SCOPE OF WORK
HANCOCK #3 PROJECT
Multiple Orphan Well Sites
Hancock County, Multiple Townships

PROJECT DESCRIPTION

The Hancock #3 project shall include the following wells:

Well Name	API Number	County	Township	GPS Latitude	GPS Longitude
Jim Spurgat #1	34-063-6-2327-00-00	Hancock	Eagle	40.991413	-83.759219
Jim Spurgat #2	34-063-6-2330-00-00	Hancock	Eagle	40.988987	-83.759218
Jim Spurgat #3	34-063-6-2328-00-00	Hancock	Eagle	40.990417	-83.760651
Frank Fried #5	34-063-6-2329-00-00	Hancock	Eagle	40.990391	-83.759214
Ellerbrock #1	34-063-6-7327-00-00	Hancock	Eagle	40.979511	-83.740379
Ellerbrock #2	34-063-6-7328-00-00	Hancock	Eagle	40.979480	-83.742207
Ellerbrock #3	34-063-6-7329-00-00	Hancock	Eagle	40.979394	-83.744494
Dixie Farms #1	34-063-6-7346-00-00	Hancock	Eagle	40.976305	-83.747545
Welch Family Trust #1	34-063-6-7336-00-00	Hancock	Eagle	40.976435	-83.755718
Clair Hartman #1	34-063-6-7310-00-00	Hancock	Eagle	40.966468	-83.758364
Elsea #1	34-063-6-7345-00-00	Hancock	Eagle	40.954016	-83.698792
Virgil Cotner #1	34-063-6-7311-00-00	Hancock	Eagle	40.956884	-83.687682
Me and Hers LLC #1	34-063-6-7343-00-00	Hancock	Eagle	40.967328	-83.651911
Mitchell Trust #1	34-063-6-7335-00-00	Hancock	Jackson	40.954144	-83.615494

PROJECT SCOPE OF WORK:

This project includes the development of the well location, plugging the orphan well and restoration of areas disturbed as part of the plugging and abandonment process.

PROJECT DIRECTIONS:

Jim Spurgat #1, #2, & #3; Frank Fried #5:
From the intersection of Lima Avenue and State Route 15 south of Findlay, take the Lima Avenue exit and turn southwest onto Lima Avenue/County Road 313. Travel southwest on Lima Avenue/County Road 313 for approximately 3.1 miles and turn right (west) onto Township Road 79. Travel west on Township Road 79 for approximately 2.3 miles and the well site entrance will be on the south side of the road at GPS: 40.991701, -83.765552.

Ellerbrock #1, #2, & #3:
From the intersection of Lima Avenue and State Route 15 south of Findlay, take the Lima Avenue exit and turn southwest onto Lima Avenue/County Road 313. Travel southwest on Lima Avenue/County Road 313 for approximately 4.56 miles and turn right (west) onto Township Road 48. Travel west on Township Road

48 for approximately 0.5 miles and the well site entrance will be on the south side of the road at GPS: 40.980033, -83.740608.

Dixie Farms #1:
From the intersection of Lima Avenue and State Route 15 south of Findlay, take the Lima Avenue exit and turn southwest onto Lima Avenue/County Road 313. Travel southwest on Lima Avenue/County Road 313 for approximately 5.25 miles and turn right (north) onto Township Road 60. Travel north on Township Road 60 for approximately 0.25 miles and the well site entrance will be on the west side of the road at GPS: 40.976715, -83.746667.

Welch Family Trust #1:
From the intersection of Lima Avenue and State Route 15 south of Findlay, take the Lima Avenue exit and turn southwest onto Lima Avenue/County Road 313. Travel southwest on Lima Avenue/County Road 313 for approximately 4.56 miles and turn right (west) onto Township Road 48. Travel west on Township Road 48 for approximately 0.9 miles and the well site entrance will be on the south side of the road at GPS: 40.980106, -83.753120; 6643 Township Road 48 Rawson, Ohio.

Clair Hartman #1:
From the intersection of Lima Avenue and State Route 15 south of Findlay, take the Lima Avenue exit and turn southwest onto Lima Avenue/County Road 313. Travel southwest on Lima Avenue/County Road 313 for approximately 6.4 miles and the well site entrance will be on the west side of the road at GPS: 40.966532, -83.757247; 6427 County Road 313 Rawson, Ohio.

Elsea #1:
From the intersection of Lima Avenue and State Route 15 south of Findlay, take the Lima Avenue exit and turn southwest onto Lima Avenue/County Road 313. Travel southwest on Lima Avenue/County Road 313 for approximately 2 miles and turn left (south) onto County Road 9. Travel south on County Road 9 for approximately 3.4 miles and the well site entrance will be on the west side of the road at GPS: 40.953916, -83.698656.

Virgil Cotner #1:
From the intersection of Lima Avenue and State Route 15 south of Findlay, take the Lima Avenue exit and turn southwest onto Lima Avenue/County Road 313. Travel southwest on Lima Avenue/County Road 313 for approximately 2 miles and turn left (south) onto County Road 9. Travel south on County Road 9 for approximately 3.1 miles to County Road 40. Turn left (east) on to County Road 40 and go 0.6 miles and the well site entrance will be on the south side of the road at GPS: 40.957847, -83.687366.

Me and Hers LLC #1:
From the intersection of US Highway 68 and State Route 15 south of Findlay, take the US Highway 68 exit and turn south onto US Highway 68. Travel south on US Highway 68 for approximately 2 miles and turn right on to County Road 45. Immediately to turn right at the first access and continue north to the parking area. Entrance at GPS: 40.964513, -83.650716; Site is at 13754 US Highway 68 Findlay, Ohio.

Mitchell Trust #1:
From the intersection of US Highway 68 and State Route 15 south of Findlay, take the US Highway 68 exit and turn south onto US Highway 68. Travel south on US Highway 68 for approximately 2.63 miles and turn left (east) onto Township Road 37. Travel east on Township Road 37 for approximately 0.9 miles and the well site entrance will be on the north side of the road at GPS: 40.950192, -83.615275.

SCOPE OF WORK
HANCOCK #3 PROJECT
Multiple Orphan Well Sites
Hancock County, Multiple 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. General Conditions;
4. General Specifications;
5. Sequence of Work;
6. Well Description;
7. Plugging Plan;
8. Detailed Specifications;
9. Appendix I – Ohio One-Call;
10. Appendix II – Well Records;
11. Offer Sheet;
12. & Drawing Plan Set.

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.

SCOPE OF WORK
HANCOCK #3 PROJECT
Multiple Orphan Well Sites
Hancock County, Multiple Townships

GENERAL CONDITIONS

PART 1: OHIO DEPARTMENT OF TRANSPORTATION SPECIFICATIONS

This Hancock #3 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 http://www.dot.state.oh.us/Divisions/ConstructionMgt/OnlineDocs/Pages/2019-Online-Spec-Book.aspx

PART 2: PRE-SITE MEETING

The Contractor or Contractor's representative must attend the pre-site meeting. Failure to attend the pre-site meeting is grounds for the Division to reject the Contractor's Offer.

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 present. Only those contractors 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 Addendum to the Scope of Work and will provide the Addendum by email to all Department of Administrative Services (DAS) pre-qualified contractors. Each contractor is responsible for submitting an offer that is responsive to all Addenda issued. Failure to receive or acknowledge any Addenda does not release the Contractor from all obligations contained in all Addenda. All Addenda shall become part of the Scope of Work. Receipt of Addenda must be noted on the Contractor's Offer Sheet.

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 Addendum, 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 his or her 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 and 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 on the enclosed Offer Sheet. The offer must be legible with all amounts in numerals. The Contractor must initial any alteration or deletion of items on the Offer Sheet in ink. Offers shall include labor, equipment, and material cost plus a proportionate share of the Contractor's overhead costs, other indirect costs, and anticipated profit. An 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 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.

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 on the enclosed Offer Sheet;
- Does not acknowledge every Addendum issued by the Division;
- Does not include an amount for every item on the Offer Sheet;
- Does not total the amounts on the Offer Sheet;
- Incorrectly totals the amounts on the Offer Sheet;
- Is conditional;
- Is a mathematically unbalanced offer and a materially unbalanced offer.
- Is behind schedule on other projects with the Division; or
- Is not able to schedule this project within the contract due dates.

PART 7: WITHDRAWAL 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 eight (8) 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 **twelve (12) months after the effective date** or by June 30, 2022, whichever is sooner. If the Project terminates on June 30, 2022 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. 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: 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 13: 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 or 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 14: QUANTITIES OF WORK

14.1 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.

14.2 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.

14.3 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 15: 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 16: 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.

PART 17: CHANGES IN THE SCOPE OF WORK

17.1 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.

17.2 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.

17.3 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.

17.4 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.

17.5 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 18: PAY ESTIMATES

18.1 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 Contactor of liability with respect to any obligation or any expressed or implied warranties or responsibilities for faulty materials or workmanship.

18.2 Required Review by the Division

Prior to the submittal of each payment request, 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 percent of work completed for all offer items prior to submittal of each payment request. No payment request 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.

Payment requests received by the Division containing errors or requesting amounts that cannot be approved will be returned to the Contractor. The Contractor may resubmit a payment request after correcting errors.

18.3 Documents to be Submitted for Payment

The Contractor's payment request must be submitted to the Division via the Orphan Well Program email at OrphanWellProgram@dnr.ohio.gov. The Contractor's payment request must be submitted including a form furnished by the Division. Each request for payment must be signed by the Contractor and the Contractor must certify on the form 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 payment requests. 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.

18.4 Effect of Liens on Payment Requests

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 19: RETAINAGE FOR FINAL STABILIZATION

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 Stabilization Inspection and determines that vegetation has reached final stabilization. "Final stabilization" means vegetation established in a uniform perennial vegetative cover with at least a seventy percent (70%) grass cover. "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.

SCOPE OF WORK
HANCOCK #3 PROJECT
Multiple Orphan Well Sites
Hancock County, Multiple 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 work day 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, the Contractor's agents, representatives, subcontractors, or independent contractors shall contact the responsible Division Orphan Well Inspector (the "Inspector") no less than seven (7) working days prior to commencement of work. Notice may be written or oral. 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 (H_2S), 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

The following safety protocols shall be completed for each well that is being plugged. The Division, at its discretion, may waive the requirement if all wells in the project are on the same lease\property.

6.1 Public Safety Coordination Meeting

The Contractor shall hold a safety meeting with the 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.

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) Basic Construction Safety 29 CFR 1926 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 on-site. A copy of all SDS will be supplied to the local Fire Department and to the Division.

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 post an emergency contact information sheet at each muster site. 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 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 (CH_4), Oxygen (O_2), Carbon Monoxide (CO) and Hydrogen Sulfide (H_2S).

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

- Methane - 1000 parts per million (PPM)/5% 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. From the muster area, the Contractor will call 911 for assistance from the local Fire Department.

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.

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 (H_2S), the following considerations must be observed:

11.1 Safety

A. The Contractor must provide the appropriate equipment, on-site, to properly detect and abate any H_2S emitted from the well. If the Contractor does not have the appropriate equipment to properly detect and abate any H_2S 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.

11.2 Cement

A. The Contractor will use Class A cement to plug wells known to produce hydrogen sulfide.

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 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 notched collar or drill bit with the jets removed.

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.

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.

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.

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 Project Completion 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 Project Completion 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.

SCOPE OF WORK
HANCOCK #3 PROJECT
Multiple Orphan Well Sites
Hancock County, Multiple 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. 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 resoil 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
HANCOCK #3 PROJECT
Multiple Orphan Well Sites
Hancock County, Multiple Townships

WELL DESCRIPTION

This Well Description is for the:

Jim Spurgat #1, API #34-063-6-2327-00-00, Hancock County, Eagle Township
Jim Spurgat #2, API #34-063-6-2330-00-00, Hancock County, Eagle Township
Jim Spurgat #3, API #34-063-6-2328-00-00, Hancock County, Eagle Township

Background: The Jim Spurgat #1, #2 and #3 are located approximately 3.5 miles southwest of the City of Findlay. These wells are situated south of Township Road 79 on a 61.325-acre agricultural parcel (#190001020864) owned by K & J Farms LLC/Karen & Jim Spurgat. Their address is 6781 County Road 26, Rawson, Ohio.

The original Division inspection in 2004 and subsequent inspections of the Spurgat #1, #2 and #3 found all three wells idle in an agricultural field. Details of condition and equipment for each well is as follows:

Spurgat #1: 8-inch and 6-inch diameter casing with a wellhead at ground level. There were no other casings, tubing, or rods evident in the well. There was fresh water, with a trace of oil, found in the wellbore at a depth of 6-inches below ground level.

Spurgat #2: 8-inch diameter casing at ground level with no other casings, tubing, or rods evident in the well. There was fresh water, with a trace of oil, found in the wellbore at ground level and mud and debris in the wellbore at 18-inches below ground level.

Spurgat #3: 8-inch casing and 5.63-inch casing at ground level and no other casings, tubing, or rods evident in the well. There was fresh water, with a trace of oil, found in the wellbore at ground level and mud and debris in the wellbore at 12-inches below ground level.

There are no drilling or casing records available for the Spurgat #1, #2 or #3. Data for many of the offset wells is limited to well cards and plugging reports. This data shows that many of these wells were drilled in the late 1800's to early 1900's to approximately 1,300 feet, in the Trenton formation, completed open hole and plugged in the early to mid-1900's. Records for wells in this area also show it was common practice to set 8-inch diameter shallow drive pipe/conductor casing and then set 5.63-inch to 6.25-inch diameter casing to approximately 400 feet to seal off any shallow water zones. In some wells, 4.5-inch diameter casing was also installed.

The nearest offset well with drilling data available is API #34-063-2-0095-00-00, located approximately 2,000 feet to the southwest of the Spurgat #1, #2 and #3. Records show that this well was drilled in 1959 to a depth of 1686 feet in the Trenton Formation. Its Division Well Card shows the following information:

Formation	Top (ft.)	Bottom (ft.)	Remarks
Clay	0	26’	
Limestone	26’	526’	
Shale	526’	800’	Blue
Shale	800’	1,000’	Light gray
Shale	1,000’	1,320’	Brown
Trenton	1,320’	1,686’	
Total Depth	1,686’		Dry Hole

Casing data for API #34-063-2-0095-00-00 is as follows:

- 8-inch casing set to 25 feet
- 7-inch casing set to 528 feet

For the purposes of this Scope of Work, it is assumed that the total depth of the Spurgat #1, #2 and #3 is approximately 1,400 feet in the Trenton Formation, that they are equipped with approximately 25 feet of 8-inch diameter casing and that they were completed open hole. It is further assumed that the:

- **Spurgat #1 is also equipped with 525 feet of 6-inch diameter casing.**
- **Spurgat #2 is obstructed at a depth of 18-inches.**
- **Spurgat #3 is also equipped with 525 feet of 5.63-inch diameter casing and is obstructed at a depth of 12-inches.**

The deepest underground source of drinking water (USDW) is mapped at the base of the Lockport Dolomite. The depth to the base of this formation in this area is expected to be encountered at approximately 400 to 450 feet below ground surface. Based on published groundwater resources information for the eastern side of Hancock County, water wells drilled into the carbonate aquifer may yield as much as 100 gallons per minute. Water wells in the area range in depth from 30 feet to 70 feet; however, there are no water wells within the reviewed area. The work zone does not fall within any source water protection areas and there are no surface mines within the area of review.

Scope of Work: This project includes preparation of each site, plugging each orphan well, and regrading and revegetating all disturbed areas.

Designated Route: The Contractor shall utilize Township Road 59 to access the sites during all phases of the plugging operation.

It is the Contractor’s responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over all 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.

SCOPE OF WORK
HANCOCK #3 PROJECT
Multiple Orphan Well Sites
Hancock County, Multiple Townships

PLUGGING PLAN

This Plugging Plan is for:

Jim Spurgat #1, API #34-063-6-2327-00-00, Hancock County, Eagle Township

For the purposes of this Scope of Work it is assumed that, the total depth of the Jim Spurgat #1 is approximately 1,400 feet in the Trenton Formation, that it is equipped with approximately 25 feet of 8-inch diameter casing and 525 feet of 6-inch diameter casing and that it was completed open hole.

1) The Contractor shall excavate and visually examine the existing casing 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 to a suitable working height.

2) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.

3) The Contractor will install an appropriate wellhead and an approved method of well control on the 6-inch diameter casing to insure there is control of gas and/or fluids generated from the well. The Contractor will establish and maintain well control throughout the entire plugging process and maintain 75 barrels of freshwater on location for well control.

4) The Contractor will clean out the well to its anticipated total depth of 1,400 feet or a depth approved by the Division.

5) All cement plugs will be set through a working string of 1.5-inch minimum inside diameter tubing using Class A cement with 2 percent calcium chloride, mixed at 15.6 pounds/gallon. Circulation will be established with fresh water and all free crude oil, if present, shall be circulated from the wellbore and the well will be static prior to setting each plug.

6) The Contractor will set a 500-foot bottom plug from 1400 feet to 900 feet, to cover the Trenton Formation, wait on cement 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 level 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.

7) The Contractor will set a 500-foot plug from 900 feet to 400 feet, to cover the bottom of the surface casing, wait on cement 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 level 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.

8) The Contractor will then set a cement plug from 400 feet to within 40 (forty) inches of ground level, wait on cement/grout a minimum of 4 hours and top off with additional cement/grout, if necessary.

9) 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 40 (forty) 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
HANCOCK #3 PROJECT
Multiple Orphan Well Sites
Hancock County, Multiple Townships

PLUGGING PLAN

This Plugging Plan is for:

Jim Spurgat #2, API #34-063-6-2330-00-00, Hancock County, Eagle Township

For the purposes of this Scope of Work it is assumed that, the total depth of the Jim Spurgat #2 is approximately 1,400 feet in the Trenton Formation, that is equipped only with the 8-inch diameter casing set to 25 feet, that there is an obstruction at a depth of 18-inches, and the well was completed open hole.

1) The Contractor shall excavate and visually examine the existing 8-inch diameter casing to evaluate the 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 to a suitable working height.

2) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.

3) The Contractor will install an appropriate wellhead and an approved method of well control on the 8-inch casing to insure there is control of gas and/or fluids generated from the well. The Contractor will establish and maintain well control throughout the entire plugging process and maintain 75 barrels of freshwater on location for well control.

4) The Contractor will clean out the 8-inch diameter casing and borehole to a depth of 550 feet, which may require drilling, milling and/or fishing equipment to clear the obstruction at 18-inches to reach that depth. If in open hole, the Contractor will set a 50-foot thick cement bridge plug through a working string of tubing and wait on cement a minimum of eight (8) hours. The Contractor will then install 500 feet of 5.5-inch diameter casing, equipped with a float shoe, establish circulation, and cement the annulus of this casing to surface using Class A cement, mixed at 15.6 pounds/gallon. The Contractor will then run their tools in the hole, drill out the float shoe and the cement bridge plug, if placed, and continue to clean/ mill/drill the well to its anticipated total depth of 1400 feet or a depth approved by the Division.

5) All cement plugs will be set through a working string of 1.5-inch minimum inside diameter tubing using Class A cement with 2 percent calcium chloride, mixed at 15.6 pounds/gallon. Circulation will be established with fresh water and all free crude oil, if present, shall be circulated from the wellbore and the well will be static prior to setting each plug.

6) The Contractor will set a 500-foot bottom plug from 1400 feet to 900 feet, to cover the Trenton Formation wait on cement 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 level 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.

7) The Contractor will set a 500-foot plug from 900 feet to 400 feet to cover the bottom of the surface casing, wait on cement 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 level 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.

8) The Contractor will then set a cement plug from 400 feet to within 40 (forty) inches of ground level, wait on cement a minimum of 4 hours and top off with additional cement, if necessary.

9) 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 40 (forty) 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
HANCOCK #3 PROJECT
Multiple Orphan Well Sites
Hancock County, Multiple Townships

PLUGGING PLAN

This Plugging Plan is for:

Jim Spurgat #3, API #34-063-6-2328-00-00, Hancock County, Eagle Township

For the purposes of this Scope of Work it is assumed that, the total depth of the Jim Spurgat #3 is approximately 1,400 feet in the Trenton Formation, that it is equipped with approximately 25 feet of 8-inch diameter casing and 525 feet of 5.63-inch diameter casing, that it was completed open hole and that it is obstructed at a depth of 12-inches.

1) The Contractor shall excavate and visually examine the existing casing 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 to a suitable working height.

2) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.

3) The Contractor will install an appropriate wellhead and an approved method of well control on the 5.63-inch diameter casing to insure there is control of gas and/or fluids generated from the well. The Contractor will establish and maintain well control throughout the entire plugging process and maintain 75 barrels of freshwater on location for well control.

4) The Contractor will clean out the hole to its anticipated total depth of 1,400 feet or a depth approved by the Division. This may require drilling, milling and/or fishing equipment to clear the obstruction found at a depth of 12-inches.

5) Once total depth has been reached, the Contractor will load the well with fresh water and run Gamma Ray, CCL, Bond, and Caliper logs to verify total depth of the well, determine the depth of and bond behind the 5.63-inch diameter casing, and determine lithology and borehole size for cementing purposes. Cement plug depths and thicknesses will be based on log data.

6) All cement plugs will be set through a working string of 1.5-inch minimum inside diameter tubing using Class A cement with 2 percent calcium chloride, mixed at 15.6 pounds/gallon. Circulation will be established with fresh water and all free crude oil, if present, shall be circulated from the wellbore and the well will be static prior to setting each plug.

7) The Contractor will set a 500-foot bottom plug from 1400 feet to 900 feet, to cover the Trenton Formation, wait on cement 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 level 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.

8) The Contractor will set a 500-foot plug from 900 feet to 400 feet, to cover the bottom of the surface casing, wait on cement 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 level 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 then set a cement plug from 400 feet to within 40 (forty) inches of ground level, wait on cement a minimum of 4 hours and top off with additional cement, if necessary.

10) 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 40 (forty) 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
HANCOCK #3 PROJECT
Multiple Orphan Well Sites
Hancock County, Multiple Townships

WELL DESCRIPTION

Frank Fried #5, API #34-063-6-2329-00-00, Hancock County, Eagle Township

Background: The Frank Fried #5 is located approximately 3.5 miles southwest of the City of Findlay. The well is situated 1,200 feet south of Township Road 79 on a 61.325-acre agricultural parcel (#190001020864) owned by K & J Farms LLC; Karen & Jim Spurgat. Their address is 6781 County Road 26, Rawson, Ohio.

Division inspections have found the Fried #5 bubbling gas in a wetland pond. The well is below the water line and casing sizes could not be verified, but there was a strong magnetic signature within the bubbling area and possible casing could be felt when this area was probed with a shovel. Upon trying to remove sediment from above the possible casing, a rainbow sheen started to appear on the water, causing efforts to be haulted until proper containment measures are in place.

There are no drilling or casing records available for the Fried #5. Data for many of the offset wells is limited to well cards and plugging reports which show that many of these wells were drilled in the late 1800's to early 1900's to approximately 1,300 feet, in the Trenton formation. These wells were generally completed open hole and plugged in the early to mid-1900's. Casing records for these wells show it was common practice to set 8-inch diameter shallow drive pipe/conductor casing and then 5.63-inch to 6.25-inch diameter casing to approximately 400 feet to seal off any shallow water zones. In some wells, an additional string of 4.5-inch diameter casing was also installed.

The nearest well with detailed formation and casing information is API #34-063-2-0095-00-00, located 2,100 feet to the southwest of the Fried #5. These records show this well was drilled in 1959, deemed a dry hole and plugged shortly after drilling was completed. Formation and casing data are as follows:

Formation	Top (ft.)	Bottom (ft.)	Remarks
Clay	0	26'	
Limestone	26'	526'	
Shale	526'	800'	Blue
Shale	800'	1,000'	Light gray
Shale	1,000'	1,320'	Brown
Trenton	1,320'	1,686'	
Total Depth	1,686'		Dry Hole

Casing data for API #34-063-2-0095-00-00 is as follows:

- 8-inch casing set to 25 feet
- 7-inch casing set to 528 feet

Records for API #34-063-6-2328-00-00, located 270 feet to the southwest of the Fried #5, shows that it was drilled to a total depth of 1,326 feet in the Trenton Limestone and was cased with an unknown amount of 5.63-inch diameter casing (cemented in place) and 460 feet of 4.5-inch diameter that was removed when this well was plugged in 1957.

For the purposes of this Scope of Work it is assumed that the total depth of the Frank Fried #5 is approximately 1,400 feet in the Trenton Formation, that it is equipped with approximately 25 feet of 8-inch diameter casing and 500 feet of 6-inch diameter casing and that it was completed open hole.

The deepest underground source of drinking water (USDW) is mapped at the base of the Lockport Dolomite. The depth to the base of this formation in this area is expected to be encountered at approximately 400 to 450 feet below ground surface. Based on published groundwater resources information for the eastern side of Hancock County, water wells drilled into the carbonate aquifer may yield as much as 100 gallons per minute. Water wells in the area range in depth from 30 feet to 70 feet; however, there are no water wells within the reviewed area. The work zone does not fall within any source water protection areas and there are no surface mines within the area of review.

Scope of Work: This project includes preparation of the site, plugging the orphan well, and regrading and revegetating all disturbed areas.

Designated Route: The Contractor shall utilize Township Road 59 to access the site during all phases of the plugging operation.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over all 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.

SCOPE OF WORK
HANCOCK #3 PROJECT
Multiple Orphan Well Sites
Hancock County, Multiple Townships

PLUGGING PLAN

This Plugging Plan is for:

Frank Fried #5, API #34-063-6-2329-00-00, Hancock County, Eagle Township

For the purposes of this Scope of Work it is assumed that the total depth of the Frank Fried #5 is approximately 1,400 feet in the Trenton Formation, that it is equipped with approximately 25 feet of 8-inch diameter casing and 500 feet of 6-inch diameter casing and that it was completed open hole.

1) The Contractor shall visually examine the existing 6-inch diameter casing to evaluate the 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 to a suitable working height. This may include excavating around any existing 8-inch diameter casing and removing sections to get to competent 6-inch diameter casing.

2) The Contractor shall then install an appropriately sized and lined temporary cellar (see Drawing Plan Set) around the wellhead to capture any fluids generated during the plugging process.

3) The Contractor will install an appropriate wellhead and an approved method of well control on the 6-inch casing, or on the 8-inch casing if no 6-inch casing is found, to insure there is control of gas and/or fluids generated from the well. The Contractor will establish and maintain well control throughout the entire plugging process and maintain 75 barrels of freshwater on location for well control.

4) The Contractor will clean out the hole to its total depth (TD) of 1,450 feet or a depth approved by the Division.

5) Once total depth has been reached, the Contractor will load the well with fresh water and run Gamma Ray, CCL, Bond, and Caliper logs to verify total depth of the well and casing, determine the bond and free point behind the casing, and determine lithology and borehole/casing size for cementing purposes.

6) All cement plugs will be set through a working string of 1.5-inch minimum inside diameter (ID) tubing using Class A cement with 2 percent calcium chloride, mixed at 15.6 pounds/gallon. Circulation will be established with fresh water and all free crude oil, if present, shall be circulated from the wellbore and the well will be static prior to setting each plug. Approximately 10 barrels of gel will be run ahead of the bottom plug.

7) The Contractor will set a 500-foot bottom plug from 1450 feet to 950 feet, to cover the Trenton Formation. The Contractor will wait on cement a minimum of eight (8) hours. After waiting on cement, the Contractor will run their tools into the hole to verify the depth to the top of the plug. If the plug level has dropped or it is determined that a competent plug has not been achieved, additional bottom plugs may be requested at the discretion of the Division.

8) The Contractor will set a 500-foot plug from 950 feet to 450 feet to cover Trenton Formation and the Bottom of the Surface Casing. The Contractor will wait on cement a minimum of eight (8) hours. After waiting on cement, the Contractor will run their tools into the hole to verify the depth to the top of the

plug. If the plug level 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 then set a cement plug from 450 feet to within 40 (forty) inches of ground level, wait on cement/grout a minimum of 4 hours and top off with additional cement/grout, if necessary.

10) 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 40 (forty) 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
HANCOCK #3 PROJECT
Multiple Orphan Well Sites
Hancock County, Multiple Townships

WELL DESCRIPTION

This Well Description is for the:

Ellerbrock #1, API #34-063-6-7327-00-00, Hancock County, Eagle Township
Ellerbrock #2, API #34-063-6-7328-00-00, Hancock County, Eagle Township
Ellerbrock #3, API #34-063-6-7329-00-00, Hancock County, Eagle Township

Background: The Ellerbrock #1, #2 and #3 are located approximately 4 miles southwest of the City of Findlay. These wells are situated south of Township Road 48 on a 41-acre agricultural parcel (#190001019364) owned by Brick Lane Properties LLC; Ronald and Linda Ellerbrock. Their address is 10702 Road 5-H, Ottawa, Ohio.

Division inspections of the Ellerbrock #1, #2 and #3 found all three wells idle in an agricultural field. Details of condition and equipment for each well is as follows:

Ellerbrock #1: 8-inch and 6-inch diameter casing at ground level. There were no other casings, tubing, or rods evident in the well. There was fresh water, with a trace of oil, found in the wellbore at a depth of 20 feet below ground level and a hard obstruction at 35 feet below ground level.

Ellerbrock #2: 8-inch and 6-inch diameter casing at ground level and 4.5-inch diameter casing with a Alten casing head on a hanger clamp, 2-inch tubing with rods, a partial polish rod, and stuffing box at the wellhead. All ports and valves on the well were shut but the odor of natural gas was noted on several past inspections.

Ellerbrock #3: 8-inch and 6-inch diameter casing at ground level and no other casings, tubing, or rods evident in the well. The casings were damaged with no access to the wellbore but a metal fence post is evident at the surface. There was no evidence of oil or gas contamination at the well.

There are no drilling or casing records available for the Ellerbrock #1, #2 or #3. Data for many of the offset wells is limited to well cards and plugging reports. This data shows that many of these wells were drilled in the late 1800's to early 1900's to approximately 1,300 feet, in the Trenton formation, completed open hole and plugged in the early to mid-1900's. Records for wells in this area also show it was common practice to set 8-inch diameter shallow drive pipe/conductor casing and then set 5.63-inch to 6.25-inch diameter casing to approximately 400 feet to seal off any shallow water zones. In some wells, 4.5-inch diameter casing was also installed.

The nearest offset well with drilling data available is API #34-063-2-0095-00-00, located 1 mile to the northwest of the Ellerbrock #1, #2 and #3. Records show that this well was drilled in 1959 to a depth of 1686 feet in the Trenton Formation. Its Division Well Card shows the following information:

Formation	Top (ft.)	Bottom (ft.)	Remarks
Clay	0	26	
Limestone	26	526	
Blue Shale	526	800	
Light gray Shale	800	1,000	
Brown Shale	1,000	1,320	
Trenton	1,320	1,686	
Total Depth		1,686	Dry Hole

Casing data for API #34-063-2-0095-00-00 is as follows:

- 8-inch casing set to 26 feet
- 7-inch casing set to 526 feet

Records show that API #34-063-2-0095-00-00 was deemed a dry hole and plugged from total depth to surface using prepared sand pumpings shortly after completion of drilling.

For the purposes of this Scope of Work, it is assumed that the total depth of the Ellerbrock #1, #2 and #3 is approximately 1,400 feet in the Trenton Formation, that they are equipped with approximately 25 feet of 8-inch diameter casing and 525 feet of 6-inch diameter casing, and that they were completed open hole. It is further assumed that the Ellerbrock #1is obstructed at a depth of 35 feet and that the Ellerbrock #2 is also equipped with approximately 500 feet of 4.5-inch diameter casing (liner) and approximately 1,350 feet of 2-inch diameter tubing and rods.

The deepest underground source of drinking water (USDW) is mapped at the base of the Lockport Dolomite. The depth to the base of this formation in this area is expected to be encountered at approximately 400 to 450 feet below ground surface. Based on published groundwater resources information for the eastern side of Hancock County, water wells drilled into the carbonate aquifer may yield as much as 100 gallons per minute. Water wells in the area range in depth from 30 feet to 70 feet; however, there are no water wells within the reviewed area. The work zone does not fall within any source water protection areas and there are no surface mines within the area of review.

Scope of Work: This project includes preparation of the site, plugging the orphan well, and regrading and revegetating all disturbed areas.

Designated Route: The Contractor shall utilize Township Road 48 to access the site.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over all 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.

SCOPE OF WORK
HANCOCK #3 PROJECT
Multiple Orphan Well Sites
Hancock County, Multiple Townships

PLUGGING PLAN

This Plugging Plan is for:

Ellerbrock #1, API #34-063-6-7327-00-00, Hancock County, Eagle Township

For the purposes of this Scope of Work it is assumed that, the total depth of the Ellerbrock #1 is approximately 1,400 feet in the Trenton Formation, that it is equipped with approximately 25 feet of 8-inch diameter casing and 525 feet of 6-inch diameter casing, that fluid level is at 20 feet, that there is an obstruction at a depth of 35 feet, and the well was completed open hole.

1) The Contractor shall excavate and visually examine the existing casing 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 to a suitable working height.

2) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.

3) The Contractor will install an appropriate wellhead and an approved method of well control on the 6-inch diameter casing to insure there is control of gas and/or fluids generated from the well. The Contractor will establish and maintain well control throughout the entire plugging process and maintain 75 barrels of freshwater on location for well control.

4) The Contractor will clean out the hole to its anticipated total depth of 1,400 feet or a depth approved by the Division. If necessary, the Contractor will drill, mill or fish to clear the obstruction at 35 feet in order reach total depth.

5) All cement plugs will be set through a working string of 1.5-inch minimum inside diameter tubing using Class A cement with 2 percent calcium chloride, mixed at 15.6 pounds/gallon. Circulation will be established with fresh water and all free crude oil, if present, shall be circulated from the wellbore and the well will be static prior to setting each plug.

6) The Contractor will set a 500-foot bottom plug from 1400 feet to 900 feet, to cover the Trenton Formation, wait on cement 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 level 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.

7) The Contractor will set a 500-foot plug from 900 feet to 400 feet, to cover Medina Section and the bottom of the surface casing, wait on cement 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 level 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.

8) The Contractor will then set a cement plug from 400 feet to within 40 (forty) inches of ground level, wait on cement a minimum of 4 hours and top off with additional cement, if necessary.

9) 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 40 (forty) 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
HANCOCK #3 PROJECT
Multiple Orphan Well Sites
Hancock County, Multiple Townships

PLUGGING PLAN

This Plugging Plan is for:

Ellerbrock #2, API #34-063-6-7328-00-00, Hancock County, Eagle Township

For the purposes of this Scope of Work, it is assumed that the total depth of the Ellerbrock #2 is approximately 1,400 feet in the Trenton Formation, that it is equipped with approximately 25 feet of 8-inch diameter casing, 525 feet of 6-inch diameter casing, 500 feet of 4.5-inch diameter casing (liner) and 1,350 feet of 2-inch diameter tubing and rods, and that it was completed open hole.

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 adjacent property owners and local fire authorities a minimum of twenty-four (24) hour notice prior to blowing down the well.

2) The Contractor shall excavate and visually examine the existing casing 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 to a suitable working height.

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 will install an appropriate wellhead and an approved method of well control on the 4.5-inch diameter casing to insure there is control of gas and/or fluids generated from the well. The Contractor will establish and maintain well control throughout the entire plugging process and maintain 75 barrels of freshwater on location for well control.

5) The Contractor will remove the rods and 2-inch diameter tubing and stage them on a bermed liner for further evaluation. The Contractor shall provide the Division with an accurate tally of the rods and tubing retrieved from the wellbore.

6) The Contractor will then clean out the hole to its anticipated total depth of 1,400 feet or a depth approved by the Division.

7) Once total depth has been reached, the Contractor will load the well with fresh water and run Gamma Ray, CCL, Bond, and Caliper logs to verify total depth of the well and casing, determine the bond and free point behind the casing, and determine lithology and borehole/casing size for cementing purposes.

8) All cement plugs will be set through a working string of 1.5-inch minimum inside diameter tubing using Class A cement with 2 percent calcium chloride, mixed at 15.6 pounds/gallon. Circulation will be established with fresh water and all free crude oil, if present, shall be circulated from the wellbore and the well will be static prior to setting each plug.

9) The Contractor will set a 500-foot bottom plug from 1400 feet to 900 feet, to cover the Trenton Formation, wait on cement 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 level 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 rip the 4.5-inch diameter casing at the lowest free point, remove it from the well, and stage it on a bermed liner for further evaluation. The Contractor shall provide the Division with an accurate tally of the amount of casing retrieved from the wellbore.

11) The Contractor will set a 500-foot plug from 900 feet to 400 feet, to cover the bottom of the surface casing and liner, wait on cement a minimum of eight (8) hours and run their tools into the hole to verify the depth to the top of the plug. If the plug level 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.

12) The Contractor will then set a cement plug from 400 feet to within 40 (forty) inches of ground level, wait on cement a minimum of 4 hours and top off with additional cement, if necessary.

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 40 (forty) 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
HANCOCK #3 PROJECT
Multiple Orphan Well Sites
Hancock County, Multiple Townships

PLUGGING PLAN

This Plugging Plan is for:

Ellerbrock #3, API #34-063-6-7329-00-00, Hancock County, Eagle Township

For the purposes of this Scope of Work it is assumed that the total depth of the Ellerbrock #3 is approximately 1,400 feet in the Trenton Formation, that it is equipped with approximately 25 feet of 8-inch diameter casing and 525 feet of 6-inch diameter casing, and the well was completed open hole.

1) The Contractor shall excavate and visually examine the existing casing 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 to a suitable working height.

2) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.

3) The Contractor will install an appropriate wellhead and an approved method of well control on the 6-inch diameter casing to insure there is control of gas and/or fluids generated from the well. The Contractor will establish and maintain well control throughout the entire plugging process and maintain 75 barrels of freshwater on location for well control.

4) The Contractor will clean out the hole to its anticipated total depth (TD) of 1,400 feet or a depth approved by the Division.

5) All cement plugs will be set through a working string of 1.5-inch minimum inside diameter tubing using Class A cement with 2 percent calcium chloride, mixed at 15.6 pounds/gallon. Circulation will be established with fresh water and all free crude oil, if present, shall be circulated from the wellbore and the well will be static prior to setting each plug.

6) The Contractor will set a 500-foot bottom plug from 1400 feet to 900 feet, to cover the Trenton Formation, wait on cement 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 level 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.

7) The Contractor will set a 500-foot plug from 900 feet to 400 feet, to cover the bottom of the surface casing, wait on cement 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 level 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.

8) The Contractor will then set a cement plug from 400 feet to within 40 (forty) inches of ground level, wait on cement a minimum of 4 hours and top off with additional cement, if necessary.

9) 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 40 (forty) 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
HANCOCK #3 PROJECT
Multiple Orphan Well Sites
Hancock County, Multiple Townships

WELL DESCRIPTION

This Well Description is for the:

Dixie Farms #1, API #34-063-6-7346-00-00, Hancock County, Eagle Township

Background: The Dixie Farms #1 is located approximately 5 miles southwest of the City of Findlay. The well is situated 240 feet west of County Road 60 on a 72.85-acre agricultural parcel (#19000107725) owned by Dixie Farms Inc./Mark Hartman. The property address is 6427 County Road 313, Ottawa, Ohio.

A 2021 Division inspection of the Dixie Farms #1 found it idle in an agricultural field. The well is equipped 8-inch casing below ground level and 6-inch diameter casing extending one foot above ground level. There is a steel cap with a 2-inch port threaded on top of the casing that is fitted with a 2-inch nipple and valve threaded in. The fitting is broken where it is threaded to the cap and the well is open to atmosphere.

There are no drilling or casing records available for the Dixie Farms #1. Data for many of the offset wells is limited to well cards and plugging reports. This data shows that many of these wells were drilled in the late 1800's to early 1900's to approximately 1,300 feet, in the Trenton formation, completed open hole and plugged in the early to mid-1900's. Records for wells in this area also show it was common practice to set 8-inch diameter shallow drive pipe/conductor casing and then set 5.63-inch to 6.25-inch diameter casing to approximately 400 feet to seal off any shallow water zones. In some wells, 4.5-inch diameter casing was also installed.

The nearest well with detailed formation and casing information is API #34-063-2-0095-00-00, located 1 mile to the northwest of the Dixie Farms #1. These records show this well was drilled in 1959, deemed a dry hole and plugged to surface using prepared sand pumpings shortly after completion of drilling. Records in the Division database show the following:

Formation	Top (ft.)	Bottom (ft.)	Remarks
Clay	0	26	
Limestone	26	526	
Blue Shale	526	800	
Light Gray Shale	800	1,000	
Brown Shale	1,000	1,320	
Trenton	1,320	1,686	
Total Depth		1,686	Dry Hole

Casing data for API #34-063-2-0095-00-00 is as follows:

- 8-inch casing set to 26 feet
- 7-inch casing set to 526 feet

For the purposes of this Scope of Work, it is assumed that the total depth of the Dixie Farms #1 is approximately 1,400 feet in the Trenton Formation, that it is equipped with approximately 25 feet of 8-inch diameter casing and 525 feet of 6-inch diameter casing, and that it was completed open hole.

The deepest underground source of drinking water (USDW) is mapped at the base of the Lockport Dolomite. The depth to the base of this formation in this area is expected to be encountered at approximately 400 to 500 feet below ground surface. Based on published groundwater resources information for the eastern side of Hancock County, water wells drilled into the carbonate aquifer may yield as much as 100 gallons per minute. Water wells in the area range in depth from 40 feet to 100 feet; however, there are no water wells within the reviewed area. The work zone does not fall within any source water protection areas and there are no surface mines within the area of review.

Scope of Work: This project includes preparation of the site, plugging the orphan well, and regrading and revegetating all disturbed areas.

Designated Route: The Contractor shall utilize Township Road 48 to access the site during all phases of the plugging operation.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over all 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.

SCOPE OF WORK
HANCOCK #3 PROJECT
Multiple Orphan Well Sites
Hancock County, Multiple Townships

PLUGGING PLAN

This Plugging Plan is for:

Dixie Farms #1, API #34-063-6-7346-00-00, Hancock County, Eagle Township

For the purposes of this Scope of Work it is assumed that, the total depth of the Dixie Farms #1 is approximately 1,400 feet in the Trenton Formation, that it is equipped with approximately 25 feet of 8-inch diameter casing and 525 feet of 6-inch diameter casing and that it was completed open hole.

1) The Contractor shall excavate and visually examine the existing casing 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 to a suitable working height.

2) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.

3) The Contractor will install an appropriate wellhead and an approved method of well control on the 6-inch diameter casing to insure there is control of gas and/or fluids generated from the well. The Contractor will establish and maintain well control throughout the entire plugging process and maintain 75 barrels of freshwater on location for well control.

4) The Contractor will clean out the well to its anticipated total depth of 1,400 feet or a depth approved by the Division.

5) Once total depth has been reached, the Contractor will load the well with fresh water and run Gamma Ray, CCL, Bond, and Caliper logs to verify total depth of the well, determine the depth of and bond behind the 6-inch diameter casing, and determine lithology and borehole size for cementing purposes. Cement plug depths and thicknesses will be based on log data.

6) All cement plugs will be set through a working string of 1.5-inch minimum inside diameter tubing using Class A cement with 2 percent calcium chloride, mixed at 15.6 pounds/gallon. Circulation will be established with fresh water and all free crude oil, if present, shall be circulated from the wellbore and the well will be static prior to setting each plug.

7) The Contractor will set a 500-foot bottom plug from 1400 feet to 900 feet, to cover the Trenton Formation, wait on cement 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 level 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.

8) The Contractor will set a 500-foot plug from 900 feet to 400 feet, to cover the bottom of the surface casing, wait on cement 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 level 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 then set a cement plug from 400 feet to within 40 (forty) inches of ground level, wait on cement/grout a minimum of 4 hours and top off with additional cement/grout, if necessary.

10) 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 40 (forty) 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
HANCOCK #3 PROJECT
Multiple Orphan Well Sites
Hancock County, Multiple Townships

WELL DESCRIPTION

This Well Description is for the:

Welch Family Trust #1, API #34-063-6-7336-00-00, Hancock County, Eagle Township

Background: The Welch Family Trust #1 is located approximately 4.5 miles southwest of the City of Findlay. The well is situated 1350 feet south of Township Road 48 on a 36-acre residential parcel (#190001009256) owned by the Welch Family Trust, Todd L. Welch Trustee. The address is 6643 Township Road 48, Rawson, Ohio.

In 2014 the Division was called to inspect a small oil spot on the landowners property. The landowner excavated the suspect area to a depth of approximately 10 feet where a steel casing was encountered. Crude oil could be seen slowly flowing out of the casing. The excavation was too deep to safely get an accurate measurement on the casing, which is estimated to be 6-inches in diameter. A 15 foot long by 10-inch diameter plastic corrugated pipe was placed over the existing casing to contain the oil and the excavateded area around the rised was backfilled.

There are no drilling or casing records available for the Welch Family Trust #1. Data for many of the offset wells is limited to well cards and plugging reports. This data shows that many of these wells were drilled in the late 1800's to early 1900's to approximately 1,300 feet, in the Trenton formation, completed open hole and plugged in the early to mid-1900's. Records for wells in this area also show it was common practice to set 8-inch diameter shallow drive pipe/conductor casing and then set 5.63-inch to 6.25-inch diameter casing to approximately 400 feet to seal off any shallow water zones. In some wells, 4.5-inch diameter casing was also installed.

The nearest offset well with drilling data available is API #34-063-2-0095-00-00, located approximately 4,000 feet to the northwest of the Welch Family Trust #1. Records show that this well was drilled in 1959 to a depth of 1686 feet in the Trenton Formation. Its Division Well Card shows the following information:

Formation	Top (ft.)	Bottom (ft.)	Remarks
Clay	0	26'	
Limestone	26'	526'	
Shale	526'	800'	Blue
Shale	800'	1,000'	Light gray
Shale	1,000'	1,320'	Brown
Trenton	1,320'	1,686'	
Total Depth	1,686'		Dry Hole

Casing data for API #34-063-2-0095-00-00 is as follows:

- 8-inch casing set to 25 feet

- 7-inch casing set to 528 feet

For the purposes of this Scope of Work it is assumed that, the total depth of the Welch Family Trust #1 is approximately 1,400 feet in the Trenton Formation, that it is equipped with approximately 550 feet of 6-inch diameter casing situated 10 feet below grade, that there are no other tubulars in the well and that the well was completed open hole.

The deepest underground source of drinking water (USDW) is mapped at the base of the Lockport Dolomite. The depth to the base of this formation in this area is expected to be encountered at approximately 400 to 500 feet below ground surface. Based on published groundwater resources information for the eastern side of Hancock County, water wells drilled into the carbonate aquifer may yield as much as 100 gallons per minute. Water wells in the area range in depth from 60 feet to 108 feet; however, there are no water wells within the reviewed area. The work zone does not fall within any source water protection areas and there are no surface mines within the area of review.

Scope of Work: This project includes preparation of the site, plugging the orphan well, and regrading and revegetating all disturbed areas.

Designated Route: The Contractor shall utilize Township Road 48 to access the site during all phases of the plugging operation.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over all 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.

SCOPE OF WORK
HANCOCK #3 PROJECT
Multiple Orphan Well Sites
Hancock County, Multiple Townships

PLUGGING PLAN

This Plugging Plan is for:

Welch Family Trust #1, API #34-063-6-7336-00-00, Hancock County, Eagle Township

For the purposes of this Scope of Work it is assumed that, the total depth of the Welch Family Trust #1 is approximately 1,400 feet in the Trenton Formation, that it is equipped with approximately 550 feet of 6-inch diameter casing situated 10 feet below grade, that there are no other tubulars in the well and that the well was completed open hole.

1) The Contractor shall excavate and expose the existing 6-inch diameter casing, to evaluate its condition. 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 6-inch casing to a suitable working height.

2) The Contractor shall install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.

3) The Contractor will install an appropriate wellhead and an approved method of well control on the 6-inch diameter casing to insure there is control of gas and/or fluids generated from the well. The Contractor will establish and maintain well control throughout the entire plugging process and maintain 75 barrels of freshwater on location for well control.

4) The Contractor will clean out the hole to its anticipated total depth of 1,400 feet or a depth approved by the Division.

5) All cement plugs will be set through a working string of 1.5-inch minimum inside diameter tubing using Class A cement with 2 percent calcium chloride, mixed at 15.6 pounds/gallon. Circulation will be established with fresh water and all free crude oil, if present, shall be circulated from the wellbore and the well will be static prior to setting each plug.

6) The Contractor will set a 500-foot bottom plug from 1,400 feet to 900 feet to cover the Trenton Formation, wait on cement 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 level 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.

7) The Contractor will set a 500-foot plug from 900 feet to 400 feet to cover the bottom of the surface casing, wait on cement 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 level 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.

8) The Contractor will then set a cement plug from 400 feet to within 40 (forty) inches of ground level, wait on cement a minimum of 4 hours and top off with additional cement, if necessary.

9) 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 40 (forty) 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
HANCOCK #3 PROJECT
Multiple Orphan Well Sites
Hancock County, Multiple Townships

WELL DESCRIPTION

This Well Description is for the:

Clair Hartman #1, API #34-063-6-7310-00-00, Hancock County, Eagle Township

Background: The Clair Hartman #1 is located approximately 6.5 miles southwest of the City of Findlay. The well is situated 180 feet northwest of County Road 313 on a 96-acre agricultural parcel (#190000042410) owned by the Dixie Farms Inc. The address is 6427 County Road 313, Rawson, Ohio.

A 1991 Division inspection of the Hartman #1 found it idle in an agricultural field and equipped with 8-inch and 6-inch diameter casing and 2-inch diameter tubing and rods that were cut off at three feet below ground level. There was water in the well up to the top of the casings. The well was covered back up sometime after the inspection and farming activities continued over the well. Recent excavation and inspection of this well have verified the above information along with the exact location of the well.

There are no drilling or casing records available for the Hartman #1. Records for many of the offset wells is limited to well cards and plugging reports. This data shows that many of these wells were drilled in the late 1800's to early 1900's to approximately 1,300 feet, in the Trenton formation, completed open hole and plugged in the early to mid-1900's. Records for wells in this area also show it was common practice to set 8-inch diameter shallow drive pipe/conductor casing and then set 5.63-inch to 6.25-inch diameter casing to approximately 400 feet to seal off any shallow water zones. In some wells, an additional string of 4.5-inch diameter casing was also installed.

The nearest well with detailed formation and casing information is API #34-063-2-0095-00-00, located 1.3 miles to the northwest of the Hartman #1. These records show this well was drilled in 1959, deemed a dry hole and plugged shortly after drilling was completed. Records in the Division database show the following:

Formation	Top (ft.)	Bottom (ft.)	Remarks
Clay	0	26'	
Limestone	26'	526'	
Shale	526'	800'	Blue
Shale	800'	1,000'	Light gray
Shale	1,000'	1,320'	Brown
Trenton	1,320'	1,686'	
Total Depth	1,686'		Dry Hole

Casing data for API #34-063-2-0095-00-00 is as follows:

- 8-inch casing set to 25 feet
- 7-inch casing set to 528 feet

For the purposes of this Scope of Work it is assumed that, the total depth of the Clair Hartman #1 is approximately 1,400 feet in the Trenton Formation, that it is equipped with approximately 25 feet of 8-inch diameter casing, 500 feet of 6-inch diameter casing and 1350 feet of 2-inch diameter tubing and rods, and that it was completed open hole.

The deepest underground source of drinking water (USDW) is mapped at the base of the Lockport Dolomite. The depth to the base of this formation in this area is expected to be encountered at approximately 400 to 500 feet below ground surface. Based on published groundwater resources information for the eastern side of Hancock County, water wells drilled into the carbonate aquifer may yield as much as 100 gallons per minute. Water wells in the area range in depth from 50 feet to 80 feet. There are two water wells located within and just outside of the area of review. Water well #2047675 and #2018108 were both drilled on the Dixie Farms property to a total depth of 50 feet in limestone. The work zone does not fall within any source water protection areas and there are no surface mines within the area of review.

Scope of Work: This project includes preparation of the site, plugging the orphan well, and regrading and revegetating all disturbed areas.

Designated Route: The Contractor shall utilize County Road 313 to access the site during all phases of the plugging operation.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over all 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.

SCOPE OF WORK
HANCOCK #3 PROJECT
Multiple Orphan Well Sites
Hancock County, Multiple Townships

PLUGGING PLAN

This Plugging Plan is for:

Clair Hartman #1, API #34-063-6-7310-00-00, Hancock County, Eagle Township

For the purposes of this Scope of Work it is assumed that, the total depth of the Clair Hartman #1 is approximately 1,400 feet in the Trenton Formation, that it is equipped with approximately 25 feet of 8-inch diameter casing, 500 feet of 6-inch diameter casing and 1350 feet of 2-inch diameter tubing and rods, and that it was completed open hole.

1) The Contractor shall excavate and visually examine the existing casing to evaluate their condition immediately below grade. If the casing(s) are found to be severely degraded, the Contractor will remove the incompetent section 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 an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.

3) The Contractor will install an appropriate wellhead and an approved method of well control on the 6-inch diameter casing to insure there is control of gas and/or fluids generated from the well. The Contractor will establish and maintain well control throughout the entire plugging process and maintain 75 barrels of freshwater on location for well control.

4) The Contractor will remove the rods and the 2-inch diameter tubing and rods and stage them on a bermed liner for further evaluation. The Contractor shall provide the Division with an accurate tally of the rods and tubing retrieved from the wellbore.

5) The Contractor will clean out the well to its anticipated total depth of 1,400 feet or a depth approved by the Division.

6) Once total depth has been reached, the Contractor will load the well with fresh water and run Gamma Ray, CCL, Bond, and Caliper logs to verify total depth of the well and casing, determine the bond and free point behind the casing, and determine lithology and borehole/casing size for cementing purposes.

7) All cement plugs will be set through a working string of 1.5-inch minimum inside diameter tubing using Class A cement with 2 percent calcium chloride, mixed at 15.6 pounds/gallon. Circulation will be established with fresh water and all free crude oil, if present, shall be circulated from the wellbore and the well will be static prior to setting each plug.

8) The Contractor will set a 500-foot bottom plug from 1400 feet to 900 feet, to cover the Trenton Formation, wait on cement 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 level 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 900 feet to 400 feet, to cover the bottom of the surface casing, wait on cement 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 level 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 then set a cement plug from 400 feet to within 40 (forty) inches of ground level, wait on cement a minimum of 4 hours and top off with additional cement, 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 40 (forty) 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
HANCOCK #3 PROJECT
Multiple Orphan Well Sites
Hancock County, Multiple Townships

WELL DESCRIPTION

This Well Description is for the:

Elsea #1, API #34-063-6-7345-00-00, Hancock County, Eagle Township

Background: The Elsea #1 is located approximately 4 miles south of the City of Findlay. The well is situated 40 feet west of County Road 9 on a 20-acre agricultural parcel (#190001025004) owned by Thomas E. Elsea. Their address is 14830 County Road 9 Findlay, Ohio.

Division inspections of the Elsea #1 found it idle in an agricultural field in 2021. The well was equipped with 8-inch diameter casing, 6-inch diameter casing with a wellhead, 2-inch tubing, and rods. The wellhead and the tubing are both open to the atmosphere but no gas was detected. There are the remains of a shackle line style pumping unit next to the well.

There are no drilling or casing records available for the Elsea #1. Data for many of the offset wells is limited to well cards and plugging reports. This data shows that many of these wells were drilled in the late 1800's to early 1900's to a depth of approximately 1,300 feet, in the Trenton formation, completed open hole and plugged in the early to mid-1900's. These records also show it was common practice to set 8-inch diameter shallow drive pipe/conductor casing and then set 5.63-inch to 6.25-inch diameter casing to approximately 400 feet to seal off any shallow water zones. In some wells, 4.5-inch diameter casing was also installed.

The nearest offset well with drilling data available is API #34-063-2-0018-00-00, located 3600 feet to the southeast of the Elsea #1. This well was drilled in 1947 to a depth of 1310 feet in the Trenton Formation. Division database records show the following information:

Formation	Top (ft.)	Bottom (ft.)	Remarks
Glacial Drift	0	10	
Limestone	10	337	
Lime and Shale	337	437	
Medina	437	500	
Shale w/Lime Shells	500	830	Shale Gas:750'-830'
Light Brown Shale	830	940	
Brown Shale	940	1270	
Trenton	1270	1310	Gas: 1296'-1300'
Total depth		1310	

Casing records for API #34-063-2-0018-00-00 shows the following:

- 8-inch diameter casing set to 10 feet,
- 6.25-inch diameter casing set to 437 feet (pulled),
- 4.25-inch diameter casing set to 454 feet (set on a hook wall packer w/5-ton sand/50 sacks cement).

For the purposes of this Scope of Work it is assumed that the total depth of the Elsea #1 is

approximately 1,300 feet in the Trenton Formation, that it is equipped with 8-inch diameter casing driven to approximately 15 feet into bedrock, 450 feet of 6-inch diameter casing and 1300 feet of 2-inch diameter tubing and rods, and that this well was completed open hole.

The deepest underground source of drinking water (USDW) is mapped at the base of the Lockport Dolomite. The depth to the base of this formation in this area is expected to be encountered at approximately 450 to 550 feet below ground surface. Based on published groundwater resources information for the eastern side of Hancock County, water wells drilled into the carbonate aquifer may yield as much as 100 gallons per minute. Water wells in the area range in depth from 20 feet to 110 feet. The work zone does not fall within any source water protection areas and there are no surface mines within the area of review.

Scope of Work: This project includes preparation of the site, plugging the orphan well, and regrading and revegetating all disturbed areas.

Designated Route: The Contractor shall utilize County Road 9 to access the site during all phases of the plugging operation.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over all 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.

SCOPE OF WORK
HANCOCK #3 PROJECT
Multiple Orphan Well Sites
Hancock County, Multiple Townships

PLUGGING PLAN

This Plugging Plan is for:

Elsea #1, API #34-063-6-7345-00-00, Hancock County, Eagle Township

For the purposes of this Scope of Work it is assumed that the total depth of the Elsea #1 is approximately 1,300 feet in the Trenton Formation, that it is equipped with 8-inch diameter casing driven to approximately 15 feet into bedrock, 450 feet of 6-inch diameter casing and 1300 feet of 2-inch diameter tubing and rods, and that this well was completed open hole.

1) The Contractor shall excavate to expose the existing 8-inch and 6-inch diameter casings and evaluate their condition. If the casing 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 an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.

3) The Contractor shall install an appropriate wellhead and an approved method of well control on the 6-inch casing to insure there is control of gas and/or fluids generated from the well. The Contractor will establish and maintain well control throughout the entire plugging process and maintain 75 barrels of freshwater on location for well control.

4) The Contractor will remove the rods and the 2-inch diameter tubing and rods and stage them on a bermed liner for further evaluation. The Contractor shall provide the Division with an accurate tally of rods and tubing retrieved from the wellbore.

5) The Contractor will clean out the well to its anticipated total depth of 1,300 feet or a depth approved by the Division.

6) All cement plugs will be set through a working string of 1.5-inch minimum inside diameter tubing using Class A cement with 2 percent calcium chloride, mixed at 15.6 pounds/gallon. Circulation will be established with fresh water and all free crude oil, if present, shall be circulated from the wellbore and the well will be static prior to setting each plug.

7) The Contractor will set a 500-foot bottom plug from 1300 feet to 800 feet, to cover/isolate the Trenton Formation, wait on cement 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 level 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.

8) The Contractor will set a 500-foot plug from 800 feet to 300 feet, to cover the bottom of the surface casing, wait on cement 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 level 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 then set a cement plug from 300 feet to within 40 (forty) inches of ground level, wait on cement a minimum of 4 hours and top off with additional cement, if necessary.

10) 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 40 (forty) 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
HANCOCK #3 PROJECT
Multiple Orphan Well Sites
Hancock County, Multiple Townships

WELL DESCRIPTION

This Well Description is for the:

Virgil Cotner #1, API #34-063-6-7311-00-00, Hancock County, Eagle Township

Background: The Virgil Cotner #1 is located approximately 4 miles south of the City of Findlay. The well is situated 350 feet south of County Road 40 on the 39.28-acre agricultural parcel (#180000040220) owned by Barbara & Edgar Williams. Their address is 10734 County Road 37 Findlay, Ohio 45840.

Division inspections of the Cotner #1 found it idle in an agricultural field. The well is visibly equipped with 8-inch diameter casing extending two-feet above ground level. Natural gas could be seen bubbling through fluid at one foot above ground level. There are no other casings or tubulars visible at the surface, however, rocks, mud and other debris were evident just below the water in the casing.

There are no drilling or casing records available for the Cotner #1. Data for many of the offset wells is limited to well cards and plugging reports. This data shows that many of these wells were drilled in the late 1800's to early 1900's to a depth of approximately 1,300 feet, in the Trenton formation, completed open hole and plugged in the early to mid-1900's. These records also show it was common practice to set 8-inch diameter shallow drive pipe/conductor casing and then set 5.63-inch to 6.25-inch diameter casing to approximately 400 feet to seal off any shallow water zones. In some wells, 4.5-inch diameter casing was also installed.

The nearest offset well with drilling and casing data available is API #34-063-2-0018-00-00, located 2800 feet to the south of the Cotner #1. This well was drilled in 1947 to a depth of 1310 feet in the Trenton Formation. Its Division Well Card shows the following information:

Formation	Top (ft.)	Bottom (ft.)	Remarks
Glacial Drift	0	10	
Limestone	10	337	8 5/8" Casing to 365'
Lime and Shale	337	437	Estimated
Medina	437	500	
Shale w/Lime Shells	500	830	Shale Gas:750'-830'
Light Brown Shale	830	940	
Brown Shale	940	1270	
Trenton	1270	1310	Gas: 1296'-1300'
Total depth		1310	

Casing records for API #34-063-2-0018-00-00 shows the following:

- 8-inch diameter casing set to 10 feet,
- 6.25-inch diameter casing set to 437 feet (pulled),
- 4.25-inch diameter casing set to 454 feet (set on a hook wall packer w/5-ton sand/50 sacks cement).

For the purposes of this Scope of Work it is assumed that the total depth of the Virgil Cotner #1 is approximately 1,300 feet in the Trenton Formation, that there is 8-inch diameter casing driven to approximately 15 feet into bedrock, that this well was completed open hole and that there is an obstruction visible in the well casing approximately one foot above ground level.

The deepest underground source of drinking water (USDW) is mapped at the base of the Lockport Dolomite. The depth to the base of this formation in this area is expected to be encountered at approximately 450 to 550 feet below ground surface. Based on published groundwater resources information for the eastern side of Hancock County, water wells drilled into the carbonate aquifer may yield as much as 100 gallons per minute. Water wells in the area range in depth from 20 feet to 110 feet. The work zone does not fall within any source water protection areas and there are no surface mines within the area of review.

Scope of Work: This project includes preparation of the site, plugging the orphan well, and regrading and revegetating all disturbed areas.

Designated Route: The Contractor shall utilize County Road 40 to access the site during all phases of the plugging operation.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over all 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.

SCOPE OF WORK
HANCOCK #3 PROJECT
Multiple Orphan Well Sites
Hancock County, Multiple Townships

PLUGGING PLAN

This Plugging Plan is for:

Virgil Cotner #1, API #34-063-6-7311-00-00, Hancock County, Eagle Township

For the purposes of this Scope of Work it is assumed that the total depth of the Virgil Cotner #1 is approximately 1,300 feet in the Trenton Formation, that there is 8-inch diameter casing driven to approximately 15 feet into bedrock, that this well was completed open hole and that there is an obstruction visible in the well casing approximately one foot above ground level.

1) The Contractor shall excavate and visually examine the existing 8-inch diameter casing to evaluate its condition immediately below grade. If the casing 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 then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.

3) The Contractor will install an appropriate wellhead and an approved method of well control on the 8-inch diameter casing to insure there is control of gas and/or fluids generated from the well. The Contractor will establish and maintain well control throughout the entire plugging process and maintain 75 barrels of freshwater on location for well control.

4) The Contractor will clean out the 8-inch diameter casing and borehole to a depth of 450 feet and, if in open hole, set a 50-foot thick cement bridge plug through a working string of tubing and wait on cement a minimum of eight (8) hours. The Contractor will then install 400 feet of 5.5-inch diameter casing, equipped with a float shoe, establish circulation, and cement the annulus of this casing to surface using Class A cement, mixed at 15.6 pounds/gallon. The Contractor will then run their tools in the hole, drill out the float shoe and the cement bridge plug, if placed, and continue to clean out the well to its anticipated total depth of 1300 feet or a depth approved by the Division.

5) All cement plugs will be set through a working string of 1.5-inch minimum inside diameter tubing using Class A cement with 2 percent calcium chloride, mixed at 15.6 pounds/gallon. Circulation will be established with fresh water and all free crude oil, if present, shall be circulated from the wellbore and the well will be static prior to setting each plug.

6) The Contractor will set a 500-foot bottom plug from 1300 feet to 800 feet, to cover/isolate the Trenton Formation, wait on cement 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 level has dropped or it is determined that a competent plug has not been achieved, additional cement plugs may be requested at the discretion of the Division.

7) The Contractor will set a 500-foot plug from 800 feet to 300 feet, to cover the bottom of the surface casing, wait on cement 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 level has dropped or it is determined that a competent plug has not been achieved, additional cement plugs may be requested at the discretion of the Division.

8) The Contractor will then set a cement plug from 300 feet to within 40 (forty) inches of ground level, wait on cement a minimum of 4 hours and top off with additional cement, if necessary.

9) 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 40 (forty) 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
HANCOCK #3 PROJECT
Multiple Orphan Well Sites
Hancock County, Multiple Townships

WELL DESCRIPTION

This Well Description is for the:

Me and Hers LLC #1, API #34-063-6-7343-00-00, Hancock County, Eagle Township

Background: The Me and Hers #1 is located approximately 2 miles south of the City of Findlay. The well is situated 350 feet west of US Highway 68 on the 13.227-acre residential parcel (#180001030497) owned by Me and Hers LLC. The address is 13754 US Highway 68, Findlay 45840.

A 2020 Division inspection of the Me and Hers #1 found it idle in the residential yard and visibly equipped with 8-inch casing extending one-foot above ground level, with no other tubulars visible in the well. The inside of the casing was coated with a white residue, fluid level was at a depth of 8 feet below ground level and gas could be seen bubbling throughout the fluid. A gas reading inside the casing was measured with a hand held gas detector and was at **4 parts per million Hydrogen Sulfide**. A weighted line was lowered down the well and a soft obstruction was encountered at 64 feet. No oilwas noted on the line when removed, although the fluid on the line had a sulpher smell. The landowner indicated that both water wells on the property have sulpher water.

There are no drilling or casing records available for the Me and Hers #1. Records for many of the offset wells is limited to well cards and plugging reports. This data shows that many of these wells were drilled in the late 1800's to early 1900's to approximately 1,300 feet, in the Trenton formation, completed open hole and plugged in the early to mid-1900's. Records for wells in this area also show it was common practice to set 8-inch diameter shallow drive pipe/conductor casing and then set 5.63-inch to 6.25-inch diameter casing to approximately 400 feet to seal off any shallow water zones. In some wells, an additional string of 4.5-inch diameter casing was also installed.

The nearest well with detailed formation and casing information is API #34-063-2-0070-00-00, located 1.55 miles to the northwest of the Me and Hers #1. These records show this well was drilled in 1956 to a depth of 1255 feet in the Trenton Formation. The following Table show data from the Geologic Survey well card:

Formation	Top (ft)	Bottom (ft)	Remarks
Soft Clay	0	18	
Gray Gravel	18	23	
Gray Limestone	23	296	
Blue Slate	296	317	
Gray Limestone	317	357	
Blue Slate	357	420	
Red Medina	420	447	Gas show
Blue Slate	447	650	Gas at 650
Gray Limeshells	650	780	Gas at 780
Gray Shale	780	820	

Brown Shale	820	1,241	
Trenton	1,241	1,255	Gas at 1,245-1,250-1,253
Total depth		1,255	

Drilling records show that API #34-063-2-0070-00-00 produced 10 million cubic feet of gas naturally Casing records for API #34-063-2-0070-00-00 show:

- 8.25-inch diameter casing set to 23 feet (left in well)
- 6.63-inch diameter casing set to 383 feet (pulled)
- 4-inch diameter casing set to 449 feet, cemented and left in well

Records show that API #34-063-2-0070-00-00 was plugged in 1990 from 1,130 feet to surface with 11 tons of clay.

For the purposes of this Scope of Work, it is assumed that the Me and Hers #1 was drilled to a total depth of approximately 1,300 feet in the Trenton Formation, that it is equipped with approximately 20 feet of 8-inch diameter casing and no other tubulars in the well, that fluid level is at a depth of 8 feet, that there is a soft obstruction at a depth of 64 feet and that there were readings of 4 parts per million of Hydrogen Sulfide obtained at the well.

The deepest underground source of drinking water (USDW) is mapped at the base of the Lockport Dolomite. The depth to the base of this formation in this area is expected to be encountered at approximately 550 to 600 feet below ground surface. Based on published groundwater resources information for the eastern side of Hancock County, water wells drilled into the carbonate aquifer may yield as much as 100 gallons per minute. Water wells in the area range in depth from 30 feet to 130 feet; however, there are no water wells within the reviewed area. The work zone does not fall within any source water protection areas and there are no surface mines within the area of review.

Scope of Work: This project includes preparation of the site, plugging the orphan well, and regrading and revegetating all disturbed areas.

Designated Route: The Contractor shall utilize US Highway 68 to access the site during all phases of the plugging operation.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over all 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.

SCOPE OF WORK
HANCOCK #3 PROJECT
Multiple Orphan Well Sites
Hancock County, Multiple Townships

PLUGGING PLAN

This Plugging Plan is for:

Me and Hers LLC #1, API #34-063-6-7343-00-00, Hancock County, Eagle Township

For the purposes of this Scope of Work, it is assumed that the Me and Hers #1 was drilled to a total depth of approximately 1,300 feet in the Trenton Formation, that it is equipped with approximately 20 feet of 8-inch diameter casing and no other tubulars in the well, that fluid level is at a depth of 8 feet, that there is a soft obstruction at a depth of 64 feet and that there were readings of 4 parts per million of Hydrogen Sulfide obtained at the well.

1) The Contractor shall excavate and visually examine the existing 8-inch diameter casing, to evaluate its 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 to a suitable working height.

2) The Contractor shall then install an appropriately sized and lined temporary cellar around the wellhead to capture any fluids generated during the plugging process.

3) The Contractor will install an appropriate wellhead and an approved method of well control on the 8-inch casing to insure there is control of gas and/or fluids generated from the well. The Contractor will establish and maintain well control throughout the entire plugging process and maintain 75 barrels of freshwater on location for well control.

4) The Contractor will clean out the 8-inch diameter casing and borehole to a depth of 400 feet, which may require drilling, milling and/or fishing equipment to clear the obstruction at 64 feet to reach that depth. If in open hole, the Contractor will set a 50-foot thick cement bridge plug through a working string of tubing and wait on cement a minimum of eight (8) hours. The Contractor will then install 350 feet of 5.5-inch diameter casing, equipped with a float shoe, establish circulation, and cement the annulus of this casing to surface using Class A cement, mixed at 15.6 pounds/gallon. The Contractor will then run their tools in the hole, drill out the float shoe and the cement bridge plug, if placed, and continue to clean out the well to its anticipated total depth of 1300 feet or a depth approved by the Division.

5) Once total depth has been reached, the Contractor will load the well with fresh water and run Gamma Ray, CCL, Bond, and Caliper logs to verify total depth of the well and casing, determine the bond and free point behind the casing, and determine lithology and borehole/casing size for cementing purposes.

6) All cement plugs will be set through a working string of 1.5-inch minimum inside diameter tubing using Class A cement with 2 percent calcium chloride, mixed at 15.6 pounds/gallon. Circulation will be established with fresh water and all free crude oil, if present, shall be circulated from the wellbore and the well will be static prior to setting each plug.

7) The Contractor will set a 500-foot bottom plug from 1350 feet to 850 feet, to cover the Trenton Formation, wait on cement 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 level 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.

8) The Contractor will set a 500-foot plug from 850 feet to 350 feet, to cover the bottom of the surface casing, wait on cement 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 level 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 then set a cement plug from 350 feet to within 30 (thirty) inches of ground level, wait on cement a minimum of 4 hours and top off with additional cement, if necessary.

10) 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 30 (thirty) 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
HANCOCK #3 PROJECT
Multiple Orphan Well Sites
Hancock County, Multiple Townships

WELL DESCRIPTION

This Well Description is for the:

Mitchell Trust #1, API #34-063-6-7335-00-00, Hancock County, Eagle Township

Background: The Mitchell Trust #1 is located approximately 3 miles southeast of the City of Findlay. The well is situated 1450 feet north of Township Road 37 on the 75.5-acre agricultural parcel (#240001013362) owned by Ted J. Mitchell Trustee. Their address is 223 Deer Cross Lane, Powell, Ohio.

A 2014 Division inspection of the Mitchell Trust #1 found it idle in an agricultural field and equipped with 8-inch diameter casing at ground level, 6-inch diameter casing extending just above ground level and 4.5-inch diameter casing, with a collar, extending two feet above ground level. The 4.5-inch diameter casing is hanging on a two piece clamp and is fitted with a 4.5-inch to 2-inch swage and fittings to a plugged 2-inch gate valve with a broken handle. There was no leakage noted from the fittings on the 4.5-inch casing. However natural gas was leaking from the annular space between the 4.5-inch and the 6-inch diameter casings. A Sperian PhD6 meter was used to test the gas which yielded 4.10 Methane, 20 Carbon Monoxide, and the maximum Lower Explosive Limit.

There are no drilling or casing records available for the Mitchell Trust #1. Records for many of the offset wells is limited to well cards and plugging reports. This data shows that many of these wells were drilled in the late 1800's to early 1900's to approximately 1,300 feet, in the Trenton formation, completed open hole and plugged in the early to mid-1900's. Records for wells in this area also show it was common practice to set 8-inch diameter shallow drive pipe/conductor casing and then set 5.63-inch to 6.25-inch diameter casing to approximately 400 feet to seal off any shallow water zones. In some wells, an additional string of 4.5-inch diameter casing was also installed.

The nearest well with detailed formation and casing information is API #34-063-2-0067-00-00, located 1.5 miles to the southeast of the Mitchell Trust #1. These records show this well was drilled in 1956 to a depth of 1390 feet in the Trenton Formation. The following Table show data from the Geologic Survey well card:

Formation	Top (ft)	Bottom (ft)	Remarks
Mud	0	10	
Shale and Lime	10	172	Water at 65 feet
Clinton Lime	172	209	
Green Shale	209	265	
Red Shale	265	280	
Gray Shale	305	610	
Gray Lime	610	625	Gas show
Gray Shale	625	865	
Brown/Gray Shale	865	1,181	
Trenton	1,181	1,390	Good show of gas: 1236-1241. 40' of oil in 5 hours: 1361-65
Total depth		1,390	

Drilling records also show that from 1,243 to 1,249 feet the hole produced 500 feet water, that from 1,385 to 1,390 feet 12 bailers of brine were removed from the well and that this well was plugged back to 1,372 feet and treated with approximately 1,600 gallons of acid and produced 3 gallons of oil and 10 gallons of water in 2-hour intervals after treatment.

Casing records for API #34-063-2-0067-00-00 show:

- 8.25-inch diameter casing set to 10 feet (left in well)
- 6.63-inch diameter casing set to 281 feet (pulled)
- 5.19-inch diameter casing set to 1,355 feet and cemented with 15 sacks (235 feet left in well)
- 2-inch diameter casing set to 1,372 feet (pulled)

Records show that, shortly testing was completed, API #34-063-2-0067-00-00 was plugged from 1,373 feet to 390 feet with prepared sand pumpings, a cement plug was set on the 6.63-inch diameter casing seat and the well filled to surface with prepared sand pumpings.

The deepest underground source of drinking water (USDW) is mapped at the base of the Lockport Dolomite. The depth to the base of this formation in this area is expected to be encountered at approximately 550 to 600 feet below ground surface. Based on published groundwater resources information for the eastern side of Hancock County, water wells drilled into the carbonate aquifer may yield as much as 100 gallons per minute. Water wells in the area range in depth from 30 feet to 80 feet; however, there are no water wells within the reviewed area. The work zone does not fall within any source water protection areas and there are no surface mines within the area of review.

Scope of Work: This project includes preparation of the site, plugging the orphan well, and regrading and revegetating all disturbed areas.

Designated Route: The Contractor shall utilize Township Road 37 to access the site during all phases of the plugging operation.

It is the Contractor's responsibility to contact all County, Township, State and Municipal Officials having jurisdiction over all 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.

SCOPE OF WORK
HANCOCK #3 PROJECT
Multiple Orphan Well Sites
Hancock County, Multiple Townships

PLUGGING PLAN

This Plugging Plan is for:

Mitchell Trust #1, API #34-063-6-7335-00-00, Hancock County, Jackson Township

For the purposes of this Scope of Work it is assumed that the total depth of the Mitchell Trust #1 is approximately 1,350 feet in the Trenton Formation, that it is equipped with 25 feet of 8-inch diameter casing, 400 feet of 6-inch diameter casing and 400 feet of 4.5-inch diameter casing (liner), and the well was completed open hole.

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 excavate and visually examine the existing casings 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 to a suitable working height.

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 will install an appropriate wellhead and an approved method of well control on the 4.5-inch casing to insure there is control of gas and/or fluids generated from the well. The Contractor will establish and maintain well control throughout the entire plugging process and maintain 75 barrels of freshwater on location for well control.

5) The Contractor will clean out the well to its anticipated total depth of 1,350 feet or a depth approved by the Division.

6) Once total depth has been reached, the Contractor will load the well with fresh water and run Gamma Ray, CCL, Bond, and Caliper logs to verify total depth of the well and casing, determine the bond and free point behind the 4.5-inch casing, and determine lithology and borehole/casing size for cementing purposes.

7) All cement plugs will be set through a working string of 1.5-inch minimum inside diameter tubing using Class A cement with 2 percent calcium chloride, mixed at 15.6 pounds/gallon. Circulation will be established with fresh water and all free crude oil, if present, shall be circulated from the wellbore and the well will be static prior to setting each plug.

8) The Contractor will set a 500-foot bottom plug from 1350 feet to 850 feet, to cover the Trenton Formation, wait on cement 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 level 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 rip the 4.5-inch diameter casing at the lowest free point, remove it from the well, and stage it on a bermed liner for further evaluation. The Contractor shall provide the Division with an accurate tally of the amount of casing retrieved from the wellbore.

10) The Contractor will set a 500-foot plug from 850 feet to 350 feet, to cover the bottom of the surface casing and liner, wait on cement 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 level 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 then set a cement plug from 350 feet to within 40 (forty) inches of ground level, wait on cement a minimum of 4 hours and top off with additional cement, if necessary.

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 40 (forty) 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
HANCOCK #3 PROJECT
Multiple Orphan Well Sites
Hancock County, Multiple 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 to 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 be responsible for cleaning mud and dirt associated with construction from all roadway surfaces (public and private) for the duration of the Project.

This item shall also include any maintenance of traffic required within the road right-of-way per Part 7 of the General Specifications.

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.

This shall include the work to remove, store, and replace the board fence at the Me and Hers LLC #1 well site.

Crop/Vegetation removal shall be considered incidental to **"Mobilization"**, including any trimming required. All materials shall be removed form the site. **This work shall also include the preservation from injury or defacement of all trees designated to remain.**

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. **Mobilization of equipment between wells shall be considered incidental to this line item for wells using a common entrance.**

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

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 wells to residences, 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. Hydrogen Sulfide (H_2S): The Contractor must provide the appropriate equipment, on-site, to properly detect and abate any H_2S emitted from the well. All personnel on location must have and wear H_2S monitor and/or 4-gas monitor. **Per 29 CFR 1910.1000, Air Contaminants, Table Z-2 the permissible exposure limits (PEL) ceiling standard for H_2S is 20 ppm.** The contractor shall be required to have the H_2S safety team on site the first day the well is opened. They may be dismissed once the site is cleared by the safety team, but if permissible exposure limits (PEL) are exceeded, the Contractor will be required to recall the H_2S safety team on site until the geological zone of interest is covered with cement and no further H_2S issues are at surface. The H_2S safety team may be released at this point, but personal monitors and the rig monitor are still required. The H_2S safety team will be paid for on a per date rate per contingency line item **H_2S Safety Team**. The H_2S safety team shall be qualified employees of the Contractor or subcontractors.

   Once detection of permissible exposure limits (PEL) are exceeded, the Contractor will not continue plugging operations until the safety team has developed and implemented a plan that is compliant with Occupational Safety and Health Administration (OSHA) regulations. The plan shall be approved by the Division prior to implementation.

   A H_2S release of 20 ppm for 10 minutes or more in working areas OR a release resulting in injury or death of a person is a REPORTABLE INCIDENT. Call 1-844-OHCALL1 (1-844-642-2551) within 30 minutes after becoming aware of the occurrence.

3. 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 2019 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 work area immediately surrounding the well head. 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.

4. Air Movers (Industrial Fans): The Contractor will also be required to have onsite industrial fans or air movers in the event natural gas is detected and found to be settling at ground level and not properly dissipating from the site.

5. Absorbent Boom: In addition to the requirements of Part 10 of the General Specifications, the Contractor shall supply and install a marine boom around the work area in the pond. The Contractor shall work in conjunction with the Division for the placement of the boom. The boom 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.

6. 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 (H_2S) release,** and for any well-related issues that may occur. The Contractor will be responsible for maintaining this ERP on site during the plugging operations. 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**
All Wells	Notification; Temporary Construction Fence & Posts; Air Movers; Emergency Response Plan
Add to Frank Fried #5	Absorbent Boom
Add to Me and Hers LLC #1	Hydrogen Sulfide (H_2S) Contingency Plan

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

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 utilities, driveways, roadway, curbs, sidewalks and lawn space that will be traversed within the construction work limits.

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.

For circumstances in which the Division extends the projected completion date (i.e. well obstructions, required milling operations, etc.), the contractor shall also provide a cost for "Road Mats" as a dollar amount per mat per day under "Contingency Specifications" within the original Offer Sheet. Additional payment will be evaluated and determined by the Division.

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. The placement of road mats within the limits of construction shall be at the discretion of the Division and/or as shown on the Drawing Plan Set in order to enhance the subgrade conditions and/or for overtop utility crossings.

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 mat 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."**

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.

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. 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 2019 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.

10" CULVERT

A. Description: This item covers the quality, material placement and requirements for the installation of the culvert for the temporary drive and access. This item shall also include the removal of the pipe which shall become the property of the Contractor.

B. Materials:

1. Culvert Pipe: The culvert pipe shall be clean 10" steel oilfield grade casing.

2. Backfill: Backfill material shall be placed around the pipe to as shown on the Drawing Plan Set. Backfill material shall be included in the unit price for **"No. 304 Stone".**

C. Installation: The Division shall verify locations prior to commencing installation. Installation shall be in compliance with all manufacturer's specifications.

The temporary culvert shall be removed at the completion of the project. **The culvert 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: Measurement of 10" 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 steel pipe, installation, and removal, shall be at the unit price per linear foot for "**10" Culvert"**.

No. 2 STONE

A. Description: This work covers the quality, material placement and requirements as a base course stone for the project access and for the stonework pad 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.

As director, No. 2 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. This shall include all stone placed below the ordinary high-water mark of the tributary to be crossed for access. **The No. 2 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. 2 Stone shall be used if necessary.

E. Payment: Payment this work as specified above shall be made based on the unit price per ton for **"No. 2 Stone."**

No. 4 STONE

B. Description: This work covers the quality, material placement and requirements for the temporary stonework pad fill 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: The Contractor shall use special care during placement. Minor excavation, re-handling and rearranging of stones may be required to ensure that all rock is placed as shown in the plans.

Storage prior to permanent placement is subject to approval by the Division and shall include appropriate weight adjustments for losses, which shall be at the Contractor's expense.

Material placement in advance of construction shall be at the Contractor's risk. In the event an uncompleted section of material is damaged, or causes damage to a completed section, the damaged portions shall be replaced or reshaped, as approved by the Division at the Contractor's expense. The Contractor shall keep the Chief advised as to any and all situations that may result in a possible interruption of the work.

Material shall be placed in a manner that shall permit the smaller rocks to fill the voids between the bigger rocks. Material shall be placed and worked so as to attain maximum density. No large voids or concentrations of similar size rocks shall be permitted. **All No. 4 Stone shall be placed in eight**

(8) inch maximum lifts and compacted by a minimum of three (3) passes of a vibratory plate compactor capable exerting a minimum of 2,000 lbs. of centrifugal force.

The Contractor shall maintain and protect the construction areas at all times until final completion and acceptance of the work. Any material displaced by the Contractor's operations or negligence, shall be repaired at his 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 this work as specified above shall be made based on the unit price per ton for **"No. 4 Stone."**

No. 57 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 satisfactory 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. 57 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. 57 Stone."**

No. 304 STONE

A. Description: This work covers the quality, material placement and requirements as an aggregate for the project access, culvert backfill and for the temporary stonework pad 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 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 it original location as part of the line item **"Site Restoration."**

As directed, No. 304 stone shall be removed at the completion of the project to allow for the completion of the **"Site Restoration"** line item. **The No. 304 stone base 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 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 stone shall be used if necessary.

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

TYPE "C" ROCK CHANNEL PROTECTION

A. Description: This work covers the quality, material placement and requirements for the base stone for the temporary stonework pad as directed by the Division at the time of construction and as shown on 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.

The Type "C" Material shall consist of sizes such that at least 85 percent of the total material by weight shall be larger than a 6-inch but less than an 18-inch square opening. At least 50 percent of the total material by weight shall be larger than a 12-inch square opening. The material smaller than a 6-inch square opening shall consist predominantly of rock spalls and rock fines and shall be free of soil.

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

Elongation (the ratio of the least dimension to the greatest dimension) shall be equal to or greater than one-half (1/2) for Type "C" material.

C. Installation:

1. The Contractor shall mark the areas for the placement of the stone and gain approval of the Chief prior to placement. The Contractor shall use special care during placement. Minor excavation rehandling and rearranging of stones may be required to ensure that all rock is placed in a stable manner.

2. Material shall be placed in a manner that shall permit the smaller rocks to fill the voids between the bigger rocks. Material shall be placed and worked so as to attain maximum density. No large voids or concentrations of similar size rocks shall be permitted. **The rock shall be compacted by on site equipment.**

3. All Type 'C' Rock under the existing bottom of the pond shall be left in place all other rock shall be removed at the completion of the project to allow for the completion of the **"Site Restoration"** line item. **Type 'C' Rock that is removed 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 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 Rock Channel Protection shall be used if necessary.

E. Payment: Payment this work as specified above shall be made based on the unit price per ton for **"Type "C" Rock Channel Protection."**

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 the entrance apron & access drive 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, 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 smooth 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 approver 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 with no allowance for the overlap of 6-inch recommended above. Measurement shall be based on the length and height of the underdrain/stone drain as indicated on 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".**

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 17 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.

A 10-foot-long joint of casing, equipped with a guide shoe on the bottom and a float collar on the top, will be placed on the bottom of the casing string. This shall be incidental to this line item.

C. Installation and Execution: The surface casing shall set to a depth as detailed in the **Plugging Plan** and **Offer Sheet**. This quantity is for estimating purposes only. 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.

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")**".

WELL HEAD CONTROL

A. Description: This work consists of all labor, equipment, and material necessary 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.

B. Execution: The Contractor is responsible for installing, according to best management practices, a wellhead control device/flow diverter on the well casing.
The casing shall be free from any damages or defects. If required, the casing shall be cut and cleaned of any dirt, oils 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. 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 Class "A" 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.**
For the Frank Fried #5 well, the Contractor shall provide and install a 20 mil EDPM pond liner over top of the cement base covering all area around the well casing as shown on the Drawing Plan Set.
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 freshwater at the well for possible well control emergencies, which shall be paid under the line item **"Well Control Fluid."** The Contractor shall install a 2-inch diameter (minimum) water line on the well. The injection point for the water line shall be a minimum of thirty (30) feet from the well.
No plugging operations shall begin until a satisfactory 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 lump sum price for **"Well Head Control."**

DEWATERING

A. Description: This item shall consist of furnishing all labor, equipment, and materials necessary to construct a dike around the well to be able to complete the work described in line item **"Well Head Control"** for **Frank Fried #5** well.

B. Execution: The diverting of the water shall be accomplished by pumping, utilization of existing pond level controls or an otherwise approved method submitted to the Division.

The Contractor shall supply a 60-inch cellar that will encircle the 48-inch cellar once the wellhead is brought to a working level. 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 pushed into the bottom of the pond a minimum of 2' or to a solid base depending on how much silt is determined to be at the bottom of the pond. **The cellar shall be a minimum of 60 inches in diameter. Once the wellhead is to a working elevation the contractor shall install the 48" cellar per the "Well Head Control" specification. All work shall be in accordance with the Drawing Plan Set and these specifications.**

All dewatering completed prior the opening of the well, and as long as it is not being contaminated by the well, may be pumped into the pond on the outside of the cellar. Once a well head control device is installed, all fluids, gases and solids generated by the plugging process shall be diverted into a tank as described under "Well Head Control".

The Contractor shall notify the Division prior to the constructing the cellar and pumping or diverting of any water. No discharging shall be conducted during storm events without the approval of the Division. No pumping or diverting shall begin prior to approval and inspection of the Division. Any damage that is caused by the neglect of the Contractor shall be his/her responsibility.

The Contractor may submit an alternative method to complete this work for approval.

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 dewatering around the well head shall be made at the lump sum price for **"Dewatering."**

WELL CONTROL FLUID

A. Description: The work covered by this section shall consist of furnishing all labor, equipment, and material necessary to provide and use water as a "kill" fluid for the drilling and plugging process of the well.

B. Requirements: The Contractor shall receive prior approval from the Division before using any onsite waters for the plugging process (i.e. streams, lakes or ponds). If approved, withdrawing waters of the state shall not exceed 100,000 gallons per day from an individual water source.

The Division will require a minimum of 75 barrels of freshwater well control fluid be maintained at each well during the plugging project.

C. Measurement: Measurement for payment for the above-described work shall be made by the actual quantity of barrels (bbls) of water used to successfully plug and/or drill the orphan as approval 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 Control Fluid."**

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.

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.

A copy of the completed Log must be submitted to the Division via email at OrphanWellProgram@dnr.state.oh.us.

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 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, cementing equipment, and associated equipment.

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 identify the diameter of the well bore below the surface casing and cleanout or drillout with a full-

size bit to total depth. 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 Offer Sheet and agreed upon by the Division.

When required the Contractor shall complete the ripping of the casing or tubing at a depth approved by the Division. Ripping shall be considered incidental to this line item.

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 paused work time shall be at the Contractor's own risk. Any tools or tubing that are lost due to the Contractor's failure to complete the task of tripping out during paused work times shall be at their 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 H_2S 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 gelled water is required to be run ahead of each cement plug that may come into contact with open hole formation and/or all cased sections of the wellbore**. 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 well shall be in a static condition prior to beginning any cementing activities.**

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 determine with the required tools if any plug has dropped. **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 a 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.

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."**

CLASS "A" 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 API Class "A" or with prior approval, shall be of material conforming to 2019 ODOT CMS Item 701.04 (ASTM C150 Type I).

The Class "A" cement shall contain 2% Calcium Chloride, properly blended, unless directed by the Division in advance of placing the cement.

The cement shall not contain bentonite, fly ash, or other extenders which delay set time or decrease the overall compressive strength unless otherwise noted.

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.**

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 Class "A" Cement shall be placed to the depths and intervals described in **Plugging Plan**.

It is the Contractor's responsibility to provide a mud scale for weighing the cement slurry.

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 **"Class "A" 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 listed on the Contractor's Offer Sheet.

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.

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 listed on the Contractor's Offer Sheet.

B. Material:

Contaminated Soils/Cuttings: Contaminated soils and cuttings are defined as soils or cuttings in which oil, gas, condensate, brine, plugging products, or oil field waste substances have been released in or on the land.

The Contractor will excavate and properly dispose of all soils from the location that are visibly impacted with oilfield contaminants. The Contractor shall solidify any residual fluid associated with these soils with Portland Cement, 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 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: Soils 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.

Contaminated soils shall be loaded and hauled away as they are excavated.

No additional compensation shall be made for onsite contaminated soil storage. If excavated soils 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 weight tickets of quantities disposed at the approved EPA licensed landfill.

E. Payment: Payment shall be made at the unit price per ton for **"Contaminated Material Disposal."**

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."**

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.

Prior to disposal of any salvage materials the Contractor shall prepare, including cleaning, the salvage materials for lawful salvage.

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."**

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 Sheet 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 damages/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 a 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 bases. 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 damages shall be based on a prime farmland yield of 164.3 bushels per acre of corn crop at a market value of $4.99 per bushel or $820 per acre. For soybean crops the damages shall be based on a prime farmland yield of 53.5 bushels per acre of soybean crop at a market value of $13.30 per bushel or $712 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.

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.

   Species Composition

   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, farm field, or wetland 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.

GENERAL SEED MIX	lbs/acre
Orchardgrass (Dactylis glomerata)	15.0
98/85 Kentucky Bluegrass	12.0
Timothy (Phleum pratense)	12.0
Birdsfoot Trefoil (Lotus sp.)	9.0
Red Clover (Trifolium pratense)	8.0
White Clover (Trifolium repens)	7.0
Annual Ryegrass (Lolium multiflorum)	8.5
Perennial Ryegrass (Lolium perenne)	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 of150 lbs/acre. The seed shall be broadcast over the entire disturbed area as a temporary ground cover until the next growing season. Areas of Temporary Ground Cover shall not include lime,

fertilizer or mulching requirements.

For all required materials listed above, the Division reserves the right to request receipts, material specifications and/or weight tickets for verification.

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 discing, 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 and fertilizer as applicable, seeding, mulching and replacement of shrubs, trees and landscape amenities 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, required replacement of all shrubs, trees and landscaping amenities, 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. As part of this line item, the Contractor shall also be responsible for cleaning mud and dirt associated with construction from all roadway surfaces (public and private) upon completion.

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.**

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

CONTINGENCY SPECIFICATIONS

CONTINGENCY SPECFICATIONS 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.

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% content, and enough organic materials to be generally suitable for vegetative growth.

C. Installation: Placement of fill shall only be made on scarified, moist surfaces. No fill shall be placed on frozen soil, unstable soil, or soil where water is ponded.

Fill material shall be placed in uniform lifts not exceeding eighteen (18) inches in thickness and tracked-in using on-site excavation equipment using not less than four (4) passes per lift.

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 area as determined by certified scale weight tickets.

ALTERNATIVE WELL CONTROL FLUID

A. Description: The work covered by this section shall consist of furnishing all labor, equipment, and material necessary to provide and use a bentonite clay gel or a weighted brine as a "kill" fluid for the drilling and plugging process of the well.

B. Materials: Based on the onsite conditions the Contractor shall propose a brine or gel for approval from the Division. Once a material is approved the Division will require a minimum quantity be maintained at the site during the plugging project.

C. Measurement: Measurement for payment for the above-described work shall be made by the actual quantity of barrels (bbls) of kill fluid used to successfully plug and/or drill the orphan well. 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 **"Alternative Well Control Fluid"**.

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, 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. The Contractor shall propose the material for shooting of the casing or tubing 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.

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"**.

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"**.

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 is known to have, is emitting H_2S gas in excess

of permissible exposure limits (PEL) or is in a H_2S township. **Per 29 CFR 1910.1000, Air Contaminants, Table Z-2 the permissible exposure limits (PEL) ceiling standard for H_2S is 20 ppm.** This shall also include any labor, equipment, materials, and time needed to implement these safety procedures. The H_2S 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 H_2S emitted from the well. All personnel on location must have and wear H_2S monitor and/or 4-gas monitor. If permissible exposure limits (PEL) are exceeded, the Contractor will be required to have an H_2S safety team on site until the geological zone of interest is covered with cement and no further H_2S issues are at the surface while the well is vented for a minimum of 8 hours. The H_2S 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 H_2S 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 H_2S 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 H_2S 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 **"H_2S 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 (H_2S) 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 (H_2S) 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 H_2S 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 gallons for **"Hydrogen Sulfide Scavenger"**.

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 **Offer 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 in order to assess a 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.

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"**.

CONDUCTOR CASING (10.75")

A. Description: This item covers all labor, equipment, and material required to set conductor casing for the plugging of the orphan well.

B. Materials: The conductor casing shall be 10.75-inch outside diameter (OD) casing conforming to 40 pounds per foot with API threads or an approved equal material specifications.

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.

C. Installation and Execution: The conductor casing shall be driven to a depth as detailed in the **Plugging Plan** and **Offer Sheet**. This quantity is for estimating purposes only. The Division shall not be responsible for additional materials if an alternative method is proposed for use.

D. Measurement: Measurement for payment for the conductor casing shall be made by actual field measurements of quantities satisfactorily installed and completed per linear foot of conductor casing set.

E. Payment: Payment for this item shall be made at the price per linear foot of **"Conductor Casing (10.75")"**.

ASPHALT PAVEMENT

A. Description: This work shall include furnishing all labor, materials, equipment, and supplies necessary to construct the asphalt pavement, as required per Division inspection, once all equipment has been removed from the site during the final site restoration. This work shall also include furnishing all labor, materials, equipment, and supplies necessary to cut and remove the existing asphalt pavement and unsuitable base material.

This work shall only include pavement that is located within the limits approved by the Division to complete the project as shown on the Drawing Plan Set. Any damage caused by the Contractor by working outside of the limits set shall be repaired at the Contractor's expense and conform to this line item.

B. Materials:

1. Asphalt. Asphalt shall be Bituminous materials and mixes and shall conform to ODOT Standard Specifications Items 441 Asphalt Concrete, Intermediate Course, (Type 2), 448 and 441 Asphalt Concrete, Surface Course, (Type 1), PG 64-22. Material shall be furnished from an ODOT approved source. Proof of current ODOT approval and aggregate samples may be required. The asphalt shall be rolled until smooth and match the grade and width of the existing pavement to the satisfaction of the Division.

2. Base. Dependent upon the condition of the encountered subgrade, No. 304 Aggregate base, a minimum of three (3) inches thick, shall be installed prior to the placement of asphalt at the discretion of the Division. All No. 304 Aggregate base placed shall be compacted by a minimum of three (3) passes of a vibratory plate compactor capable of exerting a minimum of 2,000 pounds of centrifugal force.

3. Surface Preparation. The areas between the existing subgrade and proposed asphalt shall be properly prepared as shown on the Drawing Plan Set conforming to ODOT Standard Specifications Items 408 Bituminous Prime Coat (0.25 gallons/square yard) and 407 Tack Coat (0.075 gallons/square yard).

4. Sealer. The joints between the existing and proposed asphalt will be sealed with a crack seal that conforms to ODOT Standard Specifications Item 423 Crack Seal (Type 1) and then the proposed asphalt coated with an asphalt sealer (1.5 gallons/square yard). Asphalt sealer shall be as manufactured by Black Jack, Drive Maxx 700, or an approved equal.

C. Installation: The Division shall be notified at least 24 hours in advance of placing asphalt.

1. Excavation. Upon field evaluation of the existing asphalt pavement, within the limits of construction, by the Division, the Contractor shall excavate a minimum of three (3) inches below the existing grade of the pavement designated by the Division for removal. **All existing**

asphalt shall be removed by means of saw cutting based on Division inspection. All removal and disposal shall be considered incidental to this line item.

2. Stone Base. The No. 304 Aggregate Base shall be placed within the limits of the excavation and compacted at the discretion on the division.

3. Asphalt. The sub-base shall be inspected and approved by the Division prior to commencing with the asphalt.

   Before placing the asphalt, all surfaces which will be in contact with the asphalt shall be thoroughly cleaned and the space occupied by the asphalt shall be free from all silt, dirt, shavings, rust, and other debris.

   Asphalt shall not be deposited in water.

4. Hot Applied Joint Sealer. The Contractor shall seal the joints between the existing and constructed asphalt and shall ensure the seal has a smooth finish.

D. Construction Methods:

1. The Contractor shall compact the pavement subgrade using a vibrating plate compactor as field conditions require per the Division. Sub-grade compaction shall be incidental to this line item.

2. Aggregate Base (ODOT Item 304 Aggregate Base) shall be placed and compacted using a vibrating plate compactor. The placement of the base material shall be approved by the Division prior to placement of the asphalt pavement. Compacted No. 304 aggregate shall be incidental to this line item.

3. The Contractor shall apply the Bituminous Prime Coat (ODOT Item 408) at the rate of 0.25 gallons per square yard with a pressure distributor or approved pressure spray method.

   When the prime coat has become tacky but not dry and hard, ODOT Item 441 Asphalt Concrete Intermediate Course, (Type 2), 448, shall be placed. The asphalt shall be compacted per ODOT Item 401.

   The Contractor shall apply the tack coat (ODOT Item 407) at the rate of 0.075 gallons per square yard with a pressure distributor or approved pressure spray method.

   When the tack coat has become tacky but not dry and hard, ODOT Item 441 Asphalt Concrete Surface Course, (Type 1), PG 64-22, shall be placed. The asphalt shall be compacted per ODOT Item 401.

   The completed surface shall match the grades and slopes of the adjacent existing surfacing and be free of offsets, depressions, raised places, and all other irregular surfaces.

   The Contractor shall apply ODOT Item 423, Crack Seal, (Type 1), to the existing saw cuts.

   The Contractor shall apply asphalt sealer at 1.5 gallons per square yard to the top of the asphalt pavement.

4. In the event the progress and scheduling of the work is such that the asphalt pavement replacement would occur in the winter months, during adverse cold weather, and/or during

such times the asphalt plants are not in operation, then the final pavement replacement shall be postponed until favorable weather occurs in the spring and the asphalt and concrete plants resume normal operations. No bituminous concrete shall be laid when the temperature is below 40° F except by written permission of the Chief. "Cold Mix" asphalt is specifically prohibited.

5. Pavement shall not be placed when the temperature is such that the pavement placed will freeze before it has had adequate time to set.

6. The Contractor shall be responsible for replacement of pavement that has been placed and which has been damaged by inclement weather conditions without additional compensation.

7. The joints between the replaced and existing sections of pavement shall be sealed with ODOT Item 705.04 Hot Applied Joint Sealer in a way that creates a smooth transition and completely seals the gap to the satisfaction of the Division

E. Measurement: Measurement for payment for the asphalt pavement shall be made by actual field measurements of quantities satisfactorily installed at the site. The asphalt pavement shall be measured per square foot installed.

F. Payment: Payment for all the above described work shall be made at the unit price per square foot for **"Asphalt Pavement"**.

VAULT

A. Description: This work shall include all material, labor, and equipment necessary for the excavation and installation of a modified precast ODOT Catch Basin 2-3 per ODOT Standard Construction Drawing Number: CB-1.2 with a modified specific frame, cover, and top assembly as shown on the Drawing Plan Set. The catch basin shall be modified to be open ended on the bottom of the basin. In addition, all fittings, joint seal, steps, connection of the vent pipes to the vault, and aggregate base in the bottom of vault shall be considered as incidental items to the completion of work detailed in this specification.

B. Materials:

1. Vault: The vault shall be a modified ODOT approved Catch Basin 2-3 per ODOT Standard Construction Drawing Number: CB-1.2 of precast concrete modular construction as shown on the Drawing Plan Set. Materials shall conform to those referenced in 2016 ODOT CMS Item 611.02 and 706.13. The following is a link to the current ODOT precast concrete producers certified in accordance with specifications.
http://www.dot.state.oh.us/Divisions/ConstructionMgt/Materials/Pages/PrecastConcreteProducersCertified.aspx

2. Frame, Cover, & Concrete Top: Frame and cover shall meet all standards of ODOT Standard Construction Drawing Number: MH-1.2 and 2019 ODOT CMS Item 711.14. Frame and cover shall state “GAS WELL” on the cover. The concrete top shall be sized to fit the Catch Basin 2-3 sidewalls.

3. Joint Seal: Joint seal for vent pipes shall be a resilient seal between the precast vault sections and flexible gasket joints per 2019 ODOT CMS Item 706.11.

4. Base: The aggregate bedding material shall conform to granular material 2019 ODOT CMS Item 304 aggregate base. This work shall be incidental to this line item.

5. Backfill: The concrete backfill shall be placed around the vault as dry Quikrete placed as shown on the vault detail on the Drawing Plan Set.

C. Installation:

1. The vault shall be excavated and installed as directed by the division in the field. **The Contractor shall excavate and maintain the sides of the trenches as required by OSHA**. **No person shall be permitted to enter the trench unless OSHA required standards are constructed for the trenches.** No additional payment shall be made for excavation of material beyond the depth and width as directed by the Division. Any dewatering required to keep the trench dry during construction shall be performed by the Contractor.

2. Clean surface of vault pipe openings and exterior side of vent pipes of all foreign material. Place the vent pipes as directed. Install or have precast rubber gaskets on the vault. Complete a watertight seal per ASTM C923 for all vent pipes with the rubber gasket.

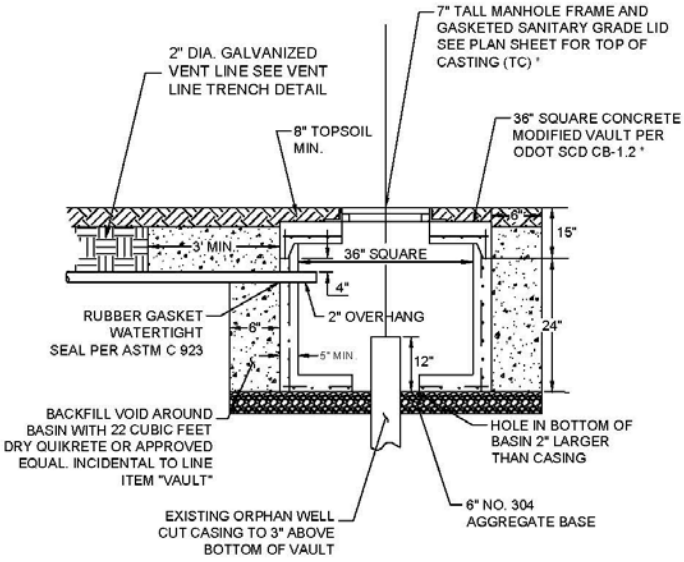
3. Fill the base grade with 2016 ODOT CMS Item 304 in a level manner to the dimensions define in the details. **This work and material shall be considered incidental to this line item.**

4. No backfilling shall be permitted without visual inspection and approval of the Division. The backfill for the vault shall be dry Quikrete or approved equal placed to fill around the vault. Any remaining area not filled by the quantity shown on the detail shall be backfilled by materials excavated from around the vault and shall be compacted with on-site equipment with the exception of the topsoil.

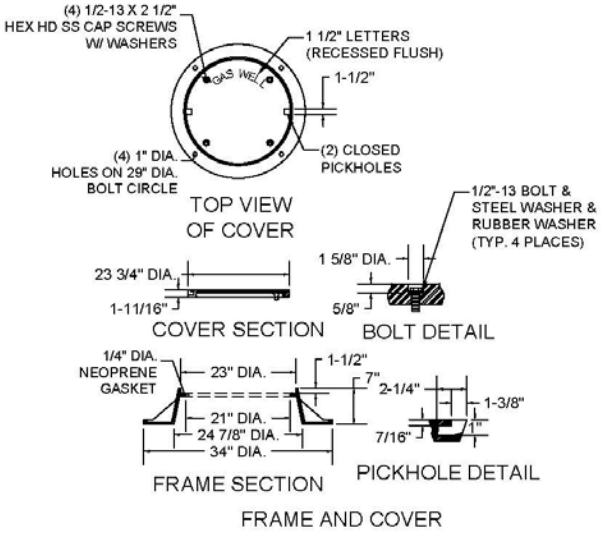
5. A minimum eight (8) inches of topsoil shall be removed and stockpiled during construction. Topsoil shall be utilized at trench backfill completion and shall not be compacted. Trench settlement shall be corrected by the Contractor to maintain existing grade outside the trench.

D. Measurement: Measurement for payment shall be made by field inspection of quantities satisfactorily installed.

E. Payment: Payment for this work shall be made at the cost proposal unit price per each for **"Vault."**



SECTION VIEW & PROFILE



NOTES:

1. JOINT SEAL: FURNISH RESILIENT SEAL BETWEEN PRECAST MANHOLE SECTIONS AND FLEXIBLE GASKET JOINTS PER ODOT CMS 706.11.
2. MATERIALS: PROVIDE MATERIALS FOR PRECAST SECTIONS, INCLUDING REINFORCEMENT NOT SPECIFIED HERE, THAT MEET THE REQUIREMENTS OF ODOT CMS 706.13.
3. FRAME & COVER: PROVIDE MATERIALS THAT MEET THE MATERIALS REQUIREMENTS OF ODOT CMS 711.14.
4. VENT PIPES: HORIZONTAL AND VERTICAL LOCATIONS SHALL BE DEFINED IN PLAN VIEW OF THIS PLAN SET OR AS DETERMINED BY THE CHIEF.
5. **VENT PIPE SUPPORT: CONCRETE SHALL MEET THE REQUIREMENTS OF ODOT CLASS "C" AND SHALL BE PLACED IN THE CONCRETE TUBE AS SHOWN IN THE SECTION VIEW. THE VENT PIPE SHALL BE SET THROUGH THE TUBE PRIOR TO THE PLACEMENT OF THE CONCRETE.

VAULT DETAILS
NOT TO SCALE

VENT PIPE

D. Description. This work shall include all material, labor, and equipment necessary for the excavation and installation of a two (2) inch diameter galvanized steel vent pipe. In addition, all pipe fittings shall be considered as incidental items to the completion of work detailed in this specification. Work and materials associated with the Building Attached Vent Support as detailed below and shall be considered incidental to this line item.

E. Materials (Vent Pipe):

1. Vent Pipe & Fittings: All pipe and associated fittings shall be schedule 40 galvanized steel.

2. Monitoring Plug: Monitoring plug shall be made of brass and shall be ¾-inch in diameter.

3. Insect and Rodent Vent Screen: The screen shall be made of either stainless steel or galvanized steel.

4. Backfill: Backfill vent pipe trench with compacted earth from excavation, up to within three (3) feet of the vault.

5. Building Attached Vent Pipe Support: This work shall include everything needed to complete the work on the Vent Supports as detailed.

C. Installation. The vent pipe shall be installed according to the details. The pipe and fittings shall be connected and installed in accordance with manufacturer's instructions.

The trench for the vent pipe shall be excavated to the elevations shown on the Drawing Plan Set. **The Contractor shall excavate and maintain the sides of the trench as required by OSHA**. **No person shall be permitted to enter the trench as is designed on the Detail.** No additional payment shall be made for excavation of material beyond the depth and width as shown on the Detail.

Any dewatering required to keep the trench dry during construction shall be performed by the Contractor.

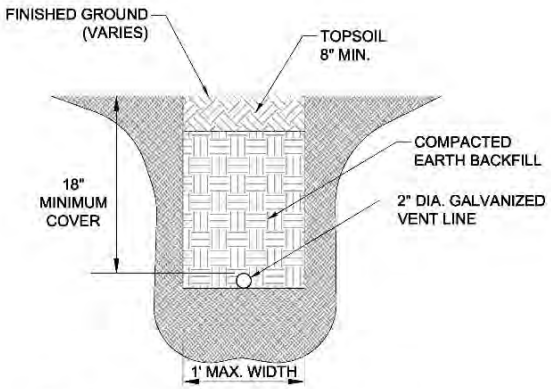
No backfilling shall be permitted without visual inspection and approval of the Division. **Backfill shall be placed in six (6) inch maximum lifts and compacted by a minimum of three (3) passes of a vibratory plate compactor capable exerting a minimum of 2,000 lbs. of centrifugal force.** The loose lifts shall be compacted to the satisfaction of the Division. All materials excavated and replaced with the exception of the topsoil shall be compacted.

All topsoil shall be removed and stockpiled during construction. Topsoil shall be utilized at trench backfill completion and shall not be compacted. Trench settlement shall be corrected by the Contractor to maintain existing grade outside the trench.

As an equal the contractor may choose to bore the vent pipe in place rather than trench the vent pipe in place. All dimensions and grades shall be maintained as planned if boring is chosen by the contractor. The Division shall be given written notice with boring locations supplied prior to the start of work. The Division will approve the boring locations. This work shall be completed within the approved work limits. Any additional costs associated with boring shall be incorporated into this line item **"Vent Pipe."**

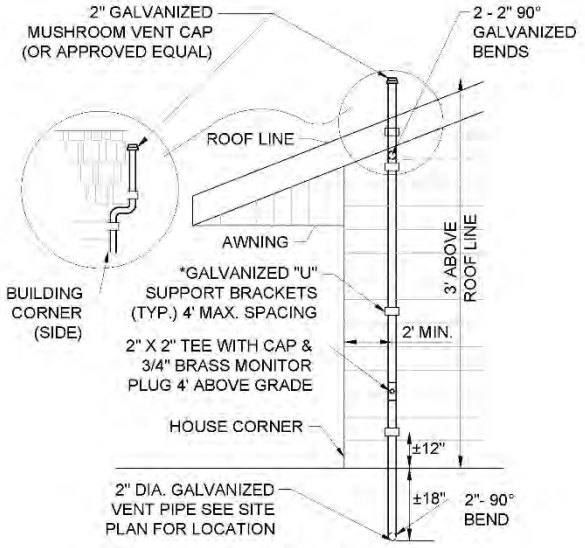
D. Measurement. Measurement for payment for the vent pipe shall be made by actual field measurements of quantities satisfactorily installed and completed per linear foot of vent pipe.

E. Payment. Payment for all the work specified above shall be made at the cost proposal unit price per linear foot for **"Vent Pipe."**



NOTE:
THE TRENCHES FOR THE VENTS SHALL BE EXCAVATED TO MINIMUM COVER OF 18" TO THE ALIGNMENT SHOWN ON THE DRAWING PLAN SET. THE DIVISION SHALL APPROVE ANY FIELD ADJUSTMENTS. **THE CONTRACTOR SHALL EXCAVATE AND MAINTAIN THE SIDES OF THE TRENCHES AS REQUIRED BY OSHA. NO PERSON SHALL ENTER ANY TRENCH NOT MAINTAINED AS REQUIRED BY OSHA FOR ENTRY.** ANY APPROVED ADJUSTMENTS SHALL BE AT THE CONTRACTOR'S EXPENSE.

VENT LINE TRENCH DETAIL
NOT TO SCALE



BUILDING ATTACHED VENT SUPPORT DETAIL
NOT TO SCALE

VENT PIPE SUPPORT

A. Description. This work shall include all material, labor, and equipment necessary for the excavation and installation of a two (2) inch diameter galvanized steel vent pipe support as detailed. In addition, all pipe fittings shall be considered as incidental items to the completion of work detailed in this specification. Work and materials associated with the Vent Support as detailed below and shall be considered incidental to this line item.

B. Materials (Vent Pipe):

1. Vent Pipe & Fittings: All pipe and associated fittings shall be schedule 40 galvanized steel.

2. Monitoring Plug: Monitoring plug shall be made of brass and shall be ¾-inch in diameter.

3. Insect and Rodent Vent Screen: The screen shall be made of either stainless steel or galvanized steel.

4. Backfill: Backfill vent pipe trench with compacted earth from excavation, up to within three (3) feet of the vault.

5. Vent Pipe Support: This work shall include everything needed to complete the work on the Vent Supports as detailed.

C. Installation. The vent pipe support shall be installed according to the details. The pipe and fittings shall be connected and installed in accordance with manufacturer's instructions.

The trench for the vent pipe shall be excavated to the elevations shown on the Detail. **The Contractor shall excavate and maintain the sides of the trench as required by OSHA**. **No person shall be permitted to enter the trench as is designed on the Detail.** No additional payment shall be made for excavation of material beyond the depth and width as shown on the Detail.

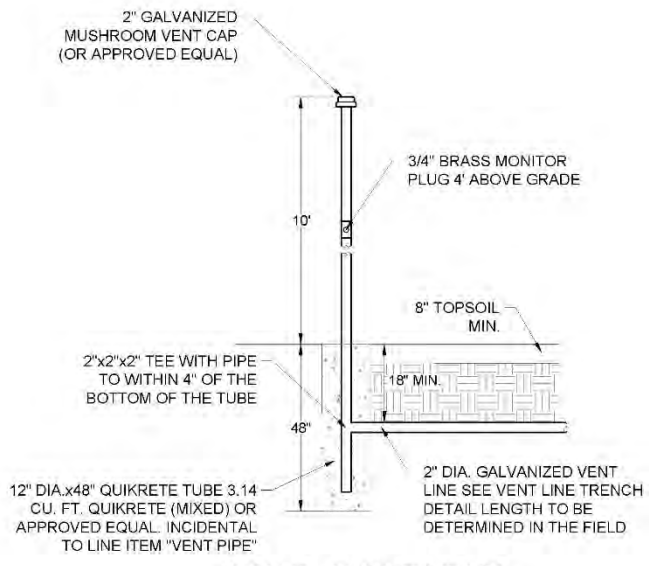
Any dewatering required to keep the trench dry during construction shall be performed by the Contractor.

No backfilling shall be permitted without visual inspection and approval of the Division. **Backfill shall be placed in six (6) inch maximum lifts and compacted by a minimum of three (3) passes of a vibratory plate compactor capable exerting a minimum of 2,000 lbs. of centrifugal force.** The loose lifts shall be compacted to the satisfaction of the Division. All materials excavated and replaced with the exception of the topsoil shall be compacted.

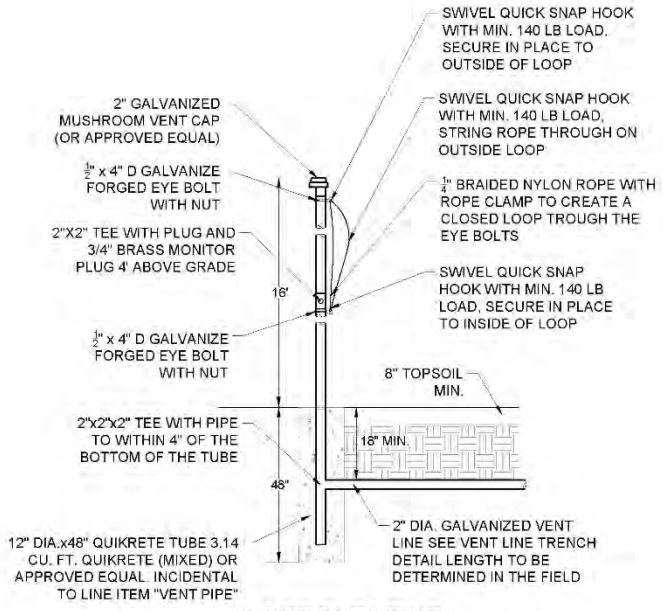
All topsoil shall be removed and stockpiled during construction. Topsoil shall be utilized at trench backfill completion and shall not be compacted. Trench settlement shall be corrected by the Contractor to maintain existing grade outside the trench.

F. Measurement. Measurement for payment for the vent pipe support shall be made by actual field measurements of quantities satisfactorily installed and completed per linear foot of vent pipe.

G. Payment. Payment for all the work specified above shall be made at the cost proposal unit price per each for **"Vent Pipe Support."**



STAND ALONE VENT SUPPORT DETAIL
NOT TO SCALE



FLAGPOLE VENT SUPPORT DETAIL
NOT TO SCALE

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_2S) Gas (within the Working Area)	Exceeding **20 ppm** (Sustained airborne concentration); For duration > 10 min	**OR** any H_2S 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
Release of Brine from a Vehicle, Vessel, Railcar, or Container	> 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)
		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 40 CFR 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 equal to or > than 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 *Code of Federal Regulations (C.F.R.) References:* 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))*

1. 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;
2. Properly functioning emission control devices authorized pursuant to Revised Code Section 3704.03;
3. Subsurface detonation of perforation-guns;
4. Seismic shots;
5. Controlled blasting for well site construction

Date Last Edited & Printed: 9/27/2018

APPENDIX II: PICTURES AND OFFSET WELL CARDS


Jim Spurgat #2
34-063-6-2330-00-00
Jan 14, 2021 at 3:08:01 PM
Rawson OH 45881
United States


Jim Spurgat #3
34-063-6-2328-00-00
Jan 14, 2021 at 2:58:22 PM
Rawson OH 45881
United States


Frank Fried #5
34-063-6-2329-00-00
Jan 14, 2021 at 3:14:01 PM
Rawson OH 45881
United States
DANGER
DEEP
WATER
Well 62329


Ellerbrock #1
34-063-6-7327-00-00
Jan 14, 20
at 1:43:07 PM
7201-7599 T
ship Road 48
Rawson OH 45881
United States


Ellerbrock #2
34-063-6-7328-00-00
Jan 14, 2021 at 1:54:36 PM
7201–7599 Township Road 48
Rawson OH 45881
United States


Ellerbrock #3
34-063-6-7329-00-00
Jan 14, 2021 at 2:03:12 PM
7201–7599 Township Road 48
Rawson OH 45881
United States


Dixie Farms #1
34-063-6-7346-00-00
Jan 14, 2021 at 4:25:51 PM
13000–13498 Township Road 60
Rawson OH 45881
United States


Welch Family Trust #1
34-063-6-7336-00-00

Offset Well Card for wells pictured above:

Ohio Division Of Geological Survey

20095

Permit No. 95
Permit Issued 9/18/59

County Hancock Township Eagle Quadrangle
Section 6 Lot Tract Twp. Quarter
Measured 650' S/N and 400' E/W line of SW¼
154 acres
Land Owner Franklin Deeds Well No. 1 Date Commenced 9/18/59
Operator Frank M. Dever Well No. Date Completed 11/10/59
Elevation Bar S.L. - Total Depth 1686 Plugged Back
Formation Drld. To. Prod. Form. Prod. Nat. dry hole
I.P.
Init. Rock Press.
Casing Record 528' of 7"; 8" - 25' Abandoned 11/10/59

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
plugging report:							
Trenton	1320	1686					
completion:							
Clay	0	26					
limestone	26	526					
shale (blue)	526	800					
shale (lt.gr)	800	1000					
shale (br)	1000	1320					
trenton	1320	1686					
T.D.		1686	dry hole				


Elsea #1
34-063-6-7345-00-00
Jan 14, 2021 at 12:47:45 PM
14500–14782 County Road 9
Findlay OH 45840
United States

Offset Well Card for wells pictured above:

[redacted] SCH: GR-N, IL-EL 20143

Ohio Division Of Geological Survey

SD

Permit No. 143
Permit Issued 7-31-64
Quadrangle
Twp. Quarter

County Hancock Township Eagle
SE¼ Section 14 Lot Tract
Measured 890' EL & 230' SL of SE of sec. 14
149.064 acres Cor - FWC - R.T.
Land Owner W.E. & R.M. Stahl Well No. 1 Date Commenced 7-28-64
Operator Joseph K. Oneill Jr. Well No. Date Completed 8-7-64
Elevation Bar S.L. 832.6,840KB Total Depth 2123' Plugged Back
Formation Drld. To. Prod. Form. Prod. Nat.
I.P. D & A
Init. Rock Press.
Casing Record 8-5/8"-365', 10 3/4"-352.61'/200sx Abandoned 8-7-64

Formation	Top	Bottom	Remarks	Formation	Top	Bottom	Remarks
N= 470,100							
E= 1,675,900							
PLUGGING REPORT:							
Big Lime	5	384					
Trenton	1256						
Tpl.	1975						
COMPLETION REPORT							
Tr.	1258						
Blk. R.	1765						
Tpl.	1964						


Virgil Cotner #1
34-063-6-7311-00-00
Jan 14, 2021 at 12:28:47 PM
10019-10221 County Road 40
Findlay OH 45840
United States


Me and Hers LLC #1
34-063-6-7343-00-00
Aug 26, 2020 at 10:14:56 AM
13754 US-68
Findlay OH 45840
United States
8" ID Casing
34-063-6-7343-00-00


Me and Hers LLC #1
34-063-6-7343-00-00
Aug 26, 2020 at 10:15:14 AM
13754 US-68
Findlay OH 45840
United States
8" ID Casing with
white residue
Bubbling gaş in water; 4ppm H2S
34-063-6-7343-00-00


Mitchell Trust #1
34-063-6-7335-00-00

Scope of Work
Offer Sheet
Hancock #3 Project
Hancock County: Multiple Townships

Well Name: Jim Spurgat 1,2,&3, Frank Fried 5, Ellerbrock 1, 2,&3, Dixie Farms 1, Welch Family Trust 1, Clair Hartman 1, Elsea 1, Virgil Cotner 1, Me and Hers LLC 1, & Mitchell Trust 1

Permit Number: 34-063-2327, 2330, 2328, 2329, 7327, 7328, 7329, 7346, 7336, 7310, 7345, 7311, 7343, & 7335

TD =1300'- 1450' Trenton

Line Number	Description	Unit Price	Quantity	Unit	Item Total
1	Mobilization		9	Lump Sum	
2	Site Safety		13	Lump Sum	
3	Site Safety (Me & Hers LLC)		1	Lump Sum	
4	Road Mats		5369	Sq. Ft.	
5	Timber Mats		512	Sq. Ft.	
6	Secondary Containment		14	Lump Sum	
7	Silt Fence		150	Linear Ft	
8	10" Culvert		60	Linear Ft	
9	No. 2 Stone		100	Ton	
10	No. 4 Stone		275	Ton	
11	No. 57 Stone		425	Ton	
12	No. 304 Stone		120	Ton	
13	Type "C" Rock Channel Protection		325	Ton	
14	Filter Fabric		800	Sq. Yd.	
15	Surface Casing (5.5")		1250	Linear Ft	
16	Well Head Control		12	Lump Sum	
17	Well Head Control (Frank Fried #5)		1	Lump Sum	
18	Well Head Control (Welch FT #1)		1	Lump Sum	
19	Well Control Fluid		1050	BBL	
20	Logging (GR/CCL/Bond/Caliper)		6	Each	
21	Well Preparation & Plugging (Jim Spurgat #1)		1	Lump Sum	
22	Well Preparation & Plugging (Jim Spurgat #2)		1	Lump Sum	
23	Well Preparation & Plugging (Jim Spurgat #3)		1	Lump Sum	
24	Well Preparation & Plugging (Frank Fried #5)		1	Lump Sum	
25	Well Preparation & Plugging (Ellerbrock #1)		1	Lump Sum	
26	Well Preparation & Plugging (Ellerbrock #2)		1	Lump Sum	
27	Well Preparation & Plugging (Ellerbrock #3)		1	Lump Sum	
28	Well Preparation & Plugging (Dixie Farms #1)		1	Lump Sum	
29	Well Preparation & Plugging (Welch FT #1)		1	Lump Sum	
30	Well Preparation & Plugging (Clair Hartman #1)		1	Lump Sum	
31	Well Preparation & Plugging (Elsea #1)		1	Lump Sum	
32	Well Preparation & Plugging (Virgil Cotner #1)		1	Lump Sum	
33	Well Preparation & Plugging (Me&Hers LLC #1)		1	Lump Sum	

34	Well Preparation & Plugging (Mitchell Trust #1)		1	Lump Sum	
35	Tubing		1	Lump Sum	
36	Class "A" Cement		4500	Sack	
37	Cement Mixing & Pumping		45	Each	
38	Fluid Disposal		1300	BBL	
	UIC#:				
39	Contaminated Material Disposal		125	Ton	
	Disposal Facility:				
40	Salvage Material Disposal		1	Lump Sum	
41	Salvage Material Reimbursement				N/A
42	Crop Damage (Corn)	$ 820.00	4.27	Acre	$ 3,501.40
43	Crop Damage (Soybean)	$ 712.00	4.27	Acre	$ 3,040.24
44	Site Restoration (Spurgat & Fried)		1	Lump Sum	
45	Site Restoration (Elerbrock 1-3)		1	Lump Sum	
46	Site Restoration (Dixie Farms)		1	Lump Sum	
47	Site Restoration (Welch Family Trust)		1	Lump Sum	
48	Site Restoration (Clair Hartman)		1	Lump Sum	
49	Site Restoration (Elsea)		1	Lump Sum	
50	Site Restoration (Virgil Cotner)		1	Lump Sum	
51	Site Restoration (Me&Hers LLC)		1	Lump Sum	
52	Site Restoration (Mitchell Trust)		1	Lump Sum	
53	Demobilization		9	Lump Sum	
	Total Proposal:				

Additional/Contingency Services

54	Approved Resoil	20	Tons	
55	Alternative Well Control Fluid	525	BBL	
56	Fishing	60	Hour	
57	Magnet	1	Each	
58	Milling	60	Hour	
59	Shooting	4	Each	
60	Lost Circulation Materials	20	Sack	
61	H2S Safety Team	10	Days	
62	H2S Safety Team Standby	4	Days	
63	Hydrogen Sulfide Scavenger	55	Gallons	
64	Nine Sack Grout	12	Cubic Yard	
65	Downhole Videography	1	Each	
66	Conductor Casing (10.75")	20	Linear Ft	
67	Asphalt Pavement	1000	Sq. Ft.	
68	Vault	1	Each	

69	Vent Pipe		100	Linear Ft	
70	Vent Pipe support		1	Each	

Total Contingency:

Offer Total (Total Proposal + Total Contingency):

Note: Contractors must use the Division's offer sheet to submit an Offer. Contractor shall complete the unit price and quantity for each line item listed above. The Division may reject an offer if the contractor has made modifications to the offer sheet. The line item total shall be the unit price multiplied by the quantity. Contractors shall complete all items in the above offer sheet; failure to do so may be cause for the Division to reject an Offer. Quantities are only an estimate. Payment shall be based on quantities satisfactorily completed.

In submitting the revised offer sheet provided with the most recent Addendum issued, Contractor acknowledges receipt of all Addendums. If a contractor fails to use the revised offer sheet provided with the most recent Addendum issued, the Division may reject the offer.

The undersigned, having inspected the scope of work, hereby proposes to furnish all labor, equipment, materials, tools, and transportation necessary to perform the proposed work in accordance with the listed prices.

Offers shall be sealed & returned to the Department of Natural Resources, Division of Oil & Gas Resources Management, Attention: Shanda Lumney, 2045 Morse Rd, Building F-3, Columbus, OH 43229, until

11:30 am on September 2, 2021.

Submitted by

Name of Contractor:		
Date:		
Signature:		
Address:		
City:		Zip Code:
Telephone:		

SHEET INDEX

CONTACT INFORMATION

DIVISION OF OIL & GAS RESOURCES MANAGEMENT
OHIO DEPARTMENT OF NATURAL RESOURCES
2207 REISER AVE. SE
NEW PHILADELPHIA, OHIO 44663
PH: (330) 308-0007 FAX: (330) 308-0011

PROGRAM MANAGER
GENE CHINI
PH: (330) 284-2942

ORPHAN WELL INSPECTOR
BEN HARPSTER
PH: (740) 485-9870

PROJECT ENGINEER
KRISTOFER W. ROSER, P.E.
PH: (330) 414-3740

OHIO811.org Before You Dig

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/OGPUPS TICKET DURING THE ENTIRE PROJECT BY CONTACTING OUPS EVERY 10 DAYS. BOTH OUPS AND OGPUPS CAN BE COMPLETED USING THE OHIO 811 ONE CALL SERVICE BY PHONE OR ON THE WEB.

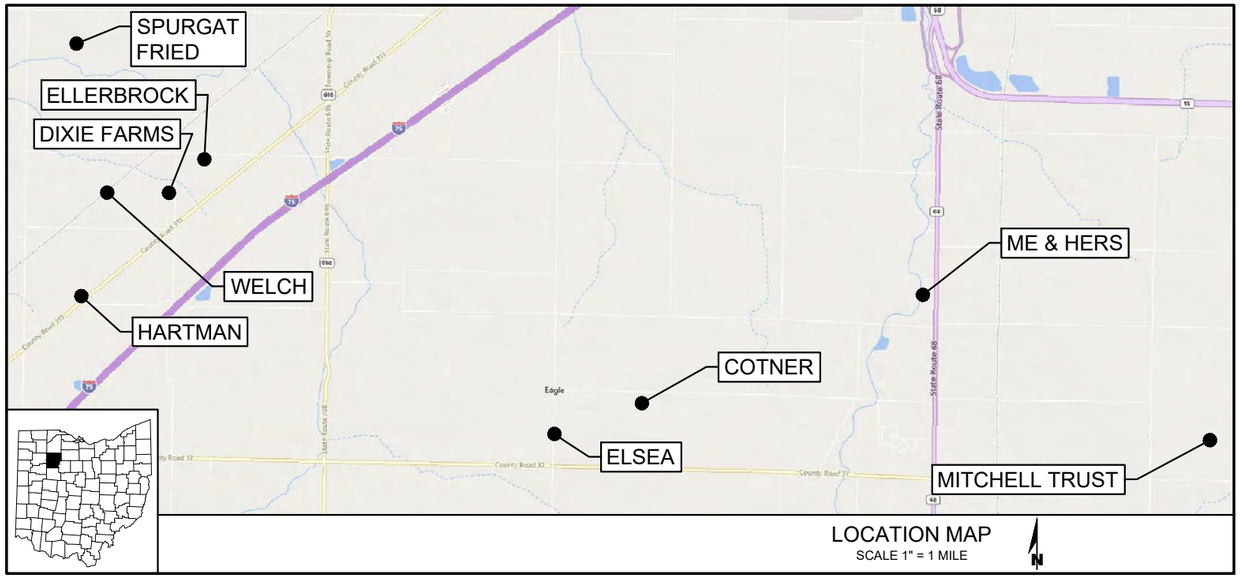
LEGEND

PROPOSED WORK LIMITS	CWL	EXISTING BURIED ELECTRIC	E
PROPOSED STONE		EXISTING OVERHEAD ELEC.	OHP
PROPOSED MATTING		EXISTING STORM	ST
PROPOSED SILT FENCE	SF	EXISTING GAS	G
EXISTING EDGE OF PVMT		EXISTING ORPHAN WELL	
EXISTING EDGE OF DRIVE		EXISTING POWER POLE	
EXISTING BUILDING		EXISTING HYDRANT	
EXISTING PROPERTY LINE		EXISTING WATER VALVE	W
EXISTING TOP OF BANK		EXISTING GAS VALVE	G
EXISTING TOE OF SLOPE		EXISTING ELECTRIC METER	E
EXISTING 1' CONTOUR		EXISTING IRON PIN FOUND	I.P.F.
EXISTING 5' CONTOUR		FLOW DIRECTION ARROW	
		ABSORBENT BOOM	

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL & GAS RESOURCES MANAGEMENT

HANCOCK #3
MULTIPLE ORPHAN WELL SITES

ORPHAN WELL INFORMATION					
WELL NAME	API NUMBER	COUNTY	TOWNSHIP	LATITUDE	LONGITUDE
JIM SPURGAT #1	34-063-6-2327-00-00	HANCOCK	EAGLE	40.991413°	-83.759219°
JIM SPURGAT #2	34-063-6-2330-00-00	HANCOCK	EAGLE	40.988987°	-83.759218°
JIM SPURGAT #3	34-063-6-2328-00-00	HANCOCK	EAGLE	40.990417°	-83.760651°
FRANK FRIED #5	34-063-6-2329-00-00	HANCOCK	EAGLE	40.990391°	-83.759214°
ELLERBROCK #1	34-063-6-7327-00-00	HANCOCK	EAGLE	40.979511°	-83.740379°
ELLERBROCK #2	34-063-6-7328-00-00	HANCOCK	EAGLE	40.979480°	-83.742207°
ELLERBROCK #3	34-063-6-7329-00-00	HANCOCK	EAGLE	40.979394°	-83.744494°
DIXIE FARMS #1	34-063-6-7346-00-00	HANCOCK	EAGLE	40.976305°	-83.747545°
WELCH FAMILY TRUST #1	34-063-6-7336-00-00	HANCOCK	EAGLE	40.976435°	-83.755718°
CLAIR HARTMAN #1	34-063-6-7310-00-00	HANCOCK	EAGLE	40.966468°	-83.758364°
ELSEA #1	34-063-6-7345-00-00	HANCOCK	EAGLE	40.954016°	-83.698792°
VIRGIL COTNER #1	34-063-6-7311-00-00	HANCOCK	EAGLE	40.956884°	-83.687682°
ME AND HERS LLC #1	34-063-6-7343-00-00	HANCOCK	EAGLE	40.967328°	-83.651911°
MITCHELL TRUST #1	34-063-6-7335-00-00	HANCOCK	JACKSON	40.954144°	-83.615494°



LOCATION MAP
SCALE 1" = 1 MILE

THIS DOCUMENT WAS ORIGINALLY ISSUED BY KRISTOFER W. ROSER, P.E. THIS DOCUMENT IS NOT CONSIDERED A SEALED DOCUMENT & IS FOR OFFER SUBMITTAL PURPOSES ONLY

KRISTOFER W. ROSER, PE — 83391 — NO. — DATE
OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL & GAS RESOURCES MGMT

DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
IDLE & ORPHAN WELL PROGRAM
http://oilandgas.ohiodnr.gov

TITLE SHEET

HANCOCK #3
MULTIPLE ORPHAN
WELL SITES

REVISION	

DESIGN UNIT O&G ENGINEERING
DRAWN BY: M.J.D./J.R.J.
CHECKED BY: K.J.R.
DATE: 06/21/2021
SHEET NO. 1 OF 13

EDIT DATE: 8/9/2021 11:26 AM EDIT BY: 10103347 DRAWING FILE: M:\ORPHAN WELL PROGRAM\PROJECTS\HANCOCK COUNTY\HANCOCK3 (ELLERBROCK DEEDS METER HARTMAN)\ENGINEERING DESIGN\DRAWINGS\FINAL DRAWING\HANCOCK3 - TITLE&DETAILS.DWG

JIM SPURGAT #1 ORPHAN WELL
TO BE PLUGGED PER THE "PLUGGING PLAN"
API No.34-063-6-2327-00-00
N= 485144.62, E= 1620901.07, EL= 791.97
LAT= 40.991413°, LONG= -83.759219°

PROPOSED
WORK LIMITS

35.00'

50.00'

100.00'

100.00'

STONE WORK PAD
SEE PROFILE
SHEET 3

1+00

0+00

FRANK FRIED #5 ORPHAN WELL
TO BE PLUGGED PER THE "PLUGGING PLAN"
API No.34-063-6-2329-00-00
N= 484772.39, E= 1620897.15, EL= 788.51
LAT= 40.990391°, LONG= -83.759214°

150.00'

100.00'

PROPOSED
WORK LIMITS

14.00'

ALL TREES TO BE REMOVED
& DISPOSED OF OFFSITE

JIM SPURGAT #2 ORPHAN WELL
TO BE PLUGGED PER THE "PLUGGING PLAN"
API No.34-063-6-2330-00-00
N= 484260.72, E= 1620888.81, EL= 784.98
LAT= 40.988987°, LONG= -83.759218°

100.00'

TEMPORARY SILT
FENCE (±150 L.F.)

150.00'

JIM SPURGAT #3 ORPHAN WELL
TO BE PLUGGED PER THE "PLUGGING PLAN"
API No.34-063-6-2328-00-00
N= 484787.53, E= 1620500.69, EL= 786.40
LAT= 40.990417°, LONG= -83.760651°

120.00'

100.00'

14.00'

EXISTING TREE
DO NOT DISTURB

PROPOSED
WORK LIMITS

TO SITE ACCESS

SEE SHEET 3

0' 50' 100' 150'

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.

ESTIMATED SITE RESTORATION QUANTITIES		
COMPONENT	RATE	QUANTITY
LIME	400 LBS/1 ACRE	182 LBS
FERTILIZER	20 LBS/1000 S.F.	1551 LBS
SEED (FIELD)	75 LBS/1 ACRE	134 LBS
MULCH	100 LBS/1000 S.F.	214 BALES

DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
IDLE & ORPHAN WELL PROGRAM
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JIM SPURGAT #1-3
FRANK FRIED #1
SITE PLAN

HANCOCK #3
MULTIPLE ORPHAN
WELL SITES

REVISION

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CHECKED BY:K.J.R.
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2 OF 13

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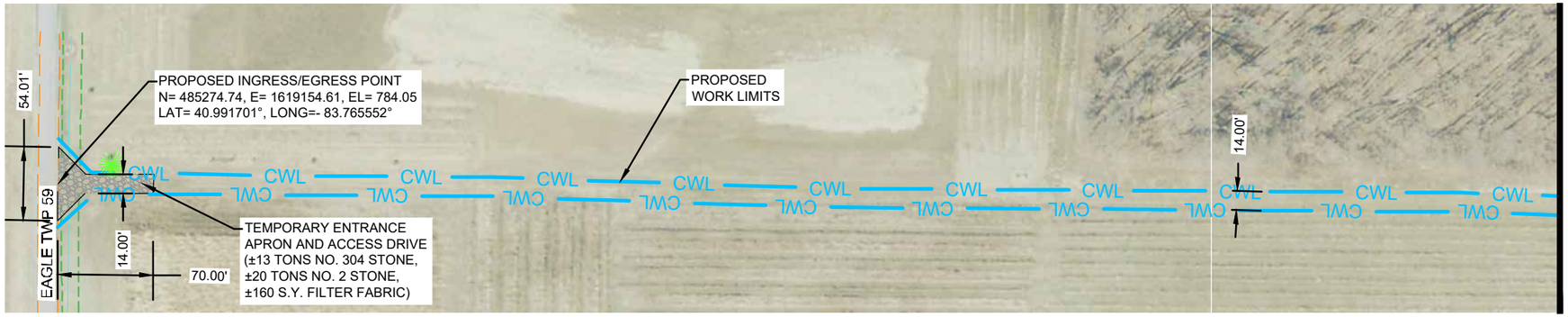

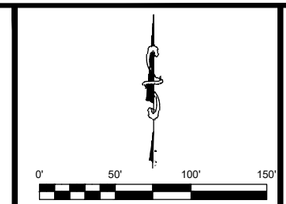

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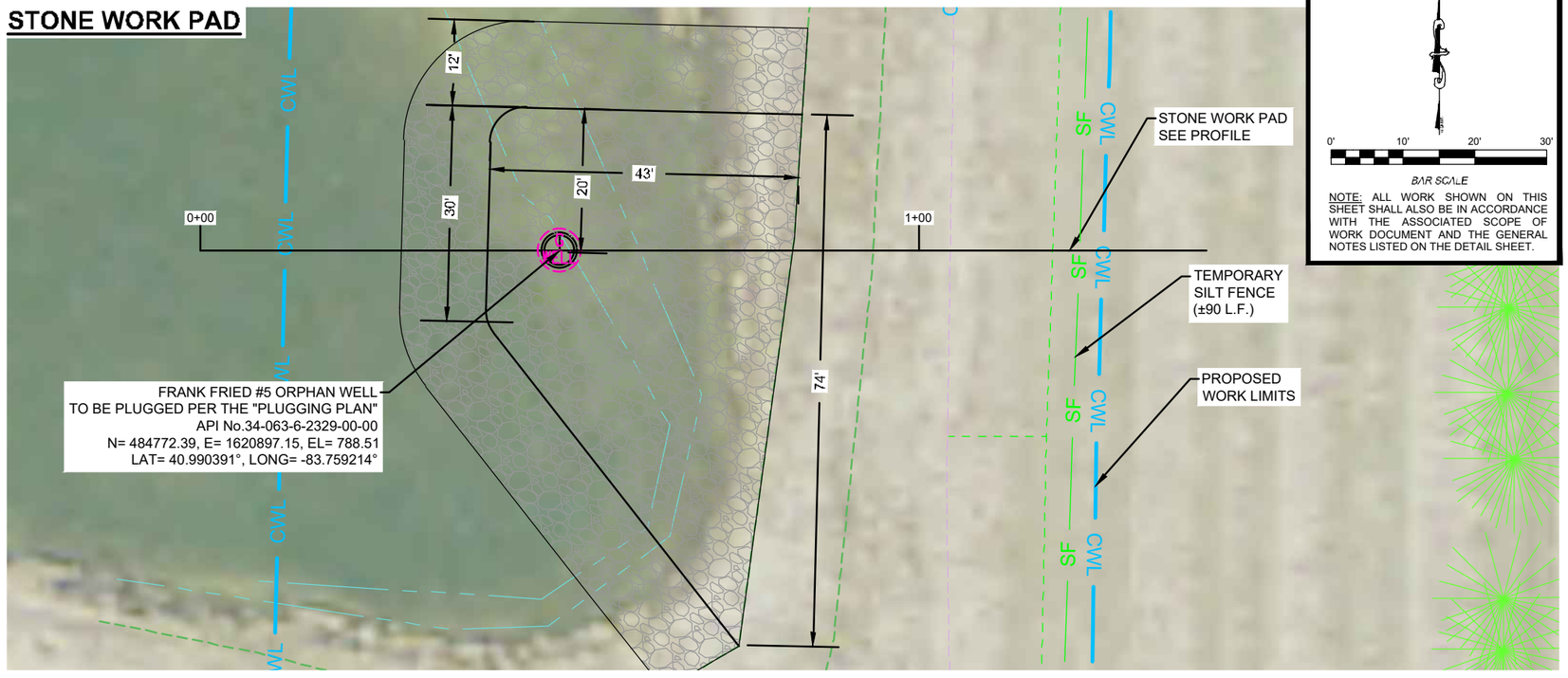
STONE WORK PAD



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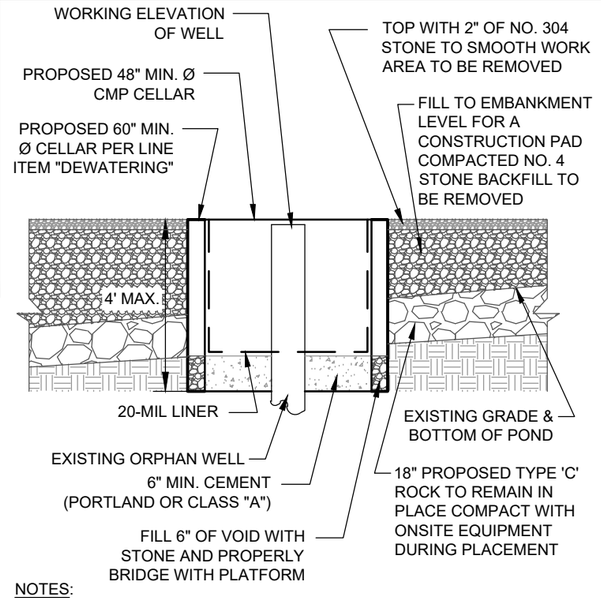
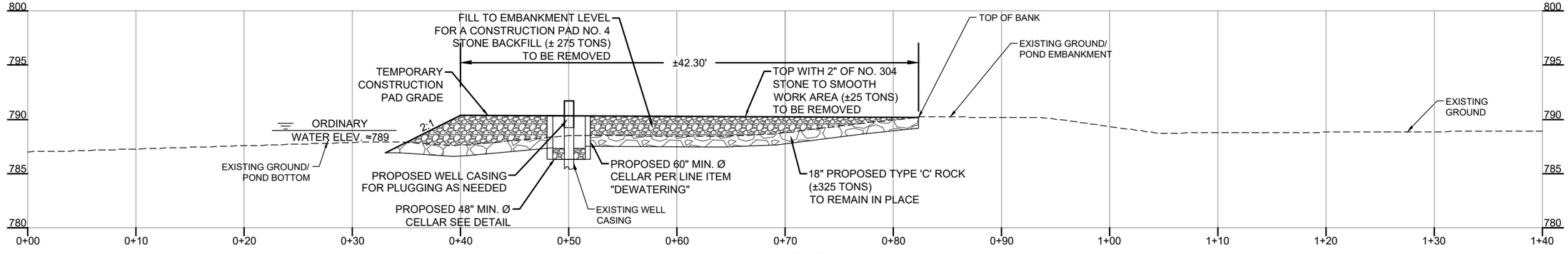


NOTES:
ALL WORK & MATERIAL ASSOCIATED WITH THE INSTALLATION & REMOVAL OF THE CELLAR SHALL BE CONSIDERED INCIDENTAL TO LINE ITEM "WELL HEAD CONTROL".

TEMPORARY CELLAR FOR DEWATERING
NOT TO SCALE



STONE WORK PAD PROFILE
SCALE: HORIZ.=1:10
VERT.=1:10

DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
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SPURGAT ACCESS AND STONE WORK PAD

HANCOCK #3 MULTIPLE ORPHAN WELL SITES

REVISION

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3 OF 13

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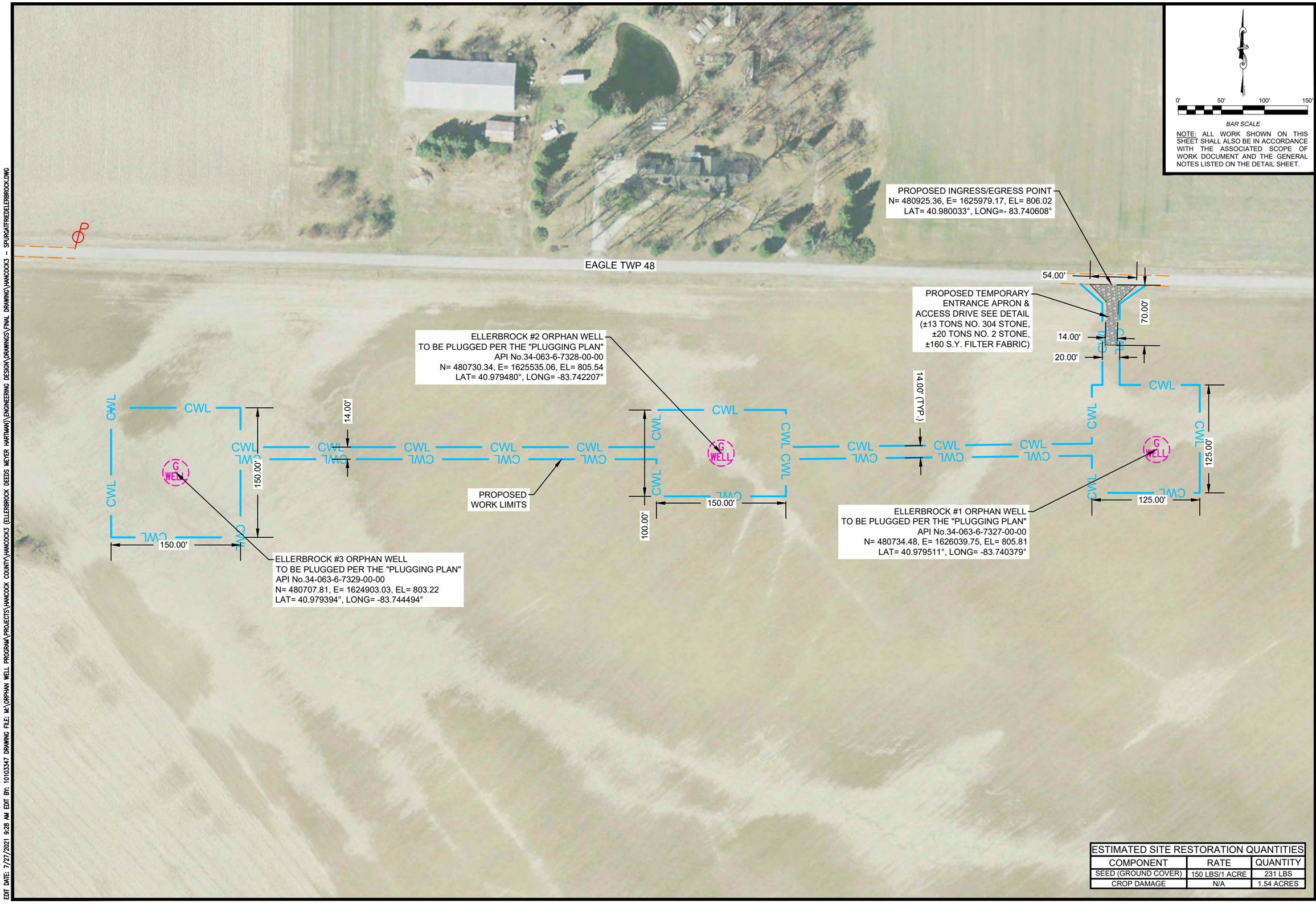

0' 50' 100' 150'

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.

ESTIMATED SITE RESTORATION QUANTITIES		
COMPONENT	RATE	QUANTITY
SEED (GROUND COVER)	150 LBS/1 ACRE	231 LBS
CROP DAMAGE	N/A	1.54 ACRES

DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
IDLE & ORPHAN WELL PROGRAM
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ELLEREBROCK #1 & ELLERBROCK #2 SITE PLAN

HANCOCK #3 MULTIPLE ORPHAN WELL SITES

REVISION

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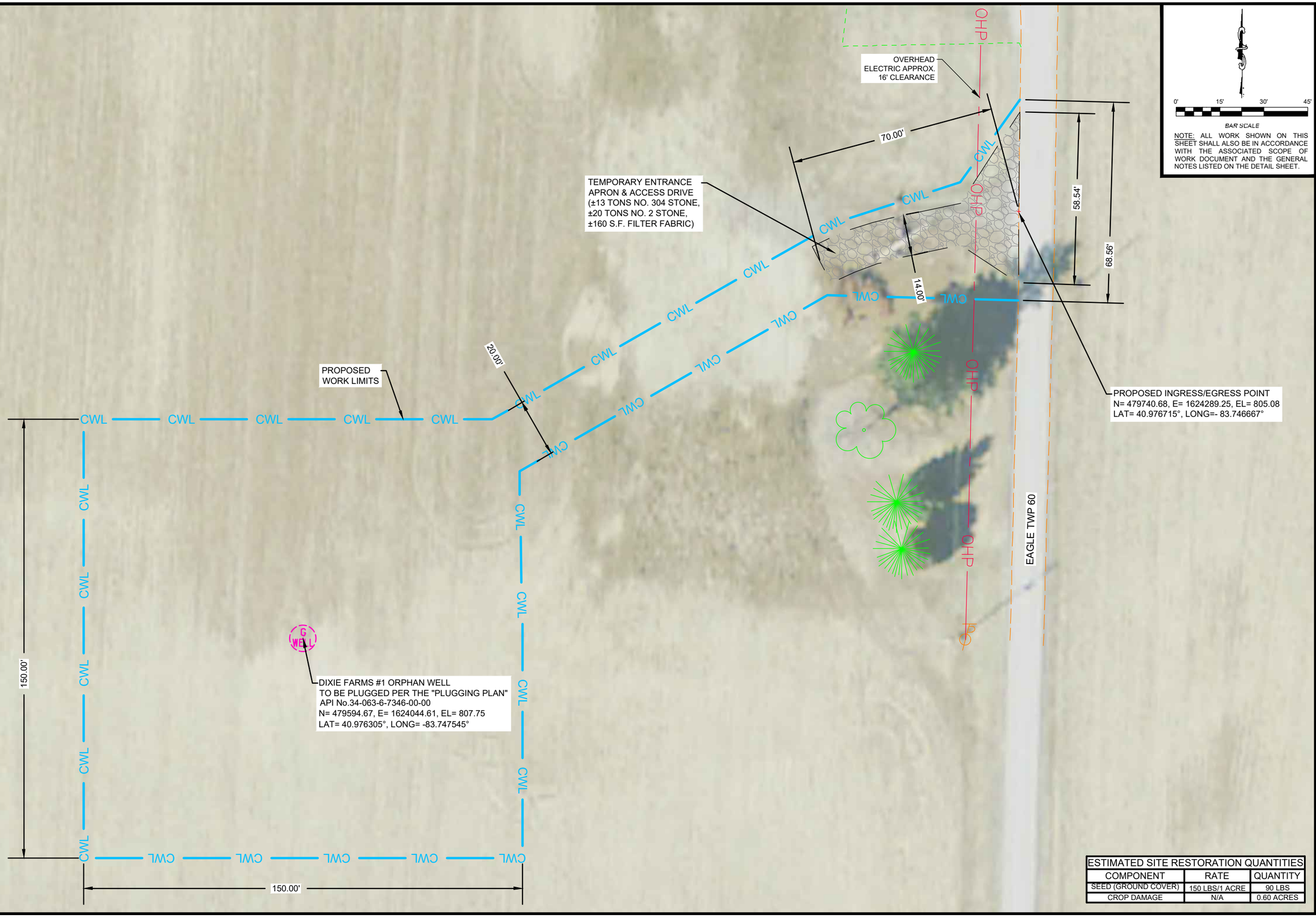

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ESTIMATED SITE RESTORATION QUANTITIES		
COMPONENT	RATE	QUANTITY
SEED (GROUND COVER)	150 LBS/1 ACRE	90 LBS
CROP DAMAGE	N/A	0.60 ACRES

DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
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DIXIE FARMS #1 SITE PLAN

HANCOCK #3 MULTIPLE ORPHAN WELL SITES

REVISION

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SHEET NO.
5 OF 13

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PROPOSED INGRESS/EGRESS POINT
N= 481001.28, E= 1622525.43, EL= 804.01
LAT= 40.980106°, LONG=- 83.753120°

ADJUST EDGE TO MATCH EXISTING DRIVE LAST 20'

DRIVE OVERLAY AS DIRECTED BY THE DIVISION (±75 TONS NO. 57 STONE)

ENTRANCE APRON & ACCESS DRIVE (±12 TONS NO. 304 STONE, ±5 TONS NO. 2 STONE)

KEEP EXISTING EDGE OF DRIVE TO PROTECT UNDERGROUND UTILITIES

EXISTING 60 INCH CONCRETE CULVERT

EXISTING BARN

EAGLE TWP 48

R.R. TRACKS

PROPOSED WORK LIMITS

WELCH FAMILY TRUST #1 ORPHAN WELL
TO BE PLUGGED PER THE "PLUGGING PLAN"
API No.34-063-6-7336-00-00
N= 479674.52, E= 1621789.06, EL= 804.97
LAT= 40.976435°, LONG= -83.755718°

ESTIMATED SITE RESTORATION QUANTITIES		
COMPONENT	RATE	QUANTITY
SEED (GROUND COVER)	150 LBS/1 ACRE	134 LBS
CROP DAMAGE	N/A	0.89 ACRES

0' 50' 100' 150'
BAR SCALE

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DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
IDLE & ORPHAN WELL PROGRAM
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WELCH FAMILY TRUST #1
SITE PLAN

HANCOCK #3
MULTIPLE ORPHAN
WELL SITES

REVISION

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6 OF 13

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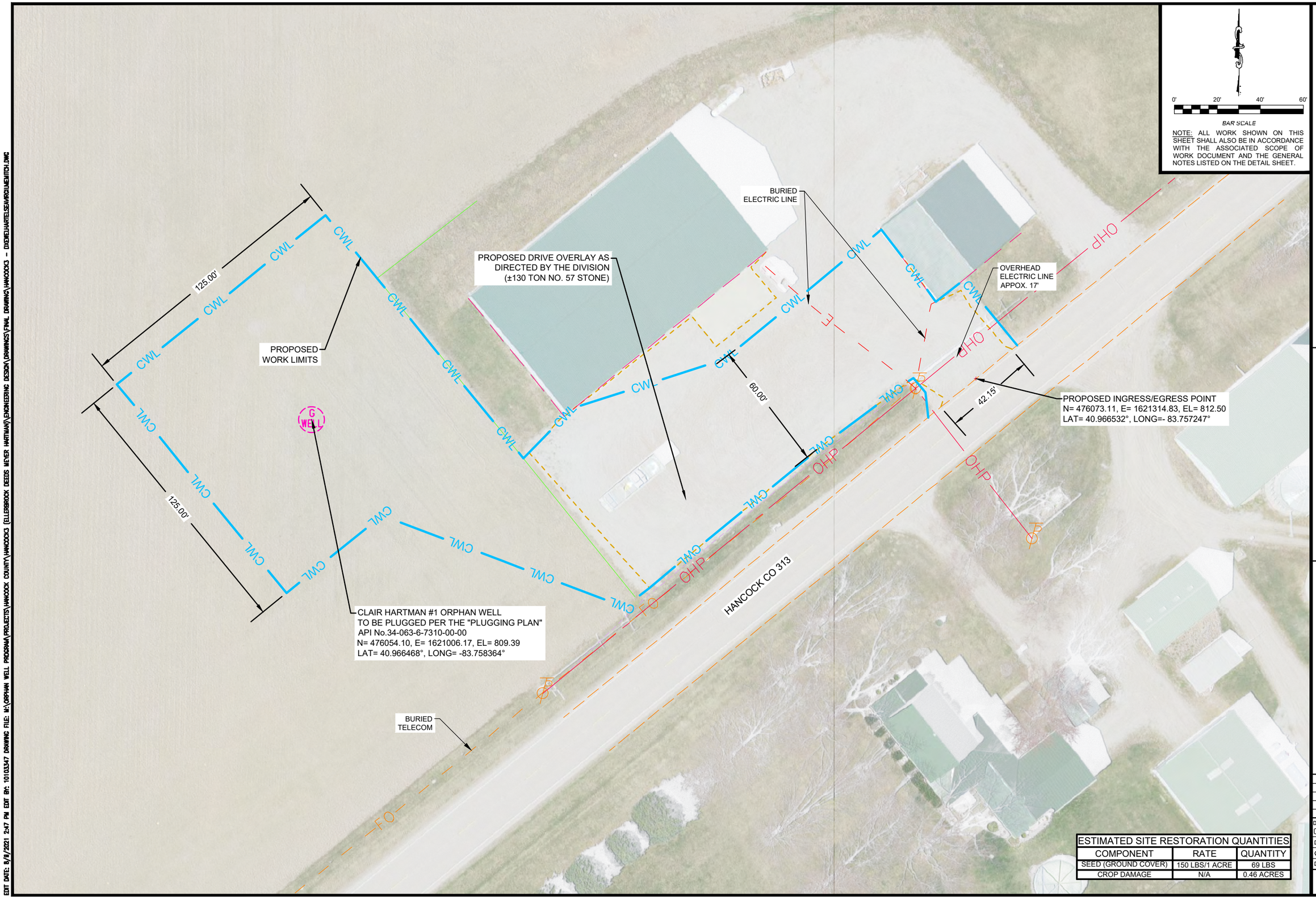

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ESTIMATED SITE RESTORATION QUANTITIES		
COMPONENT	RATE	QUANTITY
SEED (GROUND COVER)	150 LBS/1 ACRE	69 LBS
CROP DAMAGE	N/A	0.46 ACRES

DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
IDLE & ORPHAN WELL PROGRAM
http://oilandgas.ohiodnr.gov

CLAIR HARTMAN #1
SITE PLAN

HANCOCK #3
MULTIPLE ORPHAN
WELL SITES

REVISION

DESIGN UNIT
O&G ENGINEERING
DRAWN BY: N.J.D./J.R.J.
CHECKED BY: K.J.R.
DATE: 06/21/2021
SHEET NO.
7 OF 13

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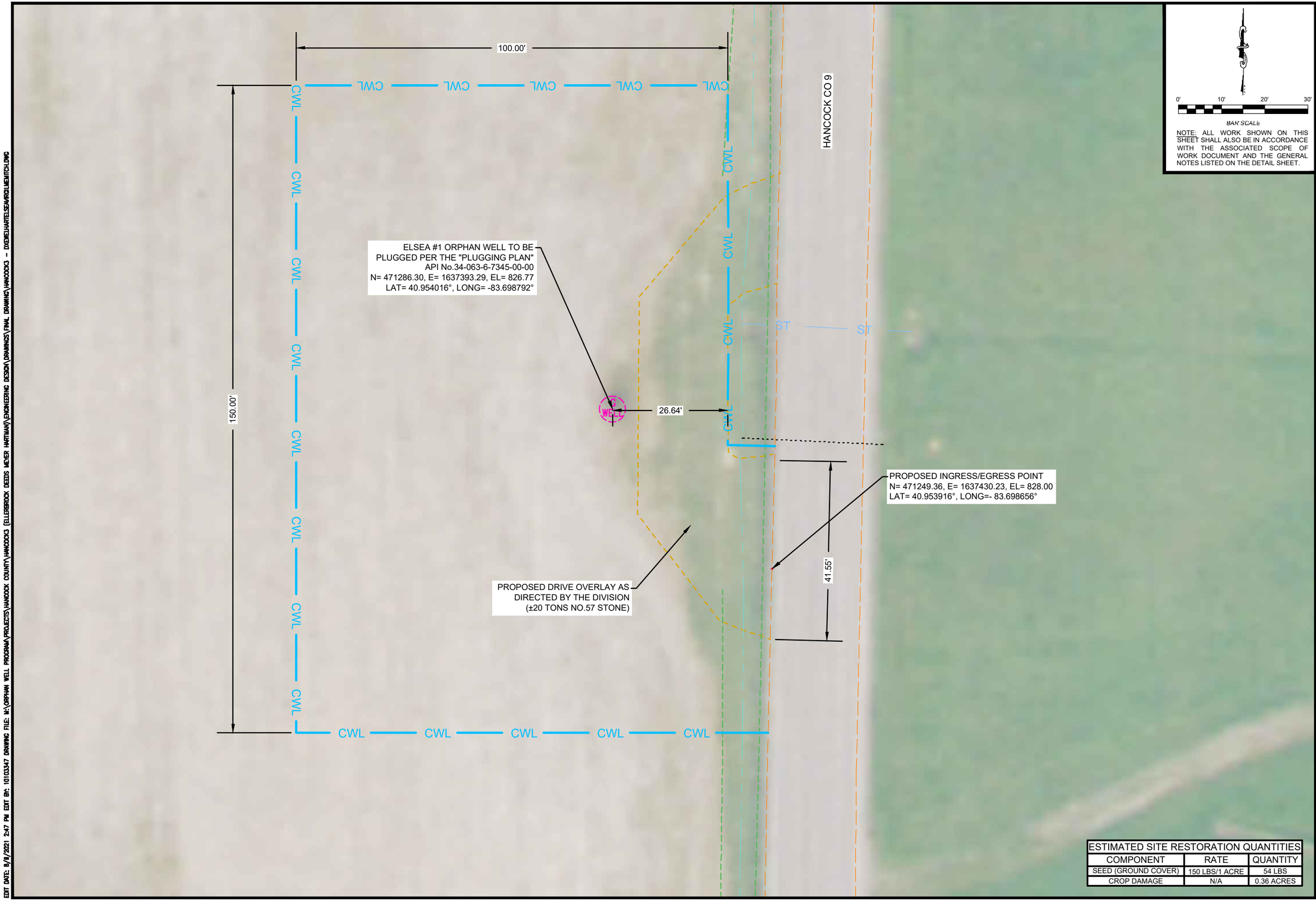

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ESTIMATED SITE RESTORATION QUANTITIES		
COMPONENT	RATE	QUANTITY
SEED (GROUND COVER)	150 LBS/1 ACRE	54 LBS
CROP DAMAGE	N/A	0.36 ACRES

DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
IDLE & ORPHAN WELL PROGRAM
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ELSEA #1 SITE PLAN

HANCOCK #3 MULTIPLE ORPHAN WELL SITES

REVISION

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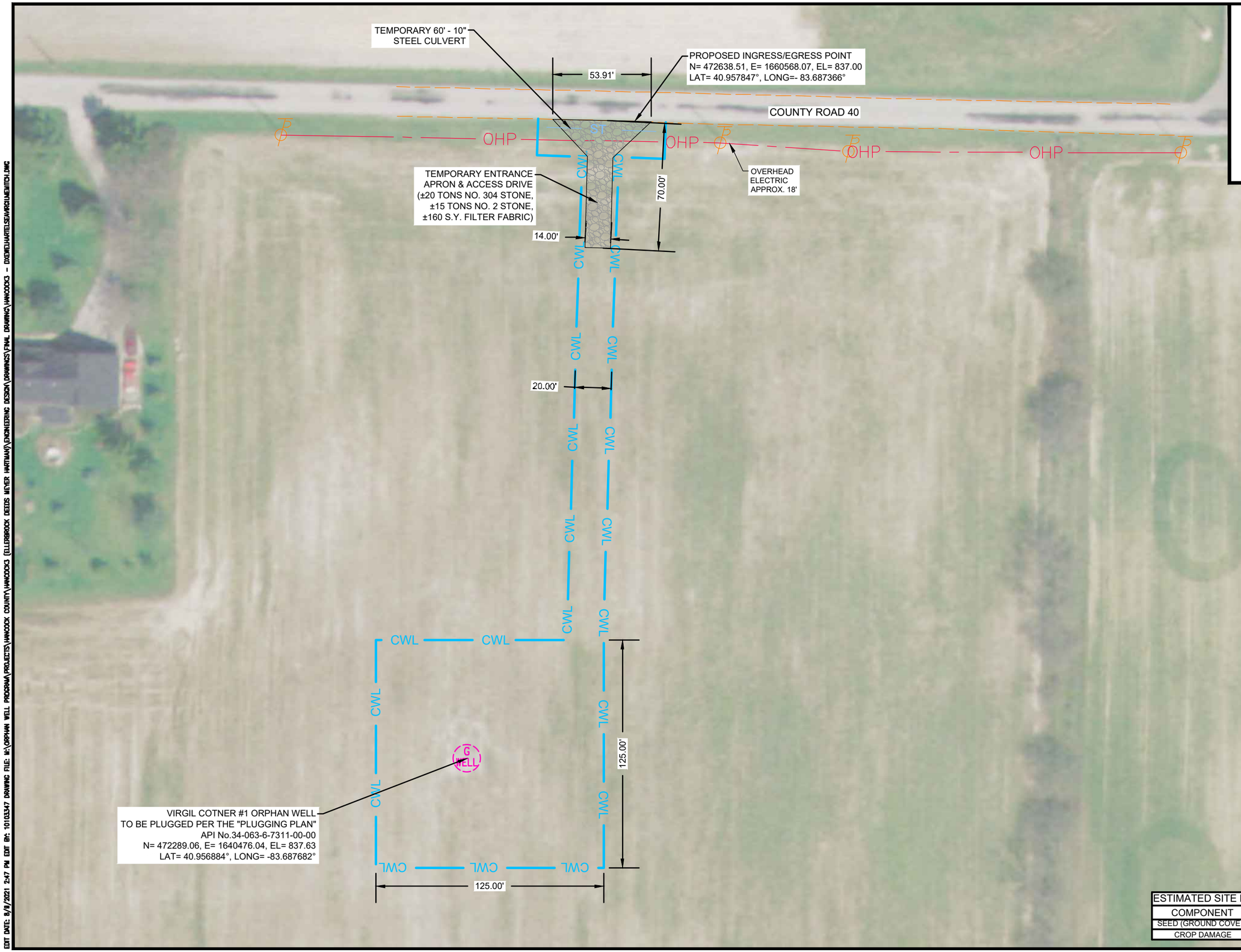

0' 25' 50' 75'

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.

ESTIMATED SITE RESTORATION QUANTITIES		
COMPONENT	RATE	QUANTITY
SEED (GROUND COVER)	150 LBS/1 ACRE	77 LBS
CROP DAMAGE	N/A	0.51 ACRES

DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
IDLE & ORPHAN WELL PROGRAM
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VIRGIL COTNER #1 SITE PLAN

HANCOCK #3 MULTIPLE ORPHAN WELL SITES

REVISION

DESIGN UNIT
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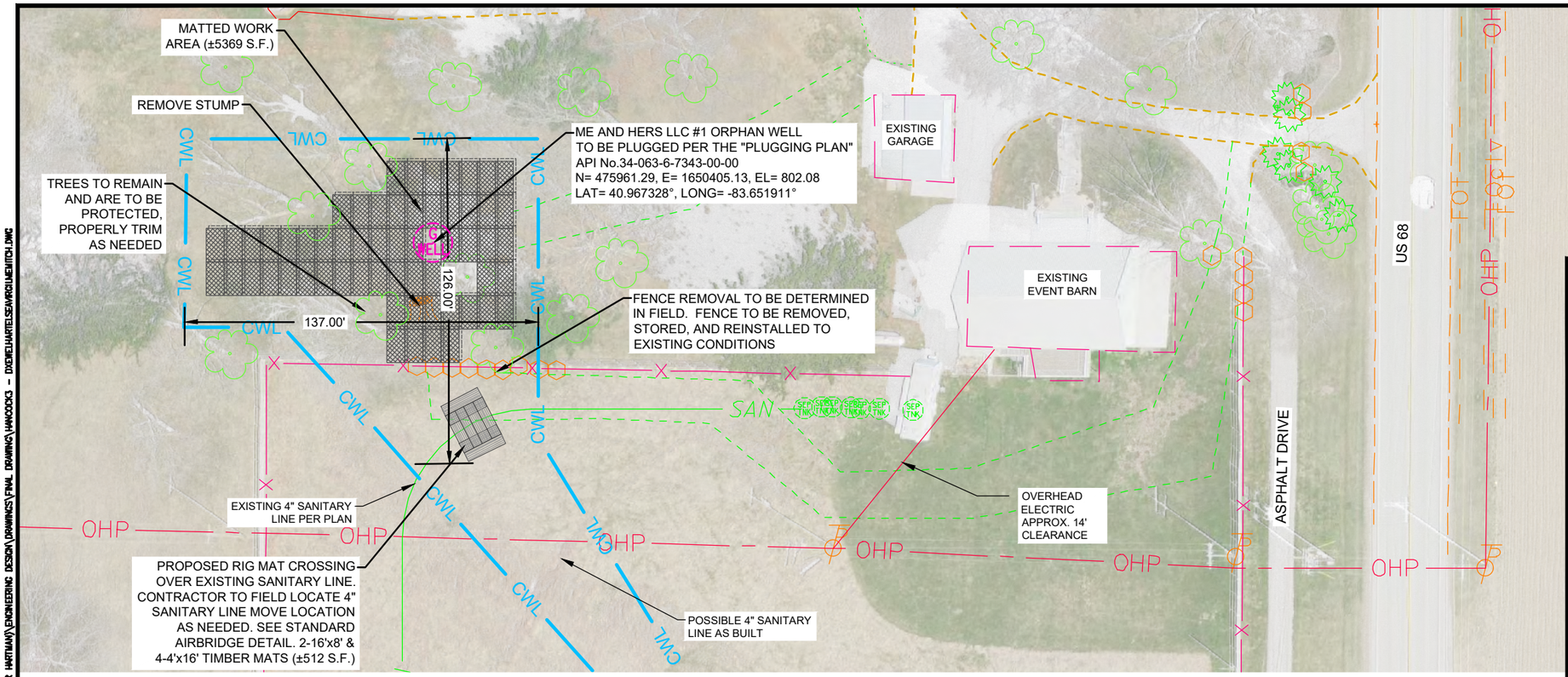

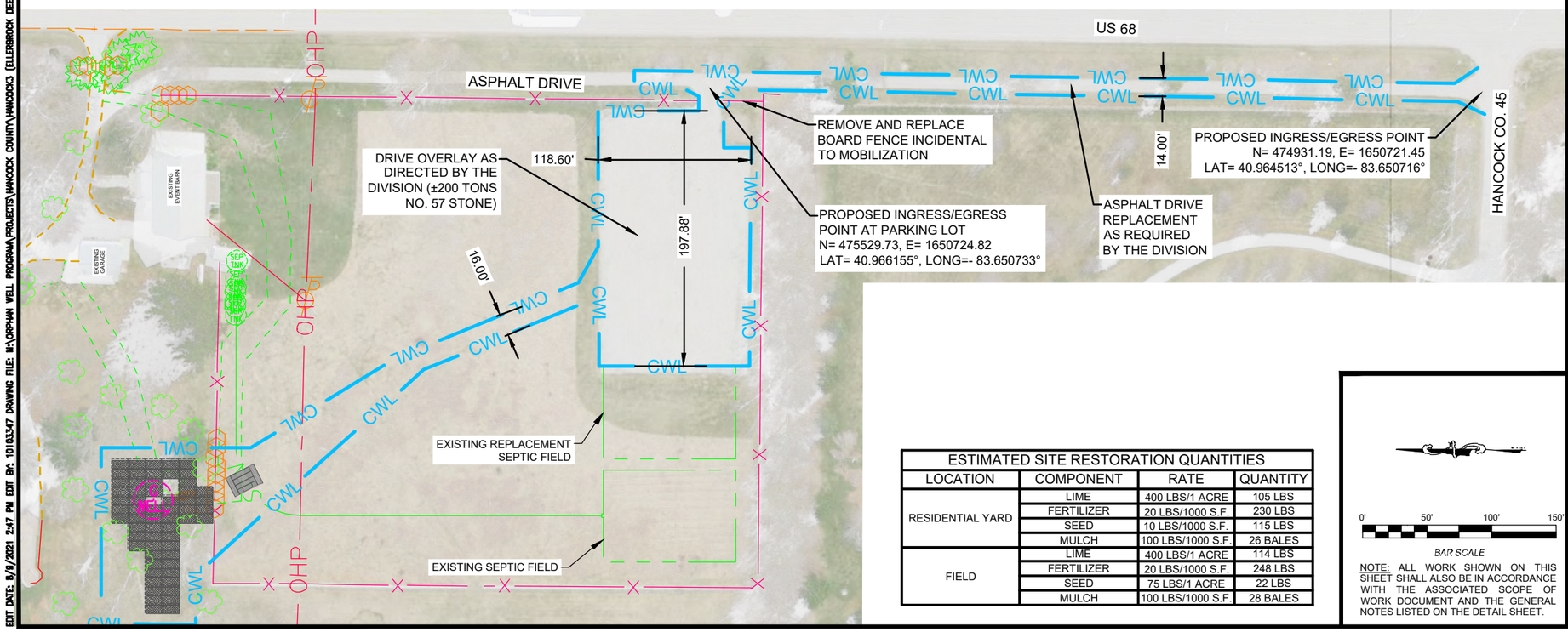

ESTIMATED SITE RESTORATION QUANTITIES			
LOCATION	COMPONENT	RATE	QUANTITY
RESIDENTIAL YARD	LIME	400 LBS/1 ACRE	105 LBS
	FERTILIZER	20 LBS/1000 S.F.	230 LBS
	SEED	10 LBS/1000 S.F.	115 LBS
	MULCH	100 LBS/1000 S.F.	26 BALES
FIELD	LIME	400 LBS/1 ACRE	114 LBS
	FERTILIZER	20 LBS/1000 S.F.	248 LBS
	SEED	75 LBS/1 ACRE	22 LBS
	MULCH	100 LBS/1000 S.F.	28 BALES

0' 50' 100' 150'

BAR SCALE

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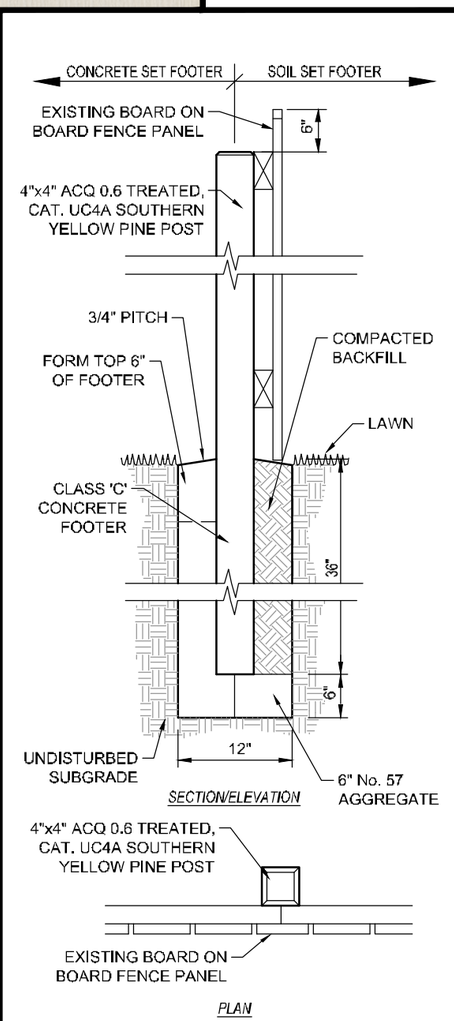
0' 25' 50' 75'

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.



NOTES:
1. THE CONTRACTOR SHALL MATCH THE EXISTING FENCE POST FOOTERS.
2. ALL FASTENERS SHALL BE GALVANIZED OR TREATED FOR USE WITH ACQ TREATED TIMBER.
3. ALL NEW WOOD SURFACES SHALL BE TREATED TO MATCH THE EXISTING BOARD ON BOARD PANELS.

BOARD ON BOARD FENCE POST FOOTERS

NOT TO SCALE

DIVISION OF OIL & GAS
RESOURCES MANAGEMENT
IDLE & ORPHAN WELL PROGRAM
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ME AND HERS LLC #1 SITE PLAN

HANCOCK #3 MULTIPLE ORPHAN WELL SITES

REVISION

DESIGN UNIT O&G ENGINEERING
DRAWN BY: N.J.D./J.R.J.
CHECKED BY: K.J.R.
DATE: 06/21/2021
SHEET NO. 10 OF 13

EDIT DATE: 8/4/2021 2:47 PM EDIT BY: 10103347 DRAWING FILE: M:\ORPHAN WELL PROGRAM\PROJECTS\HANCOCK COUNTY\HANCOCK3 (ELLERBROCK DEEDS MEYER HARTMAN)\ENGINEERING DESIGN\DRAWINGS\FINAL DRAWING\HANCOCK3 - DXCEMEJHARTELSENGR\ELMSWITCH.DWG

0' 50' 100' 150'

BAR SCALE

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ESTIMATED SITE RESTORATION QUANTITIES		
COMPONENT	RATE	QUANTITY
SEED (GROUND COVER)	150 LBS/1 ACRE	156 LBS
CROP DAMAGE	N/A	1.04 ACRES

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MITCHELL TRUST #1 SITE PLAN

HANCOCK #3 MULTIPLE ORPHAN WELL SITES

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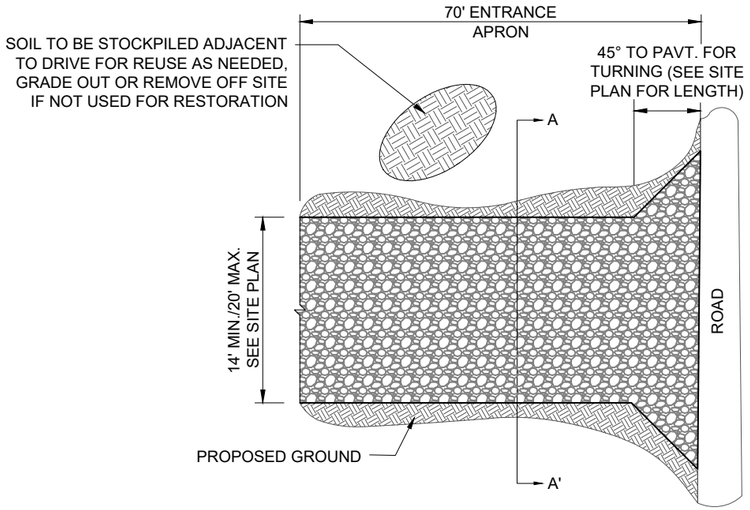
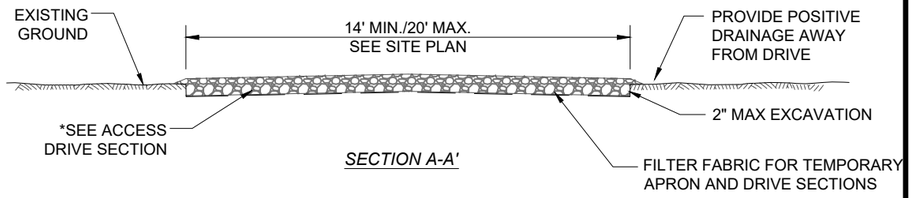
GENERAL NOTES:

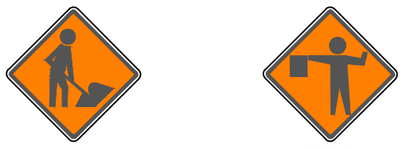
1. UTILITY LINES AND APPURTENANCES ARE SHOWN AS LOCATED IN THE FIELD AND/OR AS REPORTED BY THE RESPECTIVE OWNERS. NEITHER THE NUMBER, TYPE, SIZE, OR LOCATION CAN BE GUARANTEED, AND IT IS THEREFORE, THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL UTILITY LOCATIONS.
2. **THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATELY PROTECTING THE EXISTING BURIED UTILITIES AND CURB & GUTTER DURING CONSTRUCTION. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO LINE ITEM "MOBILIZATION".**
3. 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.
4. PHOTO IMAGE DATE OBTAINED FROM OGRIP EXPOSED BETWEEN 2017-2020.
5. ELEVATION INFORMATION SHOWN HEREIN IS BASED ON FIELD DATA COLLECTED BY DOGRM SURVEYORS AND IS SUBJECT TO OMISSION.
6. THE CONTRACTOR SHALL WORK WITHIN THE WORK LIMITS AT ALL TIMES DURING CONSTRUCTION.
7. A FLAGGER IN EACH DIRECTION SHALL BE USED WHEN MATERIALS ARE BEING UNLOADED WITHIN THE ROAD RIGHT OF WAY.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PHOTO/VIDEO DOCUMENTING THE CONDITION OF THE EXISTING ASPHALT DRIVE PRIOR TO BEGINNING CONSTRUCTION.
9. 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 ITEM "MOBILIZATION".
10. THE DIVISION MUST BE PRESENT DURING ALL CLEARING OPERATIONS. NO TREES ARE TO BE REMOVED UNLESS DESIGNATED BY THE DIVISION.
11. ANY REMOVED TREES AND VEGETATION SHALL BE REMOVED FROM THE SITE.
12. ALL "CUT" MATERIAL SHALL BE STOCKPILED ON LOCATION FOR REUSE. STOCKPILES SHALL BE STABILIZED PER LINE ITEM "SITE RESTORATION" UPON ESTABLISHMENT OF TEMPORARY GRADE IF AREAS ARE TO REMAIN OPEN FOR 14 DAYS OR LONGER.
13. ALL STONE PLACED USING SIX (6) INCH MAXIMUM LIFTS, SHALL BE COMPACTED WITH A MINIMUM OF THREE (3) PASSES PER LIFT USING ONSITE EQUIPMENT.
14. AT THE DISCRETION OF THE DIVISION, ALL STONE, FABRIC AND/OR GEOGRID SHOWN ON THE SITE PLAN SHEET(S) SHALL BE REMOVED UPON COMPLETION OF THE PROJECT AS SPECIFIED IN THE DETAIL NOTES.
15. SEDIMENT CONTROLS SHALL BE PLACED AT THE DISCRETION OF THE DIVISION.
16. NO WORK INSIDE THE BOUNDS OF THE ORDINARY HIGH WATER MARK SHALL TAKE PLACE BETWEEN MARCH 15TH AND JUNE 15TH UNLESS OTHERWISE SPECIFIED BY THE DIVISION. (NOTE: THIS IS TO MINIMIZE IMPACT ON SPAWNING/MIGRATING FISH SPECIES)
17. POND CONSTRUCTION PAD REQUIREMENTS SHALL BE CONSTRUCTED IN SUCH A TIMEFRAME WHERE THE CONTRACTOR IS PREPARED TO BEGIN PLUGGING OPERATIONS IMMEDIATELY FOLLOWING THE PAD CONSTRUCTION WORK.
18. AT NO POINT SHALL EQUIPMENT ENTER THE BANKS OF THE POND PRIOR TO THE CONSTRUCTION OF THE PAD.
19. THE ONLY FILL PERMITTED IN THE POND SHOULD BE CLEAN AGGREGATE, STONE OR ROCK. NO SOIL OR OTHER FINE ERODIBLE MATERIAL SHALL BE PLACED IN THE POND. THE TYPE "C" ROCK IS TO REMAIN IN PLACE AT OR BELOW THE ORIGINAL BOTTOM OF THE POND. ALL OTHER STONE IS TO BE REMOVED.
20. ALL DISTURBED AREAS ALONG THE POND SHALL BE IMMEDIATELY STABILIZED UPON INSTALLATION/REMOVAL OF THE CONSTRUCTED PAD.
21. UPON REMOVAL OF THE POND CONSTRUCTED PAD, THE BANK SHALL BE RESTORED THE ITS' ORIGINAL ALIGNMENT AND GRADE. RESTORATION SHALL NOT RESULT IN A SMALLER POND AREA.





SECTION A-A'

(TEMPORARY) ENTRANCE APRON & ACCESS DRIVE
NOT TO SCALE

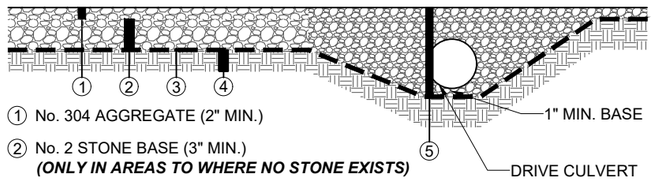


W21-1
(500' FROM W20-7, BOTH SIDES OF THE ENTRANCE)

W20-7
COVER OR TURN DURING EVENINGS OR WHEN BOTH LANES ARE OPEN
(500' FROM FLAGGER, BOTH SIDES OF ENTRANCE)

NOTES:

1. CONTRACTOR SHALL FOLLOW THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FIGURE 6H-12 OR 6H-10, LANE CLOSURE ON A TWO-LANE ROAD USING FLAGGERS (TA-10).
2. TEMPORARY CLOSURES SHALL BE MINIMIZED AND THE ROAD SHALL BE OPENED TO TRAFFIC EACH EVENING.
3. ALL SIGNS MAY BE MOUNTED PORTABLE MOUNTS.
4. THIS WORK SHALL BE PER THE GENERAL SPECIFICATIONS, PART 7: MAINTENANCE OF TRAFFIC AND SHALL BE INCIDENTAL TO LINE ITEM "MOBILIZATION" FOR EACH SITE.
5. 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.



① No. 304 AGGREGATE (2" MIN.)

② No. 2 STONE BASE (3" MIN.)
(ONLY IN AREAS TO WHERE NO STONE EXISTS)

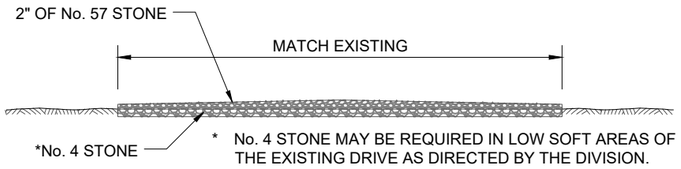
③ TYPE "D" GEOTEXTILE FABRIC PER ODOT CMS 712.09
(FOR TEMPORARY APRONS AND DRIVES ONLY)

④ EXISTING SUBGRADE

⑤ No. 304 STONE BASE, BACKFILL, AND COVER AROUND CULVERT AS NEEDED FOR AREAS WITHOUT AN EXISTING CULVERT

NOTES:
1. STONE SHALL BE PLACED TO THE EXTENTS SHOWN ON THE SITE PLAN AND IN A MANNER TO ACHIEVE A GRADE SUITABLE FOR MOBILIZATION FROM ROAD ONTO THE PROJECT SITE. FILTER FABRIC SHALL BE INSTALLED AS DIRECTED BY THE DIVISION.
2. ALL STONE AND 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.

ACCESS DRIVE SECTION
NOT TO SCALE



* No. 4 STONE MAY BE REQUIRED IN LOW SOFT AREAS OF THE EXISTING DRIVE AS DIRECTED BY THE DIVISION.

SECTION A-A'

NOTE:
THE EXISTING DRIVE WILL BE ONLY ACCESS TO THE PROJECT SITES. ACCESS FOR THE LANDOWNER SHALL BE MAINTAINED DURING 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

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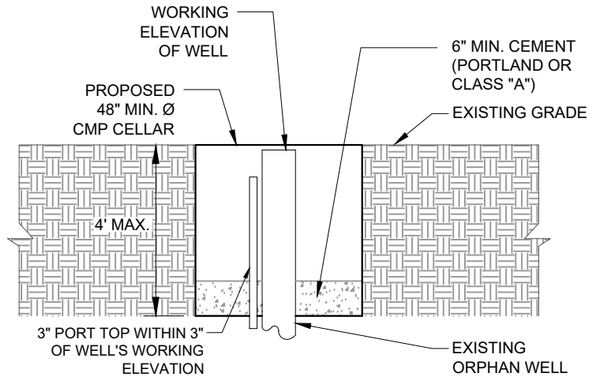
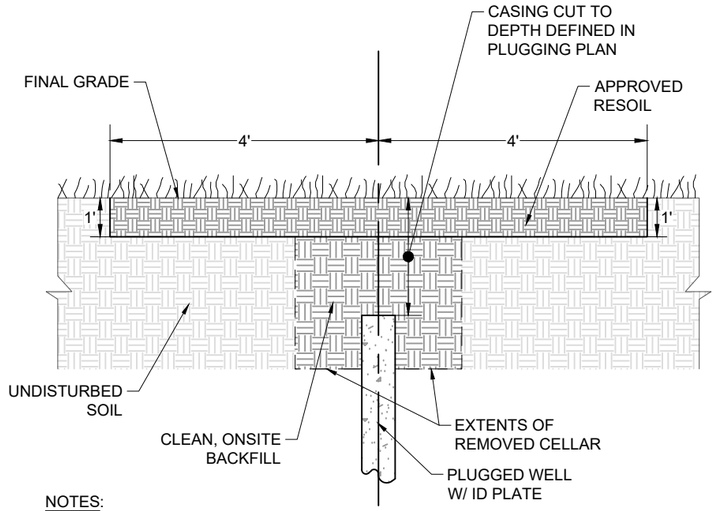


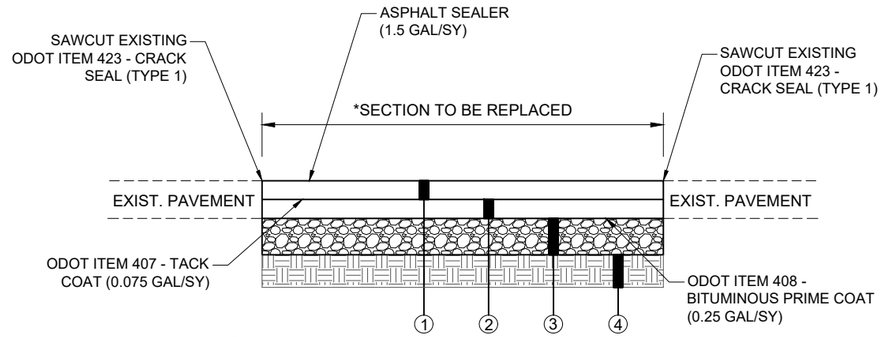
NOTES:
ALL WORK & MATERIAL ASSOCIATED WITH THE INSTALLATION & REMOVAL OF THE CELLAR SHALL BE CONSIDERED INCIDENTAL TO LINE ITEM "WELL HEAD CONTROL".

TEMPORARY CELLAR
NOT TO SCALE



NOTES:
1. ANY REMOVED MATERIAL FROM AROUND THE WELL HEAD SHALL BE SEGREGATED TO PREVENT ADDITIONAL CONTAMINATION.
2. 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".
3. REMOVED MATERIAL SHALL BE DISPOSED OF PER LINE ITEM "CONTAMINATED MATERIAL DISPOSAL".
4. PRIOR TO DELIVERY TO THE SITE OF "APPROVED RESOIL", ON SITE TOPSOIL MAY BE UTILIZED AT THE APPROVAL OF THE DIVISION
5. ALL WORK NOT INCLUDED IN "APPROVED RESOIL" OF "CONTAMINATED MATERIAL DISPOSAL" SHALL BE INCIDENTAL TO LINE ITEM 'SITE RESTORATION".

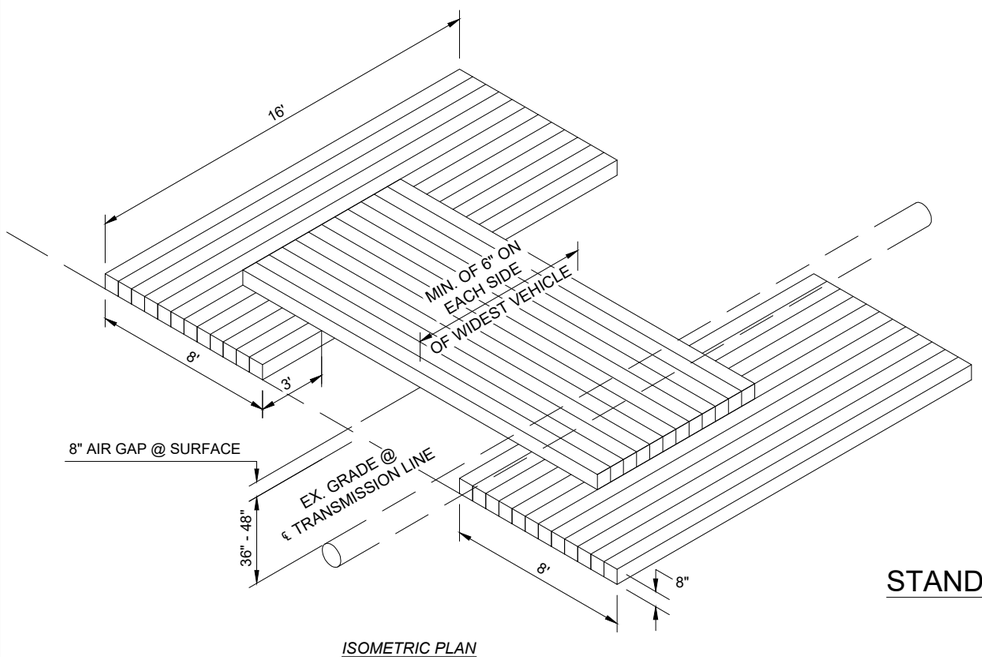
WELL RESTORATION SECTION
NOT TO SCALE



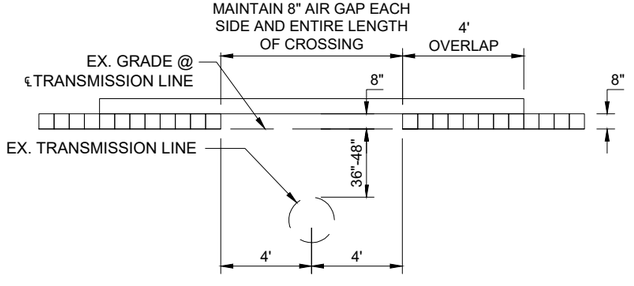
① ODOT ITEM 441-1.5" ASPHALT CONCRETE, SURFACE COURSE, (TYPE 1), PG 64-22
② ODOT ITEM 441-2.5" ASPHALT CONCRETE, INTERMEDIATE COURSE, (TYPE 2)
③ 3" NO.304 AGGREGATE BASE (COMPACTED)
④ EXISTING SUBGRADE SECTION

NOTES:
1. THE PAVEMENT SECTION SHOWN IS FOR ESTIMATING PURPOSES (CONTINGENCY LINE ITEM "ASPHALT PAVEMENT".
2. THE CONTRACTOR SHALL BE REQUIRED TO PHOTO DOCUMENT THE EXISTING ASPHALT APRON PRIOR TO THE MOBILIZATION OF PLUGGING EQUIPMENT TO THE SITE.
3. *AT THE DISCRETION OF THE DIVISION, THE CONTRACTOR SHALL BE REQUIRED TO REPLACE ANY DAMAGED PORTIONS OF THE DRIVE. THE FINAL PAVEMENT SECTION SHALL BE BASED ON THE EVALUATION OF EXISTING PAVEMENT SECTION.
4. IN ADDITION TO THE REPLACEMENT SECTION SHOWN. REMOVAL AND LAWFUL DISPOSAL OF THE DAMAGE DRIVE SHALL BE CONSIDERED INCIDENTAL TO THIS LINE ITEM.

ASPHALT PAVEMENT REPLACEMENT SECTION
NOT TO SCALE

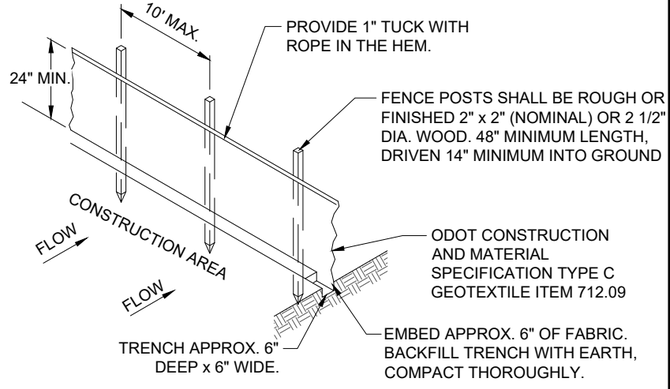


ISOMETRIC PLAN



CROSSING SECTIONS

STANDARD AIRBRIDGE DETAIL
NOT TO SCALE



NOTES:
1. FABRIC TO BE FASTENED SECURELY TO FENCE POST AS PER MANUFACTURER'S RECOMMENDATIONS.
2. ENDS OF INDIVIDUAL ROLLS OF FABRIC SHALL BE SECURELY FASTENED TO A COMMON POST OR OVERLAPPED 3" MIN.

SILT FENCE DETAIL
NOT TO SCALE

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