



THRASHER



SCOPE OF WORK SENECA 4F PROJECT

Multiple Orphan Well Sites

Seneca County

Jackson and Loudon Townships

PROJECT DESCRIPTION

FEDERAL FUNDED PROJECT:

Note: This project will be FEDERALLY FUNDED. Contractors/subcontractors shall comply with additional requirements related to this project being federally funded.

The Seneca 4F Project shall include the following wells:

Well Name	API Number	County	Township	GPS Latitude	GPS Longitude
Ashland Farms 1	34-147-6-0452-00-00	Seneca	Jackson	41.252441	-83.310626
Frankhart 2	34-147-6-0700-00-00	Seneca	Jackson	41.197875	-83.406299
Jerald 2	34-147-6-1157-00-00	Seneca	Jackson	41.197878	-83.404848
Good 7	34-147-6-1150-00-00	Seneca	Jackson	41.215037	-83.383837
Good 9	34-147-6-1152-00-00	Seneca	Jackson	41.212405	-83.383866
Good 11	34-147-6-0627-00-00	Seneca	Jackson	41.214893	-83.385595
Good 1	34-147-6-1144-00-00	Seneca	Jackson	41.217361	-83.387042
Good 3	34-147-6-1146-00-00	Seneca	Jackson	41.215953	-83.387025
Good 6	34-147-6-1149-00-00	Seneca	Jackson	41.214478	-83.387029
Good 8	34-147-6-1151-00-00	Seneca	Jackson	41.213189	-83.387063
Good 5	34-147-6-1148-00-00	Seneca	Jackson	41.214031	-83.388653
Good 5 Water Well	N/A	Seneca	Jackson	41.214120	-83.388629
Good 2	34-147-6-1145-00-00	Seneca	Jackson	41.215875	-83.390365
Good 4	34-147-6-1147-00-00	Seneca	Jackson	41.214317	-83.390347
Good 10	34-147-6-1153-00-00	Seneca	Jackson	41.211166	-83.390431
Jerald 3	34-147-6-1158-00-00	Seneca	Jackson	41.197909	-83.401476
Jerald 1	34-147-6-1156-00-00	Seneca	Jackson	41.199117	-83.401480
Kleinfelter Farms 1	34-147-6-1196-00-00	Seneca	Jackson	41.206521	-83.361904
Miller 2	34-147-6-1160-00-00	Seneca	Jackson	41.198279	-83.398389
Mike Painter 1	34-147-6-1188-00-00	Seneca	Loudon	41.144259	-83.357604
Richard Crawford 1	34-147-6-1107-00-00	Seneca	Jackson	41.231923	-83.350946
Tyler 1	34-147-6-0666-00-00	Seneca	Jackson	41.216116	-83.363217
Tyler 2	34-147-6-0667-00-00	Seneca	Jackson	41.214804	-83.364613
Shultz 2	34-147-6-0671-00-00	Seneca	Jackson	41.216089	-83.364688
Waltermier Irvin 3	34-147-2-0038-00-00	Seneca	Jackson	41.202787	-83.398382
Miller 1	34-147-6-1159-00-00	Seneca	Jackson	41.199711	-83.398554

ACCESS ENTRANCE: Ashland Farms 1

GPS Location: 41.254463, -83.310650

ACCESS ENTRANCE: Frankhart 2

GPS Location: 41.197835, -83.405597

ACCESS ENTRANCE: Jerald 2

GPS Location: 41.197776, -83.405532

ACCESS ENTRANCE: Good 1, 2, 3, 4, 5, 5 Water Well, 6, 7, 8, 9, 10, & 11

GPS Location: 41.217881, -83.389279

ACCESS ENTRANCE: Jerald 1 & 3

GPS Location: 41.196055, -83.401200

ACCESS ENTRANCE: Kleinfelter Farms 1

GPS Location: 41.207019, -83.352634

ACCESS ENTRANCE: Miller 2

GPS Location: 41.196067, -83.398203

ACCESS ENTRANCE: Mike Painter 1

GPS Location: 41.144121, -83.357006

ACCESS ENTRANCE: Richard Crawford 1

GPS Location: 41.231930, -83.352548

ACCESS ENTRANCE: Tyler 1 & 2, Shultz 2

GPS Location: 41.217943, -83.364355

ACCESS ENTRANCE: Irvin Waltermier 3 & Miller 1

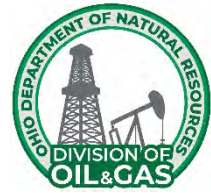
GPS Location: 41.203316, -83.398382

PROJECT SCOPE OF WORK:

This project includes the development of well locations, plugging the orphan wells, removal of flow lines and production equipment, and site restoration.



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**SCOPE OF WORK
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Jackson and Loudon Townships**

GENERAL SCOPE OF WORK

The Contractor, the Contractor's agents, representatives, and subcontractors shall perform this Plugging Project in accordance with Ohio Revised Code 1509, Ohio Administrative Code Chap. 1501:9-11 and 1501:9-12, the Agreement, and in accordance with the following documents that are attached hereto and made a part hereof:

1. Project Description;
2. General Scope of Work;
3. Davis-Bacon Wage Requirements;
4. General Conditions;
5. General Specifications;
6. Sequence of Work;
7. Well Description;
8. Plugging Plan;
9. Detailed Specifications;
10. Appendix I – Ohio One-Call;
11. Appendix II – Well Records;
12. Appendix III – Permits
13. Quantity Sheet;
14. & Drawing Plan Set.
15. Davis-Bacon Wage Determination

Subject to the Contractor's compliance with this Scope of Work, Contractor is solely responsible for and has control over all plugging and reclamation construction means, methods, manners, techniques, sequences, and procedures, for safety precautions and programs in connection with the Plugging Project, and for coordinating all portions of the Plugging Project.



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DAVIS-BACON WAGE REQUIREMENTS

PART 1: PAYMENT OF PREVAILING WAGES

- 1.1 The Contractor/Subcontractor shall pay the prevailing wage rates of the Project locality, as determined by the U.S. Secretary of Labor, to laborers and mechanics performing Work on the Project.
- 1.2 The Contractor/Subcontractor shall comply with the provisions, duties, obligations, and is subject to the remedies and penalties of 40 U.S.C. parts 3141-3144, 3146 3147; 42 U.S.C. part 3212 The Davis- Bacon Act; and 40 U.S.C. parts 3701-3708 The Contract Work Hours and Safety Standards Act.
- 1.3 The Contractor/Subcontractor shall submit all payroll reports in compliance with the requirements of Section 1.2 for all employees.
- 1.4 By executing a Contract, the Contractor/Subcontractor certifies that it based its Bid upon the prevailing rates of wages as ascertained by the U.S. Secretary of Labor.
- 1.5 The Contractor/Subcontractor may access the U.S. Secretary of Labor at its website, **<https://sam.gov/content/wage-determinations>**, to obtain the current wage rates. A copy of the current wage rates is included herein.

PART 2: PAYROLL SCHEDULE

- 2.1 Within 10 days of the date of the Notice to Proceed, the Contractor/Subcontractor shall provide the Contracting Authority's Prevailing Wage Coordinator a schedule of dates during the term of the Contract on which wages shall be paid to employees for the Project.

PART 3: PAYROLL REPORTS

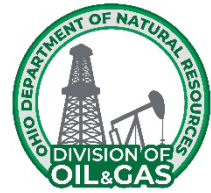
- 3.1 The Contractor/Subcontractor shall submit payroll reports with each Payment Request, which reports shall be certified by the Contractor/Subcontractor that the payroll is correct and complete, and that the wage rates shown are not less than those required by the Contract.
 - 3.1.1 Each payroll report shall indicate the period covered and include a list containing the name, address, and last four digits of the social security number of each employee of the Contractor/Subcontractor paid for the Work.
 - 3.1.2 Each payroll report shall list the number of hours each employee worked each day on the Project during the reporting period, the total hours each day on the Project per job classification, the total hours each week on the Project, the employee's hourly rate of pay,

job classification, hourly rate of fringe benefits, all deductions from wages and net pay (actual wages paid).

- 3.1.3 Each payroll report shall list each fringe benefit and state if it is paid as cash to the employee or to a named plan.
- 3.1.4 The Contractor/Subcontractor shall submit apprenticeship agreements for all apprentices utilized on the Project.
- 3.2 The Contractor/Subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the Contract for all laborers and mechanics, including guards and watchmen, working on the Contract.
- 3.3 The records to be maintained under this paragraph shall be made available by the Contractor/Subcontractor for inspection, copying, or transcription by authorized representatives of the Contracting Authority and the U.S. Department of Labor, and the Contractor or Subcontractor will permit such representatives to interview employees during working hours on the job.
- 3.4 Payroll report submittal shall be made via software designated by the Division.



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GENERAL CONDITIONS

PART 1: OHIO DEPARTMENT OF TRANSPORTATION SPECIFICATIONS

This Seneca 4F Project (Project) references the Ohio Department of Transportation (ODOT) Construction and Material Specifications (ODOT CMS). Any reference to these specifications is to ODOT's most current version of the specifications. The ODOT CMS can be found at

<https://www.dot.state.oh.us/Divisions/ConstructionMgt/OnlineDocs/Pages/2023-Online-Spec-Book.aspx>

PART 2: PRE-SITE MEETING

The Contractor or a Contractor's representative must attend the pre-site meeting. A contractor representative may only be a representative for one DAS pre-qualified contractor on a project.

Failure to attend the pre-site meeting is grounds for the Division to reject the Contractor's Offer. A Contractor or Contractor's representative must be present for the entire pre-site meeting to be considered in attendance.

The Ohio Department of Natural Resources, Division of Oil & Gas Resources Management (Division) intends to begin the pre-site meeting on time. At the meeting, the Division will circulate and collect attendance sign-in forms to all contractors or contractors' representatives present. Only those contractors or contractors' representatives in attendance throughout the pre-site meeting, including the discussion of the Scope of Work, will be considered present for the pre-site meeting.

PART 3: MODIFICATIONS TO THE SCOPE OF WORK PRIOR TO AWARD

The Scope of Work may only be altered by written modification. The Division may issue an Amendment to the Scope of Work and will provide notification of the Amendment by email to all Department of Administrative Services (DAS) pre-qualified Contractors. Each Contractor is responsible for logging into OhioBuys and submitting an offer that is responsive to all Amendments issued. All offers submitted prior to an Amendment being issued shall become null/void and not be considered in the opening. All Amendments shall become part of the Scope of Work.

Any interpretation or clarification of the Scope of Work made by any person other than the Division, or in any manner other than a written Amendment, is not binding and the Contractor cannot rely upon any such interpretation or clarification.

The Contractor cannot, at any time after the award of the Scope of Work, be compensated for any issue with the Scope of Work, including alleging insufficient data, incomplete, ambiguous, conflicting, or erroneous language, or incorrectly assumed conditions regarding the nature or character of the work.

PART 4: PERMIT AND INSPECTION REQUIREMENTS

The Division will obtain and pay for all building and U.S. Army Corps of Engineers permits unless otherwise specified in the Detailed Specifications. However, the Contractor shall determine and include in the Contractor's Offer Sheet the costs required to obtain and pay for all other requirements by the applicable governmental agencies; including but not limited to, all certificates of inspection/operation, guarantees, licenses, etc. required to complete the work as described within this document. The contractor shall follow all applicable laws and permit requirements, the Division will not be held responsible for damages that result from violation of laws or permits.

PART 5: INSTRUCTIONS FOR PREPARING AN OFFER

A Contractor's offer must be submitted online through **OhioBuys**. (<https://procure.ohio.gov/bidders-and-suppliers>). **All offers submitted prior to an Amendment being issued shall automatically become null/void and not be considered in the opening.**

Offers shall include labor, equipment, and material cost plus a proportionate share of the Contractor's overhead costs, other indirect costs, and anticipated profit. The offer must be mathematically and materially balanced. A "mathematically unbalanced offer" is an offer containing lump sum or unit price items that do not include reasonable labor, equipment, and material costs plus a reasonable proportionate share of the Contractor's overhead costs, other indirect costs, and anticipated profit. A mathematically unbalanced offer typically contains token prices (i.e. \$1 prices), front loadings, or prices with large variations from the engineer's estimate. A "materially unbalanced offer" is a mathematically unbalanced offer that will not result in the lowest ultimate cost to the Division.

During the Division's initial review of offers, if the Division finds an offer may be mathematically unbalanced, the Contractor may be required to submit proof of the mathematically unbalanced line items' proposed cost within 24 hours after notification from the Division. At a minimum, a Contractor may be required to submit copies of all material/rental quotes, intended labor costs (hours/rates), and contract agreements with subcontractors to support their offer. If the Contractor fails to submit the required proof, the Contractor's offer shall be deemed withdrawn from consideration. The Division shall evaluate the documentation and may verify quotes with vendors. After a review of the documentation, the Division will reject any offer it determines is mathematically and materially unbalanced.

A DAS pre-qualified Contractor shall not submit offers on a project in which the contractor has committed as a subcontractor, who will perform more than 50 percent of the project as a subcontractor, to another DAS pre-qualified Contractor submitting an offer on the same project. Any DAS pre-qualified Contractor who submits an offer and will not self-perform more than 50 percent of the work shall self-report to the Project Engineer in writing prior to award the project's subcontractors and each subcontractor's percent award of the project. Any DAS pre-qualified Contractor who submits an offer shall supply upon request to the Project Engineer the project's subcontractors and each subcontractor's percent award of the project. Substitution of subcontractors after award shall be per the DAS contract. A DAS pre-qualified Contractor who will perform more than 50 percent of the work on a project as a subcontractor will have this project considered when reviewing whether the Contractor is behind schedule for awarding work. Additionally, when the Division is considering if a Contractor is behind schedule, all Orphan Well Program work and deadlines will be considered (Construction Manager at Risk subconsultant work and Landowner Pass-through Payment Program).

A Contractor shall maintain an up-to-date schedule on file with the Division that sets forth dates by which the Contractor will plug each well that the Division previously awarded to the Contractor. A Contractor

shall update their work schedule as often as necessary to maintain a current schedule with the Division. To be awarded new contracts, the Contractor must be able to complete all previously awarded work within the due dates set in each contract with the Division. Upon request, a Contractor shall provide an up-to-date schedule to the Division that reflects when all awarded work will be completed.

Please note that a Contractor's offer must be submitted online through OhioBuys.

1. Refer to the Scope of Work posted in OhioBuys with this solicitation.
2. **Only Contractors who are pre-qualified to offer this service on an existing State Contract beginning with CSP900-922 (DAS Index No. MAC110) may respond to this solicitation.** All CSP900922 Contract Terms & Conditions apply to this solicitation. No additional terms and conditions will be accepted. The Division will reject Offers from any Contractor that is not pre-qualified.
3. Completion of the grid is required and will be considered the response for evaluation. No outside or additional documentation will be considered.
4. Fixed prices will be automatically added to Contractor's proposals when shown. Contractors are not to enter pricing for fixed price items.
5. Confirm that your offer has been successfully imported into OhioBuys for all items before submitting. Incomplete offers and/or attachments will not be evaluated.
6. The most recent offer submitted in OhioBuys will be the offer that is evaluated, all prior offers submitted in the same solicitation will not be evaluated.
7. **The Contractor or Contractor's representative must attend the pre-site meeting.** Failure to attend the site meeting is grounds for the Division to reject the Contractor's Offer.

PART 6: DIVISION'S OFFER SELECTION

Except when the Division rejects an offer, the Division will select the lowest offer submitted to the Division. The Division may reject an offer if any one of the following applies to the Contractor's offer:

- Is not submitted online through **OhioBuys**;
- Fixed reference prices and/or any other imported information is incorrectly and/or not imported into **OhioBuys**;
- Is conditional;
- Is a mathematically unbalanced offer and a materially unbalanced offer;
- Is behind schedule on other projects with the Division;
- Is not able to schedule this project within the contract due dates.
- Is committed to perform more than 50 percent of the work on this project as a subcontractor to another DAS pre-qualified Contractor on the project;
- Is a prime Contractor who has more than 50 percent of the work committed by a subcontractor who also submitted an offer as prime Contractor; or
- Failed to identify prior to award project subcontractors and their percent award upon request.

PART 7: WITHDRAW OF OFFERS

At any time prior to the opening of the Offers, a Contractor may submit a written request to the Division, at the location where the Offers are received, to withdraw its Offer. The request to withdraw the Offer must be signed by the person who executed the Offer.

PART 8: EFFECTIVE DATE AND TERM

The effective date of this Project is the date of the Letter to Proceed that is sent to the Contractor. The Contractor must start work at the project site within nineteen (19) months of the end of the contract and the Contractor shall continue diligently working toward the completion of the project once work has commenced. The Project must be completed **nineteen (19) months after the effective date** or by June 30, 2027, whichever is sooner. If the Project terminates on June 30, 2027 and the Project is not completed, the Scope of Work may be renewed on the same terms if the Division sends written notice to the Contractor.

Floodplain – No work within a floodplain shall be permitted from November 15th through June 30th.

Tree clearing shall be completed prior to March 31, 2026.

Areas of tall grasses should be avoided between April 15th to July 31st, unless a ground nesting bird survey is performed by the Division.

If necessary, winter work shall be required to complete this Project within the required term.

Failure to complete work by the contract due dates may result in the suspension or termination of the contract and may result in the Division pursuing the Suspension and Termination and/or the Contract Remedies sections defined in the MAC 110 contract.

PART 9: TERMINATION AT WILL

The Division may terminate this Scope of Work without cause. Any payment due to the Contractor at the time of termination by the Division shall be paid to the Contractor on a pro rata basis.

PART 10: RELATIONSHIP BETWEEN COMPONENTS OF THE SCOPE OF WORK

This Scope of Work includes drawings that are duplicates of drawings on file with the Division. The Scope of Work documents are complementary. All sections of the Scope of Work are binding. The titles and headings in the Scope of Work are for reference and in no way affect the interpretation of the provisions of the Scope of Work. Further, if any part of this Scope of Work is found to be unenforceable, no such event will affect the enforceability or applicability of any other part of the Scope of Work.

If a conflict between the drawings and the specifications arises, the Contractor must notify the Division. In the event of a conflict of any provision in the Scope of Work the order of priority within the Scope of Work is as follows: Drawings, Detailed Specifications, General Specifications, Plugging Plan, and Sequence of Work.

PART 11: CONTRACTOR'S RESPONSIBILITY FOR SUBCONTRACTORS

The Contractor is responsible for the conduct of its subcontractors and for persons its subcontractors directly or indirectly employ.

PART 12: USE OF DOMESTIC STEEL AND BUY AMERICAN ACT **(For Federally Funded Projects only)**

For infrastructure projects that utilize federal funds, the contractor and subcontractors shall comply with Executive Order No. 14005 Ensuring the Future Is Made in All of America by All of America's Workers; the Code of Federal Regulations Title 2, Subtitle A, Chapter I, Part 184; U.S.C. 52.225-11 Buy American-Construction Materials under Trade Agreements (Nov 2023) clause; and Buy America Preferences for Infrastructure Projects and the Infrastructure and Jobs Act (Public Law 117-58) Division D, Title IX, Subtitle A, Part I, Buy America Sourcing Requirements. The Contractor and subcontractors are required by law to supply domestically produced iron or steel products, manufactured products, and construction materials such as non-ferrous metals (steel, iron, aluminum), plastics, PVC pipe, glass, fiber optic cable, optical fiber, engineered wood, and lumber products for infrastructure on all projects funded in whole or in part with federal funds. The Infrastructure, Investment, and Jobs Act (Public Law 117-58) Division D, Title IX, Subtitle A, Part I, Buy America Sourcing Requirements exempts cement, cementitious materials, aggregates such as stone, sand, gravel, or aggregate binding agents or additives from these requirements.

PART 13: STANDARDS

If the Division identifies a "standard" by reference to manufacturer and/or model number, all offers will be evaluated to ensure that the identified standard is used. The Division will not consider an offer in which a substitution for the standard is offered. After the Letter to Proceed is issued, the Contractor may submit a written proposal for a substitution of a standard.

PART 14: SUBSTITUTIONS DURING THE PROJECT

After the Letter to Proceed is issued, the Contractor may offer substitutions for the standards set forth in the Scope of Work. The decision to allow substitution is solely within the discretion of the Division, which will consider, among other factors, availability, time of delivery, the aesthetic value of the proposed substitution, general differences in the knowledge of the product, service history, quality, efficiency, performance, and architectural, engineering, inspection, testing and administrative expenses. Any changes to the Offer price and/or Scope of Work must be memorialized by a Field Order or Change Order, as applicable. The savings in cost in allowing any substitutions during the Project will be solely to the benefit of the Division.

PART 15: QUANTITIES OF WORK

15.1 Unit Price Items

For items in the Offer that require a unit price, the quantities listed on the Offer Sheet are an approximation and are to be used only for the comparison of offers. The scheduled quantities may be increased or decreased without invalidating or altering the Offer and will be considered within the Scope of Work.

Payments for unit price items will be made to the Contractor for actual quantities of work performed and materials furnished in accordance with the Scope of Work; however, the Contractor may not exceed the unit quantities shown on the Offer Sheet without prior written approval of the Division through a Field Order. Even if the Contractor determines that additional unit priced quantities (above and beyond the original Offer Sheet quantity) are required to meet plan and/or specification dimensions, the Contractor must not exceed the Offer Sheet quantities without prior written approval of the Division. The Division will not pay for quantities above and beyond the Offer Sheet quantity without prior written approval of the Division.

15.2 Lump Sum Items

For items in the Offer Sheet that require a lump sum price, the Division will not pay for work, materials, or equipment that exceeds the amount provided by the Contractor on the Offer Sheet. The lump sum price on the Offer Sheet must include all work, materials, and equipment necessary to properly complete the Project.

15.3 Additional/Contingency Items

The contingency items set forth in the Offer Sheet are not projected as necessary to complete the Project. Rather, the contingency items will first be used when unforeseen work arises, and the Division determines the contingency item is applicable. To be compensated for contingency items, the Contractor must have a written Field Order from the Division authorizing the contingency item in a specified quantity. Use of contingency items will not require the execution of a Change Order. The Contractor must be prepared to supply all items identified in the contingency specifications for use on this Project.

PART 16: OMISSIONS IN THE SCOPE OF WORK

If the Contractor notices an error or omission in the Scope of Work during performance of the Project, the Contractor shall immediately notify the Division of such omission or error and shall not proceed with the Project until directed by the Division. Any work performed by the Contractor prior to clarification by the Division may not be entitled to compensation.

PART 17: INTERPRETATIONS CONCERNING THE SCOPE OF WORK

During the Project, if a question arises on the Scope of Work, the labor or materials to be supplied, or costs potentially exceeding the Contractor's Offer, such questions must, prior to the work being performed, be submitted to the Division for a determination. A Division determination will be issued in writing and any work performed prior to such a determination will be performed at no cost to the Division. The Division will also begin executing a Change Order, when appropriate.

If the Division receives a written question concerning the Project, the Division will determine if the work must be performed by the Contractor at no increase in price to the Scope of Work. If so, the Division will issue a Field Order setting forth the Division's determination. Each Field Order issued must be signed by the Contractor acknowledging receipt. If the Contractor disagrees with the Division's interpretation in a Field Order, the Contractor may submit a protest by certified mail to the Chief within ten (10) days following the date of issuance of the protested Field Order. However, the Contractor must immediately proceed with the instructions given in the issued Field Order.

If, upon receipt of a written protest of a Field Order, the Division determines that the work referred to in the protest is outside the Scope of Work, the Division will not issue a Field Order and instead will issue a Change Order.

Field Orders, which are interpretations of the requirements of the Scope of Work, may be issued by the Division at any time during the performance of the work. The Contractor, at all times, is required to immediately execute the instructions of all issued Field Orders, which includes acknowledgment and signature of issued Field Order documents.

PART 18: CHANGES IN THE SCOPE OF WORK

18.1 The Division's Right to Require Change Orders

The Division may issue a Change Order directing the Contractor to immediately perform extra work that differs from the Scope of Work. The Contractor shall perform the work as directed. The changes in the work will consist of additions, deletions, or other revisions. When the Contractor performs the work, the Offer amount will be adjusted as described within this Scope of Work.

If the Contractor protests the issuance of the Change Order, any such protest has no bearing on any work requirements arising out of the Change Order in that the Contractor must immediately perform the work required in the Change Order so as not to delay the progress of the work at the Project.

18.2 Unauthorized Work

Only work performed under the Scope of Work or work authorized by a Field Order or a Change Order is eligible for compensation. If the Contractor performs any work or purchases any materials without an approved, applicable Field Order or Change Order, such work performed, and purchases made are within the Scope of Work at no additional cost to the Division.

18.3 Contractor's May Request Change Orders

If the Contractor determines that the Scope of Work does not address conditions at the Project, the Contractor may provide written notice to the Division of the conditions and request a Change Order. No oral communications will be acceptable as justification for a Change Order.

Fishing/milling tools and associated appurtenances submitted as Change Order items shall be at cost. No markup on these items will be accepted by the Division.

18.4 Determining Price of a Proposed Change Order

The following methods will be used to determine the price of a proposed Change Order:

- a. If a Change Order involves items not listed on the Offer Sheet, the Contractor must present the Division with labor and/or material price quotes for the proposed Change Order item(s). The Division may request these quotes either in unit prices or as lump sums; or
- b. If the work involved in the Change Order is not definable, the Division may request the work be performed on a time and material basis and include a maximum amount to be paid for the work. The method will be based on unit prices for both labor and materials agreed to by the Division prior to the Contractor commencing the work.

18.5 Disputes Regarding Change Order Prices

If the Contractor and the Division cannot agree on the cost of the work for a Change Order, using site-specific information including, but not limited to, Division historic public offer information, the Division will determine and set a fair price for the work and materials that are the subject of the Change Order.

PART 19: PAY ESTIMATES

19.1 General Information

Payments issued to the Contractor as the work progresses are not acceptance of any portion of the work not completed in accordance with the Scope of Work nor do such payments relieve the Contractor of liability with respect to any obligation or any expressed or implied warranties or responsibilities for faulty materials or workmanship.

19.2 Required Review by the Division

Prior to the submittal of each invoice, the Contractor and the Division must meet at the Project site to review the Project progress. The Contractor and the Division's Project Representative must mutually agree on quantity and percentage of work completed for all offer items prior to submittal of each invoice. No invoice will be approved for work that has not been approved by the Division's Project Representative. Field verification of all lump sum quantities and weight slips for all unit price quantities invoiced must be submitted to the Division's Project Representative for review during the meeting.

All Field Orders and/or Change Orders issued prior to an invoice must be signed/acknowledge by the Contractor for the Division to consider an invoice for approval.

The Contractor's payment must be submitted to the division via the Orphan Well Project Management Contractor Portal (<https://dnr-ow-prod.powerappsportals.us/>). The invoice must include back up documentation. The Division will confirm the invoice is accurate.

For Federally Funded Projects: The Contractor/Subcontractor shall submit payroll reports with each Invoice. Payroll reports shall be completed according to Part 3 of the **Davis-Bacon Requirements** included in the Scope of Work.

Invoices received by the Division containing errors or requesting amounts that cannot be approved will be returned to the Contractor. The Contractor may resubmit an invoice after correcting errors.

19.3 Documents to be Submitted for Payment

With each request for payment the Contractor certifies that:

- a. The request for payment is accurate as to materials and the work completed under the terms and conditions of the Scope of Work and any Change Order, as applicable, including full compliance with all labor provisions; and
- b. All subcontractors and material suppliers have been paid for the work or materials that are applicable to all previous invoices. As certification, each request for payment, at the Division's request, may need to be accompanied with a properly executed "Waiver of Liens" from all subcontractors and material suppliers to show that all previous payments made by the Division to the Contractor have been applied to fulfill, in full, all of the Contractor's obligations reflected in prior requests for payment.

19.4 Effect of Liens on Invoices

All work, materials, and equipment covered by any request for payment, whether incorporated in the Project or not, will pass to the Division at the time of payment free and clear of all liens, claims, security interests and encumbrances.

If there is evidence of any lien or claim that is chargeable to the Contractor, the Division will withhold all payments due to the Contractor to secure such lien or claim. If there are any previous liens or claims after payments are made to the Contractor, the Contractor may be required to refund to the Division a sum of money equal to the sum of all monies that the Division may be compelled to pay in discharging any lien or claim as a result of the Contractor's default.

PART 20: RETAINAGE FOR FINAL RESTORATION

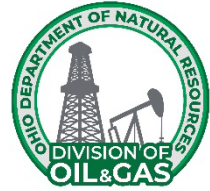
If the Scope of Work requires revegetation of disturbed area, the Division will retain five percent (5%) of the sum of (1) the Offer amount and (2) all approved Change Orders. The five percent (5%) amount retained shall be released once the Division completes a Final Restoration Inspection and determines that vegetation has reached final stabilization. "Final stabilization" means vegetation established in a uniform perennial vegetative cover and meets all requirements listed in the Detailed Specifications under "Site Restoration". "Final stabilization" also means that no large barren areas exist, and the vegetation is of an equal or better condition than before the project started. The Contractor must remove all temporary erosion and sediment controls once final stabilization is achieved.

PART 21: REDUCED GAS EMISSIONS CREDITS

No one may directly or indirectly use the reduced gas emissions from wells plugged with State of Ohio funds or Infrastructure, Investment and Jobs Act funds, in whole or in part, to monetize, generate, or collect credits to include but not be limited to carbon, methane, or fugitive emissions, or otherwise use the plugging of wells funded with State of Ohio funds or with Infrastructure, Investment and Jobs Act funds to generate income of any type by offsetting their own or another party's gas emissions.



THRASHER



**SCOPE OF WORK
SENECA 4F PROJECT
Multiple Orphan Well Sites
Seneca County
Jackson and Loudon Townships**

GENERAL SPECIFICATIONS

Unless there is a specific pay item in the Detailed Specifications, the work defined in the General Specification shall be incorporated into other items of work.

PART 1: HOURS OF WORK

The Contractor, the Contractor's agents, representatives, and subcontractors shall perform plugging projects during the days of Monday through Friday. Work will not be conducted on weekends or state/national holidays except with Division approval or during emergency situations. A workday is defined as eight (8) hours. However, additional hours may be worked with Division approval or during emergency situations.

PART 2: EQUIPMENT

The Contractor equipment shall pass all safety requirements of local, state, and federal agencies. The Ohio Department of Natural Resources, Division of Oil and Gas Resources Management reserves the right to inspect the equipment prior to the Recommendation of Award.

Unless otherwise noted, all equipment and materials required to complete the work described shall be provided by the Contractor.

PART 3: NOTIFICATIONS

3.1 Seven Working Day Notice

The Contractor shall log into the Orphan Well Project Management System (OWPMS) no less than seven (7) working days prior to commencement of work. Notice will be sent using the system and may be sent for each well that work will be started on at that time. This notice will allow the appropriate Division staff time to mark the approved access route and any sensitive areas that need to be left undisturbed.

The Contractor, the Contractor's agents, representatives, and sub-contractors shall contact each utility company that has utilities that directly affect plugging activities at the well location(s).

3.2 Public 48 Hour Notice

Prior to initiating well plugging operations, the Contractor shall give a minimum of 48-hour notice to the local fire department. Confirmation of this notification shall also be made to the Inspector or the Division Regional Office.

3.3 Emergency Notification

When emergency conditions are encountered, such as a release of hydrogen sulfide gas (H₂S), natural gas, crude oil, condensate, or brine that threatens human health, safety or the environment, as described in Ohio Administrative Code 1501:9-08-02, the Contractor shall notify the local fire department, the Local Emergency Planning Committee (LEPC) and call the 24/7 incident notification number: 1-844-OH-Call1 (1-844-642-2551) within 30 minutes of the occurrence.

3.4 Plugging Completion Notice

No sooner than three business days after emplacing the uppermost plug, the Division will review the well to determine if any additional plugging work shall be required at that time. If additional work is needed, a Field Order will be issued by the Division. The Field Order shall state what must be completed and what, if any, Change Orders shall be required. If additional work is not needed the contractor shall cut the casing as defined in the Plugging Plan and set the plugged well identification as outlined in these **General Specifications** and Ohio Administrative Code 1501-9-11-10.

PART 4: ACCESS AND PRESERVATION OF SITE

All costs for the adequate access to the well site for the plugging equipment shall be included in the Offer. Unless waived, placement of all tanks and equipment shall be subject to Division's approval. If requested by the Division, access roads will be chained or cabled to prevent unauthorized use.

Special attention shall be given to maintaining trees and other vegetation that have scenic value, provide shade, reduce erosion and runoff, or add to the aesthetics of the area. No trees three (3) inches or larger in diameter shall be removed without the Division's permission. Any alterations to the natural topography required to provide ingress and egress to the well site must be approved by the Division before work begins.

PART 5: DAMAGE CAUSED BY CONTRACTOR

All damage caused by the Contractor's negligence in carrying out of this scope of work to any public or private property of any nature whatsoever, including trees, shrubs, and crops, shall be corrected to Division's satisfaction at the expense of the Contractor. If crops are damaged and the Contractor, landowner, or tenant cannot reach a settlement, the County Cooperative Extension Service shall set a fair price for crop damages and the decision shall be final and binding upon all parties. All subsequent payments due the Contractor shall be withheld until the Contractor provides proof of payment of any such claim.

The Contractor shall be responsible for all costs of repairing or replacing any survey monument that is disturbed or destroyed by the Contractor. The Contractor shall utilize a professional surveyor who is licensed and registered by the State of Ohio to perform the re-establishment of said monuments according to the standards set forth by the governing body or law of said monument. For the purpose of this scope of work, the term survey monument shall apply to any property boundary marker, federal, state or county geodetic benchmark, state, or county right of way monument, FEMA benchmarks or flood elevation markers.

PART 6: SAFETY

6.1 Public Safety Coordination Meeting

The Contractor shall hold a safety meeting with the County EMA, local fire department, Division Emergency Operations staff and Inspector, and other applicable contracting staff prior to commencement of plugging activities. The meeting shall review 1) the safety of the public during

operations, 2) the safety of workers during operations, 3) emergency notifications of events, 4) site set up and layout, 5) general overview of operations, 6) nearest hospital's address and directions.

This meeting shall be led by the Contractor and is intended to be well specific. At the discretion of the Division, this requirement may be waived for the remaining wells should these wells be part of the same lease\property.

6.2 Daily Safety Meetings

The Contractor shall hold a daily safety meeting for all personnel on-site prior to the commencement of work. The Contractor shall provide and maintain a sign in/out sheet for all people on location. The Contractor shall immediately report any accidents and/or safety concerns to the Inspector.

6.3 Operational Standards

The Contractor shall follow the rules established by Occupational Safety and Health Administration (OSHA) Safety and Health Regulations for Construction 29 CFR 1926 and OSHA General Industry 29 CFR 1910 on all onsite project operations.

6.4 Excavation and Trenching Requirements

The Contractor shall follow the notification protocol as specified in Part 3 of the General Specifications before the start of any excavating activities. The Contractor will comply with OSHA Construction Standards for excavation and trenching under 29CFR 1926 Subpart P.

6.5 Hazardous Communications Requirements

The Contractor shall maintain Safety Data Sheets (SDS) for all chemicals stored and/or used. SDS sheets will be stored onsite with the Emergency Response Plan (ERP). A copy of SDS sheets and the ERP will be stored at the project entrance in a container labeled "ERP/SDS". A copy of all SDS will be supplied to the local Fire Department and/or to the Division when requested.

6.6 Site Security

The Contractor shall provide and install protective barriers/fencing around the work area to prevent unauthorized access. Ingress and Egress access must be maintained at all times.

6.7 Wind Direction Indicator

The Contractor shall install a windsock in an open area of the well location where it is visible to all onsite personnel. It shall be constructed of high visibility material and deployed no less than six (6) feet above grade during the plugging operations.

6.8 Muster and Smoking Areas

The Contractor shall mark and assign a primary and a secondary muster area daily upwind of the well location. These are to be determined based on prevailing wind direction, as indicated by the windsock. The Contractor will establish a safe location for a designated smoking area.

6.9 Ignition Sources and Parking Areas

The Contractor shall identify and mark all potential ignition sources within a 50-foot radius of the

well. The Contractor shall mitigate or remove as many ignition sources as possible from the working area. The designated parking area will be outside the 50-foot radius from the well.

6.10 Air Monitoring and Worker Safety

The Contractor shall supply and place a 4-gas monitor at the wellhead. The gas monitor must be calibrated and maintained to monitor Methane (CH₄), Oxygen (O₂), Carbon Monoxide (CO) and Hydrogen Sulfide (H₂S).

Stop work must be followed when any of the levels listed below occur:

- Methane - 1000 parts per million (ppm)/2% Lower Explosive Limit (LEL),
- Oxygen - saturation below 19.5% or above 23%,
- Carbon Monoxide – 50 ppm,
- Hydrogen Sulfide – 10 ppm.

The levels stated above are directly from the Occupational Safety and Health Administration (OSHA) and The National Institute for Occupational Safety and Health (NIOSH) and are standard for air monitoring procedures for safety and work environments. If any of the above levels are alarmed, all personnel will shut down ignition sources and report to the muster area.

Division Emergency Operations personnel or the Inspector has the right to stop work if the actions are unsafe or the actions cause or are likely to cause danger to the workers, public, or the environment.

PART 7: MAINTENANCE OF TRAFFIC

The Contractor shall at all times install, maintain, and operate all traffic and traffic control devices in conformance with the requirements of the "Ohio Manual of Uniform Traffic Control Devices for Streets and Highways," hereinafter called The Ohio Manual.

The Contractor shall notify the appropriate public officials and the Division and shall obtain all required permits prior to any lane closure of a public road.

The Contractor shall maintain ingress/egress to all properties associated with the project at all times during the project unless agreed upon in writing by the Division and the landowner.

7.1 STREET CLEANING

The Contractor shall be required to provide street cleaning services in order to remove sediment/debris tracked from the construction site/access drive onto private or public roadways during all phases of the Project.

The Contractor shall work diligently to minimize the amount of sediment tracked onto roadway. The Contractor will conduct all construction and ingress/egress operations in conformance with Part 9: Erosion and Sediment Control of the General Specifications. Use of other erosion and sediment control measures to prevent sediment runoff during period of rains and non-working hours.

The Contractor will provide street cleaning, such as sweeping or vacuuming, at locations around the project ingress/egress where plugging operations has caused tracking of sediments onto roadways. Mechanical sweepers shall be vacuum-type or regenerative sweepers. Sweeping speed will not exceed 6 mph. A minimum of two passes shall be made. Streets must be cleaned daily

before the end of the workday. If excess sediments have been tracked onto the streets or if rain is expected, the Division may direct the Contractor to clean the street as often as necessary to keep the street clean at all times.

The Contractor shall be required to remove and dispose of sediments properly. Removal of collected sediment deposits will be disposed on the project site. If sediment deposits cannot be disposed of on-site, an alternative location will be approved by the Division. No offsite disposal will be in or adjacent to a stream and/or floodplain. Sediments to be placed at the project site will be in conjunction with site restoration and should be spread, compacted, covered, and stabilized in accordance with the site restoration line item. **Sediment will not be allowed to flush into stream or drainage way and washing or flushing of sediments into adjacent drainage systems is prohibited.** If sediment has been contaminated, it will be disposed of in accordance with the contaminated material disposal line item.

The cost of this work shall be included in Contract bid prices for items of which this work is a component.

PART 8: PROTECTION OF EXISTING UTILITIES

Before construction begins, the Contractor, acting as an agent for the Division, shall locate all utilities in the vicinity of the work. The Contractor shall be responsible for complying with the regulations pertaining to utilities in the State of Ohio. The Contractor shall assume all risk for all utilities located in the vicinity of the work, whether above or below the surface of the ground. The Contractor shall also be responsible for all damages and assume all expense for direct or indirect injury, caused by his work, to any of the utilities, or any person or property by reason of injury to them, whether such utilities are or are not shown on the drawings, once they have been uncovered by the work. **In compliance with Ohio Revised Code 3781, two working days before digging the Contractor shall contact the Ohio Utility Protection Service (OUPS) and Oil and Gas Producers Underground Protection Service (OGPUPS) using the Ohio811 one call service by calling 811 or by using the i-dig login found on the internet at OHIO811.org. The Contractor shall maintain a current OUPS/OGPUPS call ticket during the entire project.**

PART 9: EROSION AND SEDIMENT CONTROL

Temporary erosion control measures are required during the course of this project. These measures may consist of the installation of straw bale dikes, silt fence, filter socks, inlet protection structures, erosion control blankets, energy dissipation, and temporary seeding and mulching.

Once construction begins, the Contractor shall be solely responsible for all construction related to the control of off-site sedimentation. This sediment shall be removed by the Contractor at the Division's direction.

9.1 Temporary Measures

Temporary erosion control structures shown on the Drawing Plan Set, identified with these specifications, or as directed by the Division shall be placed as soon as construction starts and must be maintained during the course of the project. At the direction of the Division, the Contractor shall remove the temporary controls when they are no longer needed or when required permanent control measures have been completed.

If sediment escapes the site, accumulations must be removed at a frequency to minimize further negative effects, and whenever feasible, prior to the next rain event.

The contractor shall be responsible for revegetation of all areas in which sediment escapes the site. These areas shall be included in the final stabilization of the project and shall be at the cost of the contractor.

9.2 Maximum Exposed Areas

Stabilization measures must be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, and except as provided below, must be initiated no more than seven (7) days after the construction activity in that portion of the site has temporarily or permanently ceased.

Where the initiation of stabilization measures by the seventh day after construction activity temporarily or permanently ceased is precluded by snow cover, or frozen ground conditions, stabilization measures must be initiated as soon as practicable.

Where construction activity on a portion of the site is temporarily ceased, and earth-disturbing activities will be resumed within fourteen (14) days, temporary stabilization measures do not have to be initiated on that portion of site.

The Division may limit the area of excavation, borrow and embankment operations in progress commensurate with the Contractor's capability and progress in keeping the finished grading, re-soiling, mulching, seeding and other such permanent control measures current in accordance with the acceptable schedule.

9.3 Winterization

When an incomplete project will be left exposed throughout the winter season, the Contractor shall furnish the Division a plan indicating the control measures to be installed and maintained until the next construction season.

If the winter period falls within the anticipated construction period of the Scope of Work and as indicated in the original approved construction schedule, control structures will be paid for by the Division at the unit prices in the Offer.

If the project is not substantially completed prior to the winter season due to the failure of the Contractor to meet the completion date, these necessary control structures will be installed and maintained by the Contractor at his expense and these items will not be paid for under the terms of the Scope of Work, except those that are permanent facilities to be left in place in accordance with the Drawing Plans Set and Specifications.

9.4 Other Controls

Off-site vehicle tracking of sediments and the generation of dust must be minimized, and any waste must be properly disposed.

9.5 Inspections

The Division Inspector shall conduct inspections to ensure that the control practices are functional and to evaluate whether the erosion and sediment control measures are adequate and properly implemented.

9.6 Enforcement

The Division shall take appropriate steps to ensure that sedimentation does not leave the project site. The Division shall require the removal of off-site sediment by the Contractor if such sediment resulted from the Contractor's negligence to place and maintain sediment control structures in accordance with the Drawing Plan Set and Specifications.

PART 10: SPILL PREVENTION AND REMEDIATION

The Contractor is expected to prevent and, if necessary, contain and remediate any spills that may occur at the site due to plugging activities. All stationary plugging equipment on well locations that are in tiled farm fields, residential neighborhoods, parks, or in/adjacent to areas determined by the Division to be environmentally sensitive, will be staged on an impermeable liner and berm. **The Contractor will have oil absorbent pads and booms available onsite during the plugging operations.**

PART 11: HYDROGEN SULFIDE

If the well that is being plugged is known to produce hydrogen sulfide (H₂S), the following considerations must be observed:

- A. The Contractor must provide the appropriate equipment, on-site, to properly detect and abate any H₂S emitted from the well. If the Contractor does not have the appropriate equipment to properly detect and abate any H₂S emitted from the well, they will utilize an appropriate party to provide these services.
- B. The Contractor will shut-in the well each night after the plugging operations have ceased, unless otherwise instructed by the Division. The Contractor will continue this process until the plugging operations are complete and there are no further signs of a gas release.

PART 12: CASING

The Division reserves the right to require the removal and or placement of any tubing, casing, or liners deemed necessary to properly plug and abandon the well. If a string of casing that would normally be pulled cannot be removed, the Contractor may be required to log the well and perforate the casing, in accordance with the Division's instructions, so that cement can be circulated behind the casing.

The Contractor shall run an operational string of casing when caving of the well prevents clean out to depth required in the scope of work.

PART 13: DEFINITIONS

13.1 Clean Out

The process in which the contractor would use a smaller diameter tubular to circulate out material from inside a larger diameter wellbore/tubular. This shall include removing mud-laden fluid, prepared clay, bridge plugs (e.g. brush and stone plugs, surface debris), and wellbore cave-in (e.g. swelling shales, red clays). Equipment needed includes, but is not limited to, tubing, a mud pump, a power swivel/power sub or a tubing swivel, a drill bit with the jets removed and/or a notched collar. *A positive displacement mud pump with the capacity of pumping at least 3 barrels per minute and able to overcome hydrostatic head is required for this process.*

13.2 **Drill Out**

The process in which the contractor would use a drill string, associated fittings, and a bit to remove an obstruction from inside of the wellbore or casing. This shall include removing cement, grout, wood plugs, or other materials in which a cleanout operation failed to remove. Equipment needed includes, but is not limited to, a mud pump, power swivel/power sub, drill string (including collars and casing or tubing), cross over subs, bit sub, and drill bit. *A positive displacement mud pump with the capacity of pumping at least 3 barrels per minute and able to overcome hydrostatic head is required for this process.*

13.3 **Wash Over**

A process in which the contractor would use an intermediate size working string of casing, usually equipped with a carbide coated collar on the bottom joint, to run down over the smaller well tubular and clean out the annular space between the well tubulars. This process would include utilizing a power swivel or power sub to rotate the working string of casing and a mud pump to circulate fluid down between the working string and the outside of the smaller well tubular to wash out the material in the annular space between the well tubulars. This shall include removing mud-laden fluid, prepared clay, cement, grout, field packers, and surface debris. When needed, a wash over bit shall be attached on the bottom of the larger casing to act as a cutting edge for the material on the backside of the tubular being washed over. *A positive displacement mud pump with the capacity of pumping at least 3 barrels per minute and able to overcome hydrostatic head is required for this process.*

13.4 **Milling**

The process in which the contractor shall use a drill string and bit to remove a metal obstruction from inside of the wellbore or casing. Equipment needed includes, but is not limited to, a mud pump, power swivel/power sub, drill string (includes collars and casing or tubing), cross over subs, bit sub, and mill. The mill type would depend on the material encountered. *A positive displacement mud pump with the capacity of pumping at least 3 barrels per minute and able to overcome hydrostatic head is required for this process.*

13.5 **Fishing**

The process in which the contractor shall use a specialized tools or fishing tool to eliminate an obstruction from inside of the wellbore or casing. Equipment needed includes, but is not limited to, a fishing tool(s) and fishing string.

13.6 **Bail & Grout**

The process the contractor shall use when determined that the wellbore can be bailed of all fluid, and grouted. Equipment needed includes, but is not limited to, tubing, a bailer, and a grout pump. Grout shall be gravity feed to the bottom. This can be done in one application or in stages, depending on the well depth and condition. If the well cannot be bailed completely dry the contractor shall use a siphon string/tremie tube to remove the water from the well during grout application.

PART 14: WELL OBSTRUCTION ASSESSMENT

If an obstruction is encountered in the well bore that prevents the Contractor from reaching total depth, the Contractor will attempt to identify/assess the nature of the obstruction and attempt to remove any obstruction deemed an impediment to the plugging operation. **The Contractor will supply impression blocks as part of their normal rig equipment.**

PART 15: REMOVAL OF AN OBSTRUCTION

The removal of an unknown obstruction that is encountered during the cleanout of a well may require the use of milling and/or fishing tooling and equipment. The Contractor will include the costs for these services on the appropriate line items in the contingency section of this offer unless these costs are part of a planned procedure. The Division will approve a method for the Contractor to remove the well obstruction. The Division will first utilize contingency specifications and line items to define this work. **The Division will not be responsible for milling or fishing charges that are due to Contractor negligence or Contractor equipment failure.**

PART 16: PLUGGED WELL IDENTIFICATION

In compliance with Ohio Administrative Code 1501:9-11-10, a steel plate, a minimum of ¼-inch thick, shall be tack welded on top of all plugged wells. The well's permit number and "ODNR" shall be welded on the plate in numbers/letters as large as practical. Letters shall have a minimum relief of 1/8-inch.

PART 17: TOILET FACILITIES

Where there are no readily accessible public toilet facilities, the Contractor will provide a portable field toilet on the location during plugging operations.

PART 18: COMPLETION, GUARANTEES AND WARRANTIES

Upon completion of the work described in the Project SOW, the Contractor shall request a Final Restoration Inspection be performed by the Division. The Division shall inspect the Project site(s) for completeness and acceptance against the Project SOW, and if the Division determines necessary, develop a list of incomplete and unacceptable work and conditions to be corrected by the Contractor. The Division will reinspect the Project site(s) until the Division determines all work described in the Project SOW is complete and acceptable.

The Contractor warrants (represents) that their work will be conducted in accordance with the standards described in the Project SOW (i.e., the SOW Detailed Drawings and Specifications) and that the Contractor's work be free of defects. Contractor guarantees their work and materials for a Warranty Period of one year, unless otherwise stated as a special provision of the SOW Detailed Specifications. The one-year Warranty Period commences on the date of inspection on the Final Restoration Inspection form that accepted the work.

Should defects develop with the Contractor's work or materials within the Warranty Period, the Contractor shall, upon written notice of the Division, remedy the defects and any associated disturbance at their own expense. If the Contractor, after receiving the Division's notice, does not remedy the defects to the satisfaction of the Division, the Division may proceed against the Contractor as prescribed by the Department of Administrative Services (DAS), Index Number MAC110. All representations, warranties, and guarantees made in the DAS Index Number MAC110 contract and the Project SOW shall survive final payment and termination or completion of this Contract.



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SCOPE OF WORK SENECA 4F PROJECT Multiple Orphan Well Sites Seneca County Jackson and Loudon Townships

SEQUENCE OF WORK

General: Performance of all work shall be coordinated with the Division of Oil and Gas Resources Management (“Division”) Orphan Well Inspector (“Inspector”). The Sequence of Work shall be repeatable for all the project’s wells. **Work ahead of service rig mobilization shall be at the discretion of the Division.** Work shall not be initiated prior to fourteen (14) days ahead of rig mobilization, **unless approved in writing by the Division.** Any work performed shall be done in accordance with all requirements listed in this Scope of Work.

The Sequence of Work for the Orphan Well Project shall be as follows:

Phase I:

- 1) Contact the Ohio Utility Protection Service and the Ohio Oil & Gas Producers Underground Protection Service.
- 2) Coordinate with the Orphan Well Inspector and the local authorities for the mobilization of equipment over the roads and bridges to the site as applicable.
- 3) Verify with the Orphan Well Inspector that the pre-construction staking (i.e. Construction Work Limits) has been completed by the Division. **The pre-construction staking must be completed prior to mobilization.**

Phase II:

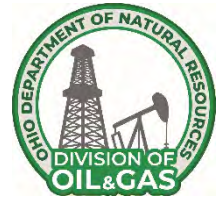
- 1) Mobilize all necessary equipment to the site and develop the site access as shown on the **Drawing Plan Set.**
- 2) Implement site safety and secondary containment as described in the **Detailed Specifications.**
- 3) Install perimeter sediment controls as required by the Division.
- 4) Prepare the well for plugging as described in the **Detailed Specifications, “Well Head Control.”**
- 5) Upon successful installation and approval of the wellhead and establishment of well control, the Contractor shall begin to plug the well as described in the **Plugging Plan and Detailed Specifications, “Well Preparation & Plugging.”**
- 6) **No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at**

that time. If additional work is not needed the Contractor shall cut the casing as defined in the Plugging Plan.

- 7) The Contractor shall set the plugged well identification as outlined in the **General Specifications** and Ohio Administrative Code 1501-9-11-10.

Phase III:

- 1) Within three (3) working days after Division has determined the plugging operations are completed, the Contractor shall remove all well and well plugging-related equipment, fluids, and cuttings from the site. The Contractor shall also excavate and remove all contaminated soils present onsite if present.
- 2) Within fourteen (14) days after the completion of the plugging operations, the Contractor shall reseed as applicable, final grade, disc, fertilize, seed, and mulch all disturbed areas. **If work cannot be complete due to the season or weather conditions, the site shall be winterized per the General Specifications, Part 9 Erosion and Sediment Control and the site restoration shall be scheduled for completion.**
- 3) All reclamation shall be finished to an equal or better condition than what existed prior to construction. The Division shall give the final approval for the restoration of the site.



SCOPE OF WORK
SENECA 4F PROJECT
Ashland Farms 1 Orphan Well Site
Seneca County
Jackson Township

WELL DESCRIPTION

This Well Description is for:

Ashland Farms 1: 34-147-6-0452-00-00, Seneca County, Jackson Township

Background: Ashland Farms 1 is located approximately 8.39 miles northeast of the city of Fostoria, 662 feet east of North Township Road 71A in an agricultural field on a 44-acre parcel (39147-G2500039048000) which is owned by Ashland Farms. The address is North Township Road 71A, Jackson Township, Fostoria, Ohio.

A 2023 division inspection of Ashland Farms 1 found the well in an agricultural field equipped with 6-inch outside diameter (O.D.) surface casing, 2.375-inch O.D. tubing, rods, and wellhead with concrete pad. A Thrasher Group inspection of Ashland Farms 1 was conducted in August 2025 and confirmed the findings from the 2023 inspection. There is a slight odor of gas.

The drilling log does not state H₂S was found in this well. Based on information from the Ohio H₂S map, the Ashland Farms 1 well is located in Seneca County, Jackson Township which is not a H₂S Township in Ohio.

Division well records for Ashland Farms 1 were not located. Off-set drilling logs state that the well could have been drilled in the early to mid-1900s to an estimated total depth of 1,265 feet in the Trenton Limestone. Estimated formation data included in this record show the following:

Formation	Top (ft.)	Bottom (ft.)	Remarks
Soil/Drift	0	16	*Estimated Formation Data
Limestone (*Lockport)	16	290	*Estimated Formation Data
Clinton Limestone	290	380	*Estimated Formation Data
Red Rock	380	428	*Estimated Formation Data
Sandstone/Shale	428	950	*Estimated Formation Data
Shell	950	1,250	*Estimated Formation Data
Trenton Limestone	1,250	1,265	
Total Depth	1,265		
*Thrasher Comment			

Casing data for Ashland Farms 1 is unavailable. Based on casing data from off-set well card M. and E. Kline 1 (34-147-2-0065-00-00), which is located approximately 2,022 feet southwest of this well, and field inspection measurements, Ashland Farms 1 has assumed casing depths are as follows:

- 6-inch O.D. casing set to 410 feet
- 2.375-inch O.D. tubing and rods set to 1,262 feet

No plugging records located for Ashland Farms 1.

For the purposes of this Scope of Work it is assumed that Ashland Farms 1 was drilled to an estimated total depth of 1,265 feet and produced from the Trenton Limestone. The well is equipped with an estimated 410 feet of 6-inch O.D. surface casing, an estimated 1,262 feet of 2.375-inch O.D. tubing and rods.

The deepest underground source of drinking water (USDW) is mapped on the Lockport Dolomite with the base of formation at a depth of approximately 290 feet. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Seneca County, wells produce water from clay, gravel, limestone, and shale. The sustainable yield was approximately between 40 and 50 gallons per minute. Water wells in the area are between 51 and 78 feet in depth. The work zone does not fall within the drinking water source protection areas. According to the Division of Mineral Resources Management, there are no surface or underground mines within the area of review of Ashland Farms 1.

Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading and reclamation of disturbed areas as described.

Designated Route: The Contractor shall utilize North Township Road 71A to access the site during all stages of the plugging project.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



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**SCOPE OF WORK
SENECA 4F PROJECT
Ashland Farms 1 Orphan Well Site
Seneca County
Jackson Township**

PLUGGING PLAN

This Plugging Plan is for:

Ashland Farms 1: 34-147-6-0452-00-00, Seneca County, Jackson Township

For the purposes of this Scope of Work it is assumed that Ashland Farms 1 was drilled to an estimated total depth of 1,265 feet and produced from the Trenton Limestone. The well is equipped with an estimated 410 feet of 6-inch O.D. surface casing, an estimated 1,262 feet of 2.375-inch O.D. tubing and rods.

The Ashland Farms 1 well is not located within an H2S township, however, H2S was detected in nearby wells during the site visit. Based on this information, the Contractor will follow the H2S protocol as defined in the Detailed Specifications.

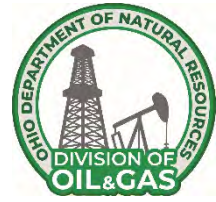
The Contractor shall maintain a minimum of 40 barrels of 9.0 pound-per-gallon weighted brine on location throughout the entire plugging process for use as a well kill fluid.

- 1) The Contractor will safely relieve any pressure that may be built up on this well prior to commencing plugging operations. The Contractor will give the property owner and local fire authorities a minimum of twenty-four (24) hour notice prior to blowing down the well.
- 2) The Contractor shall visually examine the existing casings to evaluate their condition immediately below grade. If the casing(s) is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 3) The Contractor shall install 10.75-inch outside diameter (O.D.) drive pipe in the wellbore. This drive pipe shall be driven to refusal of competent bedrock, which is estimated to be at a depth of 20 feet. The top of this drive pipe shall extend to a suitable working height above ground level.
- 4) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 5) The Contractor shall install an appropriate wellhead and an approved method of well control on the most appropriately sized casing(s) to insure there is control of any gas and/or fluids generated by the well. **The Contractor shall establish and maintain well control throughout the entire plugging process.**
- 6) The Contractor will remove the 2.375-inch outside diameter tubing and rods, and stage it on a bermed liner for further evaluation. The Contractor shall provide an accurate measurement of the amount of rods and/or tubing retrieved from the wellbore.

- 7) The Contractor will clean out the well to its estimated total depth (TD) of 1,265 feet or a depth approved by the Division. The Contractor shall run their tools into the existing 6-inch diameter casing, to ensure it is open and verify the wells total depth, which records show is estimated at 1,265 feet. The Contractor shall provide up to 80 barrels of freshwater on location for use as circulation fluid.
- 8) Once total depth has been reached, the Contractor will load the hole with freshwater and run a Gamma Ray/CCL/Temperature/Bond & Caliper log to verify hole diameter, casing integrity, and the cement and bond on the surface casing annulus. All cement plug depths and thicknesses will be based on log data.
- 9) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (I.D.) tubing using an approved cement mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug.
- 10) The Contractor will set a 500-foot bottom plug from 1,265 feet to 765 feet, to cover the Trenton Limestone. The Contractor will wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 11) The Contractor will set a 455-foot plug from 765 feet to 310 feet, to cover the bottom of the 6-inch surface casing. The Contractor shall wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 12) The Contractor will then set a cement plug from 310 feet to within forty-eight (48) inches of ground level, wait on cement/grout a minimum of eight (8) hours and top off with additional cement/grout, if necessary. Any open annular voids present at the surface shall be filled with cement.
- 13) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of forty-eight (48) inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



THRASHER



SCOPE OF WORK
SENECA 4F PROJECT
Frankhart 2 Orphan Well Site
Seneca County
Jackson Township

WELL DESCRIPTION

This Well Description is for:

Frankhart 2: 34-147-6-0700-00-00, Seneca County, Jackson Township

Background: Frankhart 2 is located approximately 2.70 miles northeast of the city of Fostoria, 190 feet west of North Township Road 63 in an agricultural field on a 5.01-acre parcel (39147-G25000397760000) which is owned by Brenda Frankhart. The address is North Township Road 63, Jackson Township, Fostoria, Ohio.

A 2025 division inspection of Frankhart 2 found the well in an agricultural field equipped with 8.625-inch outside diameter (O.D.) conductor casing, 6-inch O.D. surface casing, tubing, rods, pumping unit, and wellhead. A Thrasher Group inspection of Frankhart 2 was conducted in August 2025. At the time of inspection, Frankhart 2 was located in an agricultural field equipped with 8.625-inch O.D. damaged conductor casing, 6-inch O.D. surface casing, 2.375-inch O.D. damaged tubing, 1-inch sucker rods, pumping unit, and wellhead.

The drilling log does not state H₂S was found in this well. Based on information from the Ohio H₂S map, the Frankhart 2 well is located in Seneca County, Jackson Township which is not a H₂S Township in Ohio.

Division well records for Frankhart 2 were not located. Off-set drilling logs state that the well could have been drilled in the early to mid-1900s to an estimated total depth of 1,274 feet in the Trenton Limestone. Estimated formation data included in this record show the following:

Formation	Top (ft.)	Bottom (ft.)	Remarks
Drift	0	10	Soft
Limestone (*Lockport)	10	299	Blue; Hard
Break	299	329	Blue; Soft
Clinton Limestone	329	429	Light; Hard
Red Rock	429	484	Medium
Shale	484	604	Blue; Medium
Shale	604	829	Gray; Medium
Shale	829	1,004	Light Brown; Medium
Shale	1,004	1,225	Dark Brown; Medium
Trenton Limestone	1,225	1,274	Hard; Oil and Gas at 1,226 feet
Total Depth	1,274		
*Thrasher Comment			

Casing data for Frankhart 2 is unavailable. Based on casing data from off-set well card Waltermier Irvin 3 (34-147-2-0038-00-00), which is located approximately 2,780 feet northeast of this well, and field inspection measurements, Frankhart 2 has assumed casing depths are as follows:

- 8.625-inch O.D. casing set to 10 feet
- 6-inch O.D. casing set to 325 feet
- 2.375-inch O.D. tubing and rods set to 1,271 feet

No plugging records located for Frankhart 2.

For the purposes of this Scope of Work it is assumed that Frankhart 2 was drilled to an estimated total depth of 1,274 feet and produced from the Trenton Limestone. The well is equipped with an estimated 10 feet of 8.625-inch outer diameter (O.D.) damaged conductor casing, an estimated 325 feet of 6-inch O.D. surface casing, an estimated 1,271 feet of 2.375-inch O.D. damaged tubing, and rods.

The deepest underground source of drinking water (USDW) is mapped on the Lockport Dolomite with the base of formation at a depth of approximately 299 feet. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Seneca County, wells produce water from clay, gravel, limestone, and shale. Sustainable yield for the surrounding water wells was approximately 50 gallons per minute. Water wells in the area are between 52 and 200 feet in depth. The work zone falls within the drinking water source protection area for Fostoria Mobile Estates (OH7400712). According to the Division of Mineral Resources Management, there are no surface or underground mines within the area of review of Frankhart 2.

Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading and reclamation of disturbed areas as described.

Designated Route: The Contractor shall utilize North Township Road 63 to access the site during all stages of the plugging project.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



THRASHER



**SCOPE OF WORK
SENECA 4F PROJECT
Frankhart 2 Orphan Well Site
Seneca County
Jackson Township**

PLUGGING PLAN

This Plugging Plan is for:

Frankhart 2: 34-147-6-0700-00-00, Seneca County, Jackson Township

For the purposes of this Scope of Work it is assumed that Frankhart 2 was drilled to an estimated total depth of 1,274 feet and produced from the Trenton Limestone. The well is equipped with an estimated 10 feet of 8.625-inch outer diameter (O.D.) damaged conductor casing, an estimated 325 feet of 6-inch O.D. surface casing, an estimated 1,271 feet of 2.375-inch O.D. damaged tubing, and rods.

The Frankhart 2 well is not located within an H2S township, however, H2S was detected in nearby wells during the site visit. Based on this information, the Contractor will follow the H2S protocol as defined in the Detailed Specifications.

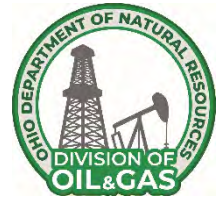
The Contractor shall maintain a minimum of 40 barrels of 9.0 pound-per-gallon weighted brine on location throughout the entire plugging process for use as a well kill fluid.

- 1) The Contractor will safely relieve any pressure that may be built up on this well prior to commencing plugging operations. The Contractor will give the property owner and local fire authorities a minimum of twenty-four (24) hour notice prior to blowing down the well.
- 2) The Contractor shall visually examine the existing casings to evaluate their condition immediately below grade. If the casing(s) is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 3) The Contractor shall install 10.75-inch outside diameter (O.D.) drive pipe in the wellbore. This drive pipe shall be driven to refusal of competent bedrock, which is estimated to be at a depth of 20 feet. The top of this drive pipe shall extend to a suitable working height above ground level.
- 4) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 5) The Contractor shall install an appropriate wellhead and an approved method of well control on the most appropriately sized casing(s) to insure there is control of any gas and/or fluids generated by the well. **The Contractor shall establish and maintain well control throughout the entire plugging process.**
- 6) The Contractor will remove the 2.375-inch outside diameter tubing and rods, and stage it on a bermed liner for further evaluation. The Contractor shall provide an accurate measurement of the amount of rods and/or tubing retrieved from the wellbore.

- 7) The Contractor will clean out the well to its estimated total depth (TD) of 1,274 feet or a depth approved by the Division. The Contractor shall run their tools into the existing 6-inch diameter casing, to ensure it is open and verify the wells total depth, which records show is estimated at 1,274 feet. The Contractor shall provide up to 80 barrels of freshwater on location for use as circulation fluid.
- 8) Once total depth has been reached, the Contractor will load the hole with freshwater and run a Gamma Ray/CCL/Temperature/Bond & Caliper log to verify hole diameter, casing integrity, and the cement and bond on the surface casing annulus. All cement plug depths and thicknesses will be based on log data.
- 9) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (I.D.) tubing using an approved cement mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug.
- 10) The Contractor will set a 500-foot bottom plug from 1,274 feet to 774 feet, to cover the Trenton Limestone. The Contractor will wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 11) The Contractor will set a 500-foot plug from 774 feet to 274 feet, to cover the bottom of the 6-inch surface casing. The Contractor shall wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 12) The Contractor will then set a cement plug from 274 feet to within forty-eight (48) inches of ground level, wait on cement/grout a minimum of eight (8) hours and top off with additional cement/grout, if necessary. Any open annular voids present at the surface shall be filled with cement.
- 13) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of forty-eight (48) inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



THRASHER



SCOPE OF WORK
SENECA 4F PROJECT
Jerald 2 Orphan Well Site
Seneca County
Jackson Township

WELL DESCRIPTION

This Well Description is for:

Jerald 2: 34-147-6-1157-00-00, Seneca County, Jackson Township

Background: Jerald 2 is located approximately 2.70 miles northeast of the city of Fostoria, 190 feet east of North Township Road 63 on the edge of landowner driveway on a 5.01-acre parcel (39147-G25000397800200) which is owned by Jeffrey and Paula Frankhart. The address is 5147 North Township Road 63, Jackson Township, Fostoria, Ohio.

A 2025 division inspection of Jerald 2 found the well on the edge of landowner driveway equipped with 8.625-inch outside diameter (O.D.) conductor casing, 6-inch O.D. surface casing open to the atmosphere, and wellhead. A Thrasher Group inspection of Jerald 2 was conducted in August 2025. At the time of inspection, Jerald 2 was on edge of landowner driveway equipped with 8.625-inch O.D. damaged conductor casing, 6-inch O.D. surface casing open to the atmosphere, damaged 2.375-inch O.D. tubing, and wellhead.

The drilling log does not state H₂S was found in this well. Based on information from the Ohio H₂S map, the Jerald 2 well is located in Seneca County, Jackson Township which is not a H₂S Township in Ohio.

Division well records for Jerald 2 were not located. Off-set drilling logs state that the well could have been drilled in the early to mid-1900s to an estimated total depth of 1,274 feet in the Trenton Limestone. Estimated formation data included in this record show the following:

Formation	Top (ft.)	Bottom (ft.)	Remarks
Drift	0	10	Soft
Limestone (*Lockport)	10	299	Blue; Hard
Break	299	329	Blue; Soft
Clinton Sandstone	329	429	Light; Hard
Red Rock	429	484	Medium
Shale	484	604	Blue; Medium
Shale	604	829	Gray; Medium
Shale	829	1,004	Light Brown; Medium
Shale	1,004	1,225	Dark Brown; Medium
Trenton Limestone	1,225	1,274	Hard; Oil and Gas at 1,230 feet
Total Depth	1,274		
*Thrasher Comment			

Casing data for Jerald 2 is unavailable. Based on casing data from off-set well card Waltermier Irvin 3 (34-147-2-0038-00-00), which is located approximately 2,488 feet northeast of this well, and field inspection measurements, Jerald 2 has assumed casing depths are as follows:

- 8.625-inch O.D. casing set to 10 feet
- 6-inch O.D. casing set to 325 feet
- 2.375-inch O.D. tubing set to 1,271 feet

No plugging records located for Jerald 2.

For the purposes of this Scope of Work it is assumed that Jerald 2 was drilled to an estimated total depth of 1,274 feet and produced from the Trenton Limestone. The well is equipped with an estimated 10 feet of 8.625-inch outer diameter (O.D.) damaged conductor casing, an estimated 325 feet of 6-inch O.D. surface casing, an estimated 1,271 feet of damaged 2.375-inch O.D. tubing.

The deepest underground source of drinking water (USDW) is mapped on the Lockport Dolomite with the base of formation at a depth of approximately 299 feet. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Seneca County, wells produce water from clay, gravel, limestone, and shale. Sustainable yield for the surrounding water wells was approximately 50 gallons per minute. Water wells in the area are between 52 and 200 feet in depth. One water well (825153) was field verified is located within 300 feet of the Jerald 2 well. The work zone falls within the drinking water source protection area for Fostoria Mobile Estates (OH7400712). According to the Division of Mineral Resources Management, there are no surface or underground mines within the area of review of Jerald 2.

Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading and reclamation of disturbed areas as described.

Designated Route: The Contractor shall utilize North Township Road 63 to access the site during all stages of the plugging project.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



THRASHER



**SCOPE OF WORK
SENECA 4F PROJECT
Jerald 2 Orphan Well Site
Seneca County
Jackson Township**

PLUGGING PLAN

This Plugging Plan is for:

Jerald 2: 34-147-6-1157-00-00, Seneca County, Jackson Township

For the purposes of this Scope of Work it is assumed that Jerald 2 was drilled to an estimated total depth of 1,274 feet and produced from the Trenton Limestone. The well is equipped with an estimated 10 feet of 8.625-inch outer diameter (O.D.) damaged conductor casing, an estimated 325 feet of 6-inch O.D. surface casing, an estimated 1,271 feet of damaged 2.375-inch O.D. tubing.

The Jerald 2 well is not located within an H2S township, however, H2S was detected in nearby wells during the site visit. Based on this information, the Contractor will follow the H2S protocol as defined in the Detailed Specifications.

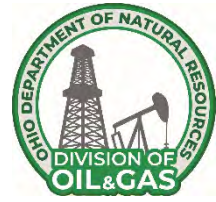
The Contractor shall maintain a minimum of 40 barrels of 9.0 pound-per-gallon weighted brine on location throughout the entire plugging process for use as a well kill fluid.

- 1) The Contractor shall visually examine the existing casings to evaluate their condition immediately below grade. If the casing(s) is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 2) The Contractor shall install 10.75-inch outside diameter (O.D.) drive pipe in the wellbore. This drive pipe shall be driven to refusal of competent bedrock, which is estimated to be at a depth of 20 feet. The top of this drive pipe shall extend to a suitable working height above ground level.
- 3) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 4) The Contractor shall install an appropriate wellhead and an approved method of well control on the most appropriately sized casing(s) to insure there is control of any gas and/or fluids generated by the well. **The Contractor shall establish and maintain well control throughout the entire plugging process.**
- 5) The Contractor will remove the 2.375-inch outside diameter tubing, and stage it on a bermed liner for further evaluation. The Contractor shall provide an accurate measurement of the amount of rods and/or tubing retrieved from the wellbore.
- 6) The Contractor will clean out the well to its estimated total depth (TD) of 1,274 feet or a depth approved by the Division. The Contractor shall run their tools into the existing 6-inch diameter casing, to ensure it is open and verify the wells total depth, which records show is estimated at 1,274 feet. The Contractor shall provide up to 80 barrels of freshwater on location for use as circulation fluid.

- 7) Once total depth has been reached, the Contractor will load the hole with freshwater and run a Gamma Ray/CCL/Temperature/Bond & Caliper log to verify hole diameter, casing integrity, and the cement and bond on the surface casing annulus. All cement plug depths and thicknesses will be based on log data.
- 8) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (I.D.) tubing using an approved cement mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug.
- 9) The Contractor will set a 500-foot bottom plug from 1,274 feet to 774 feet, to cover the Trenton Limestone. The Contractor will wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 10) The Contractor will set a 500-foot plug from 774 feet to 274 feet, to cover the bottom of the 6-inch surface casing. The Contractor will wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 11) The Contractor will then set a cement plug from 274 feet to within forty-eight (48) inches of ground level, wait on cement/grout a minimum of eight (8) hours and top off with additional cement/grout, if necessary. Any open annular voids present at the surface shall be filled with cement.
- 12) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of forty-eight (48) inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



THRASHER



SCOPE OF WORK
SENECA 4F PROJECT
Good 7 Orphan Well Site
Seneca County
Jackson Township

WELL DESCRIPTION

This Well Description is for:

Good 7: 34-147-6-1150-00-00, Seneca County, Jackson Township

Background: Good 7 is located approximately 4.06 miles northeast of the city of Fostoria, 1,042 feet south of West County Road 28 in an agricultural field on a 146.48-acre parcel (39147-G25000398480000) which is owned by JR Miller Investments, LTD. The address is West County Road 28, Jackson Township, Fostoria, Ohio.

A 2025 division inspection of Good 7 found the well in an agricultural field at grade level equipped with 6-inch outside diameter (O.D.) surface casing, 2.375-inch O.D. tubing, and rods. A Thrasher Group inspection of Good 7 was conducted in August 2025. At the time of inspection, Good 7 was in an agricultural field at ground level equipped with 6-inch O.D. surface casing, 2.375-inch O.D. tubing, 1-inch sucker rods, pumping unit brace and wellhead.

The drilling log does not state H₂S was found in this well. Based on information from the Ohio H₂S map, the Good 7 well is located in Seneca County, Jackson Township which is not a H₂S Township in Ohio.

Division well records for Good 7 were not located. Off-set drilling logs state that the well could have been drilled in the early to mid-1900s to an estimated total depth of 1,264 feet in the Trenton Limestone. Estimated formation data included in this record show the following:

Formation	Top (ft.)	Bottom (ft.)	Remarks
Soil/Drift	0	19	
Limestone (*Lockport)	19	343	
Clinton Limestone	343	433	
Red Rock	433	473	
Sandstone/Shale	473	1,003	
Shell	1,003	1,215	
Trenton Limestone	1,215	1,264	
Total Depth	1,264		

Casing data for Good 7 is unavailable. Based on casing data from off-set well card H. Russell 17 (34-147-6-0606-00-00), which is located approximately 2,088 feet northwest of this well, and field inspection measurements, Good 7 has assumed casing depths are as follows:

- 6-inch O.D. casing set to 385 feet
- 2.375-inch O.D. tubing and rods set to 1,257 feet

No plugging records located for Good 7.

For the purposes of this Scope of Work it is assumed that Good 7 was drilled to an estimated total depth of 1,264 feet and produced from the Trenton Limestone. The well is equipped with an estimated 385 feet of 6-inch outer diameter (O.D.) surface casing, an estimated 1,257 feet of 2.375-inch O.D. tubing, and rods.

The deepest underground source of drinking water (USDW) is mapped on the Lockport Dolomite with the base of formation at a depth of approximately 343 feet. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Seneca County, wells produce water from clay, gravel, limestone, and shale. The sustainable yield was approximately 2 gallons per minute. Water wells in the area are between 60 and 145 feet in depth. The work zone does not fall within the drinking water source protection areas. According to the Division of Mineral Resources Management, there are no surface or underground mines within the area of review of Good 7.

Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading and reclamation of disturbed areas as described.

Designated Route: The Contractor shall utilize West County Road 28 to access the site during all stages of the plugging project.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



THRASHER



**SCOPE OF WORK
SENECA 4F PROJECT
Good 7 Orphan Well Site
Seneca County
Jackson Township**

PLUGGING PLAN

This Plugging Plan is for:

Good 7: 34-147-6-1150-00-00, Seneca County, Jackson Township

For the purposes of this Scope of Work it is assumed that Good 7 was drilled to an estimated total depth of 1,264 feet and produced from the Trenton Limestone. The well is equipped with an estimated 385 feet of 6-inch outer diameter (O.D.) surface casing, an estimated 1,257 feet of 2.375-inch O.D. tubing, and rods.

The Good 7 well is not located within an H2S township, however, H2S was detected in nearby wells during the site visit. Based on this information, the Contractor will follow the H2S protocol as defined in the Detailed Specifications.

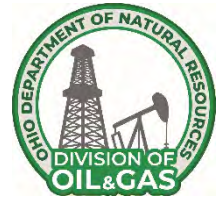
The Contractor shall maintain a minimum of 40 barrels of 9.0 pound-per-gallon weighted brine on location throughout the entire plugging process for use as a well kill fluid.

- 1) The Contractor will safely relieve any pressure that may be built up on this well prior to commencing plugging operations. The Contractor will give the property owner and local fire authorities a minimum of twenty-four (24) hour notice prior to blowing down the well.
- 2) The Contractor shall visually examine the existing casings to evaluate their condition immediately below grade. If the casing(s) is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 3) The Contractor shall install 10.75-inch outside diameter (O.D.) drive pipe in the wellbore. This drive pipe shall be driven to refusal of competent bedrock, which is estimated to be at a depth of 20 feet. The top of this drive pipe shall extend to a suitable working height above ground level.
- 4) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 5) The Contractor shall install an appropriate wellhead and an approved method of well control on the most appropriately sized casing(s) to insure there is control of any gas and/or fluids generated by the well. **The Contractor shall establish and maintain well control throughout the entire plugging process.**
- 6) The Contractor will remove the 2.375-inch outside diameter tubing and rods, and stage it on a bermed liner for further evaluation. The Contractor shall provide an accurate measurement of the amount of rods and/or tubing retrieved from the wellbore.

- 7) The Contractor will clean out the well to its estimated total depth (TD) of 1,264 feet or a depth approved by the Division. The Contractor shall run their tools into the existing 6-inch diameter casing, to ensure it is open and verify the wells total depth, which records show is estimated at 1,264 feet. The Contractor shall provide up to 80 barrels of freshwater on location for use as circulation fluid.
- 8) Once total depth has been reached, the Contractor will load the hole with freshwater and run a Gamma Ray/CCL/Temperature/Bond & Caliper log to verify hole diameter, casing integrity, and the cement and bond on the surface casing annulus. All cement plug depths and thicknesses will be based on log data.
- 9) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (I.D.) tubing using an approved cement mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug.
- 10) The Contractor will set a 500-foot bottom plug from 1,264 feet to 764 feet, to cover the Trenton Limestone. The Contractor will wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 11) The Contractor will set a 479-foot plug from 764 feet to 285 feet, to cover the bottom of the 6-inch surface casing. The Contractor shall wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 12) The Contractor will then set a cement plug from 285 feet to within forty-eight (48) inches of ground level, wait on cement/grout a minimum of eight (8) hours and top off with additional cement/grout, if necessary. Any open annular voids present at the surface shall be filled with cement.
- 13) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of forty-eight (48) inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



THRASHER



SCOPE OF WORK
SENECA 4F PROJECT
Good 9 Orphan Well Site
Seneca County
Jackson Township

WELL DESCRIPTION

This Well Description is for:

Good 9: 34-147-6-1152-00-00, Seneca County, Jackson Township

Background: Good 9 is located approximately 4.00 miles northeast of the city of Fostoria, 2,007 feet south of West County Road 28 in an agricultural field on a 146.48-acre parcel (39147-G25000398480000) which is owned by JR Miller Investments, LTD. The address is West County Road 28, Jackson Township, Fostoria, Ohio.

A 2023 division inspection of Good 9 found the well in an agricultural field at grade level equipped with 6-inch outside diameter (O.D.) surface casing and tubing. A Thrasher Group inspection of Good 9 was conducted in August 2025. At the time of inspection, Good 9 was in an agricultural field at ground level equipped with 8.625-inch O.D conductor casing, 6-inch O.D. surface casing open to the atmosphere, and wellhead.

The drilling log does not state H₂S was found in this well. Based on information from the Ohio H₂S map, the Good 9 well is located in Seneca County, Jackson Township which is not a H₂S Township in Ohio.

Division well records for Good 9 were not located. Off-set drilling logs state that the well could have been drilled in the early to mid-1900s to an estimated total depth of 1,264 feet in the Trenton Limestone. Estimated formation data included in this record show the following:

Formation	Top (ft.)	Bottom (ft.)	Remarks
Soil/Drift	0	19	
Limestone (*Lockport)	19	343	
Clinton Limestone	343	433	
Red Rock	433	473	
Sandstone/Shale	473	1,003	
Shell	1,003	1,215	
Trenton Limestone	1,215	1,264	
Total Depth	1,264		
*Thrasher Comment			

Casing data for Good 9 is unavailable. Based on casing data from off-set well card H. Russell 17 (34-147-6-0606-00-00), which is located approximately 2,700 feet northwest of this well, and field inspection measurements, Good 9 has assumed casing depths are as follows:

- 8.625-inch O.D. casing set to 50 feet
- 6-inch O.D. casing set to 385 feet

No plugging records located for Good 9.

For the purposes of this Scope of Work it is assumed that Good 9 was drilled to an estimated total depth of 1,264 feet and produced from the Trenton Limestone. The well is equipped with an estimated 50 feet of 8.625-inch outer diameter (O.D.) conductor casing, 385 feet of 6-inch O.D. surface casing open to the atmosphere.

The deepest underground source of drinking water (USDW) is mapped on the Lockport Dolomite with the base of formation at a depth of approximately 343 feet. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Seneca County, wells produce water from clay, gravel, limestone, and shale. Sustainable yield for the surrounding water wells was not determined. Water wells in the area are between 60 and 145 feet in depth. The work zone does not fall within the drinking water source protection areas. According to the Division of Mineral Resources Management, there are no surface or underground mines within the area of review of Good 9.

Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading and reclamation of disturbed areas as described.

Designated Route: The Contractor shall utilize West County Road 28 to access the site during all stages of the plugging project.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



THRASHER



**SCOPE OF WORK
SENECA 4F PROJECT
Good 9 Orphan Well Site
Seneca County
Jackson Township**

PLUGGING PLAN

This Plugging Plan is for:

Good 9: 34-147-6-1152-00-00, Seneca County, Jackson Township

For the purposes of this Scope of Work it is assumed that Good 9 was drilled to an estimated total depth of 1,264 feet and produced from the Trenton Limestone. The well is equipped with an estimated 50 feet of 8.625-inch outer diameter (O.D.) conductor casing, 385 feet of 6-inch O.D. surface casing open to the atmosphere.

The Good 9 well is not located within an H2S township, however, H2S was detected in nearby wells during the site visit. Based on this information, the Contractor will follow the H2S protocol as defined in the Detailed Specifications.

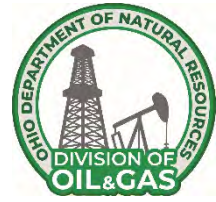
The Contractor shall maintain a minimum of 40 barrels of 9.0 pound-per-gallon weighted brine on location throughout the entire plugging process for use as a well kill fluid.

- 1) The Contractor shall visually examine the existing casings to evaluate their condition immediately below grade. If the casing(s) is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 2) The Contractor shall install 10.75-inch outside diameter (O.D.) drive pipe in the wellbore. This drive pipe shall be driven to refusal of competent bedrock, which is estimated to be at a depth of 20 feet. The top of this drive pipe shall extend to a suitable working height above ground level.
- 3) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 4) The Contractor shall install an appropriate wellhead and an approved method of well control on the most appropriately sized casing(s) to insure there is control of any gas and/or fluids generated by the well. **The Contractor shall establish and maintain well control throughout the entire plugging process.**
- 5) The Contractor will clean out the well to its estimated total depth (TD) of 1,264 feet or a depth approved by the Division. The Contractor shall run their tools into the existing 6-inch diameter casing, to ensure it is open and verify the wells total depth, which records show is estimated at 1,264 feet. The Contractor shall provide up to 80 barrels of freshwater on location for use as circulation fluid.
- 6) Once total depth has been reached, the Contractor will load the hole with freshwater and run a Gamma Ray/CCL/Temperature/Bond & Caliper log to verify hole diameter, casing integrity, and the cement and bond on the surface casing annulus. All cement plug depths and thicknesses will be based on log data.

- 7) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (I.D.) tubing using an approved cement mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug.
- 8) The Contractor will set a 500-foot bottom plug from 1,264 feet to 764 feet, to cover the Trenton Limestone. The Contractor will wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 9) The Contractor will set a 479-foot plug from 764 feet to 285 feet, to cover the bottom of the 6-inch surface casing. The Contractor shall wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 10) The Contractor will then set a cement plug from 285 feet to within forty-eight (48) inches of ground level, wait on cement/grout a minimum of eight (8) hours and top off with additional cement/grout, if necessary. Any open annular voids present at the surface shall be filled with cement.
- 11) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of forty-eight (48) inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



THRASHER



SCOPE OF WORK
SENECA 4F PROJECT
Good 11 Orphan Well Site
Seneca County
Jackson Township

WELL DESCRIPTION

This Well Description is for:

Good 11: 34-147-6-0627-00-00, Seneca County, Jackson Township

Background: Good 11 is located approximately 4.12 miles northeast of the city of Fostoria, 1,084 feet south of West County Road 28 in an agricultural field on a 146.48-acre parcel (39147-G25000398480000) which is owned by JR Miller Investments, LTD. The address is West County Road 28, Jackson Township, Fostoria, Ohio.

A 2025 division inspection of Good 11 found the well in an agricultural field at grade level equipped with 6-inch outside diameter (O.D.) surface casing, 2.375-inch O.D tubing, rods, and part of a pumping unit. A Thrasher Group inspection of Good 11 was conducted in August 2025. At the time of inspection, Good 11 was in an agricultural field at ground level equipped with 6-inch O.D. surface casing, 2.375-inch O.D. tubing, 1-inch sucker rods, pumping unit, and wellhead.

The drilling log does not state H2S was found in this well. Based on information from the Ohio H2S map, the Good 11 well is located in Seneca County, Jackson Township which is not a H2S Township in Ohio.

Division well records for Good 11 were not located. Off-set drilling logs state that the well could have been drilled in the early to mid-1900s to an estimated total depth of 1,262 feet in the Trenton Limestone. Estimated formation data included in this record show the following:

Formation	Top (ft.)	Bottom (ft.)	Remarks
Soil/Drift	0	17	
Limestone (*Lockport)	17	341	
Clinton Limestone	341	431	
Red Rock	431	471	
Sandstone/Shale	471	1,001	
Shell	1,001	1,213	
Trenton Limestone	1,213	1,262	
Total Depth	1,262		
*Thrasher Comment			

Casing data for Good 11 is unavailable. Based on casing data from off-set well card H. Russell 17 (34-147-6-0606-00-00), which is located approximately 1,779 feet northwest of this well, and field inspection measurements, Good 11 has assumed casing depths are as follows:

- 6-inch O.D. casing set to 385 feet
- 2.375-inch O.D. tubing and rods set to 1,257 feet

No plugging records located for Good 11.

For the purposes of this Scope of Work it is assumed that Good 11 was drilled to an estimated total depth of 1,262 feet and produced from the Trenton Limestone. The well is equipped with an estimated 385 feet of 6-inch outer diameter (O.D.) surface casing, and an estimated 1,257 feet of 2.375-inch O.D. tubing and rods.

The deepest underground source of drinking water (USDW) is mapped on the Lockport Dolomite with the base of formation at a depth of approximately 341 feet. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Seneca County, wells produce water from clay, gravel, limestone, and shale. Sustainable yield for the surrounding water wells was not determined. Water wells in the area are between 60 and 145 feet in depth. The work zone does not fall within the drinking water source protection areas. According to the Division of Mineral Resources Management, there are no surface or underground mines within the area of review of Good 11.

Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading and reclamation of disturbed areas as described.

Designated Route: The Contractor shall utilize West County Road 28 to access the site during all stages of the plugging project.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



THRASHER



**SCOPE OF WORK
SENECA 4F PROJECT
Good 11 Orphan Well Site
Seneca County
Jackson Township**

PLUGGING PLAN

This Plugging Plan is for:

Good 11: 34-147-6-0627-00-00, Seneca County, Jackson Township

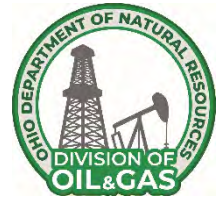
For the purposes of this Scope of Work it is assumed that Good 11 was drilled to an estimated total depth of 1,262 feet and produced from the Trenton Limestone. The well is equipped with an estimated 385 feet of 6-inch outer diameter (O.D.) surface casing, an estimated 1,257 feet of 2.375-inch O.D. tubing and rods.

The Good 11 well is not located within an H2S township, however, H2S was detected in nearby wells during the site visit. Based on this information, the Contractor will follow the H2S protocol as defined in the Detailed Specifications.

The Contractor shall maintain a minimum of 40 barrels of 9.0 pound-per-gallon weighted brine on location throughout the entire plugging process for use as a well kill fluid.

- 1) The Contractor will safely relieve any pressure that may be built up on this well prior to commencing plugging operations. The Contractor will give the property owner and local fire authorities a minimum of twenty-four (24) hour notice prior to blowing down the well.
- 2) The Contractor shall visually examine the existing casings to evaluate their condition immediately below grade. If the casing(s) is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 3) The Contractor shall install 10.75-inch outside diameter (O.D.) drive pipe in the wellbore. This drive pipe shall be driven to refusal of competent bedrock, which is estimated to be at a depth of 20 feet. The top of this drive pipe shall extend to a suitable working height above ground level.
- 4) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 5) The Contractor shall install an appropriate wellhead and an approved method of well control on the most appropriately sized casing(s) to insure there is control of any gas and/or fluids generated by the well. **The Contractor shall establish and maintain well control throughout the entire plugging process.**
- 6) The Contractor will remove the 2.375-inch outside diameter tubing and rods, and stage it on a bermed liner for further evaluation. The Contractor shall provide an accurate measurement of the amount of rods and/or tubing retrieved from the wellbore.

- 7) The Contractor will clean out the well to its estimated total depth (TD) of 1,262 feet or a depth approved by the Division. The Contractor shall run their tools into the existing 6-inch diameter casing, to ensure it is open and verify the wells total depth, which records show is estimated at 1,262 feet. The Contractor shall provide up to 80 barrels of freshwater on location for use as circulation fluid.
- 8) Once total depth has been reached, the Contractor will load the hole with freshwater and run a Gamma Ray/CCL/Temperature/Bond & Caliper log to verify hole diameter, casing integrity, and the cement and bond on the surface casing annulus. All cement plug depths and thicknesses will be based on log data.
- 9) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (I.D.) tubing using an approved cement mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug.
- 10) The Contractor will set a 500-foot bottom plug from 1,262 feet to 762 feet, to cover the Trenton Limestone. The Contractor will wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 11) The Contractor will set a 477-foot plug from 762 feet to 285 feet, to cover the bottom of the 6-inch surface casing. The Contractor shall wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 12) The Contractor will then set a cement plug from 285 feet to within forty-eight (48) inches of ground level, wait on cement/grout a minimum of eight (8) hours and top off with additional cement/grout, if necessary. Any open annular voids present at the surface shall be filled with cement.
- 13) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of forty-eight (48) inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



SCOPE OF WORK
SENECA 4F PROJECT
Good 1 Orphan Well Site
Seneca County
Jackson Township

WELL DESCRIPTION

This Well Description is for:

Good 1: 34-147-6-1144-00-00, Seneca County, Jackson Township

Background: Good 1 is located approximately 4.38 miles northeast of the city of Fostoria, 194 feet south of West County Road 28 in an agricultural field on a 146.48-acre parcel (39147-G25000398480000) which is owned by JR Miller Investments, LTD. The address is West County Road 28, Jackson Township, Fostoria, Ohio.

A 2023 division inspection of Good 1 found the well in an agricultural field at grade level equipped with 6-inch outside diameter (O.D.) surface casing and tubing. A Thrasher Group inspection of Good 1 was conducted in August 2025. At the time of inspection, Good 1 was in an agricultural field at ground level open to the atmosphere. It is equipped with 6-inch O.D. surface casing, gas escape packer, and wellhead.

The drilling log does not state H2S was found in this well. Based on information from the Ohio H2S map, the Good 1 well is located in Seneca County, Jackson Township which is not a H2S Township in Ohio.

Division well records for Good 1 were not located. Off-set drilling logs state that the well could have been drilled in the early to mid-1900s to an estimated total depth of 1,262 feet in the Trenton Limestone. Estimated formation data included in this record show the following:

Formation	Top (ft.)	Bottom (ft.)	Remarks
Soil/Drift	0	17	
Limestone (*Lockport)	17	341	
Clinton Limestone	341	431	
Red Rock	431	471	
Sandstone/Shale	471	1,001	
Shell	1,001	1,213	
Trenton Limestone	1,213	1,262	
Total Depth	1,262		
*Thrasher Comment			

Casing data for Good 1 is unavailable. Based on casing data from off-set well card H. Russell 17 (34-147-6-0606-00-00), which is located approximately 870 feet northwest of this well, and field inspection measurements, Good 1 has assumed casing depths are as follows:

- 6-inch O.D. casing set to 385 feet

No plugging records located for Good 1.

For the purposes of this Scope of Work it is assumed that Good 1 was drilled to an estimated total depth of 1,262 feet and produced from the Trenton Limestone. The well is equipped with an estimated 385 feet of 6-inch outer diameter (O.D.) surface casing.

The deepest underground source of drinking water (USDW) is mapped on the Lockport Dolomite with the base of formation at a depth of approximately 341 feet. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Seneca County, wells produce water from clay, gravel, limestone, and shale. The sustainable yield was approximately between 2 and 50 gallons per minute. Water wells in the area are between 60 and 178 feet in depth. According to the ODNR Water Well database, water well 88136 falls within the 300-foot area of review, however, during the site visit, water well 88136 was field located and found to be outside the area of review. The work zone does not fall within the drinking water source protection areas. According to the Division of Mineral Resources Management, there are no surface or underground mines within the area of review of Good 1.

Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading and reclamation of disturbed areas as described.

Designated Route: The Contractor shall utilize West County Road 28 to access the site during all stages of the plugging project.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



THRASHER



**SCOPE OF WORK
SENECA 4F PROJECT
Good 1 Orphan Well Site
Seneca County
Jackson Township**

PLUGGING PLAN

This Plugging Plan is for:

Good 1: 34-147-6-1144-00-00, Seneca County, Jackson Township

For the purposes of this Scope of Work it is assumed that Good 1 was drilled to an estimated total depth of 1,262 feet and produced from the Trenton Limestone. The well is equipped with an estimated 385 feet of 6-inch outer diameter (O.D.) surface casing.

The Good 1 well is not located within an H2S township, however, H2S was detected in nearby wells during the site visit. Based on this information, the Contractor will follow the H2S protocol as defined in the Detailed Specifications.

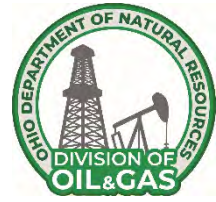
The Contractor shall maintain a minimum of 40 barrels of 9.0 pound-per-gallon weighted brine on location throughout the entire plugging process for use as a well kill fluid.

- 1) The Contractor shall visually examine the existing casings to evaluate their condition immediately below grade. If the casing(s) is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 2) The Contractor shall install 10.75-inch outside diameter (O.D.) drive pipe in the wellbore. This drive pipe shall be driven to refusal of competent bedrock, which is estimated to be at a depth of 20 feet. The top of this drive pipe shall extend to a suitable working height above ground level.
- 3) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 4) The Contractor shall install an appropriate wellhead and an approved method of well control on the most appropriately sized casing(s) to insure there is control of any natural gas and/or fluids generated by the well. **The Contractor shall establish and maintain well control throughout the entire plugging process.**
- 5) The Contractor will clean out the well to its estimated total depth (TD) of 1,262 feet or a depth approved by the Division. The Contractor shall run their tools into the existing 6-inch diameter casing, to ensure it is open and verify the wells total depth, which records show is estimated at 1,262 feet. The Contractor shall supply a minimum of 80 barrels of freshwater on location for use as circulation fluid.
- 6) Once total depth has been reached, the Contractor will load the hole with freshwater and run a Gamma Ray/CCL/Temperature/Bond & Caliper log to verify hole diameter, casing integrity, and the cement and bond on the surface casing annulus. All cement plug depths and thicknesses will be based on log data.

- 7) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (I.D.) tubing using an approved cement mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug.
- 8) The Contractor will set a 500-foot bottom plug from 1,262 feet to 762 feet, to cover the Trenton Limestone. The Contractor will wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 9) The Contractor will set a 477-foot plug from 762 feet to 285 feet, to cover the bottom of the 6-inch surface casing. The Contractor will wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 10) The Contractor will then set a cement plug from 285 feet to within forty-eight (48) inches of ground level, wait on cement/grout a minimum of eight (8) hours and top off with additional cement/grout, if necessary. Any open annular voids present at the surface shall be filled with cement.
- 11) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of forty-eight (48) inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



THRASHER



SCOPE OF WORK
SENECA 4F PROJECT
Good 3 Orphan Well Site
Seneca County
Jackson Township

WELL DESCRIPTION

This Well Description is for:

Good 3: 34-147-6-1146-00-00, Seneca County, Jackson Township

Background: Good 3 is located approximately 4.34 miles northeast of the city of Fostoria, 694 feet south of West County Road 28 in an agricultural field on a 146.48-acre parcel (39147-G25000398480000) which is owned by JR Miller Investments, LTD. The address is West County Road 28, Jackson Township, Fostoria, Ohio.

A 2023 division inspection of Good 3 found the well in an agricultural field at grade level equipped with 6-inch outside diameter (O.D.) surface casing open to the atmosphere. A Thrasher Group inspection of Good 3 was conducted in August 2025. At the time of inspection, Good 3 was in an agricultural field at ground level open to the atmosphere. It is equipped with 9-inch O.D. damaged conductor casing with water/shoen approximately 10 feet below ground surface.

The drilling log does not state H2S was found in this well. Based on information from the Ohio H2S map, the Good 3 well is located in Seneca County, Jackson Township which is not a H2S Township in Ohio.

Division well records for Good 3 were not located. Off-set drilling logs state that the well could have been drilled in the early to mid-1900s to an estimated total depth of 1,262 feet in the Trenton Limestone. Estimated formation data included in this record show the following:

Formation	Top (ft.)	Bottom (ft.)	Remarks
Soil/Drift	0	17	
Limestone (*Lockport)	17	341	
Clinton Limestone	341	431	
Red Rock	431	471	
Sandstone/Shale	471	1,001	
Shell	1,001	1,213	
Trenton Limestone	1,213	1,262	
Total Depth	1,262		
*Thrasher Comment			

Casing data for Good 3 is unavailable. Based on casing data from off-set well card H. Russell 17 (34-147-6-0606-00-00), which is located approximately 1,200 feet northwest of this well, and field inspection measurements, the Good 3 has assumed casing depths are as follows:

- 9-inch O.D. casing set to 50 feet

No plugging records located for Good 3.

For the purposes of this Scope of Work it is assumed that Good 3 was drilled to an estimated total depth of 1,262 feet and produced from the Trenton Limestone. The well is equipped with an estimated 50 feet of 9-inch outer diameter (O.D.) conductor casing open to the atmosphere with water/shoen approximately 10 feet below ground surface.

The deepest underground source of drinking water (USDW) is mapped on the Lockport Dolomite with the base of formation at a depth of approximately 341 feet. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Seneca County, wells produce water from clay, gravel, limestone, and shale. The sustainable yield was approximately between 2 and 50 gallons per minute. Water wells in the area are between 60 and 178 feet in depth. The work zone does not fall within the drinking water source protection areas. According to the Division of Mineral Resources Management, there are no surface or underground mines within the area of review of Good 3.

Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading and reclamation of disturbed areas as described.

Designated Route: The Contractor shall utilize West County Road 28 to access the site during all stages of the plugging project.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



THRASHER

**SCOPE OF WORK
SENECA 4F PROJECT
Good 3 Orphan Well Site
Seneca County
Jackson Township**



PLUGGING PLAN

This Plugging Plan is for:

Good 3: 34-147-6-1146-00-00, Seneca County, Jackson Township

For the purposes of this Scope of Work it is assumed that Good 3 was drilled to an estimated total depth of 1,262 feet and produced from the Trenton Limestone. The well is equipped with an estimated 50 feet of 9-inch outer diameter (O.D.) conductor casing open to the atmosphere with water/sheen approximately 10 feet below ground surface.

The Good 3 well is not located within an H2S township, however, H2S was detected in nearby wells during the site visit. Based on this information, the Contractor will follow the H2S protocol as defined in the Detailed Specifications.

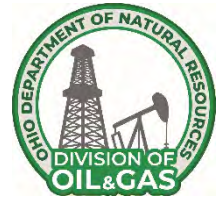
The Contractor shall maintain a minimum of 50 barrels of 9.0 pound-per-gallon weighted brine on location throughout the entire plugging process for use as a well kill fluid.

- 1) The Contractor shall visually examine the existing casings to evaluate their condition immediately below grade. If the casing(s) is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 2) The Contractor shall install 13.375-inch outside diameter (O.D.) drive pipe in the wellbore. This drive pipe shall be driven to refusal of competent bedrock, which is estimated to be at a depth of 20 feet. The top of this drive pipe shall extend to a suitable working height above ground level.
- 3) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 4) The Contractor shall install an appropriate wellhead and an approved method of well control on the most appropriately sized casing(s) to insure there is control of any gas and/or fluids generated by the well. **The Contractor shall establish and maintain well control throughout the entire plugging process.**
- 5) The Contractor will then run 5.5-inch OD surface casing to 385 feet, or a depth approved by the Division. The casing will be equipped with a float shoe on the bottom joint. The Contractor will then cement the annulus of this casing to surface using an approved cement, mixed at 15.6 pounds per gallon. The Contractor shall wait on the cement for a minimum of eight (8) hours; after which the Contractor will run their tools into the annulus to verify the depth to the top of the cement.
- 6) The Contractor shall then drill out the float shoe and any residual cement left inside the surface casing and clean out the remaining wellbore to its estimated total depth of 1,262 feet. The Contractor shall provide up to 100 barrels of saltwater on location for use as circulation fluid.

- 7) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (I.D.) tubing using an approved cement mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug.
- 8) The Contractor will set a 500-foot bottom plug from 1,262 feet to 762 feet, to cover the Trenton Limestone. The Contractor will wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 9) The Contractor will set a 477-foot plug from 762 feet to 285 feet, to cover the bottom of the 7-inch surface casing. The Contractor shall wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 10) The Contractor will then set a cement plug from 285 feet to within forty-eight (48) inches of ground level, wait on cement/grout a minimum of eight (8) hours and top off with additional cement/grout, if necessary. Any open annular voids present at the surface shall be filled with cement.
- 11) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of forty-eight (48) inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



THRASHER



SCOPE OF WORK
SENECA 4F PROJECT
Good 6 Orphan Well Site
Seneca County
Jackson Township

WELL DESCRIPTION

This Well Description is for:

Good 6: 34-147-6-1149-00-00, Seneca County, Jackson Township

Background: Good 6 is located approximately 4.19 miles northeast of the city of Fostoria, 1,236 feet south of West County Road 28 in an agricultural field on a 146.48-acre parcel (39147-G25000398480000) which is owned by JR Miller Investments, LTD. The address is West County Road 28, Jackson Township, Fostoria, Ohio.

A 2023 division inspection of Good 6 found the well in an agricultural field at grade level equipped with 6-inch outside diameter (O.D.) surface casing, tubing, rods, and visible flowline. A Thrasher Group inspection of Good 6 was conducted in August 2025. At the time of inspection, Good 6 was in an agricultural field at ground level equipped with 6-inch O.D. surface casing, 2.375-inch O.D. tubing, 1-inch sucker rods, and wellhead. Cement was poured on the ground surface around the well.

The drilling log does not state H₂S was found in this well. Based on information from the Ohio H₂S map, the Good 6 well is located in Seneca County, Jackson Township which is not a H₂S Township in Ohio.

Division well records for Good 6 were not located. Off-set drilling logs state that the well could have been drilled in the early to mid-1900s to an estimated total depth of 1,262 feet in the Trenton Limestone. Estimated formation data included in this record show the following:

Formation	Top (ft.)	Bottom (ft.)	Remarks
Soil/Drift	0	17	
Limestone (*Lockport)	17	341	
Clinton Limestone	341	431	
Red Rock	431	471	
Sandstone/Shale	471	1,001	
Shell	1,001	1,213	
Trenton Limestone	1,213	1,262	
Total Depth	1,262		
*Thrasher Comment			

Casing data for Good 6 is unavailable. Based on casing data from off-set well card H. Russell 17 (34-147-6-0606-00-00), which is located approximately 1,579 feet northwest of this well, and field inspection measurements, Good 6 has assumed casing depths are as follows:

- 6-inch O.D. casing set to 385 feet
- 2.375-inch O.D. tubing and rods set to 1,257 feet

No plugging records located for Good 6.

For the purposes of this Scope of Work it is assumed that Good 6 was drilled to an estimated total depth of 1,262 feet and produced from the Trenton Limestone. The well is equipped with an estimated 385 feet of 6-inch outer diameter (O.D.) surface casing, an estimated 1,257 feet of 2.375-inch O.D. tubing, and rods.

The deepest underground source of drinking water (USDW) is mapped on the Lockport Dolomite with the base of formation at a depth of approximately 341 feet. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Seneca County, wells produce water from clay, gravel, limestone, and shale. The sustainable yield was approximately 50 gallons per minute. Water wells in the area are between 60 and 178 feet in depth. The work zone does not fall within the drinking water source protection areas. According to the Division of Mineral Resources Management, there are no surface or underground mines within the area of review of Good 6.

Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading and reclamation of disturbed areas as described.

Designated Route: The Contractor shall utilize West County Road 28 to access the site during all stages of the plugging project.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



THRASHER



**SCOPE OF WORK
SENECA 4F PROJECT
Good 6 Orphan Well Site
Seneca County
Jackson Township**

PLUGGING PLAN

This Plugging Plan is for:

Good 6: 34-147-6-1149-00-00, Seneca County, Jackson Township

For the purposes of this Scope of Work it is assumed that Good 6 was drilled to an estimated total depth of 1,262 feet and produced from the Trenton Limestone. The well is equipped with an estimated 385 feet of 6-inch outer diameter (O.D.) surface casing, an estimated 1,257 feet of 2.375-inch O.D. tubing, and rods.

The Good 6 well is not located within an H2S township, however, H2S was detected in nearby wells during the site visit. Based on this information, the Contractor will follow the H2S protocol as defined in the Detailed Specifications.

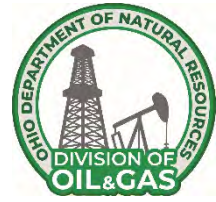
The Contractor shall maintain a minimum of 40 barrels of 9.0 pound-per-gallon weighted brine on location throughout the entire plugging process for use as a well kill fluid.

- 1) The Contractor will safely relieve any pressure that may be built up on this well prior to commencing plugging operations. The Contractor will give the property owner and local fire authorities a minimum of twenty-four (24) hour notice prior to blowing down the well.
- 2) The Contractor shall visually examine the existing casings to evaluate their condition immediately below grade. If the casing(s) is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 3) The Contractor shall install 10.75-inch outside diameter (O.D.) drive pipe in the wellbore. This drive pipe shall be driven to refusal of competent bedrock, which is estimated to be at a depth of 20 feet. The top of this drive pipe shall extend to a suitable working height above ground level.
- 4) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 5) The Contractor shall install an appropriate wellhead and an approved method of well control on the most appropriately sized casing(s) to insure there is control of any gas and/or fluids generated by the well. **The Contractor shall establish and maintain well control throughout the entire plugging process.**
- 6) The Contractor will remove the 2.375-inch outside diameter tubing and rods, and stage it on a bermed liner for further evaluation. The Contractor shall provide an accurate measurement of the amount of rods and/or tubing retrieved from the wellbore.

- 7) The Contractor will clean out the well to its estimated total depth (TD) of 1,262 feet or a depth approved by the Division. The Contractor shall run their tools into the existing 6-inch diameter casing, to ensure it is open and verify the wells total depth, which records show is estimated at 1,262 feet. The Contractor shall provide up to 80 barrels of freshwater on location for use as circulation fluid.
- 8) Once total depth has been reached, the Contractor will load the hole with freshwater and run a Gamma Ray/CCL/Temperature/Bond & Caliper log to verify hole diameter, casing integrity, and the cement and bond on the surface casing annulus. All cement plug depths and thicknesses will be based on log data.
- 9) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (I.D.) tubing using an approved cement mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug.
- 10) The Contractor will set a 500-foot bottom plug from 1,262 feet to 762 feet, to cover the Trenton Limestone. The Contractor will wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 11) The Contractor will set a 477-foot plug from 762 feet to 285 feet, to cover the bottom of the 6-inch surface casing. The Contractor shall wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 12) The Contractor will then set a cement plug from 285 feet to within forty-eight (48) inches of ground level, wait on cement/grout a minimum of eight (8) hours and top off with additional cement/grout, if necessary. Any open annular voids present at the surface shall be filled with cement.
- 13) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of forty-eight (48) inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



THRASHER



SCOPE OF WORK
SENECA 4F PROJECT
Good 8 Orphan Well Site
Seneca County
Jackson Township

WELL DESCRIPTION

This Well Description is for:

Good 8: 34-147-6-1151-00-00, Seneca County, Jackson Township

Background: Good 8 is located approximately 4.09 miles northeast of the city of Fostoria, 1,708 feet south of West County Road 28 in an agricultural field on a 146.48-acre parcel (39147-G25000398480000) which is owned by JR Miller Investments, LTD. The address is West County Road 28, Jackson Township, Fostoria, Ohio.

A 2023 division inspection of Good 8 found the well in an agricultural field at grade level equipped with 6-inch outside diameter (O.D.) surface casing and tubing. A Thrasher Group inspection of Good 8 was conducted in August 2025. At the time of inspection, Good 8 was in an agricultural field at ground level equipped with 6-inch O.D. surface casing, 2.375-inch O.D. tubing, 1-inch sucker rods, and wellhead.

The drilling log does not state H₂S was found in this well. Based on information from the Ohio H₂S map, the Good 8 well is located in Seneca County, Jackson Township which is not a H₂S Township in Ohio.

Division well records for Good 8 were not located. Off-set drilling logs state that the well could have been drilled in the early to mid-1900s to an estimated total depth of 1,263 feet in the Trenton Limestone. Estimated formation data included in this record show the following:

Formation	Top (ft.)	Bottom (ft.)	Remarks
Soil/Drift	0	18	
Limestone (*Lockport)	18	342	
Clinton Limestone	342	432	
Red Rock	432	472	
Sandstone/Shale	472	1,002	
Shell	1,002	1,214	
Trenton Limestone	1,214	1,263	
Total Depth	1,263		
*Thrasher Comment			

Casing data for Good 8 is unavailable. Based on casing data from off-set well card H. Russell 17 (34-147-6-0606-00-00), which is located approximately 1,998 feet northwest of this well, and field inspection measurements, Good 8 has assumed casing depths are as follows:

- 6-inch O.D. casing set to 385 feet
- 2.375-inch O.D. tubing and rods set to 1,257 feet

No plugging records located for Good 8.

For the purposes of this Scope of Work it is assumed that Good 8 was drilled to an estimated total depth of 1,263 feet and produced from the Trenton Limestone. The well is equipped with an estimated 385 feet of 6-inch outer diameter (O.D.) surface casing, an estimated 1,257 feet of 2.375-inch O.D. tubing, and rods.

The deepest underground source of drinking water (USDW) is mapped on the Lockport Dolomite with the base of formation at a depth of approximately 342 feet. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Seneca County, wells produce water from clay, gravel, limestone, and shale. Sustainable yield for the surrounding water wells was not determined. Water wells in the area are between 60 and 145 feet in depth. The work zone does not fall within the drinking water source protection areas. According to the Division of Mineral Resources Management, there are no surface or underground mines within the area of review of Good 8.

Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading and reclamation of disturbed areas as described.

Designated Route: The Contractor shall utilize West County Road 28 to access the site during all stages of the plugging project.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



THRASHER



**SCOPE OF WORK
SENECA 4F PROJECT
Good 8 Orphan Well Site
Seneca County
Jackson Township**

PLUGGING PLAN

This Plugging Plan is for:

Good 8: 34-147-6-1151-00-00, Seneca County, Jackson Township

For the purposes of this Scope of Work it is assumed that Good 8 was drilled to an estimated total depth of 1,263 feet and produced from the Trenton Limestone. The well is equipped with an estimated 385 feet of 6-inch outer diameter (O.D.) surface casing, an estimated 1,257 feet of 2.375-inch O.D. tubing, and rods.

The Good 8 well is not located within an H2S township, however, H2S was detected in nearby wells during the site visit. Based on this information, the Contractor will follow the H2S protocol as defined in the Detailed Specifications.

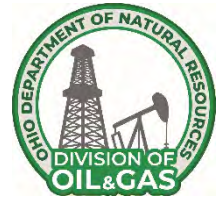
The Contractor shall maintain a minimum of 40 barrels of 9.0 pound-per-gallon weighted brine on location throughout the entire plugging process for use as a well kill fluid.

- 1) The Contractor will safely relieve any pressure that may be built up on this well prior to commencing plugging operations. The Contractor will give the property owner and local fire authorities a minimum of twenty-four (24) hour notice prior to blowing down the well.
- 2) The Contractor shall visually examine the existing casings to evaluate their condition immediately below grade. If the casing(s) is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 3) The Contractor shall install 10.75-inch outside diameter (O.D.) drive pipe in the wellbore. This drive pipe shall be driven to refusal of competent bedrock, which is estimated to be at a depth of 20 feet. The top of this drive pipe shall extend to a suitable working height above ground level.
- 4) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 5) The Contractor shall install an appropriate wellhead and an approved method of well control on the most appropriately sized casing(s) to insure there is control of any gas and/or fluids generated by the well. **The Contractor shall establish and maintain well control throughout the entire plugging process.**
- 6) The Contractor will remove the 2.375-inch outside diameter tubing and rods, and stage it on a bermed liner for further evaluation. The Contractor shall provide an accurate measurement of the amount of rods and/or tubing retrieved from the wellbore.

- 7) The Contractor will clean out the well to its estimated total depth (TD) of 1,263 feet or a depth approved by the Division. The Contractor shall run their tools into the existing 6-inch diameter casing, to ensure it is open and verify the wells total depth, which records show is estimated at 1,263 feet. The Contractor shall provide up to 80 barrels of freshwater on location for use as circulation fluid.
- 8) Once total depth has been reached, the Contractor will load the hole with freshwater and run a Gamma Ray/CCL/Temperature/Bond & Caliper log to verify hole diameter, casing integrity, and the cement and bond on the surface casing annulus. All cement plug depths and thicknesses will be based on log data.
- 9) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (I.D.) tubing using an approved cement mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug.
- 10) The Contractor will set a 500-foot bottom plug from 1,263 feet to 763 feet, to cover the Trenton Limestone. The Contractor will wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 11) The Contractor will set a 478-foot plug from 763 feet to 285 feet, to cover the bottom of the 6-inch surface casing. The Contractor shall wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 12) The Contractor will then set a cement plug from 285 feet to within forty-eight (48) inches of ground level, wait on cement/grout a minimum of eight (8) hours and top off with additional cement/grout, if necessary. Any open annular voids present at the surface shall be filled with cement.
- 13) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of forty-eight (48) inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



THRASHER



SCOPE OF WORK
SENECA 4F PROJECT
Good 5 Orphan Well Site
Seneca County
Jackson Township

WELL DESCRIPTION

This Well Description is for:

Good 5: 34-147-6-1148-00-00, Seneca County, Jackson Township

Background: Good 5 is located approximately 4.05 miles northeast of the city of Fostoria, 1,308 feet south of West County Road 28 in an agricultural field on a 146.48-acre parcel (39147-G25000398480000) which is owned by JR Miller Investments, LTD. The address is West County Road 28, Jackson Township, Fostoria, Ohio.

A 2023 division inspection of Good 5 found the well in an agricultural field at grade level equipped with 6-inch outside diameter (O.D.) surface casing, tubing, and rods. A Thrasher Group inspection of Good 5 was conducted in August 2025. At the time of inspection, Good 5 was in an agricultural field at ground level equipped with 6-inch O.D. surface casing, 2.375-inch O.D. tubing, 1-inch sucker rods, and wellhead. There is an associated water well approximately 25 feet south of the well equipped with 2.375-inch tubing, and 1-inch tubing sticking out an 8-inch O.D. casing.

The drilling log does not state H2S was found in this well. Based on information from the Ohio H2S map, the Good 5 well is located in Seneca County, Jackson Township which is not a H2S Township in Ohio.

Division well records for Good 5 were not located. Off-set drilling logs state that the well could have been drilled in the early to mid-1900s to an estimated total depth of 1,261 feet in the Trenton Limestone. Estimated formation data included in this record show the following:

Formation	Top (ft.)	Bottom (ft.)	Remarks
Soil/Drift	0	16	
Limestone (*Lockport)	16	340	
Clinton Limestone	340	430	
Red Rock	430	470	
Sandstone/Shale	470	1,000	
Shell	1,000	1,212	
Trenton Limestone	1,212	1,261	
Total Depth	1,261		
*Thrasher Comment			

Casing data for Good 5 is unavailable. Based on casing data from off-set well card H. Russell 17 (34-147-6-0606-00-00), which is located approximately 1,456 feet northwest of this well, and field inspection measurements, Good 5 has assumed casing depths are as follows:

- 6-inch O.D. casing set to 385 feet
- 2.375-inch O.D. tubing and rods set to 1,257 feet

No plugging records located for Good 5.

For the purposes of this Scope of Work it is assumed that Good 5 was drilled to an estimated total depth of 1,261 feet and produced from the Trenton Limestone. The well is equipped with an estimated 385 feet of 6-inch outer diameter (O.D.) surface casing, an estimated 1,257 feet of 2.375-inch O.D. tubing, and rods. There is a water well located approximately 25 feet south of the well equipped with 2.375-inch tubing, and 1-inch tubing sticking out an 8-inch O.D. casing.

The deepest underground source of drinking water (USDW) is mapped on the Lockport Dolomite with the base of formation at a depth of approximately 340 feet. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Seneca County, wells produce water from clay, gravel, limestone, and shale. The sustainable yield was approximately 50 gallons per minute. Water wells in the area are between 60 and 178 feet in depth. The work zone does not fall within the drinking water source protection areas. According to the Division of Mineral Resources Management, there are no surface or underground mines within the area of review of Good 5.

Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading and reclamation of disturbed areas as described.

Designated Route: The Contractor shall utilize West County Road 28 to access the site during all stages of the plugging project.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



THRASHER



**SCOPE OF WORK
SENECA 4F PROJECT
Good 5 Orphan Well Site
Seneca County
Jackson Township**

PLUGGING PLAN

This Plugging Plan is for:

Good 5: 34-147-6-1148-00-00, Seneca County, Jackson Township

For the purposes of this Scope of Work it is assumed that Good 5 was drilled to an estimated total depth of 1,261 feet and produced from the Trenton Limestone. The well is equipped with an estimated 385 feet of 6-inch outer diameter (O.D.) surface casing, an estimated 1,257 feet of 2.375-inch O.D. tubing, and rods. There is a water well located approximately 25 feet south of the well equipped with 2.375-inch tubing, and 1-inch tubing sticking out an 8-inch O.D. casing.

The Good 5 well is not located within an H2S township, however, H2S was detected in nearby wells during the site visit. Based on this information, the Contractor will follow the H2S protocol as defined in the Detailed Specifications.

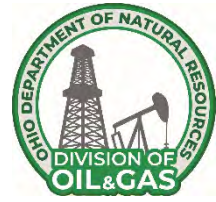
The Contractor shall maintain a minimum of 40 barrels of 9.0 pound-per-gallon weighted brine on location throughout the entire plugging process for use as a well kill fluid.

- 1) The Contractor will safely relieve any pressure that may be built up on this well prior to commencing plugging operations. The Contractor will give the property owner and local fire authorities a minimum of twenty-four (24) hour notice prior to blowing down the well.
- 2) The Contractor shall visually examine the existing casings to evaluate their condition immediately below grade. If the casing(s) is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 3) The Contractor shall install 10.75-inch outside diameter (O.D.) drive pipe in the wellbore. This drive pipe shall be driven to refusal of competent bedrock, which is estimated to be at a depth of 20 feet. The top of this drive pipe shall extend to a suitable working height above ground level.
- 4) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 5) The Contractor shall install an appropriate wellhead and an approved method of well control on the most appropriately sized casing(s) to insure there is control of any gas and/or fluids generated by the well. **The Contractor shall establish and maintain well control throughout the entire plugging process.**
- 6) The Contractor will remove the 2.375-inch outside diameter tubing and rods, and stage it on a bermed liner for further evaluation. The Contractor shall provide an accurate measurement of the amount of rods and/or tubing retrieved from the wellbore.

- 7) The Contractor will clean out the well to its estimated total depth (TD) of 1,261 feet or a depth approved by the Division. The Contractor shall run their tools into the existing 6-inch diameter casing, to ensure it is open and verify the wells total depth, which records show is estimated at 1,261 feet. The Contractor shall provide up to 80 barrels of freshwater on location for use as circulation fluid.
- 8) Once total depth has been reached, the Contractor will load the hole with freshwater and run a Gamma Ray/CCL/Temperature/Bond & Caliper log to verify hole diameter, casing integrity, and the cement and bond on the surface casing annulus. All cement plug depths and thicknesses will be based on log data.
- 9) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (I.D.) tubing using an approved cement mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug.
- 10) The Contractor will set a 500-foot bottom plug from 1,261 feet to 761 feet, to cover the Trenton Limestone. The Contractor will wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 11) The Contractor will set a 476-foot plug from 761 feet to 285 feet, to cover the bottom of the 6-inch surface casing. The Contractor shall wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 12) The Contractor will then set a cement plug from 285 feet to within forty-eight (48) inches of ground level, wait on cement/grout a minimum of eight (8) hours and top off with additional cement/grout, if necessary. Any open annular voids present at the surface shall be filled with cement.
- 13) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of forty-eight (48) inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



THRASHER



SCOPE OF WORK
SENECA 4F PROJECT
Good 5 Water Well Orphan Well Site
Seneca County
Jackson Township

WELL DESCRIPTION

This Well Description is for:

Good 5 Water Well: API Number Not Applicable (N/A), Seneca County, Jackson Township

Background: Good 5 Water Well is located approximately 4.05 miles northeast of the city of Fostoria, 1,308 feet south of West County Road 28 in an agricultural field on a 146.48-acre parcel (39147-G25000398480000) which is owned by JR Miller Investments, LTD. The address is West County Road 28, Jackson Township, Fostoria, Ohio.

A Thrasher Group inspection of Good 5 Water Well was conducted in August 2025. At the time of inspection, Good 5 Water Well was in an agricultural field at ground level equipped with 8-inch outside diameter (O.D.) surface casing, 2.375-inch O.D. tubing, and 1-inch O.D. tubing shoved in the 8-inch casing.

The drilling log does not state H₂S was found in this well. Based on information from the Ohio H₂S map, the Good 5 Water Well is located in Seneca County, Jackson Township which is not a H₂S Township in Ohio.

Division well records for Good 5 Water Well were not available, but it is assumed the well was drilled in the early to mid-1900s to an estimated total depth of 120 feet in Limestone. Estimated formation data included in this record show the following:

Formation	Top (ft.)	Bottom (ft.)	Remarks
Soil/Drift	0	16	
Limestone (*Limestone)	16	120	
Total Depth	120		

Casing data for Good 5 Water Well is unavailable. Based on casing data from off-set well card H. Russell 17 (34-147-6-0606-00-00), which is located approximately 1,456 feet northwest of this well, and field inspection measurements, Good 5 Water Well has assumed casing depths are as follows:

- 8-inch O.D. casing set to an estimated 120 feet
- 2.375-inch O.D. tubing set to an estimated 120 feet
- 1-inch O.D. tubing set to an estimated 120 feet

No plugging records located for Good 5 Water Well.

For the purposes of this Scope of Work it is assumed that the Good 5 water well that was drilled to a total depth of 120 feet into a limestone unit from 16 feet to 120 feet. The well is equipped with an estimated 120 feet of 8-inch outer diameter (O.D.) casing, an estimated 120 feet of 2.375-inch tubing, and an estimated 120 feet of 1-inch tubing.

The deepest underground source of drinking water (USDW) is mapped on the Lockport Dolomite. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Seneca County, wells produce water from clay, gravel, limestone, and shale. The sustainable yield was approximately 50 gallons per minute. Water wells in the area are between 60 and 178 feet in depth. The work zone does not fall within the drinking water source protection areas. According to the Division of Mineral Resources Management, there are no surface or underground mines within the area of review of Good 5 Water Well.

Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading and reclamation of disturbed areas as described.

Designated Route: The Contractor shall utilize West County Road 28 to access the site during all stages of the plugging project.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



THRASHER



**SCOPE OF WORK
SENECA 4F PROJECT
Good 5 Water Well Orphan Well Site
Seneca County
Jackson Township**

PLUGGING PLAN

This Plugging Plan is for:

Good 5 Water Well: API Number Not Applicable (N/A), Seneca County, Jackson Township

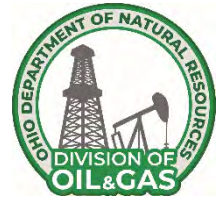
For the purposes of this Scope of Work it is assumed that the Good 5 water well that was drilled to an estimated total depth of 120 feet into a limestone unit from 16 feet to 120 feet. The well is equipped with an estimated 120 feet of 8-inch outer diameter (O.D.) casing, an estimated 120 feet of 2.375-inch tubing, and an estimated 120 feet of 1-inch tubing.

The Good 5 Water Well is not located within an H2S township, however, H2S was detected in nearby wells during the site visit. Based on this information, the Contractor will follow the H2S protocol as defined in the Detailed Specifications.

- 1) The Contractor will remove the 1-inch outside diameter (O.D.) tubing and the 2.375-inch O.D. tubing and stage it on a bermed liner for further evaluation. The Contractor shall provide an accurate measurement of the amount tubing retrieved from the wellbore.
- 2) The Contractor will clean out the well to approximately 120 feet or a depth approved by the Division.
- 3) The Contractor will then set a cement plug from approved depth to within 36-inches of ground level, wait on cement a minimum of eight (8) hours, then check the cement level and top off with additional cement if necessary.
- 4) The Contractor shall cut the casing to a depth of 36-inches below ground level and tack weld a steel plate on the top of the casing that is inscribed with WW (water well).



THRASHER



SCOPE OF WORK
SENECA 4F PROJECT
Good 2 Orphan Well Site
Seneca County
Jackson Township

WELL DESCRIPTION

This Well Description is for:

Good 2: 34-147-6-1145-00-00, Seneca County, Jackson Township

Background: Good 2 is located approximately 4.17 miles northeast of the city of Fostoria, 675 feet south of West County Road 28 in an agricultural field on a 10-acre parcel (39147-G25000398480100) which is owned by Nicholas Gillett. The address is West County Road 28, Jackson Township, Fostoria, Ohio.

A 2023 division inspection of Good 2 found the well in an agricultural field equipped with 6-inch outside diameter (O.D.) surface casing, tubing, rods, and wellhead. A Thrasher Group inspection of Good 2 was conducted in August 2025. At the time of inspection, Good 2 was in an agricultural field equipped with 6-inch O.D. surface casing, 2.375-inch O.D. tubing, 1-inch sucker rods, and wellhead.

The drilling log does not state H₂S was found in this well. Based on information from the Ohio H₂S map, the Good 2 well is located in Seneca County, Jackson Township which is not a H₂S Township in Ohio.

Division well records for Good 2 were not located. Off-set drilling logs state that the well could have been drilled in the early to mid-1900s to an estimated total depth of 1,260 feet in the Trenton Limestone. Estimated formation data included in this record show the following:

Formation	Top (ft.)	Bottom (ft.)	Remarks
Soil/Drift	0	15	
Limestone (*Lockport)	15	339	
Clinton Limestone	339	429	
Red Rock	429	469	
Sandstone/Shale	469	999	
Shell	999	1,211	
Trenton Limestone	1,211	1,260	
Total Depth	1,260		

Casing data for Good 2 is unavailable. Based on casing data from off-set well card H. Russell 17 (34-147-6-0606-00-00), which is located approximately 847 feet north of this well, and field inspection measurements, Good 2 has assumed casing depths are as follows:

- 6-inch O.D. casing set to 385 feet
- 2.375-inch O.D. tubing and rods set to 1,257 feet

No plugging records located for Good 2.

For the purposes of this Scope of Work it is assumed that Good 2 was drilled to an estimated total depth of 1,260 feet and produced from the Trenton Limestone. The well is equipped with an estimated 385 feet of 6-inch outer diameter (O.D.) surface casing, an estimated 1,257 feet of 2.375-inch O.D. tubing, and rods.

The deepest underground source of drinking water (USDW) is mapped on the Lockport Dolomite with the base of formation at a depth of approximately 339 feet. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Seneca County, wells produce water from clay, gravel, limestone, and shale. The sustainable yield was approximately 50 gallons per minute. Water wells in the area are between 60 and 178 feet in depth. One water well (Field Verified Active Water Well) was identified during the site visit and located within the 300-foot area of review of the Good 2 well. The work zone does not fall within the drinking water source protection areas. According to the Division of Mineral Resources Management, there are no surface or underground mines within the area of review of Good 2.

Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading and reclamation of disturbed areas as described.

Designated Route: The Contractor shall utilize West County Road 28 to access the site during all stages of the plugging project.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



THRASHER



**SCOPE OF WORK
SENECA 4F PROJECT
Good 2 Orphan Well Site
Seneca County
Jackson Township**

PLUGGING PLAN

This Plugging Plan is for:

Good 2: 34-147-6-1145-00-00, Seneca County, Jackson Township

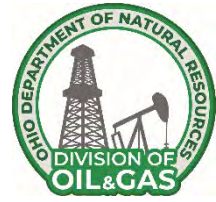
For the purposes of this Scope of Work it is assumed that Good 2 was drilled to an estimated total depth of 1,260 feet and produced from the Trenton Limestone. The well is equipped with an estimated 385 feet of 6-inch outer diameter (O.D.) surface casing, an estimated 1,257 feet of 2.375-inch O.D. tubing, and rods.

The Good 2 well is not located within an H2S township, however, H2S was detected in nearby wells during the site visit. Based on this information, the Contractor will follow the H2S protocol as defined in the Detailed Specifications.

The Contractor shall maintain a minimum of 40 barrels of 9.0 pound-per-gallon weighted brine on location throughout the entire plugging process for use as a well kill fluid.

- 1) The Contractor will safely relieve any pressure that may be built up on this well prior to commencing plugging operations. The Contractor will give the property owner and local fire authorities a minimum of twenty-four (24) hour notice prior to blowing down the well.
- 2) The Contractor shall visually examine the existing casings to evaluate their condition immediately below grade. If the casing(s) is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 3) The Contractor shall install 10.75-inch outside diameter (O.D.) drive pipe in the wellbore. This drive pipe shall be driven to refusal of competent bedrock, which is estimated to be at a depth of 20 feet. The top of this drive pipe shall extend to a suitable working height above ground level.
- 4) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 5) The Contractor shall install an appropriate wellhead and an approved method of well control on the most appropriately sized casing(s) to insure there is control of any gas and/or fluids generated by the well. **The Contractor shall establish and maintain well control throughout the entire plugging process.**
- 6) The Contractor will remove the 2.375-inch outside diameter tubing and rods, and stage it on a bermed liner for further evaluation. The Contractor shall provide an accurate measurement of the amount of rods and/or tubing retrieved from the wellbore.

- 7) The Contractor will clean out the well to its estimated total depth (TD) of 1,260 feet or a depth approved by the Division. The Contractor shall run their tools into the existing 6-inch diameter casing, to ensure it is open and verify the wells total depth, which records show is estimated at 1,260 feet. The Contractor shall provide up to 80 barrels of freshwater on location for use as circulation fluid.
- 8) Once total depth has been reached, the Contractor will load the hole with freshwater and run a Gamma Ray/CCL/Temperature/Bond & Caliper log to verify hole diameter, casing integrity, and the cement and bond on the surface casing annulus. All cement plug depths and thicknesses will be based on log data.
- 9) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (I.D.) tubing using an approved cement mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug.
- 10) The Contractor will set a 500-foot bottom plug from 1,260 feet to 760 feet, to cover the Trenton Limestone. The Contractor will wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 11) The Contractor will set a 475-foot plug from 760 feet to 285 feet, to cover the bottom of the 6-inch surface casing. The Contractor shall wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 12) The Contractor will then set a cement plug from 285 feet to within forty-eight (48) inches of ground level, wait on cement/grout a minimum of eight (8) hours and top off with additional cement/grout, if necessary. Any open annular voids present at the surface shall be filled with cement.
- 13) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of forty-eight (48) inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



SCOPE OF WORK
SENECA 4F PROJECT
Good 4 Orphan Well Site
Seneca County
Jackson Township

WELL DESCRIPTION

This Well Description is for:

Good 4: 34-147-6-1147-00-00, Seneca County, Jackson Township

Background: Good 4 is located approximately 3.58 miles northeast of the city of Fostoria, 1,300 feet south of West County Road 28 in an agricultural field on a 146.48-acre parcel (39147-G25000398480000) which is owned by JR Miller Investments, LTD. The address is West County Road 28, Jackson Township, Fostoria, Ohio.

A 2023 division inspection of Good 4 found the well in an agricultural field at grade level equipped with 6-inch outside diameter (O.D.) surface casing, tubing, and rods. A Thrasher Group inspection of Good 4 was conducted in August 2025. At the time of inspection, Good 4 was in an agricultural field at ground level equipped with 6-inch O.D. surface casing, 2.375-inch O.D. tubing, 1-inch sucker rods, and wellhead. Cement was poured on the ground surface around the well.

The drilling log does not state H₂S was found in this well. Based on information from the Ohio H₂S map, the Good 4 well is located in Seneca County, Jackson Township which is not a H₂S Township in Ohio.

Division well records for Good 4 were not located. Off-set drilling logs state that the well could have been drilled in the early to mid-1900s to an estimated total depth of 1,262 feet in the Trenton Limestone. Estimated formation data included in this record show the following:

Formation	Top (ft.)	Bottom (ft.)	Remarks
Soil/Drift	0	17	
Limestone (*Lockport)	17	341	
Clinton Limestone	341	431	
Red Rock	431	471	
Sandstone/Shale	471	1,001	
Shell	1,001	1,213	
Trenton Limestone	1,213	1,262	
Total Depth	1,262		
*Thrasher Comment			

Casing data for Good 4 is unavailable. Based on casing data from off-set well card H. Russell 17 (34-147-6-0606-00-00), which is located approximately 1,204 feet northwest of this well, and field inspection measurements, Good 4 has assumed casing depths are as follows:

- 6-inch O.D. casing set to 385 feet
- 2.375-inch O.D. tubing set to 1,257 feet

- 1-inch sucker rods set to 1,257 feet

No plugging records located for Good 4.

For the purposes of this Scope of Work it is assumed that Good 4 was drilled to an estimated total depth of 1,262 feet and produced from the Trenton Limestone. The well is equipped with an estimated 385 feet of 6-inch outer diameter (O.D.) surface casing, an estimated 1,257 feet of 2.375-inch O.D. tubing, and rods.

The deepest underground source of drinking water (USDW) is mapped on the Lockport Dolomite with the base of formation at a depth of approximately 341 feet. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Seneca County, wells produce water from clay, gravel, limestone, and shale. The sustainable yield was approximately 50 gallons per minute. Water wells in the area are between 60 and 178 feet in depth. The work zone does not fall within the drinking water source protection areas. According to the Division of Mineral Resources Management, there are no surface or underground mines within the area of review of Good 4.

Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading and reclamation of disturbed areas as described.

Designated Route: The Contractor shall utilize West County Road 28 to access the site during all stages of the plugging project.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



THRASHER



**SCOPE OF WORK
SENECA 4F PROJECT
Good 4 Orphan Well Site
Seneca County
Jackson Township**

PLUGGING PLAN

This Plugging Plan is for:

Good 4: 34-147-6-1147-00-00, Seneca County, Jackson Township

For the purposes of this Scope of Work it is assumed that Good 4 was drilled to an estimated total depth of 1,262 feet and produced from the Trenton Limestone. The well is equipped with an estimated 385 feet of 6-inch outer diameter (O.D.) surface casing, an estimated 1,257 feet of 2.375-inch O.D. tubing, and rods.

The Good 4 well is not located within an H2S township, however, H2S was detected in nearby wells during the site visit. Based on this information, the Contractor will follow the H2S protocol as defined in the Detailed Specifications.

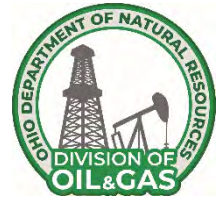
The Contractor shall maintain a minimum of 40 barrels of 9.0 pound-per-gallon weighted brine on location throughout the entire plugging process for use as a well kill fluid.

- 1) The Contractor will safely relieve any pressure that may be built up on this well prior to commencing plugging operations. The Contractor will give the property owner and local fire authorities a minimum of twenty-four (24) hour notice prior to blowing down the well.
- 2) The Contractor shall visually examine the existing casings to evaluate their condition immediately below grade. If the casing(s) is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 3) The Contractor shall install 10.75-inch outside diameter (O.D.) drive pipe in the wellbore. This drive pipe shall be driven to refusal of competent bedrock, which is estimated to be at a depth of 20 feet. The top of this drive pipe shall extend to a suitable working height above ground level.
- 4) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 5) The Contractor shall install an appropriate wellhead and an approved method of well control on the most appropriately sized casing(s) to insure there is control of any gas and/or fluids generated by the well. **The Contractor shall establish and maintain well control throughout the entire plugging process.**
- 6) The Contractor will remove the 2.375-inch outside diameter tubing and rods, and stage it on a bermed liner for further evaluation. The Contractor shall provide an accurate measurement of the amount of rods and/or tubing retrieved from the wellbore.

- 7) The Contractor will clean out the well to its estimated total depth (TD) of 1,262 feet or a depth approved by the Division. The Contractor shall run their tools into the existing 6-inch diameter casing, to ensure it is open and verify the wells total depth, which records show is estimated at 1,262 feet. The Contractor shall provide up to 80 barrels of freshwater on location for use as circulation fluid.
- 8) Once total depth has been reached, the Contractor will load the hole with freshwater and run a Gamma Ray/CCL/Temperature/Bond & Caliper log to verify hole diameter, casing integrity, and the cement and bond on the surface casing annulus. All cement plug depths and thicknesses will be based on log data.
- 9) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (I.D.) tubing using an approved cement mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug.
- 10) The Contractor will set a 500-foot bottom plug from 1,262 feet to 762 feet, to cover the Trenton Limestone. The Contractor will wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 11) The Contractor will set a 477-foot plug from 762 feet to 285 feet, to cover the bottom of the 6-inch surface casing. The Contractor shall wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 12) The Contractor will then set a cement plug from 285 feet to within forty-eight (48) inches of ground level, wait on cement/grout a minimum of eight (8) hours and top off with additional cement/grout, if necessary. Any open annular voids present at the surface shall be filled with cement.
- 13) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of forty-eight (48) inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



THRASHER



SCOPE OF WORK
SENECA 4F PROJECT
Good 10 Orphan Well Site
Seneca County
Jackson Township

WELL DESCRIPTION

This Well Description is for:

Good 10: 34-147-6-1153-00-00, Seneca County, Jackson Township

Background: Good 10 is located approximately 3.92 miles northeast of the city of Fostoria, 2,444 feet south of West County Road 28 in an agricultural field on a 146.48-acre parcel (39147-G25000398480000) which is owned by JR Miller Investments, LTD. The address is West County Road 28, Jackson Township, Fostoria, Ohio.

A 2023 division inspection of Good 10 found the well in an agricultural field at grade level equipped with 6-inch outside diameter (O.D.) surface casing, tubing, rods, and shackle equipment. A Thrasher Group inspection of Good 10 was conducted in August 2025. At the time of inspection, Good 10 was in an agricultural field at ground level equipped with 6-inch O.D. surface casing, 2.375-inch O.D. tubing, 1-inch sucker rods. Pieces of a pumping unit, pumping unit brace, and wellhead were nearby.

The drilling log does not state H2S was found in this well. Based on information from the Ohio H2S map, the Good 10 well is located in Seneca County, Jackson Township which is not a H2S Township in Ohio.

Division well records for Good 10 were not located. Off-set drilling logs state that the well could have been drilled in the early to mid-1900s to an estimated total depth of 1,262 feet in the Trenton Limestone. Estimated formation data included in this record show the following:

Formation	Top (ft.)	Bottom (ft.)	Remarks
Soil/Drift	0	17	
Limestone (*Lockport)	17	341	
Clinton Limestone	341	431	
Red Rock	431	471	
Sandstone/Shale	471	1,001	
Shell	1,001	1,213	
Trenton Limestone	1,213	1,262	
Total Depth	1,262		
*Thrasher Comment			

Casing data for Good 10 is unavailable. Based on casing data from off-set well card H. Russell 17 (34-147-6-0606-00-00,) which is located approximately 2,543 feet north of this well, and field inspection measurements, Good 10 has assumed casing depths are as follows:

- 6-inch O.D. casing set to 385 feet
- 2.375-inch O.D. tubing and rods set to 1,257 feet

No plugging records located for Good 10.

For the purposes of this Scope of Work it is assumed that Good 10 was drilled to an estimated total depth of 1,262 feet and produced from the Trenton Limestone. The well is equipped with an estimated 385 feet of 6-inch outer diameter (O.D.) surface casing, an estimated 1,257 feet of 2.375-inch O.D. tubing and rods.

The deepest underground source of drinking water (USDW) is mapped on the Lockport Dolomite with the base of formation at a depth of approximately 341 feet. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Seneca County, wells produce water from clay, gravel, limestone, and shale. Sustainable yield for the surrounding water wells was not determined. Water wells in the area are between 60 and 103 feet in depth. The work zone does not fall within the drinking water source protection areas. According to the Division of Mineral Resources Management, there are no surface or underground mines within the area of review of Good 10.

Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading and reclamation of disturbed areas as described.

Designated Route: The Contractor shall utilize West County Road 28 to access the site during all stages of the plugging project.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



THRASHER



**SCOPE OF WORK
SENECA 4F PROJECT
Good 10 Orphan Well Site
Seneca County
Jackson Township**

PLUGGING PLAN

This Plugging Plan is for:

Good 10: 34-147-6-1153-00-00, Seneca County, Jackson Township

For the purposes of this Scope of Work it is assumed that Good 10 was drilled to an estimated total depth of 1,262 feet and produced from the Trenton Limestone. The well is equipped with an estimated 385 feet of 6-inch outer diameter (O.D.) surface casing, an estimated 1,257 feet of 2.375-inch O.D. tubing and rods.

The Good 10 well is not located within an H2S township, however, H2S was detected in nearby wells during the site visit. Based on this information, the Contractor will follow the H2S protocol as defined in the Detailed Specifications.

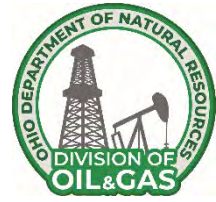
The Contractor shall maintain a minimum of 40 barrels of 9.8 pound-per-gallon weighted brine on location throughout the entire plugging process for use as a well kill fluid.

- 1) The Contractor will safely relieve any pressure that may be built up on this well prior to commencing plugging operations. The Contractor will give the property owner and local fire authorities a minimum of twenty-four (24) hour notice prior to blowing down the well.
- 2) The Contractor shall visually examine the existing casings to evaluate their condition immediately below grade. If the casing(s) is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 3) The Contractor shall install 10.75-inch outside diameter (O.D.) drive pipe in the wellbore. This drive pipe shall be driven to refusal of competent bedrock, which is estimated to be at a depth of 20 feet. The top of this drive pipe shall extend to a suitable working height above ground level.
- 4) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 5) The Contractor shall install an appropriate wellhead and an approved method of well control on the most appropriately sized casing(s) to insure there is control of any gas and/or fluids generated by the well. **The Contractor shall establish and maintain well control throughout the entire plugging process.**
- 6) The Contractor will remove the 2.375-inch outside diameter tubing and rods, and stage it on a bermed liner for further evaluation. The Contractor shall provide an accurate measurement of the amount of rods and/or tubing retrieved from the wellbore.

- 7) The Contractor will clean out the well to its estimated total depth (TD) of 1,262 feet or a depth approved by the Division. The Contractor shall run their tools into the existing 6-inch diameter casing, to ensure it is open and verify the wells total depth, which records show is estimated at 1,263 feet. The Contractor shall provide up to 80 barrels of freshwater on location for use as circulation fluid.
- 8) Once total depth has been reached, the Contractor will load the hole with freshwater and run a Gamma Ray/CCL/Temperature/Bond & Caliper log to verify hole diameter, casing integrity, and the cement and bond on the surface casing annulus. All cement plug depths and thicknesses will be based on log data.
- 9) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (I.D.) tubing using an approved cement mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug.
- 10) The Contractor will set a 500-foot bottom plug from 1,262 feet to 762 feet, to cover the Trenton Limestone. The Contractor will wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 11) The Contractor will set a 477-foot plug from 762 feet to 285 feet, to cover the bottom of the 6-inch surface casing. The Contractor shall wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 12) The Contractor will then set a cement plug from 285 feet to within forty-eight (48) inches of ground level, wait on cement/grout a minimum of eight (8) hours and top off with additional cement/grout, if necessary. Any open annular voids present at the surface shall be filled with cement.
- 13) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of forty-eight (48) inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



THRASHER



SCOPE OF WORK
SENECA 4F PROJECT
Jerald 3 Orphan Well Site
Seneca County
Jackson Township

WELL DESCRIPTION

This Well Description is for:

Jerald 3: 34-147-6-1158-00-00, Seneca County, Jackson Township

Background: Jerald 3 is located approximately 2.74 miles northeast of the city of Fostoria, 1,112 feet east of North Township Road 63 in an agricultural field on a 33.06-acre parcel (39147-G25000397800000) which is owned by Jeffrey Frankhart. The address is North Township Road 63, Jackson Township, Fostoria, Ohio.

A 2025 division inspection of Jerald 3 found the well in an agricultural field equipped with 6-inch outside diameter (O.D.) surface casing, tubing, rods, pumping unit, concrete anchor, and wellhead. A Thrasher Group inspection of Jerald 3 was conducted in August 2025. At the time of inspection, Jerald 3 was located in an agricultural field equipped with 6-inch O.D. surface casing, 2.375-inch O.D. tubing, 1-inch sucker rods, pumping unit, concrete anchor and wellhead.

The drilling log does not state H₂S was found in this well. Based on information from the Ohio H₂S map, the Jerald 3 well is located in Seneca County, Jackson Township which is not a H₂S Township in Ohio.

Division well records for Jerald 3 were not located. Off-set drilling logs state that the well could have been drilled in the early to mid-1900s to an estimated total depth of 1,274 feet in the Trenton Limestone. Estimated formation data included in this record show the following:

Formation	Top (ft.)	Bottom (ft.)	Remarks
Drift	0	10	Soft
Limestone (*Lockport)	10	299	Blue; Hard
Break	299	329	Blue; Soft
Clinton Sandstone	329	429	Light; Hard
Red Rock	429	484	Medium
Shale	484	604	Blue; Medium
Shale	604	829	Gray; Medium
Shale	829	1,004	Light Brown; Medium
Shale	1,004	1,225	Dark Brown; Medium
Trenton Limestone	1,225	1,274	Hard; Oil and Gas at 1,230 feet
Total Depth	1,274		
*Thrasher Comment			

Casing data for Jerald 3 is unavailable. Based on casing data from off-set well card Irvin Waltermier 3 (34-147-2-0038-00-00), which is located approximately 1,954 feet northeast of this well, and field inspection measurements, Jerald 3 has assumed casing depths are as follows:

- 6-inch O.D. casing set to 325 feet
- 2.375-inch O.D. tubing and rods set to 1,271 feet

No plugging records located for Jerald 3.

For the purposes of this Scope of Work it is assumed that Jerald 3 was drilled to an estimated total depth of 1,274 feet and produced from the Trenton Limestone. The well is equipped with an estimated 325 feet of 6-inch outer diameter O.D. surface casing, an estimated 1,271 feet of 2.375-inch O.D. tubing, and rods.

The deepest underground source of drinking water (USDW) is mapped on the Lockport Dolomite with the base of formation at a depth of approximately 299 feet. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Seneca County, wells produce water from clay, gravel, limestone, and shale. Sustainable yield for the surrounding water wells was approximately 50 gallons per minute. Water wells in the area are between 52 and 200 feet in depth. The work zone falls within the drinking water source protection area for Fostoria Mobile Estates (OH7400712). According to the Division of Mineral Resources Management, there are no surface or underground mines within the area of review of Jerald 3.

Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading and reclamation of disturbed areas as described.

Designated Route: The Contractor shall utilize North Township Road 63 to access the site during all stages of the plugging project.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



THRASHER



**SCOPE OF WORK
SENECA 4F PROJECT
Jerald 3 Orphan Well Site
Seneca County
Jackson Township**

PLUGGING PLAN

This Plugging Plan is for:

Jerald 3: 34-147-6-1158-00-00, Seneca County, Jackson Township

For the purposes of this Scope of Work it is assumed that Jerald 3 was drilled to an estimated total depth of 1,274 feet and produced from the Trenton Limestone. The well is equipped with an estimated 325 feet of 6-inch outer diameter O.D. surface casing, an estimated 1,271 feet of 2.375-inch O.D. tubing, and rods.

The Jerald 3 well is not located within an H2S township, however, H2S was detected in nearby wells during the site visit. Based on this information, the Contractor will follow the H2S protocol as defined in the Detailed Specifications.

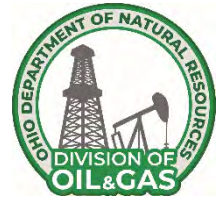
The Contractor shall maintain a minimum of 40 barrels of 9.0 pound-per-gallon weighted brine on location throughout the entire plugging process for use as a well kill fluid.

- 1) The Contractor will safely relieve any pressure that may be built up on this well prior to commencing plugging operations. The Contractor will give the property owner and local fire authorities a minimum of twenty-four (24) hour notice prior to blowing down the well.
- 2) The Contractor shall visually examine the existing casings to evaluate their condition immediately below grade. If the casing(s) is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 3) The Contractor shall install 10.75-inch outside diameter (O.D.) drive pipe in the wellbore. This drive pipe shall be driven to refusal of competent bedrock, which is estimated to be at a depth of 20 feet. The top of this drive pipe shall extend to a suitable working height above ground level.
- 4) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 5) The Contractor shall install an appropriate wellhead and an approved method of well control on the most appropriately sized casing(s) to insure there is control of any gas and/or fluids generated by the well. **The Contractor shall establish and maintain well control throughout the entire plugging process.**
- 6) The Contractor will remove the 2.375-inch outside diameter tubing and rods, and stage it on a bermed liner for further evaluation. The Contractor shall provide an accurate measurement of the amount of rods and/or tubing retrieved from the wellbore.

- 7) The Contractor will clean out the well to its estimated total depth (TD) of 1,274 feet or a depth approved by the Division. The Contractor shall run their tools into the existing 6-inch diameter casing, to ensure it is open and verify the wells total depth, which records show is estimated at 1,274 feet. The Contractor shall provide up to 80 barrels of freshwater on location for use as circulation fluid.
- 8) Once total depth has been reached, the Contractor will load the hole with freshwater and run a Gamma Ray/CCL/Temperature/Bond & Caliper log to verify hole diameter, casing integrity, and the cement and bond on the surface casing annulus. All cement plug depths and thicknesses will be based on log data.
- 9) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (I.D.) tubing using an approved cement mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug.
- 10) The Contractor will set a 500-foot bottom plug from 1,274 feet to 774 feet, to cover the Trenton Limestone. The Contractor will wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 11) The Contractor will set a 500-foot plug from 774 feet to 274 feet, to cover the bottom of the 6-inch surface casing. The Contractor shall wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 12) The Contractor will then set a cement plug from 274 feet to within forty-eight (48) inches of ground level, wait on cement/grout a minimum of eight (8) hours and top off with additional cement/grout, if necessary. Any open annular voids present at the surface shall be filled with cement.
- 13) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of forty-eight (48) inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



THRASHER



SCOPE OF WORK
SENECA 4F PROJECT
Jerald 1 Orphan Well Site
Seneca County
Jackson Township

WELL DESCRIPTION

This Well Description is for:

Jerald 1: 34-147-6-1156-00-00, Seneca County, Jackson Township

Background: Jerald 1 is located approximately 2.81 miles northeast of the city of Fostoria, 1,112 feet east of North Township Road 63 in an agricultural field on a 33.06-acre parcel (39147-G25000397800000) which is owned by Jeffrey Frankhart. The address is North Township Road 63, Jackson Township, Fostoria, Ohio.

A 2025 division inspection of Jerald 1 found the well in an agricultural field equipped with 8.625-inch outside diameter (O.D.) conductor casing, 6-inch O.D. surface casing, tubing, rods, pumping unit, and wellhead. A Thrasher Group inspection of Jerald 1 was conducted in August 2025. At the time of inspection, Jerald 1 was located in an agricultural field equipped with 8.625-inch O.D. conductor casing, 6-inch O.D. surface casing, 2.375-inch O.D. tubing, 1-inch sucker rods, pumping unit, and wellhead.

The drilling log does not state H₂S was found in this well. Based on information from the Ohio H₂S map, the Jerald 1 well is located in Seneca County, Jackson Township which is not a H₂S Township in Ohio.

Division well records for Jerald 1 were not located. Off-set drilling logs state that the well could have been drilled in the early to mid-1900s to an estimated total depth of 1,272 feet in the Trenton Limestone. Estimated formation data included in this record show the following:

Formation	Top (ft.)	Bottom (ft.)	Remarks
Drift	0	8	Soft
Limestone (*Lockport)	8	297	Blue; Hard
Break	297	327	Blue; Soft
Clinton Sandstone	327	427	Light; Hard
Red Rock	427	482	Medium
Shale	482	602	Blue; Medium
Shale	602	827	Gray; Medium
Shale	827	1,002	Light Brown; Medium
Shale	1,002	1,223	Dark Brown; Medium
Trenton Limestone	1,223	1,272	Hard; Oil and Gas at 1,228 feet
Total Depth	1,272		
Thrasher Comment			

Casing data for Jerald 1 is unavailable. Based on casing data from off-set well card Irvin Waltermier 3 (34-147-2-0038-00-00), which is located approximately 1,556 feet northeast of this well, and field inspection measurements, Jerald 1 has assumed casing depths are as follows:

- 8.625-inch O.D. casing set to 10 feet
- 6-inch O.D. casing set to 325 feet
- 2.375-inch O.D. tubing and rods set to 1,269 feet

No plugging records located for Jerald 1.

For the purposes of this Scope of Work it is assumed that Jerald 1 was drilled to an estimated total depth of 1,272 feet and produced from the Trenton Limestone. The well is equipped with an estimated 10 feet of 8.625-inch outer diameter (O.D.) conductor casing, an estimated 325 feet of 6-inch O.D. surface casing, an estimated 1,269 feet of 2.375-inch O.D. tubing, and rods.

The deepest underground source of drinking water (USDW) is mapped on the Lockport Dolomite with the base of formation at a depth of approximately 297 feet. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Seneca County, wells produce water from clay, gravel, limestone, and shale. Sustainable yield for the surrounding water wells was approximately 50 gallons per minute. Water wells in the area are between 52 and 200 feet in depth. The work zone falls within the drinking water source protection area for Fostoria Mobile Estates (OH7400712). According to the Division of Mineral Resources Management, there are no surface or underground mines within the area of review of Jerald 1.

Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading and reclamation of disturbed areas as described.

Designated Route: The Contractor shall utilize North Township Road 63 to access the site during all stages of the plugging project.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



THRASHER



**SCOPE OF WORK
SENECA 4F PROJECT
Jerald 1 Orphan Well Site
Seneca County
Jackson Township**

PLUGGING PLAN

This Plugging Plan is for:

Jerald 1: 34-147-6-1156-00-00, Seneca County, Jackson Township

For the purposes of this Scope of Work it is assumed that Jerald 1 was drilled to an estimated total depth of 1,272 feet and produced from the Trenton Limestone. The well is equipped with an estimated 10 feet of 8.625-inch outer diameter (O.D.) conductor casing, an estimated 325 feet of 6-inch O.D. surface casing, an estimated 1,269 feet of 2.375-inch O.D. tubing, and rods.

The Jerald 1 well is not located within an H2S township, however, H2S was detected in nearby wells during the site visit. Based on this information, the Contractor will follow the H2S protocol as defined in the Detailed Specifications.

The Contractor shall maintain a minimum of 40 barrels of 9.0 pound-per-gallon weighted brine on location throughout the entire plugging process for use as a well kill fluid.

- 1) The Contractor will safely relieve any pressure that may be built up on this well prior to commencing plugging operations. The Contractor will give the property owner and local fire authorities a minimum of twenty-four (24) hour notice prior to blowing down the well.
- 2) The Contractor shall visually examine the existing casings to evaluate their condition immediately below grade. If the casing(s) is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 3) The Contractor shall install 10.75-inch outside diameter (O.D.) drive pipe in the wellbore. This drive pipe shall be driven to refusal of competent bedrock, which is estimated to be at a depth of 20 feet. The top of this drive pipe shall extend to a suitable working height above ground level.
- 4) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 5) The Contractor shall install an appropriate wellhead and an approved method of well control on the most appropriately sized casing(s) to insure there is control of any gas and/or fluids generated by the well. **The Contractor shall establish and maintain well control throughout the entire plugging process.**
- 6) The Contractor will remove the 2.375-inch outside diameter tubing and rods, and stage it on a bermed liner for further evaluation. The Contractor shall provide an accurate measurement of the amount of rods and/or tubing retrieved from the wellbore.

- 7) The Contractor will clean out the well to its estimated total depth (TD) of 1,272 feet or a depth approved by the Division. The Contractor shall run their tools into the existing 6-inch diameter casing, to ensure it is open and verify the wells total depth, which records show is estimated at 1,272 feet. The Contractor shall provide up to 80 barrels of freshwater on location for use as circulation fluid.
- 8) Once total depth has been reached, the Contractor will load the hole with freshwater and run a Gamma Ray/CCL/Temperature/Bond & Caliper log to verify hole diameter, casing integrity, and the cement and bond on the surface casing annulus. All cement plug depths and thicknesses will be based on log data.
- 9) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (I.D.) tubing using an approved cement mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug.
- 10) The Contractor will set a 500-foot bottom plug from 1,272 feet to 772 feet, to cover the Trenton Limestone. The Contractor will wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 11) The Contractor will set a 500-foot plug from 772 feet to 272 feet, to cover the bottom of the 6-inch surface casing. The Contractor shall wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 12) The Contractor will then set a cement plug from 272 feet to within forty-eight (48) inches of ground level, wait on cement/grout a minimum of eight (8) hours and top off with additional cement/grout, if necessary. Any open annular voids present at the surface shall be filled with cement.
- 13) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of forty-eight (48) inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



THRASHER



SCOPE OF WORK
SENECA 4F PROJECT
Kleinfelter Farms 1 Orphan Well Site
Seneca County
Jackson Township

WELL DESCRIPTION

This Well Description is for:

Kleinfelter Farms 1: 34-147-6-1196-00-00, Seneca County, Jackson Township

Background: Kleinfelter Farms 1 is located approximately 4.25 miles northeast of the city of Fostoria, 2,542 feet west of North County Road 3 in an agricultural field on a 75.14-acre parcel (39147-G25000406600100) which is owned by Kleinfelter Farms, LLC. The address is North County Road 3, Jackson Township, Fostoria, Ohio.

A 2025 division inspection of Kleinfelter Farms 1 found the well in an agricultural field equipped with 9-inch outside diameter (O.D.) conductor casing, 6-inch O.D. surface casing open to the atmosphere with approximately 5 square feet of contaminated soil with oil. A Thrasher Group inspection of Kleinfelter Farms 1 was conducted in August 2025. At the time of inspection, Kleinfelter Farms 1 was found in an agricultural field equipped with 9-inch O.D. conductor casing, 6-inch O.D. damaged surface casing open to the atmosphere. There is contaminated soil around the well with a slight odor and fluid approximately 10 feet below ground surface.

The drilling log does not state H₂S was found in this well. Based on information from the Ohio H₂S map, the Kleinfelter Farms 1 well is located in Seneca County, Jackson Township which is not a H₂S Township in Ohio.

Division well records for Kleinfelter Farms 1 were not located. Off-set drilling logs state that the well could have been drilled in the early to mid-1900s to an estimated total depth of 1,244 feet in the Trenton Limestone. Estimated formation data included in this record show the following:

Formation	Top (ft.)	Bottom (ft.)	Remarks
Soil/Drift	0	20	*Estimated Formation Data
Limestone (*Lockport)	20	324	*Estimated Formation Data
Clinton Limestone	324	414	*Estimated Formation Data
Red Rock	414	462	*Estimated Formation Data
Sand/Shale/Limestone	462	984	*Estimated Formation Data
Shell	984	1,204	*Estimated Formation Data
Trenton Limestone	1,204	1,244	
Total Depth	1,244		
*Thrasher Comment			

Casing data for Kleinfelter Farms 1 is unavailable. Based on casing data from off-set well card May & Robert Vrooman 8 (34-147-6-0784-00-00), which is located approximately 1,050 feet southwest of this well, and field inspection measurements, Kleinfelter Farms 1 has assumed casing depths are as follows:

- 9-inch O.D. casing set to 18 feet
- 6-inch O.D. casing set to 280 feet

No plugging records located for Kleinfelter Farms 1.

For the purposes of this Scope of Work it is assumed that Kleinfelter Farms 1 was drilled to an estimated total depth of 1,244 feet and produced from the Trenton Limestone. The well is equipped with an estimated 18 feet of 9-inch outside diameter (O.D.) conductor casing, an estimated 280 feet of 6-inch O.D. damaged surface casing. There is contaminated soil around the well with a slight odor and fluid approximately 10 feet below ground surface.

The deepest underground source of drinking water (USDW) is mapped on the Lockport Dolomite with the base of formation at a depth of approximately 324 feet. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Seneca County, wells produce water from clay, gravel, limestone, and shale. The sustainable yield was approximately between 20 and 40 gallons per minute. Water wells in the area are between 48 and 178 feet in depth. The work zone does not fall within the drinking water source protection areas. According to the Division of Mineral Resources Management, there are no surface or underground mines within the area of review of Kleinfelter Farms 1.

Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading and reclamation of disturbed areas as described.

Designated Route: The Contractor shall utilize North County Road 3 to access the site during all stages of the plugging project.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



THRASHER



**SCOPE OF WORK
SENECA 4F PROJECT
Kleinfelter Farms 1 Orphan Well Site
Seneca County
Jackson Township**

PLUGGING PLAN

This Plugging Plan is for:

Kleinfelter Farms 1: 34-147-6-1196-00-00, Seneca County, Jackson Township

For the purposes of this Scope of Work it is assumed that Kleinfelter Farms 1 was drilled to an estimated total depth of 1,244 feet and produced from the Trenton Limestone. The well is equipped with an estimated 18 feet of 9-inch outside diameter (O.D.) conductor casing, an estimated 280 feet of 6-inch O.D. damaged surface casing. There is contaminated soil around the well with a slight odor and fluid approximately 10 feet below ground surface.

The Kleinfelter Farms 1 well is not located within an H2S township, however, H2S was detected in nearby wells during the site visit. Based on this information, the Contractor will follow the H2S protocol as defined in the Detailed Specifications.

The Contractor shall maintain a minimum of 40 barrels of 9.0 pound-per-gallon weighted brine on location throughout the entire plugging process for use as a well kill fluid.

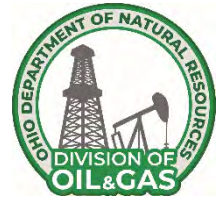
- 1) The Contractor shall visually examine the existing casings to evaluate their condition immediately below grade. If the casing(s) is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 2) The Contractor shall install 13.375-inch outside diameter (O.D.) drive pipe in the wellbore. This drive pipe shall be driven to refusal of competent bedrock, which is estimated to be at a depth of 20 feet. The top of this drive pipe shall extend to a suitable working height above ground level.
- 3) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 4) The Contractor shall install an appropriate wellhead and an approved method of well control on the most appropriately sized casing(s) to insure there is control of any gas and/or fluids generated by the well. **The Contractor shall establish and maintain well control throughout the entire plugging process.**
- 5) The Contractor will clean out the well to its total depth (TD) of 1,244 feet or a depth approved by the Division. The Contractor shall run their tools into the existing 6-inch diameter casing, to ensure it is open and verify the wells total depth, which records show is 1,244 feet. The Contractor shall provide a up to 80 barrels of freshwater on location for use as circulation fluid.
- 6) Once total depth has been reached, the Contractor will load the hole with freshwater and run a Gamma Ray/CCL/Temperature/Bond & Caliper log to verify hole diameter, casing integrity, and the cement

and bond on the surface casing annulus. All cement plug depths and thicknesses will be based on log data.

- 7) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (ID) tubing using an approved cement mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug.
- 8) The Contractor will set a 500-foot bottom plug from 1,244 feet to 744 feet, to cover the Trenton Limestone. The Contractor will wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 9) The Contractor will set a 500-foot plug from 744 feet to 244 feet, to cover the bottom of the 6-inch surface casing. The Contractor will wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 10) The Contractor will then set a cement plug from 244 feet to within forty-eight (48) inches of ground level, wait on cement/grout a minimum of eight (8) hours and top off with additional cement/grout, if necessary. Any open annular voids present at the surface shall be filled with cement.
- 11) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of forty-eight (48) inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



THRASHER



SCOPE OF WORK
SENECA 4F PROJECT
Miller 2 Orphan Well Site
Seneca County
Jackson Township

WELL DESCRIPTION

This Well Description is for:

Miller 2: 34-147-6-1160-00-00, Seneca County, Jackson Township

Background: Miller 2 is located approximately 2.82 miles northeast of the city of Fostoria, 770 feet north of West Township Road 84 located in a backyard near an agricultural field on G25000417200000 which is owned by JR Miller Investments LTD.

A 2025 division inspection of Miller 2 found the well in a backyard near an agricultural field equipped with 6-inch outside diameter (O.D.) surface casing, 2.375-inch O.D open tubing, rods, and wellhead. A Thrasher Group inspection of Miller 2 was conducted in August 2025. At the time of inspection, Miller 2 was located in a backyard near an agricultural field equipped with 6-inch O.D. surface casing, 2.375-inch O.D. tubing open to the atmosphere, and wellhead.

The drilling log does not state H2S was found in this well. Based on information from the Ohio H2S map, the Miller 2 well is located in Seneca County, Jackson Township which is not a H2S Township in Ohio.

Division well records for Miller 2 were not located. Off-set drilling logs state that the well could have been drilled in the early to mid-1900s to an estimated total depth of 1,277 feet in the Trenton Limestone. Estimated formation data included in this record show the following:

Formation	Top (ft.)	Bottom (ft.)	Remarks
Drift	0	13	Soft
Limestone (*Lockport)	13	302	Blue; Hard
Break	320	332	Blue; Soft
Clinton Limestone	332	432	Light; Hard
Red Rock	432	487	Medium
Shale	487	607	Blue; Medium
Shale	607	832	Gray; Medium
Shale	832	1,007	Light Brown; Medium
Shale	1,007	1,228	Dark Brown; Medium
Trenton Limestone	1,228	1,277	Hard; Oil and Gas at 1,235 feet
Total Depth	1,277		

Casing data for Miller 2 is unavailable. Based on casing data from off-set well card Waltermier Irvin 3 (34-147-2-0038-00-00), which is located approximately 1,712 feet north of this well, and field inspection measurements, Miller 2 has assumed casing depths are as follows:

- 6-inch O.D. casing set to 332 feet
- 2.375-inch O.D. tubing set to 1,274 feet

No plugging records located for Miller 2.

For the purposes of this Scope of Work it is assumed that Miller 2 was drilled to an estimated total depth of 1,277 feet and produced from the Trenton Limestone. The well is equipped with an estimated 332 feet of 6-inch outer diameter (O.D.) surface casing and an estimated 1,274 feet of 2.375-inch O.D. tubing.

The deepest underground source of drinking water (USDW) is mapped on the Lockport Dolomite with the base of formation at a depth of approximately 302 feet. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Seneca County, wells produce water from clay, gravel, limestone, and shale. Sustainable yield for the surrounding water wells was approximately 50 gallons per minute. Water wells in the area are between 52 and 200 feet in depth. There are two water wells (3015294 and field verified hand pump) located within 300 feet of the Miller 2 well. The work zone falls within the drinking water source protection area for Fostoria Mobile Estates (OH7400712). According to the Division of Mineral Resources Management, there are no surface or underground mines within the area of review of Miller 2.

Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading and reclamation of disturbed areas as described.

Designated Route: The Contractor shall utilize West Township Road 84 to access the site during all stages of the plugging project.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



THRASHER



**SCOPE OF WORK
SENECA 4F PROJECT
Miller 2 Orphan Well Site
Seneca County
Jackson Township**

PLUGGING PLAN

This Plugging Plan is for:

Miller 2: 34-147-6-1160-00-00, Seneca County, Jackson Township

For the purposes of this Scope of Work it is assumed that Miller 2 was drilled to an estimated total depth of 1,277 feet and produced from the Trenton Limestone. The well is equipped with an estimated 332 feet of 6-inch outer diameter (O.D.) surface casing and an estimated 1,274 feet of 2.375-inch O.D. tubing.

The Miller 2 well is not located within an H2S township, however, H2S was detected in nearby wells during the site visit. Based on this information, the Contractor will follow the H2S protocol as defined in the Detailed Specifications.

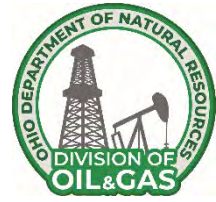
The Contractor shall maintain a minimum of 40 barrels of 9.0 pound-per-gallon weighted brine on location throughout the entire plugging process for use as a well kill fluid.

- 1) The Contractor shall visually examine the existing casings to evaluate their condition immediately below grade. If the casing(s) is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 2) The Contractor shall install 10.75-inch outside diameter (O.D.) drive pipe in the wellbore. This drive pipe shall be driven to refusal of competent bedrock, which is estimated to be at a depth of 20 feet. The top of this drive pipe shall extend to a suitable working height above ground level.
- 3) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 4) The Contractor shall install an appropriate wellhead and an approved method of well control on the most appropriately sized casing(s) to insure there is control of any gas and/or fluids generated by the well. **The Contractor shall establish and maintain well control throughout the entire plugging process.**
- 5) The Contractor will remove the 2.375-inch outside diameter tubing and rods, remove any surface equipment, and stage them on a bermed liner for further evaluation. The Contractor shall provide an accurate measurement of the amount of tubing retrieved from the wellbore.
- 6) The Contractor will clean out the well to its estimated total depth (TD) of 1,277 feet or a depth approved by the Division. The Contractor shall run their tools into the existing 6-inch diameter casing, to ensure it is open and verify the wells total depth, which records show is estimated at 1,277 feet. The Contractor shall provide up to 80 barrels of freshwater on location for use as circulation fluid.

- 7) Once total depth has been reached, the Contractor will load the hole with freshwater and run a Gamma Ray/CCL/Temperature/Bond & Caliper log to verify hole diameter, casing integrity, and the cement and bond on the surface casing annulus. All cement plug depths and thicknesses will be based on log data.
- 8) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (I.D.) tubing using an approved cement mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug.
- 9) The Contractor will set a 500-foot bottom plug from 1,277 feet to 777 feet, to cover the Trenton Limestone. The Contractor will wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 10) The Contractor will set a 500-foot plug from 777 feet to 277 feet, to cover the bottom of the 6-inch surface casing. The Contractor will wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 11) The Contractor will then set a cement plug from 277 feet to within forty-eight (48) inches of ground level, wait on cement/grout a minimum of eight (8) hours and top off with additional cement/grout, if necessary. Any open annular voids present at the surface shall be filled with cement.
- 12) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of forty-eight (48) inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



THRASHER



SCOPE OF WORK
SENECA 4F PROJECT
Mike Painter 1 Orphan Well Site
Seneca County
Loudon Township

WELL DESCRIPTION

This Well Description is for:

Mike Painter 1: 34-147-6-1188-00-00, Seneca County, Loudon Township

Background: Mike Painter 1 is located approximately 3.11 miles southeast of the city of Fostoria, 170 feet west of North Township Road 59 in an open field along a bank of the Emerine Ditch that is located in a 100-year floodplain on a 72.87-acre parcel (39147-I34000548640000) which is owned by Michale Painter. The address is North Township Road 59, Loudon Township, Fostoria, Ohio.

A 2025 division inspection of Mike Painter 1 found the well in an open field along the Emerine Ditch bank equipped with 8-inch outside diameter (O.D.) conductor casing covered by a 5-gallon bucket under water with gas bubbling around the edges of the bucket. There was a gas odor and soil contamination around the well. A Thrasher Group inspection of Mike Painter 1 was conducted in August 2025. At the time of inspection, Mike Painter 1 was found along the Emerine Ditch bank equipped with 8-inch O.D. conductor casing that is underwater. There is a gas odor with gas bubbles bubbling up to the surface.

Available data does not state H2S was found in this well. Based on information from the Ohio H2S map, the Mike Painter 1 well is located in Seneca County, Loudon Township which is not a H2S Township in Ohio.

Division well records for Mike Painter 1 were not located. Off-set drilling logs state that the well could have been drilled in the early to mid-1900s to an estimated total depth of 1,500 feet in the Trenton Limestone. Estimated formation data included in this record show the following:

Formation	Top (ft.)	Bottom (ft.)	Remarks
Soil & Silt	0	56	
Limestone (*Lockport)	56	293	Fresh Water at 60"
Green Shale	293	327	
Clinton Sandstone	327	409	
Gray Shale	409	413	
Red Rock	413	455	
Green Shale	455	525	
Gray Shale	525	975	
Brown Shale	975	1,243	
Trenton Limestone	1,243	1,500	Show of Gas at 1,250'
Total Depth	1,500		
*Thrasher Comment			

Casing data for Mike Painter 1 is unavailable. Based on casing data from off-set well card Margaret Wedge 1 (34-147-2-0147-00-00), which is located approximately 4.45 miles west of this well, and field inspection measurements, Mike Painter 1 has assumed casing depths are as follows:

- 8-inch O.D. casing set to 40 feet

No plugging records located for Mike Painter 1.

For the purposes of this Scope of Work it is assumed that Mike Painter 1 was drilled to an estimated total depth of 1,500 feet and produced from the Trenton Limestone. The well is equipped with an estimated 40 feet of 8-inch O.D. conductor casing that is underwater and actively bubbling in the casing.

The deepest underground source of drinking water (USDW) is mapped on the Lockport Dolomite with the base of formation at a depth of approximately 293 feet.. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Seneca County, wells produce water from clay, gravel, limestone, and shale. The sustainable yield was approximately between 13 and 20 gallons per minute. Water wells in the area are between 50 and 115 feet in depth. The work zone does not fall within the drinking water source protection areas. Mike Painter 1 falls within the 100-year floodplain. According to the Division of Mineral Resources Management, there are no surface or underground mines within the area of review of Mike Painter 1.

Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading and reclamation of disturbed areas as described.

Designated Route: The Contractor shall utilize North Township Road 59 to access the site during all stages of the plugging project.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



THRASHER



**SCOPE OF WORK
SENECA 4F PROJECT
Mike Painter 1 Orphan Well Site
Seneca County
Loudon Township**

PLUGGING PLAN

This Plugging Plan is for:

Mike Painter 1: 34-147-6-1188-00-00, Seneca County, Loudon Township

For the purposes of this Scope of Work it is assumed that Mike Painter 1 was drilled to an estimated total depth of 1,500 feet and produced from the Trenton Limestone. The well is equipped with an estimated 40 feet of 8-inch O.D. conductor casing that is underwater and actively bubbling in the casing.

The Mike Painter 1 well is not located within an H2S township, however, H2S was detected in nearby wells during the site visit. Based on this information, the Contractor will follow the H2S protocol as defined in the Detailed Specifications.

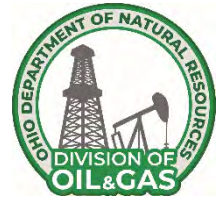
The Contractor shall maintain a minimum of 50 barrels of 9.0 pound-per-gallon weighted brine on location throughout the entire plugging process for use as a well kill fluid.

- 1) The Contractor shall visually examine the existing casing(s), to evaluate their condition immediately below grade. If the casing(s) are found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing(s) to a suitable working height.
- 2) The Contractor shall install 10.75-inch outside diameter (OD) drive pipe in the wellbore. This drive pipe shall be driven to refusal of competent bedrock, which is estimated to be at a depth of 56 feet. The top of this drive pipe shall extend to a suitable working height above ground level.
- 3) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 4) The Contractor shall then install an appropriate wellhead and an approved method of well control on the most appropriate sized casing(s) to insure there is control of gas and/or fluids generated from the well. **The Contractor shall establish and maintain well control throughout the entire plugging process.**
- 5) The Contractor will clean out the material in the wellbore to a depth of 360 feet. The Contractor will then run 5.5-inch OD surface casing to 350 feet, or a depth approved by the Division. The casing will be equipped with a float shoe on the bottom joint. The Contractor will then cement the annulus of this casing to surface using an approved cement, mixed at 15.6 pounds per gallon. The Contractor shall wait on the cement for a minimum of eight (8) hours; after which the Contractor will run their tools into the annulus to verify the depth to the top of the cement.

- 6) The Contractor shall then drill out the float shoe and any residual cement left inside the surface casing and clean out the remaining wellbore to its estimated total depth of 1,500 feet. The Contractor shall provide up to 100 barrels of saltwater on location for use as circulation fluid.
- 7) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (ID) tubing using an approved cement mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug.
- 8) The Contractor will set a 500-foot bottom cement plug from 1,500 feet to 1,000 feet to cover the Trenton Limestone. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be required at the discretion of the Division.
- 9) The Contractor will set a 500-foot plug from 810 feet to 310 feet, to cover the bottom of the 5.5-inch surface casing. The Contractor will wait on cement a minimum of eight (8) hours and then run their tools into the well to verify the depth to the top of the plug. If the plug has dropped or it is determined that competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 10) The Contractor will then set a cement plug from 310 feet to surface, wait on cement a minimum of eight (8) hours and top off with additional cement/grout, if necessary.
- 11) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of forty-eight (48) inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



THRASHER



SCOPE OF WORK SENECA 4F PROJECT Richard Crawford 1 Orphan Well Site Seneca County Jackson Township

WELL DESCRIPTION

This Well Description is for:

Richard Crawford 1: 34-147-6-1107-00-00, Seneca County, Jackson Township

Background: Richard Crawford 1 is located approximately 6.00 miles northeast of the city of Fostoria, 440 feet east of County Road 3 in an agricultural field on a 38.82-acre parcel (39147-G25000404320100) which is owned by Richard Crawford. The address is County Road 3, Jackson Township, Fostoria, Ohio.

A 2025 division inspection of Richard Crawford 1 found the well in an agricultural field equipped with 8.625-inch outside diameter (O.D.) conductor casing open to the atmosphere sticking up approximately 3 feet above ground. The casing was deteriorated and had a rubber riser wrapped around it at ground level. There was fluid approximately 2 feet down from top of the casing. A Thrasher Group inspection of Richard Crawford 1 was conducted in August 2025. At the time of inspection, Richard Crawford 1 was found in an agricultural field equipped with 8.625-inch O.D. conductor casing sticking up approximately 3 feet from ground level with fluid approximately 2 feet deep.

The drilling log does not state H₂S was found in this well. Based on information from the Ohio H₂S map, the Richard Crawford 1 well is located in Seneca County, Jackson Township which is not a H₂S Township in Ohio.

Division well records for Richard Crawford 1 were not located. Off-set drilling logs state that the well could have been drilled in the early to mid-1900s to an estimated total depth of 1,182 feet in the Trenton Limestone. Estimated formation data included in this record show the following:

Formation	Top (ft.)	Bottom (ft.)	Remarks
Limestone (*Lockport)	0	282	*Estimated Formation Data
Clinton Limestone	282	372	*Estimated Formation Data
Red Rock	372	420	*Estimated Formation Data
Sandstone/Shale	420	882	*Estimated Formation Data
Shell	882	1,132	*Estimated Formation Data
Trenton Limestone	1,132	1,182	
Total Depth	1,182		
*Thrasher Comment			

Casing data for Richard Crawford 1 is unavailable. Based on casing data from off-set well card Jacob F. Hartline 1 (34-147-2-0055-00-00), which is located approximately 5,163 feet southwest of this well, and field inspection measurements, Richard Crawford 1 has assumed casing depths are as follows:

- 8.625-inch O.D. casing set to 14 feet

No plugging records located for Richard Crawford 1.

For the purposes of this Scope of Work it is assumed that Richard Crawford 1 was drilled to an estimated total depth of 1,182 feet and produced from the Trenton Limestone. The well is equipped with an estimated 14 feet of 8.625-inch outer diameter (O.D.) conductor casing with fluid approximately 2 feet below ground surface.

The deepest underground source of drinking water (USDW) is mapped on the Lockport Dolomite with the base of formation at a depth of approximately 282 feet. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Seneca County, wells produce water from clay, gravel, limestone, and shale. The sustainable yield was approximately 30 gallons per minute. Water wells in the area are between 56 and 103 feet in depth. The work zone does not fall within the drinking water source protection areas. According to the Division of Mineral Resources Management, there are no surface or underground mines within the area of review of Richard Crawford 1.

Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading and reclamation of disturbed areas as described.

Designated Route: The Contractor shall utilize County Road 3 to access the site during all stages of the plugging project.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



THRASHER



**SCOPE OF WORK
SENECA 4F PROJECT
Richard Crawford 1 Orphan Well Site
Seneca County
Jackson Township**

PLUGGING PLAN

This Plugging Plan is for:

Richard Crawford 1: 34-147-6-1146-00-00, Seneca County, Jackson Township

For the purposes of this Scope of Work it is assumed that Richard Crawford 1 was drilled to an estimated total depth of 1,182 feet and produced from the Trenton Limestone. The well is equipped with an estimated 14 feet of 8.625-inch outer diameter (O.D.) conductor casing with fluid approximately 2 feet below ground surface.

The Richard Crawford 1 well is not located within an H2S township, however, H2S was detected in nearby wells during the site visit. Based on this information, the Contractor will follow the H2S protocol as defined in the Detailed Specifications.

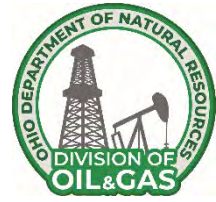
The Contractor shall maintain a minimum of 50 barrels of 9.0 pound-per-gallon weighted brine on location throughout the entire plugging process for use as a well kill fluid.

- 1) The Contractor shall visually examine the existing casings to evaluate their condition immediately below grade. If the casing(s) is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 2) The Contractor shall install 10.75-inch outside diameter (O.D.) drive pipe in the wellbore. This drive pipe shall be driven to refusal of competent bedrock, which is estimated to be at a depth of 20 feet. The top of this drive pipe shall extend to a suitable working height above ground level.
- 3) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 4) The Contractor shall install an appropriate wellhead and an approved method of well control on the most appropriately sized casing(s) to insure there is control of any gas and/or fluids generated by the well. **The Contractor shall establish and maintain well control throughout the entire plugging process.**
- 5) The Contractor will then run 5.5-inch OD surface casing to 342 feet, or a depth approved by the Division. The casing will be equipped with a float shoe on the bottom joint. The Contractor will then cement the annulus of this casing to surface using an approved cement, mixed at 15.6 pounds per gallon. The Contractor shall wait on the cement for a minimum of eight (8) hours; after which the Contractor will run their tools into the annulus to verify the depth to the top of the cement.
- 6) The Contractor shall then drill out the float shoe and any residual cement left inside the surface casing and clean out the remaining wellbore to its estimated total depth of 1,182 feet. The Contractor shall provide up to 100 barrels of saltwater on location for use as circulation fluid.

- 7) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (I.D.) tubing using an approved cement mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug.
- 8) The Contractor will set a 500-foot bottom plug from 1,182 feet to 682 feet, to cover the Trenton Limestone. The Contractor will wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 9) The Contractor will set a 440-foot plug from 682 feet to 242 feet, to cover the bottom of the 5.5-inch surface casing. The Contractor shall wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 10) The Contractor will then set a cement plug from 242 feet to within forty-eight (48) inches of ground level, wait on cement/grout a minimum of eight (8) hours and top off with additional cement/grout, if necessary. Any open annular voids present at the surface shall be filled with cement.
- 11) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of forty-eight (48) inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



THRASHER



SCOPE OF WORK
SENECA 4F PROJECT
Tyler 1 Orphan Well Site
Seneca County
Jackson Township

WELL DESCRIPTION

This Well Description is for:

Tyler 1: 34-147-6-0666-00-00, Seneca County, Jackson Township

Background: Tyler 1 is located approximately 4.73 miles northeast of the city of Fostoria, 669 feet south of West County Road 28 in an agricultural field on a 38.77-acre parcel (39147-G25000411600000) which is owned by Larry and Louise Steyer. The address is West County Road 28, Jackson Township, Fostoria, Ohio.

A 2025 division inspection of Tyler 1 found the well in an agricultural field within a brush area equipped with 8.625-inch outside diameter (O.D.) conductor casing, 6-inch O.D. surface casing, rods, tubing, pumping unit, wellhead, and a 100-BBL wooden production tank. A Thrasher Group inspection of Tyler 1 was conducted in August 2025. At the time of inspection, Tyler 1 was found in an agricultural field within a brush area equipped with 8.625-inch O.D. conductor casing, 6-inch O.D. surface casing, 2.375-inch O.D. tubing, 1-inch sucker rods, pumping unit, wellhead, and 100-BBL wooden production tank.

The drilling log does not state H2S was found in this well. Based on information from the Ohio H2S map, the Tyler 1 well is located in Seneca County, Jackson Township which is not a H2S Township in Ohio.

Division well records for Tyler 1 were not located. Off-set drilling logs state that the well could have been drilled in the early to mid-1900s to an estimated total depth of 1,238 feet in the Trenton Limestone. Estimated formation data included in this record show the following:

Formation	Top (ft.)	Bottom (ft.)	Remarks
Soil/Drift	0	14	*Estimated Formation Data
Limestone (*Lockport)	14	318	*Estimated Formation Data
Clinton Limestone	318	408	*Estimated Formation Data
Red Rock	408	456	*Estimated Formation Data
Sandstone/Shale	456	978	*Estimated Formation Data
Shell	978	1,198	*Estimated Formation Data
Trenton Limestone	1,198	1,238	
Total Depth	1,238		
*Thrasher Comment			

Casing data for Tyler 1 is unavailable. Based on casing data from off-set well card May & Robert Vrooman 8 (34-147-6-0784-00-00), which is located approximately 1,383 feet southwest of this well, and field inspection measurements, Tyler 1 has assumed casing depths are as follows:

- 8.625-inch O.D. casing set to 18 feet
- 6-inch O.D. casing set to 280 feet
- 2.375-inch O.D. tubing and rods set to 1,235 feet

No plugging records located for Tyler 1.

For the purposes of this Scope of Work it is assumed that Tyler 1 was drilled to an estimated total depth of 1,238 feet and produced from the Trenton Limestone. The well is equipped with an estimated 18 feet of 8.625-inch outer diameter (O.D.) conductor casing, an estimated 285 feet of 6-inch O.D. surface casing, an estimated 1,235 feet of 2.375-inch O.D. tubing, and rods.

The deepest underground source of drinking water (USDW) is mapped on the Lockport Dolomite with the base of formation at a depth of approximately 318 feet. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Seneca County, wells produce water from clay, gravel, limestone, and shale. The sustainable yield was approximately between 30 and 50 gallons per minute. Water wells in the area are between 53 and 153 feet in depth. The work zone does not fall within the drinking water source protection areas. According to the Division of Mineral Resources Management, there are no surface or underground mines within the area of review of Tyler 1.

Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading and reclamation of disturbed areas as described.

Designated Route: The Contractor shall utilize West County Road 28 to access the site during all stages of the plugging project.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



THRASHER

**SCOPE OF WORK
SENECA 4F PROJECT
Tyler 1 Orphan Well Site
Seneca County
Jackson Township**



PLUGGING PLAN

This Plugging Plan is for:

Tyler 1: 34-147-6-0666-00-00, Seneca County, Jackson Township

For the purposes of this Scope of Work it is assumed that Tyler 1 was drilled to an estimated total depth of 1,238 feet and produced from the Trenton Limestone. The well is equipped with an estimated 18 feet of 8.625-inch outer diameter (O.D.) conductor casing, an estimated 285 feet of 6-inch O.D. surface casing, an estimated 1,235 feet of 2.375-inch O.D. tubing, and rods.

The Tyler 1 well is not located within an H2S township, however, H2S was detected in nearby wells during the site visit. Based on this information, the Contractor will follow the H2S protocol as defined in the Detailed Specifications.

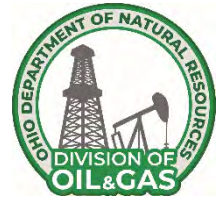
The Contractor shall maintain a minimum of 40 barrels of 9.0 pound-per-gallon weighted brine on location throughout the entire plugging process for use as a well kill fluid.

- 1) The Contractor will safely relieve any pressure that may be built up on this well prior to commencing plugging operations. The Contractor will give the property owner and local fire authorities a minimum of twenty-four (24) hour notice prior to blowing down the well.
- 2) The Contractor shall visually examine the existing casings to evaluate their condition immediately below grade. If the casing(s) is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 3) The Contractor shall install 10.75-inch outside diameter (O.D.) drive pipe in the wellbore. This drive pipe shall be driven to refusal of competent bedrock, which is estimated to be at a depth of 20 feet. The top of this drive pipe shall extend to a suitable working height above ground level.
- 4) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 5) The Contractor shall install an appropriate wellhead and an approved method of well control on the most appropriately sized casing(s) to insure there is control of any gas and/or fluids generated by the well. **The Contractor shall establish and maintain well control throughout the entire plugging process.**
- 6) The Contractor will remove the 2.375-inch outside diameter tubing and rods, and stage them on a bermed liner for further evaluation. The Contractor shall provide an accurate measurement of the amount of tubing retrieved from the wellbore.

- 7) The Contractor will clean out the well to its estimated total depth (TD) of 1,238 feet or a depth approved by the Division. The Contractor shall run their tools into the existing 6-inch diameter casing, to ensure it is open and verify the wells total depth, which records show is estimated at 1,238 feet. The Contractor shall provide up to 80 barrels of freshwater on location for use as circulation fluid.
- 8) Once total depth has been reached, the Contractor will load the hole with freshwater and run a Gamma Ray/CCL/Temperature/Bond & Caliper log to verify hole diameter, casing integrity, and the cement and bond on the surface casing annulus. All cement plug depths and thicknesses will be based on log data.
- 9) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (I.D.) tubing using an approved cement mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug.
- 10) The Contractor will set a 500-foot bottom plug from 1,238 feet to 738 feet, to cover the Trenton Limestone. The Contractor will wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 11) The Contractor will set a 500-foot plug from 738 feet to 238 feet, to cover the bottom of the 6-inch surface casing. The Contractor shall wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 12) The Contractor will then set a cement plug from 238 feet to within forty-eight (48) inches of ground level, wait on cement/grout a minimum of eight (8) hours and top off with additional cement/grout, if necessary. Any open annular voids present at the surface shall be filled with cement.
- 13) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of forty-eight (48) inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



THRASHER



SCOPE OF WORK
SENECA 4F PROJECT
Tyler 2 Orphan Well Site
Seneca County
Jackson Township

WELL DESCRIPTION

This Well Description is for:

Tyler 2: 34-147-6-0667-00-00, Seneca County, Jackson Township

Background: Tyler 2 is located approximately 4.62 miles northeast of the city of Fostoria, 1,145 feet south of West County Road 28 in an agricultural field on a 38.77-acre parcel (39147-G25000411600000) which is owned by Larry and Louise Steyer. The address is West County Road 28, Jackson Township, Fostoria, Ohio.

A 2025 division inspection of Tyler 2 found the well along a fence line between agricultural fields equipped with 6-inch outside diameter (O.D.) surface casing, rods, tubing, pumping unit, and wellhead. A Thrasher Group inspection of Tyler 2 was conducted in August 2025. At the time of inspection, Tyler 2 was found the well along a fence line between agricultural fields equipped with 6-inch O.D. surface casing, 2.375-inch O.D. tubing, 1-inch sucker rods, pumping unit, and wellhead.

The drilling log does not state H₂S was found in this well. Based on information from the Ohio H₂S map, the Tyler 2 well is located in Seneca County, Jackson Township which is not a H₂S Township in Ohio.

Division well records for Tyler 2 were not located. Off-set drilling logs state that the well could have been drilled in the early to mid-1900s to an estimated total depth of 1,240 feet in the Trenton Limestone. Estimated formation data included in this record show the following:

Formation	Top (ft.)	Bottom (ft.)	Remarks
Soil/Drift	0	16	*Estimated Formation Data
Limestone (*Lockport)	16	320	*Estimated Formation Data
Clinton Limestone	320	410	*Estimated Formation Data
Red Rock	410	458	*Estimated Formation Data
Sandstone/Shale	458	980	*Estimated Formation Data
Shell	980	1,200	*Estimated Formation Data
Trenton Limestone	1,200	1,240	
Total Depth	1,240		
*Thrasher Comment			

Casing data for Tyler 2 is unavailable. Based on casing data from off-set well card May & Robert Vrooman 8 (34-147-6-0784-00-00), which is located approximately 857 feet southwest of this well, and field inspection measurements, Tyler 2 has assumed casing depths are as follows:

- 6-inch O.D. casing set to 280 feet
- 2.375-inch O.D. tubing and rods set to 1,237 feet

No plugging records located for Tyler 2.

For the purposes of this Scope of Work it is assumed that Tyler 2 was drilled to an estimated total depth of 1,240 feet and produced from the Trenton Limestone. The well is equipped with an estimated 285 feet of 6-inch outer diameter (O.D.) surface casing, an estimated 1,237 feet of 2.375-inch O.D. tubing, and rods.

The deepest underground source of drinking water (USDW) is mapped on the Lockport Dolomite with the base of formation at a depth of approximately 320 feet. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Seneca County, wells produce water from clay, gravel, limestone, and shale. The sustainable yield was approximately between 30 and 50 gallons per minute. Water wells in the area are between 53 and 153 feet in depth. The work zone does not fall within the drinking water source protection areas. According to the Division of Mineral Resources Management, there are no surface or underground mines within the area of review of Tyler 2.

Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading and reclamation of disturbed areas as described.

Designated Route: The Contractor shall utilize West County Road 28 to access the site during all stages of the plugging project.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



THRASHER



**SCOPE OF WORK
SENECA 4F PROJECT
Tyler 2 Orphan Well Site
Seneca County
Jackson Township**

PLUGGING PLAN

This Plugging Plan is for:

Tyler 2: 34-147-6-0667-00-00, Seneca County, Jackson Township

For the purposes of this Scope of Work it is assumed that Tyler 2 was drilled to an estimated total depth of 1,240 feet and produced from the Trenton Limestone. The well is equipped with an estimated 285 feet of 6-inch outer diameter (O.D.) surface casing, an estimated 1,237 feet of 2.375-inch O.D. tubing, and rods.

The Tyler 2 well is not located within an H2S township, however, H2S was detected in nearby wells during the site visit. Based on this information, the Contractor will follow the H2S protocol as defined in the Detailed Specifications.

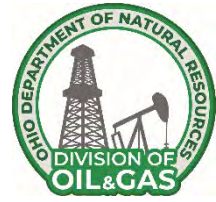
The Contractor shall maintain a minimum of 40 barrels of 9.0 pound-per-gallon weighted brine on location throughout the entire plugging process for use as a well kill fluid.

- 1) The Contractor will safely relieve any pressure that may be built up on this well prior to commencing plugging operations. The Contractor will give the property owner and local fire authorities a minimum of twenty-four (24) hour notice prior to blowing down the well.
- 2) The Contractor shall visually examine the existing casings to evaluate their condition immediately below grade. If the casing(s) is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 3) The Contractor shall install 10.75-inch outside diameter (O.D.) drive pipe in the wellbore. This drive pipe shall be driven to refusal of competent bedrock, which is estimated to be at a depth of 20 feet. The top of this drive pipe shall extend to a suitable working height above ground level.
- 4) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 5) The Contractor shall install an appropriate wellhead and an approved method of well control on the most appropriately sized casing(s) to insure there is control of any gas and/or fluids generated by the well. **The Contractor shall establish and maintain well control throughout the entire plugging process.**
- 6) The Contractor will remove the 2.375-inch outside diameter tubing and rods, and stage them on a bermed liner for further evaluation. The Contractor shall provide an accurate measurement of the amount of tubing retrieved from the wellbore.

- 7) The Contractor will clean out the well to its estimated total depth (TD) of 1,240 feet or a depth approved by the Division. The Contractor shall run their tools into the existing 6-inch diameter casing, to ensure it is open and verify the wells total depth, which records show is estimated at 1,240 feet. The Contractor shall provide up to 80 barrels of freshwater on location for use as circulation fluid.
- 8) Once total depth has been reached, the Contractor will load the hole with freshwater and run a Gamma Ray/CCL/Temperature/Bond & Caliper log to verify hole diameter, casing integrity, and the cement and bond on the surface casing annulus. All cement plug depths and thicknesses will be based on log data.
- 9) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (I.D.) tubing using an approved cement mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug.
- 10) The Contractor will set a 500-foot bottom plug from 1,240 feet to 740 feet, to cover the Trenton Limestone. The Contractor will wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 11) The Contractor will set a 500-foot plug from 740 feet to 240 feet, to cover the bottom of the 6-inch surface casing. The Contractor shall wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 12) The Contractor will then set a cement plug from 240 feet to within forty-eight (48) inches of ground level, wait on cement/grout a minimum of eight (8) hours and top off with additional cement/grout, if necessary. Any open annular voids present at the surface shall be filled with cement.
- 13) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of forty-eight (48) inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



THRASHER



SCOPE OF WORK
SENECA 4F PROJECT
Shultz 2 Orphan Well Site
Seneca County
Jackson Township

WELL DESCRIPTION

This Well Description is for:

Shultz 2: 34-147-6-0671-00-00, Seneca County, Jackson Township

Background: Shultz 2 is located approximately 4.69 miles northeast of the city of Fostoria, 672 feet south of West County Road 28 along a fence line between agricultural fields on a 38.77-acre parcel (39147-G25000411600000) which is owned by Larry and Louise Steyer. The address is West County Road 28, Jackson Township, Fostoria, Ohio.

A 2025 division inspection of Shultz 2 found the well along a fence line between agricultural fields equipped with 6-inch outside diameter (O.D.) surface casing sticking up about 4 feet from ground level open to the atmosphere with an obstruction at 8 feet. There was tubing sticking out of the ground about 3 feet from the casing. A Thrasher Group inspection of Shultz 2 was conducted in August 2025. At the time of inspection, Shultz 2 was found along a fence line between agricultural fields equipped with 6-inch O.D. surface casing open to the atmosphere sticking up about 4 feet from ground level and there was tubing sticking out of the ground approximately 3 feet from the casing.

The drilling log does not state H2S was found in this well. Based on information from the Ohio H2S map, the Shultz 2 well is located in Seneca County, Jackson Township which is not a H2S Township in Ohio.

Division well records for Shultz 2 were not located. Off-set drilling logs state that the well could have been drilled in the early to mid-1900s to an estimated total depth of 1,241 feet in the Trenton Limestone. Estimated formation data included in this record show the following:

Formation	Top (ft.)	Bottom (ft.)	Remarks
Soil/Drift	0	17	*Estimated Formation Data
Limestone (*Lockport)	17	321	*Estimated Formation Data
Clinton Limestone	321	411	*Estimated Formation Data
Red Rock	411	459	*Estimated Formation Data
Sandstone/Shale	456	981	*Estimated Formation Data
Shell	981	1,201	*Estimated Formation Data
Trenton Limestone	1,201	1,241	
Total Depth	1,241		
*Thrasher Comment			

Casing data for Shultz 2 is unavailable. Based on casing data from off-set well card May & Robert Vrooman 8 (34-147-6-0784-00-00), which is located approximately 1,050 feet southwest of this well, and field inspection measurements, Shultz 2 has assumed casing depths are as follows:

- 6-inch O.D. casing set to 280 feet

No plugging records located for Shultz 2.

For the purposes of this Scope of Work it is assumed that Shultz 2 was drilled to an estimated total depth of 1,241 feet and produced from the Trenton Limestone. The well is equipped with an estimated 285 feet of 6-inch outer diameter (O.D.) surface casing.

The deepest underground source of drinking water (USDW) is mapped on the Lockport Dolomite with the base of formation at a depth of approximately 321 feet. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Seneca County, wells produce water from clay, gravel, limestone, and shale. The sustainable yield was approximately between 30 and 50 gallons per minute. Water wells in the area are between 53 and 153 feet in depth. The work zone does not fall within the drinking water source protection areas. According to the Division of Mineral Resources Management, there are no surface or underground mines within the area of review of Shultz 2.

Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading and reclamation of disturbed areas as described.

Designated Route: The Contractor shall utilize West County Road 28 to access the site during all stages of the plugging project.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



THRASHER



**SCOPE OF WORK
SENECA 4F PROJECT
Shultz 2 Orphan Well Site
Seneca County
Jackson Township**

PLUGGING PLAN

This Plugging Plan is for:

Shultz 2: 34-147-6-0671-00-00, Seneca County, Jackson Township

For the purposes of this Scope of Work it is assumed that Shultz 2 was drilled to an estimated total depth of 1,241 feet and produced from the Trenton Limestone. The well is equipped with an estimated 285 feet of 6-inch outer diameter (O.D.) surface casing.

The Shultz 2 well is not located within an H2S township, however, H2S was detected in nearby wells during the site visit. Based on this information, the Contractor will follow the H2S protocol as defined in the Detailed Specifications.

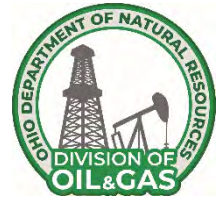
The Contractor shall maintain a minimum of 40 barrels of 9.0 pound-per-gallon weighted brine on location throughout the entire plugging process for use as a well kill fluid.

- 1) The Contractor shall visually examine the existing casings to evaluate their condition immediately below grade. If the casing(s) is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 2) The Contractor shall install 10.75-inch outside diameter (O.D.) drive pipe in the wellbore. This drive pipe shall be driven to refusal of competent bedrock, which is estimated to be at a depth of 20 feet. The top of this drive pipe shall extend to a suitable working height above ground level.
- 3) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 4) The Contractor shall install an appropriate wellhead and an approved method of well control on the most appropriately sized casing(s) to insure there is control of any gas and/or fluids generated by the well. **The Contractor shall establish and maintain well control throughout the entire plugging process.**
- 5) The Contractor will clean out the well to its estimated total depth (TD) of 1,241 feet or a depth approved by the Division. The Contractor shall run their tools into the existing 6-inch diameter casing, to ensure it is open and verify the wells total depth, which records show is estimated at 1,241 feet. The Contractor shall provide up to 80 barrels of freshwater on location for use as circulation fluid.
- 6) Once total depth has been reached, the Contractor will load the hole with freshwater and run a Gamma Ray/CCL/Temperature/Bond & Caliper log to verify hole diameter, casing integrity, and the cement and bond on the surface casing annulus. All cement plug depths and thicknesses will be based on log data.

- 7) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (I.D.) tubing using an approved cement mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug.
- 8) The Contractor will set a 500-foot bottom plug from 1,241 feet to 741 feet, to cover the Trenton Limestone. The Contractor will wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 9) The Contractor will set a 500-foot plug from 741 feet to 241 feet, to cover the bottom of the 6-inch surface casing. The Contractor will wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 10) The Contractor will then set a cement plug from 241 feet to within forty-eight (48) inches of ground level, wait on cement/grout a minimum of eight (8) hours and top off with additional cement/grout, if necessary. Any open annular voids present at the surface shall be filled with cement.
- 11) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of forty-eight (48) inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



THRASHER



SCOPE OF WORK
SENECA 4F PROJECT
Waltermier Irvin 3 Orphan Well Site
Seneca County
Jackson Township

WELL DESCRIPTION

This Well Description is for:

Waltermier Irvin 3: 34-147-2-0038-00-00, Seneca County, Jackson Township

Background: Waltermier Irvin 3 is located approximately 3.12 miles northeast of the city of Fostoria, 190 feet south of West Township Road 33 along a fence line between two agricultural fields on a 20.3-acre parcel (39147-G25000417200200) which is owned by Donald Waltermier. The address is 11960 West Township Road 33, Jackson Township, Fostoria, Ohio.

A 2025 division inspection of Waltermier Irvin 3 found the well along a fence line between two agricultural fields. The well is equipped with 8.625-inch outside diameter (O.D.) conductor casing, 6-inch O.D. surface casing, 2.375-inch O.D tubing, rods, pumping unit, shackle line, and wellhead. There was a strong gas odor and visible leakage between the casings. There is an approximate 200-barrel production tank located 150 feet from the well. A Thrasher Group inspection of Waltermier Irvin 3 was conducted in August 2025 and confirmed the results of the previous inspection.

The drilling log does not state H₂S was found in this well. Based on information from the Ohio H₂S map, the Waltermier Irvin 3 well is located in Seneca County, Jackson Township, which is not a H₂S Township in Ohio.

Division well records for Waltermier Irvin 3 were located. Drilling logs state that the well completed drilling in December 1952 to a total depth of 1,270 feet in the Trenton Limestone. Formation data included in this record show the following:

Formation	Top (ft.)	Bottom (ft.)	Remarks
Drift	0	6	Soft
Limestone (*Lockport)	6	295	Blue; Hard
Break	295	325	Blue; Soft
Clinton Limestone	325	425	Light; Hard
Red Rock	425	480	Medium
Shale	480	600	Blue; Medium
Shale	600	825	Gray; Medium
Shale	825	1,000	Light Brown; Medium
Shale	1,000	1,221	Dark Brown; Medium
Trenton Limestone	1,221	1,270	Hard; Oil and Gas at 1,226 feet
Total Depth	1,270		
*Thrasher Comment			

Based on casing data, and field inspection measurements, Waltermier Irvin 3 casing depths are as follows:

- 8.625-inch O.D. casing set to 10 feet
- 6-inch O.D. casing set to 325 feet
- 2.375-inch O.D. tubing and rods set to 1,267 feet

No plugging records located for Waltermier Irvin 3.

For the purposes of this Scope of Work the Waltermier Irvin 3 was drilled to a total depth of 1,270 feet and produced from the Trenton Limestone. The well is equipped with 10 feet of 8.625-inch outer diameter (O.D.) conductor casing, 325 feet of 6-inch O.D. surface casing, an estimated 1,267 feet of 2.375-inch O.D. tubing, and rods.

The deepest underground source of drinking water (USDW) is mapped on the Lockport Dolomite with the base of formation at a depth of approximately 295 feet. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Seneca County, wells produce water from clay, gravel, limestone, and shale. Sustainable yield for the surrounding water wells was approximately 9 gallons per minute. Water wells in the area are between 50 and 200 feet in depth. The work zone falls within the drinking water source protection area for Fostoria Mobile Estates (OH7400712). According to the Division of Mineral Resources Management, there are no surface or underground mines within the area of review of Waltermier Irvin 3.

Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading and reclamation of disturbed areas as described.

Designated Route: The Contractor shall utilize West Township Road 33 to access the site during all stages of the plugging project.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



THRASHER



**SCOPE OF WORK
SENECA 4F PROJECT
Waltermier Irvin 3 Orphan Well Site
Seneca County
Jackson Township**

PLUGGING PLAN

This Plugging Plan is for:

Waltermier Irvin 3: 34-147-2-0038-00-00, Seneca County, Jackson Township

For the purposes of this Scope of Work the Waltermier Irvin 3 was drilled to a total depth of 1,270 feet and produced from the Trenton Limestone. The well is equipped with 10 feet of 8.625-inch outer diameter (O.D.) conductor casing, 325 feet of 6-inch O.D. surface casing, an estimated 1,267 feet of 2.375-inch O.D. tubing, and rods.

The Waltermier Irvin 3 well is not located within an H2S township, however, H2S was detected in nearby wells during the site visit. Based on this information, the Contractor will follow the H2S protocol as defined in the Detailed Specifications.

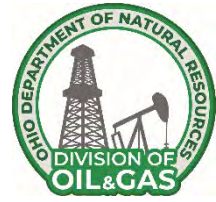
The Contractor shall maintain a minimum of 40 barrels of 9.0 pound-per-gallon weighted brine on location throughout the entire plugging process for use as a well kill fluid.

- 1) The Contractor will safely relieve any pressure that may be built up on this well prior to commencing plugging operations. The Contractor will give the property owner and local fire authorities a minimum of twenty-four (24) hour notice prior to blowing down the well.
- 2) The Contractor shall visually examine the existing casings to evaluate their condition immediately below grade. If the casing(s) is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 3) The Contractor shall install 10.75-inch outside diameter (O.D.) drive pipe in the wellbore. This drive pipe shall be driven to refusal of competent bedrock, which is estimated to be at a depth of 20 feet. The top of this drive pipe shall extend to a suitable working height above ground level.
- 4) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 5) The Contractor shall install an appropriate wellhead and an approved method of well control on the most appropriately sized casing(s) to insure there is control of any gas and/or fluids generated by the well. **The Contractor shall establish and maintain well control throughout the entire plugging process.**
- 6) The Contractor will remove the 2.375-inch outside diameter tubing and rods, and stage them on a bermed liner for further evaluation. The Contractor shall provide an accurate measurement of the amount of tubing retrieved from the wellbore.

- 7) The Contractor will clean out the well to its total depth (TD) of 1,270 feet or a depth approved by the Division. The Contractor shall run their tools into the existing 6-inch diameter casing, to ensure it is open and verify the wells total depth, which records show is 1,270 feet. The Contractor shall provide a up to 80 barrels of freshwater on location for use as circulation fluid.
- 8) Once total depth has been reached, the Contractor will load the hole with freshwater and run a Gamma Ray/CCL/Temperature/Bond & Caliper log to verify hole diameter, casing integrity, and the cement and bond on the surface casing annulus. All cement plug depths and thicknesses will be based on log data.
- 9) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (ID) tubing using an approved cement mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug.
- 10) The Contractor will set a 500-foot bottom plug from 1,270 feet to 770 feet, to cover the Trenton Limestone. The Contractor will wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 11) The Contractor will set a 500-foot plug from 770 feet to 270 feet, to cover the bottom of the 6-inch surface casing. The Contractor will wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 12) The Contractor will then set a cement plug from 270 feet to within forty-eight (48) inches of ground level, wait on cement/grout a minimum of eight (8) hours and top off with additional cement/grout, if necessary. Any open annular voids present at the surface shall be filled with cement.
- 13) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of forty-eight (48) inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



THRASHER



SCOPE OF WORK
SENECA 4F PROJECT
Miller 1 Orphan Well Site
Seneca County
Jackson Township

WELL DESCRIPTION

This Well Description is for:

Miller 1: 34-147-6-1159-00-00, Seneca County, Jackson Township

Background: Miller 1 is located approximately 2.90 miles northeast of the city of Fostoria, 1,304 feet south of West Township Road 33 along a fence line between two agricultural fields on a 20.3-acre parcel (39147-G25000417200200) which is owned by Donald Waltermier. The address is West Township Road 33, Jackson Township, Fostoria, Ohio.

A 2025 division inspection of Miller 1 found the well along a fence line between two agricultural fields equipped with 8.625-inch outside diameter (O.D.) conductor casing, 6-inch O.D. surface casing, 2.375-inch O.D. tubing, rods, and wellhead. A Thrasher Group inspection of Miller 1 was conducted in August 2025. At the time of inspection, Miller 1 was located along a fence line between two agricultural fields equipped with 8.625-inch O.D. conductor casing, 6-inch O.D. surface casing, 2.375-inch O.D. tubing, 1-inch sucker rods, and wellhead.

The drilling log does not state H₂S was found in this well. Based on information from the Ohio H₂S map, the Miller 1 well is located in Seneca County, Jackson Township which is not a H₂S Township in Ohio.

Division well records for Miller 1 were not located. Off-set drilling logs state that the well could have been drilled in the early to mid-1900s to an estimated total depth of 1,273 feet in the Trenton Limestone. Estimated formation data included in this record show the following:

Formation	Top (ft.)	Bottom (ft.)	Remarks
Drift	0	9	Soft
Limestone (*Lockport)	9	298	Blue; Hard
Break	298	328	Blue; Soft
Clinton Limestone	328	438	Light; Hard
Red Rock	438	483	Medium
Shale	483	603	Blue; Medium
Shale	603	828	Gray; Medium
Shale	828	1,003	Light Brown; Medium
Shale	1,003	1,224	Dark Brown; Medium
Trenton Limestone	1,224	1,273	Hard; Oil and Gas at 1,226 feet
Total Depth	1,273		

Casing data for Miller 1 is unavailable. Based on casing data from off-set well card Waltermier Irvin 3 (34-147-2-0038-00-00), which is located approximately 1,114 feet north of this well, and field inspection measurements, Miller 1 has assumed casing depths are as follows:

- 8.625-inch O.D. casing set to 10 feet
- 6-inch O.D. casing set to 325 feet
- 2.375-inch O.D. tubing and rods set to 1,270 feet

No plugging records located for Miller 1.

For the purposes of this Scope of Work it is assumed that Miller 1 was drilled to an estimated total depth of 1,273 feet and produced from the Trenton Limestone. The well is equipped with an estimated 10 feet of 8.625-inch outer diameter (O.D.) conductor casing, an estimated 325 feet of 6-inch O.D. surface casing, an estimated 1,270 feet of 2.375-inch O.D. tubing, and rods.

The deepest underground source of drinking water (USDW) is mapped on the Lockport Dolomite with the base of formation at a depth of approximately 298 feet. Based on local water well data, offset oil and gas well records within the reviewed area, and published groundwater resources information for Seneca County, wells produce water from clay, gravel, limestone, and shale. Sustainable yield for the surrounding water wells was approximately 50 gallons per minute. Water wells in the area are between 52 and 200 feet in depth. The work zone falls within the drinking water source protection area for Fostoria Mobile Estates (OH7400712). According to the Division of Mineral Resources Management, there are no surface or underground mines within the area of review of Miller 1.

Scope of Work: This project includes the mobilization and access to the site, plugging the orphan well, as well as regrading and reclamation of disturbed areas as described.

Designated Route: The Contractor shall utilize West Township Road 33 to access the site during all stages of the plugging project.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over the roads that are intended to be utilized for this project. The Contractor shall provide written documentation to the Division, of all road use notifications/approvals prior to mobilizing equipment to the site.



THRASHER



**SCOPE OF WORK
SENECA 4F PROJECT
Miller 1 Orphan Well Site
Seneca County
Jackson Township**

PLUGGING PLAN

This Plugging Plan is for:

Miller 1: 34-147-6-1159-00-00, Seneca County, Jackson Township

For the purposes of this Scope of Work it is assumed that Miller 1 was drilled to an estimated total depth of 1,273 feet and produced from the Trenton Limestone. The well is equipped with an estimated 10 feet of 8.625-inch outer diameter (O.D.) conductor casing, an estimated 325 feet of 6-inch O.D. surface casing, an estimated 1,270 feet of 2.375-inch O.D. tubing, and rods.

The Miller 1 well is not located within an H2S township, however, H2S was detected in nearby wells during the site visit. Based on this information, the Contractor will follow the H2S protocol as defined in the Detailed Specifications.

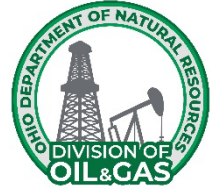
The Contractor shall maintain a minimum of 40 barrels of 9.0 pound-per-gallon weighted brine on location throughout the entire plugging process for use as a well kill fluid.

- 1) The Contractor will safely relieve any pressure that may be built up on this well prior to commencing plugging operations. The Contractor will give the property owner and local fire authorities a minimum of twenty-four (24) hour notice prior to blowing down the well.
- 2) The Contractor shall visually examine the existing casings to evaluate their condition immediately below grade. If the casing(s) is found to be severely degraded, the Contractor will remove the incompetent section of casing and install enough new casing, of similar diameter, to bring the top of the existing casing to a suitable working height.
- 3) The Contractor shall install 10.75-inch outside diameter (O.D.) drive pipe in the wellbore. This drive pipe shall be driven to refusal of competent bedrock, which is estimated to be at a depth of 20 feet. The top of this drive pipe shall extend to a suitable working height above ground level.
- 4) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.
- 5) The Contractor shall install an appropriate wellhead and an approved method of well control on the most appropriately sized casing(s) to insure there is control of any gas and/or fluids generated by the well. **The Contractor shall establish and maintain well control throughout the entire plugging process.**
- 6) The Contractor will remove the 2.375-inch outside diameter tubing and rods, and stage it on a bermed liner for further evaluation. The Contractor shall provide an accurate measurement of the amount of rods and/or tubing retrieved from the wellbore.

- 7) The Contractor will clean out the well to its estimated total depth (TD) of 1,273 feet or a depth approved by the Division. The Contractor shall run their tools into the existing 6-inch diameter casing, to ensure it is open and verify the wells total depth, which records show is estimated at 1,273 feet. The Contractor shall provide up to 80 barrels of freshwater on location for use as circulation fluid.
- 8) Once total depth has been reached, the Contractor will load the hole with freshwater and run a Gamma Ray/CCL/Temperature/Bond & Caliper log to verify hole diameter, casing integrity, and the cement and bond on the surface casing annulus. All cement plug depths and thicknesses will be based on log data.
- 9) All cement plugs shall be set through a working string of 1.5-inch minimum inside diameter (I.D.) tubing using an approved cement mixed at 15.6 pounds per gallon. **The well shall be in a static condition prior to beginning any cementing activities.** In addition, circulation must be established, and all free crude oil shall be circulated from the wellbore prior to setting any plug.
- 10) The Contractor will set a 500-foot bottom plug from 1,273 feet to 773 feet, to cover the Trenton Limestone. The Contractor will wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that a competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 11) The Contractor will set a 500-foot plug from 773 feet to 273 feet, to cover the bottom of the 6-inch surface casing. The Contractor shall wait on cement for a minimum of eight (8) hours and then run their tools into the hole to verify the depth to the top of the plug. If the plug has dropped or it is determined that competent plug has not been achieved, additional plugs may be requested at the discretion of the Division.
- 12) The Contractor will then set a cement plug from 273 feet to within forty-eight (48) inches of ground level, wait on cement/grout a minimum of eight (8) hours and top off with additional cement/grout, if necessary. Any open annular voids present at the surface shall be filled with cement.
- 13) No sooner than three (3) business days after placing the uppermost plug, the Division will inspect the well at surface to determine if any additional plugging work shall be required at that time. If additional work is not needed the Contractor shall cut to a depth of forty-eight (48) inches below the surface and the Contractor shall set the plugged well identification as outlined in the General Specifications and Ohio Administrative Code 1501-9-11-10.



THRASHER



SCOPE OF WORK
SENECA 4F PROJECT
Multiple Orphan Well Sites
Seneca County
Jackson & Loudon Townships

DETAILED SPECIFICATIONS

The Contractor is reminded to review the Scope of Work documents carefully. Coordination, permission, or direction of the Division may be required for use of individual Detailed Specification line items. The Division shall only pay for quantities of items that are correctly installed and completed in accordance with the Detailed Specifications and Drawing Plan Set. The Division shall not guarantee payment of any work completed without or prior to following the conditions described herein of each line item.

MOBILIZATION

- A. Description: This work shall consist of the development of access and the mobilization of the Contractor's forces and equipment necessary for performing the required work under the Scope of Work for the well site.

This item shall include the transportation of personnel, equipment, and supplies to and from each site as well as the maintenance of all onsite access roads.

As part of this line item, the Contractor shall also include any maintenance of traffic required within the road right-of-way per Part 7 of the General Specifications.

Also, the Contractor shall be responsible for cleaning mud and dirt associated with construction from all roadway surfaces (public and private) as per Part 7.1 of the General Specification for the duration of the Project and as directed by the Division.

In addition, tree clearing/removal on the Jerald #2 and Miller #2 shall be considered part of this line item. Cutting of trees shall be coordinated with the Division and in accordance with federal restrictions.

- B. Execution: No additional compensation shall be made to the Contractor for remobilization after his equipment has been removed from the site. If applicable, this shall include remobilization of equipment if removed due to winterization of the project.

Any damage to the road, drives, and/or culverts caused by the mobilization shall be repaired by the Contractor at the Contractor's expense. All repairs shall be done equal to or better to that which existed prior to construction activities.

Crop/Vegetation removal shall be considered incidental to "**Mobilization**".

In addition, this work shall consist of coordinating with the applicable utility owner(s) for any proposed crossings within the project limits. Coordination with Energy Transfer has been initiated through the 811-notification system and direct contact with the Energy Transfer Encroachments Department (Phone: 713-989-4324; Email: encroachments@energytransfer.com), including

submission of required utility encroachment request forms for the proposed crossings.

No construction activities, installation of air bridge crossings, or equipment loading shall occur over the existing Energy Transfer facility until written authorization and crossing requirements are received from the utility owner. The Contractor shall comply with all issued encroachment conditions, crossing guidelines, inspection requirements, notification periods, and construction restrictions as provided by Energy Transfer. All work performed in the vicinity of the utility shall be in strict accordance with the utility owner's written approval and applicable permit conditions.

- C. **Measurement:** Measurement for payment will be considered and measured as a unit satisfactorily completed and accepted by the Division. **Mobilization of equipment between wells shall be considered incidental to this line item for wells using a common entrance.**

If any portion of the item is non-performed to the satisfaction of the Division (i.e., the mud and dirt are not cleaned from the roadway, the proper signage is not used as detailed) this is considered unsatisfactory and shall be cause for the rejection of payment of this item.

As part of the consideration to be satisfactorily completed, work shall be per the "Sequence of Work."

- D. **Payment:** The cost of this work shall be included in the lump sum price for "**Mobilization.**"

CLEARING & GRUBBING

- A. **Description:** This item covers the removal of the vegetation within the limits shown on the Drawing Plan Set to provide adequate space to maneuver equipment to complete the proposed work at each well.
- B. **Execution:** The Contractor shall only clear enough of the site within the limits shown on the Drawing Plan Set to provide adequate space to maneuver equipment to complete the proposed work. The Division shall exercise control over clearing and shall designate all trees, plants, shrubs, abandoned material, trash, etc., to be removed or to remain. This work shall also include the preservation from injury or defacement of all trees designated to remain.

If the Contractor clears and/or grubs beyond the construction work limits, whether knowingly or accidentally, the Contractor shall replant and/or otherwise restore all areas outside of the limits to a condition equal to or better than what existed prior to beginning work. This shall be no at no additional expense to the Division.

All tree disturbance (trimming and/or removal) activities shall be coordinated with the Division as these trees may provide suitable roosting, foraging, or traveling habitat for Threatened & Endangered species. To prevent adverse impacts to Threatened & Endangered species, clearing of trees with a DBH (Diameter at Breast Height) greater than 3inches, **shall not take place between April 1st and September 30th.**

All suitable debris cleared shall be chipped by mechanical methods and the mulch shall be stockpiled/spread onsite in the locations designated by the Division's Representative.

All logs and stumps not suitable for chipping shall be hauled off site. Proper disposal is the Contractor's responsibility. If necessary, logs/vegetation shall be hauled to an authorized OEPA landfill.

All stumps shall be cut off flush with the existing ground surface prior to placement of material. Burning of debris materials shall not be permitted on-site.

- C. Measurement: Measurement for payment will be considered and measured as a unit satisfactorily completed and accepted by the Division. This measurement shall be for the entire project as one unit.
- D. Payment: Payment shall be made at the contract lump sum price per "**Clearing & Grubbing.**"

SITE SAFETY

- A. Description: The work will include the installation and implementation of safety procedures for the plugging of the orphan well as described herein.
- B. Definitions & Installation: It is the Contractor's responsibility to properly maintain all of the latter mentioned throughout the duration of the project. Any damages shall be repaired or replaced at no additional cost to the Division. Site safety measures shall be removed prior to the demobilization of the Contractor's workforces.

Any release of materials into or onto the ground or surface waters outside of the primary and/or secondary containment shall follow the Ohio One-Call System as described in Appendix I, "One Call". The Ohio One-Call System shall be contacted at 1-844-OHCALL1 within 30-minutes of becoming aware of the occurrence.

1. Notification: Due to the close proximity of the Jerald #2 well to the residence, buildings and the potential safety issues involved with the plugging procedure, the contractor or contractor's representative will contact the residents two weeks prior to the commencement of plugging activities to notify them of the potential safety issues.
2. Temporary Construction Fence & Posts: The temporary construction fencing shall be composite, orange mesh with a minimum overall height of four (4) feet. Fence posts are to be steel five (5) feet t-posts. Fence materials shall meet the ODOT Construction and Materials Specifications (CMS) Item 710.11.

The posts shall be driven or set in holes to a minimum depth of one (1) foot and at intervals not to exceed ten (10) feet. The fence shall be stretched and securely fastened to each post using metal or plastic ties.

Fencing shall be placed around the entire work area. The Contractor shall work in conjunction with the Division for placement of the temporary fence. All fence shall be removed at the completion of the project.

3. Air Movers (Industrial Fans): The Contractor will also be required to have onsite industrial fans or air movers **at all times** in the event natural gas is detected and found to be settling at ground level and not properly dissipating from the site (unless otherwise approved in writing from the division).
4. FEMA 100-year Floodplain Requirements: These wells are located within the FEMA 100-year floodplain limits. In the event that the site begins to flood, the Contractor will be required to immediately shut in the well and remove all onsite equipment and chemicals that could potentially cause pollution and/or contamination. **The Contractor shall work in conjunction**

with the Division prior to mobilizing equipment to the project site. Approval shall be based upon the time of year as well as projected weather conditions.

5. Power/Utility Lines Safety: Utility lines cross over the access route which will require warning signs to insure awareness.
6. Absorbent Boom: In addition to the requirements of Part 10 of the General Specifications, the Contractor shall supply and install absorbent booms as shown on the Drawing Plan Set. The Contractor shall work in conjunction with the Division for the placement of the booms. The booms shall be in place for the entire duration of the Project and shall be flipped or replaced as needed in order to continually absorb any oil/hydrocarbon materials. Any pooled oil/hydrocarbon material shall be removed prior to removal of the boom. **Absorbent booms shall only be required at the Johnny Appleseed 3, 4, 5, & 6 well sites.**
7. Emergency Response Plan: The Contractor will assemble an Emergency Response Plan (ERP) with all contact information, emergency preventative measures, and **contingency plans for Hydrogen Sulfide (H₂S) release** and for any well-related issues that may occur. ERPs shall be submitted to the Division via email to DOGRM.EMNOTIFY@dnr.ohio.gov for approval prior to beginning work.

The Contractor will be responsible for maintaining this ERP on site during the plugging operations. A copy of the ERP along with the SDS sheets will be stored at the project entrance in a container labeled "ERP/SDS". Ingress/Egress for evacuation and/or public safety will be discussed in the safety meeting to be held on location by the Contractor with local responders and Division personnel. These routes will be listed in the ERP. The Division will review with the Contractor prior to the start of plugging operations.

Well Name	Safety Measures Required
Jerald #2	Notification; Temporary Construction Fence & Posts; Protective Barriers

- C. Measurement: Measurement for payment will be considered and measured as a unit satisfactorily completed and accepted by the Division.
- D. Payment: Payment for this work, including labor, installation, materials and removal shall be made at the lump sum price for "**Site Safety.**"

ROAD MATS (COMPOSITE MATS)

- A. Description: This item shall consist of the transportation, delivery, installation, and removal of road mats as described. The placement of road mats within the limits of construction shall be at the discretion of the Division. This item shall be utilized to protect the existing lawn areas and crop fields that will be traversed within the construction work limits. This item shall also include all work required to move between wells included in this contract, that require road mats as shown on the Drawing Plan Set.
- B. Material: Road matting shall be non-permeable, composite mats. Non-permeable, composite mats shall be a minimum of four (4) inches thick with a minimum surface dimension of seven (7) feet wide and thirteen (13) feet long. Non-permeable, composite mats and associated components (i.e. ramps, berms, and fittings) shall be installed per the manufacturer's recommendations.

All materials delivered to the site must be in a shape to be able to cover the area properly and

still have the strength and integrity to complete the required work. The Division may reject any mats determined to be damaged beyond useful life or remove square footage as measured from each individual mat.

- C. Execution: Mats shall be kept clean throughout the project. If it is determined by the Division, the mats do not meet this requirement the Contractor shall have any sediment or mud removed immediately.
- D. Measurement: Measurement for payment for the road mats shall be made by actual field measurements of quantities satisfactorily installed at the site. Each road mat shall be measured for a square foot installed.
- E. Payment: The cost of this work shall be included in the unit price per square foot for "**Road Mats.**"

TIMBER MATS

- A. Description: This item shall consist of the transportation, delivery, installation, and removal of road mats as described. Timber mats shall be placed within the limits of construction as shown on the Drawing Plan Set and shall be used solely to provide stable bearing support for temporary portable bridge abutments. The mats shall be installed in accordance with the manufacturer's recommendations and as directed by the Division to ensure adequate load distribution and protection of underlying soils.
- B. Material: Timber matting shall be composed of dense hardwood, shall be a minimum of six (6) inches thick, four (4) feet wide, and sixteen (16) feet long, and shall have a minimum of 1-1/4-inch diameter lift bolts installed at each end and through the width of the mat. The size required will vary depending on the use, see details on the drawing plan sets for variations on these sizes.

All materials delivered to the site must be in a shape to be able to cover the area properly and still have the strength and integrity to complete the required work. The Division may reject any mats determined to be damaged beyond useful life. The following grade descriptions for used mats shall be used by the Division to determine if the materials are acceptable.

1. **GRADE A** - Visually, Grade A mats look like new mats. The timbers are still square and in excellent condition and all the mat bolts are in place and fully intact. Mats must have all bolts and timbers fully intact. Mats are less than 9 months old. Very minimal wear, no chunks out of timbers missing.
2. **GRADE B** - Essentially, Grade B mats are less pretty versions of Grade A mats. They have no structural faults; they just look a bit worn. Edges of timbers are still square, and timbers are also sound and free of rot. If one or two of the bolts are bent, they qualify as Grade B mats. These mats might also be stained, but the discoloration is not enough to affect the durability of the mat. Typically, 10-18 months of age/usage makes the mat fall into a B grade. **(All mats used to bridge over anything shall be Grade B or better.)**
3. **GRADE C** - Grade C mats are not quite up to the challenges that Grade A and B mats can handle, but they still have life left in them. Grade C Mats can have a missing or pulled rod on one end of the mat. The mat still has structural integrity inside 2' from each end though. Timbers may be broken within 2' of either end but no timbers are broken inside of the 2' of each end. No hanging timbers allowed in C grade mats. As you can imagine, these are not going to be the picture-perfect image of timber mats. They might be missing numerous bolts,

incurred excessive repairs, or be slightly varied in shape. Grade C mats are less expensive, but they also have a shorter life expectancy. **Any mat meeting the Grade C rating shall be measured for square footage of acceptable usable area.**

- C. Measurement: Measurement for payment for the road mats shall be made by actual field measurements of quantities satisfactorily installed at the site. Each road mat shall be measured for a square foot installed.
- D. Payment: The cost of this work shall be included in the unit price per square foot for "**Timber Mats**"

AIRBRIDGE W/ ABUTMENTS

- A. Description: This item shall consist of the transportation, delivery, installation, and removal of the airbridge with abutments as described. The airbridge with abutments will be utilized to safely cross transmission lines within the construction work limits, providing protection to sensitive areas during construction activities. The placement of the airbridge with abutments shall be as directed by the Division, ensuring safe and efficient access to the work site. This item shall include all work necessary to install, maintain, and remove the airbridge with abutments as shown in the Drawing Plan Set.
- B. Material: Air bridge and abutments shall be composed of dense hardwood, shall be a minimum of eight (8) inches thick, four (4) feet wide, and sixteen (16) feet long, (see site plans for required lengths) and shall have a minimum of 1-1/4-inch diameter lift bolts installed at each end and through the width of the mat. Strapping material shall be a minimum of 1/4" thick x 2" wide hot rolled steel per ASTM A36 and lag bolts shall be minimum of 1/2" x 5" long.

All materials delivered to the site must be in a shape to be able to cover the area properly and still have the strength and integrity to complete the required work. The Division may reject any mats determined to be damaged beyond useful life. The following grade descriptions for used mats shall be used by the Division to determine if the materials are acceptable.

1. **GRADE A** - Visually, Grade A mats look like new mats. The timbers are still square and in excellent condition and all the mat bolts are in place and fully intact. Mats must have all bolts and timbers fully intact. Mats are less than 9 months old. Very minimal wear, no chunks out of timbers missing.
2. **GRADE B** - Essentially, Grade B mats are less pretty versions of Grade A mats. They have no structural faults; they just look a bit worn. Edges of timbers are still square, and timbers are also sound and free of rot. If one or two of the bolts are bent, they qualify as Grade B mats. These mats might also be stained, but the discoloration is not enough to affect the durability of the mat. Typically, 10-18 months of age/usage makes the mat fall into a B grade. **(All mats used to bridge over anything shall be Grade B or better.)**
3. **GRADE C** - Grade C mats are not quite up to the challenges that Grade A and B mats can handle, but they still have life left in them. Grade C Mats can have a missing or pulled rod on one end of the mat. The mat still has structural integrity inside 2' from each end though. Timbers may be broken within 2' of either end but no timbers are broken inside of the 2' of each end. No hanging timbers allowed in C grade mats. As you can imagine, these are not going to be the picture-perfect image of timber mats. They might be missing numerous bolts, incurred excessive repairs, or be slightly varied in shape. Grade C mats are less expensive, but

they also have a shorter life expectancy. **Any mat meeting the Grade C rating shall be measured for square footage of acceptable usable area.**

- C. Execution: Air bridge shall be kept clean throughout the project. If it is determined by the Division the bridge surface does not meet this requirement the Contractor shall have any sediment or mud removed immediately. Contractor shall take care not to deposit sediment or mud in the existing stream.
- D. Approaches and Grading: The Contractor shall grade and stabilize the approaches to the airbridge as necessary to ensure safe and stable access for construction vehicles and equipment. Grading shall be incidental to the installation of the airbridge and abutments.

The approaches shall be constructed using No. 57 crushed stone, or equivalent, or suitable site material at the discretion of the Division. The material shall be compacted to provide a stable surface capable of supporting vehicular traffic. The Division reserves the right to determine the suitability of the site material if used in place of crushed stone.

Grading and placement of material for the approaches shall be considered incidental to the installation of the airbridge with abutments. No separate payment will be made for grading or materials used for the approaches.

- E. Measurement: Measurement for the air bridge w/ abutments, which includes all materials, labor, and equipment necessary to provide the required air bridge w/ abutments will be considered and measured as a unit satisfactorily completed and accepted by the Division. Air bridge w/ abutments shall not be considered complete until the airbridge and abutments have been removed from the site at the completion of the project.
- F. Payment: The cost of this work shall include all material, labor, and equipment necessary to complete the work and be made at the per each price for "**Airbridge w/ Abutments.**"

PORTABLE BRIDGE

- A. Description: This item shall consist of the procurement, transportation, delivery, installation, maintenance, and removal of a portable bridge w/ abutments (portable bridge) as described. The placement of a portable bridge within the limits of construction shall be at the discretion of the Division. This item shall be utilized to protect the existing bridges not suitable for rig traffic and streams that will be traversed within the Good #1- #11 and Kleinfelter Farms #1 construction work limits. This item shall include all work that is required for the portable bridge as shown on the Drawing Plan Set.
- B. Materials: The portable bridge shall utilize a bridge type crossing that allows for access without affecting the stream below the ordinary high-water mark and is of sufficient capacity to facilitate the work. The portable bridge shall be sized to span the stream, wide enough to safely pass the intended equipment, and allow adequate length to rest on abutments. The portable bridge shall carry a max load rating established by an engineer. The contractor shall not exceed the max load rating when using the portable bridge. Placing culverts or stone below the ordinary high-water mark shall not be allowed.
- C. Execution: The contractor shall **submit a written portable bridge plan** to the Division prior to execution. The portable bridge plan shall describe the following elements:

- a. Type of portable bridge, including manufacturer, model, and dimensions
- b. Abutment material and dimensions
- c. Method for transportation and installation
- d. Configuration
- e. Necessary grading requirements, if any
- f. Method for restoring effected areas

Upon receiving approval from the Division, the contractor shall install the portable bridge at the location indicated by the Division and maintain the portable bridge during the life of the project. Installation shall include any miscellaneous grading that may be necessary.

All work up to and including site restoration opposite the ingress/egress side of the stream must be completed before removing the bridge. Reinstallation will be at the Contractor's own cost if the bridge is removed prior to work being completed and accepted by the Division.

Upon completion of the work, the portable bridge shall be removed. The affected areas shall be restored to the original grade and all disturbed areas shall be revegetated according to the Site Restoration Specifications.

- D. Measurement: Measurement for the portable bridge, which includes procurement, transportation, delivery, installation, maintenance, and removal, will be considered and measured as a unit satisfactorily completed and accepted by the Division. Portable bridge shall not be considered complete until the portable bridge has been removed from the site. The following milestones will be used to measure progress for payment:
 - a. 20% - Mobilization
 - b. 80% - Installation
 - c. 100% - Removal / Restoration
- E. Payment: The cost of this work shall include all material, labor, and equipment necessary to complete the work and be made at the lump sum price for **"Portable Bridge"**

12" PE/PVC CULVERT

- A. Description: This item covers the quality, material placement and requirements for the installation of a culvert in accordance with the specified requirements and standards.
- B. Materials:
 1. Culvert Pipe: The culvert pipe shall be 12" corrugated N-12 HDPE smooth interior pipe or approved equal and shall meet the AASHTO M294 specification, except the average elongation shall not exceed 7.5 percent when tested as described in that specification. Manufacturer's certification shall be furnished to the Division.
 2. Backfill: Backfill material shall be placed around the pipe to as shown on the Drawing Plan Set and compacted to the satisfaction of the Division. Backfill material shall be included in the unit price for **" No. 304 Aggregate"**.
- C. Installation: The Division shall verify locations prior to commencing installation. Installation shall be in compliance with all manufacturer's specifications.
- D. Measurement: Measurement of 12" PE/PVC Culvert shall be by actual linear feet of pipe installed

as measured in the field.

- E. Payment: The cost for work under this item, including HDPE pipe and installation, shall be at the unit price per linear foot for **“12” PE/PVC Culvert**”.

36” PE/PVC CULVERT

- A. Description: This item covers the quality, material placement and requirements for the installation of a culvert in accordance with the specified requirements and standards.
- B. Materials:
1. Culvert Pipe: The culvert pipe shall be 36” corrugated N-12 HDPE smooth interior pipe or approved equal and shall meet the AASHTO M294 specification, except the average elongation shall not exceed 7.5 percent when tested as described in that specification. Manufacturer’s certification shall be furnished to the Division.
 2. Backfill: Backfill material shall be placed around the pipe to as shown on the Drawing Plan Set and compacted to the satisfaction of the Division. Backfill material shall be included in the unit price for **“ No. 304 Aggregate”**.
- C. Installation: The Division shall verify locations prior to commencing installation. Installation shall be in compliance with all manufacturer’s specifications.
- D. Measurement: Measurement of 36” PE/PVC Culvert shall be by actual linear feet of pipe installed as measured in the field.
- E. Payment: The cost for work under this item, including HDPE pipe and installation, shall be at the unit price per linear foot for **“36” PE/PVC Culvert**”.

SECONDARY CONTAINMENT

- A. Description: This item shall include all labor and materials required for the installation, maintenance, and deconstruction of the secondary containment. Onsite materials and equipment required to be stored within the secondary containment shall be as follows: containers that store liquid brine, oilfield waste, and/or fuels as well as any required pumps. In determining the method, design, and capacity for secondary containment, the Contractor shall address the typical failure mode, and the most likely quantity of brine or other oil field waste substance that would be discharged.
- B. Materials: The Contractor shall supply catchment basins or diversion structures to intercept and contain discharges of brine or other oilfield waste substances during the project. Materials shall consist of impermeable containers or liners made of a material that is compatible with the waste stored or used within the containment. Containment materials shall be impervious and have supporting documentation of the permeability, chemical compatibility, and other applicable QA/QC standards, is acceptable. **Use of a liner shall at a minimum be a 20-mil thickness.**

Materials shall be durable enough to support the weight of heavy equipment used for the plugging operations. Materials shall have sufficient strength and thickness to maintain the integrity of the container or liner. The container or liner shall be designed, constructed, and maintained so that the

physical and chemical characteristics of the container or liner are not adversely affected by the waste and the container or liner is resistant to physical, chemical and other failure during transportation, handling, installation and use.

Liner walls shall consist of metal, wood, concrete, plastic, or approved equal. Wall materials shall be designed, constructed, and maintained to withstand the overtopping and sliding forces of secondary containment filled to capacity.

The Division shall determine the merit of the proposed materials compatibility, impermeability, integrity, and durability in determining if the material is sufficient for the project.

- C. Installation: Secondary containment shall be installed prior to any drilling or liquid storage at the project site. **Secondary containment shall extend at least one foot horizontally beyond the primary containment and provide at least one foot in depth capacity or provide a minimum volume equal to 25% of the primary storage capacity.**

Upon request of the Division, the Contractor shall provide calculations in tabular format of the containment providing both the secondary containment capacity and the on-site material storage. The Division can require that sections of a secondary containment be removed for inspection and sampling if a spill occurs during the project.

Installation of the containers or liners, including seams and pipe penetrations, shall be in accordance with the manufacturer's recommendations. All seams and non-seam area of the container or liner shall be inspected by the Division for defects, holes, and blisters.

Care shall be taken when operating equipment on or near the container or liner to prevent any damage to the secondary containment. If damage occurs, it shall be repaired by the Contractor at his/her expense prior to continuing the project.

The Contractor shall retain all ownership and responsibility for the secondary containment. All secondary containment shall be removed from the site and retained by the Contractor at the conclusion of the project.

- D. Measurement: Secondary containment, which includes all materials, labor, and equipment necessary to provide the required secondary containment, will be considered and measured as a unit satisfactorily completed and accepted by the Division. Secondary containment shall not be considered complete until all secondary containment has been removed from the site at the completion of the project.
- E. Payment: Payment for this work shall include all material, labor, and equipment necessary to complete the work and be made at the lump sum price for **"Secondary Containment."**

SILT FENCE

- A. General: This item covers construction of the silt fences and/or straw bale dikes. The Division shall designate utilization of silt fence, straw bale dikes or a combination of both at locations selected for placement.

The placement of silt fence and straw bale dikes within the limits of construction shall be at the discretion of the Division.

During the life of the project, the Contractor shall maintain these silt and erosion-control structures. Accumulated silt shall be removed when it, in the Division's opinion, may damage or reduce the effectiveness of the structure.

B. Straw Bale Dikes

1. Materials: Straw bale dikes shall be constructed with twine-bound square straw or hay bales, staked to remain in place.
2. Installation and Execution: The location of the dikes shall be as directed by the Division, at the time of construction. When the usefulness of the dikes has ended, they shall be removed and disposed of. Dikes may remain in place upon completion of the project only when permitted by the Division.

C. Silt Fence

1. Materials

- a. The silt fence fabric shall conform to the ODOT Item 712.09, Type C. The silt fence shall be installed in accordance with all manufacturers' instructions.

The fabric shall be free of any treatment that might significantly alter its physical properties. During shipment and storage, the fabric shall be wrapped in a heavy-duty protective covering to protect it from direct sunlight, dirt, and other debris.

The manufacturer shall submit certified test data to cover each shipment of material.

- b. The silt fence used shall be a prefabricated silt fence with fabric already attached to posts or shall be assembled in the field according to the following installation guidelines.

The fabric shall be a pervious sheet composed of a strong, rot-proof polymeric yard or fiber oriented into a stable network, which retains its relative structure during handling, placement, and long-term service. It shall have excellent resistance to deterioration from ambient temperatures, acid, and alkaline conditions, and shall be indestructible to microorganisms and insects. The material shall be resistant to deterioration by ultraviolet light and protected until placement as recommended by the manufacturer such that no deterioration occurs. During shipment and storage, the rolls of fabric shall be protected against deterioration from the sun, mud, dirt, dust, and other harmful conditions at all times until their use.

2. Installation Guidelines for Silt Fence: Silt fence shall be installed in the following manner.

- a. First, a small toe-in trench shall be dug along the line where the silt fence is to be placed. The trench shall be a minimum of 6-inch deep and 6-inch wide. The excavated material shall be placed on the front or uphill side of the trench to facilitate backfilling later.
- b. Next, fence posts shall be driven into the back or downstream side of the trench. The posts shall be driven so that at least one-third (1/3) of the height of the post is in the ground. When installing a prefabricated silt fence with fabric attached to the posts, the posts shall be driven so that at least 6-inch of fabric shall be buried in the ground. Most prefabricated silt fences have posts spaced approximately 6 feet – 8 feet apart, which is usually adequate. If there is a low spot where most sediment tends to collect, the prefabricated silt fences can

- be backed up with bale backup. Posts shall be hardwood with sufficient strength to support a full load of deposited sediment.
- c. Finally, the trench shall be backfilled with the excavated material and tamped so that at least 6-inch of the fabric is securely toed into the ground to prevent under-mining.
 - d. The silt fences shall be maintained throughout construction. The Contractor shall conduct regular inspections and after all heavy rains. Damaged fences must be repaired immediately.
 - e. At the completion of construction and upon establishment of suitable vegetation as determined by the Division, all silt fence structures shall be removed. Areas disturbed by the removal operation including temporary access roads shall be revegetated. In general, this operation shall consist of regrading, re-fertilizing, reseeding, and mulching.
- D. Measurement: Measurement for payment for the above-described work shall be made by actual field measurements of quantities satisfactorily installed and completed. When using silt fence with bale backup the measurement shall be the length of the silt fence installed, plus the length of the straw bale dike installed.
- E. Payment for Silt Fence and Straw Bale Dikes: Payment for this item shall be made at the unit price per linear foot of "**Silt Fence.**" The Division shall only pay for quantities of items that are completed.

No. 8 STONE

- A. Description: This work covers the quality, material placement and requirements as a top course stone for the access drives as shown in the Drawing Plan Set. This material shall be placed within the current limits of the landowner's drive.
- B. Materials: The materials shall consist of sound and durable rock, gravel or stone of the proper gradation meeting ODOT specifications. The material shall be free from cracks, seams, and other defects, which tend to increase deterioration from natural causes. It shall be highly resistant to weathering and disintegration under freezing and thawing and wetting and drying as evidenced by laboratory tests and/or service records. The Division at any time during the project may reject any materials, at the source or job site, not meeting the requirements of these specifications.

Acceptability of material will be determined by laboratory tests, visual inspection and/or service records as required by the Division. Service records will include documentation to show the material has performed satisfactorily on similar structures.

- C. Installation: Upon delivery of the material to the site the Contractor shall install the material in place as shown on the Drawing Plan Set.
- D. Measurement: The material shall be measured for payment by the ton (2,000 pounds) for material acceptably placed in the work as determined by certified scale weight tickets.

All material wasted or used by the Contractor for other purposes and any material not placed in the work in accordance with the requirements of the work order and these specifications and drawings shall be measured and not included for payment by weight. A conversion factor of 1.5 ton per cubic yard of No. 8 Stone shall be used if necessary.

- E. Payment: Payment for this work as specified above shall be made based on the unit price per ton for "No. 8 Stone."

No. 304 AGGREGATE

- A. Description: This work covers the quality, material placement and requirements as an aggregate for the project access as shown in the Drawing Plan Set.
- B. Materials: The materials shall consist of sound and durable rock, gravel or stone of the proper gradation meeting ODOT specifications. The material shall be free from cracks, seams, and other defects, which tend to increase deterioration from natural causes. It shall be highly resistant to weathering and disintegration under freezing and thawing and wetting and drying as evidenced by laboratory tests and/or service records. The Division at any time during the project may reject any materials, at the source or job site, not meeting the requirements of these specifications.

Acceptability of material will be determined by laboratory tests, visual inspection and/or service records as required by the Division. Service records will include documentation to show the material has performed satisfactorily on similar structures.

- C. Installation: Upon delivery of the material to the site the Contractor shall install the material in place as shown on the Drawing Plan Set.

The Contractor shall remove the topsoil prior to installation of any access road or work area stone. Topsoil shall be stockpiled adjacent to the location it is removed from. At the conclusion of the project, all topsoil will be replaced to the original location as part of the line item "**Site Restoration.**"

All No. 304 aggregate designated as temporary shall be removed at the completion of the project to allow for the completion of the "**Site Restoration**" line item. **Temporary No. 304 aggregate shall become the property of the Contractor and shall be removed and either reused or disposed of at the Contractor's expense.** No. 304 aggregate identified as permanent shall remain in place as specified in the project plans

- D. Measurement: The material shall be measured for payment by the ton (2,000 pounds) for material acceptably placed in the work as determined by certified scale weight tickets.

All material wasted or used by the Contractor for other purposes and any material not placed in the work in accordance with the requirements of the work order and these specifications and drawings shall be measured and not included for payment by weight. A conversion factor of 1.5 ton per cubic yard of No. 304 aggregate shall be used if necessary.

- E. Payment: Payment for this work as specified above shall be made based on the unit price per ton for "**No. 304 Aggregate.**"

No. 4 STONE

- A. Description: This work covers the quality, material placement and requirements as a base course stone for project access as shown in the Drawing Plan Set.
- B. Materials: The materials shall consist of sound and durable rock, gravel or stone of the proper

gradation meeting ODOT specifications. The material shall be free from cracks, seams, and other defects, which tend to increase deterioration from natural causes. It shall be highly resistant to weathering and disintegration under freezing and thawing and wetting and drying as evidenced by laboratory tests and/or service records. The Division at any time during the project may reject any materials, at the source or job site, not meeting the requirements of these specifications.

Acceptability of material will be determined by laboratory tests, visual inspection and/or service records as required by the Division. Service records will include documentation to show the material has performed satisfactorily on similar structures.

- C. Installation: Upon delivery of the material to the site the Contractor shall install the material in place as directed by the Division. The Contractor shall not stockpile materials at the site.

The Contractor shall remove the topsoil prior to installation of any access road or work area stone. Topsoil shall be stockpiled adjacent to the location it is removed from. At the conclusion of the project, all topsoil will be replaced to its original location as part of the line item "**Site Restoration.**" **Existing drives upgraded for the purpose of this work shall be restored to a condition better than prior to construction.**

All No. 4 stone used for the construction of a temporary access drives shall be removed at the completion of the project to allow for the completion of the "**Site Restoration**" line item. **The No. 4 stone shall become the property of the Contractor at the completion of the project and shall be removed and reused or disposed of at the Contractor's expense.**

- D. Measurement: The material shall be measured for payment by the ton (2,000 pounds) for material acceptably placed in the work area as determined by certified scale weight tickets.

All material wasted or used by the Contractor for other purposes and any material not placed in the work area in accordance with the requirements of the work order and these specifications and drawings shall be measured and not included for payment by weight. A conversion factor of 1.5 ton per cubic yard of No. 4 Stone shall be used if necessary.

- E. Payment: Payment of this work as specified above shall be made based on the unit price per ton for "**No. 4 Stone.**"

FILTER FABRIC

- A. General: This item shall include all material, labor, and equipment necessary for the installation of the filter fabric for the base of entrance aprons & access drives that will be temporary as specified on the Drawing Plan Set.
- B. Materials: The filter fabric shall be composed of strong, rot-proof polymeric fibers formed into a fabric meeting 2019 Ohio Department of Transportation Specifications, Section 712.09 and Supplement 1123, Type "D".
- C. Installation: At the time of installation, fabric shall be rejected if it has defects, rips, holes, flaws, deterioration, or damage incurred during manufacture, transportation, or storage. It shall be laid smoothly and free from tension, stress, folds, wrinkles, or creases. The strips shall be placed to provide a minimum width of 6 inches of overlap for each side or end. Any damage to the fabric during its installation or during placement of the stone shall be replaced or repaired by the Contractor at no cost to the Division. The filter fabric shall be protected from damage due to

placement of the stone or other materials by limiting the height of the drop of the material.

The Contractor shall install the filter fabric once **the subgrade has been properly prepared and approved by the Division** and prior to the stone in the areas of the entrance apron & access drive that is required to be temporary as described on the Drawing Plan Set. The fabric shall be removed and properly disposed of by the contractor at the completion of this project and shall be part of line item **"Filter Fabric."**

- D. Measurement: Measurement shall be determined in the field by the Chief's representative based on the installed area of filter fabric, with no allowance for the recommended 6-inch overlap. Measurement shall be based on the total square footage of fabric placed, as required for drive installation and as indicated in the Drawing Plan Set."
- E. Payment: Payment for all of the work specified above shall be made at the unit price per square yard for **"Filter Fabric"**.

WELL HEAD CONTROL

- A. Description: This work consists of all labor, equipment, and material necessary to excavate and evaluate existing casing(s) and to establish control of the well. This item shall include the installation of a wellhead control device/flow diverter on the most appropriate well casing as described in the plugging plans.

In the event Division UPC work has been completed on the well, resulting in surface equipment (swages, fittings, valves, gauges, etc.) being installed, the Contractor shall coordinate with the inspector in returning this equipment to the Division for future use. At no point shall the Contractor assume ownership of any surface equipment associated with the well.

- B. Execution: The Contractor is responsible for installing, according to best management practices, a wellhead control device/flow diverter on the well casing. Excavation of the existing casing(s) shall be the responsibility of the Contractor. A four (4) foot minimum excavation/evaluation of the existing casing(s) shall be completed. Casing(s) requiring excavation depths exceeding four (4) feet shall be discussed with the Division prior to starting work. All excavations shall be in accordance with OSHA Construction Standards for excavation and trenching under 29CFR 1926 Subpart P.

The casing shall be free from any damage or defects. If required, the casing shall be cut and cleaned of any dirt, oil, and debris prior to welding extensions and/or installation of the diverter.

The Contractor shall supply a cellar with a cement base around the wellhead of all wells. This cellar shall be set around the well and extended up to working elevation, as the depressed area around the well head will be modified to establish workable base. This cellar shall be made of steel, concrete, or polyethylene pipe. **The cellar shall be a minimum of 48 inches in diameter. This work shall include a six (6) inch minimum of Approved Cement as specified or Portland Cement in the cellar base with a three (3) inch minimum port near the well. The port shall extend up to within three (3) inches of the well at working height and be used to monitor and contain any gas/oil escaping around the back side of the casing.**

Once a well head control device is installed, all fluids, gases and solids generated by the plugging process shall be diverted into a tank. This tank shall be set a minimum of twenty (20) feet from the well. The Contractor shall also maintain an adequate supply of well kill fluid at the well for possible well control emergencies, which shall be paid under the line item **"Well Kill Fluid."** The injection

point for the kill line will be a minimum of twenty (20) feet from the well.

For the duration of this project the following wellhead control will be utilized. The wellhead control device/flow diverter assembly will have two, 2-inch minimum diameter discharge ports. The diverter lines running from both of the discharge ports on the wellhead assembly to the above ground steel tank will consist of two (2) – 2-inch minimum diameter steel lines that will extend a minimum of 20 feet from the wellhead. Each diverter line will have two valves (rated minimum 1,000 psi) at the end of the steel line for the control of flow. The lines from the last valve to the steel tank can either be a flexible line or a rigid line. These lines will be a fixed connection (i.e. hammer union, flanges, cam & groove) to the steel pit with equipment that is capable of withstanding the possible pressures encountered. All flexible line connections will have appropriately sized and rated whip checks install at the connections. All flexible lines will be secured to the ground in manner that will allow them to be maintained in place during operations. Lines will discharge into the tank at a downward angle or at an angle that will reduce fluids from splashing or spraying out of the tank if a sustained blow is encountered. One of the steel diverter lines will be equipped with a 2-inch diameter port and valve that will serve as the kill line access. This port and valve will be installed between the wellhead and the inline valve. All lines will need to be able to withstand the possible pressures encountered from sustained flow event from the well. (Remove if high pressure verbiage is used.)

No well operations shall begin until an inspection of the prepared well has been completed by the Division.

- C. Measurement: Measurement for payment shall be made by field inspection of units satisfactorily completed and accepted by the Division.
- D. Payment: Payment for the above-described work, which includes all labor, materials, equipment necessary for the well head control shall be made at the cost proposal lump sum price for **"Well Head Control."**

WELL KILL FLUID

- A. Description: The work covered by this section shall consist of furnishing all labor, equipment, and material necessary to provide and use weighted bring as a "kill" fluid for the drilling and plugging process of the well.
- B. Requirements: The contractor shall provide a weighted bring of sufficient density to kill the well and regain well control in the event of a sustained and/or uncontrolled wellbore kick (a rapid influx of formation fluids and/or gases into the wellbore).

Sufficient density shall be defined as dense enough to exert hydrostatic pressure greater than the anticipated formation pressure but less than the anticipated formation fracture pressure.

The Division will require a minimum of 40-50 barrels of 9 pound per gallon weighted brine kill fluid be maintained at each well site throughout the plugging project for the sole purpose of killing the well to regain well control when required.

A mud pump of sufficient size/capacity shall be required to be onsite at all times during plugging operations as means to pump well kill fluid when required.

- C. Measurement: Measurement for payment for the above-described work shall be made by the actual

quantity of barrels (bbls) of weighted brine used as a kill fluid for the orphan well as approved by the division. The Division will at a minimum pay for the quantity required to be maintained on site.

- D. Payment: Payment for the above work shall be made at the unit price per barrel (bbls) for **"Well Kill Fluid."**

SURFACE CASING (5.5")

- A. Description: This item covers all labor, equipment, and material required to set the surface casing for the plugging of the orphan well.
- B. Materials: The surface casing shall be a 5.5-inch diameter casing conforming to a 15.5 pound per foot STC (Short Thread and Coupling) or an approved equal material specifications. The Contractor shall supply the proper ranges and pup joints to complete the lengths required during installation.

Pipe shall be new pipe or used pipe that has been tested and drifted. The Contractor shall supply documentation for pipe that has been tested and drifted. The Division shall approve used pipe based on documentation and inspection of the pipe.

The casing will be equipped with a float shoe on the bottom joint. This shall be incidental to this line item.

- C. Installation and Execution: The surface casing shall be set to a depth as detailed in the **Plugging Plan** and **Quantity Sheet**. This quantity is for estimating purposes only. Prior to setting any surface casing, the Contractor shall review the plan with the Division. No surface casing shall be set without Division approval.

Drilling shall be completed with an appropriately sized drilling bit. All surface casing shall be drilled with freshwater and set in place. The Division shall not be responsible for additional materials if an alternative method or drill bit is proposed for use.

Centralizers shall be used when setting surface casing. At minimum, both the bottom and top joint of the surface casing shall be equipped with centralizers. The Division reserves the right to adjust centralizer locations and quantities as needed.

In the event that there is not a competent bottom to pump cement, the Contractor shall be required to provide and install a cement basket at the discretion of the Division. This shall be considered incidental to this line item.

- D. Measurement: Measurement for payment for the surface casing work shall be made by actual field measurements of quantities satisfactorily installed and completed per linear foot of surface casing set.
- E. Payment: Payment for this item shall be made at the unit price per linear foot of **"Surface Casing (5.5")"**.

CONDUCTOR CASING (10.75")

- A. Description: This item covers all labor, equipment, and material required to drive/set the conductor in order to begin the plugging procedure.

- B. Materials: The conductor shall be a 10.75-inch diameter casing conforming to a 32-35 pound per foot minimum STC (Short Thread and Coupling) or an approved equal material specifications. The Contractor shall supply the proper ranges and pup joints to complete the lengths required during installation.

Pipe shall be new pipe or used pipe that has been tested and drifted. The Contractor shall supply documentation for pipe that has been tested and drifted. The Division shall approve used pipe based on documentation and inspection of the pipe. The bottom joint shall be equipped with a drive shoe.

- C. Installation and Execution: The Contractor shall propose the method for driving casing. Prior to execution, this method and a proposed depth shall be approved by the Division. Quantities listed are for estimating purposes only. All conductors shall be driven in place to refusal.
- D. Measurement: Measurement for payment for the conductor work shall be made by actual field measurements of quantities satisfactorily installed and completed per linear foot of conductor set.
- E. Payment: Payment for this item shall be made at the unit price per linear foot of "**Conductor Casing (10.75\")**".

CONDUCTOR CASING (13.375")

- A. Description: This item covers all labor, equipment, and material required to drive/set the conductor in order to begin the plugging procedure.
- B. Materials: The conductor shall be a 13.375-inch diameter casing conforming to a 55 pound per foot minimum STC (Short Thread and Coupling) or an approved equal material specifications. The Contractor shall supply the proper ranges and pup joints to complete the lengths required during installation.
- Pipe shall be new pipe or used pipe that has been tested and drifted. The Contractor shall supply documentation for pipe that has been tested and drifted. The Division shall approve used pipe based on documentation and inspection of the pipe. The bottom joint shall be equipped with a drive shoe.
- C. Installation and Execution: The Contractor shall propose the method for driving casing. Prior to execution, this method and a proposed depth shall be approved by the Division. Quantities listed are for estimating purposes only. All conductors shall be driven in place to refusal.
- D. Measurement: Measurement for payment for the conductor work shall be made by actual field measurements of quantities satisfactorily installed and completed per linear foot of conductor set.
- E. Payment: Payment for this item shall be made at the unit price per linear foot of "**Conductor Casing (13.375\")**".

LOGGING

- A. Description: This work consists of all labor, equipment, and material necessary to determine the total depth of the well and the casing, if a packer is present (along with its depth and thickness), determine bond quality behind the casing and the free point of the casing. The Log should also confirm zones of gas production and formation tops for cementing purposes. All cement plug depth and thicknesses will be based on log data of the first well plugged on the site.

Logs shall ONLY be ran at the discretion of the Division based on the conditions encountered regardless of the direction given in the Plugging Plan.

- B. Execution: The Contractor shall complete the logging of the well bore, casing, tubing, packer, and/or cement to the depth of the existing well bore, casing, tubing, packer, and/or cement. The methods of logging to be used shall be as indicated on the individual plugging plan and may include but not be limited to **gamma ray (GR), casing collar locator (CCL), temperature, bond, and caliper log**. Prior to use, the Contractor shall propose the method of logging and shall be approved by the Division.
- C. Measurement: Measurement for payment shall be made by field inspection of units satisfactorily completed and accepted by the Division. **A copy of the log shall be provided with the invoice as backup documentation.**
- D. Payment: Payment for the above-described work, which includes all labor, materials, equipment necessary for the investigation of the well shall be included at the per unit price per each for "Logging".

WELL PREPARATION & PLUGGING

- A. Description: This work consists of all labor, equipment, and material necessary to prepare the well for plugging and complete all required plugs. This shall include cleanout, drillout, and washover of the well bore to the total depth of the well based on the well description(s) and plugging plan(s), circulating the well bore prior to each plug, setting all required plugs, and verification of each plug depth.
- B. Execution: The Contractor shall supply all equipment needed to complete the well preparation in an efficient manner that will be approved by the Division. This shall include but not be limited to the rig, drill pipe, collars, mud pump (See General Specifications, Part 13 for minimum requirements), circulating fluid, cementing equipment, mix water, and associated equipment.

Cable tool/spudding rigs shall not be permitted for use unless otherwise authorized by the Division as described under the General Conditions, Part 13 "Substitution During the Project".

Once well head control has been established, the Contractor will cleanout, drillout and/or washover and then circulate the well bore prior to setting any casing or well plugs. The Contractor shall be responsible for having a minimum of two (2) hole volumes of fluid available for circulation.

The Contractor shall identify the diameter of the well bore below the surface casing and cleanout or drillout with a full-size bit to total depth. **In addition to the full-sized bit, the Contractor shall also supply a bore brush and/or casing scraper at the appropriate size to fully clean out any casing remaining per the plugging plan.** In any case where an obstruction is encountered and total depth cannot be achieved, the Contractor shall immediately notify the Division. The Contractor shall propose a plan to assess the nature of the obstruction that shall be approved by the Division. Additional work associated with removal of the obstruction shall be described and paid for under the Contingency Specifications and as listed on the Quantity Sheet and agreed upon by the Division.

The Contractor shall trip out or up into the nearest competent cased string and secure all tools at the end of each workday or when work shall be paused for an extended time. Any tools left in the hole during such own expense as well as any work required to then prepare the hole to continue the

plugging process (this shall include but not be limited to shooting, fishing, over drilling, lost or damaged tools, etc.). The tripping out of the tools during paused work times shall be incidental to this line item.

Formations within the well bore known to be producing H₂S gas will not be circulated prior to setting a plug.

Prior to setting any plugs the Contractor shall remove all free crude oil by **circulating the wellbore two-hole volumes or until the well is static; a minimum of ten (10) barrels of gel is required to be run ahead of each cement plug that may come into contact with open hole formation at the discretion of the Division.** A minimum of four (4) sacks of bentonite gel per ten (10) barrels of freshwater shall be required if requested. This work shall be considered incidental to this line item. No additional payment shall be made for circumstances where the Contractor does not have the appropriate material on location.

Lost Circulation Material (LCM) may be used to aid in obtaining circulation, as approved by the Division. **Lost Circulation Material (LCM) shall NOT be used when tubing smaller than 1.5 inch inside diameter will be utilized. Circulation must be established prior to conducting cementing procedures.** Use of LCM shall be per the “Lost Circulation Material” specification included in the Contingency Specification. LCM shall be available at the site during the completion of this line item “Well Preparation & Plugging”. The contractor shall provide up to **five (5) sacks of LCM per well for use** (e.g. cotton seed hulls, bentonite gel/polymer, cellophane flake) incidental to this line item. Additional needs for use of LCM shall be per the “Lost Circulation Material” specification included in the Contingency Specification.

The contractor shall set all plugs as described in the **Plugging Plan** to the depths described with the materials described. This shall include setting the bottom plug, intermediate plugs, and the surface plug. All plugs shall be allowed to set for the periods described in the **Plugging Plan**.

The Contractor shall be required to tag all cement tops unless otherwise approved by the Division. Tagging with a sinker bar and depth meter is recommended. Confirmation of cement tops shall be considered incidental to this line item.

If a plug has dropped or is determined to not be a competent plug, then drill out of the plug or additional staged plugs may be required at the discretion of the Division as part of this line item. The Division reserves the right to adjust the Plugging Plan during the plugging process based on site conditions.

- C. Measurement: Measurement for payment shall be made by field inspection of units satisfactorily completed and accepted by the Division.
- D. Payment: Payment for the above-described work, which includes all labor, materials, equipment necessary for the well preparation and plugging shall be made at the lump sum price for **“Well Preparation & Plugging.”**

TUBING

- A. Description: This item covers all labor, equipment, and material required to supply tubing at the site for the purposes of placement of cement and spacers.
- B. Materials: The Contractor shall supply a 1.5-inch inside diameter (ID) or larger tubing in a condition that will allow for the pumping of cement for the purposes of plugging the well. A mud

anchor and/or perforations on the bottom joint of the tubing is recommended. Any issues caused due to running tubing open ended shall be the Contractor's responsibility.

For this project the Contractor shall supply up to 1,500 feet of 1.5-inch ID or larger tubing to all the project wells.

- C. Installation: The Contractor will install and remove the tubing as necessary in order to complete the **Plugging Plan**. The Contractor shall maintain ownership at the conclusion of the project of all tubing that was brought to the site for these purposes.
- D. Measurement: Measurement for payment of the above-described work shall be made by actual field measurements per linear foot of tubing delivered to the site.
- Tubing shall be measured as one use for the duration of the project.**
- E. Payment: Payment for this item shall be made at the lump sum price for "**Tubing.**"

APPROVED CEMENT

- A. Description: This item shall cover all labor, materials, and equipment necessary to plug the well as specified in the **Plugging Plan**.
- B. Materials: Cement materials shall be approved prior to placement. The cement must conform to the following options:
 - a. API Class "A"
 - b. API Class "L"
 - c. ASTM C150 Type 1
 - d. ASTM C595 Type 1L

(Note: These are the only material options that will be approved, any other materials may be submitted to the Division for review but will **not** be approved for this project)

The cement shall contain 2% Calcium Chloride, properly blended, **only if directed** by the Division in advance of placing the cement. **Coordinate with the Division prior to ordering cement.**

The cement shall not contain bentonite or extenders which delay set time or decrease the overall compressive strength unless otherwise noted.

Additives (e.g. cotton seed hulls, cellophane flake, etc.) used for the purpose of lost circulation zones shall be considered incidental to this line item.

Water used for cementing shall be free of any impurities that will adversely affect set time and compressive strength.

- C. Installation: The Contractor shall notify the Division at least 24 hours in advance of placing the cement, including notification of the type of cement being used for approval.

Additional wait times may be required for the type of cement used. This wait time shall be incidental to this line item. Upon approval of the type of cement the Division shall inform the Contractor of the required wait times for each staged plug.

Preparation of the well bore, including the running of gel flush ahead, shall be completed per line item **"Well Preparation & Plugging"** prior to placement of the cement.

The cement slurry shall be mixed at the API recommendation, between 15.4 and 15.8 pounds per gallon.

The Cement shall be placed to the depths and intervals described in **Plugging Plan**. Once a cement plug is set, the Contractor shall be prepared to hold pressure on the plug for five minutes. The Division shall inform the Contractor if pressure is to be held and the amount of pressure to use based on the depth of the plug.

It is the Contractor's responsibility to provide a mud scale for weighing the cement slurry.

When using API Class "L" cement or ASTM C595 Type 1L cement, all the following conditions apply:

- Mill test information must be provided to the applicable Division inspector prior to utilization of API Class L cement or ASTM C595 Type 1L cement. The mill test information must be of a representative sample of the mixture of cement proposed to be used to plug the well. A person is not required to provide the mill test information if the Division already has the mill test information of the mixture of cement for a batch.
- Performance data shall be provided in compliance with Ohio Administrative Code 1501:9-11-07 prior to usage. To determine if Ohio Administrative Code 1501:9-11-07 is met, test results shall include at a minimum slurry density, composition, compressive strength, free fluids, thickening time, curing pressure, and curing temperature. The data also shall include percent limestone and percent pozzolan material.
- For blended cement containing limestone and pozzolanic material, the combination of the materials shall not exceed fifty per cent by volume.
- A sample of at least 20lbs representative of the of cement mixture proposed to be used in a well must be provided to the Division at the request of the Division.
- A person using API Class L cement or ASTM C595 Type 1L cement shall leave the plugged well in a manner that will allow for further inspection past the contract requirement of three days after the completion of the uppermost plug unless the applicable Division inspector determines that the contract requirement of three days is sufficient.

- D. Setting: Setting times shall be completed as described in the **Plugging Plan**. For the surface plug any void space between the top of the cement and the top of the casing shall be filled to achieve a level cement line with the top of the casing. This shall be done at no additional cost to the Division.

The cement must develop a minimum compressive strength of 500 PSI after 24 hours at well bore temperatures. The Division reserves the right to collect test cylinders throughout the duration of the cementing process.

- E. Measurement: Measurement for payment shall be based on the actual quantity of sacks of cement acceptably placed and shall be verified with delivery tickets. A sack shall be considered to be 94 pounds prior to mixing.
- F. Payment: The above-described work shall be paid for at the unit price per sack for **"Approved Cement."**

CEMENT MIXING & PUMPING

- A. Description: This item shall cover all labor, materials, and equipment necessary to mix and pump cement as specified in the **Plugging Plan**.
- B. Execution: Cementing equipment required on site to mix and pump casing cement and cement plugs shall be provided until each individual casing cementing or plug cementing is completed. This shall include but not be limited to pump truck, mud pump, and associated equipment.
- C. Measurement: Measurement for payment shall be for each trip to the project site in order to complete the plug(s) as described in the **Plugging Plan**. Payment for staged plugs shall be measured as one unit.
- D. Payment: Payment for the above-described work, which includes all labor, materials, equipment necessary for the mixing & pumping of cement into the well shall be made at the unit price per each for **"Cement Mixing & Pumping."**

FLUID DISPOSAL

- A. Description: This item shall consist of removing and disposing of the fluid generated from the well plugging process. Fluids to be removed shall be at the discretion of the Division and shall be injected at an approved Class II disposal well as provided by the Contractor prior to removal from the site.
- B. Material: Materials will be defined below as described for the purposes of this scope of work.

Contaminated Fluids: Contaminated fluid will be considered as all fluids used in the circulation of the well bore, fluids utilized as a "kill" substance and/or fluids generated from the well. The Division reserves the right to deem a fluid "contaminated" at its discretion.

Contaminated fluids are further defined as water that contains quantifiable concentrations of oil, natural gas(es), condensate, brine, plugging products, or other oil field waste substances.

Freshwaters: Water that has not been classified as a contaminated fluid and has been stored in an uncontaminated container shall be visually inspected for oil sheen, and field tested for pH and chlorides. The chloride concentration shall be less than 250 mg/L and the pH shall be within a range of 6.5-8.5 standard units (SU). If a water is deemed as freshwater based on these inspections and tests, the Contractor may discharge freshwater into or onto the land in an appropriate manner. Freshwater disposal shall not be paid for under this line item **"Fluid Disposal."**

- C. Off-Site Disposal: Fluids designated as "contaminated" shall be hauled to an appropriate Class II disposal well. Proof of disposal from the disposal well shall be furnished within three (3) days of acceptance to the Division.

No additional compensation shall be made for onsite fluid storage. If contaminated fluids remain onsite, proper containment shall be established meeting all requirements as described in line item **"Secondary Containment"** at no additional cost to the Division. Onsite storage time shall not exceed 72 hours after plugging activities have been completed.

- D. Measurement: Measurement for payment shall be verified based on documentation proof of a quantity of disposal from the disposal well utilized. Documentation required shall include driver's haul tickets, fluid disposal tickets and a copy of the paid invoice from the Class II disposal well (dollar amounts may be redacted from the invoice copy).

- E. Payment: Payment shall be made at the unit price per barrel for "**Fluid Disposal.**"

CONTAMINATED MATERIAL DISPOSAL

- A. Description: This item shall consist of removing contaminated soils and cuttings from the site for off-site disposal. Soils and cuttings to be removed shall be at the discretion of the Division and shall be disposed of at an approved EPA licensed landfill as provided by the Contractor prior to removal from the site.

- B. Material:

Contaminated Soils/Cuttings/Drill Fluids: Contaminated soils, cuttings and drill fluids are defined as soils, cuttings and materials in which oil, gas, condensate, brine, plugging products, or oil field waste substances have been released in or on the land and/or materials generated by the Contractor while working on the well.

Contaminated Soils: The Contractor will excavate and properly dispose of all soils from the location that are visibly impacted with oilfield contaminants. Areas to be excavated shall be at the discretion of the Division and/or as shown on the Drawing Plan Set.

Contaminated soils shall be loaded and hauled away as they are excavated.

Cuttings/Drill Fluids: Cuttings and drill fluids generated as part of the plugging process shall be temporarily stored onsite. The Division reserves the right to require removal of these materials at any time. The Contractor shall be aware at all times of capacity limitations. Should removal of materials be required, the Contractor shall be responsible for properly cleaning onsite tanks. Any downtime associated with the removal shall be done so at no additional expense to the Division.

The Contractor shall solidify any residual fluid associated with these materials with Portland Cement or by other means approved by the Division, prior to removal as a part of this line item. Prior to solidification of contaminated materials, the Contractor shall use due diligence to remove fluids from the contaminated materials. Fluids removed from the contaminated materials shall be disposed of per line item "**Fluid Disposal.**"

Soils/material deemed "contaminated" as a result of Contractor negligence during the plugging process will be removed and disposed of at the Contractor's expense. Disposal procedures will conform to all requirements stated within this line item.

- C. Off-Site Disposal: Material designated as "contaminated" shall be hauled to an appropriate licensed landfill. Copies of truck weight tickets from the landfills shall be furnished within 3 days of acceptance to the Division.

No additional compensation shall be made for onsite contaminated material storage. If materials remain onsite, proper containment shall be established meeting all requirements as described in line item "**Secondary Containment**" at no additional cost to the Division. Onsite storage time shall not exceed 72 hours after plugging activities have been completed.

- D. Measurement: Measurement for payment shall be verified based on quantities disposed at the approved EPA licensed landfill. Documentation required shall include driver's haul tickets, certified scale tickets and a copy of the paid invoice from the landfill/waste facility (dollar amounts may be redacted from the invoice copy).

- E. Payment: Payment shall be made at the unit price per ton for "**Contaminated Material Disposal.**"

DEBRIS REMOVAL & DISPOSAL

- A. Description: This item shall consist of removing debris and trash from the site for off-site disposal. Items to be removed shall be at the discretion of the Division and shall be disposed of at an approved EPA licensed landfill.
- B. Off-Site Disposal: Debris and trash shall be hauled to an appropriate licensed landfill. Copies of truck weight tickets from the landfills shall be furnished daily to the Division.
- C. Salvage: Items or materials on the project site the property owner wishes salvaged shall be set aside in an orderly manner. Salvaged items shall not be placed in an area that prevents adequate completion of the project according to the Drawing Plan Set. Salvage items do not include material and/or equipment associated with the well.
- D. Measurement: Measurement for payment shall be verified based on weight tickets of quantities disposed of at the approved EPA licensed landfill.
- E. Payment: Payment shall be made at the unit price per ton for "**Debris Removal and Disposal**".

APPROVED RESOIL

- A. Description: This work shall consist of furnishing all labor, material, and equipment necessary for the hauling, spreading, and grading of the resoil material for the replacement of the removed contaminated soils. This work shall also include shaping for positive drainage and matching the surrounding contours.
- B. Material: Material shall be a good quality resoil and **not** include rocks, stones, and objectionable material over three (3) inches in any one dimension. All resoil that will compose the top eighteen (18) inches of resoil at the ground surface shall be topsoil. Topsoil shall be defined as during excavation having a brown matrix color, less than 50% clay content, and enough organic materials to be generally suitable for vegetative growth.
- C. Installation: Care shall be taken to keep heavy equipment off the surface material after it has been spread. If the resoiling material becomes compacted, the Contractor shall disc the material to a depth of four (4) inches at the Contractor's expense.
- D. Measurement: The material shall be measured for payment by the ton (2,000 pounds) for material acceptably placed in the work as determined by certified scale weight tickets.

All material wasted or used by the Contractor for other purposes and any material not placed in the work in accordance with the requirements of the work order and these specifications and drawings shall be measured and not included for payment by weight. A conversion factor of 1.3 tons per cubic yard of resoil shall be used if necessary.

- E. Payment: Payment for this work shall be made at the unit price per Ton for "**Approved Resoil.**"

SALVAGE MATERIAL DISPOSAL

- A. Description: This item shall consist of preparing, removing, and salvaging all materials from the site that have a salvage value as shown on the Drawing Plan Set or as required by the Division. All items to be salvaged shall include all surface equipment, well casing, and production equipment. Salvage items shall also include any hydrocarbon materials (oil, condensate, etc.) that have a marketable value. Salvage items shall be stored onsite within the construction project limits until removed for salvage.
- B. Off-Site Disposal: Prior to removal from the site the Contractor shall supply in writing to the Division an inventory of all materials to be salvaged. On the behalf of the Division the Contractor shall salvage materials inventoried. Once materials have been salvaged the contractor shall reimburse the Division for the salvage value per the line item **"Salvage Material Reimbursement."**

At the request of the Division, surface equipment deemed as reusable shall be forfeited directly to the Division's onsite representative. This shall include but not be limited to swages, wellheads, fittings, appurtenances, etc. At no time shall salvageable material become property of the Contractor.

Prior to disposal of any salvage materials from the project site, **the Division will complete a radiological assessment** of salvage materials that have been provided on an inventory to the Division.

The Division shall be given a minimum of two (2) working days notice to complete the assessment. Salvage materials staged on the project site shall be staged on a pipe rack where determined applicable by the Division. Salvage materials shall be on an impervious liner that will collect any residual fluids or scale.

Any materials which exceed 50 micro-Roentgen per hour ($\mu\text{R/hr}$) or deemed by Division staff to be radioactive shall not be considered for "Salvage Material Disposal"; instead this material shall be considered "Radioactive Material Disposal" and be disposed of per ton at a negotiated change order rate agreed upon by the Division or at a rate originally agreed upon on the Offer Sheet.

Prior to disposal of any salvage materials the Contractor shall prepare, including cleaning, the salvage materials for lawful salvage.

All salvageable material shall be cleaned onsite. The final product shall be non-hazardous and, in a condition, to not cause offsite pollution/contamination during transport and/or disposal.

- C. Execution: The Contractor shall include in this line item any expense incurred with the removal and the salvaging.
- D. Measurement: Measurement for payment shall be made by field inspection of units satisfactorily completed and accepted by the Division.
- E. Payment: Payment shall be made at the lump sum price for **"Salvage Material Disposal."**

SITE RESTORATION

- A. Description: This work shall cover all operations incidental to the establishment of grasses within the areas disturbed by the Contractor, including the furnishing and sowing of seed; and furnishing

and applying of mulch materials, all in accordance with these specifications. Additionally, this work shall include, but not be limited to, repair of grounds and vegetation, including landscaping amenities, ornamental shrubs and trees damaged in any manner during the work operations. All areas shall be properly graded to a smooth final grade with topsoil and blended into adjoining areas at the most moderate slope possible. Seedbed preparation through the use of scarifying equipment is also required. All site restoration work is to be completed within **fourteen (14) days** of the completion of the construction activities. The Contractor may request in writing to the Division an extension for site restoration. Requests shall only be granted based on season or weather conditions.

The area within the fields shall only use Temporary Ground Cover materials.

B. Materials: The materials to be used for restoration shall conform to the applicable requirements of these specifications.

1. Lime: Pelletized lime shall be applied at a maximum rate of 400 pounds per acre. Rates may be adjusted by the Division at the time of application.
2. Fertilizer: Fertilizer shall be commercial grade (19-19-19) and shall be applied at a rate up to a maximum of 20-lbs/1000 sq. ft. Rates may be adjusted by the Division at the time of application.
3. Seed: The varieties of grass seed to be furnished to the project shall bear a tag on each bag of each species showing the lot number, grower's name, percent of purity, percent of germination, and weed content. Tags shall be provided to the Division.

All seeds shall be free from noxious weeds and under no condition shall the total weed content of any lot of seed or seed mixture exceed one-half of one percent by weight.

No seed shall be utilized which has a mix date older than one year. The Division reserves the right to test, reject, or approve all seed after delivery to the project.

Yard Seed: Yard seed shall be applied at a rate of 10 lbs/1000 sq. ft. and shall conform to the following seed mixture ratio:

98/85 Kentucky Bluegrass	50%
Perennial Ryegrass	50%

All areas not designated as yard or farm field shall use the following seed mix and shall be sown at the indicated rate. This mixture is listed by recommended planting season and for existing site conditions, and/or intended use. Further information may be found in the Agronomy Guide, Bulletin 472, Cooperative Extension Service, The Ohio State University.

<u>GENERAL SEED MIX</u>	<u>lbs/acre</u>
Orchardgrass (<i>Dactylis glomerata</i>)	15.0
98/85 Kentucky Bluegrass	12.0
Timothy (<i>Phleum pratense</i>)	12.0
Birdsfoot Trefoil (<i>Lotus</i> sp.)	9.0
Red Clover (<i>Trifolium pratense</i>)	8.0
White Clover (<i>Trifolium repens</i>)	7.0
Annual Ryegrass (<i>Lolium multiflorum</i>)	8.5
Perennial Ryegrass (<i>Lolium perenne</i>)	3.5
Total lbs/acre	75

Other types of seed may be substituted if requested by the property owner(s). If such substitutions are made, they are to be made at no additional cost to the Division.

4. Mulching Material: All mulch material shall be free from mature seed-bearing stalks or roots or prohibited or noxious weeds. Any type of hay is not acceptable. Mulch shall include baled wheat straw or oat straw. It shall be dry and reasonably free of weeds, stalks, or other foreign material.
5. Temporary Ground Cover: All crop field areas shall be seeded with Cereal Rye at a rate of 150 lbs/acre. The seed shall be broadcast over the entire disturbed area as a temporary ground cover until the next growth season. Areas of Temporary Ground Cover shall not include lime, fertilizer, or mulching requirements.

C. Installation:

1. Start of Work: Site restoration work shall begin as soon as possible after the completion of construction. Final site restoration operations shall be completed within fourteen (14) working days of the final construction activities. The Contractor may request in writing to the Division an extension for site restoration. Requests shall only be granted based on **season or weather conditions**.
2. Area Preparation of Soil: Spread and grade available topsoil uniformly over all disturbed areas. All areas to be seeded shall be loosened by disking, harrowing, or other approved methods immediately prior to seeding. The soil shall be loosened to a depth of approximately three inches.

Hand raking shall be required in all areas where machines do not obtain the results desired by the Division.

Following tilling of the soil, the seedbed shall be allowed to firm up.

Final prepared surface shall have a smooth final grade and be appropriate for a residential yard, free from rocks, large dirt clumps and any other foreign debris.

Immediately following area preparation for seeding, materials shall be applied in the following order:

- Lime, as applicable
- Fertilizer, as applicable
- Seed, after broadcasting or otherwise applying the seed, the surface of the seedbed shall be loosely disturbed by hand raking, dragging, and/or cultipacking.

Lime, fertilizer and/or seed shall be sown by approved methods that provide for uniform distribution of the mixes as specified above.

3. Mulching: Apply the equivalent of 100 pounds per 1,000 square feet of clean straw mulch. Mulch shall not be applied in areas requiring Temporary Ground Cover.

Apply mulch to the sown area within 24 hours of seeding at the rate per square feet as specified above and spread to a uniform depth.

The straw shall be placed in a moist condition or shall be moistened immediately after placement.

4. Maintenance and Repairs: The Contractor shall, during construction and prior to acceptance, properly care for all areas mulched and perform all mulching operations necessary to provide protection and establish growth of the seeded areas. Mulch that becomes displaced shall be reapplied at once, together with any necessary reseeding, all at no expense to the Division.

No additional payment shall be made for acts of God, i.e. fire, flood, drought, etc.

- D. Maintenance Period: The permanent planting of trees, shrubs, perennials, annuals, grasses and legumes, etc. shall be deemed to be acceptable if the species that were planted in accordance with the approved plans are established and maintained for one (1) "growing season" as defined below and meeting the following standards:

1. Growing Season: All landscaping shall be guaranteed for a period of one (1) summer growing season after planting. Planting material installed in the Fall shall be in full count and thrifty condition on the next succeeding September 15 at which time replacement shall be determined and scheduled for installation during the planting period of October 15 - December 1 of that same season. Planting material installed in the Spring shall be in full count and thrifty condition on the next succeeding May 15 at which time replacements shall be determined and scheduled for installation prior to June 1 of the same season. All plants installed in the summer shall be guaranteed for one (1) full summer and shall be in full count and thrifty condition the next succeeding September 15.
2. Acceptable Lawn/Turf Areas: A series of four (4) random line transects are to be laid out within the project boundaries. A string one hundred (100) feet long having one (1) foot graduation, shall be placed along the transect line. The person conducting the transect will then walk along the line counting only the markers which are in actual contact with the vegetation. The number of count points are to be recorded as subtotals. When the four transects are completed, the average of the four transects subtotals is then equal to the percent of vegetative cover for the project.
 - a) Residential Lawns: At least one hundred percent (100%) of the land affected shall be judged to be of good quality, and "good" is defined as an area that has at least ninety percent (90%) cover.
 - i. All land affected and having less than ninety percent (90%) cover shall be judged poor and deemed unacceptable; and
 - ii. All areas judged to be good must have species diversity requirements of those recommended for planting.
 - b) Farm & Field Turf: At least ninety percent (90%) of the land affected shall be judged to be of good quality, and "good" is defined as an area that has at least seventy-five percent (75%) cover.
 - i. The remaining ten percent (10%) of the land affected shall be judged to be of fair quality, and "fair" is defined as an area that has at least fifty percent (50%) cover but less than seventy-five percent (75%) cover;
 - ii. All land affected and having less than fifty percent (50%) cover shall be judged poor and deemed unacceptable; and

- iii. All areas judged to be good or fair must have species diversity requirements of those recommended for planting.
- E. Measurement: Measurement for payment of site restoration, which includes seedbed preparation, lime, fertilizer as applicable, seeding and mulching shall be considered and measured as a unit satisfactorily completed and accepted by the Division.
- F. Payment: Payment for this work, which includes seedbed preparation, liming, fertilizing, seeding, mulching, etc., and general cleanup shall be made at the lump sum price for **"Site Restoration."**

DEMobilIZATION

- A. Description: This work shall consist of the demobilization of all personnel, plugging related equipment and materials as well as the cleanup of all areas upon completing all other work required under the scope of work for the well site.
- B. Execution: Any damage to the road, drives, and/or culverts caused by the demobilization shall be repaired by the Contractor at the Contractor's expense. All repairs shall be done equal to or better to that which existed prior to construction activities.

This item shall also include the continued and proper use of any maintenance of traffic required within the road right-of-way per Part 7 of the General Specifications.

Also, the Contractor shall be responsible for cleaning mud and dirt associated with construction from all roadway surfaces (public and private) as per Part 7.1 of the General Specification for the duration of the Project and as directed by the Division.

- C. Measurement: Measurement for payment will be considered and measured as a unit satisfactorily completed and accepted by the Division. **Demobilization of equipment between wells shall be considered incidental to this line item for wells using a common entrance.**

If any portion of the item is non-performed (i.e., the mud and dirt are not cleaned from the roadway, damaged items not restored to the satisfaction of the Division, etc.) this is considered unsatisfactory and shall be cause for the rejection of payment of this item.

- D. Payment: The cost of this work shall be included in the lump sum price for **"Demobilization."**

DETAILED SPECIFICATIONS
FIXED PRICE ITEMS
(Values set by the Division.)

SALVAGE MATERIAL REIMBURSEMENT

- A. Description: This item shall consist of reimbursing the Division for all materials removed from the site for salvage including all surface equipment, well casing, tubing, production equipment, and marketable hydrocarbons.
- B. Reimbursement: The Contractor shall supply salvage receipts to the Division for materials inventoried and removed from the site for salvage. The Division shall use these receipts as deduction of payment that will be represented on the Offer for this line item for this project.
- C. Measurement: Measurement shall be made by salvage receipts amounts.
- D. Payment: Deduction shall be entered as an amount for **"Salvage Material Reimbursement."**

CROP DAMAGE

- A. Description: This work covers the payment to the owner of the crops on the property for the crop damage/lost yields required to complete the project. The owner of the crop may be the property owner or a tenant of the property owner, either way it must be verified with the landowner who the owner of the crop is prior to making the payment.
- B. Execution: The contractor will verify with the property owner the owner of the crop on each property. The owner of the crop shall receive payment for the damages associated with plugging the wells. If it is verified that the crops are all the same owner, one payment for all the wells on that property may be paid to the owner of those crops.

The Contractor shall directly pay the owner of the crop. The Contractor shall pay the balance of money due to the crop owner prior to the request of final payment from the Division. Receipt of payment (i.e., landowner waiver) from the landowner shall be furnished to the Division. Final payment will not be made to the Contractor without receipt.

- C. Measurement: Crop damage shall be measured on a per acre base. Areas for crop damage have been predetermined by the Division according to the construction work limits as shown on the Drawing Plan Set. Any crop damage that occurs outside of these limits shall be paid for by the Contractor.
- D. Payment: Payment for this work as specified above shall be made based on the unit price per acre for **"Crop Damage."** For corn crops the damage shall be based on a prime farmland yield of 185 bushels per acre of corn crop at a market value of \$5.00 per bushel or \$925.00 per acre. For soybean crops the damage shall be based on a prime farmland yield of 53 bushels per acre of soybean crop at a market value of \$12.00 per bushel or \$636.00 per acre. For wheat crops the damage shall be based on a prime farmland yield of 86 bushels per acre of wheat crop at a market value of \$6.00 per bushel or \$516.00 per acre. Other crops will be paid as determined by the Division. The value per acre is a set value not to be changed by the Contractor.

CONTINGENCY SPECIFICATIONS

CONTINGENCY SPECIFICATIONS WILL ONLY BE DIRECTED VIA A FIELD ORDER FROM THE DIVISION. THE FIELD ORDER WILL DEFINE THE QUANTITY APPROVED. CONTINGENCY SPECIFICATION USE WILL BE DETERMINED BASED ON-SITE CONDITIONS THAT ARE DETERMINED BY THE DIVISION.

No. 2 STONE

- A. Description: This work covers the quality, material placement and requirements as a base course stone for the project access as shown in the Drawing Plan Set.
- B. Materials: The materials shall consist of sound and durable rock, gravel or stone of the proper gradation meeting ODOT specifications. The material shall be free from cracks, seams, and other defects, which tend to increase deterioration from natural causes. It shall be highly resistant to weathering and disintegration under freezing and thawing and wetting and drying as evidenced by laboratory tests and/or service records. The Division at any time during the project may reject any materials, at the source or job site, not meeting the requirements of these specifications.

Acceptability of material will be determined by laboratory tests, visual inspection and/or service records as required by the Division. Service records will include documentation to show the material has performed satisfactory on similar structures.

- C. Installation: Upon delivery of the material to the site the Contractor shall install the material in place as directed by the Division. The Contractor shall not stockpile materials at the site.

The Contractor shall remove the topsoil prior to installation of any access road or work area stone. Topsoil shall be stockpiled adjacent to the location it is removed from. At the conclusion of the project, all topsoil will be replaced it original location as part of the line item **"Site Restoration."** **Existing drives upgraded for the purpose of this work shall be restored to a condition better than prior to construction.**

- D. Measurement: The material shall be measured for payment by the ton (2,000 pounds) for material acceptably placed in the work area as determined by certified scale weight tickets.

All material wasted or used by the Contractor for other purposes and any material not placed in the work area in accordance with the requirements of the work order and these specifications and drawings shall be measured and not included for payment by weight. A conversion factor of 1.5 ton per cubic yard of No. 2 Stone shall be used if necessary.

- E. Payment: Payment for this work as specified above shall be made based on the unit price per ton for **"No. 2 Stone."**

H2S SAFETY TEAM

- A. Description: The work will include the installation and implementation of safety procedures for the plugging of the orphan well as described herein that wells in the area have been known to produce bacterial H₂S. **Per 29 CFR 1910.1000, Air Contaminants, Table Z-2 the permissible exposure limits (PEL) ceiling standard for H₂S is 20 ppm.** This shall also include any labor, equipment, materials, and time needed to implement these safety procedures. The H₂S safety team shall be

qualified employees of the Contractor or subcontractors including no less than two employees available for 24/7 coverage of the monitoring equipment. The personnel shall be available for no more than 12-hour shifts (Shifts include active and on call service) and shall be on site while work is being completed.

- B. Execution: The Contractor must provide the appropriate equipment, on-site, to properly detect and abate any H₂S emitted from the well. All personnel on location must have and wear H₂S monitor and/or 4-gas monitor. If permissible exposure limits (PEL) are exceeded, the Contractor will be required to have an H₂S safety team on site until the geological zone of interest is covered with cement and no further H₂S issues are at the surface while the well is vented for a minimum of 8 hours. The H₂S safety team may be released at this point, but personal monitors and the rig monitor are still required. The safety team shall be called back as needed.

Once the contractor is on site and well is ready to be opened or detection of permissible exposure limits (PEL) are exceeded, the Contractor will not continue plugging operations until the safety team has developed and implemented a H₂S safety plan that is compliant with Occupational Safety and Health Administration (OSHA) and The National Institute for Occupational Safety and Health (NIOSH) regulations. The plan shall be approved by the Division.

Along with any other measures required to be compliant with regulations and to implement the approved H₂S safety plan, the Safety Team at minimum shall supply, train, and utilize the following:

1. Supply & use exhaust and ventilation systems,
2. Train and educate workers about hazards and controls,
3. Test (monitor) the air 24/7 with the ability to receive real-time notifications of site conditions through email, website, and phone/text alerts to receive real-time alerting of events and alarms,
4. Establish, train, and use proper rescue and first aid procedures,
5. Supply, train, and use respiratory and other personal protective equipment, &
6. Establish, train, and implement an H₂S Emergency Response Plan for the site including Emergency Medical Technicians (EMTs) ready to respond to the 24/7 monitoring unless otherwise contacted by the Safety Team.

For days that the site is idle for weekends, holidays, or any other day that the Division agrees work cannot take place, the H₂S Safety Team shall be on standby and the cost associated with those days shall be paid at the unit price per day for "**H₂S Safety Team Standby**". Any days that work could have been completed and was not due to the Contractor shall be at the Contractor's expense.

- C. Measurement: Measurement for payment will be considered and measured as a unit satisfactorily completed and accepted by the Division.
- D. Payment: Payment for this work, including labor, equipment, materials, and time shall be made at the unit price per day for "**H₂S Safety Team**" or "**H₂S Safety Team Standby**".

HYDROGEN SULFIDE SCAVENGER

- A. Description: The work covered by this section shall consist of furnishing all labor, equipment, and material necessary to provide and use a hydrogen sulfide scavenger for the drilling and plugging process of the well.
- B. Materials: The Contractor shall provide Sulfa-Clear or an approved equal. The Sulfa-Clear shall be

applied at a rate to eliminate the presence of Hydrogen Sulfide (H₂S) at the surface and shall not be less than seven (7) percent concentration with the applicable well bore fluid.

- C. Execution: The Contractor shall be prepared to apply the hydrogen sulfide scavenger at any time during the drilling and plugging operation. When Hydrogen Sulfide (H₂S) is encountered the Contractor shall apply the hydrogen sulfide scavenger. If the hydrogen sulfide scavenger is applied during drilling operations the Contractor shall continue to monitor the presence of H₂S and apply additional hydrogen sulfide scavenger as needed in order to complete the plugging.

Once total depth has been reached an additional batch of hydrogen sulfide scavenger will be applied to the total depth of the well bore prior to setting of any plugs. Once this total depth application has been applied the Contractor shall wait a minimum of 24 hours to commence work on the well bore.

- D. Measurement: Measurement for payment for the above-described work shall be made by the actual quantity of gallons of hydrogen sulfide scavenger used to successfully plug and/or drill the orphan well.
- E. Payment: Payment for the above work shall be made at the unit price per gallon for "**Hydrogen Sulfide Scavenger**".

ADDITIONAL CIRCULATION FLUID

- A. Description: This work shall consist of furnishing all labor, equipment, and material necessary to provide additional circulation fluid for the drilling and plugging process for the well.
- B. Requirements: The contractor shall receive prior approval from the Division before bringing additional circulation fluid onsite. The fluid type shall be as listed below and based on the requirements of the original plugging plan.

Freshwater: Freshwater brought to location shall be free of oil sheet, and field tested for pH and chlorides. The chloride concentration shall be less than 250 mg/L and the pH shall be within a range of 6.5-8.5 standard units (SU).

Brine: A mixture composed of water and dissolved salts at a required density defined in the plugging plan. Prior to supplying additional brine to location for use as a circulation fluid, the Contractor shall confirm the required density.

Fluid type, characteristics and quantities shall be confirmed with the Division prior to bringing onsite.

- C. Measurement: Measurement for payment for the above-described work shall be made by the actual quantity of barrels (bbls) used to successfully plug and/or drill the orphan as approved by the Division.
- D. Payment: Payment for the above work shall be made at the unit price per barrel (bbls) for "**Additional Circulation Fluid (Brine) and/or Additional Circulation Fluid (Freshwater)**".

PERFORATING

- A. Description: This work consists of all labor, equipment, and material necessary to perforate a casing

or tubing at a determined depth for the purpose of squeezing cement outside the casing or tubing string.

- B. Execution: The Contractor shall complete the perforating of the casing or tubing at a depth approved by the Division. This work shall include logging the well with a standard logging suite at the discretion of the Division to identify perforation interval(s).

The Contractor shall propose the material and method for perforating the casing or tubing and shall be approved by the Division. **Each unit for perforating shall include two (2) shots with ten (10) perforations per shot, for a total of 20 perforations.**

- C. Measurement: Measurement for payment shall be made by field inspection of units satisfactorily completed and accepted by the Division. **A copy of the log shall be provided with the invoice as backup documentation.**
- D. Payment: Payment for the above-described work, which includes all labor, materials, and equipment necessary for the perforating the casing or tubing made at the unit price per each for **"Perforating."**

FISHING

- A. Description: This work consists of all labor, equipment, and material necessary to remove and/or clear the well bore as needed in order to reach total depth by the means of fishing the obstruction in the well bore.
- B. Execution: The Contractor shall supply the equipment needed to complete the fishing in an efficient manner that will be approved by the Division. This shall include but not be limited to the rig, impression blocks, and associated equipment. **This shall not include the fishing tools required to complete this work. The Division will develop a negotiated change order to deliver and use the appropriate fishing tools required based on the unforeseen conditions.** Appropriate fishing tools shall be provided for the circumstances encountered.
- C. Measurement: Measurement for payment shall be made by field inspection of the actual quantity of hours in which the drilling rig and other fishing equipment were diligently operating in a manner to remove the obstruction.
- D. Payment: Payment for the above-described work, which includes all labor, materials, and equipment necessary for the obstruction removal shall be made at the unit price per hour for **"Fishing".**

MAGNET

- A. Description: This work consists of all labor, equipment, and material necessary to supply a magnet and the required subs as the fishing tool.
- B. Execution: The Contractor shall supply all equipment needed for a magnet fishing tool to be used for fishing out the well bore to the depth of the current obstruction and extracting it. This shall include but not be limited to the rig, subs, and associated equipment. Appropriate tools shall be provided for the circumstances encountered. The work to complete the fishing shall be per line item **"Fishing".**

- C. Measurement: Measurement for payment shall be made by the delivery of the magnet to extract the obstruction as satisfactorily completed and accepted by the Division.
- D. Payment: Payment for the above-described work, which includes all labor, materials, equipment necessary to supply the magnet to extract the obstruction shall be made at the per unit price per each for "**Magnet**".

MILLING

- A. Description: This work consists of all labor, equipment, and material necessary to remove and/or clear the well bore as needed in order to reach total depth by the means of milling the well bore.
- B. Execution: The Contractor shall supply the equipment needed to complete the milling in an efficient manner that will be approved by the Division. This shall include but not be limited to the rig, swivel, mud pump, and associated equipment. **This shall not include the milling bits required to complete this work. The Division will develop a negotiated change order to deliver and use the appropriate milling bits required based on the unforeseen conditions.** Appropriate milling bits shall be provided for the circumstances encountered. Milling bits shall be factory made unless approved otherwise in writing by the Division.
- C. Measurement: Measurement for payment shall be made by field inspection of the actual quantity of hours in which the drilling rig and other milling equipment were diligently operating in a manner to remove the obstruction.
- D. Payment: Payment for the above-described work, which includes all labor, materials, equipment necessary for the obstruction removal shall be made at the unit price per hour for "**Milling**".

SHOOTING

- A. Description: This work consists of all labor, equipment, and material necessary to sever/shoot a casing or tubing at a determined depth for the purpose of removing the casing or tubing string by the means of shooting.
- B. Execution: The Contractor shall complete the shooting of the casing or tubing at a depth approved by the Division. This work shall include logging the well with a standard logging suite at the discretion of the Division to locate free point of casing or tubing in the well.

The Contractor shall propose the material and method for shooting of the casing or tubing, which shall be approved by the Division.

- C. Measurement: Measurement for payment shall be made by field inspection of units satisfactorily completed and accepted by the Division. **A copy of the log shall be provided with the invoice as backup documentation.**
- D. Payment: Payment for the above-described work, which includes all labor, materials, equipment necessary for the shooting the casing or tubing made at the unit price per each for "**Shooting**".

TUBING (1")

- A. Description: This item covers all labor, equipment, and material required to supply tubing at the

site for the purposes of placement of cement and spacers.

- B. Materials: The Contractor shall supply a one (1) inch inside diameter (ID) tubing in a condition that will allow for the pumping of cement for the purposes of plugging the well. When using 1" tube the cement slurry shall be mixed between 14.5 and 15.0 pounds per gallon.

For this project the Contractor shall supply up to 1,500 feet of 1-inch ID or larger tubing as directed in the field.

- C. Installation: The Contractor will install and remove the tubing as necessary. The Contractor shall maintain ownership at the conclusion of the project of all tubing that was brought to the site for these purposes.
- D. Measurement: Measurement for payment of the above-described work shall be made by actual field measurements per linear foot of tubing delivered to the site.

Tubing shall be measured as one use for the duration of the project.

- E. Payment: Payment for this item shall be made at the lump sum price for "**Tubing (1)**."

LOST CIRCULATION MATERIALS

- A. Description: This work shall include furnishing all labor, materials, equipment, and supplies necessary to expose portions of the well bore to lost circulation materials (LCM) as determined necessary. Lost circulation materials shall be implemented to aid in obtaining well bore circulation prior to any cementing operations.
- B. Materials: Lost circulation materials shall be selected by the Contractor based on site conditions encountered and proposed to the Division for approval.
- C. Measurement: Measurement for payment shall be based on the actual quantity of sacks of lost circulation materials satisfactorily placed and shall be verified with delivery tickets. For estimating purposes, it has been assumed that one (1) sack is equal to fifty (50) pounds.
- D. Payment: Payment for all the above-described work shall be made at the unit price per sack for "**Lost Circulation Materials**".

SALTWATER DRILLING MUD

- A. Description: The work covered by this section shall consist of furnishing all labor, equipment, and material necessary to provide and use a saltwater-based drilling mud for the drilling and plugging process of the well.
- B. Materials: Based on the onsite conditions the Contractor shall propose a saltwater-based drilling mud for approval from the Division. The Contractor shall be required to provide a product capable of achieving a 40 viscosity. Once a material is approved the Division will require a minimum quantity be maintained at the site during the plugging project based on circumstances encountered.
- C. Measurement: Measurement for payment for the above-described work shall be made by the actual quantity of sacks (50 lbs) of additives for the saltwater-based drilling mud used to successfully plug the orphan well.

- D. Payment: Payment for the above work shall be made at the unit price per sack for "Saltwater Drilling Mud."

NINE SACK GROUT

- A. Description: This work shall include furnishing all labor, materials, equipment, and supplies necessary to plug the well as specified in the **Plugging Plan**.
- B. Materials: Nine Sack Grout shall consist of the following materials and requirements:

Constituent	SSD Weight (lbs.)	Volume (ft.³)
Cement Type I-II	846.00	4.30
Sand	2550.00	15.54
Water	417.00	6.68

(SSD means saturated surface dry)

1. Cement Type I-II: Cement shall conform to 2019 ODOT CMS Item 701.02 and 701.04.
2. Sand: Sand shall be in accordance with ASTM C150.
3. Water: Water shall be in accordance with ASTM C1602.
The grout shall contain a maximum of 1% entrapped air.

Grout shall have a water to cement ratio (W/C) equal to 0.50 and an overall unit weight of 142.30 pounds per cubic foot.

Slump tests may be done at the discretion of the Division. Slump requirements shall be determined in the field at the time of construction.

The Division has accounted for excess materials due to loss in the wellbore in the quantities on the **Quantity Sheet**.

- C. Installation: **The Contractor shall notify the Division at least 24 hours in advance of placing grout.** The surface plug shall be grouted to the depth described in the **Plugging Plan**.

Well preparation and circulation shall be achieved as detailed in the **"Well Preparation & Plugging"** line item and the **Plugging Plan**.

- D. Setting: Setting times shall be completed as described in the **Plugging Plan**. For the casing any void space between the top of the grout and the top of the casing shall be filled to achieve a level grout line with the top of the casing. This shall be done at no additional cost to the Division.
- E. Measurement: Measurement for payment for the above-described work shall be based upon material quantities satisfactorily installed as well as delivery tickets furnished to the Division.
- F. Payment: Payment for all the above-described work shall be made at the unit price per cubic yard for **"Nine Sack Grout."**

DOWNHOLE VIDEOGRAPHY

- A. Description: This work consists of all labor, equipment, and material necessary to video record the well bore to assess the well bore obstruction.
- B. Execution: The Contractor shall supply all equipment needed and complete the videography recording of the well bore to the depth of the current obstruction. The Contractor shall supply the Division with an electronic copy of the videography recorded in a format viewable in readily available current software.

The Division is not obligated to provide camera services to the Contractor. At no point shall the Division be responsible for delays associated with availability of camera runs.

- C. Measurement: Measurement for payment shall be made by the delivery of an acceptable video and photos to the Division of the current obstruction. Measurement shall be per obstruction, not per video or photo.
- D. Payment: Payment for the above-described work, which includes all labor, materials, equipment necessary for the video recording of the current obstruction made at the per unit price per each for **"Downhole Videography"**.



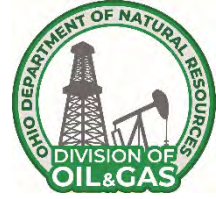
THRASHER

SCOPE OF WORK SENECA 4F PROJECT

Multiple Orphan Well Sites

Seneca County

Jackson and Loudon Townships



APPENDIX I – OHIO ONE-CALL

THE FOLLOWING ARE REPORTABLE INCIDENTS: (OAC 1501:9-8-02)

TYPE OF INCIDENT (All Incident types associated with production operation or other activity regulated under Chapter 1509)	QUANTITY (GAL, BBL,PPM) NOTE: 1 Barrel = 42 US Gallons	ADDITIONAL FACTORS
Release of Gas	Any amount	Resulting from a Blow out; OR Uncontrolled Pop-off Valve (in Urban Area); OR Any gas release that is a threat to public safety
Release of Hydrogen Sulfide(H ₂ S) Gas (within the Working Area)	Exceeding 20 ppm (Sustained airborne concentration); For duration > 10 min	OR any H ₂ S release resulting in injury or death of person
Fire / Explosion	N/A	In which a reporting person has called an emergency responder (9-1-1 or Fire Dept)
Release of Oil, Condensate, or Materials Saturated with Oil or Condensate	> 210 US gallons in any 24-hr period (Estimated)	AND the release is OUTSIDE secondary containment & into the environment
Release of Oil, Condensate, or Materials Saturated with Oil or Condensate	> 25 US gallons in any 24-hr period (Estimated); AND the release is outside secondary containment and into the environment	In an urban area; OR In an Emergency Management Zone of a surface water public drinking supply; OR In a 5-year time of travel with a groundwater-based public drinking supply; OR In a 100-year flood hazard area as delineated on the federal emergency management agency's (FEMA) national flood insurance rate map
Release of Refined Oil Products (EX: oil-based drilling fluid, petroleum distillate, spent or unused paraffin solvent, gasoline, fuel oil, diesel fuel, or lubricants)	> 25 US gallons in any 24-hr period	AND the release is OUTSIDE secondary containment & into the environment
Release of Oil, Condensate, or Materials Saturated with Oil or Condensate; OR Refined Oil Products	Any amount	That enters waters of the state in an amount that causes a film or sheen on the surface of the water
Release of Brine or Semi-Solid Waste (EX: drilling mud, sludge, or tank bottom sediments)	> 42 US gallons in any 24-hr period	AND the release is OUTSIDE secondary containment & into the environment
	> 42 US gallons	AND is operated by a person to whom a registration certificate has been issued (ORC 1509.222), or to whom a resolution has been issued (ORC 1509.226)

Release of Brine from a Vehicle, Vessel, Railcar, or Container		AND enters the environment
Release of Hazardous Substance (HS) / Extremely Hazardous Substance (EHS); OR Mixture or Solution including a HS or EHS	An amount Equal to or > than applicable reportable quantities listed in 40CFR tables; in any 24-hr period If the amount of one or more HS or EHS released is in an unknown mixture or solution, notify when the total amount of the mixture or solution released is <u>equal to or > than</u> the reportable quantity for the HS or EHS with the lowest reportable quantity	List available at: http://oilandgas.ohiodnr.gov/portals/oilgas/pdf/emergency/list_of_lists.pdf <i>Code of Federal Regulations (C.F.R.) References:</i> HS- Appendix A 40 CFR Part 302.4 EHS- Appendix A 40 CFR Part 355

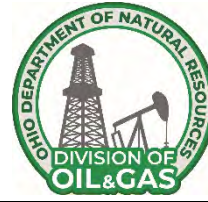
THE FOLLOWING ARE **NOT** REPORTABLE INCIDENTS: (OAC 1501:9-8-02 (A)(7))

- Controlled flaring or controlled burns authorized under Chapter 1509. of the Revised Code or under 1501:9 of the Administrative Code or authorized by the terms and conditions of a permit issued under Chapter 1509. of the Revised Code;
- Properly functioning emission control devices authorized pursuant to Revised Code Section 3704.03;
- Subsurface detonation of perforation-guns;
- Seismic shots;
- Controlled blasting for well site construction

Date Last Edited & Printed: 9/27/2018



THRASHER
SCOPE OF WORK
SENECA 4F PROJECT
Ashland Farms 1 Orphan Well Site
Seneca County
Jackson Township



APPENDIX II: Well Pictures

Ashland Farms 1
API: 34-147-6-0452-00-00
Jackson Township, Seneca County



Photograph #1:
Ashland Farms 1



Photograph # 2:
Ashland Farms 1

M and E Kline 1
API: 34-147-2-0065-00-00
Jackson Township, Seneca County

4-21-55

Ohio Division Of Geological Survey

20065

Permit No. 65

Permit Issued _____

Quadrangle _____

Twp. Quarter _____

County Seneca Township Jackson

NW $\frac{1}{4}$ Section 1 Lot _____ Tract _____

Measured 2240' E/W and 2240' S/N of NW $\frac{1}{4}$

Land Owner M. and E. Kline

Well No. 1

Date Commenced _____

Operator Ons $\frac{1}{2}$ Bros.

Well No. _____

Date Completed _____

Elevation Bar _____ S.L. _____

Total Depth 1265

Plugged Back _____

Formation Drld. To. _____ Prod. Form. _____

Prod. Nat. _____

I.P. _____

Init. Rock Press. _____

Casing Record 5 5/8"-410', 8"-25'

Abandoned 10/19/55

Formation

Top

Bottom

Remarks

Formation

Top

Bottom

Remarks

trenton

1250

1265



THRASHER
SCOPE OF WORK
SENECA 4F PROJECT
Frankhart 2 Orphan Well Site
Seneca County
Jackson Township



APPENDIX II: Well Pictures

Frankhart 2
API: 34-147-6-0700-00-00
Jackson Township, Seneca County



Photograph #1:
Frankhart 2



Photograph # 2:
Frankhart 2

Irvin Waltermier 3
API: 34-147-2-0038-00-00
Jackson Township, Seneca County

GEOLOGICAL SURVEY OF OHIO

20038 38
OIL AND GAS WELL LOG

State Ohio
County Seneca Township Jackson Quadrangle _____
Lot _____ Quarter _____ Tract _____ Section 20 NW NE SW 4
Measured 660 Feet From W Line And 200 Feet From N Line Of SW 4
80 acres
Land Owner Irvin Waltermier Well No. 3 Date Started 10-30-52
Operator Irvin Waltermier Well No. _____ Date Completed 12-31-52
Elevation Bar. _____ S. L. _____ Total Depth 1270' Plugged Back _____
Formation Drilled To _____ Producing Form _____ Init. Prod. Nat. _____
Shot or Acid Record -2-53:1225-1270': 80 qts. Prod. A. S. or Acid oil & gas 1 bbl/day est.
Init. Rock Press. _____ Abandoned _____
Casing Record 8 1/2"-10': 5 5/8"-325'

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
Drift	0	6	Soft				
Ls.		295	Blue-hard				
Break		325	Blue-soft				
Clinton lime		425	Light-hard				
Red rock		480	Med.				
Shale		600	Blue-med.				
Shale		825	Gray-med.				
Shale		1000	Lt. bn.-med.				
Shale		1221	Dark bn.-med.				
Trenton lime		1270	Hard: O & G-				
			1226'				



THRASHER
SCOPE OF WORK
SENECA 4F PROJECT
Jerald 2 Orphan Well Site
Seneca County
Jackson Township



APPENDIX II: Well Pictures

Jerald 2
API: 34-147-6-1157-00-00
Jackson Township, Seneca County



Photograph #1:
Jerald 2



Photograph # 2:
Jerald 2

Irvin Waltermier 3
API: 34-147-2-0038-00-00
Jackson Township, Seneca County

GEOLOGICAL SURVEY OF OHIO

20038 38
OIL AND GAS WELL LOG

State Ohio
County Seneca Township Jackson Quadrangle _____
Lot _____ Quarter _____ Tract _____ Section 20 NW NE SW 4
Measured 660 Feet From W Line And 200 Feet From N Line Of SW $\frac{1}{4}$
80 acres
Land Owner Irvin Waltermier Well No. 3 Date Started 10-30-52
Operator Irvin Waltermier Well No. _____ Date Completed 12-31-52
Elevation Bar. S. L. Total Depth 1270' Plugged Back _____
Formation Drilled To _____ Producing Form _____ Init. Prod. Nat. _____
Shot or Acid Record -2-53:1225-1270': 80 qts. Prod. A. S. or Acid oil & gas 1 bbl/day est.
Init. Rock Press. _____ Abandoned _____
Casing Record 8 $\frac{1}{2}$ "-10': 5 5/8"-325'

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
Drift	0	6	Soft				
Ls.		295	Blue-hard				
Break		325	Blue-soft				
Clinton lime		425	Light-hard				
Red rock		480	Med.				
Shale		600	Blue-med.				
Shale		825	Gray-med.				
Shale		1000	Lt. bn.-med.				
Shale		1221	Dark bn.-med.				
Trenton lime		1270	Hard: O & G-				
			1226'				



THRASHER
SCOPE OF WORK
SENECA 4F PROJECT
Good 7 Orphan Well Site
Seneca County
Jackson Township



APPENDIX II: Well Pictures

Good 7
API: 34-147-6-1150-00-00
Jackson Township, Seneca County



Photograph #1:
Good 7



Photograph # 2:
Good 7

APPENDIX II: Off-Set Well Card

H. Russell 17
API: 34-147-6-0606-00-00
Jackson Township, Seneca County

Ohio Division Of Geological Survey				Permit No. <u>60606</u>			
County <u>Seneca</u>		Township <u>Jackson</u>		Permit Issued _____		Quadrangle _____	
Section <u>17</u>		Lot _____		Twp. Quarter _____			
Measured <u>600' W. of E. & 1200' S. of N.</u>							
Land Owner <u>H. Russell</u>		Well No. <u>17</u>		Date Commenced <u>9-12-35</u>			
Operator <u>M.E. Keaser</u>		Well No. _____		Date Completed <u>11-2-35</u>			
Elevation Bar _____ S.L. _____		Total Depth _____		Plugged Back _____			
Formation Drld. To. _____		Prod. Form. _____		Prod. Nat. <u>Sh. O. & G.</u>			
<u>S/W 80 Qrts.</u>				I.P. <u>2 B0 2MCFG 1st. 24Hrs. AS</u>			
Init. Rock Press. _____				Abandoned _____			
Casing Record <u>5-5/8"-385'</u>							

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
Lm.	16	340					
Cl.	340	430					
Red	430	470					
Shell	1000	1212					
Tren.	1212	1260					
Total Depth		1261					
Foreign well reported to OFG							



THRASHER
SCOPE OF WORK
SENECA 4F PROJECT
Good 9 Orphan Well Site
Seneca County
Jackson Township



APPENDIX II: Well Pictures

Good 9
API: 34-147-6-1152-00-00
Jackson Township, Seneca County



Photograph #1:
Good 9



Photograph # 2:
Good 9

APPENDIX II: Off-Set Well Card

H. Russell 17
API: 34-147-6-0606-00-00
Jackson Township, Seneca County

Ohio Division Of Geological Survey				Permit No. <u>60606</u>			
County <u>Seneca</u>		Township <u>Jackson</u>		Permit Issued _____		Quadrangle _____	
Section <u>17</u>		Lot _____		Twp. Quarter _____			
Measured <u>600' W. of E. & 1200' S. of N.</u>							
Land Owner <u>H. Russell</u>		Well No. <u>17</u>		Date Commenced <u>9-12-35</u>			
Operator <u>M.E. Keaser</u>		Well No. _____		Date Completed <u>11-2-35</u>			
Elevation Bar _____ S.L. _____		Total Depth _____		Plugged Back _____			
Formation Drld. To. _____		Prod. Form. _____		Prod. Nat. <u>Sh. O. & G.</u>			
<u>S/W 80 Qrts.</u>				I.P. <u>2 B0 2MCFG 1st. 24Hrs. AS</u>			
Init. Rock Press. _____				Abandoned _____			
Casing Record <u>5-5/8"-385'</u>							

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
Lm.	16	340					
Cl.	340	430					
Red	430	470					
Shell	1000	1212					
Tren.	1212	1260					
Total Depth		1261					
Foreign well reported to OFG							



THRASHER
SCOPE OF WORK
SENECA 4F PROJECT
Good 11 Orphan Well Site
Seneca County
Jackson Township



APPENDIX II: Well Pictures

Good 11
API: 34-147-6-0627-00-00
Jackson Township, Seneca County



Photograph #1:
Good 11



Photograph # 2:
Good 11

APPENDIX II: Off-Set Well Card

H. Russell 17
API: 34-147-6-0606-00-00
Jackson Township, Seneca County

Ohio Division Of Geological Survey				Permit No. <u>60606</u>			
County <u>Seneca</u>		Township <u>Jackson</u>		Permit Issued _____		Quadrangle _____	
Section <u>17</u>		Lot _____		Twp. Quarter _____			
Measured <u>600' W. of E. & 1200' S. of N.</u>							
Land Owner <u>H. Russell</u>		Well No. <u>17</u>		Date Commenced <u>9-12-35</u>			
Operator <u>M.E. Keaser</u>		Well No. _____		Date Completed <u>11-2-35</u>			
Elevation Bar _____ S.L. _____		Total Depth _____		Plugged Back _____			
Formation Drld. To. _____		Prod. Form. _____		Prod. Nat. <u>Sh. O. & G.</u>			
<u>S/W 80 Qrts.</u>				I.P. <u>2 B0 2MCFG 1st. 24Hrs. AS</u>			
Init. Rock Press. _____				Abandoned _____			
Casing Record <u>5-5/8"-385'</u>							

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
Lm.	16	340					
Cl.	340	430					
Red	430	470					
Shell	1000	1212					
Tren.	1212	1260					
Total Depth		1261					
Foreign well reported to OFG							



THRASHER
SCOPE OF WORK
SENECA 4F PROJECT
Good 1 Orphan Well Site
Seneca County
Jackson Township



APPENDIX II: Well Pictures

Good 1
API: 34-147-6-1144-00-00
Jackson Township, Seneca County



Photograph #1:
Good 1



Photograph # 2:
Good 1

APPENDIX II: Off-Set Well Card

H. Russell 17
API: 34-147-6-0606-00-00
Jackson Township, Seneca County

Ohio Division Of Geological Survey				Permit No. <u>60606</u>			
County <u>Seneca</u>		Township <u>Jackson</u>		Permit Issued _____		Quadrangle _____	
Section <u>17</u>		Lot _____		Twp. Quarter _____			
Measured <u>600' W. of E. & 1200' S. of N.</u>							
Land Owner <u>H. Russell</u>		Well No. <u>17</u>		Date Commenced <u>9-12-35</u>			
Operator <u>M.E. Keaser</u>		Well No. _____		Date Completed <u>11-2-35</u>			
Elevation Bar _____ S.L. _____		Total Depth _____		Plugged Back _____			
Formation Drld. To. _____		Prod. Form. _____		Prod. Nat. <u>Sh. O. & G.</u>			
<u>S/W 80 Qrts.</u>				I.P. <u>2 B0 2MCFG 1st. 24Hrs. AS</u>			
Init. Rock Press. _____				Abandoned _____			
Casing Record <u>5-5/8"-385'</u>							

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
Lm.	16	340					
Cl.	340	430					
Red	430	470					
Shell	1000	1212					
Tren.	1212	1260					
Total Depth		1261					
Foreign well reported to OFG							



THRASHER
SCOPE OF WORK
SENECA 4F PROJECT
Good 3 Orphan Well Site
Seneca County
Jackson Township



APPENDIX II: Well Pictures

Good 3
API: 34-147-6-1146-00-00
Jackson Township, Seneca County



Photograph #1:
Good 3



Photograph # 2:
Good 3

APPENDIX II: Off-Set Well Card

H. Russell 17
API: 34-147-6-0606-00-00
Jackson Township, Seneca County

Ohio Division Of Geological Survey				Permit No. <u>60606</u>			
County <u>Seneca</u>		Township <u>Jackson</u>		Permit Issued _____		Quadrangle _____	
Section <u>17</u>		Lot _____		Twp. Quarter _____			
Measured <u>600' W. of E. & 1200' S. of N.</u>							
Land Owner <u>H. Russell</u>		Well No. <u>17</u>		Date Commenced <u>9-12-35</u>			
Operator <u>M.E. Keaser</u>		Well No. _____		Date Completed <u>11-2-35</u>			
Elevation Bar _____ S.L. _____		Total Depth _____		Plugged Back _____			
Formation Drld. To. _____		Prod. Form. _____		Prod. Nat. <u>Sh. O. & G.</u>			
<u>S/W 80 Qrts.</u>				I.P. <u>2 B0 2MCFG 1st. 24Hrs. AS</u>			
Init. Rock Press. _____				Abandoned _____			
Casing Record <u>5-5/8"-385'</u>							

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
Lm.	16	340					
Cl.	340	430					
Red	430	470					
Shell	1000	1212					
Tren.	1212	1260					
Total Depth		1261					
Foreign well reported to OFG							



THRASHER
SCOPE OF WORK
SENECA 4F PROJECT
Good 6 Orphan Well Site
Seneca County
Jackson Township



APPENDIX II: Well Pictures

Good 6
API: 34-147-6-1149-00-00
Jackson Township, Seneca County



Photograph #1:
Good 6



Photograph # 2:
Good 6

APPENDIX II: Off-Set Well Card

H. Russell 17
API: 34-147-6-0606-00-00
Jackson Township, Seneca County

Ohio Division Of Geological Survey				Permit No. <u>60606</u>			
County <u>Seneca</u>		Township <u>Jackson</u>		Permit Issued _____		Quadrangle _____	
Section <u>17</u>		Lot _____		Twp. Quarter _____			
Measured <u>600' W. of E. & 1200' S. of N.</u>							
Land Owner <u>H. Russell</u>		Well No. <u>17</u>		Date Commenced <u>9-12-35</u>			
Operator <u>M.E. Keaser</u>		Well No. _____		Date Completed <u>11-2-35</u>			
Elevation Bar _____ S.L. _____		Total Depth _____		Plugged Back _____			
Formation Drld. To. _____		Prod. Form. _____		Prod. Nat. <u>Sh. O. & G.</u>			
<u>S/W 80 Qrts.</u>				I.P. <u>2 B0 2MCFG 1st. 24Hrs. AS</u>			
Init. Rock Press. _____				Abandoned _____			
Casing Record <u>5-5/8"-385'</u>							

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
Lm.	16	340					
Cl.	340	430					
Red	430	470					
Shell	1000	1212					
Tren.	1212	1260					
Total Depth		1261					
Foreign well reported to OFG							



THRASHER
SCOPE OF WORK
SENECA 4F PROJECT
Good 8 Orphan Well Site
Seneca County
Jackson Township



APPENDIX II: Well Pictures

Good 8
API: 34-147-6-1151-00-00
Jackson Township, Seneca County



Photograph #1:
Good 8



Photograph # 2:
Good 8

APPENDIX II: Off-Set Well Card

H. Russell 17
API: 34-147-6-0606-00-00
Jackson Township, Seneca County

Ohio Division Of Geological Survey				Permit No. <u>60606</u>			
County <u>Seneca</u>		Township <u>Jackson</u>		Permit Issued _____		Quadrangle _____	
Section <u>17</u>		Lot _____		Twp. Quarter _____			
Measured <u>600' W. of E. & 1200' S. of N.</u>							
Land Owner <u>H. Russell</u>		Well No. <u>17</u>		Date Commenced <u>9-12-35</u>			
Operator <u>M.E. Keaser</u>		Well No. _____		Date Completed <u>11-2-35</u>			
Elevation Bar _____ S.L. _____		Total Depth _____		Plugged Back _____			
Formation Drld. To. _____		Prod. Form. _____		Prod. Nat. <u>Sh. O. & G.</u>			
<u>S/W 80 Qrts.</u>				I.P. <u>2 B0 2MCFG 1st. 24Hrs. AS</u>			
Init. Rock Press. _____				Abandoned _____			
Casing Record <u>5-5/8"-385'</u>							

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
Lm.	16	340					
Cl.	340	430					
Red	430	470					
Shell	1000	1212					
Tren.	1212	1260					
Total Depth		1261					
Foreign well reported to OFG							



THRASHER
SCOPE OF WORK
SENECA 4F PROJECT
Good 5 Orphan Well Site
Seneca County
Jackson Township



APPENDIX II: Well Pictures

Good 5
API: 34-147-6-1148-00-00
Jackson Township, Seneca County



Photograph #1:
Good 5



Photograph # 2:
Good 5

APPENDIX II: Off-Set Well Card

H. Russell 17
API: 34-147-6-0606-00-00
Jackson Township, Seneca County

Ohio Division Of Geological Survey				Permit No. <u>60606</u>			
County <u>Seneca</u>		Township <u>Jackson</u>		Permit Issued _____		Quadrangle _____	
Section <u>17</u>		Lot _____		Twp. Quarter _____			
Measured <u>600' W. of E. & 1200' S. of N.</u>							
Land Owner <u>H. Russell</u>		Well No. <u>17</u>		Date Commenced <u>9-12-35</u>			
Operator <u>M.E. Keaser</u>		Well No. _____		Date Completed <u>11-2-35</u>			
Elevation Bar _____ S.L. _____		Total Depth _____		Plugged Back _____			
Formation Drld. To. _____		Prod. Form. _____		Prod. Nat. <u>Sh. O. & G.</u>			
<u>S/W 80 Qrts.</u>				I.P. <u>2 B0 2MCFG 1st. 24Hrs. AS</u>			
Init. Rock Press. _____				Abandoned _____			
Casing Record <u>5-5/8"-385'</u>							

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
Lm.	16	340					
Cl.	340	430					
Red	430	470					
Shell	1000	1212					
Tren.	1212	1260					
Total Depth		1261					
Foreign well reported to OFG							



THRASHER
SCOPE OF WORK
SENECA 4F PROJECT
Good 5 Water Well Orphan Well Site
Seneca County
Jackson Township



APPENDIX II: Well Pictures

Good 5 Water Well
API: N/A
Jackson Township, Seneca County



Photograph #1:
Good 5 Water Well

APPENDIX II: Off-Set Well Card

H. Russell 17
API: 34-147-6-0606-00-00
Jackson Township, Seneca County

Ohio Division Of Geological Survey				Permit No. <u>60606</u>			
County <u>Seneca</u>		Township <u>Jackson</u>		Permit Issued _____		Quadrangle _____	
Section <u>17</u>		Lot _____		Twp. Quarter _____			
Measured <u>600' W. of E. & 1200' S. of N.</u>							
Land Owner <u>H. Russell</u>		Well No. <u>17</u>		Date Commenced <u>9-12-35</u>			
Operator <u>M.E. Keaser</u>		Well No. _____		Date Completed <u>11-2-35</u>			
Elevation Bar _____ S.L. _____		Total Depth _____		Plugged Back _____			
Formation Drld. To. _____		Prod. Form. _____		Prod. Nat. <u>Sh. O. & G.</u>			
<u>S/W 80 Qrts.</u>				I.P. <u>2 B0 2MCFG 1st. 24Hrs. AS</u>			
Init. Rock Press. _____				Abandoned _____			
Casing Record <u>5-5/8"-385'</u>							

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
Lm.	16	340					
Cl.	340	430					
Red	430	470					
Shell	1000	1212					
Tren.	1212	1260					
Total Depth		1261					
Foreign well reported to OFG							



THRASHER
SCOPE OF WORK
SENECA 4F PROJECT
Good 2 Orphan Well Site
Seneca County
Jackson Township



APPENDIX II: Well Pictures

Good 2
API: 34-147-6-1145-00-00
Jackson Township, Seneca County



Photograph #1:
Good 2



Photograph # 2:
Good 2

APPENDIX II: Off-Set Well Card

H. Russell 17
API: 34-147-6-0606-00-00
Jackson Township, Seneca County

Ohio Division Of Geological Survey				Permit No. <u>60606</u>			
County <u>Seneca</u>		Township <u>Jackson</u>		Permit Issued _____		Quadrangle _____	
Section <u>17</u>		Lot _____		Twp. Quarter _____			
Measured <u>600' W. of E. & 1200' S. of N.</u>							
Land Owner <u>H. Russell</u>		Well No. <u>17</u>		Date Commenced <u>9-12-35</u>			
Operator <u>M.E. Keaser</u>		Well No. _____		Date Completed <u>11-2-35</u>			
Elevation Bar _____ S.L. _____		Total Depth _____		Plugged Back _____			
Formation Drld. To. _____		Prod. Form. _____		Prod. Nat. <u>Sh. O. & G.</u>			
<u>S/W 80 Qrts.</u>				I.P. <u>2 B0 2MCFG 1st. 24Hrs. AS</u>			
Init. Rock Press. _____				Abandoned _____			
Casing Record <u>5-5/8"-385'</u>							

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
Lm.	16	340					
Cl.	340	430					
Red	430	470					
Shell	1000	1212					
Tren.	1212	1260					
Total Depth		1261					
Foreign well reported to OFG							



THRASHER
SCOPE OF WORK
SENECA 4F PROJECT
Good 4 Orphan Well Site
Seneca County
Jackson Township



APPENDIX II: Well Pictures

Good 4
API: 34-147-6-1147-00-00
Jackson Township, Seneca County



Photograph #1:
Good 4



Photograph # 2:
Good 4

APPENDIX II: Off-Set Well Card

H. Russell 17
API: 34-147-6-0606-00-00
Jackson Township, Seneca County

Ohio Division Of Geological Survey				Permit No. <u>60606</u>			
County <u>Seneca</u>		Township <u>Jackson</u>		Permit Issued _____		Quadrangle _____	
Section <u>17</u>		Lot _____		Twp. Quarter _____			
Measured <u>600' W. of E. & 1200' S. of N.</u>							
Land Owner <u>H. Russell</u>		Well No. <u>17</u>		Date Commenced <u>9-12-35</u>			
Operator <u>M.E. Keaser</u>		Well No. _____		Date Completed <u>11-2-35</u>			
Elevation Bar _____ S.L. _____		Total Depth _____		Plugged Back _____			
Formation Drld. To. _____		Prod. Form. _____		Prod. Nat. <u>Sh. O. & G.</u>			
<u>S/W 80 Qrts.</u>				I.P. <u>2 B0 2MCFG 1st. 24Hrs. AS</u>			
Init. Rock Press. _____				Abandoned _____			
Casing Record <u>5-5/8"-385'</u>							

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
Lm.	16	340					
Cl.	340	430					
Red	430	470					
Shell	1000	1212					
Tren.	1212	1260					
Total Depth		1261					
Foreign well reported to OFG							



THRASHER
SCOPE OF WORK
SENECA 4F PROJECT
Good 10 Orphan Well Site
Seneca County
Jackson Township



APPENDIX II: Well Pictures

Good 10
API: 34-147-6-1153-00-00
Jackson Township, Seneca County



Photograph #1:
Good 10



Photograph # 2:
Good 10

APPENDIX II: Off-Set Well Card

H. Russell 17
API: 34-147-6-0606-00-00
Jackson Township, Seneca County

Ohio Division Of Geological Survey				Permit No. <u>60606</u>			
County <u>Seneca</u>		Township <u>Jackson</u>		Permit Issued _____		Quadrangle _____	
Section <u>17</u>		Lot _____		Twp. Quarter _____			
Measured <u>600' W. of E. & 1200' S. of N.</u>							
Land Owner <u>H. Russell</u>		Well No. <u>17</u>		Date Commenced <u>9-12-35</u>			
Operator <u>M.E. Keaser</u>		Well No. _____		Date Completed <u>11-2-35</u>			
Elevation Bar _____ S.L. _____		Total Depth _____		Plugged Back _____			
Formation Drld. To. _____		Prod. Form. _____		Prod. Nat. <u>Sh. O. & G.</u>			
<u>S/W 80 Qrts.</u>				I.P. <u>2 B0 2MCFG 1st. 24Hrs. AS</u>			
Init. Rock Press. _____				Abandoned _____			
Casing Record <u>5-5/8"-385'</u>							

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
Lm.	16	340					
Cl.	340	430					
Red	430	470					
Shell	1000	1212					
Tren.	1212	1260					
Total Depth		1261					
Foreign well reported to OFG							



THRASHER
SCOPE OF WORK
SENECA 4F PROJECT
Jerald 3 Orphan Well Site
Seneca County
Jackson Township



APPENDIX II: Well Pictures

Jerald 3
API: 34-147-6-1158-00-00
Jackson Township, Seneca County



Photograph #1:
Jerald 3



Photograph # 2:
Jerald 3

Irvin Waltermier 3
API: 34-147-2-0038-00-00
Jackson Township, Seneca County

GEOLOGICAL SURVEY OF OHIO

20038 38
OIL AND GAS WELL LOG

State Ohio
County Seneca Township Jackson Quadrangle _____
Lot _____ Quarter _____ Tract _____ Section 20 NW NE SW 4
Measured 660 Feet From W Line And 200 Feet From N Line Of SW $\frac{1}{4}$
80 acres
Land Owner Irvin Waltermier Well No. 3 Date Started 10-30-52
Operator Irvin Waltermier Well No. _____ Date Completed 12-31-52
Elevation Bar. _____ S. L. _____ Total Depth 1270' Plugged Back _____
Formation Drilled To _____ Producing Form _____ Init. Prod. Nat. _____
Shot or Acid Record -2-53:1225-1270': 80 qts. Prod. A. S. or Acid oil & gas 1 bbl/day est.
Init. Rock Press. _____ Abandoned _____
Casing Record 8 $\frac{1}{2}$ "-10': 5 5/8"-325'

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
Drift	0	6	Soft				
Ls.		295	Blue-hard				
Break		325	Blue-soft				
Clinton lime		425	Light-hard				
Red rock		480	Med.				
Shale		600	Blue-med.				
Shale		825	Gray-med.				
Shale		1000	Lt. bn.-med.				
Shale		1221	Dark bn.-med.				
Trenton lime		1270	Hard: O & G-				
			1226'				



THRASHER
SCOPE OF WORK
SENECA 4F PROJECT
Jerald 1 Orphan Well Site
Seneca County
Jackson Township



APPENDIX II: Well Pictures

Jerald 1
API: 34-147-6-1156-00-00
Jackson Township, Seneca County



Photograph #1:
Jerald 1



Photograph # 2:
Jerald 1

Irvin Waltermier 3
API: 34-147-2-0038-00-00
Jackson Township, Seneca County

GEOLOGICAL SURVEY OF OHIO

20038 38
OIL AND GAS WELL LOG

State Ohio
 County Seneca Township Jackson Quadrangle _____
 Lot _____ Quarter _____ Tract _____ Section 20 NW NE SW 1
 Measured 660 Feet From W Line And 200 Feet From N Line Of SW $\frac{1}{4}$
80 acres
 Land Owner Irvin Waltermier Well No. 3 Date Started 10-30-52
 Operator Irvin Waltermier Well No. _____ Date Completed 12-31-52
 Elevation Bar. S. L. Total Depth 1270' Plugged Back _____
 Formation Drilled To _____ Producing Form _____ Init. Prod. Nat. _____
 Shot or Acid Record -2-53:1225-1270': 80 qts. Prod. A. S. or Acid oil & gas 1 bbl/day est.
 Init. Rock Press. _____ Abandoned _____
 Casing Record 8 $\frac{1}{2}$ "-10': 5 5/8"-325'

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
Drift	0	6	Soft				
Ls.		295	Blue-hard				
Break		325	Blue-soft				
Clinton lime		425	Light-hard				
Red rock		480	Med.				
Shale		600	Blue-med.				
Shale		825	Gray-med.				
Shale		1000	Lt. bn.-med.				
Shale		1221	Dark bn.-med.				
Trenton lime		1270	Hard: O & G-				
			1226'				



THRASHER
SCOPE OF WORK
SENECA 4F PROJECT
Kleinfelter Farms 1 Orphan Well Site
Seneca County
Jackson Township



APPENDIX II: Well Pictures

Kleinfelter Farms 1
API: 34-147-6-1196-00-00
Jackson Township, Seneca County



Photograph #1:
Kleinfelter Farms 1



Photograph # 2:
Kleinfelter Farms 1

May & Robert Vrooman 8
API: 34-147-6-0784-00-00
Jackson Township, Seneca County

Ohio Division Of Geological Survey

60784

Permit No. 93-8 PP

Permit Issued 9-15-61

County Seneca Township Jackson

SE 1/4 Section 16 Lot Tract

Quadrangle

Twp. Quarter

Measured 1575' SL & 1520' EL of SE of sec. 16

79 acres

Land Owner May & Robert Vrooman

Well No. 8

Date Commenced

Operator Oscar Hoffman Oil Co.

Well No.

Date Completed

Elevation Bar S.L.

Total Depth 1240

Plugged Back

Formation Drld. To. Prod. Form.

Prod. Nat.

I.P.

Init. Rock Press.

Casing Record 5 5/8"-280', 8"-18'

Abandoned 2-6-62

Formation

Top

Bottom

Remarks

Formation

Top

Bottom

Remarks

PLUGGING REPORT:

Trenton

1200

1240

TD.



THRASHER
SCOPE OF WORK
SENECA 4F PROJECT
Miller 2 Orphan Well Site
Seneca County
Jackson Township



APPENDIX II: Well Pictures

Miller 2
API: 34-147-6-1160-00-00
Jackson Township, Seneca County



Photograph #1:
Miller 2



Photograph # 2:
Miller 2

Irvin Waltermier 3
API: 34-147-2-0038-00-00
Jackson Township, Seneca County

GEOLOGICAL SURVEY OF OHIO

20038 38
OIL AND GAS WELL LOG

State Ohio
 County Seneca Township Jackson Quadrangle _____
 Lot _____ Quarter _____ Tract _____ Section 20 NW NE SW 4
 Measured 660 Feet From W Line And 200 Feet From N Line Of SW $\frac{1}{4}$
80 acres
 Land Owner Irvin Waltermier Well No. 3 Date Started 10-30-52
 Operator Irvin Waltermier Well No. _____ Date Completed 12-31-52
 Elevation Bar. _____ S. L. _____ Total Depth 1270' Plugged Back _____
 Formation Drilled To _____ Producing Form _____ Init. Prod. Nat. _____
 Shot or Acid Record -2-53:1225-1270': 80 qts. Prod. A. S. or Acid oil & gas 1 bbl/day est.
 Init. Rock Press. _____ Abandoned _____
 Casing Record 8 $\frac{1}{2}$ "-10': 5 5/8"-325'

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
Drift	0	6	Soft				
Ls.		295	Blue-hard				
Break		325	Blue-soft				
Clinton lime		425	Light-hard				
Red rock		480	Med.				
Shale		600	Blue-med.				
Shale		825	Gray-med.				
Shale		1000	Lt. bn.-med.				
Shale		1221	Dark bn.-med.				
Trenton lime		1270	Hard: O & G-				
			1226'				



THRASHER
SCOPE OF WORK
SENECA 4F PROJECT
Mike Painter 1 Orphan Well Site
Seneca County
Loudon Township



APPENDIX II: Well Pictures

Mike Painter 1
API: 34-147-6-1188-00-00
Loudon Township, Seneca County



Photograph #1:
Mike Painter 1



Photograph # 2:
Mike Painter 1

APPENDIX II: Off-Set Well Card

Margaret Wedge 1
API: 34-147-2-0147-00-00
Washington Township, Seneca County

Ohio Division Of Geological Survey 20147				Permit No. <u>147</u>			
				Permit Issued <u>2-26-65</u>			
County <u>Hancock</u>		Township <u>Washington</u>		Quadrangle <u>Fostoria</u>			
Section <u>11</u>		Lot <u> </u> Tract <u> </u>		Twp. Quarter <u> </u>			
Measured <u>1350'</u> SL & <u>741'</u> EL of SE $\frac{1}{4}$ of sec. 11							
<u>120.90</u> Acres				G - FWC - C.T.			
Land Owner <u>Margaret Wedge</u>		Well No. <u>1</u>		Date Commenced <u>2-25-65</u>			
Operator <u>Hudson Petroleum Co.</u>		Well No. <u> </u>		Date Completed <u>3-16-65</u>			
Elevation Bar <u> </u> S.L. <u> </u>		Total Depth <u>1958</u>		Plugged Back <u> </u>			
Formation Drld. To. <u> </u>		Prod. Form. <u> </u>		Prod. Nat. <u> </u>			
				I.P. <u>D&A</u>			
Init. Rock Press. <u> </u>							
Casing Record <u>10"-41', 8"-400'</u>				Abandoned <u>3-18-65</u>			

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
E= 1,740,050				COMPLETION			
N= 538,500				Soil & silt	0	41	
PLUGGING REPORT				Lime	41	278	F.Wtr. 45'
Fr. Wtr. Strata	45			Shale, grn	278	312	
Big Lime	41	278		Clinton Sd.	312	394	
Trenton	1228			Shale, gry	394	398	
Tpl.	1939			Red Rock	398	440	
TD		1958		Shale, grn	440	510	
				Shale, gry	510	960	
				Shale, brn	960	1228	
				Tr. Lime	1228	1935	s/gas 1235'
				Glenwood	1935	1939	
				Tpl.	1939	1958	T.D.

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
				NSR 4-8-65			
				Elev. 785 G.L.			
				Comm. 2-25-65	Comp. 3-16-65		
				D. T.D. 1958'			
				Casing - 10" - 41'	8" - 400'		D & A
				Big Lime	41	278	
				Trenton	1228		
				Gull River	1924		
				Glenwood	1934		
				Trempealeau	1939		Sandy @ 1951



THRASHER
SCOPE OF WORK
SENECA 4F PROJECT
Richard Crawford 1 Orphan Well Site
Seneca County
Jackson Township



APPENDIX II: Well Pictures

Richard Crawford 1
API: 34-147-6-1107-00-00
Jackson Township, Seneca County



Photograph #1:
Richard Crawford 1



Photograph # 2:
Richard Crawford 1

Jacob F. Hartline 1
API: 34-147-2-0055-00-00
Jackson Township, Seneca County

[illegible]



THRASHER
SCOPE OF WORK
SENECA 4F PROJECT
Tyler 1 Orphan Well Site
Seneca County
Jackson Township



APPENDIX II: Well Pictures

Tyler 1
API: 34-147-6-0666-00-00
Jackson Township, Seneca County



Photograph #1:
Tyler 1



Photograph # 2:
Tyler 1

May & Robert Vrooman 8
API: 34-147-6-0784-00-00
Jackson Township, Seneca County

Ohio Division Of Geological Survey

60784

Permit No. 93-8 PP

Permit Issued 9-15-61

County Seneca Township Jackson

SE 1/4 Section 16 Lot _____ Tract _____

Quadrangle _____

Twp. Quarter _____

Measured 1575' SL & 1520' EL of SE of sec. 16

79 acres

Land Owner May & Robert Vrooman

Well No. 8

Date Commenced _____

Operator Oscar Hoffman Oil Co.

Well No. _____

Date Completed _____

Elevation Bar _____ S.L. _____

Total Depth 1240

Plugged Back _____

Formation Drld. To. _____ Prod. Form. _____

Prod. Nat. _____

I.P. _____

Init. Rock Press. _____

Casing Record 5 5/8"-280', 8"-18'

Abandoned 2-6-62

Formation

Top

Bottom

Remarks

Formation

Top

Bottom

Remarks

PLUGGING REPORT:

Trenton

1200

1240

TD.



THRASHER
SCOPE OF WORK
SENECA 4F PROJECT
Tyler 2 Orphan Well Site
Seneca County
Jackson Township



APPENDIX II: Well Pictures

Tyler 2
API: 34-147-6-0667-00-00
Jackson Township, Seneca County



Photograph #1:
Tyler 2



Photograph # 2:
Tyler 2

May & Robert Vrooman 8
API: 34-147-6-0784-00-00
Jackson Township, Seneca County

Ohio Division Of Geological Survey

60784

Permit No. 93-8 PP

Permit Issued 9-15-61

County Seneca Township Jackson

SE 1/4 Section 16 Lot _____ Tract _____

Quadrangle _____

Twp. Quarter _____

Measured 1575' SL & 1520' EL of SE of sec. 16

79 acres

Land Owner May & Robert Vrooman

Well No. 8

Date Commenced _____

Operator Oscar Hoffman Oil Co.

Well No. _____

Date Completed _____

Elevation Bar _____ S.L. _____

Total Depth 1240

Plugged Back _____

Formation Drld. To. _____ Prod. Form. _____

Prod. Nat. _____

I.P. _____

Init. Rock Press. _____

Casing Record 5 5/8"-280', 8"-18'

Abandoned 2-6-62

Formation

Top

Bottom

Remarks

Formation

Top

Bottom

Remarks

PLUGGING REPORT:

Trenton

1200

1240

TD.



THRASHER
SCOPE OF WORK
SENECA 4F PROJECT
Shultz 2 Orphan Well Site
Seneca County
Jackson Township



APPENDIX II: Well Pictures

Shultz 2
API: 34-147-6-0671-00-00
Jackson Township, Seneca County



Photograph #1:
Shultz 2



Photograph # 2:
Shultz 2

May & Robert Vrooman 8
API: 34-147-6-0784-00-00
Jackson Township, Seneca County

Ohio Division Of Geological Survey

60784

Permit No. 93-8 PP

Permit Issued 9-15-61

County Seneca Township Jackson

Section 16 Lot Tract

Quadrangle

Twp. Quarter

Measured 1575' SL & 1520' EL of SE of sec. 16

79 acres

Land Owner May & Robert Vrooman

Well No. 8

Date Commenced

Operator Oscar Hoffman Oil Co.

Well No.

Date Completed

Elevation Bar S.L.

Total Depth 1240

Plugged Back

Formation Drld. To. Prod. Form.

Prod. Nat.

I.P.

Init. Rock Press.

Casing Record 5 5/8"-280', 8"-18'

Abandoned 2-6-62

Formation

Top

Bottom

Remarks

Formation

Top

Bottom

Remarks

PLUGGING REPORT:

Trenton

1200

1240

TD.



THRASHER
SCOPE OF WORK
SENECA 4F PROJECT
Waltermier Irvin 3 Orphan Well Site
Seneca County
Jackson Township



APPENDIX II: Well Pictures

Waltermier Irvin 3
API: 34-147-2-0038-00-00
Jackson Township, Seneca County



Photograph #1:
Waltermier Irvin 3



Photograph # 2:
Waltermier Irvin 3

Waltermier Irvin 3
API: 34-147-2-0038-00-00
Jackson Township, Seneca County

GEOLOGICAL SURVEY OF OHIO

20038 38
OIL AND GAS WELL LOG

State Ohio
 County Seneca Township Jackson Quadrangle _____
 Lot _____ Quarter _____ Tract _____ Section 20 NW NE SW 1
 Measured 660 Feet From W Line And 200 Feet From N Line Of SW $\frac{1}{4}$
80 acres
 Land Owner Irvin Waltermier Well No. 3 Date Started 10-30-52
 Operator Irvin Waltermier Well No. _____ Date Completed 12-31-52
 Elevation Bar. _____ S. L. _____ Total Depth 1270' Plugged Back _____
 Formation Drilled To _____ Producing Form _____ Init. Prod. Nat. _____
 Shot or Acid Record -2-53:1225-1270': 80 qts. Prod. A. S. or Acid oil & gas 1 bbl/day est.
 Init. Rock Press. _____ Abandoned _____
 Casing Record 8 $\frac{1}{2}$ "-10': 5 5/8"-325'

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
Drift	0	6	Soft				
Ls.		295	Blue-hard				
Break		325	Blue-soft				
Clinton lime		425	Light-hard				
Red rock		480	Med.				
Shale		600	Blue-med.				
Shale		825	Gray-med.				
Shale		1000	Lt. bn.-med.				
Shale		1221	Dark bn.-med.				
Trenton lime		1270	Hard: O & G-				
			1226'				



THRASHER
SCOPE OF WORK
SENECA 4F PROJECT
Miller 1 Orphan Well Site
Seneca County
Jackson Township



APPENDIX II: Well Pictures

Miller 1
API: 34-147-6-1159-00-00
Jackson Township, Seneca County



Photograph #1:
Miller 1



Photograph # 2:
Miller 1

Irvin Waltermier 3
API: 34-147-2-0038-00-00
Jackson Township, Seneca County

[illegible]

EDIT DATE: 2/16/2026 3:46 PM EDIT BY: DPHARKS DRAWING FILE: R:\070\070-11809-00 02NR SENECA #4\DRAWING\11808-SENECA4-COVER.DWG

CONTACT INFORMATION

DIVISION OF OIL & GAS RESOURCES MANAGEMENT
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PROJECT ENGINEER
KRISTOFER ROSER, P.E.
PH: (330) 414-3740

ORPHAN WELL INSPECTOR
KIRSTEN EBRIGHT
PH: (614) 616-0495



Call Before You Dig
CALL TWO WORKING DAYS BEFORE YOU DIG
(NON MEMBERS MUST BE CALLED DIRECTLY)

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN APPROXIMATELY, BASED EITHER ON REPORTING BY RESPECTIVE OWNERS AND/OR BY FIELD LOCATION. HOWEVER, THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING WORK AND AGREES TO BE FULLY RESPONSIBLE FOR ALL DAMAGES THAT MIGHT OCCUR BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ALL UNDERGROUND UTILITIES. THE CONTRACTOR SHALL MAINTAIN A CURRENT 10 DAY OUPS/OGUPS TICKET DURING THE ENTIRE PROJECT BY CONTACTING OUPS EVERY 10 DAYS. BOTH OUPS AND OGUPS CAN BE COMPLETED USING THE OHIO 811 ONE CALL SERVICE BY PHONE OR ON THE WEB.

SHEET INDEX

TITLE SHEET	1
ASHLAND FARMS 1	2
FRANKHART 2 & JERALD 2	3
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GOOD 1-11 STREAM CROSSING 1 PLAN & PROFILE	5
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RICHARD CRAWFORD 1	12
TYLER SCHULTZ 1, 2 & SCHULTZ 2	13
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DETAILS	15-18

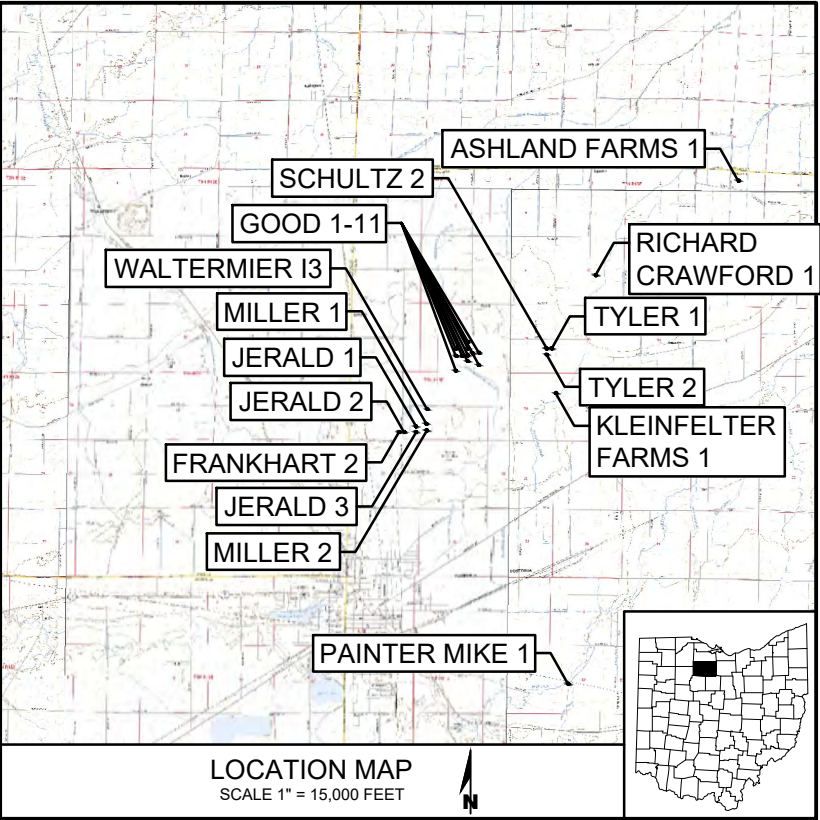
OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL & GAS RESOURCES MANAGEMENT

SENECA #4F
MULTIPLE
ORPHAN WELL SITES

PREPARED FOR THE OHIO DEPARTMENT
OF NATURAL RESOURCES
BY:

THRASHER

THE THRASHER GROUP INC.
CIVIL ENVIRONMENTAL CONSULTING FIELD SERVICES
400 3RD ST. SE SUITE 309, CANTON, OH 44702
PHONE (330) 451-2042



DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
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TITLE SHEET

SENECA 4F
MULTIPLE
ORPHAN WELL SITES

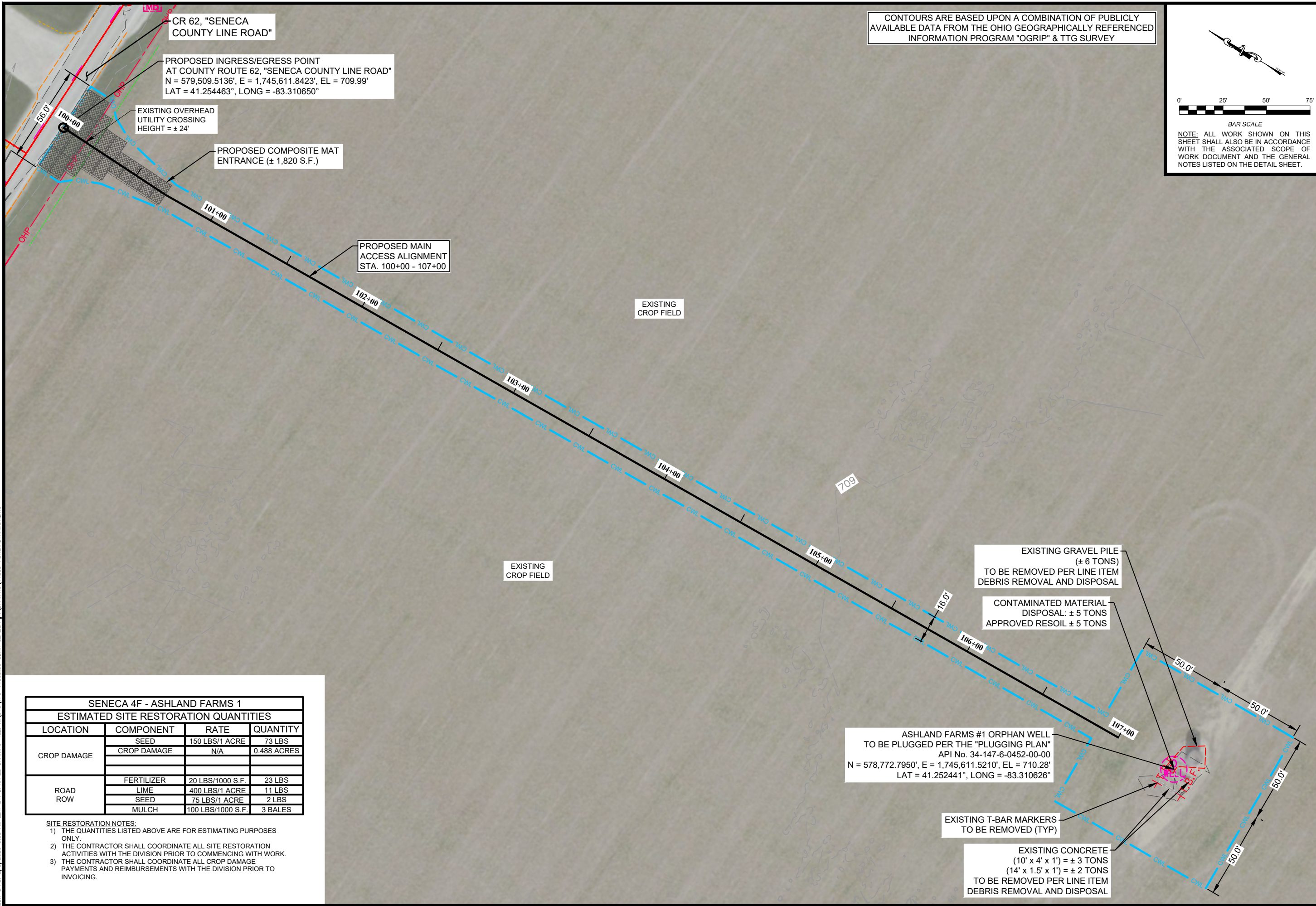
LEGEND

PROPOSED WORK LIMITS		EXISTING BURIED FIBER	
PROPOSED MATTING		EXISTING WATER WELL	
		EXISTING ORPHAN WELL	
PROPOSED SILT FENCE		EXISTING POWER POLE	
EXISTING EDGE OF PVMT		EXISTING HYDRANT	
EXISTING EDGE OF DRIVE		EXISTING WATER VALVE	
EXISTING BUILDING		EXISTING GAS VALVE	
EXISTING PROPERTY LINE		EXISTING MONUMENT BOX	
EXISTING TOP OF BANK		EXISTING ELECTRIC METER	
EXISTING TOE OF SLOPE		EXISTING LIGHT POLE	
EXISTING 2' CONTOUR		EXISTING IRON PIN FOUND	
EXISTING 10' CONTOUR		EXISTING EMERGENT WETLAND (PEM)	
EXISTING BURIED TELECOM		EXISTING FORESTED WETLAND (PFO)	
EXISTING OVERHEAD ELEC.		EXISTING POND	
EXISTING CULVERT		EXISTING EPHEMERAL STREAM (EPH)	
EXISTING SANITARY		EXISTING INTERMITTENT STREAM (INT)	
EXISTING GAS		EXISTING PERENNIAL STREAM (PER)	

SENECA #4F				
ORPHAN WELL INFORMATION				
WELL NAME	API NUMBER	TOWNSHIP	LATTITUDE	LONGITUDE
ASHLAND FARMS 1	34-147-6-0452-00-00	JACKSON	41.252441°	-83.310626°
FRANKHART 2	34-147-6-0700-00-00	JACKSON	41.197875°	-83.406299°
JERALD 2	34-147-6-1157-00-00	JACKSON	41.197878°	-83.404848°
GOOD 1	34-147-6-1144-00-00	JACKSON	41.217361°	-83.387042°
GOOD 2	34-147-6-1145-00-00	JACKSON	41.215875°	-83.390365°
GOOD 3	34-147-6-1146-00-00	JACKSON	41.215953°	-83.387025°
GOOD 4	34-147-6-1147-00-00	JACKSON	41.214317°	-83.390347°
GOOD 5	34-147-6-1148-00-00	JACKSON	41.214301°	-83.388653°
GOOD 5 WATER WELL	N/A	JACKSON	41.214120°	-83.388629°
GOOD 6	34-147-6-1149-00-00	JACKSON	41.214478°	-83.387029°
GOOD 7	34-147-6-1150-00-00	JACKSON	41.215037°	-83.383837°
GOOD 8	34-147-6-1151-00-00	JACKSON	41.213189°	-83.387063°
GOOD 9	34-147-6-1152-00-00	JACKSON	41.212405°	-83.383866°
GOOD 10	34-147-6-1153-00-00	JACKSON	41.211166°	-83.390431°
GOOD 11	34-147-6-0627-00-00	JACKSON	41.214893°	-83.385595°
JERALD 1	34-147-6-1156-00-00	JACKSON	41.199117°	-83.401480°
JERALD 3	34-147-6-1158-00-00	JACKSON	41.197909°	-83.401476°
KLEINFELTER FARMS 1	34-147-6-1196-00-00	JACKSON	41.206521°	-83.361904°
MILLER 2	34-147-6-1160-00-00	JACKSON	41.198279°	-83.398389°
PAINTER MIKE 1	34-147-6-1188-00-00	LOUDIN	41.144259°	-83.357604°
RICHARD CRAWFORD 1	34-147-6-1107-00-00	JACKSON	41.231923°	-83.350946°
TYLER 1	34-147-6-0666-00-00	JACKSON	41.216116°	-83.363217°
TYLER 2	34-147-6-0667-00-00	JACKSON	41.214804°	-83.364613°
SCHULTZ 2	34-147-6-0671-00-00	JACKSON	41.216089°	-83.364688°
WALTERMIER I3	34-147-2-0038-00-00	JACKSON	41.202787°	-83.398382°
MILLER 1	34-147-6-1159-00-00	JACKSON	41.199711°	-83.398554°

REVISION	
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DATE: 02/17/2026	
SHEET NO. 1 OF 18	

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SENECA 4F - ASHLAND FARMS 1			
ESTIMATED SITE RESTORATION QUANTITIES			
LOCATION	COMPONENT	RATE	QUANTITY
CROP DAMAGE	SEED	150 LBS/1 ACRE	73 LBS
	CROP DAMAGE	N/A	0.488 ACRES
ROAD ROW	FERTILIZER	20 LBS/1000 S.F.	23 LBS
	LIME	400 LBS/1 ACRE	11 LBS
	SEED	75 LBS/1 ACRE	2 LBS
	MULCH	100 LBS/1000 S.F.	3 BALES

- SITE RESTORATION NOTES:
- 1) THE QUANTITIES LISTED ABOVE ARE FOR ESTIMATING PURPOSES ONLY.
 - 2) THE CONTRACTOR SHALL COORDINATE ALL SITE RESTORATION ACTIVITIES WITH THE DIVISION PRIOR TO COMMENCING WITH WORK.
 - 3) THE CONTRACTOR SHALL COORDINATE ALL CROP DAMAGE PAYMENTS AND REIMBURSEMENTS WITH THE DIVISION PRIOR TO INVOICING.



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ASHLAND FARMS 1 SITE PLAN

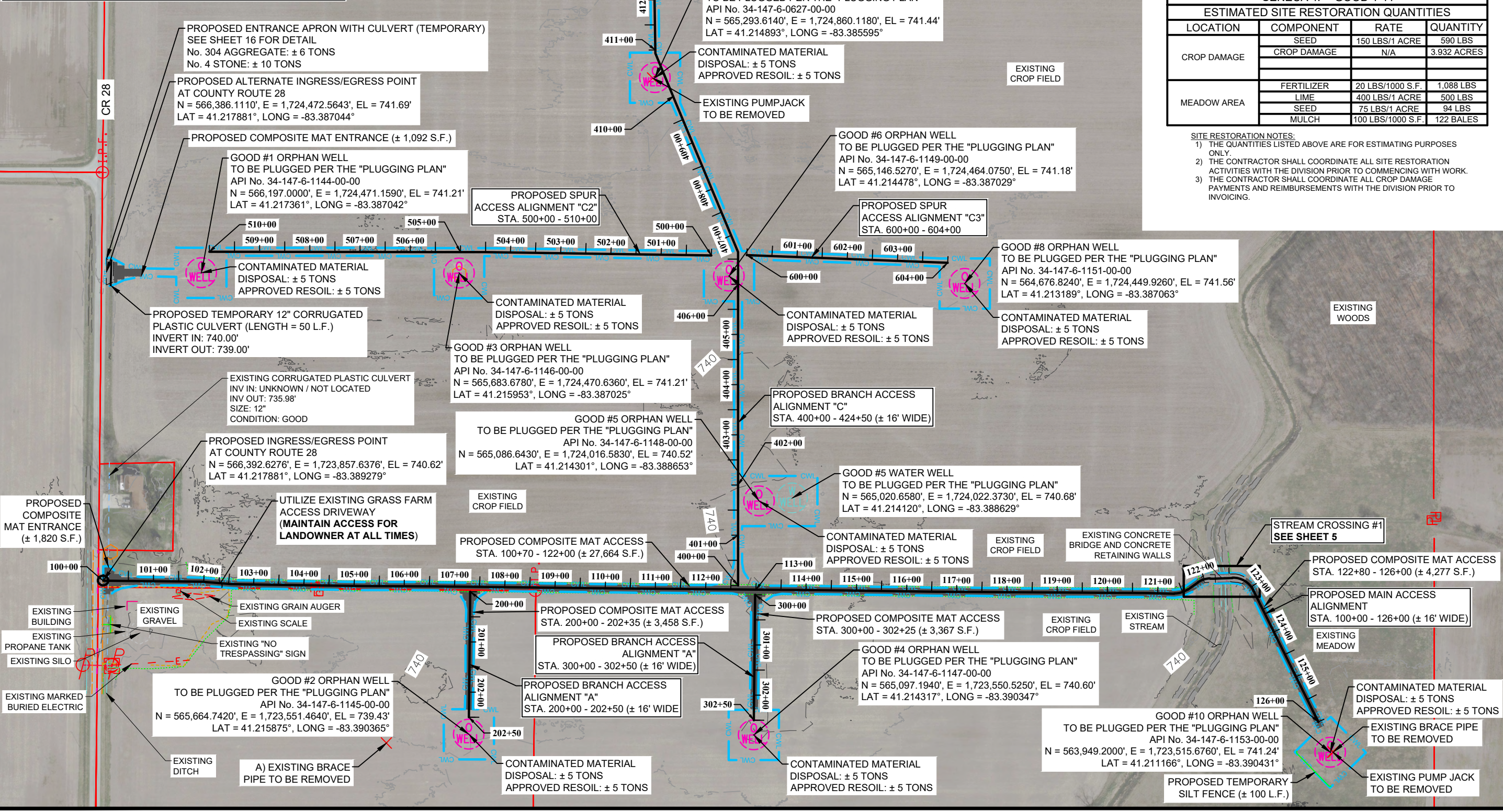
SENECA 4F MULTIPLE ORPHAN WELL SITES

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CONTOURS ARE BASED UPON A COMBINATION OF PUBLICLY AVAILABLE DATA FROM THE OHIO GEOGRAPHICALLY REFERENCED INFORMATION PROGRAM "OGrip" & TTG SURVEY

A) REMOVE EXISTING STAND-ALONE BRACE PIPES LOCATED OUTSIDE OF THE CONSTRUCTION WORK LIMITS. THE CONTRACTOR MAY PERFORM LOCALIZED EXCAVATION AS NECESSARY TO FACILITATE REMOVAL, MINIMIZING DISTURBANCE TO AREAS OUTSIDE OF THE CONSTRUCTION WORK LIMITS. FOLLOWING REMOVAL, THE CONTRACTOR SHALL RESTORE THE EXCAVATED AREA TO ORIGINAL CONTOURS AND CONDITIONS IN ACCORDANCE WITH THE "SITE RESTORATION" DETAILED SPECIFICATION. REMOVED MATERIAL SHALL BE HANDLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE "SALVAGE MATERIAL DISPOSAL" AND "SALVAGE MATERIAL REIMBURSEMENT" SPECIFICATIONS. ALL MATERIALS SHALL BE CLEANED, STAGED AND INVENTORIED FOR SALVAGE AS DIRECTED BY THE DIVISION. THE CONTRACTOR SHALL NOTIFY THE DIVISION UPON COMPLETION OF BRACE PIPE REMOVAL FOR FIELD VERIFICATION AND ACCEPTANCE PRIOR TO FINAL RESTORATION.



SENECA 4F - GOOD 1-11			
ESTIMATED SITE RESTORATION QUANTITIES			
LOCATION	COMPONENT	RATE	QUANTITY
CROP DAMAGE	SEED	150 LBS/1 ACRE	590 LBS
	CROP DAMAGE	N/A	3.932 ACRES
MEADOW AREA	FERTILIZER	20 LBS/1000 S.F.	1,088 LBS
	LIME	400 LBS/1 ACRE	500 LBS
	SEED	75 LBS/1 ACRE	94 LBS
	MULCH	100 LBS/1000 S.F.	122 BALES

- SITE RESTORATION NOTES:
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 - 3) THE CONTRACTOR SHALL COORDINATE ALL CROP DAMAGE PAYMENTS AND REIMBURSEMENTS WITH THE DIVISION PRIOR TO INVOICING.



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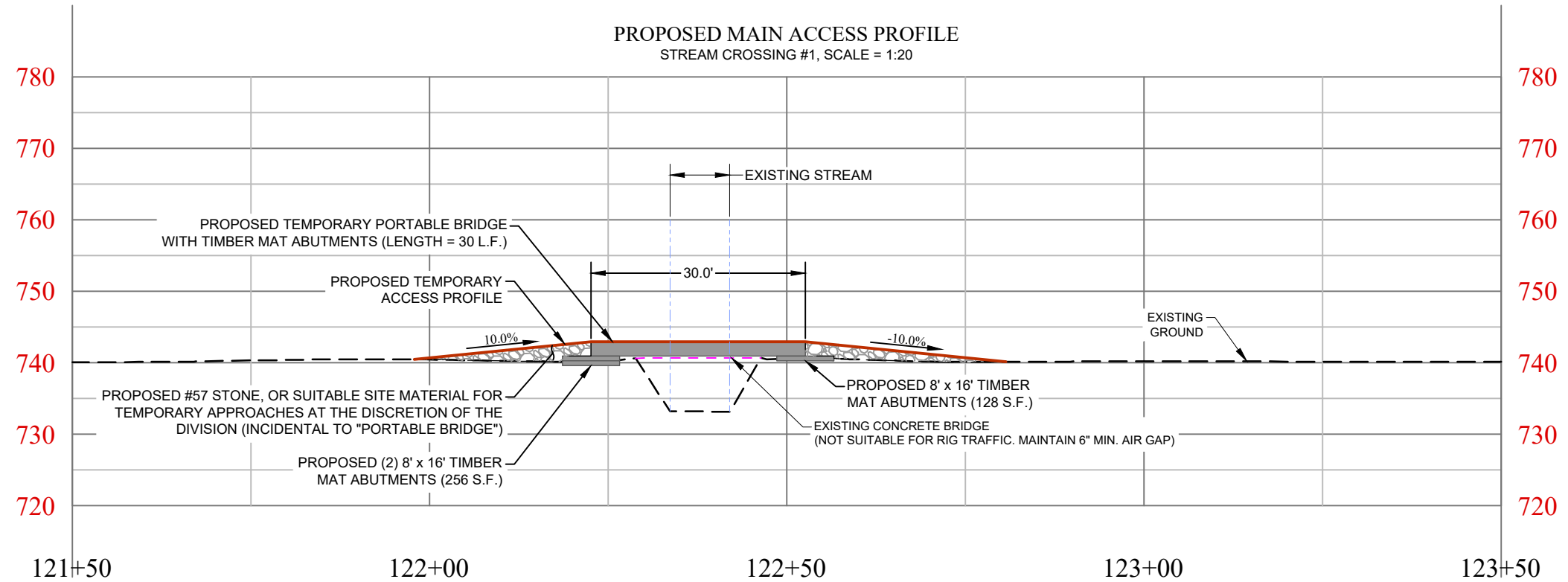
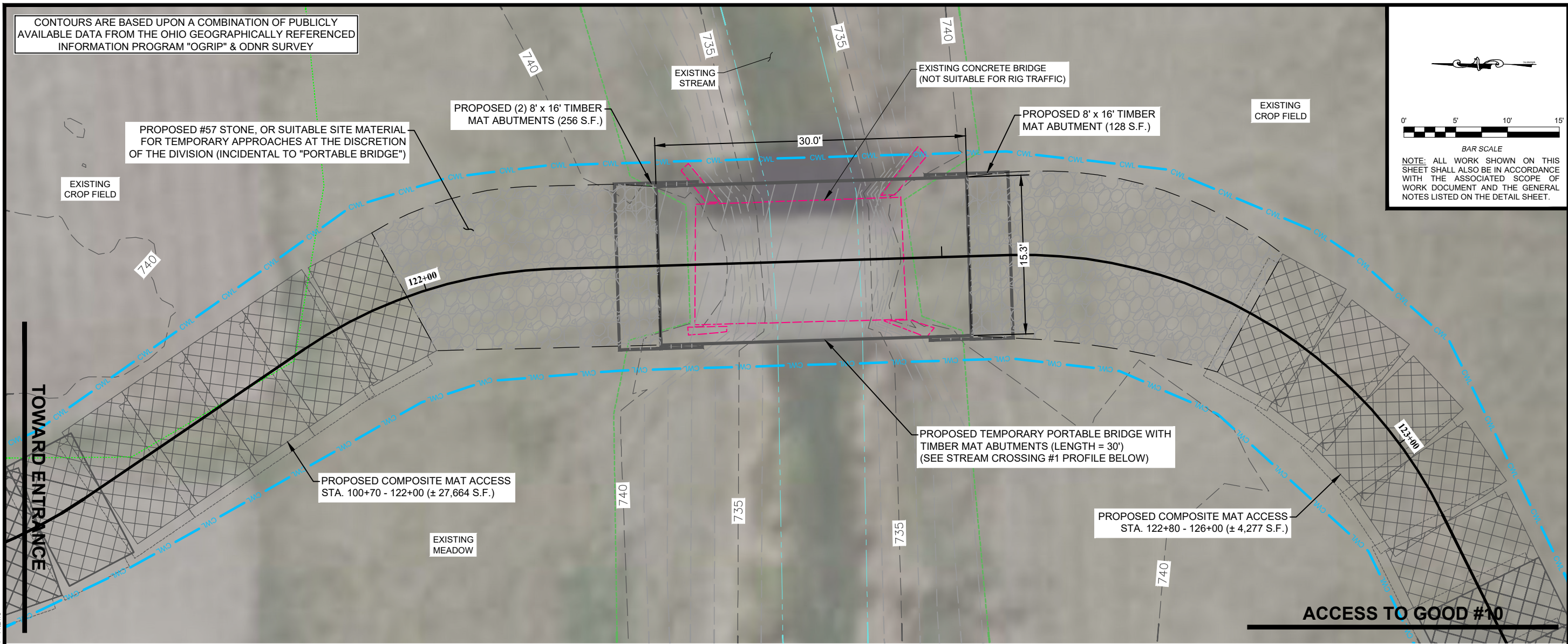
**GOOD 1-11
SITE PLAN**

**SENECA 4F
MULTIPLE
ORPHAN WELL SITES**

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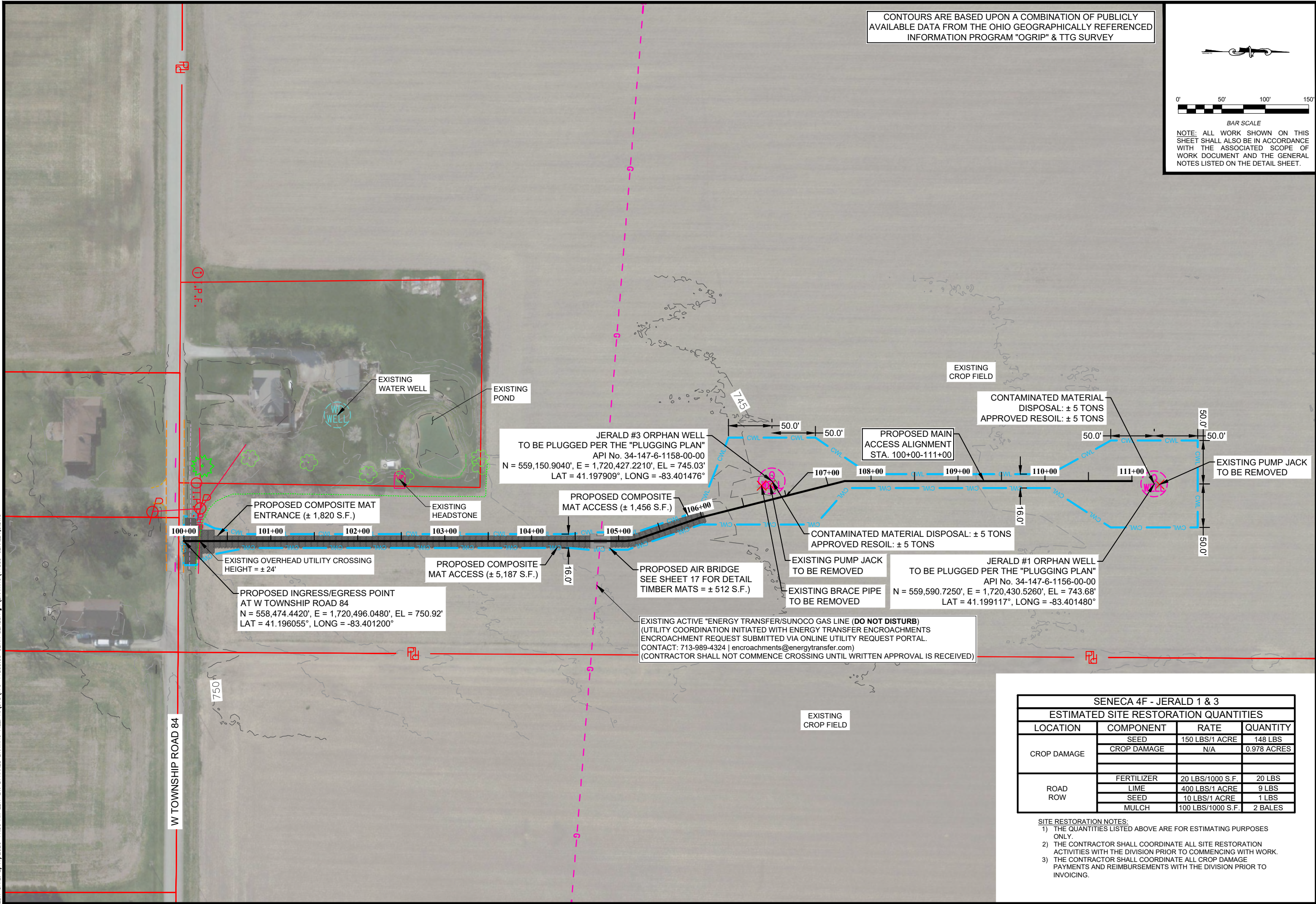
GOOD 1-11
STREAM CROSSING 1
PLAN & PROFILE

SENECA 4F
MULTIPLE
ORPHAN WELL SITES

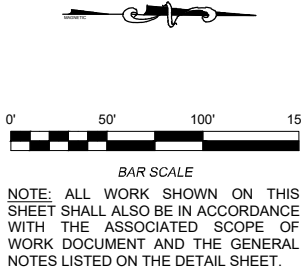
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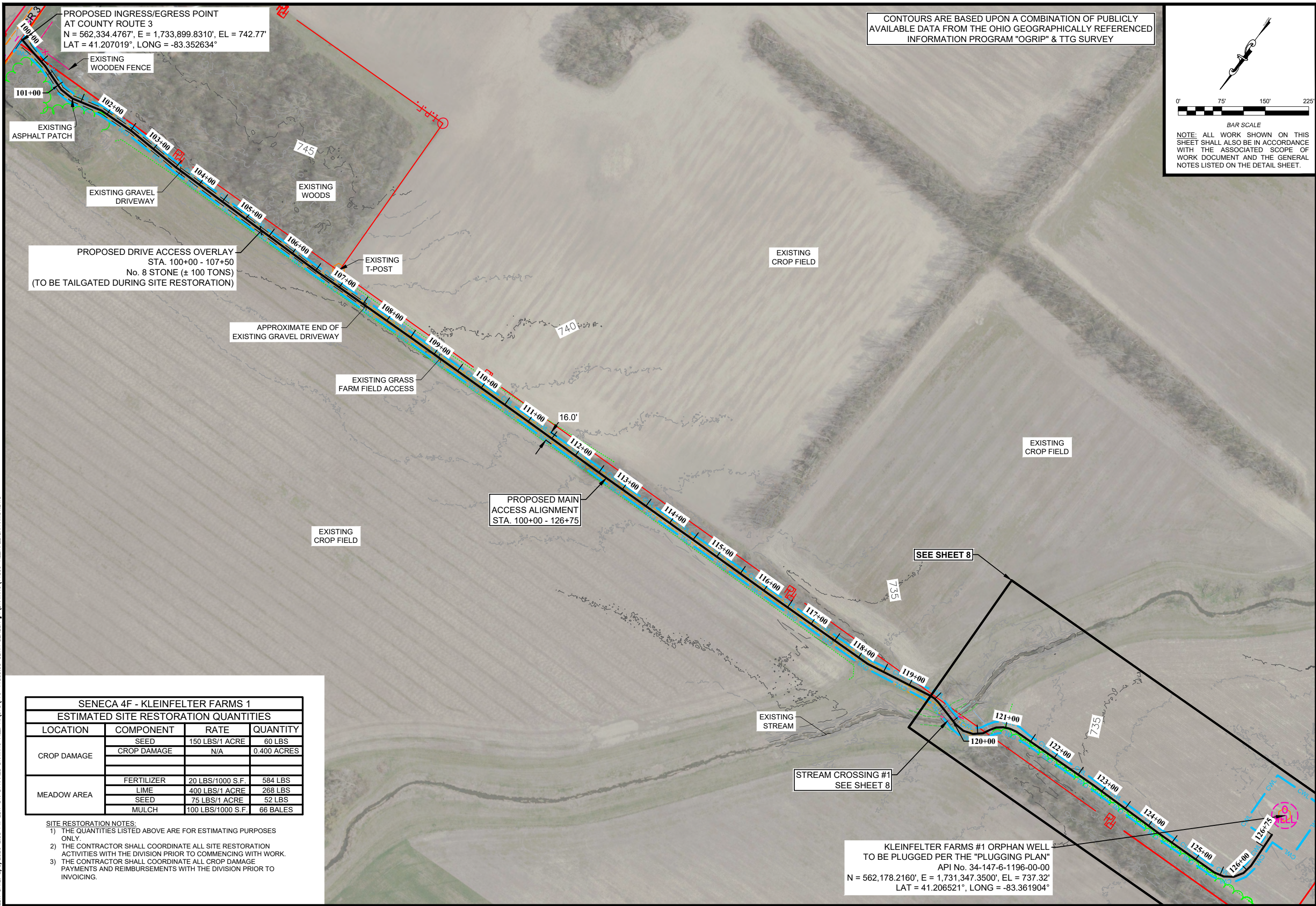
CONTOURS ARE BASED UPON A COMBINATION OF PUBLICLY AVAILABLE DATA FROM THE OHIO GEOGRAPHICALLY REFERENCED INFORMATION PROGRAM "OGRIP" & TTG SURVEY



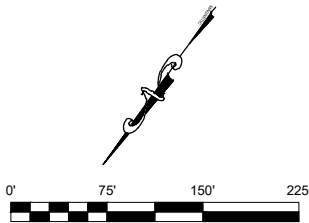
SENECA 4F - JERALD 1 & 3			
ESTIMATED SITE RESTORATION QUANTITIES			
LOCATION	COMPONENT	RATE	QUANTITY
CROP DAMAGE	SEED	150 LBS/1 ACRE	148 LBS
	CROP DAMAGE	N/A	0.978 ACRES
ROAD ROW	FERTILIZER	20 LBS/1000 S.F.	20 LBS
	LIME	400 LBS/1 ACRE	9 LBS
	SEED	10 LBS/1 ACRE	1 LBS
	MULCH	100 LBS/1000 S.F.	2 BALES

SITE RESTORATION NOTES:
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2) THE CONTRACTOR SHALL COORDINATE ALL SITE RESTORATION ACTIVITIES WITH THE DIVISION PRIOR TO COMMENCING WITH WORK.
3) THE CONTRACTOR SHALL COORDINATE ALL CROP DAMAGE PAYMENTS AND REIMBURSEMENTS WITH THE DIVISION PRIOR TO INVOICING.

EDIT DATE: 2/9/2026 2:53 PM EDIT BY: DPHARES DRAWING FILE: R:\070\170-11809.00 ODNr SENECA #A\DRAWING\11809-KLEINFELTERFARMS1.DWG



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BAR SCALE
NOTE: ALL WORK SHOWN ON THIS SHEET SHALL ALSO BE IN ACCORDANCE WITH THE ASSOCIATED SCOPE OF WORK DOCUMENT AND THE GENERAL NOTES LISTED ON THE DETAIL SHEET.

PROPOSED DRIVE ACCESS OVERLAY
STA. 100+00 - 107+50
No. 8 STONE (± 100 TONS)
(TO BE TAILGATED DURING SITE RESTORATION)

APPROXIMATE END OF
EXISTING GRAVEL DRIVEWAY

EXISTING GRASS
FARM FIELD ACCESS

PROPOSED MAIN
ACCESS ALIGNMENT
STA. 100+00 - 126+75

EXISTING
CROP FIELD

EXISTING
CROP FIELD

EXISTING
STREAM

STREAM CROSSING #1
SEE SHEET 8

SEE SHEET 8

KLEINFELTER FARMS #1 ORPHAN WELL
TO BE PLUGGED PER THE "PLUGGING PLAN"
API No. 34-147-6-1196-00-00
N = 562,178.2160', E = 1,731,347.3500', EL = 737.32'
LAT = 41.206521°, LONG = -83.361904°

SENECA 4F - KLEINFELTER FARMS 1			
ESTIMATED SITE RESTORATION QUANTITIES			
LOCATION	COMPONENT	RATE	QUANTITY
CROP DAMAGE	SEED	150 LBS/1 ACRE	60 LBS
	CROP DAMAGE	N/A	0.400 ACRES
MEADOW AREA	FERTILIZER	20 LBS/1000 S.F.	584 LBS
	LIME	400 LBS/1 ACRE	268 LBS
	SEED	75 LBS/1 ACRE	52 LBS
	MULCH	100 LBS/1000 S.F.	66 BALES

- SITE RESTORATION NOTES:
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 - 3) THE CONTRACTOR SHALL COORDINATE ALL CROP DAMAGE PAYMENTS AND REIMBURSEMENTS WITH THE DIVISION PRIOR TO INVOICING.



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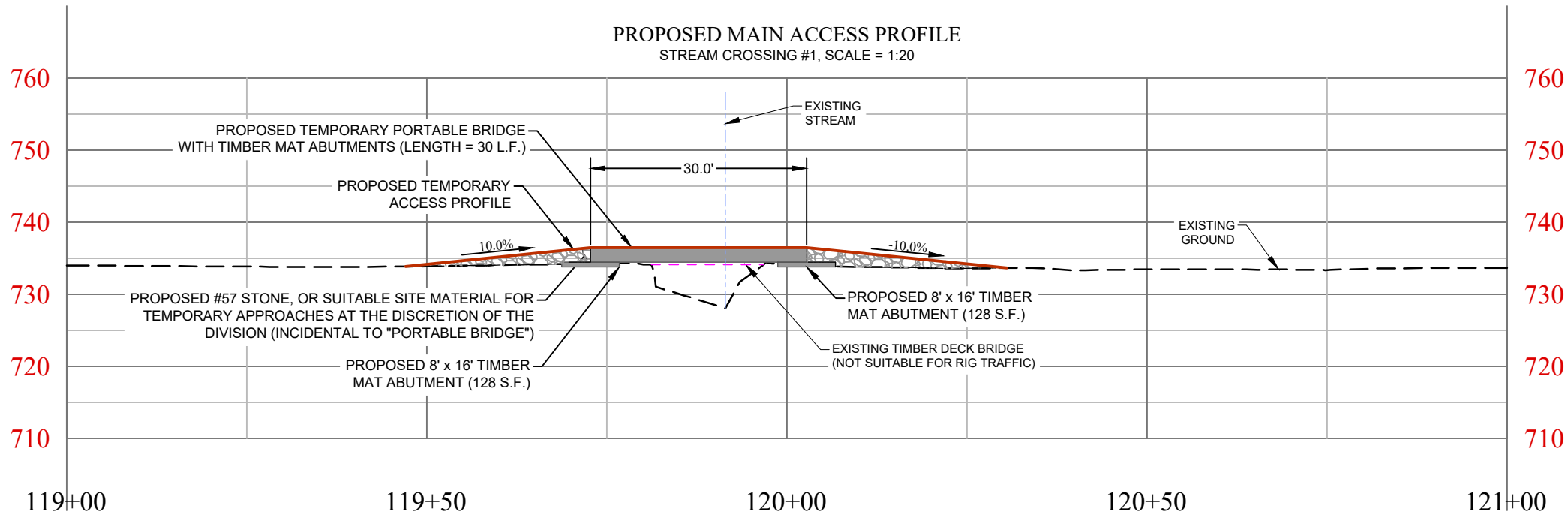
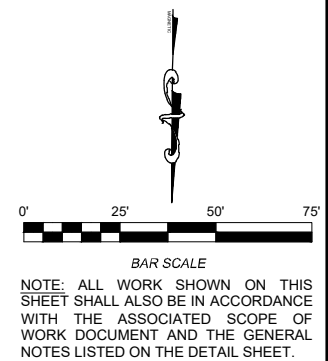
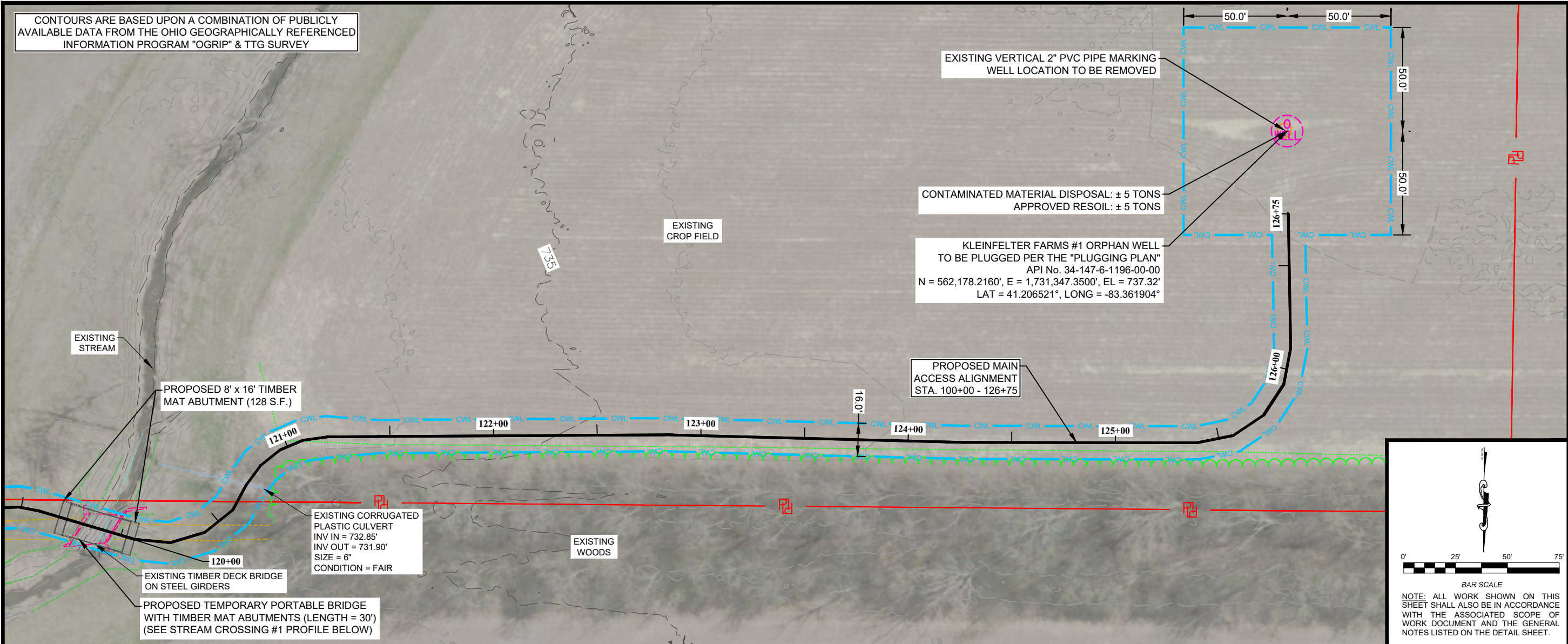
KLEINFELTER FARMS 1
OVERALL
SITE PLAN

SENECA 4F
MULTIPLE
ORPHAN WELL SITES

REVISION	
DESIGN UNIT	THRASHER
DRAWN BY:	D.M.P.
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DATE:	02/17/2026
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RESOURCES MANAGEMENT
IDLE & ORPHAN WELL PROGRAM
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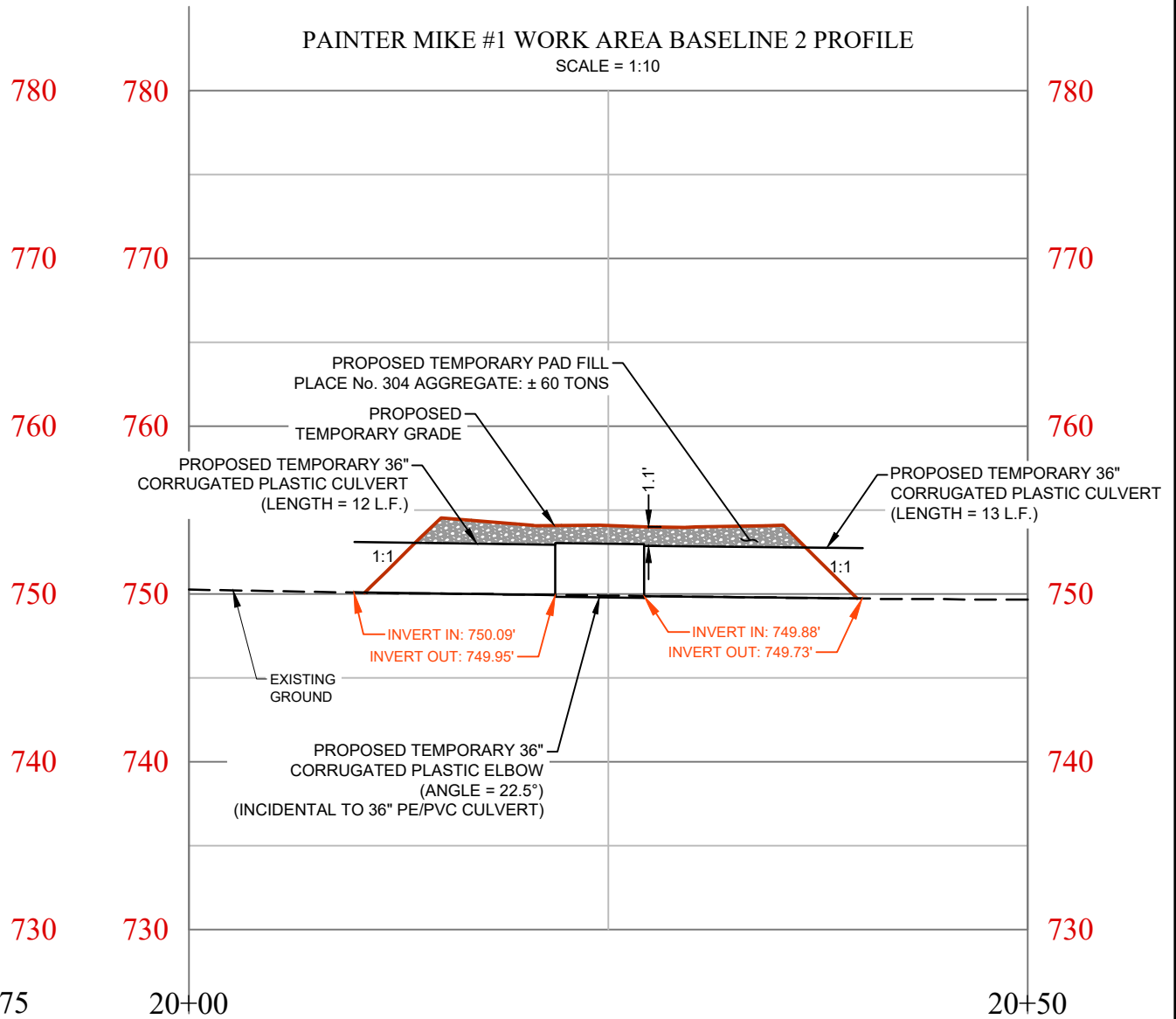
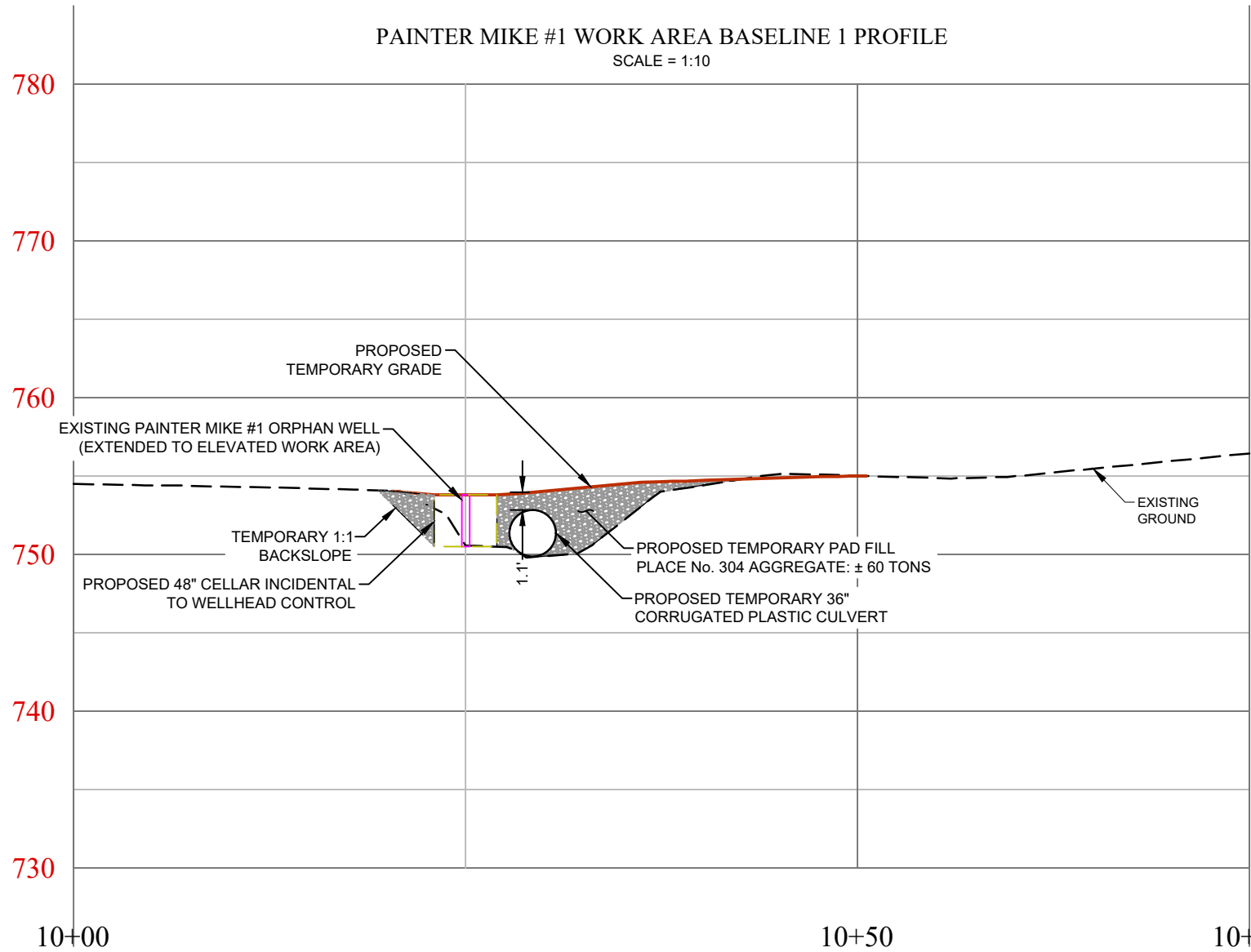
**KLEINFELTER FARMS 1
DETAILED PLAN &
STREAM CROSSING
1 PROFILE**

**SENECA 4F
MULTIPLE
ORPHAN WELL SITES**

REVISION	

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8 OF 18	

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DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
IDLE & ORPHAN WELL PROGRAM
<http://oilandgas.ohiodnr.gov>

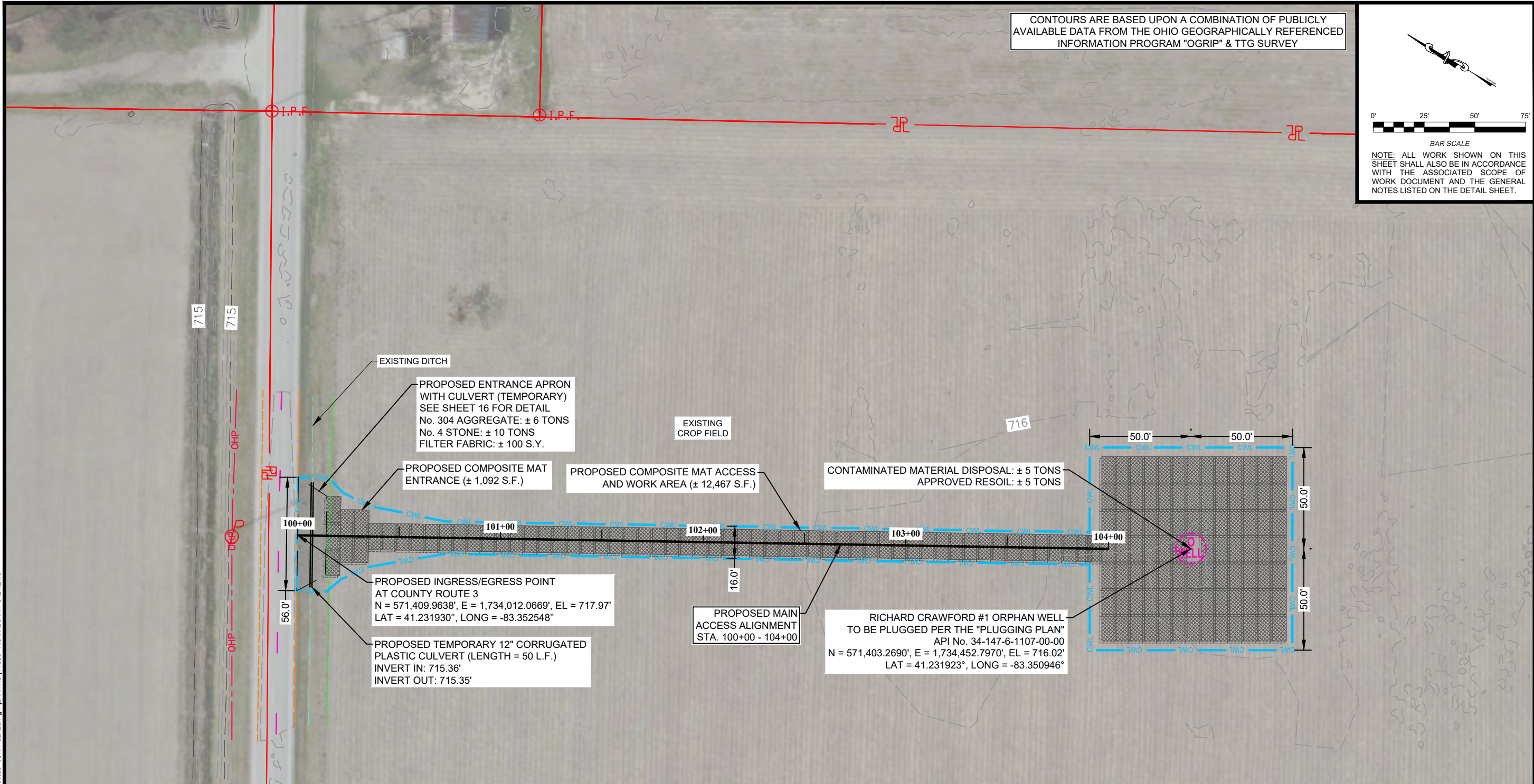


PAINTER MIKE 1
WORK AREA BASELINES

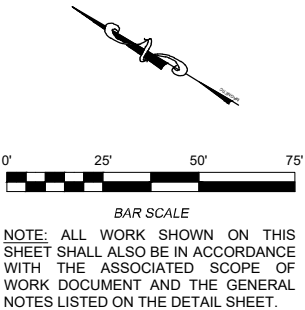
SENECA 4F
MULTIPLE
ORPHAN WELL SITES

REVISION	
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11 OF 18	

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SENECA 4F - RICHARD CRAWFORD 1			
ESTIMATED SITE RESTORATION QUANTITIES			
LOCATION	COMPONENT	RATE	QUANTITY
CROP DAMAGE	SEED	150 LBS/1 ACRE	60 LBS
	CROP DAMAGE	N/A	0.384 ACRES
ROAD ROW	FERTILIZER	20 LBS/1000 S.F.	18 LBS
	LIME	400 LBS/1 ACRE	8 LBS
	SEED	75 LBS/1 ACRE	2 LBS
	MULCH	100 LBS/1000 S.F.	2 BALES

- SITE RESTORATION NOTES:
- 1) THE QUANTITIES LISTED ABOVE ARE FOR ESTIMATING PURPOSES ONLY.
 - 2) THE CONTRACTOR SHALL COORDINATE ALL SITE RESTORATION ACTIVITIES WITH THE DIVISION PRIOR TO COMMENCING WITH WORK.
 - 3) THE CONTRACTOR SHALL COORDINATE ALL CROP DAMAGE PAYMENTS AND REIMBURSEMENTS WITH THE DIVISION PRIOR TO INVOICING.



DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
IDLE & ORPHAN WELL PROGRAM
<http://oilandgas.ohiodnr.gov>



RICHARD CRAWFORD 1
SITE PLAN

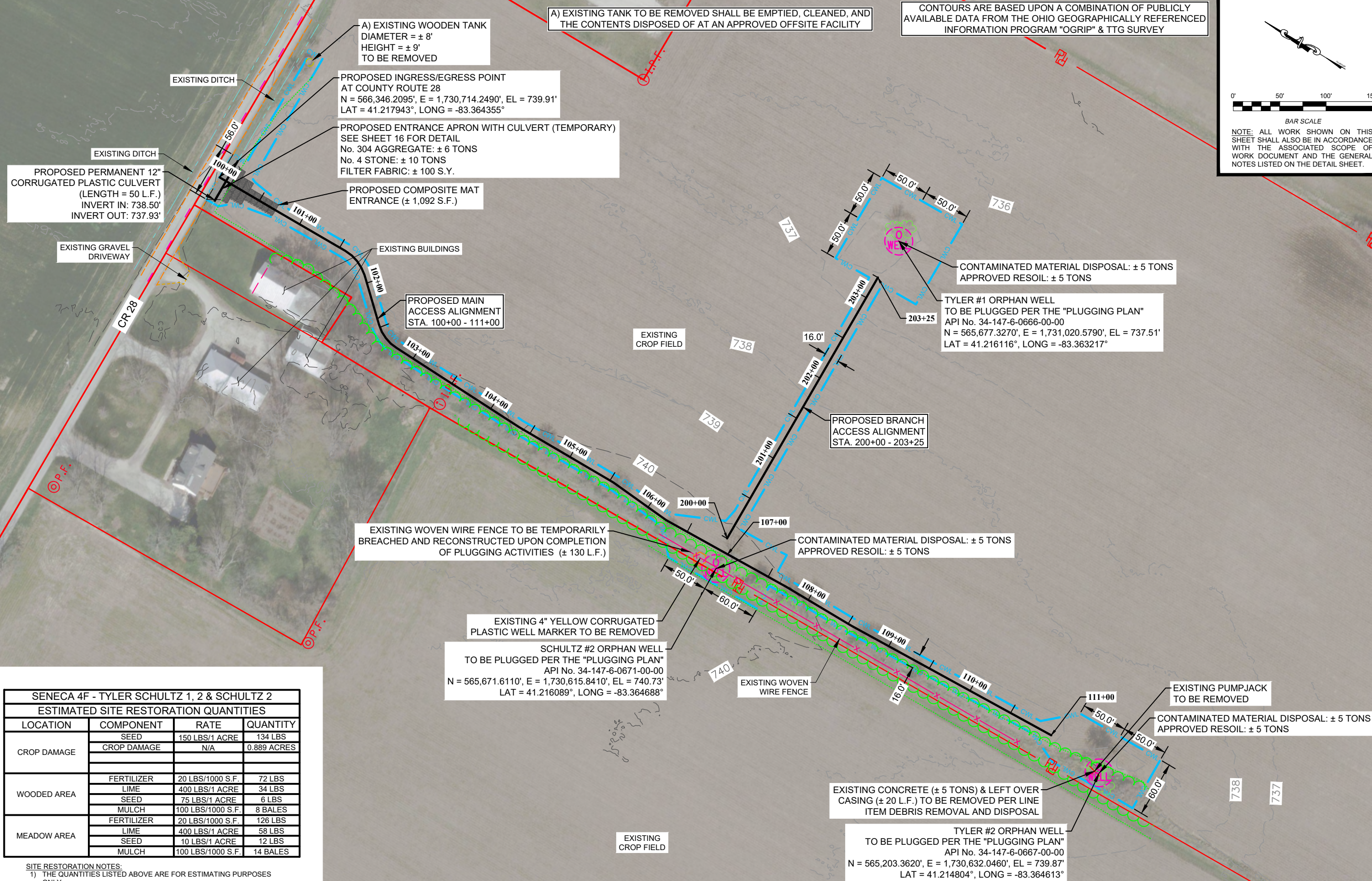
SENECA 4F
MULTIPLE
ORPHAN WELL SITES

REVISION	
DESIGN UNIT	THRASHER
DRAWN BY: D.M.P.	
CHECKED BY: J.C.A.	
DATE: 02/17/2026	
SHEET NO.	
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EDIT DATE: 2/16/2026 3:47 PM EDIT BY: DPARKES DRAWING FILE: R:\070\770-11809.00 ODNR SENECA #4\DRAWING\11809-TYLER1,2-SCHULTZ2.DWG

SENECA 4F - TYLER SCHULTZ 1, 2 & SCHULTZ 2			
ESTIMATED SITE RESTORATION QUANTITIES			
LOCATION	COMPONENT	RATE	QUANTITY
CROP DAMAGE	SEED	150 LBS/1 ACRE	134 LBS
	CROP DAMAGE	N/A	0.889 ACRES
WOODED AREA	FERTILIZER	20 LBS/1000 S.F.	72 LBS
	LIME	400 LBS/1 ACRE	34 LBS
	SEED	75 LBS/1 ACRE	6 LBS
	MULCH	100 LBS/1000 S.F.	8 BALES
MEADOW AREA	FERTILIZER	20 LBS/1000 S.F.	126 LBS
	LIME	400 LBS/1 ACRE	58 LBS
	SEED	10 LBS/1 ACRE	12 LBS
	MULCH	100 LBS/1000 S.F.	14 BALES

- SITE RESTORATION NOTES:
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 - 3) THE CONTRACTOR SHALL COORDINATE ALL CROP DAMAGE PAYMENTS AND REIMBURSEMENTS WITH THE DIVISION PRIOR TO INVOICING.





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TYLER 1, 2
& SCHULTZ 2
SITE PLAN

SENECA 4F
MULTIPLE
ORPHAN WELL SITES

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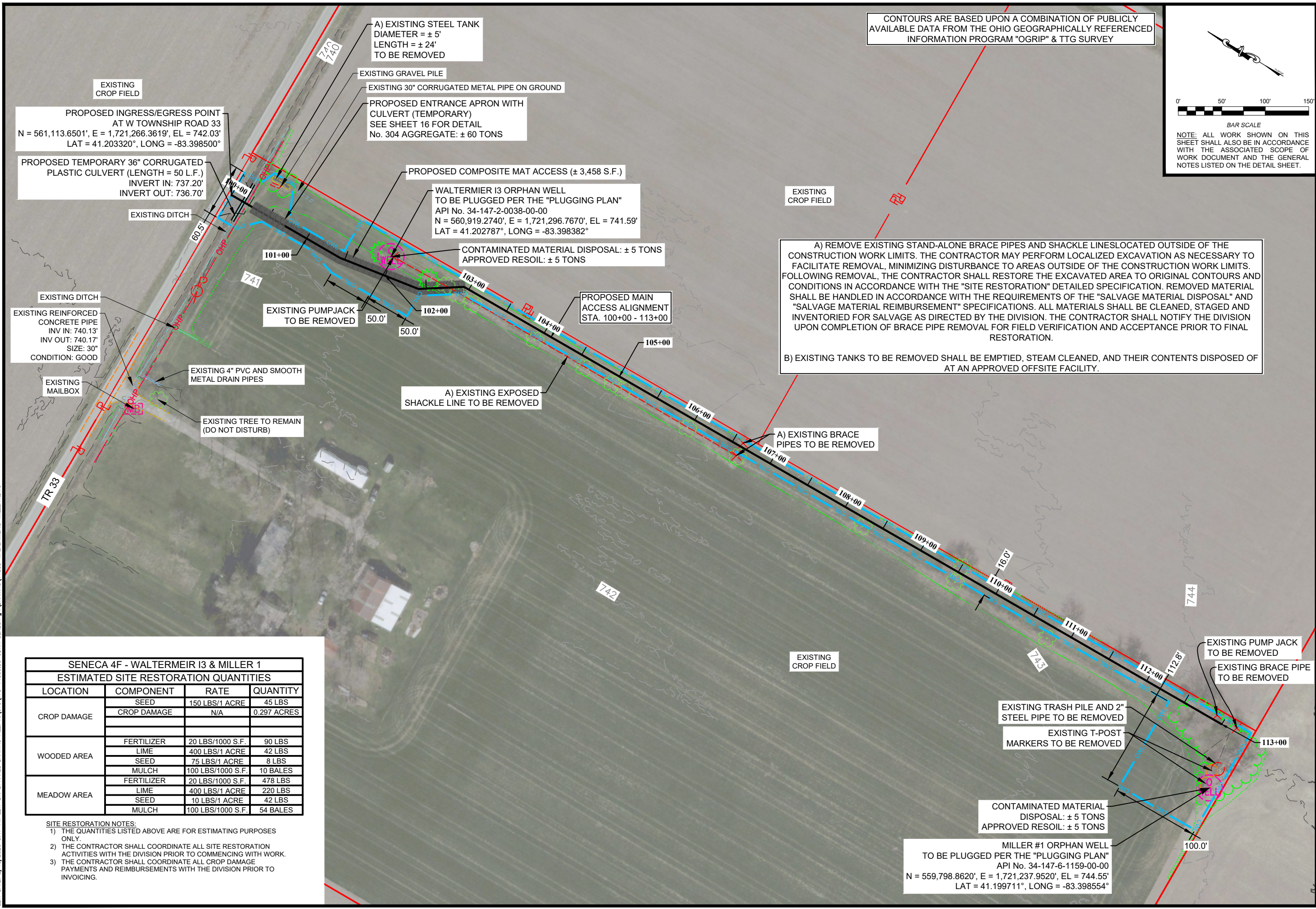
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DATE: 02/17/2026

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EDIT DATE: 2/16/2026 3:47 PM EDIT BY: DPHARKES DRAWING FILE: R:\070\770-11809.00 ODNR SENECA #4\DRAWING\11809-WALTERMEIR3-MILLER1.DWG



SENECA 4F - WALTERMEIR I3 & MILLER 1			
ESTIMATED SITE RESTORATION QUANTITIES			
LOCATION	COMPONENT	RATE	QUANTITY
CROP DAMAGE	SEED	150 LBS/1 ACRE	45 LBS
	CROP DAMAGE	N/A	0.297 ACRES
WOODED AREA	FERTILIZER	20 LBS/1000 S.F.	90 LBS
	LIME	400 LBS/1 ACRE	42 LBS
	SEED	75 LBS/1 ACRE	8 LBS
	MULCH	100 LBS/1000 S.F.	10 BALES
MEADOW AREA	FERTILIZER	20 LBS/1000 S.F.	478 LBS
	LIME	400 LBS/1 ACRE	220 LBS
	SEED	10 LBS/1 ACRE	42 LBS
	MULCH	100 LBS/1000 S.F.	54 BALES

- SITE RESTORATION NOTES:
- 1) THE QUANTITIES LISTED ABOVE ARE FOR ESTIMATING PURPOSES ONLY.
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 - 3) THE CONTRACTOR SHALL COORDINATE ALL CROP DAMAGE PAYMENTS AND REIMBURSEMENTS WITH THE DIVISION PRIOR TO INVOICING.

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WALTERMEIR I3
& MILLER 1
SITE PLAN

SENECA 4F
MULTIPLE
ORPHAN WELL SITES

REVISION	DATE	BY	DESCRIPTION

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GENERAL NOTES:

- UTILITY LINES AND APPURTENANCES ARE SHOWN AS LOCATED IN THE FIELD AND/OR AS REPORTED BY THE RESPECTIVE OWNERS. NEITHER THE NUMBER, TYPE, SIZE, OR LOCATION CAN BE GUARANTEED, AND IT IS THEREFORE, THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL UTILITY LOCATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATELY PROTECTING THE EXISTING BURIED UTILITIES AND CURB & GUTTER DURING CONSTRUCTION. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO LINE ITEM "MOBILIZATION".**
- THE HORIZONTAL DATUM IS BASED ON NAD83 (2011) OHIO STATE PLANE NORTH 3401, AND THE VERTICAL DATUM IS BASED ON NAVD88 GEOID 12A CORS DERIVED.
- PHOTO IMAGE DATE OBTAINED FROM OHIO GEOGRAPHICALLY REFERENCED INFORMATION PROGRAM (OGRIIP) FROM THE OHIO STATEWIDE IMAGERY PROGRAM (OSIP III).
- THE CONTRACTOR SHALL WORK WITHIN THE WORK LIMITS AT ALL TIMES DURING CONSTRUCTION.
- TRAFFIC CONTROLS SHALL BE IN ACCORDANCE WITH THE DETAILED SPECIFICATIONS FOR "MOBILIZATION" & "DEMOBILIZATION".
- A FLAGGER IN EACH DIRECTION SHALL BE USED WHEN MATERIALS ARE BEING UNLOADED WITHIN THE ROAD RIGHT OF WAY.
- TREE AND OVERHANGING LIMB REMOVAL SHALL BE AS DESIGNATED BY THE DIVISION. REMOVALS SHALL PROVIDE THE CONTRACTOR WITH ADEQUATE SPACE REQUIRED TO COMPLETE THE PROJECT. TRIMMING OF TREES SHALL BE CONSIDERED INCIDENTAL TO LINE ITEMS AS SPECIFIED.
- THE DIVISION MUST BE PRESENT DURING ALL CLEARING OPERATIONS. NO TREES ARE TO BE REMOVED UNLESS DESIGNATED BY THE DIVISION.
- ALL SUITABLE DEBRIS CLEARED SHALL BE CHIPPED BY MECHANICAL METHODS AND MULCH SHALL BE STOCKPILED/SPREAD ONSITE IN THE LOCATIONS DESIGNATED BY THE DIVISION'S REPRESENTATIVE PER THE DETAILED SPECIFICATION FOR "CLEARING & GRUBBING".
- ALL STONE PLACED USING SIX (6) INCH MAXIMUM LIFTS, SHALL BE COMPACTED WITH A MINIMUM OF THREE (3) PASSES PER LIFT USING ONSITE EQUIPMENT.
- AT THE DISCRETION OF THE DIVISION, ALL STONE, FABRIC AND/OR GEOGRID SHOWN ON THE SITE PLAN SHEET(S) AS TEMPORARY SHALL BE REMOVED UPON COMPLETION OF THE PROJECT AND RESTORED PER LINE ITEM "SITE RESTORATION".
- THE CONTRACTOR SHALL COORDINATE ALL WORK ASSOCIATED WITH CROSSING THE GAS LINE(S) SHOWN ON SHEETS 6 AND 9 WITH THE UTILITY OWNER PRIOR TO MOBILIZING EQUIPMENT. A QUANTITY OF TIMBER MATS HAS BEEN LISTED ON THE QUANTILY SHEET FOR THESE PURPOSES. TIMBER MATS SHALL BE PLACED AT THE DISCRETION OF THE UTILITY OWNER. WHETHER MATS ARE REQUIRED TO BE PLACED DIRECTLY OVERTOP OF THE UTILITY AND/OR PLACED AS AN AIR BRIDGE, PAYMENT WILL BE MADE PER LINE ITEM "TIMBER MATS".**
- ALL COMPOSITE MATTING INSTALLED SHALL BE INTERLOCKED PER THE MANUFACTURER'S REQUIREMENTS. IN AREAS WHERE POOR SUBGRADE IS ENCOUNTERED MATS CAN BE STACKED OVER TOP OF ONE ANOTHER AT THE DISCRETION OF THE DIVISION.
- THE WORK LIMITS AND CORRESPONDING SEDIMENT CONTROLS ALONG THE STREAM FOR THE PAINTER MIKE 1 SITE WILL BE DETERMINED IN THE FIELD BY THE DIVISION THROUGHOUT CONSTRUCTION.
- SEDIMENT CONTROLS SHALL BE PLACED AT THE DISCRETION OF THE DIVISION.
- NO WORK INSIDE THE BOUNDS OF THE ORDINARY HIGH WATER MARK SHALL TAKE PLACE BETWEEN MARCH 15TH AND JUNE 30TH UNLESS OTHERWISE SPECIFIED BY THE DIVISION. (NOTE: THIS IS TO MINIMIZE IMPACT ON SPAWNING/MIGRATING FISH SPECIES)
- INSTREAM REQUIREMENTS SHALL BE CONSTRUCTED IN SUCH A TIMEFRAME WHERE THE CONTRACTOR IS PREPARED TO BEGIN PLUGGING OPERATIONS IMMEDIATELY FOLLOWING THE STREAM CONSTRUCTION WORK.
- THE ONLY FILL PERMITTED IN THE STREAM CHANNEL SHOULD BE CLEAN AGGREGATE, STONE OR ROCK. NO SOIL OR OTHER FINE ERODIBLE MATERIAL SHALL BE PLACED IN THE CHANNEL.
- ALL DISTURBED AREAS ALONG THE STREAM CHANNEL SHALL BE IMMEDIATELY STABILIZED UPON INSTALLATION/REMOVAL OF THE STREAM CRIBBING.
- UPON REMOVAL OF THE STREAM CRIBBING, THE STREAM BANK SHALL BE RESTORED TO ITS' ORIGINAL ALIGNMENT AND GRADE. RESTORATION SHALL NOT RESULT IN A NARROWER CHANNEL OR FLOW RESTRICTION.



W21-1
(500' FROM W20-7,
BOTH SIDES OF THE
ENTRANCE)

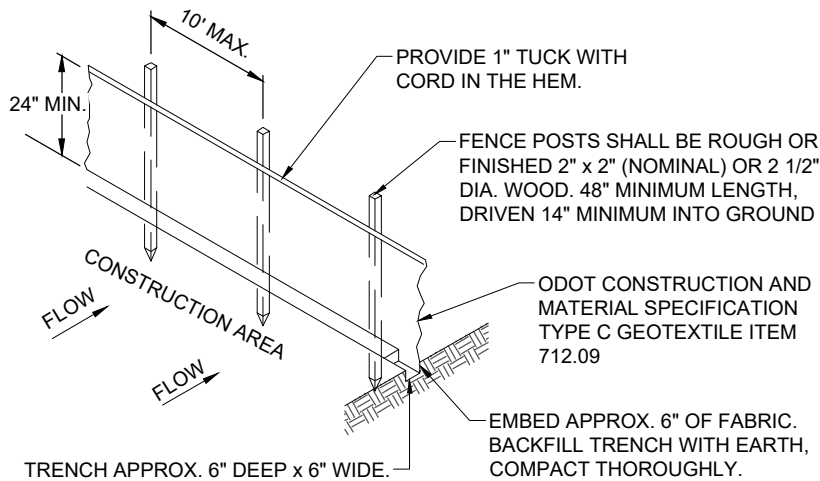


W20-7
COVER OR TURN DURING EVENINGS
OR WHEN BOTH LANES ARE OPEN
(500' FROM FLAGGER, BOTH SIDES OF
ENTRANCE)

NOTES:

- THIS WORK SHALL BE PER THE GENERAL SPECIFICATIONS, PART 7: MAINTENANCE OF TRAFFIC AND SHALL BE INCIDENTAL TO LINE ITEM "MOBILIZATION" FOR EACH SITE, UNLESS OTHERWISE NOTED. **THIS WORK SHALL INCLUDE ALL REQUIRED PERMITS FROM THE LOCAL ROAD AUTHORITIES.**
- ALL SIGNS MAY BE MOUNTED PORTABLE MOUNTS.
- CONTRACTOR SHALL FOLLOW THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FIGURE 6H-1, IN BOTH DIRECTIONS ALONG THE ROADWAY. W21-1 SHALL BE IN PLACE AS SOON AS THE CONTRACTOR ARRIVES TO THE SITE EACH DAY.
- CONTRACTOR SHALL FOLLOW THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FIGURE 6H-13, LANE CLOSURE ON A TWO-LANE ROAD USING FLAGGERS (TA-13).
- FLAGGERS SHALL HAVE PROPER COMMUNICATION DEVICES AND SHALL BE POSITIONED 20' FROM EACH EDGE OF THE CONSTRUCTION WORK LIMITS. ANY VARIATION MUST BE APPROVED PER LOCATION. **TEMPORARY CLOSURES SHALL NOT BE COMPLETED WITHOUT A FLAGGER.**
- TEMPORARY CLOSURES SHALL BE MINIMIZED TO LESS THAN 20 MINUTES AND THEN THE ROAD SHALL BE FULLY REOPENED TO TRAFFIC.
- ANY WORK IN THE ROADWAY THAT IS REQUIRING MORE THAN 20 MINUTES SHALL BE COMPLETED PER GENERAL SPECIFICATIONS, PART 7: MAINTENANCE OF TRAFFIC WITH THE PROPER PERMITS FROM THE LOCAL ROAD AUTHORITIES AND APPROVAL FROM THE DIVISION.

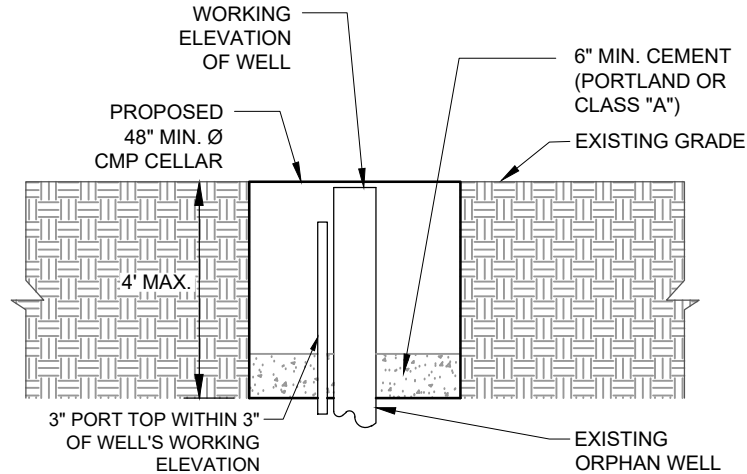
FLAGGER & CONSTRUCTION SIGNAGE NOTES
NOT TO SCALE



NOTES:

- FABRIC TO BE FASTENED SECURELY TO FENCE POST AS PER MANUFACTURER'S RECOMMENDATIONS.
- ENDS OF INDIVIDUAL ROLLS OF FABRIC SHALL BE SECURELY FASTENED TO A COMMON POST OR OVERLAPPED 3" MIN.

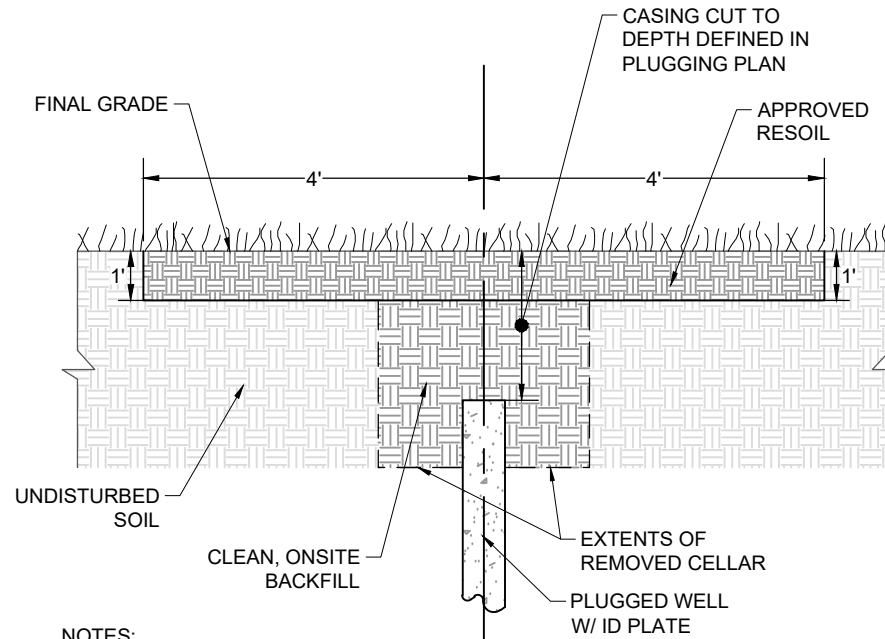
SILT FENCE DETAIL
NOT TO SCALE



NOTES:

- ALL WORK & MATERIAL ASSOCIATED WITH THE INSTALLATION & REMOVAL OF THE CELLAR SHALL BE CONSIDERED INCIDENTAL TO LINE ITEM "WELL HEAD CONTROL".

TEMPORARY CELLAR
NOT TO SCALE



NOTES:

- ANY REMOVED MATERIAL FROM AROUND THE WELL HEAD SHALL BE SEGREGATED TO PREVENT ADDITIONAL CONTAMINATION.
- ONCE THE WELL IS CUT BELOW GRADE, AN EIGHT (8) FOOT BY EIGHT (8) FOOT AREA, ONE (1) FOOT DEEP SHALL BE EXCAVATED AROUND THE WELL HEAD & REPLACED WITH "APPROVED RESOIL".
- REMOVED MATERIAL SHALL BE DISPOSED OF PER LINE ITEM "CONTAMINATED MATERIAL DISPOSAL".
- PRIOR TO DELIVERY TO THE SITE OF "APPROVED RESOIL", ON SITE TOPSOIL MAY BE UTILIZED AT THE APPROVAL OF THE DIVISION
- ALL WORK NOT INCLUDED IN "APPROVED RESOIL" OF "CONTAMINATED MATERIAL DISPOSAL" SHALL BE INCIDENTAL TO LINE ITEM 'SITE RESTORATION'.

WELL RESTORATION SECTION
NOT TO SCALE



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DETAILS

SENECA 4F
MULTIPLE
ORPHAN WELL SITES

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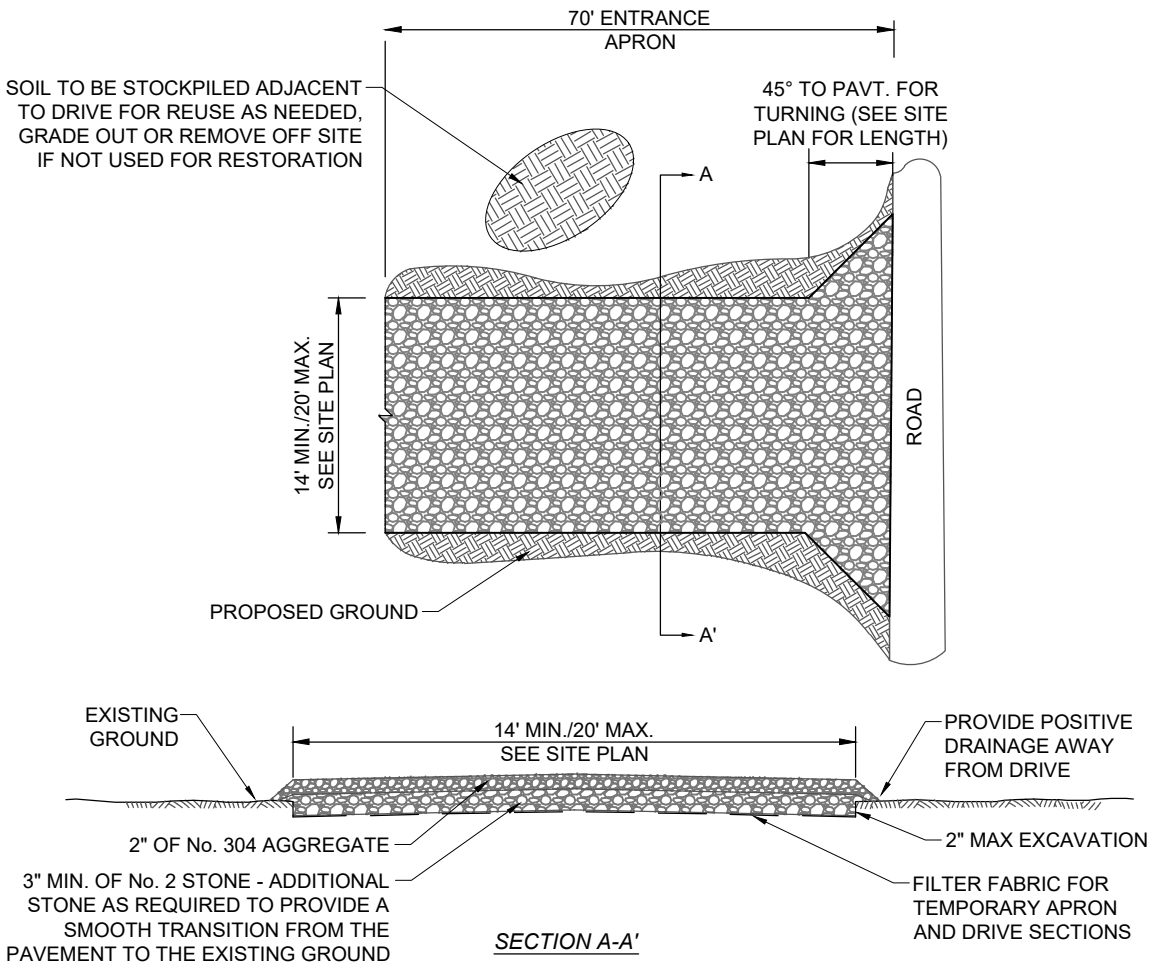
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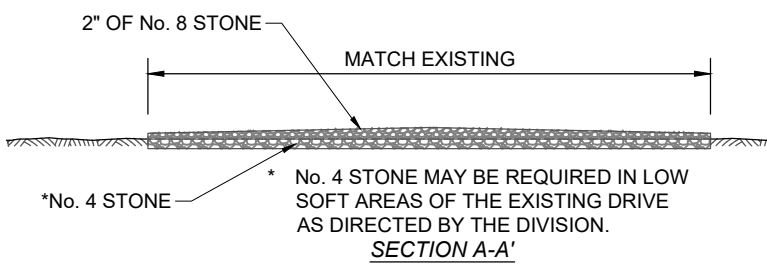
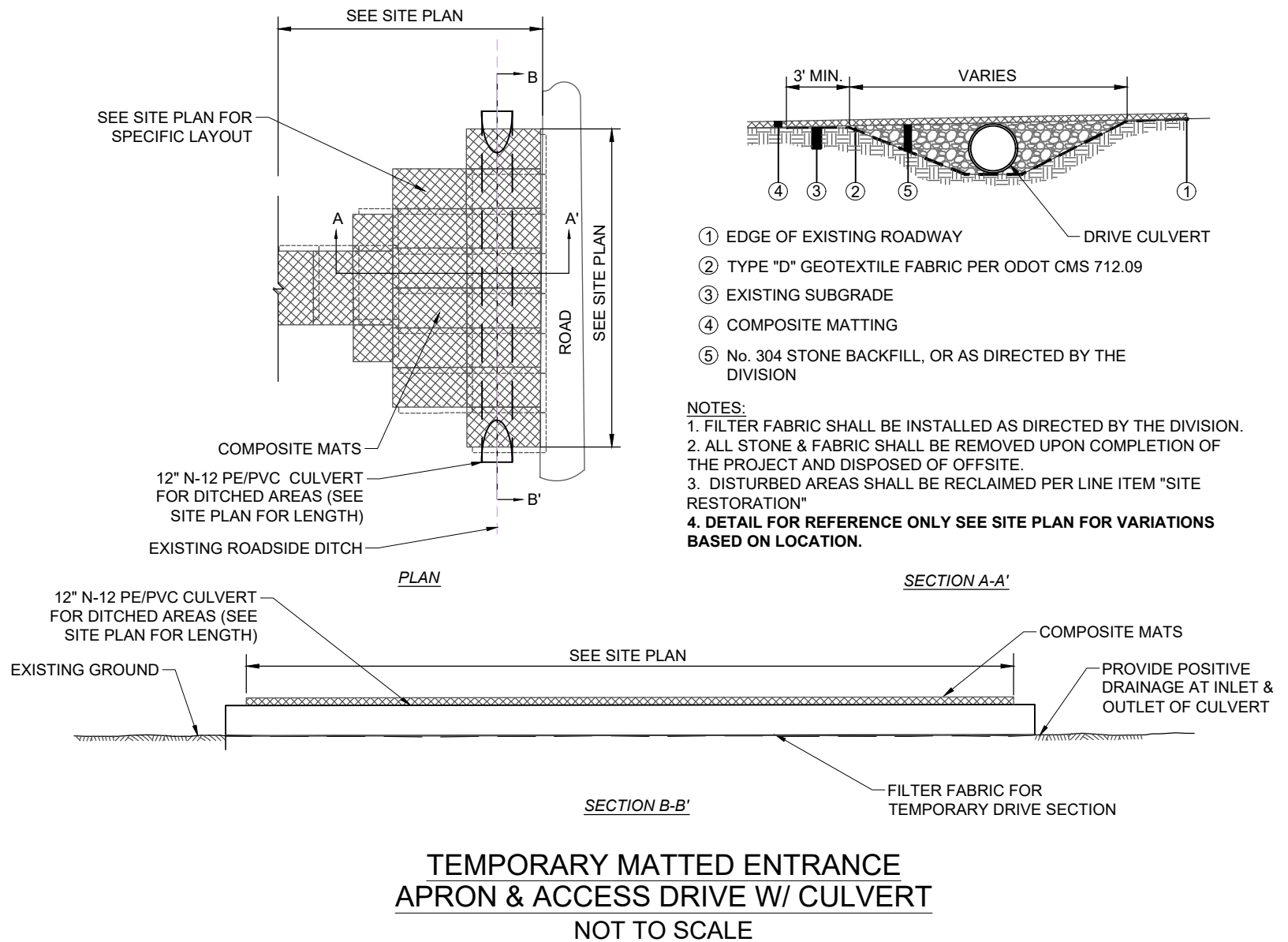
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TEMPORARY / PERMANENT ENTRANCE APRON & ACCESS DRIVE
NOT TO SCALE

- NOTES:
1. APRONS DESIGNATED AS "PERMANENT" ON THE PLAN SHEETS SHALL REMAIN IN PLACE. THE LAST 20' OF EACH APRON SHALL BE TAPERED TO MATCH THE EXISTING DRIVE WIDTH AS SHOWN ON THE PLANS. ANY SOIL STOCKPILED WITHIN THESE AREAS SHALL BE REGRADED TO CREATE POSITIVE DRAINAGE AWAY FROM THE DRIVE OR REMOVED FROM THE SITE.
 2. APRONS DESIGNATED AS "TEMPORARY" ON THE PLAN SHEETS SHALL BE REMOVED UPON PROJECT COMPLETION. ANY SOIL STOCKPILED WITHIN THESE AREAS SHALL BE USED TO RESTORE THE SITE TO EXISTING CONDITIONS.
 3. PLACE BASE STONE AS NEEDED ALONG THE EDGE OF EXISTING DRIVES OR IN LOW/SOFT AREAS AS DIRECTED BY THE DIVISION.

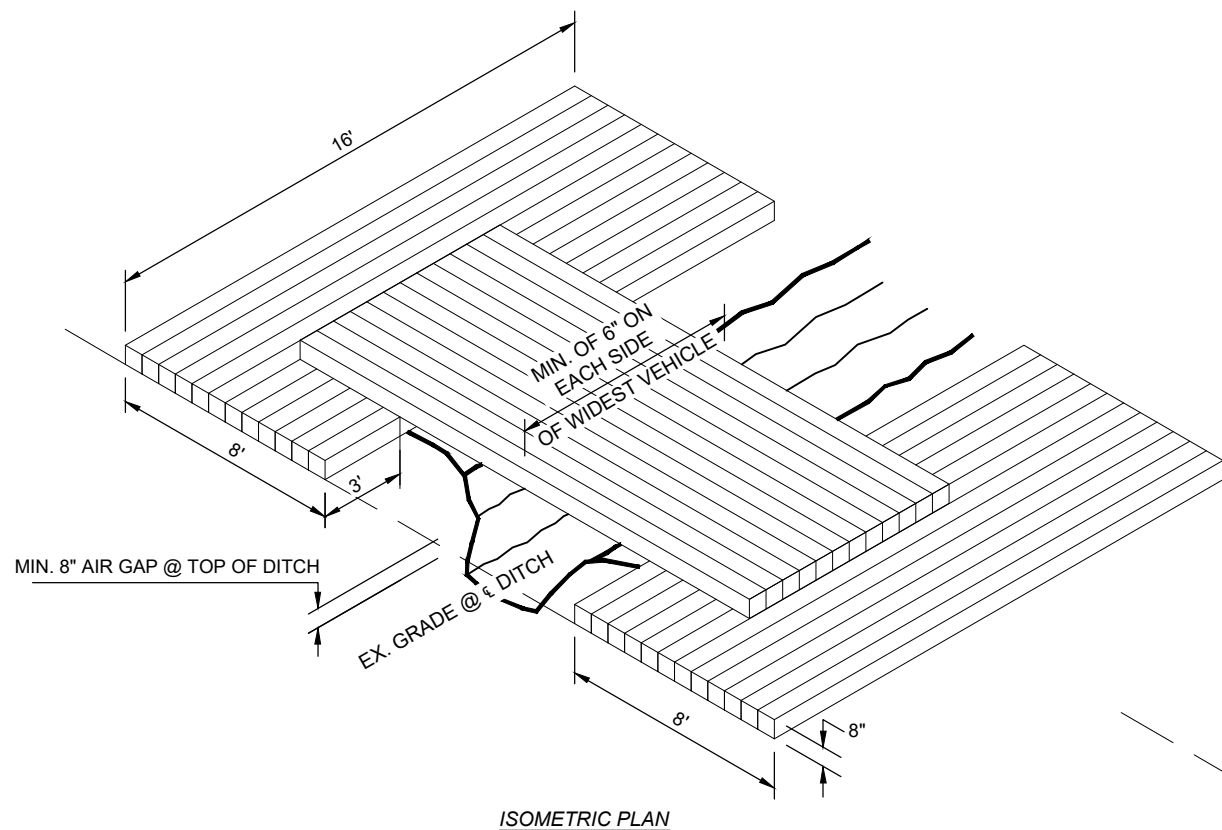


- NOTE:
- THE EXISTING DRIVE WILL BE THE ONLY ACCESS TO THE PROJECT SITES. ACCESS FOR THE LANDOWNER SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT. AT THE DISCRETION OF THE DIVISION, No. 57 STONE SHALL BE PLACED ON THE EXISTING DRIVE UPON COMPLETION OF THE PROJECT. ALL OTHER ACCESS AREAS SHALL BE RESTORED PER LINE ITEM "SITE RESTORATION".

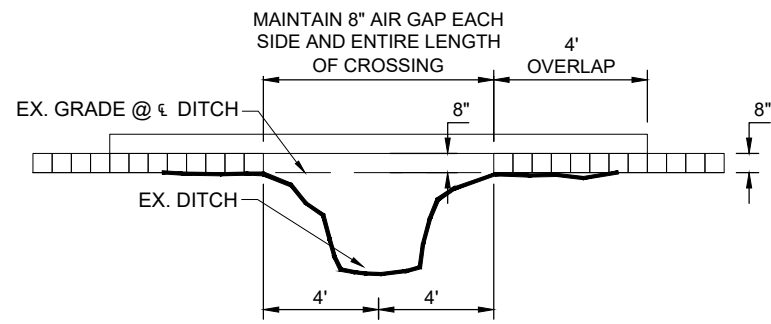
DRIVE ACCESS OVERLAY
NOT TO SCALE

-
- 3' MIN.
- VARIES
- 1 2 3 4 5
- 1 EDGE OF EXISTING ROADWAY
- 2 TYPE "D" GEOTEXTILE FABRIC PER ODOT CMS 712.09
- 3 EXISTING SUBGRADE
- 4 COMPOSITE MATTING
- 5 No. 304 STONE BACKFILL, OR AS DIRECTED BY THE DIVISION
- DRIVE CULVERT
- NOTES:
1. FILTER FABRIC SHALL BE INSTALLED AS DIRECTED BY THE DIVISION.
 2. ALL STONE & FABRIC SHALL BE REMOVED UPON COMPLETION OF THE PROJECT AND DISPOSED OF OFFSITE.
 3. DISTURBED AREAS SHALL BE RECLAIMED PER LINE ITEM "SITE RESTORATION"
 4. DETAIL FOR REFERENCE ONLY SEE SITE PLAN FOR VARIATIONS BASED ON LOCATION.

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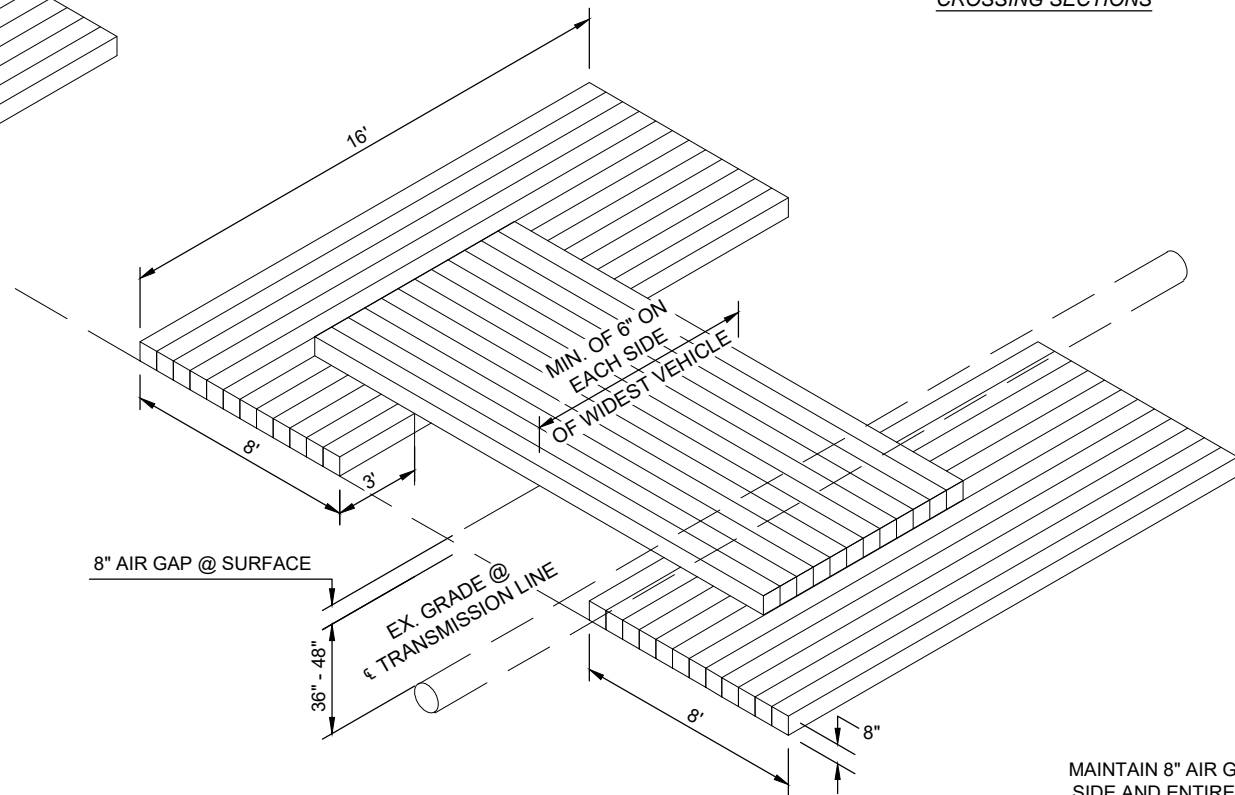


ISOMETRIC PLAN

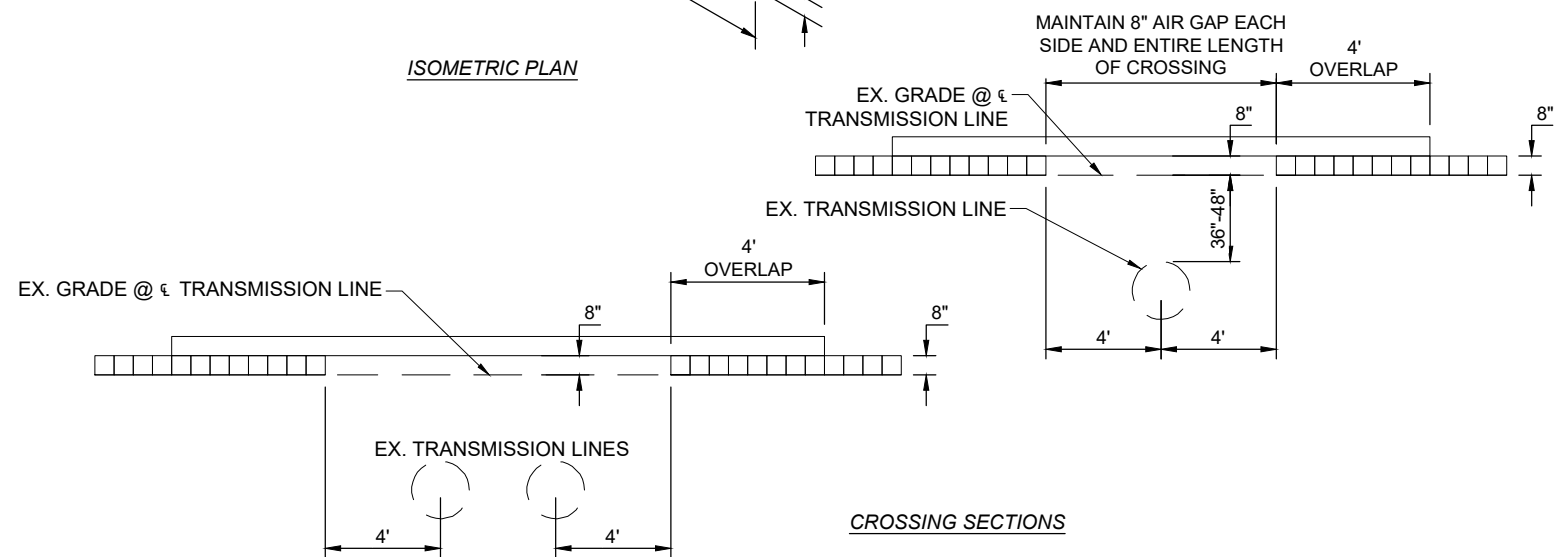


CROSSING SECTION

STANDARD AIRBRIDGE OVER DITCH
NOT TO SCALE



ISOMETRIC PLAN



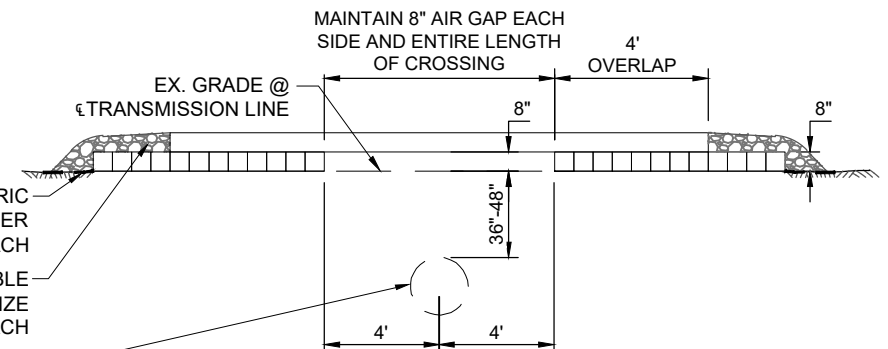
CROSSING SECTIONS

STANDARD AIRBRIDGE OVER UTILITIES
NOT TO SCALE

TYPE "D" GEOTEXTILE FABRIC
PER ODOT CMS 712.09 UNDER
STONE PER EACH APPROACH
INSTALL STONE OR SUITABLE
SITE MATERIAL TO STABILIZE
AIRBRIDGE PER EACH APPROACH

EX. TRANSMISSION LINE

CROSSING SECTIONS



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DETAILS

SENECA 4F
MULTIPLE
ORPHAN WELL SITES

REVISION

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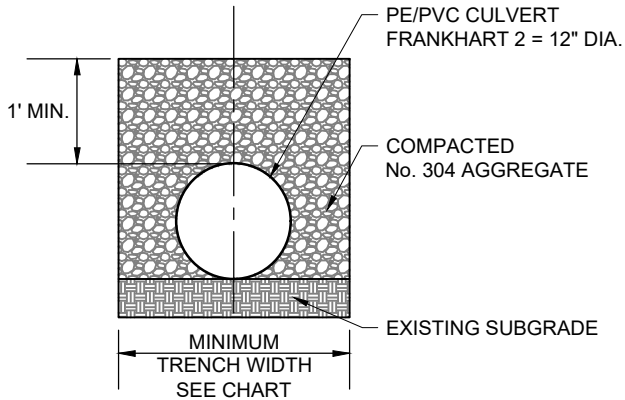
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MINIMUM TRENCH WIDTHS (N-12 PER AASHTO)	
PIPE DIA.	MIN. TRENCH WIDTH
4"	21"
6"	23"
8"	26"
10"	28"
12"	30"
15"	34"
18"	39"
24"	48"
30"	56"
36"	64"
42"	72"
48"	80"
60"	96"

- NOTES:
1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE CONDITION OF THE ACCESS ROAD FOR THE DURATION OF THE PROJECT.
 2. ALL STONE INSTALLED SHALL BE COMPACTED IN PLACE TO THE SATISFACTION OF THE DIVISION. No. 304 AGGREGATE INSTALLED SURROUNDING THE PIPE SHALL BE COMPACTED USING A VIBRATORY PLATE COMPACTOR AS DESCRIBED IN THE DETAILED SPECIFICATIONS FOR "No. 304 AGGREGATE".
 3. EXCAVATION SHALL BE TO A MINIMUM DEPTH OF 1' BELOW THE BOTTOM OF THE CULVERT PIPE.
 4. CULVERT PIPE SHALL BE INSTALLED IN ACCORDANCE WITH DETAILED SPECIFICATION. EXCAVATION & DISPOSAL OF THE EXISTING CULVERT(S) SHALL BE CONSIDERED INCIDENTAL TO SITE RESTORATION.

CULVERT TRENCH DETAIL
NOT TO SCALE



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SCOPE OF WORK

Quantity Sheet

Seneca 4F Project

Seneca County, Multiple Townships

Multiple Wells - See SOW Project Description Page

Well Names

APIs



Line	Item	Description	Unit	Type	Cost	Qty	Estimate Total
Phase 1: Mobilization and Access							
1	1100	Mobilization	Each	Material		11.00	
2	1110	Demobilization	Each	Material		11.00	
3	1140	Clearing & Grubbing (Tyler 1 & 2_ Schultz	Each	Material		1.00	
4	1140	Clearing & Grubbing (Waltermier 13 & Mil	Each	Material		1.00	
5	1150	Filter Fabric	Sq. Yd.	Material		300.00	
6	1160	Silt Fence	Linear Ft.	Material		280.00	
7	1230	No. 4 Stone	Ton	Material		60.00	
8	1250	No. 8 Stone	Ton	Material		200.00	
9	1260	No. 304 Aggregate Base	Ton	Material		150.00	
10	1410	12" PE/PVC Culvert	Linear Ft.	Material		200.00	
11	1410	36" PE/PVC Culvert	Linear Ft.	Material		75.00	
12	1510	Road Mats	Sq. Ft.	Material		89733.00	
13	1570	Timber Mats	Sq. Ft.	Material		640.00	
14	1620	Airbridge w/Abutments	Each	Material		2.00	
15	1640	Portable Bridge	Each	Material		2.00	
Phase 2: Well Site Safety							
16	2100	Site Safety	Each	Material		25.00	
17	2120	Absorbent Booms	Linear Ft.	Material		240.00	
18	2130	Secondary Containment	Each	Material		25.00	
19	2160	Well Head Control	Each	Material		25.00	
20	2171	Well Kill Fluid	BBL	Material		1030.00	
21	2230	Conductor Casing (10.75")	Linear Ft.	Material		500.00	
22	2230	Conductor Casing (13.375")	Linear Ft.	Material		40.00	
23	2240	Surface Casing (5.5")	Linear Ft.	Material		1085.00	
24	2240	Surface Casing (7")	Linear Ft.	Material		385.00	
Phase 3: Plugging							
25	3100	Well Preparation & Plugging (Ashland Fai	Each	Material		1.00	
26	3100	Well Preparation & Plugging (Frankhart 2	Each	Material		1.00	
27	3100	Well Preparation & Plugging (Jerald 2) (E	Each	Material		1.00	
28	3100	Well Preparation & Plugging (Good 1) (E)	Each	Material		1.00	
29	3100	Well Preparation & Plugging (Good 2) (E)	Each	Material		1.00	
30	3100	Well Preparation & Plugging (Good 3) (E)	Each	Material		1.00	
31	3100	Well Preparation & Plugging (Good 4) (E)	Each	Material		1.00	
32	3100	Well Preparation & Plugging (Good 5) (E)	Each	Material		1.00	
33	3100	Well Preparation & Plugging (Good 6) (E)	Each	Material		1.00	
34	3100	Well Preparation & Plugging (Good 7) (E)	Each	Material		1.00	
35	3100	Well Preparation & Plugging (Good 8) (E)	Each	Material		1.00	
36	3100	Well Preparation & Plugging (Good 9) (E)	Each	Material		1.00	
37	3100	Well Preparation & Plugging (Good 10) (E	Each	Material		1.00	
38	3100	Well Preparation & Plugging (Good 11) (E	Each	Material		1.00	
39	3100	Well Preparation & Plugging (Jerald 3) (E)	Each	Material		1.00	
40	3100	Well Preparation & Plugging (Kleinfelter I	Each	Material		1.00	
41	3100	Well Preparation & Plugging (Miller 2) (E)	Each	Material		1.00	
42	3100	Well Preparation & Plugging (Painter Mik	Each	Material		1.00	
43	3100	Well Preparation & Plugging (Richard Cra	Each	Material		1.00	
44	3100	Well Preparation & Plugging (Tyler 1) (EA	Each	Material		1.00	
45	3100	Well Preparation & Plugging (Tyler 2) (EA	Each	Material		1.00	
46	3100	Well Preparation & Plugging (Jerald 1) (E)	Each	Material		1.00	
47	3100	Well Preparation & Plugging (Schultz 2) (I	Each	Material		1.00	
48	3100	Well Preparation & Plugging (Waltermier 13	Each	Material		1.00	
49	3100	Well Preparation & Plugging (Miller 1) (E)	Each	Material		1.00	
50	3240	Logging (GR/CCL/Temp/Bond/Caliper)	Each	Material		2.00	
51	3310	Tubing	Each	Material		1.00	
52	3340	Approved Cement (Sack)	Each	Material		6300.00	
53	3350	Cement Mixing & Pumping	Each	Material		80.00	
Phase 4: Site Clean-up and Restoration							
54	4100	Site Restoration (Ashland Farms 1)	Each	Material		1.00	
55	4100	Site Restoration (Frankhart 2)	Each	Material		1.00	
56	4100	Site Restoration (Jerald 2)	Each	Material		1.00	
57	4100	Site Restoration (Good 1-11)	Each	Material		1.00	
58	4100	Site Restoration (Jerald 1 & 3)	Each	Material		1.00	

59	4100	Site Restoration (Kleinfelter Farms 1)	Each	Material	1.00		
60	4100	Site Restoration (Miller 2)	Each	Material	1.00		
61	4100	Site Restoration (Painter Mike 1)	Each	Material	1.00		
62	4100	Site Restoration (Richard Crawford 1)	Each	Material	1.00		
63	4100	Site Restoration (Tyler 1 & 2 & Schultz 2)	Each	Material	1.00		
64	4100	Site Restoration (Waltermier I3 & Miller 1)	Each	Material	1.00		
65	4160	Approved Resoil	Ton	Material	125.00		
66	4420	Contaminated Material Disposal	Ton	Material	125.00		
67	4440	Salvage Material Disposal	Each	Material	1.00		
68	4460	Fluid Disposal	BBL	Material	2500.00		
69	4470	Debris Removal and Disposal	Ton	Material	20.00		
Fixed Costs							
70	0800	Salvage Material Reimbursement	Each	Material	\$0.00	0.00	\$0.00
71	0810	Crop Damage (Corn)	Acre	Material	\$925.00	8.36	\$7,733.00
72	0820	Crop Damage (Soybean)	Acre	Material	\$636.00	8.36	\$5,316.96
73	0830	Crop Damage (Wheat)	Acre	Material	\$516.00	8.36	\$4,313.76
Contingency							
74	1220	No. 2 Stone	Ton	Material	60.00		
75	2140	H2S Safety Team	Day	Material	15.00		
76	2150	H2S Safety Team Standby	Day	Material	10.00		
77	2181	Additional Circulation Fluid (Freshwater)	BBL	Material	200.00		
78	2191	Additional Circulation Fluid (Brine)	BBL	Material	200.00		
79	2360	Downhole Videography	Each	Material	2.00		
80	3140	Fishing	Hour	Material	160.00		
81	3160	Milling/Drillout	Hour	Material	160.00		
82	3170	Magnet	Each	Material	2.00		
83	3240	Logging (GR/CCL/Temp/Bond/Caliper)	Each	Material	3.00		
84	3250	Shooting	Each	Material	5.00		
85	3260	Perforating	Each	Material	5.00		
86	3320	Tubing - 1 inch	Linear Ft.	Material	1.00		
87	3380	Nine Sack Grout	Cubic Yd.	Material	25.00		
88	3450	Lost Circulation Materials (Sack)	Each	Material	50.00		
89	3470	Saltwater Drilling Mud (Sack)	Each	Material	50.00		
90	3480	Hydrogen Sulfide Scavenger	Gallons	Material	25.00		

Note: This quantity sheet is provided for reference only. The Contractor's Offer must be submitted online through OhioBuys (<https://procure.ohio.gov/bidders-and-suppliers>). Quantities are only an estimate. Payment shall be based on quantities satisfactorily completed.

Each contractor is responsible for logging into OhioBuys and submitting an offer that is responsive to all amendments issued. All offers submitted prior to an amendment being issued shall become null/void and not considered in the opening. All amendments shall become part of the Scope of Work.