

Analyte	Spiked Amount	Original Result	MS Result	MSD Result	MS Rec	MSD Rec	Dilution	Rec Limit	MS Qualifier	MSD Qualifier	PPD	PPD Limit
Chloride	5.00	ND	5.00	5.00	93.1	93.2	1	90.0	93.1	93.2	0.04	20
Mercury												

Ca
Sr
Cd
Pb
Cu
Fe
Mn
Ni
Co
Cr
Al
Si
Zn
Ba
K
Na
Mg
Ca
Sr
Cd
Pb
Cu
Fe
Mn
Ni
Co
Cr
Al
Si
Zn
Ba
K
Na
Mg

WG1968405

Met Chemistry By Method 300.0

QUALITY CONTROL SUMMARY

LT552982-1

Method Blank (MB)

Analyte	MB Result	MS Qualifier	MS MDL	MS ROL
Chloride	0.143	0.0541	0.080	0.500
Mercury	U	0.207	0.500	0.700
Mercury				

Laboratory Control Sample (LCS)

Analyte	Spiked Amount	LCS Result	LCS Rec	Rec Limit	MS Qualifier
Chloride	5.00	4.99	99.9	99.0	99.9
Mercury					

LT552982-01 Original Sample (OS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

Analyte	Spiked Amount	Original Result	MS Result	MSD Result	MS Rec	MSD Rec	Dilution	Rec Limit	MS Qualifier	MSD Qualifier	PPD	PPD Limit
Chloride	5.00	0.507	5.99	5.99	92.1	91.5	1	90.0	92.1	91.5	0.02	20
Mercury												

LT552982-01 Original Sample (OS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

Analyte	Spiked Amount	Original Result	MS Result	MSD Result	MS Rec	MSD Rec	Dilution	Rec Limit	MS Qualifier	MSD Qualifier	PPD	PPD Limit
Chloride	500	100	100	100	100	100	1	90.0	100	100	0.07	20
Mercury												

Ca
Sr
Cd
Pb
Cu
Fe
Mn
Ni
Co
Cr
Al
Si
Zn
Ba
K
Na
Mg
Ca
Sr
Cd
Pb
Cu
Fe
Mn
Ni
Co
Cr
Al
Si
Zn
Ba
K
Na
Mg

WG1974881

Wet Chemistry by Method 3500C-B

QUALITY CONTROL SUMMARY

US618320

Method Blank (MS)

Analysis	MS Result	MS MDL	MS RSL
Concentration (mg/L)	0.0000	0.0000	0.0000

Laboratory Control Sample (ICS)

Analysis	Spiked Amount	ICS Result	ICS Rec	Rec Limit	ICS Quality
Concentration (mg/L)	0.200	0.187	96.3	93.0-105	

US62886-02 Original Sample (CS) - Matrix Spike (MS)

Analysis	Spiked Amount	Original Result	MS Result	MS Rec	Rec Limit	MS Quality
Concentration (mg/L)	0.200	ND	0.169	24.3	10.0-100	

Sample Warnings

US64107-02 Original Sample (CS) - Matrix Spike (MS)

Analysis	Spiked Amount	Original Result	MS Result	MS Rec	Rec Limit	MS Quality
Concentration (mg/L)	0.200	ND	0.713	118.9	10.0-100	

Sample Warnings

US67930-04 Original Sample (CS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

Analysis	Spiked Amount	Original Result	MS Result	MSD Result	MS Rec	MSD Rec	Dilution	Rec Limit	MS Quality
Concentration (mg/L)	0.200	ND	0.102	0.93	96.2	95.7	1	10.0-100	

ACCOUNT

STATUS

QC

DATE/TIME

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WG1973020

Wet Chemistry by Method 351.2

QUALITY CONTROL SUMMARY

US62886-01

Method Blank (MS)

Analysis	MS Result	MS MDL	MS RSL
Lead (mg/L)	0.00	0.00	0.00

US64663-01 Original Sample (CS) - Duplicate (DUP)

Analysis	Original Result	DUP Result	Dilution	DUP PRO	DUP Quality
Lead (mg/L)	0.165	0.163	1	1.64	20

US65963-02 Original Sample (CS) - Duplicate (DUP)

Analysis	Original Result	DUP Result	Dilution	DUP PRO	DUP Quality
Lead (mg/L)	0.163	0.165	1	1.64	20

Laboratory Control Sample (ICS)

Analysis	Spiked Amount	ICS Result	ICS Rec	Rec Limit	ICS Quality
Lead (mg/L)	0.20	0.1	21.9	75.1-100	

US64963-01 Original Sample (CS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

Analysis	Spiked Amount	Original Result	MS Result	MSD Result	MS Rec	MSD Rec	Dilution	Rec Limit	MS Quality
Lead (mg/L)	0.20	0.1	0.1	0.1	21.9	21.9	1	75.1-100	

US64963-02 Original Sample (CS) - Matrix Spike (MS)

Analysis	Spiked Amount	Original Result	MS Result	MS Rec	Rec Limit	MS Quality
Lead (mg/L)	0.20	0.1	0.1	21.9	75.1-100	

ACCOUNT

STATUS

QC

DATE/TIME

PAGE

WG197313
Wet Chemistry by Method 4500-E

QUALITY CONTROL SUMMARY

1562586.41

Method Blank (MB)

Analyte	MB Result	MB Quicker	MB MDL	MB ROL
mg/l		mg/l	mg/l	mg/l
Proportion Total	0.000	0.000	0.000	0.000

Laboratory Control Sample (LCS)

(LCS) P237956-2 12/04/22 17:22	Spike Amount	LCS Result	LCS Rec	Rec Limits	US Quicker
Analyte	mg/l	mg/l	%		
Proportion Total	0.000	0.000	99.2	99.0-100	

1562586.03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 1562586.03 12/04/22 17:22 (MS) R237956-4 12/04/22 17:22 (MSD) R237956-4 12/04/22 17:22	Spike Amount	Original Result	MS Result	MSD Result	MS Rec	MSD Rec	Dilution	Rec Limits
mg/l	mg/l	mg/l	mg/l	mg/l	%	%	%	%
Proportion Total	0.500	NO	0.50	0.50	99.5	99.5	1	99.0-100

1562574701 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 1562574701 12/04/22 17:22 (MS) R237956-5 12/04/22 17:22 (MSD) R237956-5 12/04/22 17:22	Spike Amount	Original Result	MS Result	MSD Result	MS Rec	MSD Rec	Dilution	Rec Limits
mg/l	mg/l	mg/l	mg/l	mg/l	%	%	%	%
Proportion Total	0.500	0.002	112	110	96.1	91.2	1	90.0-100



WG1970622
Wet Chemistry by Method 5220-D

QUALITY CONTROL SUMMARY

1562586.41

Method Blank (MB)

(MB) P2306399-1 12/07/22 15:10	MB Result	MB Quicker	MB MDL	MB ROL
Analyte	mg/l	mg/l	mg/l	mg/l
CDD	0	0	0	0

Laboratory Control Sample (LCS)

(LCS) P2306399-2 12/07/22 15:10	Spike Amount	LCS Result	LCS Rec	Rec Limits	US Quicker
Analyte	mg/l	mg/l	%		
CDD	500	500	104	80.0-120	

1562575242 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 1562575242 12/07/22 15:10 (MS) P2306399-4 12/07/22 15:10 (MSD) P2306399-4 12/07/22 15:10	Spike Amount	Original Result	MS Result	MSD Result	MS Rec	MSD Rec	Dilution	Rec Limits
mg/l	mg/l	mg/l	mg/l	mg/l	%	%	%	%
Proportion Total	500	20	27	22	90	90	1	80.0-100

15624492-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 15624492-04 12/07/22 15:11 (MS) P2306399-5 12/07/22 15:11 (MSD) P2306399-5 12/07/22 15:11	Spike Amount	Original Result	MS Result	MSD Result	MS Rec	MSD Rec	Dilution	Rec Limits
mg/l	mg/l	mg/l	mg/l	mg/l	%	%	%	%
Proportion Total	500	39.2	573	571	107	105	1	90.0-120



WG1969822
Met Chemistry By MetNet 531C

QUALITY CONTROL SUMMARY

Method Blank (MB)

Analyte
mg/l
TOC (Total Organic Carbon)

MB Result
mg/l
0.270

MB MDL
mg/l
0.100

Laboratory Control Sample (LCS)

LCS#192685076-2 12/06/22 12:30

Spike Amount
mg/l
10.0

LCS Result
mg/l
10.0

LCS Rec
%
100

Rec. Limit
%
90.0-110

L1969702-03 Original Sample (OS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

OS#1969702-03 12/06/22 16:30 - MS#192685076-3 12/06/22 14:30 - (MSD)192685076-4 12/06/22 14:30

Spiked Amount
mg/l
10.0

MS Result
mg/l
10.3

MSD Result
mg/l
10.3

MS Rec
%
99.5

MSD Rec
%
99.5

L1969702-04 Original Sample (OS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

OS#1969702-04 12/06/22 16:30 - MS#192685076-5 12/06/22 15:12 - (MSD)192685076-6 12/06/22 15:31

Spiked Amount
mg/l
10.0

MS Result
mg/l
10.2

MSD Result
mg/l
10.2

MS Rec
%
101.4

MSD Rec
%
101.4

CP
LC
SS
CN
SY
GL
SC

WG1974607

QUALITY CONTROL SUMMARY

Met Chemistry By MetNet 531C

L1969822-15 Original Sample (OS) - Duplicate (DUP)

OS#19544005-15 12/14/22 20:00 - (DUP)19271933-2 12/14/22 20:00

Original Result
mg/l
6.90

DUP Result
mg/l
6.90

DUP Rec
%
100

Laboratory Control Sample (LCS)

LCS#19271933-1 12/14/22 20:00

Spike Amount
mg/l
5.90

LCS Result
mg/l
5.90

LCS Rec
%
99.7

L1969822-16 Original Sample (OS) - Duplicate (DUP)

OS#19544005-16 12/14/22 20:00 - (DUP)19271933-3 12/14/22 20:00

Original Result
mg/l
6.90

DUP Result
mg/l
6.90

DUP Rec
%
100

CP
LC
SS
CN
SY
GL
SC

ACCOUNT

RESULT

TOC

DATE/TIME

12/06/22 16:30

ACCOUNT

PHOSPHATE

SOC

DATE/TIME

12/06/22 16:30

WG1968398
Met Chemistry by Method 50510B

QUALITY CONTROL SUMMARY

Method Blank (MB)

Analyte	MB Result	MB MDL	MB RCL
As2O3	mg/l	mg/l	mg/l
Cr600	U	0.100	0.100

11562933-02 Original Sample (CS) - Duplicate (DU)

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP RPD Limit
As2O3	mg/l	mg/l	%	%	%
Cr600	U	U	1	29.3	20

Laboratory Control Sample (LCS)

Analyte	Spike Amount	LCS Result	LCS Rec	Rec Limit	LCS Qualifier
As2O3	mg/l	mg/l	%	%	%
Cr600	mg/l	mg/l	128	24.18	20

CP
C
S
Cn
Sr
Al
Sc

ACCOUNT
Brownsburg Expressions

PRODUCT
LSE6296

SSO
LSE6296

DATE/TIME
2/2/2017 10:02

ANALYST
J. J. J.

WG1970134
Met Chemistry by Method 245.1

QUALITY CONTROL SUMMARY

Method Blank (MB)

Analyte	MB Result	MB MDL	MB RCL
As2O3	mg/l	mg/l	mg/l
Mercury	0.000060	0.000060	0.000060

11563576-01 Original Sample (OS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

Analyte	Spike Amount	LCS Result	LCS Rec	Rec Limit	LCS Qualifier
As2O3	mg/l	mg/l	%	%	%
Mercury	0.00250	0.000999	22.4	22.7	20

Laboratory Control Sample (LCS)

Analyte	Spike Amount	LCS Result	LCS Rec	Rec Limit	LCS Qualifier
As2O3	mg/l	mg/l	%	%	%
Mercury	0.00250	0.000665	0.00664	22.7	20

CP
C
S
Cn
Sr
Al
Sc

ACCOUNT
Brownsburg Expressions

PRODUCT
LSE6296

SSO
LSE6296

DATE/TIME
2/2/2017 10:02

ANALYST
J. J. J.

WG1968292

QUALITY CONTROL SUMMARY

Method: ICS by Method 200.7

1562196.02

Method: Spike MS1

Analyte	ME Result	ME MDL	ME PQL
Aluminum	mg/L	0.0153	0.050
Antimony	mg/L	0.0042	0.0250
Arsenic	mg/L	0.0046	0.0250
Boron	mg/L	0.00069	0.0050
Barium	mg/L	0.00069	0.0050
Bismuth	mg/L	0.00069	0.0050
Cadmium	mg/L	0.00056	0.00500
Cesium	mg/L	0.0046	100
Copper	mg/L	0.00079	0.00750
Cobalt	mg/L	0.00194	0.020
Lead	mg/L	0.00712	0.020
Lithium	mg/L	0.0454	100
Magnesium	mg/L	0.00597	0.0500
Manganese	mg/L	0.00590	0.0050
Mercury	mg/L	0.000590	0.00500
Molybdenum	mg/L	0.000590	0.00500
Nickel	mg/L	0.000590	0.00500
Selenium	mg/L	0.000590	0.00500
Silver	mg/L	0.000590	0.00500
Sodium	mg/L	0.000590	0.00500
Strontium	mg/L	0.000590	0.00500
Thallium	mg/L	0.000590	0.00500
Zinc	mg/L	0.000590	0.00500

1562196.02

QUALITY CONTROL SUMMARY

Method: ICS by Method 200.7

1562196.02

Method: Spike MS1

Analyte	ME Result	ME MDL	ME PQL
Aluminum	mg/L	0.0153	0.050
Antimony	mg/L	0.0042	0.0250
Arsenic	mg/L	0.0046	0.0250
Boron	mg/L	0.00069	0.0050
Barium	mg/L	0.00069	0.0050
Bismuth	mg/L	0.00069	0.0050
Cadmium	mg/L	0.00056	0.00500
Cesium	mg/L	0.0046	100
Copper	mg/L	0.00079	0.00750
Cobalt	mg/L	0.00194	0.020
Lead	mg/L	0.00712	0.020
Lithium	mg/L	0.0454	100
Magnesium	mg/L	0.00597	0.0500
Manganese	mg/L	0.00590	0.0050
Mercury	mg/L	0.000590	0.00500
Molybdenum	mg/L	0.000590	0.00500
Nickel	mg/L	0.000590	0.00500
Selenium	mg/L	0.000590	0.00500
Silver	mg/L	0.000590	0.00500
Sodium	mg/L	0.000590	0.00500
Strontium	mg/L	0.000590	0.00500
Thallium	mg/L	0.000590	0.00500
Zinc	mg/L	0.000590	0.00500

WG1968292

QUALITY CONTROL SUMMARY

Method: ICS by Method 200.7

1562196.02

Method: Spike MS1

Analyte	ME Result	ME MDL	ME PQL
Aluminum	mg/L	0.0153	0.050
Antimony	mg/L	0.0042	0.0250
Arsenic	mg/L	0.0046	0.0250
Boron	mg/L	0.00069	0.0050
Barium	mg/L	0.00069	0.0050
Bismuth	mg/L	0.00069	0.0050
Cadmium	mg/L	0.00056	0.00500
Cesium	mg/L	0.0046	100
Copper	mg/L	0.00079	0.00750
Cobalt	mg/L	0.00194	0.020
Lead	mg/L	0.00712	0.020
Lithium	mg/L	0.0454	100
Magnesium	mg/L	0.00597	0.0500
Manganese	mg/L	0.00590	0.0050
Mercury	mg/L	0.000590	0.00500
Molybdenum	mg/L	0.000590	0.00500
Nickel	mg/L	0.000590	0.00500
Selenium	mg/L	0.000590	0.00500
Silver	mg/L	0.000590	0.00500
Sodium	mg/L	0.000590	0.00500
Strontium	mg/L	0.000590	0.00500
Thallium	mg/L	0.000590	0.00500
Zinc	mg/L	0.000590	0.00500

1562196.02

QUALITY CONTROL SUMMARY

Method: ICS by Method 200.7

1562196.02

Method: Spike MS1

Analyte	ME Result	ME MDL	ME PQL
Aluminum	mg/L	0.0153	0.050
Antimony	mg/L	0.0042	0.0250
Arsenic	mg/L	0.0046	0.0250
Boron	mg/L	0.00069	0.0050
Barium	mg/L	0.00069	0.0050
Bismuth	mg/L	0.00069	0.0050
Cadmium	mg/L	0.00056	0.00500
Cesium	mg/L	0.0046	100
Copper	mg/L	0.00079	0.00750
Cobalt	mg/L	0.00194	0.020
Lead	mg/L	0.00712	0.020
Lithium	mg/L	0.0454	100
Magnesium	mg/L	0.00597	0.0500
Manganese	mg/L	0.00590	0.0050
Mercury	mg/L	0.000590	0.00500
Molybdenum	mg/L	0.000590	0.00500
Nickel	mg/L	0.000590	0.00500
Selenium	mg/L	0.000590	0.00500
Silver	mg/L	0.000590	0.00500
Sodium	mg/L	0.000590	0.00500
Strontium	mg/L	0.000590	0.00500
Thallium	mg/L	0.000590	0.00500
Zinc	mg/L	0.000590	0.00500

WG1968292

Method (ICP) by Method 200.7

QUALITY CONTROL SUMMARY

US62702-02

US62702-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

Analyte	Spiked Amount	Original Result	MS Result	MS Rec.	MSD Result	MSD Rec.	Duplicate	MSD Rec.	MSD Rec.	MSD Rec.	MSD Rec.
As	100	NO	101	99.3	87.7	87.7	1	1	1	1	1
Thallium	100	NO	101	99.3	87.7	87.7	1	1	1	1	1
Zn	100	NO	101	99.3	87.7	87.7	1	1	1	1	1

Ca	Al	Ga	Si	Fe	Co	Na	Li	Sc
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WG1973314

Method (ICP) by Method 200.7

QUALITY CONTROL SUMMARY

US64492-02

US64492-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

Analyte	Spiked Amount	Original Result	MS Result	MS Rec.	MSD Result	MSD Rec.	Duplicate	MSD Rec.	MSD Rec.	MSD Rec.	MSD Rec.
As	100	NO	101	99.3	87.7	87.7	1	1	1	1	1
Thallium	100	NO	101	99.3	87.7	87.7	1	1	1	1	1
Zn	100	NO	101	99.3	87.7	87.7	1	1	1	1	1

Ca	Al	Ga	Si	Fe	Co	Na	Li	Sc
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WG1973314

QUALITY CONTROL SUMMARY

Method: ICP7 by Method 200.7

1/25/2018

1/25/2018 01:00 Original Sample (CS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

Analyte	Spiked Amount	Original Result	MS Result	MSD Result	MS Rec	MSD Rec	Rec Limit	MS Q Limit	MSD Q Limit	RPD	RPD Limit
Cadmium	mg/l	48.4	55.7	59.0	0.4	0.7	70.0-90.0	0.551	2.0	0.551	20
Vanadium	mg/l	81.4	21.0	20.7	99.5	92.5	70.0-90.0	1.55	20	1.55	20

1/25/2018 01:00 Original Sample (CS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

Analyte	Spiked Amount	Original Result	MS Result	MSD Result	MS Rec	MSD Rec	Rec Limit	MS Q Limit	MSD Q Limit	RPD	RPD Limit
Selenium	mg/l	20.0	20.3	20.0	20.1	0.000	70.0	1	1	1.22	20

1/25/2018 01:00 Original Sample (CS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

Analyte	Spiked Amount	Original Result	MS Result	MSD Result	MS Rec	MSD Rec	Rec Limit	MS Q Limit	MSD Q Limit	RPD	RPD Limit
Selenium	mg/l	20.0	20.3	20.0	20.1	0.000	70.0	1	1	1.22	20

1/25/2018 01:00 Original Sample (CS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

Analyte	Spiked Amount	Original Result	MS Result	MSD Result	MS Rec	MSD Rec	Rec Limit	MS Q Limit	MSD Q Limit	RPD	RPD Limit
Selenium	mg/l	20.0	20.3	20.0	20.1	0.000	70.0	1	1	1.22	20

Sc Sr Y Zr Nb Mo Cr Ni Cu Zn Ga Ge As Se Br Rb Cs Ba Pb Bi Po At Rn Th Pa U Pu Am Cm Bk Cf Fm Md No

WG1972205

QUALITY CONTROL SUMMARY

Method: ICP7 by Method 200.7

1/25/2018

1/25/2018 01:00 Original Sample (CS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

Analyte	Spiked Amount	Original Result	MS Result	MSD Result	MS Rec	MSD Rec	Rec Limit	MS Q Limit	MSD Q Limit	RPD	RPD Limit
Cadmium	mg/l	48.4	55.7	59.0	0.4	0.7	70.0-90.0	0.551	2.0	0.551	20
Vanadium	mg/l	81.4	21.0	20.7	99.5	92.5	70.0-90.0	1.55	20	1.55	20

1/25/2018 01:00 Original Sample (CS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

Analyte	Spiked Amount	Original Result	MS Result	MSD Result	MS Rec	MSD Rec	Rec Limit	MS Q Limit	MSD Q Limit	RPD	RPD Limit
Selenium	mg/l	20.0	20.3	20.0	20.1	0.000	70.0	1	1	1.22	20

1/25/2018 01:00 Original Sample (CS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

Analyte	Spiked Amount	Original Result	MS Result	MSD Result	MS Rec	MSD Rec	Rec Limit	MS Q Limit	MSD Q Limit	RPD	RPD Limit
Selenium	mg/l	20.0	20.3	20.0	20.1	0.000	70.0	1	1	1.22	20

1/25/2018 01:00 Original Sample (CS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

Analyte	Spiked Amount	Original Result	MS Result	MSD Result	MS Rec	MSD Rec	Rec Limit	MS Q Limit	MSD Q Limit	RPD	RPD Limit
Selenium	mg/l	20.0	20.3	20.0	20.1	0.000	70.0	1	1	1.22	20

Sc Sr Y Zr Nb Mo Cr Ni Cu Zn Ga Ge As Se Br Rb Cs Ba Pb Bi Po At Rn Th Pa U Pu Am Cm Bk Cf Fm Md No

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and combined with this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Matrix Spikes, Duplicate, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit
ND	Not detected at the Reporting Limit (or MDL where applicable)
RDL	Reported Detection Limit
Rec.	Recovery
RPD	Relative Percent Difference
SDG	Sample Delivery Group
U	Not detected at the Reporting Limit (or MDL where applicable)
Analyte	The name of the particular compound or analysis performed. Some analyses and methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the analytical or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result indicates the dilution factor corrected for this field.
Limits	These are the upper and lower ranges or % difference value that the laboratory has historically determined as normal for the sample type and matrix. If a reported Successful QC Sample analysis will target all analytes recovered as normal for the sample type and matrix.
Original Sample	The non-diluted sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. This Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designating the response to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions pages and potentially a discussion of possible implications of the Qualifier in the Case Narrative is applicable.
Result	The actual analytical result returned for any sample-specific detection request for your sample. If the result is no measurable result returned for a specific analyte, the result in this column may state "ND" (not detected) or "SDG" (Below Detectable Limit). The information in this results column should always be accompanied by either an MDL or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Retrochemistry)	Confidence level of 2 sigma



QUALITY CONTROL SUMMARY

Mean: 1.07 by Method 200.7									
L156467-01 Original Sample (OC) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)									
IC91.L156467-01 12/27/23 10:02 - MS1:R93760633 12/27/23 10:07 - MSD:R2020008-1 12/27/23 10:10									
Analyte	Spiked Amount	Original Result	MS Result	MSD Result	MS Rec	MSD Rec	Dilution	Rec. Limit	MSD Qualifier
mg/L	mg/L	mg/L	mg/L	mg/L	%	%		%	
Scandium (unspiked)	10.0	1023	1070	995	0.000	0.000	10	10.000	Y
									Y
									2.03
									20

ACCOUNT	PROJECT	SDG	DATETIME	PAGE
Engineering	L1564685	01/27/23 11:02	34 of 43	

Qualifier

Description

- J The analysis concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
 - J3 The identification of the analyte is acceptable; the reported value is an estimate.
 - J4 The associated batch OC was outside the established quality control range for precision.
 - J5 The associated batch OC was outside the established quality control range for accuracy.
 - J6 The sample matrix interfered with the ability to make any accurate determination; spike value is high.
 - J- The sample matrix interfered with the ability to make any accurate determination; spike value is low.
 - J+ The associated batch OC was outside the lower control limit; associated data has a potential negative bias.
 - K9 The associated batch OC was outside the upper control limit; associated data has a potential positive bias.
 - P1 Test replicates show more than 30% difference between high and low values.
 - T8 RPD value not applicable for sample concentration less than 5 times the reporting limit.
 - V Sample(s) recovered previous close to holding time expiration.
- The sample concentration is too high to evaluate accurate spike recoveries.

ACCOUNT	PROJECT	SDG	DATE/TIME	PAGE
Engineering	L1562685		01/27/23 11:02	34 of 43

Sc Al Ga Oc Sr Cn Ss Te Ce

Alabama	40650	NE-05-15-05
Alaska	71-026	TM00002021-1
Arizona	A20612	New Hampshire
Arkansas	00-0469	2975
California	2932	TM002
Colorado	TM00003	New Jersey-NE-LAP
Connecticut	PR-0467	New Mexico
Delaware	NE-LAP	New York
Florida	FL-0467	New York
Georgia	923	North Carolina
Hawaii	TM000032	North Carolina
Illinois	3100000	North Carolina
Indiana	C-74-01	North Dakota
Iowa	364	Ohio-ILP
Kansas	E-10277	Oregon
Kentucky ¹	KY90010	South Carolina
Louisiana	16	South Dakota
Maine	A10-92	Tennessee ¹
Maryland	LAP03	Texas
Massachusetts	TM00003	Texas ¹
Michigan	324	Utah
Minnesota	M-74-003	Vermont
Mississippi	9952	Virginia
Missouri	047-999-955	Washington
Montana	TM00003	West Virginia
Nebraska	340	Wisconsin
Nevada	CET-10058	Wyoming
New Hampshire	148-01	AA-LA-LIC-EM-LAP
New Jersey-NE-LAP	148-02	DDO
New Mexico	148-07	USDA
New York	TM00003	
North Carolina		
North Dakota		
Ohio-ILP		
Oregon		
South Carolina		
South Dakota		
Tennessee ¹		
Texas		
Texas ¹		
Utah		
Vermont		
Virginia		
Washington		
West Virginia		
Wisconsin		
Wyoming		
AA-LA-LIC-EM-LAP		
DDO		
USDA		

Address	CE 0647	Keywords	EIC303
Florida	637718	Timeline	T04/T0423-23.37
lowa	408	Observing	0727
Location	30656		

100106123-22-37

PAGE
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Enviro Ag Engineering
2401 Alamo Blvd
Austin, TX 78718

Client: Jordan Smith
Project: 254-955-2509

Sample ID: SCH-2023-01
Sample Name: Grab WW
Sample Date: 12/1/2023 9:10
Sample Time: 10:10
Sample Location: 254-955-2509

Analysis:
☒ CHLORR 500mlHDPE-NoPres
☒ Dissolved Ca, Mg, Na 250mlHDPE-NoPres
☒ FTWFC Microbiological
☒ TKN 250mlHDPE-H2SO4
☒ Total Metals 250mlHDPE-HNO3
☒ WetChem 500mlHDPE-NoPres

Lab: DSENGENIX
190 Alamo Blvd
Austin, TX 78718
Phone: 512-572-3700
Fax: 512-572-3701
Email: info@dsengenix.com
Website: www.dsengenix.com

Notes:
 - Sample received from client on 12/1/2023 at 10:10 AM.
 - Sample is for analysis of Chlorine, Dissolved Ca, Mg, Na, FTWFC, TKN, Total Metals, and WetChem.
 - Sample is in a 500ml HDPE bottle.
 - Sample is labeled with a yellow label.
 - Sample is stored in a cool box.
 - Sample is analyzed by the lab on 12/1/2023.
 - Results will be provided to the client by 12/1/2023.

Pace Analytical
Sample Receiving Non-Conformance Form (NCF)

Date: 12/1/23 Evaluated by: ACH

Client: Enviro Ag

1. If Chain-of-Custody (COC) is not received, contact client and if necessary, fill out a COC and indicate that it was filled out by lab personnel. Note issues on this NCF.

2. If COC is incomplete, check applicable issues below and add details where appropriate:

Collection date/time missing or incorrect	Analysis or analytes missing or clarification needed	Samples listed on COC do not match samples received (missing, additional, etc.)
Sample IDs on COC do not match sample labels	Required signatures are missing	

Comments/Details/Other issues not listed above:
 Looks like client might send pre or post lab COC, able to label all containers correctly due to Template for logging. Check signed sample sheet if COC to lab a couple of hours after receiving sample.

3. Sample integrity issues: check applicable issues below and add details where appropriate:

Samples Past holding time	Samples Condition needs to be brought to lab personnel's attention (details below)	Preservation: Improper
Samples Not field filtered	Containers Broken or compromised	Temperature: Not within acceptance criteria (typically 0-6°C)
Samples insufficient volume received	Containers: Improper	Temperature: Samples arrived frozen
Samples Cooler damaged or compromised	Custody Seals Missing or compromised on samples, top/bottom of caps	Vials received with improper headspace
Samples contain chlorine or sulfur	Packing Material: Insufficient/Improper	Other:

Comments/Details:

4. If Samples not preserved properly and Sample Receiving adjusts pH, add details below:

Sample ID:	Date/Time	Amount/type pres added
Preserved by:	Initial and Final pH	Lot # of pres added
Sample ID:	Date/Time	Amount/type pres added
Preserved by:	Initial and Final pH	Lot # of pres added
Sample ID:	Date/Time	Amount/type pres added
Preserved by:	Initial and Final pH	Lot # of pres added

5. Client Contact: If client is contacted for any issue listed above, fill in details below:

Client:	Contacted per:
PM Initials:	Date/Time:

Client Comments/Instructions:

	Document Name:	Document Revised: 7/27/20
	Sample Condition Upon Receipt	Page 1 of 1
	Document No.: F-DALC-401-rev 1.3	Issuing Authority: Pace Dallas Quality Office

Sample Condition Upon Receipt

☐ Dallas
 ☒ Ft Worth
 ☐ Corpus Christi
 ☐ Austin

Client Name: Enviro-Ag Project Work order (place label): L1562686
 Courier: FedEx ☐ UPS ☐ USPS ☐ Client ☐ ISO ☐ PACE ☐ Other: _____
 Tracking #: _____
 Custody Seal on Cooler/Box: Yes ☐ No ☒
 Received on Ice: Wet ☐ Blue ☐ No Ice ☒
 Receiving Lab 1 Thermometer Used: FWM16 Cooler Temp °C: 1.3 (Recorded) 0.2 (Correction Factor) 1.1 (Actual)
 Receiving Lab 2 Thermometer Used: IRH Cooler Temp °C: 4.5 (Recorded) 4.5 (Correction Factor) 5.4 (Actual)

Temperature should be above freezing to 6°C unless collected same day as receipt in which evidence of cooling is acceptable

Triage Person: AM Date: 12/1/22

Chain of Custody relinquished	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Sampler name & signature on COC	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Short HT analyses (<72 hrs)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Login Person: AM Date: _____

Sufficient Volume received	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Correct Container used	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Container Intact	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Sample pH Acceptable	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
pH Strips: <u>6.1005</u>	
Residual Chlorine Present	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA <input type="checkbox"/> 06/12/2
Cl Strips: <u>14860</u>	
Sulfide Present	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA <input type="checkbox"/> 06/12/2
Lead Acetate Strips: <u>14862</u>	
Are soil samples (volatiles, TPH) received in 5035A Kils (not applicable to TCLP VOA or PST Program TPH)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA <input type="checkbox"/>
Unpreserved 5035A soil frozen within 48 hrs	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
Headspace in VOA (>6mm)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA <input type="checkbox"/>
Project sampled in USDA Regulated Area outside of Texas	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA <input type="checkbox"/>
State Sampled:	
Non-Conformance(s):	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

Labeling Person (if different than log-in): _____ Date: _____

Enviro-Ag Engineering 2400 Alamo Blvd Amarillo, TX 79118		Project Information Project Name: <u>Enviro-Ag</u> Project No: <u>254-954-3500</u> Project Location: <u>Enviro-Ag</u>	
Client Information Client Name: <u>Enviro-Ag</u> Client Address: <u>Enviro-Ag</u> Client Phone: <u>Enviro-Ag</u>		Sample Information Sample ID: <u>Enviro-Ag</u> Sample Date: <u>Enviro-Ag</u> Sample Time: <u>Enviro-Ag</u>	
Analysis Information Analysis Type: <u>Enviro-Ag</u> Analysis Method: <u>Enviro-Ag</u> Analysis Date: <u>Enviro-Ag</u>		Results Information Results Type: <u>Enviro-Ag</u> Results Method: <u>Enviro-Ag</u> Results Date: <u>Enviro-Ag</u>	
Notes Notes: <u>Enviro-Ag</u>		Signatures Signature: <u>Enviro-Ag</u> Date: <u>Enviro-Ag</u>	

	Document Name: Sample Condition Upon Receipt	Document Revised: 7/27/20 Page 2 of 3
	Document No.: F-DAL-C-001-Rev 14	Issuing Authority: Pace Dallas Quality Office
	Sample Condition Upon Receipt	

☐ Dallas
 ☒ Ft Worth
 ☐ Corpus Christi
 ☐ Austin

Client Name: Enviro-Air Project Work order (place label):
 Courier: FedEx ☐ UPS ☐ USPS ☐ Other: LSO PACE ☐ Other:
 Tracking #: L1562686
 Custody Seal on Cooler/Box: Yes ☐ No ☒
 Received on Ice: Wet ☐ Blue ☐ No Ice ☐
 Receiving Lab 1 Thermometer Used: FV111118 Cooler Temp °C: 1.3 (Recorded) 0.2 (Correction Factor) 1.1 (Actual)
 Receiving Lab 2 Thermometer Used: _____ Cooler Temp °C: _____ (Recorded) _____ (Correction Factor) _____ (Actual)

Temperature should be above freeze

ich evidence of cooling is unacceptable

Triage Person: AT Send Chlora and TKN

Chain of Custody relinquished
 Sampler name & signature on L
 Short HT analyses (<72 hrs)

to National

AT

Login Person: _____

Sufficient Volume received

Correct Container used

Container Intact	Yes <input type="checkbox"/> No <input type="checkbox"/>
Sample pH Acceptable	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
pH Strips:	
Residual Chlorine Present	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
Cl Strips:	
Sulfide Present	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
Lead Acetate Strips:	
Are soil samples (volatiles, TPH) received in 5035A Kits (not applicable to TCLP VOA or PST Program TPH)	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
Unpreserved 5035A soil frozen within 48 hrs	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
Headspace in VOA (>6mm)	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
Project sampled in USDA Regulated Area outside of Texas	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
State Sampled:	
Non-Conformance(s):	Yes <input type="checkbox"/> No <input type="checkbox"/>

Labeling Person (if different than log-in): _____ Date: _____

Enviro-Air Engineering 3404 Highway 280E Suite 100, Ft. Worth, TX 76116		Project Information Project Name: <u>Enviro-Air</u> Project Location: <u>Enviro-Air</u> Project Number: <u>254-965-3500</u>																													
Client Information Client Name: <u>Enviro-Air</u> Client Address: <u>Enviro-Air</u> Client Phone: <u>254-965-3500</u>		Lab Information Lab Name: <u>Enviro-Air</u> Lab Address: <u>Enviro-Air</u> Lab Phone: <u>254-965-3500</u>																													
Sample Information Sample ID: <u>Enviro-Air</u> Sample Description: <u>Enviro-Air</u> Sample Date: <u>Enviro-Air</u>		Analysis Information Analysis Type: <u>Enviro-Air</u> Analysis Method: <u>Enviro-Air</u> Analysis Date: <u>Enviro-Air</u>																													
Test Results <table border="1"> <thead> <tr> <th>Test Name</th> <th>Result</th> <th>Unit</th> <th>Notes</th> </tr> </thead> <tbody> <tr> <td>CHLORR 600mlHDPE-NoPres</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Dissolved Ca, Mg, Na 250mlHDPE-NoPres</td> <td></td> <td></td> <td></td> </tr> <tr> <td>FTWFC Microbiological</td> <td></td> <td></td> <td></td> </tr> <tr> <td>TKN 250mlHDPE-H2SO4 v</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Total Metals 250mlHDPE HNO3</td> <td></td> <td></td> <td></td> </tr> <tr> <td>WetChem 500mlHDPE-NoPres</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Test Name	Result	Unit	Notes	CHLORR 600mlHDPE-NoPres				Dissolved Ca, Mg, Na 250mlHDPE-NoPres				FTWFC Microbiological				TKN 250mlHDPE-H2SO4 v				Total Metals 250mlHDPE HNO3				WetChem 500mlHDPE-NoPres				Other Information Other Test Results: <u>Enviro-Air</u> Other Notes: <u>Enviro-Air</u>	
Test Name	Result	Unit	Notes																												
CHLORR 600mlHDPE-NoPres																															
Dissolved Ca, Mg, Na 250mlHDPE-NoPres																															
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WetChem 500mlHDPE-NoPres																															



Sample Receiving Non-Conformance Form (NCF)

Date: 12/1/20	Evaluated by: ACH
Client: Penn State	

Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-In Number Here

1. If Chain-of-Custody (COC) is not received: contact client and if necessary, fill out a COC and indicate that it was filled out by lab personnel. Note issues on this NCF.

2. If COC is incomplete, check applicable issues below and add details where appropriate:

Collection date/time missing or incorrect	Analysis or analysis, missing or clarification needed	✓ Samples listed on COC do not match samples received (missing, additional, etc.)
Samples IDs on COC do not match sample labels	Required trip blanks were not received	Required signatures are missing

Comments/Details/Other issues not listed above:

Looks like client forgot second page of provided COC, able to label all containers correctly due to template for labeling. - Client scanned a copy of second page after filling it out a couple of hours after receiving samples.

3. Sample integrity issues: check applicable issues below and add details where appropriate:

Samples Past holding time	Samples Condition needs to be brought to lab personnel's attention (details below)	Preservation: Improper
Samples Not field filtered	Containers Broken or compromised	Temperature: not within acceptance criteria (typically 0-5°C)
Samples Insufficient volume received	Containers: Incorrect	Temperature: Samples arrived frozen
Samples Cooler damaged or compromised	Custody Seals: Missing or compromised on samples, trip blanks or coolers	Vials recovered with improper headspace
Samples contain unknown or unknown	Packing Material: Insufficient/Improper	Other

Comments/Details:

4. If Samples not preserved properly and Sample Receiving adjusts pH, add details below:

Sample ID:	Date/Time:	Amount/type pres added:
Preserved by:	Initial and Final pH:	Lot # of pres added:
Sample ID:	Date/Time:	Amount/type pres added:
Preserved by:	Initial and Final pH:	Lot # of pres added:
Sample ID:	Date/Time:	Amount/type pres added:
Preserved by:	Initial and Final pH:	Lot # of pres added:

5. Client Contact: If client is contacted for any issue listed above, fill in details below:

Client:	Contacted per:
PM Initials:	Date/Time:

Client Comments/Instructions:



ANALYTICAL REPORT

January 19, 2023

Enviro-Ag Engineering

Sample Delivery Group: L1564107

Samples Received: 12/06/2022

Project Number:

Description:

Report To:

Jourdan Mullin
3404 Arway Blvd
Amarillo, TX 79118

Entire Report Reviewed By:

Cassandra Foster

Cassandra Foster
Project Manager

Results relate only to the concentration of elements and are reported as expected values. The test report shall not be reproduced except in full without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedure, EN ISO 17025, and all test results are reported as expected values. The test report shall not be reproduced except in full without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedure, EN ISO 17025, and all test results are reported as expected values.

Pace Analytical National

12065 Lebanon Rd, Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.paceanalytical.com

ACCOUNT:
Enviro-Ag Engineering

PROJECT:
L1564107

DATE/TIME:
01/19/23 10:28

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Tc	Al
Ss	Gl
Cn	Oc
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Cp	Sc
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ACCOUNT:
Enviro-Ag Engineering

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SCHREIBER 4 L1564107-01 WW									
Method	Batch	Duration	Preparation	Analysis	Analyst	Location	Collected by	Received date/time	Collected date/time
Microbiology by Method 9222D							Collected 4:54a.m.m	12/05/22 09:54	12/05/22 09:54
Calculated Results									
Concluded Results									
Grammatic Analysis by Method 2540C	W61970787	1	12/06/22 14:58	12/07/22 15:02	CNC	P. Woot, TX			
Grammatic Analysis by Method 2540D	W6197488	1	12/06/22 17:05	12/06/22 17:09	LDT	Allen, TX			
Wet Chemistry by Method 20.1	W6197076	1	12/07/22 13:34	12/07/22 14:07	OOT	Allen, TX			
Wet Chemistry by Method 20.1	W6197213	1	12/07/22 05:38	12/07/22 07:32	OOT	Allen, TX			
Wet Chemistry by Method 20.1	W6197039	1	12/07/22 14:19	12/07/22 14:15	OOT	Allen, TX			
Wet Chemistry by Method 20.0	W6197033	1	12/07/22 09:34	12/09/22 12:00	TX	Allen, TX			
Wet Chemistry by Method 20.0	W6197005	1	12/07/22 06:42	12/07/22 06:42	EG	Allen, TX			
Wet Chemistry by Method 20.0	W6197015	1	12/07/22 17:30	12/07/22 17:00	EG	Allen, TX			
Wet Chemistry by Method 20.0	W6197030	1	12/08/22 09:47	12/08/22 08:17	EG	Allen, TX			
Wet Chemistry by Method 351.2	W6197484	1	12/06/22 10:32	12/06/22 17:09	LDT	Allen, TX			
Wet Chemistry by Method 4500C-G-2011	W6197914	1	12/09/22 15:17	12/09/22 15:17	PLS	M. Jurek, TN			
Wet Chemistry by Method 4500P-E	W6197342	10	12/04/22 17:17	12/04/22 17:17	KCM	Allen, TX			
Wet Chemistry by Method 5220D	W6197552	1	12/06/22 1:39	12/06/22 15:24	SMC	Allen, TX			
Wet Chemistry by Method 5310C	W6197296	5	12/04/22 16:13	12/04/22 16:13	EG	Allen, TX			
Wet Chemistry by Method 5400A-H-H	W6197563	1	12/06/22 19:18	12/06/22 19:18	TG	Allen, TX			
Wet Chemistry by Method 5400A-H-H	W6197347	5	12/06/22 14:12	12/08/22 14:12	EG	Allen, TX			
Wet Chemistry by Method 540270B	W6197022	1	12/07/22 15:51	12/07/22 10:14	TG	Allen, TX			
Wet Chemistry by Method 54210B	W6197078	1	12/07/22 07:29	12/07/22 11:51	TG	Allen, TX			
Metals ICP by Method 20.7	W6197488	1	12/06/22 12:54	12/06/22 14:58	E5	Allen, TX			
Metals ICP by Method 20.7	W6197488	100	12/09/22 12:54	12/09/22 13:11	TG	Allen, TX			
Metals ICP by Method 20.7	W6197705	1	12/09/22 11:19	12/07/22 04:14	E5	Allen, TX			
Metals ICP by Method 20.7	W6197705	20	12/06/22 11:19	12/07/22 11:02	E5	Allen, TX			

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or noted within the report. Where applicable, all MDI, LCO and PCL (LCO) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control samples, established criteria excepted where addressed in the case narrative, a non-conformance form or other laboratory communication, and any other information that may be relevant to the data or knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Cassandra Foster
Project Manager

Sc³⁺ Al³⁺ Ga³⁺ In³⁺ Sn⁴⁺ Pb⁴⁺ Tl³⁺ Bi³⁺ Sb³⁺ As³⁺ P³⁻ N³⁻ O²⁻ F⁻

Ca, Ti, Sc, Zr, Sr, Ba, Pb, Bi, Po, At, Rn, Ac, Th, Pa, U, Np, Pu, Am, Cm, Bk, Cf, Es, Fm, Md, No, Lr

SCHEIBER 4_L156107-02_WW									
Method	Batch	Dilution	Preparation	Analysis	Analysis	Location	Collected date/time	Prepared date/time	Lab ID
Calculated Results									
Wet Chemistry by Method 3500C-B	W6197488	1	12/9/22 5:04	12/19/22 15:04	T/G	Alien TX			
Wet Chemistry by Method 4500C-Br	W6197481	1	12/5/22 11:00	12/08/22 11:00	KCM	Alien TX			
Mucous Chemistry by Method 4500C-Br	W6197485	1	12/08/22 09:46	12/08/22 16:19	KCM	Alien TX			
Mucous Chemistry by Method 28.1	W6197470.1	1	12/04/22 0:45	12/04/22 14:47	CLK	Alien TX			
Mucous IC/P by Method 200.7	W6197448	1	12/9/22 15:54	12/19/22 15:04	E/S	Alien TX			
Mucous IC/P by Method 200.7	W6197463	1	12/9/22 12:54	12/20/22 13:58	E/S	Alien TX			
Mucous IC/P by Method 200.7	W6197468	1	12/9/22 12:54	12/20/22 13:57	T/G	Alien TX			
Mucous IC/P by Method 200.7	W6197428	1	01/01/23 11:35	01/05/23 12:03	E/S	Alien TX			

ACCOUNT PROJECT \$05 DATE/TIME: 07/19/23 10:28 PAGE 3 of 36

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SCHREIBER 4

Collected date/time: 12/06/22 08:54

SAMPLE RESULTS - 01

L1564107

Microbiology by Method 9222D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Coliform Fecal	500		1	12/07/2022 15:02	WG9720787

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Organic Nitrogen	7.83		0.250	1	12/06/2022 17:09	WG9721417

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Sodium Azide/Pool Nitrate	21.6			1	12/22/2022 13:21	WG9724488

Gravimetric Analysis by Method 2540C

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Total Dissolved Solids	3000		77.5	1	12/07/2022 16:07	WG9720676

Gravimetric Analysis by Method 2540D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Suspended Solids	753		167	1	12/07/2022 07:32	WG9722223

Wet Chemistry by Method 1201

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Specific Conductance	4950		unlabeled	1	12/07/2022 14:19	WG9720709

Sample Narrative

L1564107-01 WG9720709-01 25C

Wet Chemistry by Method 1664A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Oil & Grease (Heptane Extract)	5.02		5.00	1	12/09/2022 12:00	WG9726142

Wet Chemistry by Method 3000.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	1050		0.800	1	12/09/2022 09:17	WG9720016
Fluoride	ND		0.500	1	12/07/2022 16:42	WG9720016
Nitrate	0.578		0.500	1	12/07/2022 16:42	WG9720016
Sulfate	123		0.700	1	12/07/2022 17:00	WG9720016

Wet Chemistry by Method 351.2

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Kjeldahl Nitrogen (TKN)	12.9		0.250	1	12/06/2022 07:09	WG9724348

Wet Chemistry by Method 4500CI-G-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chlorine (Available)	0.823		0.100	1	12/09/2022 15:17	WG9720704

ACCOUNT

Emerging Engineering

PROJECT

L1564107

SDG

019723 10 28

DATE/TIME

5 of 26

SCHREIBER 4

Collected date/time: 12/06/22 08:54

SAMPLE RESULTS - 01

L1564107

Wet Chemistry by Method 4500P-E

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Fluoride (Total)	12.0		0.500	10	12/04/2022 17:17	WG9721412

Wet Chemistry by Method 5220D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
COD	773		35.0	1	12/06/2022 15:24	WG9725562

Wet Chemistry by Method 5310C

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOC (Total Organic Carbon)	\$4.5		3.50	5	12/04/2022 16:13	WG9729218

Wet Chemistry by Method SM 4500-H+B

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	8.40		1	12/06/2022 15:18	WG9725562

Sample Narrative

L1564107-01 WG9725562 8.4 in 15 BC

Wet Chemistry by Method SM4500NH3

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	5.05		0.500	5	12/08/2022 14:12	WG9721417

Wet Chemistry by Method SM5210B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
BOD	25.6		3.00	1	12/12/2022 10:14	WG9720702
CBOD	65.1		30.0	1	12/12/2022 11:51	WG9720708

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Calcium	88.0		1.00	1	12/09/2022 14:58	WG9724488
Calcium Dissolved	61.9		1.00	1	12/12/2022 14:14	WG9720705
Magnesium	39.7		1.00	1	12/09/2022 14:58	WG9724488
Magnesium Dissolved	38.3		1.00	1	12/12/2022 14:14	WG9720705
Sodium	971		100	100	12/22/2022 13:11	WG9724488
Sodium Dissolved	1020		20.0	20	12/27/2022 18:02	WG9722435

ACCOUNT

Emerging Engineering

PROJECT

L1564107

SDG

019723 10 28

DATE/TIME

6 of 26

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chromium, Trivalent	ND		0.00300	1	12/19/2022 15:04	WG1974488

Wet Chemistry by Method 3500C-B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chromium, Hexavalent	ND	1E	0.00300	1	12/19/2022 11:00	WG1974881

Sample Narrative:
LTS64107-02 WG1974881 Sample not field filtered within 15 min of collection

Wet Chemistry by Method 4500CN-E

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Cyanide	ND		0.0150	1	12/08/2022 15:19	WG1971115

Mercury by Method 245.1

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.000200	1	12/14/2022 14:27	WG1974201

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Aluminum	4.31		0.500	1	12/19/2022 15:04	WG1974488
Antimony	ND		0.0250	1	12/19/2022 15:04	WG1974488
Arsenic	ND		0.0200	1	12/19/2022 15:04	WG1974488
Boron	0.0335		0.0100	1	12/19/2022 15:04	WG1974488
Bromine	ND		0.00100	1	12/19/2022 15:04	WG1974488
Beryllium	ND		0.100	1	12/19/2022 15:04	WG1974488
Cadmium	ND		0.00500	1	12/19/2022 15:04	WG1974488
Chromium	ND		0.00700	1	12/19/2022 15:04	WG1974488
Copper	ND		0.0200	1	12/20/2022 13:38	WG1974488
Lead	ND		0.0100	1	12/19/2022 15:04	WG1974488
Nickel	0.0715		0.0000	1	12/19/2022 15:04	WG1974488
Selenium	ND		0.0200	1	12/22/2022 13:27	WG1974488
Silver	ND		0.00500	1	01/03/2023 12:03	WG1974488
Thallium	ND		0.0200	1	12/19/2022 15:04	WG1974488
Zinc	0.154		0.0250	1	12/19/2022 15:04	WG1974488

WG1970787
Microanalysis by Method 92220

QUALITY CONTROL SUMMARY
LTS64107-01

Method Blank (MB)

Analyte	MB Result	MB Qualifier	MB RDL	MB RDL
Chromium, Hexavalent	nd/100 ml		nd/100 ml	nd/100 ml

Method Blank (MB)

Analyte	MB Result	MB Qualifier	MB RDL	MB RDL
Cadmium	nd/100 ml		nd/100 ml	nd/100 ml

LTS64107-01 Original Sample (OS) - Duplicate (DUP)

ICOL1654107-01 12/07/22 15:02 - ICOL1654107-02 12/07/22 15:02

Analyte	Original Result	DUP Result	Dilution	DUP RDL	DUP Qualifier	Batch
Chromium, Hexavalent	500	500	1	500	2E	Sc

WG1970676
Gravimetric Analysis by Method 3540C
QUALITY CONTROL SUMMARY

Method Blank (MB)

Analyte	MB Result	MB Duplicate	MB MDL	MB ROL
Total Dissolved Solids	U	25.0	25.0	25.0

L156407401 Original Sample (OS) • Duplicate (DUP)

Analyte	Original Result	DUP Result	DUP MDL	DUP ROL
Total Dissolved Solids	465	442	372	5

Laboratory Control Sample (LCS)

Analyte	Spiked Amount	LCS Result	LCS Rec	Rec Limit	LCS Duplicate
Total Dissolved Solids	2240	2460	105	85.0-115	

Cp
Tc
Ss
Ca
Sr
Sc

ACCOUNT: FPG-607
LAB: L156407
DATE/TIME: 07/02/13 24
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WG1972273
Gravimetric Analysis by Method 3540D
QUALITY CONTROL SUMMARY

Method Blank (MB)

Analyte	MB Result	MB Duplicate	MB MDL	MB ROL
Suspended Solids	U	2.50	2.50	2.50

L156407401 Original Sample (OS) • Duplicate (DUP)

Analyte	Original Result	DUP Result	DUP MDL	DUP ROL
Suspended Solids	150	140	125	10

L1564281405 Original Sample (OS) • Duplicate (DUP)

Analyte	Original Result	DUP Result	DUP MDL	DUP ROL
Suspended Solids	1200	1100	95	10

Cp
Tc
Ss
Ca
Sr
Sc

ACCOUNT: FPG-607
LAB: L156407
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WG1970709

QUALITY CONTROL SUMMARY

West Chemistry Analytical Lab

US640724

Method Blank (MB)

Analyte	MB Result	MB Qualifier	Unit	MB ROL
Specific Conductance	unlabeled	unlabeled	unlabeled	unlabeled
Sample Number	Blank at 25C			

US6407201 Original Sample (OS) - Duplicate (DU)

OS1 US6407201 120722 419 - DU1 DU38699-3 120722 419			
Analyte	unlabeled	unlabeled	
Specific Conductance	4990	4990	1
Sample Number:			
OS at 25C			
DU at 25C			

Laboratory Control Sample (LCS)

LCS1 J286989-2 120722 419	Rec. Limit	LCS Qualifier
Analyte	unlabeled	unlabeled
Specific Conductance	200	80.0-120
Sample Number	LCS at 25C	

ACCOUNT: PROJECT: SDO: DATE/TIME: FILE: 12-07-25

Cp Tc Ss Sn Cr Sr

WG1976033

QUALITY CONTROL SUMMARY

West Chemistry Analytical Lab

US640724

Method Blank (MB)

Analyte	MB Result	MB Qualifier	MB MDL	MB RPL
Oil & Grease (Hexane Ext)	unlabeled	unlabeled	unlabeled	unlabeled
Sample Number	Blank at 25C			

Laboratory Control Sample (LCS) - Laboratory Control Sample Duplicate (LCS-D)

L566432.C1 Original Sample (CS) - Matrix Spike (MS)									
[CS1] [56-4322-0] 120922 12 00 - [MS] [56-7557-3] 120922 12 00									
Analyte	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Specific Conductance	40.0	37.6	37.7	34.0					
DU at 25C									
Sample Number	LCS Result	LCS Result	LCS Result	LCS Result					
DU at 25C									
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DU at 2									

US64332-01 Original Sample (OS) - Matrix Spike (MS)

(OS) L1564332-01 12/19/22 12:00 - 14:15 R637597-4 12/19/22 12:00					
Analyte	Spide Amount	Original Result	MS Result	MS Ret	Outoken
Oil & Grease (Petroleum Est)	mg/L	mg/L	mg/L		Rec Limits
10.0	14.0	14.5	10.1		%
					72.0-114

Cp Tc Ss Sn Cr Sr

ACCOUNT: PROJECT: SDO: DATE/TIME: FILE: 12-07-25

Wet Chemistry by Method 300.0

Analyte	ME Peak	ME Qualifier		ME Conc
		mg/l	mg/l	
Chloride	0.0422	0.054	0.500	
Fluoride	U	0.196	0.500	
Nitrate	U	0.217	0.500	
Sulfate	U	0.353	0.500	

Analyte	Spec Amount		US Spec		US %	Avg. Index	US Value
	mg/l	mg/l	%	%			
Chloride	5.20	4.85	92.9	90.5-100			
Fluoride	5.20	5.01	100	90.5-100			
Nitrate	5.00	4.68	93.6	90.5-100			
Water	5.00	5.2	104	90.5-100			

	mg/l	mg/l	%	%	%	%	%	%
5.25	5.25	5.25	99.0	100.0	90.0/10	0.10	20	
5.00	5.00	4.94	22.8	22.7	90.0/10	1.0	20	

L56407-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

Analysis	Unit	Original Result	MS Result	MS Refc	MS Test	Diabetes	MS Quality	MSO Quality	MSO Limit
12/10/2022 12:00:22	mg/l	50.0	50.0	177	109	1	90-0-10	1.57	30

L1564107-01 Original Sample (DS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

Sample	Spice Amount	Orignal Result	MS Result	MS/EC	MSD Pct	Dilution	Ret. Time	MS Quality	RSD	Imp. Levels
mg/L	mg/L	mg/L	mg/L		%		Min. Conc.	%	%	
500	1600	1600	1600	100	100	1	10.07	0.57		

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WG1974881
Well Chemistry by M

QUALITY CONTROL SUMMARY

Weil Chemistry by Method 3500Cr-B

Method Blank (MB)

Analysis	MB Result	MB MOL	MB Ppt
Ironium Hexanitrat	mg/l	mg/l	mg/l
U		0.00100	0.00100

Splice Amount	UCS Spinal	UCS Arc	Arc Limit	UCS Outlier
mg1	mg3	2		
0.200	0.697	95 C-115		

Analysis	Result	Unit	Reference
Aspirin (mg/ml)	0.55	mg/ml	0.5-1.5
Spice (mg/ml)	0.200	mg/ml	0.1-1.0
MD	0.95	mg/ml	0.5-1.5

OS Sample not

OS Sample not listed filtered within 15min of collection

[illegible]

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U1567330-04 Original Sample (OS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)
 12/19/22 12:00 - MS# R897216-5 12/19/22 12:00 - MS# J5802716-5 12/19/22 12:00 - MS# J5802716-5

ACCOUNT

Abstract

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Web Chemistry by Mettler 351.2

QUALITY CONTROL SUMMARY

L155407.01

Method Blank (MB)

Analyte	MB Result	MB Qualifier	MB MDL	MB ROL
Acetyls	mg/l			
Isotopium TKN	U	0.40	0.250	

L155407.01 Original Sample (OS) • Duplicate (DUP)

Analyte	Original Result	DUP Result	DUP PPM	DUP Qualifier	DUP PPM
Acetyls	mg/l	10.2	1	23.4	
Isotopium TKN	12.9	10.2	1	23.4	

L1554281.02 Original Sample (OS) • Duplicate (DUP)

Analyte	Original Result	DUP Result	DUP PPM	DUP Qualifier	DUP PPM
Acetyls	mg/l	0.552	0.600	1	7.25
Isotopium TKN	0.552	0.600	1	7.25	

Laboratory Control Sample (LCS)

Analyte	Sp. Amount	LCS Result	LCS Rec	Rec Limit	Rec Limit
Acetyls	mg/l	77.8	77.8	75.2	75.2
Isotopium TKN	77.8	77.8	75.2	75.2	75.2

L155407.01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

Analyte	Sp. Amount	Original Result	MS Result	MS Rec	MSD Rec	DUP Result	DUP Rec Limit	DUP Rec Limit	DUP Rec Limit
Acetyls	mg/l	3.00	12.9	1.1	12.9	12.9	12.9	12.9	12.9
Isotopium TKN	3.00	12.9	1.1	12.9	12.9	12.9	12.9	12.9	12.9

L1554281.02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

Analyte	Sp. Amount	Original Result	MS Result	MS Rec	MSD Rec	DUP Result	DUP Rec Limit	DUP Rec Limit	DUP Rec Limit
Acetyls	mg/l	5.20	0.552	1.1	0.552	0.552	0.552	0.552	0.552
Isotopium TKN	5.20	0.552	1.1	0.552	0.552	0.552	0.552	0.552	0.552

ACCOUNT: PRODUCT: DATE: TIME:

WG1971914

Web Chemistry by Mettler 4500CI 0-2011

QUALITY CONTROL SUMMARY

L1554107.01

Method Blank (MB)

Analyte	MB Result	MB Qualifier	MB MDL	MB ROL
Acetyls	mg/l			
Chlorine residual	U	0.1295	0.100	

L1554154.02 Original Sample (OS) • Duplicate (DUP)

Analyte	Original Result	DUP Result	DUP PPM	DUP Qualifier	DUP PPM
Acetyls	mg/l	0.547	0.522	1	0.912
Chlorine residual	0.547	0.522	1	0.912	

Laboratory Control Sample (LCS)

Analyte	Sp. Amount	LCS Result	LCS Rec	Rec Limit	Rec Limit
Acetyls	mg/l	100	0.937	93.7	95.0
Chlorine residual	100	0.937	93.7	95.0	95.0

L1554107.01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

Analyte	Sp. Amount	Original Result	MS Result	MS Rec	MSD Rec	DUP Result	DUP Rec Limit	DUP Rec Limit	DUP Rec Limit
Acetyls	mg/l	100	0.937	93.7	95.0	95.0	95.0	95.0	95.0
Chlorine residual	100	0.937	93.7	95.0	95.0	95.0	95.0	95.0	95.0

L1554154.02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

Analyte	Sp. Amount	Original Result	MS Result	MS Rec	MSD Rec	DUP Result	DUP Rec Limit	DUP Rec Limit	DUP Rec Limit
Acetyls	mg/l	100	0.937	93.7	95.0	95.0	95.0	95.0	95.0
Chlorine residual	100	0.937	93.7	95.0	95.0	95.0	95.0	95.0	95.0

ACCOUNT: PRODUCT: DATE: TIME:

WG1971115

Wet Chemistry by Method 4500-Cd-E

QUALITY CONTROL SUMMARY

L15649124

Method Blank (MB)

Analyte	MB Result	MB Qualifier	MB MDL	MB ROL
Cadmium	U	mg/l	0.0020	0.0000

Laboratory Control Sample (LCS)

Spike Amount	LCS Result	LCS Rec	Rec Limit	LCS Qualifier
mg/l	mg/l	%	mg/l	
0.000	0.0002	96.8	0.0000	

L1564903-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1564903-01 12/02/22 15:20 • (MS) R2569735-3 12/02/22 15:20 • (MSD) R32599735-4 12/02/22 15:20

Spike Amount	Original Result	MS Result	MSD Result	MS Rec	MSD Rec	Dilution	Rec Limit	MS Qualifier	MSD Qualifier	RPD	RPD Limit
mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
0.100	ND	0.0027	0.0031	22.7	93.1	1	0.0015			415	20

L1564939-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1564939-01 12/02/22 15:20 • (MS) R2569735-5 12/02/22 15:20 • (MSD) R32599735-6 12/02/22 15:20

Spike Amount	Original Result	MS Result	MSD Result	MS Rec	MSD Rec	Dilution	Rec Limit	MS Qualifier	MSD Qualifier	RPD	RPD Limit
mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
0.300	ND	0.0050	0.0063	62.0	90.7	1	0.0015			237	20

Navigation icons: P, C, T, S, CH, Sr, GI, Sc

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Wet Chemistry by Method 4500-P-E

QUALITY CONTROL SUMMARY

L15649120

Method Blank (MB)

Analyte	MB Result	MB Qualifier	MB MDL	MB ROL
Phosphorus Total	U	mg/l	0.0521	0.0000

Laboratory Control Sample (LCS)

Spike Amount	LCS Result	LCS Rec	Rec Limit	LCS Qualifier
mg/l	mg/l	%	mg/l	
0.500	0.495	96.9	0.0000	

L1564917-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1564917-01 12/14/22 07:17 • (MS) R2570950-3 12/14/22 07:17 • (MSD) R32570950-4 12/14/22 07:17

Spike Amount	Original Result	MS Result	MSD Result	MS Rec	MSD Rec	Dilution	Rec Limit	MS Qualifier	MSD Qualifier	RPD	RPD Limit
mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
0.500	0.022	1.09	1.09	42.7	42.7	1	0.0020			8200	20

Navigation icons: C, T, S, CH, Sr, GI, Sc

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WG1975652

Met Chemistry By Method 5320D

QUALITY CONTROL SUMMARY

1/5/2021

Method Blank (MB)

Analyte	MB Result	MB Qualifier	MB MDL	MB ROL
COO	U	16.1	mg/l	25.0

Laboratory Control Sample (LCS)

Analyte	Spike Amount	LCS Result	LCS Rec	Rec Limit	LCS Qualifier
COO	500	514	112%	220-220	

L1565697-01 Original Sample (OS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec	MSD Rec	Dilution	Rec Limit	MS Qualifier	MSD Qualifier	RPO	RPO Limit
COO	100	116	117	112	114	112	1	20.0-20	164	164	20	20

Ca, Cl, Cu, Fe, Pb, Se, Si, Sr, Zn

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WG1972936

Met Chemistry By Method 5310C

QUALITY CONTROL SUMMARY

1/5/2021

Method Blank (MB)

Analyte	MB Result	MB Qualifier	MB MDL	MB ROL
TDC (Total Digene Carbon)	0.270	1	0.270	0.700

Laboratory Control Sample (LCS)

Analyte	Spike Amount	LCS Result	LCS Rec	Rec Limit	LCS Qualifier
TDC (Total Digene Carbon)	8.0	9.95	114%	9.0-9.70	

L1564550-01 Original Sample (OS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec	MSD Rec	Dilution	Rec Limit	MS Qualifier	MSD Qualifier	RPO	RPO Limit
COO	10.0	20.2	20.2	25.3	20.2	25.7	1	20.0-20	167	167	20	20

L1564550-02 Original Sample (OS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec	MSD Rec	Dilution	Rec Limit	MS Qualifier	MSD Qualifier	RPO	RPO Limit
COO	10.0	11.9	11.9	17.9	11.9	17.9	1	20.0-20	167	167	20	20

Ca, Cl, Cu, Fe, Pb, Se, Si, Sr, Zn

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QUALITY CONTROL SUMMARY

LI564107-01

Li565667-03 Original Sample (OS) • Duplicate (DUP)

(US) L1565661-23 12/16/22 19:18 - (JUP) K3U/2311-2 12/16/22 19:18

Analyte	Original Result		Dup Result		Dilution		Dup RPD		Dup Qualifier		Dup RPD Limits	
	SD	SM				%		%		%		%
pH	7.73	7.72	1	0.129								

Sample Narrative:
OS 773 at 7.6C
DUP 772 at 77.9C

11月27日、12月22日に

Analyte	Spine Amount	ICS Result		ICS Arc		Rec Urms		ICS Qualifier
		uL	%	%	%	%	%	
pH	6.00	5.97	99.5			99.0-101		

Sample Identifier: LCA 5.97 at ZLC

Sc Al Ga S Sr Cs Sn Te Cu

QUALITY CONTROL SUMMARY

1984 NFL Draft

Method Blank (MB)

(MB) R3869802-1 12/08/2012

Analyte	MS Result	MS Qualifier	MS MDL	MSI
Aromatics Nitrogen	mg/l 0.0444	mg/l 0.0444	mg/l 0.0230	mg/l 0.100

Labratory Control Sample (LCS)

Source: <http://www.census.gov/hhes/education/data/tables/2000/2000.ed.education/2000.ed.education.html>

Analyte	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)
Ammonia Nitrogen	5.00	5.09	102	80.0-120

(OS) L1562C4-03 12/06/22 13:56 • (MS) R3069C02-3 12/06/22 13:49 • (MS0) R3069C02-4 12/06/22 13:50

Analyte	Spike Amount	Original Result	MS Result	MSD Result	WT Flag	MSD Rec.	Dilution	Rec. Units	MSD Quality	MSD Quality	MSD Quality	MSD Quality
Arsenic trioxide	mg/L	mg/L	mg/L	mg/L	%	%	%	%	%	%	%	%
Arsenic trioxide	500	ND	5.20	5.22	%	%	%	%	%	%	%	%

Sc Al Ga In Sn Pb

WG1970702

Wee Chemistry by Method SWS2108

QUALITY CONTROL SUMMARY

LS541B2-01

Method Blank (MB)

Analyte	MB Result	MB Qualifier	MB MOL	MB ROL
BOD	U		0.200	0.200

LS541B2-01 Original Sample (CS) • Duplicate (DUP)

Analyte	Original Result	DUP Result	DUP Qualifier	DUP RPO
BOD	141	127	10.4	20

LS541B6-01 Original Sample (CS) • Duplicate (DUP)

Analyte	Original Result	DUP Result	DUP Qualifier	DUP RPO
BOD	184	2.21	1	20

Laboratory Control Sample (LCS)

Analyte	Spec Amount	LCS Result	LCS Rec	Rec Limit	LCS Qualifier
BOD	90	141	71	75-105	

ACCOUNT
Bioanalytical Services

PROJECT

DATE
1/15/2017

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WG1970708

Wee Chemistry by Method SWS2108

QUALITY CONTROL SUMMARY

LS541B2-01

Method Blank (MB)

Analyte	MB Result	MB Qualifier	MB MOL	MB ROL
BOD	U		0.200	0.200

LS541B3-01 Original Sample (CS) • Duplicate (DUP)

Analyte	Original Result	DUP Result	DUP Qualifier	DUP RPO
BOD	141	127	10.4	20

LS541B6-01 Original Sample (CS) • Duplicate (DUP)

Analyte	Original Result	DUP Result	DUP Qualifier	DUP RPO
BOD	184	2.21	1	20

Laboratory Control Sample (LCS)

Analyte	Spec Amount	LCS Result	LCS Rec	Rec Limit	LCS Qualifier
BOD	90	141	69.7	75-105	

ACCOUNT
Bioanalytical Services

PROJECT

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1/15/2017

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WG1974201

QUALITY CONTROL SUMMARY

Method Blank (MB)

Analyte	MB Result	MB Qualifier	MB MDL	MB ROL
Ascorbic	mg/L			
Vanillin	U	0.000450	0.000450	0.000450

Laboratory Control Sample (LCS)

Analyte	Spec. Amount	LCS Result	LCS Rec.	Rec. Limit	LCS Qualifier
Ascorbic	mg/L				
Vanillin	0.00250	0.00220	99.2	99.0	

L156407-02 Original Sample (OS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

Analyte	Spec. Amount	OS Result	OS Rec.	Rec. Limit	MS Qualifier	MSD Qualifier	RPO	RPO Limit
Ascorbic	mg/L							
Vanillin	0.00250	0.00250	100.0	100.0			0.020	20

L156407-01 Original Sample (OS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

Analyte	Spec. Amount	OS Result	OS Rec.	Rec. Limit	MS Qualifier	MSD Qualifier	RPO	RPO Limit
Ascorbic	mg/L							
Vanillin	0.00250	0.00250	100.0	100.0			0.020	20

Sc AI GL SR

WG1974488

QUALITY CONTROL SUMMARY

Method Blank (MB)

Analyte	MB Result	MB Qualifier	MB MDL	MB ROL
Ascorbic	mg/L			
Vanillin	U	0.00250	0.00250	0.00250

Laboratory Control Sample (LCS)

Analyte	Spec. Amount	LCS Result	LCS Rec.	Rec. Limit	LCS Qualifier
Ascorbic	mg/L				
Vanillin	0.00250	0.00250	100.0	100.0	

L156407-02 Original Sample (OS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

Analyte	Spec. Amount	OS Result	OS Rec.	Rec. Limit	MS Qualifier	MSD Qualifier	RPO	RPO Limit
Ascorbic	mg/L							
Vanillin	0.00250	0.00250	100.0	100.0			0.020	20

L156407-01 Original Sample (OS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

Analyte	Spec. Amount	OS Result	OS Rec.	Rec. Limit	MS Qualifier	MSD Qualifier	RPO	RPO Limit
Ascorbic	mg/L							
Vanillin	0.00250	0.00250	100.0	100.0			0.020	20

Sc AI GL SR

WG1974488

Method: ICS1 by Method 300.7

QUALITY CONTROL SUMMARY

1/26/2022 10:16

Laboratory Control Sample (ICS)

ICS1 R3073469.2 12/19/22 14:17

Analyte	Spike Amount	ICS Result	ICS Rec	Rec Limit	MS Qualifier
Beryllium	100	0.209	97.5	85.0-105	
Boron	100	0.277	27.7	25.0-105	
Cadmium	100	0.168	16.8	25.0-105	
Cobalt	100	0.162	16.2	25.0-105	
Copper	100	0.162	16.2	25.0-105	
Lead	100	0.165	16.5	25.0-105	
Magnesium	100	0.162	16.2	85.0-105	
Manganese	100	0.169	16.9	85.0-105	
Nickel	100	0.169	16.9	25.0-105	
Sodium	100	9.46	94.6	25.0-105	
Thallium	100	0.169	16.9	25.0-105	
Zinc	100	0.165	16.5	85.0-105	

Laboratory Control Sample (ICS)

ICS1 R3073514.2 12/20/22 12:41

Analyte	Spike Amount	ICS Result	ICS Rec	Rec Limit	MS Qualifier
Copper	100	0.161	16.1	25.0-105	

Laboratory Control Sample (ICS)

ICS1 R3073495.1 12/20/22 12:03

Analyte	Spike Amount	ICS Result	ICS Rec	Rec Limit	MS Qualifier
Selenium	100	0.102	59.2	25.0-105	

1/26/21/102 Original Sample (OS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

ICSL1/26/21/102 12/22 14:22 - MS1 R3073469.3 12/19/22 14:27 - MS2 R3073469.4 12/19/22 14:53

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec	MSD Rec	Dilution	Rec Limit	MS Qualifier	MSD Qualifier	RPD	RPD Limit	RPD Limit
Arsenic	70.0	NO	9.14	9.22	91.4	92.2	1	70.0-90			1.53	10.0	20
Barium	100	0.0889	1.01	1.03	94.4	96.6	1	70.0-90			2.16	20	20
Bismuth	100	0.2007	0.202	0.202	99.2	99.2	1	70.0-90			0.0094	20	20
Bromine	100	NO	0.096	0.097	99.3	99.7	1	70.0-90			2.75	10	10
Calcium	100	NO	7.93	7.92	48.4	42.6	1	70.0-90			0.794	20	20
Cadmium	100	NO	0.162	0.162	16.2	16.2	1	70.0-90			0.647	20	20
Cobalt	100	0.161	0.161	0.161	16.1	16.1	1	70.0-90			2.29	20	20
Copper	100	0.075	0.076	0.076	65.1	60.2	1	70.0-90					

WG1974488

Method: ICS1 by Method 300.7

QUALITY CONTROL SUMMARY

1/26/2022 10:16

Laboratory Control Sample (ICS)

ICSL1/26/21/102 12/19/22 14:22 - MS1 R3073469.3 12/19/22 14:27 - MS2 R3073469.4 12/19/22 14:53

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec	MSD Rec	Dilution	Rec Limit	MS Qualifier	MSD Qualifier	RPD	RPD Limit	RPD Limit
Lead	100	NO	0.466	0.472	46.6	47.2	1	70.0-90			1.75	20	20
Magnesium	100	0.0414	0.042	0.042	97.1	97.0	1	70.0-90			0.10	20	20
Nickel	100	NO	0.047	0.047	47.7	48.2	1	70.0-90			2.22	20	20
Thallium	100	NO	0.045	0.045	45	44.5	1	70.0-90			3.10	20	20
Zinc	100	NO	0.049	0.049	49	49.9	1	70.0-90			2.11	20	20

1/26/21/102 Original Sample (OS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

ICSL1/26/21/102 12/20/22 12:46 - MS1 R3073514.2 12/20/22 13:17 - MS2 R3073514.4 12/20/22 13:22

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec	MSD Rec	Dilution	Rec Limit	MS Qualifier	MSD Qualifier	RPD	RPD Limit	RPD Limit
Copper	100	NO	0.013	0.012	13.3	12.2	1	70.0-90			3.94	20	20

1/26/21/102 Original Sample (OS) - Matrix Spike (MS) - Matrix Spike Duplicate (MSD)

ICSL1/26/21/102 12/21/22 16:46 - MS1 R3073470.3 12/21/22 16:51 - MS2 R3073470.4 12/21/22 16:56

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec	MSD Rec	Dilution	Rec Limit	MS Qualifier	MSD Qualifier	RPD	RPD Limit	RPD Limit
Selenium	10.0	49.7	44.7	44.7	49.7	44.7	1	70.0-90			6.11	20	20

WG1977205
Method (ICP) by Method 200.7
QUALITY CONTROL SUMMARY

L1564D7-21

Method Blank (MS)

Analyte	MS Result	MS Duplicate	MS MDL	MS EDL
Cadmium Dissolved	U	0.0085	0.0085	100
Vanadium Dissolved	U	0.0041	0.0041	100

Method Blank (MS)

Analyte	MS Result	MS Duplicate	MS MDL	MS EDL
Sodium Dissolved	0.260	0.260	0.070	100

Laboratory Control Sample (LCS)

Analyte	Spike Amount	LCS Result	LCS Rec	Rec Limit	LCS Duplicate
Cadmium Dissolved	20.0	9.91	99.1	65.0 MS	
Vanadium Dissolved	20.0	9.46	94.3	65.0 MS	

Laboratory Control Sample (LCS)

Analyte	Spike Amount	LCS Result	LCS Rec	Rec Limit	LCS Duplicate
Sodium Dissolved	20.0	10.1	101	95.0 MS	

L1564D7-21 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

Analyte	OS Result	MS Result	MSD Result	Dilution	Rec Limit	MS Duplicate	MSD Duplicate	EDL	EDL Limit
Cadmium Dissolved	30.3	29.3	29.3	1	70.0 MS	3.90	3.90	20	
Vanadium Dissolved	30.3	29.3	29.3	1	70.0 MS	3.90	3.90	20	

ACCOUNT:
Biology Processing

PROJECT:

TOO:
M2117

SAMPLE DATE:
07/02/13 PM

ANALYST:
ZJ d'Ne

WG1977205
Method (ICP) by Method 200.7
QUALITY CONTROL SUMMARY

L1564D7-21

L1564D7-21 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

Analyte	OS Result	MS Result	MSD Result	Dilution	Rec Limit	MS Duplicate	MSD Duplicate	EDL	EDL Limit
Cadmium Dissolved	20.0	10.0	10.0	20	70.0 MS	2.00	2.00	20	

CP
Cd
Cr
Fe
Mn
Ni
Pb
Se
Si
Sr
Zn

ACCOUNT:
Biology Processing

PROJECT:

TOO:
M2117

SAMPLE DATE:
07/02/13 PM

ANALYST:
ZJ d'Ne

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer and contained within this report, include Permit Limit, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Duplicates, On-site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and not the samples we received.

Abbreviations and Definitions

MDL	Method Detection Limit
ND	Not detected at the Reporting Limit for MDL where applicable
RDL	Reporting Detection Limit
Rec	Recovery
RPD	Relative Percent Difference
SDG	Sample Delivery Group
U	Not detected at the Reporting Limit for MDL where applicable
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the type of sample being analyzed. Successful QC Sample analysis will target all analytes recovered or detected within the specified ranges.
Original Sample	The non-spiked sample in the area batch used to determine the Analyte Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page, and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics), reported for your sample, if there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL, Reporting Detection Limit, or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for the analyte.
Uncertainty (Relative Chemistry)	Confidence level of 2 sigma
Case Narrative (CN)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (QS)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (SC)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This document is used to ensure the integrity of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (SR)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analysis performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (SS)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument, established by the initial calibration (ICAI).
J	The identification of the analyte is acceptable; the reported value is an estimate
J3	The associated batch QC was outside the established quality control range for precision
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low
J-	The associated batch QC was outside the lower control limits associated data this is potential negative bias
K9	Test replicates show more than 30% difference between high and low values
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit
T8	Sample(s) received positive for holding time expiration
V	The sample concentration is too high to evaluate accurate spike recoveries

W191984828

Method: ICD-1 by Method 200.7

QUALITY CONTROL SUMMARY

1/18/2019/23

Method Blank (MB)

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Spikes	U		0.003960	0.005000

Laboratory Control Sample (LCS)

Analyte	Spike Amount	LCS Result	LCS Rec	Rec Limit	LCS Qualifier
Spikes	0.500	0.478	93.3	95.0-105	

L115554833.01 Control Sample (CS) - Matrix: Spikes (MS) - Matrix: Spikes, Duplicate (MSD)

Analyte	Spike Amount	CS Result	CS Rec	Rec Limit	CS Qualifier
Spikes	0.500	0.478	93.3	95.0-105	



ACCREDITATIONS & LOCATIONS

Peace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Westville	NC-35-05
Alaska	17-026	Kenai	TN000202011
Arizona	A2062	New Hampshire	3275
Arkansas	05-0469	New Jersey -NELAP	TN02
California	2932	New Mexico	TN0003
Colorado	TN00003	New York	1712
Connecticut	PH-0197	North Carolina	END-15
Florida	607407	North Carolina	DV2704
Georgia	NELAP	North Carolina	41
Georgia	923	North Dakota	8-140
Idaho	TN00003	Ohio -IAP	CL069
Illinois	200002	Oklahoma	9915
Indiana	C-IN-01	Oregon	TN00002
Iowa	364	Pennsylvania	65-0279
Kansas	E-10277	Rhode Island	LAC00356
Kentucky	KY90010	South Carolina	0400402
Kentucky	16	South Dakota	n/a
Louisiana	A10792	Tennessee	2006
Louisiana	LA06	Texas	T10170218-20-10
Maine	TN00003	Texas	LAB052
Maryland	324	Utah	TN0000302011
Massachusetts	MA-70003	Vermont	VT2006
Michigan	9950	Virginia	TN033
Minnesota	047-999-995	Washington	CA47
Mississippi	TN00003	West Virginia	213
Montana	340	Wisconsin	99039310
Montana	CEB10006	Wyoming	ALTA
Nevada	148101	ABML-UP LLC BMLAP	W0719
Nevada	148102	DDO	148101
Canada	148101	USDA	2320-5-00341
EM-Crypto	TN00003		

Peace Analytical Services, LLC -Dallas 400 W. Bethany Drive Suite 190 Allen, TX 75013

Alabama	03-0647	Kansas	E-0303
Arizona	030710	Texas	T017042322-37
California	408	Oklahoma	B177
Colorado	30805		

Peace Analytical Services, LLC -Dallas 2657 Gravel Dr. Ft. Worth, TX 76118

T1017042322-37

* Drinking Water * Underground Storage Tanks * Asbestos * Chemical/Microbiological * Mold * Wastewater n/a Accreditation not applicable
 * Not all facilities listed by the laboratory are applicable to the results reported in the above report
 * Accreditation is only applicable to the test methods specified on each scope of accreditation held by Peace Analytical



Enviro-Ag Engineering
 3044 Albany Blvd.
 Ann Arbor, MI 48106

Client Information:
 Project Name: **Shaw's Creek**
 Project Number: **254-865-4500**
 Project Location: **Shaw's Creek**
 Project Date: **1/19/23**

Sample Information:
 Sample ID: **4**
 Sample Name: **Grab WW**
 Sample Date: **1/19/23**
 Sample Time: **8:34**
 Sample Location: **Shaw's Creek**

Analysis Results:

Parameter	Result	Unit	Method	Notes
ALL PHOS.COD.NH34600 500mlHDPE-Add H2	X			
ALLBOD 1L-HDPE NoPres	X			
ALLCBOD 1L-HDPE NoPres	X			
ALLCN 250mlHDPE-NoOH	X			
ALLCR3.ALLCR6 500mlHDPE-NoPres	X			
ALLOGHEX 1L-Amb Add HCl	X			
ALLSAR 250mlHDPE-HNO3	X			
ALLTDS 1L-HDPE NoPres	X			
ALLTOC 250mlAmb-H2SO4	X			
ALLTSS 1L-HDPE-NoPres	X			

Additional Information:
 pH: **7.2**
 Temp: **14.3**
 Conductivity: **156 uS/cm**
 Turbidity: **0.1 NTU**

Signature:
 Lisa A. 1/19/23
 Shaw's Creek

Enviro-Ag Engineering
3404 Arroyo Blvd
Austin, TX 78718

Project Information
Project Name: Jordan Mallin
Client: 254-985-3500
Sample ID: 254-985-3500
Sample Name: 254-985-3500
Sample Location: 254-985-3500
Sample Date: 254-985-3500
Sample Time: 254-985-3500
Sample By: 254-985-3500
Sample For: 254-985-3500
Sample Use: 254-985-3500
Sample Status: 254-985-3500
Sample Notes: 254-985-3500

Analysis Information
Analysis Name: 254-985-3500
Analysis Date: 254-985-3500
Analysis Time: 254-985-3500
Analysis By: 254-985-3500
Analysis For: 254-985-3500
Analysis Use: 254-985-3500
Analysis Status: 254-985-3500
Analysis Notes: 254-985-3500

Test Results

Test Name	Result	Unit	Notes
Chloride 500ml HDPE-NoPres	1.0	mg/L	
Dissolved Ca, Mg, Na 250ml HDPE-NoPres	1.0	mg/L	
FTWC Microbiological	1.0	mg/L	
TKN 250ml HDPE-H2SO4	1.0	mg/L	
Total Metals 250ml HDPE HNO3	1.0	mg/L	
WetChem 500ml HDPE-NoPres	1.0	mg/L	

Signature
Signature: 254-985-3500
Date: 254-985-3500
Time: 254-985-3500
By: 254-985-3500
For: 254-985-3500
Use: 254-985-3500
Status: 254-985-3500
Notes: 254-985-3500

Pace Analytical

Document Name: Sample Condition Upon Receipt
Document Revised: 7/27/20
Page 1 of 1
Document No.: F DAL C-001-rev 14
Issuing Authority: Pace Dallas Quality Office

Sample Condition Upon Receipt

☐ Dallas ☒ Ft Worth ☐ Corpus Christi ☐ Austin

Client Name: Enviro-Ag Engineering Project Work order (place label): 1564107
Courier: FedEx ☐ UPS ☐ USPS ☐ Client ☐ ISO ☐ PACE ☐ Other ☐

Tracking #: 1819
Custody Seal on Cooler/Box: Yes ☐ No ☒
Received on Ice: Wet ☒ Blue ☐ Noice ☐
Receiving Lab 1 Thermometer Used: FWTM10 Cooler Temp °C: 10.2 (Recorded) -0.2 (Correction Factor) 10.0 (Actual)
Receiving Lab 2 Thermometer Used: 1819 Cooler Temp °C: 24.1 (Recorded) 20.5 (Correction Factor) 3.1 (Actual)

Temperature should be above freezing to 6°C unless collected same day as receipt in which evidence of cooling is acceptable

Triage Person: CC Date: 12-6-20

Chain of Custody relinquished	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Sampler name & signature on COC	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Short HT analyses (<72 hrs)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Log In Person: CC Date: 12/6

Sufficient Volume received	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Correct Container used	Yes <input type="checkbox"/> No <input type="checkbox"/>
Container Intact	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Sample pH Acceptable	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
pH Strips: <u>6.1005</u>	
Residual Chlorine Present	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA <input type="checkbox"/>
Cl Strips: <u>14860</u>	
Sulfide Present	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA <input type="checkbox"/>
Lead Acetate Strips: <u>14862</u>	
Are soil samples (volatiles, TPH) received in 5035A Kits (not applicable to TCLP VOA or PST Program TPH)	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
Unpreserved 5035A soil frozen within 48 hrs.	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
Headspace in VOA (>6mm)	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
Project sampled in USDA Regulated Area outside of Texas	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
State Sampled:	
Non-Conformance(s):	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

Labeling Person (if different than log-in): _____ Date: _____

ATTACHMENT 9 – ENGINEERING REPORT

9.1 Purpose

This report is prepared as part of the application for Schreiber Foods, Inc. for a Texas Land Application Permit (TLAP) through the Texas Commission on Environmental Quality (TCEQ). Water balance models have been developed to illustrate the function of the impoundment system and the hydraulic and nutrient demands of the planned crops.

9.2 Background

Schreiber Foods, Inc. is applying for a major amendment to its TCEQ Industrial Water Quality TLAP Permit No. WQ0003074000 to increase the application acres, permitted average daily flow and amend the organic and nitrogen loading rates. The effluent from the plant site will be treated/stored in four existing earthen impoundments at the site prior to land application. The entire process will generate an average of 192,000 gallons per day (GPD) of effluent for land application to sixty-one acres of improved grasses.

9.3 Impoundment Facility

The effluent treatment/storage and irrigation system at the facility consists of four impoundments. The Impoundments will contain the process-generated effluent from the plant area.

9.4 Water Balance Calculations

Figure 9.1, Water Balance Calculations, is designed to evaluate the maximum application rate (hydraulic loading rate) for the land application area, estimates the inflows and withdrawals from the direct rainfall, process-generated wastewater, evaporation, and irrigation withdrawal based on crop demand.

9.5 Storage Calculations

Figure 9.2, Storage Calculations, is designed to evaluate the storage capacity and surface area of the storage ponds. The ponds must have enough surface area to evaporate all the flow to the pond under low-net evaporation and corresponding annual rainfall conditions.

Figure 9.1 WATER BALANCE CALCULATIONS

Permittee: **Schreiber Foods, Inc.**
 Permit No.: **WQ0003074000**

TWDB Data Quadrangle:
509

The water balance calculations are designed to evaluate the maximum application rate (hydraulic loading rate) for the land area where irrigation is to occur. The applicant's proposed application rate must not exceed the maximum calculated application rate or the maximum application rate based on agronomic analysis.

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9a)	(9b)	(10)	(11)
Month	Avg Rain	Avg Runoff	Avg Infiltrated Rainfall	Evapotrans.	Required Leach	Total Water Needs	Effluent Needed in Root Zone	Raw Net Evap. from Reservoir	Reservoir Net Evap. (as inches on plot acres)	Effluent Needed Based on Irrigation Efficiency	Reservoir Consumption (as inches on plot acres)
<i>Units →</i>	<i>inches</i>	<i>inches</i>	<i>inches</i>	<i>inches</i>	<i>inches</i>	<i>inches</i>	<i>inches</i>	<i>inches</i>	<i>inches</i>	<i>inches</i>	<i>inches</i>
January	1.60	0.13	1.47	0.99	0.00	0.99	0.00	0.93	0.09	0.00	0.09
February	2.11	0.31	1.80	1.35	0.00	1.35	0.00	0.54	0.05	0.00	0.05
March	2.81	0.66	2.16	3.33	0.17	3.50	1.34	1.27	0.13	1.57	1.70
April	2.76	0.62	2.13	4.05	0.27	4.32	2.19	2.33	0.24	2.57	2.81
May	4.15	1.50	2.65	7.20	0.64	7.84	5.19	1.09	0.11	6.10	6.22
June	3.64	1.15	2.49	8.10	0.79	8.89	6.41	3.32	0.34	7.54	7.87
July	1.94	0.24	1.69	8.37	0.94	9.31	7.62	6.00	0.61	8.96	9.57
August	2.22	0.36	1.86	5.31	0.49	5.80	3.93	5.41	0.55	4.63	5.18
September	2.81	0.65	2.15	6.03	0.55	6.58	4.42	3.03	0.31	5.20	5.51
October	3.16	0.85	2.31	4.68	0.33	5.01	2.71	1.69	0.17	3.19	3.36
November	1.89	0.22	1.67	1.89	0.03	1.92	0.25	1.40	0.14	0.30	0.44
December	1.46	0.09	1.37	0.81	0.00	0.81	0.00	0.97	0.10	0.00	0.10
Totals	30.54	6.78	23.76	52.11	4.21	56.32	34.05	27.99	2.84	40.06	42.90

Crop is **Grasses**
 CN **71.00** dimensionless
 Ce **1.05** mmhos/cm
 Cl **8.50** mmhos/cm
 Pond area **6.18** acres
 Irrigation area **61.00** acres

Maximum calculated application rate = 3.57 ac-in/ac/month OR ac-ft/ac/year
 Applicant's proposed application rate = ac-in/ac/month OR ac-ft/ac/year
 Maximum rate from agronomic analysis = N/A ac-in/ac/month OR ac-ft/ac/year

Irrigation Efficiency, K **0.85** dimensionless
 Design Flow **0.192** MGD

Recommended rate for permit = 3.57 ac-in/ac/month OR ac-ft/ac/year
Limiting factor = Click this cell to choose from list.
Gross rate check (from flow, acres) = 3.53 OK

- (2) Average rainfall – Data source: Texas Water Development Board (see Quadrangle above)
 (3) Average runoff = $\frac{((\text{average rainfall} - (0.2 * ((1000 / \text{CN}) - 10))))^2}{((\text{average rainfall} + (0.8 * ((1000 / \text{CN}) - 10))))}$
 (4) Average infiltrated rainfall = (average rainfall – average runoff)
 (5) Evapotranspiration – Data Source: Borelli, Bulletin 6019
 (6) Required leaching =
 If: $\text{evapotranspiration} - \text{average infiltrated rainfall} \leq 0$, then 0;
 If: $\text{evapotranspiration} - \text{average infiltrated rainfall} > 0$, $\text{Ce} / (\text{Cl} - \text{Ce}) * (\text{evapotranspiration} - \text{avg infiltrated rainfall})$
 (7) Total water needs = $\text{evapotranspiration} + \text{required leaching}$
 (8) Effluent needed in root zone = $\text{total water needs} - \text{average infiltrated rainfall}$
 (9a) Net evaporation – Data source: Texas Water Development Board (see Quadrangle above)
 (9b) Raw net evaporation from reservoir surface = $(\text{net evaporation from reservoir}) * ((\text{pond area}) / (\text{irrigation area}))$
 (10) Effluent needed based on irrigation efficiency = $(\text{effluent needed in root zone}) / (\text{irrigation efficiency})$
 (11) Consumption from reservoir = $\text{net evaporation from reservoir surface} + \text{effluent needed based on irrigation efficiency}$

Figure 9.2 STORAGE CALCULATIONS

Permittee: **Schreiber Foods, Inc.**

Permit No.: **WQ0003074000**

The storage calculations are designed to evaluate the storage capacity and surface area of the applicant's storage pond (or multiple ponds). The pond must have enough surface area to evaporate all the flow to the pond under low-net evaporation and corresponding annual rainfall conditions. The pond is considered adequately sized when the additional storage required is equal to zero (or "none"). If the additional storage required is greater than zero, then:

(1) the pond's storage capacity must be increased, (2) the pond's surface area must be increased, (3) the effluent flow must be reduced, or (4) other approved measures must be taken to ensure that no accumulation occurs during low-net evaporation and corresponding annual rainfall conditions.

(12)	(13)	(14a)	(14b)	(15)	(16)	(17)	(18a)	(18b)	(19)	(20)
Month	Effluent Available (as inches on plot acres)	Average Rainfall Distrib. (%)	Rain Worst Year	Field Runoff Worst Year	Infiltrated Rain	Avail Water	Average Net Evap. Distrib. (%)	Low Net Evap. from Reservoir Surface	Effluent to Storage (as inches on plot acres)	Accum Storage (as inches on plot acres)
<i>Units →</i>	<i>inches</i>	<i>inches</i>	<i>inches</i>	<i>inches</i>	<i>inches</i>	<i>inches</i>	<i>inches</i>	<i>inches</i>	<i>inches</i>	<i>inches</i>
January	3.53	5.23%	2.39	0.44	1.95	5.48	3.31%	0.01	3.52	11.48
February	3.53	6.91%	3.16	0.85	2.31	5.83	1.92%	0.00	3.52	15.00
March	3.53	9.21%	4.22	1.54	2.67	6.20	4.55%	0.01	2.55	17.55
April	3.53	9.02%	4.13	1.48	2.65	6.17	8.32%	0.02	1.54	19.08
May	3.53	13.59%	6.22	3.08	3.14	6.67	3.91%	0.01	-2.01	0
June	3.53	11.92%	5.45	2.47	2.99	6.51	11.86%	0.03	-3.45	0
July	3.53	6.34%	2.90	0.70	2.20	5.72	21.45%	0.05	-4.89	0
August	3.53	7.27%	3.33	0.96	2.37	5.90	19.34%	0.04	-0.55	0
September	3.53	9.19%	4.21	1.54	2.67	6.19	10.84%	0.02	-1.10	0
October	3.53	10.35%	4.74	1.92	2.82	6.34	6.04%	0.01	0.93	0.93
November	3.53	6.20%	2.84	0.67	2.17	5.69	5.00%	0.01	3.51	4.44
December	3.53	4.78%	2.19	0.34	1.84	5.37	3.47%	0.01	3.52	7.96
Totals	42.31	100%	45.77	15.99	29.78	72.09	100%	0.23	—	19.08

Worst (low) net evap. =	2.27 inches	Storage required =	97.01 ac-ft
Corresponding rain =	45.77 inches	Actual storage =	70.55 ac-ft
Worst-case net year =	2007	Additional storage required =	26.46 ac-ft
		Storage days =	165 days

(13) Effluent available for irrigation (assumes design flow is applied to entire acreage unless different flow values are justified).

(14a) Average rainfall distribution - Data source: Texas Water Development Board (see Quadrangle in Water Balance Calculations above)

(14b) Rainfall worst year = (rainfall distribution as fraction or %/100)*maximum annual rainfall

(15) Field runoff worst year = $\left[\frac{(\text{rainfall worst year} - (0.2 * ((1000 / \text{CN}) - 10)))^2}{(\text{rainfall worst year} + (0.8 * ((1000 / \text{CN}) - 10)))} \right]$

(16) Infiltrated rainfall = (rainfall worst year - field runoff worst year)

(17) Available water = (effluent available for land application + infiltrated rainfall check)

(18a) Average net evaporation distribution - Data source: Texas Water Development Board (see Quadrangle in Water Balance Calculations above)

(18b) Net low evaporation from reservoir surface = $\left[\frac{(\text{low net evaporation}) * (\text{net low evaporation avg. dist})}{(\text{pond area}) / (\text{irrigation area})} \right]$

(19) Storage =

If: (total water needs - infiltrated rainfall) < 0, (effluent available for land application - net low evaporation from reservoir surface);

If: (total water needs - infiltrated rainfall) ≥ 0,

(effluent available for land application - net low evaporation from reservoir surface) * [(total water needs - infiltrated rainfall) / (irrigation efficiency)]

(20) Accumulated storage =

If: net low evaporation from reservoir surface + storage ≤ 0, 0

If: net low evaporation from reservoir surface + storage > 0, enter value

ATTACHMENT 10 – STORAGE LAGOON CONTINGENCY PLAN

SCHREIBER FOODS, INC.

STORAGE LAGOON CONTINGENCY PLAN

Purpose

Schreiber Foods, Inc. ("Schreiber") is executing a production expansion that will increase the amount of wastewater effluent generated at the facility. This permit application is being submitted to request an effluent increase equal to that of the hydraulic capacity of the fields Schreiber irrigates (192,000 gpd monthly average). As part of our permit application, Schreiber has prepared the below noted contingency procedure that shall go into effect should the facility find that it is not able to consistently stay within the current lagoon capacity monthly average limit of 154,000 gpd.

Current engineering predictions that incorporate the planned expansion indicate that wastewater effluent will remain below a monthly average limit of 154,000 gpd, with much of the year being far below this limit. Schreiber recognizes that actual wastewater flow can be difficult to predict in a food manufacturing facility as several variables can cause increased wastewater effluent. Due to this fact, Schreiber wishes to be prepared with a contingency plan should actual effluent numbers indicate an inability to maintain an average monthly flow below 154,000 gpd.

Procedure

The facility will monitor daily wastewater production and trend this data to fine tune our engineered predictions for future months. Should the facility's actual average daily discharge, or its future effluent predictions indicate an inability to remain below the monthly average limit of 154,000 gpd, Schreiber will develop a schedule, as well as take appropriate steps to reduce plant effluent, increase the capacity of the lagoon system or a combination of the two.

ATTACHMENT 11 – PUBLIC INVOLVEMENT PLAN



Texas Commission on Environmental Quality

Public Involvement Plan Form for Permit and Registration Applications

The Public Involvement Plan is intended to provide applicants and the agency with information about how public outreach will be accomplished for certain types of applications in certain geographical areas of the state. It is intended to apply to new activities; major changes at existing plants, facilities, and processes; and to activities which are likely to have significant interest from the public. This preliminary screening is designed to identify applications that will benefit from an initial assessment of the need for enhanced public outreach.

All applicable sections of this form should be completed and submitted with the permit or registration application. For instructions on how to complete this form, see TCEQ-20960-inst.

Section 1. Preliminary Screening

New Permit or Registration Application

☒ New Activity - modification, registration, amendment, facility, etc. (see instructions)

If neither of the above boxes are checked, a Public Involvement Plan is not necessary. Completion of the remaining sections not required.

Section 2. Secondary Screening

☒ Requires public notice,

☐ Considered to have significant public interest, and

☐ Located within any of the following geographical locations:

- Austin
- San Antonio
- Dallas
- West Texas
- Fort Worth
- Texas Panhandle
- Houston
- Along the Texas/Mexico Border
- Other geographical locations should be decided on a case-by-case basis

If all of the above boxes are not checked, a Public Involvement Plan is not necessary. Stop after Section 2.

☐ Public Involvement Plan not applicable to this application. Provide **brief** explanation.

Section 3. Application Information

Type of Application (check all that apply):

Air ☐ Initial ☐ Federal ☐ Amendment ☐ Standard Permit ☐ Title V

Waste ☐ Municipal Solid Waste ☐ Industrial and Hazardous Waste
 ☐ Radioactive Materials Licensing ☐ Underground Injection Controls

Water Quality

- ☒ Texas Pollutant Discharge Elimination System (TPDES)
 - ☒ Texas Land Application Permit (TLAP)
 - ☐ State Only Concentrated Animal Feeding Operation (CAFO)
 - ☐ Water Treatment Plant Residuals Disposal Permit
 - ☐ Class B Biosolids Land Application Permit
 - ☐ Domestic Septage Land Application Registration

Water Rights New Permit

- ☐ New Appropriation of Water
- ☐ New or existing reservoir

Amendment to an Existing Water Right

- ☐ Add a New Appropriation of Water
- ☐ Add a New or Existing Reservoir
- ☐ Major Amendment that could affect other water rights or the environment

Section 4. Plain Language Summary

Provide a brief description of planned activities.

Schreiber Foods, Inc. is a specialty dairy food manufacturer, producing a variety of cheeses.

Section 5. Community and Demographic Information

Community information can be found using EPA's EJ Screen, U.S. Census Bureau information, or generally available demographic tools.

Information gathered in this section can assist with the determination of whether alternative language notice is necessary. Please provide the following information.

Stephenville

(City)

Erath

(County)

(Census Tract)
Please indicate which of these three is the level used for gathering the following information. <input type="checkbox"/> City <input type="checkbox"/> County <input checked="" type="checkbox"/> Census Tract
(a) Percent of people over 25 years of age who at least graduated from high school 88.9%
(b) Per capita income for population near the specified location \$24,810
(c) Percent of minority population and percent of population by race within the specified location White = 75.6%, Black or African American = 3.29%, Hispanic = 12.7%, Two or More Races = 2.11% Other (Hispanic) = 2.68%, Asian = 1.3%, Indian = 1.6%, Multiracial = 0.72%
(d) Percent of Linguistically Isolated Households by language within the specified location 0%
(e) Languages commonly spoken in area by percentage English = 89.4%, Spanish = 10.6%
(f) Community and/or Stakeholder Groups N/A
(g) Historic public interest or involvement N/A

Section 6. Planned Public Outreach Activities
(a) Is this application subject to the public participation requirements of Title 30 Texas Administrative Code (30 TAC) Chapter 39? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
(b) If yes, do you intend at this time to provide public outreach other than what is required by rule? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, please describe.
If you answered "yes" that this application is subject to 30 TAC Chapter 39, answering the remaining questions in Section 6 is not required.
(c) Will you provide notice of this application in alternative languages? <input type="checkbox"/> Yes <input type="checkbox"/> No Please refer to Section 5. If more than 5% of the population potentially affected by your application is Limited English Proficient, then you are required to provide notice in the alternative language. If yes, how will you provide notice in alternative languages? <input type="checkbox"/> Publish in alternative language newspaper <input type="checkbox"/> Posted on Commissioner's Integrated Database Website

<input type="checkbox"/> Mailed by TCEQ's Office of the Chief Clerk <input type="checkbox"/> Other (specify)
(d) Is there an opportunity for some type of public meeting, including after notice? <input type="checkbox"/> Yes <input type="checkbox"/> No
(e) If a public meeting is held, will a translator be provided if requested? <input type="checkbox"/> Yes <input type="checkbox"/> No
(f) Hard copies of the application will be available at the following (check all that apply): <input type="checkbox"/> TCEQ Regional Office <input type="checkbox"/> TCEQ Central Office <input type="checkbox"/> Public Place (specify)

Section 7. Voluntary Submittal For applicants voluntarily providing this Public Involvement Plan, who are not subject to formal public participation requirements.
Will you provide notice of this application, including notice in alternative languages? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
What types of notice will be provided? <input checked="" type="checkbox"/> Publish in alternative language newspaper <input type="checkbox"/> Posted on Commissioner's Integrated Database Website <input type="checkbox"/> Mailed by TCEQ's Office of the Chief Clerk <input type="checkbox"/> Other (specify)



Compliance History Report

Compliance History Report for CN602630972, RN102780665, Rating Year 2022 which includes Compliance History (CH) components from September 1, 2017, through August 31, 2022.

Customer, Respondent, or Owner/Operator:	CN602630972, Schreiber Foods, Inc.	Classification: HIGH	Rating: 0.00
Regulated Entity:	RN102780665, SCHREIBER FOODS	Classification: HIGH	Rating: 0.00
Complexity Points:	6	Repeat Violator:	NO
CH Group:	14 - Other		
Location:	923 COUNTY ROAD 176 STEPHENVILLE, TX 76401-6802, ERATH COUNTY		
TCEQ Region:	REGION 04 - DFW METROPLEX		
ID Number(s):			
PUBLIC WATER SYSTEM/SUPPLY REGISTRATION		AIR NEW SOURCE PERMITS REGISTRATION 77437	
0720026			
STORMWATER PERMIT TXR05R880		WASTEWATER PERMIT WQ0003074000	
POLLUTION PREVENTION PLANNING ID NUMBER			
P06883			
Compliance History Period:	September 01, 2017 to August 31, 2022	Rating Year: 2022	Rating Date: 09/01/2022
Date Compliance History Report Prepared:	February 07, 2023		
Agency Decision Requiring Compliance History:	Permit - Issuance, renewal, amendment, modification, denial, suspension, or revocation of a permit.		
Component Period Selected:	February 07, 2017 to February 07, 2023		
TCEQ Staff Member to Contact for Additional Information Regarding This Compliance History.			
Name:	Alyssa Loveday	Phone:	(512) 239-4524

Site and Owner/Operator History:

- | | |
|----------------------------------------------------------------------------------------------------|-----|
| 1) Has the site been in existence and/or operation for the full five year compliance period? | YES |
| 2) Has there been a (known) change in ownership/operator of the site during the compliance period? | NO |

Components (Multimedia) for the Site Are Listed in Sections A - J

A. Final Orders, court judgments, and consent decrees:

N/A

B. Criminal convictions:

N/A

C. Chronic excessive emissions events:

N/A

D. The approval dates of investigations (CCEDS Inv. Track. No.):

Item 1	January 15, 2019	(1538738)
Item 2	March 11, 2020	(1618294)
Item 3	April 23, 2020	(1644538)
Item 4	October 06, 2021	(1763114)

E. Written notices of violations (NOV) (CCEDS Inv. Track. No.):

A notice of violation represents a written allegation of a violation of a specific regulatory requirement from the commission to a regulated entity. A notice of violation is not a final enforcement action, nor proof that a violation has actually occurred.

N/A

F. Environmental audits:

N/A

G. Type of environmental management systems (EMSs):

N/A

H. Voluntary on-site compliance assessment dates:

N/A

I. Participation in a voluntary pollution reduction program:

N/A

J. Early compliance:

N/A

Sites Outside of Texas:

N/A

Component Appendices

Appendix A

All NOVs Issued During Component Period 2/7/2017 and 2/7/2023

1 Date: 07/24/2019 (1569501)
Self Report? NO Classification: Minor
Citation:
Description: 30 TAC Chapter 319, SubChapter A 319.11(c)
Failed to properly analyze effluent samples.
Self Report? NO Classification: Minor
Citation:
Description: 30 TAC Chapter 305, SubChapter F 305.125(1)
30 TAC Chapter 305, SubChapter F 305.125(5)
Operational Requirements, No. 1 PERMIT
Failed to properly operate and maintain the facility.
Self Report? NO Classification: Moderate
Citation:
Description: 30 TAC Chapter 305, SubChapter F 305.125(1)
Conditions of the Permit, Page 2 PERMIT
Failed to maintain compliance with the permitted effluent limits.

* NOVs applicable for the Compliance History rating period 9/1/2017 to 8/31/2022

Appendix B

All Investigations Conducted During Component Period February 07, 2017 and February 07, 2023

Item 1* January 07, 2019** (1538738)
Item 2 July 19, 2019** (1569501)
Item 3* March 11, 2020** (1618294)
Item 4* April 23, 2020** (1644538)
Item 5* October 06, 2021** (1763114)

* No violations documented during this investigation

**Investigation applicable for the Compliance History rating period between 09/01/2017 and 08/31/2022.