APPENDIX Z – RESPONSES TO "IT QUESTIONS"

Responses to "IT Questions"

I. Have the potential and real adverse environmental effects of the proposed facility been avoided to the maximum extent possible?

Yes. The potential and real adverse environmental effects of the proposed facility have been avoided to the maximum extent possible.

Brickyard Trucking, LLC (Brickyard) proposes to construct and operate the proposed commercial SWD facility using the best engineering and operational practices to avoid both potential and real adverse environmental effects, such as the release of approved Exploration and Production (E and P) liquid wastes. The proposed facility will be used to properly dispose of approved E and P waste fluids in an environmentally safe manner.

In Northwest Louisiana, there eleven (11) operational commercial E and P liquid waste disposal facilities. One (1) of these facilities is not being operated at this time. There are (6) E and P waste disposal facilities for solids (landfill or on-site treatment) in Northwest Louisiana. There are (2) permitted transfer stations for E and P liquid waste located in Desoto Parish, Louisiana. There are two (2) new commercial E and P liquid waste disposal facilities with permitted saltwater disposal wells in Natchitoches Parish. Additional details are located in section II.A.

The residual solids that accumulate in tank bottoms will be periodically cleaned from the tanks, separated from the fluids, measured, manifested, and transported to a facility authorized to accept solid waste. Skim oil will be separated from the approved E and P waste fluids and sold according to the regulatory provisions of Louisiana Department of Energy and Natural Resources (LDENR) as they accumulate. The approved E and P waste fluids will be disposed of in proposed deep well injection wells, Brickyard Trucking SWD Nos. 001, 002, and 003. "Approximately 92 percent of produced water is managed through Class II well injection into subsurface reservoirs and is generally considered the safest and most effective method for handling these type fluids" *(Overview of Exploration and Production Waste Volumes and Waste Management Practices in the United States, May 2000 API report, section 2.4.2.).* Based on an Argonne National Laboratory, "Offsite Commercial Disposal of E and P Wastes" presentation in 2005, it was shown that commercial disposal costs for produced water was far more economical than by any other method, except land spreading (a less environmentally safe means of disposal). Oil field practices across the United States have established underground injection as a viable alternative method for the disposal of these types of industrial *wastes (Offsite Commercial Disposal of Oil and Gas Exploration and Production Waste: Availability, Options, & Costs, USDOE, August 2006).* The same report found that injection was almost exclusively used to manage produced water. Disposal fees for injection of approved E and P waste fluids range between $0.30/barrel to $10.00/barrel across the United States. The majority of the facilities surveyed reported disposal fees under $1.00/barrel. Because transportation costs typically increase proportionately with distance or time from well site to disposal site, economic incentives exist for operators to send their wastes to disposal facilities located within a reasonably short distance from the oil and gas E and P site.

The proposed Brickyard Commercial Facility (The Facility) is to be located approximately two (2) miles north of the town of Jamestown Louisiana, on the east side of LA 792. The Facility is in the eastern portion of Bienville Parish in the Jamestown Field and will serve many operators of oil and gas wells in Bienville, Bossier, Red River, Webster, and DeSoto Parishes of Louisiana.

The E and P waste fluids to be transported to and from The Facility by trucks (primarily vacuum trucks) will abide by the following control procedures to prevent approved E and P waste fluids from entering the environment:

- Only approved E and P waste fluids as defined in LDENR's rules at LAC 43: XIX.501 and listed on pages 1 and 2 of the WMOP (Appendix K) from approved generators of record will be received at this commercial saltwater disposal well facility. Other generators of approved E and P waste fluids will have to receive written approval from the Office of Conservation in order to dispose of approved E and P waste fluids at this commercial facility.

- Before offloading at this commercial facility, each shipment of approved E and P waste fluids will be sampled and analyzed by Brickyard personnel for pH, conductivity, and chloride content and documented on the UIC-28 manifest as required by regulations. Samples will be reviewed for percent solids. Records of these tests will be kept on file at The Facility for a period of three (3) years and will be available for review by an inspector employed by the Office of Conservation.

- A minimum of one (1) eight (8) ounce sample will be collected from each load and will be labeled with the date, operator, and manifest number. These samples will be retained at The Facility location for a minimum of thirty (30) days.

- E and P Waste Shipping Control Tickets (Form UIC-28) will be stored on-site for at least three (3) years for review by the Louisiana Department of Energy and Natural Resources.

- Form UIC-23 Instructions: A request to transfer E and P waste to commercial facilities or transfer stations. Other oil and gas industry companies (i.e. companies that do not possess a current Office of Conservation producer/operator code or a current offshore/out-of-state waste generator code) must obtain authorization from the Environmental Division by submitting a completed (acceptable) Form UIC-23 to transport E&P Waste to commercial facilities or transfer stations.

- The Facility will comply with all regulations according to LAC 33: XV regarding NORM materials.

- A Waste Management Operations Plan (WMOP) and an Emergency Response Plan (ERP) have been developed for The Facility, which establishes procedures for responding to and cleaning up any spill and provides information to allow the operator of The Facility to immediately notify the appropriate agencies. Dry-chemical fire extinguishers will be maintained on-site.

- The unloading and pad tank containment area will be constructed with seamless sealed concrete to prevent the release of approved E and P waste fluids into the environment and surrounding soils. The concrete unloading pad is bermed on two sides with 6-inch sealed concrete curbs and on the entrance and exit sides with 6-inch sealed seamless concrete roll-over berms to prevent any offsite releases. The unloading pad will have a 1.5% slope towards an integrated sealed seamless concrete trench equipped with a float actuated sump pump to prevent the accumulation of any fluids on the unloading pad. Any fluids from the sump are sent to the tanks in containment to be ultimately disposed of in the disposal wells. This is shown on the detailed facility diagram,

provided as Attachment 3 through-out this application. Approved E and P waste fluids from the trucks will be pumped to the settling tanks and back through a closed loop system. Specific unloading procedures will be followed by the employees to minimize errors and prevent spills and releases to the environment.

- Only approved liquid E and P waste fluids, as noted in the WMOP (Appendix K) will be accepted at The Facility. The liquid E and P waste fluids, primarily produced saltwater, will be pumped from the truck unloading area. A 4-in. flexible hose is connected to the tail end of the tank truck to allow the contents to be pumped by centrifugal pumps through screen baskets to a manifold where it is directed through two (2) 700-barrel lined steel settling tanks. The fluids will then be sent through two (2) series of four (4) 1,000-barrel lined steel tanks (8 Total) for solids separation and some minimal hydrocarbon separation. The fluids will then by transferred via centrifuge pumps to the two (2) lined steel 1,000-barrel gun barrels for separating hydrocarbons from the water. The separated hydrocarbons are skimmed from the tops of the 1000-barrel lined steel tanks and siphoned from the gun barrels and transferred to two (2) 400-barrel lined steel oil tanks. Fluid from the gun barrels is directed to two (2) 750-barrel lined steel suction tanks prior to being disposed of in the approved injection wells. Fluid from the two (2) 750-barrel lined steel suction tanks are then transferred by one of four (4) triplex pumps to the three (3) approved SWD wells. The hydrocarbons are temporarily stored until sold in accordance with LDENR regulations.

- Monitoring of the tanks, valves, piping, containment areas, pumps, and other associated equipment will include daily inspections. Yearly Flow Line Pressure Testing will be performed to ensure integrity of the steel lines, along with daily observations of operating pressures at the pumps and at the injection wells and daily observation of the vegetation growing around the buried steel lines at road crossings or at other locations at the facility. Daily, the buried flowlines will be inspected visibly by monitoring the location of flowlines for moisture or stressed vegetation. In the event of a significant pressure drop at the SWD well or wells, pressure gauges or pipeline pressure gauges, the buried flowlines will be immediately inspected for leaks, moisture at the surface, or stressed vegetation. Maintenance records and inspection records will be maintained and kept in the lab/office building. The inspections of The Facility will be documented and recorded in accordance with an approved SPCC Plan. This plan will be developed by a Professional Engineer specifically for this facility upon approval in accordance with 40 CFR112 and LAC 33. IX. The Facility will maintain onsite absorbent materials, such as pads, booms, and oil dry in the event of spills or releases of liquid approved E and P waste fluids. Emergency numbers will be posted in the event of a significant spill of approved E and P waste fluids.

- This commercial facility will be adequately manned during all hours of operation and shall receive approved E and P waste fluids by truck only.

- The Facility, offloading area, gun-barrels, tanks, injection pumps, and office/lab, locations will be secured by a 6-ft. chain-link fence with lockable gates. The three (3) SWD wells will be surrounded by post and chain enclosures and any access roads to the well will have lockable gates that will remain locked at all times.

A. What are the potential environmental impacts of the permittee's proposed facility?

1. What wastes will be handled?

Only approved E and P waste fluid Types 01, 04, 08, 09, 10, 11, 14, 15, 16, and 99, as defined in §501 from approved generators of record, will be received at this commercial saltwater disposal well facility. Other generators of approved E and P waste fluids will have to receive written approval from the Office of Conservation in order to dispose of approved E and P waste fluids at this commercial facility.

a. Classes of chemicals

Only approved E and P waste fluid Types 01, 04, 08, 09, 10, 11, 14, 15, 16, and 99, as defined in §501 from approved generators of record, will be received at this commercial saltwater disposal well facility.

b. Quantities (hazardous and non-hazardous)

There will be no hazardous waste transported, treated, stored, or disposed at this facility. The average anticipated amount of approved E and P waste fluids to be disposed of is 18,000 barrels per day, and the maximum anticipated amount of E and P waste fluids to be disposed in the proposed injection well is 24,000 barrels per day. A seamless/sealed concrete containment area measuring approximately 207' x 109' x 4', having 48-inch-high sealed seamless concrete containment walls, will have a total containment capacity of approximately 15,271 barrels **(13,700 barrels is 100%).** The tanks within the containment will have a maximum storage of 13,700 barrels of approved E and P waste fluids, consisting primarily of produced saltwater. The approved E and P waste fluids, primarily produced saltwater, will be pumped from the truck unloading area through a closed loop system by centrifugal pumps and transferred to the two (2) 700-barrel lined steel settling tanks. The fluids will then be sent through two (2) series of four (4) 1,000-barrel lined steel tanks (8 Total) for solids separation and some minimal hydrocarbon separation. The fluids will then by transferred via centrifuge pumps to the two (2) lined steel 1,000-gun barrels for separating hydrocarbons from the water. The separated hydrocarbons are skimmed from the tops of the 1000-barrel lined steel tanks and siphoned from the gun barrels and transferred to two (2) 400-barrel lined steel oil tanks. Fluid from the gun barrels is directed to two (2) 750-barrel lined steel suction tanks prior to being disposed of in the approved injection wells. Fluid from the two (2) 750-barrel lined steel suction tanks are then transferred by one of four (4) triplex pumps to the three (3) approved Commercial SWD wells. Prior to constructing any new structures or adding new equipment, a minor modification request will be submitted to the Louisiana Department of

Energy and Natural Resources - Environmental Division for approval before work begins. See the attached facility diagram (Attachment 3).

c. Physical and chemical characteristics

E and P waste as defined in LAC 43: XIX.501: Such wastes include the following E and P waste fluids:

1. **Type 01** – Defined as: Salt water (produced brine or produced water), except for salt water whose intended and actual use is in drilling, workover, or completion fluids or in enhanced mineral recovery operations, processed fluids generated by approved salvage oil operators who only receive oil (BS&W) from oil and gas leases, and non-hazardous natural gas plant processing waste fluid which is or may be commingled with produced formation water;
2. **Type 04** – Defined as: Completion, workover, and stimulation fluids;
3. **Type 08** – Defined as: Produced formation fresh water;
4. **Type 09** – Defined as: Rainwater from firewalls, ring levees and pits at drilling and production facilities;
5. **Type 10** – Defined as: Washout water and residual solids generated from the cleaning of containers that transport E and P Waste and are not contaminated by hazardous waste or material; washout water and solids (E and P Waste Type 10) is or may be generated at a commercial facility or transfer station by the cleaning of a container holding a residual amount of E and P Waste;
6. **Type 11** – Defined as: Washout pit water and residual solids from oil field related carriers and service companies that are not permitted to haul hazardous waste or material;
7. **Type 14** – Defined as: Pipeline test water which does not meet discharge limitations established by the appropriate state agency, or pipeline pigging waste, i.e., waste fluids/waste generated from cleaning of the pipeline;
8. **Type 15** – Defined as: E and P Wastes that are transported from the permitted commercial facilities and transfer stations to permitted commercial treatment and disposal facilities, except those E and P Waste defined as Waste Types 01 and 06;
9. **Type 16** – Defined as: Crude oil spill clean-up waste;
10. **Type 99** – Defined as: Other E and P Waste not described above (shipment to a commercial facility or transfer station must be pre-approved prior to transport).

Brickyard intends to receive only the liquid portions of approved E and P waste Types 15, 16, and 99 at The Facility.

d. **Hazardous waste classification (listed, characteristic, etc.)**

While approved E and P waste fluids are not regulated under the Louisiana Department of Environmental Quality (LDEQ) regulations, it contains constituents that are common to fuel or oil. As the material typically contains less than one percent (1%) fuels, the material is still flammable and may contain toxic compounds associated with fuels. The low percentage of fuel and condensate associated with the produced water limits the explosiveness of approved E and P waste fluids. The fluids are not highly corrosive. The slightly corrosive nature of the saltwater will be managed with the use of minor amounts of corrosion inhibitor as indicated in the WMOP section of the permit application.

2. How will they be handled?

Approved E and P waste fluids will arrive through a security gate to the facility by truck transport. These trucks may be vacuum trucks, tanker trucks, and portable tanks. A Brickyard employee trained in unloading procedures will witness the entry, then accept and process the entry of waste into the facility. To limit unauthorized access, The Facility has a secured gate at the entrance, and a 6 ft. chain link fence around the treatment and storage areas. A trained employee of Brickyard will be at The Facility during the hours of operation to monitor facility operations and treatment/pumping of approved E and P waste fluids.

A minimum of one (1) eight (8) ounce sample will be collected from each incoming load. These samples will be monitored before offloading for the presence of NORMs as required by the applicable LDEQ regulations and requirements. The eight (8) ounce sample of each load will be collected, dated, and labeled with the manifest number and operator identification. The samples will be analyzed in accordance with LAC 43: XIX.543.B.1 (pH, conductivity & Cl-) prior to being accepted for unloading. The collected samples will be stored in an area with minimum exposure to individuals at The Facility. Trucks will be directed to the unloading area where they will connect to a closed loop system to begin the treatment process.

a. Treatment

The approved E and P waste fluids, or primarily produced saltwater, will be pumped from the truck unloading area through a closed loop system. A 4-in. flexible hose connected to the tail end of the tank truck will allow the contents to be transferred by centrifugal pumps through screen baskets to a manifold where it is directed through one two (2) 700-barrel lined steel settling tanks. The fluids will then be sent through

two (2) series of four (4) 1,000-barrel lined steel tanks (8 Total) for solids separation and some minimal hydrocarbon separation. The fluids will then by transferred via centrifuge pumps to the two (2) steel 1,000-gun barrels for separating hydrocarbons from the water. The separated hydrocarbons are skimmed from the tops of the 1000-barrel lined steel tanks and siphoned from the gun barrels and transferred to two (2) 400-barrel steel oil tanks. Fluid from the gun barrels is directed to two (2) 750-barrel lined steel suction tanks prior to being disposed of in the approved injection wells. Fluid from the two (2) 750-barrel suction tanks are then transferred by one of four (4) triplex pumps to the three (3) approved SWD wells. The residual solids from the saltwater tanks will be periodically removed during tank cleaning operations and placed in a lined steel roll-off container temporarily located at The Facility during tank cleaning operations. Solids will not be allowed to accumulate or be stored at The Facility. These solids will be sampled and profiled for disposal at an approved facility. The solids will be transported by an authorized transporter to an approved facility.

b. Storage "Lined Steel Separation and Storage Tanks"

Approved E and P waste fluids, primarily produced saltwater, will be pumped from the truck unloading area through a closed loop system to the inlet of two (2) 700-barrel lined steel settling tanks. The fluids will then be sent through two (2) series of four (4) 1,000-barrel lined steel tanks (8 Total) for solids separation and some minimal hydrocarbon separation. The fluids will then by transferred via centrifuge pumps to the two (2) lined steel 1,000-gun barrels for separating hydrocarbons from the water. The separated hydrocarbons are skimmed from the tops of the 1000-barrel lined steel tanks and siphoned from the gun barrels and transferred to two (2) 400-barrel lined steel oil tanks. Fluid from the gun barrels is directed to two (2) 750-barrel lined steel suction tanks prior to being disposed of in the approved injection wells. Fluid from the two (2) 750-barrel lined steel suction tanks are then transferred by one of four (4) triplex pumps to the three (3) approved SWD wells.

An SPCC Plan certified by a Professional Engineer will be implemented and maintained on-site. The Attachment 3 - Facility Diagram shows the layout of The Facility. The tanks, offloading area, pumps, and ancillary equipment will all be placed in bermed, seamless sealed concrete and sealed seamless concrete containment areas to prevent releases of approved E and P waste fluids to the surface soils, groundwater, and recharge areas of aquifers.

c. Disposal

The approved E and P waste fluids, primarily produced saltwater, and pit water, will be injected in the permitted injection well(s). Injection pressures and the casing/tubing annulus pressure will be monitored according to the permit. The residual solids resulting from settling in

the saltwater tanks will be periodically removed during tank cleaning operations and placed in a lined steel roll-off container during tank cleaning operations. These solids will be sampled, profiled, and manifested for disposal at an approved facility. The solids generated are expected to be less than 0.1 percent of the total throughput handled at The Facility. The solids will be transported by an authorized transporter to an approved facility. Solids will not be stored at The Facility and will be removed as processed.

There will be no discharge of contact storm water at this facility. Brickyard anticipates having to clean some of the tanks to remove solids approximately twice per year and estimates no more than twenty (20) cubic yards of solids will be removed from each tank cleaning event. Once in operation, Brickyard will evaluate the previous estimations.

3. Sources of waste

a. On-site generation (type and percentage of total handled)

Solids that are generated from approved E and P waste fluids managed at the facility through accumulation in the bottom of the two (2) 700-barrel lined steel settling tanks, two (2) 1000-barrel lined steel gun barrel, two (2) 400-barrel lined steel oil stock tanks, two (2) 750-barrel lined steel suction tanks, and eight (8) lined steel 1,000-barrel saltwater tanks will be removed by periodic cleanouts. During periodic cleaning of these tanks, solids will be removed and placed in a lined steel roll-off container temporarily located at The Facility only during tank cleaning operations. These solids will be sampled, profiled, and manifested for disposal at an available and approved facility that is authorized to receive E&P Waste solids. The solids generated will be less than 0.1 percent of the total throughput handled at The Facility. The solids will be transported by an authorized transporter to an approved facility.

Normal solid waste will be generated at The Facility. A dumpster will be kept on-site for disposal of trash, debris, and garbage at the local permitted landfill.

b. Off-site generation (type and percentage of total handled)

Approved E and P waste fluid is generated off-site as waste generated by the drilling and production of oil and gas. This facility is not expected to generate any form of waste outside The Facility boundaries.

4. Where will the wastes be shipped if not handled at this site?

Approved E and P waste fluid not disposed of or treated at The Facility and waste products generated at The Facility from facility operations will be shipped from The Facility to a disposal facility permitted to receive approved E and P waste fluids. Solids from cleaning tanks will be temporarily stored in a steel roll-off container. The roll-off container will only be located at The Facility during temporary routine maintenance, such as cleaning tank bottoms from above-ground storage tanks. Normal solid waste from facility operations will be stored in an on-site dumpster prior to disposal at the local permitted landfill.

5. What wastes will remain on-site permanently?

No waste will remain on-site permanently. A closure bond will be obtained as required by LAC 43: XIX.567.

B. By which of the following potential pathways could releases of hazardous materials from the proposed facility endanger local residents or other living organisms?

C.

1. Air

There is no potential exposure through the air pathway other than from vent lines on the oil/condensate storage tank, the separation tanks, and the temporary storage of solids in roll-off containers on the concrete pad during periodic tank cleaning operations. Preliminary modeling calculations have been done to determine if this facility will require a minor source air permit from LADEQ. Emissions calculations based on the anticipated throughput of this facility indicate that emissions would not reach the threshold that requires an air permit. This type of facility will emit Volatile Organic Compounds (VOCs) not exceeding an LADEQ minimum emission rate or a de minimis rate established pursuant to the Clean Air Act; therefore, an air permit exemption application was submitted to LADEQ on August 15, 2024. After review/approval of the exemption application, Brickyard will provide the documentation from LDEQ to the Environmental Division of the Office of Conservation. A copy of Air Permit Exemption is included in Section P. in Facility personnel will be monitored for possible Hydrogen Sulfide (H_2S) exposure using H_2S personnel monitors.

2. Water

The water pathway is protected by a sealed seamless concrete unloading pad and sealed seamless concrete containment system around the tanks and off-loading areas. The storage tanks at the facility are enclosed by a 207' x 109' x 4' concrete containment having a spill containment capacity of approximately 15,028 barrels **(13,700 barrels is 100%).** The tanks within the containment will have a maximum storage capacity of 13,700 barrels of approved E and P waste fluids, consisting primarily of saltwater. The floor of the tank

containment area will be constructed of a sealed seamless concrete and is sloped slightly towards the integrated sealed seamless concrete trough in the center of the containment floor, which flows to a sump to collect any rainwater or spilled E and P Waste Liquids. Fluids collected in this sump will be pumped via automated submersible pumps back through the desander tanks and on through the flow process.

The Facility will implement an approved SPCC Plan certified by a Professional Engineer to prevent and control spills of E and P waste or its recovered materials. The Facility will use secondary containment to ensure that contaminants will not enter the waters of the State of Louisiana. The sealed seamless concrete unloading pad is bermed on two sides with 6-inch sealed seamless concrete curbs and on the entrance and exit sides with 6-inch sealed seamless concrete roll-over berms to prevent any offsite releases. The unloading pad will have a 1.5% slope towards an integrated concrete ditch trench equipped with a float actuated sum pump to prevent the accumulation of any fluids on the unloading pad. Any fluids from the sump are sent to the tanks in the containment to be ultimately disposed of in the injection wells. Valves and hose connections associated with unloading of the skim oil tanks will be contained using 6.5-gallon polyethylene containment units with a cover and locking capabilities. The drinking water aquifers are protected by two (2) strings of steel casing and cement. A cement bond log will be run on the surface casing string and the long string casing string of the well to prove isolation of the Underground Source of Drinking Water (USDW). The injection of fluid will be through steel tubing and a packer, thereby offering a further layer of protection of the USDW. The casing/tubing annulus will be monitored to ensure there are no leaks in the tubing, packer, or outer long string casing.

In addition, the surface water pathway is protected through collection of any precipitation that falls on any stored solids or in the contained areas throughout The Facility. These solids are from temporary tank clean outs and are only temporarily stored in a roll-off container until disposal at an authorized disposal facility. These waters will be handled as waste to be injected into the disposal well. Thus, there will be no surface discharge of contact stormwater at this facility and no LPDES permit is necessary.

3. Soil

Contaminants from disposal of the approved E and P waste fluids in the proposed injection well will not come in contact with the soil. The storage tanks at the facility are enclosed by a 207' x 109' x 4' steel sealed/lined containment wall having a spill containment capacity of 15,271 barrels **(13,700 barrels is 100%)** barrels within containment. The tanks in the containment will have a maximum storage capacity of 13,700 barrels of approved E and P Waste fluids, consisting primarily of produced saltwater. The floor of the tank containment area will be constructed of sealed seamless concrete and is sloped slightly towards the integrated concrete trough in the center of the containment floor which flows to a sump to collect any rainwater or spilled E and P Waste Liquids. The entire system is contained by a 48-in. sealed seamless concrete containment wall integrated into a sealed seamless concrete floor. Liquids

collected in the sealed seamless concrete sump are pumped to the inlet manifold and commingled with other approved E and P waste before being sent back through the flow process. The sealed seamless concrete unloading pad is bermed on two sides with 6-in. sealed seamless concrete curbs and on the entrance and exit sides with 6-inch sealed seamless concrete roll-over berms to prevent runoff of approved E and P waste fluids or run-on of stormwater or any offsite releases. The E and P waste, primarily produced saltwater, will not come in contact with the soil. Possible minor spills and releases may occur during offloading of approved E and P waste fluids. The spills will be contained on concrete and run-on will be controlled by sealed seamless concrete roll-over berms. The unloading pad will have a 1.5% slope sloped towards an integrated concrete trench equipped with a float actuated sump pump to prevent the accumulation of any fluids on the unloading pad. Any fluids from the sump are sent back to the tanks in the containment to be ultimately disposed of in the disposal wells. Absorbent materials will be kept on site for further containment in the unlikely event a spill might take place in a place other than the seamless concrete unloading pad.

4. **Food**

The Facility is located in a rural area of Bienville Parish, Louisiana. No risk of significant release to the food chain is expected. The Facility will limit and minimize the risk of any contaminants to enter food or the food chain (i.e. animal, wildlife, and related biology) by controlling and preventing air, water, and soil emissions. No emissions to the soil and water are expected because they will be controlled by sealed seamless concrete berms and curbs, a sealed seamless concrete slab, and sealed seamless concrete containment walls integrated into the sealed seamless concrete floor with run-off controls, as noted above, with run-off controls, as noted above.

D. What is the likelihood or risk potential of such releases?

As noted above, no risk of significant emissions is expected. There is minimal risk of potential exposure to the water or soil through either leakage of containment areas, or during the transfer of materials or by way of the disposal well. All containment areas are adequately bermed to contain spills and include sump pumps to prevent the accumulation or leakage offsite. Additional protection is being constructed in the form of sealed seamless concrete containment unloading pad that is sloped with 6-inch sealed seamless concrete curbs, on the entrance and exit sides with 6-inch sealed seamless concrete roll-over berms to prevent any offsite releases and a sealed seamless concrete tank battery with 48" sealed seamless concrete walls integrated into the sealed seamless concrete containment floor. The WMOP establishes procedures for proper handling of materials and protection from releases. The Facility will have a SPCC Plan, developed by a Professional Engineer in accordance with 40 CFR Part 112 and LAC 33: IX.905.B to provide protection against releases as well as containment and regular inspections. Monitoring of the tanks, valves, piping, containment areas, pumps, and other associated equipment will be included in the daily inspections. Yearly Flow Line Pressure testing will be performed to ensure integrity of the steel lines, along with

daily observations of operating pressures at the pumps and at the injection wells and daily observations of the vegetation growing around the flow lines crossing and anywhere else the flowlines are buried underground. Maintenance will be performed as required. Inspections of The Facility will be documented and recorded in accordance with an approved SPCC Plan. The Facility will have a SPCC Plan, developed by a professional engineer in accordance with 40 CFR Part 112 and LAC 33: IX. to provide protection against releases as well as containment and regular inspections. Monitoring of the tanks, valves, piping, containment areas, pumps, and other associated equipment will be included in the daily inspections. The Facility will maintain onsite absorbent materials, such as pads, booms, and oil dry in the event of spills or releases of liquid approved E and P waste fluids. Emergency numbers will be posted in the event of a significant spill of approved E and P waste fluids.

In addition, The Facility will be designed and operated to prevent such releases and implement an Emergency Response/Contingency Plan that will help to ensure that any accident or unexpected event will be quickly and effectively controlled and reported, as required. Maintenance will be performed as required. The likelihood or risk potential of releases is minimal.

The likelihood or risk of a potential release from an injection well is considered to be minimal when State imposed regulations are followed. Drinking water aquifers will be protected by two (2) strings of steel casing and cemented to ground surface, providing external cement isolation above and below the proposed injection zone as demonstrated in Attachment 4A of the UIC-2 Com SWD application. A cement bond log will be run on both casing strings in accordance with LDENR Injection and Mining Division (IMD), "Cement Bond Logging Guidelines" and sent to IMD in order to prove sufficient isolation and protection of the Underground Source of Drinking Water (USDW) has been met. Fluids will be injected through steel tubing and a packer, thereby offering a further layer of protection to the USDW. The casing/tubing annulus will be pressure tested, monitored, and recorded in accordance with LAC 4.XIX.Subpart1, Statewide Order 29-B, to ensure there are no leaks in the tubing, packer, or outer long string casing. The likelihood or risk potential of releases is minimal.

E. What are the real adverse environmental impacts of the permittee's proposed facility?

1. Short-term effects

Land area taken out of system

The short-term effect of the land being taken out of the system is negligible. Remnants of the old brick plant are still located on the site. Brickyard is redeveloping an old industrial site, along with providing employment to individuals in the area and offering a valuable service to the oil and gas operators in the area, with emphasis on the Haynesville Shale operators.

The land for the proposed facility is currently owned by Brickyard Trucking, LLC. The total land area of the site is 13.22 acres and the permitted facility boundary is approximately 6.2 acres as shown on the Facility Diagram at the end of Appendix E. The site is located approximately two (2) miles north of the town of Jamestown, Louisiana, on the east side of LA 792. The proposed Facility is in the western portion of Bienville Parish – Jamestown Field. The current land for this site is the location of an abandoned brick plant. The brick plant was formerly owned by ACME Brick. There is some pine timber on the property.

The Haynesville Shale Play extends more than 30 miles to the west and south from the proposed facility. Oil and gas fields in the area that will be served by the proposed facility include Lake Bistineau, Sibley, West Ringgold, Alabama Bend, Ringgold, Elm Grove, Ada, Sailes, Bear Creek, Bryceland, West Bryceland, Bracky Branch, and others. Operators developing the Haynesville Shale Formation in Bienville, Bossier, Desoto, Natchitoches, Red River and Webster Parishes will benefit from the operation of the proposed facility.

2. Long-term effects

The Facility is designed and will be operated to minimize potential adverse effects to the environment. The Facility will implement an approved SPCC plan, provided by a Professional Engineer in accordance with 40 CFR Part 112 and LAC33: IX.905.B that will help prevent discharges to any drainage areas. The Facility will have the required closure financing in place to assure that the site is properly closed in accordance with LAC: XIX.567. The financial responsibility for any liability for damages will be in accordance with LAC 43: XIX.511 by obtaining and presenting a certificate of liability insurance in the amount set by the commissioner as documented in Appendix M.

In comparison to long-term waste storage facilities, such as, landfills or treatment systems that discharge to the waters of the State of Louisiana, this facility will not pose any threat for long-term environmental effects. Long-term environmental impacts are not expected at The Facility. Class II well injection into subsurface reservoirs, is generally considered the safest and most effective method for handling these type fluids" (*Overview of Exploration and Production Waste Volumes and Waste Management Practices in the United States, May 2000 API report, section 2.4.2.*). The process of deep well injection is the injection of approved E and P waste fluids, primarily produced saltwater, into porous and permeable formations that already contain saltwater. A simple explanation is: "saltwater will be injected in formations that already contain saltwater". Long term, the bottom hole pressure in the formations where fluid will be injected will dissipate and eventually reach a pressure not much higher than the original bottom hole pressure. The Closure Plan, included in Appendix N, details the method of plugging and abandoning the well and closure of The Facility. Financial assurance in accordance with LAC: XIX.567, will be in place before construction and before approved E and P waste fluids are injected in any well. This closure funding helps to ensure that the facility operator is responsible and cognizant of any potential contamination and the ensuing long-

term effects. The well and facility will be constructed and operated in a manner that protects surface waters, recharge areas of aquifers, groundwater and drinking water aquifers. Permits and plans will be in place to provide further protection of the environment. All of the reasons above and, others contained in the permit application and elsewhere herein, provide levels of protection to ensure there will be no long-term impact to human health and the environment.

II. Does a cost benefit analysis of the environmental impact costs balanced against the social and economic benefits of the proposed facility demonstrate that the latter outweighs the former?

Yes. A cost benefit analysis of the environmental impact costs balanced against the socio-economic benefit of the proposed facility indicates the latter outweighs the former.

A. How was it determined that this facility was needed?

Brickyard Trucking, LLC and Raines & Associates, LLC researched available information at the Louisiana Department of Energy and Natural Resources and surveyed the need for commercial saltwater disposal well with oil and gas operators in the area. From June 1, 2024 – August 27, 2024, there were 36 permitted Haynesville Shale wells in the Shreveport District. As of August 1, 2024, there are 4,127 Status 10 – producing gas wells in the Haynesville Shale in the Shreveport District. The Brickyard Trucking, LLC facility will reduce the number of miles trucks are transporting saltwater from the south and west across Bienville Parish to Bear Creek Services, LLC (B320) (Site ID 701) and Sugar Creek Environmental, LLC (S2740) (Site ID 703 and Site ID 704).

There are currently only two (2) operational commercial E and P disposal facilities in Bienville Parish; one facility is operated by Bear Creek Env. Systems, LLC (B320) (Site ID 701) and the second is operated by Sugar Creek Environmental, LLC (S2740) (Site ID 703 and Site ID 704). Sugar Creek Environmental, LLC (S2740) also operates a landfill at this location under Site ID 704. There is currently only one (1) operational commercial E and P disposal facilities in Caddo Parish; it is operated by the Woolworth Landfill (NP0008) (Site ID 903) which is a LADEQ Landfill able to accept solid E and P waste only. There are currently five (5) operational commercial E and P disposal facilities in DeSoto Parish to serve the entire Haynesville Shale Play in this region; one facility is operated by Southern Water Disposal, LLC (S430) (Site ID 1606), the second is operated by Pinnergy, LTD (P308) (Site ID 1604), the third is operated by Bulldog Oilfield Services, Inc. (B3920) (Site ID 1609), the fourth is operated by Brumley Investments, LLC (B2920) (Site ID 1610), and the fifth is operated by Mundy Sanitary Landfill-DPPJ (NP0019) (Site ID 1608) which is a LADEQ Landfill able to accept solid E & P waste only. The Bulldog Oilfield Services, Inc. facility is currently not in operation. There are also two (2) transfer stations in DeSoto Parish; Select Water Systems, LLC – Bethlehem Transfer Station (S1075) (Site ID 1603) which receives approved liquid E and P waste fluids generated in Louisiana, and transfers across state lines to Texas, and Pinnergy Transfer Station (P308) (Site ID 1607), which receives

approved liquid E and P waste fluids generated in Louisiana, and transfers to the Pinnergy, LTD (P308), (Site ID 1604) commercial E and P disposal facility next door. There are currently only two (2) operational commercial E and P disposal facilities in Webster Parish; one facility is operated by Nelson Energy, Inc. (N054) (Site ID 6006) and the second is operated by Webster Parish Solid Waste Landfill (NP0007) (Site ID 6004) which is a LADEQ Landfill able to accept solid E & P waste only. There are currently only two (2) operational commercial E and P disposal facilities in Sabine Parish; one facility is operated by Ventana Midstream LLC (60063) (Site ID 4304) and the second is operated by Sabine Parish Landfill (NP0011) (Site ID 4303) which is a LADEQ Landfill able to accept solid E & P waste only. There is currently only one (1) operational commercial E and P disposal facility in Bossier Parish; operated by R360 Environmental Solutions of LA, LLC (R244) (Site ID 801). There are currently only two (2) operational commercial E and P disposal facilities in Red River Parish; one facility is operated by Pinnergy, LTD (P308) (Site ID 4102) and the second facility is operated by PA Prospect Corporation (P5603) (Site ID 4104). There are two (2) new permitted commercial E and P disposal facilities permitted in Natchitoches Parish identified as Ashtec Water Services, LLC (A10086) with two (2) wells permitted and PA Prospect Corporation (P5603).

Brickyard has reviewed current and historical records at the Office of Conservation regarding drilling and production and is of the opinion that a commercial E and P waste disposal facility is necessary to benefit the oil and gas operators in the area. With further development of the Haynesville Shale Play, as well as additional plays in the Cotton Valley and Hosston formations, additional commercial facilities will be needed to serve the large area of development. The relatively new and continuing exploration and production activities in Northwest Louisiana support laborers, craftsman, professionals, families, and government. Brickyard estimates this facility will receive an average of 18,000 barrels per day up to a maximum of 24,000 barrels of approved E and P waste fluids each day. With other facility options, this would reduce the distances that trucks are required to transport this waste as well as reduce the road traffic across Bienville Parish. A new facility will also significantly reduce truck traffic on Louisiana highways going out of the state on longer trips to commercial injection wells located at greater distances. Moreover, as more oil and gas companies look to reduce overall costs and optimize operations of their fields, saltwater disposal expenses play a significant role in determining their economics. Operators need a local commercial facility to reduce increases in the price of transporting these materials to other facilities. Natural gas exploration and production in Northwest Louisiana has always provided enormous funding into local communities; unfortunately, the price of natural gas has not kept up with increases in other fuels notwithstanding the environmental benefits of burning natural gas and with it, new drilling opportunities. Additionally, once a well is drilled it will continue to produce water for the life of the well. Horizontal wells in the Cotton Valley Formation and vertical wells in the Hosston Formation, produce a large amount of water during production. Also, Haynesville Shale wells produce large amounts of water when drilled near faults or in highly fractured areas.

Further stated, Brickyard has numerous contacts within the Oil & Gas Industry, Water Disposal Industry, and with numerous Producer/Operators in North Louisiana. This has provided them with insider knowledge of the relatively new and continuing exploration and production activities in Northwest Louisiana. With information provided by

numerous Oil and Gas Producers within the anticipated market range, Brickyard fully expects this facility will receive an average of 18,000 barrels to a maximum of 24,000 barrels of approved E and P waste fluids each day and with other commercial facility options and their locations to producing oil and gas fields, it would likely reduce the overall number of large trucks and travel distances for operators on U.S., State, and Parish roads, as well as the bridges that lay between these active fields and commercial disposal facilities on the east side of the Red River.

1. Local or regional survey

The Facility's chosen location is near the oil and gas drilling and production industry's major operations in Northwest Louisiana where E and P waste is created. The Facility is centrally located in Northwest Louisiana approximately 2 miles north of Jamestown, Louisiana to provide a location in a rural area, but centralized to provide an environmentally safe means for disposal of produced fluids, primarily saltwater, from oil and gas wells in the region. The Facility is in the Jamestown Field of Bienville Parish. The proposed facility has easy access for truck traffic located on the east side of LA 792. From LA 792, access to US Highway 371 provides a North/South route to operates and a North route to Interstate 20.

2. On-site or off-site needs

The Facility will be fenced and gated with access only by entrance through a locked gate. As mentioned above, the source of approved E and P waste fluids, primarily produced saltwater, is near the majority of oil and gas wells drilling and production operations in the eastern part of the Haynesville Shale play. The approved E and P waste fluids that meet the requirements and are accepted at the proposed facility will be disposed of in the proposed injection well. The solids that accumulate in the separation and holding tanks will be removed, sampled, and analyzed, then disposed of at an approved E and P solid waste facility.

Brickyard anticipates having to clean some of the tanks to remove solids approximately twice per year and estimates no more than twenty (20) cubic yards of solids will be removed from each cleaning event.

3. Regional solid waste management benefit

The Facility will not accept solid wastes for disposal. Small amounts of solid E and P waste will be generated at The Facility during tank cleaning operations. These solids will be properly sampled, profiled, and disposed of at an approved solid waste facility. Therefore, there is no regional solid waste management benefit.

4. Generic survey of solid waste needs (compatibility with master plan)

The Facility will not accept solid wastes for disposal.

B. What will be the positive economic effects on the local community?

Ad valorem taxes will be paid to Bienville Parish. Taxes on fuel will be paid to state and federal authorities. The oil and gas operators in the area will save additional dollars on operations by reducing the distance to transport approved E and P waste fluids on Louisiana Highways, reducing road wear. This will prolong the life of the oil and gas wells, thereby increasing severance taxes to the State of Louisiana for a longer period and saving jobs for personnel maintaining and servicing the wells. The proposed facility is located approximately 2 miles North of Jamestown, Louisiana. This strategic location will allow easy access for trucks to stay on major highways and thereby reducing the damage to rural roads and saving the parish and state authorities from expensive road repairs.

1. How many permanent jobs will be created?

The operation of The Facility will create approximately ten (10) positions at The Facility. Six (6) jobs will be created for operation of The Facility, plus two (2) positions for management, one (1) position for clerical assistance and quality control, and one (1) position for maintenance of The Facility. Additional positions will be created for truck drivers transporting approved E and P waste fluids to The Facility, and regulatory consultants to maintain regulatory requirements.

2. What is the expected annual payroll?

The expected annual payroll is estimated to be $500,000.00 to $600,000.00

3. What is the expected economic multiplier from item B2?

The expected multiplier, i.e., increase in local business activity, is three (3). This multiplier has been previously accepted in prior similar commercial SWD applications at LDENR and is also supported by a 2011 report that indicates an average multiplier for value added, employment, and labor income of 3.18 ***(Macroeconomic Impacts of the Domestic Oil & Gas Industry, Working Document of the NPC North American Resource Development Study, September 15, 2011).***

4. What is the expected tax base and who will receive benefits?

The proposed facility would be subject to ad valorem taxes by Bienville Parish. The ad valorem taxes will be based on the value of The Facility once it is in place, and will be assessed by the local tax assessor. Taxes will be paid on diesel fuel purchased to power the trucks transporting approved E and P waste fluids and other related operating expenses associated with maintain the trucks. The recipients of these taxes will be state and federal governing bodies.

C. What will be the potential negative economic effects on the local community?

1. What are the possible effects on property values?

There have been no formal impact studies done on nearby property values, but based on the current usage of the property and the rural location of the proposed facility, it is not expected that the proposed facility will have any adverse impact on local property values. The nearest residence to the subject facility is +/- 1,800 feet east of the facility boundary. The nearest community is Jamestown, Louisiana, south of where the proposed facility is located. The proposed facility should have no adverse impact on adjacent or nearby property values.

2. Will public costs rise for:

a. Police protection

No significant increase in police protection cost should arise from the construction and operation of this facility. The proposed facility will operate 24 hours a day, seven days per week. The facility will be manned during these hours and any time injection of waste is occurring. When the subject facility is closed, a locked gate, and chain-link fencing, and a security system will secure the property. The proposed facility is to be located on the east side of LA 792.

b. Fire protection

The flammability of E and P waste is based mainly on the flammability of small amounts of fuel and oils within the E and P waste and the skimmed oil within the two (400-barrell lined steel oil tanks. The explosiveness of this material is greatly reduced when associated with produced saltwater. The Facility will have fire protection equipment to handle less significant emergencies. The Facility will develop an Emergency Response Plan that will allow quick and effective action during emergency situations. The Bienville Parish Fire District, provides fire protection for the proposed facility. The nearest Fire Station is in Ringgold, Louisiana, approximately 6.5 miles to the west of the Proposed Facility. There will be no significant increase in public cost due to the subject facility being installed.

c. Medical facilities

Public costs for medical facilities will not increase due to the construction and operation of the proposed facility. The nearest medical facilities are located approximately 6.5 miles to the southwest in Ringgold, Louisiana. The medical facility is known as CHRISTUS Ringgold Rural Health Care Center located at 3342 Bienville Road (Highway 154), Ringgold, Louisiana. A larger medical

facility would be located to the north, approximately 23 miles, known as the Minden Medical Center located at 1 Medical Plaza Place, Minden, Louisiana. The materials handled at The Facility are in similar nature as the oil and condensate produced in oil fields in the area. The majority of the liquids handled at the proposed E and P waste facility will be produced saltwater, which is non-hazardous and non-flammable. There should be no new additional threats to human health.

d. Schools

Public costs for schools will not rise because of the construction and operation of the proposed facility. The nearest school is Ringgold Elementary located in Ringgold, Louisiana at 4044 Bienville, Road, about 6.5 miles to the southwest. The next closest school in Castor High School located in Castor, Louisiana at 140 Front Street, located about 9.5 miles to the south. No adverse effect to the local schools is expected, based on the limited potential of environmental concerns and the distance to the schools. The North Zone Traffic Study Map was updated to include the Lakeside Junior/Senior High School. This school location has been evaluated by Brickyard and based on the primary source of the saltwater being transported from the south and southwest (Haynesville Shale Drilling and Completion Activities), versus trucks transporting saltwater from the north (I-20 south on Highway 371, by Lakeside Junior /Senior High School, where there is limited Haynesville Shale activity. The trucks transporting saltwater from the north will be limited based on the minimal drilling activity in the area north of the Lakeside Junior/Senior High School.

e. Roads

The public costs for roads are not anticipated to increase as a result of the proposed facility. The proposed development will service existing facilities by providing a centralized location for the area, and overall impact and miles driven by E&P waste trucks is expected to be reduced. A Traffic Impact Analysis was performed for the service area to indicate whether or not this new facility would have any impact on the surrounding transportation network. Based on the traffic impact analysis it was determined that the new saltwater disposal facility would have minimal impact on the surrounding transportation network. See the independent Traffic Impact Analysis by Neel-Schaffer dated June 10, 2024 included in Appendix Z.

- The proposed facility is located off LA Highway 792, approximately 24 miles to the south of Interstate 20 and approximately 7 miles east of US Highway 371. The facility location does a have posted weight restriction (25-Ton) on a bridge on LA Highway 792 approximately one-mile South of the proposed facility. Access to the facility will be from the North as depicted on the Traffic Route Study-North Zone, please refer to the Traffic Impact Analysis Maps and the Traffic Impact Analysis Report at the end of Appendix Z. The facility location does have posted weight restrictions on LA Highway 792, but the trucks

hauling E&P waste will be within those weight restrictions (no more than 40 tons or 80,000 pounds). The positioning of the proposed facility is anticipated to reduce the truck impact for roadways within The Anticipated Market Range as the existing truck traffic will utilize the proposed facility, reducing overall miles travelled on public roadways.

- Heavy vehicles accessing the proposed site are already operating on Parish roadways; utilizing existing facilities located further from source locations. Brickyard's associated business, Defiance Energy Services, LLC currently transports E&P waste from well locations near the proposed facility to the Southern Water Disposal, LLC SWD Commercial Facility Site Code 1606, approximately 68 miles to the west; or to Sugar Creek Environmental, LLC SWD Commercial Facility Site Code 703, approximately 24 miles to the north from the proposed facility. Providing a facility closer to the sources will reduce the overall truck mileage for existing E&P waste, see page 22-23 (II.D.3.a) for additional information.

- It is anticipated that heavy vehicle traffic associated with the Red River Bridge at Armistead-Coushatta will be reduced to minimal impact. Based on Brickyard's evaluation of current market conditions it is anticipated that waste generated to the east of the Red River within the Anticipated Market Range will be received by the proposed facility and waste generated to the west of the Red River will utilize one of the Commercial E & P waste facilities on the west side of the river. The proposed facility is closer to the Haynesville Shale development than two Commercial E & P waste facilities in the northern portion of Bienville Parish. These facilities are Sugar Creek Environmental, LLC (S2740) (24 miles to the North) and Bear Creek Services, LLC (B320) (20 miles to the Northeast). The proposed facility will reduce truck traffic on Bienville Parish highways. Pinnergy, LTD (P308) has a facility located approximately 16 miles to the south of the proposed facility near Hall Summit, Louisiana with limited disposal capability. R360 Environmental Solutions of LA, LLC (R360) operates a Commercial E & P waste facility in southern Bossier Parish, Louisiana that excepts solids and fluids. This facility is located approximately 21 miles to the west of the proposed facility.

- A Road Access Permit has been applied for with the Louisiana Department of Transportation and Development (LA DOTD) for the purposes of providing access to the Facility from LA Highway 792. Parish road permit requirements have been and will continue to be met for the parish roads utilized by Brickyard. If the Facility is approved to construct, additional Parish Road Permits will be obtained for any additional roads Brickyard might utilize.

- Transporters that haul E & P waste to the proposed facility, will be provided periodic training and documented by Brickyard regarding

transportation, such as acceptable routes, bridge postings, parish road permit requirements, weight limits, and school zones. Due to this training truck traffic should not have any effect on schools or other sensitive areas.

- Please refer to the Traffic Impact Analysis Maps and the Traffic Impact Analysis Report at the end of Appendix Z.

Brickyard expects a maximum of 24,000 barrels of approved produced saltwater, pit liquids, and other associated approved E and P waste fluids at the subject facility each day. Considering that each truck can transport approximately 130 barrels per load, this would be equivalent to a maximum of 192 truckloads per day. The Facility will be open approximately 24 hours per day; therefore, the average truck traffic is approximately eight (8) trucks per hour during maximum operating times. If the facility receives 18,000 barrels/day, this equates to approximately six (6) trucks per hour.

Because the facility is located off LA Highway 792, and approximately 2 miles north of Jamestown, Brickyard is of the opinion that there will be no adverse effect to the public roads and no increased cost. Accordingly, Brickyard believes that there will be no adverse impact to LA Highway 792. U. S. Hwy 371 is approximately 7 miles to the west of the proposed facility and provides access to the North to Interstate 20 and Minden, Louisiana and to the south to Coushatta, Louisiana. Positioning a disposal facility at this location will reduce overall road damage in Bienville Parish roads as trucks will not have to haul as many loads of saltwater to get to the other existing facilities located on smaller public roadways.

3. **Does the prospective site have the potential for precluding economic development of the area by business or industries because of risk associated with establishing such operations adjacent to the proposed facility?**

No studies have been done to demonstrate that this site will not impact economic development in the area. The proposed facility is located in a rural part of Bienville Parish. The property was previously used as a brick plant. The operation of a commercial SWD facility at this location would generate a significant increase in local tax revenues to the parish as compared to the current use. Future drilling activity in the area, not only for Haynesville Shale development, but also other producing formations in the area would generate additional disposal requirements for this area. The risk associated with operations of the proposed facility is negligible to non-existent due to the WMOP and monitoring set in place to ensure there is no harm to human health and the environment. The injection wells are monitored daily for pressure variances in the casing/tubing annulus. The underground sources of drinking water are protected by two (2) strings of steel casing and cement. Cement bond logs are run to prove isolation of the injection interval and the USDW (underground source of drinking water).

The proposed facility poses no risk to prevent economic development in the area by other industries or businesses.

D. Was transportation a factor in choosing the proposed site?

Yes, transportation of the approved E and P waste fluids by truck and the close proximity of the proposed location to the source of the E and P waste primarily being generated from the Haynesville Shale Formation, Cotton Valley Formation and the Hosston Formation in oil and gas files such as, Lake Bistineau, Sibley, West Ringgold, Alabama Bend, Ringgold, Woodardville, Sailes, Bryceland, West Bryceland, Bracky Branch, Elm Grove, Sligo, Swan Lake, Martin, Madden Branch, Castor and other oil and gas fields in Northwest Louisiana, provides the most practical and economical means of transportation and disposal of the approved E and P waste fluids. This location is located to take advantage of active development in the Haynesville Formation and Cotton Valley Formation, as well as reduce truck traffic across state lines and bridges. Please refer to the Traffic Impact Analysis Maps and the Traffic Impact Analysis Report at the end of Appendix Z, and page 22-23 (II.D.3.a) for additional information.

1. What mode(s) of transportation will be used for the site?

a. Truck

Truck will be the only mode of transportation of approved E and P waste fluids to The Facility.

b. Rail

Rail transportation is not currently being considered at the subject location.

c. Barge

Barge transportation is not available to the subject location.

d. Other

Pipeline transportation is a future possibility for subject site. Representatives of Brickyard have had discussions with a local operator of Haynesville Shale production in the area of the Proposed Facility. Brickyard would not utilize the pipeline until approved by LDENR and will comply with the requirements of LAC 43: XIX.571.

2. What geographical area will it serve?

This facility will primarily serve the oil and gas production region in Northwest Louisiana, specifically Bienville, Bossier, DeSoto, Natchitoches, Red River, Webster Parishes, and possibly other parishes in Northwest Louisiana. If approved, and E and P waste fluids are received from out-of-state generators, the Manifest system shall be followed in accordance with LAC 43: XIX.545.

3. By how much will local road traffic volume increase?

The maximum expected operating capacity of the proposed Brickyard Facility is 24,000 barrels of approved E and P waste liquids each day. The analysis was performed at 25,000 barrels of approved E and P waste liquids. Local road traffic is not anticipated to be affected, due to the operations of The Facility being located on the east side of LA 792. Each truck servicing the facility can transport approximately 130 barrels which equates to 192 trucks per day at 25,000 **barrels** per day. Please refer Traffic Impact Analysis Report by Neel-Schaffer for more figures on the traffic volume increase estimates, Appendix Z – responses to "IT Questions." For the Generated Peak Hour Volume calculation, it is assumed that the facility will accommodate the maximum of 192 trucks per day. While the facility is anticipated to operate 24 hours per day, it is assumed that the trucks will arrive within a 20-hour period; therefore, a rate of ten (10) trucks per hour were used for the peak hour calculation. A summary of the generated peak hour trips is shown below.

Daily Peak Hour Trip Generation	AM Peak		PM Peak	
	Enter	Exit	Enter	Exit
Trucks per hour	10	10	10	10

It is anticipated that the actual operation of the facility will be around 70-80 trucks per day; however, the maximum rate is considered for purposes of this analysis. The majority of the heavy vehicle trips to and from the proposed facility currently exist on Parish roadways. The following table is an evaluation of the traffic volumes on existing major routes, also refer to the for Traffic Route Study Maps and Traffic Impact Analysis at the end of Appendix Z.

Generated Peak Hour Volume			
Service Area	Route	AM	PM
North	LA 792 South to Site	10	10
Total Trucks Per Peak Hour		**10**	**10**

Route volumes are approximate estimations based on the existing facilities serviced. Routes are on a demand basis and regular hourly traffic will vary based on source sites being utilized. The existing processing facilities for the area is summarized in the Roads section on pages 22-23.

There are minor increases and decreases in the study area due to the re-routing of trips from existing facilities to the proposed facility. The main noticeable changes are the increases for the section at the intersection of LA 516 and LA 792 located North of the proposed to the Brickyard facility. All access will be directed through this intersection

As mentioned previously the heavy vehicle trips are already present on Parish roadways and bridges servicing the existing E&P source sites. The proposed development provides a centralized location, reducing overall impact to Parish roadways that heavy vehicles are utilizing.

a. Can local roads handle the traffic volume expected?

The Facility could potentially reduce truck traffic on other local roads in Bienville Parish due to the strategic location that will reduce heavy trucks crossing Bienville Parish from the south to access the facilities known as Bear Creek Services, LLC (B320) to the northeast and by Sugar Creek Environmental, LLC (S2740) to the north.

Local roads can handle the increased traffic without negatively affecting other users based on the following:

1) E and P Waste Haulers will meet Parish Road Permit requirements for the roads traveled in the parishes the Brickyard facility will serve. Please refer to the following section B and Appendix P of the application for additional information.

2) A Road Access Permit has been applied for with the Louisiana Department of Transportation and Development (LA DOTD) for purposes of providing access to the Facility from LA Highway 792. **A copy of the LA DOTD Road Access Permit No. 04019890 is included as an Exhibit to Section P.**

3) A Traffic Impact Analysis was performed and showed that the facility would have minimal impact to the surrounding transportation infrastructure. See Appendix Z – Traffic Impact Analysis.

4) Churches, cemeteries, school bus stops, and a community and recreational public facility exist along the different access routes to the proposed facility. Transporters that haul E & P waste to the proposed facility, will be provided periodic training and documented by Brickyard regarding transportation, such as acceptable routes, bridge postings, parish road permit requirements, weight limits, and precautions for sensitive areas (i.e. public facilities, cemeteries, churches, school bus stops, and school zones) such as times of day/week to avoid a particular route. Due to this training, truck traffic should not have any negative effects on any of these sensitive areas. Brickyard will continuously work with the community, including the Bienville Parish Police Jury, Bienville Parish Sheriff's office and other

government or local agencies to be aware of sensitive areas and make recommendations to the truck drivers transporting the saltwater aware of any concerns to modify their routes to the Brickyard facility.

5) LA DOTD average daily traffic count data along the anticipated traffic routes were reviewed at http://www.apps.dotd.la.gov/engineering/tatv/. Following is a summary of the data nearest the proposed facility.

LA DOTD Traffic for Highways Nearest to the Proposed Facility				
YEAR	Station #071000155	Station #123210	Station #071000153	Station #071000152
	North LA792/LA516	East LA792/LA516	South LA792/LA516	West LA792/LA516
2024	NA	322	NA	NA
2023	672	NA	695	728
2022	655	NA	677	710
2021	629	NA	650	682
2020	582	223	601	631
2019	NA	240	NA	NA
2018	NA	230	NA	NA
2012	NA	297	NA	NA
2011	NA	NA	457	NA
2005	714	NA	NA	220
2000	664	NA	NA	NA
1987	429	101	371	292

LA DOTD Traffic for Highway – Intersection of US 371/LA 516				
YEAR	Station #071000146	Station #123330	Station #071000145	Station #0710001444
	North US371/LA516	East US 371/LA516	South US 371/LA516	West State Line RD/ US 371
2024	NA	320	NA	NA
2023	3,108	189	3,106	288
2022	3,029	184	3,027	281
2021	2,910	177	2,908	270
2020	2,692	177	2,690	250
2019	NA	191	NA	NA
2018	NA	183	NA	NA
2015	NA	173	NA	NA
2012	NA	250	NA	NA
2009	NA	246	NA	NA
2005	3,048	NA	3,128	334

2000	3,057	207	NA	NA
1987	2,553	NA	2,348	221

b. Can local roads handle the weight of trucks?

The Facility is located immediately east of U.S. Highway 371 and on the east side LA 792. These highways currently handle this kind of truck traffic with this kind of weight on a daily basis. U.S. Highway 371 can handle the increased traffic and the kind of weight. LADOTD representatives have previously encouraged site development where the site is in close proximity to a major Interstate and a U.S. Highway. Traffic to the site will come from the north and south bound lanes of U.S. 371, then to LA Highway 516 and then south to LA 792 and the Proposed Facility. Access to US 371 is available on LA State Highway 4, LA State Highway 154, LA State Highway 507 and other State Highways in the area. Interstate 20 is located to the north of the facility approximately 21 miles.

The Facility is located immediately east of LA Highway 792, and is approximately 21 miles South of Interstate 20. A detailed evaluation of the roads and bridges along the anticipated routes was conducted using bridge data provided by the LA DOTD. The weight of the trucks should be no more than 80,000 pounds (40 Tons) and is dependent on many variables, such as how much E & P waste is being transported, the type of tires on the truck, and how much fuel is in the truck. These highways currently handle this kind of truck traffic with this kind of weight on a daily basis. The evaluation indicated the proposed routes are equipped with roads and bridges capable of handling the weight of the trucks, see the Traffic Impact Analysis Maps and the Traffic Impact Analysis Report in Appendix Z. It should be noted, that Bridge Postings on the Traffic Route Study Maps will be adhered to; routes are available that avoid these posted bridges and drivers that will be hauling to Brickyard are trained to adhere to such restrictions. Additionally, a LA DOTD Road Access Permit (#04019890) has been issued for purposes of providing the facility access from LA Highway 792. E and P waste haulers will be required to have parish road permits for the roads to be traveled in the parishes Brickyard will serve. Prior to accepting the E & P waste, Transporters hauling E & P waste to the proposed Brickyard facility, will be provided training regarding transportation, such as acceptable routes, bridge postings, parish road permit requirements, weight limits, and school zones. LA DOTD representatives have previously encouraged site development where the site is in close proximity to a major Interstate and a U.S. Highway. Interstate 20 is located approximately 21 miles north of the facility and U.S. Highway 371 is located approximately 6 miles to the west. Please refer to the Traffic impact Analysis Report in Appendix Z, and page 22-23 (II.D.3.a) for additional information.

4. What are the long-term expectations of the proposed site?

1. Longevity of the facility?

The Facility is expected to operate at this location for approximately twenty (20) years. The length of time The Facility operates is also based on the time frame in which oil and gas is produced in the area.

2. Who owns the facility?

The property and proposed facility is owned by Brickyard Trucking, LLC.

3. Are the owners financially backed by others?

The owners are not financially backed by others.

4. When is closure anticipated?

Closure is expected to be 20 years from the date noted on the approval of this application. (Anticipated closure to be in 2046).

5. Who is responsible for the site after closure?

Brickyard is responsible for the site after closure of The Facility.

6. What assurances will there be that the site will be closed in accordance with the plan?

Financial assurances will be in place as noted in Appendix N of this application, according to regulations (LAC 43: XIX.567) to fund closure prior to issuance of the permit.

7. What financial assurances will be established to demonstrate the ability to handle problems after closure?

Financial assurances will be provided and in place according to regulations (LAC 43: XIX.567) to assure that proper closure is funded and attained.

A. Brickyard will follow all applicable local, state, and federal financial assurance requirements. Closure bond and/or letter of credit will be in place as required by regulatory statutes, and reviewed annually. The requirements of the permit for the well and facility limit environmental concerns after The Facility is closed.

1. **Who certifies that the site is properly closed?**

The site will be closed according to LAC 43: XIX.567. The Department of Energy and Natural Resources (LDENR) Office of Conservation will certify that the site is properly closed. Closure of the site will be performed under LDENR's supervision.

2. **How are people protected from unwittingly buying land after closure?**

A deed recordation describing the operation to be located on the site along with the closure documents will be filed in the conveyance records at the Bienville Parish Courthouse.

a. **Is the closed facility recorded in the deed?**

The closed facility will be recorded in the records of the Bienville Parish Courthouse.

b. **What future uses are possible?**

The future uses of the property will most likely be agricultural or timberland.

III. Are there alternative projects, which would offer more protection to the environment than the proposed facility without unduly curtailing non-environmental benefits?

No. The facility is located in a remote area and provides limited exposure to the public. The proposed location is strategically located to serve the oil and gas industry in the area with a means of disposal of E and P waste that is protective to the environment and provides an economical means of disposal of the E and P waste. Other alternative projects are not believed to be economically viable for disposal of approved E and P waste fluids in this area. Costs, practicality, and suitability of various alternative means of disposal are noted in a 2006, Argonne National Laboratory report available through the US Department of Energy (Offsite Commercial Disposal of Oil and Gas Exploration and Production Waste; Availability, Options, and Costs). Most other alternatives cannot handle the volumes required at an economically viable cost and as safely and effectively as disposal by deep well injection for the conditions found in Louisiana. A survey noted in this report indicates that injection was almost exclusively used to manage approved E and P waste fluids. The Facility is a closed loop system designed to minimize emissions and exposure of contaminates to the environment compared to other methods. It is located in a rural area and provides limited exposure to the public. Alternatives to deep well injection may be recycling, or the treatment of the produced saltwater to remove impurities. There is not a current need for additional sources of salt water in the area, so recycling is not a viable alternative. Land treatment of approved E and P waste fluids or gas plant waste fluids is not an acceptable means of disposal of E and P waste fluids per LAC 43: XIX.549.C.7.f. Land treatment is typically utilized for solids and sludges with relatively low levels of hydrocarbons and salts. Salt, unlike hydrocarbons cannot biodegrade, but may accumulate in soils. Treatment and discharge of the approved E and P waste fluids to the surface poses additional risk to the environment, including risk of contaminating surface or

ground water. Regarding treatment and surface discharge, reliable technologies have not been developed to effectively treat large volumes of approved E and P waste fluids for discharge to the waters of the State of Louisiana. Thermal treatment is another option that has been tried in rare instances, but has the highest associated cost for disposal. No thermal treatment facilities for approved E and P waste fluids are believed to have been permitted in Louisiana. Burial in landfills for approved E and P waste fluids has been tried, but the requirement for solidification, which is generally required, drives up the costs.

The socio-environmental benefits of deep well injection far outweigh other methods of treatment and disposal of approved E and P waste fluids that includes land farming, land treatment, or incineration. Class II injection wells have been used to dispose of produced fluids since the 1930's and, today, there are over 170,000 such wells located in 31 states (Groundwater Protection Council, *Injection Wells: An Introduction to Their Use, Operation and Regulation*, August 2005. The Groundwater Protection Council and many others consider underground injection of produced fluids to be a safe technology. This method has been substantially improved, since the 1930's.

1. Waste water is injected into the ground between impermeable layers of rocks to avoid polluting fresh water supplies or adversely affecting quality of receiving waters. Injection wells are usually constructed of solid walled pipe cemented to a deep elevation in order to prevent injectate from mixing with the surrounding environment (U.S. Environmental Protection Agency (EPA). Washington, DC. "Basic Information about Injection Wells." Updated 2010-01-22).

   Injection wells are widely considered to be the best method for disposal of treated waste water. (Argonne National Laboratory, Offsite Commercial Disposal of Oil and Gas Exploration and Production Waste", 2006). Unlike outfalls or other direct disposal techniques, injection wells utilize the earth as a filter to further clean the treated wastewater before it reaches the receiving water. This method of waste water disposal also serves to spread the injectate over a wide area, further decreasing environmental impacts.

   Underground injection is a safe way to dispose of approved E and P waste fluids and LDNR regulations governing construction and operation of commercial SWDs, as well as The Facility's WMOP, help ensure protection of the environment (Overview of Exploration and Production Waste Volumes and Waste management Practices in the United States, May 2001 API report).

A. **Why was this technology chosen (e.g., incineration over landfilling?)**

Other technologies are available, such as landfilling, water treatment, and incineration, but none of the other alternatives are as protective of the environment as deep well injection. Deep well injection is also the most environmentally effective means of disposal of approved E and P waste fluids.

1. Are other technologies available?

Other technologies are available, water treatment and discharge, and incineration, but none of the other alternatives are as protective of the environment as deep well injection as an economically viable alternative as

noted in the Argonne National Laboratory report noted previously in this appendix.

A 2000 API report (Overview of Exploration and Production Waste Volumes and Waste Management Practices in the United States) indicates that approximately 92% of approved E and P waste fluids is managed through Class II well injection into subsurface reservoirs, generally considered the safest and most effective method for handling these type fluids. Deep well injection is also noted as the most cost-effective means of disposal of approved E and P waste fluids in the previously referenced Argonne National Laboratory report. Deep well injection is a process of pumping approved E and P waste fluids into a well and injecting into porous, subsurface rock or sand formations bounded by impermeable bounding beds. Deep well injection is the primary method of disposal of approved E and P waste fluids from oil and gas exploration. (Statements in this section also supported by a presentation available online at http://www2.epa.gov/sites/production/ files/ documents/21_McCurdy_-_UIC_Disposal_508.pdf.) The Operators will often own Class II disposal wells for their operations. There are a number of operator-owned Class II disposal wells in Red River Parish. When these operator-owned Class II disposal wells go down or require workover operations to remediate them, Operators need another means to dispose of approved E and P waste fluids.

Due to the continued development of the Haynesville Shale and Cotton Valley Play, the demand exists for a commercial SWD facilities in the area. Eleven (11) commercial liquid E and P waste disposal facilities are permitted and constructed in Northwest Louisiana. Four (4) of these commercial E & P disposal facilities just became operational within the last few years, two (2) are in Desoto Parish; one facility (Site ID 1609) is operated by Bulldog Oilfield Services, Inc. (B3920) (Type B) (Inactive) and the second facility (Site ID 1610) is operated by Brumley Investments, LLC (B2920) (Type B). The other two (2) facilities are located in Red River Parish; one facility (Site ID 4102) is operated by Pinnergy, LTD (P308) (Type B) and the second facility (Site ID 4104) is operated by PA Prospect Corporation (P5603) (Type B). Two (2) other commercial E & P disposal facilities located in DeSoto Parish are Pinnergy, LTD (P308) (Site ID 1604) (Type B) and Southern Water Disposal, LLC (S430) (Site ID 1606) (Type B). R360 Elm Grove (R244) (Site ID 801) (Type A) operates a commercial E & P Type A waste disposal facility in Bossier Parish. Bear Creek Env. Systems, LLC (B320) (Site ID 701) (Type B) and Sugar Creek Environmental, LLC (S2740) (Site ID 703) (Type B) operate disposal facilities northern and eastern portion of Bienville Parish. Ventana Midstream, LLC (60063) (Site ID 4304) (Type B) operates a commercial E & P disposal facility in Sabine Parish. Nelson Energy (N054)) (Site ID 6006) (Type B) operates a commercial E & P disposal facility in Webster Parish. One of these facilities, Bulldog Oilfield Services, Inc. (B3920) (Site ID 1609), is currently not in operation. There are two (2) new permitted commercial E and P disposal facilities permitted in Natchitoches Parish identified as Ashtec Water Services, LLC (A10086) with two (2) wells permitted and PA Prospect Corporation (P5603).

Continued development of the Haynesville Shale, Cotton Vally and Hosston Formations will generate significant quantities of produced saltwater. Discussions with industry personnel, familiar with operations in the area, indicate that many of the current facilities available nearby for disposal of approved E and P waste fluids may be approaching disposal capacity. Approved E and P waste fluid from Northwest Louisiana is piped and trucked daily across the state line to Texas, damaging Louisiana roads, risking a spill or release in environmentally sensitive areas, and further justifying the need for this commercial SWD facility.

Other E and P waste disposal facilities for E and P Waste solids in Northwest Louisiana include:

- BFI- Woolworth Road Landfill (NP008) - Site ID 903 (LDEQ)
- Mundy Sanitary Landfill – DeSoto Parish (NP0019) – Site ID 1608 (LDEQ)
- R360 – Elm Grove (R244) Site ID 801 (Type A)
- Sabine Parish Landfill (NP0011) Site ID 4303 (LDEQ)
- Sugar Creek Environmental, LLC (S2740) Site ID 704 (LDEQ)
- Webster Parish Landfill (NP0007) Site ID 6004 (LDEQ

There are two (2) permitted transfer stations for liquid E and P waste that are listed below:

- Pinnergy Transfer Station (P308) Site ID 1607 (Type T)
- Select Water Systems, LLC-Bethlehem Transfer Station (S1075) Site ID 1603 (Type T)

Deep well injection is one of the most effective and environmentally sound methods for disposal of approved E and P waste fluids. Approved E and P waste fluids generated from oil and gas production is injected in porous formations already containing saltwater. These beds are bounded above and below by confining impermeable beds to prevent the vertical migration of the injected fluids. Injection pressures are limited below the fracture pressure of the rocks.

Approved E and P waste fluids are injected through 4-1/2-in. tubing and a packer, which allows for the first layer of protection of the USDW. The packer is set in the longstring 7-in. casing, at a depth that is equal to or deeper than the cement in the wellbore that is bonded to the first isolating shale formation immediately above the approved injection zone, to ensure the approved E and P waste fluids are migrating via the perforations within the approved injection zone. These pressures are monitored for integrity of the tubing, casing, and

packer, so that the well can be shut down immediately in event of failure. This provides the first layer of protection of the USDW.

The second layer of protection of the USDW is the tested 7-in. steel casing and the cement pumped between the 7-in. casing and the 8 3/4-in. open hole all the way to the surface. A cement bond log is then run to provide evidence of proper isolation of the injection interval for the protection of the USDW. Logs are submitted to the Injection and Mining Division for approval prior to injecting the approved E and P waste fluids.

The third layer of protection of the USDW is the 10 3/4-in. steel surface casing. The surface casing is set at a minimum of 100-ft. below the base of the USDW and cemented back to surface. A cement bond log is then run to provide evidence of cement between the outside of the 10 3/4-in. casing and the drilled 13 1/2-in open hole, for protection of the USDW.

The IMD limits injection pressure below the fracture gradients of the confining zones, thereby eliminating the risk of vertical migration of fluids. In addition, an area of review evaluation is performed as part of the application preparation to determine if any artificial penetrations exist, that could potentially allow for approved E and P waste fluids to escape from the permitted formations. There were no artificial penetrations within the area of review for the proposed well locations. The confining zones, shales, multiple strings of tubing, casing, cement, and monitoring of injection pressure ensures that the injected approved E and P waste fluids stay within the permitted formations.

Approved E and P waste fluids or gas plant waste fluids may not be disposed of by land treatment in accordance with LAC 43: XIX.549.C.7.f.

Raines & Associates, LLC works with industrial landfills and landfarms across the state of Louisiana for disposal of other wastes. Examples of these facilities include WCI – White Oaks Landfill, Monroe, LA: R360 Environmental Solutions, Elm Grove, LA, Republic-Webster Parish Landfill, Minden, LA, and Republic-Woolworth Road Landfill, Shreveport, LA.

Treatment of approved E and P waste fluids at the surface or waste water treatment is an option, but because of the high chloride content of the produced water, treatment is very costly; and if treatment is not managed and controlled, then impacts to the surface water could occur via the discharge of the treated approved E and P waste fluids.

Evaporation and incineration are other options to dispose of approved E and P waste fluids. Evaporation can cost as much as $84.00 per barrel, while incineration of E and P waste liquids, which typically does not have high flammability characteristics, can be more expensive. Thermal treatment can range from $10.50 to $105.00 per barrel.

Ref: Technical Assessment of Produced Water Treatment Technologies, 1st Ed., RPSEA Project 07122-12, Colorado School of Mines, November 2009.

2. Describe the engineering design and operating techniques used to compensate for any site deficiencies.

The permitting procedures help ensure the integrity of the injection well, including casing and cement protection of the USDW and isolation of the injection interval. Procedures will be in place for monitoring the integrity of the casing strings, tubing strings, and packer. Injection pressures will be monitored and recorded daily to help ensure compliance with the permit. Each of these design and operational parameters and controls help ensure confinement of injected fluids to the authorized injection zone.

Secondary containment will be in place to help ensure containment of approved E and P waste fluids in the event of a spill, release, or rupture. A secondary defense against spills or release is the bermed, curbed and sloped, sealed seamless concrete unloading pad, and the sealed seamless concrete containment area. These areas will be constructed of sealed seamless concrete with appropriately sized berms and curbs to assure appropriate containment in the event of a spill. In the event of a sump pump failure, heavy rain events, and/or an accidental discharge of E & P waste to the unloading slab, an employee of brickyard will use a pressure washer to clean Truck/Trailer Tires of E & P waste before and as the hauler is leaving the unloading slab to prevent the tracking of E & P waste off of the concrete unloading slab. If E & P waste is tracked outside of the unloading slab, Brickyard will contact Conservation in accordance with LAC 43: XIX.535.E. To prevent E & P waste accumulating on the concrete unloading slab, five (5) gallon spill buckets will be placed beneath the hose and truck connection. Any spilled product in the five (5) gallon bucket at the unloading valve will be returned to the flow process. Absorbent pads will be in place to absorb any minor amounts of E & P waste that may be spilled. There will be no accumulation of fluids within the containment areas under normal operating conditions. Slightly sloped floors of the unloading and containment areas towards automated sump pumps are additional added measures to assure that no accumulation of fluids will occur in these areas. Facility personnel will supervise unloading and disposal operations and discontinue operations if any problems are noted until the problem is resolved. The offloading area will be contained to prevent run-on and run-off, and for containment of minor spills that might occur during offloading procedures. Absorbent pads will be available at the unloading and offloading areas in the event of minor spills.

Once the oil in the 400-barrel lined steel oil tanks is deemed in condition to be sold, an approved transporter will be notified to pick up the oil. When the transporter arrives on-site he will be directed to the oil load out unloading area on the south side of the containment wall by a trained Brickyard Employee, a sample of the oil will be collected and the water percentage will be determined. If the oil is deemed acceptable, the driver will gauge the tank to determine the volume of oil in the tank. The oil will be transferred from one of the two (2) 400-barrel lined steel oil tanks to the load out line. The load out line has a polypropylene containment around the unloading valve to prevent any spills during the unloading process. The driver will then connect the suction hose to

the loading valve in the polypropylene containment. The loading valve will be opened, the tank valve will be opened and the valve at the truck will be opened with the vacuum pump running. The driver will monitor the truck compartment with the site gauge and the tank the driver is pulling from with the gauge line. The onsite personnel for Brickyard will be monitoring all activities and assisting the driver. Once the tanker is near capacity the driver will slow the vacuum pump down reducing the vacuum being pulled to move oil. The tank valve will be closed then the loading valve in the polyethylene container will be closed. The valve at the truck will be closed and disconnected. A five (5) gallon bucket will be placed beneath the hose and truck connection. The hose will then be disconnected at the loading valve in the polypropylene containment. Any spilled product in the five (5) gallon bucket or the polypropylene containment at the loading valve will be returned to the oil storage tank. Absorbent pads will be in place to absorb any minor amounts of oil that may be spilled.

A Spill Prevention, Control, and Countermeasure Plan will be developed by a Professional Engineer and put in place in the event of a spill or release.

B. **Is the proposed technology an improvement over that presently available?**

The proposed technology is deep well injection of approved E and P waste fluids generated from the oil and gas industry. Improvements are made to the casing design to allow for increased volumes of fluid to be injected with less injection pressure at the surface. Improved separation and increased retention time at the surface will allow for "cleaner" approved E and P waste fluids to be injected that will not have an adverse effect on the formation where the fluid is injected. The injection of oils, sludges, mud, and freshwater often create a swelling effect on the clays in the formations and create impermeable barriers that eventually increase injection pressures. Improved monitoring of the types of fluids accepted, increased separation and retention time at the surface, and the mixing of freshwater with approved E and P waste fluids will help the operations at The Facility, specifically the injection pressure at the wellhead, to stay within the guidelines of the permit.

C. **Describe the reliability of technology chosen**.

The technology chosen provides an environmentally safe and economical method of disposal of approved E and P waste fluids with little or no harm to human health and the environment.

1. **Past experiences**

Approved E and P waste fluids managed through Class II well injection into subsurface reservoirs is generally considered the safest and most effective method for handling these types of fluids (Overview of Exploration and Production Waste Volumes and Waste Management Practices in the United

States, API, May 2000). The approved E and P waste fluids are injected back in saltwater-bearing formations, which have produced oil and gas in other areas of the state.

Deep well injection has been proven effective in thousands of Class II injections wells across Louisiana. The surface facility designs, multiple casing and cement designs and tubing and packer designs provide multiple layers of protection to the surface environment and the USDW. By injecting the brine, Class II wells prevent surface contamination of soil and water. *(http://dnr.louisiana.gov/assets/OC/im_div/uic_sec/ EPAposterofwells.pdf)*

2. Environmental impacts

The environmental impacts to the community and the area are minimal to none. The secondary containment, constructed of concrete, will prevent spills, releases, and ruptures of approved E and P waste fluids from entering the environment. The casing, tubing, packer, and cement requirements established by the DENR protect the USDW. The monitoring programs established and issued along with the permit for the proposed facility ensure compliance during operations, and virtually eliminate any possible release to the environment. The socio-environmental benefits of deep well injection over other technologies, such as land farming, landfilling, or surface treatment, include the fact that Class II well injection into subsurface reservoirs is generally considered the safest and most effective method for handling these types of fluids (Overview of Exploration and Production Waste Volumes and Waste Management Practices in the United States, API, May 2000) and could possibly help eliminate any contact or exposure to the communities such as Allen and Natchitoches since environmental impacts are typically identified and remediated promptly. This is based on common industry information and EPA document, EPA816-H-10-001*(http://dnr.louisiana.gov/assets/OC/im_div/uic_sec/EPAposterofwells.pdf).*

Truck traffic will increase slightly, but impacts to the community and environment will be negligible, as truck traffic through this area already takes place to haul approved E and P waste fluids to areas further away (See the Traffic Analysis Maps at the end of Appendix Z depicting some Current Commercial E&P Waste Facilities).

D. Describe the sequence of technology used from arrival of wastes to the end process at The Facility (flow chart).

See flow chart on the following page.

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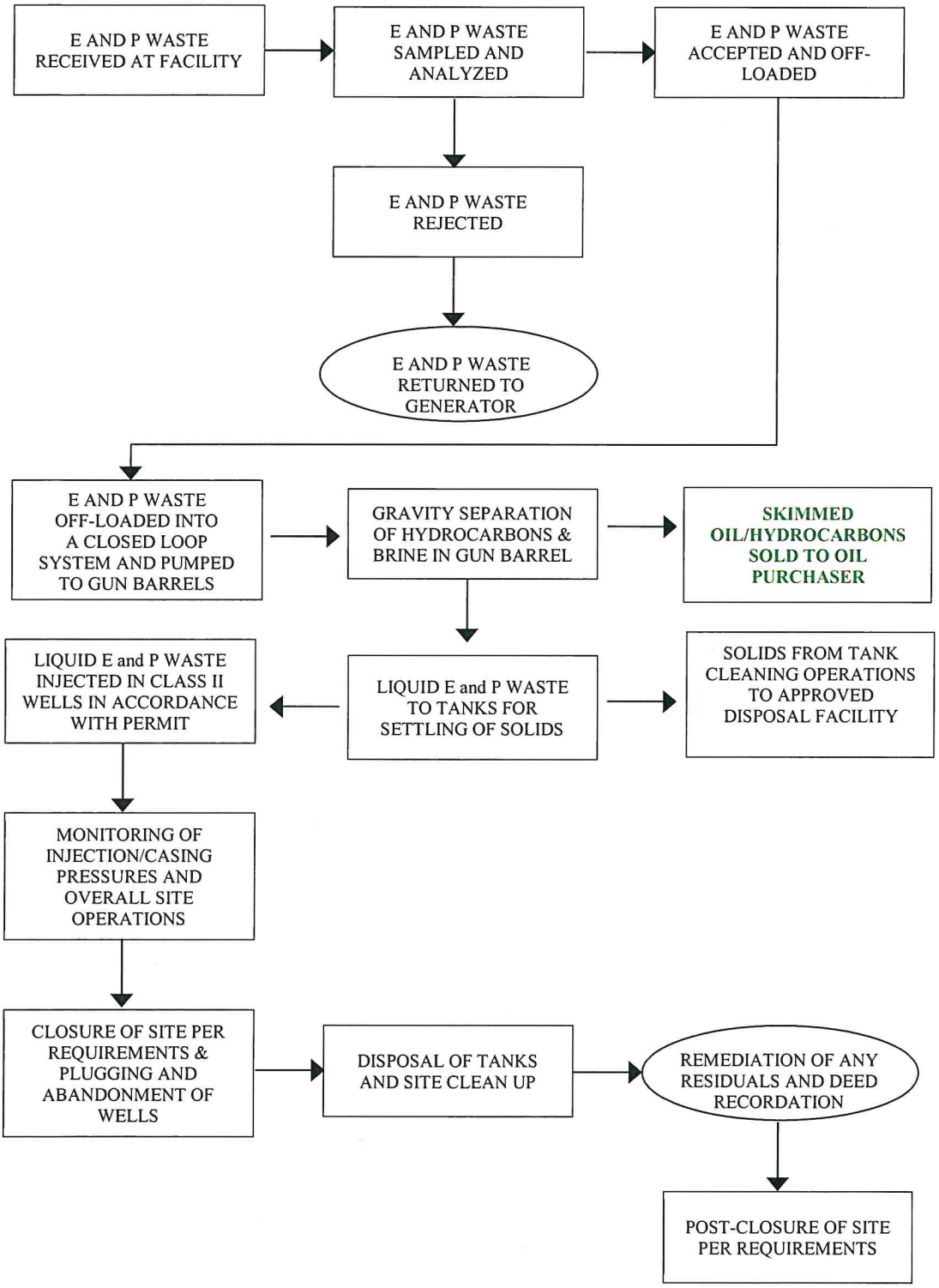
Office of Conservation

APR 23 2025

Environmental Division

PROCESS FOR THE ARRIVAL OF NEW WASTE



1. Analysis of waste

Upon the truck arriving at The Facility location, a sample of the fluid will be collected, inspected for percent solids, and analyzed for pH, conductivity, and chloride. The E and P waste fluids will either be accepted or refused.

2. Unloading

Before unloading, the regulatory required testing will be performed and the reviewed manifest will be completed and given to the transporter. The approved E and P waste fluids will be unloaded from the tanker trucks through a closed loop system via hoses at the unloading rack. These hoses will pump the fluids directly into the gun barrel and separation tanks.

3. Storage

A load of approved "Types" of E and P waste fluids enters The Facility through a security gate and is directed to an 8-in. thick cement unloading slab with 6-in. sealed seamless concrete berms and sealed seamless concrete curbs that is sloped towards an integrated sealed seamless concrete sump to prepare for the unloading procedures. After taking a sample of the tank truck's contents, a 4-in. hose will be connected to the tail end of the tank truck to allow the contents to be pumped via centrifugal pumps to the inlet of two (2) 700-barrel lined steel settling tanks. The fluids will then be sent through two (2) series of four (4) 1,000-barrel lined steel tanks (8 Total) for solids separation and some minimal hydrocarbon separation. The fluids will then by transferred via centrifuge pumps to the two (2) lined steel 1,000-barrell gun barrels for separating hydrocarbons from the water. The separated hydrocarbons are skimmed from the tops of the 1000-barrel lined steel tanks and siphoned from the gun barrels and transferred to two (2) 400-barrel lined steel oil tanks. Fluid from the gun barrels is directed to two (2) 750-barrel lined steel suction tanks prior to being disposed of in one of the three approved injection wells. Fluid from the two (2) 750-barrel lined steel suction tanks are then transferred by one of four (4) triplex pumps to the one (1) of the three (3) approved SWD wells.

The storage area will have a spill containment capacity, in accordance with the requirements of LAC 43: XIX.509, NFPA, EPA and LDEQ. A SPCC Plan, developed and certified by a Professional Engineer will be maintained on-site. Solids generated from the separation process in the tanks will be profiled and disposed at a permitted facility. No solid E and P waste will be stored on site. The Facility Diagram (Attachment 3) depicts the layout of The Facility.

4. Treatment

The approved E and P waste fluids are treated physically by gravity methods in the tanks on-site to separate the brine, hydrocarbons and settle solids.

5. Monitoring

Trained Brickyard Trucking, LLC employees will be at The Facility during all operating hours and will monitor and assist during unloading operations. When The Facility is not open, the front gate will be locked and the security system activated. Inspections of the tanks and lines will be performed daily. The site will be maintained at all times to prevent approved E and P waste fluids from contacting surface soils and entering the environment. The injection pressures on the injection wells will be monitored and recorded on a daily basis and reported on Form UIC-21. The pressure on the casing/tubing annuluses will be monitored and recorded on a daily basis and reported on Form UIC-21. Unloading operations will be monitored so that appropriate action can be taken to prevent spills. Yearly Flow Line Pressure Testing will be performed to ensure integrity of the steel lines, along with daily observations of operating pressures at the pumps and at the injection wells and daily observations of the vegetation growing around the flow line road crossing.

6. Closure

Closure of The Facility will be in accordance with the closure plan included in the permit application. The injection well will be plugged and abandoned according to the Louisiana Department of Energy and Natural Resources requirements. The solids and sludge in the tanks will be sampled, manifested, and properly disposed at an E and P waste facility permitted and approved to handle these materials. The tanks will be cleaned and the metal recycled. The concrete will be removed from the site and recycled. The site will be returned as close as practicable to its original condition. In the event that future events or environmental concerns require closure confirmation samples, the cost of such sampling will be included in subsequent annual closure costs estimates and such samples will be collected to assure compliance and to ensure that remediation efforts are complete.

7. Post-closure

After closure of The Facility, inspections will be made to ensure that no contamination remains in place. There should be no reason for any post-closure after the well are properly plugged and abandoned and the site equipment and concrete are removed.

8. Disposal

Solids and sludges generated in the bottom of the tanks will be properly profiled (as required) and disposed at an E and P waste disposal facility. The concrete at the offloading area, berms and tank containment area will be removed and properly disposed or recycled.

9. Any residuals requiring further handling

Any residual materials will be characterized and properly disposed or recycled.

E. **Will this facility replace an outmoded/worse polluting one?**

No, the proposed facility is a new facility with all new equipment and three (3) new injection wells are to be drilled and completed. It is designed to provide a safe means of disposal of approved E and P waste fluids in accordance with the regulations stated in LAC 43, Chapters 4 & 5

F. **What consumer products are generating the waste to be disposed? Are there alternative products that would entail less hazardous waste generation?**

Approved E and P activities associated with the production of oil and gas in North Louisiana generate the waste. This waste is a significant byproduct of area oil and gas production which necessitates additional disposal facilities be permitted to properly dispose of this E and P liquid waste product, with increased drilling production activity in the area.

IV. Are there alternative sites that would offer more protection to the environment than the proposed facility site without unduly curtailing non-environmental benefits?

A. **Why was this site chosen?**

The primary reasons this site was chosen is because the site meets the criteria, including the environmental criteria, necessary for the construction and operation of injection wells for produced fluids. The more significant criteria this site meets are strategic location to oil and gas production, zoning, proper subsurface geology and surface conditions, avoidance of a floodplain, lack of groundwater contamination, avoidance of wetlands as related to the proposed permitted facility boundary (refer to the wetland determination by Rowden Consulting, LLC in Appendix G), availability of the site and compliance with LDENR location criteria. The location also reduces the trucking time that is charged to the oil and gas operators that utilize local disposal means as opposed to trucking elsewhere in the state or across state lines, thereby reducing traffic on some Louisiana highways. The location is in a remote area of the parish and will have no adverse impact to the public.

1. Specific advantages of the site:

Based on oil & gas data available on the LDENR website SONRIS (Strategic Online Natural Resources Information System), the location of the site will provide a central location for oil and gas operators to properly dispose of approved E and P waste fluids.

The subsurface geology is appropriate for injection of approved E and P waste fluids. The subsurface geology is consistent and without any faulting within a two (2) mile radius. The proposed injection formation is not productive in the area.

Based on oil & gas production data available on SONRIS, the proposed injection formation is not productive in the area.

The site provides for avoidance of wetlands and floodplains, according to the Wetlands Study and the Avoidance of Wetlands Map in Appendix G.

The rural area in which the site is located will not adversely affect the public.

The site is located adjacent to LA Highway 792, about two miles north of Jamestown, LA. LA Highway 516 is to the north approximately 3 miles and US Highway 371 is approximately 6.5 miles to the northwest.

A LA Highway is adjacent to The Facility. The location is 21 miles south of a major interstate (Interstate 20).

There is a fire department within approximately 6.5 miles of The Facility in Ringgold, Louisiana.

The site is not located in a hurricane prone area.

This is an area very near to active drilling with many producing oil and gas wells from the numerous oil and gas fields in the Haynesville Shale Play. This is also an active drilling area for the Hosston and Cotton Valley Sands. This site provides a convenient location to nearby oil and gas operators.

2. Is the location of the site irrevocable; i.e., would denial of the permit based on site preclude the project?

Denial of the permit based on the site location would prevent the project from being completed.

3. Were other sites considered and rejected?

Other sites were evaluated and considered. Each alternative site was evaluated based on the following criteria.

a. Strategic location near oil and gas operations generating non-hazardous oilfield waste, liquids, as previously defined
b. Zoning
c. Land Use
d. Proper Subsurface Geology and Surface Conditions
e. Avoidance of Floodplain
f. Ready Access
g. Lack of Groundwater Contamination
h. Greenfield
i. Wetlands
j. Infrastructure

k. Availability
l. Minimum Size and Configuration
m. Location criteria of the regulations.

Several criteria were evaluated for each site. Naturally, the location must be strategically located near oil and gas exploration and production activities. An injection well may also only be located where proper subsurface geology and surface conditions exist. Both local zoning and land uses should also suit the intended use. The preferred location avoids wetlands and floodplains or its size and shape allow for avoidance of wetlands and floodplains. The chosen site should be free of groundwater contamination. The site must meet the LDENR location criteria as defined in LAC 43: XIX.507 which states that a site cannot be located as follows:

1. *Within 1/4 mile of a public water supply water well or within 1,000 feet of a private water supply well for facilities permitted after January 1, 2002;*

2. *Where type A and B facilities and transfer stations, class II disposal wells, storage containers and E and P waste treatment systems and related equipment are located within 500 feet of a residential, commercial, or public building, church, school or hospital or for any proposed new commercial facility or transfer station where publication of the notice of intent or date of the permit application filed with the Office of Conservation is dated after the promulgation date of this rule, where type A and B facilities and transfer stations, class II disposal wells, storage containers and E and P waste treatment systems and related equipment are located within 1,250 feet of a school, hospital, or public park;)*

It must also include the thickness and aerial extent of the proposed injection zone and adequate clay/shale confining beds, avoidance of floodplains and wetlands, and be a location which does not pose a substantial, adverse threat to public health or safety. To ensure The Facility maximizes trucking use of established roadways, The Facility should have ready access to appropriate highways. All facilities require access to infrastructure as this facility does also. Infrastructure includes water, electrical and roadways. It is preferred to avoid Greenfields though often impossible. In addition, the property must be available. In very recent times, it has been quite difficult to purchase property suitable for injection wells or most uses in North Louisiana given that landowners have received lucrative lease revenues and the fear of losing minerals by prescription if a property is sold. Therefore, Brickyard had to diligently seek properties that were not on the market to finally locate a suitable site. This is further discussed below. Each of the sites considered are discussed below.

Site No. 1: This site is located in Section 11, Township 14 North, Range 16 West, Caddo Parish, Louisiana. The site comprises approximately 74.43 acres. Site No. 1 is located at the intersection of Four Forks Road and Keatchie-Marshall Road, northwest of Keatchie, Louisiana.

a. Strategic location near oil and gas operations generating non-hazardous oilfield waste – liquids as previously defined: The location of the site was acceptable.
b. Zoning: Rural, no zoning.
c. Land Use: Rural, agricultural, timberland.
d. Subsurface Geological conditions exist for disposal of approved E and P waste fluids as previously defined.
e. Avoidance of Floodplain: This site falls with Zone X of the FEMA Flood Zone Map. (Area of Minimal Flood Hazard)
f. Ready Access: Access is available via LA Highway169/Four Forks Road and Keatchie-Marshall Road.
g. Lack of Groundwater Contamination: There is believed to be no groundwater contamination at the Site No. 1.
h. Greenfield: The site is a Greenfield Site, i.e., agricultural/timberland land that is undeveloped.
i. Wetlands: There are no wetlands on the property.
j. Infrastructure: Infrastructure is available including water, electrical power and LA State Highway 169/Four Forks Road and Keatchie-Marshall Road. Interstate 20 is located approximately 17 miles to the North of the proposed location and Interstate 49 is located approximately 15 miles to the East of the proposed location.
k. Availability: The property was available. Brickyard did come to an agreement with the landowner, but never acquired the property.
l. Minimum Size and Configuration: The size and configuration of Site No. 1 is adequate.
m. Location criteria of regulations: All portions of the site met the location criteria as required in the regulations.

Site No. 1 meets all of the criteria appropriate for the proposed project. The site was considered after reviewing geological characteristics of the area. The site is a Greenfield. The site was not on the market, but an agreement was reached to purchase the property. The property was never purchased. Due diligence determined that the primary injection zone was overcharged by saltwater injection activities in East Texas at much higher pressures than allowed in Louisiana. The pressure gauge on Saltwater Injection Well Serial No. 237877 confirmed a static pressure of 600 psi on an existing saltwater disposal well in Louisiana located less than a one mile from the subject **Site No. 1**. Therefore, the site was determined unsuitable.

Site No. 2, the Proposed Site: This site is located in Section 17 of Township 12 North, Range 10 West of Red River Parish, Louisiana. The site comprises approximately 15 acres. Site No. 2 is located on the west side of LA Highway 177, west of Gahagan, Louisia, Louisiana. The site is located at the Northwest corner of LA Highway 177 and Meeks Road.

a. Strategic location near oil and gas operations generating non-hazardous oilfield waste – liquids as previously defined: The location of site was acceptable.
b. Zoning: Rural, no zoning.
c. Land Use: Rural, Agricultural.
d. Proper Subsurface Geology and Surface Conditions: Subsurface Geological conditions exist for disposal of E & P waste liquids as previously defined.
e. Avoidance of Floodplain: This site falls within Zone A of the FEMA Flood Zone Map.
f. Ready Access: Access via LA Highway 177
g. Lack of Groundwater Contamination: There is believed to be no groundwater contamination at the Site No. 2.
h. Greenfield: The site is a Greenfield Site, i.e., agricultural land that is undeveloped.
i. Wetlands: There are no wetlands on this property.
j. Infrastructure: Infrastructure is available including water, electrical power and LA 177. The site is located in in close proximity to the intersection of U.S. Highway 84/71 (one mile) and U.S. Highway 371 (one mile). Interstate 49 is located approximately 3 miles southwest of Site No. 002.
k. Availability: An agreement to lease or purchase the subject property was not attainable.
l. Minimum Size and Configuration: The size and configuration of Site No. 2 are adequate.
m. Location criteria of regulations: Site No. 2 met the location criteria as required in the Office of Conservation regulations.

Site No. 2 meets all of the criteria appropriate for the proposed project. The site was considered after reviewing geological characteristics of the area. The site was not on the market and an agreement to purchase or lease the subject property could not be worked out with the landowner. The property was never purchased.

Site No. 3, the Proposed Site: This site is located in Section 17 of Township 16 North, Range 8 West of Bienville Parish, Louisiana. The site comprises approximately 13.2 acres. The proposed permitted facility Boundary is 6.2 acres. **Site No. 3** is located on the east side of U.S. Highway 792, approximately two (2) miles north of Jamestown, Louisiana.

a. Strategic location near oil and gas operations generating non-hazardous oilfield waste – liquids as previously defined: The location of site was acceptable.
b. Zoning: Rural, no zoning.
c. Land Use: Rural, Commercial/Agricultural.
d. Proper Subsurface Geology and Surface Conditions: Subsurface Geological conditions exist for disposal of E & P waste liquids as previously defined.
e. Avoidance of Floodplain: This site falls within Zone D of the FEMA Flood Zone Map.

f. Ready Access: Access via LA Highway 792.
g. Lack of Groundwater Contamination: There is believed to be no groundwater contamination at the Site No. 3.
h. Greenfield: The site was previously developed as the Acme Brick Company. The company closed this site over ten (10) years ago. Partial structures associated with the brick plant are still present onsite.
i. Wetlands: There are wetlands on this property. The wetlands will be avoided during construction and operation of the proposed facility. Please see Appendix G (Wetland Determination) for the Avoidance of Wetlands Map and the concurrence from the U. S. Army Corps of Engineers.
j. Infrastructure: Infrastructure is available including water, electrical power, and LA Highway 792.
k. Availability: Site No. 3 is owned by Brickyard Trucking, LLC.
l. Minimum Size and Configuration: The size and configuration of Site No. 3 are adequate.
m. Location criteria of regulations: Site No. 3 met the location criteria as required in the Office of Conservation regulations.

Site No. 3, the proposed site, was selected based on the proven and appropriate subsurface geology and surface conditions, ability to purchase the property from the landowner, and conformity with the Office of Conservation's commercial facility permit regulations and location criteria. In addition, and significantly, the site lies within a Flood Zone D. This site was formerly the Acme Brick Plant, which closed at this location more than ten (10) years ago, and is proposed to be developed a Commercial Saltwater Disposal Facility. The site has good infrastructure, including access to U. S. Highway 371 (5 miles to the west) and is within approximately 20 miles south of Interstate 49. Thus, the site has the benefit of good highways suitable for trucking while also being strategically located within an area of high levels of exploration and production. This close proximity of the site to the location of generation of the E&P fluids will equate to fewer truck miles driven, increased safety on the highways and savings in fuel consumption and costs and associated air emissions from the trucks. In addition, though the site is located within an area considered to contain the Carrizo-Wilcox Aquifer, it is not located within a recharge zone. The casing and cement designed for the proposed injection wells and required by LDNR combined with the WMOP and LDNR requirements for operations will ensure no impact on the Carrizo-Wilcox Aquifer. Given the protection of the floodplain and wetlands on site, as well as protection of the Carrizo-Wilcox Aquifer, Site No. 3 offers the highest level of protection of the environment. Moreover, given its remote nature, no site offers greater protection of public health and welfare. Site No. 3 is the most suitable site for the proposed project and is owned by Brickyard.

B. **Is the chosen site in or near environmentally sensitive areas?**

The subject property is not located in or near environmentally sensitive areas.

1. Wetlands

An onsite review of the property by a wetlands consultant was done during the fatal flaw process and was found not to have wetlands on the property the facility will be built on. The proposed construction of the commercial saltwater facility and disposal well will not impact any wetlands or pose an adverse impact to the wetlands in the area. By email, dated June 18, 2024, The USACE determined that a Department of Army Section 10/404 permit will not be required for the proposed work since no regulated activities will occur in any potentially jurisdictional wetlands and/or other waters of the United States. Please see Appendix G and the Wetlands Determination performed by Rowden Consulting, LLC.

2. Estuaries

The proposed facility is not located in an estuary.

3. Critical habitat

The proposed facility is not located in an area considered a critical habitat. This is supported by documents from a site assessment and review by Rowden Consulting, LLC and the response from The Fish and Wildlife Service which states, "Based on the justification given, we concur with your determination that the proposed action is not likely to adversely affect the federally listed and/or proposed species and their critical habitats as described herein." Please refer to Appendix G for the entire document. (Dated: June 21, 2024)

4. Historic or culturally significant areas

The subject property is not located on property that is considered historic or culturally significant. This is supported by documents from a site assessment and review by the Rowden Consulting, LLC, dated May 22, 2024, and the approval stamp dated on June 20, 2024, by the Office of Cultural Development-State Archaeologist, is included in Appendix G.

a. **Indian mounds**

There are no Indian mounds on or near the subject site.

b. **Antebellum houses**

There are no antebellum houses near the subject site.

c. **Tourist attractions or facilities (e.g., bed and breakfast inns)**

There are no tourist attractions near the subject property.

d. **Campgrounds or parks**

There are no campgrounds or parks on or near the proposed facility.

C. **What is the zoning and existing land use of the prospective site and nearby area?**

The property is not within the bounds of a zoning authority. The property was previously used as a brick plant, Acme Brick Company. ACME Brick Company has been shut down for over ten (10) years. There is some timber (pine trees) on the property.

1. **Is the site located near existing heavy industrial, chemical process or refinery operations?**

No.

2. **Is there a precedent for chemical contamination near the site or is the soil and water pristine?**

Research determined that three (3) Underground Storage Tanks were previously located on the subject property. The tanks contained diesel fuel and gasoline. Brickyard is providing documentation that the underground tanks have been properly closed. Please see the documents attached to the responses to the Responses to IT Questions documenting closure of the Underground Storage Tanks by the Louisiana Department of Environmental Quality – Underground Storage Tank Division dated February 21, 1991.

There was no other concern for chemical contamination at the site.

3. **Is the area particularly noted for its esthetic beauty?**

The proposed location is not noted for its esthetic beauty.

D. Is the site flood prone?

The proposed permitted facility boundary and the three (3) permitted injection wells will be located in Flood Zone D (Uncertainty of Flood Risk) area. The permitted facility boundary is 6.2 acres of the 13.22-acre site. By email, dated June 18, 2024, The USACE determined that a Department of Army Section 10/404 permit will not be required for the proposed work since no regulated activities will occur in any potentially jurisdictional wetlands and/or other waters of the United States.

1. Is the site in a flood plain?

No. The property is within Flood Zone D (Uncertainty of Flood Risk)

a. How current are the maps used to make flood plain determinations?

The map provided on the National Flood Hazard Layer Firmette is dated July 3, 2006, Map 22013C280C. The wetlands determination performed by Jeremy Rowden defined wetlands on the east side of the property that are being avoided as part of the permitted facility boundary. A copy of the Flood Map for the site is included at the end IT Responses to Questions and in Appendix G. According to FEMA, this area has not been mapped. Please see the Avoidance of Waters Map Included in the Wetlands Determination in Appendix G of the application.

FIRMETTE_87cd4ef5-7b46-4f39-af5c-6418c39af485.pdf (fema.gov)

b. What is the elevation of the site?

The elevation of the site ranges from approximately 225 feet to 260 feet above mean sea level.

c. Is diking required or desired to provide flood protection?

No diking will be required for flood protection.

a. What is the design height of the dike? N/A
b. How is the dike protected from erosion? N/A
c. What frequency and design storm was used? N/A
d. Is the access to the site over or through dikes? N/A

2. Is the site hurricane vulnerable?

The proposed site is located in North Louisiana and is not vulnerable to strong hurricanes as facilities closer to the gulf coast are.

a. Is the site in an area subject to storm surge? No

b. What are the design storm specifications?
Weather conditions, such as wind and rain, were taken into account when designing the facility, as thunderstorms are common in the area. The tanks used in the facility will be constructed of steel, placed in a sealed seamless concrete containment area and tanks that are wider than they are tall will be at least half filled with fluid and tanks that are taller than they are wide will be anchored with guide wires to minimize wind effects during storms.

c. Should damage from wave action be considered?
No

d. For what levels of wind speed is the facility designed?

Engineered for 100 mph winds. This is the wind speed that offshore/onshore production facilities are designed for utilizing the above method of keeping tanks at least half filled with fluid (If unable to keep tanks half filled with fluid, then they will be anchored with guide wires) and anchoring tanks that are taller than they are wide to minimize wind effects during storms. This area of Northwest Louisiana (Minden, LA Airport) experiences average wind speeds of 3.4 mph to 5.1 mph throughout the year. ***(Minden Airport Climate, Weather By Month, Average Temperature (Louisiana, United States) - Weather Spark)*** with the occasional thunderstorm accompanied by strong winds. Therefore, the engineered facility design to withstand 100 mph winds is adequate.

e. **What storm preparedness steps will need to be taken for the proposed facility in the event that the site will need to be evacuated?**

In the event of a significant storm event (such as high winds, tornadoes, heavy rains or extreme weather from a hurricanes) the facility will be secured prior to evacuating. All operations of injecting E and P waste fluids in the three (3) permitted SWD wells will be ceased. All flowline valves at the wells and facility will be closed and secured. All tanks at the tank battery facility will be secured with cables and tie downs anchoring the tanks in position, along with keeping the tanks half filled with saltwater. If there is time, all oil/condensate will be removed from the oil/condensate tanks and sold and replaced with E and P waste fluids (saltwater) to remove additional fuel or energy source in the event of a fire. All lighting protection devices will be inspected and tested to make sure these devices are operating properly. Prior to employees evacuating the facility, all gates will be locked and secured.

E. Is groundwater protected?

Groundwater will be protected by the 6-in. drive over sealed seamless concrete berms on two sides and 6-inch sealed seamless concrete curbs on the sides of the sealed seamless concrete unloading pad and by the 48-in. sealed seamless containment wall integrated into a sealed seamless concrete floor. The tank containment will have a spill capacity of approximately 15,271-barrels within containment (**13,700 barrels is 100%)** capacity of the tanks in the containment). The sealed seamless concrete floor of the tank containment area is sloped slightly towards the integrated concrete trough in the center of the containment floor which flows to a sealed seamless concrete sump to collect any rainwater or spilled E and P waste liquids. Liquids collected in the sealed seamless concrete sump are transferred to the inlet manifold and commingled with other approved E and P waste. Groundwater will also be protected by steel 10 3/4-in. surface casing set at a minimum of 100-ft. below the base of the USDW and cemented back to surface. A cement bond log will be run to verify cement behind the 10 3/4-in. surface casing. The steel 7-in. longstring casing will be set to total depth of the well and will be cemented back to the surface. A cement bond log will be run to verify cement bonding isolating the USDW from the injection zones. Inside the longstring casing will be injection string which will be steel 4-1/2-in. tubing. The tubing will be

set with a packer just above the injection zone. The tubing and the packer guarantee the injected fluids are going out only into the permitted zone or perforations. All the casing strings mentioned ensures the protection of the USDW. Injection pressures will be below fracture pressure of the injection zone and confining zones to prevent vertical migration of injected fluids; each of these factors, along with the WMOP, help to ensure protection of the Carrizo-Wilcox Aquifer formation.

1. **Are aquifers or recharge areas underlying the site used for drinking water?**

There are aquifers/recharge areas underlying the site that are used for drinking water. The Carrizo-Wilcox Aquifer underlies the site. The Upland Terrace aquifer is adjacent to the Red River alluvial aquifer, underlying the western third of Bienville Parish and this site. The Intermediate Terrace, of the Upland Terrace is specific to the Brickyard site. The Red River alluvial is not encountered at this site and is encountered further west. All of these aquifers mentioned will be protected by sealed seamless concrete containment of the tank area will help prevent the Upland Terrace and Carrizo-Wilcox Aquifer from coming in contact with approved E and P waste fluids. Multiple steel casing strings and cement, as described above, will prevent the approved E and P waste fluids from coming in contact with underground sources of drinking water. Sealed seamless concrete containment around tanks and offloading areas will help prevent the E and P waste from coming in contact with surface soils.

2. **What is the relationship of the site to the water table?**

Shallower, perched groundwater aquifers are encountered from 4 to 10 feet below ground surface (USDA, Soil Survey of Bienville Parish, pg 35, BDE – Bellwood silt loam. The first major aquifer is the Carrizo-Wilcox Aquifer and is encountered at approximately 2 - 4 feet below ground surface and extends to the base of the USDW at approximately 960 feet below ground surface (review of DNR water well records and logs through the USDW – SN 122210 – Dual Induction Log). SN 59344 -Electric Log depicts the Carizzo-Wilcox Aquifer up to 240 feet from ground surface and the Base of the Aquifer at approximately 930 feet below ground surface. Well SN 59344 is located approximately 1.4 miles to the Northeast of The Proposed Facility. The shallowest screened water well in the area of The Proposed facility is the A. Hill well with a screened interval of 120 feet to 140 feet and a total depth of 140 feet. This data was obtained from the Office of Conservation – SONRIS database. ***U.S. Geological Survey Fact Sheet 2020-3052 (usgs.gov)***

3. What wells exist in the area?

There is one non-registered abandoned water well approximately 600 feet west of The Proposed Facility. Further discussion of this water well is included in Appendix D

4. What is the flow rate and direction of the groundwater flow?

The direction of groundwater flow generally follows topography, which would be to the south. Under natural conditions, the movement is generally slow and ranges from a few feet to a few hundred feet per year (USGS-Potentiometric Surface, 2013, and Water-Level Difference, 1991-2013, of the Carrizo-Wilcox Aquifer in Northwest Louisiana. Parish, Louisiana).

5. What is the groundwater quality in the underlying aquifers?

The groundwater quality in the shallow aquifers is unknown. The water quality in the first drinking water aquifer (Carrizo-Wilcox Aquifer) is generally considered good for domestic use. The first good Carrizo-Wilcox Aquifer sand is located approximately 100 feet below ground surface with the Base of the USDW in the area at approximately 960 feet below ground surface in the immediate area. The first major aquifer is the Carrizo-Wilcox Aquifer and is encountered at approximately 2 - 4 feet below ground surface and extends to the base of the USDW at approximately 960 feet below ground surface (review of DNR water well records and logs through the USDW – SN 122210 – Dual Induction Log). SN 59344 -Electric Log depicts the Carizzo-Wilcox Aquifer up to 240 feet from ground surface and the Base of the Aquifer at approximately 930 feet below ground surface. Well SN 59344 is located approximately 1.4 miles to the Northeast of The Proposed Facility. The shallowest screened water well in the area of The Proposed facility is the A. Hill well with a screened interval of 120 feet to 140 feet and a total depth of 140 feet. This data was obtained from the Office of Conservation – SONRIS database. ***U.S. Geological Survey Fact Sheet 2020-3052 (usgs.gov)***

6. Is there a hydraulic connection between the aquifers?

Yes, the Carrizo-Wilcox aquifers are hydraulically connected with the shallow perched groundwater aquifers. Recharge is accomplished by direct infiltration of rainfall in the interstream and upland outcrop-subcrop areas. **(https://www.deq.louisiana.gov/assets/docs/Water/Triennial_reports/ASSET_2012_Aquifer_Summaries/02Carrizo-WilcoxAquiferSummary12.pdf)**

According to the USGS, there is a hydraulic connection between the Upland Terrace water-bearing zones and the Carrizo-Wilcox Aquifer. There is a known hydraulic connection between the shallow groundwater aquifers and the drinking water aquifers.

F. Does the prospective site pose potential health risks as defined by proximity to:

No. The proposed site does not pose a potential health risk as defined by proximity to:

1. Prime agricultural area (crop or pasture land)

The proposed location is currently used for timberland/agricultural purposes.

2. Residential area

The nearest residence to the subject facility is +/-1625 feet to the west of the west side of the facility boundary. The nearest community is Jamestown, Louisiana, which is located approximately 2 miles south the proposed facility.

3. Schools or daycare centers

There are no schools or daycare centers located within 1 mile of the subject facility. There are no known health risks posed to schools or daycare centers.

4. Hospitals or prisons

There are no hospitals or prisons located within 1 mile of the subject facility. There are no known health risks posed to hospitals or prisons.

5. Public buildings or entertainment facilities

There are no public buildings or entertainment facilities located within 500-ft. of the subject facility. There is no known health risks posed to public buildings or entertainment facilities.

6. Food storage area

There are no food storage areas located within 1-mile of the subject facility. There are no known health risks posed to food storage areas.

7. Existing community health problems that may be aggravated by operation of additional hazardous waste disposal capacity

There are no known existing community health problems that may be intensified by the operation of the proposed facility. This facility will not handle hazardous waste and no emissions or discharges are anticipated to occur from this facility into the environment, with the exception of an insignificant quantity of emissions that may be released through the vent lines to the tanks. Air emission quantities were calculated based on the proposed tankage and the anticipated maximum throughput of the facility, indicating that such emissions will not exceed the threshold that DEQ requires for a permit.

G. Is air quality protected?

This facility handles approved E and P waste fluids through a closed loop system. There is no potential exposure through the air pathway other than the vent lines on the oil/condensate storage tanks, the separation tanks, and the temporary storage of solids in roll off containers on the concrete pad during periodic tank cleaning operations. Based on air emissions estimates that have been calculated for this facility the anticipated operations will not require a Minor Source Oil and Gas General air permit to be obtained from LDEQ. Anticipated operations will not emit more than 5 tons per year Volatile Organic Compounds (VOCs) exceeding an LDEQ minimum emission rate or a de minimis rate established pursuant to the Clean Air Act. An Application for Approval of Miscellaneous Permitting Actions has been applied for from the Louisiana Department of Environmental Quality. (August 15, 2024) A response will be provided to The Environmental Division of the Office of Conservation upon receipt. Please see a copy of the Application in Appendix P.

1. Is the site within an ozone or non-attainment area?

No. Bienville Parish has been determined to be an attainment parish by LDEQ. *https://www.epa.gov/sites/production/files/2016-11/documents/la-rec.pdf*

2. What contaminants are likely to be generated at the site?

Common emissions occurring from venting storage tanks are minimal amounts of VOCs.

3. What protection is afforded from each contaminant generated by the site?

There will be no protection necessary based on the minimum emissions rates. An LADEQ Air Permit exemption has been filed for.

4. What is the potential for unregulated emissions?

There is no potential for unregulated emissions.

5. What plans are implemented to provide for odor control?

There is no need for odor control at the proposed facility based on the calculated emissions projected from The Proposed Facility. If odor becomes an issue or *if* applicable air regulations change, the necessary steps will be taken to stay within compliance of applicable rules and regulations. Please refer to Appendix P to see the Minor Source Air Permit Exemption dated August 15, 2024, and submitted to the Louisiana Department of Environmental Quality. A copy of the permit exemption will be submitted upon receipt.

6. Who will be affected by emissions?

There will be no one affected by the emissions due to the rural location of The Facility.

a. What is the direction of the prevailing winds?

The direction of the prevailing winds is generally southerly. *(https://www.ncdc.noaa.gov/climatenormals/clim60/states/Clim_LA_01.pdf)*

b. Describe the expected frequency of "bad air" conditions.

There should be no "bad air" conditions caused from the operation of this facility based on the calculated emissions projected from The Proposed Facility. If "bad air" becomes an issue or if applicable air regulations change, necessary steps will be taken to stay within compliance of applicable rules and regulations.

7. Describe the control of vapors at various stage of process.

Control of vapors is provided by keeping tanks closed. There should be no need for the control of vapors generated from this facility. This facility will operate a closed loop system (with the exception of vent lines on the tanks). Vent lines will exceed twenty feet above ground surface and will extend outside the tank containment walls.

H. Have physical site characteristics been studied; what has been done in terms of a geotechnical investigation?

There has been no geotechnical investigation at the subject property since there will be no land treatment of E and P waste at the proposed facility.

1. Site Geology

The Site consists of rural timberland land currently being utilized for timberland purposes. The Site is characterized by subtle hills and gently rolling topography. According to the USGS Topographic Map, Jamestown Quadrangle (Appendix J) and a review of the available LiDAR data, the elevation of the Site ranges from approximately 225 feet to 260 feet above mean sea level. The Site is bordered to the east by LA Highway 792. The underlying soils at The Site are the Malbis fine sandy loam and the Bellwood silt loam according to the U. S. Department of Agriculture Natural Resource Conservation Service website (http:///websoilsurvey.nrcs.usda.gov/), access date August 26, 2024

2. Hydrology

Natural surface drainage is generally to the south, and southwest on the subject property. Local groundwater flow in the area of the site appears to follow surface topography primarily toward the south and southwest. Black Bayou drains to the south to the southwest of the subject site.

3. Topography

According to the USGS Topographic Map, and a review of the available LiDAR data, the elevation of the Site ranges from approximately 225 feet to approximately 260 feet above mean sea level. The southern portion of the site slopes to the south/southwest. Storm water run-off drains to unnamed tributaries to the south, southwest, and west. Generally, storm water runs in to the roadside ditch along La Highway 792 and the drainage basin on the west/southwest side of the property. ***(USGS-Potentiometric Surface, 2013, and Water-Level Difference, 1991-2013, of the Carrizo-Wilcox Aquifer in Northwest Louisiana. Bienville Parish, Louisiana)***

4. Soil

According to the United States Department of Agriculture (USDA) published soil survey report and/or Web Soil Survey, the underlying soils in the area include:

Map Unit Symbol	Bienville Parish, LA Map Unit Name	Acres in AOI	Percent of AOI
BDE	Bellwood silt loam, 5 to 15 percent slopes	~5.3	40.4%
GrB	Gurdon silt loam, 1 to 3 percent slopes	~0.2	1.8%
MgB	Malbis fine sandy loam, 1 to 3 percent slopes	~7.7	57.8%

According to soil survey information, three soil series are mapped on the property. All sample plots were established within the Malbis fine sandy loam, 1 to 3 percent slopes and the Bellwood silt loam, 5 to 15 percent slopes soil series. Upland areas of the property have largely been disturbed by the removal of topsoil and grading activities connected with the former brick plant. Within the drainage area along the east side of the property, silt and sediment has likely accumulated in this area from past brick manufacturing, which has modified the appearance of surface soils.

The Bellwood silt loam setting is typically in an upland setting. Slopes are generally sloping to moderately steep. The typical profile of soils would be

dark grayish brown silt loam in the upper 3 inches. The subsoil layer is typically red clay in the upper part and red and light brownish gray clay and light brownish gray clay in the lower part. This soil is poorly drained with a permeability class of slow. The major land use of this soil is woodlands.

The Malbis fine sandy loam is typically in an upland setting. Slopes are generally long and smooth. The surface layer, 0 to 4 inches will consist of a dark grayish brown fine sandy loam. The subsurface layer, 4 to 14 inches will consist of a yellowish brown fine sandy loam. And the subsoil layer, 14 to 43 inches will consist of a yellowish-brown sandy clay loam. This soil type has a permeability class of moderately slow. The primary land use is woodland or pasture.

TAXONOMIC CLASS:

Bellwood – Very-fine, smectitic, thermic Aquic Dystruderts

Malbis - Fine-loamy, siliceous, subactive, thermic Plinthic Paleudults.

According to the U. S. Department of Agriculture Natural Resources Conservation Service website (http://websoilsurvey.nrcs.usda.gov/, access date 08/11/2024,

Brickyard Trucking, LLC will only develop the uplands portion of the property.

5. Aquifer Location

The Carrizo-Wilcox Aquifer is the main groundwater aquifer, encountered from approximately 100 - 200 feet below ground surface to the base of the USDW at approximately 960 feet below ground surface (SN 122210 – Induction-Electric Log) in the immediate area. Other shallow perched groundwater aquifers exist above the Carrizo-Wilcox sands. The Upland Terrace aquifer is adjacent to the Red River alluvial aquifer, underlying the western third of Bienville Parish and this site. The Intermediate Terrace, of the Upland Terrace is specific to the Brickyard site. The Red River alluvial is not encountered at this site and is encountered further west. The Carrizo-Wilcox Aquifer recharges in the area of the subject property, but the useable aquifers for fresh water are typically located below shale and silty horizons in the Carrizo-Wilcox Aquifer at depths greater than 100 ft below ground level. There may also be isolated shallow perched aquifers from 4-10 feet that exist in the area, but these are rarely used as a water source (Review of electrical logs in the area, DNR groundwater information & USGS groundwater information). The bermed sealed seamless concrete unloading area and sealed seamless concrete containment will protect the surface soils and shallow groundwater aquifers from spills and releases of saltwater. Surface casing and cement, longstring casing and cement and the injection tubing and packer will protect the Carrizo-Wilcox Aquifer.

6. Subsidence problems

There is no known surface evidence or historical evidence of subsidence problems in this area (web search review of historical data from authenticated sources).

7. Climatic conditions

Climatic conditions include annual average high temperature of 76 degrees Fahrenheit and the annual average low temperature 53 degrees Fahrenheit. The average annual precipitation is 60.08 inches. (U.S. Climate Data, 2024). ***https://www.usclimatedata.com/climate/bienville/louisiana/united-states/usla0045***

V. Are there mitigating measures that would offer more protection to the environment than the facility as proposed without unduly curtailing non environmental benefits?

No. There are no mitigating measures that would offer more protection to the environment than The Facility as proposed without unduly curtailing non environmental benefits.

A. Is this facility part of a master plan to provide waste management? Whose plan?

The Facility is part of a master plan or objective by Brickyard Trucking, LLC to provide environmental services to the oil and gas industry in Northwest Louisiana. Brickyard Trucking, LLC will invest over five (5) million dollars in permitting, equipment, land acquisition, tanks and pumps, facility construction and drilling and completion of the three (3) injection wells in order to inject approved E and P waste fluids at this site. Licenses are being obtained to operate the equipment. In order to meet the needs of the oil and gas operators in North Louisiana, the proposed site was selected to provide an environmentally safe means of disposal of approved E and P waste fluids. The proposed facility will provide an economical alternative that will not adversely impact the environment. "Approximately 92 percent of produced water is managed through Class II well injection into subsurface reservoirs, and is generally considered the safest and most effective method for handling these type fluids" (Overview of Exploration and Production Waste Volumes and Waste Management Practices in the United States, May 2000 API report, section 2.4.2.). Based on an Argonne National Laboratory, "Offsite Commercial Disposal of E and P Wastes" presentation in 2005, it was shown that commercial disposal costs for produced water was far more economical than by any other method, except land spreading (a less environmentally safe means of disposal). Oil field practices across the United States have established underground injection as a viable alternative method for the disposal of these types of industrial wastes (Offsite Commercial Disposal of Oil and Gas Exploration and Production Waste: Availability, Options, & Costs, USDOE, August 2006). The proposed facility would help provide a cost saving alternative to oil and gas operators and help to reduce traffic of Louisiana highways.

Brickyard Trucking, LLC developed this plan and is pursuing the permit for this facility to continue the to move forward on the plan.

1. How does it fit into the plan?

The proposed injection well and associated facility is a portion of the plan. This facility compliments the trucking operations of Defiance Energy Services, LLC, (connected company) and provides the oil and gas operators a one-stop location for disposal of approved E and P waste fluids.

2. What geographical area is served by the plan?

This Facility will serve the oil and gas operators in North Louisiana, primarily the eastern part of the Haynesville Shale Play and Cotton Valley/Hosston development.

B. Does this facility fit into an integrated waste management system? (Reduction, recovery, recycling, sales tax, exchange, storage, treatment, disposal).

The Facility is considered a disposal facility by deep well injection.

1. On-site

The deep well injection will occur on-site at the proposed location. There will be no off-site disposal, except when tanks are cleaned and solid E and P waste is generated.

2. Regional

It is anticipated that the Facility will mainly serve the oil and gas operators in Northwest Louisiana and from other parts of the state. But operators from East Texas and South Arkansas could also utilize this facility. If the E and P Waste is from a non-Louisiana operator, then they must have an offshore/out of state organization ID from Conservation in order to transport E & P Waste to a Louisiana Commercial Facility via a UIC 28 manifest. If the generator of the waste doesn't have an Office of Conservation approved Organization ID then an approved UIC-23 must accompany the UIC-28 and E and P Waste shipment. It is estimated that 95% of the E&P waste will come from within the established market range and 5% will come from outside of the established market range.

C. Can E and P Waste fluids be disposed by some other means?

The waste can be disposed of in other methods. A 2000 API report on the Overview of Exploration and Production Waste Volumes and Waste Management Practices in the United States indicates that Class II well injection is generally considered the safest and most effective method for handling these types of fluids.

1. Technology limitations

The E and P waste fluids accepted at this facility will be limited to approved E and P waste fluids associated with the drilling and production of oil and gas. These liquids will be primarily produced saltwater and pit fluids. Fluids with high contents of solids, such as drilling mud and tank bottoms, cannot be accepted at this facility.

2. Cost factors

Deep well injection is one of the most economical methods of disposal of approved E and P waste fluids *(Argonne National Laboratory/USDOE Report: Offsite Commercial Disposal of Oil and Gas Exploration and Production Waste: Availability, Options, and costs, 2006)*. Other methods would not be cost-effective for oil and gas operators, and eventually would not allow a certain portion of the oil and gas reserves to be economically produced.

3. Other reasons

Deep well injection provides an environmentally safe method of disposal of approved E and P waste fluids. In actuality, produced saltwater is being injected in a saltwater-bearing formation, and not adversely impacting the environment. "Approximately 92 percent of produced water is managed through Class II well injection into subsurface reservoirs, and is generally considered the safest and most effective method for handling these type fluids" (Overview of Exploration and Production Waste Volumes and Waste Management Practices in the United States, May 2000 API report, section 2.4.2.). The socio-environmental benefits of deep well injection far outweigh other methods of treatment and disposal of approved E and P waste fluids that includes land farming, land treatment, or incineration. Class II injection wells have been used to dispose of produced fluids since the 1930's and, today, there are over 170,000 such wells located in 31 states (Groundwater Protection Council, *Injection Wells: An Introduction to Their Use, Operation and Regulation*, August 2005).

D. What quality assurance control will be utilized to protect the environment?

1. Plans for lab work

A sample of each load of approved E and P waste fluids will be inspected for percent solids and analyzed prior to acceptance. The sample will be analyzed for pH, conductivity, and chloride.

2. How are out-of-spec E and P waste fluids handled?

Out-of-spec E and P waste fluids will be rejected.

3. What happens to rejected E and P waste fluids?

The rejected E and P waste fluids are the responsibility of the owner or generator. However, Brickyard Trucking, LLC will follow the rejection regulations on documentation and notification according to LAC Title 43, Part XIX, Subpart 1, Chapter 5 Statewide Order 29-B. Should the facility refuse to accept a load of unauthorized E and P waste fluids, the Office of Conservation shall be notified immediately by electronic submission with the completed Form UIC-26, the manifest that accompanied the shipment, and identification of the generator and transporter of the shipment.

4. Treatment stabilization

The only stabilization expected at this facility will be of the settled solids periodically cleaned from the settling tanks of The Facility. These solids will be profiled, manifested, and transported to a facility permitted and approved to accept this type of waste.

5. Segregation of non-compatible E and P waste fluids

There will be no non-compatible E and P waste fluids accepted at the proposed facility.

6. Handling of containerized wastes

There will be no containerized E and P waste fluids handled at this facility.

E. Innovative techniques used to control release of E and P waste fluids or waste constituents into the environment.

The facility will be constructed with sealed seamless concrete unloading pad, with 6-inch sealed seamless concrete curbs and 6-inch roll-over sealed seamless concrete berms proving containment in the unloading area and with sealed seamless concrete 48-inch-high containment walls integrated into sealed seamless concrete floor of the tank battery area of The Facility, which will prevent releases to the environment. Unloading takes place directly from the incoming trucks through a closed loop system to the tanks.

All tanks, piping, pumps, well, and other related equipment will be checked daily for leaks and corrosion. Yearly Flow Line Pressure Testing will be performed to ensure integrity of the steel lines, along with daily observations of operating pressures at the pumps and at the injection wells and daily observation of the vegetation growing around the buried steel lines at road crossings or at other locations at the facility.

1. Surface impoundment

There will be no surface impoundments at this facility.

2. Land application treatment

There will be no land treatment at the subject facility.

3. Landfill (burial)

There will be no burial or landfilling of E and P waste at the subject facility.

4. **Incinerator**

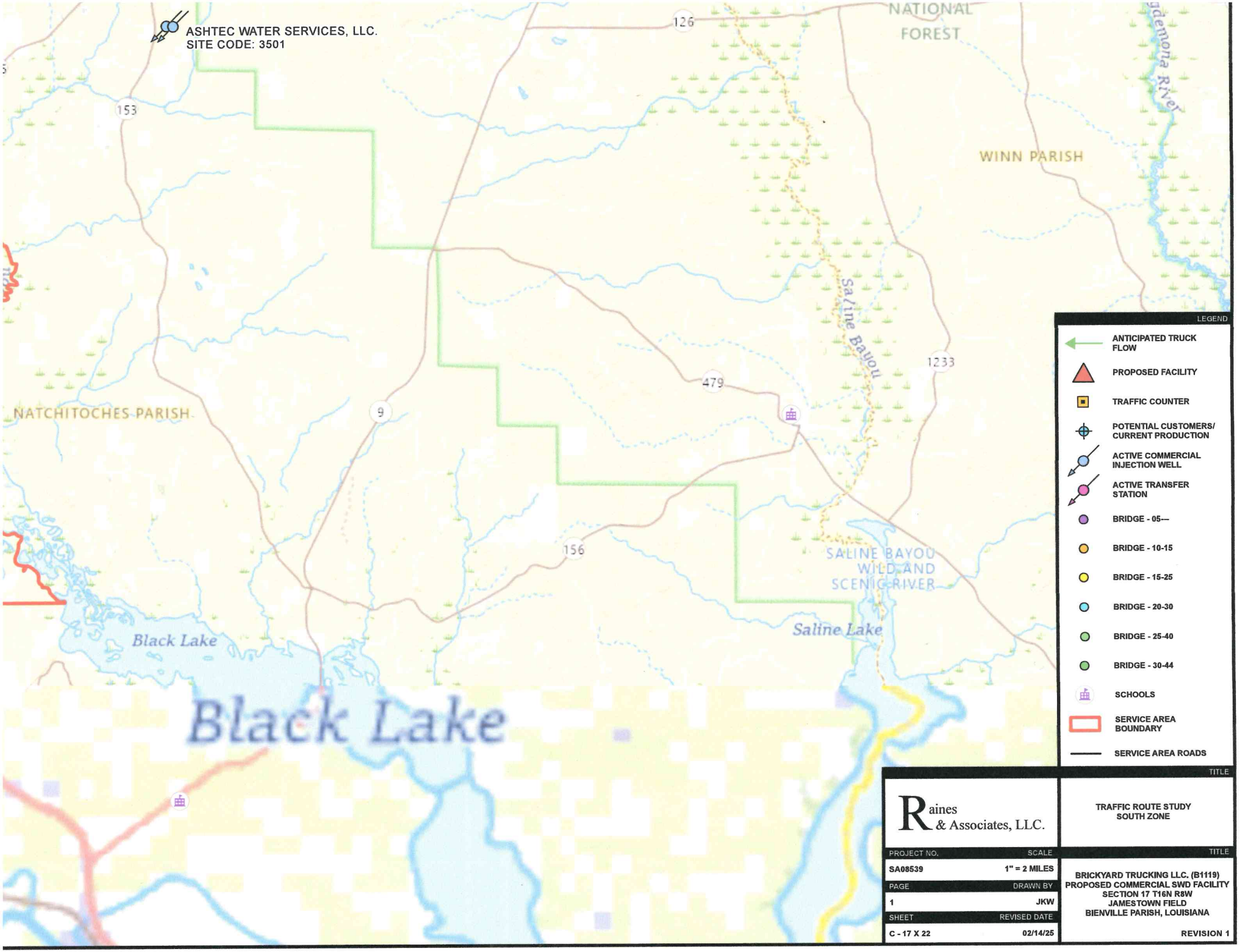
There will be no incineration of materials at the subject facility.

5. Container storage

There will be no means of container storage at the subject facility.

6. Tanks

The approved E and P waste fluids will be offloaded from the trucks using a 4-in. flexible hose that is connected to the tail end of the tank truck to allow the contents to be pumped by centrifugal pumps through screen baskets to a manifold where it is directed through two (2) 700-barrel lined steel settling tanks. The fluids will then be sent through two (2) series of four (4) 1,000-barrel lined steel tanks (8 Total) for solids separation and some minimal hydrocarbon separation. The fluids will then by transferred via centrifuge pumps to the two (2) lined steel 1,000-barrel gun barrels for separating hydrocarbons from the water. The separated hydrocarbons are skimmed from the tops of the 1000-barrel lined steel tanks and siphoned from the gun barrels and transferred to two (2) 400-barrel lined steel oil tanks. Fluid from the gun barrels is directed to two (2) 750-barrel lined steel suction tanks prior to being disposed of in the approved injection wells. Fluid from the two (2) 750-barrel lined steel suction tanks are then transferred by one of four (4) triplex pumps to the three (3) approved SWD wells. The tanks storage area will have a spill containment capacity exceeding requirements and guidelines of the NFPA, EPA and LDEQ. A SPCC Plan, developed and certified by a Professional Engineer will be maintained on-site. Solids generated from the separation process in the settling and cleaning tanks will be profiled and disposed at a permitted facility.



Raines & Associates, LLC.

TITLE

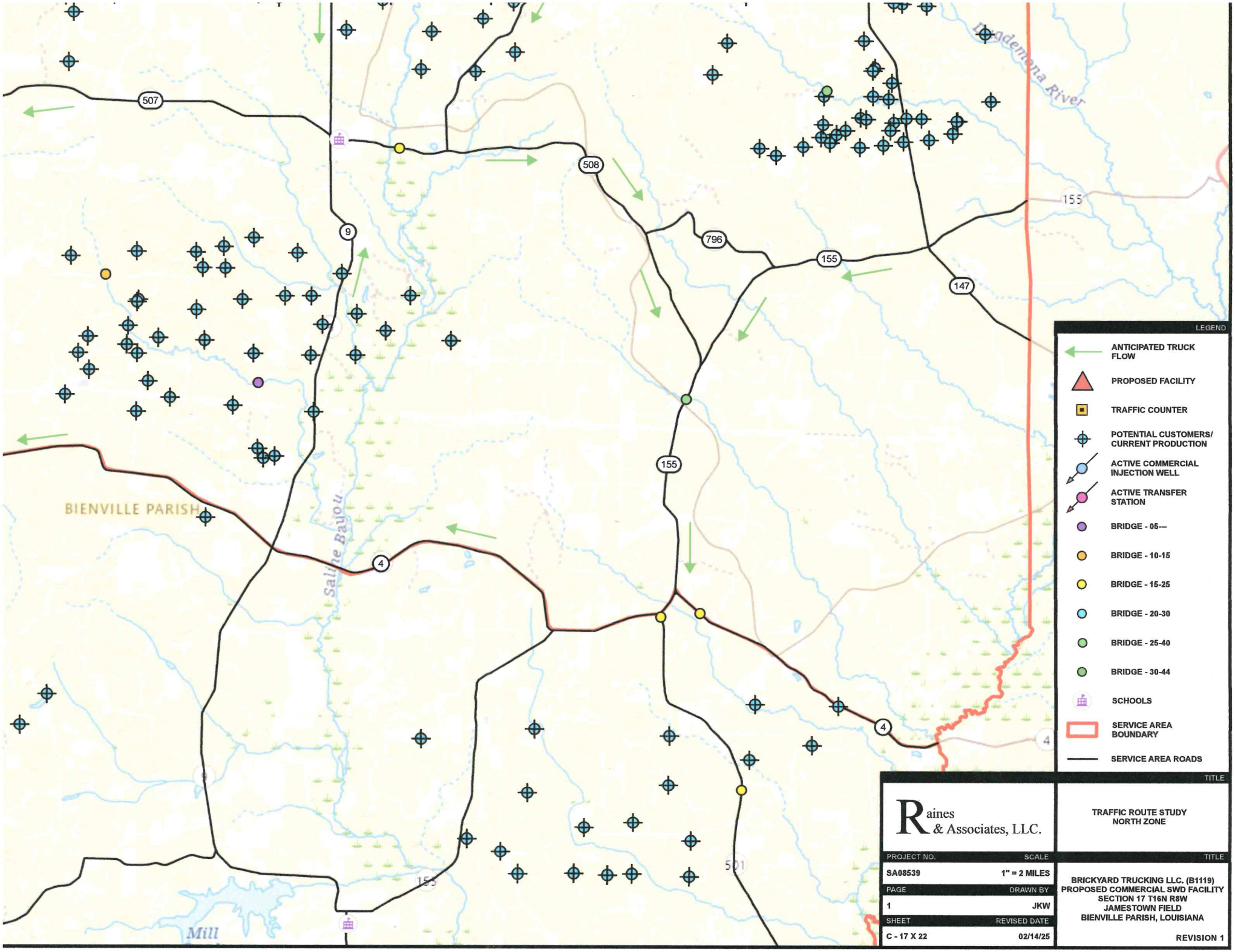
TRAFFIC ROUTE STUDY
SOUTH ZONE

PROJECT NO.	SCALE
SA08539	1" = 2 MILES
PAGE	DRAWN BY
1	JKW
SHEET	REVISED DATE
C - 17 X 22	02/14/25

TITLE

BRICKYARD TRUCKING LLC. (B1119)
PROPOSED COMMERCIAL SWD FACILITY
SECTION 17 T16N R8W
JAMESTOWN FIELD
BIENVILLE PARISH, LOUISIANA

REVISION 1


507
508
9
796
155
147
4
BIENVILLE PARISH
Sallie Bayou
Mill
Magdalena River
LEGEND
ANTICIPATED TRUCK FLOW
PROPOSED FACILITY
TRAFFIC COUNTER
POTENTIAL CUSTOMERS/ CURRENT PRODUCTION
ACTIVE COMMERCIAL INJECTION WELL
ACTIVE TRANSFER STATION
BRIDGE - 05---
BRIDGE - 10-15
BRIDGE - 15-25
BRIDGE - 20-30
BRIDGE - 25-40
BRIDGE - 30-44
SCHOOLS
SERVICE AREA BOUNDARY
SERVICE AREA ROADS
TITLE
Raines & Associates, LLC.
TRAFFIC ROUTE STUDY
NORTH ZONE
PROJECT NO.
SA08539
SCALE
1" = 2 MILES
PAGE
1
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REVISED DATE
02/14/25
TITLE
BRICKYARD TRUCKING LLC. (B1119)
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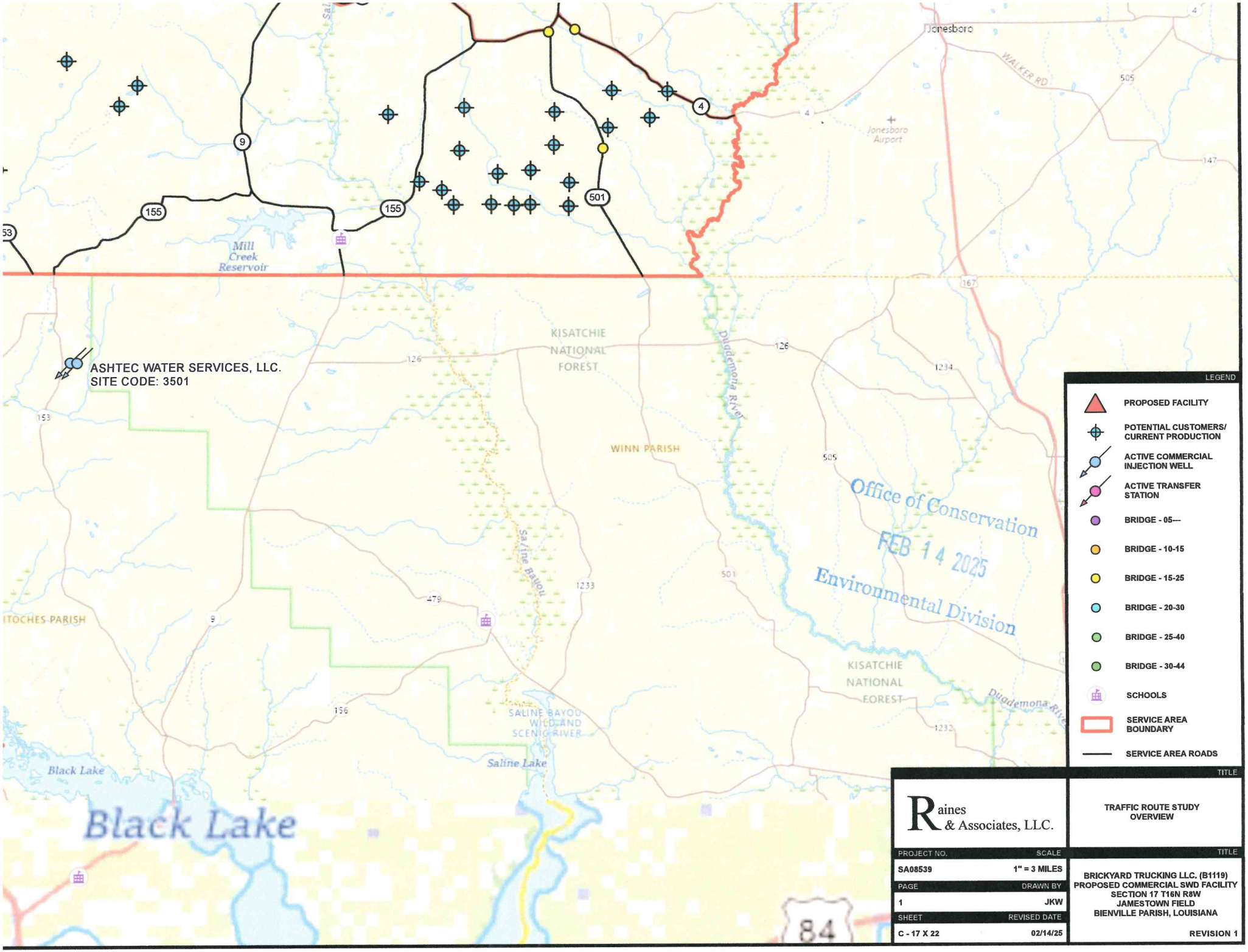
SECTION 17 T16N R8W
JAMESTOWN FIELD
BIENVILLE PARISH, LOUISIANA
REVISION 1



Raines & Associates, LLC.

TRAFFIC ROUTE STUDY OVERVIEW

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TITLE

BRICKYARD TRUCKING LLC. (B1119)
PROPOSED COMMERCIAL SWD FACILITY
SECTION 17 T16N R8W
JAMESTOWN FIELD
BIENVILLE PARISH, LOUISIANA

REVISION 1

File / Dom

State of Louisiana

Department of Environmental Quality

BUDDY ROEMER
Governor

PAUL TEMPLET
Secretary

February 21, 1991

E. P. Dobson, Inc.
Route 2, Box 22
Chestnut, Louisiana 71070

Attention: Mr. Ronald Dobson

RE: Closure Request for one (1) 1000 gallon gasoline, one (1) 2000 gallon diesel, and one (1) 3000 gallon diesel Underground Storage Tanks
Acme Brick, Inc.
LA 792 North
Jamestown, LA
Bienville Parish
Facility I.D. #07-003191

Dear Mr. Dobson:

We are in receipt of your closure request dated February 1, 1991, requesting the closure for underground storage tank(s) at the above referenced facility.

Based upon the information provided, we will consider this matter closed and will adjust our invoice data base accordingly.

Thank you for your cooperation in this matter.

Sincerely,

FRANK L. DAUTRIEL
Program Manager
Underground Storage Tank Division

FLD/TS/cr

cc: Technical Services

RECEIVED

DEC 2 0 1990

UNDERGROUND STORAGE TANK DIVISION

State Use Only

Return to: State of Louisiana
Department of Environmental Quality
Office of Solid and Hazardous Waste
Underground Storage Tank Division
P.O. Box 44274 Baton Rouge, LA 70804-4274

I.D. Number 07-003191

Date Received

Regional Office Jon

INSTRUCTIONS

Please complete and submit this form to this division along with your amended registration form and analytical reports after the tank(s) has been removed. This information is necessary to insure the proper disposal of all contaminated residue from a tank removal site.

I. Ownership of Tanks

Owner Name (Corporation, Individual, Public Agency, or other Entity)	Street Address	Parish	City	State	Zip Code	Area Code	Phone Number
E. P. Dobson, Inc.	Rt. 2 Box 22	Natchitoches	Chestnut	LA	71070	318	576-8961

II. Location of Tanks

Facility Name or Company Site Identifier	Street Address or State Road	Parish	City(Nearest)	State	Zip Code	Contact Person	Area Code	Phone Number
Acme Brick, Inc.	LA 792 North	Bienville	Jamestown	LA	71045	Charles Reuter	318	894-8241

TANK INFORMATION

1. Tank(s) Removal Date 11 / 16 / 90
2. Tank(s) Disposal Date 12 / 27 / 90
3. Product stored in tank(s) Gasoline and Diesel
4. Final Disposition Cut up and sold as scrap.
5. Name of Disposal Site Auto Shred
6. Location Monroe, LA

CONTAMINATED SOIL (IF APPLICABLE)

7. Soil Removal Date ____/____/____
8. Soil Disposal Date ____/____/____
9. Volume Removed
10. Name of Disposal Site
11. Location

CONTAMINATED WATER (IF APPLICABLE)

12. Water Removal Date ____/____/____
13. Water Disposal Date ____/____/____
14. Volume Removed
15. Name of Disposal Site
16. Location

CERTIFICATION

I certify that I have personally examined and am familiar with the information submitted in this and all attached documents.

H. R. Reilly
Signature

11-30-90
Date Signed

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DOCKET NO. Env 2005-01
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REGISTRATION FOR UNDERGROUND STORAGE TANKS

STATE OF LOUISIANA
DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF SOLID AND HAZARDOUS WASTE
UNDERGROUND STORAGE TANK PROGRAM
P.O. BOX 44274 · BATON ROUGE, LA 70804-4274

RECEIVED
DEC 20 1990
UNDERGROUND STORAGE TANK DIVISION

STATE USE ONLY
I.D. NUMBER 07-003191
DATE RECEIVED
DATE CHECKED
CHECKED BY

GENERAL INFORMATION

Registration is required by State and Federal law for all underground tanks that have been used to store regulated substances since January 1, 1974, that are in the ground as of May 8, 1986, or that are brought into use after May 8, 1986. The information requested is required by the Louisiana Environmental Quality Act, L.R.S. 30:1051 et seq., as amended.

The primary purpose of this registration program is to locate and evaluate underground tanks that store or have stored petroleum or hazardous substances. It is expected that the information you provide will be based on reasonably available records, or, in the absence of such records, your knowledge, belief, or recollection.

Who Must Register? The Louisiana Environmental Quality Act, L.R.S. 30:1051 et seq. as amended, requires that, unless exempted, owners of underground tanks that store regulated substances must notify the Louisiana Department of Environmental Quality of the existence of their tanks. Owner means—

(a) in the case of an underground storage tank in use on November 8, 1984, or brought into use after that date, any person who owns an underground storage tank used for the storage, use, or dispensing of regulated substances, and

(b) in the case of any underground storage tank in use before November 8, 1984, but no longer in use on that date, any person who owned such tank immediately before the discontinuation of its use.

What Tanks Are Included? Underground storage tank is defined as any one or combination of tanks that (1) is used to contain an accumulation of "regulated substances," and (2) whose volume (including connected underground piping) is 10% or more beneath the ground. Some examples are underground tanks storing: 1. gasoline, used oil, or diesel fuel, and 2. industrial solvents, pesticides, herbicides or fumigants.

NOTE: Underground storage tanks of less than 500 gallon capacity, which are required to be registered by the Environmental Protection Agency, shall likewise register with the state; however, these tanks are exempt from Louisiana fees and regulations.

What Tanks Are Excluded? Tanks excluded from Louisiana registration are:
1. farm or residential tanks with a capacity of less than 1100 gallons used by storing motor fuel for noncommercial purposes;
2. tanks used for storing heating oil for consumptive use on the premises where stored;
3. septic tanks;
4. pipeline facilities (including gathering lines) regulated under the Natural Gas Pipeline Safety Act of 1968, or the Hazardous Liquid Pipeline Safety Act of 1979, or which is an intrastate pipeline facility regulated under State laws;
5. surface impoundments, pits, ponds, or lagoons;
6. storm water or waste water collection systems;
7. flow-through process tanks;
8. liquid traps or associated gathering lines directly related to oil or gas production and gathering operations;
9. storage tanks situated in an underground area (such as a basement, cellar, mineworking, drift, shaft, or tunnel) if the storage tank is situated upon or above the surface of the floor.

What Substances Are Covered? The registration requirements apply to underground storage tanks that contain regulated substances. This includes 1.) any substance defined in section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (but not including any substance regulated as a hazardous waste under Subtitle C of the Solid Waste Disposal Act as amended by RCRA); and 2.) petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute.)

Where to Register? Completed registration forms should be sent to the address given at the top of this page.

When to Register? 1. Owners of underground storage tanks in use or that have been taken out of operation after January 1, 1974, but still in the ground, must register by May 8, 1986. 2. Owners who bring underground storage tanks into use after May 8, 1986, must register within 30 days of bringing the tanks into use.

Registration Fee: The owners of operational or non-operational underground storage tanks containing regulated substances must submit with the registration form the payment of the registration fee for each underground storage tank according to the following schedule:
1. For any substance defined in the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (but not including any substance regulated as a hazardous waste under Subtitle C of the Solid Waste Disposal Act as amended by RCRA)—$25.00 per tank.
2. For petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute) —$15.00 per tank.

In no case shall one owner be required to pay an aggregate registration fee in excess of one thousand dollars ($1,000.00). In addition to the registration fee, an annual monitoring and maintenance fee is required commencing May 8, 1987 in accordance with the regulations.

Penalties: Any owner who knowingly fails to register or submits false information shall be subject to a civil penalty not to exceed $25,000 per day for each tank for which registration is not given or for which false information is submitted.

INSTRUCTIONS

Please type or print in ink all items except "signature" in Section V. This form must be completed for each location containing underground storage tanks. If more than 5 tanks are owned at this location, photocopy the reverse side, and staple continuation sheets to this form. Make checks payable to the Louisiana Department of Environmental Quality.

Indicate number of continuation sheets attached: [ ]

I. OWNERSHIP OF TANK(S)

Owner Name (Corporation, Individual, Public Agency, or Other Entity): E.P. Dobson, Inc.
Street Address: Rt. 2 Box 22
Parish: Natchitoches
City: Chestnut State: LA. Zip Code: 71070
Area Code: 318 Phone Number: 576-8961

Type of Owner (Mark all that apply ☒)
☒ Current ☐ State or Local Gov't. ☒ Private or Corporate
☐ Former ☐ Federal Gov't. (GSA facility I.D. no. _____) ☐ Ownership uncertain

II. LOCATION OF TANK(S)

(If same as Section I, mark box here ☐)
Facility Name or Company Site Identifier, as applicable: Acme Brick Inc.
Street Address or State Road, as applicable: LA. 792 North
Parish: Vernon
City (nearest): Jamestown State: LA Zip Code: 71045
Latitude: 32 °(deg.) 22 °(min.) 00 °(sec.)
Longitude: 93 °(deg.) 13.10 °(min.) 10 °(sec.)
Indicate number of tanks at this location: 3
Mark box here if tank(s) are located on land within an Indian reservation or on other Indian trust lands ☐

III. CONTACT PERSON AT TANK LOCATION

Name (If same as Section I ☐): Charles Reuter
Job Title: Plant Manager
Area Code: 318 Phone Number: 894-8241

IV. TYPE OF REGISTRATION

☒ Mark Box here only if this is an amended or subsequent registration for this location.

V. CERTIFICATION (Read and sign after completing Section VI)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Name and official title of owner or owner's authorized representative: [illegible]
Signature: [signature]
Date Signed: 12/14/90

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Office of Conservation
FEB 14 2025
Environmental Division

Facility Name (from Section I) E.P. DOBSON, INC. Location (from Section II) JAMESTOWN, LA. Page No. 1 of 1 Pages

VI. DESCRIPTION OF UNDERGROUND STORAGE TANKS (COMPLETE ONE SET OF ITEMS 1-11 FOR EACH TANK)

Tank Identification No. (e.g., ABC-123), or Arbitrarily Assigned Sequential Number (e.g., 1,2,3 . . .)	Tank No. 1	Tank No. 2	Tank No. 3	Tank No.	Tank No.
1. Status of Tank (Mark all that apply ☒) — Currently in Use; Temporarily Out of Use; Permanently Out of Use; Brought into Use after 5/8/86	☒	☒	☒	☐	☐
2. Age (Years)	14	14	14		
3. Total Capacity (Gallons)	1000	2000	3000		
4. Is Tank and/or Piping Leaking? (YES or NO)	NO	NO	NO		
6. Material of Construction (Mark one ☒) — Steel; Concrete; Fiberglass Reinforced Plastic; Unknown; Other, Please Specify	☒	☒	☒	☐	☐
8. Internal Protection (Mark all that apply ☒) — Cathodic Protection; Interior Lining (e.g., epoxy resins); None; Unknown; Other, Please Specify	☒	☒	☒	☐	☐
7. External Protection (Mark all that apply ☒) — Cathodic Protection; Painted (e.g., asphaltic); Fiberglass Reinforced Plastic Coated; None; Unknown; Other, Please Specify	☒	☒	☒	☐	☐
5. Piping (Mark all that apply ☒) — Bare Steel; Galvanized Steel; Fiberglass Reinforced Plastic; Cathodically Protected; Unknown; Other, Please Specify	☒	☒	☒	☐	☐
9. Substance Currently or Last Stored in Greatest Quantity by Volume (Mark all that apply ☒) — a. Empty; b. Petroleum: Diesel, Kerosene, Gasoline (including alcohol blends), Used Oil, Other, Please Specify; c. Hazardous Substance: Please Indicate Name of Principal CERCLA Substance OR Chemical Abstract Service (CAS) No.; Mark box ☒ if tank stores a mixture of substances; d. Unknown	a ☒	a ☒	a ☒	a ☐	a ☐
10. Additional Information (for tanks permanently taken out of service) — a. Estimated date last used (mo./yr.); b. Estimated quantity of substance remaining (gal.); c. Mark box ☒ if tank was filled with inert material (e.g., sand, concrete)	Filled 10/90 0 ☐	Filled 10/90 0 ☐	Filled 10/90 0 ☐	/ 0 ☐	/ 0 ☐
11. Additional Information (for replacement tanks installed after January 1, 1974) — a. Is the tank currently in use a replacement tank for one previously in use at the same site? (YES or NO); b. When was the previous tank removed? (mo./yr.); c. What was the age of the previous tank at time of removal? (years); d. Was the tank and/or piping previously removed found to be leaking? (YES or NO); e. If so, was contamination of the regulated substance removed from the soil and/or ground water? (YES or NO)	/ / /	/ / /	/ / /	/ / /	/ / /

Page

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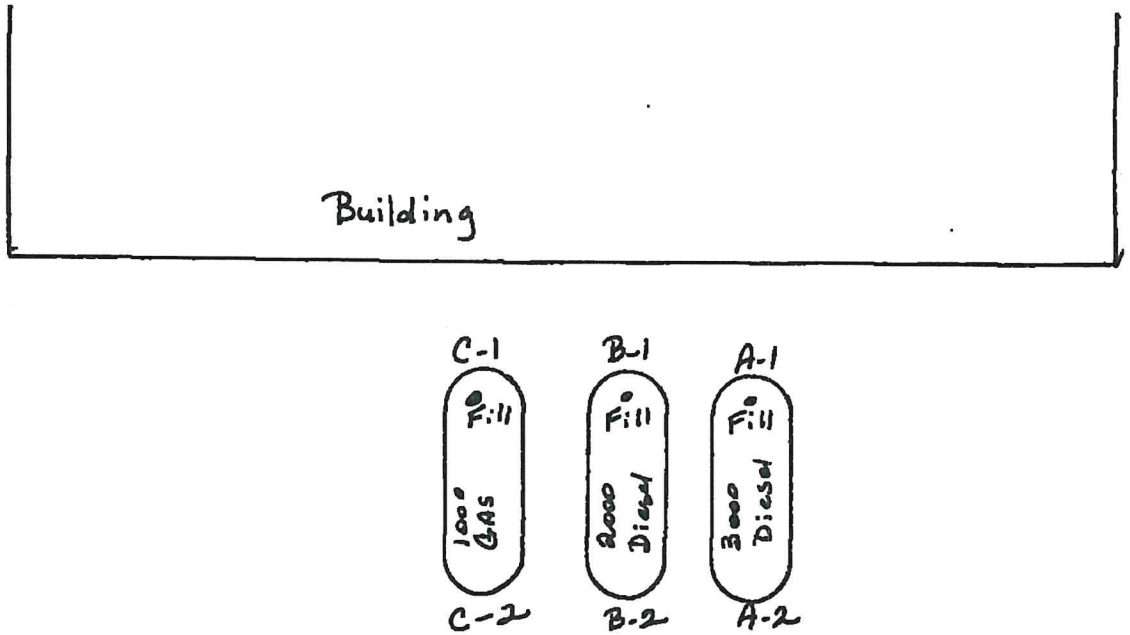
Office of Conservation
FEB 14 2025
Environmental Division

E.P. Dobson - Acme Brick - Jamestown, LA



Sample Depth

A-1	10' depth
A-2	10' depth
B-1	10' depth
B-2	10' depth
C-1	10½ depth
C-2	11' depth

Soil type - clay with sand

1357 AIRLINE DRIVE
BOSSIER CITY, LA 71112

MID-SOUTH
ANALYTICAL LAB

FAX (318) 742-8118
(318) 747-6962

LOGIN TIME: 17:44
LOGIN DATE: 11/16/90

CUSTOMER #: 23
REPORT: 5226

COMPANY: PERRY & SONS
TICHELLI ROAD
PO BOX 1121
MONROE LA 71201

CLIENT: HUBERT PERRY

LOCATION: E.P. DOPSON ACME BRICK JAMESTOWN, LA.
SAMPLER: TRACY WEST
COC#: MSL111690PS

TYPE: SOIL

TOTAL PETROLEUM HYDROCARBONS ANALYTICAL REPORT

REPORT DATE: 11/26/90
TECHNICIAN: CGG

UNIT OF MEASURE: ppm
DETECTION LIMIT: 0.538

SAMPLE NUMBER	SAMPLE ID	TIME/DATE COLLECTED		RESULTS	TIME/DATE ANALYSIS	
5226A	A-1	1530	11/16/90	6.3	1450	11/21/90
5226B	A-2	1530	11/16/90	3.15	1455	11/21/90
5226C	B-1	1530	11/16/90	6.3	1505	11/21/90
5226D	B-2	1530	11/16/90	3.15	1510	11/21/90

METHODS: Extraction Procedure - Modified 8015
GC Procedure ASTM 3328-78 F.I.D. Capillary
Instrumentation Hewlett/Packard 5890
Column J & W DB 1301-30M

> = Greater Than
< = Less Than

LAB MANAGER

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1357 AIRLINE DRIVE
BOSSIER CITY, LA 71112

MID-SOUTH
ANALYTICAL LAB

FAX (318) 742-8118
(318) 747-6962

LOGIN TIME: 17:48
LOGIN DATE: 11/16/90

CUSTOMER #: 23
REPORT: 5226E

COMPANY: PERRY & SONS
TICHELLI ROAD
PO BOX 1121
MONROE LA 71201

SAMPLE: B-1 COC#: MSL111690PS
TYPE : SOIL
TIME COLLECTED: 1530 DATE COLLECTED: 11/16/90
LOCATION: E.P. DOPSON ACME BRICK JAMESTOWN, LA.
SAMPLER: TRACY WEST

CHAIN OF CUSTODY SEAL INTACT? YES: X NO:

BTEX
ANALYTICAL REPORT

REPORT DATE: 11/26/90
TECH: LDS

PARAMETER	RESULTS		DETECTION LIMIT	TIME/DATE ANALYSIS
BENZENE	<0.001	ppm	0.001	1651 11/19/90
TOLUENE	0.0457	ppm	0.001	
ETHYL BENZENE	7.0204	ppm	0.001	
M-P-XYLENE	<0.001	ppm	0.001	
O-XYLENE	0.246	ppm	0.001	
TOTAL BTEX	7.312	ppm		

PROTOCOL: EPA Manual of Analytical Methods for Chemical Analysis of Water and Wastes & Tests Methods for Evaluating Solid Waste (SW-846) METHOD 8020.

>= Greater Than
<= Less Than
NC = Not Contracted

Rick Holcomb
LAB MANAGER

STATE EXHIBIT NO. 1
DOCKET NO. ENV 2025-01
PAGE 473 OF 649 PAGES

1357 AIRLINE DRIVE
BOSSIER CITY, LA 71112

MID-SOUTH
ANALYTICAL LAB

FAX(318) 742-8118
(318) 747-6962

LOGIN TIME: 17:50
LOGIN DATE: 11/16/90

CUSTOMER #: 23
REPORT: 5226F

COMPANY: PERRY & SONS
TICHELLI ROAD
PO BOX 1121
MONROE LA 71201

SAMPLE: B-2 COC#: MSL111690PS
TYPE : SOIL
TIME COLLECTED: 1530 DATE COLLECTED: 11/16/90
LOCATION: E.P. DOPSON ACME BRICK JAMESTOWN, LA.
SAMPLER:TRACY WEST

CHAIN OF CUSTODY SEAL INTACT? YES: X NO:

BTEX
ANALYTICAL REPORT

REPORT DATE: 11/26/90
TECH: LDS

PARAMETER	RESULTS		DETECTION LIMIT	TIME/DATE ANALYSIS
BENZENE	0.0227	ppm	0.001	1708 11/19/90
TOLUENE	0.0343	ppm	0.001	
ETHYL BENZENE	3.2732	ppm	0.001	
M-P-XYLENE	0.1645	ppm	0.001	
O-XYLENE	0.3776	ppm	0.001	
TOTAL BTEX	3.8726	ppm		

PROTOCOL: EPA Manual of Analytical Methods for Chemical Analysis of Water and Wastes & Tests Methods for Evaluating Solid Waste (SW-846) METHOD 8020.

>= Greater Than
<= Less Than
NC = Not Contracted

Ricky Holcomb
LAB MANAGER

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1357 AIRLINE DRIVE
BOSSIER CITY, LA 71112

MID-SOUTH
ANALYTICAL LAB

FAX(318) 742-8118
(318) 747-6962

LOGIN TIME: 17:48
LOGIN DATE: 11/16/90

CUSTOMER #: 23
REPORT: 5226E

COMPANY: PERRY & SONS
TICHELLI ROAD
PO BOX 1121
MONROE LA 71201

SAMPLE: C-1
TYPE : SOIL
TIME COLLECTED: 1530
COC#: MSL111690PS
DATE COLLECTED: 11/16/90
LOCATION: E.P. DOPSON ACME BRICK JAMESTOWN, LA.
SAMPLER: TRACY WEST

CHAIN OF CUSTODY SEAL INTACT? YES: X NO:

BTEX
ANALYTICAL REPORT

REPORT DATE: 11/26/90
TECH: LDS

PARAMETER	RESULTS		DETECTION LIMIT	TIME/DATE ANALYSIS
BENZENE	<0.001	ppm	0.001	1651 11/19/90
TOLUENE	0.0457	ppm	0.001	
ETHYL BENZENE	7.0204	ppm	0.001	
M-P-XYLENE	<0.001	ppm	0.001	
O-XYLENE	0.246	ppm	0.001	
TOTAL BTEX	7.312	ppm		

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PROTOCOL: EPA Manual of Analytical Methods for Chemical Analysis of Water and Wastes & Tests Methods for Evaluating Solid Waste (SW-846) METHOD 8020.

>= Greater Than
<= Less Than
NC = Not Contracted

Bill McCarthy
LAB MANAGER

1357 AIRLINE DRIVE
ROSSIER CITY, LA 71112

MID-SOUTH
ANALYTICAL LAB

FAX(318) 742-8118
(318) 747-6962

LOGIN TIME: 17:30
LOGIN DATE: 11/16/90

CUSTOMER #: 23
REPORT: 5226F

COMPANY: PERRY & SONS
TICHELLI ROAD
PO BOX 1121
MONROE LA 71201

SAMPLE: C-2
TYPE : SOIL
TIME COLLECTED: 1530
LOCATION: E.P. DOPSON ACME BRICK JAMESTOWN, LA.
SAMPLER: TRACY WEST

COC#: MSL111690PS
DATE COLLECTED: 11/16/90

CHAIN OF CUSTODY SEAL INTACT? YES: X NO:

BTEX
ANALYTICAL REPORT

REPORT DATE: 11/26/90
TECH: LDS

PARAMETER	RESULTS		DETECTION LIMIT	TIME/DATE ANALYSIS
BENZENE	0.0227	ppm	0.001	1708 11/19/90
TOLUENE	0.0343	ppm	0.001	
ETHYL BENZENE	3.2732	ppm	0.001	
M-P-XYLENE	0.1645	ppm	0.001	
O-XYLENE	0.3776	ppm	0.001	
TOTAL BTEX	3.8726	ppm		

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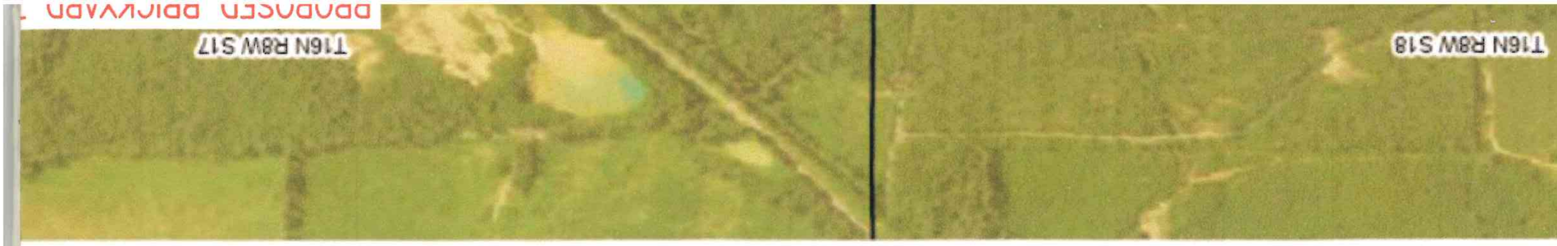
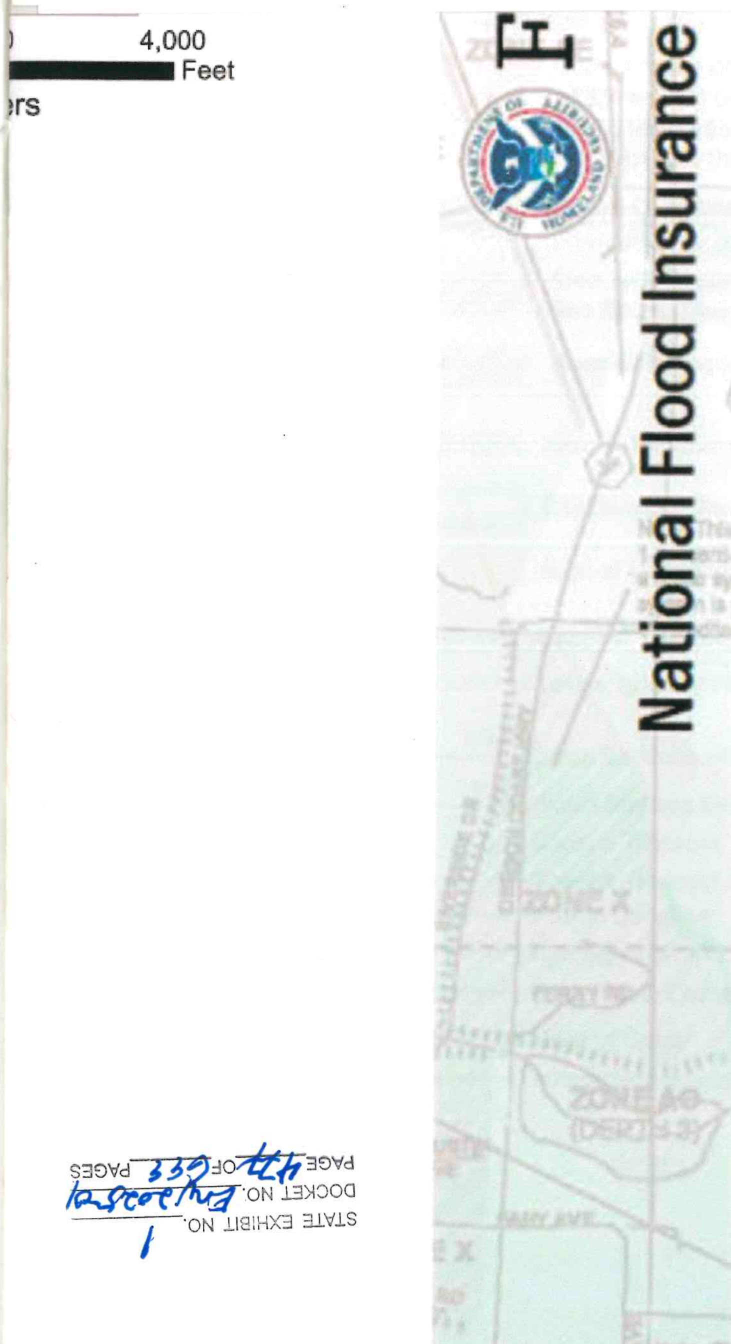
PROTOCOL: EPA Manual of Analytical Methods for Chemical Analysis of Water and Wastes & Tests Methods for Evaluating Solid Waste (SW-846) METHOD 8020.

>= Greater Than
<= Less Than
NC = Not Contracted

Bill McCarthy
LAB MANAGER





Panel Contains:

COMMUNITY	NUMBER	PANEL
BIENVILLE PARISH VILLAGE OF JAMESTOWN	220406	0280

MAP NUMBER
22013C0280C
EFFECTIVE DATE
July 03, 2006

Raines & Associates, LLC	TITLE: FEMA FIRM MAP #22013C0280C
PROJECT NO.: SA08539 / SCALE: AS SHOWN	LOCATION: BRICKYARD TRUCKING, LLC (B1119) BRICKYARD TRUCKING SWD NO. 001, 002, & 003 NEW WELLS SECTION 17 T16N R8W JAMESTOWN FIELD BIENVILLE PARISH, LOUISIANA
PAGE: 1 / DRAWN BY: JKW	
SHEET: 24" X 36" / DATE: 02/14/25	

NEEL-SCHAFFER
Solutions you can build upon

LA 792 Salt Water Disposal Facility

Traffic Impact Analysis

NSI Project Number 18638

Jamestown, Louisiana

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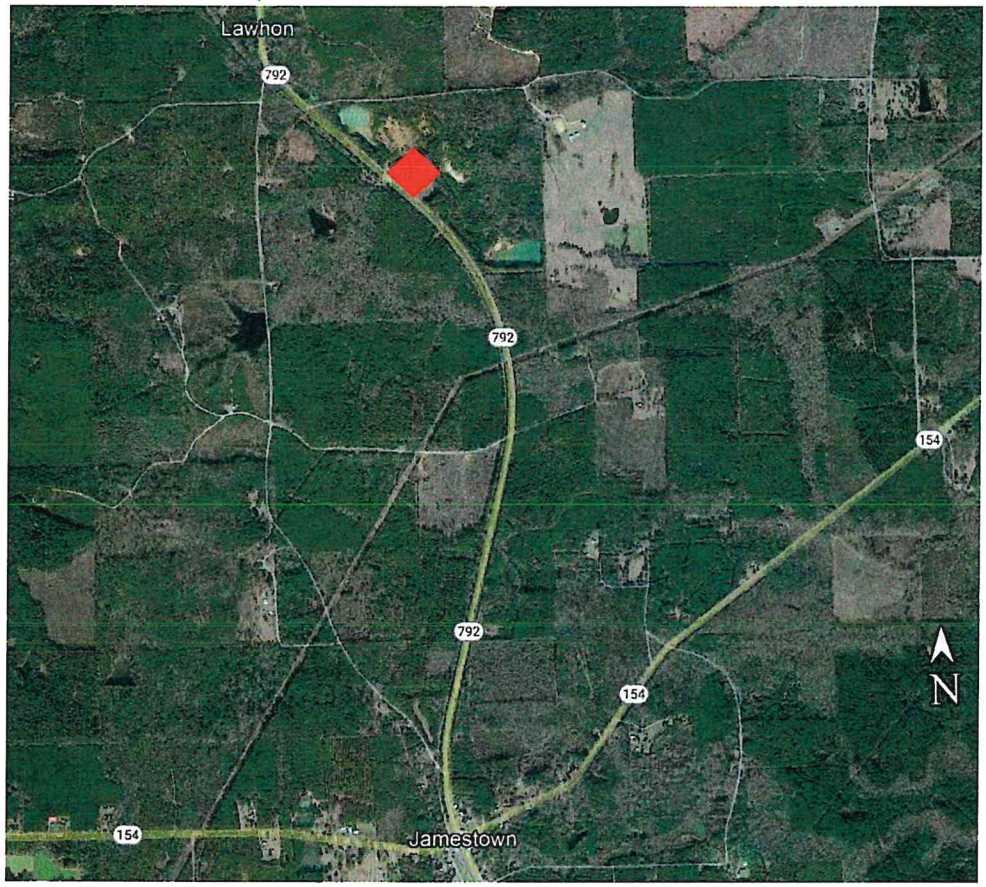


Prepared for

Brickyard Trucking, LLC
415 Texas Street, Suite 400
Shreveport, LA 71101

STATE OF LOUISIANA
CHARLES WILLIAM ADAMS, III
REG. No. 27440
REGISTERED
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
6/10/24

June 10, 2024

Table of Contents

List of Tables

List of Figures

Executive Summary

Brickyard Trucking, LLC is proposing to construct a new commercial saltwater disposal facility along the east side of LA 792 approximately 0.34 miles south of Lawhon Road near the village of Jamestown in Bienville Parish, Louisiana. It is estimated that the proposed facility will handle approximately 25,000 barrels of waste fluid per day equating to approximately 192 trucks a day.

The analyses performed as part of this study indicate there to be adequate sight distance to and from the proposed access drives. In addition, the analyses show that the proposed SWD facility will have a minimal impact on LA 792 and that turn lanes will not be warranted along LA 792 for the entrance drive. Therefore, no roadway improvements are warranted for this development.

Based on the autoturn analyses, it is recommended that the entrance drive be at least 30-foot wide and have 50-foot radius and that the exit drive be at least 40-foot wide and have 50-foot radius.

Introduction

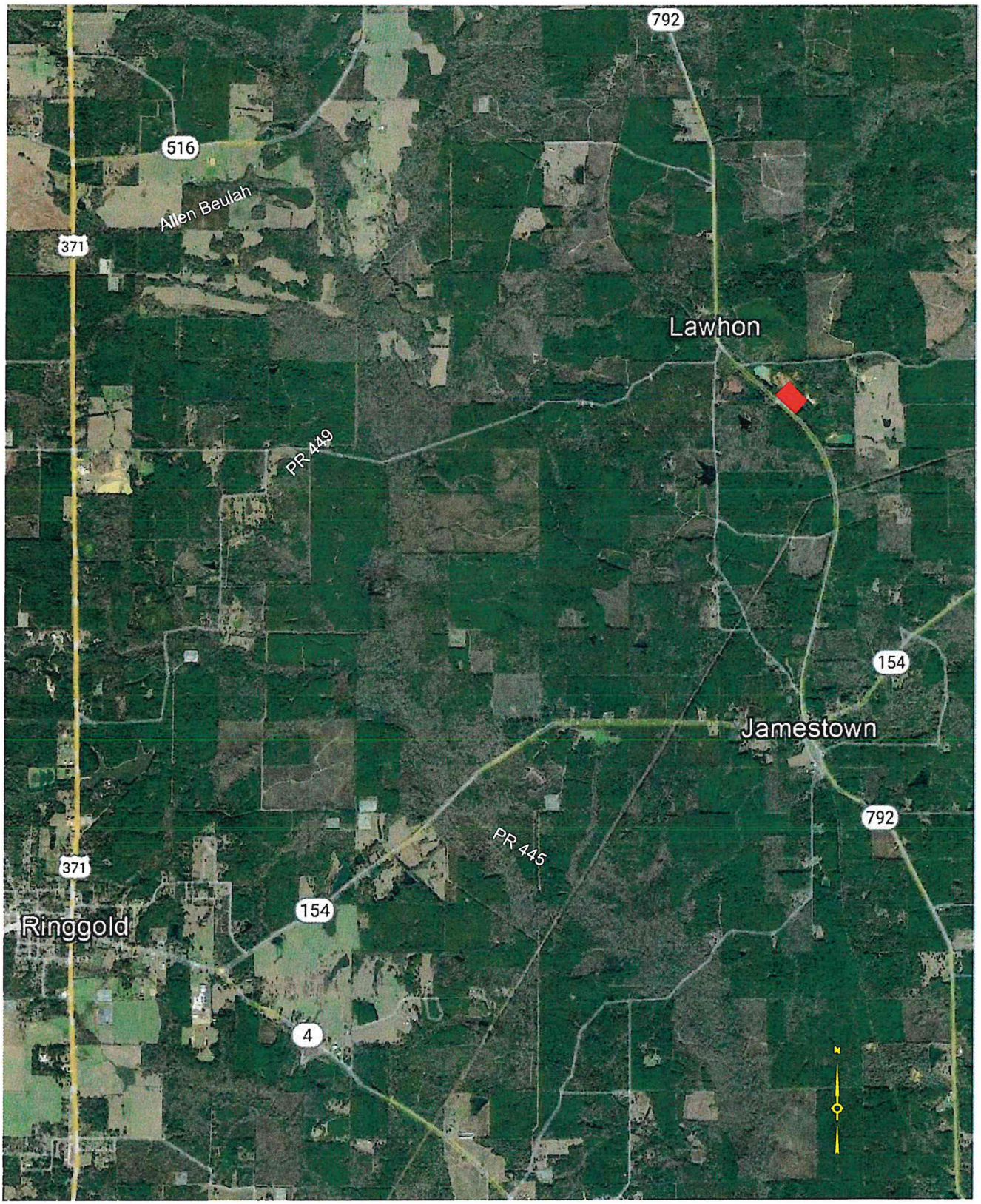
Brickyard Trucking, LLC is proposing to construct a new commercial saltwater disposal facility along the east side of LA 792 approximately 0.34 miles south of Lawhon Road on the site of the old ACME Brick Company near the village of Jamestown Louisiana. A vicinity map of the surrounding area is shown in **Figure 1**. A layout of the proposed site is shown in **Figure 2.**

The purpose of this study is to evaluate the impact of the new facility on the flow of traffic along LA 792.

Methodology

The analyses performed include the following elements:

- Collect 48-hour volumes along LA 792 in the vicinity of the development.
- Generate future trips for the proposed saltwater disposal facility based on truck size and expected operating capacity.
- Distribute generated volumes along LA 792.
- Determined the capacity and Levels of Service (LOS) of unsignalized intersections using the *HCS7 Software*.
- Determined right and left turn lane requirements along LA 792 at the proposed entrance in accordance with *NCHRP Report 457*.
- Perform AutoTurn analyses for the access drives.



LEGEND

PROPOSED DEVELOPMENT

FIGURE 1

LA 792 SWD FACILITY

VICINITY MAP

BIENVILLE PARISH

NEEL-SCHAFFER

Solutions you can build upon

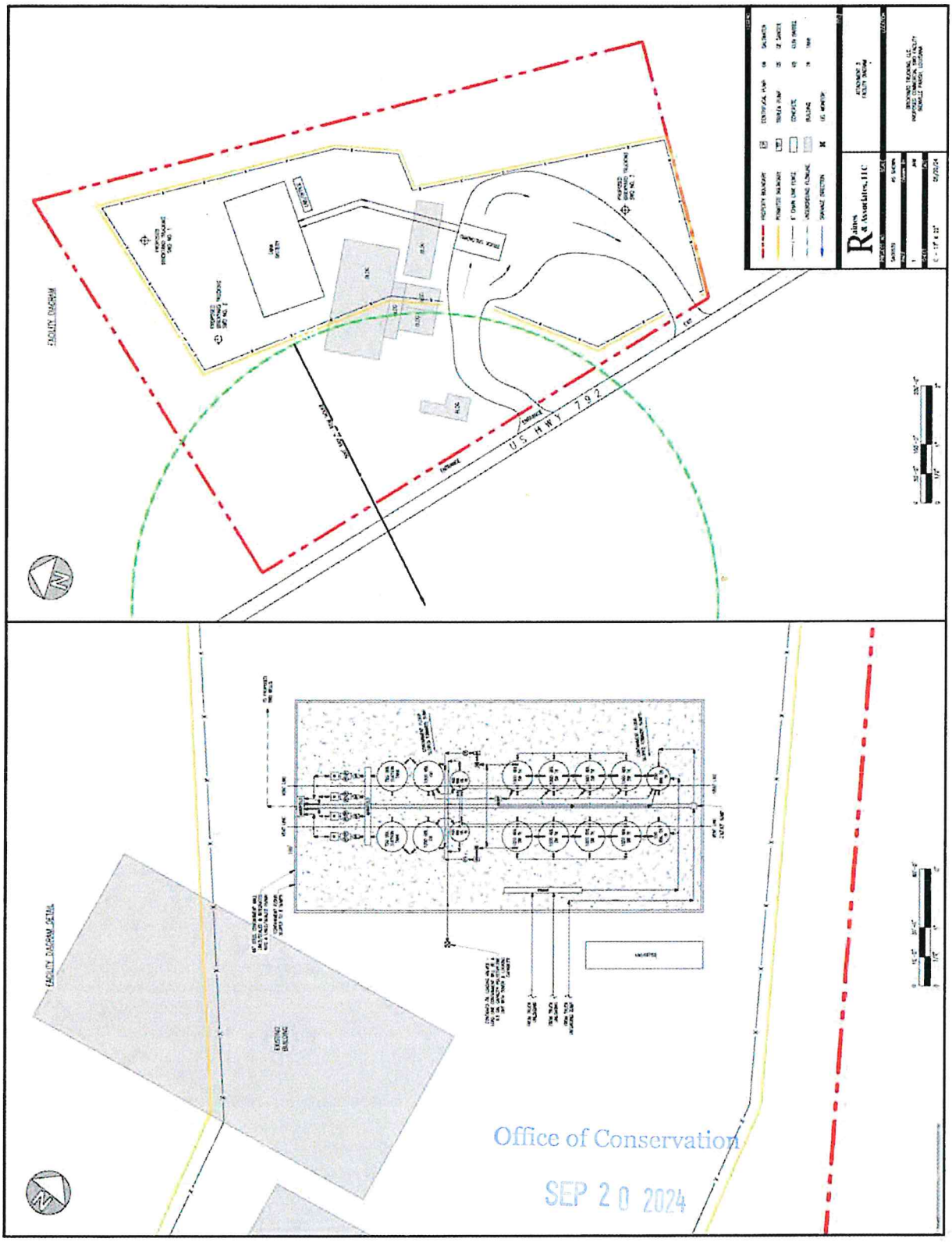
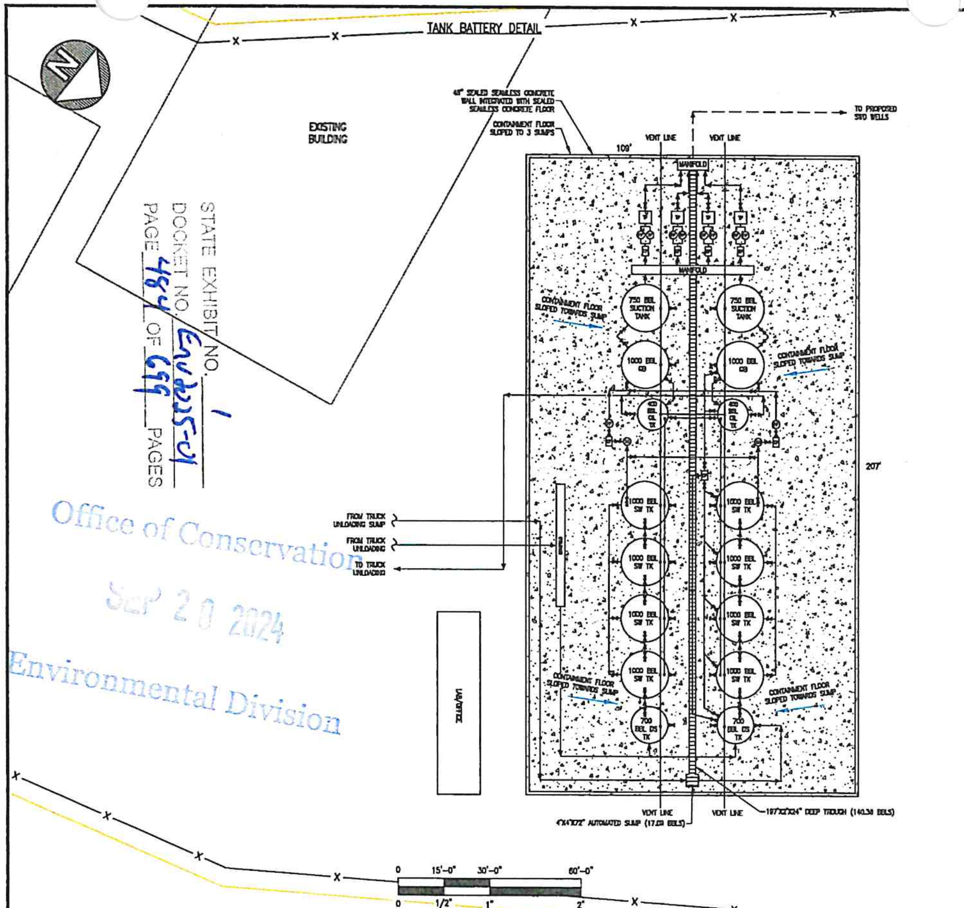
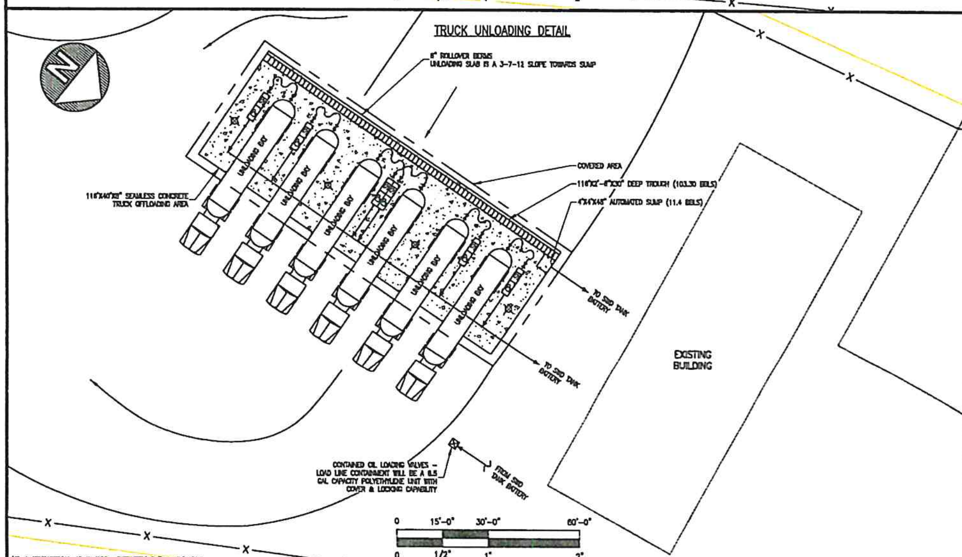


FIGURE 2
LA 792 SWD FACILITY
SITE PLAN

BIENVILLE PARISH

NEEL-SCHAFFER
Solutions you can build upon


TANK BATTERY DETAIL
EXISTING BUILDING
48" SEALED SEAMLESS CONCRETE WALL INTEGRATED WITH SEALED SEAMLESS CONCRETE FLOOR
CONTAINMENT FLOOR SLOPED TO 3 SUMPS
109'
207'
VENT LINE
TO PROPOSED SWD WELLS
MANIFOLD
750 BBL SUCTION TANK
1000 BBL GB
1000 BBL SW TK
700 BBL DS TK
CONTAINMENT FLOOR SLOPED TOWARDS SUMP
FROM TRUCK UNLOADING SUMP
FROM TRUCK UNLOADING
TO TRUCK UNLOADING
LAB/OFFICE
4'X4'X72" AUTOMATED SUMP (17.09 BBLS)
197'X2'X24" DEEP TROUGH (140.38 BBLS)
0 15'-0" 30'-0" 60'-0"
0 1/2" 1" 2"


TRUCK UNLOADING DETAIL
6" ROLLOVER BERMS
UNLOADING SLAB IS A 3-7-11 SLOPE TOWARDS SUMP
COVERED AREA
116'X2'-6"X30" DEEP TROUGH (103.30 BBLS)
4'X4'X45" AUTOMATED SUMP (11.4 BBLS)
116'X40'X8" SEAMLESS CONCRETE TRUCK OFFLOADING AREA
UNLOADING BAY
TO SWD TANK BATTERY
EXISTING BUILDING
CONTAINED OIL LOADING VALVES - LOAD LINE CONTAINMENT WILL BE A 6.5 GAL CAPACITY POLYETHYLENE UNIT WITH COVER & LOCKING CAPABILITY
FROM SWD TANK BATTERY
0 15'-0" 30'-0" 60'-0"
0 1/2" 1" 2"


FACILITY DIAGRAM
PROPOSED BRICKYARD TRUCKING SWD NO. 1
PROPOSED BRICKYARD TRUCKING SWD NO. 2
PROPOSED BRICKYARD TRUCKING SWD NO. 3
TANK BATTERY
LAB/OFFICE
BLDG
500' RADIUS FROM HOUSE
HOUSE
GATE
TRUCK UNLOADING
ENTRANCE
EXIT
LA HWY 792
0 50'-0" 100'-0" 200'-0"
0 1/2" 1" 2"
LEGEND
PROPERTY BOUNDARY
PERMITTED BOUNDARY
6' CHAIN LINK FENCE
UNDERGROUND FLOWLINE
DRAINAGE DIRECTION
CP CENTRIFUGAL PUMP
TP TRIPLEX PUMP
CONCRETE
BUILDING
LEL MONITOR
SW SALTWATER
DS DE SANDER
GB GUN BARREL
TK TANK
Raines & Associates, LLC
TITLE
FACILITY DIAGRAM
PROJECT NO. SA05752
SCALE AS SHOWN
PAGE 1
DRAWN BY JKW
SHEET C - 17" X 22"
DATE 05/20/24
LOCATION
BRICKYARD TRUCKING, LLC. (B1119)
PROPOSED COMMERCIAL SWD FACILITY
SECTION 17 T18N R8W
JAMESTOWN FIELD
BIENVILLE PARISH, LOUISIANA

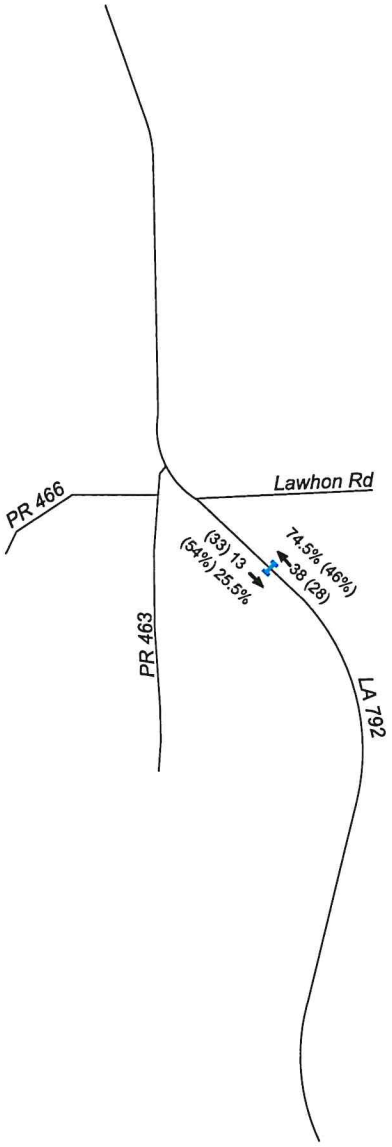
Existing Conditions and Traffic Volumes

The proposed saltwater disposal facility will be on the site of the old ACME Brick Company located along the east side of LA 792 approximately 0.34 miles south of Lawhon Road.

LA 792 is a two-lane asphaltic roadway extending generally north and south with a posted speed limit of 55 mph. In the vicinity of the site, LA 792 has two 11-foot lanes with 1 foot shoulders.

Sight distance was checked for the proposed access drive along LA 792 on June 7, 2024. The sight distance was measured from a point located 10' from the edge line of LA 792 from the proposed exit drive. From this location, looking south the sight distance was observed to be approximately 1,060 feet. Looking north, the sight distance was observed to be approximately 980 feet.

48-hour classification counts were collected along LA 792 between May 7-8, 2024. Utilizing these counts, it was determined that the peak hours occur between 6:45-7:45 am and 4:30-5:30 pm. The existing peak hour volumes are shown in **Figure 3.**



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LEGEND

- STUDY INTERSECTION
- XX (XX) - AM (PM)
- I 48-HOUR TUBE COUNTER W/ PEAK ADT

FIGURE 3
LA 792 SWD FACILITY
EXISTING PEAK HOUR VOLUMES

BIENVILLE PARISH

NEEL-SCHAFFER
Solutions you can build upon

Future Volumes

Projected truck traffic generated by this development was determined using a maximum daily production rate of 25,000 barrels and a typical truck size of 130 barrels. A summary is provided in Table 1.

Table 1: Projected Number of Trucks Per Day

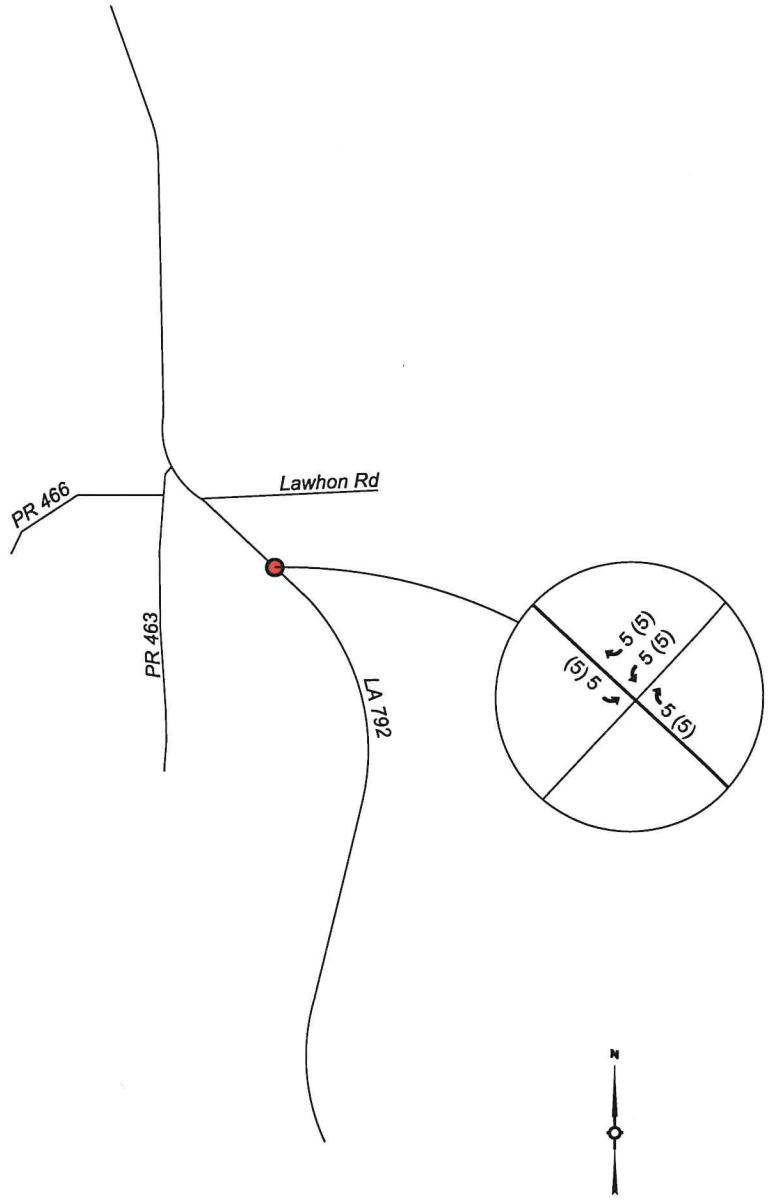
Anticipated Land Use	Estimated Units
Commercial Saltwater Disposal Facility	192

It is assumed that the facility will accommodate a maximum of 192 trucks a day. While the facility will be open 24 hours a day, it is assumed that the trucks will arrive within a 20-hour period; therefore, a rate of 10 trucks per hour will be used for the peak hour calculation. A summary of the generated peak hour trips is shown in Table 2.

Table 2: Peak Hour Trip Generation

Phase	AM Peak		PM Peak	
	Enter	Exit	Enter	Exit
Phase 1	10	10	10	10

The generated peak hour volumes for the proposed saltwater disposal facility are shown in **Figure 4**. The existing plus generated peak hour volumes are shown in **Figure 5**.



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Generated Peak Hour Volumes		
Entering		Exiting
10	AM	10
10	PM	10

LEGEND

STUDY INTERSECTION

XX (XX) - AM (PM)

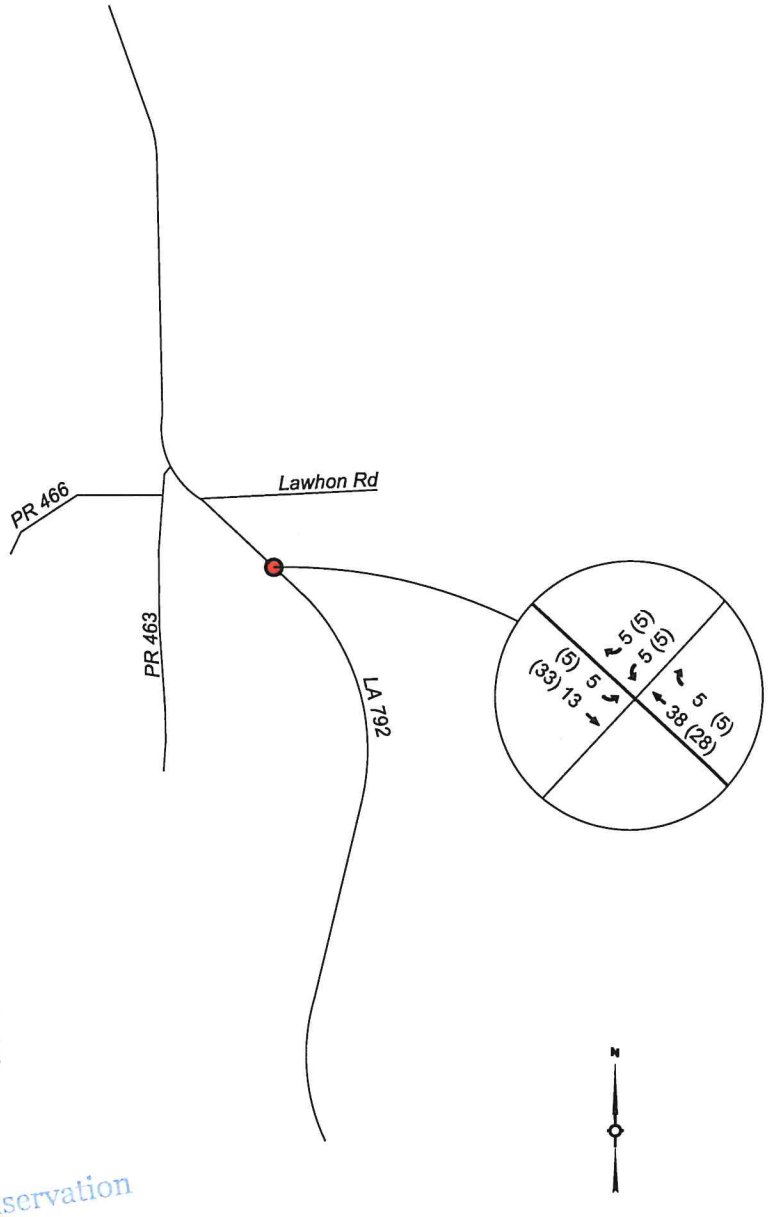
FIGURE 4

LA 792 SWD FACILITY

GENERATED PEAK HOUR VOLUMES

BIENVILLE PARISH

NEEL-SCHAFFER
Solutions you can build upon



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LEGEND

STUDY INTERSECTION

XX (XX) - AM (PM)

FIGURE 5

LA 792 SWD FACILITY

EXISTING + GENERATED PEAK HOUR VOLUMES

BIENVILLE PARISH

NEEL-SCHAFFER
Solutions you can build upon

Analyses

Turn Lane Analyses

Utilizing the existing plus generated volumes for the proposed facility, turn lane warrant analyses were performed for LA 792 at the proposed entrance road. The turn-lane warrants analyses were performed using the National Cooperative Highway Research Program (NCHRP) Report Number 457 entitled "Evaluating Intersection Improvements." The results indicate that turn lanes are not warranted along LA 792 for the proposed entrance.

Two-Way Stop Control Analysis

Utilizing McTrans' HCS software version 2023, two-way stop control (TWSC) analyses were performed for the intersection of LA 792 at the proposed entrance drive.

The Level-of-Service (LOS) analyses for this intersection under build conditions are presented in **Table 3**. The full analyses are presented in the **Appendix**.

Table 3: LA 792 at Entrance Drive

Hour	Scenario	WB Approach		SBL Approach	
		LOS	Delay (s/veh)	LOS	Delay (s/veh)
AM Peak	Build	A	9.7	A	8.3
PM Peak	Build	A	9.8	A	8.2

The results show that the proposed development will have a negligible impact on the intersection of LA 792 and the proposed entrance drive.

AuroTurn Analysis

Using a WB-62 size truck, autoturn analyses were performed for the entrance and exit drives. The analyses show that a 30-foot-wide entrance drive with 50 foot radiuses will accommodate trucks entering from both directions. While a 30-foot-wide drive will accommodate trucks exiting to the south, the analyses show that trucks exiting to the north will have a slight issue navigating with a 30 foot wide exit drive. Details are shown in **Figures 6-8**.

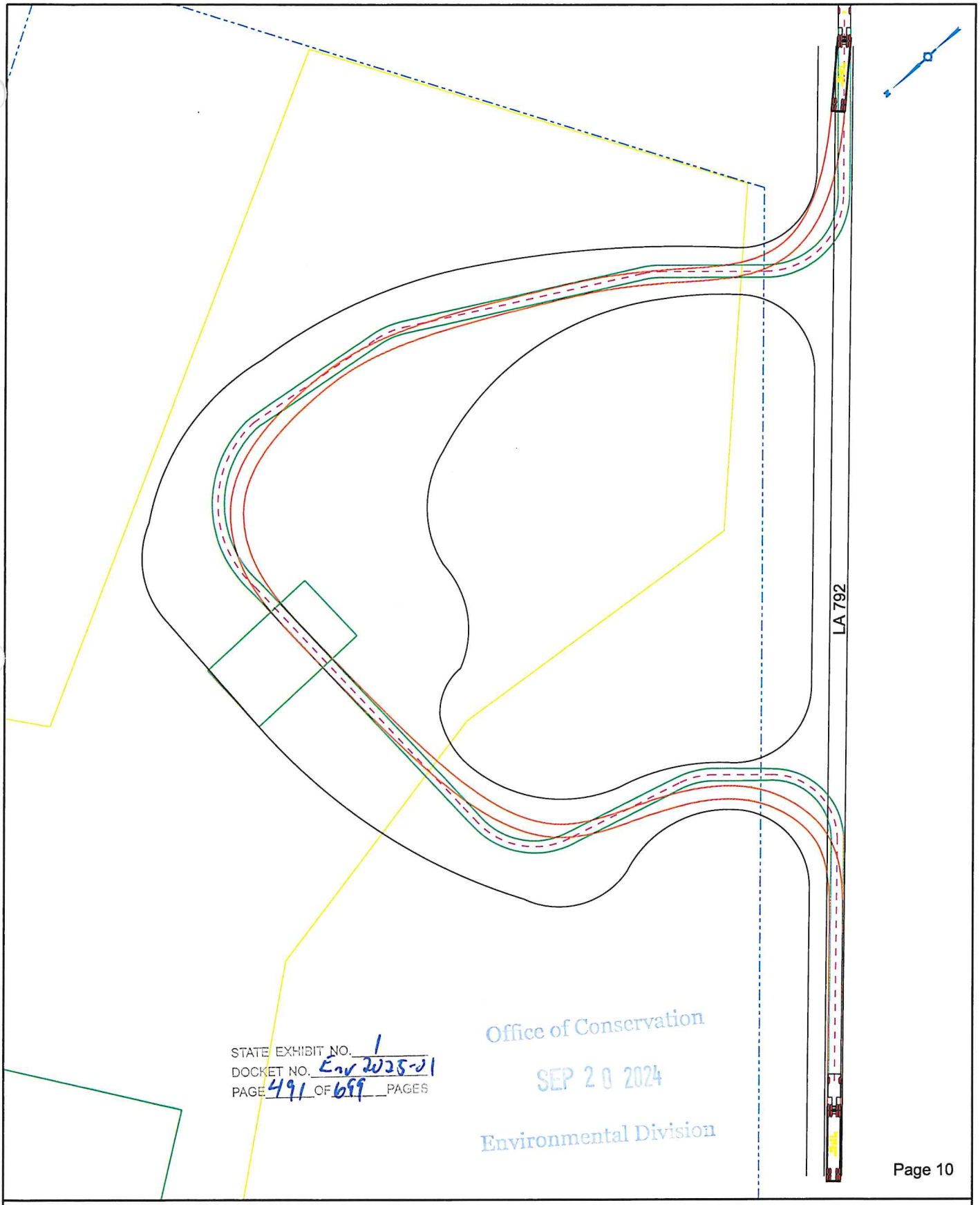

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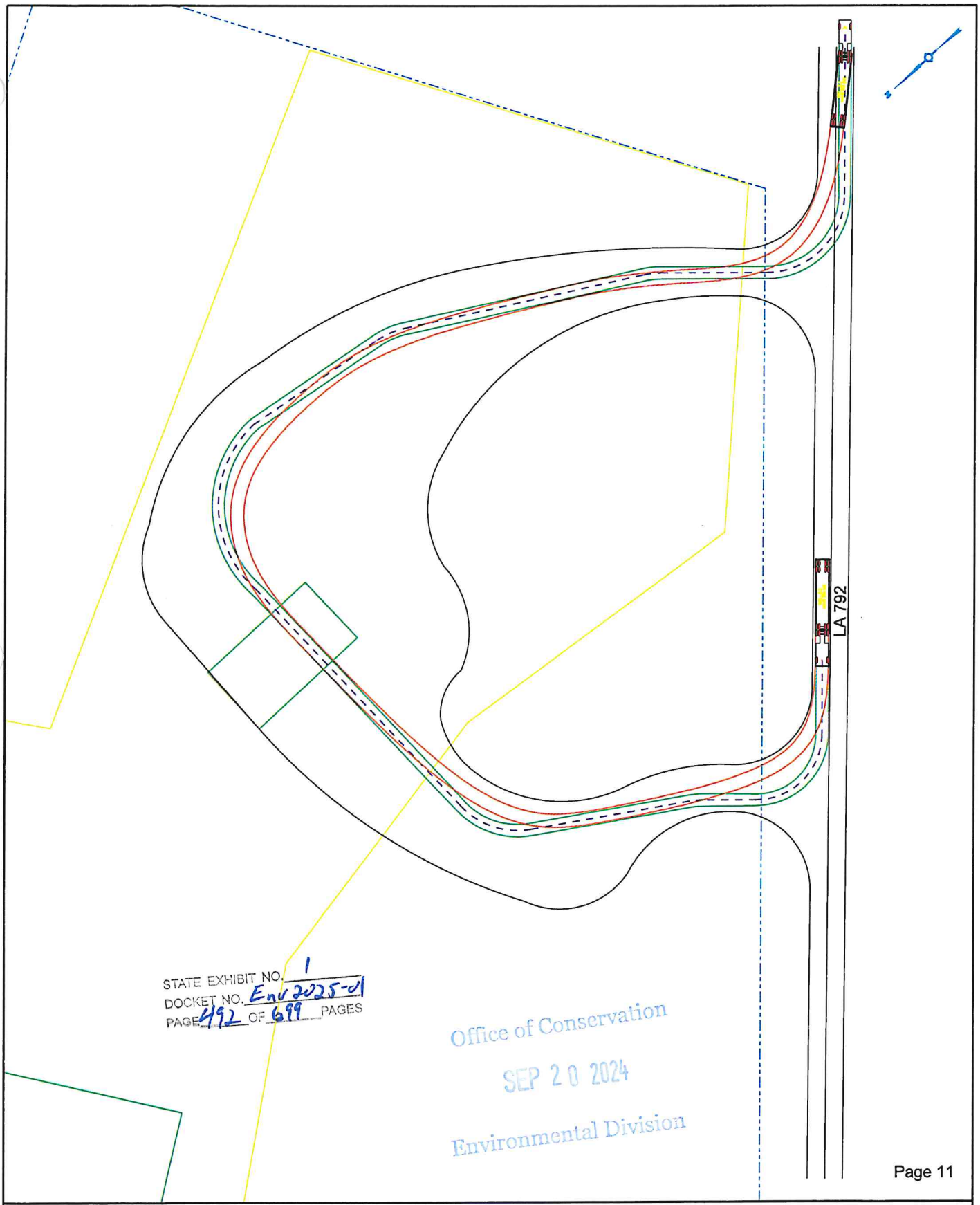
FIGURE 6

AuroTurn Analyses

Entering from the north and Exiting to the south

BIENVILLE PARISH

NEEL-SCHAFFER
Solutions you can build upon



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Office of Conservation
SEP 20 2024
Environmental Division

FIGURE 7

AuroTurn Analyses

Entering from the south and Exiting to the south

BIENVILLE PARISH

NEEL-SCHAFFER
Solutions you can build upon

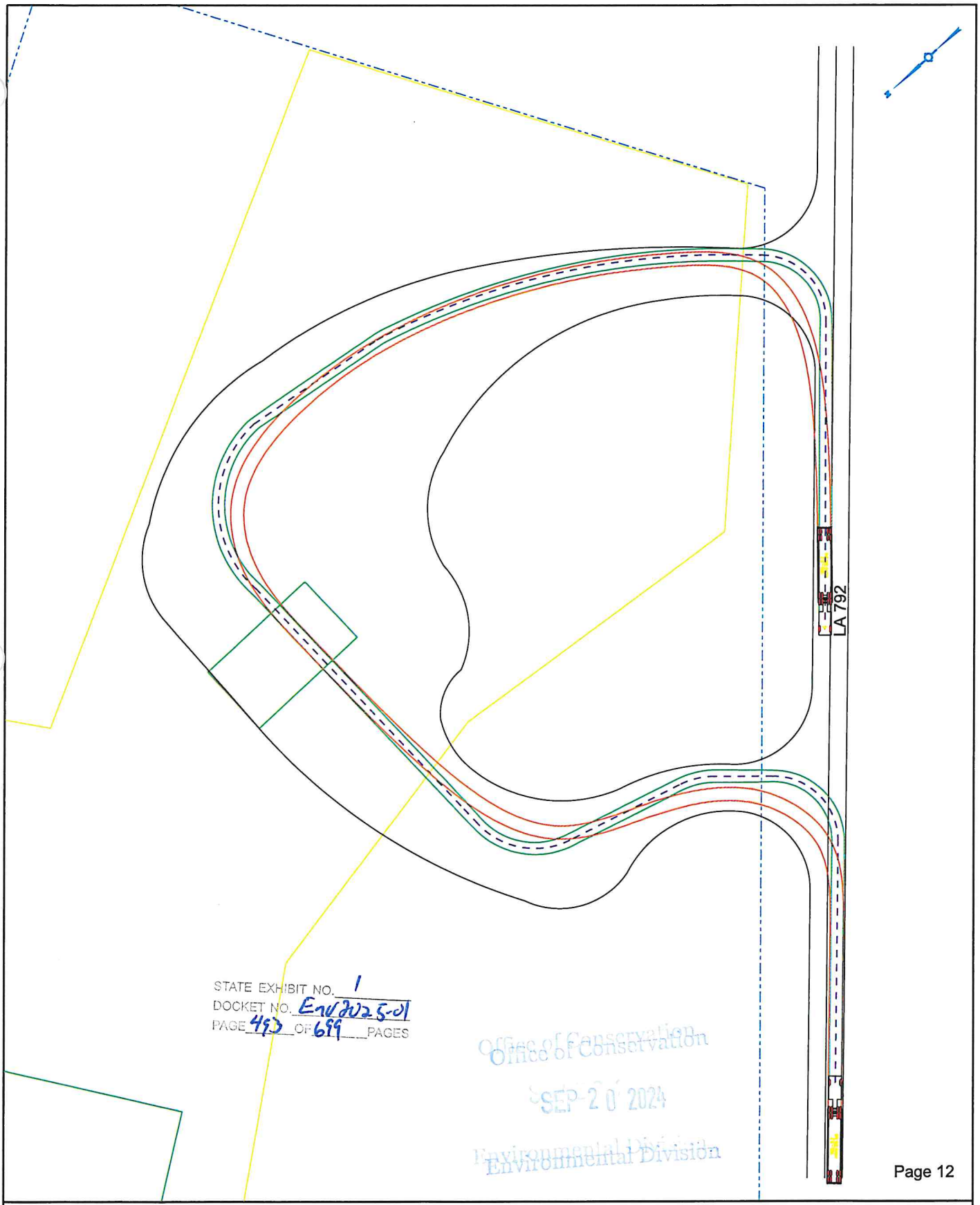

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FIGURE 8

AuroTurn Analyses

Entering from the north and Exiting to the north

BIENVILLE PARISH

NEEL-SCHAFFER
Solutions you can build upon

Conclusions

As proposed, the LA 792 commercial saltwater disposal facility will be located on the site of the old ACME Brick Company near Jamestown, LA.

The analyses performed as part of this study showed that the proposed SWD facility will not warrant turn lanes along LA 792, will have adequate sight distance, and will have a minimal impact on the flow of traffic along LA 792.

Based on the autoturn analyses, it is recommended that the entrance drive be at least 30 foot wide and have 50 foot radii and that the exit drive be at least 40 foot wide and have 50 foot radii.

Appendix

Turn Lane Analyses

NS.18638
LA 792 SWD Facility
NB Right Turn Lane Analysis - AM Peak
Build Conditions

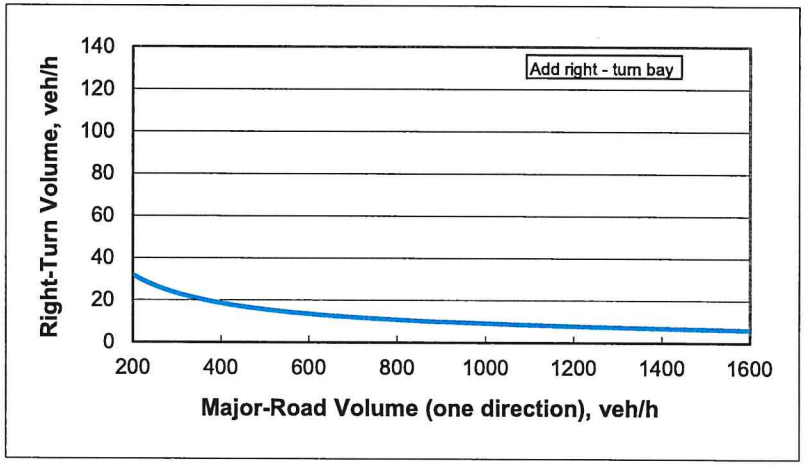
Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadway
Variable	Value
Major-road speed, mph:	55
Major-road volume (one direction), veh/h:	43
Right-turn volume, veh/h:	5

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	106
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



NS.18638
LA 792 SWD Facility
NB Right Turn Lane Analysis - PM Peak
Build Conditions

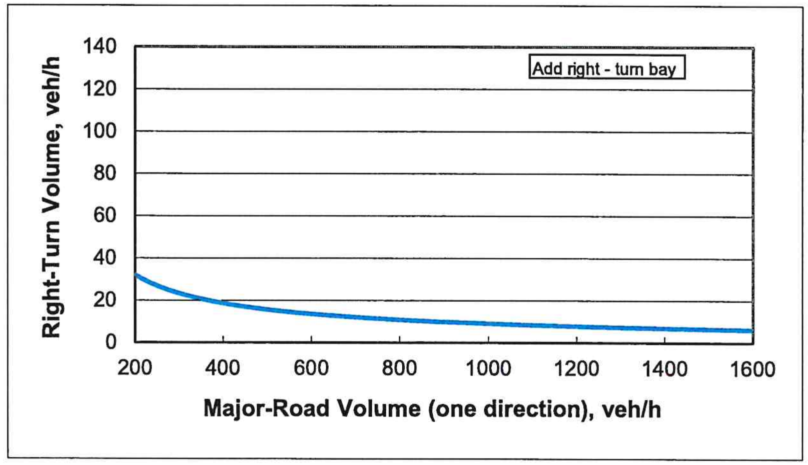
Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Variable	Value
Roadway geometry:	2-lane roadw ay
Major-road speed, mph:	55
Major-road volume (one direction), veh/h:	33
Right-turn volume, veh/h:	5

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	130
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



LA 792 SWD Facility
SB Left Turn Lane Analysis - AM Peak
Build Conditions

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

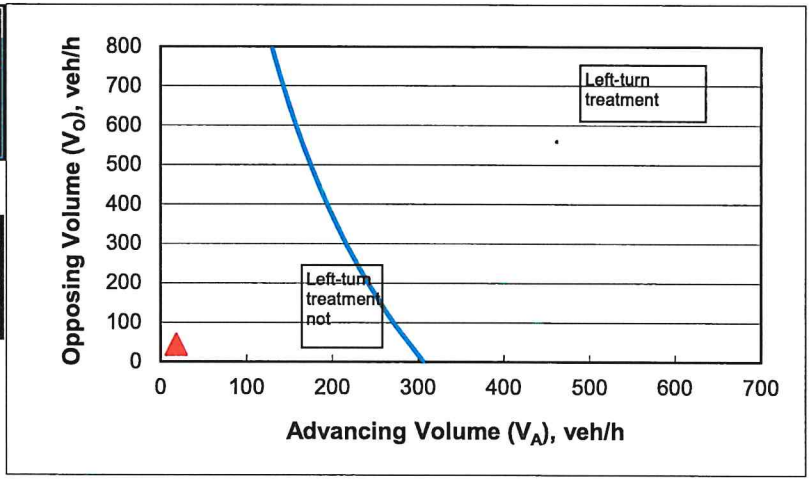
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	55
Percent of left-turns in advancing volume (V_A), %:	28%
Advancing volume (V_A), veh/h:	18
Opposing volume (V_O), veh/h:	43

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	291
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

LA 792 SWD Facility
SB Left Turn Lane Analysis - PM Peak
Build Conditions

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

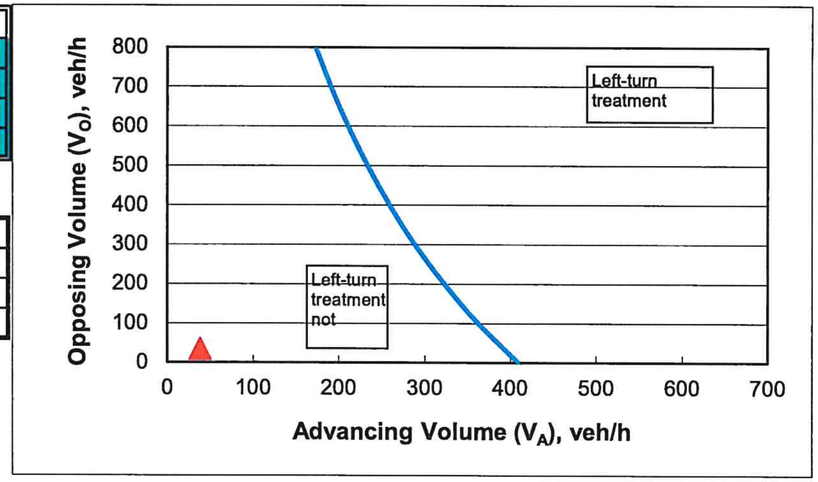
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	55
Percent of left-turns in advancing volume (V_A), %:	13%
Advancing volume (V_A), veh/h:	38
Opposing volume (V_O), veh/h:	33

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	393
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

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TWSC Analyses

HCS Two-Way Stop-Control Report

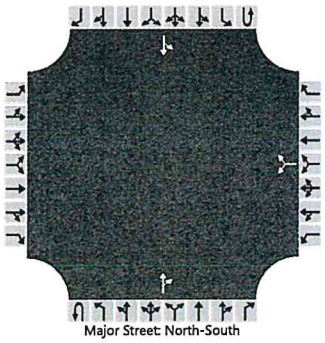
General Information

Analyst	C Adams
Agency/Co.	NSI
Date Performed	5/28/2024
Analysis Year	2024
Time Analyzed	AM Build
Intersection Orientation	North-South
Project Description	NS.18638_LA 792 SWD Trafic Study

Site Information

Intersection	LA 792 at site entrance
Jurisdiction	Bienville
East/West Street	SWD entrance
North/South Street	LA 792
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						5		5			38	5		5	13	
Percent Heavy Vehicles (%)						100		100						100		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						7.40		7.20						5.10		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						4.40		4.20						3.10		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							11							5		
Capacity, c (veh/h)							769							1109		
v/c Ratio							0.01							0.00		
95% Queue Length, Q_{95} (veh)							0.0							0.0		
Control Delay (s/veh)							9.7							8.3	0.0	
Level of Service (LOS)							A							A	A	
Approach Delay (s/veh)						9.7								2.3		
Approach LOS						A								A		

HCS Two-Way Stop-Control Report

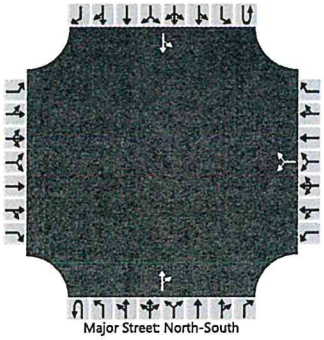
General Information

Analyst	C Adams
Agency/Co.	NSI
Date Performed	5/28/2024
Analysis Year	2024
Time Analyzed	PM Build
Intersection Orientation	North-South
Project Description	NS.18638_LA 792 SWD Trafic Study

Site Information

Intersection	LA 792 at site entrance
Jurisdiction	Bienville
East/West Street	SWD entrance
North/South Street	LA 792
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						5		5			28	5		5	33	
Percent Heavy Vehicles (%)						100		100						100		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						7.40		7.20						5.10		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						4.40		4.20						3.10		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							11							5		
Capacity, c (veh/h)							769							1121		
v/c Ratio							0.01							0.00		
95% Queue Length, Q_{95} (veh)							0.0							0.0		
Control Delay (s/veh)							9.8							8.2	0.0	
Level of Service (LOS)							A							A	A	
Approach Delay (s/veh)					9.8								1.1			
Approach LOS					A								A			

48 Hour Volumes

Neel-Schaffer, Inc.
10000 Perkins Rowe, Suite G360
Baton Rouge, LA 70810
Solutions You Can Build Upon

Site Code: NS18638

Start Date: 5/7/2024
End Date: 5/8/2024

Location 1: LA-792
Location 2: SWD

5/7/2024 Time	NB	SB	Total
12:00 AM	1	2	3
12:15	1	0	1
12:30	0	1	1
12:45	0	0	0
1:00	0	0	0
1:15	0	0	0
1:30	0	0	0
1:45	0	0	0
2:00	0	0	0
2:15	1	0	1
2:30	0	0	0
2:45	0	0	0
3:00	0	0	0
3:15	0	0	0
3:30	0	1	1
3:45	0	1	1
4:00	1	0	1
4:15	2	0	2
4:30	0	0	0
4:45	3	0	3
5:00	4	0	4
5:15	2	2	4
5:30	3	1	4
5:45	3	1	4
6:00	7	1	8
6:15	6	1	7
6:30	11	1	12
6:45	7	1	8
7:00	6	3	9
7:15	11	4	15
7:30	8	4	12
7:45	7	1	8
8:00	6	3	9
8:15	3	1	4
8:30	7	1	8
8:45	5	1	6
9:00	4	0	4
9:15	3	1	4
9:30	3	3	6
9:45	4	8	12
10:00	2	3	5
10:15	2	3	5
10:30	4	3	7
10:45	2	1	3
11:00	5	2	7
11:15	5	2	7
11:30	9	1	10
11:45	1	0	1
Total	149	58	207
Percent	72.0%	28.0%	
Peak	6:30	9:30	6:30
Volume	35	17	44
Peak Factor	0.795	0.531	0.733

Neel-Schaffer, Inc.
10000 Perkins Rowe, Suite G360
Baton Rouge, LA 70810
Solutions You Can Build Upon

Site Code: NS18638

Start Date: 5/7/2024
End Date: 5/8/2024

Location 1: LA-792
Location 2: SWD

5/7/2024 Time	NB	SB	Total
12:00 PM	6	4	10
12:15	5	1	6
12:30	4	4	8
12:45	2	1	3
1:00	3	4	7
1:15	3	4	7
1:30	1	3	4
1:45	2	5	7
2:00	2	8	10
2:15	3	7	10
2:30	3	1	4
2:45	3	2	5
3:00	3	7	10
3:15	9	10	19
3:30	12	9	21
3:45	1	3	4
4:00	4	7	11
4:15	3	10	13
4:30	5	8	13
4:45	10	7	17
5:00	6	11	17
5:15	3	10	13
5:30	2	9	11
5:45	1	6	7
6:00	2	9	11
6:15	1	2	3
6:30	1	8	9
6:45	1	5	6
7:00	0	8	8
7:15	4	8	12
7:30	3	2	5
7:45	0	7	7
8:00	2	5	7
8:15	1	5	6
8:30	1	2	3
8:45	0	2	2
9:00	0	0	0
9:15	0	1	1
9:30	0	2	2
9:45	0	2	2
10:00	0	0	0
10:15	0	0	0
10:30	0	0	0
10:45	0	0	0
11:00	0	3	3
11:15	1	0	1
11:30	0	0	0
11:45	0	2	2
Total	113	214	327
Percent	34.6%	65.4%	
Peak	2:45	4:45	4:15
Volume	27	37	60
Peak Factor	0.563	0.841	0.882

Neel-Schaffer, Inc.
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Solutions You Can Build Upon

Site Code: NS18638

Start Date: 5/7/2024
End Date: 5/8/2024

Location 1: LA-792
Location 2: SWD

5/8/2024 Time	NB	SB	Total
12:00 AM	0	0	0
12:15	0	0	0
12:30	0	0	0
12:45	0	0	0
1:00	0	0	0
1:15	0	1	1
1:30	0	0	0
1:45	0	1	1
2:00	0	0	0
2:15	1	0	1
2:30	0	0	0
2:45	0	0	0
3:00	0	0	0
3:15	0	0	0
3:30	0	0	0
3:45	1	0	1
4:00	0	0	0
4:15	1	0	1
4:30	2	0	2
4:45	4	1	5
5:00	3	0	3
5:15	5	0	5
5:30	0	1	1
5:45	6	1	7
6:00	5	3	8
6:15	7	2	9
6:30	12	1	13
6:45	13	2	15
7:00	9	1	10
7:15	7	2	9
7:30	9	8	17
7:45	7	0	7
8:00	6	0	6
8:15	6	2	8
8:30	5	7	12
8:45	4	5	9
9:00	6	0	6
9:15	5	4	9
9:30	6	3	9
9:45	6	1	7
10:00	4	2	6
10:15	3	2	5
10:30	5	1	6
10:45	3	4	7
11:00	2	1	3
11:15	4	2	6
11:30	2	3	5
11:45	1	0	1
Total	160	61	221
Percent	72.4%	27.6%	
Peak	6:15	8:30	6:45
Volume	41	16	51
Peak Factor	0.788	0.571	0.750

Neel-Schaffer, Inc.
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Baton Rouge, LA 70810
Solutions You Can Build Upon

Site Code: NS18638

Start Date: 5/7/2024
End Date: 5/8/2024

Location 1: LA-792
Location 2: SWD

5/8/2024 Time	NB	SB	Total
12:00 PM	4	2	6
12:15	3	4	7
12:30	4	6	10
12:45	6	3	9
1:00	3	5	8
1:15	2	4	6
1:30	3	5	8
1:45	3	1	4
2:00	3	4	7
2:15	1	2	3
2:30	3	2	5
2:45	5	7	12
3:00	4	6	10
3:15	6	3	9
3:30	5	4	9
3:45	6	1	7
4:00	5	9	14
4:15	5	7	12
4:30	4	12	16
4:45	9	8	17
5:00	9	6	15
5:15	6	7	13
5:30	1	17	18
5:45	3	12	15
6:00	1	7	8
6:15	5	10	15
6:30	0	2	2
6:45	0	2	2
7:00	2	9	11
7:15	1	2	3
7:30	5	2	7
7:45	2	3	5
8:00	1	7	8
8:15	2	6	8
8:30	4	2	6
8:45	0	5	5
9:00	1	0	1
9:15	0	3	3
9:30	0	5	5
9:45	2	3	5
10:00	1	3	4
10:15	1	0	1
10:30	0	2	2
10:45	0	1	1
11:00	0	1	1
11:15	0	1	1
11:30	0	0	0
11:45	0	0	0
Total	131	213	344
Percent	38.1%	61.9%	
Peak	4:30	5:30	4:45
Volume	28	46	63
Peak Factor	0.778	0.676	0.875
Grand Total	553	546	1099
Percent	50.3%	49.7%	
AADT		ADT: 550	AADT: 550

Neel-Schaffer, Inc.
10000 Perkins Rowe, Suite G360
Baton Rouge, LA 70810
Solutions You Can Build Upon

Site Code: NS18638

Start Date: 5/7/2024
End Date: 5/8/2024

Location 1: LA-792
Location 2: SWD
Direction: NB

5/7/2024 Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total
00:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
00:15	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:15	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	1	2	0	0	0	0	0	0	0	0	0	0	0	3
	0	3	3	0	0	0	0	0	0	0	0	0	0	0	6
05:00	1	1	0	0	1	0	0	1	0	0	0	0	0	0	4
05:15	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2
05:30	0	1	2	0	0	0	0	0	0	0	0	0	0	0	3
05:45	0	1	2	0	0	0	0	0	0	0	0	0	0	0	3
	1	4	4	0	2	0	0	1	0	0	0	0	0	0	12
06:00	0	2	2	0	3	0	0	0	0	0	0	0	0	0	7
06:15	0	3	2	0	1	0	0	0	0	0	0	0	0	0	6
06:30	0	8	3	0	0	0	0	0	0	0	0	0	0	0	11
06:45	0	4	1	0	2	0	0	0	0	0	0	0	0	0	7
	0	17	8	0	6	0	0	0	0	0	0	0	0	0	31
07:00	0	5	1	0	0	0	0	0	0	0	0	0	0	0	6
07:15	0	8	1	0	1	1	0	0	0	0	0	0	0	0	11
07:30	0	5	1	0	0	0	0	2	0	0	0	0	0	0	8
07:45	0	1	3	1	2	0	0	0	0	0	0	0	0	0	7
	0	19	6	1	3	1	0	2	0	0	0	0	0	0	32
08:00	0	2	3	0	1	0	0	0	0	0	0	0	0	0	6
08:15	0	2	0	0	1	0	0	0	0	0	0	0	0	0	3
08:30	0	3	4	0	0	0	0	0	0	0	0	0	0	0	7
08:45	0	1	3	0	0	0	0	0	1	0	0	0	0	0	5
	0	8	10	0	2	0	0	0	1	0	0	0	0	0	21
09:00	0	2	1	0	1	0	0	0	0	0	0	0	0	0	4
09:15	0	1	2	0	0	0	0	0	0	0	0	0	0	0	3
09:30	0	2	0	0	1	0	0	0	0	0	0	0	0	0	3
09:45	0	3	1	0	0	0	0	0	0	0	0	0	0	0	4
	0	8	4	0	2	0	0	0	0	0	0	0	0	0	14
10:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
10:15	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
10:30	0	2	2	0	0	0	0	0	0	0	0	0	0	0	4
10:45	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
	0	6	3	1	0	0	0	0	0	0	0	0	0	0	10
11:00	0	1	1	0	3	0	0	0	0	0	0	0	0	0	5
11:15	0	4	0	0	1	0	0	0	0	0	0	0	0	0	5
11:30	0	4	2	0	2	1	0	0	0	0	0	0	0	0	9
11:45	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
	0	9	4	0	6	1	0	0	0	0	0	0	0	0	20
Total	1	74	42	2	22	2	0	3	3	0	0	0	0	0	149
Percent	0.7%	49.7%	28.2%	1.3%	14.8%	1.3%	0.0%	2.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Neel-Schaffer, Inc.
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Solutions You Can Build Upon

Site Code: NS18638

Start Date: 5/7/2024
End Date: 5/8/2024

Location 1: LA-792
Location 2: SWD
Direction: NB

5/7/2024 Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total
12:00	0	2	3	0	1	0	0	0	0	0	0	0	0	0	6
12:15	0	1	3	0	1	0	0	0	0	0	0	0	0	0	5
12:30	0	1	2	0	1	0	0	0	0	0	0	0	0	0	4
12:45	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
	0	6	8	0	3	0	0	0	0	0	0	0	0	0	17
13:00	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3
13:15	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
13:30	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
13:45	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
	0	6	3	0	0	0	0	0	0	0	0	0	0	0	9
14:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2
14:15	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
14:30	0	0	1	0	2	0	0	0	0	0	0	0	0	0	3
14:45	0	0	2	0	1	0	0	0	0	0	0	0	0	0	3
	1	3	4	0	3	0	0	0	0	0	0	0	0	0	11
15:00	0	1	1	0	0	0	0	1	0	0	0	0	0	0	3
15:15	0	5	1	0	2	0	0	1	0	0	0	0	0	0	9
15:30	0	6	3	0	3	0	0	0	0	0	0	0	0	0	12
15:45	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
	0	12	6	0	5	0	0	2	0	0	0	0	0	0	25
16:00	0	3	1	0	0	0	0	0	0	0	0	0	0	0	4
16:15	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3
16:30	0	2	1	0	1	0	0	1	0	0	0	0	0	0	5
16:45	0	5	5	0	0	0	0	0	0	0	0	0	0	0	10
	0	12	8	0	1	0	0	1	0	0	0	0	0	0	22
17:00	0	2	3	0	0	0	0	1	0	0	0	0	0	0	6
17:15	0	0	2	0	1	0	0	0	0	0	0	0	0	0	3
17:30	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
17:45	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
	0	3	6	0	1	0	0	2	0	0	0	0	0	0	12
18:00	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
18:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
18:30	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
18:45	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
	0	3	2	0	0	0	0	0	0	0	0	0	0	0	5
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:15	0	1	2	0	1	0	0	0	0	0	0	0	0	0	4
19:30	0	2	0	0	0	0	0	1	0	0	0	0	0	0	3
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	3	2	0	1	0	0	1	0	0	0	0	0	0	7
20:00	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
20:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
20:30	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
20:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	1	1	0	2	0	0	0	0	0	0	0	0	0	4
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
23:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	1	50	40	0	16	0	0	6	0	0	0	0	0	0	113
Percent	0.9%	44.2%	35.4%	0.0%	14.2%	0.0%	0.0%	5.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Neel-Schaffer, Inc.
10000 Perkins Rowe, Suite G360
Baton Rouge, LA 70810
Solutions You Can Build Upon

Site Code: NS18638

Start Date: 5/7/2024
End Date: 5/8/2024

Location 1: LA-792
Location 2: SWD
Direction: NB

5/8/2024 Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total
00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
04:30	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2
04:45	0	2	2	0	0	0	0	0	0	0	0	0	0	0	4
	0	2	2	0	2	0	0	1	0	0	0	0	0	0	7
05:00	0	0	1	0	2	0	0	0	0	0	0	0	0	0	3
05:15	0	2	1	0	0	1	0	0	1	0	0	0	0	0	5
05:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45	0	3	1	0	2	0	0	0	0	0	0	0	0	0	6
	0	5	3	0	4	1	0	0	1	0	0	0	0	0	14
06:00	0	0	3	0	2	0	0	0	0	0	0	0	0	0	5
06:15	0	6	1	0	0	0	0	0	0	0	0	0	0	0	7
06:30	0	8	4	0	0	0	0	0	0	0	0	0	0	0	12
06:45	0	4	4	0	5	0	0	0	0	0	0	0	0	0	13
	0	18	12	0	7	0	0	0	0	0	0	0	0	0	37
07:00	0	6	1	0	1	1	0	0	0	0	0	0	0	0	9
07:15	0	4	1	0	1	0	0	1	0	0	0	0	0	0	7
07:30	0	7	1	0	0	0	0	0	1	0	0	0	0	0	9
07:45	0	4	1	0	2	0	0	0	0	0	0	0	0	0	7
	0	21	4	0	4	1	0	1	1	0	0	0	0	0	32
08:00	0	2	1	1	1	0	0	1	0	0	0	0	0	0	6
08:15	0	4	2	0	0	0	0	0	0	0	0	0	0	0	6
08:30	0	3	2	0	0	0	0	0	0	0	0	0	0	0	5
08:45	0	3	1	0	0	0	0	0	0	0	0	0	0	0	4
	0	12	6	1	1	0	0	1	0	0	0	0	0	0	21
09:00	0	2	3	0	0	0	0	0	1	0	0	0	0	0	6
09:15	0	2	2	0	1	0	0	0	0	0	0	0	0	0	5
09:30	0	3	2	0	1	0	0	0	0	0	0	0	0	0	6
09:45	0	3	3	0	0	0	0	0	0	0	0	0	0	0	6
	0	10	10	0	2	0	0	0	1	0	0	0	0	0	23
10:00	0	3	1	0	0	0	0	0	0	0	0	0	0	0	4
10:15	0	0	2	1	0	0	0	0	0	0	0	0	0	0	3
10:30	0	3	0	0	2	0	0	0	0	0	0	0	0	0	5
10:45	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3
	0	8	4	1	2	0	0	0	0	0	0	0	0	0	15
11:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
11:15	0	1	2	0	0	1	0	0	0	0	0	0	0	0	4
11:30	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
11:45	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
	0	4	4	0	0	1	0	0	0	0	0	0	0	0	9
Total	0	80	46	2	22	3	0	3	4	0	0	0	0	0	160
Percent	0.0%	50.0%	28.8%	1.3%	13.8%	1.9%	0.0%	1.9%	2.5%	0.0%	0.0%	0.0%	0.0%	0.0%	

Neel-Schaffer, Inc.
10000 Perkins Rowe, Suite G360
Baton Rouge, LA 70810
Solutions You Can Build Upon

Site Code: NS18638

Start Date: 5/7/2024
End Date: 5/8/2024

Location 1: LA-792
Location 2: SWD
Direction: NB

5/8/2024 Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total
12:00	0	2	1	0	0	0	0	1	0	0	0	0	0	0	4
12:15	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3
12:30	0	2	1	0	1	0	0	0	0	0	0	0	0	0	4
12:45	0	2	2	0	1	0	0	0	1	0	0	0	0	0	6
	0	8	5	0	2	0	0	1	1	0	0	0	0	0	17
13:00	0	2	0	0	1	0	0	0	0	0	0	0	0	0	3
13:15	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
13:30	0	1	1	0	0	0	0	0	1	0	0	0	0	0	3
13:45	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3
	0	6	3	0	1	0	0	0	1	0	0	0	0	0	11
14:00	0	1	0	0	2	0	0	0	0	0	0	0	0	0	3
14:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
14:30	0	1	2	0	0	0	0	0	0	0	0	0	0	0	3
14:45	0	3	2	0	0	0	0	0	0	0	0	0	0	0	5
	0	6	4	0	2	0	0	0	0	0	0	0	0	0	12
15:00	0	0	2	0	1	0	0	1	0	0	0	0	0	0	4
15:15	0	2	2	0	1	0	0	1	0	0	0	0	0	0	6
15:30	0	2	1	0	1	1	0	0	0	0	0	0	0	0	5
15:45	0	2	1	0	3	0	0	0	0	0	0	0	0	0	6
	0	6	6	0	6	1	0	2	0	0	0	0	0	0	21
16:00	0	2	2	1	0	0	0	0	0	0	0	0	0	0	5
16:15	0	2	2	0	1	0	0	0	0	0	0	0	0	0	5
16:30	0	2	2	0	0	0	0	0	0	0	0	0	0	0	4
16:45	0	1	7	0	1	0	0	0	0	0	0	0	0	0	9
	0	7	13	1	2	0	0	0	0	0	0	0	0	0	23
17:00	0	6	1	0	2	0	0	0	0	0	0	0	0	0	9
17:15	0	3	3	0	0	0	0	0	0	0	0	0	0	0	6
17:30	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
17:45	0	1	1	0	1	0	0	0	0	0	0	0	0	0	3
	0	10	6	0	3	0	0	0	0	0	0	0	0	0	19
18:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
18:15	0	4	1	0	0	0	0	0	0	0	0	0	0	0	5
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	4	1	0	1	0	0	0	0	0	0	0	0	0	6
19:00	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2
19:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
19:30	0	2	2	0	1	0	0	0	0	0	0	0	0	0	5
19:45	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
	0	6	2	0	2	0	0	0	0	0	0	0	0	0	10
20:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
20:15	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2
20:30	1	2	0	0	1	0	0	0	0	0	0	0	0	0	4
20:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2	2	2	0	1	0	0	0	0	0	0	0	0	0	7
21:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
	0	1	2	0	0	0	0	0	0	0	0	0	0	0	3
22:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
22:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
22:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	57	44	1	21	1	0	3	2	0	0	0	0	0	131
Percent	1.5%	43.5%	33.6%	0.8%	16.0%	0.8%	0.0%	2.3%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	
Grand Total	4	261	172	5	81	6	0	15	9	0	0	0	0	0	553
Percent	0.7%	47.2%	31.1%	0.9%	14.6%	1.1%	0.0%	2.7%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%	

STATE EXHIBIT NO. 1
DOCKET NO. Env 2025-01
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Office of Conservation
SEP 20 2024
Environmental Division

Neel-Schaffer, Inc.
10000 Perkins Rowe, Suite G360
Baton Rouge, LA 70810
Solutions You Can Build Upon

Site Code: NS18638

Start Date: 5/7/2024
End Date: 5/8/2024

Location 1: LA-792
Location 2: SWD
Direction: SB

5/7/2024 Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total
00:00	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
03:45	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
05:30	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
05:45	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	0	0	0	1	3	0	0	0	0	0	0	0	0	0	4
06:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
06:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
06:30	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
06:45	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
	0	3	0	0	1	0	0	0	0	0	0	0	0	0	4
07:00	0	2	0	0	0	0	0	1	0	0	0	0	0	0	3
07:15	0	2	2	0	0	0	0	0	0	0	0	0	0	0	4
07:30	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
07:45	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
	0	8	3	0	0	0	0	1	0	0	0	0	0	0	12
08:00	0	0	1	1	1	0	0	0	0	0	0	0	0	0	3
08:15	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
08:30	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:45	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
	0	2	2	1	1	0	0	0	0	0	0	0	0	0	6
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
09:30	0	1	1	0	1	0	0	0	0	0	0	0	0	0	3
09:45	0	3	2	0	3	0	0	0	0	0	0	0	0	0	8
	0	5	3	0	4	0	0	0	0	0	0	0	0	0	12
10:00	0	1	1	0	0	0	0	1	0	0	0	0	0	0	3
10:15	0	0	2	0	1	0	0	0	0	0	0	0	0	0	3
10:30	0	1	1	0	1	0	0	0	0	0	0	0	0	0	3
10:45	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
	0	2	5	0	2	0	0	1	0	0	0	0	0	0	10
11:00	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2
11:15	0	0	1	0	1	0	0	0	0	0	0	0	0	0	2
11:30	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	1	0	3	0	0	0	1	0	0	0	0	0	5
Total	0	24	15	2	14	0	0	2	1	0	0	0	0	0	58
Percent	0.0%	41.4%	25.9%	3.4%	24.1%	0.0%	0.0%	3.4%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%	

Neel-Schaffer, Inc.
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Solutions You Can Build Upon

Site Code: NS18638

Start Date: 5/7/2024
End Date: 5/8/2024

Location 1: LA-792
Location 2: SWD
Direction: SB

5/7/2024 Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total
12:00	0	3	0	0	1	0	0	0	0	0	0	0	0	0	4
12:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
12:30	0	3	0	0	1	0	0	0	0	0	0	0	0	0	4
12:45	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
	0	7	0	0	3	0	0	0	0	0	0	0	0	0	10
13:00	0	2	2	0	0	0	0	0	0	0	0	0	0	0	4
13:15	0	1	1	0	1	0	0	1	0	0	0	0	0	0	4
13:30	0	0	2	0	1	0	0	0	0	0	0	0	0	0	3
13:45	0	2	1	0	2	0	0	0	0	0	0	0	0	0	5
	0	5	6	0	4	0	0	1	0	0	0	0	0	0	16
14:00	0	5	0	0	2	0	0	0	1	0	0	0	0	0	8
14:15	0	3	2	0	2	0	0	0	0	0	0	0	0	0	7
14:30	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
14:45	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
	0	11	2	0	4	0	0	0	1	0	0	0	0	0	18
15:00	1	4	1	0	1	0	0	0	0	0	0	0	0	0	7
15:15	0	3	5	0	2	0	0	0	0	0	0	0	0	0	10
15:30	0	3	1	0	3	0	0	1	1	0	0	0	0	0	9
15:45	0	0	1	1	1	0	0	0	0	0	0	0	0	0	3
	1	10	8	1	7	0	0	1	1	0	0	0	0	0	29
16:00	0	5	0	0	2	0	0	0	0	0	0	0	0	0	7
16:15	0	8	1	0	1	0	0	0	0	0	0	0	0	0	10
16:30	1	4	1	0	2	0	0	0	0	0	0	0	0	0	8
16:45	0	5	1	0	1	0	0	0	0	0	0	0	0	0	7
	1	22	3	0	6	0	0	0	0	0	0	0	0	0	32
17:00	0	4	6	0	1	0	0	0	0	0	0	0	0	0	11
17:15	0	6	3	0	1	0	0	0	0	0	0	0	0	0	10
17:30	0	4	5	0	0	0	0	0	0	0	0	0	0	0	9
17:45	0	2	1	0	3	0	0	0	0	0	0	0	0	0	6
	0	16	15	0	5	0	0	0	0	0	0	0	0	0	36
18:00	0	5	2	0	1	0	0	0	1	0	0	0	0	0	9
18:15	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
18:30	0	5	3	0	0	0	0	0	0	0	0	0	0	0	8
18:45	0	3	1	0	1	0	0	0	0	0	0	0	0	0	5
	0	14	7	0	2	0	0	0	1	0	0	0	0	0	24
19:00	0	2	5	0	1	0	0	0	0	0	0	0	0	0	8
19:15	0	1	4	0	3	0	0	0	0	0	0	0	0	0	8
19:30	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
19:45	0	4	2	0	1	0	0	0	0	0	0	0	0	0	7
	0	9	11	0	5	0	0	0	0	0	0	0	0	0	25
20:00	0	2	1	0	2	0	0	0	0	0	0	0	0	0	5
20:15	0	1	3	0	1	0	0	0	0	0	0	0	0	0	5
20:30	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2
20:45	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
	0	5	5	0	4	0	0	0	0	0	0	0	0	0	14
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
21:30	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2
21:45	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
	0	2	2	0	1	0	0	0	0	0	0	0	0	0	5
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3
23:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:45	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2
	0	3	1	0	1	0	0	0	0	0	0	0	0	0	5
Total	2	104	60	1	42	0	0	2	3	0	0	0	0	0	214
Percent	0.9%	48.6%	28.0%	0.5%	19.6%	0.0%	0.0%	0.9%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	

Neel-Schaffer, Inc.
10000 Perkins Rowe, Suite G360
Baton Rouge, LA 70810
Solutions You Can Build Upon

Site Code: NS18638

Start Date: 5/7/2024
End Date: 5/8/2024

Location 1: LA-792
Location 2: SWD
Direction: SB

5/8/2024 Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total
00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
05:45	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2
06:00	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3
06:15	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
06:30	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
06:45	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
	0	3	2	0	3	0	0	0	0	0	0	0	0	0	8
07:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:15	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
07:30	0	4	1	0	1	0	0	2	0	0	0	0	0	0	8
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	6	2	0	1	0	0	2	0	0	0	0	0	0	11
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
08:30	0	2	3	1	1	0	0	0	0	0	0	0	0	0	7
08:45	0	2	1	0	1	0	0	1	0	0	0	0	0	0	5
	0	5	5	1	2	0	0	1	0	0	0	0	0	0	14
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	1	3	0	0	0	0	0	0	0	0	0	0	0	4
09:30	0	2	0	0	1	0	0	0	0	0	0	0	0	0	3
09:45	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
	0	3	3	0	1	0	0	0	1	0	0	0	0	0	8
10:00	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
10:15	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2
10:30	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
10:45	0	3	1	0	0	0	0	0	0	0	0	0	0	0	4
	0	4	2	0	2	0	0	0	1	0	0	0	0	0	9
11:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
11:15	0	0	1	0	0	0	0	0	1	0	0	0	0	0	2
11:30	0	1	1	0	1	0	0	0	0	0	0	0	0	0	3
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	2	2	0	1	0	0	0	1	0	0	0	0	0	6
Total	0	24	16	2	12	0	0	4	3	0	0	0	0	0	61
Percent	0.0%	39.3%	26.2%	3.3%	19.7%	0.0%	0.0%	6.6%	4.9%	0.0%	0.0%	0.0%	0.0%	0.0%	

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Office of Conservation
SEP 20 2024
Environmental Division

Neel-Schaffer, Inc.
10000 Perkins Rowe, Suite G360
Baton Rouge, LA 70810
Solutions You Can Build Upon

de: NS18638

ation 1: LA-792
cation 2: SWD
Direction: SB

Start Date: 5/7/2024
End Date: 5/8/2024

5/8/2024 Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	No Class	Total
12:00	0	0	1	0	1	0	0	0	0	0	0	0	0	0	2
12:15	0	1	2	0	0	0	0	1	0	0	0	0	0	0	4
12:30	0	5	1	0	0	0	0	0	0	0	0	0	0	0	6
12:45	0	0	2	0	0	0	0	0	1	0	0	0	0	0	3
	0	6	6	0	1	0	0	1	1	0	0	0	0	0	15
13:00	0	3	2	0	0	0	0	0	0	0	0	0	0	0	5
13:15	0	1	1	0	2	0	0	0	0	0	0	0	0	0	4
13:30	0	3	2	0	0	0	0	0	0	0	0	0	0	0	5
13:45	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
	0	8	5	0	2	0	0	0	0	0	0	0	0	0	15
14:00	0	2	1	0	1	0	0	0	0	0	0	0	0	0	4
14:15	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
14:30	0	1	0	0	0	0	0	1	0	0	0	0	0	0	2
14:45	0	3	0	0	3	0	0	0	1	0	0	0	0	0	7
	1	7	1	0	4	0	0	1	1	0	0	0	0	0	15
15:00	0	2	3	0	1	0	0	0	0	0	0	0	0	0	6
15:15	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3
15:30	0	2	2	0	0	0	0	0	0	0	0	0	0	0	4
15:45	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	0	6	6	1	1	0	0	0	0	0	0	0	0	0	14
16:00	0	5	1	0	3	0	0	0	0	0	0	0	0	0	9
16:15	0	1	4	0	2	0	0	0	0	0	0	0	0	0	7
16:30	1	7	0	0	4	0	0	0	0	0	0	0	0	0	12
16:45	0	6	0	0	2	0	0	0	0	0	0	0	0	0	8
	1	19	5	0	11	0	0	0	0	0	0	0	0	0	36
17:00	0	3	2	0	0	0	0	1	0	0	0	0	0	0	6
17:15	0	2	2	0	3	0	0	0	0	0	0	0	0	0	7
17:30	0	13	3	0	0	0	0	1	0	0	0	0	0	0	17
17:45	0	7	2	0	3	0	0	0	0	0	0	0	0	0	12
	0	25	9	0	6	0	0	2	0	0	0	0	0	0	42
18:00	0	2	4	0	1	0	0	0	0	0	0	0	0	0	7
18:15	0	7	1	0	1	0	0	1	0	0	0	0	0	0	10
18:30	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
18:45	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
	0	11	7	0	2	0	0	1	0	0	0	0	0	0	21
19:00	0	1	5	0	3	0	0	0	0	0	0	0	0	0	9
19:15	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
19:30	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
19:45	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3
	0	6	7	0	3	0	0	0	0	0	0	0	0	0	16
20:00	1	0	3	0	2	0	0	0	1	0	0	0	0	0	7
20:15	0	2	3	0	1	0	0	0	0	0	0	0	0	0	6
20:30	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
20:45	0	3	2	0	0	0	0	0	0	0	0	0	0	0	5
	1	7	8	0	3	0	0	0	1	0	0	0	0	0	20
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:15	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3
21:30	0	0	4	0	1	0	0	0	0	0	0	0	0	0	5
21:45	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3
	0	4	6	0	1	0	0	0	0	0	0	0	0	0	11
22:00	0	1	1	0	1	0	0	0	0	0	0	0	0	0	3
22:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:30	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2
22:45	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
	0	2	1	0	3	0	0	0	0	0	0	0	0	0	6
23:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
23:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
23:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
Total	3	102	62	1	37	0	0	5	3	0	0	0	0	0	213
Percent	1.4%	47.9%	29.1%	0.5%	17.4%	0.0%	0.0%	2.3%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	
Grand Total	5	254	153	6	105	0	0	13	10	0	0	0	0	0	546
Percent	0.9%	46.5%	28.0%	1.1%	19.2%	0.0%	0.0%	2.4%	1.8%	0.0%	0.0%	0.0%	0.0%	0.0%	

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Office of Conservation
SEP 20 2024
Environmental Division