RECEIVED JAN 2 1 2010

Form C-144
July 21, 2008

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Department
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office.
For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

Pit, Closed-Loop System, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application

Type of action: ☐ Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method
☒ Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method
☐ Modification to an existing permit
☐ Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method

Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1.
Operator: Mewbourne Oil Co. OGRID #: 14744
Address: PO Box 5270, Hobbs, NM 88241
Facility or well name: Orca "11" Federal #1
API Number: 30-015-37009 OCD Permit Number:
U/L or Qtr/Qtr C Section 11 Township 17S Range 29E County: Eddy
Center of Proposed Design: Latitude N32°51'12" Longitude W104°02'49" NAD: ☒1927 ☐ 1983
Surface Owner: ☒ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment

2.
☒ **Pit:** Subsection F or G of 19.15.17.11 NMAC
Temporary: ☒ Drilling ☐ Workover
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A
☒ Lined ☐ Unlined Liner type: Thickness 20 mil ☒ LLDPE ☐ HDPE ☐ PVC ☐ Other
☒ String-Reinforced
Liner Seams: ☒ Welded ☒ Factory ☐ Other Volume: 16000 bbl Dimensions: L 120 x W 85 x D 12

3.
☒ **Closed-loop System:** Subsection H of 19.15.17.11 NMAC
Type of Operation: ☐ P&A ☒ Drilling a new well ☐ Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)
☐ Drying Pad ☒ Above Ground Steel Tanks ☒ Haul-off Bins ☐ Other
☐ Lined ☐ Unlined Liner type: Thickness mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other
Liner Seams: ☐ Welded ☐ Factory ☐ Other

4.
☐ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC
Volume: bbl Type of fluid:
Tank Construction material:
☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other
Liner type: Thickness mil ☐ HDPE ☐ PVC ☐ Other

5.
☐ **Alternative Method:**
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

Final Closure Date 10/23/09 0209288

6.

Fencing: Subsection D of 19.15.17.11 NMAC *(Applies to permanent pits, temporary pits, and below-grade tanks)*

☐ Chain link, six feet in height, two strands of barbed wire at top *(Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)*

☒ Four foot height, four strands of barbed wire evenly spaced between one and four feet

☐ Alternate. Please specify_____

7.

Netting: Subsection E of 19.15.17.11 NMAC *(Applies to permanent pits and permanent open top tanks)*

☐ Screen ☐ Netting ☐ Other_____

☐ Monthly inspections (If netting or screening is not physically feasible)

8.

Signs: Subsection C of 19.15.17.11 NMAC

☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers

☒ Signed in compliance with 19.15.3.103 NMAC

9.

Administrative Approvals and Exceptions:

Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.

Please check a box if one or more of the following is requested, if not leave blank:

☐ Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau office for consideration of approval.

☐ Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

10.

Siting Criteria (regarding permitting): 19.15.17.10 NMAC

Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. **Siting criteria does not apply to drying pads or above-grade tanks associated with a closed-loop system.**

Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☒ No
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. *(Applies to temporary, emergency, or cavitation pits and below-grade tanks)* - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No ☒ NA
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. *(Applies to permanent pits)* - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No ☒ NA
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☒ No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☒ No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ☒ No
Within a 100-year floodplain. - FEMA map	☐ Yes ☒ No

11.
Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
- ☒ Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC
- ☒ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☒ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☒ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☒ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____ or Permit Number: _____

12.
Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9
- ☐ Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☒ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☒ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____

☐ Previously Approved Operating and Maintenance Plan API Number: _____ *(Applies only to closed-loop system that use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)*

13.
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Climatological Factors Assessment
- ☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Quality Control/Quality Assurance Construction and Installation Plan
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Nuisance or Hazardous Odors, including H_2S, Prevention Plan
- ☐ Emergency Response Plan
- ☐ Oil Field Waste Stream Characterization
- ☐ Monitoring and Inspection Plan
- ☐ Erosion Control Plan
- ☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

14.
Proposed Closure: 19.15.17.13 NMAC
Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.

Type: ☒ Drilling ☐ Workover ☐ Emergency ☐ Cavitation ☐ P&A ☐ Permanent Pit ☐ Below-grade Tank ☐ Closed-loop System ☐ Alternative

Proposed Closure Method:
- ☐ Waste Excavation and Removal
- ☒ Waste Removal (Closed-loop systems only)
- ☒ On-site Closure Method (Only for temporary pits and closed-loop systems)
  - ☐ In-place Burial ☒ On-site Trench Burial
- ☐ Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)

15.
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

- ☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
- ☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
- ☐ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
- ☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

16.
Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17.13.D NMAC)
Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.

Disposal Facility Name: CRI Disposal Facility Permit Number: R9166

Disposal Facility Name: Lea Land Disposal Facility Permit Number: WM-1-035

Will any of the proposed closed-loop system operations and associated activities occur on or in areas that *will not* be used for future service and operations?
☐ Yes (If yes, please provide the information below) ☒ No

Required for impacted areas which will not be used for future service and operations:
☐ Soil Backfill and Cover Design Specifications - - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

17.
Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC
Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.

Ground water is less than 50 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☒ No ☐ NA
Ground water is between 50 and 100 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☒ No ☐ NA
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☒ Yes ☐ No ☐ NA
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☒ No
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☒ No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☒ No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ☒ No
Within a 100-year floodplain. - FEMA map	☐ Yes ☒ No

18.
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***
☒ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
☒ Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
☒ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC
☒ Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.11 NMAC
☒ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
☒ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
☒ Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
☒ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)
☒ Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
☒ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
☒ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

19.
Operator Application Certification:

I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name (Print): Charles Martin Title: Engineer

Signature: Date:

e-mail address: cmartin@mewbourne.com Telephone: 575-393-5905

20.
OCD Approval: ☐ Permit Application (including closure plan) ☐ Closure Plan (only) ☐ OCD Conditions (see attachment)

OCD Representative Signature: **Approval Date:**

Title: **OCD Permit Number:** 02-09-288

21.
Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC

Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.

☒ **Closure Completion Date:** 10/23/09

22.
Closure Method:

☐ Waste Excavation and Removal ☒ On-Site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed-loop systems only)

☐ If different from approved plan, please explain.

23.
Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:

Instructions: Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.

Disposal Facility Name: Disposal Facility Permit Number:

Disposal Facility Name: Disposal Facility Permit Number:

Were the closed-loop system operations and associated activities performed on or in areas that *will not* be used for future service and operations?

☐ Yes (If yes, please demonstrate compliance to the items below) ☐ No

Required for impacted areas which will not be used for future service and operations:

☐ Site Reclamation (Photo Documentation)
☐ Soil Backfilling and Cover Installation
☐ Re-vegetation Application Rates and Seeding Technique

24.
Closure Report Attachment Checklist: ***Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.***

☒ Proof of Closure Notice (surface owner and division)
☒ Proof of Deed Notice (required for on-site closure)
☒ Plot Plan (for on-site closures and temporary pits)
☒ Confirmation Sampling Analytical Results (if applicable)
☒ Waste Material Sampling Analytical Results (required for on-site closure)
☒ Disposal Facility Name and Permit Number
☒ Soil Backfilling and Cover Installation
☒ Re-vegetation Application Rates and Seeding Technique
☒ Site Reclamation (Photo Documentation)

On-site Closure Location: Latitude N 32.85355° Longitude W -104.04720° NAD: ☐1927 ☒ 1983

25.
Operator Closure Certification:

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): Charles Martin Title: Engineer

Signature: Charles L. Martin Date: 1-19-10

e-mail address: cmartin@mewbourne.com Telephone: 575-393-5905

Accepted for record
NMOCD FEB 12 2010

TALON LPE

AMARILLO
921 North Bivins
Amarillo Texas 79107
Phone 806.467.0607
Fax 806.467.0622

ARTESIA
104 West Hermosa
Artesia, New Mexico 88210
Phone 575.746.8768
Fax 575.746.8905

AUSTIN
911 West Anderson Lane
Suite 202
Austin, Texas 78757
Phone 512.989.3428
Fax 512.989.3487

HOBBS
318 East Taylor Street
Hobbs, New Mexico 88240
Phone 575.393.4261
Fax 575.393.4658

MIDLAND
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Midland, Texas 79706
Phone 432.522.2133
Fax 432.522.2180

SAN ANTONIO
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Suite 102
Selma, Texas 78154
Phone 210.579.0235
Fax 210.568.2191

TULSA
525 South Main Street
Suite 535
Tulsa, Oklahoma 74103
Phone 918.742.0871
Fax 918.382.0232

TYLER
719 West Front
Suite 255
Tyler, Texas 75702
Phone 903.531.9971
Fax 903.531.9979

ENVIRONMENTAL CONSULTING
ENGINEERING
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Toll Free: 866.742.0742
www.talonlpe.com

December 18, 2009

Mr. Mike Bratcher
NMOCD District 2 Office
1301 W. Grand
Artesia, NM 88210

RE: Orca "11 Federal Com #1 Pit Closure, Mewbourne Oil Company
API: 30-015-37009
Sec 11, T 17S, R 29E, Eddy County, NM

Surface Owner: Federal
Analytical: Groundwater Protective Human Health Parameters, BTEX, TPH 418.1, TPH GRO/DRO, Chlorides
Primary Land Use: Ranching/Oil and Gas

Pursuant to Rule 19.15.17.10 NMAC of the New Mexico Oil Conservation Division of New Mexico regulatory requirement for temporary pit closure, please accept the following documentation for request of final closure of the temporary pit for the aforementioned location. The C-144 was approved for permit application and closure plan by Mike Bratcher on May 5, 2009.

Talon/LPE (Talon) was contracted by Mewbourne Oil Company (Mewbourne) to perform pit closure activities at the aforementioned location. During July 2009, Talon mixed all drill cuttings from the reserve pit with soil at a ratio of no more than 3 to 1 (soil to cuttings) to stabilize the soil in preparation for lined trench burial.

A five part composite sample was collected from the mixed pit contents on August 6, 2009 and submitted to Trace Analysis in Lubbock, Texas to be analyzed in compliance with 19.15.17.13 NAMC. Analyses indicate that these cuttings meet the NMOCD standards for trench burial. A five part composite pit bottom sample (Pit Floor Comp, attached) was collected on October 7, 2009 and indicate that the pit bottom soils are within acceptable NMOCD limits.

A burial trench was excavated south of the temporary pit. This trench was lined with a 20 mil liner. The burial trench dimensions are 30' x 120'. Once the pit contents were placed onto the liner, a 20 mil cap liner was installed over the material to cover the burial cell. After final analytical review, the area was backfilled and covered with a minimum of three feet of native material and one foot of topsoil, contoured to surrounding grade and reseeded. The pit burial marker is placed at N 32.85355, W -104.04720. From the marker, the pit extends 15 feet north, 15 feet south, 60 feet west, and 60 feet east.

After review of the attached documents, it is requested that the NMOCD consider this pit properly closed.

Respectfully submitted,

Simon Hudgens
Environmental Scientist
Talon/LPE-Artesia
575.441.4835

Kyle Summers
District Manager
Talon/LPE –Artesia
575.746.8768

Submit To Appropriate District Office
Two Copies
District I
1625 N French Dr , Hobbs, NM 88240
District II
1301 W Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd , Aztec, NM 87410
District IV
1220 S. St Francis Dr , Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-105
July 17, 2008

1. WELL API NO.
30-015-37009

2 Type of Lease
☐ STATE ☐ FEE ☒ FED/INDIAN

3. State Oil & Gas Lease No. NMLC-028731-b

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

4. Reason for filing:

☐ **COMPLETION REPORT** (Fill in boxes #1 through #31 for State and Fee wells only)

☒ **C-144 CLOSURE ATTACHMENT** (Fill in boxes #1 through #9, #15 Date Rig Released and #32 and/or #33; attach this and the plat to the C-144 closure report in accordance with 19.15.17 13.K NMAC)

5. Lease Name or Unit Agreement Name
Orca 11 Fed Com

6. Well Number 1

7 Type of Completion
☒ NEW WELL ☐ WORKOVER ☐ DEEPENING ☐ PLUGBACK ☐ DIFFERENT RESERVOIR ☐ OTHER

8. Name of Operator Mewbourne Oil Company

9 OGRID 14744

10. Address of Operator PO Box 5270, Hobbs, NM 88241

11. Pool name or Wildcat

12.Location	Unit Ltr	Section	Township	Range	Lot	Feet from the	N/S Line	Feet from the	E/W Line	County
Surface:										
BH:										

13. Date Spudded	14 Date T.D. Reached	15. Date Rig Released	16 Date Completed (Ready to Produce)	17. Elevations (DF and RKB, RT, GR, etc)
		06/14/09		

18 Total Measured Depth of Well	19. Plug Back Measured Depth	20. Was Directional Survey Made?	21. Type Electric and Other Logs Run

22 Producing Interval(s), of this completion - Top, Bottom, Name

23. **CASING RECORD** (Report all strings set in well)

CASING SIZE	WEIGHT LB /FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED

24. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN

25 TUBING RECORD

SIZE	DEPTH SET	PACKER SET

26. Perforation record (interval, size, and number)

27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED

28 **PRODUCTION**

Date First Production	Production Method *(Flowing, gas lift, pumping - Size and type pump)*	Well Status *(Prod or Shut-in)*

Date of Test	Hours Tested	Choke Size	Prod'n For Test Period	Oil - Bbl	Gas - MCF	Water - Bbl.	Gas - Oil Ratio

Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl	Oil Gravity - API - *(Corr)*

29 Disposition of Gas *(Sold, used for fuel, vented, etc)*

30. Test Witnessed By

31. List Attachments

32 If a temporary pit was used at the well, attach a plat with the location of the temporary pit.

33. If an on-site burial was used at the well, report the exact location of the on-site burial

Latitude N 32.85355 Longitude W 104.04720 NAD 1927 1983

I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief

Jackie Lathan
Printed Name

Signature Jackie Lathan

Hobbs Regulatory
Title

01/07/10
Date

E-mail Address jlathan@mewbourne.com

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
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1301 W. Grand Avenue, Artesia, NM 88210
DISTRICT III
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DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-102
Revised October 12, 2005

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015-37009		Grayburg Morrow

Property Code	Property Name	Well Number
	ORCA "11" FEDERAL COM	1

OGRID No.	Operator Name	Elevation
14744	MEWBOURNE OIL COMPANY	3640'

Surface Location

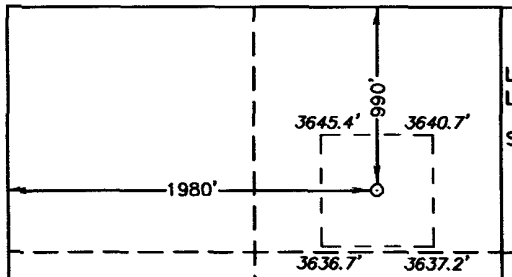
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	11	17 S	29 E		990	NORTH	1980	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



Lat.: N32°51'12.65"
Long.: W104°02'49.61"
SPC- N.: 674338.762
E.: 587894.881
(NAD-27)

OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Jackie Lathan 1/8/2010
Signature Date

Jackie Lathan
Printed Name

SURVEYOR CERTIFICATION

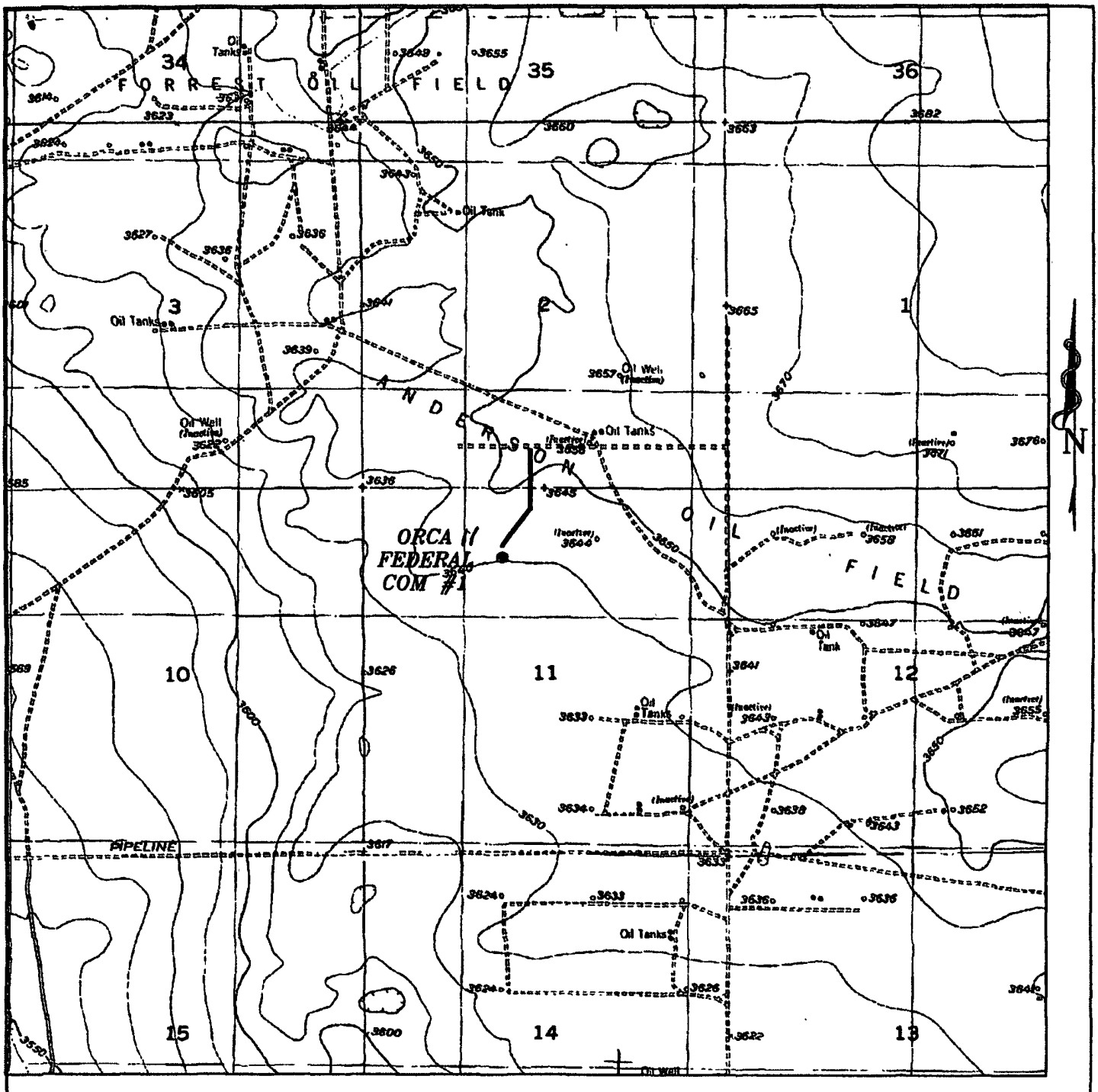
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervison, and that the same is true and correct to the best of my belief.

FEBRUARY 18, 2009
Date Surveyed
Signature & Seal of Professional Surveyor

W.O. No. 24155

Certificate No. Gary L. Jones 7977

BASIN SURVEYS



PROPOSED LEASE ROAD TO THE ORCA "I" FEDERAL COM #1
Section 11, Township 17 South, Range 29 East,
N.M.P.M., Eddy County, New Mexico.

basin surveys
focused on excellence in the oilfield
P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

W.O. Number:	21155 JMS
Survey Date:	02-18-2009
Scale:	1" = 2000'
Date:	02-20-2009

MEWBOURNE OIL CO.

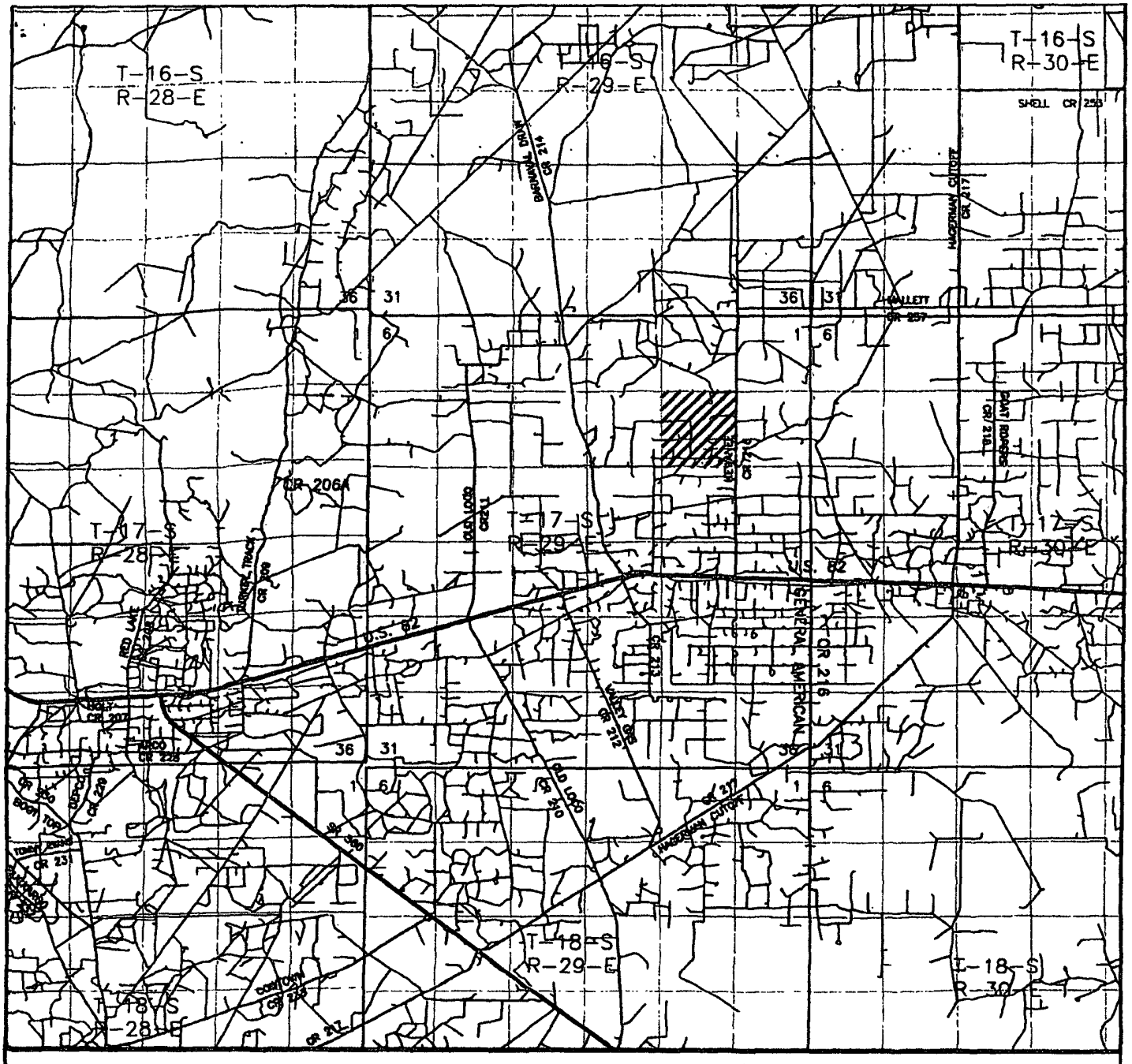


Exhibit 3

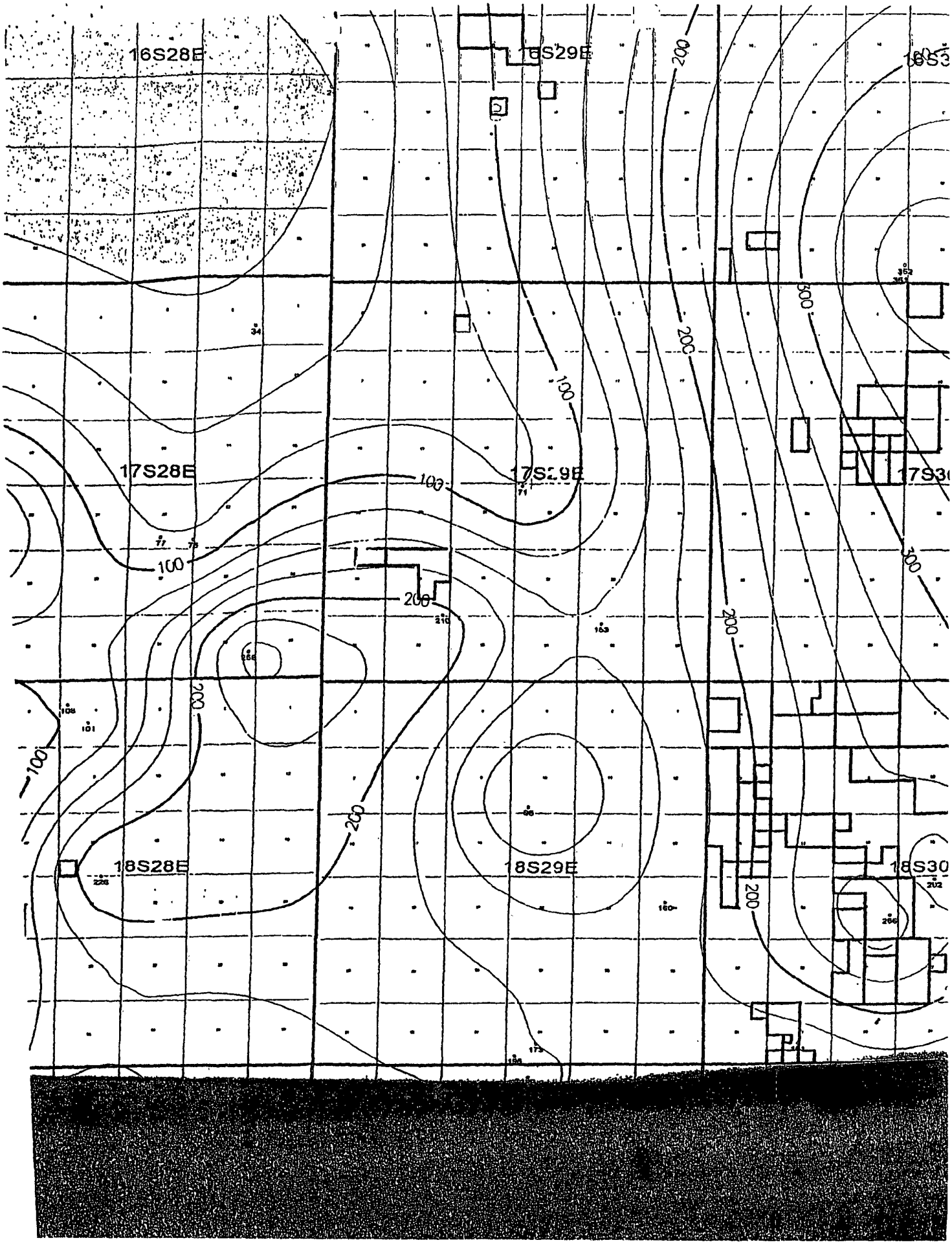
ORCA FEDERAL COM #1
Located 990' FNL and 1980' FWL
Section 11, Township 17 South, Range 29 East,
N.M.P.M., Eddy County, New Mexico.

basin surveys
focused on excellence in the oilfield

P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

W.O. Number:	21108 JMS
Survey Date:	02-06-2009
Scale:	1" = 2000'
Date:	02-09-2009

MEWBOURNE OIL CO.


16S28E
16S29E
16S3
17S28E
17S29E
17S3
18S28E
18S29E
18S30
100
200
300
500

ORCA FEDERAL COM #1
Located 990' FNL and 1980' FWL
Section 11, Township 17 South, Range 29 East,
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basin surveys
focused on excellence in the oilfield

P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

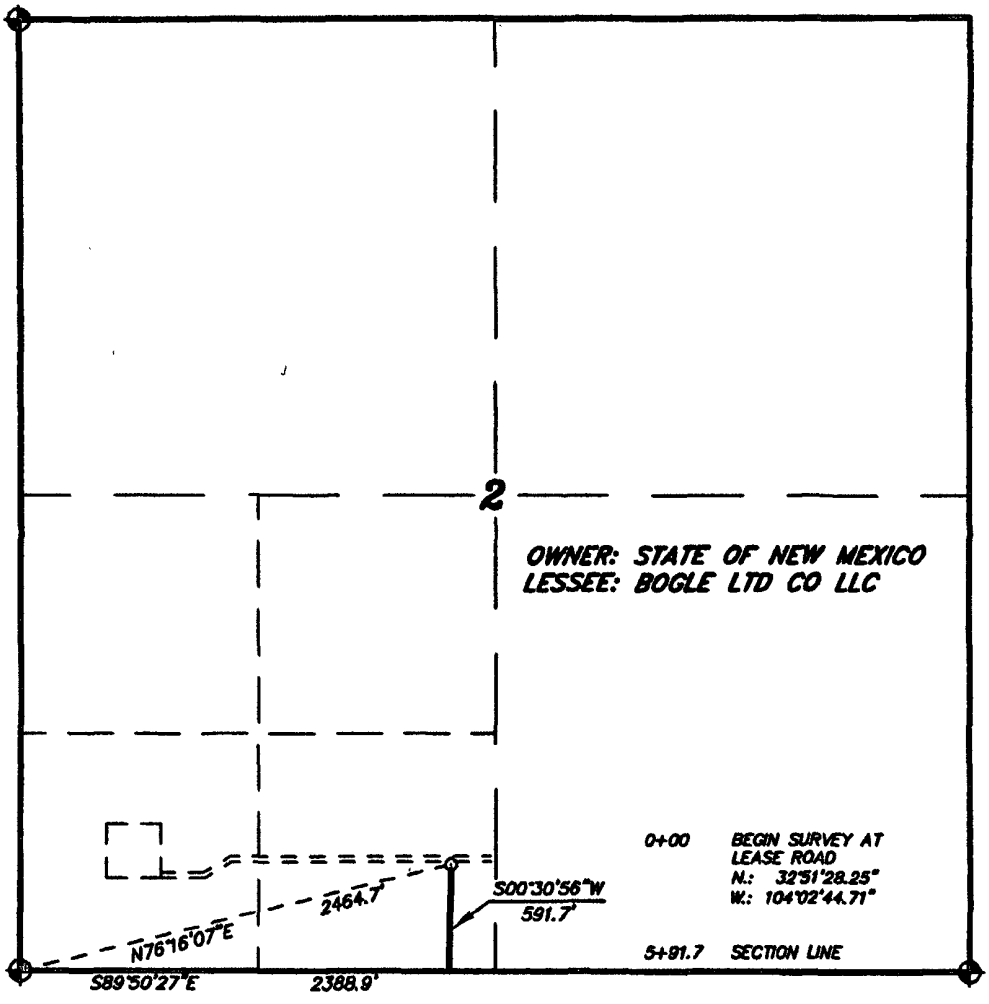
W.O. Number: 21108 JMS

Scale: 1" = 2000'

YELLOW TINT - USA LAND
BLUE TINT - STATE LAND
NATURAL COLOR - FEE LAND

MEWBOURNE OIL CO.

SECTION 2, TOWNSHIP 17 SOUTH, RANGE 29 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



NOTE: COORDINATES ARE NAD 27

LEGAL DESCRIPTION

A STRIP OF LAND 20.0 FEET WIDE, LOCATED IN SECTION 2, TOWNSHIP 17 SOUTH, RANGE 29 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO AND BEING 10.0 FEET LEFT AND RIGHT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY.

BEGINNING AT A POINT WHICH LIES N.76°16'07"E., 2464.7 FEET FROM THE SOUTHWEST CORNER OF SAID SECTION 2; THENCE S.00°30'56"W., 591.7 FEET TO A POINT ON THE SOUTH SECTION LINE WHICH LIES S.89°50'27"E., 2388.9 FEET FROM THE SOUTHWEST CORNER OF SAID SECTION 2. SAID STRIP OF LAND BEING 591.7 FEET OR 35.86 RODS IN LENGTH AND CONTAINING 0.27 ACRES, MORE OR LESS, AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

SE/4 SW/4 = 35.86 RODS = 0.27 ACRES

1000 0 1000 2000 FEET

I HEREBY CERTIFY THAT THIS PLAT WAS PREPARED FROM FIELD NOTES OF AN ACTUAL SURVEY AND MEETS OR EXCEEDS ALL REQUIREMENTS FOR LAND SURVEYS AS SPECIFIED BY THIS STATE.

GARY L. JONES — No. 7977
TEXAS R.P.L.S. — No. 5074

BASIN SURVEYS P.O. BOX 1786 – HOBBS, NEW MEXICO

W.O. Number: 21155	Drawn By: J. M. SMALL
Date: 02-20-2009	Disk: 21155

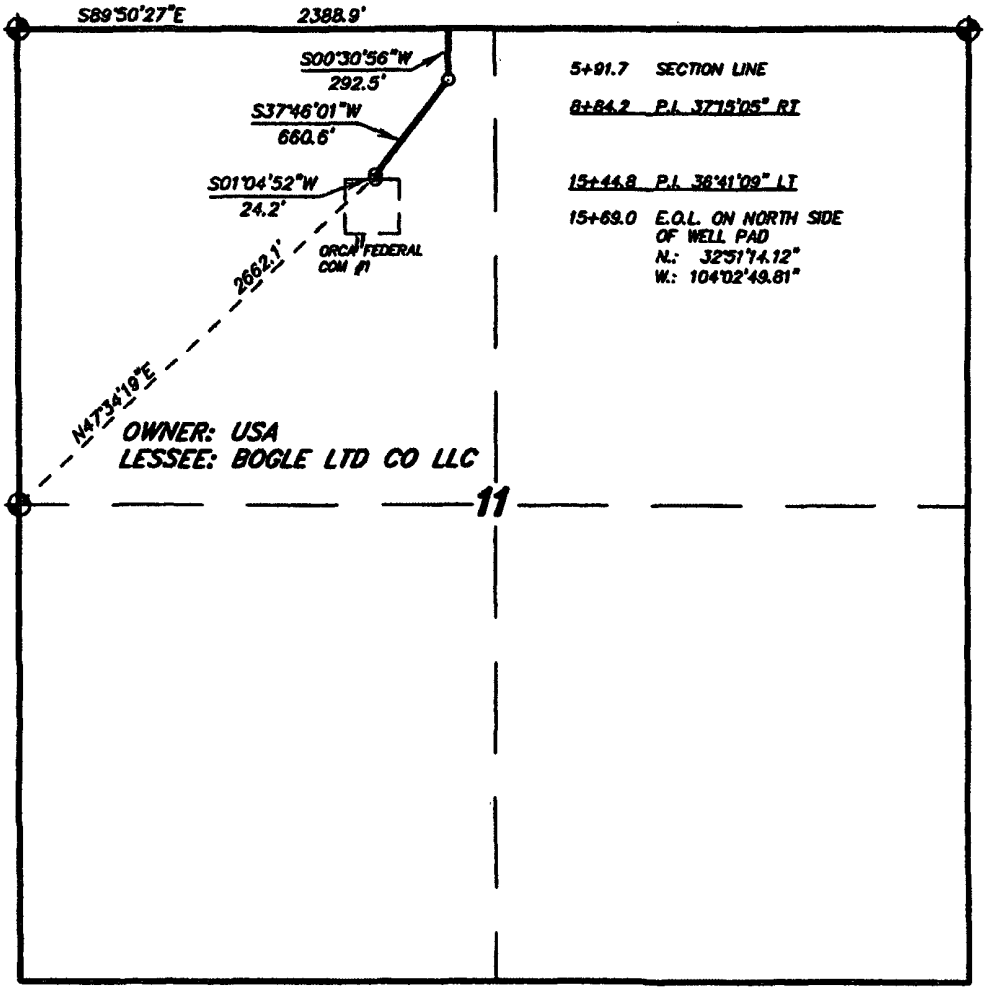
MEWBOURNE OIL COMPANY

REF: PROPOSED LEASE ROAD TO THE ORCA FEDERAL COM #1

A LEASE ROAD CROSSING STATE LAND IN SECTION 2, TOWNSHIP 17 SOUTH, RANGE 29 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.

Survey Date: 02-18-2009 | Sheet 1 of 2 Sheets

SECTION 11, TOWNSHIP 17 SOUTH, RANGE 29 EAST, N.M.P.M.,
EDDY COUNTY, **NEW MEXICO.**



NOTE: COORDINATES ARE NAD 27

LEGAL DESCRIPTION

A STRIP OF LAND 20.0 FEET WIDE, LOCATED IN SECTION 11, TOWNSHIP 17 SOUTH, RANGE 29 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO AND BEING 10.0 FEET LEFT AND RIGHT OF THE ABOVE PLATTED CENTERLINE SURVEY.

SECTION 11 = 977.3 FEET = 59.23 RODS = 0.19 MILES = 0.45 ACRES

I HEREBY CERTIFY THAT THIS PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEY AND MEETS OR EXCEEDS THE REQUIREMENTS FOR LAND SURVEYS AS SPECIFIED BY THIS STATE.

GARY L. JONES — No. 7977
TEXAS P.L.S. — No. 5074

1000 0 1000 2000 FEET

BASIN SURVEYS P.O. BOX 1786 – HOBBS, NEW MEXICO

MEWBOURNE OIL COMPANY

REF: PROPOSED LEASE ROAD TO THE ORCA FEDERAL COM #1

A LEASE ROAD CROSSING USA LAND IN
SECTION 11, TOWNSHIP 17 SOUTH, RANGE 29 EAST,
N.M.P.M., EDDY COUNTY, NEW MEXICO.

W.O. Number: 21155	Drawn By: J. M. SMALL		
Date: 02-20-2009	Disk: 21155	Survey Date: 02-18-2009	Sheet 2 of 2 Sheets

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-102
Revised October 12, 2005

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
30-015	77840	Grayberg; Morrow

Property Code	Property Name	Well Number
37634	ORCA "11" FED COM	1

OGRID No.	Operator Name	Elevation
14744	MEWBOURNE OIL COMPANY	3640'

Surface Location

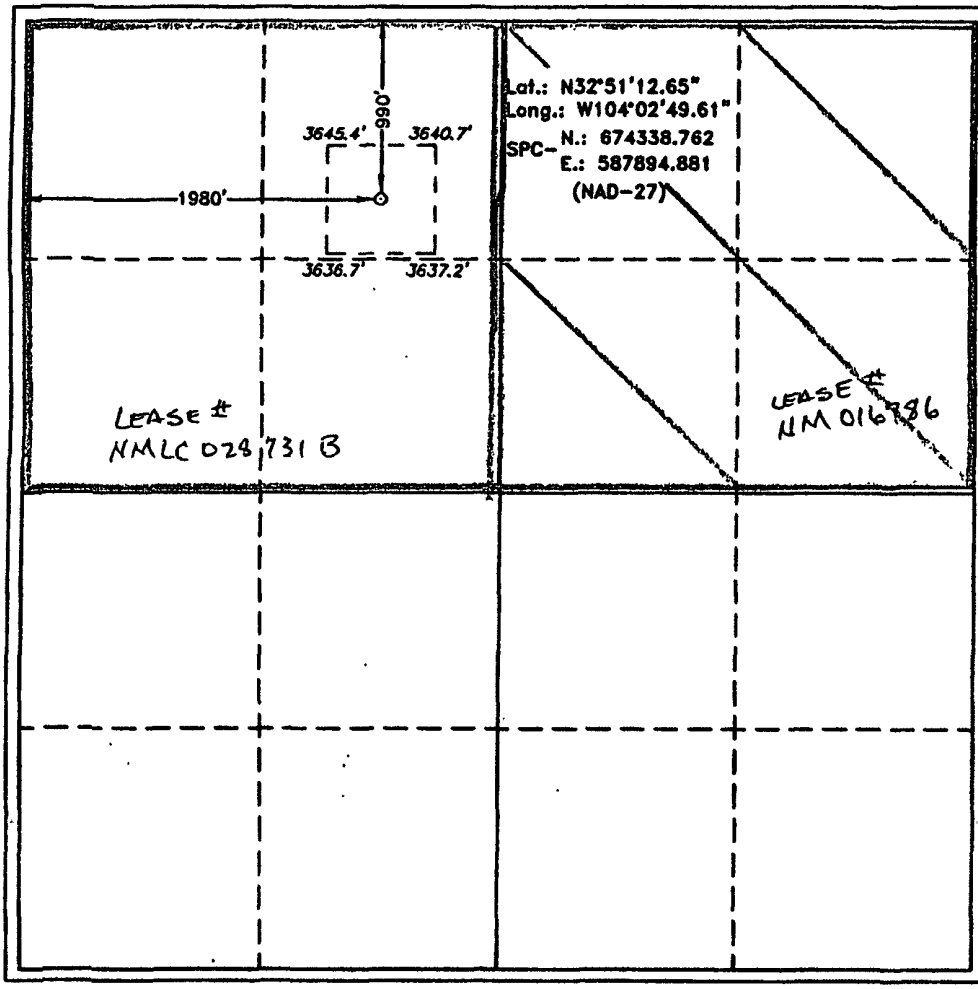
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	11	17 S	29 E		990	NORTH	1980	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Jackie Lathan 2/11/09
Signature Date

Jackie Lathan
Printed Name

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervison, and that the same is true and correct to the best of my belief.

FEBRUARY 6, 2009
Date Surveyed

Signature & Seal of Professional Surveyor

GARY L. JONES
NEW MEXICO
7977
REGISTERED PROFESSIONAL SURVEYOR

W.O. [illegible] 108

Certificate No. Gary L. Jones 7977

BASIN SURVEYS

ATS-09-282

Form 3160-3
(September 2001)

OCD-ARTESIA

MAR 23 2009

FORM APPROVED
OMB No 1004-0136
Expires January 31, 2004

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5 Lease Serial No.	NMLC 028731-b
6. If Indian, Allottee or Tribe Name	
7. If Unit or CA Agreement, Name and No.	
8 Lease Name and Well No	Orca 11 Federal Com #1 37634
9 API Well No	30-015-37009
10 Field and Pool, or Exploratory	Grayburg Morrow 77840
11. Sec , T., R., M., or Blk. and Survey or Area	Sec 11-T17S-R29E
12. County or Parish	Eddy
13. State	NM

1a. Type of Work: ☑ DRILL ☐ REENTER

1b Type of Well: ☐ Oil Well ☑ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone

2. Name of Operator: Mewbourne Oil Company - 14744

3a. Address: PO Box 5270 Hobbs, NM 88241

3b. Phone No *(include area code)*: 575-393-5905

4. Location of Well *(Report location clearly and in accordance with any State requirements. *)*

At surface 990' FNL & 1980' FWL Unit C

At proposed prod. zone Same

14. Distance in miles and direction from nearest town or post office*: 4.8 miles NW of Loco Hills, NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of Acres in lease	17. Spacing Unit dedicated to this well
660'	160	320
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	**19. Proposed Depth**	**20. BLM/BIA Bond No. on file**
1323'	10950'	NM1693, Nationwide
21. Elevations (Show whether DF, KDB, RT, GL, etc)	**22 Approximate date work will start***	**23. Estimated duration**
3634' GL	ASAP	45 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature	Name *(Printed/Typed)*	Date
Jackie Lathan	Jackie Lathan	02/12/09

Title: Hobbs Regulatory

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
/s/ Don Peterson	/s/ Don Peterson	MAR 19 2009

Title: FIELD MANAGER — Office: CARLSBAD FIELD OFFICE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

Title 18 U.S.C. Section 1001 and Title 43 U.S C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

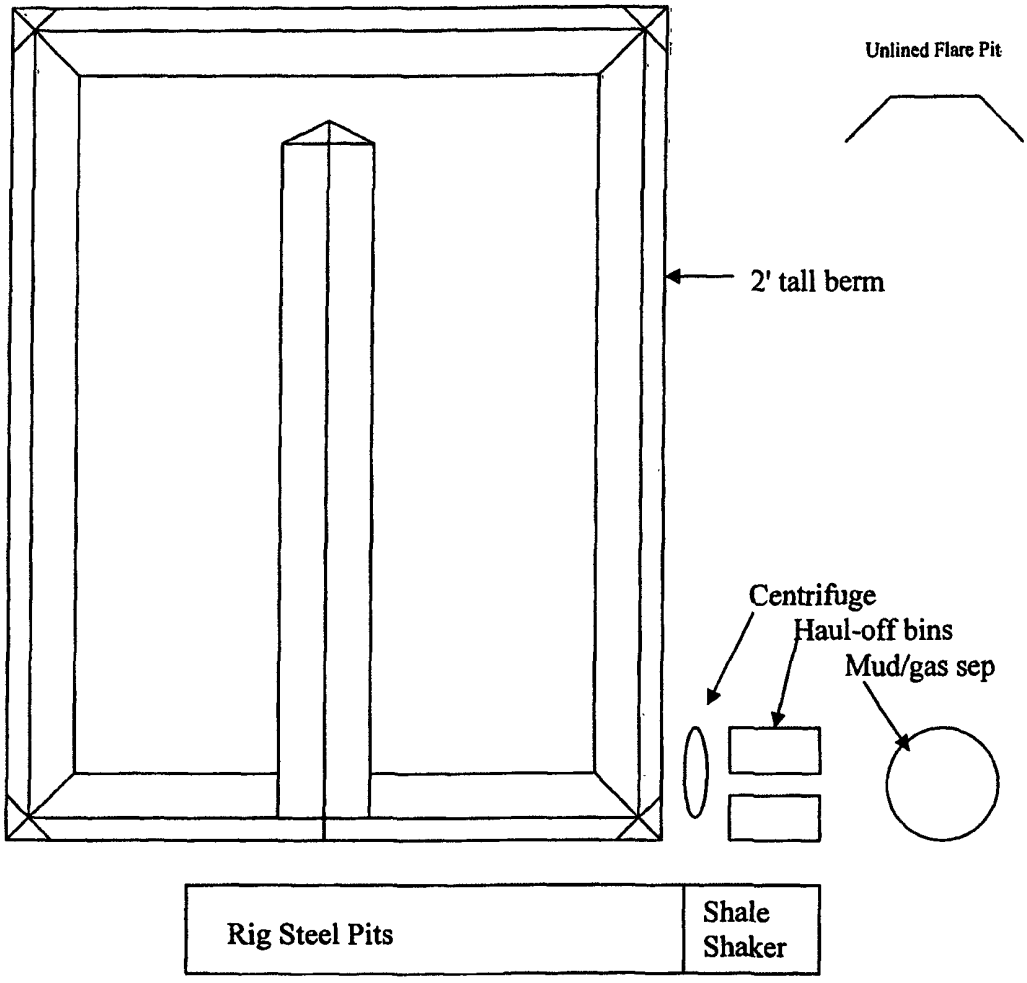
(Instructions on reverse)

Roswell Controlled Water Basin

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Approval Subject to General Requirements & Special Stipulations Attached

Temporary Pit Design and Construction



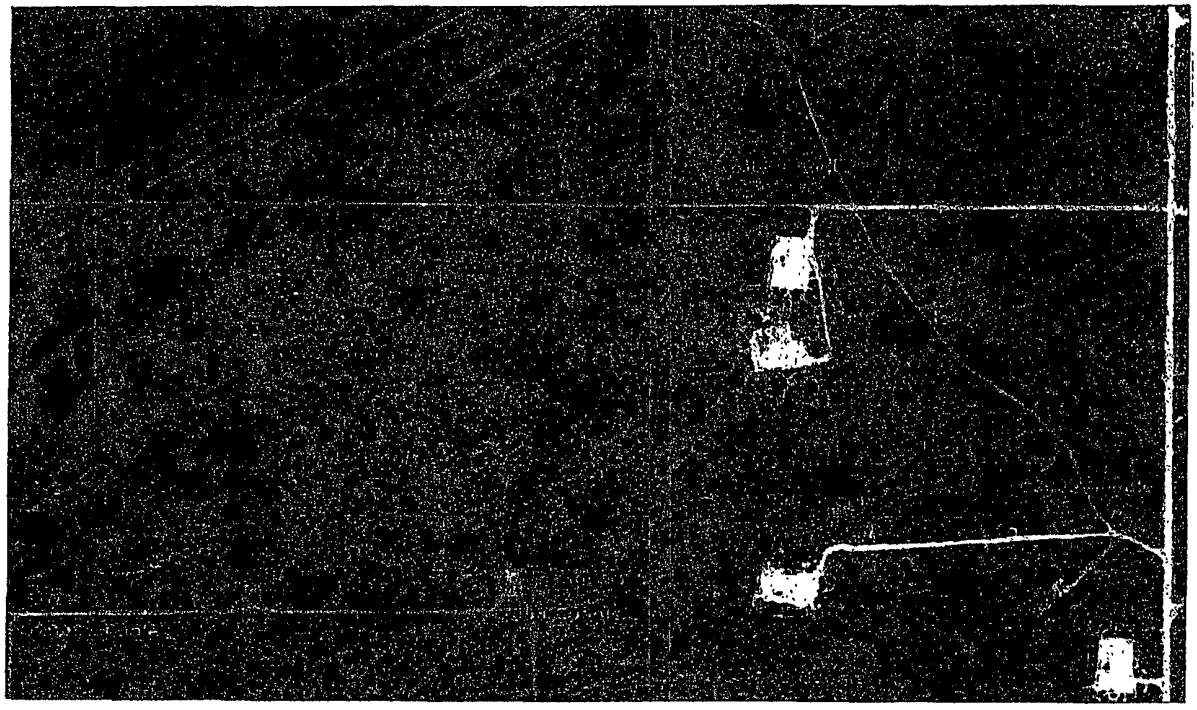
Pit Dimensions:
Peak Width: 100'. Floor Width: 76'
Peak Length: 120' Floor Length: 96'
Floor is 6' below GL.
Perimeter berm is 2' above GL.
All walls are built with 2:1 slope.
Pit is fenced on 3 sides with barbed wire before & during drilling operations. Fourth side will be installed after drilling operations are completed.
Pit is lined with 20 mil string reinforced LLDPE installed with 18" anchor trench.
Approximate volume including 2' freeboard: 16,000 bbl.

Temporary Pit Operating and Maintenance and Closure Plan

Temporary pit will be built in a single horse shoe as shown in the attached drawing. The pit will only be utilized for "fresh" water-based fluids. Brine water fluids will be hauled off location and disposed of in an approved facility. Drilling cuttings in the high chloride sections of the well will collect in haul-off bins and will be disposed at either Lea Land or CRI. *Drilling cuttings in the low chloride sections of the well will collect in the* temporary pit. The temporary pit will be dewatered. Drill cuttings will be solidified with native soil at a ratio not exceeding 3:1 and solids will be buried in place.

Contingency-
If the temporary pit does not meet the required specifications to bury on site, material will be disposed of at Lea Land Farm or CRI.

Google Maps



On-Site Closure Plan

- **Siting Criteria:** See attachments.
- **Proof of Surface Owner Notice:** A BLM approved APD will serve as notice.
- **Construction/Design Plan of Temporary Pit:** See attachment.
- **Sampling Plan:** In compliance with Subsection F of 19.15.17.13 NMAC a five point composite sample will be taken from the pit contents.
- **Soil Cover Design:** In compliance with Subsection H of 19.15.17.13 NMAC, any portion of the pit area not used for future service or operations, three foot of native material will be placed over the pit area with one foot of top soil to ensure re-vegetation.
- **Re-vegetation Plan:** In compliance with Subsection I of 19.15.17.13 NMAC, any portion of the pit area not used for future service or operations will be re-seeded with a native vegetation of BLM's choice.
- **Site Reclamation Plan:** In compliance with Subsection I of 19.15.17.13 NMAC the impacted and disturbed area will be re-contoured to surrounding terrain.
- **Marker:** A marker will be placed over the buried material. The permanent marker will have all required information permanently listed on it.
- **Deed:** This well is on federal land and is not deeded.

On the 3rd day of Febuaryry , 2009 Mewbourne Oil Co. visually inspected the Orca "11" Fed Com #1 location in Unit Letter C of Sec 11 , T 17 S, R 29 E, of Eddy County, NM.

This is to certify that upon visual inspection of the above mentioned location there are no permanent residences, schools, hospitals, institutions or churches within 300 feet. The location is not within 500 feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, nor within 1000 horizontal feet of any other fresh water well or spring, nor within 500 feet of a wetland, nor within 300 feet of a continuously flowing water course, nor within 200 feet of any other significant watercourse or lakebed, sinkhole or playa lake (measured from the ordinary high-water mark).

Signature: Charles L. Martin Date: 02/13/2009

Mewbourne Oil Company
PO Box 5270
Hobbs, NM 88241
(575) 393-5905

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route for the Orca 11 Federal Com #1, 990' FNL & 1980' FWL of Sec 11-T17S- R29E, Eddy County, New Mexico; that I am familiar with the conditions which currently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed by Mewbourne Oil Company, its contractors and subcontractors, in accordance with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Signature: _____ Date: 2/13/09

Print: NM Young

Hobbs District Manager

United States Department of the Interior
Bureau of Land Management
Roswell Field Office
2909 West Second Street
Roswell, New Mexico 88201-1287

Statement Accepting Responsibility for Operations

Operator Name: Mewbourne Oil Company
Street or Box: P.O. Box 5270
City, State: Hobbs, New Mexico
Zip Code: 88241

Mewbourne Oil Company of Hobbs, NM is a field office of Mewbourne Oil Company, 3901 S Broadway, Tyler TX 75701. **Mail connected to this APD should be directed to the Hobbs address.** The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted of the leased land or portion thereof, as described below.

Lease Number: Lease Number #NMLC028731-b

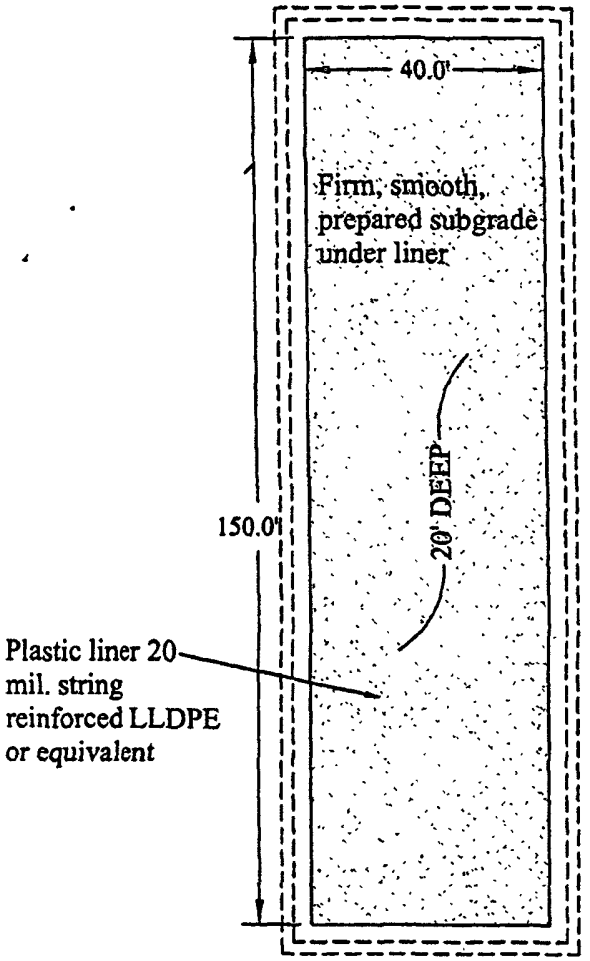
Legal Description of Land: Section 11, T-17S, R-29E Eddy County, New Mexico.
Location @ 990' FNL & 1980' FWL.

Formation (if applicable): Morrow

Bond Coverage: $150,000

BLM Bond File: NM1693, Nationwide

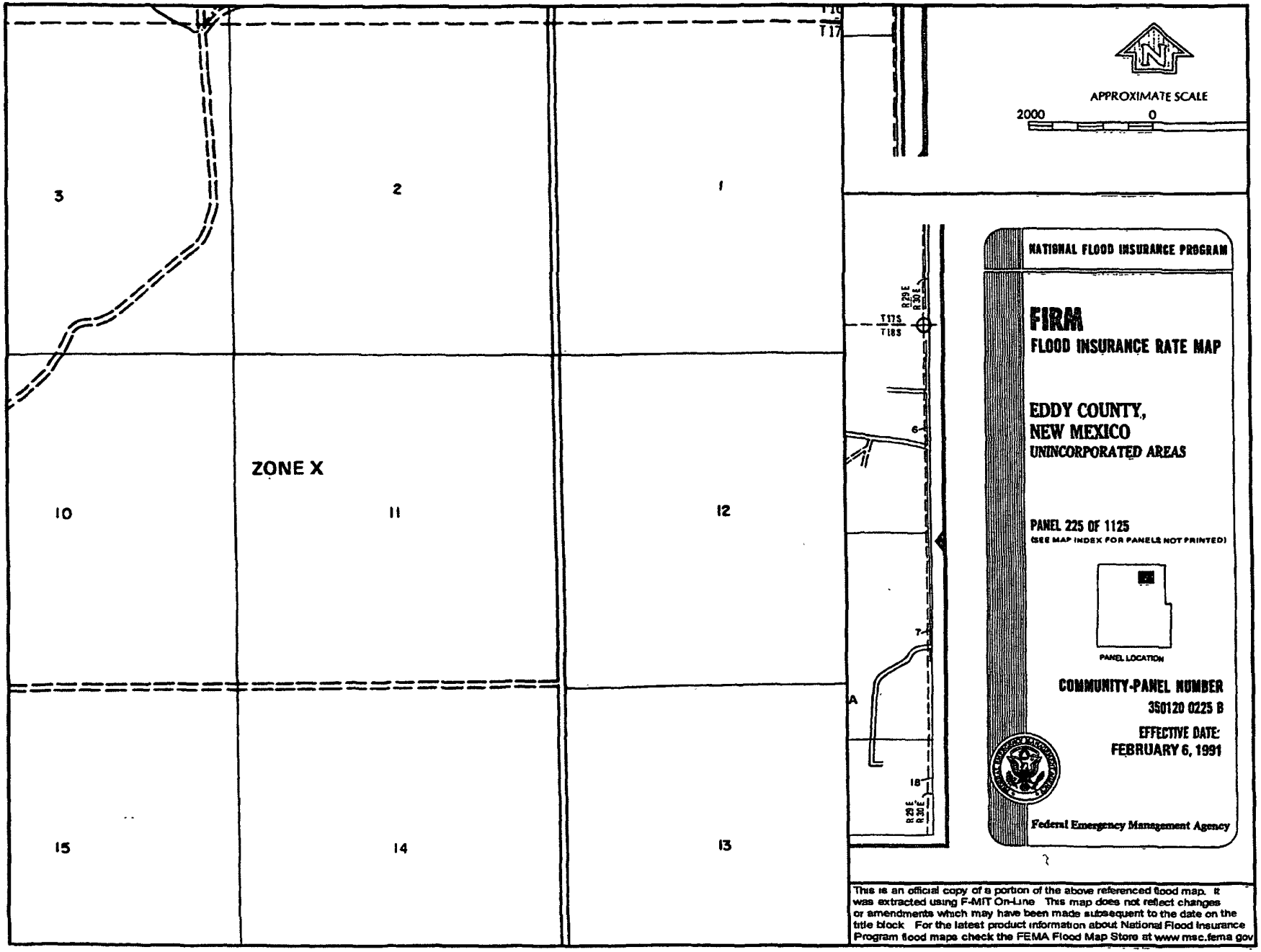
Authorized Signature: _____
Name: NM (Mickey) Young
Title: District Manager
Date: February 12, 2009



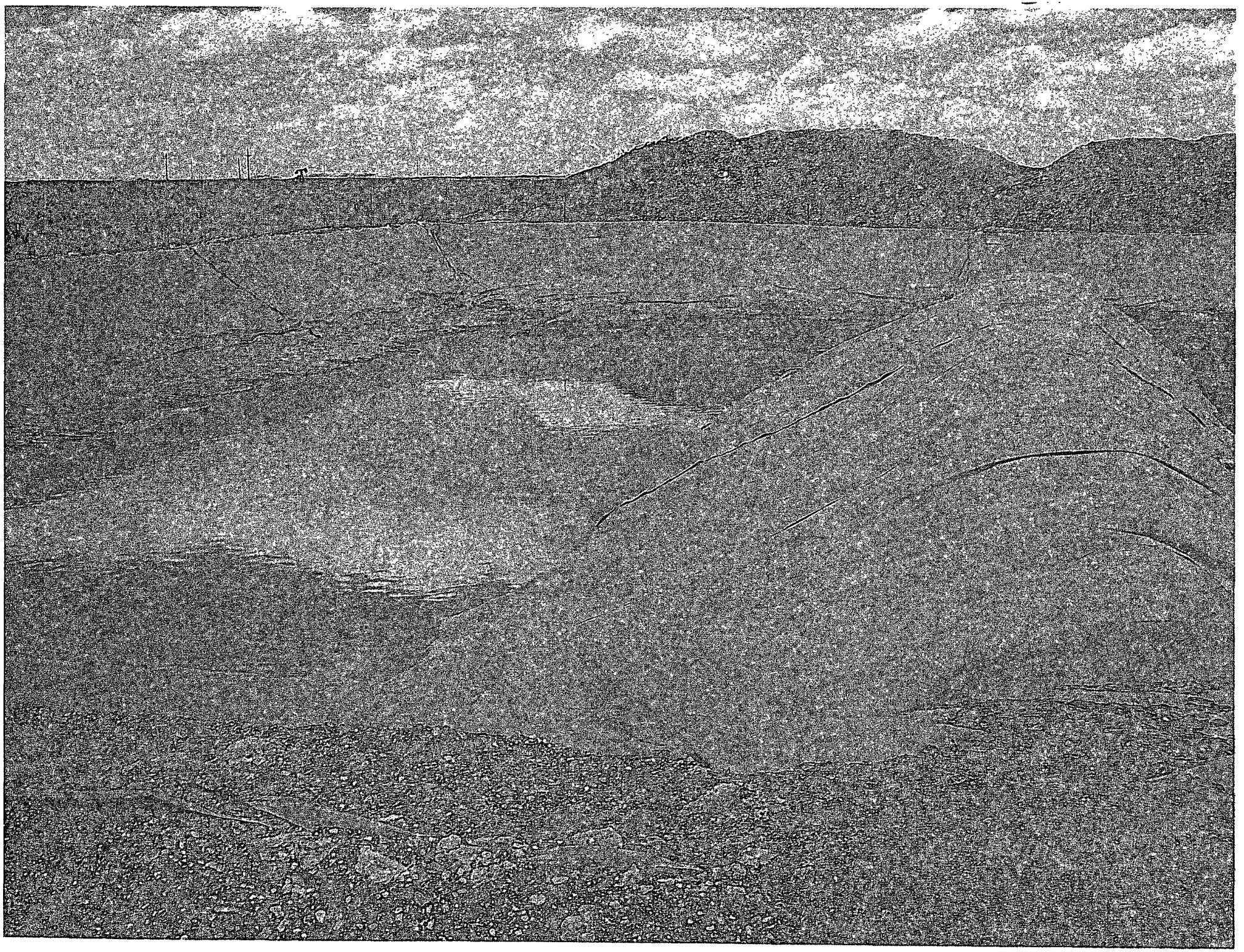
Site Overhead View

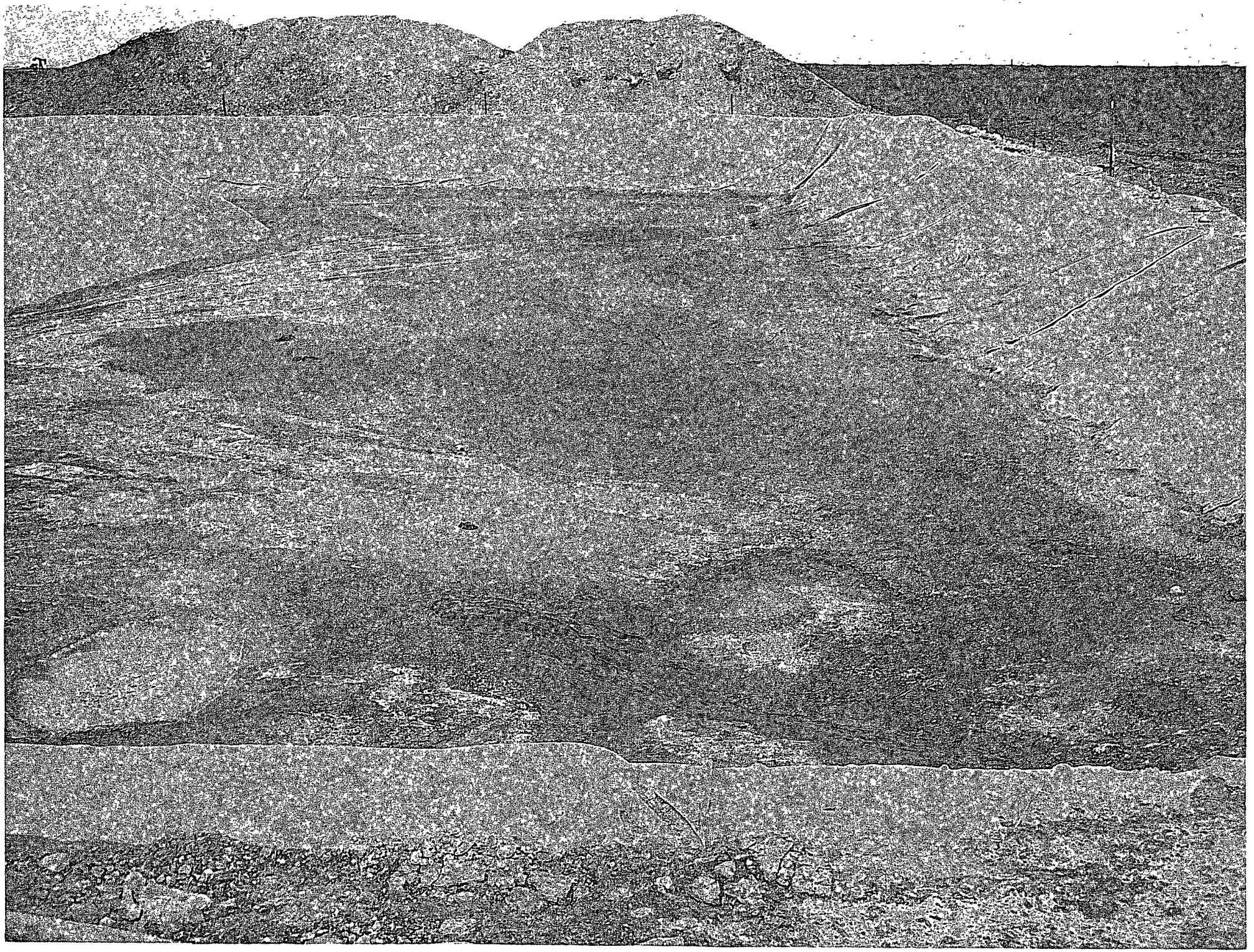
Date:	07/22/2008
Scale:	Not To Scale
Drawn By:	SJA

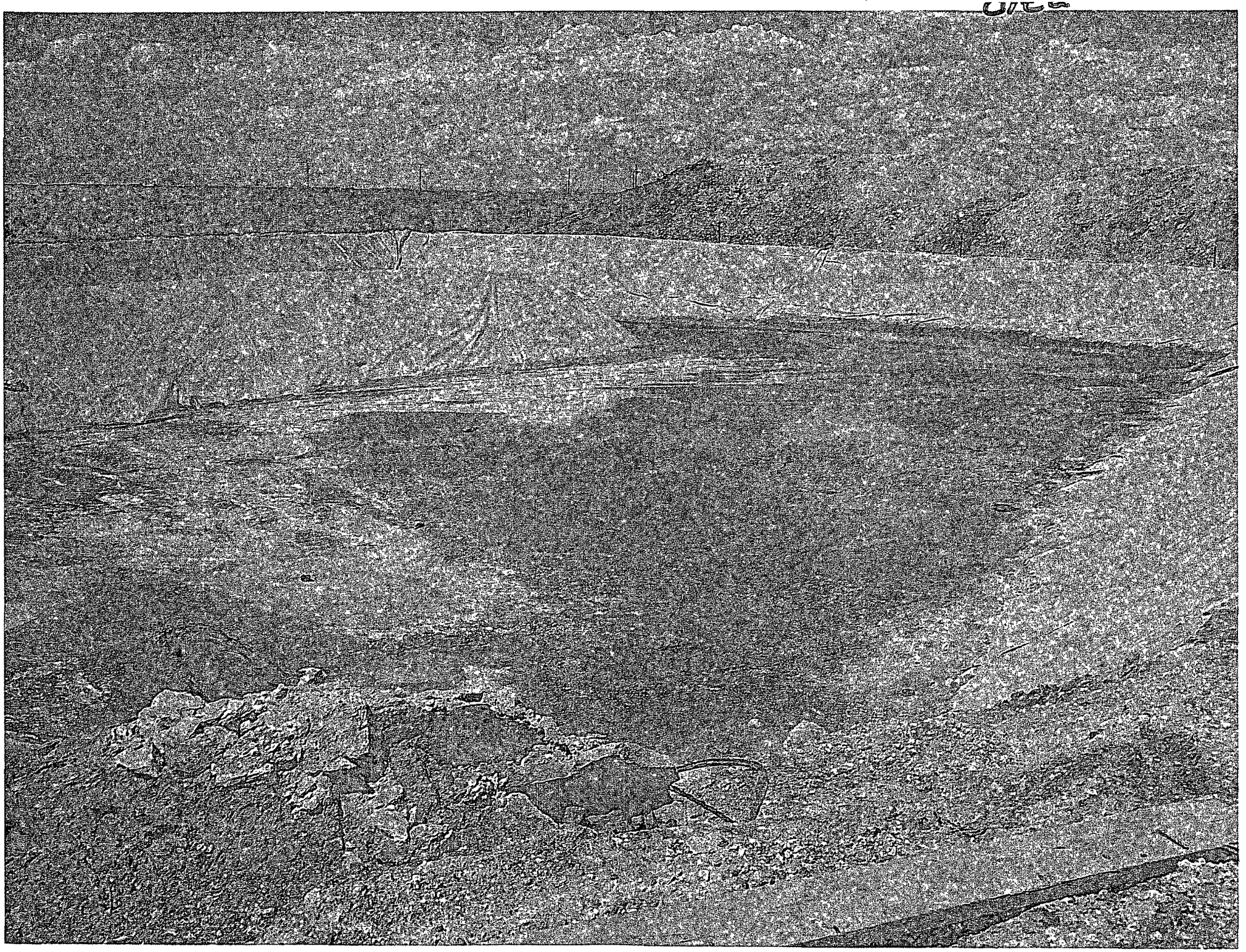
Mewbourne Oil Company
Bradley 6 Federal 1
Eddy County, New Mexico
Pit Liner Site Plain



This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

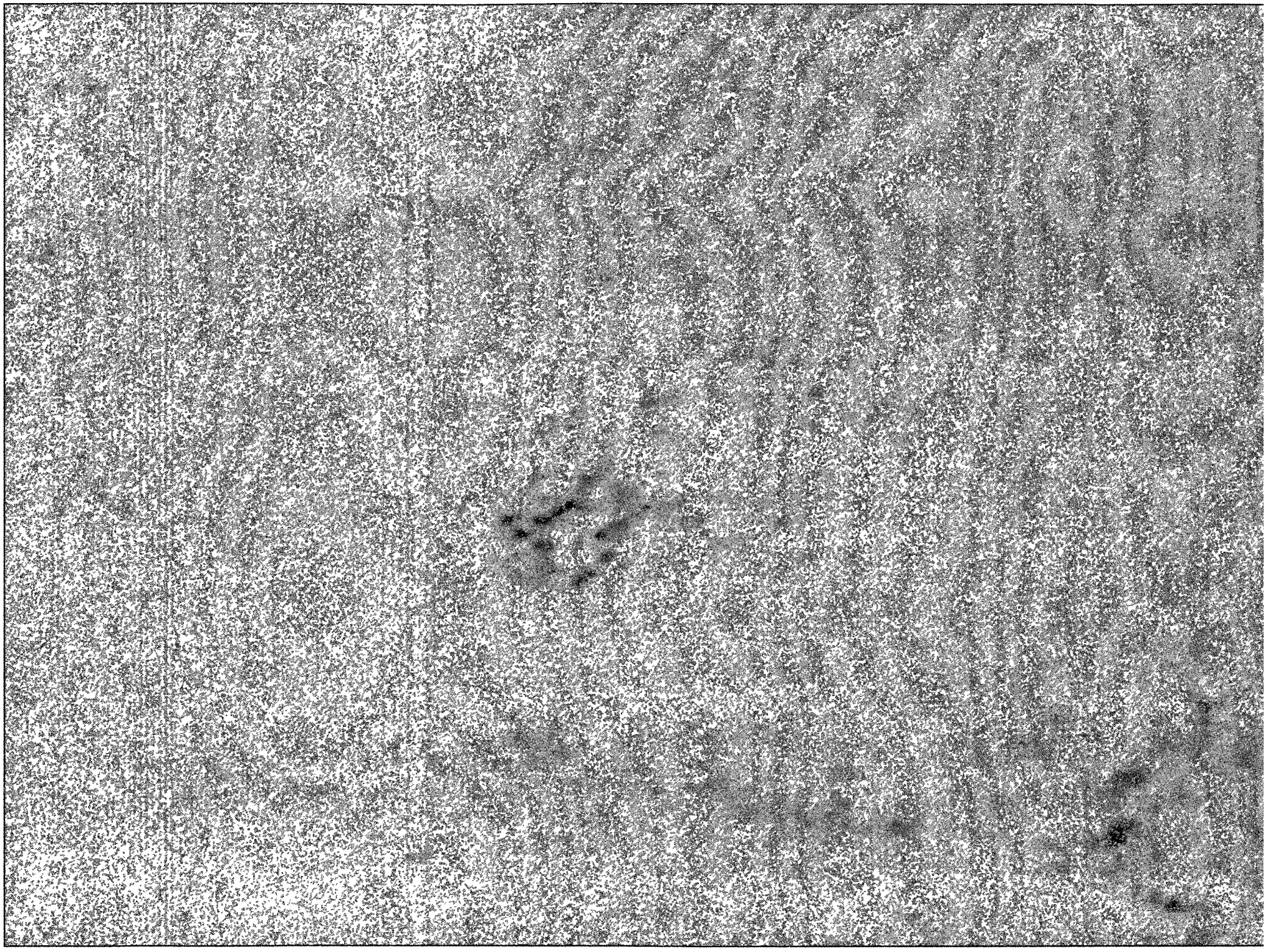




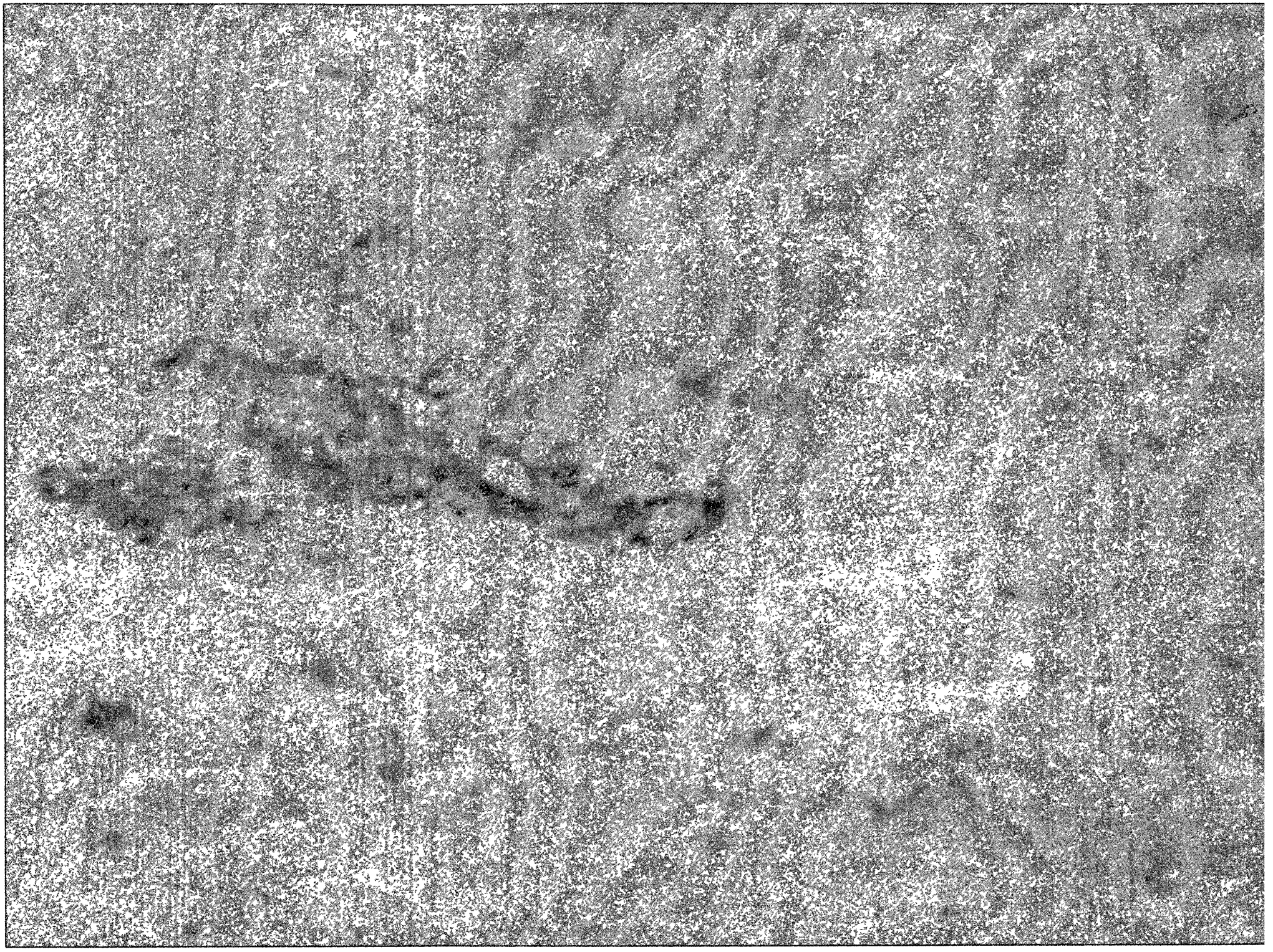


DRCA

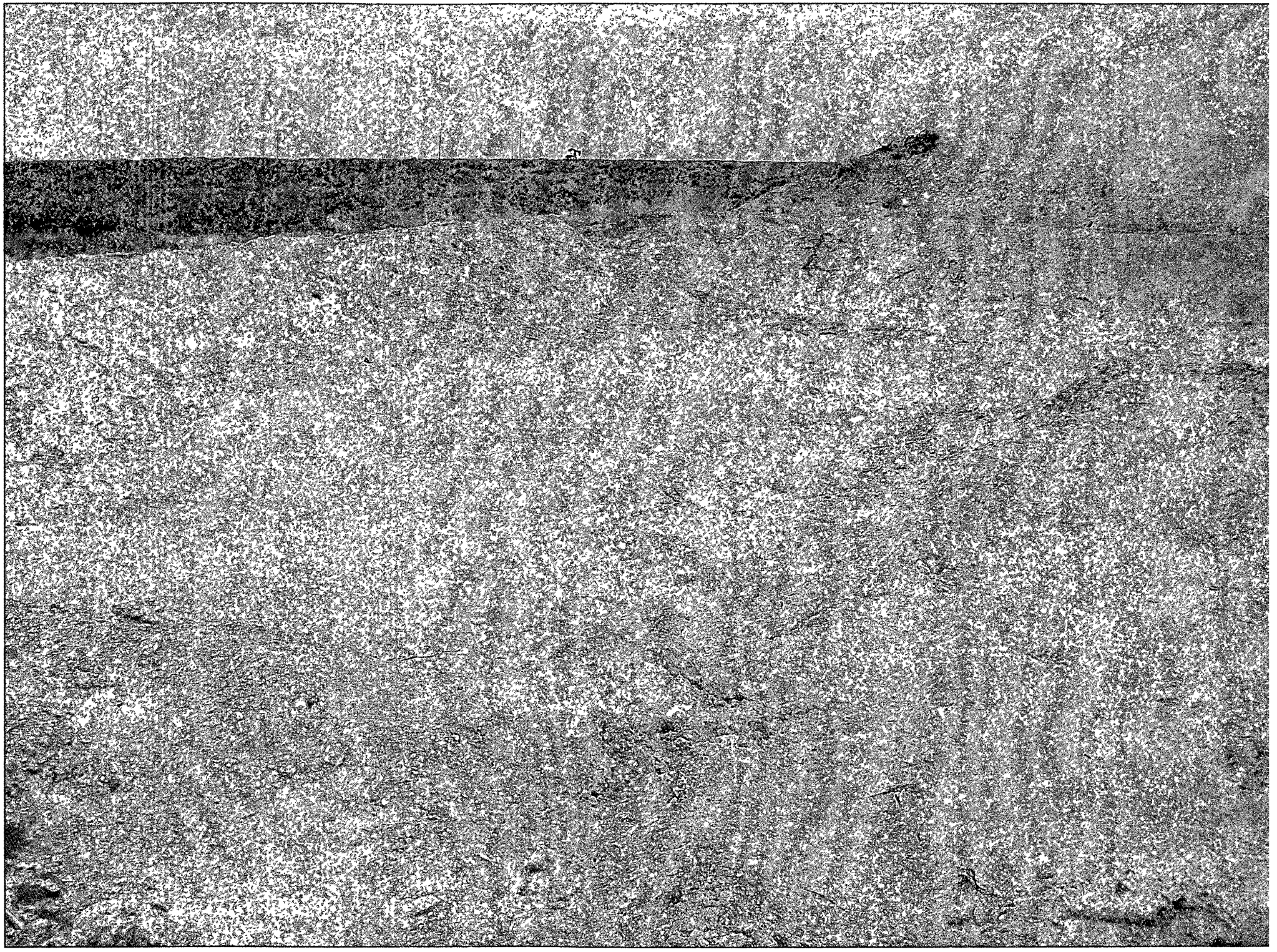
DKCA



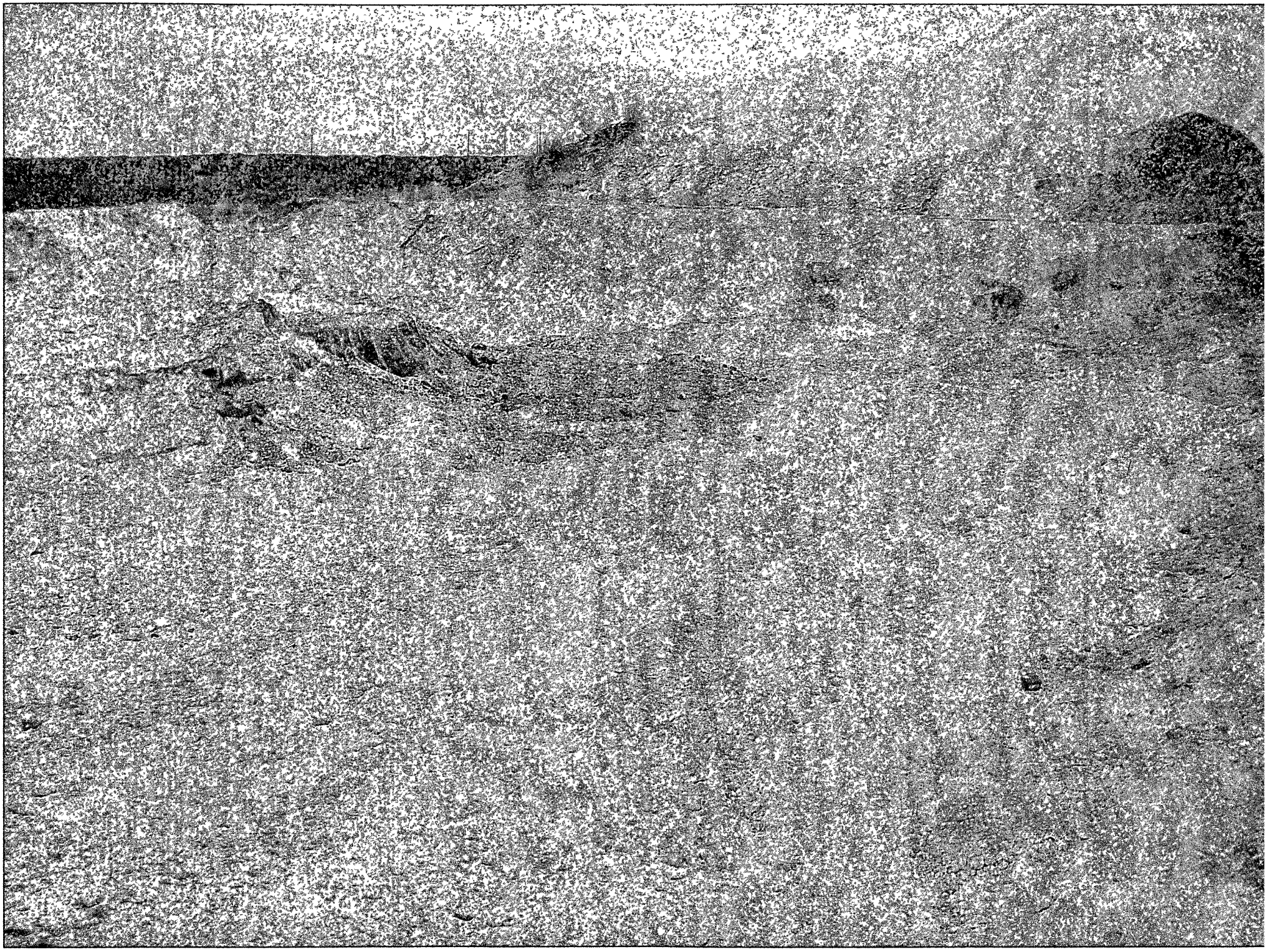
ORCA

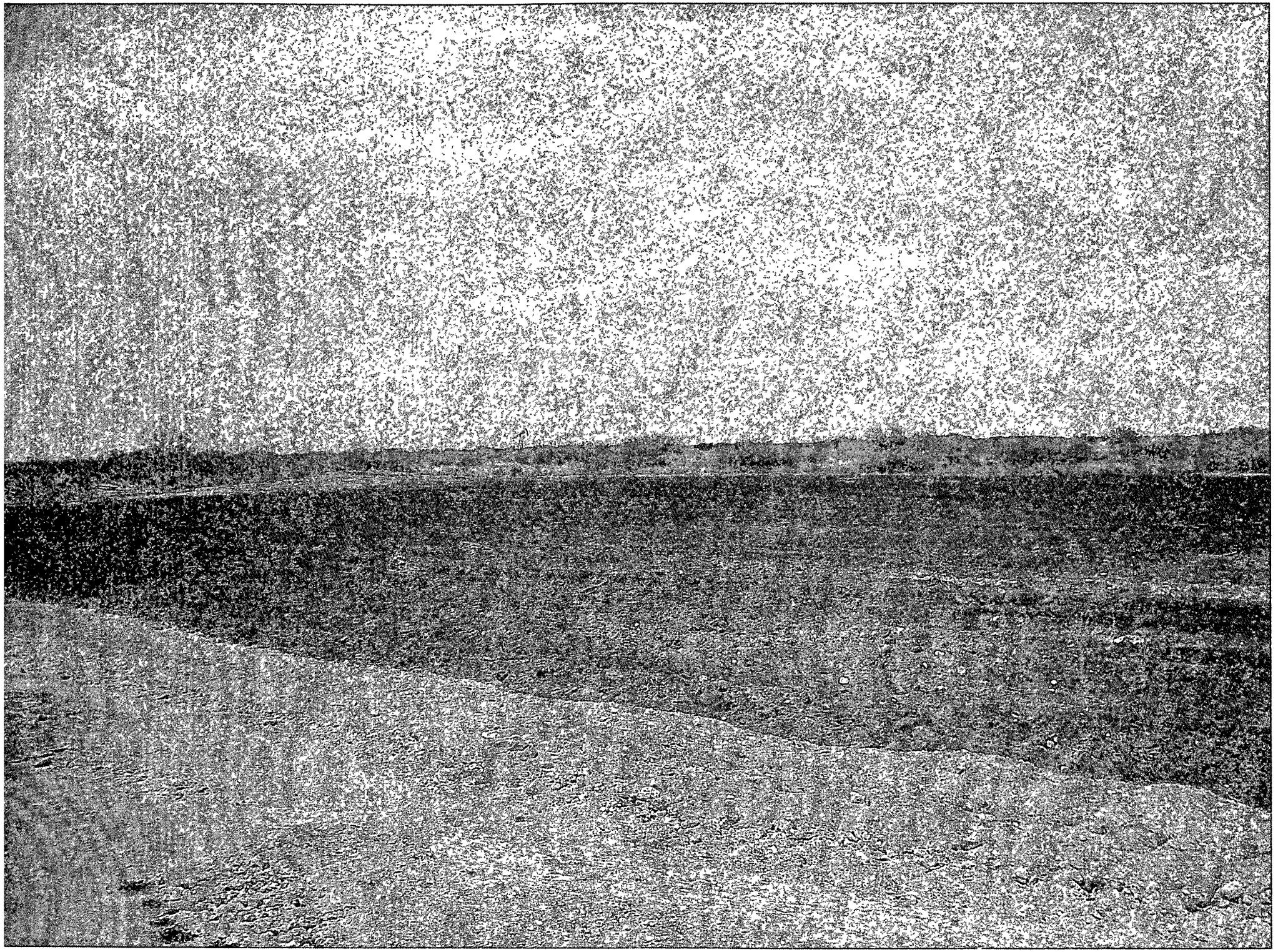


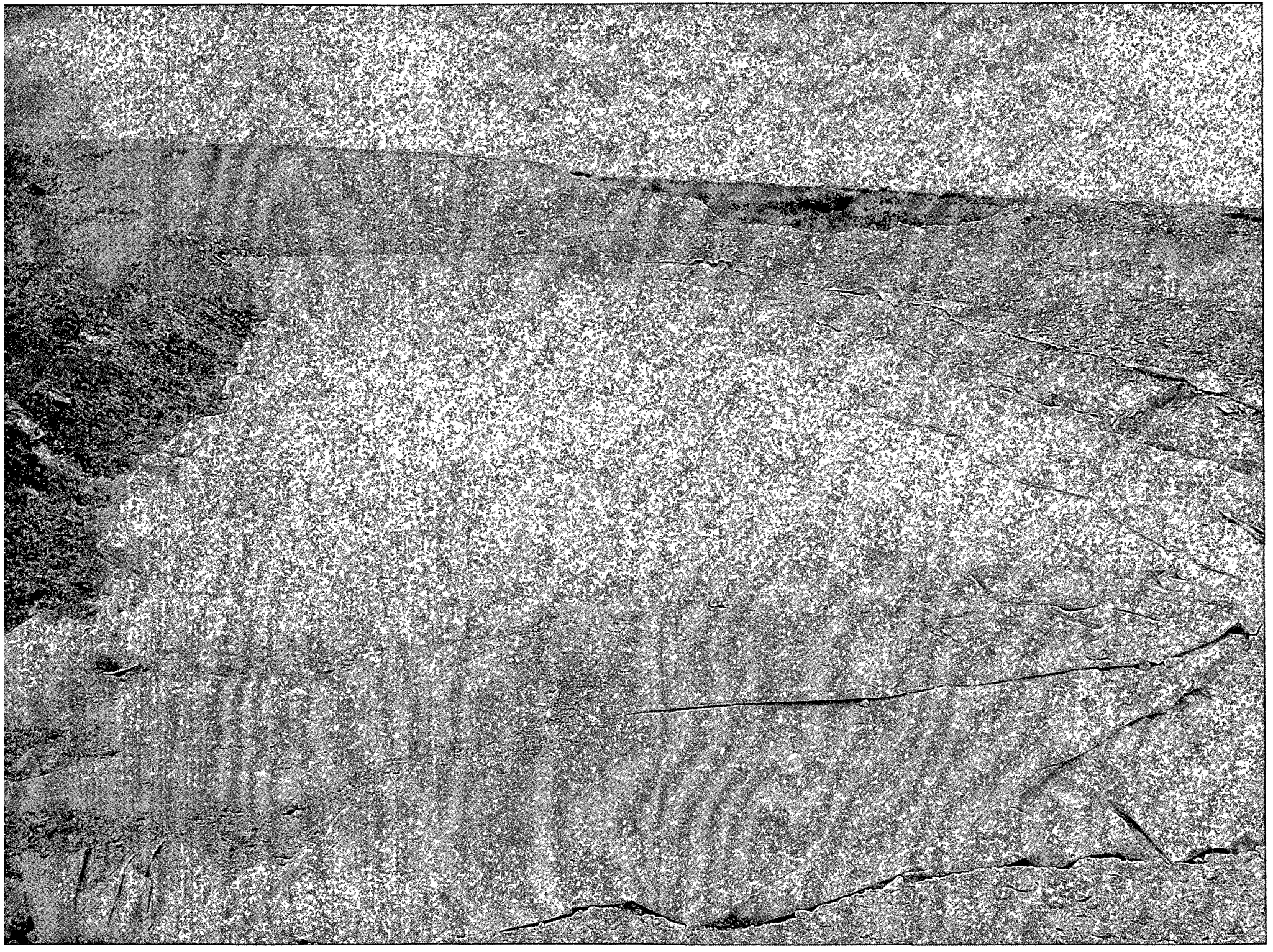
ORCA



ORCA







20.6.2.3103 STANDARDS FOR GROUND WATER OF 10,000 mg/l TDS CONCENTRATION OR LESS: The following standards are the allowable pH range and the maximum allowable concentration in ground water for the contaminants specified unless the existing condition exceeds the standard or unless otherwise provided in Subsection D of Section 20.6.2.3109 NMAC. Regardless of whether there is one contaminant or more than one contaminant present in ground water, when an existing pH or concentration of any water contaminant exceeds the standard specified in Subsection A, B, or C of this section, the existing pH or concentration shall be the allowable limit, provided that the discharge at such concentrations will not result in concentrations at any place of withdrawal for present or reasonably foreseeable future use in excess of the standards of this section. These standards shall apply to the dissolved portion of the contaminants specified with a definition of dissolved being that given in the publication "*methods for chemical analysis of water and waste of the U.S. environmental protection agency*," with the exception that standards for mercury, organic compounds and non-aqueous phase liquids shall apply to the total unfiltered concentrations of the contaminants.

A. **Human Health Standards**-Ground water shall meet the standards of Subsection A and B of this section unless otherwise provided. If more than one water contaminant affecting human health is present, the toxic pollutant criteria as set forth in the definition of toxic pollutant in Section 20.6.2.1101 NMAC for the combination of contaminants, or the Human Health Standard of Subsection A of Section 20.6.2.3103 NMAC for each contaminant shall apply, whichever is more stringent. Non-aqueous phase liquid shall not be present floating atop of or immersed within ground water, as can be reasonably measured.

(1)	Arsenic (As)	0.1 mg/l
(2)	Barium (Ba)	1.0 mg/l
(3)	Cadmium (Cd)	0.01 mg/l
(4)	Chromium (Cr)	0.05 mg/l
(5)	Cyanide (CN)	0.2 mg/l
(6)	Fluoride (F)	1.6 mg/l
(7)	Lead (Pb)	0.05 mg/l
(8)	Total Mercury (Hg)	0.002 mg/l
(9)	Nitrate (NO_3 as N)	10.0 mg/l
(10)	Selenium (Se)	0.05 mg/l
(11)	Silver (Ag)	0.05 mg/l
(12)	Uranium (U)	0.03 mg/l
(13)	Radioactivity: Combined Radium-226 & Radium-228	30 pCi/l
(14)	Benzene	0.01 mg/l
(15)	Polychlorinated biphenyls (PCB's)	0.001 mg/l
(16)	Toluene	0.75 mg/l
(17)	Carbon Tetrachloride	0.01 mg/l
(18)	1,2-dichloroethane (EDC)	0.01 mg/l
(19)	1,1-dichloroethylene (1,1-DCE)	0.005 mg/l
(20)	1,1,2,2-tetrachloroethylene (PCE)	0.02 mg/l
(21)	1,1,2-trichloroethylene (TCE)	0.1 mg/l
(22)	ethylbenzene	0.75 mg/l
(23)	total xylenes	0.62 mg/l
(24)	methylene chloride	0.1 mg/l
(25)	chloroform	0.1 mg/l
(26)	1,1-dichloroethane	0.025 mg/l
(27)	ethylene dibromide (EDB)	0.0001 mg/l
(28)	1,1,1-trichloroethane	0.06 mg/l
(29)	1,1,2-trichloroethane	0.01 mg/l
(30)	1,1,2,2-tetrachloroethane	0.01 mg/l
(31)	vinyl chloride	0.001 mg/l
(32)	PAHs: total naphthalene plus monomethylnaphthalenes	0.03 mg/l
(33)	benzo-a-pyrene	0.0007 mg/l

B. **Other Standards for Domestic Water Supply**

(1)	Chloride (Cl)	250.0 mg/l
(2)	Copper (Cu)	1.0 mg/l
(3)	Iron (Fe)	1.0 mg/l
(4)	Manganese (Mn)	0.2 mg/l
(6)	Phenols	0.005 mg/l
(7)	Sulfate (SO_4)	600.0 mg/l
(8)	Total Dissolved Solids (TDS)	1000.0 mg/l
(9)	Zinc (Zn)	10.0 mg/l
(10)	pH	between 6 and 9

C. **Standards for Irrigation Use** - Ground water shall meet the standards of Subsection A, B, and C of

this section unless otherwise provided.

(1) Aluminum (Al)..... .....5.0 mg/l
(2) Boron (B) .....0.75 mg/l
(3) Cobalt (Co) .....0.05 mg/l
(4) Molybdenum (Mo) .....1.0 mg/l
(5) Nickel (Ni) .....0.2 mg/l

[2-18-77, 1-29-82, 11-17-83, 3-3-86, 12-1-95; 20.6.2.3103 NMAC - Rn, 20 NMAC 6.2.III.3103, 1-15-01; A, 9-26-04]
[Note: For purposes of application of the amended numeric uranium standard to past and current water discharges (as of 9-26-04), the new standard will not become effective until June 1, 2007. For any new water discharges, the uranium standard is effective 9-26-04.]

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

(800) 401-4277 -- FAX (225) 381-2996

American Radiation Services, Inc.

Laboratory Analysis Report

ARS1-09-02197

Prepared for:

Trace Analysis, Inc.

Liz Givens
6701 Aberdeen Avenue, Suite 9
Lubbock, TX 79424

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Phone: 806-794-1296
Fax: 806-794-1298

Project Manager Review

Management Review

Notes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

Contact Person: Questions regarding this analytical report should be addressed to:

Project Manager

ProjectManagers@amrad.com

Phone: 225.381.2991
Fax: 225.381.2996

LELAP Cert# 01949

NELAP Cert# E87558

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group:	ARS1-09-02197	**Request or PO Number:**	N/A
Client Sample ID:	205309	**ARS Sample ID:**	ARS1-09-02197-001
Sample Collection Date:	08/06/09	**Date Received:**	08/13/09
Sample Matrix:	Aqueous	**Report Date:**	09/21/09

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	DLC	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
RA-226	0.140	0 207	0 353	0.137	U	pCi/L	ARS-010/EPA 904.0	09/11/09 17:13	GJ	100%
RA-228	1 365	1 140	1 804	0.833	U	pCi/L	ARS-010/EPA 904.0	09/10/09 19:45	GJ	68%

NOTES: QC biased high for LCS & LCSD; however upon technical review, data is being released as valid.

Project Manager Review

LELAP Certificate# 01949 NELAP Certificate # E87558

ARS INTERNATIONAL

QC Results per Analytical Batch

Analytical Batch	ARS1-B09-03472
SDG	ARS1-09-02197
Analysis	Radium-228/226 in (Water [Aqueous, AQ])
Analysis Test Method	ARS-010/Gas Proportional Counter
Analysis Code	GPC-A-057
Report Units	pCi/L

Acceptable QC Performance Ranges

QC Sample Type	Performance Items and Ranges		
Laboratory Control Sample	Recovery (%):	> 75	< 125
Matrix Spike	Recovery (%):	> 30	< 110
Duplicate	Replicate Error Ratio (RER):		< 1
	Duplicate Error Ration (DER):		< 3
	Relative Percent Difference (RPD %):		≤ 25

Laboratory Control Sample

Analysis Batch Sample ID	QC Type	Analyte	Analysis Date Results	CSU (1s)	Analysis Technician Expected Value	GJONES LCS Rec (%)	MDC
ARS1-B09-03472-01	LCS	RA-226	47.0	3.9	29.24	161	0.16
ARS1-B09-03472-01	LCS	RA-228	8.68	0.88	17.59	49	0.97

Duplicate RER/DER/RPD

Analysis Batch Sample ID	QC Type	Analyte	Analysis Date Results	CSU (1s)	Analysis Technician RER	GJONES DER	RPD
ARS1-B09-03472-02	LCSD	RA-226	57.8	4.8	0.63	1.75	20.6
ARS1-B09-03472-02	LCSD	RA-228	8.44	0.92	0.07	0.19	2.8

Method Blank

Analysis Batch Sample ID	QC Type	Analyte	Analysis Date Results	CSU (1 s)	Analysis Technician MDC	GJONES Qual
ARS1-B09-03472-03	MBL	RA-226	0.60	0.12	0.18	
ARS1-B09-03472-03	MBL	RA-228	0.23	0.26	0.88	U

Katherine Savole

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949 NELAP Certificate # E87558

ARS INTERNATIONAL

2609 North River Road • Port Allen, Louisiana 70767
1 (800) 401-4277 • Fax (225) 381-2996

Notes:

Comments:

1 0) Soil and Sludge analysis are reported on a wet basis or an as received basis unless otherwise indicated.

2 0) Data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.

3 0) Modified analysis procedures are procedures that are modified to meet the certain specifications An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix. Modified analyses are indicated by the subsequent addition of "m" to the procedure number (i.e. 900.0M).

4 0) Derived Air Concentrations and Effluent Release Concentrations are obtained from 10 CFR 20 Appendix B.

5 0) **Total activity** is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than the actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis The total activity is not representative of nuclides that emit solely alpha or beta particles.

6.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228. (Gamma Spectroscopy only).

7.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234. (Gamma Spectroscopy only).

8.0) All gamma spectroscopy was performed utilizing high purity germanium detectors (**HPGe**).

9 0) ARS makes every attempt to match sample density to calibrated density; however, in some cases, it is not practical or possible to do so and data results may be affected.

Method References:

1 0) **EPA 600/4-80-032**; Prescribed Procedures for the Measurements of Radioactivity in Drinking Water, August 1980

2.0) Standard Methods for Examination of Water and Waste Water, 18th, 1992

3 0) **EPA SW-846**; Test Methods for Evaluating Solid Waste, Third Edition, (9/86). (Updated through 1995).

4.0) **EPA 600/4/79-020**; Methods for Chemical Analysis of Water and Waste, March 1983.

5.0) HASL 300

6.0) **ARS-040**; An LCSD is not reported with this process. The criteria for the LCS/LCSD analysis for reproducibility have not been established for Low Level Tritium analysis. A prepared standard for Low Level Tritium has not been developed. As a result, the standard we use is based on the dilution of a verified conventional tritium standard. The volume required for Low Level Tritium analysis, in addition to the lack of an available Low Level Tritium standard, introduce variability into the LCS/LCSD analysis that does not represent the actual sample analysis. The preferred measure for reproducibility is to run a duplicate analysis of a sample

Definitions:

1.0)	**ND**	Not detected above the detection limit (non-detect).
2.0)	**MDC**	(Minimum Detectable Concentration) minimum concentration of the analyte that ARS can detect utilizing the specific analysis
3.0)	**MBL**	Method Blank
4 0)	**DO**	Duplicate Original
5 0)	**DUP**	Method Duplicate
6.0)	**MS/MSD**	Matrix Spike/Matrix Spike Duplicate
7.0)	**S**	Spike
8.0)	**RS**	Reference Spike
9 0)	***SC**	Subcontracted out to another qualified laboratory
10.0)	**NR**	Not Referenced
11 0)	**N/A**	Not Applicable
12 0)	*	Reported as a calculated value
13.0)	**	False Positive due to interference from Bi-214
14.0)	**U**	Activity is below the MDC
15 0)	**LCS/LCSD**	Laboratory Control Standard/Laboratory Control Standard Duplicate

LELAP Cert# 01949 ***NELAP Cert# E87558***

Summary Report

Kyle Summers
Talon LPE-Midland
2901 State Highway 349
Midland, TX 79706

Report Date: August 26, 2009

Work Order: 9081017

Project Location: Eddy Co., NM
Project Name: Orca II Fed. Com. #1
Project Number: 700738.019.01

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
205309	Cuttings 1	soil	2009-08-06	09:30	2009-08-07

	BTEX				MTBE	TPH 418.1	TPH DRO	TPH GRO
	Benzene	Toluene	Ethylbenzene	Xylene	MTBE	TRPHC	DRO	GRO
Sample - Field Code	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
205309 - Cuttings 1	<0.0200	<0.0200	<0.0200	<0.0200		**45.3**	<50.0	**5.81**

Sample: 205309 - Cuttings 1

Param	Flag	Result	Units	RL
SPLP Silver		<0.00300	mg/L	0.00300
SPLP Arsenic		<0.0100	mg/L	0.0100
SPLP Barium		**0.192**	mg/L	0.100
SPLP Cadmium		<0.00500	mg/L	0.00500
SPLP Chloride		**59.6**	mg/L	0.500
SPLP Chromium		<0.00500	mg/L	0.00500
SPLP Cyanide		<0.0150	mg/L	0.0150
SPLP Fluoride		<0.200	mg/L	0.200
SPLP Mercury		<0.000200	mg/L	0.000200
Nitrate-N		<0.200	mg/L	0.200
Naphthalene		<0.000200	mg/L	0.000200
Acenaphthylene		<0.000200	mg/L	0.000200
Acenaphthene		<0.000200	mg/L	0.000200
Dibenzofuran		<0.000200	mg/L	0.000200
Fluorene		<0.000200	mg/L	0.000200
Anthracene		<0.000200	mg/L	0.000200
Phenanthrene		<0.000200	mg/L	0.000200
Fluoranthene		<0.000200	mg/L	0.000200

continued ...

sample 205309 continued ...

Param	Flag	Result	Units	RL
Pyrene		<0.000200	mg/L	0.000200
Benzo(a)anthracene		<0.000200	mg/L	0.000200
Chrysene		<0.000200	mg/L	0.000200
Benzo(b)fluoranthene		<0.000200	mg/L	0.000200
Benzo(k)fluoranthene		<0.000200	mg/L	0.000200
Benzo(a)pyrene		<0.000200	mg/L	0.000200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.000200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.000200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.000200
SPLP Lead		<0.0100	mg/L	0.0100
Total PCB		<0.000500	mg/L	0.000500
Aroclor 1016 (PCB-1016)		<0.000500	mg/L	0.000500
Aroclor 1221 (PCB-1221)		<0.000500	mg/L	0.000500
Aroclor 1232 (PCB-1232)		<0.000500	mg/L	0.000500
Aroclor 1242 (PCB-1242)		<0.000500	mg/L	0.000500
Aroclor 1248 (PCB-1248)		<0.000500	mg/L	0.000500
Aroclor 1254 (PCB-1254)		<0.000500	mg/L	0.000500
Aroclor 1260 (PCB-1260)		<0.000500	mg/L	0.000500
Aroclor 1268 (PCB-1268)		<0.000500	mg/L	0.000500
SPLP Selenium		<0.0500	mg/L	0.0500
SPLP U		<0.0500	mg/L	0.0500
Vinyl Chloride	[1]	<1.00	µg/L	1.00
1,1-Dichloroethene		<1.00	µg/L	1.00
Methylene chloride		**81.0**	µg/L	5.00
1,1-Dichloroethane		<1.00	µg/L	1.00
1,2-Dichloroethane (EDC)		<1.00	µg/L	1.00
Chloroform		<1.00	µg/L	1.00
1,1,1-Trichloroethane		<1.00	µg/L	1.00
Benzene		<1.00	µg/L	1.00
Carbon Tetrachloride		<1.00	µg/L	1.00
Trichloroethene (TCE)		<1.00	µg/L	1.00
Toluene		<1.00	µg/L	1.00
1,1,2-Trichloroethane		<1.00	µg/L	1.00
1,2-Dibromoethane (EDB)		<1.00	µg/L	1.00
Tetrachloroethene (PCE)		<1.00	µg/L	1.00
Ethylbenzene		<1.00	µg/L	1.00
m,p-Xylene		<1.00	µg/L	1.00
o-Xylene		<1.00	µg/L	1.00
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1.00

[1] Concentration biased low. •

Summary Report

Kyle Summers
Talon LPE-Hobbs
318 E. Taylor
Hobbs, NM 88240

Report Date: October 19, 2009

Work Order: 9100926

Project Location: Eddy Co., NM
Project Name: Orca
Project Number: 700738.019.01

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
212093	Pit Floor Comp.	soil	2009-10-07	14:45	2009-10-09

Sample - Field Code	BTEX Benzene (mg/Kg)	BTEX Toluene (mg/Kg)	BTEX Ethylbenzene (mg/Kg)	BTEX Xylene (mg/Kg)	TPH 418.1 TRPHC (mg/Kg)	TPH DRO DRO (mg/Kg)	TPH GRO GRO (mg/Kg)
212093 - Pit Floor Comp.	<0.0100	<0.0100	<0.0100	<0.0100	<10.0	<50.0	<1.00

Sample: 212093 - Pit Floor Comp.

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

TRACEANALYSIS, INC.

6701 Aberdeen Avenue Suite 9 | Lubbock, Texas 79424 | 800•378•1296 | 806•794•1296 | FAX 806•794•1298
200 East Sunset Road, Suite E | El Paso, Texas 79922 | 888•588•3443 | 915•585•3443 | FAX 915•585•3944
5002 Basin Street Suite A1 | Midland, Texas 79703 | 432•689•6301 | FAX 432•689•6313
6015 Harris Parkway Suite 110 | Ft Worth, Texas 76132 | 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBENC: 237019 **HUB:** 1752439743100-86536 **DBE:** VN 20657
NCTRCA WFWB38444Y0909

NELAP Certifications

Lubbock: T104704219-08-TX LELAP-02003 Kansas E-10317 **El Paso:** T104704221-08-TX LELAP-02002 **Midland:** T104704392-08-TX

Analytical and Quality Control Report

Kyle Summers
Talon LPE-Midland
2901 State Highway 349
Midland, TX, 79706

Report Date: August 26, 2009

Work Order: 9081017

Project Location: Eddy Co., NM
Project Name: Orca II Fed. Com. #1
Project Number: 700738.019.01

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
205309	Cuttings 1	soil	2009-08-06	09:30	2009-08-07

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project Orca II Fed. Com. #1 were received by TraceAnalysis, Inc. on 2009-08-07 and assigned to work order 9081017. Samples for work order 9081017 were received intact at a temperature of 3.1 deg. C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	53292	2009-08-13 at 16:25	62466	2009-08-13 at 16:25
SPLP Ag	S 6010B	53468	2009-08-19 at 09:46	62664	2009-08-19 at 11:39
SPLP As	S 6010B	53468	2009-08-19 at 09:46	62664	2009-08-19 at 11:39
SPLP Ba	S 6010B	53468	2009-08-19 at 09:46	62664	2009-08-19 at 11:39
SPLP Cd	S 6010B	53468	2009-08-19 at 09:46	62664	2009-08-19 at 11:39
SPLP Cl	E 300.0	53551	2009-08-20 at 12:22	62761	2009-08-20 at 12:55
SPLP Cr	S 6010B	53468	2009-08-19 at 09:46	62664	2009-08-19 at 11:39
SPLP Cyanide	SM 4500-CN C,E	53698	2009-08-24 at 15:25	62911	2009-08-24 at 18:00
SPLP Fluoride	E 300.0	53551	2009-08-20 at 12:22	62761	2009-08-20 at 12:55
SPLP Hg	S 7470A	53350	2009-08-15 at 09:37	62524	2009-08-15 at 11:18
SPLP NO3 (IC)	E 300.0	53551	2009-08-20 at 12:22	62761	2009-08-20 at 12:55
SPLP PAH	S 8270C	53688	2009-08-19 at 15:00	62897	2009-08-26 at 10:26
SPLP Pb	S 6010B	53468	2009-08-19 at 09:46	62664	2009-08-19 at 11:39
SPLP PCB	S 8082	53320	2009-08-14 at 14:00	62499	2009-08-14 at 14:04
SPLP Se	S 6010B	53468	2009-08-19 at 09:46	62664	2009-08-19 at 11:39
SPLP U	S 6010B	53468	2009-08-19 at 09:46	62664	2009-08-19 at 11:39
SPLP Volatiles	S 8260B	53316	2009-08-13 at 15:00	62496	2009-08-13 at 15:00
TPH 418.1	E 418.1	53442	2009-08-18 at 12:00	62623	2009-08-18 at 14:27
TPH DRO	Mod. 8015B	53161	2009-08-10 at 15:00	62317	2009-08-10 at 18:00
TPH GRO	S 8015B	53234	2009-08-12 at 15:50	62401	2009-08-12 at 15:50

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 9081017 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 205309 - Cuttings 1

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	62466	Date Analyzed:	2009-08-13	Analyzed By:	ER
Prep Batch:	53292	Sample Preparation:	2009-08-13	Prepared By:	ER

Parameter	Flag	Result	RL Units	Dilution	RL
Benzene		<0.0200	mg/Kg	1	0.0200
Toluene		<0.0200	mg/Kg	1	0.0200
Ethylbenzene		<0.0200	mg/Kg	1	0.0200
Xylene		<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.92	mg/Kg	1	2.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)		1.80	mg/Kg	1	2.00	90	70 - 130

Sample: 205309 - Cuttings 1

Laboratory:	Lubbock				
Analysis:	SPLP Ag	Analytical Method:	S 6010B	Prep Method:	SPLP 1312
QC Batch:	62664	Date Analyzed:	2009-08-19	Analyzed By:	RR
Prep Batch:	53468	Sample Preparation:	2009-08-19	Prepared By:	KV
		SPLP Extraction:	2009-08-18	Prepared By:	KV

Parameter	Flag	Result	RL Units	Dilution	RL
SPLP Silver		<0.00300	mg/L	1	0.00300

Sample: 205309 - Cuttings 1

Laboratory:	Lubbock				
Analysis:	SPLP As	Analytical Method:	S 6010B	Prep Method:	SPLP 1312
QC Batch:	62664	Date Analyzed:	2009-08-19	Analyzed By:	RR
Prep Batch:	53468	Sample Preparation:	2009-08-19	Prepared By:	KV
		SPLP Extraction:	2009-08-18	Prepared By:	KV

Parameter	Flag	Result	RL Units	Dilution	RL
SPLP Arsenic		<0.0100	mg/L	1	0.0100

Sample: 205309 - Cuttings 1

Laboratory:	Lubbock				
Analysis:	SPLP Ba	Analytical Method:	S 6010B	Prep Method:	SPLP 1312
QC Batch:	62664	Date Analyzed:	2009-08-19	Analyzed By:	RR
Prep Batch:	53468	Sample Preparation:	2009-08-19	Prepared By:	KV
		SPLP Extraction:	2009-08-18	Prepared By:	KV

Parameter	Flag	Result	RL Units	Dilution	RL
SPLP Barium		**0.192**	mg/L	1	0.100

Sample: 205309 - Cuttings 1

Laboratory:	Lubbock				
Analysis:	SPLP Cd	Analytical Method:	S 6010B	Prep Method:	SPLP 1312
QC Batch:	62664	Date Analyzed:	2009-08-19	Analyzed By:	RR
Prep Batch:	53468	Sample Preparation:	2009-08-19	Prepared By:	KV
		SPLP Extraction:	2009-08-18	Prepared By:	KV

Parameter	Flag	Result	RL Units	Dilution	RL
SPLP Cadmium		<0.00500	mg/L	1	0.00500

Sample: 205309 - Cuttings 1

Laboratory:	Lubbock				
Analysis:	SPLP Cl	Analytical Method:	E 300.0	Prep Method:	SPLP 1312
QC Batch:	62761	Date Analyzed:	2009-08-20	Analyzed By:	SS
Prep Batch:	53551	Sample Preparation:	2009-08-20	Prepared By:	SS
		SPLP Extraction:	2009-08-19	Prepared By:	SS

Parameter	Flag	Result	RL Units	Dilution	RL
SPLP Chloride		**59.6**	mg/L	5	0.500

Sample: 205309 - Cuttings 1

Laboratory:	Lubbock				
Analysis:	SPLP Cr	Analytical Method:	S 6010B	Prep Method:	SPLP 1312
QC Batch:	62664	Date Analyzed:	2009-08-19	Analyzed By:	RR
Prep Batch:	53468	Sample Preparation:	2009-08-19	Prepared By:	KV
		SPLP Extraction:	2009-08-18	Prepared By:	KV

Parameter	Flag	Result	RL	Units	Dilution	RL
SPLP Chromium		<0.00500		mg/L	1	0.00500

Sample: 205309 - Cuttings 1

Laboratory:	Lubbock				
Analysis:	SPLP Cyanide	Analytical Method:	SM 4500-CN C,E	Prep Method:	SPLP 1312
QC Batch:	62911	Date Analyzed:	2009-08-24	Analyzed By:	SS
Prep Batch:	53698	SPLP Extraction:	2009-08-23	Prepared By:	SS
		Sample Preparation:	2009-08-24	Prepared By:	SS

Parameter	Flag	Result	RL	Units	Dilution	RL
SPLP Cyanide		<0.0150		mg/L	1	0.0150

Sample: 205309 - Cuttings 1

Laboratory:	Lubbock				
Analysis:	SPLP Fluoride	Analytical Method:	E 300.0	Prep Method:	SPLP 1312
QC Batch:	62761	Date Analyzed:	2009-08-20	Analyzed By:	SS
Prep Batch:	53551	Sample Preparation:	2009-08-20	Prepared By:	SS
		SPLP Extraction:	2009-08-19	Prepared By:	SS

Parameter	Flag	Result	RL	Units	Dilution	RL
SPLP Fluoride		<0.200		mg/L	1	0.200

Sample: 205309 - Cuttings 1

Laboratory:	Lubbock				
Analysis:	SPLP Hg	Analytical Method:	S 7470A	Prep Method:	N/A
QC Batch:	62524	Date Analyzed:	2009-08-15	Analyzed By:	TP
Prep Batch:	53350	Sample Preparation:	2009-08-15	Prepared By:	TP

Parameter	Flag	Result	RL	Units	Dilution	RL
SPLP Mercury		<0.000200		mg/L	1	0.000200

Sample: 205309 - Cuttings 1

Laboratory:	Lubbock				
Analysis:	SPLP NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	SPLP 1312
QC Batch:	62761	Date Analyzed:	2009-08-20	Analyzed By:	SS
Prep Batch:	53551	Sample Preparation:	2009-08-20	Prepared By:	SS
		SPLP Extraction:	2009-08-19	Prepared By:	SS

Parameter	Flag	Result	RL	Units	Dilution	RL
Nitrate-N		<0.200		mg/L	1	0.200

Sample: 205309 - Cuttings 1

Laboratory:	Lubbock				
Analysis:	SPLP PAH	Analytical Method:	S 8270C	Prep Method:	SPLP 1312
QC Batch:	62897	Date Analyzed:	2009-08-26	Analyzed By:	MN
Prep Batch:	53688	SPLP Extraction:	2009-08-18	Prepared By:	MN
		Sample Preparation:	2009-08-19	Prepared By:	MN

Parameter	Flag	Result	RL	Units	Dilution	RL
Naphthalene		<0.000200		mg/L	1	0.000200
Acenaphthylene		<0.000200		mg/L	1	0.000200
Acenaphthene		<0.000200		mg/L	1	0.000200
Dibenzofuran		<0.000200		mg/L	1	0.000200
Fluorene		<0.000200		mg/L	1	0.000200
Anthracene		<0.000200		mg/L	1	0.000200
Phenanthrene		<0.000200		mg/L	1	0.000200
Fluoranthene		<0.000200		mg/L	1	0.000200
Pyrene		<0.000200		mg/L	1	0.000200
Benzo(a)anthracene		<0.000200		mg/L	1	0.000200
Chrysene		<0.000200		mg/L	1	0.000200
Benzo(b)fluoranthene		<0.000200		mg/L	1	0.000200
Benzo(k)fluoranthene		<0.000200		mg/L	1	0.000200
Benzo(a)pyrene		<0.000200		mg/L	1	0.000200
Indeno(1,2,3-cd)pyrene		<0.000200		mg/L	1	0.000200
Dibenzo(a,h)anthracene		<0.000200		mg/L	1	0.000200
Benzo(g,h,i)perylene		<0.000200		mg/L	1	0.000200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorobiphenyl		0.0301	mg/L	1	0.0800	38	37.4 - 123
Nitrobenzene-d5		0.0337	mg/L	1	0.0800	42	34.3 - 130
Terphenyl-d14		0.0444	mg/L	1	0.0800	56	10 - 252

Sample: 205309 - Cuttings 1

Laboratory:	Lubbock				
Analysis:	SPLP Pb	Analytical Method:	S 6010B	Prep Method:	SPLP 1312
QC Batch:	62664	Date Analyzed:	2009-08-19	Analyzed By:	RR
Prep Batch:	53468	Sample Preparation:	2009-08-19	Prepared By:	KV
		SPLP Extraction:	2009-08-18	Prepared By:	KV

Parameter	Flag	RL Result	Units	Dilution	RL
SPLP Lead		<0.0100	mg/L	1	0.0100

Sample: 205309 - Cuttings 1

Laboratory:	Lubbock				
Analysis:	SPLP PCB	Analytical Method:	S 8082	Prep Method:	SPLP 1312
QC Batch:	62499	Date Analyzed:	2009-08-14	Analyzed By:	DS
Prep Batch:	53320	Sample Preparation:	2009-08-14	Prepared By:	DS
		SPLP Extraction:	2009-08-11	Prepared By:	DS

Parameter	Flag	RL Result	Units	Dilution	RL
Total PCB		<0.000500	mg/L	1	0.000500
Aroclor 1016 (PCB-1016)		<0.000500	mg/L	1	0.000500
Aroclor 1221 (PCB-1221)		<0.000500	mg/L	1	0.000500
Aroclor 1232 (PCB-1232)		<0.000500	mg/L	1	0.000500
Aroclor 1242 (PCB-1242)		<0.000500	mg/L	1	0.000500
Aroclor 1248 (PCB-1248)		<0.000500	mg/L	1	0.000500
Aroclor 1254 (PCB-1254)		<0.000500	mg/L	1	0.000500
Aroclor 1260 (PCB-1260)		<0.000500	mg/L	1	0.000500
Aroclor 1268 (PCB-1268)		<0.000500	mg/L	1	0.000500

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Deca chlorobiphenyl		0.000532	mg/L	1	0.000500	106	10 - 128

Sample: 205309 - Cuttings 1

Laboratory:	Lubbock				
Analysis:	SPLP Se	Analytical Method:	S 6010B	Prep Method:	SPLP 1312
QC Batch:	62664	Date Analyzed:	2009-08-19	Analyzed By:	RR
Prep Batch:	53468	Sample Preparation:	2009-08-19	Prepared By:	KV
		SPLP Extraction:	2009-08-18	Prepared By:	KV

Parameter	Flag	RL Result	Units	Dilution	RL
SPLP Selenium		<0.0500	mg/L	1	0.0500

Sample: 205309 - Cuttings 1

Laboratory:	Lubbock				
Analysis:	SPLP U	Analytical Method:	S 6010B	Prep Method:	SPLP 1312
QC Batch:	62664	Date Analyzed:	2009-08-19	Analyzed By:	RR
Prep Batch:	53468	Sample Preparation:	2009-08-19	Prepared By:	KV
		SPLP Extraction:	2009-08-18	Prepared By:	KV

Parameter	Flag	RL Result	Units	Dilution	RL
SPLP U		<0.0500	mg/L	1	0.0500

Sample: 205309 - Cuttings 1

Laboratory:	Lubbock				
Analysis:	SPLP Volatiles	Analytical Method:	S 8260B	Prep Method:	SPLP 1312
QC Batch:	62496	Date Analyzed:	2009-08-13	Analyzed By:	JG
Prep Batch:	53316	Sample Preparation:	2009-08-12	Prepared By:	JG
		SPLP Extraction:	2009-08-13	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Vinyl Chloride	[1]	<1.00	µg/L	1	1.00
1,1-Dichloroethene		<1.00	µg/L	1	1.00
Methylene chloride		**81.0**	µg/L	1	5.00
1,1-Dichloroethane		<1.00	µg/L	1	1.00
1,2-Dichloroethane (EDC)		<1.00	µg/L	1	1.00
Chloroform		<1.00	µg/L	1	1.00
1,1,1-Trichloroethane		<1.00	µg/L	1	1.00
Benzene		<1.00	µg/L	1	1.00
Carbon Tetrachloride		<1.00	µg/L	1	1.00
Trichloroethene (TCE)		<1.00	µg/L	1	1.00
Toluene		<1.00	µg/L	1	1.00
1,1,2-Trichloroethane		<1.00	µg/L	1	1.00
1,2-Dibromoethane (EDB)		<1.00	µg/L	1	1.00
Tetrachloroethene (PCE)		<1.00	µg/L	1	1.00
Ethylbenzene		<1.00	µg/L	1	1.00
m,p-Xylene		<1.00	µg/L	1	1.00
o-Xylene		<1.00	µg/L	1	1.00

continued ...

[1]Concentration biased low. •

sample 205309 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		52.0	µg/L	1	50.0	104	70 - 130
Toluene-d8		50.4	µg/L	1	50.0	101	70 - 130
4-Bromofluorobenzene (4-BFB)		51.6	µg/L	1	50.0	103	70 - 130

Sample: 205309 - Cuttings 1

Laboratory:	Lubbock				
Analysis:	TPH 418.1	Analytical Method:	E 418.1	Prep Method:	N/A
QC Batch:	62623	Date Analyzed:	2009-08-18	Analyzed By:	CM
Prep Batch:	53442	Sample Preparation:	2009-08-18	Prepared By:	CM

Parameter	Flag	RL Result	Units	Dilution	RL
TRPHC		**45.3**	mg/Kg	1	10.0

Sample: 205309 - Cuttings 1

Laboratory:	Lubbock				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	62317	Date Analyzed:	2009-08-10	Analyzed By:	
Prep Batch:	53161	Sample Preparation:	2009-08-11	Prepared By:	

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		101	mg/Kg	1	100	101	46.6 - 172

Sample: 205309 - Cuttings 1

Laboratory:	Lubbock				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	62401	Date Analyzed:	2009-08-12	Analyzed By:	ER
Prep Batch:	53234	Sample Preparation:	2009-08-12	Prepared By:	ER

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**5.81**	mg/Kg	1	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[2]	2.59	mg/Kg	1	2.00	130	86.9 - 113
4-Bromofluorobenzene (4-BFB)		2.42	mg/Kg	1	2.00	121	56.2 - 130

Method Blank (1) QC Batch: 62317

QC Batch: 62317 | Date Analyzed: 2009-08-10 | Analyzed By:
Prep Batch: 53161 | QC Preparation: 2009-08-10 | Prepared By:

Parameter	Flag	MDL Result	Units	RL
DRO		<5.66	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		92.2	mg/Kg	1	100	92	46.6 - 172

Method Blank (1) QC Batch: 62401

QC Batch: 62401 | Date Analyzed: 2009-08-12 | Analyzed By: ER
Prep Batch: 53234 | QC Preparation: 2009-08-12 | Prepared By: ER

Parameter	Flag	MDL Result	Units	RL
GRO		<0.403	mg/Kg	2

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.09	mg/Kg	1	2.00	104	86.9 - 113
4-Bromofluorobenzene (4-BFB)		1.74	mg/Kg	1	2.00	87	56.2 - 130

Method Blank (1) QC Batch: 62466

QC Batch: 62466 | Date Analyzed: 2009-08-13 | Analyzed By: ER
Prep Batch: 53292 | QC Preparation: 2009-08-13 | Prepared By: ER

[2]High surrogate recovery due to peak interference.

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00242	mg/Kg	0.02
Toluene		<0.00335	mg/Kg	0.02
Ethylbenzene		<0.00357	mg/Kg	0.02
Xylene		<0.00388	mg/Kg	0.02

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.85	mg/Kg	1	2.00	92	70 - 130
4-Bromofluorobenzene (4-BFB)		1.94	mg/Kg	1	2.00	97	70 - 130

Method Blank (1) QC Batch: 62496

QC Batch:	62496	Date Analyzed:	2009-08-13	Analyzed By:	JG
Prep Batch:	53316	QC Preparation:	2009-08-13	Prepared By:	JG

Parameter	Flag	MDL Result	Units	RL
Bromochloromethane		<0.177	µg/L	1
Dichlorodifluoromethane		<0.208	µg/L	1
Chloromethane (methyl chloride)		<0.134	µg/L	1
Vinyl Chloride		<0.135	µg/L	1
Bromomethane (methyl bromide)		<1.23	µg/L	5
Chloroethane		<0.182	µg/L	1
Trichlorofluoromethane		<0.0610	µg/L	1
Acetone		<5.50	µg/L	10
Iodomethane (methyl iodide)		<0.107	µg/L	5
Carbon Disulfide		<0.0360	µg/L	1
Acrylonitrile		<0.0970	µg/L	1
2-Butanone (MEK)		<0.531	µg/L	5
4-Methyl-2-pentanone (MIBK)		<0.421	µg/L	5
2-Hexanone		<0.168	µg/L	5
trans 1,4-Dichloro-2-butene		<0.517	µg/L	10
1,1-Dichloroethene		<0.136	µg/L	1
Methylene chloride		<0.649	µg/L	5
MTBE		<0.123	µg/L	1
trans-1,2-Dichloroethene		<0.126	µg/L	1
1,1-Dichloroethane		<0.0600	µg/L	1
cis-1,2-Dichloroethene		<0.151	µg/L	1
2,2-Dichloropropane		<0.180	µg/L	1
1,2-Dichloroethane (EDC)		<0.113	µg/L	1
Chloroform		<0.141	µg/L	1
1,1,1-Trichloroethane		<0.116	µg/L	1
1,1-Dichloropropene		<0.0540	µg/L	1
Benzene		<0.146	µg/L	1

continued ...

method blank continued ...

Parameter	Flag	MDL Result	Units	RL
Carbon Tetrachloride		<0.0790	µg/L	1
1,2-Dichloropropane		<0.111	µg/L	1
Trichloroethene (TCE)		<0.117	µg/L	1
Dibromomethane (methylene bromide)		<0.140	µg/L	1
Bromodichloromethane		<0.161	µg/L	1
2-Chloroethyl vinyl ether		<0.388	µg/L	5
cis-1,3-Dichloropropene		<0.0890	µg/L	1
trans-1,3-Dichloropropene		<0.0760	µg/L	1
Toluene		<0.0600	µg/L	1
1,1,2-Trichloroethane		<0.135	µg/L	1
1,3-Dichloropropane		<0.0990	µg/L	1
Dibromochloromethane		<0.0900	µg/L	1
1,2-Dibromoethane (EDB)		<0.0700	µg/L	1
Tetrachloroethene (PCE)		<0.270	µg/L	1
Chlorobenzene		<0.0540	µg/L	1
1,1,1,2-Tetrachloroethane		<0.0990	µg/L	1
Ethylbenzene		0.0500	µg/L	1
m,p-Xylene		0.110	µg/L	1
Bromoform		<0.0570	µg/L	1
Styrene		<0.0910	µg/L	1
o-Xylene		<0.0960	µg/L	1
1,1,2,2-Tetrachloroethane		<0.125	µg/L	1
2-Chlorotoluene		<0.0570	µg/L	1
1,2,3-Trichloropropane		<0.458	µg/L	1
Isopropylbenzene		<0.0850	µg/L	1
Bromobenzene		<0.106	µg/L	1
n-Propylbenzene		0.0900	µg/L	1
1,3,5-Trimethylbenzene		0.0700	µg/L	1
tert-Butylbenzene		<0.107	µg/L	1
1,2,4-Trimethylbenzene		0.100	µg/L	1
1,4-Dichlorobenzene (para)		<0.217	µg/L	1
sec-Butylbenzene		0.130	µg/L	1
1,3-Dichlorobenzene (meta)		<0.0690	µg/L	1
p-Isopropyltoluene		0.140	µg/L	1
4-Chlorotoluene		<0.0940	µg/L	1
1,2-Dichlorobenzene (ortho)		<0.100	µg/L	1
n-Butylbenzene		0.200	µg/L	1
1,2-Dibromo-3-chloropropane		<0.690	µg/L	5
1,2,3-Trichlorobenzene		<0.135	µg/L	5
1,2,4-Trichlorobenzene		<0.155	µg/L	5
Naphthalene		<0.594	µg/L	5
Hexachlorobutadiene		<0.248	µg/L	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		49.5	µg/L	1	50.0	99	70 - 130
Toluene-d8		49.6	µg/L	1	50.0	99	70 - 130
4-Bromofluorobenzene (4-BFB)		47.9	µg/L	1	50.0	96	70 - 130

Method Blank (1) QC Batch: 62499

QC Batch:	62499	Date Analyzed:	2009-08-14	Analyzed By:	DS
Prep Batch:	53320	QC Preparation:	2009-08-14	Prepared By:	DS

Parameter	Flag	MDL Result	Units	RL
Total PCB		<0.000125	mg/L	0.0005
Aroclor 1016 (PCB-1016)		<0.000122	mg/L	0.0005
Aroclor 1221 (PCB-1221)		<0.000118	mg/L	0.0005
Aroclor 1232 (PCB-1232)		<0.0000459	mg/L	0.0005
Aroclor 1242 (PCB-1242)		<0.000125	mg/L	0.0005
Aroclor 1248 (PCB-1248)		<0.0000546	mg/L	0.0005
Aroclor 1254 (PCB-1254)		<0.0000569	mg/L	0.0005
Aroclor 1260 (PCB-1260)		<0.0000331	mg/L	0.0005
Aroclor 1268 (PCB-1268)		<0.0000282	mg/L	

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Deca chlorobiphenyl		0.000535	mg/L	1	0.000500	107	10 - 128

Method Blank (1) QC Batch: 62524

QC Batch:	62524	Date Analyzed:	2009-08-15	Analyzed By:	TP
Prep Batch:	53350	QC Preparation:	2009-08-15	Prepared By:	TP

Parameter	Flag	MDL Result	Units	RL
SPLP Mercury	[3]	<0.0000329	mg/L	0.0002

Method Blank (1) QC Batch: 62623

QC Batch:	62623	Date Analyzed:	2009-08-18	Analyzed By:	CM
Prep Batch:	53442	QC Preparation:	2009-08-18	Prepared By:	CM

[3]Not entered

Parameter	Flag	MDL Result	Units	RL
TRPHC		<5.28	mg/Kg	10

Method Blank (1) QC Batch: 62664

QC Batch: 62664 Date Analyzed: 2009-08-19 Analyzed By: RR
Prep Batch: 53468 QC Preparation: 2009-08-19 Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
SPLP Cadmium		<0.00140	mg/L	0.005

Method Blank (1) QC Batch: 62664

QC Batch: 62664 Date Analyzed: 2009-08-19 Analyzed By: RR
Prep Batch: 53468 QC Preparation: 2009-08-19 Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
SPLP Lead		<0.00320	mg/L	0.01

Method Blank (1) QC Batch: 62664

QC Batch: 62664 Date Analyzed: 2009-08-19 Analyzed By: RR
Prep Batch: 53468 QC Preparation: 2009-08-19 Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
SPLP Selenium		<0.0131	mg/L	0.05

Method Blank (1) QC Batch: 62664

QC Batch: 62664 Date Analyzed: 2009-08-19 Analyzed By: RR
Prep Batch: 53468 QC Preparation: 2009-08-19 Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
SPLP Arsenic		<0.00430	mg/L	0.01

Method Blank (1) QC Batch: 62664

QC Batch:	62664	Date Analyzed:	2009-08-19	Analyzed By:	RR
Prep Batch:	53468	QC Preparation:	2009-08-19	Prepared By:	KV

Parameter	Flag	MDL Result	Units	RL
SPLP Barium		<0.00170	mg/L	0.1

Method Blank (1) QC Batch: 62664

QC Batch:	62664	Date Analyzed:	2009-08-19	Analyzed By:	RR
Prep Batch:	53468	QC Preparation:	2009-08-19	Prepared By:	KV

Parameter	Flag	MDL Result	Units	RL
SPLP Chromium		<0.000900	mg/L	0.005

Method Blank (1) QC Batch: 62664

QC Batch:	62664	Date Analyzed:	2009-08-19	Analyzed By:	RR
Prep Batch:	53468	QC Preparation:	2009-08-19	Prepared By:	KV

Parameter	Flag	MDL Result	Units	RL
SPLP Silver		<0.00210	mg/L	0.003

Method Blank (1) QC Batch: 62664

QC Batch:	62664	Date Analyzed:	2009-08-19	Analyzed By:	RR
Prep Batch:	53468	QC Preparation:	2009-08-19	Prepared By:	KV

Parameter	Flag	MDL Result	Units	RL
SPLP U		<0.0105	mg/L	0.05

Method Blank (1) QC Batch: 62761

QC Batch:	62761	Date Analyzed:	2009-08-20	Analyzed By:	SS
Prep Batch:	53551	QC Preparation:	2009-08-20	Prepared By:	SS

Parameter	Flag	MDL Result	Units	RL
Nitrate-N		<0.0700	mg/L	0.2

Method Blank (1) QC Batch: 62761

QC Batch:	62761	Date Analyzed:	2009-08-20	Analyzed By:	SS
Prep Batch:	53551	QC Preparation:	2009-08-20	Prepared By:	SS

Parameter	Flag	MDL Result	Units	RL
SPLP Chloride		<0.137	mg/L	0.5

Method Blank (1) QC Batch: 62761

QC Batch:	62761	Date Analyzed:	2009-08-20	Analyzed By:	SS
Prep Batch:	53551	QC Preparation:	2009-08-20	Prepared By:	SS

Parameter	Flag	MDL Result	Units	RL
SPLP Fluoride		<0.0889	mg/L	0.2

Method Blank (1) QC Batch: 62897

QC Batch:	62897	Date Analyzed:	2009-08-26	Analyzed By:	MN
Prep Batch:	53688	QC Preparation:	2009-08-19	Prepared By:	MN

Parameter	Flag	MDL Result	Units	RL
Naphthalene		<0.0000853	mg/L	0.0002
Acenaphthylene		<0.0000768	mg/L	0.0002
Acenaphthene		<0.000103	mg/L	0.0002
Dibenzofuran		<0.000200	mg/L	0.0002
Fluorene		<0.0000861	mg/L	0.0002
Anthracene		<0.000170	mg/L	0.0002
Phenanthrene		<0.0000884	mg/L	0.0002
Fluoranthene		<0.0000969	mg/L	0.0002
Pyrene		<0.0000855	mg/L	0.0002
Benzo(a)anthracene		<0.0000703	mg/L	0.0002
Chrysene		<0.000113	mg/L	0.0002
Benzo(b)fluoranthene		<0.000134	mg/L	0.0002
Benzo(k)fluoranthene		<0.000227	mg/L	0.0002
Benzo(a)pyrene		<0.000200	mg/L	0.0002

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Parameter	Flag	MDL Result	Units	RL
Indeno(1,2,3-cd)pyrene		<0.000253	mg/L	0.0002
Dibenzo(a,h)anthracene		<0.000180	mg/L	0.0002
Benzo(g,h,i)perylene		<0.000158	mg/L	0.0002

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorobiphenyl		0.0649	mg/L	1	0.0800	81	10 - 146
Nitrobenzene-d5		0.0685	mg/L	1	0.0800	86	10 - 141
Terphenyl-d14		0.0595	mg/L	1	0.0800	74	10 - 266

Method Blank (1) QC Batch: 62911

QC Batch: 62911 | Date Analyzed: 2009-08-24 | Analyzed By: SS
Prep Batch: 53698 | QC Preparation: 2009-08-24 | Prepared By: SS

Parameter	Flag	MDL Result	Units	RL
SPLP Cyanide		<0.0148	mg/L	0.015

Laboratory Control Spike (LCS-1)

QC Batch: 62317 | Date Analyzed: 2009-08-10 | Analyzed By:
Prep Batch: 53161 | QC Preparation: 2009-08-10 | Prepared By:

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	286	mg/Kg	1	250	<5.66	114	71.2 - 159

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	295	mg/Kg	1	250	<5.66	118	71.2 - 159	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	97.1	96.1	mg/Kg	1	100	97	96	46.6 - 172

Laboratory Control Spike (LCS-1)

QC Batch: 62401 | Date Analyzed: 2009-08-12 | Analyzed By: ER
Prep Batch: 53234 | QC Preparation: 2009-08-12 | Prepared By: ER

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	18.4	mg/Kg	1	20.0	<0.403	92	72.6 - 121

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	19.9	mg/Kg	1	20.0	<0.403	100	72.6 - 121	8	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.91	2.01	mg/Kg	1	2.00	95	101	75.2 - 112
4-Bromofluorobenzene (4-BFB)	1.80	1.84	mg/Kg	1	2.00	90	92	54.9 - 133

Laboratory Control Spike (LCS-1)

QC Batch: 62466 | Date Analyzed: 2009-08-13 | Analyzed By: ER
Prep Batch: 53292 | QC Preparation: 2009-08-13 | Prepared By: ER

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	2.00	mg/Kg	1	2.00	<0.00242	100	70 - 130
Toluene	2.04	mg/Kg	1	2.00	<0.00335	102	70 - 130
Ethylbenzene	1.92	mg/Kg	1	2.00	<0.00357	96	70 - 130
Xylene	5.80	mg/Kg	1	6.00	<0.00388	97	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.91	mg/Kg	1	2.00	<0.00242	96	70 - 130	5	20
Toluene	1.96	mg/Kg	1	2.00	<0.00335	98	70 - 130	4	20
Ethylbenzene	1.84	mg/Kg	1	2.00	<0.00357	92	70 - 130	4	20
Xylene	5.59	mg/Kg	1	6.00	<0.00388	93	70 - 130	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.88	1.94	mg/Kg	1	2.00	94	97	70 - 130
4-Bromofluorobenzene (4-BFB)	1.90	1.95	mg/Kg	1	2.00	95	98	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 62496 | Date Analyzed: 2009-08-13 | Analyzed By: JG
Prep Batch: 53316 | QC Preparation: 2009-08-13 | Prepared By: JG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
1,1-Dichloroethene	50.8	µg/L	1	50.0	<0.136	102	70 - 130
Benzene	52.4	µg/L	1	50.0	<0.146	105	70 - 130
Trichloroethene (TCE)	51.6	µg/L	1	50.0	<0.117	103	70 - 130
Toluene	51.0	µg/L	1	50.0	<0.0600	102	70 - 130
Chlorobenzene	51.2	µg/L	1	50.0	<0.0540	102	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
1,1-Dichloroethene	50.0	µg/L	1	50.0	<0.136	100	70 - 130	2	
Benzene	51.5	µg/L	1	50.0	<0.146	103	70 - 130	2	
Trichloroethene (TCE)	51.4	µg/L	1	50.0	<0.117	103	70 - 130	0	
Toluene	50.5	µg/L	1	50.0	<0.0600	101	70 - 130	1	
Chlorobenzene	50.8	µg/L	1	50.0	<0.0540	102	70 - 130	1	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Dibromofluoromethane	48.5	48.2	µg/L	1	50.0	97	96	70 - 130
Toluene-d8	50.0	49.4	µg/L	1	50.0	100	99	70 - 130
4-Bromofluorobenzene (4-BFB)	48.2	47.6	µg/L	1	50.0	96	95	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 62499 | Date Analyzed: 2009-08-14 | Analyzed By: DS
Prep Batch: 53320 | QC Preparation: 2009-08-14 | Prepared By: DS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Aroclor 1260 (PCB-1260)	0.00208	mg/L	1	0.00200	<0.0000331	104	10 - 128

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Aroclor 1260 (PCB-1260)	0.00197	mg/L	1	0.00200	<0.0000331	98	10 - 128	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Deca chlorobiphenyl	0.000552	0.000576	mg/L	1	0.000500	110	115	10 - 128

Laboratory Control Spike (LCS-1)

QC Batch: 62524 | Date Analyzed: 2009-08-15 | Analyzed By: TP
Prep Batch: 53350 | QC Preparation: 2009-08-15 | Prepared By: TP

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Mercury	0.000980	mg/L	1	0.00100	<0.0000329	98	88.8 - 111

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Mercury	0.000990	mg/L	1	0.00100	<0.0000329	99	88.8 - 111	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 62623 | Date Analyzed: 2009-08-18 | Analyzed By: CM
Prep Batch: 53442 | QC Preparation: 2009-08-18 | Prepared By: CM

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
TRPHC	264	mg/Kg	1	250	<5.28	105	84.9 - 124

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
TRPHC	275	mg/Kg	1	250	<5.28	110	84.9 - 124	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 62664 | Date Analyzed: 2009-08-19 | Analyzed By: RR
Prep Batch: 53468 | QC Preparation: 2009-08-19 | Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Cadmium	0.251	mg/L	1	0.250	<0.00140	100	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Cadmium	0.245	mg/L	1	0.250	<0.00140	98	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 62664 | Date Analyzed: 2009-08-19 | Analyzed By: RR
Prep Batch: 53468 | QC Preparation: 2009-08-19 | Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Lead	0.487	mg/L	1	0.500	<0.00320	97	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Lead	0.479	mg/L	1	0.500	<0.00320	96	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 62664 | Date Analyzed: 2009-08-19 | Analyzed By: RR
Prep Batch: 53468 | QC Preparation: 2009-08-19 | Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Selenium	0.429	mg/L	1	0.500	<0.0131	86	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Selenium	0.427	mg/L	1	0.500	<0.0131	85	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 62664 | Date Analyzed: 2009-08-19 | Analyzed By: RR
Prep Batch: 53468 | QC Preparation: 2009-08-19 | Prepared By: KV

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control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Arsenic	0.479	mg/L	1	0.500	<0.00430	96	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Arsenic	0.471	mg/L	1	0.500	<0.00430	94	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 62664 | Date Analyzed: 2009-08-19 | Analyzed By: RR
Prep Batch: 53468 | QC Preparation: 2009-08-19 | Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Barium	1.02	mg/L	1	1.00	<0.00170	102	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Barium	0.988	mg/L	1	1.00	<0.00170	99	85 - 115	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 62664 | Date Analyzed: 2009-08-19 | Analyzed By: RR
Prep Batch: 53468 | QC Preparation: 2009-08-19 | Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Chromium	0.0970	mg/L	1	0.100	<0.000900	97	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Chromium	0.0960	mg/L	1	0.100	<0.000900	96	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 62664 | Date Analyzed: 2009-08-19 | Analyzed By: RR
Prep Batch: 53468 | QC Preparation: 2009-08-19 | Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Silver	0.124	mg/L	1	0.125	<0.00210	99	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Silver	0.122	mg/L	1	0.125	<0.00210	98	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 62664 | Date Analyzed: 2009-08-19 | Analyzed By: RR
Prep Batch: 53468 | QC Preparation: 2009-08-19 | Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP U	1.05	mg/L	1	1.00	<0.0105	105	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP U	1.05	mg/L	1	1.00	<0.0105	105	90 - 110	0	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 62761 | Date Analyzed: 2009-08-20 | Analyzed By: SS
Prep Batch: 53551 | QC Preparation: 2009-08-20 | Prepared By: SS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N	5.38	mg/L	1	5.00	<0.0700	108	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Nitrate-N	5.16	mg/L	1	5.00	<0.0700	103	90 - 110	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 62761 | Date Analyzed: 2009-08-20 | Analyzed By: SS
Prep Batch: 53551 | QC Preparation: 2009-08-20 | Prepared By: SS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Chloride	24.8	mg/L	1	25.0	<0.137	99	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Chloride	23.3	mg/L	1	25.0	<0.137	93	90 - 110	6	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 62761 | Date Analyzed: 2009-08-20 | Analyzed By: SS
Prep Batch: 53551 | QC Preparation: 2009-08-20 | Prepared By: SS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Fluoride	5.12	mg/L	1	5.00	<0.0889	102	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Fluoride	5.41	mg/L	1	5.00	<0.0889	108	90 - 110	6	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 62897 | Date Analyzed: 2009-08-26 | Analyzed By: MN
Prep Batch: 53688 | QC Preparation: 2009-08-19 | Prepared By: MN

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Naphthalene	0.0361	mg/L	1	0.0800	<0.0000853	45	10 - 141
Acenaphthylene	0.0455	mg/L	1	0.0800	<0.0000768	57	10 - 152
Acenaphthene	0.0452	mg/L	1	0.0800	<0.000103	56	10 - 151
Dibenzofuran	0.0427	mg/L	1	0.0800	<0.000200	53	10 - 148
Fluorene	0.0522	mg/L	1	0.0800	<0.0000861	65	10 - 172
Anthracene	0.0474	mg/L	1	0.0800	<0.000170	59	19.6 - 172

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control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Phenanthrene	0.0516	mg/L	1	0.0800	<0.0000884	64	22.5 - 172
Fluoranthene	0.0567	mg/L	1	0.0800	<0.0000969	71	17.3 - 187
Pyrene	0.0543	mg/L	1	0.0800	<0.0000855	68	14.9 - 199
Benzo(a)anthracene	0.0500	mg/L	1	0.0800	<0.0000703	62	19.4 - 185
Chrysene	0.0530	mg/L	1	0.0800	<0.000113	66	18.4 - 188
Benzo(b)fluoranthene	0.0627	mg/L	1	0.0800	<0.000134	78	10 - 193
Benzo(k)fluoranthene	0.0632	mg/L	1	0.0800	<0.000227	79	27.8 - 196
Benzo(a)pyrene	0.0706	mg/L	1	0.0800	<0.000200	88	12.4 - 205
Indeno(1,2,3-cd)pyrene	0.0579	mg/L	1	0.0800	<0.000253	72	10 - 198
Dibenzo(a,h)anthracene	0.0592	mg/L	1	0.0800	<0.000180	74	10 - 172
Benzo(g,h,i)perylene	0.0572	mg/L	1	0.0800	<0.000158	72	10 - 186

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Naphthalene	0.0367	mg/L	1	0.0800	<0.0000853	46	10 - 141	2	20
Acenaphthylene	0.0448	mg/L	1	0.0800	<0.0000768	56	10 - 152	2	20
Acenaphthene	0.0446	mg/L	1	0.0800	<0.000103	56	10 - 151	1	20
Dibenzofuran	0.0418	mg/L	1	0.0800	<0.000200	52	10 - 148	2	20
Fluorene	0.0514	mg/L	1	0.0800	<0.0000861	64	10 - 172	2	20
Anthracene	0.0453	mg/L	1	0.0800	<0.000170	57	19.6 - 172	4	20
Phenanthrene	0.0505	mg/L	1	0.0800	<0.0000884	63	22.5 - 172	2	20
Fluoranthene	0.0560	mg/L	1	0.0800	<0.0000969	70	17.3 - 187	1	20
Pyrene	0.0535	mg/L	1	0.0800	<0.0000855	67	14.9 - 199	2	20
Benzo(a)anthracene	0.0503	mg/L	1	0.0800	<0.0000703	63	19.4 - 185	1	20
Chrysene	0.0523	mg/L	1	0.0800	<0.000113	65	18.4 - 188	1	20
Benzo(b)fluoranthene	0.0543	mg/L	1	0.0800	<0.000134	68	10 - 193	14	20
Benzo(k)fluoranthene	0.0609	mg/L	1	0.0800	<0.000227	76	27.8 - 196	4	20
Benzo(a)pyrene	0.0707	mg/L	1	0.0800	<0.000200	88	12.4 - 205	0	20
Indeno(1,2,3-cd)pyrene	0.0577	mg/L	1	0.0800	<0.000253	72	10 - 198	0	20
Dibenzo(a,h)anthracene	0.0584	mg/L	1	0.0800	<0.000180	73	10 - 172	1	20
Benzo(g,h,i)perylene	0.0581	mg/L	1	0.0800	<0.000158	73	10 - 186	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
2-Fluorobiphenyl	0.0378	0.0377	mg/L	1	0.0800	47	47	10 - 165
Nitrobenzene-d5	0.0405	0.0392	mg/L	1	0.0800	51	49	10 - 157
Terphenyl-d14	0.0520	0.0508	mg/L	1	0.0800	65	64	10 - 220

Matrix Spike (xMS-1) Spiked Sample:

QC Batch: 62317 | Date Analyzed: 2009-08-10 | Analyzed By:
Prep Batch: 53161 | QC Preparation: 2009-08-10 | Prepared By:

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	286	mg/Kg	1	250	<5.66	114	71.2 - 159

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	292	mg/Kg	1	250	<5.66	117	71.2 - 159	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	97.1	93.7	mg/Kg	1	100	97	94	46.6 - 172

Matrix Spike (MS-1) Spiked Sample: 205309

QC Batch: 62401 | Date Analyzed: 2009-08-12 | Analyzed By: ER
Prep Batch: 53234 | QC Preparation: 2009-08-12 | Prepared By: ER

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	20.1	mg/Kg	1	20.0	<0.403	100	34.1 - 160

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO [4]	44.8	mg/Kg	1	20.0	<0.403	224	34.1 - 160	76	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.69	2.27	mg/Kg	1	2	84	114	56.9 - 137
4-Bromofluorobenzene (4-BFB)	1.85	2.36	mg/Kg	1	2	92	118	42.1 - 171

Matrix Spike (MS-1) Spiked Sample: 205309

QC Batch: 62466 | Date Analyzed: 2009-08-13 | Analyzed By: ER
Prep Batch: 53292 | QC Preparation: 2009-08-13 | Prepared By: ER

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.97	mg/Kg	1	2.00	<0.00242	98	70 - 130
Toluene	2.15	mg/Kg	1	2.00	0.0048	107	70 - 130

continued ...

[4] Matrix spike recoveryand RPD out of control limits. Use LCS/LCSD to demonstrate analysis is under control.

matrix spikes continued ...

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Ethylbenzene	2.14	mg/Kg	1	2.00	0.0036	107	70 - 130
Xylene	6.62	mg/Kg	1	6.00	0.0109	110	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.90	mg/Kg	1	2.00	<0.00242	95	70 - 130	4	20
Toluene	2.07	mg/Kg	1	2.00	0.0048	103	70 - 130	4	20
Ethylbenzene	2.05	mg/Kg	1	2.00	0.0036	102	70 - 130	4	20
Xylene	6.35	mg/Kg	1	6.00	0.0109	106	70 - 130	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.09	2.16	mg/Kg	1	2	104	108	70 - 130
4-Bromofluorobenzene (4-BFB)	2.16	2.21	mg/Kg	1	2	108	110	70 - 130

Matrix Spike (xMS-1) Spiked Sample:

QC Batch: 62496 | Date Analyzed: 2009-08-13 | Analyzed By: JG
Prep Batch: 53316 | QC Preparation: 2009-08-13 | Prepared By: JG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
1,1-Dichloroethene	50.9	µg/L	1	50.0	<0.136	102	70 - 130
Benzene	51.1	µg/L	1	50.0	<0.146	102	70 - 130
Trichloroethene (TCE)	51.1	µg/L	1	50.0	0.19	102	70 - 130
Toluene	51.6	µg/L	1	50.0	<0.0600	103	70 - 130
Chlorobenzene	51.2	µg/L	1	50.0	<0.0540	102	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
1,1-Dichloroethene	52.8	µg/L	1	50.0	<0.136	106	70 - 130	4	
Benzene	51.3	µg/L	1	50.0	<0.146	103	70 - 130	0	
Trichloroethene (TCE)	50.1	µg/L	1	50.0	0.19	100	70 - 130	2	
Toluene	51.0	µg/L	1	50.0	<0.0600	102	70 - 130	1	
Chlorobenzene	50.6	µg/L	1	50.0	<0.0540	101	70 - 130	1	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

continued ...

matrix spikes continued ...

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Dibromofluoromethane	52.1	52.6	µg/L	1	50	104	105	70 - 130
Toluene-d8	48.8	49.0	µg/L	1	50	98	98	70 - 130
4-Bromofluorobenzene (4-BFB)	52.9	51.2	µg/L	1	50	106	102	70 - 130

Matrix Spike (MS-1) Spiked Sample: 205309

QC Batch: 62524 | Date Analyzed: 2009-08-15 | Analyzed By: TP
Prep Batch: 53350 | QC Preparation: 2009-08-15 | Prepared By: TP

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Mercury	0.000990	mg/L	1	0.00100	6e-05	93	83.8 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Mercury	0.000990	mg/L	1	0.00100	6e-05	93	83.8 - 120	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 205309

QC Batch: 62623 | Date Analyzed: 2009-08-18 | Analyzed By: CM
Prep Batch: 53442 | QC Preparation: 2009-08-18 | Prepared By: CM

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
TRPHC	263	mg/Kg	1	250	45.3	87	10 - 196

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
TRPHC	273	mg/Kg	1	250	45.3	91	10 - 196	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 205309

QC Batch: 62664 | Date Analyzed: 2009-08-19 | Analyzed By: RR
Prep Batch: 53468 | QC Preparation: 2009-08-19 | Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Cadmium	0.242	mg/L	1	0.250	<0.00140	97	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Cadmium	0.239	mg/L	1	0.250	<0.00140	96	75 - 125	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 205309

QC Batch: 62664 | Date Analyzed: 2009-08-19 | Analyzed By: RR
Prep Batch: 53468 | QC Preparation: 2009-08-19 | Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Lead	0.475	mg/L	1	0.500	<0.00320	95	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Lead	0.470	mg/L	1	0.500	<0.00320	94	75 - 125	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 205309

QC Batch: 62664 | Date Analyzed: 2009-08-19 | Analyzed By: RR
Prep Batch: 53468 | QC Preparation: 2009-08-19 | Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Selenium	0.435	mg/L	1	0.500	<0.0131	87	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Selenium	0.425	mg/L	1	0.500	<0.0131	85	75 - 125	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 205309

QC Batch: 62664 | Date Analyzed: 2009-08-19 | Analyzed By: RR
Prep Batch: 53468 | QC Preparation: 2009-08-19 | Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Arsenic	0.487	mg/L	1	0.500	<0.00430	97	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Arsenic	0.479	mg/L	1	0.500	<0.00430	96	75 - 125	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 205309

QC Batch: 62664 | Date Analyzed: 2009-08-19 | Analyzed By: RR
Prep Batch: 53468 | QC Preparation: 2009-08-19 | Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Barium	1.24	mg/L	1	1.00	0.192	105	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Barium	1.23	mg/L	1	1.00	0.192	104	75 - 125	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 205309

QC Batch: 62664 | Date Analyzed: 2009-08-19 | Analyzed By: RR
Prep Batch: 53468 | QC Preparation: 2009-08-19 | Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Chromium	0.0970	mg/L	1	0.100	0.002	95	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Chromium	0.0960	mg/L	1	0.100	0.002	94	75 - 125	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 205309

QC Batch: 62664 | Date Analyzed: 2009-08-19 | Analyzed By: RR
Prep Batch: 53468 | QC Preparation: 2009-08-19 | Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Silver	0.130	mg/L	1	0.125	<0.00210	104	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Silver	0.127	mg/L	1	0.125	<0.00210	102	75 - 125	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 205309

QC Batch: 62664 | Date Analyzed: 2009-08-19 | Analyzed By: RR
Prep Batch: 53468 | QC Preparation: 2009-08-19 | Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP U	1.06	mg/L	1	1.00	<0.0105	106	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP U	1.02	mg/L	1	1.00	<0.0105	102	90 - 110	4	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 205309

QC Batch: 62761 | Date Analyzed: 2009-08-20 | Analyzed By: SS
Prep Batch: 53551 | QC Preparation: 2009-08-20 | Prepared By: SS

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N	252	mg/L	50	250	<3.50	101	73.6 - 122

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Nitrate-N	252	mg/L	50	250	<3.50	101	73.6 - 122	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 205309

QC Batch: 62761 | Date Analyzed: 2009-08-20 | Analyzed By: SS
Prep Batch: 53551 | QC Preparation: 2009-08-20 | Prepared By: SS

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Chloride	1250	mg/L	50	1250	59.6	95	49.8 - 149

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Chloride	1240	mg/L	50	1250	59.6	94	49.8 - 149	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 205309

QC Batch: 62761 | Date Analyzed: 2009-08-20 | Analyzed By: SS
Prep Batch: 53551 | QC Preparation: 2009-08-20 | Prepared By: SS

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Fluoride	276	mg/L	50	250	<4.44	110	63.5 - 127

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Fluoride	276	mg/L	50	250	<4.44	110	63.5 - 127	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 205309

QC Batch: 62911 | Date Analyzed: 2009-08-24 | Analyzed By: SS
Prep Batch: 53698 | QC Preparation: 2009-08-24 | Prepared By: SS

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Cyanide [5]	7.35	mg/L	1	12.0	<0.0148	61	80 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Cyanide [6]	8.05	mg/L	1	12.0	<0.0148	67	80 - 120	9	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

[5]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[6]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

Standard (CCV-1)

QC Batch: 62317 Date Analyzed: 2009-08-10 Analyzed By:

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	300	120	80 - 120	2009-08-10

Standard (CCV-2)

QC Batch: 62317 Date Analyzed: 2009-08-10 Analyzed By:

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	278	111	80 - 120	2009-08-10

Standard (CCV-1)

QC Batch: 62401 Date Analyzed: 2009-08-12 Analyzed By: ER

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.990	99	80 - 120	2009-08-12

Standard (CCV-2)

QC Batch: 62401 Date Analyzed: 2009-08-12 Analyzed By: ER

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.925	92	80 - 120	2009-08-12

Standard (CCV-1)

QC Batch: 62466 Date Analyzed: 2009-08-13 Analyzed By: ER

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0977	98	80 - 120	2009-08-13
Toluene		mg/Kg	0.100	0.100	100	80 - 120	2009-08-13

continued ...

standard continued ...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Ethylbenzene		mg/Kg	0.100	0.0933	93	80 - 120	2009-08-13
Xylene		mg/Kg	0.300	0.283	94	80 - 120	2009-08-13

Standard (CCV-2)

QC Batch: 62466 Date Analyzed: 2009-08-13 Analyzed By: ER

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0961	96	80 - 120	2009-08-13
Toluene		mg/Kg	0.100	0.0977	98	80 - 120	2009-08-13
Ethylbenzene		mg/Kg	0.100	0.0924	92	80 - 120	2009-08-13
Xylene		mg/Kg	0.300	0.285	95	80 - 120	2009-08-13

Standard (CCV-1)

QC Batch: 62496 Date Analyzed: 2009-08-13 Analyzed By: JG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Vinyl Chloride	[7]	µg/L	50.0	38.8	78	80 - 120	2009-08-13
1,1-Dichloroethene		µg/L	50.0	49.0	98	80 - 120	2009-08-13
Chloroform		µg/L	50.0	47.6	95	80 - 120	2009-08-13
1,2-Dichloropropane		µg/L	50.0	50.6	101	80 - 120	2009-08-13
Toluene		µg/L	50.0	50.6	101	80 - 120	2009-08-13
Chlorobenzene		µg/L	50.0	50.0	100	80 - 120	2009-08-13
Ethylbenzene		µg/L	50.0	50.0	100	80 - 120	2009-08-13

Standard (ICV-1)

QC Batch: 62499 Date Analyzed: 2009-08-14 Analyzed By: DS

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Aroclor 1242 (PCB-1242)		mg/L	0.400	0.400	100	85 - 115	2009-08-14
Aroclor 1254 (PCB-1254)		mg/L	0.400	0.389	97	85 - 115	2009-08-14
Aroclor 1260 (PCB-1260)		mg/L	0.400	0.436	109	85 - 115	2009-08-14

[7] Analyte recovery outside CCV limits. Concentration biased low. •

Standard (CCV-1)

QC Batch: 62499 | Date Analyzed: 2009-08-14 | Analyzed By: DS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Aroclor 1242 (PCB-1242)		mg/L	0.400	0.411	103	85 - 115	2009-08-14
Aroclor 1254 (PCB-1254)		mg/L	0.400	0.403	101	85 - 115	2009-08-14
Aroclor 1260 (PCB-1260)		mg/L	0.400	0.460	115	85 - 115	2009-08-14

Standard (ICV-1)

QC Batch: 62524 | Date Analyzed: 2009-08-15 | Analyzed By: TP

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Mercury		mg/L	0.00100	0.00100	100	90 - 110	2009-08-15

Standard (CCV-1)

QC Batch: 62524 | Date Analyzed: 2009-08-15 | Analyzed By: TP

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Mercury		mg/L	0.00100	0.00104	104	90 - 110	2009-08-15

Standard (ICV-1)

QC Batch: 62623 | Date Analyzed: 2009-08-18 | Analyzed By: CM

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TRPHC		mg/Kg	100	114	114	80 - 120	2009-08-18

Standard (CCV-1)

QC Batch: 62623 | Date Analyzed: 2009-08-18 | Analyzed By: CM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TRPHC		mg/Kg	100	99.7	100	80 - 120	2009-08-18

Standard (ICV-1)

QC Batch: 62664 Date Analyzed: 2009-08-19 Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Cadmium		mg/L	1.00	1.04	104	90 - 110	2009-08-19

Standard (ICV-1)

QC Batch: 62664 Date Analyzed: 2009-08-19 Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Lead		mg/L	2.00	2.03	102	90 - 110	2009-08-19

Standard (ICV-1)

QC Batch: 62664 Date Analyzed: 2009-08-19 Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Selenium		mg/L	1.00	1.02	102	90 - 110	2009-08-19

Standard (ICV-1)

QC Batch: 62664 Date Analyzed: 2009-08-19 Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Arsenic		mg/L	2.00	2.00	100	90 - 110	2009-08-19

Standard (ICV-1)

QC Batch: 62664 Date Analyzed: 2009-08-19 Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Barium		mg/L	1.00	1.02	102	90 - 110	2009-08-19

Standard (ICV-1)

QC Batch: 62664 Date Analyzed: 2009-08-19 Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Chromium		mg/L	1.00	1.04	104	90 - 110	2009-08-19

Standard (ICV-1)

QC Batch: 62664 Date Analyzed: 2009-08-19 Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Silver		mg/L	0.250	0.250	100	90 - 110	2009-08-19

Standard (ICV-1)

QC Batch: 62664 Date Analyzed: 2009-08-19 Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP U		mg/L	2.50	2.63	105	90 - 110	2009-08-19

Standard (CCV-1)

QC Batch: 62664 Date Analyzed: 2009-08-19 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Cadmium		mg/L	1.00	1.01	101	90 - 110	2009-08-19

Standard (CCV-1)

QC Batch: 62664 Date Analyzed: 2009-08-19 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Lead		mg/L	1.00	0.993	99	90 - 110	2009-08-19

Standard (CCV-1)

QC Batch: 62664 Date Analyzed: 2009-08-19 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Selenium		mg/L	1.00	0.983	98	90 - 110	2009-08-19

Standard (CCV-1)

QC Batch: 62664 Date Analyzed: 2009-08-19 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Arsenic		mg/L	1.00	0.988	99	90 - 110	2009-08-19

Standard (CCV-1)

QC Batch: 62664 Date Analyzed: 2009-08-19 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Barium		mg/L	1.00	1.02	102	90 - 110	2009-08-19

Standard (CCV-1)

QC Batch: 62664 Date Analyzed: 2009-08-19 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Chromium		mg/L	1.00	1.00	100	90 - 110	2009-08-19

Standard (CCV-1)

QC Batch: 62664 Date Analyzed: 2009-08-19 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Silver		mg/L	0.125	0.127	102	90 - 110	2009-08-19

Standard (CCV-1)

QC Batch: 62664 Date Analyzed: 2009-08-19 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP U		mg/L	1.00	1.03	103	90 - 110	2009-08-19

Standard (CCV-1)

QC Batch: 62761 Date Analyzed: 2009-08-20 Analyzed By: SS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		mg/L	5.00	5.10	102	90 - 110	2009-08-20

Standard (CCV-1)

QC Batch: 62761 Date Analyzed: 2009-08-20 Analyzed By: SS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Chloride		mg/L	25.0	22.8	91	90 - 110	2009-08-20

Standard (CCV-1)

QC Batch: 62761 Date Analyzed: 2009-08-20 Analyzed By: SS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Fluoride		mg/L	5.00	5.12	102	90 - 110	2009-08-20

Standard (CCV-2)

QC Batch: 62761 Date Analyzed: 2009-08-20 Analyzed By: SS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		mg/L	5.00	5.12	102	90 - 110	2009-08-20

Standard (CCV-2)

QC Batch: 62761 Date Analyzed: 2009-08-20 Analyzed By: SS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Chloride		mg/L	25.0	22.6	90	90 - 110	2009-08-20

Standard (CCV-2)

QC Batch: 62761 Date Analyzed: 2009-08-20 Analyzed By: SS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Fluoride		mg/L	5.00	5.11	102	90 - 110	2009-08-20

Standard (CCV-2)

QC Batch: 62897 Date Analyzed: 2009-08-26 Analyzed By: MN

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		mg/L	60.0	58.0	97	80 - 120	2009-08-26
Acenaphthylene		mg/L	60.0	59.1	98	80 - 120	2009-08-26
Acenaphthene		mg/L	60.0	58.6	98	80 - 120	2009-08-26
Dibenzofuran		mg/L	60.0	61.0	102	80 - 120	2009-08-26
Fluorene		mg/L	60.0	64.0	107	80 - 120	2009-08-26
Anthracene		mg/L	60.0	59.8	100	80 - 120	2009-08-26
Phenanthrene		mg/L	60.0	57.3	96	80 - 120	2009-08-26
Fluoranthene		mg/L	60.0	56.9	95	80 - 120	2009-08-26
Pyrene		mg/L	60.0	58.6	98	80 - 120	2009-08-26
Benzo(a)anthracene		mg/L	60.0	56.7	94	80 - 120	2009-08-26
Chrysene		mg/L	60.0	56.4	94	80 - 120	2009-08-26
Benzo(b)fluoranthene		mg/L	60.0	55.5	92	80 - 120	2009-08-26
Benzo(k)fluoranthene		mg/L	60.0	70.9	118	80 - 120	2009-08-26
Benzo(a)pyrene		mg/L	60.0	69.9	116	80 - 120	2009-08-26
Indeno(1,2,3-cd)pyrene		mg/L	60.0	58.4	97	80 - 120	2009-08-26

continued ...

standard continued ...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dibenzo(a,h)anthracene		mg/L	60.0	59.7	100	80 - 120	2009-08-26
Benzo(g,h,i)perylene		mg/L	60.0	57.8	96	80 - 120	2009-08-26

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
2-Fluorobiphenyl		55.6	mg/L	1	60.0	93	80 - 120
Nitrobenzene-d5		61.8	mg/L	1	60.0	103	80 - 120
Terphenyl-d14		55.7	mg/L	1	60.0	93	80 - 120

Standard (ICV-1)

QC Batch: 62911 Date Analyzed: 2009-08-24 Analyzed By: SS

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Cyanide		mg/L	0.120	0.126	105	80 - 120	2009-08-24

Standard (CCV-1)

QC Batch: 62911 Date Analyzed: 2009-08-24 Analyzed By: SS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Cyanide		mg/L	0.120	0.121	101	80 - 120	2009-08-24

LAB Order ID # 9081017 Page ____ of ____

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9, Lubbock, Texas 79424, Tel (806) 794-1296, Fax (806) 794-1298, 1 (800) 378-1296

5002 Basin Street, Suite A1, Midland, Texas 79703, Tel (432) 689-6301, Fax (432) 689-6313

200 East Sunset Rd., Suite E, El Paso, Texas 79922, Tel (915) 585-3443, Fax (915) 585-4944, 1 (888) 588-3443

6808 Camp Bowie Blvd. West, Suite 180, Ft. Worth, Texas 76116, Tel (817) 201-5260, Fax (817) 560-4336

Company Name: Talon LPE
Phone #: 432-230-7623
Address: (Street, City, Zip) 2901 S. HW 349 Midland TX
Fax #:
Contact Person: Kyle Summers
E-mail: ksummers@talonlpe.com
Invoice to: (If different from above) Mewbourne Oil Charles Martin
Project #: 70073 8.019.01
Project Name: Orca 11 Fed Com #1
Project Location (including state): Eddy Co, N.M.
Sampler Signature: Kyle Summers

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME	MTBE 8021B / 602 / 8260B / 624	BTEX 8021B / 602 / 8260B / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270C / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7 (See list)	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260B / 624 (See list)	GC/MS Semi. Vol. 8270C / 625	PCB's 8082 / 608	Pesticides 8081A / 608	BOD, TSS, pH	Moisture Content	SPLP Chlorides	Uranium	Radium 226+228	Flouride, NO3	Cyanide	Turn Around Time if different from standard	Hold
205309	Cuttings 1	3	4oz		X							X		8/6/09	0930		X	X	X	X	X						X		X				X	X	X	X	X		

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	Temp°c:
[signature]	Talon	8/7/09	1500	[signature]	Trace	8/7/09	15:50	3-1 C
[signature]	Trace	8/7/09	17:00			8-8-09	11:00 AM	
				[signature] Trace				

LAB USE ONLY
Intact Y / N
Headspace Y / N / NA
Log-in Review

REMARKS: See Attached List. All tests - cutback

- [ ] Dry Weight Basis Required
- [ ] TRRP Report Required
- [ ] Check If Special Reporting Limits Are Needed

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

Carrier # LS 25508408

LAB Order ID # 9081017 Page ____ of ____

TraceAnalysis, Inc.

email: lab@traceanalysis.com

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6808 Camp Bowie Blvd West, Suite 180, Ft. Worth, Texas 76116, Tel (817) 201-5260, Fax (817) 560-4336

Company Name: Talon LPE
Phone #: 432-230-7623
Address: (Street, City, Zip) 2901 S. HW 349 Midland TX
Fax #:
Contact Person: Kyle Summers
E-mail: ksummers@talonlpe.com
Invoice to: (If different from above) Mewbourne Oil Charles Martin
Project #: 700738.019.01
Project Name: Orca 11 FedCom #1
Project Location (including state): Eddy Co, N.M.
Sampler Signature: Kyle Summers

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME	MTBE 8021B / 602 / 8260B / 624	BTEX 8021B / 602 / 8260B / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270C / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C / 625	PCB's 8082 / 608	Pesticides 8081A / 608	BOD, TSS, pH	Moisture Content	SPLP Chlorides	Uranium	Radium 226+228	Flouride, NO3	Cyanide	Turn Around Time if different from standard	Hold
205309	Cuttings 1	3	4oz		X							X		8/6/09	0930		X	X	X	X	X						X		X				X	X	X	X	X		

See list

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	Temp°c:
[signature]	Talon	8/7/09	1555	[signature]	Trace	8/7/09	15:55	3-1 C
[signature]	Trace	8/7/09	17:00			8-8-09	11:00 AM	
				[signature]	Trace			

LAB USE ONLY
Intact Y / N
Headspace Y / N / NA
Log-in Review

REMARKS:
See Attached List
All tests - Lubbock

☐ Dry Weight Basis Required
☐ TRRP Report Required
☐ Check If Special Reporting Limits Are Needed

9/22 Rad.

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Carrier # LS 25508408

AUG 26 2009

LAB Order ID # 9081017 Page ____ of ____

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email: lab@traceanalysis.com

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Company Name: Talon LPE

Phone #: 432-230-7623

Address: (Street, City, Zip) 2901 S. HW 349 Midland TX

Fax #:

Contact Person: Kyle Summers

E-mail: ksummers@talonlpe.com

Invoice to: (If different from above) Newbourne Oil Charles Martin

Project #: 700738.019.01

Project Name: Orca 11 Fed Com #1

Project Location (including state): Eddy Co, N.M.

Sampler Signature: Kyle Summers

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
205309	Cuttings 1	3	4oz		X							X		8/6/09	0930

Analysis	Cuttings 1
MTBE 8021B / 602 / 8260B / 624	
BTEX 8021B / 602 / 8260B / 624 (8021B circled)	X
TPH 418.1 / TX1005 / TX1005 Ext(C35) (418.1 circled)	X
TPH 8015 GRO / DRO / TVHC (GRO / DRO circled) — See list	X
PAH 8270C / 625	X
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7 — See list	X
TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
TCLP Volatiles	
TCLP Semi Volatiles	
TCLP Pesticides	
RCI	
GC/MS Vol. 8260B / 624 (8260B circled) — See list	X
GC/MS Semi. Vol. 8270C / 625	
PCB's 8082 / 608	X
Pesticides 8081A / 608	
BOD, TSS, pH	
Moisture Content	
SPLP Chlorides	X
Uranium	X
Radium 226+228	X
Flouride, NO3	X
Cyanide	X
Turn Around Time if different from standard	
Hold	

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	Temp°c:
Kyle Summers	Talon	8/7/09	1555	[signature]	Trace	8/7/09	15:55	3.1C
[signature]	Trace	8/7/09	17:00			8-8-09	11:00 AM	
				[signature] Trace				

LAB USE ONLY: Intact Y / N; Headspace Y / N / NA; Log-in-Review

REMARKS: See Attached List

All tests — cutback 9/22 Rad.

- [ ] Dry Weight Basis Required
- [ ] TRRP Report Required
- [ ] Check If Special Reporting Limits Are Needed

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

Carrier # LS 25508408

AUG 26 2009

20.6.2.3103 STANDARDS FOR GROUND WATER OF 10,000 mg/l TDS CONCENTRATION OR LESS: The following standards are the allowable pH range and the maximum allowable concentration in ground water for the contaminants specified unless the existing condition exceeds the standard or unless otherwise provided in Subsection D of Section 20.6.2.3109 NMAC. Regardless of whether there is one contaminant or more than one contaminant present in ground water, when an existing pH or concentration of any water contaminant exceeds the standard specified in Subsection A, B, or C of this section, the existing pH or concentration shall be the allowable limit, provided that the discharge at such concentrations will not result in concentrations at any place of withdrawal for present or reasonably foreseeable future use in excess of the standards of this section. These standards shall apply to the dissolved portion of the contaminants specified with a definition of dissolved being that given in the publication "*methods for chemical analysis of water and waste of the U.S. environmental protection agency*," with the exception that standards for mercury, organic compounds and non-aqueous phase liquids shall apply to the total unfiltered concentrations of the contaminants.

A. Human Health Standards-Ground water shall meet the standards of Subsection A and B of this section unless otherwise provided. If more than one water contaminant affecting human health is present, the toxic pollutant criteria as set forth in the definition of toxic pollutant in Section 20.6.2.1101 NMAC for the combination of contaminants, or the Human Health Standard of Subsection A of Section 20.6.2.3103 NMAC for each contaminant shall apply, whichever is more stringent. Non-aqueous phase liquid shall not be present floating atop of or immersed within ground water, as can be reasonably measured.

(1) Arsenic (As).....0.1 mg/l
(2) Barium (Ba).....1.0 mg/l
(3) Cadmium (Cd).....0.01 mg/l
(4) Chromium (Cr).....0.05 mg/l
(5) Cyanide (CN).....0.2 mg/l
(6) Fluoride (F).....1.6 mg/l
(7) Lead (Pb).....0.05 mg/l
(8) Total Mercury (Hg).....0.002 mg/l
(9) Nitrate (NO_3 as N).....10.0 mg/l
(10) Selenium (Se).....0.05 mg/l
(11) Silver (Ag).....0.05 mg/l
(12) Uranium (U).....0.03 mg/l
(13) Radioactivity: Combined Radium-226 & Radium-228.....30 pCi/l
(14) Benzene.....0.01 mg/l
(15) Polychlorinated biphenyls (PCB's).....0.001 mg/l
(16) Toluene.....0.75 mg/l
(17) Carbon Tetrachloride.....0.01 mg/l
(18) 1,2-dichloroethane (EDC).....0.01 mg/l
(19) 1,1-dichloroethylene (1,1-DCE).....0.005 mg/l
(20) 1,1,2,2-tetrachloroethylene (PCE).....0.02 mg/l
(21) 1,1,2-trichloroethylene (TCE).....0.1 mg/l
(22) ethylbenzene.....0.75 mg/l
(23) total xylenes.....0.62 mg/l
(24) methylene chloride.....0.1 mg/l
(25) chloroform.....0.1 mg/l
(26) 1,1-dichloroethane.....0.025 mg/l
(27) ethylene dibromide (EDB).....0.0001 mg/l
(28) 1,1,1-trichloroethane.....0.06 mg/l
(29) 1,1,2-trichloroethane.....0.01 mg/l
(30) 1,1,2,2-tetrachloroethane.....0.01 mg/l
(31) vinyl chloride.....0.001 mg/l
(32) PAHs: total naphthalene plus monomethylnaphthalenes.....0.03 mg/l
(33) benzo-a-pyrene.....0.0007 mg/l

B. Other Standards for Domestic Water Supply

(1) Chloride (Cl).....250.0 mg/l
(2) Copper (Cu).....1.0 mg/l
(3) Iron (Fe).....1.0 mg/l
(4) Manganese (Mn).....0.2 mg/l
(6) Phenols.....0.005 mg/l
(7) Sulfate (SO_4).....600.0 mg/l
(8) Total Dissolved Solids (TDS).....1000.0 mg/l
(9) Zinc (Zn).....10.0 mg/l
(10) pH.....between 6 and 9

C. Standards for Irrigation Use - Ground water shall meet the standards of Subsection A, B, and C of

this section unless otherwise provided.

(1) Aluminum (Al)..... .....5.0 mg/l
(2) Boron (B) .....0.75 mg/l
(3) Cobalt (Co) .....0.05 mg/l
(4) Molybdenum (Mo) .....1.0 mg/l
(5) Nickel (Ni) .....0.2 mg/l

[2-18-77, 1-29-82, 11-17-83, 3-3-86, 12-1-95; 20.6.2.3103 NMAC - Rn, 20 NMAC 6.2.III.3103, 1-15-01; A, 9-26-04]
[Note: For purposes of application of the amended numeric uranium standard to past and current water discharges (as of 9-26-04), the new standard will not become effective until June 1, 2007. For any new water discharges, the uranium standard is effective 9-26-04.]

LAB Order ID # 9100926

Page 1 of 1

TraceAnalysis, Inc.

email: lab@traceanalysis.com

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8808 Camp Bowie Blvd. West, Suite 180, Ft. Worth, Texas 76116, Tel (817) 201-5260, Fax (817) 560-4336

Company Name: Talon LPE — Phone #: 432.522.2133

Address: (Street, City, Zip) — Fax #:

Contact Person: Kyle Summers — E-mail: kesummers@TalonLPE.com

Invoice to: (If different from above) Melbourne 0.1 — Charles Martin

Project #: 700738.019.01 — Project Name: Orca

Project Location (including state): Eddy Co. NM — Sampler Signature:

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME	MTBE 8021 / 602 / 8260 / 624	BTEX 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Chlorides	Turn Around Time if different from standard	Hold
212093	Pit Floor Comp	2	4oz	X								X		10/1/09	1445	X	X	X	X													X	X		

MES

KS

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
	Talon	10/9/09	1102		Trace	10/9/09	12:22	INST ___ OBS 13.0 °C COR ___ °C
	Talon Trace	10/9/09	17:00					INST ___ OBS ___ °C COR ___ °C
				Brenda Ward	Trace Lubbock	10/10/09	11:00	INST P OBS 3.0 °C COR 3.2 °C

LAB USE ONLY

Intact Y / N

Headspace Y / N / NA

Log-in-Review

REMARKS:

BTEX, 8015, Cl - Midland

418.1 - Lubbock

- Dry Weight Basis Required
- TRRP Report Required
- Check If Special Reporting Limits Are Needed

19 RRP

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

Carrier # Conyer LS 25610519

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TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBENC: 237019 **HUB:** 1752439743100-86536 **DBE:** VN 20657
NCTRCA WFWB38444Y0909

NELAP Certifications

Lubbock: T104704219-08-TX LELAP-02003 Kansas E-10317 **El Paso:** T104704221-08-TX LELAP-02002 **Midland:** T104704392-08-TX

Analytical and Quality Control Report

Kyle Summers
Talon LPE-Hobbs
318 E. Taylor
Hobbs, NM, 88240

Report Date: October 19, 2009

Work Order: 9100926

Project Location: Eddy Co., NM
Project Name: Orca
Project Number: 700738.019.01

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
212093	Pit Floor Comp.	soil	2009-10-07	14:45	2009-10-09

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 13 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project Orca were received by TraceAnalysis, Inc. on 2009-10-09 and assigned to work order 9100926. Samples for work order 9100926 were received intact at a temperature of 13.0 deg. C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	54950	2009-10-09 at 16:00	64345	2009-10-09 at 18:56
Chloride (Titration)	SM 4500-Cl B	54964	2009-10-12 at 13:47	64407	2009-10-13 at 15:46
TPH 418.1	E 418.1	55116	2009-10-19 at 12:00	64548	2009-10-19 at 13:10
TPH DRO	Mod. 8015B	54958	2009-10-09 at 16:24	64358	2009-10-09 at 16:24
TPH GRO	S 8015B	54950	2009-10-09 at 16:00	64346	2009-10-09 at 19:23

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 9100926 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 212093 - Pit Floor Comp.

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	64345	Date Analyzed:	2009-10-09	Analyzed By:	AG
Prep Batch:	54950	Sample Preparation:	2009-10-09	Prepared By:	AG

Parameter	Flag	Result	RL Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.02	mg/Kg	1	2.00	101	64.4 - 111.2
4-Bromofluorobenzene (4-BFB)		2.05	mg/Kg	1	2.00	102	43.1 - 128.4

Sample: 212093 - Pit Floor Comp.

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	64407	Date Analyzed:	2009-10-13	Analyzed By:	AR
Prep Batch:	54964	Sample Preparation:	2009-10-12	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 212093 - Pit Floor Comp.

Laboratory:	Lubbock				
Analysis:	TPH 418.1	Analytical Method:	E 418.1	Prep Method:	N/A
QC Batch:	64548	Date Analyzed:	2009-10-19	Analyzed By:	CM
Prep Batch:	55116	Sample Preparation:	2009-10-19	Prepared By:	CM

Parameter	Flag	Result	RL Units	Dilution	RL
TRPHC		<10.0	mg/Kg	1	10.0

Sample: 212093 - Pit Floor Comp.

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	64358	Date Analyzed:	2009-10-09	Analyzed By:	kg
Prep Batch:	54958	Sample Preparation:	2009-10-09	Prepared By:	kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		103	mg/Kg	1	100	103	13.2 - 219.3

Sample: 212093 - Pit Floor Comp.

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	64346	Date Analyzed:	2009-10-09	Analyzed By:	AG
Prep Batch:	54950	Sample Preparation:	2009-10-09	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.99	mg/Kg	1	2.00	100	65.3 - 109.9
4-Bromofluorobenzene (4-BFB)		1.91	mg/Kg	1	2.00	96	61.7 - 119.9

Method Blank (1) QC Batch: 64345

QC Batch:	64345	Date Analyzed:	2009-10-09	Analyzed By:	AG
Prep Batch:	54950	QC Preparation:	2009-10-09	Prepared By:	AG

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00410	mg/Kg	0.01
Toluene		<0.00310	mg/Kg	0.01
Ethylbenzene		<0.00240	mg/Kg	0.01
Xylene		<0.00650	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.96	mg/Kg	1	2.00	98	64.9 - 122.7
4-Bromofluorobenzene (4-BFB)		1.73	mg/Kg	1	2.00	86	43.9 - 121.9

Method Blank (1) QC Batch: 64346

QC Batch: 64346 Date Analyzed: 2009-10-09 Analyzed By: AG
Prep Batch: 54950 QC Preparation: 2009-10-09 Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
GRO		<0.396	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.93	mg/Kg	1	2.00	96	66.2 - 125
4-Bromofluorobenzene (4-BFB)		1.62	mg/Kg	1	2.00	81	62 - 120.5

Method Blank (1) QC Batch: 64358

QC Batch: 64358 Date Analyzed: 2009-10-09 Analyzed By: kg
Prep Batch: 54958 QC Preparation: 2009-10-09 Prepared By: kg

Parameter	Flag	MDL Result	Units	RL
DRO		<5.86	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		106	mg/Kg	1	100	106	13 - 178.5

Method Blank (1) QC Batch: 64407

QC Batch: 64407 Date Analyzed: 2009-10-13 Analyzed By: AR
Prep Batch: 54964 QC Preparation: 2009-10-12 Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

Method Blank (1) QC Batch: 64548

QC Batch: 64548 | Date Analyzed: 2009-10-19 | Analyzed By: CM
Prep Batch: 55116 | QC Preparation: 2009-10-19 | Prepared By: CM

Parameter	Flag	MDL Result	Units	RL
TRPHC		<5.28	mg/Kg	10

Laboratory Control Spike (LCS-1)

QC Batch: 64345 | Date Analyzed: 2009-10-09 | Analyzed By: AG
Prep Batch: 54950 | QC Preparation: 2009-10-09 | Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	2.11	mg/Kg	1	2.00	<0.00410	106	75.4 - 115.7
Toluene	2.12	mg/Kg	1	2.00	<0.00310	106	78.4 - 113.6
Ethylbenzene	2.12	mg/Kg	1	2.00	<0.00240	106	76 - 114.2
Xylene	6.34	mg/Kg	1	6.00	<0.00650	106	76.9 - 113.6

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	2.04	mg/Kg	1	2.00	<0.00410	102	75.4 - 115.7	3	20
Toluene	2.04	mg/Kg	1	2.00	<0.00310	102	78.4 - 113.6	4	20
Ethylbenzene	2.04	mg/Kg	1	2.00	<0.00240	102	76 - 114.2	4	20
Xylene	6.12	mg/Kg	1	6.00	<0.00650	102	76.9 - 113.6	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.00	2.01	mg/Kg	1	2.00	100	100	65 - 122.9
4-Bromofluorobenzene (4-BFB)	2.06	2.05	mg/Kg	1	2.00	103	102	43.8 - 124.9

Laboratory Control Spike (LCS-1)

QC Batch: 64346 | Date Analyzed: 2009-10-09 | Analyzed By: AG
Prep Batch: 54950 | QC Preparation: 2009-10-09 | Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	15.9	mg/Kg	1	20.0	<0.396	80	52.5 - 114.3

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	17.8	mg/Kg	1	20.0	<0.396	89	52.5 - 114.3	11	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.05	2.04	mg/Kg	1	2.00	102	102	66.2 - 128.7
4-Bromofluorobenzene (4-BFB)	1.88	1.90	mg/Kg	1	2.00	94	95	64.1 - 127.4

Laboratory Control Spike (LCS-1)

QC Batch: 64358 | Date Analyzed: 2009-10-09 | Analyzed By: kg
Prep Batch: 54958 | QC Preparation: 2009-10-09 | Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	163	mg/Kg	1	250	<5.86	65	57.4 - 133.4

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	164	mg/Kg	1	250	<5.86	66	57.4 - 133.4	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	93.7	97.5	mg/Kg	1	100	94	98	48.5 - 146.7

Laboratory Control Spike (LCS-1)

QC Batch: 64407 | Date Analyzed: 2009-10-13 | Analyzed By: AR
Prep Batch: 54964 | QC Preparation: 2009-10-12 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	101	mg/Kg	1	100	<2.18	101	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	99.4	mg/Kg	1	100	<2.18	99	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 64548 | Date Analyzed: 2009-10-19 | Analyzed By: CM
Prep Batch: 55116 | QC Preparation: 2009-10-19 | Prepared By: CM

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
TRPHC	246	mg/Kg	1	250	<5.28	98	84.9 - 124

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
TRPHC	252	mg/Kg	1	250	<5.28	101	84.9 - 124	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 212074

QC Batch: 64345 | Date Analyzed: 2009-10-09 | Analyzed By: AG
Prep Batch: 54950 | QC Preparation: 2009-10-09 | Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	2.20	mg/Kg	1	2.00	<0.00410	110	57.7 - 140.7
Toluene	2.23	mg/Kg	1	2.00	<0.00310	112	53.4 - 146.6
Ethylbenzene	2.28	mg/Kg	1	2.00	<0.00240	114	62.1 - 141.6
Xylene	6.88	mg/Kg	1	6.00	<0.00650	115	61.2 - 142.7

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	2.09	mg/Kg	1	2.00	<0.00410	104	57.7 - 140.7	5	20
Toluene	2.14	mg/Kg	1	2.00	<0.00310	107	53.4 - 146.6	4	20
Ethylbenzene	2.22	mg/Kg	1	2.00	<0.00240	111	62.1 - 141.6	3	20
Xylene	6.67	mg/Kg	1	6.00	<0.00650	111	61.2 - 142.7	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.04	2.00	mg/Kg	1	2	102	100	62.7 - 119.6
4-Bromofluorobenzene (4-BFB)	2.17	2.14	mg/Kg	1	2	108	107	49.6 - 136.7

Matrix Spike (MS-1) Spiked Sample: 212074

QC Batch: 64346 | Date Analyzed: 2009-10-09 | Analyzed By: AG
Prep Batch: 54950 | QC Preparation: 2009-10-09 | Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	15.9	mg/Kg	1	20.0	<0.396	80	10 - 198.3

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	14.7	mg/Kg	1	20.0	<0.396	74	10 - 198.3	8	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.01	2.02	mg/Kg	1	2	100	101	65.5 - 123
4-Bromofluorobenzene (4-BFB)	2.07	2.06	mg/Kg	1	2	104	103	58.6 - 140

Matrix Spike (MS-1) Spiked Sample: 212071

QC Batch: 64358 | Date Analyzed: 2009-10-09 | Analyzed By: kg
Prep Batch: 54958 | QC Preparation: 2009-10-09 | Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	194	mg/Kg	1	250	<5.86	78	35.2 - 167.1

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	201	mg/Kg	1	250	<5.86	80	35.2 - 167.1	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	97.8	96.3	mg/Kg	1	100	98	96	34.5 - 178.4

Matrix Spike (MS-1) Spiked Sample: 212097

QC Batch: 64407 | Date Analyzed: 2009-10-13 | Analyzed By: AR
Prep Batch: 54964 | QC Preparation: 2009-10-12 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	10700	mg/Kg	100	10000	320	104	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	10900	mg/Kg	100	10000	320	106	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 212093

QC Batch: 64548 | Date Analyzed: 2009-10-19 | Analyzed By: CM
Prep Batch: 55116 | QC Preparation: 2009-10-19 | Prepared By: CM

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
TRPHC	232	mg/Kg	1	250	<5.28	93	10 - 196

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
TRPHC	242	mg/Kg	1	250	<5.28	97	10 - 196	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (CCV-2)

QC Batch: 64345 | Date Analyzed: 2009-10-09 | Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.100	100	80 - 120	2009-10-09
Toluene		mg/Kg	0.100	0.101	101	80 - 120	2009-10-09
Ethylbenzene		mg/Kg	0.100	0.101	101	80 - 120	2009-10-09
Xylene		mg/Kg	0.300	0.303	101	80 - 120	2009-10-09

Standard (CCV-3)

QC Batch: 64345 | Date Analyzed: 2009-10-09 | Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.102	102	80 - 120	2009-10-09
Toluene		mg/Kg	0.100	0.102	102	80 - 120	2009-10-09
Ethylbenzene		mg/Kg	0.100	0.0999	100	80 - 120	2009-10-09
Xylene		mg/Kg	0.300	0.302	101	80 - 120	2009-10-09

Standard (CCV-2)

QC Batch: 64346 Date Analyzed: 2009-10-09 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.932	93	80 - 120	2009-10-09

Standard (CCV-3)

QC Batch: 64346 Date Analyzed: 2009-10-09 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.07	107	80 - 120	2009-10-09

Standard (CCV-1)

QC Batch: 64358 Date Analyzed: 2009-10-09 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	211	84	80 - 120	2009-10-09

Standard (CCV-2)

QC Batch: 64358 Date Analyzed: 2009-10-09 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	217	87	80 - 120	2009-10-09

Standard (ICV-1)

QC Batch: 64407 Date Analyzed: 2009-10-13 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.6	100	85 - 115	2009-10-13

Standard (CCV-1)

QC Batch: 64407 Date Analyzed: 2009-10-13 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	100	100	85 - 115	2009-10-13

Standard (ICV-1)

QC Batch: 64548 Date Analyzed: 2009-10-19 Analyzed By: CM

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TRPHC		mg/Kg	100	115	115	80 - 120	2009-10-19

Standard (CCV-1)

QC Batch: 64548 Date Analyzed: 2009-10-19 Analyzed By: CM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TRPHC		mg/Kg	100	114	114	80 - 120	2009-10-19

LAB Order ID # 9100926

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Contact Person: Kyle Summers — E-mail: KSummers@TalonLPE.com

Invoice to: (If different from above) Mambourne O.1 — Charles Martin

Project #: 700738.019.01 — Project Name: Orca

Project Location (including state): Eddy Co, NM — Sampler Signature:

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
212093	Pit Floor Comp	2	4oz		X							X		10/1/09	1445

MTBE 8021 / 602 / 8260 / 624	BTEX 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol 8260 / 624	GC/MS Semi Vol 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Chlorides	Turn Around Time if different from standard	Hold
	X	X	X														X		

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
	Talon	10/9/09	1102		Trace	10/9/09	12:22	INST ___ OBS 13.0 °C COR ___ °C
	Trace	10/9/09	17:00					INST ___ OBS ___ °C COR ___ °C
				Brenda Ward	Trace Lubbock	10/10/09	11:00	INST P OBS 3.0 °C COR 3.2 °C

LAB USE ONLY

Intact Y / N

Headspace Y / N / NA

Log-in-Review

REMARKS:

BTEX, 8015, Cl - Midland

418.1 - Lubbock

- ☐ Dry Weight Basis Required
- ☐ TRRP Report Required
- ☐ Check If Special Reporting Limits Are Needed

Carrier # Carrier LS Z5610519

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C

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